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# BRITISH MEDICAL DOCTRINE

THE DOCTRINE OF THE BRITISH MEDICAL ASSOCIATION

# INDEX TO VOLUME I FOR 1911.

READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goître, and Thyroid; Diabetes, Glycosuria and Sugar; Light, Roentgen, Radium, *X* Rays; Status Lymphaticus and Thymus; Eye, Ophthalmia and Vision; Bicycle and Cycle; Motor and Automobile; Association, Institution, and Society; Paris, France; Berlin, Prussia, Germany; Vienna, Austria, etc. To still further assist the reader, subjects dealt with under the various main headings in the JOURNAL have been set out in alphabetical order under their respective headings—for example, "Act, Workmen's Compensation," "Correspondence," "Leading Articles," "Literary Notes," etc.; while under "Original Articles," will be found a list of those who have contributed papers on scientific and clinical subjects, with the title of their contributions.


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## A Post-Graduate Lecture

ON

## THE TREATMENT OF VENOUS THROMBOSIS MAINLY FROM THE SURGICAL ASPECT.

DELIVERED AT THE LONDON SCHOOL OF CLINICAL MEDICINE (SEAMEN'S HOSPITAL)

BY

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GENTLEMEN,—The point at which medical treatment in thrombosis ends and surgical treatment begins is a very difficult thing to determine. For thrombosis is one of those conditions which show quite clearly that a surgeon, if he is to effect much useful purpose, should be something more than a mere operator, to which there is rather a tendency to reduce him at the present time, because as much medical knowledge is required in its treatment as surgical, even when it is approached from the surgical aspect.

In considering thrombosis in the abstract, we must, of course, go back to the old and well-recognized fact that the two main factors in its occurrence are the state of the blood on the one hand and the state of the vessels in which the blood circulates on the other. Thrombosis, then, in normal veins is, in the absence of injury, for practical purposes, due to constitutional causes; that is to say, it is the result of the abnormal tendency of the blood to coagulate in normal vessels. On the other hand, in the case where the vessels are abnormal, it is, for practical purposes, a local condition, inasmuch as the coagulation of the blood is determined by abnormality of some kind in the vessels themselves. Whilst that is in itself a true enough statement, it is liable to certain limitations, for the following reason, and a very important reason it is. Given an abnormal condition of the veins, say, sacculation or roughness of the walls, blood in a normal state would be less likely to coagulate at that point than blood which is in even a very slightly abnormal condition so far as the tendency to coagulation is concerned. You cannot, therefore, in a condition of this kind, dissociate entirely, for practical purposes, the local condition on the one side, and the constitutional condition on the other, because the two conditions may to some degree coexist. In a large number of cases there may, in fact, be something at fault in both the vessels and the blood, and this must be borne in mind when considering the subject even from the surgical aspect.

The main conditions leading to an increased tendency to coagulation of the blood are hardly a subject for consideration here. You will find the tendency ascribed to many states, principally to "gout," though even in these times I hardly think we have an adequate idea of what gout is. There is a condition, no doubt, in which the blood becomes abnormally coagulable, and that condition can be modified, or negatived altogether, by certain treatments which are supposed to be good for what is called gout. But how far the condition itself is gouty, and how far it is not, I cannot pretend to say.

Thrombosis in normal veins is, all other things being equal, a more dangerous condition than thrombosis in a venous arrangement which is not normal, for the obvious reason that, supposing coagulation occurs in a vein which is normal, there is, seeing that the defect is in the blood, no reason why it should not increase to any extent or occur in veins in any part of the body. But supposing there is in any part a defective vein, rough or irregular, blood which is only slightly above the normal inclination to coagulability may clot on that local focus when it would show practically no tendency to clot elsewhere. So that in phlebitis of really normal veins there is always a possibility, and sometimes a probability, of the process occurring in some other, perhaps in several, parts of the body at the same time. When due to local conditions the chances are that the manifestation will be local, and that it can be dealt with by local means.

### TREATMENT BY OPERATION.

This leads us to the following important point in connexion with the surgical treatment of thrombosis. In dealing with a case of thrombosis occurring in different parts of the body, or in different parts of the same limb, taking for example a case confined to the lower extremity, it is clear that the chances of doing away with the subsequent probability of clotting by any local treatment are small. If, on the other hand, the clotting takes place at one focus, and if when it recurs it comes at the same spot, or at least so near to it that it may be said to come within the area of the original phlebitis, it may be regarded as a local condition, and the tendency to further recurrence may be obviated by getting rid of the original focus of the clotting, which can only be done effectually by removing the portion of vein concerned, although it is said that the same result may be attained by opening up the vein at the spot and turning the clot out—a statement open to doubt. It seems, then, at first sight that the actual surgical treatment of thrombosis is narrowed down to a somewhat limited application, for the ideal case must be one in which the clotting is local and limited, and if in a case in which recurrence has happened, the thrombosis must be in the same place, or at all events in the immediate neighbourhood of the original attack. Under those circumstances there is no doubt that the tendency to recurrent thrombus can generally be obviated by removing the abnormal veins which originally excited the clotting of the blood in that situation.

There is another class of case of extreme interest in which although the indication for operative treatment is not so logically clear it can be adopted with much advantage.

It will occasionally be found that when a limited thrombosis (say, for an example, in the leg) is followed after apparent complete recovery by the occurrence of thrombosis in other parts, the first indication which the patient receives of coming trouble is some slight pain and tenderness in the spot originally concerned. The initial recurrent trouble is in fact at the site of the original thrombosis.

What the relation as to cause and effect may be between the slight recrudescence at the original site and the formation of thrombi in other parts it is unnecessary for my present purpose to inquire, but it seems to be a fact, and a very important fact, that in such cases further recurrences of clotting in distant parts may be avoided by removing the area originally attacked.

Some other cases, in themselves more grave but less

common than those just mentioned, occur in which surgical interference in thrombosis is not only justifiable but imperative.

There are two sorts of thrombi—originating as purely local conditions—which are dangerous. One (the kind which I have called "creeping thrombus") occurring in some superficial vein, will gradually travel towards the central parts—for instance, from the calf to the knee, from the knee to the thigh, and from the thigh, through the femoral vein, into the abdominal region. Under these circumstances, the vein being generally the internal saphena, if the creeping thrombus is allowed to get above a certain point, it will probably pass the saphenal valves and lead to complete blocking of the femoral vein, with all the troublesome disabilities and risks connected with it. The other dangerous condition is in connexion with the detachment of emboli; both of these types of case are at times amenable to surgical treatment. Let us suppose in any given case that a thrombus occurring, say, in the calf of the leg, extends rapidly towards the knee, and runs past the knee up to the thigh towards the saphenous opening, the question must arise as to the means available for preventing its passing further onwards and creeping through the saphenous opening into the femoral vein. The progress of such a thrombus may be rapid, in spite of medicinal and the usual local measures. In such circumstances operation may afford the only means of checking the extension. And, under certain conditions, operation is more urgently called for than in others. The creeping thrombus—"creeping" is a term which well describes it—is when occurring in a normal vessel checked in its progress for a short period at certain points, namely, at the valves of the vein. Operation in a general way is therefore not urgently called for until the increasing clot approaches the valves at the junction of the vein concerned with the deeper vessels. At the same time, if a thrombus of this kind is found to be travelling quickly, and seems to take less notice than usual of these valvular stops, it is without doubt the best thing for the patient that the vein should be at once interrupted on the proximal side of the clot, in order to prevent its progress upwards. It is a very good and simple operation, associated with no danger in itself; and in an ordinary case of clotting of the kind which I have in my mind it will, in the vast majority of cases, entirely stop the progress of the clot, and so render the patient safe from two possibilities—the creeping of the clot into the deep veins, and the possibility of the separation of a thrombus when the clot first pokes its nose into the rushing current of blood in the large vessel deep down in the limb. All this applies in the case of a normal vein.

In the case of thrombosis in a varicose vein the matter is somewhat different. The essential point of the ordinary varicose vein is inefficiency of its valves—the valves do not work properly, and may, indeed, for practical purposes, be non-existent; the flaps are not large enough, and, as a matter of fact, are often mere excrescences from the wall of the vein. In such a vein, large and valveless, extending, for instance, from the knee into the groin, the danger of the rapid upward progress of the clot is greater than that in a vein of which the valves are efficient. If in such a vein there exists a thrombus—as is not uncommon in the lower extremity—passing rapidly towards the groin, the best interests of the patient will lay with an interruption of the vein above the upper margin of the clot, keeping well clear of it, by dividing it between two fine catgut ligatures if there is sufficient room for so placing them, the thrombosed portion of the vessel being at the same time removed if it is not too extensive. I have, on more than one occasion, however, stopped the progress of the clot by merely placing a ligature around the saphena at its junction with the femoral vein, although the clot has been apparently almost projecting into the deep vessel; there has not been more than $\frac{1}{8}$ or at the most $\frac{1}{4}$ in. between the ligature and the upper end of the clot. An operation of that kind is only suitable for passive or non-septic clottings occurring in dilated and defective veins. The remarks just made must be held to apply generally to thrombosis which is not septic, in the ordinary sense of the word, and before leaving the consideration of this type let me remind you that any operation of this kind is inadmissible in cases due to anaemia, or after excessive loss of blood, in consequence of the liability of extensive clotting on the proximal side of the ligature.

When a thrombus occurring in a superficial vein is obviously septic, it should at once be removed with the portion of the vein concerned; but if this has not been done, and it commences to extend towards the central parts, immediate measures for stopping its progress become imperative, a matter which is not so easy as in non-septic cases for the following reasons: In non-septic thrombosis the vein wall is normal on the proximal side of the clot to within a very short distance of it—so short a distance, in fact, as to be almost inappreciable; hence a ligature may be applied almost if not actually touching the clot without producing a harmful thrombus on its proximal side. In septic thrombosis, on the other hand, the vein wall is involved in changes for a considerable distance above the clot; for an example, in the saphena in the thigh this implication would generally be not less than $\frac{1}{4}$ in. beyond the proximal end of the clot and in other vessels to a degree proportionate to their size, the larger the vessel the more extensive the area of implication of its lining membrane. Hence, in dealing with such cases by operation, a large interval must be left between the clot and the nearest ligature, for if this be applied around the portion of the vessel involved in the septic changes, the clot which forms on the proximal side of the ligature will almost surely be septic, which need not be the case if the ligature has been applied sufficiently far from the thrombus to include only a healthy part of the vessel. In all septic cases the thrombosed portion of the vein should be removed at the same time, the mere division of the vessel above the affected spot not being deemed enough unless the local conditions or other circumstances of the case render the larger operation unjustifiable.

### Operation in Thrombosis with Embolism.

The most striking example of the effects of well-advised operation in thrombosis is sometimes seen in cases, usually septic, in which a thrombus is giving off emboli to the grave peril of the patient.

I have in my own experience had certainly three very remarkable cases in illustration of this. The first occurred in a man of middle age, who was the subject of a very large varix of the left internal saphena, which suddenly became blocked from the knee upwards for about 4 in. without any particular constitutional symptoms. Three attacks of dyspnoea occurred, the last of which was almost fatal. Each attack was followed by evidences of pulmonary infarct. As soon as possible after the third attack the saphena was ligatured, and the thrombosed portion rapidly removed; the patient made a capital recovery without further attacks of dyspnoea. The second case was somewhat similar, the thrombosis being situated in a large cystic development at the upper part of the external saphena below the popliteal space. Two attacks of severe dyspnoea happened—the thrombosed part was removed, and no further symptoms followed. The third was a septic case in a vein of the forearm following upon whitlow; two very slight attacks of dyspnoea occurred, and pneumonia followed. A third more severe attack of dyspnoea led to the interruption of the vein above the septic thrombus by operation, and no further evidence of embolism happened. It may, of course, be contended that the cessation of detachment of emboli in these cases was coincidence rather than the result of the treatment. Be that as it may, from what I have seen of cases of this kind, I should strongly advise radical measures in dealing with thrombosis of accessible veins under similar circumstances.

It is obvious that the treatment of thrombosis with embolism by operation must, excepting cases in which the internal jugular is concerned, be limited for the most part to superficial veins; the ligature, for an example, of the common iliac vein in femoral or iliac thrombosis may be regarded as outside the limit of rational surgery at present. The question must therefore from time to time arise as to the best means for dealing with those cases which are not amenable to surgical methods. Setting aside the use of vaccines, etc., in certain cases—the consideration of which is beyond the scope of this lecture—the most potent means of those suggested for the prevention of embolic detachments has been in my experience the free administration

of lactate or chloride of calcium, preferably the former. The treatment, it is true, of a condition due to abnormal clotting by a means which promotes further coagulation may seem at first sight paradoxical, but the good arising from the production of a more cohesive clot, although it may increase in size to some extent, is obvious, as the detachment of emboli is due to a certain brittleness or want of cohesion in the original thrombus which varies with the constitutional tendency of the patient and with the cause of the primary thrombosis.

### THROMBOSIS NOT NECESSARILY SERIOUS.

It is well to understand that a thrombus is not necessarily in itself a matter of great consequence. The fear, amounting almost to terror, in the minds of the laity of "a clot of blood" in a vein is quite remarkable, and to allay this feeling is not always an easy matter.

Thrombosis occurring in a normal vein is always more or less serious, for reasons already indicated. On the other hand, in veins which are sacculated or pouched a clot may form which is of little importance apart from the discomfort which it causes and the occasional liability to localized suppuration. The most interesting point in this respect is the frequent occurrence of harmless clots in the veins of old people, especially in the legs. These thrombi generally form suddenly without the knowledge of the patient; they cause neither pain nor discomfort, although they may exist in considerable numbers.

An acquaintance with these "quiet thrombi" of old people is of some importance, as occasionally, either by accident or in consequence of some vague discomfort in the lower limb, or perhaps in the scrotum, a lump is found which if pressed sufficiently hard is tender, and which is clearly in a vein. Those unacquainted with the common occurrence of these quiet thrombi in the aged may attach unnecessary importance to them and possibly put the patient to bed or prescribe complete rest, when there is no necessity to interrupt the usual habits of life—a highly undesirable thing.

### SOME POINTS RELATING TO THE GENERAL TREATMENT OF THROMBOSIS.

It is of course common knowledge that recovery from thrombosis so far as the local conditions are concerned occurs in one of three ways: By complete resolution of the clot, leaving the vessel concerned for practical purposes unchanged; by permanent obliteration of the vessel by organization of the clot which becomes a fibrous cord; and by temporary obliteration by organizing clot, the lumen of the vessel being subsequently more or less restored by canalization. The first of these is naturally the most satisfactory, but is open to the objection that during resolution of the clot, if very rapid, there may be a distinct danger of embolic detachment, especially in large vessels.

Whether the lining membrane of a vein becomes quite normal again after thrombosis is a matter for speculation, but seeing the undoubted tendency to recurrence of thrombosis at the same spot as the original development the presumption is that a complete return to normality is not the rule at all events.

Complete permanent obliteration is practically confined to small vessels, and in cases of varix is distinctly advantageous, as it may go far to modify in a favourable way the general varicose condition. In a case of complete obliteration of 4 in. of the internal saphena in the thigh which came under my notice, the result upon the condition of the limb was precisely the same as that which follows upon resection of a portion of the vein at the saphenous opening; and I have on two occasions known a varicocele to shrink to nothingness after thrombosis produced by injury. Moreover, whilst the rough surface on the lining membrane of a vein often left after the clearing up of a clot provides a focus for a further deposit of thrombus, I have not known thrombosis occur at the seat of permanent spontaneous obliteration of a vessel. Partial occlusion of large vessels after canalization of organized clot is common; it largely accounts for the bulky limbs following many cases of thrombosis after enteric and other fevers, and explains the persistence of aggressive distended collaterals in such cases; which, as I shall presently show, are manifestly unfitted for any operative treatment.

Granting the correctness of these remarks, the question arises as to the best means to promote rapid resolution of clot, and, although various methods have been advanced with confidence, I still find the older plan of compresses of lotio plumbi c. opio locally, with the internal administration of iodide of potassium or sodium with alkalis and a minute dose of opium, accompanied by the free consumption of fresh lemon juice, the most satisfactory measures. The popular local applications containing belladonna do not, in my experience, seem to afford any result at all proportionate to their messiness and unpleasant smell.

An apparently trivial, but in reality a very important, matter is the use of a proper judgement as to the kind of support for a limb when the patient first begins to put it to the ground after an attack of thrombosis. A support of some kind is generally necessary, at all events for a time. The characteristic of a limb under these circumstances is the rapidity with which it changes in bulk after having been dependent for a short time.

The support of all others to be avoided for a limb subject to much change in bulk in different circumstances is an elastic stocking; there are few contrivances which do more harm, unless used with discretion, than this; a very large percentage of cases of thrombosis, and of increase of varicosity in ordinary cases of varicose veins, are due to the ill-advised use of elastic stockings.

The best support for these limbs after thrombosis is a well ventilated bandage of the crèpe Velpeau kind, which can be applied without "turns" like a puttee, and can at any time be adjusted to meet the varying tension of the part. A rubber bandage is inadmissible, in consequence of the tendency to eczema, etc., caused by its impermeability to perspiration, although the objection to it is to some extent mitigated if it is perforated and worn over a thin cotton stocking. The mistake usually made in the use of these appliances is that they are put on too tightly. In connexion with this matter the following points are of some clinical value. When a limb which has been affected with thrombosis is first put to the ground or allowed to be dependent, the foot will either become red, altering to a mottling of red and white, which, after some time, may change to a dusky bluish colour, or it will become immediately bluish in aspect. In the former case, it will probably become icy cold in a very short time as the mottled look appears; in such a case care should be taken to avoid using anything in the least degree tight about the limb; the indication is rather to keep the part warm with the slightest possible pressure. When the aspect of the foot is immediately blue, there is usually some warmth, and uniformly applied soft bandage pressure will soon enable the patient to get about. The convalescence in the former type of case is always more prolonged. Some apology may seem necessary for such trivial details. These trivial matters are always, I think, more difficult to get information about than those of great importance, and I am sure that, as a rule, the greatest errors of judgement are made in the management of the convalescent stages of illness. It is rare to meet with a practitioner who cannot deal with a serious disease, especially if it be acute; but it is by no means so common to find every one so well acquainted with the various minor matters which contribute so largely in the convalescent stage to the ultimate recovery of the patient.

### VARICOSITY CONSEQUENT ON THROMBOSIS AND ITS TREATMENT.

The immediate sequence of thrombosis is the establishment of a collateral circulation. In the case of the smaller superficial vessels the direct interference with the circulation by the thrombus may not be sufficient to produce oedema, and the attack may pass off without leaving any appreciable difference in the vascular apparatus of the parts.

Blockage, however, of main venous channels—say, for instance, the femoral vein—necessarily leads to immediate oedema of the parts below, which remains until either the collateral circulation is fully established or the lumen of the blocked vessel is sufficiently restored. In a considerable percentage of cases, either in consequence of the inability of the collateral circulation to meet the requirements of the case or because the restoration of the lumen of the blocked vessel is incomplete—in many instances no

doubt these two factors are combined—permanent oedema, or at least a tendency to it, remains.

The establishment of this collateral circulation involves, of course, extensive dilatation of the various anastomotic veins, which have no chance of regaining their normal calibre unless the lumen of the blocked vessel is rapidly restored, as it is a fact that veins, especially if superficial, when much distended for more than a very short period do not regain their normal condition, but remain tortuous and dilated, although the obstacle which led to their distension primarily has been removed. The degree of the varicosity thus arising will therefore depend upon two main factors—(1) the length of time during which the collateral channels have been subjected to obstructive tension, and (2) the amount of incompleteness in the restoration of the normal lumen in the blocked vessel. These two factors have very important bearings on the question of treatment. The amount of varicosity dependent upon the blocking of a large main vein cannot be determined until the oedema resulting from the obstruction has disappeared. It is very doubtful whether—rare instances being excepted—in complete blocking of a large vein like the femoral the natural lumen is ever completely restored, it certainly is not so unless the thrombus clears up rapidly. For practical purposes, therefore, it may be assumed that, in cases of varix following thrombosis, in addition to the results of distension during the complete blocking of the vessel there remains the necessity for some increased capacity of the collateral channels, because the vessel in which the blockage occurred has not resumed its complete carrying power. The most characteristic example of this type of varicosity is that which forms over the pubic and inguinal region after thrombosis of the iliac veins following upon enteric fever.

My excuse for dwelling upon these elementary points must be that it enables me to emphasize the fact, which seems sometimes to be overlooked, that dilated and tortuous veins, commonly called varicose, following upon thrombosis, are rarely suitable for operative treatment, since, as they are almost without exception acting as collaterals, an operation is invariably followed either by the appearance of similar veins or by the occurrence of a hard oedema of a very intractable kind. If this were generally recognized, patients would be saved from much disappointment and a good deal of uncomplimentary criticism of surgical methods would be avoided.

Speaking generally, the only conditions in varicose veins of this kind which can be operated upon with advantage are three—localized thrombus in some pouch or dilatation; trophic changes occurring in the skin about a sacculated or tortuous vessel; and localized pain such as sometimes occurs when a nervous filament becomes stretched or irritated by inflammation or rapid increase in size of a vessel with which it is in relation. In either of these conditions the removal of the portion of the vessels involved is a rational proceeding, which may indeed sometimes be urgently called for.

The position of massage in relation to the treatment of these cases is not, I venture to think, fully understood. As soon as the more acute stage of the condition in a case of acute blocking of a large main vessel has passed, when pain, local heat, and general pyrexia have disappeared, gentle shampooing, the part being raised, is an admirable method for hastening the disappearance of the oedema, and later on gentle skilled massage, to improve the general circulation of the part, is sound in principle and practice; but to attempt to reduce by vigorous massage the size of the dilated veins carrying on the collateral circulation is neither good in theory nor in practice, because although it may for the time being empty the obvious collaterals on the surface of the part, it necessarily causes so much tension on the deeper vessels running directly to the seat of obstruction that it leads to their further dilatation, and in the end increases the tendency to general varicosity of the limb. As a matter of fact, the most benefit derivable from massage in these cases is when it can be applied on the proximal side of the point of obstruction, as by increasing the vigour of the circulation the natural suction action of the venous current is increased, and the blood flows more freely from the parts below. In this way the tension in the collateral channels may be to some extent relieved without exercising pressure on their already weakened walls.

The treatment, then, of these cases after the patient is in a condition to be up and about largely resolves itself into the employment of gentle support afforded by well-applied bandages which should not be too tight, the blood flow being stimulated by voluntary movements and moderate exercise. In cases in which obvious oedema finally disappears, leaving the limb merely large, the supports, if they can be dispensed with comfortably, should be discontinued, and the general condition of the limb improved by intelligent massage.

In all instances of the kind under discussion the progress to as complete a recovery as is compatible with the circumstances of the case is vastly expedited by a course of douching, etc., at certain Continental watering places, of which Bagnoles de l'Orne is, in my experience, the most efficient.

In cases in which thrombosis occurs in a limb already the seat of varicose veins the relation of massage to the treatment is rather different. In such cases blocking of the deep main channels is comparatively rare excepting when thrombosis of a superficial vein is allowed to invade the deeper part. Thrombosis in cases of varicose veins is commonly confined to the superficial vessels, the deep channels being free; the use of massage, therefore, may be under these conditions used more freely than in the class of case just dealt with, because, the return of blood through the deep channels being unobstructed, damage to the smaller vessels is hardly likely to happen unless the vigour of the massage exceeds all reasonable limits.

But whether the case be one of thrombosis of a previously normal vessel, or of a part already varicose, no complete massage, in the ordinary sense of the word, can properly be used unless a free channel for the return of blood in the deep parts exists; to attempt to force a channel by massage in any way must, of course, be bad.

Technically, the best way to determine whether a case has arrived at a stage when massage can be safely employed with advantage is the following:

If, the patient having been previously in the upright position, when the part is placed in the horizontal posture the dilated veins empty themselves immediately—behaving, in fact, as they would do in an ordinary case of varicose veins—massage may be used with impunity.

If, however, the emptying of the distended vessels is slow, requiring, perhaps, gentle pressure with the hand to complete it, massage should be used with caution. If, after the part has been horizontal, or, better, a little raised on an inclined plane, for ten minutes or thereabouts, the dilated veins still show themselves distinctly, there is much obstacle to the return of blood through the deep vessels, and the case is one for very gentle shampooing only and bandage pressure.

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NOT long ago we gave a short account of the results of certain researches on the etiology of beri-beri conducted by Drs. Henry Fraser and A. T. Stanton at the Institute of Medical Research in the Federated Malay States, which showed that a polyneuritis analogous to beri-beri could be induced in fowls by feeding them upon polished rice, but that this could be prevented if a certain proportion of the "polishings" was added to the rice, and they went on to discuss whether it was not possible that the disease was due to deficiency in organically combined phosphorus as suggested by Dr. Schaumann. In a recent paper in the *Lancet* (December 17th, 1910, p. 1755) this research is continued, with the result that analysis of the polishings of rice show that phosphorus was present in the form of phytin, the calcium magnesium salt of an organic acid containing phosphorus. They, therefore, prepared phytin, and added it to the polished rice, with the result that the fowls so fed developed polyneuritis, just as if they had received the polished rice only. They next found that when the polishings were extracted with 0.3 per cent. hydrochloric acid, and this extract was added to the polished rice, polyneuritis did not occur; and, further, when the phytin had been precipitated from the hydrochloric acid extract, the residue mixed with the polished rice prevented the occurrence of neuritis; but, so far, they have not been able to identify the active agent which averts the disease. It is apparently not a living ferment, as cooking the polishings in no way hinders their prophylactic efficiency.

# A Lecture

ON

# SOME OF THE RARER OCCURRENCES IN THE RHEUMATISM OF CHILDHOOD.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, NOVEMBER 3RD, 1910.

BY

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I HAVE for some years now occupied these lectures in demonstrating various points in the rheumatism of childhood with the particular intention of strengthening the view that the disease is the result of an infection. Sometimes I have illustrated the nature and processes of the infection, at others I have attempted to explain the clinical course of the illness by the facts forthcoming from the study of the pathology. It has so happened that these attempts have come at a very opportune time—at a time when in this country the State has increased its vigilance in the control of the health of its school children. I believe that in the future, when the details and difficulties of this supervision are surmounted—as they assuredly will be—this development promises to assist the ever-pressing problem of the treatment of rheumatism. Already I find in my out-patient department evidence of this in the increased number of children who are referred direct from the schools for opinions upon their hearts, or for the warnings of chorea. I look upon the medical inspection of school children, then, as the first concerted step to deal seriously with the problem of rheumatism, because I believe the first step to successful treatment is an early recognition of the symptoms.

I believe, too, that the teachings of many distinguished physicians upon the various manifestations of this disease will now begin to bear fruit more rapidly, and I am glad that I have assisted in some degree by adding to their observations some data which help, I think, to strengthen their position. It is, in my opinion, important that the view that rheumatism is the result of an infection should be thoroughly accepted, for otherwise some of the early manifestations, and, above all, the importance of unhealthy conditions of the throat, will be overlooked.

Now in my lecture to-day I am going to deal with some of the less frequent of the rheumatic manifestations in childhood, founding my remarks upon a series of 600 cases that have been under my personal observation, in some instances for seven or eight years.

## RASHES IN RHEUMATISM.

My first subject will be the rashes in rheumatism.

These are of considerable clinical interest, and you can readily understand that their occurrence has always been a strong argument in the hands of those who have maintained that acute rheumatism is an infective disease. It is not, however, in the out-patient department that we can study them best, for it often happens that they appear before the child comes first under our observation, or that they develop later after its admission to the hospital. In 600 cases of rheumatism I have on record 40 examples of the occurrence of a rash associated with other definite signs of the disease at the first visit. The usual forms, as you know, are urticarias and erythemata, the latter often circinate in distribution, sometimes tuberculated in character, usually multiform; sometimes they are very extensive in distribution, at other times very partial. They are often fleeting, and are thus easily overlooked. If you follow the history of intractable cases of rheumatism, you will find that such children may sometimes develop arthritis, or pains, or chorea, or, again, a rheumatic rash—that is, the rash may be the most definite evidence of a recrudescence of the malady. Sometimes these rashes appear over the flush area of the face, and, spreading over the nose, have a butterfly shape. This is a puzzling arrangement the first time that one is confronted with it, and we must not forget that this may be followed by desquamation.

Occasionally these erythemata and the associated symptoms are difficult to distinguish from scarlet fever, as in a case in which a mother reminded me that I had twice diagnosed scarlet fever, and, faithful to me though she was, she demurred at my third effort in this direction. Her attitude of mind was justified by the rapid appearance of arthritis and chorea for the third time. The desquamation is in these cases rapid in course and branny in character. The circinate variety is often called ringworm by the parents, but this mistake is not often made by the medical man who is acquainted with the rashes of rheumatism. You will find that some children seem to be more prone than others to these rheumatic rashes, and they may show not only at different times, but also simultaneously, rashes of different types. Thus erythema and purpura, and erythema, purpura and psoriasis, are combinations I have met with in my series.

This leads me to say a few words about psoriasis. The late Dr. Radcliffe Crocker called attention to its association with rheumatism, and I should like to give you a few illustrations from my own experience upon this point.

### CASE I.

C. V., female, aged 11 years, who was subject to sore throats, came to the hospital in April, 1900, for arthritis. I found there were also early mitral endocarditis and fever. This child developed chorea in the following May and a guttate psoriasis of extensive distribution in June, from which there was slow recovery.

### CASE II.

May, 1901. W. M., male, aged 9 years, had been subject to recurrent attacks of rheumatic arthritis occurring two or three times a year for the last few years. After the first rheumatic attack he developed his first attack of psoriasis. He came to me suffering from well-marked rheumatic arthritis and early endocarditis. From these he made a good recovery, but he later came to me again for a widespread guttate psoriasis.

### CASE III.

November, 1902. A. S., female, aged 10 years, had an attack of rheumatism and chorea after scarlet fever when 5 years old. Simultaneously she developed psoriasis, and had had three attacks since. At 8 years she had a second attack of acute rheumatism. This child came to me with arthritic pains, an enlarged heart, and chorea. There was a well marked psoriasis of recent development localized over the lower extremities.

### CASE IV.

In May, 1903, R. H., male, aged 11, came to the hospital suffering from chorea of moderate degree and of two days' duration, and a psoriasis, which had been coming out for two months, guttate in character. This boy was interesting, because he developed some enlargement of the thyroid and prominence of his eyes. His heart was dilated, and there was an occasional mitral systolic murmur.

In August, 1903, he had another attack of psoriasis without chorea until September, when once more chorea developed, this time with obvious heart disease.

You will find a strong family history of rheumatic fever in some cases of psoriasis which show no other more definite indications of rheumatism than sore throat, arthritic pains, and fever. These are, of course, not convincing, but they are suggestive, as are also the not infrequent examples of psoriasis appearing directly after an attack of scarlet fever. In one such case I saw erythema, purpura, and psoriasis all apparent in a child who was suffering from acute rheumatism associated with scarlet fever.

I have read in an authoritative article on *purpura* that its rheumatic origin is a myth. Now this is certainly an error. How many cases of purpura are rheumatic is a very different matter and a difficult problem, but that some of them are of this nature will be apparent from the following details.

I will commence with my most convincing and remarkable case. This was one that I published for Dr. D. B. Lees in the *Lancet*, October 28th, 1899,

A girl who at 12 years of age had suffered from chorea and at 15 from rheumatic fever came to St. Mary's Hospital at the age of 17 suffering from dyspnoea and purpura. Seven days before this she had developed a sore throat and arthritic pains, rapidly followed by purpura round the ankles. Then in sequence appeared severe carditis and arthritis, and meantime the

purpura became so extensive as to baffle description. Large sanious bullae developed over the back, and the chest, abdomen, and extremities were covered with large patches of haemorrhage. Upon two occasions the micrococcus of rheumatism was isolated from the blood. This patient eventually died from cardiac failure after recovering from the purpura and active rheumatism. At the necropsy I found a severe rheumatic carditis, but there were no internal haemorrhages.

I have seen severe cases since then, but none to approach this one, which has the advantage of providing a very fairly complete proof of the rheumatic nature of the purpura.

This tendency to purpura in rheumatism is to be expected from a study of the morbid lesions. In early rheumatic arthritis there is intense vascular dilatation and the exudation fluid may be haemorrhagic. The capillary blood vessels in the regions of nodules are much congested, as are the intramuscular capillaries in carditis and the vessels in the deeper layers of the pericardium in pericarditis. Although haemorrhagic pericarditis is not, to my knowledge, much dwelt upon in standard works upon rheumatism, it is not a very rare occurrence, as Dr. C. R. Box insisted in the recent discussion on pericarditis at the Royal Society of Medicine.

Other examples of purpura have come to my notice in acute rheumatism.

Thus, in a fatal case of carditis in a girl aged 9, a well-marked purpuric eruption developed a few days before death. In another milder case there was arthritis, endocarditis, and the well-known peliosis rheumatica. A fourth example, in which the purpura appeared in large patches associated with arthritis and endocarditis, occurred in a child whose sister was under me for rheumatism, and who simultaneously developed a recrudescence of rheumatism.

I have seen other cases in which it has been more difficult to assure oneself of the rheumatic origin of the purpura, but the circumstantial evidence has been very strongly in its favour, and in a long history of rheumatism purpura may be an incident pointing to activity of the processs.

In rare instances a *pemphigoid* or *bullous* eruption has occurred, of which the following are examples:

In June, 1904, a boy of 8 years, subject to night terrors and sleep-walking, developed rheumatic fever with endocarditis, and at that time "blisters" appeared on the body, and were attributed to "uric acid." When I saw the child there was an apparently characteristic pemphigus upon the extremities, which gradually disappeared.

A second case was that of a boy aged 6½ years, who came to the hospital in 1901 for rheumatic arthritis and endocarditis. I saw him again for a relapse in 1902, when he developed a double mitral lesion. At the end of 1904 he again had an attack of multiple arthritis with a pemphigoid eruption upon the arms and knees.

Lastly, *herpes* may also occur during active rheumatism, and this irrespective of the use of arsenic.

I have already mentioned combinations of these eruptions, and you will sometimes notice that if hot applications used to relieve pain are placed over an area of acute rheumatic erythema the added stimulus of heat will convert the erythema into a purpura. Again, you may occasionally see a rheumatic nodule in the middle of a small purpuric patch.

### Erythema Nodosum.

I have not mentioned erythema nodosum among these rashes, and I have omitted it because it is a condition about which, at present, there is no settled opinion. That it is a rash which tells of an infection very closely allied to the rheumatic, I believe to be undoubted. Sometimes it seems to me that erythema nodosum may be a result of various but allied infections, including the rheumatic. At other times I feel inclined to believe it is evidence of some special disease closely allied to, but not identical with, rheumatism.

There are many records, notably those of the late Sir Stephen MacKenzie, that make the intimate connexion of erythema nodosum with rheumatism apparent, and I will now cite a few cases that I have met with.

*No. 1.* A boy with fever, pallor, and erythema nodosum. This boy's father was subject to attacks of rheumatic fever.

*No. 2.* A boy with obvious erythema nodosum. His paternal uncle and aunt had both suffered from rheumatic fever.

*No. 3.* A girl who, in July, 1902, came for the characteristic rash, and at the end of September developed arthritis and purpura, without heart disease. This child's father died of rheumatism.

*No. 4.* A girl who was suffering from a sore throat, fever, and erythema nodosum, had a sister under me at that time suffering from chorea.

*No. 5.* A girl who had sore throat, fever, and erythema nodosum. Her maternal aunt had suffered from rheumatic fever.

*No. 6.* A girl who gave no rheumatic history.

*No. 7.* A girl who gave no rheumatic history.

*No. 8.* A girl who gave no history of rheumatism.

*No. 9.* A boy who gave no history of rheumatism.

*No. 10.* A girl who gave no history of rheumatism.

*No. 11.* A girl had fever, arthritic pains and enlarged heart, and erythema nodosum. Her mother was the subject of chronic rheumatism.

*No. 12.* A girl who was subject to sore throat and stiff necks developed erythema nodosum. She had mitral disease and was short of breath.

*No. 13.* A boy who came to the hospital for erythema nodosum had suffered from rheumatic fever at 2 years and at 9 years.

*No. 14.* A girl who had been under me for two attacks of erythema nodosum came to me in March, 1909, for what appeared to be an ordinary rheumatic erythema associated with severe heart disease.

I have taken these 14 cases consecutively, and they show that there is some close connexion between erythema nodosum and rheumatism, but the impression that I have in my mind is that the condition is possibly not a *manifestation* of rheumatism in childhood, and for this reason I have not included it among the rheumatic rashes. I think it is certain that heart disease is unusual in an ordinary attack of erythema nodosum, while it is, as we know, very frequent in true rheumatism.

### Venous Thrombosis.

The next complication is one which I have only met with in severe examples of acute rheumatic carditis, and at the present time it is not decided whether the lesion is rheumatic in origin or is a mechanical result of the gross heart disease. This complication is thrombosis of large veins during acute rheumatism. In all the cases I have met with the vessels affected have been the large veins in the neck and upper extremities. This complication is not, I believe, very well known. Some twelve years ago I published for the late Dr. W. B. Cheadle and Dr. D. B. Lees three examples in the *Lancet*, and I have notes on several other cases since then. One of the three original cases may be looked upon as a classical example, for I was able to investigate it thoroughly, although, unfortunately, at that time I could not identify the micrococcus.

The case was that of a girl aged 9, admitted to St. Mary's Hospital for advanced morbus cordis, with active pericarditis and pleurisy, oedema and ascites. For a while there was improvement, and the oedema and ascites disappeared. Suddenly, while the temperature was subnormal, there supervened oedema of the right side of the neck and swelling of the eyelids and lips. Then the entire neck became swollen and tender, and first the right arm and next the left swelled. Lastly, the chest became oedematous, and the child somnolent and apathetic. Meantime general pericarditis had lighted up again, and the internal jugular veins could be felt as hard cords. Death rapidly followed. The necropsy showed active pericarditis and multiple endocarditis. The following veins were occluded by thrombi: Both subclavians and innominates, both internal and external jugulars, the inferior thyroid, both axillary veins, and the upper two-thirds of the superior vena cava.

Another case in a girl of 19, the subject of previous rheumatic endocarditis and pericarditis, showed thrombosis of both internal jugular veins and innominates, and partial occlusion of the superior vena cava.

The third case, in a young woman of 21, showed sudden oedema of the left side of the face. In this instance there was no pericarditis, but active endocarditis. The left internal jugular vein was closed by a thrombus at the lower end.

A fourth case was that of a boy, aged 8 years, who seven months before had suffered from chorea. He came under observation with active rheumatism, anasarca, and advanced heart disease. Sudden swelling of the right side of the face and right arm developed, with fever and some pericarditis; later the right internal jugular, subclavian, and innominate veins were apparently blocked, and the jugular and brachial could be felt as firm cords. This patient recovered, and left the hospital.

A fifth case, which was fatal, was that of a very fat and pale little girl, of 4½ years. She had developed an insidious chorea, followed by morbus cordis. When she was seen first, there was general pericarditis, with considerable fever. Death ensued rapidly, and the necropsy showed thrombosis of the left internal jugular veins, recent pericarditis, and multiple endocarditis.

I need not burden you with further examples, but wish to call your attention in these cases to the sudden develop-

ment of localized oedema, and when both internal jugulars are occluded you may mistake the swelling for a parotitis. There is considerable danger of cardiac embolism, symptoms of which were present in the first case I mentioned. In all the cases that I have seen there has been severe heart disease, and only two in my experience have survived. Oedema of the face in the heart disease of childhood is curiously frequent, and it is not at all uncommon for one to feel convinced that there must be renal disease. In my experience the urine does not bear out this suspicion, and we are still in the dark as to the real meaning of this symptom. I do not intend to suggest that venous thrombosis is the usual explanation, but would remind you that it is the explanation in some few examples. The most convincing proof of the occurrence of this thrombosis is the discovery of the tender, hard, cord-like veins, but the palpation should be cautious in case a clot should be inadvertently detached.

In a lecture such as this I will not enter upon the debated question as to whether a rheumatic phlebitis or thrombosis occurs in those cases, for these are questions which are not yet finally settled.

### TACHYCARDIA.

The next condition I allude to is tachycardia. This is an occurrence of considerable interest. When we concern ourselves with rheumatic heart disease in adults, we recognize clearly that tachycardia is not an infrequent and is sometimes an extremely dangerous symptom in mitral stenosis. It appears to occur more frequently in mitral stenosis than in other valvular lesions, and may be paroxysmal in onset and character or more or less persistent. Further, it would seem that some cases are much more prone to tachycardia than others. With these points in my mind I have always watched for this symptom in children, and have assured myself that in some instances tachycardia may appear in the first illness, and may be followed later by mitral stenosis, and that when the stenosis appears you may then have a condition resembling the mitral stenosis and tachycardia of the adult. In such a case as this it is clear that the rapid action of the heart, although doubtless encouraged by the mitral lesion, is not in reality dependent upon it; and this in turn raises the question as to the explanation of tachycardia in mitral stenosis. I may at once say that I have never, up to the present, had a chance of examining a heart *post mortem* in a case of early rheumatic tachycardia, so that any explanation would be purely hypothetical.

I shall again illustrate these remarks by taking first a classical example of early rheumatic tachycardia.

This was the case of a girl aged 9 years who lived in a damp house near the Thames. For four months she had been noticed to be very nervous, and to have headaches, which were followed by chorea. When I saw her she had well-marked chorea, some dilatation of the heart, and a pulse varying between 140 and 200 to the minute. The thyroid seemed a little full, but I could not persuade myself it was pathologically enlarged.

In the hospital the tachycardia persisted. She was admitted March 2nd, 1902, and left in June, her rapid pulse persisting for some two months, the rate being usually between 120 and 180 to the minute. Throughout all this time there was not the slightest evidence of pericarditis and the child did not seem ill in herself, although an occasional faint systolic mitral murmur made its appearance toward the end of the period of tachycardia. Her teeth being in a bad state and the tachycardia persisting, many of them were extracted, after which she recovered, this being aided, possibly, by small doses of potassium bromide. The natural suggestion at the time was to attribute the tachycardia to a toxaemia from the unhealthy condition of the mouth, and she left the hospital with that explanation, I believe, generally accepted. The later history was, however, opposed to this, for her recovery was only temporary. In July, 1902, she saw me again, when her pulse could scarcely be counted, and in October she was very excitable, and there was a rapid, irregular cardiac action with heaving impulse, but there was no murmur or renal disease.

In January, 1903, there was improvement, but in June, after the house had been flooded during great rains, she developed rheumatic pains and tachycardia again. In the following August chorea once more developed, but there was still no obvious cardiac murmur. In 1904 chorea developed again, and now it was apparent that a presystolic murmur was appearing. Once more I saw this child in 1905 with chorea, an obvious double mitral murmur, and the same curious tachycardia. My last acquaintance with her was in June, 1910, when she came to a demonstration here. She was then 17, and in domestic service, with an enlarged heart and mitral stenosis. Upon any excitement the pulse rose to 150 per minute. This is really a very interesting case when you review the history over these eight years, and it is, I think, quite obvious that throughout that period there had been a remarkable tendency to a severe tachycardia, which dated from the commencement of her rheumatism.

I have no other example as complete as this, but a good many cases in which a remarkably excitable heart was a feature of the rheumatism.

In 1903 a child of 7, a girl, came to the hospital with a history of chorea of three months' duration, a very rapid heart and early endocarditis. After recovery from the active rheumatism, her heart remained rapid (pulse 110), although there was no murmur. A year later she had signs of early mitral stenosis, and four years after this I saw her again with chorea and well-marked mitral stenosis.

There is a very important group of rheumatic cases in which the myocardium suffers out of proportion to the valves and in these cases you will generally find tachycardia and irregularity are prominent. Such cases closely resemble the conditions that sometimes arise after influenza or diphtheria. In these there is generally considerable enlargement of the heart. Some of these cases of tachycardia make complete recoveries, as I have observed, after many months or even some years, but those in which mitral stenosis developed have, in my limited experience, always preserved a tendency to the rapid cardiac action. It is only natural to suspect hyperthyroidism in such, for we recognize a connexion in adult life between rheumatism and some cases of exophthalmic goître. A good many French and of late some American writers have called particular attention to enlargement of the thyroid in acute rheumatism. I have also devoted much attention to this point, because it is one of the many interesting problems in rheumatism. We must most of us recall cases of exophthalmic goître in adults who have developed the disease, as Dr. S. West has emphasized, after rheumatic fever, and who have in addition to the symptomatic tachycardia clear evidence of this rheumatism in well-marked valvular disease. Now, I have never seen the direct development of this disease after rheumatism. All the cases I have come across with a rheumatic history have shown a considerable latent period between the two illnesses. In childhood, again, I have never met with a case of exophthalmic goître associated with rheumatism, and, although I have many times looked for a decisive enlargement of the thyroid gland during attacks of rheumatism, I cannot say that I have been able to convince myself that it is often affected. In a few instances, some five or six, I have noted a possible slight swelling of the gland, and in two cases children have complained of pain referred to the thyroid, but, as a rule, I have failed to obtain any evidence at all of damage.

It does not necessarily follow that the thyroid secretion may not be altered by an attack of rheumatism, but then again I am confronted with the fact that not one of the many cases I have seen has developed exophthalmic goître in childhood. I must confess that my personal observations upon the behaviour of the thyroid gland in the rheumatism of childhood have been singularly barren in result, and for this account I have hesitated to ascribe early persistent tachycardia to any disturbance of this organ. The most definite associated symptom that I have found in these cases has been nervous instability. This instability is a well-known feature in the rheumatic, but I think it is more persistent and reaches a higher degree in these cases of tachycardia.

### MASTITIS.

A symptom that I have met with in girls who have suffered from rheumatism has been tenderness and slight inflammation of the breasts. When mentioning this to my friend and colleague, Professor G. F. Still, he made the same remark from his independent observations. I mention it with reserve, for an individual experience is sometimes quite misleading, and those in wide general practice may be acquainted with such a phenomenon as not infrequent in many girls about 10 or 12 years of age quite apart from rheumatism. It is, however, a fact that I have met with it in hospital practice under these circumstances, and will give you some examples.

#### CASE I.

Hilda S., aged 11, subject to chorea and sleep-walking, whose father's family was strongly rheumatic, one uncle having died

of rheumatic fever, came to the hospital for pain and swelling of the left breast. The swelling had lasted a week, and there was tenderness and some hardness on examination. This symptom rapidly disappeared with the aid of mild aperients and warm applications.

CASE II.

Anne M., aged 10 years, was under me at 7 suffering from rheumatism, with arthritis, chorea, and endocarditis. She made a good recovery, and had kept apparently free from any relapse. Her mother now brought her for pain, tenderness, swelling, and hardness of the left breast. There was definite evidence of her previous attack of rheumatism in an enlarged heart and a double mitral murmur. Her temperature was not raised, and the condition rapidly subsided.

CASE III.

Florence M., aged 13 years, had been under my observation through two attacks of chorea, one at the age of 9 and another at the age of 10. There had been dilatation of the heart and arthritis, but a long rest in the hospital followed by a convalescent home had brought about complete recovery. Although over age, she was brought to me in 1909 with pain, tenderness, and swelling of the left breast. She had been free of chorea since her second attack, and had no symptoms of rheumatism.

CASE IV.

Alice P., aged 10 years, had been under me at intervals for some years suffering from chorea, endocarditis, and arthritis. In October, 1910, she again came back suffering from rheumatic pains, with a well-compensated mitral lesion, and complaining of pain and tenderness of both breasts, which were harder than normal.

Three other cases gave almost precisely the same history. I am not, perhaps, justified in quoting these cases under the title of my lecture; but they have interested me because later in life I think dysmenorrhoea of a painful kind is not infrequent in the rheumatic.

EPISTAXIS.

Lastly, I should like to direct your attention to epistaxis in rheumatism. My attention was first called to this by a paper of Dr. Sydney Phillips upon the subject, and since that date I have learnt to appreciate its reality. Epistaxis may occur at the commencement of an attack, during the illness, or as incident in the more quiescent phases of a long rheumatic history. Exceptionally it may be very severe, but as a rule it is moderate in degree and not of any moment in itself. I would add that it is not by any means necessarily associated with obvious nasal disease, although I hardly think we lay sufficient emphasis upon diseased conditions of the nose in rheumatic children as a possible source of infection, in spite of the writings of Dr. C. R. Straton.

In this lecture I have dwelt a good deal upon haemorrhages in rheumatism, and I would add further to them the occasional occurrence of haematemesis. This I have only seen at present in grave heart disease, and it is possibly only a mechanical event, although in some examples it has also been associated with profound toxaemia and extreme anaemia.

It will need another lecture at least to complete the remarks that I have to make upon other of the less common occurrences in the rheumatism of childhood, and I shall hope to continue with them when the next opportunity arises.

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DR. ROBERT WILLIAM COE, of Clifton, consulting surgeon to the Bristol General Hospital, who died on August 11th, 1910, aged 89, left estate valued at £28,612 gross, and £27,485 net.

THE Secretary of the Medical Missions Department of the Society for the Propagation of the Gospel in Foreign Parts asks medical men and women of Great Britain, who may not wish to preserve medical journals after reading, to consider the needs of the medical missionaries in the foreign field. He states that any journals sent to Miss B. Gambier Parry, Bacton, Wokingham, Berks, will be gratefully received, and forwarded without delay to a missionary doctor.

# Clinical Lectures
ON
# KIDNEY PAIN.

BY

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PROFESSOR OF UROLOGY AT THE LONDON HOSPITAL; PRESIDENT OF THE SECOND CONGRESS OF THE INTERNATIONAL ASSOCIATION OF UROLOGY.

[*With Special Plates.*]

## LECTURE I.

GENTLEMEN,—Although expert radiography has conclusively proved that calculous disease of the kidney is comparatively rare, the profession cling to the belief that any severe pain experienced in the region of that organ is due to stone. I suggest, therefore, that you consider with me this session the varieties of kidney pain and their approximate causes, and for the first step we will discuss that form most frequently encountered—the pain of a distended renal pelvis. It is probable, on physiological and on clinical grounds, that the kidney is only able to feel in two areas—the pelvis and the neighbourhood of the true capsule. Parenthetically, I may remind you that patients are very occasionally met with who do not have sensation in either area, and then crippling and progressive disease of the kidney may be painless from start to finish. As examples you may call to mind the hydronephrosis the size of a small football I operated upon a short time ago, the patient having no inkling that he was a sick man until a week before he was admitted here, when he noticed the increase in the size of his belly. Then, again, the largest stone I have removed from the kidney was fifty years in the organ without causing any pain.[1] Generally, however, there is pain in surgical kidney disease characteristic both in degree and place.

I start with two aphorisms which I have taught here in the operating theatre since 1900. The commonest structural change accompanying kidney pain is a distended pelvis; the commonest cause of kidney pain is dilatation of the renal pelvis.

To prove my contention, I must refer to certain salient symptoms which afford a valuable clue to the existence of surgical disease of the kidney pelvis or cortex.

### DESCRIPTION OF SPECIAL PLATES.

Fig. 1.—To show upper and lower polar aberrant arteries, and the area they affect.

Fig. 2.—Aberrant vessels to the lower pole underrunning the ureter and dilating the pelvis (Newton Pitt).

Fig. 3.—A one finger-tip pelvis (normal).

Fig. 4.—Kidney in section A one finger-tip pelvis in which one or even more papillae are touched, showing the commencement of the pelvic dilatation.

Fig. 5 —A two finger-tip pelvis, showing elongation of kidney and some dimpling of cortex.

### 1. EXCESSIVE THIRST.

If you eliminate the thirst produced by certain poisons, such as sugar, alcohol, opium, chloroform, you will find that a consuming thirst is a danger signal in urology, because it is the first decided and noticeable symptom of uraemia, in that it appears before any alteration in the urine. Sir A. Clark,[2] one of our most revered teachers here, read a paper in 1884 on "Catheter Fever." He noticed that death occasionally occurred after using the catheter in cases of enlarged prostate, and he contended that this untoward result generally occurred in persons who appeared in perfect health, but whose urine was low in density. He considered such patients to have "renal inadequacy." Of course we had known for long that "renal inadequacy" was merely another term for a low form of interstitial nephritis, induced by prolonged back pressure exerted by an unrelieved bladder, and marked by filtration of water rather than the excretion of urinary salts; but we did not then know bacterial invasion was the fire which fell on the prepared "tow"—the weakened kidney. Even now the profession at large does not realize that this renal inadequacy is marked by *excessive thirst as an onset symptom.* This thirst is mostly due to diuresis—noticed or unnoticed. The symptom commences when the specific gravity of the urine is 1010, and it becomes very pronounced when it has sunk to 1004. It is then accompanied by a graver symptom of depreciated kidney

TO ILLUSTRATE MR. HURRY FENWICK'S LECTURE ON KIDNEY PAIN.

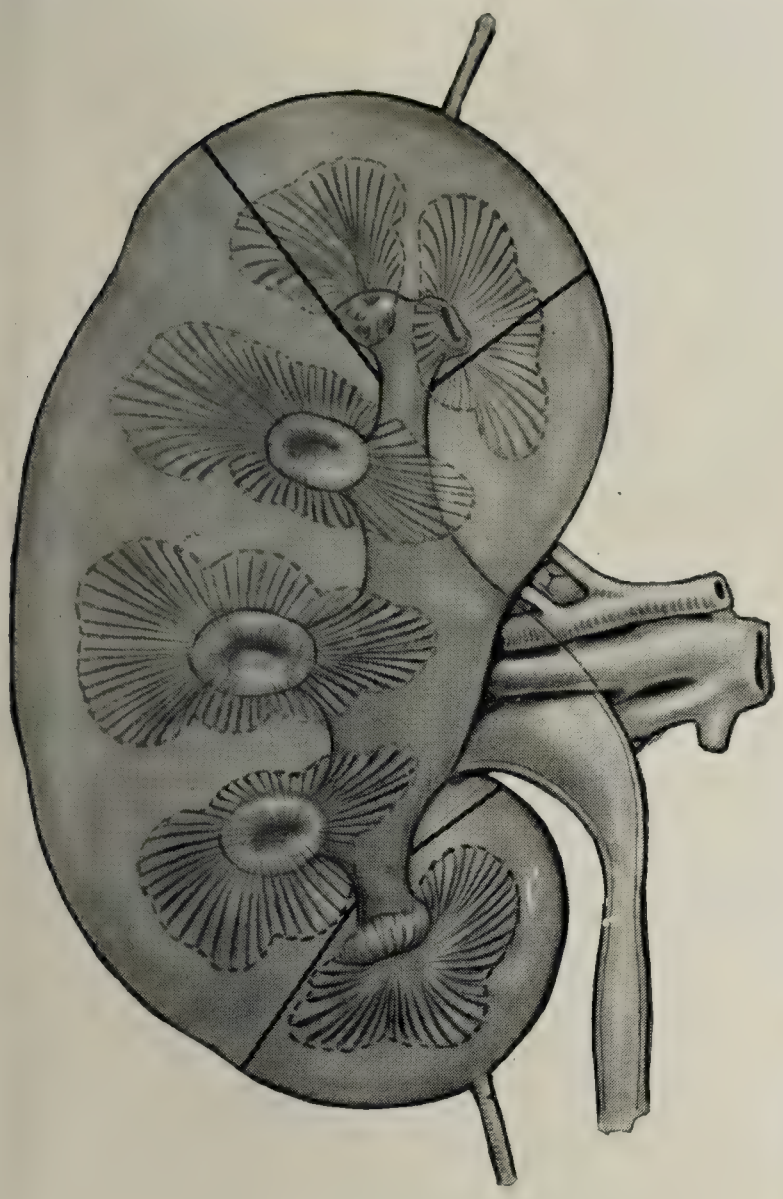
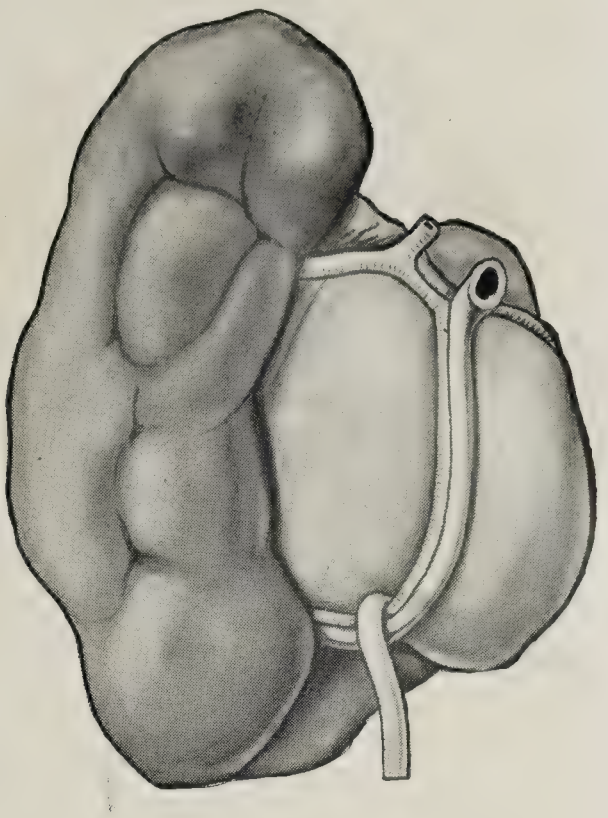


Fig. 1.



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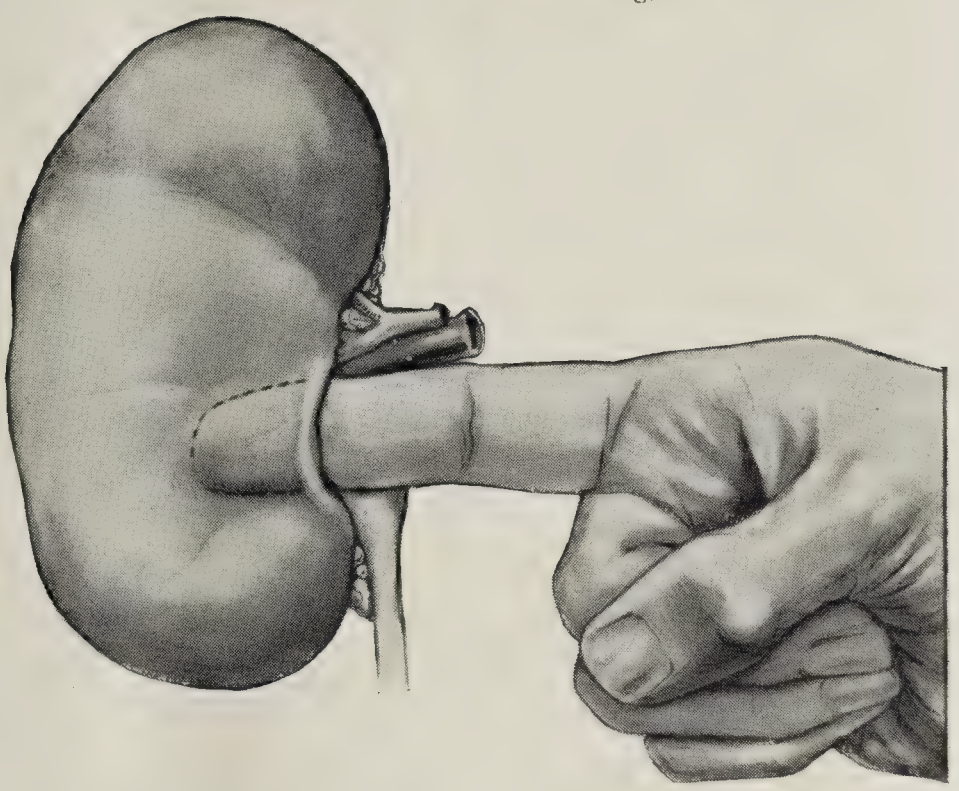

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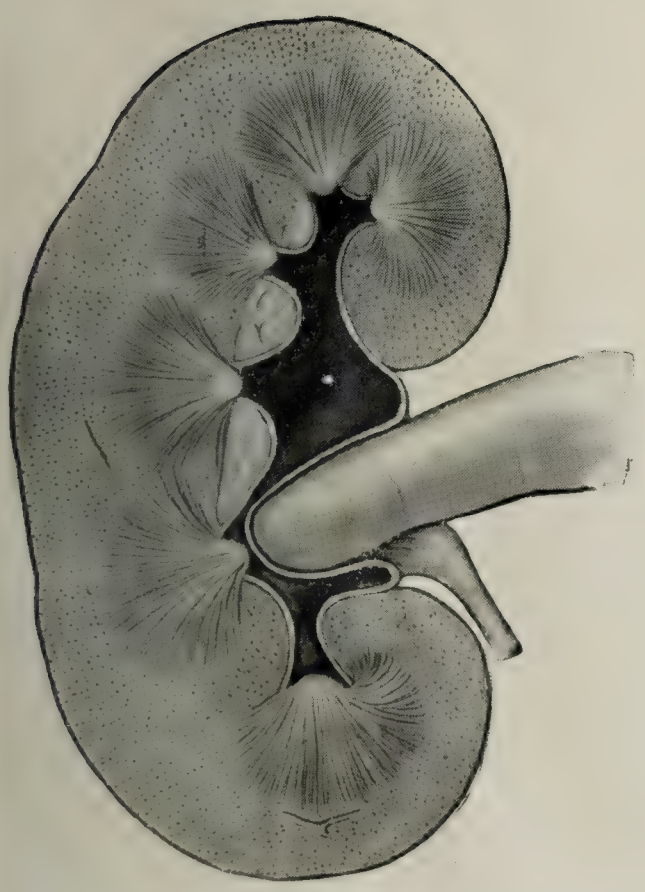

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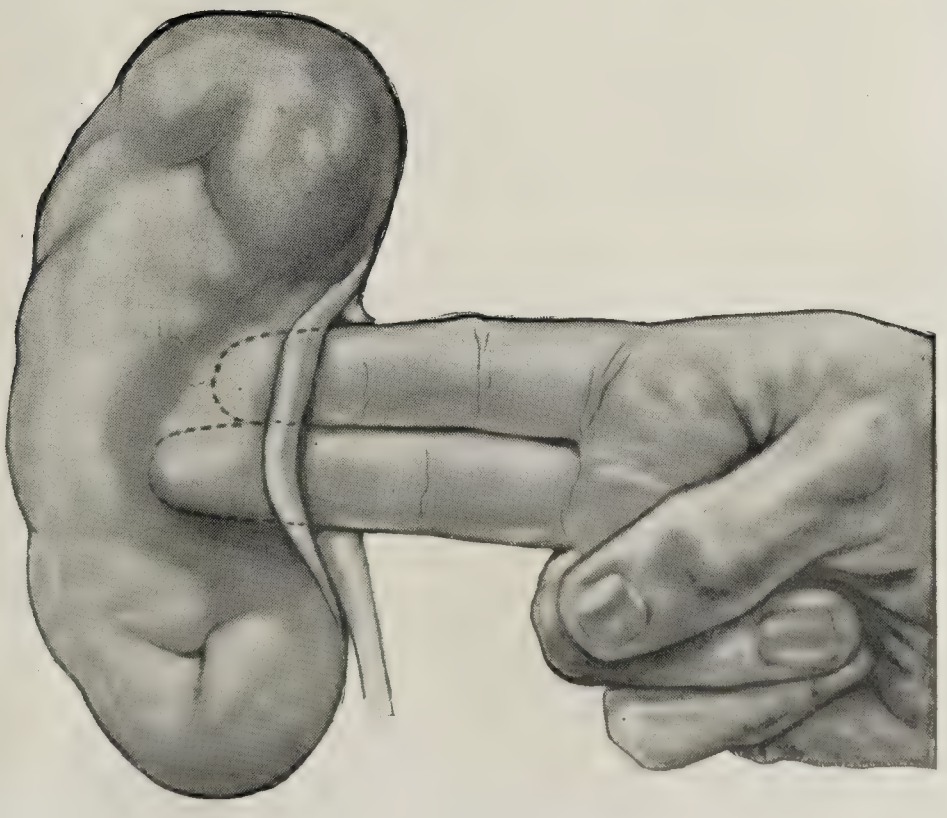

Fig. 5.

TO ILLUSTRATE MR. HURRY FENWICK'S LECTURE ON KIDNEY PAIN.

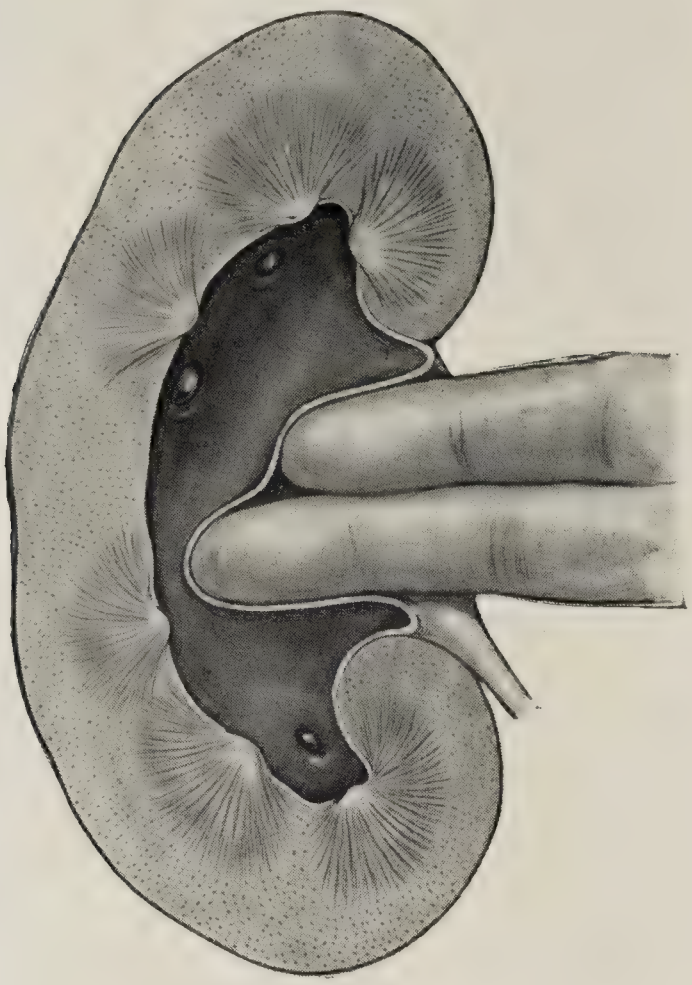

Fig. 6.

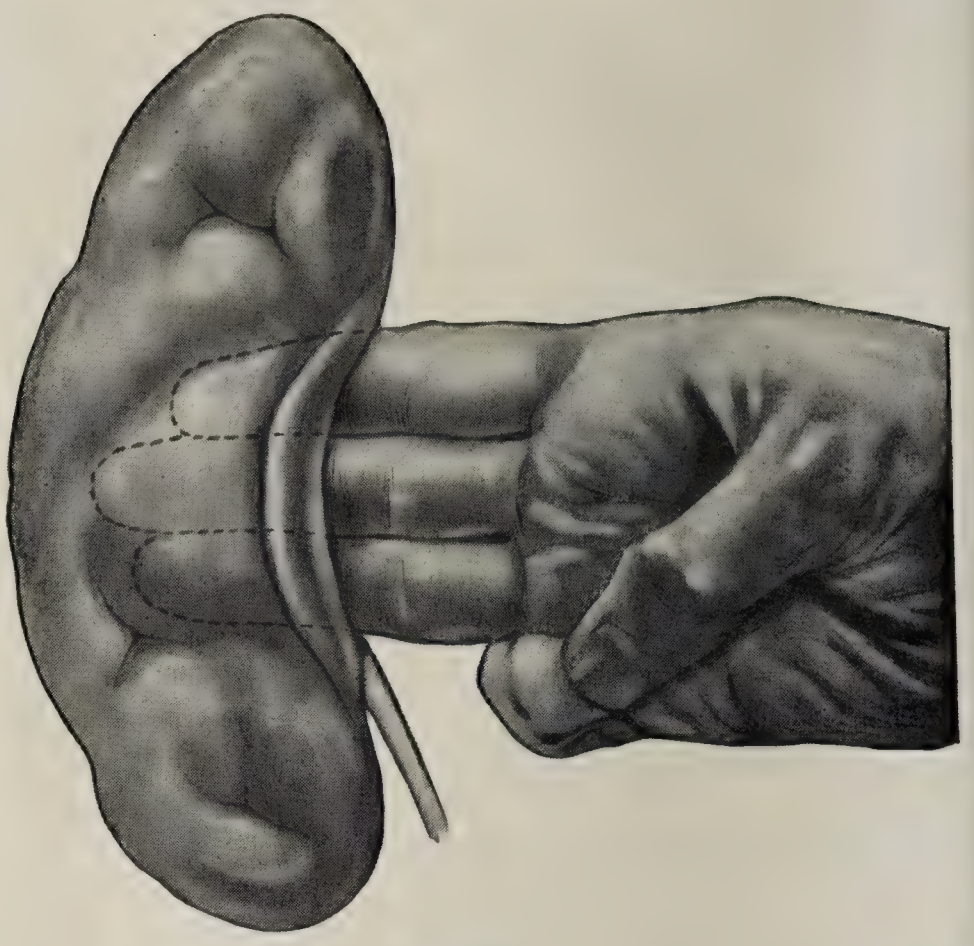

Fig. 8.

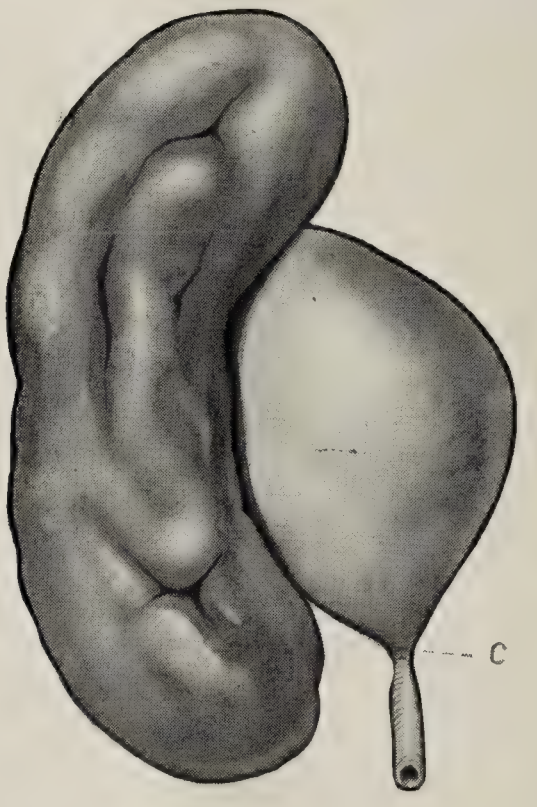


Fig. 7.

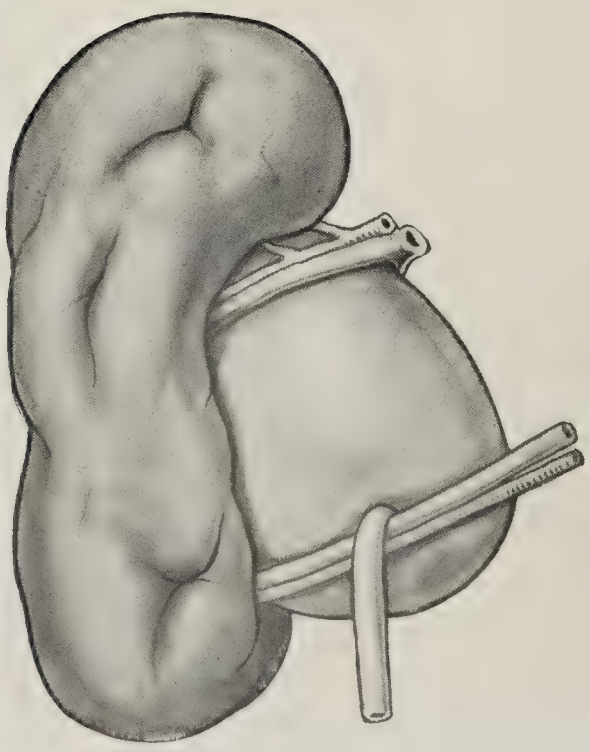

Fig. 9.

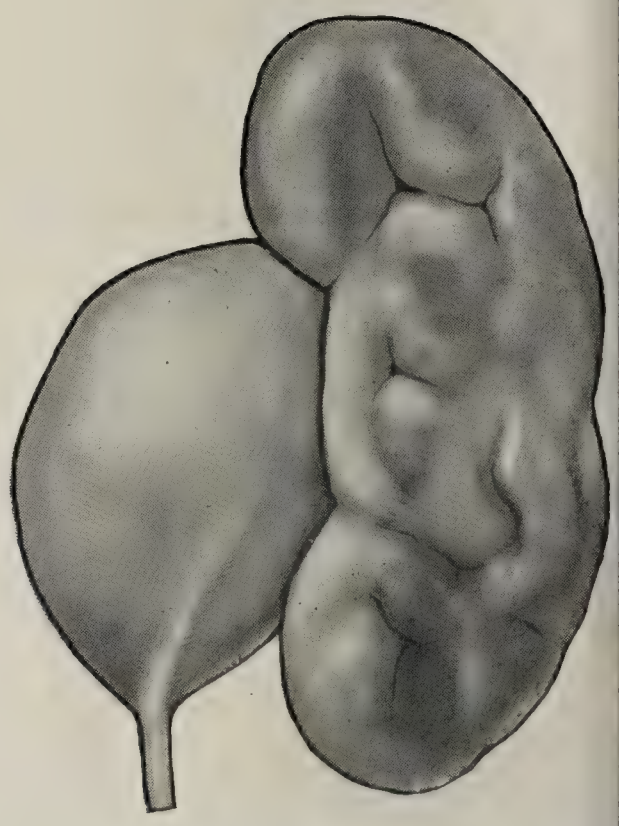

Fig. 10.

function—anorexia and sickness. It must also be remembered that the same symptom may be induced by inflammatory processes, acute or chronic, affecting the interstitial areas of the kidney. The thirst in this instance is due to the absorption of toxins arising from destruction of the inflamed area, and it is not, then, necessarily marked by diuresis or fever. If now we find excessive thirst with low specific gravity urine, we look with suspicion on the kidney function, and expect to find some interstitial pressure of that organ, or some recent inflammatory focus in its structure. Both these conditions may exist as the result of a distended pelvis.

2. THE POSTURE ADOPTED BY THE PATIENT IN SLEEP.

Very few sleep, as Confucius says, "on their backs like dead men"—most have a favourite side. I do not enter into the fascinating and far-reaching study of the predisposition to unilateral disease promoted by this habitual lateral attitude, I merely want to draw marked attention to the clue which a sleep posture may afford us in locating disease to the kidney.

In 1896[3] I raised this point and suggested that when a patient was forced to lie on a painful kidney in order to relieve pain, this attitude indicated a stone in the cortex of that kidney. I was wrong; I had only operated on 80 kidneys. I now know that a large percentage of patients suffering from pain in one kidney can only get ease at night by lying on that kidney—that this posture is adopted in order to keep the kidney at rest and thus prevent the cause of pain, whether it be a stone or a dilated pelvis, from moving with the kidney in respiration; also that this posture denotes an absence of cortical inflammation. I know, moreover, now that if the cortex be much inflamed and therefore adherent to the fatty capsule (corticitis), and in proportion to the acuteness of that inflammation, the patient *cannot* sleep on that kidney, but must turn to the opposite side.

Hence the axiom: If the patient is forced to sleep on the aching side, the kidney is still movable, and the pelvis is locally irritated. If the patient *must* rest on the unoffending side, the aching kidney is fixed and its surface is inflamed (corticitis). As a corollary, one of the first symptoms of return to health after removal of a stone from the kidney is that the patient can sleep easily on the unoffending side, and the marked sign of convalescence after a sharp attack of coli-bacillary nephritis of one kidney, in which, of course, the cortex has been involved, is that the power returns of sleeping on that kidney.

3. INTERMITTENT DIURESIS.

*Aphorism:* Intermittent diuresis marks some dilatation of the renal pelvis. If we are able to eliminate a dietetic and a cerebral influence on the urinary secretion, we possess an important clinical clue to disturbance of the renal vasomotor action in the filtration of urine, when marked intermittent diuresis occurs. A fair proportion of patients with renal pain complain of bouts of passing large quantities of water. I do not here concern myself with how this comes about. I press the remark home upon you that these rushes of urine have a distinct effect upon the capacity of the renal pelvis. Read carefully the pathological findings of cases of so-called diabetes insipidus in which large quantities of urine are secreted: you will notice how often the renal pelves and ureters and even bladder are dilated and their walls thinned. Judging by analogy, the large amount of work they are called upon to do has first hypertrophied and then thinned these cavities. Examine the pathological findings of a series of nephrectomized patients who have died, say, five years after their operation, you will find the pelvis and ureter of the working kidney are dilated. Given, then, a kidney which has bursts of secretory activity, and you will find operatively that its pelvis is always perceptibly dilated; and this I state on fifteen years' careful scrutiny of the renal pelvis in all cases I have operated upon.

From this subject we pass naturally to the next: the vasomotor irritation of the arterial supply of the kidney, producing intermittent diuresis.

We know that the amount of urine secreted rises or falls with increasing or diminishing fullness of the renal artery; even moderate compression of the artery in animals is followed by distinct reduction. Now withdraw your mind for a minute from the main source of arterial blood—the renal artery. Fix it on a small aberrant artery. We meet with these running either to the upper pole or to the lower pole (Fig. 1). Now mark this: They are not uncommon. The surgeon who works with a head lamp—and I have used artificial light in this way in every case for fifteen years—at once detects the aberrant artery and notes the condition of the cortex to which it runs. There is, I believe, a distinctive group of symptoms induced by the tug of an aberrant vessel upon the upper pole. I may say, if a kidney which has an aberrant vessel to its upper lobe becomes loose and intermittently drags upon this vessel, alternately stretching it and slackening it, that the secreting tubules of the area of the kidney which it supplies (Fig. 1)—and luckily it is a small area—become greatly altered in health, and the arterial anaemia may even be so marked as to induce corticitis, and thereupon pain, which is, according to the site involved, referred roughly to the liver or splenic area. I have also noticed attacks of polyuria and even thirst traced apparently to the influence of tension, or torsion, of these aberrant polar arteries.

We need not deal with the aberrant artery running to the lower pole of a movable kidney; it produces similar changes in the pole, and a specific form of renal pain. If we ligate these vessels and divide them, we render a small area anaemic and softened; but it finally scars, the pole becomes adherent, and the patient loses the characteristic pain. But, should the aberrant artery pass over or under the ureter near its pelvo-ureteric junction, and any sudden or gradual drop of the kidney strain the line of the artery taut, it not only starts inflammatory changes in the cortex, but—as we shall come to it immediately—it also induces dilatation of the pelvis, and this will be found a cause in 16 per cent. of all cases of primary pelvic dilatation.

To sum up now these prefatory points. Thirst, with or without diuresis, rouses the suspicion that renal changes, generally bilateral, are present, and that there may be back-pressure upon the parenchyma of the kidney. Sleep posture may indicate a movable kidney with an aching pelvis if the painful side is slept on, or an inflamed fixed cortex if the painful side is avoided. Intermittent diuresis points to a dilated renal pelvis, and some interference by tug or torsion with the vasomotor influence of the renal vessels. These clinical findings, taken in conjunction, are of real inferential value. Now for our operative points.

THE OPERATIVE POINTS OF DILATED RENAL PELVIS.

I was much impressed in 1894 by a communication which Dr. Newton Pitt[4] made to the Pathological Society on the occasional presence of renal aberrant vessels, and their power of producing hydronephrosis (Fig. 2). The subject, it is true, was not original, but it had never been so clearly demonstrated. From that day to this I have never operated on a kidney without examining the capacity of the renal pelvis of the kidney I was operating on. If I found the slightest dilatation, I examined visually the pelvis and the ureter, and tried to determine the cause of the increased capacity of the pelvis. I was astonished to find that fully 80 per cent. of cases of marked renal pain, not caused by stone, tubercle or cancer, was characterized by the presence of a dilated pelvis. To me it was the hall-mark of renal pain, and I used to gauge the size of the pelvis by the number of finger-tips I could introduce easily into the renal sinus by rolling in that structure. Every house-surgeon I have had since 1894 has felt and confirmed this condition.

## DESCRIPTION OF SPECIAL PLATES.

Fig. 6.—Kidney in section. A two finger-tip pelvis, showing flattening of papillae.

Fig. 7.—Pelvo-ureteric junction kinked (c).

Fig. 8.—A three finger-tip pelvis, showing much hollowing of pelvis.

Fig. 9.—An aberrant leash of vessels running to the lower pole under the insertion of the ureter—severely bending the pelvo-ureteric junction.

Fig. 10.—A mal-inserted ureter running along the back of the pelvis, entering this cavity about its middle, after traversing its coats obliquely.

I learnt that the pelvis which admitted one finger was about normal (Fig. 3); if, however, it permitted a search of even one papilla (Fig. 4) it was *being* distended; the ureter in such a case would be *fixed*, but the junction of this with the pelvis would be softened and would easily bend on axial rotation of the kidney. The true capsule would be thin and the fatty capsule would be but slightly attached to the true capsule. I learnt that if two finger-tips could be admitted into the pelvis the kidney would be elongated (Fig. 5), the calyces would be wider than normal, and the papillae would be felt easily (Fig. 6), and their points would be flattened—all conditions pointing to back pressure—the pelvo-ureteric junction would be grooved by a kink (Fig. 7). The true capsule would be thicker than normal, but not adherent, and the fatty capsule firmly adherent to it in patches. Very soon I could tell from a mere glance at the cortex or a touch with the finger on it as to what degree the pelvis was dilated. If the surface of the kidney was deeply divided into lobules like a mammalian kidney, I knew it would dimple here and there under the pressure of my fingers, that the kidney would be much elongated, the cortex thinned, the true capsule more adherent, and the pelvis would admit, when the urine had been aspirated, three or four finger-tips (Fig. 8). I called these "canoe-shaped kidneys," from their fancied resemblance to that form of boat. I very soon learnt, moreover, that with a canoe-shaped kidney I was bound to find either a fixed *mechanical* obstruction to the pelvic orifice, just where the ureter joins the pelvis, or a ureter greatly dilated from some form of obstruction near the bladder. We will consider the latter in a lecture later on, and glance slightly at the obstruction at the pelvo-ureteric junction. This was either in the form of under-running bow-stringing abnormal vessels, 16 per cent. (Fig. 9), or a misplaced "malinserted" ureter, 8 per cent. (Fig. 10). I have never found a "congenital stricture or valve." I do not believe such exist, and I think the term will in course of time disappear from your textbooks.

My clinical inferences and operative interventions were as follows: A "one finger" capacity meant a very slight dilatation, and I searched for an upper polar artery to cut across, so as to prevent intermittent diuresis, and fixed the kidney to prevent any vessel drag.

With a "two finger," I tried to splint the weakened bend at the pelvo-ureteric junction with fat packing, with more careful fixation of the kidney, and by placing it more obliquely than normal (76 per cent. of cases).

With the more marked hydronephrosis, due to aberrant lower polar artery and vein, under-running or over-running the ureter at the pelvo-ureteric junction—16 per cent.—I merely cut the vessels across between ligatures, and I was well satisfied to see the inner (aortic) ends disappear with a jerk, like a conjurer's coin, and the pelvic cavity commence emptying itself with a worm-like action. I then fixed the kidney.

If my patient came late—that is, with an infected pelvis, pyonephrosis, and an attenuated rotten parenchyma—I took the shell away.

If I found a malinserted ureter which ran between the coats of the pelvic cavity, I either cut its orifice out and stitched it into a hole in the pelvis lower down, or I repaired as in pyloroplasty.

You notice I say nothing about large hydronephrosis—feelable, and visible to the clinician—I do not include them; they are diagnosable, and form a clinical group to themselves. Of course these observations I have outlined to you were the first steps. They are charmingly crude and unscientific, but they saved many a dismal failure in the operative treatment of aching kidneys, and I advise you to follow them unless you are in a position to do expert work. Nowadays an expert can generally tell you before the operation, if the patient be a female, not only the capacity of the pelvis, not only the exact cause of the pain, but also the nature of the pelvo-ureteric junction obstruction, and whether rotation exists rather than a drop in the organ.

During the last decade, led by Kelly of Baltimore, the capacity of the renal pelvis in women has been gauged by means of the ureteric catheter. It can be done in men, but it is not so easy. The pelvis is injected through the catheter, and directly pain is evoked the amount of fluid used is measured, and the character of the pain caused by the distension is noted.

There is some difference of opinion as to the normal capacity of the renal pelvis, but it can be said with certainty that, when it contains over 2 oz., hydronephrosis exists, this being usually accepted as the proper standard. Kelly and others, however, affirm that anything over 3 drachms indicates a pathological condition, and Freeman has found, in numerous instances, that pain is produced in the normal kidney by the insertion of this amount of fluid.

Still more recently, as you will see by these beautiful radiographs, the capacity of the renal pelvis has not only been gauged, but also portrayed by injecting into it a solution of 10 per cent. of collargol (Voelcker, Braasch), or colloidal silver oxide (Uhle, Pfabler, Makinney and Miller), and then radiographing the patient (pyelography).

### Axial Rotation of the Kidney a Cause of Ureteric Kink.

In my earlier work I suspected that much of the simpler forms of bent or kinked ureter was the net result of three causes: Some increase in the vertical mobility of the organ, some softening of a dilated pelvis, and some axial rotation of the kidney. I did not possess then, as I do now, the means of estimating accurately the amount of vertical mobility and the existence of axial rotation of the kidney before operation, so that my material is small, but I have no doubt my earlier convictions are correct.

### The Character of the Pains Induced by Distension of the Renal Pelvis.

The pains—and I use the plural advisedly—are varied. Let us disassociate them and then combine them in our own mind for the clinical picture as a whole:

First, the pang of the sensitive orifice of the pelvis. This opening, like the other urinary orifices—namely, that of the lower ureter, of the bladder, of the membranous canal of the urethra—is highly sensitized. The pain which marks its mechanical abrasion, closure, or distension is felt in the hollow of the loin, just where an angle is formed between the last rib and the erector spinae. It is quite localized, and can be covered by the point of the thumb; it is stabbing and severe—often enough to make the patient vomit—but it merges into the discomfort which is due to the distension of the pelvis. This latter, if the pelvis is uninflamed, is a dull aching, diffused and covered by the hand placed on the same loin area—ileo-costal angle. As the distension increases so that the capacity of the pelvis is reached, the symptom most marked is that of abdominal distress—pain in the belly, generally over the front of the same side—and finally sharp renal colic, with all its characteristic symptoms. The attack, however, is shorter than real renal colic, for the pelvis empties gradually; the pain is under the control of hot application or hot drinks, or at most a little morphine suffices.

There is also a drag pain on the vessels in between the attacks—this is very definite in certain cases—but relieved in an hour usually by lying down, returning on rising. This pain is due, however, merely to the mobilized organ, and is relieved by a kidney belt.

With an infected pelvis a new form of pain is added, and when the inflamed pelvis is occluded the pain is agonizing. In addition to the local pain, the radiations go down to the groin and leg, and the relief from rest, time and morphine is less, for it depends on the subsidence of the actual attack of pelvitis. Generally with the infected renal pelvis, bladder symptoms are present also, such as frequency of urination, pain at the urinary outlet, and others, but we will consider those in another lecture.

As the pelvis gets larger, and the distension is more marked, we may get a characteristic sleep posture. The patient sleeps on the painful side, violent thirst is occasionally complained of, although only one kidney is affected.

You might remark: We do not need these extra clinical signs, the kidney must now be palpable and visible on the belly. By no means; if it were, conservative surgery would be too late; the kidney, though it has a distended pelvis, should be still unfeelable to the diagnostician. This is the time to interfere to save the kidney. This is also the dangerous time for the patient who, because no stone is seen in the radiograph, is advised to leave the treatment to medicine—a danger which Sir Henry Morris has so

ably demonstrated recently, and which I trust this lecture will also emphatically reflect.

Let me speak quite plainly. Any large, easily-felt hydronephrosis is the evidence of failure; any large, easily-felt pyonephrosis is the evidence of culpable neglect—both might have been avoided. Both will need mutilation, not surgery, for their cure, and if mutilation then curtailment of strength and life, in the place of that which early conservative surgery has in its power to confer.

REFERENCES.

[1] Taylor, BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 1108. [2] Sir A. Clark. Discussion on Catheter Fever. *Edin. Med. Journ.*, April, 1884. [3] *Trans. Med. Soc.*, 1896, p. 9. [4] *Path. Trans.*, vol. xlv, p. 107, 1894.

# An Address

ON THE

# PREVENTION OF HEART DISEASE.

DELIVERED BEFORE THE ULSTER BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY

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[DR. CALWELL, after thanking the members for electing him, and referring to the necessity of brevity and condensation in their proceedings owing to the very large amount of useful and important scientific work to be gone through, proceeded as follows:]

Many years ago I brought before the Ulster Medical Society a short paper on "Some Possibilities of Preventive Medicine." I was fresh from the study of Koch's work on tuberculosis, and citing what had been done in the past with regard to other diseases, I ventured on the hope that tuberculosis in time would slowly diminish to vanishing point as a national disease. To-day I might point to the tropics as well as to our own country as illustrating further possibilities and larger hopes. At home, amongst the most recent work, respiratory affections are being approached by the clinical bacteriologists, and a scientific knowledge of their cause may reveal the path of prevention or of cure. Cancer is slowly and stubbornly yielding up her secrets; but the darkest blot is undoubtedly the increase of insanity and weakmindedness. Despite the repeated warnings of our alienists, the public pay but little heed, and were it not for the more advanced educationalist the outlook would be indeed black.

In this light, a short investigation into the possibilities of the prevention of heart disease might be both instructive and interesting; and as I shall have to deal with some rather tiresome statistics I shall throw them upon the screen, and both save your patience and more clearly demonstrate the results.

First, we must study the extent of the problem. Out of a total number of 520,456 deaths in 1908 in England and Wales, 49,891, or 9.59 per cent, occurred from heart disease, or a proportion of 1 death in 10.41. In Ireland out of 76,891, 9,020 were due, or a proportion of 1 in 8.8; in Ulster 3,396 out of 28,696, or 1 in 8.4. We see, then, that heart disease is returned to the Registrar-General as a much commoner cause of death in Ireland than in England; that in Ulster it is slightly greater than the average of all Ireland.

TABLE I.—SHOWING NUMBER OF DEATHS DURING 1908 IN ENGLAND AND WALES.

*Causes of Death: England.*

| | Males. | Females. | Total. |
|---|---|---|---|
| All causes ... ... ... ... | 268,714 | 251,742 | 520,456 |
| Heart diseases ... ... ... | 23,918 | 25,973 | 49,891 |
| Blood vessels ... ... ... | 15,114 | 16,222 | 31,336 |
| Rheumatic fever... ... ... | 871 | 934 | 1,805 |
| Rheumatism of heart ... ... | 156 | 207 | 363 |
| Tuberculosis (all forms) ... | 34,182 | 21,898 | 56,080 |

TABLE II.—SHOWING NUMBER OF DEATHS DURING 1908 IN IRELAND.

*Causes of Death: Ireland.*

| | Males. | Females. | Total. |
|---|---|---|---|
| All causes ... ... ... ... | 38,219 | 38,672 | 76,891 |
| Heart disease ... ... ... | 4,401 | 4,619 | 9,020 |
| Blood vessels ... ... ... | 1,508 | 1,743 | 3,246 |
| Rheumatic fever ... ... | 91 | 70 | 161 |
| Rheumatism of heart ... ... | 21 | 37 | 58 |
| Tuberculosis (all forms) ... | 5,568 | 5,725 | 11,293 |

You see in Table II the number of deaths due to tuberculosis in all its forms, 1 in 9.2 deaths, and have thus a means of realizing the comparative mortality of two of the great causes of death.

Let us next examine the subdivisions given by the Registrar-General under the heading "Heart disease." We can understand the first six headings, but a moment's consideration will show us that the last heading must embrace a large number of undetermined causes; this is due partly to the laxity of present-day registration, and partly to inevitable inability to ascertain the exact cause. It probably embraces apoplexy, aneurysm; perhaps ruptured stomach or intestine; perhaps violence and poisoning. It is a huge collection of causes which it is impossible to analyse. For the present we must simply accept the heading, "Syncope, heart disease," but should keep in mind that in a large proportion the cause of death is probably due to some other affection than heart disease.

TABLE III.

*Heart Disease: England and Wales, 1908.*

| | Males. | Females. | Total |
|---|---|---|---|
| Valvular ... ... ... ... | 7,611 | 8,752 | 16,363 |
| Pericarditis ... ... ... | 237 | 195 | 432 |
| Hypertrophy ... ... ... | 181 | 85 | 266 |
| Angina pectoris ... ... ... | 617 | 312 | 929 |
| Dilatation ... ... ... ... | 1,670 | 1,685 | 3,355 |
| Fatty degeneration ... ... | 1,133 | 1,417 | 2,550 |
| Syncope, heart disease (not specified) | 12,469 | 13,527 | 25,996 |

TABLE IV.

*Heart Disease: Ireland, 1908.*

| | Males. | Females. | Total. |
|---|---|---|---|
| Valvular ... ... ... ... | 1,083 | 1,195 | 2,278 |
| Pericarditis ... ... ... | 13 | 15 | 28 |
| Hypertrophy ... ... ... | 18 | 4 | 22 |
| Angina pectoris ... ... ... | 59 | 23 | 82 |
| Dilatation ... ... ... | 126 | 124 | 250 |
| Fatty degeneration ... ... | 161 | 125 | 286 |
| Syncope, heart disease (not specified) | 2,941 | 3,133 | 6,074 |

Comparing Tables I and III and II and IV, in England and Wales you notice that the proportion of deaths from rheumatic fever and rheumatism of heart to deaths from all forms of heart disease is 1 to 23; in Ireland it is 1 to 41; Ulster is intermediate, 1 to 36. On the other hand, the proportion of valvular disease to syncope in England and Wales is 1 to 1.5; in Ireland it is 1 to 2.6. The Registrar-General in England draws attention to the fact that deaths registered as due to "valvular disease" are slowly rising in England but those due to "syncope" are falling. His interpretation is that diagnosis and registration is becoming more accurate, and so the vague general term is being less used. If this be correct, our diagnostic capabilities in Ireland or our care in registration

is below that of our English brethren. On p. cxvii of the English Report for 1908 we find it stated:

> The fact that the mortality from valvular affections and also from angina pectoris, dilatation, and fatty degeneration of the heart is apparently increasing from year to year must be considered in relation to the associated fact that the death-rate from indefinite forms of heart disease is decreasing.

In both England and Wales and in Ireland the deaths from rheumatic fever, acute rheumatism, and rheumatism of the heart vary but little. In England and Wales the crude annual death-rate from this affection per 100,000 persons living—because these three are but different terms for the same disease—from 1902 to 1908 inclusive, ran as follows: 8.4, 7.1, 7.0, 7.2, 7.4, 7.0, 6.1; this is decidedly lower than the decennium from 1891 to 1901; but any consequent fall in the ensuing valvular disease would not show itself for some years. I have to thank the Irish Register Office for the corresponding figures for the same years; they run as follows: 4.9, 4.8, 4.0, 4.5, 4.2, 4.9, 5.0 per 100,000 persons living. This proves that England is more subject to a fatal form of rheumatic fever than Ireland; so that we may claim perhaps that, if our diagnostic powers in heart disease are not so able as those of our English brethren, our skill in treatment of rheumatic fever is greater. However, it is a subject that undoubtedly requires further investigation and consideration, whether there be a fallacy or whether there be a real difference, and if so, what is the cause.

Leaving these heavy statistics, let us examine some local figures. I made a careful search through the cases labelled "Heart disease" in the Royal Victoria Hospital. During the year 1906 there were 95 cases; in 1907, 134 cases; and in 1908, 100 cases, or a total of 329. I divided them into three classes: (1) Those with a definite history of "rheumatism," 138; (2) those denying any history of "rheumatism," 107; and (3) those with an uncertain history, or where the notes were so incomplete as to be valueless for my purpose, 84. Before going further, it would be well to define clearly the meaning in which I use the term "rheumatism." As yet I cannot see that, clinically, we can go more fully or exactly in the case than to form three divisions to which the term "rheumatic" is popularly applied: (1) Acute rheumatism, or rheumatic fever; (2) fibrositis, popularly called muscular rheumatism, but which also embraces sciatica, lumbago, wry-neck, etc.; and (3) osteo-arthritis, or rheumatoid arthritis. In all, I have confined my attention to (1), or rheumatic fever; and where (2) muscular rheumatism, or (3) rheumatoid arthritis were evidently, or even most probably, intended, I have discarded the case. It is more than possible that as our clinical bacteriology advances we may have to modify this classification; but it forms a working clinical hypothesis. Such anomalies as "gonorrhoeal rheumatism" are taken as discarded by the profession.

This leaves us for examination 245 cases with fairly satisfactory notes; and we see that those with a definite rheumatic fever history are 56 per cent. of the total, and those without are 43 per cent.; so that of the 16,363 deaths in 1908 in England and Wales due to valvular disease (endocarditis, not infective), at least some 9,000 were due originally to rheumatic fever. No doubt some of these, if they had not been affected and cut off early from endocarditis and valvular disease due to rheumatic fever, would have become subject to valvular disease and endocarditis from other causes; still it is legitimate to put the statement in round numbers, and say that, instead of the deaths from rheumatic fever being some 2,168 in 1908, 12,000 would be nearer the actual fact. Indeed, as deaths from rheumatic fever seem more frequent in England, we might even increase this estimate. In Ireland the corresponding figures would be that, instead of 219 due to rheumatic fever, 1,500 would be nearer the truth.

If we investigate the age on admission we find that of those with a rheumatic history the maximum was between 20 and 29, and 75 per cent. were between 10 and 39. Of the non-rheumatic history admissions the maximum number lay between 40 and 49, and 60 per cent. were between 30 and 59 years. When we consider that a great number of people have had rheumatic fever in childhood of which they absolutely remember nothing, and so deny having had it, we clearly see that there are two chief divisions which embrace probably 90 per cent. of the whole—namely, endocarditis and valvular disease, due to previous rheumatic fever occurring earlier in life, and, secondly, those with a degenerative valvular disease occurring twenty to thirty years later. Of this second or degenerative form it is impossible to form accurate or even approximately reliable statistics as to cause. That due to pure old age is seldom admitted to our hospital; alcoholism is admitted in a large proportion of cases; indeed, if we took our notes literally it would be the only one practically present; but excessive physical strain, especially under the influence of mild doses of alcohol, or after its effect, is probably even more common. When combined with syphilis the picture is complete. The discharged soldier with his five years in India, his syphilis, his alcoholic habits, his gallant attempt to undertake the heavy work of a shipwright, his thickened pulse, atheromatous aorta, and failing heart, is a familiar picture; he is a "done man," to use his own expressive phrase, at 45.

Let us now attempt an estimate of the chance either of prevention or of abortion of the various kinds of heart disease; we shall adopt a clinico-bacteriological or pathological basis for our divisions.

1. *The Infective Endocarditis Group, not Rheumatic.*—This is at present a small group, but as our bacteriological knowledge becomes more exact and complete it will grow. Several microbes have been found, and it is more than probable that several vague cases of illness, sometimes ending fatally, occasionally recovering, with an impaired heart, will be found to be due to a microbic infection. But we can simply hope that in future the path of entrance may be discovered, and so the invasion may be stopped, or that a vaccine may cure. The bacteriological examination of 10 c.cm. of blood from a vein is daily yielding fresh knowledge, and occasionally the evidence points to the curative effect of a vaccine prepared from the special strain. The peculiar inroads of the *Bacillus coli* into the urinary system, accompanied by fever, etc., is probably sequent to a general systemic infection, and a full investigation of all analogous attacks will do much to teach us something of infections where the endocardium is attacked. As our surgeons formerly appealed to an early resort to surgical aid in cases of strangulated hernia and perforated gastric ulcer, against the delay which often ended in the patient becoming moribund, so I would strongly now urge an early recourse to the clinical bacteriologist when the vital powers are still capable of reaction.

2. *The Rheumatic Fever Group.*—This is a large—the largest—division. We know much of the natural history of this fever, but it has not enabled us to stop its ravages. The bacteriology is still in dispute, and its study remains barren. Notification of its presence and immediate investigation of the surroundings would help; and some such measure seems necessary, if we are to ascertain its frequency. In a disease that is in itself seldom fatal, but so often leaves fatal effects behind, we want the earliest intimation, not the results of a necropsy, or the ascertainment of the presence of heart disease ten years afterwards. Therefore, although we are on the tiptoe of expectation for some beneficent discovery fresh from the forge of the bacteriological laboratory, we cannot postulate any preventive measure which will either in the near or distant future rid us of this affliction. It was hoped that the salicylate treatment would lessen cardiac complication—no proof of this exists; we simply can neither affirm nor deny that there is a diminution; the evidence to come to a conclusion does not exist. It is common experience to find, however, that a case benefits considerably at first by the salicylate, and then hangs fire, with mild exacerbations even under heavy dosage occurring alternately with periods of improvement. This condition reminds one closely of the recorded effect of the arsenic preparations on the trypanosomes, where the parasite develops an immunity to the remedy. The salicylates seem to lose their power, or the problematical microbe perhaps develops an immunity. Accordingly I would suggest the experiment of large and heavy dosage in the very early days of the disease. Such few cases as I have had any approach of an opportunity to try this method in have answered well, although I can neither claim I have aborted the disease or prevented heart complications; but the cases have not been seen early enough, and the circumstances were not such as to permit of a satisfactory trial. The conclusion, then, as regards

heart disease arising from rheumatic fever to which we are bound to come is not on the same hopeful lines as is tuberculosis. In this latter affection we know the problem, our information is exact, we understand what is to be done, and we can say with confidence that if the nation were to adopt the necessary measures tuberculosis would disappear; but the task is so stupendous that only by slow degrees can any improvement come; a complete radical attempt would induce a revolution. In rheumatic fever our knowledge is inexact, incomplete, perhaps even misleading. The individual may receive the advice to avoid chills, wettings, exposure, overexertion. Such advice to the nation means a higher civilization. Pure clinical study has had its innings. We must await with reverence the work of the laboratory clinician and vivisectionist.

3. The third group I shall mention is a somewhat vague but still a very real one. It includes that form of heart trouble due not infrequently to exertion undertaken while out of training, or immediately after a full meal under the popular idea that it was "working it down"; or while recovering from some of the minor infections, such as influenza, common cold, where the heart muscle was still suffering from the toxin; or in chlorosis, as a chlorotic girl's first day on the links in spring. Sometimes permanent dilatation and incompetency is left, even leading years afterwards to sudden death. In this type we cannot hope for much prevention—so much depends on the intelligence and education of the patients themselves—but its increased recognition, both by the community and by the profession, would undoubtedly lessen its incidence.

4. We now come to the great group of the degenerations. It would be useless to speak separately of angina pectoris, of fatty degeneration, of arterio-sclerosis, of atheroma, of valvular thickenings and degenerations. Our knowledge of the broad natural history of these affections is extensive, but it has not told us yet why better rubber is put in one person's arteries than in another's, and why the webbing of the aortic valves in one person is less easily and less early irritated and degenerated than in another. We can, however, mention some causes that undoubtedly induce early degeneration, and affirm that a legitimate hope exists that these causes are being, and can be still further, lessened.

(1) Alcoholism. Heart trouble arises both from excessive consumption of beer—Munich heart, Tübingen heart, draymen's heart—and also from the toxic effect of the alcohol alone, as in whisky drinkers. Now the nation's bill for alcohol has fallen steadily from £185,927,227 in 1899 to £161,060,482 in 1908. Again, Horsley and Sturge's diagrams of the relative consumption of alcohol and of milk in seven of the large London hospitals point to a very decided diminution in the use of alcohol as a medicament; and lastly, a chart giving the amount of alcohol per 100 patients in the old General Hospital, Belfast, from 1851 to 1858, with the mortality of the medical patients, and the same curves for fifty years later (1901 to 1908), demonstrating a greatly reduced alcoholic bill and a lower mortality.

But it is not so much the question of pure alcoholism as of alcoholism combined with physical strain, such as we see typified in soldier and shipwright. Nothing seems to bring degeneration to heart and blood vessel so early and so hopelessly as excessive physical exertion, while the system is still poisoned with alcohol and the arterioles are still dilated, allowing a runaway heart to expend itself against an unprotected capillary. Hope here lies in a higher civilization and better education, when the citizen will be taught the rules of the game of life. Under this heading we may well include overeating, and the undue nervous strain of the day so fertile in worn-out hearts.

(2) The next cause is syphilis, but its injurious effects are chiefly felt in the vessel, not in the heart. However, such effect as it has we have legitimate hope of lessening—first, by the adoption of preventive measures, such as we see succeed in the navy; secondly, by the power of aborting the disease by Ehrlich's new remedy; and, thirdly, by the slower development of a higher civilization.

Prevention of heart disease thus embraces (1) more accurate registration of deaths, so that the huge group labelled "syncope" may be analysed; (2) the labours of the clinical bacteriologist to teach us what is rheumatic fever and how we may prevent it; and (3) lastly, a spread of real knowledge and education, so that men may learn not to treat their heart and blood vessels as a careless and reckless schoolboy treats his bicycle, but as a skilled engineer treats a strong yet delicately balanced piece of complicated mechanism that reacts quickly, silently, mysteriously to every touch of the skilled hand.

# THE TREATMENT OF RODENT ULCER.

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THE treatment of rodent ulcer has undergone very marked changes in the past decade, and it is probable that comparatively few cases are now treated surgically as compared with even as short a period as ten years ago. As a consequence of the newer physical methods of dealing with this disease, which are much less terrifying to the average lay mind than a surgical operation, the treatment is usually now commenced at an earlier stage, and one seldom sees the ghastly mutilations which were not infrequent when surgery was the only effective means, and when, therefore, patients often preferred to let the disease take its course. This was not surprising, inasmuch as rodent ulcer most commonly appears on prominent parts of the face, where the scarring from operation, which was necessarily widely beyond the limits of obvious disease, caused great and often hideous deformity.

## I. TREATMENT BY CARBON DIOXIDE SNOW.

I have had an opportunity of testing the application of carbon dioxide snow, and of ionization, in a series of cases of rodent ulcer, both in hospital and private practice, and am much pleased with the results. With the exception of a short preliminary note on this treatment by freezing of three cases of rodent ulcer by Morton,[1] I have not seen any record of the use of this method for rodent ulcer, and my personal experience, which dates from July 14th, when I treated my first case, recorded below, may be encouraging to others.

### *Preparation of Carbon Dioxide Snow.*

So many methods have been described that I should perhaps apologize for including details of the procedure I adopt. As, however, I have found that medical practitioners still meet with difficulties in its preparation and use, I may be pardoned for making the following preliminary remarks.

Carbon dioxide gas can be obtained readily enough from various manufacturers, its use being widespread for producing soda water. Large or small cylinders can be obtained. To the vent of the cylinder I have had fitted a small brass nozzle, about 2 in. long, which makes an adaptable support for whatever device is used to collect the snow. The quickest, most economical and satisfactory method I have found to be the blotting paper mould introduced by Tousey.[2] A rather thick blotting paper or filter paper is used; a piece about 6 in. square is taken, and rolled round a thick pencil or rod of the same calibre as the free end of the brass nozzle. One end of the roll of paper so formed is folded so as to produce complete obstruction, and the roll is then bandaged closely over, leaving two free ends of bandage, with which the roll is eventually attached to the neck of the cylinder. The bandaged roll is then slid on to the nozzle and tied tightly over it and round the cylinder; the stopcock is slowly turned on, until the nozzle is quite cold and covered with frost, when, with a few more sharp turns, the gas is released under greater pressure, and the roll can be felt to harden under the finger. The cylinder should always be supported with the neck lower than the base while the snow is being collected. When the desired quantity has been obtained the stopcock is turned off, and the roll, filled with hard snow, is removed and the bandages and blotting paper peeled off, exposing a stick about the size and thickness of the little finger. For many purposes this is sufficiently compressed, but for rodent ulcers, where

much pressure should be exercised, it will require greater density. To effect this the stick is introduced bodily into a hardwood mould with a well fitting wooden plunger.* The stick is then broken up inside the mould by a series of sharp taps with the plunger, and then rammed down by striking the plunger with a wooden mallet. A stick about an inch long and hard enough to trim and cut to any desired smaller size or shape is thus usually obtained. In order to handle this without risk to the operator several folds of cotton-wool should intervene between the stick and the hand; the free end, uncovered by wool, is applied directly to the part to be treated.

I have, I believe, found it useful to prepare the surface by making the patient wear over the part for three or four days prior to the freezing a salicylic acid plaster (25 per cent.). If there is much scabbing, it is best to remove the scab (which the plaster effects), and to have a clean area to treat. Bleeding may be checked by swabbing the surface with adrenalin, but the freezing will usually have this effect by itself.

The pressure to be used and the duration of the application will depend on the thickness of the skin and the depth of ulceration. My average time has been twenty to twenty-five seconds, and the pressure as firm as the patient can stand. Where the ulcer is situated directly over bone, the pressure can be very firm, and the time may be shortened; in positions where there is less resistance to the touch the time will require to be longer.

No pain worth troubling about is felt during the application; the pressure exerted, indeed, seems to be the part of the procedure most disliked by the patient. In a few minutes, however, after thawing, the smarting commences, and may persist for a couple of hours; its duration and degree may, perhaps, be shortened by the application of warm compresses immediately after the freezing.

When the operation has been properly performed, the ulcerated or infiltrated area is entirely swallowed up in the depressed cup in the skin produced by freezing, which should extend beyond the actual seat of disease by about one-eighth of an inch. Occasionally, when the ulcer is on a part of the integument with much subcutaneous cellular tissue, there will be considerable oedema and disfigurement, since the eye and nose are usually near neighbours of the lesions. Patients should be warned of this, and that it is quite unimportant. The treatment of the part after freezing consists in applying either lotions or ointments; the former if there is much oedema, the latter if there is not. Saturated boracic fomentations or boracic ointment may thus be used. One application of freezing for twenty seconds may be sufficient, but much more commonly two or three or more will be required, and these are best given at intervals of about a week. The indication for ceasing treatment is found in the disappearance of the hard cartilage-like tissue characteristic of rodent, and the closure of the ulceration. The scar is surprisingly inconspicuous and like natural skin. I have repeatedly invited a large class of students to identify the site of an ulcer thus treated, three months after treatment, and they have rarely succeeded in doing so.

### II. Treatment by Ionization.

Freezing is so convenient of application, so painless, and so rapid that it has, to a great extent, replaced with me the procedure by ionization. This, however, may, at times, be the more convenient method for the practitioner, who will almost certainly have an active galvanic battery at hand and may not be so likely to have a cylinder of gas. It is also an alternative which may actually be preferred, as it certainly produces less immediate disfigurement and, I believe, is equally efficacious, with an equally happy cosmetic result. This, at any rate, was the verdict on two cases which I showed to the Harveian Society, one treated with carbon dioxide and one with ionization (recorded below).

The method may be described briefly as follows:

A galvanic battery of 20 to 30 cells will be needed, capable of producing 5 to 10 milliampères of current with the patient in the circuit. Electrodes of *pure* zinc, graduated in size to the lesion to be treated, are attached to the *positive* pole of the battery, and the metallic surface covered with four to six folds of gauze, saturated with a solution of zinc sulphate (2 per cent.) in distilled water The patient will hold the negative electrode, which is most conveniently cylindrical. This must also be coated with clean gauze soaked in warm saline solution. The current is turned on cell by cell until the galvanometer reads about 5 to 7 milliampères, and kept at this strength for from twenty to thirty minutes (according to the thickness of the skin), and then turned off cell by cell. The application is sometimes somewhat painful, but if the precaution of *gradual* addition and removal of current is observed, the pain is much diminished and quite bearable. The immediate effect is a slight whitening and depression of the part treated, which soon passes off; a scab will probably form on the part some hours after and remain for a couple of days or more; treatment can be undertaken again, when necessary—usually within seven days.

*Cases Treated by Ionization.*

1. Edward D., aged 42, sent to me by my colleague Mr. Pepper, who regarded the condition as "early rodent." The patient had had a flat, slightly pigmented, warty growth under the left eye for twenty years; latterly it had begun to grow larger, and was beginning to be felt uncomfortably. When seen he had a flat, pigmented warty growth, about ¾ in. by 1 in., with no symptoms of ulceration, but the history of increase in size and thickness suggested possible malignant changes, and it had been proposed to excise the affected area. I suggested trying him first with ionization, and this course was agreed upon. I caused the patient to wear a salicylic acid plaster (25 per cent.) for a week, and then gave him two treatments of zinc ionization of twenty minutes at a time, and separated by a week. He came to see me a month later, and the growth had entirely disappeared, leaving a scarcely visible slight atrophy, no actual scarring. It is more than two years since the treatment. I have seen the patient again recently, and he has had no recurrence, and the site of the growth is unrecognizable except with a lens.

2. Charles E., aged 63, was sent to me by Dr. Lovell for treatment of a small rodent ulcer near the inner canthus of the left eye, about ½ in. in diameter, ulcerated and excavated. He had had this condition for several months; the earliest date of advent was not definitely known. He received two treatments of ionization in June, 1909, the first for eighteen minutes with 4 milliampères, the second of twenty minutes with the same current. This resulted in apparently complete healing, and I did not see the patient again until a month ago, when he was again sent to me by Dr. Lovell; he appeared to have a slightly hypertrophic scar in the middle of the old ulceration (which was quite healed) and a doubtful recurrence of hard rodent tissue at the edges of the patch treated. My experience with carbon dioxide in hypertrophic scarring has been so good that I decided to treat the whole area, including the new dubious growth, with this agent. The result of this single application has been very satisfactory. The patient writes (November 29th): "The place is quite healed, and there is much less ridge (that is, hypertrophic scarring) than before the last treatment."

3. Thomas M., aged 40, came to me with a small rodent ulcer on the vertical line between the inner canthus of the eye and the ala nasi on the left side. The ulcer, when first seen on February 3rd, 1910, had lasted for twelve months, and was the size of a threepenny piece. It was definitely ulcerated. He received two treatments with zinc ions, lasting for twenty minutes each, with about 5 milliampères. On March 21st there was no more rodent tissue perceptible, and there was complete healing with the formation of a perfect scar by April 18th. He was seen again, and was shown to the Harveian Society on October 13th. There had been no recurrence, and the scar was excellent.

4. John F., aged 43, was sent to my department at St. Mary's Hospital for the first time in March, 1904, with a rodent ulcer ¼ in. by ½ in. at the lower end of the naso-labial sulcus on the left side. This had persisted for some two years before his coming to the hospital. He was treated with *x* rays by the radiographer to the hospital, and after about sixteen exposures the growth had almost disappeared. There were recurrences, however, from time to time, and the *x* rays, although given in full doses and very frequently (he had about seventy-five exposures), failed to effect a permanent cure. I then decided to try him with zinc ionization, and commenced this treatment in October, 1908. He had about eight treatments in all, averaging twenty five to thirty minutes in duration, and these have resulted in an apparently complete cure. He was seen on December 5th, 1910 and the scar was perfectly continuous, with no ulceration and no rodent tissue perceptible to touch or sight. The extraordinary vitality of the malignant tissue in this case, and the comparative failure of *x* rays after a prolonged treatment are worthy of note.

5. James M., aged 48, sent to me by Dr. Liston of Tewkesbury on November 2nd, 1908. He had had a typical rodent ulcer on the side of the nose for the previous five years, which had resisted all local treatment. He was obliged to return to Tewkesbury immediately, and I gave him accordingly a single treatment, with zinc ions, of twenty-five minutes, and sent him back the same day. I heard from the patient a month later that the ulcer had completely healed, a report confirmed by Dr. Liston. I have heard again from this patient, in response to an inquiry; he says (December 1st, 1910): "My face is quite well;

* Messrs. Maw and Thompson supply these in several convenient sizes.

in fact, you could see no sign of the ulcer three months after you treated it."

6. Mrs. H., aged 60, was sent to me by Dr. d'Esterre on March 7th, 1910, with a large rodent ulcer, and possibly an aggregation of several smaller rodent ulcers, on the left cheek, near the ear. She was given four treatments by zinc ionization (20 to 30 minutes), but at too remote intervals to obtain any cumulative effect. She was seen again, after a long absence, on December 5th, when some rodent tissue was still perceptible in the site treated, and this whole area was frozen anew with $CO_2$ snow for twenty-five seconds. The ionization had effected an improvement considerable enough to induce the patient to cease her visits, but had not completed the removal of malignant tissue as perceptible by clinical observation.

7. Margaret L., aged now 71, was first seen by me in 1903. She had at that time a rodent ulcer, about $\frac{3}{4}$ in. $\times$ $1\frac{1}{2}$ in. long, over the left eyebrow, which had been present for five years previously, and had developed on the site of a pigmented naevus. She was ordered *x*-ray treatment, which was given by the radiographer to St. Mary's Hospital. The ulcer proved singularly resistant to this treatment, and she attended off and on for five years, never getting really well, and having frequent severe conjunctivitis from the exposures to *x* rays. She had had, probably, at least 100 treatments, and had ceased pursuing these, when, in May, 1909, I decided to try zinc ionization. She had four treatments of this, but suffered so much pain (she is a highly nervous woman) that she could not be prevailed upon to continue. Excision was accordingly recommended, and was performed in August, 1909, by Mr. Clayton Greene, an excision wide of the lesion being practised. She has returned to-day (December 1st) with a recurrence of rodent tissue in the terminal line of the scar of this excision. Mr. Clayton Greene, who has seen the patient, corroborates the fact of recurrence. This case is instructive, as showing the obstinacy of some rodent ulcers to every form of treatment, and also incidentally as showing that operation is not always preventive of recurrence any more than other measures. I have begun to treat the recurrent ulcer with carbon dioxide freezing (December 5th).

*Cases Treated by Freezing with Carbon Dioxide Snow.*

1. Mrs. T., aged 50, sent to me by Dr. Stanley Blaker of Ealing; she had had a small ulcer for two years on the right side of the nose, just above the ala nasi. This bled frequently and had a permanent and rather deep excavated centre with a typical hard edge; the whole about $\frac{3}{16}$ in. in diameter. It apparently began with a small scratch. She had two treatments of freezing for twenty seconds at intervals of one week, with a preliminary three days' wear of salicylic acid plaster, 25 per cent. The last treatment was in June; she was seen on November 20th, when the ulcer was perfectly healed and showed no sign of recurrence.

2. Miss M., aged 64, sent to me by my colleague, Dr. W. H. Willcox, with a small circinate rodent $\frac{1}{4}$ in. in diameter on the centre of the nose at the junction of bone and cartilage; the ulcer was hard and much excavated and had persisted for five years. She had another more recent and less indurated rodent nodule on the temple. Three applications of carbon dioxide snow of twenty seconds were made to each of the lesions, and the case when seen last (October 7th) showed a nearly healed surface over both ulcers, with no rodent tissue perceptible in either. She writes (November 29th): "Both places have quite healed and are completely cured."

3. Eliza B., aged 44, was sent to me on July 14th with a rodent ulcer the size of a threepenny piece at the outer canthus of the right eye. She had had the ulcer for five to six years; it was excavated by ulceration in the usual way. She had three treatments of 20 to 25 seconds each time with carbon dioxide snow. The result was apparently perfect cure, the scar being somewhat pigmented at first, but quite devoid of any thickening or infiltration; and it has remained so up to date. She was shown at the Harveian Society on October 13th.

4. Annie H., aged 40, came to St. Mary's Hospital on July 21st, 1910, having been sent on to me by Mr. Maynard Smith. She had a rodent ulcer on the left cheek, just under the eye. The ulcer was rather elongated than round, and the margin was unusually elevated and hard. It had persisted for twelve years, and had been thought to be tuberculous, and, accordingly, the opsonic index to tubercle had been investigated, and found to be 1.17. A somewhat uncertain history of a congenital pigmented patch having preceded the development of the ulcer was given by the patient. She was subjected to three applications of carbon dioxide snow on July 28th, August 11th, and September 15th (the later interval representing the long vacation), and on October 3rd the lesion was reported to be quite well; she was seen again on December 5th, and still showed no signs of disease or recurrence in the scar, which was so perfect as to be barely recognizable as scar tissue.

5. Helen V., aged 30, was sent to me at St. Mary's Hospital on September 29th with a small, very vascular nodule on the upper lip just below the septum nasi. This had been present for some months, but had begun to bleed on friction; it was thought to be probably an early rodent nodule, and as the patient was inconvenienced by it she desired its extirpation. The nodule was raised about $\frac{1}{16}$ in. from the surface, and was of about the same diameter. Application of carbon dioxide snow was made for 30 seconds (as the growth was so firm and solid) on the following dates—September 29th, October 6th, 13th, 20th, 27th; it was then left for four weeks, and a final application made on November 24th, by which time the growth had entirely disappeared, and the surface of the site it had occupied was quite flush with the rest of the skin.

6. Francis A., aged 68, was sent to me at St. Mary's Hospital on July 14th with a rodent ulcer of about a quarter of an inch in diameter, situated quite near the right ala nasi in the naso-labial sulcus. He had had this ulceration for two years. He received four treatments of carbon dioxide freezing for periods of twenty-five seconds, the last application having been about September 12th. He was seen again two months later, when the scar was quite invisible except upon stretching the skin very forcibly over the site treated, when a faint whiteness as compared with the rest of the skin could be detected in the position of the previous lesion.

7. Annie F., aged 60, was sent to me from the eye department of St. Mary's Hospital on October 24th, when she showed a rodent ulcer about a quarter by half an inch in size, elongated in the transverse diameter, and with a curiously hard ridge, situated on the outer side of the lower left eyelid. This had been noted for three years. She had three applications of carbon dioxide snow for twenty to twenty-five seconds at a time—on October 24th, November 3rd, November 17th. At the later date the rodent tissue seemed no longer present, and the ulcer at the present time (December 1st) has completely healed.

8. Richard S., aged 54, has a small rodent ulcer, about $\frac{1}{4}$ in. by $\frac{1}{8}$ in. just above the free edge of the right ala nasi. He had noticed this for about two years. This man had a single treatment of freezing by carbon dioxide at the end of September, 1910, which in his opinion had cured him; he took French leave and remained away until summoned by me to the hospital on December 5th, when I detected the presence of rodent tissue in the site of the lesion treated, though this had greatly diminished in size.

9. Henry P., aged 60, came to St. Mary's Hospital with a small early rodent ulcer on the bridge of the nose. The ulcer had developed on the site of a small lesion of the type of "sebaceous epithelioma" of Besnier. He had two treatments of carbon dioxide snow, applied for twenty seconds at a time. The last treatment was on October 20th, 1910; he was seen on December 5th, when he had a perfectly healthy and scarcely visible scar on the site treated.

10. Richard H., aged 60, had noted a "chronic ulcer," $\frac{1}{2}$ in. long, on the right side of the nose, stretching from the inner canthus of the orbit to the bridge of the nose, for three years before his admission to the skin department at St. Mary's Hospital. He was given two treatments of twenty seconds each, the last one being in September, 1910. The ulcer "completely healed," as he thought, so that he did not return for treatment. He came to see me in response to a request to do so to-day (December 5th), and although the site of the original ulcer is almost entirely healed over, there is in the centre of the treated patch a doubtful area where rodent tissue may be present, and the man is accordingly to be treated further. It is to be noted that he desisted from coming without my sanction, and that I was not satisfied of his cure when I had performed the second application.

11. William P., aged 72, was sent to me by Dr. John Harris on September 5th with a large epitheliomatous ulcer on the mucous membrane of the lower lip, with a foul surface and fungating growth. No enlarged glands could be felt in the neck. The ulcer had commenced to give trouble three or four months previously, and had begun in the site of a fissure. The patient was an old and feeble man, and those facts, together with the absence of enlarged glands, seemed to me to justify trying the effect of carbon dioxide snow in place of operation. My colleague, Mr. Clayton Greene, whom I asked to see the case, was strongly in favour of operating upon the lip, but eventually it was agreed that the effect of freezing should be tried. He was admitted to St. Mary's Hospital, and various parts of the ulcer, which covered an area of about $\frac{3}{4} \times 1$ in., were exposed to freezing at intervals of about five days, each area having about three treatments. Mr. Clayton Greene saw the case again on November 3rd, when he wrote: "I must confess to a feeling of great surprise at seeing P. You are quite right. The epithelioma is much better. I can't feel any glands, and against my former opinion I am inclined to temporize." The lesion was by this time reduced to half its size; it was no longer ulcerating, but had receded to a nodular swelling quite inoffensive and dry. The man was now quite set against having it removed surgically. He had not remained in the hospital, and had attended irregularly, so that the freezing treatment had not had as good a trial as it should have done, but it nevertheless promised astonishingly well.

I commenced this paper with the remark that one did not now see such extensive ravages in this disease as one did ten or fifteen years ago. I was under the impression that the disease was becoming also more rare, but on comparing Dr. Radcliffe Crocker's statistics with my own, I cannot confirm this impression. In 10,000 cases of skin disease in hospital patients, Crocker recorded 14 rodent ulcers (1.4 per 1,000). In examining my records at St. Mary's Hospital (April, 1903, to August, 1910), I find that out of 12,500 cases of general diseases of the skin I had 27 cases of rodent ulcer (2.3 per 1,000); Crocker's statistics must have been compiled before 1893, as they appear in this form in the second edition of his textbook published in that year. So that they represent a period earlier by at least ten years than my own (1903–1910).

It may be objected that my repetition of applications of freezing are unnecessary, and that a longer and single exposure would be preferable. With this view I do not agree; it must never be forgotten that different persons have different degrees of cutaneous vulnerability, and that longer exposures, as advised by Morton, may in exceptional cases cause a really severe ulceration, producing scarring more disfiguring than the lesion treated. Since the disease is almost restricted to the face, the effects of disfigurement are most important to avoid, and it is better in my opinion to do shorter treatments repeated as often as may be required. It will be seen that in the greater number of my cases three was the maximum number needed. In no case have I had a reaction that was resented by the patient, and I have not met with the very unsightly and alarming oedema of the soft tissue of the face which I have sometimes produced with longer exposures practised for other diseases—for example, lupus vulgaris and lupus erythematosus. With so chronic a disease as rodent ulcer, whether the duration of the treatment extends over one week or one month, is of little import.

The propriety of treating any malignant tumours without radical operations of removal may very reasonably be questioned, especially by surgeons, some of whom are not inclined to view the radium propaganda with approbation. In the case of rodent ulcers the malignancy is so slight, and the absence of glandular involvement so constant, the disfigurement produced by radical removal so great, and in the special circumstances of its usual sites so resented by patients, that the decision in practical experience goes against the operating surgeon in the majority of instances, and it becomes a choice as to what other means can be adopted. The choice at present lies between (1) *x* rays; (2) radium; (3) actual cautery; (4) ionization; (5) freezing.

My experience with the *x* ray method has been that it is more uncertain in its effects than the two methods I have advocated above, much more tedious, more exposed to risk of untoward happenings, such as severe conjunctivitis, for the ulcer commonly is in such positions that the conjunctiva cannot help being included in the exposure, and such as disfiguring telangiectases on the parts treated.

I am aware that other observers, with far wider experience of *x*-ray treatment than I possess, still prefer this treatment to all others. Sequeira,[3] who has had an exceptional opportunity of testing this therapeutic agency, reported 181 cases of rodent ulcer so treated; of these, 75 had remained cured for at least three years; 26 for at least two years; 38 had relapses, of which 31 were ultimately healed; and in 42 healing was not obtained by this means. Sequeira remarks that there is "a class of apparently slight cases which prove very resistant to *x* rays," and it is just in these cases that I should advise the substitution of the methods of ionization and freezing.

With radium the same uncertainty exists as to what the extent of the effect may be, and treatment is tedious and expensive, and often not within the reach of practitioners out of the large towns.

I have had small personal experience of the actual cautery, a treatment much practised in Paris at present, but I have seen two excellent results. It is rapid and convenient, but produces much more scarring than either of the two processes I have described in detail.

Between ionization and freezing, which are equally convenient and widely practicable, my own preference has turned to the latter, but I am not convinced that ionization is not equally efficient in producing a permanent cure.

REFERENCES.
[1] *Lancet*, July 9th, 1910. [2] *Journ. Amer. Med. Assoc.*, May 7th, 1910. [3] *Transactions, Second Congress of International Surgical Society*, Brussels, 1908.

WE are informed that some of the films of microorganisms referred to in the paragraph headed "Cinematographic Microscopy," published in the JOURNAL of December 31st, 1910, p. 2037, will be shown at a meeting of the Camera Club on January 19th at 8.30 p.m. The accommodation is limited, but any members of the Association who desire to be present will receive invitations if they will promptly send their names to Mr. Henry W. Fairholme, honorary secretary of the Camera Club, 17, John Street, Adelphi, W.C.

# EXCISION OF A CANCEROUS SEGMENT OF THE OESOPHAGUS: RESTORATION OF THE OESOPHAGUS BY MEANS OF SKIN FLAP.

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To the general surgeon no class of case appears to be as utterly hopeless as cancer of the oesophagus. When the portion of the oesophagus within the thorax is involved the possibility of resecting a section of it by any operation however severe, and of eliminating the disease, appears to be very remote. In such cases I think that the wisest course to pursue is to make a fistulous opening into the stomach, through which the patient can be fed easily and without discomfort. The operation is a very simple one, and it is accompanied with only a slight amount of pain—an important feature to a patient who is often more than half starved and whose pluck is consequently destroyed. After this operative procedure has been effected satisfactorily the growth can be treated by means of radium or its emanations. A tube containing this substance can be readily introduced into and retained in the cancerous stricture for as long a period as may seem advisable. Cancer of the oesophagus offers an ideal situation for the treatment by radium, particularly as it extends so slowly by means of glandular infection.

The cases of cancer of the oesophagus which are, perhaps, of most practical interest to the surgeon are those in which the disease affects a portion of the oesophagus in the neck. In such the surgeon occasionally performs operations of considerable magnitude, in which he generally leaves the patient in greater pain and much more uncomfortable than he was before the operation, or he opens the oesophagus below the growth, not affecting appreciably the rate of growth of the disease.

It seems to me that in most cases of cancer of the oesophagus in the neck one can follow the general principle of removing the growth in its entirety and yet leave the patient in a condition of comparative comfort after the operation.

I will now describe a case illustrating a method of treatment which is comparatively simple and not infrequently applicable in cancer affecting the oesophagus in the neck. Unfortunately, as the extreme upper limit of the oesophagus was involved in this particular case, the result was not as functionally perfect as it would have been if a segment of the upper portion of the normal oesophagus could have been left in which food and secretions could have collected free of the laryngeal aperture.

The principle of the operation is to excise the portion of the oesophagus affected by cancer together with any glands, keeping well away from the diseased area, and to replace the segment of oesophagus removed by means of a strip of skin cut transversely from the neck, and retaining an attachment and blood supply, the continuity of the oesophagus being completely restored. After an interval of sufficient length for the firm union of the skin oesophagus to the portion of the normal oesophagus at the lines of section, the attachment of the flap of skin by its base to the skin of the neck is divided, and any lateral aperture in the skin oesophagus which may remain is closed. Except when the growth involves the extreme upper limit of the oesophagus or invades the upper aperture of the larynx it would probably be possible to avoid performing tracheotomy. Till the edges of the skin oesophagus have united to those of the oesophagus, a tube for feeding purposes should be retained in position.

A. W., 30, married, came under my care on May 10th, 1909. She had for four months experienced increasing difficulty in swallowing, and this had progressed until she was only able to swallow a few drops of water. In consequence of this prolonged starvation she was very emaciated and feeble. She had a carcinoma of the upper limit of the oesophagus, which appeared to invade the back of the arytenoid muscle. Mr. Charters Symonds, whose experience of cancer of the oesophagus is probably unrivalled in England, confirmed my diagnosis. A fine

tube was passed through the stricture, and the patient was fed in this manner. As she increased rapidly in weight, while her general state of nutrition was very good, I operated on her on June 25th, 1909.

A skin flap, 2 in. deep and about 5 in. in length, was cut from the front of the neck, extending horizontally from a vertical line to the left of the larynx over the anterior and right lateral aspect of the neck. The flap was reflected up to its base. The larynx was displaced forwards and to the right, and the upper portion of the oesophagus for 3 in. of its length was freely exposed.

The growth, which was very dense, was found to involve the upper 2 in. of the oesophagus. There were two small shot-like infected glands; these were removed. The oesophagus was divided transversely above and below the growth, which was carefully dissected from the posterior surface of the larynx and from the arytenoid muscle, as the mucous membrane covering this structure was swollen and oedematous.

The flap of skin was then folded in the form of a tube of about the diameter of the oesophagus. Its upper margin was connected by multiple sutures to the lower limit of the pharynx, while its lower margin was sewn to the divided edge of the oesophagus. It was also attached to the larynx at the upper aperture. Owing to the fact that the patient was unable to swallow her saliva, it became necessary to perform tracheotomy a few hours after the operation. A tube was passed through the pharynx and the oesophagus, and through this she was fed.

After some weeks the tube was removed. It was then found that she was unable to swallow fluids, and that even her saliva dribbled from her mouth. The propinquity of the aperture of the larynx to that of the skin of the oesophagus and the fact of the skin of the oesophagus being attached to the upper aperture were apparently responsible for this. These circumstances also rendered it impossible for the patient to wear one of Symonds's funnel-shaped tubes.

As time went on she acquired the habit of swallowing her saliva, but remained permanently unable to obtain sufficient food by the natural passage. For this purpose she employed a tube, which was passed into the oesophagus over the small remaining area of attachment of the skin flap. Her general condition was good, and she was well nourished. For a considerable time there was no indication of any recurrence. Radium and *x* rays were employed at intervals with the object of obviating any return of the growth.

In spite of the precautions of an extensive operation and subsequent treatment by radium, an indurated mass appeared in the neck in the vicinity of the operation and discharged itself externally, leaving a sinus. Through this aperture, about the end of December, a sudden profuse haemorrhage took place, resulting in the death of the patient.

The *post-mortem* examination showed that this growth had recurred in a small area in the left side of the neck, and that it had invaded the carotid artery, whose wall gave way in consequence. The area of oesophagus made by skin did not differ in appearance from the adjacent portion of normal oesophagus, with which it had become continuous. It is reasonable to suppose that if the primary growth had been removed at an earlier period the patient would probably not have had any recurrence; also that an oesophagus made of skin can perform the function of a normal oesophagus, providing it is not in too close proximity to the upper aperture of the larynx.

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AT a meeting of the Illuminating Engineering Society, to be held at the house of the Royal Society of Arts, John Street, Adelphi, on January 16th, a discussion on library lighting will be opened by Mr. J. Duff Brown (Islington Public Libraries) and Mr. S. L. Jast (Croydon Public Libraries). Professor S. P. Thompson, F.R.S., will take the chair at 8 p.m.

AT a sessional meeting of the Royal Sanitary Institute to be held at the Town Hall, Bradford, on Friday, February 3rd, a discussion on school clinics will be opened by Dr. L. A. Williams, Medical Superintendent, Bradford Education Authority. Earlier in the day a visit will be paid to the open-air school, Thackley, and on Saturday morning visits will be paid to the school clinic and the municipal dairy at Heaton.



# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### CALCIFICATION OF PLEURA AND EMPYEMA.

THE following case is a somewhat remarkable one and worth recording. Its etiology is very obscure.

John W., aged 59 years, was admitted to the hospital complaining of a "heat in the stomach" and headache. He looked ill and had a temperature of 102.6° and a pulse of 126. He had been in the hospital two weeks before with symptoms which were diagnosed as gastritis—namely, epigastric pain and vomiting, with furred tongue. It was then noted that there was wooden dullness in the left axilla, and this was ascribed to old thickened pleura, but there was no cough, nor history of chest trouble, nor any pain over the dull area. On admission, there was an elastic fluctuating swelling in the left axilla, and the glands and lymphatics above were enlarged. The patient first noticed the swelling the day before. The skin was not discoloured. The vocal resonance was almost absent and the breath sounds feeble all over the left axilla, but there were no adventitious sounds. The abscess was opened under local anaesthesia and 4 oz. of greenish pus evacuated. No micro-organisms were found on bacteriological examination. Two days after it was noticed that the left side was hardly moving; there was absolute dullness in the left axilla and no breath sounds. There was still no pain complained of and the discharge was moderate only. This state of affairs lasted for some considerable time, the temperature remaining normal for three weeks. Then there was swelling of the feet and frequency of micturition, but the urine contained no albumen. Then the temperature began to rise again at night (100° to 101° occasionally). The patient was averse to a general anaesthetic, but was at last persuaded. An incision was made, and the third and fourth ribs found to be necrosed. On cutting away the necrosed portions a discharging sinus was discovered, and on opening this hard, firm, calcified pleura was come upon. Three interspaces were examined, and the calcified pleura found to extend into each. The patient took the anaesthetic very badly; the breathing became bad and further operative procedure had to be abandoned. Six weeks afterwards a portion of the calcified pleura in the fourth space showed signs of yielding, and was removed without an anaesthetic. The visceral pleura could then be easily seen moving with the respiration and communicating the heart's impulse. It was covered with thick granulations. There was a constant discharge from this opening for a month. It came from above, between the lung and the bony casing of the pleura. This casing was about ¼ in. thick, and as difficult to drill as bone, but not quite so brittle. At the end of this time the patient was found to be going downhill, and although his condition did not warrant an attempt to remove the whole pleura, it was thought that if a wedge-shaped piece were cut out and two or more ribs resected, the hollow which existed between visceral and parietal pleura would fill up. An incision was accordingly made in the line of the old wound and extending upwards to the second space and downwards to the fifth space. Cross incisions were made above and below, and the flaps retracted. The flaps took everything down to the ribs. There was a good deal of fibrous tissue above and around the granulations, and it was difficult to remove this from the ribs. Considerable portions of the third, fourth, and fifth ribs were resected. The fourth and fifth were soft, and exuded pus when cut through with bone forceps. The enormously thickened and calcified pleura was cut into, and a portion the full length of the incision excised. It was ¼ in. thick by measurement. The flaps were sutured back in position with silkworm gut sutures. The wound healed well considering there were portions of it over which a purulent discharge was constantly passing, and he was out of bed in a week. Before the operation there had been swelling of wrists and ankles which, with the clubbed fingers, suggested the onset of pulmonary osteo-arthropathy. This diminished considerably after the operation.

Three weeks after a piece of calcified pleura which was getting loose was cut through and removed. It measured 1½ in. by 1 in. Four days later, at his own request, he was allowed to go home. At that time the thickening of wrists, ankles, etc., had returned, and was increasing.

Three and a half weeks later he was again admitted. The thickening of the wrists had extended to the forearms, which were now much larger than the upper arm. Next day a piece of the pleura, 2½ in. by 1⅓ in. by ¼ in. was removed. It had been working loose. The following day another piece was removed, and three days later two pieces, one 2 in. by 2 in. and the other 2½ in. by 2¾ in. The patient became flushed, and his face began to swell, his nose being noticeably thickened. The swelling of ankles and wrists was now most marked. His evening temperature averaged 100.2°, and the morning normal or subnormal. He began to talk strangely at night, and then became delirious, at first at night and then in the day, for two days, during which time he was almost unmanageable. His mental condition then returned to normal all in one day. He was very thin and ill-looking about this time. He then began to mend slowly and put on flesh. In the next six months he gained a stone in weight. There was still an open wound, with the visceral pleura and its cover of granulation exposed, but the discharge was lessening. The edges of large fixed fragments of the pleura could be felt with the finger, and one piece, about 3 in. square, was wedged in close to the costal margin, and beneath the cartilages of the sixth, seventh, eighth, and ninth ribs, running into the lower part of the axilla from before backwards. It was now thirteen and a half months since his first admission. The following is a quotation taken from a note made about this time:

"The most remarkable feature of this case is the great change which has taken place in the wrists, ankles, and face. The features of the face have broadened considerably, and there is a malar flush and some oedema. There is also oedema of hands, wrists, and forearms (lower part), and considerable thickening of the joints and fingers. The fingers are large and the ends of the fingers thick and somewhat spatulate, with very convex nails. The feet, ankles, and legs show similar changes—oedema, enlargement of joints (including knees), and thickening of toes, with convexity of toe-nails."

Owing to these changes and the long-continued suppuration, amyloid disease was anticipated, and it was resolved to operate and remove the remaining portions of the pleura.

In this operation the line of incision commenced near the vertebral border of the scapula over the sixth rib, was brought down to the upper border of the tenth rib, and thence curved upwards to the discharging wound in the mid-axilla. The incision went through everything down to the ribs. This large flap was then raised. The muscles were pale, and scarcely a drop of blood exuded when they were cut through. The periosteum was removed from the ribs, and ribs 9, 8, 7, and 6 excised. Nos. 3, 4, and 5 had previously been removed. The calcified pleura thus uncovered was removed. It was about 3 in. by 3 in. by ¼ in. On passing the finger high up towards the apex of the lung the lower end of another piece could be felt. This was grasped with lion forceps and detached with some difficulty, and then another long piece about 2½ in. by ½ in. By this time the whole of the bony case covering the anterior portion of the lung had been stripped off to the very apex. Posteriorly on exploring with the finger the pleura was found to be thickened and fibrous, but not calcified, and adherent to the lung. The edge of this was pared and the granulations curetted away from the visceral pleura. When the whole was thoroughly clean the large fleshy flap was allowed to come in contact with it and sutured in position. A drainage tube was stitched in below. The flap was sutured in layers with catgut sutures. He complained of very little pain and slept four hours that night. The subsequent events may be stated briefly. The flap did not unite well in front. As before mentioned, it was pale and bloodless at the operation. In spite of this he made a good recovery, and one noticeable feature following the removal of all the diseased material was the rapid disappearance of the swelling of the joints (ankles and wrists especially), never to return. He had two attacks of diarrhoea, one while in the hospital and one after he went home. They lasted about a week each. Now, one year and ten months after his first admission, he looks well and is fairly active, but still has a discharge from the left side, and there is still visceral pleura to be seen; but the side has fallen in, and it seems not improbable that it will slowly granulate up and the skin grow over it. Considering the age of this patient, 59, and the chapter of events, his recovery and present condition is almost as remarkable as the nature of the case.

W. SIDNEY SWEET, B.Sc., M.D., B.S.Lond.,
Late Medical Superintendent and Resident Surgeon, Gympie Hospital, Queensland.
London.

## HEREDITARY TENDENCY TO DEFECTIVE SIGHT IN MALES ONLY OF A FAMILY.

THE following is an account of a family suffering from defective sight, this condition affecting the men only of the family, and apparently being transmitted by the women of the family to their sons.

I know this family in a social and not in a medical way, and therefore cannot, unfortunately, give the actual conditions of the eyes, but can describe the conditions from ordinary observation only. I have described those who were considered to have nothing wrong with their sight as "of apparently normal sight," but not having examined them I cannot actually state that their sight was normal, but it seemed quite good enough for ordinary purposes.

*First Generation.*—Captain A. B. (myopia and strabismus), married a lady of apparently normal sight. They had a son and a daughter.

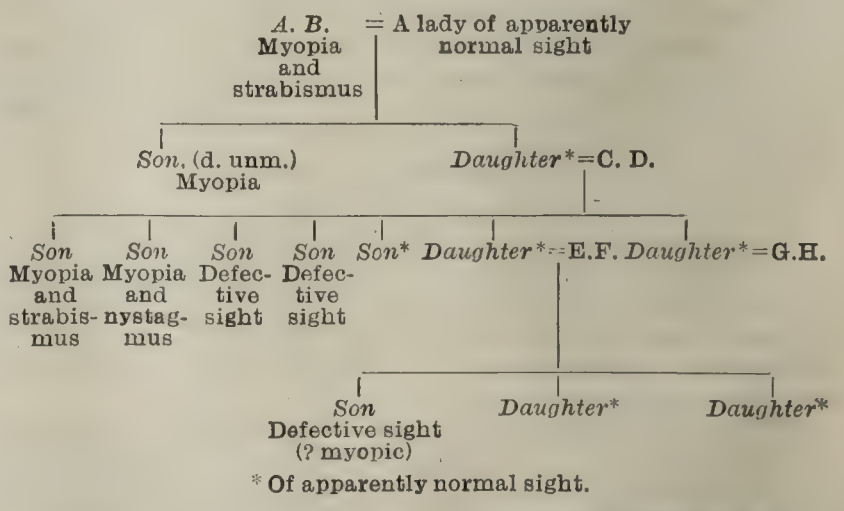
*Second Generation.*—The son was myopic; he died unmarried. The daughter, of apparently normal sight, married Captain C. D., of apparently normal sight. They had five sons and two daughters.

*Third Generation.*—All these five sons, except one, were debarred from entering the army owing to defective sight. The eldest son has myopia and strabismus; the second son has myopia and nystagmus. The third and fourth have defective sight. The youngest son alone had sufficiently good sight to pass the "medical" for the army. The two daughters have both apparently normal sight. They are both married; the younger has no children. The elder daughter married E. F., of apparently normal sight, and has one son and two daughters.

*Fourth Generation.*—The son has defective sight—myopia, I believe. The two daughters have apparently normal sight.

This history seems to tell of a condition which is transmitted by both males and females of a family to the males only; and, leaving the mother and maternal grandmother unaffected, has appeared again in the fourth generation.

The following table will show clearly the transmission of defective sight through four generations.




* Of apparently normal sight.

Dover. AGNES OSWALD, M.B.

THE late Dr. George Ackroyd, of London, left estate valued at £33,556.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMFIRE.

### CITY HOSPITAL, SASKATOON, CANADA.

A CASE OF ACUTE INTUSSUSCEPTION WITH STRANGULATION OF THE APPENDIX IN A CHILD OF FOUR MONTHS: OPERATION: RECOVERY.

(By ANDREW CROLL, M.Ch., M.D.Edin.)

ACUTE intussusception of the ileo-colic variety, with strangulation of the appendix, is of sufficient rarity to merit its publication.

The patient, a baby 4 months old, was seen by me on August 31st, 1910, at 6 p.m. The mother gave the following history: The baby was a robust child, was fed on the breast, and had not been ill since birth. The bowels were always regular. Early that forenoon she noticed that the child began to cry, and pulled its legs up as if in pain. The pains were intermittent; during the interval the child appeared quite well. Thinking the other children had given the baby "something" which did not agree with it, she administered a dose of castor oil, and observed that this seemed to make the pains worse. A simple enema was then given, which was returned tinged with blood.

On arriving at the house about 6 p.m., I found the child bathed in perspiration and apparently in great pain. The pains, which resembled "labour pains" in their severity, were accompanied by great straining, and the passage of mucus and blood. The abdomen was not distended, and no tumour could be made out on abdominal palpation. The child vomited during the examination. Per rectum nothing could be felt, the finger returning tinged with blood. The temperature was 98.8° and the pulse 130.

Immediate operation was advised, but the mother would not give her consent until the return of the father, who unfortunately was not at home. During the night the pains continued, lessening in severity towards morning. When seen early next morning, the child looked very ill—eyes sunken, abdomen distended and tympanitic, pulse rapid and feeble.

Consent was given for the operation, and the child was admitted to the hospital at 10 a.m., about twenty-four hours after the onset of the illness.

The abdomen was opened in the middle line in the umbilical region. Owing to the great distension, the bowels immediately protruded and a considerable quantity of clear serous fluid drained away. The lower part of the ileum was completely collapsed, and on following this collapsed bowel downwards a mass was felt in the region of the caecum. The mass extended for about 6 in. along the ascending colon. It consisted of a protrusion of ileum through the ileo-caecal valve, and also an invagination of the valve and caecum into the ascending colon. The invagination of the caecum took with it about two-thirds of the appendix, leaving the distal third strangulated. The distal third of the appendix appeared quite black, and was attached by slight adhesions to the adjacent small gut.

The intussusception was not difficult to reduce. The distal end of the appendix being dead, appendectomy was performed. The distension of the bowels being so great, it was found impossible to replace them in the abdomen. An opening was made in the small gut and the gas and liquid faeces allowed to escape. This opening in the gut was closed with Lembert sutures, the gut replaced, and the abdomen closed.

The child rallied well and passed a dark-brown stool seven hours after the operation. For the week following the temperature varied from 100° F. to 102° F., and the pulse-rate from 124 to 140.

The stitches were removed on the eleventh day, when the abdominal wound was completely healed. The child left the hospital on the thirteenth day with a normal temperature and a pulse-rate of 110.

REMARKS.—The points of interest in this case are: (1) The apparent absence on palpation of an "abdominal tumour." (2) The ileo-colic variety of intussusception, which occurs in about 8 per cent. of the cases of acute intussusception. (3) The invagination of the caecum and the consequent cutting off of the blood supply of the appendix. (4) The unavoidable delay in operating, with subsequent tympanitis, which demanded the opening of the gut for its relief.

My thanks are due to Drs. Young and Weaver for their able assistance at the operation.

# Reports of Societies.

## ROYAL ACADEMY OFM EDICINE IN IRELAND.

SECTION OF MEDICINE.

*Friday, December 16th, 1910.*

Sir JOHN MOORE, President, in the Chair.

*Coeliac Axis Aneurysm.*

DR. LUMSDEN and Mr. W. I. DE C. WHEELER showed, seven weeks after operation, a brewery labourer, aged 38, on whom operations for coeliac axis aneurysm had been performed. He had previously been treated without benefit by potassium iodide and complete rest in a recumbent position, with a modified Tufnell diet. Mr. Wheeler introduced into the sac 150 in. of gilded wire in the form of a cage by the method of Colt and D'Arcy Power. For the first few days the aneurysmal pulsation was more tumultuous than before the operation, but since then there had been a distinct diminution of pulsation and hardening of the tumour. The operation was performed with the strictest aseptic precautions, and was facilitated by placing a sand-bag under the patient's back and tilting the table, so that the pelvis and feet were low, and the intestines fell away into the pelvis (Mayo Robson's gall bladder position). There was no haemorrhage. Statistics demonstrated a small percentage of cures in the cases operated upon, but that the prognosis was hopeless when operation was not possible, Osler and other authorities never having seen a cure under medical treatment. *Post-mortem* examinations of cases which died even a short time after operation revealed a firm, laminated clot in which the wire was embedded. Electrolysis was not employed, as there was not sufficient experimental evidence of its value in inducing coagulation. The risk of sepsis was increased owing to the prolongation of the operation and the difficulty of sterilization of insulated instruments and electrical apparatus. Colt's instrument made the operation very easy and very safe. Dr. WALTER SMITH said the case was, as far as he knew, the first demonstrated in Dublin. The main subject for congratulation was that the patient had survived, though living after an operation was no proof that it prolonged life, and patients had lived with an untreated aneurysm. He hoped none of his friends would ever introduce wire into his aorta, as he considered the operation unscientific. The only chance of cure was by Nature laying down tough, laminated fibrin. A foreign body might induce embolism, and was very dangerous. Dr. PARSONS recalled a case in which the symptoms began in 1896, and the patient did laborious work until within two years of his death in 1906. He thought the chances of repeating such a successful result as Mr. Wheeler's were very small. Dr. KIRKPATRICK said he believed the patient to be in a much safer position than before the operation. He did not see why, because clotting was induced by a foreign body, it should be a soft clot and remain so. He thought the clot, if it completely filled the aneurysm, would become hard. Dr. LUMSDEN, in reply, said that medical treatment of aneurysm in the past had been distinctly unsatisfactory. He had himself had four cases under his care—three men and one woman. The woman died suddenly six months after diagnosis, and no cause of death was discovered. One of the men died suddenly three months after diagnosis. There was no *post-mortem* examination, but he believed the aneurysm had burst. The third case was operated on six years ago by Mr. Maunsell, who introduced 24 ft. of wire, and performed electrolysis, but

the aneurysm perforated through to the stomach, and the patient died about the fifth day. The *post-mortem* examination gave a beautiful picture of a laminated clot, showing the process of healing going on. The present patient had been getting worse before the surgeon took him over, and now he was much better, and he thought there was fair hope for the future. Mr. WHEELER, in reply, said that no cases published without operation showed any cures, while there had been cures in every series with operation, so that he thought the operation was undoubtedly justifiable.

*Thrombosis of the Superior Mesenteric Vein.*

Dr. J. J. BURGESS described a case of thrombosis of the superior mesenteric vein. Its special interest lay in the comparative mildness of the abdominal symptoms and the prominence of those of a cerebral type. The case was acute, and terminated fatally in eight days with gangrene of a portion of the jejunum. Dr. WALTER SMITH said he had seen one or two cases of the condition, though not quite the same—the symptoms were more acute. In one case a correct diagnosis was made *ante mortem*, relying on sudden abdominal pain and bloody stools. In Dr. Burgess's case the difficulties of correct diagnosis were almost insuperable.

## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, December 22nd, 1910.*

Dr. T. R. BRADSHAW, President, in the Chair.

*Varicose Veins.*

MR. R. E. KELLY, in a note on operations for varicose veins, described Mayo's operation, which he had performed recently about twelve times with excellent results. Mr. K. W. MONSARRAT, in a note on the same subject, expressed the opinion that no standard operation was suitable to all cases; reflux from deep to superficial veins being the main cause of varicosity, it was of the first importance to ascertain where this reflux was occurring. On this investigation depended the choice of operation. Mr. THELWALL THOMAS, who, like Mr. RUSHTON PARKER and Mr. NEWBOLT, considered that there were some cases which no operation would cure, said that usually some modification of Trendelenburg's operation was the best. In Trendelenburg's original description the saphena was ligatured at the junction of the middle and lower third of the thigh or a little lower, but the speaker found that this was not always satisfactory. Consequently, in 1896, he recommended in the *Liverpool Medico-Chirurgical Journal* that the vein should be tied near to the saphena opening. Mr. NEWBOLT mentioned a patient in whom the operation promised to be very successful, and was so for four years, but after that time the varicosities returned in greater degree than ever.

*"606."*

Dr. STOPFORD TAYLOR and Dr. R. W. MCKENNA, in a paper on the Ehrlich-Hata remedy for syphilis, said that three years ago Ehrlich pointed out that the arsenic in atoxyl was not fixed to the amidogen group, but to the benzine nucleus. This was the first step which led to the discovery of "606." In using this remedy, there was great danger of oxidation unless the preparation was mixed immediately before use. The method of Michaelis for preparing the powder was the best, but intravenous was incomparably superior to intramuscular injection. The effect of the remedy on some syphilitic lesions was extraordinary; the primary sore became smaller in forty-eight hours, and the secondary symptoms disappeared in about a week. Mucous patches in the throat disappeared in thirty-six to forty-eight hours. Tertiary ulcers of the pharynx and periosteal nodes lost their painfulness in twenty-four hours after one full dose. The remedy acted by having a powerful lethal effect upon the spirochaete, the protoplasm of which contained chemio-receptors with a special affinity for "606"; a further factor was liberation of endotoxins from the spirochaetes, the production of antibodies being thus brought about. That antibodies played a part was shown by the fact that syphilitic babies nursed by their mothers got well, though no arsenic was found in the milk. Administration entailed certain risks, but when Ehrlich's directions were followed the mortality had been only 1 in 1,000. Optic atrophy had occurred in only 1 out of between 20,000 and 30,000 cases. The remedy might be of use in pachymeningitis and gummatous infiltration. Some of the cases mentioned by the readers of the paper had been under the care of Mr. ARTHUR EVANS, who gave details of 7 further cases in which he had used the remedy; the result in each case was the rapid disappearance of the signs of the disease. Constitutional symptoms were often marked, but transitory.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Friday, December 16th, 1910.*

Dr. J. DOBSON in the Chair.

*Clinical Meeting.*

THE following were among the exhibits: Mr. A. L. WHITEHEAD: A case of *Wound of the eye, frontal sinus, and cerebrum* by a pellet from an air gun. The eyeball was ruptured, and therefore excised; the fragments of bone splinters were removed from the frontal sinus and the roof of the orbit. A skiagram showed that the pellet had broken into two pieces; one was removed, but the other could not be found. Subsequently an attempt was made to remove this portion, using the *x*-ray screen, but without success, the bullet still remaining in the frontal portion of the cerebrum. Mr. H. SECKER WALKER: A case of *Electric cataract* caused by severe burning of the face by electricity (3,000 volts). Several plastic operations had been done for the relief of the deformity produced by cicatrization. Dr. A. G. BARRS showed a woman, aged 26, who had suffered from *Cerebral tumour*, with two years' history of symptoms—headache, vomiting, optic neuritis, and convulsive attacks. Three weeks prior to the operation sight had suddenly failed almost completely. On October 26th, 1910, a decompression operation was performed; a trephined hole 2 in. in diameter was made beneath the left temporal muscles; the dura mater was not opened. By November 21st headaches and vomiting and fits had entirely ceased. There was great improvement in vision and the optic neuritis was clearing up. The power of walking, which was lost, considerably returned. In December the improvement was still maintained. Mr. B. G. A. MOYNIHAN: A case in which *Transgastric resection* had been performed on a woman, aged 51, who had suffered from "indigestion" since the age of 16. At operation was found a large ulcer on the anterior surface of the stomach adherent to the abdominal wall. On the posterior surface was another large ulcer adherent to the tail of the pancreas. The anterior ulcer was excised, and through the opening so made the posterior ulcer was excised, and the cavity in the pancreas closed by suture. Mr. WALTER THOMPSON: A case of trigeminal neuralgia treated by *Injection of alcohol* in a patient, aged 62. The neuralgia was of four years' duration, following extraction of the left upper molar tooth. Pain was increasing, and was paroxysmal in character. The patient had been operated upon on September 19th, under cocaine; alcohol, 80 per cent., was injected into the nerve at the foramen ovale, and at the infraorbital foramen. Considerable improvement had resulted. Dr. A. BRONNER: A case of *Glaucoma* treated by trephining the sclera at the corneal margin, and by cyclo-dialysis (Fergus's operation). In this case a previous iridectomy and posterior sclerotomy had failed to relieve the tension, which was now considerably improved. Dr. E. F. TREVELYAN: A case of *Stationary muscular atrophy* limited to the hands in a woman aged 24. There was also numbness and diminished knee-jerk in the left leg. Her present state was the same as when she was shown to the society six years ago. Mr. J. F. DOBSON: A boy, aged 19, who had sustained a fractured base with cerebral compression, and on whom an intermusculo-temporal *Decompression operation* had been performed. Cerebral irritation was present for some days after the operation. The patient still complained of some headache and dizziness. Dr. W. H. MAXWELL TELLING: A man who had had an acute arthritis of one joint from oral sepsis. He was first seen on August 31st, 1910, and then had marked swelling of the right wrist joint of five weeks' duration with much oedema, pain, and thickening affecting the right wrist and carpus. No gonorrhoea or previous joint affection. Mouth full of carious stumps and in a very septic condition. Mouth

treated antiseptically; guaiacol carbonate given internally and teeth extracted, with immediate and rapid improvement of the joint condition. By November 9th all acute inflammation disappeared, only a little stiffness of the joint left. Mr. REGINALD WILSON: A case of *Ruptured intestine* and abdominal wall. The patient, a youth, sustained an injury in which intestine was ruptured and extruded through a rent in the abdominal parietes. The skin over the rent alone held; the gut lay immediately under it in a pool of faeces. Enterectomy was performed.

## UNITED SERVICES MEDICAL SOCIETY.

*Wednesday, December 14th, 1910.*

Surgeon-General W. BABTIE, V.C., in the Chair.

*The Fighting Line.*

LIEUTENANT-COLONEL M. W. RUSSELL, R.A.M.C., opening a discussion on recent tendencies in the development of Army Medical Services, pointed out that under present conditions it was usually impossible for wounded to be removed from the fighting line till dark, or at any rate till there was a lull in the fire; the wounded at the front could only be collected in "nests" and treated by the regimental personnel till this happened. Hence there was a tendency in most armies to increase the efficiency of the regimental aid by improving training and increasing the regimental supply of appliance. In the British army the water personnel should be made available for regimental aid during action, since their duties in connexion with water were in abeyance at that time. The example of Germany, France, and Austria might also be followed in making the regimental bearers devote their whole time to their bearer duties, and thus become not only more efficient, but entitled to the protection of the Geneva badge. Very considerable changes in arrangements were likely to follow the more extended use of mechanical transport in war. Lieutenant-Colonel BURTCHAELL, R.A.M.C., thought it would be impossible to combine the duties of water-men and first aid. He also thought it impracticable to send lightly wounded men direct from the regiments to the collecting station; in the Japanese army these men passed through the dressing station. Major WANHILL, R.A.M.C., protested against the diversion of water men from their legitimate duties. Colonel PETERKIN, A.M.S, doubted if one collecting station for a division would be sufficient, on account of the distance from the flanks. Surgeon-General BABTIE asked officers to pay special attention to the alterations necessitated by the employment of mechanical transport. Lieutenant-Colonel RUSSELL, in reply, pointed out that in action everything, even sanitation, must be subordinated to the defeat of the enemy; hence his recommendation to utilize the water-men for first aid at this time. As the collecting station was five or six miles in the rear, there was no need to duplicate these establishments.

*Cases.*

Major GIBBARD, R.A.M.C., showed a case of extensive *Syphilitic ulceration* of the head and face which had resisted the usual treatment, but which healed promptly after injection of "606." Major W. E. MILES, R.A.M.C (T.), in a paper on pruritus ani, expressed the opinion that the condition would be more properly labelled *Dermatitis ani*. It could not be of nerve origin, since most cases yielded to local treatment; usually it arose in patients with a gouty or eczematous diathesis. Of the exciting causes, rectal constipation was the most prominent. Treatment consisted in local applications of hot water, sedative and astringent ointments and powders, and in the removal of the exciting cause.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, December 21st, 1910.*

Mr. W. MORLEY WILLIS, President, in the Chair.

*Cerebro-spinal Fever.*

DR. ERNEST MILLIGAN read a paper on cerebro-spinal fever, based on observation of over 300 cases seen by him at the City Fever Hospital during the epidemic in Belfast. In respect of diagnosis stress was laid on the value of lumbar puncture; the opsonic index was of great use after the sixth day of the disease. In treatment Flexner and Jobling's serum gave valuable results. A comparison recently made by Robb of cases treated outside hospital without serum and cases treated in hospital with serum showed a mortality for the former of 85 2 per cent., and for the latter of only 26.6 per cent. The following general conclusions were drawn: (1) Owing to the occurrence of mild cases and toxic cases without meningeal symptoms, the disease might be unrecognized unless lumbar puncture were performed. (2) The disease was spread largely by "carriers" and by mild cases as well as by acute cases. (3) Search for "carriers" and mild cases should be undertaken. (4) An intestinal mode of entry was probable. (5) Flexner and Jobling's serum should be given early. (6) The opsonic test was useful in diagnosis after the sixth day. (7) Sudden death after apparent recovery was always a possibility. In the discussion which followed, Dr. F. H. JACOB said that he considered that the lumbar puncture settled the diagnosis in most cases. Dr. ATKINSON described his experience in a recent local outbreak. He had had 33 cases with 4 deaths. Of the latter, 3 were not treated with the serum, and the fourth was one of the earlier cases which he injected. The 29 cases that recovered were all treated by serum.

## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Dr. W. K. WALLS, President, in the Chair.

*Friday, December 16th, 1910.*

MEETING AT MANCHESTER.

THE following were among the cases reported or exhibited:—Miss IVENS (Liverpool): (1) *Localized adenomyoma* in a tuberculous Fallopian tube removed from a young married woman complaining of dysmenorrhoea and dyspareunia. The right tube was generally thickened with a nodule at the uterine end. Microscopically the tube showed typical tubercles. The nodule was composed of adenomyomatous tissue also showing giant cells and round-celled proliferation. Two similar cases had been described by von Franqué and Parsons and Glendinning. (2) *Keratinizing adeno-carcinoma of the uterus* removed from a spinster, aged 41. Dr. Pantland Hick investigated the tumour microscopically and found the growth to present in the older portions the appearance of a squamous carcinoma with cell-rests, but the glandular origin was evident in sections taken from the growing edge. (3) *Chorion-epithelioma of the uterus* preceded by vesicular mole, and associated with unusual nervous symptoms. The mole, retained for seven months, was removed from a multipara of 47. Involution took place, but two months later the uterus had enlarged, and profuse haemorrhage took place. Rigors and an elevated temperature occurred three days before operation. After hysterectomy, on October 3rd, 1909, severe shock was present, the temperature fell to 95°, and stupor developed, followed by convulsions, ptosis, loss of sphincteric control, and increased tendon reflexes. Gradual recovery took place, but the illness was a blank in the mind of the patient. She went home weak, but otherwise well and able to walk. Two months later contractures developed, and death took place in January, 1910. The cause of the cerebral symptoms was undetermined, as no necropsy was obtainable. It was possibly a toxaemia followed by encephalitis and cerebral softening, as the gradual onset negatived a metastatic embolus, and no definite symptoms of cerebral tumour were present. Dr. A. J. WALLACE (Liverpool) showed an enlarged uterus removed from a woman aged 67. Before operation its upper border reached 10 in. above the pubes, and it measured $9\frac{3}{4}$ in. transversely. The enlargement had been noticed for three months only. On examining the tumour after removal it was found to be apparently a mere shell of uterine wall containing altered blood. The anterior wall had an average thickness of $\frac{1}{4}$ in., the posterior of $\frac{3}{4}$ in. Complete section of the "shell" demonstrated a layer of undoubted myomatous tissue of varying thickness in the posterior wall and an apparent thin layer of similar tissue in front. There was no trace of the cavity of the corpus uteri, except near the internal os, where a few flattened glandular elements suggested the remains of endometrial glands. The condition had had

its origin from a myoma which had become cystic; haemorrhage had occurred into the cyst, the resulting distension of which had produced obliteration of the endometrial cavity and enormous enlargement of the senile uterus. Mr. R. FAVELL (Sheffield) reported a case of *Impacted ureteric calculus*, which had clinically simulated a uterine fibroid. It was discovered after the body of the uterus, which contained several small fibroids, had been removed.

## BATH CLINICAL SOCIETY.

*Friday, December 2nd, 1910.*

Mr. F. LACE, President, in the Chair.

MR. DONALD ACKLAND, in a paper on *Oral sepsis*, showed that many obscure illnesses and pathological processes were frequently the result of, or secondary to, septic conditions of the mouth, nose, and nasal sinuses, the gastro-intestinal tract and glands opening into it becoming infected from oral, nasal, and auditory suppurative processes. Even diseases such as arthritis and teno-synovitis were in many instances but symptoms of the primary trouble—the oral sepsis. Of the conditions included under this heading pyorrhoea alveolaris and its treatment by the vaccine method were more especially discussed.

# Reviews.

## GLAUCOMA.

DR. THOMSON HENDERSON'S book on glaucoma[1] is, without doubt, the most remarkable work upon this subject which has appeared in the English language since the book which rendered Priestley Smith so justly famous. It brings together in one volume papers which have appeared in ophthalmic journals during the past few years—papers recording work which at once place Dr. Henderson in the forefront of ophthalmic pathologists.

We shall probably not be far wrong in surmising that the theories advanced are being considered and discussed in every capital of the globe where ophthalmic surgeons are found, and that the author will meet with much criticism from supporters of older hypotheses than those he advances. We may state at once that the book is profoundly interesting, and that the facts discovered are most valuable, and can in most cases hardly be refuted. The theories based upon observed fact and experiment are plausibly urged and in most cases appeal to sound common sense and hard logic, but in some respects they are carried too far and supported rather by bare dogmatism than good reasoning. The only criticism which can be urged to the style of the author is a wearisome repetition, which is most trying to the intelligent reader, nor are the constant summaries at all necessary for the class of men who are likely to read the volume.

Part I deals with the anatomy of the eye, and is by far the best part of the work. Here Dr. Henderson is dealing with facts—facts which he has proved by the most patient and accurate histological research.

The current conception of ocular tension is that it is due to pressure exerted upon the sclera by its contents; the tension is a question of intraocular volume, depending upon the balance maintained between excretion and secretion. Hypersecretion, or throttling of the paths of exit, causes hypertension; a lowered secretion, or wide channels whereby fluids may escape, should cause low tension. The globe is, in fact, an elastic capsule distended by fluid. This theory, elaborated by Leber, has obtained wide credence. Henderson, however, will have none of it; the application, he says, of the magnificent work by Leonard Hill on the nature of the intracranial pressure applied to the eye completely disproves this volumetric conception of intraocular pressure. Hill has shown that in the closed and rigid cranium the intracranial pressure is the same as the intracranial venous pressure. Henderson tells us that he has proved by manometric measurements that intracranial and intraocular pressure is under normal conditions absolutely the same as that of the general venous pressure. The maintenance of the form of the normal living eye thus depends, not upon the pressure exerted from within, but upon the rigidity of its outer covering.

The author's careful examination of serial sections has led him to readjust entirely the orthodox teaching of the anatomy of the angle of the anterior chamber, of the canal of Schlemm, and of the vascular arrangements in the ciliary region. Erroneous ideas have arisen because of the unavoidable obliquity of the sections. Only when the eye is reconstructed from serial sections can the correct relationship be obtained. The angle is a true angle, not a sinus. It has been considered to be a sinus because eyes were hardened in Müller's fluid, which causes a detachment of the ciliary body and a tilting of this body and distortion of the open angle into a sinus. The *ligamentum pectinatum*, which Henderson would call the *cribriform ligament*, does not arise from Descemet's membrane, but is a continuation of fibres of the *substantia propria* of the cornea. It forms the true ligament of the ciliary muscles. As age advances it becomes more and more sclerosed, until ultimately in pathological circumstances filtration between its fibres becomes increasingly difficult if not impossible. The aqueous, which Henderson holds, and we believe rightly, to be a true secretion and not a transudate, from the ciliary body finds its exit through these fibres into Schlemm's canal. There is another excretory path, the crypts of the iris. If the ligamentum pectinatum be so sclerosed that filtration is difficult, the iris crypts are very important in carrying on the circulation. There is free passage through the cribriform ligament also into the suprachoroidal space. This channel has been demonstrated by injection experiments with Berlin blue.

Compression of the iris base in glaucoma, upon which Priestley Smith laid so much stress, does not exist. The apparent compression is due to the section passing through an iris furrow, and not an elevation. Again, serial sections show that there is a true dilator pupillae which is not a continuous structure. It consists of isolated fasciculi arranged around and in front of the radial furrows of the iris.

The vascular details at the iridic angle, as discovered by Henderson from serial sections, are in many respects very different to those described by Leber, and accepted without question. When we state that he claims that the anterior ciliary arteries and the circulus iridis major are in reality not arteries but veins, the revolutionary character of the changes will be partially grasped. As the author well points out, such an enormous arterial supply as Leber allowed the iris would be quite unnecessary, but a large vein supply is useful to carry off the aqueous humour absorbed by the iris crypts.

Part II deals with the physiology of the circulation in the eye. Here the author is not upon such sure ground, and many though accepting his anatomical facts—and they can hardly be disputed—will reject his theories either partially or *in toto*. We have not the space here to enter into the destructive criticism of Henderson's hydrodynamics, but we would point out that he avoids all mention of eyes with pathologically lowered tension. Chronic irido-cyclitis often ends in a soft eye, it may be one like a pudding bag with no tension. In such a globe the tension is manifestly lower than the intravenous tension, for this is, according to the theory, the tension of the normal eye. The orthodox hypothesis says that the diseased ciliary body no longer secretes or transudes aqueous. How will Thomson Henderson explain it? The statement that the form of the eye is due to its rigid envelope we cannot accept, for we know that when tension is removed it can partially collapse, nor can we regard the author's explanation as at all satisfactory. The paragraphs upon cupping of the disc can only be described as pure dogmatism. A typical glaucoma cup has recently been figured as the result of poisoning with wood alcohol, and the deepest form of cup has developed in fourteen days in an eye which had had iridectomy and in which the tension never rose above normal. The views of Schnabel, of Schmidt-Rimpler, and others, cannot be dismissed by a few *ex cathedrâ* statements. On page 212 we read, "Cupping of the disc is bound to follow any increase of tension however slight." And yet we all know that in acute glaucoma, with a very hard eye, there is generally no cupping at all. Again, what is the warrant for the state-

[1] *Glaucoma*. By Thomson Henderson. London: Edward Arnold. 1910.

ment on page 214: "Head work increases the intracranial and intraocular tension"?

While not totally accepting the author's views regarding the hydrodynamics of the eye, we must admit that they have much in their favour. The question may well be asked, Are there two theories mutually destructive; cannot both factors influence the tension?

We congratulate the author upon the completion of a research which can only be described as one of the most brilliant pieces of ophthalmological work of the present century.

## SERUMTHERAPY.

SOME short time ago Wassermann published an excellent little book on immune serums, in which much information was contained dealing with various therapeutic serums and immunization processes. Now WOLFF-EISNER has presented to the German-reading medical public a large book which is the work of many authors, and deals with almost every conceivable aspect of serum-therapeutics and experimental therapy.[2] The authors of the various chapters are in part great authorities on the subjects on which they write, and are eminently capable of presenting their subjects in a useful and practical manner. Ehrlich, for example, devotes ten and a half pages to the subject of chemotherapy, and does it in a masterly way. Some of the chapters are written by authors who have peculiar views, and the matter is presented not without bias. In the general part, Wolff-Eisner gives an account of hypersensibility, but we would regard it inadvisable for a student of immunity to accept views of this subject from this author. The author would have been better advised if he had resisted the temptation of quoting his own opinions, and if he had dealt with facts and not merely with theories. Even the bibliography of the subject is ill given, many of the more important works being entirely ignored, while others of minor importance are cited.

The chapter on the serum treatment of snake-bite is written by Calmette. Here again the individual views of the one author are prominent at the expense of work of others. In brief, it may be said that Calmette believes that an anticobra serum is active against the venom of all snakes—a view which is not shared by the majority of authorities on the subject. Several chapters deal with serum-therapeutics of staphylococcic, streptococcic, pneumonococcic infections, and the like. In a similar manner, Deutschmann deals with his own serum. In all these chapters the activity of the various serums is regarded somewhat subjectively from the point of view of the individual interested. In other cases, however, the fault lies in the other direction, and the author chosen is one who has already actively attacked the introducers of the serum. Wolfsohn gives a lengthy account of vaccine-therapy. The general account is excellent and puts forward Wright's views almost colourlessly. But the so-called special part is even better. Here a healthy criticism is exercised with moderation and judgement. The only fault that we have to find with the account is that the reader is given to understand that the only adverse criticism of the reliability of the opsonic index as a measure of immunity issues from Continental countries. The author seems to be quite unaware of the work of Strangeways, Greenwood, and others in this country. Kolaczek gives a good account of the antiferment treatment; but the chapter by Carl Lewin on the serum treatment of malignant tumours is weak. In spite of these and other shortcomings, the book is valuable, and its uses are enhanced by a tabular survey of the serums now on the market by Wolff-Eisner. It will doubtless find friends both in the laboratory and in the hospital, but we should hope that before it is extensively used in private practice some of the chapters will be rewritten or commented upon in footnotes.

[2] *Handbuch der Serumtherapie und experimentellen Therapie: Ein Handbuch für Klinik und Praxis.* Edited by A. Wolff-Eisner, with the co-operation of F. Blumenthal, Boruttau, Calmette, Deutschmann, Eckert, Ehrlich, Flexner, Freund, Hahn, Kolaczek, Kraus, Hirsch, Kruse, Lewin, Mayer, Michaelis, Rodet, Römer, Senator, Schnütgen, Seitz, Sobernheim, van der Velde, Wechselmann, and Wolfsohn. Munich: J. F. Lehmann. 1910. (Large roy. 8vo, pp. 408; a plate and 9 curves. Price not given.)

## THE CLINICAL LABORATORY.

WE have much pleasure in drawing attention to Dr. R. W. WEBSTER'S *Textbook of Diagnostic Methods for the Clinical Laboratory*.[3] The book is eminently suited for the use of the clinical assistant or house-physician or for any worker in the clinical laboratory of a hospital. He introduces his book by a modest and engaging preface, and the work is worthy of all praise. It is abundantly illustrated, Miss Hill's bacteriological drawings calling for special commendation. Under "sputum" the author refers to the "ordinary paper spit-cups," which can be burned as occasion may demand; these have not come into ordinary use in this country, and might be introduced more generally with advantage. In discussing the examination of the stomach contents he criticizes the usual method for determining the total acidity and points out that this must vary with the concentration of the stomach contents, and that, as in estimating sugar in the urine, we ought to know the total amount, in order to be able to compare one case with another. He therefore recommends that the stomach should be carefully emptied; but even if this were possible, we do not know how much may have escaped through the pylorus, and therefore, while we accept his criticisms as valid, we believe the sounder conclusion to be that the attempt to determine the total acidity is waste of time. We disagree with his teaching that the stomach is practically never empty, as, except for the presence of a little mucus and saliva, it is not only empty, but sterile. We see no object in having the stomach emptied the night before a test meal; it is sufficient if it is emptied early in the morning, and, further, seven or eight hours after a meal is too long for the estimation of stasis, as minor degrees may be overlooked if this rule is followed—six hours are sufficient. In giving the signs of cancer it should be pointed out that the presence of lactic acid and the Boas-Oppler bacillus depends upon the absence of hydrochloric acid, and not upon the presence of cancer. If hydrochloric acid is present, lactic acid and the bacillus are absent; if the acid is absent, they may be found, although there is no cancer, and, of course, cancer is not the only cause of the disappearance of hydrochloric acid. We have not found the benzidine test for traces of blood "too delicate," and after a considerable experience of it we are well satisfied of its value; we are in the habit of using a saturated alcoholic solution of benzidine with $H_2O_2$. There are too many methods given under urinary analysis; it would be better to give those only upon which the author relies, or at least to indicate them, as the wide choice given to a beginner can only confuse him, and there are many tests for albumen, for example, which are of no clinical value. Under "glycosuria" the author should have referred to the frequent observation of transitory glycosuria after drinking alcohol, especially beer and champagne, but also after any alcoholic drink. The omission is all the more inexcusable as he gives a number of drugs, such as strychnine, cocaine, and adrenalin, which are far less likely to cause mistakes in practice. Fermentation as a means of quantitative estimation of sugar in the urine is very fallacious when carried out with the little instruments which profess to show the quantity on a scale, as variations in temperature and pressure influence them too much; but the old method devised by Sir William Roberts is both practical and accurate, and deserves to have found a place here. Like so many other writers, the author mentions Cammidge's test, but expresses no opinion on its value. Le Nobel's test for acetone is given, but the Belgian chemist's name is misspelt. Hay's test for bile acids, again, appears here without a word of warning of its clinical futility. There is a good and clear description of the mode of performing lumbar puncture and of the information to be derived from it. The examination of the blood receives adequate consideration—in fact, occupies nearly a third of the book. The utility of the work is enhanced by the provision of an excellent index.

[3] *Diagnostic Methods, Chemical, Bacteriological, and Microscopical, A Textbook for Students and Practitioners.* By Ralph W. Webster, M.D., Ph.D. London: Rebman, Limited. 1909. (Roy. 8vo, pp. 668. 37 coloured plates, 164 illustrations. 26s.)

## BACTERIOLOGICAL CHEMISTRY.

DR. PRESCHER and VIKTOR RABS are the authors of a new German handbook of bacteriological chemistry.[4] It is a neatly compiled volume of varied contents interesting alike to the doctor, chemist, pharmacist, and student to whom it may serve as a guide in bacteriological, chemical, and analytical investigations. There is no doubt of the practical value of the publication as far as it relates to chemical analysis, and, if properly used, it will be found to be a most useful book of reference. We feel some hesitation in praising the bacteriological portions, for while the material dealt with covers much ground, the descriptions are too elementary for the practical bacteriologist and not minute enough for the general practitioner, whose many duties and little practice will necessitate explicit details for the carrying out of his own diagnosis work. The rough general discussions may pass as sufficient for the requirements of the book, but we are inclined to regret that Dr. PRESCHER and Herr RABS have wasted several pages on cursory descriptions of the preparation of nutrient media, a subject which no amateur or general practitioner whose time is fully occupied with his patients will have leisure to attend to. The preparation of media in the well-equipped laboratory must necessitate a much more detailed guide. Notwithstanding these and similar shortcomings, even the bacteriological portion contains much information of a useful character for the practitioner. The student of medicine might find a handy summary in the pages of this book regarding matter of bacteriological interest, but we could scarcely recommend him to study this book for the purpose. What the pharmacist wants with these bacteriological examinations we cannot imagine. The book does not present the subject in a manner calculated to teach him the essentials of bacteriology for the purpose of gaining a sound theoretical knowledge, and we distinctly object to the pharmaceutical chemist undertaking the work of the bacteriologist. The pure analytical chemist will probably require a sounder theoretical knowledge of this science if he is interested in it at all. As was indicated above, the chief value of the book lies in its chemical analysis. But here, again, we must not be misunderstood. The book is not a treatise on chemical analysis, and the student, practitioner, pharmacist, or amateur who has not a fair ground knowledge in chemistry will probably not be greatly assisted by the book. The methods of analysing water, milk, foodstuffs, etc., for common constituents and common impurities are clearly set forth. The pages are filled with succinct qualitative and quantitative tests for various substances, and in the hands of a person who knows how to apply chemical analytical methods will be found highly useful. Clinical chemistry is dealt with, as well as the analytical chemistry of water, milk, butter, margarine, cheese, wine, etc. Urine, faeces, blood, and gastric contents are dealt with adequately, and the most simple and yet the best recognized tests are set out. The authors are somewhat fond of introducing equations for the determination of constituents or physical characters from ascertainable values. At first sight these equations might appear to the medical man, who does not frequently indulge in chemistry more complicated than the heat test for albumen in urine, as bewildering, but we can recommend him to use the equations given. They are reliable, simple, and time-saving. On the whole, we may sum up the chemical part of the book—the lion's share of the book—as of value to the student and medical practitioner who has some elementary knowledge of chemistry, of use to the pharmacist who has to carry out analytical work from time to time, but probably not of much value to the analytical chemist, to whom it will be elementary. Medical officers of health are likely to find it an assistance in their work, and we can recommend it especially to them.

## EVOLUTION OF PURPOSIVE MATTER.

THE *International Scientific Series* has done much to aid the dissemination of knowledge amongst many classes of people, and not a few of its volumes have become classics. Dealing with the most fundamental problems of science in a manner shorn of extreme technicality, they have appealed to a wide circle of readers. In one of the most recent of the series we are furnished with an account of *The Evolution and Function of Living Purposive Matter*, by Mr. N. C. MACNAMARA.[5] Starting with the lowest class of animals, the author shows that in the protozoa the purposive elements are diffused throughout the body substance. It is impossible to account for the reactions which these simple organisms display towards stimuli by reference to chemical or physical forces alone, and it is not unreasonable to suppose that their protoplasm is endowed with a purposive function and that it is able to store impressions. From this undifferentiated condition the next step is to the rudimentary nervous elements of the sponges. The development of these into well-marked nerve tissue, its aggregation into the form of ganglia, and eventually into a definite central nervous system, is then traced throughout the lower classes of invertebrates. The origin and structure of the brain, and in particular those parts of it known as the fungiform bodies in insects, forms an interesting chapter. The first appearance of the basal ganglia in the lower vertebrates is then described. The function of these is to change stimuli received from outside into the instinctive and emotional movements characteristic of the various animals. These ganglia assume a greater importance in the higher vertebrates, and form a very prominent part of the brain. It is in the reptiles that we first find traces of that form of nervous matter the function of which is to elaborate psychical processes. This psychical nervous substance owes its origin to the basal ganglia, and it is from the latter that the great mass of the brain in man and the apes has developed. A short summary is given of the structure of, and the functions performed by, the psychical areas of the cerebrum, and the mechanism whereby the stimuli derived from sense organs are transmuted into sensations, ideas, and intellectual processes. In order to test the soundness of the conclusions arrived at in the foregoing comparative study, the author devotes the second part of his book to an outline history of a tribe of Celts who settled in the west of Ireland in the middle of the fifth century. Their descendants remained "on the same lands, an unmixed race, in a fairly constant environment," for the space of twelve centuries. This story of tribal laws, customs, quarrels, and warfare is more or less a reprint of an earlier work now out of print, and it shows to what an extent the instinctive and emotional faculties exert an influence in forming the hereditary character of individuals, and shaping the destinies of the race to which they belong. The book is written in a pleasant manner, and though not free from some errors, contains an abundance of well-chosen quotations and references.

## NOTES ON BOOKS.

*Feeding and Care of Baby*[6] is a book issued by a New Zealand organization, the Society for the Health of Women and Children. Its compiler's name is not mentioned, but he or she is indubitably a person of much energy, for the book contains a very large quantity of useful information, collected from an immense number of different sources. The interest of these is increased by numbers of excellent photographs and diagrams. We hardly imagine, however, that the most anxious mother is likely to absorb all its contents, for, in order to keep the book within reasonable limits, very small type has been used, and the paragraphs dealing with different points are so scattered that it is impossible to be certain that one has found all the information that is supplied by the book on any given subject. To make the book thoroughly useful, the scheme of its construction requires modification and many of the long quotations might be omitted with advantage.

The latest issues of the *Archives of the Middlesex Hospital*[7] include two fasciculi of the clinical series and the

[4] *Bakteriologisch-chemisches Praktikum.* By Dr. Joh. Prescher and Viktor Rabs. Second edition. Würzburg: Curt Kabitzsch. 1910. (Demy 8vo, pp. 314; 61 illustrations in text, 4 plates, and 2 tables. 5s. 6d.; in cloth, 6s. 4d.)

[5] *The Evolution and Function of Living Purposive Matter.* By N. C. Macnamara, F.R.C.S. London: Kegan, Paul, Trench, Trübner and Co. 1910. (Cr. 8vo, pp. xi and 298. 5s.)

[6] *Feeding and Care of Baby.* Issued by the Society for the Health of Women and Children. Dunedin: Mills, Dick, and Co. 1910. (Cr. 8vo, pp. 143. 1s.)

[7] *Archives of the Middlesex Hospital*, vols. xix, xx, and xxi. London: Macmillan and Co.

ninth report relating to the Cancer Research Laboratories. In the former are some thirteen papers, among which are specially worthy of note a most informing investigation by Dr. Otto May of the after-histories of 65 patients on whom gastro-enterostomy had been performed for non-malignant diseases; a study by Dr. W. Pasteur of 5 cases in which active lobar collapse of the lung followed abdominal operations; and a well-illustrated paper on the diagnosis of malarial fevers by Mr. H. W. Acton, of the Indian Medical Service. Also included in these volumes are the reports for the year 1909 of the pathologist, Dr. C. E. Lakin, and of the medical, surgical, and obstetric registrars, Dr. O. May, Mr. Cecil Rowntree, and Dr. F. E. Taylor respectively. Among the twenty-seven cancer papers appear a description of a new method for the study of leucocytes by Dr. Helen Chambers, the usual synopses of cases of malignant disease treated last year by Dr. Lazarus-Barlow and his assistants, and some studies on the sodium and potassium contents of normal and carcinomatous tissues by Dr. J. C. Mottram. Dr. Beckton also supplies accounts of further work on Altmann's granules in various tissues, while primary malignant disorders both of the intestine and colon and of the rectum are statistically considered by Drs. H. A. Colwell and E. Musgrave Woodman. Other papers are a first communication on the influence of $x$ rays on the development of the silkworm by Mr. Somerville Hastings; two studies on abnormal growths in dogs by Dr. Bryden Glendining, and on the spread of malignant disease in the pelvis, by the same author; and finally a second communication on the nature of the skotographic substance in tissues by Dr. Lazarus-Barlow himself and Dr. J. C. Mottram.

The second volume of the twentieth series of *International Clinics*[8] contains some twenty papers, of which five are devoted to medical diagnosis and treatment, three to general medicine, three to cancer, two to surgery, and three to obstetrics, the balance being of a miscellaneous character. The proportion of British writers is larger than usual, Edinburgh contributing two papers on eclampsia—one by Dr. Ballantyne, the other by Dr. Jardine—while Professor Arthur Whitfield, of King's College, deals with seborrhoea and its consequences, and Mr. Leslie Buchanan, of Glasgow, with epithelial tumours of the eyelids. Also included are a careful paper on the relation of school furniture to the creation and prevention of lateral curvature of the spine, and reviews of the progress of medicine and therapeutics during the past twenty years by Professor Walsh, of New York, and Dr. A. L. Benedict, of Buffalo, respectively.

The title *Vaccine Therapy: Its Administration, Value, and Limitations*[9] is somewhat misleadingly applied to a volume which has reached our hands, for it is not, as might be supposed, a monograph on the subject, or even a summary of existing knowledge thereon. It is the report of a debate on vaccine therapy which took place at the Royal Society of Medicine last summer, and occupied six general meetings. The discussion was opened by Sir Almroth Wright, who was followed by some thirty-three other speakers. For the most part, each speaker expressed his own views and experiences without much reference to those of others. All the speakers are seemingly reported verbatim, and this makes the record somewhat lengthy. The volume is worth reading, as it is a record of the views held at the time by a large proportion of those in England who have paid special attention to this subject. Dr. NACHBAR, who has edited the volume for the society, has supplied an index which adds materially to its usefulness.

The twenty-second volume of the *Transactions of the Southern Surgical and Gynaecological Association*[10] covers the twenty-second annual meeting of this American society. It was held a year ago under the chairmanship of the president of the society, Professor Stuart Squire of Richmond, Virginia, and included the reading and discussion of some forty-five papers. The majority deal with general surgery, and several interesting cases are recorded. Among the authors are Dr. W. B. Coley, who deals with the increase of cancer; Dr. W. G. Crile, who reports briefly an experimental and clinical research into nitrous-oxide as opposed to ether anaesthesia; Mr. C. H. Mayo, who discusses the diagnosis of hyperthyroidism; and the president of the society, who devoted his address to latent and active neurasthenia in relation to surgery.

[8] *International Clinics.* Edited by Henry W. Cattell, M.A., M.D., with the collaboration of various authorities. Vol. ii. Twentieth series. 1910. Philadelphia and London: J. B. Lippincott Company. (Pp. 304. 35s. net.)

[9] *Vaccine Therapy: Its Administration, Value, and Limitations.* London: Longmans, Green, and Co. (Sup. roy. 8vo, pp. 216. 4s. 6d.)

[10] *Transactions of the Southern Surgical and Gynaecological Association.* Vol. xxii. Edited by W. D. Haggard, M.D. 1910. Philadelphia: Published by the Association. Pp. 561. (Demy 8vo.)

## MEDICAL AND SURGICAL APPLIANCES.

*Forceps for the Removal of Michel's Clips.*

DR. J. WALLACE MILNE of Aberdeen has devised a new forceps for the removal or for the disengagement and refastening of Michel's clips after insertion. The forceps has ordinary scissor handles, a take-off joint, and cranked blades ending in fine straight rods for insertion in the cylindrical loops at the outer sides of the clips. One blade is about a sixteenth of an inch longer than the other, and serves to steady the clip whilst the second is inserted. To straighten out the bent clip, the engaged fingers must be separated, but the leverage is ample. The advantages claimed for this instrument are, that there is no fear of the painful jerk experienced by the patient when an instrument constructed to spread the spikes by pressing down the apex of the arch slips off the top; as compared with the "two hooks" method of removal, the new forceps permits of immediate readjustment of the hook if it be found that the wound will gape. The facility of reclosure also permits opening a small extent of the wound to give egress to pent up serum, without detriment to the ultimate cicatrix. The forceps can be obtained from Messrs. Pettie and Whitelaw, Aberdeen.

*Quartzlite Light.*

We have had an opportunity of inspecting a type of electric light apparatus recently brought out by the Brush Electrical Engineering Company. The actual light is furnished by a stream of mercurial vapour rendered incandescent *in vacuo* by the passage of a current of electricity. In essence, in short, the device is an ultra-violet light, in the neighbourhood of which a certain amount of ozonization of atmospheric oxygen occurs. As a naked light it is, of course, unsuitable for illuminating purposes, but when covered in by a special form of globe which the firm has devised, the illumination supplied is excellent. The special point about it is a combination of brilliancy and penetration with marked diffusion and an absence of anything in the nature of glare. The apparatus in its present form is intended for use in large halls and in open spaces, and for such purposes should become popular. It is stated to continue to work in full force, and without flickering, for not less than a thousand hours. On the same occasion we also saw some of the Metallum lamps, made by the firm for use in private houses. The filament is composed, we understand, of colloid-tungsten, and is apparently not fragile, for we found that the lamps could be shaken without fracture. The globes surrounding the filaments can be procured either pear-shaped or round as desired, there also being an option between clear and frosted glass.

## MEDICINAL AND DIETETIC PREPARATIONS.

*Coryza Vaccine.*

AMONG recent products issued by the Wellcome Physiological Laboratories (Messrs. Burroughs, Wellcome, and Co., Snow Hill, E.C.) are three coryza vaccines, for use, according to the nature of the infection, in different cases of coryza. These vaccines are supplied in small hermetically-sealed vials, each holding a dose of 1 c.cm., this quantity containing 100 or 200 million organisms. No. 1 contains *Bacillus septus*, No. 2 *Micrococcus catarrhalis*, each of these having 100 million in the dose, while No. 3 contains 100 million of each of these organisms.

*"Encore Crystal" Gelatine.*

We have received from Messrs. Bischof and Brooke (35, Brooke Street, London, E.C.) a sample of gelatine in powder, which they have put on the market under the above name. Our analysis shows it to be a gelatine of excellent quality, containing only 1.35 per cent. of mineral matter, and forming a practically colourless and tasteless jelly when dissolved in water. Being in fairly fine powder, it is more easily and quickly dissolved than many other makes, and for the domestic production of jellies of all kinds and for thickening soups, etc., it will doubtless prove very acceptable.

# THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

## NERVE TONICS, ETC.

**We publish here the results of analyses of a number of proprietary medicines which fall under the general description of "nerve tonics." Some of these are principally advertised as nerve and general tonics, while others are more particularly put forward for curing the effects of sexual excesses; certain of the latter, like some of the medicines which have been dealt with in previous articles, are ostensibly prescribed for individual cases in accordance with the answers supplied by the purchaser to printed sets of questions.**

### PHOSFERINE.

**This widely-advertised preparation is supplied at 1s. 1½d. and 2s. 9d. by Ashton and Parsons, Limited, London. A 1s. 1½d. bottle was found to contain 2 fluid drachms, and a 2s. 9d. bottle just over 1 fluid ounce.**

**Phosferine is described in an advertisement as**

The Greatest of all Tonics.
A Proven Remedy for
Nervous Debility, Influenza, Indigestion, Sleeplessness, Exhaustion, Neuralgia, Maternity Weakness, Premature Decay, Mental Exhaustion, Loss of Appetite, Lassitude, Neuritis, Faintness, Brain Fag, Anaemia, Backache, Rheumatism, Headache, Hysteria, Sciatica, and disorders consequent upon a reduced state of the nervous system.

**In a circular enclosed in the package it is stated that**

Phosferine is a potent strengthening medicine, withal gentle in its action and perfectly harmless; being akin to gastric juice, it rests and restores the digestive organs and regulates the bowels to normal action.

The public cannot be too strongly warned against the many purging medicines advertised for indigestion, etc., which are not only a fruitful source of piles, but injure the coating of the stomach, and sap the very gastric juice Nature is straining herself to supply.

Unlike other tonic medicines, Phosferine does not injure the teeth, or upset the stomach and cause constipation; on the contrary, it will be found beneficial in these conditions.

Phosferine may be taken at all times with benefit; there is no possible objection to its continued use either as an appetizer or a general strengthening and nerve remedy.

**Somewhat varying directions are given as to the quantity to be taken for different ailments, the dose being stated as from five to ten drops, to be taken from twice to four times a day.**

**Analysis showed the presence of alcohol, quinine, phosphoric acid, and a little sulphuric acid; a trace of sodium salt was found, but this was probably an accidental impurity in the phosphoric acid; no other ingredient could be detected. Expressing the acids as the dilute acids of the *Pharmacopoeia*, and the quinine as the ordinary official sulphate, the formula arrived at is**

| | | | | |
|---|---|---|---|---|
| Quinine sulphate ... ... | 0.67 | part | | |
| Diluted sulphuric acid ... | 2.5 | parts | by | measure |
| Diluted phosphoric acid ... | 54.6 | ,, | | ,, |
| Alcohol ... ... ... | 8.1 | ,, | | ,, |
| Water ... ... | to 100 | ,, | | ,, |

**The estimated cost of the ingredients for 1 fluid ounce (2s. 9d. bottle) is ½d.**

### GUY'S TONIC.

**This is a liquid prepared by Guy's Tonic Company, London. A bottle priced 1s. 1½d. contained 6 fluid ounces. In a circular enclosed in the package it is stated that:**

Guy's Tonic is a rich Cordial prepared from Vegetable Tinctures and other curative agents found in the British Pharmacopoeia. . . . Guy's Tonic is not put forward as a Remedy for "all the ills to which flesh is heir," for no such thing as a "Cure-All" exists. It is, however, confidently recommended for the specific Ailments enumerated. . . . The use of Guy's Tonic will be attended with the happiest results in:—

1. Disorders of the Digestive System: Dyspepsia, Heartburn, Loss of Appetite, Pain after Food, Flatulence or Wind, a sensation of Nausea (Sickness), furred or white-coated Tongue, unpleasant Breath, disagreeable Taste in the Mouth, Drowsiness after Eating, a feeling of weight or discomfort in the Chest, palpitation of the Heart, shortness of Breath, and Acidity of the Stomach.

2. Functional Derangements of the Liver: Sluggishness, Congestion, Constipation, Biliousness, Despondency, Dizziness, Sallowness of the Complexion, Blotches on the Skin, dull pains between the Shoulders, variable Appetite, Headache, disturbed Sleep, Lassitude, and Irritability.

3. Disorders of the Blood: Anaemia, Emaciation, Paleness, Weariness, and Disorders dependent upon a Vitiated or Impoverished condition of the Vital Fluid.

4. Nervous Maladies: Neuralgia, Nervousness, Hysteria, Giddiness, Alcoholism, disturbed Sleep, unpleasant Dreams, confused Thoughts, lack of Confidence, Loss of Memory, Depression, Melancholy, Exhaustion, Languor, and affections due to Malnutrition of the Brain and Spinal Cord.

5. General Diseases: Gout, Rheumatism, Rheumatic Gout, Lumbago, and Disorders characterized by Perverted Nutrition and Lack of Vital Force.

6. Convalescence from Acute Diseases: also in cases of recovery from Influenza, Fevers, Bronchitis, and other exhausting Diseases, and in General Debility and Prostration from whatever cause arising.

**The dose is stated on the label to be:**

For adults, one tablespoonful. Under 9 years, one dessertspoonful. Under 2 years, one teaspoonful.

**Analysis showed it to contain small quantities of hydrochloric and phosphoric acids, alcohol, bitter and aromatic substances and colouring matter, and a trace of chloroform. No alkaloid was present; the bitter and aromatic substances present in very small amount agreed well with those of the official compound infusion of gentian; the behaviour of the colouring matter indicated that it was cochineal. The quantities of the two acids and the alcohol were determined, and the amounts of the other ingredients estimated by methods of comparison. The following formula gives an exactly similar mixture:**

| | | | |
|---|---|---|---|
| Diluted hydrochloric acid ... | 0.59 | parts | by measure. |
| Diluted phosphoric acid ... | 0.52 | ,, | ,, |
| Alcohol ... ... ... | 2.27 | ,, | ,, |
| Compound infusion of gentian | 40 | ,, | ,, |
| Chloroform water ... ... | 50 | ,, | ,, |
| Cochineal colouring ... ... | a sufficiency | | |
| Water ... ... | to 100 | parts | by measure. |

**The estimated cost of the ingredients for 6 fluid ounces is ½d.**

### VITAE-ORE.

**The article sold under this name is supplied by the Theo. Noel Company, Limited, London, price 4s. 6d. per package.**

**An offer to send a package, containing sufficient for one month, to be paid for only if benefit is received, is largely advertised. The advertisement usually includes an illustration of a man's head, said to represent "Prof. Theo. Noel," described as the well-known geologist. The following are extracts from one of these advertisements:**

I discovered by accident the dried residue of the greatest curative spring in the world. It seemed worth while to try whether this, when redissolved, would have mineral spring virtues. The results astonished me and those who experienced them. The spring was a marvel—far exceeding anything that Homburg, Harrogate, Aix, Bath, or any other spa can show. Some untraceable element defying the chemist's analysis—is it Radium?—enters into the rock. Whatever the element may be, its effect can be distinctly felt when the drink made from this deposit, which I call Vitae Ore, or "life-rock," is taken as a beverage. Those who use it say that it gives a degree of buoyant, cheerful energy, which they never, perhaps, experienced before.

Everyone knows a few people with health and vigour to spare—the men whose breezy personality carries all before it, so that no one can resist them; the women whose warm bloom and feminine grace capture all hearts. Well, Vitae Ore will give these things to ALL, if used as I will tell you how to use it. No artificial drug enters into it. No artificial drug can rival its effects.

Whether you are well or ill—strong or weak—Vitae Ore will give you new life. Under its influence Nature herself cures

| | | |
|---|---|---|
| *Rheumatism* | *Dropsy* | *Constipation* |
| *Sciatica* | *Catarrh* | *Nervous* |
| *Gout* | *Indigestion* | *Exhaustion* |
| *Anaemia* | | |

*and all Liver, Blood, and Stomach Diseases. . . .*

Its effect in giving new vigour and nerve-force to people of mere ordinary health, turning them into noticeably and radiantly strong men and women, makes it worth using in every case. . . .

How to use Vitae-Ore.

Vitae-Ore comes to you as a box of powder. You simply dissolve it in a pint of cold water, and of this mixture drink a teaspoonful in a half-tumbler of water three times a day, and

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii. p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1083, 1120; vol. ii, pp. 982, 1350, 1928.

at bedtime, for a month. In a few days, a week, or later, according to your present condition, you will begin to notice greater strength, better digestion, higher spirits, a clearer complexion, a healthier appetite. These are the effects of the new vitality in Vitae-Ore.

A 4s. 6d. package contained 137 grains of the substance; analysis showed it to contain a slightly basic but soluble iron sulphate, magnesium sulphate, and combined water; the quantity of each constituent was determined and found to be as follows:

| | | |
|---|---|---|
| Ferric oxysulphate, calculated as anhydrous | ... ... | 47.57 per cent. |
| Magnesium sulphate, calculated as anhydrous | ... ... | 15.89 ,, |
| Water, in combination | ... | 36.54 ,, |

No other substance was detected. The iron, magnesium, sulphate, and water were all determined separately, and, as the figures add up to 100.00 per cent., not much is left for "some untraceable element defying the chemist's analysis." If the directions, quoted above, are followed, each dose would contain:

| | | |
|---|---|---|
| Iron oxysulphate, anhydrous | ... | 0.47 grain. |
| Magnesium sulphate, anhydrous | ... | 0.15 ,, |

The estimated cost of the ingredients contained in one package is about one-eighth of a penny.

### SEQUARINE.

Sequarine is supplied by C. Richter and Co., London, at the price of 8s. a bottle, holding 1 fluid ounce. It is advertised as "The New Serum Cure," and both newspaper advertisements and the descriptive pamphlet sent on application include what is stated to be a portrait of "The Discoverer, Dr. Brown-Sequard, F.R.S." It is stated in the pamphlet that:

Since the discovery of blood circulation by Harvey there has been no greater addition to the forces of medical science than the strength producing element discovered by Professor Brown-Sequard, F.R.C.P. (London), L.L.D. (Cambridge). This element, which is the Serum-Sequarine, has already become an indispensable aid to physicians. . . . The new serum has been given various names, such as "Sequard Fluid" and "Spermine," etc., but the registered and generally recognised name of Professor Brown-Sequard's discovery is "Sequarine"—a name derived from that of the discover himself, thus: Sequar—ine.

Since the general nature of the preparation is thus indicated, it is not altogether a "secret" remedy; but from the way in which it is advertised to the public, and the attempt to identify Brown-Séquard's orchitic fluid with the preparation supplied by this particular firm under a registered trade-name, it is fairly to be classed among nostrums.

The following is an extract from a newspaper advertisement:

Nature and Action of the Serum.

According to leading physicians the nature of Sequarine and the manner of action on the human organism in curing disease may be briefly summarized as follows:

Within every animal body there exists a "power of disease resistance," the principle of "Natural immunity"; this power resists the entrance of any disease into the body, and if it is of normal strength readily repels the disease even after it has gained entrance. In treating disease doctors are aided greatly by the principle of "natural immunity." The homoeopaths rely on it almost entirely—and in a great many instances drugs get the credit for a cure when vital resistance has really effected it. The greatest scientists have always been baffled in their endeavours to discover the element or force which is the basis of this peculiar power. In his search for this element Professor Brown-Sequard discovered that there exists in the blood infinitesimal quantities of a fluid which subsequently proved to be the *basis of the power of natural immunity from disease.*

This fluid is the serum which has been named Sequarine in his honour.

What Sequarine Cures.

Sequarine is a cure for any ailment or weakness brought about by lack of nerve power or an accumulation of impurities in any part of the body.

The attempt to secure the prestige of the name of the late Dr. Brown-Séquard, without stating precisely that he was in any way responsible for the article now sold as Sequarine, is very obvious in a circular letter sent with the pamphlet referred to above, from which the following is an extract:

Since the introduction of Sequarine into England an ever-increasing number of sufferers have taken this treatment with remarkable success. The name of Dr. Brown-Sequard, L.L.D. (Cambridge), Fellow of the Royal Society and Fellow of the Royal College of Physicians (London), is a sufficient guarantee of its efficacy.

The directions on the label are:

Dose.—Adults, 20–30 drops; children, 5–15 drops in half-a-glass of water (soda-water or water which has been previously boiled preferred).

To be taken three times daily, half-an-hour before meals.

The liquid contained 35.8 per cent. by volume of alcohol, and a sufficient trace of oil of peppermint to give a flavour; on evaporation it left 1.9 per cent. of solid residue, of which 0.6 was ash—principally sodium and potassium phosphates. The nitrogen present was 0.22 per cent., equivalent to 1.4 per cent. of protein, but a small portion of it was present as ammonia, perhaps formed by decomposition of nitrogenous organic matter. The liquid was thus shown to be of the nature of an animal extract, with alcohol; definite constituents could not, of course, be isolated.

### COCAPHOS.

This preparation is supplied by Gavin and Co., London. A box priced 4s. 6d. contained 94 tablets.

The following extracts are from an advertisement in a magazine:

Gavin's "Cocaphos" Puts New Life Into You. . . . You cannot do your work if you are in a nervous state; the worry and stress of modern life tells on the best of constitutions. Many fly to stimulants and find temporary relief, but as there is always a reaction, they find it necessary to continue taking them, and thus a bad habit is formed. When your feel run down and need energy and go the finest thing to take to brace you up and allow you to make the most of your opportunities, to remove that tired feeling, and to build up your nervous system is "COCAPHOS." This is composed of the finest ingredients for the purpose, acknowledged by the Medical Profession to be a fine recuperative tonic.

The dose is given on the label as "One tablet after each meal."

The tablets were sugar-coated, and coloured red externally; after removal of the coating the average weight was 3.9 grains. Analysis showed the presence of:

| | | | In one tablet. |
|---|---|---|---|
| Iron hypophosphite | ... | 20 per cent. | ... 0.78 grain. |
| Quinine sulphate | ... | 2.8 ,, | ... 0.10 ,, |
| Extract (probably damiana) | ... ... | about 50 ,, | ... 2 grains |
| Sugar | | | |
| Talc | ... ... ... | 11 ,, | |

The extract agreed in characters and tests with extract of damiana; it was not possible to determine exactly how much was present. The name of the article appears to imply that a preparation of coca is present; no evidence was obtained of any, but a small proportion of extract of coca, if present, could not be identified in presence of the extract of damiana.

The estimated cost of ingredients for 94 tablets is 8¼d. The most costly ingredient is the extract of damiana, which is also the least certain in quantity; probably the figure given is a liberal estimate.

### DAMAROIDS.

The tablets sold under the name "Damaroids" are supplied by Hygienic Stores, Limited, London, at 2s. 9d. and 4s. 6d. per box. A 2s. 9d. box contained 36 tablets.

"Damaroids" are thus described in an advertisement:

They are a Safe and Sure Cure of General Weakness, Physical Decay, and Loss of Nerve Power, Varicocele, etc., etc. They are a Unique and Wonderful Specific for ment Effectually Restore Lost Vitality and Stamina, counterac. result of late hours, etc. "Damaroids" is The True Nervo-Spinal Tonic, the Safest and most effective medicine yet introduced for nervous and all exhausting diseases.

They have cured thousands of cases—and they Do cure.

On the label they are described as:

A Safe and Sure Remedy for General Weakness, Spinal Exhaustion, Neurasthenia, Physical Decay, and Loss of Nerve Power.

Directions:—One to be swallowed three times a day, after meals.

The tablets were sugar-coated and coloured red externally; after removal of the coating they had an average weight of 3.9 grains. They exactly resembled the tablets just described as "Cocaphos," and showed the same com-

position, with some difference in the proportions of the ingredients. The figures arrived at are:

| | | In one tablet. |
|---|---|---|
| Iron hypophosphite ... | 14 2 per cent. | ... 0.55 grain. |
| Quinine sulphate ... | 3.4 ,, | ... 0.13 ,, |
| Extract (probably damiana) ... ... | about 50 ,, | ... 2 grains. |
| Sugar | | |
| Talc ... ... ... | 16 ,, | |

The same remarks apply here as in the preceding case, and the cost would be approximately the same.

*(To be continued.)*

# Nova et Vetera.

## THE HYGIENE OF THE FRENCH FOREIGN LEGION.

THE French Foreign Legion has been much before the world, having been often described both here and on the Continent. To us it is chiefly known from popular romances, such as Ouida's *Under Two Flags*, and from breezy descriptions such as those by Patrick Le Poer and Mr. Monington. It has been left to a German, Herr Erwin Rosen, of Hamburg, to describe the Legion in somewhat lurid colours, which, if not too thickly laid, tend to the discredit of foreign service under the French Republic. Herr Rosen, who has served his time in the German army and who has been successively a student in his own country, an American rough-rider, and a journalist in both the old and the new worlds, writes with great picturesqueness and minute attention to detail, but always, we cannot help suspecting, from the point of view of a Teuton anxious to pick holes in things Gallic if this can be done with a semblance of impartiality. We must therefore take into account this Teutonic point of view in considering *In the Foreign Legion*, the work by Herr Rosen published not long ago by Messrs. Duckworth. The author presupposes that the Legionaries are mainly Germans, but here he, perhaps purposely, forgets that as lately as fifteen years ago, according to the careful statistics of De Beauvoir, 45 per cent. of the men were German only in name and really French in heart. They were, in fact, Alsatians, who, for various reasons, but always at great personal risk, had escaped from the loathed yoke of the Prussian régime in the lost provinces into what has often proved slavery under France.

There is nothing to show that the percentage of Alsatians in the Foreign Legion has decreased since 1895. We are indeed justified in viewing the Legion as *par excellence* the battalion of the lost provinces. And, if this be so, the rigours inflicted by the French authorities on the representatives of a people so faithful of old to the French, so sturdy in her service from the days of Kleber to 1870, and still so affectionately mindful of her sunny rule, become tenfold more graceless and sinister. Granted that the Legion is mainly Teutonic in the sense of being Alsatian, its history since the Franco-German war becomes one of the most poignantly mocking episodes in the martyrdom of small nationalities.

We insist on this fact of nationality in writing of the Legion's hygiene in order that the reader may bear clearly in mind the intensity of suffering, moral as well as physical, which certain Legionaries may at any time be compelled to bear. Public opinion both in and out of France generally regards the Legionaries as wastrels, the scum of the earth, for whom nothing in the way of treatment and discipline can be too bad. Herr Erwin Rosen, however, is at pains to show that the Legion is not wholly made up of blackguards. He believes it to be in great part recruited from a floating population of German tramps adrift in a state of semi-starvation on the French roads. Hunger is the great recruiting sergeant of the Legion, according to this German observer. But, as we have partly shown, a pathetic and enduring love of France is with many at least as strong a motive as mere physical want.

It would be curious to have an account of the Legion from an Alsatian Gallophil—one such as Jean Oberlé, the hero of René Bazin's famous romance. Let us imagine that such an exile—not one like Herr Rosen—had joined the Foreign Legion in Algeria some five years ago, having fled from the German army at the risk of his life, and from a personal *impasse* of German manufacture that has completely wrecked his career as a man, lover, and citizen. He reaches Belfort over the Vosges frontier (readers of *Les Oberlés* will remember the graphic account of the escape of Jean), and "signs on" for five years in the foreign service of the French Republic. Once recruited, he is passed through a series of insanitary barracks and transports via Marseilles to Algeria and to Oran, whence he eventually is drafted to the head quarters of the Legion at Sidi-bel-Abbès. Here his life of hardship begins. We now follow Herr Rosen's description.

The Foreign Legionaries' day commences between 5 and 6 o'clock in the morning, when coffee, excellent of its kind, but apparently no food, is served to the men in barracks. After some sort of washing process the recruits fall in in the barrack yard within half an hour. At 6 o'clock they are marched off to drill. This is of the most exacting order, and seems designed to eliminate the unfit at the earliest date possible. The *pas gymnastique* plays a great part in the early morning evolutions. It is a quick double, and is kept up for long periods, during which the men must manage to run like athletes and gain their "second winds." This, according to our author, is the ruin of many lungs.

Under the African sun, which is blazing at an early hour, clothes are soon soaked with perspiration. At 11 a.m. only are the tired squads marched back to barracks. In the early days of his training the soldier throws himself on his bed in a state of exhaustion, but his rest lasts for a few minutes only. The first meal of the day, consisting of bread soup, boiled together with potatoes and vegetables and a small piece of meat, is partaken of shortly after 11 o'clock. All the afternoon the recruits are kept hard at it—as far as possible in the shade, it must be admitted—receiving instruction in drill or in evolutions, or in *le boxe*, till 5 p.m., when there is a second *soupe* precisely similar to the 11 o'clock meal. Good red wine, however, is also periodically served out with these meals, and at other times the *légionnaire* is always ready to swallow as much as he can obtain of this. It is sold for four *sous* a bottle, and it must mitigate to some extent the monotony of the not too generous *gamelle*, as the French soldier's soup is called.

In time, of course, the recruit grows used to these surroundings, and surmounts what, after all, are not tremendous hardships to a man of Continental race, especially if he be of tough peasant origin. It is the forced marches which are the real torture as well as *raison d'être* of the Legion's life.

The author gives a vivid account of one such march. The bugle sounded *Aux armes* in the middle of the night. At once the sleeping Legionaries leapt out of bed, and there was an anticipatory uproar in barracks. Sergeants and corporals rushed from room to room shouting "*Aux armes*," and in an indescribably short space of time the soldiers were in the barrack yard ready to march *en tenue de campagne d'Afrique*. This African marching kit is perhaps the most burdensome in the world. The men carry everything requisite for cooking, camping, etc., piled high upon their backs.

Blank cartridges being served out on the occasion of this particular march, the "roaring and singing" of the Legionaries stopped as suddenly as they had begun. To their intense chagrin, the men realized that, instead of a brush with the Arabs, a *razzia*, they were in for a mere *marche militaire*, of which they had already had quite enough in a garrison where it is the custom, on many a torrid afternoon, to trot the men some twelve kilometres out and back again along the military roads branching in all directions out of Sidi-bel-Abbès. In this instance the *marche militaire*, or short manœuvre, was destined to extend over a distance of about four hundred miles!

A certain amount of licence is allowed to soldiers on the march in the French army. This was noticed in the days of Waterloo by Sir Walter Scott (*Letters of Paul*) and by Captain Marryat. Thus there was at first much talking and laughing on this night march; but gradually the voices died down, and jests and songs ceased, as the tremendous knapsacks began to press heavily and the gun straps cut into the shoulders of the men. After every ten kilometres the soldiers were allowed five minutes' rest, and the knowing ones would then lie down flat on

the tops of their burdens without stopping to unstrap anything.

"When the morning mists and the bitter cold of the dawn were followed by the hot, burning sun, we had accomplished a march of forty kilometres, and the time came when our legs refused to do any more. When the signal sounded for rest we fell down helpless, and when we started marching again it looked as if a crowd of invalids and old men were slowly wandering down the road. The worn-out legs revenged themselves for the hard usage they had received. During the halt the flow of blood was hemmed in the limbs. [This is Mr. Rosen's explanation of the well-known phenomenon of "pins and needles."] Standing on one's feet again, one felt a sharp, stinging pain in the soles. Every step was torture. For five minutes afterwards one crawled along as best one could, till one became once more an unfeeling automaton."

At 11 o'clock in the morning the regiment had marched fifty kilometres. They camped, were fed on tinned meat and macaroni, and slept the sleep of complete exhaustion. An hour after midnight the march was resumed. It was a march lasting eight days. Sometimes the day's task amounted to some twenty-three miles, but the next, the deficiency—for such it was—was made up by an addition of some ten kilometres to the distance covered. "The monotony of this march, and the physical strength and endurance it claimed of each of us, cannot be described." Herr Rosen, it should be borne in mind, had served his severe term of service in the German army, and had besides seen much rough work as a cowboy in America. He was not a weakling, and his description of hardships endured upon this march therefore deserves attention. As the desert was neared, the men were put upon a short supply of water, and each received daily two litres of dirty muddy stuff of which a half-litre had to be saved up for the morrow's *soupe*, that innutritive superstition of the Latin races. The man who drank up all his water was fined for his negligence by receiving a handful of raw rice in place of the usual rations of macaroni and tinned meat. Another brutal rule of the march is that, if you faint from exhaustion you are lashed to a pole protruding from a baggage-cart and are dragged along with your feet touching the ground. Like a good ex-Prussian soldier, Rosen admits that these are just rules. It would never do to run short of water on the verge of the desert, and a Franzawi left behind among Arabs is generally horribly mutilated and tortured to death by their women. The author tells a sufficiently gruesome story of a petty officer who one evening went for a short stroll out of camp, when his regiment was in the desert, and was found next day literally sliced to pieces by the Arab amazons, his dead hand still clasping the broken glass bracelet of one of his tormenters. General Négrier, the friend of the Legionaries, and himself a good Catholic and humane man, was so impressed with the danger of straggling or loitering behind when on the march that he gave the Legionary this watchword—"March or die."

When on this terrible march, Rosen, either from the effects of bad water, sudden contrasts of heat and cold, or from sheer exhaustion, began to suffer from cramps in the stomach, which recurred every few minutes, and left him doubled up and hardly able to crawl. He applied to the regimental surgeon for something to alleviate the pain; but this gentleman was probably overworked—at least it is charitable to put that construction on his conduct. "On the march there are no sick men!" he roared. Then, in allusion to Rosen's request for opium pills: "What do you know about opiates? To judge from your accent you are an Englishman. . . . All the same, if you're English, German, or Hottentot, I take you to be quite a common simulator. I shall give you a certificate of being *non-malade*."

A roar of "*Va-t'en*" ended the interview. Rosen was reported for shamming, and, before his commanding officer, broke through all restraints, and burst into the wildest invective against the Legion and all its works. The officer, much to his credit, took no notice of this, and only pointed out that a man could not expect much in the Foreign Legion, and that, at any rate in the French service, a private is not beaten by the non-commissioned officers as in Germany. Poor Rosen obtained his opium pills, but declares that: "To-day it is a puzzle to me how I managed to march three hundred kilometres"—the remainder of his journey—"in the burning sun, and to stand the cold during the nights."

The march had been undertaken in order that the colonel of the regiment might show off his men in a short desert manœuvre, lasting a few hours only, before a rival. At the close of all, the marchers were crawling along in a fearful condition. Inflamed eyelids, severe bronchial troubles, bleeding and festering sores on the thighs, and open wounds on the feet, were apparent on every hand. "Surly, silent raging bitterness pictured in the hard lines of the face and in the tired eyes, we stamped onwards. The only words heard were curses." At night, in camp, the "*cafard*" of the Foreign Legion, "a near relative to tropical madness," would take possession of numbers of the men, strings of whom would dance round the camp-fires, roaring out a horrible song denouncing seriatim all their tortures and torturers. From motives of policy doubtless, these *cafard* maniacs were not taken seriously. Arms are not allowed in camp, and it was never difficult to capture the singers, and to tie them to pegs outside the guard-tent, there to cool themselves down before resuming the agony of the march at sunrise.

Much more might be quoted from Herr Rosen's surprising book. The Legionaries have been the pioneers of civilization in Algeria, making its fine military roads and performing other like labours. They are employed in every kind of office: they are engineers—scavengers. Our author gives some striking accounts of sanitary *corvée* duty in the prisons—in that of the Arabs, where he was employed in emptying pestilential cesspools, and in the fearfully overcrowded regimental lock-up. The punishments of the Legionaries partake, according to our author, of the nature of mediaeval torture; and their vices, learnt in all climes, are innumerable as the sands of the sea, and are only conditioned by the smallness of their pay—five *centimes* per diem during the first three years of service.

The Legion is very large, but the numbers of its two regiments are not published. The whole subject of the Legion, indeed, would seem to be veiled in official obscurity. Yet its history is a proud one. Founded in 1831 as the African Auxiliaries, the Legion, during the eighty years of its existence, has figured with startling *éclat* in some forty-eight great actions, in all parts of the world, from Mexico to Tonquin. Latterly, as we know, it has fought obscurely, but with great bravery, in Morocco. It is its military glory, rather than its régime and hygiene, which doubtless still attracts recruits to its crowded ranks.

## ALCOHOLISM IN ADULTS.

A MEMOIR recently issued from the Eugenics Laboratory, entitled *A Preliminary Study of Extreme Alcoholism in Adults*,[1] by Amy Barrington and Karl Pearson with the assistance of Dr. David Heron, is founded mainly on an analysis of the data contained in the six annual reports (1905 to 1910) of the Langho or Lancashire Inebriates' Reformatory. With the co-operation of Dr. F. A. Gill, the director, particulars were obtained as to the mental condition, physical state, and conduct of 207 female inebriates, and as to the age, number of convictions, religion and education of 333 female inebriates. Of the 333, however, 5 had to be omitted, as the entries with regard to them failed in one or more categories. The writers apologize for the slenderness of their data, and state that many of their conclusions are probabilities or suggestions rather than demonstrations. The conclusions, whatever be their value, are as follows:

1. If intensity of the alcoholic mania be measured by the number of convictions, there appears for constant age little relation between alcoholism and physical fitness.
2. There is a sensible relation between alcoholism and poor education and alcoholism and mental defect. We consider it probable . . . that the alcoholism is not due to the poor education, nor is it to any marked extent productive of the mental defect, but the want of will-power and self-control, associated with mental defectiveness, is itself the antecedent of the poor education and of the alcoholism.
3. The physically stronger, judged from religion (or race) the emotionally more excitable, and, judged from intelligence the more mentally defective, tend more to alcoholism, and give, when sober in the reformatory, most trouble.

[1] Memoir XIV. London: Dulau and Co. 1910. 4s.

4. If alcoholism is the product of the association of emotionally excitable, physically strong natures with want of mental balance, we see that it is rather the hereditary than the environmental factor to which in alcoholism, as in criminality and insanity, the first attention must be paid. It is a study of stock, not of environment, which must give us the real clue to the treatment of alcoholism.

Whether we suppose the 63 per cent. of mentally defective persons among these inebriates to be the source or the product of the alcoholism, one fact is clear—the reformatory does not restore them to mental efficiency, nor in the great bulk of cases give them the power to control to social advantage their own lives.

The statement that 63 per cent. of inebriate women in the reformatory failed to reach the normal standard of intelligence seems to be founded on the experience of Langho, but appears to be confirmed by Dr. Branthwaite's statement in his report for 1908 that only 36.45 per cent. of 3,032 inebriates were of average mental capacity. The authors of the memoir conclude "that the problem of the inebriate women, the problem of the lowest type of prostitute, and the problem of the habitual criminal are closely one with the treatment of the mentally defective," and therefore maintain that "the segregation of the mentally defective child of both sexes is the first step in the effective treatment of both alcoholism and criminality."

A reflection which will no doubt occur to those readers who have followed the correspondence in these columns between Dr. Mary Sturge and Sir Victor Horsley on the one hand and Professor Karl Pearson on the other will be that there is some contradiction between the conclusions reached in this latest memoir and those made in the earlier memoir to which the correspondence refers. The authors feel this, for they write as follows:

Should the reader of this memoir have read a previous memoir[2] on alcoholism issued by the Galton Laboratory, he may at first sight be puzzled by an apparent contradiction. In that case no close relation was found between mental defectiveness in the children and alcoholism in the parents. Here a close relationship is found between mental defect and alcoholism, and on the basis of it segregation of the mentally defectives advocated because of the hereditary character of such defect. We can only state results as they flow from our data, and then seek an explanation of any apparent discrepancy. In the Edinburgh and Manchester samples we found no excesses of mental defect in the children of the alcoholic; in the Langho data we find excess of mental defect in the alcoholists themselves, and anticipate it in their offspring. What is the probable explanation of this apparent discrepancy? We think there is little doubt of its true explanation. The mentally defective become extreme alcoholists, inebriates in constant conflict with the police, because the mental defect is antecedent to their alcoholism. But because the bulk of the mentally defective become criminal or alcoholic, it does not follow that every alcoholist is mentally defective, and will breed mentally defective children. The extreme female cases of alcoholism which lead largely to the reformatory are to a great extent the product of mental defect, but these cases form something under one-thousandth of the female population, and have a large contingent of non-childbearing women. On the other hand, intemperate mothers form 15 per cent. of our working-class population sample in Manchester and 36 per cent. in Edinburgh. The 0.1 per cent. of convicted inebriates does not affect returns based on these large percentages of those that drink without being convicted inebriates. In other words, there are other sources of a taste for alcohol beside mental defect; and as we have seen in the case of Edinburgh, the alcoholic parents, as a whole, follow the trades requiring greater intelligence and greater strength. It is one of the difficulties of much temperance reform that, finding mental defect associated with and probably the causes of extreme case of alcoholism, and in such cases undoubtedly followed by mental defect in the children, the supporters of the movement have asserted that parental alcoholism leads to mentally defective children, whereas the alcoholism is probably as much the product of the mental defect in these extreme cases as the mentally defective children are. We do not propose the segregation of all extreme cases of alcoholism, but the segregation of the mentally defectives, as they form one, if not the principal, source of such extreme cases. Further, we think it unreasonable that facts relating to perhaps 0.1 per cent. of convicted inebriates should be stated as applying to the whole alcohol-using section of the community.

As to the remedy for extreme cases which we propose, only those who make a fetish of personal liberty—in this case largely the liberty to annoy, if not to demoralize their neighbours—can take objection to Dr. Gill's conclusion in his last report: "That public decency and morality, economy, humanity, and many other reasons call for the segregation of inebriates" (Report, 1909). But this segregation on any large scale is, we hold, only a temporary necessity. With the segregation of mentally defective children the number of certified inebriates to be segregated would grow less and less year by year, and those left having more normal intelligence would be those who were more susceptible of the permanent reform which it was originally hoped would flow in the bulk of cases from a temporary seclusion.

[2] *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring.* Second edition. 1910. Dulau and Co.

## SCIENCE NOTES.

ONE of the many points as to which those interested in the eradication of sleeping sickness are concerned is a knowledge of the natural enemies of the tsetse flies, and of *Glossina palpalis* in particular. During its varied life-history a fly is exposed to many dangers and not a few enemies, but so curiously is the balance of Nature adjusted that it is unsafe to speculate from general grounds on what will be the case in any particular instance. Continued and accurate observation is the only sure guide to the actual facts. Of flies in general there are enemies in plenty amongst the higher animals, but there are some even amongst its own kind. Many flies have to reckon with the formidable attacks of wasps, and it is interesting to know that the tsetse fly numbers a wasp amongst its enemies. The observation was first made a year ago by Picard, and has since been confirmed by Roubaud,[1] who was fortunate enough to witness a species of *Bembex* attacking *Glossina longipalpis*. He assured himself of the fact by confining a wasp and a fly together in a bottle. The wasp stung the fly, rendering it powerless, but not killing it, and then proceeded to carry it off firmly clasped by its two hind pairs of legs. This habit of rendering their prey helpless without actually killing it, and then carrying it off to provision their nest, is well known amongst wasps, and has been remarked on by many observers.

At a recent meeting of the Royal Society several papers dealing with trypanosomiasis were read. The first of these, by Plimmer, Fry, and Ranken, was concerned with the experimental treatment. The opinion that antimony is a more powerful trypanocide than arsenic was repeated, but mention was also made of the unpleasant effects following the injection of salts of antimony. These have been obviated to a large extent by the use of the metal itself in a very finely divided state. The absorption of the metal is much slower than that of its salts, but, on the other hand, elimination is also more gradual, so that the effect lasts longer. No case of plugging of the capillaries, such as might have been expected on injection of the metal, has been noted in any of the numerous animals experimented with. The second communication, by Stephens and Fantham, contains a description of what is presumably a new human trypanosome (*T. rhodesiense*) causing sleeping sickness. The form differs morphologically from the *T. gambiense* in having, in a certain number of specimens, the nucleus at the posterior pole near the blepharoblast, in some cases posterior to it. The patient from whom this strain was obtained came from Rhodesia; he had never been in the *Glossina palpalis* areas, although he had been in places infested with *G. morsitans* and *G. fusca*. Professor Mott also read a paper on the result of examination of the central nervous system in a case of cured trypanosomiasis. Trypanosomes were found in the patient's blood, and he was treated with inorganic arsenic for eighteen months. Three years later, and again a year later, no trypanosomes were found on examination of the blood. Two months before the man died another examination was made, again with negative result. He eventually died of pneumonia. *Post mortem* the brain was found normal in appearance, and there was no excess of fluid. Histologically no trace could be found of the meningeal and perivascular infiltration characteristic of sleeping sickness. On this account Professor Mott considers that the case proves that human trypanosomiasis is curable, but it does not prove that sleeping sickness is curable, for he contends that the diagnosis "sleeping sickness" can only be made when there is a proof that the trypanosomes have invaded the subarachnoid space. Further papers on trypanosome diseases of domestic animals were read by Bruce, Bateman, Hamerton, and Mackie.

[1] *Comptes rendus Acad. Sci.*, August 22nd, 1910.

## REPORT OF THE CHIEF REGISTRAR OF FRIENDLY SOCIETIES FOR 1909.

THE annual report of the Chief Registrar of Friendly Societies for the year ending December 31st, 1909, which has just been issued, contains a large amount of detail about not only the friendly societies proper, but the industrial and provident societies, trades unions, workmen's compensation schemes, and all the other provident associations that have to be registered under the Chief Registrar.

After a preface in which reference is made to the great interest taken in the friendly societies by His Majesty King Edward and His present Majesty King George, the report mentions the principal legislative and legal events affecting friendly societies during the year. The Assurance Companies Act, 1909, and the Act authorizing certain modifications in the Workmen's Compensation Act in its application to French citizens resident in England are described, and an important provision of the Housing and Town Planning Act is mentioned; it enables county councils to assist or promote the formation on a co-operative basis of societies having for their object, or one of their objects, the erection or improvement of dwellings for the working classes.

Numerous law cases affecting the Chief Registrar's office are referred to, perhaps the most important being the decision of the House of Lords in the case of Osborne *v.* The Amalgamated Society of Railway Servants, which laid it down that a rule which purports to confer on any trade union the power to levy contributions from members for the purpose of securing parliamentary representation is *ultra vires*. It is stated that previous to this decision it had been the practice of the Chief Registrar's office to allow provision for this to be made in the rules of trade unions "as a means for carrying out the objects and not as an object in itself." Another "case of notoriety during the year was that of the One and All Sickness and Accident Assurance Association, a new body, not registered, which in a short time obtained a large membership, one of the inducements being a contribution which was afterwards admitted to be 50 per cent. below the minimum required for the benefits given."

*Statistics.*

The total number of new registrations during the year was 712, comprising 92 friendly societies, 281 branches of friendly societies, 143 industrial and provident societies, 19 trades unions, and 14 schemes under the Workmen's Compensation Act, the remainder being various associations, such as working men's clubs, loan societies, savings banks, building societies, etc. During the year 140 ordinary friendly societies and 1 society with branches were dissolved—50 of them after an existence of fifty years or more, and some after an existence of over 100 years. Annual returns for 1908 were received from 6,079 friendly societies, 143 friendly society orders, 18,005 branches of orders, and 53 collecting societies. The number of branches of orders at the end of 1909 was 18,332. Over 100 societies or branches were prosecuted under the Friendly Society Act, mostly for failure to send in the annual returns or the quinquennial valuations which are required. The 92 new friendly societies registered during the year comprised 36 dividing societies, 14 collecting societies, 8 juvenile societies, 1 society with branches, and 32 other societies, but not the least hint is given as to how many of these societies intend to provide medical attendance as one of their benefits. In addition to the new societies, 269 new branches of orders were registered, as against 299 in the previous year. The activity of the two Temperance Orders—the Rechabites and the Sons of Temperance—was again specially marked, as it was in the previous year.

The totals given in the accompanying table show the enormous extent of the friendly society movement, the figures being for Great Britain and Ireland at December 31st, 1908.

On comparing these figures with the preceding year, it appears that in the ordinary friendly societies there has been a decrease of about 57,000 members, in the societies with branches a decrease of 6,000, in the trade unions a decrease of over 2,000, while the collecting societies show a decrease of 2,283,000 members. The last figure

| | Number of Members. | Funds. |
|---|---|---|
| | | £ |
| Ordinary friendly societies ... ... ... | 3,473,712 | 20,009,658 |
| Societies having branches ... ... ... | 2,704,404 | 26,378,572 |
| Medical societies... ... ... ... ... | 334,653 | 71,848 |
| Collecting friendly societies ... ... ... | 6,726,747 | 8,471,012 |
| Shop clubs ... ... ... ... ... ... | 12,123 | 1,395 |
| Benevolent societies ... ... ... ... | 30,018 | 350,062 |
| Working men's clubs ... ... ... ... | 274,353 | 391,440 |
| Specially authorized societies ... ... | 72,516 | 800,310 |
| Trade unions ... ... ... ... ... | 1,971,238 | 5,996,032 |
| Schemes under the Workmen's Compensation Act ... ... ... ... ... | 65,277 | 86,931 |
| Savings banks (including the Post Office savings banks) ... ... ... ... | 12,869,765 | 249,760,592 |

is accounted for mainly by the fact that the Royal London Friendly Society, with a membership of nearly 2½ millions, was converted into a company during the year, and is thus no longer included as a collecting society. By far the two largest of the remaining collecting societies are the Royal Liver, with 2,443,000, and the Liverpool Victoria Legal Friendly Society, with 2,351,000 members. The collecting societies, though only few in number—41 in London, 7 in Scotland, and 2 in Ireland—have more members than all the ordinary friendly societies and societies with branches put together. Their income is approaching £3,000,000 a year, though their accumulated funds are far less in proportion than the funds of the other societies. The average annual contribution in a collecting society is 8s. 1½d. a member. The benefits in the collecting societies are almost entirely confined to "sums at death," which account for 44.4 per cent. of the expenditure, sickness pay only being 0.8 per cent., while management expenses are almost 50 per cent. of the expenditure. And yet, in spite of the very large amount spent on management, a large percentage of the societies show a deficiency in the management fund, such deficiencies having often been met by improperly applying the benefit funds towards management expenses. Few, if any, of the collecting societies provide medical attendance directly, though subsidiary clubs for the purpose are often formed by voluntary arrangements among the members in particular districts. The Chief Registrar, however, has no account of such subsidiary arrangements.

*Schemes under the Workmen's Compensation Act.*

During the year fourteen certificates were granted for schemes under the Workmen's Compensation Act adopted by the workmen and employers connected with the Associated Employers of the Bristol Channel Ports. These schemes provide compensation for injury, with sick pay of £1 a week for twenty-six weeks, and special provision for loss of arms, legs, and eyes, and in case of death from accident arising out of, and, in the course of, the employment, there is a liberal allowance for surviving dependants. The contributions of the workmen are a penny a week, while the employers contribute not less than 12s. 6d. a year per £100 gross wages paid. A considerable number of these schemes are now in operation, many of them providing free medical attendance, and in one case it is noted that a sum of £53 had been allocated "for the purchase of recommendations to medical charities for the benefit of the members of the fund." In the aggregate the schemes had been adopted by 66,952 workmen out of 71,356, who contributed £15,370, an average of 4s. 7d. each per year, while the employers contributed £33,359. These schemes are of undoubted advantage to the men, for, from eleven returns it appears that while the men would have been entitled under the Act to receive £2,935, they actually received £3,632. In the previous year, too, the amount actually received by the men was about 15 per cent. over what would have been the maximum under the Act, in addition to the saving of the trouble and cost of litigation. It is not stated how or on what terms medical attendance

is provided, but in the case of the Bristol Channel Ports the schemes are administed by the Bristol Channel Ports Mutual Friendly Society.

*Proceedings under Trade Union Acts.*

Nineteen trade unions were registered in England during 1909, three being unions of employers. The number of members of the registered trade unions was 1,971,238, which is 2,322 less than in the previous year. Their income was £3,295,941, which is £428,545 less than their expenditure. The total number of unions was 634, but the 48 largest unions contain about two-thirds of the total members. The chief benefits are: Out of work pay, which accounts for 29 per cent. of the expenditure; dispute pay, 16 per cent.; sickness pay, 12.6 per cent.; superannuation, 9.1 per cent.; sums at death, 3 per cent.; accident pay, 1.9 per cent.; and other benefits, 6 per cent.; while management and other expenditure accounts for about 21 per cent. Many of the largest unions make provision in their rules for all these benefits, though others confine themselves to "trade benefits." In some cases medical attendance is included, though it is more usual for the members in particular districts to form subsidiary clubs for medical attendance. Here again no information is available from the Chief Registrar's report.

*Finances of the Friendly Societies.*

In the present report, as in several previous reports, some very strong remarks are made by the Chief Registrar as to the auditing of the accounts of the friendly societies. There were 354 public auditors appointed for the year, but less than half of these were actually employed by the societies. This is regarded by the Chief Registrar as a matter for regret, as he considers that the audit of many of the societies is often very imperfect. It is, in fact, often conducted by members of the societies themselves, who have no qualifications for such work. According to the report for 1904 over 50 per cent. of the auditors were artisans and labourers, while in the last year's report it is stated that in 85 cases, some among the branches of the most important orders, though the returns purported to be signed by the appointed auditors, the signatures were found to be fictitious.

An important appendix to the report deals with the financial position of the friendly societies, as shown by the valuation returns received from 472 friendly, collecting, and specially authorized societies, with a total membership of 306,142. Of these societies, 317 show a total deficiency of £620,803, while 155 have a surplus of £182,981, leaving a net deficiency of £437,822. In other words, 67 per cent. of these societies show deficiencies, and 33 per cent. show a surplus, and, taken collectively, the societies were at the date of valuation in a position to pay only 18s. 5d. in the £ of the estimated future liabilities. As in the previous year, in the majority of cases of increased deficiencies there appears to have been no attempt made to reduce the deficiencies, though in cases of decreased deficiencies there have been amended rates of contributions and benefits and stricter supervision of sickness claims.

*Sickness Experience in Friendly Societies.*

In 320 quinquennial valuations the actual sickness occurring during the five years has been compared with that expected according to the standard tables employed, and it is shown that the actual cost for sick pay has been £18,933 more than the anticipated cost—that is, 6.45 per cent. more than was expected from the tables. Taking the societies by counties, we find enormous variations in this respect. For instance, in Monmouthshire the societies exceeded the expected sickness pay by 75.7 per cent., in Glamorgan by 61.46 per cent., and in London by 15.8 per cent. On the other hand, a number of counties had less sickness than was expected by amounts varying from 3 per cent. to 46 per cent. The collecting societies taken altogether exceeded the expected sickness by 34.27 per cent. As all these returns are based on five years' aggregates, they can hardly have been affected by passing epidemics, and it is evident that a very considerable margin for contingencies needs to be left whatever expectancy tables are adopted. In a new society with an age limit for admission there may be for some years a very low sickness-rate, but as the society grows older, the proportion of elderly members increases, which raises the sickness rate. Moreover, the lowering of the death-rate throughout the country generally has, of course, the effect of leaving more members in the society who attain to that period of life when prolonged sickness causes a heavy drain on the funds of the society, and the advantage gained by reduced sickness and mortality during early and middle ages is more than counterbalanced by the increased provision needed for sickness in old age. Such is the opinion expressed in the report. It is probable, too, that the Workmen's Compensation Act has had some indirect effect, possibly by bringing more into evidence the slighter cases of sickness which formerly were passed over unnoticed. But whatever explanation is accepted, the rise of the sickness-rate experience of the societies is almost universal. As an example, in the Ancient Order of Foresters the sickness experience has risen from 12.75 days' sickness per member per year in 1899 to 17.05 days in 1909—that is, an increase of about 33 per cent. in ten years. It is evident from all this that the tendency to a gradual rise in the sickness experience will need the most careful consideration and liberal allowance in calculating the amount to be devoted to sick pay and medical attendance under State sickness insurance.

*Medical Attendance.*

It is a matter for the greatest regret that the Chief Registrar seems to be unable to give any statistics as to the provision of medical attendance by the various societies. Such statistics are given to a very valuable extent by the friendly societies of Australia; but in England, even in the case of the large friendly societies which are known to provide medical attendance as one of their benefits, no particulars of any kind are given, and the custom of including the cost of medical attendance as an item of management expenses makes it quite impossible to arrive at any figures, though they would have been of the greatest value in making arrangements for State sickness insurance. As already noted, the report states that in the case of some societies, funds which ought to have been devoted to certain benefits have been drawn on for management expenses. It is of course right that each fund should be called on for its proper proportion of such expenses, but, judging from what has certainly happened in not a few unregistered societies, it is not at all unlikely that in some registered societies subscriptions which have been paid professedly for medical attendance may have been used for management expenses to a far greater extent than could be justified. Of course the sufferers in such cases would not be the members so much as the medical officers. It is also noted that in a number of cases "the members have been premature in the distribution of cash bonuses or increase of benefits, with the result that a position of solvency has become one of insolvency." Here, again, there can be little doubt that there is great danger that the medical officers would suffer from a misapplication of the medical fund. And even in the opposite cases where deficiencies have been turned into surpluses by a reduction of excessive benefits, though the greatest sympathy may be expressed with the desire of such societies to put themselves on a sound financial basis, the medical profession has a right to be assured that no society should build up a surplus at the expense of its medical officers. It is, of course, quite natural that an attempt should be made to give the greatest possible benefits for the lowest possible contributions, but it would seem as if at any rate the poorer working classes are unable to pay such a subscription as will provide benefits sufficient to meet their needs during sickness; and so long as this is the case, or, in other words, until assistance is obtained from employers or the State, or both, there will be a temptation to exploit funds that ought to be devoted to paying a reasonable remuneration for medical attendance.

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THE International Congress of French-speaking Doctors will be held in Paris on April 18th, 19th, and 20th, 1911. M. Béclère is chairman of the Organizing Committee. The subjects proposed for discussion are the following: Sciatica, lupus vulgaris, hypertrophy of the prostate, bleeding at the menopause, muco-membranous entero-colitis, painful flat-foot, syringomyelia, and uterine fibroma.

## LITERARY NOTES.

We learn from the *Revue Médicale de la Suisse Romande* that the "Swiss Society of Popular Traditions" has decided to organize a widespread investigation as to everything relating to popular medicine in Latin Switzerland. For that purpose an organizing committee of doctors and linguists has been formed to draw up a detailed schedule of questions on the subject. This schedule, which has been drawn up with the greatest care, forms a twelve-page pamphlet, a copy of which has been sent to every doctor, chemist, and midwife throughout Latin Switzerland, as well as to all the correspondents of the glossary of the dialects and those districts. The president of the commission of inquiry is M. E. Tappolet, 5, Place de la Cathédrale, Bale, to whom all communications relative to the inquiry should be addressed.

A reprint of an interesting article by Dr. Major Greenwood, which appeared in the *Medical Magazine* for February last, has been published in pamphlet form, under the title of "A Novel View of the Origin of the Profession of Medicine and Surgery." It contains a new theory as to the beginnings of the medical profession in this country. According to the author, the modern general practitioner is not, as has been frequently asserted, the offspring of "a mixture of barber-surgeons and apothecaries," but a lineal descendant of the *medici* who accompanied the Roman army to Britain, and settled here to practise their art throughout the centuries that elapsed between the invasion of Caesar and the final departure of the Roman legions from these shores. It is well known that a considerable number of Romans remained in Britain after the withdrawal of the legions, and it is, in the opinion of Dr. Major Greenwood, more than probable that there were doctors amongst them who "may have survived the horrors and desolation of the Saxon conquest, and so continued to more settled times the nucleus of a profession of medicine." This belief is, in his opinion, supported by the following entry in the Domesday Book:

> "Nigel-Medicus—5 Hydes of land in demeenes in the hundred of Scipe,"

which obviously refers to a medical practitioner, and would seem to prove that

> "in the great national register of the landowners of the 11th century, a class known as *medici* is shewn to have existed."

This class was entirely distinct from that of the apothecaries, barber-surgeons, and "the religious persons" who frequently practised medicine in the Middle Ages, and existed at a period when England possessed neither medical universities nor faculties. Therefore the author believes its members to have been "descended lineally from the *medici* of the Roman era." Moreover, the united guild of Surgeons and Physicians, which was formed in London in the year 1423, was composed of men about whose origin very little is known save that they were neither apothecaries nor barbers; and Dr. Major Greenwood thinks it "most likely that Chaucer was referring to them under the appellation of "Doctour of Physik," and that he meant the latter to be the type of the medical practitioner of his day." He cannot help thinking that this "Doctour of Physik" was the professional descendant of the "medicus Nigel" mentioned in the Domesday Book.

> It may be (he says) that the old *medicus* was a general practitioner—that is, both a surgeon and physician, and the ancestor of both the physicians and surgeons in this country, who were neither apothecaries nor barber-surgeons. This would partly explain Chaucer's silence as to surgery—that is, he may have considered his "Doctour of Physik" the representative of both, as he says:
>
> "In all the world ne was ther non him lyk
> To speke of Physik, or of Surgerye."

Another reason for believing in the Roman descent of the medical profession in England—a belief which, Major Greenwood admits, "may seem to many far-fetched and fantastical"—is the rule of the Royal College of Physicians of London, which forbids Fellows of the College to sue for fees. A similar rule applies to barristers, and, since there is little doubt that the English lawyer is the descendant of the Roman "jurisperiti," Dr. Major Greenwood is inclined to consider this custom as being another proof of the Roman origin of English medicine, an origin "which largely modelled its destiny, and gave it a far higher social position than our profession could ever have attained had it simply sprung from a mere development of trading guilds."

The story of Sir Richard Owen and the negro's head—known as Owen's ghost story—has been told in different ways. Mr. Lionel A. Tollemache, in his *Old and Odd Memories*, gives what he claims to be the authorized version. He says Owen related it to him some forty years ago, and its accuracy is attested by "a very distinguished friend," who heard it more than once from the lips of the great naturalist. It is as follows: When a young man, Owen was surgeon to the jail at Lancaster, which stands at the top of a steep hill. The road through the town that led to it rose in long paved steps, with low houses on either side. He had become an ardent student of Lawrence, whose works had for the first time shown to him the relations of comparative anatomy; and, among other things, made it clear that the negro and the European were structurally alike, brain and all. There was a negro in the jail dying of consumption, and Owen craved to obtain possession of his head, after his death, for leisurely dissection. At last the man died. Owen told the porter in charge that he would come in the evening to make the autopsy, and the coffin was not to be closed yet; and in the evening he came, wrapped in a long cloak, and with a bag under his arm such as lawyers carry briefs in. His heart palpitated at the thought of what he was going to do; for there was a great outcry against resurrection-men. He went into the jail and up to the mortuary, and then and there cut off the negro's head as he lay in his coffin, and put it into his bag; then he placed the lid on the coffin and screwed it down with the implement left in readiness. Then he descended the stairs, and passing out, told the porter at the gate that he had examined the negro, and the coffin was all ready for burial. The man said, "All right," and Owen went out, with the bag containing the head under his large cloak. The frost was severe, and the paving-stones were slippery. It was about nine at night; the streets were deserted, and the lights of the houses were mostly in the upper rooms, showing that the people were going to bed. In front of him was a long stretch of straight road down the steep hill, then it curved out of sight; but just at the curve a single door stood open, and the fire and candle-light shone cheerfully through. At this moment Owen slipped and fell head-foremost towards the descent. He wildly grasped the bag as he fell, but somehow grasped it below the head instead of above it. The consequence was that out went the head. As Owen lay sprawling, and before he could get to his feet again, the head was in full roll down the hill, going faster and faster, and bumping down each successive step with increasing speed. Owen rushed wildly after it, but was many yards behind. On went the head and bounded right through an open door. It was a matter of life and death to Owen's career to escape detection in the "sacrilege" he had committed; so he rushed into the house after it with ghastly face and his long cloak streaming in the wind. He had just time to notice a family gathering, who were yelling with terror; and there was the head on the floor! He plunged in and seized it, and then rushed out as swiftly as he had rushed in, and got home as fast as he could, finding, to his infinite relief, that he was not followed. He dissected the head at leisure, but dared not go out of doors, and had not sufficient control of his voice to ask what people said. At length it came out that the house belonged to a woman whose husband had been engaged in the slave traffic, and was believed to be dead. The version she gave was that her own husband's head had rushed into the house for protection, but the devil, rushing in after, had seized it and borne it away to hell. To this graphic account Mr. Tollemache makes a slight addition. Owen told him that the woman confirmed her statement by saying, "If you doubt me, sir, look at the stain of blood on the floor." The explanation of the woman's myth was therefore, it is pointed out, strictly rationalistic, in the German sense of the word: her account was based on a real event misunderstood and misrepresented. Grote and others, Mr. Tollemache goes on to say, have contended that myths are often mere fictions, and that, when they contain a substratum of fact, the substratum is generally irrecoverable. This may be so; but, at any rate, the foregoing instance is an exception of a nature that would have rejoiced the hearts of certain rationalizing commentators on the Bible.

# British Medical Journal.

SATURDAY, JANUARY 7th, 1911.

## THE NEW YEAR AND AN OLD PROBLEM.

Last year at this season, when reviewing some of the events of 1909, it had to be recognized that the financial experience of the profession had not been satisfactory, owing, as was believed, to depression in trade, but the hope was expressed that the prospects for 1910 were in this respect better. Financial prophets, like other prophets, do not always speak with one voice, and they are not unanimous at the present time, but there appears to be little doubt that there has been a real improvement in trade in this country, and reasonable grounds for expecting that it will continue during the year which has just opened. As was observed last year, the medical profession is probably one of the first to feel the effects of bad trade, which has an immediate and serious effect on earnings, and still greater effect on actual takings. It probably feels an improvement later than some others, nevertheless it does feel it, and we believe that the profession may look forward with confidence to such an improvement in 1911.

The annual meeting last year, held in London after an interval of fifteen years, was very largely attended. It excited much interest, and was the means of producing much valuable scientific and clinical work. The fact that there were twenty-one Sections imposed upon the British Medical Journal a task of uncommon magnitude, but, by the strenuous efforts of those responsible for the work, the publication of the proceedings of all the Sections was completed in the issue of November 26th, 1910.

The next annual meeting will, as already announced, be held at Birmingham, and we are enabled this week to publish a list of Sections, together in most cases with the names of the Presidents and other officers who have been appointed to conduct them. The President-elect is Dr. Robert Saundby, Professor of Medicine in the University of Birmingham and Physician to the Birmingham General Hospital, whose name is well known to members of the Association as an active member, and, for the usual period, chairman of the Central Council. The address in Medicine will be delivered by Dr. Byrom Bramwell, of Edinburgh, and that in Surgery by Mr. Jordan Lloyd, Surgeon to the Queen's Hospital, Birmingham. The Sections number sixteen, and it will be observed that on this occasion there will be a joint Section of State Medicine and Industrial Diseases; the latter subject may be discussed with special advantage in a great manufacturing centre such as Birmingham. It will be observed that in the title of the Section of Therapeutics, Dietetics is formally included—a recognition of the increased interest which now attaches to this department of therapeutics and, we may add, personal hygiene.

Birmingham is not only a great industrial centre but its municipal administration has long been distinguished for its enterprise, and it is remarkable among the large cities of England for its situation, for many of its suburbs stand at an elevation which almost justifies them being considered health resorts. It is also within easy reach of beautiful country and of many interesting historical sites. Arrangements are being made to enable members attending the meeting to visit some of these places under particularly favourable auspices.

The year just passed has been an important one to the profession for many reasons, but mainly because it has had to consider the far-reaching effect which the recommendations contained in both the Majority and Minority reports of the Royal Commission on the Poor Laws and the proposal to institute State invalidity and sickness assurance may have upon its future both from the financial, scientific, and the social sides. It is satisfactory to find that though the serious importance of the matter is perhaps not yet fully appreciated by some of those engaged in consulting and specialist practice, it has engaged the attention of the general practitioners of the country. The correspondence columns of the Journal have borne witness to the interest aroused, and the complex questions involved have been fully considered by the special Poor Law Committee of the British Medical Association. The report which this Committee, appointed by the Council to carry out the instructions of the last Representative Meeting, will present is, we understand, in a forward state, and will, it is hoped, shortly be issued for the consideration of the Divisions.

The *Times* of January 4th printed, in a manner which appears to show that our usually well-informed contemporary regarded the information it contains as authentic, an article "From a Correspondent,"[1] purporting to give the main outline of the scheme of State insurance for sickness and invalidity which the Chancellor of the Exchequer had drafted after private conferences with members of the committee of the National Conference representing the friendly societies formed on a permanent basis. The scheme, it is stated, has been framed with the intention, as far as possible, of making use of existing agencies and of working the compulsory national scheme through the present voluntary societies. The permanent societies so far consulted have at present a membership of over six millions and possess funds amounting to over £46,000,000, though their liabilities are slightly in excess of this amount. Mr. Lloyd George has undertaken to meet representatives of the dividing societies, of the deposit societies, and of companies providing either a general sickness insurance or an insurance for infectious diseases, and the scheme propounded is stated to be subject to any modification which may be considered desirable after the further conferences have taken place.

The main point in the scheme is stated to be the institution of compulsory insurance for sickness and invalidity for the whole of the working population of the country whose incomes are below the income tax level of £160 a year. The minimum amount of the insurance is to be 5s. a week, all insurance beyond this minimum being a purely voluntary insurance by the member with the friendly society. The minimum insurance will be guaranteed by the State, but the extra insurance will not be so guaranteed. It is proposed that the scheme should apply to all ages between 16 and 70, the latter being fixed because of the provision of old age pensions. The contributions

[1] An article which appears to be identical was published by the *Manchester Guardian* of the same date.

needed to provide the minimum insurance are to be calculated by Government actuaries, and the cost is to be met one half by the workmen and the remaining half in equal proportions by the employer and the State. The employer will pay his own and the workman's share of the contribution direct to the State, which, in the case of workmen already insured through an approved society, will pay over the amounts to the various societies. In the case of workmen not so insured—and they would probably constitute the majority—the employer would be required to deduct the amount necessary to cover the workmen's portion of the contribution on the payment of the wage, "and the man's name would be added to the list of one of the approved societies." This provision appears to be extremely vague, and to leave one of the greatest difficulties practically undealt with.

The scheme being compulsory and universal, so far as the working population is concerned, the risks of lives good and bad must be accepted, and it is pointed out that, so far as the lives of those who are unable to pass a medical examination are concerned, there are no data available, so that the amount of loading of the ordinary tables which will be necessary to meet this additional liability must be a matter of guesswork. This liability the State accepts in guaranteeing the minimum benefit.

The scheme, it is stated, provides for the establishment of a central administrative council, composed of representatives of the Government, friendly societies, and employers of labour, to deal with all questions which may arise under the working of the scheme.

With regard to medical insurance, the article states that it is outside the scope of the Government insurance scheme. "The reason," the article continues, "is not far to seek. If sickness insurance is to be compulsory for the whole of the workers whose earnings fall below £160 a year, and a medical insurance is also provided, then in many parts of the country the private medical practitioner will cease to exist. The present members of friendly societies will refuse to surrender the medical benefit, the number of persons who will provide for medical attendance by contract will be largely increased, and a long step will have been taken in the direction of a national medical service." Whether there has been some recent change of official views on this point we are not in a position to say, but the omission of medical attendance as one of the benefits to be provided seems to leave the problem as to more than one-half unsolved, and as to the remainder in very much the same position as it is to-day.

Life insurance, it is stated, is also outside the provisional scheme. This is in accordance with the following statement made by Mr. Lloyd George, with which the article concludes: "The proposals which the Government have in view in connexion with insurance against sickness and invalidity are not likely, so far as I can judge at present, to interfere in any way with the business now carried on by industrial life assurance companies or societies. The proposed benefits do not include the provision of a funeral benefit or any immediate money payment on the death of a contributor or his relatives, nor, of course, will there be any endowment for children on attaining a certain age. The whole of this field will still be left open to the existing agencies."

It is stated that the scheme may be launched this session, but whether in the future the Goverment will tackle the Poor Law question on any large scale remains to be seen; it is, however, worth while to remember that both Mr. Asquith and Mr. Balfour, speaking in the course of the debate on the Prevention of Destitution Bill early last session, indicated pretty clearly that it will probably not be found advisable to do more than remedy certain defects from time to time as occasion offers.

## HYDROTHERAPY.

FROM the earliest history of medicine hydrotherapy has played an important part in the treatment of disease. The medical literature of Greece and Rome tells us how extensively water was used as a therapeutic agent and gives us a descriptive insight into the magnificence and luxury of the baths which were at the command of the rich and well-to-do in those days. Though, in our times, hydrotherapy still maintains an important place in the cure and prevention of many ailments to which humanity is liable, it occupies comparatively a subsidiary position and is utilized mainly as an addendum to other therapeutic methods of cure. It is customary to resort to spas at home and abroad at certain seasons of the year to "take the waters," but the custom is a tribute to fashionable expediency more than to any deep-seated faith in the efficacy of natural water supplies as a *vis medicatrix*. Mineralized waters as they are derived from Mother Earth are still credited with curative properties, and on their reputation for the alleviation of this, that, or the other ailment the popularity of the various spas depends; but it is now fully realized that the good results which undoubtedly ensue from a three weeks' "cure" in suitable cases owe their success quite as much to the dietetic, social and climatic conditions which the various health resorts provide as to the physiological effects of the waters which are imbibed as the *sine quâ non* of the "cure."

No attempt nowadays is made to reproduce the luxurious appointments of the balneological establishments of the earlier days of civilization. The various baths and hydropathic applications are regarded as an essential but secondary element in the scheme of management at a modern spa. It is recognized that while baths have a well-established value, they are useful only when administered in conjunction with a regulation of life otherwise suitable to the conditions of disease which it is desired to cure or prevent. Like every other system of medication, hydrotherapy has suffered discredit from the extravagant claims of its over-enthusiastic advocates, and has become, in the older countries of the world, a therapeutic method within the compass of the leisured and moneyed classes only—one which may be resorted to either when everything else fails at home, or when it is convenient to make health an excuse for a holiday in some fashionable and well-appointed resort abroad.

The attractions offered by hydropathic treatment, which, even though of limited application, has become venerable with the traditions of age in the Old World, have not failed to find votaries among invalids and valetudinarians in those quarters of the earth where civilization is still young, and imbued with the activity and optimism of youth. Australia, New Zealand, and Africa all possess their *thermae*, to which flock large numbers of people in the hope of finding in the curative properties of hot springs and mineralized waters relief to ailments which yield either slowly or not at all to remedial treatment by drugs and ordinary measures of hygiene.

But it is in the United States, of all countries in the New World, that we find the most ardent appeals made for popular resort to balneology and hydrotherapy. We have already expressed our conviction of the value of these methods of treatment if due regard is paid to their limitations and if they are subordinated to their legitimate place in the domain of therapeutics, but we protest against their exploitation as a means whereby every ailment to which humanity is subject may be brought within the sphere of control or even of amelioration. We have yet to learn that such disorders as influenza, smallpox, cerebro-spinal meningitis, pneumonia, leucocythaemia, cerebral apoplexy, insanity, leprosy, or the various drug habits—to name a few only of the disorders which are enumerated as amenable to hydrotherapeutic action—are favourably influenced or even helped at all by the water cure except in so far as this is resorted to as an incidental part of general treatment.

And yet much recent literature is reaching us, especially from America, which, by implication, asks us to regard hydrotherapy as little less than a panacea for disease in general. We find striking illustrations of this contention in two books which have been published recently. In one of these, a formidable volume of between 600 and 700 pages, from the pen of Dr. Curran Pope of Louisville,[1] nine chapters are devoted to the physiological action of water in its external and internal uses, to the technique of hydrotherapy, and to the equipment of hydrotherapeutic institutions and sanatoriums. This part of the book is profusely illustrated, but many of the plates are more suited to the pages of an institution prospectus or of a stores list than to the embellishment of a scientific treatise. The remainder of the book, comprising about two-thirds of its total contents, is a systematic description of disease in almost all its manifestations. Surely Dr. Curran Pope does not intend his readers to believe that hydrotherapeutic methods are essential or even desirable in every ailment! And yet this is the only inference to be drawn from his elaborate compilation. He himself seems to be in some doubt as to the utility of such supererogation, because in an explanatory sentence of his preface he says: "Some will doubtless think that the chapters dealing with nervous and mental diseases, drug habits, and alcoholism have been needlessly enlarged. The nihilism of therapeutics that pervades these branches, the neglect of a remedial measure so powerfnl for betterment and 'cure,' has led to a broad and full consideration of these subjects, with the hope that specialists in these various fields of the therapeutic art may be induced to use this remedy more extensively than is the case at present." The practical value of any work on a special subject is, however, seriously impaired by needless excursions into other, even if collateral, fields of research and observation.

Another recent work, by Dr. Guy Hinsdale of Philadelphia,[2] is open to much the same criticism. But, in regard to this volume, it must be admitted that the references to the principles and practice of medicine are mostly utilized to emphasize the beneficial effects of hydrotherapeutic treatment on certain symptoms which are described for the purpose of indicating clearly the special indications for the use of waters and baths. The author seeks to establish the underlying principles of hydrotherapeutic management, leaving it to the practitioner "to apply them, along with other remedies, for the improvement of the circulation, for enhancing the tone of the skin, for an effect upon the nervous system, or in any other way that moisture, or heat, or cold may be deemed useful." In discussing the subject of general hydrotherapy, a concise and clear account is given of the influence of baths on metabolism; of their effects upon blood pressure and upon the circulatory and respiratory systems; and of the general *rationale* of hydrotherapy. The action of saline and fresh-water baths is compared, and the Nauheim bath is made the text for a wise warning that for them, as for all other varieties of bath, there are certain contraindications which ought always to be remembered.

[1] *Practical Hydrotherapy.* A Manual for Students and Practitioners. By Curran Pope, M.D., Professor of Physio-Therapy, University of Louisville Medical Department, etc. 1909 Cincinnati: Cincinnati Medical Book Company. (Sup. roy. 8vo, pp. 661; 125 illustrations. 27s. 6d.)

[2] *Hydrotherapy.* A Work on Hydrotherapy in General. Its Application to Special Affections. The Technic or Processes Employed, and the Use of Waters Internally. By Guy Hinsdale, A.M., M.D, Secretary of the American Climatological Association; Lecturer on Climatology in the Medico-Chirurgical College of Philadelphia, etc. Philadelphia and London: W. B. Saunders Company. 1910. (Med. 8vo, pp. 466; 145 illustrations. 15s)

## NEW YEAR HONOURS.

The New Year honours list issued on January 2nd announces that the honour of knighthood will be conferred upon the following: Dr. H. B. Donkin, until recently one of His Majesty's Commissioners of Prisons, and now medical adviser to the Prison Commission and Director of Convict Prisons; Mr. F. S. Eve, surgeon to the London Hospital, and a member of the Council of the Royal College of Surgeons of England; Dr. David Ferrier, F.R.S., Emeritus Professor of Neuropathology in King's College and consulting physician to King's College Hospital and the National Hospital for the Paralysed and Epileptic, Queen Square; Dr. George Newman, who since 1907 has been chief medical officer to the Board of Education; Dr. J. M. Redmond, physician to the Mater Misericordiae Hospital, Dublin, and President of the Royal College of Physicians of Ireland from 1906 to 1908; and Lieutenant-Colonel David Semple, M.D., R.A.M.C., director of the Central Research Institution, Kasauli. The Kaisar-i-Hind gold medal has been conferred upon Lieutenant-Colonel Henry Smith, M.D., I.M.S., civil surgeon of Amritsar, Punjab; Major T. W. Irvine, M.B., F.R.C.S.E., I.M.S., late residency surgeon, Mewar, Rajputana. The baronetcy conferred upon the Right Hon. Leander Starr Jameson, M.D., C.B., and the knighthood conferred on Dr. John Henry Meiring Beck are given in recognition of services rendered in the establishment of the Union of South Africa.

## ROYAL NAVAL NURSING SERVICE RESERVE.

The regulations for Queen Alexandra's Royal Naval Nursing Service Reserve, established under authority of an Order in Council of October 13th, 1910, have been approved by the Lords of the Admiralty and issued in pamphlet form. The Reserve is formed for the purpose of supplementing the staff of Queen Alexandra's Royal Naval Nursing Service during warfare on a large scale. The Director-General of the Medical Department, R.N., will be responsible for the administration and will co-operate with the authorities of the civil hospitals in its maintenance. The number of nurses to be enrolled is 250, but this number may be augmented as may be found necessary during hostilities. Certificated nurses who are actually on the staff of civil hospitals are invited to volunteer through the matrons, and with the approval of the executive of the hospitals to which they belong. They must be of

British parentage or naturalized British subjects. The nurses volunteering must be over 25 years of age and under 35; no nurse will remain in the Reserve after attaining the age of 45. Should necessity arise, volunteers may be called for from the Reserve to serve in hospital ships at home or abroad, in foreign hospitals or in other medical establishments. The nurses guaranteed from each hospital may for mobilization purposes be grouped into three classes: (*a*) Those proceeding on declaration of war, (*b*) proceeding in a fortnight, and (*c*) proceeding later in the war. The salary will be at the rate of £45 per annum. On being called out, £5 will be allowed to each nurse for her personal expenses. The period of service will be until the end of the war or until the service of the nurse can be spared, and on completion of service an honorarium at the rate of £5 for each period of six months or portion of six months will be given to each nurse who has carried out her duties to the satisfaction of the Admiralty. A uniform will be supplied similar to that of Queen Alexandra's Royal Naval Nursing Service, and a badge, which must always be worn in uniform, will be issued to each nurse on her being called out. The nurses will not be enrolled by name as far as the Admiralty is concerned, but, as stated, will volunteer through their matrons. Nurses in private nursing institutions or engaged in private nursing or other pursuits of civil life will not be entered; it is felt that their chances of obtaining situations in nursing institutions, or private engagements, might not be enhanced if it were known beforehand to their employers that they could be called on at any moment to leave their patients to serve their country. It is believed that the system instituted will have the advantage of providing a large and efficient reserve of nurses straight from hospital work for immediate service on the outbreak of war with the least possible disturbance of the routine of civil establishments, and with the smallest expense to the country. The system has, we understand, met with the provisional approval of many of the civil hospitals in the United Kingdom. As some consideration for the disturbance of the establishment, a donation of £3 will be given to a civil hospital for each nurse volunteering through it for service in time of war.

## INJURED WORKMAN AND MEDICAL EXAMINATION.

THE case referred to at page 57 under the heading "Workmen's Compensation Act, 1906," and decided in favour of the employers, was that of a workman who refused to submit himself to a medical examination by a medical man employed and paid by the employers. In connexion with this case, we might point out that it is in keeping with the Report of the Council of the British Medical Association on the position of medical practitioners called upon to examine (otherwise than by the request of the patient or persons acting upon his behalf) patients who are under the care of other practitioners. In Paragraph IV of that report it is stated: "Of the cases in which the examination in question is made in connexion with a contract of employment, a large number arise under the Workmen's Compensation Act. In these cases the rights of the employer and of the workman, as regards the examination of the latter by doctors employed by the former, are to a great extent decided by statute. The workman will forfeit his claims to compensation if he throws any unreasonable difficulty in the way of his examination by the employer's doctor in the manner prescribed. On the other hand, the employer cannot demand as part of his statutory rights that any examination should be carried out in a manner which may injure the workman's health, of which the workman's doctor is the recognized guardian." This is the view taken by the judges in the Scottish Court of Session, and it was held that circumstances necessitating the presence of the workman's medical man had not arisen. Paragraph VI of the report, however, does not quite coincide with the findings of the judges. It states: "It is reasonable that he should [that is, the workman] be protected against injury in connexion with the examination, and he may demand, if he think proper, that his own doctor should be present at the examination to watch his interest in this and any other respect." In Paragraph VII, however, this is qualified by the statement: "In view of the considerations above stated, it may be assumed, for the purpose of the present report, that in every case which requires consideration in the report the patient is satisfied, before any question of relations of the two doctors arises, that it is to his interest to submit himself to examination, and the medical practitioner who acts on his behalf can claim no rights upon grounds of medical ethics or medical etiquette, the exercise of which would conflict with the interest of the patient." This, then, as we have already stated, coincides with the finding of the judges of the Court of Session, and it would be well if medical men who act on behalf of injured workmen would keep this case in view and advise their patients accordingly.

## BARBERS AND SURGEONS.

THE second part of Dr. George A. Fothergill's *Stones and Curiosities of Edinburgh and Neighbourhood*[1] touches matters of medical interest in its "story of a barber's bleeding dish." As a matter of fact, the bleeding dish in question was not one at all, but only a public house ale-tray or ale-plate beaten out flat and with its rim cut off; but it serves to direct the reader's attention to those brass plates which can still occasionally be seen dangling from the end of the barber's red, white, and blue pole, mutely witnessing, perhaps, to the former alliance between the barbers and the surgeons and to the performance of bleeding as well as shaving by these early practitioners. The brass dish represents the plate used to receive the blood, and the piece cut out of the rim enables it to be pressed closely against the arm (but some say the notch is to fit under the chin of the person being shaved); the white ribbon on the pole is supposed to be the bandage tied round the arm, and the blue indicates the venous blood of a phlebotomy, whilst the red stands for the arterial in the less frequently practised arteriotomy. Dr. Fothergill has found that the Edinburgh Surgeon-Barbers' Guild, which is regarded by Dr. J. Smith as the earliest surgical corporation chartered in the United Kingdom, was preceded by the London Guild (still having its ancient hall in Monkwell Street, Cripplegate), which received its first charter from Edward IV in 1462. The London company was granted another charter in 1540 by Henry VIII, under which the barbers were forbidden to practise surgery and the surgeons barbery. After the year 1745 the Company of Barbers and the Company of Surgeons were distinct bodies. With regard to the Edinburgh Guild the writer quotes as follows from Maitland's *History of Edinburgh*[2]: "The Barbers of Edinburgh, on the first day of July in the year 1505, were by a Charter from the Town Council,

[1] *Stones and Curiosities of Edinburgh and Neighbourhood.* By George A. Fothergill, M.B., C.M. Part ii. Edinburgh: John Orr. 1910.

[2] *History o Edinburgh.* By William Maitland, F.R.S. 1732.

incorporated with the Surgeons; but, imagining themselves injured in their Rights and Privileges by their new Brethren, frequent disputes arose; which continued till the 23rd February, anno 1722, when in a Process before the Court of Session, the Barbers were, by a Decree of said Court, separated from the Surgeons in all respects other than registering their apprentices with the said Surgeons, to be admitted both by them and the Barbers." For long before this year (1722) the surgeons had incorporated themselves in what the barbers called a "mongrel" society, known as the "Surgeon-Apothecaries"; this was in 1657, and was one of the causes of the quarrel which finally came to a head in 1718, and ended, as has been stated, in 1722. Dr. Fothergill's gathered notes on the barber's business are interesting. The art of hairdressing, shaving, blood-letting, etc., was formerly termed "Barbourie craft," and those who followed it as a trade were called "Barbouris." When any one had been attended to in this respect he was said to have been barbourised. To be a barber in Edinburgh in early times it was necessary first of all to be a freeman and burgess of the town. The would-be barber was also examined carefully by the "Maisters" in his craft before being admitted as a member of the guild. Upon being admitted he was at once known as "Maister Barbour," and could "practise" as such. He was obliged, too, to pass an examination on "the anatomy of the human frame, and the nature and complexion of every member of the human body; he must also know the veins of the same that he may mak Flewbothamea (blood-letting) in dew tyme." The barbers were completely severed from the surgeons only in 1845, but the former "body lingered on until 1893, when the last meeting was held, there being only one member in existence. Since then he has disappeared, and so have the funds." Yet in 1810 the barbers were a powerful body, for they marched "four and four, their Praeses in their rear," at the funeral of the Lord Provost of Edinburgh, and other fourteen corporations came after them in order of their precedency. But the glory has faded, and nowadays one has almost to apologise for speaking of *barbers*. As Dickens (in *Master Humphrey's Clock*) put it: "I would suggest that *barbers* is not exactly the kind of language which is agreeable and soothing to our feelings. . . . I believe there *is* such a word in the dictionary as *hairdressers*."

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## HAIRDRESSERS AND HYGIENE.

WHAT powers the National Institute of Trichologists possesses in respect of its members we do not know, but if membership of the body imposes compliance with its recommendations, the conditions in which public hair cutting and shaving are conducted seem likely to improve very materially. The institute is anxious that hairdressers, in the interest alike of themselves, their customers, and the public health, should study the hygiene of their calling and do their work in accordance with the requirements thereof. By way of facilitating matters, it has drawn up with medical assistance a code detailing what methods in hairdressing and shaving are desirable and undesirable respectively. Many of the recommendations do not seem to involve any material departure from practices already common in high-class hairdressing saloons, but others are comparatively novel. The use of machine brushes, of sponges, of alum blocks, powder puffs, soap tablets, and naked head rests is condemned; while clippers, if used at all, should, it is stated, be taken to pieces each day and thoroughly cleansed with hot water and a disinfectant solution. Insufflators charged with borax and starch powder should be used whenever powder is required, and cotton-wool pads substituted for sponges. Each attendant should have at least three combs, wash each as it is used, and place it in a disinfectant until again required. Scissors after similar treatment should await further use in a hot cupboard. Hairbrushes, of which each attendant should possess several, should be used in strict rotation, be dipped in a disinfectant after each use, then shaken out and stored in a hot cupboard. Lathering brushes should be numbered and similarly treated, except that they should be kept in the disinfectant and not placed in the hot cupboard. As for razors, each attendant should possess not less than three, and before use dip them in boiling water and disinfectant solution. When the shaving is complete they should again be dipped in boiling water and disinfectant, then sharpened on a strop kept clean and free from dust, and finally, after again dipping in a disinfectant, placed in the hot cupboard until further required. The soap used should be a powdered germicidal soap, kept in bottles with glass sprinklers. Cut hair should be swept into metal receptacles and subsequently burnt. The saloons should be well ventilated and their floors washed daily with a disinfectant solution. It is also laid down that an attendant before setting about his work with each customer should wash his hands with antiseptic soap, or at least dip them in a chinosol solution (5 grains to a pint), which is the disinfectant recommended throughout. These regulations as a whole seem to have been well thought out, the methods recommended conforming to aseptic principles probably quite as far as is practical or as can reasonably be demanded.

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## PERSEVERATION.

IN the December number of *Knowledge* there appeared an interesting article by Mr. John Gray on perseveration. The sensation of a colour persists for a short time after the external impulse has ceased. This time, which can be used as a measure of perseveration, is determined by having a rotating mirror momentarily reflecting as it passes behind an eye-hole a beam of coloured light to the eye. If the persistence is less than the time interval between two successive impulses the colour will flicker, while it will be continuous when equal. A speed indicator is attached to the axis round which the mirror rotates. The persistence of colour sensations in the person tested is inversely proportional to the critical speed. It is necessary to have a constant source of luminosity in making comparative observations. Mr. John Gray gives a figure of his simple apparatus by which the end in view is obtained. Mr. John Gray supposes that in the colour blind the sensation excites only the lower-level nervous centres, and does not reach the high-level centres, and so is not perceived. The quality of mind which the psychologists call "perseveration" influences mental growth by the control which it exercises upon the association between two or more neural systems. There is an association tract formed between *a* and *b* in the child's brain when he sees a dog and hears the word "dog." The resistance in the tract is lowered by habit. It is necessary that the excitement in *a* should be very much reduced before *b* is excited. If the persistence or perseveration in *a* is long, there will be a tendency to slowness and fixity of ideas; if short, the flow of ideas will be rapid. The man with a longer persistence tends to be an abstract thinker, one with a shorter persistence a man of ready wit and immediate action. Too long and too short a persistence mark the abnormal mind. Mr. Gray finds the persistence is

shorter in women than in men. Thus he proposes with his apparatus to investigate the quality of different minds.

## THE RETREAT, YORK.

WE are glad to see from the annual report of this famous institution that the eminent position it has held since its opening in 1796 is still maintained under the medical superintendentship of Dr. Bedford Pierce. The report for 1909 shows that the year's work was satisfactory, that the recoveries were more numerous than usual, that the average number of patients was the highest on record, and that there was reason to believe that the income would be found to exceed that of any previous year. This latter is a very important matter for an institution of this kind, whose whole resources are applied to the comfort and well-being of the patients. The outstanding feature of the year was the opening of the new buildings—the recreation room and the medical superintendent's house—by Mr. Henry Tuke Mennell, a lineal descendant of the founder of the Retreat. Also, 1909 saw the successful establishment of a department for the training of mental nurses. This department will no doubt prove of benefit to the public. In his report Dr. Bedford Pierce touches on one or two matters of general interest. Among these Dr. Pierce refers to the treatment of incipient insanity. In Scotland the law permits of detention without certification for a limited period. This provision, however, is in practice applied to patients under private care, and, in Dr. Pierce's opinion, does not meet the requirements of patients with limited means. Now, Dr. Pierce says, if the law requires amendment to enable cases of recent unconfirmed insanity to be nursed in lodgings for, say, six months, why not in public institutions visited by Commissioners, and in no sense pecuniarily interested? Dr. Pierce therefore hopes that the next Lunacy Act, which will undoubtedly legalize the temporary detention of incipient cases of mental disorder, will not exclude the very places best able to give the most effective treatment.

## THE RESEMBLANCE OF COUSINS.

WE have received a copy of a paper by Mr. E. C. Snow entitled "On the Determination of the Chief Correlations between Collaterals in the Case of a Simple Mendelian Population Mating at Random.[1] The memoir is largely mathematical in character, and consequently not suitable for discussion in these columns, but it contains some points of interest to medical inquirers. Miss Elderton showed in an earlier paper that the relationship between cousins was, for the characters examined, as great as or greater than the correlation between a child and the parental brothers or sisters. This result suggested that, in considering the family history of a patient, details regarding the cousins were of an importance at least equal to that of an inquiry as to parental collaterals—a fact of some significance, since in many cases the former information is more easily obtainable than the latter. Mr. Snow points out that these experimental facts are in accordance with the results which flow from the hypothesis adopted as the starting point of his analysis; indeed, under certain circumstances, the cousin correlation might actually be greater than the parental one. Other conclusions are: (1) When the recedent character is rare, as will often be the case in pathological inheritance, the correlations founded on Mendelism have low values, and in certain cases approach zero; (2) the correlation between brethren is always greater than that between parent and offspring; (3) the grandparental correlation is always the same as the avuncular. Mr. Snow's paper will repay study by those who have sufficient mathematical knowledge to enable them to follow the reasoning.

[1] On the Determination of the Chief Correlations, etc. By E. C. Snow, B.A., *Proc. Roy. Soc.*, B, vol. lxxxiii, 1910, p. 37.

## AUSTRALIAN MINERS AND LUNG DISEASES.

IN March last Sir Gerald Strickland, the Governor of Western Australia, appointed Dr. J. H. L. Cumpston a Royal Commissioner[1] to investigate and report upon: (1) The prevalence amongst miners of pulmonary diseases; (2) the nature of such diseases; and (3) the extent to which they are associated with, or consequent on, mining. Evidence was taken from many witnesses, including mine managers and medical men. The Commissioner divides his report into three sections: (1) Statistical, which deals with the prevalence of lung diseases in miners during the past ten years; (2) results obtained by an examination of 2,050 men, of whom 1,805 were examined when at work; and (3) experimental. It is to be regretted that the Commissioner had the opportunity of seeing only two *post-mortem* examinations, one of which was not of a miner. There is evidence to show that during the last few years there has been a considerable increase of pulmonary disease in miners over 15 years of age compared with the male population generally. While the increase has been in the direction of tuberculosis, there has been a sensible decline in pneumonia. Between 25 and 60 years of age the percentage of deaths is higher in miners than among other occupied males. Miners have three and a half years less of life than the average male population over 15 years of age. As a result of his examinations fibrosis of the lungs was found to be present in machine miners to the extent of 33.16 per cent., in non-machine miners to the extent of 7.23 per cent., in truckers to 3.1 per cent., and in dry treatment hands to 24.5 per cent. Pleurisy exhibited no predilection for any one class of miners specially. In 3.8 per cent. of the miners examined the lungs were tuberculous. Among the miners of Western Australia, as among the miners on the Rand, dust is the cause of pulmonary fibrosis. At present tuberculosis of the lungs is not met with in the Australian miners to any great extent, and in no circumstances, so far as mining is concerned, can it be regarded as an industrial disease; but there is a feeling that once the disease began in real earnest it might spread among miners by personal contact rather than through dust in the mines. The purchase of clothing worn by miners who had succumbed to phthisis would have to be prevented as far as possible unless sufficient care was taken to have the clothing thoroughly disinfected. It is still an unsettled point in pathology as to how far the action of dust upon the lungs prepares the way for the readier reception of the tubercle bacillus. Fibrosis destroys the efficiency of the lungs for the purification of the blood, and when there is in addition the co-existence of thickened pleura binding down the lungs, aëration of the blood becomes wellnigh impossible. Once an impetus has been given to the development of fibrosis by the irritating action of dust, the morbid changes which are induced are likely to progress even after the removal of the individual from the sphere of his labour. Pneumonia among the miners of Western Australia is dying out, whereas tuberculosis is increasing. Evidently phthisis is more prevalent among the miners of Western Australia than among British coal miners, and is

[1] Report of the Royal Commissioner on Pulmonary Diseases among Miners, Perth, Western Australia, October 4th, 1910.

largely the result of the hard character of the rock, especially in the gold mines. Taking the statistics of Western Australia, the Commissioner says that the deaths from lung diseases was for the whole population 15 17, all males 15.86, males over 15 years of age 19.62, and for the miners 27.02; while for pulmonary tuberculosis the figures in percentages are for the same classes 6.32, 6.36, 9 52, and 9.62 respectively. Tuberculosis of the lungs is therefore only slightly more frequent as a cause of death in miners than in the general population; but as under the term "all males over 15 years of age are included miners," the revised figures taken from other tables in the report give, for tuberculosis of the lungs in all males over 15 years of age (rate per 10,000), 9.60; and for miners (rate per 10,000), 19.21. During the last ten years tuberculosis has been twice as prevalent among the mining community as amongst males over 15 generally. In England and Wales miners as a whole suffer more heavily than the average population from respiratory diseases, and yet their mortality from phthisis is little more than half the standard. Speaking of coal miners, Dr. Cumpston says that while among them "the incidence of the various diseases of the lungs is low, and is therefore low for all miners (as coal miners constitute nine-tenths of all miners in England and Wales), yet among tin miners, the group most similar to the gold miners of Western Australia, the mortality from lung diseases is unduly high. While, however, coal miners are not more subject to diseases of the lungs than the general population, it is interesting to observe that with the exception of 'accident,' the three causes of death amongst coal miners which give the highest figures are pneumonia, bronchitis, and phthisis in that order." The pleurisy from which the men suffer is attributed by the Commissioner to the rapid changes in temperature to which the men are exposed. Space does not permit of more than the briefest allusion to Dr. Cumpston's experimental investigations, which seem to have been carefully carried out and the results of which confirm the opinions of other workers upon the subject. The furnishing of this information is preliminary to the "scope of the Commission being extended with a view to recommending means for minimizing and preventing the occurrence of such diseases." To that end Dr. Cumpston's report will be most valuable.

## CHEAP SNEERS AT THE DOCTOR.

WE are accustomed to pictures of the doctor as a callous scientist experimenting on his patients in excess of zeal for research, and though such descriptions may not strike us as being altogether in good taste, they express one point of view and hurt no one. The medical profession also takes with equanimity the banter, which sometimes runs to ridicule, and laughs with others if the distorted figure of the doctor is at the same time humorous. But for gratuitous bad taste we have rarely, if ever, read anything to equal a paragraph in a book with the lucid title *Let the Roof Fall In*, by a writer of the name of Frank Danby. A gentleman rider, as the result of a fall in a steeplechase, has broken his back. Instead of the surgeon leaving him alone "he was not allowed to die." "He was to be carried up to London in an ambulance and to be taken to a nursing home to be experimented upon." . . . "Science got to work on him, and all the surgeons and physicians of Sir Gregory's own hospital set, whom he called in consultation, carefully avoiding all those of any other school, benefited by the large fees he asked for them. Practically, amongst them, they vivisected him, performing new and unheard-of operations, running through Röntgen rays and radium, electricity, and the introduction of innumerable bacilli, and micrococci and phagocytes, torturing the patient under chloroform or ether, or half a dozen new anaesthetics, delaying disastrously the inevitable end, to their own great pecuniary advantage and self-glorification, but never to the patient's well-being." There is more of the same sort, but this is sufficient. The sneers about fees does not come gracefully from one who probably accepts payment for writing such rubbish as this, which apparently has nothing to do with the necessary development of the story, and only serves to fill up an extra half page. It may happen that "Frank Danby" may some day need the help of some medical practitioner, and possibly would feel hurt if the favoured individual who was summoned, having read the above extract, showed some hesitation in visiting a person who might afterwards describe his assistance in such terms as we have quoted.

## SLEEPING SICKNESS.

DR. STANNUS, officiating for the Principal Medical Officer of the Nyasaland Protectorate, has continued down to October 31st, 1910, the latter's diary on sleeping sickness for that territory.[1] He states that doubt is entertained by several medical men there as to the identity of the pathogenic trypanosome in the late Nyasaland cases with the trypanosome of sleeping sickness. Further, the clinical picture presented by the cases would also appear to differ slightly from the disease as seen in Uganda, the symptoms presented corresponding with those of a rapidly progressive case of sleeping sickness as met with elsewhere. This increased virulence Dr. Stannus believes might be explained on the hypothesis that the parasite had adopted and passed through an unusual carrier, namely, *G. morsitans*. Mr. Neave, in a report on his recent journey to the Luangwa Valley, when he followed the Luwumbu River from Katumbi to its junction with the Luangwa, states that evidence as to the existence of *G. palpalis* or *G. fusca* on these rivers, including the neighbourhood of Nawalia, was negative, though the country was not altogether unsuitable for the latter species. Most of the country visited by him was unsuitable for *G. palpalis*. He concludes by saying that there is considerable justification for excluding *G. palpalis* as the cause of the cases of sleeping sickness in the Luangwa Valley.

FORMAL notice is given in our advertisement columns that an election of one member of the General Council to represent the registered medical practitioners resident in Ireland is about to be held. Any registered medical practitioner resident in Ireland is qualified to be nominated as a candidate, and nomination papers must be delivered on or before January 18th, addressed to Mr. Richard J. E. Roe, 35, Dawson Street, Dublin, from whom forms of nomination papers may be obtained.

AN international congress for the organization of measures for the suppression of the opium traffic will be held at The Hague on May 30th, 1911. Among the nations which will take part in the congress are Great Britain, the United States, France, Germany, Italy, the Netherlands, Portugal, Russia, Japan, China, and Siam. Great Britain will propose that morphine and cocaine shall be included together with opium in the prohibitive enactment, and this proposal will, it is said be supported by the United States.

[1] Nyasaland Protectorate. Sleeping Sickness. Diary, Part XII. By the Officiating Principal Medical Officer. 1910. Zomba: Printed by the Government Printer.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER.

### THE COMPULSORY DETENTION OF PAUPER CONSUMPTIVES.

THE question of the compulsory detention of paupers suffering from consumption has on several occasions lately been discussed by the boards of guardians in the Manchester district, and at a recent meeting of the Salford Board the following resolution from the Plymouth Incorporation of Guardians was read and discussed:

> In the opinion of the guardians of this incorporation it is desirable that boards of guardians should be empowered to enforce admission to the workhouse infirmary of persons in receipt of outdoor relief suffering from phthisis, and also should be given compulsory powers of detention after admission.

During the discussion a motion to support the Plymouth resolution was proposed. Some objection was raised on the ground that it smacked too much of the penal to compel people against their will to take shelter in the workhouse infirmary, especially as there was only likely to be a temporary improvement in their condition. Some time ago a recommendation was carried that extra out-relief should be granted to consumptive patients living in homes where there was not sufficient accommodation so as to enable them to have separate bedrooms. This extra relief, it was stated, would cost the ratepayers only 3s. or 4s. a week per patient, whilst if they were brought into the workhouse the cost would be 10s. a week. It was pointed out that if the guardians agreed to the resolution it would not necessarily involve the policy of compelling all consumptives in receipt of out-relief to go into the infirmary. It only meant that they would have discretionary power to compel those cases to go inside that were not being properly treated at home, that each case would be judged on its merits, and that it would be a lever in the hands of the guardians if people knew that detention would be enforced if the patients were not properly looked after. It might be a hardship to take people from their families, and it might not be possible to cure them entirely, or even partially; but at least others would thus be saved from future suffering. Mere notification of these cases was not sufficient, and isolation should be insisted on just as for scarlatina and diphtheria and the other infectious diseases. The proposal to support the Plymouth resolution was agreed to, and, though at present the Salford guardians have not sufficient accommodation for the treatment of this class of patients, the supporters of the proposal thought that it would, perhaps, force them to make provision.

A letter was also read from the Medical Officer of Health for Salford, in reply to a suggestion, made some time ago, that there should be co-operation between the Health Committee and the guardians with regard to investigations about overcrowding and other undesirable conditions in houses. The Health Committee said it would be glad to co-operate with the guardians in the manner indicated, and would forward printed forms for the use of the relieving officers.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### DIPHTHERIA AT DUNDALK.

THERE has been a good deal of diphtheria lately in the neighbourhood of Dundalk, and several deaths have occurred. Last week the coroner very wisely determined to hold an inquest on the body of a child which had died from the disease, the real object of the inquiry being to call the attention of the public to the importance of obtaining medical advice as soon as symptoms of sore throat were complained of. In the case in question no medical advice had been sought until eight days after the beginning of the sickness, and from remarks made at the inquest it appeared that in most of the other deaths that had occurred there was similar neglect. The coroner stated that in the future he would hold an inquest on any case in which medical attendance had not been obtained in proper time.

### CHRISTMAS IN THE HOSPITALS.

At most of the Dublin hospitals Christmas was celebrated by the holding of one or more entertainments for the patients, and, as usual, numerous kind friends lent their services, so that excellent programmes of music and recitations were provided. Christmas trees for the children were the rule, and seemed to be thoroughly appreciated. Approaching Christmas time, indeed, many of the children are pathetically anxious not to get well too quickly for fear of losing their share in the good time to which they have been looking forward. The public also seem thoroughly to enjoy these hospital entertainments, and some succeed in visiting more than one of them during the afternoon.

### OLD AGE PENSIONS.

The expiration on December 31st of the Poor Law relief disqualification will result in the extension of the benefit of the Old Age Pensions Act to large numbers of persons in Ireland; thus in co. Mayo alone it is calculated that nearly 1,000 new pensions will be granted, of which about 800 will be to individuals who had previously been in receipt of outdoor relief. It is probable, however, that many possible pensioners in the workhouses throughout Ireland will prefer to remain within the workhouse, as most of them will consider that they are likely to have better care inside than they could possibly hope for outside at 5s. a week. Out of 200 eligible in the co. Mayo workhouse it is thought that not more than 80 will apply for their pension.

### INSPECTION OF SHIPS.

The Newry No. 1 Rural District Council, acting on the advice of the medical officer, has issued orders for the medical inspection of all ships coming into Carlingford Lough from plague-infected ports. The ideas prevalent, however, amongst the members of the council concerning the value of medical inspection and the work involved must be rudimentary, judging from the fees which they have decided to offer for the discharge of this duty. The ships which enter the lough lie three miles out from the shore, and the fee which the council offers for rowing to the ships and back and for inspection is the modest sum of half a guinea, with an allowance of 2s. for the boatman employed.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### STUDENTS' HOSTELS IN GLASGOW.

THE question of hostels and residences for students has, as in the case of Edinburgh, been occupying the attention of the educational authorities in Glasgow for a considerable time. Existing conditions were so unsatisfactory that efforts were repeatedly made by the teaching bodies concerned with the training of students to bring about improvements, but financial and other considerations always hampered them, so that the provision of accommodation which could be offered to students along hostel lines has been of small and totally inadequate extent. The Provincial Committee, appointed some time ago, desires to establish a system of hostels which would embrace all the students in training, preferring, as far as is possible, that the university should have their own separate residences for students. Their aim is to build a number of small hostels, accommodating something like fifty students each, rather than one big establishment. This scheme would have the

advantage of enabling the hostels to be erected in different districts, possibly outside of the city area, so that students might have the benefits of country residence with easy access to their training centres.

So far, nothing definite has been done in the matter of securing sites beyond the inspection of certain pieces of ground, but the committee anticipates making an early start with whatever scheme may be decided upon. Meantime, several houses have been taken for temporary residences, and the committee hopes soon to be able to have accommodation for 200 students. These hostels will probably be opened in time for next session.

### COUNTY MEDICAL OFFICER FOR BERWICKSHIRE.

Dr. McWhan has been appointed County Medical Officer for Berwickshire at a salary of £400. Dr. McWhan is at present one of the School Medical Officers for Fife.

### ROYAL INFIRMARY, EDINBURGH.

The annual report stated that during the year from October 1st, 1909, to October 1st, 1910, there were treated in the wards of the infirmary 12,342 cases, being a decrease of 46 on that of the previous year. Of these, 4,318 were medical and 7,219 were surgical. The average time each patient was under treatment was 25.1 days.

*Mortality Figures.*

The deaths which took place within forty-eight hours after the patients' admission numbered 119. These unduly raise the rate of mortality, having mostly occurred in cases either of severe injury or of a hopeless nature. The percentage of deaths to cases treated was 6.2, against 6.7 last year. If deaths occurring within forty-eight hours of admission were deducted the percentage would be reduced to 5.3.

*Out-patients.*

Besides the 12,342 cases treated in the wards, 38,930 out-patients (most of whom attended several times) received medical and surgical aid, and such dressings and surgical appliances as were necessary.

*Expenditure.*

The entire ordinary expenditure during the year (including the out-patient departments) per occupied bed was £64 7s. 10d., or an increase of 14s. 8½d. on 1909. There was, per occupied bed, a decrease of 2s. 0½d. in maintenance, and an increase of 7s. 1d. in medical expenditure.

### MEDICAL REFEREES IN COMPENSATION CASES.

At the annual conference of the Federation of Scottish Miners recently held at Ayr the following resolutions were adopted:

That the Federation presses for an alteration in the system of appointing medical referees under the Workmen's Compensation Act so as to secure the appointment of men specially qualified to deal with particular cases coming before them, and that in every instance a medical board of three referees should decide upon disputed cases.

Further, that when workmen are held to be able for light work, it shall be compulsory for the employer to provide suitable employment or pay full compensation until the injured workman finds suitable employment.

### PRACTICE IN SHETLAND.

According to a report in a recent issue of the *Shetland News*, a public meeting was held at Queness, under the chairmanship of Captain Pearson, Ground Officer, to consider the best way to raise money for the purpose of getting a doctor for the parish, and what amount would be required. The meeting finally resolved that the sum of £20 must be collected in the parish yearly to remunerate the doctor. It will be seen, therefore, that the services of a medical man in Shetland are appraised at a very low figure. It is hardly to be credited that, even in Shetland, educated men like the factor and schoolmaster, could for a moment suppose that for £20 per annum a medical man could be got to minister to the bodily ailments of the people on the island referred to. The suggestion is so absurd that those attending the public meeting can hardly have been serious in their proposals. Unfortunately there are medical men who do accept appointments in the Highlands and islands of Scotland at less than a living wage, but their tenure of office rarely exceeds a year or two, because by that time they see the mistake they have made. As long, however, as these appointments are filled up, even for a short time, parish councils will not improve the position or increase the salary offered to the holders of these posts. Though the Scottish Poor Law Medical Officers' Association, through its energetic secretary, Dr. W. L. Muir, frequently warns medical men not to apply for ill-remunerated appointments in the Highlands and islands of Scotland, little attention seems to be paid to these warnings, which, as a rule, are inserted immediately after the advertisement in the medical as well as the lay papers, asking the applicants to communicate with the secretary of the association, Dr. W. L. Muir, Seton Terrace, Glasgow. The appointment referred to in the *Shetland Times* is a glaring instance of an attempt to decoy some unfortunate young man to endeavour to be "passing rich on £20 a year." It will be strange if any medical man will be found foolish enough to accept the appointment.

# India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### REPORT OF THE PASTEUR INSTITUTE OF INDIA.

THE ninth annual report, for the year 1909, indicates continued progress. The number of patients treated was 1,937, of whom 490 were Europeans and 1,447 natives. Of these latter 1,065 were Hindus, 323 Mohammedans, and 59 of other religions. Among these 24 deaths took place, or 1.2 per cent. of treated. Eliminating deaths which occurred during treatment or within fifteen days of its completion, there remain 11, or 0.67 per cent., of treated representing failures. The larger proportion of these failures took place among Indians. Seeing that of 100 persons bitten by rabid animals the number of deaths, untreated, is 14, these figures represent a substantial saving of human life. The aggregate of patients is the highest reached since the opening of the Kasauli Institution in 1900, notwithstanding that a Pasteur Institute has been opened at Coonoor in the Neilgheries which receives patients from Southern, Western, and Central India. It is proposed to enlarge the accommodation at Kasauli by erecting additional waiting rooms, an extension of the laboratory, quarters for indigent Indians, and a hostel for higher and middle class Indians. The financial position of the institute is sound. The director, Captain W. F. Harvey, I.M.S., contributes an interesting report on the statistics of the institute, and the professional aspects of the work done in it. He discusses, but not very hopefully, the possibility of extirpating rabies in India as has been done in England. The fact that a large proportion of bites are inflicted by jackals and other wild animals constitutes a substantial difficulty in undertaking preventive action in India with a reasonable expectation of success. The institute is also utilized for clinical examinations, and researches were carried out during the year regarding malaria, dysentery, Oriental sore, and other tropical diseases.

### PLAGUE IN THE UNITED PROVINCES.

A report has been drawn up by Colonel C. C. Manifold, M.B., I.M.S., Inspector-General of Civil Hospitals, United Provinces, regarding the prevalence of plague during the "plague year" ending June 30th, 1910. After two favourable years there was a serious recrudescence of the disease. The seizures amounted to 151,298, and the deaths to 141,357. Cases began to increase in number in July, 1909, and continued to rise until they attained a maximum of 39,513 in March, after which there was a sharp fall to a minimum of 280 in June. Of the 48 districts into which the province is divided 4 registered a mortality of over 10,000, 17 over 1,000, 5 over 500; the remainder were practically free. The incidence of the disease was therefore partial, the districts most affected being

situated on the eastern side of the province, and adjoining each other. The cause of the recrudescence is obscure, but it was observed that dead rats were found in towns and villages before plague broke out among the inhabitants. The more intelligent evacuated their houses when dead rats were observed. The plague staff maintained during the violent outbreak of 1906-7, when 297,793 seizures and 268,774 deaths took place, had been disbanded during the two succeeding favourable years, and no new organization was maintained on a large scale to deal with the serious epidemic of 1909-10. Efforts were made to inoculate the inhabitants of infected areas, but there was great resistance on the part of the people. The number of inoculations performed was 76,120, and among these 442 deaths took place; but facts and statistics are given showing the advantage of the measure both in procuring immunity from attack and in mitigating the severity of the disease. Evacuation of houses and destruction of rats appear to have been the principal means adopted to control the epidemic.

ANTIMALARIAL OPERATIONS AT DINAJPUR.

Dinajpur is a flat district of Eastern Bengal situated north of the Ganges, intersected by a network of rivers and streams and abounding in tanks, swamps, and jungle. It is typically a paradise of mosquitos. The head quarters of the district is a town of some 14,000 inhabitants and partakes of the physical characters of the district. It is on the Gagra River, joined by several streams and canals passing through the town, and has 53 tanks. In 1908 the Sanitary Board of the Province of Eastern Bengal and Assam, to which the district was assigned at the time of the famous partition of Bengal, deputed Captain M. F. Reaney, M.B., I.M.S., to survey the station for the purpose of devising measures for the suppression of malaria for which the district and town have an evil reputation. He suggested proceedings for (1) improving drainage, (2) destroying mosquito breeding places, and (3) distributing quinine during the fever season at an estimated cost of Rs. 6,200. The report of the Provincial Sanitary Board for the year 1909 indicates that these suggestions were put into active operation during that year. Drains were levelled and cleared or filled up, jungle cut down, compounds cleaned, pools abolished, tanks and watercourses oiled systematically by gangs of coolies, and quinine lavishly distributed. These works appear to have been strenuously carried out at a cost of over Rs. 14,000. The board considers that the statistics of the year show a slight diminution of malarial disease; but these statistics are not worthy of much reliance, and the civil surgeon, Captain D. P. Gail, I.M.S., thinks that it is too early to form any definite conclusions, and that the work must continue for several years before a decided pronouncement can be made one way or other. Similar operations were carried out in the station at Julpigoree with still more doubtful results. Screening houses with wire gauze was tried here, but objected to by the inhabitants on account of interference with ventilation.

# Queensland.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE PUBLIC HEALTH.

ALTHOUGH the report for the year ending June 30th, 1910, of Dr. J. S. C. Elkington, the Commissioner of Public Health of Queensland, occupies only fourteen printed foolscap pages, it contains a great deal of interesting information with regard to this portion of the Australian Commonwealth. It is satisfactory to find that the Government adopted a suggestion made by a deputation from the British Medical Association, that a fully-equipped bacteriological laboratory, with a specially qualified medical officer in charge, should be instituted under the control of the Commissioner of Public Health. The Government analyst is doing good work in discovering adulterated milk, and fines were imposed during the year upon offending milkmen to the amount of nearly £100. Dr. Elkington very properly points out that an occasional fine of £5 can easily be borne by a dairyman, for he estimates that in Brisbane alone the inhabitants are paying some £2,500 yearly for water, retailed at 4d. a quart, in the guise of milk. Since the beginning of October, 1909, ankylostomiasis has been made a notifiable disease in the colony, but only one case has been notified, although it is matter of common knowledge that the disease is a prevalent one. Indeed, in one town a street has been nicknamed "Ankylostoma Alley," owing to the number of children residing in it who are affected. No single case of plague occurred in Queensland during the year—a circumstance which is attributed by Dr. Elkington to the wise and resolutely followed policy of his predecessor, Dr. Burnett Ham. In the metropolitan area of the State there is a rat gang of ten men, and seven rat destroyers are stationed elsewhere. Between them they destroyed in the year nearly 60,000 rats and mice. Of this number nearly 36,000 were examined, and five rats were found to be plague-stricken. In Dr. Elkington's opinion, permanent control of the rat question cannot be expected until legislation enables the animals and their haunts to be more effectually dealt with. The disastrous effects of phthisis as a poverty producer are commented on in the report, and suggestions are made as to the measures which should be taken to lessen the incidence of the disease. A regulation forbidding spitting on footpaths or in public places is in force, and the conviction of five persons offending against it in Brisbane is said to have had a salutary effect.

# Bangkok.

[*FROM OUR SPECIAL CORRESPONDENT.*]

REPORT OF MEDICAL OFFICER OF HEALTH.

THE twelfth annual report of the medical officer of health for Bangkok, Dr. H. Campbell Highet, was issued lately. It covers the year ending March 31st, 1909. Ten years ago the department consisted of the medical officer, the chief sanitary inspector, an assistant inspector, and six coolies. Now the staff of the public health department includes the medical officer of health and two assistants, the veterinary surgeon, one quarantine inspector, one chief sanitary inspector, five second grade sanitary inspectors, ten third grade sanitary inspectors, three clerks, and 150 coolies regularly at work. During the past ten years extensive areas of marshy ground have been filled up, all old collections of refuse have been disposed of, hundreds of insanitary houses have been demolished, and in their place substantial brick buildings have been erected. Many new streets have been opened up throughout the city, all of good breadth, and trees have been planted along either side of most of these. Beside vast improvements in the sanitary condition of the town, advance has been made in the medical department. On the outbreak of plague in Bangkok some years ago, an infectious diseases hospital was erected; this hospital consists of five separate pavilions, along with the usual administrative buildings.

The chemical and bacteriological laboratory has done excellent work since it was established. Besides the hospital for infectious diseases, there are other three hospitals and a lunatic asylum under the control of the medical department.

During the year under review 6,294 cases were treated in the hospitals; of these, 434 died; this gives a low death-rate, 6.8 per cent.

Small-pox is endemic in Siam, but from time to time it takes on an epidemic form, as it did in 1909, when 379 cases were observed, with a death-rate of 9 per cent. Vaccination is practised largely in Siam. Dr. Highet mentions that vaccination was first introduced into Siam in 1840 by an American missionary. It was not, however, until 1904 that the Siamese Government undertook the preparation of calf lymph in Bangkok. A vaccine laboratory was then opened

and large quantities of calf lymph were supplied to the public. It was soon found that more commodious premises were required, and another laboratory was erected in 1906. Since the latter date 335,175 doses of calf lymph have been issued to the public. It will thus be seen what an important factor in stamping out small-pox a well organized system of vaccination will become. There is very little actual opposition to vaccination in Siam. There are no conscientious objectors in that country; the usual reasons for non-vaccination are indolence, carelessness, and often actual absence of opportunity.

Beri-beri is very prevalent in Siam, no less than 4,607 cases, with a mortality of 282, being reported. Dr. Highet holds the belief that the cause of beri-beri must be looked for in the eating of stale white rice, and this is borne out by other observers. The prevention is the use of parboiled rice. After the report of Drs. Fraser and Stanton in Java, and Dr. Braddon in the Malay States, who conducted a series of experiments in connexion with the dieting of coolies, Dr. Highet commenced the use of parboiled rice in the lunatic asylum, which, he says, was a hot-bed of beri-beri, and the results have been so remarkably successful that he has prepared a memorandum in order to lay before the Siamese Government the advisability of recommending that parboiled rice should be used in all Government institutions, and by the inhabitants generally. With regard to the lunatic asylum, he says that no new case of beri-beri has arisen since parboiled rice was first issued.

# Special Correspondence.

## PARIS.

### *The End of Coryza: Ultra-violet Rays and Panspermia.*

AT last! Coryza has been conquered! It is high time that this should have been accomplished. Society has talked enough about our powerlessness against the most ordinary kind of catarrh. "It is all very well," they complained, "to boast about the progress of medicine. Since the days of Aesculapius no cure has been found for a cold in the head." It was in vain we protested that the subject was trivial; *de minimis non curat . . . doctor.* Miserable excuse! Imprudent argument. The shade of Cyrano turning up the brim of his felt hat, displayed his profile, and went to demand an explanation from the shade of Gui Patin. Too trumpery a matter, Sir! Every sneeze sounded in our ears as a reproach, and we could not even retort with, "God bless you," an expression which, coming from us, would have seemed as a jest in the worst taste. That nightmare is over! Coryza has been conquered. As usual, the discovery was made indirectly and by chance. The advances of science are linked together, and call to each other to our bewilderment. One starts for India and lands in America. Aviation has had a double result. Starting from Douai with a bad cold in the head, Leblanc, who succeeded in accomplishing the circuit of the East, arrived at Amiens with his nostrils free from obstruction and dry; he was able to respond to the congratulations he received in Picardy in a clear voice. What can it matter if such an experience is unique? It is unquestionably decisive, for it is the first time that such a complaint has been cured in one hour. Another triumph of physiotherapy. To tell the truth, Charcot had already noticed that beyond the eightieth antarctic parallel one never caught cold. It is very seldom that on the eve of a great discovery there are not many signs foreshadowing its advent. But must we send our patients to the pole to cure them of coryza? One might as well think of prescribing to patients subject to that affliction a sojourn in the country of the penguins. The journey would be tiresome, and the stay monotonous. Aëroplanotherapy is very much more practical. All you have to do is to get into a Blériot or a Farman and let yourself rise 800 metres above all earthly miseries. Forthwith you feel better, and let yourself down gracefully into the arms of your doctor, whom you have summoned by waving your handkerchief, which will in future be useless except for use as a signal to your friends. There only remains now, as in algebre, to find the solution of the problem. What is the active element in the cure? Is it speed or altitude? The motorist who sneezes when he is running at a speed of 100 kilometres an hour does not get rid of his cold. Is it, therefore, altitude? But that is not a simple cause; it involves both the cooling and the rarefaction of the air. The similar action of the antarctic climate might incline us to believe it to be cold. But the question is more complex than that. Besides physical modifications, altitude involves chemical and electric modifications. We are acquainted with the effects of ozone, but what of the ultra-violet rays? Raybaud's biological spectrum, which projects on mould cultures the light of Hewitt's quartz lamp, demonstrates in the most striking and picturesque fashion that micro organisms are unfavourably affected by the ultra-violet rays. As the length of the wave decreases the cultures become attenuated, and below 305 millimicrons they are completely sterilized. Now the proportion of ultra-violet rays sent to us by the sun and arrested by our atmosphere increases with altitude. The same holds good with regard to the purity of the air. All microbic life must therefore cease at a certain altitude, not so much through the want of oxygen as owing to the destructive power of what has been termed "dark light." M. Houllevigne has recently called attention to a whole realm of hitherto undefined phenomena which have to be studied. To effect a cure it is necessary to find the limit where the air, although not harmful to the higher organisms, makes life impossible to their parasites. And, incidentally, to bring this letter begun in a flippant strain to a dignified close, to show how the most trivial observation may open out the widest horizons and how a simple cold may carry us into the region of metaphysics, it may be pointed out how rash and utterly unfounded is the theory of panspermia, which lately, after centuries of oblivion, has been resuscitated to a new life. According to this theory, the universe is peopled by germs which dying worlds, which are becoming disintegrated by increasing radio-activity, transmit by way of the ether to living worlds. Thus, in the interstellary space there would be an eternal uncreated matter, spores of bacilli continually floating about in search of a region favourable to their development, in accordance with the Darwinian theory. But how is this hypothesis to be reconciled with the fact that the universe is traversed by rays in which no living thing can exist? The sun, which after all is only the most common and one of the humblest of the stars, on account of its temperature of 6,000°, emits rays whose wave length decreases to 100 millimicrons, the ultra-violet rays beginning at 395. And what of the other stars? It is to our own atmosphere that we first adapt ourselves. Life can begin on any planet when the latter, surrounded by a gaseous envelope, dwells in a "splendid isolation." The protoplasm of the first monera, if it is not brought to it by one of the demiurges imagined by Plato, can only be derived from its own substance. I hope that it will be a great satisfaction to you, as it is to me, to know that our bacilli at least do not come to us from a strange world, and that we are absolutely and entirely those sons of Earth, of whom your—and our—Meredith sang.

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THE second Food Congress will be held at Liége in 1911. Professor A. Jorissen, of the University of Liége, is Chairman of the Organizing Committee.

THE thirty-second meeting of the German Balneological Congress will be held in Berlin, under the presidency of Professor Brieger, from March 2nd to the 6th. Forty-five communications have already been promised. A discussion on radium will be introduced by Professor Marckwald of Berlin, who will deal with the subject from the physico-chemical standpoint; and Professor Kionka of Jena, who will speak from the biological point of view. All communications relating to the Congress should be addressed to the General Secretary, Geheimrat Dr. Brock, Thomasius strasse 24, Berlin, N.W.

# Correspondence.

## STATE SICKNESS AND INVALIDITY INSURANCE.

SIR,—The interesting correspondence on the proposed State insurance scheme appears to have dwindled within the last few weeks into the somewhat heated discussion of a relatively unimportant detail. It is a remarkable psychological phenomenon that at one of the most momentous periods in the whole history of the profession, instead of considering and advising as to the best method of inaugurating the new system, and taking advantage of its inception to modernize and readapt our working methods to the present state of our knowledge—as we might be expected to be doing by the community—or, even from our own particular point of view, discussing how much we ought to be paid for our services—instead of this, we are exercising our wits in arguing as to which of two systems it is better for our paymaster to employ in making payments. We appear to be actually more concerned as to how he shall pay us than as to how much he shall pay us. Who shall say that sentiment is dead in the world, even if it be foolish sentiment?

This sentimental attachment to payment "for work done," as it is called, probably arises from the supposition that "capitation payment" would result in something identical with the club system of payment. Now, as Dr. Maclean so ably pointed out at the last annual meeting of Representatives, nothing could bear such a plausible resemblance to truth and yet be farther from it. Provided we take adequate steps to ensure that medical services are paid for directly by Government and not by hundreds of societies and clubs, the new system will be as distinct from the club system as light is from darkness. This, however, is just what we shall fail in doing if we continue wrangling about "how" we are to be paid, while the friendly society officials, using all their powers and influences, place an easily worked scheme before Government, and we place an impossible, difficult, and absurd one. The societies in such a case will win, and then they will work and sweat us, making good salaries for numberless middlemen, and treating us in the future as they have in the past.

In the first place, it is only a popular catchword to win the favour of the colleague who has thought but little about the subject to describe the system of a tariff of fees as "payment for work done" in contradistinction to a system of payment by capitation. Both are "payments for work done." The only difference is in the mode and not in the amount of payment; and the profession can be sweated or well paid under either system. The doctor who has a greater number of patients will have both more work to do and more "payment for work done" than he who has less patients, and therefore less work and less "payment for work done." Taking the rough with the smooth, in any practice containing over 1,000 people the individual whose case demands more work than his capitation fee is worth will be levelled up by the patient who requires little or no attention. A good deal has been heard in the discussion of the exceptional patient. Does he not exist at present in working class practice—the person who is frequently and intermittently ill, the chronic invalid, and the phthisical patient—and what becomes of him? He drifts into the hospital, where certainly he is not much of an asset to the doctor or any one else. There will still be hospitals when the State insurance scheme is working, and who is so blind as not to see that there must be enormous changes and adaptations in these institutions consequent upon the scheme? These changes, too, cannot be disadvantageous to the medical profession, which has everything to gain by being set in proper co-ordination with the hospital services.

Every one will probably be prepared to admit that a "tariff service" which only provided a fee of 1s. a visit would be a sweated service, and equally every one would admit that a "capitation service" which only provided 3s. a head per annum would be a sweated service. Now, double these figures, and each service ceases to be a sweated service and becomes reasonably well paid. Evidently our prosperity will depend more upon how much we are to be paid than upon the manner in which we are to be paid.

As to the comparative merits of the two modes of payment, if we look to the very bottom of the matter we shall see that this rests absolutely upon which is the more economical scheme in working; for in the last resort the administrative expenses of the scheme must come out of the pockets of the medical profession. Three classes of people—namely, the British taxpayer, the direct beneficiaries of the scheme, and their employers—amongst them are going to find an annual sum, not a constantly fixed sum, as one correspondent has truly said, but a sum fixed from year to year. The fraction of this sum which is going to filter through to the pockets of the 32,000 medical practitioners (however and under whatever system of distribution they do their work) is going to depend on how much is spent upon administration and salaries paid to middlemen to work the scheme. The more the working of the scheme is allowed to cost, the less will be the income of the doctors and the less payment there will be "for work done."

Looked at from this fundamental point of view, a little reflection will convince any one, more than much disputation, that the worst system of all, for both community and doctors, would be (1) a monopoly worked by the friendly societies; the intermediate one would be (2) a direct tariff system between Government and doctors, in which each separate visit and ministration of any kind would have to be marked up, checked, docketed, and audited by both the Government official and the doctor, so wasting time and energy, which are the equivalents of money, on the part of both of them; and (3) the simplest and best would be a system by which the Government paid annually directly to the doctor so much for each patient on his books.

Which of these three systems are we most likely to have in actuality? It depends largely on our own ability in pointing out, as opportunity serves us, to both Government and people, within the next two years, the system which is best and most economical for both community and profession.

In conclusion, I would like to remark that I have no antipathy whatever to friendly societies. There is room for all the staffs and present equipments of them in a State sickness insurance, but they ought to be absorbed into it and become an integral part of it. Any sixfold extension of them as a State sickness insurance monopoly would be a colossal blunder in statesmanship, throwing, by its magnitude, all evils of existing monopolies into the shade, and constituting an irretrievable folly.—I am, etc.,

Birkenhead, Dec. 31st, 1910. BENJAMIN MOORE.

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SIR,—Three of the letters on this subject appearing in the JOURNAL of December 31st, 1910, seem to call for a reply. Dr. Hick's letter of December 24th (which was not included with the other correspondence on this subject) I did not see until too late to answer; however, Dr. Grey's letter says all that is necessary on the point raised. Dr. Renshaw diagnoses a need for therapeutic aid in my "sense of proportion." This comes rather oddly after just commending my arithmetic. However, if Dr. Renshaw considers that the difference in principle between contract practice, where for a fixed and strictly limited fee per annum one commits oneself to an unlimited extent for medical attendance upon a state beneficiary—and private practice, where one is paid according to work actually done, "ultimately involves a distinction without an atom of difference," I can only in turn diagnose a defect in his sense of discrimination. I will leave the confirmation or refutation of both diagnoses to those of my medical brethren who have "observed the symptoms."

I am pleased to find myself at one with Dr. Renshaw on the question of medical representation in Parliament; I spoke in favour of this at the Special Representative Meeting in London in June last. Both Drs. Renshaw and Sayres doubt whether I am correct in assuming that the majority of practitioners are in favour of payment per attendance. I am not aware that I have "assumed" it, but I believe I am right in inferring it, and, at all events, I am desirous of having a vote of the whole profession on the matter and will accept the verdict.

One paragraph of Dr. Sayres reads very strangely to me. He says:

> Will there not be a temptation and danger of men, anxious to develop this kind of practice, touting and advertising amongst

eople to increase their list? And it is certain that one's ncome will be at the mercy of one's popularity.

Surely this must apply with far greater force to contract practice with choice of doctor amongst the beneficiaries. Here the medical man's income does not depend on the amount and quality of the work he does but on the number of beneficiaries whom he can enrol on his list. Obviously if he be careful at the beginning of the year to examine all his beneficiaries thoroughly and exclude the unsound ones, he might have a comparatively easy time of it; but if this became the general practice, who would then look after the unhealthy ones, who will most need medical attendance?

It is surely only "practical," "sensible," and "business-like" to examine medically a candidate for insurance before accepting him, but I am afraid under a State insurance scheme based on a capitation system of payment this would not be permitted, as it would clearly defeat the main object of State sickness insurance.

Dr. Sayres also asks, "Will not the profession as a whole also annually lose a considerable sum of money by accepting payment per attendance?" They will certainly not lose as a whole if a proper fee be paid for each attendance; indeed, one great argument against payment per attendance is that it would be too costly, thereby virtually admitting that payment per capita will be less remunerative. Possibly a few of those who prefer to be paid for work they do *not* do, instead of for work actually done, may be less satisfied with the financial results of payment per attendance. The "fixed cheque every quarter" seems to have an overwhelming attraction for some medical men, however much their independence may be curtailed thereby, but I would remind these gentlemen that under State sickness insurance with payment per attendance their fees would be paid by the State, and their cheque would equally be a certainty, and would be properly proportioned to the amount of work they did.

Dr. Flemming, whose apology I heartily accept, wishes to get at the real facts on which our discussion should be based. I agree fully that we should use every effort to get at the facts, and I have been trying my best so far to do this, but it is by no means easy. We have at present very few reliable data to go upon, and that is one great reason why I do not wish the profession to commit itself to the bonds of contract practice without knowing exactly what it is doing. It will be no easy thing to release ourselves afterwards, when we find, as our German brethren have found, that we have run our heads into a noose.

Dr. Flemming still sticks to his parcel of 1,500 beneficiaries; 15,000,000 divided amongst 30,000 practitioners gives 500 apiece, which would be much nearer the real average. The probable attendance required for these, on Dr. Fothergill's estimate (which I accept provisionally, although it can only be a rough approximation), would be about 16 a day, which, estimated at 2s. 6d. each visit, gives £2 a day, or £730 a year gross, which, after deducting all professional expenses (not to mention drugs or dressings), conveyance, etc., would not leave a very munificent income for a professional man who has laid out some of the best years of his life and no small amount of capital in attaining the right and competence to earn such a living. Calculated also on this basis the 15,000,000 beneficiaries would cost the State insurance fund £21,900,000. There would also be some extras on to this, which would bring the total up probably to £25,000,000. Now, I understand the wages fund of this country is about 750 millions, and if 6d. in the £ were paid by each beneficiary, and 6d. by the employer, this would bring in 37½ millions, which, with another 6d. from the State, would make about 56 millions; this would allow 31 millions for sick pay, invalidity pay, etc.; £25,000,000 for medical attendance for 15,000,000 people is not, in my opinion, an excessive allowance, and if the work has to be done it should be paid for adequately; if we agreed to do the work per capita at 10s., we should be doing it for £7,500,000, and thus robbing the profession of hard-earned fees to the extent of £17,500,000. To my limited sense of proportion this seems rather an excessive amount to make a present of to the Exchequer when we have not even been asked to do the work on such low terms—terms which are, to my mind, not compatible with good work, and which, therefore, I oppose *in the interests of the beneficiaries*, as well as of the medical profession.

Dr. Flemming asks me how I arrive at my figure of 10 to 15 millions actual or potential paupers, and quotes *Whitaker's Almanack* to show that in 1909 there were only 1,161,000 paupers in the United Kingdom. But, as I have previously shown, besides these "destitutes" there are a large number of "indigents" to be reckoned with. According to Messrs. Rowntree and Booth's estimates there are between 10 and 15 millions of people in this country who are below the poverty line—that is, they could not contribute to the insurance fund—and sickness of the breadwinner at once constitutes them actual or practical paupers. What proportion, if any, of these will be included in a State sickness scheme I cannot say, but if they are all to be included there will be more than 15,000,000 to provide for, and what then will become of the present Poor Law medical officers? Dr. Flemming clearly overlooked these in his former calculation, and even if the Chancellor has not included any of the present incurably insane and phthisical in his 15,000,000, what about those of the 15,000,000 who will inevitably become insane or phthisical in the future, as well as others who will have to be transferred to some institution for special treatment?—presumably the State would not pay *both* the local doctor and the institution for looking after the same beneficiary. There must inevitably be *some* deduction.

Dr. Flemming's last question is rather important. He says:

> Is the Government likely to pay 3s. 6d., or even 2s., per attendance when it knows that it can get the work done or 6s. per head?

A Government which simply looks at the matter from a commercial point of view will naturally try to obtain the greatest amount of work for the lowest expenditure; but a Government that wishes to establish a system of State insurance which will be a real boon to the workers of this country, and which will meet with the hearty and loyal co-operation of the whole medical profession, by paying a fair wage for work actually performed, will look a little higher than this. As I have repeatedly said, medical attendance is a costly affair, and the only proper way to reduce the cost is to reduce the amount of attendance required—that is, by preventing sickness as far as possible; and there is absolutely no doubt that a very large amount of sickness which at present exists could be prevented, and would be if the State undertakes to foot the bill for medical attendance upon the sick workers.—I am, etc.,

Bowdon, Dec. 31st, 1910. P. R. COOPER.

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SIR,—Dr. Flemming, in the JOURNAL of December 31st, 1910, page 2047, quotes a certain deduction of mine (page 1945), based on a statement made by an actuary, that twenty-five years' returns of an invalidity scheme for *professional and business men*, go to show that the average of illness for all the beneficiaries insured had been three weeks a year each.

My deduction was: If that is so, it would be fair to say that the average number of visits to each man made by a doctor could be taken as ten during each year.

Transferring this deduction to Dr. Buist's parcel of 1,250 patients to one doctor, I stated that this would mean at least fifty visits a day. I did not include Sundays, nor did I make any allowance for the fact that the social position of Dr. Buist's parcel could not be taken as professional, but rather of a lower and therefore less healthy type. Dr. Flemming, however, goes further than he is justified, and practically suggests that I did not include in this estimate any visits made for fractures, dislocations, etc. This is a mistake, as he will see if he re-reads my letter. Using this mixture of facts, deductions, and mistakes, Dr. Flemming builds up on behalf of the Chancellor of the Exchequer a wonderful structure. He increases the grotesqueness by taking the whole population of the United Kingdom, although I am sure he well knows no scheme for such a purpose is even dreamed of.

The estimate of the probable amount of attendance on the 15,000,000 to be insured and its probable cost is better worked out in committee than in the JOURNAL. Such an estimate would be of undoubted value to the Chancellor of the Exchequer, but should be only of academical

interest to the medical profession as such. Possibly the Poor Law Reform Committee can be induced by Dr. Flemming to attach to its report a memorandum on the subject based on facts obtainable if inquiries are made.

Any such estimate when made will only go to show, when taken in relation to actual receipts under capitation payments, the enormous amount of gratuitous self-sacrificing work at present being done by members of our profession, regardless of good report or ill report, without asking for reward, advertisement, or honour.

Those who oppose the acceptance of capitation payments from the Government say that it is time that this wrong should be put right; that the State can afford to pay for what it requires; and that it can easily bear up under the risks contingent to floating a scheme where past experience is not readily available.

The discussion of pounds, shillings, and pence is not one for the medical profession to trouble about at this juncture; and Dr. Flemming's colossal arithmetical gymnastics can only tend to obscure the real issues.

That it is a temptation to a doctor when offered a quarterly cheque to accept capitation payments all will acknowledge. But if that doctor would realize that the amount offered will have no relation to the ever-increasing demands on the services which he will be asked to render; that the State can well afford to pay current rates; and if he could count on the support of those doctors practising around him, he would refuse the bait.

Capitation payments mean paying a doctor quarterly a small portion of the money he has earned (and spreading that over a long period), *the State* retaining for itself and investing in other schemes the balance. Payment for work done means paying a doctor quarterly *all* the money he has earned; *the doctor* retaining all he does not require for immediate use and investing it in his own schemes.

Capitation payments of necessity mean that the all-absorbing and only aim of a doctor becomes one of getting money. Payment for work done means that, being sure of the money, the aim of a doctor would be to use some of it to develop his scientific knowledge and thus increase his usefulness to his profession and the State.

The object that the State has in introducing a medical section in its Invalidity scheme is to improve the moral and physical health of the nation. I would therefore suggest that the medical profession should for the moment place on one side the question of cash and rather discuss the question whether capitation payment to a doctor or payment for "work done" is more likely to prove beneficial to the community, to the beneficiaries, to the employers, and to the doctors.

Those who say that payment for "work done" is the only sound system by which it will be possible to remove the deterioration which it is understood that the State sickness and invalidity scheme proposes to accomplish are willing to do their best to prove the soundness of their arguments.—I am, etc.,

London, S.W., Dec. 31st, 1910. E. ROWLAND FOTHERGILL.

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SIR,—I think most of your readers will agree with Dr. Sayres, that the opinion of three or four gentlemen with somewhat picturesque views on the subject of contract practice is no criterion of the opinion of the profession. Dr. Flemming wants to know what is about the amount of the fair average fee which the advocates for payment per attendance expect us to receive. He presumes that it would be nothing less than 2s. I cannot help doubting this. If all the present contract payments were pooled, and fees were paid on Dr. Fothergill's method, 6d. per attendance would be much nearer the mark than 2s. Under any system of pooling the medical practitioner could never get more than the medical contributions of beneficiaries, which the present club doctor always gets, that is, in the case of the ordinary friendly societies, where the doctor is paid by fees, and not by salary. In many cases, where the sickness rate happened to be low, he would get considerably less. That contract rates should be made higher all are in agreement, but I cannot see any reason why the whole of the increased contract payments should not go into the pockets of the doctor, as they do now, and altogether repudiate the notion that payments under the contract system should be based on the principle of payment for work done, as in ordinary private practice. The two kinds of work cannot be assimilated in this manner, and any attempt to do so, in my opinion, will not be a gain, but a loss to the medical practitioner.—I am, etc.,

London, N.E., Dec. 31st, 1910. MAJOR GREENWOOD.

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SIR,—It seems that at last we have got a definite pronouncement from Dr. Buist. He says that he will not endeavour to obtain the real verdict of the general practitioner upon the two systems of payment—namely, that "for work done" and that "per capita"; and, also, that he will not try to obtain the carrying out of their choice, should it happen to be "for work done."

This is the point which the profession ought to know, as it is a most serious attitude for a Representative to take up.

I am very pleased to see Dr. Flemming's letter, because I feel sure it will bring forth replies which will show him that his estimate is a mistaken one. There are several self-evident points which materially alter the complexion of his case, but as they are sure to be dealt with by those better qualified than myself, I will refrain from trespassing upon your space, and only say that what we want is full discussion of the facts such as Dr. Flemming has started.—I am, etc.,

Northwich, Dec. 20th, 1910. HENRY EDWARD GOUGH.

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SIR,—We are told by the advocates of a contract basis for payment under a national scheme of sickness insurance that "in the long run" the payments to the profession would be the same as with payment per attendance provided that in each case the calculation is a fair one. What, then, are we to think of the argument put forward by Dr. C. E. S. Flemming in the JOURNAL of December 31st, 1910? And he is not only a Representative of the Association, but a member of the Committee to whom this matter has been referred for report. He accepts, for purposes of argument, that "each beneficiary would, on an average, require a little over twelve visits a year," and calculates that on a payment of 2s. per attendance the cost would be too great for the Chancellor to look at; *therefore*, as "the practicability of the scheme" is the "question at issue," we must be prepared to accept a capitation payment which would remunerate the doctor at the rate of 6d. or 8d. a visit.

Is this the national standard which our Representatives think fair for the remuneration of professional work? Can the advocates of contract practice any longer say that they are not offering the Government the bait of cheapness?

If the cost with a fair basis of remuneration, whether per capita or per attendance, is enormous, that is the Government's business, and they must decide how much they can afford to buy at an agreed price; but the least we can expect of our Representatives is that they shall not connive at the exploitation of the profession.—I am, etc.,

Westbury-on-Trym, Jan. 2nd. THOS. M. CARTER.

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SIR,—I heartily agree with Dr. Renshaw in deprecating the complicating of this subject with unnecessary questions, details, and side-issues, such, for example, as his own contribution to embarrassment—"the necessity of a fixed sum being budgeted for each year." There happens to be no such necessity, and, if there were, it does not concern the medical profession, but the Chancellor of the Exchequer. Dr. Renshaw's referendum question, also, is most unfortunately chosen. I agree with him that possibly the majority of the profession might be so misled as to imagine that this was a fair question easily answered, and I regret the necessity of dissecting it. As Dr. Renshaw puts it, it reads: "Would you, in consideration of an advance of 150 per cent. on your club remuneration, be content to put up with the contract system?" I read it differently. Much has been said as to what the State will do and will not do. It has been affirmed that the State will not do what it ought to do, and will do what it has no right to do; but I think we may be certain that one thing the State will not do is to pay by contract for the services it requires a greater price than it can buy them at in the open market, so that I regard the bait of a 10s. or 25s. capitation grant as wholly fraudulent. If the State decided to give such a grant, it would be because it intended to exact a *quid pro quo*—that is to say, that a 150 per cent. increase in

contract pay would mean a 150 or 200 per cent. increase in the work formerly done for the original figure.

Dr. Flemming continues the argument started by Dr. Buist a few weeks ago, and supports his contention with suppositions which are singly improbable and collectively impossible, though I absolve him of the authorship of these suppositions. This again I maintain is a side-track. In the total absence of any reliable statistics of the incidence of sickness amongst all ages and classes and sexes of the community, it is as futile to try to calculate what would be an adequate capitation fee as to try to calculate the number of attendances that would be required by any "parcel" of patients, more especially as the number of attendances would vary not only with the actual sick need but with various extraneous and incalculable factors. Even accepting, however, Dr. Flemming's gage of battle, I am not greatly elated at his picture of the halcyon days in store for us. £1,825, less the expenses of running such a practice (Dr. Flemming ought to know the difference between gross and net income), seems to me a paltry return to the phenomenon who is intellectually and physically capable of paying 50 visits with their proportion of surgery attendances, confinements, operations, etc., *every day in the year*. If this is the reward of almost superhuman mental and bodily vigour and endurance, what might the average practitioner expect to obtain?

Dr. Sayres scores one of the two real points of advantage in the contract system—the comparative fixity of income (much lessened under the Association's contract scheme). We admit there is a good deal to be said for this and for the other advantage of being beyond the unjust suspicion of paying visits to reap fees, but I would ask Dr. Sayres whether the first advantage is not largely magnified by the existence of a large class of the population which habitually exploits the doctor by cadging at low fees or leaving bills unpaid. This class will shortly be abolished by State insurance, and the advantage of fixity of income, such as it is and will then be, may be discounted by taking one year with another after the manner of the capitationists who insist that by taking one patient with another the average grant pays for all.

But leaving aside these side-issues, let me state once more what to my mind is the real issue before us. It is not a choice between one method of payment and another, nor between the chances of obtaining better remuneration by one method than another; nor is it a question of what is easiest for the State to institute. The real issue is whether the profession will maintain in its integrity the freedom of the general practitioner—a freedom which has been greatly curtailed by the system of contract practice, not, as some say, by the abuses of contract practice, but by the contract itself. Coincidently contract practice has introduced sweating, inadequate remuneration, and other abuses, but these are not essentials of the contract or club system, and might, had the profession been united enough, have been remedied long ago without destroying the contract system. It is primarily the contract itself to which I object, and which I should have thought this individualistic country would have found no defenders of. Shall we be free, and shall our patients be free, to manage our and their transactions in our own way—the universal way in which all business is done in this country? Or shall we add to our legitimate business of healing the business of speculative insurance with restrictions and bonds, higglings and arbitrations? The individual transaction, which is the essence of private practice, leaves patient and doctor—buyer and seller—absolutely free; contracts, fair or unfair, destroy this freedom, and introduce an element of suspicion on both sides. Medical practice, moreover, is of a nature to lend itself least to such a system; its harassing nature, overtime, and night-calls, etc., are partially compensated or glossed over by the satisfaction of direct and proportionate reward, and we have not yet all arrived at the altruistic mind which can see in an unreasonable and unseasonable call nothing but a welcome opportunity—better late than never—of relieving suffering humanity.

Let us make quite sure that the contract system is superior in every respect, and from the point of view of all parties—doctors, patients, the science of medicine, and the good of the community—to private practice, which is chosen by all who are in a position to do so, before we cast our vote in its favour. Contract heretofore has been unavoidable; in face of the State proposals it is now no longer either necessary or reasonable.—I am, etc.,

Bristol, Jan. 2nd. HARRY GREY.

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SIR,—Will you allow me to thank Dr. Grey for his letter? In spite of it, however, I feel that we country practitioners are in parlous case. Dr. Grey says: "The tariff of fees which the Association will, I hope, fight for . . . will ensure . . . adequate fees and adequate mileage." Well, we have just had an example of what the Association considers adequate for country practitioners in this Division. In the matter of the treatment of school children, I attended at some inconvenience a meeting of the Branch; the preliminary arrangements were discussed, but no question of fees. I further attended a meeting of the county Division; again no fees mentioned. Now we have a scheme sent down for our approval which gives me half a guinea for chloroform, half a guinea for operation on adenoids and tonsils, with three after-visits. This works out at half a crown a visit, anywhere, no mileage; as my district extends six or seven miles in each direction, it seems to me that the Association's tariff compares unfavourably with that of the National Deposit Friendly Society. As for twenty years the Poor Law guardians have given us a guinea for the administration of an anaesthetic, and now the Association says that is too much and we must ask half a guinea, one can only say, "Save me from my friends."—I am, etc.,

New Romney, Jan. 1st. HENRY HICK.

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## THE CHOLERA IN MADEIRA.

SIR,—It has occurred to me that your readers may be interested to hear something of the present state of affairs in Madeira.

The epidemic of Asiatic cholera from which we are now suffering is believed to have been brought here by Russian emigrants on a ship bound for South America, and it has been amongst us for upwards of three months.

From a medical standpoint it has many interesting features. In October the mortality among those attacked was over 50 per cent., but it has now fallen to a mere 25 per cent. in many districts, and there is much evidence to show that the virus is becoming attenuated. The mortality for the whole outbreak up to date is about 33 per cent., the actual figures being 565 cases, with 197 deaths. Of these, 250 cases occurred in Funchal, the capital, with 95 deaths. Here the disease is now well under control, but in many of the country districts it is raging.

The above figures do not include the neighbouring island of Porto Santo, where the disease never reached serious proportions, and has apparently been stamped out. In the town of Funchal the disease has also been practically stamped out, thanks to the energetic action of the local authorities. The great obstacle to a control of the epidemic elsewhere is the amazing ignorance of the peasantry, many of whom believe that the disease has been deliberately imported by the doctors for political purposes, and in the face of popular ignorance and superstition the authorities have been powerless to enforce sanitary precautions.

The temporary isolation hospitals at several places have been attacked, and at one place actually burnt; there has also been some bloodshed. The worst feature of the whole affair has been the utterly inexcusable way in which the central authorities at Lisbon have ignored all appeals for assistance during the last month.

The place has run out of antiseptics, thanks to the negligence of the Republican Government, and there are only 90 dependable troops in the island, who are quite inadequate to enforce sanitary measures outside of Funchal.

The disease is limited to the lower strata of the native population. Of the English resident community not a single person has been so far attacked by cholera, and this is in large part due to the wise and well-considered leaflet which was sent round to the British residents by my colleague, Dr. Grabham, in which he gives in terse and simple language all the more essential prophylactic measures.

The medical officer in charge of the principal isolation hospital, or lazaretto, has done heroic work, and his

mortality statistics compare favourably with any other in the island. All the isolation hospitals are hampered by lack of personnel and equipment.

That the disease has been so far successfully combated in Funchal is due to the energetic and sensible measures carried out by His Excellency the Civil Governor and the distinguished Lisbon bacteriologist, Dr. Carlos Monteiro. The political situation is becoming daily worse, owing to the apathy of the Lisbon Government and the complete stagnation of all industries.

Hoping this brief account may be of some interest to your readers, I am, etc.,

Funchal, Madeira, Dec. 12th, 1910. HENRY STEVENS.

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## "EYE" IN SPORT.

SIR,—In the JOURNAL of December 24th, 1910, a report is given of Mr. Doyne's lecture on "Eye" in Sport. Mr. Doyne makes several excellent points, approaches the subject in so magnanimous a spirit, and so obviously invites criticism that I hope you will allow me to take up his challenge. He recognizes that in many instances the binocular vision of the sportsman is what Hering called "cyclopean"—that he sees from a point midway between the eyes—but he says nothing with regard to the muscular sense which undoubtedly often plays an important part in accurately directing movements in relation to external objects as a help, or even independently, of the sense of vision. Mr. Doyne has himself supplied a most excellent example in pointing out that in fencing touch is more important than eye. Personally I should have been inclined to modify this statement and to have said that in defence the muscular sense—Mr. Doyne's sense of touch—is of supreme importance, while "eye" is of relatively great value in attack and could not be dispensed with. Muscular sense must also play an important part in the instances quoted from cricket, golf, tennis, and billiards.

It is, however, in what he says with regard to shooting that Mr. Doyne lays himself most open to criticism. Many—perhaps most—good shots are quite unconscious of what they do when they shoot at a moving object. It is to such as these that Mr. Doyne has apparently applied for information. Just as many of our habitual actions are performed "subconsciously" without our formulating ideas in connexion with each consecutive movement in a complex habitual action, so in most cases is the action of shooting at a moving object with a shotgun performed. When one is in perfect health and has had plenty of recent practice, "the mind should not be concerned consciously with the position of the gun," as Mr. Doyne very rightly says. But no one can learn to shoot thus or make any real improvement in his shooting.

Mr. Doyne doubtless does not mean us to take literally his statement that "your gun should subconsciously feel the line of vision and swing in front of the bird as you fire." This is attributing a muscular sense to the gun. Mr. Doyne is subconsciously assuming that muscular sense plays the most important part in correct shooting. I think he is wrong. His instances of what different men do in shooting really include but two small classes, and the most numerous is ignored. He says that some men deliberately align at a fixed point beyond the moving object and then pull the trigger. Others fix their eyes on the object and bring up the gun without ever thinking of its position or alignment.

Now, I contend that the majority do consciously or subconsciously what I do myself. The gun is brought up, both eyes being open, and without its movement being checked when aligned with the moving object it is swung past it in the direction in which the object is moving. Still without the movement of the gun being checked, the trigger is pulled. When in good form one does this subconsciously. Some men, when they are shooting badly, are able to pull themselves together to some extent and do this consciously. Others who have learnt to do it without realizing the details cannot pull themselves together. There is, of course, no doubt as to the value of the two eyes in judging distance in shotgun shooting, but binocular vision has another value, which Mr. Doyne has missed. This may be demonstrated by a very simple experiment. Mr. Doyne admits the existence of the master eye. We will suppose the right eye to be the master eye. Take a piece of cardboard in the *left* hand and a ruler or some similar straight object in the right. Choose some object at a distance at which to aim. Bring the piece of cardboard at arm's length between the *right* eye and the object aimed at, leaving the object still visible to the left eye. Then align the ruler from close to the right eye (that is, proximal to the cardboard) at the object aimed at. Remove the cardboard and see whether the ruler is aligned with the object. With a very little practice this can be done correctly every time, though the object is not visible to the aligning eye. The value of this power is very obvious, for frequently the false breech or same other part of the gun must come between the aligning eye and the object shot at, though it is visible to the other eye. Although the length of the column of shot at 20 or 30 yards from the gun is such that a comparatively large error in alignment may not produce a miss, still this permissible error is not large enough to allow of a sufficiently correct aim without a very definite alignment of the gun, conscious or subconscious.

With regard to "people who shoot rabbits from the hip," I wonder whether Mr. Doyne has ever seen this done. I have. It is an experience the repetition of which I always seek to avoid. I have never seen it done except at *very short range and in cover*. I am sure it could not be done at even a moderate range. It is analogous to true "snap shooting," which depends largely on muscular sense. I willingly admit that what Mr. Doyne says is the correct way to shoot is an important factor, assisted by muscular sense, in successful snap shooting, of which the most skilful examples I have seen have been keepers shooting at rabbits, but I claim that it plays no part in the making difficult shots at fast moving objects in the open at even a moderate range.—I am, etc.,

Glasgow, Dec. 27th, 1910. CHARLES WALKER.

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SIR,—In Mr. Doyne's extremely interesting lecture published in the JOURNAL of December 24th, 1910, the correct judgement of binocular impressions is held to be the dominating factor upon which success in sport depends. No allusion is made by way of illustration to the difficulty experienced by "duffers" in performing movements that are not related to impressions from the outer world, and no adequate explanation is given of failure in a sport which depends on ocular impression of such a simple order as to be incapable of misinterpretation.

In dancing no appeal is made to the judgement of external stimuli, the nature of the movements required is fully understood, and yet persons vary widely in their ability to execute a complicated step. The ocular impressions to be interpreted when attempts are made to knock a cocoanut off a stick at a known distance are not complex, and yet one man will succeed each time whilst another will fail nine times out of ten. Failure in both these instances obviously arises from the inability of the muscles to construe aright the explicit instructions of a fully-informed intelligence. Again, in golf, where the object struck at is fixed, the brain judgement of ocular impressions insisted upon by Mr. Doyne must be a very simple process, and missing or topping may with greater probability be attributed to muscular incoordination rather than to a faulty estimate of the length of the club and the distance of the ball. The extreme complexity of the impressions to be interpreted in shooting at birds on the wing renders it difficult to assess the relative influences of defective judgement and defective co-ordination in the production of a "bad shot." At the same time co-ordination must count, and there is much to be said for the view that failure in the complex sports of shooting, cricket, and tennis, as in the simpler sport of golf, is more often due to explosive muscular movements which exceed and do not correspond with the intention of the brain, than to errors in the judgement of stimuli received through the organs of sense.

Upon this hypothesis, "eye" in sport resides neither in the anatomical eye nor in those parts of the brain which interpret sense impressions. The key of the situation is rather to be sought in the centres of muscular co-ordination, and if a choice is to be made between two loose expressions, the term "hands" is to be preferred to the term "eye."—I am, etc.,

December 25th, 1910. HANDS.

## ALCOHOLISM AND DEGENERACY.

Sir,—I am afraid little real knowledge is likely to arise from a continuance of the controversy with Sir Victor Horsley. I asked him "to condescend to discuss points in a logical and scientific manner, such as befits the pages of a scientific journal." His method of reply, I hold, is absolutely identical with that of his speech at the temperance breakfast in July, or his contribution to the September number of the *National Temperance Quarterly*—that is to say, none of his remarks are, in my opinion, "serious treatment" of our memoir, nor are they in the least scientific investigations. They are intended for an outside audience, which swallows without analysis whatever is placed before it. Clearly, when Sir Victor says one thing—namely, that his post-prandial oration was a serious scientific treatment of our memoir—and I assert that it was not, there is no room for further argument. The reader, as I hope he will, must consult the originals—our memoirs and Sir Victor's—or else he must weigh his experience of the scientific accuracy of Sir Victor and myself.

I think my words cited by Sir Victor Horsley—namely, that our memoir has been "subjected to much biassed criticism to which it would be pure waste of time and energy to reply"—will be found fully substantiated by those who will take the trouble to study the papers of Dr. Saleeby, Sir Victor Horsley, and Sir T. P. Whittaker, to say nothing of that of the gentleman who accuses us of making shipwreck of both the facts and method of science because a drug like alcohol is "entwined (!) round the sensuous side of our natures," and we therefore devote ourselves to the "defence of our drug indulgence"! To meet such people the well-known case of Betsy Martin is the only possible form of argument. But I should like once more to define my position, although I have very little hope that Sir Victor will condescend to the level of a simple and straightforward reply.

He accuses us of professing to divide parents into "alcoholic" and "non-alcoholic," and thereby deceiving the public. Our classification was accurately described in our memoir. It amounted—because the abstainers in a general population form such a relatively small class—to bracketting for *certain* statistical purposes the teetotalers with the parents reported sober by police, employers, and district visitors. But in our tables the whole of the data are classed under the headings of "teetotaler," "sober," "suspected of drinking," "drinks," and "bouts." It was perfectly open to Sir Victor Horsley at once to refute us by proving that the teetotalers showed a higher percentage of good health and good intelligence in their offspring than the sober or drinking parents. Why has he not done so? Here are the actual facts of the case taken from the tables in our memoir; in each series the total offspring are over 1,000:

| Series. | Tee-totaler. | Sober. | Drink Sus-pected. | Drinks. | Bouts. |
|---|---|---|---|---|---|
| I. *Father.* Percentage of quite healthy offspring ... | 28.5 | 32.1 | 40.0 | 31.8 | 28.1 |
| II. *Mother.* Percentage of quite healthy offspring ... | 25.0 | 30.5 | 39.3 | 32.7 | 22.9 |
| III. *Father.* Percentage of dull and mentally defective offspring ... ... | 15.6 | 19.2 | 25.8 | 18 4 | 16.1 |
| IV. *Mother.* Percentage of dull and mentally defective offspring ... ... | 25.0 | 17 5 | 22 6 | 19 5 | 21.6 |

Now in every case but one—that of the influence on intelligence of the teetotal father—the sober parent gives a better result than the teetotaler. Thus, in combining the sober with the teetotaler groups in our text—not in our tables—we actually *bettered* the argument for the non-alcoholic. And in the corresponding case to that exception the teetotal mother gives not only more mental defect than the sober mother, but more than any of the drinking groups. From this material we did *not* draw the deduction that the result was "in favour of alcoholism"—those words are put into our mouths by Sir Victor—but that there was no *marked* relation between alcohol in the parent and the mentality and physique of the offspring *as children*. Any one who will trouble to look at the above numbers will see that this conclusion is entirely justified. We even gave an explanation of the matter which we still believe to be valid—namely, that the stronger and more virile parents took alcohol, and because of their physique, not because of their alcohol, had healthier children. These are the numbers contained in our memoir, and such are the numbers I have asked Sir Victor Horsley to face. How does he do it? First, by a vague statement, which he has repeated several times, that we "are gravely misleading the press and the public," because our memoir "nowhere contains figures and data for a group of non-alcoholics," and contrasts them with alcoholics. I think we might fairly retort that it is somebody else who is attempting gravely to mislead the press and the public!

As a second string to his bow, Sir Victor has frequently asserted, following the lead of Dr. Saleeby, that we have not ascertained whether the alcohol or the conception of the offspring came first, and it pleases him to assert that our memoir does not contain any figures showing whether the children were born after the parents began taking alcohol or before. Of course it does contain such figures, and what Sir Victor is confessing is only that he is constitutionally or by training incapable of interpreting them. To bring this point to a head, I asked him two questions, neither of which he seems able to answer. I repeat them again here:

My first question was, Why he quotes Dr. MacNicholl, who has omitted to ascertain this fact? His only answer is that Dr. MacNicholl's work is not a "make-believe," but may be justly regarded as a "toxicological research." That is no answer at all. There is also demonstrable evidence (1) that Dr. MacNicholl did not know the state of his parents at the time of the conception of their offspring; (2) that he has not separated his parents into those who are genuinely alcoholic and non-alcoholic; and (3) that the whole of his work, judged by any one with statistical knowledge, is perfectly idle. My criticism is not here of Dr. MacNicholl; that criticism any one can read in the second memoir[1] on parental alcoholism by Miss Elderton and myself. It is a criticism of Sir Victor, who applies a test to us which he fails entirely to apply to the wholly worthless statistical evidence which Dr. Sturge and he have collected in their book on *Alcoholism and the Human Body*.

Sir Victor Horsley says I have raised the question of Dr. MacNicoll to withdraw attention from fundamental flaws in our memoir. On the contrary, I directed attention to him in order to riddle the sort of statement which Sir Victor raises as an argument. Whether the bulk of the alcoholic parents were or were not alcoholic at the conception of their offspring cannot be ascertained from Dr. MacNicholl's figures, because he gives no children's ages; but it can be ascertained from our figures, and my second question to Sir Victor Horsley was a request that he should face those figures and tell us where the group of parents whose alcoholism affects their offspring (and he asserts confidently that such a group exists) really lies among the five classes I have given above. If it does not tangibly exist among 1,200 children taken as a random sample of a population, it can hardly be producing the enormous evil he attributes to it. But if the bulk of the alcoholic become so during the lives of their offspring as children, why do the alcoholic parents have relatively more *younger* children? Sir Victor merely answers this question by saying that our statement is "conjecture," and repeating his pernicious habit of citing a few words taken out of a long sentence. My statement was perfectly definite—namely, that the alcoholic parents had a relatively larger number of young children. I gave him the actual numbers. Children between 5 and 7 are for the alcoholic 30 per cent. of the total, as against 27 per cent. for the sober, and that the ratio of children of 5 to 7 to those between 12 and 14 is for *both* sober and alcoholic 1.6 to 1. I ask Sir Victor Horsley once more to explain how those numbers are compatible with a large change of any kind from sobriety to alcoholism going on during the lives of the children. It is these numbers (which Sir Victor can verify for himself, not any

[1] *A Second Study of Parental Alcoholism.* Dulau and Co., Soho Square.

"conjecture" which he has manufactured himself by taking a hypothetical sentence out of the lines which preceded and followed it) which I call upon him to explain. Until he does so I am compelled to look sadly upon him as possibly an effective temperance orator but as a man now lost to science.—I am, etc.,

Hampstead, Dec. 31st, 1910. KARL PEARSON.

## THE BRADSHAW LECTURE ON CANCER.

SIR,—Any opinion on the subject of carcinoma uttered by Mr. Butlin cannot but arrest attention. So that when he definitely commits himself to the conviction that the statement that carcinoma is a parasitic disease stands outside the pale of argument attention at once becomes acute. It appears to me to be a bold venture, and an assertion which should not be allowed to pass without question, for reasons which follow. In the first place it is a statement, and nothing more, of his belief; and, though supported by a wide practical experience, it is entirely unsupported by any reasoned argument, and furnished with no experimental evidence that can give it weight.

Koch has laid down laws regulating evidence from which, so far as I am aware, there has yet been no appeal. Lest we forget them in the course of prosecuting our scientific researches, it may be useful to restate them:

> A specific micro-organism must be constantly associated with a given disease; it must be isolable and studiable apart from the disease, and when introduced into a healthy animal it must be able to reproduce the disease in that animal; and in the animal in which the disease has thus been experimentally reproduced the organism must be found under the original conditions.

I would humbly ask, Has Mr. Butlin found a protozoon constantly associated with carcinomata, isolated, and studied it—apart from the disease, and in other respects conformed to Koch's laws? If not—and evidence on this point is lacking—I would, with all respect, submit that he has not made out his case. Again, the hypothesis of Hauser, which Mr. Butlin tremblingly espouses, fascinating though it is, does it rest upon any sounder experimental basis than the foregoing? If not, what measure of conviction as a *causa causans* of carcinoma can it carry?

That carcinoma should owe its origin to a parasite which by confession cannot have intruded itself into the system from without, but in "some manner" has been created within, appears, I confess, to be but "the stuff that dreams are made of." It is not hereby confessed that any part of my creed is to belittle the general conviction of the widespread existence of parasites, nor to trifle with the misfortune awaiting the enormous mortality to which all organic life is indebted to its baleful activity. But that the accidental association of, perhaps, a spirochaete, the ova of bilharzia, micrococci, amoeba, *et id genus omne*, with a particular form of disease of whatever kind, can be warrant for the conclusion that such association is one of cause and effect is a position I could not subscribe to without further evidence than the circumstance furnishes.

Meanwhile I think it behoves us to guard against any statement which may savour of extravagance in all that pertains to malignant disease.—I am, etc.,

London, W., Dec. 31st, 1910. FREDK. W. WRIGHT.

SIR,—The statements contained in my former letter to you refer to cancer *in man;* Mr. Wright's statements refer to cancer *in rodents.* As Aristotle says: "There is a certain size in things, and beyond that size the thing becomes something else." However interesting the investigation of cancer in mice, rats, guinea-pigs may be to the veterinary surgeon, "that earnest and energetic body of inquirers who are trying to unravel the tangled skein of the cancer question" have certainly told us nothing concerning cancer *in man* that we did not already know, either in respect to its etiology, structure, mode of spreading, prevention, mitigation, or cure. In fact, one of their observations, that irritation has no etiological significance, is directly opposed to clinical experience. To cite one of the numerous instances, cancer of the cervix uteri has never been known to occur in a virgin! Further, I demur to the statement that a cancer can evolve (?) into a sarcoma. No epithelial cell can change into a connective tissue cell. What Mr. Wright probably means is that the mesoblastic stroma can originate a sarcoma. But the stroma is not an essential part of a carcinoma, for it no more belongs to the structure of a carcinoma than the earth enveloping the roots of a tree belongs to the structure of the tree. In conclusion, allow me to express the opinion that had some of the many thousands of pounds subscribed by the public been applied to the collection of clinical data, the results would not have been so barren.—I am, etc.,

London, W., Jan. 1st. KENNETH CAMPBELL.

SIR,—Mr. F. W. Wright, in his letter published on December 24th, 1910, assumes, I suppose rightly, that the "Cancer Commissioners" referred to in Mr. Campbell's letter are the staff of the Imperial Cancer Research Fund. He very rightly draws attention to the valuable work they have done, but he entirely overlooks the fact that practically all the instances he quotes were of the nature of confirmation of the work of others, and so he unintentionally deprives these others of the credit due to them, which I am sure would not be the wish of Dr. Bashford and his associates.

The fact that some malignant growths can be inoculated from animal to animal of the same species was shown by Moreau[1] in the first instance, before the Imperial Cancer Research Fund existed. He was closely followed by Borrel. Then came Leo Loeb (1901) and Jensen (1902). Bridré and Ehrlich subsequently added considerably to our knowledge of this phenomenon.

That the disappearance of a malignant new growth "exerts an inhibitive, even an immunizing, influence on the body fluids of the recipient" was first shown by Gaylord, Clowes, and Baeslack, in that the mice treated by them with the serum of mice that had spontaneously recovered from cancer were less susceptible to inoculation than mice that had not been treated.

That "the resisting power against the incidence of cancer to a given animal may be greatly strengthened by the inoculation under its skin of various specific body tissues" was shown by Borrel (1905), Ehrlich (1906), and Bashford (1906–7). "Natural and induced resistance of mice to the growth of cancer" might practically be taken under this and the preceding heading.

"That most recent achievement, the patient tracing of the evolution of a carcinoma into a mixed tumour first and then into a round-celled sarcoma in the second place," was first accomplished by Ehrlich in 1906 or 1907 (I quote this date from memory) with a very malignant carcinoma which I have, through his kindness, had in my laboratory since that time.—I am, etc.,

Glasgow, Dec. 27th, 1910. CHARLES WALKER.

## SHIP SURGEONS.

SIR,—At this end of the world one gets one's JOURNAL somewhat stale, so only to-day do I receive the issue of October 15th, 1910, containing a letter from Dr. Rentoul on the subject of sea medical service. I am glad to see that Dr. Rentoul advocates the method of improving the ship doctor's position by means of collecting fees for medical attendance from those passengers who benefit thereby rather than by demanding increased salaries from the ship owner.

Passengers in the first and second saloons are now informed in the Orient Company's circulars that the medical officers are empowered to charge fees for their services according to an authorized scale. Unlike the practice on the Western Ocean, no mention is made of constituting the commander an appeal court, but should the occasion arise, it would undoubtedly, in case of dispute, fall to the lot of the commander to act as friendly arbitrator.

The scale is a very low one, but it is urged that a doctor at sea, who has not to keep up a highly-rented house, who receives free board, and who has no expense of transport, should not expect to receive fees equivalent to those charged ashore. Be that as it may, so long as the principle is established that passengers are no longer to expect at sea—any more than on shore—free medical attention, the scale of fees is for the moment of secondary importance. Certain exceptions are made to the rule of charging: in the event of a surgeon attending a patient in

[1] *Comptes Rendus Acad. Sciences*, 1893; *Arch. gen. médecine et anat. path.*, 1894.

his capacity of medical officer of the ship rather than in that of medical practitioner, free treatment is given. Such cases would be of the nature of infectious disease and accident "due to the ship."

I have now had some experience of the working of this scheme. Since the public has for years been taught to accept medical service for nothing, it is idle to suppose that the present alteration will not be resented by some, and the ship surgeon will at first be called on to exercise very great moderation and tact as well as considerable forbearance. But after a time the condition will be regarded as established, and passengers will pay their medical accounts as a matter of course. The main obstacle to reform lies among ourselves. Like Dr. Rentoul, I know of the medical man who is "out on the make," and of the man who is always prating of the dignity of the profession—a dignity which his personal qualifications fail to attach to himself. It is such men who may retard the path of progress. In my experience of the working of this scheme I have found very little resentment, while a great number of passengers realize that through it they are likely to receive much better attention at the hands of a much better equipped class of men who will remain at sea for the work and not for the "fun." In addition, I have found that my work has decreased fully 50 per cent. owing to the cessation of the trivial and unnecessary call. I think I am right in stating that the Orient Company's plan goes further than that in force on the Western Ocean; it embraces all sickness occurring on the ship. On the Western Ocean I believe it is only in cases where the illness has been "brought on board" that the right to charge has been conceded. In conclusion, may I express the hope that a special committee of the British Medical Association will devote its efforts to an adoption by the various lines of a system similar to that now experimentally in force on the Orient Line rather than to an attempt to coerce owners in favour of an increased salary?—I am, etc.,

Sydney, Nov. 22nd, 1910. P. HEYWOOD HADFIELD.

## DR. HADWEN AND THE "CRIMSON CROSS REMEDIES."

SIR,—In a letter occupying the major part of two columns of the JOURNAL on December 31st, 1910, Dr. Hadwen complains that this correspondence has trespassed far too much upon your valuable space. Including that letter, his share of the trespass was 57½ in. as against 29 in. of mine. Any undue prolongation is also owing to his persistent evasions of my questions in the early stages of the correspondence.

His references to my correspondence with Miss Kidd (Secretary of the National Union for the Abolition of Vivisection) are most unfortunate for him. In the first place, I have had no correspondence with Miss Kidd, as he alleges, on the subject of vivisection, except a casual reference to Dr. Hadwen. Miss Kidd addressed one or two letters in 1908 to a correspondent who obtained permission to forward them to me. These had reference to a pamphlet on vaccination, but were chiefly occupied with an abusive attack on the medical profession, such as one would expect from an official who finds so much favour with Dr. Hadwen. Miss Kidd alleged that medical men were guided and actuated in their actions by the meanest possible motives. Of course, Dr. Hadwen was excepted and set apart from the rest as a sort of paragon standing alone in all his glory! I replied to this kind of thing and did not discuss vivisection with her, except her cruel vivisection of the medical profession. Dr. Hadwen is quite familiar with the whole of that correspondence, and saw it two years ago. One of my letters contained this sentence: "If Dr. Hadwen desires to challenge me on the subject of vaccination I am prepared to reply to any communication he may address to me direct on the subject." Dr. Hadwen quotes from that same letter in his reply on December 31st, 1910, but he carefully avoids quoting the above sentence, which was specifically stated to be my answer to an inquiry from Miss Kidd. This is manifestly unfair, because Dr. Hadwen pretends to give my answer. A fortnight earlier he practically denied that I had sent Miss Kidd the above message. In repeating that I had done so I was guilty of "numerous reckless assertions." He wrote: "I know of no one who has received such a message. No such message has ever been conveyed to me." Now on the 31st he admits he received the message two years ago, and that he replied to Miss Kidd, but not to me. Out of this very incident Dr. Hadwen sought to convict me of lying on December 17th. His later letter proves which of us was telling the truth, and that it was not Dr. Hadwen. I do not intend to allow him to mutilate my letters for his own purposes without exposure. So much for my supposed lack of truthfulness. Another glaring breach of controversial fairness occurs in the same letter. He speaks of what he calls the "strange lack of logic which characterizes him" (myself). How does he attempt to prove this? He takes a sentence from one of my letters, chops it in two, and puts in a full stop where no stop occurs, or is permissible. If he had quoted the whole sentence (to which surely I am entitled) no lack of logic appears. These are methods which I have shown up in many other champions of the anti- unions or leagues.

The attempt to score off me by such unworthy methods might have served Dr. Hadwen's purpose before the anti-assemblies he delights to address. He must have forgotten for the moment that he was addressing an audience on this occasion which cannot be bluffed by these devices.

He charges me with having my tongue in my cheek when on December 24th I said I would meet him in debate (obviously on vaccination) before any medical society if he cared to make the necessary arrangements.

This was merely in reply to his suggestion on the 17th. The idea of a medical meeting originated with him in this correspondence. Where was his tongue then? That disposes of his attempt to show that I am lacking in sincerity.

Taking Dr. Hadwen's first point last, I find he poses as the King Solomon of the medical profession, doubtless in the full belief that his wisdom exceeds that of all the other kings. I am the Queen of Sheba; at least according to his mixed simile I am "unlike" and "like" the Queen of Sheba. I believe Dr. Hadwen has some claim to be a specialist on the Scriptures with which he often illuminates his addresses. He is utterly mistaken in supposing that he has knocked the spirit out of me, as the other Solomon did by his answers to the Queen of Sheba. The idea is preposterous.

This correspondence arose out of an advertisement of the Crimson Cross Remedies in which Dr. Hadwen's name appeared for six or seven months conspicuously on the cover of the *Vaccination Inquirer*. I am inclined to believe that Dr. Hadwen will have each of those copies close to his hands. He says he has never seen the advertisement, even at this late stage of the controversy. Why has he preferred to remain in simple innocence? The circumstances of the withdrawal of Dr. Hadwen's name leave no doubt as to the reason for the withdrawal, although Dr. Hadwen may not have been responsible. I have no doubt he has guessed the reason, but he protests he does not "know." His strange lack of interest in these two points is rather transparent.—I am, etc.,

Halifax, Jan. 2nd. ARTHUR DRURY.

*** This correspondence has drifted away from the original issue, and, we think, may now cease—unless Dr. Hadwen has anything in the way of a rectification of fact to bring forward.

## THE CAUSE OF APPENDICITIS.

SIR,—The inadequate nature of the factors invoked by your correspondents to account for the modern prevalence of appendicitis has enabled Dr. Mercier to indulge in a gentle vein of satire[1] which has agreeably varied the interest of the discussion. But how are we to interpret Dr. Mercier's added suggestion? "Not only," states the writer, "has our consumption of meat enormously increased, but our consumption of alcohol has enormously diminished within the same time. Whatever pernicious influence alcohol may exert on the human body, its bactericidal power cannot be contested." Surely we may answer Dr. Mercier, it is somewhat reckless and uncritical to assert or imply that the habitual use of alcohol diminishes the general tendency to suppurative processes.

Why has no appeal been hitherto made to the evolutionary, ancestral, or palaeogenetic order of etiological ideas? Why not invoke the factor of defective or retarded

[1] BRITISH MEDICAL JOURNAL, December 24th, 1910, p. 2002.

adaptation? We would have analogy to help us—the analogy of other organs and functions. When, owing to the exigencies of modern life, the higher nervous faculties, and especially the centres of association, fail to respond to the demands of the life of relation, there is more or less organic impairment; when the lung falters in the task of extracting a sufficient amount of oxygen from the vitiated air of crowded surroundings, its weakest segment—one or other apex most often—will break down; when the liver is subjected to strain from intemperance and defective dieting, it displays its distress by temporary assimilative inadequacy or permanent cirrhosis; and when the nutritive disassimilative processes are defective and excessive the organs of excretion are destroyed. Will not the same reasoning apply to the appendix—a vestigial but integral part of the absorption tract? Woods Hutchinson, in his *Human and Comparative Pathology*, p. 45, says, in speaking of appendicitis:

> As soon as we compare the singular state of affairs (of the caeco-appendix) in the human species with the various developments of this region in the other mammalia, the problem is at least set in a fair way toward solution. The first thing that strikes us about the caecum is its extraordinary variability in different species. . . . It appears as if Nature (Flower) increased the absorptive surface of the canal by either distending the stomach or by dilating and elongating a blind pouch toward the lower part of the canal. In the carnivora the caecum is small and imperfect . . . and the general opinion among morphologists is that the carnivorous caecum is to be regarded as an extremely reduced form of a somewhat fuller ancestral type. In the dog many stages of its recession can be seen, even including . . . the development of an apparent appendix . . . although the only species which possess a distinct appendix are the wombat, the anthropoid apes, and man.

"What suggestions, then," continues Woods Hutchinson, "may we gather from the review of the history of the appendix as to its probable disease liabilities? That the human appendix is a structure, not only

> . . . degenerate, but actually undergoing further atrophy . . . and that we should therefore expect to find it a point of least resistance in the food tube."

Dr. Maclachlan thinks this point (BRITISH MEDICAL JOURNAL, December 3rd, 1910, p. 1823) is one of least resistance to tuberculous factors; others incriminate the rheumatic tendency. Poncet of Lyons would probably conciliate these apparently conflicting views by claiming the morbid tendency in question for his diathesis of "rhumatisme tuberculeux."

This means tissues in a more or less vulnerable condition. But it also means a certain width in the range of possibly injurious agents.

The biologist I have been quoting looks upon the actual attack of appendicitis as an acute exaggeration of the normal process of occlusion and atrophy. This view would therefore give precedence to Dieulafoy's well-known theory of the "vase clos" above all the causes enumerated by your contributors.—I am, etc.,

Nice, Dec. 26th, 1910. A. W. GILCHRIST, M.D.

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SIR,—Please accept my thanks for a "text" found on p. 1989: "Not a few things which are taught to the student of medicine rest on no solid basis of fact."

When medicine was a pure art, it was taught that the appendix was a functionless organ: to-day the same theory is widely held, hence this problem has not been investigated with an open mind, contrary to one of the golden rules of medicine. If the appendix is functionless why does Nature still persist in endowing us with it? May I ask, What is the normal length of the non-pathological appendix as found in the dissecting rooms in India? Next, what is the appendicitis record of the South African war? There we had an enormous number of men under 30 years old subjected to worry, fatigue, hurry, and irregular meals, generally using the natural mode of defaecation. In the BRITISH MEDICAL JOURNAL, June, 1902, Sir F. Treves says that 80 per cent. males under 30 years is the appendicitis record. It is well known that the disease is commonest in children under 15 years of age; also, in these the normal appendix is relatively longer, wider, and thinner than in the adult. About the fifth year a child begins to use the water-closet, and, according to my idea, does not exercise any great pressure on his appendix. "Forcing at stool" is given as one of the causes of abdominal hernia which fact shows that there must be pressure in the abdominal cavity.

My twenty years' colliery experience may be unique, but I have never seen appendicitis in a collier. Within the next few years this record will be broken, for the colliery managements in my district have installed water-closet seats in the pit conveniences.

Appendicitis will be always with us because a few seeds out of the millions of figs and grapes, etc., that are yearly swallowed are bound to enter the organ. Thousands of pieces of decayed teeth are swallowed, very few enter the appendix, and fewer still would remain there if the organ were helped as Nature intended. I beg to thank all those who have kindly replied to my first letter.—I am, etc.,

Skegby, Notts, Dec. 31st, 1910. W. C. RAINSBURY.

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SIR,—Testamentary capacity in law depends upon facts just as conduct plays the most important part in insanity. And in discussing this subject, let us keep briefly to what we know of as likely to produce strangulation of the appendix. Only the other day, at a meeting of the Winchester Division, Mr. Godwin of Winchester read a very interesting paper on The Early History of Appendicitis, which led to the same differences of opinion as the correspondence which has been going on in the JOURNAL since December 3rd, 1910. Thus I beg leave to be allowed to deal with facts.

A little time back I was examining a hen which had been killed and had not presented any symptoms of disease. By an accident I found one of the caecal appendices was blown out like a small sausage. I attempted to squeeze back into the intestine the fluid contents of this much-dilated left appendix. I failed to do so, for I found the lips of the mouth of the duct closed by an inflammatory stricture. I subsequently observed that it was not quite impervious, but was evidently blocked by a species of threadworm. When the tube was opened in a cup of water, gas escaped with a number of vibratile worms, and the contents discoloured the water. The tube was inflamed and thinned. Another few days must have seen a fatal peritonitis. This is not a common cause of peritonitis in the fowl, for it generally arises from a ruptured oviduct.

We are told that the human appendix is of little or no use, but my knowledge of the caecum bereft of its appendix is only hearsay, for I have no practical experience myself on the matter. But as one interested in insane people I have something to say on the subject of the cause of appendicitis.

It is a remarkable fact that some persons suffering from oedema, shortness of breath, languor, and paleness of the the skin (chlorosis) can be practically cured by a course of mist. ferri aperiens. I do not say all. Likewise, I have notes of two cases of mania very much relieved by mist. alba. Not least, I have several patients in my mind suffering from depression, melancholy, and delusions cured by enormous evacuation of faeces by means of blue pill and black draught. And only the other day I heard of a classical case of appendicitis in which I understood from the friends that the patient's bowels had been chronically constipated. And can I not ask how many causes of other diseases are not resident in the intestinal tract? This brings me to the crux of my letter, namely, dietetic errors of modern life leading to vicious processes in the intestinal laboratory with constipation and its consequences.

Whatever effect influenza, excess of animal food, or a quicker swing of the pendulum of modern life may have on the mental and physical side, we cannot get away from the fact that appendicitis appears to be uncommon in asylums for the insane. I would ask my readers to look through the most carefully prepared Blue Books of the Commissioners in Lunacy, notably the Sixty-fourth Report for England and Wales, as ordered by the House of Commons, June 28th, 1910, On the Causes of Death, page 190. Among 105,112 patients (males 49,165, females 55,947) there was only 1 case of death from appendicitis ascertained by *post-mortem* examination—that of a female under 34. Is this not a fact of considerable value when we are regarding the cause of appendicitis; just as much as the fact that insane people in asylums rarely break their bones because they are under the protection of the law.—I am, etc,

Alton, Hants, Jan. 1st. JOHN FREDK. BRISCOE.

## MEDICAL OFFICERS OF HEALTH AND THE LOCAL GOVERNMENT BOARD.

SIR,—We venture to hope that the reception, by medical officers of health, of the last order of the Local Government Board will be more cordial than, from the tenor of your leading article, seems probable.

It is true that district and borough medical officers are not yet, at any rate, to enjoy the fixity of tenure of their county and metropolitan brethren; but, only a few months ago we were told that no kind of security of tenure was to be hoped for by part-time officers,

Now we find that the Local Government Board, in granting the present measure of security, do not differentiate, in this respect, between whole-time and part-time officers.

But, we think that the new forms of tenure will be found to be, in practice, quite satisfactory; for many of us have long thought that all really wanted has been the abolition of the "fixed term" with automatic vacation of the post held.

We have, in fact, expressed our belief that, if only medical officers were to be appointed (save for the necessary veto or approval of the Local Government Board) in exactly the same way and under the same terms as district clerks and surveyors, cases of hardship or injustice would be as rare in one case as in the other.

Now, in future, every medical officer of health, whole or part-time, will enjoy even greater security of tenure than any other officer of his authority, unless he happen to be one of the few whose appointment is not subject to the consent of the Local Government Board.

After all, local sanitary authorities are bodies of fair-minded Englishmen; and, as a district councillor recently said to one of us, there is a lot of difference between not re-electing a man whose appointment has come to an end and giving him three months' notice in cold blood.

There are one or two other points in the order, memorandum, and circular which deserve notice; and, first, it is abundantly clear that the Board have no sympathy with the idea of confining the medical officer of health to the "duties of his office."

Particular stress is laid on the absolute necessity of the control of isolation hospitals, outside London, being in the hands of the medical officer of health.

It is true that the Board express the opinion that, "where practicable," medical officers of health should be rendered independent of private practice; but it is equally clear that the "part-timer" is not yet to be abolished.

For the Board, if not indeed damning "combined districts" with faint praise, do inferentially admit the justice of some of the criticisms which have been passed on this method of sanitary administration, and, evidently not entertaining much hope of small districts being able to pay adequate salaries to suitable men, go on to make a new and interesting suggestion.

The effect of this suggestion, if carried out, will be to place the "part timer" on a firmer basis than ever.

The plan is to induce the "part-timer" now engaged in private practice to swop that part of his work in return for the appointments of police surgeon, factory surgeon, public vaccinator, district medical officer, school medical officer, or some of them. From the point of view of the "part-timer," so recently to be thrown to the wolves—in the "public interests," of course, and also that "whole-timers" might obtain their coveted fixity—an excellent idea! From the departmental point of view, also an excellent idea!

But what have our fellow-practitioners, who at present hold these appointments, and who recently urged that, "in the public interests," *we* should suffer extinction, to say?

Let us hope that, now the Local Government Board have shown them a more excellent way, they will "in the public interests" vacate their respective offices, with the magnanimity so lately expected of *us*, in order that *we* may become pluralistic bureaucrats, and cast off those shackles of practice which have, as we have been told, so long prevented us from doing our duty.—We are, etc.,

F. G. CROOKSHANK, Chairman,
D. A. BELILIOS, Honorary Secretary,
Association of Medical Officers of Health.

London, S.W., Dec. 24th, 1910.

## OPHTHALMOLOGICAL QUALIFICATIONS.

SIR,—In the issue of the JOURNAL for December 24th, 1910, "Graduate" writes: "Like the newly instituted diploma of the Oxford University the course of special study demanded and the examination itself falls far short of the thoroughness with which the graduate must devote himself to the study of general surgery for the highest surgical qualifications." And again, further on: "Is it to be inferred that three months is sufficient to make a post-graduate a master of ophthalmology?" Now "Graduate" has been misinformed as to the requirements of the Oxford diploma. One year's special course of study is required in special hospitals or special departments recognized by the Board of the Faculty of Medicine, and only those are recognized where the clinical material is adequate. In addition to this a course of special study at Oxford is required during one term. This course includes systematic and clinical lectures in ophthalmology, lectures on anatomy, physiology, and physiological optics, as well as practical work thereon; also a course of practical pathology and bacteriology. The examination includes all the subjects "Graduate" states to be desirable, and the standard of marks required is that of the F.R.C.S.Eng. It is difficult to understand how a fuller curriculum or more searching examination can be insisted on.—I am, etc.,

ROBERT W. DOYNE,
Reader in Ophthalmology in the University of Oxford.

London, W., Jan. 1st.

## "EHRLICH-HATA," OR "606."

SIR,—A few weeks ago I wrote the firm of wholesale druggists I deal with to get me a supply of Ehrlich-Hata—606 (dioxy-diamido-arseno-benzol). They replied that before carrying out my order they thought it might be as well to tell me the price of the drug, namely, 10s. a dose. I need scarcely say my order was off after that. It seems to me that, unless the cost of production is very high, someone is going to make a good thing out of the troubles of our poor syphilitics. In future, old ung. hydrarg. will have to continue to serve the good purpose it has served for so many years, as far as I am concerned.

I would like to ask a question: Do these new preparations of arsenic for hypodermic or intramuscular injection produce effects which cannot be produced by older preparations and methods? Beyond a doubt, we can get the full therapeutic effects of arsenic or mercury by oral administration, and as regards mercury by the epidermic method of inunction. To believe that arsenic or mercury introduced hypodermically can do more or other than arsenic or mercury effectively introduced by any other method is far beyond any effort my credulity is capable of.

I have long ago got rid of the gross superstition that combinations of salines in the form of mineral waters, produce any more or different effects from similar solutions of salts prepared artificially, having proved to my own satisfaction, by multitudinous experiments on myself and many others, that the effects are precisely similar.

I do not feel at all sure that the introduction of massive doses of mercury and arsenic by a hypodermic syringe is an improvement. It may be a convenience to carry out a long treatment by one dose a week, especially in military work, but is it a better and safer method from the patient's point of view? I say emphatically No, it is not; on the contrary, it is a retrograde step, risky and dangerous. I once gave a lady a dose of calomel, as I have done dozens of times before and since. The result in this case was terrific mercurial stomatitis, ulceration, suppuration, agonizing pain, loosening of teeth, and I feared there would be necrosis of the jaw. For six weeks I was very distressed and anxious. In the end all came right, but nothing will ever induce me to inject into any one a massive dose of mercury. How terrible, if mercurial stomatitis declare itself, to know that there is a magazine of mercury somewhere in the muscles that keeps adding to the poisoning of the patient, and over which you have not the slightest control! The same applies to massive doses of arsenic given hypodermically.

I can always produce the full effects of arsenic with liq. arsenicalis, or sodium arsenate given orally, and I can always rapidly do the same with ung. hydrarg applied epidermically, and, in each of these cases, if effects exceed my desires or safety, I can immediately stop the administration. Give a massive dose of either hypodermically,

and administration—that is, absorption—may go on days or even weeks, though excessive or dangerous effects are being produced. I can imagine no more harassingly anxious and humiliating position for the practitioner than to be compelled to act the bystander whilst the patient is being seriously injured by such a therapeutic misjudgement or mishap as this, and yet be powerless either to do or to undo.—I am, etc.,

Blackpool, Dec. 28th, 1910. WM. HARDMAN.

## THE COLOUR-BLIND FACE AND VOICE.

SIR,—I have been greatly interested in Dr. S. H. Taylor's experience of the mental character of the colour blind as described in his letter in the JOURNAL of December 24th, 1910. The face of the colour-blind person, according to Dr. Taylor's observations, has no humour or play of expression in it. Colour blindness, we should therefore conclude, is almost invariably associated with a tendency to melancholia. This conclusion is in remarkable agreement with a theory of colour blindness which I have propounded in the December, 1910, number of *Knowledge*.

Colour blindness has been shown by Allen and others to be associated with an abnormally high persistence of the colour sensation after the cessation of the stimulus. The experiments of Wiersma with a rotating coloured disc have shown that melancholia is also associated with this abnormally high persistence of a colour sensation.

The conclusion that these experiments force upon us is that colour blindness and a tendency to melancholia are both manifestations of the same fundamental property of the neural material of the brain. This property I have endeavoured to show in the article referred to is analogous to high conductivity for the nervous currents.—I am, etc.,

London, S.W., Dec. 29th, 1910. JOHN GRAY.

## PUERPERAL FEVER.

SIR,—*Re* puerperal fever in Liverpool.[1] It is not fair to divide cases into two classes only, namely, those attended by doctor and by midwife. I can at the moment think of eight distinct classes:

1. Simple cases attended by midwife alone.
2. Simple cases attended by midwife and doctor.
3. Bad cases attended by midwife and doctor.
4. Bad cases attended by midwife alone at first, doctor being called in when necessity arose.
5. Simple cases attended by respectable experienced unregistered woman and doctor.
6. Bad cases attended by respectable experienced unregistered woman and doctor.
7. Simple cases attended by dirty inexperienced woman and doctor.
8. Bad cases attended by dirty inexperienced woman and doctor.

Nearly the whole of my troubles in nearly thirty years' practice have been in class 7.—I am, etc.,

December 27th, 1910. "G. P."

P.S.—By bad cases I mean cases in which a doctor is required for any purpose.

## CONTROL OF VENEREAL DISEASES.

SIR,—That Major French's article in your issue of December 3rd should give rise to discussion is gratifying to all interested in this important subject. He will have little difficulty in defending the extreme course he advocates, but to bring legislation on this question into practical politics the full penalty of publicity and detention must be deleted from the programme.

I would modify both of Major French's postulates to make them possible of early application in this country.

As regards the registration and inspection of prostitutes, it would at least be serviceable as a beginning if the authorities had power to detain in hospital, until free of disease, any prostitute who had been a source of infection. This does not suggest routine inspection and registration, but only the examination of such as were named as having communicated disease, and the clinical evidence would determine the question of her detention. The existing lock hospitals could be used for this purpose.

Notification would be a necessary preliminary to the above, but it would require to be on very different lines to the procedure in ordinary fever cases. The treatment of venereal disease, at least in patients other than prostitutes, has to be accomplished with the assurance of absolute privacy, but notification need not, I think, violate this. It is only a question of method. The private medical attendant need be the only one to interview the patient for the purpose of furnishing the necessary particulars to the medical officer of health, and the patient could be supplied through his medical attendant with literature setting forth the risks of contagion and the measures necessary to protect others. Notification would also enable the authorities to take proceedings against any one knowingly guilty of spreading disease, and it would supply data for further measures of control. Any legislation on these lines would require to include the abolition of quacks attending venereal disease and prescribing by druggists.

That preventable diseases so detrimental to the public weal should be allowed unchecked to depopulate and enfeeble the race is one of the anomalies of present-day science.

It is incumbent on the profession to give a lead to the Legislature, and we should, I think, concentrate on some practicable reform which could not be construed as pandering to immorality nor yet affect the patient's confidence in the secrecy of the consultation.—I am, etc.,

Glasgow, Dec. 26th, 1910. DAVID WATSON.

## THE DUAL ORIGIN OF MAN.

SIR,—Professor Klaatsch's theory of the dual origin of man, as stated in the JOURNAL of December 17th (p. 1934), while of profound interest to anatomists of every description, gains some degree of support from the realm of comparative biology. The suggested origins of the Aurignac man from orangs and orangoids and the Neanderthal man—an older race—from gorillas or gorilloids find ready parallel amongst mammalia. Thus the two great groups of monkeys—catarrhine and platyrrhine—though showing great resemblances, are yet (in the phylogenetic sense) so widely sundered that fossil intermediate forms are unknown; hence some claim for these also a dual origin from two separate ancestral stocks. Again the extinct horse of America was descended from the protohippus, a three-toed form which recalls the three-toed hipparion itself, the direct survivor of the surviving horses of Europe.

The humerus of the Aurignac man (and also of the orang) has the spine of the greater tuberosity and also the sulcus intertubercularis almost straight, in sharp contrast to the convex curvature of these structures in Neanderthal man and the gorilla. The Aurignac femur has the trochanter minor higher up the shaft than the corresponding part in the Neanderthal skeleton. To say nothing of the bregmatic angle, of the impressions for the digastric muscle and the curvature of the femur, here alone are characters worthy of specific if not generic rank, anatomist and zoologist will alike eagerly await further investigation of the "homo aurignacensis Hauseri."— am, etc.,

Manchester, Dec. 20th, 1910. GRAHAM RENSHAW, M.B.

## THE EXPRESSION OF THE LENS IN ITS CAPSULE.

SIR,—Your correspondent's remarks on "The Expression of the Lens in Its Capsule" in the JOURNAL of December 24th, 1910, p. 2005, at this stage of departure for India, in no way aids the investigation for the following reasons; and I trust that on return from the school where tuition has been offered her, that the day may dawn when not one genius with one method, but many with many methods might rise among us for the benefit of human suffering with suitable provisions for every kind of eye operation, for there are many methods.

1. A new theme has been introduced, with provisos in the second and last paragraph of the letter, which is of no value.

2. No reference has been made to Lieutenant-Colonel Henry Smith's, I.M.S. (his correct name and title without showering so many others) work in the cause of suffering humanity in any of the former articles in any journals I am aware of to depreciate his work and value.

3. Every attitude that is fair has been adopted, and no other form of strategy introduced than that strategy which may be used by ophthalmic surgeons to suit the particular

[1] BRITISH MEDICAL JOURNAL, December 24th, p. 2004.

skill possessed in dealing with his patient's case according to its merits.

4. The whole of the correspondence may be claimed to have been read, but what is read is perhaps not all understood fully at the time, and may be better understood on demonstration than mere reading.

5. It is wiser to limit oneself in such an investigation to facts and statistics, instead of provisos and new themes of controversy. Every one has not the facility, nor provision either, for obtaining journals such as the *Ophthalmic Record* of Chicago for a whole year, awaiting Lieutenant-Colonel Smith's reply in some particular number to be published without giving us the number and date of that publication.

6. In advocating the eclectic method, which has been greatly approved of from the verdict given by authorities, I do not make any claim on Lieutenant-Colonel Smith's technique, nor the instruments devised for the purpose. I only claim what is my own. At the same time, I can only once more refer to my articles in the June and October issues of the *Ophthalmoscope* for careful perusal, in order to show that the provisos and other things strictly and rigidly laid down by Lieutenant-Colonel Smith have not been found necessary in the hands of other skilful surgeons, and yet success might attend the operation if careful diagnosis be made early and the case be treated at the time of operation in accordance with its merits. An "unmutilated pupil" is acknowledged to be the ideal operation with expression of the lens in its capsule both as regards appearance and after-results. If an unmutilated pupil be inadmissible at the time of operation, iridectomy is done, and iridectomy can often be dispensed with under certain conditions I have mentioned in my work, and those are to be diagnosed at the time of operation only.

The average ophthalmic surgeon in performing the eclectic method is safe in doing so in the interests of his patient and his reputation, since even skilful operators who have either seen Smith operate or have followed his technique, *with* or *without* his tuition, have reported unfavourably of his method both on account of accidents, appearance, and after-results. Those results have been reported and upon them a verdict given.

It is possible for some men to achieve much after performing 500 or 1,000 extractions or expressions of the lens by capsulotomy or non-capsulotomy, while others would fail to acquire the same results after performing five, ten, or fifteen, or even twenty thousand. As said of the poet, so of the ophthalmic surgeon, who is born and not made; and those who are not born but made can only achieve skill, delicacy of touch, and all the requirements which go towards success in every sense by very careful observation and prolonged apprenticeship.

I trust that your correspondent on her return from India to this country will be able to give us fresh results and statistics which might cause us to say that she has achieved greater things than her master.—I am, etc.,

London, W., Dec. 24th, 1910. G. H. FINK, I.M.S (ret.).

# Universities and Colleges.

## UNIVERSITY OF EDINBURGH.

*Degrees.*

THE following were among the degrees conferred at a graduation ceremony on December 21st, 1910:

M.D.—D. C. Henry, R. T. Herdman, G. W. R. Skene.
M.S.—M. A. Ansari, B.A.(India).
M.B., CH.B.—E. G. Anderson, A. E. C. Beausoleil, B. J. W. Bennetts, G. Burnet, L. D. Callander, T. F. Craig, W. A. Dunn, L. E. Eden, A. C. England, J. Erlank, T. R. Evans, A. J. Ewing, M.A., Annie G. Fergus, A. Galletly, F. P. Gibson, M. E. Goode, R. Govan, M.A., M. Greenberg, J. D. Gunn, B.A., C. C. Iles, Hannah M. Irving, B.Sc., A. B. Jamieson, C. A. Keegan, T. D. Kennedy, M.A., W. D. Kirkwood, E. W. Lawrence, See Foon Lee (China), R. C. Lowther, D. J. M'Afee, W. V. Macaskie, J. D. M'Ewen, M.A., Marian Macintyre, D. J. Maclaren, Elizabeth Macleod, A. M. Masters, D. B. Maunsell, H. M. Mills, S. N. Mokand, F. L. Moore, C. C. Murray, K. A. Rao (India), E. W. Richards, W. R. Ridley, T. R. Sandeman, Charlotte D. Schaeffer, S. C. Sen (India), J. W. Seuter, J. C. Simpson, A. N. Smith, N. W. Stevens, J. Stevenson, D. E. Stoddart, J. R. Stott, G. Sutherland, B. C. Tennent, D. L. Theron, P. H. du Toit, C. Y. Wong (China), N. C. Young.

On the same occasion diplomas in Tropical Medicine were handed to W. H. Forsyth, Captain, R.A.M.C., E. C. C. Maunsell, Captain, I.M.S., and A. Watson; and the Stark Scholarship in Clinical Medicine was handed to D. M. Lyon, M.B., Ch.B.

*Examinations.*

The following candidates have been approved in the subjects indicated:

FIRST M.B., CH.B.—R. C. L. Batchelor, M.A., B. B. Benison, H. B. Binks, E. P. Caw, F. C. Chandler, W. A. Coats, J. Dunlop, J. D. Evans, B.Sc., E. M. Ferney, H. J. Foote, H. C. Fox, R. E. Gibson, D. C. Graham, J. C. Gunn, E. Jamieson, M.A., W. D. Kiernander, G. M. Levack, A. J. M'Ivor, J. B. P. M'Laren, A. O. Marshall, D. J. Max, F. G. Milne, W. Murdoch, J. C. Neil, Inez E. M. Pender, R. Power, J. O. Reid, F. W. H. Renton, Maung Sett, J. C. Sinclair, Jyotiprokas Sircar, B.Sc., A. H. D. Smith, H. S. Smith, L. J. Spence, J. S. Taylor, A. A. Watson, H. D. Welply, J. A. C. Williams, D. G. Wishart, E. W. N. Wooler.

SECOND M.B., CH.B. (*Anatomy*).—W. R. Addis, E. Allan, J. C. Anderson, R. P. Anderson, L. J. Baeza, I. J. Balkin, W. Bird, G. A. Borthwick, W. A. Bowie, H. Boyle, A. Bremner, H. J. Brink, A. B. Brook, H. A. Brookes, F. R. Brown, R. M. Brown, M.A., W. T. Brown, W. E. Bullock, B.Sc., R. E. Cameron, S. M. F. Cesari, W. K. Chalmers, G. W. Christie, T. W. Clarke, F. A. Correa, A. Cowe, G. Cromie, B.A., Laura K. Davies, C. L. Dold, D. A. Donald, C. Dundee, W. B. H. Dundee, A. J. Dunlop, B. V. Dunn, G. K. Edwards, Isabella Elphinston, F. G. Foster, A. S. Fry, A. S Glynn, A. Grant, H. P. Haddow, J. N. J. Hartley, H. B. L. Henderson, R. A. Hepple, H. C. Hinood, S. Honeyman, K. Husain, T. D. Inch, Florence E. Inglis, L. F. E. Jeffcoat, I. J. Khaw, F. J. Kirkness, D. A. Laird, W. A. Lethem, R. B. Llewellyn, J. B. Low, G. H. Lunan, J. N. M'Intosh, D. M'Kelvey, Bessie R. MacKenzie, E. L. MacKenzie, H. A. Macmillan, Rosanna E. Macmillan, J. T. H. Madill, D. Martin, G. E. Martin, M.A., A. D. Maxwell, S. C. Mitra, J. B. Mitton, H. M. Moir. R. Montgomery, A. J. M. C. Morrison, W. K. Morrison, K. P. Panikkar, W. Parker, A. E. S. P. Pattison, E. Percival, T. Pullar, M.A., A. Rahman, G. Rankine, K. G. Rao, B.A., J. W. van Reenen, J. K. Reid, D. L. Robertson, D. S. Robertson, M.A., W. J. Robertson, M. S. Ross, C. Scales, L. R. Sharples, A. C. Shaw, H. K. Shaw, A. F. Sinclair, R. A. Stark, E. T. A. Stedeford, Isabella Stenhouse, F. G. Thatcher. W. St. Clair Thwaites, M. C. Turiansky, M. A. Wajid, Joseph Walker, J. H. Ward, D. G. Watson, H. W. Wier, G. Williams, H. W. Wilson, W. G. Wyllie, Mg Ba Yin, J. A. Young.

SECOND M.B., CH.B. (*Physiology*).—A. J. T. Allison, S. K. Basu, A. Cameron, D. Campbell, M.A., W. S. H. Campbell, S. C. Chatterjee, T. W. J. Childs, J. H. Cumming, J. W. Darling, Laura K. Davies, W. Duguid, K. D. Falconer, A. S. Glynn, R. W. R. Jones, Margretta J. Keers, Margaret N. MacCallum, Celia M. C. MacNeil, A. C. Mann, S. L. Mitra, S. C. Mitra, R. H. H. Newton, B.A., K. P. Panikkar, A. Rahman, C. D. Rogers, J. A. N. Scott, S. W. H. Stuart, H. Tren, G. T. van der Vijver, Mg Ba Yin, J. S. Crichton.

SECOND M.B., CH.B. (*Practical Materia Medica*).—C. W. Aikman, R. H. Alexander, H. F. Armour, D. C. Barron. M.A., P. W. Carruthers, A. Cohen, K. C. Crosbie, J. M. Donnan, C. E. Dukes, D. O. Fairweather, E. S. Hawkes, F. W. Hird, J. H. G. Hunter, T. W. Jackson, S. G. Kriegler, S. J. A. Laubscher, R. L. Lloyd, Rosanna E. Macmillan, Jean M. M'Minn, M.A., Clare R. Patton, L. J. D. Pawan, H. A. Sippiner, J. S. du Toit, J. B. Young.

THIRD M.B., CH.B.—W. H. Armistead, T. C. Britton, D. L. Brown, A. N. Craig, F. E. Crew, G. M. Elliot, R. Grant, M.A., J. A. Henderson, N. L. Lochrane, J. W. M'Kinney, C. de C. Martin, C. A. Mason, H. G. Parker, Bindeshwari Prasad, S. D. Reid, C. M. Rout, E. St. J. Seelly, R. K. Shaw, R. S. Stevenson, M. Teitelmann, G. ap Thomas, A. H. Towers.

FINAL (*Midwifery*).—J. D. M. Claassens, E. S. Craig, W. E. Fitzgerald, A. Groenewald, S. Hodgkinson, R. H. S. Langeveldt, R. M'Adoo, J. M. Murray, L. H. Skene, R. B. M. Yates.

FINAL (*Medicine and Surgery*).—T. Caul, B. J. O. Hoare, M. J. Hofmeyr, B.A., J. R. M'Gregor, Lucy M. Muir, J. M. Murray, A. Simpson.

FINAL (*All Subjects*).—E. Anderson, A. E. C. Beausoleil, B. J. W. Bennetts, G. Burnet, L. D. Callander, T. F. Craig, W. A. Dunn, L. T. Eden, A. C. England, J. Erlank, T. R. Evans, A. J. Ewing, M.A., Annie G. Fergus, A. Galletly, F. P. Gibson, M. E. Goode, R. Govan, M.A., M. Greenberg, J. D. Gunn, B.A., C. C. Iles, Hannah M. Irving, B.Sc., A. B. Jamieson, C. A. Keegan, T. D. Kennedy, M.A., W. D. Kirkwood, E. W. Lawrence, S. F. Lee, R. C. Lowther, D. J. M'Afee, W. V. Macaskie, J. D. M'Ewen, M.A., Marion Macintyre, D. J. M'Laren, Elizabeth Macleod, A. M. Masters, D. B. Maunsell, H. M. Mills, S. N. Mokund, F. L. Moore, C. C. Murray, K. A. Rao, E. W. Richards, W. R. Ridley, Charlotte D. Schaeffer, S. C. Sen, J. W. Senter, J. C. Simpson, A. N. Smith, N. W. Stevens, J. Stevenson, J. R. Stott, G. Sutherland, B. C. Tennent, D. L. Theron, P. H. du Toit, C. Y. Wong, N. C. Young.

M.D. (*Clinical Examination*).—F. Armstrong, G. S. Blandy, W. L. Burgess, M. Carthew, G. L. Cawkwell, F. W. Cragg (Captain, I.M.S.), I. D. Dickson, W. H. Dickinson, G. H. Garnett, A. W. Gill, W. T. Graham, A. G. M. Grant, A. G. Hamilton, J. Henderson, A. E. Hodgson, G. R. Inglis, A. M. Jones, W. R. Logan, P. Macdiarmid, H. D. MacPhail, R. C. MacQueen, T. H. R. Mathewson, John D. de W. Molony, J. A. Mortimer, A. C. Norman, Julia L. Pringle, A. N. Robertson, D. G. Robertson, John M. Scott, F. Shannon, G. W. R. Skene, G. W. Smith, H. H. Thorburn, W. S. Watson, T. Welsh, J. D. Wilson, M.A.

## UNIVERSITY OF LEEDS.

*Degrees.*

THE following were among the degrees conferred at a Congregation on December 22nd, 1910:

M.B., CH.B.—J. P. Brown, W. S. Hart, H. N. Ingham, *J. P. Musson, C. G. K. Sharpe, *B. A. Slowcombe, *G. V. Stockdale.

* Second class honours.

*Examinations.*

The following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B. (*Anatomy and Physiology*).—L. H. Butler, W. A. Drake, J. C. Gillies, H. R. Knowles, P. K. Merron, H. Sinson, H. L. Taylor, C. Ward.

THIRD M.B., CH.B.—PART I (*Pathology and Forensic Medicine and Public Health*).—F. Wigglesworth, B. W. F. Wood.

FINAL D.P.H.—P. W. Ashmore, W. M. Hitchins, J. H. Mason.

## UNIVERSITY OF LONDON.

### MEETING OF THE SENATE.

A MEETING of the Senate was held on December 14th, 1910.

*Recognition of Teachers.*

The following teachers were recognized as teachers of the University in the subjects indicated:

*Guy's Hospital Medical School.* — Mr. William Mayhew Mollison (Aural Surgery), Mr. Philip Turner (Clinical Surgery).

*University College Hospital Medical School.* — Dr. Hugh Morriston Davies (Clinical Surgery), Dr. Thomas Renton Elliott (Clinical Medicine), Dr. Archibald Montague Henry Gray (Dermatology).

*Hospital for Consumption.*—Dr. James Dundas Grant (Aural Surgery and Laryngology).

*Lectures in the Physiological Laboratory.*

A course of lectures on "Gaseous Exchanges taking place in the Blood" will be given by G. A. Buckmaster, M.D., and J. A. Gardner, M.A., F.I.C., on Tuesdays, at 5 p.m., during the third term. The lectures are addressed to advanced students of the University and to others interested in physiology. The course has been recognized as a course of advanced lectures which a candidate for the B.Sc. (Honours) Examination in Physiology may name for part of his examination. Any member of a London school of medicine, whether an undergraduate of the University or not, is entitled to admission to this course.

*Advanced Lectures in Physiology.*

The following courses of advanced lectures in physiology will be given during the second term:

1. Eight lectures on "Hydrolysis and Enzyme Action," by H. E. Armstrong, F.R.S., and E. Frankland Armstrong, D.Sc., in the Chemistry Lecture Theatre, City and Guilds College, Exhibition Road, S.W., on Tuesdays, beginning February 7th, at 5 p.m.

2. Eight lectures on "Physiological Significance of Amines," by H. H. Dale, M.D., at University College, on Fridays, at 4.30 p m., beginning on January 20th.

3. Four lectures on "Recent Progress in Physiological Chemistry," by Otto Rosenheim, Ph.D., at King's College, on Mondays, January 30th, February 13th, February 27th, and March 13th.

4. Eight lectures on "The Physiology of the Embryo and the Newly-Born," by M. S. Pembrey, M.D., in the Physiological Theatre, Guy's Hospital, at 4 p.m., on Thursdays, beginning January 19th.

5. Eight lectures on "Coagulation of the Blood, Muscle, and Milk," by John Mellanby, M.D., at St. Thomas's Hospital, on Wednesdays, at 4.30 p.m., beginning on January 18th.

Courses 1, 2, 4, and 5 have been recognized by the Senate as courses of advanced lectures which a candidate for the B.Sc. (Honours) examination in physiology may name for part of his examination.

*Lectures by the Professor of Protozoology.*

A course of twenty-one lectures on "The Protozoa" will be given at the Lister Institute of Preventive Medicine, Chelsea, by Professor E. A. Minchin, M.A., Professor of Protozoology in the university, on Mondays, Wednesdays, and Fridays during the second term, at 5 p.m., beginning on January 16th. Each lecture will, when possible, be followed by exhibits of microscopical preparations illustrative of the subject of the lecture.

The course is intended to provide instruction (*a*) to students passed the intermediate stage—that is, to those preparing for the B.Sc. examination, pass, or honours, or those taking "protozoa" as a special subject for the B.Sc. examination—or to those preparing a thesis upon the group for the D.Sc. degree; (*b*) for medical men and others interested in the practical aspects of protozoology. The course is open free (1) to all members of the university; (2) to all medical men or registered medical students; (3) to other persons on application to the Academic Registrar.

*Advanced Lectures in Zoology.*

A course of three lectures on "The Comparative Anatomy of the Vertebrate Ear" will be given by Mr. R. H. Burne, M.A., at the Royal College of Surgeons, Lincoln's Inn Fields, W.C., on Thursdays, January 19th, 26th, and February 2nd, at 5 p.m.

## ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

*The Fellowship.*

THE following gentlemen have been admitted to the Fellowship:

R. Alcock, A. G. Banks, H. C. Buckley, Captain I.M.S., G. A. Carter, W. Dykes, N. E. Gibbs, C. L. Isaac, A. I. Mader, C. W. F. Melville, Captain I.M.S., A. A. W. Petrie, R. Y. Stones, H. B. Thomson, L. E. B. Ward, W. J. A. Webster.

## LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the thirty-fourth session:

†H. G. S. Webb, Captain I.M.S.; †J. H. Murray, Captain I.M.S.; †R. St. John Brooks; †H. C. Keates, Captain I.M.S.; †F. V. O. Beit, Captain I.M.S.; †W. M. Anderson, Captain I.M.S.; †L. E. Gilbert, Captain I.M.S.; *†J. Donnelly, *†W. G. Watt, †C. A. Lane, Major I.M.S.; *A. J. Smith, *C. S. Thompson, *K. B. Allan, H. G. Barrie, *L. H. Booth, Miss N. G. Cotton, *G. Rollason, Miss I. Kahn, *W. A. Ryan, F. T. Wills, R. S. Roper, *J. F. W. Ward.

† Passed with distinction. * Colonial Medical Service.

# Medico-Legal.

## WORKMEN'S COMPENSATION ACT, 1906.

*Injured Workman and Medical Examination.*

THIS was a stated case in the Court of Session, Edinburgh, on December 24th, 1910, before Lord Justice Clerk and Lords Dundas, Ardwall, and Salvesen, under the Workmen's Compensation Act, 1906, in an arbitration in which the appellant, David Morgan, High Blantyre, claimed an award of compensation from the respondents, Wm. Dixon (Limited), Blantyre Colliery, in respect to an injury to his left foot, which injury was alleged to have been sustained while he was employed by the respondents as an underground driver on June 3rd, 1910. After the petition for an award of compensation had been presented, the respondents required the appellant to submit himself for examination by a medical practitioner provided and paid by them under Section 4 of the First Schedule of the Act. The appellant, however, refused to submit to such an examination unless upon condition that his own medical attendant should be present throughout the examination. The respondents refused to accede to this condition, and contended that the appellant's refusal to submit himself to medical examination unless on the condition specified amounted to obstruction in terms of the section referred to. They lodged a minute in the arbitration craving the court to sist the application until the appellant submitted himself for medical examination in terms of the statute. Parties were heard on the minute and it was conceded in argument that there was no special circumstance in the appellant's case which called for the presence of his medical attendant at the examination, his contention being that it was the right of the workman in every case, without alleging any special reason, to have his medical attendant present at the examination, and to refuse to submit to examination unless and until the employers consented thereto. Sheriff-Substitute Thomson, the Arbiter, while willing to consider any special grounds which might be expedient that the appellant's medical attendant should be present, held that the appellant's contention was not well founded, and he accordingly granted the crave of the minute, and sisted the application.

The division upheld the judgement of the sheriff-substitute and found the respondents entitled to expenses, their view being that, apart from any special circumstances in a particular case, a workman was not entitled to have his own doctor present throughout the examination by the medical practitioner on behalf of the employers in terms of Section 4, and that the refusal of the appellant to submit to examination unless his own doctor was allowed to be present amounted, in the circumstances of this case, to a refusal in terms of Section 4. The Lord Justice Clerk said that parties on both sides had stated that this was a question which they desired to be settled, and he took it that the appellant was the representative of the whole class of workmen in the desire to have the question determined whether under Section 4 a workman was entitled, as matter of right, to refuse to submit himself for examination by a medical practitioner provided and paid by the employer unless his own medical man were present. His lordship had no hesitation or difficulty in deciding that a workman was not so entitled. The purpose of the examination by the employer was the legitimate and proper purpose that he, through one who might as a man of skill give him an opinion of the man's then condition, consider whether he would go to arbitration or agree to give reasonable compensation to the man who was injured. The employer was entitled to have that examination made, without being interfered with by anybody, by a properly qualified medical practitioner. If his lordship thought that any case previously decided had determined the point now maintained by the appellant he should consider that the case required to be dealt with by a full bench. But in none of the cases quoted was such an abstract decision given. In the present case the circumstances stated by the sheriff-substitute indicated that this was not a reasonable refusal.

Lord Ardwall, who concurred, said that if the question in the case was decided in favour of the appellant it would mean that a workman in all cases had an absolute right to refuse to be examined unless his own medical man were present. It appeared to his lordship that it was out of the question that any such rule should be laid down. There might be cases in which it was exceedingly proper that a workman should have his own medical man present. One could imagine dozens of such cases where, for example, the workman might be subject to an affection of the heart, or something of that kind. Special circumstances must always be taken into account.

Lords Dundas and Salvesen concurred.

*Heart Disease or Accident.*

¶In a case lately tried it appeared that the deceased was a man aged 40, and the contention was that on July 24th, 1910, his death was caused by the strain of pushing full tubs of coal operating upon a condition of body (dilated heart and aneurysm of the aorta) which was such as to render the strain fatal. A *post-mortem* examination had been held, and it had been found that the whole of the deceased's organs were sound, with the exception of the heart. Medical witnesses were called to say that the condition of the heart was such that the strain of pushing the tubs was responsible for the deceased's death in the particular way in which it happened. The applicant's solicitor relied on Clover Clayton and Co. *v.* Hughes, heard in the House of Lords in March, 1910] In that case a

workman, suffering from a large aneurysm of the aorta, was doing his work in the ordinary way by tightening a nut with a spanner, when this ordinary strain caused a rupture of the aorta, resulting in death. It was held that the workman had died from personal injuries by accident within the meaning of the Act. "It seems to me enough," the Lord Chancellor said, "if it appears that the employment is one of the contributing causes, without which the accident which actually happened would not have happened, and if the accident is one of the contributing causes, without which the injury which actually followed would not have followed."

Dr. Fraser, Dr. Roocroft, Dr. Campbell, Dr. Hartley and Dr. Monks were present at the *post-mortem* examination. The whole of the organs were healthy except the heart. The left ventricle was dilated and the aorta valves were thickened, there being calcareous deposits on each valve. There were also calcareous deposits around the coronary artery. The first part of the aorta was dilated, and the valves were incompetent. Dr. Monks and Dr. Fraser expressed the opinion that, considering the condition of the deceased's heart, the work he was doing at the time was sufficient to cause syncope.

Dr. T. Campbell said he was called to the deceased when he was brought out of the pit, and he was also present at the *post-mortem* examination. The condition of the deceased's heart might have applied to a man of seventy instead of forty. Any slight exertion might have brought about death.

In reply to the judge, Dr. Campbell said this would throw extra work on a heart which was sufficiently diseased to give out without extra work. The substantial cause of death was syncope from a diseased heart.

Dr. Mitchell Roocroft also gave evidence, and said the man's condition was such that he might have died at any time.

His Honour, in reviewing the evidence, said there was some little difference in the evidence of the doctors, although they did not disagree he thought as to the actual state of the man's heart. It was a very long-standing disease, and the heart was in such a condition they all agreed that any exertion, however slight, might at any time have produced death. He had to apply the evidence to the proposition of the law as laid down by the highest court in the country. In the case that had been referred to, the Lord Chancellor said: "It may be that the work has not, as a matter of substance, contributed to the accident, though in fact the accident happened while he was working. In each case the arbitrator ought to consider whether, in substance, so far as he can judge in such a matter, the accident came from the disease alone, so that whatever the man had been doing it would probably have come all the same, or whether the employment contributed to it. In other words, did he die from the disease alone or from disease and employment taken together, looking at it broadly. Looking at it broadly, I say, and free from over-nice conjectures, was it the disease that did it, or did the work he was doing help in any material degree?" That was a judgement which he must take fairly into consideration, His Honour added, and in the present he was of opinion it was not made out that death was contributed to by any exertion the man was doing. Looking at it broadly and in substance, this man died from heart disease, and His Honour said he could not find as a fact that the work he was doing contributed to his death. Under the circumstances he must give an award for the respondents.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

### THE DOOR-PLATE AGAIN.

H. M.—It is not unusual for the door-plate to contain the name of the practitioner with the word "Surgeon," although he is a general practitioner. It is unusual for a consulting surgeon or a specialist to indicate his line of practice as suggested—for example, "Ophthalmic Surgeon."

### MEDICAL ETIQUETTE.

OUR attention has been called to a paragraph in the *Times* under the above heading, giving an account of an inquest held on a collier who died in consequence of a fall of binde in the pit where he was employed. We cannot conceive it possible that a medical man would refuse on any scruple of medical etiquette to do his best to restrain bleeding, and as the doctor accused of so acting was not called and his explanation has not been heard, we cannot accept the accusation as proved, for where life is at stake no consideration of medical etiquette would hinder a medical practitioner from rendering such aid as it might be in his power to give.

### TRANSFER APPOINTMENTS.

CLOVEL.—A. sold his practice, including appointments, to B. on the condition that he was to refund one and a quarter years' purchase of any appointment that B. did not succeed in getting transferred to him. After B. had succeeded to the practice, he was appointed temporarily to one of the appointments for about nine months, the said appointment being then given to another practitioner. A. wishes to know whether the amount of salary paid to B. during the nine months ought not to be deducted from the amount he has agreed to pay B. for the loss of this appointment.

*** As B. has not succeeded in retaining this appointment, he would appear to be entitled to the full amount agreed upon. The fees received by him during the nine months can only be regarded as payment for the work done during that time.

# Obituary.

## WILLIAM BAIRD McQUITTY, M.A., M.D.,

SENIOR ASSISTANT PHYSICIAN, ROYAL VICTORIA HOSPITAL, BELFAST.

IT was with the deepest regret that the announcement of the death of Dr. McQuitty was received by both the profession and the public in the North of Ireland; the event occurred with tragical suddenness and unexpectedness. He had been for a short holiday to England, owing to somewhat troublesome headache and insomnia, but was otherwise in excellent health and spirits. On the forenoon of December 31st it is said he asked for the postponement of a consultation till the afternoon, but later he sent for his friend, Dr. Leathem, who had been doing his work. The gravity of the case was recognized and a consultation held, but he sank into coma; in the evening he partially recovered consciousness and asked what his pulse was, but later relapsed into coma and died towards midnight.

Dr. McQuitty was a man of a high type of character. His school, college, and university careers were remarkable; he gained school exhibitions giving him free tuition at the Royal Academical Institution and other valuable prizes, and he carried off the first scholarship in three successive years in the junior, middle, and senior grades respectively of the intermediate examinations. He entered Queen's College, Belfast, in 1881, and gained many scholarships and prizes, including first honours in chemistry, first honours and first place in experimental science at both B.A. and M.A. examinations. In medicine his career was equally distinguished; he was considered easily the best man of his year, and took the degrees of M.Ch. and M.A.O. with honours; but even his immense capacity and steady nerve for once played him false, and he was only recommended for honours in the M.D. instead of getting first place with first-class honours, which was considered his due. He obtained the university studentship of the late Royal University, worth £500. He is said to have obtained over £800 worth of studentships, scholarships, and prizes in the Queen's College. Dr. McQuitty subsequently studied at the Rotunda Hospital in Dublin, the Great Ormond Street Hospital for Children, and at the London Hospital, where he clerked for Dr. Hughlings Jackson. He acted as house-surgeon and house-physician in the old Royal Hospital, Belfast, and then entered into practice. He obtained the Cambridge D.P.H. shortly afterwards. He was appointed physician to the Ulster Hospital for Children, and medical officer to the Constabulary of the East District of Belfast; both of these appointments he subsequently gave up. In 1900 he was appointed Assistant Physician to the Royal Victoria Hospital; here he had scope for his powers of teaching, and his name soon became synonymous with painstaking exactitude and completeness, and clearness of demonstration; nothing was taken for granted; nothing was left undone; he held it morally wrong, no matter how great the hurry, to scamp a case; he refused to see cases if it were a physical impossibility to complete the examination. His notes were full and carefully recorded in shorthand.

As he had forced himself to the foremost place in his academic career by the capacity of his brain and his unsparing work, so he later was forcing himself to the foremost ranks of physicians in Ulster. He was singularly free from self-advertisement or "splash"; his work was his true recommendation. Many of his friends thought him worthy of a wider field and a more daring ambition. But he always did the work immediately at hand, and he would have tackled the problem of the defence of the Empire with the same spirit—the spirit of mastery of detail, of accuracy, of absolute trustworthiness, of logical sequence—with which he brought into clear relief the

phases of an obscure nervous case. His contributions to the medical societies were few but valuable.

Dr. McQuitty seemed to touch nothing he did not succeed in. He enjoyed his life; in summer he always took a good holiday, and he had visited most parts of Europe and some of America; he was particularly fond of Switzerland, and knew it well. He had musical tastes of a high order, and more than one church organist has been indebted to him not merely for medical advice but also for relief of work during church service. His personal characteristics gained him hosts of friends, both amongst the profession and the public; he was quiet and unassuming, but, if wrong or jobbery were suspected, an outspoken opposition soon developed.

His death is a serious loss to the Medical School and to the province; the regret is keen in every one, especially as it is but too clear that his strenuous and unremitting labour must have been the primary cause of his death at the age of 48. Dr. McQuitty was unmarried. Much sympathy is felt with his sister and two brothers.

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## SIDNEY J. RODERICK, M.B., C.M.,

LLANELLY.

IT is with great regret that we record the death of Dr. Sidney J. Roderick, which occurred on December 12th at his residence, Vauxhall, Llanelly, Carmarthenshire, in his forty-sixth year. Dr. Roderick was educated at Marlborough and Edinburgh University, where he had a successful career. He graduated M.B. and C.M. in 1887.

At an early age he acquired the extensive practice of his uncle, the late Dr. Buckley, of Bradbury Hall, Llanelly.

Dr. Roderick was Medical Officer of Health for the Llanelly urban area, Certifying Factory Surgeon, Medical Inspector of Schools, Medical Officer to the Police and various industrial concerns in the town, and was engaged in private practice.

His death in the prime of life is felt as a severe blow both by his fellow practitioners and the members of his Division of the British Medical Association, and by the public. By all who knew him he was regarded as the soul of honour, and as being always actuated by the highest motives. Whatever he did or said was always accepted as the result of deliberate and conscientious effort by one who rarely changed his mind after arriving at a conclusion.

Of a retiring and reserved disposition, Dr. Roderick avoided publicity and loathed public applause. He delighted in the shaded nooks of professional life, away from the public gaze, and in such spots only was his work to be seen; had it been exposed to the public gaze in direct sunshine and nurtured by push and tact it would, in comparison, have dwarfed much work that has arrested public attention. He was a patient investigator, with a gift for research; he was one of the pioneers of *x*-ray and of opsonic work in South Wales, and latterly of radio-therapy, of which latter material he had a valuable supply.

Dr. Roderick was a valuable and faithful member of his Division, but, although allowing himself to be nominated to any committee of which he always gave of his best, he declined every official position. The outstanding features in the character of this lovable man were a gentleness of disposition, a kindness of heart that knew no bounds, and an unfailing courtesy even to the poorest, and these sufficed to make probably the most beloved and respected man in his native town, where his sweet influence will live for many generations.

He leaves a widow and two children to mourn his loss.

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# Contract Medical Practice.

G. E. L. asks: Does the 4s. or 5s. annual subscription that members of all clubs pay for medical and surgical attendance include consultations with other medical men?

*** The answer to this question must depend on the terms of the contract. We are informed that there is usually no written contract, and practitioners of special experience to whom we have referred the matter state that it is not usua for a club doctor to charge a fee for consultation.

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# Medical News.

THE second Hunterian Society lecture will be delivered at the London Institution, Finsbury Circus, E.C., on Wednesday, January 11th, at 8.30 p.m., by Mr. D'Arcy Power; the subject will be loose cartilages and the results of their surgical treatment. All members of the medical profession are invited to attend.

THE next meeting of the Westminster Division will be held at the Criterion Restaurant on Thursday, January 12th. Dinner will be held at 7.30 p.m. Dr. Goodall, Honorary Secretary of the Metropolitan Counties Branch, will read a paper entitled, "On Some Points Connected with the Serum Treatment of Diphtheria." All members of the Association are invited to attend.

A MEETING of the Hampstead Division will be held in the Central Library, Arkwright Road, N.W., on Friday, January 13th, at 4.30 p.m. A paper on State Sickness and Invalidity Insurance will be read by Dr. Rowland Fothergill.

THE fifth annual dinner of past and present students of the Royal London Ophthalmic Hospital will take place at the Imperial Restaurant, Regent Street, on Wednesday, February 8th, when Mr. Priestley Smith, will take the chair at 7.43 p.m. Each student is entitled to introduce two guests. Tickets (10s. 6d. each, exclusive of wine) may be obtained from either of the honorary secretaries, Mr. Arnold Lawson, 12, Harley Street, and Mr. J. Herbert Parsons, 54, Queen Anne Street, London, W.

AT the request of the Military Education Committee of the University of London, the Principal has issued invitations to universities and colleges providing contingents of the senior division of the Officers' Training Corps to appoint representatives to a conference to be held at an early date to consider various questions relating to discipline and organization in the contingents.

THE next meeting of the Society for the Study of Inebriety will be held in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, January 10th, at 4 p.m., when the President, Dr. T. B. Hyslop, will open a discussion on the influence of parental alcoholism on the physique and ability of offspring.

The customary course of post-graduate lecture at the Hospital for Sick Children, Great Ormond Street, W.C., will be given this session. The first lecture will be by Mr. Corner, on January 12th, on the functions and diseases of the vermiform appendix, and the second by Dr. Thursfield, on January 19th, on purpura, at 4 p.m. on each day. These lectures are free to all practitioners. In addition there are special post-graduate courses at the hospital for which fees are charged.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

H. G. S. asks for a serviceable local application for chilblains.

## ANSWERS.

W. G. F.—The following work will probably answer our correspondent's requirements: *A Practical Treatise on Fractures and Dislocations.* By L. A. Stimson. 6th edition. London: Kimpton, 25s. net.

### URINE TESTING.

J. J. B.—We think that of the smaller books French's *Medical Laboratory Methods and Tests*, second edition (London: Baillière, Tindall and Cox, 1908, 5s.); and of the larger Dixon Mann's *Pathology and Physiology of the Urine* (London: Charles Griffin and Co., 1908, 10s. 6d.) would best meet our correspondent's requirements.

### ARSENIC IN COAL TAR SOAP.

G.D.—There is no reason for supposing that coal tar soap contains any arsenic beyond the minute traces that are to be found in most materials containing, or made from, commercial alkali; there can be no doubt that the principal makes of this soap do not contain more than such negligible traces. It is quite practicable to detect the presence and determine the amount of arsenic, even if the quantity be very small indeed.

### OPHTHALMOSCOPIC LAMP.

MR. CLEMENTS HAILES, Consulting Surgeon to the Bristol Eye Hospital, writes to call attention to an ophthalmoscopic lamp designed by himself, which he thinks would meet the requirements of the correspondent who recently asked for such a lamp for use in school examinations. The light is furnished by an electric lamp to which the current is supplied by an accumulator or portable dry battery. The lamp is made by King and Co., Park Row, Bristol, who will supply one on trial to medical men. The apparatus consists of a metal cylinder attached by a clip to the ophthalmoscope by a jointed arm. In the top of the cylinder is a convex lens of 1 in. focus, and in the bottom an Osram surgical bulb lamp. The jointed arm allows the rays to be focussed accurately on the mirror; if pulled out it can be used for focal illumination or any examination requiring a powerful ray of light. The attachment can be used for examination by the direct or indirect method without changing the position of the mirror.

### TEXTBOOKS IN GENERAL USE FOR THE M.B., B.S.LOND.

DR. ALLAN C. PARSONS (N. Nigeria).—Our correspondent will doubtless find books that will meet his requirements from the following list:

MEDICINE.—*The Principles and Practice of Medicine.* By W. Osler. Seventh edition. (London: Appleton and Co., 1909, 21s.) *A Manual of Medicine in Five Volumes.* By W. H. Allchin. (London: Macmillan and Co., 1903, 10s. each.) *A Manual of the Practice of Medicine.* By F. Taylor. Eighth edition. (London: J. and A. Churchill, 1908, 16s.) *A Manual of Medicine.* By T. K. Monro. (London: Baillière, Tindall, and Cox, 15s.) *A Manual of the Practice and Theory of Medicine.* By Sir W. Whitla. In two volumes. (London: H. Renshaw, 1908, 32s.) For reference purposes: *A System of Medicine.* By Sir Clifford Allbutt and H. D. Rolleston. (London: Macmillan and Co., Limited, 1910, 25s. each.) *A System of Medicine.* By W. Osler and T. McCrae. (London: H. Frowde, and Hodder and Stoughton, 1909, 30s.)

SURGERY.—*The Practice of Surgery.* By W. G. Spencer and G. E. Gask. (London: J. and A. Churchill, 1910, 22s.) *A Manual of Surgery for Students and Practitioners.* Seventh edition, University Series. By W. Rose and A. Carless. (London: Baillière, Tindall, and Cox, 1908, 21s.) *Manual of Surgery.* By A. Thomson and A. Miles. In two volumes: Vol. I, General Surgery; Vol. II, Regional Surgery. Third edition. (Edinburgh, Glasgow, and London: H. Frowde, and Hodder and Stoughton, 1909, 10s. 6d.). For Operations: *Manual of Operative Surgery.* By H. J. Waring. Third edition. Oxford Medical Publications. (London: H. Frowde, and Hodder and Stoughton, 1909, 12s. 6d.) *A Manual of Operative Surgery.* By Sir F. Treves and J. Hutchinson. In two volumes. (London, New York, Toronto, and Melbourne: Cassell and Co., 1910, 36s.) *A Manual of Surgical Treatment.* In six parts. By W. W. Cheyne and F. F. Burghard. (London: Longmans, Green, and Co., 1903, 21s. each.) *A System of Operative Surgery.* In four volumes. By F. F. Burghard. (London: H. Frowde, and Hodder and Stoughton, 1909, 36s. per vol.) The larger English textbooks of surgery are out of date, but *Surgery, its Principles and Practice*, by W. W. Keen and J. C. Dacosta; in five volumes (Philadelphia and London: W. B. Saunders Co., 1909, 50s.) is popular.

BACTERIOLOGY.—*A Manual of Bacteriology, Clinical and Applied.* By R. T. Hewlett. Third edition. (London: J. and A. Churchill, 1908, 10s. 6d.) *Manual of Bacteriology.* By R. Muir and J. Ritchie. Fifth edition. (London: H. Frowde, and Hodder and Stoughton, 1910, 10s. 6d.)

CHILDREN'S DISEASES.—*Lectures on Diseases of Children.* By R. Hutchison. Second edition. (London: E. Arnold, 1909, 8s. 6d.) *The Diseases of Infancy and Childhood.* By L. E. Holt. Fifth edition. (New York and London: D. Appleton and Co., 1909, 25s.) *The Diseases of Children.* By J. F. Goodhart and G. F. Still. Ninth edition. (London: J. and A. Churchill, 1910, 15s.) *The Diseases of Children, Medical and Surgical.* By H. Ashby and G. A. Wright. Fifth edition. (London: Longmans, Green and Co., 1905, 21s.)

DERMATOLOGY.—*Diseases of the Skin.* By M. Morris. New edition. (London: Cassell and Co., 1903, 10s. 6d.) *Diseases of the Skin.* By H. Radcliffe Crocker. Two volumes. (London: H. K. Lewis, 1902, 28s.)

FORENSIC MEDICINE.—*Medical Jurisprudence and Toxicology.* By F. J. Smith. Second edition. (London: J. and A. Churchill, 1908, 8s. 6d.) *Forensic Medicine and Toxicology.* By J. D. Mann. Fourth edition. (London: C. Griffin and Co., Limited, 1908, 21s.)

GYNAECOLOGY.—*Gynaecology.* By T. W. Eden. (London: J. and A. Churchill, 15s.) *Diseases of Women; a Clinical Guide to their Diagnosis and Treatment.* By G. E. Herman. Revised edition. (London: Cassell and Co., Limited, 1907, 25s.) *A Short Practice of Gynaecology.* By H. Jellett. Second edition. (London: J. and A. Churchill, 1903, 10s. 6d.) *A Practical Textbook of the Diseases of Women.* By A. H. N. Lewers. Sixth edition. (London: H. K. Lewis, 1903, 10s. 6d.) *Diseases of Women.* By J. Bland-Sutton and A. E. Giles. Sixth edition. (London: Rebman Limited, 1909, 11s.)

HYGIENE.—*Hygiene.* By J. L. Notter and R. H. Firth. Sixth edition. (London: Longmans, Green and Co., 1905, 4s. 6d.) *Hygiene and Public Health.* By L. C. Parkes and H. R. Kenwood. (London: H. K. Lewis, 1907, 10s. 6d.) *Hygiene and Public Health.* By B. A. Whitelegge and G. Newman. New edition. (London: Cassell and Co., 1908, 7s. 6d.)

OBSTETRICS.—*A Manual of Midwifery.* By T. W. Eden. Second edition. (London: J. and A. Churchill, 1908, 12s. 6d.) *Difficult Labour, a Guide to Its Management for Students and Practitioners.* By G. E. Herman. (London, New York, Toronto, and Melbourne: Cassell and Co., Limited, 1910, 12s. 6d.) *A Short Practice of Midwifery. For Nurses as Used in the Rotunda Hospital, Dublin, for the Past Ten Years.* By H. Jellett. Third edition. (London: J. and A. Churchill, 1908, 6s. 6d.) *The Practice of Midwifery.* By A. F. Galabin and G. Blacker. Seventh edition. (London: J. and A. Churchill, 1910, 18s.)

PATHOLOGY.—*The Principles of Pathology.* By J. G. Adami. In two volumes. Vol. i, General Pathology; vol. ii, Systemic Pathology. (London: H. Frowde, and Hodder and Stoughton, 1909, 30s. each.) *A Manual of General or Experimental Pathology.* By W. S. Lazarus-Barlow. Second edition. (London: J. and A. Churchill, 1903, 21s.) *Pathological Anatomy and Histology.* By W. S. Lazarus-Barlow. (London: J. and A. Churchill, 1903, 24s.) *Introduction to Pathology and Morbid Anatomy.* By T. H. Green. Tenth edition revised by W. C. Bosanquet. (London: H. Renshaw, 1905, 18s.) *Pathology: General and Special.* By H. T. Hewlett. (London: J. and A. Churchill, 10s. 6d.)

TROPICAL DISEASES.—*Tropical Diseases.* By Sir Patrick Manson. New edition. (London: Cassell and Co., 1903. 10s. 6d.)

## LETTERS, NOTES, ETC.

### A BICYCLE APPLIANCE.

AN appliance recently submitted to our examination is worth noting by medical men who use bicycles much in the course of their work. It is a device for carrying bags and small parcels in such fashion as not to incommode the rider, or make mounting difficult, or alter the natural balance of the machine. Its construction is of the simplest character, a piece of thick steel wire being doubly twisted on itself so as to form a collar round the steering pillar and two deep hooks which rest in front of the handles. It is as easy to take off as to put on. The inventor and manufacturer is Mr. T. Mapleston, 50A, Lambrook Terrace, Fulham Palace Road, S.W. The price is 6½d.


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NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

# The Second Hunterian Lecture

ON THE

# RESULTS OF THE SURGICAL TREATMENT OF DISPLACED SEMILUNAR CARTILAGES OF THE KNEE.

DELIVERED BEFORE THE HUNTERIAN SOCIETY OF LONDON, JANUARY 11TH, 1911.

BY

D'ARCY POWER, F.R.C.S.ENG.,

SURGEON TO AND LECTURER ON SURGERY AT ST. BARTHOLOMEW'S HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—When I was honoured with the request to give the Hunterian Lecture I accepted the task gladly because it gave me an opportunity of laying a tribute of respect at the feet of John Hunter, the great master to whom every scientific surgeon owes a debt of gratitude which is none the less real because it is somewhat hidden by the lustre which the work of Pasteur and of Lister has shed over our art.

## HISTORICAL.

I felt it was desirable to choose a subject which should be at one and the same time Hunterian and yet capable of treatment upon modern lines, and for this reason I chose "Displacement of the Semilunar Cartilages of the Knee and the Results of Surgical Treatment." The subject is a part of the larger question of the diagnosis and treatment of loose bodies in joints, and this question, we know, occupied Hunter's thoughts during the last years of his life. His observations on loose cartilages found in the joints, and more especially in the knee, are set out in a paper by his unworthy brother-in-law, Everard Home, in the *Transactions of a Society for the Improvement of Medical and Surgical Knowledge* (vol. i, p. 229). This communication was made in the year 1793, and John Hunter died on October 16th, 1793, "on the same day, and perhaps hour, that the unfortunate Marie Antoinette, Queen of France, was beheaded in Paris." It is probable, therefore, that Everard Home's paper embodies Hunter's latest thoughts, which we now know to be incorrect because they were based upon an imperfect pathology. "Hunter was led to consider the formation of loose cartilages found in joints," says Home, "in the course of his experiments and observations instituted with a view to establish a living principle in the blood." As a result of his experiments Hunter was led to believe that "extravasated blood, when rendered an organized part of the body, can assume the nature of the parts into which it is effused; and consequently the same coagulum which in the abdomen formed a soft tumour, when situated on a bone or in the neighbourhood of bone forms more commonly a hard one. The cartilages found in the knee-joint, therefore, appeared to him to originate from a deposit of coagulated blood upon the end of one of the bones, which had acquired the nature of cartilage and had afterwards been separated. This opinion was farther confirmed by the examination of joints which had been violently strained or otherwise injured, where the patients had died at different periods after the accident. In some of these there were small projecting parts, preternaturally formed, as hard as cartilage, and so situated as to be readily knocked off by any sudden or violent motion of the joint. This opinion Mr. Hunter maintained for many years in his lectures, and his arguments in favour of it are so consonant to the general laws by which the operations of the animal machine are regulated as scarcely to require further evidence." We know now that Hunter's conclusions are incorrect because his premisses were faulty, but it needed a more perfect microscope and the work of George Rainey (1801–84) at St. Thomas's Hospital before the real pathology was known.

Hunter dealt solely with loose cartilages in joints. His work was carried a step further by William Hey (1736–1819), the great Leeds surgeon, who had been a pupil at St. George's Hospital during the most fruitful period of Hunter's life. Writing in 1803, Hey says: "The existence of loose cartilaginous substances in the joint of the knee has been noticed by several modern authors. The method of extracting these substances and of treating the patient after the operation has been described by Mr. (William) Bromfield (1712–92), and by Mr. (Edward) Ford in the fifth volume of *Medical Observations and Inquiries*. This operation is considered by those authors as the only method of cure. But, although it has been attended with success, yet, as the late Medical Society has observed, it has sometimes been followed with violent inflammation fever, and death itself." Hey, therefore, recommended the use of "a well-fitting kneecap," observing—very wisely, if the state of surgery in his time be remembered—"it deserves a trial before the dangerous operation of opening the joint is attempted."

It is clear, therefore, that the question of loose bodies in joints and their treatment was exercising the minds of surgeons in London during the last quarter of the eighteenth century, more especially at St. George's Hospital, where both Hunter and Bromfield were surgeons. But Hey went a step further than those who had taught him. He recognized that there was a condition producing symptoms which resembled those caused by a loose cartilage in the knee-joint. This condition had hitherto remained undescribed, and he speaks of it as an "internal derangement of the knee-joint." Mr. Hey points out that the knee "joint is not infrequently affected with an internal derangement of its component parts; and that, sometimes, in consequence of trifling accidents. The disease is indeed now and then removed as suddenly as it is produced by the natural motions of the joint without surgical assistance, but it may remain for weeks or months and will then become a serious misfortune, as it causes a considerable degree of lameness. I am not acquainted with any author who has described either the disease or the remedy. I shall therefore give such a description as my own experience has furnished me with, and such as will suffice to distinguish a complaint which, when recent, admits of an easy method of cure.

"The disorder may happen either with or without contusion. In the latter case it is readily distinguished. In the former the symptoms are equivocal till the effects of the contusion are removed. When no contusion has happened, or the effects of it are removed, the joint with respect to its shape appears to be uninjured. If there is any difference from the usual appearance, it is that the ligament of the patella appears rather more relaxed than in the sound limb. The leg is readily bent or extended by the hands of the surgeon, and without pain to the patient; at most the degree of uneasiness caused by this flexion and extension is trifling. But the patient himself cannot freely bend nor perfectly extend the limb in walking; he is compelled to walk with an invariable and small degree of flexion. Though the patient is obliged to keep the leg thus stiff in walking, yet in sitting down, the affected joint will move like the other.

"The complaint which I have described may be brought on, I apprehend, by any such alteration in the state of the joint as will prevent the condyles of the os femoris from moving truly in the hollow formed by the semilunar cartilages and articular depressions of the tibia. An unequal tension of the lateral or cross ligaments of the joint, or some slight derangement of the semilunar cartilages may probably be sufficient to bring on the complaint. When the disorder is the effect of contusion, it is most likely that the lateral ligament on one side of the joint may be rendered somewhat more rigid than usual, and hereby prevent that equable motion of the condyles of the os femoris which is necessary for walking with firmness."

Hey then gives a detailed account of five cases which he had seen and treated, of which the first was clearly due to a slipping of the external semilunar cartilage; the second, third, and fourth were examples of simple displacement of the internal semilunar cartilage; whilst the fifth, produced by a fall from a horse, was an instance of a torn cartilage. Each of these cases was treated by manipulation, which is described in the following words: "I placed my patient upon an elevated seat, which had nothing underneath it that could prevent the leg from being pushed backward towards the posterior part of the thigh. I then extended the joint by the assistance of one hand placed just above the knee, while with the other I grasped the leg. During the continuance of the extension I suddenly

moved the leg backwards that it might make as acute an angle with the thigh as possible. This operation I repeated once, and, whatever may be thought of my theory, my practice proved successful."

Hey never operated upon any patients with displaced cartilage, and he erred in not following up his cases, for it is certain that if he had done so he would have found his treatment insufficient, because the condition is recurrent, and the mere unlocking of the joint when it has become fixed will only cure in a very small proportion of the most simple cases, unless it is assisted by prolonged rest.

Displacement of the semilunar cartilages of the knee did not excite much attention during the Regency and early Victorian periods. Violent athletic exercises were not indulged in when cricket was played in top hats and football had not yet become a science. The wealthier classes hunted and rode; reading men at the universities walked —the constitutional grind—and talked as they did so; the medical student and man about town played billiards and frequented his favourite bar. Young ladies only took a minimum of outdoor exercise and considered that it was indelicate to have an appetite. They lounged and sewed, read novels and fainted on the smallest provocation. Displacement of the semilunar cartilages of the knee, therefore, was of rare occurrence in a race who hardly ever put any severe strain upon their joints. The rapid spread of cricket, football, cycling, and hockey, with the consequent glorification of athleticism in all its forms, has been attended with a large increase in the number of joint injuries, not only in our public schools, but also amongst the class from whom our hospital patients are drawn. Displacement of the semilunar cartilages has formed such a rapidly increasing proportion of these injuries that I have thought it worth while to call your attention to the subject this evening.

### FREQUENCY.

The records of St. Bartholomew's Hospital show that the knee-joint has been opened 262 times during the last seventeen years in patients who came complaining that they had experienced painful locking of the joint after an injury; 208 of these patients were men and 54 were women. The number of cases has increased steadily from 6 males in 1892 to 23 males and 6 females in 1907, as is apparent from the following table; and I may here express my thanks for the readiness with which my surgical colleagues at St. Bartholomew's Hospital have allowed me to use the notes of the patients upon whom they had operated.

TABLE OF CASES ADMITTED INTO ST. BARTHOLOMEW'S HOSPITAL DURING THE YEARS 1892–1908 FOR ARTHROTOMY OF THE KNEE.

| Year. | Male. | Female. | Total. | Year. | Male. | Female. | Total. |
|---|---|---|---|---|---|---|---|
| 1892 | 6 | 0 | 6 | 1901 | 10 | 2 | 12 |
| 1893 | 6 | 1 | 7 | 1902 | 17 | 5 | 22 |
| 1894 | 7 | 2 | 9 | 1903 | 11 | 1 | 12 |
| 1895 | 5 | 5 | 10 | 1904 | 12 | 4 | 16 |
| 1896 | 7 | 4 | 11 | 1905 | 18 | 3 | 21 |
| 1897 | 8 | 2 | 10 | 1906 | 19 | 5 | 24 |
| 1898 | 13 | 3 | 16 | 1907 | 23 | 6 | 29 |
| 1899 | 13 | 4 | 17 | 1908 | 18 | 2 | 20 |
| 1900 | 15 | 5 | 20 | Total | 208 | 54 | 262 |

I sent a postcard to each of these patients asking them to reply to the following five questions:

1. Has there been any return of the symptoms for which the operation was performed?
2. Is the knee as strong as the other?
3. Can it be straightened and bent as well as the opposite one?
4. Is there any change in its shape or appearance?
5. Is it ever painful?

Two hundred and sixty-two letters of inquiry were sent out, and 128 postcards were received in reply. Subsequent reference to the ward notes at St. Bartholomew's Hospital showed that 89 of these patients had been operated upon for a loose or torn semilunar cartilage, and 1 had subsequently had his leg amputated for malignant disease, making 90 cases in all.

Seven of the 90 cases had had a displacement or injury to the external semilunar cartilage; the remaining 83 had sustained an injury to the internal cartilage.

Twenty were found to have loose cartilages—*Gelenkmause*—in their knees.

Eight were admitted with the symptoms of internal displacement, but for various reasons were not operated upon.

Six had pieces of thickened synovial membrane removed, the fibro-cartilages appearing healthy.

Two were found to have chronic inflammation of the articular cartilages without any injury to the semilunar cartilages.

Two patients had their knees explored for pain and locking of the joint without the discovery of anything to account for the symptoms.

### CAUSES.

An examination of the ward notes of the 90 patients who were found by operation to have suffered some change in the semilunar cartilages shows that the cause was nearly always an injury. One case, however, was idiopathic, and proved to be a pathological curiosity. The specimen is thus described in the Catalogue of the Pathological Museum at St. Bartholomew's Hospital:

No. 569 f.—The half of a left knee-joint showing a sarcoma, apparently originating in the synovial membrane and filling the pouch underneath the quadriceps extensor muscle. The whole joint is surrounded by an envelope of grey friable growth intersected by fibrous septa. Embedded in this tissue on the anterior aspect of the joint lies the shell of the patella. The blue glass rod indicates the line of this extension. The crescentic excavation seen upon the anterior articular surface of the femur represents an area in which the neoplasm has destroyed the bone. A tapering prolongation of the growth passes backwards between the articular surfaces of the femur and tibia, and has practically destroyed the articular surface of the latter. On the outer aspect of the specimen part of the capsule of the joint has been removed to expose the growth beneath it.

Microscopic examination shows that the tumour is a spindle-celled sarcoma.

Removed by amputation from a man aged 31 years. At the age of 22 he was admitted to the hospital on account of a pain in the left knee and occasional locking of the joint, to which he had been subject for seven months. The anterior three-quarters of the left internal semilunar cartilage was removed, but the knee remained stiff. Two months later the knee was wrenched under an anaesthetic, but without benefit. Since the date of this operation—that is, for nine years—the knee had remained stiff and swollen. A second operation was undertaken five years after the first. The scar of the old wound was explored, and some pieces of cartilage were removed from beneath it. For twelve months the patient had noticed a rapid increase in the size of the joint, and suffered much pain in it. A skiagram taken three months before the amputation showed that the patella was pushed forwards but was not involved. A later skiagram showed the excavation of the patella.

The injury is nearly always the result of a sudden movement of rotation whilst the knee is in a state of partial flexion. Football, cycling, and gymnastics appear to be the most common causes of the accident, which is, therefore, most common in young adults. Direct injury to the knee, as in striking it against a gate or falling through the rungs of a ladder, are also given as causes by some of the patients, whilst in a few cases the actual cause has been so slight as to pass unrecognized.

### SYMPTOMS.

The injury is followed at once by a painful locking of the joint, which is usually sufficient to bring the patient to the ground. This painful locking may be only temporary, when the patient is able to limp home, or the joint may remain fixed in a state of flexion or extension for several days, or until it is set free by skilled manipulation. There is always some synovitis, and it is characteristic of the lesion that it is recurrent.

### DIAGNOSIS.

The diagnosis, therefore, should not be difficult, but an examination of the notes shows that the condition is usually considered and treated as a sprain rather than as an injury to the semilunar cartilages. The patient is put to bed in the more severe cases, and a water dressing is applied, but no attempt is made to reduce the displaced cartilage. The synovitis subsides for a time, but the knee

remains stiff or weak. A back-splint or a plaster-of-Paris case is ordered, and the patient is able to move about in comfort so long as the leg is kept straight, but the symptoms return with greater or less severity when the apparatus is discarded. The patient and his doctor then realize that the injury is more than a sprain, and that some active treatment must be adopted if the limb is to be made useful again. The recurrence of the symptoms, and especially the painful locking of the joint, is a marked sign of a displaced or torn semilunar fibro-cartilage, and the occurrence of these signs is a great help in the diagnosis. A sprain leaves a synovitis and weakness of the joint, but it does not cause repeated immobility with intervals of comparative or perfect freedom of movement. Here are one or two of the cases chosen at random to illustrate these points:

### ILLUSTRATIVE CASES.

*Case 1.*

R. W., aged 28, says that his right knee gave way under him whilst vaulting in a gymnasium; two years ago he was kicked by a horse on his right knee. The knee has locked three times in his sleep since the last accident, and has had to be pulled straight; it then goes into place with a click. On more than one occasion it has let him down in the street, and the leg is then fixed in a state of full extension. Examination of the joint after arthrotomy showed that the anterior portion of the internal semilunar cartilage was loose. It was removed, and four years afterwards the patient replies that he has a perfectly strong and useful joint, which is painless.

*Case 2.*

T. G. N., aged 19, ricked his knee at a gymnasium eighteen months before admission. He was laid up for one month. The joint has locked about half a dozen times since the accident; on each occasion it has remained flexed for about ten minutes. The internal semilunar cartilage was found to be detached at its anterior end, the loose extremity being doubled backwards into the joint. The loose cartilage was removed. Six years later the patient expressed himself absolutely satisfied with the result.

These cases are satisfactory, and were straightforward from beginning to end. The following are examples of a more rare condition:

*Case 3.*

E. G., aged 19, was admitted complaining that his right knee had suddenly bent under him and had become locked whilst he was in the act of turning round quickly. He had previously wrenched it on two or three occasions whilst playing football. The joint became locked in September, 1900, and remained bent and immovable until it was reduced under an anaesthetic three days later. A similar accident happened in November, 1900, and an anaesthetic was again necessary, and in June, 1901, chloroform had to be given to release a third attack. Flexion of the joint, as in kneeling, led to fixation of the joint. Examination revealed a tender spot on the inner side of the knee over the head of the tibia, and the joint was in a state of synovitis. At the operation the inner border of the semilunar cartilage was found to be torn away, so that it rested upon the outer edge of the fibro-cartilage. The patient writes in 1910: "Am pleased to say that my knee is as strong as my other one, and is never painful."

The next two cases show that, unless care is taken to examine the semilunar cartilage, it may be insufficiently removed and the symptoms may recur after an operation has been performed:

*Case 4.*

C. L., aged 22, wrenched his knee at football in September, 1900, and an operation for removal of the internal semilunar cartilage was performed in November, 1900. The knee became troublesome again in February, 1901, and it locked once or twice. A further examination was made on May 18th, and two strips of the internal semilunar cartilage were removed. It is probable, therefore, that the cartilage had been torn horizontally into three strips. I have been unable to obtain further tidings of this patient.

*Case 5.*

D. J., aged 21, was admitted in January, 1898, on account of a painful locking of his knee, which he had wrenched at football. The joint was examined and a part of the internal semilunar cartilage was removed. The symptoms recurred three months later, and the joint gradually became flexed and could not be straightened The patient was readmitted to the hospital in December, 1900, and a crescentic piece of the internal semilunar cartilage was removed, showing that the original tear had been circumferential. In 1910 the patient replied that the joint is still painful and not as strong as the other.

### MORBID ANATOMY.

Examination of the notes of the cases appears to show that the severity of the injury bears no direct relation to the condition in which the cartilage will be found at the subsequent operation. In the simplest cases the wrenching of the joint may produce a mere slipping of the cartilage due to a tearing of the fibres of the coronary ligament which attaches it to the head of the tibia. The slipping may vary from a simple loosening of the central portion of the cartilage—the extremities remaining attached—to a complete displacement inwards of the entire cartilage. When the ends of the cartilage remain attached the movements of the knee are hampered by a sense of insecurity, but there is no actual locking. A displacement of the cartilage at its anterior extremity without actual tearing may cause a temporary fixation of the joint, which the patient soon learns the trick of relieving for himself. These cases, therefore, do not come under the cognizance of the surgeon, for the patient continues his occupation, only complaining to his friends that he has got a weak knee, which sometimes lets him down.

In other cases the semilunar cartilage may be torn across, the injury usually taking place in the anterior third. The torn ends may lie flat and in good apposition when there is no more inconvenience than if the cartilage had merely slipped. Some day, however, a slight additional wrench leads to a displacement of the ends which had previously lain in apposition, and there is then so much interference with the action of the joint that the aid of the surgeon is soon invoked.

The torn ends of the cartilage are sometimes twisted upon themselves, so that one or other piece lies vertically, instead of horizontally, in the joint. Such a specimen is preserved in the museum of the University College Hospital, and it is the only preparation I know of which shows the *post-mortem* appearances of a torn and displaced semilunar fibro-cartilage in the knee. Mr. Godlee described the specimen in the *Illustrated Medical News* (September, 1888, p. 9) in the following words: "The circumference of the fibro-cartilage has been torn away from its attachment to the capsule of the joint, and it now occupies a vertical position in the intercondyloid fossa. The displacement must have occurred some time before the death of the individual, for the fibro-cartilage remains stiffly in its present position, and appears to have somewhat shrunk from its natural size; it is also obviously flattened by the pressure of the inner part of the condyle. At the same time the inner surface of the capsule is smooth, and it will be observed that the cartilages on the femur and tibia show no signs of alteration, except a little change due to chronic rheumatic arthritis, which, it should be observed, occurs at a point on the tibia which, under ordinary circumstances, would have been protected from friction by the semilunar cartilage." (See figure, p. 64.)

The specimen was obtained by Professor G. D. Thane, F.R.C.S., from the anatomical stores at University College, so that, unfortunately, no history of the clinical symptoms is obtainable. Commenting on the appearances presented by this preparation, Mr. Godlee says: "Looked at from an anatomical point of view, it would seem most likely that the external and not the internal fibro-cartilage should be the one to slip; for it will be remembered that the cartilages are retained in position chiefly by means of their attachment to the capsular ligament of the joint. Now, the shape of the external cartilage being that of a large segment of a small circle, as compared with that of the internal, which forms a small segment of a larger circle, it follows that the anterior and posterior extremities of the external reach a position near the centre of the joint, being attached in fact immediately in front of and behind the two pieces of the spine on the upper surface of the tibia. The external cartilage has thus a much less extensive attachment to the capsule of the joint than the internal, and is consequently much more movable.

"The sheath of the tendon of the popliteus again communicates, often in two places, with the capsule of the joint beneath the external semilunar cartilage, that communication which is constantly found being to the outer side, that which occasionally occurs at the back of the joint. This greatly diminishes the extent to which the cartilage is attached to the capsule. It is also possible that this cartilage is liable to irregular movements from the fact that the tendon of the popliteus muscle has a not inconsiderable attachment to it. But be this as it may, it appears actually to be the internal which most usually suffers displacement—that is, if we are to accept all recorded cases as authenticated, a position I should be

very sorry to occupy when it is remembered how readily loose cartilages in joints, strains, etc., may be mistaken for this not easily diagnosable condition.

"How the accident occurs is very much a matter of conjecture. The most common form of injury appears to have been a blow upon the toes when turned outwards, or a twist inwards of the foot, but it is probably produced in a number of different ways. I would merely point out how comparatively free is the movement of the tibia laterally over the condyles of the femur when the joint is flexed, especially in loose-jointed people, and that this movement of the tibia is more free towards the inner than towards the outer side. Of course, the cartilages move with the tibia, and it seems to me quite comprehensible that when the external cartilage is drawn already well forward towards the inner part of the outer condyle of the femur a sudden jerk or twist might force it still further and cause it to pass actually outside the circumference of the cartilage—that is, either in front of or behind it. This would be very likely to rupture the attachment of the capsule and to drive the cartilage into the position" shown in the specimen.

Mr. Robert Jones[1] has recently made a careful study of derangements of the knee-joint, and he points out that "the displacement or fracture of the internal semilunar cartilage can only take place when the internal lateral ligament is stretched or ruptured. This allows a separation of the joint surfaces and a slipping inwards of the cartilage; as the separate bones snap back the cartilage is nipped and the knee is fixed in a very painful manner. The pain and effusion can be ascribed to injury of the synovial membrane with which the cartilages are covered."

The injuries sustained by the semilunar cartilages, however, are not always simple displacements and laceration, for the cartilage may be torn into so many fragments that it has to be removed piecemeal, or, more remarkable still, it may be literally torn into ribbands, as in the cases whose notes have already been read, and so long as the pieces lie side by side and do not overlap or project, the more complicated injuries do not necessarily give rise to troublesome symptoms.

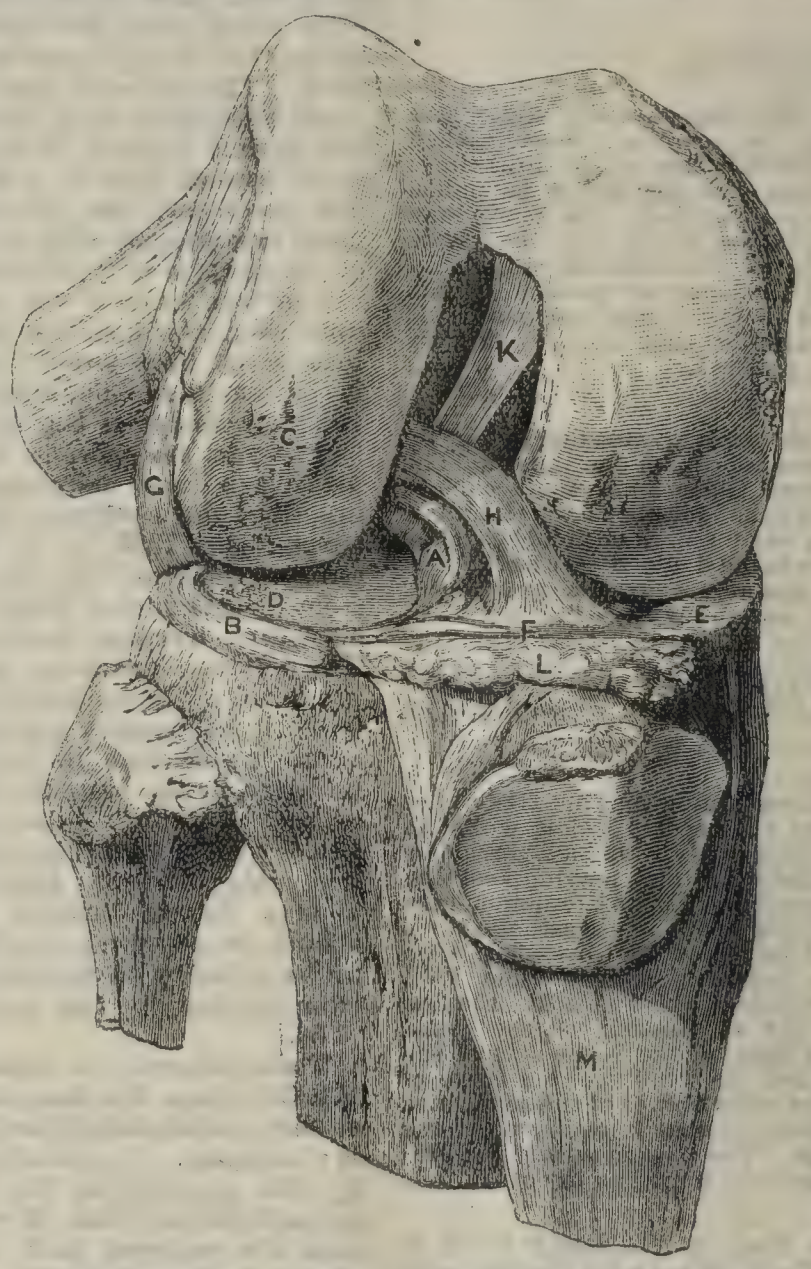


Fig. 1.—Dislocation of external semilunar fibro-cartilage of knee. A, External semilunar cartilage; B, outer part of capsule, from which the cartilage has been torn; C, patch of erosion from chronic rheumatic arthritis on condyles of femur; D, patch of erosion from chronic rheumatic arthritis on that part of the tibia on which the semilunar cartilage originally lay; E, internal semilunar cartilage in the natural position; F, transverse ligaments; G, tendon of popliteus muscle; H, anterior crucial ligament; K, posterior crucial ligament: L, infrapatellar mass of fat; M, tendon of triceps extensor cruris. (From a drawing kindly lent by Mr. Rickman J. Godlee, F.R.C.S.Eng.)

It has already been pointed out that an examination of the records of many cases shows that the amount of violence causing the displacement is no guide to the condition in which the cartilage will be found. A simple wrench or twist is found in some cases to have produced complicated lacerations, although in theory they should only have led to a simple displacement. The signs, therefore, are of much greater importance to the surgeon who is called upon to decide whether or not an operation is desirable than the history of the accident, although it is often difficult to persuade the patient or his medical adviser that such a trivial accident as a slip on the stairs or on the polished floor of a ballroom can produce a more serious laceration of the semilunar cartilage than a wrench in the football field. It is quite impossible, too, to forecast the amount of pain which follows upon these injuries. I thought at first that the pain would be most marked when the cartilage was torn so that the edges overlapped, but examination of the notes showed that this is not necessarily the case. The locking of the joint was sometimes quite painless, even when the cartilage was afterwards found to be lying edgeways in the joint, whilst in other cases the pain was excessive when there was only a slight displacement of the cartilage. But pain is wholly subjective, and it is quite possible that a healthy young football-player does not feel pain more acutely than an ardent believer in Christian Science. The limitation of movement is sometimes in flexion and sometimes in extension, the limitation being usually more marked when the cartilage is torn and the edges are displaced than where it has merely slipped.

### DIFFERENTIAL DIAGNOSIS.

The mistakes which are likely to be made in diagnosis are well exemplified in the notes of the 128 patients whose cases I have examined, and whose knees had been explored for painful locking of the joint. It should be remembered that each of these patients came under the observation of a highly skilled surgeon, who made his diagnosis carefully and after personal examination of the joint in the presence of numerous medical students. In spite of this 20 of the cases proved at the time of the operation to be suffering from nodules of loose hyaline cartilage, and not from injury to the semilunar fibro-cartilage. I am interested, in reading the notes of these 20 cases, to observe how frequently the patient dated the onset of his symptoms to an injury of the joint on a given day, just as he would have done had he displaced one of his cartilages. It seems, therefore, as if an injury to the joint may sometimes be the starting point of a series of changes in the synovial membrane, which lead ultimately to the formation of a "*Gelenkmaus*." These changes may lead to a multiplication of Rainey's corpuscles in the synovial fringes or to exfoliation of portions of the articular cartilages themselves — sometimes of the femur, more rarely of the patella, most rarely of the tibia. The diagnosis is easy when the loose cartilage can be felt within the joint, but when it is imperceptible and the patient dates all his symptoms to an accident on a given day it is pardonable to diagnose the condition as being due to a change in the interarticular cartilage. As a general rule, when a semilunar cartilage has been torn the interference with the movements of the joint is well marked from the time of the accident, whilst in loose hyaline cartilages following an accident there is generally an interval during which the joint appears normal after the effects of the sprain have passed off, and the locking only becomes a marked feature at a much later period. In an injured semilunar cartilage there is often a tender point to be elicited by pressure over the head of the tibia on the inner or the outer side, and this is absent in cases of loose nodules of hyaline cartilage.

In like manner an injury to the knee may be followed by a chronic inflammation of one or more of the synovial

fringes. These thickened fringes interfere with the movement of the joint, and thus lead to a diagnosis of slipped cartilage. Such a mistake was made in 6 of the 128 cases, and it is difficult to know how it could have been avoided. An injury leads to an effusion of blood into a synovial fringe, the blood becomes organized, and is replaced by a nodule of fibrous tissue. This nodule becomes pedunculated, and may then cause locking of the joint by slipping between the articular surfaces. I have already given details of a case in which a slipped cartilage was associated with sarcoma of the synovial membrane, and in 2 cases the symptoms of displaced semilunar cartilage were found to be connected with a chronic inflammation of the synovial articular cartilages due, perhaps, to early tuberculous disease. In two cases also the joint was thoroughly explored, only to find that there was nothing to account for the symptoms of which the patient complained.

### PROGNOSIS.

When a semilunar cartilage has been displaced in the knee it may become fixed again, just as an injured tissue in any other part of the body may repair itself. It is necessary, however, that the injury should have been of the nature of a displacement of the cartilage or of a tear without displacement of the torn ends. The displaced cartilage must first be replaced accurately in apposition, and the limb must then be kept fixed until time is given for repair. Too often the patient's knee is fixed without any attempt being made to replace the cartilage, and the joint is then left under the same conditions, though in a minor and concealed form, as if there had been an unreduced dislocation.

In these cases and in the more serious injuries the joint remains weak and may become a source of danger on account of the liability to a recurrence of the locking, which occurs suddenly, and may happen when the patient is in a dangerous position, as in crossing a crowded street, getting out of a train before it has stopped, or swimming in deep water. The prolonged displacement of a semilunar cartilage may lead to erosion of the articular cartilage at the point where it rubs, but this is not of frequent occurrence, for many of the notes state expressly that the articular cartilages were healthy, even when there had been repeated attacks of pain with fixation, lasting over several years, before the patient was submitted to an operation.

### TREATMENT.

The treatment should be carried out in accordance with the prognosis. It is impossible to tell what injury the joint has suffered directly after the accident. The immediate treatment, therefore, consists in such manipulation of the joint as will restore its perfect freedom of movement to the satisfaction both of the patient and of the medical man. Mr. Robert Jones[2] points out that the proper manipulation is "acute flexion, lateral deviation and rotation inwards, and full extension." "Acute flexion is always painful, but it is the only position where internal rotation of the tibia is most free; lateral deviation separates the bones which hold the cartilage, and full extension allows of the readjustment and places the limb in such a position as to permit of accurate union of the internal lateral ligament." The joint is then fixed in a state of full extension until the effusion subsides, after which the patient is allowed to walk, precautions being taken to prevent any lateral strain.

### RESULTS OF OPERATION.

I am not especially concerned this evening with the treatment of these cases in the early stage, for they rarely come under the observation of the surgeon, and a considerable proportion are cured. An operation is needed when the recurrent attacks of painful locking are so numerous as to make the patient's life a burden, and when, by reason of his occupation—a cavalryman, an omnibus conductor, or a sailor, for instance—it is impossible for him to earn a livelihood when the movements of his joint are restricted. The operation is not uncommon, as I have already shown, and I thought it would be interesting to know what the results were when the patient had been deprived of a semilunar cartilage for some length of time.

The patients operated upon for removal of the internal or external semilunar cartilage who replied to my questions numbered 89. Their answers can be tabulated in the following form:

*Question 1.*—Seventy-three patients replied that they had experienced no return of the symptoms for which the operation was performed; 16 stated there had been a recurrence.

*Question 2.*—Fifty patients said that the knee from which the cartilage had been removed was as strong as the other; 39 said that it was weaker.

*Question 3.*—Seventy-seven patients declared that the movement of the joint was perfect; 12 said that the movement was impaired, but in 8 of these cases the movement was only hampered when kneeling, and was free for all other purposes.

*Question 4.*—Sixty-eight patients reported that the shape of the knee was unchanged, whilst 21 thought that the shape was altered.

*Question 5.*—In 43 cases the knee was absolutely painless, in 11 cases the knee was only painful at a change of weather, but in 35 cases the joint was said to be painful.

Some valuable information as to the results of the operation can be obtained from these replies. Some of the replies come from patients who were operated upon as far back as 1893 and in no case was the operation more recent than 1903. I wished to know the results when a sufficient time had elapsed to test them thoroughly, and I did not apply for information, therefore, until at least two years had elapsed.

The returns as to recurrence of the symptoms after operation were most satisfactory, since 73 out of 89 patients had been permanently relieved. Of the remaining 16, one, perhaps with some infusion of Irish blood in his veins, writes that he is "not shure" whether he has had any return of a painful locking of the joint; another has "a slight grating in the joint at times"; a third says, "I was nearly fix this year through lifting a box;" a fourth writes that he was "laid up for a fortnight through its slipping out"; a fifth, that "once I twisted it, it swelled up but it gone down." Another replies, "Yes, the cartilage has slipped since then on one or two occasions," and another, "Yes,—on two or three occasions (serious)—often slightly"; and yet another, "Yes, at intervals, but I return it to its position after a few hours." A patient writes that he was "operated upon five years ago, with a return of the symptoms twelve months afterwards." Another complains that "the symptoms recur if he knocks his toes against anything that turns them inwards," and another replies in almost similar words that "if he knocks his toes against anything that turns them outwards the feeling is just the same as if it was coming out again." Both these patients had their internal semilunar cartilages removed.

One patient was frankly dissatisfied with the result, and one lives in dread, for he answers the question, "Has there ever been any return of the symptoms for which you were operated upon?" with, "No, sir; it has not gone out of place yet, but it feels sometimes as if it will." A medical man replies: "No, but the tibia tends to rotate more freely on the femur than normal." The rest of the patients content themselves with saying that there has been no recurrence, but give no details.

The second question was asked to ascertain whether the knee was a useful joint after the semilunar cartilage had been removed. The replies show that a really useful limb was obtained in most cases. One patient replies: "I have to-day swum in the long-distance championship, and felt no trouble from my leg" (the operation was performed in February, 1907), and he further volunteers the statement: "I also play football, cricket, and nearly all other sports." Another patient, operated upon in November, 1899, says: "I have played football every season since." Patient No. 49 writes: "Previous to the operation I could hardly walk with safety, but since then I have continually played football"; and similar testimony to the utility of the joint is borne by the answer: "Can walk ten or twelve miles without getting tired."

The following answers, on the other hand, show that the operation has not been quite so successful, although the patients are satisfied with the results. The answers are given in reply to the question, "Is the knee as strong as the other?" "Yes, for all normal uses," says one. "Yes, for every ordinary purpose; but a slight weakness under a strain—for example, ski-ing," says another. "Yes, as regards walking; not as regards a sideways strain," replies a third.

Some of the patients who felt that the knee was not so strong as the uninjured one say: "It seems to go with a

click if I knock it against anything all of a sudden"; "not so strong after a heavy day's work or an extra exertion at footballing"; "No, at times it seems brittle and ready to snap on pressing back." The same idea expressed in different words is given by another patient, who replies, "No, when bent and the weight of the body is thrown upon it, it feels weak and is unreliable."

The unsuccessful results are told in the following words: "Weak, always have to keep it bandaged"; "The knee is not quite as strong as the other, it gave way badly whilst running a month ago"; "No, it don't seem to have the same power in it." "Is the knee as strong as the other? No, not nearly." And another patient writes: "No, I have not had proper use in it since the operation was performed." I invited this patient to come and see me, as his notes stated that he had left the hospital with a useful knee. He came from a workhouse, and had managed to obtain more beer on the way than was good for him. Examination of the joint showed that he had full flexion and extension, but the joint was the seat of commencing osteo-arthritis.

Question 3 asked whether movement of the joint was interfered with by the operation, and the answers are particularly satisfactory. Nearly all the patients reply without any qualification that the movements of flexion and extension are perfect. With the exception of the patient whose leg was afterwards amputated for sarcoma of the synovial membrane, no patient has had a permanently stiff joint after operation, though one says that he "had a rare job to get proper movement after I left the hospital, the knee being so stiff, but I persevered, with good results, and I can now run, jump, cycle, or play football as well as ever I did, and not feel any inconvenience." Another patient writes, "It never works freely at any time, much worse sometimes than others." It is evident from the replies that flexion is more hampered than extension. Thus one patient writes in reply to the question, "Can the knee be straightened and bent as well as the opposite one?" "Yes, if not bent too suddenly." Others write, "Yes, but I cannot kneel on this knee"; "Cannot bend it quite so much"; "No, not bent so well"; "No, I cannot bend it the same as I can the other one, but it can be straightened as well"; "Yes, if no weight is upon it, but at all times when bent beyond a certain point it 'crackles.'" Only one patient complains that movement is attended with pain, and no one finds any difficulty in straightening the leg.

I expected some interesting replies to Question 4: "Is there any change in the shape or appearance of the knee?" because I thought that removal of the interarticular fibro-cartilage would necessarily be associated with a change in the aspect of the joint, either in the direction of its axis or from secondary and compensatory changes. No such alteration seems to have occurred. Most of the patients reply "No" categorically. One patient says that the knee is inclined to bend inwards, a second that the knee is not much changed, but it seems to be more inward than the other, a third that "the outside of the joint is rather larger," and a fourth that the knee protrudes inwards. Other patients who have noticed some change of shape merely reply that there is some alteration, but give no details. It may be assumed, therefore, that no important change takes place in the appearance of the joint as a result of removing the semilunar cartilage in the knee.

Question 5 has brought out the most unsatisfactory result of the operation. No less than 46 patients out of the 89 whose replies are tabulated state that they have had more or less pain. The pain was slight and of a rheumatic character in 11 of these cases, for it only occurred when the weather changed and the patients made light of it. Indeed, in the majority of the other cases it does not seem to have been very severe, but some of the patients replied as follows: No. 60 says, "There is pain when a strain is put on the knee such as going up steps and at a change of weather." No. 52 says the knee is "very painful at times, especially if it is pressed against anything." No. 25 replies, "Yes, if I attempt to turn round with my foot fixed on the ground." No. 62 answers, "Not unless slightly knocked." Another patient says that his knee is "painful occasionally when tired or after rough walking"; and this is corroborated by another patient who writes, "Yes, lately the knee is very painful when walking and I have to walk very slowly." No. 12 writes that his "knee is painful two or three times a day," and No. 20 that "it is very painful at times." The drunken reprobate, to whom I have already alluded, wrote, "it is so painful at times that I have to stand on one leg."

The general results are well summed up by a medical man whose internal semilunar cartilage was removed in August, 1905. He is well qualified to give an opinion, as he is the medical officer of a large public school in England. He writes on July 26th, 1910: "(1) I have had one attack of traumatic synovitis since the operation. (2) There is a considerable difference in the strength of the two knees and in their muscular development (the measurement is 1 in. less on the injured side), but I can play at fives and do gymnastics freely. (3) The joint straightens completely, but flexion is incomplete—about 45 degrees—and I cannot kneel on it for any length of time. (4) The osteo-arthritic changes present before the operation have not increased, as I had feared. From time to time I still get creakings on moving the joint, suggesting some thickened synovial tags. (5) I have had one sudden and sharp attack of pain whilst serving at tennis this summer, but it was only momentary, and was not followed by any effusion. I consider the operation has been the greatest boon to me both as regards my work and exercise. . . . I urged the surgeon to operate against his better judgement because I was so sick of being continually laid up, and I was ready to run any risk."

The notes of his case say that he was 32 at the time of the operation, and had injured his knee at football eleven years previously, The injury is described as a severe strain on the inner side of the left knee, which was followed by repeated attacks of pain with effusion. Eighteen months after the injury a small loose body was felt in the upper pouch of the synovial membrane of the joint, and the knee locked repeatedly. The ends of the bone were lipped. At the operation the internal semilunar cartilage was found to be loose. The loose fibro-cartilage, a piece of hyaline cartilage, and several thickened fringes of synovial membrane were removed.

### Prognosis of Operation.

The replies to my questions show that the removal of the semilunar fibro-cartilages of the knee is not dangerous to life or limb under the present conditions of surgery. No death followed the operation either immediately or remotely; only one patient had a stiff leg in consequence of it, and in his case the synovial membrane was the seat of malignant disease. The chance of the more severe symptoms recurring—that is to say, a painful locking of the joint—is as 2 to 9. In the nine successful cases the patient may consider that he will have a useful joint for all the ordinary purposes of life, although it may be slightly weaker than the opposite one if the operation has been postponed for a long time and there have been repeated attacks of synovitis. Interference with movement seems to be even a slighter chance than that of recurrence of symptoms, for it is rather less than 1 in 6, and if it should occur the probability is that the limitation of movement will only be felt in extreme flexion of the joint as in kneeling. The joint will not be liable to any increase in the osteo-arthritic changes which may be present; indeed, the removal of a loose or torn cartilage rather tends to prevent the further development of these changes by removing a source of irritation within the joint.

The least satisfactory part about the operation is that it leaves a joint which may be liable to pain of a more or less severe character. This pain is slight in the majority of cases, and only occurs when the joint has been roughly used or has been called upon to do excessive work, and it is, therefore, occasional; in other cases it is rheumatic in character, and the patient only complains in damp weather, but in a few cases it may be severe.

### Conclusion.

The lines of treatment appear, therefore, to be well defined in cases of internal derangement of the knee-joint due to injury of the semilunar cartilages. When the patient is seen directly after the injury every care should be taken to replace the injured cartilage in position by well considered manipulation. Rest in an extended position must then be insisted upon until the swelling has subsided and time has been given for repair, massage being em-

ployed during the whole of this period. It must be borne in mind that no satisfactory result will be obtained if the injury be treated simply as a sprain by rest and cooling lotions. It is essential that the cartilage should be replaced, for otherwise it is as useless to rest the joint as it would be to rest an unreduced dislocation. When these methods have failed, or when the original condition has been badly treated, and the patient is left with a chronically inflamed joint, which is insecure, painful, and locking, the sooner an arthrotomy is performed and the interarticular cartilage is removed the better it will be for the patient. As might have been expected *a priori*, my inquiries show that the least satisfactory results are obtained when the patient has been allowed to go about with a damaged fibro-cartilage for months or years, the best results when he has had only a few attacks of painful fixation of a joint. In these latter cases the ligaments have not become stretched, and the joint quickly resumes all its normal functions.

I hope, Mr. President and gentlemen, that in giving you these results I have in some measure fulfilled the object for which this lectureship was founded. I have taken a subject which is frequently met with in practice, which is sometimes improperly treated from ignorance of its pathology, and which the experience of a large hospital is able to shed light upon. These were the subjects with which my master, John Hunter, delighted to deal, and it will be a great pleasure to me if you feel that I have in some manner followed the path pointed out by that great surgeon.

REFERENCES.
[1] *Annals of Surgery*, vol. 50. 1909, p. 974. [2] Ibid., p. 982.

# CONSERVATIVE SURGERY OF THE NOSE.

BY

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MANY of those who have bestowed sufficient attention on the subject of nasal obstruction and diseases of the nose, and observed post-operation results long and carefully enough, must have become fully cognizant of, if they have not severely animadverted upon, the disadvantageous, not to say disastrous, consequences that only too frequently follow much of the present day intranasal surgery. Such consequences are to be largely attributed to and explained by one thing, and one thing only, and that is too great and quite unnecessary sacrifice of the mucous lining of the nose. This wholly unwarrantable and uncalled-for destruction of the invaluable velvety covering of the nasal interior is even oftentimes carried to such an extent that it would be no injustice or exaggeration to stigmatize it as mutilation.

It is now no uncommon occurrence for the rhinologist to meet with patients who have some time previously undergone an intranasal operation or operations complaining of annoying or embarrassing after-effects. This is all the more to be regretted when one realizes that such sequelae are oftener than not but little capable of remedy or amelioration, and might easily have been avoided.

Loss or impairment of the sense of smell, deprivation of the pleasurable sensation received on the inhalation of the cool fresh air along the nasal passages, and consequently inability to detect aërial vitiation; stuffiness of the nose, desiccation and incrustation of the nasal interior, frequent and paroxysmal sneezing, recurrent headache, dryness and soreness of the throat, and chronic or relapsing hoarseness, are some of the most commonly complained of consequences.

There can be little doubt, moreover, that such ruthless and careless injury of the mucous membrane, by wounding it, and thus reducing its protective mechanism against bacterial invasion, lays the victim open to sinus suppuration, and, indeed, supplies a very likely and feasible explanation of the increased prevalence of these chronic sinus suppurative conditions.

It seems to be forgotten by many of those who practise such surgery, resulting in so great a loss of the mucous membrane lining the interior of the nose, that this membrane is covered with a ciliated epithelium, and therefore has very valuable, and, indeed, for the comfort of the individual, both physically and socially, indispensable functions; that the myriads of cilia in the nasal cavities are essential to the proper fulfilment of the duties of the nose as an aërial filter, cleanser, and moistener of the inspired air. It appears to be overlooked, too, how essential is the erectile tissue largely located in certain prescribed positions, such as the posterior half of the nasal septum, on the inferior turbinals, and on the under surface of the middle turbinals, to the carrying out of the special physiological actions of the nose as a warmer and moistener of the inhaled air.

One of the most frequently encountered and most obvious forms of nasal obstruction is alar collapse. This is a condition that is many times missed in hunting for the causes of nasal obstruction, with the result that some redundancy perhaps in the inside of the nose is discovered and operated upon, while the first and real cause—alar collapse—is left undetected and untouched. A simple measure for the correction of this defect at the very entrance to the nose often saves the necessity for more extensive procedures inside the nasal cavity, and so obviates operations that under the circumstances cannot be curative.

The proper surgical treatment of alar collapse becomes, then, a step towards the conservative surgery of the nose by avoiding the necessity of operations farther in the interior of the nasal cavity. Indeed, one may assert that even such operations can never be successful in surmounting the nasal obstruction if the alar collapse is left untreated. The author has had many instances where patients have had the simple operation performed after the method here described on the narrow anterior nares, and where in the face of considerable interior obstruction the respiratory relief has been so great that further and necessary operative measures for a septal displacement have been postponed or refused, even when the obstruction has been of a very pronounced character.

The normal anatomy of the nasal cartilages is very remarkable, and affords an eminent example of a perfect mechanism for the maintenance of a patent and resilient anterior nasal aperture. The chief framework consists of four lateral cartilages—two upper and two lower. The upper plates are flattened and triangular in shape, with their apices above and the bases below. The inner borders of these plates are in apposition and supported by the cartilaginous septum mesially. To the bases are attached the upper convex margins of each of the lower lateral cartilages. The lower lateral cartilages are laterally elongated plates of thin cartilage, with a convex outer surface, and each meets its fellow in the middle line, the pair thus mainly forming the apex of the nose. Each of these lower lateral cartilages has two limbs—an outer, constituting the cartilaginous ala nasi, and an inner, participating in the formation of the central columna nasi. This inner limb only extends half or two-thirds of the length of the columna nasi, and ends in a rounded, pointed portion, which often projects quite visibly from the outer side of the central nasal column. The cartilaginous framework of the nasal entrance is completed by two more groups of structures—namely, the sesamoid, or segmental cartilages, and the mesial end of the nasal septum.

The operation that I have now been performing for some years with entire success in overcoming impeded nasal respiration caused by alar collapse and marked projection of the pointed ends of the inner limb of the lower lateral cartilage consists in excising the protuberance by submucous and subcutaneous resection. A crescent-shaped incision is made, commencing above on the side of the columna nasi, just anterior to the projection of the inner limb of the lower lateral cartilage, and passing alongside of this projection, which can easily be defined by the manipulating fingers of the disengaged hand. The incision ends at the lower angle of the nasal aperture, and is entirely through the skin. A second incision, beginning almost exactly where the first did, is then carried downwards behind the protuberance on the columna nasi nearly to the same position as the first; it may skirt the protuberance, as in the first incision, so as to excise a piece of skin of the width, at the widest part, of $\frac{1}{8}$ in. It may be necessary to remove half as much skin again as this if the protuberance is very large and the skin is redundant. This marked-out

piece of skin, with its subcutaneous tissue, is then dissected away. In some cases it facilitates the operation, if the skin be very adherent to the underlying cartilage, to remove the exposed cartilage at the same time. This is excised freely, and the cartilage trimmed down to a very thin piece. The soft structures are now reflected from the lower end of the nasal septum, and this cartilage is also freely removed. The broadened border of the septal cartilage is always excised, and the septal cartilage, too, for about one-fourth of an inch beyond it. The chief reason for taking away more than the mere projecting part of the septum is that it tends to let the upper nasal lateral cartilage sink down, and in such a manner leads to slight flattening of the nose. This is very desirable, as it pushes the outer limb of the lower lateral cartilage outwards, and so broadens and widens the nasal entrance. The incision is now firmly stitched up with catgut. Healing usually takes place by first intention, but this is always so if an oiled silk dressing with firm plugging is applied during the first twenty-four hours.[1] On the removal of the plugs the feeling of freedom of breathing is immediately experienced, the patients frequently giving generous expression to their sentiments on the pleasant change. This feeling of freedom is emphasized on exertion, as a greater current of air can be inhaled with facility.

No part of the nasal interior has suffered more, or been more mauled and mutilated in the ardour of some enthusiastic but indiscreet operators to gain a clear passage, than the inferior tubinated bodies. Perhaps this is partially to be accounted for by the fact that the anterior ends of these bodies lie only a little distance from the nasal entrance, and are easily visible on tilting the nose. Not only have these parts been cut about and crushed unmercifully, but they have been burnt unnecessarily with the galvano-cautery. There are grave objections to cauterization when the result is that the surface of the mucous membrane is extensively destroyed, as is the case if the cautery terminal is freely rubbed over it, the parts to which the cautery has been thus applied being rendered functionless, as scar tissue takes the place of the normal lining.

Should nasal obstruction exist, and the occluding, swollen part of the turbinal be soft and resilient when touched with the nasal probe, and become shrivelled under the influence of cocaine solution, the best remedial means is the submucous application of the electric cautery point. This is done with the object of pinning down and contracting the turgid and sometimes oedematous mucous covering and underlying erectile tissue.

Anterior turbinectomy is an operation very extensively employed to correct firm enlargement of the anterior ends of the inferior turbinal. It consists in snipping off with special scissors as much of the anterior part of the enlargement as can be conveniently reached. In a large proportion of cases this operation is not a good one, since the same objection holds that too much tissue is sacrificed, and the anterior part of the turbinal annihilated as a functional organ in the anterior half of the nasal passage. The anterior end of the turbinal acts like the other parts of this structure in exerting a moistening, warming, and filtering influence on the inhaled air, but it has an additional function too, namely, that of sensation. Many nerve filaments are especially distributed over this part, and ramify in the mucous and submucous tissues as a dense network with fine terminal filaments passing up between the superficial cells.

The anterior end of the inferior turbinal acts as the sensitive finger of the nose, and thus interprets the humidity, purity, or vitiation of the inhaled air, and it is therefore of the greatest importance and utility that this most invaluable structure should be maintained anatomically intact and physiologically active.

There is a form of nasal obstruction very unamenable to treatment—namely, subjective nasal obstruction—a form of obstruction in which no visible or palpable obstruction is capable of detection, the nasal cavity being open enough, and often too much so. The mucous lining is more or less shrivelled and dry, the sense of touch impaired, and a feeling of stuffiness arises from the loss of the sense of feeling of the air entering the nose.

Anterior turbinectomy, from the amount of destruction of the mucous membrane, is very likely to be followed by a localized subjective impairment of sensation, resulting in the loss of that pleasurable sense of coolness experienced on inhaling fresh air through the nostrils; that is really a more or less generalized subjective nasal obstruction.

As regards the surgery of the middle turbinal there is a strong tendency at the present time to overdo this, removing more bone than is often necessary, and at the same time sacrificing the mucous membrane. Middle turbinectomy is in many cases a most useful operation and beneficial in its effects, but, as in inferior turbinectomy, the mucous membrane should always be considered and conserved as much as possible. Such is most essential, as the special nerves of smell ramify over this bony enlargement, too much destruction being very liable to result in loss or great impairment of the special sense. It is very reprehensible to apply the galvano-cautery to the middle turbinal region, as is not unfrequently done, with the risk of olfaction being impaired or lost, or fatal meningitis ensuing.

Most nasal obstructions are located either on the turbinated bones or on the nasal septum, and are either soft or resilient, or hard and cartilaginous or bony, if not a combination of these two qualities. There are many cases, however, in which the obstruction is considerable, being principally caused by firm enlargement of the inferior turbinals; it is a good deal aggravated by slight or moderate disturbance in the position of the septum. It would be stretching the principle of always attacking the nasal septum in preference to the turbinals too far, however, to seek to reduce the redundancy by always operating on the septum. The proper and better method, where the obstruction is mostly due to the enlarged condition of the turbinals, and especially the inferior, consists in removing a portion of the obstructing factor. This is commonly accomplished by the use of the electric cautery or by cutting away whole pieces of the turbinals, anteriorly and posteriorly, or nearly the whole turbinal is bodily wrenched away. It is such mutilation of the turbinals that I wish to condemn, and for which I substitute the operation which I have named *anterior submucous turbinectomy*.

The principle of the operation of anterior or middle submucous turbinectomy is essentially a submucous resection of the turbinated bones; it is applicable to either the inferior or the middle turbinals.

The method consists in incising and dissecting up the soft structures from the underlying bone, and in making a submucous resection of the bone, and extracting the resected portion. In this manner the flaps of mucous membrane are allowed to subside on to the outer wall of the nose, and their integrity is maintained. For the operation some special instruments are necessary, and considerable care must be exercised that the soft structures are not torn or perforated.

The patient sits in an upright position, and has the head sufficiently supported. The exterior and vestibule of the nose are first sterilized with a solution of ethereal soap, or a weak solution of lysoform, and afterwards sponged with a 1 in 2,000 solution of spirit and biniodide of mercury. The anterior half of the inferior turbinal is rendered anaesthetic by (1) applying repeatedly a 10 per cent. solution of cocaine by means of cotton-wool mops, and (2) applying for ten minutes to the turbinal surface a pad of wool soaked in this solution. This usually completes the anaesthesia, but if it is thought desirable to make this more perfect, a submucous injection of eucaine or cocaine may be made. To diminish the amount of haemorrhage, which is often considerable, it is a good plan to pack a strip of gauze, soaked in a solution of suprarenal, under and over the turbinal about to be operated upon, and leave it in position for ten or fifteen minutes. With a good reflected light and nasal speculum in position, a clear view of the turbinal is obtained, and an incision through the mucous membrane down to the bone is made by means of a special short-bladed, crescent-shaped knife. The incision should extend longitudinally for nearly half the length of the turbinal surface, and be along the most dependent part; it should be continued anteriorly up to the point of attachment of the turbinal to the outer wall of the nose. A sharp-pointed, somewhat curved deflector should now be introduced at the incision, and the soft tissues raised from the bone. This is done on both the upper and under surfaces, and with persevering and cautious manipulation an upper and a lower flap are gradually freed. A blunt, curved deflector is used

after the separation has gone a little way, and in this manner one can work with greater confidence and less danger of slipping, or of buttonholing the flaps. The process of raising the mucous membrane is sometimes best completed by means of a special long speculum with slightly curved blades. The blades of the speculum are gradually insinuated between the bone and its soft coverings, and so a good view of the bone can be obtained. It only remains now to cut through and extract the cribriform piece of the bone. This is accomplished by first severing its connexion with the outer, denser portion by means of a pair of short-bladed scissors pushed forcibly backwards, and then with a pair of long, thin forceps, roughened longitudinally, the extraction of the severed piece of bone is completed. The flaps should be pressed outwards on the outer wall of the nose, and maintained in position by means of plugs of cotton-wool firmly wedged into the nasal passage, the object being to bring the cut edges into apposition, so that healing takes place very rapidly. To facilitate the removal of these plugs it is an excellent plan first to adjust a strip of oiled silk over the cut surface and to pack the woollen plugs over it. In such a manner the wool is prevented from adhering to the wound, and the whole can be pulled out with the greatest ease and only very slight traction. The plugs are usually left in position for forty-eight hours. When the middle turbinal is under operation the same steps are followed, but the incision is carried along the under surface and up on to the anterior border. The soft tissues are deflected from the bone on each side, and the bone is removed either with Grünwald's forceps or curved scissors. The flaps are then pressed together by means of woollen plugs passed up on either side—one along the septum and one on the outer wall.

Where the impediment to free nasal breathing is due to the firm enlargement of the anterior one-third or one-half of the inferior turbinals, or to blocking of the middle meatus by the hypertrophy of the middle turbinal, this method of extracting the bone and pressing the flaps together is the most satisfactory in its results. On the removal of the plugs the feeling of freedom of breathing is immediately experienced. There are no disagreeable effects, as the parts heal by first intention. The subsidence of the enlargement of the turbinal is permanent, and, if properly performed, there can be no failure of the operation nor any necessity for its repetition.

In recent years the introduction of Killian's improvements in the operation for deviations and displacement of the nasal septum has marked a great advance in intranasal surgery. Like many good things, however, Killian's operation for submucous resection has been overdone. Many operators, in their enthusiasm for a perfectly free nasal passage, have gone in for removing so much of the septal support as to bring about a falling-in of the nasal bones or cartilages, or both, resulting in hideous deformity. It is more particularly in children that great care has to be taken in performing operations on the nasal septum for displacements causing nasal obstruction. The original cause of septal displacements and deformities is, doubtless, in a large proportion of cases traumatism, the commonest being falling on the nose in the nursery when the child is very young. The nasal septum, once driven out of the straight, is very likely to continue to grow in the abnormal direction into which it has been forced. These deformed septa are by no means uncommon in children, and the question is still unsettled as to the advisability of operation at the tender age. It frequently happens that a young boy of 6 or 7 years comes before the operator for nasal obstruction and is found to be suffering from enlarged tonsils and adenoids, and, at the same time, has a marked degree of impeded nasal respiration, due probably to a very evident deviation of the septum. Much disappointment may be incurred, if rash promises of amelioration have been made, when it is found that nasal respiratory impediment is as bad as ever after the operation for tonsils and adenoids has been performed. It then becomes imperative to do something in the way of operation on the nasal septum. After a large experience in operating on such cases, mostly in boys ranging in age from 6 to 12 years, I have now no hesitation in strongly urging the advisability and practicability of such operative procedure, providing that certain precautions are observed. The chief practical point in operating on this kind of case is not to remove too much of the septum nasi, remembering that it is the support of the nasal bridge, and therefore to leave behind sufficient to ensure that the nasal bones and cartilages are sufficiently sustained. In children I simply aim at getting away the most prominent part of the impediment, always being most particular to leave alone the upper third or half of the obstruction, and only making a tunnelled passage for the respired air to pass freely through.

Another imperative practical point in operating for this redundancy is to make every endeavour to injure the mucous membrane as little as possible. It should simply be clearly cut, and carefully and completely reflected, and then neatly replaced and sutured, the object being to get union by first intention so that a repletion of granulations is prevented. Another way of aiding this object is to dress the wound with oiled silk, which means that the serum exuding from the wound is kept applied to it, and this serum dressing ensures immediate aseptic union. The nostril is then packed with dry gauze to act as a splint and so prevent the entrance of air for twenty-four hours. With these provisions I am certain that this operation can be done in these young subjects with safety and great advantage, and should therefore be unhesitatingly undertaken when the amount of nasal obstruction is sufficient to demand operative interference. In carrying out this resection operation on the adult septum there is little doubt but that the mucous membrane is too often too much injured, and so healing is retarded and the efficacy of the operation impaired, since one of the results of this is the formation of excess of granulation tissue in the nose and fibrous thickenings and adhesions.

In the instance of frontal sinus surgery, again, the major operation is not uncommonly embarked upon before intranasal surgical measures have been sufficiently tried, with the result that discredit is cast on an otherwise signally good operation. Here the more conservative measures of intranasal surgery are most essential to the success of the frontal sinus operation; and, indeed, the necessity for this operation may be often avoided by reducing the dimensions of the middle turbinal and thoroughly clearing the middle turbinal region of polypi, granulations, and carious cells. In this way drainage is facilitated and the lower part of the naso-frontal canal and hiatus semilunaris opened. Where this has not been done and the radical frontal operation undertaken, great risk of failure to cure the case is run and the difficulties of the operation increased, since it is often almost impossible to insert a sufficiently large drainage tube from the sinus into the nose. The simpler, shorter, and easier course should, therefore, always first be followed—namely, that of adopting intranasal methods preliminary to the larger and more hazardous operation on the frontal sinus itself.

Again, how often is Killian's major operation for the radical cure of frontal sinus and ethmoid cell suppuration undertaken when the better procedure would be the simpler "Ogston-Luc" operation? There are few cases in which the condition of things in the frontal sinus is such that this order of operative gradation would not be the most beneficent to follow—namely, first, through intranasal methods; secondly, operation on the frontal sinus by removing as much of the anterior wall as is necessary to clear out its diseased contents and pass a large drainage tube downwards into the nose; and, thirdly, the Killian's operation on the frontal sinus and the anterior and middle ethmoid cells, in which not only are the anterior wall and floor partially removed, but the nose is opened into laterally by levering up the ascending process of the superior maxillary bone, and the ethmoid cells are scooped out to as great an extent as is discovered to be necessary to get rid of all caries and suppurative implication.

As a preliminary to surgical operation on the maxillary antrum, it is the custom of many operators to nearly annihilate the inferior turbinal on the same side, as they aver that this is essential to ensure free drainage into the nose; they accomplish this by performing anterior turbinectomy, but are often not content with removing the anterior end of the turbinal, and even extend the destruction to the posterior parts. Some of these authorities seem to have had doubts about the warrantability of this procedure, and recently a modification that is not much less reprehensible has been adopted—namely,

dislocation upward, temporarily, of the entire inferior turbinal, and its replacement after the antral disease has been removed. This, like anterior turbinectomy, is I am sure, quite unnecessary for the successful eradication of antral disease. Here, again, submucous turbinectomy is all that is needed, if the turbinal is excessive in size, preliminary to the antral surgery. If the redundancy of the turbinal is of a soft nature, galvano-cautery puncture is the best means of reducing it; and if the enlargement is of a firm consistency, submucous turbinectomy is the proper and best method, as the soft coverings of the turbinal are in this manner least disturbed, and are still left fit to perform their inestimable and essential functions.

The real test of successful surgical operative interference in the nose is, without doubt, to be ascertained by the answer to the question, How does the patient feel as regards freedom of respiration through and comfort in the nasal interior and pharynx six months afterwards? The most beneficent surgery is the most conservative as regards the preservation of the mucous lining, and is almost always attained by operating successively in stages, rather by what we might call physiological, than by severe, sweeping, sacrificial surgery.

REFERENCE.
[1] *Lancet*, May 4th, 1907.

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ON

# THE CONNEXION OF ENLARGED CERVICAL GLANDS WITH CARIOUS TEETH, ENLARGED TONSILS, AND ADENOIDS.

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THE subject of enlargement of lymphatic glands in the neck of the child is one of real importance, for, although in most cases the lowering of the general health associated therewith may be comparatively insignificant, yet the susceptibility of children with chronically enlarged glands to infection from trivial causes would seem to be well established, and in a considerable proportion of cases there ensue developments which seriously undermine the health or (when suppuration occurs) cause permanent disfigurement.

This little investigation being merely of a preliminary and somewhat crude character makes no pretence of shedding much additional light on the etiology of glandular enlargement. It merely presumes to supply a certain amount of statistical evidence as to the relation existing between "enlarged lymphatic glands in the neck" on the one hand and "carious teeth, enlarged tonsils, and adenoids" on the other hand. The numbers dealt with are comparatively small, and the results correspondingly liable to error.

In order to obtain the required statistics it was, of course, necessary to adopt standards of enlargement or disease; thus, three standards, "A," "B," and "C," were adopted in each condition, as follows:

Teeth A. No carious teeth present.
Teeth B. One to four decayed teeth present.
Teeth C. Above four decayed teeth present.

**Similarly:**

Tonsils A. No enlargement of tonsils.
Tonsils B. Moderate enlargement.
Tonsils C. Much enlargement (almost meeting).

**Likewise:**

Adenoids A. Adenoids (causing symptoms) not present.
Adenoids B. Adenoids causing moderate symptoms.
Adenoids C. Adenoids causing marked symptoms.

**Again:**

Glands A. Glands which are barely perceptible on palpation—roughly up to the size of a lentil.
Glands B. Moderately enlarged glands—roughly up to the size of a haricot bean.
Glands C. Enlargement beyond the size of a haricot bean.

The glands noted were those situated anterior to the sterno-mastoid muscle and those lying under the jaw, which could be readily felt when the head was moderately extended. Glands lying behind the sterno-mastoid muscle were disregarded.

The method adopted was to correlate the "A," "B," and "C" groups of glands with the "A," "B," and "C" groups in the case of teeth, tonsils, and adenoids, respectively.

This correlation was carried out in respect of four groups of children, as follows:

I. 636 boys of 12 years of age,
II. 551 girls of 12 years of age,
III. 666 boys of 5 years of age,
IV. 621 girls of 5 years of age,

making a grand total of 2,474 children.

The results of the correlation of glands with teeth, tonsils, and adenoids, are shown in tables of percentages.

On the evidence of these tables it would appear that the presence of decayed teeth, enlarged tonsils, and adenoids, are all associated with an increase in the percentage of children with enlarged glands, but, at the same time, this increase would appear to be much more pronounced in the case of tonsils and adenoids, and comparatively little in the case of carious teeth. For instance, the percentages of "C" glands occurring in association with "B" tonsils or "B" adenoids, are distinctly greater than the percentage of "C" glands with "C" teeth; and this holds good in each of the four groups of children.

Granted that the presence of either enlarged tonsils or adenoids is associated with enlargement of glands in the neck, we have still to consider whether such association is due to a general lymphatic hyperplasia involving both glands and other lymphoid structure, such as tonsils, or whether it is rather the catarrhal conditions to which tonsils and adenoids predispose that give rise to glandular enlargement. There is a third possibility—namely, that infecting organisms may obtain access more readily by way of enlarged tonsils and adenoids than through the healthy throat and nose.

These points might be cleared up by accumulating data bearing on:

(*a*) The effect on glands of operation for tonsils and adenoids.

(*b*) The effect on glands of catarrhal conditions co-existing with enlarged tonsils and adenoids, and comparing with the relation existing between glands and tonsils and adenoids without catarrhal symptoms, and so on.

It is proposed during the present year to go into these questions in as detailed a manner as time will allow.

TABLES SHOWING CORRELATION OF GLANDS WITH TEETH, TONSILS, AND ADENOIDS.

| *Teeth.* | *Tonsils.* | *Adenoids.* |
|---|---|---|
| A=No caries. | A=No enlargement. | A=No adenoids. |
| B=1 in 4 carious. | B=Moderate enlargement. | B=Moderate adenoids. |
| C=Above 4 carious. | C=Marked enlargement. | C=Marked adenoids. |

I.—*12-Year-Old Boys (636 Examined).*

| Glands. | Number Examined. | Teeth. | | | Tonsils. | | | Adenoids. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| | | % | % | % | % | % | % | % | % | % |
| A. Not exceeding size of a lentil | 30 | 5.9 | 5.0 | 3.3 | 5.3 | 1.6 | 0.0 | 4.8 | 5.0 | 0.0 |
| B. Up to size of a haricot bean | 484 | 78.4 | 76.2 | 74.6 | 78.8 | 65.1 | 38.1 | 77.7 | 40.0 | 33.3 |
| C. Beyond size of a haricot bean. | 122 | 15.7 | 18.8 | 22.1 | 15.9 | 33.3 | 61.9 | 17.5 | 55.0 | 66.7 |
| Totals ... | 636 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 10 |

II.—*12-Year-Old Girls (551 Examined).*

| Glands. | Number Examined. | Teeth. | | | Tonsils. | | | Adenoids. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| | | % | % | % | % | % | % | % | % | % |
| A. Not exceeding size of a lentil | 49 | 16.9 | 8.8 | 2.5 | 10.7 | 0.0 | 5.3 | 9.2 | 0.0 | 0.0 |
| B. Up to size of a haricot bean | 418 | 71.8 | 76.7 | 75.3 | 77.8 | 74.4 | 36.8 | 77.4 | 41.2 | 0.0 |
| C. Beyond size of a haricot bean | 84 | 11.3 | 14.5 | 22.2 | 11.5 | 25.6 | 57.9 | 13.4 | 58.8 | 100.0 |
| Totals ... | 551 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

III.—*5-Year-Old Boys (666 Examined).*

| Glands. | Number Examined. | Teeth. | | | Tonsils. | | | Adenoids. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| | | % | % | % | % | % | % | % | % | % |
| A. Not exceeding size of a lentil. | 28 | 9.75 | 2.4 | 2.4 | 4.5 | 2.7 | 0.0 | 4.95 | 0.0 | 0.0 |
| B. Up to size of a haricot bean. | 405 | 61.60 | 65.4 | 50.6 | 65.7 | 28.8 | 31.25 | 65.55 | 33.3 | 42.85 |
| C. Beyond size of a haricot bean. | 233 | 28.65 | 32.2 | 47.0 | 29.8 | 68.5 | 68.75 | 29.50 | 66.7 | 57.15 |
| Totals ... | 666 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

IV.—*5-Year-Old Girls (621 Examined).*

| Glands. | Number Examined. | Teeth. | | | Tonsils. | | | Adenoids. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| | | % | % | % | % | % | % | % | % | % |
| A. Not exceeding size of a lentil | 51 | 14.1 | 7.85 | 3.7 | 9.3 | 0.0 | 0.0 | 9.1 | 0.0 | 0.0 |
| B. Up to size of a haricot bean | 420 | 60.9 | 71.15 | 64.7 | 70.7 | 50.0 | 29.4 | 71.5 | 33.3 | 0.0 |
| C. Beyond size of haricot bean | 150 | 25.0 | 21.00 | 31.6 | 20.0 | 50.0 | 70.6 | 19.4 | 66.7 | 100.0 |
| Totals ... | 621 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

*Summary.*

| Glands. | Number Examined. | Teeth. | | | Tonsils. | | | Adenoids. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| | | % | % | % | % | % | % | % | % | % |
| A. Glands not exceeding the size a lentil | 158 | 11.8 | 6.1 | 3.0 | 7.3 | 1.1 | 1.4 | 6.9 | 0.5 | 0.0 |
| B. Glands up to the size of a haricot bean | 1,727 | 65.2 | 72.8 | 64.2 | 72.9 | 55.1 | 34.2 | 73.1 | 34.8 | 23.8 |
| C. Glands beyond the size of a haricot bean | 589 | 23.0 | 21.1 | 32.8 | 19.8 | 43.8 | 64.4 | 20.0 | 64.7 | 76.2 |
| Totals ... | 2,474 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

DR. ALEXANDER MILNE, of Aberdeenshire and York, left personal estate valued at £3,262, of which £630 is in Scotland.

AN exhibition of photographic prints in connexion with biological subjects was opened at the house of the Royal Photographic Society, 35, Russell Square, London, W.C., on Tuesday evening last. The exhibition will remain open until February 7th.

# DRAUGHTS AND COLDS.

BY

RONALD CAMPBELL MACFIE, M.A., M.B.,

PHYSICIAN, PENDYFFRYN HALL SANATORIUM.

DRAUGHTS seem a particularly controversial topic. On the one hand they are hailed as "spirits of health," and on the other hand they are anathematized as "goblins damned." "*Aria di fenestra colpo di balestra*" (the air of a window is like a shot from a crossbow), warns the Italian proverb, and we might coin a proverb—"Shut a window and open a grave"—to indicate the wholeheartedness of the opposite opinion.

There can be no doubt that up to quite recent years most hygienists and physicians held draughts in abhorrence. Harrington declares that "draughts which are productive of discomfort are more dangerous than ordinary vitiation of the air, and therefore complete ventilation with draughts is worse than partial ventilation without draughts"; and all systems of ventilation have aimed at purification of air without sensible air currents. Of late years the object-lessons presented by open-air sanatoriums have made many converts to the cult of the open window, but the fear of draughts is still prevalent in all classes of society, and to draughts are commonly ascribed about 99 per cent. of the colds that afflict humanity.

When we find two contradictory opinions so strongly held, we may be pretty certain that there are truth and falsehood in both, and that the pure truth lies somewhere between the two.

It is certain that many of the colds attributed to draughts are not due to draughts at all. The ordinary man *assumes* that draughts are the causes of colds, and unless he lives in a hermetically-sealed case he will always find a draught of which he can make a scapegoat. It is simply a case of the *post hoc ergo propter hoc* fallacy. Further, it is just in close and stuffy rooms, when the skin is warm and moist, that a draught is most readily perceived, and the cold ascribed to draughts in such instances is almost certainly due to the germs in the polluted atmosphere, and has nothing to do with draughts.

For these and other reasons one must be chary of accepting the ordinary statement, "I sat in a draught and caught a cold."

And yet a draught may under certain conditions be a potent factor in the production of a cold.

A draught is a concentrated current of sensibly cold air impinging upon a localized portion of the skin, and though it is plain that such a current of air cannot directly cause a cold, which is a bacterial disease, yet it is equally plain that it may be an auxiliary factor; for it may cool the blood to such an extent as to diminish the bactericidal activity of the phagocytes and the vitality of the cells which line the respiratory passages, and thus render the mucous membranes more vulnerable to the *Micrococcus catarrhalis* and other bacteria of colds. It is possible, indeed, as pointed out by Dr. Ringrose Gore, that the mucus itself in such cases loses its bactericidal power and becomes a nidus for the growth of the micro-organisms of catarrh.

We must admit that draughts may sometimes in this way be a factor in the production of colds. But be it noted they are merely auxiliaries unless they succeed in cooling the blood unduly; and unless certain germs be present they are quite ineffective.

This theory offers a *via media* between the two opinions; it inculpates draughts in a few cases, exculpates them in most instances.

It may be said that it is impossible to avoid chills, and that germs are always at hand, and therefore draughts are always dangerous, and must very frequently cause colds. But this is erroneous, for it must be remembered that a well-fed mammal has great thermogenic adaptability. Under ordinary healthy open-air conditions, the vasomotor reflexes quickly respond to the stimulation of cold and contract the blood vessels so as to conserve heat. It is true that if a man live constantly in a moist, warm, still atmosphere, and if his skin be continually protected from the normal stimulation of cool, moving air—it is true that under such circumstances the skin reflexes, if unexpectedly called upon, may forget their business and respond sluggishly and inadequately to the stimulus of cold, and that

heat may thus be unduly lost, with deleterious consequences; but the natural well-fed, well-clad mammal has active, ready reflexes, and is not likely to be unduly chilled by draughts.

Draughts there must be, draughts there should be, and it is much easier to accustom the vasomotor centres to respond to them than to try to escape from them altogether. Indeed, as we have shown, an endeavour to escape from them merely renders them dangerous.

Here it may be remarked that the smaller and more concentrated the draught, the more likely is it to chill, both because a current cools as it expands and because a small draught may not be sufficient to arouse response of the regulative apparatus.

But, even if undue cooling do occur, it will not cause a cold unless the bacteria of colds are in evidence; and in clean well-ventilated rooms with sufficient perflation such bacteria rarely appear. Here, again, an endeavour to escape draughts only favours the growth of bacteria, and renders dangerous a draught that otherwise might be quite harmless. It is in stuffy dirty rooms and churches that draughts are most feared; and there is most reason for the fear. In sanatoriums where draughts are large and constant, and where bacteria are comparatively rare, colds very seldom occur.

The conclusion, then, we reach is that draughts do occasionally play an auxiliary part in the production of colds, but that they are easily deprived of their dangers, and should be favoured rather than feared.

To endeavour to escape colds by avoiding all draughts must always be futile and foolish policy, and will not only defeat its own aim by fostering bacteria and by promoting vasomotor lethargy and incompetence, but will lead to deficient vigour through interference with skin reflexes, which play an important part in the respiratory and circulatory functions. When we wish to excite the respiratory centre of the newborn babe we appeal to its skin reflexes, and in cases of night sweats a breeze on the skin seems to give tone to the whole vasomotor system.

The skin is certainly meant to be exposed to moving air currents and to vicissitudes of heat and cold; it is surely meant to have a blood supply that ebbs and flows according to the thermal needs of the tissues; it is surely meant to perspire and to transpire; and accordingly to shut it off from wind currents and to enclose it in a motionless layer of moist air is to depart very far from the ways of physiological righteousness. The bracing effects of dry air and of seaside breezes are largely due to their stimulating effects on the excretory and reflex functions of the skin; and the man who endeavours to avoid colds by avoiding all draughts will not only catch more than his share of colds, but will possess much less than his share of health and vigour.

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DR. JAMES HALE, of Waterlake, Chiddingstone, Kent, left estate of the gross value of £20,080, with net personalty £12,207.

AMONG the features of the Hygiene Exhibition to be held at Dresden in 1911 will be a pavilion fitted up under the auspices of the German Association for the Care of Cripples. The objects exhibited will include everything relating to the subject from the historical, statistical, and other points of view; surgical and other methods of treatment of the various forms of disease giving rise to crippling, with their results; schools for cripples; the social importance of the work; cripples in art and literature, etc.

WE have received from the Workhouse Nursing Association a report relating to its work between February, 1906, and June, 1910. We gather that its finances are in good order, and that though the need for its existence has somewhat lessened it intends to keep its machinery in good order and to intervene whenever it seems necessary on behalf of the objects for which it was originally founded some thirty years ago. These were (1) to raise the standard of public opinion on the whole question of workhouse nursing; (2) to secure the appointment of trained nurses as matrons in all separate infirmaries; (3) to train and supply nurses to workhouse infirmaries in London and the provinces. The third object, after very successful achievement for many years, has been definitely dropped, but the others remain. The honorary treasurer of the association is Miss Wilson, the secretary Miss Gill. Communications regarding the association should be addressed to the former at 37, Dover Street, London, W.

# ON SOME OF THE BIOLOGICAL AND STATISTICAL ERRORS IN THE WORK ON PARENTAL ALCOHOLISM BY MISS ELDERTON AND PROFESSOR KARL PEARSON, F.R.S.

BY

MARY D. STURGE, M.D. and SIR VICTOR HORSLEY, F.R.S., F.R.C.S.

## INTRODUCTION.

No question is more interesting to the medical profession than the alleged physical deterioration of the people, and upon no profession does so heavy a responsibility rest to oppose as far as possible all known causes of physical deterioration. According to the Report (1906) of the Interdepartmental Committee on Physical Deterioration presented to the House of Commons which inquired into the question whether we are degenerating or not, the two foremost causes of deterioration, stated by the Committee and bracketed as mutually interactive, are bad housing and drink. It is, therefore, of the utmost importance that all public statistical work on the latter subject should be carefully examined. If it is correct, it must prove a valued national assistance; but if it is incorrect, it may entail national consequences little short of disastrous. In our opinion the recent memoir of Miss Elderton and Professor Pearson belongs to the second category.

We therefore publish the subjoined paper to extend our previous criticism of that work, which professedly studies the influence of parental alcoholism on the physique and ability of offspring, the result being that, in the opinion of the authors, alcoholism causes no appreciable detriment to the drunkard or to his children. The papers published by these authors on the subject are to date:

1. A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring, by E. M. Elderton and K. Pearson, F.R.S., 1910.
2. Letters by Professor Pearson in the *Times* of July 12th and August 10th, 1910, in reply to Professor Alfred Marshall.
3. Supplemental Memoir by Professor Pearson, being No. 1 of Professor Pearson's *Questions of the Day and of the Fray*. A reply to the Cambridge Economists, 1910.
4. A second study by Karl Pearson, F.R.S., and Ethel M. Elderton, being a reply to certain critics of the first Memoir, etc., 1910. Published December 24th, 1910.

The material on which they worked was (1) a remarkable report by the Social Investigation Committee of the Edinburgh Charity Organization Society, in which the social conditions of the families of 1,400 school children dwelling in one of the worst slum districts of Edinburgh were set out in schedule form with extraordinary wealth of detail; and (2) private notes, by Miss Mary Dendy, of feeble-minded children in Manchester (no date).

(Of this material the first half, the Edinburgh report, ought to be in the hands of every one interested in public health and social reform. It is published by Messrs. P. S. King and Co., Orchard House, Great Smith Street, Westminster, 1906, price 5s. As regards the second half—namely, Miss Dendy's notes—these can no longer remain private, and we have elsewhere (BRITISH MEDICAL JOURNAL, December 31st, 1910) asked Miss Dendy to publish them in the interests of social science and statistical accuracy.)

The first appearance of these writings, and the extraordinary conclusions which the authors arrived at last May—namely, that alcoholism does not appreciably affect either the efficiency or wage-earning power of parents, or the physique and ability of their offspring—caused a great deal of pleasurable excitement in some sections of the community.

It was, however, the opinion of various statisticians and biologists (prominently among the former Professor Alfred Marshall and Mr. Keynes) that Miss Elderton and Professor Pearson had omitted to observe certain obvious precautions to ensure accuracy, in handling the data, biological and statistical, on which their conclusions were based. It was generally felt by all who read the *Times* of May 21st, 1910, that if the memoir was an untrue presentation of the facts, a very grave injury had been done by Miss Elderton and Professor Pearson to the sciences of eugenics, of statistics, and of sociology. In fact, we may quote (altering their term "good cause" to "science") Miss Elderton and Professor Pearson's own words in their memoir (p. 1): "No greater evil is done to 'science,' than when

statistically undemonstrable statements receive, owing to emotional appeals, general credence, and then wider experience shows them later to be inexact."

Their words express the position well, because, as we shall immediately show, they have issued "statistically undemonstrable statements" which have caused, besides the evils they refer to, much loss of time and trouble to many scientific workers who have bought and laboriously considered memoirs which, though issued under the aegis of the greatly honoured name of Francis Galton, are unworthy of such titular distinction.

In the first place, it must be understood that Miss Elderton and Professor Pearson, beginning with the first paragraph of their first memoir, have taken the (fortunately) extremely rare step of arrogating to themselves statistical omniscience and accuracy, scientific "judicial calm," and all noble motives that can inspire social workers, while at the same time they accuse other investigators in the same field (most of whose scientific work they at first ignored*) of bias, (1) p. 1, 32,† (3) p. 1; of wilfully publishing false statistics, (1) p. 32; of "heedless criticism," (3) p. 25; of not possessing "real knowledge of the subject under discussion," (3) p. 26; of "faulty logic," (3) 1, etc.

It is necessary to make this unpleasant fact quite clear, as Professor Pearson has accused, (3) p. 24, "the Cambridge Economists"—that is, Professor Alfred Marshall and Mr. Keynes—of initiating personal comments, whereas, as we have just shown, he and Miss Elderton were the first and only offenders. Moreover, an editorial of the BRITISH MEDICAL JOURNAL of November 12th, 1910, most unjustifiably hinted that the opponents of scientific error were equally guilty with Professor Pearson of his offence. We may be allowed to express the hope that future memoirs and papers by the Galton Laboratory will be issued free from such blemishes.

We will now deal systematically with the errors of Professor Pearson and Miss Elderton's work.

## COMPLETE ABSENCE OF FUNDAMENTAL DATA.

### ERROR 1.—*Absence of Controls.*

As Miss Elderton and Professor Pearson claim in their writings mathematical accuracy in their treatment of the subject of parental alcoholism and its effects upon the offspring of the toxically affected parents, their first memoir must be supposed to contain figures and data of at least two groups of families, alcoholic and non-alcoholic respectively. As a matter of fact neither their memoir nor any subsequent papers contain these necessary facts, figures or data. Though the subject of parental alcoholism has long been under scientific discussion and observation, they appear to have been ignorant of all the literature and previous researches on man and the lower animals. These would have directly suggested to them that a research, to deserve the infallibility they claim for their memoir, should follow the ordinary lines laid down by previous workers in toxicology and pharmacology, and particularly by Laitinen, Hodge, MacNicholl, and others, the direct workers on this very subject—that is, that the research must deal with two groups of parents, whether of man or the lower animals, to one of which groups the poison (in the case under discussion, alcohol) has been given and to the other none. As they selected the study of parental alcoholism in man they ought to have compared the offspring of drinking parents with the children of teetotalers. They refrained from fulfilling this, their primary duty in such an inquiry.

Our first charge against them, therefore, is that they have committed the fundamental error of providing no adequate control of their investigations into the condition of the offspring of drinking parents.

### ERROR 2.—*Unscientific Use of Terms.*

Not content with having committed the above stated elementary error in the procedure of a research for which the highest scientific accuracy is claimed, they further committed the unjustifiable fault of using vague and unscientific terms which immediately suggested to the uninitiated that the authors had fulfilled the very scientific requirements we have just shown they omitted. The first and worst instance is their use of the word "non-alcoholic." They speak as though they had worked at a group of "non-alcoholic" parents, and constantly employ that expression, using it freely and, especially in the *Times* (June 10th, 1910), without any qualification, although, in a passing sentence in their first paper, they give a definition of their word "sober"—namely, that "the health of the individual or the welfare of the home" did not "appear" to be "interfered with" by the alcohol taken. Concerning this last point even, we must draw attention to the fact that as the Edinburgh records give no data whatever as to the effect of the alcohol on the health of the parents (except in a few instances when they happened to suffer from alcoholic insanity) Miss Elderton and Professor Pearson had no data before them as to whether the health of what they call a "sober" person was or was not "interfered with" by the alcohol he took. Consequently their definition is worthless for an "accurate," "mathematical," "highly scientific" investigation.

The only term which can be appropriately applied in contrast to the "alcoholic parent" of the Edinburgh records is "less alcoholic parent." (See also Error 3.)

Naturally the public press and various promoters of alcoholism have been completely deceived by their misuse of the term "non-alcoholic," and believe that the authors have "demonstrated" (to use Sir J. Crichton-Browne's word) "incontrovertible facts" (to use the *Times* word) in favour of alcoholism and against abstinence.

The second instance is their misuse of the word "offspring." Considering the data they selected, the correct title of their work would have been, "A study of the influence of parental alcoholism on the physique and ability of children of school age."

The term "offspring" includes the whole of a generation, and therefore covers a wide field. We are all "offspring" to the day of our death, and carry our hereditary gifts or disabilities throughout life. Hence, a memoir dealing with the "effect of parental alcoholism on offspring" ought at least to trace that effect beyond the age of 14—that is, into the period when the strain of inherited endowments begins to be tested in full.

As was pointed out by Dr. Maurice Craig (*Lancet*, June 25th, 1910), it is during the two decades next following the 14th year that symptoms of degeneracy usually appear. "It is when the real work of life begins that the child of the alcoholic parent first shows visible signs of early nervous exhaustion, morbid fears, or more serious mental disorder."

Again, no memoir professing to deal with the question, and pronouncing wide sweeping generalizations, is at all adequate unless it takes into consideration the physical condition of the infants from birth to school age, in addition to the years of development after school life and adolescence.

Our second charge against them, therefore, is that they have used in a scientific paper, for which they claim mathematical accuracy, terms which, as one of us (V. H.) pointed out last July (BRITISH MEDICAL JOURNAL, August 6th, 1910, p. 341), are so vague as to be misleading. They have thus gravely deceived the uncritical public into believing that their memoir is a scientific presentation of the subject, and that it has led to the discovery of certain "startling" (Elderton) conclusions.

### ERROR 3.—*Selection by the Authors of a Non-representative Population.*

Miss Elderton and Professor Pearson selected for the study of parental alcoholism what he called "a fair sample of the working class," but which was, in fact, a slum population sunk so low that of the 781 families inquired into no less than 62.5 per cent. were tainted by drink, and 81 per cent. were either drunken or in receipt of charitable aid (Keynes). By so doing they cut themselves off from the possibility of fulfilling the first requirement of a modern (and infallible) research into parental alcoholism and its effects by choosing such material that they were unable to make any comparison between the children of alcoholic and non-alcoholic parents respectively, and yet that is what, through their title and terminology, they profess to have actually accomplished.

* See first Memoir. While the present paper was being completed a second "Memoir" by Miss Elderton and Professor Pearson (to which we will reply later) has appeared, consisting of a personal attack on myself and a commentary on the work of some authors quoted in the book written by Dr. Sturge and myself. Although all work published over our names is well known to be in strict collaboration, Miss Elderton and Professor Pearson omit from cover to cover any reference to my colleague and her work. Professor Pearson's last two letters in the JOURNAL are also examples of the same discourtesy (Victor Horsley).

† The references are to the authors' papers enumerated above.

As Professor Alfred Marshall said (*Times*, July 7th, 1910, p. 18), "these two groups (of families) have been so selected that the conclusion reached is practically embodied in the choice of data."

(The "conclusion" Professor Marshall refers to is the chief generalization arrived at by Miss Elderton and Professor Pearson, namely, that the alcoholic parents and children were no worse than what they termed the "non-alcoholic," but who were really "less alcoholic.")

Had Miss Elderton and Professor Pearson chosen a fair sample working-class population, instead of a people living in what is described in the Edinburgh schedules as "this most dreadful neighbourhood," they would have been in a position really to study parental alcoholism, for they would have had at their disposal a group of genuinely non-alcoholic families to compare with the offspring of alcoholic parents.

Having thus prejudiced the issue by the selection of their statistical data they had no right or justification to make any generalizations of the kind for which their work has become notorious.

The utmost that the Edinburgh data they selected can supply as regards the biological efficiency of parents is a contrast between "alcoholic" and "less alcoholic" individuals, which is a totally different category of facts. It will be seen presently that for the question of wage-earning efficiency the Edinburgh statistics give, after careful elimination of those cases in which the data are wanting, a distinct contrast between the capacities of the alcoholic and less alcoholic parents respectively.

This contrast proves (*vide infra*) to be in favour of the less alcoholic individual, and against the drunken workman, thus contradicting Miss Elderton and Professor Pearson's chief generalization in favour of the drunkards, and confirming Professor A. Marshall's position.

But as regards the main issue of their work—namely, a study of parental alcoholism—the data are worthless for a comparison between alcoholics and non-alcoholics.

As a striking demonstration of this fact, and of the inconceivable carelessness and inaccuracy with which Miss Elderton and Professor Pearson have handled the Edinburgh data, we will take the example of the "teetotal families," which we have examined throughout the schedules.

Of course, as there are said to be always bright spots in darkest places, so it might be expected that even in such a population there would probably be some teetotalers.

There are a few. The Edinburgh Committee say in their report, p. 17, that of the 781 families they found 18 teetotal.

Miss Elderton and Professor Pearson say in their memoir, page 5, that the teetotal parents "were too small a class to be kept separate," and therefore they put them into what they call the "sober" or "non-alcoholics" class.

It is not, however, true for them to say they have not kept these teetotal parents separate, for it will be found, (1) page 37 et seq., that they enumerate the children of these (so-called) teetotalers in no less than twenty-eight tables, in separate columns under the heading *teetotalers*, and in contrast to "sober," "drink suspected," "drinks," "bouts," etc. Though we cannot explain why these authors deny the facts exposed in their own tables, we can show that their use of these so-called teetotal persons as teetotalers and as teetotal parents was most unjustifiable, and that, therefore, their tables are wholly untrustworthy, as will now be evident.

## ANALYSIS OF THE "EIGHTEEN TEETOTAL FAMILIES."*

In the first place it is not quite certain to us what constitutes a "teetotal family." For instance, the Edinburgh schedules give, as "teetotalers," a mother and all her children, one somewhat weak mentally, and these are spoken of in the report as a "teetotal family." Further investigations, however, show that the father is in an asylum suffering from "alcoholic insanity," though represented by Professor Pearson in his table to be earning 26s. 2d. a week.

In the second place, we have searched the schedules and find that *nineteen* fathers are spoken of as being "teetotalers." We therefore tabulate them as the "heads of the families," but in our opinion it is even more important to consider also the habits of the wife if the question of the effects of parental alcoholism is under discussion.

Miss Elderton and Professor Pearson have naturally not taken the matter of either the father or mother as being teetotal parents into consideration, since, as we have already seen, biological facts are of little importance to them if there is enough material for forming conjectures.

We have placed in the accompanying table the habits of the wife, that is, mother, in the so-called "teetotal families," wherefrom it will be seen that in a full half of the cases of "teetotal families" the mother either drinks or there is no evidence whatever to show whether she drinks or abstains.

In the remaining half, in which the wife is described as a "teetotaler," we have not, except in one instance (530), any more knowledge in her case than in that of her husband as to when the parental teetotalism began, that is, whether before the birth of the children or after.

*Table of "Teetotal Families."*

| No. of Father in Edinburgh Report. | Date of Pledge Taken. | Habits of Wife. | Date of Pledge Taken. |
|---|---|---|---|
| 22 | "Two years ago" | No evidence | Unknown. |
| 57 | Unknown | Teetotaler | — |
| 93 | Unknown | Probably a teetotaler | — |
| 108 | Unknown | Teetotaler | — |
| 141 | Twelve years. Four children born before; five afterwards | No evidence | — |
| 147 | Nine years—that is, since death of wife | Dead nine years | — |
| 200 | "Recently"; youngest child 4. | No evidence | — |
| 244 | Unknown | No evidence | — |
| 258 | Unknown | Teetotaler | — |
| 260 | Unknown | Drinker | — |
| 336 | Unknown | Drinks, but not seen to be drunk | — |
| 342 | Unknown | Teetotaler | — |
| 367 | Unknown | Teetotaler | — |
| 479 | Unknown | Teetotaler | — |
| 530 | "Now" | Drank at least during part of child-bearing period | "Now." |
| 621 | Five years | Suspected of drinking | Unknown. |
| 643 | Unknown | No evidence | — |
| 715 | Unknown | No evidence; home miserable | — |
| 774 | Unknown | Teetotaler | — |

Of these 19 cases, in no less than 13—that is, Nos. 57, 93, 108, 244, 258, 260, 336, 342, 367, 479, 643, 715, 774, there is no evidence to show when the father or the mother became a teetotaler before becoming a parent. Therefore these cases are worthless in a study of the effects of parental alcoholism. Of course this biological point is nothing to Miss Elderton and Professor Pearson, who have committed the far greater, in fact gigantic, error of not determining the parallel datum *qua* parentage—(namely, the incidence of the alcoholism) in the whole of the rest of the Edinburgh material—namely, 762 families (*vide infra*). It is quite comprehensible, therefore, why they accepted without question these thirteen teetotalers—whose incidence of teetotalism is absolutely unknown—as non-alcoholic *parents;* and, although they deny considering them separately, they nevertheless have done so freely. The rest—namely, Nos. 22, 141, 147, 200, 530, 621—are the only cases in which the facts of the incidence of the parental teetotalism are given in the schedules for the fathers, and it will be seen that these were not genuine teetotal parents, but the exact opposite.

Thus, No 22, whose youngest child is stated to have been 7 years old, was "a drunken wreck" until two years before the inquiry, when he became a teetotaler—that is, five years after his youngest (of four children) was born

* In our own opinion the expression "teetotal family" should only be applied to a household in which both parents are genuine teetotalers, and who commenced their teetotalism for some (say ten) years before the birth of their first child.

It is clear that this was an instance, not of parental teetotalism, but parental alcoholism.

No. 141 became a teetotaler after the first four of his children were born and before the remainder (five). Of these five, four appear in the schedules in detail. Of these four, the first child was born immediately after the father's teetotalism commenced, and the three others followed within five years. In our opinion the father's parentage of these children was not, accurately speaking, a teetotal one, but an alcoholic one, in diminishing ratio. (We may note, in passing, that the intellectual capacity of the four children increased as the alcoholic influence went more and more into the background, the description of the mental aptitude of the children being successively "dull," "dull," "medium," "good" (for the youngest—that is, born six years after the alcohol had been given up).

No. 147, the youngest of whose five children was 10 years old, and who had become a teetotaler after his wife's death "nine years ago"—that is, a year after the last child was born—is described as having been "a hard drinker, and broke her (that is, his wife's) heart."

No. 200 figures as a teetotaler, but he only "recently" signed the pledge after a "reckless" life. His youngest child was $6\frac{1}{2}$ years old, however.

No. 530. All children dead, except one 9 years old. Father and mother "teetotalers *now*" (*sic*).

No. 621. This man only became a teetotaler *after* the birth of his two children, whose cases are described in the report.

To sum up this matter of the so called "teetotal families" and the use made of them by Miss Elderton and Professor Pearson, it is perfectly obvious (1) that for all except 6 of the cases there were no data whatever as to the existence or not of non-alcoholic paternal parentage; (2) that in no case did they consider whether the mother was, in fact, a non-alcoholic parent. As Professor Bateson truly observes of Professor Pearson's work, it is very obvious that his "methods dispensing with individual analysis of the material are useless" (*Mendelism and Heredity*, p. 7). In this question of national eugenics they are also most dangerous.

No doubt, Miss Elderton and Professor Pearson have saved themselves much time and trouble, but only at the expense of their own scientific reputation and that of the Galton Laboratory of Eugenics.

We shall presently see further inaccuracies and errors, for which these authors are responsible, owing to their omission of necessary statistical precautions in examining the data they selected and to their method of creating such statistics where real data did not exist. Also, we shall show later how their methods of treating the data always tend in favour of the capacity of the drunken, and therefore in support of their first and chief generalization.

ERROR 4.—*Absence of any Proof of Alcoholism beginning before the Birth of the Children.*

As Professor Marshall says (*Times*, July 7th, 1910): "An inquiry into the influence of parental alcoholism on the offspring must suppose that the alcoholism had set in for some time before the offspring were born."

All will agree to this elementary biological position, and therefore—like Mr. Keynes, and notably Dr. Saleeby—we looked through Miss Elderton's and Professor Pearson's memoir to see how they determined this essential and fundamental datum for each child whose case they subsequently investigated mathematically.

Not one word on the subject is to be found in their memoir, although we are told to receive it as a monument of scientific infallibility. In the report of the Edinburgh Charity Organization Committee, which formed the one-half of their original material, the datum is not given anywhere. Unfortunately the other half of their material—Miss Dendy's—is so far kept private, and we have no means of knowing whether it contains these facts so essential to a mathematico statistical investigation into parental alcoholism.

Thus, though Miss Elderton and Professor Pearson grouped the children investigated by the Edinburgh workers into all kinds of tables, and illustrate their "physique" and "ability" by numerous graphs and determinations of "$\eta$," they did not even know how many were, or which of the said children was, or was not, the subject of the effects of parental alcoholism.

In other words, the pages of tables and calculations are, statistically speaking, deceptions, because they are represented to be the results of certain exact scientific determinations, which, as a matter of plain fact, have never been made by the authors.

This fatal hiatus, in a research for which so much accuracy is claimed, has been repeatedly pointed out by the following writers: Sullivan, Keynes, Saleeby, Whittaker, Sims-Woodhead, Basil Price, and one of us (M. D. S.). Professor Pearson was forced to attempt some kind of reply to this indictment, and therefore put it in a small-print footnote in his supplemental memoir, p. 15, actually repeating it in a letter against us in the JOURNAL for November 26th, 1910. It is as follows: "There are as many children of 5 and 6 as of 11 and 12, and *if some* children were born before parental alcoholism had started, *some* were certainly born after," etc. The italics are ours.

We have elsewhere (BRITISH MEDICAL JOURNAL, December 3rd, 1910) shown that this passage by Professor Pearson convicts Miss Elderton and Professor Pearson of indifference to scientific facts in their composition and construction of their statistical tables. For the whole of their memoir being professedly a study of the effects of parental alcoholism in children, the above quotation proves two things: first, that they have not, and never have had, adequate data to give them a basis for such a mathematico-statistical inquiry as they profess to have carried out; and secondly, that in spite of being perfectly well aware that a number of the children must have been born before the parental alcoholism set in, they nevertheless included them in their tables without the slightest reserve or qualification, and thereby vitiated their whole research. This second biological error—namely, their huddling together in a confused heap the children of alcoholics of various degrees and children of parents whose alcoholism began after the birth of their offspring with children who were really born after the alcoholism began—is the principal reason why their results are so inconclusive as well as erroneous (*vide infra*). To our mind the indifference to scientific facts and terms which led Miss Elderton and Professor Pearson to speak incorrectly of having worked at "alcoholic" and "non-alcoholic" parents is only exceeded in scientific wrong-doing by their thus publishing elaborate mathematical tables about the influence of parental alcoholism on children as though they knew which of these children were or were not the subjects of parental alcoholism when they had no data of the kind in their hands, and consequently based their whole research on conjecture. Most truly do the words of Professor Marshall (see *Times*, August 2nd), spoken of another point, also apply here, namely, that Elderton and Pearson's memoir does not "represent ascertained fact, but contains a large element of conjecture." Nothing is more true, for owing to this hiatus in their information, all their tables about the physique and ability, etc., of the offspring are based entirely on conjecture.

Professor A. Marshall raised in the *Times* (July 7th, 1910) the very important further question how long before the birth of the children who were found at the date of inquiry *to be at school* must the alcoholism be found to have begun, to be reasonably effective. He suggests that this period might be fifteen years. Of course, this is an essential point, which is partly included in the general question of the incidence date of the alcoholism, but it certainly should have been dealt with in the memoir as a separate part of the greater general question.

So also Dr. Claye Shaw, in his evidence before the Committee on Physical Deterioration, said: "We must be careful to eliminate in the case of the father the time when he became an excessive alcoholic. One often sees the later members of a family of worse development than the earlier ones because the father began his excessive indulgence after the earlier children were begotten." These points have never been considered by the authors.

What makes their conduct still more inexcusable from the standpoint of scientific statistics is that with all the wealth of material in their hands they could, with the help of the Edinburgh Charity Organization Society, have ascertained the essential datum of the incidence of the parental alcoholism in a considerable number of cases with but a relatively small expenditure of time and money. Unfortunately sensationalism and "emotional appeal" seem to have outweighed the necessity of further

scientific labour in what the *Times* called a "passionless and scientific inquiry."

The Effect of Miss Elderton and Professor Pearson's Errors of Method on their Tables of Children's Physique and Ability.

We have just seen that the authors' tables and graphs of the children's physique and ability are fatally vitiated by want of "alcoholic" and "non-alcoholic" grouping, as well as by the absence of data as to which children were or were not the victims of parental alcoholism.

An illustration of the scientific failure of the Memoir owing to these fundamental biological and statistical errors is that out of the 20 pages of tables and statements of results, nearly one-half (actually 9½) are devoted to "parental alcoholism and filial eyesight" in four sections, and yet are utterly inconclusive as results. Thus of the first (refraction) section they finally say: "Throughout the relationships are really small and clearly not simple in character, so that not much stress can be laid on them; but as far as they go (*sic*) they show no definite and marked connexion between intemperance and bad eyesight—the connexion, if any (*sic*), is rather between intemperance and good sight" (p. 19).

Of the second section (acuity) they say: "There is no definite conclusion which can be legitimately drawn beyond the assertion that if acuity of vision is related to parental alcoholism, the relation must be very slight and complex in character" (p. 21).

Of the third section (eye disease) they say: "We think we may say that no correlation between intemperance of the parent and eye disease in the child is indicated by these (Edinburgh) data" (p. 22).

Of the fourth section (home and street environment) they say: "The relationships, whatever they may be . . . are too slight and too entangled for any definite conclusions to be drawn from the present statistics" (p. 25).

To every impartial observer these conclusions of Miss Elderton and Professor Pearson on the subject of parental alcoholism and filial eyesight are valueless as contributions to exact scientific knowledge, and their failure should constitute a warning to these investigators to observe well-known biological and statistical precautions before dealing with human statistics.

Error 5.—*Contradictory Statements by Miss Elderton and Professor Pearson concerning the Children of Alcoholic Parents—for example, their Physique, Health, and Higher Death-rate.*

The Edinburgh data contain an important column, namely, one giving the number of dead children in each family. From this Miss Elderton and Professor Pearson found a higher death-rate among the children of alcoholic parents than among the children of sober parents.

But they also conclude that the health of these same children "appears on the whole slightly better than the health of the children of sober parents." As one of us (V. H.) pointed out last July, these statements are incongruous, for children who are healthier ought not to die more. In their reprinted memoir they take up this objection (although Professor Pearson in the Journal of December 24th complained that we had never treated his work seriously till quite recently) and say that there is no *a priori* basis for saying that healthier "*surviving*" children ought not to die more than less healthy children. To support this they have inserted the word "*surviving*," by which they intend to suggest that if we assume the excess of deaths among the alcoholics' children to all occur before the age of 5 years, we may imagine the survivors—that is, school children—to be stronger individuals. Their original sentence, which we have just quoted, was, of course, wholly unqualified, and has been (and will continue to be) repeated by the drink trade all over the world as the "scientific proof" of the beneficent harmlessness of alcoholism. An act of this sort carries with it its own condemnation, and, further, on turning to their explanation of this higher death-rate of the alcoholic group, we find (Memoir 1, p. 31) that they make the following deliberate statement.

"It [the higher alcoholic offspring mortality] would appear to be due very considerably to accidents and gross carelessness, and possibly in a minor degree to a toxic effect on the offspring."

Anyone who had not seen the original memoir would naturally assume that the authors worked out mathematically the number of accidents and conditions due to carelessness, and thus obtained some sort of basis for their statement that the alcoholics' children die more from accidents directly due to parental intemperance and carelessness, than from the degenerative consequences of that intemperance.

The Edinburgh data, on which their statement is mainly based, contain absolutely nothing on the question of deaths from accident. There is no indication either that Miss Dendy's notes furnished any information of the kind.

The above-stated conclusion, therefore, is not the result of scientific study of statistics, but is created by Miss Elderton and Professor Pearson in favour of the non-toxicity of alcohol, and has no place among the conclusions of what they term "real knowledge" (p. 32), except as regards "overlaying"* (see our book, *Alcohol in the Human Body*, fourth edition, p. 260).

For the adequate consideration of this point, and before coming to their conclusion, the authors ought at least to have ascertained what proportion of accidental deaths actually occurred in Edinburgh among children exposed to domestic carelessness. As they did not take this obvious precaution we have obtained, through the great kindness of Dr. Leslie Mackenzie, the number of accidental deaths among children below fourteen years occurring in Edinburgh during the last seventeen years. These figures, very carefully prepared for us by the Deputy Chief Constable J. Chisholm and Detective Sergeant McCondach, show that the average number of deaths per year is 17. Of these, those occurring in children of the helpless ages—that is, 6 years and below—resulting from burns, scalds, suffocation, causes which might probably be the direct result of domestic carelessness, constituted 31.7—say 32 per cent. In other words, it would appear that between 5 and 6 deaths occur per year under these circumstances. Estimating the child population of Edinburgh at about 70,000 (there are 45,000 attending the schools), the cases which are attributable to "alcoholic" accident obviously must form but a small fraction of the heavier mortality they found to exist among the offspring of "alcoholic" parents. Clearly the ordinary condition, that the weaklier offspring die more than the healthier, remains unaffected by Professor Pearson's and Miss Elderton's hypotheses against the toxicity of alcohol.

Although we have shown that the whole of Miss Elderton's and Professor Pearson's memoir is, biologically speaking, worthless for the purposes of the study of the effects of parental alcoholism in offspring, by reason of being only a mathematical superstructure raised, as Sir Thomas P. Whittaker says, on a "rotten foundation," we intend now to take up the examination of the chief statistical generalization published in the Memoir, namely, that the wage-earning capacity and efficiency of the drunkard is at least equal to or possibly a little above that of the sober workman.

In saying this we regret in a mathematico-statistical discussion to use such a vague expression as "at least," but it will be seen directly that there are two versions of this sweeping generalization — one, that of Miss Elderton and Professor Pearson, in favour of the sober; and one, that of Professor Pearson, in favour of the drunkard—any vagueness of expression therefore lies at the door of these authors. We take this point up for many reasons, but must preface the discussion by saying that Professor Pearson's contradiction of himself and Miss Elderton is unaccompanied by any explanation, and that examination of their tables shows that they only arrived at their "startling" generalization by mishandling the Edinburgh statistics.

Of course it was upon this chief generalization of Miss Elderton and Professor Pearson that the supporters of alcoholism raised most of their hopes. We confess that until we were able to give time to the closer examination of the memoir we had no idea that workers in any statistical or other laboratory could have dealt with published facts in such a manner.

We note, too, in passing that our experience of the way in which the Edinburgh statistics have been treated by

*"Overlaying," however, appears to be much less frequent in Edinburgh than in Liverpool or London.

Professor Pearson is similar to that recorded of his methods by scientific workers in other fields. (See especially Professor Bateson. After showing that Professor Pearson's non-analytical method leads to "concealment of that order which it was ostensibly undertaken to reveal," Professor Bateson says: "To those who hereafter may study this episode in the history of biological science it will appear inexplicable that work so unsound in construction should have been respectfully received by the scientific world." *Mendelism and Heredity*, pp. 7, 107, 124, 242. Cf. also Dr. W. Leslie Mackenzie on the methods of the work done in Professor Pearson's laboratory on tuberculosis. "On the Diathesis of Phthisis and of Insanity." *Sociological Review*, October, 1910.)

ERROR 6.—*Erroneous Conclusion that the Efficiency, as Measured by Wage-earning Capacity, of an Alcoholic Male* Parent is at least Equal to that of a Less Alcoholic Male Parent.*

We will now consider in detail the chief generalization raised by Miss Elderton and Professor Pearson, namely, that the effect of his alcoholism on the male parent himself is for biological and social statistics a negligible quantity, since their calculations showed them that his "physique," "intelligence," "wage-earning capacity," and "efficiency" are at least equal to that of a "sober" parent.

Of all their "startling" conclusions this is, of course, the most important, because it is so diametrically opposed to every known fact of social life, seeing that alcohol, to quote the Report of the Royal Commission on the Poor Laws, 1909, p. 221, is universally recognized to be "the most potent and universal factor in bringing about pauperism," and the Report of the Interdepartmental Committee on Physical Deterioration that "drink occupies a prominent place among the causes of degeneration."

These authors begin this subject with the following pronouncement, which we take from their first Memoir, p. 4:

"The wages of the father are to some extent a measure of the general status as to physique and intelligence of the parent. If we consider the father alone, we find that the weekly wages of a drinking man are on the average 25s., and a non-drinking man 26s."

Most people would deduce from this statement that the balance of a shilling in favour of the less alcoholic parent was a fact rather against alcoholism. Not so. Miss Elderton and Professor Pearson hasten to suggest that "a somewhat higher physique or intelligence in the alcoholic might be screened (*sic*) by their habits giving them a lower market value."

The use of this excellent word "screened" prepares the reader for their following pronouncement:

"On the whole it seems reasonable to assume that the drinking parents are in physique and mentality the equal on an average of the sober or possibly *a little above their standard*" (first Memoir, p. 5).

The italics are our own.

It was, however, quite unnecessary for Miss Elderton and Professor Pearson to act thus on May 21st, 1910, as special pleaders† on behalf of the drunkard and to extol his physique and mentality, since the whole question was on September 1st again plunged by Professor Pearson into statistical chaos.

With "calm" born, one must suppose, of indifference to their previous statement, just quoted and deduced from the Edinburgh statistics—that the alcoholic parent earned only 25s., as against the less alcoholic parent's 26s.—he wrote his supplemental memoir, in which, without a word of warning or correction, he published (from precisely the same data, the Edinburgh statistics) a new estimate (p. 11)—namely, that "the average wage of a drinker is 25s. 6d., and of the temperate 25s. 5d." This extraordinary contradiction of fact being deduced from "scientific statistics" and by means of higher mathematics, we have put into tabular form to make it perfectly clear.

*Average Weekly Wage Earned.*

| Date of Estimate. | Drinker. | "Sober," "Temperate," or Less Drinker. |
|---|---|---|
| May, 1910 (Elderton and Pearson, first Memoir, p. 4) | 25s. | 26s. |
| September, 1910 (Pearson, Supplemental Memoir, p. 11) | 25s. 6d. | 25s. 5d. |

We must now point out to the reader (who may be completely puzzled to know why in August Professor Pearson took 7d. away from the virtuous "less drinker" and gave 6d. to the undeserving drinker) that Miss Elderton and Professor Pearson in May, 1910, provided no evidence whatever to show how they arrived at their contrary conclusion that the "less drinker" was better off by 1s. than the "drinker."

It is, of course, very difficult to deal with "scientific statistics" of this perfection when no hint is given by the mathematician authors of the method whereby they arrived at their first estimate and upon which they based the "startling" conclusion that drunkards are as good as or even better than sober people, which so delighted the *Licensing World* and earned from Sir J. Crichton-Browne such eloquent praise.

But although the scientific world must remain in the outer darkness for want of the necessary information about their methods from Miss Elderton and Professor Pearson, we are not altogether without some idea of the standpoint from which Professor Pearson tried to recast these authors' estimate of 26s. *versus* 25s., and ultimately substituted for it his of 25s. 5d. *versus* 25s. 6d.

In the *Times*, August 10th, 1910, he gives a wage (and sobriety) table, which he had drawn up and termed an "analysis of the fathers' trades," putting it forward with the commendatory parental observation: "This seems so instructive that it is worthy of publication."

It is certainly instructive, but not in the sense Professor Pearson meant.

What he did was to take from a "verification" wage table drawn up by the Edinburgh Committee (*vide infra*), the average weekly wage found by that committee for those cases in each trade in which the data existed in the schedules for a correct statement to be calculated. Professor Pearson then applied to every case he could find or *imagined* to exist (*vide infra*, "Coopers," "Porters," etc.) in the schedules, the *same* rate of wage, whether the data for such application existed or not. Of course in the imagined class there were no such data, and Professor Pearson's action amounted to constructive mispresentation of the facts.

Having thus, as Mr. Keynes (loc. cit., p. 119) points out, "assumed from the beginning his own solution of the point at issue, namely, as to whether the drunkards in a trade earn as well and as regularly as the sober in that trade, he arrived not unnaturally at the conclusions quoted above."

Now "the conclusions" that Mr. Keynes refers to are the figures of the second, Professor Pearson's, estimate on our table above—the wages earned by the drunken and sober workman respectively—that is, 25s. 6d. for the drinker and 25s. 5d. for the sober.

But, as we have already shown, these conclusions are in absolute contradiction of those arrived at by Miss Elderton and Professor Pearson only three months before—namely, 25s. for the drunken and 26s. for the sober workman.

Whether an interval of a few months caused Professor Pearson to commit such a large error in calculating such a thing as an average weekly wage, or whether he carelessly copied down wrong figures from the first Memoir,

* The Edinburgh data only provide for investigation of this matter as concerning the male parent, and it must also be remembered that Miss Elderton and Professor Pearson's so-called "non-alcoholic" parent was not a "non-alcoholic" at all, but only a "less alcoholic."

† To those who are interested in the growth of legends, we recommend the study of Miss Elderton's work, *The Relative Strength of Nurture and Nature* (*sic*), published in 1909, where, on p. 26, can be read the preliminary stages of the birth of her and Professor Pearson's generalization as follows: "But before asserting that intemperance of the parents has practically no effect on the physique and intelligence of the children, there is a point to be considered, which I mentioned in the first part of this paper. What is the status of the drinking workman? Is the drinker on an average the abler man and of finer physique? As before, the only estimate we have at present of the intelligence and physique of a workman is the wage he earns. A high wage on an average will mean a stronger and more efficient workman." Miss Elderton further on concludes that "if wage, then, is an estimate of ability and physique, we may say that the ability and physique of the drinking workman is about the average." Thus far in 1909. A few months elapse, and she and Professor Pearson suggest in 1910 that the drunkard may be "possibly" a little above the standard of the sober. The generous public will probably improve on this by putting the drinker up even higher, but we hope that our demonstration that all the superstructure Miss Elderton and Professor Pearson have raised is as substantial as a house of cards, will arrest the growth of this fairy tale of drunkenness.

it follows in either case that his and Miss Elderton's statistical work is what Mr. Keynes called it—"almost valueless" and "actually misleading." We ourselves would omit the word "almost," for, in view of the claims made by the authors to complete mathematical accuracy, the discrepancy we have just tabulated destroys, it will be admitted, the whole value of their statistical memoir.

There is now a far graver charge to be made against Professor Pearson. Carelessness and statistical inaccuracy are serious enough, but we will now show that his table called "analysis of the trades," published by him in his letter to the *Times* of August 10th (for which, according to that letter, he alone is responsible) and also in his Supplemental Memoir, gives a misleading construction of the scheduled *facts* published in the report of the Edinburgh Charity Organization Society.

We must draw attention to the fact that this rendering of the Edinburgh statistics, which is the result of the method employed by Professor Pearson in constructing his table, has been already fully exposed by Mr. J. M. Keynes in the letter published in the *Journal of the Royal Statistical Society*, December, 1910, pp. 117–120.

Mr. Keynes, after showing that Professor Pearson constructed his table of averages, no matter whether the data for his calculations existed in each case or not, says: "Even if these supposed averages were true averages, they would not be very relevant to the matter in hand, for they do not attempt to discriminate between the drinkers and non-drinkers, and cannot help us, therefore, to determine the relative earnings of these two classes. Professor Pearson has classified the men into their trades, whether they were helpless invalids, lunatics, in regular or in casual employment, and has then put against them the wages they might have earned, not those which they actually do earn."

Mr. Keynes, after giving many examples of the real figures in the Edinburgh report and Professor Pearson's travesty of them, sums up by saying: "It is difficult to know how properly to characterize the work of a statistician who uses in controversy a table of this description with dogmatic assurance and without making plain to the reader the principles of its construction."

For the sake of those who have not the opportunity of consulting the original material, we must now go over part of the ground so ably dealt with by Mr. Keynes to explain the work of the Edinburgh report, and to show how completely Professor Pearson's mode of compiling tables and statistics, with or without the use of higher mathematics, has, unintentionally, resulted in a corrupt version of the facts.

The Edinburgh report consists primarily of an elaborate series of records put in schedule form, giving many social details of each family, of the parents, of the children (school medical details), and, finally, a brief account of the family in plain, and often painful, terms.

The column giving the work or trade of the father is immediately followed by a column giving either the weekly wage he earned, or often the full wage (trade union) earned in his trade, and occasionally—if his work was casual or irregular—the average weekly wage.

If, of course, as sometimes occurs in the schedules, the irregularity of work was such that no average could be struck, or the man was hopelessly out of work, or ill, or in gaol, or in an asylum, no wage, naturally, is stated. These facts of omission from the records, however, have been no bar to Professor Pearson, who has actually invented for 17.9 (say 18) per cent. of the cases in his table a wage for which the Edinburgh Committee's report not only gives him no justification, but by its verified wage table specially provides against such perversion of the facts. It is this last point which makes Miss Elderton's and his treatment of these statistics so particularly to be deprecated, for the Edinburgh workers not only give in the schedule of each case every detail in their power, but on this very question of wage earning they state that they went over all the facts again and finally, after further consultation with the employers, drew up a specially verified wage table, which they publish on page 18 of the report, and in which they specifically state for each trade the weekly average wage and the number of cases from their records for which *alone* their wage table is accurate.

Nevertheless, Professor Pearson, with what he and Miss Elderton speak of as "judicial calm," takes the average wage rate, as accurately ascertained by the Edinburgh workers for only a limited number of men, and applies it haphazard to as many more cases as he thinks fit. It follows, of course, that as the most drunken workmen, being the most casual and irregular workers, naturally constitute the majority of cases in which no data exist, he, by gratuitously ascribing to these men the Edinburgh verified average weekly wage, raises the drinkers' side of the account to the level of the "less drinkers."

A more incredible act on the part of a mathematically exact statistician it is hard to imagine, and therefore we will proceed to give some illustrative cases of his method of dealing with wage and sobriety statistics in constructing his table, called by him "an analysis of the fathers' trades."

For the detailed examination of the trades of chimney-sweeps, blacksmiths, and bookbinders, we must again draw attention to Mr. Keynes's latest communication quoted above (*Journal of the Royal Statistical Society*, December, 1910, pp. 118–121), where the first examination of this matter was given.

*Gasworkers.*

The first trade we will take will be a numerically small one, that of the gasworkers, and we will commence our account of it by saying it was not one of those which the Edinburgh Committee verified. The table which follows, therefore, consists of a brief extract of the facts from the schedules as they were passed in the first instance by the committee and appear in the schedules of the report.

*Gasworkers.*

| No. in Edinburgh Report. | Wage stated in Edinburgh Report Schedule. | Comments Abbreviated from Edinburgh Report Schedules. |
|---|---|---|
| 66 | 23s. 4½d. | No suggestion of intemperance. |
| 226 | 24s. | " " " |
| 236 | 21s. 3d. | Drinks a little, but keeps pretty decent. |
| 412 | 25s. 6d. to 30s. 4d. | Sober. |
| 413 | 37s. 4d. | Sober. |
| 415 | 37s. 4d. | Sober. |
| 429 | 37s. 4d. | Sober. |
| 678 | 30s. | "Drink present." "Very little furniture." |

Professor Pearson, in his table, says that the Edinburgh statistics show *five* gasworkers all "sober" and earning an average wage of 27s., whereas the actual schedules of the report give, as we show in the above table, *eight* gasworkers of whom six are "sober" and two drink, and if we take the average of all their wages in the schedules (striking an intermediate wage of 27s. 11d. for No. 412) that is not 27s., but 29s. 9¾d. To begin with, therefore, even this unverified table is constructively mispresented by Professor Pearson in his analysis. One point which requires explanation is, why did he leave out the two drinkers? It is, of course, impossible for us to say, but we would point out that these two drinkers whose existence Professor Pearson ignored earned an average wage of only 25s. 7½d., whereas the six "sober" ones earned an average wage of 31s. 2¼d. Thus the drinker drops 17.8 per cent. of the wage earned by the sober man, a result which, in full accord with Professor Marshall's position (*Times*, August 19th, 1910), directly contradicts Miss Elderton's and Professor Pearson's great generalization that the wage-earning capacity of the drinker and sober man is practically the same.

*Coopers.*

We will now take the men of another trade—namely, coopers. On the whole, they appear as a steady, sober class of artisans. The Edinburgh Committee went over the list, and finally verified the wages for six cases, striking the average weekly wage at 28s. 6d. Professor Pearson, with considerable "judicial calm," represented to the readers of the *Times* that the Edinburgh schedules give twelve coopers earning an average wage of 28s. 6d., which he simply borrowed from the Edinburgh Verification Table, and applied it to his twelve coopers wholly without justification, for the Edinburgh Committee state that it

only applied to six coopers. Nay, more, to compose his table of wage-earning capacity and sobriety he puts down opposite his twelve coopers that eight were "sober" and four drunken—a proportion, it will be seen, of two to one. Now, the Edinburgh schedules, when completely searched, show that instead of *twelve* coopers there are only *eight*, the details relating to whom are as follows:

*Coopers.*

| No. in Edinburgh Report. | Average Weekly Wage. | Comments from Edinburgh Report Schedules. |
|---|---|---|
| 139 | 31s. | "Except for the daily beer at the brewery, he keeps temperate." |
| 150 | 31s. | Ditto. "Well-kept family." |
| 209 | 22s.* | "Casual." "Sober." |
| 229 | Possibly 30s.* | Out of work; casual. Sober. |
| 360 | 31s. | Sober. "A nice well-doing family." |
| 388 | 20s. | Sober. |
| 499 | 28s. | "Drinks considerably." |
| 733 | 28s. | Apparently sober. |

*Excluded.

To return, Professor Pearson in his table says the Edinburgh statistics give twelve coopers, of whom eight, he says, are "sober" and four drunken, and that all these twelve earn 28s. 6d. a week, whereas the actual schedules of the report give, as we show in the above table, only eight coopers, of whom seven are "sober" and one drinks. If we now take the average of their wages as stated in the Edinburgh schedules, and if we exclude Nos. 209 and 229 as cases in which, owing to the irregularity of their work it is impossible to calculate their wage correctly, we are left with six coopers whose average wage, 28s. 2d., approximates to that given in the Verification Table of the Edinburgh Committee (also for six coopers), namely, 28s. 6d. This figure, 28s. 6d., Professor Pearson as before takes for his extra six coopers, four of whom, as we have just shown, have no existence in the Edinburgh records at all, but are imaginary. Of the two who do appear in the record—namely, 209 and 229, the two we excluded for the obvious reason that it was impossible to treat their cases with accuracy, the utmost that could be said for them is that, according to the table, No. 209 on the average might earn an average weekly wage of barely 17s., and No. 229 might from the data be estimated to earn an average weekly wage of barely 23s. In neither case do these two men earn anything like the wage Professor Pearson has presented them with—namely, 28s. 6d.; and, as for his four imaginary coopers, though he gives them 28s. 6d. per week, they cannot honestly be said to earn anything at all. Thus "scientific" statistics are made by Professor Pearson. But we must now take his views on the sobriety point. As stated above, he asserts in his table that, of his 12 coopers, 8 are "sober" and 4 drink, that is a proportion of 2 "sober" to 1 who drinks. The real fact is, as the Edinburgh records, which we quote above, definitely show, there are only 8 coopers altogether, and that, of these 8, 7 are sober to 1 who drinks. So that not only has Professor Pearson given an incorrect rendering of the Edinburgh statistics as regards the number of coopers and the wages they earned, but he has also represented them as containing a considerable proportion of drinkers (one-third), whereas they are distinctly above the average of sobriety in the terribly slum population of which they form a part.

Of course, had they been as drunken as he wrongfully asserts, they would, as a well-paid group, have materially aided his and Miss Elderton's conclusion that the drunken workman is as good a wage earner as the sober man.

The most salient point, however, about this particular case of the coopers' sobriety is that it demonstrates another grave feature of Professor Pearson's statistical methods—namely, the creation of cases which are not in the Edinburgh schedules at all. In this instance Professor Pearson first created four individuals who have no existence as coopers, whatever they may have had as labourers, etc.; secondly, he represented that three of these imaginary coopers were drinkers; and, thirdly, accorded to each and all of them, a wage of the amount which belonged to other (real) individuals whose wage earning had been accurately ascertained by the Edinburgh Committee. We shall see that this "mathematico-statistical" method is not an exceptional instance, but that it is habitual with Professor Pearson, and that it is one of the chief factors which has led him necessarily to the erroneous conclusion that the wage-earning capacity, physique, and mentality of the drunkard are on a par with those of a "sober" man.

*Painters.*

We will now take a numerically stronger trade—that of the painters, a trade in which irregularity of work is very common, and in which, unfortunately, alcoholism is also very common. The total number of painters given in the Edinburgh records is 38. On going through the following table, which is constructed from the report schedules, we find that there are 24 cases in which a weekly average wage can be accurately calculated. The Edinburgh Committee give in their Verification Table 23 such cases, and the verified wage rate for these 23 cases they find is 25s. 6d. We obtained almost the same average wage by our calculations of the 24* cases in which such calculations were possible from the data in the schedules. We take the Edinburgh verified result—namely, 25s. 6d.—as the corrected weekly average wage for the 24 painters.

Now Professor Pearson, as we said just now, states in his wages and sobriety table that there are 37 (really 38) painters and that they earn the average weekly wage, which, as usual, he borrows from the Edinburgh Verification Table—namely, 25s. 6d. In other words, he deliberately puts this figure opposite every man, in spite of the data which are given in the schedules of the Edinburgh report (see our table below), and in spite of the direct statement of the Edinburgh Verification Table that their average weekly wage only applies to 23 cases and not to 38. To our minds such a statistical "method" is scientifically inexcusable. We will now come to the question of the average weekly wage earned by the drinking painter as against the sober painter. Of course, Professor Pearson's statement on this point in his table is wholly valueless, because, as we have just seen, he entirely neglects the data of the Edinburgh report, but we will first note that he asserts that the proportion of drunken to "sober" individuals is that of 14 to 23. Even this is not correct. The truth is that if the whole number of painters be taken, as in the table given below, the average weekly wage put down where it can be ascertained correctly from the data in the schedules, and the remaining cases denominated by a statement of the reason which necessitates their exclusion, it will be found that, as stated just now, there are 24 cases, and that, instead of the sober to the drunken being only as 2 to 3, according to Professor Pearson, they are in fact as 11 to 13, even including 2 "doubtful." And in the second place it will be found that the average weekly wage comes out for the "sober" painter at 28s. 10d. and the drinker at 20s. 10½d. We will now give the table of these facts, putting the cases into the categories of "drinking," "doubtful," and "sober," marking with an asterisk the cases made useless by incompleteness of the data. (See table, p. 80.)

The facts, therefore, as regards the sobriety of the three classes of painters are:

| | |
|---|---|
| Sober—average weekly wage... ... | 28s. 10d. |
| Doubtful ,, ,, ,, ... ... | 26s. 5d. |
| Drinker ,, ,, ,, ... ... | 20s. 0½d. |

It will be seen from the comments we have extracted from the Edinburgh schedules that Professor Pearson has bestowed a wage of 25s. 6d. per week on fourteen individuals concerning whose real wages either nothing whatever is known, or that, whatever they may have earned when they were at work, those industrious occasions were so rare (and sometimes rendered so impossible by the man being in prison) that no average weekly wage could be accurately ascertained. Nevertheless, the exigencies of Professor Pearson's argument are great, and he accords to each of these individuals 25s. 6d. per week. Again we say that his "method" of representing the

*The Edinburgh wage table does not identify by the report numbers which were the 23 individuals whose wages they verified, but obviously they must be in our 24.

*Painters (Wages and Sobriety Table).*

| No. | Drinkers. | Doubtful. | Sober. |
|---|---|---|---|
| 27 | Wages not known* | — | — |
| 31 | 10s. | — | — |
| 34 | 36s. Irregular* | — | — |
| 53 | 36s. Irregular. "Out of work"* | — | — |
| 61 | 20s. 9d. | — | — |
| 88 | — | 30s. Irregular, out of work* | — |
| 101 | 25s. average for year | — | — |
| 130 | 12s. | — | — |
| 162 | No average possible* | — | — |
| 169 | — | 30s. Apparently does not drink to excess | — |
| 233 | — | — | 27s. |
| 271 | — | — | Wages unknown. An unemployable.* 25s. |
| 289 | — | — | |
| 292 | — | — | 37s. (34s. to 40s.) |
| 296 | — | — | 30s. |
| 325 | — | Irregular. No average possible* | — |
| 411 | — | — | 24s. average. |
| 417 | 16s. Casual out of work* | — | — |
| 462 | 21s. | — | — |
| 464 | — | Incapable. No average possible* | — |
| 513 | Casual, filthy, drinker, in and out of gaol* | — | — |
| 539 | 10s. 5d. | — | — |
| 545 | Casual, Very intemperate, convicted 27 times* | — | — |
| 563 | 23s. 1d. average for year | — | — |
| 574 | — | — | Paralysed. Unable to work three years.* |
| 577 | — | — | "Steady, earning a good wage," 30s. 9½d. (average between maximum 36s. 1½d. and Edinburgh average rate). |
| 623 | — | — | 30s. 7½d. (25s. to 36s. 3d.) |
| 658 | Casual. No average possible* | — | — |
| 675 | Irregular. Concussion* | — | — |
| 686 | — | — | 18s. |
| 694 | 31s. 9d. (27s. 6d. to 36s.) | — | — |
| 695 | 20s. 9d. | — | — |
| 707 | — | — | 36s. |
| 712 | — | — | 26s. 11d. |
| 713 | 24s. | — | — |
| 735 | 22s. | — | — |
| 736 | — | — | 30s. 9d. |
| 769 | — | 23s. Formerly intemperate | — |

* Excluded.

Edinburgh data constitutes a mispresentation of the published facts.

Moreover, exactly as in the case of the coopers just described, of these ne'er-do-well cases rejected by every statistician except Professor Pearson, it happens that no less than nine are proved drinkers, three are doubtful, and only two sober. It is, again, easy to see that by giving the drunkards—one of whom was convicted twenty-seven times—the full average wage, which they never earned, Professor Pearson and Miss Elderton had ultimately no difficulty in "proving" that a drunkard was just as good a wage earner as a sober man.

The real fact, however, is that the drunken painter earns about 30 per cent. less than the sober man.

*Masons.*

Masons form a very distinct, well-paid body of men, whose work is easily defined and cannot be confused with other callings, such as masons' labourers, masons' blacksmiths, bricklayers, etc. The schedules of the Edinburgh Report give the facts concerning fourteen masons. Professor Pearson's table, which he tells the public he constructed also from the Edinburgh schedules, contains, however, no less than twenty-two masons. Here, then, he has created eight imaginary masons and has bestowed upon each of them an average weekly wage of 34s. 1d. This average weekly wage he borrowed, as usual, from the Edinburgh Verification Wage Table, but he does not tell his readers that the Edinburgh Committee were not able to verify that wage-rate accurately for more than ten individuals; consequently, Professor Pearson applied this wage-rate without the slightest justification to two individuals, Nos. 654 and 752, for whose cases no data exist in the Edinburgh Report, and to eight others who exist only in his own imagination. To illustrate this sort of thing, which we are asked by the *Times* and "trade" newspapers to respect and admire as the product of scientific and higher mathematical accuracy, we will now give a table of the facts relating to the masons who really are contained in the Edinburgh Report.

*Masons.*

| No. in Edinburgh Report. | Average Weekly Wage. | Comments from Edinburgh Report Schedules. |
|---|---|---|
| 137 | 28s. | Drinks. |
| 285 | 34s. | Drinks hard. |
| 321 | 38s. 3d. | Casual; steady. |
| 323 | 36s. | "Work irregular probably because of intemperance." |
| 340 | 38s. 3d. | "Steady good workman" now "out of a job." |
| 365 | 22s. | Irregular; "drank now and then." |
| 367 | Average impossible* | Irregular; ill six months; teetotaler. |
| 444 | 28s. 11d. | Wages 35s., but works only forty-three weeks; "has drunk a good deal lately." |
| 460 | 36s. | Drinks at times. |
| 497 | Average impossible.* | Drunken; idle for four months. |
| 537 | 38s. | Sober. |
| 547 | 33s. 8d. | Sometimes drinks. |
| 654 | Not known* | Sometimes drinks; out of work. |
| 752 | Not known* | Alcohol habits not given. |

* Excluded.

From the list we have just given it appears to us that nine should be described as drinkers, four "sober," and one unknown. As far as wages are concerned, Nos. 367, 497, 654, 752 must be excluded. It is very instructive to read in Professor Pearson's "wage table" that for this class of highly-paid work there were, according to him, many more drinking masons, namely, seventeen drinkers and only five "sober." This instance makes it especially easy to see how the statistical methods he employs, and above all the free additions of alcoholic cases he creates in the mason world, raise the wage-earning efficiency of the drinker to that of the sober workman. The real facts concerning the sobriety of the two classes when taken from the list given above are as follows:

| | |
|---|---|
| "Sober"—average weekly wage | ... 38s. 2d. |
| Drinker ,, ,, ,, | ... 31s. 2d. |

Statistically it is interesting to see that the drinker drops 18 per cent. of the high wage earned by the sober mason, and that this percentage loss by the drinker corresponds with the drop shown to occur in the other trades.

*Porters.*

We will now take the trade of porters. Porters are referred to in the Edinburgh report under the terms porter, coal porter, street porter and railway porter. The last, the railway porter, forms, of course, a distinct class of worker of fixed and regular employment, about whom there can be no possibility of error in compiling statistics if such compilation is made with even a faint approach to accuracy. The Edinburgh Report, as Mr. Keynes pointed out in his second crushing indictment* of Miss Elderton and Professor Pearson's statistical methods, contained

* *Journal of the Royal Statistical Society*, December, 1910, p. 119.

reference in its verified wage table to one railway porter only, and the schedule stated that his wages were 18s. a week. In the Edinburgh wage table, by a misprint, this was made to read 28s. Professor Pearson multiplies this unique Edinburgh railway porter by nine, and gives them all—the one real one, another real one who is in the schedules, and seven imaginary ones—the misprint average wage of 28s. This creation of individuals who are not in the Edinburgh statistics cannot always be due to carelessness, and in this case particularly so, for it is quite clear that as he copied the misprint wage—28s.—he could only have derived it from the wage table given by the Edinburgh Committee. If he had really constructed his table from the schedules he would have found there the correct figure—namely, 18s.—opposite this man (No. 57 in the schedules). Then again, the Edinburgh wage table which he copied states quite correctly that their wage only applied to this one railway porter, and the schedules contain only one more. Where did he get the seven others from? They must have been creations, for he could not even have imagined that he saw them in the records. His never-failing imagination, however, enabled him to tell the *Times* readers (August 10th, 1910) that two of his nine railway porters drank and seven were sober.

To return now to the other kinds of porters—namely, porters, coal porters, and street porters—we have put them together in one table as below. Of porters thus grouped we find only thirteen in the Edinburgh statistics, and no other porters are mentioned therein. Professor Pearson, however, says there are seventeen. He, therefore, has invented for this trade four imaginary individuals, although asserting throughout that he is quoting the Edinburgh figures. The Edinburgh Committee verified the wage rate, showed that for eleven individuals this could be done, and the average weekly wage came out at 20s. 6d. Of course Professor Pearson, to construct his wage (and sobriety) table for the *Times* and his Supplemental Memoir, gives this average weekly wage of 20s. 6d. to all his 17 porters, the 13 real ones, and the 4 imaginary ones, in spite of the Edinburgh data. Turning now to the sobriety question, Professor Pearson makes out that of his 17 porters 9 were sober and 8 were drinkers, each of whom gets according to him 20s. 6d. Thus for this relatively low wage he naturally obtains by this "expert" method a practical equality between the wage earning of the drunken and of the "sober" porter respectively. The facts, however, are given in the table below.

*Porters.*

| No. in Edinburgh Report. | Average Weekly Wage. | Comments from Edinburgh Report Schedules. |
|---|---|---|
| 43 Coal porter... | 24s. | "Sober and steady." |
| 143 Porter ... | 17s. | One worker says there is drink, and the police give an indifferent character. |
| 167 Street porter | 16s. | Casual. Drinks. |
| 203 Coal porter... | 18s. 2d. | Sober. |
| 260 Porter ... | 19s. | "Teetotaler"; "consumptive," "wife drinks a little." |
| 331 Coal porter... | 19s. | Casual. Drunken. |
| 336 Porter ... | 12s. | "Teetotaler; eyesight failing." |
| 339 Porter ... | 22s. | "Sober." |
| 439 ... ... ... | Not known* | Drunken. Out of work. |
| 484 Porter ... | 28s. | "Temperate." |
| 527 Porter ... | 20s. | "Drinks." |
| 555 Coal porter... | 21s. | "Occasionally intemperate." |
| 696 Porter ... | 18s. | Casual; hard drinker. |

*Excluded.

From the table it will be seen that there are, as a matter of fact, six sober and six drunken porters, accepting the figures of the schedules and excluding No. 439, for which the data do not appear, but whom, though indeterminate and drunken, Professor Pearson has rewarded with a wage of 20s. 6d. a week. If the full wages of the two marked "casual"—namely, Nos. 167, 331—are reduced by one-fourth to obtain an average, the sobriety facts are as follows:

| | | |
|---|---|---|
| "Sober"—average weekly wage | ... | 20s. 6d. |
| Drinker " " " | ... | 17s. 0½d. |

Statistically it is again interesting to see that the drinker in this class drops about 17 per cent. of the rather low wage earned by the sober porter.

We do not propose to weary our readers with any further examination of Professor Pearson's so-called wage (and sobriety) table, which he professed to construct from the Edinburgh statistics.

We have taken these trades of "gasworkers," "coopers," "painters," "masons," "porters," as examples for detailed examination only, because discrepancies from Miss Elderton and Professor Pearson's statements were so obvious among them, just as Mr. Keynes was similarly attracted by the "sweeps," "railway porters," "bookbinders," and "blacksmiths."

Since the selection of these nine trades was made purely at random, they may be taken as fair examples of the whole number, and it will be then realized what the Edinburgh records have suffered at the hands of Miss Elderton and Professor Pearson.

## CONCLUSION.

Practically Miss Elderton and Professor Pearson's work amounts to a consideration of two subjects:

1. Wage-earning capacity of sober and drunken workmen respectively.
2. Effect on offspring of alcoholism in their parents.

### 1. *Wage-earning Capacity.*

As regards the first of these subjects, Miss Elderton's and Professor Pearson's "startling" conclusion "that the drinking parents are in physique and mentality the equal on an average of the sober," or their still more "startling" addition that "the drinking parents" are "possibly a little above the standard of the sober," though having a biological application, is a question of statistics.

Our own investigation (see previous pages) of the schedules fully confirms the criticisms of Professor Alfred Marshall and Mr. Keynes, who (sneered at by Professor Pearson as "The Cambridge Economists," and accused by an anonymous writer in the *Times* and BRITISH MEDICAL JOURNAL of being "over-hasty") have stated as statisticians their estimate of Miss Elderton and Professor Pearson's work that it is worthless. Obviously this is so, for as we have shown, these authors only arrived at their generalization by three erroneous methods:

1. Disregarding the facts and precautions against error published and provided by the Edinburgh Committee.
2. Imagining and publishing statistical data where none exist in reality.
3. Disregarding the discrepancies between the conclusions arrived at by themselves.

Moreover, the Edinburgh schedules show that the drunkard earns a notably (between 15 and 20 per cent.) lower wage than the sober man.

Consequently Miss Elderton and Professor Pearson have not only erroneously represented the facts, but they have concealed the truth by a mass of mathematically formulated conclusions which, being calculated on misstated data, are necessarily also erroneous.

### 2. *Effect on Offspring of Alcoholism in their Parents.*

Just as the first great generalization of these authors—namely, that the drunken workman was probably even of a little more value to the State than the sober workman—has been shown to be untrue, so also are their conclusions as to the biological effects of parental alcoholism worthless. For, to trace the effects of a drug through parents to children, it is necessary to choose representative material, to provide control observations, to know the relation of the incidence of the drug-taking to the birth of the children, and to be scrupulous in terminology.

Not a single one of these conditions have these writers observed, and yet their "Memoir" has been put forward with an assumption of accuracy and truth we have never seen claimed for any scientific investigation before.

It seems to us, therefore, that these writers constitute a national danger, that their writings, whether on alcohol or tuberculosis, or any of the national questions to which

they have recently directed their attention, ought to be carefully examined, and that such of their work as shows the same indifference to fact as the Alcohol Memoirs we have discussed should be publicly withdrawn. In view of the national importance of the scientific study of eugenics and its bearing on social reforms we venture to urge that the course we have suggested is one deserving immediate attention.

Finally, the questions of parental alcoholism, of the wage-earning efficiency, physique and mentality of the alcoholic workman and his children, remain exactly where they were before Miss Elderton and Professor Pearson began publishing in May, 1910. Consequently those social reformers who have been led by their publications to believe that previous information and knowledge on this subject was wrong may rest satisfied that it is not.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### A CASE OF ACUTE FAILURE OF SIGHT TREATED WITH OIL OF TURPENTINE.

IN a paper on the internal use of oil of turpentine which appeared in this JOURNAL on May 23rd, 1908, I referred to the treatment of iritis by the use of this remedy in substantial doses. The treatment of inflammatory conditions of the eye by oil of turpentine dates from the year 1829, when it was first adopted by Carmichael for cases of iritis, both rheumatic and syphilitic, which showed little disposition to yield to mercurial treatment. The undoubted success of the method commended it at once to practical men, and for many years it continued to be resorted to in appropriate cases. After a time, however, as has happened to many other serviceable remedies, this plan of treatment fell gradually into disuse, and is now almost forgotten. I have spoken on the subject to many practising oculists of large experience, but have rarely found one who had even heard of this use of turpentine—none, with the exception of Sir John Tweedy, who had ever used it himself in his practice. Sir John learnt it, he told me, from the late Mr. Wharton Jones, with whom it was a favourite remedy. The following case may be interesting to oculists, as it shows very clearly the remedial value of the oil in cases where mercurial treatment has proved disappointing.

Some time ago I saw, with Dr. Leslie Earle, a little girl of 10 who, after an attack of measles some few months previously, had begun to complain of failure of sight. Dr. Earle, finding the case little amenable to treatment, had called in Sir John Tweedy, and by his advice the eye had been treated with mercurial inunctions, with the addition of iodide of iron internally to improve the general health. The patient was naturally hypermetropic, and the retina, as Sir John was good enough to report to me, was in a congested oedematous state in the neighbourhood of the macula—a condition which hardly, indeed, amounted to retinitis, but was a cause for anxiety as the child's sight was growing steadily worse and her general health had begun to suffer. It was for this latter condition that I was asked to see the patient. I found her thin, anaemic and fragile looking, and was told that a blood count had shown a great excess of large lymphocytes (41 per cent.). I could, however, discover no sign of organic disease. With Sir John Tweedy's consent the form of medication was altered. The inunctions were stopped and the child was made to take two drachms of oil of turpentine with an equal quantity of castor oil every night at bedtime. This change was followed in the course of only a few days by great improvement in the sight and general health. The normal appearance of the retina, indeed, was only slowly restored, but the acuteness of vision quickly returned and the sight was soon as good as ever. Some months later I heard that the condition of the patient both as to sight and general health was in every way satisfactory. This striking improvement in both local and general conditions followed so quickly upon the change in treatment that we all attributed it, and I think rightly, to the action of the turpentine. The child took the remedy continuously every evening for one month. It produced one action of the bowels on the day following each dose, but there was no sign of irritation of the kidneys or other unpleasant symptom. At the end of the month the oil was discontinued and perchloride of mercury was given in conjunction with perchloride of iron three times a day.

In using this method of treatment it is important to remember that the turpentine must not be given in smaller quantities than those recommended above, and that it should be combined with an equal quantity of castor oil and given once in the twenty-four hours at bedtime. Our object, which can only be attained by a substantial dose, is to act upon the bowels and not upon the kidney. To be of use, therefore, the dose must be an aperient one, and as turpentine is by no means a drastic purgative it may be given in this quantity with perfect confidence that we are doing no harm to the patient as long as it produces an aperient effect. If it do not produce this effect, the dose should be increased or the draught, as above, given in the morning as well as at night. In the case of patients of the age of the child referred to I have often given half an ounce of both oils every night with great benefit. It is only when the remedy does not act upon the bowels—in other words, when the dose is insufficient—that any risk is run of irritation of the kidneys; but even if this symptom occur it is of no consequence, as it ceases quickly when the remedy is discontinued. I am convinced that in laying aside this method of medication oculists have let slip a safe and useful remedy which is capable of doing them good service in obstinate inflammatory or semi-inflammatory conditions of the eye such as that which forms the subject of this memorandum.

EUSTACE SMITH, M.D., F.R.C.P.,
Senior Physician to the East London Hospital for Children.

### A CASE OF ECLAMPSIA TREATED BY SALINE INFUSION.

THE patient, a poorly nourished woman, aged 34, had previously four confinements, all normal, and one miscarriage. Her present confinement at eight months occurred before the arrival of the midwife, who noticed nothing abnormal, and after attending to the mother and child left. Five hours later the patient was seized with convulsions; the midwife was recalled, and sent for me.

When I arrived the patient was unconscious, pale, pulse imperceptible at the wrists, the heart beats irregular in force and frequency, but very rapid, about 200 per minute; the extremities were cold and flaccid, respiration irregular and stertorous. (There had been no excessive haemorrhage.) At intervals of from five to ten minutes she developed convulsions of an epileptiform character; they commenced with a tonic stage, during which the face became cyanosed, the limbs rigid and hands tightly clenched, and blood oozed from the vagina.

A clonic stage then commenced, during which the convulsions were general; the duration of the whole fit was about five minutes. Hot-water bottles were placed at her feet, and I proceeded to infuse a solution of normal saline at the rate of about two pints per hour into the subcutaneous tissue of the axillae and thighs, the total amount infused being 4 pints. During the infusion her condition gradually improved. She had one or two more fits, but these became much less severe. When the infusion was stopped she became conscious, though very drowsy, her respirations quieter and more regular, the pulse steady and beating at the rate of 90 per minute. There was no subsequent return of the fits. The urine examined in a specimen obtained by catheter after the infusion of saline showed 3.5 per 1,000 by Esmarch's albuminometer.

The points of interest in this case are, I think, the length of time after delivery before the onset of any symptoms—namely, five hours. When the infusion of saline was commenced the patient was *in extremis*, and the case if left to itself could only have terminated fatally, and that in a very short time. The patient ultimately made a very satisfactory recovery.

Monmouth. A. KEITH ARMSTRONG, M.R.C.S., L.R.C.P.

## FATAL CASE OF MELAENA IN THE NEWLY-BORN.

A CASE which I have recently met with presents features which, on account of their rarity, seem to me worthy of mention.

A male child (of, as far as I could find, exceedingly healthy parents) was delivered by me by means of forceps on October 8th, 1910, after a protracted labour caused by uterine inertia. The mother (primipara, aged 31) recovered from the effects of the labour quite satisfactorily, and is still doing well. The child—a fine, apparently healthy infant, weighing 8 lb. at birth—took the breast well, and to all appearances thrived for three days.

On the fourth day, when I saw it, it was markedly jaundiced, and I was informed by the nurse that it had just passed a large quantity of black blood per rectum. This again took place while I was present, and I saw the discharge, which flowed away easily and without straining, and closely resembled black-currant jelly. There had been no vomiting, and the child still continued to take nourishment well, although it appeared somewhat restless. There was no wasting, and the abdomen was perfectly flaccid, there being no sign of tumour or any apparent tenderness. The liver did not seem abnormally large. The skin did not show any haemorrhagic spots, and there was no rise of temperature. The discharge continued, and, in spite of treatment, death occurred suddenly six hours later.

I was, unfortunately, unable to obtain a *post-mortem* examination.

On referring to such works as Goodhart and Still's *Diseases of Children*, and Osler's *Practice of Medicine*, I find that the former describe similar cases under the name of "Melaena neonatorum," and the latter under that of "Morbus maculosus neonatorum."

As these authorities both agree concerning the rarity and fatality of the disease, I have ventured to report the above case.

WILLIAM J. LORD, M.R.C.S.Eng., L.R.C.P.Lond.

Faringdon, Berks.

## ECZEMA CAPITIS.

I HAVE lately had a case of the above troublesome complaint in a girl aged 12 years, with no previous history of seborrhoea. The whole of the scalp was affected when I first saw the child, and the head was covered with scab, which, when removed, left a raw, inflamed surface, from which serum freely oozed. The disease extended behind both ears, and fissures had developed. Both meatuses were attacked. No other parts were affected. I put the child on cod-liver oil, and then tried one remedy after another with failure to cure. Many of the things I tried made it worse. I clipped the child's head with clippers at least a dozen times, and often got a certain amount of improvement; but then came a relapse, and in a few days the case was as bad as ever.

Finally I made up an application consisting of:

| | | | | | |
|---|---|---|---|---|---|
| Acid. salicylic. | ... | ... | ... | ... | ʒj |
| Ol. eucalypti | ... | ... | ... | ... | ʒj |
| Ol. olivae ... | ... | ... | ... | ad | ʒvj |

and this I rubbed into the scalp twice a week. A speedy and, so far, permanent cure has resulted. I attribute it to the eucalyptus oil, as I had tried salicylic acid in ointment and in lotion before. The ears I syringed with a carbolic solution of 1 in 80, and then applied the above oil to the meatus by means of a pledget of cotton-wool on a probe. I also dipped a strip of gauze in the oil and placed it behind each ear to prevent the ear from touching the scalp.

For more than a year this child had been coming to me for treatment, all in vain. Now in about three weeks a cure has been effected. I hope others will try this remedy. They will not find it in the textbooks.

Dr. McWalter asks, "Is eczema on the increase?" Judging from my own experience, I should say, "No." But then one nowadays excludes probably cases of seborrhoea and impetigo which, twenty or more years ago, would have been dubbed eczema.

Chadwell Heath. T. REUELL ATKINSON.

## A FATAL CASE OF INTRAPERITONEAL HAEMORRHAGE FROM AN UNUSUAL SOURCE.

AT 5 a.m. I was called to see Mrs. J., aged 35. She was dead when I saw her at 5.20 a.m. The history given at the inquest was as follows: She was nine months pregnant and expecting her confinement. The previous day she had done a hard day's work washing, and finished up by moving a heavy mangling machine across the room. Late in the evening she did not feel well, and had some pain in the abdomen. Thinking that labour was coming on, she sent for the midwife who was to attend her. The nurse came and said that there were no signs of labour. The patient had a restless night, and the pain got worse in the early morning.

A *post-mortem* examination was made the same afternoon. The patient was a short fat woman. There were no signs of violence. Rigor mortis present. On opening the abdomen a large quantity of fluid blood escaped from the peritoneal cavity. The uterus was intact and contained a full-term male fetus. There was an interstitial fibroid, the size of a cocoanut, on the right side. Appendages normal. Liver pale and fatty, but uninjured. Large quantity of blood clot in the left hypochondrium. Mesenteric vessels normal. The spleen was normal; the tissues behind the gastro-splenic ligament were considerably ecchymosed and torn up. As far as I could make out by dissection, a branch of the splenic artery had given way just before it got to the hilum. The lungs were normal. The stomach and oesophagus were normal. There was no trace of aneurysm. Kidneys rather hard, but fairly healthy. The heart was fatty, and there was some recent endocarditis on the mitral valve. The question then arose, Why did this particular artery give way, and what share in the event did the endocarditis have? Was it (1) a previous embolism and consequent weakening of the vessel wall with rupture during the strain of moving the mangle? or (2) was the passage of the embolus the determining factor of the rupture by its impact in the narrow part of the vessel during the period of increased pressure? Against the first theory is the fact that there was no infarct in the spleen. There was no atheroma in any of the vessels to account for the weakening. If a medical man had been called in earlier, it would have been a case of some difficulty to treat surgically, the abdomen being so filled up by the uterus.

H. B. WILLOUGHBY SMITH, M.B., F.R.C.S.

Gainsborough.

# Reports

ON

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMFIRE.

## METROPOLITAN ASYLUM, CATERHAM.

### EXTRA EXTRINSIC HEPATIC LOBE.

(By J. P. PARK INGLIS, M B., Ch.B., Assistant Medical Officer.)

THE following case seems to me of some interest on account of the rareness of the condition which was found *post mortem*.

*Physical Signs.*

The case is that of a woman admitted to Caterham Asylum some nineteen years ago suffering from chronic mania. For the past few months the patient had been entirely confined to bed owing to her feeble physical condition and to advanced cardio-vascular disease. She came under my notice early in July of this year; she was then a feeble emaciated old woman, with markedly atheromatous arteries and consequent cardiac hypertrophy; she looked ill and wasted, but no further symptom than "pain in the back" could be elicited from her, and this pain was attributed to haemorrhoids. After a thorough examination, I found that a tumour was palpable in the upper part

of the abdomen, to the left of the middle line of the body, and in the region where the coeliac axis artery leaves the aorta; this tumour seemed to me to be about the size of a crown piece, and also to be both expansile and pulsatile; there was no pain on pressure, and the patient did not seem to experience any discomfort by manipulations. On auscultation over the tumour I thought a systolic bruit was audible; the pulses at the ankles were equal; no further signs nor symptoms were ascertained. The patient died on September 2nd, aged 75 years.

*Post-mortem Examination.*

At the *sectio*, which I conducted, a most interesting condition was found; lying over the region where the coeliac axis artery leaves the aorta was a rounded piece of liver tissue about the size of a crown piece or rather larger, and about half an inch in thickness; this rounded piece of liver tissue was quite distinct from the liver, was enclosed in a capsule similar to that of the liver, and was connected to the left extremity of the liver by a mesentery of 1 in. to 2 in. in length; no distension of the gall bladder was found, nor were gall stones present. The liver was not more enlarged than was due to its congestion owing to the cardio-vascular disease from which the patient suffered.

*Remarks.*

This, then, was the tumour which in life was palpable. The situation over an artery accounted for its being pulsatile; pressure on the aorta, with slight consequent constriction of the lumen of that part of the vessel over which this tumour lay, may account for the "systolic bruit"; and the nature of the tumour—namely, liver tissue—accounted for the absence of any marked signs and symptoms. In vol. iii, p. 321, of the *Medical Review*, Sir Frederick Treves describes a condition of floating lobe of the liver. He states that floating lobe is associated with a distended gall bladder, that the tumour is palpable in the right side of the abdomen or in the right flank, and that there are marked symptoms—pain in the back, nausea, constipation, and neurotic manifestations; the tumour is also tender on pressure. Sir Frederick Treves points out that such cases are usually erroneously diagnosed—such as movable kidney, omental tumour, hydatid cyst, new growth, abscess, distended gall bladder being mistaken for this condition. Riedel assumes that a distended gall bladder as it enlarges draws a tongue of liver tissue with it, and hence the floating lobe. Riedel and Terrier have shown that where exploratory operations have been performed, and a condition of floating lobe with associated distension of the gall bladder found, if cholecystotomy be done, the floating lobe with its consequent symptoms disappears. It would seem, then, that this condition of "floating lobe" is acquired, due to distension of the gall bladder, and, in cases where accurate diagnosis has been made, curable by the operation of cholecystotomy. The condition in the patient at Caterham does not seem to me in any way to be an acquired condition; the tumour was discrete from the organ of the liver, was not associated with marked symptoms nor with a distended gall bladder, was palpable to the left of the middle line of the body in contrast to the floating lobe, and had a definite capsule and mesentery. In my opinion the condition found *post mortem* in the patient at Caterham was that of a congenital malformation.

My sincere thanks are due to my chief, Dr. P. E. Campbell, whose permission I have to publish these few notes.

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A MEETING of patients, both old and new, of the Pendyffryn Hall Sanatorium, Penmaenmawr, was held on January 7th, when a sundial was unveiled to perpetuate the memory of the late Dr. Morton Wilson, who founded this sanatorium, one of the first to be established on the Nordrach system in this kingdom. Dr. Dobson, the present Medical Superintendent, officiated at the unveiling, and said a few appropriate words.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Surgeon-General Hieronymus Laub, for many years Director-General of the Medical Service of the Danish army; Dr. Hans Gold schmidt, of Berlin, specialist in urinary diseases, aged 58; Dr. F. A. Suter, Professor of Surgery in the University of Lima; and Dr. Profeta, Professor of Dermatology at Genoa.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### BIRMINGHAM BRANCH:

CLINICAL AND PATHOLOGICAL SECTION.

*November 25th, 1910.*

Dr. MELSON in the Chair.

*Chorion-epithelioma.*

DR. EDGE showed a specimen of chorion-epithelioma from a woman aged 45. The uterus was enlarged. There was a mass on the right side, which was thought to be an inflamed appendage. The uterus was curetted, causing perforation of the uterus; an immediate laparotomy was performed; free abdominal haemorrhage was found; subtotal hysterectomy was done. Several brown masses in iliac fossa and peritoneum, evidently secondary growths, were found. The patient remained well at the date of the report, two months after operation.

*Grape-like Tumour of Cervix.*

Dr. THOMAS WILSON showed a grape-like tumour of the cervix, from a single girl aged 24. At the age of 19 a mucous polypus was removed from the patient, but was not microscopically examined. She remained well for three years. For the last two years she had had a blood-stained discharge, with menorrhagia, and occasional lower abdominal pain. She had lost 20 lb. in weight. She was admitted to the General Hospital February 25th, 1910. Wertheim's abdominal hysterectomy was performed. The specimen showed polypoid grape-like masses from the cervix, and in the cervical canal, similar masses upon back of uterus, left broad ligament, and left ovary. Coley's fluid was injected every second day for two months after discharge. The patient still remained well. Microscopically the growth was a mixture of gland acini of simple type and a rich stroma of spindle cells.

*Carcinoma of Colon.*

Mr. GILBERT BARLING showed three specimens of carcinoma of the colon, all columnar celled.

1. From a man aged 70. Constipation eighteen months; hemiplegia two years ago; loose, blood-stained motions at intervals; two attacks of incomplete obstruction in January and March, 1910. Doughy abdominal mass. Laparotomy in March, 1910. Large intussusception from caecum to middle of transverse colon, reduced; malignant growth at the caecal valve. Six inches of ileum and first 12 in. of colon excised. Ends closed and lateral anastomosis made. Good recovery.
2. A woman, aged 78, had partial obstruction in May, 1910. Movable tumour in abdomen. Laparotomy May 15th, 1910, in left semilunar line. Had two malignant structures, one just below the splenic flexure, a second 3½ in. lower down; glands in mesentery enlarged; 8 in. of colon removed, ends closed; lateral anastomosis made. Patient made a good recovery after some suppuration of wound.
3. From a man aged 66. Had lost 2 st. in six months; loose motions, but no obstruction; mobile growth to right of umbilicus. Laparotomy July 8th, 1910; intussusception of ascending colon into transverse colon; glands in mesentery enlarged; whole of ascending colon excised, ends closed; lateral anastomosis between ileum and transverse colon; faecal fistula formed, now gradually closing. Good recovery.

*Myoma removed by Morcellement and Enucleation.*

Dr. PURSLOW showed a specimen of a large myoma removed by morcellement and enucleation from a married woman aged 45. She was sterile. For two years menstruation had been irregular and scanty, followed by amenorrhoea for six months; then she had a severe flooding one week before her admission to hospital. The cervix was dilated about 3 in., and protruding through it was a hard tumour. There was an abdominal mass continuous with the cervix, reaching well above the umbilicus. The physical signs very much resembled, on first impressions, those of a woman in labour. A paravaginal incision was made. The cervix was split, and a large myoma was removed by morcellement and enucleation. The patient was discharged in two weeks.

*Carcinoma of Jejunum.*

Mr. HEATON showed a specimen of carcinoma of the jejunum, removed two weeks before from a man aged 41, who had suffered from occasional attacks of colic with rapid wasting during the past six months. By inspection about every twenty minutes a tumour appeared in the left iliac fossa which slowly rolled across the abdomen to the right iliac fossa, with visible peristalsis. The stomach was enormously dilated; there was marked stasis and copious vomiting from time to time. Median laparotomy revealed a movable tumour high up in the jejunum, with enlarged glands in the mesentery. The stomach and all the small intestine proximal to the growth was dilated. Six inches of the jejunum was excised, the ends closed, and a lateral anastomosis was made. Microscopically the growth was a columnar-celled carcinoma; the enlarged glands showed hypertrophy, but no malignant invasion. The patient was doing well.

*Specimens.*

Mr. FURNEAUX JORDAN showed two specimens:

1. Red degeneration in a myoma from a single girl aged 26, who thought that she was pregnant. She gave a history of three weeks abdominal tumour. Some instrument had been passed into the uterus previous to her admission to hospital, followed four or five days later by severe lower abdominal pain, accompanied by a temperature of 103°. A supravaginal hysterectomy was performed early in November, 1910. The tumour, which was an interstitial myoma about 6 in. in diameter, showed early red degeneration. Dr. Mackey took cultures from the centre of the growth, and found organisms resembling *Bacillus xerosis* and *Micrococcus catarrhalis*. The tumour showed the usual appearances, histologically, of red degeneration. No abrasion could be found upon the mucous membrane of the uterus to account for the infection.

2. Sarcoma of the uterus, from a woman aged 27, married two years, no children. Severe menorrhagia with dysmenorrhoea for eight months. No loss of flesh; tumour reached to umbilicus; movable. Supravaginal hysterectomy in November, 1909. The patient remained well one year later. The tumour was an imperfectly circumscribed tumour in the anterior uterine wall 4½ in. in diameter. The greater part of it was oedematous, joining small cysts in places. The uterine cavity was elongated and the tumour bulged partly into it. Microscopically the tumour was a spindle-celled sarcoma undergoing myxomatous degeneration.

# Reports of Societies.

## MEDICAL SOCIETY OF LONDON.

*Monday, January 9th, 1911.*

Mr. CHARTERS J. SYMONDS, President, in the Chair.

*Ocular and Visual Conditions in Medical Cases.*

MR. PERCY FLEMMING, in a paper on cases of medical interest met with in ophthalmic work, said, without denying the importance of hypermetropia and astigmatism as factors in the production of headache, his experience led him to think that such a causal connexion was apt to be too easily assumed. Headaches were common and hypermetropia very common in this country, and it was easier for a patient complaining of headaches to have his eyes seen to than to make an exhaustive examination to ascertain if there might be any general cause for the headaches. There were mixed cases, where a condition of debility made a slight error of refraction more potent to produce headache than if the individual were robust and strong. One should have clearly in mind the characteristics of a hypermetropic headache before coming to the conclusion that a headache was due to an error of refraction. Most commonly the headache was frontal, more particularly above each orbit, but it was not uncommon for the pain to be referred to the back of the head and neck. A very characteristic feature was that the patients waked up with headache, which improved after breakfast and might be absent during the day if the eyes were not much used, but would be increased or brought about by the use of the eyes for near work. Of those characteristics, perhaps the one that was least well known was the occurrence on waking, and it was frequently supposed that the eyes could not be the cause of a headache if the latter occurred after a good night's rest. The explanation was that the ciliary muscle had been relaxed during sleep, and the very act of waking was the act of looking at some near objec[t]. Unless the headache in question presented those features, one should hesitate about correcting a half or quarter D. of hypermetropia or astigmatism. On the other hand, if the headache was ocular in origin no error of refraction was too insignificant to correct. The crucial test as to whether a headache was truly ocular in origin was the use of atropine, which by paralysing the accommodation annulled the headache; but for obvious reasons one could not apply that test in all cases. Dr. JAMES TAYLOR, in a paper on the same general subject, said that inequality of pupils was not necessarily of grave significance. The sixth nerve frequently suffered from accident, probably because of its prolonged and exposed course—for example, fracture of the base. Third nerve paralysis, when isolated, was usually the result of syphilis, and was noted sometimes in tabes, sometimes as a precursor of general paralysis. It also occurred in the condition known as *migraine ophthalmoplégique*, probably as a result of an actual lesion of the nerve. Optic neuritis occurred most commonly as a result of intracranial tumour. In spite of assertions to the contrary it was frequently an early sign, and the impairment of vision which it caused might be the first thing to excite the attention of the patient. It also was said to occur in anaemia, and as a result of other toxic conditions such as influenza. The long subsequent life of many who had suffered from retinal thrombosis would seem to indicate that it did not necessarily imply a serious general condition. Embolism of the central artery of the retina occasionally occurred after diphtheria without any recognizable sign of heart disease. Bitemporal hemianopia was always the result of a lesion at the chiasma.

## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, January 5th, 1911.*

Dr. T. R. BRADSHAW, President, in the Chair.

*Diagnosis of Subphrenic Abscess.*

MR. FRANK JEANS, in a paper on subphrenic abscess, said he had operated with complete success upon three cases recently, one being probably pneumococcal in origin, one following appendicitis, and one possibly arising from an infection of the kidney. The diagnosis was often difficult and the etiology obscure. Appendicitis and gastro-duodenal ulcers accounted for more cases than other abdominal causes. In diagnosis he had derived great benefit from radiography. The transpleural operation, performed as far back as possible, was the best and most usually applicable. He used a very large rubber drainage tube at least 1¾ inches in diameter. The use of the aspirating needle was condemned. It was of great importance to obtain a vaccine from the material removed, since the case might become chronic. In the discussion which followed, the general opinion of the surgeons was that the exploring needle should not be used unless the patient was already prepared for an operation. The President and other physicians, however, maintained that its use in some cases was necessary. Dr. JOHN HAY thought that oedema of the chest wall was more likely to be present in subphrenic than in pleural collections of pus. Dr. WARRINGTON considered that, excluding those cases in which the pleura had become infected, the important guide was the recognition of normal, or exaggeration of normal, signs above a somewhat sharply-defined line of abnormal thoracic signs. Mr. LARKIN said that he had several cases in which a left subphrenic abscess had arisen from infection due to oesophageal injuries from foreign bodies.

*Knee Injuries.*

Mr. W. H. BROAD, in a note on the exercise treatment of knee injuries, advocated a much earlier resort to massage than was usually practised, even when considerable synovitis was present. Many of his patients had been persons suffering from severe football injuries.

*Intestinal Fistulae.*

Mr. G. P. NEWBOLT showed a patient whom he had observed for many years, and on whom he had performed many operations for intestinal fistulae, due to tuberculous peritonitis. A considerable amount of the intestine had now been resected from time to time, and the abdominal wall had become closed. Mr. R. W. MURRAY pointed out the danger of closing both ends of a piece of intestine.

# Reviews.

## PHARMACOLOGY.

THE appearance of the ninth edition and thirty-second thousand of Sir WILLIAM WHITLA'S *Elements of Pharmacy, Materia Medica, and Therapeutics*[1] justifies the prediction of success which we made in reviewing a former edition. The new issue will maintain fully the reputation which the book has made for itself. We are impressed with its wide scope. There can be but little information in connexion with the prescribing, the preparing, the dispensing, and the administering of medicines, which is not contained within it. Were we to presume to offer a suggestion to the writer of a volume which has proved so successful, we should submit that the few lines describing each of the official remedies might with advantage be placed at the head of the paragraph on the Therapeutics of the drug, the sections headed Official Remedies and Therapeutics respectively being incorporated into one another. The work is designed for ready reference, the drugs being arranged alphabetically, and such a plan would often save the reader from looking up the same medicine in two parts of the book. This is virtually done in Part V, consisting of two hundred and twenty-seven pages describing non-official remedies, including antitoxins. The information in this part will prove very useful to medical men, by enabling them to appraise the value of many of the much-vaunted unofficial drugs from a source independent of the pamphlets sent round by the vendors. For the benefit of those who do not know the book, we may mention that it contains full and clear information about prescription writing and incompatibles, and an excellent index of poisons. The section on dispensing, comprising fifty-seven pages, is good, and gives practical directions for the making of cachets, suppositories, and other pharmaceutic devices. We wish that we had had the volume at hand when we were first qualified and found ourselves alone in a country doctor's dispensary. About two hundred pages are devoted to therapeutics, including pharmacology, and this is the most valuable part of the work, for in it we come nearest to the experience of the writer. The information given is adequate, clear, and very practical. The accounts of the therapeutics of opium, of mercury, and of the use of leeches, tell precisely what we want to know when about to use these remedies. We note that rhubarb and podophyllum are still described as cholagogues, and that no mention is made of the wide use of sodium bicarbonate in diabetes mellitus. The book is a comfortable size for the hand, though becoming a little stout, as is only to be expected in a work which has been growing in age and respectability for nearly thirty years.

The publication of a textbook upon pharmacology from the pens of Professor H. H. MEYER of Vienna and Professor R. GOTTLIEB of Heidelberg[2] is certain to arouse interest. It happens comparatively seldom that those engaged in research have both the time and the inclination to write a connected account of the subject they profess, so that textbooks too often come to be written secondhand. The volume before us can be open to no such criticism, for its authors have a practical knowledge gained by years of laboratory work, whilst the book is also written with a full comprehension of the relation of pharmacology to medical practice, and justifies its title —experimental pharmacology as the foundation of therapeutics. With this view, the chapters are not arranged according to the chemical structure of the drugs, but according to the system or organ of the body upon which their action is most manifest. There are, for example, chapters on the pharmacology of the central nervous system, of digestion, of respiration, of the circulation, of the kidneys, of the blood, and of the eyes. Such a classification has its advantages and its disadvantages, among the latter being that to obtain a complete account of many individual drugs it is necessary to consult more than one chapter of the book. On the other hand, the repetition of the same headings, such as "nervous system," "respiratory system," which becomes so tedious in textbooks on pharmacology, is avoided and the book made more readable. On the whole, physicians will appreciate the plan followed. Probably the pharmacology of alcohol has aroused more interest than that of any other drug. The authors inquire whether the paralysing effects of alcohol are preceded by true stimulation, as is the case with some poisons. They subscribe, with caution, to the modern view that the apparent brain stimulation of alcohol is to be attributed to the removal of the inhibition of the higher cerebral cells, whilst pointing out that there may be some direct stimulation of lower centres. If, however, it is allowed that the higher centres cannot be shown to be stimulated before they are paralysed, it seems a little unnecessary to suspect that the nerve cells of the basal ganglia and of the cord react in a different manner. In the account of the experiments upon the effect of alcohol on muscular work, we notice that Rivers's observations are not mentioned. In a paragraph describing the sensations of well-being produced by the drug, the writers stray from their pharmacology to deliver a general opinion upon the time-honoured method of making glad the heart of man. On the question of its value as a foodstuff, the authors conclude that alcohol is a food which is rapidly available, but a bad source of energy, and only to be used in necessity, for the reason that in practicable doses it furnishes less energy than other foods, that it is not stored but burnt at once, and, most of all, that it is poisonous. The account of the action of digitalis, as we should expect from the authors, is especially clear and informing. The last chapter is upon the medicines which influence the causes of disease; a glance at it reminds us that though we possess but few specific remedies, yet the list is growing. The chapter includes the external antiseptics, the anthelmintics, quinine, atoxyl, the salicylates, mercury, and the antitoxins. The book is carefully and exhaustively written. The relations of the functions discussed to physiology and to pathology are dealt with fully; the illustrations and curves are plain, and the latter are printed the right way on—that is to say, we are not asked to read curves from right to left. The authors are alive to the recent work done in other countries than their own, and, with some notable omissions, have incorporated British work in their references. The book is worthy of the position and reputation of its writers, and will at once rank as a standard work upon pharmacology.

[1] *Elements of Pharmacy, Materia Medica, and Therapeutics.* By Sir William Whitla. London: Baillière, Tindall, and Cox. 1910. (Cr. 8vo, pp. 686; illustrated. 9s.)

[2] *Die experimentelle Pharmakologie als Grundlage der Arzneibehandlung.* Ein Lehrbuch für Studierende und Aerzte. By Dr. Hans H. Meyer and Dr. R. Gottlieb. Berlin and Vienna: Urban and Schwarzenberg. 1910. (Sup. roy. 8vo, pp. 499, 61 illus., 1 col. plate, M. 12.)

## INDICATIONS FOR OPERATION.

FOUR years ago we reviewed (September 29th, 1906) the English translation of Professor SCHLESINGER'S Indications for Surgical Operations in Internal Diseases, and we then expressed our appreciation of the care with which the book was prepared and of its general utility to the practitioner. We are therefore glad to see that it has reached a second edition.[3] Professor Schlesinger is not an operating surgeon, and consequently may be expected to look at the question he discusses from the standpoint of the general practitioner; but he congratulates himself upon having satisfied surgical opinion, and he appears to us to incline generally to that side. He says, however, quite truly that there are many questions upon which medical and surgical views are no longer divergent. He is on some subjects singularly conservative in the surgical sense that is to say, he advocates thoracentesis for serous effusion only when (1) life is in danger; (2) if the fluid remains after many weeks at the same height, and not before the third week; (3) when the patient's

[3] *Die Indikationen zu chirurgischen Eingriffen bei inneren Erkrankungen, fuer den Praktiker bearbeitet.* Von Professor Dr. Hermann Schlesinger. Mit einen Anhage von Professor Dr. Julius Schnitzler. 1910. Jena: Gustav Fischer. (Sup. roy. 8vo, pp. 623. M. 12.)

sufferings are unbearable. We believe that earlier withdrawal of the fluid by siphoning is attended by less risk of permanent crippling of the lung, and we think he exaggerates its danger, as in thirty years' practice we have never had to regret early intervention. In operations for stomach conditions, pyloric obstruction, when definitely shown to exist, should be a sufficient indication for gastro-enterostomy. His discussion of the advantages and disadvantages of operation in Hirschsprung's disease might be better; he does not mention either Schreiber's or Hertz's case of recovery under medical treatment. Under liver tumours he says, "If a palpable liver tumour can be made out and there is decided suffering attributable to the tumour, with no evidence that it is of metastatic origin, an exploratory incision is justified." Considering the comparative frequency of primary cancer of the liver this rule goes too far. Few would agree that "an operation is justified in acute nephritis when oliguria or anuria is present with pain in the back and tenderness over one or both kidneys, the general condition being good." On the burning question of movable kidney he is conservative; the only absolute indication for nephropexy is "temporary or persistent blocking, hydronephrosis, intermittent albuminuria, and casts caused by kinking or twisting of the hilus." The presence of acute painful attacks, with haematuria and oliguria, make nephropexy expedient but not urgent; "if dietetic, mechanical, and hygienic treatment has failed, and there is marked pain, which can only be referred to the loose kidney and is not due to any other organ; when, moreover, there is no complication or any definite neuropathic condition present, the operation is admissible, but by no means called for." An operation may be justified in the case of a worker whose livelihood depends upon his following his occupation, but who is prevented from doing so by pain. Operation is not indicated because a "nervous individual attributes a series of sufferings to the loose kidney, even though he should wish for the operation, as the suggestive effect often lasts only a short time." Contraindications for the operation are the presence of prolapse of any other organ or general ptosis of the abdominal viscera. The general results of the operation may at first appear good, but are often not so permanently; in many the symptoms are in no way affected, and in not a few the mobility of the kidney is as great as ever after a shorter or longer interval. In Graves's disease, apart from pressure upon the trachea, operative treatment is indicated "where there is rapid progress of the disease, in spite of energetic internal treatment." There is a general agreement among physicians and surgeons that "cases should not be operated upon before internal treatment has had a fair trial, but the operation should not be postponed until the patient has become cachetic"; "in mild cases, where internal treatment is without result, the suffering is marked, and the working capacity of the patient compromised, an operation ought to be tried." An additional reason for undertaking the operation is that the patient is "unable to take care of herself, and urgently desires the operation." On the authority of Professor Lépine, he holds that premature labour should be induced when diabetes is discovered in pregnancy and careful diet is without effect, or the sugar increases in amount, and acetone and diacetic acid appear in the urine; he adds that this indication may be more readily accepted, as abortion or still-birth occurs so frequently in diabetes; nevertheless, it is a rule which we believe to have little acceptance in this country.

## DISEASES OF SUPRARENAL CAPSULES.

THE monograph by Professor NEUSSER and Dr. WIESEL[4] on diseases of the suprarenal capsules, issued as part of Professor Nothnagel's *Spezielle Pathologie und Therapie*, has reached a second edition, and has been fully revised and enlarged. The first edition was published twelve years ago by Professor Neusser only, but in this he has had the assistance of Dr. Wiesel, who has made important contributions to the subject. Time, they say, has rendered necessary certain additions and has made obsolete some part of the earlier work, yet all the problems connected with these organs are not yet solved and many remain the subjects of keen controversy. The monograph commences with a description of the development of the capsules which has an important bearing upon their function, the cortex and medulla being derived from different embryonic layers; the supernumerary adrenals, to which a good deal of attention has been directed in recent times, are composed of cortex or medulla, and sometimes of both. The chromaffin cells, which are the characteristic tissue o the medulla, belong to the sympathetic system, and are found scattered in masses between the kidneys, in front of the aorta, the sacrum, and the rectum; the bulk of chromaffin cells in the scattered masses is equal to that contained in the suprarenal capsules themselves, and they have a definite physiological significance and importance, these chromaffin cells secreting adrenalin. Although they are derived from the sympathetic system they are not nerve cells in the true meaning of the term but are glandular. These accessory "paraganglia" may be easily mistaken for lymphatic glands, but can be distinguished after soaking in a fixing solution of chrome salts, when they become deeply stained brown or yellowish-brown, the colour being most marked after washing with water and clearing with glycerine. The authors are unable to fix the exact time when the chromaffin cells first make their appearance in the embryo, but it seems to be a fact that a large part of the embryonic chromaffin tissue undergoes retrocession. They recognize three kinds of accessory adrenals: (1) those formed of cortex and medulla—true paradrenals; (2) those formed of cortex only, called by them metadrenals; and (3) those formed of medulla only, composed of chromaffin cells—the paraganglia already mentioned. The second kind are said to be the most common; they undergo hypertrophy when the suprarenal capsules are themselves destroyed, but the physiological function of the cortex being still unknown their significance remains obscure. The authors give a clear account of the progress of the physiology of these organs, how light was thrown upon it by pathology, and they describe the disseminated tumours which have been found to be composed of chromaffin cells. The latter part of the book is devoted to the description of the diseases of the suprarenal capsules, of which naturally Addison's disease occupies the larger part. The authors do not accept the French doctrines that attribute arterio-sclerosis to hypertrophy of the adrenals (Josué), as Landau and Wiesel have been unable to confirm the alleged association, neither do they agree that there is a true hypertrophy of the cortex in chronic nephritis, or in any renal disease. It may coincide with the presence of hypertrophy of the left ventricle in chronic nephritis, or in aortic incompetence; the medulla may be double the normal width with many newly formed chromaffin cells, but the association is not constant, and the relation remains obscure. Partial nephrectomy leads to increase of the medulla (Schur and Wiesel), but tumours of the medulla are found sometimes associated with hypertrophy of the left ventricle, so that in some cases the renal hypertrophied heart may be the consequence of adrenal hyperplasia. Atrophy of the adrenals may be a result of tuberculosis, syphilis, or simple inflammation, or of haemorrhage into the substance of the gland, which is often seen in newly born infants but its cause is unknown; it may also occur after injury, acute infections, and in paralysis, tabes, etc. After diphtheria numerous necrotic foci are found in these organs, and may be a cause of death, as in a case mentioned by Wiesel, where the heart's muscle was healthy although death was from heart failure. Inflammatory conditions are also seen in sepsis and other infections. The neoplasms of these organs have been well described by Winkler in his monograph (see BRITISH MEDICAL JOURNAL, April 19th, 1910, p. 875). Little seems to be known of congenital deficiency, but two cases recorded in the *Transactions of the Pathological Society of London* for 1895 have escaped the notice of our authors. They say Addison's disease may be due to congenital defect or to cirrhosis, syphilis, tubercle, or simple inflammation, tubercle being

[4] *Die Erkrankungen der Nebennieren.* Von Hofrat Professor Dr. Edmund von Neusser und Privatdozent Dr. Josef Wiesel, in Wien. Zweite voellig umgearbeitete und vermehrte Auflage. Wien und Leipzig: Alfred Hölder. 1910. (Sup. roy. 8vo, pp. 189. Abb. 13. M. 4.40.)

the most common. As to the greater relative share of the cortex or medulla, they decide for the latter, the participation of the cortex being only secondary, and that of the sympathetic ganglia "partial, inconstant, and unimportant." They draw special attention to the frequent association of status thymo-lymphaticus with Addison's disease. The difficulties of diagnosis are emphasized, as there may be not only disease of the capsules without melanoderma, but there are many forms of pigmentation which are independent of any disease of the capsules. According to Lewin's figures the capsules were found to be healthy in 12 per cent. of cases regarded clinically as Addison's disease, while in disease of the capsules 28 per cent. were without symptoms of Addison's disease. Pigmentation of the mucous surfaces is the most characteristic sign when it is present; on the other hand, anaemia is not a marked symptom. They say nothing material about treatment except to express the hope that in the future something may be done by means of opotherapy in the form of feeding, injections, or implantation. The last chapter deals with the problems of pathogenesis; they explain the partial or entire absence of symptoms when both capsules are completely destroyed by invoking the presence of accessory deposits of chromaffin cells; where Addison's disease is present, but the disease of the capsules is unilateral, the other organ is held to be functionally inhibited, and where both are intact they assume the existence of disease of a hypothetical tropho-neurotic centre or of the chromaffin cells outside the capsules. They attribute the greater frequency of symptoms in the presence of tuberculous disease to the "exquisitely destructive character of the tuberculous process"; also to the fact that tubercle finds diminished resistance in hypoplastic glands; and lastly, because neoplastic cells may possibly secrete adrenalin, just as the cells of cancer of the liver have been known to secrete bile.

The monograph is one which everybody interested in the subject should read. It is provided with a bibliography, and the text is illustrated by drawings.

## MOVABLE KIDNEY.

MR. BILLINGTON has written an excellent book from the surgical point of view on *Movable Kidney*.[5] It is based upon an extensive personal experience, for during the last few years he has sutured in place upwards of 350 dislocated organs. He defines mobility of the kidney as existing (1) when it drops to a lower level on the assumption of the erect position; (2) when the lower pole can not only be felt, but held between the examiner's thumb and finger; and he classifies the displacements under four headings: (1) Simple prolapse of the kidney; (2) prolapse with internal rotation of the lower pole; (3) prolapse with rotation inwards and forwards of the lower pole; (4) rotation with little or no prolapse. In the last instance the kidney may not be palpable, but he gives cases to show that such badly-placed kidneys may give rise to very severe symptoms, and this fact is of importance because it illustrates the truth of his teaching that in fixing a kidney in place it is most desirable that it should be in its normal situation, for, as he says, a kidney badly fixed often causes more trouble than when it was freely movable. He regards the most important causes of movable kidney to be trauma, errors in dress, too early return to ordinary life after confinement, constipation and pathological changes in and around the kidney, and of these he seems to regard the first as the most definite. As to the way in which the kidney reacts upon the body, he describes the two theories as (1) mechanical and (2) toxic, and while fully accepting the former, thinks that the latter should not be hastily dismissed, although it is difficult to say why the mobility of the kidney should cause toxic neurasthenia and insanity while these phenomena are not set up by other renal diseases which interfere much more conspicuously with the functions of these organs; nor is it quite easy to understand how the mobility can act in the way supposed by irritation of the sympathetic system of nerves when, as the author says, "a movable kidney may be pulled out upon the loin, freed from all surrounding adhesions, and fixed in a new position without any noticeable effect on the pulse or respiration."

In the last part of the book the author gives a very clear account of his method of performing nephropexy. The work is illustrated by drawings and photographs, so that it is a very complete and useful monograph on the subject.

[5] *Movable Kidney, its Etiology, Pathology, Diagnosis, Symptoms, and Treatment.* By William Billington, M.S.Lond., F.R.C.S. London, New York, Toronto, and Melbourne: Cassell and Co., Limited. 1910. (Demy 8vo, pp. 176; illustrations 12. 7s. 6d.)

## DIABETES.

NOTHING bears stronger testimony to the popularity of Professor von NOORDEN'S[6] monograph on diabetes than the persistent demand for new editions. We reviewed the fourth edition in March, 1908, but the author tells us in his preface that the impression was exhausted in the summer of 1909, and only the need for careful revision and the pressure of other literary work have delayed the appearance of this the fifth edition, in which the chapter on the physiology and general pathology of sugar economy, its pathological chemistry and metabolism, and consequently the theory of diabetes, have required much overhauling, the last section having been entirely rewritten. The author has reverted to the opinion that the main cause of diabetes is overproduction of sugar, and has abandoned the doctrine of diminished consumption by the tissues, which he held previously. He bases his present views mainly upon the results of experiments on animals by Porges and H. Salomon, made in his wards, which show that the depancreatized dog has a respiratory quotient not differing from that of the normal animal—in other words, the process of burning off sugar in the tissues is not less than normal in the diabetic dog; the hyperglycaemia is, therefore, due to overproduction in the liver; this overproduction may depend upon excessive stimulus or impaired inhibition. The stimulus to the liver may come from excess of carbohydrate food, as in ordinary alimentary glycosuria, or by increased call from the tissues or from the central nervous system through the medium of the chromaffin system, which supplies the sensibilizer of the sugar-forming function of the hepatic cells. On the other hand, there may be diminished inhibition by impairment or suppression of the function of the pancreas, which again is regulated to some extent by the thyroid; these glands in health restrain the diastatic action of the liver cells. These various agents may be all concerned in the production of diabetes. Nor does he leave out of account a possible primary anomaly of the liver cells. He admits that we do not know for certain that overstimulus of the chromaffin system ever produces diabetes, and he is disposed to think that there is some pancreatic defect always present which permits the access of the neurogenous stimulus to the sugar-forming apparatus. This view that overproduction of sugar is at the foundation of diabetes, is not that put forward in *Metabolism and Practical Medicine*, published three years ago, under the direction of Professor von Noorden, where we find (page 545) this statement: "The facts as a whole show that the body cells, particularly those of the muscles, can make an imperfect use of the sugar, although this is flowing through them in abundance"; and the suggestion is offered that the relation would be clear if we adopted the hypothesis that the carbohydrate of the cells cannot be properly katabolized because it is not fixed in them as glycogen. With regard to the generally popular theory of the overproduction of sugar, only the difficulties in the way of accepting it are stated. It is true that Professor von Noorden recognized in his last edition that there may be a secondary overproduction of sugar; but his present position goes far beyond this, and his conversion is the more remarkable, as it was established years ago by Weintraud, Leo, and others that the respiratory quotient in diabetes neither exceeds nor falls below the limits recognized in the normal individual. Such a change of opinion on the part of a high authority like Professor

[6] *Die Zuckerkrankheit und ihre Behandlung.* Von Professor Dr. Carl von Noorden. Fuenfte vermehrte und veraenderte Auflage. Berlin: August Hirschwald. 1910. (Roy. 8vo, pp. 434. M. 10.)

von Noorden is disconcerting to the ordinary man; but the difficulties of understanding the pathogenesis of diabetes have not disappeared because Professor von Noorden has altered his views. It is a subject upon which no one ought to dogmatize, but we may say that modern investigations have long pointed in the direction which Professor von Noorden has somewhat tardily followed.

## EYE DISEASES IN INFANCY.

PROFESSOR PETERS'S new book on the diseases of the eye in infancy[7] will be a welcome addition to the library of those ophthalmic surgeons who are able to read the straightforward simple German in which it is written. Unlike so many works on ophthalmology, it is no mere *réchauffé* of Fuchs's classical work. It is original from cover to cover. The author has emancipated himself from stereotyped precedent, we find no anatomical or conventional classification of disease, but instead the modern pathological nosology. Pathology is the foundation upon which the edifice stands, and yet we are wearied with no dry details of structural histology. Nor are pages devoted to the cardinal facts of simple optics, facts which every medical man is supposed to have absorbed from his Ganot during his early training. We know of no textbook dealing with ocular disease which is so eminently readable. Many, though valuable as works of reference, would produce intellectual indigestion if partaken of in large quantities. Professor Peters's book on the contrary would agree with the most delicate mental digestion. The chapters on tuberculous processes in the eye are perhaps the best, and are worthy of the most careful study; they are absolutely up to date, and are logically convincing. The later chapters upon muscular imbalance, upon squint, and errors of refraction, are perhaps not treated with the same masterly grip of the subject, but one would seek enlightenment on these matters from Lucian Howe, from Worth, or from Maddox, rather than from a German source. In treating of orbital disease we find no reference whatever to chloroma. Lymphoid tumours associated with leukaemia are mentioned, but chloroma is omitted. We notice two misprints, both very important ones. On page 85 it is stated that yellow ointment is made from hydrarg. oxyd. *rubr.*; this should, of course, be oxyd. *flav.* The red oxide causes intense irritation. On page 161 it is stated that the dose of Old Tuberculin can be raised to "½ g.," and that Schlossmann uses doses from 1 to 5 g. This is surely a misprint for ½ mg. and 1 to 5 mg. A dose of 5 *grams* of tuberculin would be an enormous one; the largest we have ever given is 0.005 c.cm. We regret to see that even to-day in the twentieth century it is recommended that a child's canaliculi should be slit up with Weber's knife. We can think of no condition which would justify such a mutilation. In congenital atresia of the duct it may be necessary to pass a fine probe *once*, but this can be done without such a drastic measure as is suggested by Peters. The author seems to have great dread of atropine intoxication, and advises the use of scopolamine in ⅕ per cent. strength as being less toxic, but we have never heard of a case of poisoning following the use of atropine *ointment*. Peters does not suggest that *ointment* should be used for infants instead of *solution* of atropine. But these criticisms refer but to isolated details. The work taken as a whole shows a comprehensive grasp of the subject, and is a valuable summary of eye diseases among children. There are no illustrations whatever.

## TREATMENT OF SHORT SIGHT.

PROFESSOR HIRSCHBERG'S book on the treatment of short sight[8] is distinguished by its sound common sense. The title should have been "On short sight" rather than "The treatment of short sight," for the work, which is a reprint of an article which appeared in *v. Leyden's Deutschen Klinik am Eingang des zwanzigsten Jahrhunderts*, deals with the whole subject of myopia. Professor Hirschberg has managed to make this somewhat dry technical subject highly interesting, and the book might well be read by medical practitioners who interest themselves in eye work, and especially by school medical officers. Although in places the individuality of the well-known author is apparent in a certain degree of dogmatism, yet, on the whole, questions upon which opinions diverge are treated very fairly. Professor Hirschberg is one of those who prefer to use a German technical word such as "*Regenbogenhautentzundung*" instead of "*iritis*," which is a cosmopolitan word in every way more convenient; but even he occasionally lapses and adopts the scientific term, although he often apologetically translates it into German. "Retinitis" is a word to which he takes exception because it is derived from the Latin word *rete* compounded with the Greek termination *ῖτις*. In spite of this peculiarity the German is in most places easy to translate. Unfortunately comparatively few English medical men study German, and thus valuable works of this nature, which have no counterpart in English literature, are closed to them.

[7] *Die Erkrankungen des Auges im Kindesalter.* Von Dr. Albert Peters. Bonn: Friedrich Cohen. 1910. (Roy. 8vo, pp. 273. M. 6.)

[8] *Die Behandlung der Kurzsichtigkeit.* Von Professor Dr. J. Hirschberg. Berlin: Urbán und Schwarzenberg. 1910. (Sup. roy. 8vo, pp. 89. M. 3.)

## THE *X* RAYS IN DIAGNOSIS.

THE latest volume of the Lehmann medical atlas series is devoted to *x*-ray diagnosis in internal medicine,[9] and is edited by Dr. GROEDEL, who contributes four out of the eighteen special articles which precede the atlas proper. The main value of the work, indeed, lies in these chapters, written by Continental specialists, rather than in the radiographic maps, which in spite of all the skill exercised in their production are not entirely satisfactory. It is inevitable that this should be the case, for in the examination of several of the organs, especially the stomach, the only things of real value to the diagnostician, and in a secondary sense to the student, are the screen image and the original negative. But if in an atlas of this kind we only see through a glass darkly, there is plenty of dry light in the text, which treats in turn of the organs of respiration, circulation, and digestion, the uropoietic system, and morbid conditions of the bones. Professor Paul Krause is responsible for the section on the early diagnosis of pulmonary tuberculosis. On this matter the radiologist has spoken in a somewhat subdued tone during the past year or two, but Professor Krause is by no means conservative in his claims. He says that, although a fairly extensive infiltrative process in the lung apices may be equally demonstrable by physical and *x*-ray methods, yet when it is more centralized and slighter in extent percussion fails as a means of diagnosis before the *x* rays fail, and that of the two *x*-ray methods the plate will sometimes prove the presence of an infiltration when the screen examination has failed to detect it. In the examination of children for suspected tuberculosis he advocates the use of a tube having a hardness of 4 to 5 on the scale of Walters. We have devoted most of our space to the writings of Dr. Krause, but the other articles are equally worthy of study, and Dr. Groedel's treatises on the orthodiagraphic examination of the heart and on the examination of the stomach are of special value.

## HEREDITARY TRANSMISSION OF DEFECTS IN MAN.

IN his dissertation[10] for the M.D. degree at Oxford, Dr. STAINER has chosen the subject of *The Hereditary Transmission of Defects in Man*, and has given a short but particularly lucid account of a subject which is for the moment of more than ordinary interest. The main theme of his paper is the search for law and order in the midst of the hitherto disconcertingly confused modes of transmission. To illustrate the several types of direct and indirect transmission, a large number of pedigrees are given of families afflicted with various defects. Dr. Stainer endeavours to show that an increase in the extent or

[9] *Lehmann's med. Atlanten.* Band VII. *Atlas and Grundriss der Röntgendiagnostik in der inneren Medizin.* Edited by Franz M. Groedel. Munich: J. F. Lehmann. 1909. (Post 4to, pp. 344; 297 illustrations on plates and 114 figures in text. M. 24.)

[10] *The Hereditary Transmission of Defects in Man.* By Edward Stainer, M.A., M.B., B.Ch. Oxford University Press: Henry Frowde. 1910. (95 pp.)

severity of the defect may have no small influence in causing a change from the direct to the indirect type. He bases his supposition on the fact that in the case of such serious defects as haemophilia the transmission is through normal females to defective males, that is, the carrier-female type. In families, however, afflicted with the same disease in a milder form, it is found that defective females also occur. If the change does take place it should be possible to discover families exhibiting intermediate stages between the extreme types, and the author brings forward several pedigrees in support of this view. This change seems to be part of a general process which may be termed the natural elimination of defects. The relation of the subject to the principles of Mendel is next discussed, and it is shown by actual instances that the first law of Mendelian inheritance, namely, the dual representation of somatic characters in the germ-plasm, explains the behaviour of the female-carrier in the transmission of defects as well as the occurrence of normal individuals amongst the offspring of defective parents. A third section of the paper is devoted to the study of some cases of inheritance of ichthyosis and red hair which had come under the author's personal observation.

## NOTES ON BOOKS.

WE have frequently drawn attention to *Herbert Fry's Royal Guide to the London Charities*,[11] of which the forty-seventh annual edition has now been published. It supplies at a very small cost a comprehensive list of all charities working in or from London, showing when they were founded, their official address, their object, the names of the principal officials, how application should be made, and the number of persons annually benefited. The arrangement is alphabetic, and there is also an index. This year, in addition to his usual editorial review, in which he writes down the year 1910 as a bad one for London Charities, Mr. Lane supplies some notes indicative of the reasons why certain charities may be regarded as specially deserving of support.

We note that the book entitled *Forbidden Fruit for Young Men*[12] has reached an eighth edition—a fact which in itself is good evidence that it justifies its existence. It deals with celibacy and purity chiefly in relation to young men, though all the sides of the subjects are dealt with in turn. The spirit permeating the book is religious as well as moral, but at the same time thoroughly manly. The author, Lieutenant-Colonel SETON CHURCHILL, has written a good many works on questions of morality, and though in the present book he no doubt has chiefly in his mind young men, he addresses himself also in effect to parents, teachers, and medical men. We draw attention to the book because it is, on the whole, a favourable specimen of a growing class of publication not all of which are satisfactory. Practically all their authors address themselves to too many classes of readers, and produce books of greater length than young men of healthy body and mind are prepared to read on such subjects. The ideal book for young men will content itself with pointing out in a few short and absolutely practical chapters why a man, adolescent or adult, owes it to himself and his fellows to lead a sexually pure existence.

[11] *Herbert Fry's Royal Guide to the London Charities.* Edited by John Lane. 1911. London: Chatto and Windus. (Cr. 8vo, pp. 293. 1s. 6d.)

[12] *Forbidden Fruit for Young Men.* By Lieutenant-Colonel Seton Churchill. Eighth edition. London: James Nisbet and Co. (Medium 16mo, pp. 269. Price 1s. 6d.)

## MEDICINAL AND DIETETIC ARTICLES.

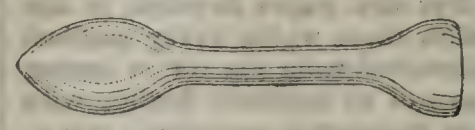
*Digipuratum.*

IN spite of much chemical investigation and physiological testing, full knowledge of the respective actions and relative importance of the various glucosides contained in digitalis has not yet been attained. It is generally agreed that no single one of these principles possesses the full action of the drug, and galenical preparations are accordingly generally preferred to any single "digitalin" or other constituent. In "digipuratum" Messrs. Knoll and Co. (8, Harp Lane, London, E.C.) present a purified dry extract of the drug, which is stated to contain all the glucosides in an unaltered state but without the saponin body, digitonin. It is asserted that the latter is the cause of the gastric and intestinal symptoms that occur when digitalis leaf is given, and, if so, its removal is, of course, an advantage. Digipuratum is supplied in the form of a powder, 1 grain of which represents 1 grain of leaf, and also as tablets containing 1½ grain in each.

## MEDICAL AND SURGICAL APPLIANCES.

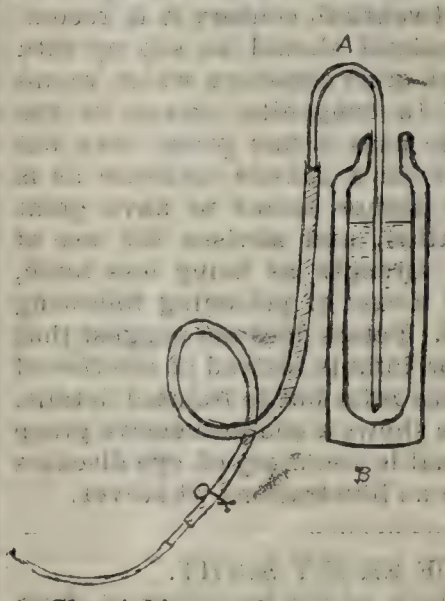
*A New Form of Suppository.*

DR. HAYDN BROWN (Caterham) writes: In endeavouring to treat haemorrhoids, fissures, pruritus, or other conditions of the anus by local applications, however well and shrewdly the solution or unguent may be chosen by the surgeon or physician—whatever its formula—getting the material upon the parts properly has always been the difficulty hitherto never satisfactorily surmounted. It has been the custom of many medical advisers to use an ointment applied by one of the familiar ointment introducers. If a haemorrhoid be entirely external there can be no difficulty in application. But if it be internal any of the ointment introducers so deposit the ointment that very little comes in contact with or remains on the affected parts. In considering ordinary rectal suppositories the inefficiency must be still more obvious, for these appliances simply pass beyond the disorder and there melt, the anal canal closing and remaining tightly contracted while the affected surface is practically uninfluenced. The ordinary form of suppository passed through the anal canal into the rectum is only of real use in conveying analgesics, narcotics, or nutrients. The illustration shows a stem having one end bulbous and the other end bulbous with flattened base. The bulb end passes easily through the anal canal, while the stem follows until stopped by the other bulb meeting the sphincter. The bulbs keep the stem in the anal canal. In order to strengthen the stem for manipulation an impregnated wick is inserted in the long axis. This wick serves a double purpose, for, as the thin stem melts first, the wick serves to retain the bulbous ends in position, which further keep the melted medicament *in situ* between them. This form of suppository is easier to insert than the old form, for the end first inserted is controlled from the other end held in the fingers, and after a start the suppository fits itself into position on account of its purposeful curvatures. When melting has taken place, the thin shrunken wick is neither felt nor found to be of any inconvenience whatsoever. There exists this further important factor: that, instead of using rapidly-dissolving bases, as in the case of ordinary suppositories, the new form lends itself to more slowly dissolving constituents, let the medicament be of a gently astringent, antiseptic, anodynal, or any other nature. The suppositories have been made for me by The British Drug Houses, Limited, 22, Graham Street, City Road, London.



*Apparatus for Proctoclysis.*

Dr. HENRY W. P. YOUNG (Norbury, S.W.) writes: In the management of continuous proctoclysis the maintenance of the temperature of the saline solution at a uniform height is always a matter of some difficulty, and, unless some special appliance is used, requires the almost constant attention of the nurse. A "thermos" flask, however, affords a simple means of overcoming this difficulty. If the flask be filled with saline at a temperature a few degrees above that at which it is desired to administer the injection, to allow for cooling in the conducting tube, it will be found that this temperature will remain at practically the same level during the time the bottle takes to empty itself. At the rate of flow usually advised—namely, one drop per second—7½ ounces are used per hour, so that a pint thermos will hold sufficient solution to last for at least two hours. The only additional apparatus required are a U-shaped piece of glass tubing having one arm long enough to reach to the bottom of the flask, a piece of rubber tubing attached by one end to the glass tube and by the other end to the rubber catheter, a small piece of glass tubing intervening; and, lastly, some means of limiting the flow, such as a metal clip on the rubber tube or the introduction of a tap such as is supplied with a Rotunda douche.




A, Glass tubing; B, thermos flask.

# THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

## NERVE TONICS.

*(Continued from page 28.)*

THE following completes the notes upon the results of analysis at present made of proprietary medicines falling under the general description of "nerve tonics." Some are more particularly put forward for curing the effects of sexual excesses. In the case of certain of these, as of some of the proprietary remedies for other purposes dealt with in previous articles, a profession is made of prescribing for individual cases in accordance with the answers supplied by the purchasers to printed sets of questions.

### INVIGOROIDS.

The tablets sold under the name Invigoroids are supplied by the Domestic Manufacturing Company, Sheffield, at 2s. 9d. per box containing 54 tablets.

They are thus described in a circular:

Invigoroids are a pure and powerful nerve and organic tonic and food, designed to replace (at a reasonable price) the highly-priced and pernicious remedies that are so common. With results much more beneficial and yet with no evil after-effects, Invigoroids are worth their weight in gold to suffering, sorrowful men, and are regularly prescribed by leading specialists. Invigoroids create blood, nerve force and energy. Fill weak and worn-out men with healthy life and rampant vigour. Make existence a perfect pleasure, and render the system disease-proof and capable of sustaining prolonged exertion in any form.

The only Cure for Impotence in Men. . . .

We Speak to You If your complaint is amongst the following: Back Pains, Brain Fag, Dejection, General Weakness, Head Pains, Hysteria, Impotence, Loss of Flesh, Lost Vitality, Nerve Paralysis, Nervous Debility, Senile Decay, Unnatural Forebodings, Weakness of Generative Organs, etc.

In a newspaper advertisement it is stated that:

Invigoroids contain free phosphorus (nerve and brain food) and rare herbal blood and flesh-forming specifics.

The directions on the label were: "Take one three times daily." The label was printed, "Take two, twice or three times daily," but this was altered in ink, not very clearly, to the preceding.

The tablets were sugar-coated and coloured red externally; after removal of the coating they had an average weight of 2.8 grains. Analysis showed the presence of asafoetida, ferrous carbonate, zinc phosphide, strychnine, brucine, and sugar of milk. The alkaloids were probably added in the form of extract of nux vomica, and the amount of this is calculated from the proportion of alkaloids found; the asafoetida was estimated from the proportion of resin found. The results of tests for the zinc phosphide were somewhat obscured by the other substances present; the amount was calculated from the proportion of zinc found. The ferrous carbonate is calculated as the official saccharated carbonate. The formula so arrived at is:

| | | In One Tablet. |
|---|---|---|
| Extract of nux vomica | 1.0 per cent. | 0.028 grain. |
| Zinc phosphide ... | 2.4 ,, | ... 0.067 ,, |
| Saccharated carbonate of iron ... ... | 18.0 ,, | ... 0.50 ,, |
| Asafoetida ... ... | 9.0 ,, | ... 0.25 ,, |
| Sugar of milk. | | |

The package was not labelled "Poison," although it would appear to come within the schedule of the Poisons and Pharmacy Act.

The estimated cost of the ingredients for fifty-four tablets is ½d.

### DR. MORGAN'S RADIO-VIMETTES.

This preparation is supplied by the Powell Manufacturing Co., Ltd., London, at 2s. 9d. per box, containing 20 pills. They are advertised in the following terms:

Proved by thousands to be unsurpassed in restoring lost vitality and strength in all cases of Debility, Nervous Exhaustion, Lost Vitality, Varicocele, and all Diseases of the Blood, Nerves, and Brain. Not a quack remedy, but compounded from the Private prescription of a celebrated Doctor.

A supply was obtained by post, and a few days later a letter was received from the Powell Manufacturing Co., as follows:

Dear Sir,

We sent you a week ago a course of Dr. Morgan's "Radio-Vimettes," and as in every case in which these are sent, we take, not merely an interest to sell the Vimettes, but a genuine interest in your ailment and its cure, we are writing now to know just what benefit has accrued from the course of treatment you have had.

If your case is a mild one we have no doubt that by this time your nerves are strengthened, your energy restored and your general vitality and health renewed, and it only remains for us to say how glad we are that the Vimettes have once more vindicated their claim to supremacy.

If, on the other hand, you had not regarded the first signs of disease and wrote us only when nature positively demanded relief from suffering we know that you cannot possibly be ENTIRELY CURED, and if such is your ailment, our interest in its eradication still continues firm. For all such ailments our primary desire is to relieve, and should you still be suffering we beg you to let us know AT ONCE, not merely saying "I am not cured," but by writing a quiet, friendly letter saying just how you feel, giving full particulars of your case,—the cause—and the result. Direct this to "The Specialist" marked "Private," and it will then be read only by him, regarded by him as most strictly confidential and, if desired, returned to you. Enclose a stamp for return postage and you will then obtain full advice on your case FREE OF ALL CHARGE, and we sincerely trust that by so writing health, strength, and vitality may be yours again.

A leaflet was enclosed on "Special Courses of Radio-Vimette Treatment," from which it appears that there are three such courses, referred to as: "No. 1. Neurasthenic; No. 2. Urinary; No. 3. Impotence."

The Courses of Treatment in each case enumerated above are put up in two forms, the supply being sufficient approximately for one month's treatment.

No. 1. SPECIAL STRENGTH for mild cases, 11s. per Course, Carriage Paid.

No. 2. CONCENTRATED for severe cases and cases of long standing, 21s. per Course, Carriage Paid.

The best advice of the Specialist is at the services of every Patient free of all charge, and in every case correspondence is treated in the strictest confidence.

A list of questions to be answered was also sent.

The dose is given, in a circular of "General Directions," as follows:

The Ordinary Strength Radio-Vimettes will be found sufficiently powerful for all mild cases of Nerve trouble, such as NERVOUS DYSPEPSIA, HEADACHES, etc.

For these troubles One Radio-Vimette should be taken night and morning after meals.

The pills were ovoid in shape, sugar-coated, and coloured purple externally. After removal of the coating they had an average weight of 3.7 grains. Analysis showed the presence of free phosphorus, reduced iron, quinine sulphate, and excipient. The amounts found were:

| | | In One Pill. |
|---|---|---|
| Reduced iron ... | 70 per cent. | ... 2.6 grains. |
| Quinine sulphate ... | 11.8 ,, | ... 0.44 grain. |
| Phosphorus ... ... | 0.13 ,, | ... 0.005 ,, |

The estimated cost of the ingredients for twenty pills ½d.

### GORDON'S VITAL SEXUALINE RESTORATIVE.

This preparation and a number of others are supplied by C. Gordon, Bradford. The price of this "restorative" is 22s. per bottle, holding 21 fluid ounces.

The usual advertisement is of a pamphlet called "Strength, How Lost, How Regained," which is thus referred to:

Interesting and instructive remarks to young and middle-aged men on "How to Preserve Strength and Retain the Powers." A Brief Treatise on Nervous Exhaustion, Loss of Strength, and Debility in Men. This book not only contains valuable remarks on how to preserve Strength and retain the Powers to an advanced age, but points out the best means of restoring Exhausted Vitality, Poverty of Nerve Force, Mental Depression, and will especially interest those who wish to create Vitality, increase Nerve Stamina, renew the Vital Forces, or fit themselves for business, study, or marriage.

The pamphlet is further entitled:

"A Confidential Treatise on Nervous Exhaustion, Spermatorrhoea, Varicocele, Generative Weakness, Debility, Special Diseases and Urinary Derangements in Men, THEIR CAUSE AND CURE, By Concentrated Herbal Remedies. A Popular, Practical, and Moral Exposition of Some of the Fundamental Problems of Sociology. By Charles Gordon, P.M.B."

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911 vol. i, p. 26.

It is a booklet of 43 pages, with sections on Onanism, Spermatorrhoea, Marriage, Varicocele, Impotence, Gonorrhoea, Gleet, Syphilis, etc. An "advice form" was also sent, containing a list of questions to be answered by those desiring medicine.

A price list gives the prices of the following: Vital Sexualine Restorative (described as "for Onanism, Night Emissions, Seminal Losses, Waste of Vitality, Brain Fag, Depression, General Weakness, Loss of Energy, Nervous Debility, Spermatorrhoea, and Varicocele"), Viro-Erectile Elixir, Anti-Syphilitic Mixture, Bubo Compound, Gleet Compound, Gonorrhoeal Mixture, and Gravolene, all at 22s. per bottle, and Gentiana Tonic and Varixolene Liniment, at 11s. per bottle.

On the label of the "Vital Sexualine" it is called:

The Great Nerve Restorative, Brain Fertilizer, and Vital Tonic. Feeds, Strengthens, and Sustains the Nerves, prevents Losses and waste of Vitality, Creates Nervous Fluid, Brain Matter and Nerve Force. Brightens the intellect, improves the memory and mental faculties, restores strength, and promotes a renewal of life in the entire system. A proven remedy for all weakened conditions of the system dependent upon the deficiency of the vital forces.

Permanently Cures — Neurasthenia, Nervous Breakdown, Brain Fag, Depression, Loss of Energy, Sleeplessness, Nervous Headache, Melancholia, Trembling, Poverty of Nerve Force, Nervous Prostration, General Weakness, Loss of Strength, Exhausted Vitality, Premature Decay, Brain Wreckage, Neuralgia, Nerve Tire, etc.

Dose.—One small teaspoonful in a wineglassful of cold water three times a day, immediately after meals.

The liquid was reddish-brown in colour, and syrupy. Analysis showed it to contain:

| | | In One Dose. |
|---|---|---|
| Iron hypophosphite ... | 0.50 part | ... 2.7 grains |
| Calcium hypophosphite... | 0 50 ,, | ... 2.7 ,, |
| Sodium hypophosphite ... | 0 60 ,, | ... 3 2 ,, |
| Potassium hypophosphite | 0.14 ,, | ... 0.7 ,, |
| Quinine sulphate ... | 0 50 ,, | ... 2.7 ,, |
| Citric acid ... ... | 0.90 ,, | ... 4 8 ,, |
| Sugar ... (approx.) | 51 parts | |
| Glycerine ,, | 36 parts by measure | |
| Colouring matter ... | q.s. | |
| Water ... ... | to 100 ,, ,, ,, | |

Metallic hypophosphites are not generally considered to be "concentrated herbal remedies."

The estimated cost of the ingredients for 21 fluid ounces is 10½d.

THE MARSTON TREATMENT.

This is supplied by the Marston Remedy Company, London.

It is advertised as follows:

EVERY MAN

Suffering from GENERAL and PHYSICAL DEBILITY should send for a Valuable Pamphlet explaining how all Nervous and Organic Derangement may be successfully treated without stomach medication. The method is easy and pleasant, and will effect a perfect and permanent cure. Sent in a plain sealed envelope post free 2 stamps.

Application to the address given brought a paper-covered book of seventy-two pages, entitled *A Treatise on the Modern Treatment of Nervous Diseases and Exhaustion in Men by Local Absorption*, the scope of which is indicated by the following extracts:

The object of this treatise is to describe, in as clear and simple a manner as possible, for the non-professional reader, the various diseases and affections resulting in the nervous and sexual systems from the indulgence of early pernicious habits, excessive venery, fast living, and other irregularities, the product of our modern civilization. . . .

In issuing this edition of our treatise on NERVOUS DISEASES, we desire especially to point out that ours is not an empirical or secret treatment, nor do we use merely one single preparation and designate it a cure-all and panacea for every variety of disease. On the contrary, the Remedies used are varied, and such as long experience in the treatment of Nervous and Sexual ailments have proved to be the most valuable in their cure. Our object is to prescribe the course necessary to be taken to ensure the result expected or hoped for; we claim no new or occult discoveries in the domain of Medicine or Pharmacy, but we do claim that our method of combining medicinal drugs, in the form of a suppository and applying them directly to the immediate locality of the diseases described in this treatise, is not only more successful in its results but is more effectual and rational than purely stomach drugging for nervous Diseases allied with sexual troubles.

The book was accompanied by various other papers, and a letter from which the following extracts are taken:

If for any reason after a perusal of our book you are unable to select the course of treatment necessary, you may give us a full and as clear a statement as possible of your symptoms, and we will submit it to the consulting physician, when such course as will meet the requirements of your case will be prescribed. The treatment can be sent to you by post, together with the necessary medical and hygienic advice suitable for your case.

Should you still have any doubt as to the advantages of rectal treatment in your case, possibly owing to some complication that does not enter within the scope of our treatise, we shall be glad to hear from you, and any letters will be treated in the fullest confidence. Consultation personally or by letter free of charge.

In a subsequent letter the following occurs:

We are well aware that there are firms in existence which treat nervous debility on similar lines to our own, but we again emphatically claim and challenge all rivals to contradict the fact, viz: that we are the oldest established advertising medical business, and that we were the first to originate the Rectal Method for the cure of Nervous and Sexual Diseases.

From the papers sent it appears that five kinds of treatment are supplied, as follows:

Graded Course for the cure of Seminal Losses, Spermatorrhoea, etc.

Impotence Course for the cure of Impotence, Loss of Sexual Vigour, Erectile Power, etc.

Urinary and Prostatic Course for all troubles of the Prostate, Gland, Bladder, Kidneys, etc.

Developing Course for Atrophy or Wasting and Shrinkage of the Organs, etc.

Neurasthenic or Nervine Tonic Course for General Weakness, Debility, Loss of Memory, Sleeplessness, Melancholy, Despondency, Depression, Neuralgia, Brain Exhaustion, and all those conditions arising from Debility associated with Nervous Diseases.

The price of the treatment is the same in all cases, namely, £1 1s. for one month's treatment, and £2 2s. for three months' treatment, of any course.

In a third letter it was stated that—

To convince you of our confidence in our Treatment to effect your cure, we will send you a three months' course of treatment upon receipt of One-Half the Regular Price, namely, 21s., and you need not pay the balance of 21s. unless you are perfectly satisfied with the results.

A guinea was accordingly sent for a three months supply of the Nervine Tonic Course; this elicited a request for answers to the printed questions that were sent, and a sample of urine, for "our Consulting Physician." The question paper was therefore filled in with particulars of an imaginary case of nocturnal emissions, and sent with a sample of normal healthy urine to which some glycerine and water had been added. Three boxes of suppositories were received, with a letter of which the principal parts were as follows:

We have your favor with answers to questions and sample of urine enclosed, and our Consulting Physician has submitted the latter to a careful examination, and we are pleased to inform you that it was found to be of normal specific gravity, and showed no evidence of any organic kidney disease, but an examination of the urinary débris, together with the statements made in the diagnosis form, discloses sufficient evidence to convince us that your nerves and sexual system is very much below par, and in order to bring about your complete restoration to sexual health and strength it will be necessary for you to undergo the treatment our Consulting Physician has prescribed in your case. . . .

You will therefore see that it is absolutely necessary in your case for you to undergo, in addition to the Tonic Course which you ordered in your previous letter, a three months' treatment of the Graded Course to permanently check all losses either at stool, in your urine, or by nightly emissions, and by this means a reinvigoration of the exhausted seminal secreting organs will be gradually effected. This course could be used every night whilst you are using the Tonic Course every morning. . . . we forward you herewith a three months' treatment of the Tonic Course. . . . Use from box No. 1 the first month, box No. 2 the second month, and box No. 3 the third month. . . . If you would like to follow our advice and use the Graded Course at night and will remit the reduced fee of 21s. for the same, the further remedy will be at once prepared and sent you. . . .

Each box contained 29 suppositories, or 87 in all, having an average weight of 16½ grains. All three kinds were found to be similar in composition; they differed a little in the proportions of the ingredients, but, as the drugs are not soluble in the fat, suppositories of such a composition, if prepared by melting and pouring into moulds, would show such differences in strength as those found, unless prepared in very small quantities and with extreme care. The composition shown by analysis was:

| | No. 1. | | No. 2. | | No. 3 | |
|---|---|---|---|---|---|---|
| | Per Cent. | Grains in One. | Per Cent. | Grains in One. | Per Cent. | Grains in One. |
| Calcium hypophosphite ... | 0.4 | 0.07 | 0.3 | 0.05 | 0.3 | 0.05 |
| Powdered gentian and powdered cinchona bark | 2.1 | 0.35 | 3.7 | 0.61 | 2.7 | 0.45 |
| Oil of theobroma ... ... | 97.5 | | 96.0 | | 97.0 | |

The two vegetable drugs could not, of course, be determined separately; they appeared to be present in something like equal quantities.

The estimated cost of the ingredients for the eighty-seven suppositories (ordinary charge 42s.) is 5d.

### MURRAY'S COMBINED TREATMENT.

This "treatment," which has so great a resemblance in many respects to the preceding as to suggest that it can hardly be merely accidental, is supplied by James Murray, London.

It is advertised as follows:

BOON TO MAN.

All Men suffering from Nervous Exhaustion, Physical Debility, and all Allied Troubles, should send for my Illustrated Book, fully describing Symptoms, together with most modern scientific method of cure, including hundreds of testimonials of complete cures. No Trusses. No Electricity. Sent sealed Post free two stamps.

On application to the address given, two paper books and a small pamphlet were sent. The first, entitled *The Combined Stomach and Rectal Treatment for the Permanent Cure of Nervous Debility and Sexual Diseases, including Spermatorrhoea, Impotence, and other Disorders resulting from these Conditions*, is a booklet of eighty-four pages, from which some extracts are given below; the second is a booklet of forty pages, entitled, *Varicocele: Its Symptoms and Cure;* and the pamphlet, of eight pages, is entitled, *A Treatise on Venereal Diseases, Gonorrhoea, Gleet, Stricture, etc.*

The "Treatment" is thus explained:

The present therapeutic methods of treating Nervous Debility may be described as three distinct systems, viz.:—Treatment by the Stomach alone, Treatment by Local Absorption, through the means of the Rectum or opening of the lower bowel, and the Murray system of combined Rectal and Stomach Treatment.

The two former methods used separately have proved of considerable advantage in removing some of the distressing symptoms of this disease, but the successful cure of Nervous Debility, needless to say, depends upon the cure and removal of every symptom associated with the disease. . . . This result is effected by "Murray's Treatment," which has received the appellation "Combined" from its peculiar means of administration. It comprises two forms of treatment. The first consisting of prescribed remedies taken by means of the stomach. . . . . The second form . . . is that of a Rectal Suppository.

The books were accompanied by various papers and a letter of the usual type, which was followed at intervals by others, in one of which it was stated that:

It is always the earnest endeavour of my Consulting Physician to carry out to a successful issue the many cases that come under our care, and I am glad to say that the results have in no way contradicted my claims as to this satisfactory issue.

In all cases that are submitted to my opinion, it is honestly given after consulting with my Physician, and in no case do we encourage or give hopes of a successful cure in those chronic cases which sometimes do not yield to treatment.

From the book it appears that five "courses" are supplied—namely:

The Nervine Tonic and Brain Food Course.
The Seminal Course.
The Impotence Course.
The Genito-Urinary Course.
The Atrophy Course.

From a long and varied experience in the treatment of Nervous Debility my physician and myself find it very requisite that three months' treatment should be prescribed in order to bring about a thorough and complete cure.

The fee for a three months' Treatment is £2 2s.

The fee for a month's treatment is £1 1s.

No order having been sent, a further letter was received, containing the following offer:

. . . I shall be most happy to make such reduction in the cost of the treatment as I hope will adapt itself to your means; and to show you the confidence I have in the value and benefits of my method of cure, I am willing to meet you in the matter of payment, and would suggest your paying me, say 20s. for a three months' course, and the balance of 22s. I shall only expect or look for, provided that you are perfectly satisfied with the results obtained from its use.

Twenty shillings was then sent for the "Nervine Course," and brought a request for answers to the questions on a sheet forwarded, and a sample of urine. The questions were answered in the same way as for the Marston Treatment (above), and a sample of the same mixture of urine, glycerine, and water was sent. Not only was the result the same, that is, a discovery that an additional course—at an additional fee—was necessary, but it was conveyed in very similar words:

It is evident that your case is more complicated than your first letter indicated, and from the full particulars to hand, together with result of examination of urine, your case needs in addition to the Nervine Tonic Course a Special Seminal Course to permanently check all seminal losses, whether at stool, in the urine, nightly or otherwise, and it will strengthen the now weakened seminal secreting ducts. This extra Course would have to be used in the morning and in conjunction with the night Course they will act in harmony with each other and attack every symptom of your case. . . . I shall be pleased to let you have this extra Course on the same reduced terms, viz., 20s., and upon receipt of this amount it will immediately be prepared and sent you with full directions, and I trust you will see your way clear to order the same at once so that they may be used conjointly.

The preparations sent consisted of three boxes of gelatine perles (called "gelatinoids") marked "No. 1," "No. 2," and "No. 3," each box containing 10, and three boxes of suppositories, similarly marked, each containing 30. It was explained that:

I am only sending you the first month's gelatinoids as it may be necessary to modify these next month.

The general directions were to use a suppository

from box No. 1 first day, box No. 2 second day, box No. 3 third day, recommencing with box No. 1 again on fourth day and so on in this order day after day. The Stomach Gelatinoids are to be swallowed and in same alternate order as Rectal Treatment.

The directions on the gelatinoids were "Take one every morning after breakfast."

*Gelatinoids No. 1.*

Each contained 0.75 grain of quinine sulphate, partly dehydrated, equivalent to 0.84 grain of the *B.P.* salt. No other substance was present.

*Gelatinoids No. 2.*

The contents of one had an average weight of 1.35 grains, and contained:

| | | |
|---|---|---|
| Ferrous phosphate ($Fe_3 2PO_4, 8H_2O$) | ... | 26 per cent. |
| Quinine phosphate ($Q_2H_3PO_4, 8H_2O$) | ... | 35 ,, |
| Strychnine | | |
| Talc ... ... ... ... | ... | 11 ,, |
| Milk-sugar. | | |

The strychnine was only a small proportion of the alkaloid, and the amount of material available did not suffice for its separate determination.

*Gelatinoids No. 3.*

The contents of one had an average weight of 1.66 grains, and consisted of a brown extract agreeing in most characters and tests with extract of damiana. No other ingredient could be detected, but some other extract *might* have been present, as a mixture of some vegetable extracts could not be separated with such a small quantity as was available.

The estimated cost of the ingredients of the 30 gelatinoids is 1¼d.

*The Suppositories.*

All the three kinds of suppositories had the same constituents, only showing such small variations in the amounts as would be inevitable in making a large quantity in the usual way; the average weight was 16 grains. Analysis showed the presence of:

| | No. 1. | | No. 2. | | No. 3. | |
|---|---|---|---|---|---|---|
| | Per Cent. | Grains in One. | Per Cent. | Grains in One. | Per Cent. | Grains in One. |
| Calcium hypophosphite ... | 4.05 | 0.7 | 3.54 | 0.6 | 3.70 | 0.6 |
| Powdered gentian and powdered cinchona bark | 3.90 | 0.6 | 4.30 | 0.7 | 5.30 | 0.9 |
| Oil of theobroma ... ... | 92.05 | | 92.16 | | 91.00 | |

In the mixture of powdered gentian and cinchona, the former appeared to constitute more than half.

The estimated cost of the ingredients for 90 suppositories is 5½d.

## THE INFLUENCE OF PARENTAL ALCOHOLISM ON THE PHYSIQUE AND ABILITY OF OFFSPRING.

A discussion on this subject took place at a meeting of the Society for the Study of Inebriety on January 10th. Letters of regret had been received from several gentlemen unable to be present, including Professor Karl Pearson, who wrote that pressure of other work prevented him from being present. But, failing this pressure, he did not think he would have attended the meeting of the Society for the Study of Inebriety, for, to judge by its journal and the tone of recent papers in it, its members did not seem to be occupied with scientific study.

The discussion was opened by Dr. T. B. Hyslop, President of the Society, and late Resident Physician at Bethlem Royal Hospital, who spoke as follows:

In opening this discussion I am well aware of the difficulties in the task. The subject is, as you well know, one of very great importance, and it has been treated from so many and diverse points of view that to attempt to unravel the present tangle of criticism and doubt requires both courage and caution. In the first place it is necessary that the position of this society should be made clear. We profess *to study*. We have no axe to grind, no doctrine to disseminate, and no sermon to preach. We merely seek the truth, the whole truth, and nothing but the truth. It is by attacking problems from all sides that truth is ultimately reached, and even though discussions on alcohol are sometimes characterized by extravagances, the various personal conflicts do no harm so long as they do not obscure the matter discussed.

Unfortunately, or otherwise, the judicial mind is apt to be influenced when a pet hobby or intuition is in danger of being overthrown, and those who are so influenced most naturally warm to their work, and by every means available seek to protect what they consider to be the legitimate offspring of their reasoning faculties. Trouble is, however, apt to arise from the fact that these offspring are not always legitimate, and it is within the experience of all of us that we have cherished with tender care and solicitude ideas which time and advance in knowledge have ultimately proved to have been in reality delusions.

To-day we are faced with a problem of which our individual solutions have long been hugged to our breasts, to which we have given our faith, and which we have upheld without question. Like the post-impressionist in art, it now behoves us to divest ourselves for the time being of all our previous notions and beliefs, and to hark back, as far as possible, to the very beginning, and endeavour to rebuild on foundations which are really sound.

In answer to one of his critics, Herbert Spencer pointed out that it is easy for a child to make a hopeless tangle of a skein of silk, and doubtless it would be easy to accentuate the present condition of affairs with regard to the subject under discussion to-day. It will be better, however, if, instead of rending each other, we endeavour to acquire knowledge of such facts as may prove to be an adequate foundation for the reconstruction of an edifice by future investigators, and which shall stand the test of time.

We are in sympathy with the aims of the Eugenics Laboratory, although we do not approve of their statistical methods, and in our seach for truths we ourselves sometimes also exceed the mark, and possibly we also provide material for the dissemination of doctrines which, after all, are based upon a mass of heterogeneous, and even incompatible, data, and which leave much scope for criticism and attack. Such being the case, I trust that by friendly collaboration we may be able to avail ourselves of the vast amount of earnest and painstaking work already accomplished by some of the best brains of the day.

### *The Problem Stated.*

I feel sure it is agreed that the problem we are met to discuss is not to be proved, or even advanced, by rhetoric, and, in my opinion, it is open to question whether it can be solved satisfactorily by statistics. *Does parental alcoholism—apart from parental degeneracy, which, together with a tendency to alcoholism, is heritable—influence the physique and ability of offspring?*

In order to answer this question, we must, so far as is possible, first eliminate such sources of error as are due to the inclusion of side-issues, indefiniteness of standards of alcoholism, health, and degeneracy, and we must correct our vague conceptions as to what really constitutes heredity. We ought also to equalize or exclude altogether such variations in environment as may possibly affect the germ-plasm of the parents or the offspring independent of the influence of alcohol itself. It is obvious, however, that it is wellnigh impossible to find a definite uniformity of phenomena on which to base statistics which shall be accurate in every particular. We cannot exclude all variations in environment, nor can we neglect the possibility of the intensification of degeneracy in successive generations due to a continuance of the same or different environmental defects.

In order to better define our standards of parental degeneracy and alcoholism, it is important to note the sex, age at incidence, and evidences of inheritance, as well as the nature and degree of the defect. Needless to say, the environmental conditions should also be carefully noted. So far as the parental degeneracy and alcoholism are concerned, the Galton Laboratory researches have served the very useful purpose of bringing again into prominence the *association*—in contradistinction to *causation*—of alcoholism and degeneration; but it must be confessed that the question as to which came first—the mental defect or the alcoholism—has not received such attention as is needed. As an asylum physician I am almost daily confronted with the difficulty of deciding as to which is cause and which is effect, and if, after full consideration of all the data available, it is wellnigh impossible to decide such an apparently elementary point, how much more difficult must it be to find sufficiently reliable data on which to base statistics! It is also to be noted that the tendency to degeneracy or alcoholism may be latent in the parent, and one or other of these defects may become manifest, owing to some accidental factor, either before or after the tendency has been transmitted to the offspring. This fact renders the question as to which came first—the alcoholism or the child—somewhat futile.[1] At first I believed that parental alcoholism should invariably precede the birth of the child, but I have now come to see that such a stipulation would lead, not only to the suppression of half the truth, but even provide a source for error unless definite distinction were made between parental alcoholism *per se* and parental degeneration *plus* a psycho-neurotic tendency to alcoholism.

### *Alcoholism at Conception.*

The occurrence of conception at some festival season, when acute alcoholism is rife, has provided some investigators with data for consideration. The assertion that alcohol at festivals is the source of imbecility in offspring is as yet, however, unproven. Undoubtedly there may be an increase in the number of conceptions on such occasions, but I am not aware of any statistics which take into account the relationship of the alcohol to degeneracy in the parent, and the possibility of any ill results to the offspring being due to direct heredity has not, so far as I am aware, been adequately considered. In this connexion it must be noted that we know but little of the influences, alcoholic or otherwise, which determine conception; and, moreover, the parents are apt to shelve their responsibilities in such matters, and attribute defects in their offspring to some accidental or even fanciful cause. Certain it is that many of the poorer classes attribute the largeness of their families to the abuse of alcohol and the consequent loss of control and other considerations.

The earlier researches of Laitinen,[2] to which reference is made by the same observer in his Norman Kerr Lecture[3] and further contribution to the proceedings of the last International Congress on Alcoholism, have been very freely and exhaustively criticized by others. That he made no distinction between parents, one of whom drank, or both of whom drank, provides Professor Karl Pearson

[1] Any statistics which do not clearly differentiate between the two types of parental alcoholism and degeneracy are futile.

[2] Lecture delivered at the Anti-Alcohol Congress in Stockholm, 1907.

[3] See *British Journal of Inebriety*, October, 1909; and "Contribution to the Study of the Influence of Alcohol on the Degeneration of Human Offspring" (Proceedings of Twelfth International Congress on Alcoholism, 1909.)

and Miss Elderton with matter for self-congratulation, in that they themselves distinguished between the father and mother, and arrived at the conclusion that the drinking of the mother had more influence than the drinking of the father, and that, slight as was the effect, since it influenced girls more than it influenced boys, it was unlikely to have been due to toxic action on the fetus. That the latter observers carried their observations a few steps farther than did Professor Laitinen cannot be denied, but, needless to say, this fact does not in itself render their conclusions any the more valid. Laitinen's previous researches on the effects of small quantities of alcohol on animals, and the degeneration which he claimed to have found in their offspring would, if correct, appear to have more direct bearing on the subject, inasmuch as it is not probable that the offspring inherited a parental neurosis or psychosis to which the effects of alcohol had been added and transmitted as such to the offspring. For our purposes we must merely take note of Laitinen's statement that the number of young of those animals that received alcohol was somewhat larger, but much weaker, than in the case of the young of animals not treated with alcohol.[4] The truth of this statement will doubtless be fully investigated, and upon its verification much must necessarily depend.

*Parental Alcoholism and Degeneracy.*

For a long time past I have in many instances attributed mental and physical defects to parental alcoholism, but I must now confess that, after careful consideration of the data so much discussed by the members of the Eugenics Laboratory—also Sir Victor Horsley, Drs. Saleeby, Basil Price, Demme, Bezzola, Laitinen, MacNicholl, and many others—I have endeavoured to discard my previous conceptions, and I have sought diligently for an instance of defect which I could honestly convince myself as being due solely and entirely to parental alcoholism. Formerly I regarded epilepsy, some forms of insanity, mental enfeeblement and defective inhibition, deaf-mutism and stunted growth, as being mainly due to parental alcoholism. All these conditions, however, fall under the category of defects in what has been aptly termed the "general controlling determinant," and I have as the outcome of much clinical experience imagined I could diagnose parental alcoholism from the symptoms evidenced in the offspring. Now I feel that I cannot truly satisfy myself that in any one case there had not been also other factors than alcohol at work, and that the symptoms in the offspring might possibly have been due to the direct inheritance of a neuro-psychosis as well as alcohol.

It is obvious that instances of defective germ plasm in the stock—which may evidence itself by alcoholic tendencies throughout the stock—are instances of heredity pure and simple, and they ought, for the satisfactory solution of the problem before us, to be rigidly excluded. Such a process of exclusion, however, might result in the elucidation of but half the truth, and, as we shall see presently, in order to obtain the whole truth, the question does really involve the consideration of the degenerate and the problems of heredity.

The Eugenics Laboratory Memoir, No. X, did not profess to deal with the direct heredity of alcoholism. It concerned itself only with the offspring of the alcoholic as children.[5] Of the results that drinking produces in the offspring it is stated with a certain degree of truth that "alcoholism in the parent may, like insanity, be the somatic mark of a defective germ plasm in the stock. The child is defective not because the parent is alcoholic, but because it is the product, like the parent, of a defective germ plasm. The child may be physically and mentally fit, and yet, when adult, exhibit alcoholic tendencies."

Their contention does not include, or even refer to, the almost accepted assumption that alcoholism in the normal, as in the degenerate, parent is apt to lead to earlier alcoholism or degeneracy in the offspring. At present my experience leads me to the belief that parental alcoholism accentuates the downward trend, and with each successive generation the period of exemption from alcoholism and degeneracy is shortened, so that the offspring become alcoholic or degenerate at a relatively earlier age. Doubtless, however, this will form the subject for some future memoir, and possibly it may be ascertained whether parental alcoholism in the degenerate does or does not modify, diminish, or intensify the evidences of defective germ plasm in the stock—that is, does parental alcoholism alter the character or degree of the inherited degeneracy in the offspring? It would seem to me that alcohol as a complementary factor to parental degeneracy does aid in the devolution of the stock, and it is upon families which are prone to degeneracy that alcohol appears to put the finishing touches, and renders the physique and ability of the offspring more and more unsatisfactory with each successive generation.

Certain it is that Nature does not permit any prolonged departure from its laws of health and the trend of evolution, as shown by the tendencies for neuroses and psychoses to spread and ultimately wear themselves out in the course of time and with successive generations. This law holds good so long as other complicating factors, such as alcohol, do not add to the burden, and, by attacking the more or less attenuated neuroses or psychoses, keep them alight and thereby frustrate the efforts of Nature to render them abortive. Alcohol, as we all know, will readily set alight and determine the existence of a neurosis or psychosis which might otherwise be on the wane; and not only does it affect the individual and intensify his degeneracy, but it is also open to belief that it renders the offspring more liable to suffer from the transmission of such degeneracy, not only in its parental intensity, but also to be manifested at an earlier age in the progeny.

In the last report from the Galton Laboratory claim is made that alcoholism is, in its *pernicious* forms, consequent on, and not antecedent to, mental defect. This may be true, and, if rightly understood and supplemented by an account of the influence of alcohol in intensifying an already existing nervous defect, it can do no harm to the cause of temperance. That it is the aim of the previous memoir to prove that alcohol may be taken with impunity, no one with any sense of justice will contend; nor need it be imagined that alcohol is in any sense regarded as being capable of aiding the onward and upward trend of biological evolution. Referring as it does to pernicious forms of alcoholism, it is, of course, hardly likely to take cognizance of any statistics based upon the consumption of one glass of beer per day.

"One man's food another man's poison" refers to alcohol as much as it does to any other article of consumption, and it is indeed difficult to differentiate the degrees of alcoholism. Another matter about which there has been much contention, yet which has not yet been referred to in its true bearings, is the fact that in asylum practice it is comparatively seldom that we find the various lesions so common to alcoholism in the sane. The reason for this may possibly be that alcohol selects for attack the least stable of the bodily systems in a given individual. The system may be, by its inherent weakness, more susceptible to attack, or it may be less able to eliminate from its substance the effects of toxic action. Whichever way we look at the question, however, it must be conceded that the pathological findings in the insane are in favour of the Galton theorists, and it is difficult to conceive any explanation of the selective action of alcohol other than by the inherent weakness of the nervous system, as is found in inherited degeneracy.

It is impossible for me to deal with all the points at issue both with regard to parents and offspring and their environmental relations, so I conclude by stating that in my humble opinion it would serve our purpose best could we but find well defined and accurate instances in which defect in the child could be proved to be due to parental alcoholism without the aid of any other causal factor, such as degeneration or faulty environment. Until this can be done, and until we can multiply such instances, any statistics we may compile can only help us to make hazardous half-guesses, which may lead to misinterpretation and the spreading of doctrines and lines of action which may be for the good or ill of the community.

*General Conclusions.*

1. It is easy to make a tangle of a skein of silk, and nothing is easier than to employ destructive criticism to any theory which may be propounded in reference to the

[4] Hodge's results are even more striking.
[5] They never investigated the offspring, only offspring at the school age.

influence of parental alcoholism on the physique and ability of offspring.

2. The theory, briefly stated, ought to be, Does parental alcoholism (of a pernicious kind)—apart from parental degeneracy, which, together with a tendency to alcoholism, is hereditable—influence the physique and ability of offspring at any age?

3. It is practically impossible to exclude side-issues, variations in standards of health, alcoholism, and degeneracy from consideration, and we have as yet but imperfect conceptions as to what is meant by heredity. Hence we cannot obtain sufficiently accurate data for statistical purposes.

4. The *association*—in contradistinction to *causation*—of alcoholism and degeneration in the parent is insufficiently understood, and the difficulty in distinguishing between cause and effect, both in the parent and offspring, is so great that the decision must be frequently mere guesswork.

5. The present problem requires that parental alcoholism *per se* shall precede conception or the birth of the child; whereas, in the transmission of a psychoneurosis by direct inheritance, the parental alcoholic tendency may be latent, and not come into evidence until after the birth of the child. This necessitates complete differentiation between the two series.

6. Alcoholism would appear to be responsible for a relatively greater number of births than would health or degeneracy without alcoholism, and there appears to be some evidence, derived from experiments on animals treated by alcohol, that their young, although in greater number, were much weaker.

7. Epilepsy, some forms of insanity, defective inhibition and mental enfeeblement, deaf-mutism and stunted growth, although instances of what has been aptly termed the "general controlling determinant," and transmitted by direct heredity, are apt to be not only intensified in the offspring, but they make their appearance at a relatively earlier age, when parental alcoholism has been an additional factor.

8. Parental alcoholism does appear to accentuate the downward trend of inherited psychoneurosis, and with each successive generation the period of exemption from alcoholism and degeneracy becomes shortened, so that the offspring become alcoholic or degenerate at relatively earlier ages. Alcohol would in this way act as a complementary fact to parental degeneracy, and aid in the devolution of the stock.

9. The inheritance of a psychoneurosis (which would tend to diminish in severity with each successive generation, and with the introduction of new correcting influences through marriage) becomes intensified and prolonged when alcoholism becomes a complicating factor. In this way the psychoneurosis is kept alight through a greater number of generations.

10. The conclusions arrived at by the Galton Laboratory School of Eugenics and their critics deal with part only of the general question at issue, and when further investigations shall have demonstrated the influence of parental alcoholism on parental degeneracy, and the combined influence on the physique and ability of offspring, we shall be better able to speak with authority for the guidance of the community.

Sir VICTOR HORSLEY expressed regret that the discussion was evidently going to be one-sided, no representative of the Galton Laboratory being present, although several had been invited. The subject was, briefly, whether children suffered directly from the alcoholism *per se* of the parent, or suffered simply from a psychoneurosis. The scientific work which had already been done—at all events, until last May—all went to show that alcoholism in the parent was followed by adverse consequences in the offspring. But in May they were startled by the conclusions put forward by Professor Karl Pearson and Miss Elderton, showing on certain sociological and toxicological data that, socially speaking, the drinking workman was as good as the sober workman—earned as good wages, and had as good physique and mentality—and that the examination of children of school age showed them to be suffering from no poison that the parents had taken. After complaining of the "extraordinary courtesy" of the Galton Laboratory that in the controversy which had lately been going on they should speak as if he (Sir Victor) were the sole protagonist, and should totally ignore the long labours of his colleague, Dr. Mary Sturge, the speaker reviewed the discussion which had been taking place in the BRITISH MEDICAL JOURNAL, and said that in the forthcoming issue Dr. Sturge and he were dealing with Professor Pearson's statistics and contentions in detail.* He considered that the manipulation of the Edinburgh statistics was really a discredit to statistical science. With regard to alcoholism *per se* in the parent in its influence upon the children, for seven weeks past, by controversial letters in the BRITISH MEDICAL JOURNAL, they had been trying to extract certain simple facts from Professor Karl Pearson as to the incidence of parental alcoholism—that is, whether it came before or after the child—in the cases he quoted. Until they had those figures no one knew into what category to put the children. This week they asked him once more to give them the figures, and if he did not publish them at once the readers of the JOURNAL would form their own opinion upon the matter.

Dr. C. W. SALEEBY said it was of value that Dr. Hyslop should once again have distinguished between two fundamentally different things—namely, that which happened in the case where alcoholism was merely a symptom of degeneracy, and that which happened in a case where alcoholism was brought to bear upon a healthy stock. He (Dr. Saleeby) thought it desirable to consider the theory of blastophoria, and to distinguish sharply between acute blastophoria, by which was meant that the parent was alcoholized on the occasion of conception, so that there was alcohol in the seminal fluid, and the totally different condition of chronic blastophoria, in which the father on the occasion of conception might be entirely sober, although his germ plasm might be suffering from a degeneration in consequence of alcohol. This theory of blastophoria rendered it possible to draw a parallelism between alcohol and lead and arsenic. It was quite evident that a great many further inquiries would have to be made, and there was a great deal to be said for Dr. Hyslop's contention that the question could not be solved satisfactorily by statistics. He considered that Sir Victor Horsley had demolished the statistics of Professor Karl Pearson, but, still, the fact that Professor Pearson believed in them showed how many easy fallacies were involved in the statistical attempt to solve the problem. More experiments must be instituted upon animals. It was possible in animal experimentation to exclude so many factors that furnished a disturbing element in the human subject. Not only did degeneracy ensue more rapidly in animals, but it could be judged both by physical signs and also by whatever was the analogue of mental degeneracy in the lower animals. The experimental inquiry upon the lower animals in the case of lead, and also in the case of arsenic, had shown just what they asserted in the case of alcohol, and the same thing was probably true of phosphorus also, and, indeed, of all the toxic substances for which the placenta was not a filter.

Dr. W. C. SULLIVAN said that the main source of confusion of thought lay in the want of a clear understanding as to what was meant by alcoholism. Until quite recently—indeed, until last May—alcoholism was always taken to mean chronic alcoholism in the medical sense. The most cogent and demonstrative observations on this subject were those instances in which non-alcoholized individuals had had healthy children, and then, upon becoming alcoholic, had had unhealthy children. In Professor Karl Pearson's first memoir the parents were described as alcoholic when, in the opinion of the social workers, they were drinking more than was good for themselves or their homes. If that was not offered as chronic alcoholism, it was not pertinent to the writer's point; and, if it was offered as chronic alcoholism, then the authors of this memoir were prepared to believe that in an Edinburgh elementary school, and one specially selected for its widely representative character, the fathers of over 64 per cent., and the mothers of over 34 per cent., of the boys were suffering from chronic alcoholism. If any teetotal advocate in his wildest flights had made such an assertion he would have been regarded as a lunatic.

Among other speakers were Mr. RYLEY, who said that in his experience the male portion of the family seemed

* See p. 74.

oftener to escape the inheritance of alcoholism than the female; Dr. CLAUDE TAYLOR, who thought that personal experience, even though it might be drawn from a much smaller area, was more valuable in such a matter as this than statistics, which only gave the position at a given moment; and Mr. THEODORE NIELD, who regretted that Dr. Hyslop had not endorsed more heartily the later work of Laitinen.

Canon HORSLEY referred to the exceptional opportunities of the parish priest in compiling observations upon this subject, particularly when he had worked among his people for a number of years. He had not found it difficult to ascertain the history of increasingly alcoholic parents and trace their increasing indulgence in the decreasing physique of their children. He noted particularly the increased instability and lack of self-control among the children of tipplers on arriving at puberty.

Dr. HYSLOP, in closing the discussion, said that he believed the majority of the medical profession did not really know what the problem was. A great debt of gratitude was owing to Sir Victor Horsley and Dr. Mary Sturge, who had prevented an undisputed acceptance of imperfectly-digested statistics and statistics founded upon wrong data. They had learned one thing—and he repeated it with all the emphasis of which he was capable—namely, that a person who had in his family the slightest predisposition to any psychoneurosis should never dare to touch alcohol. Alcohol in such a case would settle upon the nervous system and intensify and transmit the degeneracy. With regard to Professor Laitinen, he respected his work very much and he did not quarrel with his statistics. But he did not think that the time was ripe for the acceptance of all his data, and also that Professor Laitinen did not distinguish between a purely alcoholic parent and a parent who, in addition to being alcoholic, had also a degenerative tendency.

## THE BOARD OF TRADE VISION TESTS.

WE are requested to publish the following letter. The committee referred to is that appointed by the President of the Board of Trade last year to inquire what degree of colour blindness or defective form-vision in persons holding responsible positions at sea causes them to be incompetent to discharge their duties; and to advise, whether any, and if so what, alterations are desirable in the Board of Trade sight tests at present in force for persons serving, or intending to serve, in the merchant service or in fishing vessels, or in the way in which those tests are applied.

The Institute of Physiology,
University College,
London,
Jan. 3rd, 1911.

Sir,—I have been strongly advised to write to you with regard to the composition of the Colour Vision Committee appointed by the Board of Trade. Though the overwhelming majority of experts are on my side with regard to the extremely inefficient wool test used by the Board of Trade, not a single one of those who have been instrumental in bringing about the appointment of this committee is on it, whilst those who are definitely associated with the wool test very largely form its expert opinion. The president of the old committee that recommended the wool test is on the committee, and the secretary is a physicist who employs the condemned method, and is a strong advocate of the wool test.

Twenty years ago I was appointed on the International Code of Signals Committee to advise the Board of Trade as to efficient tests for colour blindness. When the Committee of the Royal Society (which like the present committee had a large majority of physicists, there being only one physiologist) recommended the Holmgren test, and that it was not necessary to have a medical man to test for vision and colour vision, my connexion with the Board of Trade ceased, my place being taken by a physicist, the Secretary of the Committee. Therefore, for this obviously medical duty the Board of Trade does not employ a single medical man.

Colour blindness is a physiological subject, and a knowledge of physiology, psychology, and ophthalmology are necessary for its appreciation. One of the two physiologists appointed by the Board of Trade has, through illness, not been able to attend the meetings of the committee. I would suggest that the number of physiologists be made equal to the number of physicists.

I have done everything in my power to help the committee to come to a correct conclusion, and shall continue to do so. They have, however, made this very difficult for me, as I wished to make it a condition that I should be present when they examined any of my colour-blind cases, men who are able to pass the Holmgren test. This they refused, so I withdrew the condition, but had they acceded this letter would never have been written.

I am, Sir,
Faithfully yours,
F. W. EDRIDGE-GREEN.

The President of the Board of Trade.

## BRITISH MEDICAL BENEVOLENT FUND.

AT the December meeting of the committee twenty-seven cases were considered and grants amounting to £220 made to twenty-five of the applicants.

Appended are particulars of the cases relieved:

1. L.S.A., aged 60. Is temporarily incapacitated, and when helped earlier in the year was given leave to apply again in six months' time. Relieved once, £10. Voted £5.

2. M.R.C.S., L.R.C.P., aged 42. Is in ill health, and dependent on help from friends. Wife gives music lessons. One child, aged 8. Voted £5.

3. M.R.C.S., L.R.C.P., aged 47. Quite incapacitated and dependent on friends. No children. Voted £10.

4. Widow, aged 50, of M.R.C.S., L.S.A. Unprovided for at death of husband six months ago, and has been obliged to give up a post as companion on account of a nervous breakdown. No children. Voted £5.

5. Widow, aged 61, of M.R.C.S., L.S.A. Husband's savings were exhausted by a three years' illness preceding death, and applicant endeavours to support herself by taking boarders. Seven children, but one an invalid, and the others only just self-supporting. Voted £12.

6. Widow, aged 53, of L.R.C.P., L.R.C.S.Edin. No income; no children; lets lodgings. Voted £5.

7. Widow, aged 64, of M.R.C.S., L.S.A. Lost her husband a few months ago after a long illness, and is endeavouring to obtain resident patients or paying guests. Voted £6.

8. Daughter, aged 55, of late M.D.Aberd. Has supported herself until recently, but is now broken down in health. Voted £10.

9. Widow, aged 70, of M.R.C.S., L.R.C.P. Slight provision made by husband has to be supplemented by gifts from friends, and is quite inadequate for present unavoidable expenses due to illness. Voted £5.

10. Widow, aged 59, of M.R.C.S., L.S.A. No income, and has exhausted the proceeds of the sale of her furniture. Health very feeble. Relieved once, £16 Voted £10.

11. Widow, aged 75, of M.R.C.S. Dependent on an old age pension and occasional gifts from friends. Relieved twice, £24. Voted £12.

12. Widow, aged 69, of M.R.C.S. No income and dependent for a home on a son-in-law, who can ill afford to assist. Relieved once, £10. Voted £10.

13. Widow, aged 49, of M.R.C.S. Husband's means exhausted by a long illness ending in death, and applicant is endeavouring to establish a boarding-house. Relieved once, £10. Voted £10.

14. Widow, aged 52, of M.R.C.S. Nursed her husband for several years before his death, and is now herself incapacitated and a candidate for a pension from a home for incurables. Dependent on two sons whose earnings are very small. Relieved seven times, £92. Voted £10.

15. Widow, aged 51, of L.S.A. No income, and health too uncertain to attempt regular employment. Two daughters, aged 18 and 16, the latter having just obtained a post as governess. Relieved five times, £46. Voted £12.

16. Widow, aged 66, of L.R.C.P. Only income a few shillings a week from a house, if let. No children. Relieved eleven times, £126. Voted £12.

17. Widow, aged 75, of M.D.Glas. Endeavours to support herself by taking lodgers, but is unable to pay her rent, which is considerably overdue. Relieved seven times, £36. Voted £5.

18. Daughter, aged 64, of late M.D.Edin. Has supported herself for many years as a companion, but is now dependent on this Fund and another charitable society. Relieved six times, £72. Voted £12.

19. Daughter, aged 70, of late M.R.C.S., L.S.A. Takes boarders, but finds it impossible to make both ends meet, and is in arrears with her rent. Relieved three times, £20. Voted £10.

20. Widow, aged 54, of L.R.C.P., L.R.C.S.Edin. No income, and is in very bad health. Children only able to give slight help. Relieved four times, £48. Voted £12.

21. Widow, aged 66, of M.R.C.S. Receives a pension from Epsom College, and requires a little help in consequence of the unavoidable withdrawal of assistance by friends. Relieved six times, £54. Voted £10.

22. Widow, aged 65, of M.R.C.S. Dependent on the help of two relations and small profits from a boarder, if able to obtain one. No children. Relieved once, £6. Voted £6.

23. Widow, aged 65, of L.R.C.P., L.R.C.S.Edin. Has supported herself since husband's death several years ago, but is now crippled by rheumatoid arthritis, and dependent on a sister who is a teacher. Relieved once, £12. Voted £12.

24. Daughter, aged 63, of late M.D.Edin. Gave up a post as companion to nurse an elder sister, who is a permanent invalid and is dependent on this Fund and a small yearly grant from an old friend. Relieved five times, £60. Voted £12.

25. Daughter, aged 40, of late F.R.C.S. No income and

unable to follow any regular occupation on account of ill health. Relieved ten times, £96. Voted £2 and case to be reconsidered n a month's time.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

## LITERARY NOTES.

PERHAPS the most attractive among the contents of the December number of *L'Hygiène* is a long and very interesting article by Professor Charles Richet, which was originally delivered in the form of a lecture at a meeting of the French League of Physical Education held at the Sorbonne last April. The famous scientist has chosen for his subject "The Education of the Mind and of the Body," and, whilst insisting upon the close connexion which exists between the spiritual and material well-being of the normal human being, he lays stress on the urgent necessity of bodily exercise for every one, men and women alike, not only for the sake of the mental and physical health of the individual, but for the future welfare of the entire race. He does not hesitate to declare that if it were possible for every man, woman, and child, particularly those engaged in sedentary occupations, to devote a couple of hours daily to the exercise of their muscles, a great deal of unnecessary suffering might be averted, both from themselves and from their descendants. The views of Professor Richet will doubtless commend themselves particularly to his English readers, who will be flattered at the comparison drawn between the schoolboys and students on either side of the Channel, and the unstinted praise bestowed upon the English system of including sports and games in the curriculum of every school. It is interesting to learn that he regards walking as the first and finest of all exercise; for those who do not care for this form of muscular exertion he recommends gymnastics, Swedish or other, according to individual tastes. The present number of *L'Hyyiène* also contains a short account of the methods employed by the French Government during the present epidemic of cholera in Italy to prevent the spread of the disease into France, and a most interesting article by Edmond Cleray on prophylaxis in the olden time. Our forefathers apparently considered the air to be the principal agent of infection; and in France, during the sixteenth, seventeenth, and eighteenth centuries there existed an elaborate system intended for the disinfection of the atmosphere of a town or district during an outbreak of cholera or plague. With regard to these ancient methods of disinfection, it is a curious fact that whilst boiling water was freely used on such occasions, it never seems to have occurred to anybody that this process might be used to make it safe to drink. This is all the more remarkable as the method was known to the ancients. The December number of *L'Hygiène* also includes an account of modern hospitals by Professor J. Courmont, and a charming little sketch of the late Professor Raymond, by Dr. Maurice de Fleury; whilst "Le Docteur" has contributed an article on migraine which should prove useful to the many sufferers from this distressing complaint. We are glad to note that this periodical, which has undertaken the important mission of popularizing hygienic science, shows every sign of fulfilling the promise of its beginning.

The January number of the *Caledonian Medical Journal* contains a most interesting article by Dr. A. Don, of Dundee on "The Old and the New in Surgery," in which the author draws some striking comparisons between "the surgery of forty years ago, as practised in a Highland glen, with the methods used in a modern hospital or in the private practice of an operating surgeon of to-day." Forty years ago the Highland glen of which Dr. Don speaks was twenty miles from the nearest railway, and this remote district, which covered an area of some twenty miles by ten, afforded a precarious means of livelihood to a solitary practitioner who seldom succeeded in earning as much as £200 a year. Dr. Don gives a charming description of this country doctor, the

> big, rough-clad, gruff-spoken man, with a temper as varied as the weather and a heart that would have done credit to M'Clure of Drumtochty. He seldom was seen except on horseback . . . every one liked him, trusted him, and feared him, and rarely spoke to him till he addressed them. . . . He breakfasted, dined, and supped wherever his work found him—where the homely fare proved less palatable than he desired, he would call at some neighbouring farm and have tea with the goodwife. He was a shrewd observer of disease, wrote a prescription only when absolutely necessary, and his prognosis was rarely at fault. . . . He was ready to attend the sickly pauper as quickly as the laird's child, and would attend neither unless he considered their illness sufficiently serious.

Owing to the long distances and the roughness of the roads, communication between the doctor and his patients was occasionally a matter of extreme difficulty, and we are not surprised to learn that at times the former was obliged to spend several days away from his own home whilst attending a dangerous or a lengthy case. His labours, indeed, are aptly described by the following lines (quoted by Dr. Don, from the *Edinburgh Annual Register* for 1817), which might have been written especially for him:

> To ride, regardless of all weather,
> Through frost, and snow, and hail together—
> At every quarter of the compass,
> A surly patient makes a rumpus,
> Because he is not seen the first
> (For each man thinks he is the worst).
> And oft at two points diametric
> Called to a business obstetric.
> For days and nights in some lone cottage,
> Condemned to live on crusts and pottage,
> To kick his heels and spin his brains,
> Waiting, forsooth, for labour's pains;
> Now comes the night, with oil oppressed,
> He seeks his bed in hope of rest;
> Vain hope, his slumbers are no more,
> Loud sounds the knocker at the door.
> A farmer's wife, at ten miles' distance,
> Shouting, calls out for his assistance;
> And, as he yawning heaves his breeches,
> Envies his neighbour blessed with riches.

As might be expected, in a place where it was out of the question to call in the doctor at a moment's notice, home remedies played an important part in the treatment of minor ailments; whilst the obstetric cases were generally managed by "handy women," selected by the doctor himself. "Few cases were treated away from home," says Dr. Don, for "to be sent to the infirmary was like a death sentence, and those requiring surgical treatment preferred their own doctor and their own home." It might be added, in many cases they also preferred their own remedies, and fearful and wonderful some of these latter were. Cancer, for instance, was never treated by the knife. Plasters of fresh cow-dung were applied daily to a cancerous breast, whilst a sovereign remedy for a rodent ulcer in the face was "a lump of raw meat to assuage the ravenous appetite of the disease." A certain "Wily Peter" became quite famous throughout the entire district as a healer of sores and ulcers, his miraculous powers apparently residing in his big toe, with which he was wont to rub the diseased part. "Injuries involving bones or joints, as well as compound fractures or lacerations," says Dr. Don, "were almost invariably fatal owing to the treatment," which is not surprising, considering that such injuries were, first of all, poulticed with oatmeal or bran, mixed with vinegar or sour ale, and then treated with applications of boiled dock-leaves or nettles, mashed turnips, or even urine and faeces. Small wonder that few recovered! Dock-leaves were likewise considered a useful specific in the case of burns and stings, as was also the common house leek; and sprains were treated with pig's fat, taken "fresh from the region of the kidney." Perhaps the oddest remedy of all, however, was the application of skin from the outside of a ham for muscular rheumatism. Naturally, the glen possessed a whole pharmacopoeia of home-made salves and ointments, some of which were "secret remedies" in the most literal sense of the word, and jealously guarded as such by their fortunate owners. Most of the ointments, however, seem to have been composed of oils, beeswax, lard, and butter, mixed in varying proportions, with the occasional addition of the yolks and whites of eggs. But it was not everybody who believed in the efficacy of these homely prescriptions. It is evident that some pinned their faith to a simpler and more universal panacea; and Dr. Don tells an amusing story of a man whose faith in the power of therapeutics was briefly summed up in the following words: "If whisky canna cure a man and tar a sheep, they're no worth curin'."

British Medical Journal.

SATURDAY, JANUARY 14TH, 1911.

## THE MONMOUTHSHIRE DIVISION AND THE NEWPORT EDUCATION AUTHORITY.

IN the SUPPLEMENT to this week's issue of the JOURNAL (p. 19) will be found a correspondence between the Monmouthshire Division and the Newport Education Authority which presents some points of special interest at the present time, when the question of school clinics is being keenly discussed in London and in different parts of the country. We need not here discuss the subject as a whole; but we think it right to direct attention to the manner in which the question of the provision of treatment for school children has been dealt with by the Monmouthshire Division, as it affords an example of the way in which the British Medical Association may use its influence for the good of the public as well as for the promotion of the best interests of the profession.

We need only briefly outline the situation: The Education Authority decided to appoint a special officer who would act as medical inspector of the school children and also treat those whom he might find defective. To this the Monmouthshire Division objects, urging the importance in the interest of the children of the treatment being carried out by local medical practitioners, and pointing out that the dual authority which it is proposed to place in the hands of one person is contrary to the public interest. Instead of the plan adopted by the Education Authority the Division submitted a scheme which seems to us in every way satisfactory. For the children it would ensure the best professional skill available, and it would at the same time be fair to the local profession. Parents who are compelled to have their children medically examined have the right to ensure that the bodily defects revealed by the inspection shall be properly treated. It is surely wrong in the public interest as well as a violation of natural sentiment that people who have not the means of choosing their own doctor should be compelled to submit their children for treatment to one practitioner selected for the purpose by an Education Committee. Doubtless the medical inspector will in the large majority of cases be competent to discharge the duties of his post, but he will almost necessarily often be comparatively inexperienced, and however competent he may be to deal with the commoner defects revealed by inspection, it cannot be expected that he will be an all-round expert, able to treat the various defective conditions of the eye, the throat, the nose, the ear, and the teeth. Every one now knows that such conditions, if left unrelieved, have often a far-reaching effect, not only on the bodily health but on the intelligence and even the moral character of the child. It is a point which need not be laboured—that the future of the race depends on the removal of all possible hindrances to the development of the young into strong and healthy citizens. The provision of adequate treatment for defective children is therefore a matter of national concern, and local authorities to which the discharge of this important duty is entrusted must be held guilty of a serious offence against the State if they fail in its performance.

In rejecting the scheme proposed by the Monmouthshire Division, the Newport Education Authority has committed itself to a short-sighted policy. Indeed, we do not hesitate to say that it has shown itself deficient in a sense of the duty which it owes alike to the children under its jurisdiction and to the community of which they are the rising hope. If the Committee has been actuated by financial considerations, we may remind it that the saving of a small expenditure at the cost of the public weal is a false economy. It cannot shelter itself behind any absurd plea of "medical trade unionism"; the correspondence shows that the Monmouthshire Division in its proposals has had the public interest mainly in view. We hope that even now the Newport Education Authority may listen to wiser counsels than those by which it has been influenced, and may be induced to reconsider the ill-advised decision to which it has been led.

We are glad to note that in regard to this matter the action of the Monmouthshire Division has the strong support of the *South Wales Argus*. In its issue of January 6th that influential newspaper, which may be taken to express the best local opinion in regard to this matter, discusses the question in a leading article which puts the case so fairly that we need make no apology for quoting part of it. After pointing out the chief objections to placing all the work, both of inspection and of treatment on the shoulders of the officer as the Education Authority proposes to do, our contemporary proceeds: "We do not know—for there is not sufficient evidence before us to form an opinion—whether the scheme of the authority would be less costly than that propounded by the medical men of Newport. It may be that the expense of the latter would be greater. If so, on the face of it, the difference could not amount to much; but even if it meant the expenditure of a few hundred pounds a year more, the outlay would be in the nature of the truest economy, and would be justified on every ground of expediency and justice. If children are to be subjected to surgical operations, then surely the bounden duty of a public authority is to provide the best services that can in reason be obtained. One part of the proposal of the local Division of the British Medical Association is that specialists in certain departments—men of repute and experience—should be appointed for the work, the appointments being annual, and in the hands of the authority itself. Surely there is nothing extravagant in this proposal; nor does there seem anything extravagant or unreasonable in the scheme as a whole. In the true interests of the children, of the men and women of the near future, we sincerely hope that the members of the Education Authority will again consider the matter, and, considering it, will arrive at what—so far as our acquaintance with their scheme goes—may be described as a decision wiser and more fruitful of beneficial results than can apparently be the case if they persist in the course which it is assumed they propose to follow."

To this we have nothing to add but to call the attention of any young practitioner on the outlook for a post to the Warning Notice which has already appeared in the advertisement pages of the BRITISH MEDICAL JOURNAL.

## "606" TO DATE.

THE birth, infancy, and early youth of "606" have been accompanied by so many novel features and the methods of employing the remedy have varied so much, almost from day to day, that a rapid review of the present situation will not be out of place.

It is usual in the medical world—or rather it has been usual—for new methods and new remedies to be worked out carefully, both clinically and in the laboratory, before they are communicated to the outer lay world. In the present instance, however, this excellent procedure has not been followed. The lay press started "booming" the remedy in an unprecedented manner, and the result of all this has been that the strangest opinions have been formed as to the use and effects of the new remedy. One is that "606" will certainly cure syphilis in one injection. This, of course, has already been shown to be erroneous. And it may be stated at once that Professor Ehrlich apparently never expressed the opinion that "606" would cure in one injection, though that was aimed at. It is necessary, too, to insist on the fact that no one regrets more than Professor Ehrlich that matters were taken up by the lay press in the way they were. His laborious investigations as a scientist are too well known to need recapitulation in this place. Moreover, the world is under a great debt of obligation to him and Dr. Hata, and their collaborators, for a remedy that has already shown itself of great value in the struggle against one of the worst enemies of the human race, the *Treponema pallidum*.

In the short time that has elapsed since "606" was first synthetized and experimentally employed in animals, the remedy has rapidly undergone improvements and successively become "606 ideal," "606 hyperideal," and now "Salvarsan." The great improvement has been in the direction of solubility, facilitating greatly its use.

*Pari passu* with these improvements, the methods of employing "606" also have been rapidly developed. The original methods have given way to new ones, more simple and less painful, and the manipulations have been reduced and simplified as far as possible. The rather complicated early methods, leading to overhandling and therefore to risks of sepsis, have given way to more simple ones. Wechselmann's method, for instance, has been abandoned, and others, too, which were really mediocre in their conception, have gone by the board. In some instances necrosis of tissues occurred some weeks after the injections. The injections, moreover, were very painful.

Another point which must be considered is the reaction of the solution employed as an injection. It has been variously recommended that this should be neutral, alkaline, or acid. The acid injection was at first greatly objected to by those who were wedded to the original complicated method and who had not tried the other. Duhot of Brussels and Traege of Freiburg im Breisgau, however, have used "606" as an acid intramuscular injection with excellent results, and with less discomfort to the patient than was produced by the original way of preparing the solution for injection. Moreover, the acid method is extremely simple, requiring little manipulation. Indeed, there is no pain at the time of injection and not for a few days, so that this method has been carried out in the consulting-room, provided, of course, the patient went home to bed at once and stayed there for some days. But some patients have not even carried this out, and apparently have not experienced any bad effects. This course is not recommended, however, and it is far better to have the patient under control in bed.

Another great advantage of this method is that only small quantities of fluid need to be injected into the muscle; in Duhot's case, for instance, about 6 c.cm. or so, half this quantity being injected on one side and half on the other, not too deeply, into the muscle, and high up on the buttock, thus avoiding the sciatic nerve. This intramuscular acid injection should be done in two movements, the needle being first introduced and the solution injected by a second movement, as in the case of insoluble preparations of mercury. This is to avoid sending any of the solution into a blood vessel.

Still another method of employing "606," in intramuscular injection, is in oily suspension, as advocated by Kromayer, and by Lafay and Lévy-Ring. The method is simple, and answers well in avoiding pain. At first, it was objected that the remedy introduced in this way was too slow in its action. But now observers are coming round to it, and Professor Ehrlich is said to look on it as an alternative for the intravenous method, in which mode of administration the remedy is rapidly carried through the body and also rapidly eliminated, whereas in intramuscular oily suspension the effect is prolonged. Intramuscular injection in ordinary solutions occupies an intermediate position, and the ordinary intramuscular solutions may turn out to be the best in the long run, although at the present moment the intravenous method is the favourite in some quarters, and is indeed the method recommended for Salvarsan, the trade name of "606." These alternative modes of introducing the remedy into the body must be taken into account, but in all probability the three methods will ultimately all be found of use according to circumstance. Moreover, in the intramuscular method, larger doses can be used than is the case for intravenous administration. And of the intramuscular modes, the acid solution method is so readily applicable that it must play an important part in the future.

The subcutaneous or true hypodermic method appears to be practically given up. It is important to emphasize the distinction between the hypodermic method and that by intramuscular injection, the former term being but too frequently employed when the latter is really meant. This is very misleading, and in the case of mercurial injections has in the past led to complications.

The intravenous injection can be carried out in various ways. Schreiber employs a syringe on the principle of Dieulafoy's for tapping, except, of course, that the instrument is used in the reverse way. It is a simple plan if the solution has been carefully prepared. Weintraud attaches the rubber tube directly to the vessel containing the solution. Emery has devised another method which reduces the amount of handling and is ingenious; in this the solution is filtered, so that the risk of a solid particle passing into the vein is avoided. This has happened, but apparently with only temporary trouble. The points in the intravenous method are: To be sure the needle is in the lumen of the vein, to avoid injecting air, and to see that the solution is perfect. In some instances the solution has, in error, been injected around the vein. This is one drawback of the method; another is the risk of thrombosis of the vein. After the intravenous injection there may be vomiting, diarrhoea, and a rise of temperature, but altogether

these complicating symptoms are evanescent. The intramuscular injection of the acid solution has already been referred to. As to the solution prepared by the addition of NaHO, that is injected slowly into the gluteal region. The quantity used is larger than in the case of the acid solution, and the sciatic nerve is more likely to be interfered with. The pain and swelling which follow the NaHO solution are greater in the usual run of cases than with the acid solution, but the personal equation *qua* pain must be considered. In intramuscular injections the point to bear in mind is to make the injection slowly in order to avoid dissociating the muscular fibres roughly. The intramuscular injections in oily suspensions are carried out in two movements as for insoluble preparations of mercury.

## OUTDOOR RELIEF ORDERS.

By the courtesy of the President of the Local Government Board, we have received an advance copy of the report of the Departmental Committee appointed last March by the President of the Local Government Board to inquire and report whether any, and if so what, amendments should be made in the orders issued by the Poor Law Commissioners, the Poor Law Board, and the Local Government Board relating to the administration of outdoor relief in England and Wales.[1] The committee, which consisted of Sir Samuel Butler Provis, K.C.B., Permanent Secretary to the Local Government Board; Mr. James Stewart Davy, C.B., General Inspector of the Local Government Board; Mr. Walter Tapper Jerred, an Assistant Secretary to the Local Government Board; and Mr. Thomas Smith, Clerk to the Guardians of the West Ham Union, held thirty sittings. The report of the committee states that the problem before it has been determined mainly by two considerations—first, the recommendation of the Royal Commission that there should be one uniform order governing outdoor relief or home assistance; and, secondly, that its function was rather that of amendment than the elaboration of any new scheme of relief. The committee has accordingly prepared a draft for a new and uniform Order based mainly on the provisions of existing Orders. The Orders which it has been considered desirable to revise are: (1) The Orders known as the Outdoor Relief Prohibitory Orders; (2) the Orders known as the Outdoor Relief Regulation Orders; (3) the Orders known as the Outdoor Labour Test Orders; and (4) the Orders known as the Modified Workhouse Test Orders. The provisions of these Orders are given in appendices, and it is sufficient to say here that the Prohibitory Orders are so called because they prohibit the grant of outdoor relief to able-bodied persons and their families, except in certain specified cases, while the Regulation Orders do not prohibit outdoor relief, but impose certain conditions on its grant. The title of the Labour Test Orders speaks for itself; while the Orders of the fourth group refer to the grant of outdoor relief to the family of an able-bodied man while he is being relieved in the workhouse. Other Orders have also been under survey, such as the Boarding-out Orders, those relating to the constitution and powers of Relief Committees, and the Relief (School Children) Order, 1905, but it was thought better not to deal with these at once. We propose next week to summarize the interesting account given by the committee of the evolution of the Orders now in force, and to show how far the committee considers that its present proposals would carry out the principal recommendations of the Royal Commission on the Poor Law with regard to outdoor relief. The committee had special regard to the emphatic recommendation of the Royal Commission that there should be one uniform Order dealing with outdoor relief, and seeing that the general inspectors of the Local Government Board who were consulted were unanimous in approving the form of the Prohibitory Order with the provision when necessary of a subsidiary test, and also that this form had already commended itself to the committee, an Order was drafted which is intended to unify administration on these lines. The draft was then submitted to all the general inspectors and to the Poor Law medical inspectors, and revised after consideration of their comments. The text will be found in the SUPPLEMENT (p. 20).

[1] The report has now been issued, price 6d.

## SICKNESS AND INVALIDITY INSURANCE.

ON January 10th the Chancellor of the Exchequer received a deputation representing the deposit friendly societies on the subject of the sickness and invalidity scheme of the Government, an outline of which was published last week. The deputation, which, it was stated, represented a quarter of a million members with a capital of two millions, consisted of representatives of the Hampshire General Friendly Society, the National Deposit Friendly Society, and the Teachers' Provident Society. The proceedings were private. That Mr. Lloyd George intended to receive such a deputation was indicated in the article referred to last week, where it was also stated that he would receive representatives of the dividing societies and of companies providing either a general sickness insurance or an insurance against infectious diseases. We notice that Mr. T. Barnes, Grand Master of the Ancient Order of Foresters, has stated that the provisional scheme of State insurance given into his hands by the Chancellor of the Exchequer under a pledge of secrecy did not correspond with the scheme outlined in the *Times* and *Manchester Guardian* last week. That article, he said, was very different from what he would have said, had his mouth not been sealed. The outline was both inadequate and incorrect, and did not fairly convey the proposals of the Government. The present position, therefore, is very obscure, and it is clear that the medical profession must not relax its vigilance, and that the British Medical Association must persevere in the task of ascertaining the opinion of the profession and settling a policy for the future whatever the scheme may prove to contain when it is finally promulgated officially.

## ADVERTISING AND UNQUALIFIED PRACTITIONERS.

IN the series of articles which have appeared in our pages during recent years, giving the results of analyses of various nostrums advertised for the treatment of disease, many instances have been given of advertisers who do not supply their wares through the ordinary channels of retail trade, but through the post direct to the patient, and their general method of procedure includes the sending of a list of questions—usually called a "diagnosis form"—to be answered, so that the patient is at least led to suppose that his case receives individual attention from some expert who remains in the background. The article concluded this week, on the analysis of "nerve tonics" and remedies for the results of sexual excesses, includes a larger proportion than usual of instances of such practices. Some of the preparations dealt with are proprietary medicines obtainable in the ordinary way from any patent medicine dealer; the most noticeable features of

these are the extensive nature of the claims made for simple and commonplace combinations of phosphoric acid with vegetable bitters, or of sulphate of iron, and the usual disproportion between the cost of the ingredients and the price charged for the article. But the persons who give their attention specially to treating the effects of sexual excesses and venereal diseases appear in most cases to prefer another kind of procedure. The usual plan is to advertise a book on the subject, to be sent free on receipt of postage. When the prospective patient receives the book, he finds it to be a treatise dealing with affections of the generative system in a way not likely to lead him to be remiss in seeking a cure for any complaint of the kind from which he may be suffering, or may suppose himself to be suffering, and suggesting the conclusion that the only medicine or treatment of real value is that supplied, usually at a charge of one or two guineas, by the firm issuing the book. The letters which are then sent at intervals to induce him to undergo the "treatment" contain numerous references to "our consulting physician," or "our specialist," etc.; a list of questions to be answered is sent, and in some cases a sample of urine asked for, though, to judge by the examples given, the latter proceeding seems to be a farce. When the patient has parted with his first guinea, it seems apt to be found that his case is a complicated one, imperatively requiring some additional medicine, for which a further guinea or more is to be sent. The medicines supplied are, as the analyses show, such as allow a gross profit of nineteen-twentieths, or thereabouts, of the money obtained. If there were any real expert study of the case by a properly qualified and competent person, it might be right to consider the fee as paid for professional services, and not primarily for the medicine; but occasionally the veil of mystery surrounding "our consulting physician" is lifted (see, for example, BRITISH MEDICAL JOURNAL, January 1st, 1910, page 40) by evidence in a coroner's court or in some other way, and it is then seen that this individual, if not wholly mythical, is somewhat shadowy, or perhaps it would be better to say shady. It might have been supposed that mere common sense would lead the public to recognize that even if any real expert would consent to work under such conditions of anonymity, no satisfactory diagnosis could be made in the manner pretended, and that the paying of a fee for advice in such circumstances is a very different thing from paying for the attention and skill of an expert who really investigates his cases. But it is evident, from the way these concerns flourish, that the power of suggestion by advertisement is, in many persons, far greater than the powers of reflection; the question of how best to deal with such medical practice by unqualified persons is one which will have to receive more attention in the near future than it has hitherto received.

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## THORIUM RADIO-ACTIVITY AND ITS FUTURE IN MEDICINE.

DURING the last five years a large amount of work has been done, chiefly by Otto Hahn in Berlin and Rutherford and Soddy in Great Britain, upon the highly concentrated radio-active products of thorium. In a paper read before the Roentgen Society on January 5th Professor E. Rutherford, F.R.S., described these researches and the large radio-active family which now surrounds this metallic substance. Dealing first with the radio-active gas or emanation which diffuses out of a thorium compound, Professor Rutherford said that this emanation disappeared at a definite rate, one-half of it breaking up in fifty-four seconds, one-half of the remainder in the next fifty-four, and so on. But this emanation could give an active deposit, which analysis showed to consist of four substances breaking up successively the one into the other, and named thorium A, B, C, and D. Each of these transformations was accompanied by the expulsion of an alpha particle—really a charged atom of helium—after the usual manner of changes in radio-active substances. All these substances were unstable, the longest lived, thorium A, having a half-period of 10.6 hours and governing the disappearance of the active deposit as a whole. But thorium D, the last of this succession, emitted beta and gamma rays, and therefore, although a plate covered with this deposit would lose its activity in the course of a few days, the possibility of getting exceedingly active plates, the activity of which would last for a day or two, was a practical consideration. In the case of radium the activity practically disappeared in two or three hours; in the deposit from thorium emanation it lasted as many days. Professor Rutherford then turned to the radio-active substances derived from thorium itself, and not its emanation, beginning with thorium X, which was left in solution after precipitating thorium by ammonia. This fell to half-value in 3.6 days. Working with some of the residues obtained in the production of thorium from thorianite, Hahn discovered that another substance must be present, radio-thorium, which declined to half-value in two years. Finally, in attempting to separate radio-thorium directly from thorium, the presence of another intermediate substance was disclosed, and this was named meso-thorium. If considered apart from its spontaneously appearing products, meso-thorium decayed to half-value in 5.5 years. It emitted fairly penetrating beta and gamma rays, and although initially it had no alpha-ray activity, it would in the course of a few years "grow" radio-thorium, which did emit alpha rays and ultimately changed into thorium X, and thorium X into emanation. They knew that the maximum amount of radio-thorium that was going to be "grown" from meso-thorium would be reached in 4.62 years. The activity of a preparation of meso-thorium would thus rise for about 3.5 years after its separation, when it would be from one and a half times to twice as great as it was initially. It would then die away with time, but even after ten years the activity of the transforming product would be higher than that of the original meso-thorium at its separation. The preparation could be standardized on that basis. The labour of separating these highly-active preparations of meso-thorium was made the easier because some 700 tons of thorium annually had to be produced for commercial purposes. But the work of extraction of thorium from the monazite sand, and of meso-thorium from the thorium residues (the meso-thorium would contain the small proportion of radium that was in monazite sand) was many times greater than that involved in the extraction of radium. Nevertheless, it could and would be done, because thorium was wanted commercially, and, once obtained, the separation of these active substances had no effect upon its commercial application and entailed neither injury nor appreciable waste of the main product. He anticipated that the price would be much lower than the present price of radium, which was quite fantastic. For medical purposes meso-thorium was just as good as radium. Its beta rays had equal penetrating powers, and its gamma rays were perhaps slightly more penetrating. Whatever physiological effects radium possessed, meso-thorium seemed likely to possess the same. The one substance might differ from the other

a little in speed, which would possibly be important ultimately, but for the present it was not a matter that need be taken into account.

## THE PARIS HOTEL-DIEU.

PROFESSOR A. GILBERT'S opening lecture at the medical clinic of the Hôtel-Dieu, Paris, which appears in the first number of the new journal, *Paris Médical*, of which he is editor, contains an extremely interesting account of a hospital which is one of the oldest in Europe, and the most famous in France. The origin of the Hôtel-Dieu is lost in the mist of antiquity, its foundation being attributed by some authorities to Bishop Inchad, who flourished in the ninth century, and by others to Saint Landry, who had been Bishop of Paris two hundred years earlier. It arose under the very shadow of Notre-Dame, and and for three hundred years was known successively as the "Hospice Saint-Christophe" and the "Hospice Notre-Dame," until it was rebuilt at the end of the twelfth century, and christened the "Maison-Dieu de Paris," whence is derived the title it has borne ever since. During the centuries which elapsed between this reconstruction and its restoration in the seventeenth century, many of the French Kings interested themselves in improving and adding to the hospital buildings. St. Louis took the institution under his especial protection, whilst his predecessor, Philip Augustus, amongst other favours, generously granted it "all the straw from his room and his house in Paris, every time he vacated it to sleep elsewhere"! Restored on a magnificent scale in the seventeenth century, the Hôtel-Dieu—partly demolished by fire three separate times during the years which immediately preceded the Revolution—was rebuilt on its ancient site not long before the outbreak of the Terror; it was then known as the "Grand Hospice de l'Humanité." Finally, in 1877, a new Hôtel-Dieu arose on the other side of the cathedral, and the original buildings were pulled down; the work was completed only some eighteen months ago. It is, perhaps, hardly necessary to say that the modern hospital differs in every detail from the ancient "Maison-Dieu." At first the Hôtel-Dieu was not a hospital at all in the modern sense of the word, but simply a vast charitable institution where any poor or afflicted persons, beggars, pilgrims, old and disabled people, and orphans, as well as the sick, might find a home, and where even the ordinary traveller could reckon on a night's lodging. To only one form of suffering was the shelter of its wards denied; the doors of the Hôtel-Dieu were rigorously closed to the leper. It was not until the sixteenth century that the Hôtel-Dieu became definitely a hospital for the sick. In its earlier days the old hospital, in spite of the welcome it extended to every kind of human misery, offered but little in the way of comforts, or even of actual necessities. As late as the twelfth century it contained so few beds that in 1188 a law was passed which made it obligatory for every canon of Notre-Dame, either on his death or in the case of his resignation, to leave a bed (mattress, pillow, and sheets) to the hospital. In spite of this, however, in the fifteenth century the number of beds was only 303, rising to 500 in the sixteenth century, and to 1,219 at the end of the eighteenth. The lack of accommodation caused infinite discomfort and suffering during the frequent epidemics, famines, and civil wars, when the wards were filled with the sick and dying, and six, eight, ten, twelve, or even fourteen patients, suffering from various diseases, were crowded together in one enormous bed. The climax was reached in the seventeenth century, when Géneviève Bouquet, the prioress of the nursing nuns, conceived the brilliant idea of utilizing the tops of the huge four-posters by placing mattresses upon them, on which slept the most active of her patients, who had to get in and out of bed by means of ladders! The medical treatment at the Hôtel-Dieu was at first almost as primitive as the accommodation, the hospital staff being composed of canons of Notre-Dame, and the nuns who for centuries took the place of the modern *garde malade*. All through the Middle Ages the patients were received and examined at the door by the portress; and it does not appear that any proper preliminary medical examination was customary until as late as the eighteenth century, when incoming patients were overhauled by the visiting surgeon before being admitted into the wards. After admission, the patient, according to the rules of the hospital, had to go to confession; after which he was undressed and put to bed, and his clothes were sent to what was suggestively called the *pouillerie*, where they were cleaned and kept until his discharge. The nucleus of a surgical staff was formed in 1221, when a surgeon called Hubert, "for charity and the good of his soul," undertook to visit the sick in the Hôtel-Dieu, and Vincent de Bois, about the same time, offered, together with a large sum of money, his services gratuitously to the hospital. A hundred years later, in 1328, the King appointed two surgeons (who were paid from the public treasury) to attend the Hôtel-Dieu, together with a physician and a midwife, known as *la ventrière des accouchées*. This state of things lasted until the sixteenth century, when the hospital authorities appointed a physician (who only visited the wards once or twice a week) and a master surgeon, who had several assistants and a crowd of apprentices. Later, the number of physicians was increased, and in the time of Louis XIV as many as eleven, including the King's own doctor, Fagon, attended the hospital patients. As for students—*philiatres* as they were called—it has been asserted more than once that they were not admitted inside the Hôtel-Dieu until the end of the seventeenth century. Professor Gilbert, however, is of opinion that they were admitted from the time of the foundation of the School of Medicine in the thirteenth century. By virtue of an edict passed in 1707, students were obliged to remain a couple of years at the Hôtel-Dieu, and, further, they were forbidden to remain under the tuition of the same man for longer than five years at a stretch. The Revolution swept away this ancient system, and in 1802 the service and administration of the Paris hospitals were entirely reorganized. Twenty-seven years later this system, in its turn, yielded to another, which is still i force at the Hôtel-Dieu at the present day.

## MEDICAL TREATMENT OF SCHOOL CHILDREN AT NORWICH.

AT a meeting of the Norwich Education Committee on January 9th a report was presented from the School Attendance and Physical Care Subcommittee recommending that the committee of the Norfolk and Norwich Eye Infirmary be informed that the Education Committee, while willing, subject to the approval of the Board of Education, to renew their offer to subscribe to the Infirmary, was unable to recommend the education authority to accede to the suggestion that they should make arrangements for the testing of the eyesight of school children by ophthalmic surgeons at the cost of the authority, and that in the event of the committee of the infirmary determining not to treat children attending public elementary schools, the matter be referred to the Board of Education for its advice as to the action to be taken in

regard thereto; and that the Education Committee add that they have heard with great surprise that in one case a recommendation obtained by the school children's own subscriptions had been refused by the medical staff of the infirmary, contrary to the public expectation that recommendations properly obtained and carefully allotted to suitable cases would be acted upon. Miss Hinds Howell, in moving the adoption of the recommendation, said the School Attendance Committee had received two deputations, one from the managers and the other from the medical staff of the Eye Infirmary. Miss Howell said that the managers appeared to think that the staff was over-rushed, while the staff objected to treat elementary school children sent to the hospital by the Education Committee. She asserted that the Education Committee sent no children to the hospital—the children went on their own initiative and took recommendations, and yet were refused treatment. Mr. A. W. F. Bagge, who seconded the motion, said that the least said at present the better. He hoped that the doctors would see fit to change their line of action. From the subsequent discussion it would appear that money has been collected in the schools for the hospitals, and the chairman expressed the opinion that to raise a subscription to get a recommendation for one of themselves was one of the best forms of charity children could be induced to undertake, for it encouraged self-help. He added that the deputations had assured the committee that the doctors did not raise the question of the ability of the children to pay. One speaker, Mr. Crotch, took up the untenable position that hospitals were not charities because from most households in Norwich and the district contributions were received for the hospitals, while the city contributed to their funds by charging the hospitals only one-third of the rates. There seems to be a good deal of misapprehension as to the attitude of the medical profession with regard to the treatment of elementary school children found defective on medical inspection. It is true that while the Act lays upon education authorities the duty of providing for the medical inspection of children the power to make arrangements for attending to the health and physical condition of the children educated in public elementary schools is only permissive; many education authorities, however, have already recognized that there is an obligation upon them, in the interests of the well-being of the community, to see that the object with which medical inspection has been established is not rendered nugatory by failure to make adequate provision for the treatment of certain classes of defects at any rate, especially eye disorders, including refraction, certain infectious skin diseases, and dental disorders. It seems clear that the Norwich Education Committee has not yet faced the matter and thought out a scheme. Whether the school child was, technically, sent by the authority or not, it appears clear that the authority has not made any arrangement for treatment, and has tacitly approved the reference of the children to hospitals by permitting the collection referred to to be made. The matter, as our readers are well aware, has engaged the very careful consideration of the British Medical Association, and in 1909 it was decided that the Association should oppose the reference of school children found upon medical inspection to be defective to public medical charity for treatment, whether or not accompanied by payment or subsidies. The Association is also opposed to any scheme which rests on the reference of children to the Poor Law pending such reforms as may result from the consideration of the reports of the Royal Commission on the Poor Law. While not objecting to treatment of such children by provident dispensaries or other contract practice organizations under suitable conditions, provided that the remuneration of the practitioner is adequate for the work done, the Association considers that the most satisfactory provision for the treatment of such school children is by placing them under the care of private practitioners.

## THE FREE DISTRIBUTION OF DIPHTHERIA ANTITOXIN.

ON August 15th, 1909, the Local Government Board made orders sanctioning the provision by sanitary authorities of a temporary supply of diphtheria antitoxin for the poorer inhabitants of a district provided the arrangements for the keeping, distribution, and use of the antitoxin were made in accordance with the advice of the medical officer of health. The Metropolitan Borough Council of Islington has decided, on the recommendation of the M.O.H., Dr. A. E. Harris, to give effect to the order. In a recent report on the subject, Dr. Harris gives the result of the use of antitoxin in diphtheria in various places, and, quoting from figures published by the Metropolitan Asylums Board, points out that there is an increasing mortality with each day's delay in the administration of antitoxin, the case-mortality being 3 per cent. when it is administered on the first day of the disease, and 14·8 per cent. when on the fifth day and upwards. He suggests that a supply of antitoxin should be kept at the Islington Town Hall, where practitioners can obtain it during the day, and at the Great Northern Hospital, where it can be obtained at night or during the day by those who reside near the hospital. The cost he estimates at about £30 a year, and he anticipates that in course of time the case-mortality, which is now about 10 per cent., will be reduced to 5 per cent.

## MEASLES AND MOTHERCRAFT.

IN a special report upon the occurrence of measles in certain schools in St. Pancras during the latter part of 1909, the medical officer of health of the St. Pancras Metropolitan Borough, Dr. J. F. J. Sykes, has taken the opportunity of discussing the whole question of school attendance as it is affected by outbreaks of measles. After pointing out that the mortality of the disease amongst children over 8 years of age is not serious, but that it is serious among those under 5 years, he expresses the opinion that admittance to school of children under 5 years conduces to the spread of the disease among just those in whom it is specially desirable to postpone exposure and attack. He considers that nothing short of the permanent exclusion from school of children under 5 years of age at least will help to reduce the mortality from the disease, and if the exclusion were extended to 6 or even 7 years, it would be still more effectual. He suggests that scholastic education for infants under 5 is undesirable, and that the physique of the young child should be the first consideration. The education of the mother being more important than the education of the child, she should be enlisted in the education of infancy instead of being divorced from it. He advocates the formation of institutions for the teaching of mothercraft, and considers that if the moneys and efforts now spent upon trying to educate scholastically children under 5 years of age, and the moneys contributed to the maintenance of milk dépôts, day nurseries, nursery schools, and similar philanthropic efforts, were all to converge into one channel of schools of mothercraft, dealing comprehensively with mothers and infants up to compulsory school age, the effect of such a scheme could not fail to produce the most beneficial results.

## SUBURB PLANNING.

A COMPANY called the Ruislip Manor, Limited, has been formed to develop an estate belonging to King's College, Cambridge, close to Northwood, Middlesex. The company undertakes not to divide more than 5 per cent. among its shareholders, and to devote any surplus profit to the benefit of local residents. It is working under the Town Planning Act in co-operation with the Ruislip-Northwood Rural District Council. King's College has entered into an undertaking for the granting of options over its land for a period of twenty-one years. The company intends to develop one or two sections at a time, and as soon as these have become productive to devote its energies to another section, and so on. The two sections to be dealt with first are near Northwood Station and Ruislip Station respectively. Architects have been invited to submit plans for the laying out of the estate, and these are now being exhibited at the Alpine Club in Savile Row. The assessors, Sir Aston Webb and Mr. Raymond Unwin, have placed first in order of merit a plan submitted by Messrs. J. and A. Soutar, in which due consideration is given to the proper linking up of all parts of the estate with the various main roads and other approaches to neighbouring towns and villages, as well as the metropolis. The intention of the company is that the estate should be developed with proper regard to open spaces and to affording facilities for outdoor recreation. In making the award the assessors have had this, as well as the convenience of access, prominently in mind. It is from one point of view sad to think of another piece of the rural portion of the home counties being turned into a suburb, and one is inclined to hope that London may before long be able to yield to New York the boast of being the largest city in the world, but if, responding to modern requirements and the greater desire among London workers of certain classes to live away from the centre of London, new suburbs must come into existence, it is highly satisfactory to know that the extension is to be made on a well-considered plan. A discussion on town planning in practice is to take place this (Saturday) afternoon at the Alpine Club, at 3.30 p.m., when the chairman of the Town Planning Committee and the clerk to the Ruislip-Northwood Urban District Council will give an account of the procedure followed by that council in the preparation of a town plan for the area.

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## HEREDITY AND INSANITY.

DR. OSWALD BUMKE, of Freiburg, well known as a writer on psychiatry, has in a resent essay[1] discussed some misconceptions with regard to insanity, and especially draws attention to certain erroneous diagnoses often met with as to particular clinical categories. With much that Dr. Bumke has to say about differential diagnosis we are not here concerned, for a great part of his discussion turns upon the clinical teaching of his country; and the same applies to a final chapter upon medical evidence as to the mental status of accused persons in law courts. On the other hand, considerable interest attaches to some of the more general questions treated, such as the causation of insanity and the often hypothesised "deterioration of the race." That an insane, or still more comprehensively, a neuropathic, heredity is of all others the most potent etiological factor in insanity, is widely accepted, both in medical and lay circles. On every hand evidences abound of the truth of this estimate. The reports of the Lunacy Commissioners and the annual reports of asylum superintendents in our own country, textbooks of mental disorders and other writings on this subject, discussions and contributions at medical meetings, all show this prevailing trend of opinion. Dr. Bumke says that not long ago authorities in Germany inclined to the view that at least three-fourths, and according to many statisties as much as 90 per cent., of all insane were "hereditarily burdened." Although in our country we have never heard of candidates for official appointments being debarred office because of their neuropathic heredity—as Dr. Bumke says has happened in Germany—it is certain that here, as there, great weight is attached in courts of law by counsel to the fact of insanity in the forbears of any accused person. The legal evidence of many medical men who lay stress upon the family antecedents and personal and bodily "signs of degeneracy" instead of confining themselves to the analysis of the individual mental personality Dr. Bumke stigmatizes as a grave logical error, by its confusion of fact and hypothesis. It is interesting to note that Dr. Bumke always speaks of the heredity doctrine of insanity in the past tense, and says that "this great structure [the heredity doctrine] has been removed bit by bit during the last few years," whilst the fragments that remain are being gradually used to lay the foundation of newer and more exact teaching. In so speaking, Dr. Bumke appears as one conscious that what he says as to the defunct condition of the doctrine is generally conceded, a view to which the writings of authorities like Tanzi, Lugaro, and others lend colour. Whilst admitting the inheritance of insanity—a fact surely beyond disproof—it seems reasonable with Dr. Bumke, to maintain that on the general question of the actual importance of heredity in insanity mere statistics of the occurrence of insanity in the forbears of insane people have no value unless compared with the results of parallel investigations into the insane ancestors of sane people (Dr. Bumke quotes one inquiry as yielding 66 per cent.); and also that with regard to any individual said to be hereditarily burdened the amount and distribution of the burthen, and also the nature and causes—possibly exogenic—of the insanities in the individual's forbears, require to be taken into account. The hypothesis of racial degeneration, which he maintains overlooks the fact of racial regeneration, Dr. Bumke dismisses in a few lines as a purely theoretic speculation, and in the "stigmata of degeneration," now generally regarded as quite compatible with complete mental integrity, he sees, even with regard to severe developmental anomalies, only the need for stringent search for departures from a normal mental development, and nothing more.

[1] *Landläufige Irrtümer in der Beurteilung von Geisteskranken.* By Dr. Oswald Bumke. Weisbaden: J. F. Bergmann. 1908. (Sup. roy. 3vo, pp. 80. 2s. 3d.)

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THE draft ordinance giving effect to the new arrangement for medical chairs in the University of Glasgow was approved by the general council of the University on January 11th. The ordinance provides for the foundation by the Muirhead trustees of two new chairs of pathology and obstetrics and the augmentation of the emoluments of the existing chairs of clinical medicine and clinical surgery.

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THE eighteenth annual report, that for 1909, of the Medical Officer of Health for the Administrative County of London, was issued on January 11th. It appears that the mean annual birth-rate shows a slight further decline from 25.21 to 24.18, as compared with 25.58 for England and Wales. The mean annual death-rate increased from 13.82 to 14.03, which compares with 14.49 for England and Wales. We hope to refer to the report more at length in a future issue.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## HOSPITAL ATTENDANCE.

THE following resolution has been passed by the Royal Colleges of Physicians and Surgeons in Ireland:

> That in future the production of a certificate of hospital attendance shall not be obligatory on students presenting themselves for the Second Professional Examination.

It is expected that the effect of this resolution will be that no students of the Royal Colleges will attend hospital during their second year of medical studies. The resolution was passed in order to bring the curriculum of the conjoint scheme more into line with that of the National University of Ireland and that of the University of Belfast, but many members of the profession regard the step as ill-advised, and likely to tend towards placing the hospital teaching in a position of relatively minor importance as compared with the preliminary subjects.

## SANITARY CONDITION OF TRIM.

In consequence of an outbreak of scarlatina in the urban district of Trim, the Local Government Board recently directed Dr. McCormack, one of its medical inspectors, to visit the town and to report on its condition. His report, which was read at the last meeting of the urban district council, states that the general sanitary condition of the town is bad, and that in particular the back yards are without drainage, are unpaved, and badly kept. Its reading evoked many humorous remarks from the sapient chairman of the council, who thought that the people of Trim knew more about the scavenging and cleaning of the streets than any fellows sent down by the Local Government Board. Steps, however, will probably shortly be taken to remedy the present unsatisfactory condition of things.

## KILLINEY HOUSING SCHEME.

Some months ago a memorial signed by a large number of residents in Killiney was addressed to the Killiney Urban Council, calling attention to the insanitary state of many of the houses in Killiney village.[1] Following upon this protest the council drew up a scheme for acquiring the insanitary dwellings and their replacement by properly-built workmen's cottages. A Local Government Board inquiry was held, and permission to carry out the scheme was accorded last week. Prior to the ratepayers' memorial the council had been most dilatory in attending to this most important and pressing evil, and the present commendable action is a striking instance of the influence which a determined body of residents can bring to bear in remedying evils injurious to public health.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## SMALL POX DANGERS IN SCOTLAND.

REFERENCE was made in these columns some weeks ago to the dangers which may affect the health of the community owing to the fact that large use has been made of the "conscientious objectors" clause in the Vaccination (Scotland) Act, 1907. The whole circumstances of the situation have been occupying the attention of the Town Council of Edinburgh, through one of its committees, for some weeks. A subcommitee of the Public Health Committee has been in communication with representatives of the Edinburgh Practitioners' Association, who are moving in the direction of getting the latitude allowed under the 1907 Act greatly restricted. A call was made at the recent meeting of the Town Council for definite figures and statistics, and it appears that in Scotland in the three years up to 1908—the latest year for which figures are available—the number of those who have taken advantage of the exemption provisions are as follows:

| | | | |
|---|---|---|---|
| 1906, number of exemptions | ... | ... | 253 |
| 1907, ,, ,, | ... | ... | 7,258 |
| 1908, ,, ,, | ... | ... | 15,846 |

This gives a total of 23,357 persons who have never been vaccinated, and who, it is urged, would be a serious menace to the general community, and entail a large amount of expense to the public, in the event of a small-pox epidemic taking place in Scotland. After considering the question fully, the subcommittee resolved to adhere to the recommendations previously made by the Public Health Committee, and to point out that in consequence of the facilities given under the Act there was growing up a rapidly increasing number of unprotected persons who would be a source of danger in the case of an outbreak of small-pox. It proposes, accordingly, that Parliament should be memorialized to amend the 1907 Act with the view of reducing materially the numbers of those persons who at present take advantage of the exemption facilities. It has been stated by some of the magistrates that persons who come before them for the purpose of securing exemption have in many cases the vaguest ideas as to the purpose and efficacy of vaccination.

## DR. BALFOUR GRAHAM OF LEVEN.

There was a pleasant gathering in Leven on December 27th, 1910, when Dr. Balfour Graham was entertained at dinner at the Caledonian Hotel by his professional colleagues. Dr. Graham, who is an ex-president of the Fifeshire Medical Association, has recently given up practice to take up work as medical officer to the Scottish Miners' (North of Forth) Insurance Society, and the dinner in his honour was intended as a mark of the esteem in which he is held by his colleagues. Practically all those in the neighbourhood of Leven were present, the few absentees sending letters expressive of their regret at inability to attend. Dr. Graham, who until recently was medical officer of health for the burgh of Leven and medical officer to the Scottish Education Department and the Admiralty, is an active member of the British Medical Association, and at present honorary secretary of the Fife Branch, which, it may be hoped, will continue to have the advantage of his services. He holds a commission as Lieutenant-Colonel in the Territorial Division of the Royal Army Medical Corps, and is J.P. for Fifeshire.

## INSTALLATION OF LORD RECTOR OF GLASGOW UNIVERSITY.

The installation of Lord Curzon as Lord Rector of Glasgow University will take place on Wednesday, January 25th, in St. Andrew's Hall, Glasgow, at 11 a.m. A large number of guests will be entertained to luncheon in the university, at the conclusion of the ceremony, at 1.30 p.m. On the evening of January 24th the undergraduates will welcome the Lord Rector with a torchlight procession on his arrival in Glasgow.

## TUBERCULOSIS EXPERIMENT IN ABERDEEN.

The Town Council of Aberdeen had before it, at a meeting on January 4th, the report by Dr. Matthew Hay, M.O.H., with reference to the admission into the City Hospital of cases of pulmonary tuberculosis. Dr. Hay suggested that one of the reconstructed and extended wards should be utilized for the treatment of cases of the nature referred to—the ward being capable of accommodating thirty-six adult patients—in addition to which there would be accommodation for the treatment of a few non-surgical cases of tuberculosis in children. The Public Health Committee, in reporting to the council, approved generally of Dr. Hay's report and recommended:

(1) That the council should undertake the treatment of tuberculous cases in the City Hospital to the extent indicated, and that the requisite authority should be given to the medical officer of health, it being understood that in the meantime the

[1] BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 536.

scheme is to be of an experimental character; (2) that a system of voluntary notification of cases of tuberculosis by the medical attendants should be arranged for on such conditions as the committee may afterwards determine; and that (3) an open wooden shed, as well as a small open shelter, should be erected for the use of the patients.

### GLASGOW PARISH COUNCIL AND PHTHISIS.

A letter has been received by the Glasgow Parish Council from the Local Government Board, enclosing an interim report from Dr. Dittmar, medical inspector, as to the treatment of cases of phthisis at Barnhill Poorhouse. This report states that 178 cases are in Barnhill, an institution not intended and not suitable for consumptive cases. The cases requiring hospital treatment are in bed in the ordinary wards and attended by the ordinary nursing staff. Dr. Dittmar recommends that cases in need of hospital treatment should receive it at Stobhill, where special provision is made for phthisis, and that all other cases should have special dormitory provision. This would not necessitate any rebuilding but merely a rearrangement of existing accommodation.

The Local Government Board expressed the opinion that steps should be taken to re-allocate the dormitories on the lines suggested by Dr. Dittmar and to have the hospital cases transferred to Stobhill. The whole question will be considered by a special committee of the Parish Council appointed for the purpose.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## MANCHESTER AND DISTRICT.

### THE MANCHESTER CORPORATION BILL.

A PUBLIC meeting was held last week in the Manchester Town Hall to consider an omnibus bill by which the City Council seeks powers among other things for carrying out an extensive system of drainage for the city. It is expected that the scheme will cost at least £1,000,000, but the work will be spread over a long period, and the meeting was informed that the Council would get the money as it was required. If the whole amount had to be borrowed at once it would involve a rate of 2½d., but the expenditure would be spread over ten years, so that it would mean considerably less. An elaborate report had been presented by the City Surveyor, and it had the approval of Sir Alexander Binnie. The scheme looks fifty years ahead, and taking into consideration the probability of further enlargements of the city boundaries, the surveyor has provided for a population of 1,500,000.

Another important provision of the bill is to give powers for the prevention of measles and whooping-cough. The Chairman of the Sanitary Committee said that these diseases caused more deaths than anything else except consumption and diarrhoea, and under the bill the Corporation would have power to prevent children from houses where cases occurred from attending school and wandering in the streets.

Another clause dealing with the widening of some streets affects the trustees of the Royal Infirmary. When the infirmary was removed from Piccadilly the trustees obtained permission to retain for a time some of the old buildings for use as an out-patient department. The trustees have found that it is necessary to have an accident ward in the centre of the city, such as that on the old infirmary site, and have been in negotiation with the trustees of the Roby Chapel for the acquisition of that building, with a view to erecting a ward on that site. There is an old graveyard in connexion with the chapel, and the Corporation sought authority for the removal of the human remains, and for an agreement with the infirmary by which the street would be widened.

There was no opposition to any of the proposals, and the bill was approved by the meeting.

### MANCHESTER AND SALFORD HOSPITAL SUNDAY FUND.

At the annual meeting of the supporters of the Manchester and Salford Hospital Sunday Fund it was reported that the total amount received during the year 1910 was £4,398, an increase of about £790 over 1909. The sum distributed was £4,100, compared with £3,400 in the previous year. The amount collected was the largest since 1891. The committee has had under consideration the question of modifying the basis of apportionment of the fund and the constitution of the committee, and it was proposed to alter the rules to the effect (1) that the basis of distribution be retained as at present, but subject to the condition that no institution shall in future receive more than a quarter of the total amount distributed, and (2) that the committee be authorized to co-opt not more than fifteen members, men or women, in addition to those representing the various religious denominations. In moving the adoption of the report, the Lord Mayor of Manchester said that unless the hospitals were better supported it would be found impossible to continue them in the same way as at present, and if they were thrown on the rates it would mean an addition of 10d. in the pound to the Manchester rates. The meeting agreed to the alteration of the rules as suggested by the committee.

### INQUESTS IN MANCHESTER DURING 1910.

The annual return of the number of inquests held in Manchester during the past year is now completed, and shows that the total number of deaths reported to the Coroner, Mr. E. Gibson, was 1,308, which is 9 less than in the previous year. Out of this number it was not found necessary to hold inquests in 461 cases. Thus the inquests numbered 847, which is 72 fewer than in the previous year. Accident cases numbered 407, and deaths from "natural causes" 280. The suicides were 52, against 69 in 1909, there being 23 cases of *felo de se*, and 29 cases of suicide while insane. There were 37 deaths from excessive drinking, 4 due to disease aggravated by neglect, and 3 to want and exposure. There were no murders during the year, but verdicts of manslaughter were returned in 3 cases. Open verdicts were given in 46 cases, 13 of these being of children found dead in bed from suffocation, and 13 of people found drowned. In all there were 89 cases of children found dead in bed. In 18 deaths from injuries there was no evidence as to how the injuries were caused. The number of burning cases was 59, which is 18 fewer than in 1909, and the deaths of children under the age of 10 numbered 293. The coroner remarks that this is a decrease of 40, and he hoped that the Children Act was doing some good, though it might be a matter of opinion. There has certainly been an improvement, and the decrease of deaths of young children ought to encourage those who have to administer the Act to do so more strictly, to see if a still greater reduction cannot be brought about.

### THE CARE OF DEFECTIVE CHILDREN AT OLDHAM.

The Oldham Town Council has passed a resolution to the effect that the time has arrived when the Elementary Education (Defective and Epileptic Children) Act, 1899, should be made obligatory, and that powers should be granted to ensure that children on leaving the special schools at the age of 16 should receive protection from a public authority. The Act is permissive, but the experience since its adoption in Oldham has convinced the council that the Act ought to be made obligatory throughout the country. It had been found that a good deal could be done to make the lives of mental defectives agreeable so long as they were under control, but if they were to be left at large after the age of 16 they would always be a danger to the community, and liable to be led into criminal habits. The only remedy was to confine them in separate communities, where they would be under the care of public authorities. The council asked that the Legislature should empower local authorities to provide the money necessary for the purpose.

## WALES.

### Cardiff's Memorial to the late King.

It is proposed to commemorate the reign of King Edward VII by liquidating the debt on the Cardiff Infirmary, thereby making an addition to its income of at least £800 a year, and augmenting the capital of that institution, so that the new wing, with its eighty-two additional beds, can be opened for the reception of patients immediately the building is completed. Colonel Bruce Vaughan, a true friend of the infirmary, in an appeal he has issued, states that what the board of management has most at heart is to feel authorized to undertake the treatment at once of the 750 sick poor who are awaiting treatment because there is no room for them, and by so doing to set up in the chief town of the Principality a memorial to King Edward VII which he would have been the first to appreciate. The appeal is addressed to the inhabitants of the city and the county alike, because they both in equal measure profit by the work of the infirmary. The proposal to rename the infirmary "King Edward VII Hospital," in memory of his late Majesty, will, it is believed, appeal to the loyalty of the whole of South Wales. The present debt of the infirmary is £21,000. Since its foundation the infirmary has treated within its walls no fewer than 679,095 patients, at a cost for maintenance alone of £294,486 in voluntary contributions. In another respect, it is added, a great public institution like the Cardiff Infirmary is a commercial asset to the city at large. It is to-day spending a sum of not less than £15,000 a year within the city, and when the new wing is opened it will spend over £20,000 annually. Its payments to the city treasurer, in rates for water and electric light, amount to £570, apart from the cost incurred by the institution for the treatment of the Corporation employees, amounting, on an average, to over £150 a year. To-day the Cardiff Infirmary stands unchallenged as the first and greatest charitable institution in Wales. It has in the past rendered incalculable services to the community; it will in the future contribute even more effectively to the common good. It has, therefore, an unassailable claim on the first and most generous support of the neighbourhood. About £10,000 has been subscribed in answer to the appeal, the first sums received being from the Marquess of Bute, £5,250; Lewis Merthyr Company, £1,050; Lord Aberdare, £105; Major-General Lee, £100; Lady Price Fothergill, £100; National Provincial Bank of England, £100; Sidney H. Byass, Bridgend (annual subscription), £50; Mrs. Jenner Wenvoe, £50; Colonel Bruce Vaughan, £25; W. and L. Proger, £25; Mrs. R. H. Jones, £10; etc.

### Tuberculosis Exhibition.

Newport (Mon.) gave a good start to the Tuberculosis Exhibition which was opened for ten days at the Drill Hall, Stow Hill, on Wednesday, January 4th. The hall was crowded during the afternoon. The various exhibits consisted of charts and maps contrasting the mortality due to consumption and war respectively. Models of sanitary cowsheds, travelling vans, revolving shelters, sanatoriums, labourers' cottages with surroundings where the eye at once discerned the picturesque and the objectionable. Ireland has a section of its own, but Scotland and Wales are unrepresented. The Mayor of Newport, who presided, said that they were that day introducing into Wales and the West of England a new plan of campaign which would hasten the day when the "white man's scourge" would fail to claim the victims that were falling around them in every direction. At Newport, he was glad to say, deaths from consumption of the lungs had been steadily decreasing from 3.7 per 1,000 in 1871 to 1.0 per 1,000 last year. The housing conditions of the town had been improved. They had compelled the landlords to improve over 1,000 houses, and 48 had been closed. Not only the landlords had serious responsibilities in the matter, but the tenants also, as many of the latter converted decent dwellings into insanitary ones. He dwelt at length with the sanatoriums which had been established by the Newport Board of Guardians and the Corporation, and added that, as tuberculosis was not a local disease, he would be glad to see other authorities adopting similar measures. At any rate, Newport would do its part. The school children would be brought to this exhibition, and would write essays on what they saw and learnt. Newport would continue its school for young mothers. Mr. J. Macaulay, General Manager of the Alexander Docks and Railways Co., paid a warm tribute to the efforts of Dr. Howard Jones, M.O.H., in combating the disease. He trusted that the information intended for the adult population would be supplemented by a suitable addition to the curriculum of the schools for the training of the youthful minds. In the evening Dr. D. J. Williamson, medical officer, Paddington Dispensary for Consumptives, gave a lecture illustrated with lantern slides on the Tuberculosis Dispensary System. Dr. J. Lloyd Davies, J.P., presided.

### Swansea Hospital.

At a special meeting of the board of management of the Swansea Hospital, held on January 4th, the question of increasing the medical staff was considered, a committee recommending: "(1) That a fourth out-patient medical officer be appointed who shall be eligible for appointment as an assistant to the indoor staff; (2) that the anaesthetists shall rank as assistant out-patient officers; (3) that an assistant ophthalmic surgeon be appointed." Dr. D. R. Edwards having signified his intention to resign the office of pathologist in order to devote himself exclusively to the electro-therapeutic department, the committee recommended that the board should approach the Corporation with a view to securing its co-operation in the establishment of a pathological and bacteriological department, and that in association with this proposed department the vaccine-therapy work of the hospital be placed iu tbe hands of an honorary medical officer. The committee added that it still had under consideration a proposal to extend the scope of the dental department, and the question of the alleged abuse of the hospital. The recommendation was adopted. Dr. Quick was appointed assistant ophthalmic surgeon.

## India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### Antimalarial Work.

The Central Malarial Committee, appointed as a result of the Malarial Conference of last year, met recently in Simla, and was attended by delegates from different provinces. Practical classes on the study of malaria are also being again held by Captain Christophers, I.M.S., while malarial experts have now been appointed in nearly all the provinces to carry out practical antimalarial measures in connexion with the sanitary department. In addition provincial malarial committees are being formed, that in Bengal being the sanitary board of the province with the addition of further medical officers with a special knowledge of the problem. The Central Committee also issues from time to time a bulletin giving recent information on advances in the subject, which will enable the different workers to keep well abreast of the scientific knowledge of malaria. Altogether there is good promise of practical results being obtained in India in the campaign against this protean foe, while the lessons of previous failures will not be lost, but enable similar mistakes to be avoided in the future. The report of the Mian Mir Commission well shows the immense difficulty of adequate antimalarial measures in certain parts of India, and the necessity of a thorough survey of all the aspects of the problem by an expert malariologist in the particular place in which it is proposed to make a serious effort to reduce the prevalence of malaria, and the provision of sufficient funds to carry out the recommendations completely.

### A HOSPITAL FUND FOR BENGAL AS A MEMORIAL TO KING EDWARD.

As pointed out in a previous letter, unfortunate differences of opinion greatly delayed the adoption of a definite plan for a memorial to King Edward in Bengal. After several months' discussion, during which very few subscriptions have been received, it has just been decided to drop the scheme for providing hostels for native students, which was so warmly advocated by the Lieutenant-Governor, and to adopt the suggestion of the Executive Committee to utilize the subscriptions of about five lakhs for a statue, and to form a King Edward Memorial Fund, to be applied to the following objects: (1) For the advancement of medical education; (2) hospitals; (3) sanatoriums; (4) medical research; and (5) other works of medical relief in Bengal. As the total annual income from the funds which have been collected will only amount to Rs. 15,000, or £1,000, to which the Government of Bengal will add about one-third, the absurdity of such an elaborate programme is clear. There is much regret in medical circles that the suggestion to build the greatly needed medical research laboratories in Calcutta has not been adopted, although strongly supported by the medical profession.

# Correspondence.

## THE BRADSHAW LECTURE AND CANCER.

SIR,—May I correct the dates and statements made in the JOURNAL of January 7th, 1911, by Dr. Charles Walker, on the basis of which he assigns a sequence to the work of my friends Borrel, Bridré, Clowes, Ehrlich, Gaylord, and Jensen, and also point out that the name of the French author he mentions is Morau and not "Moreau"?

1. *The transference of malignant new growths from one animal to another of the same species.* Reliable evidence of "the fact that some malignant new growths can be inoculated from animal to animal of the same species was given in the first instance by" Hanau in 1889 for the rat and not by Morau in 1893–94 for the mouse. As already stated,[1] many of Morau's tumours arose independently of the inoculations he made, which, however, does not detract from my estimation of his pioneer work on the transference of cancer in mice. It is quite erroneous to assert such a sequence as Morau "was closely followed by Borrel. Then came Leo Loeb (1901), and Jensen (1902), Bridré, and Ehrlich subsequently added considerably to our knowledge of this phenomenon"—that is, the manner and nature of the inoculation or transference of cancer from one individual to another. Independently of Loeb in 1901, Jensen's papers appeared in 1901–2–3 in Danish, and became generally accessible in March, 1903, in German. Bridré's first paper appeared in 1907; it did not deal with the nature of inoculation or transplantation, but with immunity. Ehrlich's first paper appeared in 1905; therein he made no reference implying that he was not satisfied that the nature of inoculation had been settled already. Statements and communications on the nature of the transference of cancer from one animal to another of the same species have appeared continuously from this laboratory from July, 1903, October, 1903, December, 1903, January, 1904, onwards, and that the subject is not yet exhausted is shown by forthcoming papers.

2. *The natural and induced resistance of mice to the growth of cancer.* The disappearance of malignant new growths was first shown by Jensen in 1903, and not by Gaylord, Clowes and Baeslack in 1905. The statement that "mice treated with the serum of mice that had spontaneously recovered from cancer were less susceptible to inoculation than mice that had not been so treated" lacks all trustworthy confirmation, even by those who were its authors. The action of the serum of animals immunized with cancer tissue was discussed by Jensen in 1903, and by us in 1904, 1905, 1906, etc. "That the resisting power against the incidence of cancer to a given animal may be greatly strengthened by the inoculation under its skin of various specific body tissues was" not "shown" in sequence "by Borrel in 1905, Ehrlich (1906) and Bashford (1906–7)." Borrel's first paper on this subject appeared in 1907, whereas, Jensen treated of the immunizing effect of tumour tissue in 1903. There is no discrepancy from 1904 on, in the statements made from this laboratory on the absence of immunizing effect with small doses of living cancerous and normal tissue, and the statements made on the production of immunity by larger doses of living tissue (cancerous and normal), and its non-production by dead tissue: the demonstration of immunization by living normal tissue was first published in July, 1906. Ehrlich's first reference to immunity by cancer tissue was made in 1906, the first reference to immunity by normal tissue from Ehrlich's laboratory was made by Schöne in December, 1906.

3. *The experimental production of sarcoma.* "The patient tracing of the evolution of a carcinoma into a mixed tumour first and then into a round-celled sarcoma in the second place was" not "first accomplished by Ehrlich in 1906–7," and the sarcoma was not round-celled, but spindle-celled. This startling discovery was accidentally made in Ehrlich's laboratory in 1905. "The patient tracing out of the evolution," stage by stage, was left to later workers, and the demonstration of the basis on which the interpretation of the phenomenon—as the experimental production of sarcoma—rests—namely, the degeneration of the stroma on transplantation and the supplying of a fresh stroma by the host—as a *specific* reaction to the cancer cells had been supplied earlier by workers in the laboratory of the Imperial Cancer Research Fund.—I am, etc.,

E. F. BASHFORD.

Imperial Cancer Research Fund, London, W.C., Jan. 9th.

[1] Morau and Jensen's Tumour, *Lancet*, vol. ii, 1906, pp. 1469 and 1544.

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SIR,—I see that Mr. Kenneth Campbell "demurs to the statement that a cancer can evolve into a sarcoma." He also says: "No epithelial cell can change into a connective tissue cell."

The latter statement appears to be based upon the old superstition that when once development of the embryo has reached the stage when the three layers of cells are differentiated, the destiny of the progeny of these cells is irretrievably fixed; subsequent differentiation of the cells produced from the ectoderm being absolutely limited to the production of epiblastic tissues and similarly exact limitations also existing with regard to the mesoderm and endoderm. Zoologists have long ago abandoned this position, but I am afraid that in a few medical schools the teaching upon this point remains as it was.

Notwithstanding the enormous difficulty of separating without injury the cells produced by the earlier divisions of the ovum, it has been proved experimentally that the individual cells retain the power of producing all the tissues of the body,[1] up to the latest stage at which it has been found possible to separate them—that is, the sixteen blastomere stage from which sixteen complete embryos have been produced.

The most striking experiments which bear upon the retention of this general potentiality by even the most highly differentiated cells are those upon the regeneration of the crystalline lens in the eye of the salamander and *Triton*.[2] It must be remembered that the lens is normally produced from an invagination of the epiblastic cells. When the lens is removed a new lens is developed, but from mesoblastic and not epiblastic cells. The cells of the salamander and *Triton* are very large, so the changes can easily be followed with the greatest accuracy.

Of course, under normal conditions the subsequent differentiation of the progeny of the cells of the three embryonic layers is limited to certain types for each layer, but the general potentiality is retained in varying degrees by the cells of different tissues and different groups of animals, being retained, perhaps, to a less extent in

[1] H. Driesch, *Analytische Theorie der organischen Entwicklung*, Leipzig, 1894. T. H. Morgan, Experimental Studies on Teleost Eggs, *Anat. Anz.*, x, 19, 1895. R. Zoja, Sullo sviluppodei blastomeri isolati dalle uove di alcune Meduse, *Archiv für Entwicklungsmechanik*, i, 4, 1895. E. B. Wilson, On Cleavage and Mosaic Work, *Arch. f. Entwick.*, iii, 1, 1896. A. Herlitzka, Contribuzione allo studio della capacità evolutiva dei due primi blastomeri nell' uove di Tritone, *Arch. f. Entwick.*, ii, 3, 1895. H. E. Crampton, The Ovarian History of the Egg of Molgula, *Journal of Morphology*, xl, Supplement, 1899. And many others.

[2] Gustave Wolff, Die Regeneration de Urodelenlinse, *Archiv für Entwicklungsmechanic*, i, 3, 1895. E. Müller, Ueber die Regeneration de Augenlinse nach Extirpation derselben bei Triton, *Archiv für Mikroscopische Anatomie*, xlii, 1, 1896.

mammals than in any others. This general potentiality is obviously only demonstrable when normal conditions are upset—as they are in any pathological condition, as they are in malignant growths.

It may be quite true that an individual epithelial cell does not "change into a connective tissue cell." It does not appear to me that any one has suggested—in the JOURNAL, at any rate—that it does, but that the subsequent generations of cells that may be produced more or less in geometrical progression and under certain conditions from the division of a cell possessing the characters which have given it the name epithelial, may develop the characters of cells which are called connective tissue cells, has been demonstrated experimentally.—I am, etc.,

CHARLES WALKER.

Research Department, Glasgow Cancer Hospital, Jan. 9th.

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SIR,—I have to acknowledge with thanks the courtesy which has prompted Dr. Charles Walker to correct the inadvertency into which I have fallen in substituting for the name of Ehrlich that of the Cancer Research Fund in reference to the case of evolution from a carcinoma into a sarcoma. Let me assure him of my regret for this unintentional lapse of memory. At the same time will he pardon me if I say *tu quoque*? But I feel that I must save the reputation of Hanau? He, and *not* Morau, was the pioneer of transplantation of malignant growths specifically from animal to animal; for we find that in the year, 1889 "he, *first*, directed the attention of scientists to this method of study by his successful transplantation of squamous-celled carcinoma of the vulva from rat to rat; and thereby indicated the direction in which further inquiry should be pursued and further success might be expected." Morau, therefore, must simply have made the experiments confirmatory of those of his predecessor of five years previously. But I think it would be dangerous to assume, as I fear Dr. Walker does, that because one observer has shown the way, all subsequent work in that direction by others is of diminished value. I hope, therefore, that Dr. Walker will not wish us to believe that the "confirmatory" work of the staff of the Cancer Research Fund is of lessened importance because it has followed that of Hanau, Morau, and others? Indeed, if we admit this general principle what is to become of research in future if those who labour at it are to be taunted with the reflection that their inquiries are only confirmatory?

In my first letter I gave a general outline of what has really been done by the staff of the Cancer Research Fund. But, not to labour any further this side question of priority—to me always an insignificant one where the aim of men is moved by the desire to discover truth rather than ostentatiously to pose as the discoverers—I will ask Dr. Walker—did not Borrel, Bridré, Gaylord, Clowes, Baeslack, and even Ehrlich himself, follow Hanau and Morau? And is it to be supposed for a moment that they were unacquainted with, and did not profit by, the work of their predecessors—nay, even performed the selfsame experiments by way of confirming it? Are we to belittle them and place the stamp of imitators upon them?

In at least three places of Mr. Campbell's reply to my letter of December 24th, 1910, on this subject may be discovered, I fear, some misapprehension or misconception of the meaning I wished to convey therein. I have no right to complain of this, and do not; on the contrary, I will take it that he thinks my words were to him confused, and my meaning not, therefore, explicit. With your permission I will restate our respective positions, for this course might limit unnecessary multiplicity of correspondence. I will recall to Mr. Campbell's memory that on December 17th, 1910, he committed himself to the following proposition: "Without wishing to disparage the work done by the Cancer Commissioners, it is evident that the only advance made in our knowledge of the subject is that cancer can be inoculated from animal to animal of the same species; further than this the veil has not been lifted, and the mystery is still unsolved."

In the JOURNAL of December 24th, 1910, I strongly demurred to the position which Mr. Campbell had taken up because I thought he had spoken without adequate knowledge, or at any rate with inadvertency, on the subject; and I asked him several plain but straight questions bearing especially on this point, and more generally on the work done at the laboratories of the Cancer Research Fund. To none of these questions in his letter in the JOURNAL of January 7th do I find the semblance of a reply. Now, to those questions I *want* a reply, and will not consent to be drawn into the considerations of side-issues before the previous one has been satisfied, because that course could lead only to useless words, for which *you* have no space and *I* have no time. In adopting this course I claim that I am penalizing myself, for there are a few points, and particularly those on pathology and etiology, which I might perhaps place before Mr. Campbell's eyes in a different light.—I am, etc.,

London, W., Jan. 7th. FREDK. W. WRIGHT.

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## CANCER AND THE CREOLES OF SIERRA LEONE.

SIR,—I shall be glad if you will grant me space in the JOURNAL to make a few observations on the criticisms of my friend Dr. Randle in the BRITISH MEDICAL JOURNAL of October 15th, 1910, which he made on my paper on the spread of cancer amongst the descendants of liberated Africans or creoles of Sierra Leone, published in the JOURNAL which appeared on September 3rd, 1910. Dr. Randle, as he said, had just recovered from a serious illness when he wrote. Since that date he has returned to his home at Lagos, Southern Nigeria, where he will be surrounded with his books and notes, which I trust will assist him to publish his record on the spread of cancer amongst the Sierra Leoneans and aborigines in the Province of Lagos. My paper refers only to the Sierra Leone creoles resident in this colony and its hinterland, and not those who have emigrated and found a home between Senegambia and the Congo. My friend Dr. Randle, who is one of these, has made Lagos his home, and is better able to deal with that section than myself, although I have been privileged to treat cases of malignant diseases coming from various parts of the coast; these cases were not, however, included in my reckoning, which was a surprise to Dr. Randle.

2. In my statistics of the Colonial Hospital, Freetown, I did not include a single case of cancer among the aborigines. In a paper which formed an appendix of the Medical Report for 1900, entitled "Prevalence of Malignant Diseases amongst Natives," I wrote as follows: "The next question which naturally arises in consideration of this subject is, Amongst what section or classes of natives do these occur? To this a satisfactory answer based on the records can be given: That they occur amongst the creoles or descendants of liberated Africans—namely, the Akus, Eboes, Popos, etc.—who have adopted the European mode of living and consumed a large quantity of butchers' meat." In the whole register there is not a single case of a disease of malignant nature recorded against the liberated Africans themselves or the natives of the protectorate—namely, the Mendis, Sherbros, Timinees, Limbahs, Susus, Mendigoes, etc.—and this record deals with the years 1870 and 1879; yet my friend Dr. Randle informed us that during his apprenticeship, between the years 1874 and 1877, malignant diseases were far more common amongst the aborigines in Sierra Leone than the statistics quoted by me could lead him to believe. I do not know whether Dr. Randle, as an apprentice in the years he quoted, had charge of the register of interim cases admitted into hospital, for there is not a single entry, as I said before, of an aborigine's name being entered. I have been informed, however, by the medical clerk of those days that the register of intern patients was kept by the Assistant Colonial Surgeon, the late Dr. Robert Smith, and that Dr. (now Sir) Francis Lovell, Dean of the School of Tropical Medicine, who was the Colonial Surgeon of Sierra Leone, participated in the treatment of cases in the hospital, and it is impossible, I think, for them to have omitted from the register such serious diseases as cancer, etc., amongst the natives; therefore we cannot take into serious account Dr. Randle's experience of malignant diseases amongst the aborigines during the years of his apprenticeship—1874–1877.

3. To the figures already published I am able to add, for the year 1910, 8 cases of malignant disease, so that for the decade 1900–10 a total of 30 cases is recorded. This may be more, as the year has not yet closed. My figures are as follows: 4 carcinoma of breast, 1 carcinoma of the pylorus, 1 carcinoma of the uterus, 1 epithelioma of the scrotum 1 epithelioma of the toe. These cases have occurred

in the creoles or Sierra Leoneans. This increase is striking.

4. My friend Dr. Randle, to further prove the prevalence of malignant diseases amongst the aborigines of Southern Nigeria, named 2 cases he had seen amongst the Igebus of the Aku tribes and a case at Accra on the Gold Coast. This, to me, shows rarity; but allowing that the doctor had not his notes by him, if he could remember 2 or 3 cases, he could possibly remember a dozen.

5. Dr. Randle thinks that I should have submitted, when comparing the statistics of the Colonial Hospital, Sierra Leone and its hinterland, the statistics of the hospitals of the Gold Coast and its Protectorate, which would justify the conclusion I arrived at. Now, for his information, I quote the following remarks by Dr. Langley, P.M.O., in the Government Annual Medical Report of the Gold Coast, 1908:

*Cancer.*—Cases of malignant disease rarely come under the notice of the medical officers, although the occurrence of such is carefully watched for with a view of obtaining information for the Cancer Research Committee. No pathological specimens have been obtainable; 1 case, termination not known, and 1 death were reported during the year.

This must be taken as an indication of the rarity of malignant disease amongst the natives of the Gold Coast, for it is hard to believe that the forty-seven medical officers distributed in the principal towns or trade centres, some with hospitals, in the Gold Coast, and who are instructed to collect information and send specimens of cases of malignant disease to the Imperial Cancer Research Committee, could have found only 2 cases if more had occurred in the course of their practice last year. I think, therefore, that I was justified in arriving at the conclusion that I did.

6. But the rarity of malignant disease in the aborigines of Sierra Leone and its hinterland is not exceptional, for there are numerous records from various sources which show how rare cancer is amongst the negroes of Africa.

Dr. Hearsey's report from British Central Africa speaks of its utmost rarity; and if we look into *Wellcome's Review* on some of the recent advances in tropical medicine, 1908, under Cancer, there again we would see the observations of various members of the profession recording the rarity of the disease amongst natives or aborigines of the Soudan and other territories.

With reference to Dr. Randle's criticism of my remarks on the want of unity and combination among Sierra Leoneans, I can only say that every one acquainted with the history or condition of Sierra Leone knows that it is very difficult, if not impossible, to get the Sierra Leonean to combine for any specific object. Societies of various kinds are from time to time born, grow for a time, languish, and eventually die. The number of these abortive societies or organizations may be described as legion. And this holds good in every department of life—social, commercial, literary, and religious. Of course from this last I except the various church denominations, which are in a sense foreign in that the parent stock is foreign, the system is foreign, and the support or aidance is wholly or partially foreign.

But Dr. Randle asks whether combination and unity exist amongst the people in the Gold Coast, and, indeed, amongst the peoples in any other part of West Africa, and bids me inquire from those who have experience of such matters. It is to be regretted that under the condition in which Dr. Randle wrote he was unable to furnish the answer to his own query. When I referred to the Gold Coast I meant the Gold Coast proper, not the northern territories or Ashanti, and especially the coast towns which have had long intercourse with Europeans.

I have not had the advantage to travel amongst native races in West Africa as much as Dr. Randle, nor to live on the Gold Coast for any appreciable time, but, judging from what I have read and heard, I think I can safely say that the people of the Gold Coast have adhered, and do adhere, to their native customs and habits, and that combination and unity do exist among them at least considerably more so than in Sierra Leone. Broadly speaking, combination and unity are generally found to exist in West Africa, where the people are of one language or speak different dialects of one language, and adhere to their native customs and habits.

I do, in common with Dr. Randle and every thoughtful African, deplore most deeply the evils of intemperance which he has alleged do exist to such a demoralizing extent on the Gold Coast.

It is most unfortunate that this imported drink habit should have taken so great a hold on the Accras, due, no doubt, as Dr. Randle states, to American barques, and latterly European steamers, exchanging rum and tobacco for the native products of gold and palm oil. It is but the old history of European commerce in West Africa, and which is being repeated in Southern Nigeria and other parts of the coast—namely, the exchange of that which vitiates, demoralizes, and kills the native for the economic products which yield material benefit to the European trader. In my article I expressed the apprehensions of the possibility of the social habits and customs of the people of the Gold Coast disappearing "before the mighty onslaught of European civilization." I quite agree with my friend that, if the liquor traffic and liquor consumption are as bad as he depicts them, the report of a commission of inquiry would be interesting reading; but it is for my friend who is so intimately acquainted with the whole subject to get others to join him in persuading Downing Street to send out such a commission of inquiry. Whether, in view of the result of the recent commission of inquiry in Southern Nigeria, the Colonial Office will regard such persuasion is to me very doubtful.

I must leave this portion of my friend's remarks, interesting as it is, and pass on to deal with that which concerns me, merely contenting myself with an expression of the hope, in which many Africans will share, that Dr. Randle may soon regain his health so as to deal not only with this liquor question on the Gold Coast, and what he describes as the fascinating study of the ethnographic distribution of the tribes of the Gold Coast, but also with the subject of my article, "The Spread of Cancer among the Sierra Leone Creoles."

The object in introducing the subject of a common language and native habits and customs and instituting a comparison between the people of Sierra Leone and that of the Gold Coast was simply to show how the non-adoption of certain civilized habits may be a preservative against the introduction of malignant diseases and how the possession of a common language may assist in the preservation of native habits and customs, and consequently in the resistance to such civilized habits and customs. Dr. Randle has not attempted, much less adduced, any fact or argument to disprove my contentions, and I have therefore, until he does so, nothing to reply to in this regard.

With reference to the charge of self-depreciation, I can only assure Dr. Randle that no one will more readily acquiesce than myself in his statement of the dominant position held by Sierra Leone creoles all along the coast—from north-west to south-east of Africa. No one knows more than I do their worth and capability. But it is this knowledge, coupled with race-pride and patriotism, that makes me so anxious to point out what I consider a grave danger, which may eventually tend to their extinction.

My article, therefore, indicating not only the presence but the increasing spread of such a dire disease as cancer is but a warning note. And I feel sure, however small the figures may be which I have been able to give, my friend Dr. Randle, patriot as he is, will join me in not only sounding that note but to increase it in volume and sound until it becomes a battle-cry that will compel and arrest such attention as will resolve itself into methodic and persistent action that will entirely stem the insidious current of the disease and eventually save our brethren and race.—I am, etc,

Freetown, Sierra Leone, Dec. 14th, 1910. WM. RENNER, M.D.

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## MEDICAL TREATMENT OF INOPERABLE CANCER.

SIR,—May I be permitted to ask your readers to send to my hospitals a sufficient number of cases of inoperable cancer, in order that the effects of medical treatment may be tested? I have for years believed that wrong food was an important factor in the etiology of cancer, but only recently have I seen cases that gave the impression that, by alteration of diet, we may sometimes cure. I might easily take up columns in arguing the *pros* and *cons* of the cases that have given me this impression, but my object is to put the matter to the test of further experience. In

order that this may be done, I want cases in which there is a probability of at least six months of life, as change of diet produces little visible effect on the body under three months; but I may say that even in cases where treatment comes too late to cure, it appears to mitigate very decidedly the pain and suffering of death from malignant disease.

Shortly, the treatment consists in putting the patient as quickly as possible under one form of uric-acid-free diet, and from that on to one of nuts and fruit chiefly, the only fluid besides fruit juice being distilled water.

I have been trying to get such cases for more than twelve months, but they are quite difficult to obtain, for cases of this kind are generally sent back to their friends, or to homes for the dying, as hopeless—hence this letter.

The names and addresses of males may be sent to the senior house physician at the Metropolitan Hospital, and those of females to the senior resident at the Royal Waterloo Hospital.

I will undertake to publish the result in all cases I am able to accept for treatment. I think that 30 to 40 cases so treated would answer the question whether cure of real cancer by such means is possible. Hitherto it has been assumed, when such cases recover, that the diagnosis has been wrong. I doubt whether this assumption is always correct.—I am, etc.,

London, W., January 5th. ALEXANDER HAIG.

## ALCOHOLISM AND DEGENERACY.

SIR,—Professor Pearson has now dropped unanswered the first part of the point we have brought against him in each of our letters, namely, that he and Miss Elderton have never had (as they alleged) a group of "non-alcoholic" parents to compare with the alcoholic. He still, however, contests the second part of our point, namely, that his and Miss Elderton's paper is worthless as a study of the effects upon children of alcoholism in their parents, because it nowhere contains the figures showing for each child whether it was born before or after the parental alcoholism began.

He now says: "Of course it does contain such figures, and what Sir Victor (*sic*) is confessing, is only that he is constitutionally or by training incapable of interpreting them."

We must repeat that there are no such figures in existence, and if Professor Pearson wishes to be believed he must publish in the next issue of the JOURNAL:

1. The figures, together with the numbers of the pages of his and Miss Elderton's "Memoir" on which, as he alleges, they are printed.

2. The reference case numbers of the Edinburgh Report Schedules belonging to the parents and children to whom the figures individually refer.

II.

He next raises a new side-issue, and one which, we regret to observe, convicts him of a breach of scientific good faith. He produces a table which professes to give a comparison of the offspring of what are called by him "teetotal" parents separated from those of alcoholic parents of various degrees.

Yet in the "Memoir" by himself and Miss Elderton the following passage occurs (p. 5): "As will be seen from the tables—(that is, those in the appendix to the Memoir)—classes (1) teetotalers, and (3) (suspected to drink) *were too small to be kept separate*, and teetotalers had to be included with sober people, and suspected drinkers with drinkers." The italics are ours.

He throws away scientific caution and truth, and puts the same figures, previously admitted by him to be untrustworthy, before you solely to depreciate teetotalers.

The real fact is that, as we show in our detailed paper published to-day on page 72, he has no group of "teetotal parents" at his disposal, and never has had.—We are, etc.,

MARY D. STURGE,
VICTOR HORSLEY.

London, W., Jan. 9th.

SIR,—I think it would be only fair to those readers of the BRITISH MEDICAL JOURNAL who are interested in the correspondence upon "Alcoholism and Degeneracy" if Professor Karl Pearson were to give the actual figures upon which his percentages are based, together with the case numbers from the Edinburgh report of the families of teetotalers used by him in his calculation. How many families, for example, in which both parents were teetotal throughout life did he investigate? Unless one knows the numbers of families of each class upon which the percentages are based, one may be misled.—I am, etc.,

Birmingham, Jan. 9th. J. FURNEAUX JORDAN.

SIR,—Having refrained for some weeks from joining in a controversy where my name has frequently been mentioned, may I now be permitted a few lines in which to suggest that one of the disputants has formally and generously, if unconsciously, thrown up the sponge?

In your issue of January 7th Professor Karl Pearson explains the results of his First Study of the Influence of Parental Alcoholism upon the Physique and Ability of the Offspring in the following words: "The stronger and more virile parents took alcohol, and because of their physique, not because of their alcohol, had healthier children." Plainly, therefore, on his own showing, his report has no relevance to the subject with which it professes to deal, which is what I have been contending since my article in the *Eugenics Review* last April; for, in order to study statistically the subject posed, would not one have to compare comparable parents? or, better still, the offspring of the same parents before, during, and, if possible, after recovery from, alcoholism? The question with which the title of Professor Pearson's report professes to deal is the influence upon the children of these "stronger and more virile parents" of the parental alcoholism; and this question is supposed to be dealt with by a comparison between these children and those of weaker and less virile parents!

What the Edinburgh facts really were we shall know better when we have a fresh analysis of the schedule, which will be sufficiently interesting. At present it suffices to point out that Professor Pearson's reiterated belief is obviously equivalent to the admission that his paper has no bearing on its *soi-disant* subject.

All that matters little, except as history, now that Professor Pearson's subsequent study has led him—in line at last with what some eugenists have been demanding for years—to advocate the segregation of the inebriate on account of the probable mental defect of his offspring. Does Professor Pearson remember, I wonder, the following sentence from one of his *Times* letters in controversy with Professor Alfred Marshall?—

> I am too familiar with the manner in which actual *data* are met with the suggestion that other *data*, if they were collected, might show something else to believe it to have any value as an argument.

Does Professor Pearson still hold that it does not matter what data one studies, having given away the case for his first report, and having published its successor?

The association between alcoholism and mental defect, with which Professor Pearson has recently acquainted himself, has of course been known for a long time. I shall be (somewhat regretfully) grateful to any of your readers who can furnish me with an earlier reference than the following extract from a most remarkable passage, prophetic of modern eugenics, which I have just found by accident in a book entitled *Observations on the Criminal Responsibility of the Insane* (London, Churchill, 1856), by Caleb Williams, M.D.:

> Mental peculiarities, habits, and even vices, are transmitted from parents to offspring. Drunkenness is one of those vices which extensively prevails in some families, and which often descends from father to son; and with this legacy there is often linked a faulty constitution, an excitable nervous system, and a manifest predisposition to cerebral disease.

—I am, etc.,

CALEB WILLIAMS SALEEBY, M.D., F.R.S.E.

London, W., Jan. 10th.

## CLEAN MILK.

SIR,—It is recognized on all sides that few matters are of greater importance in promoting the health of the nation than a pure milk supply. Yet, unfortunately, milk is peculiarly susceptible and liable to contamination, not only while it is in the hands of the producer and retailer, but also as soon as it reaches the consumer. For want of due care in handling, milk is frequently, as is well known, a potent factor in the dissemination of a number of serious diseases, and has great influence on infant mortality.

Since the inception of the National League for Physical Education and Improvement in 1905, the question of pure milk has occupied a prominent position in its programme, and a special committee of eminent experts has devoted much time to the problem. The League is now undertaking definite, practical steps to deal effectively with the matter. Pending more adequate legislation than at present exists, it is hoped that this action will arouse the nation at large to a sense of its responsibility in the matter. The intention, briefly stated, is to instil into the minds of all concerned in the production and consumption of milk a knowledge of the simple rules required to ensure its purity and cleanliness.

Full details of the scheme, and of the standard leaflets on which it is based, will gladly be sent on application to the Secretary of the League, at 4, Tavistock Square, W.C. —We are, etc.,

For the National League for Physical Education and Improvement,
(Signed),
W. B. RIPON, Chairman of the Executive Council.
F. MAURICE, Major-General, Honorary Vice-Chairman.
LAUDER BRUNTON, Vice-Chairman.
JOHN TWEEDY, Vice-Chairman.

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| H. R. BEEVOR | ROBERT JONES |
| A. HOLDEN BYLES | JOHN MACDONELL |
| JAMES CANTLIE | HOWARD MARSH |
| A. M. BOYD CARPENTER | F. JAMES MATHESON |
| ANDREW CLARK | MAUDE MAUFE |
| ERNEST CLARKE | E. H. POOLEY |
| D. EYRE | MARY SCHARLIEB |
| MALCOLM FOX | W. J SIMPSON |
| F. E. FREMANTLE | A. WATT SMYTH |
| EDWARD E. HAYWARD | H. RUSSELL WAKEFIELD |
| T. H. HENDLEY | MARY A. WARD |
| A. HOARE | J. E. WALKER |
| T. HENRY HOWARD | A. T. WAUGH |

Members of the Executive Council.

## STATE SICKNESS AND INVALIDITY INSURANCE.

SIR,—While quite appreciating the point so well put in Dr. Grey's last letter—namely, that the freedom of medical men is far more likely to be conserved by payment for attendance as generally understood than by contracting with patients for a fixed sum per head—I entirely agree with Professor Moore in thinking that our attention should not be concentrated on an issue which is, after all, of secondary importance, and which, at a later stage, could be determined by the various Divisions or districts. If medical attendance is to be introduced in a State insurance bill, the matters of primary importance seem to be (*a*) to obtain such remuneration as will enable us to give adequate attendance to the working classes. That has been wanting hitherto, but it seems now to be generally agreed that it may be obtained through assistance being given by the employers and the State. (*b*) That, while every consideration should be given to the interests of those holding club and other appointments, no effort should be spared to obtain for the working classes, not only in our interests, but in that of themselves, absolute freedom of choice. (*c*) That the independence of medical men be secured, and that the character of the profession be not allowed to deteriorate through its members having to trim their opinions to suit the dominant party in a county council or to cater for the friendship or even the patronage of a friendly society official. Compared with these, the question of payment per head or for attendance seems quite secondary, and while I certainly think it should be referred to the Divisions, and, while it is one on which some of us will continue to hold a very definite opinion, I do not think it should be so urged as to cause division in our ranks.

Never, certainly, was there a time when it was so absolutely necessary that the medical profession should show an undivided front. If medical men are sufficiently united there is much, I believe, to be gained from State insurance, though there will be a stiff battle to fight. If there be division, if we fail in energy and organization, nothing will be gained by it. Our position and that of the large body of working classes for whom the Poor Law Commission has pleaded will, as regards medical attendance, be even worse than before. Looking back to the time when State insurance was first mooted, we can read plainly between the lines indecision on the part of the Government and a strong disposition on its part as well as on that of the press to magnify the position of friendly societies, while medical men are ignored.

Time was when we were led to believe that in any system of State insurance medical attendance would take a prominent part. The article which has appeared in the *Times* and *Manchester Guardian*, with its flimsy and ill-considered reasons why medical attendance should not be included, seems to have been written for a purpose. If this is really the intention of Government, and the medical profession is to be absolutely ignored, the question is: Are we to submit to it?

There are those who tell us we must tamely submit to the fiat of Government, that resistance on our part would be both foolish and hopeless. I am of an entirely different opinion. There are two parties to the making of a contract. Medical attendance cannot be given without the consent of medical men, and it will be entirely our own blame if we forfeit our claim and our right to be heard. It is not our own interests merely, but those of the great body of the people that are at stake. It is scarcely conceivable that any Government bringing in a bill to deal with sickness and invalidity should fail to take the opinion of medical men. We ought to have been more to the front in this matter; but even now the Government may be waiting to see if we have a mind of our own or if we have anything to propose. Granted, as is suggested in the *Times* article, that medical attendance were excluded from this bill, and large sums handed over by the Government and employers to friendly societies to provide for the working classes during illness, the altered state of affairs would demand from medical men an entire reconsideration of their position. Up to the present we have attended the poor out of charity or for fees that were utterly inadequate. Need we continue to do so? If sufficiently united we are in a position to say to the Government: "Hitherto we have attended the poor out of charity, or, in consideration of their poverty, at fees utterly inadequate. The attendance has not always been what it ought to have been, and it could not fail to be otherwise as the remuneration was insufficient. You have taken the matter in hand, and by exacting a claim from the employer and the taxpayer you have become responsible. We tell you the lowest rate at which adequate attendance is possible We now insist on that being paid, and, if there are those who cannot pay, it is no longer we but the Government that is responsible."

In a country town with over a dozen doctors, where I once practised, this was the position taken up by its medical men. The workers were well paid. We formed a society, and passed a resolution that no one should hold a club or attend under a fixed rate, and to that we steadily adhered. There was no complaint on the part of the community. It became abundantly evident that our action proved not only a great benefit to medical men but to the community at large. Under the auspices of a powerful Association the same thing is possible in every town and district in England. There would doubtless be those who, caring nothing for the welfare of their profession nor even for that of their patients, but seeking only their own ends, would stand in the way. As in the past, from the great majority of consultants and specialists but little help need be expected, but an Association consisting largely of right-minded practitioners should be able to carry the day. Trades unionism! So be it. It has been of no little advantage to the country that workers are not universally sweated, and that through the power of combination many have succeeded in gaining an honest wage.

For these reasons I hold that we should not tamely submit to any proposal brought forward by the Government, but, if need be, by our unity and determination make it plain that legislation in the interest of the sick in this country will prove to be a very doubtful advantage if it does not have the cordial assent of its medical men.—I am, etc.,

Greenwich, Jan. 9th. J. H. KEAY.

*** From the extracts quoted last week (page 34) from the article in the *Times* certain sentences were omitted

which it may be well now to reproduce. They appear to show that those who have drafted the scheme are counting upon the continuance of the present system of medical clubs at the present inadequate rates.

Two of the principal benefits provided by the friendly societies are not included in the Government's provisional scheme. The medical insurance is one of the most valuable, as it is also one of the most popular, of the benefits provided by friendly societies. For the payment of a small weekly contribution—usually 1d. a week—the member secures skilled medical attention and medicine in the case of sickness, and a similar contribution usually provides a similar benefit for the member's wife. This is outside the scope of the Government insurance scheme.

The other benefit referred to is life insurance.

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SIR,—I must at once answer Dr. Carter's letter, for he quite misunderstands me. I did not state, nor intend to infer, that because attendance at 2s. a visit would, on Dr. Cooper's estimate, cost a sum too great for the Chancellor to consider, therefore we must be prepared to accept a capitation fee which would pay us at the rate of 6d. or 8d. a visit. I did say that if each beneficiary required an average of twelve visits a year there would be little hope of us getting that 2s. If I thought that the attendance would be anything like as much as suggested, I should consider a 10s. capitation fee to be utterly inadequate.

Dr. Fothergill (BRITISH MEDICAL JOURNAL, January 7th, 1911, p. 46) accuses me of misreading his letter (JOURNAL, December 17th, 1910, p. 1945) in regard to the question of extras; but if he will look again, he will see that I did not say that "confinements, fractures, etc," would have to be counted as additional visits, but that in estimating the cost we must allow an additional sum for these extras; this I am sure he will not dispute.

I would ask Dr. Fothergill why, in his estimate of work required, he omits attendances at the surgery and Sunday visits. He further writes that I must know that no scheme for attendance on the whole population of the United Kingdom is even dreamed of. I only referred to it incidentally, but I do know that it has been dreamed of and discussed even in detail by many people, and if Dr. Cooper's estimate on page 46 is a good one, I hope that the idea will soon be put into practice. Using Dr. Fothergill's figures, he calculates that there would be an average of sixteen attendances per day, and thinks that £25,000,000 would not be an excessive allowance for medical attendance on 15,000,000 people. That for the whole population of 45,000,000 would equal an annual payment of £75,000,000, or £2,343 per annum for each of the 32,000 medical men. Put in another way, his estimate would mean an average annual payment of £1 13s. 4d. for each beneficiary.

Dr. Cooper writes:

A Government which simply looks at the matter from a commercial point of view will naturally try to obtain the greatest amount of work for the lowest expenditure; but a Government that wishes to establish a system of State insurance which will be a real boon to the workers of this country, and which will meet with the hearty and loyal co-operation of the whole medical profession, by paying a fair wage for work actually performed, will look a little higher than this.

But in a previous letter (p. 1999) he writes:

Is the Government likely to pay 10s. if it knows it can get the work done for less?

There are many references in the correspondence of the last few weeks as to the necessity of securing proper payment for our services, but at the same time we are told that the amount of the fees is merely a side-issue, and that "the discussion of pounds, shillings, and pence is not one for the medical profession to trouble about at this juncture."

In spite of this I would like to see the two following questions discussed:

1. How can we calculate the average number of attendances likely to be required by each beneficiary?

2. What are we to consider a fair average fee for an ordinary attendance?

I am sure that answers to these two questions will be very valuable to all who are trying to find a solution of the problem under discussion.—I am, etc,

Bradford-on-Avon, Jan. 10th. CHAS. E. S. FLEMMING.

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SIR,—If the information of the *Times* correspondent, quoted in your leading article of January 7th, regarding the Chancellor of the Exchequer's scheme of State sickness insurance, is correct, it narrows down the controversy. The account given of the scheme appears credible because so much of our recent legislation has been little more than a timid recognition of sociological evils that are sapping the virility of the nation. One needs only to call to mind the Aliens Act; the Employers' Liability and Workmen's Compensation Acts, which have increased the duration of disablement from accidents to such an extent that a mutual insurance society I know has had to increase its rates 40 per cent. The Old Age Pensions Act almost places a premium on improvidence because it is not contributory. Now this State sickness insurance of 5s. a week will only pay the rent, leaves subsistence and medical treatment to faith; this is eminently unsuitable to the illnesses of the poor. Moreover, as there is no provision for medical treatment and no incentive to resume employment, the duration of illness will be increased as already has been the case in the disablement from accidents.

Politicians swimming in a flood of eloquent oratory, condemn the "idle rich" and "the gigantic waste in armaments." The true problem appears to me to be to provide work for the "idle poor"; and to prevent the improvident wage-earner from wasting his surplus earnings. This can only be done by making a compulsory deduction of a small percentage of his wages to provide against sickness and unemployment. There should also be safeguards against imposition.

I am not altogether surprised that the State should hesitate to tackle the medical aspect of insurance owing to the actuarial difficulties and the evident intention of the medical profession to get adequate remuneration for any services rendered.

We have no controversy on that point, in fact some of the most zealous of us advocate a fixed income whether any services are rendered or not; but these do not belong to the simple class of general practitioners who have had practical experience of club practice.

We have been unable to make these zealous advocates realize that the question with us is not so much a pecuniary one as one of principle—that the system of capitation payment is pernicious in its effect on both patient and practitioner. Now the issues have again been narrowed down the difficulties of the Drafting Subcommittee will be considerably lessened; and I know that every care is being taken to place all the advantages and disadvantages of each system of payment fairly before the Divisions. It will now only apply to the public medical services organized by the Association, which I take it will be governed by uniform principles, allowing a certain amount of local option in details. As this service is intended for persons who are not in a position to pay ordinary medical charges, perhaps a compromise would appeal to the moderate Englishman. A skeleton draft of such a scheme would be this: Suppose the working man, single or married, paid 1s. a quarter for the privilege of getting medical attendance on himself or family at reduced rates—say 6d. for a visit and 6d. for medicine; these to be booked on his privilege card, and paid for at the end of the quarter, before being entitled to a new card.

This would be a check on trivial calls, and would show that spirit of benevolence which has always characterized our profession.—I am, etc.,

Sittingbourne, Jan. 9th. WM. GOSSE.

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SIR,—Dr. Henry Hick has hit the nail on the head when he says "Save me from my friends," and I would like to call attention to the SUPPLEMENT for December 31st, 1910, in which a scale of fees has been adopted by the Joint Committee of the Lancashire and Cheshire Branch. It is of such a just, not to say generous, nature that the fee for administering an anaesthetic is 7s. 6d., for adenoids 7s. 6d., and for minor surgical operations, 7s. 6d. Can anything be conceivably worse? I really think the profession will fare better if the British Medical Association leave us to the tender mercies of the Government.—I am, etc.,

Northwich, Jan. 10th. HENRY EDWARD GOUGH.

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SIR,—At last the cat is out of the bag. At last we know something of what the Government's scheme for State sickness and invalidity insurance is to be like. A precious nice scheme it is too! Another nice sop to the non-income tax payers who seem, in the estimation of Mr. Lloyd

George, to be the only class of the community worthy of consideration. The idea of a man with as much as £160 a year requiring the assistance of the State and his employer to ensure that he may obtain the mighty sum of five shillings a week when he is ill is utterly ludicrous. I wonder if those of our friends who were so keen on a capitation scheme would be still willing to attend those three pound a weekers as contract patients. Just think of the irony of it where in an industrial community all the workers would be turned into members of a huge friendly society and without any previous medical examination. From a medical point of view I hope our profession will wash its hands completely of the matter and absolutely refuse to have anything to do with such a scheme.—I am, etc.,

Newcastle-on-Tyne, Jan. 8th. W. SINCLAIR FRASER.

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SIR,—Having, I believe, read all the correspondence on this subject in the JOURNAL, I should like to congratulate Dr. Benjamin Moore on his eminently practical contribution. It is sincerely to be hoped that the profession will take his advice to heart: cease this unending wrangling over how we are to be paid—a matter which however much we debate, will certainly be settled altogether independently of us and our opinions, and concentrate all our efforts on securing that we are paid enough. I take it that, granted that the pay is sufficient, that it is guaranteed by Government, and that *a wage limit is imposed*, a large proportion of general practitioners, especially in rural districts, will be willing to take *a limited number* of poor patients at a capitation rate, and thus get some payment for what is now often done gratuitously. I say advisedly a limited number, because what I regard as absolutely essential in contract practice is that the practitioner should not be dependent on it. If it is generally known that such practice produces only a minor portion of his income, then and then only is it possible for him to secure reasonable conduct from the beneficiaries—in fact, to insist that they come or send at reasonable hours, and only for sufficient cause. Unless one can do this, all contract work must surely be detestable, and also ill done, and whether it is paid *per capita* or otherwise is an entirely unimportant detail.

For reasons which are not obvious it seems to be assumed that those engaged in contract work do no other practice, whereas this is rarely so, and it would be extremely unfortunate were it the case. I would suggest that, under the new system, contract work be so apportioned that few, if any, doctors are dependent on it, *so that due control remains with them;* and let us insist on the two essentials—adequate payment and a wage limit. The rest is, I think, immaterial.—I am, etc.,

Chichester, Jan. 9th. G. C. GARRATT.

# The Services.

## THE TERRITORIAL MEDICAL SERVICE.

COLONEL M. D. O'CONNELL, M.D., R.P. (Kirkby Wharfe, Tadcaster, Yorks), in the course of a letter referring to the communication published on page 2008 of the BRITISH MEDICAL JOURNAL of December 24th, 1910, writes:—

I think that the sick and wounded of the Territorial Army operating in England for home defence under Red Cross rules, instead of being passed from the fighting line to the field ambulances, from the field ambulances to the stationary hospitals and Voluntary Aid Detachments, to be conveyed to the general hospitals, could with much advantage to themselves be retained in the first hospital to which they are admitted, and any expert aid which they may require sent to them. Hence it seems to me that the need for mounted field ambulances, field ambulances, Voluntary Aid Detachments and general hospitals in an organization for home defence does not exist. With much deference, I would suggest that a much simpler organization on the following, or other similar lines, would be more suitable for the medical service of the Territorial army.

1. Medical personnel, coast defence units.
2. Medical personnel, other units.
3. Sanitary companies.
4. Unattached (with army troops).
5. Stationary hospitals.

The medical personnel and transport of coast defence and other units would require to be increased sufficiently to enable them to transfer, once and for all, the sick and wounded from the fighting line to the stationary hospitals. The stationary hospitals should be established where required—in buildings, or tents, as near as possible to the fighting line and in shelter from the enemy's fire. Once established, the Red Cross flag should be flown, and these hospitals not be vacated or moved, whether the enemy retires or advances. The sick and wounded admitted to the stationary hospitals should be disposed of as under:

1. Those seriously sick or wounded should be retained in the stationary hospitals, and such expert aid as they require sent to them.
2. Those slightly sick and wounded who are likely to be able to rejoin their fighting units should be retained in the stationary hospitals until fit to rejoin.
3. Those slightly sick and wounded who are not likely to be able to rejoin their fighting units should be sent to their homes when fit to travel.

When adopting the organization of the R.A.M.C. (Regulars) for the Territorial Medical Service, it would seem as if those responsible for so doing overlooked the fact that any possible invader of England would be a civilized enemy who observes the Red Cross rules. In an organization of the medical service for the Territorial army operating in England for home defence, where then is the necessity for mounted field ambulances, field ambulances, clearing hospitals, and general hospitals? By abolishing them and having only stationary hospitals the sick and wounded would derive two great advantages. They would only be moved once, and their medical attendants would not be changed frequently.

But whether the organization that I have above roughly outlined would be the most suitable or not, I think few will deny that an organization for affording aid to a force operating beyond the seas in an uncivilized country where the Red Cross rules are not observed, can possibly also be the most suitable for affording aid to the sick and wounded of the Territorial army when operating under Red Cross rules in England for home defence. By some such organization as I suggest a saving in transport alone would be possible, which would enable the State to be more just to the Territorial medical officers as regards their allowances and pay, and still save money on its Territorial Medical Service.

## TERRITORIAL DECORATION.

THE Territorial decoration has been conferred upon the following officers of the Territorial Force, R.A.M.C.: Major J. A. Rigby, M.D., attached to the 2nd West Lancashire Brigade, Royal Field Artillery; Major J. D. Pratt, M.D., attached to the 4th (City of London) Battalion, the London Regiment (Royal Fusiliers).

## SCOTTISH COMMAND LECTURES.

THE third of the series of lectures delivered by officers of the general staff on the technical training of R.A.M.C. officers, both regular and territorial, in field duties, was given in the Carlton Hotel, Edinburgh, on January 6th, by Captain A. B. Robertson. The subject dealt with was the System and Principles of Intercommunication. The third lecture of the special R.A.M.C. course at the Edinburgh Military Hospital was delivered the same afternoon by Major J. P. Silver, R.A.M.C., who dealt with the Improvization of Transport for Sick and Wounded. This subject is an important one, in view of the shortage of technical transport material for the medical service in all campaigns.

## INDIAN MEDICAL SERVICE.

### ALLOWANCES FROM LOCAL FUNDS.

IT has been decided that in future no Indian Medical Service officer drawing allowances from local funds will be allowed to proceed to Kasauli for a course of training in clinical bacteriology and technique unless he is prepared to forego those allowances, or unless the local fund authorities agree to pay these allowances both to the officers permitted to go to Kasauli and to the officers appointed to act for them. In all other cases such officer will be entitled to retain any local allowance drawn by him immediately before he proceeded to Kasauli without prejudice to the claims to such allowance of the officer acting for him.

# Contract Medical Practice.

S. writes: The answer given to G. E. L. is a surprise to me. I have been in practice about sixteen years, and hold several club appointments. I always ask for a fee of one guinea for a consultation, and although at first such a request was met with a refusal, yet a little firmness on my part resulted in the fee being paid, and I now have no difficulty in obtaining it. I persuaded my club committees that consultations are generally somewhat of a luxury, that they are more often than not unnecessary except for the "satisfaction" of some interfering or officious relative, and that they always entail a fixed appointment, to the inconvenience of the club doctor. Surely it is time for club doctors to realize that they hold the trump card, and that a little firmness will result in better fees and more reasonable work. We can, if we are united, do without the clubs, but the clubs cannot do without us, and the members are reasonable men if they are met with reasonaale arguments.

# Obituary.

## EBENEZER DAVIES, M.R.C.S., L.S.A.,

FORMERLY M.O.H. SWANSEA.

WE have to record with much regret the death at the age of 81 of Dr. Ebenezer Davies, who was for forty-three years Medical Officer of Health to the Swansea Urban and Port Districts.

Dr. Davies was born at Haverfordwest, received his medical education at Guy's Hospital and took the diplomas of M.R.C.S.Eng. and L.S.A. in 1852. Shortly afterwards he settled in Swansea. The town was then going through a period of sanitary transition. Dr. G. G. Bird, who was mayor of the borough in 1842, had sought to arouse the attention of the citizens to the insanitary conditions of parts of the borough; he was warmly supported by Councillor W. H. Michael, also a past mayor, who eventually resigned his seat on the council to undertake the duties of medical officer of health. This was in 1853, and the outbreak of cholera in that year helped the sanitary movement. The making of a health-rate, however, aroused considerable opposition, and before the end of the year it was resolved not to renew the appointment but to place upon the superintendent of police the additional duties of inspector of nuisances at a salary of £10 a year.

The subsequent history we may quote from an interesting and sympathetic obituary notice in the *Western Mail*: "The outbreak of yellow fever in 1865 and the passing of the Sanitary Act of 1866, making sanitary measures compulsory by authorities, led to the appointment of Dr. Ebenezer Davies, who brought to the duties a zeal and prudence which are above praise, and which unquestionably had considerable effect on the health of the borough. During his forty-three years of office he had to deal with complicated causes of outbreaks of smallpox, typhoid, and other epidemics, and in each case his measures were well timed and effective, and the evil was often traced to its source. He was a most skilful medical officer of health, being a master of statistics and also of preventive measures, and his control of the port sanitary department was salutary. During his term of office the health of the borough improved very considerably. During his tenure of the post of medical officer the population of the borough increased from 45,000 to 102,000, and the death rate fell from 28 per 1,000 to 18 per 1,000."

In 1908 Dr. Davies, feeling the duties of his office too onerous to a man of his advanced years, resigned, and the appreciation of the Corporation of Swansea and its staff was shown by their presentation to Dr. Davies of a handsome piece of plate. Dr. Davies was a member of the British Medical Association, and had been President of the South Wales and Monmouthshire Branch, and the members took the opportunity of making him a presentation as evidence of their appreciation of his long and honourable service to the cause of public health.

In addition to the office with which his name was especially associated, Dr. Davies was Medical Officer to the Swansea Post Office and Swansea Training College, and Admiralty Surgeon and Agent. He also held the office of President of the West of England and South Wales Branch of the Society of Medical Officers of Health. Outside his official duties Dr. Davies took a deep interest in social work, in which he was ably seconded by his wife He was Secretary to the British and Foreign Bible Society for many years, and had been President of the Sunday School Union.

Dr. H. A. LATIMER, of Swansea, writes: By the death of Mr. Eben. Davies, Swansea loses its oldest and one of its most respected medical practitioners, and, it is not exceeding the truth to say, a man who was beloved by his professional brethren who had been brought into contact with him. It was impossible to meet and to have intercourse with Mr. Davies without quickly appreciating his honesty of purpose, his urbanity, his straightforwardness, and his outspoken defence of what he considered to be right in life. Of an earnestly religious mind, he unostentatiously practised a life of philanthropic and kindly work. He had lived to experience the due appreciation of these merits, both by his fellow townsmen and by his medical colleagues, and, dying at a ripe old age, he leaves behind him a record of a well-spent life. He and Mrs. Davies, who survives him, had been spared to see their children, sons and daughters, taking good places in life; and it was with an especial pride that he noticed the due recognition of the splendid work of his son, Dr. William Davies, of Johannesburg, who was decorated with the D.S.O. for his services during the war in South Africa, and subsequently was appointed Colonel of the Imperial Light Horse, and later, President of the Transvaal Medical Council. In writing this I give a clue to a very lovable trait in Mr. Davies's character, for nothing gave him greater pleasure than to see the merits of others duly appreciated. I well remember the dinner at which he was entertained by his medical friends on his relinquishing practice, where, among the other speeches, Sir John Williams, Bart., K.C.V.O., who had been one of his pupils, bore affectionate testimony to the worth of his old master. In his medical work he was painstaking and thorough—a fact which was recognized by the large private practice he enjoyed for many years. In his tenure of office as Medical Officer of Health in Swansea he had to do pioneer work, and to cope with some serious epidemics. Mr. Davies was ever ready to give all facilities to his medical brethren who sent cases into the Borough Infectious Hospital, and, on hearing of his death to-day, one of the junior practitioners here told me how much he had valued the kind way in which he had been treated by him in this respect, together with the instruction which he had given him out of his ripe experience in the diagnosis and treatment of acute infectious diseases. He was attended in his last illness, which was of a painless nature, by his friend, Dr. R. C. Elsworth of Swansea.

## SYDNEY PARTRIDGE, M.D.EDIN.,

MEDICAL OFFICER OF HEALTH, DARLASTON.

THE death took place, on December 20th, of Dr. Sydney Partridge, of Darlaston. The event, which is recorded with much regret, was almost unexpected, for he was only in the 50th year of his age, usually enjoyed admirable health, and had been ill only two days. The cause was septic meningitis, originating in an aural trouble which was of quite recent development, and had given rise to no anxiety.

A Darlaston man by birth, a son and one time partner of an equally well-known Darlaston doctor, Sydney Partridge on leaving school began life as an engineer, and was thus somewhat older when he first qualified in medicine than are most medical men at this stage of their career. His medical education he received at Edinburgh University, where he took the conjoint diplomas and the degrees M B., C M. of Edinburgh in the same year, and then worked for a time as Demonstrator of Anatomy. Finally, after rounding off his studies by work at the Rotunda Hospital, Dublin, and elsewhere, he took the M.D.Edin. in 1889, receiving commendation for his thesis. He then joined his father in practice at Darlaston, and eventually succeeded to the whole of the practice on the retirement of the latter. Altogether he had been in practice in Darlaston for over twenty years. He was M.O.H. for the town, Medical Officer and Public Vaccinator to the Darlaston district of the Walsall Union, Surgeon to the Police, Certifying Factory Surgeon, and Examiner and Lecturer to the local division of the St. John Ambulance Association. His practice both in Darlaston and in the surrounding villages was large, and there was no more familiar or popular face than his. He was one of the best types of medical practitioner, with a good knowledge of his profession, a cheeriness both of heart and manner, a fine sense of *esprit de corps* which made him popular with his colleagues. He threw himself fully into his work, whatever it might be, and was generally recognized not only as an encouraging, but a truly sympathetic friend, in times of sickness and trouble. His good qualities were obvious to all, but more especially to children, who took to him instinctively. He was a Fellow of the Royal Institute of Public Health and of the Society of Medical Officers of Health, and a member of the South Staffordshire Division of the British Medical Association, and had contributed several papers to the columns of this JOURNAL.

His funeral took place on the third day after his death, and was attended by a large concourse, including many medical men and representatives of the Darlaston District

Council, and several local institutions. Dr. Partridge was married, and is survived by his wife and five children—three girls and two boys.

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### WALTER BROCK DE JERSEY, M.B., B.C.CAMB., M.R.C.S., L.R.C.P.LOND.

IT is with deep regret that we record the death of Dr. Walter Brock de Jersey, of Guildford, which occurred at Ascot on December 2nd, at the early age of 47.

Dr. de Jersey was the son of Mr. Carey de Jersey, of Guernsey. He was educated at Elizabeth College, Guernsey, and Marlborough. He proceeded to Pembroke College, Cambridge, in 1881, graduated B.A. in 1884, and entered at St. Thomas's Hospital in 1886. In 1889 he qualified as M.R.C.S., L.R.C.P., and graduated M.B., B.C. in 1890. He held the posts of House Physician and Clinical Assistant in the Ear Department at St. Thomas's Hospital, and subsequently that of House Surgeon and Senior Resident Medical Officer at the Evelina Hospital for Sick Children. After a voyage to the West Indies with Lord Brassey on the *Sunbeam* as Medical Officer, he married in 1893, and, having engaged in private practice in London for a short time, finally settled in Guildford in 1895. For several years past he had been Honorary Medical Officer to the Royal Surrey County Hospital, where his loss is much deplored by his colleagues and the staff of that institution.

His health had been failing since the summer, but he continued his work, and only reluctantly gave up, some three weeks before his death, to go to a Nursing Home at Ascot. His untimely death came as a painful surprise to his friends and patients, as it was not generally known that he was seriously ill. He was buried at Stoughton Cemetery, Guildford, the first part of the service taking place at Christ Church, which was attended by a large and representative gathering, including all the medical men practising in the town, and many former patients. He leaves a widow, a son, and two daughters to deplore the loss of a much-loved husband and father.

Dr. de Jersey was ever ready to assist his colleagues, and the writer had frequent opportunities of appreciating the kindliness and generosity of his nature. He adopted a high standard of professional etiquette, and his advice on this and other matters was readily given and greatly valued. He was much attached to his work and took a personal interest in all his patients. The following appreciation is an example of the esteem and confidence which he inspired in his patients:

"Dr. de Jersey had characteristics and qualifications which make his loss seem irreparable to those of us who esteemed it a privilege to consult him as the 'family doctor.' The entire absence of the spirit of the 'high priest'; a wonderful sympathy and the perfect courtesy of the best type of an English gentleman united in confirming the confidence which his professional skill inspired. 'Rich in saving common sense' and possessed of a ripe and well-balanced judgement, his advice on matters non-medical was frequently sought with the happiest results."

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### EDWARD HOWARD COLLENS, M.B.LOND., M.R.C.S., L.R.C.P.

THE death of Edward Howard Collens, of Hereford, at the early age of 38 years has cut short a career of much promise. Until the end of November last he was actively engaged in the work of a large practice; he then visited Vienna for the purpose of undergoing an operation for the removal of a pituitary tumour. He was under the joint care of Professor v. Frankl-Hochwart and Professor v. Eiselsberg and Dr. O. Hirsch, all of whom were unremitting in their attention to him. The operation was skilfully performed by Dr. Hirsch, and the autopsy showed that the surgical procedure had been faultlessly carried out. There was no meningitis, but the tumour had extended far beyond the limits of the pituitary fossa. The immediate cause of death on December 18th, a week after the operation had been carried out, was bronchopneumonia.

Edward Howard Collens was a native of Stourport, and received his medical education at the Mason College, Birmingham, where he was Prosector of Anatomy. In 1898 he took the diplomas of L.R.C.P.Lond., M.R.C.S.Eng.; in the following year he graduated M.B. at London University. After holding the position of House-Surgeon at Queen's Hospital, Birmingham, he succeeded to a practice in Hereford, where he soon established for himself a reputation as a careful and skilful diagnostician, and earned the regard and esteem of his colleagues and the confidence of his patients. He was on the staff of the Hereford Provident Dispensary, and for several years held the positions of Superintendent of the Isolation Hospital and of Police Surgeon. In the latter capacity he trained the city police in ambulance work, and to this work brought an enthusiasm which was reflected in a high pitch of excellence among the members of the force. He was a member of the British Medical Association and the Herefordshire Medical Society. He had very high ideals of the duties which medical practitioners owe to one another; and his untimely death is a distinct loss to the city of Hereford. Much sympathy is felt with his widow.

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NEWS just received by cable from the Ivory Coast, West Africa, tells of the sudden death at San Pedro there of Dr. T. F. MACDONALD on December 14th. A wide circle of friends and scientific, artistic, and literary acquaintances will deplore his death at the comparatively early age of 48. He was born at Maryhill, Glasgow, and was early associated with his father, the late Dr. William MacDonald, who carried on an extensive general practice there. Soon after graduating in medicine and surgery at Glasgow University in 1882 he took up the special study of tropical diseases, and with that object in view he spent several years in various parts of Australia and New Zealand. Returning to this country in 1889, he continued his special research, and in 1892 took the diploma of M.R.C.V.S. During the two following years he visited Germany, America, Italy, Egypt, China, and Japan, making contributions to various scientific bodies in these countries on subjects connected with tropical diseases. For ten years thereafter Australia was again the sphere of his investigations. There he found time to take up the subject of "white Australia," and he was recognized as a pioneer of the movement. Engrossed as he was with his scientific pursuits, he nevertheless found time to indulge his literary tastes. He was a graceful writer of verse, as was proved by a small collection of sonnets and songs published by him two years ago under the title of *North Sea Lyrics*. At one time he was a keen Volunteer, and held a commission in the Dumbartonshire Rifle Corps; he never gave up the practice of rifle shooting, and while in Australia and other places he founded rifle clubs and in other ways encouraged rifle and revolver shooting.

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# Public Health AND POOR LAW MEDICAL SERVICES.

### INSPECTION OF LAUNDRIES AND WORKSHOPS ATTACHED TO POOR LAW INSTITUTIONS.

FROM a circular issued by the Local Government Board we learn that an arrangement has been made between the Board and the Secretary of State for the Home Department with regard to the inspection by inspectors of factories of certain portions of workhouses and other Poor Law establishments. Any laundry or workshop where industrial work is carried on, or machinery used, attached to any Poor Law institution, may be inspected by the inspector of factories in charge of the district in which the institution is situated. The factory inspector will report, through the Home Office, to the Local Government Board on any point that, in his opinion, requires attention. Where only inmates are employed, the factory inspector will report only on the ventilation of the workshop or laundry, the fencing of machinery, the use of dangerous plant or materials, the carrying away of fumes, steam or dust, and similar matters. In these cases he will not report on hours of labour. Where paid hands, as well as inmates, are employed, the inspector will report on the hours of labour of the paid hands. Persons employed only for purposes of supervision or instruction will not be regarded as paid hands. Where any accident (fatal or other) caused by machinery, explosion, or electricity, or any case of industrial poisoning occurs in any such laundry or workshop, particulars should at once be sent to the factory inspector.

### REFUSE DESTRUCTORS.

TOWN COUNCILLOR.—A refuse destructor constructed on the most modern and approved lines and efficiently managed should not deposit fine dust on surrounding objects. The nuisance connected with such a destructor is usually associated with the conveyance to it of the refuse in improperly covered-in vehicles, a defect which it ought to be possible to remedy.

# Medico-Legal.

### RESPONSIBILITY FOR FEES.

IN the Hungerford County Court, Wiltshire, on November 25th, 1910, a claim was made by a medical man for attendance on a young woman who had been knocked down and injured by the defendant's motor car.

The defendant admitted that he had asked the medical man to take charge of the case and promised to pay all the expenses, but claimed that this undertaking had been fulfilled in the following way: The injured girl brought an action against him, putting in her medical expenses as part of her special damages. The jury before which the case was tried had an account of these expenses before it, and their amount was taken into consideration by it when determining what damages to award the injured girl. The medical man admitted in the present case that he had sent his claim for fees in the first place to the lawyers of the injured girl, at their request, and had also given evidence as to this claim when her case was tried.

The court therefore ruled that in the present action the verdict must be against him. The defendant had discharged his liabilities by the payment made to the injured girl in consequence of the verdict of the jury in the case brought by her, that payment including a sum for medical expenses, and it was to her that the medical man must now look for payment.

### WORKMEN'S COMPENSATION ACT.

*Employment of a One-eyed Man.*

In the Whitechapel County Court (December 8th, 1910) Counsel asked Judge Bacon to review the circumstances of a case of distress under the Workmen's Compensation Act. The applicant, an able-bodied seaman, met with an accident on a vessel, and lost the sight of one eye. Last April, Judge Bacon was assured by evidence that the applicant could be further employed as a seaman, though he had only one eye, so he suspended the award and kept it alive by ordering a payment of one penny weekly. Mr. Abinger said the man was destitute. He had been refused work by eight shipping lines. He had walked the streets at night, and on one occasion had fell down in an exhausted condition, and was taken to an infirmary. The man said that when he applied at one ship he was told that they did not carry cripples. He walked the streets for about eight days. The Shipping Federation did not offer him any work. Judge Bacon said that at first he thought it was not possible for a seaman with one eye to do his work properly, but he made the alteration in accordance with the evidence which had been given to him that the man could be employed. He did not agree with the contention that the man had been unable to obtain employment owing to the state of labour in the Mercantile Marine. He now reviewed the circumstances, and directed that the man should receive 10s. a week, the order to be dated back to October.

*Consent to Undergo an Operation.*

In Hamblet *v.* Sutton Manor Colliery (St. Helens, October 12th) the applicant was working in a colliery, and when lifting a box he felt a pain in his groin, and could not go on with his work. He reported the accident, and the manager told him to go and see Dr. Tough. Dr. Tough told him that he must undergo an operation. He ordered a truss at the expense of the colliery company, and it was supplied to Hamblet. The only point in dispute was that of capacity.

Hamblet was asked if he was now willing to undergo the operation.

Applicant: I don't know.

Judge Shand: I suppose if the doctors say that you will be put all right by the operation you will be willing?

Applicant: Yes.

Judge Shand said he would make the award of 14s. 8d. during incapacity. When the operation was done the man would no doubt get perfectly well and the matter come to an end in a perfectly natural way. He allowed costs on scale B, and a qualifying fee for Dr. Evans.

*Loss of an Eye.*

W. A. C. asks to what allowance, either as part of usual weekly wage or as a lump sum, a farm labourer would be entitled for the total loss of an eye as the result of an accident.

*** The man would be entitled to half his weekly wages during total incapacity. After recovery from the immediate effects of the injury it would then be for the county court judge to decide what amount of incapacity existed for this particular work. The remaining eye being perfect, a one-eyed person is held to suffer from certain disabilities, such as disqualification for certain occupations and loss of the chance of promotion in others, owing to loss of one-sixth of the visual field and loss of binocular vision and loss of stereoscopic vision. In old individuals there may be permanent loss in judging distances and recognizing the depth of solid bodies. Younger persons may recover from this in from a few months to a year or two; the deformity itself may prevent a man from getting work.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

UNITED is recommended to bring the matter to the notice of the executive committee of the local Division of the British Medical Association.

# Universities and Colleges.

### UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

DURING the temporary absence of Professor Starling, F.R.S., owing to ill-health, Dr. W. M. Bayliss, F.R.S., has been appointed Acting Professor of Physiology in University College, London.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.

*Statistical Department* (Session 1911).—The following courses of instruction will be provided:

1. Elementary. Not less than eight classes (lectures and practical work) suitable for medical men taking up public health or administrative work, commencing in the third week of January.
2. Lectures on problems of applied statistics (four lectures on work done in the institute's department) in February.
3. Advanced lectures on special problems in the mathematical theory of statistics which are of importance in medical inquiries (four lectures in March).

No fee will be charged in connexion with these courses, and those who desire to attend are requested to apply in writing to the secretary as soon as possible, stating at which course they desire to be present, when particulars as to dates will be furnished.

### UNIVERSITY OF EDINBURGH.

THE ANNUAL REPORT, 1910.

THE following statements are among those made in the annual report of the university authorities for the recently concluded year:

*Number of Students.*

During the past year the total number of matriculated students (including 624 women) was 3,366. Of these, 382 (including 19 women) were enrolled in the faculty of science; 1,370 (including 21 women) in the faculty of medicine. In the faculty of science a record has been made, the number of students for 1909 having been exceeded by 38. Of the students of medicine, 615, or nearly 45 per cent., belonged to Scotland; 257, or nearly 19 per cent., were from England and Wales; 105 from Ireland; 96 from India; 245, or nearly 18 per cent., from British colonies; and 52 from foreign countries. These figures show that the proportion of non-Scottish students of medicine is well maintained. Besides these matriculated students, 95 non-matriculated students have paid the 5s. entrance fee, 28 of whom were women, chiefly attending music, and French and German literature classes. The number of women attending extra-academical lectures, with a view to graduation in medicine in the university, was 58.

*Degrees Conferred.*

The ordinary degrees conferred during the year include: Bachelor of Science, 58 (a record number); Doctor of Science, 5; Bachelor of Medicine and Master in Surgery, 1; Bachelor of Medicine and Bachelor of Surgery, 214; Doctor of Medicine, 76; Master of Surgery, 2.

The diploma in Tropical Medicine and Hygiene was conferred on five candidates.

The General Council of the University now numbers 11,241.

*Scholarships, etc.*

The total annual value of the university fellowships, scholarships, bursaries, and prizes now amounts to about £18,870, of which £1,585 is in the Faculty of Science, and £3,890 in the Faculty of Medicine. A number of bursaries are in the gift of private patrons, but the great majority of the university bursaries, prizes, etc., are awarded by the Senatus after competitive examination. In addition to the above, a sum of upwards of £660, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

*Lectureships and New Courses.*

Several new lectureships have been instituted by the University Court, and a sum of over £5,000 has been given to the university by Robert Munro, Esq., M.D.Edin., LL.D., of Elm Bank, Largs, Ayrshire, for the foundation and endowment of a lectureship in the university to be known as "The Munro Lectureship on Anthropology and Prehistoric Archaeology." Dr. Munro has himself been appointed first lecturer, and he is expected to deliver the first course of lectures during the academic session 1911–12. The Court has appointed Mr. A. Murray Drennan, M.B., Lecturer on Practical Pathology.

*Personal Changes.*

Several vacancies in the teaching staff fall to be recorded. At the end of the summer session Dr. T. S. Clouston resigned the Lectureship in Mental Diseases, of which he was the first holder, having been appointed in 1879. It is a matter of great regret to the university to be deprived of the services of one who was connected for so long with its Faculty of Medicine, who, by his teaching and writing, did so much to advance the scientific study of mental disorders, and who wrought such improvements in the treatment of the insane. The post of university librarian, rendered vacant by the death of Mr. Alexander Anderson, has been filled by the appointment of Mr. Frank C. Nicholson, M.A. There has been one change in the personnel of the Court of Curators, Dr. Joseph Bell having succeeded the Hon. Lord Stormonth Darling as one of the members elected by the University Court. Mr. A. B. Fleming, W.S., has been appointed Secretary of the Curators in succession to the late Mr. R. Herbert Johnston, W.S. At the general parliamentary election in January, Sir Robert B. Finlay, M.D., LL.D., etc., was elected, and in December he was re-elected, without a contest, member of Parliament for the Universities of Edinburgh and St. Andrews. Mr. William Brown, M.A., B.Sc., is successor to Mr. J. W. Bews, as Lecturer on Plant Physiology. Mr. R. B. Thomson, M.B., is now second Lecturer in Anatomy, a vacancy having been occasioned by the resignation of Dr. David Waterston. Messrs. David Wallace, M.B., C.M., J. M. Cotterill, M.B., C.M., and J. W. B. Hodsdon, M.B., C.M., have been appointed Lecturers in Clinical Surgery. Dr. C. G. Knott has been appointed to the important post of Official Adviser in the Faculty of Science.

*Grants and Benefactions.*

The Lords of His Majesty's Treasury, acting upon the recommendation of Lord Elgin's Committee, have informed the University Court that they are prepared to make a substantial increase in the annual grant from public funds to the University of Edinburgh.

As in former years, the university has to make grateful acknowledgment of numerous benefactions. The Carnegie Trust for the Universities of Scotland continues to make generous provision for some of the needs of the university, especially in regard to the endowment of lectureships, the purchase of books for the library, buildings, permanent equipment, and apparatus; while of the large sum devoted by the Trust to the payment of class fees, about one-third comes to Edinburgh students. A gift has been made by Emeritus Professor Alexander Crum Brown for the use of the department of chemistry, as a class library, of the books which he lent for the same purpose when he retired from office; a gift by Dr. Henry Barnes, Carlisle, of a bust of William Harvey; gifts by Mr. James Lyle, Queen's Crescent, Edinburgh, of a gong of Manipur workmanship (now rare), to the anatomical museum of the university, and of an excise certificate in the handwriting of Robert Burns, to the library. Emeritus Professor Campbell Fraser has presented to the university a portrait of himself, painted by Sir George Reid; and Mr. John Storer Beveridge has gifted to the university an engraved portrait of Alexander Monro, M.D., secundus. The accumulation of funds on the Gunning Foundation has rendered possible the institution of a twelfth Gunning Prize of £50 in the Faculty of Medicine, the new prize to be in the subject of public health. There has also been instituted an additional Hope Chemistry Prize of £30.

*The Library.*

Additions to the University Library for 1910 numbered 4,902, among them being the library of Dugald Stewart, late Professor of Moral Philosophy in the University of Edinburgh (1785-1820), consisting of some 4,000 volumes, having been consigned to the custody of the University by the United Service Club, London, to whom it had been bequeathed by the Professor's son, Colonel Matthew Stewart, in 1852.

The recataloguing of the library having been finished in 1906, and the alphabetical arrangement of the entries and insertion of cross-references being also practically complete, the question as to the printing of the catalogue will have to be seriously considered at a near date. No funds are at present available for this purpose, but perhaps some generous donor may ere long be found willing to associate his name with this important work.

*Rector's Address.*

The Lord Rector, the Right Hon. George Wyndham, M.P., LL.D., delivered his Rectorial Address to the students in the M'Ewan Hall, on October 28th, 1910, his subject being The Springs of Romance. The meeting, which was also attended by the chief office-bearers of the university, and by many ladies and other guests, was admirably organized by the Students' Representative Council.

*Miscellaneous.*

A new scheme of examination for first year bursaries in arts has been adopted, and will come into operation in September next. Under this scheme the choice of subjects has been somewhat enlarged, and equal value is attached to each subject. Regulations have been drawn up, and are now in operation, for a new M.A. Honours Group—that is, in the subjects of Latin and French. Accommodation was again given in August by the university authorities for a scheme of vacation courses in modern languages; also, in September, for a scheme of post-graduate courses in medicine held under the joint auspices of the university and the Royal Colleges of Physicians and Surgeons, and both of these schemes proved highly successful.

## UNIVERSITY OF BIRMINGHAM.

THE Chancellor of the University, Mr. Joseph Chamberlain, has addressed an appeal to the City Council for a further grant from the rates to the university. Ten years ago the council authorized an annual grant equivalent to a halfpenny rate. The appeal states that the number of students has since increased from 678 to 957, the professorial staff from 29 to 37, and the junior staff from 42 to 83. The income at present is inadequate, and the University Council has for want of means been compelled for some time past to practise a harmful economy, and to decline to sanction new developments. The deficit for 1910–11 is estimated at £10,606. The university pays £2,250 annually to the city in rates. The appeal points out that the Chancellor of the Exchequer has appointed a special committee to apportion the additional annual grant of £50,000 a year to University Colleges on certain defined principles. The committee is to take into consideration the amount of local support, and the share in the grant is to a considerable extent to be proportionate to that support. The appeal concludes by pointing out that other modern universities are aided by municipal grants, and asks Birmingham to increase its contribution to the extent of another halfpenny rate, so as to enable the university to claim its fair share in the new Treasury grant.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

CHEMISTRY.—C. A. Hepburn.
MATERIA MEDICA AND PHARMACY.—H. Cox, R. Jones.
ANATOMY.—A. Abdelal, D. Blair, H. Dudley, N. E. Farr, F. C. Godding, G. B. Holroyd, R. Jones, H. E. Rose, A. H. Taymour.
PHYSIOLOGY.—A. Abdelal, H. Dudley, F. C. Godding, R. Jones, H. E. Rose.

# Medical News.

THE King has approved of the appointment of Dr. Theodore Dyke Acland and Dr. StClair Thomson to the Consulting Staff of the King Edward VII Sanatorium, Midhurst.

THE presidential address before the Royal Microscopical Society will be delivered by Professor J. A. Thomson, F.R.S.E., at 20, Hanover Square, on Wednesday next, at 8 p.m.

THE memorial erected in the Enfield Public Garden to the memory of the late Dr. J. J. Ridge, founder of the Medical Temperance Association, will be unveiled by the Lord Mayor of London on January 21st.

THREE lectures on the Comparative Anatomy of the Vertebrate Ear will be given by Mr. R. H. Burne at the Royal College of Surgeons, Lincoln's Inn Fields, on Thursdays, January 19th and 26th and February 2nd, at 5 p.m.

THE Philosophic Faculty of the University of Marburg has conferred the degree of Doctor *Honoris Causa* upon Mr. Ernst Leitz, of Wetzlar, the principal of the firm of Leitz, microscopic and photographic apparatus manufacturers.

AT the annual general meeting of the Royal Meteorological Society to be held at the Institution of Civil Engineers, Great George Street, Westminster, S.W., on Wednesday next, at 7.45 p.m., the president, Mr. Henry Mellish, F.R.G.S., will give an address on "The Present Position of British Climatology."

THE adjourned discussion on the Workmen's Compensation Act will be resumed by Mr. Arthur S. Morley, F.R.C.S., at the meeting of the Medico-Legal Society to be held at 11, Chandos Street, W., on Tuesday, January 24th, at 8.30 p m. Dr. Walter Asten will read a paper on traumatic neurasthenia and the Workmen's Compensation Act.

IN addition to the papers announced in the Diary (SUPPLEMENT, p. 24) as to be read at the Royal Society on Thursday next, we are informed that Colonel Sir David Bruce and others will read two papers on experiments to ascertain whether the antelope and the domestic fowl of Uganda may act as reservoirs of the virus of sleeping sickness (*Trypanosoma gambiense*).

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

BAM asks what is the best treatment for caput succedaneum. The child was born about a month ago.

SENEX asks for advice in the treatment of a retired medical man, aged 85, who, while otherwise in good health, experiences severe straining during defaecation, and eventually passes a large evacuation of which he is unconscious. He has suffered from prolapse for forty years, which, however, only comes down during defaecation. There is no evidence of growth, but the mucous membrane seems folded on itself about 3 in. up the rectum. There is no pain except on defaecation.

### TREATMENT OF GLOSSITIS.

A. B. requests information on a severe form of glossitis from which he suffers, and which so far, after seven months' duration, has resisted all forms of treatment, mild and severe, internal and local. He is assured that it is not leucoplakia nor any of the recognized forms of glossitis, but in all probability due to hyperchlorhydria. He has been a lifelong dyspeptic, but now at 47 years of age has a much better digestion and greater vitality than at any previous time. He is a teetotaler and non-smoker, and has added no salt to his food for seven years. The glossitis is characterized by a complete shedding of the mucous membrane, chiefly at the tip of the tongue, and a denudation of the papillae, which makes speaking especially a most painful procedure. This heals in about ten days, and recurs in a few days more. The tongue has always been fissured and tooth indented, and the mucous membrane of the cheeks shares in occasional ulceration. There is no parasite. Any information as to the treatment or literature of the subject would be gratefully received.

## ANSWERS.

### TREATMENT OF CHILBLAINS.

DR. H. J. THORP (Ipswich) writes: In reply to H. G. S., I would suggest the following: If the skin is not very tender it may be painted with tincture of iodine, or tr. iodi and lin. saponis equal parts, or the inflamed skin smeared with lin. terebinth. acet. or sp. camphor. If the cuticle is tender or sore the parts to be painted with several layers of flexile collodion. The general circulation should be promoted by exercise and good food, the parts being kept warm by woollen socks and gloves.

### HISTORY OF MEDICINE.

STUDENT.—We think Dr. E. T. Withington's *Medical History from the Earliest Times: a Popular History of the Healing Art* (London: Scientific Press, Limited, 1894) would fulfil our correspondent's requirements.

### INCOME TAX.

OVERTAXED.—In the circumstances set forth the demand note might be returned to the collector with an intimation to the effect that our correspondent is awaiting a communication from the surveyor in regard to his objection to the assessment. It would be well to write also to the surveyor claiming that application which has been made for reduction should have due consideration before payment of the duty.

## LETTERS, NOTES, ETC.

### THE PREVENTION OR ABORTION OF CATARRH.

DR. ARTHUR G. TURNER (C.M.S. Hospital, Quetta, Baluchistan) writes: Dr. Hardman, in the BRITISH MEDICAL JOURNAL of September 24th, asks, "Is it possible to prevent catarrh, or catarrh having commenced, is it possible to abort it?" I believe from my own experience that, if an attempt be made at the very commencement of a catarrh of the nasal passages, it is possible to abort it. Some years ago I suffered very frequently from such attacks, the least draught or exposure to cold producing a severe catarrh lasting usually for three or four days in the acute stage. By accident I discovered that if, immediately on feeling the first symptoms, I practised taking a deep breath every now and then, say every five or ten minutes for half an hour or an hour, that the attack did not proceed, and many times have I satisfied myself of the utility of the method. It has since then been rare for me to have more than one catarrhal cold in six months, where before I was having one every two or three weeks.

### HOW TO USE THE "JOURNAL."

DR. G. LAPRAIK (Thames, N. Z.) writes: I was interested in reading the methods adopted by Drs. Coombs and Hawthorne. My method briefly is as follows. I have a sort of bookcase or cabinet with compartments, A, B, C, etc.; the shelves of the compartments are movable, so that the size of the compartments can be increased when necessary. Important articles from my medical journals are cut out from the JOURNAL and placed in the cabinet—say appendicitis in compartment A. I also keep a "synoptical index." I thus have a speedy means of reference, which is very necessary in these busy times. I may say I also carefully file the half-yearly or yearly index of the various journals.

### AN UNUSUAL AURAL REFLEX.

DR. W. B. RUSSELL, M.B. (Colwyn Bay), writes: A lady who suffers from a flabby and dilated heart, with occasional asthmatic symptoms, complained of attacks of faintness and noises in the ear. I inserted the speculum and noticed this: she at once began to cough, and then immediately after I had syringed forcibly some wax out of the ear she had an attack of wheezing, with a sensation of asthma and oppression. A small dose of brandy greatly relieved the disagreeable sensations. I suppose that the reflex occurred by way of Arnold's nerve in the meatus, through the distribution of the vagus to the bronchi, and perhaps the heart. I did not notice any change in the pulse after the attack. I should be glad to know if this is a rare occurrence.

### SEA-SICKNESS.

Dr. T. M. KENDALL (Potton, Beds) writes: All who have travelled on the sea have either felt or witnessed the uncomfortable feeling of sea-sickness, which at times causes great nervous prostration in addition to the distressing gastric symptoms. Many theories have been advanced as to the causation of this retching, but even now little or nothing is known about it. Those who suffer pay little heed to theories, and look rather for something which will prevent their discomfort. During many voyages, long and short, in all sorts of craft, I was a victim, and it was not until I tried a combination of menthol and valerian that I was ever able to enjoy comfort during a sea voyage. Since I have used this remedy the sea has no longer any terrors for me, and even during the fiercest gales I am able to enjoy the pleasures of the table, and feel as comfortable as I am on *terra firma*. My experience also with passengers has been most gratifying, and on voyages to and from Australia with as many as 500 passengers I have been able to prevent any one of them from suffering from sea-sickness. People who have been accustomed to lie prostrate from sea-sickness have, when I gave them this remedy, passed the whole voyage in comfort, and my experience has been that this remedy never fails to alleviate and altogether abolish this dreadful sensation. In most cases one dose is sufficient, and three doses always meet with signal success. The particular form in which I have used this combination is sold under the name of validol.

*** The following particulars with regard to validol are given in the last edition of Martindale and Westcott's *Extra Pharmacopoeia*: "Validol. Dose, 10 to 15 minims (0.6 to 0.9 c.cm.). A speciality said to contain 30 per cent. of menthol in valerianic acid; is a colourless liquid with an agreeable odour and free from burning taste of menthol. Nerve sedative. Useful in sea-sickness."


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# A Lecture
ON
# CARDIAC ARRHYTHMIA,

DELIVERED AT THE HOSPITAL FOR CONSUMPTION, BROMPTON.

BY

**A. J. JEX-BLAKE, M.B., B.CH., M.R.C.P.,**

ASSISTANT PHYSICIAN TO THE HOSPITAL AND TO ST. GEORGE'S HOSPITAL.

GENTLEMEN,—As you are aware, the normal action of the heart is rhythmical and nearly regular, the beats following one another at tolerably equal intervals so long as the rate of the heart's action is unaltered. This regularity is maintained in the average healthy subject, whatever the rate at which the heart is working, whether fast or slow. The same regularity is met with in many cases of heart disease, whether functional or organic, valvular or myocardial; the heart itself is such a well trained organ, and its nervous centre is such a well trained mechanism, that approximate regularity of action, whether at a rapid or a slow rate, is one of the most striking or persistent characters of its pulsation, whether the heart itself is healthy or diseased. Hence what I have to say on the subject of cardiac arrhythmia has no bearing on the action of the great majority of healthy hearts or of a large number of diseased hearts; there only remain for consideration the minority of instances, those in which the cardiac rhythm is abnormally irregular. It is not necessary to remind you that a slight degree of irregularity is always to be seen in the heart's action; for example, the normal pulse quickens a little during inspiration and slows during expiration, and the action of swallowing is accompanied by a slowing of the pulse due to vagus inhibition. These alterations in the rhythm of the heart are normal when they are of slight degree, and will not be further considered. It is only in extreme cases when the respiratory irregularity is very marked that it can give rise to the suspicion of cardiac disease, and that it certainly does at times.

Analysis of the causes of irregular action of the heart shows that they are very various but that they may be divided up into two great classes: (1) Those arising within the heart and due to changes in the state or nutrition of its walls, or of the Purkinje cells that form the bundle of His. (2) Those arising outside the heart, and due either to alterations in the nervous impulses coming to it from the central nervous system, or to changes in the ease with which the blood enters or leaves it.

In many cases the irregularity is a transient and unimportant matter, but in others it is an important and serious sign indicating a definite downward stage in the course of a patient with heart disease. Before going more deeply into the matter, it will be best to lay before you what is known about the regulation of the heart's activity under normal conditions.

The first question to be asked and answered is this: What is it that originates and maintains the rhythmical contractions of the heart? The human heart, as you know, goes on beating throughout life, and after death it can be made to go on beating again for many hours if transfused with a warm solution containing oxygen, dextrose, and a mixture of salts of the three metals, sodium, calcium, and potassium, in the right proportions. The fact has received two explanations, embodied respectively in the neurogenic and the myogenic theories of its action. According to the neurogenic theory, the stimulus to contract is generated in the nerve plexuses and ganglion cells that are found scattered throughout the tissue of the heart, and is communicated from the nerve tissue to the muscle of the heart. It is certain that the heart can go on beating quite normally when it has been taken out of the body, and so is separated from all the nervous connexions—the vagus and sympathetics—that connect it with the central nervous system; hence the impulse to contract cannot arise there. The other theory, or myogenic theory of the heart's action, states that the rhythmical impulse to contract originates in certain fibres of the cardiac muscle quite independently of the nervous tissue and ganglion cells in the heart. Both theories agree in the statement that the contractions start in a certain region of the heart—the sino-auricular region—and spread thence by way of the auriculo-ventricular bundle of His to the muscle of the ventricles. In favour of the myogenic theory may be quoted the fact that the heart of the embryo chicken beats before any nerve fibres have entered it, and also the observations that stimulation of the ganglion cells of the heart does not alter its rhythm. But there appears to be no conclusive evidence either way to show whether the neurogenic or the myogenic theory is most nearly correct; and the question is, perhaps, of academic rather than practical interest.

We may take it as proved, then, that the rhythmical impulses to contract start in the sino-auricular area of the heart and travel to the ventricles by way of the bundle of His under normal circumstances. As it happens that in a good many cases of cardiac arrhythmia the irregularity of the heart's action is due to pathological interference with the transmission of these impulses, it is advisable to give more careful consideration to this area. In many of the lower animals, such as the frog, you will remember that the venae cavae join the heart by means of a chamber called the sinus venosus, and that the frog's cardiac contractions start in this sinus. The human heart has no definite sinus venosus, but the analogous part has become incorporated in the wall of the right auricle, roughly corresponding with the area bounded by the superior vena cava, the inferior vena cava, the Eustachian valve, and the coronary sinus; much of it is on the interauricular septum. The cardiac impulses originate here and travel to the auricular walls by small bundles of Purkinje fibres; they travel on to the ventricles by a single bundle of Purkinje fibres known as the auriculo-ventricular bundle, described first by Kent in 1893 and later in the same year by His. If this bundle of His is interfered with in any way, if it is cut across, or if it is invaded by fibrosis or destroyed by a gumma or other new growth, one gets a condition known as "heart-block." In heart-block the auricles continue to beat at their normal rate, about 70 times in a minute. But the ventricles no longer beat in unison with the auricles, but at their own rate, which is from 28 to 32 beats per minute. When the bundle of His is only partially infiltrated and destroyed the condition of partial heart-block results. So much, then, for the intracardiac mechanism whereby the impulse to rhythmical contraction is originated and maintained in the heart.

A few moments must now be given to the consideration of the extra-cardiac mechanism or control from the central nervous system, which regulates but does not originate the heart's action. The nerve supply of the heart comes from two sources—the vagus or tenth nerve and the sympathetic, both of which are normally in a state of activity, and continuously regulate the heart's action. The vagus inhibits, slows, or weakens the contractions of the heart, causing a fall in blood pressure; it also lessens the conductivity of the heart muscle, preventing impulses from passing from the auricle to the ventricle, so that if the vagus is stimulated to a certain definite extent it is often possible to bring about a condition of affairs in which the ventricle only beats once to every two beats of the auricle—in other words, to establish a functional or neurogenic heart-block. The sympathetic nerves of the heart have the opposite action; when they are stimulated they quicken and strengthen the heart beat, raise the blood pressure, and improve the conduction of stimuli from auricles to ventricles. Both the vagus and the sympathetic are under normal circumstances at work regulating the beat of the heart, the vagus endeavouring to slow it, the sympathetic to make it beat faster, the balance between the two giving the normal rate of heart beat. It is by means of these two nerve supplies that the common reflex quickening or slowing of the heart's rate occurs. Thus, severe pain causes reflex quickening of the heart because the normal tonic inhibitory impulses coming down the vagus are lessened, while the accelerating sympathetic impulses are increased. The action of emotion and of other forms of sensation, and of gentle exercise in quickening the pulse-rate is similarly reflex. Almost all the experiments on the mode of action of the heart and on its regulation by the vagi and sympathetic system have been made on animals, and very few of

the conclusions arrived at have been made from observations in man. But there are certain drugs which stimulate and others that paralyse the vagus nerve endings, and by use of these in man it is possible to find out, in certain cases, whether the vagus is or is not responsible for changes in the heart's rate of beating. The drugs muscarin and physostigmin stimulate the vagus and so bring about slowing of the heart. On the other hand, atropine, and to a less extent curare, paralyse the vagus and prevent it from slowing the heart, and this action of atropine is sometimes useful to one clinically. For example, in some cases of irregular heart it is found that the subcutaneous injection of $\frac{1}{100}$ or $\frac{1}{60}$ grain of atropine removes the irregularity for a time, and this is taken as indicating that the cause of the irregularity lay in the inhibitory action of the vagus, and not, for example, in some lesion of the conducting fibres of the bundle of His. But it must be remembered that if the dose of atropine fails to regularize the heart beat, it may do so because the dose was not large enough to paralyse the vagus nerve endings; hence it is not invariably safe to conclude that a cardiac arrhythmia is not neurogenic because it is not set aside by atropine.

Having thus cleared the ground by considering the physiology of the heart's action and of its nervous control, we may go on to consider the various examples of cardiac irregularity that one is likely to meet with in practice. As I have already said, the causes of irregular heart may be divided into two main classes: the intracardiac, or those arising within the heart; and the extracardiac, or those arising outside it. Most cases of cardiac arrhythmia are of extracardiac origin, and so these may be considered first.

A certain number of perfectly healthy people seem to have naturally irregular hearts without ever having had any disease, either local or general, whereby the arrhythmia can be accounted for. They present no cardiac symptoms, and the irregularity of their pulse is generally found out by accident. It is presumably neurogenic in orgin.

The next arrhythmia to which I wish to direct your attention is the respiratory irregularity. We have already seen that in the majority of normal persons inspiration causes a quickening of the pulse, and expiration a slowing. This depends on two separate factors. It is due partly to the fact that inspiration increases the supply of venous blood reaching the heart by the venae cavae; the act of inspiration increases the negative pressure or suction power in the thorax, and tends to draw venous blood into the right auricle, with the result that it fills up with blood more rapidly while inspiration proceeds, and the whole cycle of cardiac operations is thereby accelerated, while in expiration the converse takes place. But this is not the only factor concerned in the inspiratory quickening, for it is lessened or even abolished if atropine is given; the inference from this fact is that a certain amount of vagus inhibition of the heart occurs during expiration in these persons. In a minority of cases respiration has no effect on the rate of the heart, and in a few normal persons inspiration may cause slowing of the heart, and expiration quickening. This respiratory arrhythmia of the heart is oftenest and best seen in children and young people, and is worth mention because it is sometimes so marked and leads to so great an irregularity in the pulse that the patient is labelled "heart disease," and treated accordingly. But such mistakes are not likely to occur if one remembers that they may be made, and the true cause of the irregularity will be easily made out by observing the pulse and respiration together, and noting how they vary together.

Neurogenic arrhythmias, the third group of the reflex arrhythmias, are still commoner than the respiratory. In certain patients almost any severe mental or sensory stimulation may bring on an attack of rapid or intermittent action of the heart. This is particularly so with nervous and excitable people. In many cases the patient will say that he or she has an attack of palpitations; but the two things are not necessarily the same, for these reasons: On the one hand a patient may have palpitations—that is to say, perceptible and painful cardiac action—without any change in the rate of the pulse; on the other hand, patients may have an attack of rapid or irregular pulse, without being aware of the fact. A good many of these neurogenic reflex arrhythmias have got into the textbooks under the headings, "Cardiac Neuroses," or "Functional Affections of the Heart"; many of them are associated with precordial referred pain, and it is often this pain that brings the cardiac arrhythmia to the patient's notice. In certain patients it is some toxic influence that brings on these attacks of intermittent or irregular action of the heart. The use of strong tea or coffee is an extremely common cause of irregularity of the heart in the edentulous middle-aged women and men who crowd hospital out-patient departments and come up complaining of pain under the heart. One has known a great many middle-aged people, 40 years of age or so, who have had to give up taking afternoon tea because it so often brought on attacks of palpitation; and these attacks of palpitation are often accompanied by an intermittent action of the heart.

Another toxic cause of intermittent heart-beat is excessive tobacco smoking, usually in young men, particularly when the smoke is inhaled. These patients often complain of faintness and dizziness with palpitations; either tachycardia or irregularity of the heart may occur, and physiological experiments go to prove that it is the nicotine in tobacco smoke that produces the disturbance of the heart, and that it does it by stimulating the sympathetic nerves—in other words, the accelerator nerves of the heart. The bad effects pass off as soon as the smoking is discontinued, and are not accompanied by any permanent muscular weakness of the heart. Tobacoo heart sometimes occurs in older people, and may lead them to give up tobacco; but here the pathological picture is less simple, for these older patients often have arterio-sclerosis and high blood pressure, and very likely some sclerosis of their coronary arteries. So that it is not safe to say that the irregularity of the tobacco heart in older people is a neurogenic reflex as it is in adolescents; probably it is also due in part to myocardial changes in the old.

The excessive use of alcohol is another common toxic cause of irregularity of the heart.

In another large class of cases the neurogenic arrhythmia is due to reflexes from the viscera. A great many dyspeptics suffer far more from the painful irregular action of their hearts than they do directly from the indigestion that is the *fons et origo* of their complaint. To some extent the palpitations are caused mechanically; the stomach or intestines, or both, become distended with flatus and press the diaphragm upwards, embarrassing the action of the heart. But, in addition, there is a reflex nervous factor, abnormal stimuli spreading up by the vagus from the unhealthy viscera to the nucleus of the vagus in the medulla, and upsetting the action of the heart by means of impulses transmitted down the cardiac branches of the vagus. A similarly caused irregularity of the heart is not rare in constipation; in both cases suitable treatment does away with the arrhythmia. Other reflex arrhythmias are seen with meningitis, intracranial tumour, and in any condition increasing the intracranial pressure, and the heart's action tends to be slower and more intermittent as the pressure increases; this is, no doubt, due to the increased stimuli descending from the vagus nucleus. The cardiac arrhythmia so common in exophthalmic goître may have two causes. On the one hand, the enlarged thyroid gland may press on the sympathetic in the neck and so lead to the transmission of accelerating impulses to the heart. On the other hand, the victim of exophthalmic goître has an excess of thyroid secretion in his system, and this gives rise to a toxic irregularity of the heart. Another and rarer cause of irregular heart lies in the common childish complaint of adenoids. Children with adenoids, as is well known, are liable to attacks of nocturnal dyspnoea, and probably some of these are due to irritation of a particular spot on the nasal septum opposite the middle turbinal bones. It is found that stimulation of this area on the septum brings about vagal inhibition of the heart, with consequent arrhythmia. A number of cases have been reported in which the cure of the local septal disease or the removal of the adenoid growths have resulted in the disappearance of the attacks of cardiac irregularity. It is clear, then, that a great many cases of irregular heart may be explained as reflexes from peripheral stimulation. The irregularity is usually in the general rhythm of the heart rather than in its individual beats. That is to say, groups of rapid beats occur, preceded and followed by groups of beats at a

normal rate, or slower than the normal. As a rule, all the beats are about equal in force, and in most cases the arrhythmia becomes regular again when atropine is given and the cardiac terminations of the vagus are paralysed.

The diagnosis of these reflex arrhythmias depends upon two things. In the first place, an accurate history of the conditions under which it is observed must be obtained from the patient, when some reflex or toxic cause for the irregularity will very possibly be found. And, in the second place, a careful examination of the patient's pulse and heart must be made, to exclude organic disease as far as possible, and to find the characteristic irregularity of rhythm by groups of beats, and not by the interpolation here and there of single disorderly beats. If only it were possible, it would be an excellent thing to take polygraph tracings of the pulsations in the jugular vein and carotid artery of the neck, and also of the inspiratory movements in all these cases. But a good deal of time and skill are necessary to use the polygraph recorder, and much experience is needed in the interpretation of the tracings obtained, so that for the general practitioner the use of the instrument seems to be impracticable. So much, then, for the neurogenic arrhythmias, which form the largest and, from a clinical point of view, the least serious group of cases of irregular heart.

We now come to the second group of arrhythmias—the vascular arrhythmias—and they are very few in number and need not delay us long. In these the irregularity of the heart is brought about by interference with the passage of blood to it or from it. In certain rare cases of pericardial adhesions it happens that the newly-formed inflammatory tissue is deposited round the points where the superior and inferior venae cavae enter the pericardium, and it may happen that these adhesions are dragged upon at some phase of respiration so as to kink these thin-walled vessels and prevent the venous blood from reaching the heart in proper quantity. This will cause slowing of the heart and, if it happens during inspiration, will produce what was called the "paradoxical pulse" by Kussmaul (1873), in which the pulse is slowed—and even a beat or two may be dropped—in inspiration. If the adhesions are between the heart and the anterior chest wall, according to Riegel, the pulse will be abnormally slowed in expiration. It must be remembered that both Riegel's and Kussmaul's form of pulse may occur in normal persons. In a few recorded cases of dropping of the diaphragm, with or without enteroptosis, the heart has apparently sunk so low in the thorax as to drag on the arch of the aorta on inspiration, kinking the vessel and preventing the left ventricle from emptying itself, and so producing paradoxical pulse. This cause of irregular heart must be very rare.

This brings me to the intracardiac group of cases of irregular heart—namely, those arising from lesions of the heart itself. The bulk of the work on this subject has been done in the last few years, and is due very largely to the clinical studies and stimulus of Mackenzie. It is to this group of cardiac arrhythmias that the more serious and more frequently fatal cases belong, for the condition is associated with organic disease of the valves or of the myocardium, or of both.

We have already gone into the function of the bundle of His. Its duty is to transmit the impulse to contract, which arises in the sinus region, from the auricles to the ventricles. Now the bundle may be the subject of either functional or organic disease, and may then partially or completely fail to transmit these impulses to the ventricles, and if this occurs some form of cardiac arrhythmia is likely to result. To consider the irregularities caused by functional disorders of the bundle, it may first be said that digitalis, when pushed, may cause irregularity of the heart by lessening the conductivity of the cardiac muscle, and so preventing the normal passage of the impulses to contract. Digitalis first acts on the heart by stimulating the vagus nerve and so slowing the heart; it also increases the force of contraction and the tone of the heart muscle. When given in these therapeutic doses digitalis slows and regularizes and strengthens the heart's action. If the drug is pushed beyond these limits the heart beats faster and more irregularly. The reason for this, according to Cushny, is that the ventricle begins to beat with a rhythm of its own independently of and in addition to the impulses to contract which it goes on receiving from the auricle. This stage of digitalis poisoning is sometimes seen in cardiac patients who are taking digitalis, and is, of course, an indication for stopping the exhibition of the drug. If given in larger doses still, digitalis produces extreme irregularity of the heart, absolute heart-block is established, and the auricles and ventricles beat quite independently of one another. In both these last stages a functional paralysis of the bundle underlies the arrhythmia produced. It is probable that a similar functional diminution in the conductivity of the bundle occurs in patients with slow or irregular pulse after influenza or acute fevers.

If the bundle of His is seriously interfered with or destroyed by organic disease—for example, fibrosis, gumma or other new growth—absolute heart-block is likely to result, with slow or irregular action of the ventricles. In typical instances of heart-block the clinical picture produced is that of Adams-Stokes disease, or slow pulse—28 to 35 beats a minute—combined with syncopal attacks, when for a few seconds the heart ceases to beat at all, as it does from time to time. The diagnosis of this form of irregular pulse depends upon its occurrence in the form of a well-marked syndrome like the Adams-Stokes disease, on the one hand, and on the other upon the securing of evidence, best by means of jugular and carotid tracings, that the auricles and ventricles are not contracting in uniform succession, but independently of one another.

Another category of cases of irregular heart is that in which the irregularity is produced by the interpolation of extra beats or extra-systoles into the otherwise regular action of the heart. The extra-systole is a premature systole due to abnormal stimulation of the heart, and is followed by an abnormally long diastolic period. Extra-systoles occur in a variety of organic diseases of the heart, and probably always indicate myocardial disease or over-strain. Thus they may cause irregularity of the heart in patients with high blood pressure and renal disease in whom compensation is beginning to fail, when they are perhaps due to failure of the left ventricle to empty itself in systole, the residual blood acting as an abnormal stimulus, making the ventricles beat again, but more feebly, before the normal auricular impulse has come down to the ventricle. Such an extra-systole, arising in the ventricle, is known as "ventricular." In patients with mitral disease and dilatation of the left auricle the dilatation may cause the occurrence of "auricular" extra-systoles in an analogous way. It is the interpolation of extra-systoles such as those that make the pulse of mitral disease so irregular, and cause the sounds heard at the apex of the heart to be so very various and confusing in these patients. Many extra-systoles in mitral disease, particularly when they arise from dilatation or paralysis of the left auricle, are very feeble, and of short duration. They may be strong enough to open the aortic valves for a fraction of the normal time, but usually do not get up enough pressure in the left ventricle to open them at all. As I have said, there is always dilatation of the left auricle in these mitral cases, and often the auricle is paralysed as well. This has been shown by tracings taken from a tambour introduced into the oesophagus and placed in contact with the left auricle, and also by venous tracings from the jugular vein; microscopically, the left auricular wall usually shows signs of fibrosis. The question as to what part of the auricle it is that originates these extra-systoles is much disputed. According to Mackenzie they arise because the automatic contractions of the heart cease to originate, as they normally do, in the sinus region, but start instead in the thickened middle part of the bundle of His known as its nodal point.

The diagnosis of this extra-systolic irregularity of the heart depends upon the discovery of the appropriate physical signs. The pulse is markedly irregular in both frequency and force. Sometimes the pulse is what is called a bigeminal pulse, when the beats occur in groups of two; sometimes it is trigeminal, when the rhythm consists of three beats close together and followed by a pause. If the pulse is bigeminal one extra-systole occurs, and if trigeminal two extra-systoles occur, after each normal contraction of the heart. If one or two extra-systoles occur regularly after each normal contraction of the heart, as a rule atropine does not abolish these extra

systoles, while it does do away, for the time, with neurogenic irregularities of the heart.

A very similar irregularity of the heart may occur in overstrain of the heart or in chronic myocarditis. Here the left heart fails, dilatation of the left auricle occurs, and injury is thus inflicted on the bundle of His as well as on the auricular myocardium generally. The heart's action becomes irregular in force and frequency, and extra-systoles occur just as they do in the cases of mitral disease already considered. This paralysis of the auricles occurs when the blood pressure within them rises to 15–20 mm. of mercury.

There is only one more example of irregular heart that we need consider, and that is the rare disease known as paroxysmal tachycardia, in which the patient is liable to sudden attacks of very rapid pulsation of the heart. Here the rate of the pulse, which was previously normal, suddenly doubles or trebles, and reaches 150 to 250; and at the end of the attack it is as suddenly halved or reduced to a third. It is this suddenness in the change of rhythm that is the characteristic feature of paroxysmal tachycardia. The tachycardia up to 140 that comes on in highly nervous or in convalescent patients on slight exertion or excitement is quite different, inasmuch as it comes on gradually and goes away gradually; it is neurogenic in origin and due to temporary loss of the vagus control. It is not possible to say with any certainty what is the mechanism of the arrhythmia in paroxysmal tachycardia. It may be due, as Mackenzie supposes, to a state of affairs in which the auriculo-ventricular bundle of His becomes more excitable, and initiates the cardiac rhythm instead of the sinus region. The heart muscle seems to be abnormally irritable, and it is possible that to some extent paroxysmal tachycardia is neurogenic. The whole subject of the diagnosis of these arrhythmias is extremely difficult, and depends in the last resort upon the interpretation of the pulse tracings obtained from the jugular vein and carotid artery. I do not propose to go into the subject at all—you will find it discussed in most of the recent textbooks on heart disease, and also in a small special volume, which I show you, by Dr. Hay.[1]

As regards prognosis, one has seen a great many cases of mitral disease with irregular pulse live a quiet life for years without any marked symptoms or any deterioration of their condition. But the irregularity which comes on with dilatation and failure of the hypertrophied heart is usually of much more serious importance.

REFERENCE.

[1] *Graphic Methods in Heart Disease.* J. Hay. London: H. Frowde, 1909.

# A Lecture

ON

# THEORY AND PRACTICE IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

DELIVERED AT THE HOSPITAL FOR CONSUMPTION, BROMPTON.

BY

W. CECIL BOSANQUET, M.D., F.R.C.P.,

ASSISTANT PHYSICIAN TO THE HOSPITAL.

THE title of this lecture may suggest to you that I have taken in hand an unduly vast subject, and, indeed, volumes might be filled—and have been filled—with a discussion of theory and practice in relation to tuberculosis. Within the limits of an hour's lecture I can only hope to draw your attention to certain points which seem to be of interest in this connexion. Since by "theory" we mean a connected account of the phenomena of the disease, unified by reference to the underlying cause at work, it is clear that our practice can only be looked on as scientific in so far as it is the outcome of, or at least in accordance with, the accepted theory of the disease. All other modes of treatment must be classed as merely empirical.

The theory of tuberculosis at the present day is, of course, founded on the discovery of the *Bacillus tuberculosis* by Robert Koch, whose recent death we have to deplore. Where there is no bacillus there is no tuberculosis. On the other hand, it is quite possible for the bacillus to enter the human body and yet fail to produce recognizable disease. There is, therefore, more than one factor to be considered, and we must not unduly concentrate our thoughts on the bacillus and forget the patient whom we have to treat. Starting, however, with the bacillus, we know that it produces disturbances in the living body—the sum of these disturbances being the disease tuberculosis—by means of the poisons to which it gives rise, but about these poisons we know little or nothing. This may seem an unduly pessimistic statement in view of the existence of preparations of poisonous bodies formed by the bacillus, to which the name "tuberculin" has been applied, and which can be submitted to chemical analysis; nevertheless it is not inaccurate, as may be seen by considering the nature of the principal tuberculins. The old tuberculin (T. or T.O.A.) is made by growing the bacilli in a fluid medium, filtering off the organisms themselves, and concentrating the filtrate to a small bulk. It thus contains the poisons formed by the bacilli in their growth on an artificial medium. It has been analysed, but the essential toxic principle is still undetermined, though the fever-producing substance is stated to be of the nature of an albumose, a body formed by breaking down of albumen. It is said that albumoses from other sources can induce the same rise of temperature in the tuberculous patient as does the albumose present in tuberculin. It is unlikely, then, that the albumose here is the specific poison of tuberculosis, and no other toxin has been isolated.

A peculiarity, indeed, of tuberculin is that it is not very toxic to healthy animals, whereas it is rapidly fatal in minute amounts to those which are infected with tuberculosis. It seems that the essential poison of the disease is formed by the interaction of two separate bodies. Its action may be compared with the process which has been called "anaphylaxis." If an animal is injected with a small quantity of the serum of one of another species, no harm seems to result; but if at the end of about twelve days a second injection of the same foreign serum is given, serious symptoms and even death may result. The nature of the phenomenon is not well understood, but it is likely that not only the action of tuberculin, but also the peculiar condition known as the "incubation period" of an infective disease, may be ultimately brought into relation with it.

The second form of tuberculin (T.R.) is produced by grinding up the actual bodies of the bacteria, and dissolving or emulsifying them with water; it contains the poisonous substances present in the bacilli. Its action differs somewhat from that of the old tuberculin, and it is therefore different in composition. Either it contains a different poison, or, if the same is present in both, its action is modified by mixture with other substances. Now if the poison formed in a culture differs from that extracted from the bacilli themselves, it is quite possible that the toxin formed within a living body, the actual poison of the disease, differs from both, and we cannot say that we know anything definite about it. We know, however, some of its effects. On the one hand, it produces a local destruction of tissue, which usually takes the form of caseation; and, on the other, it gives rise to constitutional symptoms, such as fever, wasting, sweating, and so forth. Possibly different poisons are at work in the two instances. The disease thus consists of two factors: there is the injury resulting from gradual destruction of some organ necessary for life, and there is also a general toxaemia or condition of poisoning of the whole system. When the malady affects the lungs the destructive process is acting on a large organ, with a considerable margin of tissue beyond what is absolutely needed for ordinary use, so that the disease can go on for a long time without causing death. It is a more chronic disease than, for example, tuberculosis of the kidneys usually is. There are, of course, acute cases of spreading miliary tuberculosis of the lungs in which death is due to toxaemia.

Now, with regard to the treatment of tuberculosis, two courses are theoretically open to us—we may endeavour to attack and kill the bacillus, or we may devote our efforts to strengthening the resistance of the patient. Actually, the former course is impracticable. We cannot bring bactericidal substances into contact with the bacilli in the living body in sufficient strength to kill them without at the same time killing the cells of the tissues. Attempts

have, it is true, been made from time to time to attack the bacilli directly, as for instance, by injecting chemical antiseptics into the veins, but the results were unsatisfactory. Recently some writers have spoken enthusiastically of the administration of volatile antiseptics by inhalation, but theory forbids us to hope for any striking results from this method. If you consider that the germicide is mixed with air and thus passes into the air-passages and out again, it is clear that it is only brought directly into contact with the lining membrane of the bronchi and alveoli; it cannot reach the deeply-seated bacilli which are attacking the tissues, except in minute quantities circulating in the blood. The most that we can hope to effect is to sterilize the contents of the air-passages, or possibly to prevent the occurrence of laryngeal infection, if this is really brought about by direct inoculation from the sputum passing over the larynx.

There remains, then, the second mode of treatment—the attempt to strengthen the resistance of the patient—and it is to this that all our proceedings are now directed. I need not trouble you with any detailed account of the factors in this resistance to infective diseases which have so far been discovered. There is the neutralization of toxins by antitoxins, the destruction of bacteria by chemical (*lytic*) bodies, and the capture and digestion of germs by leucocytes, aided by those peculiar bodies in the serum to which Sir A. E. Wright has given the name of "opsonins." An important factor of which we know practically nothing, and one which is probably of special importance in tuberculosis, is the resistance offered by the cells of the tissues to the bacterial toxins.

Now in the case of other infective diseases it has been shown that antitoxic and bactericidal bodies respectively are formed in the blood in response to the action of the toxins and to the presence of the bacteria in question, and the opsonins of the serum are also produced in response to the stimulus supplied by the bacteria against which they act. There are, indeed, some opsonins, and also perhaps some antitoxins and bactericidins, normally present in the blood, but the greater amount is produced in response to the stimulus induced by infection or injection. The theory of vaccine treatment, as developed in recent times, depends on this mode of action. We have to ask, then, in respect to tuberculosis, whether we can raise the patient's resistance to the disease by some such method. The attempt has, of course, been made by means of the different *tuberculins*. The high hopes first excited by the announcement of the old tuberculin were doomed to disappointment, but the reaction which ensued probably went too far in the other direction. Much harm was done in those early days by the use of excessive doses of the remedy; but since then we have learned wisdom and at least endeavour to follow the old Hippocratic rule, "*Primum non nocere.*" Still, we have to make use of doses which will have some effect, and I do not believe in the efficacy of such minute quantities as one sometimes sees administered—for example, $\frac{1}{200000}$ mg. of T.R. We may start with such a dose as $\frac{1}{10000}$, and work up, perhaps, to $\frac{1}{500}$ mg.

The advice is generally given to use that dose of tuberculin which will just fail to give a recognizable reaction in the form of a rise of temperature. This is naturally a difficult rule to carry out, as, if a certain dose produces a slight rise of temperature on one occasion, it does not follow that it will do the same the next time it is administered; yet it is only by obtaining a slight reaction and then giving a smaller dose next time that we can attempt to carry out the rule. I am inclined to think that the production of a slight rise of temperature is not a bad thing, supposing it does not exceed, say, 1° F., and that it falls again directly. The dose may be repeated once a week or once a fortnight, according to the results obtained, as seen in the general condition of the patient—temperature, pulse, appetite, weight, and so forth. The control of tuberculin injections by estimations of the opsonic index, as has been suggested, is a complicated matter, since the estimations must be made regularly at fairly frequent intervals if they are to be of any value, and they must be made by a person skilled in this mode of investigation. Such control is clearly impossible in the case of the great majority of patients, and experience seems to show that it is not necessary.

The form of tuberculin usually employed is Koch's T.R., but some physicians prefer the preparation known as "emulsion of bacilli" (T.B.E.), in which the entire dead bodies of the bacilli are used as the vaccine. Other kinds of tuberculin have been devised, such as Béraneck's and Denys's. These are prepared in specially convenient forms for administering graduated doses by means of a series of dilutions, and have been highly spoken of on the Continent, but they do not seem to have been used much in this country.

As to the cases which are suitable for tuberculin treatment, it is difficult to lay down distinct rules, but for my own part I am not inclined to give tuberculin to febrile patients, though some observers state that a diminution of fever may result from this treatment. I am also sceptical as to the value of tuberculin given by the mouth. At all events, as the pain of an injection is inconsiderable and action by this route is certain, this method is to be preferred. In some forms of tuberculosis, notably those affecting bones and joints and the genito-urinary system, the results of treatment with tuberculin are very encouraging. On the other hand, in pulmonary disease the remedy seems on the whole disappointing. There is a curious feature about tuberculin treatment which I cannot explain, and that is that while apparently existing disease may be favourably influenced and seem to be subsiding, yet some other focus may suddenly appear meanwhile. It is difficult to explain this on any theory of increased general resistance to the bacillus.

An attempt to obtain an *antitoxic serum* for tuberculosis has, as you doubtless know, been made by Marmorek, but, in pulmonary disease at all events, it has proved a disappointing remedy. Even the exact nature of this preparation seems doubtful, as it seems, when injected subcutaneously, to cause a fall in the opsonic content of the serum, thus acting like tuberculin. It is not impossible that the remedy really contains a small amount of this substance, and that its action is due to its properties as a vaccine. In any case, its potency in pulmonary tuberculosis is very small; better results seem to be obtained from it in disease of bones and joints, as with tuberculin. On the whole, we have to confess that specific remedies are diappointing in consumption.

We come, therefore, to general measures for strengthening the resistance of the patient—food, exercise, and so forth. With regard to *food*, theory teaches us that protective substances are formed by the cells of the body, and that to some extent they are to be compared with secretions. Now, for the formation of a secretion a plentiful supply of food materials must be brought to the cells of the gland concerned; and similarly for the production of antibodies good nutrition is required. No doubt the resistance of the individual cells to the destructive process to which I previously referred also requires the presence of adequate nourishment. We also know that in all febrile diseases there is an increased breaking down of tissue, shown by an increased excretion of nitrogen. The diet in tuberculosis must therefore be liberal. Fortunately in a great number of cases, even in the presence of fever, the digestion is still capable of dealing with ordinary viands, and we can give meat and other solid food freely, the condition thus differing from such diseases as the acute specific fevers, in which the patient can take little more than fluid diet. But, because we are endeavouring to supply plentiful food, we must not therefore lose sight of the ordinary principles of feeding—namely, that we must not administer more than the digestive organs can deal with or the system assimilate. In the early days of sanatorium treatment it used to be the fashion to force upon patients enormous meals, insisting on the whole amount being swallowed even if the sufferer were kept at the table so long as almost to cause one meal to run into another. The consequences were the reverse of beneficial—the digestion was upset and nutrition suffered instead of being stimulated. Actually, one of the most important objects in the treatment of consumption is the keeping of the digestive organs in the best possible order; they must not be overtaxed, but aided to work at full pressure. The existence of a good appetite is a factor of importance, since it seems that the secretion of gastric juice is influenced by it to a considerable degree. Thus it is that we find one of the most valuable aids in hospital work is the old-fashioned mixture of gentian and soda, which promotes appetite and helps digestion. The

addition to it of a few drops of tincture of nux vomica is often useful, as strychnine seems to act as a tonic to the nervous system, raising the vigour of the reflexes and counteracting the sensation of lassitude and depression.

The food that may be given to the patient embraces practically all wholesome articles of diet, and need not be too carefully specified. In addition milk may be drunk both with and between meals, and some additional nourishment thus absorbed. Fats are useful if they are well tolerated, and may take the form of bacon, cream, and butter, as well as cod-liver oil. Recently some theoretical support has been afforded to the almost universal empirical use of this last drug in tuberculosis. Dr. O. T. Williamson finds that the oil contains special fatty acids of the kind chemically described as "unsaturated." These seem to have a definite effect in promoting nutrition, but in addition to this they may exert an action on the tubercle bacilli themselves. These organisms are provided, as you no doubt know, with a coat consisting of a peculiar form of wax, to which their special staining properties are due, and which protects them to some extent against the action of the vital fluids. Unsaturated fatty acids, according to Williamson, have some power of dissolving this coat, and so aiding in the destruction of the parasites.

The question of the use of alcoholic drinks often comes up in connexion with the treatment of consumption. Prejudice apart, alcohol is undoubtedly a food, as it is capable of generating heat, and takes the place of other food material to some extent. It does not seem called for as a rule in pulmonary tuberculosis, but it is not specially contraindicated if taken in moderation. Some patients who have been used to taking a glass of beer or stout with their meals miss this if it is withheld; others find that this or a glass of wine is an aid to appetite and digestion. Here, as in other matters, each case must be a law to itself. The same may be said of tobacco. There are few persons to whom it does harm in moderation, and it is needless cruelty to deprive a consumptive of the solace of his pipe if he will only smoke the amount stipulated by his physician. Cigarettes are usually forbidden, owing to the habit of inhaling the smoke from them. Apart from this, they have no special demerit as compared with other forms of smoking.

A patient treated by a course of plentiful, not to say forced, feeding will usually increase in weight, and this increase may as a rule be regarded as a measure of his improvement. It is, indeed, the most important single guide that we possess, but by itself it is not sufficient as a true index of progress. The gain of weight is a proof that the tendency to wasting is overcome, and that the balance of nutrition is in the patient's favour. But the gain is largely due to deposit of fat, and this is an inert tissue, not in itself indicative of health in a consumptive any more than in a healthy person. We must remember that the consumptive only differs in certain respects from the normal person, just as the temperature in disease shows the same diurnal variation as in health, and he must to a great extent be judged by the same standards. Too much fat is not advantageous. A consumptive person may be fat and yet be going downhill.

Consequently a change has come over the spirit of our treatment, and whereas it was formerly the custom to treat cases of consumption almost entirely by rest, it is now recognized as advisable to give them an adequate amount of exercise. One wishes to get them into the best possible condition of general nutrition, not merely to make them heavier. The provision of exercise has now become almost a fine art in itself, and not only are measured and graduated walks mapped out at the institutions for consumptives, but a scale of labour has been devised in which the patient advances from light gardening to hard navvy's work. At the exhibitions which have been held in different parts of the country you may have seen the different sized shovels and baskets which are used to maintain a definite scale of progression from lighter to harder work. Much ingenuity has been devoted to this subject, and there seems to be a tendency to ascribe an undue importance to this matter of work, as if in itself it constituted a specific remedy for tuberculosis of the lungs.

This matter of practice is now supported by a new development of theory, by which it is taught that the effect of exercise is to cause a liberation of tuberculin in the patient's system, and to this theoretical process the name of "autoinoculation" has been applied. The ground for the belief seems to be that exercise causes a rise of temperature in a tuberculous patient, and also a fall in the opsonic index of the blood, just as an injection of tuberculin does; therefore, it is argued, the process is the same in each case. Further (if we believe the enthusiasts), not only is the process identical, but it is also different, in so far as the patient, as a result of exercise, is held to inoculate himself with "his own tuberculin," which is of superior efficacy to a foreign tuberculin, inasmuch as it is the poison produced by the very race of bacilli which are attacking him, and so gives rise to exactly the kind of antibody required. The word "autoinoculation" appears to possess a comforting sound, for it figures largely in most discussions on the treatment of tuberculosis in these days. It is well, perhaps, to bear in mind that it is largely a hypothetical process. A rise of temperature as a result of exercise occurs in normal persons; and as the tuberculous person is one whose temperature is easily modified it may merely be that he exhibits this rise after exercise more readily than the healthy man. On the other hand, the nature of the opsonic property of the serum is but little understood, and we must not build too much on it as a groundwork for theories. Whether this theory is true or not, it is certain that work is no more a specific remedy for consumption than is rest or cod-liver oil. It is very useful in suitable cases, but it may even do harm in others. This was forcibly brought home to me by the case of a young man whom I saw recently, and who went to a sanatorium where work was the order of the day. He was a thin, anaemic youth who had been a clerk in an office, unused to manual labour. After a few days of rest he was put to work, and as his temperature did not rise as the result of it he progressed through the different grades till he did the hardest work. His weight did not improve (and he was a thin subject with room for improvement), and when I saw him after he left the sanatorium he reported that he had always felt that the work did harm rather than good. He went rapidly downhill subsequently. I feel sure that he would have had a better chance of recovery if he had been treated with much more rest and less labour. It seems likely that in this case a mistake was made in judging of the effect of the treatment by one test alone—that of its effect on the temperature. It was assumed that as he had no fever the work was not too severe. In estimating the course of a case of consumption we must take all the circumstances into consideration—weight, temperature, pulse, digestion, feeling of illness or health, and so forth. Each case must be the measure of its own needs; there is no one remedy or regimen applicable to all.

You will think, perhaps, that in insisting that there is no universal specific remedy for consumption I am ignoring the most important advance which has been made in the treatment of it—the use of fresh air. No one can question the enormous benefit that has been conferred on the sufferers from tuberculosis by this revolution in treatment. Patients were undoubtedly killed—their deaths were hastened—by the old-fashioned method of keeping them in hot, unventilated rooms, under the idea that a febrile patient was liable to catch cold from the least contact with fresh air, and that he must therefore be protected from it by closing windows and doors as barriers against the enemy. Naturally, the disease was then more rapidly fatal than it is now, and its mortality far greater. It must, indeed, have been fortunate for a tuberculous patient in those days to escape diagnosis, while now we devote all our energies to early recognition of the disease, in order to have a better chance of curing the sufferers. Fresh air is indeed a specific remedy for consumption, in so far as without it recovery is improbable; but the truer way of stating it would be that vitiated air is a direct poison to the consumptive, and that what we aim at is the removal of this poison rather than the administration of a direct remedy. And it is becoming more and more widely known now that it is not only in consumption that fresh air is beneficial, but in all diseases. Acute pneumonia and the other infective fevers are all better treated in a plentiful supply of fresh air, and even in so apparently diverse

a condition as insanity it has been found that open-air treatment is often strikingly beneficial.

With the advantages of open-air treatment are closely connected the subjects of sanatorium and climatic treatment of consumption. In the minds of many persons, indeed, open-air treatment is synonymous with life in a sanatorium, and it is hardly realized that patients can be treated except in an institution devised for the purpose. There are, indeed, certain obvious advantages attached to treatment in a sanatorium. In the first place, the building is adapted especially to the purpose of treatment. The rooms are spacious and the windows large; they are arranged so as to avoid any objectionable wind that may prevail, and to catch a goodly amount of sunshine when it is vouchsafed. There are grounds suitable for exercise, and often paths measured out so that walks of known length and of suitable degrees of incline may be taken by the patients. There may be arrangements for gardening and a graduated scale of work. Then the hours of rising in the morning, of taking meals, of resting and going to bed, are carefully mapped out, and the patient has to conform to the ways of the institution in these respects. Finally he is under constant medical supervision: the state of his health is carefully observed and recorded, his temperature and pulse are taken at regular intervals, his appetite is observed and his meals are supervised, and the state of his bowels is regulated—in short, every detail of his daily life is controlled with a view to improvement of his health. In some cases the very association with other sufferers from the same disease may be of advantage; it may relieve depression and inspire hope—and there is no doubt that a contented, hopeful and determined disposition is of immense value in aiding recovery in this as in other diseases.

Who, then, are the patients who specially need this treatment in a sanatorium? They are, first, those whose homes are insanitary or otherwise unsuitable for an open-air life—town dwellers who cannot afford to change their abode to some more suitable place; those who live in damp and swampy neighbourhoods; members of large families whose homes cannot be turned upside down, as is necessary for systematic open-air treatment; all who need definite stimulus to change their ordinary routine of life or who have not intelligence enough to carry out a scheme of treatment without constant supervision; and, finally, those who, in this age in which self-control is so little cultivated, cannot be trusted to forego the pleasures and dissipations of life or to sacrifice any present indulgence for the sake of future good. All these need institutional treatment. But scarcely any sufferer from consumption would fail to derive advantage of an educational kind from a short stay at a well-managed sanatorium, as the details of treatment are much more readily impressed on the mind by practice than by precept.

Apart from this, there is nothing in the treatment carried out at a sanatorium which cannot be equally well managed at home by those whose means permit. A shelter set up in the garden serves admirably for an open-air life; ordinary forms of exercise, such as walking and riding, will serve to keep down a tendency to mere formation of fat, and will keep the digestion in good order—will effect the necessary "auto-inoculation," if you prefer to put it in that way; ordinary diet and times for meals, with but few additions, are quite suitable; and the patient will still enjoy the benefits of home life and society. And we must remember that most sanatoriums refuse to accept patients in any but the initial stages of the disease; and this is especially the case with the institutions which have to justify their existence or advertise themselves by statistics of cures. It is difficult, then, or impossible for a sufferer with developed consumption to gain admission to such a home, and we have to make the best of home conditions in his case. Even in such instances it is worth while to make every effort to obtain arrest of the disease; we should not despair even in cases which appear almost hopeless, and excellent arrangements can be made for such patients in their own homes by a little care and management. I have reason to remember the case of a lady who was found, after parturition, to be suffering from unsuspected tuberculosis, which not only involved both lungs, but also the larynx. It seemed impossible that she should survive more than a few months; but, with a view to prevent pain in swallowing, the affected epiglottis was removed, and she went down to her home in the country and lived a strict open-air life. The trouble in the throat and lungs quieted down, and she was restored to a comparatively active life, living, I think, six years, and ultimately dying, not of the pulmonary disease, but of an outbreak of tuberculosis in the kidney and bladder. The case illustrates both the possibility of arrest of tuberculosis in apparently hopeless cases, and also the adequacy of an ordinary country house for all the purposes of open-air treatment. We have also to bear in mind that a person who has contracted tuberculosis through living in unfavourable circumstances—perhaps with insufficient food, in an insanitary house away from light and air—and whose disease has progressed owing to continuance of these conditions, may have a better chance of recovery when placed in a suitable environment than one who has recently contracted the malady while surrounded by comfort and plenty. There is nothing more that a sanatorium, for example, can offer to the latter; he has broken down in spite of all advantages, owing to complete lack of natural resistance. To the former, on the other hand, the new life of plenty and fresh air means a relief from the depressing factors which dragged him down, and offers a chance of fighting the disease on equal terms. But, unfortunately, a patient of this type often returns, when his disease has been arrested by treatment, to the same depressing conditions which originally broke down his resistance to the bacillus. Hence, too often the good done is done in vain, and relapse occurs within a short time of leaving the sanatorium and returning to work. It is clear that effective treatment of consumptive patients from the poorer classes must not begin and end with a temporary spell of open-air life, but that care must be exercised over such a man after his return to his ordinary life, to assure that his occupation and surroundings are not such as to endanger the newly acquired balance of health. At present this question of the after-care of consumptives is one of the most difficult which we have to solve. Out-of-door occupations cannot always be easily found for such persons, and it has even been argued that the best thing for the patient is to return to his old occupation, irrespective of its nature, so that he may not run the risk of semi-starvation while looking for a suitable job. The advice may be good as circumstances at present prevail, but it clearly is not the ideal course of treatment.

Lastly, we come to the question of the climatic treatment of consumption. On the side of theory, we have to ask what exactly is meant by climate in this connexion—what influence on the disease can be exerted by mere change of locality? It is said that the actual proportions of the atmospheric gases—nitrogen, oxygen, and carbonic acid—vary a little at different parts of the earth's surface. The density of the atmosphere, of course, varies with the height above the sea-level, mountain air being rarefied, containing a smaller number of molecules of gas in a given volume. The air at high levels and in sparsely inhabited places also contains fewer germs than, for example, in towns, and these latter naturally contaminate their atmospheres with particles of soot and with chemical products of combustion (sulphuric acid and the like). Apart from this, places differ in their rainfall and the resulting humidity of the soil and the air; in their temperature; in the matter of the winds which prevail at different seasons, and the dust that these may carry; and in the amount of sunshine and cloud that may be expected. We can, of course, decide at once that the consumptive patient should not live in a large town if he can do otherwise, owing to the contaminated state of the air, and the difficulty of there leading a strict open-air life. There remains, for those who can afford to choose, the question of residence in a mountain resort, or at home in the country, or at the seaside, or the prescription of a sea voyage. Of course, there are many modifications, such as spending the summer in this country and the winter abroad.

Speaking in general terms, consumptive patients seem to do better in fairly cold than in hot weather, and better in dry than in damp places. But there are exceptions to the former statement, at all events, and we have to judge by our knowledge of individual cases what seems best in each instance. It must be confessed that we often can only experiment carefully in the matter, and even those who

have devoted most attention to climatic treatment make mistakes in particular cases.

Mountain climates are usually colder than the plains, and the loss of heat from the surface of the body acts as a stimulus and promotes nutritive changes. At the same time the rarefaction of the air stimulates the respiratory system, and an actual increase in the number of blood corpuscles is said to occur, to compensate for the smaller amount of oxygen inhaled at each breath. Now it is clear that the stimulus applied needs a certain degree of vigour in the subject, if the reaction is to be complete and beneficial. This warns us that we must select cases for this treatment with some care. We should choose, if possible, those in whom the disease is not far advanced, so that they are not exhausted by it; young persons rather than old; persons who appear comparatively robust and well nourished, possessing plenty of vitality and power of adaptation.

Very much the same considerations apply in a general way to the choice of a bracing seaside place, but here the stimulus is less sharp, if it may be so expressed—there is not the rarefaction of the atmosphere to compensate, only the stimulus of bracing air. Not only early, but moderately advanced cases may do well in such resorts as our East Coast watering places, but for debilitated cases we must choose a time of year when the air there is warm—summer, not winter—though robust patients do well here in the winter also. For more debilitated sufferers who cannot endure cold, warmer spots must be selected, either on our South Coast or inland. (I speak of our own health resorts alone, for I believe that they are just as beneficial for consumptives as are places on the Continent.) Sometimes this class can advance from a warmer to a more bracing climate as their strength improves. Persons with a weak circulation, shown by coldness and blueness of the extremities and feeble pulse, need warm climates. Those with weak digestions also seldom bear cold places well, and old persons have naturally less reserve power on which to draw. The existence of much emphysema of the lung usually contraindicates very bracing air. Nevertheless, I can only repeat what I said before, that each case is a law to itself, and advice is largely experimental.

It has often seemed to me that we are too much inclined to recommend residence or wintering abroad, even in cases which are unsuitable. I have especially in my mind the case of a gentleman owning a large estate, who had fairly advanced tuberculosis and was sent by one of our climatic authorities to winter in Egypt. He went, but found the hotel life much less comfortable than his home conditions. The journeys to and fro were exhausting, and it took him a considerable period of time to recover from the ill effects of his expatriation. We have also to consider all the circumstances of our patients—their social proclivities and dislikes, as well as their physical conditions—and also the general amenities, if I may so express it, of the places to which we send them. The question of hotels and lodgings is not an unimportant one, and the financial means of the individual sufferer bear largely on the question of the most suitable course for him to pursue.

A sea voyage has been recommended for the cure of consumption from very early times and considerable faith is still placed in it by many. On board ship there is, theoretically, plenty of fresh air, of a bracing kind, which stimulates the appetite. Rest is almost enforced, for there is little opportunity of exercise. On the other hand, there is, in the first place, the risk of sea-sickness, which may be very exhausting. There is the possibility of bad weather, when the passengers are to a great extent confined below in somewhat defective conditions of ventilation; the food is often monotonous and unappetizing; the doctor on board may be somewhat of a novice; and on the larger ships there is also the temptation to more social gaiety than is suitable for an invalid. Here again we must weigh all the circumstances of each case, and not prescribe this mode of treatment indiscriminately.

If I may sum up what I have been endeavouring to put before you it is that there is no specific remedy or universal mode of treatment for tuberculosis of the lungs. Neither tuberculin, nor rest, nor work, nor mountain air, nor a sea voyage, nor a sanatorium, is an infallible remedy to be administered to all, as we give quinine for malaria or mercury for syphilis. We have to study the individual patient, his circumstances and his idiosyncrasies, and, armed with this knowledge, to try to raise his resistance to the bacillus and its poisons. Fortunately the human organism has considerable powers of resistance, if it is not debilitated by adverse conditions; and though we must, above all, endeavour to recognize cases early, before the disease has advanced far, yet even in advanced cases there is always hope of arrest of the disease or at least of a temporary reprieve and prolongation of life.

## A SERIES OF ONE THOUSAND INOCULATIONS, CHIEFLY IN PRIVATE PRACTICE.*

BY

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YELVERTON.

AMONGST the many scientific achievements which have marked the opening of the twentieth century there is, perhaps, none which stands out so remarkably as the treatment of disease by means of vaccines. The medical world still waits to see the actual results of this new treatment before surrendering unconditionally to its claims. It seemed to me, therefore, that the publication of a series of 1,000 inoculations, tabulated without either suppression of unsuccessful cases on the one hand or italicizing of successful ones on the other, might be of use to the members of this society in assisting them to appraise the actual merits of vaccine-therapy when shorn of the inevitable halo of romance which ever enshrouds a new thing.

I do not propose to enter in any way on the technique of inoculation work, either by describing the methods of preparation of the vaccine or of determining the opsonic index, as these things are well described in other papers, but I should like to express my indebtedness to Allen's book on the opsonic method of treatment, which gives such extremely lucid descriptions of all the laboratory technique involved, though one might suggest that in some respects the work is made unnecessarily laborious.

As to the site of injection and method of sterilizing the skin, however, a word or two may not be out of place. The anterior surface of the thigh is the least painful, and in any patient who is at all needle-shy, I always inject in this region, varying each time the exact locality. Other situations are into the extensor surface of the upper arm, the deltoid, or into the skin of the abdomen, but I have usually avoided the conventional site, namely, that of the intrascapular region, as the skin is so tough that it is extremely difficult to avoid hurting the patient. Sometimes I give the injection deeply into the muscles, sometimes subcutaneously, but I do not believe the result is affected. One tries to avoid puncturing a venule, as this gives rise to an ugly looking bruise, owing to extravasation of blood under the skin.

The vaccine is usually taken direct out of a stock bottle by plunging the needle of a sterile syringe through a drop of lysol placed on the rubber cap which covers it. The amount required is withdrawn. A drop of pure lysol is then placed on the site of injection and the needle driven into the skin through the drop. This method, originally introduced, I believe, by Sir A. E. Wright, has proved quite safe. I have never known any local trouble arise at the point of injection as the result of sepsis.

Wright's method is also used for sterilizing the syringes, oil at 140° C. being substituted for boiling water. This prevents rusting of the needles. The syringe with which I have operated latterly is one made by S. Maw and Sons, which screws into a metal case and can therefore be preserved in an aseptic condition.

The vaccines have all been home-grown, with the exception of acne and tuberculin. The former I have never succeeded in making, and the latter is easily and cheaply purchased in bulk from the makers, Meister, Lucius, and Bruning. No vaccines have been administered by the mouth.

I have grouped my cases as far as possible under the causative germ, and have then divided each group into three classes, Alpha, Beta, Gamma. My reason for substituting these symbols for the time-honoured "cured," "improved," and "failed," or "died," is that my most important work is in phthisis, and in this disease it is

* Read before the Plymouth Medical Society, November 16th, 1910.

largely a matter of pious opinion whether a case is cured or not. At any rate, from recently published sanatorium statistics, it does not appear that all the cases which have figured on the books as discharged cured have entirely confirmed that judgement. I am certainly under the impression that the cases of phthisis which have been marked Alpha in my series are cured, but the time is too short to admit of a certain judgement being passed upon them. I prefer, therefore, to say that these Alpha cases fulfilled my most hopeful anticipations. The Beta cases did well at the time, but are known to have relapsed afterwards. The Gamma cases in phthisis did badly and died; in other diseases, unless specially mentioned, simply failed to respond to vaccine treatment.

Series I deals with cases in which the chief infecting agent was a staphylococcus.

SERIES I.

| Nature of Infection. | Number of Cases. | Alpha. | Beta. | Gamma. |
|---|---|---|---|---|
| Whitlow ... ... ... | 4 | | — | — |
| Furunculosis ... ... | 7 | 7 | — | — |
| Acute otitis media ... | 3 | 3 | — | — |
| Dermatitis ... ... | 2 | 2 | — | — |
| Lymphangitis ... ... | 2 | 2 | — | — |
| Abscess ... ... ... | 2 | 2 | — | — |
| Carbuncle ... ... ... | 3 | 3 | — | — |
| Impetigo ... ... ... | 1 | 1 | — | — |
| Pyaemia ... ... ... | 1 | — | 1 | — |
| Acne ... ... ... | 5 | 3 | 2 | — |
| Suppurating eczema ... | | | 1 | — |
| | 32 | 28 | 4 | 0 |

In such a list as this, embracing as it does chiefly common and curable ailments, it is certainly not enough to state simply the fact that so many cases were treated, and that such a percentage were cured; for, with the exception of acne and suppurating eczema, all of which had been extremely chronic and of long standing, there is no reason to suppose that the series of cases here enumerated would not have recovered without any vaccine treatment whatever. At the same time it is only fair to say that they were bad of their kind. In the staphylococcus infections, then, the length of time required to attain a cure must be one of the standards by which the value of vaccine therapy must be judged, and, I would also add, the extent of the damage done to the tissues.

Bearing, then, these two criteria in view, I will run over the different infections treated.

*Whitlow.*—Four cases, three on the finger and one on the great toe. Two of these I caught within twenty-four hours of the incidence. There was redness, swelling, and acute pain at night preventing sleep. In each case 100 million of a stock vaccine was given, and the next day all sign of the lesion had disappeared. One I incised, as pus was present, and had been oozing for ten days. Fifty million resulted in cure within forty-eight hours. The fourth was a bad case, with an open sloughing mass at the end of the finger. Fifty million was followed by cure in a week.

*Furunculosis.*—Seven cases. These had on the average two doses apiece, and in general I gave one of 50 million followed in three days by 150 million. Three of the cases were extensive. These were free from their trouble in three weeks at the longest, the other cases were cured in less than a week. None have suffered relapse to my knowledge, and all had histories of some considerable time.

*Acute Otitis Media.*—Three cases. One was a young man of 22, who developed the trouble after an attack of influenza, which was already complicated by dilatation of the heart. There was a scanty thick discharge. He complained of extreme aural pain and complete loss of hearing on one side, with diminished hearing on the other. Both mastoid processes were very tender, and his condition caused me considerable anxiety. He had five inoculations of an autogenous vaccine varying from 50 million to 500 million during five weeks, when cure was complete and hearing perfect. The other two cases were in children, and I brought them to the notice of the society last year. It will be remembered that the organism was a Gramming diplococcus, I believe an aberrant staphylococcus, and that though the children were very ill, and one of them had a quantity of pus over the region of the mastoid, and possibly antral infection, yet both recovered rapidly and completely within three weeks. The children were sisters, and developed middle-ear disease as a result of a virulent "cold in the head." I am at the present moment treating a case of chronic otitis media of several years' standing in an adult who is stone deaf as the result of former catarrhs. The discharge, which was very offensive, ceased after the first dose of 50 million of an autogenous vaccine of *pyocyaneus*, though it has recurred slightly from time to time, but the giddiness and pains in the head, from which the man suffered acutely, have completely disappeared. One can almost vouch for the effect of the vaccine in this case, as the symptoms reappeared, when, after the third dose, he refused further treatment, alleging perfect cure. Since then, on resuming treatment, the symptoms have again cleared up. The deafness has been in no way improved.

*Dermatitis.*—Two cases, both in children and accompanied with the formation of bullae and in one of pus in the blebs. The first seemed to be cured after one dose of 10 million—this an infant of twelve months; the other required some six weeks' treatment.

*Lymphangitis.*—Two cases, both acutely febrile, and each on the arm, arising from a small infection of the fingers. Both had but one dose, and the whole condition—original wound, axillary glands, and inflamed lymphatics—had become apparently well in forty-eight hours. I was much astonished at the result in these two cases, especially as it has been alleged that vaccine-therapy is only of use in chronic infections. My experience is rather that the more acute the condition the more dramatic is likely to be the result of an inoculation of the causative germ, provided only that the dose is approximately correct. One would suggest that it should be so small that it can by no means add fuel to the fire, and increase appreciably the amount of toxin circulating in the blood, yet at the same time it must be large enough successfully to stimulate the organism to repel the invader. Every vaccine that is made differs, but, roughly, in acute disease I have found 50 million of staphylococci to be the right dose. In all acute infections it seems better to use a stock vaccine, one of which one knows approximately the effect of a given dose, than to give an autogenous vaccine, where the dose may be numerically the same, yet of great difference in toxicity. I am inclined to adduce the rule, "In acute disease give stock vaccines."

*Abscess, Carbuncle, Impetigo.*—I have no particular comment to make on these, six cases in all, except that they all did well and seemed to heal quickly.

*Pyaemia.*—One case only. I did not see that case, but prepared the vaccine and took the opsonic index regularly. I believe the medical man in attendance was satisfied that the vaccine had assisted greatly in the improvement which took place, though afterwards other conditions developed which proved fatal.

*Acne.*—This is one of the original diseases treated by vaccines, and it is one of the most difficult to cure. A certain number of cases seem to do splendidly, with any vaccine you like to give them, either staphylococcus or acne, and these are the younger subjects, whereas others again are only relieved after a very prolonged course. I had one man under treatment for a year. He got well eventually after I had given him both vaccines combined. I have a case now on hand, a girl of about 25. I do not know whether she will get well. She is peculiar in that she gets sharp reactions even from so small a dose as 1 million acne and 5 million staphylococcus. But as long as reactions occur, one is not inclined to give up hope. The great secret, I believe, is to find the ideal dose and to stick to it.

SERIES II.

*Infections by the Streptococcus.*

| Nature of Infection. | Number of Cases. | Alpha. | Beta. | Gamma. |
|---|---|---|---|---|
| Septicaemia ... ... | 2 | 2 | — | — |
| Wound infection ... | 1 | 1 | — | — |
| Nasal catarrh ... ... | 1 | — | — | 1 |
| | 4 | 3 | — | 1 |

Streptococcus is one of the most difficult germs to work with, but it is well worth the labour. Although the cases are small in number, the results correspond with such as have been published in the quite dramatic success which has attended their administration in acute conditions.

It was due to the streptococcus that I first embarked on this line of work, and possibly that accounts to some extent for my kindly feelings for this virulent germ.

The following are the details of two cases :

1. A woman was run over by a motor bus with some twenty people in it. The car passed over both her legs, and, though it caused a very great amount of laceration of the tissues, yet no bone was broken. I attended the woman for some time, but the damaged tissues broke down, the inflammation extended, and eventually I was confronted with a leg which I can only describe as a bag of pus from end to end. I tried my best to promote drainage, but the temperature continued to rise, and I decided that the only chance to save the woman's life was to call in a surgeon to amputate. I had sent some pus up to Dr. Freeman at St. Mary's Hospital, and he reported a streptococcus infection and advised a vaccine. This he kindly prepared, and I had given the patient half a million dose without apparent effect. At this time she was very bad, with a temperature remaining about 104°, and in a thoroughly septicaemic condition. Two days later, in accordance with Dr. Freeman's directions, I gave 3 million. At her husband's special request I consented to wait three days before resorting to radical measures, though it was not without extreme anxiety and misgiving. On the third day I found, to my relief, that the temperature had dropped from 105° to normal, where it remained, except for a slight rise about a week later. The leg proceeded to heal most satisfactorily.

I firmly believe that in this case the vaccine not only saved the woman's leg, but probably also her life.

2. My other case of septicaemia was in a boy of 10, who developed acute pain in the ear after an operation for tuberculous glands. The abscess broke and a streptococcus was found in the discharge. Notwithstanding free drainage he continued feverish. Symptoms of septicaemia appeared and I considered his condition precarious. He was given two doses of half a million each at an interval of three days, when the temperature dropped; after a further 1 million the discharge cleared up.

The wound infection was a psoas abscess associated with high fever. The vaccine was of great benefit. This case is noted as a cure under tuberculin.

The nasal catarrh was apparently caused by an extremely long streptococcus. No conceivable dose had any effect whatever. This case was a complete failure under my treatment.

SERIES III.

*Infections due to B. Coli Communis*

| Nature of Disease. | Number of Cases. | Alpha. | Beta. | Gamma. |
|---|---|---|---|---|
| Nephritis ... ... ... | 3 | 2 | 1 | — |
| Mucous colitis ... ... | 1 | — | 1 | — |
| Ischio-rectal abscess ... | 1 | 1 | — | — |
| Appendix abscess ... | 1 | 1 | — | — |
| | 6 | 4 | 2 | — |

All the above rather varied cases began treatment under opsonic determinations, as I found it easier to arrive at an effective dose through this means. In some cases, which seemed particularly wayward, indices were observed throughout. I find that the most usual dose was from 2 to 5 million.

*Nephritis.*—Three cases. Tenderness in the loin, an enlarged kidney, and *coli* bacilluria. Two uncomplicated cases got well, but one in which the kidney was also tuberculous relapsed after a few weeks' inoculation and eventually died.

*Mucous Colitis.*—My single result conforms to the statements of others: temporary improvement, amounting to freedom from mucus and pain; relapse; vaccines then useless.

*Ischio-rectal Abscess.*—This had been operated upon, had become chronic, and refused to heal. Vaccines were immediately successful.

*Appendix Abscess.*—I cannot claim this case in any way as a triumph for vaccine-therapy. I do not know what effect the vaccine had, but at the operation, within forty-eight hours of the commencement of an acute attack, a dirty, sloughing appendix bathed in foul pus was removed, and I made a vaccine from a scraping of the organ. Two doses were given and it seemed possible that the post-operative temperature, which subsided six hours after the first dose, had been favourably influenced. On general grounds one cannot but feel that in every case of this kind, where large amounts of pus are found in the peritoneum, a vaccine should be prepared and administered as soon as possible, when I venture to think that the accident of fatal peritonitis would seldom if ever occur. In my case the child recovered without incident, but so she probably would have done without the vaccine.

SERIES IV.

*Infections of the Respiratory Passages other than Tuberculous, and Caused by the Pneumococcus, M. Catarrhalis, Bacillus of Friedländer, and the Bacillus of Influenza.*

| Nature of Disease. | Number of Cases. | Alpha. | Beta. | Gamma. |
|---|---|---|---|---|
| Nasal catarrh ... ... | 2 | 2 | — | — |
| Bronchial catarrh with emphysema ... ... | 5 | 4 | — | |
| Unresolved pneumonia | 1 | 1 | — | — |
| | 8 | 7 | 0 | 1 |

*Nasal Catarrh.*—These two cases did well. One was a chronic case of twenty years' standing, in which the infection was by Friedländer's bacillus; the frequent colds ceased, and the constant hawking diminished greatly. The other case was associated with hay fever, and began with an attack of influenza four years previously. From this potential "carrier" the *B. influenzae* was isolated. It existed, apparently, in almost pure culture (with just a few *M. catarrhalis*). A vaccine from the former had no effect, whilst the latter succeeded. This case bears out Allen's contention that the *B. influenzae* requires another germ to assist it in its growth, and that its injurious qualities depend on the existence of this symbiotic companion.

*Bronchitis and Emphysema.*—Of the five cases two were infected with the pneumococcus alone, two by the *M. catarrhalis*, and one by a mixture of both, together with Friedländer's bacillus. All did well with the exception of one case, a very "dry" case, in which the sputum was extremely scanty. This case did not respond at all to vaccine treatment. I would regard such a "dry" case as unfavourable on general grounds. I was delighted with the improvement shown by the other patients, and my results fully bear out those of Carmalt Jones. It is so seldom that one can do anything to mitigate the distressing cough and dyspnoea which periodically prostrates these unfortunates. One old gentleman was so dependent on his vaccine that when he went abroad for the winter he took some doses away with him and used them as required. In a few months he sent for a fresh supply. I would strongly recommend this treatment in cases of "cardiac asthma," where bronchial secretion causes discomfort.

*Unresolved Pneumonia.*—One case. Here I found Friedländer's bacillus in pure culture. I gave two doses of 50 million and 100 million respectively with an interval of three days. The whole condition cleared up within forty-eight hours after the first inoculation, although the man had been in bed for a fortnight with high temperature, and extreme dyspnoea on the slightest movement. He was in fact very ill. The whole of the right chest was

involved. I would like to draw special attention to this case, for the reason that the causative germ was that of Friedländer. I have made many vaccines from growths of this bacillus to combat secondary infection in phthisis and always with remarkable benefit. From my own experience I would say that to find the Friedländer bacillus present is sufficient ground on which to base an excellent prognosis for vaccine-therapy. Further, since the vaccine is easy to prepare, the opsonic index easy to determine, and the results are so favourable, it is not surprising that this particular germ should be a general favourite amongst laboratory workers.

SERIES V.

*Infections by the Tubercle Bacillus.*

| Locality. | Number of Cases. | Alpha. | Beta. | Gamma. | Still under Treatment. |
|---|---|---|---|---|---|
| Larynx ... ... ... | 1 | — | — | — | 1 |
| Skin (Bazin's disease) | 1 | 1 | — | — | — |
| Kidney ... ... ... | 2 | — | 1 | 1 | — |
| Peritoneum ... ... | 3 | 3 | — | — | — |
| Glands ... ... ... | 4 | 4 | — | — | — |
| Mastitis ... ... ... | 1 | 1 | — | — | — |
| Bones ... ... ... | 5 | 1 | 1 | 2 | 1 |
| Lungs ... ... ... | 20 | 7 | 3 | 5 | 5 |
| | 37 | 17 | 5 | 8 | 7 |

*Laryngitis.*—A single case. The man is steadily improving under the treatment which I have described for phthisis. No silence treatment.

*Bazin's Disease.*—One case, which showed two or three ulcers on the legs. It was of long standing. At Mr. Penn Milton's request I gave the patient, a young woman, two doses of T.B.E. $\frac{1}{10000}$ and $\frac{1}{5000}$ respectively. The ulcers healed up very quickly, but whether *post hoc* or *propter hoc* I should not care to say. This is the only case (save that of mastitis shortly to be mentioned) in which I ever gave any form of tuberculin except T.R. and its bovine equivalent, P.T.R.

*Kidney.*—Two cases. Both did fairly well, and seemed to encourage one at first, but later relapsed. One died. I am not favourably impressed with the benefit of tuberculin in kidney disease; at the same time, the cases I had were very advanced.

*Peritoneum.*—Three cases. In contradistinction to the foregoing, I found disease in this region most rapidly influenced by vaccine treatment. One of the cases was remarkable. When I began tuberculin his condition was most precarious. He had had uncontrollable diarrhoea for weeks, was extremely weak, with a rapid pulse, slight fever, and extreme anaemia (blood count $1\frac{1}{2}$ million reds). From the first dose ($\frac{1}{100000}$ T.R.) he began to improve and is now in splendid health, though he had one severe relapse, owing, I believe, to his ceasing treatment too soon. That, of course, is the main difficulty in all forms of tuberculosis, that patients will not submit themselves to treatment for a sufficient time to eradicate the disease. I told this man that, as he was unable to take more than $\frac{1}{25000}$ mg. without an unpleasant reaction, he ought to continue, but he was obdurate—quite certain he was cured—"Why, he could walk six miles!" Six months later he paid the penalty with a severe relapse, which I thought would have finished him, for even infinitesimal doses of tuberculin caused alarming reactions. His blood count was lower than before. Then I tried "soamin." This drug seemed to act like a charm, and in a week or so, on returning to tuberculin, he made steady progress, and did not cease treatment until he had been given three successive doses of $\frac{1}{5000}$ mg. without alteration in the opsonic index. At such a point I considered it safe to relinquish inoculations. He has not as yet had a relapse (some six months).

*Glands in the Neck.*—These cases do uniformly well under inoculations, but I am not convinced that this method is the most appropriate. Cases treated by "auto-inoculation" alone appear to have got well quicker. The procedure is simply to examine the glands thoroughly, about once in ten days, at the same time taking care to induce a fair reaction, by rather prolonged manipulation, and to warn the patient that it is essential not to rub the glands when washing. I was astonished in one child to see several glands the size of walnuts disappear after the third rubbing—that is, within a month. At the same time daily massage is most pernicious. The following case illustrates this.

*Mastitis.*—Some of the members of the society will remember a young woman I brought before them with tuberculous mastitis. Both breasts were affected. She had at one time been treated by daily massage. The effect was disastrous; and in a short time the mammae, together with the axillary glands, were so enlarged, that a portion was removed by operation. The explanation probably lies in the fact that at each rubbing an "auto-inoculation" is induced, and before the phase of reaction with swelling has passed off a further reaction is set up. The immunizing power of the patient is exhausted by this rapid stimulation, and thus, in the absence of anti-bodies in the serum, the disease is able to advance unchecked. The patient got perfectly well, and is now district nursing.

*Bone Disease.*—Five cases; three of spinal caries, one a tuberculous ankle, and one hip-joint. The last is still under treatment, doing well. Such statistics as I have read seem encouraging, but my own experience is varied. True that, on the whole, the cases have been bad, but two out of five failed to respond to treatment in any way. One, the ankle, I treated at a comparatively early stage, but without effect, as the joint steadily grew worse, until first an arthrectomy was performed and finally the foot was amputated. Fortunately this last measure freed the patient from his disease. I also lost a spinal case, which I had hoped would do well, since another similar one had recovered after having been at death's door. One cannot help thinking that age has a powerful bearing on prognosis in these conditions. The cases which do best are the youngest. In all these bone diseases and also in lung trouble I have generally used vaccines prepared from any secondary infection that may be present in addition to tuberculin.

*Phthisis.*—Twenty cases. Five of these were desperate when they came to me and ran a downhill course from the beginning. Ten were unfavourable cases. In only 5 was the prognosis good. Of these 5, 2 are not classified under any letter, as they are still under treatment; one comes under "Beta"—a woman of over 60, who under no circumstances could lose her infection, yet for whom the prognosis in regard to expectation of life seemed reasonably good; and the remaining 2 are included in the "Alpha" list. Thus, of the 7 "Alpha" cases, only 2 seemed likely to recover under open-air treatment alone.

I feel that I can honestly claim that in a large number of my cases, and especially in these 5—unfavourable and yet I trust "cured" cases—tuberculin has done for them what no other treatment could have done. Such treatment had been tried for periods varying from six years to eighteen months without improvement.

That the inoculation of phthisis is difficult no one who has tried it will deny; but why it should be more difficult, or why it is that one is more often faced by undesirable reactions in this disease than in any other, is a problem which is still far from solution. One can assert with confidence that there is a remarkable and distinct difference in the way in which the system responds to tuberculin, accordingly as the disease affects the lungs or other parts. In the first place, minute doses, even as small as one-millionth of a milligram, may cause the temperature to rise. Secondly, the opsonic curve which follows an inoculation pursues a course peculiar to this condition. Lastly, the same dose at different times, or after being repeated without harmful effect or reaction of any kind, may without warning result in a prolonged rise of temperature and distressing symptoms. Elsewhere I have attempted to explain these untoward reactions, which are usually, mark you, delayed several days after the dose, by the suggestion that, since the tuberculin causes a hyperaemia of the diseased area—and this is a well-recognized fact—therefore spontaneous autoinoculations occur as the result of such hyperaemia. Many facts seem to support this, especially the form of the opsonic curve, which shows

in these cases a double curve—a primary wave, due to the inoculation; and one or more secondary curves, due to the incidence of autoinoculations. Fortunately, these reactions are not fraught with so much anxiety as formerly, as it is possible to bring them to an end by a dose of bovine tuberculin.

This question of the bovine and the human strain is at the moment agitating the medical world, and whether one should use a homologous vaccine, or whether it is an advantage, as is claimed by Nathan Raw and by Camac Wilkinson, though on widely differing grounds, that the appropriate tuberculin to combat infection caused by the tubercle bacillus *typus humanus* is that manufactured from the *typus bovinus*, remains still unsettled. According to some searchers there is no difference between the supposed varieties, but these are now in a minority, and opinion is, I think, overwhelmingly in favour of the view that the bovine and the human tubercle bacilli belong to two separate and distinct varieties. The method I have used in the cases I am now bringing forward is that advocated in the *Lancet* of April 23rd, 1910. I would like, however, if I may be permitted, to advance the suggestion that larger doses of tuberculin than these should be more efficacious if they could be given without acute reactions. Perhaps a way may be found to control these reactions, or rather to prevent them, but until that time comes I can recommend my method with complete confidence to any medical man, whether he has experience of inoculation work or no, as being reasonably safe and most unlikely to result in harm.

Before closing my remarks there are two points I should like to touch upon.

The first is that I do not think it can be too often insisted upon, notwithstanding all that Spengler and Wilkinson may say to the contrary, that in the hands of the ordinary medical man there is grave danger associated with the exhibition of tuberculin in phthisis whilst patients are walking about and pursuing their ordinary avocations. It is only a matter of common sense after all. Tuberculin causes hyperaemia, and the more hyperaemic the lesion the more easily will a dangerous autoinoculation be induced by exercise. True the cure may be through autoinoculations; but if autoinoculations be allowed to become excessive, as they will become excessive if tuberculin and exercise are combined, then inevitably will the disease extend.

The second point is as to the length of time that it is necessary to continue treatment. Too little is known of the diagnostic tests of Calmette, Wolff-Eisner, Moro, and v. Pirquet, to adjudge their value as trustworthy guides on this question. Two excellent indications, however, remain to us, and both should be utilized before giving a definite opinion:

1. The patient should be able to take $\frac{1}{5000}$ T.R. without any effect noticeable, either in the temperature or in the opsonic index.

2. After sufficient exercise to cause thorough exhaustion there should be no sign of an autoinoculation; that is to say, that the opsonic index, a far more reliable test than any subjective sensations and many times more delicate than the temperature—the opsonic index should not fluctuate.

One example of this and I have finished. A boy, whom I had considered cured, remained well for three months, then had an attack of influenza. After recovery the temperature remained above normal. The parents, afraid of a recurrence of lung trouble, kept the lad in bed. I ordered him to get up, to walk about for such time as might cause him to be fairly tired, and to send me specimens of blood taken before and at varying intervals after the exercise. I found no alteration in the index to tubercle, and I ordered him to disregard his temperature and to get up every day. The result justified this decision, for the temperature came down to normal after a few days, and in a short time he was able to return to school. The other day I heard that he had just won a quarter of a mile race.

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THE next meeting of the German Psychiatric Association will be held at Stuttgart on April 21st and 22nd, 1911. Among the communications promised is one of methods of psychological investigation by Professors Kraepelin of Munich and Sommer of Giessen.

# TYPHOID INFECTION.

BY

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TYPHOID fever is more common in autumn, and in consequence has been called "autumnal fever." There must be a reason for its greater prevalence at this season.

The rains of this time of year, as favouring the passage of the typhoid bacilli into sources of drinking water, have been assigned as a cause. But heavy and continued rainfall is common at other periods without a greater incidence of this disease. Such an explanation cannot, therefore, in itself be correct. Again, it may be said that the temperature in autumn is more favourable for the growth of the bacilli in media such as water, milk, and other everyday foods. This is not so, for typhoid bacilli grow best at 37° C., or about blood heat, which is a temperature belonging to the summer months. (Typhoid bacilli do not grow below 9° C. nor above 42° C.)

The fall of the leaf and fruit, it is conceivable, might produce decompositions favourable to bacillary growth; but here again the temperature would not be suitable. Flies, it is known, can and do convey typhoid; their number, however, decreases at the end of summer, and as a rule they are few and far between in October and November.

Another possible factor may be suggested: It is in autumn, when the grain has been gathered and as winter approaches, that rats and mice leave the fields and make for human habitations. One means by which they obtain entrance—as a matter of common observation—is by drain and sewage passages, especially if these be defective. (Rats themselves are apt to cause leakages and defects in improperly constructed sewage passages.)

Granted the existence of people with actual typhoid, or of human typhoid carriers whose excreta is among the sewage, where the rats live, and which it is possible they devour, it is easy to see how millions of bacilli may be present on the body, feet, jaws, and tails of these rodents, whereby food and drink may become directly as well as indirectly contaminated.

In addition typhoid bacilli may exist in the intestine of mice and rats, and their excreta in turn be a source of infection. (Proof of the latter assumption might be sought in bacteriological examination of the droppings and intestinal contents of animals in a typhoid area, and experimentally by feeding rats with typhoid germs.)

In this connexion it is interesting to note that the virulence of a great number of organisms can be increased by the passage from one animal to another, so that an attenuated and comparatively harmless growth of typhoid might, through the agency of a rat for instance, become at any time virulent and highly infective. Conveyance to fingers is probable, nor is the distance from there to the milk pail far.

Dr. J. Clements, Medical Officer of Health for Beckenham, Kent, is responsible for the statement:

> Typhoid is a pure filth disease, and wherever there are facilities for human excreta to be carried to food and drink there cases of enteric will occur.

He further mentions in one of his reports that Dr. Robertson, of Birmingham, has grown typhoid bacilli from one season to another in the soil of a field.

Mr. Anderson, clerk of works at Durham County Asylum, has several times seen rats go up and down the pans of closets in the lavatories, and the workmen, on questioning them, have seen the same. There have been sporadic outbreaks of typhoid at that asylum for several years. Since 1896 the number of male cases recognized and notified has been 22. Fifteen of these were not over 30 years of age. Similarly the number of female cases has been 17, of whom 8 were not 30 years of age. The females do no outside work. Some of the above are traceable to workers on the sewage garden; some are traceable to direct infection from one patient to another; several have this in common that they slept in a large upstairs dormitory accommodating seventy patients; it is more recently built than most of the other parts of the asylum, it is well provided with closets, and is and has been free from rats.

**Explanations of this dormitory being a focus of infection are:**

1. Some of the sewage garden workers have been accustomed to sleep in it.
2. Most of the recent admissions sleep here, among whom there might be at times an undiagnosed case of enteric whose delirium was mistaken for insanity.
3. The presence of typhoid carrier or carriers. Five isolated outbreaks have occurred in patients or attendants connected with it since January, 1905, the last of which was an attendant who died from typhoid in October, 1910. One of these cases, however, worked in the sewage garden.

Several of the remaining outbreaks show an association with rats. The Winterton division, where there are between 500 and 600 male and female patients, is about five minutes' walk from the main asylum. It is surprisingly free from flies at all times. The same cannot be said of rats, No. 3 female ward in particular being infested; recently there were two rat-holes leading into it. The nurses have on many occasions seen rats run into the drain-pipe from the lavatory. The ward is a large one, with accommodation for 80 patients, about half of whom are epileptics. About 10 per cent. only are females under 30 years of age. Three separate outbreaks have occurred here since 1896—A. S., aged 23, notified October 1st, 1903; 3 cases in the summer and autumn of 1905; 1 case, S. A. S., aged 24, who died October 30th, 1910. With the exception of a small, recently-built infirmary, which is free from rats, No. 3 female ward is the nearest to the sewage garden—the distance being about 500 yards—where there are pipes discharging the sewage from it and the other wards of this division of the asylum. The sewage garden appears to be a good breeding place for rats, as many as eighty being killed in it within a week. There are numerous rat-holes in it and the adjoining fields at the present moment.

In No. 2 female ward, at the main asylum, a considerable distance from the above, a nurse aged 26 years was notified on November 26th, 1909. Following on her at intervals 4 new cases occurred in the same ward, the last in October, 1910.

During this period rats have been frequently seen in the ward, especially in the scullery. The lavatory accommodation here is insufficient, but this is being remedied. There may be a typhoid carrier among the patients in this ward.

The wife of an attendant living in the village of Sedgefield, a mile from the asylum, took typhoid in the autumn of 1902. There were 3 cases of typhoid at the asylum then. Her husband had a terrier which was killing rats every day about the institution. The dog stayed in his house at night. This appears to have been an isolated case in the village.

Her husband, T. D., aged 35, was himself notified December 9th, 1907, five years afterwards. He had now two dogs which were ratting every day in the neighbourhood of the Isolation Hospital, outside which he had been employed for some time, and where there had been previously cases of typhoid. Both dogs were kept inside the house he lived in at night.

There were 4 cases of typhoid in 1906 on the male side of the main building, the first being an attendant stationed in No. 10 ward, the infirmary, where he and others were nursed. Over 200 rats were killed here in the year 1906-7.

There were 5 cases in connexion with No. 7 female receiving ward and No. 8 female adjoining it, both at the main asylum, in the summer and autumn of 1901. Rats were present in these wards at the time, and are still seen in both.

Concurrent with these female cases, W. A., a male, aged 50 years, was notified. He was employed at the time in one of the houses on the estate where there was a dog with which he killed rats daily.

It would be instructive to learn if an association with rats can be traced in other asylums and institutions where sporadic outbreaks occur not otherwise explainable; also, if unexplained cases are common among people possessing dogs who go ratting.

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UNDER the will of the late Karl Beit of Hamburg, the Heidelberg Institute of Cancer Research will benefit to the extent of £5,000. During the last twelve months the Institute has received donations amounting to over £500.

# MYASTHENIA WITH ENLARGEMENT OF THE THYMUS GLAND.

By J. ODERY SYMES, M.D.,
PHYSICIAN TO THE BRISTOL GENERAL HOSPITAL.

**THE following are notes of a case of myasthenia with enlargement of the thymus gland:**

A governess, 21 years of age, was sent to the Bristol General Hospital under my care, by Dr. Manning of Wells, on November 25th, 1909. Until November 15th, 1909, patient had enjoyed uniform good health, and there was no unfavourable family history.

On November 15th she complained of pain in the neck and headache, and was thought to be suffering from a cold. On the 18th she was confined to bed with weakness in the legs. The left leg was affected before the right, and the weakness was such that she could not turn herself in bed or stand upright. There was difficulty in swallowing, and on November 22nd a tingling sensation in the hands, and pain and loss of power in both arms, her friends stating that "she was able to move them slowly, but there was loss of strength in them." They also state that at this time "she did not feel a touch or a pinch." The pulse was rapid, and there were occasional attacks of heart failure.

On admission to the hospital the patient was much exhausted. When she had somewhat recovered, her manner was hysterical, she giggled and laughed, and said that she could not control herself. For these reasons a detailed examination of her nervous system was postponed. The temperature on admission was 97° F., pulse 106, respirations 24. There was no fever throughout her stay in hospital. She was menstruating.

There was loss of power in the trunk, arms, and legs. The wrists, elbows, knees, and ankles could be flexed and extended, and both upper and lower limbs could be voluntarily raised from the bed. They could only be raised for a short period, and the patient could not lift any object from the bed. She could not stand even with a moderate amount of support, the knees giving way beneath her. The muscles were not wasted. Occasionally there was twitching of the fingers. The facial expression was peculiar, there being ptosis of both lids, most marked on the left side, and inability to completely close the eyes, even during sleep. There was no squint, but the ball of the eye rolled up under the upper lid, so that only the sclerotic showed between the lids. This was constant during sleep, but only happened occasionally during the day. Mastication and swallowing were difficult, and saliva collecting in the mouth and mucus in the trachea gave rise to distress. It was difficult to get the patient to talk, but no defect of speech was present. There was no stridor and no enlargement of tonsils. The patient complained of a sensation of coldness in the legs, and a feeling of constriction behind the manubrium sterni, especially on swallowing. Sensation to touch and pain was normal. There was tenderness over the left ovary. The deep reflexes in the arms were normal, the left knee-jerk was not obtained, the right was present, but feeble. A feeble flexor plantar response was present on both sides. The sphincters were unaffected; the pupils reacted to light and accommodation. The heart and lungs were normal, and the pulse rapid. The urine contained no albumen or sugar, specific gravity 1030, acid. The striking feature of the case was the extreme lassitude and muscular weakness without wasting.

Thirty hours after admission, at 1 a.m., the patient became restless, dyspnoeic, and cyanosed. Strychnine and oxygen were administered, but she died suddenly at 1.45.

The *post-mortem* examination was performed by Dr. Emrys-Roberts, who reported that the body was well developed and covered with fat. The palate was high and arched, teeth absent, no lobes to ears.

The thymus gland showed both lobes to be enlarged, each being 4½ in. long by 1½ in. broad. No cysts. The thyroid gland was also somewhat enlarged. The heart and lungs were normal. The stomach was normal. The duodenum showed a number of dilated capillaries, and the same condition, together with several haemorrhagic areas, was present in the ileum. The spleen was enlarged. The liver and pancreas showed capillary dilatations and minute haemorrhages.

Microscopic examination of the organs showed a considerable amount of altered blood pigment or débris in the liver and thymus gland, and more recent haemorrhages and dilatation of the capillaries, such as were also present in the intestinal walls. The thymus gland was normal, except that no Hassell's corpuscles could be found.

When first seen, this case suggested a diagnosis of hysteria. The mental condition, the complaint of tiredness and weakness, the ptosis, difficulty of swallowing, and breathlessness, were all compatible with such a diagnosis. The sudden fatal termination and the *post-mortem* appearances, however, taken in conjunction with the facial appearance, the peculiar nature of the muscular weakness, and the absence of sensory phenomena and the unaltered reflexes, all negatived this diagnosis. Bulbar paralysis would not account for the ptosis, and the ordinary symptoms of a polioencephalitis were not present. A toxic polyneuritis or paralysis of Landry's

type was suggested, but the paralysis was not of the ascending type; the limbs were not flaccid and helpless, the reflexes were not entirely abolished, and implication of the cranial nerves at so early a date would be most unusual.

I am inclined, therefore, to regard the case as one of myasthenia gravis, accompanied by hypertrophy of the thymus.

The sense of muscular weakness and tiredness, the implication of the facial and faucial muscles, the absence of sensory symptoms, of altered reflexes, and of muscular wasting are characteristic. The only difficulty that presents itself is the extreme rapidity of the progress of the disease, the whole period covered by the history being only thirteen days. The average duration of sixty cases collected by Campbell and Bramwell[1] is one and a half years from the first appearance of symptoms, but in one fatal case the disease lasted only fourteen days, and in another only a month.

Possibly the fatal termination was hastened by the presence of the catamenia, for it has been noted that patients are generally worse at this period. A complete *post-mortem* examination was not allowed, and consequently no examination of the nervous system could be made, whilst owing to the patient's brief stay in the hospital the myasthenic electrical reaction was not tested.

Such pathological changes as were found at the *post-mortem* examination were, however, confirmatory of the diagnosis of myasthenia gravis, for in a very large proportion of such cases there have been found hyperplasia of the thymus, also of the thyroid and the spleen, with dilated capillaries, haemorrhages, and blood débris, not only in these organs, but also in the liver, kidneys, and muscles. The muscles were not examined microscopically, but in the other organs no typical lymphorrhages were found, only dilated and engorged capillaries.

With regard to the causation of the condition and its relationship to the status lymphaticus little can be said. Buzzard thinks the symptoms of myasthenia "are best explained by assuming the presence of some toxic agent which has a special influence on the protoplasmic (as opposed to the fibrillar) constituent of voluntary muscle," and in this case the presence of numerous minute haemorrhages in the gastro-intestinal tract is certainly very suggestive of an infective process. The relation of such an infective process to the thymic alteration is not clear. There is no reason to think that this patient had at any time previously suffered from an enlarged thymus, but the death symptoms, asphyxia, and reflex cardiac failure are like those of status lymphaticus. We can only conjecture that the enlargement of the thymus and spleen were compensatory to some lymphoid exhaustion brought about by an acute toxaemia, probably of gastro-intestinal origin.

REFERENCE.
[1] *Brain*, vol. xxviii.

## THE ANTIHAEMOLYTIC ACTION OF ARSENIC.

BY

JAMES A. GUNN, M.A., M.D., D.Sc,

AND

WILFRED J. FELTHAM, M.B., CH.B.

(From the Pharmacology Laboratory, Edinburgh University.)

IN a former number of this JOURNAL one of us (Gunn, BRITISH MEDICAL JOURNAL, July 18th, 1908) has pointed out that very dilute solutions of arsenious acid exert on the red blood corpuscles *in vitro* a distinct protective action against haemolysis by hypotonic saline solutions. The conclusion was also drawn that arsenious acid is rapidly fixed to the red blood corpuscles, and the suggestion was made that an action of arsenic of this nature may, in part at least, explain the benefit which results from the medicinal administration of arsenic in blood diseases, especially in pernicious anaemia, on the ground that it may for a time protect the erythrocytes from destruction by physiological or pathological processes. Further experiments have been made to determine whether this antihaemolytic action of arsenious acid is manifested by other compounds of arsenic and against haemolytic agents other than hypotonic solutions.

As it is probable that arsenious acid, after its absorption exists in the blood partly as sodium arsenite and partly as sodium arsenate, experiments were made with both these salts. Haemolytic agents of diverse nature were employed—namely, distilled water, cyclamin, and sodium glycocholate.

The normal saline solution (N.S.) was in all experiments 0.85 per cent. of sodium chloride in distilled water. A 1 per cent. suspension of human blood corpuscles was obtained by adding 0.025 c.cm. of blood to 2.5 c.cm. of normal saline solution, and suspensions of this percentage were used throughout. In experiments in which washed corpuscles were used, the corpuscles were thrice centrifuged with fresh saline and the final sediment made up to 2.5 c.cm. in the usual way.

### I. SODIUM ARSENITE.

#### (a) *Protection of Corpuscles against Haemolysis by Distilled Water.*

In each of two tubes, A and B, was placed 0.5 c.cm. of a 1 per cent. suspension of unwashed corpuscles. To A was then added 0.5 c.cm. of a solution of sodium chloride 1 in 20,000 in N.S.; and to B. 0.5 c.cm. of a solution of sodium arsenite 1 in 20,000 in N.S. They were allowed to stand at room temperature for fifteen minutes, whereupon 0.7 c.cm. of distilled water was added to each tube. This produced in four minutes almost complete haemolysis in A, but only slight haemolysis in B. The tubes were allowed to stand at room temperature for eighteen hours, when it was found that the corpuscles in A were completely haemolyzed, whereas in B there was still a considerable sediment of unhaemolyzed corpuscles. In this experiment the corpuscles in B were suspended in normal saline solution, containing sodium arsenite in the proportion of 1 in 40,000. The corpuscles in A were suspended in a normal saline solution containing an additional quantity of sodium chloride in the proportion of 1 in 40,000, which was added to the saline in order to render the osmotic concentrations of the two solutions as nearly as possible the same. After the lapse of fifteen minutes the same amount of distilled water was added to each tube, and this produced a distinctly greater haemolytic effect on the control corpuscles than on those corpuscles which were under similar conditions, apart from the influence of sodium arsenite.

The conditions and results of this experiment may be stated briefly in the following table. As other experiments to be described were performed in a similar manner, they will be detailed in tabular form only.

TABLE I.

| *Tube A.* | *Tube B.* |
|---|---|
| (1) 0.5 c.cm. blood suspension (unwashed corpuscles). | (1) 0.5 c.cm. blood suspension (unwashed corpuscles). |
| (2) 0.5 c.cm. sodium chloride 1 in 20,000 in N.S. | (2) 0.5 c.cm. sodium arsenite 1 in 20,000 in N.S. |
| Stood for 15 minutes at room temperature. | |
| No haemolysis. | No haemolysis. |
| (3) 0.7 c.cm. distilled water. | (3) 0.7 c.cm. distilled water. |
| *Result.* | *Result.* |
| In 4 minutes almost complete haemolysis. | In 4 minutes slight haemolysis. |
| In 18 hours complete haemolysis. | In 18 hours incomplete haemolysis. |

A series of similar experiments was made and repeated, in which the corpuscles were subjected to solutions of sodium arsenite varying from 1 in 20,000 to 1 in 200,000. The same qualitative effect was obtained in all, though the antihaemolytic effect of the more dilute solutions was less pronounced. No protective effect was detected with solutions more dilute than 1 in 200,000.

Of course for such experiments it is necessary to add to the tubes not much more distilled water than is sufficient to haemolyze the control corpuscles, otherwise complete haemolysis will occur in both tubes.

#### (b) *Protection of Corpuscles against Haemolysis by Cyclamin.*

To ascertain whether sodium arsenite protects the corpuscles against haemolysis by saponin substances, experiments were made with cyclamin, which is one of the most active haemolytic agents of the saponin group. A strength of cyclamin solution convenient for the amount of corpuscles taken was ascertained by preliminary experiments and found to be 1 in 100,000 in normal saline solution.

The following experiment illustrates the kind of result obtained:

TABLE II.

| *Tube A.* | *Tube B.* |
|---|---|
| (1) 0.5 c.cm. blood suspension (washed corpuscles). | (1) 0.5 c.cm. blood suspension (washed corpuscles). |
| (2) 0.5 c.cm. sodium chloride 1 in 50,000 in N.S. | (2) 0.5 c.cm. sodium arsenite 1 in 50,000 in N.S. |
| Incubated for 15 minutes at 38° C. | |
| (3) 0.15 c.cm. cyclamin solution. | (3) 0.15 c.cm. cyclamin solution. |
| Reincubated. | |
| *Result.* | *Result.* |
| In 5 hours complete haemolysis. | In 5 hours considerable haemolysis. In 18 hours incomplete haemolysis. |

This experiment shows that an amount of cyclamin which will in five hours completely haemolyze a certain number of corpuscles in saline solution fails, even in eighteen hours, to haemolyze completely the same number of corpuscles when the saline solution contains sodium arsenite in the proportion of 1 in 100,000.

Many experiments of this nature were carried out in which the corpuscles were subjected to concentrations of sodium arsenite varying from 1 in 20,000 to 1 in 500,000. When the concentration of arsenite was 1 in 100,000 or greater there was a varying amount of absolute protection against haemolysis; when the concentration was 1 in 200,000 to 1 in 500,000 there was considerable delay in the onset of complete haemolysis in the arsenite tube as compared with the control tube, but within twenty-four hours all the corpuscles were haemolyzed also in the former tube.

In some other experiments the following variation was introduced. After the sodium arsenite had been allowed to act on the corpuscles at 38° C. for fifteen minutes in the usual way, the arsenite solution was removed from the corpuscles by thrice alternate centrifuging and replacement by normal saline solution, the final replacement bringing the blood suspension up to the original bulk of 1 c.cm. The control tube went through all the same processes apart from the exposure to sodium arsenite. The arsenite corpuscles, as compared with the control corpuscles, were now found to manifest an increased resistance to the haemolytic action of cyclamin, similar to that which had been found in the preceding series of experiments. From this it follows that the interference with the haemolytic action of cyclamin is due not to the presence of sodium arsenite in the saline solution, but to some combining action of sodium arsenite with one or other constituent of the corpuscles.

(c) *Protection of Corpuscles against Haemolysis by Sodium Glycocholate.*

It is well known that salts of the bile acids are haemolytic agents. To determine whether arsenic protects against haemolysis by bile salts, experiments were made with sodium glycocholate. A strength of solution of this substance convenient for these experiments was found to be 1 in 5,000 or 1 in 10,000 in normal saline solution. The former concentration was used in the following experiment, which illustrates the kind of result obtained.

TABLE III.

| *Tube A.* | *Tube B.* |
|---|---|
| (1) 0.5 c.cm. blood suspension (washed corpuscles). | (1) 0.5 c.cm. blood suspension (washed corpuscles). |
| (2) 0.5 c.cm. 1 in 10,000 sodium chloride in N.S. | (2) 0.5 c.cm. 1 in 10,000 sodium arsenite in N.S. |
| Incubated 30 minutes at 38° C. | |
| (3) 0.3 c.cm. sodium glycocholate solution. | (3) 0.3 c.cm. sodium glycocholate solution. |
| Reincubated. | |
| *Result.* | *Result.* |
| In 3½ hours complete haemolysis. | In 3½ hours no haemolysis. In 20 hours incomplete haemolysis. |

It is evident from this experiment that the presence of sodium arsenite in the proportion of 1 in 20,000 renders the corpuscles markedly less vulnerable than the control corpuscles to the haemolytic action of sodium glycocholate.

Many such experiments were made in which the corpuscles were subjected to varying concentrations of sodium arsenite, and it was found that solutions at least as dilute as 1 in 100,000 exerted a distinct protection of the red cells against haemolysis by sodium glycocholate.

II. SODIUM ARSENATE.

Series of experiments of the same kind as have been described with sodium arsenite were performed also with sodium arsenate. They showed that sodium arsenate acts in the same way as sodium arsenite in protecting the red blood corpuscles against haemolysis by distilled water, cyclamin, or sodium glycocholate.

According to Binz, blood has very little oxidizing power on arsenious acid, but acts in a strongly-marked manner as a reducing agent on arsenic acid. It is probable, therefore, that the major part of arsenious acid, after its absorption, will exist in the blood as sodium arsenite, and for this reason we have described in detail the experiments with arsenite.

CONCLUSIONS.

The conclusions we draw from these experiments are that arsenic, whether in the form of sodium arsenite or sodium arsenate, exerts on the red blood corpuscles an action antagonistic to that of certain haemolytic agents. The experiments, therefore, afford additional proof in favour of the view that a protective action on the formed red blood corpuscles against normal or abnormal haemolytic processes may, in part at least, account for the as yet imperfectly explained benefit which results from the medicinal administration of arsenic in blood diseases.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### MENINGOCELE OF SKULL CAUSING DIFFICULTY IN DELIVERY.

READ in connexion with Dr. Robinson's case reported in the JOURNAL of December 3rd, 1910, p. 1773, the following may be of some interest:

In August I was called to attend a primipara, but, on arrival, I found that delivery had taken place, and that it only remained for me to remove the placenta, about which there was no difficulty. The nurses then asked me, with consternation, to tell them what had been delivered. The creature was uncovered, and I found the following remarkable conditions:

There was a frontal meningocele—perhaps as large as the head—drooping over and concealing one side of the face. It was tense and the skin appeared to be thin. There was a certain amount of exophthalmos of one eye, a double harelip, and a cleft palate. Otherwise there was no apparent malformation, but the child was quite vigorous and—perhaps owing to the latter circumstance—presented an appearance more horrible and repulsive than anything I have seen before, not excepting museum specimens.

It was necessary to conceal it from the mother, and so appalling was the appearance that even the nurses' feelings had to be taken into consideration. Obviously it was unsuitable for private guardianship, and, imagining that its existence must be brief, I induced a public institution to take charge of the child. However, on inquiry about six weeks later, to my great surprise, I learnt that the infant was thriving, crying for food, and showed no indication whatever of failing. I can follow the history no further, but what the future of such a creature must be, should it survive, requires little imagination.

I was informed that the delivery occurred normally and without assistance, the tumour, of course, presenting, and from the appearance of the skin I have no doubt that any manipulation would have caused the meningocele to burst.

The only statistics of congenital meningocele with which I am acquainted are those of Z. Laurence. He quotes 39 cases, of which 6 reached adult age. I am not aware that he gives the dimensions.

Brixton. E. F. O'FERRALL, L.R.C.P.Lond.

## LEUCODERMA AND PALAEOGENESIS.

IN the BRITISH MEDICAL JOURNAL of August 13th, 1910, there appeared a letter criticizing my statement in the issue of July 30th regarding leucoderma: "The curious mottled appearance may well be accepted as atavistic; but the complete truth appears to be much more wonderful than that." Medical men who are also biologists know that atavism is by no means the evolutionist "dust heap" that some would style it. The microscope may, indeed, explain how skin changes occur; but palaeogenesis (atavism) explains *why* they occur. On this hypothesis the pathological lesion is grafted upon a preformed physiological skin pattern of incalculable antiquity. The palaeogenetic explanation of leucoderma postulates some knowledge of biology equally with dermatology; one must appeal to the entire phylum of mammalian vertebrates, or even descend to the reptiles and amphibians, reviewing the whole subject from a comparative and phylogenetic standpoint.

The clinical association of leucoderma with alopecia areata and dermatitis atrophicans, far from weakening the case for palaeogenesis, actually strengthens it. In many animals irregular pigmentation of the skin is normally associated with loss of hair. Even under domestication this still holds good. The hairless dogs—"sand dogs"—kept as pets have their shivering bodies pigmented in blue-black or grotesquely marbled in a bizarre pattern, like a piece of soap. The Mexican hairless cats have mouse-coloured backs, and the neck, stomach, and legs flesh colour. Siamese cats have one or more bald spots on the forehead; the kittens are born pure white, but gradually assume a contrasted coloration, the body fur being cream or fawn, while mask, ears, limbs, and tail become seal brown. The calf of the Indian elephant at birth has a considerable hairy covering which becomes lost in the adult; the sacred "white" elephant is merely an individual irregularly patched with yellowish-white areas which have been actually diagnosed as leucoderma. The common hippopotamus is liable to irregular asymmetrical pigmentation on face and feet. The rhytina, which the physician Steller discovered in the North Pacific, is said to have been of a brown colour streaked and spotted with white.

African wild dogs. Note the irregular mottled pigmentation. The limbs are black and white. The forehead and back are patched with ochre. The black line bisecting the forehead is the "linea faciem percurrens" of Dr. Burchell.

In cetaceans not only has the hair almost entirely disappeared, but even the sebaceous glands and the muscular fibres of the hair follicles have vanished. Some remarkable pigment patterns occur in this class. The narwhal—an aberrant porpoise—during youth and adult life is mottled grey and white in a most curious fashion, the pattern recalling vividly certain appearances seen in disease in the human subject, though the actual tints are different. In old age the pigment disappears and the animal becomes white. The white whale is remarkably interesting. The fetus is, of course, at first colourless. An embryo in the Royal College of Surgeons Museum I have elsewhere described as of "a smooth creamy whiteness throughout, giving an impression of hardness, as if it had been cast in plaster."

At birth the animal is dark slate colour; when 8 ft. long the slate colour has become mottled with chocolate; then it becomes yellowish, and finally glistening white. Thus one has (1) primary fetal apigmentation, (2) natal hyperpigmentation, (3) phaeism, (4) xanthism, and (5) depigmentation. These creatures of course are not albinos, the iris being dark blue. Neither of these two species have any hair or bristles, even as fetuses. In several species of dolphin pigmentation seems almost inhibited: the Chinese dolphin is milky white with pinkish fins; another is yellowish-white above, pure white below; while a third is uniform plumbeous grey. The Amazon freshwater dolphin is remarkably unstable, some individuals being entirely black, others entirely flesh-coloured, while others again are black above and flesh-coloured beneath.

Now these cetaceans are of such ancient lineage that their ancestors are unknown. Freshwater dolphins occur as fossils as far back as the Eocene epoch. For the pigment pattern one may reasonably claim an immense antiquity. One finds examples in almost every group of mammalia—from the primitive, monotrematous, almost reptilian duckbill to the higher apes. Even those forms normally coated with fur tend to develop in their pelage patterns of startling individuality; since hair is an epidermic structure, these furred forms cannot be left out of consideration. The coat of the fetal giraffe is at first uniform brown, with no trace of the subsequent spots or blotches; the puppy of the African wild dog has a black head and body, the limbs being mottled black and white; after three months a curious marbled pattern develops on the body, an irregular mixture of black, white, and ochre. The writer had the privilege of exhibiting at the recent Annual Meeting a series of photographs illustrating these and other matters, one print being of immediate interest, demonstrating that in these curious dogs each white (unpigmented) blotch is always margined by a black border of intensified pigmentation. Amongst anthropoid apes, one form has the face pale, curiously freckled in heavy blotches of dark tan,[1] while another (orang-outang) has normally large freckles on the throat.

With regard to the change in the winter coat of animals, Schwalbe has shown that in the ermine the colour change is epithelial, as has been claimed for leucoderma. One must dismiss all attempts recently made to compare winter changes in mammals with winter changes in birds. Embryonic hair appears first as a thickening of the Malpighian layer of the epidermis, the hair papilla being formed by a thickening of the corium; feather papillae consist of corium only without epidermic modification. Hence the two types of covering are structurally distinct. All mammals (including man) are descended from the theriomorphic reptiles of Triassic times; hence birds—descended from the dinosaurian reptiles—are hopelessly side-tracked. Pigments in birds—zoomelanin, zooerythrin, zooxanthin—are but feebly comparable to pigment in mammals; the two last-named are coloured fatty oils, which suggest actual lipochromatosis.

I do not propose at present to construct a metameric evolutional series linking up the pigment changes in man with those of the lower mammals. The following considerations, however, favour an atavistic explanation of some diseases:

1. Pigmentation in leucoderma, etc., is epithelial in origin.

2. Pigmentation in normal mammals is epithelial in some cases, if not in all.

3. In hairless mammals the pattern is transferred in the denuded skin. Compare the hairless African dog with the coated wild dog of the same regions.

4. Toxins, in stimulating or inhibiting pigmentation, are

[1] *Proceedings of the Zoological Society*, December 13th, 1904.

merely comparable to the action of a developer in producing a photographic negative already present, though latent.

The novelty and difficulty of the study of palaeogenesis render it proportionately both interesting and fascinating. An intricate blending of the sciences ancillary to medicine is imperative and essential for this branch of research. Only by adopting combined methods will light be focussed upon this youngest of all sciences, this bridge over a biological chasm—the Cinderella of dermatology.

Sale, Manchester. GRAHAM RENSHAW, M.B.

# Reports
ON
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### BEDFORD COUNTY HOSPITAL.

A CASE OF PERFORATED GASTRIC ULCER: OPERATION: RECOVERY.

(Under the care of S. J. Ross, M.D., Ch.B., Surgeon to Out-patients.)

THE patient was a female domestic servant, aged 27 years. For four years she had been troubled with indigestion, and for six weeks had been under the care of Dr. Pollard, of Bedford. On Saturday, August 6th, about 1 p.m., she was suddenly seized with acute pain in the left hypochondriac region; she fainted, and showed symptoms of collapse. She was seen by Dr. Pollard, who diagnosed perforated gastric ulcer, and advised her removal to hospital, where she was admitted at 8 p.m. Mr. Nash being away on his holiday I was called to see her.

I found that she was suffering general abdominal pain; the facies abdominalis was well marked. The abdomen was somewhat distended, and tender all over. The pulse was 140. We decided to operate without delay. Chloroform having been administered by Dr. Whiting, I made a longitudinal incision, three inches in length, in the left semilunar line.

Upon opening the peritoneal cavity curdled milk was seen, and sponged away. The stomach was found to be adherent to the left lobe of the liver. There were strong adhesions, and not of recent origin. They were ligatured and divided. The ruptured ulcer was readily found upon the posterior surface of the stomach, 2 inches from the lesser curvature and 1½ inches from the pylorus. The surrounding area was thinned, and softened by inflammation. The operation area was carefully packed, and two rows of continuous Czerny-Lembert suture were inserted. A third supporting layer of interrupted sutures was then introduced. This was done on account of the softened condition of the stomach wall surrounding the ulcer. The peritoneal cavity was well swabbed with normal saline solution. The wound in the abdominal wall was closed in three layers except the lowest part, into which a drainage-tube was inserted.

The tube drained serum for two days. The skin sutures were removed on the tenth day, the wound having healed by primary union. The tube sinus closed on the seventeenth day. The patient left hospital at the end of a month. I heard on December 10th, 1910, that she had had no return of indigestion and intended to return to service in the new year.

The success of this operation was doubtless due (1) to the fact that the case was so quickly diagnosed by Dr. Pollard, and that an operation within a few hours of the perforation was rendered possible; (2) that the perforation was easily discovered and accessible; and lastly, but not least, to the skilful administration of the anaesthetic by Dr. Whiting.

MR. T. GUNTON ALDERTON, on his retirement from the post of Senior Anaesthetist at the West London Hospital after upwards of thirty-four years' service, was presented by his colleagues on the staff with an excellent portrait of himself painted by Mr. Edward Mills. The presentation was made by Mr. Swinford Edwards at the staff dinner held at the Great Central Hotel on January 11th. Mr. Alderton is Treasurer (late President) of the West London Medico-Chirurgical Society, and a member of the Board of Management of the West London Hospital.



# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### YORKSHIRE BRANCH: BRADFORD DIVISION AND BRADFORD MEDICO-CHIRURGICAL SOCIETY.

A COMBINED meeting was held on Tuesday, December 20th, 1910.

*Specimens.*—The following specimens and cases were shown: Dr. MITCHELL: Cases from the X Ray Department. Mr. ALTHORP: (1) Epithelioma of chin and lower lip, operated on three years ago; (2) polypus of small intestine causing intussusception; (3) fibroid uterus removed by abdominal hysterectomy. Dr. BRONNER: A case of choroido-retinitis simulating retinitis pigmentosa, in a boy of 8 with good vision. Dr. JASON WOOD: (1) Fibroid uterus, broad ligament cyst removed by abdominal hysterectomy; (2) calculous kidney; (3) malignant growth of the upper jaw; (4) scirrhus of breast with unusual amount of ulceration of skin; (5) extrauterine gestation. Dr. CAMPBELL: Liver, spleen, and stomach from a case of ascites which died suddenly. Mr. WILMOT: Kidneys from a case of puerperal eclampsia. Dr. EURICH: Cases of: (1) Thomsen's disease; (2) cardiac infantilism; (3) tabes in an old woman with paralysis agitans; (4) psychosis of peripheral neuritis; (5) a clinical method for detection of blood. Dr. LITTLE and Mr. GOYDER: Three cases after decompression operation for intracranial tumour—(1) tuberculous tumour in region of internal capsule; (2) tumour of pituitary body; (3) tumour in posterior cranial fossa. Mr. F. W. GOYDER: (1) Five cases after operation for cleft palate; (2) five cases after operation for harelip; (3) specimen of gangrenous small intestine removed from a case of strangulated umbilical hernia; (4) prostate removed by "Young's" perineal method.

# Reports of Societies.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, January 11th, 1911.*

Dr. BYROM BRAMWELL, President, in the Chair.

*Treatment of Plague.*

DR. J. C. THOMSON said that in view of the recent outbreak of plague in the eastern counties in England, it might be interesting to give some results of his experience of the disease in Hong Kong. With regard to general management, while pneumonic cases were virulently infective through the lung emanations, bubonic and septicaemic cases could be treated with safety in a general hospital, the ordinary disinfection arrangements used in typhoid fever being sufficient. The faecal and urinary discharges should be placed for some time in a strong disinfectant before being put into the drains. Combined measures for extermination of rats were necessary, and for infectious rooms and houses strong pulicide sprays were required to destroy the fleas. Good nursing was of the first importance as in the asthenic fevers. The nurses should be warned to at once seal with collodion any skin wounds and abrasions. The recumbent posture was essential in view of the danger of heart failure. Fresh air, frequent cleansing of the mouth, daily sponging of the body, were all important. The food should be bland and fluid. Cold water was to be given between meals, and, if necessary, forced upon the patient. Cardiac stimulation was a routine from the earliest stages. He gave about 4 oz. of brandy daily, and also strychnine and strophanthus. Occasional symptomatic treatment was called for: constipation at the outset by a mercurial and saline purge, and later by enemata; diarrhoea by modification of the diet, and, if need be, by opiates; high temperature by cold application, and never by antipyrin; headache by caffeine; delirium by morphine and hyoscine, or by cold application; and haemorrhage by calcium chloride or adrenalin. With regard to the plague bubo, the speaker was opposed to excision, and advocated the ordinary conservative surgical treatment, trying to stave off suppuration, but, if that

were inevitable, assisting it by fomentation, then freely opening the abscess and scraping the walls with a sharp spoon. In his experience he had seen no good from injection into the bubo. The point of inoculation was rarely found, but should always be looked for. Its appearance was generally a papule with an inflamed base, sometimes surmounted with a vesicle. It should be freely opened by crucial incision, and the raw surfaces cauterized by pure carbolic acid. Such treatment was usually followed by abortion of the disease. The disease being established, no specific treatment had as yet been discovered. He had used carbolic acid in a series of 143 cases, giving a daily quantity of 144 grains of the pure drug, in two-hourly doses, suitably diluted with syrup of orange and chloroform water. In one case a total dosage of 2,500 grains was reached before the blood was free of the bacillus. Carboluria was rare, and speedily disappeared on omission of a few doses. Dyspepsia, if it occurred, was obviated by greater dilution. In that series the mortality was 36 per cent., as compared with 76 per cent. earlier in the same epidemic. He had then used oil of cinnamon; but as the earlier cases of an epidemic were always more severe, there was a fallacy in the comparison. The results from serum-therapy were very unequal in different quarters of the globe; but it must be remembered that, irrespective of treatment, there was always a larger percentage of recovery in European races. This probably accounted for the low death-rate of series treated by serum in Oporto and Brisbane, as compared with a mortality of 85 per cent. in a serum series of his in Hong Kong. In India, in 200 control cases the mortality was 74 per cent., against 63 per cent. in a similar number treated by serum. Thornton in South Africa had recently reported good results from the use of adrenalin combined with strophanthus. In conclusion, the speaker said that from his own experience he would place chief reliance on nursing. If fresh serum were available he advised its use combined with adrenalin; if not, he would give carbolic acid with adrenalin.

*Demonstrations.*

Mr. C. W. CATHCART showed a case illustrating the advantage of resuture of the facial nerve when divided during removal of a parotid tumour. The divided strands of the pes anserina were sought for and found by aid of copper electrodes, and were reunited, with practically complete restoration of the nerve function. Mr. J. M. COTTERILL showed a specimen of diverticulum of the large bowel, situated in the transverse mesocolon, but communicating with the caecum by a long and narrow neck which entered the bowel just distal to the ileo-caecal valve. Dr. D. A. WEBSTER gave a demonstration on exercises.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

*Friday, December 9th, 1910.*

Mr. H. R. WOODS, P.R.C.S.I., President, in the Chair.

*Laryngostomy.*

MR. ROBERT WOODS read a paper reviewing the history and development of the various methods of treating stricture of the larynx. He showed a patient, aged 5 years, on whom he had performed the operation of laryngostomy nearly twelve months previously for complete cicatricial occlusion of the larynx following diphtheria and laryngotracheotomy. The larynx was now quite patent and functioned perfectly during swallowing, but he had not yet decided to close the fistula lest recurrence should take place. Dr. DEMPSEY said that strictures, wherever met with, were not easy to deal with, and laryngeal strictures had always been more or less of a bugbear up to the introduction of laryngostomy. The tubes were unsatisfactory, and in very small strictures it was almost impossible to get any kind of dilating apparatus in from above. A great many strictures were due to faulty tracheotomies performed in a great hurry and in the wrong position. Dr. MURPHY said that any one who had had experience of dilatation by mechanical means knew what a tedious business it was. At the same time, it might be well to try dilatation through the mouth before undertaking a serious operation. Was there not a danger of having hair growing from the inside of the larynx when the skin of the neck was inturned in closing the laryngostomy wound? Mr. WOODS, in reply to questions, said the tracheal tube was kept in, and the child was given chloroform through Junker's inhaler. The trachea above the tracheotomy wound was packed with gauze to protect the windpipe, and to prevent the possibility of pneumonia. He had used vaccine in a good number of cases, but it gave uncertain results. In a recent case, where he extirpated the larynx of a man, he used a vaccine grown from the patient's throat. The operation was not performed for six days after inoculation. The man died of profound sepsis within two days. As to incision of the cicatrix it was said to be quite enough to cut through the cicatrix, and then depend upon the dilatation to cause absorption of the tissue. It was not as safe a proceeding as to excise all the cicatricial tissue he could find. A bridge between the tracheotomy and laryngostomy wounds would not be possible, unless the case was one in which a low tracheotomy had been performed. The mortality was 15 or 20 per cent. The average period of treatment was said to be three to six months, but was much too short for his case. The operation showed a very distinct advance in the treatment of such hitherto very unsatisfactory cases.

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## ROYAL SOCIETY OF MEDICINE.

SECTION OF LARYNGOLOGY.

*Friday, January 6th, 1911.*

DR. WATSON WILLIAMS, President, in the Chair.

*Cases and Specimens.*

THE following were among the cases and specimens shown: Mr. CECIL GRAHAM: A case of *Chronic ulcer of the nasal septum.* There had been four attacks of nose bleeding, and the galvano-cautery had been applied to a small ulcer on the right side of the septal cartilage. The ulcer was now seen to be triangular in shape; the septal cartilage was exposed, but not perforated. Mr. A. J. WRIGHT: A woman aged 34 with *Swelling of the arytenoids* and also of the left ventricular band and interarytenoid space; apparently it was tuberculous although von Pirquet's reaction was twice negative. There was no pyrexia, and no improvement with iodines. Mr. NORMAN PATTERSON: A foreign body removed from the hypopharynx and upper part of the oesophagus: it was a *Denture* which disappeared while the patient was swallowing a piece of bread-and-butter. On examination, great swelling and congestion were visible in the arytenoid regions. The tooth-plate was not visible, but was shown by a skiagram to be present. Under an anaesthetic the plate was seized and dragged out of the oesophagus, but was caught in the anterior pillar of the fauces, and had to be divided by means of bone forceps before it could be removed. Mr. ALEXANDER TWEEDIE: A *Deformity of the palate* obtained from a child which died of inanition six months after birth. Median hare-lip existed and cleft of the soft palate, through which a soft swelling protruded, springing from the roof of the naso-pharynx. Professor KEITH demonstrated that there was a mass of smooth muscle fibre between the two wings of the developing septum nasi. The soft swelling represented pituitary tissue. The growing round of bone and raising up of the pituitary body which normally took place in development had failed in this case. Dr. W. H. KELSON: A case of *Naso-pharyngeal polypus* in a young man. It had recurred after removal two and a half years previously, and it was now proposed by the exhibitor to do a more extensive operation for its complete removal. The PRESIDENT advised division of the septum nasi in order to increase the accessibility of the tumour. Dr. G. C. CATHCART: A case of *Ulceration of the left vocal cord* in a man aged 67. Members present considered it to be one of pachydermia; and Dr. JOBSON HORNE accounted for the hoarseness by the fact that the vocal cords were not quite on the same plane. Dr. LIEVEN, of Aix-la-Chapelle, in the course of a demonstration of instruments for the intravenous injection of "606," stated that relapses after

"606" were considerably more frequent than generally supposed. It was most important that the "606" should be introduced directly into the cavity of the vein, and not get into the subcutaneous tissue at all. To make certain of this, blood was first allowed to flow into the apparatus from the vein, and then saline fluid injected before "606" was introduced; after the dose had been given saline fluid was again passed into the vein. Dr. SCANES-SPICER showed a case of malignant disease of the pharynx, with a skiagram showing irregularities of the vertebrae, in support of his views as to the bearing of chronic irritations on the causation of cancer.

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CLINICAL SECTION.

*Friday, January 13th, 1911.*

Mr. W. BRUCE CLARKE, Vice-President, in the Chair.

*Familial Dermo-fibromatosis.*

DRS. S. J. D. ROLLESTON and N. S. MACNAUGHTAN showed a father and two daughters, all the subjects of familial pigmentary dermo-fibromatosis. The father, aged 47, had had nodules and pigmentation as long as he could remember; he did not know which appeared first. Both his parents were alive; his father, aged 72, showed numerous small naevi and moles on the trunk; mother, aged 73, had some naevi on the trunk and a large area of pigmentation in the lumbo-sacral region; both showed slight yellowish tinge of skin. The patient's trunk was thickly set with molluscous tumours. The skin of the abdomen and inner side of thighs showed yellow groundwork of pigmentation, with pigmented spots and a few *café-au-lait* patches. The first daughter was aged 13, and showed a general yellowish tinge of skin, punctiform pigment spots and *café-au-lait* patches scattered over the neck, trunk, arms, and thighs, and numerous blue spots. She had a naevoid growth on the right half of the upper lip, displacing upwards the ala nasi; the skin over it had a bluish tinge, and was covered with fine hairs. The second daughter was aged 5, and exhibited general yellowish tinge of skin, punctiform pigment spots, and *café-au-lait* patches on neck and trunk; limbs free; no molluscum. It was reported that the other two children, a boy aged 14, and a boy aged 10, showed slight yellowish tinge of skin, but no molluscum nor pigmentation. The elder boy had one small mole on the chest and another on the left buttock. Microscopical examination of one of the father's tumours and of the eldest daughter's blue spots showed presence of fibrous tissue, but no nerve fibres.

*Congenital Pulmonary Stenosis.*

DRS. F. PARKES WEBER and G. DORNER described a case of congenital pulmonary stenosis in an intelligent man, aged 29, with the physical signs (including a systolic "pulmonary" murmur) of pulmonary stenosis: cyanosis of the lips, tongue, ears, nose, fingers, and toes; polycythaemia (polyglobular); orthostatic albuminuria; clubbing of fingers and toes; tendency to epistaxis.

The general development of the body was fairly good; there was no infantilism. In spite of the cardiac disease, he had enjoyed fairly good health, did useful work, and took a great deal of open-air exercise, which he thought agreed with him better than idleness. Blood examination gave the following results: Red corpuscles about 10 millions, and white corpuscles about 10,000, to the cubic millimetre of blood; haemoglobin, about 180 per cent. Blood films showed the presence of a few normoblasts; of the white cells 73 per cent. were polymorphonuclears.

The authors found the viscosity of the blood excessive, whilst coagulation was delayed, as if by way of compensation to diminish the tendency to thrombosis. The specific gravity and solid residue of the blood serum was not greatly, if at all, above normal limits, showing that the polycythaemia could not be accounted for by concentration of the blood plasma—that is to say, of the blood as a whole. The polycythaemia was, on the contrary, almost certainly due (as in cases of erythraemia) to excessive formation of red corpuscles in the bone marrow, and this supposition had been confirmed by the results of the *post-mortem* examination of the bone marrow in a few cases of congenital heart disease. Moreover, in the present case Dr. J. S. Haldane and Dr. C. G. Douglas had, by Haldane and Lorrain Smith's carbon monoxide method, proved that the total volume of blood in the body was (as in cases of erythraemia or splenomegalic polycythaemia) very greatly in excess of extreme normal limits. There was, in fact, a condition of true plethora ("polyhaemia") present, and the degree of absolute polycythaemia was even much greater than the degree of relative polycythaemia.

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## ASSOCIATION OF REGISTERED MEDICAL WOMEN.

*Tuesday, January 3rd, 1911.*

Mrs. COLMAN, M.D., in the Chair.

*Muco-colitis.*

DR. LAURA VEALE, in a paper on the treatment of muco-colitis, regarded the condition as a secretion neurosis, and attributed the general symptoms to auto-intoxication following the putrefaction of food particles entangled in the retained membranes. The presence of the membranes also led to spasm and distension of the intestines, so that a vicious circle was set up. Reference was made to the frequent association with muco-colitis of gastric dilatation, movable kidney, and pelvic disorders. The treatment carried out at Harrogate was then described. The bowel was irrigated three times a week with about 30 oz. of the alkaline sulphur water, which was run in very slowly through a Plombières tube at a temperature of from 96° to 102° F. from a height of 2 ft. The patient lay first on her right side, then on her back, and then on the left side, remaining in each position for two minutes. The fluid was retained for ten minutes, and after it had been ejected the process was repeated. The attendant examined and reported on the washings. The irrigation was followed by a warm sulphur bath with a submassive douche to the abdomen. If constipation were present a small dose of blue pill was given at night, and the hot sulphur water in the morning. The result of this treatment was great improvement in the local and general symptoms. Sometimes more than one course (of about three weeks' duration) was necessary, or the patient could be taught to irrigate the bowel herself, using artificial sulphur waters; while massage could to a certain extent replace the submassive douche. The diet prescribed was one that left no irritating residue. Fat, pastry, and all green vegetables (except spinach) were prohibited. The patients should take moderate exercise. Drugs were avoided as much as possible, though sometimes a tonic or the iron waters were given. All pelvic disorders received their appropriate treatment. Mrs. SAVILL said she used very large intestinal douches in the treatment of muco-colitis, beginning with one and increasing to five or six pints. The sense of exhaustion that followed was removed by the subsequent application of the high-frequency current. With regard to diet, the speaker recommended cutting off all meat proteids, and giving farinaceous food and milk for a week or ten days, then cream cheese and milk only for a few days, after which a return should be made to the farinaceous diet. Some patients did well on lactic-acid milk. The importance of treating constipation was emphasized. Pituitary extract had been found useful in some atonic cases.

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A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on January 11th at 11, Chandos Street, Cavendish Square, Dr. Blandford, president, in the chair. Eight directors were present. Five medical men were elected members of the society. Since the last court one of the vice-presidents, Dr. James E. Pollock, had died. Dr. Pollock was one of the oldest members of the society, being elected a member in 1866. The sum of £1,281 was voted for the payment of the half-yearly grants to the widows and orphans who are on the books of the society. A legacy of £200, free of duty, was received from the executors of the late Miss Emma H. Peregrine. The invested funds now amount to £100,900. Membership is open to any registered medical practitioner who at the time of his election is resident within a 20-mile radius from Charing Cross; the subscription is two guineas per annum. Special terms are made for life membership, the sum payable being dependent on the age of the applicant. The next election will be on April 12th, and application forms for membership must reach the secretary on or before March 22nd. Any further information may be obtained from the secretary at the offices of the society, 11 Chandos Street, Cavendish Square, W.

# Reviews.

## SURGERY.

THE appearance of the seventh and penultimate volume of the *American Practice of Surgery*[1] favours the expectation that Drs. BRYANT and BUCK may soon be congratulated on the completion of a very laborious task. In this, as in the preceding volumes, the reader will find a series of practical essays, some of which are excellent and important, presented in clear type, and admirably illustrated. The arrangement of subjects is still kaleidoscopic, and, as we have pointed out in a previous review of this work, is likely to prove inconvenient. The initial chapter on diseases of the pelvis is followed by one on diseases of both the lower and the upper extremities, and a long course of sections on the surgery of the abdomen is interrupted by a chapter on the surgery of the pericardium and heart. While some subjects are discussed at a sufficient length and with a due sense of their relative importance, others seem to be inadequate. The able chapter on anal and rectal surgery takes up almost one-fifth of this volume. On the other hand, the whole subject of abdominal hernia is treated in sixty-three pages, and about a fifth part of this space is given to a description of a special American operation for radical cure. For information on the recognized though much discussed subject of appendicostomy, the reader, in the chapter on the appendix, which he would naturally at first consult, is referred to the chapter on diseases of the anus, in which only a very brief mention of the operative technique can be found. The seventh volume, as it deals for the most part with abdominal and intestinal surgery, may be regarded as an important addition to this work, the value of which as a reliable source for reference is well maintained by the chapters on the latest developments of this important and interesting branch of surgical practice. As examples of the able support given to the editors in this part of their work, we would allude to the contributions on abdominal section, and on tuberculous and infectious peritonitis.

The appearance of a fifteenth revised edition of CAIRD and CATHCART'S *Surgical Handbook*[2] demands a fresh tribute to a most useful, careful, and complete compendium of information not only for the house-surgeon but for every busy practitioner. The general scope of the little book is so well known as to need no description, but it should be indicated that sections have been added dealing with spinal anaesthesia—in which tropacocaine is recommended as, on the whole, the safest drug—and on the Cammidge reaction. The rigorous demands of space notwithstanding, we think a line should have been spared to intimate that when the Trendelenburg position is used after a spinal injection, the head should be kept sharply flexed upon the chest. In the next revision it would be wise to include, in the chapter on treatment of patients after operation, a more particular account of continuous saline infusion by the rectum. To secure success in this most valuable method it is essential to pay exact attention to every detail. Few books are better worth the money than this excellent little handbook.

The adaptation of BOCKENHEIMER'S *Atlas of Clinical Surgery*[3] was a piece of work worth doing, and Dr. C. F. MARSHALL has done it well. The book consists of a series of figures in colour reproduced by the four-colour process. They are taken from models executed with remarkable faithfulness to natural appearance, the originals being patients in von Bergmann's clinic. They cover a great deal of ground, and Professor Bockenheimer has shown wisdom in his selection; he has avoided the rarities and curiosities, and has chosen examples of ordinary typical pathological conditions. The object of the *Atlas* is to assist in diagnosis, and there can be no question that it is a better aid than an ordinary textbook could be. Accompanying the figures is a text which gives a concise description of the causation, progress, diagnosis, and treatment of the conditions illustrated. It represents the teaching of von Bergmann, to whom Professor Bockenheimer expresses his debts of gratitude in the preface. The pictures are uniformly good; they will be of much service not only to those practising, but also to those teaching surgery; no collection so complete has hitherto been available in the English language. As has already been said, the translator has done his work excellently; his text is faithful and lucid throughout.

Dr. JOHNSON'S treatise on clinical surgery, *Surgical Diagnosis*,[4] is without question a very sound and instructive work. It embodies the results of a prolonged and wide experience of surgical work, and the practical teaching of its able author is much aided throughout by a profusion of excellent illustrations, for the useful supply of which by colleagues and friends full acknowledgement is made in the preface. The book, which is intended to meet the needs of the general practitioner, and to afford direct help in forming correct diagnoses in cases of injury and surgical diseases, gives in addition to a description of methods of examination and the relative import of signs and symptoms, some pathological and anatomical data and also some brief histories of illustrative cases. Although the author has carried out his ideas with decided success, a work of this kind, however instructive it may be, cannot by reason of its restricted scope fulfil the main and all-important object of surgical teaching. From the practitioner's point of view the study of diagnostics quite apart from that of therapeutics will not relieve him of all responsibility as a minister of the art of healing, and the necessity of consulting in any serious and urgent case a succession of bulky volumes by different authors may cause confusion and delay. Too much importance, it is true, cannot be attached to the scientific methods of diagnosis that have recently been devised to aid the surgeon in the exploration of deep-seated and visceral diseases. These are fully described by Dr. Johnson, whose thorough and practical knowledge of such special work is shown by the chapters on the *x* rays in surgical diagnosis, on cystoscopy, and on the different methods of examining the kidney. These and other chapters on new methods of diagnostic research claim the attention of both specialist and general practitioner, and are likely to repay careful study. Too much, however, of the large volumes of surgical diagnosis is taken up by matter which might be more conveniently dealt with in a treatise of general surgery.

Professor DE QUERVAIN'S admirable book on special surgical diagnosis[5] is now published in a second edition. The aim of the volume and its successful accomplishment were praised in a review of the first edition. It will be sufficient to again call attention to its outstanding features. A series of nearly 400 photographs, interspersed with a few diagrams, forms the basis of the discussion of the diagnosis of surgical affections arranged according to regions. There are paragraphs on treatment, but everything is subsidiary to differential diagnosis. The collection of photographs is a remarkable one, and this edition is enriched with 147 additional to those in the first. The book is, however, no

[1] *American Practice of Surgery.* Vol. vii. Edited by Joseph D. Bryant, M.D., LL.D.; and Albert H. Buck, M.D. New York: William Wood and Co. 1910. (Imp. 8vo, pp. 969; 402 illustrations.)

[2] *A Surgical Handbook for the use of Students, Practitioners, House-Surgeons, and Dressers.* By F. M. Caird and C. W. Cathcart. Fifteenth edition, revised. London: Charles Griffin and Co. 1910. (Fcap. 8vo, pp. 346, illustrations 204. 8s. 6d.)

[3] *Atlas of Clinical Surgery.* By Dr. Ph. Bockenheimer. In three volumes. English adaptation by C. F. Marshall, M.D., F.R.C.S. London: Rebman Limited, 1909. (Imp. 8vo, pp. 445. 94s. 6d.)

[4] *Surgical Diagnosis.* By A. B. Johnson, Ph.B., M.D., Professor of Clinical Surgery in Columbia University Medical College, etc. In three volumes. Vol. i: Wounds and their diseases; diseases of the soft parts and of the bones; tumours; fractures and dislocations; syphilis; the *x* rays; head and neck; thorax and breast; abdomen in general; peritoneum and injuries of special abdominal organs. Vol. ii: Injuries and diseases of the abdomen and of its contained viscera; the rectum; injuries and diseases of the kidney, bladder, prostate, urethra, seminal vesicles, scrotum, testis, and spermatic cord. Vol. iii: The spine, the nerves, the pelvis, the extremities; appendix. New York and London: D. Appleton and Co. 1909. (Sup. roy. 8vo, vol i, pp. 830; 257 illustrations; 1 coloured plate. Vol. ii, pp 795; 253 illustrations; 1 coloured plate. Vol. iii, pp 838; 274 illustrations; 1 coloured plate. Three vols., £3 15s.)

[5] *Spezielle chirurgische Diagnostik.* By Professor F. de Quervain. Second edition. Leipzig: Vogel. 1909. (Sup. roy. 8vo, 672 pp.; 392 illustrations; 3 plates. M. 15.)

larger, as some of the old figures have been reduced in size, and less important parts of the text are now in small type. Study of the pictures alone affords a series of valuable object lessons to the student of surgical affections, and the text is easy reading even to one whose acquaintance with the German language is not extensive. The series of radiographs of typical fractures is one to which special attention should be paid; it is accompanied by photographs of the deformities presented. The book is eminently useful as a work of reference for those faced with surgical problems.

In the preparation of the new and fourth issue of the atlas of bandaging by the late Professor HOFFA,[6] published by Lehmann, the new editor, Dr. R. GRASHEY of Munich, has, without altering the scope and general character, made several important changes. The illustrations, which form so important a feature of this series of medical works, have been much increased in number and arranged on a new and apparently more convenient plan. Many additions have been made to the text, while in his work of omission the editor has been influenced by the recollection that some old but still really useful forms of bandaging that are rejected as obsolete to-day may emerge to-morrow as the latest novelties. Hoffa's work, though dealing with a branch of surgical instruction which must depend mainly on actual practice, is likely in its new and improved form to preserve the reputation it has acquired in the course of the past fifteen years as a good and useful guide. It deals only with bandaging pure and simple, without special reference to the treatment of fractures and to orthopaedic work. It is, however, very comprehensive and thorough in its teaching of this single branch of practical surgery, dealing in turn with simple forms of bandaging, with retention bandages, with stiffened bandages, and finally with methods of extension and compression.

## PHYSIOLOGY.

IT is a curious commentary on the high degree of specialization which physiology has reached that it should be considered advisable for six teachers to collaborate in the preparation of a textbook intended not for specialists but for the ordinary medical student. Even in the more advanced handbooks, where it is obviously necessary for specialists to treat the portions of the subject with which they are most intimately acquainted, the unevenness of style and treatment by the individual contributors frequently detracts from their usefulness and lucidity; and such an evil becomes exacerbated in more elementary treatises. Any one of the collaborators in the *Practical Physiology*,[7] edited by Dr. PEMBREY, ought surely, from their position as past or present teachers in large medical schools, have been capable of treating the whole subject from the student's point of view. If this had been done, the work would doubtless have been more readable and practical, in spite of the omission here and there of details of an unimportant nature. The book, however, has reached its third edition, and so has achieved a considerable measure of success. It is now divided into two parts only, Part I treating of experimental, and Part II of chemical physiology; the elementary and advanced exercises are mingled together instead of being separated as in former editions. They are also mixed up with a good deal of descriptive and theoretical matter. We notice with satisfaction that the amount of work on the frog has been reduced, and the experiments on man which have been inserted have been increased. The section relating to muscle and nerve and similar subjects in the frog is still very extensive and too lengthy for the ordinary student to compass in the short time which he, amid the conflicting claims of other subjects, can devote to physiology. In fact, to some extent the book falls between two stools: it is too full as a laboratory guide for the student of medicine, and too incomplete as a textbook of physiology, which it apparently aims at being at the same time. The names of the authors should be a sufficient guarantee that the information the book contains is correct and up to date. But we have noted a few instances in which this does not appear to be the case—for instance, in the account of the chemistry of respiration (which, curiously enough, is not contained in the part of the book which deals with other physiologico-chemical subjects), the account given of the chemical method of blood-gas analysis is imperfect, and the mercury pump described cannot be regarded as the best available; the figure which illustrates its three-way tap is also incorrect. In connexion with the urinary pigments, no mention is made of Dombrowski's researches, which show that urochrome and urobilin have nothing in common. But it is not necessary to go through slips of this kind. For a student with plenty of time at his disposal the book will prove useful, as certain questions are treated more fully than is usual in books of this type—for example, Dr. Hertz has contributed a useful chapter upon the investigation of the motor functions of the alimentary canal by means of the $x$ rays. Dr. Ryffel, again, has written a section upon lactic acid, its estimation and significance, which, in view of the increasing importance attributed to lactic acid, will also be of considerable service.

A certain class of medical students is always on the look-out for a short and cheap book to enable them not to learn their subject properly, but to enable them to pass their examinations with as little knowledge as possible. The present book, *Notes on Physiology*,[8] caters for this class; it has reached its eighth edition, so the class is evidently more numerous than one imagined. The reviser states in his preface that he has endeavoured to keep pace with the advance of modern physiology, and has for this purpose availed himself of certain well-known textbooks on the subject. But the pace is evidently too fast for Mr. ASHBY, and there are very few pages which manifest any thorough acquaintance with physiological knowledge. The faults of omission we shall not attempt to catalogue; it will be quite sufficient to say that there is no reference to any recent work on the chemistry of proteins (which are still spoken of as proteids), and no mention of secretin or other hormones. We may, however, select a few of the faults of commission from the large number which we have noted: thus, on p. 6 we read that dextrine gives a red colour with iodine, which disappears on warming, but does not reappear on cooling. On p. 10 the statement occurs that paraglobulin gives rise to fibrin when mixed with hydrocele fluid; on p. 11 that caseinogen and vitellin are nucleo-proteids. In a description of lecithin its empirical formula is given on p. 6, but this is discounted by a further reference to the same substance on p. 18, where a different formula is given. The old incorrect statement that cartilage yields on boiling an albuminoid named chondrin still stands on p. 34; so also, on p. 53, does the exploded idea that normal muscle (and on p. 219 that a normal nerve) exhibits a "current of rest." The rate of transmission of nerve impulses in man is still given as 33 metres per second (p. 55), and on the following page we read that veratria prolongs the contraction of muscle. Page 57 has the extraordinary statement that albumen, if injected into the blood, acts as a refresher; and p. 58 tells us that the temperature of the body is not raised by muscular exercise. In relation to red blood corpuscles we learn that they have no limiting membrane, and that the carbonic acid of the blood is contained in the serum, a fluid which does not exist during life. The finely granular leucocytes are stated to be probably derived from the lymphocytes or the results of fission. The account of arterial pressure is most inadequate, and what little there is contains at least two misstatements—namely, (1) that the fall of pressure from arteries to capillaries is due to the blood travelling

[6] *Atlas und Grundriss der Verbandlehre* (*Lehmann's Medizinische Handatlanten*). Band 13. By the late Dr. Albert Hoffa, Professor in the University of Berlin, etc. Fourth and much enlarged edition by Dr. Rudolf Grashey of Munich. Munich: Lehmann. 1910. (Cr. 8vo, pp. 156; 170 plates and 134 illustrations. M. 8.)

[7] *Practical Physiology*. Edited by M. S. Pembrey. Contributors: A. P. Beddard, M.A., M.D.; J. S. Edkins, M.A., M.B.: M. Flack, M.A., M.D.: L. Hill, M.B., F.R.S.; J. J. R. Macleod, M.B.; M. S. Pembrey, M.A., M.D. Third edition. London: Edward Arnold. 1910. (Demy 8vo. pp. 495 14s.)

[8] *Notes on Physiology*. By Henry Ashby, M.D. Eighth edition, revised by Hugh T. Ashby, M.B., B.C. London, New York, Bombay, and Calcutta: Longmans, Green, and Co. 1910. (Post 8vo, pp. 340; illustrations 147. 5s.)

through a wider stream, and (2) that the peripheral resistance is in the capillaries. In relation to respiration, not only is all recent work in reference to the chemical factor as a regulating mechanism omitted, but we have in addition the statement that the venosity of the blood does not have anything to do with the mechanism of respiration. On p. 130 we learn that fats are hydrocarbons, and that in fat digestion saponification only occurs in small degree. A few pages later on, steapsin is spoken of as an emulsive ferment which emulsfies and saponifies fats! The only piece of information vouchsafed as to the constituents of succus entericus is that it contains an invert ferment. Many examiners have read in answers to examination questions on the ductless glands, the convenient and short statement that nothing is known for certain regarding the functions of these bodies, and it would appear that the students might claim that they were relying on this book.

Three more parts of TIGERSTEDT'S *Handbuch der physiologischen Methodik*[9] have been published. The first part of the first volume contains an article by Professor Pawlow on the methods of vivisection, and one by Professor Garten on photographic methods of recording. The second part of the third volume deals with sense physiology, and is by Professor Nagel, the subjects treated being the senses of light and colour, visual space perception, and ocular movements. The fourth part of the third volume contains an account of the central nervous system of warm-blooded animals by Professor Trendelenburg, and of cold-blooded animals by Professor Steiner.

A book that has reached eight editions in a little more than three times that number of years needs no recommendation from a reviewer. In spite of many competitors, Professor SCHÄFER'S *Essentials of Histology*[10] still remains the student's favourite. Every edition is an improvement on its predecessor, and, as a rule, a little larger; but as the increase in size is mainly due to an increase in the wealth of illustrations, no one will grumble at the few extra pages. We hope that its distinguished author will live to see many future editions. For clearness of exposition, for accuracy of description, for the beauty of its pictures, and for lucid setting out of histological methods the book is unequalled, and will for these reasons continue to occupy the high position it has so long held in the estimation of both teachers and students of histology.

Professor G. N. STEWART'S well-known manual[11] continues to flourish and to grow. The present edition is more than 100 pages larger than the preceding. This is mainly due to additions to the practical exercises, which, as in previous editions, are interweaved with the main text. The four years which have elapsed since the appearance of the fifth edition have seen a good deal of progress in physiological knowledge. This has necessitated extensive revision, and in parts rewriting. The student will find in the manual an excellent and trustworthy guide, and we congratulate its author on the results of his labours.

Dr. A. BRANCA has written a very excellent treatise on *Histology*,[12] which possesses all the clarity of style and perfection of illustration for which French scientific writers are famous. M. Branca gives short historical accounts, which precede the description of each structure, and ends each chapter with the histo-physiology and histo-genesis and development of the structure in question. This treatment adds greatly to the interest and value of the book. The illustrations by M. R. Coquelin are most beautiful, and number no less than 390. We can most cordially recommend this book to any one who can read French, for it affords a full and accurate, and yet concise and interesting, treatment of the subject.

[9] *Handbuch der physiologischen Methodik.* Von R. Tigerstedt. Leipzig: S. Hirzel. 1910. (Sup. roy. 8vo. M. 8.)

[10] *The Essentials of Histology, Descriptive and Practical, for the Use of Students.* By Professor E. A. Schäfer, F.R.S. Eighth edition. London: Longmans, Green, and Co. 1910. (Demy 8vo, pp. 582. 10s. 6d.)

[11] *A Manual of Physiology.* By G. N. Stewart, M.D., Professor of Experimental Physiology in the Western Reserve University, Cleveland. London: Baillière, Tindall, and Cox. 1910. (Pp. 1064, with numerous coloured plates and 450 other illustrations.)

[12] *Précis d'histologie.* Second edition. By A. Branca, Bibliothèque du Doctorat en Médecine, publiée sous la direction de A. Gilbert et L. Fournier. Paris: J. B. Baillière et Fils. 1910. (Post 8vo, pp. 755, Illustrations 390. Fr. 15.)

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## BIOCHEMISTRY.

THE interesting piece of research recorded in the volume before us, by Dr. DILLING,[13] has been carried out by him in Professor Kobert's laboratory, and the work has been very appropriately dedicated to that eminent teacher. Haemochromogen is the essential iron-containing substance which, united to globin, constitutes haemoglobin. It has long been recognized that the examination of its spectrum is one of the most delicate of blood tests. The fact that it can be obtained in crystalline form was noted almost accidentally by a few of the older workers. It was Donoghany, however, whose attention was directed in 1893 to a more detailed study of the subject by the discovery that he could obtain the crystals with care by the action of pyridine on haemoglobin. This property, however, is not confined to pyridine, but is also possessed by other reagents. Dr. Dilling has made a systematic examination of the subject, and figures in a series of beautiful plates the forms of the crystals he has obtained in different species of animals by his various methods. The portion of the book devoted to the examination of the spectrum of haemochromogen is short, and merely confirms the observations of those who have preceded him. The substance gives bands in the ultra-violet, as Gamgee showed. It is not anticipated that the obtaining of haemochromogen crystals will replace the haemin test, for the latter is much more easily applied, and is more certain in its result, especially when dealing with old or dried blood. A curious point, which is apparently new, is that haemochromogen, unlike haemoglobin and most of its iron-containing derivatives, does not give the guaiacum reaction. No one can complain of the elaborate way in which this research is presented to the scientific world. If authors or publishers care to undertake the issue of such an elaborate and beautiful book, no one can object. We can hardly imagine it will have any great sale, for, after all, though interesting, it relates to a comparatively unimportant incident in the physical condition which one derivative of the blood pigment may assume. Our only fear is that the research may be lost sight of. If the paper had been condensed and published with a selection of the illustrations in any well-known physiological journal, it would have obtained far greater publicity. Now the author will have mainly to depend on notices such as the present one.

A short note is all that is necessary to chronicle the appearance of the twenty-fifth fasciculus of Professor OPPENHEIMER'S ambitious handbook of bio-chemistry.[14] The first three volumes (really five, for the second and third volumes are each divided into two) are now complete. The fourth volume, which deals with metabolism, has still to be completed, and we imagine that only a few more *Lieferungen* have yet to appear. The present number contains articles by A. Schittenhelm, P. Rona, R. Hirsch, G. v. Bergmann, and P. Morawitz, which deal with various aspects of metabolic phenomena either in health or disease, and are all of high excellence.

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## LOCOMOTOR ATAXY.

LOCOMOTOR ATAXY is so common and so chronic a disorder that any treatment offering relief for some or all of its troubles would be thrice welcome to the practitioner, who would hardly be inclined to quarrel with the methods employed because they promised no more than a "clinical cure" and left the nervous lesions untouched. Such a

[13] *Atlas der Kristallformen und der Absorptionsbänder der Hämochromogene.* By Walter J. Dilling, M.B., Ch.B. With a preface by Professor Dr. R. Kobert. Stuttgart: F. Enke. 1910. (Royal 4to, pp. 80; 36 plates.)

[14] *Handbuch der Biochemie.* Edited by Carl Oppenheimer. Lieferung 25. Jena: G. Fischer. 1910. (Sup. roy. 8vo, pp. 240. M. 5.)

"clinical cure" is advanced by Dr. JAWORSKI of the Medical Faculties of Paris, Lemberg (Austria), Lima (Peru), and the Kingdom of Spain.[15] That no satisfactory treatment of tabes has been found hitherto is very generally admitted. The thorough treatment of syphilis has not been found to ward off the onset of tabes, five, fifteen, or more years later. No amount or method of medication has been shown to inhibit, far less to remove, the slow spinal sclerosis characteristic of the disease. Symptomatic treatments—analgesics for the lightning pains, cerium oxalate for the gastric crises, tonics for the general debility, Fraenkel's re-educative exercises for the ataxia, and so forth—leave much to be desired in their efficacy, and do nothing to arrest the advance of the nervous lesions. The new method advocated by Dr. Jaworski is that of Dr. Legrand Denslow of New York, and consists in the local treatment of any stricture, erosion, or sensitive area in the urethra of the male. Denslow holds that the nerve degenerations of tabes are due to over-exhaustion set up by the continued transmission of sensory nerve impulses from some peripheral area to the central nervous system; treat this area, bring about the cessation of this pathological flow of nerve impulses, and the clinical cure of the patient will ollow. In practice the patient is given a tonic of iron and quinine, leads a simple life, and receives urethral treatment —urethral incision, local applications by the urethroscope, and gradual dilatation—for a period of from three to eight months, from one to three visits being paid per week. It is important to go slowly with Denslow's method; old, advanced, or bedridden cases benefit little by it, but a clinical cure may be expected in 60 per cent. of the remainder. The author gives details of 19 tabetics he has treated on these lines at the Salpêtrière; of these, 7 were immensely improved by it, 10 were ameliorated, and 2 received no benefit; 16 were chronic cases who had been long in attendance at the hospital. Ataxia was present in 17 patients; in 6 it disappeared, in 5 it was ameliorated. Lightning pains were cured in 5 out of 16 cases, lessened in 9. Urinary troubles were cured in 5 out of 19 patients, ameliorated in 9. Jaworski believes that Denslow's is the best method of combating tabes that has hitherto been published, and his little book may be commended to the attention of neurologists.

## NOTES ON BOOKS.

MR. MILLER CHRISTY and Miss MAY THRESH have collected the available information as to mineral waters and medicinal springs of the county of Essex[16] in a memoir for the Essex Field Club. There is only one spring in the county which is still used for therapeutic purposes (a chalybeate spring at Dovercourt). The others have all fallen into disrepute, and in some cases it has been impossible to identify them, as they have disappeared. In those cases in which identification was possible the spring water has been analysed, with the result that they have all been found to be feeble sulphate waters with probably very little therapeutic value. The temporary fame which was enjoyed by some of these springs was merely artificial, and due to attempts to exploit them for monetary purposes.

The pamphlet on *Indiscriminate Spitting*,[17] by Dr. CONYERS MORRELL, is a useful attempt to put the essentials of our knowledge as to the causes of the spread of consumption into a popular form. There are a few points on which one might feel disposed to disagree with the author but they are not of primary importance. We may not all attach the same relative value as Dr. Morrell appears to do to the antispitting campaign as a factor in the fight against consumption, but for many reasons it would be well if public opinion put an end to indiscriminate spitting. The wide distribution of this pamphlet could not fail to produce some good results.

[15] *Un nouveau traitement du tabes (ataxie locomotrice), avec quelques considérations sur la répercussion centrale des irritations périphériques.* Par le Docteur Helan Jaworski. Paris: A. Maloine. 1910. (Post 8vo, pp. 214. Fr. 3.50.)

[16] *Essex Field Club Special Memoirs.* Vol. iv. *A History of the Mineral Waters and Medicinal Springs of the County of Essex.* By Miller Christy and Miss May Thresh. Stratford: The Essex Field Club. 1910. (Demy 8vo, pp. 73; 7 illustrations. 2s. 6d.)

[17] *Indiscriminate Spitting and the Prevention of Consumption.* By C. Conyers Morrell. London: Speaight and Son. 1911. (Price 2d.)

### SOME CHILDREN'S BOOKS.

Of all the many different kinds of books for the young, school stories are admittedly the most difficult to write; and it must be confessed they are usually the least successful. It is almost inevitable that this should be the case, since the schoolboy or schoolgirl, who knows his or her contemporaries as they really are, does not write about them; and the adult, who does, has forgotten or lost touch with that curious world called "school." Miss M. THEODORA CORNISH, therefore, is all the more to be congratulated upon the life-like manner in which she has drawn the schoolgirls who figure in her story *One Term*,[18] which is an account of an unusually exciting term at a boarding-school, and the troubles which arose from the contest between two rivals over a prize. Happily all misunderstandings are ultimately cleared up, and we take leave of Manor House School restored to its usual calm, though not before the heroine has been unjustly accused of cheating at an examination, and her friend has fallen into dire disgrace for publicly defending her. Miss Cornish has perhaps erred in over-accentuating the moral of her story, but doubtless that will prove no bar to its popularity with a large section of the schoolgirl public, who will find an additional attraction to *One Term* in Paul Hardy's prettily-coloured illustrations.

SHORT musical plays that are suitable for being acted by quite young children are always in demand, and in Mrs. ARKWRIGHT'S *Brownikins and Other Fancies*,[19] we have some perfect little specimens of nursery drama. Not only are the words and music alike excellent (the latter, by J. W. Wilson, being very prettily and carefully adapted for childish voices), but each play is preceded by full stage directions, and the production of one of these little sketches should prove a welcome outlet for dramatic talent and aspirations in many a family of youngsters in the winter. The prettiest of all the Fancies is, undoubtedly, the Dutch play, "St. Nicholas," in which the sailor father returns home unexpectedly disguised as the genial saint who, in Holland, takes the place of our Father Christmas; but "Bibi" is a dainty little Japanese operetta which would form a charming episode in a children's entertainment, whilst "Baby New Year" might serve as a novel prelude to the distributions of gifts from the Christmas tree. Not the least attractive feature of this delightful book is Charles Robinson's illustrations, whilst the letter from Christopher, which forms part of the introduction, is quite a masterpiece.

Thanks to the large and varied collection of books which are constantly being produced for his amusement and instruction, the modern boy should find no difficulty in acquiring an immense amount of useful information regarding a variety of matters of which the children of preceding generations grew up in a state of blissful ignorance. Mr. JOHN LEA'S *Cruisers in the Clouds*[20] is an excellent example of this class of literature which has grown up in quite recent years. Written in very simple language, and with a total absence of unnecessary technicalities, it contains a short but comprehensive account of the secular struggle of man for the mastery of the upper air, together with descriptions of every kind of machine ever invented for the purpose of supplying the human race with wings, from fire balloons of the Montgolfier brothers down to the latest variety of aëroplane. It is a book that will delight "the soaring human boy," for the history of the as yet unconquered air is interesting and exciting, and Mr. Lea has most skilfully avoided any trace of the didactic tone which children resent so keenly, and which is affected by far too many writers when endeavouring to instruct the youthful mind. The book is well printed in large type and is very prettily bound. Numerous illustrations are contributed by H. J. Rhodes.

A companion volume to the one just mentioned is to be found in *Danger Signals*,[21] by the same author, which contains a very interesting description of the lighthouses, lightships, and the different kind of buoys, not only in British waters, but in various parts of the world. Mr. LEA has not merely written the history (in many instances tragic) of the building of many of the former, but he has

[18] *One Term:* A tale of Manor House School. A story for girls. By M. Theodora Cornish. Illustrated by Paul Hardy. Published by Wells Gardner, Darton, and Co., London. (Pp. 269.)

[19] *Brownikins and Other Fancies.* By Ruth Arkwright. Music by J. W. Wilson. Pictures by Charles Robinson. London: Published by Wells Gardner, Darton and Co. (Pp. 82.)

[20] *Cruisers in the Clouds.* By John Lea. Illustrated by H. J. Rhodes. London: Wells Gardner, Darton, and Co. 1910. (Pp. 167.)

[21] *Danger Signals.* By John Lea. Illustrated by H. J. Rhodes and other artists. Published by Wells Gardner, Darton, and Co., London, 1910. (Pp. 153.)

carefully explained the lines upon which they, and all the other danger signals of the sea, are worked, and gives a graphic sketch of the life led by the men whose duty is to look after them. This most excellent book is bound and printed in a similar fashion to *Cruisers in the Clouds*, and is copiously and admirably illustrated by H. J. Rhodes and several other artists.

## MEDICINAL AND DIETETIC ARTICLES.

*"Trilactine" Cultures of B. Bulgaricus.*

ALTHOUGH the popularity of sour milk among the general public appears to be fast subsiding, the employment of the milk or other preparations of the Bulgarian bacillus by medical practitioners as an adjunct to treatment in many cases is no more affected by the subsidence than by the existence of the craze. Certain new products introduced by Mr. W. Martindale (10, New Cavendish Street, London, W.), samples of which we have recently received and examined, appear likely to be useful where it is desired to administer the bacillus in vigorous and active form, without the milk. "Trilactine Ferment No. 1" is a culture of the bacillus in a liquid containing malt extract, lactose, and peptone bouillon; "No. 2" is a similar preparation containing yeast in addition, and is suggested for use in cases of diabetes and obesity. Examination showed both to be liquids with very little taste, in which the microscope revealed abundance of the respective organisms. They are guaranteed to keep good for at least a fortnight from the time of preparation, and appear to be well suited for the purpose for which they are intended.

*"Ecsōlent" Compounds.*

In the BRITISH MEDICAL JOURNAL of February 2nd, 1910, p. 326, there appeared a short notice of three preparations supplied by the Ecsōlent Compounds (Saracen Buildings, Snow Hill, E.C.) intended for the treatment of eczema and other skin affections. These comprise an ointment, a soap, and a dusting powder. The ointment is made with a basis of soft paraffin, and contains zinc oxide, starch, boric acid, and resorcin, with small quantities of a number of antiseptic and aromatic substances; the soap shows no free alkali, but is slightly superfatted, and both this and the powder contain some of the aromatic and antiseptic ingredients used in the ointment, while the basis of the powder is talc, with zinc oxide, starch, and boric acid. We expressed the opinion that "from the composition of these preparations they may be expected to prove useful for the purpose for which they are intended." Practical experience has confirmed this expectation, expressed nearly twelve months ago. We have had the opportunity of satisfying ourselves that the ointment is of great value in the treatment of itching eruptions, especially about the anus and genitals, and the powder has proved an excellent application in cases of troublesome intertrigo in the folds under the breasts, on the abdomen, and elsewhere. In addition to our own limited but decidedly favourable experience, we have had submitted to us a large body of authentic evidence spontaneously offered by practitioners throughout the country. Their statements refer chiefly to cases of eczema, erythema, psoriasis, pruritus ani, and various other skin affections. The names and professional position of those who testify to the usefulness of the Ecsōlent Compounds are sufficient guarantees of their good faith.

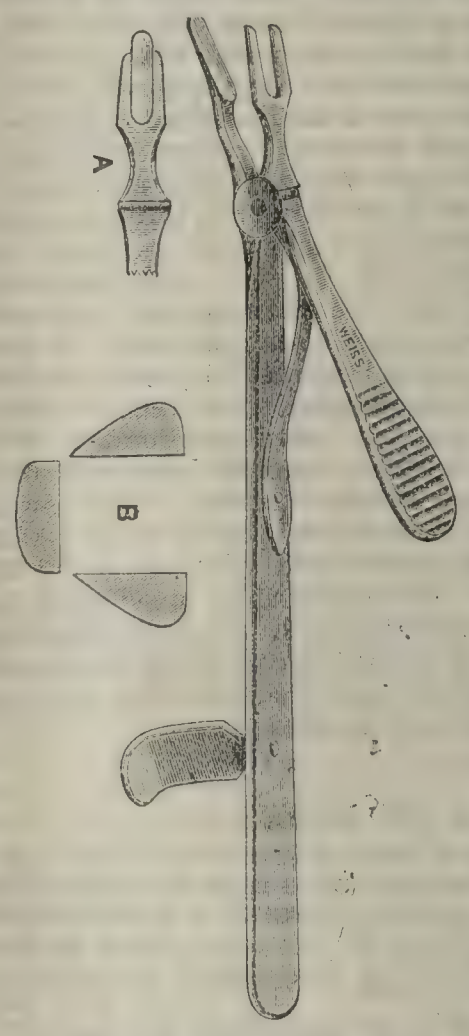
*Disinfectants and Soaps.*

In our issue of December 10th, 1910, p. 1860, in commenting on various disinfectants and soaps made by Messrs. E. Cook and Co., Limited, we observed of the principal disinfectant, known as "Cofectant," that "it does not appear desirable that it should be described on the label as non-poisonous." Messrs. Cook and Co. have written with reference to this comment to point out that the liquid in question owes its properties to phenoloid bodies of high boiling point, which are not capable of absorption in the body like phenol, and are therefore non-toxic, adding, "we have been advised by our medical friends that 'Cofectant' is not absorbed by the human body, and it certainly cannot be termed a corrosive poison." "Of course we do not suggest that 'Cofectant' may be taken internally with impunity; but there are very many oils, etc., which are admittedly in the same category, which are always considered as being non-poisonous." We do not wish to appear to detract from a preparation of considerable merit, and have pleasure in thus drawing attention to the non-toxic nature of the phenoloids used, but without altering our opinion as to the desirability or otherwise of labelling the preparation "non-poisonous," an expression which may easily lead users of the disinfectant to assume too much.

## MEDICAL AND SURGICAL APPLIANCES.

*Twin Scissors for Sclerotomy (Herbert's Operation).*

MR. N. BISHOP HARMAN, F.R.C.S., writes: The instrument shown in the figure is designed to facilitate the performance of Herbert's operation of sclerotomy for the relief of chronic glaucoma. The idea in view has been to reduce the difficulty and time involved in making the two lateral cuts for the valve-like scleral flap, which is the feature of this valuable operation. The instrument has been modelled upon the plan, and does the work of, two pairs of scissors, so that it has been called "twin scissors." It makes, on the gradual and shearing approximation of its blades, two parallel cuts, each 4 mm. in length, and separated from each other by 3 mm. In appearance it is something like a needle holder, but the blades are different. The lower or male blade is flat and bevelled, so that each side presents a sharp edge; its free end is rounded and blunt and projects 2 mm. beyond the female blades. The upper or female blades are a pair of parallel, sharply bevelled blades, springing from a common stump. When the handles of the scissors are closed the female blades shear down on the sides of the male blade and come to rest, overlapping it. The instrument shown has been used for operating on four human eyes with successful results; it was then used to cut sheep's eyes, rubber sheeting, cloth, and paper, until the keenness of the blades was dulled; then it was successfully sharpened. The lower handle of the instrument has a novelty in the provision of a finger plate, which, being slipped between the second and ring fingers at the joint of the end phalanges, gives a very steady and easy grip of the scissors. In cutting with the scissors it is essential to press the handles together evenly; if a lateral thrust be imparted to them the necessary fractional play of the hinge will allow one or other of the female blades to engage its side of the male blade too firmly, and perhaps check the cut; if the lower handles of the twin scissors be operated by the ends of the fingers, just as in using ordinary scissors, the cutting will be easy and even. Trial cuts with the scissors should be made on rubber sheeting, but not on paper or card. In operating with the instrument, I have found it convenient to first turn forward a flap of conjunctiva from the chosen site of the sclerotomy; then the keratome is inserted into the sclerotic 3 mm. from the clear corneal margin, and passed through and under the sclerotic until its point appears within the corneo-iridic angle; it is pushed on until a clear 3 mm. of the blade is within the interior chamber; the keratome is then withdrawn. Now the male blade of the twin scissors is pushed along the track of the wound until the projecting 2 mm. of the blades shows within the anterior chamber; the scissors are then closed, the cuts made, the male blade gently withdrawn, and, with the replacement of the conjunctival flap, the operation is complete. In the four eyes operated upon with this instrument eserine was used subsequently for three days. The twin scissors are made by Messrs. John Weiss and Son, of London.




A, View of blades from above; B, section of blades, highly magnified.

THE late Dr. Joseph Nelson, Belfast, Ophthalmic Surgeon to the Belfast Royal Hospital and the Belfast Hospital for Children, left personal estate valued at £13,369.

# THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

## "AN ABSOLUTE SYSTEM OF MEDICINE."

ALTHOUGH such extensive and varied claims are made for some of the nostrums, the composition of which has been already dealt with in these pages, that they may be said to be put forward for the cure of almost every disease, it is evident that there are even greater possibilities of covering the whole field when the same proprietor puts forward a full series of preparations for internal and external use. In the case of "Wallace's Twelve Specific Remedies," which form the subject of the present report, the claim is definitely made that:

These Specifics are for the Eradication of all Organic and Functional Diseases incidental to the present generation during infant and adult life,

and the prescribing of the "specifics" is regarded as a complete system of medicine. These preparations are supplied from the offices of *The Herald of Health*, London; their authors appear to be Mr. Joseph Wallace and Mrs. C. Leigh Hunt Wallace, 38, Russell Square, W.C. The medicines are supplied at the uniform price of 2s. 9d. per bottle, containing one fluid ounce, but it appears that the proprietors do not confine themselves to merely selling these preparations. In a list of "Terms for Medical and Hygienic Consultation with Mrs. C. Leigh Hunt Wallace (The Wallace Specifics only prescribed)" fees are named ranging from half a guinea as "reduced terms for domestic, railway, and other servants," to two guineas for ordinary "consultation by appointment"; and from the same list it appears that Mr. Wallace's terms are three guineas for a consultation and five guineas for "visits to patients' own residences, within 3 miles of Russell Square." It is not necessary to express any opinion as to whether the "system" is one of deliberate and conscious fraud and imposture, or whether the persons concerned are protected by the completeness of their ignorance from full realization of the true nature of their practices. The extracts given below from their publications are sufficient evidence of that ignorance.

The principal account of the "system" is given in a book of about 170 pages, entitled "*Physianthropy, or, The Home Cure and Eradication of Disease.* By Joseph Wallace (Lex et Lux) and C. Leigh Hunt Wallace," which is sold at 6d. and 1s. The date of the eighth edition of this, now being sold, appears to be 1901 or 1902; this is supplemented by a pamphlet dealing only with the specifics, dated 1906, and described as

SECOND EDITION. By which "Physianthropy" may be corrected and revised up-to-date.

The book is divided into several parts, all characterized by a display of great ignorance and great assurance; the part with which we are now concerned is entitled,

AN ABSOLUTE SCIENCE OF MEDICINE, IN OPPOSITION TO STATE-PROTECTED EXPERIMENTAL QUACKERY,

its claim to being "absolute" apparently depending on its being unrelated to facts, at least in any such way as the sort of science which is stigmatized as "experimental." In the introduction to this part an account is given of how Mrs. Wallace first became acquainted with these remedies from their "discoverer," Mr. Wallace; but it is not stated whether he discovered them in a dream, or in some other manner equally free from the charge of being experimental. But we are told that

This invaluable system he has only divulged to clergymen and doctors, who each gladly paid him a hundred guineas, and bound themselves, legally, not to reveal the names or the method of preparation of his medicines, till after he had published his complete medical work, which would give to the world the free and full benefits of his discoveries.

Certain possible criticism is thus dealt with in advance:

It is evident that those who say this book is written for the purpose of advertising the sale of *quack* medicines, utter a false and slanderous assertion upon one whose desires and works are ever devoted to the best interests of humanity.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii. p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1119; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91.

The "Specifics" are thus referred to collectively:

The Medicines, here introduced to the public for home use and private purchase for the first time, consist of

Twelve Absolute Specifics.

*They are scientifically curative of the various diseases and conditions of the body, which are here carefully enumerated, as indicating their requirement.*

*At present these Medicines are merely distinguished by numbers, as*

*"No. I," "No. II," "No. III," etc.*

*It must be explained that they are prepared in an alcohol denuded of fusel oil, and are treble the concentration of those of a similar kind prepared by the usual homoeopathic or allopathic mode, but, as explained elsewhere, the whole of what may be called the accumulative, alkaloidal, or poisonous principles of the plants have been removed, and thus their curative powers, when combined with a truly curative regimen, are enhanced in a marvellous degree.*

*Although it may be considered almost hopeless to expect any of these Specifics to be improved upon, or superseded, yet should others be subsequently discovered which are more prompt in palliative action under any conditions, non-cumulative in the human system, and permanently curative, they will be described in a future edition of this work.*

A footnote states that this was written in 1883, and, since only twelve specifics are still described, it appears that the faint hope suggested of anything else being discovered worthy to rank with them has not been fulfilled in the twenty-seven years that have since elapsed, in spite of the many advances and new discoveries in that time in mere ordinary "experimental" medicine; but progress is, of course, incompatible with "an absolute system" of anything.

No. I.—This is stated to be made from *Aconitum napellus*, but to be non-poisonous. It is stated in the preface that:

This was the subject, in 1891, of a prosecution, as Mr. Wallace desired to send it out without the label "POISON" being put upon the bottle containing it. But it is, *technically*, a poison, because it is prepared from the poisonous plant *Aconitum Napellus*. Mr. Wallace has taken a patent out for his method of producing from it a non-poisonous tincture. . . . When the law was made that all preparations of that plant were to be labelled "Poison," it was not contemplated that a non-poisonous preparation could be made. The law is behind the times, and needs repealing.

In regard to its mode of action, we are informed that:

The chief action of "No. 1" is over the whole circulatory and nervous systems, controlling them when diseased, in a most marvellous manner, without causing any unnatural suppression of the vitality. It has a wonderful power of paralysing the white, or yeast corpuscles in the blood, and thus staying their power of reproduction, or growth, and multiplication; reducing the fermentative abnormal heat of the blood in a corresponding degree, thus relieving congested and inflammatory states, and so causing the skin pores to become more elastic, open, and free, as the capillaries get rid of their congestive blockings. The mucous membranes are also enabled to allow free exit to the phlegm, or yeasty excretions from the blood, which the microscope reveals to be one mass of white corpuscles. It is by virtue of this wonderful power of clearing out this effete matter that the normal circulation becomes rapidly established, and the yeasty impurities of the blood, or death force, which was locked up in the brain, or upper parts of the body, has to descend *outwards*, and *downwards* (according to nature's law of cure), thus cooling the head, and, by balancing the circulation, warming the feet at the same time. "No. I" also possesses the curative property of encouraging and assisting nature in her expulsion of iron and other mineral drugs, hence its wonderful control over neuralgia and lung bleedings, which are drug (*iron*) created diseases, or conditions. Thus it is that all abnormal haemorrhages, and discharges are specially benefited by it, diseased matter rapidly expelled, and healthy fluids conserved, while the healthy normal action of the organism is restored in the least possible time.

A pretty specimen of "absolute" nonsense!

The names of diseases for which this "non-poisonous tincture" of aconite is to be taken, and the list of their symptoms, occupy several pages. A few specimens will show the catholic nature of this "specific":

Dropsy. Insanity. Tubercular diseases. Consumption. Bronchitis. Asthma. Heart, stomach, and liver diseases. Inflammatory and painful diseases of the spleen, pancreas, womb, kidneys, bladder, and bowels. Mumps. Abscesses. Scrofula. . . . Hydrocephalus. . . . Measles. . . . Small-pox. fevers of all kinds. . . . Organic debility. . . . Angina pectoris. . . . Diphtheria. . . . Whooping-cough. . . . Bleeding of the nose, eyes, or ears. . . . Polypus of the nose, etc. . . . Vermin under the skin. . . . Poisoning by bad or putrid fish. . . . Erysipelas. . . . Boils. . . . Piles. Hysteria. Tooth, jaw, and face-ache. Sciatica. Neuralgia. Lumbago. . . . Pleurisy. . . . Epilepsy. . . . Painful, prolonged, and difficult parturition. . . . Difficult, deficient, painful, or suppressed menstruation

. . . Leucorrhoea. . . . Squinting. Sunstroke. . . . Sore throat. Cold in the head. . . . Bright's disease. Diabetes. . . . Cataract. Amaurosis. Short-sightedness. . . .

Can anything be left for the other eleven specifics to do?

With regard to the non-poisonous nature of this tincture, it is explained that:

The plant from which "No. I" is made is a poisonous one; but this tincture is not prepared from, and does not contain, that portion of the plant known to be poisonous and consequently cumulative in the human organism. The alkaloid of the plant has to be almost, if not wholly, eliminated by the peculiar mode of preparation and preservation in a non-poisonous alcohol, which has been previously deprived of its fusel oil and other poisonous properties. So much so is this the case, that this preparation of "No. I" has been taken by mistake by several patients with delicate organisms, and by people who mistook it for brandy, *in quantities* equal to *two large wineglassfuls or more at one time*, without the least permanent injurious after-effects, beyond being very much frightened by the peculiar electrical effects produced on the nervous system.

"Two large wineglassfuls" would be from 4 oz. to 10 oz. or more, according to the meaning of "large." The draught would therefore cost from 11s. to 27s. or so, enough to make the patients "very much frightened."

The dose for adults is stated to be "20 drops to 40 drops, according to temperament."

It is somewhat surprising, in view of its non-poisonous nature, to read that the antidote to overdoses of "No. I" for adults is "No. III" in 30-drop doses. It is added that "the poisonous aconite sold at the chemist's needs port wine as an antidote."

It did not appear to be worth while to analyse every one of the twelve "specifics," and "No. I" was not examined.

No. II.—The action of this is described as follows:

The great power of "No. II" consists in antidoting, or neutralizing, the virulence of the corrosive action of the matter of bad, offensive, painful, burning or eating ulcers, whereby all pain is allayed and completely averted, when it can be applied as directed. Coming directly in contact with the excreted and excreting yeast corpuscles, it at once so neutralizes their ammoniacal and putrefactive surroundings, however degraded their source, that nature can immediately set up, and keep healthy, granulations of the part, until all offending matter which nature has to expel by that outlet, has oozed out, or been discharged, and thus if "No. II" is taken at the beginning, it is able to avert skin scars where they would unavoidably be produced without it. Hence it is specially curative for all broken, open, raw, or ulcerated surfaces, either internally or externally.

It has another wonderful power, as an extension of the above, in rooting out hereditary and acquired diseases from inoculation, and subsequent allopathic or other unscientific treatment. It will root out these old diseases, and mineral drugs, even when lodged in the bones, throwing to the surface the rotten bone with other offending matter; thus enabling nature to recuperate, and restore the lost parts. With seemingly latent, or internal abnormal growths, or growing ulcers, such as cancer and ovarian dropsy, when taken internally, "No. II" not only stops their slow growth, but, by neutralizing the virulence of the corrosive or putrefactive ichor excreted from the degraded yeast or other germs in the affected parts, enables nature to disperse gradually and surely, as a foreign but inoffensive substance, the effete matter without injury to the vitality, and with but comparatively little general disturbance.

In burns, scalds, and corrosions from cauteries, and corrosive minerals, and mineral acids, externally applied, it is all powerful in allaying the pain, preventing suppuration, and healing the part.

The list of diseases "*for which it is the absolute specific for all or some of their phases*" includes such trifles as:

Syphilis, and every form of venereal disease. Cancer in every form, whether situated in the stomach, womb, bowels, kidneys, liver, lungs, breast, brain, throat, tongue, mouth, nose, or any other part of the body. Ovarian dropsy. Whitlow. Fistula. . . . Diphtheria. . . . Itching, soreness, or eruption of the reproductive organs, from whatever cause, in male or female. . . . Deafness, with suppuration of the ears. . . . Necrosis, or rotting of bones. Hernia. . . . Varicose veins. Aneurisms. . . Confluent small-pox. Itch. Psoriasis. Eczema. . . . Tendency to miscarriage. . . . Diabetes. . . . Cystitis and Bright's diseases in syphilitized persons. Effects of poisoning by corrosive minerals and mineral acids.

Under "Administration" it is stated that:

This specific can be taken in almost any quantity, without organic or functional disturbance being created, but when large doses are persisted in for a considerable length of time, its power and purpose, as already described, become *too* evident, by the general disturbance created in the digestive organs, owing to the *extra* wave of pent-up latent matter being poured into the stomach, through the uprooting power of the medicine, creating for the time acidity, heartburn, and other fermentations in the stomach and bowels, but which symptoms cease if the medicine is discontinued or lessened in quantity for a few days.

The adult dose is given as "from *seven* to *ten* drops three times daily"; it is also to be used externally as a lotion—"*twenty drops* to one half-pint of water (preferably hot)," and a medicated oil—"*twenty* to *fifty* drops of the tincture to each fluid ounce of pure Lucca oil."

The statement, already quoted, that "the whole of what may be called the accumulative, alkaloidal, or poisonous principles of the plants have been removed," applies to this as to the others. Nevertheless, analysis of "No. II" showed the presence of the alkaloids berberine and hydrastine, the proportions being

| | | |
|---|---|---|
| Berberine ... ... ... | 0.05 | per cent. |
| Hydrastine ... ... ... | 0.11 | ,, |
| Alcohol ... ... ... | 32.3 | per cent. by volume |
| Extractive ... ... ... | 2.7 | ,, |
| Ash ... ... ... | 0.3 | ,, |

The ash showed the usual composition of the ash of vegetable extracts. The extractive agreed in its properties with the extractive of tincture of hydrastis (which also contains hydrastine and berberine); this, however, is usually made of about twice or four times (*U.S.P.*) the strength of "No. II" in regard to hydrastine. Careful search gave no indication of any other ingredient.

Tincture of hydrastis, *B.P.C.*, is not standardized, but an average sample with an equal quantity of water would contain about the same proportions of hydrastine and alcohol as the liquid under consideration. This gives about 2½d. as the cost of the contents of a 2s. 9d. bottle.

No. III.—It would scarcely be of interest to quote what is said about each of the "specifics" as freely as in the preceding cases, and a few extracts will serve. No. III is introduced with much verbosity, in which "the yeast animalculae, or white corpuscles," again figure; alcohol is referred to as "this singular product . . . (which no chemist that we are aware of has been able to *absolutely* analyse)"; a "Wallace improved distilling apparatus" is referred to, which separates alcohol and oenanthic ether from

their poisonous associates, acetic acid and fusel oil, which from their being absolutely poisonous, less volatile, and therefore cumulative, as this apparatus demonstrates, they form the chief factor in producing those evils commonly attributed to alcohol alone.

The diseases for which No. III is to be taken include

Seasickness, biliousness, and bilious vomiting, morning vomiting of drunkards, morning sickness during pregnancy, asthmatic breathing from alcoholic indulgence. . . . Fatty degeneration of the heart. Acne. Diabetes. Diarrhoea. . . . Megrim. Short-sightedness. . . . Dipsomania. . . . Delirium tremens. . . . Poisoning by deleterious chemical products and herbs.

Among the symptoms "*which indicate the requirement of* No. III" are:

Excessive selfishness. . . . Kleptomania. Excessive meanness. . . . Intense pain, as if a nail were driven into the brain. . . . Parched tongue. . . . Weak action of heart. . . . Rumbling in stomach and bowels, with sickening pain. . . .

The dose for adults is stated to be *ten* drops three times daily in chronic cases, and in acute cases every five or ten minutes till all painful or acute symptoms are dispelled; but in the more recent pamphlet the dose is stated to be twenty drops in both kinds of cases.

Analysis showed it to contain

| | | |
|---|---|---|
| Caffeine ... ... ... | 0.25 | per cent. |
| Cane sugar ... ... | 1.7 | ,, |
| Glucose or invert sugar ... | 0.6 | ,, |
| Ash ... ... ... | 0.52 | ,, |
| Alcohol ... ... ... | 47.25 | per cent. by volume |
| Extractive ... ... | 3.12 | ,, |

The ash had the composition common to the ash of plant extracts; the extractive showed the peculiar character of the extractive of coffee. Unroasted coffee contains cane sugar, which is mostly changed to invert sugar and caramel in roasted coffee; both contain caffeine. Tinctures of raw and roasted coffee were prepared, and it was found that a mixture of the two agreed almost perfectly with "No. III" in its characters and behaviour to tests; a tincture of a pale-roasted coffee would have the same composition as the mixture of tinctures of raw and roasted, and it is probable that that is what was actually

employed. The proportion of caffeine indicates about 1 part of coffee to produce 5 parts of the tincture. The cost of the contents of a 2s. 9d. bottle would be about 1½d.

No. IV is stated to be a specific for warts, to be applied by touching the parts affected several times daily. Very little is said about it, and it was not analysed.

No. V and No. VI are stated to be worm specifics, No. V being for small threadworms and long round worms, and No. VI for tapeworms. No. V alone was examined. The dose is stated to be seven to ten drops in a wineglass of water three times daily. Analysis showed it to contain:

| | | |
|---|---|---|
| Alcohol ... ... ... | 30.5 | per cent. by volume |
| Ash ... ... ... | 0.2 | ,, |
| Reducing sugars ... ... | 2.9 | ,, |
| Extractive ... ... | 1.7 | ,, |

The tincture was slightly acid. No active principle of any sort could be detected, and the extractive and ash showed no distinctive characters by which the plant from which they are derived could be identified. The liquid was compared with tinctures of drugs that are or have been used for worms, but with only negative results.

No. VII.—It is stated in the book that:

"No. VII" is the Specific for gout (*and is a tincture of Nux Moschata* [*Nutmegs*], *prepared according to a special formula and rom specially selected fruits*).

In the more recent pamphlet no information is given as to what it is prepared from. The dose is given as twenty to thirty drops in water, three times daily.

Analysis showed it to contain:

| | | |
|---|---|---|
| Alcohol ... ... ... | 51.05 | per cent. by volume |
| Ash ... ... ... | 0.22 | ,, |
| Reducing sugar ... ... | 1.0 | ,, |
| Fat and extractive ... ... | 2.1 | ,, |

A tincture of nutmeg was prepared (not, however, "according to a special formula") and compared with it, and the two were found to agree in all respects. No indication was obtained of any other ingredient; the proportion of nutmegs appeared to be about 1 part to make 5 parts of the tincture.

The cost of the contents of a 2s. 9d. bottle would be about 2d.

No. VIII is for whooping-cough; but little is said about it in the book, and it was not examined.

No. IX is described as:

The specific for mechanical haemorrhages (*and is aloes, prepared according to a special formula.*)

It was not analysed.

No. X is described as the specific for bruises, to which is added in the book ("*and is 'Wallace's Formula' of Arnica Montana*"), but in the later pamphlet nothing is said about the drug from which it is made. It is stated that

it does not produce the slightest erysipelatous swelling or other irritation of the skin, which is so frequently experienced with the ordinary homoeopathic mother tincture of *arnica*. For this reason the curative action or healing power can be pushed to such a demonstration as to surpass ordinary credibility. The "diseases, symptoms, conditions, and mechanical injuries for which 'No. X' is the specific remedy" include "Bruises, strains, sprains, shocks (electric or otherwise) . . . Effects of tight-lacing . . . Corns resulting from mechanical pressure. Painful effects of straining with constipated movements of the bowels. . . . Effects of violent fits; of miscarriages,"

etc.

The dose for adults in chronic cases is *seven* to *ten* drops three times daily in a wineglass of water, and in acute cases the same every three hours. It is also to be applied externally.

Analysis showed it to contain:

| | | |
|---|---|---|
| Alcohol ... ... | 26.6 | per cent. by volume |
| Ash ... ... ... | 0.38 | ,, |
| Reducing sugars ... | 0.55 | ,, |
| Extractive ... ... | 1.27 | ,, |

It did not possess the characteristic odour of arnica, but had a vinous odour resembling that of sherry; in other respects it agreed with a weak tincture of arnica in characters and behaviour to tests. The official tincture of arnica contains nearly three times as much alcohol as this; the cost of a weak tincture, which would be scarcely affected by adding enough sherry to give the vinous odour would be about 1½d. for the quantity in a 2s. 9d. bottle.

No. XI is described as the specific for cholera, and a long extract is given in the book from "a Pamphlet, entitled 'Cholera, its Cause and Cure,' by Joseph Wallace." In this it is stated that the specific remedy is "*Coffœa Cruda*, or Tincture of Raw Mocha Coffee," the adult dose being *three* to *ten* drops in a teaspoonful to a tablespoonful of water every five minutes, prolonging the intervals gradually as amelioration sets in.

It is stated that:

In the early stages of Cholera, when purging, or purging and vomiting has commenced for a short time, three or four doses at five-minute intervals, I have always found sufficient to restore the bowels and stomach to as perfectly natural a state, as if there had not been the slightest derangement. Such cases with me have never exceeded twenty minutes. . . .

If the patient has been allowed to pass into the state of collapse, and when every energy of the body and mind has been prostrated, the same course of treatment will produce a like result, but I would advise the dose of *ten* drops to be repeated every five minutes till amelioration takes place, and *three* to *five* drops after. I would add hot applications to extremities and sides, hand-rubbing as before, and in addition, where practicable, *prolonged breathing through a handkerchief over the region of the heart*, this last will restore the vital spark when apparently fled.

The formula is given as follows:

Steep one pound weight (avoirdupois) of well-dried and pulverised raw MOCHA coffee in three and one third pints (imperial measure) of strong alcohol for two weeks. Shake it well occasionally; filter through blotting paper, and it is ready for use.

Analysis of "No. XI" showed it to contain:

| | | |
|---|---|---|
| Caffeine ... ... | 0.1 | per cent. |
| Sugars (chiefly cane sugar) ... ... | 0.7 | ,, |
| Ash ... ... | 0.26 | ,, |
| Alcohol ... ... | 51.05 | per cent. by volume |
| Extractive ... ... | 2.1 | ,, |

The tincture was darker in colour than a tincture of raw coffee, and appeared rather to be made like "No. III," from pale roasted coffee, the proportion of the latter in this case being only about one part for twelve parts of tincture. No indication was obtained of any other ingredient. The cost would be about 1½d. for the quantity in a 2s. 9d. bottle.

No. XII. is described as the specific for ringworm, for which it is to be taken internally, in the dose (for adults) of twenty drops in a little water every eight hours, and also applied externally, though nothing is said about external application in the book, where the dose is said to be one to three minims in a little water every three to eight hours. This "specific" is stated in the book to be a tincture of Hydrastis Canadensis; it was not analysed.

## LUNACY IN CAPE COLONY.

THE annual report for 1909 of Dr. W. J. Dodds, the Inspector of Lunatic Asylums for Cape Colony,[1] shows that on the last day of 1908 there were 2,026 registered insane (excluding children in the institute for imbecile children) in the Colony, and on the last day of the year 1909 there were 2,109, giving an increase for the year of 77, or, including imbecile children, of 83. Of the total number on December 31st, 1909, there were 2,058 in the asylums, hospitals, and insane leper wards of the Colony, the small remainder being distributed over observation wards, gaols, and licensed houses, and as single patients. Also of the total number of 2,058, 969 were white and 1,089 coloured. The total cases under care during the year numbered 2,330, and the average number daily resident 2,024.

### *Admissions.*

During the year 495 were admitted, or, excluding re-admissions after lapsed or quashed reception orders and transfers, 346 (that is, direct admissions), as compared with 361 for the year previous. Of the total direct admissions, 161 were white patients and 185 coloured.

[1] Reports on Government-aided Hospitals and Invalid Homes, on Asylums for Lunatics and Lepers, and on Chronic Sick Hospitals, including Report of the Inspector of Lunatic Asylums, Cape of Good Hope for the year 1909. *Cape Times*, Ltd., Cape Town. 1910.

As regards the country of birth, 92 white were born in the Colony, 38 in Great Britain, 2 in other parts of the British Empire, and the remainder in Germany, Holland, and other countries; whilst of the coloured patients almost the whole number were born in the Colony. Of the total 495 admissions, in 97 (whites 56, coloured 41) the attacks were first attacks within three months, and in 50 more (whites 21, coloured 29) within twelve months of admission; in 73 (whites 35, coloured 38) not-first attacks within twelve months of admission; in 166 (whites 77, coloured 89) the attacks, whether first attacks or not, were of more than twelve months' duration on admission; in 31 (whites 15, coloured 16) they were of congenital origin, and in 78 (whites 8, coloured 70) the attacks were of unknown duration. As one would expect, the above figures show that the whites come earlier under treatment, and that it is impossible to obtain accurate information concerning many of the coloured patients.

Considering here only the direct admissions, these were classified according to the forms of mental disorder into: Recent mania 116 (whites 35, coloured 81); chronic 18 (whites 2, coloured 16), and recurrent 31 (whites 14, coloured 17); recent melancholia 31 (whites 27, coloured 4); chronic 8 (whites 3, coloured 5), and recurrent 3 (whites 2, coloured 1); senile and secondary dementia 37 (whites 18, coloured 19); general paralysis 21 (whites 13, coloured 8); delusional insanity 20 (whites 14, coloured 6); insanity with epilepsy, 19 (whites 7, coloured 12); congenital mental defect 25 (whites 10, coloured 15), the small remainder suffering from the less common forms of insanity. The comparative frequency of recent mania and to a less extent of chronic mania amongst the coloured patients, the comparative infrequency amongst the same class of melancholia, and the smaller prevalence of general paralysis are the outstanding features of the above analysis.

Turning to causation, the table of etiological factors comprises the returns of the asylums of Valkenberg, Robben Island, Grahamstown, Port Alfred and Fort Beaufort, and shows that alcohol was assigned in only 14 of the whites and 4 of the coloured admissions; acquired syphilis in 4 of the whites and 1 of the coloured, and dagga smoking in 5 of the latter; nervous disease in 49 of the white; various bodily affections in 38; critical periods in 42; bodily trauma in 7; mental stress in 25, and in the 217 no cause could be assigned. An insane heredity was only ascertained in 26 of the white and 8 of the coloured admissions. In the asylums of a country like South Africa, whose populations are composed very largely of recent immigrants and coloured natives, the difficulties of obtaining family histories must obviously be very great.

*Discharges, Deaths, etc.*

During the year 76 were discharged as recovered, giving a total recovery-rate on the direct admissions of 21.96 per cent., or for the Europeans of 21.74 per cent., and for the coloured patients of 22.16 per cent. In the year 1908 the recovery-rate for Europeans was 35.7 per cent., and for the coloured patients 25 4 per cent. The average recovery-rate during the years 1895–1908 was for Europeans 40.9 per cent., and for the coloured patients 28.8 per cent. It would be interesting to know why the recovery-rate for the coloured patients since 1895 has, with two exceptions, been far beneath that for the Europeans. In only one year does it appear to have been higher.

During the year also 31 were discharged as relieved, 18 as not improved, and 146 were transferred. During the year 52 Europeans and 98 coloured patients died, giving a total death-rate on the average number resident of 7.4 per cent., or of 5.5 per cent. for the Europeans and of 9.1 per cent. for the coloured patients. The mean of the annual percentage for 1898–1909 is: Europeans 7.5 per cent., coloured 9.7 per cent. The deaths were due in 51 to cerebro-spinal diseases, including 12 from general paralysis (whites 6, coloured 6), 30 from thoracic diseases, including 12 from phthisis (whites 3, coloured 9), 16 from abdominal diseases, 2 from accident or violence, and 51 from general diseases, including 35 from tuberculosis, 34 of these being coloured patients. Altogether 46 of the deaths among the coloured patients, or 47 per cent. of the deaths in this class, were due to tuberculous disease, as compared with 5 deaths, or 9.61 per cent., for the Europeans. The average proportion of tuberculous to total deaths in the coloured class, for the years 1905–9 was 39.51 per cent. Dr. Dodds says that an open-air shelter has been authorized for the treatment of some of the male tuberculous patients at Fort Beaufort Asylum, but that it had not yet been commenced, and that it would not be large enough to cope with the evil even on the male side of the asylum. Dysentery and enteritis caused 4 deaths, and a table furnished by Dr. Dodds shows that during the year there were 24 cases of dysentery and colitis among the patients and 61 cases of diarrhoea.

*Governor's Pleasure Patients and Criminal Lunatics.*

On January 1st, 1909, there were 82 Governor's pleasure cases, 1 insane unconvicted prisoner, and 11 insane convicted prisoners, total 94, on the register, and at the end of the year the Governor's pleasure cases had increased by 6 and the insane convicts by 8, total 108, or 5.12 per cent. of the total registered insane. Dr. Dodds points out that Cape Colony has proportionately nearly four times as many Governor's pleasure cases as New South Wales and above six and a half times as many as England and Wales, and says that it is a pity that more of the insane are not sent to asylums before they commit crimes, and that criminals who show mental symptoms are hurried into asylums instead of being observed and treated in a properly-equipped prison asylum or hospital ward.

*Cost.*

The net cost per head per day during 1908, after deducting collections from paying patients, at the asylums of the Colony ranged from 1s. 5¼d. in the case of Falkenberg to 1s. 9d. at the Port Alfred and Fort Beaufort asylums (excluding from this the Robben Island institution, where the cost was 2s. 10¾d., no distinction being made as to cost at this latter between insane and leprous and non-leprous children).

*Accommodation.*

For some time the provided accommodation of the asylums of the colony has been greatly beneath its requirements. Notwithstanding the urgency of the matter, Dr. Dodds has to say that practically nothing was done during the year 1908 to relieve the congestion. Patients had to be crowded into institutions already overcrowded, and the number of admissions was practically determined by the accommodation available. Also such matters as water supply, drainage, lighting, antiquated laundry appliances all urgently require attention. How far this deficiency of accommodation was responsible for the large numbers of patients who pass to asylums through gaols—108 out of 346 admissions in 1909—Dr. Dodds does not say, but his strictures on this practice deserve quotation:

> The degrading association of sufferers from mental disease with criminals in gaols continues; the practice is deeply rooted, and there is evil precedent enough for it in the annals of humanity, but it is a pernicious system, and it could and should be abolished. Year after year I have been at some pains, by the analysis of the gaol figures, to bring home to the Parliament and the people of this country the condition of affairs, and I deeply regret that so little has been done to mitigate the evil.

The matter is, of course, a financial one, and we hope that the new Parliament, recognizing that economy is impossible without efficiency, will grant to these institutions the financial support they so greatly need.

How considerable these needs are may be gathered from the separate annual reports of the medical superintendents of the several asylums. All echo the same melancholy refrain—insufficient accommodation, rooms only fit to be pulled down, defective drainage, and bad lighting. Only one paragraph need be quoted here—that of Dr. Dodds, writing as Medical Superintendent of the Valkenberg Asylum:

> The Cape Parliament, in respect to this institution, leaves, I am sorry to say, a large legacy of wants to the new Union. For years practically nothing has been done for us. We have gone on admitting patients for whom we had not proper room, and whom we could not treat as we ought to have treated them, and we have paid into the Treasury from 1905 to 1909 collections from paying patients to the amount of £32,708. During these five years one carpenter and one painter have been kept at work here, and only £2,322 or so has been expended on additions, alterations, and improvements. These figures speak for themselves, and they show the straits we have been in.

## CONFERENCE ON SCHOOL CLINICS.

ON Tuesday afternoon a largely attended conference to discuss the subject of school clinics was held in the library of the British Institute of Social Service, under the chairmanship of Viscount HILL. The principal speaker was Miss MARGARET MCMILLAN, who described the Deptford scheme and defined the school clinic as the latest attempt to anticipate the slow and wasteful and often cruel process of evolution, and to remove certain physical handicaps from the unfortunate child. The Deptford experience had taught her that the institution of the school clinic was bound up with the improvement of the social environment. Even the most trivial ailments became serious when their course was assisted by unhygienic surroundings. During the four or five months that the Deptford clinic had been open, 106 cases of skin disease—in most cases septic sores which had resulted from mere scratches—had been treated. Yet the children limped out again into dirty streets and none too clean homes, and the work of the clinic was to some extent undone. In this connexion particularly she urged the installation of school baths. There were illnesses, she continued, which the clinic could cure rapidly; 120 cases of ear diseases had been treated during the last ten weeks, with the result that 55 were completely cured and a large number of the others nearly well. The reason for the success was that the daily attention which, naturally, was not within the province of a hospital nor within the capacity of a mother, was given. Certain affections could be cured slowly in the clinic; 160 cases of adenoids had received treatment. All operation cases were sent to the hospital, but a number were successfully treated without operation, chiefly by breathing exercise. The central fact in physical education was proper breathing, and this was demonstrated daily in the clinic, where children in groups of five, and sometimes individually, were given breathing lessons. She looked upon this adjunct of the modern school as fulfilling the place of the nursery in the good home—a common meeting ground for doctor, nurse, teacher, and mother. The objection was the expense, that great superstition of modern life. At Deptford nothing had been stinted, either in the way of fees or appliances, and the 1,049 little patients had been treated at a cost of 2s. 9d. a head. If there were 10,000 children, and a whole-time doctor at a salary of £500 per year, and two whole-time nurses could be engaged, the clinic could guarantee to treat all such school disorders at a cost of about 2s. a head. There was nothing to frighten a gallant nation in these figures. The work was worth the doing. The children themselves were "glorious little beings." They had the pluck of the old Briton, and never a whimper was heard when they faced the doctor or sat in the dentist's chair.

Viscount HILL urged that the clinic had its training, as well as its treating, side. He thought the matter of breathing was very important. On the Continent one rarely saw a child walking in the street with his mouth open. It was the commonest sight in this country, and was due to the neglect of physical culture. He expressed his desire to further from his place in the London County Council any movement aiming at the establishment of school clinics or clinic centres.

There was a good deal of desultory discussion, and a number of questions were put to Miss McMillan. A member of the National Union of Teachers said that that body would discuss the question at the Easter conference, when a resolution would be moved.

Dr. TCHAYKOVSKY said that her experience of children's hospitals was that they could not afford to treat the minor cases, and would be grateful to the clinic.

Mr. W. A. BOWIE, ex-chairman of the Ragged School Union, thought that the mission halls in poor districts would be available for such purposes.

The following resolution was moved by Viscount HILL, seconded by Mr. HOLDEN BYLES, supported by Sir JOHN KIRK, and carried unanimously:

> That this conference would strongly urge the Board of Education to use its influence to encourage the speedy establishment of school clinics by all local education authorities, believing that the present need cannot be met by existing institutions, excellent as these institutions may be for their own work.

## LITERARY NOTES.

*Biologica* is the title of a new monthly periodical devoted to general biology, natural science, anthropology, psychology, hygiene, sociology, comparative pathology, and applied science. Although the new publication will deal more with general than with human biology, its subtitle, *Revue Scientifique du Médecin*, shows that the periodical is intended, largely at least, for medical readers. The name of the late Dr. L. Laloy, librarian of the Académie de Médecine, appears on the title page as "Secrétaire de la Redaction," which means that he was to have been the actual editor, under the general scientific direction of Professor R. Blanchard of Paris, Dr. A. Calmette, Director of the Pasteur Institute of Lille; Professor Dastre of Paris, M. Yves Delage, Professor of Zoology in the Faculty of Science; M. A. Gautier, Professor of Chemistry in the Faculty of Medicine in the University of Paris; and Professor Grasset, the distinguished physician of Montpellier. Dr. Laloy, who was the real originator of *Biologica*, died just as the idea which he had cherished for many years was about to take concrete shape. The first number, which is dated January 15th, contains articles on the stability of life, by Dr. Le Dantec; sexual selection, by Dr. Laloy; and a number of interesting abstracts of communications from various sources on the healing of fractures in savage animals (Schmutzer); the vitalist doctrine and the origin of life (Grasset, Merejkovski); human types (F. Régnault); a new procedure for the identification of criminals (Tamassia); and others. *Biologica*, which is well printed and attractively got up, seems to us to give the busy doctor an easy means of keeping himself abreast of the progress of the "paramedical" sciences. It is published by A. Poinat, 11, Rue Dupuytren, Paris.

Messrs. J. and A. Churchill have issued an illustrated guide to their publications, entitled, *The Literature of Medicine and Natural Science*. A glance through its pages will show the number and variety of books published by this well-known firm. Among them are not a few of the most important monographs and textbooks on subjects which cover the whole range of medical science.

In the *Deutsche medizinische Wochenschrift* some time ago there appeared an interesting article by Professor Wilhelm Ebstein of Göttingen, on two cases of paralysis said to have been miraculously healed in the early part of the thirteenth century at the shrine of S. Elizabeth of Hungary. The cures are recorded in a report on the miracles wrought through the intercession of S. Elizabeth sent by an ecclesiastical dignitary to Pope Gregory IX. in 1233. One of the cases referred to by Ebstein is an example of facial paralysis which is described in the original text (quoted by Huyskene in *Quellenstudien zur Geschichte der Elizabeth, Landgräfin von Thüringen*, Marburg, 1908), as follows:

> "Lutgardis de Urbach Moguntine diocesis jurata dixit, quod cum esset XX annorum et nuper circa festum beate Margarete dormiret in meridie exporrecta, oculum unum et os habuit sic distorta, quod oculum claudere omnino non potuet (*sic*), continue tremulum, et in ore nec salivam tenere potuit neque potum, et dentes ejus deformiter apparebant tota facie in partem unam transversa. Visitante autem ea ex voto tumulum domine Elyzabet et ejus auxilio suppliciter implorato et super tumulum suum capite inclinato, cepit oculum claudere et alias in facie emendari, ita quod intra septem dies statum priorem faciei sue plene recepit. Obtulit autem tunc ceream faciem in similitudinem faciei sue, et, dum auxilium et gratiam invocaret domine Elyzabet, censualem ei se fecit ad quatuor denarios annuatim tempore vite sue. Requisita de tempore egritudinis respondit, quod ebdomadibus octo duravit. Wortwinus, pater istius domine, juratus concordat cum eadem de egritudine ejus, quam videt de transitu ejus ad tumulum, de sanitate statim post adepta. Tragboto, sororius ipsius domine, juratus concordat cum patre.

As Ebstein points out, the open eye whose lid could not be closed, the distorted face, the mouth drawn to one side and unable to retain saliva or drink, make up a picture of facial palsy that cannot be mistaken. Ebstein thinks that the sudden onset and the speedy cure tend to show that the case was one of rheumatic paralysis. Slight cases of this kind often get well of themselves very quickly. Ebstein seems to think that the "waxen face" which the lady is said to have offered after her cure was a symptom,

or rather, a remnant, of her disease; surely it was an *ex voto* which she presented to the shrine, together with the annual donation of four *denarii* which she promised? The other case quoted by Ebstein from the same source is described as follows under the title *De viro distortos oculos habente sanato:*

Henricus de Confluentia, Treverensis diocesis, XV annos habens, juratus dixit, quod oculos distortos habuit a Pentecostes, quod proxime preteriit usque in festum sancti Remigii (1232 May 30 to October 1) ita, quod unus oculus nimis erat elevatus et alter nimis depressus et os distortum, preterea in dorso habuit vulnus maximum, votum fecit ad Dominam Elyzabet et, dum erat in via, recepit statim sanitatem.

Testimony to this case is borne by "Conradus," "Walterus," "Wiemudis," and "Goto," of the same city. In this case the illness was of longer duration than the former, but the cure was instanteous, having, in fact, been wrought before the patient had time to reach the shrine of the saint. Here, according to Ebstein, we have an instance of spasm of some of the facial muscles rapidly disappearing of itself. The invocation of the saint was a coincidence, though, of course, the mental suggestion inspired by faith may have had some part in hastening the cure. But what of the great wound (*vulnus maximum*) in the back? There is no mention of its having been healed. Conradus and the rest of them are simply reported to have said *se vidisse eundem juvenem si coc (? sic os) et oculos distorta habentem et post redditum suum sic curatum.* It is curious that so-called miraculous cures always leave something to be desired, not only in regard to the evidence, but in respect of completeness. It may be added that they often fail in point of permanence.

The January number of *The Child* has recently made its appearance. As usual, this attractive magazine contains much that is at once interesting and instructive. Its most important item is, undoubtedly, the opening article, written by A. F. Tredgold, Consulting Physician to the National Association for the Feeble-Minded, whose remarks upon "The Mentally Deficient Child" contain a useful and much-needed warning. Dr. Tredgold has no delusions regarding the danger caused to the entire community by the mentally unfit of either sex, whose numbers, of late years, are said to have steadily increased, despite the vast sums expended by the State upon the special training and instruction of children of unsound mind or insufficient intelligence. All this costly education, however, which under proper conditions should transform the mentally deficient child into a self-supporting citizen, is absolutely useless unless followed by constant supervision of the child during the years which succeed his school career. "Mental defect is incurable," says Dr. Tredgold, "and it is necessary to emphasize this point, because there is a tendency in some quarters to think that the conversion of the defective child into a normal citizen is only a question of 'special' schools. . . Nothing could be more fallacious. . . Such training is absolutely necessary if these children are to be turned to any useful account in after-life, but I must emphatically protest against the notion that any training, however 'special,' can be curative. Amelioration will certainly take place, but some degree of defect will always remain, and this will effectually prevent these persons from 'competing on equal terms with their normal fellows, or managing their affairs with ordinary prudence.'" Therefore, it is absolutely necessary for "special" training to be followed "by a *definite system of supervision and after-care.* At the present time, with the exception of voluntary committees in a few large towns, there is no such system. The mentally-defective child, after years of elaborate and expensive teaching, is turned adrift at the age of 16, to steer his own course and to shift for himself as best he may. The result is that, in the greater proportion of cases, the training is absolutely wasted; the feeble-minded youth or young woman passes from one situation to another, and only too often is to be found in the prison, the workhouse, or the rescue home within a few years of leaving school." Another important point to be observed is that "at the present time absolutely nothing is done to prevent the propagation of the feeble-minded. . . . The result of this is that the progeny of the mentally deficient are multiplying by leaps and bounds, and there cannot be the slightest doubt that this multiplication is contributing enormously to the number of the criminal, unemployable, pauper, and parasitic classes of the country." There are only two measures by which it would be possible to check this ever-increasing evil, and these are sterilization and segregation; and for several reasons Dr. Tredgold inclines towards the latter as the most effective solution of an extremely important problem. So far we have been concerned with the welfare of children whose mental powers are backward or defective, but in his article on "The Problem of the Poor and Ailing Child," Dr. A. D. Edwards pleads the cause of the children whose physical health is impaired, and points out the folly of an economy which, by neglecting to insure a race of strong and efficient children, inevitably results in a large number of mental and physical degenerates who have to be supported by the State. Another plea for the afflicted little ones of this great country is made by E. W. Austin on behalf of "Books and Libraries for Blind Children," whilst E. J. Wareham, in a charming article entitled "Fairy Lore and the Slum Child," gives a touching account of the joy introduced into the lives of these little slum-dwellers by the "Fairy Tale Society," whose members have permission to entertain the pupils of the London County Council Schools at stated times with the adventures of "Rumpelstilzkin" or "Little Red Riding Hood." Other items of interest in this month's number of *The Child* include an article on "The Child and the Actor's Art," by Thomas Burke; Miss Alice Elliott's "Child Welfare and the Metropolitan Police"; an interesting account of the "Manchester and Salford Boys' and Girls' Refuges and Homes and Children's Aid Society," by Thomas R. Ackroyd; and a short sketch of the life and work of the "good Lord Shaftesbury."

## SCIENCE NOTES.

THE serum diagnosis of rabies has as yet not received much attention. Three years ago two attempts were made in this direction, both with negative results. An explanation is vouchsafed in a recent paper by Nedrigailoff and Sawtschenko.[1] In the early experiments an emulsion of the brain of a rabbit dead of rabies was used to immunize a series of other animals. The serum of these animals was then tested with the brain substance of animals infected with rabies as well as with that of others uninfected. Complement fixation was obtained in every case, and thus the method was apparently of no value in diagnosis. The anomalous result, however, is shown by the above-mentioned workers to be due to the fact that in the immunizing process brain substance was injected, and that an antibody was elaborated to this. Being present in the diagnostic serum which was prepared, it is obvious that this would react with the brain substance of the test animals and so give complement fixation independent of the presence of rabies. Another organ, however, is available for the preparation of an antibody—namely, the salivary glands, for it is well known that, except in the earliest stages, these contain a certain amount of the rabies virus. These were accordingly selected for experiment. They were removed from an infected animal as soon after death as possible, and ground up in a mortar with normal saline. The mixture was then subjected to repeated shaking, and eventually to centrifugalization. With the supernatant fluid a horse was immunized. In the course of time the serum from the horse was found to contain a specific antibody, which, by the usual methods, gave complement fixation with the salivary glands of men and dogs which had died of rabies, but no fixation with those of normal men or animals. At the same time it gave complement fixation with the brain substance of both infected and uninfected animals. It is evident, therefore, that this serum is specific only with regard to the salivary glands, and that it may thus be of no practical value in the important initial stages before the virus has had time to reach the salivary glands.

[1] *Zeit. f. Immunitätsforsch.*, I Teil, December 21st, 1910, pp. 353–7.

THE eighth annual meeting of the American Society of Tropical Medicine will be held in New Orleans on Thursday and Friday, May 18th and 19th.

British Medical Journal.

SATURDAY, JANUARY 21st, 1911.

## MEDICAL FEES.

SWIFT enshrined the memory of his physician in the famous description of him as one "who knew his art but not his trade." It might not unjustly be claimed that this character belongs to the profession as a whole, for as a class none do more work for charity or for a small pittance than doctors. We are not concerned to deny that there have at all times been some who knew their trade as well as their art, and others who knew their trade but not their art. But the predominant type is still that represented by John Arbuthnot. Some months ago a correspondent of the *Yorkshire Telegraph* cited a remark of a judge that "medical men are the most unbusinesslike men under the sun." If to be businesslike means putting one's own personal interest before everything else, the remark is true, and we accept it as a compliment. But the lack of business instinct, although an admirable quality in a profession which exists for the relief of human suffering, may be carried too far. The public, which largely consists of persons whose instincts are predatory rather than charitable, is apt to take advantage of what it looks upon as an amiable weakness. It is no wonder, therefore, if the people have come to regard us as philanthropists whose skill is always at the disposal of whoever may suppose himself or any one else to be in need of it. It may be admitted that as the doctor's work lies, like that of Johnson's Levett, in "misery's darkest caverns," he often has to find such comfort as he can in the reflection that virtue is its own reward. But for the belief that has become deeply rooted in the public mind that a doctor should give his services for nothing, or take what he can get—when he can get anything—and be thankful, the profession itself is mainly responsible. It should once for all be recognized by ourselves that as the priest lives by the altar so the doctor must live by his art. This lesson should also be impressed on the public, which would then value medical service more highly than it does at present, when the fruits of the doctor's "own gained knowledge" can so easily be had for nothing. The last might then be heard of the silly complaints which are often allowed to find expression through the voice of a coroner, echoed by the newspapers, when a medical practitioner has declined to attend a case without some assurance that a fee shall be forthcoming. It is seldom, indeed, that a doctor allows the pecuniary consideration to influence him when he is called in an emergency. But it should be understood that a man who has often been called to cases of trivial illness as if the life of a fellow creature were trembling in the balance, or who is importuned by an insolvent patient, is as much within his right in declining to attend as a butcher or a baker is in refusing to supply meat or bread without reasonable prospect of payment. The labourer in the vineyard of medicine is at least as worthy of his hire as any other.

We have been led to use this plain manner of speech by some correspondence which has recently appeared in the *Times*. The discussion was started by a letter signed "Senior," in which the writer raises two distinct points connected with medical charges. He begins by complaining that he cannot get a detailed account for professional services from his doctor, and he suggests that this is because "the excellent man seems to fancy that it is beneath the dignity of his profession to condescend to details." Apart from the fact that comparatively few general practitioners can afford themselves the luxury of a secretary or accountant, it does not seem to strike him that it is not a matter of dignity, but of time. Every one knows the irritation caused to the ordinary man by a solicitor's bill dragging its slow length along over page after page. We think it likely that a bill of medical charges drawn up in similar detail would be regarded by very many people as an annoyance, if not as an impertinence. We have seen some old bills in which every pill, potion, clyster injection, and what not, was carefully entered; the effect is grotesque, and in the case of a large and sickly family must necessarily have given rise to unseemly gossip, possibly to unpleasantness. Such a bill, if made out by a secretary or accountant, would in itself constitute a breach of professional secrecy. If there are persons who share "Senior's" opinions as to medical charges, there is an easy remedy for the grievance: Let them pay the doctor in ready money, and the need of bills of any kind will, as Carlyle would say, evanesce. "Senior," who says that "doctors' bills would be more quickly and more cheerfully paid if they were rendered in a clear, businesslike manner," would find that the excellent man of whose vagueness he complains would cheerfully receive his fee if it were paid in a businesslike manner at each visit. This plan would have the further advantage that it would not allow time for the patient's gratitude to cool, as it proverbially does after recovery.

> Three faces hath the doctor: When we're ill
> He seems an angel; when he cures the evil
> God's self we hail him. When the little bill
> Comes in long after, he's the very D——l.

The other point raised by "Senior" is what he describes as "the persistent and rapid growth of medical charges." He quotes Mr. Gladstone as saying about twenty-five years ago that these charges were becoming so excessive as to approach the verge of a scandal. Mr. Gladstone said many things in his long life, many of which at some time or other he unsaid. But we find it difficult to believe that a man who held the profession in such honour as he did ever uttered such nonsense, at least as a general statement. Till little more than thirty years ago the physician's fee had continued the same since the days of Queen Anne, when the purchasing power of a guinea was much greater. Then by general agreement of consultants the fee for a first visit was raised to two guineas. At this figure it has remained with some few exceptions till to-day. That the fee is too small is generally admitted; it places younger men at a disadvantage, for the public, which is naturally attracted by names, does not willingly pay the same fee for the opinion of an assistant physician that it does to one of the leaders of the profession

even though the opinion of the junior may be in itself more valuable. The immense development of methods of scientific diagnosis within the last two decades should also be taken into account. The time has long gone by when a physician was content with looking at his patient's tongue, counting his pulse, and summarily testing his urine. Now all the resources of the laboratory must be brought into play if justice is to be done to the patient.

Perhaps it is the scale of fees for surgical operations that "Senior" has chiefly in view. That surgical as distinct from medical charges have risen is probably true. This is the inevitable result of the vast extension of operative work which has been brought about by the labours of Lister and those who have toiled in the same field. The average surgeon can now do far more for the cure of disease and the relief of suffering than could be done by the most skilful half a century ago. It is but right that a higher degree of skill should demand a higher price. We would apply to surgery the memorable answer given by Whistler to a question insinuating that the painting of a picture had taken him but a short time: "True; but it has taken me a lifetime to learn how to do it." Here, again, people who demur to what they consider excessive fees can always find men who will do what is required in a thoroughly workmanlike fashion at a relatively small cost. The general standard of medical education is now so high that adequate skill is within the reach of the most moderately furnished purse.

We would end with a note of warning to people who grumble about surgical fees. There is profound truth in the apparent cynicism of the teaching of Henri de Mondeville, surgeon to Philip the Fair of France, that it is well for the patient that the surgeon should be certain of a proper fee; then, he says, the surgeon can give his whole mind to the case, and brain, hand and eye all work together for the achievement of a cure. Mondeville spoke out of a bitter experience, for he says: "I have never met with any man rich enough, or rather honest enough, whatever his station in life, ecclesiastic or otherwise, to be willing to pay that which he had promised without compulsion or pressure." Though he was surgeon to a king and had a vast practice, he died a poor man. We need not point the moral.

## POOR LAW OUTDOOR RELIEF ORDERS.

IN the SUPPLEMENT for last week will be found the text of the new Draft Order for the regulation of outdoor relief, drawn up by the Departmental Committee appointed by the President of the Local Government Board. The Board, of course, is at present in no way committed to this Order, but, if it is finally adopted, it will work a radical change in the system of giving outdoor relief, at any rate, in many districts.

Taking a general view of the proposed Order, the following points are of special importance: (1) It replaces by a single uniform code, applicable to every union in England and Wales, the chaos of Orders and Regulations about outdoor relief now in force. (2) The distinction between the "able-bodied" and the "non-able-bodied" is dropped; the term "able-bodied" has been open to such varied interpretations that it has practically depended on the traditions of particular unions. In some the physical condition of the pauper has been the criterion, while in others its application has depended on more or less arbitrary limits of age. The old Poor Law Board would have interpreted it as meaning persons "ordinarily able to earn a livelihood," whereas in the evidence given before the Scottish Departmental Committee it meant "ordinarily capable of earning his own living, although at the time he might be temporarily disabled." It was, in fact, impossible to give any rigid definition of the term. (3) The Order provides for the general introduction of the "case-paper" or "history sheet" system, which is intended to secure that information as to the circumstances and history of applicants for relief shall be readily available so that guardians may be assisted in dealing with cases in an appropriate manner. The schedule to the Order prescribes the minimum particulars which are to be entered on the case-papers, leaving it to the guardians to add further particulars as they think fit. It is specially to be noted that the case-papers are not required in the case of casual paupers. (4) The labour test and the modified workhouse test will only be available with the consent of the Local Government Board, and only in circumstances of necessity, and for a limited period in the case of a particular union where the ordinary system is inadequate to meet exceptional conditions. (5) The Order defines in Article II the classes of poor persons to whom relief may be given without the imposition of any test. These classes are: (*a*) A person requiring relief on account of sickness, accident, or bodily or mental infirmity affecting himself or a dependent member of his family, those infirm from old age being specially included. At the same time it is provided that a medical certificate, which it is suggested should be attached to the case-papers, shall be required before relief in money is given to any of these persons, though if the certificate states that the infirmity is of a permanent nature no further certificate will be necessary for further relief on account of that infirmity. (*b*) A person needing relief to defray the expenses of burial of a member of his family. (*c*) A widow in the first six months of her widowhood. (*d*) A widow with a legitimate child depending on her and no illegitimate child born after the commencement of her widowhood. (*e*) A married woman living separate from her husband. With the above exceptions, no relief other than institutional relief is to be given to any person within the union, and it is suggested that the institutions should be of a specialized character, the selection being left to the guardians.

This prohibitory rule will be seen to be of a very radical character. Certain exceptions to be found in the Orders now in force are omitted from the present draft. For instance, "Relief required on account of sudden and urgent necessity" is no longer named, as it is considered that for cases not actually covered by the above exceptions, the only appropriate relief would be relief in kind, which the relieving officer is still able to offer. "Relief required in the case of a person in custody of the law" is also omitted. This is no longer necessary for the person himself while relief of his family while resident with their mother is provided for. "Relief required by the family of soldiers, sailors, or marines" is also omitted, being provided for otherwise. In the case of the children of these persons whose mother is dead or has deserted them, institutional relief is necessary.

Referring to the recommendations of the Royal Commission on the Poor Law, the Departmental Committee claims that its proposals satisfy, as far as the scope of a draft Order permits, all the recommendations

of the Majority Report which refer to outdoor relief regulations. The whole tenor of the Royal Commission's proposals is to the effect that a test, which was the pivot of the reform of 1834, is still a necessary condition of the grant of relief in ordinary cases. The Commission qualifies this doctrine by saying that the test should be not merely preventive but curative, but this addition cannot be dealt with in an Order such as the present, which is not concerned with the provision of institutions or their internal administration. With regard to the Minority recommendations, the Committee says: "The proposals made by the Minority of that Commission presuppose such a fundamental change of the machinery of Poor Law administration, that it has been practically impossible to consider them closely in relation to the terms of the Order which is now put forward. At the same time, we conceive that our proposals are not opposed to the spirit of those made by the Minority."

The evolution of the existing Orders has been closely studied by the Committee, and it is pointed out that "one of the main objects of the reform of the Poor Law in 1834 was, briefly, to restore the independence of the labouring classes by counteracting the attractiveness of parish relief. This could only be done by attaching conditions to the receipt of such relief, and the most effective of the possible conditions was that the relief should be given only in a workhouse." This, of course, presupposes adequate workhouse accommodation, and until that could be provided some substitute such as the outdoor labour test was necessary. It is to be noted that no Order was ever issued absolutely forbidding relief outside the workhouse, as exceptional circumstances were always allowed for. Considerable progress was made in the early years after 1834 in securing a uniform code throughout England and Wales, and in 1841 the first General Prohibitory Order was issued to 454 unions. But in 1842 it became clear to the Poor Law Commissioners that it was not practicable at that time to make the Order universal in its operation. For instance, many of the rural unions had no workhouse or not a sufficient one, while certain metropolitan unions and unions in the manufacturing districts of the North had only small and ill-constructed workhouses. In other cases, too, the workhouses might be temporarily full. In many of these cases an Order was accordingly issued permitting the grant of outdoor relief to able-bodied men on condition of the performance of a task of work. The amount, however, to be given by the guardians was to be "relief," not "wages"—that is, it was to be calculated according to the needs of the applicant and not according to the work done. In 1847 the General Consolidated Order was issued, and no further change of moment was made until 1852, as the Poor Law Board which succeeded the Poor Law Commissioners in 1847 continued to work with the same tools—that is, the Prohibitory and Labour Test Orders. In 1852 the first Outdoor Relief Regulation Order was issued to unions not already under the Prohibitory Order, and this required a certain proportion of the relief to be given in kind and weekly. A labour test was also imposed on all able-bodied male applicants. Many boards of guardians, however, objected to this, and the Order was withdrawn and replaced by the General Regulation Order, which is now in force. Great pressure was brought to bear on the Board to induce it to alter the conditions of relief on a labour test, but the Board resolutely kept to the condition which prohibits relief to an able-bodied male while he is employed for wages or other remuneration, though it was pointed out that it did not prohibit relief given in the case of a man working for wages on one day and being without work the next day, and being then in need of relief. The process of replacing the Regulation Orders by Prohibitory Orders has continued down to comparatively recent times. In certain unions, however, an Order has in recent years been issued enabling guardians to give relief under the modified workhouse test—that is, by taking only the head of the family into the workhouse while relieving his wife and family outside.

The report states that of the existing 644 unions 274 are under the Prohibitory Orders alone, 254 under the Prohibitory and Labour Test Orders combined, 116 under Regulation Orders, and one (Brighton) is regulated by provisions contained in a local Act. At one time attempts were made to apply the labour test to able-bodied female applicants for relief, but the difficulties were found to be insuperable, and no test is imposed on them by the Regulation Order, though the Prohibitory Order applies its test to both males and females who are able-bodied. It will be seen from the above that the provisions regulating outdoor relief have been practically unaltered since 1852, except, perhaps, for the introduction of the modified workhouse test in the case of a few unions. Nevertheless, it would not be correct from this to assume that there has been no change in practice. Much is left to the discretion of the guardians, and within the limits of the Orders there is room for great differences in administration. From time to time the central authority has intervened to secure a more efficient administration of the Orders, and in the ten years ending 1878 there was a considerable reduction of outdoor relief coincident with special activity on the part of the central authority. There has been a gradual and general adoption of the main principles of the Prohibitory Order, even in unions under the Regulation Orders, with the result that to-day the ordinary workhouse test is imposed as much in one class of unions as in the other. The reason for this is that most of the unions under the Regulation Orders have now acquired adequate workhouse accommodation, so that one of the main reasons which led to those Orders has ceased to exist, and we are told that "guardians acting under both forms of Order have found by experience that the application of a workhouse test is, as a rule, the most satisfactory system of dealing with an applicant who does not come within one of the specially excepted classes."

It is evident that if the draft Order comes into force the discretion of boards of guardians in giving outdoor relief in the future will be considerably restricted, and the granting or withholding of medical certificates will place a great responsibility on the union doctors. For instance, in the case of persons over the age of 60 who are past work and not really able-bodied, but who have not arrived at the age of 70 so as to be entitled to the old age pension, the question of bodily infirmity may often be a difficult matter to decide, and the refusal of a medical certificate will compel the guardians to refuse outdoor relief. In short, the responsibility for restricting the amount of outdoor relief in the future will to no small extent be taken from the guardians and placed on the shoulders of the medical officers, who, after all, are in nearly every case best able to judge, when there is any question of infirmity, what persons will be most benefited by institutional relief.

## SICKNESS AND INVALIDITY INSURANCE.

FOLLOWING the plan already announced, the Chancellor of the Exchequer on Thursday, January 12th, received deputations from the National Federation of Dividing Friendly Societies (representing 350,000 members), the National Association of Registering Friendly Societies (representing 265 societies and 274,000 members), and Collecting and Legal Friendly Societies. The Government scheme of State insurance was under consideration, but the proceedings were private.

In the SUPPLEMENT for this week will be found two papers on this subject, read recently before meetings of members of the Association, the one by Dr. Rowland Fothergill introducing a discussion by the Hampstead Division, and the other by Dr. William Bruce, formerly direct representative for Scotland on the General Medical Council, contributed to a discussion by the Aberdeen Branch. Both are opposed to the profession undertaking to act as insurers, but Dr. Bruce looks to the friendly societies, while Dr. Fothergill looks to the State to carry out this duty.

In this connexion we may call attention to an editorial article in the last issue of the *Bristol Medico-Chirurgical Journal*, which puts some of the problems involved in a concise form. In this article it is urged that an essential condition, and one which is in accordance with the past policy of the British Medical Association, is that the profession should act collectively and not individually. The writer goes on to argue that, in the event of the Government failing to evolve a comprehensive plan, the profession itself must be prepared to carry out some scheme for the betterment of the conditions of practice among the working classes. It is assumed to be agreed generally that the patient shall have free choice of doctor, but it is pointed out that difference of opinion exists as to the method of payment—that is, whether it should be by a fixed sum per annum for each person or payment for each personal attendance. Arguments for and against each system of payment are summarized, and in discussing the capitation fee it is suggested that "some idea of it might be got by estimating the value of private practice in unopposed districts, where the population liable to attendance would be known, excluding, of course, Poor Law and contract practice patients. Say that with such a population of a thousand a man estimated his private practice at £500 per annum, then the fair fee would be 10s. per head." But it is admitted that this form of remuneration would not be acceptable to the supporters of the system of payment for work done, who, with Dr. William Bruce and Dr. Fothergill, contend that the medical man should not take the risk of the insurance as he does under the capitation system, but should be remunerated for the work actually done. Dr. Fothergill formulated this view in three propositions: First, that the State should be the insurance company, and take all risks; secondly, that the State should fix a wage limit and prevent its abuse; thirdly, that payment should be made to all classes of the medical profession in direct proportion to the services rendered on a tariff based on payment for each attendance. On the other hand, the article in our contemporary urges that "we cannot get away from the practical difficulty. Will any Government undertake such an uncertain risk as the payment of the doctors' bills for 15 millions of people? It is a risk that could only be undertaken by the State or some body with a large reserve fund. We cannot recall any department in which they do anything of the sort; and their salaried medical officers accept and do not seem to object to much larger risks than the man paid fees *per capita*—the latter's pay does vary in direct proportion to the number he is liable to attend, the former's salary does not."

The writer urges strongly that in the discussion of the various schemes the criticism of a learned profession should be scientific and not polemical, and that "we have to find not only what is desirable but what is practicable," and "if we are blinded by our ideals and if our demands are unreasonable, we may not only be left where we were, but may be chained there by some objectionable Government scheme being thrust on us." The article concludes: "Although we think that the system of payment per head is suffering unjustly from prejudice and from the sins of its ancestors, we have a feeling that the principle of payment for work done is the one most likely to obtain unanimity and enthusiasm, because it appears so much more attractive." This was written before the appearance of the articles in the *Times* and *Manchester Guardian*, which definitely state that medical attendance is not to be one of the provisions of the Government scheme. It is still doubtful how far this statement reflects a settled official opinion, but probably the remarks about the two methods of payment in the *Bristol Medico-Chirurgical Journal* would not have been materially modified even if it had been certain that medical attendance would not be one of the direct benefits of the State insurance scheme. In either event the chief arguments for and against the two systems of payment would retain their validity in essentials. But while in one case the profession would have to treat directly with a Government department, in the other—that is to say, if the administration of the insurance were handed over to friendly societies—it would have to decide in the first place whether it would deal with those societies at all, and, if so, on what terms and conditions. The serious criticism made by the Royal Commission on the existing medical club system cannot be ignored by the Government. The public and the profession have a right to demand that the Government should lay down as a condition of making a subsidy to the friendly societies the definite proposition that the medical attendance provided by the societies should be satisfactory, in its working and its effects, both to the public and to the profession. But were this done to-morrow the problem would not be half solved. It is by no means certain that the profession would be willing to deal with the societies at all for medical attendance on the additional ten million persons who are to be insured, even though the present arrangements for existing members of the societies were continued.

Dr. Bruce touches on the question of the workman's family, with which, as far as we can see, the scheme adumbrated does not deal, and Dr. Fothergill argues that, as it will always be impossible for certain persons in the community to meet the cost of medical attendance, and as it is not just that the medical profession should provide it for next to nothing, it becomes the duty of the State to take up the burden.

## "AN ABSOLUTE SYSTEM OF" QUACKERY.

A STUDY of the advertising matter, pamphlets, "treatises," etc., published by the makers of proprietary medicines, even if not supplemented by analytical investigation of the medicines themselves, might well induce the belief that human gullibility is unlimited. So many of such publications reveal at once to an intelligent reader the ignorance, and often also the knavishness, of the persons making the statements contained in them that it seems almost incredible that moderately educated people can be duped by them; but it seems quite clear that they are so duped. Inquiries which we frequently receive from practitioners about nostrums which they have found their patients to be taking or proposing to take furnish evidence of the success of the advertising of such nostrums which is so prevalent; probably most people, by a few judicious inquiries among their friends, will come across cases of individuals of fair education and acumen in other matters accepting unquestioningly quite absurd statements widely advertised about some nostrum, or the diseases which it is asserted to cure. The particulars which we publish this week of a set of so-called "specifics for the eradication of all organic and functional diseases incidental to the present generation during infant and adult life" well illustrate the power of nonsense to get itself believed and accepted; these medicines appear to be put forward by two persons of the name of Wallace, one of whom professes to be their "discoverer," and the discoverer of "the Origin and Unity of Disease in Man and Animals." Such statements as that the white corpuscles of the blood are yeast cells, and that phlegm consists simply of masses of them, or that acetic acid is an absolute poison, surely cannot impress many readers with respect for the knowledge of the author; while the grouping together as diseases for which one and the same preparation — an aconite tincture containing no alkaloid — is an "absolute specific," of dropsy, insanity, consumption, mumps, vermin under the skin, pleurisy, and many others, shows a degree of ignorance that a cheap-jack pill-vendor in a country market-place might hesitate to display. The results of analysis complete the exposure of the worthlessness of the statements made; thus, it is professed that all alkaloidal substances are absent from all the preparations, but three out of the six tested were found to contain one or more of the alkaloids caffeine, hydrastine, and berberine, while one of those not examined is stated by the "discoverer" himself to be tincture of hydrastis, which, of course, contains the two alkaloids last named. Another of the preparations, which is a tincture of the same drug, is put forward as an "absolute specific" for cancer of all kinds, for syphilis, and all venereal diseases, and a host of other disorders. Two others were found to be tinctures of coffee, one was a tincture of nutmegs, and another showed no active constituent of any character by which it could be recognized as a medicinal substance. Possibly if these facts come to the knowledge of some of the adherents of this "absolute system of medicine" they may be more inclined to give it the slightly altered name which heads this paragraph.

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## THE MEDICAL TREATMENT OF THE SICK POOR.

THE Presidential Address to the Birmingham Branch of the British Medical Association delivered by Mr. Gilbert Barling, Professor of Surgery to the Birmingham University, issued recently as a pamphlet, deals with Poor Law reform with special reference to the treatment of the sick poor. Professor Barling first of all mentions the main faults of which the present system is accused—namely, (1) the insufficiency and actual failure of Poor Law outdoor medical relief; (2) the inadequacy of indoor medical relief; (3) the insufficiency of nursing arrangements for the indoor and outdoor sick; (4) the deterrence of the present system; (5) the faults of the mixed workhouse; (6) the lack of compulsory powers of detention in certain cases; and (7) the want of co-operation between the Poor Law and voluntary charities. Dealing with these in order, the blame for the unsatisfactory treatment of the outdoor sick is divided between the medical profession and the guardians, "the former for undertaking duties which they cannot adequately perform for the remuneration offered, and the latter for stinting payment to a point where they must know that it is impossible for a doctor to give the time and consideration necessary to treat the sick." At the same time, Professor Barling does not think that the failure of outdoor medical relief demands a complete destruction of the present system, which could be amended by adequate payment for the services required. With regard to indoor medical relief, though great improvements have been made, the defect in the infirmaries at present is the insufficiency of the medical staffs and the need for a greater degree of specialization in the treatment of disease. This defect also is attributed partly to the parsimony and partly to the want of knowledge on the part of the guardians, but again Professor Barling sees no need for "dragging up the present Poor Law root and branch." In speaking of the remedies for the present defects, the views of the Minority Report are severely criticized: "The most lurid pictures," we are told, "are drawn of present awful failures, and a vision is offered of a new earth from which disease will be banished by a glorified sanitary service," and the impression that remains in the mind of Professor Barling after reading the Minority Report is that "the writers had determined to condemn the Poor Law medical service from the first, and that all its weak points should be exaggerated and its virtues minimized. If any comparison can be drawn between the Poor Law and the sanitary service it is always to the disadvantage of the former, often most unjustly, and the weak points in the latter are glossed over as though they did not exist." The proposals of the Minority, he considers, would tend to "relieve the individual of all responsibility and initiative, while in no way lessening, but possibly increasing, the overlapping that exists at present." The true spirit of the Minority proposals is, he thinks, shown in its proposals (1) to give "full and honourable maintenance at the public expense to the surplus of labourers"; (2) to compel children to attend school up to the age of 15, and to insist on half-time attendance between 15 and 18; (3) to reduce the hours of railway, tramway, and omnibus workers; and (4) the proposal that all mothers having the charge of young children and in receipt, by themselves or their husbands, of any form of public assistance, should receive enough for the full maintenance of the family and devote themselves to the care of their children without seeking industrial employment. "Can you imagine," he says, referring to the last proposal, "anything more demoralizing than such a system or anything less likely to build up all that goes to make character?" Leaving the Minority Report, Professor Barling finds one principle generally accepted—that is, the necessity for concentration, and he considers that whatever body has the control of medical attendance large administrative areas at the root of the matter, the proposals of the

Hon. Charles Booth being specially commended. Great importance is attached to the proposals of the Majority for the "establishment of a provident dispensary embracing the whole country, with safeguards against abuse by those sections of the community for whom it is not intended." The question of hospital out-patient departments and free dispensaries is shown to be intimately bound up with this, and Professor Barling concludes: "If the insurance scheme comes to naught and a provident dispensary is set up, I will only express the wish that it may be carried out by the initiative and under the control of the medical profession itself, instead of being organized by the State, perhaps subsidized by the State; and, if so, then certainly in great measure governed by the State."

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## "IN GOOD FAITH AND WITH REASONABLE CARE."

The decision of the Court of Appeal in the case Griffiths *v.* Griffiths, published on page 174, is likely to be memorable, inasmuch as the judgements of the two Lords Justices elucidate the old question of how far a medical man is safeguarded by the law in the duties imposed upon him by the Legislature with regard to the signing of a lunacy certificate. Both judgements, and especially that of Lord Justice Fletcher Moulton, contain extremely valuable pronouncements. Before the passing of the Lunacy Act of 1889 the only defence that a certifying medical man had was in the truth of his facts and the correctness of the opinion which he expressed on those facts. In consequence he might be dragged through the courts, fighting one point after another before a jury, and finally be saddled with heavy costs, even if successful. In addition he was exposed to much worry, and possibly considerable damage to reputation. Under these circumstances it became so common for medical men to refuse to certify that the Government of the day determined to give better protection by a clause in the Act mentioned. At first sight this clause seemed to be perfect, and all were satisfied. It seemed so easy to refute allegations of mala fides and want of reasonable care. But at once, even before the Act was repealed to be worked up into the Lunacy Act of 1890, an action was brought (Toogood *v.* Wilkes), which showed that this view was too sanguine. It was a perfectly bona fide case, and ended eventually in favour of the defendant, a well-known practitioner at Salisbury, who applied for stay of proceedings under the Act. After much discussion, Mr. Justice Field decided that the defendant should show his bona fides and thus start the case; there is, of course, a great deal of difference between having to prove one's own case and having to attack the case of another. But subsequent practice supported Mr. Justice Field's view, so that the clause turned out to be less helpful than it was expected to be. This state of affairs, and a case (Purves *v.* Carswell) in Scotland, where there is no sort of protection, led the Medico-Psychological Association to appoint a committee to see what could be done to better matters. It was advised by counsel that there was no hope of the English law ever being altered so as to make the plaintiff open the case and prove want of good faith and care, it being held that if any one undertakes to exercise authority, he may be called upon to prove that it was exercised carefully and properly. It must be noted that when the case comes to trial, not only the question of due care and faith but on the pleadings themselves, the procedure is reversed, and the defendant has to show his hand as in an ordinary suit. Some the matter might be left, if only it could be ensured that the judge of first instance would peremptorily keep argument to the sole point at issue—the exercise of good faith and due care. In this particular case it may be surmised from the remarks of both Lords Justices that the judge who heard the case in chambers did not "keep his eye on the ball," and with the usual result. We have knowledge of another case, which may well be termed startling. A pauper patient, who had been in two public asylums, after her discharge sued the police, the workhouse doctor, the certifying magistrate, the medical superintendents of each asylum, and the relieving officer, all of whom had officially to do with her case. Application was made to stay the action under the Public Authorities Act, which applies to such officers the same preliminary defence on a question of bona fides. But the application was not successful at the time. She claimed to amend the writ by bringing in a charge of libel, and actually sought an injunction to restrain defendants from further libelling her as a lunatic, from keeping her name on the registers as a lunatic, and from further interfering with her liberty in the future. The case was before three judges, and got up to the High Court on appeal, but dwindled away in the usual course by costs not being paid into court as ordered. Here was a case in which officials had the clear "duty" of putting the patient in the proper place. They had no power to decline to take any risk or responsibility. Lord Justice Fletcher Moulton points out that it is the "duty" of private people as well as public officials to take steps in proper cases to restrain a patient for the benefit of the public and the patient himself. We are very glad to note the latter opinion, for in old days, and possibly now, the public safety formed with most judges the chief, if not the sole, ground for placing a man under restraint. The Lord Justice said also that under the Act there was not only a power but a "duty" laid on the court to entertain a summary application. He very clearly states that all the court has to do is to consider the evidence put before it, and decide whether or not it is satisfied that there is no reasonable ground for alleging bad faith or negligence. It appears that the progress of a case depends on the judge before whom the application to stay is made. His discretion is strictly limited to the one question; if he chooses to allow his mind to travel beyond that, grave injustice may arise. It is much to be hoped that this case and the remarks of such judges as the Lords Justices who dealt with it may serve in the future to stiffen the practice in summary applications. Beyond this question of legal interpretation, other points should be noted. Lord Justice Fletcher Moulton did not judge only of the actual condition of the patient under the influence of the drug, but he also took note of the "habit," which may reassert itself after improvement following on temporary abstention. The acquisition and the dominating effect of the habit being clearly a matter for medical judgement, the recognition of the weight of medical opinion is sensibly increased by the judge's observation. He also adverts to the inherent tendency to inaccuracy on the part of patients suffering from the cocaine habit; it is well known, not only in regard to cocaine but in regard to alcohol and all lethal drugs. It is reassuring to find that the Bench admits the clinical fact. We note with appreciation the attitude which Lord Justice Fletcher Moulton assumed when taking into consideration the whole nature of the case, and how he put himself into the position of a father, seeking to do the best for an afflicted son.

## SIR FRANCIS GALTON.

SIR FRANCIS GALTON died in his 89th year on the evening of January 17th. He lived an active and interesting life and enjoyed a hale old age, for it is only within the last year that there has been any abatement of his physical force. His father was a Birmingham banker and his mother a daughter of Erasmus Darwin; he was thus a cousin of Charles Darwin, who was largely to influence the course of his life. After a short period of medical study he proceeded to Cambridge, where his health broke down, and, after taking an ordinary degree in 1843, he made many journeys during the next ten years into the Sudan and other parts of Africa, resulting in the publication, in 1853, of the *Narrative of an Explorer in Tropical South Africa;* for this he received the gold medal of the Royal Geographical Society. Three years later he wrote the *Art of Travel*, which has gone through many editions. He next particularly turned his attention to meteorology, but his name will be best known in connexion with the study of heredity, to which he made many important contributions, beginning in 1869 and ending only the other day. The law of heredity which bears his name has done much to give precision to the study of the subject, but its exact value remains to be determined by future researches. His inquiries into human faculty, its development and transmission, no doubt led him to the attempt to give practical application to the observed facts and consequent theories. It was in the Huxley Memorial Lecture, delivered ten years ago before the Anthropological Institute, that he made his first general appeal both to the scientific world and to the general public to put the problem of race improvement on a scientific basis. Three years later he established a research fellowship in the University of London for the promotion of the study of national eugenics, and the foundation of the Galton Laboratory for the study of eugenics and allied subjects is fresh in the public memory. Some thirty years ago he sought by a system of composite photographs—that is to say, a series of photographs printed faintly one over the other—to obtain type portraits of various classes and qualities. He applied the system at that time, or a little earlier, to consumption, and the composite obtained was undoubtedly a striking presentment. One valuable practical outcome of his work is the system of identification by means of finger-prints. If he cannot be called the original inventor of this method, he, by his enthusiasm and perseverance, succeeded in stimulating official interest in the system, and in 1893 a Home Office Committee reported in favour of the adoption of the identification of habitual criminals by his finger-print system combined with Bertillon's primary measurements. Sir Francis Galton received many honours from scientific bodies, he was elected a Fellow of the Royal Society in 1860, received the Royal medal in 1886, and the Darwin medal in 1902. Although, as we have said, Sir Francis Galton had been in failing health, his mind was as active as ever, and as late as December 29th he sat out of doors in the sun in the garden of his house at Haslemere, with a friend, talking with all his accustomed vigour and alertness. About a week ago he caught a cold then running through his household, and at his advanced age was unable to resist the subsequent bronchial attack.

## A FAMOUS DWARF.

THE Trustees of the National Portrait Gallery have lately added to their collection an oil painting of Jeffrey Hudson, Henrietta Maria's celebrated court dwarf. The *Times* of January 10th, in drawing attention to this acquisition, points to a discrepancy which exists between Hudson's history and the facts to be learnt from his various portraits. It is stated in the accounts of his life that Hudson himself declared that he was not more than 18 inches in height at the age of 7 or 8, and that "from 7 years of age till 30 he never grew taller; but after 30 he shot up to 3 feet 9 inches (not 6 inches as stated in the *Times*) and there fixed." The writer in the *Times*, calculating from the measurements of the portraits, shows that at the age of 8 Hudson must have been about 2 feet 4 inches in height; at 11 years, 2 feet 10 inches; at 18 years, 3 feet 2½ inches: and at 21 years, 3 feet 5 inches. Now Hudson was undoubtedly an example of ateleiosis. Not only was he remarkably small, but his proportions were infantile, for his head was large and limbs short, so that the middle point of the body was near the umbilicus; the physiognomy also was of the undeveloped type, though it shows no trace of cretinism. One of the most striking features of this extraordinary condition is that the growth of the body often continues long after the age at which it usually ceases. Thus, in the December number of the *Proceedings of the Royal Society of Medicine*, a case of ateleiosis is described in which growth had been fairly uniform and continuous for some thirty-five years, though it was so slow that the actual increase in height and in weight was, at the end of that time, not more than that which usually takes place in five years (1 to 6). Sir Walter Scott, who described Jeffery Hudson in *Peveril of the Peak*, was also guilty of inaccuracy when he said that Hudson's hands and feet were large and disproportioned to the height of his body, whereas all the portraits show the contrary. No reliance can therefore be placed upon Sir Walter when he refers to Hudson's "large moustaches." It is pretty certain that had this dwarf been sexually complete we should have heard something of his love affairs, as was the case with the equally celebrated ateleiotic dwarf Boruwlaski. Though it is possible that Hudson attained puberty in his third decade, it seems far more probable that he was an example of the asexual form of ateleiosis.

## THE TESTING OF DISINFECTANTS.

IN a paper on the study of chemical disinfectants, read by Professor Sheridan Delépine recently before the Manchester section of the Society of Chemical Industry, a useful summary is given of the many factors which must be taken into consideration in attempting to compare the real efficiency of disinfectants by laboratory tests. The first point insisted on is that the mere inhibitory, or antiseptic, action of a substance must be carefully distinguished from its germicidal action; results of experiments with mercuric chloride are given, from which it appears that the first product of its action on bacteria (probably an albuminate of mercury) remains localized and probably quite superficial when the solution is sufficiently dilute, and that this action is enough to prevent growth and multiplication of the bacteria; if, however, the mercuric chloride is subsequently removed, as by the addition of ammonium sulphide, the bacteria resume their activity; it is most important, therefore, that the actual death of the organisms and not mere inhibition of their growth, should be accomplished in all tests for comparing the value of disinfectants. As regards the organisms employed in the tests, it is shown that it is impossible to draw safe conclusions as to the action of a substance on all bacteria from its action on any given organism, as the results in one case are not parallel to those in another. These divergences may be observed when bacteria are com-

pared with bacteria, spores with spores, or bacteria with spores; and the relative value of disinfectants can be properly gauged only when their action on a variety of different organisms is known. As to the nature of the disinfectants themselves, it is pointed out that the substances which have been or may be employed differ so widely in their nature that they have really only one property in common—namely, their antiseptic power—and it is therefore only to be expected that any variation in the conditions—as, for example, in dilution or temperature—should have a different influence in different cases. The germicidal power of soluble disinfectants remains much in the same ratio, whether the bacteria are suspended in a fluid or partly protected by the fibres of a thread; whereas the action of insoluble disinfectants—such as phenoloids employed in the form of emulsions—is much impeded in the latter case. This leads to a consideration of the material associated with the bacteria in the cases where bactericidal action is actually required in practice; it is obvious that agents which combine with proteid or other matter or which oxidize it will be in great part used up in doing that work when such matter is present in considerable quantity, and their bactericidal action may then be very small, even though tests carried out in the absence of such matter may have shown them to be highly efficient. One of the most important features of phenols and phenoloids is that their action is little affected by proteid and allied matters. Among the substances found in morbid products which affect in different ways the action of disinfectants, proteid substances, fats, urea, uric acid, organic and inorganic salts, alkalis, acids, and masses of non-pathogenic bacteria, cells, etc., are mentioned, and it is pointed out that the relative value of disinfectants is determined by their action, not on pathogenic bacteria alone, but on the bacteria *plus* these associated products. Professor Delépine does not attempt to lay down conditions of tests in which such associated matters shall be included, but expresses the opinion that "our empirical knowledge of the action of disinfectants is not yet sufficiently advanced to justify our expressing that knowledge in mathematical terms."

## MEDICAL SCIENCE AND THE CAMERA.

THE Royal Photographic Society of Great Britain is at present holding an exhibition at their house, 35, Russell Square, W.C., of photographs to illustrate the application of photography to biology and the natural sciences. The exhibition has been arranged by, and is under the direction of, Mr. F. Martin-Duncan, who himself contributes an excellent and varied collection of photographs. All the photographs exhibited are remarkably clear and artistic, and show what an extremely useful adjunct a camera may be to the student of biology. The most interesting exhibits to members of the profession should be those immediately connected with medicine and its ancillary sciences. Dr. R. G. Rows, of Prestwich, shows a series of microphotographs illustrating degeneration of the central portion of the posterior columns of the spinal cord, and another series illustrating the stages of an inflammatory reaction occurring in a nerve sheath; his pictures are extraordinarily clear in every detail, giving the observer the impression that he is looking down a microscope at the actual sections. Dr. Orr is equally successful in his series illustrating degeneration of nerve fibres and nerve cells in acute insanity. Mr. Poser exhibits some excellent photomicrographs of various bacteria and trypanosomes, and Dr. C. Thurstan Holland shows a number of really beautiful *x*-ray prints. The most noteworthy of these is one of a dilated stomach taken after the administration of bismuth with the food; his other prints depict calculi in different parts of the urinary system. The field illustrated by Mr. Martin-Duncan ranges from the octopus to a cloud burst, from geology to ticks and trypanosomes. Among the latter mention should be made of an instructive little series of photomicrographs illustrating insects as the transmitting agents of disease. A very attractive group of photographs demonstrates the power of facial expression possessed by the chimpanzee. We have selected these exhibits for special mention only as being the ones most nearly related to medical science. The other photographs will all be found extremely interesting, and prove that the exhibitors must be possessed of considerable scientific knowledge in addition to remarkable dexterity with the camera. It would be invidious to single out any individual for praise in a collection wherein the general standard of excellence reaches so high a level. The exhibition is well worth a visit; it is open daily to the public on presentation of a visiting card, from 11 a.m. till 5 p.m., except Saturdays, when it closes at 2 p.m. It will remain open till Tuesday, February 7th.

## A NEW DIAGNOSTIC OF MALARIAL INFECTION.

SIR PATRICK MANSON has said that "any method that would enable us to recognize when a man was the subject of latent malaria or when he was free from infection, would be a welcome addition to practical medicine";[1] it is therefore worth noting that Dr. Ciro L. Urriola, Physician to St. Thomas's Hospital at Panama, believes[2] that he has found this in the detection of the presence of masses of pigment in the urine. He directs that the urine should be collected, centrifugalized for five minutes, and a drop from the lowest part of the tube examined with a high power of the microscope. The examination of the urine offers many advantages over that of the blood, as there is not only a larger quantity of liquid available, but it may be obtained without special trouble. Moreover, the pigment is, he states, more abundant in the urine; it is met with in the form of fine grains or large polymorphous masses, or granules included in hyaline plates or in leucocytes. Most of it is black, but blue pigment is also seen in small quantity and yellow pigment occasionally, but of these the coal-black pigment is the most characteristic of malaria. In illustration of the utility of this method, he quotes three cases of latent malaria, one presenting the characters of pneumonia, another of diarrhoea, and a third of facial neuralgia, in which the diagnosis was cleared up by the discovery of pigment in the urine.

THE first Universal Congress of Races will be held in London from July 26th to the 29th, 1911. It will discuss the general relations between Western and Eastern peoples. The official languages will be English, French, German, and Italian, but Oriental languages will not be absolutely excluded. No resolutions of a political nature will be proposed.

WE regret to announce the death, on January 18th, of Mr. Henry Power, Consulting Ophthalmic Surgeon to St. Bartholomew's Hospital and Westminster Ophthalmic Hospital, well known as a teacher, as a writer on ophthalmic subjects, and as the Editor, with Dr. Sedgwick, of the *Lexicon of Medicine and the Allied Sciences*, issued by the New Sydenham Society. We hope to publish some account of his career in an early issue.

[1] BRITISH MEDICAL JOURNAL, October 31st, 1908, p. 1357.
[2] *La semaine médicale*, No. 1, January 4th, 1911.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### THE PUBLIC HEALTH IN 1909.

THE annual report of the medical officer of health of the administrative county of London for 1909,[1] the eighteenth of the series, is not prefaced, as several previous reports have been, by an introductory summary embodied in a report from the Public Health Committee of the Council. Although the arrangement of the report is in the main on the lines of former reports, Part I dealing with vital statistics and Part II with administrative measures, Sir Shirley Murphy has made one important alteration in connexion with his references to the mortality and birth-rates in relation to social condition. He has been in the habit of grouping the London boroughs in five groups of different social condition, based on the percentage of persons living in overcrowded tenements of less than five rooms in each tenement, as shown by the 1901 census. In the present report the grouping is based upon the percentage of children aged 5 to 14 years in each borough scheduled by the London County Council for education in the public elementary schools. The scheduling of children for this purpose is conducted annually by the Council, and the question whether or not a child is to be scheduled depends upon various circumstances which, it is thought, taken together form a general indication of "social condition." Those circumstances are residence in a house rated at £28 or less; in houses at a higher rating for which the landlord pays the rates; in houses let in lodgings to monthly or weekly tenants; in servants' dwellings, such as gardeners' cottages, stables with living rooms, etc.; in houses containing a child attending a public elementary school; in other houses ascertained to contain, or likely to contain, children of a similar class, or any children of a higher class, whose education it is supposed has been neglected; and, lastly, residence in canal boats registered in the administrative county of London. Appended to the report is a return of sanitary officers in the various metropolitan boroughs; reports on homeless persons, by Sir Shirley Murphy; on nuisances from flies, and on the seasonal prevalence of vermin in common lodging-houses, by Dr. W. H. Hamer; on the administrative control of pulmonary tuberculosis by sanitary authorities in London, by Dr. Wanklyn; and a joint report by Dr. Hamer and Dr. Henry Jones upon an epidemic of scarlet fever in London and Surrey, due to an infected milk supply, in June, 1909. To the last-named document Dr. M. H. Gordon contributed a report on the bacteriological aspect of the epidemic.

*Population.*

The estimated population at the middle of 1909 of the administrative county was 4,833,938. Of the constituent boroughs, Holborn had the lowest population (53,802), and Islington the highest (351,202).

*Marriages.*

The marriage-rate of 15.8 per 1,000 persons living was the lowest yet recorded. Compared with the years 1870–72, the marriage-rate has decreased by about 19 per cent., if based on the total population; but if based, as it should be, upon the total number of marriageable persons—that is, on the unmarried and widowed portion of the population aged 15 years and upwards—the decrease is equal to 27 per cent.

*Births.*

The birth-rate of 24.2 per 1,000 persons living was lower than any rate previously recorded, and the legitimate birth-rate of 190 per 1,000 married females aged 15 to 45 years was lower than the rate (198) recorded for 1908. The fallacies attending the method of recording the birth as a proportion of the total population are well shown in the case of two of the metropolitan boroughs. Recorded in this manner, St. Pancras and Camberwell each had a birth-rate of 23.7 per 1,000, but the legitimate birth-rate of St. Pancras was 179 per 1,000 women at conceptive age, and that of Camberwell 190 per 1,000. Some details which are given with regard to the operation of the Notification of Births Act indicate that, in spite of the efforts of the sanitary authorities to make the requirements of the Act known, these requirements are not yet fully complied with.

*Deaths.*

The death-rate corrected for sex and age was 14.7 per 1,000, compared with a corrected death-rate in 1908 of 14.5 per 1,000. As was the case in 1908, Bristol and Leicester were the only towns in England and Wales with populations exceeding 200,000 in which the death-rate was lower than that of London. When compared with foreign towns, London occupies a favourable position. In Amsterdam the death-rate in 1909 was 13.1 per 1,000; in Brussels, 13.9; in Stockholm, 14.3; in Copenhagen, 14.5; in Berlin, 15.1; in New York, 16.2; in Vienna, 16.8; in Rome, 19.3; and in St. Petersburg, 24.6. In the various sanitary areas the lowest death-rate was in Hampstead, 10.1; and the highest in Shoreditch, 20.0; and in the City of London, 22.3. When a comparison is made between the boroughs grouped in accordance with their "social condition," after the manner already described, it is found that in those areas in which less than 79 per cent. of the children were scheduled for compulsory school attendance the death-rate was 12.4 per 1,000, whereas in those areas where more than 97 per cent. were scheduled the death-rate was 17.4 per 1,000.

*Infantile Mortality.*

One of the most satisfactory features in connexion with public health administration in Great Britain is the steady fall which has taken place in recent years in the rate of infantile mortality. Up to the end of the last century it seemed almost impossible to bring this rate below 150 per 1,000 children born, and those who declared that a rate of 100 per 1 000 could and ought to be attained were looked upon as idealists. In London in 1909 the infantile mortality-rate was 108 per 1,000, which may well be compared with that recorded in 1908 (113) and in 1901 (148). Among the thirteen largest English towns Bristol alone had a lower rate—100 per 1,000. Among the various boroughs the lowest infantile mortality-rate (74 per 1,000) was in Lewisham, where the birth-rate was 22 per 1,000; and the highest rate (138 per 1,000) was in Bermondsey, where the birth-rate (32.3) was also higher than that of any of the other sanitary areas. When the grouped boroughs are compared it is found that those in which the best social conditions prevail the infantile mortality-rate was only 104 per 1,000, whilst in those in which there were the worst conditions it was 136 per 1,000. After considering the causes of death from various diseases and from all other causes at successive monthly periods up to 1 year of age, Sir Shirley Murphy expresses the opinion that the causes of infantile mortality may be roughly grouped into three classes: (*a*) Those causes increasing in incidence with progressive age, such as the common infectious diseases; (*b*) those causes showing little or no variation in age incidence, such as tuberculous diseases; and (*c*) those causes exhibiting diminished incidence as age advances, such as premature birth, want of breast milk, etc. The experience of 1909 emphasizes the great advantage which breast-fed children have over those who are wholly or in part artificially fed. Regarding the effect of employment away from home upon nursing mothers, inquiry into 1,030 cases in the northern part of Westminster by Dr. Allan pointed to advantage in respect of their health to infants of mothers who have no occupation.

The local health societies are evidently doing useful work in districts where they exist. In Woolwich Dr. Davies states such service cannot be obtained, and the women inspectors are

[1] Report of the Public Health Committee of the London County Council—submitting the report of the medical officer of health for the county for the year 1909. London: P. S. King and Son. No. 1,395; pp. 108, with 6 appendices. (3s. 6d.)

unable adequately to cope with the work. "Consultative centres," to which mothers can take their infants for advice, have been instituted in Paddington, Kensington, Fulham, Westminster, St. Marylebone, Hampstead, St. Pancras, Finsbury, Poplar, and Greenwich. In Battersea, Lambeth, and Woolwich milk dépôts have been established, where specially prepared milk is supplied for infants who cannot be fed from the breast. In Holborn arrangements have been made with a dairy company by which such milk is supplied on the order of the medical officer of health. Arrangements had formerly existed in Finsbury by which the sanitary authority supplied milk from a country farm, but these were discontinued in March, 1909. In Kensington, Fulham, Chelsea, Westminster, Hampstead, and St. Pancras necessitous nursing and expectant mothers are able to avail themselves of the opportunity of obtaining meals at trivial cost, such meals being provided by philanthropic bodies. Thus, in various directions, effort is being made in many districts to safeguard infant life, and it may be anticipated that in the remaining districts the necessity of making similar effort will soon be recognized by the sanitary authorities.

*Principal Epidemic Diseases.*

The death-rate from the principal epidemic diseases —namely, small-pox, measles, scarlet fever, diphtheria, whooping cough, typhus fever, enteric fever, pyrexia, and diarrhoea—was 1.30 per 1,000, and was lower than that recorded in any previous year. Excluding diarrhoea, the death-rate from these diseases in the group of districts under the best social conditions was 1.02, and in the worst group it was 2 26. The same disparity was found in the case of the diarrhoea death-rate, which was 0 38 in the best group and 0 89 in the worst. Hampstead had the lowest zymotic death-rate, 0.52 per 1,000, and Shoreditch the highest, 2.87 per 1,000. Among the 15 cases of small-pox which occurred in 1909 two terminated fatally. There has been a steady increase in the number of children exempted from vaccination by "conscientious objection" certificates. In 1900 the percentage of those born who were thus exempted was 1 0, and in 1907 it was 3 1. The number of deaths from measles was 2,324, or 800 more than occurred in 1908. The death-rate per 1,000 children living, at ages 0–5 years was 4.18. In Bermondsey it was as high as 11 43 per 1,000, and in Shoreditch 8.54. In those areas where overcrowding is least the rate was 2.14 per 1,000, and where there is most overcrowding it was 4.74 per 1,000. The number of cases of scarlet fever notified was 17,254, or nearly 5,000 less than in 1908. The deaths numbered 383, giving a case mortality of 2.2 per cent., compared with 2.5 per cent. in 1908. An outbreak of scarlet fever which was attributed to milk derived from a dairy farm in Wiltshire was specially investigated by Dr. Hamer and Dr. Henry Jones, whose report has already been referred to.

In this report it is clearly demonstrated that the milk from this dairy farm was the cause of the occurrence of scarlet fever, and the question is discussed as to how the milk became infected. In this outbreak, as in many others which have been investigated, there was absence of evidence that the milk was infected by human agency. Scarlet fever certainly occurred in the family of a man engaged in the work of the dairy, but in one distant area cases of definite scarlet fever occurred among the consumers of the milk antecedent to its occurrence in this family. It is impossible to reconcile with the facts of the occurrences the view that the milk owed its infection to this family. There appeared to be interruptions to the continued infectivity of the milk, as judged by the dates of attack of the different consumers, and, again, the milk appeared on one day to have been especially operative in causing scarlet fever. These variations find explanation when the details of treatment and distribution of the milk from the dépôt come to be studied. Varying amounts of the infected milk were pasteurized on different days, and on the day when the most mischief was done the whole of the infected milk was sent out unpasteurized. The report shows, as in some other outbreaks, that a vesicular disease was found on the teats and udders of some of the cows, and the property of infectivity of the milk was first manifested when the milk of one of these cows which had recently calved was brought into use after the death of the calf.

The number of cases of diphtheria, 6,679, was fewer by more than 1,000 than the number notified in 1908, and the 605 deaths, giving a death-rate of 0.13 per 1,000, compared favourably with the death rate of 0 15 recorded in 1908. Sir Shirley Murphy considers that the importance of making antitoxic serum available so that it may be used without delay, is emphasized by the experience of the Metroplitan Asylums Board gained in the treatment of cases of diphtheria in the hospitals of that Board. Of cases treated with this serum in those hospitals in 1908, the mortality was as follows: Cases in which treatment was begun on the first day of the illness 3 per cent.; on the second day 6.5 per cent.; on the third day 10.6 per cent.; on the fourth day 12.9 per cent.; and on the fifth day and later 14.8 per cent. Of the 5 cases of typhus fever, 3 occurred in one house in Bermondsey, and the other two in separate houses in Whitechapel. All the patients recovered. Both the number of cases and the number of deaths from enteric fever was less in 1909 than in former years. The death-rate was 0 3 per 1,000 in the whole of London. In the various sanitary areas the highest rate, 0 08 was in Poplar and the lowest, 0.01, in St. Marylebone and Lewisham.

*Phthisis.*

The corrected death-rate from phthisis varied considerably in different parts of London. In Hampstead it was as low as 0.60 per 1,000, and in Finsbury, where it has been persistently high for some years, it was 2.24 per 1,000. Referring to the special report of Dr. Wanklyn as to the steps which are being taken by the metropolitan authorities for the prevention of phthisis, Sir Shirley Murphy states that the facts disclosed in that report do not show that in London as a whole any material effort is being made to deal with the disease. Especially is effort wanting to detect early cases and to provide for their subsequent treatment. In Paddington, as the result of philanthropic effort, a dispensary has been instituted which is doing useful service in these directions, and in one or two other districts the provision of such an institution is being undertaken.

*(To be continued.)*

## MANCHESTER AND DISTRICT.

THE ST. MARY'S HOSPITALS, MANCHESTER.

IT has evidently been a source of great disappointment to the Board of Management of the St. Mary's Hospitals that the handsome new building adjoining the Royal Infirmary should have remained unopened for so long. The disappointment has plainly been shared by a considerable section of the public, as is shown by a sympathetic letter in the *Manchester Guardian* from the Rev. J. E. Roberts. There can be no doubt that the old building in Quay Street was unfitted for its purpose, as not only was the accommodation insufficient, but the internal arrangements were antiquated and incapable of any satisfactory improvement. The opportunity of a new site, too, was one that could not be disregarded, and yet, though there was an undoubted public demand, the response of the public to the request for additional financial assistance has been altogether inadequate. The appeal for funds issued in 1908 resulted in the sum of £13,000 being received, and an increase of £250 in annual subscriptions. But the board has satisfied itself that in order to carry on the work of the hospital in anything like a satisfactory manner it will be necessary to have an increased income of from £4,000 to £5,000 a year, and that the board would not be justified in opening the building at all if it had to depend on its present resources. Promises have recently been received of several handsome donations, provided that the new building is opened within a few months, and the trustee of the late Manasseh Gledhill, in addition to providing the new building, has also offered to furnish and equip it. The board has therefore found it impossible any longer to resist the demand, and has decided to open the building in April next. With the assistance of the Lord Mayor of Manchester, it has been arranged to hold a meeting in the Town Hall on February 2nd for the purpose of making a further appeal, and the board hopes "that its efforts to cope with the urgent needs of the sick poor will be adequately rewarded."

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

GLASGOW UNIVERSITY AND WOMEN PROFESSORS.

AT the adjourned meeting of the General Council held for the purpose of considering the draft ordinance of the University Court regarding the new medical chairs, it was agreed to make a few slight alterations in the draft as submitted. Subsequently a motion was brought forward to make it clear that any lady duly qualified might be a candidate for any chair in the university. The council by a small majority refused to accept the motion, though it was clearly stated in the discussion that this point had been under discussion in connexion with the Muirhead Chairs at the Royal Infirmary. The original draft ordinance contained a clause which stated distinctly that women were eligible for election to the chairs. The legal adviser of the Scottish Office, when consulted on this point, pointed out that such a clause in the draft ordinance for the new chairs would seem to indicate that the other chairs in the university were not open to women. On this ground the clause was dropped from the provisional order. Unless there was some special contrary provision in the deed of formulation of any chair, there did not seem to be any bar to the appointment of a woman to any university chair. It is interesting to note that at the last meeting of the University Court a lady was appointed to act as additional examiner in logic and moral philosophy. This is the first time that a woman has been made an additional examiner.

THE PURE AIR PROBLEM.

Experiments are now being conducted to test and compare the atmosphere and the dust which falls in some of the larger towns in Scotland. On the suggestion of the Glasgow Health Authorities, the Public Health Committee of Greenock have fitted up boxes in four different quarters of the town; at the end of this month their contents will be analysed in the Glasgow municipal laboratory. The experiments are likely to be carried out on a wide scale.

THE RAINFALL OF SCOTLAND FOR 1910.

Some interesting figures may be quoted from the rainfall annals of Scotland for 1910, supplied by the Scottish Meteorological Society. Taken as a whole, the year just ended was by no means exceptionable as far as the rainfall was concerned. In some districts, indeed, the great rains of the last ten days of August were quite unprecedented, but in many that month—the most remarkable of the year—were much less wet than was August, 1877, while the conspicuous dryness of September has been eclipsed by the records of one or two other years. As is generally the case, the distribution relatively to the average varied greatly in different districts, and there appears to have been an unusually large number of "rain days" on which the falls registered were of trifling amounts.

A few of the aggregate amounts of rain registered in 1910 may be quoted:

*North-West.*

| | Inches. | | Inches. |
|---|---|---|---|
| Stornoway ... | ... 53.0 | Glendessary | ... 103.3 |
| Applecross ... | ... 62.6 | Spean Bridge | ... 55.3 |
| Glenquoich ... | ... 106.2 | Fort William | ... 69.1 |
| Loan ... ... | ... 145 5 | Invergarry ... | ... 66.9 |

*West.*

| | Inches. | | Inches. |
|---|---|---|---|
| Ardgour ... | ... 91.5 | Rothesay ... | ... 53.9 |
| Oban ... ... | ... 51.8 | Greenock ... | ... 64.2 |
| Taynuilt ... | ... 70.9 | Glasgow ... | ... 39.2 |

*South-West and South.*

| | Inches. | | Inches. |
|---|---|---|---|
| Ayr ... ... | ... 40.7 | Brodick ... | ... 65.9 |
| Dalbeattie ... | ... 56 2 | Logan ... | ... 37.4 |
| Dumfries ... | ... 43.8 | Maybole ... | ... 40.3 |

*North and North-East.*

| | Inches. | | Inches. |
|---|---|---|---|
| Tongue ... | ... 32.9 | Elgin ... ... | ... 29.2 |
| Wick ... ... | ... 32 5 | Aberdeen ... | ... 27.8 |
| Fortrose ... | ... 24.2 | Abergeldie Castle... | 36.0 |
| Nairn... ... | ... 27.5 | Ellon ... ... | ... 31.3 |

*East and South-East.*

| | Inches. | | Inches. |
|---|---|---|---|
| Forfar ... | ... 30 7 | Edinburgh ... | ... 27.5 |
| Dundee ... | ... 28.7 | North Berwick | ... 25 3 |
| St. Andrews | ... 29 7 | Leith ... ... | ... 29.0 |

*Inland Districts.*

| | Inches. | | Inches. |
|---|---|---|---|
| Grantown-on-Spey | 38 4 | Falkirk ... | ... 39.2 |
| Kingussie ... | ... 30 1 | Peebles ... | ... 38.9 |
| Crieff ... | ... 45.4 | Moffat ... | ... 47.4 |

A first rapid glance over these tables throws into strong relief the regions of greatest and least rainfall. On the average, West Inverness-shire is the wettest district in Scotland, whilst the lowest rainfall is found along the sea-fringe of East Lothian and the inner shores of the Moray Firth; in 1910 we find three stations to the west of the Caledonian Canal with totals of more than 100 in., and at the other extreme North Berwick and Aberlady with 25 in., and Fortrose with about 24 in. The generally wetter character of the western and southern districts is at once apparent, for only two stations in our first three groups have rainfalls below 40 in., whilst only two of our representative stations from north to south-east have aggregates above that amount.

*Comparison with Former Years.*

From a more popular point of view, any given year is likely to be judged by comparison with its predecessor, or some recent very wet or very dry year. The following table gives for a number of stations the rainfalls for 1910 and 1909, for 1903 (the generally wettest of recent years) and for 1902, which was exceptionally dry:

*Annual Rainfall in Inches.*

| | 1910. | 1909. | 1903. | 1902. |
|---|---|---|---|---|
| Stornoway ... ... | 53.0 | 46 2 | 62.1 | 46.3 |
| Glenquoich ... ... | 106 2 | 98 6 | 151.8 | 102.5 |
| Invergarry ... ... | 75.1 | 77.5 | 101 4 | 64.3 |
| Glasgow ... ... ... | 39.2 | 39.3 | 53 3 | 29 1 |
| Dumfries ... ... ... | 43.8 | 43 6 | 50.5 | 30.5 |
| Wick ... ... ... | 32 5 | 33 6 | 35.9 | 26.4 |
| Nairn ... ... ... | 27 5 | 27.6 | 29.1 | 21.5 |
| Aberdeen ... ... ... | 27.8 | 30 4 | 36 3 | 27.3 |
| Grantown on-Spey ... | 38.4 | 35 0 | 35.4 | 32.0 |

These several stations had amounts almost the same as 1909; two or three rather more. On the whole the contrast was in no way remarkable. On the other hand, the amounts, except at Grantown, fell short of those for 1903, the differences being very great in wet regions, such as those represented by Glenquoich, Inverary, and Stronvar.

*The Seasonal Distribution.*

The month of January was the wettest of the year in the Western Highlands, and had a rainfall considerably above the average over a great part of the country. In the South, however, and in Forfarshire, there was a well-marked shortage. The month of August was by far the most remarkable of the year. Over central and southern Scotland it was the wettest of the year, and several stations had considerably more than twice their normal amounts. A large part of the country had more than 6 in. of rain, and several inland districts more than 10 in. In many parts of the country, however, the month was much less memorable than the disastrous August of 1877. The transition to September afforded a striking illustration of the extraordinary variability of Scottish weather. In all districts the month was a very dry one, with an aggregate at several places less than the rainfall experienced on several separate days of August. A great part of eastern Scotland had less than an inch of rain.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### WOMEN'S NATIONAL HEALTH ASSOCIATION.

IT is understood that the above association has acquired the handsome residence, Ely House, Dublin, for the purpose of holding a series of balls in aid of the various health projects with which the association is connected. A representative committee has been appointed, and it is expected that a St. Patrick's Day entertainment will be held.

### DUBLIN SANITARY ASSOCIATION.

At the last meeting of the council of the Dublin Sanitary Association the subject of spitting on the footways, a habit which is very prevalent in the city and suburbs of Dublin, was again under discussion, and a resolution was adopted calling on the various sanitary authorities to adopt and enforce a by-law dealing with this branch of sanitation. It appears, however, that some technical difficulty in passing such a by-law exists, but even if this cannot at once be overcome, much can be done by disseminating knowledge concerning the danger of this habit to the public health.

### LIMERICK DISTRICT ASYLUM.

The report of Dr. Considine, Inspector of Lunatic Asylums, points out that the Limerick Asylum is overcrowded, and states that it has become necessary to report to the Lord Lieutenant that further accommodation is required. The present building was intended for 550 patients, but at present nearly 700 are housed within it. The same report congratulates the medical superintendent, Dr. O'Neill, on his satisfactory management of the institution.

### HONAN SCHOLARSHIPS, UNIVERSITY COLLEGE, CORK.

Three Honan scholarships, each of the value of £50 a year, will be awarded in each October to commencing first-year students at University College, Cork, who have matriculated in the National University. They may be held by any faculty. The conditions are that the candidate must have been born in one of the counties of Munster other than Clare, or be the child of parents who have had a bona fide residence in the area for at least five years; or the child of a deceased parent who had previously been a student of Queen's College, and had pursued therein a complete course of studies for not less than three years. Those only are eligible for the scholarship who are in a position to prove to the satisfaction of the president that their financial position is such that it would be impossible for them to obtain a course of instruction for a university degree without the aid of the scholarship. It is expressly laid down that the Honan scholarship is not to be awarded unless the candidate has shown "conspicuous merit." Subject to good conduct and diligence the scholarship will be continued for two further years at least, and may be continued a fourth or fifth year in the case of scholars doing post-graduate research or completing a professional course of study.

### HEALTH OF BELFAST: TUBERCULOSIS IN CATTLE.

At the monthly meeting of the City Council, held on January 2nd, the Medical Officer of Health reported that the death-rate for the past month was 17.6; the epidemic of scarlatina still continues; 149 cases had been notified and 34 of diphtheria, which is exceptionally high for Belfast; typhoid fever was very low. The death-rate for the whole year was 18.7, as compared with 18.2, 19.5, 21.3, and 20.1 respectively for the previous four years. The increase over last year was probably due to the epidemic of measles, which swept away 520 children; only 19 deaths occurred from typhoid fever during the year, a phenomenally small number for Belfast. The Veterinary Surgeon (Mr. Jordan) made a most important report regarding cows condemned in the abattoir for tuberculosis. A complaint had been made that the percentage of seizures was greater than elsewhere:

"I am forced to the conclusion," the report runs, "that the cause of so many carcasses having been condemned, owing to the presence of tuberculous lesions, is entirely due to the very inferior class of animals purchased by some of the butchers using the city abattoir. No later than December 9th, 1910, one man brought eleven animals, four of which showed distinct clinical appearance of tuberculosis, and on examination of the carcasses of these animals I was compelled to condemn three, owing to the existence of extensive and generalized tuberculosis."

"Of the carcasses found to be unfit for human food, over 80 per cent. were those of old emaciated cows, the majority of which ought not to have been purchased for such a purpose;" "a goodly number are shipped from Dublin;" "obviously those cast out of dairy herds."

This valuable report continues:

I submit that to adequately deal with the very deplorable state of affairs to which I have directed attention it is absolutely necessary that a central authority should undertake the duty of supervising all markets and fairs, and that veterinary inspectors should be invested with the power of seizing all live animals that are obviously unfit for human food, or so diseased as to render their presence a danger to other animals or man. That this is a duty for a Government department needs no argument, as it must be evident that to secure safety and efficiency the work must be universal.

At the same meeting of Council, a statement was made that the high death-rate from consumption (2.1), was due to consumptives being "dumped" into Belfast from the surrounding country for treatment, especially in the Poor Law Whiteabbey Sanatorium. At a meeting of the Board of Guardians on January 3rd, this statement was challenged, and on the Chairman's suggestion, it was agreed to ask the Medical Officer of Health for detailed information and to investigate the facts supplied.

### WATER SUPPLIES.

In many of the smaller towns and villages of Ireland the water supply is defective and often dangerous, but experience shows that it is frequently a matter of extreme difficulty to persuade the urban and rural district councils responsible to carry out the requisite improvements. As a rule nothing is done until an epidemic breaks out, and even then refusals to interfere are not uncommon. Under these circumstances, it is important that public opinion should be educated, and the medical officers of imperfectly supplied districts may be advised to apply themselves to the task of educating the ratepayers to the risks they are running rather than continue to waste time in reporting to ignorant and autocratic district councils. As examples of the conditions which exist, the following may be referred to: In the Aughlish district of Tanderagee half-yearly complaints of the condition of the water supply have been made during the last five years by the medical officer. An outbreak of enteric fever has now occurred, and at last a committee of the district council has been appointed to inquire into the matter. In another part of the same district the water of one of the wells used for drinking is said to yield water such as one would expect to get from a duck pond, but so far no action has been taken to provide a better supply. In Rosses Point, near Sligo, the dispensary medical officer has been complaining of the water for years, and the same water has been condemned after analysis. Enteric fever has now broken out, but the members of the rural council have refused to take any action in the interests of the ratepayers. In Tullow the water supply has been condemned, but consideration of a scheme for a better supply was postponed for a period of twelve months. The Local Government Board has, however, now stepped in, and it is hoped that earlier action may be taken.

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IN furtherance of the clean milk campaign of the National League for Physical Education and Improvement, referred to in the letter published last week, page 112, a series of leaflets, addressed respectively to farmers, dairymen, and housewives, giving instructions for ensuring the cleanliness of milk, has been drawn up by a committee of experts. The leaflets have been adopted by a very considerable number of public bodies for distribution by their officials, and no fewer than 35,000 copies have already been sold. The League is anxious, however, to circulate free copies also wherever they are most needed, but for this £250 is need to enable half a million free copies to be distributed. A special Clean Milk Campaign Fund is therefore being raised, and contributions, however small, will be gratefully acknowledged by the Secretary of the League, at 4, Tavistock Square, London, W.C., who will also be glad to supply specimen copies of the leaflets on application.

# Correspondence.

## INDUCED DIVISION OF HUMAN LYMPHOCYTES.

SIR,—The statements on this subject made in the recent book on *Induced Cell-Reproduction and Cancer* by my brother, Mr. H. C. Ross, M.R.C.S., L.R.C.P., are evidently of such interest as to require early study by other workers. For some weeks past he and his assistant, Mr. J. W. Cropper, M.B., M.Sc., have been working in these laboratories and have given me opportunities for examining their methods and preparations in some detail. It appears to me that he has certainly succeeded in inducing human lymphocytes to divide *in vitro*.

The method employed was devised five years ago, and has been carefully studied by him since then. Melted agar is poured on a glass slide and allowed to set, and a cover-glass charged with blood is then dropped upon it. The blood spreads out in a beautiful film between the surfaces of the jelly and the cover-glass. The jelly must be rendered isotonic with the blood, and may be mixed with various stains and chemical substances which can thus be very uniformly absorbed by the cells, while the latter are preserved from mechanical injury by the soft bed of jelly on which they rest. With plain jelly the lymphocytes present the usual aspect; but if it is mixed with certain substances such as globin, kreatin, and theobromine, with a proper proportion of alkali, and is kept at blood heat for ten minutes (I cannot give the details here), a large proportion (say 60 to 80 per cent.) of these cells show a remarkable change of form which I do not remember to have seen before, though I have studied blood for many years past. All intermediate forms from that of an ordinary lymphocyte to that of an almost completely divided figure-of-eight can easily be seen. The latter appearance is not produced by the merely accidental juxtaposition of two cells, since strands of connecting material are seen passing from one so-called nucleus to another. Moreover, from the centre of the figure, that is, from the point where the two circles touch each other, a number of curious finger-like processes are often seen protruding at right angles to the line of division, either on one side only, or, more rarely, on both sides. At the end of each process a deeply stained, often rod-shaped, mass is generally observed; and a minute ring is often visible in the centre of each circle—that is, where the ring-like object which used to be called the nucleolus of the lymphocyte is situated. The processes seem to exist only when the division is about half complete—that is, not when it is only just commencing or when it is nearly quite complete.

Of course, owing to the pressure of the cover-glass and to the various accidental positions of the cells, many distorted, unsymmetrical, or perspectival figures are seen, and typical figures have to be searched for. Stain kills the cells quickly; but if it is not used the structural details are not easily visible, and the stained cells quickly become "achromatic." The prescribed technique must be accurately employed. I describe here only what I have seen. The division appears to be unquestionable, and I must therefore suppose prima facie that what I have seen is the natural mode of division; but I am not prepared to touch upon the very interesting cytological questions suggested. Apparently, dividing forms of undoubted lymphocytes have so seldom been observed that the accepted cytology may not be so secure as we think. I have not yet studied the alleged division of other kinds of leucocytes.

Both Mr. Ross and Mr. Cropper inform me that, though many substances have been tried by them, division has been found to be produced only by a limited number of substances—that is, principally substances found in dead tissues, dead cells, old ulcers, etc. It is also stated that the application of these substances had produced copious granulation in some old and obstinate ulcers. On these points I cannot speak; but I should like to call attention to the paper on a case of sleeping sickness read by Mr. David Thomson, M.B., Ch.B., and myself before the Royal Society on December 8th last,[1] in which *in vivo* injections of dead leucocytes and dead trypanosomes, made in consequence of this work, were stated to have been followed by large temporary augmentations of the numbers of the living bodies of the same kinds in the subject. Obviously the work may have other important applications, and I should like to urge further verifications of it.—I am, etc.,

RONALD ROSS.

Laboratories of the Liverpool School of Tropical Medicine, University, Liverpool, Jan. 14th.

[1] BRITISH MEDICAL JOURNAL, December 4th, 1910, p. 1971.

## ALCOHOLISM AND DEGENERACY.

SIR,—I do not think that Dr. Saleeby will find any reference of value earlier than that of Dr. Caleb Williams, which he quotes. Dr. Thurnam, who was the first to deal with the statistics of insanity in anything like a scientific method, writing in 1846, discusses the transmission of insanity, but he is quite silent on any transmission as between either alcohol and alcohol or alcohol and insanity. It may be taken, therefore, that, as he ignores the subject, it had not up till then been thought of, at least as a practical question.

In his extremely serviceable paper, Dr. Hyslop tells the Society for the Study of Inebriety that we shall only obtain pernicious half-truths until we are shown multiplied and defined cases in which defect in the child can be proved to be due to parental alcoholism, without the aid of any other causal factor such as degeneration or family environment. We shall indeed have to wait a long time for such an impossibility—the longer the better.

Assuming that the power for mischief or otherwise of a dose of alcohol is constant (and it is no use to bother about the matter unless we can assume this much), it follows that if that dose can produce a poisonous effect directly or indirectly on one person, it must certainly produce the same effect on all others, in the absence of other factors negative or positive. It is these factors which determine the issue, and in this sense are of greater importance than the alcohol itself. To put the matter in the converse, many of us discern the benefit of a glass of stout to a convalescent from debilitating disease, but we should not expect much effect, good or bad, from it in the coal-whipper.

Precisely the same arguments apply in another subject, which is exercising the medical mind in eugenics, the effect of heredity on insanity itself. If one child of a numerous family, having a certain dose of heredity in it, becomes affected, all the others must suffer, unless something intervenes. The fact that all do not suffer proves that that something is more powerful than the dose.

No doubt we should be better with neither alcohol nor heredity, but we can make too much of them both, to the neglect of other factors, especially the restraining factors.—I am, etc.,

Ticehurst, Jan. 15th. H. H. NEWINGTON.

SIR,—The association between alcoholism and mental defect was recognized long before Dr. Caleb Williams touched the subject. The first English work on drunkenness from the medical standpoint is an essay by Thomas Trotter, M.D., London, 1804. A quotation runs:

> If offspring should be derived from a drunken parentage, it must be diseased and puny in its corporeal parts, and beneath the standard of a rational being in its intellectual faculties.

And again, in *A View of the Nervous Temperament*, London, 1807, Trotter, from his experience of some thousand cases of nervous disorders, holds that the only means of cure lie in a total abstinence from every species of spirit or fermented liquor, from everything that bears any analogy to them, such as tea, coffee, opium, and all other narcotics . . . to live as becomes a rational being.

The question has advanced far beyond these elementary propositions, and our endeavour now must be to disentangle the contributory causes of alcoholism. Dealing as I do with the worst class of drunkards, I set far more stress upon the inherent neuropathic constitution of the family and the individual than upon the mere fact of alcoholism in parents of a healthy stock. It has even been asked if a normal individual *can* become a habitual drunkard. At least we know that neuropathic individuals are unduly susceptible to alcohol, and that they cannot drink to such excess, as the records of a general hospital indicate (Mott).

We are so impatient for reform that it is forgotten that the attitude of the upper and middle classes towards

alcoholism has vastly changed, and that there is a marked improvement in this respect in the conduct of life in these classes. It is also forgotten that the lower classes have entered upon an ordeal of changed circumstances, marked by their concentration in great towns, the easier command of money, and intoxicants of all kinds. Dr. Yellowlees long ago showed that a period of high wages was accompanied inevitably by an increase in alcoholism, while low wages had an opposite effect. The vast experiment which is now in progress, entailing low wages and an increase of price of whisky, has resulted in a great diminution of drinking, and the superintendent of police in Perth lately informed me of his deliberate opinion that want of money is rendering the working class more sober. Whether this educational experiment will result in a permanent continuance of sobriety remains to be seen. Infallibly the incompetent will remain with us; but there is reason to expect that the same influences which weighed with the educated classes will find expression generally and beneficially in the wage-earning community.—I am, etc.,

Perth, Jan. 16th. A. R. URQUHART.

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SIR,—It has been said that because serious visceral defects are not often found in the insane, this appears to suggest that alcohol is not in itself the cause of insanity. Alcoholism no doubt has different effects in different individuals, and in those with stable nervous systems frequently produces various pathological lesions without causing insanity, but in persons with unstable nervous systems—and such are the most liable to become insane—it may cause insanity long before any visceral disease has been occasioned, thus accounting for the frequent absence of it.

To say that parental alcoholism only has a detrimental effect on those with an inherited psycho-neurosis or other form of degeneracy is begging the question, as these results may be traced in many instances to various parental weaknesses, among which the excessive use of alcohol takes a prominent place.

The contention seems to centre round the point that because everyone is neither born sound, nor of healthy parentage, or lives in ideal circumstances, therefore the abuse of alcohol on the part of the parent cannot be said in itself to be detrimental to the offspring. In opposition to this, I think it may just as well be said—and with nearer approach to the truth—that if everyone was born sound, was descended from healthy ancestral stock, and lived in a perfect environment, parental alcoholism would induce nervous and other affections, which would produce results harmful to the physique and the ability of the progeny. The only alternative to this proposition appears to be to discard altogether the theory of heredity.—I am, etc.,

Oxford, Jan. 16th. A. STAYT DUTTON.

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## THE CANCER PROBLEM.

SIR,—Dr. Renner's letter *re* Cancer and the Creoles of Sierra Leone presents an aspect of the incidence of cancer which, in studying the relation of anthropology to disease, I thought I had discerned elsewhere, and to which I called attention in a paper read recently before the Hampstead Medical Society on the Racial Evolution of the British People and its Importance in Pathology and Therapeutics.

His conclusion with regard to the prevalence of malignant diseases among the inhabitants of Sierra Leone, after the study of local statistics, is "that they occur amongst the creoles or descendants of liberated Africans . . . who have adopted the European manner of living and consumed a large quantity of butcher's meat," and also that "in the whole register there is not a single case of a disease of malignant nature recorded against the liberated Africans themselves or the natives of the protectorate."

These statements present three salient facts:

First, the incidence falls on individuals who are racially though not personally immigrants. By this I mean that their evolution took place in other regions of Africa, through a line of descent adapting itself by natural selection to conditions of soil, climate, social customs, etc, differing in varying degrees from those of Sierra Leone.

Secondly, the stress of the new environment fell on them not when they were adults like their liberated forbears, but through the whole period of growth from infancy onwards, that is to say, through that stage of life in which the organism is most susceptible to the influences of its surroundings.

Thirdly, they have adopted a dietary and manner of life for which their evolution has not prepared them.

I can offer some analogous facts bearing on the incidence of malignant (and other) diseases in this country. I think it is generally accepted that even allowing for greater accuracy in diagnosis, cancer with us is on the increase.

The British people is composed of what was practically an aboriginal race (the Iberian) crossed with a succession of invading races. These invasions, if we omit those of the Flemings, Huguenots, Jews, Gipsies, etc., practically ended about a thousand years ago and the country gradually settled down into localized communities devoted to pastoral and agricultural pursuits. In the formation of the nation from its primitive elements and in the molecular changes subsequently occurring, natural selection brought about the evolution of recognizable local types which have been described by Beddoe, Munro, and others. They represent those best adapted to the local conditions, and the longer and more completely a local community has remained undisturbed the less able are the individuals composing it to adapt themselves to different conditions. But the past century has witnessed in this country the decadence of agriculture and the rise of industrialism together with immensely increased facilities of transit. The result has been a general uprooting, a dislocation, of these locally-evolved types and their migration into new environments, chiefly urban. The stress of natural selection has fallen severely on this rapid reassortment of the national elements. The upper classes also, through the greatly increased ease of travel, have moved a great deal more about the country than heretofore.

Undoubtedly, also, great and rapid modifications have taken place in the dietary of the nation with the continually augmenting importation of foods and the diminishing local production. I believe that the "cancer problem," the "consumption problem," and the phenomenon of "racial degeneration" are closely connected with the foregoing facts.

Malignant disease is common at Bridlington Quay, in Yorkshire. A medical man in practice there tells me that the incidence falls almost entirely on immigrant families. I know of a case in which a married couple, both descended from county families of long standing in Ireland, left the sister isle to settle in an English South Coast health resort. Both died of cancer there, an interval of some years intervening between the death of husband and wife. In neither family was there a history of cancer. I could adduce several other similar cases, but these suffice to indicate the direction in which I am suggesting further research.

Many attempts have been made, of course, to trace a causal relationship between environment or diet and the incidence of cancer. My point is that it is not simply a question of this or that environment or diet assuring relative immunity from disease, but of the particular diet or environment for which the individual's ancestral evolution has prepared him. A clue to his requirements may be found partly by inquiring into his family history, partly by determining his racial type or subtype, as I suggested in a paper read at the annual meeting of the British Medical Association last summer.

Dr. Renner's statistics and conclusions form a valuable contribution to the study of disease in the light of anthropology.—I am, etc.,

J. S. MACKINTOSH, M.R.C.S., L.R.C.P.

London, N.W., Jan. 14th.

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## THE BRADSHAW LECTURE ON CANCER.

SIR,—Mr. Wright has evidently been a careful reader of the cancer report, and I am willing to concede to him all the deductions he draws from it, qualified, however, by the reservation that the inferences do not apply—as yet—to the human subject. We can narrow the discussion down to a plain issue. I will cite the case of a carcinoma of the breast, and I ask Mr. Wright to inform your readers what light the report throws upon any of the following points: What hidden force is it which lashes the epithelial cells into such unwonted reproductive activity? What is the nature of the continuous irritant (and this must be

postulated) operating on each individual cell in the growing portions of both the primary and secondary tumours? (Here we have the crux of the whole problem. My own view is that a parasite is the cause, which by its toxin provides the continuous irritant. But this is opposed to the findings in the report.) What hints even are given with regard to prevention, mitigation, or cure?

With respect to Dr. Charles Walker's criticism of my remark anent the conversion (not evolution) of a carcinoma into a sarcoma, is he justified in his analogy between the epithelium of the *Triton* and that of *Homo?* Granting that in the lower vertebrates the individual somatic cells can retain the power of producing all the tissues of the body, has this ever been proved in the case of mammals? I know of no verified recorded instance of the human crystalline lens, when removed, being recreated by a growth of mesoblastic cells. Certain curious intraocular epithelial growths have been observed, but these, when submitted to expert examination, have been ascribed to foci of implanted epithelium (traumatic in origin). Moreover, there is surely a distinction to be drawn between the highly specialized epithelium of *Homo* and that of those *Saurian* ancestors from whom, both in morphological differentiation of structure and physiological division of labour, he is separated by a few millions of years!

In conclusion, allow me to reiterate my original thesis: 30,000 people in England and Wales annually die from cancer, and I plead for the systematic clinical investigation of these cases on the lines laid down in my first letter.[1]

Inasmuch as the incidence of cancer is *crescendo*, it behoves the whole profession to awake to its importance, and to petition the Government for an annual subsidy wherewith to carry out such investigation. This need not in any way conflict with the work being done in the cancer research laboratories; in fact, it would be merely complementary to it.—I am, etc.,

London, W., Jan. 15th. KENNETH CAMPBELL.

## THE CAUSE OF APPENDICITIS.

SIR,—Numerous reasons have lately been given to account for the undoubted increase in cases of appendicitis. Some suggestions have been feasible, some far-fetched, and some comic. I cannot remember reading any suggestion that the cause might be in the appendix itself; I have for some time considered it to be so.

Macalister in his *Treatise of Human Anatomy* calls the appendix "the degenerated long ancestral caecum." In herbivorous animals that require a large intestinal surface for absorption the appenix is represented by an enormous caecum, while in some Carnivora I believe the caecum is absent. This "long ancestral caecum," not being of any use, has, in process of time degenerated into the appendix as we now know it. The appendix of to-day is of no use, except to the surgeon (and, according to some, the colon is not much better); that being so, why should this degeneration have ceased? I do not believe that it has. This slow process has at last commenced to result in such an alteration in the mucous membrane and its secretion, muscular coat, or canal, that the appendix has become much more liable to attacks from the myriads of organisms in the intestines.

Every operating surgeon knows that in the vast majority of cases of acute appendicitis which result in localized abscesses, gangrene, or general peritonitis, one or more concretions are found in the appendix. These are, no doubt, the starting point of the acute disease and not the result. I have found a concretion in the apparently healthy appendix of a fine, well-nourished, breast-fed infant of 6 months, who died from acute pneumonia. I am sure that the infant's fearful past, mode of life, or method of defaecation cannot have been the cause of the concretion. These concretions are caused, I believe, by some degeneration of the mucous membrane and its secretion, though, of course, there is some faecal matter in the concretion as well. I do not consider that any change in the mode of living, etc., can have any effect on the number of cases of appendicitis unless it can reduce the number of organisms in the intestines.—I am, etc.,

Wolverhampton, Jan. 3rd. W. F. CHOLMELEY, F.R.C.S.

[1] BRITISH MEDICAL JOURNAL, December 17th, 1910.

SIR,—My suggestion, that the diminished use of alcohol is responsible for the increase of appendicitis, was made, in common with my other suggestions, as an application of the great principle of causation—*post hoc, ergo propter hoc*—discovered by those keen observers of nature, the schoolmen of the Middle Age, and adopted with such striking results by medical practitioners in assigning the causes of disease, especially of appendicitis. The bactericidal powers of alcohol were thrown in merely as a make-weight, and I must admit that in resting the case partly on them I was departing from the grand simplicity of the scholastic canon. Still, teetotalers have taught us to appreciate the lethal powers of alcohol, and to recognize how those who use beer and wine, like those who use fusees,

> All grow, by slow degrees,
> Brainless as chimpanzees,
> Meagre as lizards;
> Go mad, and beat their wives;
> Plunge, after shocking lives,
> Razors and carving knives
> Into their gizzards.

And, if alcohol has such disastrous effects on such a powerful organism as man, what may it not be expected to do to such a feeble creature as a bacterium? Surely, it must cause the hand of every bacillus to be lifted against its neighbour and so engage them in a fratricidal war that must end like that of the Kilkenny cats.

Since writing my previous letter, another cause of appendicitis that seems irrefragable has suggested itself. For 150 years—from the days of Charles II to the end of the eighteenth century—the wearing of wigs was general, and during the whole of this time not a single case of appendicitis was placed on record. It is only since the use of wigs has been discontinued that appendicitis has increased so much. I know of no case of appendicitis occurring in a judge, and barristers also seem to be immune—at least I have not heard of a practising barrister being attacked. Bishops wore wigs well into the reign of Queen Victoria; and who ever heard of a wigged bishop suffering from appendicitis? I give these illustrations, as well as that of alcohol, merely as examples of the force and conclusiveness of the mode of argument that is in common use to discover the causation of disease.

The University of London has struck out the subject of logic from the examinations for its higher medical degrees, and rightly so; for no doubt the Senate recognized, on the evidence of such discussions as this on the cause of appendicitis, that, in logic, medical practitioners have nothing to learn.—I am, etc.,

London, W., Jan. 9th. CHAS. MERCIER.

SIR,—The comparative absence of appendicitis among people who use the natural position in defaecation is certainly remarkable.

Dr. Rainsbury, in his letter in the BRITISH MEDICAL JOURNAL of January 7th, foresees the possibilities of appendicitis, hitherto rare among colliers, as a consequence of the installation of closet seats.

To my mind, the scarcity of appendicitis among people who use the squatting position may be due to the frequent absence of constipation, and hence of autointoxication and lowered resistance to organisms.

In Egypt, where the majority of people use the natural position, appendicitis is rare; but there, again, constipation is rare; hence autointoxication is rare.

The absence of constipation among the Egyptian people may be due partly to the natural position in defaecation, but is also certainly due to their diet, of which butter forms a big constituent.—I am, etc.,

Guy's Hospital, Jan. 9th. H. I. SHAHEEN, M.R.C.S.

SIR,—A few years ago there was a discussion in the JOURNAL on the alleged epidemicity of appendicitis. Probably by this time almost every one regards the increased prevalence of the disease during the last twenty-five years or so as a fact. My contribution to the discussion was a suggestion that the cause of the increased prevalence was a change in the food habits, not of adults and adolescents but of infants, and to point out that an investigation as to the incidence of appendicitis amongst the more primitive races, who, I believe,

almost invariably suckle their babies, might throw some light on the question. Dr. O. T. Williams's report (December 31st, 1910, p. 2016), and two or three letters from correspondents who have practised in India, seem to show that in India and Asia generally appendicitis is much less common than in Europe and America, and it is possible that the difference in infant feeding is the cause.

To my mind the most important dietetic change in the civilized world during the eighteenth century was the abolition of the wet nurse and the substitution in such a large number of cases of hand feeding for breast feeding. The change began about the middle of the century in the upper classes of society, and rather rapidly spread downwards, until about twenty-five years ago, when it was quite common for women of the lower classes to deliberately feed their babies artificially from the first, and at that time many doctors could be found bold enough to advise artificial feeding even when natural feeding was quite possible. *Post hoc* (*pace* Dr. Mercier) appendicitis broke out a few years later, first in the upper walks of society (often in two or more members of the same family) and later in the middle and working classes. Wrong feeding during the first year of life is often followed by wrong feeding during the next few years, and, I fancy, "predisposes" to it, and so an appendix damaged by improper feeding during the first year has no proper chance of recovery.

It seems reasonable to suppose that some of the attacks of colic ("wind," spasms, gripes, etc.) to which hand-fed infants are so liable are due to the entry of foreign bodies (pieces of undigested curd) into the appendix, and the sudden relief which so often occurs to their expulsion, and that some of the catarrhs of the bowels may arise from curds decomposing in the appendix. Frequent repetition of this kind of thing must lead to a damaged or morbid appendix at the end of the first year, which may or may not recover according as subsequent food habits (and perhaps general hygiene) are good or bad.

In children's hospitals it would not be very difficult to obtain a "first year's food history" in a large proportion of cases of appendicitis, and show the relative incidence of the disease in breast-fed and hand-fed children; and a careful comparison of *post-mortem* appendices of children of about the same age, some breast-fed and some hand-fed, might throw some light on the subject.—I am, etc.,

Swinton, Jan. 7th. J. PRICE WILLIAMS.

## THYROID TRANSPLANTATION.

SIR,—To the JOURNAL of December 24th, 1910, Messrs. Ernest W. Hey Groves and Cecil Joll contributed an interesting case of exophthalmic goitre which they had treated surgically by two operations; after the second, by which a very little thyroid tissue, including, they believed, parathyroid tissue, was left, symptoms of tetany appeared, which were relieved by thyroid gland treatment by the mouth, and ultimately very great improvement was noticed after grafting a piece of thyroid and some parathyroids from another patient.

A summary of the clinical reports dealing with cases of thyroid-grafting was given and some reference to experimental work made. Among the latter, an article by Drs. Stich and Makkas, of Professor Garré's clinic in Bonn, contributed to Bruns's *Beiträge* for 1908, p. 431, was cited. Your contributors state that Stich and Makkas report 10 cases of transplantation of thyroid gland by means of blood-vessel suture in dogs, 3 autoplastic and 7 homoioplastic, all successful. I was interested to obtain the article and read it, and find that a mistake in translating it has been made. Stich and Makkas report 10 cases, 3 autoplastic, of which 2 succeeded, living 51 and 245 days respectively. (These cases were contributed by Garré himself at a congress and reported in the *Deutsche medizinische Wochenschrift* for October 7th, 1909) In the summary of their results in the paper cited the following sentence occurs: "Die überpflanzung von einem Tier auf das andere ist uns nicht gelungen" (We have not succeeded in transplantation from one animal to another). Moreover, the description of their experiments shows that in each case of transplantation from one animal to another the gland was found necrosed or not found at all.

I think I am right in saying that no successful case of homoioplastic transplantation of thyroid glands by vessel suture has yet been reported. Several cases of homoioplastic transplantation in human surgery, not by vessel suture, have been reported, but one thing is wanting in all, namely, a subsequent removal and microscopical examination of the graft.

While not denying the possibility of successful homoioplastic transplantation, it can only be successful, in my opinion, in a small percentage of cases. Technical difficulties in transplantation by vessel suture are very great, especially in small animals, or even in large dogs, whose thyroid glands and vessels are still very small. These difficulties have been overcome in autoplastic transplantion. There must, therefore, be some other reason for non-success in homoioplastic transplantation. This, I believe, to be a biochemical difference in the tissues of different animals of the same species.

It is known that haemolysins and precipitins are formed on injecting the blood of an animal into another of the same species, and doubtless, also, cytolysins would occur. No very powerful products of this kind are, however, usually found, thus indicating that the biochemical conditions in animals of the same species are not very dissimilar, and it is conceivable that in a small percentage of cases these conditions are so nearly identical as to make homoioplastic transplantation of some of the more highly organized tissues possible.

While, therefore, prepared to believe that Messrs. Hey Groves and Joll may have really succeeded in implanting thyroid and parathyroid glands from one patient into another, I would point out that the improvement might quite possibly occur without their grafts having anything to do with it, in two ways—either the patient has accommodated herself to living with a restricted amount of thyroid secretion, or else the thyroid gland left at the second operation has hypertrophied so as to produce sufficient secretion for her needs. Probably both effects have occurred, but, in support of my second suggestion, I would cite Hürthle's work described in *Pflüger's Archiv*, 1894, p. 1.

In writing this I desire not to take away from your contributors credit for the case they have reported, but to correct what might be a false impression as to the results of experimental work in this matter, due to a faulty reading of Drs. Stich and Makkas's report of their work.—I am, etc.,

London, W., Jan. 10th. E. ARCHIBALD SMITH.

## DRAUGHTS.

SIR,—Having noticed, somewhat late, the correspondence on the subject of draughts in your columns, I have thought it would perhaps be not inappropriate to call attention to the observations published by Dr. HERZ, of Vienna, some time ago on this matter.

According to Dr. Herz there is a fundamental physical difference between draughts and wind, though both are in one sense at least, of course, the same thing, namely, air in motion. The difference, however, is this, that in the case of wind the pressure to which we are normally subjected by the weight of the air around us is more or less increased, while by a draught this pressure is materially lessened. Of course, in both cases the movement of the air is caused by a difference of temperature at two given points, in the connecting line of which the observer happens to be stationed. Now, in the case of wind these two points are very far apart, and, besides, they are not, correctly speaking, points, but large tracts in the atmosphere, and wind always means the moving of a large volume of air which comes from a great distance. In the case of draught, on the other hand, say, for instance, from a badly fitting window, the point of origin of the movement of the air (through the window slit and onwards towards the warmest part of the house) is comparatively quite close to the observer; and the air surrounding him is subject to the attraction of the warmer part of the room (the ceiling). In consequence, the pressure under which we normally live is reduced, as the small current of air that penetrates through the aperture of the window is not equal to the amount which could be taken up by the warm space above and around one. We are thus placed under a process of air suction. It is worth noting that both the German and the English idiom designate such a movement of the air as a traction, a drawing. *Ziehen*, *Zugluft*, a draught.

Now, it is perfectly comprehensible that any change in the average air pressure will more or less affect the human organism. A high wind, for instance, in many individuals produces a disturbance in the respiratory system or in the action of the heart, causes headache, etc, a thing of common knowledge. But, in general, the effect of wind is not found to be injurious. Wind, by reason of the increase of air pressure which it entails, tends to produce a contraction of the capillaries of the skin and the visible mucous membranes, and consequently a reduction of the emanation of the warmth of the body. It is true that the passing air absorbs more of the heat of the body than it would when not in motion. But the main point in the question under discussion is that under increased air pressure due to wind the capillaries contract, while they dilate under the influence of the subnormal pressure which draught entails. Thus we can readily understand that the skin and its subjacent tissues and muscles, or the mucous membrane of the nose are liable to suffer differently and more seriously through the action of a draught than from wind. We know that the prolonged application of an icebag can cause gangrene of the skin. Is it, then, reasonable to deny that undue cooling of the skin and the underlying parts with distended blood vessels may produce pathological changes, such as rheumatism or, in the case of the nasal mucosa, a rhinitis, commonly called a "cold," or other troubles? I am quite willing to concede that there may be—and, indeed, are—individuals whose power of vasomotor accommodation is such that they rarely, or never, feel inconvenience from the effects of draughts; but I am certainly of the opinion that the great mass of human beings—anyhow, of Europeans—are not so favourably organized, and I think we shall do well to adhere to the teaching of untold observers to the effect that draughts are, and remain, injurious, and should be avoided.—I am, etc.,

F. A. PHILIPPI, M.D.

Bad Salzschlirf, Germany, Jan. 2nd.

## THE ETIOLOGY OF SOLDIER'S HEART.

SIR,—Having recently vacated an appointment as Recruiting Medical Officer, London Recruiting Area, I have been interested in reading Major Porter's remarks on the subject of D.A.H., or disorderly action of the heart.[1] It appears from these that Major Porter rejects all recruits whose pulse-rate during the examination remains above 100, and moreover allows the recruiters to reject candidates for the army at the primary examination if they consider that the pulse-rate exceeds this figure. While admitting that it is necessary, for practical purposes, to fix a maximum pulse-rate allowable in a recruit, I cannot agree that 100 is a sufficiently liberal margin to allow as a rigid standard. Nor do I think it wise to entrust the duty of determining what is a true pulse-rate of 100 or over to the recruiter.

I have myself had the privilege of doing recruiting duty at the Stratford Recruiting Dépôt, and know by experience how hurriedly the preliminary examination is often done when there is a rush of recruits who have to be brought to Stratford from various parts of London before the "book" closes.

To reject a recruit simply because his pulse-rate is, say, 102, without any examination of the heart—as must be the case when this medical duty is entrusted to a recruiting sergeant—is to my mind wrong. I have often accepted men whose pulse-rates remained well over 100 during the examination, provided the heart sounds, spacing, and pulse were otherwise normal; nor have I heard of any such being rejected for D.A.H. after enlistment. It must be remembered that with our present more rational methods of physical training there is not the same danger as perhaps formerly existed—that a youth with an excitable heart may be broken down by injudicious setting-up drill or gymnastics.

Again, as regards the question of causation, Major Porter apparently adopts the usual view that the "pernicious" cigarette is at the root of this mischief. While not denying that nicotine poisoning is a factor in some of these cases, I have often noticed that the most marked cases of high pulse-rate are to be found among those who deny cigarette smoking or only indulge in great moderation, and whose fingers bear out their statement. It has frequently struck me that the condition called D.A.H. is more a question of temperament than tobacco. It would, I think, be interesting if recruiting medical officers would tabulate their rejections for D.A.H., noting the condition of the fingers with regard to nicotine staining, no one individual's figures being sufficiently large to warrant the drawing of any conclusions. The whole question of D.A.H., in fact, is one upon which recruiting medical officers should try to arrive at some agreement, with a view to more uniformity of action as regards the rejection of recruits for this disability.—I am, etc.,

S. G. ALLEN,
Lieutenant-Colonel, R.A.M.C.

Gibraltar, Dec. 10th, 1910.

[1] BRITISH MEDICAL JOURNAL, November 5th, 1910, p. 1470.

## HYPERCHLORHYDRIA AND ITS COMPLICATIONS.

SIR,—I think that in fairness to his readers Dr. William Russell should have explained that the views which he has enunciated in his clinical lecture published in the JOURNAL of December 31st, 1910, are only his own private convictions and do not represent the opinions held by the majority of authorities upon diseases of the stomach at the present day.

It is now very generally believed that although there is undoubtedly a true hyperchlorhydria in which the gastric distress is directly due to the excessive secretion of hydrochloric acid and that alone, in many cases presenting similar symptoms the acid is normal or subnormal.

Stockton[1] was, I believe, the first to draw attention to this in 1902, and pointed out the necessity of assuming a hyperaesthesia of the gastric mucosa which rendered it intolerant of normal amounts of acid. Dutton Steele, von Noorden and Riegel[2] support this view and do not believe that excess of acid by itself is capable of producing symptoms of hyperchlorhydria. Kaufmann,[3] out of a series of 19 patients free from gastric symptoms, found a total acidity of over 70 in 10 and over 100 in 2. Moreover, he experimentally administered large doses of hydrochloric acid to healthy persons without producing symptoms.

Among others, the numerous observations of the following have conclusively proved that you can have symptoms of hyperchlorhydria, the acidity of the gastric juice being below normal, and gastric juice with a great excess of hydrochloric acid without any symptoms at all: Schule,[4] Brandenburg,[5] Gintls,[6] Illoway,[7] and Musser,[8] Soupault,[9] Verhaegen, and Luigi Sansoni. Moreover, Laboulais had under observation a patient with symptoms of hyperchlorhydria, and proved by an analysis of the gastric contents that at the very time when the pains were relieved by the administration of bicarbonate of soda there was practically no hydrochloric acid present in the stomach.

Taking 100 consecutive cases of my own presenting hyperchlorhydria symptoms, in which an analysis of the stomach contents was made after a test meal, I find excess of hydrochloric acid in 68, normal acidity in 21, and a diminished hydrochloric acid content in 11. Taking the same series of cases, there were 5 of duodenal ulcer which came to operation when the presence of the ulcer was confirmed; 31 in which duodenal ulcer was inferred from the presence of rigidity or hypertrophy of the right rectus, occult blood, or evidence of pancreatic irritation taken in conjunction with the symptoms and evolution of the disease; 14 cases of acid gastritis; 2 cases of gall-stone disease; 1 case of concretion in the appendix; 1 case of tuberculous disease of the caecum, both these latter confirmed at operation; 9 cases of nephroptosis; 7 cases of ulcer of the stomach. The remaining cases were apparently of a functional nature, the majority being associated either with constipation, improper feeding, or the excessive use of tobacco. In only 8 could the affection be fairly called a neurosis.

In the cases recorded as examples by Dr. Russell there appears to my mind nothing whatever in the way of evidence to show that they were not in reality duodenal ulcer. No mention is made in the histories of the con-

[1] *Journal of the American Medical Association*, January 11th, 1902.
[2] *Progressive Medicine*, 1906, p. 34.
[3] *Zeitschr. f. klin. Med.*, 1905, p. 491, vol. lvii.
[4] *Zeitschr. f. klin. Med.*, 1895, vol. xxviii, p. 461.
[5] *Arch. f. Verdauungskrankheiten*, 1897, vol. iii, p. 377.
[6] Ibid., 1898, vol. iv, p. 251.
[7] Ibid., 1902, vol. viii, p. 103.
[8] *Trans. of the Assoc. of Amer. Physicians*, 1905, p. 193.
[9] *Maladies de l'estomac*, 1906, pp. 164, 165.

dition of the abdominal reflexes, the absence or reverse of occult blood in the stools, or evidence of duodenal irritation such as would be shown by a positive Cammidge C reaction, or the increased digestion of casein by a dilution of the faeces (trypsin insufficiency test). The fact that they got well under treatment proves absolutely nothing, as we are all familiar with the fact that duodenal ulcer is characterized by periods during which the patient appears to be perfectly well.

I will conclude by most strongly traversing Dr. Russell's statement:

> The medical treatment of chronic duodenal ulcer is, to my mind, not worth spending time over. . . . For both it and chronic gastric ulcer I strongly advise operation. Were it established that a serum treatment had been found which ensured the healing of chronic ulcerations, one's attitude towards this question would be changed.

I find it difficult to reconcile this attitude with his statement earlier in the lecture, "that healing of a duodenal ulcer takes place without surgical interference cannot be questioned." The explanation probably is twofold: first of all I gather from the lecture that he does not feel justified in diagnosing a duodenal ulcer until melaena has occurred, and secondly, he evidently is unacquainted with the treatment by antilytic horse serum.—I am, etc.,

London, W., Jan. 1st. GEORGE HERSCHELL.

## STATE SICKNESS AND INVALIDITY INSURANCE.

SIR,—At last the box is opened, and we are permitted a view of its contents. The grand scheme of the Government for relieving the masses from the risks of sickness, unemployment, and consequent destitution resolves itself into a compulsory insurance of 5s. a week, one shilling less than is provided at a cost of twopence a week by the least stable of factory slate clubs. What can one say about such a fiasco? Shall we laugh or cry over the infinitesimal sequela of such blowing of trumpets and beating of drums? Shall we laugh or cry as we ask ourselves whether the medical profession is responsible for the travail of the mountain ending in the birth of a mouse? Did Mr. Lloyd George perhaps intend, with our connivance or submission, to provide also medical attendance—worth, say, on an average 20s. a week—at an additional cost of a penny a week, but, in view of our marked hostility to provision of benefits at our expense, reluctantly withdraw this portion of his scheme? If so, and if further he counts on the friendly societies obtaining insidiously for his protégés what he openly dare not ask for, our course is quite clear. As Dr. Keay points out, the labourer is now a State protégé, and our attitude to him is no longer the attitude we adopted to him as a free member of a friendly society. The principle of collective bargaining must replace the old-time system of scrambling for club appointments at starvation salaries.

All *new* appointments to clubs must be arranged through the mediation of the local Divisions of the Association, and wherever the profession is sufficiently united, present appointments may be determined and new conditions of practice with adequate remuneration arranged for. These conditions shall be the same as we intended to ask from the State—namely, freedom of choice of doctor for the patient, and for ourselves payment per attendance at ordinary fees as in private practice. Trade-unionism? Yes; and for the benefit of the superior I should like to quote these words of the Duke of Argyll from *The Reign of Law*, p. 373: "When the working classes combine for the protection of their own labour against the effects of unrestrained competition, they are simply taking that course which is recommended alike by reason and experience." It is puerile to deny that we are of the "working" classes, and that our profession has been degraded by unrestricted competition. Shall we not, then, listen to the voices of reason and experience, and, not only for our own sakes but for the sake of our successors and of the community, use the means at hand of stopping this degradation?—I am, etc.,

Bristol, Jan. 14th. HARRY GREY.

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SIR,—The "inspired" statements of the Government's immediate intentions *re* State sickness insurance, which recently appeared in the *Times* and *Manchester Guardian*, seem to be causing some consternation in our midst. At first, I confess, on reading them I could hardly regard them seriously, but on reflection, considering the great issues at stake, the vast complexity of the problems involved, and the wide divergence of opinion exhibited both inside and outside the profession, I do not wonder that the Government hesitates to take too bold a plunge at first. On the other hand, if the Government waits until we are all agreed upon ways and means, and until a complete and satisfactory scheme can be evolved, they will wait for the millennium. The Government is, however, pledged to take *some* action without delay, and evidently intends "to make a beginning." There can be little doubt to any one who calmly considers the matter that it is only a beginning, and that State sickness insurance in this country cannot long remain at this 5s.-a-week-total-benefit stage. The future will, indeed, be largely in our hands, and the sooner we can come to an understanding amongst ourselves the sooner will a fuller and more effective scheme be evolved.

So far as the medical profession is concerned, the Government's scheme does not alter the *status quo*. We had hoped that an effort was going to be made to remedy some of the evils under which medical practice amongst the sick poor is at present carried on, and that the report of the Poor Law Commission was about to bear some fruit, but evidently this is "not yet."

I believe, however, that a determined stand on the part of the medical profession would help matters forward considerably at this stage, and it is only after very grave consideration that I counsel my fellow practitioners to adopt the following plan of action:

(*a*) Inform the friendly societies: (1) That we cannot continue the work of medical attendance (and provide drugs, dressings, etc.) for their beneficiaries on the totally inadequate terms hitherto in vogue, and that we will certainly not undertake any *fresh* work on the old terms; (2) that the present contract system with *per capita* payment is neither in the interests of the beneficiaries nor the medical profession and can no longer be countenanced by us; (3) that where the beneficiary contributes towards medical attendance he should have choice of medical attendant, amongst those willing to act, and at the same time there should be right of refusal of attendance both on the part of medical attendant and of the patient when either is dissatisfied with the other, and we must insist upon this principle of professional freedom in the interests of both; (4) that the best method of remuneration will be payment per visit, or per attendance, according to an agreed scale of fees, with an allowance for "extras," mileage, drugs, dressings, etc., and we are prepared to discuss details of such a scheme with representatives of the friendly societies or of the Government, or both.

(*b*) Memorialize the Government on the subjoined points: (1) The necessity for a State sickness and invalidity insurance scheme, including provision for medical attendance; (2) the advisability of such a scheme being independent of any control on the part of the friendly societies; and also (3) that the medical profession should be fairly represented on any controlling body or bodies; (4) that in the drafting of any scheme for providing medical attendance the views of the medical profession should be carefully considered, and only a scheme which is likely to be acceptable to the great majority of its members should be introduced into Parliament.

A final word in reply to Dr. Flemming's letter in the BRITISH MEDICAL JOURNAL of January 14th. He singles out from their context two passages from previous letters of mine, and places them in juxtaposition with a view presumably of making them contradict each other. It is obvious from the context that in the latter phrase the meaning is "not likely to pay 10s. *for the same work* if it can get that work done for less." Whereas in the larger preceding passage I am appealing to the Government to have done with this cheap unsatisfactory contract work, and, even if it costs more, to have the work properly done.—I am, etc.,

Bowdon, Jan. 14th. P. R. COOPER.

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We have received from two correspondents, who do not desire their names to be published, communications which contain certain data which may be of use in the elucidation of the questions as to the amount of work done, and of remuneration in certain classes of practice. The first

communication refers to city practice, and the second to a practice in a colliery village.

I.

"IN MEDIA VIA SALUS" writes: Insurance companies pay their members at so much a week or day of illness. Could not doctors be paid in the same way? In order to arrive at some sort of basis of calculation I have analysed (with the help of medical friends) the results of work done in November in three practices, average mixed practices with no club or contract work.

We have classified the visits paid and amounts due on those patients only who would come under the present Government scheme. We have included all ordinary cases of illness, acute and chronic (but not confinements, fractures, etc.), and I think I may claim that there has been no over-charging, and certainly no over-visiting, as patients of this class in the city in which the practice is carried on, and where there is much charitable medical aid, cannot and will not stand it. On the contrary, the patients under the new scheme would almost certainly receive more visits, as they would send earlier for a "gratis" doctor.

As a result of this analysis we find that if we had been paid 7s. 6d. a week for each patient we should receive almost exactly the same amount as was actually charged to the patients.

If, then, Mr. Lloyd George wishes us to carry out the work under conditions and terms such as now obtain in private practice, he must allow at least 7s. per week, or 1s. per diem, for visiting patients and providing medicine. In the same manner, I have calculated that surgery attendance with medicine ought to be paid for at the rate of 3s. 6d. a week or 6d. a day.

Some such system as this would immensely simplify our bookkeeping:

Case 1. Cut hand. Away from work 10 days, surgery attendance 10 × 6d. = 5s.

Case 2. Pneumonic. Seen at surgery, November 1st, is found to have a high temperature, sent home to bed, and visited at home for 20 days, and then is seen for a week more at the surgery.

| | £ | s. | d. |
|---|---|---|---|
| November 1st. Surgery ... ... ... ... | 0 | 0 | 6 |
| November 2nd to 21st. Visits Home (20 days at 1s.)... | 1 | 0 | 0 |
| November 22nd to 28th. Surgery (7 days at 6d.) ... | 0 | 3 | 6 |
| Total ... ... | 1 | 4 | 0 |

Such a course would involve from 15 to 20 home visits, but on the other hand, one would have a case of chronic phthisis, or a paralytic, near by, involving only one or two visits per week, which would also be paid for at the same rate, 7s. per week.

The essential feature of the plan, therefore, consists in the averaging of all illnesses—acute and chronic—so that the doctor in charge is paid for the whole period that the patient is at home (no matter how many or few visits are made) at 1s. per diem, and for the whole period that the patient attends the surgery (whatever the number of attendances) at 6d. per diem.

Of course this scheme would (like all others) entail slight extra fees for night visits, confinements, fractures, etc., and ordinary fees for consultants.

It would be very instructive to hear from other medical practitioners (town and country) how they would fare under this scale compared with their present charges, that is, what percentage of gain or loss would be recorded. To sum up the advantages of this scheme:

1. It is simple, uncomplicated, and practical.
2. It is a combination of "contract" and "payment for work done" principles.
3. Tendency to over-charging is reduced to a minimum.
4. Medical inspection would be simplified. Malingerers and chronic cases would receive special attention from the inspectors.

As to the cost, taking the Century Insurance Company's estimate of three weeks' illness per annum, two weeks at home and one at surgery would amount to 17s. 6d. per annum for each beneficiary. To secure such benefits surely this is not too large a sum if divided between the State, the employer, and the workman.

II.

"FESTINA LENTE" writes: I live in an isolated colliery village, where I am the only resident doctor. There are 1,200 to 1,300 workmen, with a population of over 4,000. For the three months ending December 31st, the actual visits paid were 2,682, giving an average of 29.5 per day. For four weeks in August the visits were 521, or 20 per day, and I ask your readers to compare these figures with the estimate of "50 visits per day for 1,500 beneficiaries" as stated by some of your correspondents, at which rate I should have 133 visits a day! During a terrible winter epidemic of measles seven years ago, 90 to 100 visits daily were reached, which is well under what these correspondents give as the percentage of normal visiting. Looking over my book, for more than four years I find the longest visiting list was for the week ending February 22nd, 1908, during an epidemic of influenza, when 418 visits were made, averaging 60 per day. A fairly typical winter's list would be that for the week ending January 29th, 1910, when there were 332 visits, or 47.4 per day, and this in a population which I do not think would have been over-estimated had I put it at 5,000 instead of 4,000.

## HYPERTENSION AND NEURASTHENIA.

SIR,—Somewhat behind in my reading, I have only just perused the interesting address of Dr. H. Batty Shaw, and likewise the letter of Dr. James Metcalfe. Strange to say that in the address no mention is made of treatment by mineral waters, which in the end combine the three important essentials: (1) Effectiveness; (2) harmlessness; (3) relative permanence. I have tried nearly every method of treatment, and I say unhesitatingly that a relatively lowly mineralized (but not too low) non-chloride bearing water gives the best and most permanent results. The nitrites, iodides, veratrine, guipsine, silicate of soda, etc., I have given all a fair trial. Erythrol tetranitrate I have used for thirty years, and it has given me the best results as a temporary measure. Iodides in large doses are often injurious, but I gradually worked out a method that gave me fair success. This consisted of prescribing never more than 5 or 6 grains a day diluted in at least a pint and a half of water (0.35 gram per litre), divided into three doses each an hour before meals. This must be continued for many months. Guipsine and silicate of soda I am using at present pretty extensively, but am still quite uncertain of the results. Furthermore, most of the patients taking these two last drugs have done one or more cures at Vittel, and drink almost constantly Vittel water. Under such conditions it is difficult justly to account credit to the one or the other method.

At Vittel we see large numbers of "hypertensionists," not to dub them all arterio-sclerotics, where French and Continental physicians send more and more each year. Even in that form of high tension due to renal insufficiency a marked fall occurs. One of my patients last season, with a fair amount of albumen, had a systolic pressure of 290 mm. on his arrival (July 25th). During the first five days of the cure it fell 50 mm., and one day after (August 14th) the end of his cure it stood at 215 mm. His albumen fell from 1.80 grams per diem to 0.425, or less than a quarter. He now reports himself as "quite well."

Dr. Metcalfe speaks of the relationship of neurasthenia and high pressure. I have for years considered that most neurasthenias were chronic toxaemias, and, treating them on these lines, I rarely fail to cure them in a few weeks. This will explain why at Vittel most neurasthenics get well. Were this letter not too long, I could show that most slight cases of neurasthenia are made bad ones by injudicious treatment.—I am, etc.,

Beaulieu, Jan. 9th. H. J. JOHNSTON-LAVIS.

## THE OUTLOOK FOR THE COUNTRY GENERAL PRACTITIONER.

SIR,—I notice in your issue of January 14th a very excellent paper read by Dr. Parkinson at the Dorset and West Hants Branch meeting entitled, "The Outlook for the Country General Practitioner," in which he deals at some length with the subject of midwives and nurses, against whom we general practitioners have often to contend.

I have been much interested in this vexed question for some years, and have always regretted that, while nearly every country practitioner knows, yet no one seems to have given vent to this particular grievance.

A few years ago there was a great outcry against the unqualified assistants, many of whom were well trained men, and when the General Medical Council took the matter up the occupation of these poor men was abolished. But I hold the qualified man did not suffer through them to anything like the extent they do now through midwives and nurses. I have held two large country practices, and I have been assistant and locumtenent in others, and have watched the decreased value in these practices through the unqualified competition in the shape of a nurse.

To quote one instance: I held an unopposed country practice in a village and district in which there was no district nurse. I was approached occasionally by certain people about the advisability of having a district nurse appointed. Having had previous experience, I put my foot down against having one, and had my way. Wishing to practise in another neighbourhood, I disposed of my practice, and my successor welcomed the idea when the subject was next brought up. But he soon regretted

having done so. Not only did she attend a number of midwifery cases, leaving him the difficult ones, or only to come in at the end when anything went wrong, but she did an alarming amount of doctoring on her own, such as cases of sprains, children with inflamed glands, coughs and colds, calling in the doctor when the case assumed a serious aspect, or the people became dissatisfied. Of course, when "Vis medicatrix Naturae" did the trick she got the kudos and often a present as well. All this, of course, considerably reduced the income of my successor. This poor man dare not remonstrate in any way, fearing she would recommend an opponent in an adjoining village. This she eventually did, and, causing a rumpus, she was compelled to leave the district, to the advantage of the doctor and the people who needed skilled advice. Had an unqualified assistant of days gone by, a man who had, perhaps, passed everything but his final, done anything like the amount of work this nurse did, he, poor beggar, would have been liable to punishment, and his employer probably struck off for "covering."

I think it is time this matter should be dealt with by the profession, and nurses should be instructed to confine their work to nursing only, and not to diagnose and treat disease, thus robbing the struggling practitioner of his living, doing themselves no good in the end, and their patients often a great amount of harm. Of course a number of young practitioners have partly to thank themselves for this state of affairs. On going into a fresh practice they feel flattered when they are approached by Lady Vere de Vere, which may end in a luncheon at the mansion and a district nurse appointed. He often soon finds that he has a new terror to deal with, and then to his chagrin he learns that the aforesaid Lady Vere de Vere sends to the nearest town when she needs doctoring.—I am, etc.,

Boscombe, Hants, Jan. 16th. W. SMITH, L R C P., etc.

## SHIP SURGEONS.

SIR,—I see in the JOURNAL of December 3rd, 1910, under the heading "Ship Surgeons," that "surgeons are only supposed to attend upon the ship's crew and third class passengers." Over my head, on the cabin wall, is a notice: "A qualified surgeon is attached to the ship. No charge is made for medical attendance in case of sickness." The surgeon tells me he receives £7 a month. When we called at Naples he was not allowed on shore, as cargo was being discharged, and his services might possibly be required. The most valuable recognition of his services that he has ever received was in the case of a family who called on him almost every hour, night and day, and at the end of the voyage he was presented with a *silver cigarette case*. He has a cabin to himself, which is also his surgery, when the native crew interview him, separated from the engine and pumping room by a thin bulkhead, provides his own uniform and instruments, and still men are found to accept the appointment! At various times I see letters in the JOURNAL suggesting that the status of the medical officer could be improved. What more simple? Boycott the service for three months, insist on £15 a month, and a charge for attendance on passengers, with accommodation equal to that of the chief officer or purser. Some years ago I was surgeon in the P. and O., when I had £13 a month west of Port Said and £16 on the east side, and I thought I did badly if my fees did not equal my salary. *Tempora mutantur.*—I am, etc.,

Indian Ocean, Dec. 20th, 1910. M.D.

## "EYE" IN SPORT.

SIR,—I was very interested on reading Mr. R. W. Doyne's lecture in the BRITISH MEDICAL JOURNAL of December 24th, 1910, especially the shooting section; and as he mentions that he expects opposition from gunmakers he will doubtless welcome the following regarding the master eye in shooting, for in addition to being a gunmaker the writer has used guns from his early teens, also military and sporting rifles for the last twenty-five years, and his calling has given him considerable experience with the vagaries of eyes in gun fitting.

I have not read the article by "R A.M.C.," but from my own experience have found that the vast majority of those who shoot with both eyes open aim with one, the master eye, whatever its controlling influence may be. By "aim" I mean the processes that take place from the moment the gun is brought to shoulder to the instant of discharge. The building of "cross-eyed" guns should be deprecated, for sportsmen who have two good eyes but happen to have a left master yet wish to shoot from the right shoulder. It is preferable, when possible, to use an ordinary stock and close this left master eye when aiming, or if unable, as many shots are, to do this, to fit a small detachable block to the breech end of barrels, so that at the moment of aiming the effect of the left eye is neutralized.

A typical case a gunmaker has to correct is as follows: A customer of ours, a well-known surgeon, who has, I believe, made a special study of "eye," and who is a most excellent game shot, came a short time ago and desired to be taken to our gun-fitting range, to ascertain what had gone wrong with him, as he had just returned from Devonshire, after several days' game shooting, very disappointed. He had used the same gun for ten years with first-class results, and had not altered, so far as I could judge, in his build; was in the pink of condition, yet had suddenly gone wrong with his shooting, having shot partridges and pheasants for some weeks previously in his usual style. To the query—Had his eyes altered?—he replied that he had not observed any change. Upon testing him at range, his lateral deviation was about fourteen inches left, although when tested the previous August his shooting was quite correct, both laterally and horizontally; his gun stock always came up to his shoulder truly as before, and even his shooting coat was the same that he had used for three years.

Now what would Mr. Doyne have advised in a case like this? Should a gunmaker commence to teach one who was a first-class shot up to a few days previously to train his gun to come up truly with his "mental line of vision," or should he have been told to "subconsciously feel his line of vision," or "that his brain potentiality" had altered? No; we fitted a new stock to correct the lateral error, and he was immediately cured.

With regard to rifle shooting, Mr. Doyne states that this obviously can only be done with one eye. My practice has always been to shoot with two eyes open up to the longest ranges, and there are other rifle shots who do the same, simply owing to the possession of a master eye. In my case I have many times tried to shoot with one eye, but find that in so doing a great amount of illumination of both sights and target is lost, together with definition. In view of this, is it not reasonable to conclude that it is only the master eye, or that portion of the brain controlling it, that sportsmen actually use when aiming?—I am, etc.,

CHARLES F. GREEN
Gloucester, Jan. 3rd. (Edwinson, Green, and Sons).

## EPSOM COLLEGE.

SIR,—As the father of a present pupil I have read the correspondence relative to the above institution with very considerable interest. All Welsh medicos have a special regard for Epsom College because of the profession and nationality of the founder, a nationality that was proclaimed to all and sundry by the college motto, "Dyfalâd." Now, with very real regret I find by the latest issue of the college *Magazine* that the old coat and motto have been displaced by a new coat with a Latin motto "Deo —— Fortuna." I have no quarrel with this attempt to impress upon the minds of present and future students that they should trust in God, not luck; but I fail to see why the original motto should be shelved for it. "Dyfalâd" is a Welsh word meaning persistent perseverance, and, while teaching a very valuable lesson of present and future conduct, perpetuates the nationality of the founder, and I am certain that I voice the sentiments of my Welsh professional brethren when I call upon the authorities to replace the original without delay.—I am, etc.

R. T. E. DAVIES, L R.C.P., M.R C.S., L.S.A., etc.
New Tredegar, Jan. 9th.

## TUBERCULOSIS AND STATE INTERVENTION.

SIR,—Our attention has been drawn to certain ambiguous references to the Conference on Tuberculosis held recently in Edinburgh. These concern more particularly the resolu-

tion which was passed at the close of the discussion on "The Working Man in Relation to Tuberculosis."

The suggestion has been made, and is prominently repeated by the authors of *The Conquest of Consumption* in the preface to the second edition, that the conference "was practically unanimous in the opinion that some form of State intervention was necessary." As occurring in the introduction to an elaborate plan of campaign, in which the authors relegate in wholesale fashion to the State responsibility for the handling of the tuberculosis problem, the sentence seems to us misleading.

We think it right to say that the resolution which was adopted by the conference was limited to the question of working men's invalidity insurance. The actual terms of the resolution were as follows:

> That the special attention of the Chancellor of the Exchequer, Government, and Parliament be called to the great importance of giving the prevention and treatment of tuberculosis a prominent place in the proposed scheme of invalid insurance.

—We are, etc.,

W. LESLIE LYALL, M.B.,
JAMES MILLER, M.D.,
Joint Honorary Secretaries.

Edinburgh, Jan. 17th.

## THE CHOLERA IN MADEIRA.

SIR,—In case your readers should care to hear something further about the present outbreak of cholera in Madeira, I am writing to supplement my previous letter.

The number of fresh cases each day is now steadily decreasing, and the percentage mortality is also falling. The populace are gradually beginning to realize that they are in the presence of a very real and grave danger, and are beginning to submit with a better grace to the sanitary precautions prescribed by the authorities. The number of cases up-to-date is about 1,200, with less than 400 deaths. The prophylactic measures advised by the Portuguese authorities and by my colleague, Dr. Grabham, have been eminently successful, as in no case has a person who has religiously carried out these measures been attacked by the disease. No English have contracted the disease, and only four other members of the foreign colony.

A remarkable feature of the present epidemic has been the very large number of women and children attacked as compared to the men.

Five years ago, during an outbreak of influenza, certain officials thought it a good opportunity to get up a bogus plague outbreak, and so extract money for purposes of sanitation from Lisbon. A number of persons suffering from trivial febrile ailments were interned in the lazaretto, or isolation hospital, and serious barbarities were perpetrated upon them. Popular suspicions being aroused, a mob composed of soldiers and the populace broke into the lazaretto, wrecked the place, and carried the supposed patients off to their homes. This episode was followed by a complete cessation of the supposed plague.

With the memory of this still fresh in their minds, the people were ready enough to believe the statements of certain agitators who told them that this was not real cholera but the result of Republican doctors poisoning the water courses in order to kill off the Monarchists. This extraordinary ignorance and prejudice resulted at first in the most strenuous resistance to disinfection of houses and isolation of cases. There were many free fights, and in one or two cases the military had to use their arms, but when one reads of "the deadly fire of the 27th Infantry compelling a large force of rioters to retire one is forced to smile. Nothing to be dignified by the name of serious disorder has occurred, and it is quite ridiculous to speak of English lives and property being in danger.

Isolation hospitals have now been erected in the nfected districts, though there was a good deal of opposition to their construction among the lower and more disorderly sections of the populace.

The hero of this epidemic is Dr. Lomelino, who, single-handed, conducted the working of the lazaretto during the first month of the epidemic. I had the pleasure of spending the afternoon with him a few days ago, and was much interested to see the very effectual method of treatment which he has evolved. Briefly stated, it is as follows:

On admission the patient is given a large dose of castor oil, together with twenty drops of chlorodyne. This dose, if vomited, is repeated until retained. After this he applies a large linseed and mustard poultice to the abdomen, and gives intestinal antiseptics, such as solution of potassium permanganate, by the mouth, surrounding the patient with hot-water bottles meanwhile. For cramps he rubs the limbs with linimentum opii and gives stimulants by the mouth.

The reason that Dr. Lomelino's mortality statistics are so good is that he infuses with normal saline without hesitation the moment there are any indications of the approach of the algid and collapsed stage. If he cannot find a vein quickly he infuses under the skin of the axilla. I told him that my experience of subcutaneous infusion in cases of haemorrhage was unfavourable as compared to the intravenous method, because of the very slow absorption when a patient is practically pulseless; but he replied that this objection did not hold good in cases of cholera, where the blood became so concentrated, owing to loss of fluid, that it greedily absorbed a subcutaneous infusion even when there was practically no circulation. He uses inhalations of oxygen in conjunction with this method.

Altogether I saw about sixty patients under treatment. Very little had been done in the way of repair since the mob stormed the lazaretto in 1905, so that Dr. Lomelino has had to improvise to a large extent. The kitchen, which was quite unserviceable, has been replaced by a row of galvanized iron shelters with military ovens. A large wooden shute has been erected from the receiving room to the sterilizing room, and down this are sent the filthy and highly infective clothes of the admissions.

The great difficulty has been to induce people to come and work in these dangerous surroundings, and the nursing has been almost entirely of the amateur description, so that it is immensely to Dr. Lomelino's credit that he, single-handed, has been able so effectually to supervise the seventy-odd people who have been at different times employed in the lazaretto, that not one has contracted the disease.

He has had as many as 150 people under his care at one time when the epidemic was at its height.

I have also had the pleasure of meeting Dr. Franca, the Lisbon Government bacteriologist. He tells me that he has been unable to isolate the vibrio from any of the island watercourses, though two or three wells and stagnant tanks have been proved infected. In the great majority of cases, however, infection has been proved to be due to direct personal contact, such as kissing infected people and feeding in infected houses. Fruit, vegetables, and flies all seem to have played their part in this outbreak, but water supply has occupied a minor part, which probably accounts for the fact that in no one district has there been an overwhelming number of cases.

In my opinion the correspondent who said that in the principal hotel one was as safe as in London was perfectly right. All the English community are boiling even washing water, and using boiled water in the baking of bread. Raw fruit and vegetables are carefully avoided, and shoes disinfected on coming in from the streets.—I am, etc,

Madeira, Jan. 3rd. HENRY STEVENS.

# Contract Medical Practice.

## EXPENSIVE METHODS OF TREATMENT.

MEDICAL OFFICER asks for the experience of others as to the following point with regard to club practice. For over twenty years he has been officer of the large local branch of a well-known benefit society, and has never had the slightest difficulty with the members. Recently a convalescent from a sanatorium, and another patient who had been under the care of a consultant, requested the officer to continue the injections of tuberculin, with which they had been formerly treated. They had apparently benefited, and he acquiesced, but requested *them* to provide the tuberculin. They now hold that *he* ought to do so, and refer him to the rule by which he agrees to supply "suitable and proper medicine." "Medical Officer" desires help in defining the limit to which he might reasonably be expected to go in providing medicines; also whether serums, antitoxins, etc., ought to be expected in such cases.

# Universities and Colleges.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 12th, 1911, Mr. H. T. Butlin, President, in the Chair.

*Examiner.*

Mr. H. J. Waring was appointed Examiner in Surgery in the vacancy occasioned by the retirement of Mr. Bruce Clarke.

*Epidiascope.*

The purchase of an epidiascope (Carl Zeiss) was sanctioned for the illustration of College lectures.

*Queen Victoria's Jubilee Institute.*

Mr. Edmund Owen was nominated to represent the College on the Council of Queen Victoria's Jubilee Institute for Nurses.

*University of St. Andrews.*

The President was delegated to take part in the celebration of the Five Hundredth Anniversary of the Foundation of the University of St. Andrews, in answer to a letter from that university.

*Lectures for 1911.*

The following are the arrangements for lectures:

Professor F. W. Edridge-Green, on colour vision and colour blindness, on February 1st and 3rd.

Professor W. d'Este Emery, on the immunity reaction in relation to surgical diagnosis, on February 6th and 8th.

Professor B. Moore, on new views on the chemical composition and mode of formation of renal calculi, and the metabolism of calcium in gout and allied conditions, on February 10th.

Professor G. Elliot Smith, on the history of mummification, a discussion of the nature and historical significance of the important mummies and other embalmed bodies, and the Egyptian and Nubian anthropological and pathological specimens in the College Museum, on February 13th, 15th and 17th.

Professor Arthur Keith, on the anthropology of ancient British races, illustrated by the Museum collection, on February 20th, 22nd, 24th, and 27th, and March 1st and 3rd.

Professor K. W. Goadby, on the association of diseases of the mouth with rheumatoid arthritis, and certain other forms of rheumatism, on March 6th.

The lectures will be given at 5 o'clock on each day.

As already announced, the Hunterian Oration will be delivered by Mr. Edmund Owen at 4 p.m. on Tuesday, February 14th.

## CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved in the subjects indicated:

FIRST COLLEGE PART I (*Chemistry*) and PART II (*Physics*).—J. Andrew, *K. L. Bates, *R. N. Bates, †J. H. Bayley, *J. Behesnilian, J. W. Bouwer, †A. A. Brown, †W. B. Buer, A. Bulleid, *P. H. Burton, *A. S. Carter, †E. S. Cuthbert, †H. G. Dresing, D. J. Evans, I. Fischer, †J. Fox-Russell, †C. C. G. Gibson, †K. J. M. Graham, J. V. Griffith, *H. J. Grimshaw, W. T. Gwynne-Jones, †G. Hahr, W. L. A. Harrison, †R. A. Holmes, †L. Horsley, †E. G. Howell, *H. B. Hyde, V. C. James, W. B. Jepson, *J. R. John, N. S. Koch, C. W. Lakin, H. G. Ludolf, †A. J. V. McDonnell, J. McDonnell, W. H. Milligan, H. D. Pickles, D. J. Platts, †W. H. A. Pratt, †R. B. Pullin, R. M. Reid, Khan Sahib, *P. Savage, *N. A. Scott, *A. D. Stammers, *D. P. Thomas, *J. A. Tippet, *J. Totton, B. M. Tuke, *W. A. Turner, J. Victory, *H. Whyte, †H. E. P. Yorke.

* Passed in Part I only. † Passed in Part II only.

FIRST COLLEGE. PART III (*Elementary Biology*).—J. G. Ackland, P. W. L. Andrew, K. L. Bates, J. W. Bouwer, W. A. Clements, O. F. Conoley, H. C. Duggan, J. E. Evans, Moustafa Fahmy, I. Fischer, J. D. Fleck, W. T. Gwynne-Jones, A. R. Hacker, G. H. Haines, D. V. Halstead, W. O. Hughes, V. C. James, W. B. Jepson, C. W. Lakin, Marie G. G. C. Link, N. H. S. Maelzer, L. T. Montgomery, H. M. Peacock, R. B. Pullin. B. Pyman, N. W. Rawlings, N. A. Scott, Mian M. Shafi, W. A. Turner, F. B. Yonge.

FIRST COLLEGE, PART IV. (*Practical Pharmacy*).—R. C. Briscoe, R. E. R. Burn, M. Burnett, *P. H. Burton, A. S. Coalbank, J. Coplans, J. H. Cumming, W. Dale, G. A. Ewart, S. A. Faulkner, B. Grellier, H. K. Griffith, J. C. Hallinan, W. P. Harrison, G. A. Hooton, E. E. Johnson, F. W. Lawson, V. E. Lloyd, R. H. Lucas, G. O. Maw, H. Millett, G. Nelson, Lily F. Pain, J. L. Perceval, H. Platts, C. H. G. Pochin, F. A. Powell, P. W. Ransom, E. G. Reeve, T. C. Reeves, G. A. Russell, D. Scott, A. K. Soutar, R. C. W. Staley, E. J. Storer, O. R. Unger, B. T. Verver, W. P. Vicary, E. White, A. T. Williams.

* Under old regulations.

SECOND COLLEGE (*Anatomy and Physiology*).—Ahmed Abdelal, F. D. Annesly, E. B. Argles, G. Aspinall-Stivala, H. J. Bower, H. C. Billings, C. F. Burton, J. S. Cocks, L. D. Cohen, G. M. Coope, D. C. Cooray, E. D. D. Davies, R. Ellis, E. D. Fountain, Vraspillai Gabriel, A. P. Green, H. S. Groves, H. Gwynne-Jones, Mahammad Z. Hanafy, A. M. Henry, J. Higgins, T. H. Jackson, J. W. Kemp, H. D. Lane, D. Lewis J. Lloyd, D. H. McDonald, D. D. Malpas, P. U. Mawer, J. D. Mercer, H. Parker, Mahamarakhelegy G Perera, M. G. Pettigrew, A. C. Pickett, W. R. Pryn, H. J. Rawson, P. H. Rawson, E. E. Samaraweera, C. P. C. Sargeant, Abd-el K. Selim, Jagannath V. Shirgaokar, C. R. Smith, F. L. Spalding, W. A. Stewart, E. A. Sutton, T. H. Thomas, A. R. Turtle, J. A. Watson, J, D. Wilkinson S. A. Wilkinson, L. D. Wright.

# Public Health AND POOR LAW MEDICAL SERVICES.

## MANAGEMENT OF ISOLATION HOSPITALS.

OUR attention has been directed to the proceedings at a coroner's inquest, a report of which appeared in the *Blaydon* (County of Durham) *Courier* of December 24th, 1910. This inquest was held at the Addison Colliery on the body of a female child 6 years of age, who had been certified by her medical attendant (Dr. Pirrie) as suffering from diphtheria and requiring removal to the isolation hospital. The removal of the patient was not effected by the isolation hospital staff, as the patient when brought under their notice then appeared too ill to bear the journey and the risks necessarily associated with it.

It appears from the evidence of the father of the deceased child that on Sunday, December 11th, 1910, she became ill with a supposed cold, and continued to get worse till the following Thursday, when Dr. Pirrie prescribed medicine for her, and early on the following day visited her at her home; he then found her to be in a serious condition from diphtheria, considered tracheotomy necessary, and urged in writing her early removal to the isolation hospital, in order that the operation he considered necessary might be performed there. This written document was sent at once to the medical officer of health, Dr. Morrison, and reached him at 11.18 a.m. He immediately telegraphed to the sanitary inspector to visit the case and to report thereon; this process appears to have taken up more time than might have been expected, but when the sanitary inspector arrived at the patient's house he found her in such a serious condition that he hesitated to take steps for her removal to the hospital without further instructions. A report to this effect was made to Dr. Morrison, which report appears to have reached him at 2.45 p.m., and almost at the same time a further request for the patient to be removed to the hospital arrived. Dr. Morrison then visited the patient himself, and after examination formed the opinion that the patient was in too dangerous a condition to face the risk of removal. The child consequently remained at home, and died about 3 o'clock the following morning, no operation having been performed. The jury, after much evidence had been given, returned a verdict that the deceased died from asphyxia due to diphtheria, but this verdict was accompanied by a rider that "they wished the Blaydon Council to make different arrangements in the future."

Such are the main facts of this unfortunate case which, we are inclined to think, has been made rather too much of, and discussed at unnecessary length. The coroner was, of course, quite right in telling the jury that there was only one doubtful point they had to decide—namely, whether blame attached to any one in consequence of the deceased child not having been removed to the isolation hospital—a very difficult, if not impossible, question for the jury to decide, since Dr. Pirrie, the private medical attendant of the patient, was strong for the removal, and Dr. Morrison held an equally strong opinion against removal; both agreed that the case was one of most critical character, and it would be indeed wonderful if in such cases some difference of opinion did not sometimes arise. We notice in the report of the case that the term "blundering" was used to express a fault which some one had been guilty of, but we fail to see that any real blunder in the matter was proved by the evidence to have occurred, nor do we think it quite fair to the sanitary inspector that he should have been described as being "frightened" by the blue appearance of the child when he visited it. This appearance had the effect of putting him on his guard, but for him to be spoken of as being "frightened" seems to be a misuse of words. The court would appear to have forgotten the fact that when isolation hospitals were established the main object for bringing them into existence was not to provide special operative or other treatment for patients after admission, but for the purpose of isolating patients with infectious diseases away from their own homes, and so preventing the spread of such infectious diseases; when suitable patients are removed with this object in view a few hours' delay in the process can hardly be correctly regarded as of vital importance. No doubt efficient treatment after removal to these special hospitals is the next thing to be provided there.

It was stated at the inquest that in the past the officials of the Blaydon Isolation Hospital had endeavoured to frame regulations for the admission of patients which would meet the requirements of the day, and we sincerely hope the verdict of the jury and the rider following it will bear some good fruit in this direction. We are pleased to see that no one engaged in the case was in any way censured by the verdict; it would have been hard indeed if such had been the case. The jury evidently considered that all so engaged had endeavoured to perform their respective duties under difficulties.

## RAG FLOCK AND BEDDING.

A DEPUTATION representing the rag flock trade waited on Mr. John Burns at the Local Government Board on January 12th to urge that any regulation or legislation contemplated for governing the manufacture of rag flock for use in the bedding, mattress, furnishing, and upholstering trades should compel

efficient steam sterilization of the raw material. It was insisted that disease germs could not be removed by washing alone, and if a chemical standard were permitted a sense of security would be implied that had no existence in fact.

Mr. Burns, in replying, said that since he had received the deputation on this subject in June last he had himself visited several works where rag flock was manufactured, and had seen material converted into flock which no amount of sterilization could possibly have rendered innocuous. On the other hand, he was of opinion that washing would probably have removed nine-tenths of the objectionable elements. It was the business of his department, in the interests of public health, to ensure a supply of clean and wholesome bedding. It was clear that the trade were not unanimous on this matter; one section were in favour of washing, and the other of sterilization, and he advised both sections to come to some agreement as to what, from their point of view, would be practicable, and would, at the same time, meet all the requirements.

## ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A COUNCIL meeting of the Association of Medical Officers of Health was held at the Holborn Restaurant on January 13th, with Dr. Crookshank in the chair. There was a good attendance.

Mr. D. A. Belilios (the secretary) read replies to the letter of the association to societies and associations which represent the various interests of practitioners who hold public appointments under central and local authorities. The council noted with satisfaction that at least four other associations would be represented at the meeting proposed to be held in London on Thursday, March 23rd, to discuss methods by which some joint action could be organized.

The council discussed the Order of the Local Government Board, 1910, relative to medical officers of health and sanitary inspectors and the following resolution was unanimously carried:

> We welcome the measure of security of tenure to the medical officers of health by the Order, and recognize with satisfaction that the Board does not differentiate therein with respect to conditions of tenure between whole and part time medical officers of health, but regret the Board has not so far seen its way to assimilate the security of tenure of medical officers of health to that enjoyed by Poor Law medical officers, and to make provision for superannuation in suitable cases.

The council also discussed the accompanying memorandum, and it was resolved:

> That this council notes with extreme regret that the Local Government Board specially express an opinion that in the case of medical officers of health engaging in private practice, their private interests are apt to conflict with their public duties. For, even if this opinion be correct, it is obvious that any argument deducible therefrom applies with even greater force to medical officers of health who are entirely dependent upon their official salaries.

## MILK FAT AND THE HOURS OF MILKING.

ON January 16th Sheriff-Substitute Orr, in the Edinburgh Sheriff's Court, gave a decision of no small importance to the public, as well as to dairy-keepers. Sheriff Orr said this was a complaint brought by the Public Prosecutor in respect of an alleged contravention of Section 6 of the Sale of Food and Drugs Act, 1875. The offence alleged was that the respondent, being under contract to sell and deliver daily a quantity of sweet milk to a certain retailer of milk, and a sample of said milk having been taken on June 17th, 1910, as it was being delivered by respondent's servant, it was found not to be genuine sweet milk, but milk which contained less than 3 per cent. of milk fat. In other words, it was charged that the respondent, being asked for and professing to sell sweet milk, sold, in the language of Section 6, an article which was not quite of the nature, substance, and quality of the article demanded by the purchaser. The sample when analysed showed 2.32 per cent. of milk fat. The statutory regulations framed by the Board of Agriculture provided that where a sample of milk (not being milk sold as skimmed, separated, or condensed milk) contained less than 3 per cent. of milk fat it should be presumed for the purposes of the Act, until the contrary was proved, that the milk was not genuine by reason of the abstraction therefrom of milk fat, or the addition thereto of water. In the present case, however, the prosecutor did not allege that the milk was adulterated either by the abstraction of milk fat or by the addition of water; on the contrary, he admitted that nothing was done to the milk, but he said that it was not genuine sweet milk within the meaning of the Act and of the regulations. Now, the phrase "sweet milk" or "genuine sweet milk" which appeared in the complaint did not occur in the Act. What was meant was that the article here supplied was not what the purchaser expected or was entitled to expect when he asked for "sweet milk." The milk supplied was strikingly deficient in milk fat, but that alone did not prove the prosecutor's case. The regulations did not set up any standard; they merely said that if a sample contained less than 3 per cent., it lay on the respondent to prove—which meant that it was open to him to prove — that the milk was nevertheless genuine. The abnormal condition of the milk might be due to the abnormal and improper way in which the cows had been treated or fed. Sheriff Orr found no suggestion in the evidence that the respondent's cows were ill. On the contrary, they were shorthorns of a good quality, for which an average market price had been paid, and they were in good condition at the time. They were kept in good byres, and their feeding was good and satisfactory. The prosecutor placed stress upon the number of milkings as explaining, or going a long way to explain, the deficiency in milk fat. That was the matter which, perhaps more than any other, had invested the present case with an aspect of general importance to the dairy trade in the Edinburgh district, and probably beyond it. That arose from the fact that the system of milking followed by the respondent was the same as that followed by the other members of the trade in the district in question, and a decision in the present case adverse to the respondent on that ground might have serious effects far beyond the individual concerned. His hours of milking were 3 a.m., then 8.30 a.m., and then 2 p.m. That left an interval of thirteen hours between the afternoon and the morning milkings. Practically the whole trouble, from the point of view of the authorities, was with the morning milk; prosecutions were scarcely known in connexion with forenoon or afternoon milk. Two samples of respondent's forenoon milk were analysed in February and March, 1910, and these showed the milk fat at 4.00 and 4.30 respectively. He found nothing in the evidence to show that the system of milking as conducted by the respondent was an abnormal treatment of his cows or brought them into an abnormal condition in any respect, or that it explained the exceptional and abnormal deficiency in milk fat on the occasion libelled. The prosecutor, however, maintained that the respondent did not do his duty to the public, and did not sufficiently comply with the statute, even although he supplied milk as it actually came from cows kept in a healthy condition and well fed, and followed in the conduct of his trade the system of milking customary in the district, if the result be, as it was here, that he was supplying milk so poor as to contain only 2.32 per cent. of milk fat. He maintained that the respondent, with the regulations before his eyes indicating 3 per cent. as the normal standard, must make further efforts to reach that standard. He maintained that if the respondent could not attain the 3 per cent. standard by his present system of milking it was his duty to change his system, as by adopting the twice a day system at equal, or nearly equal, intervals; that, if necessary, it was his duty to keep records of the milk of each cow and also of his herd, with the age of cows and date of calving, so that by grading his herd according to the period of lactation the weaker milk of one cow might be counteracted by the richer milk of another, and the 3 per cent. standard maintained. The respondent ought to have samples of milk analysed at reasonably frequent intervals. The Edinburgh public demanded milk three times a day, and to milk only twice a day would be to blot them out of the business. The Sheriff-Substitute confessed he had very considerable sympathy with the prosecutor's view. A great deal more vigilance might be exercised in grading his herd according to the period of lactation, and in ascertaining the quality of the milk of the herd, and even of individual cows. He thought that if dairy keepers had a little more scientific knowledge there might be improvements in their method. To a great extent technical education had not yet reached the dairy trade. It was possible enlightened self-interest might ere long supply the needed spur. Dairy-keepers who were content with the traditional methods no longer had the field to themselves. Milk-supply companies were entering into competition, and apparently carrying off a considerable part of the trade. They were fully alive to the necessity of keeping up to the 3 per cent. standard; they refused to buy milk that fell below it, and they had their milk systematically analysed. While he hoped the facts brought to light would serve a useful purpose, he thought it had not been proved that a contravention of the statute had in this case been committed.

Two other cases hanging on this decision were withdrawn.

# Medical News.

MR. A. HARDEN, F.R.S., head of the Biochemical Department of the Lister Institute, will give a course of six lectures on milk, followed by practical work, at the South-Western Polytechnic Institute, Chelsea, on Thursday evenings, at 7.30, beginning on February 2nd.

THE first of a course of lectures arranged by the Child Study Society of London will be given at 90, Buckingham Palace Road, S.W., on January 26th, by Mrs. Scharlieb, M.D., M.S., the subject being recreation activities of girls during adolescence.

A NEW society for the study of skin diseases, called the London Dermatological Society, has lately been formed. The following have been elected officers for the ensuing year: President, Dr. Phineas S. Abraham; Hon. Treasurer, Dr. William Griffith; Hon. Secretaries, Dr. G. Norman Meachen and Dr. David Walsh.

AT the conference on January 10th, when the Chancellor of the Exchequer received a deputation representing the deposit friendly societies (BRITISH MEDICAL JOURNAL, January 14th, p. 101), the Holloway friendly societies were represented by Mr. H. G. King and Mr. Walter H. Madge. Mr. T. Barnes, Grand Master of the Independent Order of Oddfellows (Manchester Unity), who was a member of the deputation, was incorrectly described as Grand Master of the Ancient Order of Foresters.

# Medico-Legal.

## THE LUNACY ACT, 1890.

### "IN GOOD FAITH AND WITH REASONABLE CARE."

THE judgement pronounced by the Court of Appeal, consisting of Lord Justice Fletcher Moulton and Lord Justice Buckley, in the case of Griffiths *v.* Griffiths, on Thursday, January 12th, is one of considerable importance, owing especially to the clear statement made by Lord Justice Fletcher Moulton. The case was one in which Dr. W. L. Griffiths sued his father, Dr. T. D. Griffiths, in respect of the presentation of a petition in lunacy supported by the requisite medical certificates. The appeal was from the judgement of Mr. Justice Lush, sitting as the Judge in Chambers, refusing to stay the action as against Dr. T. D. Griffiths, the father. The facts of the case and the terms of the section of the Act by which the matter was governed appear sufficiently from the judgement.

*Judgement.*

Lord Justice Fletcher Moulton: In deciding the question before the court the most important thing in the first place is to get a clear idea of the question we have to decide. It is common ground that it matters not whether the plaintiff was or was not insane at the time he was sent to the asylum, but it is suggested that what we have to decide is whether or not there would have been a case to leave to the jury if there had been a trial, and the evidence which had been given at that trial was that which we have before us in the affidavits. In my opinion the learned judge at chambers practically acted on that view, and I think that that view is erroneous. Section 330 of the Act commences by an enactment which, on the best construction I think can be given to its language, makes it a defence to persons who have signed or carried out or done any act "with a view to sign or carry out an order purporting to be a reception order, or any report or certificate purporting to be a report or certificate under this Act, or does anything in pursuance of this Act, shall not be liable to any civil or criminal proceedings whether on the ground of want of jurisdiction or on any other ground if such person has acted in good faith and with reasonable care." That provision was obviously to protect persons who were doing the very thankless task of taking steps to put persons, whom they thought would be a danger to themselves and to the public, under proper restraint. It is always a very disagreeable thing to do. It is a thing so obvious in proper cases for the benefit of the public and for the benefit of the patient himself that it becomes a duty to do it in proper cases, and this Act was deliberately passed by the Legislature to protect persons who, acting under such a sense of duty, had to take the necessary steps required by law. The Legislature, very properly to my mind, realized, although they had made it a defence if the person had acted in good faith and with reasonable care, that that would not be adequate to prevent them being persecuted by legal proceedings which might be very costly and very trying, and that it would be a very insufficient protection if all that the Act provided for was success in an action brought against them, or in criminal proceedings brought against them. Consequently it gave to the court not only a power, but, to my mind, a duty to entertain a summary application asking that the proceedings should be stayed, and that the persons attacked should not be obliged to go through the whole course of an action up to trial. Then the section says this: "Such proceedings may, upon summary application to the High Court or judge thereof, be stayed upon such terms as to costs and otherwise as the court or judge may think fit, if the court or judge is satisfied that there is no reasonable ground for alleging want of good faith or reasonable care."

This is an application under those provisions, and if we are satisfied that there is no reasonable ground for alleging want of good faith or reasonable care, we may, and I think that means in all the circumstances that we ought, to stay the proceedings. This being a summary application, it is quite obvious the evidence must be brought before us in a different way to that in which evidence is brought before a court where there is a trial by judge and jury. It almost necessarily has to be brought before the court by affidavits upon which there may or may not be cross-examination, but it is clear that the Act contemplates we should decide whether or not we are satisfied that there is no reasonable ground for alleging want of good faith or reasonable care upon evidence brought before us in the way in which evidence in summary proceedings usually is brought before the court. Therefore it is not for us to say that because this is a case which could not be withdrawn from the jury, therefore we will not act; we have to take this evidence put before us as a tribunal appointed to decide this issue, and if the evidence is sufficient to satisfy us, we must decide it.

Now, I do not conceive for myself that the whole of the evidence before us can be the truth. No doubt a court which has to decide affidavit evidence in which there is a conflict of evidence is often put into a position of difficulty, but that is not sufficient, to my mind, to justify us in saying that we will not examine the evidence and see whether there is sufficient to satisfy us on this issue. Although I do not pretend to be able to reconcile all the evidence, and although I am not going to state with regard to particular witnesses whether or not I accept or do not accept their evidence, I think there is abundance of evidence here to justify the court in coming to the conclusion that there is no reasonable ground for alleging want of good faith or reasonable care.

In the first instance, let us consider what is common ground between the parties. I think, in the first instance, it is common ground between the parties that the plaintiff had at various times in his life been addicted to the cocaine habit to an extent which made him at times not responsible for his actions. I think that the proper conclusion to be drawn from it is that at times he behaved in a way which was not compatible with sanity, and that it reduced him to a condition in which he was a danger to himself, and might well be a danger to other persons I have no doubt. It is also common ground that the acute symptoms which follow from an indulgence in cocaine are temporary in their character, that they may pass away, and that there may be an interval of comparative self-control, but that comparative self-control does not in any way indicate that the influence of the habit has passed away, or that because a man has self-control he will be able to prevent himself from indulging in cocaine to such an extent that the fits come back. Now that is common ground between the parties, and I think we can go, without going into controversial matters, much further. I confess I attach very considerable weight to what is said in an affidavit of a medical man put in by the plaintiff himself. I refer to the third paragraph of Dr. Stoddart's affidavit, in which he says he saw the plaintiff in November, 1910. Then he says: "The said William Layard Griffiths informed me that from August, 1909, to February, 1910, he had been in the habit of using cocaine. He also told me that he had used cocaine on previous occasions." Now, I conclude from that, and it seems to me also to be common ground between the parties, that from and after the time the plaintiff was put in the asylum he ceased to use cocaine; at all events, there is no evidence that he used cocaine after, and therefore I am not surprised to find, considering his age, that he is found to be in good health in November. But here is an admission by him that from August, 1909, to February, 1910, he was in the habit of using it, which exactly fits in with the evidence of the father with regard to his behaviour. Next, I find no reason for doubting that the entries made in the books of the asylum were otherwise than bona fide—both sides seem to refer to them—and I am quite satisfied that I am doing right in attaching weight to them. What do I find there? I find that the day after he was brought there the entry is this: "Had a quiet time and slept well, was drowsy soon after admission, and slept on the sofa most of the evening, said he had disagreeable nightmare during the night and saw all kinds of things. He admits to having taken over 40 grains of cocaine in twenty-four hours." So that it is clear he took very large doses immediately before he was brought to the asylum. Now the next thing which impresses me in the matter which is not in controversy is the evidence of Dr. Brook with regard to the interview which he had when he went to the plaintiff's bedroom. He and the father had come to see ~~the plaintiff and~~ found that the plaintiff was upstairs in bed. The father remained downstairs, and Dr. Brook went upstairs, and he describes the man lying with his face to the wall. He spoke to him about his habit. The language was extremely forcible. He urged him to make an attempt to consent to be put in an inebriates' home or in a nursing asylum in order that he might receive proper treatment against the drug. Getting no reply he asked the plaintiff what he was going to do. He said, "I am going to lie here until I have energy enough to get up and buy some more cocaine." Now here is a man, a medical man, to whom a friend had come to remonstrate with him as to the danger of over-indulgence in this drug. The answer he gets is that which I have stated and that is admitted, practically admitted, by the plaintiff, and all he said was he did it out of petulance. In my opinion, weighing all these things, I cannot help coming to the conclusion that the man indulged to a dangerous extent in this drug and at the time he was in a state in which at any moment he might be a danger to himself and a danger to others, and he had no self-control to prevent himself from continuing the practice. Starting with that, if I may say so, as the atmosphere through which we must look at the statements in the affidavits, I turn to the father's account, and I ask myself, not only what does he say, but what do the affidavits show his behaviour was in relation to his son during the long period when the son indulged in this habit of taking cocaine? I cannot help thinking that to my mind it is preposterous to say that in the ordinary sense of the word there is the slightest reasonable ground, or any reasonable ground, for suggesting bad faith on the part of the father. It appears to me that for a course of years he had been borne down with anxiety in regard to his son's conduct, and full of fears as to his safety, and as to the safety of those around him, by reason of his determined indulgence in this drug. Well, it is quite true that mere want of good faith in the ordinary sense of the word, perhaps, does not coincide with the legal issue of want of good faith. It is possible you may act, although with the best of intentions, in a way in which legally you would be held to be guilty of want of good faith, but I will not enter into that question, because, when I come to the time far back when the father acted, I can see nothing but anxiety with regard to his son, leading him to act in the way in which, as a medical man of great experience, he thought he was bound to act. In this respect I find that he had the opinion of four medical men, all of whom knew the plaintiff well, and all of whom say that they were prepared to certify him as an insane man at the time. Two of them actually did certify him, and two were perfectly ready to certify him, only they thought as the person to be put in the asylum was a medical man perhaps they were rather more cautious, and, as they were certifying that one of their

own profession was unfit to be at liberty, they thought there ought to be four certificates. The father thought it was not wise to depart from the statutory obligation of two, but they were all prepared to do this. The matters which led them to that conclusion appear in the affidavits. I cannot help thinking that they were adequate, but, whether they were adequate or not, I am perfectly satisfied that all those four medical men, thinking carefully of it, came to the conclusion that with their knowledge and skill it was a case in which they could certify the person as insane. The father had a more intimate knowledge of his son's state, probably, than they had, but the evidence convinces me that the more intimate his knowledge the more hopeless he must have felt the case and the more dangerous, because he must have known all that had happened in the past in South Africa, and he had had the experience of what had happened very shortly before when his son came home.

I must say that in this case, coming to the conclusion as I do that the son almost confessedly had during this period habitually indulged in cocaine, I think we are bound to take the father's account of what passed in the interview when his son came to his house in preference to what the son says, because it is well known that indulgence in cocaine leads both to hallucinations and to inaccuracy.

Under these circumstances I come to the conclusion that I am satisfied that there is no reasonable ground for alleging want of good faith or reasonable care in the father in presenting this petition, and I think we should be shirking the duty which is put upon us by the statute if we were to hesitate to allow this appeal to stay the proceedings in this action.

Lord Justice Buckley: I agree with all that has been said by the Lord Justice.

The cardinal fact in this case is not in any way in dispute between the parties—I mean the fact that the plaintiff had for many years been addicted to the cocaine habit; that he had taken large and excessive doses of cocaine, and I think that the effect of the evidence is that such an indulgence in that habit is one which leads to insanity, short no doubt in its duration, but a state of things under which for a time a man is not responsible for his actions, and he may well be a danger to himself and others. Now the issue which we have to try is not whether on February 10th the plaintiff was in that condition or not; the question we have to try is whether this defendant—this father—was acting upon the footing that he was in that condition not responsible for his actions. We are satisfied that there is no reasonable ground for alleging want of good faith or reasonable care.

I am not going to travel through the facts again. I am abundantly satisfied by the evidence in the case that the action of the father was taken in perfectly good faith. This evidently has been a matter of great family trouble for a great number of years. The question what was to be done with this unfortunate man and the habit which he had acquired was no doubt one of great anxiety to his father. Under these circumstances he put himself into communication with medical gentlemen, who signed a certificate, with the result that the plaintiff was removed to the asylum. I am satisfied that there is no reasonable ground for alleging want of good faith or reasonable care on his part. That is the only issue which we have to try, and arriving at that conclusion, I think, differing in that matter from the learned judge below, this appeal must be allowed.

I am not even sure that the learned judge put the proper question to himself. At the beginning of his judgement he made it rather a question of the investigation of sanity or insanity. I do not think he meant to rest upon that. He said that only disposed of that question, and then he went on to deal with the other. What he said was, "It is a question whether I ought to be satisfied that there is reasonable ground that the defendant was acting with due care." He has stated it rather the wrong way round. The question is whether we are satisfied there is no reasonable ground for alleging want of good faith. Well, I think there is no reasonable ground, and I think the appeal must be allowed.

Mr. Neilson: The appeal will be allowed and the action stayed as against the defendant Griffiths, and the costs, I submit, will be paid here and below by the plaintiff.

Lord Justice Fletcher Moulton: Yes.

Mr. Neilson: If your lordship pleases.

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## ALLEGED NEGLIGENCE OF A SURGEON.

*Abbott and Wife* v. *Ryall.*

THIS action, the hearing of which was commenced before Mr. Justice Phillimore and a special jury on January 11th and concluded on January 14th, involved a claim by Mr. George Nelson Abbott and his wife to recover damages from Mr. Charles Ryall, F.R.C.S., for alleged negligence in the performance of an operation. The defendant denied that he had been guilty of negligence or that the plaintiffs had sustained any damage.

Mr. F. E. Smith, K.C., and Mr. Rose-Innes appeared for the plaintiffs; Mr. Hume Williams, K.C., and Mr. Hugh Fraser (instructed by Mr. W. E. Hempson, Solicitor to the Medical Defence Union) for the defendant.

In opening the case, Mr. F. E. Smith said that in October, 1903, Mrs. Abbott became ill and consulted Dr. Dickson. Her case was taken up by his partner, Dr. Fairweather, who on October 26th diagnosed a fibroid tumour, and recommended that the opinion of a specialist should be taken. The defendant having been consulted, Mrs. Abbott decided to undergo an operation, which was performed on November 5th. There were present at the operation two doctors, two nurses, and the defendant. The operation, which took about two hours, was not an easy one. A few days after it took place Mrs. Abbott experienced bad pains, which her own doctor attributed to flatulence. From that time, counsel said, down to March, 1909, she frequently suffered great pain. At Christmas she went to Monaco with her husband, and in March she returned to London. A lump then appeared on her right side, and Dr. Dickson advised her again to see the defendant. She could not keep the appointment owing to prostration from pain. She went to live at Hunter Street, and called in Dr. O'Donnell, who surmised that there must be some foreign substance in her body, and he administered a dose of olive oil. On October 13th the plaintiff passed a large swab, which was quite hard and stiff. That swab must have been left in her body at the time of the operation. Mr. Abbott went to see the defendant on October 14th, and showed him the swab. On October 15th the defendant went to see the lady, who asked him who was responsible. The defendant said, "That is what I want to find out. No such swab as that was ever used by me." The next day he returned, and said that no such swab had been left by him, and must have been left there at a previous operation. Within a few days the defendant began to take up the position that he had inserted the swab intentionally, and that he knew it was there. On October 17th a letter was written by Mr. Abbott to the defendant, but no satisfactory reply was obtained, and the defendant refused to have a personal interview. The plaintiff's solicitors then wrote asking for an explanation, and a reply came from the Medical Defence Union, stating that the swab was not removed at the time of the operation, as to have removed it would have endangered the life of the patient; and the defendant at last admitted by his answers to interrogatories that he intentionally left the swab in the body to prevent intestinal leakage. The learned counsel submitted that there was no surgeon who would have sewn a swab of that size in the body of a patient without leaving a vent. None of those who were present at the operation knew that the swab was there.

Mrs. Abbott, the plaintiff, was called, and gave evidence in support of counsel's opening statement.

Cross-examined: After the operation she had an enema with turpentine. When she went to the South of France she was not feeling the pain in her side. Between the time she went to Monte Carlo and April she had no occasion to see a doctor. She did not make any arrangements to see the defendant till October.

Mr. George Nelson Abbott, called, said that the defendant never told him that a swab had been left inside his wife. He telegraphed to the defendant that his wife was so seriously ill that she could not keep the appointment.

Cross-examined by Mr. Hume Williams: It was wrong to suggest that he prevented Dr. Dickson making an appointment with the defendant between June and September, 1909.

Mr. Russell Howard, F.R.C.S., etc., examined, said he had performed a large number of abdominal operations. He had never left a swab which could not be removed within twenty-four hours. He had never heard of a swab being left in the manner described. From a description of the operation, it was a very serious one. In a serious operation with complications a surgeon might be justified in leaving a swab in the intestine. This was a case in which it might have been done. The surgeon would expect that it would be passed naturally in two or three days. It was the duty of the surgeon to tell the medical attendant in charge and the nurses.

Mr. Justice Phillimore: Suppose it was not passed, would it be serious to leave it there?—Yes, it would.

Examination continued: He thought it was an unwise thing to order an enema within forty-eight hours of the operation. The lump was caused by the swab obstructing the intestine. It was the surgeon's duty to ascertain when the swab passed. It would be the duty of the attendants to watch for it.

Cross-examined by Mr. Hume Williams: Mr. Ryall was a surgeon of eminence. In such a case it was difficult to diagnose what was wrong until the abdomen was opened. The operation on Mrs. Abbott was very severe. If an operation lasted two hours, it involved a terrible strain on the patient. The tumours had to be cut from the intestine. There was a tear, which was an accident which not infrequently happened. If the tear was 4 in. long, it was a proper thing to pack up the intestine with a swab. The surgeon would put it inside with the tape outside to call his attention to the fact that the swab was there and enable him to pull it out. It was unusual to leave the swab in the bowel with the suture over it, but the surgeon might find it necessary to do it. He himself had never done it, but he would greatly respect Mr. Ryall's opinion on the matter. In the ordinary course, a swab left in the bowel would be evacuated: it should have passed in two or three days. As it was not passed within that time, some accident must have happened. It may have been caught in a stitch of the suture. It was an accident which might happen after the most skilful operation.

Mr. Justice Phillimore: That reflects back, does it not? It may be an element in considering the propriety of leaving a swab in that it may be caught in a stitch.

Continuing, witness said he never heard of Murphy's buttons being used for repairing a tear. They were used for other purposes, and were becoming obsolete. One of the reasons why they were given up was that they remained too long in the bowel. The practice now was to suture the ends together. Violent coughing might possibly have displaced the swab.

Mr. Hume Williams: Assuming that you had left the swab in the intestine, and that it remained too long, and was causing pain, what would you have done?—I would have examined the bowel with an electric lamp, and could then have pulled the swab out with a forceps. Or I might have introduced the hand into the bowel.

In re-examination, witness said he had dealt with a tear longer than 4 in. without using a swab. He had never heard of a swab being left in in a case of this kind. There was, in his view, considerable risk of at least one stitch passing through the swab. The sigmoidoscope was used for searching for obstructions in the bowel.

By Mr. Justice Phillimore: Witness presumed that if Mr. Ryall left a swab in the manner described he would leave it in without a tape.

Dr. Robinson Simpson Dickson said that the plaintiff first became his patient on October 1st, 1908. He took the view that she was suffering from tumour pressing on the bowel. He did not see her again until the operation, when he acted as anaesthetist. He could not see what was being done. After the operation his partner took principal charge of the case. The defendant never told him anything about a swab being left in the patient's body. Soon afterwards the plaintiff complained of flatulence. When she consulted him in April, 1909, he thought that a lump which had formed in the bowel was due to irritation caused by an undissolved stitch. He treated her for dyspepsia. She never complained to him of severe pain. He never suspected the presence of a foreign body, but in June he wrote to the defendant saying that Mrs. Abbott was complaining of a lump. An appointment was made to see the defendant. Subsequently witness told Mrs. Abbott to go and see the defendant as he thought she was well enough to go.

In cross-examination, witness said that two hours was a long time for an operation. Mrs. Abbott was more highly strung than phlegmatic. He had known cases in which, after an operation of this kind, an undissolved stitch would cause a lump. He never saw the plaintiff when she was in great agony, nor did she ever speak to him in that sense herself.

Mr. Justice Phillimore: Were you not surprised to hear that a swab had been left in?—No, I was not in charge of the case, nor was I surprised that I did not hear about it.

Now that you hear that it was left in, do you or do you not think it accounted for the lady's sufferings?—No, my lord.

Dr. Fairweather, in giving evidence, said that Mrs. Abbott was first his patient. He attended at the operation and acted more or less as a dresser. He did not see all that was done. In cross-examination, witness said it was the worst operation he ever saw. The abdomen was in such a state that it was a wonder she ever left the table. He was in frequent telephonic communication with Mr. Ryall after the operation. As a matter of fact the plaintiff made a marvellous recovery, and until she went to Monte Carlo she was suffering from nothing which would not result from such an operation. In his view Mr. Ryall was bound to leave the swab in the bowel. In re-examination, witness said that he did not hear of the swab being left in at the time of the operation. It would be unusual for the swab to remain in for more than three days.

Dr. James O'Donnell said that Mrs. Abbott called to see him in October, 1909, and complained of some obstruction inside. He prescribed olive oil, and told her to watch the stools in order to see if anything came away. A few days later the swab came away. It looked like two sausages rolled one on the other, and was neither very hard nor very soft. Witness then advised Mrs. Abbott to see the defendant. Mrs. Abbott had had better health since passing the swab, but she had occasionally suffered from abdominal pains, for which he attended her.

Cross-examined, witness said that after she passed the swab he found a lump on the right side. He made no complete diagnosis, but thought there was distension of the bowel due to constipation. That might well occur in the case of a person who had undergone an operation such as that which had been described. The olive oil which he prescribed was to get rid of the obstruction and also constipation. A few months ago, in the summer of 1910, he was sent for by Mrs. Abbott, when he had to inject morphine to relieve pain. He gave her no morphine before the evacuation of the swab. In the circumstances he thought there was nothing else for the operator to do but to leave in the swab.

In re-examination, he said he had never before heard of a swab being left in. When the lady suffered such pain that he had to inject morphine, he diagnosed stone in the kidney, but he never heard she had passed a stone.

This concluded the plaintiff's case. By the leave of the court, and with Mr. F. E. Smith's consent,

Sir Alfred Fripp, C.B., K.C.V.O., F.R.C.S., etc., Surgeon to Guy's Hospital, was called and examined by Mr. Hume Williams before the defendant's case was opened. Witness said that he had been made aware of the nature of the operation. He had read the account given by the defendant in his answer to interrogatories. The following is a copy of the defendant's answer: "On opening the abdomen in the course of the operation I found dense adhesions and the intestines and other internal organs were matted together so that, instead of being able to push the intestines and other internal organs out of the way in order to lay bare and remove the diseased parts, the intestines had actually to be peeled off the diseased parts. During this process a small and then a larger tear were unavoidably made in the large or lower intestine. These tears were quite unavoidable in consequence of the bowels being matted and adhering to one another and the diseased parts. The small tear took place first and was immediately closed by suture of linen thread to prevent leakage. It was imperatively necessary in the interest of the patient's life that means should be taken to prevent faecal matter escaping into the abdomen through the opening caused by the larger tear which could not be closed for this purpose by forceps. I was therefore obliged to put in a gauze plug. This plug was inserted for the express purpose indicated, and after the operation the tear was sutured with linen thread. A further complication was then discovered, namely, long-standing appendicitis, the appendix being tightly adherent to the diseased parts, so that the appendix had then to be removed. On further proceeding both ovaries were found to be the site of dermoid tumours, and both the Fallopian tubes the site of pyosalpinx. All these diseased organs consequently had to be and were removed as well as the womb containing fibroid tumours. The larger tear in the intestine was then examined, and it proved to be very ragged and the surrounding tissues somewhat friable. This tear had to be closed by suture, but if the gauze plug had been removed during the suturing leakage of the intestinal contents was likely to take place, and this was a risk possibly fatal to the patient which I had to avoid in such an operation. I therefore deemed it far safer to leave the plug within the intestine and suture the rent over it. The suturing was then completed, and I intentionally allowed the plug to remain where I had placed it and sutured the tear over it with the knowledge that it remained there. The abdomen was then closed and the operation was completed. The operation, which was of a most trying and severe character, lasted nearly two hours, and the patient was under anaesthetic throughout the whole of this time."

Asked whether in his view the course adopted by the defendant was proper, Sir Alfred Fripp said that while it was almost impossible to answer in a single word, he could well conceive that as there obviously was need for great haste, to leave the swab in was the safest course. Having put the swab in the surgeon would have no alternative but to leave it there. A plug of this kind having been left in the large bowel, one would expect it to come away in three or four days.

Mr. Hume Williams: What precautions should the careful surgeon take after such an operation?—He should have the stools watched, and should give specific directions to the nurse to take the necessary steps.

Continuing, Sir Alfred said that with abnormal bowels such as these were, it was quite easy for an obstruction to remain for a considerable time. After an operation such as this it was not at all an unusual thing to feel a lumpiness which the surgeon would desire to get rid of. The patient in this case was very lucky to be alive. It would be many months before the patient after this kind of operation would be restored to normal health.

Mr. Hume Williams: How could this obstruction have been removed?—By enema; or, in the position where this obstruction was, it could have been seen by the sigmoidoscope; at any rate, one would have tried it.

Cross-examined by Mr. Smith, Sir Alfred said he had often had to deal with tears in the intestine. He had never himself left a swab permanently in that region of the bowel, but had left it a little lower down—nearer the anus.

Mr. Smith: If you had left it you would not have forgotten it?—No.

You cannot always attend subsequent to an operation. You have to leave that to subordinates?—That is one of our greatest anxieties.

You would have told the medical man or the nurse who was to attend the patient that you had left the swab in?—Yes. The swab having been left in, I should have told the nurse or the practitioner to watch the stools.

Continuing, witness said that the prolonged presence of the swab might have caused considerable pain.

Mr. Smith: Why would it be good for the patient to get rid of a foreign body in the intestine?—Because its presence is not good for the intestine. The longer it stayed the more harm it might do.

Re-examined: Obstructions sometimes remain in the intestine and produce no symptoms. In suturing over the swab it was possible that a stitch might get caught. The time which it took the stitches to dissolve varied with different materials and different individuals.

Mr. Justice Phillimore: Having regard to the condition of this lady, was it not undesirable to leave this swab in?—The ideal thing would have been to cut out the whole four inches and unite the two ends, but the defendant appears to have done what was best in the circumstances.

I want to know whether this lady's condition made it more undesirable to leave the foreign body in the bowel?—It did not make the risk any greater.

Continuing, witness said the chief reason why a plug was not frequently left in was the danger of its being caught by a stitch. There would be no harm in attempting to remove the obstruction with forceps.

Mr. Hume Williams, in addressing the jury on behalf of the defendant, said that he ventured to say that the conditions which prevailed when his client opened this poor lady's abdomen would have been enough to dismay any but the most experienced and most skilful surgeon. The layman sometimes forgot or did not picture to himself the strain under which the operating surgeon laboured. The defendant agreed to undertake this operation for a moderate fee. The one Fallopian tube in which trouble was suspected was inflamed, but both had to be removed. The womb and the ovaries had also to be removed. Every one must join in wonderment that she ever recovered. She had reason to be grateful to Mr. Ryall, and she was showing her gratitude by bringing this action. That a tear

should take place in the bowel was almost inevitable. The defendant was bound to close up the tear by some means. There were many cases in which the surgeon performed a long and difficult operation only to find that the patient slipped away at the end. Mr. Ryall had trusted to this, that in time Nature would evacuate from the bowel that which was left inside.

Mr. Justice Phillimore: The surgeons called by the plaintiff do not quite say that the course adopted was proper; but they do seem to agree that it was a question for the surgeon in the case.

After the operation was over Mr. Ryall did remember that he had left the swab in the bowel, because before he left the house he told the nurse that she had to take proper precautions for clearing out the rectum and the anus, as a swab remained in the bowel. He naturally expected that his colleague had taken notice of the fact, but he took additional precautions of telling the nurse. Two days after the operation the nurse gave an enema, and from the appearance of the stools she was convinced that the swab had come away; and she actually told the defendant that an obstruction had come away.

Mr. Justice Phillimore: It is a little unfortunate that this is not raised on the pleadings.

Mr. Hume Williams: We were under no obligation to raise it. Notwithstanding that the swab did not come away at once, the plaintiff made an extraordinary recovery. Much was made of the point that when first accused Mr. Ryall denied the swab was his. The facts were that it was not the kind of swab generally used in an abdominal operation. It was a small swab which the defendant happened to have ready to his hand.

Mr. Charles Ryall, examined, said he saw Mrs. Abbott first on October 27th, 1908. He advised an operation, for which he charged the reduced fee of thirty-five guineas. At that time fibrous tumour was the only mischief he knew of. Nurse Powell was the head nurse at the operation. On opening the abdomen he found mischief greater than he expected. There were adhesions, which rendered it a severe and dangerous operation. There was a part of the bowel in which there was a large tear, and he could not break down the adhesions to bring the bowel out of the abdomen.

Mr. Justice Phillimore: It has all been described in the answers to interrogatories. There is no need to have it again. (The answer to which the learned judge referred is set out, *supra*.)

Continuing, witness said that the operation was one of unusual difficulty. Having made the tear in the intestine he found it impossible to bring it out in such a way that he could have closed up the tear otherwise than by suture over a swab. It was necessary to close the rent, and also to prevent leakage during closing. In his view it was not a measure fraught with serious danger to the patient to leave foreign matter in the intestine. He had often done it before, and had done it since in similar cases.

Mr. Justice Phillimore: Why could you not have sewn it up as it was?—Sewing takes a long time, and a discharge from the gut might take place at any moment. It is a simple measure to put in the swab and tack the edges together over it. It is like an interior patch.

Continuing, witness said that at that stage the operation had lasted an hour and a half, and took over half an hour to finish. After the operation was over he told the nurse that he had put a drain into the vagina from the interior of the abdomen, which would have to be washed out or removed by hand. He also said there was a swab in the bowel which had to be removed. He asked her to particularly attend to these matters. He went down a week later and had a conversation with the head nurse, when she assured him that the drain and swab had come away. She said that the first enema had been followed by an abnormally large result. She was a nurse of very considerable experience. He would expect such a thing to come away by natural evacuation. He would not have recommended anything further in the way of an operation.

Mr. Justice Phillimore: How long would you have left it?—I would have waited as long as eleven months, and would have left it to natural causes. It would have come away sooner or later.

Continuing, witness said he remembered Mr. Abbott coming to see him. He said his wife had suffered great agony until she passed something, which he produced. Upon examining this article witness came to the conclusion that it was not the kind of swab which he used in ordinary abdominal operations. It was too small, and useless for abdominal purposes. He did not remember the details of the case at the time. He asked Mr. Abbott whether his wife had had any other operation, and he said she had had an operation for fistula a short time before. Mr. Abbott then told witness he might see his wife. Upon seeing Mrs. Abbott he gained the impression that she thought he was trying to throw the blame on some one else. He told them it was not an abdominal swab. He remembered the case because at the time he was collecting material for a paper on appendicitis in the female, and he remembered that the appendix had been adherent to the tumour. He then told Dr. O'Donnell that he had a full explanation of the swab. He was not then well, as he had septic poisoning.

Cross-examined by Mr. F. E. Smith: He used the swab in this case because he thought it was the best thing he could do. He doubted if he had left a swab in the sigmoid twice, but had often done so in the rectum. When he saw Mr. Abbott he did not recollect that there had been a tear in the bowel. He would not use swabs of this kind in the abdomen because of the danger of their being left in the abdomen; but an ordinary abdominal swab was much too large for the purpose for which he used this swab. It was a swab generally used for cleaning-up purposes before the operation.

Mr. Justice Phillimore: The plaintiff's evidence of what took place at the interview with the defendant fell short of what I expected from the opening.

Continuing, witness said that when he saw Mr. Abbott he was greatly puzzled about the swab.

Mr. Smith: When did you first remember this was your swab?—It is difficult to say, because I was unwell at the time. I was collecting information about appendicitis in the female, and I remember this case because the appendix had been adherent.

Mr. Justice Phillimore: What led you to look at your notes of the case?—To throw some light on the presence of the swab.

Mr. Smith: When were the notes on the loose sheet of paper made?—I should say these notes were written about the same time as the operation. It was after the action commenced that I found them.

Witness was then cross-examined as to brief entries which he had made in his diary on the day of the operation. He said that they were similar to the notes he usually made in such cases. When he wrote to Mr. Abbott on October 23rd he did not mention that he had left the swab in, and that the nurse told him it had passed, because he was annoyed at the attitude taken up by Mr. Abbott. Mr. Abbott was entitled to know why the swab had been left in his wife's body. When he wrote the letter on October 26th to Mr. Abbott he remembered that the nurse told him it had come away. Dr. Dickson told him Mr. Abbott had disappeared from the neighbourhood without paying the doctor's bill, and that they were trying to track him, and had discovered that his furniture had been stored under another name.

Mr. Justice Phillimore: You understood that Mr. Abbott was a gentleman who had defrauded other members of your profession, and that was why you treated him as you did?—Precisely.

Cross-examination continued: He understood also that Dr. Fairweather had been instrumental in signing the summons on the plaintiff over the rates, and that there was considerable antipathy between him and Mr. Abbott. He thought Mr. Abbott might use the fact of the swab being there in order to get out of paying Dr. Fairweather. He thought that it was possible that they might attack Dr. Fairweather about the swab. When he first had an interview with the secretary of the Medical Defence Union, he could not say that he told the secretary that the nurse told him the swab had come away. He made a statement to the solicitor of the Medical Defence Union. In January, 1905, he left a swab in in an almost identical case. There were many cases in which he had left the swab in. In the 1905 case the swab came away, and the patient would be quite willing to come and testify. He had not mentioned this method of dealing with swabs in books or lectures. The leaving of the swab in was a trivial matter compared with the operation. He had known a case where a Murphy button had remained inside a patient for five years. Bone bobbins had remained in for some time.

Re-examined by Mr. Hume Williams: It is suggested that you knew you were guilty of negligence and were trying to hide it. Is there any truth in that suggestion?—Absolutely none.

Continuing, witness said the notes he took were similar to those which he took in relation to all operations. Six smaller swabs were used at the operation besides the abdominal swabs.

Mr. William E. Miles, F.R.C.S., said he had studied the details of the operation. In his view the defendant did the right thing. With this large tear in the bowel, there was grave danger of the contents leaking into the peritoneum.

Cross-examined: He had never left a swab in this particular place.

Mr. James Ernest Lane, F.R.C.S., said he had written on the subject of foreign bodies being left in after operation. He had heard the details of the operation, and thought that the patient had had a marvellous recovery.

The suture would take perhaps fifteen minutes, and it would be more difficult if the bowel was friable. In this case, too, the bowel was adherent. He considered that the use of the swab as a plug during the operation showed great resource. He himself had left gauze in the bowel temporarily, and he had known a large Murphy's button remain in the bowel five years. Had he left a plug of this kind in when operating, he would have recommended an enema in three or four days.

Mr. Justice Phillimore: In the ordinary case a surgeon's duty is over when he takes out the stitches?—Yes.

That is about a week?—Yes. After that, the practitioner in charge looks after the case. But if, in this case, I heard that the obstruction had not come away, I would have given advice as to what should be done.

Continuing, witness said the swab would have been a source of discomfort, but not a danger to life. It might retard convalescence. He could hardly conceive that the retention of the swab could have caused the lady's death. In his view the use of the sigmoidoscope would have been unjustifiable owing to adhesions of the lower bowel. Perforation might have occurred. Moreover, the instrument might not have reached this part of the bowel.

Cross-examined: He had frequently to deal with tears in the bowel when operating, but not in the sigmoid. He had never left a swab in the abdomen. He was able to suture in place, but the tear was higher up and easier to get at than in the sigmoid.

Mr. Smith: If you left a swab in the bowel, would you keep

the practitioner in the dark about it?—I would not intentionally keep him in the dark. I would tell him about it.

Would it not be usual in such a case for the nurse to reserve the stools for the examination of the practitioner?—A well-trained nurse would do it, and ought to.

Re-examined: When the operator was making the suture over the swab there would be nothing to prevent the practitioner assisting him from seeing what he was doing.

Mrs. Jane Elizabeth Powell, as a nurse, said she had thirteen years' experience—principally in surgical work. She had assisted at this operation. She knew that the intestine was torn in two places but did not see the swab put in. Mr. Ryall told her after the operation to watch the pulse; to give morphine if there was pain; to see that the gauze drain in the vagina and the plug in the bowel came away. He also said that the dressings and sterilized towels need not be returned for some time and that she was to get the doctor to telephone to him if anything went wrong. Two days after the operation she administered an enema on Dr. Fairweather's instructions. Remembering what the defendant had said she made it extra large. It consisted of water and 9 oz. of olive oil. The result appeared to be very satisfactory. A hard lump came away which appeared to her to be the swab. The patient had not had much solid food. A week after the operation, when Mr. Ryall came to remove the stitches, she told him about the motion and that the swab had come away. She did not, however, strain the motion, although she knew now she ought to have done so.

Cross-examined: She was trained in the Royal City of Dublin Hospital. She had practised as a nurse in England ever since she was trained. She first knew the defendant ten years ago, when she was sent to nurse a case for him.

Mr. Smith: Have you nursed often in the defendant's cases?—In about ten cases or less. I cannot remember accurately. It may have been twenty or thirty.

Continuing, witness said she had always pleased the defendant in her work. She had often to examine stools after operations. On the chart which she was accustomed to use there was a place in which to record the motions of the bowels. It would be her duty to record some particulars about the motion in that place, but she did not think it would be necessary to record the passage of a foreign body. That she would put in the daily report book. The conversation with Mr. Ryall took place immediately after the operation. The other nurse was present, but she was not efficient.

Mr. Smith: You have no right to say that, but as you say it I must ask you why was she incompetent?—I am sorry to have to say it, but I asked her to fill a hot water bottle twenty minutes before the operation, and she put it in the patient's bed without a stopper. (Laughter.) At the time when she gave the enema Mr. Ryall was still in charge of the case. It was not usual for the nurse to show the stools to the practitioner in all cases.

Mr. Justice Phillimore: Have you ever had a case in which foreign matter was expected to come away?—Yes; and in those cases I merely examined it. I did not show it to the doctor.

Continuing, witness said the lump was so large that she thought it must be the obstruction. The record book was spoilt because the other nurse spilt the ink over it. It was torn up in the house.

This concluded the defendant's case.

Counsel on either side having addressed the jury,

Mr. Justice Phillimore, in summing up, said that the jury had given very great attention to the case. The action was brought against a professional man for negligence. Such a man undertook to show reasonable skill and to exercise reasonable care. Skill and care were two different things. A man might be as careful as he could but he might fail through want of courage and experience. Again, the most skilful man might show want of care; he might be rash and hasty. Now, it was the law that any plaintiff who brought his fellow citizen into court on a charge of negligence must prove his case. On his failing to prove the case, it was the duty of the judge to say that the defendant was entitled to the verdict. Nor should a jury be asked to find a verdict against a defendant on a charge of negligence. The first charge against the defendant was that he should not have left the swab in the bowel. The second was that, assuming the defendant did take the unusual step of leaving the swab in that position, he should have taken the greatest care to warn everyone connected with the case, so that it could be removed. The two charges were distinct, but they ran together in this sense, that according to the plaintiffs this was a wholly unreasonable and unusual act in surgery. The point had not been quite clearly put in the course of the case. In effect, the plaintiff said: "You left the swab there, and in the hurry you forgot it." Now it appeared to him (Mr. Justice Phillimore) that the man who put the swab there could scarcely have forgotten it. He might have forgotten to tell the other practitioners in charge, but that was a separate point. If they came to the conclusion that he did tell anyone afterwards, it was clear that he did not leave the swab there unintentionally. Grave and serious charges had been made against the defendant and his witnesses. It was therefore necessary for him (the learned judge) to do what he did not usually do, that was, to leave certain questions to the jury, namely (1) Was the defendant guilty of negligence in leaving the swab in the plaintiff's body? (2) Was he guilty of negligence in (*a*) not sufficiently informing the person in charge that he had so left it. (In other words, did he inform the nurse, and ought he to have also infomed the doctor?) What damages (if any) (3) had been sustained (*a*) by the husband; (*b*) by his wife. When considering the question of damages, if they had to do so at all, they would remember that even if there was negligence, and there was no damage, the defendant would be entitled to their verdict. He would now deal with the first question, Was the defendant negligent in using the swab? Up to the moment the action was launched the case was this. The question was asked, Why did you leave the swab in the lady's body? and a charge of negligence was based upon it. The plaintiffs alleged that the defendant could not find any one to come forward and justify the adoption of such a course. It was quite true that, with one exception, no one but the defendant had ever put a swab in as a cushion to support a torn bowel. On the other hand, there was a chorus of opinion that this operation was very difficult, and one from which the plaintiff was extremely fortunate to escape alive. His lordship here referred in some detail to the evidence of the defendant as to the condition of things obtaining at the operation. In those circumstances, he continued, was it bad surgery to leave the swab in? No doubt plaintiffs in these cases always found it difficult to procure medical testimony to support their view; but a distinguished surgeon called by the plaintiff said that the operation being so severe, he could quite understand the swab being left in. "I would," he said, "have expected to find adhesions in the bowel. It was in the judgement of the surgeon to leave the swab in the bowel." That witness would not say it was not right in this case. That was the evidence of Mr. Howell, the plaintiff's witness. He (the learned judge) did not lay particular stress on the evidence of Dr. Fairweather and Dr. Dickson, but he was bound to point out that Dr. Fairweather said it was the worst operation he ever saw. Sir Alfred Fripp had said that a careful surgeon would do what the defendant had done; the patient was lucky to be alive. He also said that those in attendance should have been informed of the presence of the body. Mr. Lane, to whom a high compliment was paid by the plaintiff's counsel, had pointed out that under normal conditions the bowel could be taken out. Here the suture had to be made *in situ*. He considered that the defendant had shown great resource. The jury would have to remember that, according to the evidence, the instant stopping up of the bowel was vital to the patient. If they believed that the defendant did this thinking it was the best thing to be done in the circumstances, there could be no negligence. The plaintiff said, however, that although a justification could be found, the act was negligent in that it was merely accidental; but if the jury found the accident was beneficial the defendant was entitled to the verdict. He now came to what happened afterwards. The eminent surgeons who had been called said that the defendant who had done such a thing would not forget it. But what did that mean? Did it mean that he would not forget it to his dying day? It was necessary in that connexion to bear in mind that the defendant had done this same thing more than once. With regard to what took place between Mr. Abbott and the defendant it was clear that Mr. Abbott did not remember much about it. No doubt there was some discussion. Probably the defendant said it was not his swab. Mrs. Abbott, when asked how the swab got there, said, "That's what you have to find out." The defendant was naturally surprised when he saw the swab, because he did not use that kind of swab, and did not remember that he had left it in the intestine. His lordship reviewed the evidence as to what took place at these interviews at some length. Frankly and absolutely the defendant said that up to the time he left Mrs. Abbott he thought it was not his swab; and in that state he remained for some time. The plaintiff therefore said, and did not shrink from saying, that he had invented the whole story. Now, suppose he had intentionally left the swab in; that he had told the nurse; that the nurse told him that it had come away, would he not be puzzled when it was alleged to be his swab? Would he not find it difficult to remember? What would a man do in such a case? Would he not seek for every other explanation? Bit by bit his memory revived. Unfortunately for him he had not got much to go upon. He had merely brief entries in his diary; but apparently he was going to write a paper on diseases in the appendix in woman, and that brought the facts to his mind. For some reason he did remember, and it was for the jury to say whether he was saying what was true. In the next place they had to consider whether he was negligent by reason of his not—or not sufficiently—informing the persons in charge of the presence of the swab. Now every one was agreed that he should have informed some one; and the reason was obvious. The swab had to come away. The doctors did not dispute that some attempt should have been made to get it away. The question was, Who should have been informed? As to Dr. Fairweather, who was present at the operation, the defendant said he thought he heard and saw what he was doing. He (the defendant) now accepted Dr. Fairweather's statement that he did not know of the existence of the obstruction. The defendant said that his reason for not telling him was that he thought he knew. He did tell the nurse about the swab, and that it should come away. In her evidence she detailed a number of things to which she was to pay attention. Were not they the kind of things a woman would remember? He did not desire to take any sides in the case; but it was a bold thing to suggest, as the plaintiff's counsel had suggested, that this eminent surgeon and this nurse had agreed together to fabricate a story. Then the nurse had given a detailed account of what happened afterwards. She had plenty to do, because this was a house where apparently no servant was kept. Next, assuming he did inform the nurse, did he sufficiently inform the persons in attendance? Had he informed the doctor, would the obstruction have

remained? Ought he to have informed the nurse more pointedly? He (the learned judge) did not say the defendant ought to have done any of these things, but these were matters for the jury. With regard to the contents of the correspondence which had been so freely commented on, they should remember that the husband was entitled to his point of view—namely, that his poor wife had been suffering for eleven months. The defendant's point of view was that here was a woman whom he had attended for a small fee, whose life he had saved. The defendant would consider it strange that a man like Mr. Abbott, who had to be sued to pay his doctor's fee, was able to take his wife to Monte Carlo. Then it was much matter of comment that the defendant had not put the blame on the other doctors or on the nurse. That was a course not to be lightly adopted. With reference to the damages to which the lady plaintiff might be entitled, if the jury answered any of the above questions in her favour, his lordship said that much of the suffering which she experienced at Monte Carlo was the natural consequence of the operation. It was not until April that she began to suffer badly in consequence of this obstruction. The defendant said she might have come to him in June, and could then have been put right, and that was to be taken into consideration. The husband would be entitled to some damage for the loss of the society of his wife and the expenses to which he had been put.

The jury retired to consider their verdict.

On their return to court, the foreman handed to the learned judge a paper, upon which the questions and answers were written.

Mr. Justice Phillimore read them out as follows:

1. Was the defendant negligent in leaving the swab in the plaintiff's body?—No.

2. Was he guilty of negligence in (*a*) not (*b*) sufficiently informing the persons in charge that he had so left it?—No to both questions.

Some applause in court was at once suppressed.

Mr. Justice Phillimore: The question of damages does not therefore arise. There will be judgement for the defendant with costs.

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We have received the following letter for publication:

19, Portland Place, W.,
January 17th, 1911.

Sir,—

I have seen a cutting from one of the morning papers misrepresenting the answers given to certain questions put to me in a Law Court last week. My object in writing to you is to make it clear that in my answers the word "anxiety" was only employed in relation to the giving of "instructions" (for after-treatment and observation of results) to "subordinates."

The case was an important one for our profession, and one of the chief points upon which it turned (vide the summing-up) was the matter of the instructions given by the doctors to the nurses, and the deductions made by them from the report of the nurses as to the result of the carrying out of those instructions.

I was in the witness-box more than half-an-hour, being examined, cross-examined, re-examined, and then questioned by the judge.

The two reports which I have seen were brief epitomes.

That in the *Times* is a fair one, and demonstrates that that reporter clearly understood the matter in question to be one of "instructions" given by a surgeon to a nurse, his nurse, the nurse he had taken to the case. The word essential to the proper understanding of the questions and answers with which this note is concerned is "subordinate."

I was asked whether "the surgeon would before leaving the case give *instructions* to his *subordinate*," and I replied, "Yes."

Then to a further question of detail as to examining and reporting the result of an enema given with the intention of bringing the swab away from the bowel, I said, "As this case shows, that is one of our greatest anxieties." And with this statement surely everybody who is used to the after-care of abdominal operations will agree.

I ask you to publish this explanation in case any of your readers may have seen only the second, the unfair and misleading, epitome to which I refer at the beginning of this letter; for in attempting to boil down into one the many questions and answers upon a technical point, it misses entirely the matter at issue; and, what is far worse, it at the time insults my profession and myself by substituting for the word "subordinate" the words "patient's medical adviser."

That this substitution was effected by some reporter who is quite incapable of conveying, even if he can grasp, the technical points involved in the evidence is proved by his senseless jumbling of terms in the preceding paragraph.

I am, etc.,

ALFRED D. FRIPP.

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### FEES FOR PROFESSIONAL ATTENDANCE AT POLICE COURTS.

CYMRO states that he called to attend a man who attempted suicide but recovered, and in due time was charged at the police court. Our correspondent was then asked by the police to give evidence. This he did and subsequently sent a bill for one guinea to the superintendent of police, who sent it back with a letter to the effect that he understood from the mayor that the matter would be settled by the relatives of the defendant. This has not been done. "Cymro" asks what he is to do.

*** Our correspondent says he called to see this patient, but he does not tell us what led to this call being made, nor does he say where the patient was at the time he made the call. We are, therefore, quite at a loss to advise him as to the person to whom he ought to apply for payment for his professional services rendered to the patient. Any claim he may have for attendance at the police court and for giving evidence there ought to have been made to the court at the time the case was heard or immediately after, when the question of costs in connexion with the case was under consideration.

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# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

### INTERFERENCE WITH THE PATIENT OF ANOTHER PRACTITIONER.

A. H. G.—There could be no justification for such a remark as that related to our correspondent, but we should always be chary about accepting such reports regarding what was said by another practitioner; patients' statements are not always accurate, and for the correctness of this statement there would probably only be the patient's word on the one hand and the practitioner's on the other, without corroboration of any kind. As we hope no harm has resulted from the remark, we should be disposed to recommend our correspondent to let the matter drop. If he cannot accept this view, he should write to the accused practitioner, stating exactly what has been said, and asking him for an explanation.

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### SUPERSESSION.

BEATEN PROPER.—We have read the papers submitted to us, and are of opinion that B. acted in a professional and friendly manner. He cannot be held responsible for any mis-statements made to him by the patient or his employers. Patients have the right to change their doctors, and supersession is one of the unpleasant facts of life which have to be accepted from time to time with a good grace.

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# The Services.

### THE TERRITORIAL MEDICAL SERVICE.

SURGEON-GENERAL P. M. ELLIS (retired) writes: Judging from the proposals contained in his letter, I am afraid that Colonel O'Connell has failed to realize the necessity for army medical organization at all. Does he think that the medical organization of the regular forces is adapted only for use against an uncivilized enemy across the seas, because this is what he implies? If he is right, not only we ourselves in England, but the Continental nations as well, are taking quite unnecessary trouble in the matter. Supposing an invading force landed in England, in what way, I would ask him, does he suppose our position would differ from theirs under similar circumstances?

According to Colonel O'Connell, the sick and wounded should be dumped down by the medical personnel of their units, somewhere near the fighting line but in the shelter from the enemy's fire, in an improvised hospital of buildings or tents, where such expert aid as they may require is to be sent to them. From these hospitals all but the serious cases are to be sent, either back to the fighting line, or, if still sick or wounded, to their own homes. How the latter are to be carried there, or who is to look after them when they get there, he does not say. It matters nothing, of course, that these hospitals may be within the "terrain" of the invader, because they and all that they contain would be under the "Red Cross rules."

I think suggestions which betray such an inadequate conception of the conditions of modern warfare, to say nothing of the articles of the Hague Convention, are much to be deprecated, particularly when they come from one who from his past position would be assumed to know something of the subject on which he writes. Their effect, if any, can only be detrimental to the efforts now being made by the War Office to enable the country at large to grasp the necessity of an efficient medical organization for home defence.

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CAPTAIN E. S. WORTHINGTON, Royal Army Medical Corps, has been appointed a Member of the Fourth Class of the Royal Victorian Order.

MR. WILLIAM HENIN CHRISTIE has bequeathed to the Hastings, St. Leonards, and East Sussex Hospital a sum of between £8,000 and £10,000.

IN our advertisement columns will be found a statement by the Alliance Drug and Chemical Company, 34, Leadenhall Street, E.C., in which the prices of some of their preparations are enumerated. We understand that the company will forward their detailed price-list on application.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

P. H. S. writes: In your review of *Emergencies of General Practice*, by Mr. Percy Sargent and Dr. A. E. Russell, in the issue of the JOURNAL of December 24th, 1910, you say, "A book equal to the requirements of the country practitioner must needs be written by one who, having been engaged in general practice, is familiar with the many emergencies which call constantly," etc. Will you please recommend me such a book?

*** So far as we know such a book has not yet been written. Probably the bulk of the information required would be obtained from one of the books on "Treatment,"—Whitla, Hutchinson, or Campbell being specially useful.

### VAPOUR BATHS.

V. P. would be glad to know from users their experience as to the most simple, efficacious, and cheapest type of vapour bath for home use in the case of healthy people. Any hints as to method of use would also be acceptable.

### TUBERCULIN IN INOPERABLE RECTAL CANCER.

W. D. writes: A trial of Koch's Old Tuberculin in a case of inoperable cancer of the rectum suggested itself to me for the following reasons: The case had a pronounced tuberculous family history, and Mr. Thorburn of Manchester showed some years ago that a tuberculous family history is commoner in cancer cases than a cancerous ones. Further, tubercle and cancer are not found in the same patient, and a reaction similar to that obtained in tuberculosis is obtained with Old Tuberculin in cancer. I gave my cases the following doses:

| | | | | |
|---|---|---|---|---|
| December 7th, 1910 | ... | ... | ... | 0.001 c.cm. |
| December 9th | ... | ... | ... | 0.003 ,, |
| December 14th | ... | ... | ... | 0.004 ,, |
| December 20th | ... | ... | ... | 0.005 ,, |
| December 24th | ... | ... | ... | 0.0075 ,, |
| December 28th | ... | ... | ... | 0.01 ,, |
| December 31st | ... | ... | ... | 0.025 ,, |

in Allen and Hanbury's azoules. After the last injection there was a marked reaction, temperature 101.8°, restlessness, pains in chest, lasting two days, and the patient was ill for a week. Before proceeding any further on these lines, I should like to ask whether any experiments have been made on animals to ascertain if the toxin of tubercle influences the growth of cancer cells, or if it has already been tried in man in such cases.

## ANSWERS.

TROPICAL.—The climate of Bombay is warm and moist, but not unpleasant nor unhealthy. The cost of living is high as compared with most Indian stations.

DR. H. J. THORP (Ipswich) writes: In reply to "Senex," I would suggest his taking a minute dose of calomel, from one-twentieth to one-tenth of a grain three times daily.

### INCOME TAX.

B. B. B.—In the first year of succession to a practice it is usual for the income-tax assessment to be adjusted by reference to the cash receipts if the successor took over the book debts, and by reference to the bookings (with allowance for bad debts) if he did not take over the debts. Where adjustment on these lines is allowed for the first year a similar adjustment to the amount of profits made in the year can be claimed in the second year.

### TREATMENT OF CHILBLAINS.

TRISTIS VIATOR writes: In answer to "H. G. S.," I believe it is now generally held that chilblains and allied conditions are due to diminished calcium content in the blood. If "H. G. S." will give his patient gr. x of calcii chloridum three times a day for a week I think he will find a cure result to his satisfaction. This treatment, among many other treatments for divers diseases, I have learnt in regular perusal of the BRITISH MEDICAL JOURNAL, from which for sixteen years past I have extracted and indexed everything new or useful to me. I have heard of one man who gave up reading the BRITISH MEDICAL JOURNAL because he could learn nothing from it. Such a man would probably extract no juice from the joys of paradise.

### SPECIFIC GRAVITY OF ALCOHOL.

DR. JAMES L. MAXWELL (Mission Hospital, Tainan, Formosa), writes: I require for the local making of tinctures, etc., to use alcohol of varying strengths, but I find that the specific gravity of supposed pure alcohol taken with a reliable alcohol specific gravity tube varies considerably from that given in the textbooks. The variation is always in the direction of a lower specific gravity than should correspond to the percentage of alcohol present. The temperature here averages over 80° F., and I presume that the difference in specific gravity is on account of the heat. Could you tell me either what the specific gravities of alcohol in different admixtures with water should be at that temperature or what variation per degree of temperature should be allowed for when reckoning with the specific gravity tube the different percentages of alcohol present in a mixture of alcohol and water.

*** Perfectly accurate results will only be attained by cooling the alcohol to 60° F. before taking the specific gravity; but sufficient accuracy for most purposes will be attained by always taking the specific gravity at 80° F., and making the following corrections:

| | | | | |
|---|---|---|---|---|
| For hydrometer reading | | | 0.825 | add 0.0092 |
| ,, | ,, | ,, | 0.876 | ,, 0.0090 |
| ,, | ,, | ,, | 0.900 | ,, 0.0088 |
| ,, | ,, | ,, | 0.920 | ,, 0.0084 |
| ,, | ,, | ,, | 0.930 | ,, 0.0080 |
| ,, | ,, | ,, | 0.940 | ,, 0.0076 |
| ,, | ,, | ,, | 0.950 | ,, 0.0070 |
| ,, | ,, | ,, | 0.960 | ,, 0.0060 |
| ,, | ,, | ,, | 0.970 | ,, 0.0042 |
| ,, | ,, | ,, | 0.980 | ,, 0.0026 |
| ,, | ,, | ,, | 0.990 | ,, 0.0002 |

The corrections for other points may be found by interpolation.

## LETTERS, NOTES, ETC.

### HOW TO USE THE "JOURNAL."

DR. W. LLOYD EDWARDS (Barry) writes: Perhaps the simplest way of all is to adopt the vertical filing system. This means a minimum of cost and a maximum of handiness. All that is required is a box, for quarto files, which can be had for about 10s. In this are cardboard guides lettered A to Z. The files consist of folded manilla paper with a projecting strip to write upon. This is the procedure: Cut out the pages of the JOURNAL which it is desired to keep—for example, Appendicitis, Measles, Tuberculin. Place the cutting in a folder and file behind the appropriate letter. As other articles on the same subject appear, they can be added to the same folder. There is no perforating, no pasting, and no indexing. The same plan can be used for correspondence.

*** We are informed that the Athenaeum News Cutting Album recommended by Dr. Fairlie-Clarke some time ago can be obtained from the Army and Navy Co-operative Stores, Victoria Street, London, S.W., price 3s. 6d.

### MEDICAL TREATMENT OF INOPERABLE CANCER.

DR. J. INGLIS PARSONS (London) writes: In connexion with Drs. W. Renner and Alexander Haig's letters of last week, I would refer them to Surgeon-Major Hindley's report in the BRITISH MEDICAL JOURNAL, February, 1888, page 29. Of 108 cases of cancer at the Mayo Hospital, Jeypore, India, 61 were strict vegetarians from birth and 41 were meat eaters. From these cases the vegetarian is more liable to cancer than the meat eater.

DR. WILLIAM DONOVAN (Cork) writes: Permit me to ask Dr. Haig, What is "uric acid free diet"? I may be wrong, but I always understood that "uric acid" was evolved from food after it was introduced into the economy, and did not exist in food, as such.

### AN UNUSUAL AURAL REFLEX.

DR. J. J. STACK (London) writes: In *Sajous's Annual* for 1888, vol. iii, page 215, there is mention of the reflex in question, and a case is given in which the phenomena of cough, emaciation, night sweats, etc., promptly disappeared upon the removal of impacted cerumen. If I remember accurately, the case was under the care of Dr. Percy Jenkins, of London, and was originally published in the *Practitioner*.

CORRECTION.—In line 4 of Dr. H. J. Thorp's reply to "H. G. S." on the treatment of chilblains (BRITISH MEDICAL JOURNAL, January 14th, p. 120), the word "inflamed" should be omitted, the amended clause to read: "the skin to be smeared with lin. terebinth. acet. or sp. camphor."


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

| | £ | s. | d. |
|---|---|---|---|
| Eight lines and under | 0 | 4 | 0 |
| Each additional line | 0 | 0 | 6 |
| A whole column | 2 | 13 | 4 |
| A page | 8 | 0 | 0 |

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# THE HISTORY OF YELLOW FEVER IN WEST AFRICA.

BY

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## INTRODUCTION.

Now that West Africa is beginning in earnest to open up to mining and industrial enterprises of all kinds, I wish to lay before the medical profession, through the medium of the BRITISH MEDICAL JOURNAL, a review of the history of yellow fever in West Africa, which shows that yellow fever is far more prevalent than is usually supposed. In fact, my observations prove, in my opinion, that yellow fever is endemic to-day amongst the natives of the coast towns, precisely as it was amongst the Creoles, the yellow-skins of Havana, Rio, Santos, Para, Vera Cruz, etc. If the mining managers and merchants will forearm themselves by adopting the rational precautions of segregation and *Stegomyia* destruction on the West Coast, they need not fear the awful set-backs to commercial progress which the towns above named experienced from yellow fever.

For convenience of reference I have summarized the history of yellow fever under the following heads:

1. General.
2. Yellow fever in Sierra Leone.
3. Yellow fever in Southern Nigeria.
4. Yellow fever in the Gambia.
5. Yellow fever in Senegal.
6. Yellow fever in Ascension and Bonavista.
7. Yellow fever on the Gold Coast.
8. Yellow fever on the Ivory Coast.
9. Yellow fever in Togoland.
10. Yellow fever in Dahomey.

## I.

## HISTORY OF YELLOW FEVER IN AFRICA.

. . . The conclusion arrived at concerning the question whether yellow fever was first endemic in the West Indies or in Central and Southern America, was that yellow fever was endemic amongst the early inhabitants of both places. When the even more fragmentary history of yellow fever in West Africa is examined, we will, I think, come to a similar conclusion as regards the West African continent, namely, that yellow fever was in all probability a disease endemial to the native races of the coast. West Africa did not attract military or missionary, or even commercial expeditions at so early a date as did the more attractive New World. It is not until the eighteenth century that information begins to filter home of the deadly African fevers of the coast: of "Bulam Fever" (1793); of the fever of "Fernando Po"; of the "fever of the Bight of Benin," etc. Amongst the earliest records are those relating to the presence of yellow fever in St. Louis in 1778.

The fact that yellow fever has persisted in unbroken line from the eighteenth century to the present day appears to me to be the strongest evidence in favour of the essentially endemial character of the disease. Also many of the earlier military writers on yellow fever adopted this view.

In the case of the sister disease, malaria, we do not discuss whether it was imported into West Africa or whether it was endemic. We regard it as a disease essentially endemic to those peoples living amongst *Anophelines;* similarly, having regard to the very widespread distribution of the *Stegomyia* in Africa, we may reasonably assume that yellow fever has existed so long that it may reasonably be regarded as endemic. As in the case of malaria so in yellow fever, the infection may of course have been introduced, but introduced at such an early period that the question whether imported or endemic is beside the mark. We know that there still are countries, as the East Indies, in which the *Stegomyia* abounds, but in which the disease has so far not been signalled.

We also know that in the eighteenth century ships could have readily at any time introduced the disease into West Africa, for in those days the ships were exceedingly few which did not regularly carry infected *Stegomyia* and patients suffering from the fever. The tables were turned when Grenada accused Bulam in West Africa for having introduced the "*nova pestis*," as they termed it, into the West Indies.

The story is instructive, because it shows that at that period great confusion had already arisen as to whether yellow fever was contagious or not; this same confusion has persisted to the present period in West Africa. Dr. Chisholm maintained that up to 1793 yellow fever was a miasm fever, and therefore not contagious, but that in that year the ship *Hankey* introduced a "new plague," as he called it, into Grenada for the first time, from whence it spread to the other islands, and from them to America and Europe.

In the eighteenth century the slave ship was no doubt one of the most powerful factors in the distribution not only of yellow fever, but of all other racial and endemic diseases and of the insect carriers peculiar to them. Not only did the slave ship carry human beings in whose blood might have been the virus of yellow fever, malaria, sleeping sickness, relapsing fever, filariasis, plague, etc.; it equally well served as the means of transport of the various species of mosquito, fly, or flea. Some of these might have been taken on board infected; others, we know, could have developed on board ship, for in all probability every cask of water taken on board at a tropical station was already infected with the ova or larvae of the *Stegomyia.* The "slaver" was a floating native village, in which the worst features of the native village were reproduced, white and blacks living jammed together in hot stifling quarters, providing the ideal conditions for the multiplication of the *Stegomyia* and the spread of yellow fever. The slave ship justly earned its reputation of being the great cause of the dissemination of diseases, and now in the light of modern discoveries we more strongly than ever realize the truth of this statement.

The consideration of the following records of outbreaks of yellow fever in West Africa shows how often history repeats itself. If the early settlements in the West Indies and in Central America were hampered by yellow fever, so precisely on the West Coast of Africa the foundation of missionary settlements or the arrival of new regiments were heralded as a matter of course by outbreaks of what in every probability was the same disease.

BIBLIOGRAPHY.

Chisholm, Dr., and Gillkrest, Dr.: Second Report on Quarantine, Yellow Fever. London, 1852.

Stormont, Charles: *Essai sur la topographie médicale de la côte occidentale de l'Afrique et particulièrement sur celle de la colonie de Sierra Leone.* 1882.

Boyle, James: *Medico-historical Account of the Coast of Africa.* London, 1831.

Horton, J. A. B.: *The Diseases of Tropical Climates and their Treatment.* Edinburgh, 1874.

Quarterly Medical Reports of Troops serving on the Wes Coa o Africa.

Report by Colonel Ord upon the Condition of the British Settlemen on the West Coast of Africa. 1865.

Bérenger-Féraud: *Traité de la fièvre jaune.* Paris, 1890.

## II.

## HISTORY OF YELLOW FEVER IN SIERRA LEONE.

The foundation and settlement of Freetown appears from the commencement to have been impeded by outbreaks of yellow fever. References are constantly made by writers on yellow fever to an epidemic which occurred in 1815. According to Johnson, in that epidemic 26 out of 50 died, the symptoms being jaundice, pain in the loins, stupidity in the head, black discharge or black vomit, followed soon by death. He states further that the Nova Scotia settlers called it "break bone fever." The fever was at the time attributed to a vessel which arrived in January, 1815. There can be little doubt that the disease was genuine yellow fever.

This epidemic is also referred to by Staff Surgeons Barry and Fergusson.

French writers have taken it for granted that Sierra Leone was the home of yellow fever on the West Coast, on the very natural ground that it was more thickly peopled, and had wider relations with the outside world.

Pym also contended that Sierra Leone was the home of yellow fever in West Africa.

Griesinger believed that it had early become endemic.

From Freetown the disease is supposed to have spread to the other parts of the coast.

1817. Johnston refers to this year as an epidemic year, and states that three missionaries died after five days' illness.

In 1821 a missionary died from yellow fever accompanied by black vomit.

From 1822 to 1824 a considerable number of cases occurred. Staff Surgeon Barry, who described the outbreak, states that it broke out in December, 1822, and that the first case was that of a sailor; previously, however, the crews of several ships in the harbour had been attacked with what he describes as the endemial remittent fever of the locality. It was also a matter of much speculation whether the disease was imported or endemic. Some held that it was an imported contagious disease; others that it was local in origin, and that the endemial remittent fever of the place was another form of the disease; others, again, held that the endemial remittent and yellow fever had a common parent. One thing is clear, however, from the description of the symptoms and *post-mortem* appearance, that the disease was yellow fever.

The white population, and especially the sailors, suffered from the disease; out of a party of 12 schoolmasters, with their wives, 10 died.

It was noticed, however, that the blacks remained healthy, with the exception of the Croomen. During the outbreak H.M.S. *Bann* arrived, and her crew were attacked. She then sailed for Ascension, and some affirm introduced the disease for the first time into that island in 1823. (See Ascension Island.)

The mortality is given as follows (Walker)

| | |
|---|---|
| December, 1822 ... ... ... | 7 deaths. |
| January, 1823 ... ... ... | 2 deaths. |
| February, 1823 ... ... ... | 9 deaths. |
| March, 1823 ... ... ... | 11 deaths. |
| April, 1823 ... ... ... ... | 12 deaths. |
| May, 1823 ... ... ... ... | 24 deaths. |
| June, 1823 ... ... ... ... | 12 deaths. |
| Total ... ... | 77 deaths. |

According to Burnett, a disease differing from the usual remittent and possessing the character of yellow fever occurred in 1823. It was not contagious, and was not imported by H.M.S. *Caroline*.

In 1825 an epidemic is described with a total mortality of 263.

There was also a considerable outbreak in 1826, for, out of a garrison of 535 soldiers, 115 died from June 14th to August 24th.

Major Crofts gives a table showing the mortality from remittent fever in July, 1826; 53 men and 3 officers are stated to have died. In all probability the disease was yellow fever.

In 1827 a typical case of black vomit was recorded (Fergusson).

In 1829 an epidemic broke out, and in the garrison of 130 whites 12 cases were reported; 11 deaths occurred.

Boyle, in commenting upon the 1829 outbreak in Freetown, and refuting the idea that the fever was imported into Freetown by H.M.S. *Eden*, states that occasional cases of yellow fever are to be met with every year in Freetown. Violent controversy also arose as to whether the disease was contagious or not. In consequence, a memorandum to the effect that yellow fever was not contagious was drawn up in Freetown on May 27th, 1829, and signed by J. Boyle (Colonial Surgeon), M. Sweeny, M.D., Deputy Inspector, and W. Fergusson, Surgeon R.A.M.C.

In 1835 a case of black vomit is recorded.

The origin of the outbreak was ascribed to importation from Fernando Po, and by others to the town of Zangara, 400 miles distant; it was seriously proposed to build a high wall to keep out the pestilential breeze which, it was alleged, came from this town.

The next large epidemic occurred in the years 1836–38. In December, 1836, a malignant fever broke out amongst the crew of the barque *Mary* whilst in Freetown; 15 of the crew were attacked and 5 died. Cases then appeared on shore, one of those who died being a mulatto lady who had come from the United States; another was young man who had only been one month in the colony. Five of the crew of another ship, *The Lady Douglas*, who had gone ashore and who had lodged in the house previously occupied by the crew of the *Mary*, were infected, and 4 died in January, 1837.

Deaths occurred in March and April, and the fever was at its height in May and June; the last case was recorded in July, when, as the writer states, the yellow fever was succeeded by the common remittent fever of Freetown and confidence was once more restored; but, adds the writer, to every one's astonishment, the fever broke out afresh before the end of the year. The first to succumb were the crews of three ships which had arrived during the autumn, and Staff Surgeon Fergusson attended 20 cases amongst the white residents between November, 1837, and February, 1838; 2 ended fatally.

In 1839, 6 officers of the garrison, 7 officers of the Royal Navy, and many soldiers and sailors died of yellow fever.

*Table Showing the Number of Cases Treated by Fergusson from February, 1837, to March, 1838.*

| Occupation. | Cases. | Deaths. |
|---|---|---|
| Navy ... ... ... ... | 43 | 25 |
| Army ... ... ... ... | 11 | 5 |
| European resident merchants and seamen | 272 | 107 |
| Total ... ... ... ... | 326 | 137 |

During the prevalence of the epidemic H.M.S. *Curlew* arrived and stayed one week in Freetown Harbour, and sailed for the Gambia; during her voyage the crew are stated to have suffered from an outbreak of the disease. Freetown was in consequence blamed for having introduced yellow fever into that colony for the first time.

As in the previous epidemic, so also in this one, the relationship of the endemial remittent fever to yellow fever was much discussed. Fergusson put forward the opinion that yellow fever or malignant remittent fever was only the malignant form of the common "endemial remittent" fever, and he thought that if cases of the simple endemial remittent type were transported by ship to other localities they might give rise to the malignant form. Fergusson firmly believed that "yellow fever was a product of the colony itself," but that both the Gambia and Ascension were infected from Sierra Leone.

In 1837 Burton described an outbreak of yellow fever in the island of St. Mary, situated off the north-west coast of Sierra Leone.

From 1837 to 1839 inclusive the quarterly medical reports of the garrison and town show unquestionably fatal cases of yellow fever entered under the heading of "malignant remittent fever."

In the period 1840 to 1845 there is a yearly record of the "endemial remittent fever," sometimes with severe and fatal symptoms. Ships' crews were often severely affected.

In 1845 a case of malignant remittent or yellow fever appeared; the fever broke out amongst the crews of the squadron at anchor on the Roquelle River. The symptoms recorded are unmistakable, and are confirmed by the *post-mortem* accounts (Fergusson). In this year also there appears some evidence that Bonavista was infected from Freetown by H.M.S. *Eclair*. It is also stated that in this year cases occurred frequently and with the most severe symptoms amongst the newly arrived sailors, and least so amongst the native soldiers. At this period, also, the expressions "bilious remittent fever of the country" and "inflammatory fever" occur—other names, no doubt, for the same disease.

In 1847 an epidemic is chronicled by Staff Surgeon Lawson. The resident white civilian population is put down at 100, and of these 12 died from yellow fever. There were also cases amongst the sailors in the port and on H.M.S. *Syren*, on which ship there were 17 cases, 3 of which developed black vomit ten days after embarkation.

In 1850 a case of fatal yellow fever was reported; it was said to have been introduced by a sailing ship from Rio.

In 1859 an epidemic occurred in which 100 whites died of the disease.

In 1865 and 1866 cases were also observed.

After this period there is a lull in which no doubt the disease persists amongst the permanent residents, but in a mild and undiagnosed form, but does not make itself obviously manifest, owing to altered conditions in the navy, mercantile marine, and in commercial enterprise.

In 1872 it broke out again and 6 deaths were recorded. The colonial surgeon, writing in 1883, states: "We have had no cases of yellow fever since 1872." It is presumed to have been present in 1878.

In 1884 a severe epidemic prevailed in Freetown; the cases appear to have been diagnosed either as yellow fever, severe or pernicious remittent fever, African fever, and a dispute arose as to the nature of the fever. In the annual military returns one soldier is returned as having died of yellow fever, and the statement is made under date June 25th, 1884, that yellow fever and a severe type of remittent fever prevailed in the town during this year. There is no doubt that great confusion existed at the time between remittent fever and yellow fever.

The term "bilious remittent fever" has been employed in a great number of cases as another name for genuine yellow fever; some have, however, regarded it as a distinct disease. From the history of yellow fever on the West Coast it certainly appears probable that a very large proportion of the bilious remittent fevers were cases of yellow fever. When the fever assumed a more severe type and became epidemic it was called yellow fever; as long as the cases remained mild they were put down as remittent fever.

The question therefore arises, Do the remittent fevers represent the mild forms of yellow fever? In this connexion it is interesting to note that there is some evidence from the MS. notes of the period that the "endemial remittent fever of Freetown" conferred a certain degree of immunity against yellow fever, which would show that the remittent fever might be a mild form of yellow fever. Moreover, the fact that the natives escaped the severer form would also tend to show that they had had a milder form of the disease, probably the "endemial remittent." Lawson states that some medical men of the period considered that the natives did suffer from a mild form, which was capable of inducing the malignant form in the whites. Lawson himself considered that both diseases had a common cause.

A Dr. Davies, practising in Freetown, reported a case of yellow fever on July 15th, 1884. Upon receipt of this report, the acting principal medical officer sent a letter to Dr. Davies, asking him upon what grounds he had diagnosed a case of yellow fever, and if "he considered the case of yellow fever which he had had in his practice to be contagious or not." In a subsequent letter to the Governor, the principal medical officer stated that, in his opinion, Dr. Davies had made a grievous mistake in his diagnosis of yellow fever. This correspondence is of great interest, as showing the attitude of mind at the time as regards the nature and diagnosis of yellow fever. Yellow fever in the same year appears to have broken out at Rufisque, in another part of the colony.

In 1884 the evidence shows that there was a considerable reluctance to notify the outbreak as yellow fever, and cases which terminated fatally and with the classical symptoms of black vomit were entered as "pernicious remittent fever," "African fever," "typhoid," and "enteric fever." The year 1884 showed a mortality of 50 amongst the whites; probably the majority of these were yellow fever.

In a report sent in July 30th, 1884, to the then Secretary of State—the Earl of Derby—by Sir Arthur Havelock, the Governor of Sierra Leone, it is stated that a fever, described as "typho-malarial fever," was prevalent during the months of May and June; recently arrived Europeans suffered most severely. The malignant symptoms of the disease became more marked every day. On June 27th the disease was described as a "pernicious remittent fever on the borderland of yellow fever." At the same time a private practitioner had already concluded that the disease was yellow fever, and the military medical officer had actually reported a case of yellow fever. On June 28th a European died of black vomit. On July 2nd two Europeans died of yellow fever, diagnosed as such by the colonial surgeon; on July 6th another fatal case occurred. After this date a few more cases occurred, but of a less virulent type.

The final opinion—given on July 17th by the colonial surgeon and the other practitioners in Freetown—was that the disease was a "mild type of yellow fever of a non-contagious nature." The Governor in his report states that a noticeable feature was that, as the disease assumed a more virulent type, it became more and more restricted to Europeans. The natives seemed to have complete immunity from its attacks, there not being a single authenticated case amongst the negro population.

To Sir Arthur Havelock's covering dispatch is appended the report of the Special Medical Committee, consisting of the acting colonial surgeon, the senior military medical officer, and Dr. Cole, a private practitioner.

From the report it appears that the epidemic was most fatal in Westmorland, Rawdon, and Home Streets (the European quarter). The disease, they state,

> resembled yellow fever, or that type of pernicious remittent fever of a malignant destructive type having as its characteristics yellowness of the skin and conjunctivae, dark-coloured and very offensive alvine evacuations, dark-coloured urine containing blood casts and very obvious albumen, a quick pulse and a persisting high temperature ranging from 102° to 105°. Vomiting, often persistent and very difficult to control, dark in colour and containing a large quantity of bile, in some cases with distinctly black vomit.

Duration, five to seven days, and, in malignant cases, four to five days.

The report describes the types of fever prevalent on the coast as intermittent fever or ague, remittent fever, enteric or typho-malarial fever, and pernicious malignant or yellow fever. They state that the years 1807, 1809, 1812, 1815, and 1819 were marked by great sickness, the nature of which they do not state. They allude to the 1823 yellow fever epidemic, and state that in 1825 out of 902 persons attacked 263 died. Another epidemic occurred in 1829, when out of 150 Europeans attacked 11 died.

In 1837 an outbreak also occurred in April, preceded by very suspicious cases in January. The epidemic, they state, died down, passing insensibly into the common endemic remittent fever. In 1838 yellow fever appeared in February and ended in March.

In 1839 6 officers died of yellow fever, and an appalling number of the troops, 7 officers of the Royal Navy, and 13 seamen died.

In 1845 yellow fever broke out amongst the crew of H.M. squadron at anchor in the Roquelle River.

In 1847 yellow fever was epidemic in Freetown during June, July, and August.

In 1859 also an epidemic broke out, when 100 Europeans died of yellow fever. Cases also occurred in 1865 and 1866.

In 1872 there was an epidemic, and 6 deaths occurred in December of yellow fever. The total mortality from this disease may have been 250.

Dr. Lamprey, describing the cases of yellow fever in the 1884 epidemic in the BRITISH MEDICAL JOURNAL, 1885, states that the outbreak of yellow fever in Sierra Leone was sporadic in origin, the undoubted product of Freetown, and that all attempts to trace its origin to a non-sporadic source had failed.

He notes the difficulty of distinguishing between the bilious remittent fever and yellow fever. He states that in 1853 yellow fever was present, and that an epidemic occurred in 1825. He states that also in the years 1829, 1837, 1838, 1839, 1845, 1865, 1866, and 1872 there were very many cases of yellow fever.

In the 1884 epidemic he notes that the total death-rate amongst the native population was 35 per 1,000, and amongst the Europeans 6 per cent. per month. The epidemic commenced in May and lasted until August.

He then describes in detail the symptoms of a large number of cases. There can be no doubt, therefore, that there existed a severe yellow fever epidemic in 1884.

Examination this year (1910) of the scanty medical reports of Freetown shows that in the year 1893, 4 deaths occurred from pernicious malarial fever.

In 1894 the statement is made that there were 16 deaths amongst the Europeans, of which 13 were stated to be due to bilious remittent haemorrhagic fever and 1 from malignant malarial fever. Three of the cases

died within thirty-six hours of their landing from the rivers.

Of course, it is not now possible to be certain whether there were cases of blackwater fever or whether some of them were not genuine yellow fever cases.

In 1899 there were 17 cases of remittent and 6 cases of bilious remittent fever entered in the hospital records.

In 1900 the statement is made in the annual report that there were 2 cases of yellow fever in the six years from 1885 to 1891.

In 1903 a Syrian died with symptoms which the medical officer who was in attendance regarded at the time as a case of gastric ulcer. He now thinks that it might very well have been a case of yellow fever.

In 1909 a fatal case occurred which, in the light of recent experience, the medical officers who were in attendance now conclude was yellow fever.

In 1910 some 10 cases of yellow fever have been reported, of which 8 proved fatal, but there may have been more cases and more deaths. The one fact which is certain is that the disease was yellow fever, and that the Syrians were the first attacked and amongst whom the greatest mortality occurred. The outbreak occurred in May, and continued into September.

From the preceding history of epidemic and endemic disease in Freetown, the reader is, in my opinion, forced to but one conclusion—that in the case of Freetown, as in the case of the towns in Central America, South America, and the West Indies, yellow fever in a mild or virulent form has been a disease common among those living in the *Stegomyia*-infected town of Freetown since its foundation to the present day.

In the preceding account yellow fever is diagnosed and carefully described by well-known military and naval surgeons fully conversant with the disease in other parts of the world, and the descriptions which they have left in manuscript prove that their diagnosis was correct.

Again, there is the history of the almost annual occurrence of outbreaks of black vomit—a disease which all observers mention—attacking new-comers in preference to the indigenous inhabitants. Indeed, authorities were agreed that the permanent black population did not get the severe yellow fever of the white man. Some authorities began to discuss the relationship between the common mild, endemial, remittent fever, or acclimatizing fever of Freetown, with yellow fever, and many concluded that the mild form could pass into the severe yellow fever. Others concluded that both had a common parent; others, again, that the remittent fever of the native could give rise to the yellow fever in the white man.

Another authority of the time concluded that the endemial remittent fever conferred a certain degree of immunity against yellow fever. All these are points which have, over and over again, been discussed in countries where yellow fever is endemic. They are all based on accurate observation, for no doubt the mild endemial remittent fever of the inhabitants of Freetown was in very many instances mild yellow fever, and it naturally conferred a certain degree of immunity, or perhaps complete immunity, to a subsequent attack of yellow fever. The endemial remittent fever of the native was the source from which the *Stegomyia* obtained its infection. The outbreak which has taken place this year (1910), and in which the Syrians were early infected, is, in my opinion, the final proof of the essentially endemic character of the disease in Freetown. The Syrians have in recent years increased in numbers in Freetown. They are engaged in a small trade, and live with and amongst the natives in the more crowded parts of Freetown. Their yards and those of their neighbours were infested with *Stegomyia*. It was but natural, therefore, that yellow fever should first manifest itself amongst them, as they were obviously most exposed to the infection. On the other hand, the merchants and officials living in better and less congested quarters suffered to a far less degree, whilst those completely segregated were not affected at all.*

Taking into account the very numerous outbreaks and sporadic cases of yellow fever which have been described in Sierra Leone during the nineteenth century up to date, and bearing in mind that after no epidemic or sporadic case was any town fumigated to destroy the infected *Stegomyia*, we may be certain that, following the laws of yellow fever, cases of the disease occurred in intervening years. When these facts are borne in mind, and the same reasoning applied to the other colonies in West Africa, we are in possession of facts which, in my opinion, place it beyond a doubt that yellow fever is endemic on the West Coast of Africa.

Bérenger-Féraud, one of the great historians of recent times on yellow fever, especially in Africa, contends that Sierra Leone is the endemic source of yellow fever in West Africa, and compares it to Mexico and Cuba; he further remarks upon the great efforts which the English authorities took to deny the existence of yellow fever.

BIBLIOGRAPHY.

Rankin, F. Harrison: *The White Man's Grave; or, A Visit to Sierra Leone.* 1836.
Boyle, J.: Account of the Western Coast of Africa. London, 1831.
Walkenaer: *Voyages en Afrique.* Paris, 1842.
Bryson, Alexander: *Account of the Origin, Spread, and Decline of the Epidemic Fevers of Sierra Leone.* 1849.
Johnson, W. A. E.: Memoirs of 1816–1823. *Church Mission in West Africa.* 1845. *One Hundred Years of the C.M.S.*
Walker, S. A.: *The Church of England Mission in Sierra Leone.* London, 1847.
Quarterly Medical Reports of the Troops in Sierra Leone; MS. Reports preserved in Freetown.
Annual Medical Reports of Freetown: The Medical Letter Book, Freetown.
Havelock, Sir Arthur: The Report of the Special Committee on the Cause of the Mortality in 1884 in Freetown. Colonial Office, 1884.
Lamprey, J. J.: Outbreak of Yellow Fever in Sierra Leone, 1884, BRITISH MEDICAL JOURNAL, vol. ii, 1885.
Horton, J. A. B.: *The Diseases of Tropical Climates and their Treatment.* Edinburgh, 1874.
Bérenger-Féraud: *La fièvre jaune au Sénégal.* Paris, 1874.

## III.

## YELLOW FEVER IN SOUTHERN NIGERIA.

It would be strange, in view of the reasons which I have put forward for regarding yellow fever as endemic in West Africa, if a colony like Southern Nigeria, where the prevailing town mosquito is the *Stegomyia calopus*, and close around which the existence of yellow fever has been officially chronicled during the past fifteen years, should be exempt from endemic yellow fever. I am of opinion, however, that yellow fever is endemic, and that in all probability, as in other colonies, the disease has long been overlooked and mistaken for other diseases. Unfortunately the medical records which have been kept in the hospitals in the past have been of a very scanty nature, and there are no careful manuscript records of the diseases prevalent amongst the troops and sailors similar to those which have been preserved in Freetown.

There has been, however, a strong opinion, expressed by many of the experienced traders, that the disease which has proved rapidly fatal to the white man on several occasions, and which had at the time been attributed to a malignant form of malaria, was in all probability yellow fever. This view is much strengthened by the outbreak of yellow fever which took place in Bonny in 1899, and by the undoubted cases, in my opinion, of yellow fever which occurred in Lagos in 1893–4, and again in 1905.

I will now briefly record the outbreaks and supposed outbreaks of the disease in some of the chief towns of Southern Nigeria, in order that the student may realize why I consider yellow fever endemic in Southern Nigeria at the present time.

### YELLOW FEVER IN SOUTHERN NIGERIA.

*Warri.*

The medical officer reports that a tradition exists that there was a yellow fever outbreak at the European factories about the years 1860–70.

* Sir William Pym, in commenting upon the origin of yellow fever in West Africa, states the great difficulty of bringing positive proof of its existence amongst the natives, because they have it in so mild a form that it does not kill. He mentions how the Croomen escaped yellow fever in the West African squadron when the white crews were suffering and dying from the disease. He concludes that it is reasonable to suppose that the Croomen had already had the disease in their native country.

The opinion of the acting principal medical officer, Dr. Kennen, and of others was that the epidemic of 1910 had a local origin and was not imported. This opinion of the endemic origin of the epidemic of yellow fever was the view most frequently adopted by those who had been called upon to investigate outbreaks in the past. Investigation failed in 1910, as in past years, to prove importation. I concur, as the result of examination of the facts on the spot, with the endemic origin of this outbreak.

*Calabar.*

An undoubted case occurred in the years 1890–1.

*Bonny.*

In 1873 several deaths were recorded which might have been due to yellow fever.

In 1883 it is stated that an outbreak of yellow fever occurred, due to importation from Freetown.

In 1890–1 a very serious outbreak is recorded of what was unquestionably yellow fever. The medical officer, Dr. Parker, was certain that it was genuine yellow fever. The description of the symptoms is such as to leave no doubt as to the nature of the disease—the disease was thought by some to be malignant malaria, and was attributed to the pulling down of an old factory; others maintained that it was introduced in the straw and litter on a ship coming from South America. The natives were not affected. There were 11 cases and 9 deaths amongst the population of 15 white men.

Dr. A. J. Brown, who was in Bonny at the time, informs me that he attended two of the cases. The symptoms were headache, pain, great prostration, albuminuria, yellowness, persistent black vomiting.

Dr. Parker, who was the medical officer at the time, stated that he was convinced that the disease was yellow fever. He subsequently contracted the disease and died.

Dr. MacDonald, Bonny, has furnished me with notes of a suspicious case which occurred in 1909, six weeks after arrival in Bonny. The diagnosis at the time was "gastritis and jaundice." No malarial parasites were, however, found in the specimens of blood which were repeatedly examined.

From numerous inquiries which I have made, there can be no doubt that yellow fever occurred in Lagos in a virulent form from 1894 to 1895. Thus, I have it on reliable authority that seventeen members of a mission arrived from England in Lagos on December 13th, 1893. Of these, five had died by the end of January, 1894. In addition, a resident missionary, and the young child of another missionary, had also died. The cases presented the classical symptoms of yellow fever. According to Ott, cases were reported at Lagos in 1896.

At Sapoli in 1898–9, there were a considerable number of suspicious deaths, and in 1907 an outbreak of a severe type of fever was recorded at Widah.

Examination of the medical notes in the hospital at Lagos convinces me that genuine well-marked cases of yellow fever occurred in the years 1902–5. There were also many mild cases.

The symptoms recorded are violent headache and body pains, high temperature, slow pulse, suppression of urine, black vomit, and coma, terminating fatally. In 1905 the symptoms recorded could hardly be those of any other disease but yellow fever, yet the diagnosis made at the time included "fever and gastritis" and "fever and morbus cordis"—a diagnosis which Ott also states was made in Togoland. I am, therefore, strongly of opinion that in Lagos one of the causes of mortality in the past has undoubtedly been yellow fever. When it is recollected how little is known of the fevers amongst the 60,000 native inhabitants of Lagos, and when it is understood that by far the most abundant mosquito is the *Stegomyia*, it is not unreasonable to assume that the natives in all probability suffer from a mild type of yellow fever, and that therefore yellow fever is endemic.

Further evidence in favour of this contention is furnished by the admitted frequent presence of yellow fever in Dahomey and Togoland close by (see the paragraphs on these colonies). It must also be recollected that, just as in the case of Sierra Leone, the infected *Stegomyia* were not destroyed by fumigation, but were left to propagate the disease.

*(To be continued.)*

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IN a recent note on Cinematographic Microscopy we mentioned that Messrs. Pathé Frères, of 31 and 33, Charing Cross Road, were always willing to exhibit their films illustrative of micro-organic life to medical men on presentation of their cards. The firm now requests us to state that, owing to the number of medical visitors, it has set aside Friday afternoons for the demonstrations in question.

# PUERPERAL ECLAMPSIA:

## *A COMPARISON WITH VENOM POISONING AND A SUGGESTION FOR TREATMENT FOLLOWING THEREFROM.**

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IN a recent number of the *Journal of Obstetrics and Gynaecology of the British Empire*[1] I have gone fully into the pathological lesions found in eclampsia and their interpretation. On this occasion I wish, in the first place, to summarize some of the evidence given in that paper, and especially that part of it which seeks to show that the single, although complex, type of toxin which I take to be the cause of the disease is capable of producing a very definite polymorphism of lesion in such an organ as the liver; I should then like to add some confirmatory evidence which has come my way since that paper was published; and, finally, to give certain new therapeutic suggestions which are rendered at least plausible by the results I will lay before you.

It is very necessary that I should make it absolutely plain that I am referring to an acutely toxaemic attack occurring in the puerperal state without any evidence of pre-existing chronic nephritis. Of those convulsive and other toxaemic conditions occurring in pregnancy associated with a chronic inflammatory lesion in the kidney I can say nothing. I have had no opportunity of examining such cases, and their exact relation to eclampsia on the one hand and to uraemia on the other must at present be difficult to determine. The problems presented by uraemia itself are so vast and complicated, as may well be judged from a perusal of the experimental work on record,[2] that a combination of eclampsia and renal disease, with inter-relation of the two, is likely to present still greater difficulties for elucidation.

You will understand, then, that I limit myself to that acute and usually convulsive toxaemia which tends more particularly to affect previously healthy young primiparae, which commences most commonly quite suddenly, but which may develop in a more ingravescent form during some days or weeks (pre-eclamptic stage), which in the event of a favourable issue very rapidly and completely clears up, and which is characterized by purely degenerative, as opposed to inflammatory, lesions in the kidney.

The difference of opinion as to the nature of eclampsia is, as your know, extremely marked—the divergence ranging from the view that the disease is indistinguishable from uraemia to the idea that it is a disease as peculiar to pathology as is the ovum to pregnancy. That the condition is not a simple uraemia the most satisfactory histological evidence goes to prove. I think, too, that a correct interpretation of the lesions will show them to be peculiar neither to eclampsia nor the puerperal state, but to occur in whole or in part in certain other natural and experimental conditions.

As seen in the liver, the lesions of eclampsia consist of three definite and distinct changes. First, and without exception, there is a degenerative change widespread throughout the organ and varying in intensity in different cases. This degeneration is usually rather more marked towards the centre of the lobule, and may in that region proceed to a little irregular necrosis. Secondly, and very commonly, although by no means invariably, there is seen towards the surface of the liver a very peculiar condition of focal necrosis in the periphery of the lobule. This necrosis is strictly limited to the outer zone or to part of it, and does *not* gradually merge into the degeneration seen in the middle and inner zones. And, thirdly, there is frequently seen, particularly towards the surface of the organ, a certain amount of blood extravasation, especially in association with the necrosed areas.

The points of greatest importance are, first, the invariable degenerative change, and, secondly, the absolute lack of relation which this bears to the focal necrosis. In other words, the clinical severity bears no relation to the amount of necrosis seen *post mortem*.

An explanation of these peculiarities is found in the complex nature of the toxin at work. It contains both

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* Read at a pathological meeting of the Liverpool Medical Institution on December 1st, 1910.

haemolytic (that is, cytolytic) and haemagglutinative elements, the universal degeneration being produced by the former and the focal necrosis by the latter, massed red cells obstructing the contributory blood vessels in those areas where the circulation is slowest. A minute examination of the blood vessels confirms this view in every detail, and indicates that the fibrinous thrombosis which is so frequently seen in the larger vessels is a merely secondary phenomenon.

Now the two processes of haemolysis and haemagglutination, while closely associated, are to some extent antagonistic, and a slight increase of haemolytic power by rapidly dissolving the red cells will absolutely prevent agglutination, and thereby necrosis. It will be seen, then, how readily the appearances may vary as the result of some slight variation in the proportion of these two to one another.

The haemorrhages are due to a third element—a cytolysin specialized for endothelial cells, and known as endotheliolysin. Its results are well seen in the liver and brain, and the changes in the vessel walls are best studied in this latter situation. There appears to be some slight relation between haemagglutination and endotheliolysis, for the haemorrhages are usually best marked in the region of the necrotic areas; but, at the same time, this relationship must be but slight, as necrotic areas can often be seen without haemorrhage, and, in the brain at least, very marked changes in the vessels leading to escape of blood occur without any evidence of haemagglutination.

Clinically, it is at once apparent that a fourth toxic principle must be present—a neurotoxin. But when one comes to examine the nervous system for evidence of this, one is drawn up rather sharply by the difficulty of distinguishing between primary lesions and those produced by vascular disturbance. I have recently, through the courtesy of Dr. Moore Alexander, had an opportunity of cutting sections of the brain of an eclamptic. Macroscopical examination showed numerous rather large haemorrhages in the substance. Microscopically, very interesting changes were made out. The cells were markedly degenerated, the Nissl granules were broken up and in places had disappeared altogether; the nuclei frequently stained defectively, and occasionally tended to be eccentric in position. Great irregularity of the epithelium lining the vessels was also seen, the cells being either swollen and granular or more commonly absolutely broken down. I would certainly have classed these nerve cell changes as primary, but Dr. William Warrington tells me that the vascular changes are sufficient to account for them. He also allows me to record an eclamptic brain examined by himself where haemorrhages were present, and the nerve cells showed the same appearances.

To sum up, then, there are four constituents of the eclamptic toxin—a haemolytic, a neurotoxic, a haemagglutinative, and an endotheliolytic. Of these only the first two can be demonstrated to be constantly present, although the third may also be there but masked. Death may ensue without marked extravasation of blood—endotheliolysis—although it cannot be doubted that a serious haemorrhage into a vital part of the brain sometimes determines a fatal result where the haemolytic or agglutinative lesions do not appear inconsistent with the continuance of life.

Coming now to experimental and natural conditions produced by toxins in part or wholly similar to the eclamptic poison, I desire to direct your attention briefly to two groups of these—first, lesions produced by the inoculation of certain immune serums; and secondly, the lesions and effect on the circulation developed in snake poisoning.

By the inoculation of serums containing *in vitro* haemolytic and haemagglutinative factors for the red cells of the recipient,[3 4] there have been produced lesions in the liver and kidney which bear so marked a resemblance to those seen in eclampsia that it will be unnecessary to detail them. I will merely state that fibrinous thrombosis may there also be secondarily produced, that in neither liver nor kidney is there any round-celled deposit till a late stage, that the haemolymph elements are increased (there is some evidence that this likewise occurs in eclampsia), and that an endothelial toxin is almost, if not quite, absent.

In venom poisoning all four principles of the eclamptic toxin are found, but in very varying degree. In the cobra the results are mainly haemolytic and neurotoxic: in crotalus, mainly endotheliolytic with relatively little haemolysis and agglutination; in *Daboia russellii*, almost purely haemagglutinative. Death, however, in this last supervenes with extreme rapidity. It will be noted, therefore, that the lesions produced by any one venom are not necessarily any more representative of snake poisoning in general than are the lesions of any one case of eclampsia. This does not at all affect the general comparison; the polymorphism of lesion in eclamptic cases as a whole corresponding to that of poisoning by various snakes.

Nowak,[5] in a study which is more cytological than histological, describes the lesions of experimental venom poisoning as consisting in the liver of fatty, granular, and vacuolar degeneration, with focal areas of necrosis towards the periphery, and a complete lack of relation of these two processes. In the kidney he notes a degenerative change, limited to the convoluted tubules.

Kilvington,[6] in a study of the changes in the nerve cells after poisoning with the venom of *Hoplocephalus curtus*, describes a condition of the cells with chromatolysis and breaking up of the Nissl granules very similar to that detailed above. This communication has an added interest in that he found no vascular changes present, but as he remarks that the lesion closely resembles that following the administration of fatal doses of abrin (which is a haemagglutinative poison), it is not quite easy to follow him on this point.

In addition to this pathological similarity, there are numerous clinical links binding the two together. The extreme rapidity and completeness of the recovery which may occur, the preliminary raising of the blood pressure which has been described in experimental cobra poisoning, and which may last till very near the end,[7] and the tendency to septic infection, are features common to both.

The importance of appreciating this close similarity between the two cannot be overestimated, for it gives an indication of the type of poison to be looked for. Personally, I would have conducted a recent investigation of the placenta on somewhat different lines had I known a year ago what I have submitted to you this evening.

A further importance accrues when one considers the possibility of making some practical and therapeutic use of these data. Flexner and Noguchi[8] and others have demonstrated the very broad specificity of the venomous constituents. Anticrotalus (rattlesnake) serum prevents the haemolytic action of *all* venoms, there being only a quantitative difference, while antivenin (cobra) neutralizes the haemolysis of crotalus but imperfectly that of certain others. The question naturally arises, Is the specific nature of the haemolysin and neurotoxin limited to snakes alone or does it overlap and include to a greater or less extent such a condition as eclampsia? To settle this point it became advisable to test pregnant and non-pregnant serums with various venoms to determine whether any difference could be made out between the two as regards the resistance to haemolysis or the production of precipitins. Unfortunately I found it rather difficult to obtain a supply of venom, and only recently, through the great kindness of Dr. Calmette, have I received some dried cobra venom. Crotalus venom for precipitin tests I have not yet acquired. While awaiting venom, I carried out some experiments with antivenin, but as this proved to be without precipitating action on normal serum or haemolytic action on normal red cells it was of no service.

In the meantime, however, the most ample confirmation of my suppositions has been given by Bürgers.[9] In a paper comparing maternal with fetal opsonins, he recalls an observation of Bauer[10] that there is a cobra-haemolysin-inhibiting element in fetal blood from the umbilical cord. Bürgers accordingly tested non-pregnant, pregnant, and fetal serums for this phenomenon, and obtained "the surprising result that the mother's serum as well as the child's restrained haemolysis." I have, therefore, been forestalled in this investigation, but on the whole I do not regret it, since Bürgers's results, which are exactly what a study of the lesions had led me to believe might prove

to be the case, were obtained without the slightest thought of any etiological significance.

Since obtaining cobra venom, I have had only a short time in which to confirm this work, but so far as I have gone I am in agreement with him. I will not give my results in detail at present, as I hope they will, when completed, form part of a future communication on the diagnosis *in vitro* of pregnancy by complement-fixation and haemolytic tests. Much of this work is already finished. I should, however, like to mention that the serum from a case of eclampsia (aged 27, primipara, 6 months, considerable mental clouding, labour pains absent) has quite failed to demonstrate this inhibition. Nor was this result due to any direct action of the eclamptic serum on the red cells in the absence of venom.

There is, then, very considerable evidence that the pregnant woman is protecting herself against a poison directly comparable to a venom, and on this ground I wish to suggest that there may be some therapeutic use for antivenin in eclampsia or the pre-eclamptic state. Judging from its action in snake poisoning, the likelihood of usefulness is very much greater in the latter. I make no apology for bringing forward this idea without having practically tested it. In a disease so relatively rare as eclampsia, the experience in treatment of any one man can count for little, and such a measure as I have suggested must be tried on a large scale to be proved or disproved. I would remind you that antivenin is as harmless as any other antitoxic serum, and may, and indeed should in eclampsia, be given in large quantity by intravenous injection. There is, of course, no reason for omitting any other therapeutic measure which may be considered advisable.

There is still one further suggestion which I would make as a result of this pathological study. The convulsions of eclampsia are in no way an essential of the toxaemia. Patients occasionally die quietly in coma with lesions identical with those found in cases of convulsive seizure. Arrest of the convulsions, therefore, is not necessarily antidotal, but has the merit of saving the patient's strength. It should be accomplished, then, in a way as little harmful to the patient as possible. It follows that anaesthetics, which are powerful cell poisons, are bad. The other two standbys in this regard are veratrum viride and morphine. While both are undoubtedly useful, neither is quite free from the breath of suspicion, and it appears to me that there may be some field for intrathecal injections of magnesium sulphate. These have proved useful in tetanus, and there is no reason why they should not prove of equal service in the treatment of eclampsia.

REFERENCES.

[1] Leith Murray, *Journ. of Obstet. and Gyn. Brit. Emp.*, 1910, October. [2] Pearce, *Arch. of Intern Med.*, 1908, August. [3] Pearce, *Journ. Med. Res.*, 1904, vol. xii, p. 329; ibid., 1906, vol. xiv, p. 541; *Journ. Exp. Med.*, 1906, vol. viii, p. 64. [4] Dudgeon, Panton, and Ross, *Proc. Roy. Soc. Med.*, 1908, vol. ii, December. [5] Nowak, *Ann. de l'Inst. Past.*, 1898, vol xii, p. 369. [6] Kilvington, *Journ. of Phys.*, 1902, vol. xxviii, p. 426. [7] Elliot, *Lancet*, 1904, vol. i, p. 715. [8] Flexner and Noguchi, *Un. of Penn. Med. Bull.*, 1903, vol. xv, p. 345. [9] Bürgers, *Zeitsch. f. Immunitat.* (orig.), 1910, Bd. 5, H. 5, p. 648-649. [10] Bauer, *Muench. med. Woch.*, 1909, No. 27.

## SCOPOLAMINE-MORPHINE ANAESTHESIA IN LABOUR.*

BY

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AND

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IN the last few years great interest has centred around the administration of scopolamine during labour. At the suggestion of the Master of the Rotunda Hospital (Dr. E. Hastings Tweedy), we decided to study the subject, and propose to give an experience in a series of selected cases—namely, one hundred primiparae. We considered that tests of such a comparatively new anaesthetic would be of more statistical value if primiparae only were selected. The average duration of labour is longer than in multiparae, and the occurrence of unexpected abnormalities, such as *post-partum* haemorrhage and adherent placenta, less common.

It may be asked why we present a record of only 100 cases since we began our study in September, 1908. Our answer is that we only administered scopolamine when the labour ward was quiet and comparatively empty, so that strict attention could be paid to mother and child. We excluded all patients who were quiet and undemonstrative, and all those who came in well advanced in labour.

We began with a dosage of scopolamine hydrobromide $\frac{1}{500}$ grain, and morphine sulphate $\frac{1}{4}$ grain. After trying various amounts we fixed on scopolamine $\frac{1}{120}$ grain and morphine $\frac{1}{6}$ grain as a safe and efficient dose. When repeated the morphine is omitted. Merck's preparation was used throughout. It is supplied in $\frac{1}{60}$ grain tablets. As we always made up a fresh solution for each dose, it was found convenient to use half a tablet each time. This accounts for our dose of $\frac{1}{120}$ grain instead of $\frac{1}{100}$ grain as usually advised. Other makers' preparations are no doubt equally good, but many contradictory symptoms occur from using different preparations of apparently the same drug. Therefore we thought it advisable to confine ourselves to one trustworthy preparation.

When dealing with a new procedure it is natural to follow authoritative teaching, and at the start we based our method of administration on Professor Krönig's paper, read before the British Medical Association meeting in 1908. In some of our early cases we unwittingly departed from accepted doctrines, and it was from these cases that we think we obtained some of our most valuable information.

In recording our cases we have paid attention to the following conditions:

1. The power of the drug to relieve pain.
2. Its influence on the force of the pains.
3. Its effect on the child, and particularly if this were manifested to a greater degree when delivery quickly followed the administration of the scopolamine.
4. The necessity for watching the patient.
5. The occurrence of abnormalities, such as delayed labour, forceps delivery, lacerated perineum, retained placenta, and *post-partum* haemorrhage.

### I.—THE POWER OF SCOPOLAMINE TO RELIEVE PAIN.

In previous papers it has been suggested that complete amnesia with unconsciousness of pain is desirable. As a rule, this is only obtained and maintained by repeating the dose every two hours for two or three doses. We are satisfied with a slighter effect, and we consider the purpose of the drug fulfilled if the patient sleeps between the pains, waking up with more or less demonstration during the height of the contraction, and again falling to sleep when the pain is over. One dose sometimes suffices to cause somnolence, and often deep sleep during as well as between pains. We endeavoured to select patients that were particularly noisy and demonstrative, in order to be able to say definitely how much effect the drug had on the sensibility of pain.

The results were as follows: Ten women exhibited complete analgesia, having no knowledge of pain even when the child was born.

In 57 cases there was a marked effect; sleep between and often during the pains, with great decrease in suffering.

In 20 cases the effect was fairly good as regards relieving the pain to a certain extent, but the patients did not sleep at all.

In 13 cases there was no effect whatever. In 4 of these the drug was lost because of rapid vomiting. Eight received too small a dose; in none of them was it repeated. One patient, after two doses by mouth and one hypodermic injection of $\frac{1}{120}$ grain, $\frac{1}{180}$ grain, and $\frac{1}{180}$ grain respectively, showed no result.

#### *Method of Administration.*

Of the 10 patients exhibiting complete amnesia, 3 received one dose by mouth, 6 received one dose hypodermically, and 1 received two doses hypodermically. After mouth administration the shortest interval to elapse before delivery was an hour and a half, the longest six hours, and the average three and a third hours. The shortest interval after hypodermic injection was an hour

* Read before the Obstetrical Section of the Royal Academy of Medicine in Ireland, October 28th, 1910.

and a half, the longest fifteen hours, and the average six hours.

Of the total number of cases, 37 received the drug by mouth alone; 5 of these vomited. This cannot be said to result from the scopolamine, as other sedatives—for example, chloral, bromide, or laudanum — are often vomited when given by mouth during labour. Therefore hypodermic injection is only preferable when the patient shows a tendency to vomit, otherwise mouth administration is the pleasanter method. The results we obtained by the latter method were in every way as satisfactory as by the former.

### II.—The Influence of the Drug on the Uterine Contractions.

The rules which we intended to follow in administration were that the membranes should be unruptured, the fetal heart normal, the os not more than three-quarters dilated, and the pains of normal frequency, strength, and duration—that is, pains every five to seven minutes, lasting forty-five seconds or more, the uterus contracting firmly with each pain. These data are observed by palpating the uterus for three or four successive pains. If only these cases are considered suitable for scopolamine, there must be omitted many cases of primary uterine inertia which are a source of annoyance and worry to the doctor and anxiety to the patient's relatives. To ensure good statistical results these patients should be omitted, but the atmosphere of quiet and comfort that is induced by the use of scopolamine makes them eminently suitable cases for its use. This we discovered in one or two of our early cases which at the time of administration we thought to be in strong labour, because of their noisy demonstrations. Scopolamine unmasks the true condition, and the relief of suffering with almost total disappearance of pains is disconcerting if the precaution of palpating the uterus before administering the drug is neglected. But contractions of ten to fifteen seconds' duration, with an outcry lasting one to two minutes, and slow dilatation of the os, enable one to recognize inertia. If scopolamine is used in these cases the delay should not be attributed to the drug. Opium and chloral have a somewhat similar effect.

For the sake of comparison, we collected a series of 100 consecutive primiparae from the first of the year, excluding those with eclampsia, macerated children, abnormal presentations, and *ante-partum* haemorrhage. In these cases the average duration of labour was 17 hours. The longest labour was 107 hours, and the shortest 2 hours. In the cases that received scopolamine, the average length of labour was 31 hours. The longest labour lasted 71 hours, and the shortest $5\frac{3}{4}$ hours, giving an average of 14 hours' longer labour in the scopolamine patients.

This prolongation of labour can be explained by the inclusion of the cases of inertia mentioned, and the fact that we endeavoured to choose those patients least capable of bearing pain—in other words, those bound in any event to have a more or less prolonged labour. In addition, the 100 consecutive cases include a large number of patients who were admitted too far on in labour, or too quiet to need scopolamine. They also include a number of cases of rapid labour common enough in primiparae, but excluded as unsuitable for scopolamine. If we had selected 100 cases which would have been suited for scopolamine, but did not receive it on account of the crowded condition of the labour ward, the discrepancy would probably not be so marked.

### III.—The Effect on the Fetus.

Much has been written about the dangers to the fetus, but from our cases we conclude that this has been much exaggerated. One child was born in a condition of apnoea. Its birth occurred four and a half hours after a hypodermic injection of $\frac{1}{300}$ grain scopolamine and $\frac{1}{4}$ grain morphine. This effect is much more likely to have been due to morphine than scopolamine. It revived after hot baths and Schultze's artificial respiration. Two children were born dead, both delivered by forceps after delay in the second stage. Whenever a child dies as a result of delay in the second stage, it is undoubtedly due to an error in technique and should not be laid at the door of scopolamine. The drug was administered fifteen and twenty-six hours respectively before delivery, one hypodermic injection to each patient. These were obviously cases of inertia, and this, and not the scopolamine, was the cause of death. In the other series there were also two deaths of children during labour, one delivered by forceps and one naturally.

### IV.—Necessity for Watching the Patient.

The statement has been made that the doctor must continuously watch a patient who is under the influence of scopolamine. If this be true, it immediately condemns the treatment in the eyes of most practitioners. But such care is unnecessary. The nurse should be instructed to keep a watch on the perineum for signs of pressure, as occasionally delivery occurs unexpectedly. If the patient is asleep she should be kept on her side to prevent the possibility of the tongue falling back, an occurrence common to all forms of anaesthesia. Abnormal mental effects were observed only in two cases, one patient becoming excited and talking incoherently for a short time. The other patient had an almost painless delivery, and about an hour later, after having been quiet and rational since delivery, got out of bed because she wished to use the bedpan. She offered no resistance, and returned to bed immediately when told to do so by the nurse who was in the room. She said she knew what she was doing but had an irresistible impulse to leave her bed. She was quiet afterwards. There was no case of actual delirium.

A darkened room is supposed to be necessary for good results, but we never purposely kept the room dark, and we consider to do so would be a disadvantage, as it might possibly interfere with the nurse's watch for the complications indicated—that is, unexpected delivery and falling back of the tongue.

### V.—The Occurrence of such Abnormalties as Laceration of the Perineum, Forceps Delivery, Retained Placenta, and Post-partum Haemorrhage.

It might have been expected that laceration of the perineum would be more frequent in patients delivered while under the influence of scopolamine because the absence of pain enables the patient to bear down more vigorously. There were 59 lacerated perineums, which is 14 per cent. more than our usual yearly average, 45 per cent.; but in the 100 primiparae we took for comparison there were 65 lacerations.

Forceps was applied nineteen times for delay in the second stage, as compared with nine times in the other series. This is again in most part due to the selection of the cases, and the inclusion of cases of inertia. Occasionally we have noticed delay in the second stage resulting from the patient not bearing down with uterine contractions; the absence of pain instead of making the abdominal muscles act more vigorously, that is, the usual action, caused cessation of voluntary effort, and keeping the patient awake, encouraging her to bear down and pressing on the fundus were sufficient to effect delivery.

*Post-partum* haemorrhage occurred twice in the scopolamine series, once after chloroform and forceps, once when the membranes were retained. The other series showed one *post-partum* haemorrhage and one manual removal of an adherent cotyledon remaining, after easy expression of the placenta at thirty minutes. The *post-partum* haemorrhage occurred after the administration of chloroform for the application of forceps.

The average length of the third stage was thirty-five minutes in the scopolamine cases and thirty-three minutes in the others, the longest and shortest third stage in the former series being ninety minutes and ten minutes respectively, and in the latter series 120 minutes and ten minutes. Expression caused delivery of the placenta in every case.

### Conclusions.

Our conclusions, as far as may be judged by 100 cases, are:

1. Scopolamine need not be given in larger doses than $\frac{1}{120}$ grain.
2. In the majority of cases it may be given advantageously by the mouth.
3. It is undesirable to keep patients in a darkened room whilst under its influence.
4. The patient should be carefully watched. This can be done equally well by the nurse as by the doctor.
5. No ill effects to mother or child need be expected to follow the rational administration of scopolamine.

6. Whilst its chief indication will be found during the first stage of labour, the fear of rapid delivery following its use is not a contraindication.

In conclusion, we wish to thank the Master, Dr. Hastings Tweedy, for permission to publish our results and also for much advice and help in our investigations and case reports.

## CAESAREAN SECTION FOR DYSTOCIA DUE TO VENTRIFIXATION OF THE UTERUS.

By AMAND ROUTH, M.D., F.R.C.P.,
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THE very interesting and successful case of Caesarean section for dystocia due to ventrifixation, which was narrated by Dr. Manson Fergusson at page 1970 of the BRITISH MEDICAL JOURNAL for December 24th, 1910, is followed by the statement that he does not know of Caesarean section having been recommended for the condition.

I have recently collected 1,282 cases of Caesarean section by living obstetricians and gynaecologists of the United Kingdom (published in the January number of the *Journal of Obstetrics and Gynaecology of the British Empire*), and amongst these there are seven of these very rare cases. Dr. Fergusson and others will be interested in the details of these seven cases and of an eighth case which occurred in my own practice about a month ago.

CASE I.

*Dr. Herbert Spencer's Case* (January 13th, 1903).—"Ventrifixation resulting from myomectomy, the pedicle being treated as extra-peritoneal stump." Caesarean section performed before onset of labour. The patient recovered, the child unfortunately dying of haemorrhage from a loose ligature on the funis. Mother not sterilized.

CASE II.

*Dr. Targett's Case* (February 4th, 1907).—Ventrifixation in 1902 for retroversion and prolapsus uteri. Patient not in labour when admitted, but fourteen days over full term. At the Caesarean section the fundus was found firmly adherent to the abdominal scar. Child was lying in enormous distension of the posterior wall of the uterus. Mother and child survived. Mother not sterilized.

CASE III.

*Dr. Jardine's Case* (October 6th, 1908).—Ventrifixation after last pregnancy. Caesarean section during labour, with threatened rupture of uterus. Fundus found densely adherent above the symphysis. Mother and child recovered. Mother sterilized.

CASE IV.

*Dr. Murdoch Cameron's First Case* (December 7th, 1908).—Ventrifixation after fourth confinement. Admitted in labour. Membranes ruptured. Tonic contraction of the uterus. Transverse presentation. Mother and child survived. Mother sterilized.

CASE V.

*Dr. Murdoch Cameron's Second Case* (November 5th, 1909).—Three previous children delivered by craniotomy. Cervix could only be reached by passing whole hand into vagina. Mother and child survived. Mother sterilized.

CASE VI.

*Dr. Munro Kerr's Case* (March 20th, 1910).—Operated upon during labour. Mother and child survived. Mother sterilized.

CASE VII.

*Dr. Ranken Lyle's Case* (May 21st, 1910).—Ventrisuspension two years previous. Chronic intestinal obstruction twelve months.

*Obstetric History.*—Twelve previous pregnancies. Seven abortions before ventrifixation. Eighth and tenth, normal deliveries; ninth and eleventh, "instruments," followed by puerperal fever; twelfth, "instruments" used. In labour but membranes intact. Hand had to be introduced into vagina to reach cervix. Uterus much anteverted, and at the Caesarean section was found to be densely adherent, and the cervix was found to be 4 in. above the sacral prominence. Hydramnios present. Uterus freed and adhesions ligatured off. Abdomen reopened sixth day after operation for intestinal obstruction, but mother died next day. Child also died (hydrocephalus).

CASE VIII.

*Dr. Amand Routh's Case* (November 25th, 1910).—The patient had a still-born child (forceps) in 1898, and a living child in 1899. Ventrifixation was performed in 1900, and for three and a half years a sinus remained open in the abdominal scar. Since then she has had three dead children, and has been attended by Dr. Ernest Higgs, of Oxford, in each confinement. In each case he had the greatest difficulty in delivering the child by forceps, the uterus being firmly adherent to the abdominal wall, and at a high level, and he was only able to reach the cervix by inserting the whole hand in the vagina. The children were very large, 12 to 13 lb. He strongly urged Caesarean section on this occasion, and as the parents keenly desired a living child, I performed Caesarean section at Charing Cross Hospital at the thirty-ninth week. Labour, though not waited for, had evidently commenced. Both mother and child (9 lb. 12 oz.) survived, and are now well. There were extensive adhesions for about 3 in. above the pubes, so I incised the uterus at a higher level than usual, and did not interfere with the adhesions. Mother not sterilized.

These cases show that where ventrifixation causes dystocia, living children can be delivered with small risk to the mother by Caesarean section, and Dr. Fergusson's case shows that Caesarean section may be safely done after other attempts at delivery have been made, provided that (as in his case) antiseptic precautions had been carefully adopted. The only fatal case (No. 7) died of a bowel complication present before the operation.

## ABSENCE OF THE FALLOPIAN TUBES AND OF MENSTRUATION, ASSOCIATED WITH RECURRENT PERITONITIS.

(A SECOND CASE.)

By W. G. SPENCER, M.S.,
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AT page 926 of the issue of the BRITISH MEDICAL JOURNAL for October 1st, 1910, was published by me an illustrated account of a case in which the Fallopian tubes and menstruation were both absent, but monthly attacks of peritonitis took place. The condition was relieved by an operation, which joined the ovarian pouches with the uterine cavity.

On reading this case, Dr. E. A. Chill of Ealing communicated with me through Mr. Alban Doran, and allowed me to operate on a second case, which has proved altogether similar to that already mentioned. I am, therefore, particularly indebted to Dr. Chill for the opportunity he has afforded me.

*Previous History.*—The patient, aged 31, married three years, never pregnant, had never had any menstrual flow. No blood nor blood-stained fluid had ever been passed; the only escape from the vagina had been whitish-yellow material, and that never enough to require a diaper. At the age of 14 attacks of pelvic pain began and recurred monthly, lasting three to seven days, during which there might be a very little whitish.yellow discharge, but not always. These attacks have not lasted longer than a week, but have become more and more severe, recurring regularly at intervals of four weeks. The attacks affected the lower half of the abdomen, beginning on one side and spreading to the other, but the pain has always been worst on the left side. She had been under treatment privately and at two hospitals without benefit.

*Subjective Symptoms.*—On June 7th a very severe attack of pain began on the right side, then spread across the pelvis to the left side and down the front of the left thigh. Pain of less severity was also felt about the umbilicus and round to the back. This was accompanied by headache, vomiting, and sweating. Opiates diminished the pain. On October 5th the attack of pain came on so severely that she said she thought she would go out of her mind. Owing to the vomiting neither food nor drugs could be retained, but morphine suppositories lessened the pain.

*Admission to Hospital.*—She was admitted to Westminster Hospital on October 12th, and continued to have some pain until the 13th. When I examined her on this day there was tenderness to palpation in both the iliac regions, with some rigidity over the lower abdomen. On vaginal examination a tender swelling could be felt on each side behind and external to the uterus. On the 15th all tenderness and rigidity had disappeared, and Mr. Doran did not feel any tender swelling on vaginal examination.

The woman was weak and thin, with a haggard look, beyond this everything appeared normal—the breasts, pubic hair, external genitals, vagina, and uterus.

*Operation.*—On October 18th I operated, Mr. Doran and Dr. Chill being present. A median hypogastric incision was made, and the omentum found adherent over the pelvis, especially to the abdominal wall. This was freed and turned back. Then the small intestines were pushed upwards without any adhesions being noted, and the uterus was drawn up by means of a volsella. The uterus appeared quite normal; the right tube had a normal junction with the uterus, but at 2 cm. from the uterus it ended conically in the upper edge of the broad ligament. The left tube was also normal at its junction with the uterus, but ended conically 1 cm. from it. Both ovaries were

fixed in Douglas's pouch by dense adhesions at the back of the broad ligaments, external to the uterus. As the finger was passed into Douglas's pouch it entered on each side a sac lying under the ovary, into which the peritoneal surface of the ovary projected. On separating the adhesions and drawing up the ovaries they appeared normal and rather large. There was no sign of a corpus luteum nor of remains of blood clot. The broad ligaments were otherwise normal, the round ligaments being well marked.

I then proceeded as in the former case, of which the diagrams should be examined. Mr. Doran passed a uterine sound upon the point of which I cut down and laid open the uterine cavity. Then a drainage tube was passed downwards to reach from the upper end of the uterine cavity to the vaginal orifice. Next the ovaries and sacs were fixed over the uterine cavity, and all were covered in by an omental graft.

*Progress.*—Unfortunately the patient had been rendered very weak by the recurring attacks of peritonitis. As I began to separate the adhesions she became faint, and the anaesthetist, Dr. Bourns, had to start saline infusions, which were continued for several days. Her condition made me hurry, and I suppose I left some bleeding vessel unsecured, for broken-down blood clot escaped by the vagina and a little by the abdominal wound for some days.

RESULT.

Apart from this incident the patient made a good recovery. A month after the last attack of pain, when another could otherwise have been anticipated, the patient felt no disturbance whatever. This relief cheered her up, and she notably improved in colour, and put on weight. She went home, and is now quite well.

Since the operation the date for an attack has three times elapsed without the patient being in any way troubled. She thus resembles the first case, who has been again seen more than a year and a half after the operation, and has no feelings whatever relating to menstruation.

## CASE OF PROLAPSE OF THE INVERTED UTERUS DURING LABOUR.

BY

ALFRED S. HENDRIE, M.B., CH.B.EDIN.,

LOWESTOFT.

INVERSION and prolapse of the uterus during labour being a rare occurrence, the following notes of a case may be of interest. The patient was a married woman, aged 24, to whose second confinement I was called on November 6th, 1910, at 1.30 a.m.

*Previous History.*

The first labour had occurred two years and nine months previously, and was natural except that the placenta was adherent. She had never at any time had any gynaecological symptoms, and had always been strong and healthy. The second child was born about half an hour before I arrived. Labour began at 5 a.m. on November 5th. The pains increased in severity at 5 p.m., but there was a long interval between them.

*State on Examination.*

On entering the room I found the midwife attempting to deliver what she called a "false conception." A mass, with the placenta adherent, was protruding from the vulva, and, on closer examination, the case was found to be one of inverted uterus with complete prolapse, the whole organ appearing outside the vulva. The placenta was rapidly stripped off, there being absolutely no haemorrhage.

*Treatment.*

The uterus was returned to the vagina, no attempt being made to correct the deformity at the moment owing to the extremely critical condition of the patient. The entire absence of haemorrhage was considered a further justification for temporizing. Active stimulation was resorted to, strychnine and digitalin being administered hypodermically and friction to the extremities, pending the arrival of assistance.

Dr. Tyson soon arrived, and restored the uterus to its normal condition without much difficulty. The administration of an anaesthetic was considered inadvisable owing to the collapsed condition of the patient. A hot intrauterine douche of 1 per cent. lysol was given, and two pints of normal saline solution were introduced into the rectum; $\frac{1}{100}$ grain ergotin citrate was given hypodermically.

*Progress.*

During the night the patient felt stiff and cold, and did not sleep. The temperature varied between 100° and 102° for about a week. It fell to normal on November 13th. There was a slight rise for about three days, but on November 16th the temperature was again normal, and has remained so ever since. Quinine, strychnine and iron were given from the outset, and on November 9th 10 c.cm. antistreptococcic polyvalent serum were injected under the skin of the abdomen. As the pulse-rate was inclined to be rapid, strophanthus was now added to the mixture with very beneficial results. The bowels acted naturally on the second day and were afterwards regulated by sulphate of magnesia.

*Result.*

The patient was kept in bed for a month, on a couch for a further week, and was then allowed to go downstairs. She now feels perfectly well. Menstruation occurred on December 17th, this corresponding to the time expected.

REMARKS.

There is some difference of opinion as to how to deal with the placenta if it be still attached to the uterus.

Galabin[1] says:

If the placenta is still attached, it should be peeled off first, because the size of the mass to be returned is by that means considerably reduced.

According to Whitridge Williams[2]:

If the placenta is still attached to the uterus, it is generelly advisable to defer its separation until reposition has been effected, because, the contractile function of the inverted uterus being in abeyance, there is always the risk of profuse haemorrhage.

Herman[3] states that:

If the placenta is still attached to the uterus it matters little whether you detach it or not. If you can peel it off quickly, do so; if not, reduce the inversion with the placenta attached.

In this particular case, the prompt removal of the placenta greatly facilitated further manipulations.

Referring to the frequency of the condition Williams[4] says:

According to Beckmann, not a single case occurred in 250,000 labours in the St. Petersburg Lying-in Hospital, while Madden noted it once in 190,833 deliveries in Dublin.

I am greatly indebted to Dr. Wilson Tyson for his very valuable help and suggestions, and for permission to publish the case.

REFERENCES.

[1] Galabin, *Manual of Midwifery*, 1897, p. 741. [2] Williams, *Obstetrics*, 1908, p. 825. [3] Herman, *Difficult Labour*, 1895, p. 342. [4] Williams, *Obstetrics*, 1908, p. 823.

## THE TREATMENT OF RECTAL CANCER.*

BY

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THE subject under consideration is one to the study of which I have devoted a large part of my professional life, so it will be difficult for me to condense my remarks within the proper time limit. It is now over thirty years since I was awarded the Jacksonian Prize for the subject, and between that time and the present I have had under observation over 1,000 cases.

At first sight the pathology of rectal cancer may appear to be of secondary importance, seeing the precise subject of discussion is treatment, but a right knowledge of the pathology of the disease is really the secret of its successful treatment.

With the exception of two or three cases of melanotic cancer and two or three cases of sarcoma out of the large number of cases of rectal cancer I have seen, the whole of the remainder have been adenoid cancer; by this I mean a proliferation or overgrowth of epithelium of Lieberkuhn's follicles and the reproduction of those follicles on a large scale. There are two ways in which these growths appear from Lieberkuhn's follicles: one, when they commence on the summit of some of the folds of the rectum, and the other where they appear to commence at the base. It is the same disease but in a different situation.

Nevertheless there is a vast clinical difference. When the growth appears on the surface of the fold it has a free space to grow in, and grows like a tree in the free space of the rectal passage. What becomes of it? It grows with a pedicle or trunk; it becomes a polypus; it never grows to excess in size; it is not malignant, in that it does not affect the glands or general organs, and if removed properly at the base it seldom recurs.

Adenoid cancer is the same growth turned upside down. If instead of growing free towards the surface it grows

* A contribution to the discussion on this subject at the Royal Society of Medicine of January 10th, see p. 200.

into the muscular tissue, it no longer has the same beautiful tree-like arrangement, which makes such beautiful slides, as when it grows free, but it is the same growth. When it grows downwards it becomes irregular, for it has to insinuate itself between the muscular fibres and the fibrous tissue of the rectal walls. In this situation it is invariably malignant.

If I were shown a microscopical specimen of rectal growth and saw no muscular fibres in any part of the specimen, I should say I believed it was innocent, though I could not say this to a certainty. If, on the other hand, the growth were between muscular fibres, I should know it was malignant disease. I will not enter into theories on this point, but merely state that the two forms of growths are interchangeable. I have seen two or three cases in which there were multiple polypi of the rectum which had been going on for years. I know, also, of two cases in which polypi were removed at various times during fifteen years, and then a time came when growth started in the other direction, and the patient died of disseminated malignant disease.

With regard to treatment, I consider that the particular route by which rectal cancer is removed is a matter of quite secondary importance. The really important point in rectal cancer is whether it can be removed with advantage to the patient. Surgeons differ very much as to what they consider the class of case suitable for removal. Those which I myself consider suitable are cases in which the growth is still confined to the rectum, and does not extend beyond it. In very many cases one can ascertain whether it is confined to the rectum by noting its degree of fixity. If I feel disease in the bowel, and am able, with the finger, to push it up or down or rock it from side to side, I am sure it can be removed with advantage to the patient. But if the examining finger passes into a narrow part of the rectum and the disease extends round it, and I am unable to move the diseased part without at the same time moving the patient bodily, I generally find it useless to attempt removal.

I am speaking, it is to be remembered, from much experience of these cases, and it took me some time to learn what growths are removable and what are not. Some of my early cases on which I operated should not have had operation attempted, for the disease had gone through the rectal wall. Where that is the case and the neighbouring tissues are involved I have not had a case of successful removal, and I believe that the recurrent growth was more virulent and rapidly fatal than the original.

It is very important in the first examination to make out whether the cancer is movable or firmly fixed, and therefore whether it is removable or not. At the examination in the consulting-room one can conclude that a case is not obviously suitable for removal, or that it moves easily, and is suitable for removal. But there are some cases on the border line in which it is difficult to know whether the cancer is movable or not. As the point is a very important one, examination should be made in these cases under an anaesthetic. I have had many cases which, if I had been pressed for an opinion at the first examination, I should have said ought not to be removed, but which seemed more favourable when examined under an anaesthetic. No case should be condemned as irremovable until such further examination has been made.

With regard to recurrence of the disease: it has been stated by Mr. Sampson Handley, as suggested to him by his pathological specimens, that rectal cancer extends by the lymphatics far beyond the actual growth. I do not think it does; the lymphatics only become implicated very late in rectal cancer. Such widespread infection at an early stage is contrary to my clinical experience. I cannot say I have ever seen cases which have recurred in the sense that large areas of bowel—10, 12, or 14 in.—have been involved. When rectal cancer does recur after removal, where does it recur? Sometimes it recurs at the cut edge of the mucous membrane—that is, in cases where there has not been a sufficiently free margin of ½ to 1 in.; but where it generally recurs is not at the cut margin of the bowel, but in the tissue surrounding the part from which the growth has been removed.

Cancer can be advantageously removed when the disease is still confined to the rectum, but not when it has passed this and penetrated into surrounding tissues.

With regard to methods of operating, a considerable number of cases can be reached from the anus by division of the sphincter. It will be generally agreed that a growth within 3 in. from the outlet can be removed in that manner. There are many cases situated in the common position for rectal cancer at about 4 to 5 in. which can be removed by the trans-sacral operation by sawing across the sacrum 3 or 4 in. up. This gives an astonishingly good view of the part. On the whole, it is one of the most successful operations for the disease.

There are a certain number of cases which obviously cannot be felt per rectum; they are in the pelvis, and can only be attacked by the abdominal route. It is absurd, therefore, to lay down a rule and say one or other operation should be done in every case; it discounts the surgeon's common sense. Who would dream of removing a cancer in the upper part of the pelvis by the sacral route, or who would remove a cancer at the bottom of the pelvis, below the peritoneum, by beginning in the abdomen?

In regard to the abdominal operation—which is suitable when the disease is high up in the rectum, especially if it merges on the sigmoid—there is a question of detail as to performing an anastomosis. Nothing is so successful in the sigmoid or the large bowel as the removal of a growth and at once performing an end-to-end anastomosis. The operator will see what he is doing; there is plenty of room, and suturing can be accurately done.

But when the growth is low down and there is difficulty in getting below it, and it is necessary to cut below the growth, and one has to cut across the growth above, there may be an interval of 4 in. between the two ends. Surgically I believe it is impracticable to make a safe join in these cases, for even if the ends can be brought together they have to be left in a condition of considerable tension, and there is nothing worse than to leave a junction of bowel with tension on the stitches. The junction is sure to separate, and death to ensue. It is better to cut off as low as possible, close by invaginating the lower opening of the rectum, which will otherwise be open, into the abdomen, and then finish the operation by fixing the upper end into the angle of the wound. This is far safer than attempting, in a doubtful case, to join the ends together by end-to-end anastomosis.

In doing the trans-sacral operation it is good, if possible, to join the ends together. But in many cases that is not practicable at the time. I have had two very successful instances of doing the joining by a secondary operation. One of them was a lady brought to me by Dr. Rushworth; in this I excised a piece of bowel by the trans-sacral operation and removed 4 in., including the growth. I expected to see the sacral nerves, but fortunately did not. I could not join the ends together. I left the patient, and it was agreed that I should see her again in a year's time, and, if there was no recurrence, see what could be done in the way of joining. I waited for more than three years, and there was no recurrence. Still, there gradually occurred a considerable prolapse of the upper end, and at the end of the three years I dissected out the prolapsed upper end and the remains of the lower end, made a very thorough anastomosis, and closed the soft parts over it. I did the original operation eleven years ago and the second one eight years ago, and I know that quite recently the lady was in perfect health, and she had absolutely perfect control over the anus. How could such a result have come about if I had taken the precaution of removing 13 in. of bowel, as recommended by Mr. Handley?

With regard to statistics, after examining my notes, I find that not more than 1 in every 4 cases of rectal cancer which I have seen was, in my opinion, the least suitable for operation, and I believe to operate on all cases must bring discredit on the operation. With regard to recurrence, I am sorry to say my statistics are not quite so good as those given by Mr. Edwards. Out of 85 private cases which I have published of excision the mortality was 5 per cent., corresponding nearly with Mr. Edwards's experience and where I have been able to follow them up, 35 were cured—that is, there was no recurrence after three years. The shortest case was three years and a few months, and the longest case twenty-three years. With regard to recurrence, it is fair to regard as a cure any case in which there is freedom from recurrence after three years, for if cancer of the rectum recurs it almost

always does so in the first year; many of them recur in six months.

I agree that in selected cases the operation is very valuable, and if there is doubt in a case as to removal, the benefit of the doubt should be on the side of operation. I may mention a case in illustration of this point. One of my old pupils at St. Bartholomew's Hospital was in the Indian Medical Service. He had an obstruction, and was operated upon by Major Bird, of Calcutta, for complete obstruction; colotomy was done. By passing his finger he could feel what he believed to be malignant disease. But owing to the hot weather the patient was advised to come to England for further treatment, and so consulted me. By passing my finger down the colotomy opening, I could feel a growth of considerable size down the pelvis, the examination being made under an anaesthetic. It felt so fixed that when the patient came out of the anaesthetic I explained to him that I could hardly advise its removal. The patient replied that I probably had in my mind that death might occur at the operation, but that he did not mind dying under the operation, but dreaded dying from cancer. He added that he would take the full responsibility for his life if I would attempt the removal.

I did the operation in St. Bartholomew's Hospital, and it was the worst I ever did. It occupied two and a half hours. The growth was not anatomically fixed, but was firmly set in adhesions deep in the pelvis. I removed a mass as large as my fist, with six or seven inches of bowel, and I never knew a patient who so nearly died. For forty-eight hours there was no sign of any pulsation at the wrist. His friends came, and I told them the patient was going in an hour or two. But the patient whispered he was not going to die, and he did not. Only a short time ago I had a letter from him from India, which was dated as his eighth birthday, for he dated his life from the operation. He sent me an 11-ft. tiger skin and his comment was:

> I send you this tiger skin to show that I am in perfect health and I have not lost my nerve, for I shot this animal in one of the wildest parts of India, and I shot it on foot.

This case makes it clear that in such a disease it is well to err on the side of doing too much rather than too little. Believing, as I firmly believe, that a number of these cases are curable if operated upon early, it is a pity that practitioners do not spend more time in the study of the symptoms of rectal cancer, for they are obvious. Nevertheless, time after time cases come to me which have been treated for long periods as chronic dysentery, intestinal catarrh, piles, etc., without any examination having been made, whereas if that simple precaution had been taken, the nature of the disease would have been early apparent, and they might have been treated by operation with permanent success instead of having drifted into a hopeless condition.

I think we are greatly indebted to Mr. Edwards for the admirable way he has stated his facts and brought the whole subject so concisely before us.

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# A NOTE ON THE TREATMENT OF RHEUMATOID ARTHRITIS BY VACCINES.

BY

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FOR some time past the systematic examination of the blood in cases of acute rheumatoid arthritis has been carried out in the laboratory of the Royal Mineral Water Hospital, and in certain cases micro-organisms have been isolated and vaccines prepared.

The following is the history of two such cases, and the results have been so exceedingly satisfactory that we are encouraged to hope that in vaccines a cure may be found for many acute cases of rheumatoid arthritis.

### CASE I.

J. M., female, aged 44, nurse. Was quite well till March, 1909. The first symptom was a throbbing pain in the proximal interphalangeal joint of the index finger of the left hand. This pain continued off and on (no other joint being affected) till June, 1909, when the left foot became very painful, inflamed, and swollen. She was, however, still able to walk and remained on duty as a hospital nurse till November, when the right foot also became swollen and inflamed. She was now unable to walk. The joint seemed to be more swollen at night than during the daytime, and there was slight oedema. She remained confined to bed till February, 1910, when she went to the south coast. While there she improved so much that she was able at one period to stand on her feet. Soon, however, she became worse, till the finger-joints, knees, ankles, hips, shoulders, and cervical joints were involved in quick succession. Ultimately she became completely bedridden, being unable to move her head, knees, or feet, and she could not feed herself. In May she came to Bath, where she was under treatment nine weeks, vapour and other baths being given. She was no better at the end of that time. On July 14th she was admitted to the Royal Mineral Water Hospital. On examination she presented all the features of acute rheumatoid arthritis. All the joints were affected. Evening temperature did not rise above 99.2° F. There was no albuminuria and there was no apparent infective focus. The teeth had all been removed some years previously. She had had an attack of influenza six years previous to the onset of the joint symptoms. There was no family history of joint troubles.

On August 6th she had her first injection of fibrolysin. This was repeated every fourth day till nine injections had been given. She was also having the thermal baths, but up to September 12th there was no improvement whatever, and she lay in bed with her knees drawn up, unable to move and unable to feed herself. On that date her blood was found to contain a micro-organism, and a vaccine was prepared and injected. The dose used was 5,000,000 throughout. The injections were given subcutaneously every third day. There was never any rise in temperature or other constitutional disturbance, but after the first and second injections she experienced a considerable amount of pain in the joints. From that time a rapid and continuous improvement took place in her general condition. The pains in the joints became much less; movement of the joints was speedily obtained, till, at the end of seventeen injections, she was able to move her head freely, feed herself, knit, and walk up and down stairs without assistance.

### CASE II.

H. M. B, female, aged 41, married, was admitted to the Royal Mineral Water Hospital on August 13th, 1910. The onset of the condition, which occurred four months after a confinement, began ten years previously with generalized joint pains. On admission the case was seen to be a typical one of rheumatoid arthritis. There was no evening rise of temperature above 99° F. There was no albumen. The proximal interphalangeal joints of the fingers were fusiform, and the synovial membrane was thickened and pouched. The wrists, elbows, shoulders, knees, and temporo-maxillary joints, which had all been acutely affected, were in a subacute or chronic stage. There was a marked degree of atrophy of the interosseous muscles of the hands, also of the muscles of the forearms, thighs, and legs.

In addition to the thermal waters which the patient was having on September 5th, she was given guaiacol carbonate gr. v. t.i.d. On September 15th there had been no improvement in the condition of the patient and on this day a culture was obtained from the patient's own blood, and a vaccine prepared. Injections of 5,000,000 were given on alternate days. There was no rise in temperature after any of the eleven injections given. Immediately following on the administration of the second dose the patient lost practically all her joint pain. After three or four doses she was able to move her joints more freely than she had been since the onset of the condition. She improved steadily and continuously till she left hospital.

In both cases the micro-organisms were obtained from blood taken from the veins of the antecubital fossa of the arm, after every precaution had been taken to ensure the impossibility of skin contamination. The media on which the cultures were obtained was blood agar, and during the period of growth the incubator registered 35° C.

In Case I a growth was observed on the third evening, the appearance of the colonies being that of semi-transparent points. The appearance microscopically was that of a diplococcus aggregated in clusters. The stain was retained after employing Gram's method.

In Case II a growth was observed on the second evening in the form of single colonies less transparent than in the

above-mentioned case. These colonies became more abundant twelve hours later.

Microscopically the organism was found to be a micrococcus arranged in clusters. The micro-organisms were Gram-positive.

## THE PROPOSED CORONERS BILL.

BY

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THE following has been written in the hope that it may help to formulate opinion in the medical profession upon the proposed Coroners Bill, which, it appears to me, demands from medical men a close study as to its provisions and a clear insight as to its probable effect upon them, the public, and the State.

In spite of the fact that the proposed Coroners Bill was accepted, approved, and, one might almost say, blessed, at the last Annual Meeting of the British Medical Association held in London, it may be well, now that there will of necessity be some time to wait before it can be presented to the Houses of Parliament either in its present or in an amended form, to review its main provisions, and to see how they would alter what is the present custom and how they would affect the doctor.

This proposed bill naturally divides itself into two parts —namely, the one which deals with the coroner, his appointment and function; and the other which deals with the certification of death.

The first part of the bill may be dismissed with only a reference to the conditions of appointment of a coroner, for that is the only part that intimately concerns us.

It is generally well known that medical men have from time to time expressed their dissatisfaction with the way in which some coroners interpret their duties, and with the inefficiency of some owing to a lack of even a rudimentary knowledge of medicine. As is well known, a coronership need not be confined to the members of the two professions of law and medicine, for any one with sufficient knowledge, if adjudged a fit and proper person, may be appointed. In practice, however, this old office is now held either by a doctor or a lawyer—in the majority of instances by a lawyer—and the appointment once made is for life.

Medical men maintain that a coroner should possess not only a rudimentary knowledge of medicine, but a considerable acquaintance with it, because the work is often of such a nature that it can only be properly interpreted by a medical man, and that all a man with such a training requires is an elementary course of instruction, not in law, but in dealing with evidence and how to sift it. A lawyer thinks his knowledge of law is all that is required, and that any medical evidence he may need will be forthcoming by the summoning of a medical man to attend. Now, in the proposed bill the appointment is to be given to a barrister or lawyer of five years' standing or to a doctor with a degree in law, or one registered as a barrister or lawyer. The law man's attitude is upheld—the doctor's is disregarded. The doctors' complaint about coroners was and is now made, not in their own interests, but in that of the public. Our suggestion is that all coroners under the present régime--be they lawyers or barristers—should possess before appointment at any rate an elementary knowledge of medicine in all its branches; but the lawyers have up to the present prevailed, for what is in the bill amounts practically speaking to this—all coroners must be lawyers or barristers, and if one be a doctor in addition, all well and good. The doctor, who has almost invariably during the history of this important office made an exemplary coroner, is in the future to possess either a degree in law or be a barrister or lawyer. The barrister or lawyer has only to show he has been in practice for a period of five years, whereas the doctor must, in addition to his professional attainments, gain a degree in law—perhaps the easiest way to qualify. Thus an additional burden is thrown upon the doctor and practically none upon the lawyer. The doctors confess in their innocence a knowledge of law would be of advantage to them in acting as coroners, but the lawyers are self-sufficient, and consider themselves quite equal to the work, even if they be ignorant, as some of them can be, of any medical knowledge. If the medical profession be content with the proposed alteration it can be of but little use to draw attention to the distinction of treatment meted out to the doctors and lawyers in this new bill. I, for one, will be sorry to think that our successors may, and with justice, say we were sold at such and such a date—meaning the passing of this or a similar Coroners Bill. If the legal profession is the stronger, let us submit for the present to our luck, bad as it may be, but let us not acknowledge that the lawyers are in the right, for the sake of the community.

### CERTIFICATE OF DEATH.

The conditions for filling up a certificate of death at the present time places no other obligation upon the doctor than giving to the best of his ability the cause or causes of death. The information as to the death, the identification of the body, and the fact that the person is dead, are all given to the doctor by the informant, and it is no part of his duty to investigate one or all of them. All he does is to fill up the form and hand it to the applicant, who takes it to the registrar in order to obtain a burial certificate. Accordingly, some one who knows the person, and who knows he or she is dead, applies to the doctor, who certifies to the cause or causes of death, so far as he knows them; there the duty of the doctor ends, and this service he renders, by compulsion, it is true, to the State free of charge.

Under the present proposal, as embodied in the bill, notice of the death is not to be sent to the doctor. But, within twenty-four hours of the death of a person, the doctor must proceed to view the body and then to identify it, see it is actually dead, and then fill up and sign the certificate and post it to the registrar. Thus, in addition to filling up the certificate free of charge to the State as formerly, he is further compelled to see that it is So-and-so, that he is dead, and then to duly post the certificate to the registrar. The inspection of the body of a dead person is made for two purposes, at any rate—(*a*) to identify the person, and (*b*) to see that he or she is actually dead. Identification of the body is very important, and so is the examination of the body with the view of seeing whether life is extinct, and in a well-regulated State reasonable means ought, we would all agree, be taken to ensure this being done.

First, as to the identification of a corpse. Who is in a position to identify the body of a dead person? Not the doctor, not the police, no one except the relatives or person who lived with and knew the deceased. The doctor is not asked in a coroner's court to identify the body, for a very good reason. An inspection of a dead body by a doctor would be of no more value than an inspection by a stranger, except in places where the doctor is familiar with his former patient. In big towns, for example, an inspection by the doctor called in casually, perhaps, could be of little, if any, value, and in small towns and in the country it would be superfluous and lead to nothing but vexation to the relatives and to the doctor.

Secondly, as to evidence of death. Judging from the number of cases in which there is genuine fear of being buried alive, it is necessary that doctors should regard the subject seriously. To determine whether a person is dead or alive is no easy matter; mere inspection of a body, feeling whether it is warm or cold, trying to count or detect the respiratory movements or the cardiac impulses, are all uncertain and not worthy of consideration, if the object be to determine actually whether life be extinct or not. So far as I can gather, it is necessary to perform something that will revive the ordinary signs of life without any dubiety, and yet such as will not interfere in any way with complete restoration to life should it be present. Venesection, as commonly performed fifty years ago, would, I think, serve the purpose, because it would certainly wake the person up, and would not in any way interfere with complete restoration to life. Every doctor could perform the operation, and no one need be buried alive provided some one or the State directs that such an operation of skill be carried out.

Therefore, in connexion with identification, the doctor will be of little value; but in order to make sure a person is actually dead a doctor must be employed, and he must by some means make sure in each case; indeed, he must

of necessity venesect or do something that will actually determine whether life be present or not. To do the one he is practically useless; to do the other he must exercise his skill and knowledge, again at the bidding of the State, and, as it is proposed, without reward or remuneration.

We may well ask, Is it right to order a man to perform a duty that he is for all practical purposes incapable of carrying out? Is such service of any value? The answer to the first question is emphatically, No; and that to the second is that it pays no one—not even the State—to obtain valueless information. In by far the majority of cases the question of identification is immaterial, but in a few it is of the utmost importance to the State that identification should, if possible, be made out; but no medical man could undertake such work, even if he had time on his hands and wished to offer his services to the State.

The medical man, on the other hand, is the only person in the community who can establish the fact whether a man is dead or alive, and in order to do so he must exercise his skill and knowledge, for both of which he had to pay, as well as for the privilege of exercising them. The State, however, if the proposed bill becomes law, demands the doctor's time, skill, and knowledge without thanks, reward, or remuneration, as a contribution to the State—a contribution in addition to that which each and every member of the community (doctor included) has to give in the way of payment of taxes. Accordingly, the State wishes to demand from doctors not only their due in the form of taxes, but also a proportion of their time and the exercise of their skill and knowledge. The doctors will thus be taxed not only in money, but in service, which no other member of the community can give, and which, I may add, no other member of the community, even if he could, would dream of giving without an adequate remuneration.

A great question of principle is at stake in the proposed Coroners Bill, and a mere demand for payment to the doctors for work done is not, to my mind, an adequate response on our part; even if this demand were conceded, the changes would not, so it seems to me, be to the advantage either of the State or of the members of the medical profession, for the scheme is fundamentally wrong. Great changes can be satisfactorily dealt with—that is, dealt with in such a way as to make an alteration which will form a substantial basis for future progress—only when clear-cut principles are laid down and a machinery devised in harmony with such principles.

If we seek for the objects of the promoters of the proposed Coroners Bill, it will be seen that they may be resolved into the following:

1. To obtain a better trained officer as coroner.
2. To secure a better plan for the registration of death.

All I need say upon the first object has already been said. With regard to the second object there is a great deal to say and much to consider—because the consideration of this leads to a review of the work of registration of births and deaths, to the exposure of our present system of a want of a register of the people living in any community, and to the contemplation of the proper conduct of such work for the advantage of the State. The registration of births and deaths has been in force since the year 1836, and in consequence the State possesses information as to the number of births and deaths which may occur in any given time. With regard to the deaths, there is not only a registration, but also an attempt, more or less successful, to classify all the causes of death. The information thus given and collated helps those in authority to see the distribution of diseases, and to find out whether something can be done to prevent premature loss of life. (The registration of births and deaths is in the hands of a lay person who merely records the information sent or given him.)

The object in view clearly is to place in the hands of the State knowledge of all the additions by birth and the subtractions due to death, and so to obtain a register complete as to births and deaths in the whole country. Additions and subtractions due to immigrations and emigrations respectively are not recorded, and there is no register of such persons that is available for State purposes. Were such a register compiled a complete list of all in the country would be available. Every ten years, however the State does find out the exact number of persons in the country on a particular date. The changes which have taken place in the intervening years are neither recorded nor taken heed of. It will be observed that the decennial census register is for the whole country—the State as a whole, and the information obtained in the census is for the central office, each locality receiving back only numbers showing its own position.

Although we have the machinery for the making of a local register which, so far as it goes, is pretty complete, yet we do not possess an official register of the inhabitants of any locality. All we possess is an unofficial local directory of the householders and a list of ratepayers and voters, neither of which can be regarded as a complete register of the inhabitants.

Is such a local list desirable, and if so, what purpose would it serve? There can be no doubt that every community should possess a complete list of its inhabitants, to which additions from births and subtractions from death should be duly registered as they occur. Besides, lodgers who come and go should have a place as well as those families who depart from or come to reside in it. In this way a complete list of every community could be got and kept up to date without much expense. Whether a decennial census would then be necessary or not could, after a short experience, be determined. The purpose served by such a local register of the inhabitants would be (*a*) for use to the police authorities, and (*b*) to the Public Health Department. The police would know the to-and-fro movements that take place in a community, and the medical officer of health would be in possession of information invaluable to him in tracing the origin of infectious diseases, etc., and in giving accurate estimates in the statistical information he compiles periodically. With such a register for every locality, the notification of births, not the registration of names, etc., becomes a reasonable step forwards, because it brings to the notice of the medical officer of health—not, be it noted, the registrar of births and deaths—an event which may be attended with danger to other members of the community, and which may require the help of the State to preserve and promote the life of the infant. Further, the identification of a dead person desired for in the Coroners Bill becomes a simple matter, for that would then resolve itself into the simple question, Is the dead person Mr. So-and-so, who has lived in a particular house? One person may personify another, but the deception would soon be discovered if placed in the hands of the proper authorities for detection. Both these purposes are of immense importance to the State, and the wonder is that we do not possess an official register of every locality in the country. The want of such an official register hampers the police in the efficient conduct of their duties, and is perhaps the greatest defect at the present time in the public health service.

I take it that the objects of the State as shown in the bill will find support, and a cordial one, in every doctor throughout the land. A proper legal inquiry into the causes of death where not known, identification of the dead person and a certificate that death has actually taken place, would only give information that the State ought to possess. To obtain all this it is necessary to have the services of a man trained in the law, another trained in settling the question of identification, and another to find out if death has actually taken place and from what cause or causes. It is not likely that these three functions will be found combined in one person. We know that neither a lawyer, a doctor, nor a detective, often combines them, and such an one would be a rare bird.

The promoters of the proposed Coroners Bill realized that, to make the proper inquiry into the manner in which death was brought about and its immediate cause, it is necessary to obtain a man trained in law—a barrister, lawyer, or doctor with a degree in law. To me this seems reasonable and quite sound.

When, however, they put upon the doctor, who had been in attendance upon the deceased, the duty of finding out when death occurred and to undertake the task of identification, then I think it is time for the members of the medical profession to wake up and declare that by their training they are not fitted for either duty. How, indeed, can a doctor find out when so and so died? Surely someone who is cognizant of the death should inform him. His business is to be at the service of the living and not to

seek out death. Again, when it is thought that a mere inspection of a body within twenty-four hours of the supposed death is sufficient to warrant a doctor in declaring life is extinct, ignorance of the difficulties in the determination of the presence of or absence of life can be the only excuse. In most cases a layman's testimony is sufficient, but in a few the task would test the best of us.

The demands of the bill have already been criticized, and now it may well be asked, How do you propose to carry out the objects the promotors of the bill have at heart?

Now, given a local register in the hands of the medical officer of health, I would suggest the following:

1. When a death occurs the relatives to notify the police.

2 The police in case of a natural death to inform the doctor who was last in attendance.

3. The doctor, if he is satisfied, to sign a certificate and to give it to the police officer to take to the local medical officer of health's office, where it should, if in order, be registered.

4. The medical officer of health to grant a burial certificate and the police officer to convey it to the relatives. (In case the doctor declines, or there are some difficulties in the way of signatures, then the medical officer of health should prosecute inquiries and make or order to be made a proper medical examination of the body of the deceased.)

5. In case all be explainable by natural causes, the medical officer of health should then issue a burial certificate; if no such explanation can be put forward, the medical officer of health should ask the coroner to undertake the necessary legal inquiry.

6. In all cases of accident, suicide, etc, the police officer to communicate direct with the coroner, who would call for the services of the medical officer of health for the district to aid him in every way through his special medical officer to find out the cause or causes of death.

Such is the outline of the scheme I would advocate, and I venture to think that the objects of the promoters of the Coroners Bill would be attained in a far simpler and less costly way than that put forward.

If, however, the State requires the application of a test as to whether a body is alive or dead, the State should be prepared to pay for the performance of an operation of skill, be it venesection or anything else, and the proper person to perform such is the general practitioner in attendance during the life of the deceased.

In conclusion, all I have to say is that those who are concerned in this matter should soon take steps to put into shape their own ideas and present them to the proper authorities before the bill is again proceeded with, and so avoid increasing difficulties in obtaining amendments.

## THE PITFALLS OF "MENTAL TESTS."*

BY

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IN this country at least psychology seems likely to suffer from the same dangers of popularization as have for years past been affecting anthropology. Just as it has been widely supposed that only a printed book of instructions and queries need be read for an amateur to sally forth into the field and collect reliable physical measurements, or trustworthy evidence of social organization, so there appears to be starting a belief that no special course of training is necessary in order to conduct on a large scale investigations of a psychological nature.

Folk are loth to recognize that the younger sciences—for example, economics, genetics, psychology, education—demand as much adequate preparation and study as the older before reliable work can be undertaken in their respective fields. Certainly every one thinks himself capable of discoursing and deciding about themes of psychological interest. Royal and Departmental Commissions, which do not contain among their members a single psychologist, are appointed to report on matters which are fundamentally of psychological concern. The psychologically untrained physician does not hesitate to pronounce on the psychology of insanity, nor the biologist on human and animal intelligence and instinct.

I want to protest as strongly as I can against the notion that any useful purpose can be served, so far as psychology is concerned, by collecting masses of psychological data with the help of an army of untrained observers. I have heard it confidently asserted that the gross errors inevitably arising from inaccuracies and inconsistencies of procedure among different observers cancel one another in the long run of such vast numbers of measurements. Nothing, I think, can be more dangerous or false than this idea that the untrustworthiness of crude methods diminishes as the number of observers increases. It involves the assumption that in the long run errors occur to an equal extent in opposite directions—a most unlikely hypothesis.

Individual differences in mode of measurement are great enough even in anthropometry, despite the standardization of measurements. There is, I believe, a well-founded rumour that when the pigmies visited this country and were independently measured by several observers well practised in anthropometry, the results obtained by these observers were startlingly divergent. If this be so, the sooner the fact is put on record the better for the future security of anthropometry. In any case I am sure that hitherto it has not been adequately realized how untrustworthy is a comparison between the measurements obtained by different observers upon the same individual. I can only give one or two actual examples, but these, perhaps, are sufficiently striking. Professor Cunningham and Mr. Browne measured the heads of several anatomists at a meeting of the Anatomical Society some years ago. One of their subjects gave a head length of 198 mm. and a head breadth of 147 mm.—that is, a cephalic index of 74.24. The same individual happened to be measured subsequently by Miss Alice Lee, fully as competent an observer, who obtained a head length of 195 mm. and a head breadth of 150 mm.—that is, a cephalic index of 76.92. Thus there was a divergence of over 3.5 per cent. in the values of the index obtained from the same individual by these observers, although each claimed to be taking precisely the same measurements—the maximal head length and the maximal head breadth.

A similar experience befell me only a short time ago. My head was measured by an observer who had for some months been engaged in making a vast collection of anthropometric data. He entered my head length as 202 mm., my head breadth as 168 mm.—that is to say, a cephalic index of 83.2. Doubting whether these data were accurate, I took the calipers in my own hands and obtained a head length increased by 4 mm. and a head breadth diminished by 2 mm., yielding a cephalic index of 80.6. The latter I know to be approximately correct.

If inaccuracies to this extent occur when anthropometry is in the hands of fairly-trained observers, what must be their size when the measurements are undertaken by the interested amateur! And, if they are great in measuring the *physical* characters of man, what must they be in measuring the *mental* characters! For here we have not only the dangers arising from the improper use and reading of the instrument, but also the different effects upon the subjects' mental condition produced by different observers. One observer knows his subjects well, another awes them by an unsympathetic attitude, while another unconsciously helps them by suggestion.

We have the further difficulty that it is impossible as yet to standardize mental tests as we have standardized physical measurements. Far more laboratory work is necessary before such fixity becomes possible or desirable. The approved test of to-day is rejected to-morrow.

But I will leave these difficulties on one side and pass on to the *purposes* of this wholesale application of "mental tests." One of the objects is to discover by statistical means the differences which exist in different communities. A vast number of measurements of a given character is taken in one community and an equal number of measurements of the same character is taken in another. The averages of the two series are compared, and the conclusion is drawn that an undoubted, or a probable, or no certain difference exists between the two communities in respect of this character. As is well known, the certainty of the difference depends not only on the number

* A paper communicated to the British Association for the Advancement of Science, at the Sheffield Meeting, 1910.

of observations, but also on the relation between the amount of the difference and the uniformity of the individual measurements within either community. If the individual measurements within a community differ widely from one another, it is obvious that the difference between the averages must be proportionately wide, in order to be certain that it is not merely accidental. Now, so far as the physical measurements of mankind go, they do differ enormously within a given community. They differ so widely that it may be said that statistics can seldom give us any *new* information as regards racial differences of measurements. Statistics serve, as a rule, but to establish and to give a measure of *observable* differences. Statistics cannot inform you that one community has broader noses, darker skins, more curly hair, or greater stature than another, unless that character is manifest enough to be apparent to the non-statistical eye. And if this be true as regards physical characters, it holds yet more strongly in respect of mental characters, inasmuch as they exhibit still wider individual variation within a community. For these reasons we must be chary against expecting from statistical manipulations more striking results than from the very nature of the data they are capable of yielding.

I am fully aware that these opinions savour of heterodoxy. I shall be asked, Are those not striking and new results which have been lately reached by statistical methods, showing the absence of correlation between the state of nutrition of school children and their mental capacity, or between alcoholism in the parent and defective health in the offspring? And I reply that, in my opinion, these results have no real value. They have been obtained by applying scientific methods to the solution of a problem of such complexity that the solution appears in the form of a meaningless blur.

The plain man believes that "One can prove anything by statistics," and I fear that such time-worn sayings have a certain basis of truth. For the wholesale collectors of measurements are apt to pay too little regard to the complexity of the conditions influencing the problem and the material which they are gathering. All they desire is an enormous mass of data, and these—good, bad, comparable, and non-comparable—they pour into the statistical mill with the object and result of arriving at conclusions statistically invulnerable. Into this mill, for instance, they pour all the data concerning the relative efficiency, physical and mental, of the children of drunken and sober parents, practically regardless of the question as to whether the parents are strong, robust folk who are abstemious, or, say every Saturday night, regularly indulge in intoxication, or whether they are feeble workmen of the sober "good young man" type, or weakly degenerates, inheriting and transmitting disorders of nervous instability so closely associated with tendencies to crime and to chronic alcoholism.

Similarly, in dealing with the relation of mental capacity to bodily nutrition among children, a recent investigator has been content to take the verdict of school teachers on the mental capacity of their school children, with the result that some teachers classified 33 per cent., others only 1 per cent., of the children as brilliant! On the ground that the ablest parents can provide the best nutrition and transmit their ability to their children, it might be argued *a priori* that dull children would not be so well nourished as bright children. And this conjecture is supported by earlier trustworthy evidence. On the other hand, its *raison d'être* can only hold for the lower and lower middle classes, and we have the further complication that unwholesome food may produce a false appearance of good nutrition. Apart from food supply, exceptionally bright children are worse nourished, and exceptionally dull children are better nourished, than the average child. These complications should no doubt be taken into consideration, as should such factors as employment outside school hours and the mental and physical condition of the parents. When all these counteracting influences are thrown into the statistical melting pot, is it surprising that the result is a mere blur, showing an absence of significant correlation, a small correlation in one direction in one school and in an inverse direction in another?

This neglect to analyse and to take heed of what is actually being measured is specially prone to occur in the use of mental tests. In other sciences there is little or no real difficulty in observing what we are measuring, if only the experimenter take reasonable care. But in psychology we can only ascertain what we are testing by recourse to introspection on the part of the subject. To neglect introspection in psychological experiment is usually to court certain disaster. If we are in total ignorance of what has been going on in the mind of the subject during the experiment, it is rarely possible to argue from the objective data—from the measurements which it yields. For example, we may be trying to determine whether any correlation exists between sensory discrimination and general intelligence. A positive result may be simply due to the fact that the very nature of the test has compelled the subject to use his intelligence while carrying out sensory discriminations. We may be correlating mental ability with mental fatigue, and neglect the fact that sometimes we may not be measuring fatigue at all, that in some subjects the task becomes automatic, in others tedious, or that boredom may be in others overcome by motives of duty or ambition. We may be testing the visual acuity of two persons and obtain a different result from each, despite the fact that really they have the same visual acuity. The result may be due to the fact that the one subject strains every effort to interpret what he but dimly sees, while the other only reads what he believes he can clearly see. Thus again we merely obtain a blurred or erroneous result from the blind applications of statistical methods to measurements which are really meaningless owing to our failure to analyse the conditions determining the character we are measuring.

The danger of drawing conclusions from too small a number of subjects is well illustrated in the results of an inquiry recently conducted into the correlation between ability in mathematics and ability in classics in the various forms of a public school. In the highest form, the correlation was found to be +0.20; but in the following year in the same form it amounted to +0.52. In the form below it was +0.23, in the next lower form +0.76, and in the next −0.25.

But there is likewise a pitfall from the use of a large number of subjects, and this I will illustrate, as before, by analogy from physical anthropology. It is obvious that if you determine the correlation between head length and head breadth for one race or for one ethnic element of a mixed people—for example, the Cornishman in our own country—we shall find this correlation to be quite different from that obtained from another race or for another ethnic element of a mixed people—for example, the East Anglian. There can be no question about the existence of similar difficulties with regard to the correlation of mental characters. How wide the racial differences are in the correlation of mental characters is, of course, unknown. But no doubt at one time in a given class or school of our heterogeneous population the ethnic diversity may be small, at another time it may be great. At one time one racial element may preponderate, at another time another. This possibly is one explanation of the marked discrepancies obtained by different observers and by the same observer at different times, using the same mental tests as far as possible in the same manner. It provides yet another confirmation of my thesis that the wholesale collection of measurement is apt to give us only a very blurred and often a very inaccurate picture of the factors which really underlie the problem under investigation. It fails to give results of psychological value, because the psychological standpoint, the experience of the individual, is neglected. It is only too apt to obscure actual correlations or to reveal spurious correlation because insufficient care is taken to analyse the conditions which are really at work during the experiments. It leads to inaccurate results owing to the errors arising from individual differences in applying the tests.

For these reasons I urge extreme caution, at least for the present, in standardizing "mental tests" and in popularizing their use. In some forms, no doubt, tests can be usefully applied *en masse*—for example, with the object of determining the standard of intellect which a boy of given age should attain in order to class him as suitable or unsuitable to be taught in an "ordinary" or a "special" school. But such tests are "tests of pro-

duction," not "mental tests." They determine how *much* an individual can work, how *much* he knows—not *how* he works, *how* he knows. A man's productivity, of course, is what we want to ascertain in everyday life. We do not care how a man comes to use or to acquire his powers; we are content with a mere dynamometric or other record of his prowess. From this aspect, mass experiments must have *some* value. But this aspect cannot properly be called the psychological aspect.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### A CASE OF URAEMIC APHASIA.

ON January 13th I saw, in consultation with Mr. J. H. Blakeney, of Cheltenham, a gentleman, aged 53, who had been seized on the previous day with loss of the power of speech; when I visited him, this had passed off, and only a little slowness in articulation was noticeable. There was no loss of power on the right side, and the plantar reflex of the right foot was flexor. The knee-jerks on both sides were exaggerated. His pulse was hard; the apex beat was not displaced; urine 1014, acid, haze of albumen, no sugar, deposited a few slender granular casts; eyesight normal. He was well developed, sparely nourished, but muscular; not cachectic-looking, and had been a great athlete.

The history was that at the age of 20 he had an attack of acute nephritis; he was ill six weeks, but was supposed to have made a good recovery. Fifteen years ago, however, he was rejected for life insurance on account of the presence of albumen in the urine, and he had had frequent attacks of gout during the last fifteen years. He had a profuse epistaxis eleven years ago. In May, 1909, he was found standing by his dressing-table unable to speak; he vomited and was put to bed; there was no definite hemiplegia, but he said afterwards that his right hand felt numb. He recovered in about a fortnight, but has never since resumed his occupation. In July he had an attack of convulsions, after which he was unconscious for twelve hours. In September he had his second attack of aphasia, with a slight loss of consciousness, lasting for a few hours. Later in the same month he had two attacks of convulsions followed by unconsciousness and violent delirium. In March, 1910, an attack of aphasia with slight unconsciousness was followed by delirium and mental symptoms which lasted six weeks. In September he had another attack of aphasia; in November his pulse became very slow, the rate falling to 26. Early in December there was a slight aphasic attack, and on January 12th of this year another for which I saw him.

Although transient aphasia is mentioned in most textbooks as one of the phenomena occasionally observed in uraemia, it is sufficiently rare to justify me in asking permission to publish these brief notes. Few cases are to be found in looking up standard writers on Bright's disease, but one was published by the late Sir T. Grainger Stewart,[1] in which transient aphasia was associated with facial paralysis and some weakness of the right arm, and there is another in Dr. Samuel West's Lettsomian Lectures (p. 139), in which the patient had recurrent attacks of right hemiplegia with aphasia extending over eight years; there was no albuminuria, but the arteries were thickened, and there were "two small patches of degeneration of the ordinary kind in the right eye." In Mr. Blakeney's case there is no doubt of the presence of chronic renal disease; the uraemia associated is attested by the occurrence of convulsive attacks, and it is noteworthy that the aphasia was not attended by hemiplegia.

Birmingham. ROBERT SAUNDBY, M.D., F.R.C.P.

### TREATMENT OF PERNICIOUS MALARIAL FEVER.

IT is well known that red blood corpuscles containing malarial parasites are more easily disintegrated than normal non-infected blood cells. This gives us a clue to the treatment of pernicious cases of fever which one comes across now and again in the tropics, and which are almost invariably so fatal. I refer more particularly to cases of the comatose type, resembling in many aspects a bacterial meningitis. These cases present a profound toxaemia associated pathologically with a conglomeration of infected erythrocytes in the cerebral capillaries.

Rogers has been showing for the past two years the value of hypertonic saline solution in cholera. In the treatment of severe malarial conditions we desire, if possible, to produce an effect of another kind, although also by a temporary alteration in the saline content of the plasma. It is one in which the blood plasma is more diluted, giving those red blood corpuscles which are infected a greater opportunity of disintegrating and allowing quinine to act more immediately on the malarial organism.

This can be done by the transfusion of a "hypotonic" saline solution (30 grains to 1 pint). The osmotic pressure within the red blood corpuscles, if the injection has been carried out at the rate of quite 20 ounces in ten minutes, becomes relatively a negative one, and to a certain extent it is selective in that it is accumulative in affecting more readily those cells whose resistive powers have already been weakened by being organismally infected. To take advantage of this alteration it is of course necessary that the patient's circulation contain an effective amount of quinine ready to deal with the organisms, possibly nascent in the plasma, or at any rate more easily reached in the intracellular osmotic ebb and flow. To get this effect it must be borne in mind that rapid introduction of hypotonic saline is necessary, as interaction with the tissue fluids in a very short time diminishes the positive osmotic pressure of the surrounding plasma with regard to the corpuscles *pari passu* with its saline content quickly reapproaching the normal limit, which, considering the amount of blood in the body, can only have tended to produce the laking effect to a small extent.

Although it is unlikely that much actual laking takes place, even in infected erythrocytes, still the very changes occurring in the tension of the plasma must react on the corpuscles, and involve interchange of fluids, which, containing even minute percentages of quinine, must have an effect the reverse of salutary for the invading haemosporidia.

D. M. C. CHURCH,
Captain, I.M.S.

Gyantse, Thibet.

### CONGENITAL ABSENCE OF ONE KIDNEY.

THE extreme rarity of the anatomical condition found in the following case demands in the interests of the profession a brief record.

A. E. S., a married woman, aged 58, was found drowned in the Regent's Canal on December 3rd, 1910. The *post-mortem* examination was made on December 6th. The body was well nourished; neither the loin nor the anterior abdominal wall presented any scar externally. On opening the abdomen there was observed on the right side, and covered by the bowels, a large swelling. This was found to be the right kidney in its normal position. It weighed 11 oz.; the vessels were large and engorged with dark fluid blood; the ureter was slightly larger than normal. From a naked eye inspection the condition of the kidney appeared one of simple hyperplasia. On looking for the left kidney it was nowhere to be seen. There was a flatness of the posterior wall of the abdomen instead of the usual hollow. There were no left renal vessels, no left ureter, and no trace of embryonic remains. The left crus, quadratus, and psoas stood out with no vestige of organ or tissue where the kidney should have been; the left suprarenal was absent. The bladder was normal, but had only one ureteric orifice—namely, that on the right side. The uterus was lying well over towards the right side, with a normal broad ligament attached thereto. On the left side, however, there was a large space which the fist easily occupied. The broad ligament on this side was represented by a narrow fold dipping down deep into the pelvis and rising again, the left ovary being almost on a level with the brim. There were no abnormalities of vulva, vagina, or uterus. The woman had had two children, both of whom are living.

My best thanks are due to Mr. T. W. P. Lawrence, curator, University College Hospital, who, in the presence of two of the visiting staff, laid open the bladder and exposed the single ureteric orifice.

J. MAUGHAN
London

[1] *Clinical Lectures on Important Symptoms*, Fasciculus II on Albuminuria, p. 107.

## MIGRAINE AND ERRORS OF REFRACTION.

THE following case may interest, as emphasizing once again the fact that errors of refraction are frequently at the root of migraine and of the visual "zigzags and clouds" which occur in that complaint; also that the correction of the error of refraction will alone suffice to remedy.

On October 12th, 1910, Mrs. K., aged 30, married, four children, youngest 4 years, came to me complaining of migraine, and of seeing "zigzags" before her as she looked up. The headaches and "zigzags" were almost of daily occurrence. She was so impressed by their appearance that she had marked the hours in the days of the past week in which the "zigzags" had made their appearance. She had been suffering from migraine for two years past, and she had consulted an oculist about her eyes about that time ago, who found that she was suffering from granular lids, for which she was treated. The following correction was also ordered, but had not been worn, as she said that the glasses blurred her vision:

| R. | L. |
|---|---|
| + 0.25 / + 0.5 ↙ 25° | + 0.25 / + 0.5 ↙ 30° |

Under H and C her retinoscopy was:

| R. | L. |
|---|---|
| + 0.25 × Em. | − 0.25 + + 0.75 = 5/5 |
| *With lenses* ... ... = 5/5 | |
| + 0.25 / + 0.25 ↙ 40° | − 0.5 / + 1.25 ↓ 105° |
| *Ordered.* | |
| / + 0.25 ↙ 40° | − 0.25 / + 1 ↓ 105° |

On November 10th she came to me after having worn her glasses for about a month. She was delighted that she had not had a headache or seen a "zigzag," although she had had "washing mornings," which always produced both phenomena. I may add the headaches were always worse on the left side of the head, the left eye being the seat of most error of refraction.

Streatham, S.W. A. G. CLARKE POCOCK.

## KALA-AZAR IN MALTA.

I WILL be glad if you will kindly find a space for this communication on a subject which is attracting great attention just now.

Girl, aged 3, ill for seven months, great pallor of skin and mucous membranes; moderate emaciation; fever of a remittent type; no oedema; accessible lymphatic glands very slightly enlarged; no petechiae; spleen can be palpated as a distinct movable, painless tumour reaching down to level of umbilicus; liver does not reach below costal border; bronchial catarrh; diarrhoea of a dysenteric type, tenesmus and mucus slightly tinged with blood.

*Diagnosis.*—Infantile kala-azar, confirmed by microscopical examination of the splenic tissue.

The important feature of this case is the demonstration of Leishman-Donovan bodies in smears from mucous flakes excreted with the faeces.

I believe this is the first time that the examination of excreta of patients suffering from leishmaniosis has been attended with positive results as regards the demonstration of the pathogenic protozoa. The smears were stained by the Giemsa method in the usual way.

I hope this discovery will help to throw a little light on the, as yet, very obscure etiology of the disease. It certainly is something to go by in recommending prophylactic measures.

Malta. A. CRETIEN, M.D., D.P.H., D.T.M.

## A RAPIDLY-FATAL CASE OF SPLENO-MEDULLARY LEUCOCYTHAEMIA.

ACUTE cases of Hodgkin's disease are so decidedly rare that, when met with, it is distinctly desirable they should be placed on record, if only to remind us that such cases may be met with, therefore, I now send you some particulars of a case I recently saw, in consultation with Dr. James Johnson, under whose care the patient was.

Mrs. W., a widow, aged 34, young looking, but rather grey for her years, was very well and active in her occupation of housewife until October 2nd, 1910. So well was she that she said she "never felt better in her life," and it is a fact that between April and August she had gained a stone in weight, and it was about this time that she ran a race with her two younger sisters, both of whom she left behind.

Her widowhood had lasted six years, previous to which she had eleven years' experience of matrimony, which resulted in two children, a boy aged 8, and a girl aged 6. She was always healthy, excepting a little menstrual trouble. On October 2nd she had an influenzal cold, which kept her in bed a day or two. Every one else in the house also had a touch of it. She had never felt well since, and on October 29th she consulted Dr. Johnson. She said she "had not been away for her holiday, and felt thoroughly done up." She also complained of bruises (ecchymoses) about the legs, which she thought had been caused by the child kicking her in bed. She also complained of spots on the neck and upper chest. These were of a purpuric character. Her breathing was rapid, 32, and also her pulse, 120. The temperature was normal, and examination showed the heart and lungs to be quite healthy. Dr. Johnson prescribed a mixture of iron, strychnine, and arsenic, and advised rest. On October 31st he was sent for, and found her lying in an exhausted condition on the sofa, with acute pain in the left abdomen. He sent her to bed. On November 1st she was no better; always of rather a pale complexion, the pallor was more marked. The purpuric spots were larger, and also the bruises. She now, for the first time, complained of enlargement of the abdomen, and Dr. Johnson discovered a greatly enlarged spleen reaching below the umbilicus. One of her eyes was bloodshot, and blood was oozing from the gums. The temperature was not raised. On November 2nd the symptoms were much the same, but both eyes were bloodshot, and there was sickness, the stomach contents being slightly blood-stained; there was also slight epistaxis. On November 3rd the condition had not improved, and on November 4th I saw her in consultation with Dr. Johnson. She was in bed in a half-sitting posture. The face was pale and had an anxious, agitated expression. Respiration was rapid—of the breathless type. The pulse was fast and markedly dicrotous. The lips and teeth were covered with thick dark sordes of dried blood; the tongue, also, was dry and blood-stained. There were several purpuric spots about the root of the neck and the upper chest, and there were several ecchymoses on various parts. The bowels were open; the character of the stools not noted. The urine had been, all through, high-coloured and thick. The heart sounds were quite clear, and also the lung sounds to the extreme bases. There was no haemic murmur. The abdomen was considerably enlarged and hard.

This enlargement was greatly due to the spleen, which could easily be felt extending from under the left ribs and below the umbilicus almost to the right iliac region. The liver also was much enlarged and the edge greatly thickened. Both liver and spleen were very tender. There was no enlargement of the lymphatic glands. The axillary temperature was 102° F.

I could only confirm Dr. Johnson's diagnosis and emphasize his very unfavourable prognosis. On November 5th the respiratory distress was so great that oxygen was given for ten minutes every four hours with much relief. On November 6th she was no better. The sclerotic of both eyes was bright red. She was taking nothing but buttermilk, 2 to 4 pints daily. No material change took place in the symptoms till her death on November 12th. The temperature varied from normal to 101° F. during these last days. She was not the least emaciated, in fact, in very good condition. In addition, I am told, she began to menstruate on November 3rd, and this continued very copiously till her death. If we date the commencement of the attack from the influenza, the total duration of the illness was forty-one days.

A slight review of such medical literature as I possess has discovered records of cases fatal in twenty-seven days, twenty-one days, and even fourteen days, but most of the acute cases are said to be of the lymphatic type, not the spleno-medullary. I am much indebted to Dr. James Johnson of this town for permission to publish these

particulars, and also for the use of his notes of the case before and after I saw her.

Blackpool. WILLIAM HARDMAN.

## BREECH PRESENTATION WITH PROLAPSED HAND.

I WAS called to see Mrs. W., a primipara aged 24, on November 21st, at 6 p.m. I found a certified midwife in attendance, who said she had been called to the case at 9.30 a.m. that day, when she found the patient in the first stage of labour, the membranes having ruptured forty-eight hours previously. On examining, she diagnosed a breech presentation with a hand prolapsed.

On arrival I found a breech in the second position, with the left hand prolapsed; the os was three parts dilated; the hand was pushed up on to the abdomen. Labour proceeded slowly with fairly good pains till the breech reached the perineum, when, after two hours and the pains losing power, delivery was effected with the blunt hook. The child was stillborn; the mother made a good recovery.

The main point of interest is that, in looking up the authorities, I find no mention made of a breech presentation being complicated with a prolapsed hand, this condition with a vertex being much more frequently met with.

H. WESSEN HUSBANDS, M.R.C.S., L.R.C.P.Lond.

Taunton.

# Reports

ON

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## GENERAL CIVIL HOSPITAL, COLOMBO.

A CASE OF PERFORATION IN ENTERIC FEVER, FOLLOWED BY ABSCESS FORMATION: OPERATION AND RECOVERY.

(Reported by LOUIS OBEYESEKERE, L.M.S.Ceylon, House-Physician.)

I AM indebted to Dr. E. Garvin Mack and Mr. A. M. De Silva for permission to report this case. The patient, a man aged about 30 years, was admitted on August 26th, 1910, in a low state, with a history of fever and cough of about ten days' duration and the bowels stated to be relaxed.

*Condition on Admission.*

His temperature was 103°; pulse 140, small and feeble. Examination showed consolidation at the apex of the left lung. The temperature ranged between 101° and 103° for the next four days, and his pulse improved in rate, volume, and tension. On August 29th his blood gave a positive Widal reaction.

*Progress.*

On August 31st his temperature rose to 104°, necessitating frequent spongings. The patient had now become unconscious—at first restless and delirious, and later in a state of stupor. From August 31st to September 4th the fever remained high with but slight morning remissions; the patient continued unconscious; the pulse retained its good qualities, and its rate ranged between 98 and 110 per minute. On the morning of September 5th—twentieth day of illness—the temperature dropped to 98°; the pulse now was 88, full and bounding; the upper part of the abdomen moved with respiration, but the area below the umbilicus was immobile and there was definite rigidity; the respirations were rapid—about 45 to the minute; the liver dullness was wholly obliterated; the general and mental condition of the patient was much worse; there was no vomiting.

*Perforation.*

The diagnosis of perforation was made, and the case was seen by a surgeon, who saw no indication for operation. By evening the temperature had again risen, and the patient's general condition seemed worse. The motions examined after this showed no signs of haemorrhage.

*Result.*

Next morning the respiration was still hurried, and the pulse was 120 and weak. There was bulging in both flanks, and the next day shifting dullness was obtained. Subsequently the patient made a good recovery, with the exception of a right-sided parotitis on the 11th, and a similar condition on the left side on the 16th, both of which subsided under suitable treatment.

*Sequence.*

Fourteen days after the patient was put back on solid food a tumour was noticed in the abdomen just below the umbilicus, and extending on each side to the outer border of the recti. When the patient was asked to sit up the lower part of the recti did not contract well, showing that there was involvement of these muscles in the tumour.

This tumour was about the size of an adult head, and was hard; deep fluctuation was obtained; the skin over the lower part was red and oedematous; there was tenderness on pressure. A catheter was passed and the tumour was thus proved to have no connexion with the bladder.

Under local anaesthesia a needle was put in and pus drawn off. An incision, 2 in. long, was then made at the outer border of the rectus, and the abscess opened and drained with drainage tubes. The pus was not faeculent. The posterior and the lateral walls of the abscess were composed of coils of small intestine matted together. The patient left hospital shortly afterwards fully recovered.

REMARKS.—It is noteworthy that the patient on no occasion after the perforation had any trouble with his bowels; that no pus was ever passed per rectum; that his temperature remained normal; that the pus in the abscess was not faecal; and that the patient never complained of any pain or discomfort from the presence of the tumour.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

PATHOLOGICAL SECTION.

*Tuesday, January 17th, 1911.*

Dr. F. W. MOTT, F.R.S., President, in the Chair.

*Insanity and Cholelithiasis.*

DR. J. P. CANDLER concluded, from the study of a large number of statistics, that the incidence of gall stones was greater amongst the insane than the sane, as had been previously asserted by Mr. C. F. Beadles. Possibly the cholelithiasis was related to disintegration of the nervous matter which supplied cholesterin. He did not agree with certain previous writers in regarding cholelithiasis as a grave and frequent menace of carcinoma. Almost all cases of primary carcinoma of the gall bladder were associated with the presence of gall stones, so that there seemed a causal relationship between the conditions, although it was only in a relatively few cases that carcinoma supervened.

*Protozoa in Yellow Fever.*

Mr. SEIDELIN demonstrated the presence of minute protozoon-like bodies in the red blood cells of yellow fever. He had found them in nearly every case (Mexican), though not yet in the *Stegomyia*. They took the form of minute chromatin points, which subsequently acquired a small envelope of protoplasm. They might possibly be sufficiently minute to pass through a filter.

*Complement Fixation.*

Dr. H. R. DEAN described a series of experiments designed to differentiate the various members of the typhoid and paratyphoid group, and drew the following conclusions:

1. By the use of the complement-fixation method, *B. typhosus*. paratyphoid A, and paratyphoid B can be easily differentiated from one another; by the use of a suitable dilution of serum it is possible to differentiate paratyphoid B from *B. aertrycke*; this series of experiments entirely confirms the classification of Bainbridge. 2. The complement-fixation method affords an extremely delicate and specific means of differentiating between various members of the typhoid and paratyphoid group. 2. Very closely-allied organisms can only be differentiated after experiments sufficiently extensive to ensure a knowledge of the dilutions most suitable to the serum and extracts in use. 3. The group reaction and the degree of relationship between members of the group can be demonstrated by the use of various dilutions of an antiserum in the presence of extracts made from homologous and heterologous strains. 5. Under certain circumstances the degree of relationship can be seen during the course of an experiment by observing the time of onset of haemolysis in the tubes containing the various extracts. 6. The group antibodies can be removed from the serum by a suitably arranged absorption experiment. 7. Excess either of antiserum or of bacterial extract has an unfavourable influence on the fixation of complement. 8. The maximal fixation of complement is obtained when antigen and antibody are present in certain definite proportions.

*Bacterial Gas producing Power.*

Dr. W. G. PENFOLD recounted an elaborate series of experiments, showing amongst other results that the colon bacillus could be educated to produce no gas.

*Structure of Uric Acid Calculi.*

Mr. S. G. SHATTOCK described some studies of uric acid calculi conducted by means of transparent sections. Some such calculi were cancellous, others compact in structure; this was an obvious macroscopic difference, and it was connected with a difference in the mode of crystallization. In the cancellous there was a nucleus of cuboidal crystals grouped in irregular trabeculae, and upon this a series of concentric arcades, with interspaces, built up of similar crystals, constituted the "body." In the case of the compact variety the structure was of cones of long crystals set radially to the centre; these might be marked with a series of proper concentric striae, and by coarser, less well defined zones of a finely crystalline material which might almost be named bacilliform, and which lay in the lateral interstices between the longer elements. This material was uric acid; for although in marked amount, the most careful chemical analysis of the calculi, in bulk, showed a complete absence of ammonium, sodium, or calcium. A comparison of the different elements with those met with in urinary sediments showed that whilst the cuboidal crystals of the cancellous variety could be matched, elongated forms were rare. The elongation of the crystals, and so the production of the compact variety, was attributable to a highly saturated condition of the urine. The length assumed by crystals in supersaturated solutions was well known. Miers had put forward the view that it arose from the diminished saturation of the fluid between the unopposed sides of adjacent crystals produced *ipso facto* by the crystallization, the extremities being free to grow at that end which lay in contact with the more highly saturated part of the solution, whilst growth in other directions was retarded. In a supersaturated solution, agitation produced a shower of crystals; the deposition of the finely crystalline uric acid in association with the tufts of long crystals in the calculi might be explained in the same way. In regard to the nuclei of uric acid (or other) calculi, although shed epithelium and mucus, etc., would always be available, their presence was not essential to start a concretion. In the cancellous kinds the nucleus was a chance aggregation of cuboidal crystals; and a very small collection of similar "rubble" at times formed the actual centre of a compact calculus, though in other cases a compact concretion arose as a radially disposed collection of longer forms, such as might appear in a supersaturated fluid at various independent points.

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SECTION OF SURGERY.

*January 10th and 18th, 1911.*

RICKMAN J. GODLEE, President, in the Chair.

*Cancer of the Rectum.*

A DISCUSSION on the operative treatment of cancer of the rectum was opened on January 10th and completed on January 18th. Its introducer was Dr. WOOD JONES, who dealt with some anatomical points. Mr. SWINFORD EDWARDS entered a protest against the adoption of unduly severe operative methods. The immediate mortality was a consideration to be set against problematical increase of security as regards recurrence. The explanation of Mr. Miles's statistics of recurrence after perineal operation was probably that unsuitable cases were admitted. Growths fixed anteriorly or laterally were better left alone. He advised a preliminary colotomy in all extensive cases. Of 81 cases operated upon by him only 4 died and 22 recurred; 14 were not traced. In certain cases partial excisions were justifiable. The ideal operation, to his mind, was Bardenheuer's modification of Kraske's method. Mr. HARRISON CRIPPS endorsed Mr. Edwards's views. He considered only those cases fit for operation in which the growth was still confined to the bowel wall. A full account of his observations will be found at page 190 of this issue. Sir FREDERIC EVE said the Kraske type of operation was not entirely satisfactory. Cure could not be claimed on the three-year test. Many recurrences were much later than that, and the greatest security from such an event was obtained by permanent colostomy, combined with an abdomino-perineal operation. At the same time, the disease in the anal canal did not demand so extensive a procedure. Mr. WATERHOUSE strongly advocated the parasacral route. The more he tried the abdominal operation the less he liked it. The mortality was not less than 30 per cent. He emphasized the extreme importance of prolonged and detailed preliminary treatment, including colostomy if any degree of obstruction were present. Mr. BOYCE BARROW discussed the advantages of a preliminary colostomy and asserted that with proper attention the discomfort attending permanent colostomy was minimal. He had performed the extensive abdomino-perineal operation many years ago, and wished to point out the remarkable freedom from shock experienced after this long and arduous manipulation. Mr. HANDLEY made a spirited attack upon the standpoint of Mr. Edwards and Mr. Cripps, maintaining that clear pathological indications pointed to the removal of an extensive tract of bowel, even in cases where the growth itself was small. The mortality certainly was high, but he had been fortunate, for his last 3 cases—2 of whom were present—had all been successful. The permanent colostomy gave little if any trouble. He exhibited slides illustrating "permeation" of the submucous plexus, by cancer cells to a distance of 6 in. from the tumour. Mr. WALLIS laid stress upon the importance of early diagnosis and the necessity for rectal examination by general practitioners. He was becoming converted to the view that the abdomino-perineal operation was the right one in view of the pathology of cancer, but had had considerable success with the parasacral method. Mr. MUMMERY referred to Mr. Cripps's statement that only about 1 case in 4 of those seen by the surgeon was suited to operation. His own private records showed, amongst 100 cases, 57 already inoperable. The period elapsing between the first symptoms and inoperability was probably about nine months. In the sigmoidoscope there was an excellent means of accurate diagnosis in early stages. He strongly advocated re-establishment of the anal opening after the abdomino-perineal operation, believing it almost always possible, and eminently desirable. Ninety per cent. of operative mortality was attributable to sepsis. Mr. FAGGE had had so many recurrences after the Kraske operation that he resorted to the abdomino-perineal operation, and, despite the high immediate mortality, believed that this method saved more patients than any other. Mr. GORDON WATSON spoke from a personal experience of 10 cases of the abdomino-perineal method. Although he had not been able to confirm Handley's observations of "permeation," he believed this operation to be the correct surgical procedure. He raised the question of vaccines, especially anticoli vaccines, as a precautionary measure against peritonitis. Sir F. S. EVE and Mr. HANDLEY stated that they had employed antistreptococcic vaccines but not anticoli. Mr. SWINFORD EDWARDS, replying, said his position was that cases must be judged on their merits, and no more extensive operation performed than was essential to cure the patient. The PRESIDENT added his testimony to the advantage of colostomy, and also confirmed the observation as to absence of shock after the extensive abdomino-perineal operation.

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## UNITED SERVICES MEDICAL SOCIETY.

*Wednesday, January 11th, 1911.*

Colonel Sir DAVID BRUCE, F.R.S., in the Chair.

*Training of Units.*

CAPTAIN W. A. WOODSIDE, R.A.M.C., in a paper on the training of Territorial medical units, advocated that after the first year all privates should devote their chief attention to the special duty for which they were detailed in the duty roster, since there was not sufficient time to teach Territorial privates more than one set of duties. On the other hand, non-commissioned officers should have a general knowledge of all duties. It was very necessary that the adjutant should have a competent knowledge of horse management.

*Infantry Loads.*

Lieutenant-Colonel C. H. MELVILLE, R.A.M.C., in a paper on the load of the infantry soldier, showed that the weight at present carried in nearly all armies was too great, more especially since in war it would have to be carried from the start by reservists out of training. The limit of weight which could be carried without excessive strain was 22 kilos (48½ lb.), while the British soldier, who was quite lightly loaded compared with the soldier of most

other armies, carried 58½ lb. Arms, ammunition, and clothing accounted for 35 lb. of this, and could not well be reduced. Any reduction could only be made by lowering the weight of accoutrements, greatcoat, shelter appliances, and "necessaries." A saving of nearly 2½ lb. could be made by making the water-bottle and mess-tin of aluminium and the straps of thinner material. A great saving could be made by replacing the greatcoat (6¾ lb.) by a short pea-jacket and a pair of overalls, or by making the coat of lighter material. Of the "necessaries" (9 lb.), he would relegate the cup, the cutlery, and small book (total 400 grams), along with the pack (800 grams), to the second line transport. Clean shirts, towels, soap, and the like were luxuries on service, and expensive luxuries when they were carried at the expense of the fighting efficiency of the soldier.

## SOCIETY OF MEDICAL OFFICERS OF HEALTH.

*Friday, January 13th, 1911.*

Dr. W. G. WILLOUGHBY, President, in the Chair.

*Relation of Public Health to Industrial Diseases.*

DR. DEARDEN, in a paper on the relation of public health to industrial diseases, claimed that understanding and amelioration of any conditions attached to associated labour which tend towards deterioration of physique and creation of disease must of necessity form a well-defined and distinct part of general hygiene. Apart from the excessive mortality from certain diseases which could be attributed to particular trade processes, alcoholism appeared to pick out certain trades in the exercise of its deleterious effects. The alcoholic tendency of printers, hatters, and shoemakers was well known. Waterproof spreaders, who were subjected to naphtha fumes, were very rapidly affected by alcohol, and it was suicidal for workers in lead to indulge in the habit. The rapid breakdown through alcoholism of men engaged in arduous occupations was well illustrated in the iron and shipbuilding trades. Insufficient air space and bad ventilation had a distinct influence on the creation of lassitude in the worker through rendering the respired air impure. Apart from the fouling of the atmosphere by products of respiration and combustion, it was now pretty generally understood that the presence of an excess of carbonic acid was injurious, owing to the increased tension preventing the normal escape of the gas from the blood, as well as from the interference with oxygenation, both on account of this and the lowered tension of atmospheric oxygen. The factory system was one to a great extent of juvenile labour, and as the future of the race was now regarded as of great national importance, it became highly necessary to obviate any tendency to deterioration in physique or the sowing of seeds of disease as a consequence of conditions of employment. Although the age at which children and young persons were allowed to begin work was regulated by statute, the medical supervision of the certifying surgeon was a most prominent and important regulating factor of that form of labour.

Dr. BATE referred to the advantages of the conditional certificate of employment, which could now be given, as a great advance upon the former practice. He regretted the tendency of junior practitioners to certify workmen as suffering from lead poisoning upon insufficient grounds.

Dr. GLEN PARK advocated a more detailed examination of children seeking employment in factories, and considered that there was need for subsequent examinations after the first.

Dr. GREENWOOD and Dr. KEAY pressed for greater co-operation between the medical officer of health and the certifying factory surgeon.

Mr. F. E. FREMANTLE considered that the prevention of accidents was a part of public health work, and he would like to see courses of popular instruction for workmen in the prevention of accidents.

Dr. EDGAR COLLIS urged medical officers of health to take more interest in the conditions of employment in special diseases, and spoke of the importance of investigating the invalidity of special industries. He was of opinion that danger in occupation was indicated more by invalidity than by mortality.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, January 4th, 1911.*

Dr. C. H. CATTLE in the Chair.

*Lumbar Puncture.*

DR. C. H. CATTLE, in opening a discussion on lumbar puncture, described the cerebro-spinal fluid as a true secretion of the choroid plexuses of the lateral ventricles. In disease it showed an abnormal number of leucocytes and an increased amount of proteid. In acute meningeal affections the prevailing type of leucocyte was the polynuclear, but in tuberculous meningitis, syphilitic meningitis, tabes, and general paralysis, there was lymphocytosis. When destruction of nerve elements was in progress decomposition products, such as lipoid bodies and choline, could be detected, and also a great excess of globulin. The fluid gave the Wassermann reaction in a large percentage of cases of general paralysis, and also in tabes, but in lesser degree the cerebro-spinal fluid. Dr. W. T. ROWE said that in performing lumbar puncture on a child a general anaesthetic was advisable, and also in an adult who was delirious, but not otherwise. In all instances in which it was thought that meningitis might be present lumbar puncture should be performed; the presence or absence of meningitis could then be definitely determined; if the number of leucocytes was not increased, meningitis was certainly not present. In arriving at an opinion as to whether a case of sudden hemiplegia was due to (*a*) thrombosis or (*b*) haemorrhage, lumbar puncture was of service, for in the first event the cerebro-spinal fluid was not altered in colour, while in the second case it became "rusty." Valuable information might be gathered from the pressure under which the fluid escaped. Lumbar puncture relieved intracranial pressure, and, pending the action of antisyphilitic treatment, it might if repeatedly performed lessen loss of sight due to optic neuritis. For the drainage of toxins and bacteria it might be useful in cases of meningitis, and through the trocar Flexner's serum should be injected. It lessened the severity of convulsions in uraemia, and should be performed if free purgation, hot-air baths, etc., did not produce a beneficial effect.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

*Friday, January 6th, 1911.*

Dr. PHINEAS S. ABRAHAM, President, in the Chair.

*Clinical Evening.*

THE following were among the exhibits:—Dr. ABRAHAM: (1) A case of *Tylosis* treated with solid $CO_2$ and scraping; (2) mixed *Leprosy* in a male, treated with solid $CO_2$, with excellent results, the lepromata in the face having quite gone; the case was also treated with nastin. Dr. SEYMOUR TAYLOR: A case of typhoid fever with two relapses, one after an interval of five weeks. Mr. W. MCADAM ECCLES: A case of *Cystic swellings* on the forehead and in the thyroid region in a male, aged 65, that on the forehead being probably a dermoid cyst, and the thyroid one either a cyst of the thyroid or a tubular dermoid in connexion with the thyro-glossal tract. Dr. ARTHUR SAUNDERS: A case of *Tuberculous adenitis* in a girl aged 17. The case was of interest owing to the question of diagnosis between lymphadenoma and tuberculous glands. A gland was removed by Mr. Bidwell, and examination of it showed the presence of giant-cell systems typical of tubercle. Mr. N. BISHOP HARMAN: (1) A case of *Argyrosis of the conjunctiva* produced in a youth of 15 by the continuous use of protargol drops over several years; the case illustrated the importance of restricting the application of silver solutions to the hands of the surgeon only; (2) a case of *Tuberculous kerato-iritis* in a woman aged 21; the right eye presented three interstitial corneal masses, one of which was breaking down, and an acute iritis. Injections of tuberculin T.R. were made with most beneficial results. Dr. H. J. DAVIS: A case showing the stapes visible in the oval window in a woman of 25 in whom a radical mastoid operation had been performed for otorrhoea of three years' standing; the malleus and incus were removed; the bone cavity healed in six weeks; the patient could hear a watch

at 6 in. Dr. KENNETH ECKENSTEIN (for Dr. J. HALLS-DALLY) gave a demonstration of the sphygmo-oscillometer, an instrument devised by Dr. Pachon of Paris to estimate the blood pressure. The advantages claimed for the instrument were: (1) that the personal equation was abolished, (2) that the blood pressure was measured at the same level as the compression, and (3) that the instrument was always working at a constant pressure. It showed the maximal or systolic pressure, the minimal or diastolic pressure, the amplitude of the pulse, and the characters of the pulse wave — such as dicrotism, irregularity, effects of respiration, etc.

## BATH CLINICAL SOCIETY.

*Friday, January 6th, 1911.*

Mr. F. LACE, President, in the Chair.

*Exhibits.*

THE exhibits included the following: Mr. A. J. B. LECKIE: A case of *Primary carcinoma* of the liver in a girl, aged 6, since confirmed *post mortem* (weight of liver, 87 oz.). Mr. FORBES FRASER: An ovarian dermoid, which had ruptured into the peritoneum, being attached to the sigmoid flexure by a patent tube about an inch and a half in length. The cyst contained foul-smelling faecal material and vegetable débris, the remains of fruit skins, seeds, orange pips, etc., being recognized.

*Cancer Problem.*

Dr. CHARLES J. WHITBY, in a paper on the cancer problem in the light of recent research, said that the fact that cancer occurred in civilized and uncivilized races of mankind, showed that dietetic and other habits were of secondary importance. Ethnological researches also confirmed the belief in the rôle of chronic irritation as a predisposing cause. In inoculation experiments the histological peculiarities of the original tumour were often reproduced by astounding fidelity through many "generations." There was a marked tendency to alternation of periods of rapid growth and multiplication with periods of comparative sterility. The fibrous and vascular stroma of a transplanted growth was derived from the host, and represented a specific reaction to the presence of the parenchyma cells; according as the fibrous or vascular element predominated the cancer cells would be ill or well nourished. In immunized animals no stroma formation succeeded the inoculation of cancer tissue, consequently the cancer cells died. At any stage in a given series of transplantations the connective tissue elements of the stroma might undergo transmutation into spindle-cell sarcoma, and would then become transplantable. The sarcomatous stroma competed with the original carcinoma, and might in the course of further transplantations oust it altogether. The results of research confirmed the rationality of treatment by radium and the *x* rays. It would be premature to apply the results of experimental immunization to man until such time as definite effects could be produced in animals upon growing vascularized tumours of spontaneous origin as distinguished from recently introduced transplanted growths.

THE essential object of the Boy Scouts' organization is, apparently, to make boys into good citizens—physically strong, self-reliant, resourceful, and with some appreciation of duty to their fellow-creatures and to their country. This is an ideal well worth striving for. A glance through some of the numbers of the *Boy Scouts'* (*Baden-Powell's*) *Headquarters Gazette*, which is the official journal for all secretaries and scout masters, shows how wide a range of subjects can be utilized in the teaching of citizenship. In the issue for December, 1910, scout masters are reminded that the extent of the scouts' organization makes it a power which can be utilized for the national welfare, and suggests that this power may be usefully employed in aiding the campaign against tuberculosis. Sir R. Baden-Powell gives a short account of the main facts about consumption, its causes, and the extent of the disease, and then indicates the part which the boys can take in the work of prevention. Sir R. Baden-Powell has done well in recommending this subject to the consideration of the scout masters, for through them much may be done towards the hygienic education of the younger generation which should bear good fruit in a few years' time.

# Reviews.

## ALLBUTT AND ROLLESTON'S "SYSTEM."

VOL. VIII of the *System of Medicine*,[1] edited by Sir CLIFFORD ALLBUTT and Dr. ROLLESTON, differs from the corresponding volume of the first edition in that it is devoted entirely to diseases of the brain and mental diseases, diseases of the skin, formerly incorporated in vol. viii, being reserved for the concluding volume. New articles have been contributed by Dr. F. E. Batten, Professor J. Michell Clarke, Dr. James Collier, and Dr. Head, whilst the whole bears constant witness to the thorough and careful revision demanded by a department of medicine the progress of which, by the expansion of its confines, the development of its resources and changing terminology and conceptions, is unsurpassed by that of any other. Of its thirty-seven contributors each is an authority upon the subject on which he writes, and doubtless it is for this reason that although no new discovery is overlooked and no new and important point of view left unmentioned, a wise and judicial conservatism is throughout clearly discernible. For this reason it seems safe to prophesy that future editions may, and will, call for additions but not for alterations.

Varying naturally in accord with the subject as to length and individual method of treatment, the separate articles are at one in their animating spirit of thoroughness, lucidity of utterance, and discriminating judgement. After an appropriate opening article by Dr. Leonard Hill on the experimental pathology of the cerebral circulation, Sir David Ferrier discusses the regional diagnosis of cerebral disease. Considering the range of this subject, its enormous literature and the wealth of experimental research, in which the author has borne so distinguished a part, this article is a model of compression. Following the account of disease of each region, a useful summary of the main conclusions to be drawn therefrom and an extensive bibliography of each region are given.

Preceding the chapter on tuberculous meningitis by Sir Thomas Barlow, a new article is contributed by Dr. Batten on all forms of meningitis except the tuberculous, use being made of the statistics and illustrations given in Dr. Lees's and Sir Thomas Barlow's elaborate article on simple meningitis in the first edition. Turning to diseases of the brain proper, Sir William Bennett gives a most interesting and useful account of some milder forms of concussion of the brain. The importance of this article lies in the fact, to which the author draws attention, "that even now medical men are not always alive to the importance of these symptoms, or to the relation which they bear to an injury which may have appeared to be trivial." In these days, when the etiological significance of head trauma, not followed by pronounced loss of consciousness, is becoming discounted as a cause of mental illness, the opinions of, and safeguards suggested by, Sir William Bennett, are worthy of especial note.

In reviewing a work of this magnitude any attempt to mention every article would resolve itself into a mere catalogue of subjects and authors, but on account of the prevalence of these affections special mention should be made of the articles on general paralysis by Drs. Savage and Goodall; on epilepsy by Sir William Gowers; on chorea, tetany, tics, facial spasms, head-nodding, paramyoclonus multiplex, and eclampsia nutans by Dr. Risien Russell, and that on neurasthenia by Sir Clifford Allbutt. The group of admirable articles by Dr. Risien Russell deals with widely-prevalent but obscure and, until recently, ill-defined affections, clear conceptions of whose nature and differential diagnosis has accrued largely from the work of Continental observers. Every one who reads these articles will be grateful for his excellent and absolutely up-to-date exposition. The article on neurasthenia takes up 63 pages, but no one will be disposed to quarrel with its length; combining philosophic breadth of view with scientific precision, coupling the formulae of the laboratory by the sure hand of one

[1] *A System of Medicine.* By Many Writers. Edited by Sir Clifford Allbutt, K.C.B., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic, University of Cambridge, etc.; and Humphry Davy Rolleston, M.A., M.D., F.R.C.P., Senior Physician, St. George's Hospital. Vol. viii: *Diseases of the Brain and Mental Diseases.* Second edition. London: Macmillan. 1910. Illustrated. (Med. 8vo, pp. 1034. 25s.)

skilled in verbal artistry, and the whole as genial and humane as it is scholarly, Sir Clifford Allbutt's article is as instructive as it is delightful to read. Leaving with a bare mention two brief monographs on the disorders of sleep and night terrors by Drs. Bradbury and Leonard Guthrie, respectively, we pass to mental diseases, the concluding portion of the volume.

The introduction, outlining the classification recommended by the Medico-Psychological Association of Great Britain and discussing succinctly the usually assigned causes of insanity, is by Dr. Savage. Then follows an article on vice, crime, and insanity by Dr. Mercier, distinguished by the dialectical skill and power of expression characteristic of the author of *Criminal Responsibility*. Drs. Shuttleworth and Fletcher Beach write on idiocy and imbecility, and the articles on mania, toxic insanities, and mental stupor and catalepsy are by Dr. Savage. The epochal insanities are described by Dr. Clouston, and here it should be said that the distinguished author, although bracketing dementia praecox with his classification of the insanity of puberty and adolescence, gives no recognizable description of dementia praecox and its forms as depicted by Continental observers. Similarly, melancholia as described by Dr. Rayner is to be regarded as including all mental disorders in which emotional depression is the predominant system, and not in the restricted fashion of the simple melancholia of involution. An admirable account of systematized delusional insanity by the late Dr. Conolly Norman receives a critical addendum by Dr. Percy Smith, who also describes acute delirium. Other articles are written by Drs. Hyslop, Dr. Robert Jones, and Dr. Urquhart, while Dr. Milne Bramwell gives a very brief and practical account of hypnotic practice and results. Finally, criminal lunacy in England is treated by Dr. David Nicolson, while English law and practice of lunacy has been given into the safe hands of Drs. Savage and Outterson Wood.

Although mental diseases take up less than a fourth of the whole volume, this portion will be found quite adequate for the needs of the student and general practitioner.

## COMPARATIVE PHYSIOLOGY.

WE have received the first nine parts of an important German work on comparative physiology,[2] which Professor WINTERSTEIN is editing. His contributors include an accomplished set of men who are familiar with one or other branch of their subject. The first part of the second volume, on the digestion and assimilation of food, is dealt with by Professor Biedermann, a most prolific writer. He has completed five instalments, and these contain nearly 1,000 pages, and he is still hard at it. Professor Tigerstedt deals with heat production, and Professor Garten with animal electricity. To Professor L. Fredericq has been allotted the secretion of protective and useful substances, while Professor Burian has produced the first instalment of his work on excretion, and Professor Mangold that on the production of light.

Just as comparative anatomy and embryology has thrown much light on the development and evolution of man and the genesis of abnormalities, so the study of comparative physiology leads to the better understanding of function. In itself the subject is one of entrancing interest. We read of the wonderful production of light by the deep-sea fishes, the dark abysses of the sea miles deep, illuminated by the ghostly flitting forms of a fauna that feeds, in the absence of all flora, on the débris that comes from above; of the light organ taken from fish which illuminate the coral reefs of the Malay Archipelago, a light organ which is used as a bait, and gives light the whole night through, although excised from the fish. This light organ is a modified skin gland, and has behind it a reflector of connective tissue cells filled with doubly refracting crystals (guanin?). It is provided with a big nerve supply from the trigeminal-facial complex. The light is cold, no energy is wasted on heat production, and the living protoplasm arrives as in every case at an economy of production which man cannot emulate, and a mystery of energy transformation which defies his understanding. The *Noctilirca miliaris*, the rhyzopod which produces the ordinary phosphorescence of the sea, measures only some ½ mm., and there may be as many as sixty in every quarter of a pint of water. Under the microscope its body looks like the starry firmament, as points of light flash up and out all over the surface.

Professor Biedermann tells us of the wonderful fungus garden made by ants. The soil is prepared by the chewing up of leaves, and a bed is formed sometimes yards in extent. The spores of moulds settle on this, and then, most wonderful of all, the ants manure their garden. An instantaneous photograph is given showing an ant applying the filament of mould to his anus, and then, after dunging on it, planting it again in the garden. We learn how the snail's liver is not only, as in us, a great storehouse of fat and glycogen, but also of calcium phosphate, which he uses to build his shell. We see a picture of a section of a potato stem before and after digestion by the stomach juice of the snail, and note how only the wood fibres are left. In dealing with the digestive organs of insects, Professor Biedermann tells us all that is known of the wonderful functions of the salivary glands of bees, the production of comb and honey, the feeding of the workers, and the queen larvae.

Professor Garten's account of the electric fishes is full of interest, illustrated as it is with figures of the fish and their electric organs. No less so is Professor Fredericq's account of all the defensive mechanism, the poisons of stinging animals, the toxin and antitoxin of poisonous snakes, etc.

As a work of reference this is one which every biological laboratory and library should have on the shelves.

[2] *Handbuch der Vergleichenden Physiologie.* Edited by Professor Winterstein. First nine parts. To be completed in about thirty parts. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo. M.5 each part.)

## BIOLOGY.

UNDER the title of *Charles Darwin and the Origin of Species*,[3] Professor E. B. POULTON has reproduced in one volume a collection of addresses delivered in America, in Oxford, and in Cambridge in connexion with the Darwin celebrations and the jubilee of the publication of the *Origin of Species*. To these are added an essay on the "Value of Colour in the Struggle for Life," which originally appeared as Essay XV in *Darwin and Modern Science*, published by the Cambridge University Press in 1909. A new chapter on "Letters from Charles Darwin to Roland Trimen (1863–71)," and four chapters styled "Appendices" complete the volume. Naturally a book of this character, dealing with a variety of topics, is of unequal interest; some chapters will appeal to those whose interests turn more towards the biographical side, other chapters to those fascinated by the philosophical speculations of the great naturalist.

In considering the book as a whole, it may be reviewed from this double standpoint. In the biographical portion Professor Poulton has been able to add little that is new. The material is largely culled from *Life and Letters* and *More Letters*—books already familiar to nearly every one. The chapter on the "Personality of Charles Darwin" is delightful. One never seems to tire of reading accounts of the life and personality of that most lovable of men, especially when written by a pen so sympathetic as that of Professor Poulton. On one occasion only does Darwin seem to have given vent to a harsh saying about any one. It was during a conversation with Mr. Roland Trimen relative to the authorship of certain hostile articles in the *Quarterly Review* and the *Edinburgh Review*. Darwin asked if Trimen knew who wrote the articles. On being told that Owen's name had been suggested, Darwin said, "Owen was the man." On being questioned as to whether he knew it to be the fact or came to that conclusion from internal evidence, he replied, "The internal evidence made me almost sure that only Owen could have written it; but when I taxed him with the authorship and he absolutely denied it—then I was quite certain." Words from so "eminently gentle and considerate" a man showed a very considerable depth of feeling, and naturally made a deep impression upon the hearer. Professor Poulton is indebted to Mr. Trimen himself for the account of this episode, which, we believe, is here published for the first time. It is, however, in the chapters which deal with such

[3] *Charles Darwin and the Origin of Species.* By E. B. Poulton, D.Sc., M.A., Hope Professor of Zoology in the University of Oxford. London: Longmans, Green and Co. 1909. (Med. 8vo, pp. 318. 7s. 6d.)

subjects as mimicry in butterflies, warning colorations, cryptic colours, and the like, that the author is, perhaps, at his best. They are subjects of which he has made a lifelong study and upon which he is a recognized authority. Rival theories are admirably stated and explained in such a way as to be "understanded of the people." The facts and theories discussed are matters of considerable interest to the general reader as well as to the professed biologist. Professor Poulton has some hard sayings with regard to the views of De Vries and the Mutationists, "with whom the Mendelians are somewhat unnecessarily allied." A strong supporter of Weismann, he does not believe in the inheritance of acquired characters, though we hardly think that the example which he has selected in support of his contention, and which he discusses at some length —namely, the evolution of the feelings experienced on entering a tropical forest for the first time, or upon entering a vast cathedral—is a very happy one. Though Professor Poulton's views upon many of these philosophical problems do not commend themselves to all biologists, he has nevertheless written an interesting book, and one which will appeal to a considerable section of the reading public interested in general biological problems.

The historical and critical study of "system" in biology,[4] which we owe to Dr. TSCHULOK of Zurich, is a formidable monograph, which would probably receive more attention, and therefore better achieve its purpose, were it much more condensed. His appeal should receive much sympathy from medical teachers. In a historical survey he contends that botany actually suffered from being a handmaid of medicine, since the textbooks upon the subject were merely herbals to which glossaries of prodigious size were attached. This still persists in numerous standard textbooks with their chaotic chapters on "special botany." Zoology was in a much more favourable position, for the physicians who taught it examined animals with the object of obtaining information which would elucidate the problems of medicine. After a preliminary division of all biological methods into *biophysik* and *biotaxis* (study of real relations and ideal relations respectively), the author proceeds to enumerate seven "points of view" from which biology should be studied. These are (1) *Systematology* or classification—the division of organisms into groups according to their similarity; (2) the laws of form, or *morphology;* (3) the living processes in the organism, or *physiology;* (4) the relations of organisms to the outer world, including other organisms, or *ekology*—this branch of the science is often termed biology; (5) the distribution of organisms in space, or *chorology;* (6) their distribution in time or *chronology;* and, finally (7) the origin of life, or *genetik.* After a very able plea for this classification the author proceeds to criticize other proposed classifications, including Spencer's and Pearson's. Perhaps the most interesting part of the book is the criticism of the modern textbooks as illustrating the prevailing methods of teaching. It is pointed out that more space and dignity should be given to ekology, chorology, and chronology, which are usually relegated to a few paragraphs and chapters. When one remembers that most of the triumphs of modern tropical medicine are essentially within the limits of ekology, the importance of this projected reform becomes evident. It is probable, indeed, that if a great deal of parasitology were "unloaded" into biology the student would take more interest in the subject and would have his later years more free for the study of clinical medicine and surgery. With regard to chorology and chronology, it is surely remarkable that, notwithstanding the immense importance of these subjects in regard to evolution, their treatment in ordinary textbooks is still very inadequate. There can be little doubt that the comparative neglect of these aspects of biology deprive the science of much of its value as an intellectual discipline. Dr. Tschulok admits the necessity of a division into general and special botany and zoology, but only for the purpose of teaching. He would have the section of special botany consist of a description of a few types carefully selected to demonstrate the general laws in all the branches of biology enumerated above. It would consist, in fact, of a series of chapters modelled more or less on the lines of Huxley's *Crayfish.* Thanks largely to Huxley, this system has been practised to a great extent in this country, but in Germany, if the textbooks are any criterion, special botany and zoology consist largely of undigested catalogues of orders and species. Strassburgher's well-known textbook of botany is criticized very severely. Dr. Tschulok shows that the section on special botany in this (and in similar textbooks) is utterly devoid of logical method and contains an undigested and useless mass of ill-assorted facts. Those who have ever tried to struggle through this literary morass will cordially agree with the author. The book as a whole is written in a simple style, taking into consideration the rather complicated character of the reasoning. Dr. Tschulok has evidently a strongly logical mind and rapidly pounces upon any false reasoning. For instance, he draws attention to a prevailing fallacy which assumes that the demonstration of the similarity of precipitins in allied species is an "experimental proof" of the doctrine of evolution. It is merely the rather dramatic discovery of another similarity between the allied species. The mere fact that it can be demonstrated in a test-tube experiment does not give it any higher value than the scores of other similarities of form and function which have been recognized for many years. We feel sure that Dr. Tschulok's scheme for reform is based on sound lines. It is by no means so original as he supposes it to be, but there can be little doubt that reform is required even in England, where the energies of the medical student are apt to be expended on acquiring dexterity in the demonstration of the ovary of lumbricus rather than on getting a sound conception of general biological methods.

[4] *Das System der Biologie in Forschung und Lehre.* A historical and critical study. By Dr. S. Tschulok, Zurich. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 420. M. 9.)

## MEDICAL EDUCATION.

"THE subject of medical education in this country is not an easy one to follow, and my hope has been to deal with it so that any one interested can see what are the problems, and can estimate the practicability of the various solutions suggested for them." These words, taken from Dr. SQUIRE SPRIGGE's preface to his volume entitled, *Some Considerations of Medical Education,*[5] serve admirably to explain the object at which he aims. A sort of pall has for the time fallen upon the subject of medical education, and more particularly over that part which has relationship to the University of London, the Royal Colleges of Physicians and Surgeons, and the London Medical Schools. It is well that this should be so, for after the strong feeling provoked in recent years, both in lay and medical minds, by the consideration of this subject in the metropolis, a pause will give time for the mud stirred up by the controversy to subside. As an aid to this precipitation abstention from controversy would, many think, be more than golden, while the affairs of the University of London are again going through the melting-pot of another Royal Commission. The Commission must, however, obtain evidence upon which it can base its report, and this volume will be helpful, for we doubt if the difficulties which asail the subject of medical education, whether in the United Kingdom or in London, have ever been brought within so reasonably small a compass, and yet have received such adequate consideration. The reader will find a good account of the medical curriculum, of its methods of standardization, of its merits, of the various schemes for the rearrangement of the curriculum, of the one-portal system, of the vexed question of the subjects which are ancillary to the study of disease, and of the requirements of the General Medical Council in regard to preliminary scientific education; finally, the author seeking a remedy for the malady which has fastened upon medical education, makes the following suggestion: "Attention henceforth will be centred more on the problems connected with these subjects (that is, the earlier ones), and it is probable that the position of the science masters in the public schools, who desire to begin the education of the medical student when he is in his sixteenth year, will receive greater attention than heretofore. This is a comparatively new point in the difficult question of medical

[5] *Some Considerations of Medical Education.* By S. Squire Sprigge, M.A., M.D.Cantab. London: Baillière, Tindall and Cox. 1910. (Cr. 8vo, pp. 108. 2s. 6d.)

education." On one or two points we feel we must cross swords with Dr. Sprigge; although, as he admits, "the matriculation of the University of London is harder than the examination which opens up the career of medicine at other centres," and although "far more application is required for the student to pass the matriculation examination at the University of London than is required to pass any other entrance examinations," he says on page 21, "It seems to be a general opinion that in too many instances the successful men at the London matriculation acquire habits of working which do not tend to make of them practical medical men." Later on Dr. Sprigge seems to imply that this depends a little on the way in which he has learnt his work—namely, by cramming. A graduate of the University of London is known to us who during his connexion with a London hospital had coached with men in nearly every subject in the medical curriculum, in order to add to his rather meagre financial resources. It was his experience that he never coached a single aspirant for the medical degree of the University of London; they did not want such help; on the other hand, he read with men preparing for the examination of the Conjoint Board and of the Universities of Oxford and Cambridge, and one of the most eager applicants for help was a Fellow of his college, who said he wanted some sort of coaching which would save him from wading through so much rubbish as he considered was to be found in the textbooks. Again, on page 63 Dr. Sprigge says, "In London to obtain that title (proper medical qualification) the student must do work that is not of the kind to enhance his utility as a practitioner." Now, if Dr. Squire Sprigge had put in the place of the word "London" the words "United Kingdom," there would be nothing to criticize; the remark, indeed, would be welcome. There is a large section of medical teachers who believe that the five years' medical curriculum is too long, in view of the rewards subsequent practice is likely to yield, and in view of the fact that the moment of qualification is not that happy one when a man becomes independent of financial help. We are all aware that to fit himself thoroughly for practice he must spend a year or more either as a resident in a hospital or working under the supervision of an experienced general practitioner. What is wanted, so it seems, is that the earlier subjects should no longer be allowed to monopolize three years of the curriculum. The farcical attention to anatomical details, and to the flotsam and jetsam of physiological theory which is being exacted from the medical student through two or even three years of his golden period of receptivity and educability is no credit to those responsible for the present state of affairs. Pathological and clinical work should receive more attention, and more of the earlier years should be devoted to applied biology—to bacteriology, for example. If these reforms were carried out, the student would be less dejected at the outset of his career as a practitioner, and less often wellnigh, if not actually, bankrupt.

Dr. Squire Sprigge has used the information which his position as Editor of the *Lancet* gives him in such a way as to earn for himself the lasting gratitude of those who wish to see the present unsatisfactory state of affairs amended. But the facts to which we have ventured to direct attention—though at first sight, perhaps, of minor importance—are not so in reality. They need to be elucidated by discussion, and on this score alone these essays were well worth writing and are as deserving of careful perusal. They provoke thought upon subjects which are of vital interest to the profession at large.

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## DISEASES OF CHILDREN.

THERE is now a large and increasing number of works on the hygiene and rearing of infants and children. Dr. DINGWALL FORDYCE'S book, *The Hygiene of Infancy and Childhood, and the Underlying Factors of Disease*,[6] differs from the majority of these, in that it is written exclusively for medical readers, and not for mothers and nurses. The author states that whilst there are to-day many first-class books dealing with the clinical and therapeutical aspects of disease in childhood, he knows of none professing "to correlate the primary facts of medicine as they apply specially to pediatrics." The book is interesting, and written largely on original lines. Throughout he shows his acquaintance with the latest developments of physiology, pathology, and bacteriology, and in addition he deals with the more modern aspects of heredity. The last, indeed, is a special feature of the work, and there are separate chapters on the factor of heredity, the problem of heredity, clinical aspects of heredity and environment. In addition, there is an appendix dealing with the study and theories of heredity. These chapters contain a succinct account of the main principles of the statistical and experimental systems. They are useful in themselves, but will prove still more so if they induce the readers to consult the original authorities upon whom the author has drawn for his information, and to whom he is rigidly scrupulous in acknowledging his indebtedness. There are many, however, who will be less hopeful in expecting practical assistance in clinical methods from further advances in the science of heredity than he would appear to be. At present clinical medicine owes little to any facts directly deduced from the study of heredity, whilst the latter is indebted in a large extent to clinical records of familial and similar complaints. The treatment of bacterial infections is especially good, and there is an appropriate chapter on the factor of age incidence. In the section on *Bacillus tuberculosis* the author states of cow's milk, "the danger latent in it from tuberculous infection is very real, it is quite preposterous to ignore it, and those who may order raw cow's milk for the infant or young child must do so in careless disregard of the possible consequences." There are many of large experience who attribute distinct and marked advantages to the use of raw milk over that which has been cooked in any form. Again, there are accepted authorities—including Emmett Holt and Comby—who regard the incurrence of tuberculosis from cow's milk as a very remote contingency. It may well be, then, that many, whilst fully recognizing its possible dangers, might deliberately order raw milk, putting its certain advantages for the many before the possibility of its disadvantage to the few. Again, considering how very real a danger of tuberculosis the author attributes to the use of raw milk, his method of counteracting this danger appears inadequate. He writes, "To this end *cow's milk for the use of young children (unless obtained from an exceptionally reliable source) must always be scalded.* The italics are his. Few, we take it, regarding this danger so "very real" as the author does, would care to rely on mere scalding. This is almost the only point we have noticed calling for adverse criticism throughout the work. It is offered to "busy practitioners" and "young physicians," but of the former class, we fear, it will only appeal to a limited number, much of the matter being of more academic interest than of direct practical utility. The author writes fluently and well, and his book makes pleasant reading. It is worthy of a better paper and general get-up.

We have so often expressed our appreciation of the work of Drs. GOODHART and STILL on *The Diseases of Children*[7] that any lengthy notice of the ninth edition would be redundant. In its latest form the work has been thoroughly revised; effete information has been removed, and new material added, thus bringing it thoroughly up to date. An innovation, and a pleasing one, is the inclusion of illustrations in the text. These are few in number, but each one is well adapted to the purpose for which it is inserted. Criticism, needless to say, is superfluous. It might have been well, perhaps, in the brief section on erythema nodosum to have mentioned the view, now held by many, that the complaint is a distinct and specific one, having no causal connexion with rheumatism. In the preface Dr. Goodhart notices a criticism we passed in a review of a former edition, that the mixed usage of "I" and "we" might be somewhat disconcerting to those reading the book for the first time. We imagined we had made it abundantly clear that we recognized that this was inseparable from the evolution of the work, and due to the

[6] *The Hygiene of Infancy and Childhood, and the Underlying Factors of Disease.* By A. Dingwall Fordyce, M.D., F.R.C.P.Edin., Extra Physician, Royal Hospital for Sick Children, Edinburgh, Edinburgh: E. and S. Livingstone. 1910. (Demy 8vo, pp. 300. 6s.)

[7] *The Diseases of Children.* By James Frederic Goodhart, M.D., F.R.C.P., Consulting Physician to the Evelina Hospital for Sick Children, and to Guy's Hospital, etc.; and George Frederic Still, M.D., F.R.C.P., Professor of Diseases of Children, King's College, London; Physician to Out-patients, the Hospital for Sick Children, Great Ormond Street. Ninth edition. London: J. and A. Churchill. 1910. (Med. 8vo, pp. 947. 15s.)

original offspring of Dr. Goodhart having been stepfathered by Dr. Still. If we did not say then, we will say now, that any change interfering with Dr. Goodhart's happy phraseology would be one to be deplored, and one that would materially detract from the pleasure with which the work may be read. The new binding and get-up of the book are distinct improvements upon those of former editions.

The fact of Dr. KOPLIK's work on *Diseases of Infancy and Childhood*[8] having reached a third edition is a proof that its merits have not gone unrecognized. In this edition many chapters have been revised and recast, and fresh sections have been added on such subjects as idiocy and dwarfism. In spite of this revision and additions, the book remains an uneven one. Whilst many of the complaints are adequately dealt with, in the case of numerous others the description is scanty and incomplete. More especially is the last the case in those parts of the book dealing with the more clinical aspects of the diseases. The volume is a large one, but the symptoms of many important complaints are dismissed in very few lines. The section on nutrition and infant feeding is adequate and satisfactory. Dr. Koplik is no believer in the elaborate percentage methods of Rotch, and sums up their defects as follows:

1. By simply rearranging the proteids, fat, and sugars, we do not change the proportionate relationship which the casein or caseinogen bears to the lactalbumin and other proteids of the milk, and we do not in any way change the foreign nature of these to the human economy.
2. With the exception of a few limited facts and formulae, we have no data which, with our present knowledge, will enable us to know in every case when to increase or to diminish the proteids and also the fats.
3. The process of separating the cream from the milk by machinery destroys the original delicacy of the fat-emulsion in the milk. The infant does not assimilate these mixtures in every case as well as those which are constructed from milk which has not been manipulated to the extent that laboratory milk has.

With these conclusions most later authorities will agree. The author's statement that "It is fallacious to assume that the proteids and fats of cow's milk can be assimilated without change in the economy," refers to an odd theory, undoubtedly fallacious, and, as we had supposed, forgotten. In many places in the work we notice an unnecessary elaboration of forms of diseases, founded merely on the predominance of one or other set of symptoms. In the section on anterior poliomyelitis, for example, he describes no less than six "distinct forms": (1) "The poliomyelitic or spinal form"; (2) "The form simulating an acute or descending paralysis (Landry's paralysis)"; (3) "The bulbar or pontine form"; (4) "The encephalitic or cerebral form"; (5) "The polyneuritic form"; (6) "Abortive forms." In addition, he mentions an "ataxic form" of other writers, but merely to say that it is rare. We cannot think the separate description of each of these as "distinct" forms either necessary or advisable. By a curious coincidence, too, with all his numerous forms he does not mention the one that is really distinctive—the one of limited distribution in the younger children—that sets in suddenly without pyrexia or any other obvious disturbance of the general health. Pneumococcal peritonitis occupies only a single page, and the description is meagre and inadequate. In one place we read: "And in this way we have a picture resembling ascites or tuberculosis of the peritoneum," and a few lines lower down it is stated, "Tuberculosis of the peritoneum can hardly be mistaken for this form of peritonitis"—statements that are apparently contradictory of one another. With regard to the latter, we are inclined to agree with Annaud and Bowen that mistakes between the complaint and tuberculous peritonitis have not been infrequent. Few observers, too, in this country at least, would agree that "The prognosis, as a rule, is good"—for the mortality here has been deplorably high. The section on pyloric stenosis in infants can be commended; the author's conception of its pathology is reasonable, and one that is consistent with the widely different views held by different authorities, both as to the complaint and its treatment.

An excellent feature of Dr. Koplik's work is the wealth of illustrations, both coloured and plain, most of which are admirable and well selected to assist the text.

[8] *The Diseases of Infancy and Childhood.* By Henry Koplik, M.D. Third edition, revised and enlarged. London: Henry Kimpton. 1910. (Roy. 8vo, pp. 959; engravings 204, plates 39. 25s.)

## ALCOHOL AND DEGENERACY.

DR. J. JOHNSTON of Bolton discusses in his *First "Hicks" Counties Lecture*[9] the subject of "Alcohol, the Parent, and the Child." First referring to alcoholism as one of the most potent factors concerned in infantile mortality (in support of which he quotes Dr. Sullivan's well-known prison statistics as to drunken mothers and their offspring), he goes on to point out how alcohol lowers the vitality of the phagocytes and consequently the power of resistance to disease. The question as to the part which parental alcoholism plays as a factor of feeble-mindedness is discussed, and Dr. Johnston considers the balance of evidence is in favour of the views of Drs. Potts, Wiglesworth, Tredgold, MacNicholl, and others, who conclude that, though the origin of mental defect is complex, parental alcoholism exerts a potent influence in causing mental degeneracy of offspring. He agrees with Forel that alcohol is a "protoplasmic poison," producing "blastophthoria," and affecting the germ-plasm out of which the embryo of the new individual is formed. He confirms also from his own experience the observations of Bunge of Basle, that a mother's disability to suckle her children may arise from her father's intemperance. Oddly enough, he does not refer to maternal alcoholism as a direct cause of impaired development of the embryo. Examining Miss Elderton's memoir, he questions the value of the material on which the conclusions are based, pointing out various fallacies and weaknesses. Lastly, he emphasizes the importance of the protection of childhood from alcohol as the best way of protecting parenthood from it, and strongly advocates "temperance teaching" in all schools.

## A FRENCH VIEW OF MEDICAL ETHICS.

THIS translation of the second French edition of Dr. GEORGE SURBLED'S book on *Medical Etiquette*[10] is introduced to the English reader by Sir Dyce Duckworth, who "is not aware of any such work having been produced in this country, certainly in recent years," and feels "sure that such teaching is most necessary and important for young practitioners at the outset of their career." In thus ignoring Professor Saundby's well-known book, which is in its second edition, Sir Dyce Duckworth has committed an unintentional injustice. Dr. Surbled is Lecturer on Deontology at the Post-Graduate School inaugurated in 1908 under the auspices of the Catholic Institution of Paris, and writes from the standpoint of that Church. His views are coloured by national, political, and religious prejudice, as shown by his caustic references to Koch's tuberculin, wherein he ignores its merit, and by his remarks on the Revolution and the production of premature labour. He divides his subject into six parts; in the first he discusses the principles of medical ethics and finds them in "Honour, Conscience, and Religion"; but like that other formula, "Liberté, Egalité, et Fraternité," these fine words carry us a very little way in practice. In the second part he enumerates the medical virtues as Justice, Charity, Self-sacrifice, Courage, Patience, Self-denial, Discretion, Dignity, Honesty, and Knowledge. Under Honesty he says truly that the doctor should "hold the balance justly and adhere strictly to the truth in his dealings with patients," but he adds, "In practice it is always *useful* (the italics are our own) to take a rather despondent view, especially in doubtful cases: then if death ensues we have prepared the family for it, while if the case terminates favourably we shall obtain more or less credit for it; we are not forbidden to be clever or to take advantage of circumstances." Is this teaching any better than that of the cynic who said that it always paid best to give a good prognosis? Under the same heading he approves of the State rewards given to Jenner and Pasteur for their discoveries, but adds, "Why did not Branly receive one?" Who is Branly that he

[9] Published under the direction of the Hicks Counties Lecture Fund Committee by the Onward Publishing Office, Limited. Manchester.

[10] *Medical Etiquette (Handbook of Elementary Deontology).* By Dr. George Surbled. Translated from the second French edition by W. P. Grant, M.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P. With a preface by Sir Dyce Duckworth, Bart., M.D., LL.D. London: Sherratt and Hughes. 1910. (Post 8vo, pp. 280. 5s.)

should be placed on the same level with Jenner and Pasteur? We confess the name is unknown to us. Practices which we think unworthy of the dignity of the medical profession are condoned by the author, such as the custom of doctors receiving "three francs for finding a place for a nurse"; he "does not think the doctor should be blamed," and considers "just and lawful the small reward that is given in these cases!" He excuses the doctor who "sends his patients to buy a pessary or special bandage from a reliable shop which grants him a small allowance," and those who take shares or debentures in companies which own establishments at spas or winter resorts where they send their patients; he fails to see that taking commissions or being interested in these companies must lead to the corruption he elsewhere deplores. The third part of the book deals with the mutual relations of doctors, but his rules do not always accord with our notions of propriety, as when he sees no harm "in a brief newspaper notice of the arrival of a new doctor." Nor are the doctors' grievances the same as ours, when he complains of the existence of official medical experts who are alone recognized by the courts of law. On the thorny subject of supersession he is vague, and does not make it clear that the superseding doctor before taking charge of the case should know that his predecessor has been told that his services are no longer required.

On the whole the impression conveyed by the book is by no means complimentary to the medical profession in France; it would seem as though the only restraining authority is the penal code, and that if the medical practitioner does not come in conflict with the police he escapes all penalty, however much his conduct may violate honour, conscience, and religion. Dichotomy, or the system by which the consultant pays a part of his fees to the consulting practitioner, is a blot on the fair fame of the French medical profession, but seems to be practically universal. Dr. Surbled's chapter on operations is a severe indictment of the methods of French surgeons who are charged with "lack of judgment and prudence"; "where fame and profit is concerned doctors agree to operate whatever the consequences may be"!

While he is lenient to much which we think discreditable, he is sentimental towards the public and severe on the doctor in other passages, such as that in which he says "doctors disgrace themselves and humilate us not a little when they insist on payment before attending cases of serious illness or accident in casual patients; such conduct is scandalous, inhuman, and intolerable," while the proposal to keep a black list of patients known to impose on the profession is called a "brutal, barbarous, inhuman method, and unworthy of us." His remarks on anaesthetics, and his refusal to allow their use in dental cases and in normal labour, indicates a mind ill-qualified to advise on medical ethics; his extraordinary views on obstetrics have had to be modified by a sensible note contributed by Sir Francis Champneys, for which we are grateful. As an account of the state of the profession of medicine in France the book has its interest, but it cannot be taken seriously as a guide to medical ethics in this country.

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## NOTES ON BOOKS.

THE issue, after a short interval, of a second edition of Dr. WHITELOCKE'S book on *Sprains and Allied Injuries of Joints*[11] is a result of the favour this work has received from both British and American surgeons. The fresh matter in this edition includes an account of an interesting lesion in the head of the tibia which, though distinctly a traumatism, is called, in association with the name of Schlatter, a disease. An instructive description is given of this condition, which is a result, and, it seems, not an infrequent one, of athletic exercise. In the new chapter on special methods of treatment, Dr. Whitelocke, while hopeful in regard to the prospects and future possibilities of some of these, especially Bier's hyperaemic method and kataphoresis, writes as one who is evidently well satisfied with the ordinary treatment of sprains.

[11] *Sprains and Allied Injuries of Joints.* By R. H. Anglin Whitelocke, M.D., M.C.Edin., F.R.C.S.Eng., Honorary Surgeon to the Radcliffe Infirmary and County Hospital at Oxford, Litchfield Lecturer in Surgery in the University. Second edition. London: Henry Frowde (Oxford University Press), and Hodder and Stoughton. 1910. (Demy 8vo, pp. 280; 85 illustrations. 7s. 6d.)

Within the lifetime of the present generation hospital management has undergone a great transformation. Lord Lister has made Mrs. Gamp an impossibility in a hospital of to-day. "Listerism" requires as a first and foremost necessity clean and intelligent nurses. It requires nurses who are clean because they know the meaning and importance of surgical cleanliness, and who can be trusted with the custody and use of poisonous chemicals. Hence the care taken by hospital matrons to choose the proper persons as nurses and the trouble taken by medical men to give nurses enough knowledge to enable them to take an intelligent interest in their work. At the Middlesex Hospital and at the Chelsea Hospital for Women, Dr. COMYNS BERKELEY has for the last twelve years been accustomed to lecture to nurses in order that they may better understand the requirements of the department of surgery that he practises. The nurses so value his instructions that they have asked him to print the substance of them.[12] The utility of the work is that it will fix in the minds of Dr. Berkeley's pupils the essential features of his oral teaching. At a few places he seems to us to have written hastily; thus at p. 12, among the causes of amenorrhoea, we find "ovarian tumours"; but on p. 14 we find that ovarian tumours only cause amenorrhoea "when the health is impaired by the tumour." Regular menstruation is not uncommon when the tumour is small. On p. 17 we find among the causes of menorrhagia "diseases of the heart"; but Gow has shown that the effect of such disease is in the opposite direction. And is there any evidence that round worms cause pruritus vulvae, as they are said to do on p. 30? These are little things, and we trust Dr. Berkeley will pardon our directing attention to them. The directions for the preparations for operation and nursing are excellent. They represent the practice at the Middlesex and Chelsea Hospitals. They include the scrubbing of the skin with different chemicals, of which Lord Lister has expressed his disapproval, but which is very prevalent at the present time. Dr. Berkeley's *Gynaecology for Nurses and Gynaecological Nursing* well fulfils its object.

After a long interval the second part of volume two of the translation of LAFAR'S *Technical Mycology*[13] has been published. It is more than seven years now since the first part was reviewed at some length in the JOURNAL (September 19th, 1903, p. 661), and we are glad to be able to renew the favourable criticism then expressed. The book is bulky, but not out of proportion to the scientific and industrial importance of the subject, and the extensive bibliography covering 135 pages gives some idea of the enormous amount of material which the author has had to collate. The effort has undoubtedly been successful, and it appears to have lost little of its value in the translation.

As *Black's Medical Dictionary*[14] has reached its fourth edition, it may be said to have passed beyond the realm of criticism, although we may express our doubt whether "district nurses, ship captains, dwellers in remote districts and others who may be called on to treat sufferers in the absence of trained supervision" can really require the sort of information which is contained in some of these articles, or that they are likely to be any the wiser for the anatomy, physiology, and pathology so liberally dispensed to them. The author in his preface also draws attention to the fact that "almost no reference has been made to diagnosis, a highly technical matter which lies entirely within the province of the trained medical man," yet in order that district nurses and others who use this book should be capable of utilizing the directions as to treatment of, for example, such a disease as tuberculous meningitis or typhoid fever or any of the other serious diseases discussed in this volume, it must be assumed that they are competent to make a correct diagnosis.

[12] *Gynaecology for Nurses and Gynaecological Nursing.* By Comyns Berkeley, B.A., M.B., B.C.Cantab., F.R.C.P., Obstetric Physician to the Middlesex Hospital, Surgeon to In-patients Chelsea Hospital for Women, etc. London: The Scientific Press, Limited. (Cr. 8vo, pp. 114. 2s. 6d.)

[13] *Technical Mycology: the Utilization of Micro-organisms in the Arts and Manufactures.* By Dr. Franz Lafar. Vol. ii, Part II. Translated by C. T. C. Salter. London: C. Griffin and Co. 1910. (Demy 8vo, pp. 757.; figs. 59. 18s.)

[14] *Black's Medical Dictionary.* Edited by John D. Comrie. Fourth edition. London: Adam and Charles Black. 1910. (Cr. 8vo, pp. 865. 7s. 6d.)

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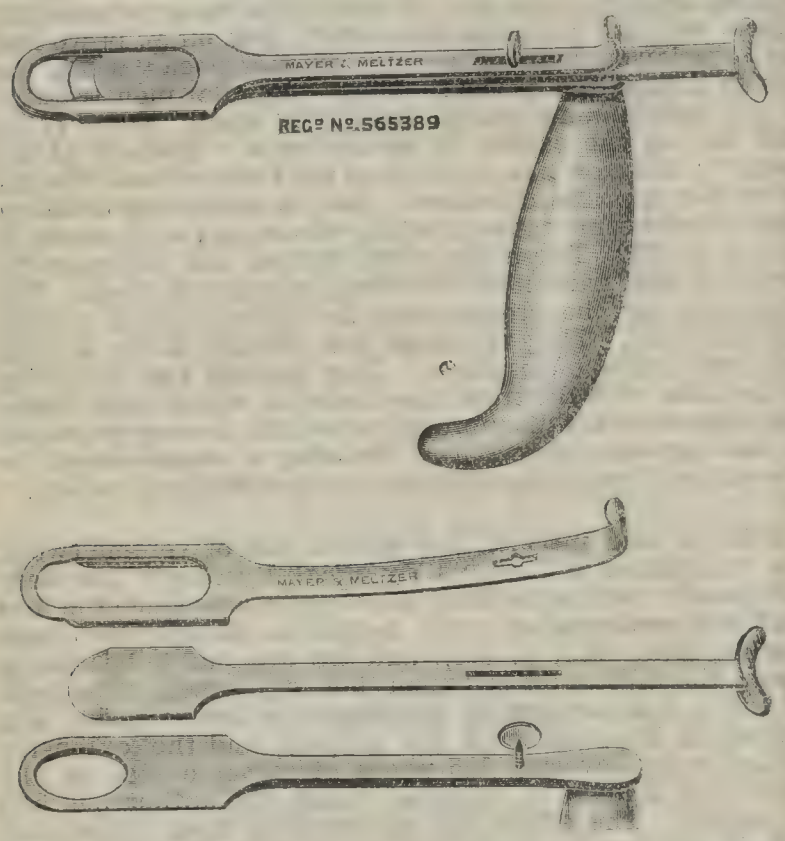
THE International Congress on Tuberculosis will hold its next meeting in Rome in September (24th to 30th). The work has been divided into three groups: Etiology and Epidemiology; Pathology and Therapy; the Social Campaign against Tuberculosis.

## MEDICAL AND SURGICAL APPLIANCES.

*An Improved and Simplified Aseptic Mackensie Guillotine.*

MR. HUGH E. JONES (Honorary Surgeon, Liverpool Eye and Ear Infirmary) writes: In spite of the many modifications and improvements which have been made from time to time in Mackensie's guillotine, some of its defects have remained in one or other pattern, and some are common to all: (1) The difficulty of cleaning the groove and slot along which the blade passes; (2) the large number of parts, some of which were small, easily detached, and easily lost; (3) the dependence of the instrument for its proper working upon two screws, the threads of which rapidly wore out; and the fact that these defects usually became manifest during an operation. I have devised an instrument in which these defects have been entirely eliminated. I am indebted to Messrs. Mayer and Meltzer for the great interest they have shown in the instrument, and the pains they have taken to produce a really workmanlike tool. The main points of the instrument may be




summarized as follows: (1) It consists of three separate parts instead of, as in most other patterns, six. (2) There are no screws in it; the handle and turn-button which holds down the spring are permanently attached to the bed-plate. (3) The bed-plate has no grooves at the side or slot at the end, so that it can be cleaned perfectly in a few seconds. (4) The spring and retaining sheath for the blade are in one piece, and, as the grooves are open, this part also can be cleaned in a few seconds. (5) The handle is of an entirely new shape, with a slight forward tilt and a forward curve at its extremity, giving great power of lateral pressure against the pillars of the fauces, but it is hoped that by further experiment a still better handle will be evolved. (6) The instrument can be taken to pieces and put together again in ten seconds by the watch. (7) A nurse can thoroughly clean and polish the whole instrument, preparatory to sterilizing or putting away, in three minutes. (8) An extended trial shows that it is thoroughly efficient in its work, the blade being in perfect apposition to the bed-plate, and held down by exactly the right amount of pressure applied in the right place.

*"Tabloid" Chemicals for Colour Photography.*

The production of photographs in natural colours apart from its artistic interest is a valuable addition to the weapons of the scientist, and will doubtless become increasingly the recognized method of recording observations of pathological conditions wherever the element of colour is of importance. For instance, photographs of skin diseases, histological specimens, and examples of abnormal growths, gain much in clearness and in the amount of information conveyed, when faithfully reproduced in colour. The chemical processes involved in the production of such photographs for reversing the image and for intensifying the colours have now been conveniently provided for in a set of three "tabloid" products which enable the amateur to experiment with all the brands of colour plates now on the market, with the minimum expenditure of time and trouble. The whole process of development, reversal, redevelopment, and intensification can be carried out with solutions of Tabloid Rytol, Tabloid Reversing Compound, and Tabloid Colour Plate Intensifier, and by following the instructions given successful results in natural colour can be obtained with the Autochrome, Thames, Omnicolore, and Dufay plates.

## MEDICINAL AND DIETETIC PREPARATIONS.

*Digestin.*

WE have received from Messsr. Burgoyne, Burbidges, and Co. (16, Coleman Street, London, E.C.), a sample of a new digestive ferment which is likely to be both interesting and useful. The substance, to which the name "Digestin" is given, is made by Yenjo Shoten, Limited, Tokyo, Japan, and it is stated to be derived from a fungus belonging to the genus *Aspergillus*. It is characterized by possessing both proteolytic and amylolytic activity in marked degree. Digestin is a fine powder of buff colour, soluble in water; it has a slight taste recalling that of papain. Our tests showed that, if added to a solution of 100 times its weight of gelatine and the mixture maintained at body temperature, the gelatine is so completely converted that the liquid shows no power of setting on cooling, and gives the biuret reaction for peptone. When another portion of the ferment was added to starch paste and the mixture kept at body temperature, the starch underwent conversion to dextrine and maltose. It is claimed that it will digest fibrin, milk protein, and other nitrogenous material in acid, neutral or alkaline solutions, and that it will accordingly find application in a very large variety of cases of defective digestion.

## STATE SICKNESS INSURANCE.

IT is evident that the scheme for State sickness insurance that appeared in the *Times* and other papers will not be allowed to pass without a determined opposition from several quarters, and in some correspondence in the *Liverpool Daily Post* Professor B. Moore has restated in a forcible way the objections which he had expressed in the BRITISH MEDICAL JOURNAL of January 7th against what he regards as the granting of a great monopoly to the friendly societies. Professor Moore suggests that the scheme referred to may be, and he hopes it is, only "a dream of an official of a friendly society," and that the officials of the societies, "scenting danger to their present monopoly of the sickness insurance of the industrial classes in the State insurance scheme, at first tried their utmost to discredit and wreck the scheme . . . and, finding such tactics unavailing, they next determined to corral the whole scheme and run it themselves." He thinks that a similar procedure has wellnigh ruined the German scheme, as in Germany "the workmen's insurance societies sweat the doctors, and the doctors scamp their work for the workmen, and the whole scheme is vicious to the last degree." He asserts that "the placing of the sick payment of the workmen under the control of the friendly societies is the first step—which counts for most—towards a complete establishment of such a monopoly system in our own country," with its concomitant evils, not only to the medical profession, but to the insured workmen themselves and to the whole community. He draws attention to the difficulty, which so many others have pointed out, that the workmen will experience in making 5s. a week suffice for the support of themselves and family during sickness, as well as for the provision of medical attendance; moreover, he contends the method proposed is far from economical. He considers, too, that the record of work done by the friendly societies, especially in connexion with medical attendance on that one-fifth of the working classes for which they have been catering in the past, is not "so excellent that the compulsory handing over of the remaining four-fifths by the Government can be regarded with any equanimity by the sociologist." He says that medical work for friendly societies or clubs "is the universal detestation of the profession throughout the whole country," but that the medical men are forced to do this work under sweated conditions or else to starve. "Only the doctors know what a terrible evil this pernicious system is to the patients themselves

Thousands of lives are lost yearly because of the scamped inefficient medical work arising from the sweating of the medical profession by medical clubs, tontines, and friendly societies. This is the curse from which many of us in the medical profession hoped we might be freed by the new State sickness insurance scheme, and behold, it would appear that it is to receive a fivefold extension, and the workmen are to be compelled to share in it, whether they wish to do so or not."

It is further suggested by Professor Moore that "the Government should offer to take over the existing permanent friendly societies as going concerns," and give their officials posts under Government control, that this would save hundreds of thousands of pounds annually in the expenses of unnecessary and much reduplicated middlemen, and we might then "possess an adequate medical service for our workmen instead of a sickening travesty of medical attention demoralizing and degrading to doctor and patient alike."

It could not be expected that Professor Moore's remarks would escape severe criticism by officials of the friendly societies, and Mr. W. J. Eaves, who is honorary secretary of the council of the Liverpool and District Tontine Societies, charges Professor Moore with "an insolent attack upon friendly societies in general and gross libel on the medical profession." He further goes on to say that Professor Moore's statement "that thousands of lives are lost yearly because of inefficient medical attendance of club doctors casts a grave reflection on the honesty and character of the medical profession, but those of us who have placed our lives in the hands of club doctors can from practical experience refute such statements." Surely it ought to have been evident that Professor Moore never for a moment cast any doubt on the honesty or intentions of the club doctors; his contention was that the system placed them in such a position that, with the best intentions in the world, they were often physically unable to do justice to their club patients. Moreover, Professor Moore's strictures on the club system simply echoed the scathing denunciation of the system that appears in the report of the Poor Law Commission, and in his reply he says he was not personally blaming the officials of the societies, the doctors, or the workmen, but a system which is full of evils, holding that our present methods of dealing with disease in dispensary, hospital, and club practice are a wretched travesty on science. He quotes statistics of Dr. Newsholme, the medical officer of the Local Government Board, showing that something like 300,000 lives are annually lost through preventable causes, lives "which might be spared if we possessed a system which would enable us to apply that much of medical science which we already possess, without one particle more of research." Professor Moore considers that "the most efficient step towards betterment would be the establishment of such a liberal scheme of State sickness insurance that free and efficient medical attendance was given to every sick person just as every child may and must have efficient education at school." It had been hoped that State sickness insurance would be the first step towards treating disease on natural lines, but, after reading the article that appeared in the *Times*, the scheme seemed to him to be "obscured by a picture of the friendly societies stretching out hundreds of eager hands to convert it into a business monopoly."

Professor Moore does not attempt to elaborate what he means by "free and efficient medical attendance for every sick person," and widely divergent opinions may be held on that question; but it should be remembered that the scheme sketched out in the *Times* article simply ignores medical attendance. It may seem at first sight that the scheme depends on the friendly societies for the provision of medical attendance, and in actual practice it would probably involve an attempt on the part of the societies to extend their medical clubs. But, after all, the settlement of the question as to how medical attendance shall be provided for the insured depends on the medical profession itself far more than on the friendly societies. It seems probable that if things are allowed to slide, the clubs will be extended on their present basis; only by vigorous and united action will the profession be able to reform the present system, or, if it so decide, replace it by another which will ensure satisfaction to the community and the profession alike.

# Nova et Vetera.

## SOME ROYAL DEATH BEDS.

*(Continued from page 1532, Vol. ii, 1910.)*

### GEORGE I.

THE first George was a man of robust constitution which seemed to give the assurance of a long life. But Etough, in a letter to Dr. Birch, preserved in the British Museum, says that the King's fondness for sturgeon, rich food, and hot punch, and his custom of indulging in hearty suppers late at night, tended to undermine his health. The words in the *Vicar of Bray*, "When George in pudding time came o'er," seem to allude to his love of eating. Moreover, he had many mistresses. Towards the end of his life he was a wreck. But his passion for eating survived, and gluttony seems to have hastened his end. On June 3rd, 1727, he set out for Hanover. He landed in Holland, and at a place not far from Delden he had a hearty supper with Count von Twittel, and consumed an unusual quantity of melons. On June 10th he set out for Osnaburg. The circumstances of his last illness rest chiefly on the authority of Archdeacon Coxe, who collected all the available information on the subject from eye-witnesses and from persons who remembered the event. He says:[1]

> On his arrival at Bentham the King felt himself indisposed, but continued his journey in opposition to the repeated entreaties of his suite. His indisposition increased, and when he arrived at Ippenburen he was quite lethargic; his hand fell down as if lifeless, and his tongue hung out of his mouth. He gave, however, signs of life, by continually crying out, as well as he could articulate, "Osnaburg, Osnaburg." This impatience to reach Osnaburg induced the attendants not to stop at Ippenburen, but to hasten on in hopes of arriving at that city before he died. But it was too late. The exact time and place of his death cannot be ascertained; but it is most probable that he expired either as the carriage was ascending the hill near Ippenburen, or on the summit. On their arrival at the palace of his brother, the Bishop of Osnaburg, he was immediately bled, but all attempts to recover him proved ineffectual.

A legend grew up that the unfortunate Sophia Dorothea, shortly before her death, addressed a letter to her royal consort, in which, after emphatically asserting her innocence, she ended by solemnly citing him to appear on a certain day before the Divine Tribunal. This letter, it is said, was presented to the King on his entering his German dominions. He appeared to be awestruck by the contents, and immediately afterwards was attacked by the illness which proved fatal. The authority for this story is Lockhart, of Carnwath. This "trustworthy chronicler," as he is called by Jesse, states that in the year of the King's death he was actually shown the letter by Count Welling, Governor of Luxemburg. More details as to the manner of his death are supplied in a letter from George Baillie to Alexander Earl of Marchmont, dated June 15th, 1727:[2]

> The melancholy news came by express yesterday. He (George I) had been ill at sea, and continued so on the road, but would not stop. On Friday night he was taken with a severe purging and great sweating, which weakened him much. He would, however, go on; and upon Saturday lost his speech and the power of one side, but still made signs with his hand to proceed, and in the evening arrived at Osnaburg, where he died about one o'clock Sunday morning.

He had had some premonitory symptoms of apoplexy at Charlottenburg in 1723.

King George expired on June 11th, 1727, in the sixty-eighth year of his age, and the thirteenth after his accession to the throne of England.

We cannot refrain from quoting the account of George's death given by Carlyle in his *History of Frederick the Great*:

> "With the Solstice, or Summer pause of the Sun, 21st or 22nd June (*sic*), almost uncertain which, the Majesty of George I did likewise pause—in his carriage, on the road to Osnabrück—never to move more. Whereupon, among the simple People arose rumours of omens, preternaturalisms for and against: How his desperate Megaera of a Wife, in the act of dying, had summoned him (as was

[1] Quoted by John Heneage Jesse in his *Memoirs of the Court of England from the Revolution in 1688 to the Death of George II.* Vol. ii, p. 315.

[2] *A Selection from the Papers of the Earls of Marchmont.* Edited by the Right Hon. Sir G. H. Ross, vol. ii, p. 411.

presumable), to appear along with her at the Great Judgment-Bar within year and day; and how he has here done it. On the other hand, some would have it noted, How 'the nightingales in Herrenhausen Gardens had all ceased singing for the year, that night he died,'—out of loyalty on the part of these little birds, it seemed presumable.

"What we know is, he was journeying towards Hanover again, hopeful of a little hunting at the Gohrde; and intending seeing Osnabrück and his Brother the Bishop there as he passed. That day, June 21st, 1727, from some feelings of his own, he was in great haste for Osnabrück; hurrying along by extra-post, without real cause save hurry of mind. He had left his poor old Maypole of a Mistress on the Dutch frontier that morning, to follow at more leisure. He was struck by apoplexy on the road—arm fallen powerless early in the day, head dim and heavy—obviously an alarming case. But he refused to stop anywhere; refused any surgery but such as could be done at once. 'Osnabrück! Osnabrück!' he reiterated, growing visibly worse. Two subaltern Hanover officials, Privy Councillor von Hardenberg, *Kammerherr* (Chamberlain) von Fabrice, were in the carriage with him; King chiefly dozing, and at last supported in the arms of Fabrice, was heard murmuring, '*C'est fait de moi* ('Tis all over with me)!' And 'Osnabrück! Osnabrück!' slumberously reiterated he: 'To Osnabrück, where my poor old Brother, Bishop as they call him, once a little boy that trotted at my knee with blithe face, will have some human pity on me!' So they rushed along all day, as at a gallop, his few attendants and he; and when the shades of night fell, and speech had now left the poor man, he still passionately gasped some gurgle of a sound like 'Osnabrück'; hanging in the arms of Fabrice, and now evidently in the article of death. What a gallop, sweeping through the slumber of the world: To Osnabrück, Osnabrück!

"In the hollow of the night (some say one in the morning) they reach Osnabrück. And the poor old Brother—Ernst August, once youngest of six brothers, of seven children, now the one survivor, has human pity in the heart of him full sorely. But George is dead; careless of it now."

To this Carlyle appends the following characteristic footnote:

Coxe (i, 266) is "indebted to his friend Nathaniel Wraxall for these details—the since famous Sir Nathaniel, in whose *Memoirs* (vague, but *not* mendacious, not unintelligent) they are now published more at large. See his *Memoirs of the Courts of Berlin, Dresden, etc.* (London, 1799), 35–40; also *Historical Memoirs* (London, 1836), iv, 516–518.

## GEORGE II.

George II died on October 25th, 1760, at the age of 77 and in the thirty-fourth year of his reign. His death is described as follows by Horace Walpole in a letter to Sir Horace Mann:

On Friday night the King went to bed in perfect health, and rose so the next morning at his usual hour of six; he called for and drank his chocolate. At seven (for everything with him was exact and periodic) he went into the closet to dismiss his chocolate. Coming from thence his *valet de chambre* heard a noise, waited a moment, and heard something like a groan. He ran in, and in a small room between the closet and bedchamber he found the King on the floor, who had cut the right side of his face against the edge of a bureau, and who after a gasp expired. Lady Yarmouth was called, and sent for Princess Amelia, but they only told the latter that the King was ill and wanted her. She had been confined some days with the rheumatism, but hurried down, ran into the room without farther notice, and saw her father extended on the bed. She is very purblind, and more than a little deaf. They had not closed his eyes. She bent down close to his face, and concluded he spoke to her, though she could not hear him. Guess what a shock when she found the truth!

What an enviable death! In the greatest period of the glory of this country, and of his reign; in perfect tranquillity at home, at 77, growing blind and deaf, to die without a pang, before any reverse of fortune or any distasteful peace, nay, but two days before a shipload of bad news. Could he have chosen such another moment!

In a letter to George Montague, dated the day following the King's death, Walpole gives a similar and no less interesting account of that event:

He went to bed well last night, rose at six this morning as usual, looked, I suppose, if all his money was in his purse, and called for his chocolate. A little after seven the German *valet de chambre* found the hero of Oudenarde and Dettingen on the floor, with a gash on his right temple, by falling against the corner of a bureau. He tried to speak, could not, and expired.

Wraxall[3] says:

A rupture in some of the vessels or in the membranes of the heart carried him (the King) off in a few minutes. During his whole life, but particularly for a number of years before his decease, he had been subject to such constant palpitations about the region of the heart, especially after dinner, that he always took off his clothes and reposed himself for an hour in bed of an afternoon. . . . His sight had greatly failed him for some time preceding his decease. I have heard Mr. Fraser say, who was during many years Under Secretary of State, that in 1760, a few months before the King died, having presented a paper to him for his signature at Kensington. . . . George II took the pen in his hand and after, as he conceived, affixing his name to it, returned it to Fraser. But so defective was his vision that he had neither dipped his pen in the ink nor did he perceive that of course he had only drawn it over the paper without making any impression. Fraser, aware of the King's blindness, yet unwilling to let his Majesty perceive that he discovered it, said: "Sir, I have given you so bad a pen that it will not write; allow me to present you with a better pen for the purpose." Then dipping it himself in the ink, he returned it to the King, who, without making any remark, instantly signed the paper.

We think many of our readers will be glad to read Carlyle's graphic account[4]:

Saturday 25th. October 1760, George II., poor old gentleman, suddenly died. He was in his 77th year; feeble, but not feebler than usual,—unless perhaps the unaccountable news from Kloster Kampen may have been too agitating to the dim old man? On the Monday of this week he had, "from a tent in Hyde Park," presided at Review of Dragoons; and on Thursday, as his Coldstream Guards were on march for Portsmouth and foreign service, "was in his Portico at Kensington to see them pass;"—full of zeal always in regard to military matters, and to this war in particular. Saturday, by sunrise he was on foot; took his cup of chocolate; inquired about the wind, and the chances of the mail arriving; opened his window, said he would have a turn in the Gardens, the morning being so fine. It was now between 7 and 8. The Valet then withdrew with the chocolate apparatus; but had hardly shut the door, when he heard a deep sigh, and fall of something,—"billet of wood from the fire?" thought he;—upon which, hurrying back, he found it was the King, who had dropt from his seat, "as if in attempting to ring the bell." King said faintly, "Call Amelia," and instantly died. Poor deaf Amelia (Friedrich's old love, now grown old and deaf) listened wildly for some faint sound from those lips now mute forever. George Second was no more; his grandson George Third was now King.

It is a curious fact recorded by historians that through the Hanoverian Royal Family there ran an affectation of incapacity to be sick.

I have known the King (says Lord Hervey) get out of his bed choking with a sore throat, and in a high fever, only to dress and have a levée, and in five minutes undress and return to his bed till the same ridiculous farce of health was to be presented the next day at the same hour.

It will be remembered that King Edward VII persisted in discharging his official duties till within a few hours of his death.

Not all George II's subjects would have accepted Walpole's description of him as full of glory. Writing to Baretti on June 10th, 1761, Johnson says: "We were so weary of our old King that we are much pleased with his successor; of whom we are so much inclined to hope great things that most of us begin already to believe them."

Some years later we find Boswell chronicling a dinner at Tom Davis's in 1775, where Johnson, after defending the memory of Charles the Second, is reported to have said:

George the First knew nothing, and desired to know nothing did nothing, and desired to do nothing; and the only good thing that is told of him is that he wished to restore the crown to its hereditary successor.

Boswell goes on to say:

He roared with prodigious violence against George the Second. When he ceased Moody interjected, in an Irish tone and with a comic look, "Ah! poor George the Second."

George II was a man of vigorous constitution and very temperate habits. A *post-mortem* examination showed that the cause of his death was rupture of the right ventricle of the heart.

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[3] *The Historical and Posthumous Memoirs of Sir Nathaniel William Wraxall, 1772–1784.* Edited by Henry B. Wheatley, F.S.A. Vol. i. p. 313.

[4] *History of Frederick the Great.*

## LITERARY NOTES.

DR. ALBERT ROBIN, Professor of Clinical Therapeutics in the University of Paris, and Member of the Académie de Médecine, has succeeded the late Dr. Huchard as editor of the *Journal des praticiens*.

From January, 1911, the *Journal of Experimental Medicine* will be issued monthly instead of bi-monthly as heretofore. This will mean the publication of two volumes a year, each containing about 600 pages.

The *Medical Officer* has recently extended its range by the establishment of a supplement, the nature of which is described by its title, "The Review of Bacteriology and General Parasitology, being an Epitome of recent literature of Bacteriology, General Parasitology, and allied Subjects in their relationship to Pathology and Hygiene." It is edited by Mr. Alexander G. R. Foulerton, F.R.C.S., and will appear at least twelve times in the course of each year. We congratulate our contemporary on its enterprise, which, as far as can be judged from a first number, seems to us likely to be useful not only to medical officers of health, but to all practitioners of medicine.

In the *Companion to Latin Studies*, edited for the Syndics of the University Press by John Edwin Sandys, Litt.D., Public Orator in the University of Cambridge, there are two sections of special interest to medical readers contributed by the late Dr. J. Frank Payne. Under the head of Roman Natural History he deals with the elder Pliny, author of the famous *Naturalis Historia*, which made so deep an impression on the mind of Europe that traces of it still survive in folklore and popular speech. He says that Pliny's oft-quoted statement that the Romans did without physicians for six hundred years must not be taken as literally true. The Romans, though they had framed no organized art of medicine, had their own methods of dealing with diseases and injuries. Among these the principal was an appeal to supernatural powers. Gradually there grew up an empirical art of rough surgery and simple domestic medicine, with some admixture of magical folklore. Dr. Payne points out that the word *medicus* is an old Roman word (not Greek), and occurs in the *Lex Aquilia* of the third century B.C. The old Roman medicine consisted of three branches: (1) Sacred rites paid to the higher gods of healing; (2) deprecatory rites paid to the malevolent deities who caused special diseases; (3) an empirical popular medicine. Among the ancient gods of healing, the chief was *Salus*, an old Roman or Sabine goddess, whose temple stood on the *Mons Salutaris*, one of the summits of the Quirinal. Another was the goddess *Carna*, invoked to preserve the health of the bodily organs. In the fifth century B.C., on the occasion of a pestilence, a temple was dedicated to Apollo, who was later honoured as *Apollo Medicus*. Mars also was regarded as the protector against plagues and other diseases. It has been reckoned that at least twenty gods and goddesses might exercise their powers at one childbirth. Greek medicine was introduced with the worship of Asklepios (293 B.C.) and the advent of the Greek physicians Archagathus (219 B.C.), Asclepiades (*circa* 100 B.C.), and Galen (163 A.D.). Archagathus was a Spartan. He was granted the right of Roman citizenship, and an office was bought for him at the public expense. He would seem to have practised his art in a Spartan spirit, for although his skill in surgery at first won for him the title of *vulnerarius*, he soon received the significant nickname of *carnifex*. This, however, need not be taken as meaning that he was brutal; did not Lisfranc speak of Dupuytren as *le grand boucher du bord de l'eau?* Of Asclepiades, who was a "fashionable physician" in the best sense, nothing need be said; Sir Clifford Allbutt has painted the doctor and the man with a master hand in one of his FitzPatrick Lectures on Greek Medicine in Rome, which was published in the BRITISH MEDICAL JOURNAL of November 27th, 1909, page 1515 et seq. Of Celsus, Dr. Payne says that it is clear that he was not a professional doctor, but a Roman patrician, who, like Cato, took medical charge of his own family and slaves. He himself refers to practice in the *valetudinaria* or slave-infirmaries. The treatise, *De Medicina*, which was written in the reign of Tiberius, and was intended for the lay public, is the second part of a large work in six parts, the first of which was on agriculture, the third on the military art, the fourth on rhetoric, the fifth on philosophy, the sixth on jurisprudence. Speaking of Galen, Dr. Payne says his scientific method was admirable:

> He brought everything to the test of experiment, and though we cannot say positively that no one before him had made experiments on animals, he is historically the founder of experimental physiology. His methods of experiment and reasoning were quite in agreement with those of modern times.

Dr. Payne gives a good account of the condition of medical practice and the social condition of those who professed the art of healing in ancient Rome. Of this we hope to give a summary in a later issue.

In a thesis for the degree of Doctor of Medicine, presented to the University of Paris on March 11th, 1909, M. G. Berthe gives a history of purgation. He shows the antiquity of this therapeutic measure. The Chinese used purgatives fifteen centuries before the Christian era; in the old Egyptian papyri dealing with medicine there are many receipts for the relief of constipation. Curiously enough he does not quote Pliny, who, in the Eighth Book, Chapter XXVII, of his *Natural History*, translated by Philemon Holland, gives the following account of the origin of the enema:

> The like deuice to this, namely of clisters, we learned first of a Fowle in the same Egypt, called Ibis (or the blacke Storke). This bird hauing a crooked and hooked bill, vseth it in stead of a syringe or pipe to squirt water into that part, whereby it is most kinde and wholsome to auoid the doung and excrements of meat, and so purgeth and clenseth her body.

The Greeks attributed the discovery of purgatives to Aesculapius. Hellebore was largely used by them for the purpose. In addition to hellebore, Hippocrates recommended scammony, colocynth, elaterium, and other drugs; he also employed suppositories and enemas made of decoctions of cabbage, to which was added oil or honey. Among the old Romans Cato, who believed cabbage to be a panacea for all human ills, including broken bones, naturally held that it kept the bowels open. Asclepiades, who did not believe in drastic remedies, was opposed to the use of purgatives; Celsus also urged that they should be employed only in exceptional cases. Pliny pinned his faith largely on hellebore and aloes. Galen wrote a treatise, *De purgantium medicamentorum facultatibus*, in which he declares it to be a "crime" to deny that purgatives are specifics. He holds that they have a selective property, whereby each one acts specially on a particular humour; one setting free the black, the other the yellow bile, and so on. In the second century of the Christian era, Rufus of Ephesus wrote a treatise on enemas. The Arabs added tamarinds, senna, and other aperient substances to the materia medica. Mohammed himself did not disdain to lay down rules for the preservation of health and the cure of disease. One of the aphorisms piously gathered from his lips by a disciple is as follows: Three things have the property of healing our diseases with the exception of death—senna, "senout," and a third which the disciple confesses he had forgotten. So that the three infallible medicines are reduced to two, and of these only one was left, for having innocently asked what "senout" was, the disciple received from the Prophet the truly oracular reply, "If God had wished that you should know, He would have told you"! The Prophet, however, showed greater consideration for human weakness in others of his precepts. He recommends that purgatives should not be given either to the very aged or to children at the breast, to cachectics or those suffering from ulcers. He advises against a purge twice in the same day, or during extremes of hot or cold weather. He recommends enemas in colic and pains in the stomach. There was, however, some difference of opinion among the Mohammedans as to the use of the enema apparently on moral grounds. The Arabian physicians, however, used purgatives freely; the medicines of this kind most in favour with Avicenna were cassia, tamarind, scammony, aloes, and colocynth. It is to him we owe one of the earliest descriptions of the enema syringe. In the *Regimen Sanitatis* of Salerno we find a course of purgation recommended in the spring. The clyster is said to cure colic and flatulence, and to soothe pains about the heart, the kidney, and the liver; it is contraindicated in cases of hernia and intestinal abscess (? appendicitis). Throughout the Middle Ages purgatives were much in use, the substances employed being often of the most disgusting kind. In an edict against quacks promulgated by John the Good, King of France, in 1352,

t is set forth that the Dean and Masters of the Faculty of Medicine of Paris had informed him that divers persons of both sexes, especially old women and herbalists, ignorant of the science of medicine and of the properties of remedies, "especially of laxatives which were dangerous to life," came to practise in Paris. The monarch complains that these persons, flying in the face of reason and the principles of art, furnish and administer "very laxative clysters" without the presence of a doctor, to the great scandal of his people and to the grievous danger of their bodies and souls. Therefore he forbids them to make up or administer any syrup or elixir, or to give clysters in any serious disease. Purgatives came more and more into favour. In 1538 Thibault Lespleigney, an apothecary of Tours, wrote a *Promptuaire des Médecines Simples en Ritme Joyeuse*, in which he started from the fundamental (*honi soit !*) principle:

Qui veult vivre longuement
Du corps fault purger l'excrément

Such was the mediaeval belief in clysters that one seems to have been given to Martin Luther after he was dead, "to revive him if there was still any flicker of life." Purgation reached its zenith in the august person of Louis XIV; the *Journal de la Santé du Roi* is one long record of aperients and enemas. His Court naturally followed suit; Molière scarcely exaggerates when he sums up the medical practice of his day in the famous formula—

Clysterium donare
Postea saignare
Ensuita purgare
Resaignare
Repurgare
Reclysterizare.

M. Berthe quotes one or two apothecaries' bills sufficiently detailed to satisfy the most "businesslike" patient. Thus in an account for medicines and attendance rendered by Jean Feltre to Paul Ferry, a Protestant minister at Metz, we find the following items: April 3. His laxative cooling clyster, 2 francs. April 5. His clyster repeated, 2 francs; and so on, including, "August 2nd, for the servant girl, a laxative and emollient clyster, 1 franc 80." In the bill of another practitioner of the seventeenth century we find a milk clyster for the President's daughter; the same for "Monsieur le petit enfant"; the same repeated in both cases, and so on, at 15 sous each. Another bill, dated 1784, is for professional services rendered by a practitioner of Narbonne. We prefer to give it in the not altogether sweet simplicity of the original:

| | |
|---|---|
| Le même 29e jour, j'ay visité le fondement et introduit le doigt à cause qu'il ne pouvait aller à la selle, cy ... | 3 l. |
| De plus, le meme jour 29e j'ay donné audit un lavement, cy ... ... ... ... ... ... ... ... | 6 s. |
| Le même jour j'ay donné au d. deux lavemens, cy ... | 12 s. |
| Le même jour (1er juin) j'ay fait chier led. avec le doigt et l'ay vidé, cy ... ... ... ... ... ... | 6 l. |
| Le 2 juin, on m'a fait lever dans la nuit, cy ... ... | 6 l. |

Would "Senior," who has lately complained in the *Times* of not getting a detailed account from his doctor, like this kind of thing?

## SCIENCE NOTES.

A short note[1] by Southwell on the worm which induces the formation of pearls in the Ceylon pearl oyster recalls the remarkable story of the mode of origin of these precious gems. Why and how pearls originate was for long a mystery, and around this many fanciful tales were woven. When eventually a scientific explanation was sought a variety of theories were evolved. Some held, with Rondelet, that their presence was due to a diseased condition of the shellfish, an opinion which, from its avoidance of detail, might be regarded as a very safe one; others, like Réaumur, came to the conclusion that the cause lay in an abnormal concretion or a superabundant secretion of the nacreous material of the shell. The grain of sand theory was a favourite one for a long time, and at the same time it was thought that any foreign body or any injury causing irritation might give rise to the production of pearls. On this view there seemed no reason why pearls should not be produced artificially as desired by suitable mechanical means. The Chinese have for long resorted to this procedure, and it is well known that Linnaeus boasted a secret process. Unfortunately such methods lead only to the production of blisters, and the numerous attempts to obtain true pearls by the introduction of foreign bodies or by boring the shell have always resulted in failure. It was De Filippi who, in 1852, discovered what is now generally regarded as the natural method of pearl formation. He was struck with the occurrence of encysted larval trematodes in a pearl-bearing freshwater mussel, and he suggested that the parasite might give rise to the pearl much in the same way as a gall-fly causes the production of a gall-nut. A few years later Möbius confirmed this supposition to some extent by finding trematode remains in pearls from American pearl oysters. Since that time a considerable number of zoologists have added evidence in support of the parasitic origin of pearls, and the matter has been gone into very fully, particularly by Jameson in this country, and Herdman and others in connexion with the Ceylon pearl fishery. The scientific inquiry has suggested new economic aspects, and it is apparent that, with an accurate knowledge of the life-history of the parasites in question, some aid, even though small, may be lent to the natural process. The story of pearl formation, as disclosed by scientific research, savours of the marvellous, and one would be at first inclined to receive with incredulity the statement that tapeworms and sharks have as much to do with the production of pearls as the oyster itself. The fact, however, has now been established for some years that the beautiful Ceylon pearls owe their existence to a tapeworm parasite of sharks. The tapeworm itself is a peculiar form. It belongs to the genus *Tetrarhynchus*, and is characterized by the presence on its head of four long rhynchi or proboscides, covered with an enormous number of hooks. The embryos of this tapeworm, when discharged into the sea, select the pearl oyster as an intermediate host, bore their way into the mantle, and become encysted there. They naturally give rise to some irritation and the oyster reacts by forming an epithelial sac around the cyst. How this epithelial sac arises, whether it is due to a tag of epithelium carried in by the parasite or to a transitional formation of epithelium from the surrounding cells, is still unsettled, but there is little doubt that it is this sac which secretes the pearl, layer by layer, around the parasite. The process takes some time, during part of which the parasite remains alive, so that should the oyster be devoured by a shark, the latter is reinfected with the tapeworm, and thus the life-cycle completed. In the event of such a fate not befalling the oyster, it continues to increase the pearl until the parasite is killed, and finally only unrecognizable débris is left. In the section of a perfectly formed pearl, therefore, the existence of a parasite might be entirely unsuspected. The discovery of the epithelial formative sac is mainly due to Jameson, who worked with the common edible mussel. This shellfish is a well-known pearl producer, although the pearls are of little commercial value, being dull in colour. In this instance the parasite is a fluke, with an even more remarkable history than the tapeworm of the Ceylon pearl oyster. It belongs to the genus *Gymnophallus*, which comprises several species, all of which may be concerned in pearl production. In the adult state these parasites show a peculiarity of habitat which is striking in itself, for they live in the appendages of the intestine—for example, the gall bladder, caeca, and bursa Fabricii of marine birds, such as gulls, eiderducks, scoters, and shelducks. In this case, however, the embryos when dropped into the sea do not make their way directly to the mussel. They first of all attack some other shellfish, such as the cockle, in which they form sporocysts. From the latter larvae are liberated, and it is they who seek the mussel, and, boring into its mantle, originate the pearl. As with the Ceylon oyster, the mussel may be eaten by a bird before the pearl has had time to form, and so the parasite again reaches its final host. From this it is evident that for the production of pearls in mussels the presence of two other animals is necessary, namely, a mollusc-eating bird and a cockle or other shellfish, to serve as a first host. It is well known that in places where mussels are not associated with this first host they do not produce pearls, and it is in the recognition of such facts as this that economic application may be possible.

[1] *Ceylon Marine Biol. Rept.*, 1910, pp. 169–172.

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## THE INSPECTION OF FOOD IN ENGLAND AND WALES.

THE portion of the Annual Report for 1909–10 of the Medical Officer of the Local Government Board which deals with the work of inspectors of foods, written by Dr. G. S. Buchanan and issued as an official paper, contains a survey of the work done during the year in checking the soundness and purity of both imported and home-prepared foods of many kinds, and furnishes a good deal of interesting and important information. The principal part of the report is divided into four sections, dealing respectively with: Work in Special Relation to the Public Health (Regulations as to Food) Act, 1907, Local Arrangements for Meat and Food Inspection, Work in Special Relation to the Sale of Food and Drugs Acts, and Foreign and Colonial Food Legislation.

The Public Health (Regulations as to Food) Act, 1907, gave the Board increased powers of making and enforcing regulations. The effect is now beginning to show itself, and it is satisfactory that the medical officer of the Board is able to report that "the regulations made under that Act have already in many directions prevented unsound or unwholesome foods from passing into consumption, and that the exercise of these new powers by the sanitary authorities concerned has had a marked effect in improving generally the condition in which foods arrive at our ports." The first section of the report, dealing with work in connexion with this Act, is concerned with imported food and its examination at the port of entry into the United Kingdom. In a country so largely fed from abroad it is evident that this must be in many ways the most important division of the work of preventing unfit food from reaching the consumer; some idea of the magnitude of the task involved may be formed from the figure given for imported mutton and beef, which is stated as 10,902,360 cwt. for the year 1909. After the exposure, a few years ago, of the methods prevailing in some Chicago packing houses, stricter regulations were adopted in the United States in regard to meats packed for consumption in that country, but these did not apply to materials exported to Britain; and an impression has prevailed to some extent that foods generally were admitted here which would not be permitted to be sold in some other countries. An instance mentioned in the report shows the existence of some grounds for such an impression in the past; a consignment of 533 sides of beef from Antwerp was found to contain no less than 21 sides conspicuously affected by tuberculosis, and inquiry showed that the beef was derived from a shipment of Danish cattle, rejected on the German frontier on the application of the tuberculin test, and then sent to Antwerp to be slaughtered and sent here. In some cases it has been found that imported beef had been "stripped"—that is, the pleura, which is the common seat of tuberculous lesions in the thorax, had been removed; this raises a strong presumption that it has been removed in order that the tuberculous infection may not be detected, and the Board has now made a regulation refusing admission for human consumption to all "stripped meat."

In many exporting countries official inspection at the time of slaughtering is provided, and an official certificate is issued in respect of such meat. This system is commended in the report, and it is remarked that competent examination at the port of slaughter must always furnish a more satisfactory means of detecting disease in meat than can be afforded by inspection of the dressed carcass. It appears, however, that "officially certified" pork is not always satisfactory, as it is stated that the existence of disease has seldom been detected in it. In a consignment of 4,643 carcasses of pork from a British firm in Hankow, which were stated to have been examined for disease at the packing house, 8.4 per cent. were condemned and destroyed as tuberculous. Frozen livers from Argentina have in many cases been condemned owing to the presence of parasitic cysts and other disease conditions; the Board has caused representations to be made to the Argentine Government, in anticipation of a stricter supervision being exercised in this matter by the meat inspection service of that country.

In certain cases imported food is found to be in an unfit condition for passing into the ordinary channels of commerce, with a resulting delay before it reaches the consumer, while actually suitable for immediate consumption; this applies especially to fruit, and it is arranged that in such cases the fruit shall be immediately disposed of to hawkers and retailed by them without delay. A somewhat similar provision is made for tins of condensed milk which have been punctured by the Customs authorities to be examined for revenue purposes. Contamination of the contents usually occurs, and if the tins are resealed, as was formerly the practice, decomposition of the milk is likely to develop; by present arrangements such punctured tins are disposed of for immediate consumption of the contents.

The short section of the report on local arrangements for meat and food inspection is largely concerned with the still prevailing evil of small private slaughterhouses. Sunderland is singled out among large towns for disapproving mention; it appears that this town contains no fewer than 140 private slaughterhouses, of which it is remarked that the majority were wholly unfitted for the purpose of slaughtering, nearly 100 being in unduly close association with dwelling-houses, while in 29 slaughtering took place practically in the same room as that in which the retail trade of the butcher was carried on; in thirteen instances the slaughterhouse was also used for the manufacture of sausages and other prepared meats—a practice which is described as specially dangerous on account of the risk of contamination of the meat by infectious matter of intestinal origin. The Town Council obtained powers so long ago as 1885 to prohibit slaughtering, except on premises provided, registered, or licensed by the Corporation, but these powers have not been utilized. The Board has taken steps to press on the Council the necessity of adequate reform in regard to this matter.

The work in relation to the Sale of Food and Drugs Acts includes investigations connected with a number of food substances; cases are also mentioned in which

the Board has made representations to local authorities to ensure a more efficient application of the Acts. Thus in one county it was found that four police officers act as the sampling officers, each within his own division of the county; in each division the whole of the samples taken during the year were collected in a single quarter, and were usually all taken on one day, or two or three consecutive days. It is remarked that the time when sampling was due, and the fact that it would be followed by a long period of inactivity on the part of the sampling officers, could hardly fail to be known throughout each division; while a further disadvantage lay in sending a large number of miscellaneous food samples to the public analyst at one and the same time, especially in view of the limited time within which the law requires that the analyst's report must be made. In other cases it was found that the samples taken annually consist of a considerable variety of single specimens of different articles of food, collected practically at random by the sampling officers concerned; experience seems to show, however, that it is usually much more advantageous to concentrate attention from time to time on particular forms of adulteration, obtaining reports from the public analyst on a series of samples collected with special reference to the question under consideration.

The report contains a record of much useful work, attended with a good measure of success, but affords ample evidence that more remains to be done. One of the most satisfactory features is the indication that the enforcement of regulations such as those dealt with not only has the effect of stopping large quantities of unsound or impure food which has started on its commercial career from passing into consumption, but, by its moral effect on the producers or exporters, prevents a much larger amount from being put forward at all, or ensures such precautions being taken in the first place that food of proper quality and condition is produced. Many instances of this sort of preventive effect are mentioned incidentally; a single one may be quoted. In Hull and Newcastle, in spite of the existence of a large number of slaughterhouses, "the detection and proper disposal of diseased meat are effected systematically and on a considerable scale. This result has been brought about in large measure through the butchers having come to realize, on the one hand, that if all information is given to the authority on the discovery of diseased or suspicious meat, they will receive assistance and incur no risk of prosecutions; and, on the other hand, that attempts to trade in unsound or diseased meat will be rigorously dealt with."

## ORIGIN OF THE VERTEBRATES.

ABOUT two years ago Dr. Gaskell published in book form the results of many years of patient and brilliant research into the difficult and vexed question of the origin of vertebrates. With the main lines of his arguments the zoological world had been made familiar by the publication of a series of papers.[1] Dr. Gaskell, in his book developed these arguments and added much that was new. His views had not been received with much favour; indeed it may be said that they met with scant recognition. The review of the *Origin of Vertebrates*,[2] which appeared in this JOURNAL, concluded with these words: Dr. Gaskell "has thrown down the gauntlet; it remains to be seen who will accept the challenge." The challenge has been accepted and the Linnean Society devoted two nights to a full-dress debate upon this interesting topic, and the contributions made by the various speakers have been collected and published *in extenso*.

It may be well to recapitulate Dr. Gaskell's main thesis, though no mere brief statement can do justice to so wide a theme. He holds that the ancestors of the vertebrata are to be found among the palaeostraca, extinct arthropods which formed the dominant invertebrate group in the Silurian period, the period at which the vertebrata arose. The nearest living representative of these extinct forms is *Limulus*, the king crab. Ammocoetes, the larval form of the lamprey, is regarded as the vertebrate which offers in its anatomy the most important clues to the phylogeny of the vertebrates. The unfolding of the story is, therefore, to be found in the detailed comparison of the two forms, organ by organ. In the ventricles of the brain and central canal of the spinal cord, Dr. Gaskell sees the stomach and intestine of the arthropod, the infundibulum being the relic of the invertebrate gullet. The alimentary canal, as such, being thus rendered unavailable, a new gut had to be evolved, and this, in Dr. Gaskell's opinion, is deducible from the limuloid respiratory system. This represents, imperfectly it is true, the central point of the argument. Dr. Gaskell supports his case with an amazing wealth of detail, the outcome of much labour and a wide and intimate knowledge of the literature, which can but excite the admiration of his keenest opponents. The problem is attacked from every standpoint—morphological, embryological, physiological, and palaeontological. To appreciate fully the grasp Dr. Gaskell has obtained of the subject in all its details, the book itself must be read. It may safely be said that, with the exception of Sir E. Ray Lankester, not one of Gaskell's critics has anything approaching his intimate knowledge of the subject in all its aspects. They can only pass judgement from the standpoint of "general principles." This came out very clearly in the Linnean debate.

Though, with the exception of one physiologist—Professor Starling—all who took part in the debate were well-known zoologists, the contributions made to the discussion were of very unequal value. The attack, for many of the speakers held views adverse to Dr. Gaskell's theory, was led by Professor MacBride, whose "first and most fundamental objection is to the whole nature of Dr. Gaskell's 'morphological reasoning.'" Professor MacBride is conservative, and takes his stand on precedent; for him morphological reasoning must "conform to precedent"—it must obey certain canons based on the germ-layer theory.

With this point of view scientists may agree in a general kind of way, but the firmness of their convictions will vary, in part according to the nature and influence of their scientific training and in part to their own temperament, for there is no doubt that there is much truth in the Gilbertian statement that every one is born "either a little Liberal or else a little Conservative." Professor MacBride is one of the distinguished group of zoologists who have acquired their training and mode of thought in the great school of embryology at Cambridge, founded by F. M. Balfour; he therefore naturally clings to the morphological value of the germ layers. This

[1] The majority appeared in the *Journal of Anatomy and Physiology*.
[2] BRITISH MEDICAL JOURNAL, December 12th, 1908, p. 1751.

furnishes the main line of his attack, and he cites numerous instances in support of his views.

Mr. E. S. Goodrich, of Oxford, a brilliant and rigid morphologist, was also in opposition. He, too, will recognize no arthropod, however dominant, as an ancestor. From the known vertebrate characters he proceeds to build up a hypothetical ancestor which ought, in his opinion, to possess certain characteristics, and until such an ancestor is forthcoming he will disown all others—"he won't be happy till he gets it." Such a line of argument fails, as it seems to us, to carry conviction. Indeed, it is a method of argument which is scarcely in keeping with the true scientific spirit. However great the present knowledge of morphological detail, the keenest enthusiast will not venture to assume that we have reached anything like finality, and to postulate dogmatically certain anatomical requirements for the hypothetical vertebrate ancestor from imperfect knowledge is surely "begging the whole question.' How often do we find scientific discoveries to be "contrary to expectations"? No suggestion was advanced as to how such essentially vertebrate structures as the notochord may have originated.

A remark made during the discussion by Sir E. Ray Lankester seems to afford a just criticism of Mr. Goodrich's line of reasoning. Sir E. Ray Lankester said that Dr. Gaskell's theory "was a matter not to be treated as *a priori* impossible or improbable," but the question simply was, "Are the facts brought forward by Dr. Gaskell such as to make it appear probable that the vertebrates have developed from arthropods, resembling *Limulus* by the conversion of the old alimentary canal into the neural tube and the simultaneous formation of a totally new digestive tract?" Sir E. Ray Lankester's contribution to the discussion was, as one would expect from him, essentially judicial. It reminds one of the summing-up by a judge after the hearing of a difficult case, involving numerous technicalities, before submission to the jury. His verdict is "that the coincidences cited by Dr. Gaskell were not of a sufficiently exact and special a nature." The impression left upon the mind, after a perusal of Sir E. Ray Lankester's remarks, is that he is unconvinced but that he still regards the matter as being *sub judice*.

Professor Dendy applied himself mainly to a criticism of Dr. Gaskell's interpretation of the structures met with in the lateral and median (pineal) eyes of the arthropods and of the vertebrates. With the interpretation advanced Professor Dendy does not agree.

Dr. Smith Woodward naturally dealt with the palaeontological evidence. He agreed with Dr. Gaskell's line of argument, that "during the subsequent course of evolution of the vertebrates themselves, each successively higher group became the dominant type for the time being; and that each advance was due to evolution from the immediately preceding dominant type." He also states that, "although so little is known of their organization, it seems probable that the Ostracoderms are lower in rank than the true fishes, and most nearly related among surviving animals to the Marsipobranchs. Dr. Gaskell has added to this probability by his researches on the Ammocoete." Dr. Smith Woodward does not, however, agree with Patten's interpretation of the appendages in Cephalaspis, which he regards as merely scales. "Palaeontology affords no clue to the ancestry of the vertebrates, because they seem to have originated as animals with no hard parts capable of fossilization." Such is the statement made by Dr. Smith Woodward. From the printed abstract of Dr. Woodward's remarks—which we presume he personally supplied for publication—it is difficult to form an opinion as to whether he is to be regarded as a decided opponent to the theory. It is from the remarks made by Dr. Gaskell in reply that one is able to glean that Dr. Smith Woodward raised certain difficulties, which appear to be matters of opinion rather than of fact, as to the zoological position of the scanty remains of certain Ostracoderms.

So much for the destructive criticism. Let us turn to the views of some of the supporters of Gaskell's hypothesis. Dr. Gadow, one of our most distinguished vertebrate morphologists, is "whole-hearted." He regards Ostracoderms as the lowest known vertebrates, closely approached by an early reconstructed vertebrate. Amphioxus is not, in Gadow's opinion, in the line of descent, "and the claims of the other chordata restrict themselves to a few features of doubtful value." Gadow strongly approves of Gaskell's explanation of the chorda, and lays stress on the absence of nerves or blood vessels in it, and though of endodermal origin it is not a glandular structure.

Professor Stanley Gardiner pointed out that Dr. Gaskell's critics had devoted their energies to the work of destruction. The alternative line of descent is through Amphioxus, but no one attempted to show how this animal had arisen. Amphioxus is a typical example of regression. He drew attention to the extraordinary "series of analogies and probabilities," and to the confusion resulting from the application of the germ-layer theory to the vertebrates.

An interesting contribution to the discussion was made by Professor Starling, who justly claimed that a physiologist has quite as much right to be heard on questions involving the principles guiding phylogenetic researches. Professor Starling is entirely at one with Dr. Gaskell in regarding the central nervous system as of the greatest fundamental importance in dealing with the question of the evolution of the vertebrata, the muscular, digestive, and respiratory systems showing no continuous rise in type. "I am convinced," says Professor Starling, "that the principles on which he (Dr. Gaskell) has proceeded are the only ones which will lead to a solution of the problem."

It is not possible to pronounce a decided verdict it may safely be said that no one has studied the question so completely or so thoroughly in all its bearings, and with so full a knowledge of the vast literature, as has Dr. Gaskell himself. There are relatively few facts to go upon; much is a matter of interpretation. That there are difficulties—such as the formation of an entirely new alimentary canal—Dr. Gaskell will, we think, readily admit. Morphological details and analogies may be questioned, but it is not upon details that the hypothesis will stand or fall. It must be judged as a whole, and upon broad general principles; from that point of view Dr. Gaskell has, we think, attained a measure of success. That he approached the subject from a physiological as well as from a morphological standpoint is of great value, and it is to be hoped that all questions of a like nature will be so dealt with. We are by no means in agreement with the modern tendency to regard morphology as dead, but pure details of structure without reference to function cannot lead to lasting results. The study of the comparative physiology of the lower animals is what is most needed at the present time. Much of Dr. Gaskell's evidence has also an embryological basis. Is it not time to overhaul the

hard and fast conceptions with regard to the germ layers? It is not so long ago that the botanists believed as firmly in the plant germ layers as do many zoologists of to-day in the animal germ layers, but now these beliefs have been thrown over. Professor Stanley Gardiner touched upon this question, and it requires fuller consideration.

Whatever may be the judgement of the future, morphologists and physiologists alike must recognize that Dr. Gaskell has produced a work of a most stimulating character, full of suggestion for future research, and a lasting monument to his knowledge, patience, and industry. The verdict of to-day may be the Scottish one of "non-proven"; but the question is still an open one. The opinion left by a careful perusal of this discussion is that Dr. Gaskell has strengthened rather than weakened his position.

## THE HYGIENE EXHIBITION AT DRESDEN.

ELSEWHERE we publish a letter from the British Executive Committee of the International Hygiene Exhibition which is to be opened at Dresden in May next. It refers to an appeal issued by the Committee, and signed by Sir Thomas Barlow, Chairman; Lord Ilkeston, Treasurer; Sir William Bennett, Mr. Henry T. Butlin, Sir William Church, Mr. J. M. Cotterill, Mr. Andrew J. Horne, Dr. W. Allan Jamieson, Dr. D. N. Knox, Sir John Lentaigne, and Sir Thomas Oliver, Vice-Presidents; Professor Sims Woodhead, Chairman of the Finance Subcommittee; Sir Lauder Brunton, Mr. George Cadbury, Sir William J. Collins, Professor Sheridan Delépine, Professor Harold B. Dixon, Dr. Gilbert J. Fowler, Mr. T. C. Horsfall, Mr. W. H. Lever, Sir Norman Lockyer, Mr. Arthur J. Martin, Sir Shirley F. Murphy, Sir William Ramsay, Sir Henry E. Roscoe, Professor Arthur Schuster, and Mr. Charles Stevenson, Secretary of the Manchester District Peace and Arbitration League. These names are in themselves a sufficient guarantee, alike to the medical profession and to the public, that the Exhibition is not intended to be a mere show, but has a serious scientific and philanthropic purpose. In the appeal it is stated that Germany is expending £500,000 on the Exhibition, while France, Russia, and other European Governments have voted sums of from £10,000 to £20,000, and Japan as much as £35,000. Even China, Peru, and Brazil, are erecting national pavilions. The committee has received promises of important exhibits from the Metropolitan Asylums Board, St. John Ambulance Association, the health departments of various corporations, the schools of tropical medicine, and many other public and private institutions, all illustrative of modern progress in the conflict of man with his environment. To house these exhibits in a suitable pavilion and to provide for their transport and supervision a sum of at least £10,000 is needed. This sum, moreover, must be found at once, or the pavilion cannot be built and equipped in time.

The objects of the Exhibition have been set forth more than once in the BRITISH MEDICAL JOURNAL, notably in articles published in the issues of August 13th and November 19th, 1910. In these it was pointed out that although the invitation of the German Government to take part officially in the Exhibition was accepted by all the principal civilized nations of the world, Great Britain obstinately stood aloof. Whatever may be thought of "splendid isolation" as the proper attitude of this country we have no hesitation in saying that in this particular instance it is both ungracious and impolitic. We have already said that the refusal of our Government to recognize the Exhibition lends itself to a possible misunderstanding, and we showed by a quotation from one of the leading and most moderate organs of opinion in Germany that in that country it had in fact been construed as a manifestation of unfriendly feeling. The Government, true to the unhappy traditions of British policy, will do nothing in furtherance of the objects of an exhibition which is purely scientific and humanitarian, without any tinge of commercialism. Science, even when its direct aim is the welfare of mankind, commands no votes, and is therefore held as of little account by politicians. It is they who have placed Great Britain, the "sapient nurse" of hygiene, in the position of appearing either indifferent to the progress of the eminently practical branch of knowledge with which British science is so intimately associated, or blinded by national jealousy to the importance of a thing which concerns the welfare of our own as well as all other countries.

The Dresden Exhibition will be an object lesson on an unprecedented scale in all that helps to prevent and exterminate disease and to promote health. Its international character gives it an altogether exceptional interest and importance. At the present day, when ways of communication between the most distant parts of the earth are so many and so easy, no nation can safely hug itself in a fancied security against invasion by disease. Has not plague quite lately somehow found its way through our sanitary ramparts? And is not cholera threatening us from various points? It may be added that a solidarity of nations in the struggle against the common enemies of the human race would do more to prevent war than any number of futile conferences. This consideration alone should be sufficient to gain for it the active sympathies of the many earnest spirits who are striving to establish the reign of peace throughout the world on the permanent basis of a community of social aspiration.

It is with the object of counteracting as far as possible the effects of the short-sighted action of our Government that the Executive Committee has appealed to the people of Great Britain. The sum asked for is a trifle compared with the gifts that men burdened with superfluous wealth make every day for much less beneficent purposes. Already subscriptions to a considerable amount have been received. In addition to the sums mentioned in the letter, we are informed that the Merchant Taylors have given 100 guineas, and that the Lord Mayor has authorized the use of his name in an appeal to other City companies. Members of the medical profession, to which hygiene owes its being, are not as a class wealthy, but they are lovers of their kind, and are eager to aid in the diffusion of knowledge which tends to the preservation of health. We are sure, therefore, that an appeal for help in so good a cause as that of which the Dresden Exhibition is a symbol, will not fall upon deaf ears. We still cherish the hope that wealthy philanthropists will be awakened to the significance and far-reaching importance of the undertaking from a national as well as from a scientific point of view, and will come forward even at this last moment to save this country, which is the birthplace of hygiene, from the false position in which it has been placed by the ignorance or apathy of those who, it might fairly have been hoped, would have helped to place it in the forefront.

## LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

ON Saturday, January 21st, the twenty-seventh Expedition of the Liverpool School of Tropical Medicine sailed for Gambia and Senegal, where it is to investigate sleeping sickness. The members of the expedition are Professor J. L. Todd, Dr. Wolbach, and Mr. Ernest D. Todd. On the previous evening a dinner was given by Mr. W. H. Lever, chairman of the school. In giving the toast of the evening he said they had every reason to feel proud of what the school had done in regard to tropical disease. The present King of the Belgians took a great interest in the movement and recognized its paramount importance. The Liverpool School had raised nearly £100,000 for the investigation of tropical diseases. The methods by which the Government approached this subject did not commend itself to any who gave scientific attention to this matter. The Liverpool School was advocating measures to prevent disease and to make the tropics the healthiest parts of the world. It was a greater thing for the governor of a tropical State to look after the cleanliness of the town in which he was stationed than to lead a punitive expedition to butcher niggers in the bush. They were entitled to all the help home Governments could give them. If they got adequate help, they would get thousands per cent. on whatever they did in the trade of the country and the progress of the empire. The loss to the port of Liverpool, as well as to the whole empire, in trade from West Africa was more tens of millions than he dared tell them. He was certain that all this could be avoided if the West Coast were rendered thoroughly healthy, and if people could go out there free from invalidity and sickness. Statistics showed that the United States lost from insect bites alone a sum that represented £1,000,000. Our own Government, instead of dawdling, ought to make every use of the knowledge gained through the school's research. They had freed the black man from slavery, but they had left the white man to the most cruel form of slavery—ignorance, disease, and death. Professor Todd, in reply, said that the subject of tropical medicine was important not only to Great Britain but to the world. Dr. Wolbach said he desired to pay a tribute from Harvard University as to the work that the school was doing in the way of tropical research. The aim of the present expedition was either to verify or disprove the at present accepted theory with regard to sleeping sickness. Sir Edward Russell proposed the toast of "Commerce and Medical Science," which was acknowledged by Sir Owen Phillips, K.C.M.G., Vice-President of the school. Sir Rubert Boyce, who also responded, appealed to merchants to use some of their wealth to come to the help of their scientific brothers. If they put in a little more brain power, they could make West Africa as healthy as any other part of the empire, and he strongly appealed for money to carry out these ideas. Professor Ronald Ross also pleaded for more workers and for increased support.

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## THE BIOSCOPE AND BACTERIOLOGY.

A LARGE gathering of members and their friends, including a number of medical men, assembled at the Camera Club on the evening of January 19th to witness a demonstration by Dr. E. Ofenheim of cinematograph films taken by Dr. Levaditi, of the Pasteur Institute, Paris, illustrating the movements and different phases in the life-history of living micro-organisms. In introducing the lecturer, Mr. R. T. Watkin-Williams, chairman of the council of the club—who, in the absence of Lord Crawford, presided at the meeting—stated that the exhibition was the first to be given in London before an audience not wholly consisting of medical men. Dr. Ofenheim introduced his subject with a brief explanation of the composition and physiology of the blood, enlightening the non-professional portion of his audience with three sets of moving films depicting human blood as seen ordinarily on a slide, the circulation through the web of a frog's foot, and the phenomenon of phagocytosis. He then proceeded to show rolls of films illustrating the spirillum of relapsing fever, including a wonderfully vivid picture of the process of agglutination, the spirochaete of Vincent, the *Spirochaeta pallida* and the trypanosome of Lewis. Of these the *Spirochaeta pallida* furnished the most interesting and the most extraordinary series. The photographs had been taken from smears of the cornea of a syphilitic patient. To one who has seen Schaudinn's organism under the microscope only after much diligent search fortified with the eye of faith, these films were a wonderful revelation. Here one saw swarms of them wriggling about all over the field, and in all sorts of strange shapes. Another very striking picture was one showing the blood of a rat infected with the trypanosome of Lewis shortly before death, absolutely packed with organisms far exceeding in numbers the erythrocytes. This concluded the photomicrographic portion of the demonstration, and it can only be described as marvellous. The clearness of detail was almost uncanny, and when we consider the difficulties which have to be surmounted to obtain even an ordinary photomicrograph of these organisms success in procuring a series of cinematographic views is really an astounding feat. As Dr. Ofenheim pointed out, the cinematograph should prove an invaluable aid to the bacteriologist in tracing out the involution forms and methods of reproduction in these organisms, inasmuch as by its means it is possible to record movements too rapid to be properly appreciated by the human eye. Dr. Ofenheim next proceeded to show a very instructive roll of films illustrating the movements of the stomach as seen under the $x$ rays after the administration of a bismuth meal. This also was a most interesting exhibition, though less novel than its predecessors. The waves of peristalsis passing downwards and the opening and closing of the pyloric ring were very clearly visible. Some excellent bioscopic representations of the axolotl, the remarkable animal which has gills permitting it to live under water and lungs wherewith to breathe when on dry land; and of the scorpion and its method of using its deadly sting, concluded the demonstration. A brief discussion followed, and a reply by Dr. Ofenheim brought the proceedings to a close. The Camera Club has every reason to congratulate itself upon a most interesting entertainment, and they were fortunate in obtaining the services of so able and lucid a demonstrator as Dr. Ofenheim, whose explanatory remarks, if we may be permitted to say so, could not have been more clear and precise had they been couched in his native language. The films themselves are the most perfect of their kind, being absolutely free from blurs and blotches and the irritating oscillations so frequently seen in cinematograph pictures; the total number of pictures shown covered no fewer than 2,599 ft. of film. They proclaim alike the genius and the skill of Dr. Levaditi, whom it would be an impertinence to praise. Lastly, every credit is due to Pathé Frères for their enterprising public spirit in producing the pictures for the benefit of the public. It is, as one speaker remarked, but one more example of the public devotion to science found in France and so lamentably lacking in certain other countries.

## "IN GOOD FAITH AND WITH REASONABLE CARE."

IN the annotation published last week (page 156) under this heading we forbore to comment on a statement made by Lord Justice Fletcher Moulton in the course of the judgement (reported in full at page 174), because the exact signification attaching to what he said was not very clear. He said: "it is quite true that mere want of good faith in the ordinary sense of the word, perhaps, does not coincide with the legal issue of good faith. It is possible you may act, although with the best intentions, in a way in which legally you would be held to be guilty of want of good faith." The exact meaning to be attached to these words, as we have said, is not clear. Looking at the matter from the ordinary layman's point of view we should have assumed that this point was covered by the words "with reasonable care." With regard to the signification to be attached to the words "good faith," we note that in an article in the *Journal of Mental Science* (October, 1891), on the protection of medical men by the English lunacy law, by Mr. Wood Renton, barrister-at-law, the author, in dealing with "good faith," said the words "want of good faith" have no technical legal signification, but are to be taken in their ordinary acceptation, and mean simply want of honesty in belief, purpose, or conduct. The old fallacy that asserted the existence of a distinction between legal and moral fraud has now been swept out of the region even of forensic argument, and a strong reaction against metaphysical subtleties has set in. Mr. Wood Renton quotes a case in which Mr. Justice Stirling, in regard to imputed fraud about a patent, said: "it would be wrong in judgement to construe such a word (fraud) in an Act passed little more than three years ago and in the absence of a context imperatively demanding such a construction, otherwise than in accordance with the ordinary meaning of the English language, and consequently involving dishonesty or grave moral culpability on the person demanding the patent." If we replace "patent" by "lunacy order," we can discern at once the position in which any person taking steps with a view to signing or carrying out a lunacy order would be placed, if by chance a failure of the legal bona fides were proved. Anything like a finding of want of good faith would at once destroy the confidential and responsible position which a medical man has so often to take up in dealing with the medico-social affairs of a family when they are referred to him. He could not well seek to protect himself by explaining to all that his error was technical and not of a moral nature. Mr. Justice Wills spoke yet more plainly in another case about the use of the term "fraud" in a non-natural sense. He said: "Fraud is a term that should be reserved for something dishonest and morally wrong; and much mischief is, I think, done as well as much pain inflicted by its use where 'illegal' and 'illegality' are the really appropriate terms." It is true that "fraud" is a harsher form than "want of good faith," but the two terms in essence come to the same thing, and in the delicate work that a doctor has often to do, either would be a fatal imputation. Though the chances of either being used with the authority of a court are perhaps small, the effects would be so important that while the danger of such use exists there can be no permanent feeling of security. Obviously there is difference of opinion even among the highest judicial authorities, and until it has been set at rest no one can say in which way the all-important initial view of good faith in a particular case formed by the judge of first instance will reveal itself. We cannot attempt here to indicate what should be done to make straight the crooked ways, but the medical profession has the right to claim that the fulfilment of those duties which are imposed on it by the law shall not be subject to the sport of the law itself.

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## BACTERIA IN MEAT.

THE possibility of bacterial infection of apparently sound meat from animals in prime condition is a matter of considerable importance in the interests of public health. The subject was first investigated little more than two years ago by Gaertner, who found that normal flesh from healthy animals might present bacteria even within three days after death, but they were entirely confined to the surface and by the end of ten days they had not penetrated more than half an inch into the interior. Similar results were obtained by Forster, who found that the interior of of the meat was quite germ-free. It was, therefore, concluded that healthy meat was free from bacterial infection in its interior, and that bacteria would only be met with there when there was an infective focus in some other organ. This opinion soon required modification; Conradi, by using an enrichment method of culture, was able to demonstrate the presence of bacteria in the interior of meat from a considerable percentage of sound carcasses. This result, confirmed by Mayer and Rommler, is of importance in the bacteriological inspection of meat, and necessitates the proviso that the presence of bacteria in the interior of flesh is no certain indication of a diseased condition. Further confirmation of this fact is afforded in a recent communication[1] by Dr. Alfred Horn, of Leipzig, who has investigated the matter in both healthy and diseased animals. Using the enrichment method as well as the ordinary method, he has been able to show that, although the percentage of positive results is decidedly higher by the first method, a certain number of cases may be detected by the second. Thus in carcasses examined within twenty-four hours after death, the percentages of positive results were respectively 14 and 5.5; from three to six days after death the figures were 31 and 15, while up to 21 days after death 54 per cent. and 25 per cent. respectively of cases gave positive results. In the case of animals in which some marked septic condition was found, the figures do not show any notable difference. Over sixty examinations of such carcasses were made, in every case within two days after death, and the percentage of positive results was 31 by the enrichment method and 21 by the other. It is thus evident that bacteria are as likely to be found in the flesh of healthy animals as of diseased. The bacteria met with were for the most part cocci, although Gram-negative rods of the *coli* type were found in a considerable proportion of the cases, while anaërobic organisms also occurred not infrequently. It is, perhaps, unfortunate that Dr. Horn did not attempt to characterize these bacteria further, but, on the other hand, he makes the definite statement that no typical members of the food-poisoning group were present on any occasion. After investigating the effects of the method and circumstances of killing and the means of packing and transport, he comes to the conclusion that these exert a considerable influence on the bacterial contamination of meat. This is especially the case where, on account of disease, the animal has to be killed on the farm under the worst possible conditions, and where the intestine and its contents are allowed to remain in the carcass for a much longer time than is the case in a public slaughterhouse. As a further point of importance, he insists on the bacteriological examination of the

[1] *Zeitsch. f. Infektionskrankh. der Haustiere.* Bd. viii, Heft 6 pp. 424–437.

spleen in all cases where disease is known or suspected. The importance of this lies in the fact that the spleen is a natural breeding ground for micro-organisms, and that in the event of a generalized septicaemic condition it is more likely to show the presence of bacteria than the muscles. In investigating this matter he examined over 200 animals in which some septic condition was present. The bacteriological examination of the spleen and muscles gave an identical result, either positive or negative, in three-quarters of the cases. In 9 per cent. the spleen was sterile while the muscles were infected. Here Dr. Horn considers that we have to deal with a *post-mortem* invasion from the exterior, for it is not to be imagined that in a generalized infection the spleen would be entirely unaffected. On the other hand, 17 per cent. showed the spleen positive and the muscles negative, and in such cases he thinks it advisable that a further and more exhaustive examination of the muscles should be made. This opinion and recommendation was previously advanced by Müller in 1909.

## CAESAREAN SECTION.

THE January number of the *Journal of Obstetrics and Gynaecology of the British Empire* consists of the complete report read by Dr. Amand Routh at the St. Petersburg meeting of the International Congress of Obstetrics and Gynaecology in September, 1910, on Caesarean section in the United Kingdom. The report contains tables of 1,282 cases of Caesarean section by over 100 obstetricians and gynaecologists of the United Kingdom who were living on June 1st, 1910. The tables will be of standard value, as Dr. Routh has taken great pains to ensure accuracy. He only included cases in which the operators were obstetricians, gynaecologists, and surgeons on the staff of a maternity or gynaecological hospital, and he has felt obliged to exclude several distinguished authorities who are at present living in retirement and have not been able to collect all their cases. Many more cases are excluded, owing to the recent death of the operators, as complete reports could not be obtained. Drs. Cullingworth, Horrocks, Rivers Pollock, Taylor, Walter, and Edgar come within this category. It is, indeed, instructive to compare Dr. Routh's monograph with the last standard British work on the same subject, Dr. Thomas Radford's treatise, *On the Caesarean Section*, the last edition of which appeared over thirty years ago. It included important tables of cases recorded by British and Irish obstetricians, but it was impossible in earlier days, down to the Sixties or Seventies, to obtain reliable clinical reports. Radford set an admirable example, and, thanks to the great advance in aseptic technique in the operating theatre and sick room, and to the higher tone of obstetrical education in the medical schools of the British Isles, Dr. Amand Routh has succeeded in collecting records which are sufficient to prove that British operative midwifery has more than held its own during the present generation. Dr. Routh's analyses of his tables further show how obstetric surgical science is now cultivated in our schools. The question, for example, of the sterilization of the patient on whom Caesarean section is performed is very grave, and as Dr. Routh's tables prove, it has not yet been settled.

## SLEEPING SICKNESS CONFERENCE.

A CONFERENCE on sleeping sickness, held at the Foreign Office during the last few days, has just concluded its deliberations. The conference was convened by the British Government in consequence of representations made as to the danger of the spread of the disease as a result of the construction of the Rhodesia-Katanga Railway, which runs from the north of Broken Hill to the Congo frontier and beyond. The delegates were M. Melot, representative of the Belgian Government; Dr. van Campenhout, of the Colonial Office in Brussels; Dr. Sheffield Neave, representing the Rhodesia-Katanga Railway; Dr. Aylmer-May, representing the Chartered Company; Dr. Bagshawe, of the Sleeping Sickness Bureau; and representatives of the British, Foreign, and Colonial Offices. According to a message from Reuter's Agency which appears in several newspapers, the conference held that, with regard to the necessary precautions in the case of new railway extensions, it was essential that the route of these lines should be inspected for *Glossina palpalis*, and that maps of the fly areas be prepared; that railways should cross the fly belt at the narrowest points and not follow them; that there should be no station, buildings, or stopping-places in the *Glossina palpalis* area, and that labourers on the railways should be recruited under such condition as to avoid infection. It is also recommended that during construction a span of a hundred yards shall be cleared on either side of the line and for a distance of a thousand yards on either side of a river; that clearings shall be made on either side of railway bridges, and that all houses in a fly area shall have a clearing of five hundred yards. During the working of railways it is recommended that there shall be constant supervision and inspection, that passenger carriages, trucks, etc., shall, as far as possible, have openings covered with fly-proof gauze, and that as *Glossina palpalis* probably does not exist south of the Congo-Zambesi watershed, the Rhodesia-Katanga Railway shall be worked in two sections with a view to avoiding the possibility of carrying the fly from one area to another.

## TROUBLES IN TRINIDAD.

A LITTLE over two years ago a letter was published from the President of the Jamaica Branch of the British Medical Association, drawing attention to a newspaper crusade then being carried on against a colonial medical officer, Dr. Clare, Surgeon-General of Trinidad. This officer, who had done excellent work while in Jamaica, had recently been placed at the head of the Trinidad Medical Service, and the object of the letter was to throw on the attack being made on him the light supplied by long familiarity with West Indian affairs. It was stated to be well known that if any official did not "stand solid" with the Trinidad press but incurred its enmity, he was pursued with characteristic persistence, no matter how such action might be detrimental to the public interest. A large collection of the papers in question was placed in our possession, and in a comment on the subject we pointed out that the attacks were of an intemperate character, and that their ostensible cause was the fact that Dr. Clare soon after his arrival allowed it to be known that a case of plague had been found, and thereby subjected the island to the risk of being placed in quarantine. A year or so later we began to receive from correspondents in Trinidad itself further copies of local newspapers. These showed that Surgeon-General Clare was again the object of a public attack, but one based primarily on a precisely opposite ground—namely, that he had declined to accept the diagnosis of certain members of his staff with respect to a particular death suspected to have been due to plague, and had contented himself with the precautionary measures locally applied to all cases of infectious disease. Little by little matters developed, and finally the Governor appointed a commission of

inquiry, consisting of six persons. It would be quite impossible to give a detailed account of its proceedings, but their general nature is sufficiently indicated by the following extract from the report of the President of the Commission: "When the whole administration of an officer in the position of the Surgeon-General is subjected to a scrutiny which, though not complete, is yet so industrious and unsparing as that the results of which Mr. Wharton submitted for our consideration quite a number of instances in which the officer's conduct remains to a certain extent in doubt will probably be discovered. To be triumphantly and decisively successful at every point along such an extended line of attack is a result obviously difficult to attain; and where it is shown that the official chief is personally unpopular, so much so that there has been a cessation of social relations between him and his subordinates by reason of extraneous grievances; that some of the witnesses adduced have an intelligible motive to seek to shift their own responsibilities on to him, others are smarting from his censures (even though since cancelled by a higher authority), and the organizer of the whole attack is a friend of the former and a near relative of the latter; where, passion having full sway, exaggeration is rife, and gentlemen of reputation recklessly besmirch themselves in order to injure the object of the common attack: under such circumstances care must be taken not to give undue importance to mere doubts as to the issue of the struggle at a particular point or points. Otherwise it would be impossible to carry on His Majesty's service; officers would be liable to be hounded from office by mere clamour and aspersion and combinations of interested persons." The doubts to which reference is made are as to whether anything was proved against the bona fides and honesty of Surgeon-General Clare's actions, and it is stated that this was not the case. But this is not the only report on the inquiry. Each of the other commissioners submitted his views to the Governor in the form of a criticism of what was stated in the President's report. Of these other reports it need merely be said that they agree more or less whole-heartedly with the President's practical exoneration of Surgeon-General Clare on what may be regarded as the principal issues, and merely differ in the endeavours they variously make to protect one witness or another and in the views they express as to the wisdom or otherwise of Surgeon-General Clare's administrative methods. What the final upshot will be still remains to be seen. It rests with the Secretary of State for the Colonies, and we do not envy him his task. Not only are the documents to be studied extraordinarily voluminous, but reconciliation of the interests of public service with fairness to Surgeon-General Clare must, in view of the strong local feeling existing, prove difficult. But there is one conclusion that can be drawn forthwith. If ever an inquiry of this order is really necessary it should be held by an officer having no connexion with the colony in which the inquiry has arisen, and be conducted on ordinary judicial lines; that is to say, the issues to be tried should be definitely fixed beforehand and the evidence taken on oath.

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## TREATMENT OF INCIPIENT INSANITY.

AT a meeting of the directors of the Dundee Royal Lunatic Asylum held recently a report of a favourable nature was submitted by Dr. Mackie Whyte, Special Physician for Incipient Mental Diseases, Dundee Royal Infirmary, on the experiment of treating incipient cases of insanity in the wards of the Dundee Royal Infirmary. He said that, although the numbers dealt with were comparatively few, the results were, on the whole, satisfactory, and in every case—even the less hopeful—the relatives had shown themselves very grateful for the help the infirmary had been able to give them in circumstances always trying, and often highly perplexing. In no case had there been cause for regretting precipitate certification, and his experience went to confirm the opinion that almost all cases showing signs of mental breakdown should at the earliest possible moment be placed under such supervision and gentle discipline as it was possible to give in the Royal Infirmary.

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## FRENCH MEDICAL PARLIAMENTARY GROUP.

THE French Medical Parliamentary Group, which comprises fifty-nine deputies and thirty-seven senators belonging to the medical profession, recently met for the election of office-bearers. The following were chosen: President, Dr. Labbé, senator; vice-presidents, Professors Lannelongue, senator, and Dupuisson, deputy; secretaries, Drs. Pedebidou and E. Raymond, senators; and Drs. Lachaud and Laurent, deputies; treasurer, Dr. Devins, deputy. Three subcommittees were appointed as follows: (1) For the reform of medical teaching; (2) for the defence of professional interests; (3) for parliamentary action on matters relating to medicine and social hygiene. Meetings of the group are held once a month.

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OWING to the derangement of business due to the threatened strike of printers in London, it has been necessary to postpone the publication of a number of contributions received this week. It is requested that communications intended for publication in the next issue should be forwarded as early as possible.

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WE are informed that only one candidate, Dr. Leonard Kidd, was nominated for election as direct representative of Ireland on the General Medical Council, and that Dr. Kidd, who was first elected in 1906, has consequently been re-elected.

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THE next International Conference on Cancer will be held at Brussels in 1913. The details of its organization will be settled at a meeting to be held during the International Hygiene Exhibition, which will open at Dresden in May next. Among the matters which it is proposed to discuss are the adoption of an international nomenclature of tumours and the establishment of a uniform system of statistics.

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IT is announced that the degree of Doctor of Medicine will shortly be conferred on the German Emperor by the University of Prague. The ceremony will be performed in the Throne Room of the Berlin Schloss by the Rector of the Prague German University assisted by the senior professors of the Medical Faculty. It may be remembered that King Edward VII was a Fellow of the Royal College of Physicians of London and the Royal College of Surgeons of England. Our present gracious Sovereign is a Fellow of the Royal College of Surgeons. The Kaiser is a man of manifold activities, but the doctor's degree which he is about to receive will not, we believe, give him a legal right to practise medicine even on the lieges of his brother Emperor, His Imperial and Royal Majesty, Francis Joseph.

# England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

## LIVERPOOL.

### THE MEDICAL SOCIETY OF LIVERPOOL.

AT the annual general meeting of the members of the Liverpool Medical Institution it was decided to alter the name of the society to "The Medical Society of Liverpool." The society is one of the oldest and most flourishing learned societies in the kingdom, and dates back to 1779, when the Liverpool Medical Library was founded. In 1833 a Liverpool Medical Society was begun, and went on until 1839, when it amalgamated with the Medical Library under the trustees of the building still known as the Medical Institution. It was in 1840 that the society was called the Liverpool Medical Institution. The name met with considerable opposition, and was adopted in a somewhat irregular manner by a small majority. The interest of present members in the history of their society has been awakened by the researches of Mr. T. R. Bickerton, who was President immediately before the present President, Dr. Bradshaw. Mr. Bickerton made the history of the society and of one of its founders, Dr. Rutter, the subject of two very interesting addresses, which have led to the result now chronicled. The society has 419 members and associates, and an income of over £750 a year. The average attendance at the ordinary meetings is 82, which compares well with that of any medical society in the country. The society publishes the *Liverpool Medical Journal*.

### GARSTON NEW ACCIDENT HOSPITAL.

The township of Garston, which has recently been absorbed by Liverpool, had a small accident hospital, more especially for cases of accident on the railway and docks. This hospital is to be rebuilt, and a special subcommittee of the Liverpool City Council has decided "that an offer be made, without admitting liability, to the committee of the proposed Accident and Emergency Hospital at Garston and district, to contribute the sum of £5,000 towards the building fund of this hospital."

## MANCHESTER AND DISTRICT.

### THE RED CROSS SOCIETY.

AT a meeting held last week to establish a division of the Red Cross Society in Pendleton in connexion with the East Lancashire Branch of the Territorial Force, Sir Arthur Heywood presided, and an interesting account was given of the history and objects of the Red Cross Society by Colonel Coates, C.B. He said that the Red Cross Society was really an amalgamation of two other great societies—the National British Society for aid to the sick and wounded soldiers and sailors in war, and the British Central Red Cross Council. The first of these was formed by the late Lord Wantage, and had spent more than £500,000 in sending out additional comforts and hospital facilities in various campaigns. The British Central Red Cross Council came into existence shortly before the South African war. Both these societies did good work during the war, but there was a great deal of overlapping and extravagance, and, owing to lack of proper organization, things went wrong with the supplies sent out. After the war was over, the War Office and Admiralty decreed that, in order to prevent mismanagement in the future, these voluntary societies should only be represented by one society. It took some time for the societies to decide on a representative organization, and it was owing to the tact of the late King that the two societies named joined hands under the name of the Red Cross Society. It had been provided that in future no supplies other than those sent by the official department should be allowed to reach soldiers and sailors in time of war except through the Red Cross Society. In this way charitable effort would be well organized, and there would be less chance of waste of money that had been contributed voluntarily. One of the main objects of the society was to complete the personnel of the Territorial Medical Service. The Territorial Force had regimental medical services, field ambulances, and great hospitals at the base, but no arrangements had been made for the care of the sick and wounded who were being conveyed from the fighting line to the base hospitals. Mr. Haldane decided that this should done on voluntary lines as in various other countries. The Red Cross Society had offered to undertake the work and the offer had been accepted. Explaining the working of the society, Colonel Coates said there was a Central Executive Committee in London which in times of need would be in close communication with the War Office and the Admiralty as to the best methods of distributing the supplies raised by charitable effort. Branches of the society had been formed in every county of England, and Lancashire had two branches—the East and the West Lancashire Branches. The affairs of the East Lancashire Branch were managed by an executive committee in Manchester, and the area administered by this committee was divided into districts, of which Pendleton was one. People might become associates and adherents by certain subscriptions, but what was wanted was workers for the various detachments. In the event of their services being needed they would not be called upon to serve outside their own district, but they might be able to render most valuable services in regard to local medical and hospital arrangements for the sick and wounded until they were conveyed to the hospitals at the base. At the close of the meeting many members of the audience came forward and gave in their names as adherents and workers.

## BIRMINGHAM.

### THE WORKHOUSE INFIRMARY.

THE guardians have decided to provide pathological, bacteriological, and *x*-ray departments for the Birmingham Workhouse Infirmary. The immediate outlay on the pathological department will be £170, while as regards upkeep the salary of a pathologist will be £250 a year, and it is estimated that £50 annually will be required for apparatus, etc. With regard to the *x*-ray department, the apparatus is estimated to cost £250, and the room, including the cost of bringing in the cable, £392.

### BIRMINGHAM MATERNITY HOSPITAL.

The medical report for 1909 shows that the district midwives attended 1,680 cases of labour. The total number of children born was 1,697. Of the infants, 45 were stillborn, and 19 died within ten days of birth, so that the total infant mortality was 64, or 3.7 per cent. There were no maternal deaths. The maternity hospital contains eight beds for the complications of pregnancy, sixteen lying-in beds, and one isolated bed. The total number of patients admitted was 379, and of these 7 died as the result of: Eclampsia, 2; *ante-partum* haemorrhage, 2; Caesarean section, phthisis, and rupture of pregnant half of rigid uterus at full term. There were 287 deliveries, and in them the presentations were as follows: Vertex, 258; breech or foot, 13; face, 1; transverse, 11; complex, 3; and unknown, 1. Of the babies, 247 were born alive, but 14 of these died, so that the infant mortality was 5.6 per cent. The routine method of artificial feeding was to give good cow's milk, sterilized, and undiluted. To healthy babies the amount given for each feed was that which experience showed was an average breast-feed for the age. Each feed was placed in an ordinary 6-oz. bottle, and sterilized by standing in boiling water for forty-five minutes. When the feed was required a rubber teat was put on and the baby took it direct from the bottle. Any dilution or additions ordered for special cases were made before sterilizing. When a baby who was receiving cow's milk left the hospital, the mother was given instructions and shown how to sterilize the milk in a bottle or saucepan. All the mothers of babies were invited on discharge to bring the baby to be weighed at the hospital and inspected by the house-surgeon at regular intervals afterwards.

## LONDON.

### THE PUBLIC HEALTH IN 1909.

(*Continued from page 160.*)

PART I of Sir Shirley Murphy's report to the London County Council for the year 1909,[1] which referred to the vital statistics of the administrative county, was dealt with on pages 159 and 160 of the BRITISH MEDICAL JOURNAL. The second portion of the report refers more particularly to administrative and executive action of the county and borough councils, although it is at times a little difficult to tell from the information given whether in particular instances the control is in the hands of the County Council or of the borough councils.

*Dairies, Cowsheds, and Milkshops.*

The number of cowshed premises in London is steadily decreasing. In 1894 there were 446, and in 1909 only 214. The greatest number is in Stepney, where there are 36, and in Holborn there is only 1. The amount of inspection appears to vary considerably in the various districts. The Holborn premises are apparently inspected weekly, whereas those in Lambeth and Stepney are inspected on an average twice in each year. The same disparity of inspection occurs with regard to milkshops, of which there over 9,000 in the whole county. The 555 Lambeth premises were each inspected once during the year, and the average number of inspections of each of the 302 premises in Shoreditch was 11. The periodical inspection of cows in the London cowsheds by the County Council's veterinary inspector with a view to the detection of tuberculous disease of the udder, which has been carried on for ten years, was continued in 1909. The results obtained at the five inspections in that year are rather disquieting.

Although the number of cows examined was approximately the same as in 1908, there were found to be 28 of them affected with tuberculous disease of the udder, compared with 16 in the former year. The 28 cows were slaughtered, and the carcasses destroyed, compensation being paid by the Council to the owners. Samples of milk to the number of 2,325 were taken by County Council inspectors from churns of milk consigned from the country to the various London railway termini, and submitted to the Lister Institute for bacteriological examination. There were found to be tuberculous 10.4 per cent. In 1908, of the 620 samples examined 11.6 per cent. were tuberculous. The farms from which tuberculous milk was consigned were visited in 16 different counties, and 11,004 cows were examined, clinical disease of the udder being observed in 219 instances. Outside London the proportion of tuberculous cows shows an improvement in 1909 on previous years. Farmers appear to be disposing of their older cows, and this may account for the improved condition.

*Slaughterhouses.*

The slaughterhouses, like the cowsheds, are decreasing in number. In 1894 there were 506, and in 1909 only 264. Islington has the greatest number, 34; in Holborn there is only one, and there are none in Westminster. The seven Paddington slaughterhouses were inspected on an average 70 times during the year, whereas those in Lambeth were subjected to a half-yearly inspection.

*Offensive Trades.*

In the whole of London, with the exception of those in the markets under the jurisdiction of the City Corporation, there are 84 offensive trades. During the year 1909 the County Council instituted proceedings against a firm manufacturing oleo, an edible article, for establishing anew the business of a tallow melter. The magistrate decided that the business was not that of a tallow melter, and the Council then sanctioned it as that of a fat melter.

*Smoke Nuisance.*

In June the County Council had under consideration a report by the Public Control Committee containing recommendations for alteration of the law relating to smoke nuisance, and resolved to apply to Parliament to give effect to the following proposals, which had been formulated after conference with representatives of the borough councils. The conference had expressed its concurrence with the first three of the proposals.

1. That Section 24 (*b*) of the Public Health (London) Act, 1891, which provides that "any chimney (not being the chimney of a private dwelling house) sending forth black smoke in such quantities as to be a nuisance" shall be a nuisance liable to be dealt with summarily under the Act, should be amended by the deletion of the word "black."

2. That the word "chimney" in Section 24 (*b*) of the Public Health (London) Act, 1891, should be deemed to include:

   (*a*) Openings through which smoke is emitted from buildings or places in which processes of manufacture are carried on, and the chimneys of any building or place where furnaces are used in operations carried on under statutory powers.

   (*b*) The chimneys of any Government workshop or factory.

3. That in special cases of nuisance arising under Sections 23 and 24 of the Public Health (London) Act, 1891, the proceedings in respect of any nuisance may, at the request of, and by agreement with, the sanitary authority, be taken by the Council in such special cases.

4. That the power of the Council to take proceedings in respect of nuisance created by sanitary authorities under Section 22 of the Public Health (London) Act, 1891, should be extended to apply to smoke nuisance from electricity or other industrial works, or from premises used for the treatment or disposal of refuse, or for disinfecting purposes, or from baths or washhouses or other buildings or wharves owned, leased, or occupied by sanitary authorities in which furnaces are used.

5. That the power of sanitary authorities under Section 14 of the Public Health (London) Act, 1891, to take proceedings in respect of nuisance arising outside their respective areas should be extended to the Council as regards smoke nuisance arising outside the county of London.

6. That the Council should be empowered to expend such money as it may think expedient, not exceeding £500 a year, for the advancement of measures for the abatement of smoke nuisance.

*Stable Manure.*

In recent years there has been constant decrease in the amount of stable manure in London owing to the displacement of horse by motor traffic. Nuisance from this source is therefore very much less than formerly, a fact which may also be due to the enforcement of the regulations requiring periodical removal, and to the by-law prohibiting manure receptacles sunk below the surface of the ground.

*House Refuse.*

In Westminster and in portions of Marylebone there is a daily removal of house refuse, and the advantages of this practice are so great that it is difficult to understand why the remaining sanitary authorities do not adopt it. It is disappointing to learn that in Hackney a large number of householders (as many as 4,000 or 5,000 each week) decline to have their house refuse removed. Sir Shirley Murphy points out that such refusal amounts to obstruction, and involves a penalty which should be enforced. The question whether the refuse from a restaurant was house refuse which the sanitary authorities were required to remove, or trade refuse, was the subject of a decision in the King's Bench Division in June, 1909, in the case of Lyons and Co., Limited, *v.* the City of London Corporation. Quoting from the *Justice of the Peace*:

> The appellants were the occupiers of premises which they used as a tea shop, providing customers with refreshment and food for consumption on the premises, some of the food being cooked or prepared on the premises. No one slept on the premises at night. The refuse from the premises consisted of ashes and clinkers, coffee grounds, newspaper, cabbage leaves, egg shells, dust and general dirt, broken crockery, tea leaves, potato parings, sweepings from the floors and sweepings from the rooms. It did not include scraps left by customers, which were given away in charity. The court held that in the circumstances the refuse was house refuse.

*County Council Dwellings.*

The death-rate at all ages in the Council's buildings which were occupied during the whole year was 10·7 per 1,000 compared with 14.0 per 1,000 in London as a whole. The aggregate population in the dwellings

[1] Report of the Public Health Committee of the London County Council—submitting the report of the medical officer of health for the county for the year 1909. London: P. S. King and Son. No. 1,395; pp. 108, with 6 appendices. (3s. 6d.)

concerned was 28,195. The diarrhoea and the phthisis death-rates were the same as those which prevailed in London, while the rates from the principal zymotic diseases, excluding diarrhoea, from bronchitis and from pneumonia, were slightly lower than the London death-rate from these causes.

*Homeless Persons.*

On the night of February 10th, 1910, there were found in the streets 969 persons presumably homeless. In addition about 1,800 men were provided with food and shelter, but no bed, by various philanthropic bodies. If the occupants of the casual wards are added to the numbers given, there were on the night in question 6,644 persons who might be regarded as homeless. On the same night there were 7,580 vacant beds in the registered common lodging-houses.

*The Midwives Act.*

There were said to be resident in London in 1909 a total of 3,285 midwives, or nearly 600 more than the number recorded in 1908. All practising midwives, with the exception of those claiming institutional exemption or who are working under the direction of a medical practitioner, are subject to supervision by the Council's inspectors, Miss I. R. Shields, M.B., and Miss E. Macrory, M.B. In addition to the ordinary routine inspection, special inquiries are made into all cases in which medical help has been advised on account of inflammation of the eyes. Midwives are also advised on points of difficulty in the course of their duties. The County Council has instituted classes for the instruction of midwives, and eight courses of lectures were given in different parts of London during 1909. The classes have been utilized not only by pupils preparing for the Central Midwives Board, to supplement institutional training, but also by midwives who have been in practice many years.

*Unvaccinated School Children.*

When discussing the closure of schools for epidemic reasons, Sir Shirley Murphy refers to the risk to which school children are now exposed from the infection of small-pox. Owing to the increased number of children who are unvaccinated, the amount of risk from small-pox to which children may be exposed in school if the disease should again become prevalent is no longer negligible. Under these circumstances, he says, it is well to remember that small-pox is a highly infectious disease, and that the condition of the children as to vaccination needs to be taken into account in determining the question of closure of a class or of the exclusion of particular children.

THE ISOLATION OF MEASLES.

At a recent meeting of the Southwark Board of Guardians it was decided to send children suffering from measles to one of the hospitals of the Metropolitan Asylums Board. This decision was only reached after Mr. T. Cornell, one of the representatives of the guardians on the Asylums Board, had explained that it was not proposed, as some of the guardians appeared to think, that the affected children should first of all be taken to the Poor Law infirmary and then transferred to an asylums board hospital, but that they should be removed direct from their homes to the nearest hospital. Such removal could not have a worse effect than removal from the child's home to the infirmary. The present proposals as to the isolation of measles, he stated, were first put forward by the Local Government Board. They had been fully considered by the Asylums Board in the light of experience throughout the country, including that of Edinburgh, Glasgow, and Liverpool, where permanent isolation accommodation had been provided in infectious diseases hospitals for cases of measles and where it had been proved beyond question that the disease could be safely treated in the same hospital with other infectious diseases. The death-rate from measles among those children who lived in one-roomed tenements was seven to eight times greater than it was among those who lived in four or five roomed houses. It was the children of the former class who would be provided for under the scheme, and it could hardly be doubted that such children would have a better chance of recovery than if they remained in their homes.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

COMPLIMENTARY DINNER TO SIR DAVID C. MCVAIL.

A LARGE assembly of professional and lay friends met at the Windsor Hotel, Glasgow, on January 20th, to entertain Sir David McVail to a complimentary dinner on the occasion of the honour of knighthood recently conferred on him.

The President of the Faculty, Dr. D. N. Knox, who was in the chair, proposed "The Health of Our Guest" in an interesting speech. He paid a well-merited tribute to Sir David's activity as a teacher, first at Anderson's College and then at the Western Medical School, which he founded along with Dr. Duncan, Dr. Reid, and Dr. Knox. In the Western Medical School he taught systematic medicine until he was transferred to the Royal Infirmary and became Professor of Clinical Medicine at St. Mungo's College. From the first Dr. McVail was interested in the great question of medical reform, and it was largely, Dr. Knox said, owing to his skill, determination, and generalship that any benefit was obtained from the Act of 1889. Sir David secured the affiliation clause of that Act. Dr. Knox referred to Sir David's valued service on the University Court and as Crown Representative for Scotland on the General Medical Council. In many respects he was a great controversialist. He was clear, logical, massive, and frequently pungent. As a speaker, he was fearless and dramatic.

In acknowledging the toast, Sir David recalled his early student days, which went back to the time when Lister was making his first experiments with antiseptics. He remembered, in the winter session of 1865–6, Lister, then a very young surgeon, giving demonstrations of the use of certain antiseptics—chloride of zinc being one of them—but the experiments did not turn out well. Lister persevered and elaborated his plans, and in the following May was able to lay before the students the essentials of antiseptic surgery, and in the same summer began the first antiseptic operations, using carbolic acid. Sir David remembered how Lister, on the first day he began to describe his experiments, brought to the lecture-room a bottle full of a liquid which he called carbolic acid, a substance which nobody in the room had ever heard of before. Along with Lister, another young man, William T. Gairdner, was also making his name known, and, largely owing to the efforts of these two men, Glasgow had had a prime share in all the amelioration of medical and surgical work that the world now experienced.

Subsequently, Dr. John Patrick, on behalf of the house-physicians and students of the Royal Infirmary, presented Sir David McVail with a silver salver, candlestick, and flower vases in recognition of their high esteem and to mark the honour conferred on him.

EDINBURGH ROYAL INFIRMARY.

At the weekly meeting of the managers on Monday, January 23rd, the following gentlemen were reappointed for five years as from the date given: Dr. A. H. F. Barbour (gynaecologist), March 19th; Mr. N. T. Brewis, F.R.C.S.E. (gynaecologist), March 28th; Dr. J. Haig Ferguson (assistant gynaecologist), April 2nd; Dr. William Fordyce (assistant gynaecologist), April 2nd. At the same meeting Mr. J. H. Gibbs, F.R.C.S.E., L.D.S., was reappointed dental surgeon for one year as from March 23rd.

QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.

The twenty-second annual report of Queen Victoria's Jubilee Institute for Nurses, Scottish Branch, shows that the council were directly responsible for the

maintenance of a staff of thirty-two. During the year thirty-nine nurses had successfully passed through the six months' training given in the Scottish District Training Home, and of these four had been given special training, qualifying them for the examination of the Central Midwives Board, which they had passed. The council received and accepted applications for reappointment from three former Queen's nurses, whom circumstances had required temporarily to resign. Since November 1st, 1909, thirty nurses had resigned their connexion with the institute—eleven for private or other nursing work at home or abroad, eight to be married, six for home duties or other work, and five on account of health. Two Scottish nurses had been transferred to work in England. The number of Queen's nurses now on the Scottish roll is 345. This number does not include probationers for the roll still undergoing district training. The nursing associations affiliated to the Scottish branch numbered 216. During the year nine new branches had been affiliated. The council had sanctioned the appointment of a Queen's nurse as health visitor to work under the directions of the medical officer of health in the middle ward of the county of Lanark. This was the first appointment of a Scottish Queen's nurse as health visitor only. During the year 5,828 cases were nursed by the staff at 29, Castle Terrace, Edinburgh, and by the two nurses resident in Leith, and 398 operations were attended.

### DEATH-RATE OF GLASGOW DURING 1910.

The medical officer of health reports that during 1910 the deaths registered in Glasgow numbered 13,395. The equivalent death-rate was 15.1 per 1,000, calculated on the Registrar-General's estimate of the population, this being the lowest death-rate hitherto recorded on a similar basis. In 1909 the rate was 17.5 and in 1908 17.8. The actual number of deaths registered was lower than in any year since 1890, when the population was only 561,000. During the first three quarters of the year the rate was much below, and for the last quarter about 4 per cent. below, the average rate during the past five years. There was a decrease last year of 111 deaths from infectious diseases, of 117 from phthisis, and of 1,906 from respiratory diseases. As the fog fiend has not been so much in evidence this winter in Glasgow, this decrease in respiratory cases was to be anticipated. With regard to population there is the usual discrepancy between the estimate of the Registrar-General, which is 897,178, and that of the Medical Officer, based on inhabited houses, which gives only 796,409. This discrepancy will be rectified at the taking of the census during the present year.

### ADULTERATION OF FOODS IN GLASGOW.

The annual report of Mr. F. W. Harris, chemist to Glasgow Corporation and analyst under the Food and Drugs Acts, contains details of the operations of the department in regard to all classes of foodstuffs. The aggregate number of samples examined and reported upon was 3,646. Of these, the chief sanitary inspector submitted 777 official samples and 294 informal specimens under the Food and Drugs Act. Of the official samples, 105 were certified as adulterated and 33 as of doubtful or suspicious quality. The adulterated samples were therefore equivalent to 13.5 per cent. The doubtful samples were milk, cream, butter, rice, and camphorated oil.

Regarding "sweet milk," much controversy has taken place in connexion with the Sale of Milk Regulations Act of 1901. The point under discussion is generally the fat limit of 3 per cent. Of 60 samples taken at railway termini in Glasgow, in 1 case only was the percentage of fat under 3 per cent., this sample being 2 9 per cent. It contained 15 per cent. of added water; the original percentage of fat, therefore, was well over 3. Of 214 other samples of sweet milk examined during the year, 74 were found to be adulterated; 68.9 per cent. of adulterated samples were deficient in fat, 24.3 per cent. contained added water, while 6 8 per cent. were both deficient in fat and contained added water.

Local authorities, supported by the Local Government Board, now regard the addition of chemical preservatives to milk as adulteration. Out of the 214 samples above noted, 1 contained boron compound equivalent to 37.8 grains of boric acid per gallon, which was slightly under the 40 grains limit recognized by the Board. Of 237 samples of butter, 18 were found adulterated, having either foreign fat or water over the limit.

The mechanical method of polishing rice is now largely supplemented by the employment of extraneous substances. A high polish is obtained by the use of talc, the colour is modified by pigments, and translucency is increased by mineral oil. The glazing mixture, as usually employed, consists of talc, glucose, and glycerine or mineral oil, the result being to cover the grain with a thin coating of polished talc. In the 26 samples submitted, removable mineral matter was found, varying from 0.12 to 0.94 per cent. In the Local Government Board report the suggested outside limit is 0.5 per cent.; the 2 samples in which this was exceeded were certified as adulterated accordingly.

Attention has also been directed to various problems in connexion with aërial sanitation. A specially designed apparatus has been in use to determine the proportion of suspended matter in the atmosphere and to provide a comparative pictorial record of the pollution of the air under various climatic conditions.

Among miscellaneous samples tested was a packet of smoking mixture exposed for sale and retailed to children. It consisted of chopped-up dried leaves and flowers of the common coltsfoot, and it has been left to the medical officer to decide whether the smoking of this herb is likely to prove injurious to children. The sample was received from the police authorities.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### INFANT MORTALITY.

AN important meeting of the citizens of Dublin was held in the Mansion House on January 19th, for the purpose of considering the problem of infant mortality. The most immediate object of the meeting was to call public attention to the adoption in Dublin of the Early Notification of Births Act, and to the importance of the establishment of a body of voluntary lady workers in connexion therewith. The first resolution,

> That this meeting of the citizens of Dublin thinks that the time has come to deal with the question of infant mortality in this city, and that it views with much satisfaction the action of the Corporation in adopting the Early Notification of Births Act, and pledges itself to support the carrying out of the Act in every way possible,

was proposed by Dr. Horne, seconded by the President of the Royal College of Physicians, and supported by Sir Charles Cameron. Dr. Horne dealt at considerable length with the causes of the excessive infant mortality in cities, and laid special stress on the importance of attending to the health of the mothers. Poverty, overcrowding, and ignorance were, in his opinion, some of the factors that had to be dealt with, and he believed that the work of the proposed lady inspectors would soon bring about a striking change for the better. The second resolution—to the effect that the offer of the Women's National Health Association to form a body of voluntary workers to assist in putting into effect the provisions of the Notification of Births Act, should form a basis from which to develop a general movement for combating the causes of infant mortality—was ably and sympathetically proposed by Her Excellency Lady Aberdeen. She insisted that most children were born healthy, and capable of developing healthily under proper surroundings, and in order to impress the importance of infant mortality to the community at large, she referred to the investigations of Dr. Newsholme showing that a high infantile mortality implied a prevalence of those

conditions which determined national inferiority. Lady Aberdeen concluded by stating that classes had been formed for the suitable instruction of voluntary workers, and by appealing for a larger number of such workers. A committee was subsequently appointed to manage the work that it is proposed to undertake, and the proceedings terminated with votes of thanks to the Lord Mayor and to Lady Aberdeen.

### BELFAST CITY COUNCIL.

Dr. R. Thomson, Chairman of the Public Health Committee, and Dr. A. Trimble, Chairman of the Children's Committee of the City Council, have both been re-elected members of Council and have received numerous congratulations from their fellow-members and the profession. At the meeting of the former committee, it was reported that 779 milch cows within the city boundary had been examined during the period ending January 17th and found free from tuberculosis and other infectious disease. During the week ending January 14th, 1,564 carcasses and 839 pieces had been examined, and 16 carcasses and 334 pieces were condemned as unfit for human food and destroyed.

### HOSPITAL FOR SICK CHILDREN, BELFAST.

The annual meeting of Queen Street Hospital for Sick Children was held on January 20th. There had been 561 cases treated in the wards at a daily cost each of 2s. 2¾d., and 271 operations performed. In the out-patient department there had had been 10,864 attendances, and 561 operations performed. Deep regret was expressed at the death of Dr. Joseph Nelson, honorary ophthalmic surgeon for twenty-five years to the hospital; Dr. Wiclif McCready has been appointed his successor. Mr. Brian O'Brien resigned the post of assistant surgeon on his appointment as Local Government Board inspector, and Mr. T. P. Crymble, F.R.C.S.Eng., was elected in his place. The board also expressed its deep regret in recording the death of their President since 1883, the Hon. R. T. O'Neill. His nephew, Captain the Hon. Arthur O'Neill, M.P., had been elected his successor; he represented the third generation of the family who in succession had been president of the hospital.

### ROYAL VICTORIA HOSPITAL, BELFAST.

At the meeting of the Board of Management on January 18th, Dr. J. E. MacIlwaine was elected Assistant Physician in the place of the late Dr. W. B. McQuitty.

### OLD AGE PENSIONS.

In consequence of the removal of the poor relief disqualification for the receipt of old age pensions, the boards of guardians in several parts of Ireland have drawn up estimates for the coming year on a reduced scale, so as to make allowance for the relief to the rates caused by the removal of so many septuagenarians from the poor relief fund. This action on the part of the guardians has led the Local Government Board to state that it is advisable for the present to include in all estimates a sum equivalent to the actual past cost of relief, indoor and outdoor, as it is proposed to make the Poor Law authorities contribute towards the cost of pensions. This announcement has been received with emphatic protest in many instances.

## India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### THE NEW YEAR'S HONOURS LIST.

THE Indian new year's honours list is noteworthy for the liberal recognition of scientific work, no less than three of the twelve members of the recently-formed bacteriological department appearing in it. Lieutenant-Colonel Semple, R.A.M.C. (ret.), receives a knighthood for his administrative work in charge of the Pasteur and the Central Research Laboratories at Kasauli. The Royal Army Medical Corps is to be congratulated on the third knighthood given to one of its scientific members during the last few years, although the sister services have not been so honoured during recent times. Colonel Bannerman, I.M.S., receives brevet promotion for his administration of the Bombay Plague Laboratory, and Captain Christophers obtains nearly four years' brevet promotion to the rank of major for his brilliant researches on malarial and other protozoal parasites. Lieutenant-Colonel Cleveland, I.M.S., also receives brevet promotion to colonel for his secretariat work at Simla. It has frequently been pointed out that purely professional medical work, however distinguished, very rarely leads to Government recognition. It may justly be argued that it brings its own reward both in the satisfaction at the successes obtained and also of a financial nature, and consequently needs no other recognition. In the present Gazette appears the name of Lieutenant-Colonel Henry Smith, I.M.S., who has made a wide-world reputation by his work on eye diseases. The value placed on such work by the Government would seem to be indicated by his being awarded a Kasr-i-Hind medal, the latest and least-valued decoration.

### PROPOSED PASTEUR AND RESEARCH INSTITUTE FOR EASTERN BENGAL AND ASSAM.

Some time ago a suggestion was made that a Pasteur Institute for the treatment of hydrophobia combined with researches on tropical diseases, especially those of importance in the tea districts, should be founded at Dacca, the capital of the new province of Eastern Bengal and Assam. It was recently suggested as a suitable provincial memorial to King Edward, and has met with so much support that the committee has advised that a considerable sum from the memorial funds should be devoted to this purpose, if the India Tea Association will also aid in the matter. This proposal has just been considered by the General Committee of the Association, which has decided to submit it to all the members and to recommend a levy of 1 anna per acre of tea under cultivation in the province, which will bring in a substantial sum, provided sufficient funds can be raised to endow as well as to start the institute, and that it shall be governed by a body including non-official as well as official members, so that the medical researches undertaken shall be such as are likely to benefit the tea districts. They are not, however, prepared to adopt the suggestion of the memorial committee that an annual levy shall be raised from the tea gardens for the upkeep of the institute. It is sincerely to be hoped that the proposal will be successfully carried through, although if the funds are not sufficient both for the Pasteur treatment of hydrophobia and for research work, it is to be hoped that as provision already exists in India for the former, the latter at any rate will be provided for, as the Eastern Province affords abundant material to engage the energies of a number of medical scientific workers for a long time to come.

## Correspondence.

### INTERNATIONAL HYGIENE EXHIBITION, DRESDEN, 1911.

SIR,—In the month of May of this year a great Exhibition will be opened in Dresden, at which a complete record of the achievement of hygiene from the earliest times up to the present day will be laid before the eyes of the public. Advance will be stimulated by means of over two hundred conferences and congresses, and every nation of importance will take part in the endeavour to improve the conditions of mankind.

Since the Government, acting on the advice of the Board of Trade, has decided not to take an official part in this undertaking, there is a grave danger that Great Britain, the admitted leader in hygiene, may be the only nation of importance which is not represented. To save this country from such a disastrous occurrence, the Vice-Presidents of the British Executive Committee, together with a number of men eminent in the world of Science, have issued an appeal letter, asking for the sum of £10,000.

Within a week of the issue of this appeal upwards of £2,000 have been subscribed or guaranteed. Sums of 5s. (from a "Lover of Peace and Goodwill") up to £100 (from the Corporation of Glasgow) have been received, and guarantees of from £1 to £300 have been given. A very generous offer has been made by Mr. Joseph Rowntree. His family will give £500 if nine others will come forward with at least an equal amount.

With confidence we turn to your readers to save Great Britain from having to hang her head in shame. The world has a right to expect this country to take a prominent part in this friendly international endeavour. The Exhibition in Dresden must not be compared with ordinary industrial and "side-show" exhibitions. It will be a vast museum and school, where every legitimate means will be employed in order that its scientific, humanitarian, and educational purposes may be fulfilled.

Time is short. The Administration in Dresden asked for a definite reply by the 15th of this month, but has granted an extension.

Subscriptions, both large and small, will be gratefully acknowledged if addressed to the Secretary. Cheques should be made payable to the Right Hon. Lord Ilkeston. —We are, etc.,

(Signed) THOMAS BARLOW,
Chairman.
ILKESTON,
Honorary Treasurer.
H. W. ARMIT,
Secretary.

47, Victoria Street, Westminster, S.W., Jan. 17th.

## TREATMENT OF PULMONARY TUBERCULOSIS.

SIR,—The lecture by Dr. W. Cecil Bosanquet, published in the JOURNAL of January 21st, touches in a broad-minded spirit on several important factors in the treatment of phthisis pulmonalis. On one only of the points raised by him I should like to say a few words. It is that of the therapeutic value of exercise in this complaint.

As a rationale of the good results which admittedly follow graduated exercise we have offered the theory of autoinoculation. Personally I share Dr. Bosanquet's suspicion of this explanation. While not venturing to deny that such a factor may play a part, I believe that what is really of more importance in this method of treatment is the psychical element. Surely it is more "natural" for a man to be at an active job than to be lying all day, though not acutely ill, on his back. To make a man do the latter takes the *morale* out of him—it demoralizes him. To supply him with work such as he can throw himself into *con amore*—this gives him self-respect, hope, courage. And my claim for these psychical states is that they will probably do him more good than even "his own tuberculin."

While purely physical exercises, such as walking, shovelling earth, wheeling barrows, etc., have their use, I should like specially to recommend such forms of occupation as permit of individual self-expression on the part of the patient. Any man who is above the level of the mere animal does best at creative work. My own experience convinces me that there are great therapeutic possibilities, for instance, in pottery and basket-making. Both afford considerable scope for individual artistic treatment, and can even be engaged in by those patients who, owing to fever or other complications, are confined to bed.

To me the sanatorium is essentially a place where people are brought for a time in order to learn *how to live*. It seems strange that work, the fundamental element in and reason for life, has been for so long excluded from the programme of these institutions.—I am, etc.,

ARTHUR J. BROCK,
Visiting Physician Woodburn Sanatorium.

Edinburgh, Jan. 21st.

## SALVARSAN ("606").

SIR,—In his letter to the JOURNAL of January 7th, Dr. Hardman raises the question, "Do these new preparations of arsenic for hypodermic or intramuscular injections produce effects which cannot be produced by older preparations and methods?" Limiting this query to "606," we may ask, Does this drug produce effects which cannot be produced by mercury and iodides? Let us consider the main points at issue.

1. Can syphilis be aborted by "606"? The earlier investigators hoped that an abortive cure of syphilis, or *sterilisatio magna*, might be effected by this drug. This idea has, I believe, been abandoned by most observers; in any case, it would be impossible to prove in the human subject. On the other hand, if an abortive cure of syphilis is possible, it might equally well be effected by mercury.

2. Has "606" any curative effect on parasyphilitic lesions? It is well known that parasyphilitic affections, such as tabes, general paralysis, and leucoplakia, are, as a rule, resistant to mercurial and iodide treatment, although improvement has been noted in the early stages of tabes. Against this the more recent observers agree that "606" has no effect in such cases.

3. Is the effect of "606" on the lesions of primary, secondary, and tertiary syphilis more rapid than that of mercury or iodides? Primary chancres and secondary syphilides are said to disappear with marvellous rapidity after an injection of "606." But would not the rapidity of disappearance which we are accustomed to see during mercurial treatment be regarded as "marvellous," if mercury was a new drug with a euphonious pseudonym, advertised with a flourish of trumpets? Again, as regards tertiary syphilis, is it not common to see the lesions heal with marvellous rapidity under potassium iodide?

4. Does "606" cure lesions which are resistant to mercury and iodides? Professor Gaucher, who has recently given a fair trial to "606" at the St. Louis Hospital, comes to the conclusion that this drug is chiefly indicated in cases which are resistant to or intolerant of mercury, but that such cases are rare. I think that the failure of mercurial and iodide treatment is more often due to the method than to the drug or to any idiosyncrasy in the patient. In my experience there are few cases of syphilis which will not respond to judicious combinations and variations in methods of administering mercury and iodides.

5. Can a permanent cure be effected by "606"? This is a question which can only be decided after the lapse of many years, for the only reliable test is whether the drug prevents tertiary syphilis and parasyphilis. This has been proved in the case of mercury by Professor Fournier, as far as statistics can prove anything. Probably many other new preparations will be invented before it can be proved for "606." We are told that a persistent negative Wassermann reaction signifies a cure; but, considering our ignorance of the real nature of this reaction, and the knowledge that it is not specific for syphilis, I do not think this evidence can be accepted as absolutely conclusive. Neither can the occurrence of reinfection with syphilis be regarded as proof of the first attack being cured, for there is evidence to show that reinfection may take place before the original infection is extinct.

It appears, therefore, that the answer to our original question is, on the whole, a negative one, and that if "606" has its indications, these are mainly reduced to the very few cases in which treatment by mercury and iodides fails. If this is the case, it may well be asked whether the Ehrlich-Hata preparation is worth 10s. a dose! I have seen it stated in a recent article[1] that this preparation has been patented by Ehrlich. If this is correct, it is hardly in accordance with the ethics of the medical profession. It has for some time been difficult for the uninitiated to distinguish between new drugs, quack medicines, and patent foods, but the treatment of syphilis by a patent medicine is suggestive of the Middle Ages rather than the twentieth century.—I am, etc.

London, N.W. C. F. MARSHALL.

## INDUCED DIVISION OF HUMAN CELLS.

SIR,—In his Bradshaw Lecture, Sir Alfred Pearce Gould, as a peroration to his brilliant discourse, states that the knowledge of the law which governs cell growth is the power required "to prevent, to control, and to cure cancer." In a letter published under the title of "The Bradshaw Lecture" in the BRITISH MEDICAL JOURNAL of January 21st, Mr. Kenneth Campbell also describes the crux of the cancer problem in the following apt question: "What hidden force is it which lashes the epithelial cells into such unwonted reproductive activity?"

[1] Ballenger, *New York Medical Record*, December 10th, 1910.

We beg that we may be permitted to suggest that light is thrown on this problem in a letter by Professor Ronald Ross, which appeared on the previous page of the same issue of the JOURNAL. Professor Ross states that he has seen some of the experiments (described in a recent publication of ours) with new methods of staining living human cells by which we are now enabled to induce division in human lymphocytes by the agency of certain chemical substances. By this method (which in reality was suggested by him several years ago) one can also induce division in polymorphonuclear leucocytes, and in some epithelial cells. These experiments tend to show that the cell division seems to be induced by substances liberated from dead cells, and that cell proliferation in the body is directly caused by the products of katabolism. We should like to reiterate Professor Ross's suggestion that these methods ought to be more widely investigated, because it appears to us that, since we can now induce division of human cells, the solution of the crux of the cancer problem cannot be distant, if it has not already arrived. We also think that this investigation may prove to be a valuable adjunct to, and confirmation of, the admirable researches of Bashford, Ehrlich, Gaylord, Hanau, Jensen, and Loeb, in their investigation of the growth of transplanted tumours.

Unquestionably, these cells can now be made to divide both *in vitro* and *in vivo* in response to kreatin, xanthin, and other substances containing the amidine grouping (M — C = N); and, what is more suggestive, augmented, unsymmetrical divisions can also be induced if this grouping is mixed with certain agents (apparently amines) which can be produced in a dead tissue by the action of saprophytic bacteria.—We are, etc.,

H. C. ROSS.
Liverpool, Jan. 23rd. J. W. CROPPER.

## HEADACHE AND SMALL ERRORS OF REFRACTIONS.

SIR,—I was much interested in reading the report of the meeting, on January 9th, of the Medical Society of London, where, in a paper on "Ocular and Visual Conditions in Medical Cases," Mr. Percy Flemming mentions the occurrence, on waking, of headache in cases of refractive error. This symptom has specially interested me lately. Several patients, all young women, who have sought advice because they feel "run down," have complained of this morning headache. I carefully investigated the refraction and found a small error; in each case this was hypermetropic astigmatism. The error of refraction being so small, I was rather dubious about the effect of glasses on the headaches. The result, however, in each case has been most gratifying. I was much interested in reading Mr. Flemming's explanation of this morning headache. My only excuse for taking up your valuable space is because I think this characteristic symptom of (in my experience small) an error of refraction is worthy of more universal recognition.—I am, etc.,

Manchester, Jan. 20th. J. A. JAMIESON.

## POOR LAW OUTDOOR RELIEF ORDERS.

SIR,—In the article on this subject (page 152) you draw attention to the fact that the changes proposed by the Departmental Committee will place a "great responsibility" on the "union doctors." It is implied also, and no doubt rightly, that this responsibility will be an addition to their present duties. Increase of responsibility is increase of work of a very exacting character, and I have been unable to find in these departmental recommendations any suggestion of payment for this increased work. You remark that the above-mentioned committee has been trying to carry out as far as possible the recommendations of the late Royal Commission. If there was one thing that the Majority and Minority Commissioners both equally agreed upon, it was that Poor Law medical officers at the present time are inadequately remunerated for their public services; yet no notice whatever seems to have been taken of their recommendation that they should be better paid. On the other hand, if this further great responsiblity without extra remuneration is put upon them, it will reduce still further their present inadequate scale of payment. I had hoped to see in your article some mention of this, as appearing in a leading professional journal, but have been disappointed. It might be justly asked by Poor Law medical officers throughout the country, what is the British Medical Association doing to defend their interests? Many of the 5,000 members of the Poor Law medical service are members of that Association, and are entitled to have their special interests considered, and now is a particularly critical time. What is the Association doing?

A Poor Law Reform Committee has been appointed on which Poor Law medical officers are conspicuous by their absence; and hitherto, the chief work done by that committee has been in connexion with contract work and invalidity insurance. I do not desire to belittle the importance of those subjects to the profession generally, but I cannot consider that I am arrogating too much for the service to which I belong, by expressing an opinion that it is sufficiently important to claim at the present time a committee to attend to Poor Law matters solely.

No doubt it was at first thought that after the report of the late Royal Commission there was going to be a complete revolution of the present system; but every day it becomes plainer that it is not unlikely that reform will chiefly take place by modification of that system. All the practical work hitherto done has been on these lines, and it is emphasized by the appointment of this Departmental Committee. Under these circumstances, an Association Committee representative of the Poor Law Medical Service is specially desirable to put before this Departmental Committee, that is now engaged in and reviewing the wilderness of Poor Law Orders, what changes in the same are necessary, so that the sick poor may obtain more efficient treatment, and Poor Law medical officials some measure of equity. If we had not an organization of our own, we should be almost defenceless in the hands of the lay officials of the Local Government Board; and it is hard on us that we have to bring most of our grievances before the conference of delegates of the various branches of the present Poor Law Service, and rely on their support rather than on that of of the great Association of our profession.

I would like it to be understood that in the above remarks I am speaking as a member of the British Medical Association, and not officially, in the name of the special body of which I have the honour to be the Honorary Secretary.—I am, etc.,

MAJOR GREENWOOD,
Honorary Secretary Poor Law Medical Officers'
London, E.C., Jan. 21st. Association of England and Wales.

## STATE SICKNESS AND INVALIDITY INSURANCE.

SIR,—Although not directly affected by the momentous legislation in the way of invalidity insurance and State medical aid which is at the present moment hanging over our heads (owing to my not being in general practice), I am one of those who read with very great interest the letters which you publish weekly in the JOURNAL on this subject, and I was very pleased to see that our Medical Secretary, Mr. Smith Whitaker, had recently been giving a very instructive address on the subject. I have the good fortune now to belong to the South-Eastern Counties of Scotland Division of the Association, and while we are a small Division comparatively, there are some very active members who have been at great pains to bring this very important question before us. One of these, Dr. Oliver, M.O.H. of Roxburghshire, etc., at a recent meeting, in a brief but very lucid address, laid the whole question before us, and made some very practical suggestions as to the action we should take as a profession. As his ideas have practically been embodied in a short circular letter, I take the liberty of enclosing this for your perusal. In this district I think we are all agreed that the profession at large do not realize what a very serious state of affairs we are threatened with. Personally I find every fresh medical man I talk to, especially young medical men, seem to have very little if any knowledge of the matter, for it has never been brought before them. Numbers are not members of the Association, and many who are so often never open the JOURNAL. It must, I am sure, be a common experience to many of your readers who are in the habit of going into doctors' houses to see dozens of unopened JOURNALS lying on a shelf or somewhere out of the way. Well, this cannot be helped, but it is plain at the present juncture that the British Medical Association and its JOURNAL and influence are all we have to look to to defend ourselves from being placed in a most unhappy and hopeless position.

I asked a young medical man, qualified about three years, the other day what he was going to take up. He was at the moment under my care convalescing from an operation. He at once replied, "Oh, I am going into general practice." I immediately opened up on the State aid question. He had never heard of this. Neither was he a member of the Association. I urged him to join.

We are just coming to a new year, and I think one of the very best things that the Association could do in the interests of the profession would be to circularize those who are not members, asking them to consider if they would not now join. A copy of Mr. Whitaker's paper might be enclosed, or a summary of some scheme of a practical and feasible nature such as Dr. Oliver's.

There are certain people just now who say, "Oh, I don't like the British Medical—it is a political association, a mere trades-union." "Such propaganda are debasing to the best interest of the profession." This is the sheerest rubbish. Agreed at once that the more we can keep commercialism out of the profession and away from the spirit of our work the better. But the days of sentiment as regards the doctor are fast disappearing. This is largely due to ourselves and to over and unfair competition. The public will set the exact valuation on our services which we demand and which our colleagues demand.

The fact that we combine and stand solid for exactly what we are justly entitled to—a proper and adequate return for our labours—will excite no one's criticism, but every one's approbation and respect.

The fact that we decline to work when paid below a certain scale in no way debases the profession, but elevates it, and in no way prevents us from performing those wholly unrequited acts of kindness and attention—without hope of fee and reward—which every medical man worth his salt always has and always will perform.

As regards the invalidity insurance, however, we have not to consider charity, but business. We have to deal with the Government, who will pay not a copper more than they possibly can or than we as a profession will accept. We have to sell our brains, not necessarily at the highest price. but at a figure which, while perfectly fair to the Government, is a fair return for our own work.

Among senior members of the profession I have heard very grave concern expressed as to the future. My own view is it entirely depends on ourselves and how we hold together as a profession. Let views as to how fees should be paid, and on what scale, be ventilated in the JOURNAL by all means, so that one may get at the general consensus of opinion and be able to sift the wheat from the chaff. But the end must come to that and a definite scheme be formulated, and opinions taken on it. Why not by referendum? If this be done, we need have no fear for the future, and I rather see in the present crisis a happy opportunity for us to get rid of a reproach to the profession, *undercutting*, and the present wretched club system—the cry of the poor downtrodden general practitioner, etc. What more does any one want than adequate pay and no bad debts, with regular payment of fees?

If we are united we *can* obtain this—of that there can be no question. But it must be made clear to the Government that this is so.

No feelers have been thrown ont to the profession as yet. It is very unlikely that they will be until the plans of the Government are complete. The only people who have been approached are the leading friendly societies. What does the vote of the medical profession matter one way or another—to the politician?

I do sincerely hope that the Association will inaugurate the New Year by a campaign to recruit new members by individual postal approach, and also getting hold of young graduates, possibly through the friendly services of the Deans of medical schools, who would in all probability be quite willing to help as far as they can.—I am, etc.,

Peebles, Dec. 22nd, 1910. THOMAS D. LUKE.

## ALCOHOLISM AND DEGENERACY.

SIR,—In his address as President of the British Association for the Advancement of Science, delivered at Sheffield in 1879, Professor Allmann devoted very much time in endeavouring to prove the essential similarity of animal and vegetable protoplasm. If his inferences are correct, that such similarity really does exist, it must be of importance to determine how far alcohol influences the protoplasm of germinating seeds. If any of your readers will take the trouble to perform a slight experiment they will find that germination will be absolutely prevented if the medium on which the seeds are planted is moistened with 1 part in 100, 1 in 200, or often with 1 in 400 of pure ethylic alcohol diluted to the extent named with water. Such experiments were first performed, so far as I am aware, by the late Dr. Ridge of Enfield.

A second interesting fact arises out of an experiment which was commenced on a large scale forty-five years ago and has been continued uninterruptedly from that time to the present day. The United Kingdom General and Temperance Provident Institution divided those who took whole-life policies in it into two sections, namely, the so-called general section, whose members drank alcohol in moderation, and the temperance section, who totally abstained from alcohol. It is known that if any member in either division should drink intoxicating liquor to excess (or if one in the temperance section should drink it at all) his policy would be liable to forfeiture. I have obtained the mortality returns for the two classes up to 1909, and the result is as follows: Reducing the figures to a uniform number of 10,000 claims expected in each section it is found that out of 10,000 policies which should have become claims in the temperance section only 7,117 actually became so, while out of 10,000 which should have become claims in the general section 9,416 became so—that is, out of 10,000 policies in the general section 2,299 more policies became claims than out of an equal number in the temperance section—and as the only difference between the sections is that policyholders in the first abstain from intoxicating beverages entirely, while those in the other do not, the figures constitute evidence of the value of total abstinence. There has never been a single example in any of the quinquennial returns published of deviation from such result.

Similar results were obtained from returns relating to totally abstaining and moderate drinking sections of the army of India published a few years ago. Of 3,978 members of the first-named section, there were 45.5 per cent. in hospital during the period covered by the report, and 100.6 per cent. of the latter; there were invalided from service 1 in 180 of the former and 3 in 100 of the latter; while of deaths in the former section there were 2·7 per 1,000, and in the latter 9.5 per 1,000. Every comparison made between men living in similar social conditions, such as Foresters and Oddfellows in one group and Rechabites in another, yields similar results, the totally abstaining members having invariably less sickness and greater longevity. These and many similar facts can be verified by any one who will take a little trouble.

On another very important subject—namely, the effect of maternal inebriety on the health of the offspring—most important evidence was given in a report published some years ago by Dr. Sullivan, Medical Officer in H.M.'s Prison Service, after a prolonged and painstaking inquiry in Liverpool and elsewhere, as published at p. 191 et seq. of his work entitled *Alcohol: A Chapter in Social Pathology*. A single reference must suffice:

> It was ascertained that, of 600 children born of 120 drunken mothers, 335 (55.8 per cent.) died in infancy or were stillborn, and that several of the survivors were mentally defective, and as many as 4.1 per cent. were epileptic. Many of these women had female relatives, sisters or daughters, of sober habits and married to sober husbands. On comparing the death-rate amongst the children of the sober mothers with that amongst the children of the drunken women of the same stock, the former was found to be 23.9 per cent. and the latter 55.2 per cent., or nearly two and a half times as much. It was further observed that in the drunken families there was a progressive rise in the death-rate from the earlier to the later born children. The type of alcoholic family suggested by the figures—a type characterized by a regular decrease of vitality in the successive children—was frequently realized in individual cases, as, for instance, in one observation, where the first three children were healthy, the fourth was of defective intelligence, the fifth was an epileptic idiot, the sixth was dead-born, and finally the reproductive career ended with an abortion.

Similar striking evidence was published by the late Professors Parkes and Sanderson in a report drawn up by them at the request of the Town Council of Liverpool in 1871. One or two quotations may also be made—quite common ones—from it. At page 68 it is stated: "In another instance the wages are 30s. a week regularly. The father and mother are both drunken, and three children are half starved and in rags." While in another;

'The children are in rags and filth and look idiotic. In the same street there are sober men earning only 20s. and 23s. a week"—the former man was earning 27s. per week—"and living in comfort." Such reports as those mentioned, as well as the valuable yearly returns of Dr. Hope, the medical officer of health of the City of Liverpool, would amply repay study, and, as these all deal with facts, and facts only, are most important in their bearing on the subject.—I am, etc.,

Deganwy, N. Wales, Jan. 21st. WILLIAM CARTER.

*** We received on January 19th a communication from Professor Karl Pearson stating that, owing to the death of a near personal friend, his rejoinder to Sir Victor Horsley and Dr. Mary Sturge had to be postponed for a week or two. It did not seem necessary to publish this statement last week, but as, owing to the derangements caused by the printers' strike in London, we had to inform Professor Pearson that we were unable to receive a reply this week, seems desirable now to state the fact.

## IS PONOS KALA-AZAR?

SIR,—It was with very great interest that I read in the *Journal of Tropical Medicine* of January 2nd of Professor Ronald Ross having received from Professor Gallé of Rome intimation of the latter's discovery of the Leishman-Donovan body in a case of "ponos" from Spetsai. This discovery, when corroborated and confirmed (as, doubtless, will soon be the case), will remove from the category of theory to that of fact the suggestion made in my paper read at the Annual Meeting of the British Medical Association in July, 1909, that ponos was not a disease *sui generis*, and that all known facts pointed to its being really kala-azar.

Once granted that ponos is kala-azar there would appear to be an excellent opportunity for investigation as to the carrier of the disease. It is generally believed that kala azar is an insect-borne disease, the common bed-bug being suspected to be the carrier, and now that ponos has been shown to be kala-azar under another name it should surely be easier to discover the missing link between the Leishman-Donovan body and the patient in a small island such as Hydra or Spetsai, where insect pests are few, than in a vast area such as that where kala-azar is found in India, where insect life teems.

No work of this nature is likely to be carried out in the islands themselves, and only a medical man accustomed to entomological and bacteriological work, and speaking the local language (Greek or Albanian), could hope to be successful in tracing the connexion or even to point out the way to success.

Professor Gallé's discovery, however, will have the effect of removing from the nomenclature of tropical diseases a local name which was in itself a confession of ignorance.—I am, etc.,

Larnaca, Cyprus, Jan. 12th. GEORGE A. WILLIAMSON, M.A., M.D., D.P.H., D.T.M.

## SWABS LEFT IN THE INTESTINE.

SIR,—May I be permitted to offer my congratulations to Mr. Ryall upon the issue of his defence in the case of Abbott and Wife *v.* Ryall, and at the same time to express my sympathy with a surgeon who did his best, and that successfully, to a patient whom Nature, uncontrolled, would have removed from this world. The case, to my mind—which is now governed by an experience of a quarter of a century of kaleidoscopic changes in the art of surgery—raises issues which are of a grave nature to those of us who do their best according to their convictions from acquired knowledge, and also by the adoption of personal resources, to save their clients for the blessings of the prolongation of life.

The first issue, to my mind, is the necessity on the part of the medical profession of creating an ethical code in order to guide those members of the profession who feel it their duty to support plaintiffs against alleged wrongful treatment by other members of their profession. The second issue I consider to be the necessity of creating a tribunal before which members of the profession may be brought for public trial on account of violating that ethical code through ignorance of the existing methods of treatment, and to give their reasons for disagreeing from methods adopted by defendants in cases of prosecution.

The medical profession, as I understand it, desire the public to be duly safeguarded against risk to life from ignorant and careless action taken by its members; at the same time, it is no less jealous of the reputation of its progressive art that its members be allowed to do everything in their power to advance, by innovations in handicraft, and new remedies in treatment, the evolution of the science and art of medicine. Lawsuits will not deter dreamers of progress from pursuing their aims in art, medicine, and science.

I venture to deal with some points raised by the prosecution and also by the defence. With the latter I should like to deal first, because, for the last decade, I have on occasions left not one, but two, swabs inside the bowel after completing the suture. My confession comes easy, not because I have done it originally, like Mr. Ryall, but because I copied it from a well-known surgeon at Lausanne; whether it is his invention or not I do not know, but I have had the opportunity of witnessing him do it in his own invention of *gastro-entérostomie en Y* on different occasions.

I tried to avoid the inclusion of such swabs within the gut by means of a mechanical device—a shouldered three-bladed forceps—but I confess it has not answered in all the cases where it might theoretically have been useful, and I have had to fall back upon the device seen by me at Professor Roux's clinic.

The point on behalf of the defence to which I would desire to draw attention is that Mr. Russell Howard, F.R.C.S., in cross-examination, stated, p. 176: ". . . I would have examined the bowel with an electric lamp, and could then have pulled the swab out with a forceps." *And in re-examination:* "He had never heard of a swab being left in a case of this kind"; and "there was, in his view, considerable risk of at least one stitch passing through the swab. The sigmoidoscope was used for searching for obstructions in the bowel."

Can any reasonable medical man—not layman—with extensive practical knowledge of the use of the sigmoidoscope agree for one moment that that instrument should have been used in this particular case? Would its use not have been highly dangerous? Does the profession not know of cases where its use in ordinary examination of the sigmoid flexure (not indeed one that has been recently sewn up) has caused the death of a patient?

I submit, with deference, that the opinion expressed by the present distinguished President of the Divorce Court, Sir Samuel T. Evans, in a case in which he took part some years ago, is the sound one—namely, that questions of this nature would be a matter of interest for a learned medical society to discuss, but not for a jury of laymen to pass a verdict upon.—I am, etc.,

Cardiff, Jan. 24th. J. LYNN THOMAS.

## TUBERCULOSIS AND STATE INTERVENTION.

SIR,—In the JOURNAL of January 21st the Joint Honorary Secretaries of the Conference on Tuberculosis, recently held at Edinburgh, charge us with making "ambiguous and misleading" references in the preface of the second edition of the *Conquest of Consumption*, to what took place at the conference. They give the actual terms of the resolution to which we referred. It was as follows:

> That the special attention of the Chancellor of the Exchequer, Government, and Parliament be called to the great importance of giving the prevention and treatment of tuberculosis a prominent place in the proposed scheme of invalid insurance.

A conference of experts considers the question of the working man in relation to tuberculosis. It decides to ask the Government to consider the great importance of dealing in a prominent manner with not only the prevention, but the treatment, of tuberculosis in a State insurance scheme. When we draw the deduction that the conference could not have decided to take such a step without meaning that some form of State intervention in regard to tuberculosis is necessary, we are accused of saying what is not the fact. For some reason the joint honorary secretaries contented themselves in their letter with a portion

of a sentence from our preface. What we wrote was as follows:

The representative conference held in Edinburgh in connexion with the annual meeting of the National Association for the Prevention of Consumption in July, 1910, although divided as to the form which State intervention should take, was practically unanimous in the opinion that some form of such intervention was necessary, and the proposition was supported by leading administrative officers in some of the largest cities in the kingdom.

Is this comment either ambiguous or misleading? If so, then the special Sanitary Commissioner of the *Lancet* was also in error in his account (July 9th, 1910, p. 120) of the debate on this question at the conference. He wrote:

The Conference was unanimous as to the issue, the only difference being whether the desired legislation should be part of a general scheme or a law dealing only with tuberculosis.

—We are, etc.,

ARTHUR LATHAM,
CHARLES H. GARLAND.

London, W., Jan. 24th.

## HYPERCHLORHYDRIA AND ITS COMPLICATIONS.

SIR,—It would not have occurred to me that the readers of the BRITISH MEDICAL JOURNAL were so deficient in literary intelligence as not to perceive that my lecture on the above subject was a condensed representation of my own views and experience, and that the reason for the selection of the subject of lecture was that other views, within recent months, had been expressed in the pages of the medical journals. Dr. George Herschell appears to have some anxiety on this point, but I should hope that on this, as on other points, Dr. Herschell's judgement is in error.

I am quite aware that several morbid conditions may simulate, and are not infrequently mistaken for, hyperchlorhydria; also that other morbid conditions may be associated with hyperchlorhydria. The business of the physician is to differentiate these. To state, as Dr. Herschell states, that the symptoms of hyperchlorhydria may be present without over-secretion, or even without the presence of free acid, means, of course, that the symptoms have been misinterpreted.

I believe that hyperchlorhydria is a clinical entity, and that some stomachs are more sensitive than others to the acid. Dr. Herschell apparently does not recognize these cases, and I do not venture to think that anything I could say would lead him to my view.

I shall only refer to one other point, as it seems to me to reveal the character of his criticism. He quotes from my lecture where I refer to chronic ulceration as follows: "Were it established that a serum treatment had been found which ensured the healing of chronic ulcerations"; and he goes on to say in the last paragraph of his letter, "He (Dr. Russell) evidently is unacquainted with the treatment by antilytic horse serum." May I suggest that here again Dr. Herschell shows a defect in literary perception? I used the word "established" deliberately. I am acquainted with the contentions regarding the serum mentioned, but I hold that these claims have not yet been *established*.—I am, etc.,

WILLIAM RUSSELL.

Edinburgh, Jan. 23rd.

## THE CAUSE OF APPENDICITIS.

SIR,—I was for three years working in mission hospitals in the North-West Provinces of India—1905 to 1908. During this time we dealt with approximately 20,000 patients, and among these I saw 5 cases of appendicitis, 2 of which were tuberculous.—I am, etc.,

H. B. HANSON.

Elstree, Jan. 17th.

## SHIP SURGEONS.

SIR,—Some time ago, in the BRITISH MEDICAL JOURNAL, I stated that the White Star, Cunard, American, Dominion, and Leyland Companies had printed a notice to the effect that their surgeons are permitted to charge reasonable fees for the treatment of saloon passengers when the illnesses of passengers are due to causes originating before coming on board. I am glad to say that the Allan, Canadian Pacific, and Booth Steamship Companies have lately adopted a similar notice. I wish to suggest that if the medicals practising in each seaport town would bring the action of these companies to the notice of their local steamship companies, and in a quiet way, they might be induced to follow the Liverpool system.—I am, etc.,

R. R. RENTOUL.

Liverpool, Jan. 23rd.

## RESEARCH DEFENCE SOCIETY.

SIR,—As it is just three years since the Research Defence Society was formed (January 27th, 1908), we hope that you will kindly find room for a short account of its work during the past year. The number of members, which was about 2,800 a year ago, is now 3,770, and the number of associates, which was 130, is now 230. Six new branch societies have been formed, making nineteen in all. Since January last the following have consented to be Vice-Presidents of the Society: The Bishop of St. Asaph, Miss Balfour, Sir George Beatson, Dr. M. G. Biggs, Sir John Carrington, Lord Hugh Cecil, the Bishop of Chichester, the Earl of Durham, the Bishop of Ely, Sir David Gill, Sir Archibald Hepburn, Lord Kenyon, Professor Leith, the Duke of Norfolk, the Bishop of Nyasaland, Mrs. Henry Sidgwick, the Bishop of Stepney, and Archdeacon Watkins.

Since January last the following pamphlets and leaflets have been published by the Society: (1) Pasteur, Science, and Medicine, (2) The Nation and the Tropics, (3) Plague in India, past and present, (4) The Helpfulness of Physiological Experiments to the General Practitioner, (5) Report of Annual General Meeting, (6) Diphtheria and Antitoxin, (7) Inoculations, (8) Experiments during 1909, (9) Charges of Cruelty against the Rockefeller Institute, (10) Fighting the Invisible, (11) What the Doctor says, (12) The National Welfare, (13) The Brown Dog, (14) A Question of Religion, (15) The Research Defence Society, (16) Sleeping Sickness, (17) Malta Fever, (18) Experiments on Dogs, (19) In Memoriam, Louis Pasteur, (20) Humanity and Science, (21) Friends of Animals.

There has been a very great increase during the past year in the quantity of pamphlets and leaflets distributed, and in the number of addresses and popular lectures and lantern lectures given by members of the society in all parts of the country. Many debates also have been attended in London or elsewhere by the society's representatives, with excellent results. We are constantly finding that the great majority of the audience on these occasions, after hearing both sides, is strongly in favour of the views of our society.

A large quantity of our publications has been distributed among Public Libraries and similar institutes; a large quantity, also, is sold in the ordinary way of publication.

During the past few months the society has been represented by stalls held at the following exhibitions: the Church Congress, the Annual Meeting of the British Medical Association, the Kennel Club Show, and the Birmingham Dog Show.

The Research Defence Society has nothing to do with the actual making of experiments on animals, nor with the administration of the Act: nor does it desire to see the abolition of restrictions on experiments on animals in this country. It keeps itself to the work for which it was formed three years ago: that is, to make generally known the facts as to experiments on animals in this country and the regulations under which they are conducted, the immense importance of such experiments to the welfare of mankind, and the great saving of human and animal life and health which is already due to them.

We hope that many of your readers will become members or associates of the society, and will help to extend its educational work.—We are, etc.,

CROMER,
President.
SYDNEY HOLLAND,
Chairman of Committee.
F. M. SANDWITH,
Honorary Treasurer.
STEPHEN PAGET,
Honorary Secretary.

21, Ladbroke Square, London, W., Jan. 25th.

# Universities and Colleges.

## UNIVERSITY OF CAMBRIDGE.

*Degrees.*

THE following degrees have been conferred:

M.D.—D. V. Cow, R. E. G. Gray.
M.B.—A. C. D. Firth, G. C. Lim, A. Goulston, N. Mutch, A. J. May.
B.C.—H. W. Barber, A. Goulston, K. I. Singh, P. F. Wilson, H. G. Greaves, N. Mutch, T. W. S. Hills, R. M. R. Thursfield.

*Tropical Diseases.*

The following candidates have been approved for the diploma in Tropical Medicine and Hygiene:.

W. A. Anderson, F. V. O. Beit, R. T St. John Brooks, A. Hutton, I. H. Murray, H. G. S. Webb.

## UNIVERSITY OF EDINBURGH.

*University Court.*

AT the meeting of Edinburgh University Court on January 16th, Dr. A. H. F. Barbour was reappointed University Lecturer on Gynaecology; and Mr. J. W. Dowden, M.B., C.M., F.R.C.S.E., was appointed an additional Examiner in Surgery and Practical Surgery. The gift by Emeritus Professor Crum Brown of a set of the *Zeitschrift für physikalische Chemie*, consisting of 75 volumes, was accepted with thanks.

## UNIVERSITY OF GLASGOW.

*Statistics of Matriculated Students.*

A STATEMENT of the numbers of matriculated students at Glasgow University during the past twenty years has been issued from which it appears that the number of medical students was smaller in 1910 than in 1889, though the total number of students in all faculties was nearly the same in the two years.

| Year. | Arts. | Science. | Divinity. | Law. | Medicine. | Total |
|---|---|---|---|---|---|---|
| 1889 | 996 | — | 95 | 192 | 818 | 2101 |
| 1890 | 998 | — | 88 | 197 | 770 | 2053 |
| 1891 | 972 | — | 93 | 206 | 820 | 2091 |
| 1892 | 941 | — | 89 | 205 | 760 | 1995 |
| 1893 | 780 | 129 | 90 | 193 | 695 | 1887 |
| 1894 | 677 | 119 | 71 | 186 | 618 | 1671 |
| 1895 | 611 | 113 | 61 | 182 | 617 | 1584 |
| 1896 | 571 | 123 | 62 | 225 | 621 | 1602 |
| 1897 | 587 | 112 | 58 | 211 | 565 | 1533 |
| 1898 | 634 | 147 | 54 | 215 | 557 | 1607 |
| 1899 | 654 | 166 | 41 | 213 | 590 | 1664 |
| 1900 | 673 | 160 | 41 | 200 | 584 | 1658 |
| 1901 | 661 | 183 | 51 | 196 | 588 | 1679 |
| 1902 | 687 | 198 | 53 | 191 | 642 | 1771 |
| 1903 | 681 | 238 | 49 | 193 | 604 | 1765 |
| 1904 | 688 | 248 | 51 | 187 | 639 | 1813 |
| 1905 | 684 | 248 | 43 | 208 | 645 | 1828 |
| 1906 | 700 | 274 | 56 | 203 | 626 | 1859 |
| 1907 | 688 | 321 | 59 | 234 | 622 | 1924 |
| 1908 | 695 | 347 | 60 | 214 | 606 | 1922 |
| 1909 | 727 | 428 | 60 | 203 | 602 | 2020 |
| 1910 | 754 | 421 | 56 | 176 | 618 | 2025 |

It will be seen that in all cases the minimum was reached during the last decade of the nineteenth century, but that there has been a small and irregular increase since. Apparently the rise in the total number of students is mainly due to the remarkable increase in the number in the Science Faculty.

*"Final Year" Medical Dinner.*

Professor Murdoch Cameron presided at the dinner of the final year medical students of Glasgow University, which was held in St. Enoch Station Hotel on January 18th. This dinner is the event of the year, when—as the menu card had it—

> Teacher and taught, the plougher and the ploughed,
> The lion and the lamb lie down together.
> Fast fly the hours with laughter, long and loud,
> Song, wine and blether.

This card as usual was an elaborate affair, with photographs, autographs, and numerous apt quotations. Professor Gemmell, who proposed "The Year," gave some interesting reminiscences of the old college.

## UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examination indicated:

D.P.H.—J. Green, S. M. Green, Blanche M. Z. Johnston, W. W. Mackarell, S. P. Mort, J. F. Whelan.

## CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—V. M. Patel (Bombay), R. N. Raja (Madras), B. S. Raj (Hyderabad), Mary Lyon-Mercado (Poona), J. Martin, A. M. Burge (Australia), R. S. Agrawal (Bareilly), H. N. Hukku (Agra), G. da Silva (Goa), S. G. Rasul (Abbottabad), B. L. Shome (Calcutta), J. M. R. Hennessy (Bangalore), M. R. Kochhar (Gujrat), D. J. Chand (Bahawalpur), G. R. Vohra (Punjab), R. C. Mitter (India), W. Macleod.

SECOND COLLEGE.—P. L. Manuel (Mauritius), J. Corcoran, J. Remers, C. R. C. Moon.

THIRD COLLEGE.—V. M. Patel (Bombay), J. B. Wilman, J. J. Dyke (Scotland), J. A. Whitla, R. N. Raja (Madras), A. R. Henry (Cape Colony), G. Singh (India), S. G. Rasul (India), J. I. Arnold, W. Brennan, W. S. Durward, J. R. Smith, M. F. A. L'Hoste (Mauritius), M. R. Kochhar (Gujrat).

FINAL.—Dorothea L. Schwabe, D. Cogan, Rose Moskovitch (Poona), E. E. Doyle (Bombay), R. L. Hughes, C. O'Herlihy, J. T. Mackenzie, H. B. Chamberlain (Ontario), D. Murphy, N. Williams (Ceylon), A. J. Crowley, P. C. Benerjee (Calcutta), P. K. K. Naidu (Madras).

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*†M. J. A. Des Ligneris, *†B. W. Loewenberg.
MEDICINE.—*†G. J. F. Elphick, *B. W. Loewenberg, *F. G. Norbury.
FORENSIC MEDICINE.—N. S. Adler, J. Ellison, R. G. Maglione.
MIDWIFERY.—A. J. V. Mathews, H. Rowntree.

* Section I. † Section II.

The diploma of the society has been granted to Mr. B. W. Loewenberg.

# Public Health AND POOR LAW MEDICAL SERVICES.

## VITAL STATISTICS IN ENGLAND AND WALES (1910).

WE are indebted to the Registrar-General for the following rates, compiled and published for the convenience of medical officers of health. The figures are provisional and subject to revision.

ENGLAND AND WALES.

*Annual Birth-rates, Death-rates, and the Death-rates from the Principal Epidemic Diseases.*

| | Annual Rates per 1,000 Living. | | | | Deaths under One Year to 1,000 Births. |
|---|---|---|---|---|---|
| | Births. | Deaths. Crude. | Deaths. Corrected* | Principal Epidemic Diseases. | |
| England and Wales | 21.8 | 13.4 | 13.4 | 0.99 | 106 |
| 77 great towns ... | 25.0 | 13.4 | 14.3 | 1.23 | 115 |
| 136 small towns ... | 23.7 | 12.4 | 12.9 | 0.88 | 104 |
| England and Wales less the 213 towns | 25.0 | 13.6 | 12.8 | 0.74 | 96 |

* The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

## COUNTY OF DURHAM VITAL STATISTICS FOR 1910.

DR. T. EUSTACE HILL, the County Medical Officer of Health of Durham, has produced the chief vital statistics relating to 1910 at an early date. The estimated population of the administrative county was 865,960. The birth-rate was 34.4 per 1,000 of the population. The death-rate from all causes was 15.1 per 1,000, from the principal zymotic diseases 1.62 per 1,000, and from phthisis 0.88 per 1,000. The infantile mortality-rate was 126 per 1,000 births. These rates are all below the mean rates for the ten years 1900–1909, but do not materially differ from those recorded for 1909.

## DURATION OF INFECTION AFTER SCARLET FEVER.

A. G.—It is the usual practice for a medical officer of health to accept the certificate of the medical attendant as to the termination of the period of infection. A rigid adherence to six weeks' isolation of a case of scarlet fever is not commonly required. Regard is had more to the absence of discharge from the ears, throat, or nose in determining the conclusion of the infective period.

A LABORATORY of criminal anthropology has been established in connexion with the prison of Forest in Belgium. Dr. Vervaeck of the Brussels Anthropological Society has been appointed head of the laboratory, in which it is proposed to collect and co-ordinate anthropological observations made on the prisoners.

MAJOR-GENERAL WOOD, Chief of Staff of the United States Army, has, says the *Medical Record*, issued a general order directing all commanding officers throughout the service to use their best efforts to induce all officers and men under their order, and all civilians connected with the army, to submit to vaccination against typhoid fever. The order is not compulsory except under such special conditions as may justify it.

# Medico-Legal.

## THE BATTERSEA "BROWN DOG."

IN the case of Woodward and others *v.* the Mayor, Aldermen, and Councillors of the Borough of Battersea, tried before Mr. Justice Neville on January 20th, the plaintiffs, Miss Woodward, Mr. Quintanilha, and Miss Howey, sued on behalf of themselves and all other members of the International Antivivisection Council, for an Order that the defendants, the Borough of Battersea Town Council, do forthwith restore and re-erect upon the site from which it was removed a certain drinking fountain, known as "Brown Dog" Memorial, formerly situate in the Latchmere Estate Recreation Ground, from which it was removed, as the plaintiffs alleged, contrary to the express agreement under which it was subscribed for by the plaintiffs and others, and presented to the defendant corporation, and also contrary to a deed of September 12th, 1906, made between Miss Woodward and the defendant corporation. The defendants denied the agreement alleged, and in the alternative pleaded that such an agreement was void on the ground that it was contrary to public policy by reason of the inscription on the memorial containing a criminal or actionable libel of and concerning the council or governing body of University College, London.

Mr. C. E. E. Jenkins, K.C., and Mr. A. A. Bethune appeared for the plaintiffs, Mr. Quintanilha and Miss Howey; and Dr. E. P. S. Counsel appeared for Miss Woodward. The defendants were represented by Mr. Peterson, K.C., and Mr. McCardie.

Mr. Jenkins, stating the facts of the case, said the defendants on June 8th, 1904, accepted the plaintiff's offer to supply the memorial in question, but before it was erected they required the sum of £300 to be deposited with them as an indemnity against the cost of any proceedings that might be brought in respect of its erection with the proposed inscription. On September 16th, 1906, the drinking fountain, etc., which cost £171 6s. 2d. to erect, was publicly unveiled. On March 10th, 1910, as the result of a resolution passed late the night before at a council meeting, the defendants caused the memorial to be taken down and entirely cleared away. The plaintiffs contended that the defendants had contracted and agreed with Miss Woodward in her individual capacity, or alternatively with her on behalf of the council, to keep the fountain maintained on the site in question, or some other suitable site. The plaintiffs had no animus against University College, but, on the contrary, had the greatest admiration for the work done there. His clients would have been perfectly ready to adopt some other form of inscription than the one complained of, putting it in more general terms. Counsel then referred to the disturbances which had been made by medical students who objected to the statue, but, in his opinion, a great deal of exaggeration had taken place with regard to it. Medical students, who traditionally committed breaches of the peace as part of their hospital training, must not be taken too seriously. If he were to call evidence, he should be prepared to show that the plaintiffs had no malice against University College of any sort. Their complaint was against the practice of vivisection as sanctioned by the statute, and they were not actuated by any feeling against any particular institution as such apart from the practice.

Dr. Counsel submitted that on the facts an injunction should be granted if the court had the power. The way in which the statue had been removed in the early hours of the morning reminded one of cattle raiding more than anything else. If the statue were replaced, the plaintiffs were prepared to remove the name of University College. He submitted that it was not in any way contrary to public policy.

Mr. Justice Neville (without calling upon the defendants), in giving judgement, said the first question he had to consider was whether or no the plaintiffs, or either of them, were in a position to maintain the action. On the evidence it was clear that there was no contract on the part of the Battersea Corporation to maintain the drinking fountain which they accepted at the hands of Miss Woodward and the Antivivisection Council. If the matter rested there, of course that would be an end of the case, but it was said that in a deed of September 12th, 1906, made between Miss Woodward of the one part and the corporation of the other part, there were to be found in the recitals words which operated as an estoppel, precluding the defendants from denying that they had entered into a contract to erect and maintain the drinking fountain. In a certain sense he thought that was true. Upon a fair reading of the document it appeared that the defendants recited that they had entered into an agreement for the maintenance of the fountain, but he thought that it was clear from the words used that the agreement referred to was an agreement with the Antivivisection Council, and not an agreement with Miss Woodward. It was perfectly clear that Miss Woodward was not contracting on behalf of the Council, but on her own behalf, and it was clear to him, therefore, that there was no contract with her, and no recital of any contract with her to maintain the fountain. Therefore, it seemed to him that she could not sue. On the other hand, if it was taken that there was an estoppel preventing the corporation from denying that they had entered into an agreement, that agreement was with the Antivivisection Council, and they were no parties to the agreement of September 12th, 1906. Consequently there was no estoppel between the Antivisection Council and the corporation. So that whether the action were treated as one by the members of the Antivivisection Society, or as one by Miss Woodward, there was no contract under which either of them could sue, and no estoppel. On this point, therefore, the action must of necessity fail. He did not think he ought to leave the case without expressing his opinion on the other part. Assuming that an action could be maintained by any one, the question arose, Was there such a contract as the court would enforce? In his opinion there was not. In the first place he thought it was quite clear, having regard to the words of the inscription, that it was not a mere monument to a dog or dogs which had suffered in the interests, or supposed interests, of humanity. It might be that an inscription of that kind would be perfectly unobjectionable. Putting the best construction on it he could, and as well as he could coming to a conclusion as to what the probable and natural effect of it would be, it seemed to his lordship that it was calculated to hold up University College in one aspect of its functions to public execration and to inflame the public mind against them, and he thought it was calculated to lead to a breach of the peace, particularly having regard to the character of the institution of which the words, which he thought were defamatory, were used. If that were so, was the contract in question of such a character as that the court ought to enforce it? He wished at once to say that it was no question of whether the continuance of vivisection, or the abolition of vivisection, was in the public interest, or whether the advocacy of one or other of the opposing views was in the public interest. The question that the court had to consider was whether the publication in the manner described of the words in question was in the public interest, and this depended, he thought, upon whether they were calculated to lead to a breach of the peace, and to disturbance. His Lordship was distinctly of opinion that they would, and, whatever might be said of the causes of it, there was no doubt as a matter of fact that they did lead to a breach of the peace being committed. He thought, therefore, that the court would be going altogether beyond its functions, and acting contrary to its duty, if it were to enforce any such contract. On the other hand, he thought that owing to the fluctuations of opinion that had taken place on the Battersea Borough Council, Miss Woodward particularly, and also the members of the Antivivisection Society, had suffered some hardship. In the result, therefore, he proposed to dismiss the action without costs.

In reply to Mr. Jenkins, Mr. Peterson said the question as to returning the statue must come before Council. He could not deal with it then.

Mr. Jenkins asked what was proposed to be done about the £300 deposited. Was that to be kept?

Mr. Peterson said there had been a libel published.

Mr. Justice Neville said he could not deal with that in the action then before the Court.

## WORKMEN'S COMPENSATION.

*Employment of Medical Referees in cases of Fatal Accident.*

IN a case at Newcastle (December 22nd) Judge Greenwell was invited to refer a case to the medical referee in the following circumstances: A man who had received a blow on the head returned to work for eight days, but he subsequently died of acute mania. An autopsy disclosed no objective signs. A claim for compensation was made on the ground that the mania was caused by the accident. Application was made to the judge to send the case to the medical referee for decision. In the course of his judgement His Honour said that, having considered the section of the Workmen's Compensation Act with regard to the duties of medical referees, it appeared to him that this was not one of the cases that came within that section, because the section applied to the case of a living man, who could be examined by the medical referee, who might learn something more than that which appeared in evidence. Whether that might be correct or not, at all events it was perfectly clear, under the circumstances, that nothing could be gained by having an opinion additional to the opinions already given by the medical men; the Court would be left in exactly the same position of having to decide between the conflicting opinions of the medical gentlemen. That would also be the case if he tried the case over again, with medical assessors sitting beside him, because owing to the circumstances of the case nothing more could be found out by those medical gentlemen, and they would only be able to offer their opinion upon the evidence which had been given, and upon the report of the gentlemen who made the *post-mortem* examination. The parties had agreed not to call that gentleman to give evidence, and, at all events, a great deal had been lost in arriving at the truest conclusion, because that gentleman's attention was not invited, at the time of the examination, to the suggestion that the mania might possibly be the effect of a blow. In the event His Honour found that death was not caused by the accident, and decided in favour of the employers.

## SUPERSESSION.

NEMO.—The following paragraph from the report on the ethics of consultation approved by the British Medical Association, and published in the SUPPLEMENT of May 9th, 1908, would appear to apply:

> 10. *Consultant not to Supersede attending Practitioner.*
> A practitioner who has seen a case in consultation should not supersede the attending practitioner during the illness with regard to which the consultation is held, and if he be asked to attend or prescribe in any future illness he should only do so after explanation with the attending practitioner, unless circumstances make this impracticable.

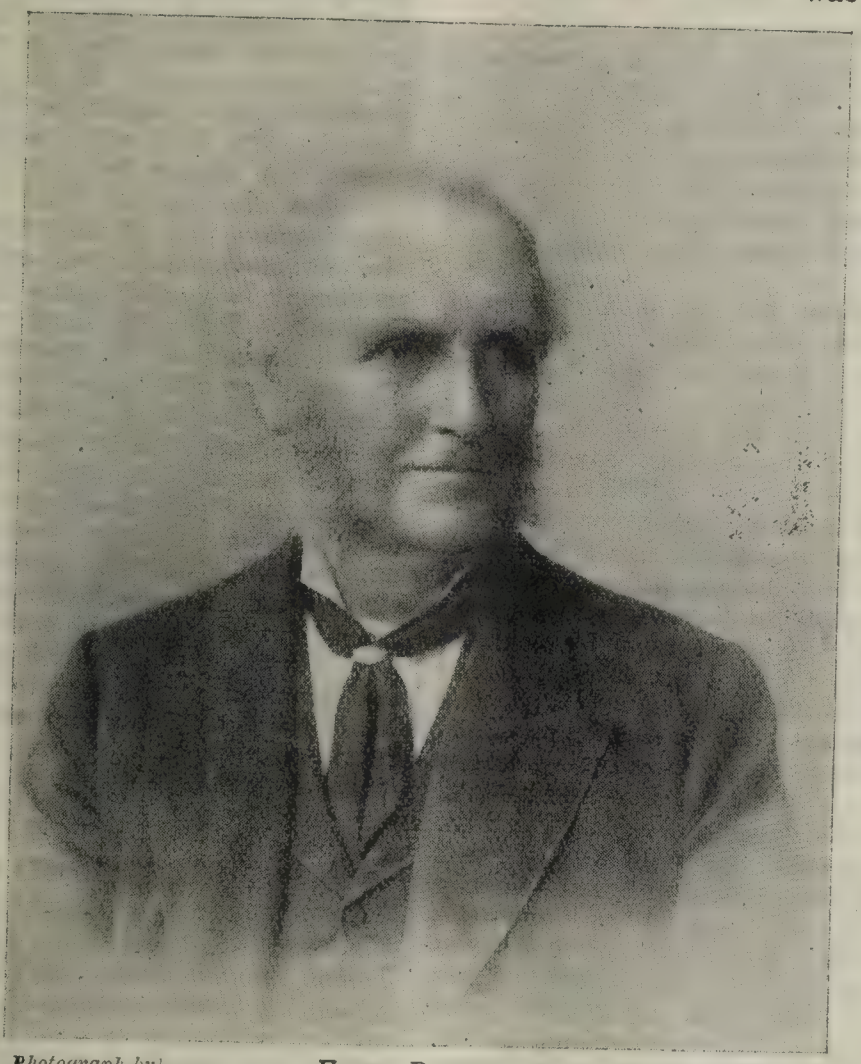
# Obituary.

## HENRY POWER, M.B.LOND., F.R.C.S.ENG.,

CONSULTING OPHTHALMIC SURGEON, ST. BARTHOLOMEW'S HOSPITAL, LONDON, AND TO THE ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

THE death of Mr. Henry Power at Bagdale Hall, Whitby, on January 18th removes from the medical profession a good example of the Victorian era. He inherited from his Irish ancestors the versatility, quick-wittedness, gaiety, and friendliness which made him a favourite with every one, and from his Yorkshire mother the doggedness which enabled him to bring out successive issues of *Carpenter's Physiology*, and to undertake with Dr. Leonard W. Sedgwick the Sydenham Society's edition of *Mayne's Lexicon of Medicine and the Allied Sciences*. It is true that throughout his long life the Irish impulsiveness was predominant, but it was held in check by the calmer counsels of his pure-bred Saxon wife.

Born at Nantes in France on September 3rd, 1829, he was the only child of the second marriage of Captain John Francis Power with Hannah, daughter of Henry Simpson, of Meadowfield, Whitby. His father came of a long line of soldiers, and received his first commission at the early age of 14. He had served through the Peninsular, Baltic, and Waterloo campaigns, and received the Peninsular medal (1793–1814) with a clasp for Sahagun and Benevente as a cornet in the 3rd Dragoons, King's German Legion, and the Waterloo medal as a lieutenant in the third regiment of Hussars, K.G.L. He was afterwards Captain and Major in the 35th (Royal) Sussex regiment, "The Old Orange Lilies," and at the time of his death in 1856 he was Lieutenant-Colonel in command of the British Foreign Legion at Shorncliffe. Shortly after his birth Henry Power was taken to Barbados, where his father was quartered, and narrowly escaped death in the hurricane which devastated the island on the morning of August 11th, 1831, when the barracks were blown down, killing the sergeant-major, a sergeant, and five privates, but leaving the baby unharmed in its cradle under a heap of ruins. Major Power resigned his commission in 1833, and for many years spent the wandering life which was then usual with half-pay officers who had no private means. His son, therefore, was educated for short periods at schools in Gloucester, Liverpool, Cheltenham, Leamington, and Whitby, never remaining long enough at any one place to receive a thorough grounding in classics and mathematics. His name appears in the lists of Cheltenham College as a day boy admitted at Easter Term, 1842, the college having been opened in the previous autumn. Destined for the army he seems to have drifted into medicine almost by accident, for he used to say that his father only knew of two classes in the profession—the regimental doctor and the man who kept an open surgery. He was apprenticed in 1844 to Mr. Thomas Lowe Wheeler, who was afterwards Chairman of the Board of Examiners at the Apothecaries' Hall. Mr. Wheeler was the son of Thomas Wheeler (1754–1847) the botanist who was apothecary to St. Bartholomew's Hospital. The apprentice who lived with his master in Newcastle Court, Gracechurch Street, entered St. Bartholomew's Hospital and was diligent in attending the early morning botanical lectures and the "herborisings" which were then a feature of the medical curriculum. This botanical training won for him the Galen silver medal and the Linnean silver medal at the Society of Apothecaries, of which body he was admitted a Licentiate in 1851. In the same year he took the diploma of M.R.C.S., and on December 1st, 1854, he was admitted a Fellow of the Royal College of Surgeons of England by examination. At St. Bartholomew's Hospital he soon made the acquaintance of William Savory, who, like himself, was a friendless lad without introductions. The acquaintance soon ripened into a friendship which lasted as a lifelong intimacy. At the University of London the two young friends had a brilliant career. Power took the prize in chemistry at the matriculation, the exhibition and gold medal in anatomy and physiology, and the gold medal in structural and physiological botany at the intermediate examination in medicine in 1852; the scholarship and gold medal in physiology and comparative anatomy and the scholarship and gold medal in surgery at the final M.B., graduating in 1855, a year after he had married his playmate and first cousin, Ann, daughter of Thomas Simpson, of Meadowfield, Whitby.



*Photograph by* HENRY POWER. *Martin Jacolette, London.*

In 1851 Mr. Power was appointed Demonstrator of Anatomy at the Westminster Hospital, and for the ensuing ten years he lectured successively on comparative anatomy, human anatomy, and physiology, whilst he made his living by coaching and writing for the medical journals. He was appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital in 1856, and Assistant Surgeon to the Westminster Hospital in 1857. The latter post he resigned in 1867 when he was elected Ophthalmic Surgeon to St. George's Hospital. At the Westminster Ophthalmic Hospital he had as colleagues Surgeon-General Guthrie, Mr. Hancock, and Mr. Jabez Hogg, and he there collected the material and made the water-colour sketches which afterwards appeared in his *Illustrations of Some of the Principal Diseases of the Eye*. In 1866 he moved from Grosvenor Terrace, Pimlico, now a part of the Belgrave Road, near Warwick Square, to Upper Seymour Street, Portman Square, and in 1870 he removed to Great Cumberland Place, where he spent the remainder of his professional life. In 1870 he was nominated the first Ophthalmic Surgeon to the newly established department for diseases of the eye at St. Bartholomew's Hospital, having Mr. Bowater J. Vernon as his colleague. The appointment was eminently satisfactory both to the school and to the individuals. Every source of friction quickly disappeared, and the department assumed the high position it has ever since maintained. About this time Mr. Power was for twelve years Ophthalmic Surgeon at St. Bartholomew's Hospital, Rochester. He went down every Wednesday afternoon at two o'clock and returned by the boat train at six. The journey was a source of constant pleasure to him because he always made friends with his fellow travellers on the way.

Mr. Power's energies were not exhausted by the exigencies of a large practice and the teaching at his medical school. He was active as an examiner at the London University with Huxley as a colleague; at the University of Oxford, where he learnt to appreciate Rolleston; at Cambridge where he made friends with Humphry and

Michael Foster, and at Durham, where he was welcomed by Philipson.

At the Royal College of Surgeons of England he filled nearly all the official positions. He was a member of the Board of Examiners in Anatomy and Physiology from 1875 to 1880, and again from 1881 to 1884, and on the reconstituted Board as an Examiner in Physiology from 1884 to 1886, and as an Examiner for the F.R.C.S. in Physiology from 1884 to 1886. He served as a member of the Council from 1879 to 1890, and was a Vice-President for the year 1885. He delivered the Arris and Gale Lectures on Anatomy and Physiology in the years 1882–3 was Hunterian Professor of Surgery and Pathology in 1885–1886; Bradshaw Lecturer in 1886, and Hunterian Orator in 1889, when he delivered the oration without notes.

At the Royal Veterinary College in Camden Town he was Professor of Physiology from 1881 to 1904, and he was the friend and trusted adviser of many generations of students, who testified to their love and respect on his retirement by presenting him with a comfortable reading chair, whilst those who were in South Africa sent him a magnificent silver lamp.

From 1890–1893 he was President of the Ophthalmological Society of the United Kingdom. He was President of the Harveian Society for the years 1880 and 1881, serving a double term of office. He was a Vice-President of the Royal Medical and Chirurgical Society 1892–3, and he was also President of the Society for Employing the Blind as Masseurs. For many years he was Surgeon to the Linen and Woollen Drapers' Benevolent Fund and to the Artists' Benevolent Fund.

Mr. Power had held offices at six of the annual meetings of the British Medical Association. He had been Secretary, Vice-President, and President respectively of the Section of Physiology in 1869 (Leeds), 1878 (Bath), and 1879 (Cork); he was Vice-President of the Section of Ophthalmology in 1880, when the meeting was held at Cambridge, and President of the Section in 1895 in London, as well as President of the Combined Section of Ophthalmology and Otology of the meeting in 1885 in Cardiff.

Mr. Power was a first-rate field botanist throughout his long life. He had some knowledge of music, and used to play the violin. His power of drawing and of sketching from nature was innate. It was clearly inherited from his father, who received a pair of colours from H.R.H. the Duke of York in acknowledgement of two framed sketches which the boy sent with a letter asking for a commission in his father's old regiment. The faculty was transmitted to one of Mr. Henry Power's daughters—Miss Lucy B. Power—who was making a name for herself as a portrait painter when she was drowned accidentally at Whitby with a grand-daughter in 1898. This tragedy saddened the remainder of her father's life; the horror of the scene haunted him to the end, and took away much of his pleasure in living. Shortly afterwards he retired from practice, settled at Whitby in a fifteenth-century house, which he had restored some years previously, and filled up his time with many useful works. He enjoyed excellent health until November of last year, when he strained his right heart by climbing the steps to the parish church one Sunday. He was seized with signs of acute dilatation, and suffered many distressing attacks of dyspnoea, which culminated on January 17th. He became unconscious in the evening, and died quietly on the morning of January 18th.

He leaves his wife, four sons, and four daughters, and was buried at Whitby on Saturday, January 21st. The funeral service was conducted by his friend, Canon Austen, M.A., the Rector of Whitby, who came over specially from York for the purpose. He was laid to rest amongst a wealth of flowers, sent by friends and former colleagues from all parts, in the cemetery which is so beautifully situated between the sea and the high moors.

Mr. F. RICHARDSON CROSS writes: I take the opportunity offered of adding my small tribute to the memory of Mr. Henry Power. Though he had reached a ripe old age, the news of his death will be received in universal sorrow by the members of the profession, among whom he was for so many years a respected and beloved leader. His handsome presence, his charming personalty and courteous manner were combined with an obvious honesty of purpose—while his striking modesty sometimes led one to forget the very high standard of his natural ability and the enormous amount of good work that he had accomplished. His distinguished successes as a student, particularly in Physiology and in Human and Comparative Anatomy, naturally gave him a tendency towards the more purely scientific aspects of medical science, and his continuous studies in Physiology and Histology as Teacher, Author, and Examiner, must naturally have given him a high scientific standard in his clinical work. Fortunately for that speciality, he selected Ophthalmology for the surgical side of his career; and, combining with his high scientific attainments a keen perception, with accuracy of judgement and practical common sense, he soon became one of the pioneers of Ophthalmology in this country. The publication of *Stricker's Histology*, in which each organ and structure was exhaustively described by the leading German expert on that subject, gave an enormous advance to the knowledge of minute anatomy. Fortunately for English readers, the Sydenham Society could find in Power a translator well versed in the German language, and at the same time with a special knowledge of the wide range of subjects dealt with. The time of the publication of these volumes has an historical interest in regard to Power's position as an ophthalmic surgeon. In the first volume (1870) he appears as Ophthalmic Surgeon to St. George's Hospital; in the second (1872) he is Ophthalmic Surgeon to St. Bartholomew's. A paper by him in the *St. Bartholomew's Hospital Reports* of 1871 describes the ophthalmic department just then founded under himself and Mr. Vernon, and throws some interesting light on the treatment of eye diseases at that time in the general hospitals. Probably most of the eye patients in the neighbourhood of St. Bartholomew's went to Moorfields. Among many other books he edited may be mentioned the *Lexicon of Medicine and the Allied Sciences*, in which he was associated with Dr. Sedgwick—a piece of laborious and valuable work. I remember him a very successful President of the Ophthalmological Society and a very popular member of the College of Surgeons Council Club, but he had retired from the council some time before I was elected. As a consultant his advice was always most helpful and reliable; he was a most agreeable member of any social or professional gathering, and was a generous and interesting host both in London and in his house at Whitby. Every one who was ever brought into personal relations with him, as well as patients and friends, will sincerely mourn his loss.

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## JAMES THOMAS JAMES, F.R.C.S.,

FORMERLY SURGEON, CENTRAL LONDON OPHTHALMIC HOSPITAL.

WE regret to record the death on January 10th or Dr. James Thomas James, of Harley Street, in circumstances which led to the holding of an inquest. He received his medical education as a student of the Middlesex Hospital, where his career was one of marked distinction. The Broderip scholarship was awarded him and he carried off in turn the Governor's prize and distinctions in nearly all subjects of the curriculum of his time. He became in turn L.S.A. in 1878, M.R.C.S. in 1879, and L.R.C.P. in 1881, and four years later a Fellow of the Royal College of Surgeons. A year later, again, he graduated M.B. at the University of Durham, and finally in 1890 proceeded to the M.D. of that university. Meantime he had held practically all the resident appointments open to him at his own hospital, including periods of office as House-Surgeon House-Physician, and Resident Obstetric Officer. Later on he became a Clinical Assistant at the Royal London Ophthalmic Hospital, and was subsequently appointed to the staff of the Central London Hospital; his post as surgeon there he resigned a few years ago. At the time of his death he was a member of the British Medical Association and of the Ophthalmological Society, and a Fellow of the Royal Society of Medicine. His personal character is well portrayed in the following lines, penned by one who knew him well: "By the death of Dr. J. T. James the profession has lost a sterling man whose absolute integrity was beyond reproach. He was known and esteemed by a large number of people, and the great confidence reposed in him by his patients was not only due to his undoubted skill as a medical man but also to the

knowledge of the fact that they had in him a wise counsellor, a strong personality, and a nature that was incapable of stooping to anything that looked like trickery or sham. It was difficult for any one to get to know him well, but to those few who were permitted to see the real man there was revealed a strong, simple, and lofty character, which made intimate acquaintance partake of the nature of a privilege. From the day that he obtained his qualifications to the end he worked with but brief holidays. Latterly, indifferent health had its effect on a nature always reserved and sensitive, and now that he has gone very many are conscious of a great loss sustained." It may be added that Dr. James, who was a very hard worker and also a sufferer from insomnia, had an attack of influenza last summer, and since that date had been subject to fits of depression.

### WALTER RIDLEY, M.B., M.S., F.R.C.S.,
NEWCASTLE-UPON-TYNE.

AFTER an extremely trying illness of a few weeks' duration Mr. Walter Ridley died in Newcastle-upon-Tyne on January 13th, 1911, at the comparatively early age of 49, the cause of death being rheumatism and heart disease. His illness was the result of a wetting caught when visiting a patient in the country.

Walter Ridley was born in Newcastle on October 6th, 1861, and received his professional education in Newcastle, Edinburgh and London. He was a distinguished student of the College of Medicine, and took the Mastership in Surgery of the University of Durham with first-class honours. After passing through the residential and minor outdoor surgical appointments, Mr Ridley was appointed Surgeon to the Royal Infirmary, and subsequently Surgeon in Charge of the Throat and Ear Department, a department to the establishment and development of which he largely contributed. In this special work he was seen at his best. He was a careful diagnostician, and a successful surgeon. There have been few men more genial than Walter Ridley. Of him it may be said he had no enemies. He was a general favourite. In addition to being a good operator, he was fond of outdoor sport, golf in later years being his special recreation.

He will be much missed alike by the medical profession and by the wide circle of friends to whom he had endeared himself. The interment at Elswick Cemetery was attended by a large number of the medical men of the city and district.

### BANFIELD TEAGUE VIVIAN, L.S.A.,
CORNWALL.

MR. BANFIELD VIVIAN died at his residence at Hayle, Cornwall, on January 13th, in the 90th year of his age. There has thus passed away the oldest member of the medical profession in Cornwall, and probably one of the oldest in England.

He was a distinct link with the past, for he was one of the few survivors of the students of Hunter's School of Anatomy, and one of the few medical men who have gone through life with a single qualification—the Licence of the Society of Apothecaries. He received that diploma when 30 years of age, and had thus been a qualified member of the medical profession for sixty years; for about fifty of these he was Medical Officer of the Helston Union. His practice, which was a large one, he acquired partly by his own efforts, partly by inheritance from his father, whose eldest son he was. For many years Dr. Vivian was assisted in his work by a brother, and on the death of the latter some fifteen or sixteen years ago he began to give up practice himself, though he continued to attend until quite a recent period a certain number of his old patients. Despite his age, Dr. Vivian was a familiar personage to the present generation, his tall wiry figure, snow-white hair, and moustache being constantly to be seen in the locality in which he resided, until within the last few months. While still young, Dr. Vivian excelled in sport, held a commission as honorary surgeon to the 1st Cornwall Volunteer Artillery, and often contributed to the success of local festivities by giving firework displays. Another hobby was photography, his knowledge of which dated back practically to the very first days of that art. Dr. Vivian, though shy in manner and somewhat brusque with strangers, enjoyed the affection and esteem of all classes. He was never married.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. Guillery, sometime Professor in the University of Brussels, member of the Academy of Medicine and of numerous other learned bodies, Belgian and foreign, aged 90; and Professor K. F. Mosler, for many years chief of the Medical Clinic of the University of Greifswald, and author, among many other contributions to medical literature, of the articles on leukaemia, and diseases of the pancreas in Ziemssen's *Cyclopaedia of Medicine*, and of that on animal parasites in Nothnagel's *Handbook*, aged 80.

# The Services.

### SCOTTISH TERRITORIAL RED CROSS BRIGADE.

DURING the half year ending December 31st, 1910, 57 voluntary aid detachments of the Scottish Territorial Red Cross Brigade were formed, and several additional detachments were added during the first fortnight of the present year. Of the 57, 16 were male detachments with a personnel of 567 men, and 41 female with a personnel of 1,243, a total personnel of 1,810 members. Of these detachments, Fifeshire contributes 20 and Perthshire 14. Lanarkshire has only now begun to organize the work. The Duchess of Hamilton held an At Home at Hamilton Palace on January 14th, when Miss Haldane delivered an address; and at Motherwell Lord Hamilton of Dalzell has secured the formation of a working committee. The Duchess of Roxburghe has initiated the movement in Kelso, and Glasgow will now take up the work, a meeting having been called by the Lord Provost for January 31st in the City Chambers to hear explanatory addresses on the scheme. It is expected that during the next six months a very large addition to the Red Cross Brigade will be recorded from all parts of the country.

### THE TERRITORIAL MEDICAL SERVICE.

CAPTAIN F. A. STEPHENS, R.A.M.C., Aston, Birmingham, writes: I have read with interest the letter of Colonel M. D. O'Connor, M.D., R.P., quoted in the BRITISH MEDICAL JOURNAL of January 14th, in which he contends that the existing organization of the Territorial Medical Service for the removal of sick and wounded is unnecessary, and that it would be better to leave them, protected by the Geneva Convention, in fixed hospitals within the area of military operations. This is a bitter pill for many of our profession, who have given a great amount of time and trouble to make efficient various units of that service, and I ask his forbearance and yours in drawing attention to a point which may make the swallowing of that pill less unpleasant, or unnecessary.

It is, perhaps, the most important of the considerations which those responsible for the present organization had in view when they designed it, and it is the point above all others which the staff of an army and the commanders of field medical units would keep in view in dealing with the problems of the disposal of sick and wounded during a campaign in this country. I refer to the fact that the Geneva Convention does not protect sick and wounded from being held by an enemy as prisoners of war.

The majority of sick and wounded can be put back into the fighting line in a few weeks or a few days. These are the cases which an enemy would take prisoner, and it is for the saving of these cases from capture to fight again that the existing organization is particularly designed in civilized warfare. This view is borne out by the fact that a similar organization is used by other European Powers who are, presumably, prepared to carry out military operations under Red Cross rules in their own territories.

The point that the chief function of medical as well as of other troops is to defeat the enemy, is one that is sometimes difficult to keep in the foreground.

### TERRITORIAL FORCE.

DIFFICULTIES IN CONNEXION WITH THE MEDICAL ADMINISTRATION AND ORGANIZATION OF THE TERRITORIAL FORCE.

A.M.O. writes: While in the main agreeing with the excellent comments in the article with this title in the BRITISH MEDICAL JOURNAL of December 24th, p. 2008, I think it will be wiser to concentrate all our efforts on attaining what is of vital importance to the medical profession, namely:

1. To restore to the A.M.O. his original position as a brigade commander;
2. To give him and his staff officer the same pay and allowance as to combatants;
3. To remove the restrictions as to uniform. The A.M.O. is the only officer condemned to wear silver, and if physician or surgeon to the Sovereign, can only wear his aiguilettes in full dress—that is, only at Court;
4. To work the schools of instruction on the lines best suited to each locality.

# Medical News.

THE late Dr. William Hoffmeister, M.V.O., of Cowes, left estate valued at £4,080.

THE Guardians of the City of London have given their permission for the medical staff at Homerton Infirmary to carry on cancer research work.

THE Corporation of Glasgow has subscribed £100 in aid of the British Section of the International Hygiene Exhibition at Dresden.

THE next examination of candidates for twelve commissions in the Royal Navy Medical Service will be held at the Examination Hall, Victoria Embankment, Thames Embankment, on May 15th and the following days.

AT a meeting of the North of England Obstetrical and Gynaecological Society on January 20th, Dr. J. B. Hellier of Leeds was elected president in succession to Dr. W. K. Walls of Manchester.

AT a meeting of the Eugenics Education Society at the Caxton Hall, Westminster, on Thursday next, at 5.15 p.m., Captain A. J. St. John, Secretary of the Penal Reform League, will read a paper on crime and eugenics in America.

A LEGACY of £4,000 has been left to the hospital at Perpignan with the condition attached that the nursing staff shall not be secularized. The President has issued a decree authorizing the hospital to accept the legacy and to retain the services of nuns as nurses.

A DISCUSSION on surface water supplies for small communities will be opened by Mr. A. P. I. Cotterell, M.Inst.C.E., before the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on February 14th. Dr. Louis C. Parkes will take the chair at 8 p m.

THE British Institute of Social Service and the Coal Smoke Abatement Society will hold a conference on the smoke evil at 4, Tavistock Square, W.C., on Monday next. The chair will be taken by Sir William Richmond at 5 p.m. Further particulars can be obtained from the Honorary Secretary at the address mentioned.

THE Lettsomian lectures will be delivered before the Medical Society of London by Mr. W. F. Haslam, M.B., F.R.C.S., Surgeon to the Birmingham General Hospital, on February 6th, February 20th, and March 6th, at 9 p.m. on each day. The subject is a review of the operations for stone in the male bladder.

WE are asked to state that the Dermatological Society recently formed in London is to be known as the New Dermatological Society, to avoid confusion with the Dermatological Society of London merged some years ago with the Dermatological Section of the Royal Society of Medicine.

AT the joint meeting of the Illuminating Engineering Society and the Library Association, to be held at the Royal Society of Arts, John Street, Adelphi, on Tuesday next at 8 p.m., the discussion on library lighting, opened at the last meeting, will be resumed; the chair will be taken by the President, Professor Silvanus Thompson.

IN consequence of the fall in the price of india-rubber a general reduction in the price of tyres for motor cars is to be expected. The Continental Tyre and Rubber Company (Great Britain), Limited, announce that they reduced their prices on January 17th, and will supply a price list on application to 102–8, Clerkenwell Road, E.C. Argylls, Limited, also give notice that the price of their cars will be subject to a reduction corresponding to the diminution in the price of tyres.

HIS EXCELLENCY THE EARL OF ABERDEEN, K.T., has consented to act as patron of the twenty-sixth Annual Congress of the Royal Sanitary Institute to be held at Belfast from July 24th till 29th, 1911. The Right Hon. Lord Dunleath, D.L., J.P., has consented to act as president of the congress. A public meeting to make preliminary arrangements for the meeting will be held at the City Hall, Belfast, on Tuesday, January 31st.

FOUR lectures on recent progress in physiological chemistry will be delivered in the Physiological Laboratory, King's College, London, by Dr. Otto Rosenheim, at 4.30 p.m. on January 30th, February 13th, February 27th, and March 13th. The subjects dealt with will be inorganic substances, carbohydrates, fats, proteins, lipoids, the chemistry of colloids and enzymes. The lectures are free to all members of King's College, to all students of medicine, to all internal students of the University of London, and to medical men on presentation of their cards.

# Letters, Notes, and Answers.

**AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.**

**TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.**

**TELEPHONE (National):—**
**2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.**
**2630, Gerrard, BRITISH MEDICAL ASSOCIATION.**
**2634, Gerrard, MEDICAL SECRETARY.**

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

A.M., M.B. wishes to know the cause and remedy for a condition of the molar teeth in which the outer surface becomes very tender to touch, although the decay is so slight that the dentist can do nothing in the way of filling.

## LETTERS, NOTES, ETC.

MEMBERS who may have answered an advertisement for a medical officer as consultant to a company, replies to be addressed to No. 378, are asked to communicate with this office.

THE response to the application of the secretary of the Medical Missions' Department of the Society for the Propagation of the Gospel in Foreign Parts for medical journals to send to the medical missionaries in the foreign field has been so ready that further copies are not required at present.

### RESINOL AND RESINOL SOAP.

RESINOL is a proprietary ointment largely advertised to the medical profession for the treatment of skin diseases. A pot priced 2s. 6d. was found to contain a little over 1 oz.; analysis gave the results recorded below. It is necessary to point out, however, that while exact determinations can be made of such ingredients as bismuth and zinc compounds, it is not possible to separate completely all the constituents of a complex ointment, and especially fatty or waxy constituents of the basis, and the figures must therefore be regarded as near approximations only:

| | |
|---|---|
| Resorcin ... ... ... | 3.9 per cent. |
| Oil of birch tar ... ... | 3.0 ,, |
| Zinc oxide ... ... | 4.7 ,, |
| Bismuth subnitrate ... | 9.7 ,, |
| Lanoline ... ... ... | 5.0 ,, |
| Maize starch ... ... | 10.0 ,, |
| Ceresin (?) ... ... ... | 2.0 ,, |
| Soft paraffin ... to | 100 |

The substance described as "ceresin (?)" was apparently of waxy character but unsaponifiable, and therefore not a true wax; its melting point was too high for ordinary hard paraffin, but agreed with that of ceresin, which is a form of ozokerit or mineral wax.

Resinol Soap is a brown soap, with a slight odour of birch tar oil. Analysis showed it to contain 87.3 per cent. of real anhydrous soap, which was perfectly neutral, with

| | |
|---|---|
| Soft paraffin ... ... | 0.5 per cent. |
| Bismuth subnitrate ... | 0.05 ,, |
| Zinc oxide ... ... ... | trace. |
| Resorcin ... ... ... | ,, |
| Lanoline ... ... ... | ,, |
| Colouring matter and moisture. | |

This corresponds to the presence of about three-quarters per cent. of Resinol.

CORRECTION.—The case referred to by Dr. J. J. Stack, in the JOURNAL of January 21st, page 180, under the heading, "An unusual aural reflex," was under the care of Dr. Percy Jakins, of London, not "Dr. Percy Jenkins," as incorrectly printed.


**SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.**

| | £ | s. | d. |
|---|---|---|---|
| Eight lines and under ... ... ... ... | 0 | 4 | 0 |
| Each additional line ... ... ... ... | 0 | 0 | 6 |
| A whole column ... ... ... ... ... | 2 | 13 | 4 |
| A page ... ... ... ... ... ... | 8 | 0 | 0 |

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

# Remarks

ON

# ORGANIZATION IN THE PROFESSION.

MADE AT THE OPENING OF THE NEW BUILDING OF THE NOTTINGHAM MEDICAL SOCIETY.

BY

**WILLIAM OSLER, M.D., F.R.S.,**

REGIUS PROFESSOR OF MEDICINE, OXFORD UNIVERSITY.

THERE is an organization *in* the profession and an organization *of* the profession—the one deals with the mutual relations of medical men with each other and with the public, the other is concerned with his relations to the State, and with the Faculty of Medicine in its corporate capacity. Each of us has affiliations with his university, or with one of the Royal Colleges, and is under the control of the General Medical Council, a State body, representing largely the corporations and universities, which deals with medical qualifications and has disciplinary powers. To the British Medical Association, a voluntary society, has been left the task of attempting a general organization of the profession; and it has now over 22,000 members, a magnificent home in London, a good library, and one of the largest and best medical journals in the world. There are numerous organizations, but the profession is not yet self-controlled through any one representative body, as it certainly should be in this democratic age. Just how the present conditions could be changed would puzzle Aristotle to say.

The organization about which I propose to speak, while different, is of equal importance, and is a process by which the individual is helped to get the most out of himself, and by which he can do the greatest possible amount of good in the community. Its influence is much more subtle, wide-reaching and dominant, but owing to certain inherent obstacles it is very difficult to bring about. Than medical practitioners no men need more acutely the benefits of co-operation, and yet they are notoriously difficult units to unite. Once split off from the parent college or school a majority of practitioners live lives of isolation, often indeed of great loneliness. Even in a city a very busy man may see surprisingly little of his colleagues, and what is worse he may desire to see still less. A man mentioned to me the other day that sometimes a month passed in which he did not exchange a word with a fellow practitioner. Living a buried life his motto is of necessity that of Descartes—*Qui bene latuit bene vixit.* Men react very differently to this seclusion and restraint; the best find all they ask in the intense human interest of the daily round, and against much drudgery and more discouragement they place in the balance much affection and more gratitude. It is in the very nature of the work of the medical man that he love himself last, and no matter what we may do in the way of organization, the profession never can be put on a purely commercial basis. To combine in due measure the altruistic, the scientific and the business side of our work is not an easy task. In the three great professions, the lawyer has to consider only his head and pocket, the parson the head and the heart, while with us head, heart, and pocket are all engaged. The labourer is worthy of his hire, and the man in every trade and in many callings gets the cash equivalent for the daily round, but with us this can never be so. In every department of the profession the amount of unremunerative work is, and ever must be, enormous. I do not count the public appointments, with the too often beggarly pay, nor the public service given to the people so freely in their hospitals, but the specialist and consultant, no less than the general practitioner, constantly has his heart involved, and the "good debts" of practice, as I prefer to call them—the "loans to the Lord," as Sir Thomas Browne would say—amount to a generous sum by the end of each year. As a matter of interest I looked over the records of two of the busiest weeks I ever had in practice; in one 20 per cent., in the other 15 per cent. of the patients were unremunerative, from a pecuniary standpoint, yet they were people whom it was a pleasure to be able in any way to help.

Having thus briefly cleared the ground in a statement of the attitude we should have towards our work, let me deal with the concrete conditions existing here, and, with the advantage of the ignorance of a stranger, tell you how the profession of this city and county could be organized, so as to help each man to get the best out of himself for the good of the community.

You have a city of 250,000 inhabitants and a populous county. The basis of helpful organization exists in two institutions—the Medical Society, with its library, the new home of which you have asked me to open to-day, and the General Hospital. Around these centre the chief interests of the profession, and to these alone will I have time to refer.

Of the value to the local practitioner of a medical society and of a library we are all agreed. How common the experience to enter a cold cheerless room in which the fire in the grate has died down, not from lack of coal, not because the coal was not alight, but the bits, large and small, falling away from each other, have gradually become dark and cold. Break them with a poker, get them together, and what a change in a few minutes! There is light and heat and good cheer. What happens in the grate illustrates very often the condition of the profession in a town or county; singly or in cliques the men have fallen apart, and, as in the dead or dying embers, there is neither light nor warmth; or the coals may be there alive and bright, but covered with the ashes of discord, jealousy, and faction. Like the poker bringing the elements together, the medical society may do three things. It is the most important single factor in the promotion of that unity and good fellowship which adds so much to the dignity of the profession. I have no idea of the state of the atmosphere in Nottingham—whether you are united and harmonious, or whether you fight amongst yourselves like cats and dogs—but the large "turn out" this evening suggests that the former condition prevails. In this matter, so far as my observation goes, everything depends upon the influence of the seniors, whose attitude of mind determines whether the young men grow up in a state of wretched discord or in one of pleasant comradeship. I have known a clever old Shimei, of a quarrelsome disposition, ruin the profession of a city for a generation; on the other hand, a strong old man with a good heart and a smooth tongue may keep the peace, even among Ishmaelites.

Dining in a company of doctors one day in a well-known town in the United States, I was very much impressed both by the good looks and the cordiality of three of the seniors, who had practised in the town for nearly half a century, and had always been on the best of terms; I asked them to go the next morning and have a photograph taken together for me. For a good many years that photograph has hung just above the sofa of my examining room, and is shown with special pleasure. Underneath it is written, "Behold how good and joyful a thing it is, brethren to dwell together in unity." Immunity from strife is not difficult to acquire. There are those in whom it is natural—the happy souls, born under Mercury, the Abou Ben Adhem's—"may his tribe increase!"—who love their fellow-men spontaneously; but in a great many this immunity has to be acquired, and we catch the infection of good fellowship amid just such surroundings as we enjoy to-night.

The medical society has a second great function—in post-graduate instruction. To each member it should be a sort of clearing-house of his clinical experience. It costs no little trouble to arrange an attractive programme for each meeting—a few good clinical cases, the more important pathological specimens of the week or the fortnight, and a short, pithy paper provocative of discussion. Debate should be encouraged, particularly among the younger men, and I would urge the seniors not to feel bored, as it is often the only way in which a junior can get experience in speaking. But it is only fair to demand of him the two essentials—brevity and lucidity. A third equally important function is the support of a library. You have made a good beginning, and it was a pleasure this afternoon to look over the many interesting and useful books which have been collected. Only do not try to do too much, as nowadays it is not necessary. A few good journals and the new books are all that the members should ask of the Library Committee. Special books, and the important monograph wanted by members, can be had from the library of the Royal Society of Medicine, or from the

library of the British Medical Association. It is nice to see that you have already begun to put on your walls the portraits of your distinguished Nottingham physicians, among them I see that fine pair, father and son—the Ransoms; the latter deeply mourned in his premature death. But I miss the portrait of that "strange mystical man," as he has been called, with a vast and dreamy genius —Marshall Hall—who was physician to your General Hospital before going to London. Every scrap of writing of local interest should be here, and the library should be the repository of the books and pamphlets written by Nottingham men; and all the MSS. and documents relating to the medical antiquities of the city and county. From experience in other cities I know what pride you will all take in the growth of this new home. In its present condition it is a credit to your energy and enterprise, and I think you will find that before a year is over you will double your membership, and you should look forward to having on your list every practitioner in the city and county.

Turning now to the second important factor in your local organization, the General Hospital, how may it be made of value in the education of the individual members of the profession, so that they may do the greatest possible good in the community? I know full well that there is often a little hostility on the part of practitioners to the large general hospital, some thinking that as a charity it is abused, others feeling that the men on the staff have perhaps an undue advantage in the battle. I maintain that the physicians and surgeons and specialists of a general hospital in a city of this size form the most valuable single asset of the profession, and, collectively and singly, they should be nurtured, fostered, and encouraged, and used wisely and well, by the practitioners at large. The hospital should be made the consulting centre, to which doctors bring freely that large class among which the majority of the members of the profession practise, the members of which are able and willing to pay small fees for ordinary services, but who are quite unable to meet the expenses of operation, or of the assistance of specialists. This is a perfectly legitimate use of the staff of a general hospital by the practitioner, and with the careful investigations that now are made by the almoners there is a minimum of abuse of the charity.

I wish to deal more particularly with the function of the county hospital in post-graduate education. As a class, doctors do not appreciate enough the importance of continuous education in their professional life. To be up to date a man must keep in touch with the advance guard of the profession, and this is not easy to do in any course of reading however thorough; he must come in contact with the men who are doing the work. While it is not too much to ask that a man should break away every few years from the routine of practice and go to a post-graduate school, there is another and easier way—the post-graduate school may be brought to him. Here comes in a function of the very first importance in a county hospital of this size—you can do your own post-graduate work. The Nottingham General Hospital has always been well managed. I see in the Journal of John Wesley that on February 4th, 1784, he preached the charity sermon for it, and on July 8th, 1786, he notes: "I walked through the General Hospital. I never saw one so well ordered. Neatness, decency, common sense shine through the whole. I do not wonder that many of the patients recover. I prayed with two of them. One of them, a notorious sinner, seemed to be cut to the heart." Going through the wards to-day John Wesley's comments hold good. The hospital is well ordered, neat, and clean, resembling in these points all of the English provincial hospitals. Nowhere in the world does one see tidier or more cheerful wards, and nowhere are the patients better tended. But if the general hospital is to do its share in the internal organization of the profession of each city and county, the governors and the staff will have to wake up to the scientific needs of a modern hospital, which it is not too much to say have been sadly neglected.

As we are likely to see a rapid extension of the post-graduate work, I would like to refer to the scheme which was discussed at the last International Medical Congress at Budapest, under the chairmanship of Professor Waldeyer. An International Committee has been formed for the promotion of post-graduate study. The idea is to have in different centres medical extension courses, which will enable physicians to supplement their knowledge without making heavy material sacrifices. "In large towns and cities scientific centres are to be formed as places of instruction, in which the hospitals on the spot should be made use of, and the physicians capable of teaching should act as instructors." Already in Germany, according to Professor Kutner's recent report, extension courses have been organized in more than fifty centres. Let me take an illustration: In Dusseldorf, a city of about the same size as Nottingham, courses were given in general pathology and pathological anatomy, social medicine, bacteriology and immunity, internal medicine, children's diseases, surgery, gynaecology and obstetrics, and the various specialities. There were in addition throughout the year special courses on various subjects, such as diseases of the nervous system, surgery of the abdomen, diseases of the heart, and syphilis, all free. The attendance upon the courses, held for a week or ten days, has been from 25 to 100 or more. It may be known to you that the German Government has established in a number of the large manufacturing cities academies for practical medicine, which serve as centres of this post-graduate propaganda. This work you could do in connexion with the general hospital, and with a proper organization it could be undertaken at every county hospital. It should not be difficult to induce the Government to support this scheme so far as to give a small annual grant to cover the necessary expenses of printing. The post-graduate courses could be arranged to meet the new demands; for example, in school inspection they could be co-ordinated with the various schemes of social economics at present before the community—child-saving, social purity, etc. The county hospitals furnish the machinery to carry out this work; but before it could be properly organized certain changes are essential. Money must be spent on the development of the scientific departments which are nowadays essential for the treatment of patients and the study of disease. Every county hospital should have a good pathological laboratory; a clinical laboratory, with its bacteriological, chemical, and physical departments. The new developments in bacteriological and in vaccine treatment render it imperative that all this work should be done in the hospital itself, and by men who have had thorough training. In this way an institution may extend its benefits to the practice of every doctor in the county, who looks to it for the opportunities to continue his education, and who should regard it as his chief adviser in all difficulties and worries. An increasing number of practitioners recognize that the home clinical laboratory is just as important as the dispensary, and for such men it is invaluable to be within easy reach of skilled advice.

To extend the work of the county hospitals, so as to make them centres of post-graduate teaching, would require a readjustment of the present organization; but this is not the occasion on which it could be profitably discussed. The members of the staff of the hospital have the matter in their own hands, and what I wish to urge is the responsibility that each one of you should feel to make his department a centre of information for the profession of the district. You who do the work would get the greatest good, as you will grow in wisdom and increase in value as sane advisers; the hospital would be benefited, as its influence would be helped, as working in the open, with keen eyes upon you is a great stimulus in diagnosis, and even in treatment; the general practitioner, frequenting the wards and special departments, will be able to maintain a circulation in his "grey cortex," active enough to counteract the benumbing influence of routine, in which way alone he may avoid the fate of the purely practical man, who, as so well characterized by Disraeli, practises the blunders of his ancestors. And, lastly, the public will be the gainers, as men keenly appreciative of the rapid progress in medicine will render a better and more intelligent service —the public in this will find a return for the ungrudging support which they give to the hospitals.

I have refrained from touching upon the larger organization of the profession, but I have briefly presented to you a gospel of salvation in that minor organization of the narrower circle in which you work as men and as doctors. Nor have you to go far afield—not to the Royal Colleges, not to the universities, not to the General Medical Council, not to the British Medical Association, but each one for

himself, each one for his brother, must work it out *here*. Duly used, this society is a rock of salvation against those sins of the heart which so easily beset us—mutual distrust and mistrust and jealousy, breeding discord and the strife of tongues; and duly used, the county hospital is a way of salvation from those sins of the head—intellectual apathy, complacent self-sufficiency, and the careless habits into which even the best of us are only too prone to fall.

# Clinical Lectures

ON

# ANATOMY AND MORBID ANATOMY IN CLINICAL SURGERY.

DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

BY

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## LECTURE I.

GENTLEMEN,—The subject of my first lecture is anatomy in clinical surgery. Anatomy is the foundation of all surgery, and I shall try to show its bearing upon clinical surgery. It is impossible for me to impress too deeply upon you the importance of a thorough knowledge of human anatomy. If you do not already possess it, I urge each one of you to study a small fragment every day. He who will read, mark, learn, and inwardly digest a single bone in the course of a week will find that, after a while, he has a splendid equipment.

I was led to choose this subject by an incident which happened in the wards but a few days ago. A youth had had his hand crushed by machinery. He had lacerated wounds on the back and in the palm of the hand. The index finger had been seriously damaged. In place of the proximal interphalangeal joint there was a gaping wound, with bone protruding. When this state of affairs was seen I naturally tried to form an estimate of the extent of the injury, and of the subsequent utility of the hand. I therefore asked the dresser in charge of the case—a gentleman who works hard and is most earnest and attentive in the performance of his duties—whether the patient could feel with his finger and thumb. This point had not been investigated, and yet the youth could not feel with either finger or thumb. Consider for a moment what consequences this omission might entail. There is now an Employers' Liability Act, and under it the patient is entitled to compensation for the damage he had sustained. But if the medical man under whose charge he happens to be is not acquainted with the extent of the injury, obviously the sufferer may not obtain a suitable recompense. Then there is the employer. He is entitled to a just and accurate report, for upon that the extent of his liability may depend. But the consequences of this omission may also be very disastrous to the medical man in charge of the case. If as witness in a court of law—and every one of you will have to testify in courts of law—he fails to display adequate knowledge, it will be harmful to his reputation. At the present moment, however, I am more interested in the psychology of this case than in its surgery; I am concerned to know why the dresser's mind did not start a proper train of thought, leading on to correct knowledge of the extent of the injury. He was not thinking anatomically. Had he thought anatomically he would have passed in review each structure. He might have proceeded from the surface of the depths of the hand, or he might have considered the structures in the order given in a familiar textbook, such, for example, as *Gray's Anatomy*. Then he would have begun by asking what injury the bones had sustained. The other day a medical friend had his hand crushed. His case was considered in anatomical order. The question of an injury to the bones was raised. He hardly seemed to appreciate the desirability of an *x* ray photograph until one had been taken, and showed that two of the metacarpal bones were broken. He held an accident insurance policy. So the bones will be passed in review, and photographed on the slightest possibility of damage. Next come the joints. An injured joint should not be overlooked: broken into, full of blood, inflamed, it may be stiff unless the injury has been recognized and movements begun early. Then come the muscles and tendons: divided tendons may require suture. A hand with ununited tendons is not of much use. Continuing the order in Gray, pass in review the arteries, veins, lymphatics, and nerves, and, where the trunk is concerned, the viscera; the cranium, with the brain and special organs; the spinal column and its nervous contents. If, gentlemen, you investigate every injury in due anatomical order, it is not likely that you will overlook any grave defect. Injuries to the limbs sometimes necessitate amputation. In deciding this question proceed again in anatomical order: estimate the amount of destruction to the skin, fascia and muscles, bones and joints, damage to the great vessels and nerves. The leg will gangrene if the superficial femoral vessels be torn. There are hardly any other channels than these to supply the lower limb with blood. I recall a little tragedy which took place very suddenly and very quietly. A man had a popliteal aneurysm. The surgeon exposed the superficial femoral artery, and when the aneurysm needle was passed between it and the vein a thin stream of dark blood ran slowly but steadily from the wound. The artery was tied, but those who saw that stream of blood knew that the vein had been injured and that the leg would gangrene, which it did. To cut off nearly all the arterial supply from the lower limb is a critical thing to do, but to injure the vein at the same time so that it fills with clot, thus obliterating the only channel for the return of the blood, is an overwhelming disaster. Then the great nerves should be passed in review. Complete division of the great sciatic nerve, taken with the other injuries, might lead you to decide upon amputation. But remember that sensation may be absent in a limb whose main artery has been damaged.

The kind of anatomy which is required in clinical surgery is not minute, but at the same time entails a correct knowledge of the limits and extent of the various cavities of the body. Given a swelling in the region of the knee-joint, the first thing to decide is whether it be inside or outside the capsule, or whether both inside and outside, with a communication through an opening in the capsule. A swelling outside obscures the anatomical structures on the outside of the capsule—such, for example, as the tendons on the inner or outer side of the knee, or the patella. But a swelling inside distends the capsule and lifts it up, together with the structures lying upon it. If you are properly acquainted with the limits and attachment of the capsules of the joints, it will help you very much to decide these rather difficult questions. After having made up your mind on anatomical grounds where the swelling is situated, then you will decide whether the swelling is fluid or solid. If fluid, you will try to decide the nature of the fluid; and if solid, whether it is the result of inflammation or of new growth.

Anatomical thinking will help you to avoid the pitfalls which beset injuries to the head. We often see a paragraph headed "Drunk or dying?" The history is usually as follows: Some one is found insensible upon the pavement. It is not known how he got there. He may have fallen, he may have been knocked down. At all events he is insensible and suffering from alcohol, or disease, or may be concussed. Concussion is a state of insensibility accompanied by shock. The boxer who is knocked out is suffering from concussion. Under proper conditions of rest and warmth, the concussed patient recovers consciousness, and proceeds to his home, or it may be to prison. There he gradually becomes drowsy, then unconscious, and dies of compression. Whenever the bony cavity in which the brain resides is suddenly encroached upon by fluids or by solids the brain ceases to perform its vital functions, and unless the pressure of the fluid or solid is taken away death ensues. This is what happens in these cases of "Drunk or dying." The injury was enough to cause concussion, but at the same time lacerated a vessel inside the skull. The blood accumulated within the skull, diminished its capacity, and compressed the brain. Now, such cases as this cannot be overlooked by those who have learnt to think in anatomical order. Every case of concussion calls for the most grave consideration, and my

house-surgeons know that if they like they can fill every one of my beds with trivial cases of concussion rather than send away one with commencing compression. Now, how does anatomical thinking prevent you from falling into error? He who thinks anatomically will investigate the patient's nervous system in order. I suppose that he may not learn much from his investigation of the olfactory nerves. My observations lead me to suppose that this must be a singularly defective sense in most people. But the second cranial nerve, the optic, may throw great light. After an injury to the head it would be, to say the least, somewhat feeble to overlook the fact that the patient had become blind in one eye. Then with regard to the third and other orbital nerves, what shrewd inferences can be drawn from a dilated pupil! Or from a slight squint. The auditory and facial would not be forgotten. The fauces would be examined, and last, the movements of the limbs. I have seen a man lying in bed with a partial paralysis of his left leg. This I suppose had been overlooked because his leg was underneath the bedclothes and because anatomy had not been applied to clinical surgery.

I have already referred to the cavities of the body, and said that it is necessary for you to know their extent and topography. I will try to tell you my own crude way of thinking over the topography of the cavities of the body, such as, for example, the antrum of Highmore, or the tympanum. There used to be a book on anatomy, written by the late Erasmus Wilson, who was such a benefactor to the College of Surgeons. And in this book, in giving the relations of the great arteries to their surroundings, the vessel is drawn with a square outline. I expect your minds are much the same as my own, and if you try to imagine the relation of one circle to another you may find it exceedingly difficult to determine whether it ought to be in front or to one side. But if you have in your mind a square, or a cube, it becomes easy to determine whether a given structure is or is not round the corner. Now let us apply this to a clinical case, such as that of a tumour growing in the antrum of Highmore. Thinking anatomically, and considering the antrum to be a cube, you will say, Does it bulge in front? This will lead you to look inside the mouth, and examine the front of the antrum. Next you will ask, Does it bulge at the back? Well, at the back of the antrum is the spheno-maxillary fossa, with the lower divisions of the fifth nerve. This will lead you to investigate your fifth nerve. Then you will ask, Does it bulge at the outer side? So you look for a swelling in the zygomatic fossa. At the inside you will not forget the nose, which may be stopped up. Below? You will look into the mouth. Above? You will examine the orbit.

Consider the tympanum in the same way. Doubtless you will begin at the outside of the cube, and investigate the external ear and tympanic membrane. Next, doubtless, you will examine inside where the internal ear is. So that you will not forget to find out whether or not the patient is deaf. The roof is a thin layer of bone and dura mater between the tympanum and the inside of the skull, and upon it rests the temporo-sphenoidal lobe of the brain, to which septic infection so often spreads. And, lastly, you will consider the front and back, and remember that at the back of the tympanum, besides the mastoid cells, are the sigmoid sinus and cerebellar fossa of the skull.

I have occupied you for some time with a subject which, although of intense practical importance, is at the same time apt to be dull and tedious. But I will not cease without referring to the anatomy of the trunk. And here I would give you a few words of advice. Learn the broad facts of topographical anatomy before you essay the minute; learn to crawl before you walk, to walk before you run. In some works on topographical anatomy the trunk of the body is mapped out like a chessboard, interesting, perhaps, to those whose memories may surpass their understanding, and whose lives are spent in the dissecting room, but not to those who have so much to learn. Let us suppose the clinical case of one who has a pain beneath the right costal margin at the upper end of the right rectus abdominis muscle, with abdominal tenderness and rigidity, vomiting, and perhaps constipation. When I demonstrated and lectured upon anatomy, I advocated the use of a few surface centres. By that I mean a centre in the surface of the body beneath which important structures are grouped. Beneath the eighth right costal cartilage is one of the important centres of the abdomen, for its centre marks the situation of the foramen of Winslow. Need I enumerate the structures grouped round the foramen of Winslow? The finger upon the centre of the eighth costal cartilage has above it the transverse fissure of the liver and all the structures in it; it has the pylorus and the head of the pancreas below it. A little to the right is the gall bladder, the gall bladder lying on the first part of the duodenum. When the gall bladder is inflamed the patient often vomits. And next, just below the tip of the gall bladder, is the transverse colon. So when an inflamed and distended gall bladder rests upon the transverse colon, flatulence and constipation ensue. Another important surface centre is a point in the right semilunar line, where it is cut by a line drawn from the umbilicus to the anterior superior spine of the ilium. Here is the ileo-caecal junction with the ileo-caecal valve, the end of the ileum, the lower part of the mesentery, and the structures in it, the caecum, the beginning of the right colon, and the vermiform appendix. I trust we all have our own ways of thinking, but I suggest surface centres to you as one of the ways of bringing your anatomical knowledge to bear upon your clinical surgery. Doubtless you will discover the other surface centres for yourselves. When I taught anatomy about nine sufficed.

Anatomical thinking is of especial usefulness in the investigation of diseases of the alimentary canal, or in connexion with those of the genito-urinary tract. Given a case in which blood or pus is present in the urine, your thinking would begin at the meatus urinarius, and pass along the urethra. I have known an ordinary gonnorhoea mistaken for nephritis because there was albumen in the urine, the urethra not having been examined. Next, the membranous urethra, and the prostatic. Remembering the prostate, doubtless a rectal examination will be made. Remembering the openings into the prostatic urethra, the vesiculae seminales will be felt, and the mind follow the course of the vasa differentia, and the testicles will be examined. Otherwise a tuberculous mass in the epididymis might be overlooked. Next the bladder will be considered, the ureters, and lastly the kidneys. A patient with much blood in the urine was supposed to have a growth in the bladder. And so she had, but something else in addition; for, when the genito-urinary tract was examined in anatomical order and the kidneys felt, a large tumour was discovered in the right kidney. It had been overlooked. I have referred to a rectal examination. In carrying out this you must, as Luther Holden used to say, carry your anatomy at the tip of the finger. Examine the anal aperture methodically, so as not to overlook a pile or fissure or fistulous tract. Then the front of the rectum, feeling for the membranous urethra, each lobe of the prostate in turn, the vesiculae seminales, the trigone of the bladder, and, last of all, at the tip of your finger, the recto-vesical or Douglas's pouch of peritoneum. Anatomical thinking would also lead you to examine the hollow of the sacrum, where enlarged lymphatic glands might be felt.

I shall now endeavour to show you some of the uses of morbid anatomy in clinical surgery. But do not think that there is any hard-and-fast line between anatomy and morbid anatomy.

Here are specimens in bottles, not very satisfactory, because they cannot be taken out and handled. Let us proceed on anatomical lines, beginning with the bones. Fractures near the ends of the long bones will be a source of great trouble and anxiety. Here is a specimen of a fracture called after Colles, an Irish surgeon. Of course you are familiar with Colles's fracture. It is a transverse fracture of the lower end of the radius. Morbid anatomy teaches that the fracture is usually impacted. What ought you to do with that impaction? Are you going to leave the impaction, or are you going to reduce it? I do not know what you are taught, but it is, to say the least, impolitic to leave one of your patients with a deformed wrist. An anaesthetic ought to be given, and the deformity put right. Have you been thinking anatomically? There is something else about Colles's fracture. The various things at the lower end of the radius will have passed through your mind, and the wrist-joint not forgotten. What happens to the wrist-joint when there is a fracture so close to it? Whenever there is a fracture in the vicinity of a joint its cavity may have been broken into. Mr. D'Arcy Power examined a large number of specimens

of Colles's fracture, and found nearly all went into the wrist-joint. A joint with a fracture into it may not only undergo a mechanical alteration but is also filled with blood. Blood in a joint causes an attack of synovitis, and that will persist until all the blood has gone, and perhaps afterwards. When you have made up your mind that the fracture has gone into the joint you will take measures to prevent that joint being stiffened by adhesions, and movements begun as soon as the pain allows. Here is another specimen of a fracture associated with this hospital. It is named after Percival Pott, one of the ablest of our surgeons. Go to the library and read the preface to Pott's works. He asks a rather curious question: "Why are people so fond of going to quacks? And why, even when the quack has maimed them, do they send their friends?" We may suppose that if a person has got well after having been to a quack he boasts about it as a tribute to his intellectual acuteness in choosing the right quack. If maimed, he sends somebody else, perhaps on the principle of the fox without a tail, or as a subterfuge to hide his own misfortune. Pott's fracture is a very grave injury. Look at this admirable specimen: the internal malleolus is broken into the joint, and the joint has been full of blood, and inflamed. If those in charge of such a case did not take care, the joint would become very stiff. When in the habit of thinking in this way you will not leave a Pott's fracture long, but think in terms of morbid anatomy, and take good care to move the ankle-joint soon.

Here is another morbid anatomy specimen, a contraction of the palmar fascia. I once had the privilege of being a colleague and friend of the late William Adams—a man of unusual courage and sagacity—and saw him working at the morbid anatomy of this disease. I commend his methods to your earnest consideration. William Adams was the first to saw through one of the long bones. He sawed through the neck of the femur, and invented for the purpose the instrument which has long gone by his name, Adams's saw. You, gentlemen, can scarcely comprehend what that meant when every one expected the patient to die of blood poisoning. Dupuytren's name was given to this affection because he was a distinguished man, and one who founded his surgery on anatomy and morbid anatomy. Before Dupuytren investigated contraction of the palmar fascia it was considered to be due to shortening of the tendons. I learnt all this from William Adams, and watched him work in the most painstaking manner to confirm Dupuytren's observations and make them his own. First he got a skilled anatomist to dissect the palmar fascia and all its prolongations; then specimens of its contractions. After Adams had made his observations he devised, from his knowledge of anatomy and morbid anatomy, the operation for the subcutaneous division of the fascia. Nowadays we should not mind whether the fascia were divided subcutaneously or by an open wound; but in those days many wounds suppurated, so that surgeons had a great leaning towards subcutaneous operations. The suppuration was thought to be due to the entrance of air. They did not know much about bacteria or of the necessity for boiling instruments. Still, they knew that a small puncture was safer than a wide incision.

When I watched this very able man's methods, it dawned upon me that morbid anatomy was the clue to clinical surgery. Morbid histology, bacteriology, and the other "ologies" are but additions.

Pott's name is also associated with the tuberculous disease of the spine, admirably shown in this specimen. Here we can see the light which morbid anatomy throws upon clinical surgery. You all know how that spine became bent. First, we may suppose that the child had tuberculous milk to drink. As Dr. Walsham has so clearly pointed out, the tubercle bacilli entered through the tonsils and adenoid tissues in the naso-pharynx. Then they passed by the lymphatics or blood stream to various parts of the body—in this instance to the cancellous tissue of the vertebrae. First the cancellous tissue became inflamed. You will have had abundant opportunities of seeing tuberculous glands in the neck. In the beginning these are swollen, tender, painful, but not very hard; and so, doubtless, are the vertebrae. Next the inflammatory products caseate, so that the bodies of the vertebrae become composed of stuff of a cheesy appearance and consistence. Plenty of caseous material is seen in this specimen. Caseation is the naked eye evidence of the presence of tubercle bacilli. You may be occasionally deceived by other forms of degeneration. Gummata look very like caseous material, also some malignant growths. Then this caseous material softens and an abscess forms. There is the morbid anatomy; what are the clinical events? At first the vertebra is inflamed. That series of joints, the spine, behaves like any other inflamed joint and ceases to move. Next, the muscles in the vicinity of the inflamed joint waste, so do those of the spine. A caseous gland ceases to be painful and becomes very hard. But the next stage—that in which the caseous material softens—has a great bearing on clinical medicine, because now, instead of the bodies of the vertebra, there is an abscess. But weight cannot be supported upon an abscess, so the spine collapses and the Pott's curve appears. One who thinks in terms of morbid anatomy will now try to find out what may have become of the pus. This may never be known; but in the ordinary sequence of events the abscess will reach the surface of the body.

Here anatomy lends us its aid. From between the bodies of the vertebrae come out the nerve trunks. The pus follows their course, and some goes backwards along the posterior division of the spinal nerve, forming a lumbar abscess. Or the pus may track down the anterior divisions of the spinal nerves which enter the psoas muscle. Therefore look for a psoas abscess. The pus may pass along the anterior crural nerve into the iliac fossa. An iliac abscess is easily overlooked unless morbid anatomy be invoked. Finally, the pus may go down the lumbo-sacral cord, along the sciatic nerve, into the gluteal region, and hence a gluteal abscess.

Next, taking the morbid anatomy of Pott's fracture one step further. Here is a specimen showing how the damage is repaired. If tubercle was a very fatal disease I suppose the inhabitants of this island would have been wiped out long ago. But the human body has great power of resisting tubercle. When the body of a vertebra has nearly all disappeared, then the process of repair begins. The process of repair in these abscess cavities is always the same—they heal by granulation. When the granulations have grown in the gap in the vertebral column they become fibrous or bony. Thus you may have seen people walking about after Pott's disease of the spine and carrying sacks of coal upon their shoulders.

Here is another specimen showing the bearing of morbid anatomy upon clinical surgery. It is a tuberculous knee. This is what happened. Tubercle bacilli entered and were deposited in the cancellous tissue of the bone or in the synovial membrane, and the joint became inflamed, stiff, and flexed, and the muscles wasted. (Note the inevitable flexion. A leg with a bent knee or hip is of little use. The bending must be prevented with splints or weights, and if it has taken place be overcome.) Then the inflammatory material caseated. The caseous material is quiet. At last the caseous material softened. Then an abscess formed, either in the synovial membrane or in the cancellous tissue of the bones. When the caseous material softens the pus may point under the skin. When opened this abscess may lead into the joint, so that in opening it be careful lest a fresh infection be implanted upon the tuberculous. If the patient resists the tubercle, and has not had septic arthritis in addition, the disease follows exactly the same course as in the spine. William Adams often pondered over articular cartilage. Why should the cartilaginous femur ossify all but two little pieces at each end? Articular cartilage never ossifies, although in osteo-arthritis its edge may thicken and ossify. So that as long as articular cartilage is present movement may return, and as long as it is present ankylosis cannot occur. But in the course of tuberculous arthritis the cartilage is removed in the manner seen in this specimen. Granulations grow from the bone, and from the synovial membrane, and eat the articular cartilage. When it has done that, and filled the space between the ends of the bone, it becomes fibrous or bony. Fibrous union is painful. The fibrous ankylosis may be firm and strong, and without movement, but it will be painful. Your object is to attain bony ankylosis, which is strong, and does not hurt. The late Sir William Savory used in sonorous phrase to say, "Fibrous ankylosis is the opprobrium of surgery." But the removal of articular cartilage and the

formation of bone is a long and tedious process. So the surgeon steps in and performs an operation founded upon morbid anatomy. He cuts this process short, and gives the patient in a little time what Nature would give after many months of suffering. Accordingly he removes the whole tuberculous synovial membrane and tuberculous bone. But he does something more: he removes the whole of the articular cartilage, puts the ends of the bone together, and keeps them there until they unite by bone.

A stricture of the urethra is, to my mind, a very good example of the way of thinking from morbid anatomy to clinical surgery. Here is a stricture of the urethra. It is in the membranous urethra, and very narrow. It might have measured 7 mm. in circumference. Do not assume that the membranous urethra is the commonest place for strictures. The commonest place for strictures of the urethra, if you examine the urethra properly with bullet-headed bougies, is in the anterior part. The person with a stricture in the anterior part of the urethra has, as a rule, a reflex spasm of the compressor urethrae. Those who are not aware of this, and who do not use bullet-headed bougies, overlook the anterior stricture, and mistake the contracted compressor urethrae for one. A good deal of what is written about strictures is not founded, as it should be, upon correct morbid anatomy, but upon very incorrect clinical observation. Think what will be the first clinical effect of that 7 mm. stricture—obviously a small stream of urine. Make it your invariable habit, when a patient has anything the matter with the genito-urinary system, to see the urine passed into a glass. That affords the opportunity of seeing the kind of stream and the urine with those significant flakes of lymph in it. Other results may follow. Not only may the stream be altered in shape, but much time be spent in passing it through such a narrow channel. A gentleman told his medical man that it took him a long time, nearly a quarter of an hour, to pass water. It was thought that, because the patient took such a long time to urinate, he must have an abnormally large quantity to pass, and diabetes was diagnosed. As a matter of fact, he had a rather narrow stricture deep down in the urethra. The late Mr. Berkeley Hill operated, and, when told what had been said about diabetes, laughed, and replied, "They often say that." But I do not think it can be a very common mistake, nowadays at least, but it is a mistake which may befall any one unless the urine is passed into a glass. Observe the next thing which has happened in this case of stricture. The urethra behind the stricture is a little dilated. What does that mean? That dilated urethra collects a little urine in it after the patient has finished micturating. That remains, and is a source of discomfort, and additionally so because it runs out afterwards and soils the clothing. And so people with stricture not infrequently smell of stale urine. Notice the next thing which has happened. The bladder is thick and small. When the human muscles, either striped or unstriped, have to do additional work they become bigger and stronger. Think what happens to a man who has a stricture which has resulted in hypertrophy of the bladder. In the first place, the bladder will not hold much. The person with a bladder like the one I hold up will pass at the utmost 4 or 5 oz. of urine at a time. But still his kidneys, we hope, are making the proper quantity, so he has to pass urine frequently. If you have seen him in the act you will know that only 4 or 5 oz. issue at a time. What next? The hypertrophied bladder is enormously strong, and the person who has a hypertrophied bladder, as soon as he has a desire to pass water has to rush off and pass it as quickly as possible, otherwise the strong bladder will shoot the urine out into the garments. But the hypertrophied bladder does not merely expel the urine through the stricture; it drives it into the ureters, which become dilated together with the hilum of the kidney. Thus one with a stricture of the urethra is in a sad plight. Before dividing the stricture learn how the kidneys are excreting. Those with incompetent kidneys oftentimes die. Unfortunately, too, a septic infection may coexist. An unboiled catheter is a dangerous weapon.

I will merely take one more morbid anatomy specimen, which is important because it belongs to a very common and dangerous disease. There is not much to be seen in this inflamed appendix. If you make up your mind that a patient has an inflamed appendix, be sure that he has some septic material in its interior, with ulceration such as this of the lining membrane, and the passage of the infection into the lymphatics, and on its way to the peritoneum. A dangerous state of affairs. A line cannot be drawn between anatomy and morbid anatomy. This inflamed appendix is situated at the ileo-caecal junction, a very critical part of the alimentary tract. Inflammation at the ileo-caecal junction disturbs the function of the whole alimentary tract. Proceed in anatomical order. Begin at the mouth to learn the clinical history. Consideration of the mouth will lead you to ask what can be eaten. Those with appendicitis commonly say that they cannot eat certain things; they will say they have had to give up fruit or vegetables. Every now and again they say they can eat anything. But most people with appendicitis have to be careful about their diet. From the mouth go on to the oesophagus, and that will remind you to ask whether there is vomiting. If a person with appendicitis vomits it means that the attack is acute. And after the oesophagus comes the stomach. Those with appendicitis often have indigestion and pain after food. Next we come to the intestines. An inflamed appendix causes blocking at the ileo-caecal valve, so that wind and faeces do not escape easily from the small intestine. Thus we find continual rumblings, because the small intestines are trying to get wind past the ileo-caecal valve. They may not be able to get it past, and so distension supervenes. Ladies with this condition may have to undo their stays. Passing onwards to the large intestine, do not fail to inquire about its functions. Those with appendicitis are often constipated. You cannot place implicit reliance on any of these signs, but proceeding anatomically you will find one or other of them is almost sure to be present. No person can have an inflamed structure in the interior of the body without general signs—alteration of temperature, of pulse, a leucocytosis, and rigors when the infection is especially dangerous. A person with appendicitis who has rigors is like one with whitlow, except that the whitlow is in the interior of the abdomen, not at the periphery of the body. Continuing your anatomical train of thought, the pelvic position of the appendix will be remembered. About 20 per cent. of those with appendicitis have the appendix on the brim of the pelvis or hanging into the pelvis, so that the inflammation can spread to the pelvic organs. First, there is the bladder: so inquire for pain and frequency of micturition. When the inflammation reaches the rectum or sigmoid there is pain during defaecation. In females there is a close connexion between the right broad ligament and the appendix, so that inflammation may spread from one to the other. Besides, the appendix may lie in contact with the right ovary and tube, so that not infrequently we meet with salpingitis or pyosalpinx. The ovary seldom becomes inflamed. Thus anatomy and morbid anatomy teach you to consider the pelvic organs in all cases of appendicitis.

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IN response to an invitation from the Committee and Medical Officer of the St. Marylebone Dispensary for the Prevention of Consumption, an influential and representative gathering visited the dispensary, at 15, Allsop Place, N.W., on January 25th. The principles and methods of work were explained to the visitors, who also inspected the institution. As is well known the chief sources of infection exist in the homes. To the dispensary, which is free, patients who are not already under a medical practitioner may go for examination, diagnosis, and treatment. From the dispensary a physician and nurse visit the homes of the patients, who are thus educated in open-air treatment, and in the protection of others by the observance of a few simple precautions. The medical officer also examines all those who have been in contact with the patients, and thus the early cases are diagnosed and treated. From the dispensary suitable cases are sent to sanatoriums for cure, advanced cases to special hospitals, and children are taught the value of fresh air and sunlight. The dispensary works in intimate association and co-operation with the public health authority, and with the various charitable agencies in the borough. The dispensary is the central bureau for the collection and dissemination of information regarding tuberculosis, and the centre of scientific and philanthropic effort against this disease. The St. Marylebone Dispensary is on the lines of those already established at Edinburgh, in the Borough of Paddington, and in Berlin, Montreal, New York, Boston, and Pittsburg, and is entirely supported by voluntary subscriptions.

# An Address
ON
# THE TREATMENT OF GOUT AND RHEUMATISM BY RADIUM.

DELIVERED BEFORE THE BERLIN MEDICAL SOCIETY ON JANUARY 18TH, 1911.

BY
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GENTLEMEN,—When a substance possessing such striking qualities as radium becomes known, the temptation to test its therapeutic actions is very great. In this particular case there was all the more reason to do this because the substance in question, or at all events some of its derivatives, formed a constituent of certain natural curative springs, the action of which medical men had not been able to explain satisfactorily. Dautwitz, working in Neusser's clinic, first carried out the experiment of treating pathological conditions, which were included in the diseases treated by indifferent thermal springs, with baths to which radium containing uranium pitch ore had been added. Since physicists and chemists in international competition have learnt to recognize whole groups and series of radio-active substances, the primitive experiments of Dautwitz have had to be modified in correspondence with newly-acquired knowledge. As a result, it became apparent that both radium and its primary product of dissociation—gaseous emanation—were capable of producing curative effects, which were especially remarkable in the case of gout and of the various rheumatic affections. About a year ago I was able to report our results to the German Balneological Society. Since then our experience has been considerably extended, and, if you will allow me, I will deal with the results in this place afresh.

We have carried out our investigations with special care, first because we were dealing with diseases which under ordinary circumstances vary greatly in their course and the relation of cause and effect is not always apparent, and secondly, we were using an agent the extraordinary properties of which attract marked general attention, so that it is very difficult to exclude a suggestive action on the patient as well as on the practitioner. In addition, it must be pointed out that both rheumatic processes and gouty attacks are undoubtedly affected to a very considerable extent by all sorts of nervous and psychic influences. We have therefore limited our investigations, as far as possible, to patients whom we could keep under observation for a considerable time in the Charité and in private clinics, or who were under the care of especially astute and competent clinicians. In all 200 patients were treated by us; but only in 128 instances were the above-named conditions fulfilled, including 100 cases of chronic rheumatism and 28 of uric acid gout.

*Chronic Rheumatism.*

Of the 100 cases of chronic rheumatism, 47 were improved, 29 were considerably improved, 5 nearly cured, 13 were uninfluenced by the treatment, and the result was not apparent in 6. The most interesting of these cases are naturally those in which the use of the limbs was almost completely restored by the treatment.

One of these patients was a child, 8½ years of age, who had suffered from symmetrical swelling of nearly all the joints of the extremities for nine months, and who could not use either hands or feet. After eight weeks' treatment the power of walking and the use of the hands returned. This is all the more remarkable in view of the experience that chronic rheumatism in children is prone to be particularly obstinate. Staff Surgeon Eckert, working in Heubner's clinic, has reported this case.

In a girl, aged 20 years, a subacute swelling of both ankles, which had persisted for two months, disappeared in three weeks, and she was discharged cured. In another case a subacute swelling of both astragalo-calcanean joints was cured in three weeks.

A girl, 19 years of age, had suffered from an exudative polyarthritis of the joints of the extremities for three years. Several forms of treatment were applied, but none succeeded in arresting the progress of the affection. Treatment with emanation and drinking of radium-containing waters at first produced an increase of the pain—a so-called reaction. The condition then remained stationary for a long time, but eventually yielded to continued treatment. After three months the joints were much less swollen, the patient was again able to use her hands and to walk, and, according to the latest reports received, she is now even able to dance.

The best result obtained, however, was in a long-standing case of myalgia.

Excellent results of this kind can only rarely be achieved. It is self-evident that no medicament in the world can clear up the numerous and severe anatomical changes which are met with in chronic rheumatism, and which include degeneration and loss of the cartilage, exostoses, indurated thickening of the capsule of the joint, proliferation of the synovial membrane, cartilaginous foreign bodies, contractures and indurated degeneration or advanced atrophy of muscles, and fibrous or cartilaginous ankylosis of the articular surfaces. The best results may be expected in diseases which have not existed for too long a time, and in which the chief changes are swelling and infiltration of the capsule of the joint. This form, which most frequently affects women either at an early age or about the time of the menopause, constitutes the larger contingent of the "considerably improved." In the next place, the dry form, in which the capsule remains unaltered for a long time, while the cartilage is markedly degenerated and the muscles almost always affected, yields very favourable results, in so far as the pain is diminished, the muscular contractures lessened, and the motility increased.

*Myalgia.*

There were among our cases several of myalgia, an etiologically obscure affection, which is characterized by tender and indurated areas in the muscles. A few of these cases have reacted in a most marked manner to the radium treatment, others were improved, and others, again, were absolutely uninfluenced. This uncertainty in the results of treatment is only too well known to the spa practitioners in Wiesbaden and Gastein. On the whole, it may be said that the younger the individual, the less advanced the illness, the better will be the results, and that even in very long-standing cases alleviation of pain may, at all events, be looked for.

*Gout.*

The results in gout are much more striking. We were able to observe and treat 28 patients for a considerable period. Of these, 4 remained unaffected, while in 24 a marked improvement in the condition was achieved. Some of the patients have told us that they have remained free from symptoms for a year after the termination of the treatment. The most remarkable effect is noted in the behaviour of the uric acid in the blood. We have learned from Garrod's investigations that gout is characterized by a permanent presence of uric acid in the blood, and numerous recent studies have demonstrated that the uric acid in the blood may be diminished by a rigid diet, but can never be made to disappear entirely. Under the influence of radium emanation the blood loses its uric acid within a few weeks. We were in a position to examine the blood, both before and after the treatment, for uric acid in 18 cases. In 15 the desired result was effected promptly; in a severe case of gout the blood was found to be free from uric acid after 14 days' treatment by drinking water containing radium. On the other hand, uric acid persisted in the blood of 3 patients even after a severe course of treatment. Now, it might be expected that since no salts can be deposited from blood which does not contain uric acid, no attack of gout could occur, and that any deposits which were present would be speedily dissolved. We actually did observe tophi in the ear disappear on two occasions during the treatment. But the clinical improvement did not always run parallel to the uric acid content of the blood. We noted very marked improvement in a patient who was energetically treated, in spite of the fact that the blood retained its uric acid. In another patient, who had gouty nodules all over his body, no uric acid was present in the blood either at the beginning or toward the end of the treatment, and yet the patient had one attack after another during the whole time. Experience, however, has long since taught us that it is not only the deposit of uratic salts which can cause an inflammation; a rapid solution of these salts may do the same. In the majority of cases, at all events, the radium treatment of gout is a very powerful remedy, even if some persons are refractory to the treatment.

*Radium Emanation.*

Before entering into a discussion of these highly interesting facts, I wish to deal with the methods which enable us to apply radium and its emanation in an effective manner. At first the radio-active material was added to a bath, on the basis of the practice at spas. Further investigations, the most important of which are those of the Brunswick neurologist, Löwenthal, have proved that the active agent is not radium itself, but the emanation which radium produces. Emanation is a gas; it cannot penetrate the epidermis of the body as such, but is readily absorbed by the lungs and by the mucous membranes of the digestive track. Emanation can therefore only act in the bath by passing out of the water into the air and being inhaled. When water containing emanation is drunk, a part of the emanation is taken up in the inspired air and another part is absorbed from the stomach and intestine. Emanation behaves like every other gas which is not a normal constituent of the body. It is excreted to a very slight extent through the kidneys and to a large extent in the expiratory air. When the treatment is carried out by baths, the absorption is only continued as long as the patient remains in the atmosphere laden with emanation from the bath water, and the foreign gas is excreted immediately. On the other hand, when it is carried out by means of drinking waters, the absorption takes place slowly from the intestine, and the body is being constantly supplied with fresh doses of emanation for three or four hours after a single dose. When the patient is given from three to five doses during the day emanation can be detected in the expiratory air at any period of the day. Radium itself behaves in the body like other heavy metals to which it is chemically related—that is to say, it is absorbed slowly, and the absorbed quantity is excreted again through the intestine. As long as it is present in the body, small quantities of emanation are continuously developed from it. It is therefore clear that the most active application of emanation is achieved when the individual is breathing an atmosphere which contains a certain quantity of radium emanation. Under these conditions an equilibrium will rapidly be established between the emanation content of the external air and that of the blood. This equilibrium will be maintained as long as the body remains in this atmosphere. The emanation content of the blood will reach a level in this way which can only be attained by the drinking of exceptionally large quantities of water containing radium. Our experiments have shown that it is usually sufficient for the purpose of obtaining definite curative results, and of ridding the blood of gouty patients of uric acid, to place the patient in an air containing from 2 to 4 "making units" per litre for two hours a day. A better result with larger doses of emanation was only attained in a few cases. "Emanators" have been constructed by Löwenthal and Gudzent on this principle. A stream of oxygen bubbles through a fluid containing a salt of radium and is saturated with emanation. The emanation issuing from the fluid is distributed equally in the air of the room by a ventilator. This method, however, has the disadvantage that it can only be applied when a special emanator is available. For this reason portable inhalation apparatus have been constructed, in which the emanation is liberated from its solution by a stream of air produced by a hand bellows. The air containing the emanation is then breathed. After a few strokes of the bellows the emanation is completely driven off from the water, and a considerable time is required before equilibrium is again established between the insoluble radium salt and the emanation in solution. In other words, the apparatus is exhausted in a few minutes, the inhaled emanation is rapidly exhaled and is diluted to such an extent in the air of the room as to be quite inactive. The portable apparatus, therefore, cannot as yet be regarded as satisfactory substitutes for the emanators.

The body is subjected to the action of emanation equably by these methods of application. If it is desired to concentrate the action on any given point, it is advisable to apply the radium salt directly to the part affected. Experiments undertaken in the Heidelberg Cancer Institute (Ramsauer and Cohn), as well as our own observations, show that a deposition of insoluble radium salts in the body develops emanation for a long period. This can be demonstrated in the expired air. Added to this action, the rays which are given off from the radium come into play, and when applied in this manner act directly on the diseased area. We have supplemented the general action with marked advantage in certain cases of rheumatism by an injection of insoluble, or repeated injections of soluble, salts of radium in the immediate neighbourhood of the affected joints. Sterile ampoules of these salts are now obtainable from several firms. In other countries, and especially in France, the action obtained by radiation of strong radium preparations has been very energetically employed, and the results which Wickham and Degrais (Paris) have achieved in skin carcinomata and naevi have justly attracted much attention. It has, however, been found necessary to check the too sanguine hopes in respect to the treatment of carcinoma. The results obtained are in some respects so remarkable that further experiments in connexion with internal diseases appear justifiable. This method of application demands special precautions in order to protect the skin from the damaging influence of Alpha rays, which are readily absorbed.

*Mode of Action.*

There is something unsatisfactory about a therapeutic action the cause of which is unknown and the process of which cannot be controlled. For this reason numerous experiments have been undertaken for the purpose of studying the action of radio-active substances on the processes taking place in isolated portions of the body. These experiments have revealed that the cells may be directly influenced, and under certain conditions the damage may even amount to necrosis. Radium rays, like Roentgen rays, exercise a selective action; for example, when applied to embryos they destroy nervous tissue more especially, and when applied to tumours, the pathological tissue.

The fact, ascertained in our clinic by Fofanow, that the inflammation produced by the introduction of foreign bodies (especially urates) under the skin or into the peritoneal cavity undergoes an extensive change, is of great importance in the interpretation of the curative process under discussion. The inflammatory migration of leucocytes is completely arrested. A further action consists in the activizing of ferments. Braunstein and Bergell have demonstrated this in connexion with pancreatin, Bergell and Bickel in connexion with pepsin, Richet with lactic acid fermentation, Löwenthal and Edelstein with autolytic ferments, and Löwenstein and Wohlgemuth with diastatic ferments. It is probable that the same applies to numerous other fermentative processes in the body, but not to all, for, as far as is known at present, the excretion of sugar by diabetics, for instance, is not influenced by the rays, although other metabolic processes are undoubtedly increased thereby. This can be demonstrated in a very clear manner in gout. According to the modern views enunciated by Bloch, Schittenhelm, and Brugsch *inter alia*, the disturbance in gout depends on a retardation of the purin body metabolism; and not only is the formation and breaking down of uric acid slowed, but the mutual relations of the two processes are altered. In the gouty this is evidenced by the fact that when a diet which is free from purin, but which contains nucleic acid, is given, the uric acid formed is not completely excreted within from two to five days, as is the case in healthy persons; the excretion is extended over a considerably longer time, and is not complete. Gudzent and Löwenthal were able to show that after prolonged treatment with emanation the excretion took place as promptly and completely in a gouty patient who had previously shown this phenomenon in a typical manner as in a healthy individual. In addition Gudzent was able to determine another characteristic of radio-active substances. Uric acid exists in the form of monosodium urate in the body. This salt exists in two forms, which differ from one another in respect to their solubility. When freshly precipitated from solution, the readily soluble modification is formed, which, however, spontaneously changes into the less soluble modification in the course of time. This transformation is arrested by the action of certain rays. Gudzent was further able to show that uric acid and its salts are dissociated into carbon dioxide and ammonia under the influence of this action, and he demonstrated in a very ingeniously-

planned experiment that neither radium nor emanation produces this dissociation. It is brought about by a more advanced disintegration product, which is known as radium D. It will thus be seen that very varied actions come into play in gout, all of which tend toward the solution of the gouty deposits and the breaking down of uric acid. In addition to the autolytic action, the action of inhibiting inflammation, and that of alleviating pain, which are affected in the treatment of rheumatism, there is in the treatment of gout a specific action which is directed to the uric acid and its salts, and to the processes of metabolism regulating the quantity of uric acid in the body. This ensures a greater certainty of action.

*Selection of Cases.*

In selecting cases for radium treatment, the form of disease should be taken into account in the first place. Before the practitioner prescribes a treatment which must be continued for weeks or months, and which will involve the patient in a considerable financial outlay, he must form a clear conception of the results which can be obtained under the most favourable conditions. He must realize that old exostoses and bony ankylosis offer no prospect of cure, and that the chances are most favourable in early stages of the process and when the soft tissues of the joint and its neighbourhood are chiefly affected. It is of paramount importance to know if the attack is due to rheumatism or to gout, because the auxiliary treatment, and above all the diet, must be absolutely different for each of these two groups of disease. I have never been able to satisfy myself that any special diet or the limitation of meat exercises a beneficial influence on the course of rheumatic affections. On the other hand a dietetic treatment of gout is essential, even in conjunction with the employment of the radium treatment. There are two sources of uric acid—the material which has to be got rid of. In the first place there is the body itself, and in the second there is the food. The dissociation of uric acid will be effected more easily and more rapidly if the second source is blocked by the selection of a suitable diet. But the differentiation of gout and rheumatism is by no means as easy as is usually believed. A typical case of gout, no doubt, is readily recognized, but the diagnosis of so-called masked gout is very difficult. A single examination of the urine does not clear the matter up. The interpretation of this form dates back to a time when it was believed that uric acid was formed out of albumen, and when gout was regarded as being due to an increased proportion of albumen persisting in the incomplete oxidation phase of uric acid. On the basis of this assumption it was held that the diagnosis could be made in any sample of urine, from the proportion of uric acid to urea. In the light of our present knowledge this is no longer tenable, since we know that the quantity of uric acid in the urine is not dependent on the quantity of albumen, but is dependent on the amount of purin-containing food taken in. It has been known for twenty years that the gouty patient excretes less rather than more uric acid than the healthy person, when enjoying the same diet, and that the uric acid value may be quite abnormally low, especially just before an attack. If the gouty nature of the illness is to be recognized from the urine, a test must be employed which Bloch, and also Schittenhelm and Brugsch, first described. This consists in putting the patient on a purin-free diet for five or six days, then giving him 10 to 20 grams of nucleic acid, and then examining whether the uric acid is completely excreted within two to five days, or whether the excretion is retarded and incomplete. This tedious test, however, is not reliable, since some gouty subjects in certain stages of their illness react like healthy persons, and, moreover, since non-gouty alcoholics and patients with nephritis also excrete slowly.

We therefore return to Garrod's old suggestion of looking for uric acid in the blood. We know, it is true, that uric acid is present in the blood of patients suffering from nephritis, leukaemia, and pneumonia in the stage of resolution, but these are conditions which can easily be excluded. Garrod employed the primitive thread test, in which a small quantity of blood is acidified with acetic acid and gently evaporated. The uric acid is deposited on linen threads immersed in the blood, and is recognized microscopically. Unfortunately this simple test is unreliable. Uric acid can only be detected with certainty by abstracting a larger quantity of blood (80 to 100 c.cm.) by venesection and by analysing it by Krüger and Schmidt's method. Since we have employed this method in doubtful cases, we have experienced a variety of surprises. We have learned that some of the very common myalgias of the neck, shoulder, and lumbar muscles are undoubtedly of a gouty nature, while other are rheumatic. Patients who reveal symmetrical and creeping inflammations of the smaller joints, which give the clinical impression of being rheumatic, have sometimes been shown to be gouty. Neuralgia, and especially sciatica, depends on this cause much more frequently than is usually accepted. It is therefore urgently necessary, in order to secure a prompt and certain result from the treatment, to examine doubtful cases in this way. It must be pointed out, however, that the detection of uric acid in the blood requires some practice and experience, and ought not to be entrusted to the pharmaceutical chemist. It is to be hoped that we shall soon discover a more handy and at the same time more reliable method of examination.

*Mode of Application and Dosage.*

Once the diagnosis is made, a number of factors have to be taken into consideration in the choice of method of treatment. The form of rheumatism, the duration of the affection and the number of implicated joints must be thought of, and a method of application must be chosen in accordance with the conditions. The susceptibility of the individual in this connexion, as elsewhere, varies greatly, and the physician must be guided as to dosage by the strength of the reaction and the degree of improvement. A certain amount of practice and careful observation of the course of the illness are needed to ensure a proper selection. We have obtained much better results in the Charité patients on the whole than in our private patients, whom we could only see from time to time in the consulting room.

The dosage necessitates a marked individualization. It forms at present a rather weak point in radiotherapy, because we do not possess a uniform and generally accepted system of measurement. In Germany the measurement is made partly by determining the loss of voltage—a value which varies considerably according to the construction of the measuring apparatus—and partly by calculating the "making units," which are also not quite uniform. In France the uranium unit is employed. The International Congress of Radiology in Brussels in 1910 recognized this defect and appointed a Commission, which has accepted as a unit the action issuing from 1 gram of radium. Mme. Curie has undertaken to prepare as pure a sample of radium as possible, and this is to be deposited in Paris as a standard, like the normal metre and the normal kilogram. Exact duplicates of this standard will be placed at the disposal of States interested in this question, and in each of these countries an institution is to be founded, where the standardizing of preparations from the normal measure can be undertaken. The estimation of the value of a radium preparation, even after careful application of the methods of measurement, is not very simple, and a certain industry appears already to be profiting by this uncertainty. It can, however, be carried out with comparative ease, since the content of active substance cannot be calculated by any attribute other than the application of definite methods of measurement.

In spite of the many valnable articles already published, we are still at the beginning of the investigation of the therapeutic action of radium. The extension of the results obtained up to the present, the further studies of the effect on metabolic and secretory processes, and the differentiation of the action of the various forms of rays are all problems of the future. A powerfully radiating member of the thorium group—*mesothorium*—has been prepared in considerable quantities by Professor Otto Hahn, and requires to be tested bio-therapeutically. A large quantity of this substance has just been prepared for the Königliche Akademie der Wissenschaft (in Berlin), thanks to the generosity of Herr von Böttinger. As compared with radium, the want of durability of this preparation is amply compensated by the greater ease with which it can be obtained from raw material. It is extremely probable

that other radio-active substances will be discovered in time, and it is quite possible that they will reveal a variety of peculiarities as regard both their physiological and therapeutic actions, and their selective behaviour. A wide field of activity lies in front of us, and there is urgent need of a special institute which will deal exclusively with these therapeutic biological investigations.

But I must return from the hopes of the future to the actual subject of my discourse. I hope that I have convinced you that in radium and its emanation we possess, not a panacea for all ills, which would restore suppleness and power in the most severe and incurable cases, as by magic, but an extremely valuable and indispensable means of treatment—a means which, in combination with the already known methods of treatment, enables us to achieve highly satisfactory and gratifying results in two groups of disease, which have in the past been a trial of patience both to the practitioner and to the patient, on account of their obstinacy and their persistence.

## A FURTHER NOTE UPON THE MECHANICAL EFFECTS OF A RIGHT-SIDED PLEURAL EFFUSION.

BY PROFESSOR A. C. GEDDES, M.D.,
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IN the BRITISH MEDICAL JOURNAL of June 11th, 1910, a note upon the mechanical effects of a massive right-sided pleural effusion was published by the present writer.

More recently, further opportunities of studying the mechanical effects of the accumulation of fluid in the right pleural cavity have presented themselves. In the new case the subject was a male of middle age whose body had been preserved by the injection of 15 per cent. formalin which had firmly fixed all the tissues.

The amount of the effusion had been by no means so great as in the case formerly reported, and though the displacements discovered on section and dissection are less striking than those described by Professor Elliot Smith[1] or by the present writer in cases of massive effusion, they are sufficiently well marked to show clearly the general lines along which the effects of abnormal distension of the right pleural sac manifest themselves. Indeed for purposes of clinical work they are of greater value than those formerly described; for, in this case, the accumulation of fluid had not been so great that it might not well have been met with in normal practice.

### GENERAL DESCRIPTION OF THE CONDITION FOUND.

1. The right pleural cavity is full of coagulated fluid. Its capacity is considerably increased. This is due to:

(*a*) The fixation of the ribs in the position of forced inspiration (see Figs. 1 and 2).

(*b*) The displacement of the mediastinal structures towards the left (see Figs. 1 and 2). The displacement is most marked at the mid level and least marked at the top and bottom of the mediastinum. In other words the mediastinum is bowed towards the right.

(*c*) The opening up, to an abnormal degree, of the normal pleural recesses which extend in behind the oesophagus and trachea and in front of the superior vena cava and aorta (see Figs. 1 and 2).

(*d*) The downward displacement of the diaphragm (see Fig. 4).

2. The right lung is not collapsed and is not adherent to the chest wall nor is there adhesion between the lobes (see Fig. 2).

3. The horizontal curvature of the aorta is somewhat flattened out so that the ascending portion lies almost entirely to the left of the median plane (see Figs. 1 and 2).

4. The trachea is displaced slightly towards the left and is rotated on a vertical axis so that the right bronchus has passed forward (see Fig. 2).

5. The oesophagus is curiously crumpled by the pressure of the distended right pleura, and is slightly displaced to the left (see Figs. 1 and 2).

6. The left lung is compressed, and is, in its lower part, adherent to the chest wall.

7. The superior vena cava is somewhat compressed laterally, and is displaced towards the left. Its lumen is seriously reduced by the pressure exerted upon it, from behind forwards, by the right pulmonary artery, which has in turn been pushed forward by the right bronchus (see Figs. 2 and 3).

8. The ascending portion of the vena azygos major is pushed into the median plane; the portion which normally arches over the root of the right lung is pulled out to lie in a horizontal plane, and is bent very sharply against the right postero-lateral edge of the trachea at the level of its bifurcation. At the point of bending the lumen is entirely occluded (see Fig. 2).

Fig. 1.—Horizontal section of the thorax at the level of the manubrio-sternal articulation: looking upwards. *To show* the increased size of the pleural cavity, the flattening out of the transverse arch of the aorta, the crumpling of the oesophagus, and the partial rotation of the trachea.

9. The inferior vena cava is much dragged upon; the caval opening in the diaphragm shows the effects of this by its distortion into a pear-shaped orifice (see Fig. 4). The intrapericardial part is sharply kinked, and its lumen is almost entirely occluded (see Fig. 3).

10. The heart is rotated clockwise round an antero-posterior axis passing through the caval orifice in the diaphragm, so that its apex descends and forces down the cardiac area of the diaphragm (see Figs. 3 and 4). The

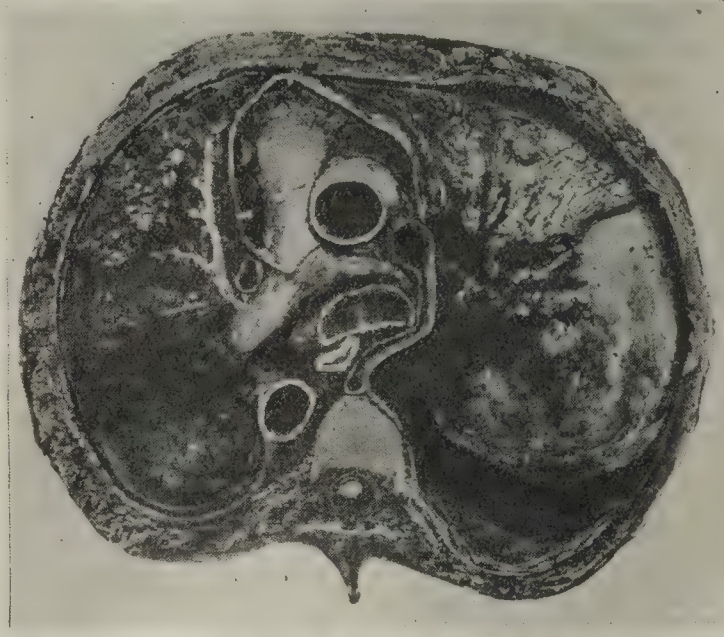

Fig. 2.—Dissection of the superior surface of the lower portion of the thorax removed by the section through the manubrio-sternal articulation. On the right side the superior surfaces of the middle and inferior lobes of the right lung are exposed. *To show* the pushing forward of the right lung root, the rotation of the trachea, the crumpling of the oesophagus, the kinking of the vena azygos major against the right posterior margin of the trachea at its bifurcation, and the pushing over of the superior surface of the heart towards the left.

posterior wall of the right auricle is pushed forward by the lung root and overhangs the opening of the inferior vena cava. The cavity of the right auricle is further reduced by the direct pressure upon its right lateral wall. The left ventricle is fixed in a position of diastole.

11. In the abdomen the liver is depressed and flattened, and the superior aspect of its left lobe is deeply indented by the cardiac depression of the diaphragm; the kidneys, more especially the right, are depressed and deformed by pressure; the suprarenals are also depressed.

The points of greatest interest demonstrated in this dissection are undoubtedly those connected with the

distortions and compressions of the great veins as they approach the heart. Rotation of the trachea round a vertical axis and carrying forward of the right lung root, which are the result of the opening up of a retrotracheal pleural recess, have not apparently been recognized as changes likely to lead to the partial or complete occlusion of the lumen of the superior vena cava. The mechanism of the occlusion of the vena azygos major, as demonstrated

Fig. 3.—Coronal section through the heart on a plane ½ in. anterior to the anterior lip of the inferior vena caval opening. *To show* the kinking of the inferior vena cava, the downward rotation of the apex of the heart (slightly exaggerated in the photograph), and the bowing of the mediastinal structures. The white line is vertical, but on a plane a short distance to the right of the middle of the body of the last dorsal vertebra. It passes through the left margin of the inferior vena caval opening, round which point the rotation of the heart occurs. (See Fig. 4.)

in the dissection described above, is interesting, though possibly not of great clinical importance. The almost complete occlusion of the inferior vena cava resulting from the downward rotation of the apex of the heart

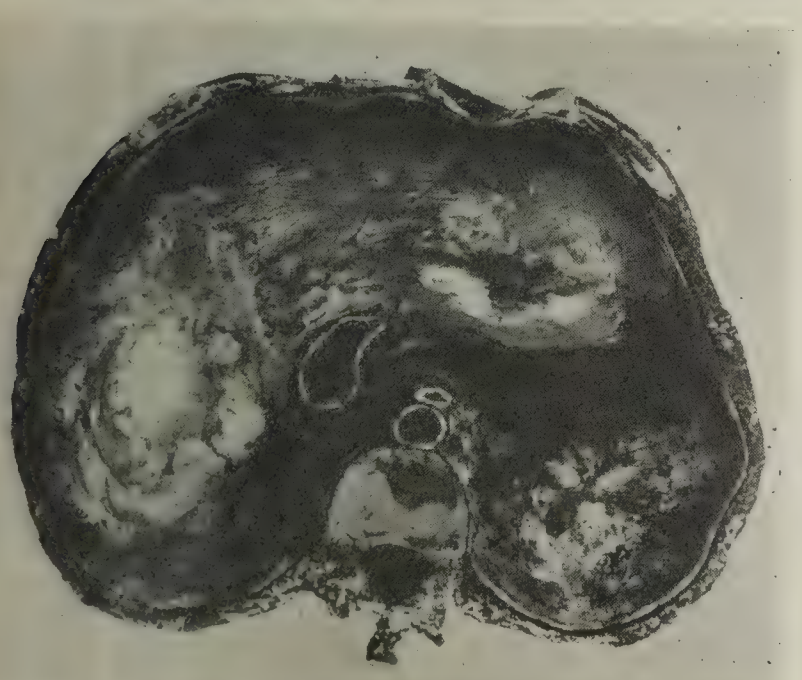

Fig. 4.—The inferior surface of the diaphragm. *To show* the flattening out of the right cupola and the depression of the cardiac area of the diaphragm and the distortion of the inferior vena caval orifice, which has been dragged out towards the left.

and the great diminution in the capacity of the right auricle under the influence of pressure are facts of clinical importance.

As a result of the consideration of the cases now and formerly described the present writer is confirmed in his opinion that one cause of sudden death in cases of right-sided pleural effusion may well be occlusion of the great veins as they approach the heart, and more especially occlusion of the inferior vena cava. This matter was referred to more fully in the short paper published on June 11th, 1910. The suggestion is not a new one, although it has not received general acceptance at the hands of the physicians.

A further point of interest is well brought out in Figs. 1 and 2. In these the descending thoracic aorta is seen to have been pushed clear of the left side of the vertebral bodies. This fact may provide a partial explanation of the "area of dullness" which exists on the left side of the vertebral column in cases of right-sided pleural effusion.

My thanks are due to Mr. William Gill for the photographs from which the illustrations are taken and for assistance in the dissection.

REFERENCE.

[1] Elliot Smith, On the Displacements produced by Pleural Effusion, *Lancet*, September 28th, 1907.

## THE TREATMENT OF THREE HUNDRED NAEVI BY FREEZING.

By J. L. BUNCH, M.D., D.Sc.,

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EXCELLENT as are some of the final results of treating naevi by means of radium, the method is, nevertheless, far from rapid and is beyond the means of many patients. For naevi in certain positions, such as those of the eyelids which involve the conjunctiva, radium has perhaps some advantages over other methods of treatment, and will still be used; but in the vast majority of cases equally good results can be obtained far more quickly, certainly, and cheaply by the application of solid carbon dioxide. Where the naevus is superficial a single application for a few seconds will effect a cure, and the resulting scar is so inconspicuous that it is difficult even to detect. The great majority of the cases which I have treated have been, naturally, children, many of them only a few weeks old, and in such patients the painlessness and rapidity of any method of treatment is of great importance. The application is, of course, cold, and a tiny baby will probably cry, but I doubt if it feels any pain, and older children will talk and laugh while they are having several naevi, warts, or lupus nodules treated by this method. They say there is some feeling of burning or smarting while the tissues are thawing, but this very soon passes off. When a well marked, definitely raised and circumscribed angioma has to be treated, a single application is seldom sufficient, and I very much prefer to do too little at the first application rather than too much, especially if the buccal mucous membrane or an eyelid is involved. But even if several applications are necessary, it must be remembered that the inconvenience to the patient is very slight, no anaesthetic is necessary, and no dressings beyond some boracic powder or boracic ointment are required. For naevi on the face there is no question that this method is far preferable to any surgical operation; for naevi on the trunk it might be said that excision was equally good and that the scar does not matter; but I have seen a considerable number of such scars in which naevoid tissue has been left or has recurred, and where either a further excision or treatment by solid carbon dioxide was necessary.

I have successfully treated with carbon dioxide 300 naevi of various extent and size. Most of these naevi were a source of disfigurement, many of them being on the face; but some of them were in positions where only a sentimental feeling on the part of the parents, and no cosmetic necessity, seemed to make their removal desirable. Such were naevi of the vulva, of the penis, and of the margin of the anus, and they were interesting from the point of view of the possibility of sepsis; but I have not seen one in these positions which gave any trouble or failed to react in the ordinary way or heal up normally. Most of these cases were treated by me at the Queen's Hospital for Children, and included capillary, stellate, cavernous and pigmented naevi, some small and some several inches in diameter, flat, or markedly raised above the adjacent healthy skin forming prominent red or purple swellings. For all such cases treatment by solid carbon dioxide cannot be improved upon, but for large port-wine stains, involving part or the whole of one side of the face, where a considerable area has to be treated at a single application, I prefer to employ liquid air. In the liquid state air occupies $\frac{1}{800}$ part of its ordinary volume; in other words, if liquid air be vaporized it will expand 800 times, and as the more

volatile nitrogen evaporates the temperature rises and the almost colourless liquid assumes a bluish tinge—the colour of liquid oxygen—which remains until all the liquid has vaporized. Liquid air boils at 190° C., so its use is especially adapted to those cases where a maximum rapidity of action is necessary, and the maximum degree of cold is required in the minimum time. For a port-wine stain or large capillary naevus an application of 5 to 7 seconds is sufficient, for cavernous naevi 8 to 10 seconds. Its mode of action is very similar to that of solid carbon dioxide.

Carbon dioxide has a critical temperature of +31.30° C., a boiling point of −78.2° C. when solid, and a melting point of −56.2° C. When solid it can be moulded into pencils or sticks of various sizes and shapes, so as accurately to fit any small naevus; thus a lesion no bigger than a pin's head can be frozen and removed without the slightest involvement of healthy skin. Naevi of the size of a five-shilling piece can also be treated with a single application, and any lesion between these two sizes, however irregular in shape. For larger lesions two or more applications, approximating but not overlapping, are necessary. The immediate effect of the application on the skin is to make it perfectly hard and white, depressed below the surrounding skin proportionately to the amount of pressure which has been applied. This pressure must not, where soft parts underlie the angioma, be greater than that required to press the blood out of the superficial vessels, and the surface of the skin must be held as tense as possible during the application; where bone immediately underlies the lesion somewhat firmer pressure may be made, remembering that the depth frozen depends, other factors being the same, upon the amount of pressure applied. The duration of the application varies from twenty seconds for a superficial plexiform angioma to forty seconds for a cavernous angioma, while warts, which are bad conductors of cold, require as much as sixty seconds. The time required for thawing is rather longer than that for freezing; the skin then feels firmer, due to secondary hyperaemia and extravasation of serum, and within an hour or two a vesicle forms. Unless the application has been extremely short this vesicle does not become absorbed, and if not repeatedly punctured with aseptic precautions and drained it becomes infected. If possible, therefore, the fluid should be evacuated aseptically each time the vesicle or bulla fills up, and a pad of sterilized cotton-wool is under such circumstances all the dressing required. When, however, such draining of the bulla cannot be carried out efficiently, a dressing of zinc ointment dusted over with zinc and starch powder should be ordered and the patient told not to remove the impetiginous-like crust which forms, but let it come away of itself. This takes place in about ten days, and a delicate, smooth, and supple cicatrix forms, which is at first pink, but later becomes paler and paler until it is almost invisible. The resulting scar may at first be slightly depressed below the surface of the surrounding skin, according to the nature of the lesion which has been treated and the extent of the freezing; but the scar is finally of the same tint as the healthy skin, equally soft, and practically inconspicuous.

In the case of cavernous and pigmented hairy naevi and raised localized angiomata excellent results are also obtained, but more than one application is usually necessary, and the scar, although fine in texture and supple, is more conspicuous in proportion to the depth and extent of the original lesion and the number of applications made.

I have also applied this method of treatment with success to lupus vulgaris, lupus erythematosus, warts, rodent ulcer, and old-standing patches of psoriasis and lichen planus. The duration of the application varies in the different cases, but the cutaneous reaction is similar to that already described in the case of naevi.

The histological changes in skin which has been frozen with carbon dioxide have been investigated by several observers, and more particularly by Juliusberg. If normal skin is frozen, and then immediately excised, sections of it show no pathological changes except thrombosis of the cutaneous vessels. If, however, normal skin is frozen hard for thirty seconds and excised fourteen hours afterwards, and hardened in 10 per cent. formalin solution, sections show a similar thrombosis of the blood vessels, the thrombi being either hyaline or composed of leucocytes, erythrocytes, or both. Round the vessels is a well-marked infiltration of leucocytes. The lymphatics are dilated and filled with coagulated, homogeneous masses. Such sections show, however, the most marked changes in the epithelial layer, the cells of which appear structureless and homogeneous, and the nuclei are clear and, with the exception of some nuclei of the basal layer, do not stain. It is well known that at a temperature below 4° C. water expands, and this expansion might, in the case of the epithelial cells, lead to rupture of the cell membrane and the katabolic appearances seen in the sections. Beneath the epithelium is found a layer of large polynuclear leucocytes, which also infiltrate the connective tissue, while the connective tissue cells are swollen and hypertrophied. The elastic fibres are unchanged, but, if the section is stained with Weigert's fibrin stain, the whole connective tissue layer is found to be full of fine strands of fibrin.

It has been conclusively proved that neither liquid air nor solid carbon dioxide destroy the pathogenic properties nor inhibit the activity of micro-organisms, and this must be remembered when treating lupus and rodent ulcer.

Various forms of apparatus have been devised for the manufacture of suitable crayons or sticks of solid carbon dioxide, the essential being that the crayons shall be coherent, hard, of sufficient size, and readily moulded or cut to the desired shape. The necessary hardness—the crayon should sink when thrown into water—can be obtained by compressing the snow in a mould by a heavy rod cut to fit the mould, or by a plunger with a screw thread which is screwed down on to the soft snow until it is of the consistence of ice. With such an apparatus the solid carbon dioxide can be made nearly transparent, and the point of the cone moulded to any shape required.

## CARCINOMA OF THE STOMACH IN A YOUTH OF NINETEEN.

BY

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THE occurrence of carcinoma in young persons is always a rarity, and I therefore give a short report of a case of a youth of 19 in whom it was present. The growth in this instance was situated in the stomach, and, owing to its proving fatal while the patient was under observation, its true nature was investigated after death. The patient was treated on two occasions in University College Hospital, but a definite diagnosis, it must be admitted, was never made until after death. The reason for this was that, although the symptoms and signs were on the whole those usually associated with malignant disease of the stomach, owing to the patient's youth he was at first thought to be suffering from abdominal tuberculosis. Towards the end of his illness, however, it was supected that something more serious than an inflammatory coudition was present in order to produce such urgent symptoms.

*Clinical History.*

J. J. D., just 19 years old, a french polisher by trade, came under treatment on October 24th, 1909, for pain in the stomach, lasting eight weeks. The pain generally started half-way through a meal, and lasted for about three-quarters of an hour, subsequently passing off. Until two days before he was first seen he had taken ordinary food, but since then had been on a milk diet, and had been to some extent relieved thereby. He had had bilious vomiting on one occasion only, but suffered much from flatulence. He had noticed something "like a bubble" pass across his stomach, the sensation lasting a few seconds.

It was interesting to find, on further questioning, that he gave a most accurate account of peristalsis, which had, apparently, been visible sometimes.

The appetite was bad, and the bowels constipated. He was a teetotaler and a non-smoker, with no past or family history of importance.

He was wasted and anaemic, with a pulse of 96 and a temperature of 100°. Except for a few moist sounds at the right base, there was nothing of importance in the chest. The abdomen showed slight distension, and on palpation had a generalized "doughy" feel, with no evidence of free or encapsuled fluid. In the epigastrium there was marked tender-

ness, and a definite edge could be felt to descend during inspiration. Elsewhere there was no abnormal tenderness or mass. There were no signs of tubercle to be found in other parts of the body.

Shortly afterwards an indefinite tender mass made its appearance in the epigastrium, its lower border corresponding with the sharp edge previously noticed. During the first fortnight there was a slight nocturnal rise of temperature, but afterwards this subsided and remained normal. As the condition was considered to be one of abdominal tubercle, the ordinary hygienic treatment was adopted, and, throughout his stay in hospital (about three months), he slowly and steadily *gained weight and lost all symptoms.* He was eventually sent to a convalescent home. Soon after his return, however, the same symptoms recommenced and became aggravated. In addition he lost weight more rapidly. He was readmitted on May 9th, 1910, having vomited some dark matter on three occasions during the two preceding days.

He was then desperately ill, very anaemic and emaciated, with a subnormal temperature and a rapid running pulse. The abdomen was very wasted, with an area of distension corresponding to the stomach, and a large tender mass felt in the epigastrium. The area of gastric resonance was much enlarged and, in addition to the large mass, a smaller discrete and harder one could be felt in the region of the pylorus. Well-marked visible peristalsis could be seen over the distended area. No other abdominal viscera could be felt, and the urine was normal. Owing to the inability to take food by the mouth, rectal feeding was resorted to, the preliminary wash-outs containing altered blood. Haematemesis commenced again three days later, and the general condition very soon became hopeless. A blood count showed extreme anaemia the red count being reduced to 2,300,000, and the haemaglobin 25 per cent. The patient died on the 25th, a thrombosis of the veins of the left leg having occurred a few hours beforehand.

*Necropsy.*

All the organs, except the stomach and liver, were found normal. The stomach was greatly dilated, but the external

surface appeared normal. Situated over the lesser curvature near the pylorus was a large oval ulcer extending for three inches on to both anterior and posterior walls. The ulcer was shallow, its base white and slightly uneven, but not markedly indurated. The edge was formed by a prominent sinuous ridge of infiltrated mucous membrane, a little everted and very indurated. Immediately above the pylorus, outside the stomach, was a large hard mass of glands. By the infiltration of the tissues at this spot the first part of the duodenum had been drawn towards the lesser curvature, and kinking with obstruction had resulted. The pylorus itself was not involved, and admitted the finger readily. A small nodule of growth projected into the first part of the duodenum underneath the mucous membrane. The gastric glands were enlarged and indurated. The liver was enlarged, its substance fatty, and scattered throughout it were numerous secondary deposits, the superficial ones having a typical umbilicated appearance. The vena cava was free from growth. There was a large adherent and friable clot in the left external iliac and surrounding veins. A microscopic section at the time showed the ulcer to be a columnar-celled carcinoma.

A photograph of the primary growth is reproduced.

As regards the age incidence of cancer of the stomach, Perry and Shaw in their series found the average age at death to be 52.1 years. The most fatal decade is, no doubt, between 50 and 60, and the disease is certainly infrequent before the fourth decade. Among the cases recorded before the twentieth year are Norman Moore's in a girl of 13, and Schäffer's in a boy of 14. Osler and McCrae, in a large series, found as many as thirteen between the ages of 10 and 20. Cullingworth describes a case of cylindrical-celled carcinoma of the stomach in an infant of 5 weeks, Finlayson in a child of 3½ months, and Kaulich a "gelatinous" carcinoma in a boy of 1½ years.

Two cases of what was said to be congenital carcinoma of the organ have been described by Wilkinson and Widerhofer.

The percentage of cases occurring in the first *three* decades, as worked out by Schäffer, Reichert, and Brautigan, only amounts to from 2 per cent. to 3 per cent., and of these by far the largest proportion occur between the ages of 20 and 30.

One of the chief points of interest in this case is that it illustrates how misleading the abnormal age incidence of a disease may be in coming to a correct diagnosis. Lastly, the temporary improvement, with proper medical care and nursing in the earlier stages of the case, is remarkable.

# THE HISTORY OF YELLOW FEVER IN WEST AFRICA.

BY

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*(Continued from page 185.)*

## IV.

## YELLOW FEVER IN THE GAMBIA.

IT is most probable that yellow fever appeared in the Gambia at the same period as in the case of Sierra Leone and in Senegal, for epidemics in North-West Africa appear to have been on most occasions in the past widespread, sometimes starting in one colony, sometimes in another, but usually ending by affecting all three—Sierra Leone, the Gambia, and Senegal.

The period embraced by these epidemics and sporadic cases extended from the end of the eighteenth century through the nineteenth up to the present epoch.

Outbreaks have been recorded in 1768 and 1769, 1842, 1845, 1852; and in 1878, when the fever is stated to have been severe. During this period it will be remembered that the ships of the mercantile and royal navies were perpetually infected with yellow fever, and that therefore the disease could be imported in any year until it became endemic. Of course the disease might have been endemic from a much earlier period, but as colonization only set in in the eighteenth century it is impossible to know what happened before this date, for here, as elsewhere, it was only by the arrival of non-immunes that the world was made aware of the existence of the disease.

We may reasonably suppose that the *Stegomyia* existed in the Gambia in early times just as it does to-day.

In 1837 Fergusson describes an outbreak of yellow fever in the Gambia, imported so he believes, by H.M.S. *Curlew*, which sailed from Freetown, where it had remained one week, and during an outbreak members of the crew contracted the disease, and when the ship arrived in the Gambia the sick were taken ashore and the disease spread amongst the residents. The Colonial surgeon died from it. In the same year yellow fever was present in Senegal.

From the annual report of the West African station, it appears that 4 cases of yellow fever occurred, of which 2 proved fatal, in the garrison in the period 1841–2.

In 1878 a severe epidemic is stated to have occurred, but so far I have been unable to come across an account of it. It was also present in Senegal in this year.

In June, 1900, 9 fatal cases of yellow fever were reported officially from the Gambia. It was present in Senegal.

Bathurst was declared an infected port in June, 1901, also Senegal.

BIBLIOGRAPHY.

Lidin, L.: *Coup d'oeil sur la climatologie et pathologie du Sénégal*, Paris, 1882.

Annual Medical Reports of the West African Station.

Chichester: Proceedings of the Society of Tropical Medicine and Hygiene, December, 1910.

## V.

## YELLOW FEVER IN SENEGAL.

The history of yellow fever in the French Colony is comparatively very complete, numerous French authorities of eminence having carefully described the various

epidemics. As in the case of Sierra Leone, so in this Colony, the history of the disease is coincident with white colonization and commercial advance.

Outbreaks of sporadic cases are recorded in 1768, 1769, 1778–9, 1814, 1816, 1828, 1830, 1837, 1840, 1841, 1845, 1846, 1852, 1858, 1863, 1866–7, and 1872. The symptomatology of very many of the outbreaks has been carefully recorded by Bérenger-Féraud, so that there is no doubt about the nature of the disease.

From the year 1830 yellow fever, however, attracted the attention of numerous observers, and, as in the case of the other West African Colonies, the symptomatology is given with care, so that here, again, there is no doubt about the true nature of the disease. Schotte, in describing the great epidemic of 1778–9, states that fifty-nine whites died; that the deaths were most frequent amongst the whites, next in frequency amongst the mulattos, and least often amongst the blacks. The symptoms were: intense headache and lumbar pain, congestion of the eyes, obstinate vomiting or hiccough, black vomit (coffee-ground-like material), urine greatly diminished or total suppression, delirium, coma and death. Frequently the very characteristic and often fatal symptom of "feeling better" occurred towards the termination of the illness. From 1778 to 1814 no large outbreak occurred, then in 1816 the disease broke out at Cape Manuel. From 1817 to 1830 Schotte considers there were numerous sporadic cases. In 1830 a widespread epidemic occurred which affected Gorée, Saint Louis, and Dakar.

In 1837 the disease again broke out in the island of Gorée, introduced, as it was thought, by some from Bathurst; Bathurst had meanwhile attributed their own outbreak to infection from Freetown (see Sierra Leone).

From 1837 to 1859 there is an apparent absence of recorded outbreaks. Then in 1858–9 the disease again attracted attention. Again, from 1864 to 1867 there are records of small outbreaks.

In 1872 a severe epidemic occurred which spread from Gorée to Saint Louis, and then to Bakee in the Upper Senegal. That is to say, the disease now showed its characteristic tendency to penetrate into the interior from the coast, following the trade routes. The writers of the period also state that up to this date yellow fever was usually regarded as imported from Freetown or the Gambia. But after 1872 authorities were disposed to admit its endemic origin.

In 1878 an outbreak is recorded, and it was stated also to be present in 1897.

From 1900 to 1906 there is an annual record of cases. In 1900 quarantine was officially declared, and Dakar, Gorée, and Conakry were declared infected ports. The 1900–1 outbreak has been made the subject of more than one monograph. Kermorgnant states that there were 146 cases and 225 deaths, and describes how it spread up into the interior and along the railroad from Kayes to Dioubeba in the Soudan. Bérenger-Féraud has also written the history of the epidemic. Both authorities mention how the disease was considered by many as endemic in Senegal. The possibility, however, of the ever-shifting Syrians having introduced the disease is also mentioned.

In 1902 a recrudescence of the disease is recorded in the Soudan and Upper Senegal.

In 1904 Dakar is declared to be an infected port.

In 1906 yellow fever breaks out at Bamaku in Upper Senegal, and at points along the Kayes-Niger Railway; the first case appeared to start in Segou in the Soudan.

An official communication from the British Consul-General in Dakar states that yellow fever was present in 1906 during the months of September, October, and November in the Upper Senegal and Niger Territories. Thus, in Senegal there has occurred an advance of yellow fever from the coast into the interior following the railroad and trade routes; this same phenomenon has repeatedly occurred in Central America (see my Honduranian report), and will be repeated in Nigeria and in the Gold Coast colonies unless preventive measures are taken at once. This year the disease has penetrated to Saw Mills on the Gold Coast, and there are as yet not sufficient protective measures enforced to prevent it spreading to either the tin-mining centres in Nigeria, to Tarquah and Obuassie, the gold-mining centres on the Gold Coast.

The interior of a country offers no protection from yellow fever.

BIBLIOGRAPHY.

Bérenger-Féraud: *De la fièvre bilieuse comparé avec la fièvre jaune.* Paris, 1874.
Le Dantec: *Précis de pathologie exotique.* Paris, 1905.
Poskin, A.: *L'Afrique équatoriale, climatologie, nosologie, hygiène.* Bruxelles, 1897.
Kermorgnant, A.: Epidémie de fièvre jaune au Sénégal, 1900–1901. *Annales d'hygiène et de médecine coloniale*
Maladies épidémiques et contagieuses qui ont regné dans les colonies françaises, 1900, 1902, etc. *Annales d'hygiène et de médecine coloniale.*
Ribot: Rapports annuels sur les services d'hygiène du Sénégal en 1905. *Annales d'hygiène et de médecine coloniale.* 1907.
Schotte, J. P.: *Traité de la synoque atrabilieuse on de la fièvre contagieuse en Sénégal, 1778.* London, 1785.
Bouffard, G.: La défense de Bamako (Haut Sénégal et Niger) contre la fièvre jaune en 1906. *Bulletin de la Société de Pathologie Exotique,* July, 1908.
Lidin, G.: *Coup d'oeil sur la climatologie et la pathologie du Sénégal.* Paris, 1882.
Bérenger-Féraud: *De la fièvre jaune au Sénégal.* Paris, 1874.
Carpot, Charles: *La fièvre jaune, épidémie de l'année 1900 a Saint Louis du Sénégal.* Bordeaux, 1901.

## VI.

## YELLOW FEVER IN ASCENSION, BONAVISTA (CAPE VERD ISLANDS), AND FERNANDO PO.

The interest attaching to yellow fever in these islands is mainly from the historical point of view. They were ports of call for the West African ships in the eighteenth century, so that ships with yellow fever cases on board arrived regularly every year. The medical authorities of the period differed as to whether the yellow fever which did occasionally break out in epidemic form was imported or of local or endemic origin. Of course it would be difficult to settle that question now, as both views were readily possible, but at the time they gave rise to bitter controversy.

On the whole, the evidence is in favour of the disease having been endemic in the early part of the eighteenth century, or even the seventeenth century. Outbreaks have also been recorded in 1863 and 1868.

### ASCENSION.

According to Staff Surgeon Barry, yellow fever was imported into Ascension in 1823 by H.M.S. *Bann*, which became infected in Freetown during the yellow fever epidemic of 1823–4. Yellow fever broke out upon the ship, and 32 men died; the sick on arrival of the ship were sent ashore, and a few days afterwards fever appeared amongst the garrison, and of these 17 died. The *Bann* had a crew of 130, and of these 38 perished.

The same authority states that yellow fever broke out in 1838, and was, as before, attributed to a ship which sailed from Freetown during an epidemic.

According to Malcolm, genuine yellow fever was present in 1818.

### BONAVISTA (CAPE VERD ISLANDS).

This island is stated, on the authority of Pym, to have been infected by H.M.S. *Iedair*, which arrived from Freetown during the epidemic there of 1844–5.

On the other hand, it is stated that yellow fever made its appearance in these islands in the sixteenth century, and that they became an endemic centre from which the disease spread to the African Coast.

### FERNANDO PO.

In 1829 yellow fever is said to have been introduced in its malignant form by H.M.S. *Eden*, but it has been also stated by medical chroniclers of the time that the disease might have been endemic (Pym). Outbreaks are also recorded in 1839 and 1862.

BIBLIOGRAPHY.

Fergusson: Medical Reports of the West African Station.
Pym, Sir W.: *Observation upon Bulam, Vonate Negroa, or Yellow Fever.* London, 1852.
Second Report on Quarantine, London, 1852.
Bryson, Alec: *Account of the Origin, Spread, and Decline of the Epidemic Fevers of Sierra Leone.* 1849.

*(To be continued.)*

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THE twentieth congress of the German Surgical Society will be held this year in Berlin in April (19th to 22nd) under the presidency of Dr. L. Rehn of Frankfort. Among the subjects proposed for discussion are free transplantations; the disinfection of the hands and of the field of operation; Basedow's disease; floating caecum. The tenth congress of the German Orthopaedic Society will also be held in the Langenbeckhaus, Berlin, on April 18th.

# HIGH TEMPERATURE AFTER LABOUR AND ITS TREATMENT WITH ASPIRIN.

BY

G. H. FINK. M.R.C.S.ENG., L.S.A.LOND.,
MAJOR, I.M.S.(RET.).

THE following case may be of interest to some owing to certain points which were noted in the treatment, and which might possibly have gone from bad to worse had not vaginal douching, aspirin, and attention to the *primae viae* been employed in the early stages after a severe rigor with high temperature, quick pulse, and rapid respiration. It was one of those cases in which the toxins of a particular micro-organism were beginning to be manifest in the blood, which could only be judged from the physical signs and symptoms by the bedside of the patient, and which, if not dealt with early, would eventuate in puerperal fever.

I was called in to attend the patient, a woman of about 28 to 30 years of age and a multipara, who had given birth to a healthy child in normal labour, on the fifth evening.

On arrival, there was the patient, a well nourished woman with a somewhat flushed and anxious countenance, and complaining of severe frontal headache. Her temperature was 104.4° F.; pulse 130 per minute, quick, and somewhat full and compressible; respirations 28 to 30 a minute. The tongue was covered with a white fur, bowels confined, skin dry, appetite fair, and she was able to sleep only in snatches. The abdominal bandage was loose, the uterus flaccid, and there were no pains present. On palpation over the hypogastrium there was tenderness on the left side, increased greatly on pressure. The urine came away freely, but scalded while flowing.

The lochia were red in colour, fair in amount, no clots or shreds on diaper. The breasts were full, and on pressure around areolae milk flowed freely. The baby emptied the mammary gland regularly on nursing.

No further pain or trouble of any kind was manifest elsewhere at the first visit; but on the following day there was pain under the right shoulder, with vomiting of bilious fluid.

*Treatment.*

1. Absolute rest in bed.

2. Regular ventilation of the room, as it was small and ill-ventilated.

3. There had been a daily warm douche of potassium permanganate lotion previous to my visit, which I now continued in the morning as hot as the patient could bear, and corrosive sublimate (1 in 5,000) in the evening, until it flowed quite clear. There are two points of interest in these respective douches, which I shall call (*a*) and (*b*). Before and after the douche the temperature was recorded, also in the intervals of the douche, in order to note the effect of douching as well as the antiseptic powers of each: (*a*) was not so useful as (*b*), and, while the reduction in (*a*) was one degree, that in (*b*) was two, and more prolonged in its action. Moreover, in (*b*) the shreds and some small clots came away in greater quantity, which I feel is due to the fact that corrosive sublimate lotion attacks the mucous membrane and brings away the areas which are affected by membranous attachments, and which are the foci of germ implantation.

4. Uterine contraction was necessary, hence the following mixture was prescribed with benefit:

℞ Tinct. ergotae am. ... ... ... ℥ijss
Sp. ammoniae aromatic. ... ... ℥ijss
Aquam, adde ... ... ... ... ℥viij
M. Sig. Two tablespoonfuls three times a day.

5. The bowels were acted upon when necessary with oleum ricini, and an occasional enema.

6. Sleep was procured with full doses of potassii bromidi at bedtime.

7. The temperature, though lowered to some degree by the above treatment, did not lower satisfactorily, nor as steadily from day to day until aspirin was given. The mode of administration was in the tabloid form—at first two tabloids of gr. v each t.d.s., then one tabloid, when the temperature lowered, and the skin became moist, while the patient slept; and last of all, only one tabloid at bedtime. With the lowering of the temperature sleep was more refreshing, hence the potassium bromide was discontinued, as aspirin seemed to act like a hypnotic. I think on the whole this drug is better borne than sodium salicylate in similar doses in a similar class of cases. The use of sodium salicylate has been advocated in a brief letter in the *Lancet* of August 18th, 1906, p. 463, by Dr. Chill, and I feel that it and other drugs of the same class are certainly most valuable in these particular cases. With the lowering of the temperature and the obtaining of sleep, the appetite began to improve daily, when the diet from beef tea, milk, milk and soda and barley water in regular quantities, was raised to a better standard from day to day until convalescence set in on the twelfth day after labour, when solids were allowed, and the diet the patient was accustomed to given. Half a glass of stout was allowed with her midday and evening meal, with much benefit to the mother and child.

I feel that in such a class of cases the surroundings of the patient, the bowels and liver, the uterus, and the circulatory apparatus have to be carefully watched and treated promptly.

The lowering of the temperature and pulse and the cleaning of the tongue cannot be attributed simply to regular douching alone, but to the regulating of the bowels, skin, and pulse.

The effect of the douching with (*a*) and (*b*) lotions undoubtedly attacked the foci of the affection in the uterus; but the unloading of the bowel and liver and the action of the aspirin through the blood upon the excretory apparatus had certainly a marked specific effect as well, and rendered the prompt action so necessary through the blood.

It has been suggested that in a certain number of puerperal cases alcohol is responsible for various manifestations, notably the rise in the temperature and delirium; but if one considers that in the pelvis of the woman after labour there are three important organs (the bladder, uterus and vagina, and the rectum) in close contact with each other, it is very necessary that the functions of each of these organs require strict attention before and after labour, for the simple reason that during labour there is very great pressure transmitted through the infant's head which is about to pass the pelvic cavity during birth upon those organs which are placed between two bony surfaces. There is every chance, therefore, of solution of continuity of mucous membranes and other tissues, and the action of pathogenic germs.

Whether the *Bacillus coli* is not also associated with such cases, as in puerperal fever, which is sometimes caused by it, seems interesting at any rate to note. In the case in point the patient's condition was certainly one for anxiety, and there were undoubtedly certain toxins of the organism named which were being poured out and creating symptoms which were on the road towards a puerperal attack from the symptoms manifest. A point of further interest was revealed later in this case and connected with former labours—namely, that the patient was never a satisfactory one, because there were signs of alcoholism. Now, in this particular class of cases it is very necessary to discriminate true alcoholism from the semblance of the effects of this article, for the toxins, in this particular stage of a case, might create a form of delirium or stupor, and alcohol, the usual cause assigned, is but an exciting or secondary cause. I am certain, however, from my careful observations of this case, alcohol was in no way responsible for the patient's peculiar manner, but that it was that class of case where certain toxins form and enter the circulation and affect the nervous system, and, unless treated promptly, may pass on to actual delirium and all the manifestations of the true puerperal condition.

It would be interesting to read the *Journal of the American Medical Association* of April 12th, 1902, p. 930, on the rôle of the *B. coli* in human affections, by Lartigan; and also the *Journal of Pathology and Bacteriology*, vi. 1900, No. 3, p. 195. These, together with what is quoted in the *Lancet* above mentioned, would be interesting reading in favour of my contention, which is amply supported by British authority as well.

The colon bacillus is associated in man with a number of important pathological processes, and is able to pass through the intestinal wall where there has been any slight damage and yet no perforation, setting up peritonitis, cystitis, and even puerperal fever.

In the early stages of this last-named disease the toxins are responsible for certain symptoms which the

system is endeavouring to throw off by the reaction, but which, if unsuccessful in accomplishing, the true puerperal state would rapidly follow.

Whether aspirin in such a state—because of its rapid action, together with the rest of the treatment through the bowels and douching with the corrosive sublimate lotion of course—is not the best treatment to adopt, is one for further opinion. At any rate, experience has shown that the salicine group of drugs is a very safe and sure remedy in the majority of such cases, and the earlier they are used in the treatment the better for the patient.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### LIVING CHILD AND DEAD FETUS.

ON December 20th, 1910, I was called by a midwife to a woman who had given birth to a living child and a dead fetus. The child seemed to be a full-term child. The fetus was partly macerated, the upper part of the head being a pulp, and some of the skin on the body had peeled off; it was probably a male child of five and a half to six months' development. There was one placenta, one half of which was decomposed and foul, the other half being apparently normal. There were two sacs of membranes. The next day the child smelt strongly of the same smell that came from the foul part of the placenta. Mother and child have both done well since and are doing well now.

Gosport. S. G. HARRISON, M.R.C.S., L.R.C.P.

### FRACTURE OF THE FEMUR AT BIRTH.

THE case of fracture of the femur at birth described by Dr. Cecil Johnson in the JOURNAL of December 17th, 1910, p. 1915, resembles closely one which fell to my lot eighteen months ago.

In my case the mother was a primipara, living some distance away, and when I arrived I found the breech presenting and tightly impacted, with the legs extended on the abdomen. Like Dr. Johnson, I was unable to bring down a leg or use finger or fillet as an aid to delivery, and so was compelled to have recourse to the blunt hook. Delivery was effected after vigorous traction for over an hour, while a colleague administered chloroform. At one moment during this proceeding the patient came round a little and twisted herself suddenly, with the result that the child's right femur was fractured at the junction of the upper and middle thirds. Although the end of the blunt hook was padded with rubber tubing, considerable bruising and subsequent sloughing took place in each groin. The child, a female, was a large one, and half an hour's artificial respiration was needed before she breathed satisfactorily.

The fracture was put up by means of a piece of stout millboard, with a broad end moulded to curve round the abdomen, where it was retained by a bandage. Thence it was carried to the knee and along the leg, where it was bandaged again, the thigh being left free and the leg being supported on a cushion, so that both thigh-joint and knee joint were kept flexed. The child was then placed and kept in a padded box. By this means the fractured ends were brought into good apposition. The limb was released in about five weeks, and appeared soon to be as freely movable as the other, a few manipulations being used to overcome stiffness, etc.

Mr. McAdam Eccles kindly examined the child a year later, and could find no appreciable difference between the two legs.

Hampstead. J. S. MACKINTOSH.

THE Convalescent Homes Association has issued a list of convalescent and other homes receiving London patients with particulars as to the conditions of admission. The list is classified into homes for men, women, and children only, for patients requiring surgical treatment, for mothers and infants, for gentlewomen, and homes and sanatoriums for patients suffering from pulmonary consumption. The list will, no doubt, be found useful by medical men in London; it can be obtained at the office of the Association, 32, Sackville Street, W., price 6d.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### CHRISTCHURCH HOSPITAL, NEW ZEALAND.

#### DISLOCATION OF THE OS CALCIS WITH PARTIAL DISLOCATION OF THE ASTRAGALUS.

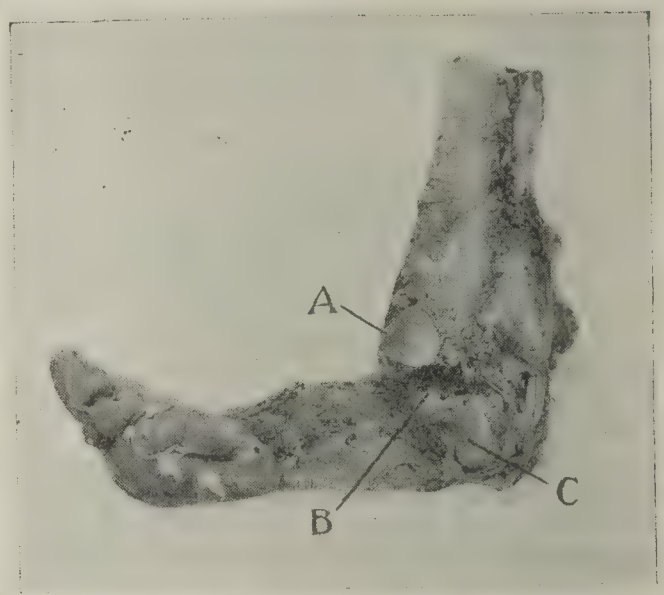
(Reported by P. CLENNELL FENWICK, M.B.Lond., M.D.N.Z., F.R.C.S.E., Honorary Surgeon to the Hospital.)

THE patient in the following case, a lad aged 18 years, was admitted with a severely crushed foot. While fishing from Lyttelton Wharf the foot was caught and crushed between the wharf and a 3,000-ton steamer.

On admission the left foot was merely a tense bag of blood, almost black. No pulse could be felt. I made multiple incisions to relieve the swelling and took an *x*-ray photograph.

*Apparent Condition.*

Next day the swelling had diminished sufficiently to allow examination. The projection of the heel was absent, and below the external malleolus could be felt a smooth rounded projection, evidently an articular surface. I




A, Head of astragalus. B, Facets for astragalus on os calcis. C, Os calcis articulating surface for astragalus.

thought that this was the head of the astragalus and from the appearance of the skiagraph I diagnosed fracture of the os calcis with dislocation of the astragalus.

The foot showed symptoms of gangrene and I amputated 3 in. above the ankle.

*Real Condition.*

On dissecting the foot I found the following unusual condition. The astragalus was partially dislocated, the head was tilted upwards and rested on the dorsum of the foot, overlying the scaphoid. The os calcis was twisted completely on its side as if it had been driven right through the foot. The smooth projection beneath the external malleolus which I had mistaken for the head of the astragalus was seen to be formed by the articulating surface of the astragalus. The dislocation was so extreme that the two facets for articulating with the neck of the astragalus were lying sideways, having been wrenched round to present just in front of the external malleolus.

*Remarks.*

In these circumstances I was astonished not to find any fractures. The tendons on the outer side of the ankle were greatly stretched. The photograph of the dissected foot shows very clearly the curious nature of the dislocations. I believe that dislocation of the os calcis is almost unknown, and certainly my diagnosis was quite wrong in this case, although I had a good skiagraph to assist me.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, January 19th, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

### *Pharmacology of South African Boxwood.*

DR. W. E. DIXON, in a paper on this subject, said that South African boxwood—*Gonioma kamassi*—has been employed occasionally in Lancashire as a substitute for common boxwood in the manufacture of shuttles; it is stated that symptoms of poisoning have occurred in a small proportion of the men engaged in sawing this wood or finishing the chiselled shuttles. From the wood an alkaloid can be obtained to about 0.07 per cent. This has a very characteristic physiological action which places it in the curare group of drugs. The members of this group may be regarded as possessing three actions in common: (1) Paralysis of certain nerve cells; (2) increase of spinal and medullary reflexes; (3) paralysis of motor nerve endings. Boxwood exerts all these effects. It paralyses the nerve cells in the brain and medulla as well as those on the course of the vagus and sympathetic nerves, and therefore after its exhibition to animals the stimulannt action of nicotine cannot be obtained. In small doses the reflexes are increased, and, if an injection be made into a vein going to the spinal cord of an animal, strychnine-like convulsions are produced. Boxwood caused death by paralysing the respiration; this is central in origin, but it occurs at a time when the phrenics and intercostals are depressed though not paralysed. Boxwood has no direct action on the heart or on other form of muscle. Reasons were given for believing that the recorded cases of poisoning were not due to the specific action of the drug after absorption, but to the effect of the drug in facilitating certain local reflexes principally of a respiratory nature in the predisposed.

### *Auto-agglutination of Red Blood Cells in Trypanosomiasis.*

Dr. W. YORKE, after pointing out that auto-agglutinin existed in small quantity in the blood of many normal animals, stated that it was frequently present in much greater quantity in the blood of animals infected with trypanosomes. Reaction between auto-agglutinin and erythrocytes took place only at low temperatures. The strongest reactions were obtained when a suspension of washed erythrocytes in normal saline solution was treated at 0° C. with plasma, which had been prepared by defibrinating blood at 37° C. Auto-agglutinin could be removed from plasma by absorption with the erythrocytes of the same animal. The reaction between auto-agglutinin and red blood cells was reversible—the clumps disappeared on warming and reappeared on cooling. Iso-agglutinin and hetero-agglutinin were also often present in much greater amount in the blood of infected animals than in that of normal animals of the same species. From the red blood cells of an infected animal, which had been agglutinated in the cold by the plasma of the same animal, an active substance could be extracted with normal saline solution at 37° C. This substance agglutinated not only the red cells of the same animal and other members of the same species, but also those of many animals of different species. Observations of this kind indicated that auto-agglutinin, iso-agglutinin, and hetero-agglutinin were not different highly specific substances, but had closely related affinities; that a clumping together of the red blood cells was frequently observable in cover-slip preparations of the fresh blood of animals and man infected with trypanosomiasis was due to the existence of an excess of auto-agglutinin in the plasma, which reacted with the erythrocytes to a certain extent at the temperature (15° to 20° C.) at which the preparations were usually made. It was to be inferred from the information at present available that a marked degree of auto-agglutination of red blood cells was an extremely rare occurrence apart from an infection with trypanosomes. The phenomenon was therefore of some value as a diagnostic sign.

### *Transformation of Proteids in Ripening Cheese.*

Mr. M. NIERENSTEIN stated that he had found, contrary to the accepted view, that the so-called ripening of cheese was not accompanied by a transformation of proteids into fats, the increase of weight of the latter as observed by other workers being due to the presence of free cholesterol, aminovaleric acid, putrescine and cadaverine in the ethereal extract. This investigation disproved one of the frequently quoted evidences in favour of the theory that proteids served as a source for the fat formation in the animal body.

### *Action of X Rays on the Developing Chick.*

Mr. J. F. GASKELL, M.A., M.B., had observed no difference in the action of $x$ rays upon any one tissue rather than another. The action was confined to the lowering of the mitotic activity of the growing tissues. If this diminution was not too great, complete recovery occurred, and the chicks hatched out at the usual time. If the diminution was above a certain degree, recovery did not take place, and further development was arrested forthwith. The critical dose, which just prevented recovery, varied with the stage of development of the embryo, decreasing as the mitotic index decreased. The "mitotic index" as defined by Minot represented the number of mitoses per 1,000 cells in the various tissues of embryos of various ages and he had shown that throughout embryonic life a rapid diminution of mitotic activity was going on. He called the figures obtained the mitotic index for that particula. tissue.

### *Antelope a Possible Reservoir for Trypanosoma Gambiense.*

Colonel Sir DAVID BRUCE, C.B., F.R.S., A.M.S., and Captains A. E. HAMERTON, D.S.O., and H. R. BATEMAN, R.A.M.C. (Sleeping Sickness Commission of the Royal Society, Uganda, 1908–10), reported experiments to ascertain if antelope may act as a reservoir of the virus of sleeping sickness (*Trypanosoma gambiense*). It was known that the tsetse flies (*Glossina palpalis*) around the northern shores of the Victoria Nyanza still retained their infectivity for sleeping sickness, in spite of the fact that the native population was removed from the lake-shore some three years ago. A series of experiments was therefore carried out to ascertain if the antelope, which were fairly common along the uninhabited shores of the lake, were capable of acting as hosts of the parasite of sleeping sickness. Eleven antelope of the waterbuck, bush-buck, and reedbuck species were already obtained from a district where tsetse flies and sleeping sickness did not exist. Blood from these animals was first inoculated into monkeys to ascertain if they were already naturally infected with trypanosome disease. They proved to be healthy in this respect. Tsetse flies (*Glossina palpalis*) that were known to be infected with the virus of sleeping sickness were then fed upon each of the eleven antelope. After about eight days the blood of these animals was again inoculated into susceptible animals, with the result that the latter became infected with the *Trypanosoma gambiense* in every case. In eight out of the eleven buck under experiment *Trypanosoma gambiense* appeared in their blood for a few days only (some seven to twelve days) after they had been bitten by infected flies. Flies that were hatched out in the laboratory, and had never fed before, were now fed upon the infected antelope, and subsequently upon monkeys. After an interval of about thirty days, required for the development of trypanosomes within the fly, monkeys were infected with sleeping sickness from the antelope by the agency of *Glossina palpalis* in sixteen out of twenty-four experiments. On dissecting the flies which had been fed upon the infected antelope it was found that 10.8 per cent. of them were infected with *Trypanosoma gambiense*. The highest percentage of infected flies in any one of the positive experiments was 21 per cent.; the lowest was 1.3 per cent. Nine of these antelope infected with *Trypanosoma gambiense* were under daily observation for over four months. They remained in perfect health. Two of them (a waterbuck and a bushbuck) never showed trypanosomes in their blood although examined every day. Both these antelope-infected flies fed upon them, one of them as long as fifty-five days after its infection. No wild antelope

inhabiting the lake shore had yet been found to be naturally infected with *Trypanosoma gambiense*.

*The Domestic Fowl not a Reservoir for Trypanosoma Gambiense.*

The same members of the Sleeping Sickness Commission also reported experiments to ascertain if the domestic fowl of Uganda may act as a reservoir of the virus of sleeping sickness (*Trypanosoma gambiense*). There was evidence that tsetse flies (*Glossina palpalis*) feed on the blood of birds as well as that of mammals inhabiting the shores of Victoria Nyanza. Domestic fowls, as representing birds, were experimented with in the search for possible hosts or reservoirs of the virus of sleeping sickness. A series of twenty-one experiments were carried out to ascertain: (1) If these birds could, like antelope, be infected with *Trypanosoma gambiense* by the bites of known infected flies; (2) if birds so infected could transmit the parasite to newly-hatched *Glossina palpalis* which had not fed before they were allowed to bite the fowls; (3) if these flies could convey sleeping sickness to normal monkeys. About 2,000 flies, many of which had been proved to be infected with virulent *Trypanosoma gambiense*, were fed upon twenty-one domestic fowls. The results were negative in every case, as ascertained by frequent microscopical examinations of peripheral and centrifuged heart's blood, and inoculations of the fowls' blood into susceptible animals. Four hundred newly-hatched flies were fed upon three of the fowls which had been bitten by infected flies. The former were subsequently fed upon monkeys, with the result that they failed to convey sleeping sickness from fowls to monkeys. Two hundred and eighty-three of these flies were dissected, and no flagellates could be found in them. The conclusion was that the Uganda fowl could not act as a reservoir of the virus of sleeping sickness.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, January 11th, 1911.*

Dr. F. W. N. HAULTAIN, President, in the Chair.

*Landry's Paralysis in Pregnancy.*

DR. SAMUEL DAVIDSON'S communication on a case of Landry's paralysis occurring during pregnancy and the puerperium was read by the SECRETARY. The woman had had six normal pregnancies, while the seventh was complicated by pains in the legs and vomiting. In January, 1906, she was delivered of a dead child, and three days later signs of paralysis ensued and progressed till all four limbs were powerless. For four months retention of urine was present. Fifteen months after the onset the arms began to improve, but the fine movements of the fingers were later in reappearing. She again became pregnant, and in June, 1908, was delivered of a healthy living child. The pregnancy did not make the paralysis worse. The gradual improvement was maintained till, in June, 1910, the extensor proprius hallucis was alone paralysed, and, except occasional cramps, all the other symptoms had disappeared. The treatment consisted in the administration of arsenic and strychnine. Dr. BALLANTYNE said he had found only one similar case reported in the literature.

*The Nature of Achondroplasia.*

Dr. BERRY HART read a paper on the nature of achondroplasia, craniocleidodysostosis, and brachydactyly. Three points were to be cleared up: the loss producing the variation, the reason for its ratio transmission, and the locus of the production of the variation. In achondroplasia, the arms, legs, and ribs were short, and the basi-occiput was imperfectly ossified. These bones arose in early endochondral ossification. In craniocleidodysostosis there was a deficiency of early ossification in the bones developed in membrane. In brachydactyly the middle phalanx was represented by a small, cartilaginous nodule ankylosed to the first phalanx. According to Dr. Hart, in all three there was a deficiency of an exact group of characteristics or units. The individual who started the abnormality did so suddenly; he was a "sport," or, better, a mutation, and the variation was handed down to his descendants in a definite ratio. The best explanation of this was given by the Mendelian theory. Mendel showed that plants were made up of different unit characters—the unit of length, the unit of colour, and so on. If tall peas and dwarf peas were artificially crossed, the first generation were all tall. If now, these were allowed to self-fertilize, the second generation consisted of peas that bred in the ratio of three tall to one dwarf. Mendel failed to explain why the first generation were all tall, thus apparently failing to follow the law of probability. According to Dr. Hart, the Mendelian theory erred in referring the variations to the combinations of egg cells and pollen grains, and he was led to modify the theory. He postulated that each zygote or oöspore had two parts—a propagative part and a somatic part. When tall and dwarf peas were artificially crossed, all the first generation were tall in the somatic part, but in the propagative part the Mendelian ratio came out 1:2:1. Hence, even in the first generation the law of probability held in the propagative part, but not until the second generation in the somatic part. Dr. Hart then gave his views regarding the origin of the primitive germ cells. He held with Dr. Beard that they were not derived from the germ epithelium and the sperm epithelium covering the ovary and the testicle respectively, but arose from the early divisions of the zygote. The zygote was formed by the union of the matured ovum and the spermatozoon. What was the true significance of the maturation of the ovum? The primitive germ cell was possessed of a definite number of chromosomes, which varied in different species. In the round worm of the horse it was four, and in the human female it was said to be thirty-two. During the transit of the primitive germ cells along the developing embryo no mitoses took place. But after they had reached the genital ridge (a phenomenon observed by Ingals in a human embryo of 4.7 millimetres) and had settled there, the primitive ova or oöcytes began to show karyokinetic changes. These consisted of gross divisions of the chromosomes into fragments, and led to a circulation of the determinants of unit characters, which were contained in the chromosomes, in the definite probability ratio. In the maturation of the ovum, some of the chromosomes were thrown off in the polar bodies—a gross loss, or, as it was called, a mutation—and by this means was furnished another method of varying determinants. This gross loss explained the occurrence of achondroplasia and the other two variations. Definite units were lost—in achondroplasia the unit of length for the long bones of the limbs and for the ribs, and the unit for the ossification of the basi-occiput. As the zygote was deficient in these units, the primitive germ cells were also deficient in the same group, and so the variation became transmitted to the offspring. The instance of the free-martin, which was an identical twin with a potent bull and non-potent bull from the same zygote, proved that unit characters must be segregated in the zygote, and was not due to gametic segregation. Dr. Hart looked forward to the day when the human body could be regarded as made up of unit characters. For example, the skeleton contained three fundamental groups of characters: early endochondral ossification (long bones), development in membrane (cranial vault, half of clavicle), late endochondral ossification (spine, carpus, tarsus). Variations in their origin and transmission were automatic, and governed by the law of probability. Even when the power of transmission was absent—for example, in anencephaly—the variation still turned up automatically. In summing up, Dr. Hart said that gametic segregation, as assumed by Mendel, was wrong, and must be replaced by zygotic segregation of unit characters; the primitive germ cells were derived from a part of the zygote which was early set aside, and not from the germ epithelium; the mitoses of the nuclear chromatin brought about a circulation of the determinants of unit characters, and rendered possible variations in these unit characters which arose according to the law of probability; the gross loss of material in the maturation of the ovum rendered possible the sudden occurrence of such variations as achondroplasia and brachydactyly. Dr. BALLANTYNE said that he had tried to show in 1891 that anencephaly was due to a loss of the bones developed in membrane. He found many facts difficult to explain by the Mendelian theory—the birth of seven anencephalic children to one woman; the bearing of abnormal children to a first husband and of normal children to a second. The theory did not explain

variations of excess, such as an extra digit, or a third phalanx in the thumb. Drs. BARBOUR, RITCHIE, FORDYCE, and COWAN GUTHRIE also spoke, and Dr. HART replied.

*Specimens.*

A twin fetus anencephalus was shown by Dr. BALLANTYNE; and a uterus with submucous fibroids, removed from a girl aged 19, by Dr. HAIG FERGUSON.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

*Friday, January 6th, 1911.*

Dr. H. JELLETT, President, in the Chair.

*Pubiotomy.*

Dr. E. HASTINGS TWEEDY exhibited six of nine patients on whom he had performed pubiotomy. The PRESIDENT exhibited one. The three patients not shown lived in the country and could not be brought up to the meeting. They in no way differed from those shown. The most recent operation had been performed eight weeks previously, and four years had elapsed since the first was performed. All the patients walked without discomfort or limping, and had made uneventful recoveries. The PRESIDENT said that the case of pubiotomy which he showed was done shortly after his election to the Rotunda. He had not performed the operation before or seen it performed, and therefore, as he found it easy and the result appeared to be excellent, he considered that other people ought not to find any difficulty. Dr. Hayes's skiagram showed the condition of the bones very clearly. Dr. HAYES said he thought there was a great deal in favour of showing the negative instead of the reproduction of it, as in the latter a lot of the detail was lost. The first patient was Mrs. C. The line of incision through the body of the left pubic bone could be traced in the skiagram. There was bony union. The next negative was of a patient named Mrs. K, who was a patient of Dr. Jellett. The line of incision in this case was very well marked. It ran obliquely downwards and inwards towards the symphysis. There was no union in this case so far, but she was able to walk about already. The next case was Mrs. N. In this the negative showed a separation of the fragments by about $\frac{3}{4}$ in. in the left pubic bone, through which the incision was made. This patient had, of course, fibrous union. It was a question whether there was any absorption of the separated fragments, but certainly there was a great deal of separation between them. The next case, Mrs. G., had a symphysiotomy. The pubic articulation was indistinct, apparent from callus formation. The separation between the adjacent portions of the pubis was more marked below than at the upper margin. The next case, Mrs. D., had a pubiotomy and symphysiotomy. The pubic articulation was indistinct, apparently from callus formation. The incision through the left pubic bone could be seen to run vertically downwards. It could also be seen that the separated portion was in three fragments. Whether this was a fracture it was impossible to say, but it did seem something like a comminuted fracture. The articulation at the symphysis was indistinct in this case also. The next case was Mrs. O'T. The line of incision ran downwards and inwards. The upper and inner fragment of the left pubis had been cut off, resulting in fibrous union. This case was almost a symphysiotomy. The next case was Mrs. L. The line of incision could not be traced in this negative. There was no doubt of bony union there. The next case was Mrs. S. In this the incision went through the inferior ramus of the left pubic bone, and there was also bony union. Professor ALFRED SMITH said that from what he had seen demonstrated by Dr. Tweedy and also by the skiagrams of Dr. Hayes, a strong case had been made out, and it would require greater arguments to do away with the result. In reference to the skiagrams shown, in one of these there was a case of bony union which had a subsequent normal delivery. This was very interesting, as it showed what did really occur. In this case there was no evidence that there was any increase in the size of the pelvis. Sir WILLIAM SMYLY said the operation recommended itself to him very strongly. He certainly thought it a superior operation to symphysiotomy. It was both instructive and interesting to see those women there that night and how well they walked about. Dr. GIBBON FITZGIBBON said that in regard to one of the cases shown in Dr. Tweedy's series, in which he did a symphysiotomy, he remembered the case being done when he was Assistant Master in the Rotunda. That woman had had three children since, the second and third being born by the natural efforts, and one of these weighed 9 lb.; but in the fourth pregnancy an extraperitoneal Caesarean section had to be done. He asked was there any condition of the pelvis shown in the skiagram to account for this? The interval between the symphysiotomy and the section was four or five years, and he would like to know whether there was callus formation or other change in the pelvis which prevented the natural delivery of the fourth child. Dr. HOLMES said that with regard to union there was considerable doubt as to whether bony union was better than fibrous with regard to future delivery. Dr. NEILL said he knew a case of pubiotomy, and he had delivered the same patient on two previous occasions of healthy living children by induction of premature labour. Dr. TWEEDY and the PRESIDENT both replied.

## ROYAL SOCIETY OF MEDICINE.

MEDICAL SECTION.

*Tuesday, January 24th, 1911.*

J. MITCHELL BRUCE, M.D., F.R.C.P., President, in the Chair.

*The Auscultation of Joints.*

Dr. A. E. GARROD, in a paper on auscultation of joints, said the loudest noises produced in joints were generally in those least seriously affected. The knee-joints were especially adapted for this method of examination, but even the smallest joints were thus accessible. In cases of incipient osteo-arthritis sounds might precede all subjective signs. On the other hand, noiseless joints were by no means always healthy, as in the case of joints containing fluid. Tuberculous joints also were frequently silent, as also were those in the acute stages of osteo-arthritis, though many of the latter showed a "synovial crackle," indicating that the morbid process was periarticular. An osteo-arthritic "scrunch" he considered characteristic of fibrillation of cartilage and formation of osteophytes. A friction sound might be heard with eburnation of bone and in inflammation of tendon sheaths. The PRESIDENT and Sir JOHN BROADBENT asked as to any sound produced in gouty joints, and Dr. A. E. VOELCKER as to the risk of confusing sounds produced outside joints. Dr. GARROD, in reply, said that difficulties as to extraneous sound disappeared with practice. He had nothing to offer towards the discrimination of gouty joints by this method.

*Abdominal Movements in Pericarditis.*

Dr. W. ESSEX WYNTER said that the loss of abdominal respiratory movement in pericarditis depended, he considered, directly on an involuntary inhibition of the action of the diaphragm. An examination with the radiographic screen showed fixity of the diaphragm in the position of expiration. Several cases of clear pericarditis were described in which this phenomenon was apparent. In one alone of his series of cases of pericarditis abdominal movement was recorded as well marked. This diaphragm phenomenon might precede and outlast other signs of pericarditis. Limitation of abdominal movement was more marked in the fibrinous variety of pericarditis. It was less obvious in cases with effusion and absent in those with adhesion. Dr. PERCY KIDD said he had occasionally noticed loss of abdominal movement in pericarditis, and suggested that it might be more prominent in cases where the diaphragmatic surface of the pericardium was involved. Dr. ROBERT HUTCHISON said that rigidity of the abdomen did not occur in all cases of pericarditis, and also thought the explanation might be the involvement of the diaphragmatic surface comparable with the limitation of movements in diaphragmatic pleurisy. Dr. VOELCKER likewise alluded to the absence of this sign in some cases of pericarditis, and particularly to one case in which the only place at which friction sound could be heard was in the subcostal angle, suggesting a diaphragmatic position of the pericarditis, and yet abdominal move-

ment was perfect. The paper was also discussed by the PRESIDENT, Mr. M. A. CASSIDY, Dr. NATHAN RAW, Dr. JOHN FAWCETT, and Sir JOHN BROADBENT.

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## SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

*Friday, January 27th, 1911.*

Dr. E. CAUTLEY, President, in the Chair.

### *Cases and Specimen.*

THE following cases and specimen were shown: Dr. ERIC PRITCHARD: (1) *Intermittent word-blindness (congenital)* in a boy, aged 8½ years, who was both intelligent and dextrous. His vision was normal and his hearing good. He was slow at learning to read, but quick at mental arithmetic, and had no difficulty in reading Arabic numerals. He could recognize simple words when spelt aloud, but as a rule was quite unable to recognize the same words when written. On occasions, however, he could read simple sentences. He could write from dictation and copy written words, but did not understand their meaning unless he repeated the letters slowly or slowly performed the movements for writing them. Thus, though his visual memories for words and letters were defective, his auditory and kinaesthetic memories were good. The intermittent character of the word-blindness was suggestive that the condition was a psychosis rather than due to a defect in the visual word centre. (2) *Idioglossia* in a girl aged 9½ years. The child was prematurely born, and her mother's half-brother was a deaf-mute. She was 2 years old before her speech was intelligible. She was a bright child, who wrote and composed well. Her mental condition was normal, but her hearing was slightly defective. The vowel sounds were more or less correctly pronounced, but consonants presented a difficulty, C D T G being all pronounced Nee, H as Hay, J as Nai, S and X as Ai, V as Mew, Z as Ney, etc. Mr. H. S. CLOGG: Specimen from the case of *Necrosis of the lower jaw* shown at the last meeting. The child subsequently had abscesses on either side of the jaw, which were incised, and it was determined to remove the necrosed portion of the bone. The specimen consisted of the whole of the lower jaw except the inner shell of the ascending ramus and the condyloid process on the left side. In the place of the jaw the child now had a firm solid arch, but whether this was bone or not it was impossible to say. Dr. T. R. WHIPHAM: A case of *Enlargement of the liver* in a healthy-looking boy, aged 9 years, with no symptoms except slight jaundice. The liver was enormous, reaching down to the anterior superior spine of the ilium and to the umbilicus in the middle line, and extending below the left costal margin. In the epigastric angle was a large rounded swelling, which appeared to rise from the surface of the liver and was more elastic than the rest of the organ. The spleen at one time had been just palpable below the ribs. There was no ascites, and the chest was normal. There was no enlargement of glands anywhere. The blood showed an eosinophilia of 7.8 per cent., but no other marked changes. The boy presented no external signs of congenital syphilis, but there was a history of the mother having had three miscarriages. During the previous five weeks no change had occurred in the patient's condition, and his temperature had been normal. The general opinion was that the case was one of hydatid cyst, but diagnoses of gumma and hypernephroma were also suggested. Mr. S. STEPHENSON: *Embolism of the central artery of the retina* in a girl aged 11¾ years, with no signs of inherited syphilis. The patient had mitral regurgitation, but presented no evidence of mitral stenosis. On December 8th she had slight pain over the left eye, and the next morning found that the sight had gone. On examination there was no perception of light in the eye. The retinal arteries were filiform, and the yellow spot region was oedematous, with a red spot at the fovea. The disc was blurred by the surrounding oedema. The disc had gradually become atrophic, and the oedema had practically disappeared, so that the contrast between the fovea and the surrounding fundus was not pronounced. The arteries were still smaller than normal. When shown the eye had sufficient sight to distinguish between light and dark. Dr. K. KELLIE: (1) Two cases of *Infantilism*—(*a*) A girl, aged 4 years; weight 17 lb. 2 oz., height 29½ in. The abdomen was large, and suggested at first tuberculous peritonitis, but injection of tuberculin and von Pirquet's test were negative. The stools were large and greasy, showing that probably the pancreas was at fault. (*b*) A twin boy, aged 3¼ years; weight 16 lb., height 28 in. The patient could not walk, and could only speak a few words. The stools were frequent, foul and slimy. (2) *Persistent jaundice* in a male infant, aged 5 months. Jaundice had been noticed since the fourth day and had varied slightly in intensity. The motions were colourless. The liver was enlarged to three fingerbreadths below the costal margin. There was no history of syphilis. The diagnosis lay between congenital syphilis and congenital obliteration of the bile ducts.

### *Splenomegaly.*

Dr. PARKES WEBER read a paper on splenomegaly with recurrent jaundice ending in hepatic cirrhosis and ascites, with remarks on the splenomegaly of inherited syphilis in children. Various cases were described or referred to. From a study of his own and other cases, and from the literature of the subject, he came to the following conclusions: (1) Moderate splenomegaly in children, about the ages of 5 to 16 years, may be almost the only evidence of an inherited syphilitic taint, and is often accompanied by occasional (usually only slight) attacks of obstructive jaundice. (2) Hepatic cirrhosis, with or without ascites, may be associated with splenomegaly, and at the time of death is probably usually of the ordinary "hobnail" type. (3) Though it seems doubtful that the cirrhosis of the liver in these cases is of specific syphilitic origin, it is quite possible that the presence of an inherited syphilitic taint may diminish the resistance of the liver towards the action of toxins (including alcohol) and render it specially liable to cirrhosis. (4) The inherited syphilis in such cases need not necessarily be associated with retardation in general physical development. (5) Great caution must be employed with regard to antisyphilitic, especially mercurial, treatment, probably on account of the general delicacy of the patients and their liability to renal and catarrhal complications. (6) There may be very little real anaemia, or none at all. There may even be more or less polycythaemia, probably of "reactive" nature. (7) Abdominal crises (pain, etc.) may occasionally occur. (8) Some cases of familial splenomegaly in two or more brothers and sisters may perhaps be dependent on inherited syphilis. (9) Splenomegaly in children may be the most important sign of the presence of hepatic cirrhosis. (10) Some cases of splenomegaly in children with inherited syphilis probably ultimately present the characteristic clinical features of splenic anaemia, or Banti's disease.

### *Ulcerative Stomatitis in Children.*

Mr. S. F. ROSE read a paper on ulcerative stomatitis in children, laying stress on the typical distribution of the lesion on one side of the mouth and the efficacy of potassium chlorate as a means of treatment. The disease occurred for the most part in ill-nourished and neglected children, and is frequently started by one or more loose or septic teeth.

The cases and papers were discussed by the PRESIDENT, Dr. G. DE B. TURTLE, Mr. MILNER BURGESS, Dr. PORTER PARKINSON, Dr. W. CARR, Dr. G. A. SUTHERLAND, Dr. E. PRITCHARD, Dr. J. D. ROLLESTON, Dr. F. LANGMEAD, Mr. S. STEPHENSON, and Dr. PARKES WEBER.

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## SECTION OF OTOLOGY.

*Friday, January 20th, 1911.*

Mr. ARTHUR CHEATLE, President, in the Chair.

MR. C. E. WEST, in a paper entitled, *The bacteriology of chronic post-nasal catarrh* (a preliminary study from 50 cases), said the material for examination was obtained by means of a specially devised post nasal cannula shielding a sterile swab, which could be made to protrude when the cannula was in the naso-pharynx, and could be withdrawn into its sheath before the instrument was removed from the mouth. Pneumococci were found in nearly 70 per cent., and were predominant in 36 per cent. Streptococci (undifferentiated, were isolated in 24 per cent. *Staphylococcus aureus* occurred generally with pneumo-

cocci and streptococci in 26 per cent. Friedlander's bacillus was found in 12 per cent., being predominant in 6 per cent. *Micrococcus catarrhalis* appeared in 10 per cent. After contrasting these with control cases, the author concluded that the flora did not appear to differ materially in kind from that met with in the average naso-pharynx. He hoped by further researches to furnish data on which broader deductions could be based. Dr. MILLIGAN (Manchester) described two cases of *Otitic cerebellar abscess* which recovered after operation, and two cases illustrating the surgery of labyrinthine infections. Mr. CHEATLE showed a patient with an exostosis in the tympanic cavity, and, in conjunction with Mr. G. J. JENKINS, described a case in which disease in a large sinus tympani caused persistence of discharge after the radical operation, and in which caloric tests were applied by a copper conductor, and ethyl chloride sprayed to the exposed inferior crus of the posterior semicircular canal. Mr. CHICHELE NOURSE showed a boy who had recovered from a localized infection of the lateral sinus without ligature of the jugular vein. Dr. CATHCART described the application of Bier's treatment in a case of acute suppurative otitis media with signs of mastoiditis. Dr. MACKENZIE demonstrated Bárány's *Lärm apparat* upon a man with apparently absolute unilateral deafness due to an unknown cause.

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SECTION OF THERAPEUTICS AND PHARMACOLOGY.

*Tuesday, January 17th, 1911.*

Dr. W. E. DIXON in the Chair.

*Autoinoculation in Medicine.*

DR. CLIVE RIVIERE read a paper entitled "The Rôle of Autoinoculation in Medicine: a Plea for its Rational Extension." He held that, apart from the local application of heat by poultices and fomentations, which were acknowledged examples of "empirical vaccine-therapy," the physician had in many directions been unconsciously using the weapons of the vaccine-therapist. The two processes necessary for the resistance of bacterial invasion were irrigation of the infected part with plasma, and the development of specific antibodies by autoinoculation, and it was suggested that the real action of many drugs depended on an encouragement of these processes. The contention was illustrated by reference to the action of expectorants in the treatment of bronchitis, of ipecacuanha in dysentery, and in some catarrhal conditions of the intestinal tract, and of terebinthinates, copaiba and cubebs in infections of the urinary tract. The relative advantages of "autoinoculation" and "direct" injection of vaccines were discussed, and the suggestion made that the administration of emetics and purgatives in gastro-enteritis, and the application of massage to the abdomen in tuberculous peritonitis or increased negative pressure during inspiration in bronchitis, were essentially methods of "irrigation" and resulting "autoinoculation." The paper was discussed by Dr. SPRIGGS, Dr. BAINBRIDGE, and the CHAIRMAN.

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## MANCHESTER PATHOLOGICAL SOCIETY.

*Wednesday, January 18th, 1911.*

Mr. J. W. SMITH, Vice-President, in the Chair.

*Skin Pigmentation.*

DR. W. DYSON gave an account of some researches on skin pigmentation, and showed by means of the bichromate-haematoxylin method of Lorrain Smith and Mair that pigment was always formed as part of a complex granule which contains a lipoid substance. These granules were present constantly in the basal epithelial cells, being formed there under the influence of the nucleus as a part of the normal metabolism of the cell. The pigment was in origin a lipochrome, the melanin being the chromatic proteid portion after separation from the complex lipoid granule. He found no evidence of pigment formation in the cutis, but showed sections which illustrated the passage of lipoid substances from the epidermis into the cutis along lymphatic channels. An increase of pigment, he said, could take place in two ways: (1) By the stimulation to increased activity of the epidermal cells by various agents (light, heat, toxaemic conditions, etc.). This pigmentation was transitory in character, and if the stimulus ceased the pigment gradually disappeared. (2) By deficient drainage, due to obstruction of the lymphatics of the cutis. The normal amount of pigment being formed, it was unable to escape as quickly as it was elaborated, and therefore accumulated. This form of pigmentation was permanent, and had a tendency to become progressively worse.

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## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

*Friday, January 20th, 1911.*

Dr. W. K. WALLS, President, in the Chair.

THE following were among the exhibits: Dr. DONALD (Manchester): *Tuberculous ovaries, tubes, and uterus* removed from an unmarried girl, aged 18. The symptoms were mainly continuous uterine haemorrhage for three months, with pelvic discomfort. There was some loss of flesh, but not very marked. Examination revealed a tense swelling in the pouch of Douglas continuous with a tender mass in the right iliac region. On opening the abdomen (July 27th, 1910) two ovarian abscesses were found firmly united to one another, to the uterus, and surrounding structures. Six months had passed since the removal of the parts shown, and the patient was in good health. Dr. HELLIER (Leeds): *Dermoid cyst of right ovary*, with a simple cyst of left broad ligament and bilateral papillomatous ovarian disease, all removed from a single woman, aged 46, with a history of abdominal tumour, pain, and some loss of flesh for some months past (operation, January 11th, 1911). Dr. W. K. WALLS reported a case of *Caesarean section under spinal (stovaine) anaesthesia* undertaken on account of mitral stenosis and kidney disease, which rendered the patient a bad subject for general anaesthesia. The operation was performed when the patient was about eight months pregnant, as there was great dyspnoea, accompanied by marked waterlogging of the lungs, general oedema, and a large amount of albumen in the urine. The patient made a good recovery, and her general condition was greatly relieved. The baby died in a convulsion when three days old. Dr. WILLIAM FLETCHER SHAW (Manchester): A case of apparently double ovarian abscess which occurred in a patient without any rise of temperature or pulse, or general malaise. The walls of the abscess cavity were hyperaemic, but showed no granulation tissue. The contents were chiefly colloid material, with a good number of leucocytes; no micro-organisms were found. He raised the question whether these apparent abscesses occurring without general symptoms were really due to micro-organismal infection, or whether they were simple cysts which had rapidly enlarged and their contents merely assumed the appearance of pus. Dr. A. J. WALLACE (Liverpool) related two cases in which manipulations carried out to effect delivery had produced serious lacerations of the parturient uterus:

A primipara, aged 31, was sent into the Maternity Hospital with the history that labour had begun forty-eight hours previously; the midwife summoned medical assistance, and then attempts were made to deliver first with forceps, then by version. It was thought that a tough fibrous band divided the uterus into two halves, and this prevented delivery. The patient was suffering from profound shock, pulse 140, and there was some vaginal bleeding. A deep tear was found in the posterior vaginal wall, the cervix was badly lacerated, and the anterior aspect of the retraction zone was torn away from its attachments, the retraction ring forming the band described. A leg was brought down and delivery effected, but the patient's condition did not warrant further interference, apart from her being "suspect" as regards infection. Death occurred three days later from sepsis.

The second case was that of a woman, aged 40, who had had five children. At the onset of labour a breech presentation was converted into a vertex by external version. Inertia uteri was present throughout, necessitating manual dilatation of the cervix and forceps.

On recovering from the anaesthetic the patient complained of agonizing abdominal pain, tympanites developed and increased, neither faeces nor flatus being passed, whilst the pulse-rate remained at 120. Dr. Wallace saw her forty-eight hours later; the vaginal portion of the cervix was intact, but a tear through the lower uterine segment opened into the left broad ligament, the lamellae of which were widely separated by blood and clot. Through the posterior lamella there was a rent leading into the peritoneal cavity. When the abdomen was opened much blood and clot escaped. Abdominal hysterectomy was performed, and the patient recovered after a stormy convalescence.

# Reviews.

## THE CLINICAL STUDY OF TUBERCULOSIS.

THE stimulus given to the study of tuberculosis in all schools of medicine by the international endeavour to stamp out the disease has resulted in an enormous accumulation of literature. Indices and *Centralblaetter* have hardly been able to keep pace with the scattered output in many different tongues, and the concentration of all that part of our knowledge upon which there is a general agreement is greatly to be desired. In a large work which they describe as a handbook of general tuberculosis for practitioners and students,[1] Drs. BANDELIER and ROEPKE have brought together a great deal of information on the diagnosis and treatment of the disease as it affects individual organs or groups of organs. Written for practical use, it is essentially clinical in tone, and should be found useful as a book of reference, when aid is required in doubtful cases. The authors have had much practical experience as directors of sanatoriums, and have already collaborated in the production of a large work on the specific diagnosis and treatment of tuberculosis, a notice of which appears on page 265, and has achieved the distinction of five editions in three years. In the present book, dealing systematically with the disease as affecting groups of organs, there must needs be a good deal of repetition, and, indeed, on the subject generally it is difficult to find anything new to say. But in the instillation of medical facts, as also in political fictions, repetition is a necessary element. The solid facts of tuberculosis are gradually becoming absorbed by the public mind, but many years of patient reiteration on the part of medical instructors will be needed before effective precautions become universal. The authorities have fortified their own knowledge by reference to bibliography containing 182 names, but among them it is difficult to find any but German authorities, and one looks in vain for any representative of our own schools. The value of Wright's work, although incidentally referred to, is obviously depreciated from the clinical point of view, and the same may be said of the views of Wassermann and Bruck, which are classed as untrustworthy.

Treatment, rather than scientific study, of the disease in all its manifestations is the avowed object of the book. The authors have often expressed themselves as staunch upholders of tuberculin treatment in association with hygienic measures, and it is satisfactory to note that their enthusiasm for it does not blind them to its disadvantages in certain cases. On this point alone the indications given should make the whole work valuable for reference in practice, but it abounds in useful hints and warnings which stamp it as the outcome of a knowledge of men and things, and not merely a compilation of bookwork. It is satisfactory to note that the ideas of a few years ago as to the value of forced feeding have given place to rational and scientific study of the needs of each particular organism. The practical value of psychical treatment is fully recognized, although the authors' advice to let the patient know the full extent of his trouble, as a means of securing his willing co-operation with the doctor, is not always consistent with the desire to maintain his cheerfulness and optimism.

The relative degree of susceptibility present in any patient must of necessity influence treatment, and hence no common rules can be laid down for all, and this is particularly important to bear in mind where injections of tuberculin are to be used for treatment. Caution should be the watchword not only in the selection of cases for injection, but in the earlier dosage and in the source of the tuberculin to be used. Emulsions of uncertain origin should be rigidly excluded.

The authors appear to hold that sanatorium treatment, combined with the persistent use of tuberculin, forms the most successful means of combating all forms of tuberculosis at the present day. A useful list of all the public and private sanatoriums now recognized in Germany is appended, and the approximate cost of living in each is noted. In many of them the charges will be found to be considerably below those usually made in this country.

In the latter part of the book the disease as affecting individual parts and organs is described seriatim. Tuberculous disease of the upper air passages is discussed, but mainly by quotation from a very trustworthy source, the late Dr. Moritz Schmidt. The diagnosis and treatment of abdominal tubercle is always difficult and is open to many errors; the use of diagnostic injections of tuberculin may serve to distinguish between tubercle and cancer, but the reaction following on injection is apt to be severe even with minute doses. A certain number of observations have been made in a few cases of mixed tuberculous and syphilitic infection as to the value of "No. 606"; they appear to have given favourable results and, doubtless, further trials will be recorded.

Chapters on scrofulosis and on tuberculosis in children conclude the work, which will not only be found useful as a book of reference in daily practice, but interesting also as an epitome of modern knowledge on the subjects as it presents itself to the German schools of the present day.

## FRACTURES AND DISLOCATIONS.

IN the introduction to his book on *Fractures and their Treatment*,[2] Mr. HOGARTH PRINGLE braves the charge of paradox, and declares his subject a new one. Of making many medical books there is evidently no end, but in this instance much learning is not a weariness of the flesh; it is a necessity of surgical existence. It may almost be said that the *x* rays have done for the surgery of broken bones what the microscope did for biology. A new world of exact knowledge has been opened up; refinements of diagnosis extending to minutiae of detachment and displacement, at one time—and not so long ago—undreamed of, are now within the terms of "reasonable skill and care." The new knowledge has led, as might be expected, to conflict of opinion, that still rages furiously, as to the indispensibility of exact existing anatomical form for perfect service of mechanical requirements in the skeleton. Is there to be a slavish submission to a demand for exact restoration of normal outline, or will it be enough to secure restoration of function, good useful limbs, and leave the question of form to the operations of those forces which originally determined the outline? In the meantime, fractures must be treated day by day, and, curiously enough, bones are healed and useful limbs restored in spite of the unsettled state of these philosophic theorizings. Mr. Pringle has seized the opportunity and written a good working textbook of British practice. It is big enough, but not too big, for a student to master. It is excellently printed in large type well displayed; the illustrations are not too elaborate, and are of practical utility. The author, in the matter of treatment, is an eclectic. He despises nothing traditional because it is old, but he has the resource of a mechanic in adapting simple appliances to exert the desired stresses. The old-fashioned Liston's splint, Syme's, Dupuytren's, and the "gallows" splints lose none of their virtues in the descriptions of their use found here; on the other hand, the extended use of multiple extension stresses in connexion with them, adapts them to the requirements of modern exact knowledge as to displacement. The virtues of the malleable iron splint do not, perhaps, receive their due meed of praise, but the advocates of operation upon simple fractures will find a sympathetic, if discriminating and cautious, exposition of its legitimate employment. Mr. Pringle's style is simple and direct. It is well suited to an account of complicated injuries, even if it does not rise to the heights necessary to make intelligible the obscure processes by which callus becomes bone. There is a chapter dealing with fractures in relation to the Workmen's Compensation Act, and useful tables compiled from German and French sources of the percentage disability involved by injuries. A bibliography completes a very sound and useful textbook.

What Mr. Pringle has done for British students has been done rather more elaborately, and with a curious restriction, for American students, by Dr. COTTON in his *Dislocations and Joint Fractures*.[3] What the fractures in

[1] *Die Klinik der Tuberculosis.* By Dr. B. Bandelier and Dr. O. Roepke, of Melsungen and Schoemberg. Würzburg: Curt Kabitzsch. 1911. (Sup. roy. 8vo, pp. 483. M. 9.50.)

[2] *Fractures and their Treatment.* By J. Hogarth Pringle. London: Henry Frowde, and Hodder and Stoughton (Oxford Medical Publications). 1910. (Roy. 8vo, pp. 396; illustrations 142. 15s.)

[3] *Dislocations and Joint Fractures.* By F. J. Cotton, A.M., M.D. Philadelphia and London: W. B. Saunders Co. 1910. (Roy. 8vo. pp. 654; 1,201 illustrations, 830 from drawings by the author. 25s.)

the middle of the shafts of long bones have to their credit that they should obtain no attention is difficult to see. Suffice it to say that, after all, the book covers almost the whole field, and does it extremely well. Dr. Cotton set himself the task of writing his monograph entirely on the results of his own and his immediate colleagues' experience. Afterwards he amassed the literature, and made as little use of it as he could help. Tradition, training, and a common material, notwithstanding the new aspect under which surgeons with the *x* rays at command for ten years, now view the subject, preclude any very drastic changes either in the description of classical bone injuries or in treatment. At the same time, the fruits of the method do appear in the fresh and practical turn given to such stereotyped knowledge as surrounds, for example, dislocations of the hip. It is impossible to traverse the whole field under the guidance of the author, but a few of his generalizations may be indicated. He is at one with the estimate of the *x* rays frequently indicated of late in these columns, that their proper sphere is not as a means of making a preliminary diagnosis, but as a court of appeal from clinical evidence, and especially as a test of effectiveness of reduction—a check upon after-treatment. Dr. Cotton does not feel, perhaps, as surgeons feel over here—that, if for no other reason, he must have a radiogram straight away to protect himself; but he does realize that *x* rays are better left in the hands of surgeons who understand them, and not allowed in the hands of patients or the patient's friends. That the author is no enthusiastic advocate of operating upon simple fractures is just possibly explicable by reason of his adherence to staples as a means of fixation, but there is plenty of indication in these pages that he has given the method full trial. He has found, for instance, as others have, that cases with original defect of callus take unusually long time to unite even after operation. He refers covertly to Lucas-Championnière when he says "it is not necessary to follow the frenzied lead of some of the French" in the use of massage and passive movement to the exclusion of absolute fixation. The author is no mean artist, and has aimed at making his illustrations an integral part of the text. Since many of the pictures relate to the details of manipulation, his intention was happy and his success is considerable. With adequate opportunities for putting his instructions into practice or watching their use, no student can fail to make himself so competent that the number of his cases requiring open operation shall not be above the minimum. The section on dislocations and fracture-dislocations of the vertebrae is a very good sample of the book. The radiograms are good, the photographs of attitude are good, the figures showing the positions and the grips for reduction are satisfactory, and the sixty-five pages devoted to the subject give ample room for the inclusion of all recent additions to our knowledge of the injuries. If there is a defect in the book it is that the splints needed in treating joint fractures receive rather scanty illustration. Certainly, Americans will not be the only readers of this excellent work.

Unlike the other volumes, Professor STIMSON'S *Practical Treatise on Fractures and Dislocations*[4] has already proved its value by running through five editions. It is, indeed, a standard work on the subject. The sixth, revised and enlarged, edition is an invaluable work of reference upon the rarer fractures which even those of large experience can see but seldom. A good deal of the new matter deals with fractures and displacements of the bones of the carpus and tarsus. Since we have learnt how to diagnose fractures of the carpal scaphoid it has been found that the injury is by no means uncommon. Most surgeons have had to excise the fragments in old-standing cases, and have been gratified by the excellent results obtained even at very late dates. Similarly with dislocations of the semilunar bone; with or without fracture of the radius it is not infrequent, and the diagnosis can be made before radiograms are taken. The habit of radiographing all "sprains," if practised for a short time, will reveal a remarkable number of fractures, not only in the small bones, and will certainly suggest reflections on the number of cases that have got well in the past without rigid immobilization. The perusal of these pages will throw additional light, even for those who have taken the trouble to do this, upon the minutiae of diagnosis and prognosis, as well as upon treatment. Three conditions receive notice for the first time—fracture of the floor of the acetabulum, fracture of the internal epicondyle of the femur, and backward dislocation of the lower jaw; none of them is of very great importance, though it is worth noting that with the first of these injuries it may be still possible for the patient to walk immediately. The author has very little to say about operative methods, except for such undebatable conditions as fractured patella. He has not been greatly impressed by the "no splint and early massage" plan or by the "ambulatory" treatment of fractures of the lower limb, for which he thinks the claims made cannot be substantiated. There are a good many new radiographic plates in this edition. In spite of younger rivals the treatise will certainly command a wide circle of readers.

[4] *A Practical Treatise on Fractures and Dislocations.* By Lewis A. Stimson, M.D., LL.D., Professor of Surgery in Cornell University. London: Henry Kimpton; Glasgow: Alexander Stenhouse. 1910. (Roy. 8vo, pp. 896; 65 plates; 361 illustrations. 25s. net.)

## IONIZATION IN SURGERY.

A PART of the book on *Ionic Surgery in the Treatment of Cancer*,[5] by Dr. BETTON MASSEY, of the American Oncologic Hospital, has already appeared in the *Archives of the Roentgen Ray* and other periodicals, so that his work is probably familiar to those specially interested in electrotherapeutics. The author now appeals to a wider public, and presents his method as a well-tried and successful agent. Briefly stated, it depends upon cataphoresis or ionization by powerful currents, producing its major effects by massive sloughing, and depending for its ultimate success upon "sterilization" of an outlying zone by diffusion of mercury ions, and by exciting phagocytosis; it is claimed also that the "absorbents"—presumably lymphatic and other vessels—are obliterated. "As compared," he says, "with excision by the knife, this method presents the following advantages: The cancer cells or germs are killed *in situ* at once and the surrounding absorbents sealed, preventing the operative reinfection of the cut edges. . . . it may be depended on to destroy infected glands in the axilla (not too close to the axillary vessels) more thoroughly than incision. . . ." The weakest part of the book is the account of malignant disease. It is not that the statements made are obviously wrong, but it seems to date from some ten years ago, or about the time when Plimmer's bodies were fashionable. When it comes to apparatus, the author is in his element. A good deal of the necessary instrumentation has been devised by him for the special requirements of his work, and reveals him as a man of practical resource, who has encountered and overcome many difficulties. Whatever is to be said about the permanent value of the method, it cannot be denied that there is every opportunity for a fair and thorough trial. There is a spice of danger not to be neglected. All sloughing methods admit the possibility of secondary haemorrhage, but here there is also the pernicious influence of currents of high voltage and considerable ampèrage (up to 500 or even 1,000) on the great nerve trunks, particularly the vagus. The precautions advisable are clearly indicated. It is an obvious disadvantage that a method should not be applicable to cancer of the *left* breast (at any rate in its "major," or full strength), because of the proximity of the heart. The author is under no serious delusions. He recognizes the field of the knife, though surgeons would find ample reason to war with him on the frontier question. He thinks, for example, that "early or doubtful" nodules in the breast are better treated by ionization—an opinion open to controversy from several points. He gives the case-histories of a large number of his patients, and illustrates a good many. Not a few of them stimulate scepticism; but, these apart, there remain so many cures and ameliorations that his claims deserve serious consideration. He seems to have his greatest success with rodent ulcers and epitheliomata of the face, but breast, tongue, tonsil, and uterine cases figure freely.

[5] *Ionic Surgery in the Treatment of Cancer.* By G. Betton Massey, M.D. New York: The A. L. Chatterton Company. 1910. (London agents, Siegle, Hill and Co.) (Roy. 8vo, pp. 258; 2 plates, 80 illustrations. 13s.)

## PHOTOGRAPHY IN COLOURS.

THE worker in colour photography will find in *Photography in Colours*[6] an ample fund of information on both the scientific and practical sides of his art. All the various processes are described; the structure of the different colour plates is shown by photomicrographs of the coloured starch grains, lines, dots, etc. The text is amply illustrated by diagrams, both coloured and otherwise, and the development and after-treatment of the plate in each process are described, and practical details which leave nothing to be desired are given. In addition, there are three beautiful full-page reproductions of colour photographs. Most workers will, we believe, agree with Mr. LINDSAY JOHNSON that the autochrome plate gives the purest rendering of colour and the greatest gradation of shades. In our experience there is no shade of colour and no texture of surface, from the glitter on gilded armour to the polish of ivory, which cannot be faithfully reproduced by an autochrome plate. The applicability of colour photography to medicine and allied sciences is not discussed in this work, and in fact has not yet received adequate attention. Most beautiful autochrome photomicrographs of blood films, stained sections, stained bacteria, etc., can be obtained, whilst the representation of skin diseases and of tumours and other morbid conditions offers a wide field for colour work. A good autochrome of a leukaemic blood film gives a faithful picture of the coloured granules in the various leucocytes, and can be projected on the screen in all its original brilliancy. The main objection to the autochrome picture is its density, but, as the author points out, this is largely a question of correct exposure and practised development. If the finished plate be mounted in Canada balsam, the brilliancy is enhanced, and the resistance to the heat of the lantern increased. It is to be hoped that the author's anticipations of obtaining successful prints from coloured photographs will be speedily realized on the lines of the bleaching-out process elaborated by Dr. Smith. The chapters dealing with the production of colour prints and kinematography in colour are clearly and concisely written and plentifully illustrated. Chapter II, dealing with the physiology of the eye, colour sensation, and colour blindness, and containing much matter for controversy, suffers from condensation, but this is the less to be regretted, as it is more or less foreign to the subject of the work. We feel sure that the author of this admirable textbook will pardon us if we recommend the amateur, for whom it is written, to consult the extended literature of the subject before accepting in their entirety the theories of retinal image formation and colour sensation promulgated therein.

## NOTES ON BOOKS.

THE little work, *How to be Healthy*,[7] is advertised as containing "splendid lessons on health, temperance, moral instruction, etc." For our part, we would feel inclined to take a less exalted estimate of these lessons. In places they engender the dread suspicion that the Mr. Barlow of our youth had revived and turned his attention to elementary hygiene and kindred subjects. It may be said, however, that neither the perusal nor recital of the little book will interfere with juvenile sleep. It is harmless enough, and may even be of some slight use with a limited section of childhood.

During some years past there has been an increasing demand for domestic nurses with some previous training and knowledge of infants and children. For those wishing to undertake such a career *The Nursery Nurse's Companion*,[8] by HONNOR MORTEN, can be recommended, as it gives details of the various institutions where such training can be obtained, its duration and cost. In addition there are chapters on such subjects as the care of infants, the management of the nursery, children's diet, children's clothing, the management of children, children's amusements, ailments and accidents, and others. On the whole these subjects are dealt with judiciously, and the advice given well adapted for the class for whom it is intended. It may be said, however, that the evils of masturbation in children are sufficient of themselves without the addition of gross exaggeration of its results, and that serious cases of mercurial poisoning have occurred in institutions where white precipitate ointment has been used for pediculosis in the absence of medical supervision.

Mr. NARRAMORE'S little book, *Preliminary Physiology*[9] is not intended for the student of medicine, but it provides a trustworthy guide to the schoolboy and the schoolmaster interested in very elementary science. There is really very little physiology in it; it is mainly concerned with giving an outline of the structure of the body. The illustrations are well selected and well executed, though we think that the reproductions of photomicrographs are hardly suited for the kind of student who will use the book—a student who, as a rule, has but little practical acquaintance with the use of the microscope. Outline drawings are much more intelligible, and therefore much more useful to this class of pupil.

[6] *Photography in Colours: A Textbook for Amateurs.* By George Lindsay Johnson. London: Ward and Co. 1910. (Cr. 8vo, pp. 151; 8 plates. 3s.)

[7] *How to be Healthy: A Book for Young Readers.* London and Edinburgh: McDougall's Educational Company. (Cr. 8vo, pp. 64, illustrated. 5d.)

[8] *The Nursery Nurse's Companion.* By Honnor Morten. London: Mills and Boon. (Cr. 8vo, pp. 149. 1s.)

[9] *Preliminary Physiology.* By William Narramore, F.L.S. London: Methuen and Co., Ltd. 1910. (Cr. 8vo, pp. 239; illustrations 103. 3s. 6d.)

## MEDICINAL AND DIETETIC PREPARATIONS.

*Iodival.*

VERY many attempts have been made to prepare organic compounds of iodine which should permit of this drug being given in sufficient doses without the disadvantages attending the use of the alkali iodides. We have received samples of such a compound introduced by Messrs. Knoll and Co. (8, Harp Lane, London, E C.) under the name "iodival"; this is stated to be iodo-isovalerianyl-urea, $C_4H_8I.CO.NH.CO.NH_2$, which contains 47 per cent. of iodine. It is claimed that by the administration of this compound not only can iodine be given without alkali-metals, the substance passing unchanged through the stomach and being absorbed from the intestine, but also that iodine is carried to the nervous and fatty tissues to a much greater extent than when given as an iodide. The samples submitted were in the form of tablets containing 5 grains each, white, having a slightly bitter taste and a faint valerian-like odour, scarcely at all soluble in hot water or dilute acid, but almost completely soluble in alkali; after boiling the alkaline solution, addition of acid and an oxidizer liberated iodine in large quantity.

*Witch-Hazel Soap.*

Although definite active principles have not been identified in distilled extract of witch hazel, the favour in which it continues to be held is evidence of its possessing a beneficial action. To the many preparations of this extract intended for application to the skin there must now be added a toilet soap which Messrs. Armour and Co., Limited (Atlantic House, Holborn Viaduct, London, E.C.), are putting forward under the name "certified" soap. The samples examined by us show it to be a white soap, free from uncombined alkali, giving an excellent lather, and very agreeable in use.

## THE ROYAL SOCIETY OF MEDICINE.

A SPECIAL general meeting of Fellows of the Royal Society of Medicine was held at the Steinway Hall, Wigmore Street, London, on January 31st, with the President of the Society, Sir HENRY MORRIS, in the chair.

A memorandum on the society's new premises, signed by Sir Henry Morris, stated that on October 28th, 1910, the council of the society entered into a contract for the erection of a building of three stories—that is, ground floor and first and second floors—at a cost of £27,286. This building included ample meeting room and sufficient library accommodation to last for many years—indeed, for as long as the present lease. The question of a third and a fourth floor was left undecided, but the council reserved the right to order an additional or third floor, according to the approved plans and at a fixed price (£2,051), and also the right at a later date to order another or fourth floor, according to plans approved, at a price fixed (namely, £2,347)—that is, at a total cost of £4,398 for the two additional floors. When the contract was signed, the council did not feel justified in incurring more expense than was absolutely necessary for the immediate needs of the society. It hoped that, before the limit of time fixed for the notice to be given for a third floor had arrived, it

might be in a position to order an additional floor or floors, if thought advisable. A third floor would provide a more spacious common-room for the use of Fellows, a room in which to conduct the examination of morbid growths and other specimens, a room for the use of the President and Presidents of Sections, a Secretaries' room (including writing and conference conveniences for the Sectional Secretaries), and a Fellows' smoking-room. Some, or all of these rooms would also, when required, provide additional storage for books. These rooms were all desirable for the full and satisfactory working of the society from the outset, and should be provided if possible. If the notice to erect the third floor was given on or before February 7th, the cost would be £2,051. If the additional floor was built now, and the Fellowship of the society increased and new sections were formed, it would certainly become necessary within a few years. The cost would then be at least £4,000, and the building operations would necessitate the closing of the society's house for nine months or longer. The council was of opinion that the erection of the third floor was desirable, but sought to ascertain the opinion of the Fellows before giving notice to the architect. The total cost of the building would then be under £30,000. The building fund at present stood at a total of between £10,000 and £11,000, made up as follows: Donations and subscriptions already received, £6,725 16s.; donations and subscriptions promised, £2,519 18s.; debentures surrendered, £1,450. As only 678 Fellows and Members had contributed, the council appealed to each of the remaining 2,700 to help by subscribing a sum of from 1 to 5 guineas annually for three or five years. In this way a large portion of the balance required might be provided before the building was finished. It should be remembered that before the amalgamation many Fellows belonged to several societies, and paid in annual subscriptions—few less than £5 5s., many as much as £10 10s., and even more. As these Fellows now obtained much greater advantages for a subscription of £3 3s., it was hoped that they would make a special effort in the manner suggested, or in some other way, to bring up the Building Fund to the requisite amount.

Sir HENRY MORRIS said that the council considered that it was desirable that the additional floor should be added, and the present meeting was called to consider the matter a week before the time that notice had to be given. He wished to emphasize the fact that there was no thought of making the new premises in any sense a club house; the building was to be entirely devoted to scientific purposes. Assuming that the Fellows wished to erect the third floor as suggested, he wished to point out that the financial position of the society was quite sound.

Sir THOMAS BARLOW, President of the Royal College of Physicians, moved a resolution confirming the decision of the council as to the desirability of building an additional story. He said that he was glad to hear that it was intended that the buildings should be altogether for scientific purposes and not in any sense of the word a club.

Mr. BUTLIN, President of the Royal College of Surgeons, in seconding the resolution, pointed out the advantages enjoyed by Fellows of the society for an annual subscription of three guineas. If the Fellows would not agree to pay a larger subscription, he suggested that the entrance fee might be raised, and future subscriptions put at a higher rate. Otherwise he hoped the members would accede to the invitation of the council, and give to the Society an annual sum for a certain number of years in order to help the building of the proposed new story.

Mr. G. H. MAKINS, in supporting the resolution, said that if the new story were provided it would lead to additional members joining.

Dr. THEODORE WILLIAMS suggested the formation of a special appeal committee for the raising of funds.

After Dr. J. G. DUNCANSON had spoken, Mr. L. A. BIDWELL addressed the meeting on certain financial questions.

Sir WILLIAM CHURCH explained that the particular financial method followed by the society was necessitated by the importance of keeping the society going on the present subscription paid by the Fellows.

The resolution confirming the decision of the council as to the desirability of building an additional story was then put to the meeting and carried *nemine contradicente*.

## LONDON WATER.

### EXPERIMENTS WITH TYPHOID BACILLI.

ON January 27th the sixth report on research work was presented to the Metropolitan Water Board by Dr. A. C. Houston, Director of Water Examination. It deals with the comparative vitality of "uncultivated" and "cultivated" typhoid bacilli in artificially-infected samples of raw river water with special reference to the question of storage. In a previous report it was shown that when a large number of typhoid bacilli, previously grown on agar cultures, were artificially added to raw river water "stored" in the laboratory in partially-filled glass-stoppered bottles, the vast majority of the typhoid bacilli perished within one week. Thus in eighteen experiments, with an average initial number of 1,606,673 per c.cm. of river water, the average number one week later was only 531 (99 9 average percentage reduction). A few specially resistant bacilli persisted for several weeks either in 1, 10, or 100 c.cm. of water. In the 18 experiments, the *final* extinction of the typhoid bacillus, as judged by inability to isolate it from 100 c.cm. of water took place in the following periods:

| | | | |
|---|---|---|---|
| In 4 out of the 18 experiments | | | in five weeks |
| ,, 7 | ,, | ,, | six ,, |
| ,, 11 | ,, | ,, | seven ,, |
| ,, 16 | ,, | ,, | eight ,, |
| ,, 18 | ,, | ,, | nine ,, |

These experiments were artificial in two ways: In the first place, they were necessarily conducted in the laboratory in bottles, instead of in the open air and in reservoirs. Secondly, they were artificial, inasmuch as "cultivated" instead of "uncultivated" bacilli were used. By "cultivated" bacilli is meant typhoid bacilli which have been transported from their parasitic mode of growth, in the juices of the animal body, and induced to adopt a saprophytic existence in artificial cultures in the laboratory. By "uncultivated" bacilli is meant typhoid bacilli which have never been grown outside the animal body, and whose bodies are built up of materials exclusively derived from a human source. Through the courtesy of Professor McWeeney, of Dublin, an opportunity presented itself of comparing the vitality of "uncultivated" and "cultivated" typhoid bacilli in river water.

### A TYPHOID "CARRIER."

Dr. McWeeney had under his care a girl whose urine was swarming with living typhoid bacilli, and who had apparently infected a number of people with typhoid fever.

On November 7th, 1909, he found that the blood of the girl agglutinated the typhoid bacillus in dilutions of 1 in 100, and on November 23rd he succeeded in isolating the typhoid bacilli from her urine. Later, on very numerous occasions, he found the typhoid bacillus (often in enormous numbers) in the girl's urine, but he has never succeeded in isolating it from her faeces. In December, 1909, the girl was admitted into the Mater Misericordiae Hospital, Dublin, and since then Professor McWeeney has kept her under continuous observation.

The following is Professor McWeeney's description of the characters of the typhoid bacillus isolated from the girl, and Dr. Houston's observations confirm this description:

It is a Gram-negative bacillus with the usual morphological and cultural characters of the genuine typhoid bacillus. It presents slight points of difference from the laboratory strain, which we are in the habit of using for the Widal test. These points, which are fairly constant, are as follows:

1. On such coloured differential media as those of Drigalski, Conradi, Fawcus, and China green, the colonies are, on the first day, a little smaller and more opaque. They increase rapidly in size after the first day, and the central more opaque nucleus of the colony becomes surrounded by a thinner translucent peripheral zone which often attains a considerable width. The colour of the Drigalski medium remains blue. On the Conradi, Fawcus, and China green media the young colonies show from the commencement an opaque greenish central area, with a very distinct colourless peripheral zone appearing after a few days and spreading over the medium. The agar is decolorized some distance around each colony.

2. The movements of the bacillus when taken fresh from a primary colony are distinctly less active than those of an ordinary typhoid colony of the same age. On subculture, however, the distinction is soon lost.

3. In ordinary peptone broth (reaction + 10 Eyre) the growth is not so abundant in the first twenty-four hours as that of the ordinary typhoid. Subsequent subcultures, however, grow more luxuriantly.

4. When first isolated, the bacillus of the patient is hardly at all agglutinable, even by powerful antityphoid serum. After subculture every day for ten days, it undergoes agglutination as readily as the ordinary laboratory bacillus.

At the meeting of the British Medical Association in London in July, 1910, Dr. Houston was asked to open a discussion on "recently acquired knowledge concerning the bionomics of pathogenic organisms and its bearing on the spread of disease."[1] One of the subsequent speakers was Professor McWeeney, and his account of the case of the girl referred to induced Dr. Houston to ask him to send samples of her urine so as to allow the vitality of "uncultivated" typhoid bacilli in raw river water to be tested. The present report deals with the results of his investigations. That the urine of the girl (says Dr. Houston) contained typhoid bacilli is an incontestable fact. That she was the means of giving typhoid fever to no inconsiderable number of persons there seems to be no reasonable doubt.

The following is a summary of the history of the case, and of two experiments by Dr. Houston:

A girl contracted typhoid fever in 1903. In 1908 she entered the service of a farmer, and, during her stay of twelve months, nearly all the members of the farmer's family and their other employees suffered from typhoid fever. In 1909 she entered the service of a dairy farmer, who supplied milk to Kilworth Camp, and during the same year 27 cases of typhoid fever were notified, 25 of them occurring between July 8th and September 3rd. Dr. T. J. Browne, medical inspector of the Irish Local Government Board, who had charge of the inquiry, stated that all the other known channels of transmitting infection (other than milk supply) could be excluded. On November 7th, 1909, Professor McWeeney found that the girl's blood serum agglutinated the typhoid bacillus in dilutions of 1 to 100. On November 23rd, 1909, Professor McWeeney isolated the typhoid bacillus from the girl's urine. On August 9th, 1910, the "centrifugalized" deposit (3.5 c.cm.) from 389 c.cm. of the girl's urine was added to 5,000 c.cm. of *raw* Thames river water, the number of typhoid bacilli working out at 770,000 per c.cm. of river water. A week later the number had fallen from 770,000 down to 4; the next week none could be found even in 100 c.cm., and on the twenty-fourth day from the start of the experiment, half a pint (about 284 c.cm.) of the infected water, which initially contained 218,680 000 typhoid bacilli per half-pint, was drunk without any apparent ill-effect. A similar amount of water was also drunk on the twenty-fifth, twenty-sixth, twenty-seventh, and twenty-eighth day. On August 19th the experiment was repeated, with a fresh sample of urine, the number of typhoid bacilli per c.cm. of river water being 1,650. A week later no typhoid bacilli could be found, and on the twenty-third, twenty-fourth, twenty-fifth, twenty-sixth, and twenty-seventh day after the start of the experiment half a pint of the infected water was drunk each day without any ill-effect. The rapid death-rate of the "uncultivated" typhoid bacilli in river water is highly satisfactory in view of the fact that the danger of drinking polluted river water is, so far as typhoid fever is concerned, entirely due to the possible presence of the typhoid bacillus in the water in its "uncultivated" state.

In a comparable experiment with "cultivated" typhoid bacilli (Experiment III), 5,000 c.cm. of *raw* Thames river water (R2060) were inoculated with a very recently "cultivated" strain of the typhoid bacillus, derived from the urine of the girl. Although "cultivated," its relationship to the human host was very close. The urine was drawn by catheter on August 8th, 1910, subcultures on malachite green bile-salt agar were made on the 9th; further subcultures were made on to gelatine, from the gelatine on to agar, and from the agar into the river water on August 17th, the interval between August 8th and 17th allowing of verification tests being applied to establish the identity of the microbe. Both as regards "time" and subcultivation, the "cultivated" typhoid bacillus bore a very close relation to the same bacillus in its "uncultivated" state in the urine. The number added per c.cm. of the river water was estimated to be 15,800. The bottle containing the infected water was kept in a dark cellar (temperature 64–67° F.). A week later the bottle was vigorously shaken, and a fresh estimation made. It was found that the number of typhoid bacilli had fallen from 15,800 to 200 per c.cm.—a reduction of 98.7 per cent. On the second, third, fourth, and fifth weeks further experiments were made, and in each case the typhoid bacillus was still alive in 1 c.cm. of the water. Six weeks after the start of the experiment the typhoid bacillus could no longer be isolated even from 100 c.cm. of the infected water. This is in harmony with the results obtained in connexion with Dr. Houston's earlier eighteen experiments with "cultivated" bacilli.

The experimental evidence, taken altogether, seems to show that "uncultivated" typhoid bacilli die much more speedily in *raw* river water than their "cultivated" brethren. Inasmuch as the danger of drinking polluted water is due to the possible presence of the former "uncultivated" bacilli, these observations are of far-reaching practical importance.

### CONCLUSIONS.

The following are Dr. Houston's conclusions: Assuming that the "uncultivated" typhoid bacilli from this particular girl's urine can fairly be compared with "uncultivated" typhoid bacilli in faeces and urine in general; that "uncultivated" typhoid bacilli perish in river water, of varying quality, stored in reservoirs, at approximalely the same rate as was found to be the case in the particular samples of river water stored in the laboratory, and that the negative results obtained in the laboratory may be accepted as conclusive, then, if the urine of the girl be considered grossly infective in its initial state by reason of its bacterial contents, and if also the individual who drank the water (less than a month after its infection) be regarded as susceptible to typhoid fever, surely it may be asserted with confidence: *That even a week's storage of raw river water is an enormous protection, and less than a month's storage is apparently absolute protection against typhoid fever.*

In Dr. Houston's Third Research Report 20 conclusions were given, of which the last 5 are here repeated:

An adequately stored water is to be regarded as a "safe" water, and the "safety change" which has occurred in a stored water can be recognized by appropriate tests.

The use of stored water enables a *constant* check to be maintained on the safety of London's water, *antecedent* to, and irrespective of, filtration.

The use of stored water goes far to wipe out the gravity of the charge that the chief sources of London's water supply are from sewage-polluted rivers.

The use of adequately stored waters renders any accidental breakdown in the filtering arrangements much less serious than might otherwise be the case.

The habitual use of stored water would lighten the grave responsibilities of the Water Board as regards the safety of the London water supply, and would tend to create a sense of security among those who watch over the health of the metropolis.

It is hoped, as a result of confirmation of these experiments, and the complete fulfilment of the storage policy now being adopted by the board, that the day is not far distant when these five sentences may be justifiably compressed into one statement, namely: The Metropolitan Water Board have now secured by *adequate* storage an "epidemiologically sterile" water (that is, a water containing none of the microbes associated with waterborne epidemic disease) *antecedent* to filtration, and the possibility of London water conveying epidemic disease may be finally dismissed from the minds of the inhabitants of the metropolis as a fear, which, on convincing experimental evidence to the contrary, has at last been definitely proved to be baseless. Should these conclusions be eventually accepted as sound, it follows that, apart from sentimental considerations and counsels of perfection, the most economical method of rendering an *adequately* stored, and therefore *safe*, water, reasonably free from colour and matters in suspension, must needs receive serious consideration as presumably the only needful *final* purification process to adopt. In these circumstances, the presence of organic matter or of harmless bacteria in the filtered water, even in excess of the standards usually adopted, need not, in the circumstances referred to, be considered a matter of vital importance.

The results of several further experiments which go to confirm those described in the text of the report are given in an addendum. In another addendum is given a summary of Dr. J. C. G. Ledingham's report to the Local Government Board on the enteric fever "carrier," in which current knowledge on the subject is reviewed. Dr. Houston goes on to say:

From the waterworks point of view, further information is most desirable on the following points:

(1) What proportion of persons employed, in the purification and distribution works, or having access to these works, are, or are likely to be, "carriers"?

[1] BRITISH MEDICAL JOURNAL, November 12th, 1910.

(2) What proportion of the total population contaminating the *raw* sources of supply are likely to be actually suffering from typhoid fever, or likely to be in the carrier condition?

As regards both points, Ledingham's report forbids the hope that the number is altogether negligible. In respect of the latter, it is, however, a gratifying fact that so far, notwithstanding a diligent search, I have failed to isolate a single typhoid bacillus from the *raw* river Thames water.

## THE COUNTY COUNCILS ASSOCIATION AND POOR LAW REFORM.

THE Executive Council of the County Councils Association, on January 24th, met to consider a report by its Poor Law Committee on certain proposals contained in the reports of the Royal Commission on the Poor Law and the Royal Commission on the Feeble-minded. The specific point to which the committee had confined its attention was whether, and, if so, in what way, the present duties of the boards of guardians could be discharged on the basis of larger areas than existing unions by the county councils without placing an undue burden of work on the councils or adversely affecting county administration. The committee had not considered general questions of Poor Law policy, and in presenting its resolutions did not profess to deal with London and the large towns.

The general conclusions of the committee were, briefly, that the system of Poor Law administration should be reorganized, that the present unit of area for Poor Law administration is often too small, and that the most convenient area would be that of the administrative county and county borough, and it was felt to be undesirable to have more than one authority with rating powers for the area of an administrative county. With regard to all grades of mentally-defective persons, the committee held that they should be removed out of the Poor Law altogether and placed in charge of the same authority that deals with lunatic asylums, and that a Government department ought to take over the work of the county councils in connexion with the asylums, subject to local inspection by a committee of the county council, or, at any rate, that some steps should be taken to relieve the asylums committees in respect of some of their existing duties. The committee also thought that the treatment of the unemployed, including habitual vagrants, should be under a Government department, with the assistance of local authorities in temporary cases. The committee presented an outline scheme of what it considered to be the best organization practicable in the counties, as it could not see its way to accept the proposals either of the Majority or the Minority of the Royal Commission, nor those of Sir A. Downes and Mr. C. Booth. The following is the scheme presented:

### POOR LAW REFORM.

OUTLINE SCHEME OF THE COMMITTEE.

*Poor Law Areas.*

A. County or County Boroughs.
B. Urban and Rural Districts.
Both A. and B., where small, might be grouped.

*Poor Law Authorities.*

A. *County Poor Law Committee*, constituted by a scheme prepared and adopted by the County or County Borough Council and approved by the Local Government Board.
The Committee to consist of (1) members of the County Councils and of District Councils, and (2) other persons to be appointed by the County Council experienced in Poor Law and charitable work, including a fair proportion of women; a clear majority of the Committee to consist of members of the County Council, unless the County Council do otherwise determine, and in any case a majority of the Committee to be members of the County Council or of District Councils.

B. *District Poor Law Boards*, consisting of (1) all the members of the County Council elected for the District or resident in the District who consent to serve, (2) District Councillors as arranged by the scheme, and (3) not more than one-quarter appointed by the County Council from persons experienced in Poor Law and charitable work, including a fair proportion of women.

*Powers and Duties.*

A. To arrange for the classification and reorganization of all existing Poor Law buildings and institutions, and to establish new buildings and institutions.
To approve the admission of cases to institutions.
To administer the Poor Law funds, whether from Government grants or rates.
To make (or sanction) all contracts over £100.
To appoint (or sanction the appointment of) all officers.

B. To decideon all applications for out-relief, acting under general rules approved by Parliament.
To recommend (and in cases of urgency to commit) cases to institutions.
To manage such local institutions as may be delegated to them by the County Poor Law Committee.

*Officers.*

A. Poor Law Registrar and Clerk.
County Medical Officer of Health to superintend infirmaries and county and district medical staff.
One or more county inspectors.

B. Local Registrar and Clerk, District Medical Officers of Health and District Inspectors.

*Finance.*

Annual estimates of Poor Law expenditure, subject to revision after six months, to be submitted to the County Finance Committee by the County Poor Law Committee, and to be subject to the approval of the County Council.
A County Poor Law Rate to be made half-yearly by the County Council on the recommendation of the County Poor Law Board and the County Finance Committee, and to be levied by the overseers together with the County Police and Education rates; with power under special circumstances to levy special rates on particular areas.
All Poor Law loans to be sanctioned by the County Finance Committee and raised with other county loans.

N.B.—(1) All Poor Law Schools to be under Education Committee.
(2) Feeble-minded to be dealt with by the same authority as lunatics, but more economically.
(3) Unemployed, including habitual vagrants, to be under a Government Department.
(4) Scheme not to apply to London or large towns.

The committee admitted that the scheme required considerable explanation, but hoped that it would be accepted as a practical solution of a difficult problem.

The scheme, so far as it concerns the medical profession directly, would seem to involve placing the county medical officer of health at the head of all the medical arrangements, both institutional and outdoor, as he is to superintend infirmaries and both the county and the district medical staffs.

In submitting the report to the executive council, the chairman of the committee said that if the areas were to be enlarged, no area short of the administrative county would be satisfactory, and if this were adopted the authority must of necessity be the county council. As to the method of carrying out the work, however, the committee was at variance with both the Majority and the Minority Commissioners. The proposal of the Majority that the county council should have no control of expenditure and yet should be obliged to levy a rate appeared to the committee to be impossible. On the other hand the Minority proposal would entail great lack of co-ordination and would put far too much power in the hands of local officials. It was claimed that the committee's scheme would avoid overlapping, and by making the county council the supervising authority would bring about co-ordination between it and the rest of local government. Lord Belper said that it was a great recommendation of the scheme that it was elastic, and so would meet the great differences in circumstances in the various counties. The work of the county councils would be increased, but the work would be suitable to them, and the district Poor Law boards would make use of the members of the old boards of guardians. After some discussion the report was unanimously adopted by the executive council of the association.

## SCIENCE NOTES.

MR. AUSTEN, in the *Bulletin of Entomological Research* for January, 1911, describes a new species of tsetse fly. Up to the present time the species has only been received from Southern Nigeria, where it is prevalent in the month of May, being very prone to attack travellers in canoes. At one place where the flies were encountered there was dense cover, consisting of long grass and water plants; while at another place the insects attacked an observer during heavy rain. The new species comes into the group of tsetse with dark hind tarsi, which includes *G. palpalis*, *G. tachinoides*, and *G. pallicera*. It resembles *G. palpalis* somewhat closely, but is brownish and usually somewhat larger, and has a broader head. Mr. Austen proposes to give it the name of *Glossina caliginea*.

## LITERARY NOTES.

IT is announced that Dr. H. Cameron Gillies is editing, with translation, notes, and vocabulary, a Gaelic tract representing the mass of Gaelic medical MSS. preserved in public libraries and elsewhere. It is of the early sixteenth century, or perhaps earlier, and is written in a kind of shorthand which is to be reproduced by photography. The title is *Regimen Sanitatis*, and it is described as "The Vade Mecum of the famous Macbeaths, physicians to the Lords of the Isles and the Kings of Scotland for several centuries." It will be printed for the author by Messrs. Robert MacLehose, of Glasgow.

The late Dr. J. Frank Payne had a fine collection of old medical books. He left several ancient manuscripts, including *De simplice Medicina*, attributed to Roger Bacon, to the Royal College of Physicians of London, of which he was formerly librarian.

In the *Old-Lore Miscellany of Orkney, Shetland, Caithness, and Sutherland*, of July, 1910, some very interesting extracts were published from a diary kept by the late Dr. Edward Charlton during his visit to Shetland in the year 1832, to which reference was made in the BRITISH JOURNAL of November 26th, 1910, p. 1735. The present number (Part I, vol. iv), which has recently appeared, contains a further account of the young doctor's voyage to the far north, which has been taken from the same source. Dr. Charlton's visit coincided with the terrible storm which devastated the Shetlands in the summer of 1832, "at the mention of which during the next 100 years the Shetlander will tremble and pray that such a calamity may never occur in his days," and it is in connexion with this event that he mentions an almost unparalleled instance of the irony of fate. The loss of life amongst the fishermen of the islands had of course been very great, and "few cottages were there that had not to deplore the loss of a father, a brother, or a son. . . . It was in the month of January, 1833, that five of the lost men returned to their native islands. . . . But their skipper, the pride of the east coast fishermen, was not of their number. He had been the last to leave the boat, and as he ascended the vessel's side a tremendous sea threw his own frail bark high into the air, and it descended with resistless force upon the head of the unfortunate man when thus on the very threshold of escape." Besides the record of Dr. Charlton's visit to Shetland, the present number of the *Old-Lore Miscellany*, as usual, contains an immense amount of curious and valuable information. Mr. John Firth's article on "An Orkney township before the division of the commonty," which gives a vivid picture of the conditions of life in an old-world farmhouse, deserves special mention; whilst a most interesting account of "Rob Doun," the famous Gaelic poet, has been printed from the MSS. of the late Mr. George Sutherland Taylor. It should be added that this little magazine, which must be delightful to the antiquarian, is published in a most attractive form. The printing and paper alike are excellent, and the interesting photographs which serve as illustrations are beautifully reproduced.

Notwithstanding the short time it has been in existence, *The Child* has already won for itself a prominent place amongst the numerous magazines published for the instruction of parents and teachers in their duty towards children under their care, and the February number of this attractive periodical cannot fail to increase the high reputation so justly acquired by its predecessors. As usual, the list of its contributors includes many well-known names, and the high level of excellence attained by almost every item in its table of contents makes it somewhat difficult to select any single one for special praise. Mention must be made, however, of Dr. W. J. Butcher's excellent account of "Medical Influence in the School," from which it is possible to gain some idea of the immense benefits which have already resulted from the passing of the Education Act of 1907, and the subsequent creation of a medical department to the Board of Education. We learn from Dr. Butcher that during the last three years the influence of the doctor has undoubtedly led to a higher standard of personal cleanliness amongst the pupils of elementary schools; and there seems every reason to believe that, as time goes on, it may be the means of averting an infinity of suffering from the children of the poorer classes. The elementary school child is likewise the subject of Dr. D. M. Taylor's article on "Fatigue in School Children," in which he gives some useful advice as to the best way to "minimize fatigue in order to get the maximum of work, and to prevent fatigue becoming chronic and passing into the jaded state." The present number of *The Child* also contains interesting articles on "Affections of the Skin in Childhood," by Dr. G. Norman Meachen, and "The Fireproofing of Flannelette and the Protection of Child Life," by Professor W. H. Perkin; whilst Lord Guthrie has contributed a charming little sketch of his famous father, the Rev. Thomas Guthrie, "the apostle of ragged schools."

In a curious poem entitled *Callipaedia: or, An Art how to have handsome Children*, written in Latin by Claude Quillet, first a physician and afterwards a priest, and first printed at Leyden in 1655, there is a slight reference to the relation of alcohol to degeneracy. We quote from the second edition of an English version published in London in 1718. In the Second Book the following counsel is given:

> Avoid, when flush'd with Wine, the Marriage Bliss,
> Nor soil your pleasures by a drunken Kiss.
> For filthy Births, such indigested seed,
> And future Gouts, and knotty Joints, will breed.

Quillet, however, believed in wine as a help to the practice of the "art" of which he writes. Indeed, he seems to have thought that in its right use lay the solution of the problem of the causation of sex which is still a subject of active speculation to many. Some of his precepts may be quoted:

> Sufficient for the Nuptial Joy's the Vine
> But most, *Oh Burgundy!* thy Nectar warms
> Their Hearts, and burnishes their Bridal Arms.
> Both bright *Champagne* with equal vigour fills
> And the rich Cluster of the Aisian Hills.

The ladies, too, who wish to present their lords with heirs male are encouraged to fortify themselves with the juice of the grape:

> And you, ye Wives, who with your Husbands join
> To pray for sons to prop an Ancient Line,
> At Meals, with Sparkling Wine rejoice your Souls
> And freely pledge 'em in their modest Bowls.
> Nature, by this, the Genial Heat will feed,
> And urge the Womb to seize the Manly Seed.
> By this for Males 'tis fitted; but beware,
> And be'nt too lavish, as you shou'd not spare.
> For when the Soil's with too much Moisture drench'd
> The Native Warmth in both alike is quench'd.
> Nor have they Strength, when they to Hymen pay
> Their Vows, Foundations for Strong Males to lay.

It may be added that Quillet, with all his questionable notions and absurd superstitions, was really a sort of pioneer in the field of eugenics, and we hope to give a fuller account of him at a later time.

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DR. THOMAS LAPRAIK, of Glasgow and Cambuslang, left personal estate valued at £1,853.

A PAGEANT representative of the evolution of trained nursing is to take place at the Connaught Rooms, Great Queen Street, W.C., on the evening of Saturday, February 18th. The central figure will be the Goddess Hygeia supported by the four Elements, and having in her train the Spirits of Nursing and Science with their attendant attributes. A prologue having been delivered by the Goddess, the Spirit of Nursing will describe how her endeavours to aid the sick have been obstructed by ignorance. The Spirit of Science will then show how she can supply the knowledge lacking. Processions of notable persons will then pass before the Goddess—saintly men and women of bygone days, inspired by the Spirit of Nursing—and silently plead for fuller knowledge for their successors. Matrons, preceded by the banner of "Education," will then petition for definite curricula, and under the banner of "Nurses and the Community" trained nurses will demonstrate that their work is indispensable to the nation. Lastly comes the banner of "State Registration," in support of which this pageant is being organized. Upwards of 200 ladies and gentlemen will take part in the pageant, which is under the patronage of Lord Ampthill and other persons interested in the organization of the nursing profession. Tickets can be obtained from the Pageant Secretary, 431, Oxford Street, W.

British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1911.

## TUBERCULIN AND TUBERCULIN DISPENSARIES.

THE international crusade against the spread of tuberculosis proceeds apace, and the lay mind is slowly but surely becoming imbued with the practical value of early recognition of the disease. The results of sanatorium treatment point unmistakably to the desirability of early segregation in recognized, or even suspected, cases. But sanatorium accommodation is limited and expensive, and even in the partially endowed institutions the length of time necessary for nominal completion of the cure is grudged by the great majority of middle-class patients. Faith in medicinal treatment has been generally shaken by the reiterated assertions of authorities in all countries that no real remedy exists. The universal craving for such a remedy was made very manifest by the rush to Berlin when Koch first stated his belief that his original tuberculin had the power of annihilating the activity of tubercle in the living body. The reaction that followed the gradual discovery that his tuberculin was not a remedy, although it had a manifest effect upon tuberculous tissue, was almost as universal, and the treatment by injection was given up by the great majority of the profession. But not by all. To a considerable number of clinical workers the lines laid down by Koch appeared to be right, although they did not lead to immediate success in practice. Different methods of preparation and greatly restricted doses were employed until a definite standpoint for efficient treatment was reached. At the present time the therapeutic use of tuberculin has become established, especially in Germany, and results are accumulating which should convince every one, except the incurable sceptic.

In 1902 Dr. Camac Wilkinson, then lecturer in medicine in the University of Sydney, and physician to the Prince Alfred Hospital there, published in these columns some observations on tuberculin as a remedy for tuberculosis of the lungs; we gather that at that time he used chiefly the preparation known as T.R., but also the Old Tuberculin (T.A.). He was able to say that his personal experience after five years' careful watching was that tuberculin properly used had a very high value in the treatment of pulmonary tuberculosis. He had then treated nearly 70 cases, and had always observed improvement provided there was no mixed infection. Five years later Dr. Wilkinson published in this JOURNAL a plea for the use of tuberculin within and without sanatoriums.[1] In this paper he maintained that it was an invaluable agent in the selection of suitable cases for sanatoriums and a ready means of gauging the success or failure of treatment, while it was quite harmless to patients not suffering from tuberculosis. He admitted that it was more difficult to express a confident opinion as to the value of tuberculin as a curative agent, but quoted the evidence of several physicians of large experience who, sometimes after a period of discouragement, were using it systematically. At the annual meeting of the British Medical Association in London last year Dr. Wilkinson made two communications on tuberculin, in pulmonary and laryngeal tuberculosis respectively.[2] Speaking of the results he had obtained in laryngeal tuberculosis, he said that nothing had done so much to strengthen his firm conviction of the value of large doses of tuberculin in pulmonary tuberculosis as the extraordinary effects he had closely watched week after week and year after year in laryngeal tuberculosis. In 1908 Dr. Wilkinson published a book, entitled *Treatment of Consumption*, in which the method he then followed in using tuberculin was set out. He made the injection into the forearm or outer part of the upper arm after previous sterilization of the skin; no serious trouble followed even well-marked reactions, and providing they were not too severe nor too frequent he became convinced that an occasional reaction with fever often did great good, especially in the early stages of the disease and in the earlier stages of treatment. As to the dose and the interval at which it should be repeated and the rapidity with which it might be increased, he confirmed Koch's original warning that there can be no routine method; each case must be treated on its own merits. Judging by the records of cases, he would appear to have been in the habit of beginning with about 0.001 gram, rising gradually to as much as 1 gram. If no reaction occurred after the first dose, he generally gave another and larger dose in three or four days; if a reaction occurred, the interval was increased according to the degree of fever. The full course of treatment might take four, six, or eight months, or longer, but, as it could be carried out without interfering seriously with a man's business, this was not considered a matter of great importance.

In a review published about three years ago we called attention to a work by Drs. Bandelier and Roepke,[3] both of them engaged in the control of sanatoriums, containing much useful information as to the practical uses of tuberculin. The favourable opinion of the book then expressed has been practically endorsed by the demand for no less than five editions in Germany and the appearance of translations into several foreign tongues.[4] The multitude of experimenters and clinical observers who are at work upon the phenomena of serology will doubtless carry the sum total of knowledge still further before the book is many months older. From the first Drs. Bandelier and Roepke have pleaded for the extended use of tuberculin both for diagnostic and for therapeutic purposes. The somewhat dogmatic tone adopted in the earlier editions is justified in the present one by the records of results achieved, not by the writers alone, but by leaders of clinical study in many of the more important medical centres in Germany. An interesting feature of the later editions has been the support given to the authors in their work by the late Professor Koch, and the preface written by him for the third edition appears again as a tribute to his memory in the new one. No one

[1] BRITISH MEDICAL JOURNAL, 1907, vol. i, p 1298.

[2] BRITISH MEDICAL JOURNAL, 1910, vol. ii, pp. 1055, 1705.

[3] BRITISH MEDICAL JOURNAL, December 21st, 1907.

[4] *Lehrbuch der specifischen Diagnostik und Therapie der Tuberculose*. For Practitioners and Students. By Dr. Bandelier of Schömberg and Dr. Roepke of Melsungen. Fifth, enlarged and improved, edition, with a preface by Professor Koch. Würzburg: Curt Kabitzsch. 1911. (Sup. roy. 8vo, pp. 304. M. 6.60.) The English translation, by Dr. Egbert S. Morland of Arosa, was made from the second edition and appeared about a year ago.

realized more fully than Koch that his own researches into the workings of tuberculin were imperfect, and wanting in that scientific explanation which the labours of Wright, Wassermann, and many others are gradually unfolding. Recognizing the diagnostic value of the new tuberculins, he strongly advocated the systematic instruction of the profession in their use, and at the same time uttered a word of warning as to the danger of using any but well authenticated material. He fully agreed with the principle of progressive dosage. Experimental research has been carried forward vigorously in the German schools of medicine, more especially in the direction of practical results. Some of the more theoretical lines of investigation, such as the determination of the opsonic index, and more recently the theory of fixation of complement, do not appear to have been followed with the same interest.

The keynote struck by Bandelier and Roepke is the routine use of injections of tuberculin by the profession generally, and the universal instruction of the general practitioner in the technique of the treatment. Post-graduate classes and clinical lectures are to provide it. The much debated question of the use of tuberculin in out-patient practice is summed up strongly in favour of its adoption, and it would appear to be already in far greater use in Germany than in this country. It seems probable, however, that this state of things may shortly be changed. Some time ago Dr. Camac Wilkinson established a tuberculin dispensary in Kennington Road, S.E., and he is now chairman of the executive committee of a Tuberculin Dispensary League which would appear to be desirous of establishing dispensaries in various centres. A tuberculin dispensary we understand to be primarily a place where patients suffering from pulmonary tuberculosis are treated by tuberculin of one kind or another by gradually increasing doses in the manner briefly outlined above. We gather, however, that it is also a place where persons who have been exposed to infection (contacts) may receive a dose of tuberculin for diagnostic purposes, and where if a reaction occurs they are treated by the method of progressive doses. It is stated that tuberculin dispensaries have been established at Aldershot, Street (Somerset), and Irvine (Ayrshire), and proposals have been made for the establishment of such dispensaries at Leith, Portsmouth, and Poplar.

Dr. Robertson, M.O H., Leith, has made a report to the Public Health Committee of that burgh, in which he stated that he had begun the use of the method in Leith, which he thought would be a favourable place for testing its value. He accepted the statement that, beginning with a small dose and gradually increasing it, the patient was eventually able to tolerate a very large dose. He also expressed the opinion that the application of tuberculin injections in the detection of contacts was a valuable method, and that, if a contact showed a reaction, it meant that he was affected with tuberculosis, and that, the existence of the infection having thus been established, treatment by progressive doses of tuberculin should be proceeded with. If the claims for this method were substantiated, the disease could, he believed, be prevented from spreading amongst the members of a tuberculous household by thus rendering them immune. A proposal to institute a tuberculin dispensary at Portsmouth was recently brought to the notice of the Town Council in a report by the medical officer of health, Dr. Mearns Fraser, recommending the establishment of such an institution. From a newspaper report of a meeting of the Portsmouth Town Council it would seem that the scheme found favour with many of the councillors, but some very pertinent questions were asked, which showed that some at least of the council were determined to look carefully into the matter before committing the town to the scheme. Dr. F. W. Alexander, M.O.H. for Poplar, has also presented to the council of that metropolitan borough a report containing a similar recommendation. Dr. Alexander excuses the length of his report on the ground that the council should be in possession of recent medical opinions on the subject of the prevention and treatment of tuberculosis, but he appears to have confined his references to the "opinions and experience of undoubted experts," largely to extracts from Dr. Camac Wilkinson's writings and to the report compiled by Dr. Mearns Fraser for the Portsmouth Borough Council; in an appendix Dr. C. W. Hogarth of Greenwich gives his opinion on the value of the method which he has used in his private practice.

It appears probable, therefore, that in the near future the method of treating individuals affected with or suspected to be infected with tuberculosis by progressive doses of tuberculin on the lines laid down by Dr. Camac Wilkinson will receive a more or less extensive trial, and the results, if carefully recorded, as no doubt will be the case, must contribute to the formation of a settled medical opinion upon the value of the methods and of the risks which may attend its general application. At present medical opinion is in a state of suspense. One fact, however, appears already to stand out clearly, and that is that only early or suspected cases are suitable for tuberculin treatment at a dispensary, and it would be well to refuse such treatment to all patients presenting evidence of mixed infection until more definite experience has been gained.

## POOR LAW MEDICAL OFFICERS.

AT p. 284 will be found a long list of recommendations put forward by the council of the Poor Law Medical Officers' Association of England and Wales referring to the conditions of service of the Poor Law medical officers. It is not at all improbable that at first sight and in certain quarters there may be an inclination to consider that the council has gone to an unnecessary length in its demands. Such an idea, however, can only arise from an insufficient knowledge of the present conditions of the Poor Law Medical Service, and a careful consideration of the twelve recommendations must lead to the conclusion that the time has come when a firm and decided stand needs to be taken for reform. It would be possible to quote numerous statements from both the Majority and the Minority Reports of the Royal Commission on the Poor Law showing the eminently unsatisfactory conditions under which the Poor Law medical officers labour. It is indeed almost incredible that any body of professional men should have been willing to submit so long without not merely a protest, but a definite revolt against some of the disabilities which are referred to in the recommendations.

The amount of remuneration of district medical officers is admitted by the Royal Commission to be often a matter for reasonable complaint, but even this is not the worst aspect. When the salary of a district medical officer is considered by boards of guardians,

it is quite a common thing for the guardians to say, "Why should we pay more when we can get as many medical officers as we need for less?" Such a method of cutting down and taking advantage of competition hardly ever enters into the question when guardians are appointing their clerk or even their tramp masters; in practically every case a reasonable wage or salary is first decided. When a district medical officer is to be appointed the main consideration seems often to be, What is the lowest possible amount for which we can get the work done? The eleventh recommendation is to the effect that in no case shall it be lawful, by bargaining with individual medical officers, to reduce the amount paid in medical salaries for attendance on the poor unless it can be shown that the sickness claims have diminished. It is little short of a disgrace that there should be any necessity for such a recommendation, and yet there is not the least doubt that such a method of bargaining by boards of guardians has been by no means rare, and it is difficult to reconcile any real concern for the physical health of the poor with a system which practically says that the cheapest possible medical treatment is good enough for the pauper.

It is high time, too, that some definite understanding should be reached on the questions that are constantly arising under the head of security of tenure. It is often said that district medical officers ought to rest and be thankful for the amount of security of tenure that they enjoy, but it is clear that there are numerous loopholes by which guardians may often take an unfair advantage and escape their liabilities. It is quite possible that, at no distant future, whether the recommendations for reform made by the Royal Commission are followed or whether reform is left to the Local Government Board, there may be extensive rearrangements of districts and areas of administration, and the question of compensation when the office of a Poor Law medical officer is determined on public grounds, apart from any personal misconduct, is likely to become of even more urgent and frequent importance than it is at present.

The difficulties under which the district medical officer labours when he requires the assistance of another medical man, and especially in the provision of anaesthetists, must often be prejudicial to the patients, and the injustice that often occurs when a district medical officer receives an urgent summons to attend a confinement without an order needs to be forcibly brought home to the proper authorities. It is intolerable that a district medical officer should be subject not only to public odium, but even to censure by the guardians, if he refuses to attend a confinement without an order, and yet, if he does so attend and the case proves to be an improper one from a Poor Law point of view, he should be left to obtain his fee as best he can.

These are only some of the matters on which the Council of the Poor Law Medical Officers' Association has made recommendations, but in themselves they afford quite sufficient reason for taking a determined stand for reform. The greater part of the time of the Special Poor Law Reform Committee of the British Medical Association has so far been taken up by questions that seemed to be of immediate urgency arising under State sickness insurance which must indirectly, but none the less seriously, affect the Poor Law Medical Service. The committee has still to consider many other points included in its reference, and the co-ordination of the Poor Law Medical Service with other medical services will doubtlessly involve full consideration of many of the disabilities of which the Poor Law Medical Officers' Association justly complains.

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## RADIUM IN GOUT AND RHEUMATISM.

DR. W. HIS, professor of pathology and therapeutics in the University of Berlin, delivered an address before the last meeting of the Berlin Medical Society on the treatment of gout and rheumatism by radium, which contained so many points of clinical interest that it has seemed well to publish an English version simultaneously with the appearance of the German text in the *Berliner klinische Wochenschrift*. Professor His speaks with all necessary reserve, but it will be seen that he has become convinced that in radium properly applied we have a valuable adjuvant in the treatment of chronic rheumatism and gout. In old-standing cases where advanced structural changes in bones and ligaments have been produced, little or nothing can be expected, but in the earlier stages he shows that highly satisfactory and gratifying results may be obtained in two groups of disease which are a trial of patience both to the practitioner and to the patient.

## "SHUTTLE-KISSING."

THE practice of sucking the weft through the eye of the shuttle—known as "shuttle-kissing"—which has often been denounced as unhygienic and detrimental to health, has recently come again to the fore in the centres of the weaving industry. The Medical Officer of Health for Bacup (Dr. John Brown) recently reported three deaths from consumption in weavers who, it appears, had all "kissed" the same shuttle, and the inference is suggested that infection may have been conveyed from one to the others by this means. However this may be—and the possibility cannot be doubted—it would be well if the discussion which has arisen on the dangers of "shuttle-kissing" were to lead to this antiquated and elementary method of drawing the weft through the shuttle being discarded entirely. For the benefit of those who are unacquainted with the practice, we may explain that the shuttle, like a needle, has to be threaded, the end of the weft thread being drawn through a hole or eye in the side of the shuttle. This is done by the weaver applying his mouth to the hole and drawing the end of the thread through by suction. The threading of the shuttle may require to be done frequently—a worker who writes on the subject in a North Country trade journal speaking of the necessity possibly occurring fifty times in the hour. It is obvious that this constant suction may have an injurious effect on the lungs, apart from the fact that dust and fluff from the weft is almost certain to be drawn into the air passages. When the same shuttle has to be used by two persons, as when the weaver is assisted by a "tenter," there is an added danger if one of these should be suffering from some communicable disease. This danger is especially to be considered in the case of a weaver who takes the place of one whose absence is due to illness—such, for example, as influenza, or, it may be, consumption. With regard to the latter disease—consumption—there are, it is true, many circumstances, both in the conditions of work and of the home, which tend to make the weaver especially prone to become consumptive, but this very predisposition makes it all the more desirable to guard against any practice which may be the means of introducing the infection. There can be no question that it would be of great advantage to the workers in this industry, from the point of view of health, if shuttle-kissing were abolished; but, as

a weaver of twenty years' experience says, it is more a question of production both to the weaver and the employer than the matter of good health. "I really believe," he says,[1] "that the weavers would rather suffer from tic, toothache, decayed teeth, and face and lung troubles, and pay the doctor or dentist part of their wages, than allow their earnings to suffer a few pence as a result of any invention for the betterment of their health." On the other hand, as the same writer points out, the employers would look with disfavour on anything which would be detrimental to their profits. It seems, however, possible that in this matter the health of the workers may be safeguarded without detriment to the pecuniary interests of either workers or employers. There are self-threading shuttles in use, and more than one automatic shuttle-threader has been recently invented. It is, of course, important that any substitute for mouth threading of shuttles should act so efficiently that there is no loss of time involved in the use of mechanical means, and the cost of the machine must not be excessive, but if the appliances at present available do not quite fulfil the requirements there is no doubt that a demand for automatic threaders would soon produce a satisfactory invention. The Bacup Borough Council, on the advice of the medical officer of health, who has taken the matter up energetically, has issued to the cotton manufacturers in the borough a circular calling attention to the fact that shuttles may be dirt and disease carriers, and undertaking to disinfect all shuttles which have been used by weavers suspected to be suffering from phthisis or other infectious disease. Dr. Brown is at present engaged in some experiments and research in regard to the bacteriological aspect of the subject, and it is to be hoped that his endeavours to draw attention to the evils of shuttle-kissing and the possibilities of obviating these may lead to the abandonment of a practice which has long been recognized as detrimental to the health of the weavers.

[1] *Factory Times*, January 20th, 1911.

## FEMALES AND MALES.

"WE may possibly look upon ourselves at the present moment as being at the zenith of a female oscillation." Such words, in their proper context, cannot but afford a modicum at once of consolation and of hope to poor downtrodden man in these days of feminine ascendancy. They may seem also to hold out a prospect to cheer the souls of Cabinet Ministers, but they were penned by Dr. R. J. Ewart in a recent contribution to *Nature* (January 5th), dealing only with the numerical relation of the sexes. His ideas are not altogether novel, yet they are worth repeating, for they throw light on an interesting, even important, sociological question which is usually dismissed as a matter of course. The nature of the factors regulating sex equilibrium has always been a mystery. Why the equilibrium should be one of approximate equality in man and most animals, while strikingly unequal in others, is a point which Dr. Ewart does not touch upon. History teaches and statistics show that men are killed off in greater numbers than women, and were this not compensated for, women would in course of time far outnumber men. An obvious compensation is the continuous excess of male births, but this is a tendency which, if unchecked, would lead to a preponderance on the other side, so that this in turn requires some restraining influence. That both tendencies are held in check by some guiding mechanism is presupposed by the facts of the case, and it remains to determine what it is which limits these oscillations on one side or the other. According to Dr. Ewart, "the history of any race in its sex composition would show us that such oscillations have occurred, modified, no doubt, in their regular sequence by such factors as war and famine. These oscillations of sex balance have brought with them certain changes and movements in the people themselves; an excess of males would naturally tend to produce war, either civil or foreign, whilst a superfluity of females is easily associated with upheavals in the domestic policy of the community. There is no doubt that, could we trace the history of the world, or any section of it, we should see that man simply reacts to certain variations which are inevitable sequences in the establishment of this balance." Here it is evident Dr. Ewart is dealing with surmises of which he does not give confirmation; later he comes to figures, if not facts. At the present moment in Britain there is an excess of females, but at the same time there is also an excess of male births in the ratio of 1,033 : 1,000. By the end of the fifth year this excess is equalized by the greater number of deaths amongst male children. During the next ten years the latter assert their superiority to a slight extent, but from the fifteenth year the females become predominant. For the purposes of mating the male may be taken as a few years older than the female, a postulate which may well be allowed, and this further disturbs the sex balance. There results in the community the existence of women to whom marriage is not possible, and whose energies are exerted in other directions. It is, apparent, therefore, that just now Nature is endeavouring to counteract the excess of females by the production of a slight excess of male children; and here we come to a curious fact. Figures are taken from *An Inquiry into the Birth Conditions in the Town of Middlesbrough*, which show that up to the age of 25 women produce more female children than male, but after that age the reverse. There is thus in Middlesbrough, at any rate, a tendency for young women to produce female children, and for older women to produce male children. Now when women are in the majority, as at present, there is less demand for them; they will marry late, and so, if Middlesbrough affords a fair sample, produce an excess of male children. On the other hand, when they are in the minority, they will be eagerly sought by the males, and so tend to marry early and produce female children. With regard to the age of the male parent, the influence seems to be analogous to that of the female; but Dr. Ewart is not by any means clear on this point. He says that with a mother of 20 and a father of 30 the chances of a boy or a girl being born "are about as equal as Nature can make such a problem." From such a passage we would gather that youth in either parent tends to the production of female children, and that the determination of sex is a matter of the mean age of the parents. The explanation appears to be almost too simple to be true. Dr. Ewart concludes by stating that under the present circumstances "an average marriage-rate (!) of between 27 and 28 years should produce a population in which the males are at all periods in excess of the females."

## THE TEACHING OF SWIMMING.

SWIMMING, which comes natural to the majority of mammals, is an art which has to be acquired with difficulty by man, and there has long been much controversy as to the best way of teaching this art. It is commonly supposed that man's difficulty arises from the comparative weight of his head and brain, and this is, of course, an element in the problem, although, as a little reflection will show, it is only one of several. Thus, man is disadvantageously placed for swimming

in the prone or natural position by the position of his mouth and nostrils at the lower part of the face. In order to breathe, be must keep practically the whole of his head and face clear of the water, whereas the more prognathous quadrupeds need only keep the tip of the snout above the surface. Again, a quadruped in swimming, simply continues the alternate movement of the limbs to which it is accustomed, while man has to acquire a new and unaccustomed co-ordination of muscles. It is on the latter account that many teachers advocate the learning of the necessary movements before taking to the water at all. This idea of "learning to swim on dry land" has long been a target for the humorist, but its advocates have a notable recruit in Dr. F. W. Alexander, the Medical Officer of Health for Poplar, who has devised a very ingenious contrivance which can be used for instruction either on dry land or in the swimming bath. As Dr. Alexander points out in an explanatory pamphlet, all such devices as cork jackets and bladders prevent the natural submergence of the body and militate against the learner's acquiring the proper "balance" which is the essence of swimming. With his apparatus, the learner is "slung" in the water by a broad, flexible, and adjustable support, which gives him at once confidence and balance, and leaves the instructor quite unhampered. It is a great improvement on any of the artificial aids to swimming that we have seen.

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## THE METABOLISM OF URIC ACID.

FOLLOWING the work of Wiechowski, some interesting observations have been made by Ackroyd, a British Medical Association Scholar, on the metabolism of uric acid.[1] It is only three years since Wiechowski indicated that no satisfactory proof had been adduced that urea was the end-product of purin metabolism in mammals. He further put forward the view that normally the end-product is really allantoin. Although this substance had previously been isolated from the normal urine of various animals by several workers, its presence was not regarded as normal, and was ascribed to exceptional circumstances. Wiechowski's view is supported by his own experimental work, as well as by that of others, who have shown that purin bases administered to dogs by the mouth are excreted almost entirely as allantoin. In man the condition is different, the excretion being mainly in the form of uric acid. Allantoin, however, can be demonstrated in normal human urine, and it is found that, on the average, about 10 milligrams a day are excreted. Influenced by the consideration that uric acid metabolism may proceed in two directions—the one leading to allantoin, the other to urea or intermediate bodies—Ackroyd attempted to determine whether dogs had the power of converting uric acid into substances other than allantoin. He chose the method of perfusing the excised liver as being the least likely to upset the normal ferment action. From his experiments he found that when perfused with normal saline the liver produces a small constant quantity of allantoin; further, that the liver has the power to destroy uric acid and convert it partly into allantoin. In no instance could the presence of urea be demonstrated. The fact, however, that all the uric acid administered could not be recovered in the form of allantoin, seems to indicate that metabolism proceeds in some direction other than towards the formation of allantoin or urea. The matter is of considerable interest, and further experiments are being conducted on rabbits with the same object in view.

[1] *Bio-Chemical Journal*, October 17th, 1910, pp. 217-24.

## THE FOURTH ERA IN SURGERY

AT the last Annual Meeting of the Association Professor Crile read a paper dealing with certain factors that influence the immediate results of surgical operations.[1] He demonstrated the severity and the close similarity of the effects upon the cortical cells of such noxious conditions as infection, anaemia, shock, and "fear." He was able to show that vulnerability held an inversely proportional relation to the phylogenetic "youth" of the cell—that is to say, the greater the refinement of function served, the more recent its evolution, the greater the susceptibility to deleterious influences. His conclusions led him to herald the "era of physiology, the interpretation of the laws of life itself." He described a dramatic period of surgery, based on gross anatomy, culminating in the days of Cooper and Pott; a period now reaching its zenith under the dominion of "the great triumvirate of anaesthesia, asepsis, and pathologic anatomy"; and founded his hopes of the future upon a new interpretation of the discovery that man is not an isolated phenomenon in nature. The microscope, he would tell us, has held the eye so exclusively fixed upon bacterial and other cells that no clear vision of "the vital force" itself has been caught. Professor Crile, however, has seen his vision with the aid of an objective, and it seems that "the fourth or physiologic era in surgery" had an earlier prophet in a surgeon of the vigorous American school. In a little volume of collected papers that takes its title from an essay on this subject,[2] Professor Robert T. Morris, of the New York Post-Graduate Medical School, tells us that the surgery of the first or Hippocratic era was "heroic"; Vesalius fathered the second or "anatomic"; Pasteur and Lister inaugurated the "pathologic," whilst the latest or "physiologic" we owe to Metchnikoff and Wright. Professor Morris saw his vision in the operating theatre and the ward to which his cases of acute appendicitis came. He learnt that the smaller the dose of anaesthetic drug, the less the damage done to the tissues, sound or unsound; the quicker he "got in and out" of the abdomen, the better the immediate results of his operative interference. He learnt that all he had to do was to "turn the tide" in favour of the defensive agencies of the patient himself. He awoke to the fact that with time and timely help the human bodily tissues could rid themselves alike of macroscopic rubbish and microscopic raiders. He learnt from clinical observation what Crile deduced from histological changes in the cells of the brain; and both have stated what is already in almost all men's minds. Surgery must still be "heroic"; surgery can never afford to neglect gross anatomy; pathology is still the basis of rational practice; but the refinement of technique, in the broadest sense of the word, by which alone we can hope to minimize mortality, depends upon perfected appreciation of the capabilities and susceptibilities of the normal cell-complex which makes up the human body.

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## CANCER IN THE COLOURED RACE IN THE STATES.

AT the annual meeting of the American Association of Obstetricians and Gynaecologists last year, Dr. K. I. Sanes, of Pittsburg, in a communication upon cancer,[3] turned attention to the statistics of that disease in the coloured race. He admits that the statistics collected by the Bureau of Census of the United

[1] BRITISH MEDICAL JOURNAL, October 1st, 1910, p. 945.
[2] *The Fourth Era in Surgery.* By Robert T. Morris. Philadelphia and London: W. B. Saunders Company. 1910. (Post 8vo, pp. 145. illustrated. 6s.)
[3] Statistics of Cancer in the Female, *American Journal of Obstetrics* November, 1910, p. 817.

States are meagre. No doubt, as in England, where also popular notions of the freedom of the subject and minding one's own business entail certain disadvantages, the task of collecting such statistics is not so easy as in more paternally ruled countries on the European Continent. Still, fairly reliable statistics have been collected from several cities in the Northern, Southern, and old Western States, and from the rural districts in the State of Maryland. These records are worthy of study, if only to show how fallacious conclusions drawn from statistics may be. The mortality per 100,000 of the coloured race is, according to the report in question, 50.2, whilst in the white race it is as high as 71.7. This lower death-rate of cancer in the coloured race can, in Dr. Sanes's opinion, be explained not so much by the greater resistance of the race to cancer as by the fact that their mortality in the precancerous age is much higher than in the white race. United States statistics, which Dr. Sanes introduces into his report, show that the highest mortality of the coloured population, except at infancy, is reached at the age between 25 and 30, that of the white race being attained between 65 and 70. In other words, the coloured race die proportionately in larger numbers at ages before those at which cancer chiefly occurs. This higher mortality of the coloured race at the earlier age is chiefly due to the prevalence of tuberculosis. In the cities and country included in the above statistics of cancer, 457.4 deaths from tubercle were registered among 100,000 individuals of the coloured race, but only 179 deaths in the same number of whites. Thus the death-rate of the coloured folk from tuberculosis is two and a half times as high as that of the white race. If, Dr. Sanes remarks in conclusion, we add to this higher mortality at the age before cancer becomes common the probability of more frequent mistakes in diagnosis among the coloured people, it seems justifiable to doubt whether the coloured race resist cancer better than the whites.

## PAROTITIS IN THE PUERPERIUM.

WHEN the triumphs of Clay, Spencer Wells, Keith, and Lawson Tait were in full bloom, surgeons already discovered complications after ovariotomy involving the parotid gland. As the great majority of abdominal sections thirty years since were ovariotomies, certain assumptions were made which were very natural, yet involved hasty and fallacious generalizations. Schröder and Moericke assumed a sympathetic connexion between the ovaries and salivary glands. Bumm traced staphylococci from the mouth of the patient into the infected parotid. Pfannenstiel and Martin supported this discovery by clinical evidence. The mouth grew dry during the operation; the routine after-treatment in those days did not involve proper care of the mouth, and hence the possibility of infection of adjacent glands became easy to understand. Damage incurred in the administration of anaesthesia was suspected, and not without reason. In February, 1881, Mr. Stephen Paget read before the Medical Society of London an important communication, entitled, "Parotitis after Injury or Disease of the Abdomen or Pelvis," which, although written by an Englishman, is, we are glad to say, still read, and held to be a standard essay even by Britons. At the date when it was read, surgeons had discovered that parotitis followed other operations besides ovariotomy, and Mr. Paget even questioned whether the complication were necessarily due to inflammation extending from a parched and foul mouth up the parotid duct into the substance of the gland. He further believed that sepsis was decidedly absent in many cases. He believed, on the other hand, on the influence of the nervous system, instancing salivation, suppression of saliva or parotitis after gastritis, salivation associated with cancer of the rectum, and suppression of urine after abdominal sections. More recently all the theories above noted have been supported or disputed. Sympathy between the parotid gland and the female organs has been distinctly observed and recorded. Halban reports how a patient under his care consulted him on account of swelling of the parotid, which occurred regularly at the menstrual periods, ceased during pregnancy, and returned after childbirth with the catamenia. Hitherto parotitis has not been associated with the puerperium. Dr. Fischer of Vienna[1] reports an instance in which the patient—a unipara aged 21—was delivered spontaneously at term after eighteen hours' labour. Episiotomy was performed and three sutures applied. The patient was exceedingly restless, shrieking and kicking about; in consequence a very small dose of chloroform was administered. The mouth was washed out and the tongue drawn forward; the jaw was not forced open. The patient was not more than eight minutes under the influence of the anaesthetic, and was never deeply narcotized. On the second day symptoms of parotitis set in. Opening of the jaw gave severe pain. The sublingual and submaxillary glands were not involved, the fauces remained healthy, and the mouth did not become remarkably dry, nor was there constitutional disturbance or even headache. The parotitis was limited to the left side, and subsided totally within the first week of the puerperium. There was no epidemic in the neighbourhood. Dr. Fischer discussed the usual theories, which he could not find applicable in his case. He could not believe that it was due to the effects of the anaesthetic, for after countless administrations under his own observation parotitis was quite exceptional. He considered, however, that damage, unavoidable during the anaesthetization of a restless subject, might very probably account for the complication in his, as well as in many another case. His patient struggled, and opened and shut her mouth, which had to be well-cleaned out. The tongue was drawn forward, but no further special manœuvres were employed. The oral mucosa was probably scratched, and thus infection ensued. In operations entailing the maintenance of anaesthesia for an hour or more, with the use of the gag and repeated pulling on the tongue, Dr. Fischer could well understand how parotitis might be the direct result of traumatism, and not of poisoning by the anaesthetic, or of some reflex effect due to the abdominal operation or injury. In conclusion, whilst Mr. S. Paget and many eminent Continental authorities have marshalled so many cases of parotitis after abdominal injuries as well as operations, it is interesting to learn how rarely the complication occurs after the severe physiological traumatism of labour, a process where we know full well the aid of the anaesthetist is so often demanded.

[1] Parotitis und Wochenbett. *Zentralbl. f. Gynäk.*, No. 49, p. 1592.

## THE COTTAGE BENEFIT NURSING ASSOCIATION.

THE Cottage Benefit Nursing Association is a society for the training and organization of the supply of nurses for the sick poor in the rural districts of England. Its annual report for the year 1909–10 is a record of another year of useful work, accompanied by the complaint of lack of funds, which is common to all such organizations doing what should be the work of the State voluntarily, and depending on charitable subscriptions. To medical men the most interesting item in the report will be the account of the half-

yearly meeting which was addressed by the Hon. Sydney Holland and Dr. Hick. Mr. Holland again expressed his conviction that the State registration of nurses would cause deterioration in the standard of nursing. The only test for registration, he said, would be the passing of an examination, and most people will admit that the most important things in the make-up of a nurse are of a kind that cannot be tested by examination; but the admission does not carry us very far if we are seeking a remedy for defects and abuses which all must admit do exist. Mr. Holland further argued that, having passed her examination and achieved registration, the nurse's knowledge would become out of date, and her character might deteriorate, while she could only be removed from the register after the commission of some serious offence. Medical men will reflect that similar arguments might be applied to medical registration, and yet we flatter ourselves that the latter has not been responsible for any deterioration in the standard of the practice of medicine and surgery. Dr. Hick emphasized the importance of the provident system in connexion with the provision of nursing. He compared his recollection of the Yorkshire Penny Bank and its development with the pauperizing tendency of charity in the South of England. The latter, he declared, seemed specially designed to produce H. G. Wells's "Ideal lower-class person—dishonest, faithful, abject, industrious, and inconceivably incapable of responsibility." In a very outspoken passage Dr. Hick remarked, "The cry for midwives in the country districts is altogether an artificial one. This is proved in my own district—five miles by fifteen—where every woman is attended without difficulty by a medical man." We should not be surprised if there were practitioners in other than country districts who would endorse that remark.

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## DR. THOMAS MOUNDEFORDE'S FEE FOR PROFESSIONAL ATTENDANCE (1611).

**IT is almost exactly three hundred years since Dr. Thomas Moundeforde gave his professional services to Lady Arabella Stuart during the eventful months which followed her private marriage to Lord William Seymour. A writer in *Notes and Queries*[1] has unearthed the following interesting facts regarding the fee paid to the medical man; they are contained in**

The Declaration of the Accompte of Nicholas Pay, gentleman, appoynted by warraunte of the righte honorable the lordes of the Kinges ma^ts^. Privie Councell to receave and issue sondrye somes of money for the provycon of dyett and other chardges of the ladye Arabella Seymour, whoe by his hignes comaundemente and pleasure shoulde haue bene remoued into the countye Palatyne of Duresme [Durham], under the chardge of the Reverend Father in God Will'm lorde Bishpp of Duresme; but after was stayed and appointed to remayne at Eastbarnett during his hignes good pleasure.

**Among the items in this "Accompte" is the following:**

Money payde to Thomas Moundeforde, Doctor of physicke, and an apothecarye appointed by order of the lordes of the Privie Councell to geve their attendance uppon the saide lady Arabella, viz.:

| | |
|---|---|
| For the enterteynement of the saide Doctor Moundeforde for cl^tie^ dayes begonne the viij^th^ of Ffebruarie 1610 [1611] and ended the vij^th^ of Julie following 1611 at xxx^s^. per diem ... ... ... ... ... ... | ccxxv^li^. |
| Ffor the enterteynement of his Apothecarye for ninety dayes at xiij^s^. iiij^d^ per diem ... | lx^li^. |
| Ffor twoe cabanetts furnished w^th^ thinges necessary and used in the tyme of the saide ladye Arabella for sycknes ... ... | xii^li^. |
| Ffor chardges of horsehier and other expences of the saide Doctor Moundeforde ... ... | iij^li^. |

**From the "Accompte" it is evident, therefore, that Dr. Moundeforde was in attendance upon Lady Arabella (here correctly designated Seymour, for she had been married to William Seymour in May, 1610) for 150 days at 30s. a day, or £225 in all, that the apothecary got 13s. 4d. a day for 90 days, that the doctor got £3 more for horse hire, etc., and that an allowance of £12 was made for two medicine cupboards. For Lady Arabella's medical necessities at East Barnet the total sum was, therefore, £300 exactly. Money, of course, had a much greater purchasing power then than now. The circumstances surrounding this early seventeenth century fee were romantic, and, in the end, tragic. When James VI of Scotland became heir to the Crown of England there were other persons who stood in the line of succession to the throne. Arabella Stuart was his cousin, being daughter of Charles Stuart, Earl of Lennox, younger brother of Lord Darnley, and therefore great granddaughter of Margaret, the eldest sister of Henry VIII. She was near enough, then, to be a dangerous claimant; but after the peaceful accession of James she received a pension and a place near the Queen, and was evidently looked upon with favour. Unfortunately, however, she fell in love with young William Seymour, great grandson of Mary, the younger sister of Henry VIII and Duchess of Suffolk. But this attachment could not be encouraged, for here would have been a blending of "the rights in the order of succession with the rights of the house of Suffolk," each of them by itself dangerously strong. The lovers therefore had to promise James and his Council that they would not marry, and for a time all went well; but love will not always yield to reasons of State, and they married in May, 1610, Lady Arabella being then 35 years of age. The marriage was soon discovered, and whilst Seymour was thrown into the Tower, his wife was sent off to be under the watchful care of the Bishop of Durham. But no sooner had the lady started than she was taken ill, so her journey was broken—first at Barnet (where she stayed for eleven days, namely, March 21st to April 1st), and then again at East Barnet (where she remained for sixty eight days, namely, April 1st to June 7th). It was about this time that she made her somewhat romantic escape, dressed in man's clothes, and drew from the ostler at the inn the remark that "the gentleman would never hold out to London"—no matter for wonder, perhaps, if her illness of all these weeks had been real and not assumed. She narrowly missed a successful meeting with Seymour, was recaptured and thrown into the Tower, where she lived for some four years, but bereft of reason. If we compare the dates of the story with those of the "Accompte," it becomes plain that Dr. Moundeforde was in attendance upon Lady Arabella before she left London for Barnet, and again for some days after her recapture; the apothecary was only in association for a shorter period (ninety days). The Dr. Thomas Moundeforde, who was able to give up his other professional duties to act as a sort of travelling physician to this ill-fated lady, was a Norfolk man, who was educated at Eton and King's College, Cambridge, taking his B.A. in 1572 and his M.A. in 1576. "On July 18th, 1580, he diverted to the study of medicine."[2] Since he was born in 1550, he must have been 61 years of age when he came into relation with Lady Arabella Seymour. He lived in Milk Street, London, and had a long connexion with the Royal College of Physicians, being seven times Censor, Treasurer in 1608, and President in 1612, 1613, 1614, 1619, 1621, 1622, and 1623. It will be noted that he held no high place in the college in 1611, the year out of which he gave so much of his time to Lady Arabella and East Barnet. He was also the author of a book, *Vir Bonus*, dedicated to the King and to others (including four judges). The book is divided into four parts—**

[1] *Notes and Queries*, vol. 1, pp. 10, 274, 1849-50.

[2] *Dictionary of National Biography*, vol. xxxix, p. 204.

"Temperantia," "Prudentia," "Justicia," and "Fortitudo"—and is a "summary of what experience had taught him of the conduct of life," including possibly that of this wilful and wayward and lovesick newly-wed wife of middle age and dangerous nearness to King James's throne. He became blind and died in 1630 in the house of his son-in-law, Sir John Bramston.

## THE "INDEX CATALOGUE."

THE annual volume of the *Index Catalogue*, or, to give it its full name, the *Index Catalogue of the Library of the Surgeon-General's Office, United States Army*,[1] contains in its 777 folio pages with double columns of small print the rubrics running from S to Skin-grafting. Now, when one reflects that this is but one volume of the second series, and that the S volume of the first series was issued in 1891, one is able to form some conception of the enormous output of medical books and articles which has been taking place in recent years, for whilst some of the rubrics in the volumes of the second series refer to books, pamphlets, and articles published prior to 1891, the great bulk of them belongs to the last twenty years. A second volume the size of this one will doubtless be required to complete the letter S. The following statement from Lieutenant-Colonel McCaw's introductory letter (which takes the place of preface) speaks eloquently for itself: "This volume includes 8,804 author titles, representing 4,688 volumes and 7,460 pamphlets; it also contains 3,616 subject titles of separate books and pamphlets, and 28,328 titles of articles in periodicals; the library now contains 172,270 bound volumes and 304,708 pamphlets." Well may our American brethren be proud of their medical library in Washington, and happy is the scientific or literary man who lives within consultation reach of the well-filled shelves of that great collection of books. But even to doctors on this side of the Atlantic the *Index Catalogue* is indispensable if they would be acquainted with all that is being written on any medical subject, and fortunately it can be consulted in our medical libraries. Of course it is only the latest volume to appear which can be quite up to date, but the gaps which exist can be filled up by a reference to the catalogue's satellite or little brother, the *Index Medicus*, which is published monthly. If there are medical men who are sceptical about the value of such a work (apart from the one virtue of giving to any one who wishes it the means of finding all that has been written on any disease, form of treatment, or theory of origin of any malady), let them simply read over the titles of, say, the articles under the rubric, "Septicaemia (Treatment of)." They will, perhaps, find some titles which are far from illuminating, and which give little or no information about the articles which they head; but that is the fault of the writers of these articles, and not of the librarian who catalogues them. And it may be remarked incidentally that if medical authors only realized how little chance there was of their papers being read in full they would be more careful to put their chief conclusion in the title. What chance of being referred to has such a title as "A Remarkable Occurrence in Medical Practice"? The Washington librarian will have to skim it over in order to find what subject-heading to put it under; but what other living creature will care to look at it? Yet there are titles almost as silly as that to be met with any day. But, to return to the articles catalogued under "Septicaemia," most of the titles give definite pieces of information; they let us see, at any rate, what medicines or other therapeutic measures have been in vogue; they may suggest to us to try some of them; or they may prevent us from thinking that we have been original in discovering one or other of them. If we will cast our eye down the columns concerned, we shall see a great many papers upon the "serum treatment," about as many on treatment with "silver compounds" (collargol, argentum colloidale), not so many on the "formalin treatment," and stray ones on such methods as the use of "intense heat," "acetozone," "perchloride of iron," "iodoform wax," "passive hyperaemia," "oxygen," "oxygenated water subcutaneously," "venesection and intravenous transfusion of saline solution," and "nitrate of silver" (intravenous injection). Or, if we turn over a page or two, we shall come upon the heading, "Sero-diagnosis," with its several subdivisions of *sero-diagnosis by agglutination, by bacteriolysis and haemolysis, by fixation of the complement, by precipitins*, and *by specific conjunctival or cutaneous reactions;* and we realize from the hundreds of articles indexed under these names how large is the territory occupied by some of the newer methods of scientific diagnosis in medicine. And these do not exhaust the articles on the subject, for under the terms "serotherapy" and "serum-anaphylaxis" (that curious inverted immunity, or opposite of prophylaxis), and "serum-haemolysis," etc., are some twenty more columns of close-printed references to recent contributions on these matters. There is scarcely a subject catalogued which will not afford some information, often of an interesting kind, when investigated; as the eye travels rapidly down a column of titles the mind is supplied with a long series of suggestions some of which may be turned to practical account. Here and there, also, one comes upon surprising rubrics. There is, for instance, "Shakespeare, William," with the names of eight books on the medical aspects of the poet and his plays and with the titles of nearly thirty articles in periodicals on the same subjects; among these we come upon an article with the amazing title "Shakespeares Gynäkologie"! In the next column, under "shampooing," are references to two articles on the dangers of the dry shampoo (use of carbon tetrachloride). Under "shock" are hundreds of articles throwing light by their titles upon the modern views of the pathogenesis of that trying complication and upon its treatment by saline injections. There are subjects, however, which show by the paucity of references to them that they are passing into the limbo of lost things; of these is "sarsaparilla," which can claim only one separate work since 1891, and that a short graduation thesis of Dorpat (1892), while there are less than a dozen papers on it, one of which bears the title *Les sarsepareilles d'aujourd'hui*, with its suggestion that "there was a time once, but "——

[1] *Index Catalogue of the Library of the Surgeon-General's Office, United States Army.* Second series. Vol. xv. S—Skin-Grafting. Washington: Government Printing Office. 1910.

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WE must again apologize for the delay in dealing with many communications received recently; but the difficulty caused by the printers' strike has been adjusted, and it is hoped that no delay will occur in the future.

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THE French Government has sanctioned the expenditure of a sum not exceeding £13,600 for the purposes of the International Hygiene Exhibition to be held this year at Dresden.

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ON the occasion of the German Emperor's birthday the dignity of a Member of the Prussian House of Lords was conferred on Geheimrat Wilhelm Waldeyer, Professor of Anatomy in the University of Berlin.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## BRISTOL.

### UNIVERSITY COLSTON SOCIETY.

THE twelfth annual dinner of the members of the University Colston Society took place on January 16th in the large hall of the university, Mr. J. H. Howell presiding. The guests of the evening were Sir Alfred Hopkinson, K.C., LL.D., Vice-Chancellor of the Manchester University, and Sir Thomas H. Elliott, K.C.B., of the Board of Agriculture and Fisheries.

After the toast of "The King" had been drunk, the President, in proposing "The Pious Memory of Edward Colston," referred to the many benefactions of the great Bristol philanthropist, who lived 200 years ago, specially mentioning the educational side of his benevolence. Hitherto the collection made among the members of the society had been for the sustenance, but this year a new departure was to be made, and whatever was received would be devoted to the endowment of a chair for research. The secretary announced that the collection amounted to £628, being the third highest in the history of the society.

The toast of "The Guests" was given by the Bishop of Bristol, and Sir Thomas Elliott, in reply, said that he had been advised by the Vice-Chancellor to exhort the members of the society to continue their good efforts, but he could claim no power of exhortation; in fact, he had learnt that it was never wise to teach a farmer how to carry on his own business. He had great belief in the value of scientific research, and there was no more profitable field for it than in agriculture, which was the meeting ground of all the sciences. Research benefited consumers and producers, and there was an increasing recognition all over the world of the value of agriculture to the life of a nation, and he hoped that the whole responsibility for its furtherance would not be relegated to the State. Sir Alfred Hopkinson also spoke in reply, and referred to the helping hand the University of Oxford had extended to Bristol University. He urged the importance of encouraging an active and vigorous life in the universities and of rendering useful service to the community. A university in a city should influence its whole life, and the citizens should feel proud of it. They should not be content to be merely called "provincial universities," for they should draw from a wide area and emphasize the value of teaching in special subjects. Associated work was of great importance, and research stimulated the young workers and the wise guide. A university must adapt itself to the community around it and the conditions of modern life, but they must not forget the traditions of the past, so literature and history must ever flourish in their midst. Independence, too, was another keynote, for while the State might give valuable assistance he trusted no university would be attached to any department. While it was not well to talk too much of ideals, it was always advisable to have some which they wished to attain. The wide field of research was never narrowing, but always expanding.

The toast of the "City of Bristol" was proposed by Dr. R. Shingleton Smith, and replied to by the Lord Mayor and Sheriffs; that of the "University of Bristol" was given by Sir William Howell Davies, M.P., and in replying, the Vice Chancellor, Sir Isambard Owen, M.D., said he felt like a patient present at a consultation on himself when listening to the advice given to the members of the university. He approved of the prescription, and promised to do his best to assimilate and profit by the generous diet laid before him. In conclusion the Vice-Chancellor was placed in the chair as the new president.

### RED CROSS SOCIETY.

A reception was given by Sir George and Lady White in the Victoria Room on January 19th, when the former announced that in the event of an invasion of this country the Royal Infirmary would be used as a base hospital. At present the society is represented by a voluntary aid detachment of the St. John Ambulance Brigade and two female nurse sections.

## MANCHESTER AND DISTRICT.

### AN OPERATION UNDER DIFFICULTIES.

AN inquest was held last week at Warrington on a man who, on stepping out of a railway carriage, accidentally got under the train at Earlstown Junction. The evidence as to how the accident happened was somewhat conflicting, one statement being that the train stopped and then suddenly started again as the man was getting out, though a railway employee said that the man was attempting to leave the train before it stopped. In any case, the man was so pinned down under the carriage that it was found impossible to release him without amputating his leg. The operation was performed under the greatest difficulties by Dr. Lawrance of Earlstown, and the man was then removed to the Warrington Infirmary. Unfortunately, another operation was afterwards necessary in the infirmary, and the patient was unable to bear the shock. The jury found that he died from the injuries he had sustained, but there was not sufficient evidence to show whether the injuries were inflicted through his own fault or from the negligence of the servants of the railway company. The coroner and jury and the official representative of the railway company paid a high tribute to the skill of Dr. Lawrance, who performed the operation at the station under the greatest difficulties, and they expressed admiration for the fortitude with which the patient went through the ordeal.

### MEMORIAL TO THE LATE DR. J. M. RHODES.

A memorial which takes the form of a handsome clock tower has just been erected at Didsbury in memory of the late Dr. J. M. Rhodes, who did so much valuable public work, in connexion especially with Poor Law administration. The tower is of light coloured stone, about 25 feet high, with drinking-fountains at the base, and it bears a copper medallion of Dr. Rhodes with an inscription. The cost has been about £350, nearly all of which has been raised in small subscriptions.

### ASYLUM ACCOMMODATION IN LANCASHIRE.

For the last ten years the necessity for increased asylum accommodation has been acutely felt in Lancashire, and some years ago it was decided to build a new asylum at Whalley. Some objections were raised to the site, and the Lunacy Commissioners for long hesitated to pass the plans, so that the tenders were only accepted a few months ago. Another three years will probably elapse before the new asylum can be completed, and to meet the requirements in the interval the Asylums Board decided to enlarge Whittingham Asylum to take 700 more patients, and also to provide accommodation for 330 at Seafield House, Liverpool. It was expected that the latter scheme would be the most expeditious, but the Commissioners decided that the place could only be leased for temporary accommodation of pauper lunatics for whom provision could not be made at Rainhill. Seafield House was taken last March on a lease at £600 a year, the lease giving the owners, who are the Mersey Docks and Harbour Board, the option of ending the lease at the end of seven years, though the Asylums Board have only the option of doing so at the end of fourteen years. It has recently been found that the cost would be so great that it will be better to abandon the scheme altogether, and the subcommittee dealing with the matter suggests in its place the erection of temporary buildings adjacent to one of the existing asylums. Objection to the position of Seafield House has also been taken on the ground that the situation is bad owing to the noises from foghorns and sirens from the river Mersey. Moreover, though the original estimate for altering the house was £13,500, it is now found that the lowest tender for the work is £16,200, and by the time that the work could be completed there would only remain

about four and a half years, at the end of which the Docks and Harbour Board might, if it so wished, terminate the lease. During that time the committee estimates the expenditure would have been over £35,000, while the estimated cost of a permanent building to accommodate the same number, that is 330, is only £39.600. In view of all these facts the committee has decided to recommend that the scheme be abandoned. The question came up before the Lancashire Asylums Board last week, and deputations were received from the West Derby and the Prestwich Unions. In both these unions the greatest difficulty is being now experienced in finding room for the patients. In the West Derby Union it was stated there was no possible means of treating the sick in case of any serious visitation of illness, and 61 patients, many of them acute cases, had had to be accommodated in the ordinary sleeping wards, while 9 had had to be sent to asylums outside the county. The position was said to be equally bad at Prestwich, as patients had been sent as far away as Middlesbrough and Birmingham, and if the Seafield House scheme were abandoned the situation would be most critical. An amendment was moved and seconded that the committee be instructed to carry out the scheme at once, the clerk having stated that the amount sacrificed if the scheme were abandoned would be fully £10,000. On a vote being taken, however, the amendment only received four votes, and the original motion not to proceed with the scheme was then carried.

## WEST YORKSHIRE.

### UNWHOLESOME FOOD IN BRADFORD.

THE people affected through the supply of impure food belong to the poorer class of the community; and these are the very persons who are least able to protect themselves. Several prosecutions have recently been instituted by the Bradford Health Authority in cases of this kind. One defendant had 25 quarts of cockles for sale which were stated to be absolutely rotten and with a vile odour. He was find £5 and costs. Another defendant had some turkeys for sale in an advanced stage of decomposition. They had been kept in a refrigerator from Christmas, 1909, until the same period of the following year. A fine of £2 was imposed A third case was open to considerable difference of opinion. "High" venison was seized, but the magistrates considered that venison that was high was not necessarily unfit for human consumption. The summons was dismissed.

### THE BRADFORD ANTHRAX INVESTIGATION BOARD.

It is extremely unfortunate that a controversy, that may endanger its usefulness, has arisen in connexion with the work of this board. Mr. F. W. Jowett, M P. (Labour member for one of the divisions of Bradford) recently made a speech in which he stated that the board was paying too much attention to bacteriological research and too little to the practical question of the importation of the dangerous material. The matter was further considered at a meeting of the Trades Council, and after speeches from Mr. Jowett and others that body determined to withdraw its representative from the board.

Mr. Jowett maintained that the late Dr. J. H Bell, of Bradford, considered that the germs of anthrax could be destroyed by steam under pressure (230° F.) applied to the bales of wool at the port of entry. Dr. Bell's suggestion would probably have to be revised to the extent that possibly the spores would not be destroyed by these means. But he maintained that there were germicidal agents that could be used for this purpose without injury to the wools. The danger stated to occur from handling the fleeces containing dried blood was not the only one. Dust must contain some of the broken-down blood clots, and in this way was very dangerous. The implication from the board's conclusions was that the latter was not of much moment. The board, owing evidently to the question of cost, would not make any suggestions that the bales of wool should be opened so as to disinfect them thoroughly. The reply of the chairman of the board to these strictures is to the effect that "while they (the board) have already obtained most valuable information, in the present state of their researches it would not be wise to ask the Home Office to act until they are quite sure as to the procedure to adopt. When this moment arrives the board will not fail to takes all necessary steps in whatever direction may be found desirable."

Dr. Eurich's work has been so admirable and the steps adopted by the board so reasonable that it is much to be regretted that the Trades Council has come to the decision recorded. To the scientific observer the action seems precipitate, and it is to be hoped that even yet wiser counsels may prevail. Surely criticism of the board's action might be offered without going to the extreme step of severing all connexion with it!

## LONDON.

### MEDICAL TREATMENT OF SCHOOL CHILDREN.

CRITICISM of the present scheme of medical treatment of school children in London was renewed when the County Council resumed its sittings last week. At the meeting of the Council on January 24th the approval by the Board of Education, as an experiment, of two schemes for providing dental treatment at Poplar and Deptford, was reported. In the course of a general discussion the point was made that for providing efficient dental treatment school clinics were probably the best means, and that the present method of utilizing the hospitals—even if it could be shown to be sufficient for the treatment of ailments of the eyes, nose, throat, and skin—would be inadequate when dental treatment was in question on account of the large percentage of children found on inspection to be suffering from dental caries. No resolution, however, was carried. On January 25th, at the meeting of the Education Committee, Mr. R. A. Bray moved the following resolution:

> That, inasmuch as the present method of assessing parents' payments in respect of medical treatment is causing (1) parents to be deprived of the free medical treatment for their children which they have received from the hospitals hitherto, (2) the overcrowding of those hospitals with which the Council has no agreement and which consequently provide free treatment as before, arrangements be made whereby parents are required to contribute only in those cases when the hospitals decide that their circumstances are such that free medical treatment should be refused.

Mr. Bray urged that the present arrangements inflicted hardship on parents who now had to pay for treatment for their children where formerly they received it free. The working classes were beginning to resent this very much; a vast number contributed regularly to the hospital funds, but if the present state of affairs continued, that would cease. Another difficulty was that hospitals at which treatment was still free, because no agreement had been made with the Council, were getting overcrowded with patients. It was stated that the Children's Care Committee had under consideration the whole question of the recovery of the cost of medical treatment, and the motion was referred to the Committee.

### STATISTICS OF LONDON INQUESTS.

Mr. Casson has given notice to move at the London County Council:

> That it be referred to the Public Control Committee to ascertain, as regards the past five years, and to report (1) the number of inquests held in London by coroners and their deputies respectively; (2) the sums paid to each coroner in respect of such inquests, and the proportion of such sums paid in respect of inquests held by deputy; (3) the remuneration paid by each coroner to his deputy; (4) such other expenses as may have been incurred by each coroner in respect of inquests held by deputy; and (5) generally as to the terms of employment of deputy coroners.

### DISTRICT MEDICAL OFFICERS' FEES.

The County Council on January 31st decided to fix a fee of 10s. 6d. for the services of district medical officers when called to houses at which nurse infants are kept to certify as to conditions prejudicial to the

health of such infants. It was stated that these services involved consultations with the Council's inspectors and specially arranged visits to the houses.

## NEWCASTLE-UPON-TYNE.

### THE CLINICAL SOCIETY.

THE Clinical Society, founded in 1883, still possesses all the vigour of youth, and has begun to publish on its own account the *North of England Clinical Journal*. The first number appeared a week ago under the able editorship of Dr. George Foggin. If succeeding issues maintain the high tone of the inaugural number success is assured.

The current session of the society has been fruitful of good work. In addition to the contributions by various members of the society, Dr. G. L. Gulland, of Edinburgh, a fortnight ago enriched the proceedings by an admirable address on the value of an examination of the blood in disease, with practical demonstrations. On January 25th the annual address to the society was given by Dr. Risien Russell in the College of Medicine, the subject being "Important Problems in the Diagnosis of Diseases of the Nervous System." The address, which was illustrated by lantern slides, was of the high character expected from one who is such a careful observer, and was listened to with close attention. His remarks upon the means of differentiating between organic and functional affections were much appreciated. In the evening Dr. Risien Russell and Dr. Byrom Bramwell were entertained to dinner in Tilley's New Rooms, where 112 members and friends sat down. The chair was occupied by the president, Dr. E. Napier Burnett, who, after having submitted the Royal toast, gave that of "Our Guest," Dr. Risien Russell. Dr. Russell made a happy speech in reply. Dr. Byrom Bramwell proposed "The Clinical Society," which was acknowledged by the treasurer, Dr. D. Wells Patterson. To Sir Thomas Oliver was entrusted the toast of "The Visitors," coupled with the name of, and acknowledged by, Principal Hadow, of the Armstrong College. The harmony of the evening was much enhanced by excellent singing and music.

### MR. FRANK HOWSON AND SYDNEY UNIVERSITY.

Mr. Frank Howson, Lecturer on Physiology, having been appointed to a similar post in the University of Sydney, the opportunity was taken of indicating to that gentleman, before he left the North a week ago, the esteem in which he was held by his colleagues of the College of Medicine and of Armstrong College. At a meeting in the College of Medicine Professor Philipson, in the name of the subscribers, presented to Mr. Howson a handsome cheque. A few days previously Mr. Howson received from the Teachers' Association, as a mark of appreciation, a gold fountain pen.

### ANNUAL DINNER OF PAST AND PRESENT STUDENTS.

The annual dinner of the past and present students of the University of Durham College of Medicine is to be held in Newcastle on February 15th, when, in the afternoon, an address will be given by Mr. Arbuthnot Lane, F.R.C.S., on the operative treatment of fractures. Professor Rutherford Morison will preside at the afternoon meeting, and Mr. H. Brunton Angus will occupy the chair at the dinner.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### THE MEDICAL PROFESSION AND THE TERRITORIAL FORCE.

A CORRESPONDENCE that has recently taken place between a surgeon-lieutenant-colonel and the Territorial Association to which he is attached, with the War Office intervening, raises once more the question of the fee paid for the medical examination of recruits to the Territorial Force. This surgeon-lieutenant-colonel has to travel very considerable distances, at his own expense, to make examinations of recruits, and he rightly protests against the War Office regulation which allows the fee of 1s. for each recruit found fit for service in the Territorial Force and nothing for the examination of those found unfit, although the examination of the latter will almost of necessity be a more prolonged one. In his opinion, these regulations and this scale of pay reduces medical examination to ridicule and puts a premium on passing the unfit. But, as far as we are aware, the new point brought out in this correspondence is the more plain statement by the War Office that medical officers might give their services without payment. The Territorial Association agreed with the doctor, and appealed to the War Office, which, on January 6th, 1911, replied as follows:

> In reply to your letter of December 20th, 1910, regarding the payment of fees for the medical examination of applicants for enlistment in the Territorial Force, I am commanded by the Army Council to state that the grant allowed by paragraph 747, Territorial Force Regulations, must be considered as in the nature of a contribution to the general funds of the Associations, and not as the fee allowed to medical practitioners for the conduct of these examinations. It has been found that medical officers of units have frequently (following the practice in the Volunteers) carried out these services without payment, but where expenditure is found to be actually necessary, whether for men accepted or rejected, on this account the sums so expended should be charged to the general funds of Associations. The Association accounts show that, on the average, the grant more than balances the expenditure.
>
> (Signed) H. H. BRADE.

Some at least of the Count ations would be unable to agree with the last e of this letter, and most would agree that e tly the medical profession is the only body of m be asked to give gratuitous service to the War Office. That is the point which our correspondent presses.

### SCOTTISH POOR LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of the Scottish Poor Law Medical Officers' Association was held in the St. Enoch Hotel, Glasgow, on January 27th. The annual report for the year 1910 stated that during the year a large amount of correspondence was entailed in supplying applicants with detailed information as to vacant Poor Law medical appointments. The association expressed its thanks to the outgoing medical officers who supplied the necessary details. The report gave a few typical cases of inquiries received and the gist of the replies returned. The Secretary for Scotland had indicated to Mr. J. Cathcart Wason, M.P., that there was no chance of the Parochial Medical Officers (Scotland) Bill being considered by Parliament, in view of the Royal Commission on the Poor Laws, until the Government attempted legislation on the lines of the report; when that occurred, an effort would be made to remedy the grievances of Poor Law medical officers in Scotland. The financial statement showed a substantial balance. The report was discussed clause by clause and unanimously adopted The office-bearers were re-elected, including Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow, the Honorary Secretary. Votes of condolence to the relatives of deceased members brought the meeting to a close.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### WOMEN'S NATIONAL HEALTH ASSOCIATION.

THE success attending the many enterprises that have been inaugurated by the various branches of the Women's National Health Association throughout Ireland, and more especially the valuable work performed in the poorer districts of both town and country by the nurses that the association supports, has frequently been mentioned. A recent report of the Wexford Branch of the association, however, suggests the advisability of the association insisting that their nurses should always work under the

advice of the doctors in whatever district they may be stationed, and that the nurses should carefully avoid arrogating to themselves a position to which their knowledge does not entitle them. In the report to which we refer the nurse takes credit to herself at the expense of some unnamed doctor for effecting a cure in a case of gangrene which the doctor had stated to be hopeless. She also stated that she had done her best in cases of blood poisoning, and that she had been called in in a number of cases where children had pneumonia or convulsions. As she added that the cases of blood poisoning generally turned out well and that the cases of pneumonia came under her care, it is to be presumed that she not only was called in to see such patients in the first instance, but that she continued in attendance upon them without seeking the aid of a medical man. If this is actually the case, we fear that friction is bound to arise between medical men and the association, and, in consequence, in the interests of the poor who might suffer much thereby, we call attention to the matter. When the association was started the opinion was expressed in many quarters that ill-feeling would be bound to arise between its members and the medical profession owing to a supposed tendency on the part of the association officials to override and ignore medical opinion. These fears, we think, have not been realized, and on the whole the association appears to have done and to be doing its work tactfully and well. We further believe that the circumstances which have evoked these remarks are entirely exceptional.

### MEDICAL FEES.

A case of much importance to the medical profession was heard before the Recorder of Dublin last week. The facts are as follows: Two ladies were injured in a motor-car accident, and took an action for damages against the owner of the car. Prior to the hearing of the case the ladies' solicitor communicated with Sir Christopher Nixon, M.D., and asked him what his fee would be for examining one of the two ladies and for attending in court and giving evidence. Sir Christopher Nixon named a fee of five guineas for the examination and twenty-five guineas for attending the court. This was agreed to, and the medical examination was carried out. Later Sir Christopher Nixon was notified that the case was coming on at a certain date, and was asked to attend in court at 11.30 a.m. on that day. Sir Christopher made the necessary arrangements to attend, and did actually attend, but on arrival at court at 11.25 a.m. found the parties coming away, the case having been settled. Subsequently, on applying for his fee, the same was refused on the grounds that no actual evidence was given. The Recorder took the view that an expert witness was not paid for his evidence but for attending to be called as a witness, and that when a doctor made arrangements to give up his clients for the day in order to attend court he should be paid the fee he had contracted for, whether the evidence was given or not. In consequence a decree for the full amount claimed was given. It is possible that more will be heard of this case, as the solicitor for the defendant contended that once a doctor has examined any person, and that the condition of the person examined became a question in court, the doctor could be compelled to attend in court for the fee laid down in the parliamentary schedule, and that no action could be taken to recover fees as a medical witness further than scheduled fees.

### MEMORIAL TO THE LATE DR. W. B. MCQUITTY.

A meeting of many of the patients and friends of the late Dr. W. B. McQuitty was held in the City Hall, Belfast, on January 27th, for the purpose of considering the best means of perpetuating his memory. Mr. R. J. M'Mordie, M.P., Lord Mayor, occupied the chair, and there was a large attendance. Sir John Byers moved:

> That, in the opinion of this meeting, it is desirable there should be a memorial to the late Dr. McQuitty.

After referring to the many services of Dr. McQuitty he said that opinion varied as to whether the memorial should take the form of endowing a bed in the Royal Victoria Hospital, or of founding a prize in connexion with the clinical teaching. The motion was seconded by Mr. James Davidson, chairman of the board of the Royal Victoria Hospital, supported by Sir Peter O'Connell, D.L., President of the Ulster Medical Society, and carried. On the motion of Mr. J. J. Adams, Antrim, a large committee was appointed to carry out the object of the meeting. Drs. John Campbell, William Killen and Charles J. Milligan were appointed honorary secretaries.

# India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### THE HEALTH OF CALCUTTA.

THE elaborate report for the year 1909 prepared by the Health Officer, Dr. T. Frederick Pearse, F.R.C.S., D.P.H., presents a satisfactory and hopeful view of the sanitary condition and administration of the city of Calcutta. The year was a wet one, and excess of humidity is found to be unfavourable to health. Increased care is being exercised in collecting and checking vital statistics. The birth-rate was 22.9 per 1,000, or, making allowance for an increase of the population and peculiarities of its composition, 27.4. The death-rate was 34.1, against a quinquennial rate of 35 2, or, making similar allowances, 34.9. Females died at the rate of 44 and males of 29 per 1,000. The death-rate of infants under 1 year of age was 268 per 1,000 of births—the lowest rate recorded for eighteen years.

The principal causes of mortality were: Small-pox, 13 per cent. of total deaths; bronchitis, 12; plague, 8; cholera, 7; phthisis, 6; malaria, 5; dysentery, 5; tetanus, 4; remittent fever, 3; acute pneumonia, 3; puerperal diseases, 2; and epidemic dropsy, 2; totalling about 70 per cent. of the whole mortality. The town was visited by a sharp epidemic of small-pox, which is apt to recur every few years. Segregation, disinfection, and vaccination were actively resorted to. The outbreak was the worst for forty years. Improved ambulance arrangements have been made for the conveyance of infectious cases. The epidemic subsided in June. The great mortality (5.8 per 1,000) caused by chest diseases is a serious fact. The very young and old are the principal victims, and the suburban areas suffer more than the urban. Phthisis levies a lamentable tribute (2.3 per 1,000). The mortality among females—especially Mohammedans—is higher than among males. The health officer supplies useful hints as to preventive precautions. The cholera death-rate was below the average of past years, and statistics indicate that malarial fevers and bowel complaints are on the decline. A "mosquito brigade" was employed in the most malarious wards during the fever season; but the benefit of the measure was doubtful. There was an increase of plague mortality (2,117 deaths, against 1,779 in 1908). The outbreak was sharp and short. Only 363 inoculations were performed, and no death occurred among the inoculated. Rat destruction and disinfection were resorted to on a large scale. Puerperal mortality and infantile trismus, both indicative of bad midwifery, continue to cause many deaths. Two municipal midwives were employed during the year, but their practice appears to have been restricted. A female sanitary inspector was also appointed temporarily. The measure seems to have met with considerable success; access is obtained in this manner to zenanas and their occupants. The most interesting part of the report is the description of a very remarkable outbreak of "epidemic dropsy" which took place during the year. The outbreak was evidently similar to that which occurred in Calcutta and Mauritius in 1879–81, and, on a smaller scale, in the former place in 1907. The disease broke out in the Alipore Reformatory in July, 1907, and prevailed to some extent in the town in that and the following year, causing 15 and 33 deaths. It started in force in July, 1909, and caused 433 deaths before the close of the year.

It visited most parts of the city, and as the case-mortality was small (about 2 3 per cent.) the seizures must have numbered over 15,000. Dr. Pearse pronounces the disease to be "acute, specific, and infectious," and inclines to the view that it is identical with beri-beri. The epidemiological features and mortality are very different from those of beri-beri. The clinical and pathological data are too imperfect and vague to justify any opinion *pro* or *con*. Captain Greig, I.M.S., has been deputed to investigate the disease, which, however, seems to have subsided. The details concerning sanitary work, which are given at great length in this report, indicate zeal and progress.

# Federated Malay States.

[*FROM OUR SPECIAL CORRESPONDENT.*]

A VERY interesting report has been issued on the work done at the Institute for Medical Research of the Federated Malay States during 1909.

BERI-BERI.

Dr. Fraser, the director, has been conducting investigations on the etiology of beri-beri, and his researches seem to have met with some degree of success. The principal fact brought out is that certain varieties of rice are associated with the occurrence of this disease, and other varieties are not. Four years ago, when these investigations began, the position as regards the elucidation of the cause of this disease could be summed up thus: of the numerous organisms for which specific claims had been advanced, none of them had had its claims substantiated by independent and competent observers. Now it can be confidently stated, as the result of observations on dieting, that in people who consumed parboiled rice beri-beri did not occur, and that in those people who consumed white rice beri-beri did occur.

These facts were brought out by the use of parboiled rice being supplied to 300 labourers in the work of road construction in a remote part of the State of Negri Senibilan. These labourers were accustomed to the use of, and preferred, white rice; but more than six months previous to Dr. Fraser's visit beri-beri broke out among them, and was a serious source of invaliding and mortality. On the suggestion of Dr. Braddon parboiled rice was issued in place of white rice, and thereafter no cases of this disease occurred. Afterwards, however, without exception the labourers wished to resume the use of white rice, and, as the evidence was in no way conclusive that the continuous use of white rice as a staple article of diet caused beri-beri, it was decided to accede to the wishes of half the men, the other half continuing on parboiled rice. Apart from this change, no other alterations were made either in the dietetic or hygienic conditions. Eighty-seven days later beri-beri broke out among the members of the white rice party, and cases continued to occur among them until rice of the parboiled variety was substituted. No case occurred in the control party. The conditions were reversed, and the members of the party hitherto on parboiled rice received white rice, and vice versa. After a somewhat longer interval beri-beri broke out among the members of the party now on white rice, and no case occurred in the control party.

Here, then, the chain of evidence is complete, so far at least as the rice grown in the Malay States is concerned. Beri-beri is caused by the continuous consumption as the staple article of diet of rice from which the subpericarpal layers of the grain have been removed by polishing. In the case of parboiled rice the soaking and steaming to which the grain is subjected previous to milling renders the grain tough and semi-transparent; it cannot be made white, and as the subpericarpal layers are now difficult of removal, no great effort is made to accomplish this. There is abundant evidence to show that the Malays in their native villages do not suffer from beri-beri. They prepare their rice from similar grade to that from which the parboiled and white rices are prepared, but they employ primitive methods of pounding and winnowing. Examination of rice prepared in this way shows that the subpericarpal layers are removed to only a limited extent, and thus the freedom of Malays in their villages from beri-beri is easily explained.

These researches have shown why certain rices are associated with the occurrence of this disease, and as far as the Malay States are concerned the prevention of beri-beri can certainly be accomplished by the use of unpolished rice.

Experiments on the dieting of fowls were carried out to determine whether they were sensitive to a difference between parboiled and white rice. The fowls were confined in separate cages, five of them were fed on cooked parboiled rice and five on cooked white rice. All the fowls fed on white rice lost weight; three of them died in a few weeks, but the cause of death was not determined; one developed paralysis of the legs; the remaining fowl became weak, but did not suffer from paralysis. All the fowls fed on parboiled rice continued healthy. These results induced Dr. Fraser to carry out observations on a larger number of fowls, with the same results.

As a result of these experiments on men and fowls, Dr. Fraser considers that by further researches on the different varieties of rice, which he is at present carrying out, the causation of beri-beri may ultimately be determined.

# Correspondence.

## "EYE" IN SPORT.

SIR,—I will briefly reply to the interesting letters that have appeared on the above subject, but it would be quite impossible within the compass of a letter to deal with all the deep problems that arise. Mr. Walker evidently knew well what he was writing about. "Muscle sense," to which he and "Hands" allude, I included under "brain." It is, of course, one of the most important factors in making use of "eye" as well as for acquiring it. It is very true that the beginner cannot possess much "eye"; he can only have the potentiality of it to a greater or lesser extent, and this controls the degree of success which will attend his practice. Again, the potentiality of "eye" depends upon the quantity and quality of grey matter in those brain centres that are involved.

The boy who takes out his new gun and pots a squatting rabbit over a hedge can tell you at once what he did. He probably shut one eye, aligned the rabbit along the barrel with the master eye, and pulled the trigger, but the trained shot who has to do with varying distances and objects moving at different rates of speed has to develop another function, the product of both eyes, during which process the master eye's omnipotence sinks into unimportance, and the brain eye takes over the duties. And so compound a thing is this brain eye, that the trained shot cannot tell you, speaking generally, what he does when he shoots a driven partridge. That is briefly what I meant to convey in my lecture.

I had not missed the point that Mr. Walker's ruler and card experiment illustrates, but I had no time for details. It is only true of those who have no heterophoria; most people have some. The experiment, however, so far as it goes, illustrates my point as to the unimportance of the master eye in aiming, as compared with the influence of both. Mr. Green's point about his customer is not difficult of explanation. He asks what I should have done in such a case. In reply I refer him to my lecture. "It is above all things essential that a gun should be well fitted." The gentleman referred to during the ten years has got older, perhaps stouter, and his arms are less supple, and his gun did not fit him; when this was remedied—a point that Mr. Green recognizes—he again shot well. His "mental line of vision," his "subconscious feel," and, I trust, his "brain potentiality," are unaltered.

I hope shortly to go into this shooting question very much more fully in a small book on the subject, and, bearing in mind the points that have been raised, will give my explanation in greater detail.—I am, etc.,

London, W., Jan. 30th. ROBERT W. DOYNE.

## SWABS LEFT IN THE INTESTINE.

SIR,—Although I cannot agree with the whole of Mr. Lynn Thomas's letter in the JOURNAL of January 28th, p. 229, I would join with him in congratulating Mr. Charles Ryall upon the issue of the recent trial. I took more than usual interest in the case, as Mr. Ryall learnt his rectal surgery with us at St. Mark's Hospital.

That he took the only course possible under the circumstances seems clear, for during the operation the lower part of the sigmoid colon sustained a tear of considerable length, and to prevent flooding of the pelvis by fluid intestinal contents he lightly plugged the bowel prior to suturing it.

Owing to the fact that the bowel was bound down by adhesions, had he endeavoured to clamp the gut above the lesion, it is probable that some faecal escape would have taken place with a possible fatal result.

If he had not been misled by the statement of the nurse "that the swab had passed," he might have taken one of two courses—namely, either have waited until the swab passed, as it did after many months, or have taken steps to remove it, after having allowed sufficient time for the wound in the intestine to heal.

The first step for removing a swab in this position, I take it, would be to locate it by means of the sigmoidoscope, and then to remove it by long forceps passed through a large, though short, Kelley's tube under the guidance of the eye and reflected light. In spite of the comments of Mr. Lynn Thomas on the dangers attending the use of the sigmoidoscope, I should not consider I was running the slightest risk by using this useful instrument, even if, owing to the fixation of the pelvic colon, success did not attend my efforts.

I was much interested in Mr. Lynn Thomas's statement that he had placed not only one but two swabs high up in the small intestine during the operation of gastro-enterostomy, and that he had seen Professor Roux do likewise. If swabs can be left with safety high up in the jejunum, surely they can be left with equal or greater safety low down in the large intestine—I am, etc.,

London, W., Jan. 30th. F. SWINFORD EDWARDS.

## TRACHEOTOMY FOR DIPHTHERIA IN ISOLATION HOSPITALS.

SIR,—I was interested in a report in the JOURNAL of January 21st of an inquest that had been held on a child of 6 years, that died of laryngeal diphtheria, the operation of tracheotomy not having been performed. As medical superintendent of a small isolation hospital serving a population of about 80,000, mostly in colliery villages, I have had considerable experience of such cases. The parents usually do not call in the colliery surgeon until the child is pretty bad, with well-marked obstruction with cyanosis and restlessness. I very soon realized that it was unfair to expect the hard-working general practitioner to perform such an operation as tracheotomy in the small dwellings of the collier, and I adopted the following method: When the surgeons outside come across a case of laryngeal diphtheria they were asked to telephone or wire to me, or to the hospital matron, of the existence of such a case; the ambulance is immediately dispatched for the patient; in the meantime, preparation is made for tracheotomy, which is performed as soon as the child is admitted. Antitoxin is given before the child is taken off the table. The sanitary inspector is not called in until afterwards, when he is instructed to disinfect the house and make the usual inquiries. We have had about twenty such cases in the last four years, and not a single death. The hospital staff regard them as very interesting and satisfactory cases. I am inclined to think that it is a mistake to assume that any of these cases are hopeless. They do better than bad pharyngeal cases—I mean they are not so apt to be followed by heart failure.

It is true, as stated, that the primary object of isolation hospitals is the prevention of disease, but they have become something more than that. The amount of operation work done in our large fever hospitals must be very considerable, and a great many lives are saved every year.—I am, etc.,

D. LLEW. WILLIAMS,
M.O.H., Wrexham Rural District Council.

Wrexham, January 24th.

## ALCOHOL AND DEGENERACY.

SIR.—I seriously doubt whether any profitable end can be served by this controversy, but you will perhaps spare me space for some comments on the extensive criticisms of Sir Victor Horsley, Dr. Mary Sturge, and Dr. Saleeby in your issue of January 14th.

In the first place, let me dismiss Dr. Saleeby before I deal with his colleagues. He quotes the words, "The stronger and more virile parents took alcohol, and because of their physique, not because of their alcohol, had healthier children" from my letter of January 7th, omitting the introductory words "the explanation we still believe to be valid is that," and states that with these words "one of the disputants has formally and generously, if unconsciously, thrown up the sponge."

The reader might imagine that we have here some new statement on my part.* The following sentences occur in our original memoir:

> The fact, as shown in these figures, that the children of the intemperate are healthier than the children of the sober, is probably due to the more virile and physically fit members of the community being liable to alcoholic temptation, and is as such an indirect effect of heredity, and not a result of alcohol (p. 11).

And again:

> There are fewer delicate children, and in a most marked way cases of tuberculosis and epilepsy are less frequent than among the children of sober parents. The source of this relation may be sought in two directions; the physically strongest in the community have probably the greatest capacity and taste for alcohol. . . . (p. 31).

Lastly:

> On the whole, the balance turns as often in favour of the alcoholic as of the non-alcoholic parentage. It is needless to say that we do not attribute this to the alcohol, but to certain physical and possibly mental characters which appear to be associated with a tendency to alcohol (p. 32).

Clearly, to adopt Dr. Saleeby's graceful analogy, we "threw up the sponge" in the original memoir. But if this be so, why has our critic not read it, and why all this excitement and invective flowing from its publication?

In the next place, Dr. Saleeby says that I "advocate the segregation of the inebriate on account of the probable mental defect of his offspring." I have, of course, made no such proposal at all. The authors of the memoir on *Extreme Alcoholism in Adults* draw attention to the fact that about 0.1 per cent. of the female population consist of *convicted* inebriates, and that 60 per cent. of these convicted inebriates are mentally defective. They believe that the alcoholism in these extreme cases is largely due to hereditary mental defect, and they urge—what? *Not* even "the segregation of all extreme cases of alcoholism, but the segregation of the mentally defectives" (p. 44). This segregation of the mentally defectives has always been urged by the Galton Eugenics Laboratory, and in advocating it in the case of the mentally defective *extreme* alcoholists, the authors of the memoir have merely given expression to an opinion they have long held and often uttered. Why, however, our critics should employ their energies in misquotation it is hard to imagine—the segregation of the *mentally defective* and *convicted* inebriate (average number of convictions 28) is far from being identical with the "segregation of inebriates," which Dr. Saleeby attributes to us.

Turning now to Sir Victor Horsley and Dr. Sturge, I am compelled to hold that they conceive that if they repeat a statement often enough and in strong enough language it will, of necessity, prove itself true. It may be that some persons who have not read our memoirs will eventually accept their statement, but that is not identical with demonstration of its truth. Under such circumstances discussion can lead to little of value, although reply may appear a necessity. Sir Victor Horsley accuses me of fabrication and dishonesty; the only charge I make against him is that his partisanship for a special theory has wholly destroyed his scientific balance. We must turn to antivivisection and antivaccination literature to match his invective and his misstatement.

I intend to reply to Dr. Sturge and Sir Victor's detailed charges once and for all in a forthcoming pamphlet,

* Speaking from personal experience of individual families, naturally a limited but not an unobservant one, I should certainly conclude that more athletic, active, and outdoor members—shortly, the more virile ones—consumed the more alcohol.

showing in parallel columns what Miss Elderton did and what our critics charge us with doing. But as that pamphlet may never reach some of your readers, I should like again to draw attention to the main features of this controversy, and illustrate in one or two special cases Dr. Sturge and Sir Victor's methods. Sir Victor belongs to that small group of temperance advocates who apparently believe that moderate and excessive uses of alcohol are identical in their results. They assert that any use of alcohol produces a toxic effect of a most serious kind on the offspring of parents using alcohol. Now, if there be any measurable *graded* effect at all, it must exist in a population more than a moiety of whom drink. We took such a population and divided it into two classes, one of which was reported by the most competent observers to be sober, and the other to drink more than was good for themselves or their homes. We found no *marked* differentiation in their offspring, physically or mentally. We did find a marked differential death-rate of their offspring. The one result is to be accepted because it coincides with Sir Victor and Dr. Sturge's *a priori* views, the other to be rejected because it does not. If there are any significant number of parents producing toxic effect on their offspring, mentally and physically, owing to their taking alcohol before the birth of the children, in which of the groups will they be found—the sober or the drinking class? That there has been very little change in the habits of the parents is demonstrated by the fact that the number of quite young children relative to all the children is practically the same in our sober and drinking sections. The only logical conclusion for Sir Victor and Dr. Sturge to draw is that all the parents did not begin drinking before the birth of their children. Then our results would have no bearing on the relative influence of sobriety and drinking upon the mentality and physique of the child. But such a conclusion would demonstrate again our point that mental dullness and feeble health in children are not the toxic effect of alcohol in the parents; for, in a population of 1,400 children with a majority of drinking parents, there would be no significant number who had started drinking before the birth of their offspring! The fact is, that the statement that Miss Elderton and I "had no knowledge whether the parental alcoholism began before the birth of their children or not" is pure quibble. I have several times asked Sir Victor Horsley for an explanation of why he has elsewhere cited with approval Dr. MacNicholl, and other authors, who have not ascertained this very point. He has given no answer to this question. As the second memoir of Miss Elderton and myself indicates, Sir Victor Horsley sets up a condition, which we do not accept as valid, in order to criticize our work, and tacitly drops it when he comes to bring evidence in favour of his own special views.

Sir Victor Horsley and Dr. Sturge reiterate various charges they have already made with regard to our wage statistics. Let me take *one* example only to illustrate their method. Others will be given later. We used a category of "Porters." Sir Victor and Dr. Sturge write as follows:

> To return now to the other kinds of porters—namely porters, coal porters, and street porters—we have them put together in a table below. Of porters thus grouped *we find only thirteen* in the Edinburgh statistics, and *no other porters are mentioned therein*. Professor Pearson, however, says there are seventeen. *He therefore has invented for this trade four imaginary individuals* though asserting throughout that he is quoting the Edinburgh figures. The Edinburgh Committee verified the wage rate, showed that for eleven individuals this could be done, and the average weekly wage came out at 20s. 6d. Of course, Professor Pearson to construct his wage (and sobriety) table for the *Times* and his supplemental memoir, *gives this average weekly wage to all his seventeen porters, the thirteen real ones and the four imaginary ones, in spite of the Edinburgh data.*[1]

The italics are mine. Now, what can any reader make of this statement but a direct charge of falsifying data by the introduction of *imaginary* instances not in the Edinburgh record?

What are the facts of the case? Why, that in graduating into trade classes between 600 and 700 individuals it is needful to group allied occupations together. A knowledge of the Registrar-General's *Instructions to the Clerks Employed in Classifying the Occupations and Ages of the People* would have taught Sir Victor Horsley that such grouping was absolutely necessary or we are left with a large number, perhaps a fifth of the total individuals, following by ones and twos isolated trades. Accordingly, we did what has been the custom of the Laboratory from its foundation, classified occupations according to the Registrar-General's grouping. The Registrar-General has a table on the *Effects of Alcoholic Excess*.[2] In this his Group 19 contains "Messenger, Porter, *etc.* (not Railway, etc.)." Please note the "etc.," for that group contains a number of small trades and occupations. His Order 6, Suborder 5, contains men engaged in "storage, porterage, and messages." The two *messengers* in the Edinburgh records, too few to form an isolated class, were naturally placed in this group, which was one the Registrar-General himself uses for "effects of alcoholic excess." There remain two more "imaginary porters," which Sir Victor Horsley states we have introduced. Will the reader appreciate the situation fully when we state that the table Sir Victor Horsley provided actually fails to give *two* porters' who appear in the *Report*, and that our group of seventeen porters consisted of the fifteen real porters who occur in the records and the two messengers, who were introduced on the authority of the Registrar-General's classification! It is worth remarking that this classification is also that of the Registrar-General for Scotland. Slips will, of course, occur in any tabulation of this kind, but the slip in this case as well as the strong language based upon it is Sir Victor Horsley's. The case of the masons cited by Sir Victor and Dr. Sturge is precisely parallel. The Registrar-General for Scotland puts together as men engaged in the building trade masons, bricklayers, builders, etc. "There were not 22 masons;" there were only 14. Sir Victor and Dr. Sturge assert that Professor Pearson

> has created eight imaginary masons and has bestowed on each of them an average weekly wage of 34s. 1d.[3]

It was quite open to Sir Victor Horsley to have found out what we had done. The trouble would have been small, as we work in the same building—instead of that he makes a general charge of fabricating data. All that has been done is to include the small section of bricklayers and one builder in this group. The whole are allied trades and treated as such in the Registrar-General's standard classification. This is the more justifiable because in Scotland the bricklayers form a relatively small but highly-paid trade.

Actual data for all the cases cited by Sir Victor and Dr. Sturge will be provided in the full reply which has been prepared. But the above cases show the reckless nature of their charges, which are as often as not due to error in their own extracts from the records, and in the remaining cases almost entirely due to our using a different, but standard classification of trades.

Next, Sir Victor Horsley and Dr. Sturge repeatedly assert that we have given the drinkers such and such average wages, insinuating that in finding the average wages of each of our two classes we have used the average wages recorded of the trade. This assertion is entirely false. The wages put against each trade were precisely what was stated—the average of *recorded* wages of the individuals following the trade. These wages were used only to obtain a rough classification of the grade of trade to meet Professor Marshall's view that the drinking section followed "low grade jobs." They were not found by us, but taken directly from the Edinburgh Report as a rough measure of the value of the trades in that locality.

The origin of this wage value of the trade is perfectly well known to Sir Victor and Dr. Sturge; we stated it ourselves. It is "the average of the *recorded* wages of individuals following that trade," and has nothing to do with sobriety or intemperance; it is a trade scale, and not a sobriety scale. Notwithstanding this, Sir Victor does not hesitate to say that we have credited a man in an asylum as earning 26s. 2d. a week. All we have done would be to infer that when in a state of sobriety he was able to follow a trade which ranks as a 26s. 2d. a week trade, and that this trade graduates his mentality and physique apart from alcohol. *No average wages of sober and drinking classes were obtained from these "trade wages" at all.*

[1] BRITISH MEDICAL JOURNAL, p. 81.

[2] *Supplement to the Fifty-sixth Annual Report*, Part I 1908, p. cix.

[3] BRITISH MEDICAL JOURNAL, p. 80.

In determining the wage-earning power of sober and drinking, we had before us, what we expressly state in our memoir, the wage power of the two classes *apart from alcohol*, as a test of their relative mentality and physique. We have repeatedly stated this, and yet Sir Victor repeatedly reasserts that we have made as a "chief generalization" the assertion of an economic equality of the sober and the alcoholic. Sir Victor and Dr. Sturge cite our conclusion from the wage data that

> On the whole, it seems reasonable to assume that the drinking parents are in physique and mentality the equal, on an average, of the sober, or possibly a little above their standard.

I am quite ready to abide by those words, subject to the qualifications stated in our memoirs—that is, that it is the physique and mentality of the workman, apart from his alcohol. What has this to do with "economic equality"? In our first memoir we stated:

> Clearly the general tendency of drink must, when it reaches a certain intensity, tend to lower a man's wages. (P. 4.)

And again, in the *Supplement*, p. 9, I fully emphasized that the drinkers, especially the bout drinkers, would be more often out of work and therefore have lower *average* wages.

Now, we have gone carefully through the wage data again to see whether our conclusions would be modified by other arrangement of the material. We find the previous results confirmed. We divided our workers into those (1) in regular work and not recently out of employment; (2) those in irregular work—that is, with periods out of employment; (3) those in irregular work and with average wages stated; (4) those following casual trades, painters, job-work, etc. The details of these are discussed in my contribution to the current number of the Royal Statistical Society's *Journal*. Roughly, we find, as we expected, that there is a higher percentage of the alcoholic in (3) and (4), but that the drinking men in these classes get *as high or higher wages than the sober*. In (1), where both classes are in regular employment, there is a shilling difference in wages and in the "average" wages class (2), a very small class, there is 2s. 6d. difference—a difference, as shown by classes (3) and (4), due to the alcoholic being more frequently out of employment. Our object is not to show that a man in a state of drink is economically equal to a sober man, but that apart from his alcohol he is not the inferior in mentality or physique of the sober, that is, that those who use alcohol and those who do not are initially of the same stock. If Sir Victor and Dr. Sturge succeed in showing that the wage-earning power of the alcoholic man is markedly lower than that of the sober man, apart from disabilities due to periods of alcoholic incapacity, they will find it absolutely impossible to investigate whether alcoholic and non-alcoholic are initially of the same stock. Without this equality any investigation of the effect of parental alcoholism on the offspring must be idle.

Sir Victor Horsley and Dr. Sturge state that we assert in the *Supplement* to our memoir that the average wage of the drinker is 25s. 6d. and of the temperate 25s. 5d. Verbally this is so, but they overlook the footnote to this sentence, where the exact meaning of the sentence is given. The statement was carelessly worded, but not so "carelessly" as the statement of the critics who disregard a footnote to the sentence giving the exact words of the original memoir. The wages of a "parent" are not the same as the wages of an individual workman, and the meaning of the word "parent" seems to be quite overlooked by Sir Victor.

I will now turn to other definite and numerical points wherein Sir Victor accuses us of bad faith and fabrication. In the first place, that of teetotalers. Sir Victor at first charged us with not separating out the teetotalers from the mass of the sober. The reply to that was given in our memoir—that is, that for the special statistical methods used they were too few to deal with separately. But they were separately *tabled*, and I indicated in my last letter that they were not differentiated from the sober by any marked improvement in the health or mentality of their children, and that accordingly there was in this respect no injustice done by adding them to what we termed the temperate section. At this point it is worth noticing that the Edinburgh Committee inquired most carefully in each case into the possibility of a history of drink, and as the Secretary informed us before Miss Elderton started her work, the absence of reference to drink meant that drinking did not exist, or that the inquirers, with the aid of police, employers, and district and church visitors, had been unable to find present or past evidence of it. Many, if not the majority, of the group "sober," may have been, and probably in the case of the women were, non-alcohol users.

Sir Victor first said we had not separated out the teetotalers; they are separated out in the tables of our memoir, which it was open to him to use; they are not separated in the deduction of correlation coefficients, but grouped with the sober, because for our statistical methods the professed teetotalers in Edinburgh, not the sober citizens, appear to be too few in number. We never said, as Sir Victor Horsley and Dr. Sturge put into our mouths, that the data as to teetotalers were "untrustworthy."[4] We believe them properly treated to be quite trustworthy, but insufficient in number to be treated as an independent item in finding correlation coefficients.

Sir Victor Horsley and Dr. Sturge's manner of dealing with the teetotaler group may be taken as a characteristic illustration of their treatment of our memoir. They take out nineteen men whom they say are referred to in the Edinburgh schedules as teetotalers, and then choose five out of them to comment on specially. Let us bear in mind that where there is no past history of drink stated the matter has been carefully inquired into, and no evidence for it or suspicion of it found. Now Sir Victor refers to these five cases in detail. Of No. 141 he says:

> He became a teetotaler after the first four of his children were born and before the remainder (five). Of these five, four appear in the schedule in detail. Of these four. the first child was born immediately after the father's teetotalism commenced. . . . In our opinion the father's parentage of these children was not, accurately speaking, a teetotal one, but an alcoholic one, in diminishing ratio.[5]

Our critics consider that a child born two and a half years after—what?—his father became a *strict* teetotaler—note the omission of the word strict—is born "immediately after the father's teetotalism commenced," and that the father's parentage is "an alcoholic one in diminishing ratio." There is *no history* of drink, but only the statement that two and a half years before the child's birth the father became a "*strict*" teetotaler. We have included him among the teetotalers, and, I think, rightly.

"No. 200 figures as a teetotaler," say Sir Victor and Dr. Sturge. Where? The inference is—in our tables. As we are directly told that he was still drunken in the *Report* itself, we included him among the drinking fathers.

"No. 147—who had become a teetotaler after his wife's death." Sir Victor insinuates that we have included him among the teetotalers; naturally he was put among the drinkers.

No. 530.—Sir Victor asserts that this man was a drinker because he is a teetotaler now; *no past history of drink* is given, but we entered him not as a teetotaler but as "sober." Sir Victor says of his wife, "drank at least during child-bearing period." The actual description gives no history of drink in the case of the father. Wife began to make free with drink at one time, but took pledge and is all right. "Nice family," "good workman; rent always paid up to date." Entered by us under "mother only drinks," although this is scarcely justifiable. Sir Victor's statement that she "drank at least during the child-bearing period" is still more unjustifiable.

No. 621.—"This man only became a teetotaler after the birth of his two children." The insinuation is that we have included him. There is no past history of drink in his case, but his wife is suspected of drink. We put him among the sober, not the teetotalers. and his wife among the drinkers.[6]

On the basis of these cases, concerning several of which and of others in their table our critics, as we shall show elsewhere, make gross blunders,[7] they proceed to accuse us of saving "time and trouble" by "dispensing with individual analysis." Of the 5 special cases selected by

[4] BRITISH MEDICAL JOURNAL, p. 112.

[5] BRITISH MEDICAL JOURNAL, p. 75.

[6] It was open to Sir Victor and Doctor Sturge to see from our tables that we had used fourteen and not nineteen teetotal fathers.

[7] Take this illustration of their method: the records say "a nice family, the man teetotal and steady at his work, the wife not teetotal, but never seen the worse for drink; the home is a comfortable one." This is paraphrased by Sir Victor: "*Habits of Wife:* Drinks, but not seen to be drunk." I contend that only fanaticism could convert the above description into what is really a libellous account of a probably quite steady woman.

them, only 1 appears among our teetotal fathers, No. 141, and we believe he appears justifiably. In the case of 6 out of the 19 cases Sir Victor states that there was "no evidence" of the habits of the wife, although we had directly ascertained from the Secretary before beginning our inquiry that absence of statement meant sobriety, no past history of drink being discoverable. The humour of the situation is that we never claimed to do more than separate our population into sober and drinking groups, and lately asked our critics to say in which of those two groups they expect to find the parents, if any, who were non-alcoholic at the time of the conception of their children; the internal evidence of the statistics shows that there cannot have been a great change during the life of the children, or the alcoholic group would have, which they have not, relatively older children.

As still a further illustration of our critics' methods, allow me to take the following statement from our memoir:

> Some of this excess of child deaths is certainly due to accident, to overlaying, to burns, and to other causes arising from carelessness, but we should be inclined to attribute it at least in part to the same causes probably to want of home care, to food defects, perhaps, to other factors possibly toxic, which also show themselves in slightly less height and weight among the children of the drinking mothers when these children reach a school age. (Page 27.)

Sir Victor Horsley and Dr. Sturge say that this attribution of the greater mortality-rate of the offspring of alcoholic mothers in considerable part to accident and *negligence* is incompatible with certain statistics they profess themselves to provide for *accidents* in Edinburgh. The statements they say are from the police; but the only reliable data are in the Registrar-General for Scotland's *Reports*. We give the results below, merely remarking that what we need are an excess of about ten deaths per year in the offspring of the alcoholic mothers from *all* the causes (not *accidents* alone) that we have enumerated:

> *Horsley and Sturge's Assertion.*—During the last seventeen years the number of accidental deaths among children under *fourteen* years of age show an average number of 17 per annum; of those occurring below 6 years of age, and resulting from burns, scalds, suffocation, there appear to be 5 to 6 yearly.

| Actual Data. | 10 years, 1890–99. | 9 years, 1900–08. |
|---|---|---|
| Average annual total deaths due to accident and negligence of children under *ten* years | 57.4 | 59.1 |
| Children under *six* years due to suffocation—annual average | 31.5 | 28.2 |
| Children under *six* years due to burns and scalds | 8.0 | 10.1 |

Many of the other tabled deaths due to accidents or negligence, for example, falls, fractures, poisons, vehicles (in case at least of children not more than 5 years of age), are extremely likely to occur with the alcoholic rather than the sober mothers, especially when we remember that our *Memoir* shows that the children of the alcoholic parents spend more time in the streets. Further comment on Sir Victor Horsley's five to six deaths per annum in Edinburgh as the result of parental negligence seems unnecessary.

Another illustration [8] may lastly be taken from Sir Victor Horsley and Dr. Sturge's section dealing with our treatment of acuity of vision, refraction, and eye disease. What did we find with regard to the relation of parental alcoholism to these characters in their children? Why, that the influence is so *insignificant* that it would require families by the thousand, instead of by the hundred, to demonstrate that it existed at all. It has, therefore, no social importance. But what do Sir Victor and Dr. Sturge do? They cite several paragraphs from our memoir which emphasize the insignificance of the relationship as if this was identical with badness of the material! Any trained statistician knows that 6,000 cases might demonstrate that in two differentiated groups 59 per cent. and 58 per cent. of the individuals suffered from a particular defect, but 600 cases would only show that the difference was insignificant, without measuring the exact amount of the insignificance.

[8] The detailed reply to Sir Victor's numbers will appear in a pamphlet just going to press, but I have illustrated, in recent letters to the *Times*, how absurd are the charges of fabrication he raises.

I do not intend here to trouble you further with detailed reply to each individual charge made by Sir Victor Horsley and Dr. Sturge; that they will find in my forthcoming pamphlet. But those who wish to see exactly what we have done with the wage data, and what a parody of that treatment Sir Victor Horsley has made—he directly accuses us with allotting average trade wages to individual workmen—"constructive misrepresentation of the facts"—will find the matter discussed in the current number of the *Journal of the Royal Statistical Society*. I can only say that the man who deliberately asserts that we have "*imagined*" (italics his own) porters, that he and his colleague have themselves omitted, appears to me the more guilty of "constructive misrepresentation of the facts." We took our data out with reasonable caution and care, but with no intention of making a personal charge against anybody. The question is not whether slips have been made here or there, but whether they are sufficient to invalidate in the least our general conclusions. Sir Victor Horsley and Dr. Sturge have extracted data in order to make personal charges which amount not to charges of faulty logic or even of stupidity, but to those of fabrication—"creating statistics where real data did not exist"—in short, to dishonesty. They therefore ought to have been peculiarly cautious as to the absolute accuracy of their own statements. They have failed in this accuracy, and accordingly their charges will ultimately recoil on their own heads and create a widespread distrust of the arguments used by such temperance advocates.—I am, etc.,

KARL PEARSON.

Biometric Laboratory, University College, Jan. 18th.

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SIR,—It is well known that a controversy has taken place between Professor Karl Pearson and Sir Victor Horsley on the part played by alcohol in the production of feeble-mindedness in the offspring of drinkers.

In the Memoirs X and XI of the Eugenics Laboratory Miss Elderton and Professor Karl Pearson used material collected chiefly by the late Dr. Ashby, and now in the possession of the Manchester Education Committee.

Of this material, which consisted of case-papers relating to children examined by Dr. Ashby with a view to determine whether they were suitable for admission to the Manchester special schools, I made an exact transcript, which, with the consent of the authority, I transmitted to Professor Pearson.

Sir Victor Horsley has, in your columns, called this material "Miss Dendy's private notes," although I have explained that it is the entire and unaltered material, and not my own notes at all; at the same time he asks me to publish it.

It is not within my power to publish these cases, which are the property of the Education Department, but Sir Victor Horsley can probably have access to all the original papers by applying to the Director of Elementary Education, Deansgate, Manchester. I have little or no doubt that every assistance will be given to him in examining the original documents, and I shall be ready to give him an opportunity of comparing my transcript with the originals.—I am, etc.,

MARY DENDY,

Honorary Secretary, the Incorporated Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded.

Manchester, Jan. 25th.

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## APPENDICITIS IN SPAIN.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1910, page 2010, I read with true surprise, in the information of Dr. Bryden Glendining on "Appendicitis in Spain," that the infirmity is very rare in our country, to such a point that in Madrid, during the whole of the last year not more than 7 cases were reported, and attributing this to the vegetarian diet predominating, etc. In San Sebastian, a town of 45,000 inhabitants, in the same period of time 11 cases have been operated on, according to data communicated by Drs. Huici and Ramoneda (2 and 9 respectively). Desirous of knowing if this disproportion between the capital and the province was real or apparent, I requested my friend Dr. Goyanes, of the Hospital General of Madrid, to furnish me with

a report of the cases of appendicitis operated on during that period, and from his report it appears that among 450 surgical interventions practised in his wards he has operated on 8 cases of appendicitis, and among his private *clientèle* on 4, having attended 4 cases more that were not operated on. It is necessary to bear in mind that Dr. Goyanes is not the only surgeon of the Hospital General, and that in Madrid there are many other hospitals.

Appendicitis in Spain is perhaps as frequent as in other countries, but it is more seldom operated on than in other lands; the *early operation* is never made by Spanish surgeons, and in the acute period they only operate when there is a vital indication or abscess; to operate they wait almost always until the patient has had more than two attacks. All this tends to the effect that the number of cases operated on gives a remote idea of the frequency of the affection; thus, of the 24 cases that I have treated in San Sebastian in the last years, only 8 have been operated on.—I am, etc.,

San Sebastian, Jan. 29th. L. URRUTIA.

## STATE SICKNESS AND INVALIDITY INSURANCE.

SIR,—Referring to the letter of Dr. R. C. Buist in the BRITISH MEDICAL JOURNAL of November 5th, 1910, and those of others, on the subject of a national medical service, contract practice, etc., is it not time that something in the way of union and limiting the numbers of the profession were inaugurated? Unless the proposed national service was based on army and navy lines—with good pay, leave of absence, and pension, it would soon become intolerable. Regarding other professional drawbacks, as the members of the profession in Austria, Belgium, France, and Germany have recently won so many skirmishes with their opponents, how is it that we cannot do the same thing? We might follow their example, or that of the Branch in New South Wales, instead of always being defeated by the unpatriotic individualism which so far has defeated the charter and shown up our want of organization and power of sticking together.

But the best useful auxiliaries would be to educate the intending student and his parents on the great fallacy of "doctors always make money," and the newly qualified practitioner, with a little knowledge of business and loyalty to his cloth. The long intervals in sending in professional accounts should also be done away with.—I am, etc.,

Ayr, Australia, Dec. 14th, 1910. J. BOOTH-CLARKSON.

A correspondent submitted through us to "Festina Lente" the following questions:

1. Did the doctor have any assistant or did he do all the visiting himself?
2. His account of visits—are they those based on the 1,200 to 1,300 workmen *only*?
3. Did he not have any other outside doctor visiting any of the parcel of 5,000 he mentions? If yes, how can he determine his own *clientèle* and what was the actual number?
4. Were all the 5,000 in clubs with full right to call doctor where and as often as beneficiary desired without being liable for any additional fee for such services?

"Festina Lente" has sent the following replies:

1. I always keep an experienced assistant who shares the visiting. During his summer holidays or other absences I have no difficulty in doing the work myself.
2. My visits included those made to workmen and their families, and to tradesmen and others attended as private patients.
3. Other doctors pay occasional visits, but they are not so frequent nor so many as to make any appreciable difference in the percentage. Moreover, they are counterbalanced by the fact that my figures include my visits to outlying districts not included in the population stated.
4. Colliery workmen are not considered by us as "club" patien ts, nor attended as such, although the attendance is by contra ct. The workmen and their families and dependants have a right to call on the doctor when and as often as they wish, and there is no additional payment made for any service of any kind. My figures show that this right is not much abused. Of course I consider 20 a day in August last under the average, and for the corresponding period in 1909 the visiting averaged 30 a day. From April 30th to October 31st, 1910, the longest week was for that ending July 3rd, when the visits were 232, or 33 per day. I have gone more carefully into the question of population, and it may be safely taken as a little over 4,000.

## THE CANCER PROBLEM.

SIR,—The discussion on appendicitis which has been going on for some time has, we think, notwithstanding Dr. C. Mercier's facetious remarks regarding the dense and impenetrable state of the brains of those who took part in it, been a fruitful one. In the first place, we have learnt a great deal about the geographical distribution of the disease, from practitioners practising both at home and abroad, and its comparative infrequency in India. The presumption seems to be that this infrequency is related to the dietetic habits of the people where there is a low consumption of animal food. Some writers have laid stress upon the natural mode of defaecation as being a prophylactic against appendicitis, and we presume that Dr. Mercier places that idea in the same category as wigs and alcohol so far as the causation of the disease is concerned.

Now, it is only fair that observations such as these should receive respectful consideration. Indeed, everything that tends to bring about a physiological state of the alimentary canal must naturally tend to obviate disease, whether it be appendicitis or any other disease.

We regret that no one has challenged the statement, made in a previous letter, that persons who are the victims of habitual constipation are not liable to appendicitis. Our object in again intruding on your valuable space is to suggest that practitioners at home and abroad will furnish us with their observations or notions regarding the prevalence of cancer, more particularly as regards its distribution and what they imagine to be the predisposing or exciting causes; and also, in this connexion, its relation to damp and clay soils, to lowlying districts, and to places situated on elevated tablelands, because we suppose that nowadays no one believes that any disease of the body is generated there *de novo* and is not imported from without the organism.

It is of moment to note whether cancer is prevalent amongst vegetarians or the reverse; or in other words whether it is probable that the infection reaches the body through flesh foods.

We think that there can be little doubt that the babe at the breast is singularly free from malignant growth, as it is also free from tuberculous diseases.

Then, again, we wish to know the prevalence of sarcoma and carcinoma in the different races of mankind as well as their geographical distribution.

Dr. Bashford's tables, founded on *post-mortem* reports from various hospitals, show clearly that sarcoma is a disease of early life and not of advanced age, whereas carcinoma is most frequent after 40 years of age. Indeed, the incidence of sarcoma is very much like the incidence of tuberculosis, and we wish to know whether those who see much of sarcoma find it frequent in the tuberculous stock which we believe it to be, and are supported in this belief by some very experienced practitioners. In other words, we are inclined to the belief that the cause of sarcoma and carcinoma is probably the same, the difference being in the constitution of the patient in which the tumour grows. We have been told recently that a carcinomatous growth has become actually a sarcoma in its evolution.

Further, there are certain organs in the body that are comparatively immune to malignant growths. In this respect the spleen is a striking example. In Bright's memoir on *Abdominal Tumours* not more than one or two cases of malignant growth in the spleen are cited.

Furthermore, malignant growths differ from other growths in that it is not the size of them that kills the patient, but a gradual deterioration of the blood, which must come from some toxin developed in the tumour, and therefore the presumption is that a parasite is at work, whether it be the actual cancer cell itself or otherwise.

We conceive that information from all parts on this and kindred matters would do much to narrow down the scope of the inquiry as to the actual conditions of life that bring about malignant growths.

Huxley expressed it tersely when he wrote that pathology is the "etiology, the morphology, and the distribution of abnormal life."—I am, etc.,

JOHN T. MACLACHLAN, M.D.
Glasgow, Jan. 21st. E. WARDMAN-WILBOURNE, L.R.C.P.

## THE BRADSHAW LECTURE ON CANCER.

Sir,—I frankly admit that Mr. F. W. Wright has caught me with regard to the priority of Hanau over Morau. I must also express my gratitude to him for having disregarded the unnecessary "e" I gave to Morau. It must have been as obvious to Dr. Bashford. who pointed it out, as it was to him, that this was a slip. for I could not have given the two references I did unless I had had the name before me.

I am sorry that I have not been able to make my object in writing clear to Mr. Wright. I would, in all friendliness, suggest to him that the impression conveyed to any one who read his letter of December 24th, 1910, must necessarily have been that the staff of the Imperial Cancer Research Fund had originated the particular lines of research and made the discoveries referred to in it. I said "that practically all the instances he quotes were of the nature of confirmation of the work of others," and respecting this statement Dr. Bashford's letter piles Pelion on my Ossa. With regard to recent work in cancer research, a large portion of the medical profession is in a position but little better than the lay public. For some time the reports and criticisms of the subject in the lay press, and frequently also in the medical press, have conveyed the impression that I have suggested is conveyed by Mr. Wright's letter. I quite agree with him that the value of work is not necessarily diminished because it is confirmatory and not original, and that often the claim of priority is of minor importance. But why did Mr. Wright write as he did in reply to Mr. Campbell's letter? Surely, because he felt that an unjust impression with regard to the value of the work of the Imperial Cancer Research Fund was likely to be caused by it. I feel that at present, in connexion with cancer research, a false impression is being created—an impression, by the way, which cannot in the end redound to the credit of the Imperial Cancer Research Fund. I do not think Mr. Wright believes that discovery and confirmation deserve equal credit, though confirmation is frequently of very great value.

With regard to Dr. Bashford's letter, I may say that I have only just come to Glasgow, and all the literature to which I have access at present consists of my own books and MS. notes. However, I do not offer this as an excuse for any omissions I may have made, though with regard to Ehrlich I stated that I quoted from memory. On the whole, Dr. Bashford's letter simply emphasizes my general statement, and I only complain of the unfair manner in which he has dealt with what I wrote.

Mr. Wright said in his letter of December 24th, "That most recent achievement, the patient tracing of the evolution of a carcinoma into a mixed tumour first and then into round-celled sarcoma in the second place." I quoted this, showing most clearly that it was a quotation with which I did not agree. Dr. Bashford quotes it again, but as coming from me. He even includes a real quotation from my letter in the same sentence, tacking the two together and making them appear as a quotation from the same original passage. He then proceeds to criticize the whole. I quoted these words, applied by Mr. Wright to the staff of the Imperial Cancer Research Fund, only to emphasize the fact that it was Ehrlich who had first discovered that an artificially propagated carcinoma (in mice) might develop into a sarcoma, and I should have thought this was obvious. When, therefore, Dr. Bashford implies that I made a mistake by calling what was a spindle-celled a round-celled sarcoma, he makes a suggestion which is inaccurate.

Dr. Bashford says that this discovery was accidental. Are not all scientific discoveries of any importance accidental to some extent in the same sense as this one? Is the observation of an unexpected phenomenon when conducting an investigation an accidental discovery? If so, some of Newton's discoveries were accidents due to his having happened to be watching when an apple fell. But Dr. Bashford and others subsequently traced the details of this change from carcinoma to sarcoma. In this they deserve the greatest credit for a tedious piece of work, but none at all for originality.

Of the latter part of Dr. Bashford's paragraph, which deals not too generously with this discovery, I must candidly confess I have failed to make sense. I have a vague impression that Dr. Bashford means to imply that though it was discovered in Ehrlich's laboratory that carcinoma artificially propagated in mice might develop into sarcoma, the explanation of this phenomenon had already been supplied in detail by himself and those working under him. If this is is really the case, we have an instance of prophetic power of inestimable value—or of a mere accident.

Leaving the rest of Dr. Bashford's letter without troubling you with other examples of his methods of criticism, may I be allowed to ask him a question? In his last report he stated he is able to cure animals suffering from well established transplanted tumours.[1] He gives no reference to accounts of the experiments upon which this statement is based. To all who are working at the problems connected with cancer any methods by which this can be accomplished must be of the greatest interest and importance, and I, as one of these, should be glad to know where the experiments have been described, and what the animals were.—I am, etc.,

Charles Walker.

Research Department, Glasgow Cancer Hospital, Jan. 15th.

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Sir,—Mr. Kenneth Campbell in the Journal of January 21st cites a supposititious case of "a carcinoma of the breast," asking me at the same time certain questions as to the light which the workers at the Cancer Research Laboratories have been able to throw upon certain points in connexion with that case, thus: (*a*) "What hidden force is it which lashes the epithelial cells into such unwonted reproductive activity?" and (*b*) "What is the nature of the continuous irritant (and this must be postulated) operating on each individual cell in the growing portions of both the primary and secondary tumours?" As these two questions are practically identical, I think that an answer to one would be equally applicable to the other. I will therefore take them together. But before doing so I would suggest, with great diffidence and respect, that neither of these questions is pertinent to the subject under discussion. For the "hidden force" and the "nature of the continuous irritant"—one and the same thing, I think—is just that which all the world is seeking in the highly respectable company of the inquirers at the Cancer Research Laboratories. I submit, therefore, that we are not justified in demanding from any body of research students direct answers to questions the solution of which is still *sub judice*, and in bringing their labours into ridicule because they themselves have not yet compassed that solution. I submit again that this question as to the "hidden force" and the "nature of the continuous irritant operating" put forward by Mr. Campbell is an ultimate pathological fact in the present state of our knowledge, and there, for the present, we must be content to leave it. It appears to me that it would be quite as reasonable to ask what is the nature of positive or negative chemiotaxis, of that force which gives to "every seed its own body," and determines the aggregation of atoms into tangible masses. The only possible reply to such questions would obviously be the power of attraction, of repulsion, of selection, and so on. But little comfort should we be able to gather from such an illogical circle as that. Unhappily, what we know about the origin and growth of a carcinoma, whether of the breast or of any other organ, is that it has arisen in a cell, that the division of this cell has added to itself, as a response or reaction, others of the same character; and continues to add, until the conglomerate mass thus formed threatens the processes of healthy tissue at different points and in different organs. Of the *nature* of the hidden force which has originated, and is carrying on, all this we do not know with certainty whether it is of a chemical, a biochemical, or a vital force, whatever the latter term may mean. It might, perchance, help us if we were to invoke the assistance of the side-chain theory of Ehrlich. Has the metabolism of a molecule of the original cell been faulty? Is there any suspicion that the conversion of the active *toxin* of the toxophore group has been converted into the less active but not less powerful *toxoid* whose more torpid influence is answerable for the slowness of growth of the disease?

Be this as it may—and the questions are, perhaps, simply speculative—the fact remains that we cannot

[1] Imperial Cancer Research Fund. Eighth Annual Report, p. 13, lines 24 to 30.

postulate anything definite as to the nature of the hidden force which originates a carcinoma; the only thing we can postulate being our ignorance of it. But happily there is a lighter side to this gloomy picture, for I think that therapeusis really does offer a fair field in which to expect fruitful results, and therapeusis is not always obliged to wait upon etiology. We have only to recall to our remembrance the case of small-pox, about which our knowledge is quite as meagre as it is about cancer, and yet the disease is now in all countries but the shadow of a memory; or that of rabies. Do we know anything about the nature of that hidden force which lies in the infinitesimal dose of the saliva of the rabid animal injected beneath the human skin, and fraught with such fatal consequences to the recipient of that dose? Is it a micro-organism, or a virus, or a chemical, or bio-chemical agent; or is it a katabolic product of a cell molecule? What do we know of the cause? and are we called upon to suspend our work upon therapeutic measures for its relief as long as our ignorance of the cause continues?

Yes, we have "hints," to use Mr. Campbell's term, of both prevention and cure, certainly in some lower mammals; which hints I myself am applying to the human mammal.—I am, etc.,

Kensington, W., Jan. 22nd. FREDK. W. WRIGHT.

## INDUCED DIVISION OF HUMAN LYMPHOCYTES.

SIR,—I read with interest the letter on the above subject by Dr. Ronald Ross in the BRITISH MEDICAL JOURNAL of January 21st.

I have for a number of years believed (from personal observations) that lymphocytes and red blood cells have the power of dividing, and first observed this while investigating certain specimens of urine. Then I thought they were some form of amoeba, and I should like to quote from notes I made in 1903:

The urine contained a few leucocytes, no pus cells, a few bacilli urinale, and a number of round organisms, which were amoeboid. These organisms moved by a twisting of the whole body, and were about 1 $\mu$ in diameter. They appeared as a clear vesicle with a small central spot. Larger bodies about the size and with the appearance of a lymphocyte could be observed after careful search, which also had the power of movement and appeared to multiply by budding. A knoblike constriction appeared at one part of the cell, which gradually became detached and showed rapid movement during the process. This process was repeated at different parts of the cell, with the same result. The larger of these organisms I believe to be the mother cell, the smaller daughter cells.

I watched this phenomenon for hours at a time, and had repeatedly to shift the slide to keep the "organism" *in situ*. I, however, by examining fresh blood films, realized that I was in error as to their nature, for I found in these films a similar process in certain cells, and exhibiting the figure of eight constriction and certain other processes, as described by Dr. Ross. I am unable to confirm certain other appearances, for I have always examined films unstained, as I found when I attempted to stain that movement ceased. A similar process takes place in red blood cells, and I believe that certain microcytes are the result of division of these cells.

In certain anaemias—secondary anaemia and pernicious anaemia—red cells have the power of movement and, I believe, propagation. The pear-shaped cells move by the protrusion or elongation of part of their substance (like a pseudopod), and this gives rise to the shape. The pseudopod in time detaches itself and becomes a free-swimming organism.

This process with the division of the corpuscle explains the different sized corpuscles seen in anaemias, and I believe such processes are acts of propagation, and are natural ones against resistance. The resistance is probably some alteration in the chemical composition of the plasma. I have observed similar and other processes in red and white cells in urine, pus, and lymph, and should like to refer Dr. Ross to an article I contributed to the BRITISH MEDICAL JOURNAL in 1907, on Observations on Fresh Blood Films, but which I unfortunately had to curtail. I have not read *Induced Cell Reproduction and Cancer*, by Dr. H. C. Ross, but I believe that cell reproduction in cancer is a manifestation that Nature is attempting to overcome resistance, just as arterio-sclerosis is cell proliferation on the part of the vessels to overcome resistance in the blood stream. Further, I believe that the cancer problem is not bacteriological or cytological, but is mainly chemical, and the cytological element is the manifestation. To make this statement more clear, I should say that cancer is not caused by one agent alone. That certain toxins produced from micro-organisms or within the body, through some fault in tissue metabolism, will act as an irritant and cause cell reproduction in individuals whose tissues are susceptible.

The following case is suggestive: Ten years ago I first attended a lady, aged 31 years (a married nullipara), who was suffering from a painful swelling of the right breast. She was full breasted, well-nourished, and suffered from these attacks at least twice yearly. I treated these attacks as rheumatic, and they subsided under certain remedies. The swelling was probably a cell proliferation in the ducts to overcome a certain toxin circulating there. I had not seen this patient for seven years till a month ago, when I found an extensive carcinoma of the right breast, which has been removed.—I am, etc.,

Edinburgh, Jan. 23rd. FREDERICK PORTER, M.B.

# Public Health AND POOR LAW MEDICAL SERVICES.

## POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on January 20th; the chair was taken by Surgeon-General Evatt, C.B., president of the association. The following matters, among others, came before the council:

The honorary secretary submitted a letter from a provincial member asking for advice under the following circumstances: He had been appointed medical officer to a certain district with a permanent tenure of office, but had inadvertently moved out of his district by a few hundred yards. He hoped that he would have no difficulty in getting re elected periodically when his term of office periodically expired. In this, however, he was disappointed, for he had lately had notice that he would not be re-elected at the expiry of his present term of office. The council were of opinion that it was very unwise to act in this manner. By so doing this officer had placed himself entirely in the hands of the guardians, and must lose his office, unless he could induce his guardians to re-elect him. It could not be too strongly impressed on district medical officers, that they could only have security of tenure in their office throughout the country generally so long as they resided in their districts.

A letter was read from another member complaining that his guardians had objected to a surgery he had constructed adjoining his house, on the ground that it was not built of brick and roofed with slate, although they had permitted the use of similar surgeries by other medical officers in the union. The council considered that this was a matter for the sanitary authority, and if the latter saw no objection to the construction of the surgery, the guardians had no right to object.

Another letter was read from a country member 65 years of age, who stated that he held a second Poor Law district outside his own union, and after holding it for eleven years, he was now called upon to resign it. He asked whether he could claim any pension on account of it without resigning his other Poor Law appointments, as he had had deductions from his salary for this appointment? The council considered that he should resign all his appointments and take his pension on the whole if he wished to insure himself against loss, as he was not entitled to any pension so long as he held any Poor Law appointment.

A letter was also read from another member dealing with the same point, but in this case he had not reached the age for retiring, and had held the outside appointment for thirteen years. In this case it appeared that the officer would be bound to forfeit all his deductions of salary under the Superannuation Act, unless he could retire within the next four years, as only the average salary during the last *five* years could be estimated in fixing the pension. The council thought this very inequitable. That such an appointment ought always to be allowed for in reckoning the retiring pension, or that at least the officer should be entitled to claim a return of all deductions from the salary of that appointment for superannuation purposes.

Another country member wrote that the guardians of his union had issued a circular stating that they had decided the present salaries of the medical officers should be fixed as a "maximum" for their appointment. He asked whether the guardians could fix such a "maximum," and if it were legal for the district medical officers of a union to contract out of the special fees for operations, etc., laid down by the General Order of 1847. The council were of opinion that in neither case would this be legal, unless with the consent of the Local Government Board.

The honorary secretary reported that he and the other delegates of the association had been present at the first meeting of the Poor Law Conference held at Norfolk House on December 9th last. It had there been decided that each section of the Poor Law service should formulate through its respective association what reforms it considered necessary for the betterment of its particular service. He had forwarded to the conference all the resolutions that had been duly passed up to the present, but he thought it desirable that the various points of medical Poor Law reform should be put forward in more detail, especially as a Departmental Committee had been appointed by the Local Government Board to revise the General Orders. After careful consideration the council decided that the following recommendations should be put forward on behalf of the Poor Law medical officers of England and Wales.

1. That the provisions of the Metropolitan Dispensaries' Order, as far as possible, should be made to apply to the country generally, and that all appliances and drugs for the use of State patients shall in all cases be provided at the expense of the State.

2. That there should be a revision of the scale of payments for operations, and more facilities granted for obtaining assistance, and paying for the same. This specially applied to the provision of an anaesthetist. The medical officer should not be at the mercy of the Poor Law authority with regard to this assistance. It should be left entirely in his hands, with only some reasonable check to prevent abuse.

3. In all cases where called in to attend a confinement in his official capacity he should have an inalienable right to his fee. If the case be an improper one from a Poor Law point of view, the authority should be left to recover payment from the husband.

4. The Poor Law authority should be compelled to contract with the workhouse medical officer or superintendent of infirmary to vaccinate all infants in the workhouse or infirmary, and to carry out the Vaccination Acts generally.

5. The notification of measles and whooping-cough should be carried out in the same manner as has been recently adopted in the case of tuberculosis of the lungs.

6. The salaries of Poor Law medical officers should be on a more liberal scale, due regard being taken of the average mileage in the case of visits to sick patients. That to meet exigencies of changes of population, the medical officer should always have a right to claim a revision of his salary when his work has been greatly increased by such change.

7. That an allowance should be made by the Poor Law authority for the carrying out of the Poor Law work of a medical officer during his annual holiday and during sickness.

8. That length of service, as in other public services, should constitute a ground for increase of salary, apart from other considerations.

9. That a common fund be instituted to receive all payments under the Poor Law Officers' Superannuation Act, so that the expense of pensions should not directly fall on a particular locality.

10. That in all cases where for public reasons the office of a Poor Law medical officer is determined, if he or she be not entitled to a pension, an allowance shall be made of a sum equal to the average emoluments derived from that office during the period of two years. Provided always that such determination be not due to misconduct on the part of the officer.

11. That in no cases shall it be lawful for the local Poor Law authority, by bargaining with individual medical officers, to reduce the amount paid at any time annually in medical salaries for attendance on its poor, unless it can be clearly shown that, owing to local changes, the sickness claims have very materially diminished in that area.

12. That in all cases where, owing to residence outside his district, a medical officer has only been appointed for a year, or a term of years, if the said appointment has been continued for a period of seven or more years, the said medical officer shall thereafter be entitled to hold office on the same terms as if he resided in his district.

**The council directed that these recommendations should be submitted to the Conjoint Poor Law Conference at the meeting to be held that night at Norfolk House.**

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EXTRA FEES FOR SPECIAL SURGICAL OPERATIONS.

E. W. A., a district medical officer, writes that he has charged his board of guardians a guinea for operating on a pauper patient with hydrocele, and has been informed by the clerk that as this operation is not one which by Article 177 of the Consolidated Poor Order carries any extra fee, he is not entitled to be paid extra in respect of it. He asks how he can recover the fee charged.

*** The clerk to the guardians was right in the opinion he gave, but notwithstanding this, if our correspondent can succeed in getting a resolution passed by the guardians to the effect that they wish this claim to be paid and a copy of this resolution is then forwarded to the Local Government Board with a request for it to be sanctioned, *it is highly probable* that formal sanction for such payment will be given. Should this be the case the auditor will then pass the claim. Our correspondent will find useful information relating to the duties of Poor Law medical officers in Churchill's *Medical Directory* for 1911, pages 20–21.

# Universities and Colleges.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly comitia was held at the College on Thursday, January 26th, the President, Sir Thomas Barlow, in the chair.

*Lectureships.*

Dr. Theodore Williams was appointed Harveian Orator for 1911, Dr. Graham Steell Bradshaw Lecturer for 1911, and Dr. F. A. Bainbridge Milroy Lecturer for 1912.

*Membership.*

The following gentlemen were admitted Members of the College:

John Hay Burgess, M.D.Lond., L.R.C.P., Capt. I.M.S.; Lancelot Stephen Topham Burrell, M.B Camb., L.R.C.P.; Frank Clayton, M.B.Camb., L.R.C.P.; David McCay, M.B.Roy.Univ.Irel., Capt. I.M.S.; Bidhan Chandra Roy, M.D.Calcutta, L.R.C.P.; Ernest Edwin Waters, M.D.Edin., Major I.M.S.

*Licences.*

The Licence of the College was granted to seventy-five gentlemen.

*Diplomas in Public Health.*

In conjunction with the Royal College of Surgeons, Diplomas in Public Health were granted to the following gentlemen:

S. C. Adam, M.B., Ch.B., Glasg. and Durh.; C. J. E. Bennett, L.R.C.P., M.R.C.S., Westminster and King's Coll.; H. Boulton, M.B., B.C.Camb., L.R.C.P., M.R.C.S., Major, I.M.S., St. Bart's and Royal Army Med. Coll.; H. M. Brown, M.D., Ch.B., Edin. and Royal Inst. of Public Health; P. N. Cave, M.B., B.Ch., Oxford, St. George's and St. Mary's; R. A. Clapham, M.D., B.C.Camb., L.R.C.P., M.R.C.S., Lond.; A. Dawson, M.B., Ch.B. Aberd., Captain, Royal Army Med. Coll., R.A.M.C.; K. C. Dube, L.M.and S., Punjab, Univ. Coll., Lond.; J. H. Jones, L.R.C.P., M.R.C.S., Guy's, Haslar, and King's Coll.; *Miss C. A. King, M.B., B.S.Lond., Royal Free and Middlesex; J. F. Martin, M.B., Ch.B.Edin., Captain, R.A.M.C., Edin.; L. Pick, L.R.C.P., M.R.C.S., St. George's and Royal Inst. of Public Health; A. M. Pryce, M.B., Ch.B.Edin., Univ. Coll.; T. E. Pryce, M.D., B.S. Lond., Univ. Coll.; N. E. H. Scott, M.B., Ch.B.Glas., Univ. Coll., Lond.; S. F. S. Steadman, L.R.C.P., M.R.C.S., Char. Cross and Univ. Coll.; S. J. Steward, M.D., B.C.Camb., L.R.C.P., M.R.C.S., St. Thomas's and Univ. Coll.; C. H. Straton, L.R.C.P., M.R.C.S., St. Mary's and Royal Army Med. Coll., Captain, R.A.M.C.; *Miss May Thompson, L.R.C.P.and S.Edin., L.F.P.and S., Glasgow, Edinburgh School of Med. for Women; S. A. Tucker, M.B., B.S. Lond., L.R.C.P., M.R.C.S., St. Bart's and Univ. Coll.; C. W. Vining, M.B., B.S.Lond., St. Mary's and St. George's.

* Under the Medical Act, 1876, 39 and 40 Vict., cap. xli.

*Communications.*

The following communications were received:

1. From the Secretary of the Royal College of Surgeons, reporting proceedings of the Council of that College on December 8th, 1910, and January 12th.

2. From the Director-General of the Medical Department of the Navy, reporting the award of Sir Gilbert Blane's Medals to Fleet Surgeons G. T. Collingwood, M.V.O., and A. R Bankart.

3. From the Assistant Secretary to the Marine Department, Board of Trade, inviting the College to nominate a representative on a committee for revising the scales of medicines, etc., for merchant ships. Dr. Tirard was appointed.

4. From Mr. Alfred Parsons, asking permission to have a reproduction made of the late Dr. Payne's portrait.

5 From Professor Osler, on behalf of Dr. Harvey Cushing, asking permission to have the portrait of Vesalius photographed. Both these requests were granted, subject to the usual restrictions.

6. From the University of St. Andrews, inviting the College to send a delegate to the celebration of the five hundredth anniversary of the University in September next. On the motion of the Senior Censor, seconded by the Second Censor, the President, Sir Thomas Barlow, was appointed to represent the College.

7. From the Royal Sanitary Institute, inviting the College to send delegates to their congress at Belfast in July next. Lord Ilkeston was appointed.

8 From the British Medical Association, concerning diseases of the eye as a compulsory subject for the curriculum and examination. The matter was referred to the Committee of Management to consider and report to the College.

*Council.*

Lord Ilkeston, Sir H. Bryan Donkin, and Drs. R. Caton and J. Phillips were elected councillors in the room of Drs. Herman, Finlay, Tirard, and Herringham, who retired by rotation.

*Queen Victoria's Jubilee Institute for Nurses.*

Sir Dyce Duckworth was re-elected as the representative of the College on Queen Victoria's Jubilee Institute for Nurses.

*Central Midwives Board.*

Sir Francis Champneys was re-elected as the representative of the College on the Central Midwives Board.

*Library.*

Books and other publications presented to the Library during the past quarter were received, and thanks returned to the donors. Special mention was made of gifts by Drs. Crawfurd, Osler, and Ormerod, and by Mr. Fleming.

*Examinations for the Licence.*

The annual return by the examiners of the results of the examinations for the licence in the year 1910 was received.

# Obituary.

## GEORGE BIRT, M.B.LOND, M.R.C.S, L.S.A.,

FORMERLY OF STOURBRIDGE.

WE regret to announce the death, which occurred at Teignmouth on January 25th, of Mr. G. Birt, the second son of the late Dr. T. Birt of Leamington, at the age of 64. He matriculated at the London University, and entered the Birmingham Medical School. He obtained the Diplomas of M.R.C.S. and L.S.A. in 1868. After being Resident on the surgical side of the General Hospital, Birmingham, he continued his studies at University College, and graduated in medicine at the University of London, gaining honours in anatomy and organic chemistry. He settled in Stourbridge, and up to the time of his retirement was engaged in a large and widespread general practice in that district. He held the post of Honorary Surgeon to the Stourbridge Dispensary. His strenuous life, which did not permit of relaxation, recreation, or even an annual holiday, began to imprint its mark in 1903. Glycosuria and signs of arterio-sclerosis made their appearance. With dogged perseverance and courage he continued work, ignoring all danger signals. At length in 1908 the incessant strain, unrelieved by rest, overcame him. He retired to Teignmouth an invalid. Two months ago cardiac compensation broke down, hydrothorax developed and required frequent paracentesis. Uraemia closed the scene. He married, in 1877, the daughter of the late Dr. Campbell of Stourbridge, by whom he is survived. He leaves a son and two daughters. He was a member of the British Medical Association for forty-three years.

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LIEUTENANT-COLONEL JOHN ADAMS CUNNINGHAM, M.D., of the Indian Medical Service, died of cholera on December 31st, after a few hours' illness. His death occurred at Calcutta where he was spending the Christmas holidays. Lieutenant-Colonel Cunningham, who was 52 years of age, joined the Bengal Medical Department as Surgeon, April 1st, 1881, and became Lieutenant-Colonel, January 17th, 1901. He served in the campaign on the North-West Frontier of India in 1897–8 with the Tirah Expedition, receiving a medal with clasp. Latterly he held several civil surgeoncies, and has served as Superintendent of the Lunatic Asylum at Lahore, as Professor at the Government Colleges, and as Professor at Lahore Medical College, He was also Medical Officer of the Punjab Light Horse Volunteers and of the North-Western Railway Volunteers.

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CROYDON has recently lost another of its most distinguished and respected townsmen in the person of Dr. PARSONS SMITH. For a long time he had been in very indifferent health and had consequently been compelled to curtail his professional work. At the time of his death he was a J.P.; he had held for some years the Chairmanship of the School Board; in that capacity he did excellent service and anticipated by several years the plan of inspection more recently formulated in the interests of elementary school children, and, indeed, on his advice was the first oculist ever appointed to a school board. With characteristic foresight he made it distinctly understood that the officer appointed should exercise all possible tact and discharge his duties so as not to inflict any unnecessary hardships on the profession or on parents. The result met with general approval. Dr. Parsons Smith was an Irishman by birth and belonged to one of the best Irish families. He was singularly unobtrusive and so transparently genuine, sympathetic, and courtly, that to know him was to respect and trust him, and the long obituary notices in the local papers of every political and religious creed afford striking evidence of the high regard in which he was so justly held. He was attended through his illness by his partner, Mr. Gervase Newby, F.R.C.S.Eng.

# The Services.

## INDIAN MEDICAL SERVICE.

THE following candidates were successful at the recent examination for fourteen commissions, for which there were twenty-one candidates:

| | Marks. | | Marks. |
|---|---|---|---|
| Scott, J. ... ... ... | ... 3691 | Brook, G. S. ... ... | ... 3203 |
| Alexander, A. R. S. ... | ... 3502 | Goss, E. S. ... ... | ... 3118 |
| Hay, F. W. ... ... | ... 3362 | Morgan, J. F. H. ... | ... 3111 |
| Singh, I. ... ... ... | ... 3357 | Pandalai, K. G. ... ... | ... 3105 |
| Hepworth, S. M. ... | ... 3284 | Sen, J. L. ... ... ... | ... 3035 |
| Cormack, H. S. ... ... | ... 3240 | Wood, C. A. ... ... | ... 3012 |
| Tate, G. ... ... ... | ... 3203 | Connellan, P. J. ... ... | ... 2914 |

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## TERRITORIAL FORCE.

### SCOTTISH COMMAND LECTURES.

THE fourth of the series of special lectures for officers and non-commissioned officers will be given in the headquarters of the R.A.M.C. (Glasgow units), on February 7th, at 8.45 p.m., when Major J. P. Silver, R.A.M.C., will deal with the subject of "Improvization of Transport for Medical Units." This is one of the Scottish Command lectures delivered in Edinburgh Military Hospital, and as all medical officers are invited to attend, an opportunity is thus afforded to Glasgow and district officers to hear the special lectures organized for the regular officers of the R.A.M.C. in the Scottish Command.

The fifth and last lecture will be given in the same place on March 7th, when Colonel Gordon Hall, R.A.M.C., will take up the subject of "Tactics for Medical Units." This also forms one of the special series for the Scottish Command.

### GLASGOW UNITS, R.A.M.C.(T.F.).

THE annual gathering of the Glasgow Units, Royal Army Medical Corps, Territorial Force, took place on the evening of January 23rd in St. Andrew's Hall, Glasgow. During an interval, Colonel Sir George T. Beatson, K.C.B., Administrative Medical Officer, Lowland Division, presented the prizes to the winning members of the five units, Mounted Brigade Field Ambulance, 1st and 2nd Lowland Field Ambulances, and 3rd and 4th Scottish Hospitals. He congratulated the units on being practically at full strength as the small shortage of nineteen men due to retirals would be made up when the drill season began. The new drill hall had now been sanctioned by the War Office, a site had been secured and plans passed, and he hoped that the new building would be got ready as soon as possible. A staff officer had also been appointed for the Lowland Division. Sir George also referred to the work of the Scottish Branch of the British Red Cross Society in providing a number of voluntary aid detachments to fill the gap at present existing in the Territorial Medical Service, between the field units and the base hospitals. Glasgow was now taking steps for active work in connexion with the formation of detachments for the County and the City, and he was sure that success would attend the efforts now being made.

# Medico-Legal.

## SPIRITS OF NITRE.

JUDGEMENT has been given by the stipendiary magistrate in a prosecution by the inspector appointed by the local authority to administer the Sale of Food and Drugs Act against a Glasgow doctor. The charge was that on November 15th, 1910, in the dispensary carried on by him, he sold, by the hands of an assistant, 3 oz. of sweet spirit of nitre which contained only 1.38 per cent. of ethyl nitrite, whereas the *British Pharmacopoeia* prescribes that it should be at least 1.75 per cent. The accused was defended by Mr. William Findlay on behalf of the Medical and Dental Defence Union of Scotland, who pleaded that the purchaser was not prejudiced, that there was no absolute standard under the *Pharmacopoeia*, and that it did not state clearly the composition of the article. The evidence led for the accused was to the effect that spirit of nitre is extremely volatile, and evaporation takes place even with the utmost care. The stipendiary magistrate found the respondent not guilty.

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## ACTION FOR ALLEGED MEDICAL NEGLIGENCE.

IN the Bow County Court on January 20th, before Judge Smyly, James John Darkins, a clerk, of Milton Avenue, East Ham, sued Dr. H. de B. Nelson, of Canning Town, for negligence. Mr. Medcalfe appeared for the plaintiff, and Mr. Matthew, on behalf of the London and Counties Medical Protection Society, for the defendant. Mr. Medcalfe said that the case was a serious one, involving the character and reputation of a medical man, but there was no desire on the part of the plaintiff to obtain damages for himself. He simply wanted the recoupment of extra expenses, amounting to between £40 and £50, caused, it was alleged, by the negligence of the defendant. During her confinement in March last the plaintiff's wife was attended by Dr. Nelson, and it was alleged that he left behind pieces of the placenta. After several attacks of haemorrhage an operation was performed by Dr. Kennedy. Septic poisoning set in, and she died early in May. The alle-

gation was that the defendant was negligent in his attendance and also in his treatment, consequent on which the plaintiff was involved in extra expense in engaging doctors, nurses, etc. The plaintiff gave evidence in support of his counsel's statement. His Honour, in summing up, directed the attention of the jury to a letter written by the plaintiff after his wife's death, in which he appealed to the generosity of the defendant to enable him to meet the debts which had been incurred in consequence of the illness. They had to say whether that was a letter which one man would write to another whom he believed to have been the cause of his wife's death. The jury, after a lengthy hearing, returned a verdict for the defendant. Judgement was given accordingly, with costs.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## THE OBLIGATIONS OF A SUBSTITUTE.

KAPPA.—A. attends Mrs. C. as substitute for B. on being informed that B. is away and that the case is urgent. Before leaving, C. asks him to continue in attendance, saying that B. has neglected her, and that in any case she would not send for B. again. Would A. be wrong in continuing the case, of course stipulating that B. is first informed?

*** If A. acted as a substitute for B. at B.'s request, he ought under no circumstances to take the case, but if he was called in by C. in B.'s absence, and without any request from B. or his representatives, the case would be different; but A. must ensure that Mrs. C. first definitely terminates B.'s relations with her as her medical attendant.

## SUPERSESSION.

KAPPA.—A. and B. are in practice in the same neighbourhood, B. is asked by C., a wealthy local employer of labour, to attend his employees, their wives, and families at his—that is C.'s—cost. Many of them are already patients of A., and do not wish to change their doctor. Is B. ethically wrong in doing this without informing A.?

*** B. should tell C. that, while willing to attend any of his employees and their families who wish to consult him, he would not like any pressure put upon them to induce them to leave A., as by the offer of their medical attendance being paid for them, and that in any case he could not attend any of A.'s patients, unless they voluntarily gave up A.'s services and inform him of the fact. It would be better if A. and B. could be associated in the work, and the employees allowed to choose their medical adviser.

# Medical News.

MR. E. HURRY FENWICK will deliver a lecture on a method of the accurate measurements of the movements of the human kidney before operation and its bearing on renal surgery at the London Hospital on February 7th at 1 p.m.

AT the meeting of the Royal Society on Thursday next Dr. V. H. Veley, F.R.S., and Dr. W. L. Symes will read papers on Certain Physical and Physiological Properties of Stovaine and its Homologues, and on The Effect of some Local Anaesthetics on Nerve.

THE title of the Dermatological Society recently formed in London is the New London Dermatological Society.

THE annual dinner of the West London Medico-Chirurgical Society will be held at the Wharncliffe Rooms, Hotel Great Central, Marylebone Road, N.W., on February 22nd.

BY a gift of £4,500 by Mr. Ralph C. Forster, the sum of £25,000 required for the purchase of the site of the new chemical laboratories for University College, London, has been completed.

THE Gresham Professor of Physic, Dr. F. M. Sandwith, will give four lectures on Plague at the City of London School, Victoria Embankment, on February 14th, 15th, 16th, and 17th.

THE charter day dinner of the Royal College of Surgeons in Ireland will take place on Saturday, February 11th. His Excellency the Lord Lieutenant has accepted the invitation of the President and Fellows to be present at the dinner.

DR. W. T. GRENFELL, C.M.G., superintendent of the Labrador Medical Mission of the Royal Mission for Deep Sea Fishermen, will give a lecture entitled "Midst Ice and Snow in Labrador," at the Queen's Hall, London, on Monday next, at 8.30 p.m. The lecture will be illustrated by lantern slides, and the chair will be taken by Sir Ernest Shackleton. Tickets can be obtained at the Queen's Hall box office or through the usual agents.

DR. AUGUSTUS W. DALBY of Frome, who has had at a comparatively early age to relinquish his practice on account of the effects of a serious illness, was on Friday, January 27th, the recipient of a handsome testimonial. It was subscribed for mainly by the townsfolk of Frome and neighbourhood, but reinforced by several of the members of the Trowbridge Division and friends throughout the Bath and Bristol Branch of the Association. The testimonial consisted of an illuminated address of sympathy and appreciation of his work in Frome, together with a cheque for £290.

MOST motorists whose cars are not fitted with detachable wheels carry a spare wheel as the readiest remedy for a puncture on the road, and hitherto the Stepney wheel has held the field. But when a tyre has been on for some time the application of the Stepney wheel may be a troublesome, dirty, and difficult operation, as it involves separating the bead of the tyre from the rim in order to admit the clips. The Hall spare wheel does away with this difficulty, as it clips sideways on the exterior and interior beads of the metal rim, and does not involve any manipulation of the tyre; it is much easier to apply single handed. Moreover, it can be put on when there has been no puncture so as to act as a non-skid, and its attachment is perfectly secure.

THE trustees of the Carnegie Hero Fund met at Dunfermline last week, and had under consideration an act of heroism displayed during the attack upon the house in Sidney Street, Stepney, in which certain anarchists had taken refuge. The trustees awarded to Dr. N. Johnstone a medallion and a sum of £25. Dr. Johnstone, who was acting as assistant to Dr. J. W. Fordham, of Mile End Road, was called to attend Detective Sergeant Leeson, who had been shot in Sidney Street; while firing was going on he had to climb over the roofs of outbuildings to where Leeson was lying on a couch in a room. The wounded man was got on to a stretcher and was being lifted along the coping when the party drew fire, and a bullet hit the wall very near Dr. Johnstone's face. The party succeeded in accomplishing their task without loss, and Leeson was safely removed to the London Hospital.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on January 20th, Dr. de Havilland-Hall in the chair. As is usual at the first meeting of the year, the Committee received special reports on the chronic cases, those members who are drawing sick pay, and of whom there is little hope that any will ever be able to resume professional work. There are now nearly fifty such cases, and the amount of sick pay disbursed to them is nearly £100 a week. This sick pay is payable without any deduction until the age of 65. The Committee has always considered this branch of the work as one of the most important features of the society's operations, and the letters received from the recipients of these annuities show clearly what an immense boon these pensions has been to them. At each quinquennial valuation of the business of the society a large extra reserve is made for the chronic cases. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

A Tuberculin Dispensary League has been established in oorder that a system of tuberculin dispensaries for the poor may be placed upon its trial. It is estimated that 40,000 persons in London alone suffer from consumption and cannot for or obtain treatment in sanatoriums, which can only deal with about 10,000 cases a year at a cost of about £30,000. The president of the league is the Countess of Mayo; the chairman of the executive committee is Dr. Camac Wilkinson. The committee appeals for £500 a year for three years in order that a preliminary trial may be made. For that sum 200, it is estimated, could be treated every year. The honorary treasurer of the league is Mrs. Creasy, 36, Weymouth Street, W., and the honorary secretary Mrs. Steuart Erskine, 10, Ovington Gardens, S.W. The chief dispensary at 263, Kennington Road, S.E., near the Westminster Bridge Road station of the Baker Street and Waterloo Tube, is open on Tuesdays and Fridays from 9 to 12.

# Letters, Notes, and Answers.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

W. H. G. asks for the experience of others in the treatment of coryza by vaccines, both as regards results and methods.

ADEN asks for a cure for small warts on the face and head. They are long and vascular. He has tried nitric acid and other things, but they grow again.

NORTHUMBRIAN wishes for information as to the prospects of obtaining (*a*) temporary employment and (*b*) a country practice in Australia or New Zealand, and as to the most likely district to make for.

## ANSWERS.

### THROMBOSIS AND ULCERATION AFTER TYPHOID FEVER.

ENQUIRER would be glad of suggestions for treatment in the following case: A man aged 30 had enteric fever sixteen years ago, followed by severe femoral thrombosis in the right leg and less severely in the left. Under treatment, this gradually subsided, but he has since been subject to recurring attacks of inflammation of the superficial veins of both legs, and of the lower abdominal wall. The veins remain inflamed for a few days, but gradually subside with rest, the vein usually becoming patent, though several hard cords in each leg represent obliterated veins from past attacks. With these attacks small ulcers form, which are very slow in healing, and will not heal at all under local treatment without rest in bed. He has had many drugs, including calcium chloride, calcium and potassium iodides, ichthyol, iron, thiosinamine injections, salicylates, and intestinal antiseptics. No local infective area can be found in mouth or elsewhere. A very severe attack of erysipelas in the legs a year ago seemed for a time to check the disease, but recently it has recurred. He has had also massage, bandages, and spa treatment; but no serum treatment has been given. Calcium salts have always aggravated matters; and the use of pancreatic extracts, as suggested in such cases, has been useless. There is no positive Widal reaction.

### TRANSIENT ALBUMINURIA.

KINKS would be glad if any reader would suggest a diagnosis in the following case: On January 13th I was summoned in the evening to see a highly neurotic young woman, aged 26. I found her looking extremely ill and anxious, with respirations of forty to the minute, and with a normal temperature and pulse. Finding nothing to account for the condition in the chest, I examined the urine, despite the fact that it was normal in appearance and quantity, and found it to contain at least half albumen. I administered diuretics, and ordered hot blankets and water bottles. In the morning I found the respirations increased to 46, and the pulse was imperceptible at the wrist. At 4 the same afternoon, as she had passed no urine since the previous evening, I passed a catheter and drew off 2 drachms. This was nearly solid with albumen, and contained granular casts. The case seemed quite hopeless, as the pulse was still imperceptible. At 9 p.m. the pulse improved, and I was able to try a hot-air bath. After this, although she continued to pass only a few ounces of urine a day, she gradually improved, and on January 20th the albumen and all other dangerous symptoms had disappeared.

## LETTERS, NOTES, ETC.

THE plan of offering to medical men appointments as district medical referees seems to commend itself to the promoters of certain new insurance companies. In several cases that have been brought to our notice this offer has been made on the condition that the medical men so appointed shall take up a certain number of shares. It appears, therefore, that the medical man is invited to become a shareholder, and those so approached will doubtless examine the terms of the prospectus with the same care as the prospectus of any other commercial company.

### SOUR MILK TREATMENT IN DISEASE.

DR. THOMAS DUTTON (London, W.) writes: Referring to my letter in the JOURNAL some time since on the above subject, it may interest members to learn that my further practical clinical experience shows there is not the slightest virtue in the treatment. It produces rheumatism and gout in those prone to either complaint, and in the form of cheese it produces jaundice and congestion of the liver without rendering the intestines antiseptic; in fact, I have better results by administering 1 drop of carbolic acid in a wineglassful of water twice daily for prolonged period.

### MEDICAL TREATMENT OF INOPERABLE CANCER.

DR. ALEXANDER HAIG (London) writes: May I point out to Dr. J. Inglis Parsons that before he can draw the conclusion "that the vegetarian is more liable to cancer than the meat-eater" (JOURNAL, p. 180), he must know the proportion of vegetarians to meat-eaters in the population from which these cases were drawn. It may interest him to know that Dr. Braithwaite, in his pamphlet on *Salt as a Possible Cause of Cancer* (J. and A. Churchill, London, 1902), refers to these very same statistics, but draws the opposite conclusion. Thus he says (p. 25): "As the immense majority of the population is vegetarian, this shows a greater incidence of the disease among meat-eaters." Dr. Braithwaite also says on the same page: "The almost purely vegetarian natives of India are subject to cancer." But from the uric acid point of view, this fact admits of easy explanation, as these vegetarian natives are regular consumers of pulses, which contain, roughly, twice as much uric acid as meat. Fortunately for them, however, their pulses only amount to some 4 per cent. of their solid food, which consists chiefly of rice and other harmless vegetable substances; while xanthin-containing foods form more than 30 per cent. of the solid food of meat-eaters in this country, not to mention tea, coffee, chocolate and cocoa, which often account for the introduction of further large quantities of xanthin.

In reply to Dr. William Donovan (JOURNAL, p. 180), I may say that the uric-acid-free diet is that on which I live, and the essential point is that it contains neither uric acid nor any other substance (for example, xanthin) capable of conversion into uric acid in the metabolism of the body. On this diet my daily turnover of uric acid is under 10 gr., while, on the above-mentioned meat-eaters' diet, it used to be over 20 gr.; and this just suffices to make all the difference between health and disease. I believe also that it will one day be proved that this same food factor makes all the difference between cancer, which is now increasing *pari passu* with our still increasing consumption of uric acid, and little or no cancer at all. But cancer does not vary with meat-eating only, but with the total intake of uric acid.

### KANGRI BURN EPITHELIOMA.

DR. GEO. CARRINGTON PURVIS (136, Dhurrumtolla Street, Calcutta) writes: In the JOURNAL of December 3rd, 1910, I notice a letter on the above subject from Dr. Ernest Neve, of Kashmir, who has come to the conclusion that the production of epithelioma suggests a non-parasitic cause, because it (epithelioma) can be produced by such widely differing agents as arsenic, *x* rays, heat, soot, lime, etc. Now, all these agents are capable of producing great irritation of the epithelial cells, and all of us, I think, are agreed that irritation—especially long-continued irritation—is one of the chief causes in the production of cancer in general and epithelioma in particular; but surely one can go further than this and maintain that this very irritation and consequent enfeeblement of the epithelial cells render them particularly liable to the invasion of certain organisms or parasites. It has been shown that certain fungi can enter vegetable cells and then lose their identity—that is, become unrecognizable under the highest powers of the microscope; and if such can take place with vegetable cells, then why not with animal cells, especially when the latter have been enfeebled and altered by long-continued irritation? Last winter I sent some microscopic preparations to Edinburgh. These were shown at a meeting of the Scottish Microscopical Society. The preparations were of epithelioma and scirrhus (human), and all these showed fungi growths—spores and mycelium. The mycelium looked very like ordinary white fibrous tissues, and the spores stained equally well with both *basic* and *acid* dyes, and had the spores not occurred in clumps, would have been mistaken for nuclei or connective tissue corpuscles. The proof that they were fungi was shown by their character and mode of growth on agar. No bacteria were obtained from these tumours. Further, the fungi were not ordinary moulds, and the growth from the scirrhus was ribbon-like and semi-transparent. The final test whether these fungoid growths could reproduce the tumours in the human subject was, of course, not attempted. I shall be pleased to let Dr. Neve see the sections of these growths if he will write to me at the address given in this letter.

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# Remarks
ON
# THE CHOICE OF A DIURETIC.

BY

EUSTACE SMITH, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN; CONSULTING PHYSICIAN TO THE VICTORIA PARK HOSPITAL FOR DISEASES OF THE CHEST.

In the treatment of a case of general oedema, from whatever cause, the question of how to remove the fluid most quickly by the use of remedies which stimulate the urinary secretion is, of course, a matter for immediate consideration. It is not, however, always easy for the medical practitioner to decide as to the exact kind of diuretic which is most likely to answer his purpose. He has a wide field for his choice. Diuretics are many in number, and fall roughly into groups which, although all working to the same end, reach it by very dissimilar means. Each class has its own method of exciting the urinary flow. Consequently, these remedies must not be prescribed thoughtlessly and at random, but must be carefully chosen with due regard to the state of the patient and the cause to which the oedematous swelling is owing.

In his treatment of the case the medical practitioner may proceed in several ways. He may gently stimulate the convoluted tubes of the kidney, and encourage osmosis by increasing the saline constituents of the blood by the use of the acetates, citrates, and tartrates of soda, potash, and ammonia. He may raise the blood pressure and hasten the circulation through the glomeruli of the kidney by the use of drugs which give vigour to the heart muscle and contract the peripheral vessels of the system generally. Or, again, he may employ drugs which have a stimulating effect upon the renal epithelial cells, such as diuretin and citrate of caffeine. Or, lastly, he may use more positive irritants to these cells, in cantharides, resin of copaiba, oil of juniper, etc.

In the dispersion of a general oedematous swelling the first point to consider is the cause of the serous infiltration. We have to decide whether the defective action of the kidneys is due to a temporary failure of function, owing to deficient driving power of the heart, or to organic disease in the kidney itself; for the means to be adopted will depend in a great measure upon which of these conditions it is with which we have to deal.

If we have to do with kidneys whose secreting power is impaired by acute parenchymatous nephritis, our chief anxiety should be to do no harm, for we may gravely increase the mischief by the heedless employment of stimulating diuretics. In such a case it is not only what we should do, but also what we should carefully avoid doing, that ought to exercise our minds. We must not fret a damaged organ in an attempt to stimulate secretion by the use of irritating remedies, which are bound to fail; nor should we try to flush the kidneys by large quantities of fluid which, as they are not able to excrete it, can only add to the transudation into the tissues.

Digitalis is justly regarded, when given with judgement, as a safe and efficient promoter of diuresis; but it is not to be depended upon under all circumstances. If the drug is to answer our expectations and do good service, the kidneys must be capable of responding to stimulation, however hampered they may be for the time. The remedy acts by causing contraction of the peripheral blood vessels—those of the kidney excepted—and increasing the force of the cardiac systole. It therefore raises the blood pressure generally, and forces more blood through the kidneys. But in renal disease the blood pressure is often raised already, and to raise it still further is to force upon diseased organs, which are already greatly overtasked, an amount of additional work which in their crippled state they cannot perform. Other drugs which belong to this group and have a similar action are strophanthus, convallaria, strychnine, and squill.

Caffeine, again, and diuretin have an action directly upon the secreting cells of the tubules and indirectly upon the renal vessels, which they are able in some measure to dilate; but to stimulate the epithelial secreting structure of the kidney in a case of acute renal dropsy when the cells are more or less seriously diseased is a course from which we have no reason to expect any satisfactory result. For the time, at any rate, the cells are unable to respond even tc the ordinary call of every day. They cannot, therefore, answer to the spur; and the use of these remedies is calculated in such a case to lessen secretion instead of to augment it, and is almost certain to be followed by harm rather than good to the sufferer.

It is otherwise with the saline diuretics—the citrates, acetates and tartrates of soda, potash, and ammonia. These remedies increase the osmotic pressure of the blood and draw water from the tissues into the blood stream. They do not, therefore, irritate the kidneys, and may be used without fear even when the organs are acutely inflamed. It is important that when taken they should be well diluted, for their action upon the kidneys is thus rendered more certain; and it is useful to combine them with spirits of nitrous ether, which, on account of the nitrite of ethyl it contains, is a useful agent in causing dilatation of the afferent vessels of the kidney.

In cases, then, of renal dropsy, if the illness be acute, the saline diuretics are the only remedies of the kind which can be given without risk of further injury to the affected organs. That they may act with success it is of the highest importance to make sure that there is no obstruction to the portal circulation through the liver. A preliminary dose of blue pill followed by a liberal saline aperient is always advisable; and if during the course of the treatment the action of the remedies is found to be getting uncertain or ineffectual, especially if the arteria tension be high, a repetition of the dose will prove to be of service. In all cases a careful watch should be kept upon the work of the bowels, and their action should be encouraged by sufficient doses of a watery aperient every day or every other day, such as the compound jalap powder. To be effectual this powder must be ordered in adequate dose, and its action can be rendered more energetic by the addition of a grain or two of jalapine. In the treatment of adults elaterium is a useful remedy, but in early life its action is uncertain, and the jalap powder is to be preferred in the case of a child.

In considering the action of remedies which have direct influence in stimulating the renal secreting structures, we cannot leave out of account certain subsidiary measures which act indirectly by lightening the labours of the kidney, and make the action of diuretics more certain and easy. For instance, by promoting the activity of the skin, we relieve the overburdened kidneys of a part of their work. Little but water, however, is removed by the action of sudorifics, for of the nitrogenous refuse, which it is a prime duty of the kidney to discharge by means of the secreting epithelial cells, a very inconsiderable quantity can escape from the body by way of the skin. Still, removal of excessive fluid from the tissues is alone a source of great relief, and in the case of acute and subacute nephritis the persevering use of hot air baths is attended in most cases with the very best results. In place of the hot air bath we may use the blanket bath, in which the patient is wrapped in a sheet wrung out of tepid water and swathed in many blankets. This bath should be used continuously for several hours, and may be repeated every day. The remedial action of pilocarpine I have not found very satisfactory. A dose of gr. $\frac{1}{6}$ to $\frac{1}{3}$, given hypodermically, although no doubt a powerful diaphoretic, sometimes causes troublesome vomiting, and in most cases sets up excessive salivation, which is a source of great annoyance to the patient.

Another way of relieving the overburdened kidneys consists in a sparing use of the protein element in the food, for moderation in this respect will reduce the amount of nitrogenous waste which the crippled organs have to discharge. We do not by this means materially lessen the excretion of albumen, but we very decidedly lighten the work of the epithelial cells. The same precaution need not be taken with regard to albumen. The old notion that excess of albumen in the food increased the albuminuria has been shown to be incorrect. Many observers have proved by experiment that there is no correspondence between the quantity of albumen excreted by the kidneys and the amount of albumen contained in the food; indeed, it is incorrect to suppose that the degree of albuminuria can be taken as a trustworthy guide

to the excreting capacity of the kidney. In all acute cases, then, meat and meat extracts—articles in which the proportion of protein is high—should be avoided; instead, a diet should be ordered which consists mainly of milk, eggs (lightly cooked), farinaceous matters, and bread. Fat, in the shape of cream and fresh butter, may be allowed, but table salt is to be forbidden, for, unlike the citrates and acetates of the alkalis, this salt has no diuretic action, and is not easily eliminated by the kidneys. On this account bacon fat is not a desirable addition to the dietary, although the fat alone, without the added sodium chloride, would be unobjectionable. In the food generally as little salt as possible should be allowed, and it is advisable to have the bread used by the patient made for him without this ingredient.

It is a common practice in cases of acute renal dropsy to enforce an exclusive milk diet. This is advocated on the ground that the excess of fluid flushes the kidneys, and that the nutriment conveyed, being poor in protein, is sufficiently sustaining to the system without making too exacting demands upon the kidney cells. But it is useless to attempt to flush kidneys when, as in acute nephritis, they are already overburdened and cannot respond. Moreover, for a diet to be satisfactory in this, or indeed in any other, disease it must be readily digestible, and not prone to undergo unhealthy changes in the bowels. In neither of these respects does milk answer to our requirements. A comparatively small part of the curd can be digested, however carefully it may be manipulated so as to fit it to the powers of the weakened organs; for the more or less solid mass formed by the casein when coagulated in the stomach must offer a stubborn resistance to the action of the gastric juice and other agents of digestion. At the same time the undigested residue is very liable to undergo putrefactive changes in certain disordered conditions of the bowels. Moreover, the sameness of such a diet is a serious obstacle to its ready digestion. The stomach is as quick as the palate to resent this monotony, and the disgust excited by a repetition of the same food, meal after meal, is often sufficient to bring about its immediate rejection, or, if it be retained, to render its value in nutrition comparatively small. The incentive to healthy digestion is appetite; food taken unwillingly is rarely digested with ease. In almost all cases where the diet is confined entirely, or almost entirely, to milk, the large masses of curd which are discharged by the action of an aperient are a sufficient proof that comparatively little real nourishment has been derived by the patient from his food. It is, perhaps, no misfortune that this should be so, for if a patient who is condemned to such a diet were able to digest the enormous quantities of milk forced upon him by an energetic nurse, his assimilative powers would almost certainly fail him. His blood would be full of digested material which his tissues were not capable of taking up, and the extra work thus thrown upon the liver and other excretory organs, in their efforts to rid the system of all this unacceptable nutriment, would be likely to exert anything but a favourable influence upon the course of the illness. The beneficial results which sometimes seem to ensue from an exclusive milk diet are not improbably dependent upon moderation in the quantity prescribed, a liking by the patient himself for this form of nourishment, and the greatly reduced intake by this means of common salt, for milk contains no more than a grain and a half of sodium chloride to the ounce.

When the acuteness of the attack subsides and the complaint begins to settle down into a chronic course, we may venture discreetly to widen our choice of remedies and bring into use some of the special drugs which act directly upon the secretory apparatus. Of these the remedies which increase blood pressure and hasten the circulation through the kidneys are of more service at this stage than drugs which stimulate the secretory cells of the tubules. Therefore, if blood pressure be not unduly high, digitalis is to be preferred to diuretin and caffeine. The dose of digitalis should be small at first, and I greatly prefer the freshly-made infusion to the tincture. As a beginning, twenty drops of the infusion may be combined with thirty drops of spirits of nitre, and given in combination with the saline diuretic every three hours (in the case of an adult). If this agree well and be found to increase the secretion of urine, we may venture upon greater liberality in our dosage. This treatment is useful at all ages. Children bear digitalis well; but care must be taken that in early life the dose is not pushed to an immoderate degree. Twenty drops to half a drachm of the infusion, repeated every four hours, will usually be found to produce all the good effects which we look for in the drug. It is important, too, not to give the remedy too long at a time without a break. Digitalis is a cumulative drug, the action of which persists for some time after its administration has ceased. If continued too long without a pause, even a moderate dose may begin to produce signs of depression, shown by pallor, coldness of the extremities, and a feeling of faintness. If vomiting occur, it is a symptom which should always attract attention, and in a child, especially, is a reason for an immediate change in the treatment. In giving the remedy it is well to stop the medicine every few days for forty-eight hours or so. This plan anticipates the cumulative effect and causes no loss of time, for the action of the drug persists sufficiently in the intervals. Other diuretics may also be used which have a direct influence in contracting the efferent vessels of the kidney, such as squill and infusion of broom-tops; for it is a matter of common experience that the diuretics, like aperients, produce better results when used in combination than when given alone.

Our next step, as improvement advances, is cautiously to make use of remedies which have a stimulating effect upon the kidney cells, such as caffeine, diuretin,* spirits of juniper, and tincture of cantharides. It must be remembered, however, that this class of drug is only diuretic when given in moderate dose, for in large quantity it is apt to overstimulate the secreting structure and lessen the flow of urine, or even arrest it. It is best to begin with small doses, such as caffeine gr. $\frac{1}{4}$–j, according to age, diuretin gr. iij–vj, and spirits of juniper ♏ v–xv. Later the doses, if necessary, may be increased. Very many combinations of these remedies may be devised for the treatment of renal dropsy after the acute stage has passed off. All these should include a saline diuretic to increase osmosis, a mild stimulant to the renal cells, such as spirits of juniper, diuretin, or caffeine, and a member of the digitalis group, such as digitalis itself, strophanthus, squill, or the infusion of broom-tops—all drugs which quicken the flow of blood through the kidneys. It is well also, if chemical compatibility will allow of it, to include a proportion of spirits of nitre in the prescription in order to promote dilatation of the renal vessels. Combinations of this kind are found in the pharmacopoeias of every hospital. There may be differences in the choice of the several constituents, but the principle of combining variously acting diuretics is common to all. In the use of these remedies we must never forget that drugs which stimulate the renal cells—caffeine, diuretin, cantharides, and the essential oils, such as juniper and copaiba (resin)—can only be prescribed in dropsy from kidney disease with a good deal of caution. Even when the mischief is chronic the rule still applies. The use of these agents must always be tentative and sparing, and they must be regarded as of secondary importance, serving only as helps in the treatment to reinforce the action of such remedies as cause dilatation of renal vessels, and give an impulse to the general circulation.

At a later stage, if, as often happens, anaemia is a prominent symptom, iron is found to be of service. The perchloride and acetate are two salts which have a definite diuretic action, but it is well to use them at first in small doses. It may be noted that iron gives a black colour to a mixture containing digitalis. This may be corrected by the addition to each dose of a few drops of dilute phosphoric acid. If the perchloride be used, a combination of the three elements (the iron, the digitalis, and the phosphoric acid) forms a perfectly clear, amber-coloured solution; but if the acetate of iron be used instead of the perchloride, although the black colouring is removed, the iron is thrown down in the form of the insoluble phosphate of iron. If, then, the acetate be preferred, it is better to omit the digitalis from the prescription and combine the salt with the acetate of ammonia, giving 10 or 15 drops of liq. ferri acetatis with a drachm of liq. ammoniae acetatis to the dose. Should any sign of heart weakness be noticed,

* The action of diuretin upon the renal secreting cells has been disputed by some observers, who attribute its undoubted diuretic influence to its power of causing dilatation of the renal vessels. It is said also to promote the elimination through the kidneys of common salt.

a useful addition to this formula is liq.strychninae in doses of 1 to 5 minims according to the age. Whatever preparation of iron be used, it should be freely diluted and taken directly after food. It acts most efficiently if an aërated water be used to dilute the mixture. It will be found convenient to make up the dose with plain water to one teaspoonful, and order this quantity to be taken in a wineglassful of soda water or other simple gaseous fluid three times a day.

As the oedema subsides greater liberality may be allowed in the choice of foods, and chicken, white fish, and a little mutton—especially boiled mutton—can be taken with advantage.

When the general oedema is due to cardiac insufficiency, the kidneys being organically sound, we have greater freedom in our choice of remedies. The oedema is the consequence of temporary functional disability of the kidneys, for the circulation through them is for the time seriously obstructed owing to the turgid state of the whole venous system, and perhaps also to direct pressure upon the kidney itself by accumulated fluid in the peritoneal cavity. To effect the removal of this fluid it is necessary not only to stimulate the activity of the kidneys, but also to lighten the congestion and improve the general circulation by every means in our power. We must insist upon absolute rest to the body in order that the heart's action may not be hurried. We must be careful to regulate the diet so that the digestive powers, enfeebled as they are for the time, may not be overtaxed. The question of feeding is one which is too often left to the nurse in charge, to give food or withhold it at her discretion; but it is really one which requires, and should never fail to receive, the earnest attention of the medical attendant, for it is of urgent importance not to err on the side of excess. It is always advisable to order four small meals rather than three larger ones in the day. These may include mutton or chicken, fish, egg, and toast, or bread-and-butter. We should carefully regulate the quantity of fluid to be taken, especially of milk, and positively forbid starches cooked with milk, jams, and all the acid fruits, cooked or raw; for the fermentation of such foods in the alimentary canal only adds to the discomfort of the patient by filling his body with wind. We next proceed to act freely upon the bowels with aperients which encourage secretion into the intestine. By this means we draw water away from the tissues, and also relieve the pressure upon the kidney.

In our choice of a diuretic in a case of cardiac dropsy we must bear in mind that the cause of the oedema lies primarily in the chest, and not in the abdomen. and that remedies which act only upon the kidney are of little or no value unless combined with others which strengthen the action of the heart. We must remember, too, that when blood pressure is low drugs which tend to lower arterial tension still further are not only useless, but become an actual source of danger. We turn, then, to the list of cardiac tonics—of remedies which increase the vigour of the heart's movements, and moderate undue rapidity of action. Under their influence the heart contracts with greater energy; the diastolic pause is lengthened so as to allow of more complete unloading of the large venous trunks, and more blood is forced through the kidneys. Digitalis, strophanthus, convallaria, squill, and some other drugs act in this way, but digitalis, as a rule, is the most highly prized. In two or three days after beginning its use the blood pressure rises, the pulse becomes fuller and more regular, and there is copious diuresis. This improvement is especially noticeable in cases where there is dilatation of the left side of the heart with mitral insufficiency, a feeble irregular pulse, and, as a consequence of low arterial pressure, a scanty secretion of urine. Unless mitral regurgitation be present the influence of the remedy in promoting an increased flow of urine is but small; and if the heart is already acting strongly and the pulse is full, regular, and equal, without signs of mitral leakage, digitalis is not required, and if given may probably prove hurtful. Under such conditions the urinary secretion is normally free; and as a rule we may take the amount of urine passed as a fair guide to the probable usefulness of the remedy. Therefore, if secretion be already of normal amount, and the pulse be regular and full, digitalis should not be included in the prescription. Instead we should give diuretin combined with an infusion of broom-tops. It may be remarked that a feeble irregular pulse is not in itself a sufficient sign that digitalis is required. The effect of the drug, if given too continuously or in too large a dose, is to make the pulse very rapid and very weak, and to lessen the renal secretion. In all cases, therefore, where these symptoms are observed it is well to inquire as to what treatment, if any, has been adopted before we venture upon the use of this remedy. It may well be that digitalis has already been given in excess and ought at once to be replaced by strychnine and stimulants. So, also, if there be great dilatation of the *right* side of the heart with tricuspid regurgitation, digitalis should be given with caution, for by heightening the vigour of contraction of the right ventricle we run the risk of increasing dangerously the leakage backwards into the overcharged systemic veins. Again, in cases of early aortic regurgitation digitalis is a dangerous drug to employ, but at a later stage when mitral incompetence has become established its use is followed by very satisfactory results. There is one other point which may be noted: digitalis acts not only upon the heart but also upon the coats of the peripheral vessels of the general system causing them to contract. They therefore offer increased resistance to the driving force of the heart. If the heart be gravely degenerated, as in the fatty heart which is common in elderly persons, or in the acute degeneration of the heart which is often seen in cases of chronic heart disease at all ages, this resistance may be so great that the cardiac contractions are unequal to the effort of driving the blood through the narrowed peripheral vessels, and the heart stops beating. A sudden cardiac failure from this cause, then, may be directly promoted by the very means which we adopt in the hope of preventing it.

If we desire to obtain the tonic influence of digitalis upon the heart walls without causing a corresponding contraction of the peripheral vessels, we can neutralize its effect upon the latter by combining each dose of the remedy with a proportion (20, 30, or more drops) of the spirits of nitrous ether, which has the property of causing dilatation of the small vessels both of the kidney and the general system. Or we may make use of another cardiac tonic—the tincture of strophanthus. This drug, although it acts upon the heart like digitalis, has much less power of causing contraction of the peripheral vessels.

Although as a cardiac tonic digitalis is the remedy we value most, its efficacy as a diuretic may be further enhanced by giving it in combination with other drugs which promote diuresis by different means. A conjunction with drugs which have a special action upon the renal epithelial cells is usually attended with the best results, for in cardiac dropsy the cells are healthy, and capable, therefore, of responding to stimulation. The citrate of caffeine is perhaps the most useful of these drugs in ordinary cases. This remedy, like digitalis itself, has the power of compensating for valvular insufficiency and improving the rhythm of the heart, and it has also its own special endowment of stimulating the kidney cells of the tubules. The combination is further strengthened by the addition of sweet spirits of nitre, as dilator of the afferent vessels of the kidney, in doses of 30 to 60 drops. In giving this combination it is best to prescribe the digitalis alone or in conjunction with the nitrous ether for two or three days before adding the caffeine, as digitalis requires to be taken several days before its effects become noticeable. The dose of caffeine should be moderate (grains ij to iij two or three times a day), as stimulation of the epithelial cells of the kidney should always be looked upon as a temporary measure which is not to be abused, and may do harm if carried to excess.

The infusion of broom-tops is another safe remedy which may be usefully combined with digitalis. It contains sparteine, an alkaloid which has an action upon the heart similar to that of caffeine, and also contracts the efferent vessels of the kidneys. An ounce of the infusion given in conjunction with a drachm of infusion of digitalis, 30 to 60 drops of spirits of nitrous ether and 60 to 90 drops of the acetate of ammonia solution, is a diuretic of great value both in cardiac dropsy and in that which results from renal disease after the acute stage is at an end. Nitrous ether is one of our most valuable diuretics and can be included in most combinations; but it is incompatible with diuretin and the salicylates, and also with antipyrin and any drug containing tannin. Its good effects

are perhaps most noticeable when given in combination with acetate of potash, digitalis, and squill. Diuretin, again, is a remedy which we could ill spare. It is most useful in cases where digitalis has failed to bring relief or could not be taken without unpleasant effects. The drug has little or no action upon the cardiac muscle and appears to exert its influence as a diuretic quite apart from any increase of the blood pressure. It may therefore be given without misgivings when blood pressure is high and when, as a consequence, digitalis and other cardiac tonics are not desirable remedies. Diuretin has been found of especial value in cases of acute cardiac dropsy where the symptoms appear very suddenly. It may be usefully combined with infusion of broom-tops and small doses of tincture of strophanthus.

Some cases of cardiac dropsy resist treatment with extreme obstinacy. Although the diet may be arranged carefully both as to quantity and quality and the bowels kept regular and free, the patient seems to be unable to respond satisfactorily to any treatment, and meets every fresh combination of diuretic remedies with the same disappointing insensibility. When progress seems thus at a standstill, there are two drugs, either of which will often bring about a welcome change in the situation. One of these is tincture of cantharides. I look upon this remedy as one of our most useful means of promoting diuresis in cardiac dropsy. Its action is upon the secreting cells of the tubules, and the effects manifest themselves very quickly. I have often seen a formidable quantity of fluid disappear in the course of a few days under the influence of this remedy, although all previous treatment had failed to make any impression upon the complaint. The dose may be 2 or 3 to 10 minims, according to the age, given several times a day. The tincture can be used in combination with any other remedy, and may be usefully added to a mixture containing caffeine, tincture of strophanthus, and spirits of nitre

The other remedy which in obstinate cases can often be given with conspicuous success is mercury. Either calomel or blue pill may be employed, but I prefer the latter. This remedy is well known as a useful addition to digitalis and squill when these drugs are prescribed for their diuretic action, but it is when given alone that the effects of blue pill are most strikingly manifested. The cases which are best fitted for this treatment must be chosen with care. The drug seems to have an action complementary to that of digitalis, and to prove most efficient in cases where the latter has failed to increase materially the urinary secretion. It may therefore be regarded as belonging to the same group as diuretin and caffeine. Mercury is to be avoided if renal disease be present, and when given should not be pressed if diuresis do not result in the course of three or at the most four days, for it is in such cases that the system may possibly be unfavourably affected by the treatment. I have given blue pill in doses of 3 grains three times a day in many cases, both to young people of 10 or 12 years of age and also to the adult, and have found it to be very well borne and produce free secretion; but when diuresis has been fully established I have made it a rule to discontinue the mercury and replace it with a mixture of caffeine and spirits of nitre with infusion of broom-tops. If the mercurial be continued too long we run the risk of setting up stomatitis; and in any case it is wise while the remedy is being taken to wash out the mouth several times a day with a suitable antiseptic solution. The drug is supposed to act by increasing the formation of urea, which is well known to have a powerful diuretic action, or possibly it may directly stimulate the renal cells. The mercurial treatment should be reserved for cases which have proved obdurate to other methods, and it is fortunately in just such patients that the most successful results have been observed.

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MESSRS. S. F. EDGE, Limited, have issued a catalogue of their 1911 noiseless Napier cars. Special attention is called to the colonial Napier models, which are built to suit the varied requirements.

THE International Exposition of Food, Brewing, Wines, Liqueurs, and the Industries relating thereto, with a section of medico-pharmaceutical hygiene, is to be held at Antwerp this year. The exposition will be open from September to November. It is under the patronage of Her Royal Highness the Countess of Flanders.

# ON SOME POINTS CONNECTED WITH THE SERUM TREATMENT OF DIPHTHERIA.*

BY

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THE serum treatment of diphtheria has now been in the hands of the profession for so long a period—namely, upwards of sixteen years—that it may possibly be a matter of surprise to some that it should be chosen as the subject for discussion now. I understand, however, that there are special reasons for this choice. Hitherto, in London at any rate, the serum treatment of diphtheria amongst the poor has been almost entirely confined to hospital practice. Partly because the medical practitioner knows that if he notifies a poor person to be suffering from diphtheria, the patient will speedily be removed to hospital, there to receive appropriate treatment, and partly because, even if he wishes to make use of serum before the removal of the patient, he is deterred by the expense of the remedy, it is rarely that a patient is treated with antitoxin before he is removed to hospital. There is no doubt that any considerable delay in the employment of antitoxin in the treatment of diphtheria is highly detrimental to the interests of the patient. In order, therefore, that the poor patient may be subjected to the most efficacious treatment at the earliest possible moment, even before removal to hospital, the Local Government Board on August 15th last issued an Order sanctioning the provision by the councils of the metropolitan boroughs of a temporary supply of diphtheria antitoxin. I understand that the City of Westminster is proposing to avail itself of this Order and to supply medical men residing in that city with antitoxin for use in suitable cases. This action of the public health authority may result in forcing the serum treatment of diphtheria upon the notice of some who have not up to the present been practically concerned with it. In complying with the request of the Executive Committee of your Division to read this paper I take the opportunity of bringing forward certain points connected with the antitoxin treatment which do not appear to be generally known.

I wish, in the first place, to make it quite clear that I am myself most firmly convinced of the value of antitoxin in the treatment of diphtheria. I have had an extensive experience of the disease reaching back to eight years before the discovery of the serum method, and I regard the antitoxic serum as a specific. But at the same time I am of opinion that there are certain limits to its use, and what they are I shall presently indicate. Another point I am also quite decided upon, and that is the importance of early treatment. As I am so certain upon these two points it may be said to me that the only limit to the use of antitoxin is the limit of dosage—that if a person is suffering from diphtheria, or is suspected to be suffering from diphtheria, he should have antitoxin. That is a view I myself held some years ago, but a more extensive experience has led me to modify it. I think that the most convenient course I can take in this paper is, first, to give the reasons for the modification which I have deemed it desirable to make in my opinion and therefore in my practice, and, secondly, to point out in what these modifications of practice consist.

### *Serum Sickness.*

Immediately after the introduction of the serum treatment of diphtheria in 1894 it was observed that in a certain number of the patients treated symptoms appeared of such a nature as very rarely indeed occurred in diphtheria cases not treated with serum. It soon became clear that these symptoms were due to the serum. As serum treatment was extended to other diseases—such as tetanus, streptococcal infection, and enteric fever—it was found that the symptoms alluded to were not due to the antitoxic or antimicrobic principle in the serum, but to the serum itself. Serum from a horse which had not been immunized against any disease was found to produce these

* A paper read before the Westminster Division of the Metropolitan Counties Branch of the British Medical Association.

symptoms in a certain number of persons. The symptoms are fever and a rash, usually urticaria or a variety of erythema multiforme. These symptoms occur in about 33 per cent. of the cases treated. But, besides them, other and much more unpleasant symptoms were observed, though less frequently, in 3 or 4 per cent. of the cases—namely, acute pains in joints, tendons, and fasciae, with fever. Occasionally the joints were swollen. There was, in fact, arthritis. In such cases the symptoms bear some resemblance to an attack of rheumatic fever. I need hardly say that an attack of this kind is most unpleasant. It was recognized at the time that this added illness might act prejudicially on a patient who was just recovering from a severe attack of diphtheria, but it was felt that the risk of harm from the "serum sickness"—to use the expression of von Pirquet and Schick[1]—was less than that which was incurred if the patient was left to the mercy of an attack of diphtheria. One other observation was made in respect of these symptoms, the significance of which will appear later—that they rarely set in before the expiration of a week from the injection of the serum—that is to say, after what might be called an incubation period of some duration, which in some instances is prolonged to as long as even three weeks.

This febrile attack, with a rash and in some cases also with arthritis, constitutes what has been termed the "normal reaction" due to horse serum. As the horse is the animal which is almost solely employed for the production of the various curative serums, our knowledge of the serum sickness is almost entirely derived from the use of horse serum. But it is known that the serum of other animals will give rise, more or less markedly, to the same effects.

As I have said, the relation between the sickness and the serum was recognized as soon as the antitoxin treatment was in full swing. In the vast majority of cases the sickness, though it may be unpleasant, is not dangerous; and the normal reaction has come to be looked upon as a minor evil that has to be put up with.

### *Abnormal Reactions.*

Besides the normal reaction there are other reactions due to serum, which have been called "abnormal reactions," because they differ very widely in their appearances from the normal reaction. In some cases the difference is rather one of degree than kind; but in others the phenomena are totally different from those of an attack of ordinary serum sickness. It was some time before these abnormal reactions were recognized and the circumstances under which they arose defined. They may be divided into two main classes—the one in which the patient has previously been injected with serum, the other in which he has not.

### *Abnormal Reaction after Second Injection.*

The first class may be subdivided into three groups.

The first, in which the symptoms appear after the usual incubation period of not less than one week, but they are unusually severe, and occasionally a symptom not seen in an ordinary attack of serum sickness is met with. The following is an example of this form of abnormal reaction. I select this instance—as I shall later select other instances—because it happened to and is related by a medical man, who is able to describe the symptoms much more graphically than could be delineated by the mere passive observer. Dr. W. Bligh[2] was led to relate his own "tale of woe" by the publication of a somewhat similar tale by Dr. R. Thorne Thorne, whose account of his own case I shall presently read to you.

About four years ago I gave myself a prophylactic dose of antidiphtherial serum of 1,000 units in the left forearm. Nine days after an urticarial rash appeared all over the left upper extremity, but nowhere else. It disappeared within a day or two.

You will notice that after that injection Dr. Bligh suffered from a mild attack of ordinary serum sickness.

Eighteen months ago I again gave myself a similar dose, in the same place. On the evening of the ninth day, after dinner, I suddenly came out in an urticarial eruption over the left arm, front of chest, and abdomen. The rash appeared literally in a few minutes, and was very profuse. I walked from my drawing-room into my study, a distance of a few paces, to consult Dr. Kanthack's article in Professor Sir Clifford Allbutt's *Medicine* on the subject. Before I found the reference the rash disappeared, and I was immediately seized with such faintness that I had to lie prone on the floor. In a few minutes I had sufficiently recovered to crawl upstairs on hands and knees and climb into bed. *Pari passu* with this improvement of feeling out came the urticarial rash once more all over my body, on the abdomen and thorax the wheals being as large as a good-sized plate. In a few minutes more the lips and buccal surface of the cheeks began to swell, and a most uncomfortable feeling behind the sternum and in the epigastrium became noticeable, suggesting that the oesophagus and stomach were taking part in the orgy. I passed a most unhappy night, no vomiting, like my brother sufferer, Dr. Thorne Thorne, but a continued misery of feeling that the post-sternal and epigastric pain would go if I could only bring up flatus. However, between 3 and 4 a.m. the discomfort abated, sleep came, and I awoke later in the morning feeling quite well, with the rash gone, and able to do my day's work as though nothing had occurred.

On this occasion Dr. Bligh suffered from a much more severe attack of serum sickness, and the symptoms were unusual in that they came on very abruptly, the rash invaded the mucous membranes, and there was faintness. But the incubation period was present, and was of customary duration.

In the second group the symptoms may or may not be of extraordinary severity or character, but the characteristic feature is that, while there is an incubation period, its duration is shorter than usual. Instead of being seven days or more it may be twelve hours to six days. This is the "accelerated reaction" of von Pirquet and Schick. The following is an example of this reaction

Louisa C., aged 6 years, received 12,000 units of antitoxin for an attack of diphtheria. This was followed by a slight rash four days later,* and by a second rash, fever, and joint pains on the ninth day from the injection. Some weeks later the child had a relapse of diphtheria, and she was again treated with antitoxin, 6,000 units of which were given 109 days after the first injection. The next day an erythematous eruption made its appearance, which lasted for several days and was accompanied by sharp febrile symptoms, the temperature being 104° F. and 105° F. on the fourth and fifth days of the rash.

Another and more severe instance of the accelerated reaction is the case of Dr. R. Thorne Thorne,[3] which I now relate in his own words.

I suffered from a mild attack of diphtheria in 1889, followed by a troublesome paralysis, and hence I have since on three different occasions injected myself with a prophylactic dose of the serum (1,000 units) when attending cases of diphtheria in which I have been more than usually exposed to a virulent infection. My first injection was in December, 1902, after which I suffered from a slight urticarial rash round the seat of injection. My second was in September, 1904. This was followed by a more general rash and some malaise. My last injection was in November, 1907. Two days after the injection I felt very unwell; three days later I could hardly do my work as I felt so ill, and my suboccipital lymphatic glands were enlarged and tender. On the night of the seventh day I went to bed with the intention of stopping there next day, as I felt unfit for work, and was suffering from a more or less generalized urticaria. At 12.30 a.m. I awoke feeling sick, and vomited almost continuously for half an hour, till I was quite exhausted. The rash by this time had become general, and on the abdomen was in places quite the size of a five-shilling piece, and raised nearly half an inch. I was completely covered from head to foot with the exception of the palms and soles. The irritation was almost unbearable. At 3 a.m. I was again seized with vomiting, which lasted quite half an hour. By this time my tongue had swollen, due to the urticaria, and I found some difficulty in breathing. At 4 a.m. the joints below the hip and shoulder were attacked, and became so swollen that I could not bend my fingers. By 8 a.m. the rash had almost gone, and I felt better, but on getting out of bed I found that I could not stand, and fainted. By the evening I felt well, but very shaken and weak. My temperature was normal during the week preceding the attack. I know that I had eaten nothing which could have upset me, and I believe that the vomiting was due to urticaria of the stomach. I also experienced some thoracic and abdominal pain during the height of the attack.

The characteristic feature of these two cases is that the symptoms of serum sickness began to show themselves earlier than usual, within twenty-four hours in the case of the little girl, and two days after the injection in that of Dr. Thorne Thorne. It will be noticed that Dr. Thorne Thorne suffered from faintness, and that his attack was much like that experienced by Dr. Bligh.

In the third group the symptoms of the serum reaction occur within a few minutes or five or six hours of the injection of serum. This is the "immediate reaction" of von Pirquet and Schick. In my experience I have only once known the symptoms of a serum reaction to appear

* Occasionally the incubation period of a normal reaction is less than a week.

between the sixth and nineteenth hour after an injection—that is to say, that an immediate reaction occurs within six hours of the administration of serum, and an accelerated reaction after a lapse of about eighteen hours. In one case a reaction which I regarded as accelerated occurred twelve hours after an injection. The symptoms of an immediate reaction are prone to be severe and even dangerous, and to be different in their character from those of the other reactions. The following is an instance of this reaction.[4]

Elsie E., aged 3 years, suffering from a severe attack of diphtheria, received by subcutaneous injection 4 000 units of antitoxin on each of the days October 26th, 27th, and 28th, and 2,000 on the 29th, 14,000 units in all. A slight erythematous rash came out on November 20th, and lasted for three days. On December 14th symptoms of a relapse of diphtheria set in, and the next day, that is, fifty days after the first injection on October 26th, 4,000 units were injected beneath the skin. Within a quarter of an hour the child was very sick, and was covered with an urticarial rash. Two and a half hours later she had a rigor which lasted about half an hour. She became cyanosed, and the pulse was rapid and feeble. She gradually recovered though the rash was present the next day. A second rash made its appearance on December 21st and lasted to the 23rd, during which time the patient also suffered from fever.

The symptoms of the immediate reaction differ from those of the other reactions which I have described in their severity and the explosive suddenness with which they show themselves. Besides the rash—which may invade the whole of the skin, and, it would seem, certain of the mucous membranes also, in a very few minutes—there are a high temperature, cyanosis, and a rigor. Occasionally there is collapse, and in one case under my care there were convulsions and drowsiness.

Now, in each of these three groups of cases the peculiar symptoms manifested themselves in consequence of an injection of serum given for a relapse of diphtheria some considerable time after the first administration of serum. I drew your attention to the fact that an attack of serum sickness was preceded by an incubation period of about seven to fourteen days' duration. It is the merit of von Pirquet and Schick to have pointed out that an abnormal reaction did not occur in these cases of second injection, unless the second injection was given after the lapse of a period from the first injection which was longer than, or at least as long as, the ordinary incubation period—that is to say, at least a week. These reactions are not set up by a second, third, or later injection, unless there is an interval of at least a week between the first and the one that produces the abnormal reaction. The shortest period that I have observed for an accelerated reaction has been eighteen days, which is, I believe, the shortest recorded, while the longest has been 1,851. Von Pirquet and Schick have reported an interval of seven and a half years. The extremes for the immediate reaction that have been observed in my cases have been twenty-one and four hundred and thirteen days, but Currie[5] has reported a minimum of ten days, and von Pirquet and Schick a maximum of three years. It is quite possible that there is no limit to the maximum period, and that an abnormal reaction may be set up, in a person who has once been injected, by reinjecting him subsequently at any time. There are many cases on record in which reinjections have been practised at short intervals, but the cases in which the interval between the two injections is long are few in number.

From the clinical evidence I have brought before you, it is clear that the injection of serum into a human being may produce some changes in the blood or tissues, or in both, which may lead to a modification of the form of the serum sickness or reaction. The reaction is usually hastened; it may be severe, and in some cases uncommon symptoms are present. But, fortunately, it is not in every case in which reinjection is performed after an interval of some duration that these abnormal reactions occur. During the eleven years, 1897 to 1907, there were 164 cases of this kind of reinjection under my observation; of these, 27 showed marked and 51 less marked reactions. A considerable number of similar cases have been reported in various medical journals.*

In a certain number of persons, therefore, the injection of a foreign serum leads to an increased susceptibility or supersensitiveness to the serum, a condition which is shown by the greater readiness of the reaction to appear and its greater severity. In consequence of the occurrence of these abnormal reactions in persons treated with antitoxin and of certain still more serious results, to which I shall presently refer, the subject was specially investigated by bacteriologists and physiologists in the United States, though it had been inquired into previously by certain Continental physiologists who were engaged in researches into the causes of immunity. A vast amount of experimental work has been accomplished as a result of these investigations, and from it one fact emerges quite distinctly, and that is that if you inject a foreign protein into an animal you render the animal peculiarly sensitive to that particular protein. By "foreign" I mean not derived from the animal injected or one of its species. The protein may be of any kind and of animal or vegetable origin, such as, for example, blood serum, white of egg, milk, and bacterial extracts. In some animals and with some proteins supersensitiveness is produced with remarkable ease. Thus, the injection of $\frac{1}{1000}$ c.cm. of horse serum into a guinea-pig renders the animal so extremely sensitive that the injection of 3 c.cm. or 4 c.cm. a fortnight or more afterwards will almost invariably cause the rapid death of the animal. The condition of supersensitiveness thus produced has been termed by Richet, one of the earliest workers at the question, "anaphylaxis," meaning the opposite to protection. The animal, so far from being protected against the foreign protein, is very much more susceptible to its action. As I am this evening dealing with the subject only from a practical standpoint, I shall not enter into any discussion of the hypotheses that have been put forward to account for the production of this condition, which is possibly a stage in the acquirement of immunity.

*I have not included amongst these 78 cases of abnormal reaction any in which the signs of the reaction were limited to the site of injection.

### *Abnormal Reaction after First Injection.*

So far I have been talking only about the first of the two classes into which I said the abnormal reactions might be divided—namely, that in which the patient had been injected with serum on a previous occasion. I now pass to the second class, in which an abnormal reaction follows a primary injection.

Now I said before that an ordinary attack of serum sickness did not as a rule come on till a week or more after the primary injection. Occasionally it may arise earlier, but if it does it is not necessarily severe or exceptional. But in the cases I am now about to speak of the symptoms are of a different character and alarming gravity. Again I will avail myself of the description given by a medical man of his own case and take that given by Dr. Arent de Besche,[6] who was the patient.

A medical man, 30 years of age, went on Sunday evening, December 5th, 1908, to visit a patient who was suffering from an affection of the throat, which was strongly suspected of being diphtheria. During the examination the patient coughed straight into the face of the doctor, and the circumstances of the place were such that the latter was unable to wash or disinfect himself till he reached home, nearly an hour later. The next day the diagnosis of diphtheria was confirmed bacteriologically, and the doctor, being persuaded that he had in all probability been infected with diphtheria, decided to have a prophylactic injection of serum. He received from one of the medical staff of the department of infectious diseases of the Municipal Hospital in Christiania an injection of 1,000 units of antitoxin in 2 c cm. of horse serum—a dose which is often given to the smallest child, and is only a fraction of the amount which is given to adults. The injection was made in the right side of the abdomen at the level of the umbilicus, and it is quite certain that no air was also injected. It should further be noted that before the injection the patient was in perfect health and had never before in his life been injected with serum. The injection was given at 1.30 p.m., and the patient immediately left the hospital to go home. He had hardly been gone five minutes when he began to feel an intense irritation in the nose and eyes, and sneezing came on so severely that he had to be constantly using his handkerchief. Shortly afterwards he began to cough, and ten minutes later urgent dyspnoea set in, with wheezing in the chest, just as in an attack of asthma. The dyspnoea rapidly increased, the respiration became stertorous, and the patient quickly became so helpless and ill that he was on the point of falling. He was obliged to appeal for help to the first passer-by in the street, and, with the aid of two men, was taken to one of the tram waiting-rooms and laid on a bench. Then there came on extreme breathlessness, pronounced lassitude, and a sensation of dissolution. The patient shivered, and his lower extremities, as well as his arms and hands, were cold. His hands were also extremely cyanotic; he

could not feel his pulse. After some time he was taken home in a carriage and was placed, in a helpless condition, on a sofa.

A doctor was sent for; Dr. H. J. Vetlesen attended, and the following notes were made by him:

I arrived at 3 o'clock—an hour and a half after the patient had been injected. The patient was lying, fully clad, on a sofa. His face, lips, cheeks, and ears were extremely cyanotic, and his hands were also in the same state. He was restless, and kept tossing himself from one side to the other and rubbing his back and abdomen with his hands; he was breathing heavily; the respirations were laboured, not wheezy, but stertorous. The patient gave me the impression of being in a very feeble state; his nose was stopped up as by a catarrh; he was constantly using his pockethandkerchief, and had used three in a short time. His hands were cold; his face, though cyanotic, was warm. His pulse could not be felt. It seemed to me that the patient was too weak to sit up, so that a thorough physical examination could not be made. . . . The sounds of the heart were audible and clear.

The patient gradually recovered, the only fresh symptom being irregularity of the pulse. By 8 p.m. he felt quite well again. He passed a good night. Next day there was redness and swelling round the site of injection, which spread to the loin and scrotum, and caused some annoyance. This lasted for three days.

Dr. de Besche got off lightly; for unfortunately there are several cases on record which have terminated fatally. The following is one such, reported by Dr. Gillette[7]:

The patient was a man 52 years old, who was the subject of asthma. Dr. Gillette states: "He asked me to administer diphtheria antitoxin to him, hoping it might cure his asthma. . . . On November 8th, 1907, I administered 2,000 units of antitoxin globulin under the left scapula, taking all precautions not to inject directly into a vein, and also avoiding the injection of any air. He had about completed dressing when he said that he had a pricking sensation in the neck and chest; soon he sat down and said that he could not breathe, nor did he breathe again. I placed him upon the floor and called for help, and did all that seemed possible for him, but to no avail. His pulse at the wrist remained regular and full for some time after respiration ceased. He had a mild degree of cyanosis of the face, and the face was oedematous. He died in tonic spasm in ten minutes after receiving the serum." An inquiry was held and an autopsy made, but nothing was found to account for death.

Dr. Gillette subsequently collected and published the notes of 29 other cases of a similar nature, making 30 cases altogether; 16 of the 30 were fatal.[8] Most of them occurred in the United States. One such case has occurred in this country in the person of a young woman who died at Kidlington, near Oxford, in November, 1908, immediately after receiving a prophylactic dose of antitoxin.[9] I have not seen any account of this case in a medical paper.

The symptoms in this class of cases are usually intense dyspnoea, with failure of respiration and collapse. Very occasionally there is a rash, which is usually urticaria. You will have noticed that in the case of the immediate reaction in a little girl, which I related earlier, there were cyanosis and collapse. In cases of that sort there may be dyspnoea, though it is rarely so severe as it is in the cases of an immediate reaction after a primary injection. One very important fact remains to be mentioned with regard to the second class of cases, namely, that the sufferers have many of them been the victims of asthma or some allied disorder. In some cases they have been persons who have had a peculiar idiosyncrasy to horses. Dr. de Besche, for example, could not go near a horse or into a stable without getting an attack similar to the one he underwent after the injection of serum, but with much milder symptoms. Of the 30 cases published by Dr. Gillette 22 were the subjects of asthma or attacks of a similar nature. What the exact pathology of the attack is I do not profess to know. In the experiments on animals to which I have alluded above, the guinea-pig which has been sensitized to horse serum dies with symptoms which strongly resemble those of an attack of asthma in the human subject. There are respiratory embarrassment, coughing and sneezing, and breathing ceases before the heart stops beating. Auer and Lewis[10] claim to have shown that the symptoms in these animals are due to constriction of the bronchioles and carbonic acid poisoning. But some recent experiments of Manwaring[11] on dogs indicate that in those animals, at any rate, another cause is at work, some autointoxication of hepatic and intestinal origin. The symptoms that are observed in the human being suggest that in one set of cases there is interference with the mechanism of respiration, but whether it is at the centre or periphery is not clear. In another set of cases, and more especially those in which the reaction follows a reinjection, the symptoms lead one to suspect that there may be an affection of the respiratory mucous membranes like the urticaria which comes out at the same time all over the skin. Further observations, clinical as well as experimental, are required to clear these points up.

*Antitoxin as a Prophylactic.*

Now, what is the practical outcome of these cases and experiments? I think I have brought forward enough evidence to justify the modification I have made during the past few years in my views on the subject of serum administration. I have no desire to pose as an alarmist, but with a knowledge of such cases as I have narrated above I am quite averse from using antitoxin as a prophylactic. Not only might it happen that the person treated was especially and peculiarly susceptible to the action of serum, even if he was not known to be asthmatic, but supposing that he was not naturally susceptible, it would not be unlikely that by the injection you would render him artificially so, in which case, if subsequently it were found to be necessary to use antitoxin remedially—a by no means unlikely event in these days of serums and vaccines—he would run the risk of undergoing a very unpleasant illness. There are some instances of outbreaks of diphtheria in institutions for the care of children, in which the use of antitoxin as a prophylactic, given cautiously and after due inquiry into the children's life-history, may be justified. But I am strongly of the opinion that an indiscriminate use of serum as a prophylactic is not only unnecessary but unjustifiable.

The next question is, whether it is advisable to give antitoxin to persons who are only suspected to be suffering from diphtheria. The answer to this is that it is partly a matter of probabilities, and partly one of the age of the patient. As a rule, doubtful cases of diphtheria are not severe cases, and in the cases of individuals over 10 years of age a delay of a day or two will clear the case up and not prejudice the patient's chance of recovery. In patients under 10 there is only one class of cases in which the diagnosis is doubtful and the disease dangerous—namely, the laryngeal cases. Diphtheria not infrequently commences in the larynx, and, in the absence of exudation upon the fauces, it is very difficult to say whether the case is one of diphtheria or not. If you can exclude such well known causes of laryngeal obstruction in children as measles, retropharyngeal abscess, and the like, and are hesitating between a laryngitis due to diphtheria and one due to a less malignant organism, you must fear the worst disease, and bring against it the best remedy—namely, antitoxic serum.

*Antitoxin in Undoubted Diphtheria.*

In cases of undoubted diphtheria there is seldom necessity for hesitation as to the use of antitoxin. I should stay my hand only in the case of an asthmatic individual. If you are called upon to treat an asthmatic who has been unfortunate enough to contract diphtheria, you will have to choose between two evils. If the attack of diphtheria is severe, and especially if the larynx is involved, you will be compelled to risk his supersensitiveness. For, happily, it is not every asthmatic who is supersensitive. Dr. Gillette himself used to be one of those persons in whom an attack of asthma was set up by the presence of a horse. But he received two injections of horse serum which were followed only by very slight reactions, and apparently cured him of his peculiar susceptibility.

At the beginning of this paper I mentioned the importance of the early administration of serum in diphtheria. This is to be emphasized, not only because of its beneficial effect upon the course of the disease, but because the earlier the treatment is begun the smaller is the dose of serum that it is necessary to give. Smallness of dose, strictly speaking, implies fewness of units; but in practice it nearly always also means smallness of volume. It is undesirable to give large volumes, because the larger the volume the greater the chance of the occurrence of a serum reaction, and, in my experience, of the production of the anaphylactic state. Serum of low antitoxic potency is not so expensive as that of the high which it is necessary to employ in severe—that is to say, advanced—cases. Hence early treatment is the most economical. I am not accus-

tomed, however, to pay much attention to the history of the case, but to judge each on its merits, as I see it, though it may be taken as a rule to which there are few exceptions, that in severe cases the severity of the disease directly depends upon its duration. Severity of attack is shown by extent of exudation and symptoms of toxaemia.

The dose I am accustomed to give is from 2,000 units for a mild case up to 20,000 for a severe case, repeating half this amount the next day if there is any increase in the severity of the disease. In most instances this will be sufficient, but in very severe cases, especially of the haemorrhagic form, large doses should be injected. In one sense you cannot give too much serum; you cannot poison a person by an overdose, as you can with such drugs as morphine and strychnine. Nor is it necessary to take into consideration the age of the patient, unless it be to reverse the ordinary principles of dosage by giving larger amounts of antitoxin to children than to adults.

I have always administered serum by subcutaneous injection. No doubt the most efficacious method is by intravenous injection; but it presents considerable practical difficulties, of which the chief is that it is by no means easy to pick out a vein in a small child who is the subject of diphtherial toxaemia. Of administration by the mouth or rectum, advocated by some writers, I have no experience. I am certain that by hypodermic injection the serum will be retained and absorbed, but I am not so sure that it will be, in any given case, if administered by the channels mentioned.

Lastly, I will just touch on one question that may be asked, namely, can the unpleasant reactions I have been talking about be in any way prevented? So far as I know, they cannot; there is conflict of evidence on the subject. But neither heating the serum nor the use of any drug appears to be entirely efficacious, though there is clinical evidence to show that large doses of calcium lactate will mitigate the rash of serum sickness. Anaphylaxis can be produced in animals by feeding them on certain proteins, so that the rectal or oral administration cannot be expected to be free from risk of the unpleasant sequels. But this I will say, that it would seem as if there were some methods in the manufacture of the serum that were better than others so far as the avoidance of unpleasant effects is concerned; for certainly during the past few years the antitoxic serum supplied to the Asylums Board's hospitals has been less noxious than it was at one time. I have not, however, been able to ascertain the cause of the undoubted improvement that has been effected.

REFERENCES.

[1] *Die Serumkrankheit*, 1905. [2] BRITISH MEDICAL JOURNAL, February 29th, 1908. [3] Ibid., January 18th, 1908. [4] Reported in Appendix III to the Report of the Clinical Society on Antitoxin, 1898. [5] *Glasgow Medical Journal*, April, 1908. The reaction was local and slight. [6] *Berl. klin. Woch.*, August 30th, 1909. [7] *Journ. Amer. Med. Assoc.*, March 15th, 1908. [8] *Therapeutic Gazette*, March 15th, 1909. [9] *Daily Chronicle*, November 29th, 1908. [10] *Journ. Exper. Med.*, September 1st, 1910. [11] *Bulletin Johns Hopkins Hospital*, September, 1910.

A PRELIMINARY report by Captain Stevenson, I.M.S. (*The Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India*; new series, No. 38, 1910), on the killing of rats and rat fleas by hydrocyanic gas has been issued recently. Fumigation with this gas has been largely used by the agricultural departments in the United States of America and in South Africa, chiefly for the destruction of scale insects infesting plants. To produce the gas, an enamel ware vessel or a kerosene tin is placed in the middle of the room to be fumigated. Measured quantities of water and sulphuric acid are then placed in this, and when all is ready the potassium cyanide is dropped in, the operator bolting from the room as fast as he can get out. The man who measures out the potassium cyanide must use rubber gloves, otherwise he will almost certainly be poisoned, and the individual who drops it into the water and acid should do so at arm's length, retiring, as has already been said, as fast as he can. So deadly is the gas, that a whiff of fairly strong vapour kills at once. Further, as it is somewhat inflammable, no naked lights must be left about the buildings to be fumigated. Apparently the gas is harmless to the plague bacilli themselves, but is very toxic to fleas and their hosts the rats. The risk attending the employment of such a deadly gas as this would seem to be too great, at least for general use.

## THE ARGYLL ROBERTSON SIGN IN CEREBRAL AND SPINAL SYPHILIS.

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THE frequency and importance of the Argyll Robertson sign in tabes dorsalis and general paralysis is a matter of general knowledge, but there still seems some doubt as to its incidence in cerebro-spinal syphilis. In Dr. Risien Russell's[1] very interesting opening address to the discussion on ophthalmoplegia at the Annual Meeting of the British Medical Association last year, he asked the pertinent questions as to how far persons who have had syphilis and have the Argyll Robertson sign have escaped tabes or general paralysis, and whether this sign is compatible with a syphilitic lesion which does not mean a tendency to progressive degeneration. It was disappointing that in the discussion which followed no decisive answers were given to these questions, desirable as it is that a point of such diagnostic importance should be settled.

Dr. Mott,[2] in a discussion on syphilis in the Neurological Section of the Royal Society of Medicine, said on this point: "There is one sign usually present which for all practical purposes is only met with in parasyphilis—namely, the Argyll Robertson pupil. No coarse random lesion will explain the constancy of this phenomenon; moreover, this condition, although a sign of syphilitic infection, does not occur in true syphilitic brain disease."

The Argyll Robertson phenomenon is to be regarded as an example of the selective action of a poison upon the central nervous system, inasmuch as a special group of neurones having a definite and restricted function is picked out and put out of action. It may be compared in this respect with the action of the diphtheritic poison in paralysing accommodation. The parasyphilitic affections offer other examples of similar selective action of the virus—for example, the disease of certain fibres of the posterior roots in tabes. In cerebro-spinal syphilis, however, such results are conspicuously absent, the paralyses there met with are produced as the consequence of interference with the nutrition of the neurones by occlusion of vessels from endoarteritis or thrombosis, by their compression by exudation, or by destruction through gummatous tumours. *A priori*, therefore, it would be unlikely that a sign like the Argyll Robertson pupil should occur in cerebro-spinal syphilis.

In 1903, in a paper[3] on this subject based on the analysis of 37 cases of syphilis of the brain and cord, I concluded that previous syphilis is not sufficient without some further change to lead to the presence of this sign; that its presence is evidence of a degenerative process at work within the nervous system, and this process is to be regarded as a "parasyphilitic" one; but that it is reasonable to suppose that the degenerative process, of which the Argyll Robertson sign is one of the symptoms, may remain stationary at an early stage, or for a long period without further development. An exampie of this arrest is seen in some cases of tabes dorsalis. With some exceptions to be mentioned later, this view, if correct, would practically confine the sign to parasyphilitic infections.

In a recent analysis of 48 cases of syphilis of the brain and 21 of the cord, 69 in all, I obtained the following results with regard to the Argyll Robertson pupil. In every case there was a clear history of syphilis, or some undoubted syphilitic lesion, and, in addition, in the later cases Fleming's test was positive. Out of the 69 cases, the Argyll Robertson pupil was present in 2 of cerebral syphilis. One of these was a man of 32, apparently with syphilitic meningitis of the convexity; he had headaches, was apathetic, forgetful, depressed, with indistinct or slightly slurring speech and exaggerated knee-jerks. He showed no improvement under treatment, and his symptoms suggested the possibility of an early stage of general paralysis. The other patient was a woman, aged 45, who suffered from right facial paralysis twelve years ago, five years ago was under my care for cerebral syphilis, with right hemiplegia and

Argyll Robertson pupil, and has developed on the hemiplegia a typical tabes dorsalis. In another patient there was paralysis of the right third nerve, with complete iridoplegia, the left pupil did not react to light on admission, but recovered fully under treatment. In six patients the pupil reaction to light was sluggish, but not absent, and in three of them became much more brisk under treatment. One of these suffered from epileptiform fits, both general and localized, with headache and vomiting; two from hemiplegia, with headache and vomiting; one from meningitis of the convexity, with hemiparesis, cranial nodes, and double optic neuritis; the fifth was a patient with hereditary syphilis, with cerebral symptoms and optic neuritis; and the sixth was a patient suffering from syphilitic cerebro-spinal meningitis, with hemiplegia and intense optic neuritis. So that optic neuritis, in varying intensity, was present in three of the six cases with a sluggish reaction; optic neuritis does not, of course, abolish the light reaction. Of the 21 spinal cases, in one the light reaction was sluggish, and in two the Argyll Robertson sign was present. Of the latter, one was a rather remarkable case. The patient was a man, aged 32, who had had left hemiplegia two years before, from which recovery was not complete. When admitted, he was dull, apathetic, and had some mild delusions as to place and as to his circumstances. The cord affection corresponded to Erb's syphilitic spinal paralysis, and was of very gradual onset, with the usual affection of the bladder, great exaggeration of deep reflexes, and double extensor plantar reflex. The pupils were very small. He made, under mercurial treatment, an unexpectedly good recovery, both as to his mental and physical state, and was able to return to work. The Argyll Robertson sign persisted. In the other case the cord affection was of the same kind, with no affection of sensation, no ataxy, and no symptoms except slight incontinence beyond those clinically referable to degeneration of the pyramidal tracts; the disease was also of very gradual onset.

It is an interesting point that the only cases presenting the Argyll Robertson sign amongst my cases of syphilitic disease of the cord are cases belonging to the clinical group of syphilitic spastic paraplegia, first described by Erb. Wilfred Harris[4] states that in Erb's syphilitic spinal paralysis "sluggishness of pupils, or even complete reflex iridoplegia may, however, be met with." Although presenting the same clinical features, it is probable that these cases do not all own the same pathology. If some of them are due to a primary degeneration of the pyramidal tracts as a result of syphilis, then they would represent a degeneration of the efferent neurones analogous to that of the afferent fibres in tabes, and come under the parasyphilitic affections. Harris quotes Wimmer as stating that in only 4 cases examined pathologically was there a pure degeneration of the pyramidal tracts, but it may be added that the records of autopsies are few. From the recorded cases Nonne[5] gives the following four conditions as underlying this form of paraplegia: (1) Chronic myelitis in patches, with ascending and descending degenerations; (2) these changes combined with a primary degeneration of the pyramidal tracts; (3) degeneration of the pyramidal tracts only; and (4) a combined primary postero-lateral tract degeneration.

I suggest that it is with the group of pure degeneration of the pyramidal tracts that the Argyll Robertson sign will be found associated, and that the condition is a parasyphilitic one.

In connexion with syphilitic spinal disease, it may be added that Dr. W. Harris[6] found "complete or partial Argyll Robertson pupil" in three cases of chronic syphilitic poliomyelitis. These cases were a very late sequel of syphilis, in one of the three appearing twenty-five years after infection.

In analysing the above cases, I have not taken into account a unilateral loss of the light reaction, because it is then more difficult to exclude local causes; in four or five of the cases unilateral loss occurred in association with paralysis (complete or incomplete) of the third nerve on the same side. Moreover, if the Argyll Robertson sign is rightly considered as the selective action of a poison, both pupils should be affected. So far as my cases go, therefore, they entirely support the contention that this sign is not a symptom found in pure cerebro-spinal syphilis, and that its presence is an index of a degenerative process at work in the nervous system.

The contrast with tabes and general paralysis, in which the sign is present in about 70 per cent. or over of the cases, is too striking to call for further remark.

In testing the cases no further precaution was taken than always to place the patient opposite a good light (daylight), cover both eyes, and see that they did not accommodate.

I have referred throughout to the fully developed Argyll Robertson sign only, because merely sluggish pupils, although in certain connexions suggestive, have not the same clinical significance. Further, it is now certain that in recent cases and under efficient mercurial treatment, an absent light reflex may sometimes be regained.

There are one or two other conditions under which the Argyll Robertson sign may be present, but the associated symptoms should prevent any error in diagnosis. Thus, Dr. Farquhar Buzzard,[7] in the discussion on ophthalmoplegia, mentioned cases in which the sign was present in cysts of the third ventricle, and in tumours of the optic thalamus extending to the corpora quadrigemina. Other observers have also noted it in lesions of the corpora quadrigemina, but it does not invariably accompany them. It is also present in optic atrophy, but not in optic neuritis.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1317. [2] *Proc. Roy. Soc. Med.*, Neurological Section, vol. iii, No. 4, p. 47. [3] BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1634. [4] Allbutt and Rolleston's *System of Medicine*, 1910, vol. ii, p. 728. [5] Quoted by Williamson, *Diseases of the Spinal Cord*, London, 1900, p. 344. [6] Loc. cit., p. 731. [7] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1319.

# TUBERCULIN DISPENSARIES.

BY

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IN order to determine the attitude of those members of the medical profession who are specially competent to express an opinion upon the subject, inquiries have been made by the medical superintendents of most of the principal sanatoriums of England and Wales as to the value attached by them to the use of tuberculin.

The replies received show clearly that tuberculin is a remedy viewed with favour by the large majority of the medical superintendents of the sanatoriums of the country. The view of Dr. Wilkinson and Dr. Fraser, M.O.H. Portsmouth, that tuberculin is a useful therapeutic agent in the treatment of pulmonary consumption, is thus endorsed.

When we consider the types of cases suitable for the administration of tuberculin, we are confronted with considerable diversity of opinion. Broadly speaking, however, we may conclude that the majority of competent observers are agreed that the most suitable cases are the early, not markedly febrile, group, and that the remedy is contraindicated in mixed infections and in acute febrile cases. In other words, expert opinion inclines to the view that the cases suitable for the administration of tuberculin must be carefully selected.

In the next place the question was asked whether tuberculin was a remedy which might be safely and properly administered at a tuberculin dispensary where the patients attend once or twice a week for the purpose of receiving injections. To this question the replies received were practically unanimously in the negative, the opinion being again and again expressed that tuberculin as a therapeutic agent ought only to be administered with caution and under conditions of the most constant and careful control.

The fourth question asked was whether the establishment of tuberculin dispensaries could replace sanatoriums. To this question the answers were emphatically in the negative.

Finally it was asked whether the best conditions for the administration of tuberculin were not such as obtain in sanatoriums where the patient is under constant skilled supervision and control. In every case the answer was in the affirmative, the opinion being frequently stated that these conditions were precisely those which justified the use of tuberculin for therapeutic purposes.

The views of the sanatorium authorities may be summed up in the statement that in their opinion tuberculin is a useful remedy in certain types of cases, but that it must be administered with care and with extreme watchfulness, and that the sanatorium affords the ideal means of securing these safeguards. Tuberculin, therefore, is, in the opinion of the gentlemen consulted, to be regarded as a useful accessory to the methods of sanatorium treatment.

The evidence adduced by Drs. Fraser and Wilkinson is insufficient seriously to shake the expressed opinion of so many authorities of equal eminence and experience, evidence which is emphatically in opposition to the views expressed in Dr. Fraser's report to the Portsmouth Town Council. The present state of our knowledge on the subject does not justify the conclusion arrived at by Dr. Fraser, and my opinion is that the indiscriminate administration of tuberculin in a tuberculin dispensary is a procedure not justified at the present time. My reasons for adopting this view are briefly as follows:

It is admitted by Dr. Fraser that the majority of cases of phthisis occur amongst persons of the poorer classes, patients who (I cannot express it better than in Dr. Fraser's words), "on entering the sanatorium, exchange a hard existence where they are often badly fed, and live under insanitary conditions, for a life of rest, good food, and careful medical supervision."

It has long been recognized that the treatment of pulmonary tuberculosis by direct attack upon the tubercle bacillus holds out, in the present state of our knowledge, no hope of success. It has also long been recognized that *post mortem* records show that many individuals have suffered from pulmonary tuberculosis at some antecedent period of their existence, that these individuals have from some cause or another been successful in overcoming the attack of the tubercle bacillus so completely that no evidence has been forthcoming of the presence of the bacillus during the life of the individual. It is further recognized that the tubercle bacillus is practically omnipresent under conditions of modern civilization, so that practically the whole of the civilized world has been exposed to the opportunities of infection. It is therefore clear that the civilized human race is possessed of a high antagonism to the attack of the tubercle bacillus, an antagonism which may be either intrinsic or acquired. From the present point of view it matters little which it is.

It is clear, therefore, since direct attack has been found to be at the present time hopeless, that the line of action in the treatment of tuberculosis is to take advantage of the natural resistance to the attack of the tubercle bacillus, and by appropriate means build up the cell vitality so that the cells of the body become capable of overcoming the bacillus.

Viewing the cells of the body from the standpoint of pulmonary tuberculosis alone, we require to recognize the conditions under which they are best capable of overcoming the attack of the tubercle bacillus. Experience has shown that the cells endowed with the highest degree of vitality have the best chance of success, and that it is those individuals whose cells are not sufficiently nourished who suffer from developed pulmonary tuberculosis. It is clear, therefore, that, if any individual who has developed pulmonary tuberculosis to such a degree as to show clinical manifestations continues to exist under the conditions which primarily rendered his cells incapable of overcoming the attack of the tubercle bacillus, the tendency will be for his cell resistance to continue to diminish in consequence of (1) the persistence of the primary conditions, and (2) the superadded disability of the toxins of the tubercle bacillus. If, therefore, treatment is to be carried out under conditions holding out the best chance of success, we must either remove the individual from the conditions which caused the primary lessening of resistance, or we must remove the conditions which predispose to lowering of tissue vitality.

Those conditions which prevent the incidence of the disease are precisely those which afford the patient the best chance of recovery in the case of the exhibition of the phenomena of the developed disease. Experience shows that we cannot hope for cure if the patient continues to exist under the conditions which caused the disease. In spite of the inevitable teaching of experience, however, it is alleged that there is a remedy so potent as to neutralize and overcome all environmental disability. According to Dr. Fraser and Dr. Wilkinson the remedy is forthcoming in tuberculin. These gentlemen believe that the evidence at their disposal justifies them in leaving patients during the time they are undergoing a course of tuberculin treatment under conditions in which, instead of a life of rest, good food, and careful medical supervision, such as obtain in a sanatorium, they lead a hard existence, where they are often badly fed, and live under insanitary conditions. We are asked to believe that tuberculin, undoubtedly a useful therapeutic agent, is of such enormous potency for curative purposes that it can so stimulate the cells of the body as to enable them to increase their resisting power to such a degree as to neutralize and overcome the attack of the tubercle bacillus, whilst at the same time these very cells are engaged in a struggle to the death with extrinsic devitalizing influences.

If this is the case, it is a most extraordinary coincidence that men who have devoted years to the study of tuberculosis, who have used tuberculin systematically since it was introduced by Robert Koch, who have experimented with the dosage, and who have persisted in the use of the agent in spite of the obloquy which fell upon it after Virchow's indictment, have all apparently failed to realize the true curative properties of the remedy. I need only mention the work of Dr. R. W. Philip of Edinburgh, who has advocated consistently for many years the use of tuberculin in suitable cases and with suitable safeguards.

We cannot throw aside the oft-repeated warnings of men of profound experience that tuberculin is a potent substance, capable no doubt of accomplishing much that is good, but at the same time requiring extreme watchfulness in its administration. As Dr. Bardswell states, it may be administered with success by a man of experience, but disasters will occur even with the most experienced.

If tuberculin is to be used in a manner fair alike to the patient and to the remedy, it must be used under conditions which will ensure the minimum of risk. I do not believe that sufficient evidence has been adduced to justify its indiscriminate administration in a dispensary, even in the hands of the most experienced.

A fact of profound significance with reference to the results to be obtained by tuberculin may be here mentioned. It is a fact well known to bacteriologists that the best results of a serum or a vaccine are secured if the strain of the organism causing the disease and that from which the vaccine or serum is made are one and the same. It is for this reason that autoinoculation in tuberculosis holds out such prospects of success. Now in the indiscriminate administration at a tuberculin dispensary the question of strain as between the patient and the remedy is a matter of pure chance. The question of strain no doubt helps to throw light upon some discrepant results.

In conclusion I express the conviction that the present state of knowledge does not incline us to the view that the establishment of a tuberculin dispensary under such conditions as proposed is an advisable procedure. I believe, on the other hand, that the value of tuberculin will be best shown in a proper institution where the patients can receive that skilled control which the vast majority of authorities are agreed is essential to the safe and proper administration of the remedy.

Dr. Fraser's report is one of the best arguments yet produced in favour of the institution of sanatoriums, where the patients may not only receive tuberculin under proper conditions, but will also get that good food, rest, and proper medical control which is so essential to permanent cure. If tuberculin is as useful as it is stated to be then its use will greatly shorten the stay of patients in the sanatorium, thereby enabling the institution to pass a greater number of patients through its gates. That the results of sanatorium treatment are often disappointing merely shows that good air, good food, and proper medical supervision are not in themselves always sufficient to give the cells of the body the necessary stimulus. If tuberculin can be so administered as to supply to the cells of the body the necessary specific stimulus then the success of the sanatorium must be assured.

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THE German Balneological Society will hold its thirty-second annual meeting this year in Berlin. The proceedings will begin on March 2nd and end on March 6th. A number of the communications promised relate to radium emanations and radio-activity. The General Secretary is Dr. Brock, 52 Thomasiustrasse, 24, Berlin, N.W.

# The Hunterian Lectures
ON
# COLOUR VISION AND COLOUR BLINDNESS.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND,

BY

**F. W. EDRIDGE-GREEN, M.D., F.R.C.S.,**
BEIT MEDICAL RESEARCH FELLOW.

[ABSTRACT]

COLOUR blindness is not a good name for the condition to which it is applied, and still worse is the use of the term "red blindness" or "green blindness." In the majority of cases of colour blindness there is no blindness to colours in the ordinary acceptation of the term; a green, red, or yellow light produces a very definite sensation of colour. Those who confuse red and green do so not because they see red as green or green as red, but because both give rise to a similar sensation of colour.

I propose to divide the subject into two parts, and in the first lecture to deal with the theory and facts of colour vision and colour blindness, and in the second lecture with the detection of colour blindness from a practical point of view.

## I. THE THEORY AND FACTS OF COLOUR VISION AND COLOUR BLINDNESS.

The following is the theory which I have propounded in order to explain vision and colour vision.

A ray of light impinging on the retina liberates the visual purple from the rods and a photograph is formed. The rods are concerned only with the formation and distribution of the visual purple, not with the conveyance of light impulses to the brain. The ends of the cones are stimulated through the photo-chemical decomposition of the visual purple by light (very probably through the electricity which is produced), and a visual impulse is set up which is conveyed through the optic nerve fibres to the brain. The character of the stimulus differs according to the wave length of the light causing it. In the impulse itself we have the physiological basis of the sensation of light, and in the quality of the impulse the physiological basis of the sensation of colour. The impulse being conveyed along the optic nerve to the brain stimulates the visual centre, causing a sensation of light, and then passing on to the colour-perceiving centre, causes a sensation of colour. But though the impulses vary in character according to the wave length of the light causing them, the retino-cerebral apparatus is not able to discriminate between the character of adjacent stimuli, not being sufficiently developed for the purpose. At most seven distinct colours are seen, whilst others see in proportion to the development of their colour-perceiving centres—only six, five, four, three, or two. This causes colour blindness, the person seeing only two or three colours instead of the normal six, putting colours together as alike which are seen by the normal sighted to be different. In the degree of colour blindness just preceding total, only the colours at the extremes of the spectrum are recognized as different, the remainder of the spectrum appearing grey.

Though my own opinion is that the ordinary form of congenital colour blindness is caused by a defective development of the portion of the brain whose function is the perception of colour, we must not exclude any portion of the retino-cerebral apparatus, defect of which would have exactly the same result.

It will be noticed that the theory really consists of two parts, one concerned with the retina, and the other with the whole retino-cerebral apparatus. I shall in these lectures use the word cerebral in this sense. I am not aware of a single fact which does not support this theory, and I have used it to predict facts which have subsequently been rediscovered by others, and now form a part of our common knowledge.

### *The Visual Purple the Essential Factor in Vision.*

I will now state very briefly the evidence which supports the view that the visual purple is the essential factor in the retina which enables it to transform light into visual impulses.

1. *Anatomical.*—In the fovea of the retina only cones are to be found. Immediately external to this each cone is surrounded by a ring of rods. The number of rings of rods round each cone increases as the periphery is reached. The outer segments of the cones are situated in a space which is filled with fluid. The external limiting membrane retains this fluid in its place. I find[1] four depressions or canals which lead into the larger depression of the external fovea. These canals appear to have smaller branches and serve to conduct the visual purple into the part of most acute vision. The cones which are present in the fovea have very long outer segments which would present a greater surface for photo-chemical stimulation. The visual purple is only to be found in the rods and not in the cones. I determined to ascertain whether the visual purple could be seen between the cones in the fovea. I have examined under the microscope the retinas of two monkeys which had been kept previously in a dark room for forty eight hours. The yellow spot was the reddest part of the whole retina, and the visual purple was seen to be between and not in the cones.[2]

2. *Physiological Analogy with other Body Cells.*—It is far more probable that the rods should produce a secretion which would affect other cells rather than themselves. The liver cells do not form bile in order to stimulate themselves, and the internal secretions are produced to affect other parts of the body. I am not aware of a single instance in which a cell produces a secretion which has the function of stimulating the cell producing it. The visual purple is regenerated in the rods by the pigment cells in connexion with them.

3. *The Relation between the Foveal and the Extra-foveal Regions.*—As the fovea only contains cones, if any of the older theories of the relative functions of the rods and cones were true, we should expect to find qualitative differences between the foveal and extra-foveal regions. This is not the case, but, as we should expect if the visual purple were the visual substance, all the phenomena which have been attributed to the visual purple should be found in the fovea. Von Tschermak, Hering, Hess, Garten, and others have found the Purkinje phenomenon, the variation in optical white equations by a state of light and dark adaptation, the colourless interval for spectral lights of increasing intensity and the varying phases of the after-image in the fovea only gradually diminished.

4. *The Varying Sensibility of the Fovea.*—The fovea is in some conditions the most sensitive part of the whole retina, and with other conditions the least. Helmholtz has recorded some of these facts, and regarded them as quite inexplicable. We have, however, an easy explanation of the facts on the assumption that when there is visual purple in the fovea this is the most sensitive part of the whole retina, but when there is none there time must elapse before it can diffuse into the spot, and in the meantime it is insensitive to light. I have devised several experiments which show the visual purple flowing into the foveal region. The following simple experiment shows this very well. If on awaking in the morning the eyes be directed to a dull white surface, as for instance the ceiling, the region of the yellow spot will appear as an irregular black spot and light will appear to invade this spot from without inwards. If the eyes be now closed and covered with the hands purple circles will form round the centre of the field of vision, and gradually contracting, reach the centre. When the circle reaches the centre it breaks up into a star-shaped figure and becomes much brighter. It then disappears and is followed by another contracting circle. Now it will be noticed that if one eye be opened when the circle has broken up a brilliant rose-coloured star much brighter than any other part will be seen in the centre of the field of vision. This has the exact hue of the visual purple. If we wait until the star has disappeared before opening an eye the macular region appears as a black spot as before. This conclusively shows that the central portion of the retina is sensitized from the peripheral portions.

5. *Chemical Analogy.*—The visual purple gives a curve which is very similar to that of many other photo-chemical substances. We know that with photo-chemical substances the chemical effect is not proportional to the intensity of

the light. That is, a different curve is obtained with weak light from that which is formed with light of greater intensity.

6. *Illusion of Moving Light.*—If a small light be looked at fixedly in a dark room it will appear to move until it comes apparently so close that it could be grasped. The reason of this is that the eye moves so that the light falls upon a more peripheral part of the retina. I find that the movement takes place as if some photo-chemical substance acted under the influence of gravity. For instance, when standing the light appears to travel upwards; resting the head on one side it appears to travel in the opposite direction. The light appears as if we were looking straight at it, and the eye which is covered up remains directed straight at the object.

7. *Currents Seen in the Field of Vision not due to the Circulation.*—It occurred to me that if there were canals in the retina which promoted the easy flow of the visual purple into the fovea, we ought to obtain evidence of the currents flowing along these channels entoptically. I found that this was the case, and that the currents could be seen in numerous ways.[3] If one eye be partially covered with an opaque disc while both eyes are directed forwards in a not too brightly illuminated room, and special attention be paid to the covered eye, an appearance of whirling contents will be seen with this eye. These currents appear to be directed towards the centre, and have a very similar appearance to a whirlpool which is fed by four main branches. These, again, are fed by smaller branches which continually change their paths. On closing both eyes all the portion in which the whirling currents are seen appears as dull purple. These currents cannot be due to vessels, because we know that the centre of the retina corresponding to the point where the greatest movement is seen is free from vessels. The appearance is also very different from that of the movement of blood in vessels. The currents can also be seen in the light, in the dark, through yellow-green glass, and with intermittent light. The main branches form a star-shaped figure with four rays. The currents carry the visual quality, colour and brightness, from whence they come into an after-image. They also tend to move an after-image towards the centre. The currents behave as if they ran in definite channels, but could also overrun, on any further stimulus, the banks of the channels. For instance, a thin bright line with a little more light appears as a broad band, and the central star figure will enlarge into a rhomboid, oval or disc. Movements of the eyes affect the broad currents in the outer part of the field of vision.

8. *Pressure Figure.*—Pressure on the front of the eye causes the star-shaped figure to be seen, and this changes into a rhomboid with a little more pressure.

9. *Macular Star.*—It occurred to me that we ought to obtain evidence of the canals in the retina in cases where the outflow from the retina is obstructed as by tumour. I find this is the case; the star-shaped figure given by Sir Victor Horsley in his paper on tumour of the frontal lobe[4] is almost exactly the same as that seen subjectively.

10. *Entoptic Appearance of Cone Mosaic.*—Appearances corresponding to the cone mosaic of the retina may be seen in several ways.[5] The appearance seen corresponds to the cone distribution of the retina as viewed from its outer side, the portions occupied by rods appearing as dark spaces.

11. *Visual Acuity.*—Visual acuity is most acute with the fovea and diminishes from within outwards. It corresponds very fairly with the cone distribution of the retina.

On the other hand, there is not one single fact which points to the rods as being light sentient organs. This is well recognized by those best qualified to judge.[6]

## II. The Detection of Colour Blindness from a Practical Point of View.

### *Requirements of a Test for Colour Blindness.*

A test for colour blindness, when it is to be employed for some definite and specific purpose as, for instance, excluding dangerous persons from certain callings, should be such as to show definitely that the persons rejected are dangerous. It is very useful to demonstrate to the men and their fellows that a rejected candidate is dangerous. The colleagues of a rejected candidate would refuse to risk their lives with a man who before their eyes called a red light green. I was expressing these views when a superintendent of a railway company who is using my lamp told me that he had adopted this method with great satisfaction to himself and to the men. A man, for instance, who has been working twenty years on the railway, has been rejected for colour blindness. He has complained bitterly to the superintendent, at the same time declaring emphatically that he is normal sighted. The superintendent has replied, "You know red?" "Yes." "And you know green?" "Yes." "You will therefore agree that if you call green red, or red green, you ought to be rejected. Bring two or three of the other men in with you and I will test you." The man has readily agreed to this. The superintendent has then tested him by asking him to name various coloured objects in the room, and knowing by experience exactly the coloured objects which are miscalled by the colour blind, readily exposes his defect. It is noteworthy that on some occasions a colour-blind man has been tested by another person in the same room without making any of the mistakes which he subsequently made, because none but coloured objects which he could readily recognize were shown to him. This is an example of the necessity of a practical knowledge of colour blindness in an examiner.

On account of the arrangement of signals by sea and land it is necessary that persons employed in the marine and railway services should be able to recognize and distinguish between the standard red, green, and white lights in all conditions in which they are likely to be placed. An engine driver or sailor has to name a coloured light when he sees it, not to match it. He has to say to himself, "This is a red light, therefore there is danger"; and this is practically the same as if he made the observation out loud. Therefore, from the very commencement we have colour names introduced, and it is impossible to exclude them. The engine-driver is told that red is a "danger" signal, green a "caution" signal, and white an "all right" signal. Therefore it is absolutely necessary that he should know the meaning of these colour names. A test should be such as to make it impossible for the examinee to be coached through it. This is one of the most important requirements of a test for colour blindness, and one that is rarely fulfilled. Nearly every one of the tests in general use will fail on this account.

A test should be one which can be carried out as rapidly as is possible with absolute efficiency; of two equally efficient tests the one which takes the least time must be selected. A test, therefore, should have no unnecessary details which, though of theoretical interest, are not concerned with the object in hand. The test should be made as easy and as little complicated for the examiner as possible.

### *Persons to be Excluded.*

We wish to exclude all those individuals who are included in the following three classes: (1) Those who see three or less colours in the spectrum; (2) those who, whilst being able to perceive a greater number of colours than three, have the red end of the spectrum shortened to a degree imcompatible with their recognition of a red light at a distance of two miles; (3) those who are unable to distinguish between the red, green, and white lights at the normal distance through defect or insensitiveness of the cerebro-retinal apparatus when the image on the retina is diminished in size.

I will now explain why these three classes of persons should be excluded. The first class includes the trichromic, the dichromic, and the totally colour blind, in accordance with the facts previously stated. The trichromic never, in ordinary circumstances, mistake green for red, but confuse yellow with green or red. Colour is a feeble quality of objects to them, and nervousness or excitement may reduce them to the condition of the dichromic. The dichromic are liable to mistake a green light for red and vice versa. It is very important that persons belonging to the second class should be excluded, and yet none of the ordinarily used tests detect them. The rays of red at the extreme left of the spectrum are the most penetrating, as may be seen by looking at a light or the sun on a foggy day, or through several thicknesses of neutral glass. It is chiefly by these rays that we recognize a red light at a distance;

and it is therefore of greater importance that a sailor or engine-driver should be able to perceive them. The third class contains persons who are able to distinguish colours easily when they are close to, but fail to distinguish them at a distance owing to the nerve fibres supplying the central portion of the retina being impaired. As a light at a distance occupies the central portion of the visual field it is essential that the corresponding portion of the retina should be normal. There are cases of central scotoma for colours with perfect form vision; these would, therefore, not be detected by the test for visual acuity. This class also includes those who, without having a scotoma, are unable to distinguish between colours at the normal distance when the image on the retina is diminished in size.

The lantern shown has been constructed conformably with the requirements and facts of colour blindness. All the facts of colour blindness have been considered in constructing the lantern.

*Objections to other Tests for Colour Blindness.*

The tests which have been proposed for colour blindness are very numerous, but some are so defective that it is rare to detect a single colour-blind person with them. I have, for instance, tested men whom I knew to be colour blind with certain lanterns, with the result that not a single one was detected. In these so-called tests all the requirements of a test and facts of colour blindness have been neglected. I must, however, refer to three tests constructed by exceptionally able men, each with considerable knowledge of the subject. I refer to the tests of Professor Holmgren, Professor Stilling, and Professor Nagel.

All these tests can be passed at the first attempt and without coaching by certain dangerously colour-blind persons, chiefly varieties not known to the inventors; but the chief defect of each is that it is very easy to coach a colour-blind person to pass it. The surgeon to one of our largest railway companies told me that when they used Holmgren's test they rejected 1 man in 300, but with my lantern 12 in the same number. All these three tests are much better tests when the persons to be examined have not seen them before. A colour-blind man may make only one mistake; say, for instance, as in a case I examined the other day with Nagel's test (last edition), he passes the test perfectly with the exception of one mistake, that of calling a grey on one card, green. All he has to do is to look for some distinguishing mark on this card in order to go through the test with the ease and certainty of a normal-sighted person. It is the same with Stilling's letters, he has only to note the letter which he was not able to read and the appearance of the card. A normal-sighted man or woman would readily help him. The confusion of green and grey does not appeal to the average man as a serious defect, especially when he sees his friend go through the rest of the test perfectly. He says to himself, "I suppose he sees a tinge of green in that grey."

The same man would rightly regard it as a most iniquitous proceeding to endeavour to coach his friend through a test when he had seen him mistake a red for a green light.

Holmgren's test rejects a large number of normal-sighted persons, as may be seen by the reports of the Board of Trade; about 50 per cent. of those who appeal are found to be normal sighted and to have been rejected wrongly.

REFERENCES.

[1] *Journ. of Physiol.*, vol. xli, p. 274. [2] *Trans. Ophth. Soc.*, 1902, p. 300. [3] *Journ. of Physiol.*, vol. xli, p. 269. [4] BRITISH MEDICAL JOURNAL, 1910, p. 556. [5] *Journ. of Physiol.*, xli, p. 266. [6] Nagel, *Physiol. des Menschen*, vol. iii, p. 107.

THE French Medical Parliamentary Group, among its other activities, watches over the interests of the thermal and climatic stations of France. It has decided to take steps to secure speedy promulgation of the Governmental decree imposing a "cure tax" on visitors. It is hoped that this will be put into force during the coming season, and that in this way funds will be collected in sufficient amount to enable improvements to be made that will attract foreigners. It has also been decided to found a chair for the instruction in hydrology and climatology in the University of Paris. It appears that the syndicates of the various spas are quite willing to bear the expense on the understanding that the chair is established solely in the general interests of the country.

# THE HISTORY OF YELLOW FEVER IN WEST AFRICA.

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*(Concluded from page 250.)*

## VII.

## HISTORY OF YELLOW FEVER IN THE GOLD COAST COLONY.

There can be little doubt that yellow fever was as prevalent on the Gold Coast in the early part of the nineteenth century as in Sierra Leone.

From the report of Staff Surgeon Tidlie, quoted by Boyle, it appears that in 1819, out of 9 new arrivals, 3 died; in 1820, out of 4 new arrivals, 2 died; and in 1821, out of 7 new arrivals, 2 died, or two-thirds of all newcomers within twelve months of arrival. In the same period 15 of the African Company had died. It is most probable that this fatal disease which attacked the newcomers was here, as elsewhere in the tropics, yellow fever.

In a report by Bell, upon the garrison at Cape Coast Castle for 1824, it is stated that 217 deaths occurred in the regiments, exclusive of women and children.

Of the first detachment of Europeans, numbering 128, which arrived in April, 1823, only 1 survived; out of 109 women and children who had arrived since October, 1823, 70 had died.

It is stated in the report that the cause of death was bilious remittent fever, which usually terminated fatally on the third, fifth, or seventh day. Many of the cases were as "yellow as an orange." Boyle also mentions that an epidemic occurred in 1824, similar to that which took place in Freetown in 1823.

In 1824, out of a third detachment of 131 men, disembarked in March, 1824, the majority had died, after a few months, from "remittent fever and dysentery," and the same occurred with numerous subsequent detachments. Then comes the usual pause, commencing from the middle of the nineteenth century, probably due to the withdrawal of the garrison, and therefore of large bodies of non-immune new arrivals.

At a later date, following on the commercial development of the colony and the growth of the coast towns, yellow fever again began to attract attention.

As had happened, however, in other British West African colonies, the disease was very frequently not recognized, and was more often wrongly diagnosed.

Examination of the casebooks of the European hospitals in the principal seaports are of very great interest, for they show, in the first place, the difficulties which medical officers experienced in making a diagnosis; and, secondly, the unwillingness, as in Sierra Leone, on the part of the medical authority of the colony, to admit that yellow fever existed, in spite of the fact, as the careful records amply testify, of the patients presenting all the classical symptoms of fatal yellow fever. The stumbling-block here, as in numerous other instances, being occasioned by the confusion brought about by the use of the word "contagious," as applied to yellow fever.

Examination of the medical reports of the colony show that cases of yellow fever were recorded in the following years: 1895, several cases; 1897, 4 cases; 1902, 2 cases.

Whilst on the Gold Coast I examined the hospital casebooks of Cape Coast, Saltpond, Elmina, Axim, and Accra, and I find that yellow fever was diagnosed as such, and entered in the hospital casebooks at Cape Coast in 1897, 1902, and 1903; at Saltpond in 1897 and 1902; at Elmina in 1895; and at Accra in 1899.

In 1899 Dr. Elliott, who had had four years' experience in the Gold Coast, published in detail 3 cases of yellow fever which he attended at Saltpond.

He alludes to the reluctance prevalent against the diagnosis of yellow fever and the tendency to regard all fevers as malarial.

In 1901 Dr. S. O. Browne published a case of yellow fever which he attended at Saltpond.

In addition to these well-marked cases which were diagnosed at the time by the physicians in charge as

genuine yellow fever, the histories of the cases in my opinion also furnish unmistakable proof of the almost continuous occurrence of yellow fever for the past fifteen years.

The evidence is all the more trustworthy, for the medical officers who recorded the symptoms were not looking out for yellow fever.

The histories also show the difficulty which a medical officer experienced in interpreting the symptoms on the supposition that the disease might be malarial fever.

From my analyses of the casebooks, I conclude that yellow fever existed in addition to the above dates in the following places on the coast:

### 1. ELMINA.

*History of Cases Examined since 1895 up to Date.*

In March, 1895, a case was diagnosed as "*hepatic fever*," and ended fatally.

The symptoms were great prostration, black vomit (coffee-like grounds), eyes and skin yellow, suppression of urine.

In April, 1895, a case diagnosed as "*malarial fever.*" It terminated fatally. The symptoms were: Intense headache and backache, nausea and epigastric pain, black vomit, temperature 103·4°, pulse 92. A *post-mortem* examination showed skin yellow, stomach containing black vomit, congestion of the skin.

The doctor in charge of the case strongly suspected yellow fever in this case, as also in the preceding case.

In January, 1902, a case was diagnosed as "*resembling yellow fever.*" The symptoms were intense headache, albuminuria, intense vomiting, black vomit, black motions, death.

The casebook shows in addition numerous histories of cases which might well have been both mild and severe cases of yellow fever.

### 2. QUITTA.

I examined the cases in the casebook from 1888–1900.

In 1894 a new arrival was taken ill, and a diagnosis of "*malignant remittent fever*" was made. Temperature 104°; conjunctiva yellow; vomiting; urine black and bloody; delirium; albuminuria, followed by suppression of urine, convulsions, and death.

The medical officer states:

> I cannot help being struck by the severe and persistent symptoms of this case, particularly the vomiting, which nothing seemed to affect. In fact I can scarcely see the difference between such a case as the above and *yellow fever*.

In 1900 a suspicious case also occurred, the diagnosis being *remittent fever*.

The medical officer stated the probability that the patient might be suffering from yellow fever suggested itself; but as the temperature showed no signs of subsiding, and there was no congestion of the face, it was decided that it would be better to wait and see, than to suggest the possibility to head quarters.

### 3. SALTPOND.

*Examination of Cases from 1889 to 1903.*

In 1895 a case occurred, diagnosed as remittent fever, terminating fatally. It was characterized by jaundice; temperature 105·8°; pulse 60; black vomit; suppression of urine; hiccough; intense headache.

There were also about this time numerous other cases with a similar diagnosis presenting very suspicious symptoms.

In 1897 yellow fever was diagnosed.

In July, 1897, a case was diagnosed as haemoglobinuria and acute nephritis.

It was not diagnosed as yellow fever because of the absence of black vomit. Fagot's sign, jaundice and hiccough, were, however, present, and haemorrhage from gums, as well as vomiting of dark bilious fluid is mentioned.

So, considering there were other cases in that year, it is not improbable that this was also a case of yellow fever.

In June, 1898 a case occurred, ending fatally, diagnosed as *acute delirous malignant malarial fever*.

The patient was so maniacal that he had to be handcuffed; temperature 105·4°, and rose to 107·2°; skin jaundiced, head and shoulders intensely congested, nausea, vomiting, coma, and death.

*Necropsy.*—Cutaneous haemorrhages, mucous membrane of stomach intensely congested, stomach contained dark green treacly mass, liver saffron yellow, with patches of congestion. This might well have been a case of yellow fever, in spite of the fact that it is stated "pigmented corpuscles were found in the blood."

In 1901–2 cases were diagnosed as yellow fever, but in addition in each year there occurred cases which, when we know that there were genuine cases of yellow fever, might equally well have been cases of yellow fever. The diagnoses made were usually "bilious remittent fever."

### 4. AXIM.

*Examination of Casebooks from 1906 to 1910.*

In 1905 the medical officer in charge of a case which occurred in that year at Axim, and which terminated fatally, is now of the opinion that the case was one of yellow fever.

In this year (1910) a death occurred from yellow fever and was reported. The symptoms were, however, not well marked.

Later on in 1910 another fatal case occurred, which was diagnosed as "remittent fever." The chief symptoms were: Temperature 104·9°; pulse-rate from 110 to 120; temperature did not yield to large doses of quinine.

Another case was diagnosed as "pernicious remittent fever," and proved fatal. The symptoms were intense headache; temperature 102·8°; pulse 88; delirium, and finally coma. The doctor in charge suspected yellow fever.

### 5. CAPE COAST.

In 1903 Dr. G. L. Barker wrote to the acting principal medical officer at Accra reporting a case of yellow fever, and he states that "this makes the fifth case this year."

The medical officer who diagnosed the case was Dr. Rome Hall, and the principal medical officer, in writing a memorandum to the Colonial Secretary, states:

> I regret to say that I am obliged to take the alarmist statement, made by Dr. Rome Hall, with a large amount of doubt.

In 1895 a case of remittent fever is diagnosed, in which the characteristics are congestion, intense headache, temperature 108·8°, and pulse 52. The doctor in charge mentions that the curious point about the case was that "the pulse continued to get slower as the temperature got higher." The case, however, recovered.

Another case of remittent fever was diagnosed which ended fatally; temperature, 105°; jaundice; great weakness; black motion; anorexia; delirium; patient then slowly rallied; this was followed by a relapse, coma, and death.

In this year there were several other very suspicious cases.

In 1901 a series of fatal cases, diagnosed as "remittent fever," occurred one after the other in which there were characteristic symptoms: jaundice; delirium, great weakness and coma; in one case the vomit contained bloody matter; in 1902 a case, diagnosed as "pernicious malaria," occurred and ended fatally; temperature, 103°; pulse, 80; intense gastric symptoms; black vomit; delirium; haemorrhage from the mouth; skin and conjunctivae yellow; the physician notes that there was no black water and that the pulse-rate was not in proportion to the temperature.

Several other fatal cases also occurred in March and June, 1902; in one the diagnosis of "continued fever" was made. In this case there was black vomit and black motions.

In another case a diagnosis of "hyperpyrexial fever" was made. The skin and conjunctivae were yellow, and the *post-mortem* examination showed the liver yellow, the mucous membrane of stomach and intestines dotted over with fine submucous haemorrhages.

Another case was diagnosed as "remittent fever." No parasites were, however, found in the blood. Vomiting was persistent; delirium, skin yellow, melaena. *Post-mortem* examination showed stomach and intestines intensely congested.

In another case a diagnosis of "malarial fever" was made; temperature 108·2°, and it was noted that the pulse was very slow in comparison with the temperature. There was persistent black vomiting, melaena, albuminous

urine, conjunctivae and skin yellow. *Post-mortem* examination showed intense congestion of the stomach and kidneys. Then in July of the same year the doctor's suspicions were aroused, and he had no longer any hesitation in diagnosing "yellow fever," and two fatal cases are recorded.

*It is, therefore, exceedingly probable that the other cases also were yellow fever.*

In the commencement of 1903, Dr. Rome Hall diagnosed a case of yellow fever, and he records minutely the symptoms. He states that he first considered the case to be one of blackwater, but the presence of albumen in the urine cast doubt upon the diagnosis. He states "that the *post-mortem* record appeared to be universally in favour of yellow fever." The writer then states that "yellow fever has several times appeared on the French Ivory Coast and in Senegambia. The Ivory Coast is only 150 miles, or forty-eight hours, away from Cape Coast, and that at the present time quarantine is declared against the Ivory Coast." He then states that "the *Stegomyia* are swarming in the merchants' tanks and in the tanks of the natives."

Dr. Savage, of Cape Coast, who saw the fatal cases of 1902–3, informs me that there was no question about the diagnosis of yellow fever.

### 6. ACCRA.

*Extracts from Casebooks.*

*Case A. J. S.*—A new arrival. History of being bitten at Winnebah. Arrived in Accra, April, 1904.

April 19th. Patient felt unwell.

April 21st. Temperature 104°. Pains over body.

April 22nd. Temperature 104° to 105°. Urine scanty, albumen present.

April 23rd. Vomiting black coffee-ground material; stools tarry.

April 25th. Vomiting persistent and violent, hiccough, tarry stools, mind wandering; pulse 120, temperature 105°; coma, followed by death. The medical officer regarded the disease as malarial.

*Case R.*—April, 1899. Notes very meagre, but the diagnosis of yellow fever was made. The symptoms of black vomit, yellow blotchy skin, and intense headache were present. Temperature 105°. On the other hand, there was no albuminuria.

*Case A. W.*—Patient died. Diagnosis: Subacute rheumatism, June, 1905. The symptoms were pains in joints, temperature 102.4°, scanty urine with trace of albumen. Later on, vomiting became a prominent symptom, accompanied by hiccough, mind wandering, pulse weakened, coma, and death. *Post-mortem* examination showed deeply-congested kidneys, and the note is made that immediately after death the body assumed an intensely yellow colour. This is a sign which, in my opinion, is extremely characteristic of yellow fever.

*Case* —.—Merchant, July, 1905. Diagnosis: "Bilious remittent fever." The symptoms on July 19th were intense headache, temperature 101.8°, later in day 104°; albuminuria; quinine little effect upon the temperature; vomiting became persistent and patient became drowsy, urine much diminished; death on the 24th. *Post-mortem* examination showed enlarged liver (colour not stated) and deeply congested kidneys.

*Case Rev.*—.—February, 1906. Diagnosis: "Remittent fever." Symptoms, February 1st: Intense headache, temperature 103° to 104°, gastric irritability, urine scanty with albumen. On February 4th commenced to have black vomit (coffee-ground material), collapse, death.

### 7. TARQUAH DISTRICT.

(*Mantrain 1902, and Saw Mills 1910.*)

In 1902, 8 men out of a staff of 14 died within about three weeks of one another. The doctor in charge also died; the others stampeded.

In a report which was sent from Tarquah on June 14th, 1903, to the principal medical officer at Accra, the following statement is made: "I am informed that death in several cases occurred from hyperpyrexia, and that the administration of quinine, even in hypodermic injections in large doses, failed to reduce the temperature In four of the cases death took place four days after the onset of the illness. Dr. MacDonald examined his own blood during his illness, and, it is stated, found the malarial parasites.

The writer formed the opinion that the disease was "pernicious malaria with hyperpyrexia," and he notes that no mosquito nets were used, with two exceptions.

In this year (1910) a case of genuine yellow fever has occurred at Saw Mills, a small camp close to Tarquah, and I am therefore of opinion that it is not unreasonable to suppose that the fatal epidemic of Mantrain was genuine yellow fever, especially in view of the fact of the enormous numbers of *Stegomyia*.

### CONCLUSIONS.

I am convinced from the preceding examination of the casebooks that there were many more cases of mild yellow fever which were diagnosed as "remittent fever"; it was only when a case died, and when black vomit, slow pulse, and albuminuria became marked features that the suspicions of the doctors in charge were aroused.

The mild cases passed unrecognized.

If additional proof were wanting to demonstrate the essentially endemic character of yellow fever in West Africa, it is furnished by the history and progress of the outbreak of yellow fever in the year 1910 on the Gold Coast.

In the first place, yellow fever broke out at three distinct points—Secondee, Saw Mills, and Axim. In the second place, it shows the difficulty which the medical officer had at first in deciding whether he was face to face with yellow fever or not.

Little time was, however, lost in arriving at a final diagnosis. I am convinced from analysis of many hospital casebooks that in every probability a similar difficulty has presented itself to medical officers in the past upon many occasions, and that medical officers have refrained from giving the more serious, or, as it has been termed, "alarmist" diagnosis of yellow fever. In support of this contention, the following memorandum is of the greatest interest:

*Outbreak of Yellow Fever at Secondee, 1910.*

The Colonial Hospital, Secondee,
May 9th, 1910.

I have the honour to report that recently there have been three cases of fever here, two of which came from the same bungalow, namely, Mr. and Mrs. C., and more recently Mr. W., Supervisor of Customs, that present unusual symptoms.

Mrs. C. was removed into hospital with a temperature of 105°, persistent vomiting, and severe headache. She later became intensely jaundiced, but eventually made a good recovery, and has proceeded to England.

Fifteen days later Mr. C. was removed to hospital with a temperature of 103°, intense headache, diarrhoea, injected eyes. He suddenly collapsed and died three days later.

Mr. W. got a sudden attack of vomiting, with a temperature of 103.6° at night. He now has some diarrhoea and his eyes are injected; jaundice seems coming on. I have treated each case with intramuscular injection of quinine until cinchonized. The first case had no albuminuria; in the second I was unable to procure a specimen, as he could only micturate when defaecating. Up to the present I have only been able to procure two drachms of Mr. W.'s urine, which shows marked albumen with nitric acid (in the cold).

These cases show a remarkable likeness to a series of cases in Accra when I was there in 1905, all of which were fatal. I mentioned two cases to Dr. Tweedy when he was here on his way to Tamele, who told me that he had met with similar in Cape Coast; also I had discussed them with Dr. Slack. Without wishing to cause unnecessary alarm, I much fear yellow fever may be present here; and, beyond Drs. Slack and Tweedy, the only other person I have mentioned the matter to is the Acting Provincial Commissioner, Mr. Furley.

C. H. D. RALPH.

The outbreak of yellow fever which took place in Sekondi this year (1910) differs in no essential respect from all previous ones in West Africa, or in the other parts of the tropical world. It is a matter for congratulation, however, that this disease was early recognized, and that the medical authority of the colony did not lose a day in taking preventive measures.

The outbreak, which started in March and ended in June, was a comparatively small one—about 13 cases; but as in all these outbreaks, so here it is more than probable that there were other mild cases which were not diagnosed until the severe cases drew attention to the nature of the disease—there were 10 cases amongst the white population and 3 amongst the native. The native population is large, and the white comparatively very small (about 120). Therefore, as in all previous epidemics, the comparative percentage mortality amongst the whites was very much greater than amongst the natives; in fact there is no comparison. Of the whites who were attacked, it is significant that they had been in Sekondi for periods varying from a few days to a few months immediately prior to the outbreak.

The mortality in proportion to the number of cases notified was very high. All the cases proved fatal with one exception. The high mortality-rate is of common occurrence in countries where the medical authorities are not suspecting yellow fever.

The chief symptoms recorded are typical of yellow fever—namely, violent headache, yellow sclerae, jaundice or sudden turning yellow immediately after death, albuminuria, suppression of urine, delirium, Fagot's sign, black or black speckled vomit, coma. Where quinine was administered it did not appear to have any effect.

*Post-mortem* examinations showed boxwood liver, congested kidneys, stomach, and intestines, otherwise organs normal.

In the opinion of the senior sanitary officer, Dr. Rice, and of the acting principal medical officer, and also of the other medical officers who were associated with them in the investigation of the 1910 outbreak of yellow fever in Sekondi, the disease was of endemic origin. The following are Dr. Rice's conclusions, and with them I agree after examination of all the circumstances on the spot:

"That yellow fever had previously broken out in the Gold Coast is well shown in the extract which the acting principal medical officer has furnished from the annual reports:

"I am a comparatively recent importation to the Gold Coast, and hence am not in a position to state what were the reasons which led the authorities to call this disease for so many years by another name. A study of the casebooks from the various parts of the Gold Coast leave upon one's mind the impression that in many instances Europeans who have been returned as having died of malignant malaria have really died of yellow fever. Sometimes the medical officers have discussed the possibility of certain cases being yellow fever, and in other instances they have called it so, but in the annual returns this disease has usually been conspicuous by its absence, and apparently, whether by accident or design, it had never been given official recognition.

"In reply to telegrams from head quarters as to the source of infection, I replied that I considered yellow fever to be endemic among the native population of West Africa, and I am still of that opinion. There is no other hypothesis that to my mind can explain this and previous outbreaks. The precise conditions that are necessary for the disease to be communicated to the non-immune white population are as yet unknown, but two conditions are always present when non-immunes are attacked, namely:

1. They live in native towns unsegregated from natives.
2. Under conditions which favour the breeding of the enormous numbers of *Stegomyia*.

"Dr. W. C. Gorgas makes an interesting statement on this subject in the Proceedings of the Canal Zone Medical Association, 1908, namely: 'That a certain proportion of *Stegomyia* must be present in a locality for the spread of yellow fever.'

"It is customary when an outbreak of yellow fever occurs to look for the ship that is always supposed to have brought the infection, in spite of the fact that to bring yellow fever to West Africa is equivalent to carrying coals to Newcastle.

"Two ships, the barques *Montgomery* and *Cosmos*, had brought cargoes to the port from America. The *Montgomery*, from Gulf Port, Mississippi, arrived in Sekondi on January 17th, and left on March 7th. The voyage lasted seventy-five days, and the ship had a clean bill of health.

"The *Cosmos*, from Mobile, U.S.A., arrived at Sekondi on March 5th and left on April 10th, having been forty-five days on the voyage with a clean bill of health; so these ships may be regarded without suspicion."

### EXTRACTS FROM THE ANNUAL MEDICAL AND SANITARY REPORT, 1895, GOLD COAST COLONY.

*General Health of the Colony.*

"The general health of the colony was extremely bad during the period, the endemic fever assuming a pseudo-epidemic form of a malignant type closely approaching in its clinical manifestations the vomito negro or yellow fever of the West Indies. The death-rate was enormous among Europeans, and the excitement induced thereby amounted almost to a panic and served to intensify the fatal tendencies of the prevailing fever in the latter part of the year."

"At the beginning of the month the general health of the town of Accra was bad, and some cases of the malignant type of fever, which during the first six months of the year prevailed on other parts of the coast, appeared. Three deaths occurred from it amongst the officials of the African Direct Telegraph Company.

"*Cape Coast.*—During the first quarter the health of the European residents was extremely bad, and judging from the death-rate worse than it has been for some years. The prevalent diseases were remittent fever and diarrhoea. The former seems to have been of a very pernicious nature with a tendency to hyperpyrexia, suppression of urine, and amaurosis (Dr. Lyons). Four deaths occurred among the non-official Europeans. During the second period the same condition of things persisted and the mortality was great; among officials two died and among non-officials six.

"*Elmina.*—The first quarter was marked by an unusual prevalence of malarial fever. Out of a grand total of ten officials, eight suffered from attacks of fever, more or less violent, and of these three died and two were invalided. The non-official Europeans did not suffer so severely; out of a grand total of fourteen, one was invalided and died three days later at sea. The prominent features of the various fatal cases were blood destruction, suppression of urine, hyperpyrexia, and heart failure (Dr. Elliott). During the second quarter the unhealthiness which characterized the previous quarter was continued into the early part of May, when the onset of the wet and cold season inaugurated a general change for the better.

"*Saltpond.*—In 1895 I was stationed for some time in Saltpond, during which period an outbreak of a very malignant type occurred amongst the limited European community. Amongst the cases were Father Riche, of the Catholic Mission; Mr. Trigg, of the Public Works Department; and Mr. Moran, a trader, and another merchant. One of these cases, Mr. Moran, recovered. The cases presented the features of rapid onset, high fever, which gradually subsided; jaundice and albuminuria in the three fatal cases, black vomit, suppression of urine, coma with convulsions and death, and at no time was haemoglobinuric urine passed in any case. A prominent fact which lasted for ever in my memory was the existence of a peculiarly offensive odour and the passage of peculiar tarry motions, the immediate circumference of which in a bedpan or chamber-pot presented a look of altered blood. All these fatal cases presented a peculiar delirious restlessness before absolute coma set in; although I was inclined to regard these as cases of yellow fever, I was in possession of such information that I knew such a declaration would be useless on my part; and in this connexion I invite attention to paragraphs 12, 14, and 31 of the Annual Medical Report for the year 1895. Mr. Trigg lived in hired quarters in a native house, and the other Europeans lived in the town. The second Catholic Father was invalided very soon after the death of Father Riche. I closed their house and condemned it. Some time after, when Bishop Albert and Father Wade arrived in Saltpond, I did not allow them to occupy the quarters, and told them what I thought the cause of the sickness was. At this time the mosquitos were plentiful at Saltpond in the native quarters, but I was not able to identify species."

"In the case of Mr. Trigg, I recollect wishing to try pilocarpine, owing to the suppression and to the fact that the skin remained dry. I also recollect improvising a vapour bath in the hope of starting diaphoresis."

"There had been much sickness and mortality prior to this at Elmina and Cape Coast, and my leave was twice put off owing to the death of the medical officer deputed to relieve me. One, Dr. Lyons, being invalided and dying. Soon after the other, Dr. Conran, died at Cape Coast. At this time much difference of opinion existed as regards the sickness, but as far as my recollection goes the majority of the medical officers who saw cases believed they were dealing with yellow fever, and I heard that Drs. Lyons and Conran had succumbed to this disease."

*Saltpond.*—First Quarter: The general health of the Europeans was most unsatisfactory, the prevalent diseases being remittent and intermittent fevers and dysentery. One official died from remittent fever complicated with suppression of urine (Mr. Trigg).

*Extract from Report for 1896.*

"The general health of the colony during the year under review shows little or no improvement on that of the previous year. This year there were amongst the European population 11 deaths of officials and 30 non-officials, as against 15 and 23 respectively during 1895; the number invalided being 23 officials and 35 non-officials, against 26 and 32 in 1895. This high rate is to be attributed to the fact that the epidemic of the malignant type of fever which prevailed during the last half of 1895 continued during the first four months of this year, the period during which the greater number of deaths occurred.

"In *Accra* there was a good deal of sickness during the first half of the year, but the last half was exceptionally healthy, more especially amongst the European officials, this, no doubt, being due to the fact that the majority now live outside and at a considerable distance from the native town."

*Extract from Report for 1897.*

"During the second quarter of the year Cape Coast and Saltpond suffered from an outbreak of fever affecting, so far as I am aware, Europeans only, of the same nature as that which scourged Elmina and Cape Coast early in the year 1895, and which later in the year appeared in Accra, to which the Chief Medical Officer alluded in paragraph 1, report for 1895."

*Health of Europeans at the Various Stations.*

"*Saltpond.*—No deaths among officials. There were 6 deaths among non-officials, equal to a ratio of 67.4 of the total strength of Europeans in the station for the year. No officials were invalided, but 3 non-officials were. As regards the causes of death one was a case of cerebral haemorrhage in an elderly man. Two were acute nephritis, complicating malarial fever, and 3 were cases presenting the classical symptoms of yellow fever. The health of the officials was good, that of the non-officials exceedingly bad. The non-official Europeans—that is, the agents of the European mercantile firms—live in houses which are grouped round the lagoon, whereas the officials' quarters are situated at some distance from the lagoon and close to the beach. This is sufficient to account for the immunity enjoyed by the officials, whilst the European employees of the mercantile firms were suffering from all the varieties of fever that are met with on the coast.

"*Cape Coast.*—There were 12 deaths among non-officials, equal to a rate of 50 per 1,000; there were no deaths among the officials. Causes of death were chiefly bilious remittent fever. There was one from yellow fever.

"A. Swanzy died at Accra 25th April, 1904, case being clinically similar to yellow fever. He was nursed by Miss Fraser, who went on leave 27th June, died on 3rd July at sea; symptoms alleged to be like yellow fever."

*Note Furnished by Dr. Garland, Acting P.M.O.*

"I concur with the opinion of Sir Rubert Boyce that yellow fever existed for a considerable time, and was not officially recognized. However, there were occasions in 1894 and 1895, and subsequently, when many of the medical officers of this colony openly stated that they were convinced that they were dealing with this disease, and that the matter was one actually under controversy is proved by the following extracts by chief medical officer from the medical report for 1895:

"Three cases in Accra occurred in one house. During this year (1895) I had 4 cases of yellow fever at Saltpond, 3 of whom died. I wrote to some of my colleagues at Cape Coast, as I know that determination had been shown in favour of the disease being declared a non-infectious bilious remittent fever. I only learnt that more than one of the members of our staff considered they were dealing with yellow fever, but that the diagnosis would not be accepted.

"I am inclined to believe that this outbreak originated at Elmina in 1894, where several Europeans died, and which had previously borne the reputation of being a most healthy station. After a considerable lapse of time an outbreak of a fatal type of fever occurred at Accra in 1896, and I understand there was a severe outbreak at Little Pope some time after this, but there is no opportunity of arriving at the facts with regard to the latter."

In the year 1897 a case of yellow fever was officially returned by the medical officer at Cape Coast.

In the year 1897 a series of deaths occurred at Saltpond and Cape Coast, and the disease there presented the clinical manifestations of yellow fever.

In 1898, 4 deaths occurred in the first six months amongst the Europeans at Saltpond, and were classed as pernicious remittent fever.

In 1902. 2 cases of yellow fever were recorded at Cape Coast by the late Dr. W. Murray.

In 1903 a highly suspicious outbreak occurred at Mantrain and ended in six deaths, including the doctor, whose death unfortunately precluded the possibility of any medical history being rendered.

Subsequent to this the only occasion on which cases presented a suspicious nature was in 1904, when Mr. A. J. Swanzy died after a few days' illness, having presented the clinical symptoms of this disease.

In June, 1905, Mr. Wrenn was admitted, and died within a few days after showing many of the symptoms of this disease.

Mr. Lulwer died in the hospital on July 24th after displaying many of the symptoms of yellow fever.

In February, 1906, Mr. Jubb, a Wesleyan missionary, died; the symptoms pointed to yellow fever.

On March 14th, 1906, a European clerk named Bailey died from fever showing symptoms of yellow fever.

BIBLIOGRAPHY.

Elliott, W. M.: Yellow Fever in West Africa, *Journal of Tropical Medicine*, July, 1899.

Browne, S. O.: A Case of Yellow Fever at Saltpond, Gold Coast. *Journal of Tropical Medicine*, 1901.

The Annual Medical and Sanitary Reports of the Gold Coast.

The Hospital Casebooks.

The Quarterly Medical Reports of the Troops serving in West Africa.

Boyle, James: *A Practical Medico-historical Account of the Western Coast of Africa*, London, 1831.

Bell, John, Surgeon, Royal African Corps: Report on Cape Coast, 1824.

Medical Reports of Troops serving upon the Gold Coast. Parliamentary Return No. 544, July, 1864.

Mortality of Troops at Cape Coast. Return No. 393, June 1864.

Mortality of Troops at Cape Coast, February, 1882.

## VIII.

## YELLOW FEVER ON THE IVORY COAST.

From 1899 to 1905 this colony shows a practically unbroken record of genuine malignant yellow fever. So bad had it become at one time that it was seriously proposed to abandon Grand Bassam, and, according to consular and medical reports, the greatest hindrance to commercial advance in the past has been yellow fever.

In 1899–1900 there was a very severe epidemic.

In 1903, during a period of four months, no steamers entered the port and all trade was at a standstill. In 1904 the disease was again prominent, and the port was again stated to be infected in 1905. In fact, from 1900 to 1905 a year has not passed without the report of cases, and *Gazette* quarantine notices have appeared in regular succession. During one of the epidemics 50 per cent. of the native population left Bassam. In 1903 the European population was about 60, and the death-rate amongst these was 50 per cent.

In recent years drainage and *specific antimosquito* precautionary measures have been taken, and have replaced the old-time process of disinfection, and the burning of houses. It is to the awakening up to the importance of specific anti-*Stegomyia* measures on the Ivory Coast and in Senegal, and in Togoland, that must be ascribed the immunity from yellow fever which these colonies have experienced since 1905.

BIBLIOGRAPHY.

Armstrong, J. P.: Consular Report on the Ivory Coast; Foreign Office, 1905.

Kermorgant, A.: Maladies épidémiques qui ont regné dans les colonies françaises, 1900, 1902, 1905, etc.; *Annales d'hygiène et de médecine coloniale.*

## IX.

## YELLOW FEVER IN TOGOLAND.

The German colony of Togoland since it has been opened up to commercial enterprise has been the seat of frequent outbreaks of yellow fever. Thus in 1896, 40 cases were reported in Klein Popo.

After this period there appears a lull, that is to say, there was no obvious outbreak until 1905 when some cases were recorded at Anecho and Lomé. In 1906, 5 deaths were also reported at Lomé and 1 case at Wydah. Krueger states that 30 cases occurred in Togoland from April to May, 1906. As the symptomatology and *post-mortem* examinations of many cases are given, there is no doubt of the identity of the disease. According to the official *Gazettes*, quarantine was declared against Togoland and Lomé on April 22nd, 1905; Agone and Grand Popo in May, 1905; and against all ports in Togoland, June, 1906.

Dr. Otto was strongly of opinion that the disease was endemic and that the virus had been kept up by mild cases and recurrences. Those who have studied yellow fever in recent years regard this as the most rational explanation of outbreaks or sporadic cases of yellow fever.

Otto also draws attention to the fact that many of the cases of yellow fever were diagnosed as "pernicious fever," with "inflammation of the kidney," "febris malaria continua perniciosa nephritica," "fever and heart disease," etc. Thus, as in British Colonies so in the German, there can be no question that yellow fever has passed unnoticed under a great variety of names. Probably no disease has been mistaken for so many other diseases. In my opinion this has in large measure arisen from the universal reluctance to admit the existence of the presence of yellow fever in any colony. No doubt commercial interest is

the real cause. There were, however, excusable reasons, such as the lack of any microscopic test as in malaria, and the fact that a large proportion of cases bear a considerable general resemblance to malaria. It is for these reasons that the best guide to diagnosis in parts of the world where undoubted large outbreaks of the disease have occurred, is the presence of the *Stegomyia* in abundance. This is the case in German, as well as in the British and French West African colonies.

Vigorous anti-stagnant water ordinances have been introduced and enforced in Togoland.

## X.

## YELLOW FEVER IN DAHOMEY.

Within recent years Dahomey has been the seat of numerous recorded outbreaks. In 1905 cases occurred at Lomé and at Agone, where several deaths took place.

In 1906 an outbreak occurred at Grand Popo In the same year yellow fever was present in Porto Novo and Koonu, and 11 deaths are said to have taken place.

It is very generally recognized amongst merchants that the coast and river towns in Dahomey and Togoland are very liable to yellow fever.

Considering that these towns are close to Lagos, it would be exceedingly strange if Lagos should have been free from yellow fever in this period; even admitting that yellow fever was not endemic in that city, it was obviously liable to be imported at any time.

BIBLIOGRAPHY.

Otto: Ueber Gelbfieber in Afrika, *Archiv f. Schiffs u. Tropen Hygiene*, 1907.

Krueger: Die Gelbfieber Erkrankungen in Togo, *Archiv f. Schiffs u. Tropen Hygiene*, 1907.

## SUMMARY.

I think I have brought forward sufficient evidence, based upon accurate records, clinical and historical, written by men of admitted ability and experience in yellow fever, to conclusively prove that yellow fever has been of far more frequent occurrence than is usually supposed on the West Coast. That in fact it has appeared annually over a very large number of years, practically, as my figures show, for the last one hundred years.

A few gaps of a few years have occurred, such as between 1852 and 1858, 1868 and 1872, 1873 and 1878, 1878 and 1883, 1884 and 1890.

But from 1890 to the present date, I am of opinion, from the data which I have examined, that there is an unbroken line.

During the whole hundred years there is no large interval which would make it reasonable to suppose that yellow fever had completely died out on the Coast.

In my opinion this evidence is so strong that we are obliged to assume that the disease is endemic upon the West African Coast for at least the last hundred years. The question now therefore arises, By whom has the virus been kept up?

In the first place, we know positively that the transmitting agent, the *Stegomyia*, is present in overwhelming quantity. It only remains to prove how a continuous source of infection has been maintained.

To those who would adopt the theory of importation, it would mean a continuous importation from, say, the West Indies, Central or South America, and there is no history of such importation. Therefore, in my opinion, the most reasonable explanation is the one which has proved correct in the West Indies, Central and South America, and is adopted by the most recent English, French, and German investigators in yellow fever—namely, that the disease exists amongst the natives in a mild form; in other words, that it is endemic.

A little consideration will show that the whites have not been the source of the continuous infection for the reason that the total number of whites on the whole West African Coast has never been large enough to admit of continuous keeping up of the virus; the whites are in the very small minority. Therefore, precisely as in the case of the sister disease, malaria, the continuous or endemic source of infection is the comparatively dense native population of the West Coast.

The evidence which I have brought forward also conclusively points, both in English, French, and German colonies, to a vast amount of *mistaken diagnosis*. Yellow fever was not suspected in its mild form, and it was not found out; it was only discovered when fatal cases made their appearance, and, as my evidence shows, these cases were as often as not mistaken for other diseases. These same mistakes in diagnosis have occurred over and over again in yellow-fever countries, especially in the commencement.

I therefore conclude from the evidence that a comparatively large number of deaths and mild cases have occurred from yellow fever in the past, and which have been attributed to malaria—chiefly the "bilious remittent fever." Most authorities upon yellow fever are agreed that in a very large number of instances "bilious remittent fever" is another name for yellow fever.

It must be recollected that it is only last year that effective sulphur fumigation of the infected *Stegomyia* has been attempted on the West Coast after outbreaks.

Therefore, infected *Stegomyia* were left in the past to live on and to carry infection into a succeeding year.

Finally:

1. The historical record of outbreaks and sporadic cases, as recorded above;
2. Mistaken diagnosis;
3. The absence of any destruction of infected *Stegomyia* in the past; and
4. The comparative immunity of the native,

is evidence overwhelmingly in favour of the disease being endemic on the Coast, and of its having been repeatedly mistaken for other diseases, or entirely overlooked, and of its being kept up in a mild form by the natives, just as formerly in Cuba, Rio, and the West Indies.

*Years in which Yellow Fever has appeared in Sporadic or Epidemic Form in West Africa.*

| | | | | |
|---|---|---|---|---|
| 1807 | 1828 | — | — | 1891 |
| — | 1829 | 1850 | — | — |
| 1809 | 1830 | — | 1872 | 1893 |
| — | — | 1852 | 1873 | 1894 |
| — | — | — | — | 1895 |
| 1812 | — | — | — | 1896 |
| — | — | — | — | 1897 |
| 1814 | 1835 | — | — | 1898 |
| — | 1836 | — | 1878 | 1899 |
| 1816 | 1837 | 1858 | — | 1900 |
| 1817 | 1838 | 1859 | — | 1901 |
| 1818 | 1839 | — | — | 1902 |
| 1819 | 1840 | — | — | 1903 |
| 1820 | 1841 | 1862 | 1883 | 1904 |
| 1821 | 1842 | 1863 | 1884 | 1905 |
| 1822 | — | 1864 | — | 1906 |
| 1823 | 1844 | 1865 | — | — |
| 1824 | 1845 | 1866 | — | 1908 |
| 1825 | 1846 | 1867 | — | 1909 |
| 1826 | 1847 | 1868 | — | 1910 |
| 1827 | — | — | 1890 | |

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### THE IPECACUANHA TREATMENT OF DYSENTERY AND HEPATITIS.

THE paragraph in the BRITISH MEDICAL JOURNAL of December 31st, 1910 (page 2039), on the discussion in the medical section of the Asiatic Society of Bengal on the treatment of dysentery and hepatitis by ipecacuanha is very interesting, more especially to those of us who have had considerable experience of the tropics.

I shall always regret that my earlier efforts at the healing of these diseases were all directed by ideas as to inefficacy of ipecacuanha. In the Indian Medical Congress held at Calcutta in 1894, irrigation of the bowels with various lotions, and the use of sulphate of magnesia, were the lines of treatment most strongly urged, and the new arrivals in India were led away from the teaching of older days.

One case which I had under my care in Kalna Mission Hospital in May, 1909, illustrates very wonderfully some points in the ipecacuanha treatment. The patient was a Bengali Mussulman, with amoebic abscess of the liver. I excised a rib, and opened into the abscess. Then I made the experiment of employing the Sprengel pump to secure

continuous evacuation, and found considerable benefit, as compared with drainage by ordinary tubing. But the discharge went on, and I was in despair. Finally I tried pulv. ipecacuanhae, and in a remarkably short time—a few days merely—the discharge had ceased, and the opening closed. Then to my vexation—though our newer ideas quite explain its advent—dysentery set in. The patient seemed too weak to stand much more, but he gradually rallied, and went out cured.

I may add that in Kalna Hospital we found the administration of ipecacuanha quite a satisfactory thing, and even in the case of the out-patients the more intelligent frequently realized its usefulness, and were very ready to take every precaution against nausea, very often with complete success.

Leven, Fife. MALCOLM MACNICOL, M.B., C.M.Glas.

## PYLORIC OBSTRUCTION.

JOHN J., aged 42, was sent to me by Dr. McAlister Hewlings, of Leicester, on June 26th, 1909, with symptoms and signs of pyloric obstruction and dilatation of the stomach. There was a doubtful history of an attack of appendicitis in August, 1907. For the last year he had had much pain in the epigastrium after food. Vomiting had commenced three months before I saw him, and occurred each day, large quantities of sour, acid stomach contents being thrown up. There had been marked loss of weight. There was no history of jaundice.

The stomach was found to be considerably dilated, peristalsis of the organ being visible through the abdominal wall. No tumour could be felt. A diagnosis of pyloric obstruction, due to probable contraction round an old ulcer, was made, and operation advised.

This was performed on June 30th, when the stomach was found to be enormously dilated; the pylorus and gall bladder were densely adherent, and several stones could be felt through the wall of the latter. On opening the gall bladder ten small stones were removed; one large one, of cylindrical shape, about 1 in. long and ¾ in. in diameter, was found wedged tightly in the pylorus like a cork. On extracting this, stomach contents at once gushed up freely through the wound in the gall bladder. The latter was sewn up carefully, and a posterior no-loop gastro-jejunostomy performed. A drainage tube was inserted down to the gall bladder. After a somewhat tedious convalescence, due to suppuration in the abdominal wound, the patient went home free from all his gastric symptoms.

The gall stone had evidently ulcerated its way into the pylorus, and from the appearance at the operation it was difficult to imagine how any stomach contents ever got into the duodenum.

Leicester. F. BOLTON CARTER, M.S., F.R.C.S.

## A CASE OF POISONING AFTER SMALL DOSES OF ASPIRIN.

THE following case is, I think, of sufficient interest to record, owing to the rarity of the aspirin idiosyncrasy, and the fact that it appears to be little known that there are people affected in an alarming way by even small doses of the drug:

*First Incident.*—Mrs. A., aged 60, was, last spring, advised by a friend to try aspirin for her rheumatism. She therefore took one 5-grain tablet some little time after a meal at which she partook of fish and cocoa. In half an hour she noticed that her lips were swollen. The swelling spread rapidly all over her face, and finally her tongue and throat became affected. My partner, Dr. Barber, who was called in, was inclined to ascribe the symptoms to fish poisoning, although the patient herself put the blame upon the tablet, and refused to take another. In twenty-four hours all swelling had disappeared.

*Second Incident.*—On December 8th Mrs. A. consulted Dr. Barber about her rheumatism, and he prescribed for her aspirin, gr.v., three times a day. She took the first tablet at 5.15, allowing it to dissolve in her mouth, and using no liquid to wash it down. At 5.30 she had a meal consisting of coffee, bread-and-butter, and some preserved greengages (not tinned).

*Conditions Noted.*—I was called to see her shortly after 6, my partner being out. I found her very anxious and restless, her face enormously swollen, especially the eyelids, lips, and nose. The tongue was swollen so much that it was with difficulty protruded between the teeth. The fauces also were much swollen, and she complained of great discomfort in her throat. There was no headache, but she complained of her head being "funny and uncomfortable." On her hands and forearms there was an urticarial rash. The pulse was 110, feeble. The pupils were moderately dilated, and the conjunctiva of both eyes was bloodshot.

*Result.*—My partner saw her shortly afterwards, and we both feared that oedema of the glottis might supervene. Next morning the swelling was much less, but the eyelids were still very puffy, and the vessels of the conjunctiva engaged; in fact, this symptom did not disappear for a week. The pulse was 80, and she felt well.

### REMARKS.

On both occasions the drug used was the product of the Bayer Company, made into tablets by the Standard Tablet Company, of Hove, and there can be no doubt as to the purity of the drug. The Bayer Company, to whom I wrote giving a description of the case, replied that a few reports of somewhat similar conditions, resulting from the use of aspirin, had been sent to them.

This, then, appears to be a case of a rare idiosyncrasy to aspirin, a vasomotor neurosis, allied to angeio-neurotic oedema, but without visceral symptoms. It is important to bear in mind the possibility of such cases, and that the symptoms may be of a very alarming nature, since aspirin is a drug so freely prescribed and so freely taken without consultation with a medical man. Moreover, it seems to point to the wisdom of always starting treatment with a small dose. In this case, had two or three tablets been taken instead of one, it is quite possible that a fatal oedema of the glottis might have occurred.

Hastings. CONWY MORGAN, M.D.Lond.

# Reports

ON

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## KENT COUNTY ASYLUM, MAIDSTONE.

### A CASE OF ANEURYSM OF THE HEART.

(By B. C. A. LEEPER, L.R.C.P.S.I. and L.M., Assistant Medical Officer to the Asylum)

H. T., 62 years of age, a pensioner, R.M.L.I., married, was admitted on January 10th, 1907.

*Family History.*—Unimportant.

*Previous History.*—After pension from R.M.L.I. he went to Chatham Dockyard, where he performed hard work as a fitter. He had influenza two years before admission, and had had rheumatic fever once when abroad.

*On Admission.*—His general health good. The heart impulse beat beyond the nipple line. Action weak. Sounds impure. Pulse 82, good volume. The other organs were healthy.

*After Admission.*—He was very depressed, and said he wanted to die. Cried in a piteous fashion, and stated that twelve months ago something seemed to strike him like an electric shock, which worked into his inside, causing him great pain, which he said he continued to feel in his chest, stomach, and testicles. He worked fairly well in the wards, but at times took to his bed for two or three days at a time, when he got more depressed than usual, and begged to be shot. There were no more evident signs of any cardiac trouble than he had on admission.

On September 7th, 1910 (three years and eight months after admission), he was at tea in the ward, and suddenly fell off his chair and expired immediately.

*Post-mortem Examination.*—*Pericardium and heart* weighed 33¼ oz. The heart was firmly fixed by dense fibrous adhesions to pericardium. The walls of ventricles were very friable and chiefly fibrinous. All cavities were enormously dilated, especially the left ventricle, to which there was attached a sac (about the size of a cricket ball) communicating with the ventricle by a small orifice. This sac was filled with layers of laminated clot. All other thoracic and abdominal organs were healthy.

REMARKS.—The chief features of interest in this case were: (1) The absence of any physical signs of the aneurysm, which had clearly been present for some considerable time; also (2) that it did not appear to hinder the patient in any way from performing hard work as a fitter; (3) the rare position for the aneurysm to be situated.

# Reports of Societies.

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

AT an ordinary meeting held on January 26th, 1911, Dr. G. A. BERRY, President, in the Chair, Dr. Thomas Buzzard was elected, by ballot, an honorary member of the society. Mr. J. HERBERT FISHER read a paper entitled, *The Pituitary Body and Lesions of the Optic Chiasma.* After alluding to cases which from time to time had sporadically been reported in the *Transactions* of the Society, he dealt shortly with the development, structural anatomy, and function of the hypophysis cerebri. Reference was made to the recognition and elucidation of acromegaly by Marie in 1886 and subsequent years, and Frohlich's train of symptoms known as "dystrophia adiposo-genitalis" was sketched. Recent experimental work on the pituitary body and its function, by Pavlesco and Harvey Cushing was narrated. The association between the hypophysis cerebri and other ductless glands was reviewed. Cushing deduced from his extensive work on the subject that acromegaly and gigantism were the result of hypersecretion of the anterior lobe of the pituitary gland, while Frohlich's train of symptoms was the result of hypersecretion. Mixed cases were explained on this theory. The author then related in detail 9 cases of pituitary body and chiasma lesion which he had personally observed, over a long period of time in most instances. The cases provided examples of acromegaly and of Frohlich's syndrome in complete and in partial manifestation; 1 complete case showed that this train of symptoms might develop in the adult as well as in the child. The cases showed the early liability to sexual disturbance and impotence in pituitary body lesions. Primary atrophy, not papilloedema, was the ophthalmoscopic phenomenon in all the cases. Some examples of very practical benefit by treatment with thyroid extract or pituitary extract were afforded. In the later cases special extract of the anterior pituitary lobe only was being tried, with some encouraging signs of benefit. In every case charts of the field of vision were exhibited, and the necessity of perimetry for the diagnosis was insisted on. The additional value of $x$ rays in demonstrating enlargement and destruction of the sella turcica, was well exemplified by the skiagrams of the patients. The paper was discussed by the PRESIDENT, Mr. J. B. LAWFORD, Mr. R. W. DOYNE, Mr. JAMESON EVANS, Mr. RICHARDSON CROSS, and Mr. HEWKLEY, and Mr. FISHER replied.

## MEDICAL SOCIETY OF LIVERPOOL.

AT the annual meeting held on January 19th, 1911, the following list of officer-bearers and members of council were adopted: *President*, T. R Bradshaw; *Vice-Presidents*, J. E. McDougall, G. P. Newbolt, *C. S. Sherrington, *W. B. Paterson; *Treasurer*, J. Lloyd Roberts; *General Secretary*, Thomas Bushby; *Secretary of Ordinary Meetings*, W. B. Warrington; *Secretary of Pathological Meetings*, Ernest E. Glynn; *Librarian*, *J. C. M. Given; *Editor of the Journal*, John Hay; *Council:* T. H. Bickerton, Richard Humphreys, Herbert R. Hurter, T. C. Litler Jones, John Owen, Joseph Unsworth, *R. W. MacKenna, *C. V. Vereker, *Owen T. Williams, *Robert E. Kelly, *Arthur Evans, and *J. E. O'Sullivan; *Auditors*, *T. C. Litler Jones and *Stanley A. Gill. Those marked (*) did not hold the same office last year.

*Saturday, January 28th, 1911.*

Dr. J. E. MCDOUGALL, Vice-President, in the Chair.

MR. R. C. DUN and PROFESSOR ERNEST GLYNN read a paper on *Tumours of the adrenal glands*, with especial reference to those occurring in children. Mr. Dun first described the features of his case. The patient was a girl, 5 years of age, of precocious development. The body was covered largely with fat, and hair was copious in several parts of the body—namely, over the scalp, pubes, and in the axillae. A large tumour was present in the right flank having the characteristics of a renal tumour. The child died in a few days from bronchopneumonia. A *post-mortem* examination made by Dr. Glynn proved that the tumour was certainly one of the adrenal body; the kidney was found free, but embedded on the under surface of the tumour. The authors then considered the previous sixteen cases already published, and compared these with the one reported by them. They gave the following classification:—Group A: From cortex; malignant hypernephroma associated with great precocity in children of both sexes, or great muscular development with true sexual precocity in males. Group B.: ? From cortex or medulla round-celled sarcoma—(1) Hutchinson's type with metastases in the skull; (2) Pepper's type, congenital, with tumours in the liver. Group C: Unclassified. Primary tumours in adults were less easy to classify, but malignant hypernephroma in the adult female might produce secondary male characteristics. The writers pointed out that precocity in children was sometimes associated with tumours in other glands. Dr. BLAIR BELL said it was important to remember the inter-relation of the various ductless glands. The secretions of the ovary and thyroid were antagonistic to those elaborated by the infundibular portion of the pituitary and the medulla of the adrenals. This was shown by the effect upon blood pressure, and upon the calcium metabolism. He asked how far variation in function was accompanied by change in structure of the gland itself; or how far structural change was really due to alteration in the activity of some other of the glands. Hence, instead of removing a hypothetically over-active ovary in osteomalacia, as had been done in the past, adrenalin was now given with success to antagonize the over-active ovary. Perhaps infundibular extract would have the same effect. He pointed out that in some cases, as in that just related, it was only the secondary characteristics of puberty that were developed; in others there was actual precocious sexual activity. He thought that in the latter cases there was a coincident reaction in the specific genital glands. He had long urged that the specific glands were not alone responsible for the genital activity, but that many of the ductless glands participated in the process. There was now evidence that this was so. Dr. W. C. ORAM read a paper on the methods of *Localization of foreign bodies by the x rays.* He showed a radiogram of a needle 2 in. in length completely imbedded in the tongue of a child aged 4. Diagrams were exhibited illustrating the process of localizing a bullet in the hip by a screen examination. Various methods of localizing a needle in the hand were described and their accuracy and limitations discussed, and a process described by which, when two stereoscopic negatives were used, together with a prepared curve connecting the shift of the shadow of the needle with its depth in the tissues, the distance of the needle from the surface could be estimated to the tenth of an inch.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on January 20th, Dr. A. CHRISTY WILSON, President, in the chair, Mr. H. J. ROPER read notes of a case of *Intussusception* in a child 6 years old. The symptoms, pain and vomiting, had lasted nine hours. When he opened the abdomen he found it impossible to reduce the invagination, which was of the ileo-colic variety, on account, as he thought, of its having passed through the ileo caecal valve. The intussusception was almost 8 in. long, and, fearing the consequences of resection, he made a lateral anastomosis between the ileum above the intussusception and the colon beyond the point to which it extended, leaving the intussusception *in situ*. The child recovered and had remained well ever since (November, 1909). He thought this operation should be performed in recent cases where the condition of the invaginated gut was good, in preference to resection, which was notoriously fatal. Mr. C. H. GREENWOOD made remarks on a case of *Red degeneration of fibroids in pregnancy* with acute symptoms in which hysterectomy had been performed. The patient, a primigravida, was seized with sudden acute pain and vomiting; a diagnosis of ovarian tumour with twisted pedicle was made. The condition found at operation was red degeneration of a pedunculated fibroid. As there were several other fibroids, hysterectomy was done.

Recovery was uneventful. The specimens showed early red degeneration in streaks and patches amid normal myoma tissue. The red areas showed degenerate muscle fibres, blood stasis, and dilated vessels, but no thrombosis. The pale areas showed no vascular dilatation. It was suggested that the degenerating myoma cells liberated some bodies which acted first as haemolysins, thus causing the discoloration; and, secondly, as fibrin ferments leading to stasis (as seen in the present specimens), and then thrombosis, and that the onset of the acute symptoms corresponded to these changes. The thrombosis, etc., was thus secondary to the degeneration, not the cause of it. Dr. E. F. TREVELYAN showed (1) a case of *Muscular dystrophy* (pseudo-hypertrophic paralysis) of twelve years' duration in a man now aged 20. There was pseudo-hypertrophy of the calf muscles, but particularly of the triceps muscles. There was marked atrophy of the glutei and latissimus dorsi, but only slight atrophy of the lower pectorals and spinati. The scapulae were slightly winged. The gait was waddling, and there was lordosis in the lumbar region. (2) A case of *Graves's disease*, undergoing retrogression, in a woman aged 40. She had been long under observation, and had an acute attack of insanity about ten years ago. All the signs had considerably improved, but somewhat unsymmetrically. Thus the exophthalmos had almost disappeared on the left side, and the tremor was less marked in the left than in the right arm. Mr. H. COLLINSON showed a case of *Calculous anuria*, in which, after an attack of pain in the left kidney region, followed by haematuria, complete suppression of urine occurred and lasted for five days. Examination by *x* rays showed no evidence of calculus. Exploration of the left kidney on the fifth day of anuria revealed a calculus impacted in the opening of the ureter. This was extracted through an incision in the renal cortex, and the kidney drained. Urine began to be secreted in a few hours. Recovery was uneventful. Mr. ROWDEN explained that the calculus on analysis was found to be almost pure uric acid stone, and hence was not demonstrable by the *x* rays. Mr. S. THOMPSON ROWLING showed an *Improved apparatus for administering the oxygenated and warmed vapours of ether and chloroform for general anaesthesia.* The apparatus consisted of two cylindrical glass tubes, placed vertically side by side, the one containing ether, the other chloroform. Warmed oxygen was passed through the ether or chloroform and the oxygenated anaesthetic vapours were administered to the patient through a perforated tube arranged in a wire frame which was covered with gauze. The cylindrical glass tubes were supported and the oxygen was warmed by a water-jacket, arranged to serve the additional purpose of forming an efficient protection for the glass. Any proportion of oxygenated ether or chloroform, either alone or together, could be administered, or pure oxygen alone if desired. The administration is on the plenum principle; the presence of oxygen causes very quiet respiration and a good pulse, and a profound narcosis can be maintained with safety; there is also no blueness and no mucus. Mr. J. F. DOBSON showed a specimen from a patient upon whom *Excision of the greater part of the stomach* had been performed. Anterior gastro-enterostomy and entero-enterostomy for a large saddle ulcer on the lesser curvature of the stomach had been performed seven months previously. The patient gained 2 st. in weight and was free from pain for a month after the operation. She then began to complain of severe pain after food. Eventually the abdomen was reopened and a perforating ulcer adherent to the abdominal wall was found in the jejunum just below the gastro-enterostomy opening. The gastric ulcer had healed, leaving a scar which produced a marked hourglass contraction of the stomach. The greater part of the stomach was excised (including the gastro-enterostomy opening and the scar of the ulcer) and the efferent and afferent loops of bowel. The continuity of the stomach and small intestine was restored, the patient making a good recovery. Dr. C. OLDFIELD showed a series of specimens to illustrate the advantages of *Removal of the body of the uterus together with the appendages* in cases where the latter had to be removed for gross disease. The specimens were: Two of double pyosalpinx, 2 of bilateral tuberculous salpingo-oöphoritis, 1 of malignant disease of ovary with dual primary growth in uterus, 1 of bilateral ovarian cyst. The immediate and remote results were better than when the uterus was left, and this fact was now becoming generally recognized by gynaecological surgeons. Mr. J. STEWART showed *Three cases treated by "606":*

(1) Male, aged 34. Intense headaches, Jacksonian epilepsy of right side of face, ten days later paresis of right arm and hand. Retention of urine on three occasions. Optic neuritis. Potassium iodide of no effect. "606" three weeks ago. Patient slowly but perceptibly improving. (2) Ulceration of right side of face and anterior triangle of neck, with fistula of Stenson's duct, of three years' duration, during which time was on antisyphilitic remedies. "606" twenty-seven days ago; almost healed. Fistula not closed. (3) Inveterate ulceration of tongue, throat, lips, and cheek, which had resisted Hg, KI, As, and Littmann's decoction. Ulceration cleared up in three days.

Dr. BEDFORD PIERCE showed a *Lead pencil removed from the duodenum* by Mr. Littlewood (with skiagrams). Dr. A. BRONNER showed several *Instruments for the suction treatment of various diseases of the ear and nose.* By this method, in cases of acute purulent affections of the middle ear or accessory nasal cavities, the pus could be removed, the swollen membrane reduced, and drainage of the cavities improved. In some cases of oto-sclerosis the hearing was improved and the tinnitus lessened. Cases and specimens were also shown by Dr. A. G. BARRS, Mr. R. LAWFORD KNAGGS, Mr. G. CONSTABLE HAYES, Dr. T. WARDROP GRIFFITH, Mr. B. G. A. MOYNIHAN, Dr. M. COPLANS, Mr. MICHAEL A. TEALE, Dr. W. H. MAXWELL TELLING.

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## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A JOINT meeting of the Nottingham Medico-Chirurgical Society and the Nottingham Division of the British Medical Association was held on February 1st, Mr. W. MORLEY WILLIS, President, in the chair.

### *Non-malignant Diseases of the Breast and their Relation to Mammary Cancer.*

The mid-session address was delivered by Mr. SAMPSON HANDLEY, who took for his subject, Non-malignant diseases of the breast and their relation to mammary cancer. He said he would consider, first, the diagnosis of the various mammary tumours; secondly, their relationship to one another, and under what circumstances innocent tumours might develop into malignant types; and thirdly, the possible steps which might be taken to prevent innocent tumours from becoming malignant. By means of lantern slides Mr. Handley clearly demonstrated the pathological anatomy of fibro-adenomata through their varying stages. As showing the relationship of fibro-adenoma to carcinoma, he quoted a case in which a carcinoma developed in a breast six months after the removal of an innocent fibro-adenoma. He said that in the museum of St. Bartholomew's there was a specimen of a fibro-adenoma with a carcinoma in its centre; therefore, he always advised the removal of fibro-adenoma, and, in addition, he always swabbed out the cavity caused by its removal with some strong antiseptic solution so as to destroy any stray cells of the tumour left in its removal. On the other hand, types of soft fibro-adenoma sometimes became very rapid in their growth, and he had no doubt occasionally these took on a sarcomatous type. In the same way Mr. Handley followed out the course of the growth of duct papilloma, and showed a beautiful example with a duct papilloma in the lumen of the duct and eroding the opposite wall; beyond this were undoubted signs of duct cancer. He advised the complete removal of the breast in all cases of duct papilloma—in fact, whenever there was serous discharge at the nipple. Turning to the inflammatory tumours, chronic mastitis was probably the chief precursor of malignant disease. He regarded Paget's disease as being carcinomatous from the commencement, and only secondarily becoming eczematous. "Pig skin" was not always malignant, but might be due to syphilis or tubercle, as it was caused by lymphatic obstruction. The pits were the openings of the sweat glands where the skin was tied down to the subcutaneous tissue. Mr. R. G. HOGARTH proposed a vote of thanks to Mr. Handley, and Dr. C. H. CATTLE seconded this.

# Reviews.

## DISPLACEMENT OF KIDNEY.

DR. LONGYEAR, who believes that in the nephrocolic ligament he has discovered the principal positive etiologic factor in nephroptosis, or floating kidney, has presented his views in a volume entitled *Nephrocoloptosis*.[1] He holds that, owing to the character and attachments of the nephrocolic ligament, nephroptosis must, save when due to injury, be secondary to a coloptosis. On that account the displacement of a kidney must be considered as associated with a prolapsed colon, the bowel never being left out of consideration. As Glenard says, we may find enteroptosis without nephroptosis, but never nephroptosis without enteroptosis.

Whatever may be the truth of his theory and the value of his method of operative treatment, it must be admitted that Dr. Longyear has taken great pains in demonstrating the anatomy of the kidney and the parts concerned when it is displaced, adding instructive drawings and radiographs. He describes at great length the manner by which the nature and relations of the nephrocolic ligament may be made clear in the dissecting room. It is an irregular aggregation of fasciculi which may be torn and rendered useless for purposes of visceral support if handled roughly in the course of an operation, but, when bunched together, the fasciculi have much resisting power. It is inserted into the posterior aspect on the one side of the ascending and on the other side of the descending colon, between the peritoneal attachments of the bowel. It is adherent ventrally to the peritoneum above its attachment to the bowel, and its tissue blends with the attenuated wall of the anterior lamella of Gerota's capsule, a structure derived from the subperitoneal fascia. That capsule encloses the kidney and its fatty envelope, but not completely. It is more or less open below and entirely open towards the median line. The two lamellae of Gerota's capsule meet at the upper end of the kidney and send fibres to the under surface of the diaphragm; some pass between the upper pole of the kidney and the suprarenal body, sending fibres to both, which form a loose attachment, easily broken down. Hence the suprarenal body remains behind when the kidney is removed, except when there have been local inflammatory changes causing adhesion. Dr. Longyear insists that the more important part of the capsule is that which is inferior. The kidney, when descending, carries with it its fatty envelope, but the capsule of Gerota, being fixed, remains in place, and being open at its inner aspect allows the kidney to slip downwards out of its embrace.

The principle of a sound mechanical treatment of ptosis of the kidney is the removal of the downward strain of the nephrocolic ligament and the maintenance of pressure of the intestine against the kidney from the direction of the median line, so that it cannot easily slip out of Gerota's capsule at its only side open towards the median line. Dr. Longyear describes and figures a special truss which he believes to be suitable for the support of the displaced kidney. We find it difficult to estimate the comparative merits of this apparatus and that used by other experienced surgeons who hold other views.

The author's principles of operative treatment are based on his anatomical views already related. He denounces the stripping off of the fatty capsule and the fixation of the kidney to the adjacent structures and tissues in the loin. The kidney is fixed, but the patient is not cured. The result of freeing the fatty capsule from the kidney is to increase the mobility of the ascending colon and caecum, so that the traction exerted by the large intestine not only continues, but is augmented. The prime factor in surgical therapeutics, according to Dr. Longyear, is fixation of the colon, fixation of the kidney being of secondary importance. The operation which he has devised is described at full length and explained by drawings. The illustrations of the different steps are of the best quality, made the clearer by skeleton sketches opposite them. A lumbar incision being made, the transversalis fascia is laid open and the subperitoneal (not the circumrenal) fat exposed and pushed downwards. Gerota's capsule, a pinkish-coloured membrane somewhat resembling peritoneum, now appears. In order to avoid the peritoneum the incision through the transversalis fascia must be made near the twelfth rib, and not too far downwards. Gerota's capsule is seized with forceps and incised; the circumrenal fat then appears. The nephrocolic ligament, after certain precautions fully explained, is drawn out and its fasciculi pulled out and stretched. Then the middle part of the ligament is made into a loop which is raised out of Gerota's capsule. The next step is the suturing of the capsule under the loop; a silver wire mattress suture is afterwards passed through the transversalis fascia, also under the loop of ligament and through the fascia beyond it, and then secured, with special manœuvring. The muscle and subcutaneous fascia are closed with interrupted sutures, and the integuments with a subcutaneous suture of catgut which is entirely buried.

Such is Dr. Longyear's operation, which the reader cannot fail to admit is described by its deviser in clear language aided by yet clearer diagrams. But when we turn to the author's statistics we feel that he cannot yet convince those whose opinions and practice are different. He tabulates 56 cases on which the operation of nephrocolopexy was performed. The tables follow an instructive series of clinical reports of the same cases, and we suspect that it will be generally considered that the reports are far more valuable and reliable than the tables. This book was issued, according to the title-page, in 1910. The first nephrocolopexy, it is stated in the tables, was performed in January, 1906. Supposing that the compilation of the tables was completed on January 1st, 1910, it will be seen that no less than 28 of the operations date from later than January 1st, 1908; indeed the earliest after December, 1909, was performed on April 28th, 1908. Again, 14 of the operations were done in 1907. Thus only 14 cases are left in which the after-history extends to over three years. Two years are much too short, three years hardly long enough, to test the new procedure fairly. If the nephrocolic ligament be so distinct an entity as the author assumes, it still must be liable to stretch; nor, on the other hand, are all the causes of nephrocoloptosis removed or neutralized. Dr. Longyear's clinical statistics of floating kidney are, we suspect, at variance with those of other observers. He claims to have detected, in his last 200 examinations of women consulting him for abdominal or pelvic disease, as many as 56 instances of floating kidney. In 400 previous examinations 76 were detected, and 23 in 400 still earlier; 145 floating kidneys in 1,000 patients seems a very high proportion, yet the author thinks otherwise, for he adds that "the larger percentage in the more recent series doubtless represents the difference in skill acquired in their diagnosis, as well, probably, as my increasing interest in looking for them." Yet Dr. Longyear has pleaded his cause and described his new method most ably, and the treatise deserves the consideration of all anatomists and surgeons.

[1] *Nephrocoloptosis.* A Description of the Nephrocolic Ligament and its Action in the Causation of Nephroptosis, with the Technic of the Operation of Nephrocolopexy, in which the Nephrocolic Ligament is Utilized to Immobilize both Kidney and Bowel. By H. W. Longyear, M.D., Professor of Gynaecology and Abdominal Surgery, Detroit Post-graduate Medical School, etc. London: George Keener and Co. 1910. (Roy. 8vo, pp. 251, illustrations 88. 12s. 6d.)

## SUPPURATIVE SALPINGITIS.

DR. SCHRIDDE has prepared an important treatise on suppurative inflammation of the Fallopian tube.[2] In the last generation tubal diseases were looked upon as curiosities and gonorrhoea in the female was ranked as "relatively mild" in comparison with the same disorder in the male. Lawson Tait, more than any other surgeon, made us acquainted with diseases of the Fallopian tube, and womankind has in the long run profited even from his errors. Too little had been made of salpingitis; yet the great Birmingham surgeon erred, on the other hand, not in looking on it as serious, which it always is, but in deeming it incurable and insisting on the amputation of the stricken oviduct. We need not dwell on the gravity of gonorrhoeal infection, for all now know how disastrous it may prove. Dr. Schridde publishes the fruits of long

[2] *Die eitrigen Entzündungen des Eileiters.* Histologische Untersuchungen von Dr. Herm. Schridde a. o. Professor an der Universität Freiburg in Br. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo, pp. 59; plates. M. 7.)

labour in the laboratory and minute research with the microscope, his illustrations are of good quality, and, altogether, his treatise is of as high a type as several familiar, purely scientific publications on things tubal, such as Couvelaire's monograph on tubal gestation. The French authority took nothing for granted, and so proved that salpingitis is, as a rule at least, the result, not the cause, of the implantation of the ovum on the tubal mucosa, and he further demonstrated how the sac gave way, not from internal pressure, but because of softening, villi replacing muscle and fibrous tissue. Dr. Schridde likewise takes nothing for granted. He dwells on streptococcal inflammation, but devotes great attention to gonococcal infection and its consequences. The anatomy of the plicae and the changes they undergo in chronic inflammation has been made clear during the past ten years by Opitz, James Young, and others. Dr. Schridde reminds us that we may make too much of the shedding of the ciliated epithelium in salpingitis and too little of adhesion of the plicae. He admits that one fact about that type of cell has been amply demonstrated. Ciliated epithelium, though so tender in appearance, is really very tough—very vital, in fact. It is shed freely in salpingitis, but when the inflammatory processes subside it may without doubt be restored; and it then soon resumes its normal functions. Nor is this destructive inflammation the primary or necessary cause of sterility. Gonorrhoea is now admitted to be one of the commonest causes of barrenness, notwithstanding Noeggerath's over-statements. For long it has been believed by the gynaecologist that the destruction of the ciliary apparatus explains this fact. Dr. Schridde finds that the truth lies with Opitz and his more modern theory. Gonorrhoeal more than any form of salpingitis involves firm and permanent adhesions of the plicae. It is the substance, not the covering, of the mucosa that is chiefly at fault, and very slow to return to its normal state. We know that subacute attacks are extremely frequent in chronic salpingitis, and Dr. Schridde adds that the gonococcal type is all but invariably bilateral. Hence it is not surprising that the treatment of gonorrhoeal salpingitis is so unsatisfactory, its evident objective being traversed by marked histological changes which Dr. Schridde has demonstrated. He expresses the hope that therapeutics and pathology will be brought into line, that the clinician may join hands with the scientific observer, and that in consequence these suppurative forms of salpingitis may be really cured. He implies, of course, that that aim has not yet been fulfilled. Amputation of the tube is, at the best, mutilation, and even when a piece of the adjacent uterine cornu is excised as well, the results are doubtful. But Dr. Schridde evidently feels that those who object to radical surgery have not yet devised any medical or therapeutical method which will render surgical measures needless and, above all, restore the tube to its functions. The douche and prolonged rest in bed often fail. Let us think over the matter, let us take into account Dr. Schridde's very clear evidence of the true lesion in the severe types of salpingitis which he has studied, and then we may make some advance. The problem would seem to be how to apply powders or solutions to the mucosa of the tube without danger to the adjacent peritoneum.

## ANATOMY.

WHEN the late Professor D. J. CUNNINGHAM was Senior Demonstrator of Anatomy in the University of Edinburgh he wrote a textbook for use in the dissecting room which was in the first instance merely a dissector's guide and nothing more. More than thirty years have elapsed since this comparatively brief, though strikingly clear, book first appeared, and previous to the lamented death of its author, it passed through four editions, becoming in 1889 a *Manual of Practical Anatomy*.[3] The book was received with marked approval at the outset of its career. It has been regularly improved and brought up to date, and, as the fourth edition passed through its author's hands, it stood unrivalled in the estimation of teachers and students alike, as a textbook of human anatomy adapted not only for use in the dissecting room but also for general reading. Now the book enters on another stage of its history. The hand which guided its destinies with such conspicuous success is still, and the preparation of another edition has been undertaken by his successor in the Chair of Anatomy in Edinburgh, Professor ARTHUR ROBINSON. In the present issue, which is described as a revision of the fourth edition, the greater part of the text remains the same. With regard to nomenclature, Professor Robinson has added a full glossary showing the difference between the terms usually adopted by teachers in this country and those of the international nomenclature, thus enabling the student to find at once for himself any term that differs. The main alteration in the revision occurs in vol. i in the description of the pelvis. Here the whole account has been rewritten. In view of the supreme importance of a precise and accurate knowledge of the anatomy of the pelvic organs this is not surprising. The old account of the dissection of the pelvis from the lateral aspect was not altogether satisfactory. The dissection was difficult to carry out, and had no real practical bearing on the surgery of the region. We are glad that Professor Robinson has replaced it by a dissection from the front, which is better calculated to show the complete anatomical and surgical relations of the parts. We have tried the dissection by carrying out Professor Robinson's instructions, and have nothing but praise for the admirably lucid way in which the various stages are described. The views obtained of the interior of the bladder and of the relations of the organ to the pelvic floor are alike admirable, and constitute a demonstration which is likely to be extremely useful to the practitioner and surgeon. The prostate, too, can be more completely examined by this new dissection, especially from the point of view in which it is approached in the suprapubic operation. Some excellent new illustrations have been introduced which will be of great help to the student. We congratulate Professor Robinson on this alteration. There is no doubt that the book will continue to hold the unrivalled position to which it is entitled.

*Human Anatomy for Art Students*,[4] by Sir ALFRED D. FRIPP and Mr. RALPH THOMPSON, is the second of a series of volumes now being issued under the name of the New Art Library. The first volume deals with oil painting and drawing, and the third with modelling and sculpture; and it is intended by the editors that these three shall be followed by many others. The volumes in this series are primarily intended for the use of art students, but it is probable that they will appeal to a wider public, particularly the amateur artist and lovers of art in general, who, though they produce nothing themselves, may have a desire to examine works of art from the same point of view as the professional artist. In spite of several excellent works already available on the subject of plastic anatomy, the authors of this volume have amply justified their claim to add to the number. The difficulties of writing on a subject like human anatomy for students engaged in the study of art are obvious. A knowledge of anatomy sufficient for the studio must embrace form, attitude, and action, as well as the scientific bases of these expressions. At the same time the student must not be burdened with too many names, technicalities, and with those details which do not bear directly on surface forms. To these requirements the authors have carefully conformed, and the result is a work which can be confidently recommended as a reliable guide to the painter and modeller. They have done well, we think, in taking the skeleton (Chapter I) as the starting point, since by so doing the best possible foundation is laid for a knowledge of the topographical anatomy of the remaining parts of the body. In the second chapter a brief description is given of the various soft structures which clothe the skeleton, and then each of the four parts into which the body is divided claims a chapter. Here the various systems of which the parts are built up are clearly explained, and the student will obtain much assistance from the numerous excellen

[3] *Manual of Practical Anatomy*. By the late D. J. Cunningham, M.D., D.Sc., LL.D., D.C.L., F.R.S. Vols. i and ii. Fourth edition, revised by A. Robinson, M.D., M.R.C.S. Edinburgh, Glasgow, and London: Henry Frowde, and Hodder and Stoughton. 1910. (Cr. 8vo, vol. i, pp. 634; vol. ii, pp. 632. 10s. 6d. per volume.)

[4] *Human Anatomy for Art Students*. By Sir Alfred D. Fripp, K.C.V.O. and Ralph Thompson. With drawings by Innes Fripp, an Appendix on Comparative Anatomy by Harry Dixon. London: Seeley and Co., Limited. 1911. (Post 8vo, pp. 328, 7s. 6d.)

illustrations freely interspersed in the text. Particularly good is the account of the anatomy of the face, and the chapter which follows it on expression and gesture. In the appendix Mr. Harry Dixon has contributed an article on comparative anatomy, in which the fundamental points of correspondence and some of the modifications for special requirements to be noted in the structure of animals are duly emphasized. The printing and general get-up of this attractive volume are alike excellent; it has a good index and a short series of photographic reproductions intended for those students who are unable to attend at a life school while studying anatomy.

M. DESCOMPS's monograph on the coeliac axis[5] possesses both anatomical and surgical importance, for it consists of a detailed and very fully illustrated description and analysis of the origin, course, and distribution of the coeliac axis and its branches, in 50 subjects, together with abbreviated accounts of the literature bearing upon some of the points dealt with. The work is for the most part purely descriptive, though, here and there, the author draws attention to the clinical importance, from the operative point of view, of the facts which he notes, and refers to the opinions of previous writers regarding them. The anatomical interest centres mainly in the accuracy of the descriptions and illustrations, which will furnish valuable data for those who are seeking to elucidate the morphology and ontogeny of the coeliac axis and its branches. The surgical importance of the work rests on the same basis, for a careful consideration of the descriptions and the illustrations will put the operating surgeon in a position to understand and deal effectively with the peculiarities of origin, distribution, and anastomosis which are so frequently found in the association with the coeliac axis and its branches.

By using the term *Applied Anatomy*[6] in association with the textbook he has produced, Professor DAVIS obviously intends to imply that, like many of his predecessors, he wishes to direct the reader's attention to those anatomical facts which he considers most important in association with disease, injury, and treatment. He is to be congratulated on the wide view he has taken of his subject and the carefulness and clearness of his descriptions of the anatomical structure, the physiological functions, and the pathological conditions associated with those parts of the human body with which he has thought it advisable to deal. Little has escaped his attention, but there is nothing particularly new either in the text or the illustrations, though many of the latter are original figures; the conditions and phenomena dealt with are well grouped, interestingly treated, and the proper emphasis is laid on important points. Perhaps the weakest parts of the book are the paragraphs devoted to the lymphatics, and it is somewhat remarkable that the author appears to have no knowledge of the important work on the abdominal lymphatics carried out during the last few years by Jamieson and Dobson. From the student's point of view the book may be considered to err on the point of size, and as it is obviously intended more for the use of the senior than the junior student, it might have been advisable to reduce its bulk by presuming the reader's acquaintance with many of the rudimentary facts of anatomy the descriptions of which add considerably to the text. This, however, is a matter of opinion, and there can be no doubt that, in spite of its size, the book will secure a large amount of appreciation.

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## PASSIVE JOY.

DR. M. MIGNARD has recently taken occasion to maintain[7] that the numerous works which treat of melancholy, and the almost complete absence in them of any mention o pathological happiness, it might be imagined that most mental maladies are accompanied by disagreeable sentiments. A visit to any asylum, however, he says, would quickly disabuse the visitor of this misconception. Whether this be so or not is outside the question; it is, however, incontestably true that apart altogether from the actively excited manifestations of happiness of the maniacal and other "expansives," states of beatitude are commonly exhibited by the idiot and imbecile, and also, where they might be least expected, by the senile dement and the general paralytic in his last stages. It is to this phase of morbid pleasure that he proposes to apply the striking though hardly happy term of "passive joy." Akin to the euphoria of the dying and the well-known optimism of the consumptive, this phenomenon has often excited remark. Yet, Dr. Mignard says, it has been very little investigated, and this gap he now seeks to fill. This beatitude Dr. Mignard describes as a state of calm and peaceful satisfaction with a minimum of external manifestation, shown only by a smile at once sweet, foolish, and lasting, by the optimism of the responses of the subjects and by the tone of their voices. It is unaccompanied by any intellectual excitation; on the contrary a mental torpidity appears characteristic. Sensibility, cutaneous and special, is generally diminished, and motility always. With regard to the somatic aspect, the circulation is, as a rule, slow, and the blood pressure low in all cases. The condition described by Dr. Mignard is thus a very different state from that of joy as usually conceived, with its wealth of active manifestations. Yet these two have, he maintains, a common root, a simple sensorial phenomenon—an agreeable feeling. But how is this agreeable feeling to be explained, say, in a general paralytic, exhausted by constant diarrhoea, wasted to a skeleton and seared by bedsores? Dr. Mignard's explanation is put in a nutshell by Dr. Dumas in his Preface: "Dr. Mignard thinks that in the mental sphere—that which causes joy, active or passive, the joy of the idiot or that of the poet or savant—is the suppression of every hindrance or clog, the liberty of the function, or the feeling of that liberty. The active tend to thought, to invention, to movement; the passive incline only to repose and inertia. Neither the one nor the other, however, are conscious of any obstacle, of any inhibition of their tendencies, which they realize in their plenitude; the first out of the superabundance of their energies, the second because they have only feeble or attenuated tendencies very easy of satisfaction." This theory Dr. Mignard supports by evidence drawn from personal observations described in quite superfluous clinical detail. He then proceeds to the psychological exposition of his subject; then to an investigation of the sensibility, mobility, and vegetative processes of his subjects, and in the two concluding chapters he considers passive states of satisfaction in the light of modern theories of the nature of pleasure, with a special adverse criticism of the James-Lange explanation. After contrasting the conditions described by Dr. Dumas in his work *La Tristesse et la Joie*, as exhibited by the subjects of circular insanity in the maniacal stage, the rapid flow of ideas, heightened sensibility, peripheral vaso-dilatation, cardiac acceleration, increased amplitude of respiratory movements, and, in general, the evidences of increased metabolism, with the almost exactly opposite picture presented by his (Dr. Mignard's) cases he comes to the conclusion that alongside of joy should be placed beatitude, both resulting directly from a lessened sense of inhibition, and alongside of anguish, stupor, both resulting from an increased sense of inhibition. As an explanation of pleasure, Dr. Mignard does not push this theory any further, probably agreeing with Ribot that the anatomical and physiological conditions of the genesis and transmission of pleasure are a *terra incognita*. Obviously the "peripheral" or "sensational" theory of James and Lange does not furnish a ready explanation of the phenomenon described by Dr. Mignard, any more than the various vascular, nutritive, and dynamogenic theories which have been advanced. The theory adopted by Dr. Mignard is, of course, not new; but as an extremely readable and in many parts suggestive work, describing in methodical fashion a frequently observed but little investigated phenomenon, and incidentally touching and elucidating many important points in the symptomatology of mental disease, this monograph may be cordially recommended.

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[5] *Le tronc coeliaque.* By Pierre Descomps. Paris: G. Steinheil, 1910. (Imp. 8vo, pp. 205. Fr 10.)

[6] *Applied Anatomy.* By G. G. Davis. Philadelphia and London: J. P. Lippincott Co. 1910. (Sup. roy. 8vo, pp. 640, illus. 630. 24s.)

[7] *La joie passive.* By Dr. M. Mignard. Preface by Professor G. Dumas, of the Sorbonne. Paris: Felix Alcan. 1909. (Cr. 8vo, pp. 288. Fr. 4.)

## DISEASES OF THE VERMIFORM APPENDIX.

DR. HOWARD A. KELLY has prepared a second edition of his work on *Appendicitis and Other Diseases of the Vermiform Appendix*,[8] which differs considerably from the first. It is a smaller work and more compact, and the author has aimed at presenting the subject in a practical manner to meet the needs of general surgeons. The book opens with an outline of the history of the disease which traces the records back to the year 1755; this is followed by a chapter on the anatomy, naked eye and microscopic, and into this chapter is brought an account of the diverticula of the intestine, chiefly of the true or Meckel's diverticulum.

The physiology of the appendix is also shortly discussed without throwing any new light on the subject. A beautifully illustrated chapter on the pathology particularly attracts attention. In only one aspect does it appear to us to be imperfect—that is, in regard to the chemical constitution of concretions; these latter are still looked upon as the result of desiccation of retained faecal particles, a view which is not in accordance with the latest observations. The morbid anatomy of the complications of the disease follows, and also that of specific inflammatory diseases, of tuberculosis, actinomycosis, and the lesions which are found in enteric and amoebic dysentery. Two-thirds of the volume are devoted to the clinical aspects of the disease.

In discussing the clinical phenomena Dr. Kelly points out very rightly that the all-important question which a practitioner has to ask himself, when first brought face to face with patients suffering from this disease, is: "Are the symptoms both general and local subsiding, are they becoming more severe, or are they apparently stationary?" On the settlement of these matters will depend the course of action. A particularly valuable chapter is that on appendicitis in childhood. The difficulties in diagnosis and the serious average type of the disease at this age are well known to every surgeon of experience. Early operation is even more important in the child than in the adult, so many cases at this age end in general peritonitis or successive abscess formation.

The operative treatment is described in great detail, both that of the simple disease and that of its various complications. The illustrations of the volume are those in the first edition with certain omissions corresponding with the smaller size of the book. We doubt whether finer illustrations are to be found in any textbook.

## CHEMISTRY.

DR. JAMES PHILIP, Assistant Professor of Chemistry in the Imperial College of Science and Technology, has earned our gratitude by writing a most readable and interesting little book on *Physical Chemistry in its Bearing on Biology and Medicine*.[9] The conceptions and methods of physical chemistry developed in recent years, are used daily more and more in attacking physiological and pathological problems, and are full of promise for the future. Students who desire to advance medical knowledge must master the underlying principles. Dr. Philip's book originated in a course of lectures delivered to biological students at the University of London. The use of mathematics has been avoided as far as possible, and the reader is assumed to have only an ordinary acquaintance with physics and chemistry. The application of physico-chemical principles are illustrated by well-chosen examples taken from the fields of biology, physiology, and medicine. The medical student, with the aid of this little book, will gain an excellent knowledge of the gas laws, of diffusion and osmosis, the ionic theory, the properties of colloids, adsorption, catalysis, and the action of enzymes, etc. Only the simplest mathematical equations are employed, and in every case the formulae used are illustrated by concrete experimental results, which make the principles clear to the non-mathematical mind. The study of the interaction of electrolytes in solution, of inorganic catalysts, whose activity so closely resemble that of enzymes, bring home to us the wonderful intricacy of the phenomena which pertain to watery solutions, and show that there is mystery in a drop of water no less than in a living cell. We can confidently recommend Dr. Philip's book to all those who are studying the problems of medicine; they will find it most helpful and suggestive.

The short *Manual of Practical Inorganic Chemistry*[10] by Mr. A. M. KILLAS belongs to the Oxford Medical Publications, and possesses some unique features. The illustrations are all new and very graphic. The author is a lecturer on chemistry at the Middlesex Hospital Medical School, and has published an *Introduction to Medical Chemistry*, of which the present work is an extension. The table of logarithms and antilogarithms is very useful and will save the reader much trouble in looking up tables of logarithms. We should like to have seen the "phase rule" mentioned. We are sure, as the author says in his preface, the book will not only aid the student but also lighten the work of the teacher. One point to which we would direct the author's attention is that in a future edition spectrum analysis should be mentioned.

In *New Reduction Methods in Volumetric Analysis*[11] E. KNECHT and E. HIBBERT have collected the published facts with regard to the use of titanium chloride in analytical work, both from their own original papers and those of other chemists. Potassium permanganate and several other oxidizers have long been in wide use for the volumetric determination of reducing substances, but there has been no corresponding method generally applicable for estimating oxidizers by means of a reducer. Titanium chloride seems likely to fill the vacancy, and in this monograph directions are given for estimating many substances, both inorganic and organic by its use. Dyestuffs which form colourless compounds on reduction form a considerable number of those for which the reagent is recommended.

## NOTES ON BOOKS.

THE pamphlet by Dr. T. L. LLEWELLYN on *First Aid in Collieries*[12] is intended for the assistance of ambulance men, and incidentally it suggests the economic importance to colliery owners of immediate skilled attention to what appears to be trivial injuries to workmen. Colliery proprietors are urged to interest themselves in the formation of ambulance brigades and to support them liberally, not only in their own interests but in that of the workmen. First-aid materials should be available as near the working places as possible, and the author suggests a form of first-aid box fitted with gauze, bandages, etc., which is at present in use at certain collieries. It is further advised that a receiving room should be provided near the pit shaft, furnished with hot and cold water, basins, lotions, blankets, etc., all ready for the use of the colliery surgeon. Brief but useful information is given to ambulance men on the subject of fractures, electric shocks, wounds, and burns, and there is a note on first aid in explosions.

The critic seldom appreciates the firmness and worth of his "prejudices" so fully as when he has read with enjoyment a book such as *The Religions and Philosophies of the East*,[13] by J. M. KENNEDY, in which hardly a sentence has earned intellectual assent. "Ad majorem Neitzchii gloriam." Mr. Kennedy has given a clear and readable account successively of Brahmanism, Krishnaism, Buddhism, Mohammedanism, Judaism, and the philosophies of India, China, and Japan, and also, by reflection, of Christianity, in the light of Nietzche's "will to power," as the measure of ethical value. He begins with the debateable Aryan hypothesis as foundation, and his "final word" is "Merely this—that the religion of men of inferior intellects must be prescribed for them by the higher order of men, and not, as is usually the case at present, vice versa."

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[8] *Appendicitis and Other Diseases of the Vermiform Appendix.* By Howard A. Kelly, M.D. Second edition. London and Philadelphia: J. B. Lippincott Co. (Sup. roy. 8vo, pp. 530; 215 figures; 3 coloured plates. 35s.)

[9] *Physical Chemistry: Its Bearing on Biology and Medicine.* By Dr. James C. Philip, M.A., Ph.D., D.Sc. London: E. Arnold. 1910. (Cr. 8vo, pp. 318. 7s. 6d.)

[10] London: H. Frowde, and Hodder and Stoughton. 1910. (Demy 8vo, pp. 355. 5s.)

[11] *New Reduction Methods in Volumetric Analysis.* A monograph by Edmund Knecht, Ph.D., M.Sc.Tech., F.I.C., and Eva Hibbert. London: Longmans, Green and Co. 1910. (Cr. 8vo, pp. 128. 3s.)

[12] *First Aid in Collieries.* By T. L. Llewellyn, M.D.Lond., B.S. The *Colliery Guardian*, 30, Furnival Street, Holborn, E.C. (Pp. 18. 1d.)

[13] *The Religions and Philosophies of the East.* By J. M. Kennedy. London: T. Werner Laurie. (Pp. xi, 276. 6s.)

The third volume of *International Clinics*[14] for 1910 contains articles on a wide variety of subjects, and, in addition to papers dealing with various medical, surgical, and gynaecological questions, there are several lectures devoted to general diagnosis and treatment. A book of this kind is essentially clinical, and the wide field of practical work which it covers ensures to every reader the discovery of one or more chapters dealing with disordered conditions of the human body in which he takes a personal and special interest. With one or two exceptions the contributors are all teachers in the American schools of medicine, and this collection of monographs may therefore be regarded as a reflex of the practice of the day in the hospitals of the United States. At the present time, when questions bearing upon the treatment of tuberculosis are very much in the air, the chapter by Dr. Joseph Walsh of Philadelphia on the treatment of advanced and acute cases of tuberculosis of the lungs will be read with special interest. He depends for his results upon fresh air, rest, nourishment, combined with inunction of europhen (an iodine compound), and general tonics, according to indications, administered internally. No reference is made to vaccines, or antiseptics, or any of the more recent methods of medication. In these days of experimental enthusiasm it is unusual to read a paper by an acknowledged authority in which they are not even mentioned. Has Dr. Walsh tried them and found them wanting? Or is he convinced from his observation either that they are not yet sufficiently proved to be trustworthy, or that they are totally unsuited for acute cases? The presentation of a series of desultory papers such as these quarterly volumes of *International Clinics* contain is undoubtedly of some use, but it is possible that more practical value would attend the publication of similar volumes of clinical lectures collected from more limited fields, say, from the medical schools of one country or of one city. To make any work international in the proper sense of the term would involve not only the collection enormous material, but the publication of many volumes in order to have it adequately representative. The Editorial Committee of this series of *International Clinics*, apart from its American members, can in no sense be called representative of any other country.

The edition of *Nisbet's Medical Directory for 1911*[15] has reached us this week. As is probably well known to most readers, it is arranged in two parts, the first consisting of a single alphabetical directory of medical practitioners, with their addresses and short particulars of their diplomas, the appointments they hold, and a mention of a book or paper which may be taken as some indication of the subjects in which they are specially interested. The second part is a local directory, in which the names of the practitioners are arranged under the places in which they reside. Among the merits claimed for the book are that it is handy, accurate, and concise, and these claims are, we think, justified.

Dr. A. M. KELLAS'S *Introduction to Practical Organic Chemistry*[16] is intended as a guide to laboratory work in this subject, and is suitable for those commencing the subject and desirous of proceeding in it about as far as is required for the Preliminary Scientific Examination of London University. The preparation of typical organic substances and their ultimate analysis, together with tests for the identification of those most commonly occurring, are dealt with in sections of the book, while two appendices are devoted to additional requirements for some examinations of the Board of Education and the London University. The work appears to be well planned and the directions adequate and well chosen. The book will probably prove useful to medical students for this portion of their curriculum.

[14] *International Clinics.* By Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U.S.A., and others. Vol. III. Twentieth Series, 1910. Philadelphia and London: J. P. Lippincott Company. 1910. (Royal 8vo, pp 317. Numerous plates and figures.)

[15] *Nisbet's Medical Directory, 1911.* London: James Nisbet and Co. (7s. 6d.)

[16] *Introduction to Practical Organic Chemistry, including Qualitative and Quantitative Analysis and Preparations.* By A. M Kellas, B Sc. Lond., Ph.D. Heidelberg. London: Henry Frowde, and Hodder and Stoughton 1910 (Cr. 8vo, pp 242, 50 illustrations. 5s 6d.)

THE late Dr. J. Frank Payne left estate valued at £15,285.

THE Fourth International Congress for the Amelioration of the Condition of the Blind is to be held at Cairo this month (20th to 25th). It is under the patronage of His Highness the Khedive. The General Secretary is His Excellency Dr. Eloui Pasha, 2, Zervudachi Street, Cairo.

## MEDICAL TREATMENT OF SCHOOL CHILDREN AT HOSPITALS.

### NORWICH.

THE annual meeting of the subscribers of the Norwich Eye Infirmary was largely occupied in discussing the position which has been brought about by the action of the Education Committee in desiring that cases of eye defects discovered in the course of the medical examination of school children should be treated at the Norwich Eye Infirmary, a matter to which reference was made in the JOURNAL of January 14th, page 103.

The financial statement submitted to the meeting showed that the income was £250 from subscriptions, £104 from donations, and £203 from investments. The year had begun with a balance due to the bank of £118, and this debt had been increased to £299. The annual report of the committee contained the following paragraph:

> The physical inspection and care of children in our public schools have revealed the fact that there are a large number of children requiring treatment for minor ophthalmic ailments. This necessarily increases the number of those who by subscribers' recommendations seek the aid of our charity, and we hope such arrangements will be made by the education authority as will meet the pressing need. This matter has been, and is, under the anxious consideration of your committee. Year by year we are increasingly indebted to our honorary medical staff for the unsparing devotion to the work they have undertaken.

Reference was made to a proposal to amalgamate the Eye Infirmary with the Norfolk and Norwich Hospital, and the Lord Mayor, in moving the adoption of the report, said that it was hoped to proceed with the matter so soon as certain details had been arranged with the Charity Commissioners. He also referred to the physical care of children whose eyesight was found to be defective. This, he said, was a question that was being met in all charitable medical institutions, but he thought that with a little forethought the difficulty might be overcome until the local authorities had made proper arrangements for themselves dealing with the children, as no doubt they would do in the course of time. In the meantime, there would be some difficulty, and charitable institutions would have to put up with them for the time being.

The medical officer's report contained the following passage referring to this matter:

> In our reports for the previous two years (1909 and 1908) your attention was drawn to children attending for treatment of minor ailments as the result of State medical inspection. Towards the end of the year under review it was found that yet another twelve months was passing without any satisfactory solution of the difficult question of the treatment of these school children, and that although the local education authority had made an arrangement directly with an ophthalmic surgeon to treat such cases as were sent him, and your Committee of Management had informed the Education authority that you were unanimously decided not to treat these cases, nevertheless school children continued to attend as the result of school medical inspection, for treatment of minor ophthalmic defects. Your medical staff, giving the matter their very full, careful, and anxious consideration, felt that although they had no difficulty in coping with the slight additional work which the treatment of these children entails, yet they could not disregard the considerations that the infirmary was established purely as a charity, and their positions as members of its medical staff honorary; and also further that the local education authority had made an arrangement directly with an ophthalmic surgeon to treat such children as were sent him. We felt therefore bound to continue loyal to the wishes of the Committee of Management, and support, so far as was in our power, their feelings in the matter as unanimously expressed in their resolution of May 19th, 1909—namely: "The Eye Infirmary being established purely as a charity, the committee are not prepared to treat cases sent by the Education Committee." Accordingly on October 24th, 1910, we handed in notice that after a reasonable time we should decline to see these school cases, both for the city and county. Having subsequently, however, ascertained that the county education authority was making real and earnest endeavours to arrive at a universally satisfactory solution of the question of the treatment of its children, we withdrew our notice so far as the county children were concerned, before it had come into force. In connexion with this matter your committee asked us to report on the question of the appointment of a paid clinical assistant. This subject has received our full and careful consideration, and a report on the whole question has been laid before your committee.

The report having been received, Mr. S. COZENS-HARDY moved the following addition to the rules: "That the

committee shall have power to appoint a clinical assistant." He said reference had been made to the treatment of children who had been inspected by the medical officer of the Education Committee, and it was thought that possibly a paid clinical assistant might enable the committee to bridge over the difficulty for the time being. Such a course as this had been adopted in Moorfields Hospital, London, where the education authority sent a large number of children.

Mr. S. H. BURTON said that the appointment of a paid clinical assistant meant subsidizing the hospital—that was to say, the hospital would be paid a certain amount to do the work of the Education Committee. The staff of the Eye Infirmary thought the work would be much better done if the Education Committee dealt directly with its own officers, and not through the medium of a charity. The education authority would then be perfectly free to choose its own man, to pay him as they thought fit, and to find rooms for him; but they could not do all this through the medium of a charity without creating a lot of difficulties in the way of administration. At Moorfields the plan had been tried, and the reports were only partly satisfactory. Again, the subsidizing of the hospital and the treatment of minor diseases had been refused by a good many hospitals throughout the country. He might quote Yarmouth, Lowestoft, and Taunton in the provinces, and "King's" and "Guy's" in London, which had tried the plan and had discontinued it. In the report which the medical staff of the Eye Infirmary had prepared and presented to the committee, they said:

"The staff think it their duty to state fully the considerations by which they have been led to this conclusion. In the first place, there is no necessity for the appointment of a paid clinical assistant for the ordinary work of the charity, with which the honorary medical staff are fully prepared to cope. Therefore such an expense could not properly be made a charge upon the ordinary funds of the institution. If it is to be met at all, it must be met by the funds obtained from the education authority, in consideration of treatment of patients whom they should have a right to send. Any such payment by the education authority out of the public funds at their disposal, derived from the rates and from Government grants, can obviously only be made for the purpose of defraying expenses legitimately chargeable to those public funds, that is, in the present case for the purpose of providing treatment for patients for whose treatment it must be assumed (from the mere fact of such a payment being made) that the education authority is recognized to be responsible. Thus the net effect of the whole arrangement would be to make the Eye Infirmary the agent of the education authority in employing medical officers at the expense of the authority to treat patients for whose care that authority was responsible. Such an arrangement appears to be, in the first place, foreign to the objects of the charity, and in the second place open to grave objections on practical administrative grounds. The object of the Eye Infirmary is to give medical care to suitable necessitous persons recommended by the private subscribers, and not to relieve the rates or other public funds, or to act as the agent of, or to enter into contracts with, public authorities, for the treatment of persons chargeable to public funds. In practice, the administrative working of such an arrangement would be complicated and irksome for those responsible for the work of the infirmary, and disadvantageous to all concerned. As illustrating these disadvantages, the staff would instance the possible case of complaint that a child referred by the education authority to the infirmary for treatment had not received proper attention. The education authority, in the discharge of its public responsibilities, would be obliged to investigate the justice of the complaint. Having no control over those by whom the treatment had been given—namely, members (or a member) of the staff of the Eye Infirmary—the education authority would be compelled to refer the matter to the committee of management of that institution, upon whom the duty of investigation would then devolve. The possibilities of friction, and the difficulties of every kind resulting from such a position, do not need elaboration. There might be some justification for the Eye Infirmary being asked to waive even the considerations above stated, and to accept the position with all its difficulties, if the education authority could show that no other means were open to it of securing proper treatment for the suffering and necessitous children, whose welfare must be the paramount desire of all concerned. The medical staff of the Eye Infirmary are second neither to the committee of management nor to the education authority in desiring that the best possible arrangements should be made for the prompt and efficient treatment of the children under consideration. But the staff are satisfied, both from their own study of the subject and from the inquiries they have made as to what is being done in other places, that the objects in view can be accomplished not only as well, but better, by the direct employment of medical practitioners by the education authority than by the use of the organization of medical charities for the purpose. The education authority have, indeed, already made some arrangement of the kind with a private practitioner in this city, and the Board of Education have sanctioned such arrangements in other places on an extensive scale. The proposal of the education authorities to utilize the charities simply arises from a not unnatural desire on their part to postpone as long as possible the necessity of creating an organization, under the sanction of the Board of Education, of their own. The apparent attractiveness of such a conception at first sight may be admitted, but on closer examination it will be seen to be unsound in principle and unworkable in practice; and in the interests primarily of the medical charities, but ultimately of the children themselves, and of all concerned, the sooner this is recognized the better. It may be suggested that such an arrangement with the education authority as is under consideration is comparable to the arrangements already made with the board of guardians. The staff are not convinced that the latter arrangement is free from objection, and in any event consider that even if the principle be the same the indefinite extension of it is most undesirable. While firmly convinced, on the above grounds, that the appointment of a paid clinical assistant is unnecessary and undesirable, and that no arrangement of a permanent character should be entered into by the Eye Infirmary with the education authority, the medical staff recognize that the latter body may not be able to make immediately the necessary provision in other ways; and the staff beg to assure the committee of management of their cordial co-operation in some definite arrangement which the committee might think it desirable to make for a fixed short period for the assistance of the education authority during the transition stage, so that the children may not suffer in the meantime. The staff think well also to advert to a suggestion which may possibly appear to the committee to be free from objection and may be regarded by the education authority as desirable on grounds of economy. That is, that possibly part of the premises of the Eye Infirmary might, in consideration of a rent to be paid by the education authority, be placed at the disposal of that body during one afternoon each week for the treatment of school children by a staff employed and paid by the authority. The rent would be devoted, of course, to the ordinary purposes of the charity, and the committee would consider whether the benefit thus derived by the charity compensated for such disadvantage, if any, as it suffered by being deprived of the use of the premises in question for the one afternoon. The infirmary would have no responsibility for the treatment given, its position in the matter being that purely of landlord."

Mr. COZENS-HARDY said that the suggestion of the amendment was to appoint a paid clinical assistant whose work would be confined to school cases, and it could be provided that such cases should be treated on one particular afternoon in the week, so as not to clash with the excellent work done by the honorary officers. At the present time the Eye Infirmary had subscriptions from twelve boards of guardians, but no difficulty in administration had arisen in consequence. The Secretary of the Moorfields Hospital had stated in reply to an inquiry that the difficulty related to the number of cases that attended on certain days.

Mr. BURTON was unable to accept this interpretation, holding that the secretary of Moorfields Hospital had informed Dr. Greene that the sending of children to the

hospital by the London County Council had raised many difficulties.

The motion was carried.

Mr. W. H. DAKIN, in moving a vote of thanks to the medical staff, said although they might have differences of opinion upon certain matters, there was but one opinion as to their great indebtedness to the honorary medical staff, who were constant in their attendance, and who rendered services which were very difficult to assess.

The motion having been carried, Mr. BURTON thanked the meeting and added that, as the governors knew perfectly well, the medical staff, like the governors, had at heart the interests of poor children who required assistance in their ophthalmic ailments, and although there were matters under discussion which had reached perhaps an acute stage, the medical staff wished the governors and the public to understand that they were perfectly willing to co-operate, so far as possible and as far as they could in accordance with the principles they had laid down for themselves with the solution of this knotty question.

## BRITISH MEDICAL BENEVOLENT FUND.

AT the January meeting of the committee 27 cases were considered and grants amounting to £209 made to 20 of the applicants. Appended is an abstract of the cases relieved:

1. Daughter, aged 59, of late M.R.C.S. No income; unable to earn a living on account of persistent ill-health. Recommended by Mr. C. E. A. MacLeod, F.R.C.S. Voted £12.

2. Widow, aged 47, of L.S.A. Husband's means exhausted by a long illness ending in death a few months ago, and the small sum obtained for the death vacancy practically all swallowed up by debts. Has taken a house and hopes to support herself by receiving boarders. Four children, all dependent. Recommended by Dr. Walter Broadbent. Voted £10.

3. Daughters, aged 62 and 60, of late M.R.C.S., L.S.A. Formerly teachers and now endeavouring to maintain themselves by a small boarding house, but have had a bad year. Recommended by Dr. J. Macfee. Voted £10.

4. M.B., C.M.Edin., aged 61. Incapacitated by hemiplegia; no income. Recommended by Dr. William Bruce. Voted £2, and to be further considered next month.

5. M.R.C.S., aged 63. Was obliged to retire three years ago owing to paralysis, and has supplemented a small annuity by the proceeds of the sale of practice, now exhausted. Recommended by Dr. J. Mitchell Bruce, Vice-President. Voted £10.

6. Widow, aged 50, of L.R.C.P.Edin. Since husband's death has supported herself by taking boarders, but has been compelled to contract some debts. Two sons unable to assist, and one daughter, delicate, who does the housework. Recommended by Dr. J. Bligh. Voted £12.

7. Daughter, aged 73, of late M.R.C.S. Supplements an income of £20 a year by needlework, but is becoming incapacitated by rheumatoid arthritis. Relieved twelve times, £113. Recommended by Mr. F. W. Way. Voted £12.

8. Widow, aged 40, of M.D., R.U.I. Income £25 a year. One child, 2 years old, which makes it extremely difficult for applicant to earn anything. Relieved once, £10. Recommended by Mr. J. R. Lownds. Voted £10.

9. Widow, aged 61, of M.R.C.S. No income; children only able to give very slight help. Relieved seven times, £72. Recommended by Mr. E. C. Barnes. Voted £12.

10. Widow, aged 57, of L.R.C.P.I. No income; unable to earn anything on account of a deformity. Children cannot help. Relieved seven times, £56. Recommended by Dr. C. W. Buckley. Voted £12.

11. M.R.C.S., aged 83. Only income a small Poor Law superannuation allowance. Children unable to help, and one still dependent. Relieved once, £12. Recommended by Dr. Henry Davy. Voted £12.

12. M.D.Edin., aged 69. Obliged to retire some years ago on account of ill-health, and has since lost all his means through a series of family misfortunes. Relieved once, £10. Recommended by Sir George Beatson, K.C.B., Honorary Local Secretary. Voted £10.

13. Daughter, aged 53, of late M.R.C.S. No income, eyesight defective, and can only earn a few shillings a week. Relieved once, £18. Recommended by Mr. W. M. Beaumont. Voted £18 to be shared with two afflicted sisters.

14. Widow, aged 56, of L.S.A. Only income a small pension; children cannot help. Relieved once, £12. Recommended by Mr. R. H. Luce, Honorary Local Secretary. Voted £5.

15. Daughter, aged 54, of late M.R.C.S. Keeps a boarding house, but is in temporary difficulties, owing to a couple of bad seasons. Relieved once, £10. Recommended by Mr. J. Jarvis. Voted £10.

16. Daughter, aged 59, of late M.R.C.S. For many years was a matron at a boys' school, but is now dependent on small earnings from music lessons and sewing. Relieved four times, £48. Recommended by Dr. C. J. Gibb. Voted £12.

17. Widow, aged 53, of M.R.C.S. No income, and is dependent on this fund and help given by relations. Children barely self-supporting. Relieved fifteen times, £174. Recommended by Dr. Charles Steele. Voted £5.

18. Daughter, aged 34, of late M.R.C.S. Trained as a nurse, but found herself unable to act as such owing to continued bad health, which necessitated three or four surgical operations. Now endeavours to support herself by making marmalade. Relieved six times, £53. Recommended by Dr. E. Hyla Greves. Voted £10.

19. L.R.C.P.Edin., aged 52. Used to have a good practice in London, but owing to continued ill-health is now penniless. He hopes shortly to get a ship's surgeoncy. Relieved once, £5. Recommended by Mr. J. Roche Lynch and Mr. H. W. Kiallmark. Voted £5.

20. Daughter of late M.D., who practised in Devonshire. Was comfortably provided for, but lost practically everything through the negligence of a trustee, and now endeavours to support herself by taking boarders. Relieved twice, £25. Voted £20.

Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole Street, W.

## LITERARY NOTES.

THE Umberto I Prize, the competition for which opened on January 1st, 1909, and ended on December 31st, 1909, has been awarded by a committee, consisting of Professor Alessandro Codivilla of Bologna, Professor Georges Kirmisson of Paris, and Professor Oscar Vulpius of Heidelberg, to Professor Wilhelm Schulthess of Zürich for his work, *Die Pathologie und Therapie der Rückgratsverkrümmungen.* The book was published by Fischer, of Jena, in 1906.

An announcement of special interest to surgeons is that of Messrs. W. B. Saunders Company that they will immediately publish *The Collected Papers* by Drs. W. J. and C. H. Mayo and their associates at St. Mary's Hospital, Rochester, U.S.A. The papers are profusely illustrated with original drawings showing the pathology and histology of the conditions considered and the technique employed in treatment.

In his recently published *Sketches and Snapshots*, Mr. George W. E. Russell gives an account of the discovery of the body of Charles I in one of the vaults under St. George's Chapel, Windsor, in which some injustice is done to the memory of the courtly physician, Sir Henry Halford, who was present, and by command of the Prince Regent drew up a report of the matter. Mr. Russell says:

That tractate I have just been reading, and side by side with it I set this curious paragraph from the memoir of Sir Henry Halford. After setting forth Sir Henry's professional eminence, enviable income, courtly manners, and splendid hospitality, the biographer adds a trait which must have proceeded from the jaundiced imagination of an unsuccessful rival: "It was said that he obtained possession of a portion of the fourth cerebral vertebra of Charles I, which had been cut through by the axe, and used to show it at his dinner-table as a curiosity." If this is true, I can only be thankful that Sir Henry died some years before I began dining out of London.

To this Mr. Russell adds the following postscript:

Yesterday afternoon "The Execution and Burial of King Charles the First" was the subject of an address delivered at the Royal United Service Institution by the Rev. Canon Sheppard, Sub-Dean of the Chapel Royal.

He described the execution of King Charles, and stated that the sanction of Parliament was obtained for the burial of the body in the Royal Chapel of St. George at Windsor Castle. In December, 1888, the present King, then Prince of Wales, sent for the then Dean of Windsor (Dr. Randall Davidson), and, showing him a small ebony casket, informed him that it contained relics believed to be part of the body of Charles I. It would appear that Sir Henry Halford, the physician to King George, had removed from the coffin, when it was exhumed in 1813, a portion of the vertebrae, cut transversely, a portion of auburn coloured hair, and a tooth. The Prince of Wales expressed his wish that they should be returned to the tomb, and, Queen Victoria's consent having been obtained, this was effected on December 13th, 1888. A square aperture was cut in the centre of the coffin, and at 7 p.m. the Prince of Wales, in the presence of the dean, two canons, and the surveyor, carefully placed in it the casket containing the historic relics.—*Daily News*, February 18th, 1909

What we take to be the true version of the facts is given by Munk in his *Life of Sir Henry Halford* (London, 1895, p. 61). After quoting the essential parts of Halford's narrative, he goes on to say:

It was found after the coffin of King Charles had been soldered up, that the portion of the vertebra which had been cut through, had separated from the neck, and had fallen aside unnoticed, and so had escaped restoration to the coffin. It was not deemed necessary by the Prince Regent that the coffin should be again opened to replace the bone, which his Royal Highness then, with several kind expressions, presented to Sir Henry Halford as a memorial of the poor king himself, and as a mark of his own esteem for him.

Sir Henry, who valued the relic very highly, had a case carved of lignum vitae lined with gold and a fitting Latin

inscription inside the lid, in which he placed it, and in which it was scrupulously kept so long as it remained in the Halford family. It was shown at times to persons curious about it, and its existence in Sir Henry's possession thus became known and was somewhat severely commented on. The present representative of the famiy, Sir Henry St. John Halford, to whom it had descended, not feeling quite at ease in its possession and custody, sought an interview with H.R.H. the Prince of Wales and restored it to his hands. His Royal Highness has, it is understood, returned it to the vault and deposited it in its case on the coffin of Charles I, where it now reposes.

This took place on April 1st, 1813. Reference to the finding of the body of Charles I is also made by Mr. Lionel A. Tollemache in his *Old and Odd Memories* (London, 1908). The coffin containing the body of the "White King" had apparently been hastily pushed into the vault where reposed the remains of Henry VIII. The incident was made the subject of the following epigram:

> Scarce worth an epitaph from Tate or Quarles
> See heartless Henry lies by headless Charles.
> Between them stands another sceptred thing,
> It lives, it moves, in all but name—a king.
> Charles to his people, Henry to his wife,
> In him the double tyrant starts to life.
> Justice and Death have mixed their dust in vain;
> The royal vampires join to breathe again.
> What now do tombs avail, since these disgorge
> The blood and dirt of both to mould a George?

Of course the allusion is to George IV, then Prince Regent, against whom party feeling ran high at the time. Mr. Tollemache says his informant spoke of these lines as being by "Lord Byron or somebody," and adds that he had since learnt that they are really by Byron. There are certain *variae lectiones* of the first couplet. One version is:

> Famed for contemptuous breach of sacred ties,
> By headless Charles see heartless Henry lies.

Another is:

> Famed for their civil and domestic quarrels,
> See heartless Henry lies by headless Charles.

Mr. Tollemache mentions that Greville reports the fact of the discovery of the bodies of the two kings as follows:

> Sir Henry Halford gave me an account of his discovery of the head of Charles I in St. George's Chapel, Windsor, to which he was directed by Wood's account in the *Athenae Oxonienses*. He says that they also found the coffin of Henry VIII, but that the air had penetrated and the body had been reduced to a skeleton. By the side was Jane Seymour's coffin untouched, and he has no doubt her body is perfect. By degrees we may visit the whole line of Tudors and Plantagenets and see if those famous old creatures were like their effigies. He says Charles's head was exactly as Vandyke had painted him.

Mr. Tollemache goes on:

> This was written in 1831; and it is curious that Greville, who was in the centre of London gossip, heard then for the first time of the disinterment which must have taken place at least eleven [really eighteen] years earlier, and that he makes no mention of the Prince Regent or of the satire.

It is scarcely conceivable that so busy a quidnunc as Greville should not have heard of the exhibition of the royal relic, the thought of which makes Mr. Russell's gorge rise, if Halford had used it as an ornament of his dinner table.

What we think may be described as another myth about Halford is related by Grant Duff in his *Notes from a Diary, 1896–1901*, where he says:

> The Dean (Milman) had the authority of one of the three people who were playing whist with him for the last words of Sir Henry Halford. As they finished their second game the old man said: "Now for the conqueror!" and fell back dead.

According to Munk, Halford was fond of whist and there were few days on which he did not get a rubber, mostly at his club—the United University—in the evening and after his dinner. Perhaps, says his biographer, in so doing he was acting on the sage counsel he once gave to a patient: "If you wish to preserve your eyes never read by candle light anything smaller than the ace of clubs." But it is unlikely that he died at the card table. For months before his death he was a martyr to tic douloureux, and in addition to the pains and want of sleep caused by the disease, "the powers of the stomach gave way; emaciation and debility progressively increased, and notwithstanding every effort on the part of his medical attendants to support him, he expired in a state of extreme exhaustion at his house in Curzon Street on the 9th of March, 1844, aged seventy-seven."

# THE NORFOLK AND NORWICH HOSPITAL.

ONE of the last public acts performed by His late Majesty King Edward VII was the laying of the foundation stone of a new block of wards at the Norfolk and Norwich Hospital, on October 25th, 1909. This block was formally opened by the Dowager Countess of Leicester on February 9th, and the wards are henceforth to be known as the King Edward VII Wards." The King Edward Memorial Committee of the County of Norfolk, when considering what form their memorial should take, decided very appropriately to endow these wards; and at the ceremony on Thursday last the Chairman of the Memorial Committee, Dr. E. E. Blyth, LL.D., handed over to the President of the Hospital, the Earl of Leicester, a cheque for £5,000 for this purpose. In addition, a bronze bust of His late Majesty, executed by Mr. Albert Bruce-Joy, will be placed in the front hall of the hospital.

Front elevation of New Wing.

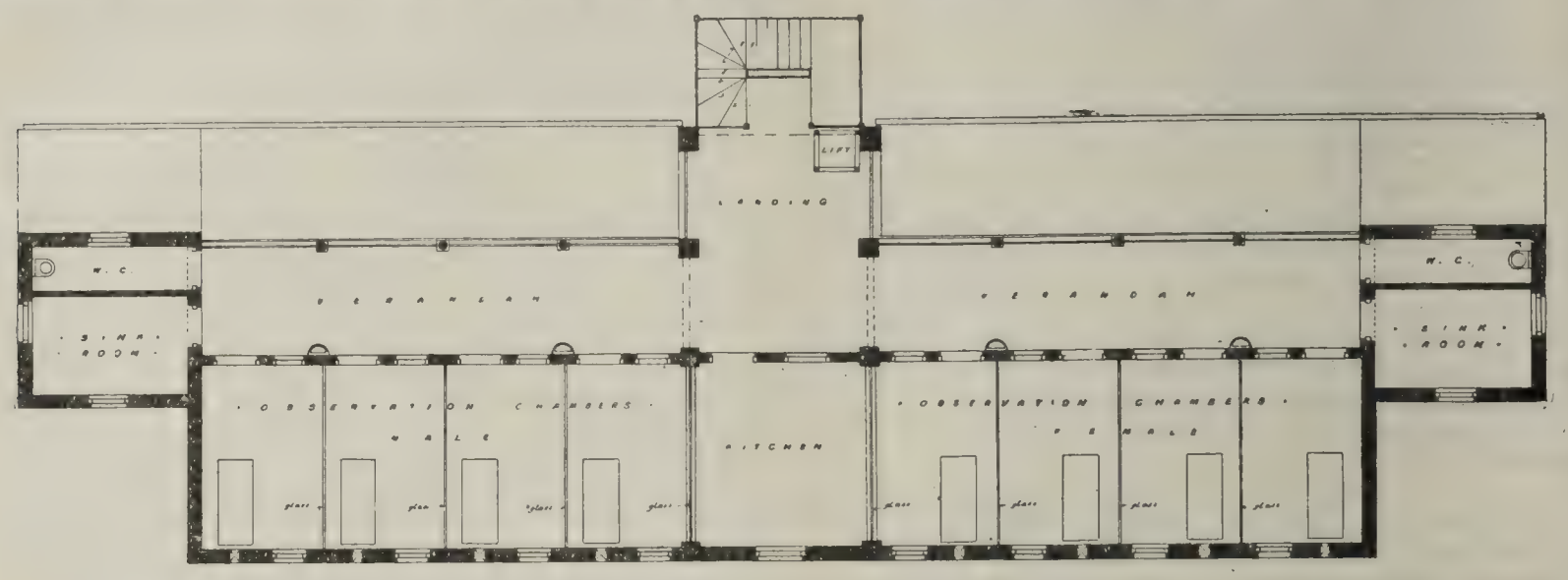
The new wards have been provided for septic cases and for such cases of any of the infectious diseases as may from time to time occur in the general wards of the hospital.

With this end in view, nothing has been wasted upon architectural or other ornamentation; the new block is a plain building, designed to meet the requirements for which it is intended. It is built of red bricks, and roofed with hand-made tiles; in the interior all angles have been rounded off, and every possible means taken to avoid catch places for dust. The floors are solid and fireproof, tubular lintels being inserted in the coke breeze concrete to deaden the sound. Artificial heating is effected by radiators, which are connected up with the existing low-pressure hot-water system of the hospital; the ventilation is natural, being obtained by a cross-current of air from opposite windows, which extend upwards to within 6 in. of the ceiling; below, they are sashes, and above, hoppers, to let down inwards. Artificial lighting is by elctricity.

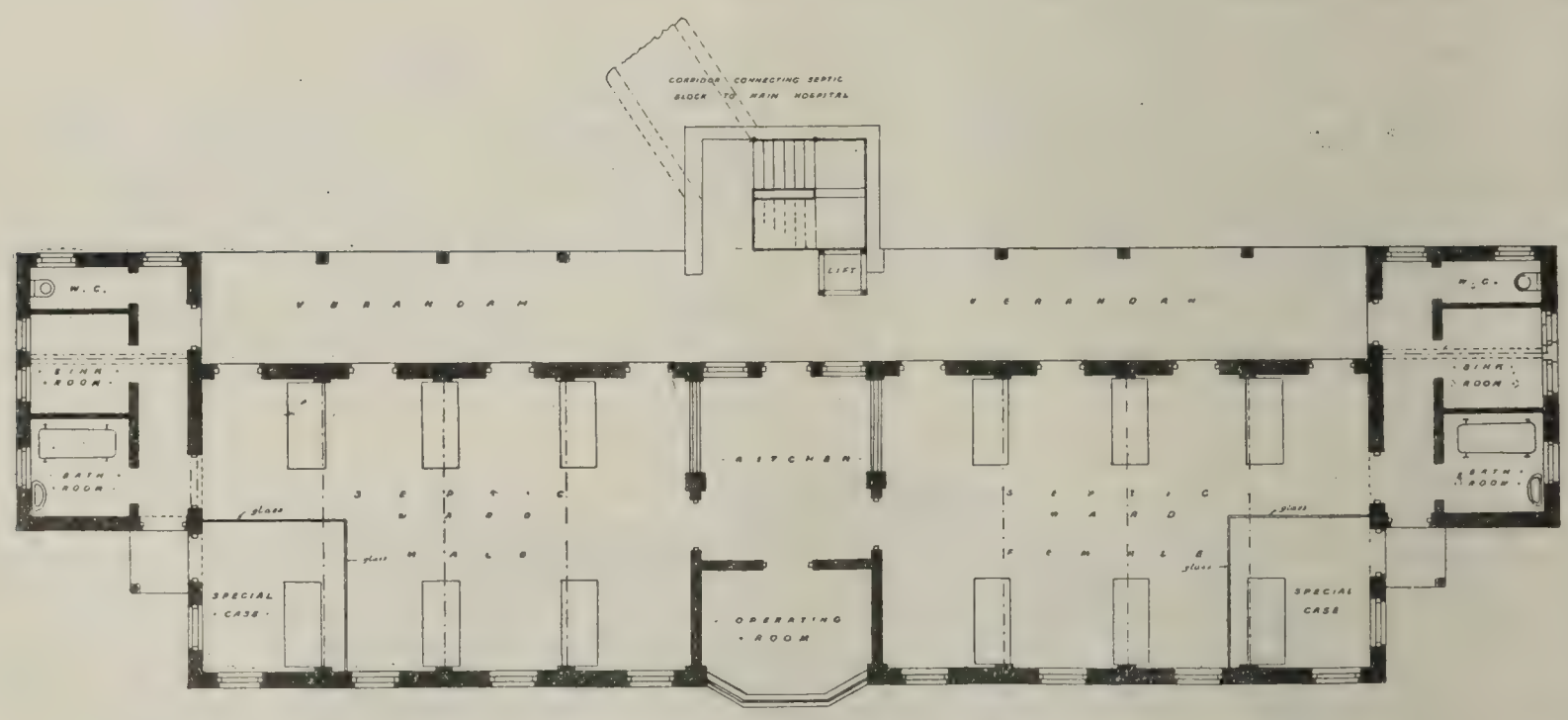
As will be seen from the accompanying plans, the ground floor consists of two wards; these are intended for septic cases. Each ward is 40 ft. long, 24 ft. broad, and 12 ft. high, and contains 6 beds. There is thus just under 2,000 cubic feet of air space allowed to each bed. A cubicle, 12 ft. by 12 ft., is taken out of each ward by air-tight plate-glass partitions, and the bed in this cubicle will be reserved for any exceptionally virulent case. The floors of these two wards are covered with linoleum, which has been chosen because of its cheapness as compared with other forms of flooring, and because experience has

shown that the best quality of linoleum constitutes practically an impervious surface, has a life of several years, and can be very easily replaced. The walls and ceilings in these wards, as elsewhere in the building, unless otherwise stated, are painted with an enamel paint. At the end of each ward, but disconnected by an air space, are the offices, consisting of a lavatory, sink-room, and bathroom. The flooring of these is terazzo-mosaic, and the walls are lined with crystopal tiles.

Between the two wards are the kitchen and operating theatre. From the former the wards are separated by plate-glass partitions, so that one nurse can control both wards from it, and such limited cooking as will be necessary for the nurse to do will be done over a gas stove in the kitchen. The operating theatre faces the north and has a good top light. The floor is terazzo-mosaic, and the walls are lined by crystopal tiles. Running the whole




FIRST FLOOR PLAN




GROUND FLOOR PLAN

length of these lower wards is a glass-roofed verandah 9 ft. wide.

The observation wards on the first floor are reached by an outside iron and concrete staircase, and are thus entirely cut off from the wards below. In designing these the architect was instructed to provide accommodation for several different infectious diseases, and such as could be easily and quickly disinfected, and so utilized again if necessary, perhaps, for some different disease. The result has been as near perfection as it is possible to attain at the present time.

The observation wards are cut up into eight separate cubicles, each 15 × 10 × 11 ft., separated from each other by airtight plate-glass screens, so that a nurse can command the whole eight from the central kitchen.

Each cubicle is entered from the outside covered verandah. The doors, as elsewhere throughout the building, are of oiled teak, and were specially designed. When re oiling becomes necessary this can always be done by the nurse. The ventilation of the cubicles is a natural cross-ventilation, and each is heated by its own radiator. The floors on this first floor are all of terazzo-mosaic, which is carried up the walls for about 1 ft. as a dado, where it meets the enamel paint. The offices to this floor are similar to those below, except that a bath-room has been deemed unnecessary, and has not been provided. A movable bath will be wheeled to the cubicles by the nurse, as required. The outside verandah is 9 ft. wide, and will thus take a bed crosswise. It is glazed with a special form of glazing.

On the second floor there is accommodation for three nurses, with bath-room and w.c.

The building is connected with the administrative block of the hospital by a subway, which will be used for the conveyance of food, etc., and the floors are connected to the subway by an outside hand-lift.

When providing isolation accommodation for a general hospital it becomes necessary to do this in as economical a manner as is possible, especially as regards space and nursing requirements, and it would seem that a building constructed on the above principles fulfils the conditions better, perhaps, than any other. Experience has shown that if ordinary precautions are taken one nurse can look after several patients without conveying infection from one to the other, though each may be suffering from a different infectious disease.

The contract for the building was £5,856, and the architects are Messrs. Edward Boardman and Son of Norwich, in conjunction with Mr. H. Percy Adams of London as consulting architect.

# British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1911.


## MEDICAL MEN AND INSURANCE AGAINST SICKNESS.

INVALIDITY insurance is much talked about at present, but it would seem that very many medical men are not aware of the exceptional position in which they stand, or may stand, in this important matter. Therefore we venture to say a few words about the Medical Sickness and Accident Society.

The foundation of the "Medical Sickness, Annuity, and Life Assurance Society" was one of the most beneficent achievements of the late Mr. Ernest Hart, and its success is one of the best testimonies to his sound judgement and practical ability. We have quoted above its full title, when it was founded and registered under the Friendly Societies Act. This registration, although in many ways conducing to the stability and economical management of the society, yet so restricted the sums which it was empowered to grant in annuities or in sums payable at death, that a few years' experience convinced the committee that in these two branches of business it could not compete, and ought not to try to compete, with the large old-established insurance companies.

But in the insurance against sickness and accident the matter is very different. A medical man can insure himself payment while he is laid aside from work at a cost of, speaking roughly, about two-thirds of what it will cost him in any other society. This seems not generally known, for while there are about 40,000 names in the *Medical Directory*, those insured against sickness with the Medical Sickness and Accident Society number less than 3,000. There are several peculiarities which enable this society to be run at much less cost than any other. One is that it is managed by medical men, who realize that they are acting on behalf of their brethren who are unfortunate and therefore give their time without pecuniary reward. The society has to pay no directors' fees. In the case of the societies which lay themselves out for the business of sick insurance of the general public, one of the heaviest expenses is due to the necessity of getting trustworthy and independent medical reports as to the nature and duration of the illness for which sick pay is claimed—for there are only too many people willing to draw sick pay for inadequate reasons. Activity is a joy to a healthy man: and, in a sense, any man who finds no pleasure in work may be said to be unhealthy. "To rejoice in his labour: this is the gift of God." [1]

The Medical Sickness Society has members in every town, and within reach of every village, and from them it can get without fee independent reports of any case in which the committee may think the information before them inadequate. It should be borne in mind, also, that the recognition of sickness claims, and the interpretation and appraisement of medical certificates, is essentially a medical matter, concerning which a committee of medical men are far less likely to make mistakes than a committee of laymen, however able as business men the latter may be. We think we may also confidently say that the judgement of a board of medical men upon the health of one of their brethren is not only more intelligent, but more sympathetic than that of an ordinary business man. What may seem to the man in the street prodigal generosity with other people's money, may yet be prudent economy considered in the light of medical knowledge. A few weeks of rest and change in a case of nervous breakdown, a change of climate in a case of persistent bronchial catarrh, may prevent months or years of incapacity from neurasthenia, or the development of progressive pulmonary disease. The Medical Sickness and Accident Society differs, moreover, from all its competitors in that it alone gives practically unlimited benefit in cases of chronic disease. It gives full pay for six months, and then half pay until the age of 65. Other societies limit their half pay to a year.

In the above paragraph what is the great strength of the Medical Sickness Society has been pointed out—its comparative immunity from fraudulent claims. The only societies which can be in this respect compared with it are the great working men's friendly societies, such as the Foresters, Oddfellows, etc., and they are secured from fraud by being split up into local courts or lodges, all the members of which know one another, and know that a fraud by one member is to the injury of all; so that a fraudulent claim is not likely to be long undetected. But these societies only offer such small sums in sick benefit that they are not much use to medical men.

We are told that "invalidity insurance" is to be provided out of public funds, but no Government legislation will provide adequate invalidity insurance for medical men. They must do it for themselves. And they have in the Medical Sickness and Accident Society [2] an institution by which they can assure themselves against invalidity which is as safe as any that exists, which costs them less, and treats them with greater consideration. If a long life of good health leads to a man's giving and not receiving, he has the consoling reflection that he has contributed to relieving the needs of his less fortunate brethren and not to swelling the pockets of shareholders.

[1] Ecclesiastes, v, 19.

## WHAT IS HYSTERIA?

ACCORDING to the classical conception of hysteria, now undergoing dissection if not dismemberment at the hands of many modern critics, this protean disorder is characterized by two orders of symptoms. These are, first, the hysterical stigmata, regarded as fundamental and pathognomonic of the hysterical constitution; and, secondly, the formal symptoms of the attack, of whatever kind, or what Dr. Hartenberg, in the introduction to an excellent little book on hysteria and the hysterical,[3] calls the "accidents." Among the former are the various anaesthesias (cutaneous, visual, etc.), motor disorders (amyosthenia, catalepsy, etc.), and the psychic stigmata (amnesia, aboulia, etc.), and among the latter a veritable multitude of dissimilar manifestations,

[2] Prospectuses and further particulars can be obtained on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

[3] *L'Hystérie et les hystériques.* By Dr. P. rtenberg. Paris Felix Alcan. 1910. (Cr. 8vo, pp. 284. Fr. 3.50.)

crises, spasms, tics, algias, phagias, and phobias too numerous to mention. Notwithstanding the striking dissimilarity of these "accidental" symptoms, the detection in patients exhibiting a widely disparate symptomatology of the hysterical stigmata has sufficed, Hartenberg says, during a quarter of a century to endow a miscellaneous collection with the title of a morbid entity. Bernheim of Nancy long ago maintained that the classical stages of a hysterical crisis, as described by Charcot and his following at the Salpêtrière, were artefacts, and that hysteria was only an assemblage of disparate symptoms; but it was not till Babinski, in 1901, drew the attention of the neurological world to this matter by his energetic destructive analysis of hysteria as a clinical category, and his demonstration that the various hysterical stigmata were either autosuggested or suggested to the patients by the doctor, that Bernheim's teaching has been widely and authoritatively supported.

Hartenberg espouses these later views and defends them from his personal experience, extending over fifteen years, of the hysterical, and arrives at the conclusion that the classical conception of hysteria, as a neurosis depending upon the functional perturbation of nervous centres, is no longer tenable. In particular, the stigmata considered to be of fundamental importance, such as anaesthesias, dyschromatopsia, amyosthenia, contractures, etc., instead of being fixed, are modifiable at will, and produced most often under medical influence. He has never found among the exaggerated or abnormal emotional reactions, including the *crise de nerfs*, any sufficing clinical concomitance or common pathogeny, to warrant their inclusion within a special category. The morbid character of the crisis is not inherent in the phenomenon but in the mentality of the subject. As to the other emotional reactions—vasomotor, thermic, cutaneous, etc.—he argues that the fact that they are occasionally exhibited by nervous and impressionable subjects who, however, present no other symptoms of hysteria, divests them of any particular significance, except that of being emotional phenomena or epiphenomena. He denies any particular value to the autosuggestive accidents, suggestibility being a normal property of the human mind. Otherwise, he says, we should all be hysterical. The sole group of symptoms to which he admits a morbid element is that of the psychic disorders, the somnambulisms, delusions, hallucinations, and so on, and he thus arrives at the conception of hysteria, not as a group of symptoms but as a mental disposition whose particular quality is "an exaggeration of the plastic imagination" or "hyper-imagination."

Frankly, however, this "exaggeration of the plastic imagination," even though the term was coined by so distinguished a psychologist as Ribot, does not carry one much further. Hartenberg refers mental images and representations to "physiological phenomena of the brain, determined by circulatory variations, nervous vibrations, and molecular disintegrations," and on the strength of this casual reference denies that he bases the mental disposition to hysteria "upon abstract phenomena, in space, without any material substratum"; but in truth this is precisely what he does do. Probably even those who disagree with him will prefer his earlier statement: "All that is perversity is moral degenerescence: All that is fabulation is hysteria." For this dictum is at any rate concrete and comprehensible. Like many others Hartenberg is stronger in destructive criticism than in constructive effort. He tells us what hysteria is not, but he is less successful in defining its true nature and pathology.

## THE LANNELONGUE PRIZE.

LAST year, as we announced at the time,[1] Professor Lannelongue, of Paris, intimated to the Paris Société de Chirurgie his intention of founding an international prize consisting of a gold medal carrying with it a sum of £200, to be awarded to the person who had contributed most to the progress of surgery in the ten years before the date of award. The prize is open to surgeons of all nations, and is awarded every five years during the annual meeting of the Société de Chirurgie. The Committee is composed of surgeons of various nationalities, grouped as follows: The United Kingdom; Germany; Austria-Hungary and the Balkan States; Belgium; Holland and Scandinavia; Spain, Portugal and Mexico; the United States and Canada; South America; and Japan and China. At the meeting of the society on January 19th the first award of the prize was made, the honour falling to Sir Victor Horsley. In receiving the prize from the hands of the President, Sir Victor Horsley said: "I am grateful for the honour you have done me in awarding to me for the first time the Lannelongue Prize, and I thank you for it. In order to pay my debt I wish to say a few words. After having followed during many years the direction given to it by John Hunter, English medicine came under the influence of a great French scientist, Claude Bernard, who showed the association of surgery with physiology. That is what I have striven to realize. Unfortunately, if surgical science advances with fair rapidity, its practice progresses more slowly. This is because we are held in bondage by traditions from which we have difficulty in freeing ourselves. M. Lannelongue has been my liberator; he showed that the skull was not a Pandora's box, and that the opening of it was not so dangerous as was believed. It is his boldness that inspired me; therefore I am happy to pay here the tribute of my gratitude." We are sure that the profession throughout the world will ratify the judgement of the international committee which has awarded the prize, and that Sir Victor Horsley's fellow-countrymen will join with us in expressing satisfaction that an English surgeon has been chosen as the first recipient, and in congratulating him on the honour which has been bestowed on him by his professional peers.

## THE WEST RIDING MEMORIAL TO KING EDWARD.

IN the West Riding of Yorkshire it has been resolved that the fund raised to perpetuate the memory of King Edward VII shall be devoted to the benefit of the hospitals of the Riding. Appeals are being issued on behalf of the Leeds General Infirmary and the Bradford Infirmary for gifts to enlarge or rebuild these institutions, and it has been arranged that contributors to the memorial may indicate their desire that their gifts shall be devoted to one or other hospital. Some particulars of the requirements of these two hospitals have been supplied by our correspondents in Leeds and Bradford respectively, and will be found in another column. It will be seen that Bradford is committed to rebuild its infirmary at the cost of £150,000, and that towards this sum nearly £80,000 have been received. At Leeds the sum of £56,000, already promised to Mr. Charles Lupton, the treasurer and chairman of the board of management,

[1] BRITISH MEDICAL JOURNAL, April 16th, 1910, p. 968.

has become part of the King Edward VII Memorial Fund, and by recent donations the amount thus allocated to the Leeds Infirmary has been raised to nearly £70,000. In the West Riding, and, indeed, beyond its borders, in the East and North Ridings, the Leeds Infirmary is a household word. Like a good many other hospitals, it was established a little less than a century and a half ago, at the time when the public conscience was being aroused to the need for hospital accommodation for persons unable to provide indoor treatment for themselves. At Leeds the infirmary began in a small way in a hired private house in 1767. From the first the duty of educating medical students was recognized to be one which a hospital should discharge. Mr. William Hey, who was appointed one of the surgeons to the hospital at its foundation, encouraged pupils, and it was in 1831, when another William Hey was surgeon to the infirmary, the third member of the family to hold that position, that the Leeds Medical School was founded. By 1860 the necessity for a larger and better equipped hospital had come to be recognized, and it was resolved to erect an entirely new hospital on a new site rather than add to the old buildings; the foundation stone was laid in 1864, and about four years later the new building was opened by the then Prince of Wales, afterwards King Edward VII. Many additions have since been made, the chief in 1892, when 125 beds were added and new out-patient, pathological, and isolation departments provided. Since then new operating theatres have been built and the accommodation indirectly increased by the Ida and Robert Arthington Homes with 88 beds for semi-convalescent patients; altogether over a quarter of a million has been expended on the new hospital. But our correspondent enumerates a number of improvements and additions which are now urgently required. When the hospital was completed some forty years ago it was recognized as one of the best designed and administered in the kingdom, and these additions will again make it correspond with all the requirements of the day. But as with a university so with a hospital: the reputation in which it is held depends quite as much, if not more, upon the men serving it than on the excellence of its appliances. For over eighty years there has been a medical school in Leeds which has steadily grown in importance. It now forms the Medical Faculty of the University of Leeds, and in Leeds, as in some other university centres, the medical school was the origin and nurse of the larger institution. The fame of the Leeds Medical School and the Leeds Infirmary attracted students from all parts of the North of England, and the eminence of its physicians and surgeons has attracted and is still attracting from all parts of the world those older students who recognize that a physician or surgeon, if he is not to deteriorate, must be always learning. The reputation which has been won for the Leeds Infirmary by those who have served it, whether as lay administrators or medical or surgical officers, has for generations brought to its door the sufferers from all parts of the West Riding, and as we have said, indeed, from many parts of the other two Ridings. Remembering its long and honourable career, remembering, too, its character as a teaching centre, and the important part which it forms of the University of Leeds, it may well be thought that many donors to the King Edward VII Memorial Fund who have no special local associations will think it well to support this great county institution. Apart from the direct benefits, the benefits it is able to confer directly upon its patients, men of public spirit who have a wide outlook will recognize that as an educational instrument it is worthy of the support of loyal Yorkshiremen, and it may be hoped that many who may wish to give to some local charity in which they are particularly interested will see fit to double their donations, giving one moiety to the more central institution.

## ISLE OF WIGHT COUNTY MEDICAL OFFICER OF HEALTH.

IT will be remembered that in the BRITISH MEDICAL JOURNAL of October 15th, 1910, p. 1174, we felt it necessary, in the interest both of the public and of the medical profession, to comment adversely upon a proposal by the Isle of Wight County Council to fix the salary of a county medical officer, including the appointment of schools medical officer, at £500 per annum, inclusive of travelling and other expenses. The joint salary had been pronounced by a member of the council, when the matter was being discussed at the meeting, as "princely," and the dual appointment was offered to Dr. Gibson, who would have been, as to the appointments he then held, had he accepted the offer, at a loss of £200 a year. Dr. Gibson, it will be noted, held the offices of schools medical officer and medical officer of health to the Rural District Council; but it was proposed to combine the former appointment with a new office—that of county medical officer—and Dr. Gibson would have had to retire from the position of rural district medical officer. The resolution and decision of the council naturally met with a considerable amount of opposition from the medical practitioners in the island, who felt that the arduous and responsible duties which would have fallen to the lot of the elected officer would not have even been reasonably compensated by the small salary offered. A letter of protest was forwarded to the chairman of the council after a meeting of the local profession had been held, and this letter in a most temperate manner presented the views of the meeting as to the duties involved, the necessary skilled qualifications required for the proper carrying out of the work of the dual appointment, and suggestions as to the minimum salary which should be offered. It was pointed out that "skilled work cannot be obtained in any business without adequate remuneration, and work poorly paid for is, generally speaking, badly done"; and that "the question of remuneration must be looked upon as a purely business transaction, and as a principle which is vital to the interest of the medical profession and the public generally." The fact that the whole profession in the island was unanimous on the question, and that it was felt that a grave injustice was being done to Dr. Gibson, was clearly expressed in the letter, and the council was requested to reconsider, in the best interest of the island, the decision at which they had arrived. The letter was signed by the Honorary Secretary of the Isle of Wight Division of the British Medical Association, and in addition the names of those present were appended to it. The date of the letter was October 26th, 1910, and we believe copies were sent to all the members of the council, and that it was also published in the local press. To this letter, as far as we are aware, there was only a formal reply; but the matter of the appointment was referred to a joint committee, and at the County Council meeting held on December 17th it was announced that there was a failure of agreement, and a request was made for a month's adjournment. The next meeting of the council would fall on March 14th, and it was presumed that no further steps would have been taken until after that date. This was not the case, however, and on January 12th an advertisement was issued offering the appointments of county medical officer and schools medical officer at a salary of £500

per annum. This shows that the dignified protest of the profession was, even if it has been considered, of no effect. The advertisement was sent for insertion to the *Lancet* and the BRITISH MEDICAL JOURNAL, but was, in view of the strong expression of local professional opinion, of course declined, and following upon its appearance in lay papers the appointments were scheduled in the Warning Notices of the Association. The position, therefore, is that, in spite even of disagreement of the County Council, and in spite of the unanimous protest of the local members of the medical profession, the inadequate remuneration for the dual appointments is unaltered. It remains now for the admirable spirit of the local members of the profession to be emulated by those outside the area of the island, and for these absolutely to decline to enter as candidates for the appointments until reasonable and fair remuneration is offered, and we have good reason for saying that many estimable candidates have refrained from applying on learning the opinion of the local profession. The want of public spirit shown by the County Council in endeavouring to lower the dignity of one of the most important appointments in its gift must be strongly condemned; and the best way in which the medical profession can express condemnation will be to decline to send in a single application. Want of union amongst medical men is the opportunity of pettifogging economists; this has been proved in many instances, but in this case we venture to assert that there will be absolute unity, and that the County Council will be brought to a sense of the futility of its attempt to buy scientific attainments of a high order at a rate which any one of experience must know to be inadequate. The ratepayers of the Isle of Wight will also, we hope, realize that in fighting this battle we are not acting selfishly for mere pecuniary gain. The health of the island is a most important factor to the well-being, and even the livelihood, of the inhabitants; it is imperative that the office of medical officer of health be held by a man of sound knowledge and high professional skill if the work is to be done properly and in the interests of all classes of the community. By refusing to offer a reasonable salary the council, if it secure any candidates at all, will disastrously limit its field of choice and its chances of securing one eminently fitted to the work will become infinitesimal. The right course for the council to adopt will be to withdraw the advertisement at once, and to offer to Dr. Gibson, who has done such valuable work in the island, and who has met with such scant reward, a salary commensurate with the position.

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## THE NOTIFICATION OF BIRTHS ACT.

IT appears that an attempt is again being made to induce the Manchester Town Council to adopt the Early Notification of Births Act. Several years ago when the question came before the council, practically the whole of the local medical profession was strenuously opposed to the proposal to adopt the Act, and the proposal was defeated in the council. It is quite certain that the opposition will be as strong as ever, and, indeed, inquiries show that there is considerable probability that the opposition will be carried to the extreme of a passive refusal on the part of general practitioners to notify births unless a proper fee is paid for each notification. The general opinion in the profession is that the public health would not suffer in the least if the whole burden of notification were placed on the parents, as it naturally ought to be. It is said that the Sanitary Committee would be quite willing to pay a proper fee for each notification by a medical man, and that the committee may ask permission of the Local Government Board to pay such a fee if the Act is adopted. But no grounds exist for believing that any such permission will be granted, and, at any rate, judging from the strong expressions that are being used all over the district, general practitioners are not in the least inclined to take it on trust. Nor is the absence of a fee the only ground for opposition; as was stated when the subject came up before, there are numerous cases in which it would involve a distinct breach of professional secrecy for a medical attendant to notify a birth that he had attended, and no law could morally justify him in any such violation of his duty. So strong, indeed, is the opposition on this ground alone that it is practically certain that the Act would be a complete failure in Manchester so far as it depended on medical practitioners. One good effect only would it have—it would unite the profession as few other subjects have united it against any similar proposals to exploit it, such as are involved in the Death Certification Bill of last session of Parliament and several other matters threatening in Manchester at the present moment. There would seem to be an idea in certain quarters in Manchester that because it is often just possible to get some medical men to do professional work for nothing that fact alone is a sufficient justification for further frequent requests for gratuitous public work. We observe that at a recent meeting of the Chester Town Council it was resolved to adopt the Act. The motion was made by Dr. Mann on behalf of the Public Health Committee, but he added that, while cordially agreeing that it was advisable to adopt the Act, and while feeling sure it would be a great influence for good among the infants and mothers of the city, he, as a member of the medical profession, protested against the great injustice which is done by the Act to the profession. Seeing that they were already in so many ways the unpaid statisticians of the Local Government Board, it was not seemly that yet another duty should be imposed upon them, with the penalty of a fine for non-compliance with it. Those, however, were, he said, matters which hardly concerned the council, and would have to be fought out elsewhere. It is an invidious task to interfere with anything that has the aspect of philanthropy, but the feeling is undoubtedly growing in the profession that before long it may be necessary to demonstrate in no pleasant way that the doing of public professional work gratuitously by one medical man often involves serious damage to numerous other practitioners who will feel compelled to resist it in a way that they would gladly avoid.

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## SICKNESS AND INVALIDITY INSURANCE.

THE King's Speech indicated that among the principal Government measures of the year would be bills to provide for the insurance of the industrial population against sickness and invalidity, and also for the insurance against unemployment of those engaged in trades specially liable to it. Nothing was said about the provision of medical attendance, and the debates on the Address have, so far, cast no light on the matter. The result of the interview between representatives of the deposit friendly societies and the Chancellor of the Exchequer has been published in the *Depositor*, the organ of the National Deposit Friendly Society, as follows—the report is described as official: "The Chancellor assured the deputation that there was no objection to deposit societies as such. The intention, however, was to see that the worker was provided with a certain benefit in sickness, which benefit would be of reduced amount after the expiration of a certain number of weeks' full benefit had been received. It was the intention that the premium

should be paid as to one-half by the workmen, the other half being provided in equal proportions by the employer and the State. The scheme was to be worked through the friendly societies. It was at the moment impossible to say what conditions would be imposed upon the friendly societies, but ample opportunity would be given to them to conform to the regulations. No date could at present be given as to when the full details would be available."

## MEDICINE IN THE WILDERNESS.

THE Queen's Hall was packed on the evening of February 6th with an enthusiastic audience to listen to a lecture by Dr. W. T. Grenfell on his work and experiences among the fishermen of Labrador. The lecture was illustrated by a series of excellent lantern pictures depicting the scenery and industries of the country and the nature of the work undertaken by the Royal Deep Sea Mission to Fishermen, the organization to which Dr. Grenfell belongs. In regard to each slide the lecturer had something appropriate to say, usually embellishing his remarks with some humorous anecdote to show the nature of the people and the conditions of life on that lonely rock-bound coastline. In introducing the lecturer, Sir Ernest Shackleton, who presided, remarked on the coincidence that the first ship to visit Greenland on surveying duty was the *Grenfell*, commanded by Captain Cook. Dr. Grenfell said that he had commenced his work as a medical missionary among the fishermen of the North Sea, the most generous and resourceful men in the British Empire. He had gone thence to Labrador because he had heard there were more fishermen there. So appalling were the conditions under which these fishermen and their dependants lived, and so general and complete their poverty, that at the end of his first season he despaired of ever being able to effect any improvement. Thanks to his supporters, however, most prominent among whom was Lord Strathcona, he and his assistants had been able to bring about a very marked improvement in both the bodily and spiritual welfare of the people. The truck system, which for years had kept the inhabitants of Labrador in a perpetual state of debt, had now been made illegal. Co-operative stores had been established so that they could purchase their own necessities and export their own products. He had established four hospitals at different points along the coast, and so great was the pressure on their resources that they had continually to be enlarging them. Owing to the nature of the fishing and whaling industry accidents of a serious nature were common. The advantage of having a hospital wherein to treat patients could not be overestimated. Furthermore, in those cases of disease in which environment plays a large part, such as, for instance, phthisis, they tried not only to cure the condition itself, but by improving the hygiene of the patient's home life to prevent recurrence. The open-air treatment was carried out with marked success in many cases. The vast extent of a practice in those latitudes—which were yet only 1,600 miles from our own shores—might be gathered from the fact that in one stretch of 900 miles of coast there was only one doctor. Each of the four hospitals was fitted with a wireless installation, as was also Dr. Grenfell's little steamer, *Strathcona*, the smallest ship in the world to be so fitted. Each hospital had a cutter with auxiliary motor power to act as a tender. These boats had been given by different American and Canadian universities, and the students act in large numbers throughout the summer months as voluntary assistants. In addition to his hospitals, Dr. Grenfell pays visits in his ship, generally calling at every settlement on the coast at least once a year. The arrival of the *Strathcona* was the signal for all those who were sick, who had been sick since the previous visit, or who went in fear of falling sick before the next to put off from the shore to pay their annual visit to the doctor. Dr. Grenfell does not consider that Labrador will always be "a land of nameless men who nameless rivers travel and in strange valleys meet strange deaths alone." On the contrary, he predicts a future when this at present unpromising stretch of coastline would take its place among the food-producing countries of the empire. He had introduced reindeer into the country with conspicuous success, and, owing to its proximity to England, Labrador could easily be made a meat-exporting area if capital were invested in developing the cold storage system. At the same time it held vast possibilities in the magnitude of its available water power. For the tourist in search of wild and beautiful scenery Labrador offered an even finer field than Norway. Dr. Grenfell spoke throughout in the sincere, straightforward way of the man who is more acquainted with the grim realities of life on the fog bound North Atlantic than with the London lecture platform. That the public can appreciate such men and the work they do was evidenced by the loud applause which carried the vote of thanks proposed by Lord Grenfell and seconded by Mr. W. F. A. Archibald.

## THE DESTRUCTION OF RATS.

AT a public meeting held in the Guildhall, London, on February 6th, under the presidency of the Lord Mayor, a resolution, moved by Sir James Crichton-Browne, and seconded by Professor Sims Woodhead, was adopted declaring that effective measures should be taken for the systematic destruction of rats throughout the country. Sir James Crichton-Browne combated the suggestion that rats were good scavengers. There ought, he said, to be no scavenging work left for them to do. He pointed out that the economic aspect of the rat problem, though less serious than the hygienic, was important, for it had, he said, been calculated that there was one rat to every acre in England and Wales, the agricultural loss caused by the rodent amounting to as much as £15,000,000. Sir Charles McLaren moved a resolution calling upon the Government to appoint immediately a Royal Commission for the purpose of inquiring into "(1) the increase of vermin and the steps to be taken for their destruction; (2) the question of what creatures are or are not harmful to man and his industries; and (3) the safety and efficiency of the various viruses on the market, and other means advocated for such destruction." This was seconded by Professor Nuttall, who, while maintaining that certain viruses were quite trustworthy, said that he knew of one case in which a man supposed to be a competent bacteriologist had dispensed the plague bacillus as an antiplague virus. Such accidents might occasionally happen if an organism found to kill the rat was put into commercial hands uncontrolled. The resolution was carried, as was also one inviting the council of the Royal Institute of Public Health to take steps to give effect to both resolutions.

## CONGRESS OF UROLOGY.

THE second International Congress of Urology will be held in London in July next (24th and 28th). At the meeting of the first International Congress, held in Paris in October, 1908, Mr. E. Hurry Fenwick was chosen President of the second Congress, and Professors A. Koranyi of Budapest and A. Pousson of Bordeaux were elected Vice-Presidents. The following are the questions to be discussed at the forthcoming

Congress: (1) Phosphaturia and oxaluria (to be introduced by reports from Drs. Hogge of Liége, Péchère of Brussels, Richter of Berlin, and Teissier of Lyons). (2) Late results of prostatectomy (to be introduced by reports from Drs. Hugh Young of Baltimore, Proust of Paris, Regino Gonzales of Mexico, and Zuckerkandl of Vienna). (3) Extensive removals of the bladder wall (to be introduced by reports from Mr. Hurry Fenwick of London, Drs. Giordano of Venice, and Rovsing of Copenhagen).

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## THE "ENCYCLOPAEDIA BRITANNICA."

THE issue of the eleventh edition of the *Encyclopaedia Britannica* is an event of the first importance in the history of contemporary literature. As has already been stated in the BRITISH MEDICAL JOURNAL, the work now appears with an added prestige given by the fact that it is published by the University of Cambridge. It is claimed for this edition that it is a completely new work, founded upon a fresh survey of the world in every department of knowledge; and certainly neither trouble nor expense has been spared in its preparation. It is the fruit of the labours of fifteen hundred specialists working under the general direction of a permanent editorial staff of sixty-four members. The difficulty which has hitherto stood in the way of producing a summary of human knowledge complete up to the date of publication has been caused by the long intervals between the issue of the various volumes. Thus the earlier parts of previous editions of the *Encyclopaedia* have necessarily become to a considerable extent obsolete before the work could be completed. This has been obviated in the present instance by its issue as a finished whole; the vast structure has come from the press complete in every part, as Minerva sprang full armed from the head of Jove. A possessor of this edition would not be in the position of the man of whom Oliver Wendell Holmes tells us, that while his knowledge of everything beginning with A, B, and C was the wonder of his friends, his omniscience had a sharp limit at D, because that letter had not been reached in his cyclopaedia. The information supplied in the new *Encyclopaedia* comes down to 1910. It contains 40,000 articles *de omni scibili*, written by the highest authorities on each subject on a carefully arranged plan so as to avoid either overlapping or omission. The day when a man could know everything that was to be known has long passed; now learning mainly consists in knowing where to find the information required. This is not by any means the same as the kind of erudition scoffed at by Pope as "index learning"; it is the inevitable result of the enormous expansion of human knowledge in all directions. The limitation of our intelligence makes specialization more and more necessary as the mass of knowledge grows; the man of the widest range of reading must be content to take his information on most things at secondhand from the workers in the various provinces of research. In the *Encyclopaedia Britannica* are gathered in a readily accessible form the results of the labours of investigators in every field of human thought. A feature of the work which should particularly commend it to the average man—who, without the time or perhaps the inclination to devote himself to research, wishes to have open to his hand sources of knowledge on everything that interests him—is that it is readable. Few there are who can, like Théophile Gautier, find pleasure in reading a dictionary; and the pemmican supplied by most books of reference is assimilable only by the toughest intellectual digestion

The special merit of the new edition of the *Encyclopaedia Britannica* is that besides serving the purposes of a dictionary of names and facts and a trustworthy work of reference, it is a real book—not one of the class called by Charles Lamb *biblia abiblia*, which no gentleman's library should be without, and which no gentleman reads. A word must be said as to the form in which the work is produced. Instead of the massive tomes, which in an amusing skit were described as useful missiles for the defenders of a besieged stronghold, it is printed on India paper in slender volumes with elegant flexible covers, which, though containing a vast amount of additional matter, occupy only one-third of the space required for the housing of the former edition. Dr. Johnson, who loved a book which he could read by the fireside, would have delighted in these volumes; they can be held comfortably in the hand, the pages remain flat wherever opened, and the book can be doubled on itself without breaking its back. As regards the contents, we propose to deal with them, as far as they relate to the healing art, more in detail in later issues. Here we need only say that the whole province of surgery has been in charge of Mr. Edmund Owen; and among the contributors of articles on various subjects of medical science are Dr. F. G. Parsons, Sir Clifford Allbutt, Professor Sims Woodhead, Dr. F. W. Mott, Sir Lauder Brunton, and Professor Robert Muir.

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IN response to the request of the Chinese Government for an international commission to proceed to China at an early date to investigate the present outbreak of plague in Manchuria, and to devise means for the prevention of its further spread, the British Government has instructed Dr. Reginald Farrar, one of the medical inspectors of the Local Government Board, to proceed to China at an early date. Dr. Farrar was employed during 1899–1900 on plague and famine duty under the Government of India.

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# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**The New Parliament** met as summoned on Tuesday last, January 31st, without any of the excitement which usually marks the beginning of a session. In the Commons only a few members arrived early in the forenoon, for the elected members of Parliament are practically an unorganized body until they have elected a Speaker. Before this can be accomplished Parliament has to be formally opened by Royal Commission, and this is done in the Upper Chamber. When the members assembled on Tuesday in the House of Commons, they were summoned shortly after two o'clock by Black Rod to attend at the House of Lords and hear the Commission read. They accordingly trooped across the lobby, headed by Sir Courtenay Ilbert, Clerk of the House of Commons, and, standing at the bar of the Peers' House, saw the five Commissioners (the Lord Chancellor, Earl Beauchamp, Earl of Granard, Earl Carrington, and Lord Sandhurst) in their ermine and scarlet robes and cocked hats seated before the Throne. The Lord Chancellor then announced that the Commissioners had authority under the Great Seal to do all things necessary in the King's name, and asked the Commons to elect a Speaker. Less than a dozen peers were present, who, when the Commons retired, took the oath after the Lord Chancellor, and a number of other peers went through the same expression of allegiance during the afternoon, and again on Wednesday, when the House adjourned till Monday.

**The Election of the Speaker.**—When the Commons returned from the Peers' Chamber, led by the Clerk of the House, there was not as large an attendance as is usual on such occasions. Sir Courtenay Ilbert took his seat as Clerk, and then pointed his finger at Mr. Eugene Wason, who at once rose and proposed Mr. Lowther (who sat on the second Opposition bench) as Speaker for the fourth time. Mr. Wason's speech was short and effective, and specially dwelt on Mr. Lowther's just discharge of his high functions. Lord Claud Hamilton, who said he had first addressed the House forty-five years ago, seconded the election from the Opposition benches. Then the unexpected happened. Just as Mr. Lowther was rising to submit himself to the will of the House, up stood Mr. Ginnell on the Irish benches—as he said, to introduce a little reality into the proceedings. He proceeded to do this by making a general attack on the conduct of the work of the House, and complained that the Speaker last session had not treated him fairly in omitting to call upon him as often as he desired to speak. Mr. Ginnell indulged in many strong expressions, but in the absence of an elected Speaker he was master of the situation. After half an hour's tirade, received from time to time with laughter, he sat down, and Mr. John Redmond said the Irish party warmly supported Mr. Lowther's election, and could absolutely trust his impartiality and justice. Mr. J. Parker, on behalf of the Labour Party, spoke in the same sense. Mr. Lowther then thanked, amid cheers, the mover and seconder and other speakers, and expressed his inability to understand Mr. Ginnell's complaint, but he would accept his lecture and bear it in mind. Mr. Wason and Lord Claud Hamilton then led the Speaker-elect to the Chair, and he again thanked the House before occupying his seat. Mr. Asquith, as Leader of the House, congratulated the Speaker in a remarkably happy speech, and Mr. Akers-Douglas spoke on behalf of the Opposition. The House adjourned at 3.28. On Wednesday the Commons assembled at midday, and were almost immediately summoned to the House of Lords to receive the King's approval of their choice of a Speaker. The approval was signified by the Lords Commissioners seated before the Throne to Mr. Lowther, Mr. Asquith, and a score or so of members who attended at the Bar. The Speaker, after receiving the usual assurances as to the rights of the Commons, withdrew to the Lower House at 12.10. On arriving there he assumed his official gown and full-bottomed wig, and took his place in the Chair, from which he announced that His Majesty had been pleased to approve of the choice of the Commons of a Speaker. He also reported the King's confirmation of their ancient rights and privileges, and repeated his thanks for the honour done him by his election. The Speaker then first took the oath of allegiance and signed the Roll of Parliament, after which the Prime Minister was sworn and signed, and during the rest of the day other members were sworn in. The House sat on Thursday also to swear in members, and then adjourned till Monday.

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**The Opening of the New Parliament** by the King and Queen in State on Monday last was a great ceremonial. Dull skies somewhat impaired the brilliancy of the procession, but did not affect the gorgeous splendour of the House of Lords, crowded as it was with peers in their red and ermine robes, and peeresses in half mourning with all the glory of diamonds. The judges in their wigs made a remarkable group in front of the throne, while the Ambassadors in their national costumes sat on the right of the dais. The King and Queen came a little late and took their seats on the throne while all stood to welcome them, till at the King's command the whole assembly sat. Then followed a pause while the faithful Commons were summoned to the Bar. They came headed by the Speaker in his robes, and when he had bowed to the King and Queen, the Lord Chancellor, bowing low, handed to the King the new accession declaration. Still seated, the King repeated the words of the declaration in rich full tones, that reached the Peers and the Commons. He next read his speech clearly and firmly, giving special emphasis to the words referring to the proposed legislation on the relations of the two Houses of Parliament. Then, after invoking a blessing on the labours of his Parliament, the King rose, and, taking the Queen by the hand, slowly left the chamber, bowing right and left. Thus was the first Parliament elected in the new reign opened for its serious labours.

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**The Debates on the Address.**—In the Lords, after some time had been occupied in swearing in the Peers, who came to the table with their writs of summons in large numbers, the King's speech was read again by the Lord Chancellor. The passage in the speech foreshadowing the social legislation of the year was as follows: "Measures will be presented to you, in pursuance of intentions already declared, for carrying out and extending the policy initiated in previous Parliaments, by securing the permanent provision of old age pensions to persons previously disqualified by reason of the receipt of poor relief; and by providing for the insurance of the industrial population against sickness and invalidity, and for the insurance against unemployment of those engaged in trades specially liable to it." The debate on the Address was then opened by Lord Ilkeston, who moved its presentation. This was seconded by Lord Willingdon. Both made brief speeches, and, while the latter specially dwelt on Colonial matters, the former, after a eulogy on the work and character of the late King, referred specially to the coming constitutional struggle. The Parliament Bill, he pointed out, had been described as the sterilization of the House of Lords. His profession as a doctor had taught him that sterilization was a wholesome and even beneficent process which destroyed all the dangerous and hurtful elements while retaining all the useful constituents of the article sterilized. Lord Lansdowne, who followed, after complimenting the mover and seconder, said they would all have to be extremely careful how they used scientific metaphors. He reviewed the whole political situation at some length, and was replied to by Lord Crewe, after which the debate terminated at 7 o'clock.

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**In the Commons** the debate on the Address was opened by excellent speeches from Mr. Harold Baker and Mr. T. Wiles, who moved and seconded the Address. There had been previously a remarkable discussion on questions of privilege, which referred to a peer voting in the last General Election and to the interference in Aberdeenshire of the Lord Lieutenant by writing a letter. In a full House of 480 members or more these matters were referred to the Committee on Privileges. The debate on the Address occupied the rest of the sitting, and will, in all probability extend over several days, as there were no less than sixty amendments placed on the paper on the first day.

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**Private Members' Bills**, which are balloted for at the beginning of the session in order to obtain good places, are at a great disadvantage this year. The Prime Minister in his speech on the Address on Monday said that the Government would have to take the whole time of the House up to Easter. This at one blow destroys more than half the chances of private members for this year. The exigencies of public business—namely, the financial arrears and votes that must be passed before the end of the financial year—and the importance of pressing on the Parliament Bill before the Coronation, are held to justify this course. Under these circumstances the ballot will be less fruitful of opportunity than usual, and the half-dozen early places drawn correspondingly more valuable. It was agreed to hold the ballot on Wednesday.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LEEDS.

### THE GENERAL INFIRMARY.

*Appeal for £150,000.*

FOR some years it has been apparent to the members of the weekly board that an appeal on a large scale would require to be made to place the finances of this important institution on a sound basis. Those who are interested in the welfare of the infirmary can indeed look back with admiration to the courage of the men who in the early Sixties decided on the building of the new infirmary, and with pride to the support which the institution has always received from the public of Leeds and of Yorkshire generally, but especially of the West Riding. The original cost of the hospital, including the site, fittings, and furniture, was £122 329. Since the building was opened in 1868 many additions have been made, including the original nurses' home, with the additions thereto, the new nurses' home, and the great extension of 1892, which carried with it the new out-patient departments, the addition of 125 beds, and the pathological and isolation departments. New operating theatres have been provided, and the two semi-convalescent hospitals at Cookridge have been built. These, with many minor additions, bring the cost of the institution as it stands to-day to £250,286. The expense of maintaining in full efficiency a hospital of this magnitude must manifestly be very great, and the treasurer has had to see year by year an excess of expenditure over income, which, even if there were not many urgent calls for an increase in the capital expenditure, would be a source of anxiety. It is clear, however, that many additions and alterations are required, some for the simple reason that the original building is now forty-five years old, and some rendered necessary alike by the great increase of work and by the demands of modern medicine and surgery. The following is a summary of the alterations and additions required:

1. Modernizing the existing wards and perfecting their sanitary arrangements.
2. Building four new operating theatres.
3. Providing additional accommodation for nurses.
4. Building two additional wards.
5. Making additions to the pathological department.
6. Building additional rooms for the use of the casualty and out-patient departments.
7. Providing new boilers and boiler house.
8. Making the alterations required to safeguard the buildings against fire, and the patients in the event of fire.

If these alterations can be made and the additions mentioned carried out, Leeds will again be possessed of a hospital of which it can be said, as was said in 1870, that it need not fear comparison with any other hospital in the kingdom. Mr. Charles Lupton, who has acted as treasurer and chairman of the board since the resignation of Mr. R. Benson Jowitt, and who is probably more fully acquainted with the work of the infirmary than any one, has made a splendid start in obtaining subscriptions towards the new fund and has secured promises of no less a sum than £56,000. Quite recently, on the initiative of the Lord Lieutenant of the West Riding, the Earl of Harewood, a meeting was held in Leeds at which it was decided that in memory of King Edward VII a large sum should be raised in support of the hospitals within the area of the Riding. This meeting was not held without friendly consultation with the Lord Mayor of Leeds, and at the meeting it was specially pointed out that it was not desired to do anything in any way to interfere with the larger towns making special efforts in favour of their own institutions. It was also appreciated that many of those who live outside the areas of the larger towns might yet have their sympathies more fully drawn to them than to the support of the West Riding hospitals in general It was therefore arranged that any one who wished to do so might, while contributing to the general fund, allocate his subscription to any special institution. Following on this, a large and representative meeting of the public was held at Leeds, under the chairmanship of the Lord Mayor, Mr. W. Middlebrook, M P., at which it was decided after discussion that Leeds should cordially co-operate with the West Riding in raising a memorial to King Edward VII, and that all Leeds citizens should be recommended to allocate their donations to the General Infirmary at Leeds. On this understanding the large sum of £56,000 promised to Mr. Lupton solely for the infirmary becomes a part of the West Riding fund allocated to the Leeds Infirmary, and since the meeting this sum has increased to nearly £70,000. There are other useful charitable institutions in Leeds, among which may be mentioned the Dispensary, the Hospital for Women and Children, the Association for the Prevention and Cure of Tuberculosis, and the Maternity Hospital, as well as others, engaged in good work, and enjoying the confidence of the public, but the general feeling at the meeting was that on this occasion concentration on one object would be attended with the greatest measure of success, and it is earnestly hoped that all Leeds subscribers, and many in the West Riding, will act on the recommendations of the Leeds meeting.

## WEST YORKSHIRE.

### THE NEW BRADFORD INFIRMARY.

A LETTER was sent to the Bradford press on January 21st, signed by the Lord Mayor, the Chairman of the Building Scheme Committee and the Chairman of the House Committee, drawing attention to the fact that any contributions given to a West Riding fund which is to be raised as a memorial of our late King may be earmarked for the new Bradford Infirmary. The Lord Mayor has been in communication with Lord Mountgarret on the subject of obtaining the consent of the King to allow the new building to be called the King Edward Memorial Hospital. Lord Mountgarret has expressed his willingness to co-operate, and it is not anticipated that the King's consent will be withheld, but it will probably be necessary to raise the full amount before the proposal is formally sanctioned. Up to the present promises and donations to the amount of nearly £80,000 have been received, but it will be necessary to raise £150 000 before a start is made. The designs of the competing architects are to be sent in next May, and it is hoped to complete the final plans a few months later.

## LIVERPOOL.

### MEDICAL TREATMENT OF SCHOOL CHILDREN AT HOSPITALS.

AN important meeting of the whole medical profession of Liverpool, Birkenhead and District was held at the Liverpool Medical Institution on January 31st, to oppose the local education authorities in their endeavour to utilize the hospitals for the treatment of defective school children. This meeting was called by the combined Liverpool and Birkenhead Divisions of the Lancashire and Cheshire Branch of the British Medical Association.

In response to this call, there was a large and representative gathering of the profession. The consultants and hospital physicians and students were represented by Sir James Barr, Dr. Caton, Mr. Bickersteth, Mr. J. M. Hunt, Dr. Abram, of the Royal Infirmary; Mr. Newbolt, of the Southern Hospital; Mr. Monsarrat and Dr. Bushby, of the Northern Hospital; Mr. Larkin and Miss Ivens, of the Stanley; while the eye hospitals specially concerned were represented by nearly all the staff; Mr. C Lee, Mr. E. Stevenson, Mr. H. E. Jones, Dr. Livesey, Mr. Stockdale, and others from the Myrtle Street; while Mr. A. N. Walker, and Dr. Stephenson, and others came from St. Paul's Eye Hospital. Major Ross represented the School of Tropical Medicine and the non-practising medical men. Professor B. Moore was one of the representa

tives of the university staff. All classes of general practitioners were well represented. The total number who signed as present amounted to 147. Several letters had been received from those unable to be present, and the secretary was able to say that no letter or intimation had been sent indicating disapproval of the object of the meeting. The meeting elected Dr. A. C. E. Harris chairman and Dr. K. Grossmann secretary, these gentlemen being the officials of the Joint Divisions who called the meeting. The resolutions were carried unanimously, with the exception of the second, to which there was a single objector.

The resolutions were as follows:

1. That this general meeting of the medical profession of Liverpool, Birkenhead, and the district adheres to the scheme adopted by the meeting of the profession on June 20th, 1910, disapproves of the scheme of the Liverpool Education Committee for the treatment at the hospitals of school children found upon inspection to be defective, and pledges itself to support the local Divisions of the British Medical Association in opposing it.
2. That this meeting of the medical profession of Liverpool and Birkenhead and the district disapproves of the lay committees of hospitals arranging with the Education Committees for the treatment at the hospitals of school children found upon inspection to be defective, and pledges itself to support the medical staffs of the local hospitals in any contest or dispute that may arise between them and the lay committees in connexion with this matter.
3. That copies of these resolutions be sent forthwith to the local Education Committees, to the lay committees of the various hospitals in the district, and also to the medical and lay press.

A full report of the proceedings will appear in the SUPPLEMENT.

### PUBLIC ABATTOIRS.

The Liverpool abattoirs and their associated trades are at present in the centre of the city, close to the university and the Royal Infirmary. When the leases were renewed in 1890 the medical profession made a very strong protest, and nearly every medical man signed the protest against the renewal. The question is now again under discussion. A special committee of the Corporation has recommended the City Council to take over and work the public abattoirs and erect new buildings for both live and dead cattle and meat, slaughterhouses, etc., at Love Lane, which is between the north docks and the Manchester and Leeds Canal, and close to railway lines of the Lancashire and Yorkshire, London and North-Western, and Midland Companies. The tenants object to this site because it is surrounded by what they consider obnoxious works, such as oil and soap factories, manure depositories, and knackers' yards, which are all detrimental to the meat. The report of Dr. Hope, the medical officer of health for Liverpool, is in favour of the removal from the centre of the city.

## OXFORDSHIRE.

### THE PREVENTION OF TUBERCULOSIS.

A MEETING for the discussion of the means of preventing tuberculosis was held at Witney on January 18th. Professor Osler gave particulars of the work of the Oxfordshire Association for the Prevention of Tuberculosis. He said the association proposed to establish dispensaries in the county, which would be regularly attended by a specially qualified medical man. It was proposed to make Witney one of the centres where patients would get attention and full instructions as to how to combat this disease. It was proposed in the future to have a sanatorium in the county, to which advanced cases would be admitted. Mr. H. Smith said, while fully sympathizing with the work of the association, he thought Witney was quite prepared to deal with it own consumptives, but Witney ought not to be made a centre for this work. Professor Osler said that Witney was already a centre. The establishment of a dispensary was a means of protecting the public, because their educational work enabled patients to take such measures that would render them less dangerous to the public. The establishment of dispensaries would, in his opinion, laud the liability of infection. Dr. Harvey thought they would get many more patients at the local dispensary, for the simple reason that many patients could not afford to go to Oxford. Other speakers followed, and at the close a vote of thanks was accorded Dr. Osler for his address.

## MANCHESTER AND DISTRICT.

### EPIDEMIC OF SORE THROAT IN SALFORD.

AN extensive epidemic of sore throat has been prevalent in Salford during December and January, and in many cases all the members of a household have been attacked. It was generally accompanied with painful tonsillitis, sometimes suppurative, and with enlargement of the glands of the neck. The attacks were often ushered in with rigor, and cases are recorded where the temperature of 105° was reached. In most cases the attacks have been followed by marked depression and weakness lasting for several weeks. No diphtheria bacilli are found but mostly streptococci and some staphylococci. The great majority of the cases have occurred at Kersal and Higher Broughton, which are the highest parts of the borough. Antistreptococcic serum does not seem to have been of much use, and it is reported that in only one or two cases has a vaccine made from the actual organisms appeared to relieve symptoms. Only a few cases of acute rheumatism are known to have followed the attacks, but sodium salicylate seems to have been of the greatest value in treatment together with local antiseptics.

### THE MANCHESTER CITY AMBULANCE.

Some time ago it was generally understood by the medical profession in Manchester that the Watch Committee of the City Council had agreed that when a medical man in attendance on a case of illness was prepared to state that the patient was unable to pay the fee, the ambulance should be sent free of charge to convey the patient to a hospital, and that in other cases the ambulance should be sent when required and the fee collected afterwards. At a recent meeting of the city council Councillor Dr. Fletcher narrated a case he had attended: A poor woman soon after her confinement had a convulsion, and, as she could not be properly looked after at home, he had telephoned to St Mary's Hospital to secure a bed, and also telephoned for the ambulance, stating that the people were too poor to pay for it, as the husband only earned 16s. or 17s. a week. The man in charge refused to send the ambulance unless the fee of 5s. were paid in advance. Dr. Fletcher then threatened to engage a four-wheeler and to lay the facts before the council, whereupon the ambulance was sent, but he believed that had he not been Councillor Fletcher as well as Dr. Fletcher, it would not have been sent. Next day a police officer went to the house, and as the money was not forthcoming he went to the works where the man was engaged, and, as the man had not got the money, the officer suggested that he should borrow it from his employer and have it deducted from his wages at the week end, and that was done. The Chairman of the Watch Committee said he had no sympathy with the way in which the money was collected, and the arrangement that had been made by the committee was that the police would accept the testimony of some medical men, but not all. Two other members of the council said they knew of cases of great hardship, owing to the fee being demanded in advance, and the chairman said there were many cases in which the fee had not been paid in advance, while there were also many cases in which persons tried to avoid payment though well able to afford it. The Lord Mayor gave an undertaking that full inquiry should be made into Dr. Fletcher's case. The Chief Constable stated that the ambulance was established some years ago to deal with street accidents and accidents and illnesses in workshops, and such cases are removed to hospital free of charge. He states, too, that a deputation from the medical profession asked that the Watch Committee should allow the ambulance to be used for other cases of illness, and

this was agreed to by the committee and a charge was arranged. After a time another deputation from the profession said that the charge was too high, and the committee agreed to charge only 3s. 6d. for cases within a mile from the infirmary and 5s. for other cases. As two men have to go with the ambulance, this charge did not pay the cost, and as the cost of collection would be more than it was worth, it was decided to ask for payment in advance. The Chief Constable asserts that medical men have frequently tried to get the ambulance for private patients, and that to adopt such a scheme would be very costly to the city. Moreover, the police department was not the proper department to undertake such work as the removal of delicate maternity cases to hospital. It would be well that any inquiry such as the Lord Mayor promises should also include an inquiry into the statement of the Chairman of the Watch Committee that the police would accept the testimony of some medical men, but not of all. The profession will certainly not be content with any arrangement that leaves it to a policeman to believe or not believe the word of any practitioner who needs the ambulance for conveyance of an urgent case to hospital.

### THE MANCHESTER MEDICAL SOCIETY.

The annual report of the Manchester Medical Society for the year 1910 shows that the society had a total membership of 403 at the end of the year, 23 new members having been elected, while 21 had resigned, 10 had died, and the names of 6 had been removed for non-payment of their subscription. During the year there have been six ordinary meetings with an average attendance of 48, and four clinical meetings with an average attendance of 70. The Library Committee reports that the joint library of the Medical Society and the Medical School now contains 40,241 volumes, 503 having been added during the year. Of the 1,858 books issued to 212 members, 248 were obtained from the Lewis Library. The issues to the students have fallen off from 6,952 to 5,348. The balance in the bank on the year's working was £20 13s., but the society has in addition a considerable amount of trust investments.

## LONDON.

### LONDON COUNTY COUNCIL.

*Medical Treatment of School Children.*

THE Education Committee of the Council has received a reply from the Board of Education to the request that the agreements with certain hospitals for the medical treatment of school children might be extended for another year.[1] The Board gave its consent to the continuance of the existing arrangements for six months only, expiring on June 30th, 1911. The letter deals in considerable detail with the organization and administration of the present scheme of medical treatment, and the Children's Care Subcommittee is holding special meetings in order to go into all these matters. Until it has reported the letter is regarded as private, and members of the Council (who have received a copy) have strict injunctions not to communicate the contents to the press. There is reason to believe that when the subcommittee does report many important modifications of the present scheme will be suggested.

Meanwhile the Children's Care Subcommittee urged that efforts should be made to induce the Board of Education to agree to the extension of the agreements of the hospitals in question for twelve months and for the extension of all agreements expiring in the interval, to December 31st, 1911, so that the present arrangements may come up for revision as a whole at one time. The Hospital for Diseases of the Throat, Golden Square, W., has intimated to the Council that it is unwilling to renew the agreement, but will treat children sent by the Council under its ordinary rules. The Board of Education in its letter stated *inter alia* that for the six months the Council should not attempt to increase the number of children who, under existing arrangements, could be brought within the scope of the hospital scheme, and on this point the subcommittee said that in the case of the London Hospital serious inconvenience would be caused if the numbers to be treated were limited to those arranged for 1910. There was considerable congestion in the aural department of the hospital, and the subcommittee considered that the Board of Education should be urged to accede to the request that the number of those attending this hospital should be increased from 4,750 to 9,250 cases a year.

Mr. Gautrey moved to refer the report back to the subcommittee with instructions to bring up the letter. How, he asked, could the committee and the public come to a right decision without proper information? The letter was of a very drastic and critical nature, and advocated very strongly the introduction of school clinics or other means of medical treatment supplementary to the hospital scheme.

The Rev. Stewart Headlam, who seconded, said it was absurd to suppress the letter because it was sure to come out before long.

Mr. R. A. Bray, on the other hand, thought it would be undesirable to have a long discussion on the letter before the subcommittee had had time to examine it. The letter had been circulated privately to members of the Council and the subcommittee would sit twice a week until the question had been thoroughly dealt with. Then reports would be made, and the whole letter would be printed and recommendations based upon it.

After some further discussion, Mr. Anderton, chairman of the subcommittee, assured members that the Care Committee had no intention of delaying matters, and the amendment was then withdrawn and the recommendation was agreed to.

The matter was further discussed by the Council on February 7th, when an amendment instructing the committee to prepare a scheme of school clinics was defeated.

*Medical Inspection.*

The Children's Care Subcommittee reported that the number of children to be inspected to comply with the requirements of the Board of Education Code for the year ending July 31st, 1911, was 149,600. The numbers of children actually seen from August 1st to December 31st, 1910, was 82,847. To comply with the Board's requirements 3,400 cases, comprising only "entrants" and "leavers," should have been dealt with each week from August 1st to December 31st, or 61,200 in all. During this period 46,214 "entrants" and "leavers" were inspected—a deficit of 14,986. It should be remembered, however, that prior to October 20th only part of the staff of 72 school doctors was engaged on the examination of children coming within the approved age groups. Between that date and December 31st the full staff of school doctors dealt with 3,800 cases a week. At the same rate the staff, which was increased to 100 as from January 1st, 1911, would deal with 5,280 cases a week. Thus the deficit would be cleared off before Easter, and in addition children between the ages of 8 and 9, and urgent cases, would be examined.

*Open-air Schools and Playground Classes.*

The Education Committee decided, on a report by the Day Schools Subcommittee, to continue the open-air schools and playground classes, the latter held for the first time last year. The subcommittee stated that the reports upon the playground classes were extremely favourable, both from H.M. inspectors, managers, and head teachers. The reports upon the open-air schools were not yet ready. The medical officer (education) reporting upon a playground class at Bethnal Green wrote:

> The medical examination left no doubt as to the highly beneficial effect of the out-of-door régime upon the children. The school doctor states that at his second visit, three weeks after the inception of the class, in many cases he felt doubtful for the moment whether the children were the ones he originally selected. The difference was partly one of complexion, but also in great degree of demeanour, which was unmistakably more alert and spirited. The health of the children in no case suffered, while colds were almost entirely absent.

The subcommittee added that there were two difficulties in the way of the extension of open-air schools:

[1] BRITISH MEDICAL JOURNAL, vol. ii, 1910, pp. 1938-9.

it had been found impossible to secure suitable sites in those parts of London in which they were most needed, and the average cost was about £20 a child.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## PRESENTATION TO PROFESSOR CHIENE.

IN the Hall of the Royal College of Surgeons of Edinburgh, on January 31st, a large company of friends—medical, legal, and general—met under the presidency of Principal Sir William Turner, K.C.B., to do honour to Emeritus Professor Chiene, C.B., by presenting him with his portrait. The portrait, the work of Mr. Fiddes Watt, A.R.S A., is three-quarter length, and a very characteristic likeness of Mr. Chiene, with in his hand the portfolio familiar to those who saw him go to and from the university while he was yet professor of surgery. Subscriptions amounting to £724 had been received from many parts of the world, from South Africa, Canada, Australia, New Zealand, and India. Sir William Turner, in calling on Lord Ardwall to make the presentation, said that after the artist had received his fee there remained a sum of money which the committee proposed to hand over to the university, in order that a medal, to be known as the Chiene medal, might be provided to mark excellence in surgery, and he was glad to say that the medal would be accompanied by a cheque.

Lord Ardwall, in making the presentation, said they regarded and esteemed Mr. Chiene as a great surgical teacher, worthy to be remembered among the band of illustrious men who for many years had made the Edinburgh School of Medicine famous throughout the world. At the date of his resignation in 1909 Mr. Chiene had been for forty-three years a teacher in the medical school, and in that time he was a surgeon to the infirmary for twenty-one years and professor for twenty-seven. As a surgeon, perhaps, his name would be best known in the future by being inseparably connected with the great reformation—or, perhaps, he should say, the great revolution—in surgery introduced by Lister. When Lister came to Edinburgh in 1869, and when his new doctrines required development, Mr. Chiene was his right-hand man and constant and unwearied assistant. As a teacher, as all knew, Mr. Chiene was indefatigable. His lectures, distinguished as they were by originality, a good deal of pawky Scottish humour, and, above all, a real enthusiasm for his subject, attracted and kept the attention of his classes. He was the first in this country to institute, in connexion with a Chair of Surgery, a bacteriological laboratory. Perhaps the most outstanding incident of his later life was when he served his country so well in South Africa—services which were very properly, if not altogether adequately, rewarded by his being made a Companion of the Bath. In all these respects they had the greatest and highest regard for John Chiene, and they hoped he would accept the portrait as "a token of our esteem for you as a distinguished surgeon, a great teacher, and a true and trusted friend."

Sir William Turner said he could not claim so long a friendship with Mr. Chiene as Lord Ardwall, for his lordship and Mr. Chiene crossed from Fife in the same steamer when they attended the Edinburgh Academy. His acquaintance with Mr. Chiene had existed, however, for fifty-one years, and his experience of him during that time enabled him to corroborate the sentiments Lord Ardwall had so well expressed.

Professor Chiene, in reply, acknowledged the honour done him. Recalling his student days, he said the curious fact was that at the time when he became a student in Edinburgh they were very much afraid of the French. There was a great deal of volunteering going on, and his father made him join the Fife Light Mounted Yeomanry, and as a result he got to know Captain Anstruther Thomson, who offered to give him an introduction to Professor Goodsir, who was ever after his kind friend. Goodsir introduced him to Peter Guthrie Tait. There were three men he thought of at that time who were to him more than any others—John Goodsir, Peter Guthrie Tait, and Dr. John Brown. He got to know them in 1860, and he always remembered how Goodsir sent him to Syme, and the latter introduced him to Lister, his son-in-law, and he became Syme's house-surgeon. He mentioned these facts not to make mention of himself, but to show how lucky he was as a young man. In conclusion he thanked warmly, in his own name and in the name of his wife, his professional friends, his golfing friends, his curling friends, and his football friends, and all for their kindness.

Lord Ardwall moved a vote of thanks to Mr. Fiddes Watt for his excellent portrait, and Sir William Turner a vote of thanks to the Royal College of Surgeons for the use of the hall.

## REPRESENTATIVE COUNCILS OF THE FOUR SCOTTISH UNIVERSITIES.

On Friday, February 3rd, there was held in Edinburgh the annual conference of delegates from the Students' Representative Councils of the four Scottish universities. Each council sends four delegates, and on this occasion for the first time a lady delegate (from Glasgow) was present. Mr. J. E. Henderson, Senior President of the Councils, presided, and Principal Sir William Turner, K.C.B., on welcoming the delegates, said that was the second occasion on which he had had the pleasure of welcoming those who came to attend these conferences from the four Scottish universities. He recognized that the conferences played a very important part in the intellectual life of the students. It was by means of conferences of that kind that students became acquainted with affairs. They got out of the routine of the classroom, and they learnt that there were other objects in life than those of the acquisition of knowledge. The acquisition of knowledge was, of course, of the utmost importance for each one of them in connexion with the particular profession or mode of life it was his intention to follow, but they ought to bear in mind that a man, whether he was a business man or a professional man, had something more to do than merely to attend to his business or profession. He was also a citizen, and as a citizen he had to make himself acquainted with the affairs of the country in which he lived, and to take a part in their transaction. That could not be done unless a man in early life went through a certain period of training, and conferences of that kind, organized by students of the universities themselves, carried on by them under their own president, their own secretary, and their own council, helped materially to a knowledge of affairs, and to the transaction of business. The motions before the conference were varied, but resolved themselves into three groups—those which appertained to the conference and its constitution, those which had to do with the universities as educational bodies in which the conference proposed to approach the university administrations, and put before them their opinions on various questions in which the students were interested, and, finally, questions the ultimate determination of which rested not with the university but with certain outside bodies. On the medical side there were certain questions with which the Medical Council had to do. As regarded the side of the university which was concerned with the training of the teacher, there were questions which would have to be submitted to the provincial committees in the various parts of Scotland. That, indirectly at least, brought the conference into association with the important department which chose to call itself the Scotch Education Department, although many of them thought a more euphonious expression would be the Scottish Education Department. He extended a welcome to the delegates.

Thereafter, international academic work, arts and science courses, post-graduate courses, and bursaries for women were discussed. The conference also discussed a proposal in favour of the institution of courses of lectures on medical ethics in the

universities. The following resolution was eventually adopted unanimously:

> That the senatus of each of the Scottish universities and the central authority of the General Medical Council be approached with a view to instituting in the Faculty of Medicine a short series of lectures for senior students in the ethics of the profession. The conference does not wish to bind the authorities to the institution of a new lectureship, but that if necessary an outside medical man of eminence be invited to give these lectures.

A motion recommending the inclusion of pathology as a subject for the B.Sc. degree was defeated. Various motions dealing with the medical curriculum were discussed. Mr. Gibson, a Glasgow delegate, moved:

> That the authorities of the four Scottish universities be urged to institute lectureships in dietetics.

He referred to the difficulties young practitioners had with this question, which had quite as much bearing on the death-rate of a community as sanitary and other sciences. The motion, after some discussion, was carried by 5 votes to 4, most of the delegates abstaining from voting. A motion from Glasgow, aiming at uniting the botany and zoology courses for the first professional examination as one course of fifty lectures in biology, was carried unanimously; another motion from St. Andrews, which was defeated by a majority, asked that the regulations for degrees in medicine be altered so that only those who were already graduates in another faculty of a university could be admitted as candidates for M.B., Ch.B. In the evening the delegates dined together in the University Union, and afterwards a dance was held.

### THE GLASGOW HOSPITALS.

A number of the city hospitals held their annual meetings last week, and in several instances interesting forecasts of future plans were communicated.

Thus at the Royal Infirmary meeting the Lord Provost stated that the reconstruction of the front Jubilee Memorial block would shortly be commenced. This is the last stage in the extension reconstruction scheme, which has now been progressing for several years. Mr. Hedderwick pointed out that the ophthalmic institution and the outdoor dispensary would have to be rebuilt. When the ophthalmic institution was taken over by the Royal Infirmary an undertaking was given that when it became necessary it would be rebuilt in the neighbourhood of the Royal Infirmary. This necessity had existed for some time, as the buildings are quite inadequate to deal with the number of patients attracted to the institution. The dispensary of the Infirmary was also lamentably deficient, and a new dispensary was an absolute necessity. Some time ago the managers acquired half an acre of ground in the immediate neighbourhood of the infirmary, and on this they proposed to erect a new dispensary and ophthalmic institution. To carry out this building would require a fresh appeal for funds, but he was able to assure the public that the plans prepared would make the new ophthalmic institution the best adapted building for its purpose in the world. Principal Sir Donald MacAlister, in referring to the medical teaching arrangements, stated that the final step was taken at the last meeting of the University Court, and now all that remained to be done was to sign an agreement, on which all parties were agreed, and to get the ordinance through the Privy Council and Parliament. When these formal steps were complete the appointments would at once be made, and he hoped that by the next annual meeting the scheme would be in full working order.

At the meeting of the Glasgow Royal Hospital for Sick Children, the chairman said that the directors proposed to build a new hospital at Yorkhill. It would be planned in such a way that each cot should receive a maximum of light and sunshine. Hundreds were turned away every year, and the need of a larger hospital was clamant. At present 1,000 in-patients were treated in 70 cots. In the new hospital it was proposed to have 200 cots and to take in 3,000 patients each year.

At the meeting of the qualified subscribers to the Glasgow Eye Infirmary it was stated that the past year had been one of unexampled activity. Patients came from all over Scotland. In the course of the chairman's remarks it was claimed that the bacteriological testing of eyes before operation was probably first introduced in the Glasgow Eye Infirmary, and the method had now been adopted in many other hospitals. It has proved of great benefit in cataract cases, and had almost eliminated the risk of suppuration after the operation.

All the hospitals in Glasgow have the same tale to tell of increasing financial strain. The deficit of the ordinary income under the ordinary expenditure last year was over £15,000 in the case of both the Royal and Western Infirmaries, and over £6,700 in the case of the Victoria. Not only have the extended and more efficient buildings brought an increasing number of patients and staff, but the cost of provisions and material has risen also. The increasing number of small new charities also tends to drain away the flow of charitable donations from the older and larger institutions.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### IRISH MEDICAL ASSOCIATION.

AT a recent meeting of the Committee of the Council of the Irish Medical Association the following resolution was passed unanimously:

> That we are in favour of approaching at least two members of Parliament to represent the interests of the Irish Medical Association in Parliament.

The members of the Association have long felt the want of a spokesman in Parliament, and it is now hoped that the services of two members of different political opinions will be obtained, who will make it their business to protect the interests of Irish medical men when questions concerning the profession are under debate. It is not proposed to make any direct remuneration for their services to the members who consent to act.

### SCARRIFF UNION DISPENSARY ELECTION.

Some weeks ago the results of a Local Government Board inquiry into alleged irregularities in the election of a dispensary medical officer for Scarriff Union, co. Clare, was noted. On the evidence given at the inquiry the Local Government Board held that bribery had been practised, and in consequence refused to approve of the appointment of the guardians' nominee, Dr. Holmes, and directed the guardians to proceed to another election. The Scarriff guardians refused to comply with this order, and later, under threat of proceedings to procure a writ of mandamus, decided to support Dr. Holmes in every way in their power, on the written guarantee of Dr. Holmes to indemnify them for any costs that might be incurred in resisting the Local Government Board. Last week the Local Government Board applied in the King's Bench Division for a writ of mandamus to compel the guardians to elect a new dispensary officer; the court granted a conditional order, to be served on the chairman of the board of guardians, the clerk of the union, and Dr. Holmes.

### DIPHTHERIA IN DUNDALK.

At a recent meeting of the Dundalk Urban Council a report of Dr. O'Brien, Medical Inspector of the Local Government Board, was read on the recent outbreak of diphtheria in Dundalk. The report stated that 98 cases had occurred, with 12 deaths. The origin of the outbreak had not been determined, but it was clear that once the disease had made its appearance its continuance was fostered by the insanitary conditions which the urban council had apparently permitted to remain, through failure to insist on a compliance with sanitary notices. Neither water supply nor milk supply could be held responsible for the epidemic, but it was noteworthy that during the past

year there had not been a single prosecution for a breach of the sanitary laws. Even when notices had been served they were not followed up.

FORSTER GREEN HOSPITAL FOR CONSUMPTION, BELFAST.

The annual meeting of this institution was held in Belfast on January 26th; the President, Mr. G. Herbert Ewart, occupied the chair. The medical report, read by Dr. Thomas Houston, Honorary Secretary of the Medical Staff, stated that 68 patients were in hospital at the beginning of the year, and 269 were admitted, or an increase of 15 per cent. over 1909. There were 111 incipient, 138 advanced, and 24 far advanced cases. On discharge, in 66 cases the disease seemed to be arrested, 148 were improved, 24 not improved, and 2 died. On an average, the patients remained twelve weeks in hospital, which the physicians considered much too short a period to ensure the most lasting results of treatment. Last year, however, nearly double as many incipient cases were admitted as in 1909. The medical staff pointed out two grave defects: the committee was often compelled to admit advanced and so unsuitable cases, while many early cases were compelled to return to work at too early a stage, and so relapsed. In other places consumption colonies were being established. In the dispensary there were 858 new cases and 3071 attendances; the dispensary nurse had visited 104 new patients and paid 959 visits. The chairman, in moving the adoption of the reports, referred to the overlapping of work with kindred societies; one patient had been looked after at home by the public health department, the Women's National Health Association, the Nurses for the Sick Poor, and the Forster Green Hospital.

# Correspondence.

## EFFECTS OF ELECTRICAL CURRENTS UPON BLOOD PRESSURE.

SIR,—You recently published in the BRITISH MEDICAL JOURNAL a paper by Dr. Ettie Sayer on the effects of high-frequency currents on blood pressure.[1] As the physiological action of these currents is frequently misunderstood, even by those using them, I should like to give the following very brief summary of the conclusions I have come to on this subject after a regular employment of this form of treatment for about ten years.

High-frequency "currents" are said to raise the blood pressure when low and to lower it when high; but sometimes we desire to lower it when relatively low, and to raise it when relatively high. The important question, then, is what is the normal blood pressure under normal circumstances in each case? The pulse-rate will often be a guide. If this is high it will generally indicate a change in the blood pressure from what is normal to the patient. These currents, when suitably applied, act by lowering the peripheral resistance, and also as a cardiac tonic. If the pressure is low, even moderate doses may depress the heart to a dangerous extent, due to a further lowering of the pressure; whilst small doses may raise the blood pressure by giving tone to the heart. Where the pressure is abnormally high, due to autointoxication, these currents act beneficially, probably as a gastro-intestinal tonic and antiseptic, for, as I have proved, the current from auto-condensation passes easily through the alimentary canal. In order to obtain the best results from high-frequency treatment, the patient must rest before, and especially after, the treatment.—I am, etc.,

Glasgow, Jan. 30th. SAMUEL SLOAN.

## RHEUMATIC PURPURA AND PELIOSIS RHEUMATICA.

SIR,—Dr. F. J. Poynton, in his recent lecture on some of the rarer occurrences in the rheumatism of childhood (BRITISH MEDICAL JOURNAL, January 7th, 1911), makes reference to the difficult subject of "rheumatic purpura."

In this connexion, two questions, essentially distinct, require answers: (1) Is purpura ever a rheumatic manifestation? (2) Is the condition so commonly diagnosed as "peliosis rheumatica" usually or ever a true manifestation of rheumatism?

1. The view that purpura is never a rheumatic manifestation Dr. Poynton regards as "certainly an error," and one is not here concerned to deny the possibility, even the probability, of rheumatic purpura. Such an infection as rheumatism, which in its severe forms produces haemorrhagic arthritis and pericarditis, haematuria and haemorrhage into and around its subcutaneous nodules, is more than likely to produce in certain instances a haemorrhagic rash.

2. Upon the relationship between peliosis rheumatica and the rheumatic infection Dr. Poynton does not so clearly give us the benefit of his opinion. He quotes one case in which there were "arthritis, endocarditis, and the well-known peliosis rheumatica"; he refers to others "in which it has been more difficult to assure oneself of the rheumatic origin of the purpura," and appears to summarize the matter in his conclusion that "in a long history of rheumatism, purpura may be an incident pointing to activity of the process." From these passages it would seem that he is prepared to give his support to the theory that peliosis rheumatica is, or at least can be, a rheumatic manifestation.

To the view that peliosis rheumatica is usually a manifestation of rheumatism there are at least two grave objections. In the first place, from all we know of the rheumatic infection, its haemorrhagic lesions tend to occur in the most severe examples of the disease, while in peliosis rheumatica such symptoms as are most suggestive of rheumatism suggest, as a rule, only a mild form of that disease—for example, sore throat and muscular pains without serious arthritis, carditis, or chorea. Secondly, one may see a very large number of cases of definite rheumatism with joint, cardiac, and nervous symptoms, without meeting an example of peliosis rheumatica among them. For these reasons there seems no theoretical likelihood of peliosis rheumatica being under ordinary circumstances or usually a rheumatic manifestation.

That peliosis rheumatica is never of rheumatic origin is hardly capable of proof. Nevertheless it is noteworthy that although both it and acute rheumatism are common enough conditions, yet the occurrence of peliosis rheumatica in a rheumatic subject, especially during an attack of acute rheumatism, is quite uncommon, as Dr. Poynton's paper suggests. It would appear, therefore, more reasonable to explain such instances as the result of a dual infection than as rare or atypical examples of true rheumatism. Owing to the damage done to the tonsils by rheumatism, added infections are not rare in rheumatic subjects (for example, non-rheumatic types of malignant endocarditis).

Taking the view that peliosis rheumatica is due to an infection distinct from, although occasionally co-existent with, the rheumatic infection, it becomes, as regards its relationship to rheumatism, analogous to erythema nodosum, which Dr. Poynton refuses to include among the rheumatic manifestations.

I am sure that it would be of interest to many if Dr. Poynton would state clearly if he teaches that peliosis rheumatica is usually or exceptionally a direct rheumatic manifestation.—I am, etc.,

London, W., Feb. 6th. REGINALD MILLER.

## SWABS LEFT IN THE INTESTINE.

SIR,—May I join with Mr. Lynn Thomas in congratulating Mr. Charles Ryall? By defending the action brought against him, and by his success in obtaining a verdict, Mr. Ryall has rendered a service to our profession. In the performance of our work the risk of an ungrateful or aggrieved patient bringing an undeserved action against us is ever present, and every successful defence discourages the bringing of such actions, which, however unwarranted they may be, must necessarily entail great anxiety to the defendant.

The suggestion made by Mr. Lynn Thomas as to the necessity for some ethical code to guide those members of the profession who feel it their duty to support plaintiffs against alleged wrongful treatment is an excellent one. Under certain circumstances to do so may be perfectly right and proper, but when it involves detailed criticism of the technique of an operation a

[1] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1052.

which one was not present—criticism which must necessarily be ill-directed and may be quite wrong—such action, I maintain most emphatically, indicates a grievous lack of consideration for, and fairness to, a colleague.

When encountering any of the serious complications which may arise in the course of a formidable operation, a surgeon has to decide instantly the best course to pursue, and has to act on the judgement of the moment. Many of us know by experience that such difficult operations as the one which led to the recent action, tax one's resources to the utmost. Suturing the intestine in such circumstances is always difficult, and sometimes impossible, and it is undertaking a grave responsibility to say that the use of a piece of gauze inside the bowel (not in the peritoneal cavity, as counsel's opening statement led one to imagine) is an unjustifiable procedure.

As Mr. Lynn Thomas points out, Professor Roux is accustomed to place pieces of gauze in the jejunum. If this is permissible and safe in the jejunum, surely it is even more so with regard to the sigmoid. Mr. Lynn Thomas maintains that the use of the sigmoidoscope in the case under discussion would have been highly dangerous. In this I cordially agree with him.

There is another point in the evidence of the surgeon called for the plaintiff to which I wish to allude. It was suggested that the hand might have been introduced into the rectum to search for the gauze. It would be interesting to know whether he has ever adopted this procedure, and, if so, with what success, and also how many surgeons there are in London with a hand sufficiently small to admit of its being introduced into the bowel? I once saw the original suggester of this procedure attempt to remove a foreign body in the rectum in this manner, but unsuccessfully. It is a method available for a very few, and, if any attempt is made to pass the hand beyond the reflection of peritoneum, one fraught with grave danger to the patient.—I am, etc.,

London, W., Feb. 1st. HERBERT J. PATERSON.

## SALVARSAN ("606").

SIR,—In his able letter (JOURNAL, January 28th, p. 226) on the subject of "606," whilst expressing incontrovertible views as to the great value of mercury and also of iodides, Dr. Marshall is a little unfair, I think, in his attitude towards the new remedy. As soon as I was able to judge objectively of the results obtained, both at home and abroad, I came to the conclusion that we had in the Ehrlich-Hata preparation a most valuable antisyphilitic weapon, though, owing to my fundamental scepticism, I did not expect to see the fulfilment of all the wonders that were expected or reported of it, the more so as I had seen a good many therapeutic rockets come down like sticks. Yet there could be no doubt as to the importance of keeping an open mind on the subject. Just as intramuscular injections of mercury were a distinct advance, so "606" has now, I consider, taken us a step further.

We can now deliver a blow straight from the shoulder against the *Treponema pallidum* in the earliest stages of the infection. Though the ideal *sterilisatio magna* has not been attained and relapses have occurred, mainly after one injection only of "606" or too small doses, the fact remains that a great deal can be done in the way of breaking up many of the parasites by this means. When this first attack is followed up by one or two more injections of "606" and a vigorous course of mercury, one has done one's best to knock the disease on the head. As things stand at present, cases must be kept under strict observation, mercury and iodides being exhibited from time to time, according to circumstances and indications. Everything is relative (one needs to be constantly repeating this) and we must be guided by results as we go along.

As to the mode of introducing "606" into the organism, I have come to the conclusion, after doing several intravenous injections, that this is the best. The advantages of the intravenous injections over the intramuscular (for I take it the subcutaneous has been jettisoned) are that the pain is done away with and the time spent in bed greatly abridged. But no doubt both the intravenous and the intramuscular methods will find their place and special indications.

The great point about this new remedy is to keep an even mind, not exaggerating either one way or the other. We must be guided by events, and, as we gain experience, be ready to modify our opinions and practice as regards the value of "606" and the way of using it.—I am, etc.,

London, W., Jan. 31st. GEORGE PERNET, M.D.

## ALCOHOLISM AND DEGENERACY.

SIR,—Professor Pearson undertakes, at the beginning of his letter in your issue of February 4th, to "dismiss Dr. Saleeby." That, of course, may conceivably prove a long business, and there is an ancient observation, derived from a race which is conspicuous for its non-alcoholic parenthood, and is going on still, about boasting before and after putting on one's armour. Let us see then.

Professor Pearson heartily admits his belief that it was the "stronger and more virile parents" who took alcohol, "and because of their physique, not because of their alcohol, had healthier children"; and he points out that he stated this (less clearly) in the original memoir. My criticism was and is that "plainly, therefore, on his own showing, his report has no relevance to the subject with which it professes to deal . . . for, in order to study statistically the subject posed, would not one have to compare comparable parents?" Later in his reply Professor Pearson argues that Sir Victor Horsley and Dr. Sturge may find it "absolutely impossible to investigate whether alcoholic and non-alcoholic are initially of the same stock. Without this equality any investigation of the effect of parental alcoholism on the offspring must be idle."

Thus Professor Pearson accepts from me and uses against others a criticism which proves his memoir to be, in his own word, "idle." I had hoped to convince you, Sir, and your readers, on this point, but had never expected to break all records and convince Professor Pearson in controversy. That he should introduce his instant acceptance of my argument by asking your leave to dismiss me is doubtless "only his fun," and that he should continue to defend his memoir after teaching us to call it idle is doubtless only Newton's first law of motion.

But the memoir which Professor Pearson now teaches us to call "idle" has made me busy, and, since writing my last letter, I have, *inter alia*, paid a visit, under the guidance of my friend Dr. Leslie Mackenzie, to the Edinburgh school now in question. The population under discussion lives mainly in the Canongate, and the school is the North Canongate school. (The name is not in the schedule, and it will interest Professor Pearson, no doubt, to know where the Edinburgh people live whom he studied in London.) It will further interest him, as he has necessarily had to maintain that he was dealing with a fair sample of the working class population, to know that it was the absolutely appalling condition of the children in this school that led the official inquirers into "physical training" after the Boer war to ask Dr. Mackenzie to make studies of other schools; the contrast between the North Canongate school and, for instance, the Bruntsfield school, being all-significant. Hence, as a matter of well-known history, grew the study of school children in other cities, the committee and report on physical deterioration, the medical inspection of the present, and the school clinics of the future. It was the ghastly state of the children of this school that led to the detailed inquiry into their families, which, though thus grotesquely unsuitable for the purpose, was innocently used by Professor Pearson. And so it came about that the very population the degeneracy of which directly led to all these subsequent developments and the present national interest in the subject, was used by Professor Pearson as a fair and suitable population for his purpose of comparing normal and alcoholized stocks. It is not mischance that led Professor Pearson to choose the perfect and original example of a population which no one but a fool, having seen it, would have chosen. This is the Nemesis for the credulous employment of a "method" which Professor Pearson regards as independent of the quality of the data submitted to it. That claim, as he makes it, was never made by his master and mine, Sir Francis Galton, whose method it is, and whose noble and seminal life, now ended, yet scarcely begun, will achieve its more immediate fruition only when his method is employed by those who are willing and competent to judge of the quality of the data under review.

As a medical student, and as Resident Physician to the Edinburgh Maternity Hospital, I worked for years during the relevant period of time in the very population which Professor Pearson chose, and I am only too thankful to believe that attention to nurture—of which Professor Pearson thinks so little—has somewhat improved its indescribably degraded and diseased state. But things are bad enough still; and I have the permission of Mr. Andrew Young, the head master of the school—who has worked during nearly two decades amongst and for this very population, who knows the homes and the relatives almost as well as the children, and to whom, as to the rest of us who have seen with our own eyes, Professor Pearson's conclusions are simply ludicrous—to say that Professor Pearson will be heartily welcome in the class-rooms, and for a tour of inspection in the district, should he have any curiosity to see the population about which he has so disastrously misinformed the world. In biology the microscope is more useful than the telescope.

What we want now, of course, is a report which not even its authors could be argued into calling "idle." We must observe the order in time of the poisoning and the offspring—lest we confound correlation with causation (which the correlation method, ignoring time, cannot distinguish), and thus be found estimating the "influence" of something on something else that antedated it. We must, if possible, as I suggested in my last letter, compare the offspring of the same parents, who satisfy us as initially healthy, before, during, and after the alcoholism; and even so, there will remain the rest of the fallacies which the "idle" report includes. Above all, we must distinguish real alcoholism, with its inevitable soakage of the germinal tissues, and possible blastophthoria, from the inebriety of the feeble-minded who may take very little alcohol at all; and we must use, for example, delirium tremens, rather than the number of convictions for drunkenness, as a measure of the intensity of alcoholism; notwithstanding Professor Pearson's fantastic preference for the latter as a criterion in his latest report.

In a word, we must follow the lines of the experimental work on this subject already done with alcohol, lead, and arsenic—perhaps the principal "racial poisons," as one may call them. I say "we," but I do not practise, and the work can only be done by combining the expert, analysed, and prolonged observations of many practitioners. These could be collected and submitted to Professor Pearson, who, after some weeks or months of labour, would doubtless then produce the result which the figures would evidently bear upon their faces, as he has just done in his report on the feeble-minded inebriate—whom he found to be feeble-minded.—I am, etc.,

London, W., Feb. 4th. C. W. SALEEBY.

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SIR,—Professor Pearson has arrived at the conclusion that "the children of the intemperate are healthier than the children of the sober." He states this as a "fact, as shown in these figures." Whether his figures be or be not correct—and he can argue that point with Sir Victor Horsley—they do *not* demonstrate any such fact as he alleges. In reality, they demonstrate the direct contrary.

His figures (Table, JOURNAL, January 7th) show that "in a population of 1,400 children with a majority of drinking parents" the percentage of dull and mentally defective offspring lies between 15.6 and 25.8; whereas in an examination of 100,000 school children, Dr. Francis Warner found that "8 per cent. of the boys and 6.8 per cent. of the girls were reported by the teachers as below average ability in school work." The comparison speaks for itself.

Again, if we eliminate the suspected cases and deal only with parents of known habits, the difference between the percentages of healthy offspring in the two alcoholic and in the two sober classes is negligible; and hence, if we accept the view that alcoholism connotes superior physique and virility, we must also conclude that alcoholism neutralizes these advantages, as measured in terms of healthy offspring. It is clear, then, that what Professor Pearson terms "a fact, as shown in these figures" is not a fact at all, but an incorrect deduction.

One would have thought that a statistician's eye would have been attracted by a feature in the table which is prima facie evidence of its unsoundness. For both healthy and unhealthy offspring it gives a much higher percentage among the "suspected" than among either drinkers or sober. If alcohol has no effect, what reason can be given for so marked a variation in an unselected sample? Superior physique would help us when the mentally deficient are in excess. The other parent cannot be introduced as a factor without destroying the whole scheme of the table. Nor does the alleged evil influence of alcohol explain why "suspected" parents should have more healthy children than drunkards. Statistically the table is too crude to be of any value whatever, and it bears on its face the stigmata of worthlessness.

If the question is worth solving, would it not be as well to carry out an inquiry on a more extensive scale, and preferably among a population that was not subject to so many other influences toward defects in the offspring?—I am, etc.,

DONALD F. SHEARER, M.B.Oxon., F.R.C.S.

Exeter, Feb. 6th.

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SIR,—Professor Pearson's confused letter will be difficult to follow by those who have not had the opportunity of reading the original papers, "memoirs," his letter in the *Journal of the Royal Statistical Society* and the letters which have recently been published in the *Times* by Professor Pearson and ourselves.

From these last Professor Pearson, with what he and Miss Elderton called "judicial calm," has refurbished statements which he evidently considers quite good enough for our JOURNAL, but the errors of which we have, as a matter of fact, already fully exposed and corrected in the columns of the *Times*. To bring order out of the unwarrantable confusion[1] which, designedly or not, has been cast over this perfectly simple question, we will follow the order of our detailed criticism of his and Miss Elderton's work which we published in the BRITISH MEDICAL JOURNAL, January 14th, 1911.

In passing we shall correct the numerous errors of fact scattered throughout Professor Pearson's letter.

One preliminary observation is necessary. We at any rate have no paradoxical mission to further, but are solely concerned in a critical examination of what purported to be highly accurate, scientific, biologico-statistical memoirs on the subject of parental alcoholism, its effects on offspring and on the wage-earning power, mentality, and physique of the drunken workman compared to the sober one.

We will begin with the first two errors which we found in Professor Pearson and Miss Elderton's papers:

Error 1. *Absence of controls.*

Error 2. *Unscientific use of terms.*

We showed on January 14th in your columns that the authors had not only neglected to provide as controls a really non-alcoholic class of parents to compare with the drunken, but had committed the scientifically inexcusable fault of labelling the less alcoholic parents as "non-alcoholic." Professor Pearson says in another part of this letter that a charge like this amounts to an accusation of "falsifying data." If it does, nobody is to blame but himself and Miss Elderton, for they are responsible for what they have done in this matter of wrongful description, not only in this part of their work, but in many others, as we have already shown, and shall again directly, on further points which we did not discuss in our paper of January 14th.

Professor Pearson, in his last letter to you of February 4th,

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[1] Professor Pearson's intellectual confusion, as your readers must have noticed, really amounts to a scientific obsession. The following are examples:

(*a*) Sir Victor belongs to that small group of temperance advocates who apparently believe that *moderate* and *excessive* uses of alcohol are *identical* in their results (p. 279).

(*b*) If Sir Victor and Dr. Sturge succeed in showing that the wage-earning power of the alcoholic man is markedly lower than that of the sober man, apart from disabilities due to periods of alcoholic incapacity, they will find it absolutely impossible to investigate whether alcoholic and non-alcoholic *are initially of the same stock* (sic) (p. 280).

(*c*) *That* there has been very little change in the habits of the parents is *demonstrated* by the fact *that* the number of quite young children relative to all the children is practically the same in our sober and drinking sections (p. 279).

The italics are ours.

(*d*) I have several times asked Sir Victor Horsley for an explanation of why he has elsewhere cited with approval Dr. MacNicholl and other authors, etc. He has given no answer to this question.

Sir Victor Horsley and Dr. Sturge answered this question in the BRITISH MEDICAL JOURNAL, December 31st, 1910, p. 2048.

does not seek to defend Miss Elderton or himself on either of these two grave charges; indeed, on January 7th he abandoned any further attempts to defend his absence of controls and misappropriation of scientific terms; consequently he is now by default forced to admit that their uncontrolled results are, as Mr. Keynes said, both "valueless" and "misleading."

Error 3. *Selection by the authors of a non-representative population.*

In our paper of January 14th we showed, as Professor Marshall, Mr. Keynes, and Sir Thomas Whittaker, M.P., had already done, that the material chosen by Professor Pearson and Miss Elderton was a slum population of such a character that by no possible means could any comparison be drawn as they professed to do between "alcoholic" and "non-alcoholic" people, but only between "very alcoholic" and "less alcoholic" individuals. Consequently that:

1. Without the strictest analysis (wholly neglected by the authors, vide Error 4) no results as regards physique, etc., of the offspring could be obtained.
2. Any reference to teetotalers as compared with alcoholics was scientifically impossible.

To the first of these considerations no answer has been attempted by Professor Pearson, either in his letter of last week or in the *Times*. Again, therefore, by default he admits his and Miss Elderton's memoirs to be valueless on the essential point, namely, the influence on the offspring of alcoholism in the parent.

On the second point—"teetotalers," we have more to say.

In the first place, we showed in the JOURNAL on January 14th that Professor Pearson and Miss Elderton never had before them any parents known to be teetotalers as *parents*. Teetotal parentage, therefore, they have never dealt with. This fundamental point Professor Pearson, writing to you on February 4th, does not meet at all, although it renders inexcusable his and Miss Elderton's conduct in speaking and writing as though their figures related to offspring of known "teetotalers." We showed, in fact, both in our paper of January 14th and in our letter of the same date that their so-called "teetotalers" column in their tables was unreal and misleading, because Professor Pearson and Miss Elderton had no knowledge in the cases they used whether the parents became teetotalers before or after the children were born.

Professor Pearson says that this is tantamount to his and Miss Elderton having fabricated statistics. We agree with him in his mode of thus regarding the facts. He and Miss Elderton in their memoir and in his letters of January 7th and February 4th dare to say they have the figures of the children of at least fourteen teetotal *fathers*. They have not the facts of one such teetotal father, for they do not know (since the Edinburgh report does not show it) when any of the fourteen parents they allude to began his teetotalism.

Here we must digress for a moment to point out that Professor Pearson has for three weeks evaded answering our challenge to him of January 14th, and that of Mr. Furneaux Jordan, to substantiate the accuracy of his statements by publishing in your columns the actual figures, the pages in the memoirs in which they appear, and the actual case numbers given in the Edinburgh report. So long as these facts are concealed it is easy for him temporarily to escape condemnation. We return to this matter under Error 4, vide infra. It is extraordinary, too, to observe with what carelessness Professor Pearson writes. Thus he says in his last letter (February 4th): "Sir Victor at first charged us with not separating out the teetotalers from the mass of the sober." This is another example of Professor Pearson's mental confusion, for Sir Victor Horsley has never made any such charge, but the exact opposite.

We now must draw attention on this point to another grave instance of what Professor Pearson with good reason terms as "fabrication." It is that on this question of *teetotalers*, that is, total abstainers, he does not hesitate to quote in our JOURNAL on February 4th just as he did in the *Times* on January 19th, a letter he received from the Edinburgh Report Committee relating to "sober" people, that is, "less alcoholics," and he uses this letter as though it applied "to teetotalers," although the Edinburgh Committee specially limited the statement in their letter to the word "sober." This he does in the JOURNAL twice, namely, at the heads of the columns 5 and 6, p. 280 and 281, of his letter of February 4th. Nay, more, he actually makes the following statement:

"The humour of the situation is that we never claimed to do more than separate our population into sober and drinking groups." (Column 6, p. 281, February 4th.)

What "humour" there can be in self-contradiction we are unable to see, but the facts are that, so far from only dividing their population into "sober and drinking groups," he and Miss Elderton, besides constantly speaking of "alcoholic" and "non alcoholic" parents, give no less than twenty-six tables exactly like the one Professor Pearson published in his letter in the JOURNAL of January 7th, p. 50, the headings of the columns of which are "Teetotaler, Sober, Drink Suspected, Drinks, Bouts." Here there are not two groups only, but five. Thus he stultifies Miss Elderton and himself in the most wholesale manner.

Finally, since these authors did not know whether the so-called teetotalers were real teetotal parents, their statistics about the offspring of these persons can only be adequately described by the word Professor Pearson uses, namely, "fabrications," because they are manufactured out of their heads by conjecture and guessing, as indeed we pointed out nearly three months ago in our letter in the JOURNAL of November 19th.

Of the five individuals whose teetotalism is known to have commenced on a certain date but who, as we showed, were not teetotal parents at all, he admits having used one in his statistics but denies having included the others. We accept this denial, especially as it has no bearing on the discussion and his misuse of the word teetotal parent.

We now come to the so-called teetotal mothers. As we showed on January 14th, there are no facts given in the Edinburgh statistics which make it possible to speak except in one instance out of the whole nineteen as to whether the wife was a teetotal *mother* or not, and of that one instance—namely, No. 336—Professor Pearson says our objection to her being included is, he contends, what "only fanaticism could convert into what is really a libellous account of a probably quite steady woman." On turning to the Edinburgh Report, this so-called teetotal mother is plainly described in the following language: "The wife not teetotal but never seen the worse for drink." We fail to see how our objection to this individual being included among the teetotal parents is a mark of fanaticism, or that we were guilty of libelling her. It is on this matter that Professor Pearson has committed the most serious of his literary misdemeanours, namely, using the information he received in a letter from the Edinburgh Committee relating to merely so-called sober people as though it related to total abstainers. This conduct appears to us to quite well come within Professor Pearson's definition of "fabrications."

Error 4. *Absence of any proof of alcoholism beginning before the birth of the children.*

The fundamental necessity of proving that the alcoholic parents began their drinking before the children were born was never recognized, as we have repeatedly pointed out, by Professor Pearson and Miss Elderton, and that the whole mass of their mathematical formulae and graphs were mere deceptions. Professor Pearson now, in his second column, p. 279, says this point is "pure quibble." He applies a ridiculous expression of this sort to what is a fundamentally necessary condition of a research into the effects of parental alcoholism on offspring, instead of answering, as in honour he was bound to do, the challenge we made to him in our letter of January 14th in the JOURNAL, p. 112. Those who have done us the honour to read the controversial correspondence in the JOURNAL, which began with our letter of November 19th, 1910, will know that for six or seven weeks we have endeavoured to learn from Professor Pearson where in his and Miss Elderton's memoir, this biological condition was satisfied, and at last on January 7th he said of their memoir, "Of course it does contain such figures and what Sir Victor is confessing is only that he is constitutionally or by training incapable of interpreting them." To this we replied as follows in the JOURNAL of January 14th:

"We must repeat that there are no such figures in

existence, and if Professor Pearson wishes to be believed he must publish in the next issue of the JOURNAL:

"1. The figures, together with the numbers of the pages of his and Miss Elderton's memoir, on which, as he alleges, they are printed.

"2. The reference case numbers of the Edinburgh Report Schedules belonging to the parents and children to whom the figures individually refer."

To this challenge Professor Pearson has returned no answer, although the JOURNAL has appeared three times since—namely, on January 21st, 28th, and February 4th. We are sorry that, for reasons we do not fully understand, a letter which we wrote to the JOURNAL a fortnight ago—that is, immediately after we noticed Professor Pearson's failure to respond—has never been published. This point stands by itself, because it is obvious, as we stated, that these figures which Professor Pearson solemnly asserted existed, and that it was only Sir Victor Horsley's stupidity which prevented his recognizing them, are statements both wholly untrue. We earnestly hope that his failure to produce his "proofs" will be appreciated by those who are in sympathy with his views on the alcohol question. To our mind it is intolerable that the memory of Sir Francis Galton and the work of the Eugenics Laboratory founded by him should be marred by such an act on the part of Professor Pearson.

We now come to their great generalization respecting the parents.

Error 6. *Erroneous conclusion that the efficiency, as measured by wage earning capacity, of an alcoholic male parent is at least equal to that of a less alcoholic male parent.*

The central point of their paper, which found such ready acceptance in certain quarters, was that the drunken workman was as good as the sober, and the standard on which this extraordinary conclusion was founded was his wage-earning capacity. Now in this subject there are two distinct issues. First, how much does the drunken and sober workman respectively earn? and, secondly, what use did Professor Pearson make of the conclusions he drew from the Edinburgh data on this subject?

1. How much does the drunken and sober workman respectively earn?

We showed on January 14th (p. 77) that Professor Pearson and Miss Elderton's statements on this subject were absolutely contradictory, and we tabulated this contradiction, showing that in May, 1910, they said the drinker earned 25s. and the sober 26s., whereas in September, 1910, according to Professor Pearson, the drinker earned 25s. 6d. and the sober 25s. 5d. Whether this gross contradiction in these authors' own results was due to carelessness or not there was no evidence to show; but, to whatever it was due, Professor Pearson in his letter of last week does not attempt to account for this result. In fact, he makes no reference to it whatever. The only thing he does do is to make a series of disconnected statements, all untrue; and, inasmuch as they are disconnected, we must now proceed to expose them in detail. In the first place, your readers must understand that Professor Pearson published in the *Times* of August 10th, 1910, a wage and sobriety table, which he subsequently republished in a supplemental memoir, and which he called "Analysis of the Fathers' Trades." This table is given on pages 10 and 11 of the supplemental memoir, and is constructed as follows. We will quote the first three lines:

"Class A.—Papercutters (24s.; S 1, D 1); cabmen (18s. 5d.; S 1, D 10); goldbeaters (21s. 6d.; S 2, D 1); stablemen (21s. 2d.; S 1, D 5); millworkers (19s.; S 2, D 0); porters (20s. 6d.; S 9, D 8)," etc.

Professor Pearson states, in describing the table, that "in each case the average of the recorded wages of the individuals following that trade is given. S = sober, D = drinks, and the numbers following these letters give the number for each type." The only conclusion that can be possibly drawn from this table and the statements of Professor Pearson is that the name signifies the trade, the drunken and sober are the individuals following that trade, and the sum stated as the wage is the average of the recorded wages of the individuals mentioned in the table. Professor Pearson actually says in his letter on February 4th that his table "has nothing to do with sobriety or intemperance." If this were true we are to suppose that the headings S. and D. have not got the meaning which Professor Pearson in his memoir and in the *Times* said they had. But we need not spend time on a contradiction such as this, but pass on to show once more that his other statement about this table is equally untrue, namely, that the figure indicating the wage of the trade is "the average of the recorded wages of the individuals following that trade." As Mr. Keynes pointed out in the *Journal of the Royal Statistical Society*, and as we fully demonstrated in our paper of January 14th, p. 77, Professor Pearson did not give the real average of the wages earned by the individuals he mentions in his table, but again, with a great saving of his time and trouble, and with a large share of "judicial calm," he copied for each trade a wage from a verification wage table of the Edinburgh Committee, which, as we showed on January 14th, only applied to a limited number of the cases among the people he gives in his table. This way of treating statistics we think is very suitably described in the way Professor Pearson mentions as a "fabrication." It might have been supposed that this having been pointed out by us, he would have expressed some regret for having misled his readers, but nothing of the kind appears in his letter of last week. On the contrary, he evidently hopes that the nature of this table will be buried in the involved description which he gives. Further, having by giving to alcoholic workmen in 18 per cent. of the cases a wage that does not belong to them, arrived at his and Miss Elderton's chief generalizations concerning the relative value of the drunken and sober, quoted above, he says, "I am quite ready to abide by those words." This interests us, because on January 16th, in the *Times*, he denied having made any such statement at all, and was only brought up short by our publishing on the 19th the actual words of their generalization from the memoir. He takes credit to himself in like manner for having stated in his supplemental memoir the well-worn truism that drinkers, being more often out of work, had lower average wages. Even this, however, he did not acknowledge to be a fact until Professor Marshall had driven it home by his letters to the *Times* in July and August of last year. This discovery, therefore, was not Professor Pearson's. In the middle of the fourth column of his letter he gives an involved statement on the wage question, of which he says "details are discussed in my contribution to the current number of the *Royal Statistical Society's Journal*." If your readers have the curiosity to turn to this, they will find a most extraordinary compendium of estimates as to how much the drinker and the sober man respectively earned, but not from beginning to end does he mention the original estimate published in the first memoir. This, we may suppose, therefore, will also be buried, like various other inconvenient conclusions to which we have drawn attention. We note in perusing this paragraph one characteristic expression—namely, where he says that the figures we quoted from his supplemental memoir were "verbally" accurate. It no doubt requires a high mathematical mind to realize that though two and two "verbally" make four, the real result is something else which can be given in a footnote. Professor Pearson seems to feel that this mode of treating arithmetic is not usual, and therefore hastens to say that "the meaning of the word parent seems to be quite overlooked by Sir Victor." We are not afraid of your readers thinking that we do not understand the meaning of the word parent, but we would point out that even a divagation of this sort is of no use to Professor Pearson, because the original estimate of Miss Elderton and himself, which is now relegated by him to the dark ages, referred to "fathers only" exactly in the same way as his table, consequently the footnote he quotes has nothing whatever to do with the different explanations he has published of the wages earned of the alcoholic and non-alcoholic workman respectively. We will now turn to his tabulation of the different trades. We have extracted from him at last the admission that his masons, porters, railway porters, etc., are not the people called such in the Edinburgh Report from which he professed to get them, but that he has jumbled together persons of widely varying occupations, and he attempts to justify this by reference to the instructions of the Registrar-General to a census clerk. What serves for the crude statistics of the

Registrar-General is totally inadequate, of course, for any tabulation of trades which is to give an accurate computation of the wage earned by those trades. There is no necessity either for Professor Pearson to thus mishandle the Edinburgh statistics, and as for his group of porters, a messenger is not a porter. It is interesting to notice that he carefully abstains from explaining in your columns the far more glaring case we gave of the railway porters, which he represented to be nine in number, although only two exist in the Edinburgh statistics. The reason is this—from his letter to the *Statistical Journal* it would appear he concocted his nine railway porters by jumbling together anybody who had anything whatever to do with a railway; and he even admits that his "railway porters" varied in wage-earning rate from a guard who earned 45s. a week to a porter who earned 14s. a week and tips. Can any one pretend for a single moment that this is scientific statistical examination of the wage-earning capacity of different trades and sections of the community? The proof of our position is that our estimations obtained by keeping strictly to the Edinburgh facts gave the same results as the Edinburgh Verification and Wage Table, results which are in absolute opposition to Professor Pearson and Miss Elderton's. As we showed on January 14th, this is due to their having created statistics where real data did not exist. A very good example of this is his belated attempt in his last letter to support his and Miss Elderton's theory that the reason why the children of alcoholic parents have such a high death-rate is not so much that there are any toxic effects of the alcohol present in the offspring as that they die from accidents directly caused by the drunkenness of their parents. If statistics are selected in which no information is given concerning the actual cause of death, naturally any theory can be bolstered up. Professor Pearson therefore endeavours to meet our police statistics in which precise cause and mode of death is given in each instance, by quoting the returns of the Registrar-General. We have shown in a letter sent to the *Times*,[2] that these returns are worthless for the purpose to which Professor Pearson applies them, except in one single particular, that is, "overlaying." As we show in our book, *Alcohol and the Human Body*, alcoholism has a direct causative relation to this accident. In the Registrar-General's returns, which Professor Pearson quotes in his letter without the slightest qualification, the remainder of the deaths from suffocation are put down as due to "otherwise." As this, of course, has no meaning whatever, one-third of Professor Pearson's figures are useless for his purpose, but that, as we have seen before, is no hindrance to his quoting them. Our point now is that to use such figures to make statistics is to execute what Professor Pearson rightly calls a "fabrication." Even if we took the overlaying cases at the fullest possible estimate, the proportionate number of instances that would have occurred in the population to which the Edinburgh Report refers would be less than one. This completely confirms the conclusion we drew from the more minutely analysed police returns. Taking the view that we do that alcohol is a great national evil, if, as Professor Pearson asserts, we were only regarding this question from that point of view, it would make no difference whether the parental alcoholism killed the children by negligent accidents or by toxic consequences. What we did show on January 14th was that Professor Pearson and Miss Elderton, endeavouring to minimize the toxic effects of the drug, invented, without the slightest inquiry into the facts, a theory that the higher death-rate was due to accidents. We have therefore disproved, first, this gratuitous hypothesis of Professor Pearson and Miss Elderton; and, secondly, we have shown reason why further research should be made into the general physical condition of the children of alcoholics.

In conclusion, we observe that Professor Pearson intends to produce from his apparently unlimited financial resources a pamphlet purporting to be an additional answer to our paper of January 14th, just as his and Miss Elderton's first memoir purported to be an inquiry into parental alcoholism. We have no doubt that the one will be as incorrect as the other.—We are, etc.,

MARY D. STURGE.
VICTOR HORSLEY.

London, W., Feb. 7th.

[2] The *Times*, for reasons which may be well understood, has suddenly closed the correspondence after publishing Professor Pearson's last letter.

*** In the note on the pamphlet published by Professor Karl Pearson in *Questions of the Day and of the Fray*, published in the JOURNAL of November 12th, 1910, p. 1545, it was said that it appeared to us that "the assailants of Professor Pearson have been somewhat over-hasty." It is now abundantly clear that this epithet was ill chosen, and we regret that the expression was used. In the longer article published in the JOURNAL of June 4th, 1910, p. 1367, on the "First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring," by Miss Elderton and Professor Pearson, after stating that they held that "parental alcoholism, bad housing, and other environmental evils do not produce large effects upon the next generation," we pointed out that "Even if these views merited universal acceptation—as to which we express no opinion—it would still be our duty to strive at least as hard as at present for the amelioration of environmental conditions. Hunger, filth, and alcoholic excess may not affect the intelligence and physique of the rising generation, but, beyond all question, they materially affect the health and happiness of the generation in being." It appears that this warning might have been even more strongly expressed.

## HYDROTHERAPY.

SIR,—We feel it our duty to protest against the depreciatory tone of an article on hydrotherapy appearing in your issue of January 7th. We believe that such an article is calculated to discourage the general body of the profession from paying due attention to a method of treatment for which, when properly conducted, there is in many instances no satisfactory alternative. We think, too, that it may tend to check the flow of subscriptions to our mineral-water hospitals.

It is certain that patients who have derived benefit from hydrotherapy will continue to seek its aid and will advise their friends to follow the same course. But if they ascertain or are led to believe that hydrotherapy is undervalued or imperfectly understood by the medical profession in Britain they will be disposed, more and more, acting on their own initiative, to place themselves in the hands of unqualified persons in this country, or to proceed to the Continent, where balneology is recognized as an independent and indispensable branch of the science of therapeutics.

While associating ourselves with the writer of your article in deprecating the exaggerated claims put forward by some zealots we protest against the statement that in the scheme of management of a modern spa the various baths and hydropathic (*sic*) applications are regarded as a secondary though essential element.

True as this relegation of hydrotherapy to a secondary position may be for a limited number of resorts, the names of which will readily occur to any one versed in crenotherapy, it is the reverse of true when applied to the majority, whether in Britain or on the Continent.

We demur, moreover, to the suggestion that hydrotherapy has become, in the older countries of the world, a therapeutic method within the compass of the leisured and moneyed classes only. The inaccuracy of this statement is shown by the fact that in 1909, at three English spas alone, in addition to out-patients there were admitted to the wards 5,779 patients of the poorer classes, sent from all parts of the country; while at one spa no less than 35,327 mineral water baths were given at the bathing establishment belonging to the charity.

While there are other passages to which we take exception, we prefer to refrain from further comment, but would state our position affirmatively, as follows, adopting the words of a recently published monograph on spa treatment:

That for one group of patients the benefit received from spa treatment accrues entirely, and not merely in great part, from change of surroundings and habits. But a sufficiently radical alteration in the manner of life could not always be induced in this class of patients, save by the compelling influence of the ritual associated with mineral water treatment. That for a second group of

patients benefit is derived from all the resources of a spa, but in proportions not capable of definition.

But it must be added, and with equal emphasis, that there is a third and a very large group in which the strictly balneological procedures constitute the primary and preponderating factors necessary for successful treatment.—We are, etc.,

A. F. STREET.
ALBERT MOUILLOT.

By Resolution of the Council of the Section of Balneology and Climatology of the Royal Society of Medicine.

London, W., Feb. 2nd.

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SIR,—My attention having been called to an article in your issue of January 7th, may I be permitted, as chairman of the board of management of the Royal Bath Hospital and Rawson Convalescent Home, Harrogate, to correct a statement made by the writer of hydrotherapy, on page 35, to the effect that such treatment is only within the reach of the moneyed classes.

This Royal Bath Hospital was founded in the year 1824 with the special object of providing means whereby the poorest classes throughout the United Kingdom and Ireland might benefit by a course of the Harrogate waters and baths. The charity has increased in popularity to such an extent that in 1889 the present handsome new building capable of treating 100 patients at one period was opened, and in the course of every year upwards of 1,200 patients, all of the indigent or lower working-class section of the community, receive free of charge a three weeks' course of the said Harrogate treatment for gout, rheumatism, eczema, and similar troubles.

The greatest precautions are taken to prevent any abuse of the charity. No patient or any near relative of a patient is permitted to subscribe the smallest sum towards the cost of treatment. I have personally, or in my occasional absence my deputy has, an interview with every patient presenting a recommendation form duly signed by a subscriber and countersigned by the patient's own medical attendant, and unless the evidence of such patient's inability to pay for medical attendance and the cost of baths and lodgings is very clear, we are obliged to decline admission.

As a proof of the extent to which the advantages of this institution are appreciated by the suffering poor throughout England, Scotland, and Ireland, I may say that for many weeks each year there are upwards of 200 cases awaiting admission in addition to the 100 patients in the hospital.

In view of these facts, I think you will agree with me that the statement to which I have taken exception is somewhat misleading, and trusting you will excuse my addressing you at such length,—I am, etc.,

Harrogate, Feb. 2nd. J. W. COCKERHAM.

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## QUALIFIED OPTICIANS.

SIR,—At a recent dinner of the Spectacle Makers Company Dr. Seymour Taylor is reported to recommend that people who are not rich or poor, but who belong to the great middle class, should have their refraction defects attended to by a new class of persons whom he would name "qualified opticians."

Is Dr. Seymour Taylor so out of touch with his medical brethren as not to know that numbers of general practitioners now devote special attention to refractive work for the very class who cannot afford the specialists' fees, and who do not wish to make themselves objects of charity by going to the hospitals?

Does Dr. Seymour Taylor think the class he seeks to establish more likely to benefit the public than men who have a general knowledge of eye diseases and who have also studied the subject of refraction—a subject which is by no means difficult for medical men to master, but which has many difficulties for the uneducated class which Dr. Seymour Taylor suggests should take it up?

Nobody wants Dr. Seymour Taylor to suggest at a public dinner that general practitioners are more suitable than others to deal with such cases. To suggest, however, the formation of a new class to encroach upon the legitimate work of members of his own profession is, indeed, uncalled for. He supports his contention by quoting the case of the dentists. The parallel does not hold good to-day. He ought to know that the dentists in best repute first qualify in medicine or surgery, or both, before taking up dentistry. Where is Dr. Seymour Taylor's sense of *esprit de corps* in suggesting that the employees of a trading society like the Spectacle Makers should supersede us?—I am, etc.,

February 6th. SAVE ME FROM MY FRIENDS.

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## TUBERCULOSIS AND STATE INTERVENTION.

SIR,—Referring to further correspondence under this head in your issue of January 28th, will you allow us to add that the purpose of our recent letter to the BRITISH MEDICAL JOURNAL, which was to correct a misleading impression which seemed current, namely, that the Edinburgh Conference on Tuberculosis favoured the principle of separate legislation directed specially against tuberculosis, has been achieved.

A motion in favour of such legislation was indeed submitted to the meeting, but was lost. The resolution which was passed by the conference was definitely limited to the question of including tuberculosis in the proposed scheme of invalid insurance.—We are, etc,

W. LESLIE LYALL, M.B.,
JAMES MILLER, M.D.,
Joint Honorary Secretaries.

Edinburgh, Jan. 30th.

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## CORONERS' LAW AND DEATH CERTIFICATION BILL.

SIR,—Feeling very strongly about the proposed amendment to the above bill and the way the duty of notifying births has been foisted on us, and wishing to emulate the example of Dr. Distin of Enfield, I obtained from him a copy of the petition (to which he got over eighty signatures[1]), and have been canvassing the medical men in West and South Worcestershire. *Every* doctor I visited signed, and many felt more strongly than I do about it, if that were possible. I got thirty-eight signatures in West Worcestershire and twenty-two in the Southern division.

In company with Dr. Holbeche, the senior man in practice here, I waited on the member of Parliament for the former division, who could not have been more considerate, and I have also had a very pleasant interview with the member for the latter constituency. They have both promised to do their best to oppose the bill unless a clause be inserted guaranteeing adequate payment by the State for viewing the dead body.—I am, etc.,

Malvern, Feb. 4th. EDW. B. FFENNELL, M.D.

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## THE SWEATING OF DOCTORS BY THE LONDON COUNTY COUNCIL.

SIR,—I crave space to illustrate the way the London County Council treat their medical examiners.

They ask for examiners in home nursing, infant care, and first aid, and offer £1 1s. for the first twenty candidates examined, and 1s. for each one over twenty.

Till a year ago the examination took place at each school and one often did not have more than seven candidates; but when this was found out the candidates were collected at certain centres so that now one is almost sure to have twenty to examine.

There is a written paper and a viva-voce examination. I pointed out that the paper takes at least ten minutes to read and mark, and the viva-voce another ten, so the remuneration works out at 3s. an hour, without considering time expended in going and coming. The Council's own medical officer reported that he considered the fees "very meagre" and advised alteration, but nothing has been done.

A last instance of red-tape is that the Council offers travelling money "not more than first class fare." My first-class fare would have been 3s. In my statement which asks "method of travel," I put "private car say 1s." The answer comes back "none but first-class fare is allowed," and as I go in my own car I am allowed nothing for travelling expenses.

Can we not prevent them from getting any examiners till they pay them properly? The facts are beyond dispute, and are admitted; it is only because they think we are disunited, and know they cannot sweat their workmen, that they pay us below "trade union rates."—I am, etc.,

January 20th. "UNITAS."

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[1] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1656.

# Obituary.

## JUSTIN THEODORE VULLIAMY, L.R.C.P., M.R.C.S.,

ASSISTANT SURGEON, RUGBY HOSPITAL.

IT is with much regret that we record the unexpected death of Mr. Vulliamy, which took place at his residence in Rugby on January 23rd, in his 42nd year.

Mr. Vulliamy was the eldest son of Mr. Theodore Vulliamy of Ware. He was born at Nonancourt, in the department of the Eure in Normandy, France, and passed his early boyhood in the pleasant scenery which characterizes that district. He there acquired the thorough knowledge of French which proved so useful to him in after-life. His education was continued at Uppingham School and afterwards at St. Thomas's Hospital Medical School, where he was a dresser in the surgical wards to Mr. Pitts. He did not take a specially high place in examinations, but devoted himself to acquiring a good general knowledge of his work from the practical side, and gained the esteem of those with whom he was associated for his steady devotion to duties of every kind. In 1897 he obtained the qualifications of the Conjoint Board in London and became M.R.C.S.Eng. and L.R.C.P.Lond.

For a time he acted as one of the Resident Medical Officers to the Royal Free Hospital; he then became House-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton; House-Surgeon to the French Hospital, London; and Assistant House-Surgeon to the Lincoln County Hospital. Some ten years ago he joined Messrs. Simpson and Relton in their practice at Rugby, and soon made himself known as an enthusiast in his desire to advance the welfare and knowledge of important health subjects of those with him he was brought into contact. He gave lectures on nursing, hygiene, and ambulance duty for the Midland Counties Educational Union, and became Surgeon to the Rugby Provident Dispensary. A few months ago he was appointed Assistant Surgeon to the Rugby Hospital, and perhaps was happier in this appointment than in any other, for his previous training had well fitted him for dealing with the more important surgical operative work which came to him. He was essentially a man devoted to his profession, and never refused to obey the call of duty, however great the inconvenience caused to himself. Duty always came first, indeed it is very probable that this intense and somewhat over-anxious devotion to his work undermined his health and rendered him less able to withstand the attack of influenzal pneumonia which so quickly proved fatal. During his short illness, the anxious inquiries which were made at all hours, and the expressions of regret at his loss received since his death show that his efforts to do good were appreciated, whilst the large attendance at the memorial service in Rugby shows the general esteem in which he was held by all who knew him. Three years ago he married Dora Ann, daughter of Mr. Dunbar Kilburn, of Gloucester Square, London.

# Medico-Legal.

## ACTION FOR ALLEGED NEGLIGENCE.

IN the Sheriff Court of Lanarkshire at Glasgow, Sheriff Craigie has issued his judgement in an action raised by Mrs. Parkhill, wife of a marine engineer, with consent of her husband, against Dr. Paul Stewart, Glasgow, for alleged negligence in treatment. The defendant denied negligence, and stated that his treatment of the patient was careful and skilful. Preliminary pleas were also stated that the plaintiff had no title to sue, and that the action was irrelevant. Mr. D. Cook, solicitor, Glasgow, appeared for the plaintiff, and Mr. William Findlay, instructed by the Medical and Dental Defence Union of Scotland, Limited, for the defendant

The Sheriff has dismissed the case with costs against the plaintiff In delivering judgement, his Lordship said: "In this action the wife of a marine engineer, with the consent of her husband, sues a doctor for damages in respect of alleged careless treatment. But she is met at once with the plea that she has no title to sue; and it seems to me that she has no answer to the plea. She no doubt says that she herself called in the doctor to give her advice; but she did so as the agent of her husband. The contract for medical attendance was therefore between the husband on the one hand, and the doctor on the other. Now there is abundance of authority for the view that in such a case the husband alone—not the wife—can sue for damages for breach of contract, and the husband's consent will not make competent an action at the instance of the wife. Seeing that I hold that the pursuer has no title to sue, I do not require to consider whether the pursuer's averments are relevant or irrelevant. They are certainly very loosely put together."

## BURIAL, WITHOUT INQUEST, OF CHILDREN WHO HAVE DIED WITHOUT MEDICAL ATTENDANCE.

G. H. writes that he was asked to visit a child. He was unable to do so, and an hour later was told the child was dead. He knew nothing of the child or its parents. The coroner telegraphed to the police, "Tell doctor to give certificate child died from convulsions." Our correspondent refused to certify. The coroner subsequently issued a certificate to the parents, and the child was buried without an inquest. Our correspondent asks: Did I do right in refusing to certify, and is the coroner entitled to grant a certificate for burial without holding an inquest? Our correspondent rightly declined certifying the cause of death of a child he had never seen.

*** The coroner cannot authorize the burial of any body "*except upon holding an inquest*," but he can certify to the registrar of the district that, after considering the report made to him in reference to the death, he does not consider an inquest necessary. This enables the registrar to register the death without the usual medical certificate if such cannot be procured. The coroner would, we think, find it very difficult to defend his telegram if the matter were brought to the notice of a higher authority.

# Universities and Colleges.

## THE NATIONAL UNIVERSITY OF IRELAND.

*Scholarships.*

AT the last quarterly meeting of the County Dublin County Council it was decided to instruct the secretary when considering his estimates for the year 1911–12, to include such sum as the council might decide, not exceeding a rate of 1d. in the £1, for the purpose of assisting the National University of Ireland, and establishing scholarships therein.

# The Services.

## ROYAL ARMY MEDICAL CORPS COMMISSIONS.

THE following is the list of successful candidates for commissions in the Royal Army Medical Corps at the recent competition in London, and for which thirty-one candidates entered:

| | Marks. |
|---|---|
| B. Biggar, St. Bartholomew's, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond. | 617 |
| J. D. Kidd, Glasgow University, M.B., B.Ch.Univ.Glasgow | 617 |
| C. M. Finny, Dublin University, B.A., M.B., B.Ch.Univ. Dublin | 569 |
| G. Wilson, Edinburgh University, M.B., B.Ch.Univ.Edin. | 554 |
| W. S. R Steven, Queen's College, Belfast, M.B., B.Ch.Royal Univ.Irel. | 550 |
| *E. G. S. Cane, St. Bartholomew's, B.A.Cantab., M.R.C.S. Eng., L.R.C.P.Lond. | 548 |
| W. A. Frost, Catholic University, Dublin, M.B., B.Ch.Roy. Univ.Ireland | 545 |
| W. T. Graham, Edinburgh University, M.B., B.Ch.Univ. Edinburgh | 542 |
| F. A. Robinson, Durham University, M.B., B.Ch.Univ. Durham | 542 |
| D. Reynolds, Guy's Hospital, M.B., B.S,Univ.London, M.R.C.S.Eng, L.R.C.P.Lond. | 538 |
| J. S. Levack, Edinburgh University, M.B., B.Ch.Univ.Edinburgh | 531 |
| P. M. J. Brett, Catholic University, Dublin, M.B., B.Ch.Roy.Univ.Ireland | 527 |
| P. Hayes, University College, Cork, M.B., B.Ch.Roy.Univ. Ireland | 516 |
| T. A. Weston, Cambridge University, St. Thomas's Hospital, B.A., M.B., B.Ch.Cantab., M.R.C.S.Eng., L.R.C.P. Lond. | 516 |
| *W. Bisset, Edinburgh University, M.A., M.B., B.Ch., B.Sc. Univ Edinburgh | 512 |

[The gentlemen marked (*), being in possession of certificates obtained in the Officers' Training Corps, were awarded service marks under paragraph 71 of the Regulations for the Officers' Training Corps.]

## ROYAL ARMY MEDICAL CORPS.

EXAMINATION FOR PROMOTIONS.

*Home Stations.*

THE following is the list of the successful candidates at the December Examination for Promotion of Majors of the Royal Army Medical Corps in Technical Subjects (unless otherwise stated the officers named have yet to pass in a "Medical Staff Tour"—Part II, Appendix XIV, King's Regulations):

Major T MCDERMOTT, M.B., (*d*) ii; .75; has yet to pass in Part I, Appendix XIV, King's Regulations. Major W. D. ERSKINE, M.B., Part I, Subject ii, Appendix XIV, King's Regulations; already passed in (*d*) ii and in Part I, Subjects i and iii; exempt Part II, Appendix

XIV, King's Regulations. Major H. W. K. READ, (*d*) ii; has yet to pass in Part I, Appendix XIV, King's Regulations. Major B. W. LONGHURST, Part I, Subject iii, Appendix XIV, King's Regulations; .8; already passed in (*d*) ii and in Part I, Subjects i and ii; exempt Part II, Appendix XIV, King's Regulations. Major H. A. BERRYMAN, (*d*) ii and in Part I, Subject i, Appendix XIV, King's Regulations; .75 in (*d*) ii; already passed in Part I, Subjects ii and iii; exempt Part II, Appendix XIV, King's Regulations. Major J. B. ANDERSON (*d*) ii and in Part I. Appendix XIV, King's Regulations.; exempt Part II. Appendix XIV, King's Regulations. Major E. S. CLARK, M.B., Part I, Subject ii, Appendix XIV, King's Regulations.; already passed in (*d*) ii and in Part I, Subjects i and iii; exempt Part ii, Appendix XIV, King's Regulations. Major W. S. HARRISON, M.B., (*d*) ii and in Part I, Appendix XIV, King's Regulations; .75 in (*d*) ii; exempt Part II, Appendix XIV, King's Regulations. Major D. LAWSON, Part I, Subject i, Appendix XIV, King's Regulations; has yet to pass in (*d*) ii; already passed in Part I, Subjects ii and iii; exempt Part II, Appendix XIV, King's Regulations. Major C. W. PROFEIT, M B., (*d*) ii; .75; already passed in Part I; exempt Part II, Appendix XIV, King's Regulations. Major F. KIDDLE, M.B., Part I, Appendix XIV, King's Regulations; already passed in (*d*) ii; exempt Part II, Appendix XIV, King's Regulations. Major S. H. FAIRRIE, M.B., (*d*) ii; .75; has yet to pass in Part I, Appendix XIV, King's Regulations. Majors E. C. HAYES and E. T. F. BIRRELL, M B., Part I, Appendix XIV, King's Regulations; already passed in (*d*) ii; exempt Part II, Appendix XIV, King's Regulations. Majors A. H. O. YOUNG and S. O. HALL, (*d*) ii; have yet to pass in Part I, Appendix XIV, King's Regulations. Major R. H. LLOYD, (*d*) ii; already passed in (*h*) for rank of Major. Capt. D. E CURME, (*d*) ii; already passed in (*h*). Capt H. E. M. DOUGLAS, V.C., D.S O., (*d*) ii; .75; already passed in (*h*). Capts. L. WOOD and F. S. WALKER, F.R.C S.I., (*d*) ii; already passed in (*h*). Capt. C. H. STRATON, (*d*) ii; .75; already passed in (*h*). Capt. W. S. CROSTHWAIT, (*d*) ii; already passed in (*h*). Capt. S B. SMITH, M.D., (*d*) ii; .75; already passed in (*h*). Capt. M. F. FOULDS, (*d*) ii; already passed in (*h*). Capt. C. A J. A. BALCK, M.B, (*d*) ii; .75; already passed in (*h*). Capt. J. H. GURLEY, (*d*) ii and (*h*) i and ii; .75 in (*d*) ii; has yet to pass in (*h*) iii for rank of Captain, already passed in (*b*). Lieut. H. T. TREVES, (*d*) ii and (*h*) i and ii; has yet to pass in (*b*) and (*h*) iii Lieut. A. C. H. SUHR, M.B., (*d*) ii and (*h*) i and iii; .75 in (*d*) ii; has yet to pass in (*b*) and (*h*) ii. Lieut W. E. MARSHALL, M.B., (*d*) ii; has yet to pass in (*b*) and (*h*). Lieut. D. E. C POTTINGER, M.B., (*d*) ii and (*h*); already passed in (*b*). Lieut. C. D. SHERLOCK, M.D. (*h*); already passed in (*b*) and (*d*) ii. Lieut. A. T. J. MCCREERY, M.B., (*h*) i; already passed in (*b*), (*d*) ii, and (*h*) ii and iii. Lieut. W. H. O'RIORDAN, (*d*) ii; has yet to pass in (*b*) and (*h*). Lieut. R. C. PRIEST, M.B., (*d*) ii and (*h*); .8 in (*h*); already passed in (*b*). Lieut. F. W. M. CUNNINGHAM, M.D., (*d*) ii and (*h*) i and ii; has yet to pass in (*b*) and (*h*) iii. Lieut. A. D. STIRLING, M.B., (*d*) ii and (*h*); .75 in (*d*) ii; already passed in (*b*). Lieut. G P TAYLOR, M.B., (*d*) ii and (*h*) ii and iii; has yet to pass in (*h*) i, already passed in (*b*). Lieut. R. C. PARIS (*d*) ii and (*h*): has yet to pass in (*b*). Lieut. E. C. LAMBKIN, M.B., (*d*) ii and (*h*): .75 in (*d*) ii; already passed in (*b*). Lieut. O. W. MCSHEEHY, M B., (*d*) ii; has yet to pass in (*h*): already passed in (*b*). Lieut. M. WHITE, M.B, (*d*) ii and (*h*); has yet to pass in (*b*). Lieut. J. J. D. ROCHE, M.B., (*d*) ii; has yet to pass in (*h*); already passed in (*b*). Lieut. H F. JOYNT, M.B., (*d*) ii; has yet to pass in (*b*) and (*h*). Lieut. A. S. M. WINDER, M.B., (*d*) ii and (*h*); .75 in (*d*) ii: has yet to pass in (*b*). Lieut J. R. YOURELL, M.B., (*h*); has yet to pass in (*d*) ii; already passed in (*b*). Lieut. P. G. M. ELVERY, (*d*) ii and (*h*) ii and iii; has yet to pass in (*h*) i; already passed in (*b*). Lieut. J. J. H. BECKTON, (*d*) ii and (*h*); has yet to pass in (*b*).

## INDIAN MEDICAL SERVICE.

THE result of the January examination was announced on January 28th. There were 26 candidates, of whom 20 qualified, the first 14 being admitted as Lieutenants on Probation with effect from January 28th, 1911. The names of the successful candidates with the marks obtained by each out of a possible total of 5,100 are given below, together with their degrees and medical schools:

| Name. | Degrees, etc. | Medical School. | Marks. |
|---|---|---|---|
| J. Scott ... ... | M.B., Ch.B.Edin., D.P.H., D.T.M. and H. | Edinburgh University | 3,691 |
| A. R. S. Alexander | M.B., B.S.Lond. | University College Hospital | 3,502 |
| F. W. Hay... ... | M.B., Ch.B.Edin. | Edinburgh University | 3,362 |
| Indurjit Singh ... | M.B., B.C.Cantab. | Cambridge University and King's College Hospital | 3,357 |
| S. M. Hepworth ... | M.B., Ch.B.Leeds | Leeds University | 3,284 |
| H. S. Cormack ... | M.B., Ch.B.Edin., M.R.C.S., L.R.C.P. | Edinburgh University | 3,240 |
| G. Tate ... ... | L.M.S.S.A. | King's College Hospital and Edinburgh University | 3,203 |
| G. S. Brock ... | M B , Ch.B.Edin. | St. Andrew's University and Endinburgh University | 3,203 |
| E. S. Goss ... ... | M.R.C.S., L.R.C.P. | Middlesex Hospital | 3,118 |
| J. F. H. Morgan ... | M.R.C.S., L.R.C.P. | Bristol University | 3,111 |
| K. G. Pandalai ... | M.B.M.S.Madras, M.R.C.S., L.R.C.P. | Madras Medical College and Middlesex Hospital | 3,105 |
| J. L. Sen ... ... | M.B.Calcutta | Calcutta Medical College and Middlesex Hospital | 3,035 |
| C. A. Wood ... | M.B.B.S.Lond , M.R.C.S., L.R.C.P., | Guy's Hospital | 3,012 |
| P. S. Connellan ... | M.R.C.S., L R C.P | Bristol University | 2,914 |

## THE AFRICA GENERAL SERVICE MEDAL.

AN Army Order dated February 1st states that the King has approved of the Africa General Service Medal, with clasp inscribed "Somaliland, 1908–10," being granted to the officers and men who took part in the operations in Somaliland between August 19th, 1908, and January 31st, 1910, whose claims are approved.

## BRITISH RED CROSS SOCIETY, GLASGOW BRANCH.

A MEETING, called by the Lord Provost, was held on January 31st to promote the organization of voluntary aid detachments in Glasgow in connexion with the Scottish Territorial Red Cross Brigade. The Lord Provost, in opening the proceedings, referred to the work of Red Cross societies which existed among all civilized nations. Scotland had taken its rightful place by the formation of a Scottish Branch, and in Glasgow it was important that nothing should be left undone to make the organization as complete as possible. Sir George Beatson explained the need for Red Cross societies, and outlined the position and duties of voluntary aid detachments which would fill up the gap in the Territorial Medical Service between the field units and the general hospitals. Already in Scotland sixty-four such detachments had been raised with a personnel of about 2,000 men and women. Major-General Spens proposed a resolution commending the work and aims of the Red Cross Society, impressing on the citizens the value of preparation in time of peace. Another resolution approving of steps being taken to promote the formation of detachments in Glasgow was proposed by Sir Thomas Glen Coats, Bart., and seconded by Sir David McVail. The Glasgow Committee has now been considerably augmented, and active work is being undertaken. The honorary secretary is Dr. R. T. Halliday.

# Medical News.

DR. CLOUSTON of Edinburgh has been elected a corresponding member of the Société de Psychiatrie of Paris.

LORD CHARLES BERESFORD will preside at the annual dinner of the London School of Clinical Medicine on Friday, March 24th, at Prince's Restaurant, Piccadilly.

SIR CHARLES BALL, M.D., F.R.C.S., has been elected President of the Royal Zoological Society of Ireland for the coming year.

DR. GLASCOTT, late Lecturer on Ophthalmology, Manchester University, and Senior Consulting Surgeon, Royal Eye Hospital, on his retirement from practice, has been elected one of the vice-presidents of the hospital.

THE anniversary dinner of the Medical Society of London will take place at the Whitehall Rooms, Hôtel Métropole, London, on Wednesday, March 8th. Particulars can be obtained from the Honorary Secretaries, 11, Chandos Street, W.

MR. AND MRS. SIDNEY WEBB will deliver, for the National Committee for the Prevention of Destitution, a course of four lectures at the Caxton Hall, Westminster, on Monday evenings, beginning February 20th, at 8.30 p.m. The first lecture by Mrs. Webb will deal with the utilization of voluntary agencies in the prevention of destitution, the second by Mr. Sidney Webb with unemployment and sickness insurance in relation to the prevention of destitution.

ON February 2nd, at the West London Hospital, Hammersmith, Dr. Andrew Elliot, who has just retired from the office of honorary medical registrar, was presented on the occasion of his marriage with a massive silver tray by some past and present members of the hospital. Mr. L. A. Bidwell, Dean of the Post Graduate College, presided, and made the presentation, and Dr. Elliot suitably replied.

THE Council of the Irish Medical Schools' and Graduates' Association has adopted the following resolution: "The Council of the Irish Medical Schools' and Graduates' Association take this, the earliest, opportunity of congratulating Mr. Charles Ryall, F R.C.S., on the triumphant result of the recent trial. They further desire to assure him that the complete vindication of his action in the case, the evidence in which only served to show the surgical skill that he displayed in saving his patient's life, has given this Council much gratification, confirming the high esteem in which he is held by his professional brethren generally."

A LIST of the optical appliances of Winkel, of Göttingen, reaches us from his agents in the United Kingdom, Messrs. H. F. Angus and Company (83, Wigmore Street, London, W). Some of the microscopic outfits described have been specially arranged with a view to affording a good combination for the medical student. Included among them is a microscope designed for the examination of brain sections, bearing a stage of a shape suitable for that purpose. Other instruments have been devised so as to afford sufficient working space for dissection of objects. The lenses in the objective systems of this maker reach a very high level of excellence, and care has been bestowed upon their standardization, more particularly as regards focal length and chromatic and spherical correction.

# Letters, Notes, and Answers.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National) :—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

A. D. P. D. asks where he can obtain "spring arches" for fastening in the boots of poor boys suffering from flat-foot. There are some socks made, but they are too dear (6s. 6d. a pair) and not durable.

### GOUTY TOPHI.

MR. THELWALL THOMAS (University of Liverpool) would like to obtain some gouty tophi which have been removed by operation or have sloughed out. He will thank any member who can spare him such. They are required for quantitative analysis.

### A NEUROLOGICAL CONUNDRUM.

JUSTINIAN asks if any connexion can be traced between a droop-wrist and amputation of the thigh following an accident. What are the causes of droop-wrist exclusive of plumbism: through what nerves? If so, would the sequence follow, presuming there was no injury to the brachial plexus?

### "SPONTANEOUS FRACTURE."

A CORRESPONDENT who is treating a woman, aged 83, suffering from senile decay, states that after a long period of decline she finally took to her bed; a month later she, without any attempt to get out of bed or any obvious movement, suddenly screamed, and was found to have a fracture of the thigh. Our correspondent diagnosed spontaneous fracture due to atrophy of the bone, but asks whether such fracture should be deemed due to disease or an accidental fracture.

*** The fracture may have occurred from a high grade of senile atrophy; or it may be due to the growth of a tumour. In the latter case, the tumour may be a primary sarcoma of the bone, or it may be secondary—possibly to a latent growth of the intestine. If our correspondent deems it advisable to investigate the case further, a skiagram would doubtless afford some indication of the cause of the fracture.

### GENERAL PSORIASIS.

SENEX writes: I should be glad of any assistance in the treatment of an obstinate case of psoriasis which I have now watched getting gradually worse for the past ten years. The patient, a female, married, aged 27, was operated on for perityphlitic abscess about ten years ago, made a slow recovery, and at the time noticed a slight eruption on face. This gradually got worse, and for the past six years has become more general, and now it is more or less all over body. Four years ago it took on the facial appearance of lupus erythematosus. A residence of a year in India has made no improvement, and with the tropical heat she can hardly ever perspire. I have tried most of the usual remedies in consultation with well-known men but with no permanent relief; in fact, it is getting worse. Arsenic has been given in increasing doses, also in the organic form (atoxyl), but risks of the latter treatment are too great to continue it. Thyroid extract caused immediate cardiac symptoms even in 2-grain doses. Salicine has been pushed to large doses with no advantage. Local applications (which as it is now general are difficult to apply) as salicylic acid, beta naphthol, tar, resorcin, sulphur externally and internally, malt and cod-liver oil improve the health. There is evidently a vasomotor disturbance, as thyroid and cocaine both have immediate dangerous effects. I now propose trying bromaurum (Arthur and Co.) but have no experience of it.

## ANSWERS.

A. C. C.—The only full account we can hear of is "Don Carlos Guffey. A Collection and an Analysis of the Reported Cases of Osteo-arthritis of the Spine (Spondylitis Deformans)," *University of Pennsylvania Medical Bulletin*, October, 1905, p. 250.

### DENTAL EROSION.

MR. D. FYFE, F.R.C.S.E., L.D.S. (Glasgow), writes in reply o "A.M., M.B.": The condition of the molar teeth, which atr so sensitive, would indicate either a modified dental erosio or superficial caries. This could only be definitely diagnosed by an examination of the mouth, or, at least, further information regarding appearances, etc. The causation of erosion is somewhat obscure, and many theories have been propounded. Of these the most feasible is that the condition is due to the action of some acid, this acid being secreted by the mucous glands existing at the gum margins which are in contact with, or near, the sensitive areas. Rheumatic and gouty conditions, also gastro-intestinal toxaemia, have been considered causative. There is also the mechanical theory—too vigorous use of toothbrush, or too abrasive a tooth powder, etc. Whether due to erosion or superficial caries, the treatment is to touch the sensitive spots with a saturated solution of silver nitrate, taking care to prevent the drug being washed into the mouth by the saliva. The treatment usually causes some pain which quickly subsides. The silver salt must then be neutralized by touching with a small piece of cotton-wool saturated with a sodium chloride solution, or, better still, touched with iodine and then with ammonia. By this method the darkness left by the silver of nitrate is considerably lessened. Should discoloration be a serious objection some other drug, as zinc chloride, may be used instead of the silver salt. The treatment might be repeated several times with an interval of a week or so between each. The silver nitrate probably acts in two ways—(1) by coagulation of the ends of the dentinal fibrils which have become exposed due to the erosion of the enamel; (2) by acting on the mucous glands and modifying the abnormal secretion. Occasionally one meets with cases in which external tooth treatment is of no avail. In such cases the dentist would probably devitalize the pulp and treat the pulp canals. The use of an alkaline mouth wash, frequently and particularly before going to bed at night, is most valuable. A solution of sodium bicarbonate, or one of the preparations of milk of magnesia, would be suitable.

M. writes: The cause is recession of the gums from the neck of the teeth, due to friction from brushing, pyorrhoea, or premature wasting of gum tissues. Treatment: Occasional applications of silver nitrate, constant painting with tincture of iodine; radical measures, crown the affected teeth.

## LETTERS, NOTES, ETC.

DR. ALFRED L. SACHS (London) has called our attention to an error in the translation of Professor His's paper in the JOURNAL of last week. The term "*Mache-Einheiten*" which occurs in the original should have been translated Mache-unit; this unit is equal to approximately one thousand electrical units.

### STANDARD BREAD CAMPAIGN.

DR. H. KERR (Assistant Medical Officer of Health, Newcastle-on-Tyne) asks us to state that the appearance of his name among the medical officers of health who have given their support to the "Standard Bread Campaign," started by the *Daily Mail*, was published without his sanction. Dr. H. Kerr, in Dr. Armstrong's absence, wrote to the editor of the *Daily Mail* on February 3rd, stating, on behalf of Dr. Armstrong, that he did not feel himself at liberty to communicate personal opinions to the public press, especially on matters which his committee have under consideration.

### THE TUBERCULIN DISPENSARY LEAGUE.

DR. W. CAMAC WILKINSON (London) writes: I desire to thank you for your friendly references to my experiences with tuberculin in pulmonary tuberculosis. May I point out at the same time very serious errors in figures on p. 287? It is stated that the sanatoriums can deal with 10,000 cases at £30,000 a year. Would that they could! They may at most deal with "2,000 cases at a cost of £75,000 a year."

*** The number 10,000 was an unfortunate misprint for 1,000. The circular of the Tuberculin Dispensary League stated that "sanatoria at best can only treat about 1,000 cases each year at a cost of £30,000 a year, and the results are not satisfactory."

**SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.**

| | £ | s. | d. |
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| Eight lines and under ... ... ... ... | 0 | 4 | 0 |
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An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

# The Hunterian Oration

ON

# JOHN HUNTER AND HIS MUSEUM.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, FEBRUARY 14TH 1911,

BY

EDMUND OWEN, D.Sc., F.R.C.S.,

CONSULTING SURGEON TO ST. MARY'S HOSPITAL, LONDON.

MR. PRESIDENT,—The century lacks but two years of completion when Dr. Matthew Baillie and Sir Everard Home, John Hunter's Executors, in their desire to show a lasting respect to his memory, provided for the delivery of an Oration on February 14th, his birthday. And although one should not now expect on these occasions to hear anything fresh concerning Hunter, still we come to the familiar subject as one goes to a favourite drama or turns to some well-loved book.

Adequately to deal with the work of this many-sided man, the Orator should be of philosophic mind, and well instructed in the history of Surgery, and he should have a profound knowledge of plants and animals—not only in health but also in disease. It being thus beyond my reach to touch more than the fringe of Hunter's scientific work, I shall content myself with speaking of him as a man, and as the founder of a Museum which is without a rival in the world.

Of some men it may be said, as St. Paul disparagingly remarked of himself, that they are "born out of due time." Some, indeed, so far in advance of it, that the intellectual seed which they laboriously sow produces but a sorry crop, or lies decaying in the soil. Hunter, however, was happy in the date of his birth. Had it been delayed by, let us say, a century and a half, so that at the present time he would be approaching what the poet calls the "midway of the journey of life," he could not have attained the commanding position which, as it was, he occupied in so many branches of Science. And had his birth been thus delayed, would he have chosen the philosopher's path which leads to the Temple of Wisdom? Would he have worked in the field which proved so attractive to Darwin, or in that to which Pasteur devoted his great mind? Would he have developed into a Pathologist of world-wide reputation—like Billroth; would he have contented himself with being the foremost Surgeon of his day, or would his thirst for collecting have triumphed over everything else? He could not have filled each part. I am inclined to think that he would have given up everything in order to devote himself to Biology.

John Hunter was the youngest of ten children, most of whom died young. It may have been on this account that his mother spoilt him—though *spoilt*, in this case, can hardly be the proper word. At any rate, he was allowed to have things very much his own way, his mother making him her Benjamin. It is good for no man to have things too much his own way at any time of life—least of all, at the beginning. And it might have been better for Hunter if his mother, instead of constantly giving way to him, had helped him in early life to obtain a command over his temper. For our hero was apt to be overbearing in his dealings with others, and intolerant when his wishes were thwarted. And this is made painfully evident as we come to deal with the closing years of his life.

When he was about 17 he went to stay with his brother-in-law, a cabinet-maker at Glasgow, and, being very proud of the skill with which he could use his hands, he delighted to help in the workshop. And so the statement has become current that Hunter began life as a joiner, which is very far from fact.

It is apt to be set forth in the life-history of any person who has made for himself a high position in the world of Science, Literature, or Art, that from early childhood he was seen to be in possession of unusual talent in that direction. Thus, for instance, Cimabue showed first proof of his great gift by making remarkable sketches upon his lesson-books, and it is related that certain popular preachers used to give displays of talent by fervid outbursts of oratory in the nursery or school-room—which, to the common type of man, might seem out of place or even unwholesome.

But so it was not with Hunter. He was quite an ordinary boy. To use the words of his biographer, "having little taste for books, he preferred engaging in country sports to studying those elementary branches of knowledge which are best acquired in youth. In dwelling upon the story of his life it is a pleasure to meet with such an estimate of his character, for it supplies the needful human touch.

At the time that John Hunter was getting out of his teens, his elder brother, William, was conducting with great success a private Medical School in Windmill Street, Haymarket. He was a man of unrivalled talent, and though he was not connected with any Hospital, had established a great reputation for himself as a teacher of Anatomy and Surgery. John was much interested in, and his imagination was set on fire by, the accounts which he heard of his brother, and, as has so often been the case with self-reliant and enterprising young Scotchmen, he also desired to travel along that broad and pleasant road which leads from the stern country of his birth to the Mother-city of the Empire. So he wrote to William asking that he might be taken as an assistant in his Dissecting-room. A favourable reply having been received, John left Scotland on horseback for London in September, 1747. Up to that time he had been looked upon as an idler. Not infrequently it happens that a boy who has not yet been put to the work for which Nature intended him, has been thus regarded, till, by a happy turn of the wheel of Fortune, he finds the occupation for which he was fitted.

On arriving in London, John was at once put to work upon a dissection which was wanted for his brother's October lectures. This he did with such skill, that he at once gained the entire confidence of his brother. William had been afraid that John might turn out but an idle apprentice. And though he stuck closely to his work in the Dissecting-room and at the Hospital, he lived outside of them a somewhat free and reckless life. Like an ordinary, human, young man, "Jack Hunter," as he was called, liked to shake off restraint at times—and he shook it off very thoroughly.

### *Cheselden and Pott*

It is a proof, if proof were needed, of the warm interest which William Hunter took in the shaping of his brother's career, that he obtained for him the practical teaching and the friendship of the illustrious Cheselden, of St. Thomas's Hospital, one of the greatest of English Surgeons. He it was who invented the operation of lateral lithotomy; and, when French Surgeons came over to learn his art, they saw him operate on 27 patients for stone in the bladder in succession without a loss. And this, be it remembered, when stones, left uninterfered with, grew to enormous size, and when operations had not yet been made easy for the surgeon by the help of chloroform, nor safe for the patient by the adoption of methods of cleanliness.

Richardson's portrait of Cheselden, which you see before you, shows him as a cheery looking individual who might never have known an anxious moment. History tells, however, that he was of such delicate fibre, that whenever he had to perform a serious operation he felt sick at the thought of the pain which he was about to inflict. And as he was constantly operating, it must needs be that his mind was much troubled.

He was sixty years old when John Hunter was brought to him—a worthy pupil for so great a master. Four years later he died of apoplexy, a not uncommon cause of death of members of his Profession—the result of high arterial tension brought on by ceaseless work. There is no eight-hours day for the Medical man; he cannot reckon on Saturday as a half-holiday, nor Sunday as a day of rest. It is this continuity of work, this never-ending strain of tissues, which brings about the early loosing of the silver cord, the breaking of the golden bowl.

Being thus compelled to look elsewhere for instruction, Hunter became a pupil of Percivall Pott, at St. Bartholomew's Hospital. A better choice could not have been made.

On the left of Hunter you see the portrait of Pott, by Romney, whom Reynolds disparagingly alluded to as

"the man in Cavendish Square"—Romney, whose delicate brush lingered so lovingly over the captivating features of Nelson's Lady Hamilton.

These three pictures have, by leave of the President, been brought down from our Council Room, where, for many years they have hung side by side, and where, we trust, in spite of all changes which may take place in the social and educational life of this country, they may continue happily to remain till Time shall be no more.

At the present day portraits of women by Romney are chiefly sought after, but I think that I would as willingly possess his picture of Pott as any that he painted. Even the most successful portrait painter cannot always choose his subjects; but when Romney had Pott seated before him he must surely have been satisfied, for truly his is a beautiful face! Those who can read a man's character in his features will form the opinion that Pott was a true English Gentleman. And their conclusion will be right. His devotion to his mother was romantic and intense; his kindness of heart was proverbial, and at one time he had three needy surgeons living under his hospitable roof. He was a man of high character and blameless life.

Shortly after his death his friend Sir James Earle collected his writings and published them, together with a short account of Pott and of his work. He said that the labours of the greatest part of his life were without relaxation, but that in his later years he took things more easily, "gathering," as Pott had expressed it, "some of the fruit of the garden which he had planted as he went along."

Though, after Pott's death, Hunter was by far the greatest Surgeon of the time, still he seemed to practise his Art chiefly to earn money for making additions to his Museum. He greatly disliked being called away from the Museum. "Well," said he, on one occasion, when he was summoned to see a patient, "I must go and earn this damned guinea, or I shall be sure to want it to-morrow."

Ottley, his biographer, apologizes for the strength of Hunter's language, and tells us that he has generally omitted the swear-words, as "the objections to introducing them appeared to outweigh any advantage that such verbal exactness could afford." Perhaps he was right; but I confess that I would have preferred Hunter's unpolished expressions just as they came from the mint of his strong brain. Moreover, one almost expects to hear such words echoing from the days when men wore velvet coats and silk stockings, and were accustomed to say just what they thought—and to say it clearly and forcibly. True it is that at this time Bob Acres remarked that the best terms grow obsolete, and that damns had had their day. But Sheridan's poetic imagination seemingly led him to anticipate.

Hunter's unfriendly biographer Jesse Foot wrote, "John could never talk of his injuries, but would get rid of the passions they provoked in him by the bitterest utterings of swearing—Sterne's Dr. Slop could not have been a match for him." It was pure spite that made Foot compare Hunter with that old-fashioned Yorkshire apothecary, who, we know, was unusually free in his speech. When, as you may remember, Dr. Slop cut his thumb in trying to looosen the string which Obadiah had so tightly knotted around that green baize bag, Sterne says, "It would have done your heart good, and cured you, Sir, for ever, of the vile sin of swearing to have heard him."

But I am indignant at Foot comparing John Hunter with Dr. Slop. My opinion is that he was jealous of the great reputation which Hunter had obtained in a class of practice in which he, Foot, was specially interested.

### *Hunter and Jenner.*

It would be impossible to give even a short account of the life of Hunter without speaking of the close friendship which existed between him and one of his former pupils, a doctor in general practice upon the Gloucestershire bank of the river Severn, Edward Jenner—one of England's greatest men. His discovery that the passing of the harmless germs of cow-pox through the blood renders a person secure against small-pox was not revealed until after Hunter's death. But we may permit ourselves to imagine the pleasure with which he would have regarded the philosophic bearings of Jenner's investigations, and the delight with which he would have hailed their conclusion! But what would he have thought, could he have foreseen that his friend's glorious discovery would at length be made a shuttlecock of political agitators, and that the cause of vaccination in the country of its birth should be so grievously neglected, that its compulsory adoption became a farce? The day of reckoning will surely arrive: England is sowing the wind, and she will not fail to reap the whirlwind. But, unfortunately, when the inevitable outbreak of small-pox takes place, among its victims will also be the ignorant and helpless.

Letter-writing was a far more important business 140 years ago than it is now; the art has been killed by the penny post. When Hunter was corresponding with his friend the postage of each letter cost at least four pence, which is equivalent to about eight pence at the present day.

Hunter's letters to Jenner are delightful; and it is a great pity that we cannot have Jenner's in reply. In every letter Hunter is urging his friend to find material for his Museum—fish, flesh, fowl—any thing that has life, or that ever had it. And he was willing and anxious to pay for it. "You see," said he, "I am very greedy. Be sure you keep an account of all out-goings."

As a kind of set-off to what Jenner did for the Museum Hunter was more than ready with advice and help to his distant friend when surgical patients caused anxiety in his practice. Now, in the winter of 1776 a particular case was giving Jenner much anxiety. It was that of a boy with an open wound in his skull, from which a mushroom-like growth was bulging. Jenner did not know how to cure the boy; if he had lived at the present day he would have been no wiser. So he begged Hunter to advise him. "I don't know any one I would as soon write to as to you," replied Hunter, and he then thanked him for certain things which he had sent for his Museum, and remarked that he had not yet received the cuckoo's nest. He would have had to wait a long while for a nest of that out-and-out socialist of the feathered tribe, who leaves to others the responsibility of the housing, the rearing, the feeding, and the education of his offspring!

"Now for your patient. I believe the best thing you can do is to do little. I would not touch the fungus with a caustic for fear the brain should be near. Keep your patient rather low and quiet."

And what excellent advice it was! Could the Council of the College of Surgeons of to-day suggest anything better?

But Jenner was not satisfied, for in a little while he was again questioning about the boy. And Hunter, with his Museum in his thoughts, wrote in reply:

"Send everything you can get, either animals, vegetable, or mineral, and the compound of the two, either animal or vegetable mineralized. I would have you do nothing with the boy but dress him superficially; these funguses will die and be damned to them, and drop off. Have you large trees, of different kinds, that you can make free with? If you have, I will put you upon a set of experiments with regard to the heat of vegetables. Have you any eaves where bats go to at night?" And so on.

Still Jenner was not satisfied, and in less than a fortnight he was again writing about this worrying case. Hunter replied:

"I would advise you not to meddle with it. Be quiet; and think yourself well off that the boy is not dead. You do not mention a word about bats. Have you got the bones yet of a large porpoise? I wish you had. Is ever the salmon-spawn seen after she has parted with it? If it is, I wish you could get some. I want to examine the spawn of fish in the progress of the formation of the young one."

In the next letter Hunter is asking again about the salmon-spawn, and is suggesting that Jenner should undertake some work upon the sex-question of eels. He appealingly ends the letter by asking, "Cannot you get me a large porpoise for love or money?"

I am tempted to keep you one moment more over these letters, because, being written to his dearest friend, they show the inmost working of his mind, and they plainly tell us that the one thought of his life was his Museum—

Dear Jenner, I received your salmon, and very fresh, and just examined enough to want another. I will take a cock-salmon when you please. If you catch any bats, let me have some of them. Did I write to you some time ago about cuckoos? I have forgot: if I did not, I must give you a long order.

He does not ask about that boy; nor, so far as one knows, does Jenner trouble him any further in the matter.

At about this time Jenner had fallen deeply in love, and just when things seemed to be leading up to a happy marriage, black disappointment threw over them his pall. Hunter, ignorant of what was going on in Gloucestershire, continued to write for various objects for the Museum. But he received no response. Then he heard a rumour of Jenner being married; so wrote to congratulate him, sandwiching his congratulations between remarks on hedgehogs and fossils.

On the broken-hearted Jenner replying that not only was he not married, but that, unhappily, all was over between the lady and himself, his friend replied—"I own I was at a loss to account for your silence, and I was sorry at the cause. I can easily conceive how you must feel. But let her go, and never mind her. I shall employ you with hedgehogs." And then he gave him a list of investigations which he was to make with these animals. His Museum was always in the front of his mind. Whether he was writing about a patient, or about his own serious breakdown; or about his friend's marriage or his grievous disappointment, he was ever thinking what he could do to render his Museum more complete, and so to increase its value as an educational institution. Another great reason for his anxiety to make it more perfect was, as his brother-in-law tells us, that it might sell the better after his death; for, having spent almost all his fortune over it, he had been able to make scarcely any other provision for his family; "his expenses had always exceeded his income."

*Hunter's Daily Life.*

Hunter was at work in his Museum from dawn till breakfast; and he was in his consulting-room, or in his carriage, and visiting his Hospital or his private patients, from breakfast till dinner—which he took, according to the custom of the day, at four o'clock. After dinner he went to sleep for an hour, and then he sat down to write letters and essays, to work up clinical records, or to describe preparations for his Museum. At midnight the butler brought him in a fresh lamp, by the light of which he continued to work on till one or two in the morning, or even later in winter. So that, including the nap which he had after dinner, he was apt to get but four or five hours' sleep out of the twenty-four.

We are plainly told that he had no home-amusements, and that he took his greatest pleasure amongst the wild animals which he kept in the garden of his house in Earl's Court where he slept, and where, with his family, he spent the greater part of his time in the autumn months.

What a life to live! Which of us would accept it, even to be, as Hunter is, immortal?

But Nature, ever jealous, could not pardon even him, her devout and loving disciple, for so long and complete a neglect of her unwritten laws. As far as one can make out, he took no bodily exercise, and sought little mental relaxation. The bow was never unstrung. As one looks back upon this unresting student of Nature, one can scarcely help regretting that he had no experience of those two amusements over which men and women of to-day are apt to waste so large an amount of time—golf and bridge. As recreations for intellectual workers, what more suitable: as life's chief occupations, what more pitiable!

There is little to suggest that outside of the science and practice of his Profession Hunter found much to interest him. The letters which he wrote and received, or, at any rate, those of them which have been preserved and published, make no allusion to sport or pastime; and there is no mention of foreign travel, that delightful relaxation for a busy man with no special interest in the pleasures of country life. Indeed, Hunter's one and only happiness was in intellectual work, and especially in that which concerned his Museum.

Every medical man should make for himself interests outside of his Profession to which he can devote himself in the odd times in which he can escape from the anxieties of his occupation. Intemperance in work is well-nigh as harmful as intemperance in eating or in drinking. In the absence of outside interests a medical man is truly to be pitied. When, with advancing years, he unwillingly retires from the contest, if there is nothing better for him to do than to look wistfully backwards or sorrowfully forwards, the evening of his life must indeed be dark and miserable. But happily there was no evening to Hunter's life; he died before the lengthening shadows fell across his path.

*Hunter and the College of Surgeons.*

The records of our Corporation show that at a Court of Examiners held in July, 1768, John Hunter was examined for and received his Diploma. Amongst his Examiners was his former Master, Percivall Pott. Hunter was then 40 years old. Already we have heard of him in connexion with the Corporation in the Minutes of the Court of Assistants of July, 1753, where it is stated that Pott and Hunter were elected Masters of Anatomy.

In accordance with the by-laws, the Court had to make six anatomical appointments each July—Two Stewards of Anatomy, two Wardens of Anatomy and two Masters. The business of the stewards was to prepare the subjects for the lectures; of the Wardens to act as Demonstrators, and of the Masters to give the Lectures.

It was the duty of the Court of Assistants to choose these officers from amongst the Members of the Corporation. The appointments were for one year, and if a Member thus chosen said that he wished to be excused from holding the Office, he was fined "twenty one pounds lawful money," for so it was nominated in the Bond. The plea of incompetence for the task, or of illness, was not taken as an excuse—the work had to be done or the fine had to be paid. Fines of all sorts were, indeed, the great source of income to our Corporation in those days.

In the minutes of the Court of Assistants of October 5th, 1786, it is recorded that Mr. John Hunter had presented to the Corporation two volumes of his *Natural History of the Human Teeth*, and a copy of his *Treatise on the Venereal Disease*, and in accepting them, the Court passed him a Vote of thanks.

When, in 1745, an Act of Parliament enabled the Surgeons to free themselves from the Barbers, they became a Corporation under the Government of a Master and a Court of Assistants—21 in all. Shortly afterwards they built for themselves a Hall in the Old Bailey. And early in 1789, in order to fill the vacancy caused by the death of Pott, Hunter was elected a Member of the Court—which corresponds with the present Council of the College. Appointment was for life, and as Hunter died in 1793, he was a Member of the Court for four years and a half. Foot says that during this time he attended only one meeting. That, however, is a misstatement—"calculated and frigid."

The Court met quarterly, and it had now and then, in addition, a special Meeting. Hunter was elected in February, 1789, and in the following April he came to be admitted, taking the oath and paying the fine of twenty-one pounds. There were three other Meetings in the year of his election, at each of which he was present; and there were five in 1790, from only one of which he was absent. There were six Meetings in 1791, but he attended only two of them; in 1792 there were six meetings, two of which he attended, and in 1793, in the October of which year he died, he was present only once. Altogether he attended fourteen Meetings out of twenty-six, which is, indeed, a very poor record.

In his last two years he was absent from eight Meetings out of eleven, and my explanation for his increasing lack of interest in the affairs of the Court of Assistants is that he got on badly with his fellows, and especially with three highly placed Members who came from his own Hospital, Gunning, Walker, and Hawkins. Though there may not have been open enmity between him and them at that time, they certainly were on unfriendly terms. Indeed, Ottley tells us that they were frequently in collision.

At a Meeting on November 7th, 1793, as recorded in the Minutes, "The Master reported that since the last Court of Assistants, Mr. John Hunter, a Member of the Court, had departed this life, and declared a vacancy in pursuance of such his death."

Nothing further is noted: no Resolution of Regret or of Condolence appears to have been passed. And Dr. Peachey, who has kindly examined for me the Minute-books of St. George's Hospital, says that he can find in them nothing more than the bare notification of his death.

There is no denying it: Hunter did not agree with his fellow-practitioners. Foot affirms that he hated his equals

in the Profession, and it was probably true, for Ottley writes that his manner to them was "blunt and overbearing." As Surgeon-General to the Army he had great patronage, and he was in the habit of refusing recommendations which other Surgeons made for vacant military appointments, and of giving pretty nearly everything to his own pupils and associates. This made him highly popular amongst his friends, but it was gall and wormwood to the other Hospital Surgeons, many of whom were upon the Court of Assistants. If he could have foreseen that this College was eventually to have the guardianship of his Museum, things might have been different.

When, six years after his death, Parliament purchased his Museum for the Nation, it was offered first to the Royal College of Physicians, and it is only because of their declining to accept its custody that Government entrusted it to our keeping. But had the Trust been accepted by the Sister College, she would have found a medical and a philosophic side to Hunter's work which would have justified her in giving him an honoured place by the side of her Harvey and her Sydenham. Fortune, however, was not blind when she settled that the world-famed collection, with its countless associations, should be handed over to this College. And justly may it be claimed that nowhere else could the conditions of the Trust have been more faithfully or devotedly observed!

*Hunter's Illness.*

It has been truly said that a man is as old as his arteries, and, looked at from this point of view, though Hunter's age at his death was under 65, he had for many years been far older than that, for he was the subject of advanced arterial disease. It is impossible to say at what time the disease began; it comes on so slowly that for a long while there may be nothing to call attention to its presence. But in the Spring of 1773 he had an alarming attack of spasm, in which for about three-quarters of an hour his heart stopped beating; it was apparently caused by mental worry. Four years later he had a still more distressing attack which was also brought on by anxiety. And this time he suffered from a continuous giddiness which prevented him raising his head. The mental shock so affected his feeble heart that it was unable to pump blood to the brain through the narrowed vessels. But though this must have been felt by him to be a warning, he evidently did not allow it to cause him alarm. This is the way in which he refers to it in the middle of a letter which he wrote to Jenner a few weeks afterwards: "I had the pleasure of seeing your brother, but only for a time. I received the bird; I am not acquainted with it. Send me some more if you can get them readily. Not two hours after I saw your brother, I was taken ill with a swimming in my head, and could not raise it off the pillow for ten days. It is not yet perfectly recovered. Have you begun the eels. No porpoises. No salmon-spawn before it is hatched. You see I am very greedy."

This letter is especially interesting in the light of those other letters. In them, as you remember, when Jenner was anxiously asking how he should deal with that boy with the damaged head, Hunter could, apparently, think of little but his Museum. And here, when Hunter is telling Jenner how Death had been giving what was, as a fact, his second loud knock, he refers to it merely as an incident, between the welcoming of a rare bird to the Museum and a reminder that Jenner has not yet told him of the result of his researches concerning the eels. What a mental picture it offers—Hunter discussing the sex-problem in eels whilst Death is waiting at the door!

But though Hunter gave little heed to his illness, his doctors insisted on his going for a complete rest to Bath. And as soon as he was settled there Jenner went over to see him—a journey of about twenty miles—and was alarmed by his altered appearance. He said nothing to Hunter, however, but he wrote to his London physician giving it as his opinion that all the trouble was due to imperfect nourishment of the heart-muscle, the result of arterial disease. And Jenner was right.

After remaining three months at Bath, though by no means recovered, Hunter went back to London and set to work at his Museum and his practice as if nothing had happened.

In 1785—that is, eight years after his last attack, and as many before his death—his disease caused him increasing distress, and especially so when he was angry; and as he grew older his temper did not improve. He would fly into a passion for very little cause, upon which an attack would come on, leaving him exhausted and miserable. It is a sad story—the man of giant mind such as the world rarely produces, worn out with incessant work and insufficient rest, torn to pieces by an ungovernable temper, and left, at shortening intervals, faint and helpless! It was all very well to call his complaint "flying Gout"—whatever that may mean—it was something far more serious. Once more he visited Bath—but with little success. Indeed, he was in such a poor state of health that any other man in his position would have given up work altogether and retired into private life.

Dante reminds us that there comes the time to each one of us when, like a mariner approaching the port, he should lower the sails and gather in the ropes.* But Hunter refused to see that this had come to him. Though he knew that his days were uncertain, he felt that life without work would be intolerable. Above all things, his Museum must be attended to. So he came back to London, and (November, 1785) again put on harness.

Having thus brought you to look upon Hunter as a man bankrupt in bodily health, which, indeed, he was, I wish you to see, by contrast, that his mind was in full vigour, for it was at this time that he thought out and carried into execution a new operation for the cure of aneurysm—a piece of work which alone would have sufficed to place him for ever in a niche in the Temple of Fame.

Time will not allow me to do more than merely refer to the great advance which this measure effected in the march of Surgery. But I think it right to take this occasion of saying that its conception was the direct result of an experiment carried out on a living animal. And if no other piece of useful knowledge than this had ever been established by such method of experiment, it alone would abundantly justify the resort of the man of Science to the use of what is commonly spoken of, and too often spitefully spoken of, as vivisection.

*His Ill Health Accounted For.*

One cannot deal satisfactorily with the question of Hunter's ill health unless one keeps in view the fact that, as the result of what must be called a "vivisection" experiment upon himself, he became the subject of constitutional syphilis. Though he had abundant opportunity of studying the progress and the effects of syphilis in patients coming to him for treatment after accidental infection, he desired to watch its course in a less impersonal manner. So he calmly dipped a lancet in venereal matter and inoculated himself with it. The experiment was a highly risky one, and it proved disastrous. Medical men and medical students have in all times been willing to offer themselves upon the altar of Science, in the hope of solving some pathological problem or of helping onward some scheme of treatment which might prove useful to their fellow-creatures. Hunter's trial upon himself by no means stands alone.

Hunter was then in his 40th year. He well knew the seriousness of the constitutional disease with which he had infected himself, and, whilst watching its progress, he found that he could check it by a certain line of treatment; but he writes that as soon as he found himself thus getting better he stopped the treatment, "for the intention was not to cure the disease completely at present." In due course his throat became ulcerated; and, having again adopted enough of the treatment to cause the ulcer to "skin over," he once more ceased it, as he did not then wish to destroy the poison, "but to observe what parts it would next affect." In three months copper-coloured blotches broke out on the skin, and ulceration once more attacked the throat. At a later date, when he thought that he had learnt all that was possible from his experiments, he set to work to cure himself. From the date of his inoculation to the completion of the treatment of the disease was about three years. He was apparently satisfied that the knowledge which he had thus obtained was sufficient reward for the inconveniences which he had undergone; but no

* quella parte
Di mia eta, dove ciascun dovrebbe
Calar le vele e raccoglier le sarte.

medical man, looking back, would share with him that feeling of satisfaction. The price paid was far too heavy!

There can be little doubt that the progressive arterial degeneration of which he was the subject was greatly, if not altogether, due to that self-inflicted disease, from the effects of which he never actually recovered. Not only did it render him feeble in body, but it also disturbed the balance of his mind and made him increasingly restless and irritable. Thus to think upon Hunter and his illness is to enable one to look upon his vast achievements with increased respect, and to regard his failings with unstinted sympathy. The longer one lives the more fully does one realize the truth of the French proverb which tells us that to understand all is to forgive all!

*Hunter, Pasteur and Lister.*

Just now, when speaking of the friendship which existed between Hunter and Jenner, I referred to the delight with which Hunter would have looked upon the discovery of vaccination as an almost certain protection against small-pox, which his earlier death prevented him witnessing. And as the Shade of Hunter wandered through the Elysian Fields, he must have offered a warm welcome to another kindred spirit of the commonwealth of Science, and one of its brightest ornaments—Pasteur—who joined him after a hundred years. With what pleasure would these men discuss the many subjects which lay within the space in which the work of the physiologist overlapped that of the physicist! With what interest Hunter, one of the earliest friends of our Royal Veterinary College, would listen to Pasteur's account of the outbreak of the Cattle-plague in France, of the pestilence amongst the silkworms, and of the diseases of wine and of vinegar, all of which he had made to disappear by the touch of his magic wand! and with what approval would he follow Pasteur's account of the way in which he worked out his theories in connexion with that terrible disease, hydrophobia, and established their truth by experimentation on the animals themselves! What a group is it—Hunter, Jenner, and Pasteur—Jenner, Hunter's friend in the flesh, and Pasteur in the Spirit!

And having thus spoken of the spiritual association of Hunter with Pasteur, it will be but a short step to connect Hunter's ideas with those of our Lister. For the range of his mental work in Surgery (as was first pointed out to me by Mr. Dent) did actually touch that of Lister. Hunter is lecturing to his pupils upon hectic fever, which we now know to be the result of slow blood-poisoning, and these are his words:

"We have as yet, I am afraid, no cure for this. I believe the cure consists in the removal of the cause—namely, the local disease. Strengtheners and antiseptics are recommended. Strengtheners are proposed on account of the debility which has evidently taken place, and antiseptics, from the idea of absorbed pus giving the blood a tendency to putrefaction."

Here then is Hunter, a hundred years before Lister, talking about pus and putrefaction, and ascribing hectic fever to blood-poisoning, just as Lister would do, and, moreover, saying that the disease should be treated by *antiseptics*—using Lister's favourite word.

Hunter had thought it out for himself, turning the rough idea over in his philosophic mind until he had it ready for presentation to his students.

Look at him in Reynolds's magnificent picture. He is seated at a table with an open book beside him with drawings of skulls; there are also on the table an anatomical preparation and two closed volumes. But evidently his thought is not with *them*. His face shows that he is deep in meditation, and that his thought is far away—a hundred years forward, as likely as not. And, if so, may it not be that at that very moment it is on the fringe of the work of Pasteur and Lister? At any rate, at one time or another he was within touch of Lister's immortal discovery. And he could have reached it without the help of a microscope. He might, like Pasteur and Lister, have put the fresh-boiled broth into a sterile vessel; and, having shielded it from dust, kept it sweet for weeks. Then, carrying out the same idea with a clean surgical wound, and treating it with "antiseptics," he would there also have secured the wished-for result—its prompt healing. By the broth losing its clear appearance and its wholesome smell, as by the wound becoming swollen, offensive, and bathed in pus—the result of their having been infected—he would have been led to see and grasp the great truth, and then would have worked out the simple and beautiful antiseptic theory as we practise it to-day. But in a mind so crowded with ideas that it was, as he said, "like a beehive," it might not have taken much to turn aside that current of his thoughts. So that, if, by chance, a vision of the antiseptic method was occupying his thought when Reynolds caught that charming expression, a casual remark from the painter might easily have caused it to vanish into thin air.

The portrait was painted in May 1785, three months after Hunter's 57th birthday, but it shows him looking a good deal older than that. Indeed, Everard Home says that, after his serious attack, "he gave the idea of having grown much older than could be accounted for from the number of years which had elapsed."

The picture was hung in the Exhibition of the Royal Academy of the following year, as the "Portrait of a Gentleman." But in the course of time, on account of the nature of the pigments used, it darkened and cracked and threatened to go to ruin. At last, when its condition seemed well-nigh hopeless, it was restored by an expert named Farrar, who in the course of his remarkably successful work, removed the paint from the old canvas and re-applied it upon a new one.

The story of the painting of the picture is well known—Reynolds found Hunter a bad sitter. Probably Hunter did not like being under control, and became as difficult to pose as a restless boy at a photographer's. And so it came about that, though the picture was far advanced, the artist was not satisfied with it. One day, however, Hunter fell into a waking dream as he sat, and "Reynolds, without a word, turned the canvas upside down, made a fresh sketch, with the head between the legs of the former figure," and obtained the result which you see.

Much the same thing happened when Mrs. Siddons was sitting to Reynolds as the Tragic Muse. He had already sketched the head and face, and when he had turned away from his easel to mix some colour, Mrs. Siddons changed her position in order to examine some picture hanging on the wall. Reynolds was so pleased with this natural pose that he begged her not to move, and he then painted her as she is seen in the glorious picture at Grosvenor House.

In a lecture on Sleep, Hunter says: "It is even possible to dream when awake; it is only necessary for the thinking power to take possession of the mind, and proceed with an action with which the present sensation has nothing to do. Now, whenever the body loses the consciousness of its own existence, it may be called a waking dream, and this is often the case when people are in deep thought."

In this great picture Hunter is truly in a waking dream; and no one will venture to contest the point if I suggest that he is dreaming of putrefaction, of suppuration, and of the antiseptic system which was to come!

The picture was presented to the College by Hunter's son, in February, 1821, with the accompanying letter, addressed to the Secretary:

> Sir,
>
> I have no doubt that the placing the portrait of my dear Father, the late John Hunter, Surgeon, in his Collection will meet with the wishes of the College of Surgeons, and that the gift of the above portrait will be acceptable to them. I do not think it can be more appropriately situated or more worthily disposed of. I therefore beg leave to make them the offer, and to add that I shall think myself honoured by their acceptance of it.
>
> I am, Sir,
>
> Your obedient servant,
>
> John Banks Hunter.

*Hunter and St. George's Hospital.*

Hunter's colleagues at St. George's Hospital regarded him as a dreamer, and refused to see that his physiological studies could have any useful influence on the work of the practical surgeon; whilst Hunter, from his high standpoint, looked down upon them, and treated them with scant respect. Thus there was between him and them an

entire absence of that good feeling which it should be the duty of every member of a Hospital Staff to cultivate, not only for his own happiness, but in the interests also of the Hospital, the students, and even of the patients.

At the beginning of 1792, when Hawkins retired from the Hospital, Hunter did his utmost to secure the election of Mrs. Hunter's brother, Everard Home, to the vacant post. Gunning and Walker, however, fought against him to get in Thomas Keate, who proved successful by 134 votes against 102 cast for Home. "This," says Ottley, "could scarcely fail to heighten existing animosities." Those two words "existing animosities" give clear proof that Hunter greatly disliked Gunning and Walker, and I am going to assume that Hawkins (into whose vacancy at St. George's Hospital Keate had been elected) sided with them against Hunter.

Those of us who have had experience of the wretched system of election to a Hospital Staff by canvass and open vote, can understand the bitterness caused by the Keate-Home contest—a bitterness made all the greater by the fact that it was somewhat of a family affair. As a result of his defeat, the iron entered deeply into Hunter's soul, and he turned round on his colleagues and declared that he would no longer agree to the division with them of the surgical pupils' fees, and that for the future he meant to keep for himself all moneys paid by students who entered under his name. He claimed that he did this in order to stimulate the other Surgeons to do better for the students than they had done in the past, as, in his opinion, their neglect had brought disgrace upon the Hospital.

Gunning, Walker, and Keate replied; and, whilst admitting that more pupils entered under him than under them, claimed that they did so from a knowledge of the fact that he would be likely to find Army appointments for them later on. And they set forth this unanswerable objection to his scheme, that if a pupil entered the Hospital for the practice of one surgeon, he would be unable to watch the work of the other. To have agreed would have been to admit that they had actually been blameworthy; but they said that they would like to have the matter referred to the Governors of the Hospital. Hunter replied that he accepted their proposal, and that he would meet it "fairly and very willingly." And before the Meeting he sent a long printed document to each Governor setting forth his case.

Hunter's scheme, which was conceived in a moment of wrath, was an impossible one, and the Governors rightly gave their decision against it. And after this, in order to promote the smoother working of affairs at the Hospital, a Committee was appointed to draw up a Code of Regulations, amongst which was one forbidding the admission of pupils who had not already received some medical instruction. The effect of this would be to shut out young fellow-countrymen of Hunter, who were attracted to the Hospital by his reputation and success. Indeed, soon after the adoption of the Code, two Scottish youths, without any knowledge of medical work, applied to Hunter to be received as his pupils at the Hospital. He told them of the new law, but promised to try and obtain permission for them at the Meeting of the Board which was to be held on October 16th.

Hunter's position at that time was not a happy one. He had quarrelled with his colleagues, and had twice been beaten by them in contests before the Governors of the Hospital, and he was now going to engage in another fight with them. Worse than all, he was the subject of a disease which gave him distress whenever he was excited or angry.

Something told him that disaster was close at hand. As he was addressing the Board at St. George's Hospital, a member of it, possibly Gunning, gave him a flat contradiction, on which he stopped speaking, hurried into an adjoining room, and fell lifeless in the arms of one of the Physicians!

A more dramatic ending to a strenuous life could not be imagined; and doubtless it called to the mind of many people the sudden heart failure of Chatham when he was addressing the House of Lords a few years before. But between Chatham's seizure and his death there was a delay of some weeks, whilst Hunter's death followed his attack with awful suddenness, as when the deafening thunder rolls upon the vivid lightning-flash.

If, as I claimed just now, Hunter was happy in the time of his birth, equally so was he in that of his death. He was then in his 65th year—an age at which he could not expect surgical practice to be increasing. His heart-disease was steadily getting worse, and he himself more irritable; and though he was still full of energy, he was wanting in strength. His Museum, daily growing larger, was making heavier demands upon his purse, and he had already spent so much upon it that he had but little private means. Surely Death came to him as a friend, as, indeed, he comes to most of us, if only he does not too long delay his coming.

On examination after death, it was found that his heart was wasted and small, its muscular tissue being "pale, and loose in its texture." The arteries of the brain, and of other parts, were thick and rigid.

Commonly it happens that when a man's arteries are diseased the muscular wall of the heart grows stronger and more massive in its effort to pump blood through the resisting tubes. But as Hunter had not been in the habit of making vigorous calls upon his heart by physical labour, his heart possessed no reserve of force, and readily gave up the unequal struggle. In an ordinarily healthy man, taking a fair amount of exercise, if the heart is called upon to do extra work—as in the case of valvular or arterial disease—its muscle becomes thick and strong, like that of the blacksmith's arm, but the heart of Hunter actually shrank from the task. And, just as Jenner had foretold sixteen years before (after that visit of Hunter to Bath), the arteries supplying its muscular tissues were converted into bony canals. The aorta was dilated, and all the valves of the heart were out of working order.

There are few great men the details of whose life are so well known as are those of John Hunter's. His history is an open book which any one may read. And though we fully recognize the grandeur of his intellect, we also see his weaknesses and admit his faults. No part of his industrious life is hidden behind a curtain which the historian feels it better to leave undrawn. We are told almost every detail; we know the full story of his death, and we have a sufficient account of the result of the examination of his body after death to enable us clearly to understand its cause. And as we learn of the gross changes which were revealed in his arteries, the opinion grows stronger that they were to a large extent the result of those disastrous experiments which he made upon himself a quarter of a century before.

When reading the biography of a man, one expects to find that as he advances in years the little faults of his earlier days disappear, and that his views, his interests and his hopes become wider—that, in short, his character gradually takes on the richer tints of autumn. But so it was not with Hunter. The sunshine and the rain which had come into his life had had no mellowing effect upon him; the jealousies and the bitterness of his nature steadily became more marked. And from what one knows of the results of syphilitic degeneration of the blood vessels, one would probably be right in ascribing the early coming on in him of old age, and the growing irritability of his temper, to the effects of that disease with which he so unwisely inoculated himself.

This great High-Priest of Nature ought, of course, to have been buried in Westminster Abbey; but no invitation was forthcoming. In those days Theology looked askance upon Science. So the body was enclosed in a coffin and quietly placed in the vaults of that church which stands between the Strand and Trafalgar Square, for, as Hunter lived in Leicester Square, St. Martin's-in-the-Fields was his parish church. And there it would probably have been to-day, but that, in the beginning of 1859, a member of our Profession, Mr. Frank Buckland, saw a notice in the "Times" to the effect that by an Order in Council the vaults of St. Martin's Church were to be bricked up. Believing that the body of Hunter was lying there, he visited the church, and found the following entry in the sexton's Register, concerning Hunter's funeral arrangements, under the date of October 22, 1793—

> John Hunter, Esq., Leicester Square, No. 3 Vault.
> £6.10. No candles; ¼ past 4.

Buckland made it his care to find the coffin.

On the door of Vault Number Three being opened, he saw, by the help of a bull's-eye lantern, that the vast

space was stacked with coffins from floor to ceiling, in "most admired disorder." Some were lying east and west: some north and south: others were placed crosswise, and some were standing up on end. Every one of these had to be taken out so that the name-plates might be read. This was a long and gruesome business, as the coffins were heavy of oak and lead, and he and the men helping him spent fifteen days over it. At last, when upwards of 200 coffins had been fruitlessly examined, there were only five left at the end of the vault; and as he could read the names on the three uppermost of these, he feared that his chance of reaching the object of his search was small. However, on one of the last two he had the satisfaction of finding the inscription,

John Hunter, Esq.,
Died 16 October
1793
Aged 64 years.

And above these words were engraved the arms of the Hunter family.

Thereupon the Council of this College approached the authorities at Westminster, and asked that the body might be granted tardy burial in the Abbey. The Dean, Dr. Trench, worthily replied, "We shall be proud to be the guardians there of the ashes of so great a man."

The coffin, therefore, was brought to the Abbey; and on March 28, 1859, in the midst of a crowd of illustrious persons, all that was mortal of John Hunter was laid in the earth of the North Aisle, not far from the last resting place of Isaac Newton. And as the coffin was being lowered into the vault, the organ pealed forth that magnificent chorus from Handel's Funeral Anthem,

"His body is buried in peace; but his name liveth evermore!"

To you, Mr. President, and to me, as to others who are devout worshippers at the Shrine of Hunter, there may appear little or nothing in this Address which is worthy of attention. Still, it may be hoped that in its course some stray thought may have been set free—as when a flint strikes steel—which, falling upon the mental tinder of some younger man, may cause the springing up in him of a flame to illuminate his studious path and help him onward. Indeed, without the hope of some such effect resulting from a Hunterian Oration, the pious intention of John Hunter's Executors might well be allowed to sink into oblivion.

And even for those of us whose thoughts should be directed to the lowering of the sails of their bark, and the gathering in of the ropes, there will still remain a place in the mental vision for the picture of a raw Scottish lad coming up to a great City in which he had but one friend, and, possessing nothing beyond the rudiments of an education, seeking his way to a position in the world of Science and of Art such as it is the lot of few to attain, and, without any indebtedness to the goddess Fortune, reaching it by dint of of industry, vigour and determination.

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THE number of persons who visited the Royal Botanic Gardens at Kew during 1910 was over three and a half millions, the largest number on record. It seems a very large number until we recollect the enormous population which lives within ten miles of the gardens, and think of the great number of persons who visit London during the spring and summer months to see the sights. Undoubtedly one of the most beautiful of these is the garden at Kew, whether it is seen in its spring or its summer dress. But the garden has a scientific as well as an aesthetic attraction, for a great deal of important scientific and economic work is done there. Apart from growing things, the dried collections and the wonderful set of drawings of tropical vegetation by Miss North are alone worth the easy pilgrimage, for the objection which used to be made against Kew that it was inaccessible no longer holds good. With the help of underground railways and electric tramways it can be reached *tuto cito et jucunde*. It is worth while to add that when a foreign visitor, or one of our overseas countrymen, asks about the Botanic Gardens the Londoner would do well to direct the inquirer to Kew rather than to the gardens of the Royal Botanic Society in Regent's Park. That society does much good work, but it is hampered in many ways, not least being lack of funds, and its gardens, interesting as they are, compare favourably with the great botanic gardens in other countries. Kew, on the other hand, is not unworthy of such a comparison.

# The Lettsomian Lectures

ON

## A REVIEW OF THE OPERATIONS FOR STONE IN THE MALE BLADDER.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON.

BY

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### LECTURE

MR. PRESIDENT AND GENTLEMEN,—It is known that operations for the removal of vesical calculi have been performed for over two thousand years, and we are indebted to Celsus for a clear description of the method then adopted, which, with but little variation, kept the field for over fifteen hundred years, and was at times practised as lately as two hundred years ago. This operation seems originally to have been regarded as beyond the scope of the practitioner of that time, for we find that those who took the Hippocratic oath bound themselves not to perform this operation; the disciple, taking the oath, said, "I will not cut persons labouring under the stone, but will leave this to be done by men who are practitioners of this work." No wonder, then, that the operation fell into the hands of quacks and irregular practitioners, but in justice to them we must remember that the first step of putting the operation on a sound foundation was taken by a man who was in no sort of way qualified as a practitioner of medicine. When we remember that this operation has not only been brought before societies of learned men, but before princes, parliaments, and men in high position, there is sufficient of interest to warrant our giving it some attention. We may safely conclude that a person suffering from a vesical calculus in those distant days had to put up with the pain and distress until his condition was desperate. There was no early diagnosis of stone then—indeed, the stone was detected not by the sound, but by introducing the fingers into the rectum and feeling it through the anterior wall. The next step was to recognize that it could be pressed forward against the perineum, then, when this was done, it was but one step farther to suggest that the intermediate parts should be cut with a knife and the stone extracted. Such were the steps by which the first simple operation was arrived at. It is possible also that the sloughing of the perineum, due to the presence of a stone impacted in the deep urethra, thus allowing it to come away, may have suggested the division of the soft parts as a means for its extraction. This operation, from its having been described by Celsus, has been called the *Lithotomia Celsiana*, or, from the use made of the fingers in pressing down and holding the stone, it has been called cutting on the gripe, and when in later ages more complicated operations were invented and many instruments used, this was named the apparatus minor, or lesser apparatus, from its being performed with no other instrument than a knife and a hook. Such an operation as this, requiring no knowledge of anatomy for its performance, could be undertaken by quacks, whose only desire was to extract the stone, and who were indifferent as to any complications which might arise afterwards. Apart from these, however, it was performed by regular practitioners, and for many centuries was in considerable favour. Celsus describes the operation as one which,

> when all others fail, must be performed on those afflicted with the stone; an operation which, since it is full of danger, must never be rashly performed, nor at all times and seasons, nor in all ages, nor in all degrees of the malady; but only in the spring in boys from 9 to 14 years of age, and when the disease is so desperate that it can neither be cured nor even alleviated by medicine, but when the person must die in a little while.

uch, then, were the conditions justifying the operation. It is difficult to understand why the operation should not have been performed on boys under 9 years of age, as it could have been carried out as well before that age as after. In the adult there were difficulties, arising from the size and depth of the perineum, which may have rendered it more dangerous than in boys. The operation

was performed as follows: The fore and middle fingers of the left hand were inserted, one after the other, into the anus, while the right hand was placed on the lower abdomen. The stone was then sought for by the fingers of the left hand in the rectum, assisted by those of the right hand, which pressed from above into the pelvis, and kept the stone in front of the left fingers, so that these might press it from behind forwards against the neck of the bladder and perineum. The difficulties at this stage were fully recognized, for we are told that

when the stone is within the gripe it must be more cautiously and carefully handled in proportion as it is small and smooth, for a small and smooth stone is apt to slip back and to occasion much handling and tormenting of the bladder. For these reasons the fingers of the right hand are pressed in behind the stone, while with the fingers of the left hand it is brought downwards to the neck of the bladder. If the stone be oblong, let it be presented, lying along with one end turned towards the wound; if flat, with one end towards the wound; if square, resting upon two of its angles; if bigger towards one end, let the smaller end be presented to the wound. Whereas, when the stone is round, there can, from the figure of the stone, be no difference in which position it is presented, but from its roughness there may, if in a rough stone there be one smooth part, let that part come foremost.

Such reasoning as this shows that the early operators not only knew of the difficulties that were likely to arise, but were capable of obviating them as far as circumstances would allow. The next step was to make the incision directly on to the stone.

This was "of a lunated form, not far from the anus, and with the horns of this lunated incision looking towards the hips. Then, in the deeper and narrower part of the wound, is to be made a second incision, also transverse, into the neck of the bladder itself till the flowing out of the urine shows the incision to exceed in some degree the size of the stone. The neck of the bladder being thus opened the stone itself comes into view, which, if small, is to be got out with the fingers alone, the fingers of the left hand pushing it forward from within, while the fingers of the right help to pick it out, but, if it be larger, a hook, made on purpose, must be slipped in behind it."

This hook, we are told, "should be flattened and bent into a semicircular form, smooth on its back part, where it presses against the parts and rough where it touches the stone, and it should be rather long, for a shorter hook has little power.'

Such careful detail could hardly be improved upon; and when we read the directions for its use, we see that the operators had at least given attention to their work, for we are told that

when the hook is fixed behind the stone it must be moved from side to side to work the stone forwards, for the stone, if it be fairly catched by the hook, moves along with it, whereas if you merely press upon the stone without moving it thus from side to side it will slip, it will escape again into the bladder, and the point of the hook will strike against the edges of the wound. Having secured a fair hold of the stone, you are to perform at one moment three separate motions—namely, from one side to the other and directly forwards, but all quietly, taking care first to draw the stone a little downwards. Finally the handle of the hook must be raised that the lower end may press deeper behind the stone, which may be then more easily protruded. The stone, if it be not easily catched from above, may be extracted by slipping in the hook from one side.

Celsus was fully alive to the danger of dragging a large stone through a small incision, and he therefore recommends that "when the stone is too large to be extracted without laceration of the neck of the bladder it is to be broken." This was accomplished by fixing it with the hook and then striking it with a suitable iron instrument.

Such, then, was the nature and scope of the operation as described by Celsus, and for many centuries it was the only one that was resorted to. There were obviously many dangers connected with it, and it would not be unfair to assume a high mortality. The operators, however, had the sympathy and support of the public, though they were not regarded favourably by the profession. One especially rendered himself obnoxious to the regular practitioners by the success he attained in the practice of this procedure. This was Le Raoues, who operated in the seventeenth century in the principal cities in France, long after surgeons had established the operation known as the Marian. When one reads of his skill in operating, and considers that surgeons were then performing the Marian, with all its horrible cruelties, it is easy to understand that the advantage was with him as regards results. His operation was an advance on the apparatus minor as described by Celsus, for instead of using it only for boys from 9 to 14 years of age, he cut men of all ages, and did not hesitate to pass three fingers into the rectum when necessary. His incision, instead of being transverse and lunated, was longitudinal and curved to the left of the middle line. Further, by drawing the skin of the perineum to the right and pushing the stone towards the left, he obtained an oblique or valvular incision on to the stone, so that the bladder should be closed afterwards. This, however, could hardly have been an advantage, as the risk of extravasation of urine must have thereby been considerably increased. He is, however, reported to have operated on a nobleman who was able on the ninth day to walk round the city with his operator. Raoues, after having operated with great success in the provinces of France, appeared in Paris, and managed to gain access to the society of learned men, where, in the presence of the Prince of Condé, he stated that he had discovered a new way of cutting for stone—more expeditious, safe, and easy than that by the Marian then in use. This brought down on him the wrath of the physicians, and more especially of Collot, the King's lithotomist, who did not hesitate to say that he operated on men who had not the stone, and that the one produced was one which he held in his sleeve and dropped into the palm of his hand at the proper moment, and presented to the spectators, soiled with the blood of the wound. In spite of such hostile criticism there can be no doubt whatever that his was a plain, simple, and successful operation, which he well knew how to perform, and there was no need for him to resort to deception. He was therefore bound to make enemies, many of whom invented tales against him.

The incision in the apparatus minor, up to the time of Celsus at any rate, was transverse and lunated; the incision of Raoues was also lunated, but it was nearly an inch to the left of the middle line, a sort of semicircle around the tuber ischii. It is not known when this was changed for a longitudinal incision, but about this time the incision was made in a direction similar to that of the Marian, that is, in a lateral direction. In the case of the apparatus minor the incision was made on to the stone, while in the Marian it was made on to the staff. The original transverse incision was open to many objections, for the parts cut varied according to the degree in which they were protruded by the fingers, and it was quite possible to completely sever the urethra from the bladder, an accident which might also happen with the lateral lunated incision. The extraction of the stone was comparatively simple, provided a suitable incision was made, and there was the further advantage that no gorgets were used. The bladder was entered by a clean cut of sufficient size, but unfortunately, it was possible by this very method to inflict irreparable harm, and at all times there must have been a great uncertainty as to what parts were being cut. The dangers and difficulties of this operation were therefore very considerable. Great pain was caused by bringing a rough stone to the surface in a chronically inflamed bladder. The irregularity of the stone frequently caused the incision upon it to be so uneven as to render its extraction difficult. The possibility of damaging the rectum with the fingers was very real. In a stout patient the size of the bladder, and its distance from the surface, rendered it difficult to protrude the stone, and it was very difficult to retain it in that position in the case of a very smooth stone. There was also the fact that the surgeon's fingers became tired when pressing down the stone on to the perineum. It was not, however, until early in the sixteenth century that any serious attempt was made to introduce any other operation in place of this, and it is somewhat uncertain as to the exact reasons that caused the new procedure to be adopted. It has been suggested that the first idea of this may have arisen from observing how easily stones were frequently voided by women, either naturally, or with some assistance; the shortness and great dilatability of the urethra in women giving a comparatively easy passage to the stone. It may, therefore, have been argued that if an opening were made into the male urethra near the bladder, so as to have the intermediate parts as short as in women, it might be dilated and the stone extracted with ease. Such an operation was also in accord with the view generally held at that time, that a wound of a membranous organ, such as the bladder, was mortal. Thus it may have been that, seeing the dangers and difficulties of the apparatus minor, men were honestly searching for an improved method; or was it from less worthy motives that the new operation

was introduced? Such, at any rate, was the reason if we are to believe Heister, who says that physicians abandoned it because—

> Their fees were melting away, their gains and honours were intercepted by quacks. They invented, therefore, new and curious operations, not to cut men more easily, but to display their learning. They first proved by an aphorism of Hippocrates that wounds in membranous parts are mortal. Thence they deduced this rule, that, whatever external incisions might be required, the neck of the bladder itself should never be divided with the knife, but should only be dilated with instruments of various forms.

They willingly forgot the maxim of Celsus, "that there is greater danger in dilating the neck of the bladder than in opening it by incision." They therefore dilated the parts rather than cut them, and the simplicity of the apparatus minor, and the ease with which it was performed, may have been, if we are to accept this view, their chief objection to it.

> Those (says Heister) who choose to speak contemptuously of this method represent it as an operation fit only for quacks and mountebanks, as an operation too low and contemptible even to be practised by regular surgeons and physicians. Modern surgeons have invented more cunning and curious methods, such as the vulgar do not know, such as must captivate all ranks of men, the rich and great as well as the vulgar, by the profusion and elegance of the apparatus.

The operation that superseded the apparatus minor was called, not without good reason, the apparatus major, or, from its having been described by Marianus Sanctus Barolitanus, the Marian operation. The instruments used were well calculated to impress the great with admiration and reverence, provided they were not likely to require its assistance; but the feelings of the unfortunate patient must have been those of mingled dread and fear, while the spectators of this agonizing proceeding must have left the scene with a silent prayer to be delivered from the troubles incident to a vesical calculus. The inventor of this horrible operation was one Joannes de Romanis, a surgeon of Cremona in Italy, but for some reason he did not publish any account of it. This omission, however, was made good by his pupil, the eloquent Marianus, in 1524, who was quite equal to the task of presenting it to the public in language that would convince them of its virtues. Even the fact that it was to be performed by the use of an ordinary barber's razor did not disturb him, for he proceeds:

> The barber's razor, friendly reader, is a most important weapon, wherewith, when the business is to shave, cut close, and utterly subdue a stubborn and rebellious beard, the barber mows down the hairs, thousands falling before him at each remorseless stroke.

All the instruments in their turn are spoken of in the same strain, but as dilatation was the chief purpose of the operation, the description of these instruments of torture excels even that of the razor. He says:

> Look—look but to the aperiens, how it gapes with desire when the conductors have made way for its approaching, and, seizing the stone, it rages like the ferocious soldier ready to enter the breach in the walls of the besieged city. Next come the voracious and vociferous forceps themselves, which often, when their morsel is too large for them to devour, cry out for the aid of their two supporters, or latera, which are then laid side by side with the forceps.

The operation thus fantastically described was performed by introducing a grooved staff into the bladder, then opening the perineum by an incision in a longitudinal direction to one side of the middle line, which, however, did not pass backwards through the transverse perineal muscle into the ischio-rectal fossa, thus considerably limiting the space through which the stone had to be removed. The groove in the staff was then felt for and the membranous urethra opened by fixing the point of the knife in the staff. A probe was then passed along the knife into the groove and along this into the bladder. The staff was now withdrawn. The operator then took two conductors, like strong iron probes, one, called the female conductor, having a groove in it, the other, the male conductor, having a probe point corresponding to the groove. The female conductor was passed along the probe into the bladder; this was then removed and the male conductor was passed along the groove in the female conductor until it also was in the bladder. Then, indeed, the operator was in a position to carry out his principle of dilating the deep parts, for taking a conductor in each hand he separated them to such an extent as to dilate, or rather tear open, the prostate. The wound was now prepared for the introduction of the dilator, an instrument resembling forceps, whose points diverged and opened when the handles were pressed together. The dilator was passed into the bladder between the conductors, and the wound was stretched until it would admit the forceps. Finally, the dilator was removed and the forceps were introduced between the conductors, the stone was seized, and the conductors removed. If now the stone could be extracted, there was no further need for help, but if, as Marianus said, the stone was too large for them to devour, they cry out for the aid of their two supporters or latera. These were passed by the side of the forceps and locked upon the stone so that the whole resembled a four-bladed forceps. The latera were so constructed that on clasping the handles the points closed and the hinges rose, so that the instrument served at once the double purpose of dilators and assistant forceps.

This barbarous procedure did not entirely supersede the more simple, and probably at least equally successful, apparatus minor, for, writing in 1808 on lithotomy, Allan says of the apparatus minor:

> It was longer practised than all the other methods for lithotomy put together, and was performed at Bordeaux, Paris, and other places in France on patients of all ages by Raouss, even so late as 140 years ago. It was one of the operations of Frère Jaques, for he had two; in performing it he made a longitudinal instead of a lunated and transverse incision. It was practised with great success by Heister, and when a staff is used to prevent the wounding of the urethra, it is still the preferable way of operating in boys. Instead of driving a gorget into the bladder of a child, which, from the smallness of the parts, is a most perilous stroke, even in the hands of an expert surgeon, we would introduce a small staff, cut upon it till we reached the bladder, then introduce the fore and middle fingers, well oiled, into the rectum, bring forward the stone, and by cutting directly upon it force it out. There is no difficult dissection, no depth of parts, no protracted sufferings, no mangling with the forceps, no possibility of doing harm—the staff prevents the bladder from being severed from the urethra. It is performed in two minutes, and this method of operating we would invariably recommend in operating on boys under 14 years of age.

Thus we see that with slight modifications the Celsian operation was in favour with some surgeons for over two hundred years after the account of the Marian was published. In spite of its many defects the apparatus major found many ardent supporters, and it was taken up and run as a special procedure by the Collots, the first of whom, Laurent Collot, was appointed to the position of court lithotomist in 1556 by Henry II of France. The Collots were famous lithotomists for eight generations, but they kept their exact method of operating a secret. There are two statements as to how this became known—one that a book was found in the closet of the elder Collot, written in his old age, containing an authentic account of his operation; the other and more exciting version being that some surgeons bored through the ceiling of the operating theatre at La Charité in order to watch the great operator at work. They were rewarded for their trouble by seeing him do an operation which was only a slight modification of the Marian, which was well known to all those practising lithotomy. The operator was Jerome Collot, who died in 1684. The Collots were strong supporters of dilatation; indeed, they considered that the whole secret in operating lay in the dexterous use of the dilators, and when the gorget was invented one of this family took upon himself to defend the dilator, which it was intended to replace. The gorget was not at first a cutting instrument, but merely a blunt wedge, a scoop of conical form, which, from the form of its beak, slipped easily along the groove of the staff, and by its wedge-like shape dilated the wound, and by the groove or hollow served as a conductor for the forceps.

> I do not deny (says Collot) that those who refuse the use of the dilator may find themselves successful with the gorget—the gorget may be a commendable invention, but this I will say, that those who thought it necessary to invent the gorget must have understood very little the way of using the dilator, for the use of this instrument may be regarded as a sort of secret in the art not to be acquired but by being taught.

Marianus draws attention to the fact "that while the dilator was passed between the male and female conductors it was necessary to hold them perfectly steady and firm," the reason for this being that unless this precaution was taken they might be forced through the fundus of the bladder, as was actually seen by Saviard in a case

operated on by another surgeon. Such was the reality of this danger that some conductors were made with holes, through which crosspins were placed to prevent their being pushed in; others were made with cross handles, like a Roman sword. The wound left after this operation was not likely to heal, nor did it, and in nearly every case that survived the operation a fistula was left for life. A cannula was usually inserted into the bladder after the operation, and Collot was active in support of this, for he criticized Frère Jaques for healing the wound too early. The horrors of this operation were so great that as soon as Frère Jaques appeared with his operation he had a considerable following, though the Marian operation had a fascination for many who had been taught its mysteries. Some, indeed, while professing to do it, modified it to a great extent. They commenced by cutting low in the perineum, but added to this an incision in the prostate by running the knife forwards in the deep part of the wound. This, of course, was against the traditions of the Marian operation, where dilatation was laid down as the foundation on which it stood. One of the most noted men who in theory supported dilatation as opposed to incision was Le Cat, a lithotomist of Rouen, who was ambitious of being considered an original inventor, and would not perform an operation which was not in some sense his own. He was constantly changing his methods and his instruments, and at the same time that he was insisting that dilatation alone was safe he was in practice dividing the prostate with the knife, much as other lithotomists were then doing who had openly adopted the operation of Frère Jaques.

In studying the Marian operation we see that it was faultily conceived, and so rough in its detail that the patient stood but a poor chance. The operators desired not to cut into the bladder, but to effect an entrance by dilatation. The incision was placed too far forwards, and was in the perineum, and did not extend into the ischio-rectal fossa, where there was more room for the passage of the stone. The urethra was opened through the bulbous portion, and, as the surgeon was impressed by the idea that membranous parts should not be cut, the membranous urethra together with the prostate and neck of the bladder were dilated, or rather torn open, by his instruments. The destruction of so great a length of the urethra—for by the time the operation was completed it amounted to this—led to the formation of a permanent fistula, if the patient escaped the ordeal with his life. As to the actual mortality attending this procedure a glance at the list of the operations performed in the hospital of La Charité and collected by Morand on his return from England, where he had learnt the lateral operation from Cheselden, will show that there was room for improvement.

| Year. | Number Cut. | Deaths. |
|---|---|---|
| 1731 ... ... ... | 14 | 8 |
| 1732 ... ... ... | 11 | 4 |
| 1733 ... ... ... | 16 | 8 |
| 1734 ... ... ... | 17 | 9 |
| 1735 ... ... ... | 13 | 9 |
| Total ... ... | 71 | 38 |

These operations were performed by the best lithotomists in Paris, and they represent what the actual mortality of the Marian operation was when done under the most favourable circumstances. We do not know the condition of those who escaped death, but we can form some idea of their miserable condition by remembering that probably most of them had incurable fistulae with such attendant troubles, discomforts and dangers as are incident to this condition. While the credit of having introduced the lateral operation should be given to Frère Jaques, it is interesting to know that an almost similar operation was practised by one Pierre Franco, and an account of it published about one hundred and fifty years before Jaques was agitating the profession and the public in Paris by his own operation. In 1556 Pierre Franco published a work on the lateral operation and other branches of surgery, and though from his account it was an enormous advance on the Marian operation, no one appears to have followed his description, or to have thought it worthy of notice. Indeed, Ambroise Paré, who published his immense volume of surgery in 1561, makes no mention of Franco's operation. The operation was performed as follows:

> With a grooved staff in the urethra an incision is to be made between the anus and the testicles, 2 or 3 fingerbreadths from the anus, 1 or 2 fingerbreadths from the side of the commissure of the perineum. This must be done with a razor that cuts on both sides towards the point, and cuts well, being small at the point, for it is necessary that it should cut at the point. The razor is introduced into the groove in the staff and passed into the bladder so as to divide the neck, the opening being according to the size of the stone. The razor is withdrawn and a gorget introduced into the groove in the staff and pushed into the bladder; when it is in the bladder the staff is to be withdrawn and the forceps are to be passed upon the gorget into the bladder. The gorget is now withdrawn and the stone must be removed, or if too large must be broken.

This operation seems to have been a better one than that first practised by Frère Jaques; indeed, it was in many respects on a par with his second operation; yet Franco was treated with contempt during his life. No one appears to have grasped the advantages of this comparatively simple procedure, and, though he cannot be credited with having induced surgeons to adopt his method, he at any rate brought it to their notice.

When Frère Jaques appeared in Paris in 1697 and exhibited to the profession his method of extracting the stone, there was a general feeling, not only among the profession, but among the public, that here, at any rate, was a method that, so far as extracting the stone was concerned, was less brutal and far quicker than the Marian operation, and that, whether the results were good or bad, the patient was spared the prolonged agonies of this procedure. The principle of the operation as performed by Jaques was to cut, and not to dilate, the deeper parts of the wound. He it was who showed that wounds of membranous parts were not mortal, and that Celsus was right when he said "it is safer to cut than to dilate." By some he was regarded as one sent from heaven to alleviate the sufferings of his fellow creatures. By his enemies—and he naturally had them—he was spoken of in different terms. He was born of poor parents in Beaufort in the year 1657, and his only education was some instruction in reading and writing. When he was 21 years of age he became the servant of a quack of the name of Pauloni, and for six years he travelled about France with him, acting as his assistant, and helping him with his operations on those suffering with stone. When, however, Pauloni went to Venice, Jaques found his way back to his own country and practised those operations at which he had hitherto only assisted. At about the age of 40 he became impressed with the most enthusiastic sentiments of religion and resolved to devote his life to works of charity. He travelled over the provinces of France, assuming the name and character of a hermit or religious man, and he cut those who came to him with stone. He appears to have extracted certificates from the friends of those on whom he operated, who were astonished at the dexterity with which he extracted the stone. He, however, had the sense not to wait until the time of cure arrived, but at once passed on to another district, leaving his patients to their fate, and many of them died. Finally, he met with some real success among those of high rank, and one of his patients, a canon of the Metropolitan Church, advised him to go at once to Paris. This he did and took letters from him to one of the canons of the church of Notre Dame, together with numerous certificates from the magistrates of the towns and provinces which he had visited. On arriving in Paris he introduced himself at the hospital of La Charité, through M. Maréchal, the first surgeon, but the physicians of that hospital would not allow him to operate, though he had come to Paris with the sole object of teaching a new and particular manner of cutting for the stone. The difficulty was, however, soon overcome, for the canon to whom he had been introduced presented him to De Harley, first President of the Parliament of Paris, who became his friend and protector, and he was permitted to demonstrate his operation at the Hôtel-Dieu. Frère Jaques's operation was done as follows:

> Having introduced a staff into the bladder, without a groove, he took a long knife with which he made an incision by the side of the left ischium, and cutting obliquely upwards he divided all the parts between the tuber ischii and the staff,

which he allowed to remain in the bladder; he cut so freely upon the staff as to admit the finger into the bladder; along the finger he introduced an instrument which he called his conductor, as if to dilate the wound, and along the conductor he passed the forceps. Having introduced the forceps he withdrew the conductor; upon finding the stone he withdrew the staff also, and having seized the stone he drew it out.

The interest excited by this operation was so great that M. Méry was requested by the Lord President to draw up a report on it. This he did, and fully recognized and drew attention to the points in the operation in which, in his opinion, it was superior to the Marian. He considered it more favourable with respect to the extraction of the stone than that in common use, for a wound made thus in the neck of the bladder will permit the stone to pass easily, and being extracted through the widest part of the opening of the pelvis, it will be brought along without violence; whereas in the common operation, there being no incision but in the urethra, and the stone being forced through the neck of the bladder still entire, and through the narrowest part of the arch of the pelvis, the operation cannot be accomplished without extreme difficulty, and (whenever the stone is large) with great violence. He considered that the operation of Frère Jaques must be less liable to accidents than that in common use. The muscles of the penis were uncut, and the prostate and neck of the bladder were divided, instead of the more vascular bulbous portion of the urethra. The incision in the Marian operation was in the perineum, while that of Frère Jaques was further back where the exit from the pelvis was wider, thus adding greatly to the facility with which the stone could be extracted. Fistula was also less likely to follow an operation when parts were cut rather than torn asunder. This report of M. Méry's was a fair and impartial statement of the merits of the new operation, but it raised a storm of indignation in the profession, and in a short time Méry, who lacked the strength to maintain his opinion, joined those who were opposed to Jaques, and he condemned the operation he had so recently approved. A further trial of Jaques's skill was required, and the President instructed Méry to make a second report. Unfortunately for Jacques, his next two cases were failures. One was a boy whose urethra he nearly severed from his bladder, the other was a female whose vagina he cut entirely across and opened the bladder from the place where the ureters enter, up to the beginning of the urethra. It was, therefore, obviously impossible to report favourably on these two cases, and Méry now retracted the opinion he had previously given of the operation, and the support of the President, Harley, was consequently withdrawn. Jaques now went to Fontainebleau, where the Court was, and here he was fortunate enough to gain the friendship of the Court physicians and of the King himself. He became intimate with Duchesne, Bourdelot, Fagon, and with Félix, body surgeon to Louis XIV. Fortune now smiled on Jaques, for when these influential men were expressing the most earnest desire to see him operate on a living body, a boy was found who was badly afflicted with the stone, and on him Jaques performed his operation in the presence of the leading Court physicians with perfect success. The operation was rapidly performed. The boy passed his urine naturally soon afterwards, and in three weeks after the operation he was seen walking in the streets. Jaques cut six others while at Fontainebleau, and the King was heard to say, "This is a man that must not be neglected." Jaques was accordingly lodged and maintained at His Majesty's expense. The King soon returned to Versailles, and Jaques entered Paris for the second time, and as the report of his recent successes was made known, three patients were brought to him on whom he operated with such success that the President, Harley, again asked for a report from the surgeons and physicians of the Hôtel-Dieu. As a result of this request a meeting was held in the Archbishop's Palace on April 7th, 1698, at which were present the magistrates of the city, the physicians and surgeons, and the managers of the Hôtel-Dieu. Méry opened the debate, and now spoke unfavourably of the operation, reflecting the opinion of the surgeons and lithotomists who were hostile to Jaques. Finally, however, the physicians and the friends of Jaques expressed the opinion that he should be allowed a further trial in the hospitals, and in spite of the hostility shown by Méry and his party it was decided that he should be permitted to perform operations in La Charité and the Hôtel-Dieu. Jaques now operated in public at the hospitals, and so great was the desire of all to see him that sentries had to be placed at the gates to keep the mob back. Men from all parts came to see him operate, and they were greatly impressed with his boldness and rapidity, for it is stated that on one occasion he cut nine patients in three-quarters of an hour—a very remarkable performance when compared with the time taken in operating by the Marian.

For a time all went well, and his enemies seemed unable to attack him with any success; but before long his patients began to die, both in the Hôtel-Dieu and in La Charité, in such numbers that, disappointed and broken by persecutions, he left Paris and travelled first in the provinces and then in Holland and Germany, where he was well received by those who saw him operate. Impartial observers of Jaques soon discovered that his operation was a great advance on the Marian, and Maréchal in Paris, Raw in Holland, and Cheselden in England adopted it and put it to the test. There was one also who was deeply impressed by this procedure, and that was M. Fagon, who had shown much kindness to Jaques on his visit to Versailles, and had remained true to him even after his misfortunes in Paris. Fagon was himself afflicted with stone, and, in spite of the fact that all the best surgeons in France and Holland performed this new operation, resolved to place himself in Jaques's hands. He therefore, in the year 1700, called him to Versailles, lodged him in his own house, and persuaded him to go through a complete course of studies and dissections. This he did under the guidance of Fagon; then a series of operations were performed on dead bodies, and the parts afterwards dissected by Du Verney, the anatomist, who with Félix, the King's body surgeon, and Fagon, his future patient, discussed the various points of the operation with Jaques. As the result of these experiments, he formulated his second operation, giving up the use of the round staff, and using a grooved one instead. The incision was now no longer made with the long dagger-shaped knife, but with an ordinary scalpel, the position of the incision being similar to that of his first operation. The deeper incision was, however, quite different, for, instead of passing the knife through the cellular tissue that surrounds the rectum or seeking the body of the bladder, the neck of the bladder and the prostate were cut by passing the knife along the groove in the staff, and thus incising the prostate. The rectum and pudic artery were out of danger, as the knife was not plunged blindly among the parts. Jaques now put his improved operation to the test, and cut thirty-eight patients in Versailles without losing one. He fully recognized the help that had been given him by this staunch supporter, and he saw the value of a knowledge of the anatomy of the parts, of the advantage of the grooved staff, and of the method of making the deep incision by passing the knife along the groove. A critical time now came in Jaques's career, for not only was M. Fagon afflicted with stone, but the Maréchal de Lorges was also the subject of stone. M. Fagon, who had been so largely instrumental in perfecting the operation, had actually been sounded by Jaques, when he was prevailed upon by his friends to place himself in the hands of Maréchal, who had learnt to perform Jaques's operation. This he did, and was cut by him with complete success. The Maréchal de Lorges took every precaution to ensure success in his own case at the hands of Jaques. He collected twenty-two patients with stone, who were cut by Jaques with perfect success. He then submitted to the operation himself, and died in tortures the next day. This was a fatal blow to the reputation of Jaques, and he left Paris, never to return. He travelled over the Continent of Europe, and operated with great success. At The Hague the magistrates had his portrait engraved and presented him with a set of golden sounds. In Amsterdam, by the permission of the magistrates, he cut patients in the hospitals. In 1707 he was again at Versailles, and visited his old friend M. Fagon. He went to Vienna, Venice, Padua, and Rome, and finally died at his native village in 1715. The career of this remarkable man is full of interest and romance, and few men have effected such a change in any surgical procedure as he did in the operation for stone in the bladder.

# THE CLINICAL SYMPTOMS AND TREATMENT OF CHRONIC SUBCUTANEOUS FIBROSIS.

BY

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WITH the exception of a short article bearing the title "De la Panniculite," by A. Kjellberg,[1] of Stockholm, which appeared in the *Journal des praticiens* for 1900, and in which reference is made to a previous description by Professor Salin, also of Stockholm, I have been unable to find any systematic account of this condition. Cases illustrating one clinical aspect of it have often been reported as "symmetrical diffuse lipoma," "symmetrical fatty tumours," or "diffuse fibro-fatty tumours"; and Dercum,[2] in 1892, in an article entitled, "Three cases of a hitherto unclassified affection resembling in its grosser aspects obesity, but associated with special nervous symptoms—Adiposis dolorosa," described a fatty condition, more generalized than these, which he regarded as a special and previously unnoticed disease. The cases on which he based his description all occurred in women past middle life, who had gradually developed masses of fat in the subcutaneous areolar tissue, these masses being irregular in their position and distribution, and very painful on pressure. Spontaneous pain of a constant dull aching character, or sharp and stabbing, was present in some of the swellings. Occasionally very severe paroxysms of pain occurred, and these were coincident with temporary swelling and hardening of the fat masses. The fat was not evenly deposited, but felt lumpy, lobulated, or like bundles of worms. Certain nervous symptoms were also described as characteristic, these being chiefly diminution of cutaneous sensibility in patches, motor weakness, a tendency to herpetic eruptions, and anidrosis. He distinguished the condition from ordinary obesity in that (1) the fat occurs in masses and is first deposited at one part, other parts being involved gradually; (2) the fatty masses are extremely painful on pressure, and (3) well-marked nervous symptoms are present. On these last he lays great stress. Subsequently Dercum[3] published an account of the *post-mortem* examination of his first case. She weighed 300 lb, and there was an excessive deposit of fat in the subcutaneous tissue of the arms, shoulders, and back, rather less in the abdomen and thighs. The fat is described as normal, but containing numerous independent encapsuled lipomata. The peripheral nerves lying in it showed interstitial neuritis with proliferation of the connective tissue and diminution in the number of nerve fibres.

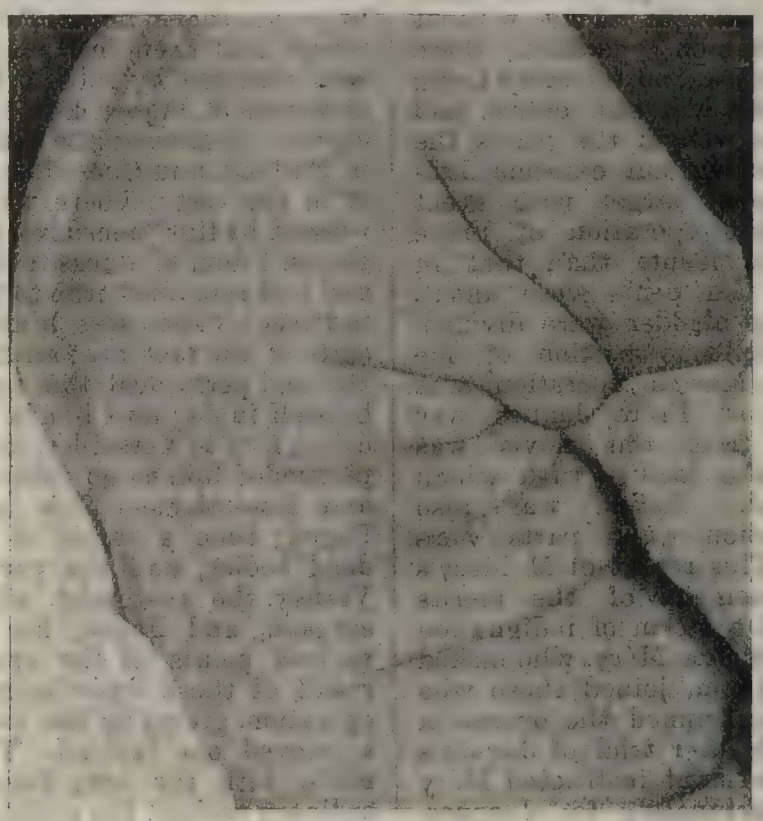

Fig. 1.

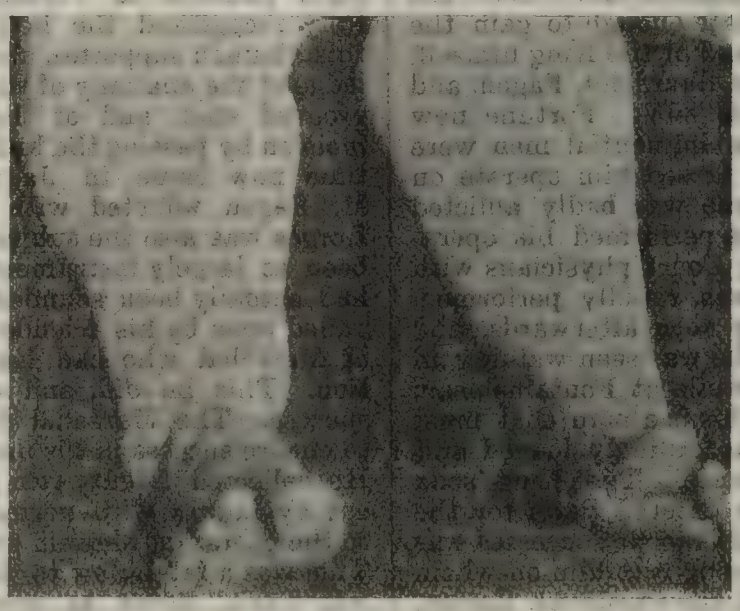

Fig. 2.

Burr,[4] in another case, describes the fat as peculiarly fibrous and firm, with its peripheral nerves in a condition of interstitial neuritis, while Price[5] gives a practically similar description of the morbid anatomy, and expresses the opinion that the condition is due to changes in the pituitary body.

Dercum, on the other hand, had attributed its causation to an alteration in the function of the thyroid, and seemed to regard it as allied to myxoedema. A description of "adiposis dolorosa" (Dercum's disease) is now included in most of the recent textbooks, where it is variously classified under nervous diseases, constitutional diseases, obesity, and so forth. I am very doubtful, however, if it can be rightly ranked as a special disease. The condition was well known to me clinically for some years before I became acquainted with Dercum's original description of it, and I had come to conclusions different from his regarding its nature and etiology and the significance of the symptoms. These conclusions, stated shortly, are that the morbid condition is a very common one, and consists essentially in chronic subcutaneous fibrosis; and that the cases which Dercum has described under the name "adiposis dolorosa" are merely those occurring in people with a large amount of subcutaneous fat.

The excessive development of the subcutaneous fat is not an essential part of the morbid process, but only an accidental addition to it. The essential morbid condition is, as before said, a very common one, and occurs quite independently of bodily thinness or stoutness. It consists in an irregularly spread, patchy, chronic inflammation of the subcutaneous connective tissue, which involves also the small peripheral nerves and blood vessels. Owing to the involvement of the nerves, the fibrous tissue at the affected parts is painful on pressure, and is subject to aching or pain from many kinds of influences, such as exercise, weather changes, indigestion, and others less obvious.

The condition is in fact one of so-called "chronic rheumatism," but which might be better designated as "chronic subcutaneous fibrosis." The former is a clinical, the latter a pathological, term, and neither indicates a disease, but rather a condition secondary to several antecedent diseases.

In two former papers[6] I have described at length the pathology and symptoms of "chronic rheumatism," and I need only repeat here that, like the other fibrous tissues of the body, the subcutaneous connective tissue is very often the seat of chronic inflammatory changes as the result of acute rheumatism and influenza especially, but also after general gonococcal infection, mucous colitis, and other imperfectly recognized causes.

On microscopic examination of such a patch, the fibrous tissue is found to be thicker and denser than normal with numerous fibroblasts, the small nerve twigs running through it are in a condition of interstitial inflammation, and the small blood vessels show periarteritis and endoarteritis, the whole being evidently the result of a reaction to local irritation by microbic toxins. It is extremely common at all ages and in both sexes, and is quite independent of obesity.

The implication of the nerves gives rise to symptoms usually designated as "rheumatic"—aching, pain, stiffness, neuralgias, numbness, tingling, a feeling of chilliness, fatigue after exertion, muscular lassitude, and often a marked want of vigour and energy. These last symptoms are sometimes so prominent that the condition is very frequently, but erroneously, diagnosed as "neurasthenia." The thickenings can be readily felt and are usually very tender on pressure. When much subcutaneous fat is already present, or is afterwards deposited in persons suffering from subcutaneous fibrosis, the symptoms just mentioned tend to be of an aggravated character. Further, the hypertrophy of the connective tissue leads to certain peculiarities in the arrangement of the subcutaneous fat.

Normally fat is deposited evenly throughout the areolar tissue; it is not nodular or lumpy, and is not specially tender on pressure; but in persons with subcutaneous fibrosis it tends to form in more or less lumpy masses round the hypertrophied connective tissue, and to lie in rolls if very abundant (Fig. 1). In merely plump people the masses are pealike and very tender on pressure or pinching, while in the very stout they form veritable tumours of varying sizes (Fig. 2). These may be lobular and lumpy, or more diffuse and fibro-fatty in character.

Many stout patients have normal fat in some places and lobulated in others. The latter arrangement seems to be determined by the preceding overgrowth of fibrous tissue, as is well illustrated in the condition of the middle part of the anterior abdominal wall often induced by previous pregnancy. During the pregnancy the fibrous tissue is hypertrophied in patches, and around these fatty nodules form which can be readily felt and are usually tender on pressure. If the person is very stout and the face is involved, there is a superficial resemblance to myxoedema, for which it is sometimes mistaken.

In middle-aged and elderly people Heberden's nodes and stiffness of joints are often found associated with the other symptoms. The association of fat with the fibrosis is certainly much more common in women than in men, probably because they have a larger amount of subcutaneous fat normally. One of my female patients weighed 20 st. 3 lb., another 18½ st., and a third 16 st. 12 lb., but many of them only weighed 9 or 10 st.

The abdomen, flanks, hips, thighs, shoulders, and upper arms are in general the parts most affected, but sometimes fat is also deposited in the face, forearms, hands, legs and feet, either diffusely through the hypertrophied fibrous tissue or in lobules.

Where there is a large amount of subcutaneous fat the secretion of sweat is interfered with, but in most cases the amount of perspiration is normal.

The morbid anatomy is very simple. When excised portions of subcutaneous tissue are examined microscopically, the fibrous tissue, the peripheral nerves, and the blood vessels are found to be in a condition of chronic interstitial inflammation; the fat cells are normal in appearance. Figs. 3 and 4 show such patches of inflamed fibrous tissue embedded in fat cells.

In some cases the fibrous tissue is much denser than in others. The condition is analogous to fibrosis of the lung, liver, kidney, or ligaments, and, as in these cases, is due to chronic local irritation from the toxins of germs or more definite chemical bodies.

The most suitable name to apply to the condition is probably the pathological one of "chronic subcutaneous fibrosis," but, as already mentioned, the term "panniculitis" has been previously employed.

I have never noticed any abnormality of the thyroid gland.

To sum up:

1. Chronic inflammation of the subcutaneous connective tissue is a very common affection.
2. It is secondary to various acute and chronic infections.
3. The implication of the small peripheral nerves in the chronic inflammatory process gives rise to sensations of aching, stiffness, numbness, fatigue, etc.
4. When persons already stout, or who afterwards become so, are affected as above, the fat tends to form larger or smaller masses round the hypertrophied connective tissue.
5. These masses are often very painful on pressure owing to the nerve twigs being in a condition of interstitial neuritis.
6. The fatty masses are deposited mostly in the ordinary situations of fat accumulation.
7. The condition described by Dercum as "adiposis dolorosa" cannot be ranked as a special disease.

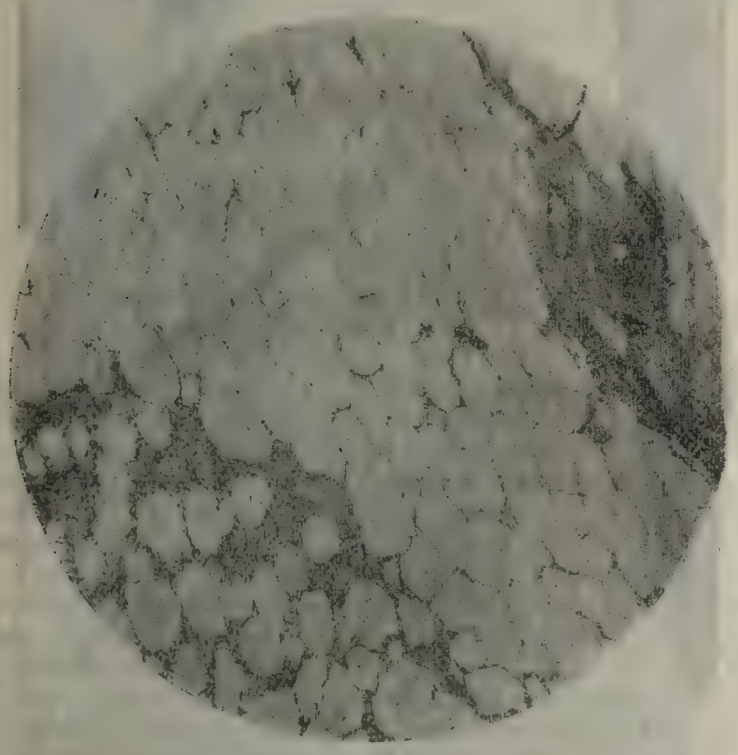

Fig. 3.

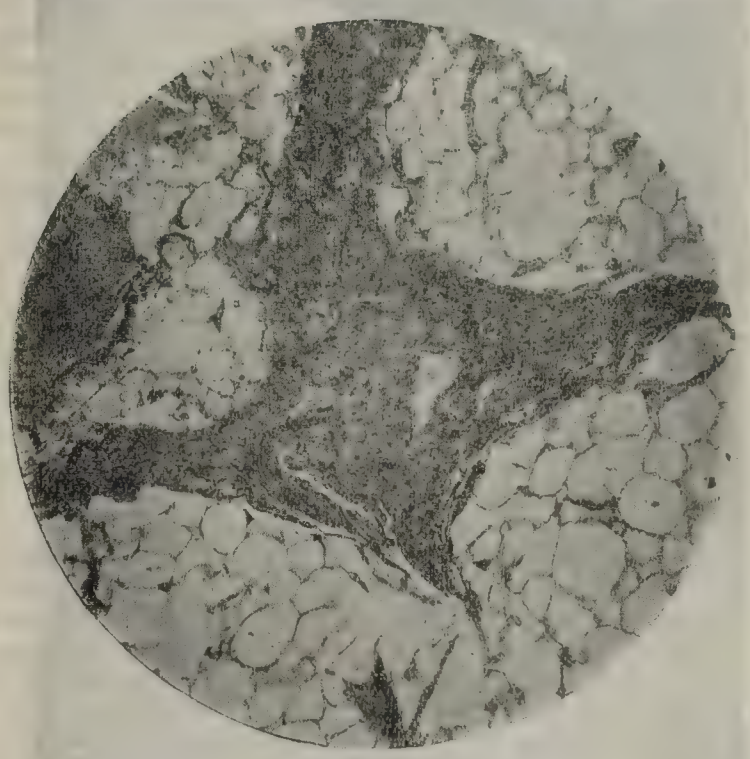

Fig. 4.

*Treatment.*

Cases of subcutaneous fibrosis can be treated with a considerable degree of success if treatment is gone about in the proper way and is persevered in.

In thin people we have to rely on massage, daily exercises, directed to stretch the altered fibrous tissue and to accustom it to movement, along with an habitually active and as far as possible open-air life.

If all this is systematically carried out for some months the inflamed fibrous tissues gradually lose their extreme liability to become painful on exertion or exposure to cold and wet, and the patient is restored to comparatively good health. Some cases get practically well, many are improved, and in all considerable benefit is assured. An habitually active mode of life with plenty of outdoor exercise is necessary to maintain the improvement.

The massage must be given firmly and so as to reach the affected parts. It is always painful at first, and should be given only by those who have had experience of similar cases. What probably happens is that the massage lessens or gets rid of the local neuritis, and favourably affects the inflamed small blood vessels, so that exudation

is not so apt to occur from them. It is commonly said to act by improving the flow of blood and lymph locally, but there is no exact knowledge on these points.

In stout or plump people the principles of treatment are the same, but in them we have to deal with two distinct conditions—the fatness and the chronic fibrosis. The inflamed fibrous tissue is relatively in very small amount compared to the fat round about it, and, thus embedded, it is a hopeless business to try and reach it and its inflamed nerves and vessels by means of massage.

Massage under such conditions is quite ineffective, and often unbearably painful.

The first step in treatment is to get rid of the superabundant fat, and this is best accomplished by a more or less strict diabetic diet, and the administration of thyroid gland or liquid extract of *Fucus vesiculosus*. Exercises can be commenced at once and massage somewhat later, or the latter can be instituted gently from the beginning, and increased in vigour as it becomes less painful. Unless the obesity can be substantially reduced, the prospects of improvement are very slight.

The paroxysmal neuralgic pains, which are sometimes very severe, and accompanied by a palpable hardening and swelling of the fibro-fatty tissue in the neighbourhood, often disappear or greatly lessen as the fat becomes absorbed. This is explainable by diminution of pressure on the inflamed nerves.

So far as I have been able to judge, hot baths and hot air have no direct curative effects, but, given before the massage and exercises, they render them less painful and probably more effective.

In those cases in which the subcutaneous fibrous tissue is dense and widespread, with little fat, or the fat evenly diffused through it, treatment does much less good than in the other forms. Peat baths, very gentle massage, and soothing treatment generally are sometimes indicated, as the patient cannot stand the pain and fatigue of the more vigorous curative measures, but experience has led me in this class of case to expect very moderate betterment.

As regards drugs, I have made careful trial of iodine in various forms, many antirheumatic and antigouty remedies, fibrolysin (thiosinamin), so-called ionic medication, and counter-irritation with a considerable variety of substances, but, so far, I have not met with any drug which has the power of dispersing the denser kind of cirrhotic fibrous tissue.

### CASE I.

Woman, aged 33, a cook. Complains of aching and shooting pains all over her body, and increasing stoutness. She has not worked for three years, and was regarded as a case of incurable "neurasthenia." She has had rheumatic pains since she was 14 years of age, but they have become much worse of late. There is a thick layer of fat over the shoulders, backs of upper arms, abdomen, back, hips, and thighs. The fat is in lobulated masses, and these are very painful on pressure. In those regions there is continual dull pain, which at times becomes sharp and stabbing. Healthy otherwise.

*Treatment.*—A diabetic diet with a little brown bread, 5 grains thyroid daily, and massage. Before treatment was begun she weighed on December 15th, 1909, 10 st. 13 lb., and she measured, waist 30 in., abdomen 39½ in., and thighs 40 in. (Fig. 5). On April 20th, 1910, she weighed 8 st. 2 lb., and the measurements were 27, 32, and 34½ in. (Fig. 6). On October 5th she weighed 7 st. 9 lb., the fatty masses had disappeared, and there was no pain on pressure. She had lost 46 lb.—nearly one-third of her original weight. She had still rheumatic pain in the lumbar region, but felt well and was able to work.

Fig. 5.

Fig. 6.

### CASE II.

Woman, aged 39. She began to get stout during pregnancy six years ago. The fat was not evenly distributed, but was in masses in the supraclavicular regions, across the abdominal wall in ridges, on the hips, along the inner sides of the thighs, and above the ankles. It was lobular, and very painful on pressure. The masses in the shoulders and thighs sometimes became hard and swollen, and then caused pain and a great feeling of fatigue. She scarcely perspires and often feels very chilly. Treatment consisted in dieting, along with 5 grains of thyroid daily at intervals. She was practically well in a year During that time she lost 30 lb. in weight—13 st. 3 lb. to 11 st. 1 lb. The abdominal measurement fell from 33 to 29½ in., and that of the thighs from 25½ to 22¼ in. The chilly feeling has gone and she perspires more easily.

### CASE III.

Girl, aged 22. In 1903 and 1908 she had attacks of acute rheumatism. In 1909 she complained of almost constant aching pain over the thorax, over both scapulae, and in both lower limbs. At times the pain became acute. She weighed 8 st. 3 lb , and was plump but not stout. Little pealike masses of fibro-fatty tissue could be felt in the subcutaneous tissue, and these were extremely tender on pressure. Her condition improved under treatment, but only to a certain extent.

### CASE IV.

Woman, aged 50. For two and a half years past has noticed that she was getting stouter, especially over the abdomen and hips, where there were fibro-fatty masses. The face had a swollen and puffy look, due to increase of subcutaneous fibrous tissue, and a similar condition was present over the chest and along the fascia lata. The legs, forearms, feet, and hands were thin and slender. Heberden's nodes were present, and there was a good deal of pain and stiffness in the knees and in some of the hand and foot joints, due to swelling of the periarticular fibrous tissue. She suffered from constant aching and tiredness, and often from very severe neuralgic pains in the chest and arms. The condition was one of widespread subcutaneous fibrosis with little development of fat in it, except over the abdomen. The hypertrophied fibrous tissue was very tender

on pressure. She was treated with massage, diet, thyroid, antigouty and antirheumatic remedies, hydrotherapy, and in other ways, without obtaining much benefit.

CASE V.

Man, aged 54. He has had mucous colitis of moderate severity for many years. About eight years ago he began to suffer from stiffness and neuralgic pains, which have gradually become worse. He is a tall, muscular man, with a very moderate amount of subcutaneous fat. Weight, 13½ st. Over the chest, abdomen, back, shoulders, and upper arms, the subcutaneous tissue is swollen at points and very tender on pressure, but no distinct fatty nodules can be felt. The colitis and stiffness and pain improve under treatment, but never wholly leave him, and he is apt to have relapses unless he lives in dry hill air.

The first and third of these cases are almost certainly attributable to preceding attacks of rheumatism, and the fifth to chronic poisoning from the colitis. The second, like other cases I have seen, began during pregnancy, while the fourth must be due to some unknown irritant which has affected very widely and insidiously the subcutaneous fibrous tissue and that of many of the joints.

REFERENCES.

[1] Kjellberg, *Journ. des praticiens*, 1900, 453. [2] Dercum, *Internat. Journ. of the Med. Sci.*, 1892, civ, 521. [3] Dercum, *Journ. of Nervous and Mental Diseases*, 1900, xxvii, 419. [4] Burr, Ibid., 519. [5] Price, *Amer. Journ. Med. Sci*, 1909, cxxxvii, 705. [6] Stockman, *Edin. Med. Journ.*, 1904, I; BRITISH MEDICAL JOURNAL, 1904, i, 477.

# THE USE OF LEUCOCYTIC EXTRACT IN INFECTIVE PROCESSES.

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THE injections of living leucocytes or their extracts have produced such remarkable effects upon artificial microbic infections in animals by way of prevention and of cure, that within the last three years investigations have been made into the action of similar injections upon infective processes in man.

Pettersson, who worked chiefly with living leucocytes obtained from the pleural or peritoneal cavities of rabbits or dogs, showed that an artificial anthrax infection in guinea-pigs was either overcome or the animals lived much longer than the controls, if a simultaneous injection of living leucocytes was made into the same area. The injection of living leucocytes into the blood stream had a certain influence, though not so well marked, upon a subcutaneous injection of anthrax. The leucocytes of an animal of a different species (dog or rabbit) injected into the peritoneum of a guinea-pig produced a great increase in the resistance of the animal against *B. typhosus*, *Vibrio metchnikovi*, and *V. cholera*. He performed many more experiments of this nature, and also made numerous investigations into the mode of action of these injections, as have also Korschun and Watabiki. Opie has also used living leucocytes and injected them into the pleural cavities of dogs previously infected with tubercle bacilli. The resulting tuberculous lesions were of "lessened extent and severity as compared with those controls," and "the animals did better, more often recovering."

Hiss and Zinsser pursued Pettersson's lines of investigations, but apparently always with the object of finding a method that would prove applicable to human infections. They worked almost entirely with an extract of leucocytes induced in the pleural cavity of rabbits. Staphylococci, *B. typhosus*, pneumococci, streptococci, and meningococci were administered to various series of rabbits in lethal doses, usually by peritoneal injection. Many of the animals survived, and in every case they lived longer than the controls. They proceeded to treat several human beings with leucocytic extract, and have so far published 24 cases of epidemic cerebro-spinal meningitis, with 63.6 per cent. of recoveries; 7 cases of lobar pneumonia and empyema, all recovered; 8 cases of chronic and acute furunculosis, with excellent results; 2 cases of chronic acne and 1 case of chronic frontal sinusitis (*Staphylococcus pyogenes aureus*) with success.

Floyd and Lucas treated 41 cases of lobar pneumonia, of which 5 died and 36 recovered. They report that in a number of cases the disease was apparently shortened, and there was noticeable improvement in the comfort and symptoms after the injections. The toxaemia was strikingly lessened, and there was a lower mortality in cases so treated than in a similar series untreated by this method.

Lambert reports more fully several cases that are included in the series of Hiss and Zinsser. In addition, 2 cases of pneumococcic meningitis, both of which died; 3 cases of ulcerative endocarditis (pneumococcal), upon which the leucocytic extract had no effect; 1 case of tertian malaria, whose rigors were stopped for nine days by leucocytic extract; several cases of erysipelas, with the most excellent results; and 1 case of otitis media.

## METHOD OF PROCURING THE LEUCOCYTIC EXTRACT.

The author has employed throughout the method of Hiss and Zinsser for procuring the leucocytic extract from the pleural cavity of rabbits. Since it has succeeded almost invariably in producing good results, no necessity was found for resorting to the perhaps more effective methods of Pettersson and his followers, who use the more dangerous technique of abdominal injection.

A sterile 10 per cent. suspension of Mellin's food in distilled water was injected in amounts varying from 5 to 10 c.cm., according to the size of the animal, into each pleural cavity of a rabbit. The animal was killed twenty-four hours later, and the fluid exudate removed. Difficulty was experienced at first in obtaining this perfectly sterile until the following plan was adopted.

The skin is removed from the thorax and the ribs laid bare by cutting away the pectoral muscles. The surface of the ribs and intercostals is lightly scared over the whole side of the thorax, a 10 c.cm. syringe with a large bore needle is thrust into the pleural cavity, through an intercostal space, usually the seventh or eighth, and the fluid removed by suction. If the nearer cavity be emptied, it is easy with practice to thrust the needle through into the opposite pleural cavity, and thus the fluid from both cavities may be drawn off through the one external opening. The fluid should be pale yellow with a flocculent haze of leucocytes. Any large masses of Mellin's food must be removed by a preliminary sedimentation. Ten to 20 c.cm. is the average amount of fluid obtained. The exudate is rapidly placed in sterile centrifuge tubes and centrifugalized until a thick grey deposit of leucocytes appears at the bottom of the tube. The supernatant fluid is carefully pipetted off. The leucocytes may be again centrifugalized several times with fresh amounts of normal saline to free them from the last traces of exudate fluid. This is not, however, in the writer's opinion, absolutely necessary, and is usually dispensed with unless some circumstance should arise, such as the presence of a trace of blood. Distilled sterile water is then added in equal volume to the deposited leucocytes, which are well broken up with a pipette or glass rod. The tubes are placed in the incubator at 37° C. for at least four hours. Each tube is then tested for sterility, and, if sterile, the contents of several tubes are mixed and distributed in 10 c.cm. ampoules, which are placed in the ice chest until required. Leucocytic extract so prepared will remain effective for at least three months.

## RECORDS OF TEN CASES TREATED.

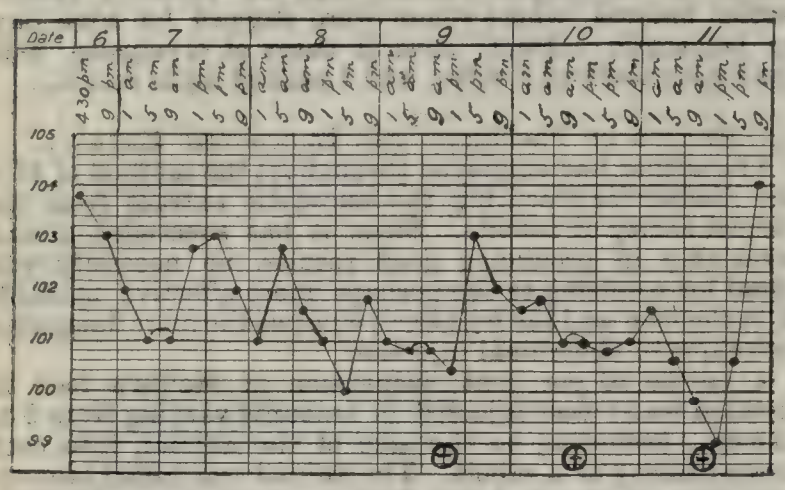
1. *Streptococcal Endocarditis.*—Male, aged 35. An autogenous vaccine had been administered without effect. The patient finally became unconscious with a continuous high temperature (102 5° to 103.8°). Two doses of 10 c.cm. of leucocytic extract were given. On each occasion the temperature fell to normal and the patient became conscious, recognizing relatives. He died two days after the second injection.

2. *Osteomyelitis of Tibia.*—Boy, aged 14. (*Staphylococcus aureus.*) Boy had received, when the condition became less acute, an autogenous vaccine, and reacted favourably for a time. A fresh collection of pus threatened, the vaccine was stopped, and 1 c.cm. of leucocytic extract administered on three successive days. The temperature, which had been running up to 102° at night, fell to normal by lysis, and remained at normal for nine days, when a small abscess appeared. This was the first case treated with leucocytic extract, hence the small dosage. After the opening of the abscess the boy's temperature fell again to normal, and he made an uneventful recovery. It cannot be contended that the boy's recovery was hastened, but the effect of such a small dose of the leucocytic extract was obvious.

3. *Ulcerative Endocarditis.*—Boy, aged 16. (Pneumococcal.) Sequela of pneumonia and empyema. The boy was almost moribund when treated, and two doses of 10 c.cm. had no effect.

4. *Sleeping Sickness.*—Man, aged 30. This case has been published *in extenso* by Professor Ronald Ross and Dr. D. Thomson. It may be stated here that very interesting and remarkable results were obtained.

5. *Hip Disease.*—Woman, aged 45. A large offensive, discharging sinus, which had some internal connexion, and which resisted all antiseptic treatment. The patient received three injections of 10 c.cm. leucocytic extract in fifteen days. The discharge became greatly diminished and lost its offensive smell. The patient left hospital still discharging freely.




⊕ 10 c.cm. leucocytic extract.

6. *Acute Osteomyelitis of Tibia.*—A boy, aged 14. A diagnosis of acute rheumatism had been made, and the boy entered hospital on the third day of illness. A blood culture gave 750 colonies of *Staphylococcus aureus* in each 1 c.cm. of blood. When the first dose (10 c.cm.) was given symptoms of pneumonia and pericarditis had appeared. The boy was delirious and semicomatose. The immediate effect of the leucocytic extract was to send the temperature up, but next day the patient was conscious, sensible, and his toxaemia had disappeared. Three injections of 10 c.cm. were given, with the effect seen in the chart. Death occurred four hours after the last injection. At the *post-mortem* examination there was found pericarditis, right pleurisy going on to empyema, and small abscesses in the liver and left lung. A pure culture of *Staphylococcus aureus* was recovered from all these lesions.

7. *Acute Osteomyelitis of Left Ilium.*—Boy, aged 15. Blood culture gave one colony of *Staphylococcus aureus* in each 1 c.cm. of blood. The leucocytic extract was administered in small doses of 4 to 6 c.cm. repeated frequently. The effect upon the temperature was temporary, and upon the discharge *nil.*

8. *Streptococcal Septicaemia.*—Man, aged 45. Blood poisoning through accidentally cutting his hand with a dirty cheese-knife. A blood culture was negative. The patient suffered from frequent rigors. Antistreptococcic serum, though well pushed, produced no effect. Leucocytic extract was injected in doses of 10 c.cm. on three successive days, and the rigors stopped. The patient died two days later. No *post-mortem* examination was permitted.

9. *Anthrax.*—Man, aged 30. Treated with Sclavo's serum and leucocytic extract. The patient recovered.

10. *Chronic Furunculosis.*—Man, aged 36. A year's duration; repeated crops of boils on arms, legs, body, and neck. Two injections of 8 and 10 c.cm. were given at an interval of three days. In a week after the second injection no fresh boils had appeared and the older boils had almost entirely disappeared. This case is still under observation.

These cases do not present any striking successes at first sight. Two factors have militated against more encouraging results:

1. Several of the cases have been handed over for treatment in a hopeless condition; thus any treatment which will give a measure of relief in such a case as No. 6, for example, is worthy of trial.
2. It is difficult to obtain permission to persevere with the treatment.

In some cases it is absolutely necessary to push the administration of the leucocytic extract, and the patient occasionally rebels although the temperature chart and the general condition witness an improvement. Thus cases which began to improve were lost.

The injections were given into the flank or into the buttock. No attempt was made to approximate the site of injection to the infected part.

### MODE OF ACTION OF LEUCOCYTIC EXTRACT.

Pettersson, Hiss, and Zinsser have demonstrated bactericidal and bacteriolytic properties in leucocytic extracts *in vitro*. They agree that the power is not great and quite inadequate to account for the destruction of large doses of the bacillus of anthrax, which were administered in the guinea-pig experiments.

They at first considered that the leucocytes supplied complement to the infected organism; for Metchnikoff has claimed that the cytases (complement) are not normally free in the plasma, but are contained in the leucocytes and only given up by them under stress of death or injury. But they have not been able to prove the presence of complement in their extracts. Kling, however, has recently published experiments which may ultimately show that leucocytic extracts possess the power of reactivating serum, even leucocytic extract itself which has been inactivated by heat. The body which has this power is not identical with the complement of the serum, since it withstands heat at 70–75° C., whereas the serum alexine is readily destroyed at 56° C.

Pettersson, Hiss, and Zinsser finally agree in the theory of endolysins. Hiss and Zinsser say that the beneficial effects obtained by the administration of leucocyte extracts are due to

> the action of digestive substances usually not liberated from the leucocytes . . . to poison-neutralizing or destroying bodies, which act on the endotoxins and thus relieve the leucocytes of the animal from fatal poisoning and protect the higher cells of the animal so that their functions are not deranged.

Whether these theories be correct, I found that a marked leucocytosis followed an injection—a phenomenon not mentioned by other workers. Hiss and Zinsser give figures of blood counts in some of their cases of pneumonia, but these are in relation to the crisis and not to the injections. Floyd and Lucas state that:

> A study of the white count has frequently shown a steady diminution in the number of leucocytes present in the peripheral circulation following the beginning of inoculation until the termination of the disease . . . possibly suggesting a diminished demand upon their reproduction with the addition of the extract.

This has not been my experience, and below will be found a table of results. For this table I am greatly indebted to Dr. D. Thomson, who is engaged in research upon malaria at the Royal Southern Hospital for the Liverpool School of Tropical Medicine under the Colonial Office, and who first discovered that the leucocytic extract produced a leucocytosis.

| Count Before. | Amount Injected. | Hours After. | Count After. |
|---|---|---|---|
| 6,800 ... ... ... ... | 8 c.cm. | 12<br>18 | 50,000<br>10,000 |
| 5,280 ... ... ... ... | 3 c.cm. | 19 | 17,000 |
| 3,000 ... ... ... ...<br>P. 41 %<br>M. 59 % | 10 c.cm. | 24 | 20,000<br>P. 58 %<br>M. 42 % |
| 11,000 ... ... ... ...<br>P. 41 %<br>M. 59 % | 6 c.cm. | 17 | 4,500<br>P. 60 %<br>M. 40 % |
| 4,500 ... ... ... ... | 4 c.cm. | 19 | 20,000 |

P. = Polymorphonuclear. M. = Mononuclear.

These figures were obtained from Case IV (sleeping sickness). Dr. Thomson proceeded with these counts throughout the course of the case, but remarks that:

> The later effects of injections were complicated by an abscess forming, and by the onset of bronchopneumonia. But after all injections there was invariably a marked leucocytosis within twenty-four hours. The whole case was complicated by variations in the number of leucocytes which is characteristic of the disease. Also the differential count varies in the disease, but it seemed that this leucocytic extract tended to affect the polymorphonuclear cells slightly more than the mononuclears, though both were markedly increased.

Dr. Thomson tried the effect upon himself on one occasion of 15 minims of leucocytic extract subcutaneously into the forearm. His leucocytes before injection were 5,500 per c.mm.—polymorphs, 63 per cent.; mononuclears, 37 per cent. Twenty-four hours later the count was 9,800 per c.mm.—polymorphs, 64 per cent.; mononuclears, 36 per cent. It appears from these counts that a new view may be taken of the action of these extracts. They may in themselves be bactericidal and bacteriolytic to

some slight degree, and they may contain natural anti-endotoxins. But they seem to act chiefly as leucocytic stimulants, inducing a huge outflow of cells, whose function is to protect the body from infection.

BIBLIOGRAPHY.

Floyd and Lucas: *Journ. Med. Research*, September, 1909.
Hiss and Zinsser, *Journ. Med. Research*, February, 1908; February, 1909; June, 1910.
Kling: *Zeitschr. f. Immunitätsforsch.*, Original Bd. VII, Heft 2.
Korschun: *Ann. de l'Instit. Pasteur*, July, 1908.
Lambert: *Amer. Journ. Med. Sci.*, vol. 137.
Opie: Quoted by Floyd and Lucas.
Pettersson: *Centralbl. für Bakt;* Bd. 35, 36, 39, 40, 42, 45, 46, 50, 53, 54. *Zeitschr. f. Immunitätsforsch.*, December, 1908. *Arch. f. Hygiene*, Bd. 43.
Watabiki: *Journ. Infectious Diseases*, June, 1909.

# ELECTRICITY IN NEURASTHENIA.*

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I WISH to bring before you the uses of some forms of electrical applications in the treatment of neurasthenia. But before doing so it is necessary to consider for a few minutes what is generally meant by neurasthenia. It is difficult in a few terse sentences to define this disease. The term has been applied so widely and to such various and varied symptoms that it would be impossible to discuss it exhaustively in the time at my disposal. But I will take the main symptoms as they have exhibited themselves in the cases I have had to treat. These may be general, or local, or a combination of both. The patients are usually irritable or depressed. They are very anxious and consider their condition as extremely dangerous to life. They frequently are in dread of becoming insane. Sometimes the brain appears to be too active, and they are constantly pestered by all kinds of possible and impossible problems presenting themselves to their imagination day and night. They dread meeting people; they fear they are victims to some imaginary disease. They are frequently worried and are annoyed by the veriest trifles. Everything is a cause of complaint. They are great egoists and feel compelled to discuss their troubles with every patient listener. Many of them sleep badly—in fact, insomnia is one of the most trying symptoms of the disease. They suffer from flushes and fullness in the head and sometimes severe headaches. Frequently there is a sense of oppression in the chest and difficulty of breathing. Tachycardia is common, and the patient believes he or she is suffering from severe heart disease. Many suffer from gastro-intestinal neurasthenia. Feelings of distension, noisy eructations, borborygmi, and gurgling are complained of. Anorexia is usual. There is often aching in the eyes and neuralgic pains in the head. Spinal symptoms are common—localized pains in the back, disturbances of sensation, and intercostal pains. In some cases there are pains in the extremities. The word that probably sums up the condition of the patient more than any other is—emotional.

The conditions which might be confused with neurasthenia are melancholia in which there are actual delusions, and hysteria in which there are marked hysterical paroxysms. Of course, tabes and general paralysis might also exhibit some of the symptoms mentioned—in their early stages, at any rate.

There is apparently no discoverable morbid anatomy in these cases, but there is undoubtedly a pathology. Hypertension appears to be a frequent concomitant, or perhaps a cause of the disease. According to Gay, the presence in the blood of alimentary toxins, generally acid and with a vaso-constrictor effect, and the retention of extractive substances of the xantho-uric series will cause hypertension. I believe, too, that a rigidity of the walls of the vessels set up by some central irritation of the nervous system is often present, and is a cause of a large number of the subjective symptoms. I have noticed, too, that this hypertension is not so readily observed by examination of the pulse as one would have thought. On examining the pulse of several neurasthenic patients the impression gained was that the pulses were not high tension, but the sphygmomanometer usually revealed a considerable amount of hypertension. The point I am anxious to show is this: That the symptoms declined *pari passu* with a decrease in the sphygmomanometric readings until, if the latter could be reduced to nearly normal, the patient became well.

I am not now concerned with the usual methods of treating neurasthenia. The cases I have had in hand have all received skilful medical treatment before they were sent to me. One or two had had Weir Mitchell treatment, in which, of course, a certain amount of electrical energy is used. The currents I have treated these cases with have been those known as high frequency, or d'Arsonvalization; or, as an alternative, static electricity produced by a Wimshurst machine. I may say, as a rule, that where the neurasthenia has been associated with marked metabolic deficiency, or of the gastro-intestinal type, I have found high frequency currents the most effective; but if the symptoms pointed more to a condition of a pure neurosis, I have observed that static electricity produces the best results. (Here followed a description, with illustrations, of the high frequency and static machines used.)

I wish to draw attention to a few cases treated by these methods during the last few years. I will not record a large number, because they give, to a great extent, a mere recapitulation of the same class of disease. I think I may say that in most cases the results of treatment have been permanent:

1. Unmarried woman, aged 46. Gastro-intestinal neurasthenia, flatulency, tachycardia, panophobia; ill six months. Received auto-condensation high frequency on the couch thrice weekly from April 7th, 1904, to May 13th. Cured.

2. Lady, aged 36. Insomnia, restlessness, depressed; great fear of railway travelling (sidero-dro-mophobia); pains in limbs and in breasts; ill many months. Twelve applications of general static electricity. Cured.

3. Gentleman, aged 38. Depression, insomnia, distension of stomach, flatulency; ill for more than twelve months. Had been treated, in addition to ordinary methods, previously by light baths and Weir Mitchell treatment. Received 300 to 500 milliampères of auto-condensation for half an hour at a time and a few minutes' application of a glass vacuum electrode over stomach. Attended eighteen times between June 14th, 1907, and July 31st. Cured, and has remained so.

4. Mr. P., aged 35. Remarkable case. Began with nervous symptoms in 190 ; always frightened, dreading what he could not describe; constantly thinking in bed; pain in head, with fullness mostly at back of head; always burning pains in stomach and sense of distension; bowels somewhat loose; terrible insomnia, had never slept more than an hour or so consecutively for years. Had nineteen applications of auto-condensation, 400 to 800 milliampères of current, for half an hour at a time, and local glass electrodes to stomach, head, and spine. Blood tension, according to the Riva-Rocci, on first treatment, 190; at end of treatment only 120 to 130. Cured, and has remained perfectly well for over two years.

5. Miss S., aged 25. Nervous, depressed, insomnia, etc., many months. Twelve applications static electricity. Cured.

6. Mr. W., aged 39. Twelve months before treatment began to lose appetite, could not sleep, and always tired; gets horribly depressed, sometimes feeling almost suicidal; bowels sometimes constipated, sometimes loose; very irritable. Treated by high frequency auto-condensation and glass vacuum electrode to stomach and head. Remained cured over two years.

7. Gentleman, aged 59. More or less insomnia four or five years. Aching pains and fullness in the head; some distension and flatulency; insomnia now constant; arterial tension 180. Had twelve and a half hours' applications of auto-condensation and local electrodes to head and stomach. Now sleeps soundly, and arterial tension 120 to 130, and feels quite well.

8. Lady, aged 33. Very neurotic; complains of her head, difficulty of breathing, and sobbing respiration; ovarian neuralgia; constant insomnia; blood tension 160. After twelve applications of static bath slept perfectly, and difficulty of breathing, etc., disappeared. Blood tension reduced to 120.

I do not wish it to appear that every case of neurasthenia treated electrically is cured, nor do I suggest that every case of neurasthenia should receive this form of treatment. A large number of cases treated by rest, fresh air, drugs, and other methods, recover. But the cases I have quoted had been treated by the usual methods by the practitioners who referred them to me. They have been obstinate, obdurate—conditions not amenable to the usual remedies. Neurasthenia is a condition frequently seen by every general practitioner, and the anxiety this class of case gives him appears out of all proportion to the seriousness of the disease. I think it well to remember that when all other methods fail there is still a possibility of effecting a cure.

*A paper read before the Bradford Medico-Chirurgical Society, January 17th, 1911.

It will naturally be asked, How do the electrical currents act physiologically so as to cause the improvement as seen in this class of case? Psychical effects may be produced at times by these methods, as may happen in every other form of treatment. But improvement and cure must in a series of cases be due, as in other methods, to powerful therapeutical effects.

In cases in which the blood pressure is high, as I have already mentioned, the effect of reduction of arterial tension may in itself produce the result. In the use of electrical machines there is always a large amount of ozone generated, and it is not impossible that the inhalation of this gas for half an hour at a time may have some power of improving the patient's condition.

D'Arsonval and others have demonstrated increased tissue changes, more rapid reduction of the oxyhaemoglobin in the blood and increased elimination of waste products in the urine. Not only the sympathetic nerves controlling the vasomotor system, but also those controlling the secretory, the thermogenic, and the peristaltic functions, are stimulated. There is a profound action on the protoplasm of cells everywhere, increasing their chemical changes. Usually an increased amount of urea is excreted, attended by a disappearance of uric acid showing the oxidation of nitrogenous material. It is said that the output of $CO_2$ is sometimes increased from 17 to 37 litres an hour, and that there may be an increase in heat production from 79 to 127 calories an hour.

## SIMULATED DISEASE OCCURRING IN PERSONS OF HYSTERICAL OR NEUROTIC TEMPERAMENT.

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THE very interesting case of "dermatitis artefacta" reported by Dr. Adamson in the JOURNAL of July 2nd, 1910, recalls to my memory some cases occurring in a considerably long practice which have, I think, a practical bearing on the perplexing difficulties frequently experienced by most medical men in the treatment of certain anomalous cases, which from peculiar family or other circumstances, where the patient or relatives have reasons for simulating indisposition, and from motives of shame or false delicacy wish to conceal the tricks practised, thereby involving the practitioner inexperienced in such matters in much trouble, fearing to give offence to relatives, therefore hesitating to express an opinion as to the fraud or unworthy motive on the part of the patient. It requires considerable moral courage on the part of the medical man to face the difficulty, and it is always necessary to guard oneself at every point to avoid hinting at a suspicion which may prove unfounded. A mistake would almost certainly involve the loss of the patient, and possibly ruin the prospects of a young practitioner. Two of the following cases (Nos. II and III) will illustrate the difficulty; but having once clearly and satisfactorily to oneself, from irrefutable evidence, proved the nature of the case, no hesitation should be felt as to the duty of prompt and decisive action. The natural reluctance to say anything which may cause unpleasant feelings between members of a family, or a rupture of the proper relations which should exist between a medical man and his patients, may well cause hesitation in forcing home his suspicions as to fraud or other unworthy motive; but in this as well as all other professional relations, the trite maxim, "Honesty is the best policy," should guide the members of our noble profession, and will in the end bring most credit, as well as a clear conscience in the faithful performance of duty. I trust the report of the following cases may be helpful to my younger and possibly less experienced professional brethren, and act as a guide to them in dealing with cases involving delicacy and accuracy in diagnosis.

CASE I.—The first case occurred in my very early practice more than fifty years since, and at this distance of time exact details are wanting, but the main facts still remain impressed forcibly on my mind. An unmarried woman, aged 30 years, of healthy family, after an easy extraction of a lower molar tooth complained of stiffness of the jaw and inability to masticate properly and swallow any solid food. The stiffness steadily increased, efforts to force the jaw open by wedges absolutely failing. Being of a neurotic and anaemic temperament, tonics, iron, nux vomica, etc., were freely administered with aperients, mild electrical shocks were frequently given, without effect. No solid food was taken, but she freely partook of fluid nourishment. In order to discover any impediment to opening the mouth I placed her fully under chloroform, and thus established the absence of ossific or other mischief about the joint, but as she was emerging from anaesthesia, a series of hystero-epileptic attacks occurred, lasting for two hours, effectually preventing my repeating the experiment.

The next phase of the complaint presented itself in the form of pseudo-laryngitis, apparently originating in the form of an ordinary cold, resulting in loss of voice, with occasional spasmodic breathing, the patient generally speaking in a low voice or whisper. This continued for many years, in fact, for the twenty-five years during which I had the opportunity of knowing her personally. She never, I believe, thoroughly recovered her voice.

The next development was simulated peritonitis with obstinate constipation, easily diagnosed as another form of the hysterical nature of the case. It was followed by retention of urine, requiring the use of the catheter three times daily. On leaving the village to reside at a distance of three miles, I explained that I could not possibly give the necessary attention, and that I would teach her mother to use the catheter. She shortly passed urine voluntarily, and no further trouble of that kind occurred, conclusively proving the nature of the case. The next manifestation was an attack of apparent apoplexy. I was hastily summoned to her early one morning, and found her surrounded by weeping relatives, who said she had an apoplectic fit. She lay passive, her eyes partially open, pupils somewhat dilated, breathing normal, no stertor, no power to swallow fluids when placed in her mouth. The parents had found her thus early in the morning, and could not account for the attack, as she had been as usual during the previous day, and went to bed well. Reflex movements of the legs were totally absent, tickling the soles of the feet eliciting no response. (This was the more forcibly impressed upon me as I went from her house to see a young woman actually dying of apoplexy in whom the reflex was very marked.)

My previous experience of the case led me to take a very optimistic view, and in a very decided and loud tone I told the parents, who at the time thought me very unkind, that they need not be troubled, as I felt sure she would quite recover within twenty-four hours. I have no doubt she heard me, and was influenced by my very decided manner and opinion. Next morning all the symptoms had disappeared, and she was soon as well as usual. I am not aware that any serious manifestation of hysteria ever occurred afterwards. This case was extremely difficult to explain, no adequate motive existing, and nothing material could be gained by imposition except the incident of retention of urine, which is no doubt often due to a perversion of the moral faculties in hysterical young women, and ceases when unable to get a catheter passed. The parents were of the labouring class, and not likely to encourage deception. The uterine functions were normally performed.

CASE II.—A young gentleman, aged 16, was brought to me complaining of gastric trouble, with pain attributed to liver disease. It was stated that an uncle or grandfather had suffered from cancer of the liver, but of this there was no definite evidence. He was the son of a farmer in good position and easy circumstances. He had refused for some time to take food and eat as the other members of the family, yet did not lose flesh or show any appreciable signs of disease. He was ordered milk diet, but declared he could not take it. His home being at a large dairy farm, milk was easily obtained, and, failing emaciation or other signs of disease, I had no doubt that he secretly got access to the dairy, but I could not prove it. Home treatment being useless for obvious reasons, I suggested his returning to school in Bristol under my care, and judicious surveillance. Convinced that he was only pretending not to be able to take food, I took the mistress of the school into my confidence, telling her my suspicions. I ordered

him a plentiful supply (3 pints) of new milk with Liebig's extract of meat in sufficient quantity to disguise the milk. This he took for a considerable time, but no meat or other diet. I also gave him peppermint water to make him think he was taking medicine. After three or four weeks he got tired of the disguised milk, and I told him that as soon as he would take the ordinary food he should give it up gradually in proportion as he took meat. This was gradually done, and he soon regained the ordinary habits of living and got rid of his foolish idea of liver disease, and remained quite well.

CASE III.—A sister of the last case, aged about 13 years. A healthy looking girl. I was consulted about her for a supposed disease of the kidney. The friend accompanying her brought me some urine heavily laden with a yellowish precipitate resembling lithates, which was partially soluble in nitric acid, with slight effervescence. From the first I strongly suspected fraud, but as she had been under the care of another practitioner I exercised caution; but in a short time I felt sure she was trying to deceive me. Having gained the confidence of her governess, I told her my suspicions, instructing her to send me by post two specimens of urine—one passed under her supervision and kept by her, the other passed by the girl and left under her own care. I instructed the governess not to tell the mother of my suspicions. Then the fraud became clear. I received the two specimens. No. 1 perfectly normal; No. 2 "treated" by the girl herself, laden with deposit. I then requested the mother to bring the girl herself, with a specimen of the urine passed and dealt with by the girl herself, which presented the same appearance as that referred to as No. 2. Having made an excuse for sending the girl out of the room, I told the mother what I suspected. Of course she was very much annoyed, but I reasoned with her, and showed her the importance from a moral point of view, and requested to be left alone with the girl, when I kindly but forcibly challenged her as to fraud. At first she denied, but I persisted, and telling her if she told me the truth she should not be punished, and pointing out the evil of her conduct, and convincing her that I knew the trick, she confessed that she was in the habit of scraping the wall of her room, and putting the powder in the urine. Nothing but full determination on my part would have solved the mystery. The motives influencing the brother and sister are very difficult to explain or understand, there being apparently nothing to be gained by their conduct, unless a morbid desire to create or excite sympathy, with a perverted moral sense, be accounted sufficient explanation for such extraordinary conduct.

CASE IV.—The next case is evidently one of decided imposition for the purpose of gaining sympathy and extorting charity, and imposed for a long time on several persons who visited the woman. A delicate-looking woman, subject to a chronic cough, commenced spitting a coloured fluid, representing that she coughed it up. For a time I was deceived, but fortunately I detected some fine filaments of a pink appearance, and on careful examination these were found to be small bits of pink cotton, cut up very finely, which had been chewed, and the coloured saliva was then expectorated as blood!

CASE V.—Some years since, when surgeon to the Children's Hospital in this city, a practitioner told me of a curious case, and said he would like me to see it in consultation, and it was partially arranged, but not carried out. He told me the child, aged about 12 years, was unable to walk or stand. From his description I suggested it was a case of hysteria. I did not then see the child, but understood that her mother had taken her to see a "specialist" in London (unfortunately, I believe, without any letter of explanation from her medical attendant), who, doubtless guided only by the statements of the mother, probably not quite accurate, gave the opinion that she was suffering from some spinal affection, and ordered perfect rest in a special apparatus, to prevent motion. After some months, as no benefit was derived, I was asked to take the child into the hospital, and did so. On the day after admission I spoke to the child, and taking her little hands in mine, gently raised her into a sitting position, although she positively asserted that she could not sit up. I then got her round, still sitting, and taking down the side of the cot, got her to let her legs dangle for a few minutes. Next day I got her to stand on the floor, still holding her, and the following day got her holding the rails of the cot (one on either side) to walk a few paces. The next day she made further progress, and on the fourth day she walked, assisted by the nurse and myself, across the ward; on the fifth day she walked a short distance alone, and the following week she was discharged quite well.

I presume it has frequently fallen to the lot of practitioners to meet with cases of strong robust men, in whom not a shadow of pretence could be traced, who after long confinement to bed, have felt quite unable to stand. One such occurs to my mind. A strong healthy farmer, energetic and active, was suffering from a painful attack of gouty lumbago, the inflammation extending to the sacro-iliac synchondroses. The pain was so severe that for a fortnight movement in bed was intolerable, even to the extent of raising the arms to the head. At the end of three weeks he could sit out of bed, and I soon endeavoured to get him to stand. At first he declared this impossible, but, seated by the side of an old-fashioned four-poster bedstead, I got him to grasp one of the posts, and then raising his other hand grasping it a little higher, and gradually progressing each hand higher than the other, at last got him into the erect position, at which he was greatly surprised. I then suggested he might, with assistance from his wife and myself, walk a few steps. This he at first ridiculed, but, nothing daunted, I encouraged him to walk across the room. This being accomplished, he walked back leaning on my arm and using a walking-stick. I shall never forget his surprise; at first he thought I was cruel to suggest his making the effort. There could not possibly be any motive in his reluctance, but evidently his will power was so seriously deteriorated by long inaction that nothing but a stronger will than his own could have urged him to make the effort. The late Sir Benjamin Brodie was peculiarly successful in inducing by moral suasion and determined will young hysterical persons to make a successful effort to leave the wall against which he or she was placed and walk to him, thus overcoming the weak nerve power by a stronger influence. Mental impressions have much to do with recovery after illness, and it is frequently more difficult to induce a patient to get out of bed after an attack of fever or other debilitating illness than to persuade him to go to bed at the commencement. The treatment of some forms of chronic uterine disease is particularly difficult on account of the tendency to yield to mental lassitude and ennui. Of course, displacement and actual disease must be taken fully into consideration.

## EUCALYPTUS OIL POISONING.

BY

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CASES of poisoning by oil of eucalyptus are so infrequent that any individual experience seems worthy of record. The case in question is as follows:

A boy of 6, who had occasionally been in the habit of getting a drop or two of eucalyptus oil on sugar, was given by mistake a teaspoonful of the same. This was about 6 o'clock one evening. About 8 he had his usual light supper, and within two hours thereafter abdominal pain and severe vomiting set in. The vomiting continued without cessation of any length and diarrhoea soon became marked. By 11 o'clock the boy became drowsy, and when he was seen about this time he was semi-comatose. He was pale and collapsed, with a small but not very quick pulse. The muscles generally were flaccid. The pupils were medium in size and equal. The conjunctival reflex was not quite abolished. The tendon reflexes were present and were not exaggerated. There was no cough and the breathing was shallow. He could be roused by very vigorous slapping of the face, but each time he looked dazed. Every time he was wakened up the sickness and vomiting set in. The vomited matter, which consisted of mucus and watery material, had a strong smell of eucalyptus oil. After two or three hours of external stimulation very much along the lines usually adopted for opium poisoning, the heavy comatose condition appeared to pass off, and the child was allowed to sleep. He slept well and next morning, beyond being a little tired, was quite himself again. The breath had a smell of eucalyptus oil for three days. There was never any irritation of the urinary tract. In brief, the poison showed itself by gastro-intestinal irritation and cerebral paresis.

Eucalyptus oil, as used within its usual dose limits of ½ to 3 minims, seems never to give rise to any toxic symptoms, but a remedy such as this, which has almost become a household stand-by for catarrh and the like, has, in not a few cases, been taken by mistake in larger doses, and in some cases with poisonous effect. The number of such cases is as yet but small (in fact scarcely over a dozen) and their record is naturally fragmentary, as all notes of poisoning are apt to be when the necessity of therapeutic measures must perforce prevent detailed study of the resulting clinical phenomena. In these cases of eucalyptus poisoning the symptoms have varied greatly according to the amount of oil taken, and apparently also according to the idiosyncrasies of the patient. Incidentally it may be mentioned that Davies[13] knew a patient who fainted even with the smell of it.

In general, toxic symptoms have been noted after doses of 1 drachm or more, but H. S. Taylor[11] speaks of a patient who felt a little giddiness and confusion after ½ drachm. Most of the cases, however, developed marked toxic symptoms after doses of 1 drachm or more, as in those of Taylor,[11] Benham,[12] the two of Atkinson,[18] a case of Allan's,[20] one case of Kirkness,[19] and the above case. In other cases the dose of eucalyptus oil taken was 2 drachms, as in that of Orr,[16] 3 drachms or even 6 drachms, as in the cases of Benjamin[14] and Myott.[15]

With such different dosage the time of onset of toxic symptoms has naturally varied greatly—from ten minutes in one case to one or two hours in another. In like manner the kind of symptoms and the order of their development have shown differences. Vomiting was generally the first sign—in the case reported by Kunkel[9] it was the only one—and it was frequently followed by abdominal pain and diarrhoea. In most of the cases, whether preceded by gastro-intestinal irritation or not, unconsciousness, varying in degree from mere drowsiness to coma, supervened.

In some the first symptom noticed was a giddiness, as in the cases of Kirkness,[19] Sheaf,[3] and Taylor.[11] In all but the slightest cases further effects manifested themselves in pallor, quick pulse, and general collapse, as well as frequently respiratory disturbance. No after-effects were noted beyond the temporary odour of the breath.

In most recovery with or without medical aid was quick. Generally the early vomiting removed a large amount of the poison, and in the cases where only cerebral symptoms were present the use of an emetic led to a speedy recovery. Hence an emetic, if required, and afterwards stimulant treatment, seemed in almost all the cases to give the necessary relief. The duration of the toxic symptoms in the cases recovering varied from an hour or two on an average up to ten hours in a case recorded by Benjamin,[14] where a boy ill with remittent fever had got by mistake 6 drachms.

Nevinny[6] in 1898 mentioned that a fatal result had not yet been observed, but since then several have been put on record. In one reported by Lewin,[5] a boy of 10, after taking 15 grams, suffered from vomiting, pallor of the lips, rapid weak pulse, sighing respiration, and air hunger, and died in fifteen minutes. At the *post-mortem* examination, blood was found in the pleural cavity. In a case of Myott's,[15] a man of 34, after taking 4 drachms became soon dazed and later unconscious. The pulse became quick and the breathing laboured. The physical signs pointed to congestion throughout both lungs. He rallied a little, but died within forty hours after taking the oil. The *post-mortem* examination showed *inter alia* reddening of the trachea and bronchi. Neale[4] also reports a fatal case.

The explanation of these toxic cases has not so far been satisfactory. Schulz[1] says that pure eucalyptus oil is very slightly active, and that 10 grams produces no effect, while Cuthbert Hall[10] considers that eucalyptol—the chief constituent—has probably very little toxic result. Manquat[8] quotes the experiences of Bouveret and Peschade with the subcutaneous injection of eucalyptol in liquid vaseline, where the patients sometimes felt a heat in the abdomen, and at other times showed symptoms of cerebral phenomena of a more or less uncomfortable nature.

Siegen, as Manquat mentions, noted with a dose of 3½ grams headache and mental prostration. The other phenomena are like those produced by turpentine—coma, weakness of reflexes and of the respiration, lowering of the blood pressure and temperature, and in fatal dose respiratory paralysis. Kunkel,[9] in discussing his case, considers it may have been caused by another kind of eucalyptus oil, or else that it might be due to an adulteration.

REFERENCES.

[1] H. Schulz, *Das Eucalyptusöl*, Bonn, 1881. [2] F. J. Owen, *Austral. Med. Journ.*, Melbourne, 1885, N.S. vii, 394-7. [3] E. Sheaf, BRITISH MEDICAL JOURNAL, 1888, i, 849. [4] A. Neale, *Australas. Med. Gaz.*, Sydney, 1893, xii, 115. [5] L. Lewin, *Lehrbuch der Toxikologie*, 2te Aufl., 1897. [6] Liebreich, *Encyclopaedie der Therapie*, Bd. ii, S. 239, 1898. [7] E. H. Thomas, *Indian Med. Rec.*, Calcutta, 1899, xvii, p. 502. [8] Manquat, *Traité élémentaire de thérapeutique*, ii, 214, 1900. [9] A. J. Kunkel, *Handbuch der Toxikologie*, 1901. [10] C. Hall, *On Eucalyptus Oils*, M.D. Thesis, Sydney, 1904. [11] H. S. Taylor, *Lancet*, London, 1905, ii, p. 963. [12] F. L. Benham, *Lancet*, London, 1905, ii, p. 1894. [13] H. R. Davies, *Lancet*, London, 1906, i, 403. [14] J. Benjamin, *Indian Lancet*, Calcutta, 1906, xxvii, 720: also *Lancet*, London, 1906, i, 1608, and BRITISH MEDICAL JOURNAL, 1906, i, 1020. [15] E. C. Myott, BRITISH MEDICAL JOURNAL, i, 1906, p. 558. [16] J. Orr, ibid., 1906, p. 1085. [17] Schroeder, *Aerztl. sachverst. Ztg.*, Berlin, 1908, xiv, 153. [18] T. R. Atkinson, BRITISH MEDICAL JOURNAL, December 12th, 1909. [19] W. R. Kirkness, ibid., January 29th, 1910. [20] J. Allan, ibid., March 5th, 1910.

## THE CURATIVE EFFECT OF SALVARSAN ("606") IN CASES OF FRAMBOESIA.

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THE following experiments were carried out at the St. Augustine Yaws Hospital, Trinidad, from January 4th onwards. On that day Dr. Rost, the surgeon of the German cruiser *Freya*, who had some tubes of "606" which had been given to him at Kiel, at my request kindly injected five cases of yaws, three adults and two children. Dr. Rost used 0.6 gram (9 grains) in an emulsion with 5 to 6 c.cm. of sterilized olive oil for adults. The injection was made deeply into the muscle of the buttock. In twenty-four hours a marked improvement was noticeable, the yaws tubercles drying up from the periphery, so that whitish circles appeared to be surrounding them.

The improvement continued, and on January 8th I decided to try an experiment. I had read that in the case of an injected syphilitic mother and suckling the baby was cured by suckling the mother; and I was also aware of Professor Ehrlich's view that "606" created an antibody by rapidly destroying spirochaetes. I therefore put a cantharides blister on two of the cases being cured by the "606" treatment, and injected the serum from the blister into several cases of yaws, the adult dose being 16 c.cm. To my astonishment, the serum acted as rapidly as "606." In some cases improvement was noticed in sixteen hours after injection. On January 11th, at my request, Dr. Rost injected thirteen more cases of yaws with "606," and the same rapid improvement was noticeable—in some cases as early as sixteen hours after. I applied fly blisters to some of these cases and used the serum for more experiments. In every case injected with serum I got a rapid improvement.

I ought to inject the serum cases every seven or ten days; but I am leaving them alone to see how long the improvement after a single dose of serum will last.

On January 17th the Yaws Hospital was visited by the Acting Surgeon-General, Dr. J. W. Eakin, Dr. Rost, and two of my *confrères*, who saw all the cases under treatment both with "606" and serum, and who also saw the detailed account in my book.

I believe that this is the first instance known of a drug producing an antitoxic serum with curative properties, and the effect, in a boy, of injecting 2 drachms and 20 minims of a serum that had not been hyper-immunized, was very astonishing.

But a greater astonishment was to come. I put a cantharides blister on two cases that were being cured by the serum from a "606" case, and in both an improvement was noticeable in twenty-four hours. Being boys, each received 8 c.cm. of serum. Whether the effect is due to the drug or to an antitoxin, the dilution is very great in what I call the secondary serum cases.

It occurred to me that the results I obtained with serum would be explained if the failure of a cure by Nature was due to the absence of complement in the blood of yaws patients. I argued that it was possible that the antibody

required to be united with complement in order to be an antidote, and that the complement was "fixed" by the toxin. If so, all that was required was to supply complement. I performed three experiments:

1. I put a fly blister on some healthy persons, and injected normal human serum into yaws cases. No result followed.

2. I heated the serum from cases that were being cured after "606" injections, and the serum, *even after boiling*, was efficacious.

3. I put blisters on three cases of yaws, and used the patients' own serum for their injection. No result.

I have therefore abandoned the provisional hypothesis of fixation of the complement by the toxin.

I also performed the following control experiments: I injected sterilized water with tincture of cantharides, and satisfied myself that the presence of cantharides in the serum has no effect whatever.

I injected four cases with cacodylate of soda for comparison, and I see nothing to compare with the experiments with "606" and the serum.

A further experiment with normal human serum obtained by a blister was negative.

It is my intention to inject a goat with "606," and use the goat's milk for young children with yaws. I will also blister cases that have been cured of yaws under ordinary treatment and experiment with their serum. If it be possible to cultivate spirochaetes, I suggest that spirochaetes be injected into a horse; that this be followed by "606" injections, and that experiments be made with the serum in cases of syphilis.

When the experiments were carried on, no other treatment of any kind was used; even a bath was not permitted. No complications, local or general, occurred. I believe that the dose of "606" for yaws can be safely increased, as the reaction was very slight, and in some cases absent. Cases will require a second injection. The pain after the injection of the emulsion lasts for about six hours, but is not very great. Dr. Rost intends to publish the cases injected by him with "606." We all owe him a debt of gratitude for so willingly using his "606" tubes in yaws cases. The blisters were applied on the fourth day after injection with "606," or with the serum of a "606" case.

In the light of marked effects in the secondary serum cases we may have to change the hypothesis of the formation of an antibody by the injections. The curative substance seems to have the power of increasing itself. Is it a ferment?

## A REPORT ON THREE CASES TREATED WITH EHRLICH'S SPECIFIC FOR SYPHILIS.

BY

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THROUGH the kindness of Mr. J. E. R. McDonagh of the London Lock Hospital, who spared me a few tubes of "606," I have been able to carry out Ehrlich's treatment in three selected cases of syphilis. I had the good fortune to see Mr. McDonagh treat some patients in London, and I have endeavoured to treat the cases after his method. The doses were received in the form of a yellow powder hermetically sealed in glass ampullae, the dose ranging from 0.3 to 0.9 gram. One end of the glass ampulla is broken off, and the contents turned out into a glass mortar which has been sterilized. The powder is dissolved first of all in as small a quantity of ethyl alcohol as possible. To this is added about 10 c.cm. of very hot water, and the fluids stirred vigorously until every trace has been dissolved; then a small quantity of solution of sodium hydrate (40 grams to the litre) is added, well mixed, and three drops of a ½ per cent. alcoholic solution of phenolphthalein added, and titrated with normal acetic acid until the red colour has completely disappeared. Finally, a few drops of normal sodium hydrate are added until a faint rose tint comes back to remain, so that the solution is just alkaline. The solution is now ready for injection. A fairly large syringe capable of holding 12 c.cm. and fitted with a long needle is used. It is necessary to have a needle with a large bore, as sometimes the fluid is apt to become viscid, and would certainly block an ordinary needle.

The urine must be tested in every case before injection and daily afterwards. The strictest antiseptic precautions should be taken and the needle boiled in salad oil to prevent the blunting which occurs with water.

The scapular region is a suitable site for injection. The skin over the scapular muscles is well washed with soap and water, nothing else being used. The contents of the mortar are drawn into the syringe, and the needle plunged deeply into the muscles of the scapula on the side selected. The fluid is then slowly but firmly driven into the muscles. The needle is then slowly withdrawn, and a piece of aseptic gauze held by rubber plaster put over the puncture. The patient should be kept in bed for five or six days.

### CASE I.

Colour-Sergeant G., aged 35 years, acquired syphilis eleven years ago. A very short time afterwards he had seventy-two days' treatment with hyd. c cret. in hospital. He did not have any further treatment, and kept fit until his tonsils and palate became ulcerated six weeks ago.

On admission to hospital he was found to be suffering from a large perforation of the soft palate and extensive ulceration of the tonsils and posterior pharynx. The uvula had already ulcerated away.

Five days afterwards 0.5 gram of "606" was injected into the muscles of the right scapular region. He did not have any rise of temperature, and felt no ill effects, with the exception of some slight soreness at the sight of injection.

Two days afterwards there was a distinct improvement in the appearance of the ulcers. The sloughs had disappeared, and the perforation looked smaller. At the end of the first week the tonsils and posterior pharynx had healed completely and the perforation was about one-third the original size. He was weighed, and found to have gained 5 lb. About this time a small amount of lymphoid tissue was noticed at the site of the uvula.

A fortnight afterwards the hole in the palate had almost closed, and the patient's general condition was greatly improved.

Four weeks afterwards the perforation had closed completely, and the lymphoid tissue at the site of the uvula had grown into a fairly large process. He had regained his normal voice, and on being weighed was found to have gained 16 lb.

### CASE II.

Lance-Corporal R., aged 32 years, acquired syphilis five years ago. He did not receive any mercurial treatment internally, as the sore was diagnosed to be soft. He kept fit until May, 1910, when he was admitted to hospital suffering from severe ulceration of the upper gums, tonsils, and posterior pharynx. He had also disease of the nasal bone on the left side and well-marked tibial pains at night. He was given several courses of inunction periodically, but his condition did not improve.

He was sent to me as a selected case for "606" treatment. I found that he was suffering from the above-mentioned symptoms, and that quite recently he had lost five upper teeth on the right side. A few days afterwards 0.5 gram was injected into the muscles of the right scapular region. He had no pain afterwards, but had a rise of temperature for three days, the highest being 101°.

Two days afterwards the tibial pains ceased and the condition of the gums and throat was markedly improved. At the end of the first week the throat had completely healed and the gums were almost well, the teeth being quite firm. His weight had increased 2½ lb.

A fortnight afterwards the gums and throat were quite healed; a piece of necrosed bone came away from the left nostril, and the discharge, which was profuse before, was greatly diminished.

On the eighteenth day he had gained over 1 st. in weight and looked quite fit. He is now quite free from any lesions.

### CASE III.

Private L., aged 28 years, acquired syphilis in October, 1910. He was admitted to hospital at Poona soon afterwards and developed a profuse papular rash over the face, neck, trunk, and upper and lower limbs. He was given three courses of ung. hydrarg., and was transferred here for "606" treatment, as his condition was not improving. On admission, he had the rash over the face, trunk, and limbs, some ulceration of both tonsils, and well-marked enlargement of the cervical and inguinal glands.

He was injected in the right scapular muscles with 0.5 gram of "606." He suffered slight pain in the muscles for about two hours afterwards. Two days afterwards the enlarged glands had completely disappeared, and the rash was fading rapidly from the face. The condition of the throat showed marked improvement. He had a rise of temperature for three days. At the end of a week the rash had completely disappeared from the face, the throat was quite well, and the rash was fading from the trunk and limbs. He had gained 1½ lb. in weight. Eighteen days afterwards, with the exception of a few stains on the skin the result of the rash, there was nothing to show that he had ever had syphilis. He had gained 8½ lb. in weight.

**The cases described are the first to be treated in India with Ehrlich's wonderful specific.**

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### TREATMENT OF PEENASH.

HAVING read the report of "A Case of Peenash" in the BRITISH MEDICAL JOURNAL of November 5th, 1910, p. 1441, I wish to draw attention to a very well known and very efficacious method of treatment, to which no reference was made in the article.

In Scheube's *Diseases of Warm Climates* (edition 1903), pp. 446–447, the ravages of the larvae of *Lucilia macellaria* in the human subject are described so clearly that there is no need for further detail. Suffice it to say that in the Northern Argentine, in Paraguay, and in Brazil, such cases as that described are of very frequent occurrence. All the cases that I have seen, however, have been in persons with syphilitic or leprous lesions of the nose, the odour of which had attracted the fly. I have had many cases, however, of larvae of *Lucilia macellaria* in the ears of perfectly healthy persons with no history of any previous lesion in the ear. Anyone who has seen a bad case of myiasis can understand the ghastliness of the punishment visited upon King Herod (Acts xii, 23), whose bad antecedents warrant one in believing that he was a syphilitic.

A passing reference may be allowed to the *Dermatobia noxialis*, a fly belonging to these Central South American countries. It lays its eggs in the skin of various domestic animals and in man. The larvae that result are single, and each one is contained in a little swelling or boil, which has a small opening in the centre, through which the larva projects its little head. Recently I had a little German child with six of these *Dermatobia* boils or uras (as they are called here and in Brazil) in his scalp. A girl with a syphilitic ulcer of the leg had the skin of the margin of the ulcer honeycombed with "ura" larvae.

The treatment for larvae of *Lucilia macellaria*, and probably for similar larvae attacking the nose and adjoining parts, was given in the *Journal of Tropical Medicine* (I think) towards the end of 1902 by a colleague resident in the Argentine. The treatment is well known to the more intelligent inhabitants of these republics, yet I have not seen it mentioned in any of the books on tropical medicine.

It consists in insufflations of finely powdered calomel into the nose or ear attacked by the larvae. The patient is made to lie down, and the powder blown into the affected cavity. One drachm of powdered calomel is the quantity I generally use. I send the patient home, and bid him come the following day. If the dead larvae have not all dropped out, I wash them out with a nasal douche of simple boric lotion. Where the nasal cavity and the ears are attacked the treatment is infallible. Where the maggots have already eaten their way into the accessory sinuses, of course the treatment becomes more difficult.

The textbooks mention chloroform, oil of turpentine, etc., as useful, and to these may be added kerosene and various tar preparations kept on the "estancias" for curing "maggots" in cattle, and frequently used for the same purpose on the human subject. The advantage of the calomel treatment is that it is absolutely painless, is cleanly, and is, when properly applied, very efficacious. The only disadvantage it may have is from the purgative effect of any small quantity that may pass into the stomach. One leper, whose nose was literally moving—heaving up and down with the movements of the maggots—was treated by this method, sent home, and told to come again. He did not appear for three days. Then he told me that all the maggots had dropped out dead the same night and the following day, but that he had got such severe diarrhoea that he could not come to see me sooner. Probably the calomel did him good; at any rate, the leprous condition has remained stationary during the year that has intervened, the swelling of the face and hands having markedly diminished.

In cases of infection by *Dermatobia noxialis* also I use the calomel powder. In the case described above of the numerous larvae in the margin of the leg ulcer, I simply dusted on the calomel powder, spread some dry lint over it, and put on a bandage. The following day the larvae were all dead on the lint.

Before I adopted the calomel treatment, and when I used to try by repeated injections or irrigations of other drugs to kill and dislodge the larvae from the nose, the horrible stench of the affected part invariably made me ill. By the calomel treatment hours of most disagreeable work may be avoided, the treatment finished in five minutes, and the patient sent home with the assurance that he will be all right on the morrow.

J. W. LINDSAY, M.B., Ch.B.Aberd.

Belén, Paraguay.

# Reports
ON
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### STRATTON UNION WORKHOUSE.

CASE OF SEVERE PUERPERAL FEVER CURED BY ANTI-STREPTOCOCCUS SERUM.

(Reported by DURIE A. CHAMBERLAIN, Deputy Medical Officer.)

THE following case seems to me to be of interest owing to the fact that the severe symptoms of puerperal fever abated almost immediately after the injections of anti-streptococcus serum (B. W. and Co.'s puerperal fever serum). The patient, a single woman aged 20, was admitted on July 25th, 1910, for her confinement. Two years previously she had been confined of her first child. For more than two years she had suffered from a vaginal discharge, gonorrhoeal in character, which had resisted treatment. She was still suffering from it when admitted for her second confinement. On September 25th she complained of labour pains, and I made a vaginal examination, but found that labour had not properly commenced. On September 28th she had a quick labour, and a child, which presented in the vertex position, was born. Only the nurse was in attendance, and no vaginal examinations were made. The placenta and membranes were delivered normally.

*First Abnormal Symptoms.*

The bowels were open on the third day after castor-oil. The temperature was normal until October 2nd, when it rose to 99.4°. On the following day it was 101.6° in the morning and 101.8° in the evening. She did not complain of pain or other symptoms, and there were no physical signs, except a raised pulse, until the early morning of October 4th, when, after passing a restless night, she had a rigor, and the temperature rose to 105.4°. I saw her later in the morning, when I found her extremely ill and complaining of intense headache. There was some abdominal distension, and the pulse was 124.

*Diagnosis and Treatment.*

I diagnosed puerperal fever, and wired for some antistreptococcus serum (B. W. and Co.'s puerperal fever serum). In the evening I saw her again; the temperature was now 106.4°, and the pulse 132. She still complained of headache, but there was no pain or vomiting; the abdominal distension had increased, and there was some tenderness over the spleen. I injected 25 c.cm. of the serum into the buttock.

*Progress.*

At 4 a.m. on the next morning the temperature dropped to 102.4° F., and the patient became much less distressed. During the day the temperature kept much the same, but on the following morning it again rose to 105.2° F., with a return of the previous signs and symptoms. I again injected 25 c.cm. of the serum, and in twelve hours' time the temperature dropped to 102° F., falling again next day to 100.5° F. in the morning and 100.8° F. in the evening.

Two days later the temperature was normal, and remained so. The pulse throughout the period of pyrexia was hurried in proportion to the temperature, and at the end became weak and thready. There was a bloody red discharge from the vagina, but it was not offensive. There was no diarrhoea. The remaining treatment consisted of maintaining the strength and giving every four hours douches of mercury perchloride 1 in 2,000.

RESULT.

She made an uninterrupted convalescence and got up from bed three weeks after the temperature became normal. In my opinion the drop of the temperature and the abatement of the symptoms after each injection proves the efficacy of the serum in this case.

I regret that, owing to the difficulties of distance, no examination of the blood was made.

# Reports of Societies.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, February 1st, 1911.*

Dr. Byrom Bramwell, President, in the Chair.

*Epidemic Poliomyelitis.*

In a paper on this subject Dr. D. W. Currie and Dr. Edwin Bramwell pointed out that in the last decade there had been a series of epidemics of poliomyelitis, and described the leading features of a small epidemic which they had observed last autumn. This had occurred in an isolated group of five houses in a country district, and, out of 12 children living in these houses, 5 had been attacked; 2 were typically affected, 2 showed transient cranial-nerve paralysis only, while the fifth, though showing no motor nerve paralysis, had symptoms of general disturbance which, from its association with the others, allowed it to be classed as a case of this disease. The disease was confined to two out of the five families, and investigation made it certain that it had been carried from one to the other by one of the mothers. The source of the original infection could not be discovered. The chronological sequence of the cases allowed the incubation period in this small epidemic to be fixed at four days. Inquiries made over a wide area in England and Scotland showed that during the last year cases of poliomyelitis had been more numerous than usual, and evidence had been obtained of local epidemics in Newcastle, Carlisle, Manchester, Nottingham, and Melton Mowbray. It was possible that there was some connexion between acute anterior poliomyelitis and epidemic cerebro-spinal meningitis, for epidemics of the one were apt to follow those of the other, as had happened in New York.

Dr. Melville Dunlop said the existence lately of poliomyelitis in epidemic form was borne out by his experience both in hospital and private practice. The epidemic had been not only widespread, but also of unusually severe character. It was distinguished especially by severe and prolonged premonitory symptoms. In one case the child lay comatose and speechless for ten days; and in others the clinical picture closely resembled that of tuberculous meningitis. Other features had been the later age-incidence of the disease, the widespread nature of the paralyses, including bulbar symptoms in several cases; and in general a more complete degree of recovery than was usual in sporadic cases.

Dr. Harvey Pirie insisted on the importance of early diagnosis in epidemic cases, and of isolation to prevent further spread. The frequency of pain among the earlier symptoms showed that the disease began as a meningitis, and at this stage increased pressure of the fluid on lumbar puncture and an increase of the mononuclear cells might be helpful in diagnosis.

Dr. Dingwall Fordyce pointed out that in the small epidemic described a peculiar feature had been the greater severity of the disease in the older children. He thought that the incubation period had been fixed within too narrow limits.

Dr. John Thomson said that the seasonal incidence of epidemic cerebro-spinal meningitis was in winter and early spring, while that of anterior poliomyelitis was in the autumn.

Dr. W. T. Ritchie asked if the recent outbreak of cerebro-spinal meningitis in Belfast had been followed by an unusual number of cases of poliomyelitis.

Dr. E. Bramwell replied.

*Medical Examination of Employees.*

Dr. H. G. Langwill outlined a scheme of medical examination of sea-going employees recently adopted by a federation of British shipowners. Such an examination was especially necessary in the case of seamen, because of the greater hazard of their occupation, of their liability to accident both at work and asleep, and of the inadequate medical treatment at sea for wounds and fractures. In the first place, the employees were divided into long and short voyage seamen. The main points of examination were: Eyesight, hernia, venereal disease, varicose veins, the state of heart and vessels, and the presence of giddiness or fits. As to vision, test types often showed deficiency where at sea the man had acute vision for land or light. He passed slight cases of hernia, on condition of wearing a truss; and in cases of radical cure recommended the man to have a truss in his possession. In valvular heart disease, he passed for a short voyage if the compensation was good. The detection of early aneurysm was of great difficulty.

Professor Caird said that there was less liability to strangulation in an old hernia with a wide ring than in one of recent date. He had never seen strangulation in ventral hernia at the site of an old operation wound.

Dr. Chalmers Watson alluded to those cases of cardiac strain where early appropriate treatment prevented permanent disability and lifelong compensation at the expense of the employer.

Mr. Miles said they were coming to the time when universal medical examination for all workmen would be in force, and it was possible that in the interests of employers all cases of hernia, with or without a truss, would be rejected.

Dr. Macrae Taylor said that the teeth should not be forgotten in a scheme of medical examination of employees.

Dr. Langwill replied.

*Cases.*

Patients were also shown by Professor Caird and Mr. Alexis Thomson.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

*Friday, January 20th, 1911.*

Mr. Seton Pringle in the Chair.

*Two Unusual Gall-Bladder Cases.*

Mr. W. S. Haughton read a paper on two unusual gall-bladder cases—(*a*) foreign body, (*b*) typhoid carrier. (*a*) In this case there were attacks of well-marked biliary colic during the two previous years. The intervals between the attacks were marked by severe gastric disturbance and pain. Operation revealed a very small, thickened gall bladder, embedded in a dense mass of adhesions involving liver and stomach. A thick ring of fleshy adhesion made it impossible to remove the gall bladder completely without stomach resection. The gall bladder contained two small calculi, and a bristle half an inch long with a piece of thread tightly rolled round one end. The bristle resembled one from a toothbrush, and it was suggested that it entered the gall bladder by ulceration through the stomach wall. (*b*) In the second case there was no definite history of enteric fever. The patient was a female. Her symptoms for six years previously suggested intermittent attacks of partial intestinal obstruction. A tumour was felt on the right side of the abdomen, tense, smooth, pendulous, and movable in a transverse direction at the level of the umbilicus. Operation revealed a large pear-shaped gall bladder with long pedicle formed by the cystic duct. The walls were over a quarter of an inch thick, and it contained eighteen calculi and a large quantity of white, milky fluid, which was proved to contain a pure culture of typhoid bacilli. The blood of this patient possessed unusually high agglutinating power. The gall bladder was removed. Both patients had made a complete recovery. Dr. Crofton said that a pure culture of the typhoid bacillus was obtained from the gall bladder. The patient's blood, even when diluted to 1 in 500, agglutinated typhoid bacilli. The patient had no history of having had any typhoid, but the fact that she had an anomalous illness with a high temperature, and had come from Cairo, was very suspicious, Cairo being a hotbed of typhoid fever. There was no history that she had given typhoid to any one. The paper was discussed by the Chairman, Dr. Stokes, Mr. Blayney, Dr. Kirkpatrick, Dr. Pearson, Mr. Gunn, and Mr. Stoney. In reply, Mr. Haughton said he quite agreed that the removal of the unopened gall bladder would have been a safer course than the one he adopted. Mr. Stokes had asked the reason of the difficulty in passing a probe. He thought it was due to the tone of the muscle. He thought that the gall bladder should be removed where there was any definite evidence of change rather than that it should be left there as a future source of

malignancy. With regard to Mr. Gunn's question, he thought that in the vast majority of cases it was inadvisable to close the abdomen without drainage. Mr. CROFTON had no doubt whatever that typhoid bacilli could not live in the blood stream or in the tissue fluids of this patient. Those in the gall bladder were in a position that was cut off from the blood stream owing to the thickening and infiltration of the walls, and so antibodies could not soak through. Another point was that it was quite possible, owing to their position of partial protection, that these typhoid bacilli had developed a strain which was more or less resistant. The patient certainly came from a place where typhoid fever was very prevalent. As regards the question of removal of the gall bladder, he thought many of them might be saved by vaccine-therapy, and that if the microbe could be discovered many of the gall bladders would be able to return to their normal condition. It was very difficult to immunize a patient and to destroy the living typhoid bacilli in the typhoid carrier. He only knew of one successful case which had been reported. There was one patient in whom he was able to increase her agglutinative power very much, but she was still excreting typhoid bacilli in her urine.

*Congenital Fistulae.*

Mr. BOYD BARRETT read a paper on congenital fistulae. He confined his remarks to fistulae of the umbilicus (intestinal and urinary), fistulae of the external ear and preauricular area, and paracoccygeal fistulae. Conditions necessitating surgical interference were mentioned, and laparotomy suggested in all cases of umbilical fistulae where the possibility of adherence of the ileum to the umbilicus through a Meckel's diverticulum existed. Remarks were made by Mr. STONEY, Mr. GUNN, Mr. STOKES, Mr. PEARSON, and the CHAIRMAN. Mr. BOYD BARRETT, in reply, referred to the two coccygeal cases mentioned by Mr. Stoney which were opened for abscesses, and he considered it quite possible that they were fistulae. He had seen several cases of coccygeal fistulae, but never any deep ones. Mr. Stokes's case with the sinus opening in the middle line of the neck he believed to be extremely rare. They were supposed to be due to the thyro-glossal duct. Mr. Pearson had failed to cure his fistula of the umbilicus by cauterization. He thought this was never successful. It nearly always recurred after treatment by cauterization, which meant that the lips of the duct became adherent, and a cyst was generally formed where the lining membrane was not destroyed. The only result of this treatment was the formation of cysts. The giving of methylene blue would be an aid if the urine was discharged, but if the urachus was closed at the bladder methylene blue would be of no use. He thought where there was a probability of a fistula being connected with the ileum a laparotomy would be justifiable.

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## ROYAL SOCIETY OF MEDICINE.

### SECTION OF ANAESTHETICS.

*Friday, February 3rd, 1911.*

Dr. MCCARDIE, President, in the Chair.

*Death under Chloroform.*

THE PRESIDENT reported a case of death under chloroform, due to inspiration of gummatous material. A man aged 43 was to be operated on for ulcer of the scrotum and hernia of testis. The house-surgeon administered chloroform on a Schimmelbusch mask, this anaesthetic being selected on account of the presence of bronchitis. There was slight struggling during induction. When the patient was moved on to the operating table severe cyanosis and embarrassed respiration suddenly occurred, respiration shortly stopping entirely. The pulse was good when the respiratory failure occurred. Restorative measures were of no avail. On *post-mortem* examination a broken-down gumma was found at the bifurcation of the trachea, which had evidently burst during the anaesthesia.

Dr. BARTON questioned whether, in view of the existing bronchitis, the case should have been operated on at all.

Dr. CARTER BRAINE asked whether artificial respiration had been performed with the patient lying on his side.

*Anaesthesia in Post-pharyngeal Abscess.*

Mr. GILL read a short paper on anaesthesia in post-pharyngeal abscess. He described the case of a child of 3 with difficulty in breathing, who was to be operated on for adenoids. Light anaesthesia was induced with chloroform. On opening the mouth a swelling was seen bulging forward from the back of the pharynx, which produced further obstruction the more the mouth was opened. The mass was incised and a large quantity of matter rapidly discharged, filling the mouth and nose. The child, who had become dusky, was suspended head downwards. After the matter had been rapidly swabbed out, the tongue was hooked forward by passing the finger along the dorsum. The patient recovered. Great stress was laid on the importance in this case of the inverted position. Mr. Gill also reported a case in which, during an operation on the chest, there was sudden haemorrhage from the nose and mouth, producing symptoms of suffocation. The patient's head was lowered over the end of the operating table, and when the flow of blood had diminished the anaesthetist drew the base of the tongue forward with his finger, compressing meanwhile the chest with his elbows.

Mr. BELLAMY GARDNER considered that it would be better to operate on cases of post-pharyngeal abscess without an anaesthetic. The operation was generally trivial.

*Reflex Effects from Stimulation of Mucous Membrane during Anaesthesia.*

Dr. BLUMFELD read a short paper on reflex effects from stimulation of the nasal mucous membrane during anaesthesia. He described a case of heart failure after the injection of adrenalin. The patient, who was to be operated on for deviated septum, was anaesthetized with C.E. In seven minutes he was pronounced to be ready; the colour was good, corneal reflex was present. He was placed in a sitting posture, and, as there was slight coughing, more anaesthetic was administered. Six minims of 1 in 4,000 solution of adrenalin was then injected into the nasal mucous membrane. Immediately there was extreme pallor, dilated pupil, and the usual symptoms of severe cardiac depression. These passed off, and the operation was performed without further trouble, chloroform being administered by Junker's apparatus.

Dr. FLEMMING had seen faintness caused by adrenalin, but not by weak solutions; he considered 1 in 4,000 too strong.

Dr. CARTER BRAINE recorded a case in which sudden death had followed the injection of adrenalin into the tonsil in the case of a girl who was to undergo tonsillotomy.

Dr. PROBYN WILLIAMS questioned whether the change to the sitting posture might not have been a factor in the depression produced.

Dr. SILK thought the drug was the chief cause. He had seen faintness produced by plugs of cocaine and eucaine in the nose.

Mr. BELLAMY GARDNER believed that adrenalin injected into the tissues caused shock, but when it was *applied* only it did not do so. He did not believe in the sitting posture as a causal factor.

Mr. BARWELL said he was the operator in the case described by Dr. Blumfeld. The shock did not appear till some time after the sitting posture had been assumed, and he considered that it was due to the adrenalin. He found that adrenalin had a much more depressing effect on anaesthetized than on conscious persons, and for the latter he often used large doses with impunity. He had never seen a case of shock under adrenalin when the anaesthesia was induced by ether.

Dr. HEWITT considered that the low blood pressure under chloroform was an impertant factor in the circulatory depression produced by adrenalin, and explained why it was that such depression did not occur in etherized or conscious patients.

The PRESIDENT stated that he had also had cases of circulatory depression due to adrenalin. He advised interruption of the administration of the anaesthetic for a time during the injection of adrenalin.

Dr. HARVEY HILLIARD stated that he had seen cases of cardiac inhibition when plugging the nostrils under anaesthesia, but not when the plugging was performed previous to induction.

*Cheyne-Stokes Respiration during Anaesthesia.*

Dr. HUGHES presented a short communication on Cheyne-Stokes respiration during anaesthesia. He described the case of a man of 52, who underwent gastrostomy for malignant disease of the larynx after tracheotomy. Chloroform was administered on lint over the tracheotomy opening, and followed by C.E. After about four minutes respiration stopped, the pupil being small, and corneal reflex present. After thirty seconds breathing was resumed. Throughout the operation, which lasted about forty-five minutes, there occurred, about every five to ten minutes, periods of apnoea of thirty to forty seconds, alternating with regular breathing of good volume. There was no straining. After the anaesthesia was stopped the condition gradually passed off.

Dr. BARTON had seen at least half a dozen cases of Cheyne-Stokes breathing under anaesthesia. They were all either under chloroform or C.E.

The PRESIDENT had found 6 cases in his records. They were all but one old men with rigid chests. The one exception was a man of 48, who was operated on for cerebral tumour under chloroform and C.E.

*Exhibit.*

Mr. COLEMAN showed a new form of stopcock for gas and air administration.

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SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting held on January 27th, Dr. BUCKLEY (Buxton) read a paper entitled, *Osteo-arthritis and its relation to chronic rheumatism.* He said that osteo-arthritis was generally assumed to be a form of arthritis characterized by bony changes in connexion with the joints. Bony changes occurred in many diverse forms of arthritis, such as pyaemic tuberculosis, gonorrhoeal and gouty arthritis, and in the arthropathies as well as in those conditions to which the name was more definitely applied; but in many cases of so-called osteo-arthritis the stage of bony change was never reached. Bony changes of hypertrophic type were essentially secondary and reparative, and did not characterize any particular disease. The cases in which there was no other symptom than stiffness and creaking of the knee-joints were commonly a chronic synovitis due to wear and tear plus increased vulnerability of the joints from heredity or modified vascular supply such as might be caused by varicose veins, and were then best described as chronic villous arthritis; but slight bony changes might occur in the form of osteophytes arising from the patella. This linked them to certain other forms of osteo-arthritis, in which no specific cause was discoverable, and which had been termed "hypertrophic arthritis." In order to differentiate these two conditions from gouty and other forms of arthritis there was much to be said in favour of the term "chronic articular rheumatism," which in spite of possible confusion with rheumatic fever would more clearly indicate their pathology and treatment, and the name "osteo-arthritis" should be abandoned altogether. Dr. BURT (Buxton) said that when one considered osteo-arthritis in such a condition as Heberden's nodes, it was found that the formation of osteophytes was merely a compensation change. It seemed unreasonable to classify a group of clinical diseases under the term 'osteo-arthritis" if this was only a secondary condition. Dr. MOUILLOT (Harrogate) believed that the differential diagnosis of the different forms of arthritis was of great practical importance, as many patients' lives were made miserable by a diagnosis of rheumatoid arthritis on very insufficient evidence, sometimes the only symptom being a creaking of the knees. He also related a few cases showing how one form of arthritic disease was added to one already existing, such as gout, or rheumatic fever, or rheumatoid arthritis. Dr. LEONARD WILLIAMS said that it was probable that the joints were, if not excretory organs, then elaborating organs, enabling some materials to be more easily excreted. From the sex incidence of such diseases as gout and rheumatoid arthritis, it was reasonable to suppose that the organs peculiar to the sexes—the testicle and the ovary—and the internal secretions were primarily responsible for the diseases in question. Dr. ERNEST YOUNG suggested that members should make careful clinical notes of these cases for the next two years. The collective evidence which might thus be obtained would form a far more satisfactory basis for classification than that which existed at the present time. Dr. BUCKLEY, in reply, referred to the difficulty in diagnosis, and considered that rheumatoid arthritis was more frequently met with in young women, and the conditions known as "osteo-arthritis" at the menopause. He welcomed the suggestion that members should make a careful study of a series of cases with a view to a future discussion which might greatly assist in the differentiation of these disorders.

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## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Thursday, February 9th, 1911.*

Mr. GUSTAVUS HARTRIDGE, Vice-President, in the Chair.

*Histo-pathology of Papilloedema.*

A PAPER by Mr. LESLIE PATON and Dr. GORDON HOLMES was read by the former on the histo-pathology of papilloedema. It was a preliminary account of their investigations into the pathology of papilloedema. Their work was based on the histological examination of sixty eyes—all from cases in the National Hospital for the Paralysed and Epileptic, Queen Square. The conclusions they formed from these cases were that the so-called "optic neuritis" was a simple congestive oedema of the disc, and was not in any way an inflammatory phenomenon. Inflammation, when it did occur, was slight in amount, limited in its distribution, and secondary in its nature. The haemorrhages that occurred were in the main congestive, but partly due to stretching and rupture of small vessels by the swelling disc. The larger white patches that occurred on or near the disc were due to degeneration of the nerve fibres. This degeneration showed itself first by varicosities appearing on the nerve fibres, which later swelled up into elliptical or globular bodies, known as "cytoid bodies." These might lose their connexion with the nerve fibre from which they developed, and consequently undergo fatty degeneration. The smaller bright-white spots, arranged in fan-shaped fashion between the disc and macula, were due to oedema raising the membrana limitans interna into vesicles. The changes produced as the disc became atrophic were (*a*) occlusion of the smaller vessels by endothelial proliferation and adventitial thickening in the walls of the larger vessels, (*b*) a glial proliferation which varied in intensity with the degree of atrophy, and (*c*) proliferation in the mesoblastic tissues round the blood vessels and without, forming the lamina cribrosa. The writers considered that the hypothesis which best explained all the known facts of tumour papilloedema was that, owing to the rise of intracranial pressure, there was a communicated rise of pressure in the nerve sheath. The portion of the central vein lying in the nerve sheath behaved, in response to this raised pressure, like a cerebral vein, and the blood pressure in it was consequently raised to the same extent. This produced a congestion of all the connexions of the central vein distal from that point. In addition to causing venous congestion, the raised intravaginal tension obstructed the normal drainage of lymph from the disc and nerve and caused a lymph stasis, so that there was both an increased output and a diminished drainage. The tissue tension in the nerve itself was raised, so there was no marked difference between intravenous pressure and tissue pressure until the lamina cribrosa was reached; also the range of action of the lower normal intraocular tension. The paper was illustrated by a number of lantern slides.

Mr. JOHNSON TAYLOR asked whether the authors had had any case early enough to confirm what was clinically found, namely, that the earliest evidence of optic neuritis was in the upper and inner part of the disc. He had under care at present a case which confirmed that view.

Dr. JAMES TAYLOR spoke appreciatively of the extensive nature of the research. It occurred to him that it might lead to a revival of the old method of tapping the optic nerve from the front, with the view of relieving the oedema. If so, that would cause one to view more hopefully cases of extreme papilloedema.

Dr. GORDON HOLMES, in reply to Dr. TAYLOR, said the method mentioned would be feasible only if a fistula were left in the sheath, to allow the cerebro-spinal fluid to drain away.

Mr. Paton replied that the papilloedema nearly always commenced at the upper border first, and later in the lower. But when only the upper border showed oedema there was shrinkage of the tissue. The disc looked normal, but there was evidence of slight oedema commencing at its upper edge.

## MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

*Friday, February 3rd, 1911.*

Professor Muir, President, in the Chair.

*Chronic Subcutaneous Fibrosis.*

Professor Stockman read a paper on the clinical symptoms and treatment of chronic subcutaneous fibrosis, which is published at p. 352.

*Iodoform in Phthisis.*

Dr. Thomas W. Dewar read a paper on the treatment of phthisis by means of the intravenous injection of an ethereal solution of iodoform. After ten years' experience of the treatment, his belief was that in an early uncomplicated case of pulmonary tuberculosis with good veins, three or four months' iodoform treatment, without special diet or rest, would effect a cure. Such a case would present the physical signs of apical consolidation on one side. In more advanced disease, with breaking down in one upper lobe and consolidation in some part of the other lung, iodoform treatment for a year or more, together with modified rest and extra diet, would also succeed. Even in far advanced cases with vomicae improvement occurred. Dr. Dewar had had several men who before receiving injections were unfit for work but who soon resumed it, and had been able to continue it while undergoing treatment. The doses given varied from ¼ grain to 1 grain of iodoform, and were generally administered three times a week. The occurrence of toxic symptoms, increased temperature, or increase of sputum were indications for reduction of the dose. How iodoform in such small doses could counteract the virulent poison of the tubercle bacillus was unknown. Dr. Dewar suggested that it might act germicidally as its own molecule; or from its decomposition in the body nascent free formic aldehyde and nascent free iodine, both powerful antiseptics, might be formed; or it might stimulate phagocytosis, or it might act as a toxin inducing the formation of an antitoxin inimical to the growth of the tubercle bacillus. Dr. Dewar had had no success with tuberculin treatment, and stated reasons for his belief that no success was to be expected. As the results of sanatorium treatment admittedly left much to be desired, he urged that the iodoform treatment should be given a thorough trial. Dr. John Guy said that he had at present under this treatment in the Bridge-of-Weir Sanatorium 35 cases of phthisis, and he showed the records of 12 of these patients who had been under treatment for periods varying from nine to twenty-two weeks. He had failed to see any decided benefit accruing, and some of the cases had become continuously worse while under treatment.

## MANCHESTER MEDICAL SOCIETY.

At a meeting held on February 1st, Dr. Emrys Jones, President, in the chair, Mr. L. Savatard briefly reported the following cases: *Xeroderma pigmentosum* in a woman aged 42. The condition, which was first noticed three years ago, had gradually progressed, and was not affected by the variations of season. No warty or other growths had as yet arisen. Microscopical examination of a pigmented area showed, in addition to a mass of pigment in the epidermis and cutis, marked disturbance and atrophy of the basal cells. Attention was drawn to the striking similarity there was between this condition and *x*-ray dermatitis with subsequent malignant growths. *Lupus vulgaris* of long standing with (*a*) papilloma; (*b*) epithelioma, or scar tissue. *Cutaneous neuro-fibromatosis*, with a general fibrosis of the peripheral nerves, in a man aged 25. There was no family history of this or any allied condition. According to the patient's statement this was his fourth attack, the first appearing five years ago after an attack of acute rheumatism, and the cutaneous lesions had previously entirely involuted. The lesions were most numerous on the trunk; the larger ones, not exceeding 1.5 cm. in diameter at their base, were hemispherical and sessile with a bluish transparent look. Many of the smaller ones presented a purpuric appearance. A section of a small tumour (made by Dr. Powell White) showed it to be a soft fibroma of the terminal filaments of the cutaneous nerve pushing upwards into the cutis and displacing the sweat and sebaceous glands. Mr. J. W. Smith read a communication on the *Treatment of carcinoma recti*.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Among the exhibits shown at a pathological meeting held on February 3rd, Dr. Phineas S. Abraham, President, in the chair, were the following:—Dr. J. A. Coutts: (1) Heart from a case of *Malignant endocarditis* in a child aged 5. (2) Heart from a case of *Endocarditis* in an infant of 2 months, (?) fetal. (3) An infantile stomach with *Pyloric stenosis* from a case in which gastro-jejunostomy had been performed; the pylorus only admitted the passage of a bristle. (4) *Extreme fibrosis of lung* in an infant aged 15 months. Dr. Bernstein: (1) *Hypernephroma* (operation specimen). (2) A specimen from a case of *Ulcer of the pylorus with perforation into the liver*, and abscess in liver; excision, healing, death from pneumonia. (3) A specimen from a case of *Obstructive jaundice*, non-malignant; great dilatation of bile and pancreatic ducts. (4) A *Thymus of 833 grains* from a boy aged 14. Mr. L. A. Bidwell: (1) *Primary carcinoma of the liver;* the specimen was removed from a man aged 64; on opening the abdomen the tumour was found to be circumscribed with no evidence of secondary infection; it was excised. The bleeding points were ligatured and the V-shaped wound brought together with catgut sutures which stopped the bleeding; the patient did well for a week, but then developed bronchopneumonia from which he died. (2) A specimen from a case of *Carcinoma of the transverse colon* fungating through the umbilicus. Mr. Donald Armour: (1) *Primary carcinoma of the appendix* (2) *Polycystic (congenital cystic) kidney.* Mr. McAdam Eccles: (1) *Fibrolipoma* from the forehead of a man; the patient was shown at the last clinical meeting of the society, when it had been diagnosed as probably dermoid. (2) *Alveolar sarcoma of the ovary* from a girl aged 11; the tumour weighed 6 lb. Mr. Cairns Forsyth: (1) A *Kidney with a cyst* which contained 22 uric acid calculi; the cyst did not communicate with the pelvis of the kidney. (2) *Kidney showing hydronephrosis from malposition of the ureter*, which sprang from the upper part of the pelvis. (3) *Liver showing extreme cirrhosis not due to alcohol.* Mr. Francis F. Muecke: A *Cast of the laryngeal ventricles* from a patient with malignant disease of the larynx. Mr. J. E. R. McDonagh: Microscopic slides showing the *Causative organisms of balanitis erosiva et gangrenosa.* The condition was said to be very rare in this country but was frequently found in Austria and Hungary. It was easily cured with peroxide of hydrogen. Dr. Abraham: A man with *Tuberosities on the face and hands, probably epitheliomatous.*

## HARVEIAN SOCIETY OF LONDON.

A clinical meeting was held on Thursday, January 26th, at the Paddington Green Children's Hospital, when cases were shown by the President and members of the hospital staff and others. The President (Mr. J. Ernest Lane, F.R.C.S.) took the chair at 9 p.m. The following gentlemen described their cases:—Dr. Leonard Guthrie: Case of *Hydrocephalus.* Dr. Leonard Guthrie and Mr. Mayou: Case of *Pseudo-glioma.* Dr. Sutherland: Cases of (1) *Cerebellar disease;* (2) *Fibroid phthisis.* Dr. Frederick Langmead: Cases of (1) *Urticaria pigmentosa;* (2) *Congenital heart disease;* (3) *Myositis fibrosa and sclerodermia in an infant.* Mr. Reginald Miller: Cases of (1) *Raynaud's disease;* (2) *Polioencephalitis.* Mr. Edmunds: Cases of (1) *Hypospadias;* (2) *Cyst of the humerus.* Dr. G. de B. Turtle: Case of *Pyloric spasm.* The President: Two cases of *Syphilis treated by "606."*

# Reviews.

## DEATH IN ART.

THE scholarly son of a distinguished father, Dr. PARKES WEBER is well known for his interest in, and knowledge of, ancient coins and medals, and in his latest book, *Aspects of Death in Art*,[1] he deals once more with this fascinating subject. The volume, which is made up of "a series of articles reprinted, with many alterations and additions, from the *Numismatic Chronicle*, 1909–10, Nos. 36–38," is, we are told:

> intended to be an essay, not on the iconography of death, but on the mental attitudes towards the idea of death, and the various ways in which the idea of death has, or may be supposed to have, affected the living individual—his mental and physical state, and especially the direction and force of his action—as illustrated by minor works of art, especially medals, engraved gems, jewels, etc.

With this object in view Dr. Weber has traced, from early Greek times down to our own days, the varying conceptions of death and the different devices adopted by men to remind them of the undiscovered country from whose bourne no traveller returns. There is a striking contrast between these emblems in Pagan and in Christian times. The peoples of antiquity, for the most part, seem to have regarded the advent of death with the indifference or resignation born of a fatalistic acceptance of the inevitable.

> Omnes una manet nox
> Et calcanda semel via leti.

Roughly stated, the Pagan attitude towards death is expressed in the maxim, "Let us eat and drink for to-morrow we die." The Christian, on the other hand, looked upon death as the break of a new day, the gate leading to eternal life. Man's sojourn on earth was looked upon as a time of preparation for a better state, and people therefore took refuge from the temptations of the world in monasteries and longed for death as a deliverance—a feeling which found its most intense expression in St. Teresa's lines "*Muero porque no muero.*" Philosophers braced themselves to meet their fate with the thought of Hamlet: "If it be now, 'tis not to come: if it be not to come, it will be now; if it be not now, yet it will come: the readiness is all." Nowadays we perhaps think more of living strenuously, and as far as may be joyously, than of making, like Falstaff, a good end.

In the Middle Ages the thought of what dreams may come in the sleep of death was ever present, and the symbolism expressed not only the emptiness of things, but made strong appeal to the fears of the sinner by impressing upon him the truth that in the grave there is no repentance. Although images of corpses carried round at banquets, skeletons as ornaments of drinking cups, and suchlike devices to remind men that in the midst of life they are in death, were common enough in antiquity, the fashion of *memento mori* emblems did not reach its height till the fifteenth, sixteenth, and seventeenth centuries. Dr. Weber says:

> The popularity of *memento mori* devices certainly culminated in the "Dance of Death" of the sixteenth century. . . . *Memento mori* devices occurred everywhere, on paintings and prints, on sepulchral monuments, as architectural ornaments, in books as emblems, on all kinds of jewellery (especially on memorial finger-rings), on devotional objects (such as rosary beads in the form of Death's heads), and on medals.

Elsewhere we are told that:

> Philosophical considerations on life and death were likewise introduced into anatomical lectures and demonstrations; and in an old engraving of the Anatomical Theatre of Leiden in 1610 skeletons are represented holding up *memento mori* and kindred quotations—less probably for the benefit and instruction of the medical students than for the edification of the learned men, lawyers, travelling noblemen, fashionable ladies, and sightseers, who in former times used to visit the anatomical theatres out of curiosity or in search of emotional distractions.

This general insistence on the briefness and uncertainty of human life was undoubtedly in large measure due to the extreme precariousness of existence in those days, when men spent their lives in the midst of wars and rumours of wars, when violent death was so common as to be regarded as a part of the natural order of things, and when plague and other epidemic diseases, more ruthless than the sword, wrought unchecked havoc among the peoples of the earth.

Many antique coins, "illustrating," in the words of Dr. Parkes Weber, "a medical and hygienic attitude towards preventable death," still exist, which were originally struck to commemorate the deliverance of some town or district from either of these terrible scourges. An example is furnished by some Greek silver coins, dating from the fifth century before Christ, which were issued in honour of the prevention of an outbreak of sickness in the city of Selinus in Sicily. Dr. Weber's suggestion that this sickness, which was averted by the drainage of some marshes near the city, was malaria, is supported by the fact that it was about the same period that this most deadly of diseases first appeared amongst the Greeks, whose decadence has been plausibly traced to its ravages.

Of another class of medal connected with epidemics, such as those which in the Middle Ages were largely used in Italy and elsewhere as safeguards against plague, we find no mention. Although those we have seen have no artistic merit, they might well have found a place in Dr. Parkes Weber's monograph.

We have no space to follow the author through all the chapters of his most interesting book. It is sufficient to say that he has dealt with his subject with a fullness of first hand knowledge and a thoroughness of detail which are rare in these days of hasty compilations. If we might hint a fault in a work so admirable as a whole, it would be that the classification of medals is somewhat unnecessarily complicated. This leads to a good deal of repetition. Thus the line of Manilius:

> Nascentes morimur, finisque ab origine pendet,

with its very unphysiological paraphrase by a modern physiologist, "The first *cry* of the newly-born child is the first *step* towards the grave," is repeated with a frequency which suggests that Dr. Weber believes that custom cannot stale an ancient truism. The same remark might be made in regard to several other quotations. We venture to think, too, that Dr. Weber is a little too meticulous in verifying his references. No reader of Shakespeare's sonnets could forget the line so characteristic of the poet to whom the thought of the grave was ever present, if we may judge from his many allusions to it:

> And Death once dead, there's no more dying then.

Dr. Weber's acknowledgement of his indebtedness to a friend for tracing this not very recondite quotation to its source reminds us of the professor in Thackeray who carefully gives the book and line of the first line of the *Iliad*. This punctiliousness has led Dr. Weber to overload almost every page of his book with footnotes which are a constant distraction to the reader, all the greater since they are to a large extent unnecessary. Footnote answers to text in an antiphonal reiteration of the theme. This makes it somewhat remarkable that the index, where a little repetition would be helpful, is rather meagre.

To the same habit of mind which leads to insistence on the obvious is due a certain tendency to platitude. The very first sentence of Dr. Parkes Weber's book, "Death is no unworthy subject for human consideration," reminds us of Mr. Pickwick's remark to Count Smorltork, "The word politics in itself comprises a subject of no inconsiderable magnitude." His reflections in general are apt to be otiose. In his wealth of quotations we wonder that he has missed Mr. Justice Shallow's *obiter dictum*: "Certain, 'tis certain; very sure, very sure: death, as the Psalmist saith, is certain to all; all shall die."

But, after all, Dr. Parkes Weber does not intend his book to be a meditation on death. As a treatise on medals, gems, etc., dealing with the symbolism of death and with the attitude of men's minds towards the subject throughout human history, it is entitled to very high praise. It is well printed and beautifully illustrated, and we congratulate the learned author on having produced a work at once scholarly and generally interesting.

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[1] *Aspects of Death*, and their effects on the living, as illustrated by minor works of art, especially medals, engraved gems, jewels, etc. By F. Parkes Weber, M.A., M.D. With 58 figures in the text. Published by T. Fisher Unwin, Adelphi Terrace, London; Inselstrasse 20, Leipzig. 1910. (Pp. 160. 5s. net.)

## ROENTGEN RAYS AND RADIO-ACTIVITY.

THE toll of Roentgen-ray victims in the United States is even greater than in this country. At least four American pioneers have perished as a result of carcinoma set up by the early indiscriminate use of the rays, and to these must now be added the name of Dr. MIHRAN K. KASSABIAN, of Philadelphia, whose death was chronicled in our issue of August 13th. Since then there has come to our table the second edition of his *Roentgen Rays and Electro-Therapeutics*,[2] a work which, first published in 1907, has already attained a considerable reputation on both sides of the Atlantic. The completion of this edition must have been a death-bed effort, for some of the more recent developments in medical electricity, particularly in the sphere of ionic therapy, are included. The spirit of scientific detachment in which the work has been done is sufficiently indicated when we say that, except for some pictures of his hands to illustrate the ravages of the rays, there is no reference to the fact that for eight years the author had been in the grip of a disease, in its later stages malignant, caused by the very agency of which he writes. It is in keeping with the fine traditions of self-effacement in medicine that there should be no murmur of self-pity or advertisement of martyrdom, and the work thus planned and carried heroically to a conclusion is no unworthy memorial of a man deserving of all honour. The late Dr. Kassabian had not only the practical genius we expect of one who can go as he into details of technique; it is clear from these chapters that he had also the gift of imagination. Perhaps it is only in the true scientific temperament that the practical and the speculative come together. Thus men of Kassabian's type may at one moment be indulging their imagination with the vast problems of radio-activity, weighing electrons in scales and ultra-gases in a balance, and at the next be devoting an equal attention to the business of cleaning a mercury interrupter, or developing a radiographic negative, or devising a tube holder. It is in this fashion that the way is blazed for future knowledge. Two-thirds of the book are given up to the Roentgen rays in diagnosis and treatment; the remainder to the various electrical modalities, with a chapter or two to radium and photo-therapy. We reviewed this work upon its first appearance (BRITISH MEDICAL JOURNAL, January 25th, 1908, page 207), and therefore it is only necessary to mention one or two features of the new edition. The progress of the last three years has been chiefly on the side of radiography. Dr. Kassabian, by the way, uses the term "skiagraphy," for which there is much to be said; but as nearly twenty changes, each with the terminal "graph," are rung by various workers in describing a picture produced by the Roentgen rays, it seems desirable that the next Congress of Radiologists should try to standardize the nomenclature. In radiotherapy the advance has been slighter. A new conquest has been made here and there, as in the treatment of epilepsy, according to this author, but in certain respects the rays have been superseded by radium or the light cure. Dr. Kassabian, however, after making a comparative study of the value of radium and the Roentgen rays in a series of epitheliomatous cases, holds the results from the *x* rays to be in every way superior. In radiography the principal advance has been in the improvement of instrumentation making instantaneous exposure possible. Teleradiography has also come on the scene, and Dr. Kassabian strongly urges its adoption, stating that, in conjunction with stereoscopy, he has found it useful in the study of cardiac and pulmonary affections. Again, the stereoscopic method in the production and interpretation of *x* ray negatives, which was first brought forward, we believe, in an article by Dr. Mackenzie Davidson in these columns in 1898, is being extended. The latest arrival is called "chromo-stereo-roentgenography," which again suggests the advisability of a simplification of terms. The uses of plastic radiography, also, are becoming appreciated, and Dr. Kassabian appears to attach a good deal of importance to all these methods of bringing up the Roentgen image. We speak of medical electricity as a new science. As a science it may be new; as a form of application it is surprisingly old, and we need an American's reminder that in three London hospitals (Middlesex, St. Bartholomew's, and St. Thomas's) medical electricity was practised in the eighteenth century. If it has been exploited by the charlatan, this is largely due to the fact that it has been neglected in the medical curriculum. Dr. Kassabian suggests that one hour daily devoted to electro-therapeutics for two terms in the medical students' course would number the days of the quack "specialist." The authority and scientific method of such works as this will also go far to accomplish the same result.

In the ready-made review "for favour of insertion" which French publishers have a habit of enclosing, and which accompanies Dr. H. GUILLEMINOT'S *Radiométrie Fluoroscopique*,[3] it is stated that no procedure of *x*-ray measurement has yet received the sanction of general acceptance. It is true that all methods of measurement and dosage are open to criticism, but the preponderating opinion up to now has inclined to the various physico-chemical systems in vogue. The Holzknecht chromo-radiometer in particular is a touchstone for the protagonists of other methods, who invariably give us in Holzknecht units the equivalent for their own. Guilleminot's method, which is fully expounded in the volume before us, is purely a fluoroscopic one. It is based upon the comparison of the fluorescence given by an *x*-ray tube with that furnished by a standard sample of radium. This delicate estimate is made with a fluorometer containing two screens of platino-cyanide of barium, each 1 square centimetre in area, the one illuminated by 2 cg. of radium bromide of 500,000 activity placed at a standard distance of 2 cm., the other by a radiation from an *x*-ray tube. The distance of the tube from the screen is adjusted until the two screens appear to have an equal radiancy, and at this distance the tube is said to be in equivalence. Guilleminot's unit of intensity of radiation, which he calls "M," is the quadruple of the intensity capable of provoking the same fluorescence as the radium standard, and his working unit of quantity, denominated M, is simply this same amount of radiant energy emitted for one minute of time. The rest is a matter of calculation. For example, if a Crookes's tube has to be placed at a distance of 3 metres (300 cm.) in order to give a screen-illumination equal to that of the radium, the number of M units at a distance of 10 cm. can be found by dividing the smaller number of centimetres into the larger and multiplying by the square of the resulting figure:

$$M = 300 \text{ cm.} \frac{300 \text{ cm.}}{10 \text{ cm.}} = 30 \text{ cm.} \quad 30 \text{ cm.} \times 30 \text{ cm.} = 900 \text{ M.}$$

In radiography one M-minute gives a properly exposed radiograph of a finger or of tissue 1 cm. in thickness. In radiotherapy the first reactionary effects appear with a dose of 400 M, which is about equal to 3 H. There is a theory underlying Dr. Guilleminot's work which, we believe, is gaining ground among radiologists. Briefly, it is that the biochemical effects of radiation are purely a function of fixed-application doses. Guilleminot dismisses the talk about the selective action of the rays and the elective action of the tissues by stating that the efficient dose at the vital spot—not, of course, the total radiation—is always constant in its results. The action of the different radiations depends entirely, he says, not upon the supposed specificity of any particular quality or wave-length of ray, but upon the distribution of the absorption of the efficacious dose in the substance of the irradiated tissue. In the establishment of this theory the whole question of filtration and ray-penetration is fully discussed, and the author, who is a radio-mathematician *par excellence*, has placed all radiological workers under a debt to him for his painstaking and truly scientific labours, whatever be the fortunes of the method or the theory with which they are immediately concerned.

## VENEREAL DISEASES.

THE first part of an encyclopaedic work on venereal diseases[4] has recently been issued, and when it is stated

[2] *Roentgen Rays and Electro Therapeutics. With Chapters on Radium and Phototherapy.* Second edition. By Mihran Krikor Kassabian, M D. Lippincott's New Medical Series. Edited by Francis R Packard. M.D. Philadelphia and London: J. B. Lippincott Company. 1910. (Roy. 8vo, pp. 580; illustrations 306. 15s.)

[3] *Radiométrie Fluoroscopique.* By Dr. H. Guilleminot. Paris: G. Steinheil. 1910. (Post 8vo, pp. 178; 12 figures. Fr. 2.50.)

[4] *Handbuch der Geschlechtskrankheiten.* I Lieferung Herausgegeben von Professor Dr E. Finger, Professor Dr. J. Jadassohn, Professor Dr. S Ehrmann, and Dr. S. Gross. Vienna: Alfred Hölder. 1910. (Roy. 8vo, pp. 160. M. 5.)

that the treatise is being published mainly under the direction of Professors FINGER (Vienna) and JADASSOHN (Berne), the quality of the contributions can be relied on. Among the contributors are such well-known writers as Professors Neisser, Blaschko, Buschke, and Dimmer. This first part contains an important survey of the history of venereal diseases by Dr. Proksch, who has devoted much research to the matter, and whose published works on the history of syphilis are so valuable to those engaged in the study of that disease. Here he has made excellent use of his special erudition. Dr. Proksch introduces his contribution by an instructive chapter on prehistoric times and the relations of human venereal diseases to morbid conditions observed in animals, such as dourine of horses, for instance. Coming to historic times, he passes successively in review balanitis, condylomata acuminata, herpes genitalis, and so forth. In the pages devoted to gonorrhoea the author insists, and rightly so, on the experiment of John Hunter, whose great authority and obstinacy led to the idea that gonorrhoea and syphilis were identical, although Tode and others had pointed out that the two diseases differed totally in their evolution, complications, and treatment. It was only years after that Ricord finally demolished the false notion. The various complications of gonorrhoea as affecting various organs are dealt with, as also the important subject of gonorrhoea in women. As to the skin, Dr. Proksch does not allude to that very unusual complication of severe forms of articular gonorrhoeal infection, keratosis blennorrhagica, an excellent coloured illustration of which appears in Fasciculus V of the *Ikonographia Dermatologica*. The most interesting part of Dr. Proksch's essay is, however, that devoted to the historical survey of syphilis. As to the antiquity of the disease, whether Columbian or pre-Columbian, the author considers that no decided opinion can be given, although he appears to lean towards a pre-Columbian origin. The most important part of this chapter is certainly the discussion from the historical point of view of the syphilitic affections of various parts of the body and of the viscera. In the paragraph dealing with the circulatory apparatus due honour is given to the illustrious Morgagni, who recognized the syphilitic nature of the changes observed in the heart and blood vessels, large and small. As to the viscera, syphilitic changes had been observed, in the liver for instance, by the earlier writers on the morbus. But here again John Hunter's authority put things back, simply because he had never observed such changes. Altogether Dr. Proksch's very readable and succinct survey can be strongly recommended. This first part also includes some pages of an essay by Dr. Scherber on balanitis, etc.

Colonel F. J. LAMBKIN'S book on syphilis[5] gives in a small compass a very readable account of the diagnosis and treatment of the disease. It is a good sign to see English works on syphilis succeeding one another, for there is no doubt that proper attention has not been given to this subject. As to pathology, a more detailed description would have been useful. There is no reference to plasma cells, for instance. In the remarks on treatment of gummata, the use of the sharp spoon is not alluded to, yet in some obstinate cases it has proved very valuable. It is possible, however, that the introduction of new antisyphilitic remedies may make this and some other modes of treatment more or less unnecessary. The case of early syphilitic hemiplegia described by Colonel Lambkin should be thoroughly taken to heart. It is too much to expect that such cases will from henceforth always be treated by more potent means than mere pills. The paragraphs on syphilis of the circulatory apparatus are good, and the author is right in insisting on the value of keeping the vessels always in mind when dealing with syphilis. The critical review of the different lines of treatment is very valuable, the *pros* and *cons* being carefully weighed by one who has tried all the methods. Modern workers will readily agree with him as to the value of intramuscular injections and the ineffectuality of the pill treatment. He recognizes the value of inunction properly carried out, but it has disadvantages and in practice, especially private civil practice, the method is one that does not recommend itself to patients. As to the intramuscular injections of insoluble preparations, it is certainly safer to give them in two stages rather than in one as recommended by the author. There are one or two misprints such as 1895 instead of 1905 as regards Schaudinn's discovery of the *Treponema pallidum* (page 8); Ravant for Ravaut; Maries for Marie; and Van Hutten instead of von Hutten. Altogether Colonel Lambkin's survey is one to be recommended, especially as it is written to the point—one might say in a military style. Last but not least, the book is well printed, and has an index.

[5] *Syphilis: Its Diagnosis and Treatment.* By Colonel F. J. Lambkin. With a preface by Sir Frederick Treves. London: Baillière, Tindall, and Cox. 1910. (Demy 8vo, pp. 202. 5s.)

Dr. SAMUEL BAUMGARTEN, in his book on diseases of the male caused by the gonococcus,[6] has produced a very comprehensive summary of his own practice, which has been founded, as he tells us in the preface, on twenty-one years' experience. He has also read extensively, and visited other countries to study the methods as practised there. It is quite exceptional to find a book by a Continental author in which English methods have received so much attention. The greater part of the work deals with the pathology and treatment of urethritis and its surgical complications. This part is almost encyclopaedic in its scope, for the number of methods of diagnosis and treatment mentioned are legion. Whilst admitting that purely expectant treatment in simple acute anterior urethritis is sufficient to cure many cases, the author holds that the inability of most patients to submit to the necessary régime renders other means imperative. He advocates irrigation of the anterior urethra with potassium permanganate solution (1 in 2,000). In the more chronic stages he relies largely upon urethroscopic examination and local treatment combined with dilatation. Full details are given as to instruments, lotions, and technique generally. Drug treatment is likewise fully discussed. The same painstaking attention to detail is also found in the chapter devoted to prophylaxis, which will undoubtedly meet with the approval of many "advanced" practitioners. The medical portion of the book, which deals with gonococcal arthritis and septicaemic conditions, is very weak. The statement is made that serums and vaccines are useless. There is finally a section on the sexual disabilities which may be, in some cases, due to gonorrhoea. There is a good index, but the paper is very thin, and the print shows through. The illustrations are also very poor. The small price is, however, some compensation, as the manual contains much material. Whilst it cannot be denied that most English surgeons would condemn a good deal of the treatment advocated, we are still glad to have this careful account of a Continental surgeon's methods.

[6] *Die durch Gonokokken verursachten Krankheiten des Mannes.* By Dr. S. Baumgarten of Budapest. Vienna: Alfred Hölder. 1910. (Roy. 8vo, pp. 413; 88 figures. 5s.)

## INSANITY.

ENGLISH students of psychiatry are already provided with so many admirable treatises of mental diseases of British and American authorship that the merits of any large and comprehensive textbook must be very great to justify its translation. By translating Professor TANZI'S *Tratatto delle Malattie Mentali*,[7] a work of high distinction, Dr. FORD ROBERTSON and Dr. MACKENZIE, however, place English readers under a deep debt of obligation. Standing in the forefront of the brilliant school of Italian alienists, Professor Tanzi has produced a work so distinguished by all the qualities which make a successful textbook—masterly verbal expression, keen observation, temperate and deliberate judgement, and clear and accurate division of the subject-matter—that the translators' efforts are abundantly justified. It is, in fact, a book which neither student nor teacher can afford to neglect. Also, we take leave to say, that if the translators are to be congratulated on the choice of an author, Professor Tanzi has been no less happy in his translators. To give, in the translation of a work like this, the exact shade of meaning of the author and at the same time to preserve his force and elegance of diction is no light task, but it is one which the translators have well performed.

[7] *A Textbook of Mental Diseases.* By Eugenio Tanzi, Professor of Psychiatry, Florence. Translated by W. Ford Robertson, M.D., C.M., and T. C. MacKenzie, M.D., F.R.C.P. London: Rebman, Ltd. 1909. (Roy. 8vo, pp. 819; numerous illustrations. 24s.)

Though not so divided by the author, the book falls into two parts: the first comprises eight chapters treating of mental disease in general, its causes and anatomical substratum, and the physiology, psychology, and psychopathology of sensibility, ideation, memory, the sentiments and movements, and other external reactions; the second part treats of the individual categories of mental disease, with a concluding chapter on asylums. In considering the first part, Professor Tanzi strives throughout to reduce psychological terms and conceptions to their anatomical and physiological equivalents, and in harmony with this desire describes in careful detail all the essential facts yielded by modern research; but wherever fact and theory are conflicting or uncertain, in particular in the chapters in which special psycho-pathology is discussed, he prefers the guidance of experience and avoids all doctrinal systems. As an example of his impartiality of judgement his discussion of the importance of heredity in the causation of mental disease may be instanced. Here, after mentioning the great objections to accepting the view that acquired characters are transmissible, he states that genuine pathological heredity—the transmission of the same disease—is much rarer than is generally believed. The importance of heredity has been exaggerated, he says, by allowing cases of dissimilar heredity to pass as instances of true heredity, statistical tables having been thus constructed which "have reduced psychiatry to a register of incurable and fore-ordained monstrosities." Dissimilar heredity is "merely the effect exercised by the morbid process in the parent upon the germinal elements or upon the embryo, which is injured thereby, and consequently develops with various defects," and this transmission of weakness from father to son by means of a germ injuriously affected by any external force "has nothing in common with the mysterious process of organic heredity which repeats with precision forms, tendencies, and very special developments through a germ charged with active potentialities." Further, he shows that in compiling genealogical trees writers confound the race with the family—that is, are too prone to consider the family as having biological value, whereas in biology there are no families but only degrees of relationship. As a matter of fact, he considers that all the ordinary bodily processes unite against disease, not in favour of it, and that the descendants of those who have suffered from any disease inherit rather the power of resisting the intruding agents, which have no organic tradition, than inherit the faculty of adapting themselves thereto in the course of one or two generations. We cannot pass by this part of the book without mentioning a hypothesis adopted by the author, and of which he makes much use in elucidating the mechanism of morbid mental phenomena, and that is the existence of special psychical centres in the brain. He adduces much evidence in favour of this hypothesis, and explains by means of it the mechanism of such morbid phenomena as hallucinations, delusions, etc. The second portion of the book opens, as it should, with a clear statment of the author's views of what should be the underlying principles of any classification of a group of diseases—such as mental diseases—in which, unfortunately, the underlying pathological anatomy is still largely lacking. After reviewing and criticizing various classifications, in particular those of Krafft-Ebing and Kraepelin, he gives his own. He accepts, as furnishing the most useful criterion, their probable causation, and in harmony with this scheme considers first those insanities which are the result of external intoxication (pellagra, alcoholism and morphinism, cocainism, etc.); then those due to toxic infections and autointoxication (amentia, uraemic psychoses, thyroid psychoses, and general paralysis); then encephalopathies (acquired idiocy, head traumatism, cerebral syphilis, and apoplectic senile dementia); then affective psychoses (melancholia, mania, and circular psychoses); the constitutional neuro psychoses (constitutional neurasthenia or obsessive psychoses, hysteria, epilepsy); dementia praecox; and, lastly, degenerative mental anomalies (sexual perversion), constitutional immorality, paranoia, and intellectual feebleness or hereditary imbecility). This simple classification shows very well the author's views. It will be noted that Professor Tanzi agrees with Kraepelin in grouping under one common head (dementia praecox), hebephrenia, katatonia, and paranoid dementia, which latter he considers rightly separated from paranoia, but that he retains the classical categories of mania and melancholia as separate clinical entities. Their identity of pathogenesis is, he says, only of theoretical interest, and, even admitting that mania and melancholia have certain relationships, he maintains that all that has been urged for manic depressive insanity only proves that simple mania—in contradistinction to melancholia—is liable to recur; that circular insanity may assume incomplete forms or the form of manic-depressive insanity; that certain cases may at their height be transformed into manic-depressive insanity by the unexpected occurrence of a melancholic attack, and that a similar transformation may occur after a manic attack. He is therefore led to believe that there is a maniacal diathesis and a melancholic diathesis. But with the conceptions which have led Kraepelin and others to formulate certain changes, of which one is the need to view an insanity in its lifelong course and not in its temporary symptomatology, the author is wholly in sympathy. Enough has been said to indicate Professor Tanzi's mode of regard of mental diseases. We have already mentioned the manner in which he sets forth his views and the excellence of his didactic methods. It remains only to be said that the triad of virtues—courage, caution, and candour—said to be essential to the scientist, are conspicuous throughout this admirable work.

In his introduction to the volume giving the results of a clinical study of the alcoholic psychoses,[8] Dr. STÖCKER says that the original intention of his investigations into the further history of the cases admitted and discharged from the Erlangen Psychiatrical Clinic as cases of *delirium potatorum* during the last ten years was to furnish a clinical and statistical contribution to the results of institutional treatment of the alcoholic psychoses. For several reasons, however, this aim was not prosecuted. For one thing, the documentary data were inadequate for the purpose; but he found also, on pushing his inquiries to the homes of the patients, that many cases classed at the clinic as alcoholic psychoses had proved to belong to quite other categories, and that the alcoholic psychosis originally diagnosed was a mere episode in the course of an insanity of different causation. In these cases, therefore, presumably the alcoholism had been merely a temporary exciting factor, and the question arose how far in other cases diagnosed as alcoholic psychoses, and in which no change of diagnosis had been called for, similar conditions might obtain. It is to this latter and deeply interesting question that the original aim of the book was deflected, and to which the author's most diligent researches have been directed. Dr. Stöcker's material comprised some 115 cases; of these, however, 25 had to be excluded as having died or being beyond the reach of examination, and the great bulk of the book consists of detailed accounts of the family and present histories, course of the mental disorders, and the results of repeated examination of each of the remaining 90. They were found to fall into five groups, namely: Chronic alcoholism upon an epileptic foundation, 34 cases; manic-depressive insanity, 27 cases; dementia praecox, 14 cases; other psychoses and psychopathies, 9 cases; and doubtful (*unklare*), 6 cases. Concerning the term "epileptic foundation," it should be said here that Dr. Stöcker accepts as evidence justifying inclusion within this category the following: Bodily signs such as microcephaly, hydrocephaly, cranial asymmetry, the "epileptic physiognomy," and the bony remnants of rickets; and characters such as a history of eclampsia infantum, late bed-wetting, frequent headache, somnambulation, teeth-grinding, etc. In this class also are included the cases of dipsomania or periodic drunkenness (22 cases), which, with many other authorities, he regards as a periodic psychosis; he says that in almost all of his cases within this group of alcohol-epilepsy he was able to ascertain that manifest epileptic symptoms (in the wide acceptation of the term) had existed prior to the alcoholism. As in the epileptic group, so in the four following categories he regards the cases with a view to their whole course and development rather than their symptomatology at any particular time. Thus, in the manic-depressive group, the most were cases of chronic mania; in the dementia praecox group, some would be

[8] *Klinischer Beitrag zur Frage der Alkoholpsychosen.* Von Dr Wilhelm Stöcker, Assistant in the Psychiatrical Clinic, Erlangen. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 298. M. 7.50.)

classed by others as alcohol-paranoia, and so on; but in all cases the author maintains that the alcoholism merely revealed, and at times gave colour to, the clinical picture of the fundamental mental disorders. To sum up, according to Dr. Stöcker (1) chronic alcoholism is in the first line a symptom of mental disorder; (2) it may so excite a latent (and perhaps without alcohol long to remain latent), epilepsy, chronic mania, dementia praecox, etc., that a turbulent symptom complex may suddenly appear; (3) it may for some reason give a particular characteristic colouring to the form of mental disorder so as to disguise its fundamental nature, and (4) it may produce an independent symptom-complex on the foundation of existing mental disease. Dr. Stöcker does not discuss the important question of parental alcoholism as the cause of mental defect or disorder in the offspring, but he wonders, in passing, whether in such cases sufficient consideration is given to the possibly pathological and secondary nature of the parental alcoholism. Theoretical considerations aside, Dr. Stöcker's teaching would seem to be that the prognosis and treatment of the alcoholic psychoses turn upon the nature of the fundamental mental disorder—that the fate of the alcoholic precocious dement is pronounced with the diagnosis; that of the epileptic alcoholic is somewhat better if alcohol is absolutely interdicted; whilst that of the alcoholic manic-depressive may be better still.

A small book, whose title, *Insanity in Every-Day Practice*,[9] sufficiently indicates its scope and aim, by Dr. E. C. YOUNGER, late Senior Assistant Medical Officer at Hanwell Asylum, is now in its second edition. With no pretensions to textbook magnitude or scientific discussion, this brief treatise is meant to be a mere "outline chart" for the guidance of the hurried general practitioner. Well and clearly written, giving excellent advice as to the method of investigating any case of suspected insanity, and the procedure of certification, and containing many practical hints derived from the author's personal experience, this little book well fulfils its author's aims. The classification of the forms of insanity followed is that adopted by the Royal College of Physicians of London, which for most practical purposes is perhaps as good as any other.

The third volume of reports from the department for mental and nervous diseases[10] in the University of Palermo contains fourteen papers dealing with the relation between neurosis and civilization, general paralysis and head injuries, heredity in relation to nervous disorder, periosteal nerves and their termination, vibro-sensation in deaf-mutes, the cauda equina, changes in the sympathetic ganglia after chloroform inhalation, relation between tabes and general paralysis, intestinal neurasthenia, and the influence of alcohol on germ plasm. Of these papers, perhaps the most elaborate is that on the cauda equina, which gives a good historical account of work on that section of the nervous system, with a clinical and experimental study by Delisi, the author of the paper—the whole a very thorough and capable piece of work. The influence of heredity in the causation and propagation of nerve diseases is strongly emphasized in more than one of the papers, and the deleterious effects of alcohol especially mentioned. The paper by Dr. Frisco on intestinal neurasthenia is suggestive and interesting. In the opening paper by Dr. Colella, on neuroses and civilization, it is well pointed out that, whilst the State insists on equal education for all, it cannot provide equality of brains in the children to be educated, and hence a certain proportion of children are subject to an overstrain of the nervous system.

The purpose of *The Law Relating to Pauper Lunatics*,[11] which is now, in response to a demand which has proved its utility, in its second edition, is to present the statute law of lunacy with regard to pauper lunatics together with cases that have been decided thereon. As its author pointed out in his preface to his first edition, published in 1903, the larger works on lunacy law deal with this branch of law in general, and as these are not always readily accessible, and when accessible not always easy of reference, there was a definite need for a book such as this, a compact volume, containing and commenting upon the law but without any theoretical discussion—in short, an entirely practical treatise and guide for practitioners and others who are concerned with the certification or care of pauper lunatics. Although no drastic statutory changes have been made since the appearance of the first edition, certain revisions and additions have been called for and are now included, with particular regard to expenses of maintenance and reimbursement of the same; important decisions in the courts have been recorded and several appendices set forth parts of the Lunacy Acts; the rules made by the Commissioners in Lunacy and the rules in lunacy have also been added. The book is divided into three parts, Part I treating of the Lunacy Acts, and considering, in successive chapters, institutions for lunatics, summary reception orders, lunatics in workhouses, medical certificates, and reception orders, removal and discharge from institutions, miscellaneous provisions, offenders and proceedings, expenses and orders of maintenance, and reimbursement from lunatics' estate. Part II treats of the Criminal Lunatics Acts, and Part III is composed of the appendices already mentioned. The matter of the book is fully and admirably indexed and, further, is prefaced, first, by a useful and complete table of statutes, and secondly, by a table of cases, to which constant reference is made in the text. Numerous cross-references tie together the whole subject-matter and ensure a thorough grasp of the meaning and application of every section of the Act. To medical men who purpose making a special study of lunacy law this small book should prove invaluable, both on account of the light it throws on the Lunacy Acts and for reference on particular occasions for the determination of some knotty point encountered in practice. Medical officers of workhouses and medical superintendents of asylums particularly will find this work of great use.

## OPOTHERAPY AND INTERNAL SECRETIONS.

THE practice of administering the tissues, secretions, and excreta of various animals as remedies for disease reaches back into the dawn of history, and exists at the present day amongst most primitive races. Traces of it are to be found among the civilized peoples of antiquity, from whom it was handed down to our own forefathers, to die out almost entirely in the times immediately preceding the scientific revival of therapeutics in the nineteenth century. Under the new name of "opotherapy" it has been fashionable during the last twenty years, and nowhere can a better account be found of the numerous therapeutic experiments, many of them interesting and suggestive, that have been carried out during that period than in Dr. PAUL CARNOT'S handbook of *Opothérapie*.[12] It is interesting to see that he includes under this heading certain well-established remedies, such as, for example, cod-liver oil, the virtue of which he suggests depends not solely upon its being an easily assimilable fat, but upon its containing certain constituents of the liver which act in a specific manner. For this reason he is inclined to agree with those old-fashioned practitioners who thought the repulsive cod-liver oil of fifty years ago more beneficial than the over-refined modern product, although Dr. Carnot believes that the Norwegian oil, as at present prepared, preserves most of its useful properties, while those elements that were disgusting and harmful in the old oil are eliminated. Another example of a remedy which he regards as based upon opotherapeutic principles is raw meat or raw meat juice, the value of which in the treatment of tuberculosis is widely recognized. In addition pepsin, pancreatin, thyroidin, and adrenalin have gained for themselves secure positions in the materia medica, but each possesses a physiological action which is more or less intelligibly applicable in the treatment of disease, but is there any ground for conceding the principle of opotherapy—namely, that the appropriate means of treating disturbances of the function of an organ—is to be looked for

[9] *Insanity in Every-Day Practice.* By E. C. Younger, M.D.Brux., M.R.C.P.Lond., D.P.H., etc. Second edition, revised and enlarged. London: Baillière, Tindall, and Cox. 1910. (Cr. 8vo. pp. 132. 3s. 6d.)

[10] *Annali della Clinica della Malattie Mentali e Nervose della R. Università di Palermo.* Dal Prof. Colella. Vol. iii. (Imp. 8vo, pp. 435.)

[11] *The Law Relating to Pauper Lunatics.* By Sydney Davey, B.A., LL.B., Barrister-at-Law. Second edition. 1910. London: Poor Law Publications Company. (Post 8vo, pp. 315. 6s.)

[12] *Bibliothèque de thérapeutique de A. Gilbert et P. Carnot: Médicaments animaux—opothérapie.* Par le Dr. Paul Carnot. Paris: J. B. Baillière et Fils. 1911. (Demy 8vo, pp. 614, figs. 90. Fr. 12.)

in the administration of fresh portions of the same organ, or its juices or dried extracts? There seems to be only slender foundation for such a doctrine, but those who desire to learn what can be said in its favour will find the matter fairly set out in this book, together with all they may require to know respecting the methods of preparation and administration of the various organic extracts and juices.

Those who desire to pursue the study of the subject from the physiological side cannot do better than read the book, *Innere Sekretion*,[13] in which Dr. BIEDL has given a very complete account of the present knowledge on the interesting subject of internal secretions, a subject upon which he himself has been a prolific worker. The introductory portion deals with general questions, such as internal secretions as a physiological phenomenon and the importance of hormones in the chemical correlation of the body. This is followed by an account of the individual organs which yield internal secretions, those which occupy the greatest space being the thyroid, the suprarenal, the pituitary, and the pancreas. The work concludes with a full bibliography, extending over 125 pages. Taking a rough average of 40 references to a page, we thus have just about 5,000 references. No student, and very few investigators, have the necessary time, patience, or opportunity to read all these papers, and so every one will be grateful to Dr. Biedl for extracting and summarizing their contents in the pages which occupy the bulk of his work. The book, moreover, is written in a clear and interesting style, and will well repay perusal. We think it deserves translation into English and other languages, so as to ensure a wider circle of readers. We would suggest to Dr. Biedl or to any translator that in future the value of the book might be still further enhanced by the insertion of illustrations, such, for instance, as a few typical blood pressure tracings of the effects of adrenalin, etc., and diagrams to make clearer the development of the pituitary body. Embryological and histological descriptions are rendered more interesting and clearer by the introduction of well-selected drawings and photomicrographs. We note also the absence of an index.

## VETERINARY ANATOMY.

By producing a *Textbook of Veterinary Anatomy*[14] Professor SISSON, of Ohio State University, has conferred a boon on his professional brethren. Within the limits of a volume of convenient size he has dealt with the comparative anatomy of the domestic animals in a systematic manner. Histology and embryology are omitted entirely, no reference is made to the anatomy of the fowl, and after two pages devoted to introduction, the subject of osteology is begun. The arrangements for the purpose of comparative study are those which have been generally adopted by other writers in the past. The horse is chosen for general description; the succeeding sections deal with the ox, sheep, pig and dog. Although comparisons are instituted, yet each animal is fully described and the statements made are far from being a mere assertion of the absence or presence of some particular feature in a viscus, muscle, etc. Thus, the liver of the horse is fully described and illustrated by three figures in which the exact limitations of its various impressions are defined and its peritoneal relations indicated; in the following chapters the ox's liver is described and illustrated by three figures, the sheep's liver has two figures illustrating its text, the pig and dog are also treated in the same lavish manner. The book will be found especially valuable in that the sections devoted to the thoracic and abdominal viscera contain many new facts amplifying the current views in the matter of the relations of these organs to each other. These facts have been obtained by applying to the study of the anatomy of the domestic animals the methods employed by the human anatomist, namely, the injection of formalin and study of frozen sections. Owing to the fact that new works devoted to veterinary anatomy are the reverse of plentiful, it is not a matter of surprise that many alterations in nomenclature are to be found. To the student struggling with a host of new names these alterations are matters of some moment. He finds his dissecting guide using one name and his systematic book another. In the present volume the alterations are in many cases explained by footnotes. The student may further be comforted by the fact that these alterations represent an attempt to establish a uniform nomenclature. All the same, many of the new names are distinctly cumbersome. The os calcis becomes the "fibular tarsal bone," the astragalus the "tibial tarsal bone." The old names, still considered orthodox in human anatomy, have certainly the merit of brevity. It is curious that in the section on myology the principal alterations in names are made in the dorsal musculature of the forearm and leg, though there are some in the muscles of the trunk. One notable alteration may be quoted. The flexor metatarsi of Percivall, Chauveau, and McFadyean undergoes quite a transformation. Following Ellenberger, apparently the muscular portion becomes the tibialis anterior, while the tendinous part, taking origin from the femoral digital fossa, is designated the peroneus tertius. The reason assigned for this alteration is that the old name is inapplicable to the other domestic animals in which the peroneus tertius, as a muscle, is well developed. The curious thing is that the only peroneus hitherto described in the horse is here called the lateral digital extensor. This alteration is apparently the outcome of an attempt to make the muscles of the dog harmonize in nomenclature with those of the horse. It is, however, difficult to see the homology existing between the tendon of the flexor metatarsi and the peroneus tertius in man, and it is from human anatomy that the term has evidently been borrowed. As Paterson remarks, the true peroneus tertius is essentially a human muscle. The only homologue the tendon appears to have in man is the strong intermuscular septum dipping backwards between and affording a surface of origin to the tibialis anticus and the extensor longus digitorum. A step in the right direction is the elimination of the pyriformis from equine anatomy. The subcarpal ligament, owing to its importance in lameness, merited a better description. The supracarpal or check ligament has been, quite properly, included as the radial head of the perforatus. In the section on the hoof, the terms coronary cushion and coronary matrix are used synonymously, whereas it is very necessary to distinguish the horn-producing modified corium from the underlying connective tissue pad. Later, care is taken to observe this condition, for plantar cushion and sensitive frog are distinguished. The surgical bearing of the subject is not forgotten in dealing with various regions. As a compensation for the alterations in nomenclature, the student will find of great use the illustrations and photographs with which the book is so copiously provided. Not only are they numerous, but even in their detail quite clear. The index is comprehensive and well arranged. We have no hesitation in saying that the book is one which can be confidently recommended to both students and practitioners.

## WILD ANIMALS IN CAPTIVITY.

ALL lovers of animals will welcome the English translation of CARL HAGENBECK'S *Beasts and Men*.[15] The book, which is in reality an autobiography, gives an account of the author's experiences for half a century among wild animals. No man has ever had a wider experience or more thoroughly understood and loved animals than Carl Hagenbeck, whose zoological gardens at Hamburg are known all over the world. Born in 1848, the son of a fisherman trading in a suburb of Hamburg, his interest in animals was first aroused by some seals captured in the nets by fishermen employed by his father. The seals were kept alive in wooden tubs and exhibited to the inhabitants of Hamburg upon payment of a penny each person. From this small beginning, by dint of hard work, good business capacity and an absorbing love of animals, Carl Hagenbeck has been able to build a vast trade, for not only is he the possessor of a unique collection, but he also is the largest dealer in wild animals, supplying other zoological gardens and travelling menageries. He is, moreover, a trainer of animals, and the accounts of

[13] *Innere Sekretion.* By Dr. A. Biedl. With a preface by Hofrath Professor R. Paltauf, Vienna. Berlin and Vienna: Urban and Schwarzenberg. 1910. (Sup. roy. 8vo, pp 549 M. 20.)

[14] *A Textbook of Veterinary Anatomy.* By Septimus Sisson, S.B., V.S., Professor of Comparative Anatomy in Ohio State University. Philadelphia and London: W. B. Saunders Company. 1910. (Imp. 8vo, pp. 826. 30s.)

[15] *Beasts and Men.* Being Carl Hagenbeck's experiences for half a century among wild animals. An abridged translation by Hugh S. R. Elliot and A. G. Thacker. London: Longmans, Green and Co. 1909. (Roy. 8vo, pp. 314. 12s. 6d.)

the methods adopted in varying cases are extremely interesting. There are chapters on carnivores, on the great herbivores and on reptiles in captivity, but perhaps the most interesting are those devoted to the methods of capturing wild animals and on acclimatization and breeding; the success which has attended some of his experiments in cross-breeding are not merely of interest to the general reader, but of considerable importance to science in relation to the vexed question of species. In the account of the treatment of animals in sickness one thing is suggestive—it is the importance which Hagenbeck attaches to a plentiful supply of bone diet for all animals suffering from affections of the teeth, to which animals in captivity appear to be very liable. Might not this remedy be of use to human beings also suffering in like manner? One very pleasing feature of the book is the obvious love the author has for all animals under his care, and the insistent note of kindness which runs through the whole and which is nothing but what one would expect from the kindly face of the man as shown in the frontispiece. The abridged English translation, to which there is a "Foreword" by Dr. Chalmers Mitchell, is well done. Altogether the book is delightful reading, full of interest, and, from the abundance of anecdote, full of amusement.

## NOTES ON BOOKS.

THE sale of the first edition of Mr. A. HERBERT HART'S brochure, *How to Cut the Drug Bill*, which was reviewed in these columns last year, has been so rapid that already another edition has been called for. This is in itself sufficient proof that the work has been found of use to practitioners, as we believed it would. The present edition is thoroughly up to date, and some fresh formulae are included.

It must be confessed that Dr. HAROLD A. HAIG'S book on *The Plant Cell*[1] is disappointing, the more so in that it contains much information valuable to the student and many excellent photomicrographs. It is not easy to understand for what class of student it is intended. The first impression is that it has been designed for the use of the beginner, but on the other hand, terms are used, without any indication of their significance, which would not be understood by one without previous botanical knowledge. This criticism applies with special force to the table on page 4, showing the supposed line of evolution of the higher plants. The appendix to Chapter X on the physics of the absorption of water, salts, and gases is too sketchy and not altogether accurate. The book gives the impression of being hastily compiled without sufficient care and forethought having been expended upon either the material or its arrangement. There certainly is room for a book of the character aimed at, and if a second edition should be called for Dr. Haig might, by remodelling the present volume, produce one of great value.

It is essential that in the war against malaria the general public should be suitably instructed. Professor ROSS, realizing this, has published a pamphlet entitled *A Summary of Facts Regarding Malaria*.[2] The pamphlet is specially meant for public instruction, and is published at the nominal price of 2d. so that it may easily be within the reach of all. A description of the malarial parasites and the fever they give rise to comes first, then the mode of infection, then facts about mosquitos, and finally personal and public prevention. Anyone reading the pamphlet, even though possessing no previous knowledge of the subject, should get quite an intelligible grasp of the part that the mosquito plays in the spread of malaria, and it is to be hoped that the work will have a wide circulation and do much good.

*The M.C.C. Chart of the Elements*[3] contains a full list of the known elements arranged in tabular form in accordance with the periodic law of Mendeléeff; it measures 42 in. by 34 in., and each element is allotted a space in which its principal properties, chemical and physical, are concisely described. The chart has evident advantages for teaching purposes.

The subtitle of Dr. HASTINGS YOUNG'S *First Aid to the Sick*[4] furnishes a more accurate description of the scope of the work. "Diseases, their Description and Treatment, a Work of Reference for the Home, Written in Plain Language," gives a fairly correct idea of what will be found in these pages. The author explains that he has attempted to supply a companion work to the manuals on first aid to the injured. This, however, is essentially a popular book on medicine, similar to the many books of that kind with which we are all familiar. It is written in clear language, and the facts seem to be sufficiently accurate. The information goes beyond what is needed for emergencies when a doctor is available within reasonable time, which is the essential of first aid treatment, and is hardly sufficient to enable any one to treat a patient when medical assistance cannot be obtained. Washing out the stomach for dyspepsia (p. 65) does not suggest first aid, and some of the drugs recommended are hardly safe for general use, for example, phenacetin and antipyrin for neuralgia and sulphonal for insomnia. The book may have its uses, but we suggest that the title might be altered with advantage.

SUTHERLAND'S *Dispensing Made Easy*[5] is intended for medical practitioners who dispense, and accordingly no space is devoted to any of those branches of compounding which are not likely to be done by medical men. Practical hints are given for dispensing those forms of medicines—mixtures, ointments, etc.—which are always required in general practice, and useful notes on the arrangement of the "surgery" and other practical matters. Questions of economy have a prominent place, and the employment of the minimum of alcohol by using concentrated liquors, etc., is recommended on this ground. Many well-chosen formulae from various sources are included. The fact that the book has reached its fourth edition shows that its useful nature has been appreciated.

Dr. O'HEA'S little work, *The Rearing of Children*,[6] "has been written under the conviction that there is a very real need for a simple and reliable book dealing with the way in which a child should be reared." In the introduction he writes: "It is for the love of the little ones and to make your noble task the more easy that I present the following pages to you—the mothers of the race." In spite of numerous instances of grandiose writing of a similar nature the work is not without merits. The author's views on infant feeding are sound enough as a whole, and his directions are simple and such as any intelligent mother could follow. The section on infectious diseases is the best in the book. Here there is much less evidence of a desire of parading professional knowledge before lay eyes than there is in many others of the now numerous works on the same subject. The author would seem to have happily selected the points in which mothers and nurses can take an intelligent interest, and thereby aid the efforts of the doctor on behalf of the patient and in the prevention of the spread of infection. His manner of dealing, too, with vaccination and the serum treatment of diphtheria are calculated to remove any scruples that might exist to the employment of these measures. He is less happy in dealing with the treatment of bronchitis in rachitic babies when he states: "A poultice cannot do any harm excepting only when it is applied to a wound, for then there is certainly a chance that it may introduce germs of disease." Notwithstanding this confident assertion of the author, there is now a well-established belief on the part of many authorities that poultices in such cases, by their very weight and associated trappings, may so hamper the laboured respiratory efforts as to lead to atelectasis and subsequent bronchopneumonia. The author, too, would find many to differ from him in his enthusiastic advocacy of steam kettles and steam tents. The value of the little work would not be at all detracted from by the omission of moral maxims which Mr. Jaggers might have characterized as "pious, but not to the purpose."

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[1] *The Plant Cell; its Modifications and Vital Processes.* By Harold A. Haig, M.B., B.S.Lond. London: Charles Griffin and Company, Limited. 1910. (Demy 8vo, pp. 219; figs. 115 and plates. 6s.)

[2] London: John Murray. (Cr. 8vo, pp. 16. 2d.)

[3] *The M.C.C. Chart of the Elements.* Unmounted 5s.; mounted on linen 8s. 6d.; mounted on linen and varnished, with roller, 12s. 6d. London: The Metallic Compositions Company, 353, Gray's Inn Road, W.C.

[4] *First Aid to the Sick.* By D. Hastings Young, M.B., M.S.Edin. London: G. Routledge and Sons, Limited. New York: E. P. Dutton and Co. (Post 8vo, pp. 286; 3s. 6d.)

[5] *Dispensing Made Easy.* By William G. Sutherland, M.B.Aberd. Fourth edition, revised by F. J. Warwick, B.A., M.B.Cantab., M.R.C.S., L.S.A. Bristol: John Wright and Sons, Ltd. 1910. (Fcap. 8vo, pp. 102 and 67 blank. 3s. 6d.)

[6] *The Rearing of Children: A Practical Handbook for Mothers.* By J. P. O'Hea, M.B.Lond., F.R.C.S. London: The Scientific Press, Limited. 1910. (Post 8vo, pp. 184. 2s.)

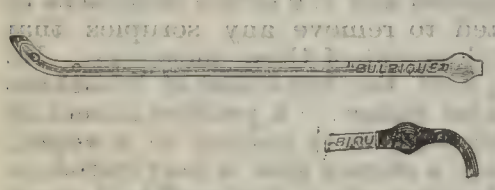
## MEDICAL AND SURGICAL APPLIANCES.

*The "Quantitest."*

On the occasion of the exhibition of medical and surgical appliances at the annual meeting at South Kensington last July we drew attention briefly to a set of apparatus, sold under the name of "Quantitest" and intended to assist practitioners in examining various secretions and excretions. Since that time this laboratory outfit has been materially enlarged and its general design somewhat recast; so it seems desirable to draw attention again to the leading points of the "Quantitest" in its latest form. It is a polished wood box (with a drop front faced with enamel and forming a kind of working shelf) containing apparatus and reagents suited both for qualitative and quantitative analyses of the normal and abnormal contents of the urine, of the stomach (fasting and after test meals), and of the faeces. The tests for each constituent are always more than one, so that conclusions can be duly controlled. The various pieces of apparatus for use with the reagents are all well designed, and, with one or two exceptions, are forms the value of which is already admitted. In addition, there are one or two pieces of apparatus (for instance, one for the rapid estimation of uric acid) which at present are not well known in England, but are esteemed abroad. The use of none of these testing appliances requires more than a reasonable expenditure of time and care to secure highly useful results, and the "Quantitest," therefore, should prove a most informing addition to a practitioner's outfit. The professional clinical research worker is somewhat disposed to pooh-pooh anything in the nature of a rule-of-thumb method of analysis, but there is no valid objection to these methods when soundly devised and carefully carried out. All laboratory methods, indeed, become practically methods of this kind to any one thoroughly versed in their application and who is capable of making elaborate calculations rapidly. Indeed, the expert himself does not attempt to dispense altogether with certain admittedly rule-of-thumb methods—for example, colorimetric tests, such as are a good many of those provided in the "Quantitest." In its preparation and arrangement, Mr. Richard Weiss, Ph.D., who devised it for the Roborat Company, had the advantage of the co-operation of two members of the medical profession, Dr. George Herschell, of London, and Mr. Andrew Charles, of Dublin. Accompanying the case is a very excellent booklet, entitled, *A Manual of Clinical Pathology*, in which each test is carefully described, provided, and the clinical significance to be attached to the results explained.

*An Improved Female Catheter.*

Dr. A. Campbell Stark writes: One of the minor difficulties in general practice is the satisfactory use of the female catheter. The patient is often sunk into the bed in such a manner that the pelvis is at a lower level than the thigh. Passage of the catheter under these circumstances makes it impossible to catch the urine in any receptacle without soiling the bedclothes or undue exposure of the patient. To obviate this I have had a catheter made in which the usual flange is replaced by a bulbous end. To this is readily attached about 2 yards of india-rubber tubing, which grips the bulb and is not easily detached, whereas it frequently fell off the old-fashioned flange end. After passing the catheter, the urine flows into a receptacle placed on the floor. There is secured perfect drainage of the bladder and the minimum of exposure, while it is impossible for any urine to pass on to the patient or the bed. I have long used the same method for emptying the male bladder, and if makers would modify the ends of male catheters in a similar manner I am sure the change would be appreciated. Messrs. C. J. Hewlett and Son, Limited, of Charlotte Street, London, E.C., have made the glass and metal female catheter to my design, and they are in all respects quite satisfactory. It will be known as the "Bulbique" Catheter.



*The Crepe Velpeau Bandage.*

Some years ago we drew attention to the "Eureka" Crepe Velpeau Bandage, and now do so again, as we find that a material improvement has been introduced into its manufacture. Originally the tissue of which this bandage is made was woven in wide lengths, and a piece of the desired width for a bandage cut from it. Hence the edges of the bandage tended to be ragged, and to get more and more so as time went on. But each bandage is now separately woven, so that its edge is level, and wears at the same rate as the rest of the bandage. Another good point is that the selvedge, though perceptible to the eye, cannot be felt by the finger; the discomforts which sometimes occur when ordinary selvedge bandages are used are therefore obviated. The Eureka Crepe Velpeau bandages are light and cool, and in virtue of the fashion in which the tissue is woven present considerable elasticity, quite enough to provide the pressure usually required when varicose veins, sprains, and like conditions have to be treated. For such purposes, as also for use after confinements and abdominal operations, they are excellent. They can be obtained in various widths, and their elasticity is not diminished by washing.

*Telescope Eyeglasses.*

Dr. Kenneth Scott (London, W.) writes: Telescope eyeglasses is the name applied to a special form of spectacles for use in the higher degrees of myopia—from about 9 dioptres upwards. The result is to widen the visual field, at the same time giving clearer definition at the periphery, with freedom from distortion. As originally devised in Germany they presented the somewhat ungainly appearance of motor goggles, and, although smaller in size, were still comparatively heavy to wear. At my suggestion Messrs. Reiner and Keeler (9, Vere Street, London, W.) have succeeded in obtaining a similar effect otherwise, with the result that the outward appearance does not differ in any way, either in size or shape, from an ordinary pair of spectacles or eyeglasses. The heavy framework has been entirely eliminated, whilst the essential advantages derived from the use of a front and a back lens are retained. These lenses are only in contact at their edges, and enclose an air space between their opposing surfaces. They are mounted as a single lens in the ordinary spectacle frame. The effect of this improved form of glasses is, whilst affording equal advantages to those first mentioned, to give markedly greater freedom from aberration, including distortion; and, bearing the appearance of ordinary glasses, are quite as light to wear.

## ROYAL COMMISSION ON THE POOR LAWS AND RELIEF OF DISTRESS.

Statistics of Pauperism in Scotland.

Appendix, Volume XXX, has just been issued; it deals with statistical and other documents relating specially to Scotland.

*Total Number of Sane Poor in Scotland.*

Part I of the report deals with the number of the sane poor relieved by parish councils during the years ending May 15th, 1907 and 1908. Lunatics have not been included, and each person (although he may have been chargeable several times during the year) is reckoned as one case only.

The number of poor relieved during the year ending May 15th, 1907, was 147,660, being equal to 330 per 10,000 of the population, according to the census of 1901. Of that number, 90,073, or 201 per 10,000 of the population, were paupers or heads of families, and 57,587 were dependents or the wives and children of paupers. During 1908 the number of poor relieved was 150,456, being equal to 336 per 10,000 of the population. Of that number, 91,126, or 204 per 10,000 of the population, were paupers or heads of families, and 59,330 were dependents or the wives and children of paupers.

*Duration of Chargeability.*

Of the total number of poor relieved during 1907 it is found that 6.8 per cent., were chargeable for not more than 1 week; 24.0 per cent. for over 1 week but less than 3 months; 10.1 per cent. for 3 months but less than 6 months; 12.9 per cent. for 6 months but less than a year; and 46.2 per cent. were chargeable for the whole year. The percentages for 1908 are much the same.

Institutional relief was given to 83 per 10,000 of the population; out-door relief to 239 per 10,000 of the population; and relief, partly institutional and partly out-door, to 8 per 10,000. Institutional pauperism is mainly composed of male adults, and out-door pauperism of female adults and children.

*Ages of Persons in Receipt of Relief.*

Taking first the children, the ratio to population increases up to the age of 14, the risk of a child losing one or both parents increasing as age advances. After the age of 14 a considerable drop occurs. In the case of girls, the decline in the ratio commences at 13, which seems to suggest that many girls go to work at that age. With boys, the decrease in the rate does not commence until after 14.

The rate of local pauperism to total population continues to decline until the age of 24 is passed, but the slight drop at ages 20 to 24, as compared with the age-group 15 to 20, is due to the latter group including a certain number of children aged 15 to 16, at which age the rate would be higher than for ages 16 to 20.

*Lower Rates of Aged Pauperism in Scotland.*

The difference between the English and Scottish rates of pauperism is accounted for by the smaller proportion of aged persons coming upon the Scottish Poor Laws, and the smaller proportion is found in the case of both aged men and aged women. Thus while in England the rate per cent. of those receiving relief over 60 years is 14.71, in Scotland it is only 8.64. It is difficult to account for this important feature of the Scottish statistics. The Scottish people are engaged in agriculture to a greater extent than in England, and it may be that persons so employed are able to carry on their occupation to a greater age than persons employed in other industries. Moreover, the crofting system in the Highlands and Islands would tend to keep the aged off the rates, for the aged crofters who are past work continue to reside on their crofts whilst the family carry on the work. But these circumstances could not wholly account for the difference between the English and Scottish statistics of aged pauperism. Whether other factors must be sought in greater self-reliance and thrift, in the aversion to apply for relief, or in a more wholesome recognition of filial responsibilities can hardly be determined by these statistics.

*Geographical Distribution of Pauperism.*

The variations in the extent of pauperism in different areas are even greater in Scotland than in England and Wales. Scotland has a few large industrial centres similar, in nearly all respects, to many of the great manufacturing centres in England and Wales; but on the other hand there is no part of England and Wales which at all resembles the unproductive, thinly populated, and impoverished districts of the West and North-West Highlands of Scotland, and it is in the latter areas that the highest rate of pauperism is found. For example, in Peebles the rate on March 31st, 1906, was 7.7 per 1,000 of the population in 1901, while it was 41.0 per 1,000 in Sutherland.

First and prominent amongst the causes of this variation is the difference in the distribution of the aged population in the different counties. For instance, the number of persons over 60 years of age per 1,000 of the population in 1901 was 53.3 in Lanark and 161.3 in Zetland. The five counties with the highest proportion of aged population are Zetland (161.3), Sutherland (157.9), Orkney (152.4), Caithness (143.2), and Ross and Cromarty (134.1). These results are produced by the migration of the younger people from these poor districts to the industrial centres and the richer agricultural districts, where they find a more active market for labour. But for the aged who remain the living obtainable is but a poor one, and a larger proportion of them become dependent on poor relief than is the case in Scotland generally.

The remainder of the report deals with a summary of recommendations received from parish councils as to the care and treatment of paupers under their charge, along with other matters relating to municipal relief funds, the homeless poor, and the Elberfeld system of relief.

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MESSRS. CORBYN, STACEY, AND CO., LIMITED, have been honoured with the Royal warrant of appointment as chemists to His Majesty the King. This company were similarly honoured by His late Majesty.

THE fifteenth International Congress of Hygiene and Demography will be held in Washington, D.C., from September 23rd to September 28th, 1912. Dr. John S. Fulton is Secretary-General of the Congress. Professor G. H. F. Nuttall of Cambridge is the Honorary Secretary of the British National Committee for International Congresses of Hygiene and Demography.

## THE HONOUR OF THE MEDICAL PROFESSION.

A FULL report of the action for damages for alleged negligence in the performance of an operation against Mr. Charles Ryall, F.R.C.S., was published in the JOURNAL of January 21st. It ended in a verdict for the defendant, and we join with Mr. Lynn Thomas and Mr. Swinford Edwards in congratulating Mr. Ryall on the issue.

The case undoubtedly raises questions which are of importance to the whole profession.

In a letter published on January 28th (p. 229) Mr. Lynn Thomas expressed the opinion that some means should be devised whereby members of the medical profession might be safeguarded against certain risks which seem now to attend attempts to advance the progress and practice of medicine and surgery. In brief, his suggestions are (1) to formulate a code of ethics which shall govern the conduct of practitioners when called upon to appear in a court of law in a case in which the professional integrity of another practitioner is questioned; and (2) the institution of a tribunal before which the practitioner may be tried for violating the terms of the code. At first sight it might seem that these proposals were more ideal than practical, for the Central Ethical Committee of the Association has found that the formulation of a code to govern consultations between members of the profession has proved a tedious and difficult task. Even if the code now suggested were elaborated in detail, the attempt to constitute a competent court would fail if undertaken by a voluntary organization like the Association, on account of want of legal powers, and, if undertaken by the General Medical Council, on account of the limited sphere of activity of that body and the inelastic regulations under which it must act. Such criticisms indicate, indeed, that the existing machinery in this country is incapable of performing the functions suggested, but do not exclude discussion of the question whether the Legislature could not create machinery which would fulfil the purpose.

Experience teaches that, with regard to medical matters at all events, a proposal involving considerable changes will more readily command the requisite public interest and parliamentary support if it can be shown that somewhere else similar steps have already been taken with beneficial results. We are fortunate, then, in being able to point to the existence of a tribunal of a nature not unlike that proposed, and in being in a position to show that this tribunal has effected much that we would desire to see effected in this country. As will be seen later, a modified system of the German *Ehrengerichte*, or Courts of Honour, would go far to remove certain conditions detrimental alike to the welfare of the public and to that of the profession. The object has been to establish a system which, while not diminishing the protection of the public from ignorant or careless action on the part of members of the medical profession, shall at the same time safeguard the profession from legal proceedings which, though tending to impede the progress of science, are yet supported in the witness-box by medical practitioners unacquainted, except by hearsay, with the circumstances of the case in its urgent or acute stage, and unacquainted also with the fact that the treatment was justified, not only by the urgent demand of the moment, but also, perhaps, by the deliberate judgement and practice of other operators or physicians.

*The German "Ehrengerichte."*

In order to place the reader in possession of the facts in relation to the *ärztlichen Ehrengerichte* and *ärztlichen Ehrengerichtshof*, a few particulars must first be given as to the constitution of the *Aerztekammer*, or Medical Chambers, and as to the authority they exercise. The profession in Prussia is divided into sections corresponding to the parliamentary electoral areas, and each section has its own chamber or *Kammer*. All medical men whose names are on the register have a vote for their representative on the *Aerztekammer*, save military and naval surgeons either on active service or on leave. In the same way every medical practitioner is eligible for election to the *Kammer* in the division in which he resides. The status of these chambers is determined by a royal decree dated May 25th, 1877, modified by a second decree dated

January 23rd, 1899. In the latter it is set forth that the contents are to be published in the code or collection of laws, and it was thus given statutory recognition. The object of the institution of these *Aerztekammer* was the maintenance of the honour and interest of the medical profession. On November 25th, 1899, a Prussian law came into force dealing with medical courts of honour (*ärztliche Ehrengerichte*).

*Constitution.*—One court was instituted for each division represented by a medical chamber (*Aerztekammer*). It consists of five members—the chairman of the *Aerztekammer* or his official representative, three other members of the *Aerztekammer*, and a legal member who is appointed for a term of six years from one of the courts of justice. The four medical members are appointed by the *Aerztekammer*. Substitutes for each member are also appointed. The medical members do not receive any remuneration, but are allowed expenses for travelling and living when occupied on the business of the court. The legal member receives fees as well as expenses.

*Powers.*—The courts of honour are instituted for the purpose of upholding the prestige of the medical profession, and deal with disputes between two medical practitioners, between a practitioner and another person, and with charges against a medical practitioner. They can only deal with matter affecting medical men in the Prussian Monarchy, and have no jurisdiction over registered practitioners who are officially subjected to another disciplinary court, or over military or naval surgeons during the period of their service, whether actively employed or on leave. The court has power to take evidence on oath, to take evidence on commission, to summon witnesses and to compel witnesses to give evidence, even when the evidence deals with disputes between two practitioners. It can deal with persons convicted in various ways, including (1) by caution, (2) by reprimand, (3) by fines up to £15, and (4) by temporary or permanent disfranchisement as far as the *Aerztekammer* is concerned. It cannot remove the name of a practitioner from the register; this can be done only by an ordinary court of law. The proceedings of the *Ehrengerichte* are suspended if the charge becomes the cause of action in an ordinary court of law. A large number of minor conditions further limit the powers of the court without diminishing its plenary powers to carry out its legitimate functions.

### *The Ehrengerichtshof.*

There is one *Ehrengerichtshof*, or appeal court of honour. This court has jurisdiction over the whole monarchy, and consists of the Chief of the Medical Department of the Ministry of Medical Affairs or his legal representative, four members of the central chamber (*Aerztekammerausschuss*) and two other medical men. Its powers are similar to those of the *Ehrengerichte*, but somewhat wider, in correspondence with its character as a court of appeal.

### *Procedure.*

The procedure in the *Ehrengerichte* is clearly prescribed, and works smoothly. Before the case is tried by the court a preliminary examination is undertaken by the official commissioner for examination or inquiry. This examination is originated by a resolution of the court of honour, in which the charge must be set forth, but the court can refuse to open the matter at all, on legal grounds or because the evidence as to facts is insufficient. Next a statement by the Commissioner is put in, and lastly a statement by the prosecution. The Commissioner is usually nominated by the legal member of the court. The prosecution is undertaken by the nominee of the *Oberpräsident*, who holds a position somewhat similar to that of the Lord Lieutenant of a county in this country. The defendant must be summoned to the preliminary examination, and may attend if he chooses. The witnesses are only put on oath at this stage if the nature of the evidence appears to render this necessary. The Commissioner has the power to determine when sufficient evidence has been taken to justify him in sending the case for trial to the court. Each step in the procedure has to be communicated to the defendant, who may secure the services of counsel or of another medical man to undertake or support his defence, and can claim to see the papers in the case. The trial is conducted in the manner usual in German courts. The proceedings take place with closed doors. In this connexion it may perhaps be well to say that the German procedure presents certain defects which should be avoided. For example, the practice of permitting witnesses to put questions to other witnesses frequently leads to confusion. Discussions between witnesses, too, are not conducive to order or to amicable settlements. In other respects the evidence is taken much as in this country; the prosecutor ends his case by a speech, in which he asks for a verdict for his client, and also for a definite sentence which he claims is deserved; the case is closed by an address by the defendant or his counsel. The verdict is determined by a majority of the votes of the members of the court, but for a verdict of guilty four out of the five must agree. The prosecutor or the defendant can appeal against the verdict of the *Ehrengerichte*, and the case will then come before the *Ehrengerichtshof*. The other party can object to an appeal, but the decision lies with the *Ehrengerichtshof*. In any case, no appeal will be heard if it is based on new facts which could be made the basis of a fresh action. In the court of appeal a verdict adverse to the defendant must be found by at least five out of the seven members, while a verdict of acquittal can be given by a bare majority. In conclusion, it may be stated that all the proceedings of the court and the official documents must be kept in accordance with the ordinary rules of law courts, and must be submitted by the chairman once a year to the *Oberpräsident*. The court is placed under the same authority as the county court.

### *The Code on which the Court Works.*

The Act states very definitely the purpose for which the courts exist. The third paragraph reads as follows:

A medical practitioner is in duty bound to practise his calling conscientiously, and to show himself worthy of the respect due to his calling, both in his conduct in the practice of his calling, and also in his conduct without the practice of his calling.

A medical practitioner who neglects to carry out the duties thus imposed on him merits the punishment of the court of honour.

Political, scientific, or religious actions or views as such may never form the basis of an action in a court of honour.

On the request of a medical practitioner, a decision with regard to his behaviour must be given by the court of honour.

### *Past Action of the British Medical Association.*

The unsatisfactory state of affairs with regard to the manner in which medical practitioners have given evidence against other medical practitioners, or in contradiction to the evidence of other medical practitioners, has long been recognized by the Association. In 1903–4 the Medico-Political Committee conducted an inquiry as to the desirability of consultations being held between medical witnesses in cases likely to be brought before courts of law. A memorandum was drawn up and submitted to the Divisions for consideration and report. At the Representative Meeting at Oxford in 1904 a report embodying an analysis of the results was presented. This analysis showed that of 108 Divisions replying, 46 considered that it would be desirable for such consultation to take place, 33 thought that it would be undesirable, while other Divisions either thought that the scheme was impracticable or that it should be governed by special conditions. The Representative Meeting decided to refer the matter again to the Divisions, with an explanatory memorandum. Some Divisions had feared that the consultations might be regarded in law as collusion, but this objection the Medico-Political Committee was satisfied would not arise where it could be shown that the consultation was held for the purpose of ascertaining the fact of the case. Other Divisions had expressed the opinion that it would be preferable to avoid conflict in medical evidence by the appointment of medical assessors, rather than by the institution of consultations between medical witnesses. With regard to this point, the Medico-Political Committee expressed the opinion that while the appointment of medical assessors would certainly be advantageous both to the public and to the profession, this should not be proposed in substitution for the system of consultation of witnesses but should be dealt with as an independent reform. The Divisions considered the memorandum, and at Leicester in 1905 it was reported that 58 Divisions approved of the principle of consultations, 6 were opposed to it, 4 preferred that no rule should be

laid down, 3 still preferred the appointment of assessors, and 1 was of opinion that the consultations would be undesirable in Scotland. The principle was approved at the Representative Meeting (1905). The following quotation gives the general conclusions on the principles of consultations of medical witnesses submitted by the Committee to the Divisions:

1. Medical evidence in legal cases is of two kinds:
   (*a*) Questions of fact—for example, as to the amount of injury or disease present in the patient;
   (*b*) Questions of opinion and expert knowledge.
2. Medical evidence at the present time suffers from the disadvantage of being occasionally conflicting under both heads, and differences between medical witnesses in their statements as to questions of fact expose them to accusations of partisanship, which are prejudicial to the credit of the profession and to the value of medical evidence.
3. The determination of matters of fact must be arrived at by the ordinary methods of medical examination, and such examination for purposes of evidence is clearly best carried out by the witnesses for the two sides simultaneously, in order that the condition of the patient may be observed by both at the same time and under the same circumstances.
4. Such associated examination has the further advantage that it diminishes the danger of any material fact being overlooked by the medical advisers of either party.
5. This system would in many cases put each party in more complete possession than they could otherwise enjoy of the knowledge obtainable by medical examination, and would thus diminish the number of cases which now only come before the courts through imperfect knowledge of material facts by one or both parties. The diminution of litigation thereby affected would benefit not only the parties immediately concerned but also the community.
6. Although it is not supposed that such combined examinations would necessarily be followed in every case by ordinary consultation between the medical practitioners concerned, yet such consultations should as far as possible be held.
7. The procedure above indicated has the great advantage, both to the profession and the public, that it tends to place the medical witness in his true position as a witness of scientific fact, and not as an advocate or partisan of the party by whom he is employed.
8. The above considerations have for a number of years governed the action of many medical practitioners, and the procedure now suggested for more general adoption by the Association was carried out with success by the profession in Leeds, the effect being that the estimation of professional evidence in that district was unquestionably raised, and both judges and leading members of the Bar expressed their emphatic appreciation of the good results attained.

It thus appears that the British Medical Association has approved of the principle of medical practitioners meeting in consultation before appearing as witnesses in cases involving allegations of negligence or carelessness, for the purpose of ascertaining what was actually done, what the condition of the patient was at the time when the treatment was applied, and whether, under the circumstances obtaining at that time, the practitioner was justified in following the course selected.

In comparing this country with Germany, it may be asked, how far the machinery of the Prussian *Ehrengerichte* and *Ehrengerichtshof*, and the standard of ethical behaviour applying to these courts, satisfy the requirements. Is it possible to establish a code of rules to serve as a guide to medical witnesses called upon to give evidence in cases in which wrongful treatment is alleged? By the Prussian code, it must be remembered, political, scientific, and religious actions are excluded from the courts of honour, but at the same time, the practitioner can be called upon to show that he has practised his calling conscientiously, and has maintained the dignity of his profession. If a surgeon or a physician conducts his practice honestly, carefully, and conscientiously, if he applies methods of treatment which his experience teaches him are applicable in a particular case, and if he gives the necessary attention to important details in his treatment, no medical man who holds views which do not coincide with those held by the surgeon or physician is justified in discussing in a court of law the propriety or otherwise of the employment of the measures used. The case would not hinge on the real value of a scientific procedure: it would turn on the honesty and carefulness of the practitioner, and would, therefore, be admissible in the *Ehrengerichte*. If such a court were instituted in this country, it might, however, be advisable to draw up a slightly more definite code. An addition might be made to the effect that it is the duty of every medical practitioner to promote the advance of medical and surgical science by recognizing rational new methods of treatment and that damaging evidence given in a court of law against another practitioner who has utilized such reasonable new methods of treatment is a breach of duty. It would seem that the standard or code should be as wide as possible, and that cases raising new issues should be determined by precedent or the special merits of the case, rather than by hard and fast rules. This principle has governed the Central Ethical Committee of the Association in the discharge of tasks often both delicate and difficult.

While it is necessary to protect the honest and careful practitioner who seeks to advance the art of medicine and who keeps himself abreast of the progress which is taking place throughout the civilized world day by day and gives his patients the advantage of this progress at the earliest moment warranted by his judgement, there can be no desire to shield a careless member of the profession. The Prussian code meets this by providing that the practitioner must carry out his duties conscientiously. The conditions required are therefore complied with, at all events on paper. In actual practice, we find that in Germany some recent prosecutions of quacks have disclosed a striking degree of solidarity among the reputable members of the medical profession. It is quite possible that the *Ehrengerichte* need not exist to prevent medical practitioners of high standing from acting as partisan witnesses for the plaintiff or for the defendant in such cases. At all events, the miserable figure of the medical witnesses for the defence in certain quack cases heard recently in Germany contrasts markedly with the appearance of the witnesses called by unqualified practitioners in certain cases in this country.

The question whether it would be wise to press the legislature for the institution of courts of honour having definite legal powers and acting under the authority which controls the other courts cannot be answered without mature consideration and without taking into account the practical and theoretical difficulties. No useful purpose would be served unless a plan could be put forward which would have a reasonable chance of success. The support of the profession alone might be insufficient to guarantee this success; proof must be adduced that the scheme is not only of practical importance and soundness, but that it would be as much to the interest of the public as to that of the medical profession.

Were the conditions different in this country, it might be well to consider the advisability of imitating the Prussian example by urging the setting up of a Department of the Government to deal with medical affairs. But we have to face matters as they are and not as we would wish them to be, and we must ask ourselves whether there is any chance of the institution of a Governmental Department with a Secretary of State who must be a member of the medical profession. Some other method would have to be followed if the establishment of courts of honour, partly medical and partly legal, were deemed desirable. Local courts could be organized by the existing machinery of the Divisions of the British Medical Association. The Divisions could elect representatives to sit on the court, and the Crown could appoint the legal member, if the Prussian plan were adopted. Were this plan followed the essential factor might be found to lie in the power of the courts of honour to compel witnesses to attend the court on being served with a summons, and to give evidence on oath. Much consideration would be needed in deciding on the constitution of the court of appeal and in determining what powers should be retained by the General Medical Council, and with what powers the court of appeal should be endowed.

Many modifications of the Prussian system would no doubt be found advisable if the Association were to take up this matter and consider the best and most practical solution of a very difficult problem. Several auxiliary means could be suggested, including the appointment of medical assessors, which has already been referred to, and the somewhat complicated system in vogue in Germany of first, second, and final assessors. The task would no doubt be difficult, and it would be foolish to attempt to minimize the difficulties at the outset; but the difficulties which the members of the profession in Germany had to face were probably neither greater nor less, and the character of the changes brought about not less radical. What has been done elsewhere could surely be done at home. The condition for success is unity and strong determination.

## SCIENCE NOTES.

AT a meeting of the Royal Society on January 26th Dr. G. C. Simpson and Mr. C. S. Wright reported the results of observations on atmospheric electricity over the ocean which they had made on the voyage from England to New Zealand in the antarctic ship, *Terra Nova*. One of the points noted was that the quantities of radio-active products found in the air is decidedly less at sea than on land; a specially low value both north and south of the equator was found in latitudes from 30° to 40°. This is ascribed to the fact that the air in these latitudes is supplied by pure air descending from the upper parts of the atmosphere, while it is mainly the air which has passed over land which carries radio-active products with it. These observers also found that the ionization over the sea was smaller than over land.

Four papers published recently by Drs. Berry and Robertson and Mr. Stuart Cross[1] have more than one merit in common. In his study of 100 Australian Aborginal Crania, Dr. Robertson concludes that, while the Australians are not so homogeneous as certain supposed homogeneous series, they are less heterogeneous than some other races. The inter-relationship of their cranial measurements is found to be low, but higher than that found in most modern races. The conclusion of a comparative study of Tasmanian, Australian, and Papuan skulls by Drs. Berry and Robertson and Mr. Cross is expressed in the following terms: "We do not definitely state that the Australian is a dual type; we merely maintain that biometrical investigation proves that the Tasmanian is the purest of the three racial types here compared, the Papuan is the least pure, and the Australian is about midway between the two; this, however, is evidence which those ethnologists who maintain the duality of the Australian aboriginal will doubtless welcome and make the most of it. Apparently it is one more link in the chain of evidence concerning the heterogeneity of the Australian as contrasted with the homogeneity of the Tasmanian." An elaborate investigation of fifty-two Tasmanian skulls, twenty-seven measurements having been made upon each cranium, leads Drs. Berry and Robertson to think that, while among modern races the Tasmanian stands next to *Homo fossilis*, he has morphologically progressed a very long way from *Homo primigenius* and the anthropoid apes. They are not at present prepared to assign definitely the position of the Australian aboriginal with respect to the Tasmanian, but are disposed to think that the former is on the positive side. The last paper of the series, by Mr. K. Stuart Cross, is an inquiry into the importance of various craniometric characters as criteria of evolutionary rank, and offers a very ingenious method of assigning proper weight to each measure. The matters raised in this paper deserve further attention, the question being evidently one of much importance to craniologists. The principle of correlating grades or ranks which is involved is one demanding great caution in its employment, since fallacies easily occur. We do not, of course, mean to suggest that Mr. Cross's method is incorrect, but merely that the subject is too technical for extended notice in these columns. These four papers conform to a high standard of scientific method, and reflect great credit upon their authors.

Apart from its surgical possibilities, the grafting of complex organs and tissues is a matter of much interest. The effect which transplanted organs exert upon the general metabolism or upon special functions, and the changes which supervene in the grafts themselves have thrown light upon not a few obscure problems. The results, however, are still very conflicting. A series of researches, relating chiefly to the sexual organs, were carried out during the past year by C. C. Guthrie, and although not particularly novel or conclusive, they may be worth mentioning. In some of his experiments he fixed pieces of ovaries or testes under the skin or in the peritoneal cavity of fowls. When near blood vessels, ovarian tissue grew quite well in chickens, while testicular tissue was found to develop sperms. When exchanged between the sexes, no definite results were obtained. Removal of the ovaries, as is well known, tends to induce secondary masculine characters, but when other ovaries are grafted in their place, such characters do not appear except when the grafts degenerate. Guthrie instances a striking case in which transplanted ovaries degenerated, and the hen developed male characters very rapidly, showing in a short time the cock's comb, wattles, long hackle, and tail feathers, as well as the spurs, and its behaviour was that of a male; it fought with the cocks and was attracted by the hens. In another experiment he removed the ovaries from a young guinea-pig, and grafted in the same animal one of the ovaries from its sister. The ovary functioned, and the guinea pig gave birth to two young.

*La Nature* furnishes an interesting summary of the most important work in anthropology during the past year. Pride of place is given to Frazer's well-known book on *Totemism* and to Lévy-Bruhl's *Fonctions mentales dans les sociétés inférieures*. The latter has sought to illustrate the permanent laws of thought in primitive races by reference to their customs and beliefs, and he has succeeded in presenting a picture of their whole mental life, and to some extent their material life as well, which is probably the most important effort of the last thirty years, since, in fact, Tylor's *Primitive Civilization*. Comparison of these two works gives us, indeed, a very good idea of the increase in our knowledge on this subject. The significance and importance of Frazer's gigantic work has been widely appreciated. Totemism is undoubtedly one of the greatest ethnographical discoveries of the present time on account of the light which it has shed on the origin of numerous institutions, and in particular on the birth of the idea of family. In regard to palaeontology the year has not been particularly rich. No new discovery has been unearthed, but, on the other hand, the results of the preceding years have been added to and elaborated. The discovery, however, of a second skeleton at Ferrassie, and Boule's work on the Chapelle-aux-Saints man have been of considerable importance, and have done much to increase and substantiate our knowledge of the earliest race in Europe—the Neanderthal. From an examination of the cranium of the Chapelle-aux-Saints man and a consideration of its capacity, Boule has come to the conclusion that the Neanderthal race was of a decidedly low type. He has at the same time attempted, somewhat ingeniously, to reconstruct the configuration of the brain, and to deduce from that some idea of the mental ability of the primitive race. He suggests, for instance, that if the old theory of cerebral localization be admitted, the Neanderthal was a man of few words. Possibly he was almost inarticulate and prone to gesture, like many of the primitive races at the present day. The brain shows an irregularity in the development of the two hemispheres, the left being larger than the right. This is a feature of the modern brain, and is supposed to be associated with right-handedness, so that we may conclude that even at that early period man had ceased to be ambidextrous. From other evidence the existence of a certain complexity of sentiments and religious ideas is conjectured. With regard to ethnography, from the nature of the subject it is impossible to characterize succinctly the progress in any one year. The study of living races is a slow and steady progression, to which novel and startling discoveries are altogether foreign. The most important contributions are probably those dealing with Australia. The discovery of the New Guinea pigmies, of which a good deal was made in the English press, is really of no very far reaching importance. The theory that such races are the survivors of particularly primitive types has long been exploded. In archaeology the discoveries have also been few. The Pelliot expedition to Turkestan, however, shows signs of great promise, and will probably throw invaluable light on the history of Buddhism in Northern India and Central Asia, as well as on the march of religion and civilization towards the West.

[1] (1) "Craniological Observations on the Lengths, Breadths, and Heights of a Hundred Australian Aboriginal Crania." By A. W. D. Robertson, M.D. (2) "A Biometric Study of the Relative Degree of Purity of Race of the Tasmanian, Australian, and Papuan." By R. J. A. Berry, M.D., A. W. D. Robertson, M.D., and K. Stuart Cross, M.Sc. (3) "The Place in Nature of the Tasmanian Aboriginal as Deduced from a Study of his Calvarium." By R. J. A. Berry and A. W. D. Robertson. (4) "On a Numerical Determination of the Relative Position of Certain Biological Types in the Evolutionary Scale, and of the Relative Values of Various Cranial Measurements and Indices as Criteria." By K. Stuart Cross. (*Proc. Royal Soc. Edinburgh*, XXXI, 1910, pp. 1 to 84.)

## THE LONDON HUNTERIAN FESTIVAL.

THE Hunterian Festival was celebrated by the Royal College of Surgeons of England on February 14th. The Hunterian Oration, published e'sewhere in this issue, was delivered by Mr. Edmund Owen in the afternoon, and, as is the custom every second year, the President and Council entertained a large number of guests at dinner in the evening. The dinner was held in the library, and the President, Mr. BUTLIN, was in the chair. Amongst the guests present were the Lord Mayor of London, Viscount Goschen, Lord Sandhurst, Lord Blyth, Lord Ilkeston, Lord Leconfield, the Bishop of Bristol, Sir Schomberg McDonnell, Sir Herbert Maxwell, Mr. Walter Long, M.P., the Medical Director of the Royal Navy (Sir James Porter, K.C.B.), the Director-General of the Army Medical Service (Surgeon-General W. L. Gubbins, C.B.); the Presidents of the Royal Institute and the Royal Society of Painters in Water Colours, of the Royal Institute of British Artists, and of the Royal Society of Medicine; the Sheriffs of the City of London, the Governor of the Bank of England, the Treasurers of Lincoln's Inn and Gray's Inn, and the Masters of the Companies of Clothworkers, Armourers and Braziers, Grocers, Salters, and Leathersellers.

After the usual loyal toasts had been duly honoured, and the memory of John Hunter had been drunk in silence, the PRESIDENT proposed the toast of the Visitors, which he coupled with the name of the Lord Mayor, recalling the fact that when the surgeons separated from the barbers it was to form the corporation of surgeons, with its master and court of assistants and its dwelling place in the Old Bailey. He thought their City guests, particularly the Masters of the City Corporations who honoured the College with their presence, would like to know whether the College maintained the traditions of the Corporations—in fact, how the College disposed of its revenues. The College rarely appeared in lists of donations or subscriptions. It had been suggested to him that the Council of the College spent the money on themselves, and that he, the President, received an income of £5,000 a year! He only wished it were so. But he was sorry to say that no salary was attached to the offices of president, vice-president, or member of the Council. There were no pensions or sinecure offices, no almshouses for decayed members of the Council, no schools for the education of their children. Even the hospitalities of the College were very limited—a dinner once in two years, or, at most, one dinner a year. But the Council was going to show its guests that night the way in which it spent its income. The museum had been specially lighted for the purpose. It had been in their possession for about 110 years, and it had been computed by those who compiled the guide-book for the British Medical Association last summer that it had cost the College more than £500,000. He could not say certainly if this were so, because, although the accounts of the museum were separately kept, no charge had been made on it towards the secretarial department and general up-keep of the College; but he knew that the College had spent out of its own money more than £100,000 for buildings alone, and he thought the estimate was probably not exaggerated. It might be said that, after all, the museum was the property of the College, and it was not a matter of interest to the outside world whether it cost much or little. That was not the case. The museum did not belong to the College. It was a national museum, and he doubted whether there was any similar instance of a national museum being kept and paid for by a private body like the College of Surgeons. The history of the museum was that it had been collected in the course of thirty or more years by Mr. Hunter, who declared that he had spent £70,000 upon the 13,000 specimens of which it consisted. At his death, in 1793, it was the only property he left to his widow and her two children. It was offered to the nation, but Mr. Pitt was advised not to purchase it, as it was not of national interest. Six years later, just as it was on the point of being dispersed and sold bit by bit, Lord Auckland and some other distinguished persons persuaded the Government to buy it for £16,000. When they had done so, Mr. Pitt did not know what to do with it, and offered it on trust to the Corporation of Surgeons. On their acceptance of the trust a sum of £15,000 was provided by the Government to house it. In the last 110 years the Government had furnished altogether just over £57,000 for assistance in building fresh accommodation. But the College had provided nearly twice as much for that object, and had maintained and enlarged the museum entirely at its own expense. Yet, it still remained a national museum, guarded by thirty-one Hunterian trustees, many of whom were trustees by virtue of their office, as the Lord Chancellor, the Prime Minister, the Speaker of the House of Commons, the Ministers of the Navy and the Army, and others. The trustees meet regularly every three months, and visited the museum when they would. The Council of the College was only represented among the trustees by the President. So strict were the regulations that they were not permitted to destroy or remove a single Hunterian specimen without the approval of the trustees. In spite of this there was nothing connected with the College in which the Council took greater pride or on which they more willingly spent time and money than the museum. It now consisted of a vast number of specimens, and was undoubtedly by far the most splendid museum of its kind in the world. Only last year one collection of more than 5,000 specimens was added to it by the Royal Society of Medicine (the Odontological Section). The museum was largely used. There were over 1,000 attendances every month.

In response, Sir VEZEY STRONG referred to the early connexion of the Company of Surgeons with the City guilds, and said that the City was proud of its offspring.

The toast of the Hunterian Orator was given by Lord ILKESTON, who, glancing through the list of the Hunterian orators, singled out the names of Hilton and Sir James Paget as those whose teachings had had a special influence upon his own attitude towards medicine. From the one he learnt lessons as to the value of rest which had contributed largely to his own success as a physician, while the teachings of the other had impressed the importance of a broad study of pathology to every one who would follow the career of medicine. Mr. EDMUND OWEN, in reply, expressed his thanks to Lord Ilkeston and to the College.

## LITERARY NOTES.

THE University of London Press has been established for the purpose of doing all the printing and publishing work of the university, and of carrying on the general business of printers and publishers. The Senate of the university has arranged that the first profits of the press shall be charged with the building up of a reserve fund for the purpose of producing books, which, in the opinion of the Press Committee of the Senate, ought to be published, although not likely to be commercially profitable. The manager is Mr. W. Moxon Browne, B.A., whose offices are at 27, Maddox Street, W.

In connexion with Mr. Haslam's account of Frère Jaques in his paper on operations on the male bladder, published at p. 347, it may not be out of place to quote Dr. Martin Lister's relation of what he saw of the operations of the friar, to whom he wrongly gives the title "Père." It may be found in that physician's small book entitled, *A Journey to Paris in 1698* (London, 1699). He says:

> Another popular Disease here is the *Stone*; and there are Men well practised in the Cutting for it. There are also two Hospitals, where great numbers are cut yearly, as *La Charite*, and *Hostel-Dieu*, in both of these there are Wired Chests full of Stones cut from Human Bodies; and in the Chest of *La Charite* is one, which exceeds all belief; it was cut from a Monk, who died in the very Operation; it is as big as a Childs Head. It is but the Model or Patern of the Stone which is kept in the Chest; which has this Inscription on it—
>
> *Figure et grosseur de la pierre, pesant 51 ounces, qui font trois livres trois ounces, qui a esté tirée dans cet Hospital au mois de Juin 1690, et que l'ou conserve dans le couvent de la Charité.*

The author continues:

> But that which I shall here most insist upon is the *new way*, practised by *Pere Jaques*, a Monk. About the 20th of *April* he cut in the *Hostel-Dieu* 10 in less than an hours time: The 3d day after, all were hearty and without pain but one.

He cuts both by the grand and little Appareil; in both he boldly thrusts in a broad Lancet or Stilleto into the middle of the Muscle of the Thigh near the *Anus* till he joins the Catheter or Staff, or the Stone betwixt his Fingers; then he widens the incision of the Blader in proportion to the Stone with a Silver *Oval Hoop;* if that will not do, he thrusts in his 4 fingers, and tears it wider: then with the *Ducks Bill* he draws it out.

I see him cut a second time in the *Hostel-Dieu;* and he performed it upon 9 persons in 3 quarters of an hour, very dexterously. He seemed to venture at all; and put me into some disorder with the cruelty of the Operation; and a stouter *Englishman* than my self. However I visited them all in their Beds, and found them more amazed, than in pain.

*Pere Jaques* cut also his way in the other Hospital *La Charite*, much about the same time, 11 at twice. Here Monsieur *Marshal*, the best of the Surgeons for this Operation now in *Paris*, harangu'd against him before the Governors, who coldly answered, they would be determined by the Event, which way was best.

> *Atque hac ratione Foeminis Calculi omnium facillimè exciduntur; nempe scalpello intra vaginam uteri in vesicam adacto.*

Of those cut in *La Charite* one died; and being dissected it was found he had his Bladder pierced in 4 or 5 places; also the *Musculus Psous* sadly mangled; also the left *Vesiculae Seminales* cut.

Notwithstanding this, if this Method was well executed by a Skilful Hand, it might be of good use to Mankind.

This way of Cutting for the Stone, puts me in mind of what I formerly writ and publisht in the *Phil. Transactions* about Cutting above the *Os Pubis*, in the Fund of the Bladder.

Also of that Experiment of Cutting for the Stone of an Alderman of *Doncaster* in the *Gluteus Major*, he was twice cut in the same place, and out-lived both. I saw the first Stone, which was very large, and in some measure transparent, Crystal like. This Experiment is Printed in Dr. *Willies Scarborough Spaw*, 14 years ago at least, and is a fair hint for this new Method.

Frère Jaques, though upheld by no less a person than Fagon, the Chief Physician to Louis XIV, made enemies among the surgeons. Dr. Lister says:

Since my return I had a Letter from Mr. *Probie*, a very Learned and Industrious young Gentleman, who was with me to see the Operation, that part relating to this Matter I shall here transcribe. Indeed, I mightily longed for an Account of this Matter, the success of which I came away too soon to learn any thing for certain.

Lister proceeds to give an extract from Probie's letter, which is dated Paris, Aug. 2, '98:

Pere Jaque's Reputation mightily slackens, out of Forty-five that he cut at the Hostel-Dieu, but sixteen of them survive; and of Nineteen in the Charite, but eleven. He has practised at the Hospitals at Lyons, but, 'tis said, with worse success than at Paris. I am sensible he has got abundance of Enemies, which makes me very often question what I may hear said of him. Dr. Fagon, the Kings Physician, told Dr. Turnfort [Tournefort], when he went to present his Book to him, that he had cut Seven at Versailles, and that six of them are alive, and as well as if never cut. The Person that died was so Distempered, that he was not expected to live, and 'twas thought, if he had not been cut, he had not lived so long: The Surgeons have a great mind to cry down the Man, though they practise his Method. For Marshal has since cut after Pere Jaque's Manner, only with this difference, that Marshal's Catheter was cannulated. Le Rue, the second Surgeon of the Charity Hospital, cut after the old Manner, at the same time when Marshal cut Pere Jaque's way, but had not so good success as Marshal had; for all that Marshal cut are alive and very well, whereas the other lost one or two of his number; besides, those that lived were not so soon cur'd, no, not by a month or six weeks.

Sir Sidney Colvin, Keeper of Prints and Drawings at the British Museum, delivered an extremely interesting lecture on Robert Louis Stevenson at the Royal Institution on the evening of Friday, February 10th. He spoke as one who had been a personal and even intimate friend of the famous writer, and recounted their first meeting during the summer of 1873, at the house of some relatives of Stevenson's, when Colvin, the elder man, fell completely under the spell of the brilliant youth whose wonderful talk was unlike anything he had heard before or since. At this time Stevenson was still undecided as to his future career, full of doubt as to his own powers and capacities, and Sir Sidney Colvin was able to be of some use to him in introducing him to editors, and giving him a start in the profession he was to pursue with such signal success. It was a favourite question at the present day, the lecturer remarked, to ask, when a popular author died, if his works would live. With regard to Stevenson this question was answered by the fact that seventeen years after his death so large an audience was gathered together to listen to the words of one who had known him personally. Stevenson's popularity was actually on the increase, and he was read by the present generation with as much enthusiasm as by his contemporaries, a proof of which was to be found in the fact that the number of letters received by Sir Sidney Colvin on account of his friendship with the dead author from the latter's admirers grew greater year by year. It was not too much to say that Stevenson bid fair to become not only an English classic, but one of the best loved and best read of all our classics. This was due, not to the pre-eminent quality of one or two of his creations, but to the extraordinary variety and charm possessed by works of such widely different kinds. His invention and construction might be open to criticism, but in character drawing he was supreme and would remain so. His characters were remarkable for their wonderful fidelity to life—indeed, in this respect he occasionally excelled even Scott (who would have been the first to acknowledge the fact), for James More and Allan Breck are truer to nature than many of the latter's Highlanders, who, in Sir Sidney's opinion, smacked somewhat of the footlights. Moreover, Stevenson's books bore on them the impress of his own personality, and that was one of the most inspiriting on record. By nature he was not only one of the most original but one of the most lovable of men, and his fine nature, his courage, his hatred of all meanness and pettiness, shine through his writings and form one of their chief beauties.

In connexion with Stevenson, we take pleasure in recalling the fact that on his mother's side he was nearly related to a distinguished physician—Dr. George Balfour—and no man has written more sympathetically about doctors. The Dedication to *Underwoods* has been quoted before, but it cannot be quoted too often. It may not be out of place to repeat it here:

There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and, what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing. Gratitude is but a lame sentiment; thanks, when they are expressed, are often more embarrassing than welcome; and yet I must set forth mine to a few out of many doctors who have brought me comfort and help: to Dr. Willey of San Francisco, whose kindness to a stranger it must be as grateful to him, as it is touching to me, to remember; to Dr. Karl Ruedi of Davos, the good genius of the English in his frosty mountains; to Dr. Herbert of Paris, whom I knew only for a week, and to Dr. Caissot of Montpellier, whom I knew only for ten days, and who have yet written their names deeply in my memory; to Dr. Brandt of Royat; to Dr. Wakefield of Nice; to Dr. Chepmell, whose visits make it a pleasure to be ill; to Dr. Horace Dobell, so wise in counsel; to Sir Andrew Clark, so unwearied in kindness; and to that wise youth, my uncle, Dr. Balfour.

I forget as many as I remember; and I ask both to pardon me, these for silence, those for inadequate speech. But one name I have kept on purpose to the last, because it is a household word with me, and because if I had not received favours from so many hands and in so many quarters of the world, it should have stood upon this page alone: that of my friend Thomas Bodley Scott of Bournemouth. Will he accept this, although shared among so many, for a dedication to himself? and when next my ill-fortune (which has thus its pleasant side) brings him hurrying to me when he would fain sit down to meat or lie down to rest, will he care to remember that he takes this trouble for one who is not fool enough to be ungrateful?

This tribute has, as far as we know, only one parallel in literature. That is all the more precious as it comes from a source from which one would hardly have expected such an utterance—Thomas Carlyle, who wrote to a member of the profession to the effect that whatever might be the case as regards other sorts and conditions of men, doctors had the satisfaction of knowing that they were doing a good work. It may not be uninteresting to some of our readers to learn that there is a tradition that it was from John Hunter's house and museum in Leicester Square that Stevenson drew his picture of the dwelling and surroundings in which he lodged his Dr. Jekyll. The premises, which were on the east side of the square, just south of the Alhambra, were pulled down some years ago.

British Medical Journal.

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## THE HUNTERIAN ORATION.

IT is difficult to say anything new about John Hunter's work at this time of day. Mr. Edmund Owen, whose oration is published at page 341, was therefore happily inspired when he decided to speak of the founder of the famous museum in Lincoln's Inn Fields as a man. For Hunter, though ranked with the immortals intellectually, had a very human side to his character. He had, in the interest of his brother William's dissecting room, to mingle freely with resurrection men, who, even in the days of Astley Cooper, were among the vilest of the people. John Hunter, although toiling with unremitting tenacity of purpose in the dissecting room and the hospital, took his pleasure outside the sphere of his work with all the freedom of his day, which tolerated coarseness that would have been too much even for the not very squeamish moral stomach of Bob Sawyer.

"Jack Hunter," as he was known to his boon companions, was fond of the theatre, where, seated among the "gods," he took a particular delight in helping to damn plays. We cannot suppose that his literary taste was very refined; it may therefore be conjectured that his high spirits found vent in the hisses and cat-calls with which an unlucky author was wont to be assailed in the eighteenth century. Not every playwright could take this reprobation with the coolness of Fielding, who when he heard the sounds of condemnation said, with cynical contempt for the audience, "So they have found it out!"

Among Hunter's teachers of surgery was Cheselden. It is curious, as showing how the surgical profession stood in the estimation of the public at that time, that when Pope in a well-known line referred to Cheselden, Swift asked who the person was whose name was thus enshrined. When Cheselden died Hunter found a new Gamaliel in Percivall Pott, whose name was afterwards mixed up in one of the anatomical quarrels in which the Hunters were engaged.

The best side of John Hunter comes out in his relations with Edward Jenner, who was his house pupil for two years, and with whom he kept up an active correspondence till within a few weeks of his death. The letters breathe the very spirit of the investigator who has taken the knowledge of all living things for his province. Hunter is for ever urging Jenner to find material for his insatiable curiosity, and for the museum of which he was laying the foundations. "Send me everything you can get," he writes, "either animals, vegetable or mineral, and the compound of the two, either animal or vegetable mineralized." Nothing came amiss to Hunter, from a whale to a bat. When Jenner is jilted by a lady on whom he had set his affections, Hunter consoles him in characteristic fashion: "Let her go and never mind her; I shall employ you with hedgehogs." This is a remedy for love which Ovid has not included in the methods of cure for the tender passion which he enumerates.

Hunter was absorbed in his work, and spent his substance on his museum. Till the later years of his life, when he was at the head of his profession, he came unwillingly to his consulting-room, sometimes it is said with the marks of the dissecting-room upon upon him. A characteristic story is that on one occasion, on being called away from his researches to a patient, he said, "Well, Lynn, I must go and earn this damned guinea, or I shall be sure to want it to-morrow." He died a poor man, and had not Parliament bought his collection, he would have left his widow penniless. As it was, she had to take a situation for a time as companion to the daughters of a benevolent old physician whom Hunter once irreverently styled "Tom Fool."

It is worthy of mention, as it is perhaps not generally understood, that the museum does not belong to the College of Surgeons but to the nation. The College is only its custodian. But with a public spirit which does it infinite credit the College has lavished money on the museum as if it were its very own. Indeed, it has done far more to keep it up and enlarge it than has been done by the nation, of which it is one of the noblest and most useful possessions. It may be doubted, as Mr. Butlin said in his speech at the Hunterian Festival, whether there is any other example of what is really a national monument being preserved by the liberality of a private body.

A particularly interesting part of Mr. Owen's Oration is that in which he deals with Hunter's ill health. In 1773 he had the first attack of angina pectoris, which was followed by many others during the twenty years of subsequent life. Towards the end they increased in frequency so much as to be almost of daily occurrence. He used himself to say that his life was in the hands of any rascal who chose to put him in a rage. Yet throughout the slow wreck of his constitution he never gave up work. He taught, although he disliked speaking in public so much that he had to nerve himself for the effort by taking thirty drops of laudanum before the first lecture of his course. He worked in his dissecting-room from six in the morning till nine. After seeing patients all the forenoon he dined at four, and, after an hour's sleep, spent the evening in preparing or delivering lectures, and in dictating, prolonging his work till one or two in the morning. He had no taste for society, though it is on record that he broke his tendo Achillis in dancing. As Mr. Owen points out, there is no mention in his letters of sport or pastime, but we do not think it is quite accurate to say that Hunter had no interests outside his profession. In not a few of his letters to Jenner appreciative mention is made of pictures.

Mr. Owen makes the interesting suggestion that Hunter's ill-health was primarily due to a vivisectional experiment made upon himself by the inoculation of syphilis. He was then in his fortieth year, and the experiment lasted three years. Mr. Owen thinks there can be little doubt that the progressive arterial degeneration of which he was the subject was greatly, if not altogether, due to the self-inflicted disease from which he never fully recovered. Jenner, writing to Heberden in 1778, expresses the opinion that Hunter was the subject of angina pectoris. He says that in two cases in which he had the opportunity of making an examination of the body after death from that disease, the coronary artery appeared thickened. In one which he examined with Mr. Paytherus, a surgeon of Ross in Herefordshire, it was found that what he had taken to be an ossification of the vessel itself,

was "a kind of firm fleshy tube, formed within the vessel, with a considerable quantity of ossific matter dispersed irregularly through it." Jenner did not communicate his suspicion to Hunter lest it should "deprive him of the hopes of a recovery." Writing to Jenner after the death of Hunter, his brother-in-law Everard Home says: "It is singular that the circumstance you mention to me, and was always afraid to touch upon with Mr. Hunter, should have been a particular part of his own complaint as the coronary arteries of the heart were considerably ossified." Home adds, "This case is very much in favour of your theory." Whatever may have been the cause of his ill health, it is certain that much of the ill temper and proneness to quarrel which made him a difficult colleague must be attributed to his physical condition. He did not suffer fools gladly, but, with all his occasional roughness, he was a fast friend, and was beloved by those who knew him well, and Jenner, to the end of his life, always referred to him as the "dear man." The tenderness which he sought to hide under an apparently casual reference to the death of his brother, with whom he had quarrelled so bitterly, is more affecting than all the sentimentalism of Sterne.

Mr. Owen has paid a worthy tribute to one of the greatest men of whom his country or the medical profession from the beginning of time can boast. With a few broad masterly touches he has painted a word picture of a man as living as Reynolds's famous portrait which is among the treasures of the Royal College of Surgeons of England.

## THE TREATMENT OF YAWS BY SALVARSAN.

SINCE we have learned from Castellani, Schuffner, and others that yaws or framboesia is due to a specific spirochaete which presents practically all the morphological and tinctorial characteristics of the syphilitic spirochaete, it is hardly surprising to learn that this disease can be successfully treated by injections of salvarsan (dioxy-diamido-arsenobenzol). We print on another page of this issue a paper by Dr. Alston of Trinidad on this subject. The improvement which followed the injection of the drug emulsified in sterile olive oil in Dr. Alston's cases corresponds to that obtained by Strong,[1] who has recently reported the results of the treatment of 25 cases of yaws with dioxy-diamido-arsenobenzol. Three or four days after the injection of the drug the granulomatous lesions began to disappear, and in the course of from ten to twenty days they had usually disappeared entirely, leaving a perfectly smooth, pigmented skin where the lesions previously existed. Tumour masses were quickly absorbed, and even large granulomatous masses or deep ulcerations healed within from two to four weeks. None of the cases had shown any signs of relapse up to last October (1910), even although they received only a single injection and over four months had elapsed since most of them were inoculated. In severe cases, however, Strong believes that a second injection may be of advantage. From the success of the treatment he concludes that salvarsan is as important a specific for yaws as quinine is for malaria.

Dr. Alston has made some highly interesting and important experiments with regard to the formation of antibody. He found that the serum of his patients after treatment with salvarsan was capable of producing an improvement in other cases of yaws not less marked than that produced by the drug itself, and further that the serum of the patients who had been treated with serum possessed the same property. The control experiments show that the essentials are, first, that the serum must be derived from a patient who is suffering from yaws, and secondly, that the serum must be taken when the patient is under the influence of salvarsan. He suggests that the action may be due to the presence of a ferment, in view of the enormous dilution which the active substance undergoes in passing through the two patients.

This view he puts forward after showing experimentally that it does not rest on the fixation of complement by the antibody. According to Ehrlich, the action of salvarsan on spirochaetes is direct, the curative process being due to the liberation of the specific proteins, which give rise to a specific antibody. The cases of congenital syphilis which were treated by salvarsan and died of endotoxaemia, as well as the clinical cure in Taege's cases in which the infant was treated by means of the mother's milk, in which no arsenic was present, suggest that an injection of this drug in an organism infected by spirochaetes may result in the breaking down of a number of parasites. The protein thus liberated will stimulate the production of a reaction product, or antibody, just as in the phenomenon of anaphylaxis the introduction of a protein induces its corresponding antibody to be formed. The serum of the person treated will contain sufficient free antibody to combine with the protein of the spirochaetes in a second subject. In anaphylaxis, the injection of the serum of a hypersensitive animal into a normal animal will render the second animal hypersensitive. Dr. Alston found that the serum was not robbed of its power by boiling; this would indicate that the amboceptor is thermostabile, and, when it comes into contact with fresh complement, should be as active as before. The same applies with regard to the anaphylaxis experiment. In the case of yaws the process can be carried further, and the identical action can be obtained in a third subject. The explanation would seem to be that the action of the antibody on the spirochaetes in the second will result in the liberation of more specific protein and the formation of more antibody. In the case of the anaphylactic rabbit or guinea-pig, the action stops at the second animal, unless the specific protein is introduced simultaneously with the anaphylactizing serum. We would therefore expect that when Dr. Alston carries out the experiment of treating young children suffering from yaws with the milk of goats injected with salvarsan, he will find that no action results, but that the proposed treatment with the serum of horses treated with material containing spirochaetes and subsequently injected with salvarsan will be efficacious. Dr. Alston expresses surprise that the effect should be obtained in the "second generation," because, whether it is due to the drug or to the antibody, the dilution must be very great. Direct action of the drug seems to be excluded, not only by the great dilution, but also by the fact that the diamido-dioxy-arsenobenzol, which is not fixed by the spirochaetes or tissue cells, will be rapidly excreted by the kidneys. On the other hand, there need be no dilution of the antibody in the ordinary sense, since when a reaction-product of a protein is introduced into the body the action goes on under the influence of the ferment action of the complement, and the quantity is, therefore, scarcely material.

[1] *The Philippine Journal of Science*, vol. v, October, 1910, No.

## THE LIVERPOOL ABATTOIR MUDDLE.

LIVERPOOL still presents to the country an object lesson from which much may be learnt with regard to the need of supervision and forethought in communities where a rapid growth of population is taking place. At the beginning of the nineteenth century the population of the great port on the estuary of the Mersey was under 100,000. Since that time almost every decennial census has seen a growth of about 60,000 except in the ten years 1880–90, when a decrease, due to the population flowing from the centre to the outskirts, was recorded. The municipal boundaries were extended in 1895, and the numerical growth has since continued. At present the city has in its centre a large abattoir worked by a company. This trade and the allied trades which have grown up with it have occupied premises leased from the city. Some years ago application was made for a renewal of the lease; but, owing largely to the protests of the medical profession, headed by the medical officer of health, a special committee of the City Council recommended that it should be refused. It has long been felt that these trades should not remain in the heart of a city, and are most undesirable neighbours for hospitals, universities, and large hotels. The effect of the trades on the health of the district was made years ago the subject of an investigation, and the report was absolutely against their continuance. At the present day the direct effect might be more difficult to prove, as the population is now not so much residential as business, and the number of animals slaughtered has diminished. There can be no doubt that even a number of cattle small as compared with the dead meat sold has an effect on health, since the animals are driven through the streets and kept in lairs before slaughtering, and the trades necessary for the disposal of hides, bones, blood and offal, even when conducted on a small scale, are offensive and totally out of place in populous neighbourhoods. On the Continent public abattoirs in most of the great towns form part of an establishment to which a very extensive acreage of land is devoted, a much larger space than has been allowed in any of our English towns. Our Liverpool correspondent states elsewhere that when the matter came before a plenary session of the City Council the advice given by the special committee and the medical officer of health was rejected by a large majority, in spite of the advocacy of the leaders of the two political parties. The adoption of the rejected scheme would have rendered it possible to close all the private slaughterhouses in Liverpool, which number twenty-four, scattered through different districts; the districts vary in the density of their population, but the effect of this closure would undoubtedly have been beneficial in all of them. The arguments used in opposing the transfer to the larger site were unsound. The statement, for instance, that the dead meat would be contaminated by smoke and effluvium from trades which are carried on several hundred yards from the proposed site for meat storage, and which in themselves are not any more noxious than the processes and trades connected with abattoirs, can hardly be considered valid. The proposed new site has possibilities of expansion over about 13 acres of land, affording an approach from the docks and access to several lines of rail by which live animals and dead meat could be collected and dispersed. A great point has been made of the lack of grazing ground in the vicinity, but no weight can be attached to this argument when applied to any great centre of population, where all animals that must be kept for slaughter must necessarily be retained in lairages. Liverpool has been over and over again guilty of a short-sighted sacrifice of the ultimate good of the community to the supposed interests of a small section. Few of our large towns have so floating a population, and very few families, it is said, remain for more than three generations in the place, where they settle with the one object of making money. To these causes must be attributed the high death-rate of Liverpool, for the site of the city is naturally healthy, on a wind-swept estuary, with sandstone rocks sloping to the river underlying the greater part of it. More than one-third of the working classes used to live in cellars and back-to-back dwellings, and these conditions have not even yet disappeared, though the present generation has spent large sums in demolishing such places and substituting reasonably healthy houses. In the matter of provision of water supply, of schools, in the regulation of sanitary measures relating to closets, bakehouses, dairies, and shippons, the suppression of smoke, the control of offensive trades, and many other matters, Liverpool has blundered and muddled, and been an example of how not to do it. It has owed and still owes much to its medical officers of health; they have been backed up by the profession, which is more far-sighted in these matters than the general public. It is to be hoped that it is not too late for one more mistake to be avoided, and that the slaughtering of cattle and the allied trades, which must necessarily entail many difficulties in air and soil sanitation, shall be established in a suitable site away from the busy centre of the city.

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## THE HULTON COLLIERY EXPLOSION.

AT the opening of the prolonged inquest in respect of the Hulton pit explosion, the county coroner, Mr. S. F. Butcher, paid a tribute to the heroism displayed by those connected with the colliery, men of all ranks from other collieries, and by the inspector of mines and his assistants in the hazardous task of suppressing fire in the pit. Their labour, he said, was shared by members of the great profession of medicine, many of whom participated in the underground risks; from the time of the explosion and well into this year there was never wanting a staff of medical men to give help, and the work done by the voluntary medical staff and their assistants had commanded the highest admiration. The medical staff was assisted by a nursing staff and by a large number of persons who volunteered. It was a great tribute to the care exercised that not a single case of blood poisoning had arisen among those who had worked at the recovery of the dead and the preparation of the bodies for identification. In the course of the inquiry Dr. T. Boston Johnstone, of Annandale, Bolton, reported that at the shaft two squads of ambulance men, four in each squad, were stationed to act as stretcher bearers, and we understand that altogether 400 to 500 ambulance men, members of the R.A.M.C., and boy scouts rendered assistance. Buildings were converted into temporary mortuaries, with a doctor in charge, who when a body arrived placed on record the probable cause of death. When it was considered necessary for sanitary reasons to remove the unidentified for burial they were photographed and a careful record of their characteristics published; in this way many were eventually identified. Dr. W. A. Hatton, who was the first medical man to arrive at the pit, stated that the cause of death in 220 of the 341 bodies recovered was carbon monoxide poisoning; in 54, explosion; death was due to the combined effects of explosion and carbon monoxide poisoning in 61; in addition, 94 died from shock and burns. Dr. Hatton later in the proceedings thanked the coroner on behalf of the medical profession for his kind reference to its work at the pit, and we have much pleasure in endorsing Dr. Hatton's observations.

## HAEMOPHILIA.

IN an admirable monograph on haemophilia,[1] recently issued from the "Francis Galton" Laboratory for National Eugenics, the authors, Drs. Bulloch and Fildes, give a critical historical study, and state that the earliest recorded case of haemophilia is one mentioned by Albucasis in the tenth century, though from provisions as to circumcision in the Talmud there is some reason to believe it was known to the Jews in the second century. After a clear summary of the symptoms, the important question of the occurrence of haemophilia in females is considered in detail and with conspicuous fairness. They conclude that there is not any evidence that women suffer from true haemophilia, thus confirming the opinion originally expressed in 1803 by Otto, of Philadelphia, in the contribution which first drew attention to the disease. This conclusion is of interest and importance, but it met with opposition from several speakers, including Professor Osler, when Drs. Bulloch and Fildes read their paper on haemophilia before the Medical Society of London on April 18th, 1910. Another important law, which, like the preceding, is arrived at by critical analysis of the apparent exceptions, is that the disease is transmitted by unaffected females, and not by males. On the interesting problem of the *de novo* origin of the disease, which Sir A. E. Wright suggests may be due to the accidental conjunction of two persons whose blood in each case is in the condition described by him as characteristic of haemophilia, the authors find that the cases supporting this view are comparatively rare, and would be fewer if the pedigrees were more thoroughly investigated. They, however, give a previously unpublished pedigree (No. 603), provided by Dr. H. S. Gettings, in support of this *de novo* origin. The literature of haemophilia consists of 949 monographs and papers, all of which, except six, the authors have either read or had specially abstracted for them by eminent authorities. To each of these references a short summary of the contents of the publication has been appended, thus saving all future investigators the trouble—often exaggerated by erroneous quotation—of looking up the original source. Of the magnitude of this labour and of the value of its result it is difficult to speak too highly. The summaries emphasize the value of the oft-neglected advice, "Verify your references," and expose, not without humour, the slender claim of some quoted cases of haemophilia. Thus, one reputed female "bleeder" was habitually cupped or leeched twice a year by her doctor, with the idea that she had too much blood! The 235 pedigrees which form the basis of this monograph are analysed in detail and beautifully depicted on the plates. In conclusion, medical science can be justly proud of this work, which must remain as the permanent source of reference on the subject.

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## PUERPERAL ECLAMPSIA AND LACTATION.

MUCH has appeared in print about the medical treatment of puerperal eclampsia and about Edebohls's operation. Dr. Reinhardt of Teschen has quite recently reported a successful case of decapsulation of the kidney.[2] The patient was a primipara, aged 29, who gave birth to a healthy child at term and then had very bad convulsions, with suppression of urine cyanosis, and coma. The operation was followed by immediate improvement and ultimate recovery. But in every case of eclampsia that recovers there is the problem about the rearing of the child when it also is saved. Dr. James R. Goodall of Montreal[3] asks the questions: "If a mother's milk is toxic, why should it be so to her infant which has been nourished through her own blood? Can a mother's milk secrete a concentrated accumulative toxin more virulent than that which circulated in her system?" His conclusions deserve study, but the obstetrician and practitioner will no doubt take more interest in Dr. Goodall's clinical reports of three cases in his own practice. All show that the milk contains a deadly poison, unless some other cause of death was present but overlooked, which seems quite improbable. A woman, aged 35, in well-to-do circumstances and perfect health, gave birth at term—the end of her fourth pregnancy—to a strong and healthy infant. Convulsions set in on the morning of the third day. The infant had taken the breast thoroughly for the first time two hours before the first fit. Both mother and child died. In the second case, the mother, aged 28, unlike the first, where no symptoms were noted before labour, had recently suffered from albuminuria, occipital headache, and epigastric pains. The labour was easy and not lingering; eclampsia set in thirty-two hours after delivery; the fits were sharp and rapid, but the patient ultimately recovered. The infant had been suckled for the first time a few hours before the first attack; six hours later it became cyanosed and ultimately died. The third patient, a strong, healthy woman until her third pregnancy, suffered in the latter months from albuminuria and from the increased bulk of the abdomen due to hydramnion. Labour came on about ten days before the calculated time, the membranes ruptured very early, but there was no delay or difficulty. The patient complained of severe headache and loss of appetite on the second day. There had been distinct symptoms during the second stage of labour; the patient's eyelids twitched, the right side of the face was convulsed, and during two pains the eyes turned to the left and became fixed, and respiration was jerky. The child was seized with cyanosis on the morning of the third day; the mother had felt the milk filling the breasts during the previous night. Dr. Goodall reports in full the symptoms, which were very remarkable; the child was supposed to be dead, but Dr. Goodall, who arrived a few minutes later, found the pulse still perceptible at the wrist. By means of artificial respiration at the fireside, the infant revived for a time, the cyanosis diminishing rapidly, but death followed within half an hour. The cardiac sounds were audible with the stethoscope until close upon death. The mother suffered from albuminuria for long after convalescence from the puerperium, and the urine was not entirely normal until the end of six months. Dr. Goodall insists that these three cases demonstrate that the later the convulsions begin after delivery—that is to say, the nearer to the period of full lactation—the graver will be the prognosis for the infant. Hence, in these cases, most dangerous for the child, where the maternal convulsions come on after delivery, elimination, effected in part by appropriate treatment, should be allowed to go on until the mother is freed from the greater part of her toxaemia. Then the breasts should be emptied before the child is suckled.

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[1] Eugenics Laboratory Memoirs XII. *Treasury of Human Inheritance.* Parts V and VI. Section XIVa: *Haemophilia.* By W. Bulloch, M.D., and Paul Fildes, M.B., B.C. London: Dulau and Co. 1911. (Pp. 197; 17 plates of pedigrees and 1 plate of illustration. 15s.)

[2] Ein durch Nierenentkapselung geheilter Fall von puerperaler Eklampsie, *Zentralbl. f. Gynaek.*, No. 3, 1911, p. 107.

[3] Should Eclamptic Mothers Nurse their Newborn? *Amer. Jour Obstet.*, January, 1911, p. 11.

## MODERN MICROSCOPY IN UROLOGY.

THE examination of cellular elements under the microscope forms by itself a chapter in modern pathology. The average clinician, however, is inclined to regard this examination as something cut and dried, and forgets the extraordinary history of its development. We owe thanks to Professor C. Posner for reminding us, in an excellent paper on urinary filaments and casts,[1] that Max Schultze and even Virchow fell into the error of interpreting microscopical appearances without taking into account the limitation of the methods applied. The introduction of modern staining methods led to many new developments, and he refers particularly to the detection of the basal structure of chromatin and the granular points in plasma, with which the names of Strassburger and Flemming and Altmann are associated, and the ingenious application of the various colour reactions in the granules of cells by Ehrlich. The progress achieved by chemical and selective staining does not, in his opinion, lose anything of its importance, when it is recognized that the examination of fresh structures has revealed what could not be seen in fixed and stained specimens. The tendency of to-day to employ the highest powers and the brightest illumination, however, tends, Professor Posner thinks, to impede rather than to promote advance. He finds that a number of auxiliary means are available which will enable the observer to overcome some of the difficulties arising from the limited optical conditions associated with ordinary microscopy. He points out that what he terms a "light" field illumination may fail to reveal some characteristics of structures which a "dark" field illumination immediately brings into view. He also emphasizes the common error of confusing the ultramicroscope of Siedentopf and Zsigmondy with the clinical dark field illumination. While the former can reveal particles in colloidal substances invisible under all other conditions, the latter aims rather at a refined illumination of structures which can be seen, but not properly differentiated, by direct illumination. He pleads for a more extended study of the structure and characters of elements by means of this dark field illumination. He recommends the use of the polarization microscope, which under certain conditions will reveal differences between structures that appear identical under others. The results of photographic reproductions of the elements when subjected to dark field illumination are, he considers, incomparably better than those of ordinary photomicrography. In the second part of his paper, Professor Posner deals with two elements which he has studied by these various means. These are urinary filaments and casts. He recognizes two forms of the former. The thicker, comma or hook-like filaments, are usually associated with suppurative processes, and are derived from the prostatic portion of the urethra, while the long, delicate threads are for the most part mucous. Dark field illumination shows an irregular intermixture of epithelium and leucocytes in a delicate basal substance. The former is usually in excess of the latter. In the second group there is a regular arrangement of leucocytes and epithelium, the former lying in rows. With regard to the casts in urine, the structure, and also the inclusions, such as epithelium, leucocytes, red corpuscles, and crystals, are clearly seen, and the tinging or inclusion of uric acid or blood pigment becomes extraordinarily evident with dark field illumination. Fatty and lipoid substances can only be differentiated by means of the polarization microscope. The presence of a substance which refracts light doubly is of great importance. It not only points to nephritic changes, but to changes so severe as to justify an absolutely unfavourable prognosis. Other diagnostic and prognostic signs may be elicited from the appearance of casts. With regard to the origin of casts, he discusses the various views impartially, and finally comes to the conclusion that they may represent desquamated and degenerate epithelium and also coagulation products of transudations or exudations or secretions of the renal cells. In conclusion, he expresses the opinion that if the dark field microscope is to serve its function well, the investigator must learn to "see well" what is to be seen.

[1] Unna-Festschrift, vol. i. *Dermatologicale Studien*, vol. xx. Hamburg: L. Voss. 1911.

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## ONCHOCERCIASIS.

REFERENCE has already been made in these columns[1] to the investigation instituted by the Local Government Board on meat imported from Australia infected with *Onchocerca*. An official report[2] on the matter has now been prepared by Drs. MacFadden and Leiper. The former gives an account of the administrative measures which have been taken to cope with the difficulty. When the condition first came under notice it was regarded entirely as a surface affection, which could be easily remedied by removing the superficial portions of the meat in which nodules were observed. Later and more searching examination revealed the fact that nodules were occasionally present in the intermuscular fat, and that the absence of nodules on the surface was no proof of their complete absence. A more rigorous inspection was therefore rendered advisable. At first it was thought that only a relatively small proportion of carcasses were affected, and the meat was allowed to pass when the portions infected with nodules had been removed and destroyed. The frozen condition of the meat rendered inspection in many cases unsatisfactory, as was evidenced by reinspection after thawing. It soon became clear that in order to ensure that the meat allowed to pass was free from parasitic nodules, it would be necessary to thaw out each fore-quarter and subject it to a minute examination, or alternatively to adopt the general principle of removing from the fore-quarter while still frozen those parts, namely, the flanks and briskets, in which the nodules chiefly occurred. Owing to the magnitude of the task the first course was recognized to be impracticable, and accordingly the alternative was adopted, the condemned parts being retained by the sanitary authority in cold store until such time as the owners gave notice that they wished to dispose of them. Then, according as the latter signified their desire to utilize them for food or industrial purposes, they were either thawed out and carefully examined or else treated in such a way as to render them unfit for consumption. This procedure has been in force since October, and has been found to work to the satisfaction of all parties concerned. In the majority of cases the importers have not insisted on the examination of the condemned parts, and have been content to let them be destroyed by the sanitary authority. Dr. Leiper's account of the nature and life-history of the parasite is full and lucid, and contains several points of general importance. The condition was first observed in Australia thirty years ago, but it was not till many years later that it attracted much attention. It was then regarded as peculiar to Australia, but it now appears that the same parasite has been recorded from the Malay States, Java, and India, as well as from the United States of America. This wide distribution may with

[1] BRITISH MEDICAL JOURNAL, December 3rd, 1910, p. 1796.
[2] Reports to the Local Government Board on Public Health and Medical Subjects. New Series, No. 45. 1911. (16 pages, 3 plates.)

advantage be borne in mind in the inspection of meat from countries other than Australia. The peculiar character of the spicules in the male worm is noted, as also their resemblance to those of *Onchocerca volvulus*, and it is suggested that they may be of generic importance. A list is given of the features separating the cattle parasite from the corresponding, but distinct, *O. reticulata* of the horse. In this connexion it should be noted that the female genital aperture of the former is posterior to the oesophagus, not anterior to it, as was inadvertently stated in our earlier note. The reverse is the case in the horse parasite. In regard to the life-history of the worm, Dr. Leiper concludes that a biting insect is almost certainly the intermediate host. How the embryos reach the blood or lymph stream is a difficult problem; it is suggested that possibly the nodules and the connective tissue do not represent the normal habitat of the adult worm, but that they may live in a free and unencapsuled state in some of the viscera, whence they are able to discharge their embryos into the blood stream. This supposition is based on an analogous observation in the case of the horse parasite. In support of this view evidences of degenerative changes in the nodules leading to calcification, are not wanting. It is further suggested that, apart from its unsightliness, the meat may be deteriorated in quality owing to the production of some toxin by the parasite. This, however, is a supposition unsupported by experimental or other data. That the parasite does produce a toxic substance is more than probable; that the latter affects the meat, however, is mere conjecture, and if there were any truth in it, no part of the carcass could safely be considered beyond suspicion. An examination of this point would be interesting, and seems desirable. It is evident that this disease in cattle threatens much loss to Australian producers, and we have no doubt that they will realize the value of a thorough scientific investigation into the whole matter with a view to stamping out the parasite, or at least arresting its spread.

## HEAD HUNTERS IN NIGERIA.

A MOST interesting lecture was delivered by Captain A. J. N. Tremaarne before the Royal Society of Arts on the evening of February 8th, on the Kagoro, a head-hunting tribe inhabiting the Nassawara province of Northern Nigeria. Captain Tremaarne, who is a Doctor of Anthropology, was stationed for some time in this part of Africa, and therefore had exceptional opportunities for a close study of his subject; but his pursuit of knowledge was rendered somewhat laborious by the fact that the Kagoro native is unable to concentrate his attention for any length of time, and any attempt at sustained questioning was consequently a matter of some difficulty. Inquiries as to their religious beliefs were practically fruitless for another reason (even though in Captain Tremaarne's case their interlocutor being a white man was looked upon as a "big Juju" and connected with the supernatural), for the Kagoro native who speaks of religion runs the risk of being stoned to death by his brethren. It seems certain, however, that the practice of head-hunting forms part of their religion, and is regarded by them as necessary for the welfare of the tribe. No male is considered to have reached maturity till he has killed an enemy, and the heads of the vanquished are hung outside the house under the thatch, and handed down as heirlooms from father to son. In common with the majority of native races, the Kagoro, men and women alike, disfigure themselves with various markings on the head and body. Both the cheeks and forehead are covered with cuts, and the lips of female children are pierced at a very early age. The women are also obliged to shave their heads, but the masculine portion of the population indulge in elaborate hair-dressings, and combine use with ornament in the adornment of their legs, which, at dances and festivals, they smear up to the knees with red earth. This fashion, besides being considered pleasing to the eye, serves a utilitarian purpose in keeping off insects. A curious detail with regard to the Kagoro is that, unlike most savages, they seldom or never squat on the bare ground, but sit on raised stones or pieces of wood. Although, as a rule, they are very kind to their children, their treatment of such as are idiots or deformed is drastic enough to satisfy the most ardent advocate of the suppression of the unfit. If, after the age of 4 years, an imbecile or crippled child shows no signs of improvement, not only is the father fully justified in throwing it into the river (though he may not actually kill it), but the mother is free to leave her husband and marry someone else (so that there may be no obstacle to her having healthy children): moreover, so long as the afflicted child is in the house nothing can compel her to return home. The lecture, which was copiously illustrated with lantern pictures, was enthusiastically received, special interest being manifested in the quaint examples of Kagoro music, which were charmingly rendered upon the native instruments by the lecturer himself.

## MOSQUITOS AND MALARIA.

THE current number of *Biometrika* contains a fascinating paper[1] by Mr. H. Waite on the relation between mosquito prevalence and malaria rates. The paper, indeed, illustrates not only the importance but the great interest of "iatro-mathematical" studies. Those members of our profession who have been wise enough to retain some of the mathematical interests of their nonage are beginning to reap their reward, and we suspect that others will shortly be tempted to disinter *Todhunter* from beneath the books heaped upon the topmost shelves of their libraries. Mr. Waite undertook his work at the suggestion of Professor Ronald Ross, and has used the biological data and assumptions of that distinguished investigator. The author first considers the case of a stable population. If in a certain locality the population is $p$ and there are $m$ cases of malaria, the latter will remain stationary if the number of new cases is equal to the number of recoveries. With a given value of $m$ and $p$ the number of new infections depends on the number of anophelines in the neighbourhood. Hence with the anophelines present in a certain proportion to the human population, the malaria rate is stationary, and if they are present in a greater or less proportion there will be a corresponding increase or decrease in the number of cases. The author then investigates the relation between the number of cases of malaria and the number of anophelines, obtaining an elegant general solution from which values to any degree of approximation can be deduced. The general form of the results, together with particular arithmetical cases which are worked out in detail, lead to the conclusions which we summarize in the author's words: "(1) Given a number of mosquitos greater than that corresponding to the 'stable population value,' the number of malaria cases will tend to increase until a stable population value is reached. (2) Given a number of mosquitos less than that corresponding to the 'stable population value,' the number of malaria cases will tend to decrease until that stable

[1] Mosquitos and Malaria: A Study of the Relation between the Number of Mosquitos in a Locality and the Malaria Rate. By H. Waite, M.A., B.Sc. *Biometrika*, vii, 421.

population value is established. In both cases the number of malaria cases tends to asymptote to the stable value. The amount of malaria does not increase or decrease indefinitely, but tends to attain a definite prevalence. Where the 'stable value' means a large number of malaria cases, the right step seems to be the reduction of the number of mosquitos; on the other hand, where it means a small number of cases it should be possible to segregate and isolate these cases." It is inevitable that during the infancy of a new branch of science those who are familiar with its methods and their development can hardly be good judges of the different kinds of data to which such methods are applied. We have examined Mr. Waite's paper rather from the mathematical than from the medical point of view, and do not feel able to offer an opinion as to the soundness of the biological postulates. Since, however, these postulates have been laid down by the chief authority on malaria investigation in this country, it can hardly be doubted that they represent the best extant information. We have only to congratulate Mr. Waite upon a notable contribution to the science of applied mathematics, using the term without the usual academic restrictions.

## AFTER-CARE ASSOCIATION.

THE annual meeting of this association, which has for its objects: (1) The care of poor patients, discharged recovered from asylums for the insane, till convalescence is firmly established; (2) finding them suitable employment when fit for it; and (3) providing clothes, tools, etc., when needed, was held on February 8th, at 25, Cavendish Square, on the kind invitation of Sir Victor and Lady Horsley. Mr. H. D. Greene, K.C., presided over a crowded meeting, and from the point of view of his official experience as an Honorary Commissioner in Lunacy set forth and commended the beneficent work of the society, which he said was indispensable to supplement the asylum treatment of lunatics, as after-care prevented relapses and protected society from the disastrous consequences of an imperfect mental convalescence. His only criticism was that so universally useful a society should make its claims to public support better known; and with this object he would be glad to give financial aid in the matter of judicious advertising. He had pleasure in moving the adoption of the report, which had been previously presented by the Secretary, Mr. H. Thornhill Roxby. The Bishop of Barking, in seconding the motion, referred to personal experiences in visiting large asylums in his own district, especially that at Claybury, where he found patients on the eve of discharge gratefully appreciating the aid which this association had promised to give them. Homes to confirm convalescence were perhaps more needed in cases of mental than of bodily disease. Dr. G. H. Savage, in supporting, said that the association was most useful, but suffered from want of recognition and want of funds. Patients often had to be discharged from asylum care in a mental condition which might be designated sane but not sound. In such cases the After-Care Association stepped in to assure established recovery. Much tact was needful in dealing with such cases, and the executive officers of the society deserved great credit for the personal attention they gave to each. The resolution was supported also by the Rev. Dr. Woods, Master of the Temple, who referred to the loving after-care exercised there in the cases of the poet Cowper and the sister of Charles Lamb, and by Dr. Percy Smith, and unanimously adopted. Dr. Hubert Bond, Dr. Stoddart, and others took part in proposing the re-election of the committee (with the addition of Sir George O'Farrell, M.D., and Dr. Stoddart), and votes of thanks to the chairman and to the host and hostess closed the proceedings. The office of the association is at the Church House, Dean's Yard, Westminster.

## THE CORONERS COMMITTEE.

THE third part of the Second Report of the Departmental Committee appointed to inquire into the law relating to coroners and coroners' inquests, and into the practice in coroners' courts, has just been issued. It consists of further evidence and a number of appendices. Dr. William Henry Perkin, F.R.S., Professor of Chemistry in the University of Manchester, gave evidence a second time as to the conditions in which flannelette ignites. He attributes some of the dangers of the substance to the fact that very often the natural moisture of flannelette has been diminished by its having been near a fire, and thus having been, so to speak, artificially treated for the purpose of catching alight. He agreed that the danger of flannelette depends greatly on the closeness of weaving and the length and closeness of the nap. The witness handed in a copy of a bill prepared at the request of himself and Mr. Whipp by Mr. M. J. Riley, providing for the application of tests to all flannelette in regard to resistance to fire. Among the appendices is a report of the examination of the samples of flannelette referred to the Government laboratory by the coroners, with memoranda on the whole subject by Professor Perkin, Mr. Riley, Mr. C. H. Whipp, Mr. S. Bradbury, and criticisms of the evidence given by these witnesses and Mr. Sachs by Mr. A. M. Jones and Mr. W. Heap. Another appendix consists of a report of fire tests with textiles ("Non-flam" flannelette, ordinary flannelette, "Union flannel") carried out by the British Fire Prevention Committee. Another appendix contains the questions addressed to the coroners of England and Wales, with a summary and analysis of the replies received. Another consists of a memorandum presented on behalf of the London County Council by Mr. J. Ollis on the appointment of county coroners, the arrangement of their districts, the provision of coroners' courts, the payment of the salaries and disbursements of coroners, and generally on such matters as arise in connexion with the holding of inquests, and do not appertain to the province of coroner or a department under the Crown. An appendix of special interest is a memorandum presented on behalf of the British Medical Association. This memorandum is in four parts, dealing respectively with death certification and registration; with the law affecting coroners and the procedure of coroners and coroners' courts; with the question of inquiry into deaths during anaesthesia; and with the question of the necessity for inquiry into deaths following surgical operations. Among the remaining appendices is a return for England and Wales of deaths of persons whilst under the influence of anaesthetics which were reported to the coroner during the year 1908. The last appendix is a letter submitted by the Institute of Journalists, giving reasons why the proceedings of coroners' courts should be public "in the same practical and effective manner as the proceedings of the High Court and of other local bodies are public." Some of the points touched upon in the various memoranda published as appendices to the report will be dealt with in later issues of the BRITISH MEDICAL JOURNAL.

## AN AMERICAN MEDICO-POLITICAL REFORM LEAGUE.

IT is announced that a number of Chicago practitioners have formed themselves into an organization under the name of the American Medico-political Reform League, for the purpose of "correcting abuses in the medical profession, securing political

representation and a general betterment of conditions for physicians and surgeons." The principal objects of the league, as set forth in the charter, are: "To procure the establishment of a national bureau of health, divorced from politics; the establishment of a uniform standard of medical requirements in the several States of the Union; encouragement and co-operation with all movements and legislation for food reform which shall be fair and impartial and founded on scientific premisses; encouragement of political preferment of physicians as tending to secure just representation for the profession; encouragement of measures for the correction of hospital and dispensary abuses of charity."

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ROYAL VICTORIA INFIRMARY, NEWCASTLE-UPON-TYNE.

THE dispute between the honorary medical and surgical staff and the House Committee, arising out of the adoption of a report presented by the chairman of the In-patients' Admission Committee, in which was contained matter reflecting upon the honour of the staff, has been brought to a satisfactory close by the House Committee rescinding the resolution adopting the report, and unreservedly withdrawing the report of the In-patients' Admission Committee and the printed matter relating thereto. Steps will be taken by a conjoint body of the House Committee and the honorary staff to inquire into conditions prevailing at other infirmaries and to prepare a report accordingly.

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WE regret to hear that that veteran member of the medical profession in Edinburgh, Dr. Joseph Bell, was taken seriously ill on Sunday last. We are glad to learn that on Wednesday morning he was slightly better.

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THE British Association for the Advancement of Science will hold its annual meeting this year at Portsmouth on August 30th and following days under the presidency of Sir William Ramsay. Professor J. S. Macdonald is president of the section of physiology and Dr. W. H. R. Rivers of that of anthropology.

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AT a meeting of the Medical Society of London held on January 23rd the President, Mr. Charters J. Symonds, announced that the Fothergillian gold medal, given triennially, had been awarded to Dr. F. W. Mott, F.R.S., for his researches on the nervous system, especially in connexion with syphilis.

# Medical Notes in Parliament.

**Private Members' Bills.** — The postponement of all private members' chances for passing Bills till after Easter, and the allocation to them of seven Wednesdays and seven Fridays before Whitsuntide only, with the usual two days after Whitsuntide for the measures which have won approval in the House, have deprived Parliamentary work this session of much interest. The bills introduced by private members are usually pioneer bills dealing with social questions, and always educational in their influence on debate. In spite, however, of the minimizing of their opportunities in consequence of the pressing nature of public business, more than 350 members entered for the ballot. Mr. S. Phillips, an Irish member, drew first place, and the others in order of luck were Sir George Kemp, Mr. Goulding, Mr. Remnant, Captain Jessel, Major George Stanley, Mr. Carr-Gomm, Mr. Maclean, Mr. Watson Rutherford, Lord Woolmer, Mr. Whitehouse, and Sir Frederick Low. As it was generally understood that the Irish members out of a desire to help the Government to pass the Parliament Bill, would not take up any time with private bills, the appearance of Mr. Phillips's name caused some astonishment. It was anxiously canvassed whether he could be enlisted to bring in a bill for the Labour Party, who had drawn no place, but after a time it was found that the Irish member had no desire to introduce any bill; he had intended to ballot for places in the Ladies' Gallery, and somehow or other had got into the wrong ballot box and come out first. On Thursday the bills were brought in, and Sir George Kempe introduced the Women's Enfranchisement Bill and put it down for May 5th. Mr. Goulding took second choice, April 28th, with a bill to amend the Aliens Act, Mr. Remnant followed with a proposal to prevent the importation of goods manufactured under sweated conditions, and Captain Jessel selected May 19th to amend the Old Age Pensions Act. Of a total of twenty-five bills introduced few have any chance of success; but some are of interest, such as Mr. Carr-Gomm's London Poor Law Bill, a bill to limit the hours of asylum officers and servants and to amend the Asylum Officers' Superannuation Act introduced by Lord Woolmer; the Veterinary Surgeons Act Amendment Bill; two Cottage Homes Bills, and the Public Health Act Water Rights Bill introduced by Mr. Leif Jones. Two other bills, the Nurses Registration Bill and the Death Registration and Burials Bill, in both of which a good deal of interest is taken, will have to be introduced and take their chance as ordinary measures, as their promoters were unlucky in the ballot.

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**Rebate on Motor Spirit (Medical Practitioners).**—Mr. Ginnell asked the Secretary to the Treasury if he would say why the rebate of motor spirit duty to which medical practitioners are entitled under the Finance (1909–10) Act, 1910, had not yet been paid in Ireland in respect of 1909 or 1910 in cases in which the claim had been duly made, accompanied by vouchers; if, to entitle them to the rebate, medical practitioners were required to prove that manufacturer and dealer had also paid the duty, and furnished with power to obtain this information; and when would the rebate due in respect of the last two years be paid. The Financial Secretary to the Treasury replied that if the hon. member would furnish the Commissioners of Customs and Excise with the names and addresses of any medical practitioners in Ireland who had claimed but had not been paid rebate, inquiry would be made into the circumstances in each instance. Medical practitioners and other claimants for rebate were not required to prove that manufacturers of and dealers in motor spirit had paid the duty. The inquiries as to the validity of the vouchers or certificates attached to the claims were made by officers of Customs and Excise.

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**The Plague: Heroism of European Doctors.**—On Monday Mr. Allan Baker asked the Secretary of State for Foreign Affairs if he could say what precautions were being taken by the Chinese Government to ensure the safety of European doctors working in the plague district of Harbin. Mr. McKinnon Wood replied that His Majesty's Minister at Peking reported that all the doctors had been inoculated with Haffkine's vaccine. They were comfortably installed in a railway car, with the exception of one who was living with the British consul. The Chinese Government had done their utmost for the personal comfort of the doctors, whose private letters showed appreciation of their considerate treatment. They wore masks, oilskin boots, and complete overalls when dealing with cases of plague. The French doctor (Mesny), who was not inoculated, became infected owing to a patient coughing in his face while examining him unmasked. Dr. Jackson, the British doctor, died after continuous hard work among a crowd of infected coolies. It was believed that he was too exhausted to maintain proper precautions. The heroism of the doctors, Sir John Jordan reported, was beyond praise.

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**The Destruction of Rats.**—Captain Clay asked the President of the Local Government Board whether the Government were prepared to introduce legislation authorizing local authorities to take such measures

as might be necessary within their areas for the destruction of rats in order to minimize the danger of an epidemic of plague. Mr. Burns said that in November of last year he issued an order directing the local authority of any district in which rats were infected or threatened with plague, or in which there was an unusual mortality among rats, to take measures for the destruction of rats and for preventing their entrance into buildings. Further legislation for this purpose does not at present appear to be required.

**Professor Ehrlich's Preparation.**—Mr. Goldman asked the Secretary of State for War whether the attention of the War Office had been drawn to the cures effected by the use of Professor Ehrlich's preparation 606; and whether any steps had been taken to employ this preparation in suitable cases in the British army at home and abroad. Mr. Haldane replied in the affirmative and said if the hon. member would kindly refer to the *Journal of the Army Medical Corps* for November, 1910, and February, 1911, he would find accounts of the cases in which the remedy had been tried.

**Parasitic Nodules in Imported Meat.**—In answer to Mr. Bottomley, who asked the President of the Local Government Board what steps were being taken with reference to the reports of Dr. MacFadden and Dr. Leiper on the parasitic condition of imported meat, Mr. Burns replied that he had received the reports referred to, and they had now been published. Copies had been sent to the port sanitary authorities, on whom devolved the duty of inspecting imported meat from all sources, and he understood that where parts of carcasses liable to be infested with parasitic nodules had not already been removed prior to exportation to this country, the meat was dealt with by port sanitary authorities in the manner referred to by Dr. MacFadden. The Commonwealth Government had undertaken to inspect all meat exported from Australia, and to take steps to ensure that no meat affected with parasitic nodules should be exported in future. It was true that Dr. Leiper had expressed the opinion that the diseased condition was not peculiar to Australian cattle, but, up to the present, he had received no reports of parasitic nodules in meat from any other countries. All imported meat was liable to examination on entry to this country. Every care would be taken to prevent parasitic portions removed being used as tinned meats.

**Chinese Pork.**—In answer to two questions, the one relating to the danger from introducing plague through pork produced in infected districts, and the other relating to a supposed increase of imported pork, Mr. Burns said on Monday last that the districts in China which were affected with plague were remote from the districts from which pigs had been imported to this country. No circumstances had arisen necessitating the taking of other measures than those of adequate inspection of imported meat which was in operation. Fewer carcasses were imported during 1909 than during 1910, but, as the importations of Chinese pork did not commence until July of the former year, he should hesitate to say whether the shipments were increasing. He understood that 23,246 carcasses were received at Liverpool during last year, and that the whole of these were examined. Of this number, 343 were condemned on account of unsoundness which developed in transit, and 352 on account of disease or abnormal conditions.

**Medical Inspection of Schools.**—Mr. Charles Bathurst asked the President of the Board of Education if he had official returns showing the results of the medical inspection of elementary school children in England and Wales for a complete school year; and, if so, what proportion of such children were found by such returns to be suffering from some physical defect or ailment; and what proportion of the latter were in a condition to render medical treatment advisable. Mr. Runciman replied that he must refer the hon. member to the report of the Board's Chief Medical Officer for the year 1909, published in December last. He would there find the fullest information available. He would refer the hon. member especially to Section II of the report, and, perhaps, more particularly, to page 27 in that section.

**Anthrax.**—Mr. Orde-Powlett asked the Board of Agriculture last week with reference to an outbreak of anthrax in the North Riding of Yorkshire whether the affected animals were fed on foreign cakes. The Parliamentary Secretary replied that if the question referred to an outbreak at Helperley, in December last, that a sample of the feeding stuff inspected was tested, and the bacillus of anthrax was not found. In answer to a further question, he said that he thought it desirable that in all cases in which anthrax was attributed to foreign cakes that a bacteriological examination should be made.

**Treatment of Sick Poor.**—Mr. Leach asked the President of the Local Government Board if he would take steps to urge all public authorities under the direction of his department to provide sanatoriums for the benefit of those people who were too poor to pay the fees at existing private establishments. Mr. Burns answered that arrangements for the treatment of the sick had already been made by boards of guardians by the provision of separate institutions or sick wards; and in suitable cases he was urging the combination of such bodies for the provision of special institutions, where these were required. Sanitary authorities had also provided about 700 hospitals, with approximately 20,000 beds, mostly for the isolation of cases of infectious disease.

**Medical Relief, Termon, co. Donegal.**—In answer to Mr. Hugh Law, who complained of the inconvenience of the arrangements, Mr. Birrell stated that the Medical Officer of the Milford and Kilmacrenan dispensary district resided at Milford, and poor persons from any parts of the dispensary district who required his services urgently at their homes must send for him to Milford. The dispensary district was of average size and population for a rural dispensary district (area, 28,658 acres; population, 4,242), and the medical officer attended twice weekly at Milford dispensary and once a week at a dépôt at Kilmacrenan. The electoral division of Termon had an area of 11,086 acres and a population of 1,264 persons. The village of Termon was about two miles from Kilmacrenan and between seven and eight miles from Milford, but there were, of course, outlying portions of the division which were most distant. Patients belonging to the Termon division could therefore procure their supplies of medicine either at Milford or Kilmacrenan, whichever might prove to be more convenient; and there had been no complaint to the Local Government Board or officially to the board of guardians as to the want of a dispensary dépôt for the division, nor had there been any application or proposal made for the establishment of such a dépôt. The medical officer would be entitled to a reasonable increase of salary in the event of a dépôt being established.

**Irish Poor Law Reform.**—Mr. Birrell stated last week in answer to two questions that he saw no prospect of introducing a bill to reform the Irish Poor Law this session.

**Vivisection.**—The Dogs Protection Bill to prohibit experiments on dogs was presented on Monday last by Sir Frederick Banbury and supported by Mr. George Greenwood. It was put down for second reading on Friday.

**The Course of Public Business.**—On Monday the Prime Minister stated that he hoped to conclude the debate on the Address on Wednesday. On Thursday the motion to take the private members' time up to April 13th would be submitted, and afterwards Supplementary Estimates would occupy the rest of the week. The Parliament Bill was to have been introduced on Monday, February 20th, but was put off till Thursday, February 23rd, to enable Mr. Balfour to be present. The Financial Resolutions will be taken on Monday.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LIVERPOOL.

### THE ABATTOIR QUESTION.

THE Liverpool City Council has decided by a majority of 67 to 30 votes to reject the advice of its special committee to remove the abattoirs and allied trades from the present site in the centre of the city to what is known as the Love Lane site of 13½ acres, bordering on the docks in the north end of the city. The special committee has sat for two years and has been at great pains to examine the matter thoroughly, having sent deputations to see the most important abattoir arrangements on the Continent. The discussion in the Council was very ably opened by Sir Charles Petrie, the leader of the Conservative party, who was seconded by Mr. Harrison Jones, the deputy leader of the Liberal party, so that party politics played no part in the matter. Sir Charles Petrie showed that the present site was unsuitable because it was only 2½ acres in extent and was incapable of extension. Within 440 yards of the present site were the Consumption Hospital, the Maternity Hospital, the Royal Infirmary, the Dental Hospital, and the Brownlow Hill Workhouse Infirmary, besides the University and the Adelphi Hotel. There had been spent on the Royal Infirmary and the University upwards of a million sterling on the understanding that the abattoir lease would not be renewed, and a large sum was being spent on the Adelphi Hotel on the same condition. From a financial point of view the new site would be preferable, as already 80 per cent. of the meat consumed in this country was imported as dead meat, and a market close to the docks would be largely used, with enormous saving effected in handling and in the prevention of the depreciation of the meat. Sir Charles Petrie reminded the Council that Liverpool, by adopting a central site for the fish market at the instigation of the traders, had lost the opportunity of becoming the great "fish port" on the West Coast as Grimsby is on the East Coast.

Sir William Forwood pointed out that by retaining the present site the Council would save £50,000, but would continue a system under which all the trades were crowded together, with absolutely no room for expansion. From his knowledge of American trade he recognized that lack of accommodation was already driving the dead meat trade to other places.

The successful opposition came from the meat traders; the mover of the amendment relied chiefly on the nature of the trades carried on around the new site—namely, a gasworks, a tannery, manure works, and refuse destructor; these, however, are only some hundreds of yards from the boundaries of a large site. He also stated that there was dust and smoke to an appalling degree, although the fact is that the prevailing winds come from the open river mouth. The dread of disturbing an existing trade evidently outweighed all other considerations, even in the eyes of some medical men who have seats on the Council.

If the Love Lane site is not ideal in all respects for the purpose, it is the best site available at present with a view to meeting all the requirements. The City Council has apparently left the matter open for future decision, and other schemes will no doubt be proposed as time goes on.

## MANCHESTER AND DISTRICT.

### THE MANCHESTER ROYAL INFIRMARY.

AT a meeting of the board of management to consider the draft annual report, Lord Derby inquired as to patients' payments, and asked whether practically no payment was expected from out-patients. The reply was that there was practically none save in exceptional circumstances. Lord Derby said he saw from the report that the in-patients paid about 6s. 8d. each, but the out-patients did not come up to even a penny apiece. The general superintendent said that the out-patients treated were those whose incomes were so small that little could be got from them. Lord Derby said he was connected with a London hospital where it had been found that by inquiring into people's position a great deal more money was received, and that many people went there who could afford to pay for their treatment. The chairman said that the circumstances of in-patients were inquired into and they were required to pay what they could afford.

In the original appeal to the public for funds it was stated that £12,000 in new annual subscriptions was wanted to enable the institution to pay its way, in addition to the sum needed to extinguish the building debt. Last year's report showed that the response had only been £2,400. There was a further increase in 1910 of £820, but this still left £9,000 a year deficiency. The ordinary expenditure had been £37,176, leaving a deficiency of £9,232, but in addition to this there was a further deficit of £2,712 on the Barnes Convalescent Home and in other directions, making a total deficit of £11,944. Additions to capital for endowments had been received to the amount of £10,400, but the sum of £11,944 had had to be withdrawn from unappropriated capital. The total number of persons who had received the benefits of the charity was 67,837; there had been a remarkable increase in the number of minor casualties, attributed to the operation of the Workmen's Compensation Act, which made it prudent in the interests both of the workmen and the employers to seek medical aid in cases where it would formerly have been considered unnecessary. Steps had been taken to establish a special laboratory for cancer research and an appeal was made for a special fund of £2,500 to cover the cost for the next five years. Something like 600 cases of cancer were treated yearly, and it was desired to engage a director to devote himself exclusively to the work of the laboratory.

At the annual meeting of the trustees held last week the chairman, Sir William Cobbett, again drew special attention to the serious financial position. He said it was useless to have built one of the finest infirmaries in the world unless it could be used to the utmost of its capacity. In the year 1909, £5,897 was spent beyond the income, and in the past year the expenditure was nearly £12,000 beyond the income. This state of affairs, of course, could not continue indefinitely. At present 483 beds were in use, and if 168 were closed it would be possible to keep within the income. But this would reduce the beds to only 20 or 25 above the number in the old infirmary. At present 214 patients were awaiting admission, and to close down any beds would be to confess that the new institution was a failure. A second method of dealing with the difficulty would be to meet the deficiency as it arose out of capital, but this could hardly be contemplated seriously. The only reasonable method was that there should be an increase not only in the number but in the amount of the annual subscriptions. Many of the subscribers were in a position to give more, and a small increase in each subscription would make an enormous addition to the income. Sir Edward Donner seconded the adoption of the report, and it was carried. By a resolution proposed by Bishop Welldon, the Earl of Derby was reappointed president of the infirmary, and as vice-presidents there were elected the Earl of Ellesmere, Lord Egerton of Tatton, and Sir Oswald Mosley. The thanks of the trustees were given to the honorary medical steff for their services during the year.

### ENTERIC FEVER AT ECCLES.

A special report has just been issued by the medical officer of health for Eccles on the sudden and extensive outbreak of enteric fever that occurred in November and December last, and some interesting facts are revealed as to the spread of the disease. On November 13th the district was practically free from enteric, but on November 14th 2 cases were notified, on November 15th, 1 case; on November 16th, 11 cases; and on November 17th, 24 cases. The total number of cases notified from November 14th to December 31st

was 166, of whom 99 were under 15 years of age. Early in the epidemic the water supply, which is from Manchester, was examined, but found to be good, and nothing was found in the milk supply. As most of the patients were children, attention was directed to various articles used by children, such as sweets, but nothing was found in that direction, and the authorities were also able to exclude any infection from drains. Suspicion then fell on ice-cream, especially as information was received that a local epidemic in Manchester had been traced to ice-cream. On November 19th the Local Government Board was communicated with, and Dr. Copeman arrived in Eccles to make inquiries. He visited twelve houses involving over 20 cases, and found that all these cases did consume ice-cream on or about October 30th, and that all of them were within the round of an Italian ice-cream vendor named Antonio, who was in the district on October 23rd and October 30th. With the assistance of two inspectors from Salford a systematic house visitation was made, and numerous cases were discovered which might have been overlooked. In the Eccles parish school on November 22nd there were 27 cases of actual disease and many contacts, and the school was closed for fourteen days. Of the 72 excluded children, 5 subsequently developed enteric fever, which fully justified the closing of the school. The house of Antonio, where the ice-cream was made, was visited, and it was found to be a three-storied house, the two upper floors of which were let for lodgings. The ground floor had two rooms, used for making the ice-cream. There were fourteen people resident in the house, and six of them gave the typhoid reaction. The ingredients of the ice-cream were cornflour, milk, and sugar. Milk was placed in a vessel over a gas-burner, and as it became warm a paste of cornflour and milk was stirred into it, and sugar added from a paper bag. The mixture was kept stirred until the top became "wavy"; it was then removed and put in a cylindrical zinc freezer, and taken round for sale two days later. It appears that several children living in the house had been treated for gastro-intestinal catarrh, and on October 28th the medical attendant found that three of them gave the typhoid reaction, while fourteen days later three other inmates of the house gave the reaction. There seems, then, to be no doubt that in some way the ice-cream made in the house became infected. The medical officer of health points out that the health authorities have no power to deal with ice-cream unless it can be proved to be infected, and he considers that legislation is necessary to give powers of supervision. That some inspection is needed is proved by the statement in the report that when the medical officer of health interviewed two of the men engaged in making the cream, he found "their hands absolutely black, finger-nails full of black material, their clothing dirty, their hair uncombed, and they were generally in a most disagreeable condition." The report goes on to state that the systematic visiting of the houses in the affected district disclosed numerous cases of the disease that would have been unnoticed. Many of the cases began with tonsillitis, which is regarded as showing that the lymphatic system of the intestine is not the only portal of entry, and that probably the lymphatic apparatus of the upper digestive tract may also be the infecting spot. The following interesting observation was made during the epidemic:

> Side by side with severe cases were found other cases which eliminate the typhoid bacillus in their excrement for weeks without having a clinical symptom of typhoid or even dry symptoms, which would point to the disease having been present. In these cases there has existed a reaction of the body tissues against the invading typhoid bacilli. We must, however, regard these cases as "carriers," that is to say, they have had typhoid without clinical symptoms.

It is further stated that probably 75 per cent. of all typhoid carriers are adult women, and it is exceptional for children to remain carriers.

In an appendix to the report, Professor Delépine, Director of the Public Health Laboratory of the Manchester University, states that he received the spleen of one of the patients who died at the Salford Sanatorium, and obtained from it pure cultures of typhoid bacilli which reacted with the blood of other patients affected by this epidemic in the same way as the laboratory stock of cultures. None of the ice cream seems to have been available for examination till November 21st, but two samples on that day, though they contained no specific bacteria, did contain bacteria cultivable on gelatine at 20° C. to the enormous number of 14,800,000 and 18,000,000 per cubic centimetre respectively. The extent of the epidemic is shown by the fact that on an average there were more cases occurring daily than had occurred yearly during the preceding fourteen years. Another feature is the suddenness of the outbreak and allowing for variations in the incubation period, and for unavoidable delays in discovery of cases, it would appear that all the cases discovered between November 14th and November 21st were probably infected on the same day. Professor Delépine thinks that the ice cream "must have been almost uniformly infected with the bacilli which could only be accounted for by the multiplication of bacilli introduced by infected hands or by vessels infected by faecally-polluted water or by infected milk, or by flies or dust, or in any other way, into the warm mixture used in the preparation of ice-cream, while that mixture was allowed to cool previous to freezing.

### THE MANCHESTER POLICE AMBULANCE.

The Watch Committee of the Manchester Corporation has held a special meeting to discuss the question concerning the use of the police ambulance referred to in this column last week. It will be remembered that Councillor Dr. Fletcher complained that, though there was an arrangement by which the ambulance should be supplied free of charge in private cases where the medical attendant stated that the patient was too poor to pay, Dr. Fletcher had had great difficulty in obtaining the use of the ambulance in an urgent and needy case. He was also annoyed to find that the police had gone to the husband of the patient at his work and induced him to borrow the money from his employer to pay the police. After a long consultation, the Watch Committee passed the following resolution:

> That this committee is of opinion that the arrangement to which Dr. Fletcher referred in the council has upon the whole worked satisfactorily; but that, owing to its temporary nature, there has been a misunderstanding on the part of the ambulance staff engaged in this particular case, in regard to which the committee also express their disapproval of the method employed in the collection of the fee.

It will be noticed that nothing is said in the resolution as to the statement of the chairman that the committee "would accept the testimony of some medical men but not all" as to the ability of patients to pay for the ambulance. The arrangement cannot be satisfactory if it is left to an ambulance officer to accept or refuse, as he thinks fit, the word of any medical man that a particular case is urgent and needy.

### CORONER AND DOCTOR AT ST. HELENS.

For the second time within the last few months, the local medical profession has had to express its sympathy with Dr. Bassett of St. Helens in his relations with the coroner. It appears that Dr. Bassett had been called in to see a child for whom a chemist had prescribed a cough mixture. Dr. Bassett gave some medicine and left directions for treatment, but the next day the child died suddenly, and he felt that he could not give a certificate as to the cause of death, and did not feel justified in saying whether or not the child had died from natural causes. The coroner thought fit to hold an inquest, for which, in quite unnecessary language, he threw the whole onus on to Dr. Bassett. In cross-examination, the coroner tried hard to get him to say whether he thought that death was from natural causes or not, but Dr. Bassett repeated time after time that he could not give any opinion one way or the other, and that being so he could not have given any certificate. The coroner absolutely refused to see the difficulty in which he was placing Dr. Bassett, and

thus the odium which he threw on him was entirely undeserved. The position taken by Dr. Bassett was perfectly clear that he had no satisfactory ground for giving any opinion. By refusing a certificate he in no way suggested any criminal action or neglect, but to say that he believed that death was or was not from natural causes when he did not know, would have been to assume a responsibility which he would not have been justified in taking. It is strongly felt that the giving or withholding of a death certificate must rest entirely in the discretion of the medical man, and to have acted as the coroner suggested would tend to reduce death certification to a useless form.

### THE MANCHESTER AND SALFORD SKIN HOSPITAL.

At the annual meeting of the subscribers to the Manchester and Salford Hospital for Skin Diseases it was stated that the honorary medical staff was urging the extreme necessity of providing additional accommodation, as the in-patient department was already used to its full capacity, and a considerable number of patients were waiting for admission. The annual expenditure was about £3,000, and the deficiency last year was £457. Towards the income patients contributed about £1,100, and for the remaining £1,540 the hospital had to depend on donations and subscriptions, which during the last few years had realized little more than £800, so that an increase of some £600 a year was needed to enable the board to continue its work. This was in addition to an amount of about £900 needed to pay off a bank overdraft. In responding to a vote of thanks to the honorary medical officers, Dr. Wild spoke of the hospital's financial requirements from a medical point of view. New methods of treatment were continually being discovered which could not be installed without expense. Referring to the number of patients treated, he said that many school children were being sent to the hospital for treatment of ailments which could quite well be treated by medical practitioners at home. The children were sent chiefly by the school authorities, and he protested that it was unfair that the time of the hospital staff should be taken up in this manner without any compensation for the work and for the expense entailed. It might be added that similar complaints have from time to time been heard from other hospitals in Manchester, and it is high time that some satisfactory arrangement should be made by the education authorities for the treatment of children for whom the authority is responsible.

## LONDON.

### LONDON COUNTY COUNCIL.

*Medical Treatment and Education Expenditure.*

AT the meeting of the Education Committee of the London County Council on February 8th the annual estimates for 1911-12 were submitted. The total was £4,981,110, about half of which represented salaries of teachers. The following individual items may be mentioned: Meals for underfed children, £89,545; medical inspection and treatment, £39,960; cleansing children, £2,205; open-air schools, £1,750; special schools—blind, £9,915; deaf, £17,415; mentally defective, £56,950; physically defective, £42,480; epileptic, £2,440; total, £129,200. Under the head of provisional sums, for expenditure not yet sanctioned by the Council, were the following items: Further provision for dental treatment, £5,000; provision for improving the working of the Council's arrangements with the hospitals, £1,000; cleansing of verminous children, £2,370. On the receipts side of the maintenance estimates were these entries: Cost of meals recovered from parents, £905; cost of medical treatment recovered from parents, £550. The General Purposes Subcommittee, in its observations on the various items, said the increase of £20,885 under "medical inspection and treatment" was accounted for by the employment of additional school medical officers and the treatment of children for eye, ear, and skin ailments. The estimate included a proportion of establishment charges not previously made, so that the actual increase was £12,000, of which £4,000 represented salaries of the increased medical staff. The estimate was based on provision for the treatment of 62,000 eye, ear, nose, and throat cases, and 1,200 ringworm cases. The hospitals and medical treatment centres at present included in the Council's scheme could provide treatment for some 32,000 eye, ear, nose, and throat cases, and 1,325 ringworm cases. The average cost was 4s. 6d. a case in respect of eye, ear, nose, and throat ailments, and 17s. 10s. for ringworm cases. The provisional item of £5,000 for dental treatment the subcommittee said was included to provide for "further experimental dental surgeries. This sum will also allow of general provision being made for a small portion of the year for all cases of London children requiring treatment." As to the "improvement of the working of the Council's arrangements with hospitals," the subcommittee said that at present it was not possible to obtain early information from the hospitals as to the attendance of the children, and many ceased attendance before treatment was completed. It was desirable, therefore, to make provision at the hospitals and medical treatment centres for following up cases and so avoiding leakage. Regarding the recovery of the cost of treatment, it was impossible to give any reliable estimate. From January to December, 1910, £185 was actually recovered from parents, but the Children's Care Subcommittee was considerably in arrear with the assessment of charges. The consideration in detail of the education estimates was postponed until the next meeting.

*The County Council Medical Service.*

The Council agreed on February 14th to a proposal to increase the salary of the Education officer, Mr. Blair, from £1,250 to £1,500 in two annual increments. One of the reasons for the increase given by the committee was the growth of the work which might be summed up in the phrase, "the care of the child." On this, the feeling that exists on the Council in favour of the administration of all matters concerning the health of the children through the public health service, and not through the Education Committee, found expression, one member hinting that, as a result of deliberations now proceeding in committee, Mr. Blair might soon be relieved of this part of his work.

The Special Schools Subcommittee presented to the meeting of the Education Committee a report in favour of placing the medical officer (education) formally in charge of the medical arrangements at the Council's special schools of all kinds, the local medical officers being instructed to communicate with him in all serious cases of illness and on medical matters affecting the schools. There was no reason why the scheme of sight testing in force in ordinary schools should not be applied to schools for the deaf and physically defective, especially in view of the need those two classes had of preserving their eyesight if they were to become self-supporting, and the subcommittee was of opinion that this should be done. Owing to their unreliability under test it would not be desirable to apply the scheme to schools for mentally defective. The subcommittee recommended that one of the present quarter-time posts should be abolished and a full-time officer appointed as medical examiner under the Elementary Education (Defective and Epileptic Children) Act, 1899. This post would be of a grade somewhat lower than that of full-time assistant medical officer, but higher than that of a school doctor, and a suitable man could be obtained for a salary of £400 a year, rising by annual increments of £25 to a maximum of £500 a year.

The committee decided to recommend the Council to create such a post, but to call the occupant a "medical officer" and not a "medical examiner."

*Defects of the Hospital Scheme of Medical Treatment.*

The Children's Care Subcommittee in a long report dealt with the question of the charges to parents in

respect of the medical treatment of their children. The experience of the past year, it was stated, showed the scale by which remissions were calculated to be too complicated. (This scale took a "standard family" as consisting of two adults and four children, and went into such detail as to grant remissions varying by a penny or two as between a man having 22s. 6d. and one having 25s. a week.) The administration of this scale had been "a source of considerable difficulty." It had also to be stated that as, prior to the arrangements made by the Council, necessitous parents were able to obtain free treatment at most of the hospitals, many of them regarded the Council's arrangements as an interference with what they considered to be their rights and privileges. At the present time the work of assessing charges was seriously in arrear—out of 14,000 cases treated, only 7,000 had been assessed. Care committees objected to assessing and presenting claims to parents where there was no intention to recover. From the point of view of the hospitals, it was contended that the fact that the Council made a charge to parents was likely to have a prejudicial effect upon subscriptions. Many hospitals were constituted as institutions to provide "free treatment for the sick poor," and this had prevented certain of them from coming within the Council's scheme, and was understood to be the chief consideration which influenced the authorities of St. George's Hospital in withdrawing from the scheme. Another difficulty arose in connexion with the Hospital Saturday Fund, 75 per cent. of which was obtained as the result of small sums contributed by employees in workshops and factories. Since the adoption of the Council's scheme some of the hospitals—a relatively small number—had declined to accept in some instances Hospital Saturday Fund letters from children and had required a Council voucher instead. The supply of this voucher involved a charge to the parent by the Council. Parents who were subscribers to the Fund considered that they made two contributions for the treatment received under the arrangements made by the Council.

In view of the foregoing considerations the subcommittee thought the existing arrangements in respect of charges for medical treatment should be discontinued. It was not prepared to substitute, however, a classification suggested by the Finance Committee on the following lines:

(1) Parents able to do so, to pay the full amount;
(2) Parents able to pay only part of the cost to pay a definite fixed amount;
(3) Parents unable to pay anything to be exempted altogether;
(4) The scale to apply to dental treatment, 1s. being charged where parents were only able to pay part of the cost.

Such a system, in the opinion of the subcommittee, would not avoid the necessity for detailed inquiries, or lessen to any appreciable extent the work of the local care committees, or obviate the difficulties in relation to the hospitals. The subcommittee proposed that a uniform charge of 1s. should be adopted for the complete treatment of both medical and dental cases, no charge to be made to the parents of necessitous children, or in cases in which, after careful inquiry, it was ascertained that the parent had been accustomed to subscribe to the Hospital Saturday Fund or had any other legitimate claim to free hospital treatment.

This was agreed to without discussion, the report being reached at the end of a long sitting. A further proposal to relieve the pressure of work upon the care committees by remitting all outstanding arrears was withdrawn.

*School Doctors' Substitutes.*

In order to avoid inconvenience which has arisen owing to the absence of school doctors on days fixed for medical inspection of schools the Education Committee decided that in all cases of absence of school doctors efficient substitutes must be engaged, and, except in cases of illness, the amount paid to the substitute should be deducted from the salary of the absentee.

## BIRMINGHAM.

### EDUCATION OF EPILEPTIC CHILDREN.

CERTAIN suggestions for the care and education of epileptic children, made by the Special Schools Subcommittee of the Birmingham Education Committee, have been adopted. The children have been divided into three classes. The first group consists of children who require education in a residential school. These are hopeful cases, without any mental deterioration, and with proper treatment should have a chance of real recovery. It is hoped that their education can be provided in connexion with a scheme for the establishment of a children's department at the Monyhull Colony, near King's Heath, under powers to be conferred by the Poor Law clauses of the Greater Birmingham scheme. The second class is made up of children in whom mental defect is associated with the epilepsy. They can never become independent of others, and it is proposed to teach them simple household duties in the special day schools, so that when they are sent into the Monyhull Colony they will be useful colonists, and able to help in the various departments, and thus contribute to their own support. The third group consists of children who might attend ordinary elementary schools. They are those who have but one or two fits, and who need to be kept under observation. It has been recommended that the medical superintendent devise a scheme whereby he will receive a report of these children, and, if necessary, re-examine them at least every six months, or more frequently if he deems it necessary. The whole scheme depends on the passing of the Greater Birmingham Bill, which, when passed, will give the guardians power to receive these cases from the Education Committee, and provide accommodation for them at the schools about to be built at Monyhull.

### HOSPITAL SATURDAY HOME FOR CONSUMPTIVES.

An appeal has been issued by the Sir William Cook Memorial Committee for funds to enable them to proceed with the scheme for providing the new Hospital Saturday Home for Consumptives on Romsley Hill, between the Lickey and Clent Hills. It is expected that the foundation will be laid about Easter, and that the home will be ready to receive patients in the autumn. The Birmingham Hospital Saturday Fund have arranged to take over the responsibility of managing and maintaining the home when it is opened. It is very essential, therefore, that the buildings should be handed over to them free of debt, and to ensure this nearly £7,000 more will have to be raised. Besides an appeal to workpeople, a further appeal for private donations is being issued, and the committee is asking the board of directors of some of the leading companies to make grants in view of the fact that the matter is one of such urgent importance to the city generally. The directors of several large companies have already made grants varying from 50 to 100 guineas.

## DURHAM.

### PROPOSED COUNTY SANATORIUM FOR CONSUMPTION.

DR. EUSTACE HILL, medical officer for the County of Durham, has presented to the county council a report on the prevention of pulmonary consumption, with special reference to sanatorium treatment. The report states that in the administrative County of Durham deaths from consumption annually exceed 800, and those from other forms of tuberculosis number at least 600. The medical officer assumes that at the present time there are certainly more than 4,000 persons in the county suffering from pulmonary consumption. There has been a notable decline in the mortality from consumption since 1892, exceeding 40 per cent.; but there has not been so marked a decline in the deaths from other forms of tuberculosis, especially in children, and he suggests that the reason is that breast feeding of infants has

largely given way to artificial feeding, so that the opportunities for infection by the milk from tuberculous cows is thus greatly increased. The decline in the mortality from pulmonary consumption he attributes to the general improvements in the sanitation of the county, especially the drainage of the soil and improved construction, lighting and ventilation of dwellings, factories, and workshops; other important factors are, in his opinion, increasing temperance and greater attention to personal hygiene.

Dr. Eustace Hill considers that on the whole the results of sanatorium treatment have been satisfactory, though the percentage of permanently cured is not so large as was first expected, owing partly to the fact that a considerable proportion of those admitted were suffering from the disease in too advanced a stage, and partly because many were unwilling or unable to continue the necessary treatment and preventive measures on return to their homes and occupations, with the result that relapse not infrequently occurred. The experience of the County of Durham Society for the Prevention and Cure of Consumption was that only one-fourth of the cases admitted to the sanatorium were in a curable stage. Holding, however, that sanatorium treatment is of the greatest value both as a curative and educative influence, Dr. Hill recommends that a conference of county, borough, and district council representatives should be held to discuss the matter, but expresses the strong opinion that success in early cases will be largely dependent on the compulsory notification of phthisis in the districts it has to serve. While he advises that the administrative buildings should be a permanent structure, he advises that the sanatorium generally should be regarded as a camp, patients being housed in shelters or inexpensive but comfortable pavilions providing the maximum of fresh air and sunshine. He estimates that the establishment and maintenance expenses for one hundred patients would be £6,480, and states that in the scheme for the West Riding of Yorkshire it is estimated that the annual cost for each patient, including repayment of capital and interest on loan, would be £73 12s. a year. He speaks highly of the good work done by the County of Durham Society for the Prevention and Cure of Consumption, which has provided a sanatorium of 45 beds for men at Stanhope and one of 28 beds for women at Wolsingham, but adds that the large proportion of the patients treated reside in districts outside the area of the administrative county.

Dr. Hill sums up his views as to the conditions which any effective scheme for stamping out consumption and other forms of tuberculosis in the county must fulfil in the following propositions: (1) Sanatorium treatment for early cases. (2) The provision of accommodation for advanced cases of consumption which are a danger to the public health, and for the treatment and education of cases of consumption unsuitable for sanatorium treatment. (3) The compulsory notification of cases of pulmonary consumption. (4) An adequate staff to enable the necessary supervision and assistance to be given to consumptive patients, and to deal with sanitary defects found in the homes of such patients. A trained health visitor in each district would be especially useful. (5) The provision of one or more suitable houses in every town and village for accommodating workmen and their dependents who have been discharged from sanatoriums and whose home conditions are unsuitable. (6) The prevention of the sale of milk from tuberculous cows, and the safeguarding of the purity of the milk supply; and for this purpose legislation is urgently needed.

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THE eighth annual meeting of the American Society of Tropical Medicine will be held in New Orleans on May 18th and 19th. The Secretary of the society is Dr. John M. Swan of Watkins, New York.

THE third Congress of the German Urological Society will be held at Vienna on September 11th, 12th, and 13th, 1911, under the presidency of Professor O. Zuckerkandl. Communications relative to the congress should be made to Dr. Kapsammer, IX Maria Theresienstrasse 3, Wien.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## EDINBURGH OBSTETRICAL SOCIETY.

IN place of the ordinary monthly meeting of the society a complimentary dinner to Dr. William Craig, on the occasion of his resignation of the office of treasurer, was given in the Caledonian Station Hotel on the evening of February 8th. About fifty Fellows and guests sat down under the chairmanship of Dr. Haultain, the president of the society. Among those present were Emeritus Professor Sir A. R. Simpson, Professor Stephenson (Aberdeen), Professor Sir Halliday Croom, and Dr. Byrom Bramwell (President of the Royal College of Physicians). The toast of "The King" was given by the President. Sir Alex. R. Simpson, on behalf of the society, presented Dr. Craig with a silver tea and coffee service as a recognition of his valuable services as treasurer for thirty-five years. He referred to the remarkable improvement in the financial condition of the society that had been effected during Dr. Craig's stewardship, and to the high esteem in which Dr. Craig was held. In reply, Dr. Craig gave interesting reminiscences of his earlier connexion with the society. The health of the President was proposed by the President of the Royal College of Physicians. Subsequently an enjoyable programme of song and anecdote was contributed by various of the Fellows present.

## THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

The annual meeting of the Edinburgh Medical Missionary Society was held on January 26th. Among the philanthropic agencies of this country none occupies a higher place, and none more deserves liberal support. The more so that it does not ostentatiously parade its claims. It was, therefore, gratifying to the friends of the society to read in the *Times* of January 3rd the letter of the Bishop of Chichester regarding one part of the work carried on by it. Dr. Ridgeway says that, during a short stay in Nazareth in November last,

> I found a splendid work being done in a house that is rented temporarily for the purpose, and a large number of patients, men, women, and children—all surgical cases—under the care of one doctor and two trained nurses. When I add that in one year 677 important operations have been performed, 13,734 attendances at the hospital, and 1,224 visits to patients in their own homes, some faint idea of the work that is being done by these three workers may be formed. I am writing this letter because my knowledge of the generosity of Scotch people during five years' work in Edinburgh convinces me that once they know of the excellent work that is going on in the name of Scotch people, they will not be content to leave the doctor and nurses to struggle on in premises ill adapted for such a purpose, and terribly understaffed, but will readily respond to a call for help that comes from Nazareth at Christmastide.

To accomplish this adequately something like £8,000 will be required, and of this nearly £3,000 have been given or promised. The Secretary of the Society is Dr. Sargood Fry, 56, George Square, Edinburgh, who will gladly send a booklet giving the history of the mission in Nazareth to any medical or philanthropic friend who sends a post-card for it. This mission was established at Nazareth in 1866, when only one other agency of a similar character existed in the Holy Land, namely, that of the London Jews Society in Jerusalem. The whole of Galilee was then without any Protestant medical work. In 1861, fifty years ago, the society sent Dr. Vartan, and he laboured nobly and unremittingly at his post till 1908. In 1904 Dr. Scrimgeour was appointed by the society to be the colleague of the veteran Dr. Vartan. They worked together for four years, when Dr. Vartan died. Patients now come not only from Nazareth itself and from Galilee, but also from many of the villages in the country on the east side of the Jordan. Two and even three days' journey is by no means unusual. An excellent site for the hospital, out-patient block, and doctor's house, has been secured on the hill slope towards the west side of Nazareth, which is now a town with 10,000 inhabitants.

The new hospital will face south, and from it a clear

view will be obtained over the plain of Esdraelon, with the Jordan valley visible towards the east, and Mount Carmel towards the west. It will be a prominent landmark on the Nazareth hillside to all dwellers in the Plain from the base of Tabor to Megiddo. The Bishop of Chichester puts the matter on the generosity of the Scottish people, but why should not the erection of a mission hospital in Nazareth be a fitting tribute from Christians in all lands?

The Edinburgh Medical Missionary Society practically began in the drawing-room of Dr. John Abercrombie in 1841. Dr. Peter Parker, who had been working for a few years in Canton as an agent of the American Board of Commissioners for Foreign Missions, was then passing through Edinburgh on his way home to America. He was Abercrombie's guest, and so interested him in the subject that in November of that year the society was formally constituted, with Abercrombie as its first President, and the Rev. Dr. Chalmers and Professor Alison of the University Chair of Medicine, the first Vice-Presidents. In the second annual report occur the well-known medical names of Abercrombie, Alison, Cullen, Handyside, Keith, Moir, Newbigging, Omond, Coldstream, and Benjamin Bell. Later one finds the names of Sir James Simpson, James Miller, William Beilby, Crum Brown, Joseph Bell, Halliday Douglas, A. R. Simpson, Grainger Stewart, A. S. Miller, A. H. F. Barbour, and J. W. Ballantyne. The influence of the society is world-wide. At the present time over eighty of its missionaries are scattered over the globe, and over twenty students are in training.

### PRACTICE IN SHETLAND.

A correspondent, writing under the *nom de plume* of "Observer" in the *Shetland Times* of February 4th, takes exception to the remarks made in the BRITISH MEDICAL JOURNAL of January 7th with reference to the public meeting convened at Queness to consider the question of getting a doctor for the parish. "Observer" now states that £50 will be given as an inducement to any medical man who wishes to undertake the duties of medical officer. It will be seen from the advertisement which appears in the *Scotsman* of February 11th that the duties devolving on the successful applicant seem to be of a much more arduous character than those which we referred to in the remarks made on January 7th.

It is stated in the advertisement that for the sum of £50 a year (£20 from the parish council and £30 guaranteed by the local medical association—that is, by subscriptions of the inhabitants) the medical officer has to look after several parishes, besides, we suppose, attending the families of those who subscribed. He does not even get a house; this would have to be rented, but the possible applicant is consoled by the information that he can also rent a "park and stable." Then the expense of getting from place to place must be considerable, so that the holder of the appointment would, it seems not improbable, find himself out of pocket at the end of the year. No reflections regarding the desire of the community in their endeavour to get a medical officer were intended, but what we wished to point out was that the salary offered is not sufficient to induce any one to be an applicant for the post. The advertisement quoted above bears out this contention.

### GLASGOW WESTERN INFIRMARY RESIDENTS' CLUB.

The sixteenth annual dinner of the Western Infirmary Residents' Club was held in the Grosvenor Restaurant, Glasgow, on Thursday, February 9th, W. F. Somerville, M.D., being in the chair.

After the toast of "The King," the "Old Institution' was proposed in an ornate speech by Dr. W. R. Jack, in the absence of the senior croupier, Dr. A. J. F. Skottowe, of Helensburgh, and was replied to by Dr. George MacLeod, the junior croupier. The toast of "The Club" was proposed by the chairman, Dr. Somerville, who stated that his had been the unique experience of acting under all three Superintendents of the Western Infirmary. During the period of his residency in the Western Infirmary in 1884–85 Dr. John Alexander, the first Superintendent, retired, and was succeeded by Dr. A. W. Russell, and now as radiographer to the Western Infirmary, he was serving under Dr. D. J. Mackintosh, M.V.O., who was not only the present Superintendent, but also the "chief" of the electrical department. The club at its dinner that evening had also a similar unique experience, in that all three Superintendents were present, and the members of the club gave them a cordial welcome. The chairman referred to the fact that since his tenure of office as a resident assistant six of the "chiefs" had passed away, and the remaining two, Sir Hector C. Cameron and Dr. Gavin P. Tennent, had now retired from active duty. The health of "Our Guests" was proposed by Dr. J. Walker Downie and replied to by Dr. R. Barclay Ness and Dr. R. Kennedy, both of whom had lately been appointed to wards in the Western Infirmary. The toast of "Absent Friends" was sympathetically dealt with by Dr. J. H. Nicoll. The club is immensely indebted to Dr. J. Galbraith Connal, the secretary, who by earnest endeavour keeps in touch with the many past resident assistants of the infirmary. He stated that at this dinner there was a record attendance of seventy members. The treasurer, Dr. William McLennan, reported the club to be in financially sound condition, with a satisfactory credit balance.

The club was indebted to Dr. Alex. Macphail, Professor of Anatomy at Charing Cross Hospital, London, for an artistic menu card drawn by his skilful pen.

The evening was pleasantly spent with song and story, and was brought to a close by the time-honoured "Auld Lang Syne."

### GLASGOW WATER SUPPLY.

Fifty years ago the Loch Katrine scheme for the Glasgow water supply was completed, and a scheme for the augmentation of the supply then provided is now in course of being carried out. It is to provide 10 million gallons per day as an addition to the 65 million gallons provided at present. This is being secured by adding the Loch Arklet watershed to the existing catchment basin of Loch Katrine, a scheme authorized in 1895 by an Act of Parliament, which also gave the corporation powers to raise the level of Loch Katrine. A Provisional Order in 1902 allowed an alteration in the original plans, so that the main barrage or dam might be placed at the lower end of the valley, a mile further down the stream than was originally proposed. The Loch Arklet scheme will double the area of the loch by means of a dam at the western end of the Arklet valley, raising the level of the loch by 22 ft. above its present level, reversing the outflow which is being poured into Loch Lomond, diverting it into Loch Katrine. The present area of the loch is rather over 200 acres. At present it is $1\frac{1}{4}$ miles long, and the extension will make it $2\frac{1}{3}$ miles. Part of the existing tourist route from Inversnaid to Stronachlacher will be submerged, and a new roadway has already been completed.

The new works present many interesting features. The huge dam is 1,100 ft. in length, 12 ft. thick at the top, and 34 ft. thick at ground level in the centre. The overflow sill will be 200 ft. long, and will be faced with granite. A large part of the dam is now completed. At the east end of Loch Arklet is the tunnel which will carry the water from the new reservoir into Loch Katrine; it will be 840 yd. long, 11 ft. high, and 12 ft. wide at the spring of the arch. In its construction some difficulties were encountered owing to the nature of the material met with in the boring, much of it being wet clay with boulders in the upper part and hard rock in the lower. The machinery for stone crushing, the derricks, pumps, air compressors, the aerial ropeway, and other appliances are all electrically driven by energy supplied from the Arklet stream. The distance from the power station to the tunnel workings is about six miles. The aerial ropeway referred to is an ingenious device to overcome difficulties in transport of material. The level of Loch Arklet is 100 ft. above that of Loch Katrine, and nearly 450 ft.

above that of Loch Lomond. The nearest railway at Aberfoyle is fifteen miles away, and the roads are very steep, narrow, and unsuitable for heavy traffic. A pier was therefore built on Loch Lomond side, and an aerial ropeway, 1½ miles long, constructed from there up to the dam. It rises to 540 ft., and then descends to the Arklet Valley. All the material is transported by this means, the passage from terminal to terminal occupying twenty minutes, and 50 tons in single loads of 2 tons each can be carried in an hour. The works are well forward, the mild weather during autumn and early winter being favourable for the progress of the work at all points.

### MILK SUPPLY AND PUBLIC HEALTH.

Dr. James Erskine, who was recently returned as a member of Glasgow Town Council, delivered a lecture on milk supply and public health in the Saltcoats Town Hall on February 7th. He described the conditions under which milk was produced and distributed in the country at present as very unsatisfactory, and indicated various means of obtaining cleaner milk. Attempts made by private enterprise, although successful, were so costly as to be prohibitive for the general public, who must be prepared to pay a price that would enable the dairy farmer to introduce modern appliances. He suggested the establishment of model farms by local authorities for the supply of milk to their hospitals, so that there would be no competition with the dairy trade, and no interference with commercial economy in supplying this restricted class.

### SMOKE AND PHTHISIS IN PAISLEY.

In order to demonstrate the effects of smoke and soot in the atmosphere, Mr. W. W. Kelso, the chief sanitary inspector for Paisley, has just completed a series of interesting experiments. Nine open boxes were placed in different parts of the town from November till the middle of January, when they were taken in and the soot and dust carefully measured and analysed. It was found that they amounted to an average of 13⅝ cwt. an acre per annum throughout the town, which covers 3,487 acres. Paisley was not much better than Glasgow, where the smoke and dust fall is 15.7 per acre; the burgh of Elgin has an average of only 6.9. Most of this soot is due to household smoke, as 40 household chimneys are equivalent to one chimney stack, and there are only 200 chimney stacks in Paisley.

The annual meeting of the Paisley and District Branch of the National Association for the Prevention of Consumption was held in the Paisley Council Chambers on February 6th. The report showed that although the amount of phthisis in Paisley had been reduced by about 80 per cent. in recent years by the removal of slums, much work still remained to be done. It is hoped that the Tuberculosis Exhibition will visit Paisley in the autumn. Dr. Joshua Ferguson said that it was a sad state of affairs that of 175 cases of phthisis sent by the association to the sanatorium at Bridge of Weir, only 27 were now alive or traceable. The disease must be grappled with closely. The reports were approved and an executive committee appointed.

### TREATMENT OF CONSUMPTION IN GALASHIELS.

The fourth annual report of the Galashiels branch of the National Association for the Prevention of Consumption, which has just been issued, shows that during the past year 16 patients underwent treatment in the Meigle Sanatorium, as compared with 17 in the previous year. The average stay in the hospital of the completed cases was 210 days. The committee states that the sanatorium has recently been utilized by patients suffering from phthisis to a much greater extent, but regrets that too few apply while the disease is in its incipient stage, when lasting benefit and even complete cure could be effected.

### MEDICAL INSPECTION OF SCHOOLS.

A comprehensive report on the medical inspection of school children in the counties of Fife and Kinross in the year ending July 31st, 1910, has been issued by Dr. Dewar, formerly Medical Officer of Health and Chief Medical Officer for School Inspection for these counties, and now Medical Inspector to the Local Government Board for Scotland. The total number of children medically inspected during the year was 11,905, and the number to whose parents notices of defect or ailment were sent was 2,264. The number and nature of the defects found were: Vision, 474; hearing, 370; speech, 85; external eye affections (including squint), 321; nose and throat (enlarged tonsils, adenoids, mouth-breathing, etc.), 5,075; tuberculosis, 51; nervous affections, 55; heart disease, 192; lung disease, 308; deformities, 74; skin affections (impetigo, eczema, etc.), 194; ears (otorrhoea), etc., 253; ringworm, 7; scabies, 4; rickets, 11; mentally defective, 18; mumps, 3; total, 5,710. Defects noted in children specially submitted by head masters to school medical inspectors, termed "non-routine" cases, numbered 2,133. The total cost for each child inspected was 2s., and the cost for each child on the roll, 7¾d.

A circular letter has been issued to the various school boards in the county of Dumbarton by Dr. J. C. McVail, the County Medical Officer of Health and Chief Medical Inspector of Schools, intimating that the Central County School Authority purpose appointing one lady medical inspector and one male medical inspector, and detailing the proposed method of procedure for inspecting the children. The children will be medically inspected four times during their school life, and the co-operation of teachers is asked for during these periodical inspections, in order that one whole-time outdoor nurse might be enabled to devote her whole attention to the following up of defective cases.

### ELGINSHIRE MEDICAL OFFICERSHIP.

A committee of the Elgin County Council and the Secondary Education Committee have agreed to make a joint appointment in connexion with the offices of county medical officer and medical inspector of schools. The yearly salary offered is £550, out of which the incumbent will have to pay travelling expenses and provide office and clerical assistance.

### BIGGART HOSPITAL HOME.

To this institution, which supplies a much felt want in connexion with the treatment of children suffering from incipient tuberculosis, a new wing has recently been added. It now contains 140 beds, and is equipped with all the modern appliances for the proper treatment of children suffering from incipient tuberculosis and almost all other bodily ailments to which children of the poor are liable. Since its opening six years ago cases have constantly been sent to the home by surgeons of hospitals and infirmaries requiring special treatment preparatory to undergoing operations, and also for building up strength after operations have been performed.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual Charter Day dinner of the Royal College of Surgeons was held in the banqueting hall of the college on February 11th, and was attended by a very large gathering of Fellows of the College and their guests. The latter included His Excellency the Lord Lieutenant of Ireland, the Right Hon. T. W. Russell, Professor G. P. Mahaffy, the President of the Royal College of Physicians, Captain Wilkinson, Ulster King of Arms, and many others. The toast of "His Excellency the Lord Lieutenant" was proposed by the President of the College, Dr. R. H. Woods, in an interesting and amusing speech, and was cordially responded to. The other toasts were "The Guests," "The Sister College," and "The Royal College of Surgeons," one of the features of the evening being the inimitable speech of Professor Mahaffy in responding for the guests. During the evening an excellent pro-

gramme of music was provided by a quartette of well-known Dublin musicians.

### PRIMARY SCHOOLS IN IRELAND.

The Dublin Sanitary Association has issued an important report on the working of the Irish Education Act of 1892. As seventeen years have elapsed since the passing of the Act, two generations of school children may be considered to have passed under the control of the Commissioners of National Education. The percentage of the average daily attendance of pupils to the number of pupils on the roll has now reached 71.1, and in consequence the conclusion is drawn that the primary object of the Act—namely, the school attendance of the children—has been attained to quite as great a degree as could have been expected. As regards the bodily welfare of the pupils, however, the Act is regarded as far from satisfactory. The school grant is legally payable only to those schools that are conducted in accordance with the regulations of the Commissioners, but apparently the Commissioners have not seen their way to make provision of a thoroughly sanitary school one of their regulations, and in consequence the condition of many schools is not what it ought to be. In the opinion of the Sanitary Association children should be prohibited from attending schools improperly equipped from a sanitary standpoint. Children are exempted from school attendance on the score of illness, but, as a medical certificate is required, it is easier for parents in cases of illness that do not cause confinement to bed to send the children to school than to obtain a certificate. The result is that children with all sorts of contagious disorders are found mixing with the healthy children in the school and the school playgrounds. No facts available as proof have been collected, but it is believed that a condition of things exists amongst the Irish school children similar to what has been shown to exist in England. The attention of the Commissioners has been drawn to these matters, who in reply stated that they approved strongly of the medical inspection of schools, and would be glad to see a system similar to that prevailing in England introduced into Ireland, but regretted that they had no funds available for the purpose. The Sanitary Association is of opinion that either funds should be provided immediately or the compulsory clauses of the Education Act dropped, as no standard of national education can justify the compulsory and systematic exposure of healthy children to infection from disgusting and dangerous disorders.

### ROYAL DUBLIN SOCIETY.

At a recent meeting of the Agricultural Committee of the Royal Dublin Society a resolution was passed calling the attention of the Department of Agriculture to the paramount necessity of establishing a veterinary research station in Ireland for the investigation of diseases of cattle and the dissemination of the knowledge acquired throughout the county.

### RICHMOND ASYLUM.

The estimates for the year 1911–12 for the Richmond Asylum have been issued, and amount to £110,840. This sum exceeds the estimates for last year by about £6,000; the excess is due to the necessary provision for 300 additional lunatics who are to be admitted from the workhouses of the district. In spite of the fact that the price of commodities generally has increased, the estimates have been kept down by the exercise of rigid economy.

### DRUMCONDRA HOSPITAL.

The managing committee of the Drumcondra Hospital, which is situated in a large and important suburb of Dublin, has decided to organize a large bazaar in May of this year for the purpose of raising funds for the enlargement of the hospital buildings. Until lately the hospital only admitted fever cases, but in recent years it has been fitted out as a general hospital for all medical and surgical diseases. A debt has been thereby incurred, which it is hoped will now be wiped out, and that, in addition, a surplus fund will be available for the building of a much-needed nurses' home.

### MEDICAL OFFICER FOR SKIBBEREEN UNION.

The dispute as to the medical officership of the Skibbereen Union still goes on. At a recent meeting Mr. M. J. Burke, B.L., the Chairman, refused to allow the guardians to proceed to a poll, and nothing was done. At the next meeting a long and acrimonious discussion took place over the signing of the minutes, the chairman insisting on putting a note of his own on the minutes. Following this a letter was read from the Local Government Board, threatening to apply for a mandamus if the guardians did not immediately elect a second medical officer in the room of Dr. Collins. A motion to proceed with the election that day fortnight was proposed, but the chairman refused to take it, except as a notice of motion, and another heated scene followed; the chairman was frequently called upon to leave the chair, but declined to do so. The Clerk was pressed to take a poll, but the chairman would not recognize it. Eventually a division was taken, 17 voting for the resolution and 2 against. At the last meeting the guardians proceeded to elect a medical officer for the male side of the workhouse, when 19 votes were cast for Dr. O'Meara, and the same number for Dr. Burke. The election stood adjourned, but Dr. O'Meara handed in a written statement claiming the election on the ground that, being duly proposed and seconded, he was the only legal candidate before the board.

### WHAT IS CIDER?

A series of cases, recalling the famous question, "What is whisky"? has recently been heard in Dublin concerning the origin and nature of the beverage to which the term "cider" is applicable. The most important case was taken at the instance of the Dublin Corporation under the Food and Drugs Act. One of the corporation inspectors on asking at a publican's establishment for a bottle of cider, was supplied with a beverage labelled "Rutter's Cider." A further inscription on the bottle stated that the "contents were not guaranteed pure apple cider." Analysis proved the liquid to be non-alcoholic, and to contain no apple juice, the ingredients present being apparently sugar, tartaric acid, and water. The beverage has been made for the last forty years in Cork, and its manufacturers seem to have been acting in perfect good faith in naming it as they did, their object being to provide a non-alcoholic beverage for teetotalers. The result of the action has been to limit the use of the term "cider" to "fermented juice of the apple," a conviction with the imposition of a nominal fine being registered against the salesman of Rutter's cider in the present instance.

### PRECAUTIONS AGAINST PLAGUE.

The Local Government Board in Ireland has issued temporary regulations which are to be in force in the district of every port sanitary authority, and within the district of every urban and rural sanitary authority in Ireland, intended to safeguard the country against the entrance or spread of plague. The following are the more important regulations:

(1) The Sanitary Authority is directed to ascertain whether there is any disease or unusual mortality amongst the rats of the district, and, if such be found, to immediately report the same to the Local Government Board, and to take steps to ascertain whether any such animals are suffering from plague. (2) If plague is found or suspected to exist amongst the rats of the district or in any ship lying in water abutting on the district, the Sanitary Authority is at once to include plague amongst the notifiable infectious diseases, and is to take steps (*a*) to destroy all articles exposed to infection, (*b*) to destroy all rats in the locality, and (*c*) to remove all deposits of rubbish or other materials likely to attract such animals.

### UI BREASSAIL.

It is understood that one of the features of the great health and industries show to be held at Ballsbridge in May and June next will be a food section intended to be of an educational character. All the manufacturers of food in Ireland have been asked to exhibit, and the food value of each article shown will be illustrated in some way. A special section will be devoted to milk, and practical illustrations of the pasteurization of milk will be given.

# Special Correspondence.

## BERLIN.

*The Travelling Tuberculosis Museum.—Transfer of the State Medical Department.—The Leyden Lecture.—The German Emperor's Interest in "Hata 606" (Salvarsan).*

THE travelling museum of the German Central Committee for Combating Tuberculosis is on view in Berlin for a short time, and well deserves study. Not only the lay visitor, but the medical practitioner also, is sure to find among its exhibits objects out of the common, or even new to him. For instance, there are some interesting pathological specimens, such as tuberculosis of the pig, the goat, and the monkey (contributed by Schuetz, of the Berlin Veterinary College), human peritoneal tuberculosis (contributed by Orth, of the Berlin Charité), haemorrhage of the lung (contributed by Pick, of the Berlin Friedrichshain Hospital); there are Roentgen photographs of the different stages of phthisis, and excellent pictures of lupus and tuberculosis of the cutis. Enlarged anatomical drawings illustrate the process of breathing and the activity of the lungs and the thorax; other drawings and a set of microscopes show the tubercle bacilli and their destructive action on the tissues. Coloured maps, tables, and graphic representations give a notion of the immense prevalence of tuberculosis at the present day (for the German Empire no less than 800,000 cases, with an annual death roll of 100,000). One department of the exhibition is devoted to modern methods of preventing the spread of tuberculosis; another to the measures for combating and healing the disease. There is no charge for admission, and specially trained officials are in attendance, who personally conduct the lay visitors through the exhibition; and free popular lectures are also given. The morning hours are reserved for the upper classes of schools.

The much debated and long-expected transfer of the Prussian State Medical Department from the Cultus Ministry to the Ministry of the Interior has been definitely decided on, and will take place on April 1st. In a lengthy and somewhat wordy rescript issued by the Cultus Minister the considerations that have led to this change are set forth. Put in a nutshell, they are the following: (1) The Cultus Ministry, overloaded with affairs already, is not sorry to get rid of this department with its ever-increasing business. (2) Modern hygienic methods have brought the State Medical Department into close touch with organizations that belong to the domain of the Ministry of the Interior—such as townships, communal unions, and the police force—so that its work is now largely concerned with theirs; it therefore stands to reason that a mass of official correspondence will be avoided and much time saved by an arrangement bringing all these units under one common head.

A special "Leyden lecture" is to be held annually at the first meeting of the Berlin Verein für innere Medicin und Kinderheilkunde in memory and honour of its founder and (for many years) honorary president, Ernst v. Leyden. The lecturer is to be selected by the society's committee, and his fee of 400 marks (£20) will be drawn from the funds of the "Leyden-Stiftung," a foundation which was established by subscription on Leyden's 70th birthday.

By special command Professor Ehrlich gave a short lecture on "Hata 606" before the Emperor at the Royal Castle, Berlin, on the morning of the 23rd, and remained to lunch with the Imperial Family. It is understood that His Majesty followed Ehrlich's rapid survey of his experiments and their results with the keenest interest, and that he had many questions to put.

## VIENNA.

*Protest against the Proposed Reform of Hospital Management.—Fresh Water Supply for Vienna.*

THE proposal to unite into one body the managing boards of all the hospitals and other charitable institutions of Lower Austria, which has already been referred to in a former letter in the BRITISH MEDICAL JOURNAL, dated October 15th, 1910, has caused much excitement amongst the different hospital staffs, and indeed throughout medical circles in general. Three points in particular of the proposed alteration were viewed with disfavour by the profession—namely, the overwhelming influence with regard to matters relating to the outfit of the hospital to be placed in the hands of the non-medical members of an administrative body such as the one proposed, the appointment of hospital doctors, and the levying of a health tax upon the public. The ruling party, in whose interest the proposed reform has principally been made, has hitherto displayed so hostile an attitude towards science, and medicine in particular, that the profession naturally distrust all so-called "reforms" originating from such a source. The power of placing the members of a certain political party at the head of all the hospitals in the country would give that party a very strong position for some years; that is why politicians are doing their utmost to get the administration of hospitals into their own hands. On the other hand, the Austrian doctors have strained every nerve to avert the danger, or at least to lessen it as much as possible. The medical councils of Vienna and Lower Austria have made strong representations to the Government against the scheme. Another unexpected, and therefore weighty, protest came from clinical professors, who cannot be said to be influenced by financial considerations. The entire medical faculty of the University of Vienna has been unanimous in warning the Government that every professor and clinical teacher would resign his post if such a scheme came into force without securing for the medical staff due influence in regard to all matters appertaining to appointments, research, treatment, and outfit; they demanded likewise an increase in the number of medical men on the managing board. These energetic protests on the part of the profession have aroused the interest of the general public and drawn attention to the possible results of so insidious a scheme; and it is now certain that the objectionable features of the proposal will be entirely eliminated. Nevertheless, this incident has served as a danger signal to warn the medical men of this country to keep a sharp look-out in the matter of their own interests and position.

A few weeks ago, upon the anniversary of our venerable Emperor's accession to the throne, a new water supply was opened for the city of Vienna. It has hitherto given the greatest satisfaction, the water being of excellent quality, and both safe and pleasant for drinking purposes. It comes from a range of snow-clad mountains over 6,000 ft. high, some 120 miles to the south-west of Vienna, and is brought to the city by means of aqueducts and siphons. Its temperature, which is gauged at the reservoir near Vienna, is always 8° C., and the supply available for each day amounts on the average to 200,000 tons; even during the summer droughts it never falls below 160,000 tons. This is the second overland water supply possessed by the city of Vienna. The older waterworks, which derive their water from a snowy group of mountains in the Alps, provide a daily supply of 180,000 tons. The two kinds of water resemble each other closely, and at present are mingled together. The united waterworks are capable of supplying sufficient water for nearly 4,000,000 people at a daily rate of 250 pints of water a head; and it has been estimated that no water famine can possibly occur in Vienna until the year 1940, at the very least, when the population will have amounted to 4,000,000. The new water supply has cost some 100,000,000 crowns, or over £4,000,000; but the beneficial effect upon the health of the population of Vienna, even after the opening of the old waterworks, was so evident that this recent expenditure cannot be regarded in the light of an extravagance.

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THE Women's Institute of Medicine at Kharkoff was formally opened quite recently. The Kharkoff Medical Society, which was founded in 1861, has always been in favour of the admission of women to the medical profession. Some 400 women students having expressed a wish that a school of medicine for them should be established at Kharkoff, the Medical Society, on May 21st, 1910, decided to found a Superior School of Medicine for Women. In August this project was carried into effect, the name of the school being changed to "Institute of Medicine for Women." The courses of teaching were begun on November 14th, and at the present time there are 977 matriculated students.

# Correspondence.

## RHEUMATIC PURPURA AND PELIOSIS RHEUMATICA.

SIR,—I must express my thanks to Dr. R. Miller for his letter of February 11th commenting upon a recent paper of mine upon rheumatism published in the BRITISH MEDICAL JOURNAL of January 7th. When deeply interested in a subject, one feels it a compliment to have notice taken of one's opinions or views. Dr. Miller pointed out a lack of precision in my remarks upon peliosis rheumatica. I admit to much difficulty in understanding the etiology of purpura, including this form. Reviewing the cases I have seen and noted, I am inclined to the view that this condition may be truly rheumatic in origin, and the evidence seems a little more convincing than that I possess on erythema nodosum. For example, a woman, aged 45, came to University College Hospital with a purpura of the peliosis type. She gave a well-marked history of rheumatic fever and repeated attacks of rheumatism. There was obvious mitral stenosis. Except for a sore throat I found no other signs of active rheumatism, and simply noted the purpura in my book as an interesting fact. A year later she came to the hospital again, this time with purpura and a well-marked multiple arthritis of the rheumatic type. It must be confessed that this case is not convincing, but it is very suggestive that the first attack of purpura was a rheumatic event. Dr. Miller asks me, however, a direct question as to my teaching upon peliosis rheumatica, and to this my answer is that when I see a case with no clear evidence of rheumatism I point it out as a condition in which I strongly suspect the future development of definite rheumatism, but one which I am not prepared to say is an evidence of the actual disease. Should it occur with obvious rheumatism I look upon it at present as a rheumatic symptom. This is, perhaps, illogical, yet the occurrence of purpura is a result of so many diseases that it hardly seems possible to me at present to claim that peliosis rheumatica is not sometimes, and possibly often, rheumatic. The etiology of rheumatism is still in a very unsatisfactory position. We are in great need of more independent evidence upon the diplococcus, for however confident one may be oneself, it is not to be expected that there can be general assent until more facts have been recorded. When this cardinal step has been made—as I trust it will be—and the work of Walker, Shaw, Beattie, and Paine and myself proved correct, there will come what one cannot help foreseeing—a differentiation of strains or types of infection, subtle differences in the poisons formed by the streptococcus, the results of epidemic or seasonal influences, of age and sex influences.

At present, if the explanation is correct, it is but the crude truth, a generalization, as it were, to the effect that rheumatism is in the main the result of a special streptococcal group of infection.—I am, etc.,

London, W., Feb. 12th. F. J. POYNTON, M.D.

## THE CAUSE OF APPENDICITIS.

SIR,—Probably we have all been interested in reading the various suggestions and theories recently advanced by correspondents of the JOURNAL to explain the increase of appendicitis.

Whilst some correspondents have suggested its connexion with rheumatism and influenza, others have suggested as causes sitting on damp seats and the more strenuous life now led. But, without doubt, what is more to the point is a due consideration of what is taken into the alimentary canal, for it is there that the trouble is, and, as one of your correspondents puts it, "dietetic errors leading to vicious processes in the intestinal laboratory, with constipation and its consequences, explains much in the causation of appendicitis."

The fact that there is a comparatively small amount of appendicitis in those who eat little or no meat is important, and most à propos at this time comes the very interesting and valuable report of Dr. Owen Williams on the distribution of appendicitis, with some observations on its relation to diet, published on December 31st, 1910. As the result of very extensive inquiries, Dr. Williams has come to the conclusion "that diet plays a definite part in the production of the disease, and that animal food seems to be associated with an increased number of cases." It has been pointed out as rare amongst Roumanian peasants living mostly on vegetables, but Roumanians living in the city chiefly on animal diet are frequently affected, for there is said to be one case of appendicitis in every 221 patients. Again, the vegetarian diet of the Japanese, and of the Indians of India, seems to protect them from appendicitis. In this country the well-to-do classes are more frequently affected than the poorer classes, as Poor Law hospital reports show, and probably food differences account for this.

Granted that food conditions are the primary cause of appendicitis, it is unreasonable to conclude that the appendix of the colon is alone affected, for there is evidence of the whole colon being in a state of catarrhal inflammation in not a few cases. In a previous contribution,[1] I have shown a connexion between appendicitis and mucous colitis, and more extensive experience points to this more strongly. If we except Plombières and Chatel Guyon, more cases of mucous colitis are seen at Harrogate than anywhere else in Europe, and I am more and more struck by its association with appendicitis. During the last two years I have had 21 cases of colitis under treatment after the operation for appendicitis has been performed. Moreover, I am aware of three cases of colitis under my care having since been operated upon for appendicitis. In nearly all of these cases there has been a history of colitis or constipation preceding the appendicitis, and the operation for removal of the appendix has been only partially successful. Sir Frederick Treves long ago pointed out that colitis was the principal cause of failure to relieve symptoms when removal of the appendix was unsuccessful.

Mucous colitis is more or less infectious, which explains several members of the same family having appendicitis. Last August I had the father, mother, and one daughter of a family under treatment for colitis. The daughter, aged 17, had suffered with colitis some years, and had been recently operated upon for appendicitis. A younger daughter, thought to be suffering the same way, has since been operated upon for appendicitis.

Mucous colitis is a common condition, and undoubtedly runs in families; the same predisposing nervous temperament and circumstances of food and climate probably account for it; possibly the *Bacillus coli* is the active organism in bringing about the disease in certain circumstances of the individual. Six months ago we read in the press that there was an alarming increase in the number of cases of appendicitis in the Farnham district. A doctor practising in that neighbourhood, whom I know as a most careful observer, told me that in his practice he found colitis fairly common, and gave me the following notes showing its association with appendicitis in 3 cases under his care:

E. C., aged 12 years, who had suffered from colitis for several months, had an attack of appendicitis which lasted five days, then resolved. Six months later another attack of appendicitis, very acute; operation by Mr. Edmund Owen forty-eight hours after first symptoms showed themselves; gangrenous appendix; died twenty-four hours after operation.

H. C., aged 10 years, suffered from colitis; had an attack of appendicitis; operation within eighteen hours of initial symptoms by Mr. Edmund Owen. Large swollen appendix containing small stercolith was removed; uninterrupted recovery.

S. C., aged 8 years, suffers from colitis.

These are the only three children of a mother who suffers from colitis.

Another case in a child observed elsewhere by Dr. Leonard Parsons is also interesting:

A child, aged 6 years, constipated since a baby; mucus in stools since 2 years of age; when 3 years old, passed blood in stools; since then has continually passed mucus in characteristic shreds, and constipation has been obstinate; appendix removed at 5 years of age, but mucus and constipation still exist

These cases, like many more I could cite, show a distinct connexion between colitis and appendicitis.

The formation of concretions in the appendix is largely responsible for the graver forms of appendicitis, and there may be no marked antecedent bowel symptoms. These concretions are connected with a disordered secretion of

[1] Mucous Colitis and its Relation to Appendicitis and Pericolitis. BRITISH MEDICAL JOURNAL, July 11th, 1908.

the mucous membrane of the appendix, and frequently of the colon also, and it is to this I wish to draw attention, for a large experience of cases of mucous colitis has convinced me that insufficient attention has been given to excessive secretion of mucus from the bowel. I have not infrequently heard it said by medical men that every one passes mucus, which is quite true; but mucus, when normally secreted, should be invisibly mixed with the faeces, and when it is seen in any quantity, except after some strong purgative, it is abnormal, and usually constitutes the condition of mucous colitis.

Owen Williams has pointed out[2] that these concretions called "intestinal sand" consist of calcium salts which are excreted by the intestinal mucous membrane, and which enter into combination with the saturated fatty acids of the food to form insoluble compounds. He has shown that these calcium soaps are found in this mucus in the appendix, and, further, that they are actually deposited in large quantity in the submucosa of the appendix, thus cutting off the blood supply to the mucous membrane, and so rendering the invasion by organisms an easy matter. Kelly also says:[3]

> The histological examination shows that the most important factor in the formation of the calculus is the mucus secreted by the glands of the mucous membrane. The mucus, which is deposited in layers round the central nucleus, becomes desiccated, and the lime salts are deposited secondarily.

Ribbert noted that in favourable specimens the outer layers of mucus may be seen to be directly continuous with the glands of Lieberkuhn, and in one case, besides two large enteroliths in the canal of the appendix, he found three smaller bodies embedded in the mucous membrane which had evidently developed within gland lumina.

Dr. Owen Williams has not been able to determine what fatty foods are blameable for these pathological changes, but we may fairly conclude that an animal diet favours them rather than a vegetable one. A predisposition to infection is evidently produced under certain circumstances which we cannot exactly determine, but there is evidence pointing to meat-eating at least as contributory.

I cannot exaggerate the evils of constipation in altering the normal secretory function of the mucous membrane of the colon, and making it more liable to infection. I am fully aware that this condition not infrequently dates from an attack of colitis, but when once established, whatever be its primary cause, the resisting power of the mucous membrane against bacterial invasion is undoubtedly diminished. Constipation, associated with retention of hard scybalous masses acting as foreign bodies, sooner or later produces a catarrhal inflammation of the colon which may easily extend to the appendix. To counteract this, instead of adopting natural means, we have in the present day a pernicious habit of "aperient drinking." Not infrequently when I ask a patient if the bowels are regular, the reply is in the affirmative, with the explanation that a cascara tabloid is taken every night, and this represents the natural daily evacuation. Such a drug habit must induce a certain amount of irritation and abnormal excitation of the mucous glands, and the sooner it can be replaced by natural means to overcome constipation the better. Space will not allow of my entering upon this part of the subject now, and it was fully considered in a special discussion at the last annual meeting, already published in your columns, in which I was invited to take part.—I am, etc.,

Harrogate, Jan. 20th. ALFRED MANTLE, M.D.

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SIR,—The correspondence which has taken place in the JOURNAL under this heading is of very great value to the general practitioner, and of very great interest in showing the striking difference of opinion as to the causation of this now common disease.

There appears to be a general agreement that appendicitis is more common to-day than it was twenty-five years ago, and the natural tendency has been to look for a cause definitely connected with the altering conditions of modern life. Some ingenious suggestions have been made notably:

1. That it is due to eating animal foods in a state of decomposition, such as high game, etc. It should be easy to test the value of this by inquiring if appendicitis is more common in those classes who eat high game, and if it is more prevalent in the months in which game is eaten. I do not think that it has been suggested that appendicitis shows a preference for any class, nor have I ever noted that it has a seasonal prevalence.

2. That it is due to imperfect or incomplete evacuation of the bowel. In Dr. Charles McBurney's article on "The Surgery of the Vermiform Appendix," in the *International Textbook of Surgery*, is to be found the following passage: "It is rare to find any but the slightest amount of material in the caecum in the operating room, at autopsies, or upon the dissecting table," and further on the confirmation "that it is more common in men than in women in the ratio of 4 to 1." These facts do not seem to suggest that constipation can be a great factor in the causation of this complaint.

3. That it is due to excessive meat-eating. If this is so, it should be easy to show that those who eat most meat are more prone to the disease—for example, butchers and navvies.

4. That it is due to the failure to assume the natural position during defaecation. Admittedly there has been a great increase in the number of cases in the last twenty years, but the inhabitants of Great Britain have used the sitting posture for a very much longer period than that.

5. That bottle-feeding has been substituted for wet nursing. If this is a cause, surely its effects would be most evident during the time that the intestinal canal is struggling with its unnatural food; but we find that appendicitis is very rare in infants under 2 years of age, though it has been found as early as 7 weeks.

6. That the lymphoid tissue in the mucosa is particularly prone to bacterial infection and inflammation, notably by the germs of influenza, rheumatism, and tubercle. That this is probably a cause of the disease would be hard to deny, but, as some of your correspondents have pointed out, influenza is not a disease originated in the last twenty years, neither, I may add, is rheumatism nor tubercle.

7. That it is a degenerating organ undergoing evolutionary decay. But evolution is such an extremely slow process that one cannot believe that twenty years would make the difference between resistance and non-resistance to the ordinary stresses of an organism.

Appendicitis is not a modern disease. In turning over the leaves of an old book on medicine by George Fordyce, M.D., F.R.S., written in 1791, I found a complete description of an attack of appendicitis under the heading, "The Inflammation of the Intestines." Speaking of suppuration, "There is a greater chance of suppuration taking place in the colon than in the duodenum, jejunum, or ileum. The abscess may burst into the cavity of the abdomen or into the intestinal canal," etc.

Is it not worthy of note that the increase of appendicitis has gone on side by side with the decrease and total disappearance of two other diseases—namely, idiopathic peritonitis and perityphlitis?

My opinion is that this is one cause for the increase of appendicitis. I remember twenty-five years ago being taken by an old practitioner to see a case of "idiopathic peritonitis." He told me the method of treatment was to give opium, and that the patient always died.

Further, it appears that the rank and file of the profession are now fully alive to the fact that the safety of their patients lies in early operation, and hospitals and consulting surgeons who record their cases are fed with cases which formerly would have been allowed to take their chance without surgical aid. I believe I am right in saying that 80 per cent. of the cases operated on would probably recover without operation. It is this 80 per cent. that accounts in great measure for the large increase in the number of recorded cases.—I am, etc.,

Bridgend, Jan. 26th. ROBERT J. SIMONS.

P.S.—In speaking of influenzal infection as a cause of appendicitis, I would like to add that thirteen years ago, in this town of 6,000 inhabitants, I had the opportunity of showing to my friend, Mr. Lynn Thomas, one Sunday afternoon, 5 cases of appendicitis, all post-influenzal. Mr. Lynn Thomas removed a gangrenous appendix from one of my cases that afternoon, and subsequently two more of the cases experienced his surgical skill.

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[2] *Bio-Chemical Journal*, vol. ii, p. 395, 1907.
[3] Kelly, *Vermiform Appendix and its Diseases*, p. 300.

## THE TREATMENT OF MORPHINOMANIA BY THE COMBINED METHOD.

SIR,—Before Dr. H. Crichton Miller publishes his next article on the above subject I would like to have one or two points explained, and to state wherein my experience differs from his views as stated in his first paper in your JOURNAL (November 19th, 1910).

1. What does Dr. Miller mean by an average case of morphinomania whereon he founds his treatment? Is it the amount of morphine taken or general condition of patient?

2. Has he personally come in contact with morphinomaniacs who take the morphine to produce the effects he speaks of—namely, "the fascination of exhilaration and intensification of the imagination"? I have had over ten years' experience in the treatment of morphinomaniacs, and I have never yet met one who took it for this reason. Every one takes it because it makes them feel well—that is to say, normal, and because if they leave it off the misery caused by the abstinence drives them back to it.

3. Why does Dr. Miller insist on the cure being painless? In my opinion the pain and distress which arises in the cure is valuable as a deterrent to resumption of the habit.

4. Why does not Dr. Miller place in his primary essentials the willingness of the patient to be cured? All treatment I have found is valueless without this; I grant that he does mention it, but merely as a secondary essential. I differ from his statement that "most patients desire to be made to feel well, but not to be cured." I have found most patients desire to be cured, in order not only to feel well, but to be free from the slavery of the habit with its attendant risks.

Dr. Miller is right in saying treatment should be carried on in a nursing home; but I go further by saying that the position and equipment of the nursing home must be specially selected, and, above all, a medical man well versed in the treatment should reside in the home.

Dr. Miller's treatment consists practically of drugs on the physical side and hypnotism on the psychical.

The drug he advocates is sodium bromide My experience is that bromides and depressants of all kinds are contraindicated. To bring the patient into a comatose or semicomatose state is, I believe, unsound and unwarrantable. A person who has taken morphine for a long time is not one on whom you can put a strain or take liberties with. This treatment is advocated to relieve the patient of distress and pain, but if treated in the ordinary way I do not think the patient suffers so much as to warrant it.

Both Dr. Miller and Dr. Astley Cooper, I think, lose sight of the fact that there are two distinct stages in treatment—namely, the stage where reduction and abolition takes place; and the second stage, where recovery occurs, the mind restored, and the will power built up.

As I have no faith in bromides, I have less faith in hypnotism as advocated by Dr. Miller. It is absurd to try it on a patient who is actively taking the drug, it is of little use when the drug is being abolished, and it is of no use in effecting a permanent cure. I have had many cases of inebriates and narcomaniacs who have undergone hypnotic treatment without the slightest betterment; I have met a few who have been improved or cured by hypnotism, but who, I believe, would have been cured without it

I will now detail my method, and the difference between Dr. Miller's treatment and mine will then be obvious.

1. I put the patient to bed the second day after admission in a well-ventilated room, bright and cheerful, and removed from any noise, with a cheerful nurse in attendance.

2. For the first three days I attempt no reduction. On the fourth day I slightly increase the amount of morphine per dose, but lengthen the period of abstinence so that the quantity in the twenty-four hours is the same. I continue this until the patient gets only three doses in the twenty-four hours—namely, at 8 a.m., 4 p.m,, and 11 p m —but the quantity is not decreased. This, as a rule, takes four or five days to accomplish, or eight to nine days from the time that the patient has been put to bed. I then steadily decrease the amount per dose until $\frac{1}{8}$ to $\frac{1}{10}$ grain is reached; then I abolish the afternoon, evening, and morning dose in sequence. This generally takes fourteen to twenty one days, but varies according to the conditions of the patient. I have never taken longer than five or six weeks to abolish the drug.

During the early part of the treatment the patient has comparatively little discomfort or real illness, but as reduction goes on certain symptoms may arise which must be treated, of which the following are the principal:

*Constipation.*—An ordinary aperient at night, with Apenta water in the early morning, will rectify this.

*Diarrhoea.*—An astringent, such as tincture of catechu, will check this.

*Neuritic pains*, with muscular twitchings in the extremities and abdomen, are by far the commonest. I have found drugs of little avail here; but gentle massage, hot baths, and sponging with warm water are most useful in allaying this condition.

*Insomnia.*—I find isopral, in 15 to 25 grains, the most useful hypnotic in treatment of insomnia caused by morphine abstinence.

*Tendency to Coma.*—Digitalis or strophanthus I find most useful.

*Mental Distress.*—Constant attention by the physician and nurse will greatly assist to alleviate this symptom.

*Delirium.*—I find hydrobromide of hyoscine in $\frac{1}{150}$ grain doses most useful.

In short, treat the symptoms as they arise in the ordinary way. There is no special knowledge required to treat the morphinomaniac except the experience required to know how and when to reduce the drug.

These symptoms rapidly abate after the complete withdrawal has been accomplished, and the second stage is entered into. Convalescence is secured by the ordinary means of any patient recovering from an illness. Nerve tonics are given, nourishing diet in an appetizing form, fresh air with gentle exercise, massage, attention to the bowels, and, above all, freedom from worry or care. Having got the patient's health in a measure restored, the use of auto-suggestion is of value to secure a permanent cure. Inculcate an adverse attitude towards the habit, let the patients constantly bring their mind to think of resumption of the habit or taking a single dose with repugnance and as an act disastrous to themselves. During this time protect the patient from temptation. If the patient by constant endeavour persists in this mental attitude for six to nine months, cure will be effected. This treatment combines the physical and psychical method, but in a very different way to that advocated by Dr. Miller.

In conclusion, I say that I follow a rational method, and have no belief in those out-of-the-way methods advocated, especially by some American medical men.—I am, etc.,

JOHN Q. DONALD,
Medical Superintendent, Invereden Sanatorium.

Dairsie-by-Cupar, Fife, Jan. 16th.

## SURGICAL TREATMENT OF DISPLACED SEMILUNAR CARTILAGES OF THE KNEE

SIR,—I read with great interest Mr. D'Arcy Power's Hunterian Lecture on the results of surgical treatment of displaced semilunar cartilages of the knee, published in the JOURNAL of January 14th. As examples of the perfect functional result which may be obtained, I might mention that two players in the winning team, in the recent International Association football match between Wales and Ireland, were cases in which I had removed the internal semilunar cartilage.

I think there is no objection to freely opening the capsule by a transverse incision if it is sutured accurately afterwards. I have found reindeer tendon better than any other suture material in common use. Early active movement is encouraged, and the patient is allowed to walk in three weeks. I have operated on nearly fifty cases, and the only bad result was one in which tubercle developed later in the joint —I am, etc.,

R. Y. AITKEN.

Blackburn, Jan. 31st.

## SALVARSAN ("606.").

SIR,—In his letter to the JOURNAL of February 11th Dr Pernet advocates the combined treatment of syphilis with salvarsan, mercury, and iodides. Eclecticism is always a sound principle in medicine, and it is well, as Dr. Pernet remarks, to keep an open mind towards a new drug; but has not "606" fallen from its high estate? Instead of posing as an abortive cure of syphilis and a substitute for mercury and iodide, it is now asked to play the part of an auxiliary drug. If this is the only position this much-vaunted preparation is to occupy in the treat-

ment of syphilis, it seems to me we had better remain faithful to our old friends Donovan and Fowler, who have so often rendered us useful service, than expose our patients to the many dangers of salvarsan. It would almost appear that Dr. Pernet's apt simile of "therapeutic rockets which come down like sticks" might be applied to "606," but in this case an attempt is made to check its fall by means of a parachute of mercury and iodides!—I am, etc.,

London, N.W., Feb. 11th. C. F. MARSHALL.

## THERAPEUTIC ENTHUSIASM.

SIR,—I have been reading in a venerable tome the hopes of our far forefathers as to the benefits that would accrue to a world of pain and disease from the then recent discovery of opium as a panacea for pain. As in all medical advance, the vanguard got out of hand, and what was only reason for hope was transformed by disordered enthusiasm into a fact of assured healing which the implacable years have not—in the sense of that irresponsible optimism—confirmed. It seems desirable, in face of the hysteria of assertion of the lay press, to warn the world of the lack of the sense of proportion which is to-day the apparent vogue as to the possible benefits and ulterior limitations of what we call "606." It is really quite dreadful to have to listen to the positive pronouncements as to its quite unproven virtues, which you may hear, if you care to listen, in any assemblage of lay gentlemen to-day. And when you gently dissent from the sweeping conclusions which they give as facts admitting of no contradiction, you are often (or usually) silenced by a reference to some "doctor who has told them so"!

But the medical Munchausen is always on tap with certain people when they wish to sterilize incredulity by the unworthy antiseptic of unwarrantable reference to the authority of an honoured but absent man! The world is full of slander, I know, and the slander is not always personal. There is a form of impersonal slander which—as in the *Zadig* of Voltaire—slanders by the creation of imaginary virtues. That is bad enough, but what is much worse is to raise hopes which you are not sure you can satisfy. But it is still true that the verifying of a fact is not easy. "The seed-time and harvest, the early and the latter rain" still represent the eternal prohibition against "raw haste, half-sister to delay."—I am, etc.,

February 7th. G. H. R. D.

## TUBERCULIN AND SANATORIUM TREATMENT.

SIR,—I endorse most thoroughly the views expressed in the excellent letter of Dr. Mariette published in the JOURNAL of December 31st, 1910, under the heading "Progressive Doses of Tuberculin." For some years past I have made extensive use of tuberculin in increasing doses to the full extent to which it can be taken with advantage by the patient as a regular part of the treatment of tuberculosis in this sanatorium, and with excellent results. I find that there are few patients who are not benefited to some degree by it, but the extent to which it can be pushed varies considerably in different cases, and what is finally the full dose for some patients may in others be doubled or even trebled with great advantage. In every case, however, it must be administered with care and a close watch kept on the patient's temperature (which in this sanatorium is taken in the rectum at fixed hours four times daily), his pulse, and general condition, while the remedy is being used. It is of considerable importance to determine when the dose has been reached which produces the best effect, and must be ascertained for each individual patient. Personally, I believe that I get more reliable information as to the effect of the remedy from the temperature and clinical condition of the patient than from the opsonic index.

In the cases usually sent to sanatoriums which respond favourably to tuberculin, the patient's stay is, as far as I can judge, reduced by about 25 per cent. to what it was before tuberculin was used. It thus not only makes sanatorium treatment more effective, but also reduces its cost.

In more advanced cases, where the temperature is high or markedly oscillating, the effect of tuberculin of any kind is less certain in bringing about improvement. Sometimes it acts very beneficially; in other instances it does not seem to produce any improvement. To these patients I give it in much smaller doses than in non-febrile cases, and increase the doses more slowly. Harm has never resulted from its use in any of my own cases, even when the disease has been in too advanced a stage to be ultimately influenced by any treatment, and in some of these cases improvement, not attributable to coincidence, has for the time occurred under its use.

As a rule, tuberculin is administered by subcutaneous injection, and it has been asserted by some authorities that it can only be given in this way to be effective. After extensive trial I have found it to act, as has been stated by Dr. Arthur Latham, quite as well if given by the mouth in not more than two teaspoonfuls of water when the stomach has been empty for several hours (as in the morning), and no food is given for some time afterwards. Many patients who shirk the subcutaneous method of administration take it readily when so given.

I have often been asked by patients on leaving the sanatorium whether they could obtain tuberculin and continue taking it at home. I have not felt justified in sanctioning this procedure without first making arrangements directly with the medical attendant of the patient to supervise its administration. The patient then not being under constant supervision, I recommend a smaller dose to be taken than when in the sanatorium.

In the best sanatoriums the use of tuberculin is now as much a part of sanatorium treatment as proper dieting, hygienic measures, and the administration of suitable remedies to meet the various conditions which occur in the course of tuberculosis. For any medical practitioner to pit tuberculin treatment at home *versus* sanatorium treatment, to the disparagement of the latter, is as discreditable to him as it is harmful to his patients if it induces them to forego the far greater advantages offered by the latter, should that be within their reach. In the treatment of tuberculosis among the poorer classes the medical attendant has many difficulties to contend with, and has to be content with far less effective means than he would adopt were better within the sphere of possibility. Hence one welcomes the endeavours being made to extend the use of tuberculin and other means likely to make treatment more effective by the establishment of dispensaries for tuberculosis, but to expect that at these, however well conducted they may be, patients in whom the disease is in active progress will obtain a tithe of the benefits they would derive at a good sanatorium, is a delusion. The relative positions of these dispensaries to sanatoriums must ever be as regards treatment those of the out-patient department to the in-patient department of a hospital. Whenever active tuberculous disease is going on the importance of meeting the condition, as soon as it is recognized, by the most effective treatment, such as may be secured in a good sanatorium where every measure calculated to bring about a cure is available and an experienced physician is at its head, cannot be overestimated, not only for the poor but also for the rich. What the factors are in addition to the open-air life the patient leads which contribute to make sanatorium treatment so far the best for tuberculosis would take too long to discuss. The open-air part of the treatment may be carried out by almost any one who does not live in the midst of a large city, without incurring much expense. But what for obvious reasons the poor cannot get, and the rich do not get when treated at home, is the constant medical supervision under which the patient "lives, moves, and has his being" in a good sanatorium, and the systematized, yet individualized, treatment he has to follow while there. Preventing patients from doing things harmful to them, as well as seeing that they do those things which are necessary to their cure, are important duties which ever require close attention from the physician in charge of a sanatorium. These are just the things which in private practice the medical attendant cannot secure being carried out properly, however careful he may be in the directions he gives. The patient and his friends put their own interpretation on his directions and carry them out in their own way—that most agreeable and convenient to themselves—which is more frequently wrong than right. Especially is this the case in respect to rest, exercise, and diet—matters of prime importance in the treatment of tuberculosis, in which patients invariably require much

careful training and supervision. No person who has not had practical experience in sanatorium management would believe how absolutely indifferent many otherwise sensible and well informed patients are to their own interests and the object for which they are spending time and money, often at great sacrifice, when these run counter to their inclinations or require a small amount of abnegation. Again, when there are real difficulties in feeding due to the condition of the patient, much skill and ingenuity are often necessary. Indeed, for the proper feeding of tuberculous patients a thorough practical knowledge of dietetics, and of the proportions and values of the elements contained in the various articles of diet employed, is specially called for from the medical superintendent, who should not only determine the kind and quantity of food each patient is to have, but also superintend the patients' meals.

A cheap sanatorium may be dear at the fees charged, and high fees are not a guarantee of efficiency. For the best sanatorium treatment there is certainly no need to go to Switzerland, and in most cases the patient will for many reasons do infinitely better by remaining in his own country in which he has afterwards to live. Finally, it is of importance for the patient that there should be unity of action between his medical attendant and the sanatorium physician under whose care he is placed.—I am, etc.,

J. G. GARSON, M.D.

Moorcote Sanatorium, Eversley, Hants, Jan. 31st.

## TUBERCULIN AND TUBERCULIN DISPENSARIES

SIR,—As the author of this new system of dealing with tuberculosis, especially pulmonary tuberculosis, among the poor, I trust I may be allowed to present to your readers a criticism of the communication by Dr. Pringle, of Ipswich.

For some occult reason Dr. Pringle has given us a filtered extract of the opinions of various medical superintendents of sanatoriums, and has then proceeded to make a number of *ex parte* statements, some of which are wholly incorrect, while Dr. Pringle has avoided any reference to direct evidence bearing upon the system of tuberculin dispensaries, concerning which he presumes to draw conclusions.

First, he calls as witnesses the very men who, if loyal to their institutions, must uphold the system they represent. Yet even these men in advocating tuberculin contradict Dr. Pringle's subsequent statement that direct attack of the disease has been found at the present time (*sic*) hopeless. Next, they all agree with me in saying that "in mixed infections and in acute febrile cases (as a matter of fact almost all acute febrile cases are mixed infections) tuberculin is contraindicated." No one has insisted so energetically upon this point as I have done for fully thirteen years. Tuberculin as a remedy is specific, and can have no effect on mixed infections—indeed, may do harm in such cases. In nine months' work at my tuberculin dispensary we have had five such cases, and two or three months' experience at the dispensary teaches the medical man how to recognize them. I do not know any other institution where the general practitioner can learn so easily and so quickly the real meaning of mixed infection. On this account alone, tuberculin dispensaries should be utilized by the general practitioner.

Thirdly, the medical superintendents coolly inform Dr. Pringle that tuberculin cannot be safely and properly given at a dispensary. How do they know? Have they tried? If not, what value can be given to their mere *ipse dixit*, when there are a number of competent witnesses who have themselves seen, and many of whom have themselves given, tuberculin at dispensaries month after month for many months, not only without any accident, but with very striking benefit to patients in all stages of pulmonary tuberculosis.

I will mention a few of these witnesses: Dr. L. E. Creasy (London), Colonel Treherne, R.A.M.C., Dr. Hilda Clark (Street), Dr. James Wilson (Irvine), Dr. Annie McCall, Dr. Vivian Orr (London), and Dr. Barber (New Barnet). I might also mention Dr. Duigan and Dr. Counsell of Oxford, and Dr. Prichard of Banbury. All of these witnesses have watched the effect of tuberculin under my system for many months. Is their evidence of no value? Such direct and relevant testimony is set aside, and instead we have the mere secondhand evidence of men who have literally had no experience, and have merely supplied opinions and comments that no court of justice would accept. Yet Dr. Pringle has the coolness to dignify his *ex parte* commentary with the name of an inquiry. He should have called it an "impartial" inquiry.

Fourthly, the medical superintendents say "emphatically" that tuberculin dispensaries cannot displace sanatoriums. Tuberculin dispensaries will have more than enough to do without attempting to displace sanatoriums. If tuberculin dispensaries merely replaced sanatoriums they would be relative failures, for sanatoriums can hardly touch the fringe of this widespread disease. Sanatoriums can hardly deal with 5 per cent. of the cases of tuberculosis among the poor. Thus, without replacing sanatoriums at all, tuberculin dispensaries have to treat the remaining 95 per cent. of the cases which Dr. Pringle and the medical superintendents calmly ordain to be left untreated because sanatoriums cannot take them. This is neither just to tuberculin dispensaries nor merciful to this huge majority of sufferers.

Fifthly, tuberculin should only be given at sanatoriums. This at any rate is a curious commentary upon my labours during the past nineteen years. I have proved beyond all possibility of error that tuberculin can be used with perfect safety and with very great success at dispensaries, even without any sacrifice of occupation or wage. Dare Dr. Pringle and all his medical superintendents face me and my witnesses on this extremely important point before any court of inquiry conducted in accordance with the laws of evidence? If a commission were appointed, at what value would their evidence be assessed? Medical papers may print irrelevant evidence and illogical deductions, but, to adapt Mr. Asquith's recent words, Dr. Pringle's one-sided and distorted views upon the function and utility of tuberculin dispensaries is "of a piece with the persistent and incurable sloppiness in matters of fact which characterizes this sanatorium agitation from its inception down to the present moment."

Let us now deal with Dr. Pringle's own observations. He says, "It is clear, therefore, since direct attack has been found to be at the present time (*sic*) hopeless." Now, tuberculin treatment is spreading everywhere, and Dr. Pringle ventures thus into controversy. Does Dr. Pringle understand what "begging the question" in argument means? The work of Professor Koch, Petruschky, Kitasato, Spengler, Denys, Rembold, Bandelier, Moeller, and of my humble self prove incontestably that direct attack is not hopeless, but achieves results that can only be described as brilliant (see my paper in BRITISH MEDICAL JANUARY, November 26th, 1910). But Dr. Pringle knows more than all of us. Again, "Experience shows that we cannot hope for cure, if the patient continues to exist under the conditions which caused the disease." Begging the question again! What are "the conditions that caused the disease"? Would that we knew! Does tuberculosis never occur in the apparently healthy who have been well fed and apparently lived healthy lives, even in the open air? I regret to say that exposure to infection is quite consistent with apparently healthy surroundings, and disposition to tuberculosis is independent of environment.

Again, "It is a most extraordinary coincidence that men who have devoted years to the study of tuberculosis, etc., have all apparently failed to realize the true curative properties of the remedy." The great exemplar is Dr. R. W. Philip; by the side of Dr. Philip—Professor Koch, Kitasato, Petruschky, and hundreds of others are of no account. Dr. Pringle's knowledge of literature is deficient if he imagines that there is any truth at all in his sweeping statement.

Dr. Pringle had better study logic and the law of evidence, and then come to me for evidence that will help him to the truth upon the value of tuberculin dispensaries in helping the poor who suffer from tuberculosis in its various forms. The poor are asking for bread, and Dr. Pringle and his medical superintendents are offering a stone.—I am, etc.,

W. CAMAC WILKINSON, M.D.Lond., F.R.C.P.

London, W., Feb. 13th.

P.S.—It may interest the profession to know that the Portsmouth Council, guided by the direct evidence of Dr. Mearns Fraser and the Mayor, has adopted my scheme instead of the sanatorium system, with only one dissentient.

## CONTINUOUS ANTISEPTIC INHALATION IN PULMONARY TUBERCULOSIS.

SIR,—In the thoughtful and carefully reasoned paper on tuberculin dispensaries by Dr. Pringle, of Ipswich, in the current number of the BRITISH MEDICAL JOURNAL, it is stated that "it has long been recognized that the treatment of pulmonary tuberculosis by direct attack upon the tubercle bacillus holds out, in the present state of our knowledge, no hope of success." This statement expresses what is the almost unanimous opinion of the medical profession at the present time. Yet I venture to claim that the statement is no longer true. From an experience of 50 cases treated by the method of continuous antiseptic inhalation, and reported in the JOURNAL for December 11th, 1909, and in the *Lancet* for November 19th, 1910, I am convinced (and the conviction is strengthened by the results of many cases similarly treated by others) that, under the use of this method, cough and sputum are quickly diminished, the temperature soon falls to normal, there is a rapid gain in weight, the dull areas lessen, and tubercle bacilli are less easily found by the microscope, and they gradually disappear altogether.

It seems to me to be proved that this method of treatment has certainly the power of inhibiting the development of the tubercle bacillus in the lungs, and of bringing to an end the morbid process caused by it. In a paper on the conquest of tuberculosis, written (by request of the editor) for the January number of the *British Journal of Tuberculosis*, I have pointed out that in the employment of this treatment it is not necessary to keep the patient in bed for a long time, or in a condition of enforced idleness; also that, if the patient has an airy bedroom and keeps his windows open, the treatment can be carried out successfully in his own house. This fact, with the absence of enforced idleness and the much smaller expense, is a very great gain. Even in very advanced cases, in which it is hopeless to expect a cure, the adoption of the inhalation treatment often gives much relief, helps to limit the spread of infection, and enables the patient to do light work for himself or others for a much longer time.—I am, etc.,

London, W., Feb. 11th. DAVID B. LEES.

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## ALCOHOLISM AND DEGENERACY.

SIR,—We observe in your issue of February 4th a letter from Miss Dendy referring to the materials supplied by her to Professor Karl Pearson.

We have frequently pointed out that as these materials have been freely used for discussion of public and scientific questions by Professor Pearson and others their publication was desirable.

In our paper of January 14th we showed that there was no reason to suppose that Miss Dendy's notes contained the data which were essentially necessary for Professor Pearson's and Miss Elderton's inquiry.

In response to our request, Miss Dendy has kindly sent for our inspection the materials furnished by her to Professor Pearson. We find that these records consist of briefly filled up sheets for admission during the last decade to an institution for feeble-minded children. The inquiries on the sheets have clearly never been designed as a basis for a study of parental alcoholism and its effects, nor are they adequate for a study in eugenics. They contain none of the data on parental alcoholism necessary for Professor Pearson's and Miss Elderton's inquiry, and no class of non-alcoholic parents can be obtained from them.

Even the descriptions of the present states of the parents are very incomplete and almost always ambiguous. (This was partly admitted by Professor Pearson and Miss Elderton; see p. 28.) The materials are, in fact, quite useless for the purpose to which they were put by Professor Pearson and Miss Elderton, or for the study of the relation of alcohol to the question of feeble-mindedness in children, and certainly are not worth the cost of printing.

In conclusion we desire to enter a remonstrance against the repeated use by Professor Pearson and Miss Dendy of the distinguished name of the late Dr. Ashby as a guarantee of these records. There is no proof that he made himself responsible for their full accuracy; on the contrary, the vague and unscientific terms used in the family details plainly show that he did not.—We are, etc.,

London, W., Feb. 13th. MARY D. STURGE.
VICTOR HORSLEY.

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## THE CHOLERA IN MADEIRA.

SIR,—As a medical practitioner in Madeira of fourteen years' standing and as a member of the British Medical Association, I should like to give you an account of the cholera epidemic from which we have been suffering and which, I am glad to say, is now on the wane. The grossly exaggerated reports which have been published in the English and Continental press render it advisable that the true facts should be placed before your readers.

I will not comment upon the vexed question as to the mode of entry of the illness; the first cases manifested themselves in September last in Funchal, and for two or three weeks the disease made little progress, but after this it spread rather rapidly amongst the lower class of inhabitant, and soon radiated to the other parts of the island; and this is not to be wondered at considering the amount of traffic between the capital and the country districts.

The local authorities immediately took precautions to isolate the patients and telegraphed for assistance to Lisbon. Dr. Carlos França, a distinguished bacteriologist, was sent out, and this gentleman soon isolated the comma bacillus from the dejecta of patients sent to him for examination. Other medical men and nurses were sent to Madeira, and a large isolation hospital, the Lazaretto, was prepared and opened for the reception of cases and placed under the control of Dr. Lomelino, who has done yeoman service during the outbreak; Funchal was divided into zones, each being assigned to a different doctor, whose duty it was to visit the houses, see that the sanitary conditions were in order, notify any cases of cholera, remove or destroy all rubbish heaps, dirt, or foci of infection, disinfect ponds containing stagnant or dirty water, give the names of all contacts to the sanitary authority, and disinfect the homes of any person who might contract the illness. If the dwelling-places were such that patients could be conveniently isolated, they were treated there; if this were not the case, patients and contacts were removed to the Lazaretto and not allowed to leave until a bacteriological examination of their dejecta gave a negative result. Afterwards, in order to avoid the necessity of carrying cholera cases from the country through Funchal, various other isolation hospitals were established in different parts of the country.

Some of the articles printed in connexion with the outbreak comment upon the dilatory conduct of the Lisbon Government in sending disinfectants and other help to the island. This is manifestly unfair. It must be borne in mind that the Republican Government has been but newly established, and has naturally many difficult problems to deal with. The fact of cholera having broken out in Madeira must have come to them as a veritable bombshell. When once they realized the state of affairs they did everything in their power. As the armed force available in Madeira was considered inadequate to maintain order, a cruiser was sent out, and eventually a force of 650 men. These latter will probably be engaged in forming sanitary cordons and compelling the relatives of cholera patients to consent to the removal of their friends to the isolation hospitals, a proceeding which the ignorant classes resent. The graphic descriptions of fighting and bloodshed between the troops and the populace are due to the vivid imaginations of those who give credence to every popular rumour which is bound to be heard on an occasion like the present. That there have been disturbances is certain, but the populace have listened to reason, and, as far as I know, no one has suffered even a minor injury.

The number of cases up to date is roughly 1,500 out of a population of 150,000. This gives a proportion of 1 per cent. of the entire population attacked, the death-rate is between 30 and 35 per cent. of the cases, this giving a cholera mortality of 0.3 per cent. of the entire population in Madeira; no one can say that these figures are formidable.

It is impossible to speak too highly of the energetic measures taken to combat the epidemic by the extremely able and efficient men at the head of affairs, especially

His Excellency the Civil Governor (Dr. Martins), Dr. Carlos Franca, already mentioned, Dr. Magalhaes, the special representative of the Portuguese Republic, and Dr. Carlos Leite Monteiro, the medical officer of health. In the cases of cholera which I have personally attended, I have had the privilege of Dr. Franca's advice. As far as one can judge, it is extremely necessary to get the patient under treatment as soon as possible, and the remedy *par excellence* in bad cases is intravenous injection of saline solution; this is especially useful in anuria, some cases, in which there had been no renal secretion for over forty-eight hours, having yielded to this treatment. Apart from this, the best results seem to have been obtained from a dose of castor oil as soon as diarrhoea manifests itself, and when the illness develops equal parts of hot coffee and brandy, mustard and linseed poultices to the abdomen, hot-water bottles to the feet and sides of the body, a solution of citric acid or potassium permanganate internally, hypodermic injections of strychnine and caffeine, etc.; in fact, the treatment should be directed towards the relief of the profound collapse so characteristic of cholera. The injection into the bowel of a solution of tannin mentioned by some German authorities I have not seen used. The patients complain most of the cramps in the legs, these being slightly relieved by counter-irritation.

I have had no cases among the English residents, and up to now the upper class of the Portuguese have been practically immune, the simple reason for this being that their personal habits are cleanly, and that they have taken the ordinary simple prophylactic precautions.

One result of the epidemic will be the doing away with many insanitary areas, and a general cleaning up of the town, so that when we have a clean bill of health again visitors may consider Madeira as one of the healthiest invalid resorts to be found anywhere.—I am, etc.,

J. GEDDES SCOTT, M.R.C.S., L.R.C.P.Lond.

## IN DEFENCE OF CONTRACT PRACTICE.

SIR,—Although much has been said on the other side, one must admit that the advocates of contract practice have not hitherto made much attempt to justify their position. For this reason I venture to ask you to allow me to reply at some length.

Let it be distinctly understood that I am only defending the principle and not the present rate of payment, which in the case of friendly and other societies is very inadequate. The fault of this lies entirely with the profession. If we had the common sense to increase our subscription to the British Medical Association, so that it could afford to secure the services of a large staff of whole-time men—one for each Branch—whose business, among other things, would be to bring into the Association every member of the profession, and to keep each Branch in touch with the central organization, and vice versa; if we had large reserve funds, and in other respects became a powerful union, it would be quite easy to dictate terms instead of scrambling for ill-paid appointments. Five guineas a year, or only 2s. a week, would secure us all these advantages. Is it not high time for those fortunate individuals who, owing to private means or a lucrative practice, do not feel the need for combination, to cease holding up their hands in pious horror at the idea of anything similar to a trades union, and to cease from throwing cold water on the attempts of the rank and file to protect themselves by combination?

But with regard to contract practice. On this subject I claim to speak with some authority, as I have been engaged in extensive contract practice for 26 years side by side with ordinary private practice.

First of all, with regard to the ridiculous estimate of one of your correspondents that what he calls a "parcel" of 1,500 people would require 50 visits a day. For many years I kept an accurate record of visits to contract patients, and I quite agree with "Festina Lente" that the average works out at about 10 visits a day for 1,000 people.

Secondly, with regard to the alleged slavery. Such a term can only be used by men who consider it slavery to work for a living. Of course, one has to attend to messages either from contract or private patients, but in the latter case one often spends much time and trouble only to find that eventually the patient leaves the town without remembering to pay the doctor's bill or furnishing any address. Then of course one is occasionally called to a hypochondriacal club patient at an inconvenient time for something ridiculously trivial; but the most fashionable practitioner has the same experience with his private patients, the only difference being that the latter has to spend half an hour or more in humouring a good and lucrative patient, whereas the former can in two minutes express his sentiments in good Saxon English, much to the relief of his feelings and also to the benefit of the patient.

If we are to talk of slavery, consider the slavery of the tall hat and brougham. How thankful I was when, partly owing to contract practice, I was able to escape from this bondage; and now, in cycling from one pit village to another in comfortable costume, I pity the fashionable doctor with his uniform and his half-hour visits, for the most part occupied with fatiguing small-talk. Furthermore, what about the slavery of the day-book ledger, bill book, etc., wretched office work that is most repugnant to the average medical man, and then the distasteful task of sending accounts to patients, especially those who are friends. How hateful the whole thing is! How one cheats oneself frequently in the case of poor, decent, honest people, to whom in any case the doctor's bill will entail hardship, by sending in an account for less than half the proper amount. Then the indignation one feels with well-to-do people who habitually dispute their accounts. Add to this the annoyance caused by those who never intend to pay unless forced by legal proceedings. Besides, a man must be a good clerk and keep a collector if the percentage of bad debts is to be kept in reasonable limits. I must confess that, personally, I should be only too glad if a scheme could be devised by which I could take all my patients on contract.

Then we are told that club doctors scamp their work. This is a gross libel on a large portion of the profession, and might as well be made on medical officers of health or any other salaried men. Of course, there are black sheep in every profession and every branch of it, but these are exceptions. So far from the work being scamped, a contract patient often gets more attention than those who have to pay for every visit, and who in consequence try to keep down the doctor's bill by discouraging visits and neglecting medicine, and failing to send when necessary or sufficiently early. But, apart from the morality of the thing, a club doctor who did not try to get his patient well as soon as possible would not only be a slacker, but an arrant fool, inviting more work and more outlay. In an urgent or interesting case one can visit a club patient as often as necessary without incurring the suspicion of mercenary motives, and, on the other hand, one does not have the tiresome routine of visiting a chronic case every day and spending a weary half-hour trying to think of something fresh that will interest a wealthy and exacting patient. My experience is that my contract patients look upon me as a friend, and are pleased to see me not only when they are very ill, but also at any time when I think it necessary to call.

In some quarters there is a mistaken tendency to look down on club doctors as an inferior species. In my opinion it would be a distinct gain to the profession if every teacher in our large medical schools was obliged, prior to his appointment, to take out a three months' course with some experienced club or colliery doctor—one, I mean, who does all his own work. The teacher of medicine would then learn something about the etiology of disease. The teacher of surgery would find that his pet operations could be performed equally successfully in a cottage, without any of his elaborate toilet, and under conditions he would otherwise have deemed impossible. The teacher of midwifery would no longer lag fifty years behind the times, but would be able to teach students to be useful accoucheurs instead of helpless spectators. Finally, the teacher of bacteriology would discover that Nature is not such a fool after all as he has mistaken her for, and that she created bacilli and cocci for other purposes than the spread of disease, and that he has built his theories on a wrong foundation. He might retrace his steps, and become a help rather than a hindrance to medicine and surgery.

I am under the impression that I could prove all these points from my records and temperature charts of cases; but after so long a letter I must not trespass any more on your space.—I am, etc.,

North Shields, Jan. 22nd. F. C. MEARS.

## THE STOAT AND ERMINE.

SIR,—Several important physiological questions are involved in the seasonal changes in colour which certain animals undergo. By far the most definite illustration of these which we have in England concerns the winter and summer changes which take place even in this climate between the stoat and the ermine. The same animal is a chocolate-brown during summer and snow-white in winter excepting the end of its tail. Little, however, is known with accuracy as to the circumstances under which this change takes place. It seems almost certain that in England it is by no means universal, and, indeed, that it is perhaps exceptional; nor are there many records as to the precise time of year and weather conditions under which the change occurs.

We have recently added to my Haslemere Museum a beautiful specimen of the snow-white ermine, which was killed in the beginning of the present year. It has been stuffed, and is, together with some other specimens illustrating the same subject, now on exhibition. In recently mentioning it (in the *Times*) I assumed that it conclusively proved that the change did not depend upon cold, since in the present winter, for the most part, there have been no low temperatures. This, it will be seen, is an important point, for there has been much controversy, and cruel experiments have been tried in exposure of the animals to cold. I was, however, perhaps hasty in assuming that the present instance was conclusive against the direct effect of temperature. It has been pointed out to me that it is less so than I had supposed, since during the month of last November the temperature was very definitely and almost continually below the average. It was warm during December, but it may have been that the preceding month was exactly the critical one. Many members of our profession take great interest in natural history, and many of our country residents have unusual opportunities for collecting and investigating facts. The present year offers an exceptional opportunity; all specimens of these animals which are obtained within the next few months should be carefully examined and their conditions of coloration recorded. I have made many attempts to obtain them in the ermine stage, but with very little success, and my impression is that they are rare—at any rate, in the south of England; but we do not so much want rarities as precise records as to date and condition of colour, etc. All our museums and many private collections have mounted specimens of the ermine, but it unfortunately happens that scarcely any of them have the date recorded. I shall be much obliged to any of my readers who may be willing to send me the notes, either of stuffed specimens or recent ones. It may perhaps be sometimes possible to send me the recently killed animals. Such will be especially valuable, and will probably in most instances be considered worth mounting. Notes of cases, however, without specimens will be very acceptable. They should be addressed to me at the Museum, Haslemere, Surrey.—I am, etc.,

Haslemere, Feb. 6th. JONATHAN HUTCHINSON.

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## THE AVERAGE MEDICAL INCOME.

SIR,—May I again ask Professor Moore to substantiate his statements about the average medical income? Seven months ago I challenged his statement in the BRITISH MEDICAL JOURNAL that it was well within £200 per annum, and he was then unable to give us any authority for that estimate. Now in his book, *The Dawn of the Health Age*, he says, "It is quite a liberal estimate to take the average income of the profession at £250 per annum." This may be so; I know of no reliable basis for an estimate, but I very much doubt the accuracy of this one, and I again ask Professor Moore to tell us how he has arrived at it.

It must be remembered that if an underestimate by a man of Professor Moore's eminence be allowed to go unquestioned, it will be used as a basis by legislators in any future fixation of salaries for a State medical service. Furthermore, as Professor Moore considers a large proportion of the profession to be grossly underpaid, how does he justify using the present average income, whatever it may be, as a basis for an estimate of the cost of a model State medical service?

We have a right to ask Professor Moore for accuracy; it is, perhaps, useless asking him for temperance of language, but it is necessary to protest against such a phrase as "The doctor in turn scamps the club patient's case to the last inch he can go." This phrase is scarcely covered by your remark[1] that Professor Moore "never for a moment cast any doubt on the honesty or intentions of the club doctor." If Professor Moore will descend from his academic eminence to find by actual contact what general practice is like, he will learn that some private practitioners (I believe they are few) are not so competent nor conscientious as he might desire, and that some club doctors (I know they are many) are both conscientious and competent. It is because I agree with Professor Moore in his desire for a State medical service that I feel compelled to protest against his dangerous inaccuracy, and his annoying intemperance.—I am, etc.,

Newcastle-on-Tyne, Feb. 4th. T. L. BUNTING.

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## QUALIFIED OPTICIANS.

SIR,—My excellent colleague, Dr. Seymour Taylor, in a speech which he made at the recent dinner of the Spectacle Makers' Company, which apparently has gained wide publicity in the lay press, shows, I think, that he has ill-considered the question of the sight testing optician. He pleads for the "qualified" optician, as the mid channel which leads a certain class of the community to the haven of refractive rest, between the high fees of the ophthalmic surgeon on the one hand, and the hospitals on the other, and adds, "far better to consult an optician holding your diploma (spectacle makers) than any medical man who has not devoted special time to eye diseases."

With all deference, however, to my friend, I submit that this opinion is both retrograde and illogical. In the first place, I conceive that he will admit the premiss that the work of an optician is that of a tradesman. First and foremost, the optician's business is to sell spectacles. With this object in view, he attracts the public by generously stating that he will test the sight as well as provide the glasses that are necessary. An instance of this commercial detail recently occurred to me at the hospital. A poor man came complaining of failing sight, affirming that he had been to an optician—naming one whose advertisements appear in almost every newspaper—for glasses. The glasses, he stated, were useless, although they had been changed. On examination, I found the defective vision to be due, not to an error of refraction, but to tobacco amblyopia. Here, then, was a poor man, who had paid one guinea in two instalments for a pair of spectacles which were useless, and which, in any case, need not have cost more than 1s. 9d. from a hospital optician.

How does an instance like this support the claim which Dr. Seymour Taylor advocates?

Again, it may be asked, whence do qualified opticians derive the practical "experience" of the treatment of errors of refraction? What opportunity have they of seeing and treating the thousands of cases of this kind which fall to the lot annually of ophthalmic surgeons in their hospital work? Do the public use these opticians' shops in such crowds as to enable an expert and a trustworthy experience to be acquired, both of the treatment of errors of refraction, and of those cases of defective vision dependent upon diseases of the eye for which medical advice is needed? In short, the sight-testing optician, whatever may be said of his qualification, is exactly on a par with the prescribing chemist. Does Dr. Seymour Taylor defend counter prescribing? What would he have thought of an ophthalmic surgeon saying, for example, at the annual dinner of the Pharmaceutical Society, in a paraphrase of Dr. Seymour Taylor's sentence above quoted, "Far better for the poor to consult a chemist holding your diploma than any qualified medical man who charges fees for advice and medicine." But if "qualified" opticians, why not "qualified" chemists, chemists empowered by a special diploma of the Pharmaceutical Society to give advice and prescribe for minor ailments, and thus raising their status to that of "medical" chemists, following the lead of many opticians who now add the word "ophthalmic" to their title?—I am, etc.,

London, W., Feb. 7th. PERCY DUNN.

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[1] BRITISH MEDICAL JOURNAL, p. 203.

## SHIP SURGEONS.

SIR,—As one of the originators of the scheme for the amelioration of the lot of ship surgeons, I cannot allow Dr. Hadfield's letter published in the JOURNAL of January 7th to pass unchallenged. In his very able and concise summary of the conditions of surgeons in the mercantile marine published some time last July, he fully admitted the need for reform, but concluded by belittling the efforts of those attempting to bring this about. From his closing paragraph it must have been quite evident to any reader of both communications that Dr. Hadfield had entirely failed to grasp the import of what he termed "the manifesto" of "a warlike committee." His attention was drawn to this fact publicly in the JOURNAL by Dr. J. F. Elliott, acting as honorary secretary to the provisional scheme, and also by myself in a personal communication.

Dr. Hadfield's recent communication further emphasizes his original misconception, as I fail to see any clause relative to the "coercing of shipowners" in the proposed improvements made public last July.

It remains to be seen whether the new scheme initiated by the Orient Line will stand the test of time and competition. More especially when the competing company—P. and O.—refused to fall into line with it. Experience in the past has never shown shipowners to be philanthropists in regard to their medical employees any more than any other commercial firm, and there is no reason why this should be expected of them. They are engaged in business and conduct their steamers on business principles which are largely governed by the effect of competition. The new system of payment of fees for services rendered by the surgeons penalizes the Orient Company's ships in so far as P. and O. ships are concerned where services are rendered gratuitously—at any rate in the eyes of the managers.

Either there is room for improvement or there is not. The recent correspondence seems to point to the former, and the sooner this is obtained by universal combination throughout the profession, the better will it be for all concerned, including also the shipowner and travelling public. Attempts on the part of surgeons in individual companies are more or less bound to be abortive. Past experience has already demonstrated this, and shown it to be another example of the need of combined union for the common good.—I am, etc.,

Khartoum, Jan. 28th. A. VAVASOUR ELDER.

## LEAVING THE COFFIN IN THE PORCH.

SIR,—Will you allow me to suggest an important addition to "Funeral Reform," which would be invariably, under all circumstances, to leave the coffin in the porch under the care of the undertaker, and never to take the coffin *inside* the church, whether the deceased died of some infectious illness or not? In summer time it is positively most dangerous to delicate and sensitive people who have to attend the funeral, and would be particularly liable to typhoid symptoms, if decomposition has in the slightest degree commenced. The coffin should be in the care of the undertaker in the porch until the mourners come out of church after the first part of the funeral service. By that means neither the mourners nor the minister could be injured. Whatever be the origin of the custom, it is most unwise from a sanitary point of view under any circumstances or at any time of the year.—I am, etc.,

February 6th. ESCULAPIUS.

WE have received the two portions of the section-catalogue of E. Leitz (9, Oxford Street, London, W.), which deal with projection apparatus and photomicrographic outfits. The first affords a good example of the finesse with which optical projection is carried out in these days, and the "universal" outfits and massive epidiascopes which are listed must make the modern lecturer, we imagine, feel it something of a strain to live up to them. The photomicrographic section is illustrated by some elaborate apparatus for coaxing a trypanosome into vision, and a feature of one outfit is a camera having the extraordinary extension of 40 inches. A number of specimen photomicrographs are appended, some of them representing magnifications of more than a thousand diameters. The special requirements of medical and analytical work are not forgotten.

# Medical News.

DR. FLETCHER BEACH, of Coulsdon, has been elected a corresponding member of the Société de Psychiatrie of Paris.

A CLINICAL meeting of the Hunterian Society will be held in the library of St. Bartholomew's Hospital on Wednesday next at 4 p.m.

AT a meeting of the Royal Society on Thursday next Miss M. Robertson will read a paper on the transmission of flagellates living in the blood of certain freshwater fishes.

THE *Saxonia*, of the Cunard Line, started for a short cruise in the Mediterranean and Adriatic last week. The *Carpathia* will leave Liverpool for a similar cruise on March 2nd.

THE executive council of the National League for Physical Education and Improvement has passed a resolution in favour of the compulsory notification of measles.

THE Invalid Children's Aid Association will hold a conference on March 15th, with the object of promoting closer co-operation between the hospitals and nursing homes, having regard in particular to the continued treatment of cases of diseases of the hip and spine.

THE London County Council has decided to extend the period of compulsory notification of cerebro-spinal meningitis for a further period of twelve months from March 13th, 1911. The first notification order came into force on March 12th, 1907.

PROFESSOR ARTHUR KEITH, conservator of the museum of the Royal College of Surgeons of England, will commence a course of six Hunterian lectures on the fossil remains of man, and their bearing on the origin of modern British types, next week. The lectures will be given at the college on the Mondays, Wednesdays, and Fridays in the weeks beginning February 20th and February 27th, at 5 p.m. on each day.

THE Milroy lectures before the Royal College of Physicians of London will be delivered by Dr. A. E. Boycott on March 2nd, 7th, and 9th, the subject selected being ankylostoma infection. Dr. A. F. Hertz, who will give the Goulstonian lectures on March 14th, 16th, and 21st, will deal with the sensibility of the alimentary canal in health and disease. Dr. J. Mitchell Bruce has selected a clinical study of cardio-vascular degeneration for the Lumleian lectures which he will deliver on March 23rd, 28th, and 30th. The Oliver-Sharpey lectures, to be delivered on April 4th and 6th by Dr. J. Mackenzie, will deal with heart failure. The hour of the lectures, which will all be delivered at the college, is 5 p.m.

THE next quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will take place, on the invitation of Dr. Edwin Goodall and the Committee of Visitors, at the Cardiff City Mental Hospital on Thursday next at 2.30 p.m. Papers will be read on the Wasserman reaction in mental disorders by Dr. H. A. Schölberg and Dr. Edwin Goodall, on the production of indigo in the human organism by Dr. R. V. Stanford, on gynaecological conditions coincident with mental disturbances by Mr. E. Tenison Collins, and on metabolism in the insane by Mr. R. E. Mackenzie-Wallis. Members will have the opportunity of inspecting the mental hospital in the morning, and will be entertained at luncheon by the Lord Mayor of Cardiff at 1.15 p.m.

As long ago as 1895 the local authority of Surbiton undertook, on the advice of the Medical Officer of Health, Dr. Owen Coleman, to make special arrangements for the supply of diphtheria antitoxin. In consequence of the circular recently issued by the Local Government Board (BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 485), the authority has now issued to all medical practitioners in the locality a letter stating that the district council has made further arrangements for the convenient supply of antitoxin, and inviting medical men to resort to the use of this remedy on the first suspicion of diphtheria, and to use it also for persons who have been exposed to the infection owing to close and intimate contact with cases of diphtheria. Dr. Coleman states that hitherto antitoxin has been administered prior to the admission of the case to hospital only on rare occasions, and that this means not until the third or fourth day of the illness.

THE winter dinner of the West African Medical Staff took place on January 25th at the Gaiety Restaurant, under the presidency of Dr. Prout, C.M.G., formerly principal medical officer, now of the Liverpool School of Tropical Medicine. There was a very large attendance

of members, both senior and junior. Dr. Darker, in proposing "Prosperity to the West African Medical Staff," compared it to a column on the march along a narrow bush path. While each individual saw little of the others, they were mutually dependent on each other, and had a common objective—the success of the expedition. He foresaw the time when men who had been through the medical curriculum would be more and more in requisition, both at home and abroad, to fill important administrative posts. Medical men had to deal with human beings as they are, and only accept facts about them. He believed that medicine was slowly but certainly forging to the front in public opinion, and that its influence would largely increase, and in this way the prosperity of the West African Medical Staff was assured. Dr. Prout, in proposing "The Visitors," said he was glad to see present two members of the permanent staff of the Colonial Office, for it was of mutual benefit for them to meet under these social conditions, unfettered by the trammels of official papers. He was sure that the members of the staff would give them a hearty welcome if they could only be persuaded to visit the West Coast of Africa. He also coupled with the toast the names of Dr. Low, who had done brilliant work in connexion with tropical research, and Dr. Tulloch, a distinguished colleague from the West Indies. Mr. Strachey, a principal clerk in the Colonial Office, in an interesting speech, gave some examples of old prescriptions containing weird ingredients, and congratulated the staff on not having nowadays to collect the materials themselves. He thanked them for their welcome, and for giving him the opportunity of being present. Drs. Low and Tulloch also suitably replied.

# Medico-Legal.

## WORKMEN'S COMPENSATION.

*Probable Difficulty in Getting Medical Aid.*

In *Neilson* v. *R. W. Jones and Co.* (*Western Mail*, January 6th), it appeared that applicant had one of his legs broken at sea, and when the case was first heard there was a conflict of medical testimony as to whether he was permanently injured from following his occupation as a sailor, as, in his case, there was a scar over the fractured ends, which, if again injured and there was not medical aid immediately available, would be a serious matter. Besides that, there was a slight shortening of the limb. His Honour sent the case to the medical referee, whose report was to the effect that the man was not able to resume his work as a sailor. His Honour thought it was fair to say that every person who went to sea was in some danger. It was contended that the injury did not make the applicant more liable to accident. All that it did, in the opinion of some of the doctors, was to render him liable to serious consequences if he met with another accident and was hurt in the same place. His Honour adopted that view, and found for the respondents, but gave a declaration of liability to protect the applicant in case of further injury. Having regard to the respondents succeeding on the question of permanent incapacity, and to the fact that the applicant was entitled to a declaration, he ordered each side to pay its own costs.

*Procedure before a Medical Referee.*

An entirely novel point, which cannot fail to interest medical referees, was raised in a case heard at Bolton County Court on December 14th, 1910. His Honour having sent a case to a medical referee, the employers claimed the right to take witnesses (including medical witnesses), together with counsel and solicitor, before the referee, and conduct a species of trial before him. This contention was based upon one of the compensation rules, which provides that the referee shall "consider any statements that may be made or submitted by either party." Judge Bradbury, however, refused the application, saying that the rule meant that the parties themselves might attend before the referee in person and make statements to him, whether verbal or written, but not that they might call persons to give viva-voce evidence on their behalf. His construction of the rules and his opinion of the desirable practice was that witnesses should not give evidence before the referee. He expressed a wish, however, that the matter might be considered by a higher tribunal and gave leave to appeal.

*Accident or Disease of the Lung.*

In a case at Salford (December 19th, 1910) a widow asked for an award against the Ship Canal Company. It appears that her late husband was injured by falling from a plank. He was unable to work again until January, 1909, when he was given a lighter job, which he kept until October. He was then taken ill again, and died at the infirmary. A medical witness said death was due to malignant growth brought on by a laceration of the left lung in the accident, but Dr. Hay, who made the *post-mortem* examination, said the growth was brought on by natural causes. A third doctor who attended Harrison at the time of the accident said there were no symptoms which led him to believe the lungs were injured. The judge said there was a good deal of obscurity about the origin of this kind of growth, but in this case he was satisfied that there was no connexion between the accident and death. His decision, therefore, was in favour of respondents. The Ship Canal Company did not ask for costs.

*Necessity for Accuracy in Hospital Memoranda.*

Doctors who are consulted in relation to accidents must needs take particular care in relation to the entries which they make concerning them. In a case at Nottingham (December 14th, 1910) it appeared that on December 10th, 1909, a man twisted the muscles of his back when lifting a case of yarn weighing 3 cwt. He alleged that he could do no work since the accident. Since March 2nd, 1910, the pain in his back had frequently compelled him to stay in bed all day. He was seen by a doctor at the Nottingham General Hospital, who (when giving evidence) admitted having made the following entry in the hospital book: "Sciatica through injury." Cross-examined, this witness said that the only record of his diagnosis—the hospital book—had been lost. He doubted that the entry was "Sciatica through injury," but said that he might have written, "Sciatica. Query injury," which was a very common thing. Harry Foster, whom applicant assisted in the packing room at Messrs. Wilson's works, said that five or six months before the alleged accident the applicant complained to him of pains in his back. On behalf of the employers it was submitted that the applicant had suffered from sciatica for a considerable time, and he disputed that an accident had taken place. Buckley having been examined by Dr. Anderson (who sat with the judge as medical assessor), the judge said he was advised by the medical assessor that the man had suffered from the effects of an accident, but was now able to do light work. He, therefore, made an order for payment of 15s. a week from March 5th, 1910, to date, and 7s. 6d. a week subsequently on the understanding that the defendants found him some light piecework to do.

*Strangulated Hernia.*

In Roxburghshire Sheriff Court, Sheriff Baillie has issued an interlocutor in an action brought under the Workmen's Compensation Act by Helen Walker, housekeeper, against Thomas and William Murray, farmers, Mervinslaw, in which the claimant asked the court to award her compensation for the death of her father, James Walker, who was farm steward in the service of the respondents. In support of the claim it was stated that in April last deceased suffered from rupture while driving a sow from a neighbouring farm to Mervinslaw. The rupture became strangulated, an operation was performed, and Walker died six hours afterwards. He had been treated for rupture at home in December, 1908, and underwent an operation in Edinburgh Royal Infirmary in January, 1909; respondents submitted to the court that the rupture and strangulation in April were not the consequences of an accident, but were simply occurrences in the course of the disease which might take place at any time. Sheriff Baillie found it not proved that Walker met with an accident on his way home with the sow, and that the claimant was not entitled to compensation.

*The Attendance of Doctors at County Courts.*

When taking his seat at Durham, at 11.30 a.m. on December 15th, 1910, Judge O'Connor asked if there were any medical gentlemen present, and, receiving an answer in the affirmative, said, "I think it is a great pity that medical gentlemen should be brought to this court at 10 o'clock. It is perfectly certain that they cannot be called upon for some time, and a doctor might be seeing his patients for an hour or an hour and a half. It will be better to let doctors know that they need not attend much before 12 o'clock, at any rate on the Monday." As a matter of fact, there is hardly a county court in England or Wales where a similar rule might not be made. It nearly always happens that the first two hours of the day are taken up with judgement summonses or other business, which postpones the hearing of contested cases.

*Alleged Malingering.*

In a Stockton case (Newcastle, December 20th) it appeared the applicant was a rivet heater. While at his work in November, 1909, he was injured, and in consequence of his injuries he suffered pains in the back and stomach. He received compensation until February, 1910, when it was stopped. He now applied for a renewal of compensation on the ground that he could not go back to work. Two doctors (Dr. Hughes and Dr. Cameron) said they had examined the applicant, who was well nourished and in excellent health. In their view there was nothing the matter with him. When he went to Dr. Hughes's surgery he commenced to howl before either of them touched him, and he walked along the floor very slowly, and with apparent difficulty, as if in the greatest agony. He stated that he could not raise his arms higher than his chest, but when he was pulling on his shirt after his examination he forgot himself for the moment, and shot his right arm straight up over his head. Then later, when he was leaving the surgery, he almost crawled to the door, but when he got into the street they watched him, and saw him walk away with quite a drum and fife swing. Witnesses were both certain that the applicant was malingering. The application was refused.

*Fracture of Cervical Vertebrae.*

The Recorder of Dublin delivered judgement recently in a case which he said he was informed was one of the most remarkable that had ever come under the experience of hospital authorities, because the plaintiff had a lesion similar to what one would find in a man who had been hanged. The plaintiff, while moving sacks of grain on March 30th last, got his foot caught by the door of a lift, and was thrown violently to the ground. The medical evidence had been contradictory, the doctor for the plaintiff stating that in his opinion there must be a blood tumour between the muscles and the bones of the neck, while the doctor who examined the case on behalf of the defendants believed the patient to be quite well and fit for work. Under the circumstances a medical assessor was called in, and as a result of an *x*-ray examination it was proved that the plaintiff had sustained a fracture dislocation of the cervical vertebrae. The Recorder awarded the applicant half wages until further order, and referred to the case as a marked example of the great benefit both to employers and employed of the power given by the Act to have the opinion of an assessor in such cases.

## TRANSFER OF LEASE.

K. R. writes that he has purchased a practice, and paid in full for the same. He wishes to know who should pay for the transfer of the lease of the house. A clause in the agreement of sale says the vendor "shall assign the lease or agreement under which he holds the house to him, the purchaser, and, if necessary, obtain the landlord's consent to such assignment."

*** In such cases it is usual for each party to be represented by his solicitor in settling this assignment. Certain legal expenses are therefore incurred on both sides, d vendor and purchaser each pays the charges of his own solicitor.

## FEES OF MEDICAL WITNESS.

HOUSE-SURGEON does not send sufficient details to enable a definite reply to be given. For instance, he does not state whether the action was tried before the High Court or before a county court judge. Generally speaking, however, a witness can refuse to give evidence in a civil case until he has received compensation for his loss of time, the objection being taken before being sworn. County court judges have held, however, in some instances that where a witness has been subpoenaed and is in court he can be called upon by the judge to give evidence, and, should he refuse, be dealt with as committing contempt of court. This ruling does not appear to follow the procedure of the High Court. The solicitor in this case has apparently made himself responsible for the fees by "giving his assurance" to the court that they would be paid, but ample evidence of such guarantee would be required should action be raised to enforce payment.

# Obituary.

## FREDERICK MELLAND, M.R.C.S., L.S.A.

IT is given to few men to attain the age reached by Dr. Frederick Melland, who died at his home in Victoria Park, Manchester, on January 17th, at the age of 93 years. Dr. Melland was born at Alport, Derbyshire, on January 28th, 1818, and after education at local schools he was apprenticed to a surgeon at Sheffield. His medical studies were completed at Manchester, and he spent some time in study in Paris. He obtained the diploma of L.S.A. in 1840, and that of M.R.C.S. in 1841. In that year he settled in Manchester, and became Resident Surgeon at the Manchester Royal Infirmary. Soon afterwards he went to Rusholme, which was then almost a country village, and where for some years he was the only resident practitioner. As the district grew in popularity as a place of residence for the well-to-do people of Manchester, Dr. Melland became well known and obtained a considerable practice. He became Consulting Surgeon to the Chorlton-on-Medlock Dispensary, and when the Volunteer movement was started he joined as a surgeon to one of the Manchester corps in 1859.

Dr. Melland was twice married, his first wife being Miss Kelsall, of Rochdale, a relative of Sir George Kemp's family, and the second Miss Middleton, of Darlington. As issue of these marriages he had five sons and three daughters. In the year 1877 his eldest daughter, Helen, was married to the present Prime Minister, Mr. Asquith, the ceremony being performed in the Rusholme Congregational Church by the late Rev. T. Campbell Finlayson. Mrs. H. Asquith died in the year 1901, leaving five children, and a few months ago, in spite of his great age, Dr. Melland was able to go to London to attend the wedding of his grandson, Mr. Herbert Asquith, the second son of the Prime Minister. Dr. Melland was always an ardent politician, and took great interest in the early struggles for Free Trade and in the movement for the repeal of the Corn Laws. It is only natural that he should have followed with fatherly pride the career of his son-in-law, the Prime Minister, and it was a source of satisfaction to him that though he was only just recovering from an accident in which he broke his leg, he was able to go to the poll at the election last December and vote for Mr. H. Nuttall, the Liberal candidate for the Stretford Division.

Of Dr. Melland's sons, two are in the medical profession, Dr. Brian Melland, who is in practice at Bowdon, and Dr. C. H. Melland, who is a physician in Manchester and Honorary Physician to Ancoats Hospital and the Northern Hospital for Children, while Mr. Norman Melland is in business in Manchester, and Mr. Godfrey Melland is on the teaching staff of the Technical School at Woolwich.

Dr. Melland found his chief relaxation in travelling and reading, and he took special interest in church architecture, often going to distant places to see any specimens of early architecture. Ten years ago he retired from the active practice of his profession, but continued to take a keen interest in medical matters, especially the welfare of the Ancoats Hospital and the Royal Infirmary. He was present at the opening of the Royal Infirmary by King Edward, where from the numerous medical men present he had quite a reception as the oldest and one of the most honoured practitioners of the district. On January 21st the South Manchester Board of Guardians passed a resolution of condolence with the relatives, and the chairman said that Dr. Melland was appointed District Medical Officer under the Chorlton Board in 1850, soon after the first beginning of the union. He retired in 1896, being then practically the oldest official connected with the union. The last obsequies were performed on January 21st at the Manchester Crematorium, and were attended by the Prime Minister.

## WILLIAM PATRICK, M.D.,

CERTIFYING FACTORY SURGEON, SOUTH-EASTERN DISTRICT OF GLASGOW.

DR. WILLIAM PATRICK died at his residence, Bridgeton, Glasgow, on February 2nd, in his 75th year. Dr. Patrick was in practice in the east end of Glasgow for forty-nine years. He became a Licentiate of the Faculty of Physicians and Surgeons of Glasgow in 1861, and M.D. of Glasgow University in 1870. He was therefore a student in the Glasgow Royal Infirmary in the days when Lister was carrying on his world-famous experiments, and was present at the birth of antiseptic surgery. He was a pupil also of Sir W. T. Gairdner and Sir G. H. B. Macleod, and amongst his fellow-students were Dr. J. B. Russell and Dr. James Finlayson, all of whom were personal friends in the later years of practice. He became early immersed in the busy life of a general practitioner in the chief working-class district of Glasgow. About twenty-five years ago he was appointed Certifying Surgeon for the South-Eastern District of Glasgow. This appointment he valued highly as it brought him into close contact with the employers in the district, many of whom were his personal friends, besides giving him many opportunities of watching over the health and welfare of the young workers. He continued visits to factories in his area down to within six days of his death; and even during his last hours of delirium he was busy "doing his factories," giving the young people sound moral advice, and urging upon them, as he always did whenever opportunities presented, habits of order, and obedience, and cleanliness.

Dr. Patrick was a keen member and office-bearer of the United Free Church of Scotland. For forty-one years he was Session Clerk in Bridgeton United Free Church. He was a Liberal in politics and frequently took part in political meetings in the Bridgeton district, while he held office in the local Liberal Association. He was active also in medical societies, and was an original member and past-President of the Glasgow Eastern Medical Society.

His last public appearance was at the dinner to his much valued friend and medical adviser, Sir David McVail, on January 20th. On that evening he had felt extremely well, but two days afterwards he had anginous attacks; these became more frequent and severe till the fatal termination. The funeral services at Bridgeton United Free Church and at the Crematorium Chapel in the

Western Necropolis of Glasgow were attended by large congregations. His death removes from the east end of Glasgow perhaps its best known personality. He was much loved for his simplicity of character, for his strict adherence to principle, for his devotion to his church, as well as for his innumerable acts of kindness and generosity which his large practice constantly called from him.

He is survived by his wife, five daughters, and two sons, who are both members of the medical profession.

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## ALFRED WILLIAM FREDERICK STREET, D.S.O.,

LIEUTENANT-COLONEL, I.M.S. (RETIRED).

To the many friends of the late Lieutenant-Colonel A. W. F. Street, D.S.O., the news of his sudden death at his residence, Norsey Manor, Billericay, at the comparatively early age of 58, will have come as a shock and caused deep regret that a life of such activity and usefulness should, seemingly prematurely, have closed.

The eldest son of the late Rev. B. Street, vicar of Barnetby-le-Wold, Lincolnshire, Lieutenant-Colonel Street entered as a student at St. George's Hospital, where he subsequently gained the Brackenbury Prize in 1872. Qualifying in 1876, he for some time held an appointment at the Royal Free Hospital, Gray's Inn Road, entering the Indian Medical Service in October, 1877. After going through the usual course at the Royal Victoria Hospital, Netley, he proceeded to India, where he saw much active service. Early in his career he took part in the Afghan war of 1878-80, being present at the action of the Helmund, July 14th, 1880, battle of Maiwand, defence of Kandahar, and the battle of September 1st. For this he was mentioned in dispatches and received the medal and clasp. At a later period he was actively engaged in the Burmese Expedition of 1886-7, for which he was again mentioned in dispatches, received the medal and clasp, and was gazetted D.S.O. The greater portion of his service was, however, spent in civil employ, and in this he displayed the same zeal and self-abnegation which was characteristic of him in his military work. From 1887 until his retirement he acted as a Deputy Sanitary Commissioner under the Government of Bombay; he saw a great deal of famine duty, and was in sanitary charge of a very large tract of country. In 1898 he took a very active part in the suppression of plague in Bombay itself.

Of strong physique and very active habits, which enabled him to take a prominent part, during such periods of relaxation as he permitted himself, in field sports, Lieutenant-Colonel Street maintained the best traditions of the Indian Medical Service. When he retired in 1902 it was not to leave off work, but to participate in the strenuous business of a city firm. Whether there or in his country home in Essex, he showed the same dislike to being idle which had characterized him throughout. His death came with startling suddenness. After a very busy week in London he spent the morning of January 28th in the hunting field, from which he returned more than usually tired. The following day, Sunday, he did not feel well enough to get up, but there was nothing apparently in his condition to cause any particular anxiety. On attempting to rise in the evening he collapsed, coma supervened, and at 8 o'clock the following morning he passed away, death being due to cerebral haemorrhage.

Such are the main features of his career, but to his friends some further tribute to his character seems essential. Perhaps its chief characteristic was thoroughness and devotion to duty. He had a high ideal of duty, both in public and private life, and pursued it unwaveringly. Of a reserved nature, hating display, and modest about himself, anything which savoured of self-seeking was abhorrent to him. To those who knew him intimately the sense of personal loss is great, for they felt the warmth of his friendship and appreciated it highly.

Lieutenant-Colonel Street married, in 1884, Helen, only daughter of the late Rev. E. M. Weigall, vicar of Frodingham, Lincolnshire, by whom he had one son and three daughters, for whom, as for his widow, great sympathy will be felt in their sudden bereavement.

The funeral took place at Barnetby, Lincolnshire, on February 2nd, a memorial service being held at the same time in the parish church at Billericay, Essex, where he had lived, which testified to the great respect and affection with which he was regarded in the neighbourhood.

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AFTER a long illness, Dr. T. J. FORDYCE MESSER, of Helensburgh, died on January 28th, at the age of nearly 70 years. He was born in Edinburgh and graduated there, afterwards practising in Penicuik, before settling in Helensburgh, where he succeeded Dr. Skene over forty years ago. For a quarter of a century he was medical officer for the burgh, but retired from active work eight years ago. He was deeply interested in the Volunteer movement and was a member of the Midlothian Yeomanry while in Penicuik, becoming Company Sergeant-Major. He took a commission in the combatant ranks of the local artillery volunteers in Helensburgh, and became Major in the Renfrew and Dumbarton Artillery. He was also for many years a member of the local school board. He leaves a widow and grown-up family.

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ANOTHER very promising member of the profession has met his death abroad while doing his duty. ARTHUR FRAME JACKSON died of cholera at Moukden, where he was attached to the Mission Hospital. Dr. Jackson, who was only 26 years of age, was a Cambridge graduate who had done a large part of his clinical work at the Liverpool Royal Infirmary, where his sterling qualities and genial disposition had made him very popular with all who came in contact with him. As a boy he was educated at the Merchant Taylors' School, Crosby. It was only in last September that he sailed for China, taking up his duties in November. There seemed then every prospect of a successful career, as he was just the man for the post; physically above the average, his mental attainments, and, above all, his earnestness, specially fitted him for his calling.

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WE regret to have to record the death of Dr. J. E. MORRIS of Bishop's Stortford, at the age of 65. He was the son of Mr. Henry Morris, surgeon, of Gosberton, Lincs., was educated at Epsom College, and studied medicine at St. Thomas's Hospital. He took the diplomas of M.R.C.S. Eng. and L.S.A. in 1870, in which year he went to Bishop's Stortford as assistant to the late Mr. Scarr, and on his death succeeded him in practice. In 1885 he took the degree of M.D.Durh. In July last he resigned the post of Medical Officer of the Bishop's Stortford Union, which he had held for thirty-nine years, and on his retirement the guardians expressed their regret on his having to give up a post he had so long held, and expressed the hope that he would long be spared to live in the district. Dr. Morris was some years ago a member of the old Light Horse, was an expert horseman and an enthusiastic huntsman, being a conspicuous figure at the meets of the Puckeridge hounds. Dr. Morris was President of the Cambridge and Huntingdon Branch of the British Medical Association in 1895 and delivered the presidential address before the Branch at its meeting that year at Bishop's Stortford. Dr. Morris leaves two sons and one daughter, the latter and also the eldest son being members of the medical profession, while the younger son holds the diploma of L.D.S.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor Nagel, Director of the Physiological Institute in the University of Rostock, aged 40; Dr. Eustache, sometime Professor of Obstetrics at Lille; Dr. Lustgarten, a well-known dermatologist of New York, formerly assistant to Professor Kaposi at Vienna, aged 51; Dr. M. Cienfuegos, Professor of Ophthalmology in the Medical Faculty of Santiago, Chile; and Dr. Giuseppe Albini, for many years Professor of Physiology at Naples, in his 84th year.

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A BELGIAN Society of Physiotherapy was formally constituted at a meeting held at Brussels on January 29th. Dr. R. Verhoogen, Professor of Internal Pathology in the University of Brussels, has been elected the first President.

DR. E. MCCONNELL has been appointed subconvener of the Health Committee of Glasgow Town Council in room of Mr. W. F. Anderson; and the Medical Officer of Health and Chief Sanitary Inspector have been appointed the officers of the local authority for the regulations made by the Local Government Board under the Housing and Town Planning Act, 1909.

# The Services.

## REPORT ON THE HEALTH OF THE ARMY FOR THE YEAR 1909.

THE present volume—the fifty-first—will recall to old medical officers the first annual report, that for 1859, issued in Blue Book form exactly fifty years ago. It was an outcome of the historic Herbert Commission on the medical service, called into being through the dire experiences of the Crimea and Mutiny; among its many recommendations (finally embodied in the Royal Warrant of 1858) was the publication annually of army medical statistics in a comprehensive form.

Many army vital statistics had, of course, been published in a fragmentary way before that time, and one, which sticks in memory, showed that in the first half of the nineteenth century the deaths of European soldiers in India reached the terrible proportion of 69 per 1,000 of strength per annum, which may fitly be contrasted with 6.37 for 1909, the year under review.

For years after the Mutiny the Blue Books showed that the mortality continued many times what it is now, and the records of sickness and suffering corresponded. What has brought about such marvellous changes for the better during the past half century?

In an admirable introductory letter the Director-General, A.M.S., enumerates among the chief causes of improvement in the health of the army, "the continued education of the soldier in matters of personal hygiene," the "further improvement in the sanitary condition of barracks and camps," and "the advance of science in the direction of disease prevention;" but he refrains, with official reticence, from indicating that the soldier is indebted for that beneficent application of these measures to a rationally organized, highly trained, and reasonably trusted Royal Army Medical Corps. Such important service should not and cannot be overlooked, for a mere glance at recent statistical tables at once suggests that the remarkable decline in sickness, invaliding, and mortality, closely coincides with the medical service attaining an increased and proper army status, a reform so long fought for. It is now repaying the State a hundredfold in increased army health and efficiency.

The Director-General also points out that the steady betterment of recent years cannot go on indefinitely, for a point of "finality must be reached" some day; but, it is hoped, not for some time yet.

### GENERAL VITAL STATISTICS.

The following condensed tables show the decreases under various heads during the past decade.

*Troops at Home and Abroad: Ratios per 1,000 of Strength.*

| Years. | Admissions. | Deaths. | Invalids Sent Home. | Invalids Finally Discharged. | Constantly Sick. |
|---|---|---|---|---|---|
| 1889-1898 | 997.3 | 9.03 | 26.56 | 15.36 | 59.85 |
| 1908 | 573.1 | 4.78 | 15.91 | 10.32 | 32.28 |
| 1909 | 504.8 | 4.10 | 10.34 | 8.65 | 28.86 |

This shows a practical halving under each head; the "constantly sick" figures mean a yearly addition of effective soldiers amounting in the entire army to several battalions, while it has permitted the closing down of over 3,000 hospital beds at home and in the colonies. The figures for India by itself are, in proportion, equally satisfactory:

*Troops in India: Ratios per 1,000 of Strength.*

| Years. | Admissions. | Deaths. | Invalids Sent Home. | Invalids Finally Discharged. | Constantly Sick. |
|---|---|---|---|---|---|
| 1889-1898 | 1,464.7 | 16.43 | 27.95 | 14.78 | 89.61 |
| 1908 | 836.2 | 9.27 | 15 67 | 8.36 | 45.81 |
| 1909 | 716.9 | 6.37 | 9 06 | 6.05 | 40.26 |

The marked decrease of invaliding is said to result from the policy of sending convalescents to "hill stations," thereby lessening by two-thirds a hitherto great drain on the garrisons and finances of India.

*Recruiting.*

This is appropriately the first detailed section of the report; for it is evident the wellbeing of the army largely depends on the skilful guarding of its portals.

In former easy-going days it seemed that any superannuated military, medical, or non-commissioned officer was considered good enough to conduct recruiting duties. That is no longer the case; officers and men are carefully selected for personal fitness, while junior medical officers are instructed in the technical and exacting work of examination.

The medical rejections remain remarkably even at between 30 and 34 per cent. of the recruits examined; fewer recruits were brought forward, and rejections were fractionally higher in 1909, owing no doubt to the fact that the standards of height and chest measurement were raised for certain branches during the year. Fluctuations in the ratio of rejections do not necessarily mean a lower quality in the recruits presenting; for the rejections may be high or low, according as the recruiters, or "bringers," do the duty of primary selection carefully or slackly. A good deal also depends on the nerve and discretion of the examining medical officer, some examiners showing habitually a higher ratio of rejections than others.

Since the Boer war it is well known that the recruiting authorities have been much exercised by the formidable rejections for loss and decay of many teeth, which, as a disability, ranks only second to defective chest measurement. This newly awakened interest in the teeth arose from a military outcry that in the war the men could not eat the terribly hard biscuits issued to them in the field, a complaint which, from what we can learn, has been carried too far, and in late years has caused the rejection of many otherwise eligible recruits; the army, it is urged, can hardly expect to maintain a much higher standard for teeth than obtains in the class in civil life from which it is drawn. It is difficult to formulate any elastic rule, and impossible to lay down a hard and fast one, as to what should constitute a dental disability, and it is suggested that it would probably be safest to follow the old rule that several "opposing molars" be considered sufficient, provided the recruit is otherwise well developed and nourished.

The anthropometric tables given in connexion with recruiting will be found of scientific value.

*Physical Training.*

The present system of physical training for recruits is an undoubted improvement on the old, which aimed at the development of mere muscle, and not of the body generally; the old system was blamed for much of the invaliding for cardiac disorders of recruits under three months' service; now, these disorders are referred to the excessive smoking of cheap and injurious cigarettes.

*Enteric Fever.*

In discussing the spread of this disease, more and more stress is laid on human "carriers"; this aspect of the subject is illustrated by an outbreak at Kilworth Camp, which was traced on circumstantial evidence to a girl employed on a farm from which milk used by the troops was obtained; she had suffered from enteric in 1903, and her subsequent movements were followed by febrile attacks among those she came in contact with, or handled milk for, while the *B. typhosus* was abundantly found in her blood and urine.

The general question of soldier "carriers" is being investigated.

*Malta Fever.*

This intractable fever seems to have been suppressed in Malta itself, since tinned milk only has been used in barracks and hospitals. But it still occurs in Gibraltar, where, owing to proximity to Spain, it was difficult to control the milk supply.

*Insect Carriers of Disease.*

A determined war against flies and mosquitos is being carried out at all our foreign stations, as in the following stations; at Pretoria, Transvaal, the Mosquito Brigade has drained pools, when this was possible, and in all instances treated stagnant water with paraffin, with the result that malarial fevers almost immediately ceased; at Bermuda, where fresh water is only obtained by rain catches, the cemented water tanks have all been made mosquito proof. In South China and Mauritius, "the utmost satisfaction is derived from the result of a determined attack on the malarial mosquito." In India progress of the warfare is largely a matter of sufficient funds. Everwhere disinfectants obnoxious to flies are used in latrines and cesspits; and, where practicable, all rubbish is destroyed by fire.

*India, 1909.*

The progressive improvement in health under all heads culminated in the returns for 1909. They were the lowest recorded, a result ascribed to great advances in the knowledge and application of sanitary measures in cantonments, clothing, and food; in the soldiers' growing appreciation of a rational mode of life; and in the benefits accruing from antienteric inoculation. In India not only male but female carriers of enteric fever must be recognized, for in many bazaars there has become located a definite European female element, drawn from countries where enteric is common. This seems to be a new point. Cholera has been largely eliminated from Indian statistics in recent years, owing probably to recognition of the fact that it is mainly a waterborne disease. In 1909 there were 12 cases and 7 deaths; 5 of these cases and 3 of the deaths occurred at Secunderabad in November in the 13th Hussars. The men were out on a field day thirty-six hours before they were attacked with all the symptoms of cholera. The water supply taken from the barracks having been lost, they had drank from a village well, and the native *mistri* who drew the water for them also died with many symptoms of cholera. It had been suggested that these cases were ptomaine poisoning, but although there was no bacteriological proof, the clinical evidence was complete that they were genuine cholera. A few years ago venereal diseases were the cause of great loss in India. Although they still account for 9 per cent. of the total admissions, they show on the whole a gradual decrease. Invalidity for secondary affections also shows diminution, which may partly be accounted for by the more thorough and continuous treatment now carried out. In the Rawal Pindi (2nd) Division a camp hospital, formed at Barian, in the Muree Hills, for the special treatment of venereal cases during the hot weather, has proved very successful.

## ROYAL ARMY MEDICAL CORPS (SPECIAL RESERVE AND TERRITORIALS).

### EXAMINATION FOR PROMOTION.

THE undermentioned officers have passed as specified in the examination for promotion held in December last:

*Fully Qualified in B and in Military Law, in Organization, Administration, and Equipment, and in Sanitation (for promotion to the rank of Captain).*—Lieut. A. L. S. TUKE, M.B., attached to Fife and Forfar Yeomanry; Lieut. F. J. GREEN, M.D., attached to the Duke of Lancaster's Own Yeomanry; Lieut. A. A. GUNN, M.B., attached to the 1st East Lancashire Brigade, Royal Field Artillery; Lieut D. S. SUTHERLAND, M.D., attached to the 3rd London Brigade, Royal Field Artillery; Lieut. W. T. HARKNESS, attached to the Northumbrian Divisional Engineers; Lieut. J. A. NIXON, attached to the 4th Battalion Gloucestershire Regiment; Lieut. C. I. ELLIS, M.D., attached to the Wessex Column, Army Service Corps.

*Mounted Brigade Field Ambulances.*—Lieut. M. S. DOUBBLE, Eastern, (*a*), B 2, 3, and 15; Major W. H. STEPHEN, M.B., 1st South Midland, (*c*), D 1, 2, and 3; Lieut. D. BUCHANAN, 1st South Midland, (*a*), B 2, 3, and 15; Major J. R. I. RAYWOOD, South Wales, (*c*), D 1, 2, and 3, (.8 in D 1).

*Field Ambulances.*—Major F. A. BROOKS, 1st East Anglian, (*c*), D 1, 2, and 3 (.8 in D 1, 2, and 3); Lieut. R. PHILLIPS, M.B., 2nd East Anglian, (*a*), B 2, 3, and 15; Lieut.-Col. F. KELLY, M.D., 1st Highland, (*c*), D 1, 2, and 3 (.8 in D 1 and 3); Lieuts. S. A. COAD and H. G. G. MACKENZIE, M.B., 3rd Home Counties, (*a*), B 2, 3, and 15; Major F. D. WOOLLEY, 2nd East Lancashire, (*c*), D 1, 2, and 3; Lieut. O. H. S. REDMOND, 2nd East Lancashire, (*a*), B 2, 3, and 15; Lieut. E. H. COX, M.B., 3rd East Lancashire, (*a*), B 2, 3, and 15; Major A. G. GULLAN, M.D. F.R.C.S., 1st West Lancashire, (*c*), D 2 (.9); Lieut. G. C. E. SIMPSON, 2nd West Lancashire, (*a*), B 2, 3, and 15; Lieuts. P. C. P. INGRAM, M.B., and H. D. DAVIS, 2nd London (City of London), (*a*), B 2, 3, and 15; Lieut.-Col. W. F. SOMERVILLE, M.D., 1st Lowland, (*c*), D 1, 2, and 3; Major G. H. EDINGTON, M.B., 1st Lowland, (*c*), D. 2; Lieut.-Col. A. D. MOFFAT, 2nd Lowland, (*c*), D 1, 2, and 3 (.8 in D 3); Major P. F. SHAW, 2nd Lowland, (*c*), D 2; Lieut.-Col. A. A. ROSS, M.B., and Major A. M. MCINTOSH, M.B., 3rd Lowland, (*c*), D 1, 2, and 3; Lieut. H. G. W. DAWSON, M.B., 1st North Midland, (*a*), B 2, 3, and 15; Lieut. A. J. RIDDETT, 2nd North Midland, (*a*), B 2; Lieut. R. M. WEST, M.D., 2nd North Midland, (*a*), B 2, 3, and 15; Lieut. H. F. W. BOEDDICKER, M.B., 1st South Midland, (*a*), B 2, 3, and 15; Lieut. J. W. HESLOP, 1st Northumbrian, (*a*), B 2, 3, and 15; Lieut. G. H. SPENCER, 1st Northumbrian, (*a*), B 15; Major J. R. KAYE, M.B., Sanitary Officer, West Riding Division, (*c*), D 1; Lieut. J. EWING, 1st West Riding, (*a*), B 15; Major W. MCG. YOUNG, M.D., 2nd West Riding, (*c*), D 1, 2, and 3 (.8 in D 3); Lieut. F. G. DOBSON, M.B., 2nd West Riding, (*a*), B 2, 3, and 15; Lieut. E. F. SKINNER, 3rd West Riding, (*a*), B 2, 3, and 15; Major G. A. STEPHENS, M.D., 3rd Welsh, (*c*), D 1, 2, and 3; Lieut. T. P. PUDDICOMBE, 2nd Wessex, (*a*), B 2, 3, and 15; Capt. A. MILNE-THOMSON, 3rd Wessex, (*a*), B 2.

*General Hospitals.*—Lieut.-Col. C. J. JACOMB-HOOD, 2nd Eastern, (*c*), D 1, 2, and 3; Major G. N. BIGGS, M.B., 4th London, (*c*), D 1, 2, and 3.

(*a*) Denotes fully qualified in B; (*c*), fully qualified in D; B 2, Military Law; B 3, Organization, Administration, and Equipment: B 15, Sanitation. For promotion to the rank of Lieut.-Colonel: D 1 denotes Medical Organization of the Territorial Force; D 2, Sanitation and Epidemiology: D 3, Laws and Customs of War on Land.

## INDIAN MEDICAL SERVICE.

### STUDY LEAVE REGULATIONS.

FOLLOWING on the text of the regulations regarding a grant of study leave to officers of the Indian Medical Service, it is stated, says the Calcutta correspondent of the *Times of India*, that:

1. Extra furlough for the purpose of study may be granted to officers of the Indian Medical Service on the recommendation of the Director-General, Indian Medical Service.

2. The period of such study leave will be calculated, in the case of an officer under military leave rules, at the rate of one month for each year of pension service; and in the case of an officer under civil leave rules at the rate of one month for each year of active service as defined in the Civil Service Regulations; up to a total in either case of twelve months in all during an officer's service.

3. Study leave may be taken at any time, but will not be granted more than twice in the course of an officer's service. This restriction does not apply to an officer who has part of his furlough converted into study leave under Rule 8.

4. The minimum period of study which will render an officer eligible for study leave shall be two months.

5. The minimum period of leave granted solely as study leave shall be six months. The time spent on the journey to and from India by an officer whose study leave is not combined with any other kind of leave will reckon as study leave, but the allowance specified in Rule 50 will be granted during the period of study only. An officer whose study leave is combined with any other kind of leave will, however, be required to take his period of study leave at such a time as to return at its conclusion a balance of other previously sanctioned leave sufficient to cover his return journey to India. When an officer has been granted a definite period of study leave and finds, after arrival in England, that his course of study will fall short of the sanctioned period to any considerable extent, his absence from India will be reduced by the excess period of study leave unless he produces the assent of the authorities in India to his taking it as ordinary furlough.

6. Study leave can be combined with any other kind of leave provided the period occupied in study is not less than two months, and in the case of leave on medical certificate provided that the Medical Board at the India Office certifies that the officer is fit for study. In the case, however, of an officer in military employment, study leave cannot be taken in continuation of the combined privilege leave and furlough admissible under the terms of India Army Order No. 64 of 1904, if the total period would thereby exceed eight months; but study leave may be so taken, provided such leave is for not less than two months and the total period of combined privilege leave, furlough, and study leave does not exceed eight months. This limitation to eight months does not, however, apply in the case of study leave combined with privilege leave alone. The total period of absence from duty in India in the case of officers under the leave rules of 1886 for the Indian Army will be strictly limited to two years.

7. Except as provided in Rule 8, all applications for study leave shall be submitted, with the audit officer's certificate, to the Director-General, Indian Medical Service, through the prescribed channel, and the course of study contemplated and any examination the candidate proposes to undergo shall be clearly specified therein.

8. Officers on furlough who wish to have part of their furlough converted into study leave should address the Under Secretary of State in the India Office, and should furnish a statement showing how it is proposed to spend the study leave. Similarly, officers on furlough or other leave who desire to have it extended for purposes of study should address the Under Secretary of State; but, in addition to the statement of the proposed study, they must support their applications with documentary evidence of their having obtained the approval of the authorities concerned in India to their applying for an extension of leave.

9. An officer who is at home on combined leave may be permitted to commence a course of study before the end of his privilege leave and to count the period so spent as part of his study leave without forfeiting his privilege-leave allowances during such period.

10. For the course of study, lodging allowances at the rate of 8s. a day for a field officer, 6s. for a captain, and 4s. for a lieutenant will be granted on the production of the certificate required by Rule 12. It is to be understood that, in order to qualify for the grant of study leave or for the receipt of lodging allowance, a definite course of study at a recognized institution which will occupy the time of the officer for five or six days a week must be pursued. This allowance will not be permissible to an officer who retires from the service without returning to duty in India after a period of study leave. Lodging allowance will be admissible up to fourteen days for any period of vacation.

11. The rate of pay admissible during study leave to an officer under civil rule is determined as follows:

(*a*) If the rate of pay admissible during furlough earned by service under civil rules is higher in his case than that admissible during furlough earned by service under military rules, then (1) he draws pay at the former rate for such period of his study leave as has been earned by his service under civil rules; and (2) for the remainder, if any, he can elect either to draw pay at the rate admissible during furlough earned by service under military rules, or to draw it at the rate admissible during furlough earned by service under civil rules for a period not exceeding the amount of such furlough at his credit; in this case an equal period of the furlough at his credit earned by service under civil rules will be treated as if it had been earned by service under military rules.

(*b*) If the rate of pay admissible during furlough earned by service under military rules is higher in his case than that

admissible in respect of service under civil rules, then (1) he draws pay at the former rate for such portion of his study leave as has been earned by his service under military rules; and (2) for the remainder, if any, he can elect either to draw at the rate admissible during furlough earned by service under civil rules, or to draw it at the rate admissible during furlough earned by service under military rules for a period not exceeding the amount of such furlough at his credit. In this case an equivalent period of leave furlough at his credit earned by service under military rules will be treated as if it had been earned by service under civil rules.

12. On completion of a course of study a certificate on the proper form (which may be obtained from the India Office), together with certificates of special study, should be forwarded to the Under Secretary of State, India Office, who will arrange for the transmission of copies of the documents to the Director-General, Indian Medical Service. Officers may also be called upon to report themselves in person to the President of the Medical Board, India Office, on the conclusion of their course of study.

13. Study leave will count as service for promotion and pension, but, except so far as it may be taken during privilege leave (see Rule 9), it will not count for furlough or any other leave. It will not affect any leave which may already be due to an officer, and will not be taken into account in reckoning the aggregate amount of furlough taken by an officer towards the maximum period of six years admissible under Article 299 of the Civil Service Regulations.

### ACCELERATED PROMOTION.

The *Pioneer* (Allahabad, India) says that a modification of the rules regulating accelerated promotion in the Indian Medical Service has been sanctioned by the Secretary of State for India. Hitherto an officer had to qualify for such promotion while in the rank of captain, but instances occurred in which, owing to the exigencies of the service, the necessary courses and examinations at home could not be attended within the prescribed limit of time. It has now been settled that in such cases a further period of four years will be allowed from the date on which an officer attains his majority, and that when he has duly qualified his six months' accelerated promotion will be antedated.

## CONCENTRATION OF SCOTTISH TERRITORIALS.

A MOST interesting experiment will take place during the training season in Scotland this summer, when it is proposed to concentrate over 20,000 regulars and territorials in the county of Ayr. The concentration will take place in the month of July, and troops of all arms will be under canvas under General Sir Bruce Hamilton. Not only will the Lowland Division and Coast Defence units be assembled, but as many units from the Highland Division as can be brought to train at this period will be included. These will, it is expected, include the Highland Field Ambulances. There will be no great "manœuvres" so-called, but the county of Ayr will be under the Military Manœuvres Act, as was the case in Fifeshire last year. Particular attention will be paid to the elementary training of companies and brigades, and there will be some combined operations at the close of the training. The massing of troops will be a valuable element in the training, particularly to the medical department, whose responsibilities will be considerably increased during such a concentration. There should, however, be sufficient personnel and equipment in the field ambulances and the regimental medical service to cope with all contingencies, and the experience to be gained with such a large number of troops encamped should prove of great valve.

## GLASGOW UNIVERSITY OFFICERS' TRAINING CORPS.

AT the meeting of the Glasgow University Court on February 9th, the Lord Provost, on behalf of the committee appointed to consider the provision of a site for a head quarters building for the Officers' Training Corps, reported that the best site was one in University Avenue, adjoining the University Gymnasium. Principal Sir Donald MacAlister expressed the opinion that the suggested site fulfilled all the requirements, and access to the main road would be a great convenience to the corps. The Lord Provost formally moved that the University Court grant the suggested site gratis, and this motion was approved.

## SCOTTISH TERRITORIAL RED CROSS BRIGADE.

THE Red Cross movement is still making satisfactory progress. In Port Glasgow 86 ladies have been enrolled and a complete male detachment of 52 men has also been formed, the latter being all trained ambulance men from the shipyards. A branch of the Red Cross Society was formed last week at Kirkintilloch; and in Greenock, after an address by Miss Haldane, two large representative committees were formed to carry out the work of interesting the public in the aims of the brigade and to recruit detachments. In the county of Renfrew over 1,000 persons have already enrolled in the county branch of the Red Cross Society, and the county has been subdivided into districts, with prominent ladies as vice-presidents of each district, charged with the duty of thoroughly organizing the district. Dr. James D. Holmes has been appointed county director for Renfrewshire. At the request of members of the voluntary aid detachments a special brigade badge has been designed and has been approved by Her Grace the Duchess of Montrose as President of the Scottish Branch of the British Red Cross Society. This badge is only issued to registered members of detachments, and costs 1s. The wearing of the badge is optional.

## GENERAL HOSPITALS.

COLONEL SIR GEORGE T. BEATSON, K.C.B., Administrative Medical Officer for the Lowland Division, has been negotiating with the Glasgow Parish Council regarding the provision of beds for the accommodation of sick and wounded in the event of invasion. As a result of the negotiations the Council has agreed that, in case of invasion, beds to the number of over 500 will be set apart in Stobhill Hospital for the use of sick and wounded soldiers. This matter of hospital accommodation is a most important one and steps are being taken to have the whole arrangements for the Division thoroughly organized in preparation for any emergency.

## GLASGOW R.A.M.C.(T.F.)

UNDER the auspices of the Lowland Mounted Brigade Field Ambulance, Major J. Silver, R.A.M.C., delivered a lecture in the Glasgow R.A.M.C. Head Quarters, for medical officers and N.C.Os., on the evening of February 7th. The subject was the "Adaptation of Transport for Medical Purposes," and Major Silver referred particularly to Territorial medical requirements in the event of operations in Scotland. After referring to the nature and percentage of casualties, he dealt with the class of vehicle to be obtained locally, and the methods of improvisation to convert these vehicles, hay carts and country carts, into suitable transport wagons for wounded. By means of diagrams he showed the most expeditious and satisfactory methods of preparing hay carts for stretcher cases. He also referred to the fitting up of railway wagons for the reception of cases, the best methods for accommodation stretchers, and the need for training in this important subject. Improvised stretchers were also dealt with, and several methods for field use, and use by cavalry, were demonstrated. Colonel Sir George T. Beatson, K.C.B., complimented Major Silver on the excellent material which he brought before the officers, and referred to the great importance of the subject both for medical officers and for those who undertook Red Cross work in voluntary aid detachments on the lines of communication. After several questions had been answered, Lieutenant-Colonel Halliday asked for a very hearty expression of thanks to Major Silver for his most interesting lecture and demonstration, which was cordially responded to.

# Public Health AND POOR LAW MEDICAL SERVICES.

## DEATHS DUE TO PREMATURE BIRTH.

J. F.—Reference to Table V. of the Local Government Board, which medical officers of health are expected to include in their annual reports, will show that deaths recorded as due to premature birth must be taken into account in recording the infantile death-rate.

## SPECIAL FEES FOR ILLNESS BEFORE AND AFTER CONFINEMENT.

S. F. W. writes: On November 15th, 1910, I received an order from the relieving officer to attend a married woman, whom I found suffering from bronchitis and sickness and expecting confinement in a month. I attended her till December 14th, and on December 15th, at 5 a.m., she was confined by a midwife, and I was not called up, but saw her five hours later. I continued in attendance for another three weeks, until the woman had recovered from her confinement and illness. The guardians refuse payment of midwifery fee, as I was not "actually in attendance" at the birth. The board has a method of requiring the usual order to be "sanctioned by the board" as a "midwifery" order to be effectual as a midwifery case. What can one do in such a case?

*** As our correspondent was in regular attendance on his patient for the month immediately preceding her confinement, as well as for a period of three weeks subsequently, he can justly claim the usual midwifery fee.

IN view of the great practical importance of the newer methods of investigating cardiac diseases, especially by the record of the electrical changes in the heart with the string galvanometer, the General Committee of University College Hospital has established a special cardiographic department, and has placed it in the charge of Dr. Thomas Lewis, whose work in this direction is so well known.

# Universities and Colleges.

## UNIVERSITY OF CAMBRIDGE.

*Proposed Laboratory for Experimental Psychology.*

IT is proposed to build a laboratory for experimental psychology on a site adjacent to the proposed new building for the department of physiology. Plans have been drawn up for a building which includes lecture room and class-rooms, etc., at a cost of £3,700. At the present time "about forty students use the dilapidated cottage which does duty as a laboratory, and there is every probability of a considerable increase in their number in the near future."

*Conferment of Degrees.*

The following degrees have been conferred:

*M.D.*—W. R. Higgins.
*M.B.*—T. B. H. Blake, C. Lillingston, G. Walker.
*B.C.*—T. R. H. Blake, J. P. H. Davies, R. H. P. Hick, H. B. Richmond, W. B. Wood.

## UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 25th.

*Recognition of Teacher.*

Dr. A. F. Hertz was recognized as a teacher of neurology at Guy's Hospital Medical School.

*Appointment of Representatives.*

Dr. A. D. Waller, F.R.S., was appointed representative of the university on the governing body of the Imperial College of Science and Technology, vice the Right Hon. Sir Henry Roscoe, F.R.S., resigned. Other appointments are: Dr. Frederick Taylor to represent the university on the General Medical Council; Dr. H. R. Kenwood to represent the university in respect of University College at the Congress of the Royal Sanitary Institute in Belfast in July, 1911.

*Department of the Professor of Protozoology.*

The Senate accorded its thanks to the authorities of the Lister Institute of Preventive Medicine for a contribution of £100 a year which they have made to the salary of the assistant to the professor of protozoology.

## CONJOINT BOARD IN ENGLAND.

AT a meeting of the Comitia of the Royal College of Physicians of London on January 26th and of the Council of the Royal College of Surgeons of England on February 9th, diplomas of L.R.C.P. and M.R.C.S. were conferred respectively on the following candidates (including one lady, Miss Pearl Jane Sproule, M.B., of Toronto University) who have passed the Final Examination in Medicine, Surgery, and Midwifery of the Conjoint Examining Board in England and have conformed to the by-laws, namely:

J. Bamforth, A. M. Barlow, H. C. Bazett, T. Beaton, J. J. Black, W. P. Bonner, T. R. Bowen, G. F. Bradley, T. W. Byrne, W. T. Chaning-Pearce, T. Cock, W. L. Cowardin, H. J. M. Cursetjee, G. de H. Dawson, H. Dearden, J. E. Dewar, W. J. Edgar, C. D. Faulkner, H. Flecker, A. D. Gardner, A. C. Gemmell, L. S. M. Habich, A. A. Henderson, T. B. Hickley, G. R. Hind, G. James, H. C. Jamieson, A. C. Johnson, T. W. J. Johnson, R. F. Jones, G. A. E. Kelman, R. Y. Kenny, C. G. Kirkpatrick, W. B. Laird, H. V. Lamb, H. D. Lander, P. S. B. Langton, A. C. C. Lawrence, B. H. C. Lea-Wilson, L. F. G. Lewis, J. R. Liddell, S. Marle, O. de B. Marsh, E. P. Martin, K. P. Mathur, J. W. E. Mendis, J. Morley, M. W. Morrison, N. Mutch, A. P. Nicolle, H. L. Paddon, K. G. Pandalai, H. C. G. Pedler, C. A. Pereira, A. Pfeiffer, D. D. Pinnock, J. Powell, E. Prall, T. S. S. Rajan H. M. Rashbrook, W. A. Reynolds, W. Scarisbrick, *D. Scurlock, F. R. B. Skrimshire, V. E. Somerset, †Pearl J. Sproule, G. N. Stathers, B. S. Taylor, D. C. Thompson, A. H. Todd, S. Van Someren Boyd, J. E. P. Watts, F. Wells, E. T. Willans, R. J. Wooster.

*M.R.C.S. granted on January 12th, 1911.
†Under the Medical Act, 1876.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on February 9th, Mr. H. T. Butlin, President, in the chair.

*The late Mr. Henry Power.*

The following resolution was passed by the Council.

The Council do hereby record their deep regret at the death of Mr. Henry Power, who for eleven years was a member, and devoted to the service of the College. He was highly esteemed, not only for his professional attainments but for personal qualities which won for him the respect and affection of all who knew him. The Council also desire to express their very sincere sympathy with Mrs. Power and members of her family in the loss which they have sustained.

*Diplomas.*

Diplomas of membership were granted to seventy-four candidates found qualified at the recent examination. Diplomas in Public Health of the two colleges were granted to twenty-one candidates found qualified by both colleges.

*Vacation Dissection.*

The following resolution recognizing dissections performed during the vacation months of April and September was adopted:

That, as recommended by the Court of Examiners, Clause 2, Subsection II. and Clause 5, Subsection III, Section III, of the Regulations for the Diploma of Fellow, namely: "Of having dissected at a recognized medical school or schools for a period of not less than eighteen months during the ordinary sessions or terms," be altered by the omission of the words "during the ordinary sessions or terms," and by the addition of the following note: "(Dissections during the regular vacations will be accepted, provided the certificate shows that they have been performed under the superintendence of an authorized teacher in a medical school.)"

*Diploma in the Diseases and Hygiene of the Tropics.*

The following regulations and syllabus in connexion with the above were adopted:

1. That a diploma in Diseases and Hygiene of the Tropics be granted by the Royal Colleges after an examination conducted under the superintendence of the Conjoint Board.
2. That one examiner in Bacteriology and one examiner in the Diseases and Hygiene of the Tropics, including Surgery, be appointed by each of the Royal Colleges.
3. That the following regulations and syllabus be adopted:

REGULATIONS FOR OBTAINING THE DIPLOMA IN THE DISEASES AND HYGIENE OF THE TROPICS.

I. The examination will be held in the months of April and October.
II. The examination will comprise (*a*) written questions, (*b*) oral questions, (*c*) practical laboratory work, (*d*) clinical work.
III. The fee for each admission to the examination is £9 9s.
IV. Candidates must give 14 days' notice in writing to the Secretary, at the Examination Hall, and produce at the same time the necessary certificates of study.
V. Candidates must produce evidence of being in possession of a registrable qualification in medicine, surgery, and midwifery, and of having attended, subsequently to obtaining such registrable qualification:

1. Practical instruction in bacteriology, parasitology, medical zoology, and haematology in a laboratory recognized for this purpose during not less than six months.
2. Instruction in hygiene applicable to tropical countries.
3. The clinical practice of a hospital recognized for the study of tropical diseases during not less than six months.

VI. Graduates in medicine or surgery of Indian, Colonial, and foreign universities recognized by the Examining Board in England, but whose degrees are not registrable in this country, may enter for the examination for the diploma in the diseases and hygiene of the tropics on fulfilling the same conditions in regard to study. In such cases it must be understood that the diploma, if obtained, will not be registrable under the Medical Acts.

The above conditions of study may be modified at the discretion of the Committee of Management in the cases of a candidate (*a*) who has been employed in foreign or colonial medical service; (*b*) who has been engaged in public professional or teaching work in tropical countries; (*c*) who has been engaged in original investigation in tropical countries.

SYLLABUS OF THE EXAMINATION.

1. The methods of investigation of organs, tissues, blood, faeces, urine, bacteria, helminths and protozoa.

The characters and life-history of bacteria, helminths, protozoa, fungi, arthropoda, and other disease carriers.

2. The etiology, pathology, distribution, symptoms, diagnosis, prevention and treatment of diseases of tropical countries, including:
parasites.
(*a*) Diseases due to bacteria, protozoa, helminths and mycotic
(*b*) Diseases of uncertain etiology.
(*c*) Diseases due to foods and those due to ticks, insects, scorpions, poisonous snakes and fish.
(*d*) Ophthalmic diseases.
(*e*) Skin diseases.
(*f*) Native poisons and poisoned wounds.

3. Surgery in relation to tropical disease.

4. Hygiene of the Tropics:—Personal, domestic, municipal, port and ship hygiene. Climates. Acclimatization. Water-supply and its protection. Purification of water and simple tests for potability. Food and clothing in relation to health and disease. Removal and disposal of waste matter and excreta. Sewerage and drainage. Disposal of the dead. Soil and its drainage. Reclamation of swamps and low-lying lands. Prevention and abolition of insect-breeding places.

Hygiene in relation to dwellings, buildings, towns, villages, transport, and public gatherings.

General construction and sanitation of markets, slaughter-houses, stables, cowsheds, hospitals, asylums, and jails. Sanitation of plantations.

Disinfection. Prevention and control of disease. Vaccination and preventive inoculation.

*Central Midwives Board.*

Mr. C. H. Golding-Bird was reappointed to represent the College on this Board.

*Bradshaw Lecturer.*

Mr. R. Clement Lucas was appointed Bradshaw Lecturer for the ensuing year.

*Donation.*

A vote of thanks was passed to the Royal Society of Medicine for the donation of a series of pelves formerly belonging to the Obstetrical Society.

*Diplomas in Public Health.*

Diplomas in Public Health were conferred (in conjunction with the Royal College of Physicians) upon the following twenty-one candidates, namely:

S. C. Adam, C. J. E. Bennett, H. Boulton, Major, I.M.S., H. M. Brown, P. N. Cave, R. A. Clapham, A. Dawson, Captain R.A.M.C., K. C. Dube, J. H. Jones, *Charlotte A. King, J. FitzGerald Martin, Captain, R.A.M.C., L. Pick, A. M. Pryce, T. E. Pryce.

N. E. H. Scott, Captain, I.M.S., S. F. St.G. Steadman, S. J. Steward, C. H. Straton, Captain, R.A.M.C., *May Thomson, S. A. Tucker, C. W. Vining.

* Under the Medical Act of 1876.

## ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly business of the College, held on Friday, February 3rd, the President admitted the following registered medical practitioners as licentiates in midwifery:

John Joseph Cameron, L.R.C.P Lond., M.R.C.S.Eng., 1908; Humphrey Bede Oxenham, M.B.Univ. Sydney, 1908.

## CONJOINT BOARD IN IRELAND.

*Sessional Examinations, January, 1911.*

THE following is a list of successful candidates as undernoted:

FIRST PROFESSIONAL EXAMINATION.—J. A. Cunningham, L. Gilligan, M. Keogh, A. P. Reilly, A. R. Soady, H. J. Villiers, P. W. Walshe.

SECOND PROFESSIONAL EXAMINATION.—P. Ashe, J. B. Barry, J. Crowley, E. G. Foley, T. Gray, C. Hennessy, E. Harnett, G. W. Jackson, J. T. McConkey, D. McEntire, H. V. O'Donoghue, A. F. I Paterson, P. Rowan, J. Sandys.

THIRD PROFESSIONAL EXAMINATION.—W. I. Adams, Miss M. F. Ahern, F. C. Fisher, J. P. Fitzpatrick, R. M. Gordon, J. M. Horan, W. J. P. Lillis, F. J. McCarthy, B. Malaher, J. G. O'Mahony, A. A. O'Connor, C. Petit, J. Roche-Kelly, G. A. Shiel, J. C. Sproule, R. A. Wright.

*Final Professional Examination.*

The following is the list of successful candidates at the examination held in February, 1911:

J. J. Barry, G. E. Beggs, W. S. Coffey, C. E. Drennan, J. P. Egan, G. J. M. Fraser, J. J Foran, J. Gormley, P. Grace, R. H. Hodges, D. J. Hurley, F. M Kirwan, H. M. E H. McAdoo, J. C. McMullin, J. H. O'Neill, C H. Oliver, H. H. K. Sparrow, T. M. Thomson, N. T. Williams, E. C. Wallace, F. W. Warren.

*Diploma in Public Health.*

The following is the list of successful candidates at the examination for this diploma, held on February 11th:

G. K. Aubrey, Captain C A. J. A. Balck, R.A.M.C., F. J. A. Beringer, Lieutenant-Colonel L. J. Blandford, R A.M.C., K. McGahey, F. C. Mann, J. I. Moore.

## UNIVERSITY COLLEGE, CORK.

UNIVERSITY COLLEGE, CORK—better known, perhaps, as Queen's College in the medical world—has made quite a record entry this year; 181 new students have signed the roll this session as compared with 102 last year. The number last year is believed to be the largest new entry ever known in the history of the college, and this year nearly doubles it. The total number of students in the college altogether in 1900–1 was 171, thus the new entry is, so far, 10 more than the total number of students ten years ago. The full number entered for all faculties is, so far, 376. The highest number ever known was in the session 1881–2, when there were 402 students in the college. The large number in that year was due to the fact that many entered to secure the last advantages of the Queen's University, which was then disappearing. Otherwise the highest number known was 348, which was in 1882–3, a continuation of the state of affairs in the previous year. The present numbers will, no doubt, exceed the record of 402 when the final lists are made up in July.

## APOTHECARIES' HALL OF IRELAND.

THE following is a list of the successful candidates at the final examination, January, 1911:

MIDWIFERY.—J. L. Bocarrow, L. N. Denslow, H. Hutchinson, F. Muller-Fonseca, Mrs. M. Neary.

MEDICINE.—Miss M. L. Batho, J. L. Bocarrow, Miss A. M. Headwards, J. B. O'Donoghue.

SURGERY.—Miss M. L. Batho, J. L. Bocarrow, Miss G. Ghosh, Miss A. M. Headwards, H. Hutchinson, G. M. Mayberry, F. Muller-Fonseca.

COMPLETED EXAMINATION.—Miss M. L. Batho, J. L. Bocarrow, Miss G. Ghosh, Miss A. M. Headwards, G. M. Mayberry, F. Muller-Fonseca.

WE learn from the *New York Medical Journal* that the second annual statistical statement recently issued by the (American) National Association for the Study and Prevention of Tuberculosis shows that in 1910 nearly £3,000,000 were spent in the fight against tuberculosis, as against £1,600,000 in 1909. The largest item of expenditure in 1910 was for treatment in hospitals and sanatoriums, £2,275,300 having been spent in that way. Anti-tuberculosis associations spent £152,100 and dispensaries £177,800. Special municipal and State expenditures amounted in the aggregate to £350,000. Of the total amount expended, 62.6 per cent. came from public appropriations. New York State heads the list in respect of money spent with a total expenditure of £849,000. Pennsylvania comes second with a total expenditure of £420,800. Expenditures of other States are as follows: Massachusetts, £303,600; Colorado, £167,200; Ohio, £129,900; Connecticut, £101,200; New Mexico, £100,200; Illinois, £90,600; California, £80,800; New Jersey, £77,140.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

### QUERIES.

ROSACEAE asks for suggestions for the treatment of a case of chronic osteo-arthritis of the wrist. Iodine, iodides, and guaiacol carbonate have all been used without success.

X. Y. Z. asks for advice in the treatment of a young woman who suffered five years ago from chlorosis, and has had amenorrhoea ever since; otherwise she enjoys good health. Ergot and aloes and the usual tonics have failed. Our correspondent asks whether *Senecio aureus* (ragwort) would be likely to be of value.

FIRST AID BY SCHOOL MEDICAL OFFICER.

S. M. O.—A whole-time school medical officer, whose engagement contract contains no clause as to treatment further than such laid down by the regulations of the department, while engaged in routine examination of the scholars is called to an accident in the playground. He finds a fracture of the arm, renders first aid and sends the child home with a note to the parents advising that the family doctor be called in at once. Is first aid sufficient, or should he have set the fracture?

*** "S. M. O." appears to have acted correctly.

PETROL DUTY.

REBATE has made a claim for repayment of one half of the tax on petrol used by him, but is refused on the ground that the petrol had not been subject to duty, having in fact been supplied from stocks imported before the imposition of the duty. He inquires whether he has any claim against the person who supplied the spirit.

*** If our correspondent paid the price that was asked for the petrol without a guarantee that the duty had been paid he has no remedy.

INCOME TAX.

WRONGLY TAXED, after giving to the Surveyor of Taxes notice of objection to an assessment as soon as he was able (though after the prescribed twenty-one days), has heard nothing further, but has received a demand note for the full duty charged from the collector of taxes.

*** Our correspondent should return the demand note to the collector, informing him that he is in communication with the surveyor. It will be as well to address a protest also to the surveyor.

### ANSWERS.

FASTIDIOUS.—No notice can be taken of anonymous communications.

G. R. G.—Buenos Aires is a healthy town; the climate is good and quite suitable to young children. There is a plentiful supply of fresh milk.

DR. J. BATTERSBY (Nottingham) writes to ask if "Aden" (BRITISH MEDICAL JOURNAL, February 4th, p. 288) has tried liquor sodii ethylatis.

DIET IN DIABETES.

D.P.H.—Macaroni and vermicelli contain a considerable amount of starch; according to the tables published by Schall and Heisler, their carbohydrate content is 72.5 per cent., differing, therefore, very slightly from the best wheat flour (73 6 per cent.).

FLAT FOOT.

PES writes, in reply to "A. D. P. D.": For a few pence a cobbler will fasten to the sole of the shoe a leathern pad, bevelled in accordance with the surgeon's instructions.

AN UNUSUAL AURAL REFLEX.

DR. A. W. STIRLING (Atlanta, Georgia) writes: It would be a pity that your readers should be left with the idea that a cough is an almost unknown symptom of irritation of the aural canal. I have seen it in a number of cases follow upon the introduction of a speculum, and I think it is a well-recognized phenomenon.

INDUCTION OF ABORTION FOR HYPEREMESIS GRAVIDARUM.

SIX MONTHS.—Abortion is no prophylactic against the recurrence of hyperemesis unless it is accompanied by attention to any individual factors, gastric, uterine or other, in the case. The literature will be found in a paper by Merle, De l'avortement forcé dans les vomissements incoercibles graves, *l'Obstétrique*, 1900, v, 230–252.

DIABETIC GANGRENE.

W. H.—The pain of which the patient complains is doubtless due to neuritis, and, having regard to the patient's age and condition, will probably best be treated by hypodermic injections of morphine. The question of the desirability of the amputation of the gangrenous toe should be considered, as it is not a serious operation and may give relief. In these cases the diet should not be absolutely strict, but the patient should be upon a definite limited amount of starchy food, such as, for example, one roll of Brusson Jeune bread daily,

one large baked potato, and a pint of milk; this with a mixed diet of fish, chicken, and meat, not in large quantities, any green vegetables, including such bleached vegetables as celery and seakale, and allowing stewed rhubarb, baked or stewed apples and dried apricots stewed, saccharine being used for sweetening, would be, speaking generally, a better diet than one from which all sugar-forming foods are excluded. The diet, as described would contain about 1,200 grams of carbohydrates.

### GENERAL PSORIASIS.

O. C. (Liverpool) writes: I note that "Senex" makes no mention of any treatment of the scalp having been carried out. In most cases of psoriasis seborrhoea of the scalp will be found, responding readily to washing with spirit soap and the application of a salicylic lotion, etc. A drug I have often used successfully is sodium iodide in big doses—ʒss to ʒj t.d.s. Warm alkaline compresses with gutta-percha tissue over them are often used to remove scales from localized patches before any drugs are applied locally. I have had most success with oil of cade 1 in 5, gradually increasing the strength till the pure drug is used. The chrysarobin stick or pencil is often useful. Remove the scales, rub the part with the pencil, and then cover with plaster every second day at first, then daily. Some cases do well with *x*-ray treatment, but it is very erratic, sometimes making the cases worse. I regret that I have had no experience of bromaurum, but I should be interested to hear if it succeeds.

W. B. writes: I think my experience may be helpful. A patient was sent to me for $CO_2$ snow treatment. There were patches on each wrist about the size of a sixpence, that he wanted particularly removed, as they were so unsightly. One application for thirty seconds of $CO_2$ effected a perfect cure in three weeks, leaving a faint blush on the new skin; but, to the surprise and delight of the patient, in about another fortnight his whole body, which was really covered with psoriasis when I first saw him, was quite free from any trace of the disease. The patient's explanation was that I frightened it away; and that may be true, in this way: He was greatly run down, depressed, and disappointed at the failure in the prolonged and drastic treatment of several specialists; everything had been tried outside and inside, including thyroid extract (which nearly killed him), and a prolonged change at Bournemouth. He complained very much of pain, both in the freezing and thawing stages of the $CO_2$ treatment, which is very unusual, and he anxiously inquired if I intended applying this all over his body, as he would not be able to stand it. I said I might do it piecemeal later. This evidently so frightened him that the psoriasis of over twelve months' duration completely disappeared in these few weeks. This I consider a splendid example of the influence of the mind over the body, and I think over such an intractable case as "Senex" describes. Suggestive treatment, with or without $CO_2$ snow, for the lupus erythematosus on the face would be attended with the happiest results.

### DENTAL EROSION.

DR. J. BATTERSBY (Nottingham) writes: In reply to "A.M., M.B.," the cause is due to pyorrhoea alveolaris which causes the gum to recede and expose the enamel cement junction on the surface of the tooth. Often the surface becomes extremely sensitive although there is no apparent or extensive decay. A practically certain cure is to rub the sensitive area with silver nitrate. The best way of applying is to fuse the caustic on the end of a pointed metal rod. One or two applications will effect a cure. The effect will not be very marked for a little time after. An albuminate of silver is formed on the surface of the tooth.

DR. CYRIL HOWKINS (Yardley) writes: The cause of the sensitive outer surfaces of molar teeth is due either to the destruction of enamel from some cause or other, or to the gum having receded, leaving the cementum exposed. There are several ways of dealing with this condition: (1) Drilling into the sensitive part under either general anaesthesia or local anaesthesia produced by the injection of a local anaesthetic into the bone near the apices of the roots; (2) devitalizing the tooth in the ordinary manner and then filling in the usual way; (3) fixing a gold collar round the tooth or covering the tooth with a gold crown. Possibly, however, relief might be obtained by the application of silver nitrate to the sensitive part. A crystal of silver nitrate is melted on to the head of a pin and rubbed on the sensitive surface, the tooth being kept dry meanwhile and after the application for two or three minutes. This can be repeated at intervals. Several other drugs have been suggested, and which have been applied, but the only satisfactory one, as far as my experience goes, is the one mentioned.

## LETTERS, NOTES, ETC.

### COMMISSIONS.

THE contrast between the spirit which actuates a trade and that by which a profession is animated is well illustrated by the indignation excited in the minds of medical men by the offers occasionally made to them by traders of a commission for recommending their wares. The latest incident brought to our notice is one in which a maker of corsets offers to remit on all first orders of clients recommended by the recipient 25 per cent., which, it is discreetly added, could be devoted to any charity at the discretion of the recipient.

### CORNS.

DR. AUGUSTINE HOULGRAVE (Harrogate), in the course of a note on the prevention and treatment of corns, writes: The structure of a corn consists of two parts: the outer external part is made up of compressed layers of cuticle which are convex inwards, forming a kind of knot, and underneath is a small bursa. The soft corn is of the same structure as the hard, although some pathologists tell us that they sometimes have a warty structure. The one great cause of corns is pressure—shoes that do not fit, too narrow, too short, too large, heels too high, toes too pointed; also constitutional causes which influence the trophic nerves, gout, tabes, syphilis, arsenic. As regards treatment, the boot should fit the foot and have a good stout sole, the upper which covers the toes and part of the metatarsals should be all one piece, without toe-cap, and made of kid, buckskin, or a kind of cloth which resembles leather. The socks or stockings should not be neglected, for they too often have pointed toes and shrink, and help to keep distorted toes in a faulty position. By way of destroying a corn strong nitric or acetic acid, or salicylic acid plaster, or salicylic acid and Indian hemp paint may be applied or the corn may be cut out. By way of removing the pressure white felt or amadou spread with isinglass (Court plaster), instead of plaster having a lead basis, especially if it has to be used for any length of time; a hole large enough to fit the corn is punched out and the plaster cut to a suitable size dependent upon the situation; it is sometimes advisable to have the plaster cut after the pattern of a horseshoe, with the open part towards the body. For toes that are out of shape a piece of stout leather or metal with slits in it, a piece of tape passed over the toes through the slits and fastened underneath, or a strip of plaster placed over the toe and under the others and fastened over the metatarsus. If these measures do not bring about the desired result and hinder the patient from getting about his work, or if the health suffers from want of sufficient exercise out of doors, then the toe may be removed, or the joint under the corn may be excised. Should the bursa under the corn become inflamed it should be lanced. In elderly people, and those who have weak constitutions, soaking the foot in a warm alkaline bath and then using a piece of pumice stone is safer than cutting them with a razor or knife or some pet instrument. In all cases the utmost cleanliness should be observed.

*** In this connexion we may recall a note published in the JOURNAL in 1903, vol. i, p. 228, by Mr. Harding Freeland, advising free and complete excision of the corn as the most satisfactory method of treatment, and further, that the foot should be carefully examined in order to ascertain that there was no deformity such as slight degrees of pes cavus, hallux valgus, or Morton's disease, since it is hopeless to expect to cure a corn while deformity was allowed to persist.

### THE ADMINISTRATION OF OXYGEN.

DR. D. W. SAMWAYS (Mentone) writes: A patient of mine from Southampton much surprised me lately by purchasing a bag to take away with him, for the administration of oxygen gas. Such a thing, he says, is unknown in Southampton. A few years ago I ineffectually sought for one in Bournemouth. It seems monstrous that in these towns, and presumably elsewhere in England, oxygen gas is administered to patients direct from the metal cylinder. Such a cylinder is a very unfit object to bring to, and especially to open, at any bedside; while to supply ice-cold gas (and the gas expanding from a compression cylinder becomes icy cold) is, in my opinion, little short of criminal. It is, moreover, bad policy; for a cold draught on the face is resented even by unconscious patients, and should alone have suggested warming the gas. Out here gas bags are filled from the cylinder in another room when possible, and if the cylinder be carelessly opened no one but the culprit is alarmed. The bags are then left for an hour or two before use, so that the oxygen may acquire the temperature of the room. As an additional safeguard, and for better control, I employ a box full of hot water, through which passes a metal tube making six or more spiral turns, and through this hot tube the oxygen finally passes to the patient from a bag suitably compressed. The gas then arrives at a temperature warm enough not to worry an invalid, while the respiratory passages are not unduly chilled.


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# A Clinical Lecture

ON THE

# DIFFERENTIAL DIAGNOSIS IN CASES OF ALBUMINURIA.

BY

HERBERT FRENCH, M.A., M.D.OXON., F.R.C.P.LOND.,

ASSISTANT PHYSICIAN TO GUY'S HOSPITAL.

ALBUMINURIA is the term used to denote the passage in the urine of proteid that is coagulable on boiling. More than one substance is included in the word "albumen" in this sense, and there are varying proportions of serum albumen and serum globulin in different cases. So variable may be the relative amounts of these, not only in different diseases, but also in different cases of the same disease and in the same patient at different times, that there is little useful clinical information to be obtained by dealing with the albumen and the globulin separately, at any rate so far as present knowledge goes. Nucleo-proteid or nucleo-albumen comes in quite a different category.

Although a large number of different tests for albumen have been devised and advocated, for clinical purposes there is little need to trouble about more than the two common ones—namely, the acetic acid and boiling, and the cold nitric acid tests. It is true that each of these has fallacies; but the latter are not common to both, and therefore, if there is any doubt in the interpretation of one of the two tests, it can readily be confirmed or otherwise by the other. It is alleged that more delicate tests exist; but there is such a thing as too great delicacy in a clinical method. One does not want to find albumen in minute traces where it does not matter, and it seldom matters until its amount is sufficient to give both the common tests.

### THE ACETIC ACID AND BOILING TEST.

A test-tube three parts full of urine—cleared if need be by filtration—is held by its lower end, whilst its upper part is carefully heated to boiling point. It is best not to add any acetic acid before boiling unless the specimen is distinctly alkaline, in which case it may be just acidulated with a drop of acetic acid. After boiling, the tube should be held in a good surface light against a dark background, such as the sleeve of one's coat; any opalescence will be obvious at once, and there may be a dense white cloud. Except in very rare cases of Bence-Jones's albumosuria this cloud will be due to one or more of three things—namely, calcium and magnesium phosphate, calcium carbonate, or coagulated albumen. One, two or more drops of acetic acid solution (B.P.) are now added; if the cloud disappears entirely, quietly, and at once, it was due to earthy phosphates, and no albumen is present; if it disappears entirely but with brisk effervescence, the latter is due to calcium carbonates amongst the phosphates, and no albumen is present; if, on the other hand, the cloud clears up but partially, or remains unaltered, or actually increases and becomes more flocculent, albumen is almost certainly present. There is only one serious fallacy remaining, and that is in regard to nucleo-proteid; this is precipitated by acetic acid, and it is possible for a cloud of phosphates to be cleared up by the latter and yet for a faint cloud of nucleo-proteid to come down in the place of the phosphates in such a way as to suggest that the original cloud was not wholly soluble in the acid, and therefore that albumen is present when it is not. There are three ways of obviating this source of fallacy: the first is to add a single drop of dilute non-fuming nitric acid to the suspicious cloud that remains after the addition of acetic acid; if it is due to albumen, it will persist or even increase, whilst if it is due to nucleo-proteid the nitric acid will disperse it; the second is to perform the cold nitric acid test for albumen as described below—nucleo-proteid will not give a definite localized white ring with it; and thirdly, a control test may be done, acetic acid being added to another specimen of the urine without boiling, and the cloud due to any nucleo-proteid present compared with the cloud in the acidulated and boiled specimen.

### HELLER'S COLD NITRIC ACID TEST.

About 1½ in. of urine is poured into a test-tube, the latter is held much inclined, and colourless nitric acid is allowed to flow gently down the side, until about one-third as much as the urine has been added. The nitric acid is heavier than urine and goes to the bottom; if albumen is present, a white ring forms at the junction of the two fluids. Some prefer to pour the nitric acid into the test-tube first and then to add the urine carefully with a pipette. It is important not to shake the tube or the nitric acid and the urine will mix, and there will be no definite line of junction between them. Fuming nitric acid must be avoided, because the nitrous oxide fumes cause decomposition of the urea, and the resultant bubbles mix the fluids; sometimes there is bubbling even when the nitric acid is colourless, in which case this is due to $CO_2$ set free from carbonates. The test is very delicate: if any large quantity of albumen is present, the ring appears at once; if there is only a trace, the white ring may not appear for a little, and the tube should be set aside and looked at again in a few minutes. Broadly speaking, it takes three minutes for it to develop when the amount of albumen is 1 part in 30,000. This test is open to more fallacies, however, than the acetic acid and boiling test, so that the nitric acid test should not be trusted to alone, unless it is negative. In concentrated urines it is common to get a dark brown, reddish-brown, or violet-brown ring of colour at the junction. This is nothing to do with albumen; it is generally most marked in cases of indicanuria. White rings, more or less like that due to albumen, may also be due to any of the following:

1. *Resin.*—If the patient is taking copaiba resin, or other similar drug, enough of the resin may be excreted in the urine to form a diffuse white cloud above the nitric acid. This source of fallacy is best avoided by bearing it in mind and checking the nitric acid test by the heat test; this latter safeguard applies to all cases of suspected albuminuria.

2. *Albumoses.*—These generally occur in association with albumen; should they occur alone, the ring will disappear with warming, to reappear on cooling, and there will be no cloud with the heat test.

3. *Bence-Jones's Albumose.*—This occurs without albumen, gives a ring with nitric acid that disappears on warming, to reappear on cooling; with the heat test a dense cloud appears about 60° C., to disappear on further heating to boiling point.

4. *Nucleo-albumen.*—The ring with this is not in contact with the nitric acid, but higher up and diffuse; it may be a real difficulty in diagnosis from albumen, for it is also precipitated by acetic acid, and may therefore give a cloudiness with the boiling test. The methods of avoiding this fallacy are mentioned above.

5. *Urates.*—These may form a cloud near the nitric acid if the urine is very concentrated; the cloud will disappear on gentle warming, to reappear on cooling, so that it may also be mistaken for albumose; this fallacy may be avoided by diluting the urine with plain water before the nitric acid test is employed.

6 *Urea Nitrate.*—If the urine contains a large percentage of urea, a crystalline deposit of urea nitrate may form at the junction. As a rule, the crystalline nature of the ring is obvious on inspection, but in case of doubt the urine should be diluted and the test repeated. It does not matter which test is most relied upon when the result is negative, but before the positive deduction that a urine contains albumen is drawn, both the acetic acid and boiling, and the cold nitric acid tests should be positive.

In arriving at a diagnosis of the precise cause of albuminuria in any given case, it is essential that a microscopical examination of the centrifugalized deposit from the urine should be made. Whatever else may be found, the first question to be answered is—Are renal tube casts present, as well as albumen, or not? All cases of albuminuria may be divided into two main groups, namely—(1) Cases with renal tube casts; (2) cases without renal tube casts.

### RENAL TUBE CASTS.

When one speaks of renal tube casts in this respect, however, one has to bear in mind the fact that modern methods of centrifugalizing with electrically driven machinery have reached so high a degree of perfection that hardly anything that a given specimen of urine

contains escapes detection; technique has become almost too perfect, for when clinical methods become too delicate they begin to lose some of their clinical value. The result, in connexion with casts, is that even in a great many normal urines an occasional renal tube cast and an occasional red blood corpuscle are found; therefore, when one speaks of cases of "albuminuria with tube casts," one means "with enough renal tube casts to be pathological." The observer learns from previous experience to know when the "occasional" tube cast is inside or outside the normal limits. More than one examination may be required, and the urine should be as fresh as possible, for casts disintegrate on standing, especially in hot weather and in alkaline urines.

Renal tube casts are of various sorts, and a certain amount of help can be derived from a knowledge of the particular kinds of casts present in a given case. Their matrix or foundation is a structureless material whose origin is obscure, though thought to be due to some kind of proteid coagulation. Sometimes the casts consist of this structureless matrix only, and according as they are then less or more highly refractile they are spoken of as *hyaline casts* or *waxy casts* respectively. The hyaline form is commoner than the waxy, but neither is characteristic of any particular disease. Embedded in the hyaline matrix there may be various substances or structures, and, according to the main features of the embedded substances, the casts receive different descriptive names. If renal epithelial cells predominate, the cast is called an *epithelial cast;* if leucocytes or pus corpuscles, a *leucocytic cast;* if red blood corpuscles, a *blood cast;* if bacteria, *bacterial casts;* if fat globules, probably derived from degenerated renal cells or leucocytes, *fatty casts;* if non-fatty granular débris, *granular casts.* It is not at all uncommon to find a long cast which in one part is simply hyaline, at one end is granular, and at the other epithelial—a *mixed cast.* Upon the whole, one may say that the hyaline cast occurs in all forms of nephritic conditions, whether acute or chronic; that epithelial and leucocyte casts indicate active catarrh; that granular casts tend to occur along with epithelial casts, but that when they occur alone or in association with hyaline casts, they are evidence of at least less acute mischief than are epithelial casts, while fatty casts come between the two. Blood casts may occur in almost any variety of renal haemorrhage, and by themselves they are not evidence of inflammation, though in association with other casts they indicate very acute inflammatory changes.

### A.—Albuminuria with Renal Tube Casts.

When it has been decided that there are a pathological number of renal tube casts as well as albumen in the urine, it is almost certain that there is an inflammatory lesion of the kidney. The next step in the diagnosis is to decide by microscopical examination whether pus is present also; in other words, the cases may be subdivided into two main subgroups—namely, (*a*) albuminuria with renal tube casts without obvious pus, and (*b*) albuminuria with renal tube casts and obvious pus. There are, of course, a few border-line cases in which leucocytes are present in excess and yet not in sufficient numbers to constitute pus. There will generally be other points about such a case that will lead one to decide whether it comes rather in the pyuric or in the apyuric group. The differential diagnosis of the former will be discussed in another lecture under the heading of pyuria, so that it only remains here to discuss: (*a*) The differential diagnosis of albuminuria with tube casts without obvious pus. The causes of this condition may be classified as follows:

1. *The Various Forms of Bright's Disease:*
   - (*a*) A primary acute nephritis.
   - (*b*) An acute exacerbation upon an underlying chronic nephritis.
   - (*c*) Chronic nephritis of young people:
     - (i) Arising out of a known attack of acute nephritis.
     - (ii) Arising without any known previous attack of acute nepritis.
   - (*d*) Chronic nephritis of old people, cirrhosis of the kidneys.
   - (*e*) Arterio-sclerosis.
   - (*f*) Cystic disease of the kidneys.
2. *Nephritis of Pregnancy.*
3. *Chronic Ascending Nephritis*, leading to scarred contra kidneys, the result of:
   - (*a*) Obstruction to outflow by:
     - (i) Urethral stenosis.
     - (ii) Enlarged prostate.
     - (iii) Displacement of the womb.
     - (iv) Fibromyoma, ovarian cyst, or other pelvic tumour.
     - (v) Pregnancies.
     - (vi) Undue mobility of the kidney and kinking of the ureter.
     - (vii) Rarities, such as abdominal aneurysm obstructing a ureter.
   - (*b*) Irritation ascending from the pelvis of the kidney, the result especially of calculus, but also sometimes of chronic tuberculous lesions.
4. *Lardaceous Disease of the Kidneys.*
5. *Infarction of the Kidneys*, especially when the result of embolism in cases of fungating endocarditis; but also due to thrombosis, as in some blood diseases.
6. *Thrombosis* of the inferior vena cava involving the renal veins.
7. *New Growths of the Kidney*—some cases.

In many instances the diagnosis soon becomes obvious, but in some there may be great difficulty. The two following cases may serve to indicate how such difficulties may arise:

A patient of middle age, who had not been strong for a long time, began to suffer from oedema of the ankles, which rapidly increased and spread to her back, genital organs, thighs, and legs. She did not see a doctor at once; but within a few days her abdomen began to swell, and she began to pass very little water, and what she did pass was the colour of blood. Upon examination the urine had a specific gravity of 1030 and was loaded with albumen and blood; microscopically there was an abundance of red corpuscles, renal epithelial cells, leucocytes, and epithelial, fatty, granular, and blood casts, without pus, crystals, or bacteria. It seemed almost obvious that she must be suffering from acute Bright's disease; but there was no oedema of the eyelids, and there was definite enlargement of the left supraclavicular lymphatic gland. The discovery of the latter led to a very careful examination for malignant disease, and a latent and quite unsuspected carcinoma of the rectum was discovered. The diagnosis was carcinoma recti, secondary deposits in the retroperitoneal glands, obstruction and thrombosis of the inferior vena cava and of the renal veins, with consequent albuminuria, haematuria, and renal tube casts from asphyxial nephritis simulating acute Bright's disease.

Another case was that of a girl of 16, who began to suffer from increasing anaemia, shortness of breath, oedema of her ankles and face, and slight pyrexia. The heart seemed to be a little enlarged, and there were soft systolic bruits that were regarded as secondary to the anaemia. The urine contained blood and albumen, with renal epithelial cells and tube casts in abundance. Ascites developed, with increasing general oedema; there were also retinal haemorrhages and neuro-retinitis. The diagnosis of acute nephritis, however, was only in small degree correct; for she was really suffering from malignant endocarditis of a subacute type, the nephritis being due to infected emboli of the kidney producing inflammatory changes around multiple renal infarcts.

These two cases will serve to show how it may be impossible to arrive at a correct diagnosis except by a thorough examination of all the systems, by watching the case carefully, and by repeating the full systematic examination at intervals. We will now deal with the main headings in the above table in their reversed order.

*If there is new growth* in a kidney the number of renal tube casts is likely to be small; sooner or later a microscopic fragment of new growth will probably be detected in the centrifugalized urinary deposit. Albuminuria will not be extreme unless the renal veins and the inferior vena cava become involved, the same applying also to the oedema of the legs and trunk; haematuria is likely to occur at intervals, the attacks being separated by many weeks sometimes, and being relatively painless; there may be an increasing renal tumour; cystoscopic examination may show the blood-stained urine to be coming from one ureter only; and finally, when suspicion of new growth has been aroused, laparotomy may be indicated and the diagnosis thereby confirmed.

*Thrombosis of the renal veins and inferior vena cava* has been referred to above as a condition that may simulate acute nephritis. Points to lay stress on in arriving at the diagnosis are: (1) To make a very careful and systematic examination, including that of rectum and vagina, in order not to miss anything, such as some latent growth whose secondary deposits are obstructing the veins; (2) to inquire carefully into the history—a great many cases of inferior vena caval thrombosis are due to extension upwards from iliac or saphenous clots, in which case there will nearly always have been swelling of one leg only to-

start with, followed later by extension to the back and to the other leg; (3) to note that, although the oedema of the legs and back may be extreme, there is a definite upper level to it and no swelling of the eyelids or scalp; and (4) to note that if there are any distended or varicose veins upon the abdominal wall the blood current in them has become reversed—to being from below upwards instead of from above downwards.

*Infarction of the kidneys* may be either embolic or thrombotic. By far the commonest cause of embolic renal infarction is infected or fungating endocarditis. Each embolus gives rise to the sudden appearance of blood in the urine, which may have contained none previously, or to a sudden marked increase in any existent haematuria; there may or may not have been a sudden pain in the back at the same time. Around each infarct there develops acute nephritis, so that in some cases all the characters of the latter malady may be superposed upon those of the fungating endocarditis. If the patient is already known to have heart disease, the diagnosis is easy enough; the difficulties arise in cases in which, notwithstanding the fungating endocarditis, there is no bruit. If fungating endocarditis is suspected, the points that confirm the diagnosis are: Pyrexia, which may be of any type—though absence of pyrexia does not exclude the disease; enlargement of the spleen; cutaneous, retinal, or other haemorrhages; progressive anaemia; definite cardiac bruits, especially if the latter at any time undergo any radical change in their character, such as becoming musical instead of blowing, or vice versa; optic neuritis; and multiple embolism, for instance in the brain, spleen, or a peripheral artery. There is no marked leucocytosis as a rule. Venous blood may be cultivated bacteriologically as a means of confirming the diagnosis.

Thrombotic infarcts are less severe in their effects; they may produce no haematuria at all, and the albuminuria may be slight, and unaccompanied by tube casts. They generally arise in cachectic conditions, or in blood diseases such as leukaemia or pernicious anaemia, in which cases the diagnosis will be arrived at on other grounds, and albuminuria will not be the prominent feature of the case.

*Lardaceous disease of the kidneys* used to be common enough in the days of septic surgery, but it is decidedly uncommon now. It is a risky diagnosis to make, therefore, unless there is some obvious cause for it, such as long-standing suppuration in association with a spinal, hip-joint, or empyema sinus, bronchiectasis, phthisis with cavitation, or the like; or else clear evidence of tertiary syphilis of the viscera with cachexia. There is nothing characteristic about the urine, although statements are made to the contrary. In the earlier stages there may be but a trace of albumen in an otherwise normal urine; later the albumen increases, and it may reach very large amounts, such as 20 parts per 1,000, casts being very few in proportion, the total amount of urine increased, its colour pale, and its specific gravity low—1005 to 1012; later still, possibly as the result of a superposed nephritis, the amount of urine falls until only a few ounces may be passed each day, of high colour and specific gravity 1020 to 1035, loaded with albumen, and now containing hyaline, waxy, granular, fatty, and epithelial casts. Lardaceous casts may or may not occur, but they are not diagnostic, for they have also been found in cases of nephritis without lardaceous disease, hyaline degeneration of the renal tissue being not uncommon in cases of chronic nephritis. Indeed, the diagnosis of lardaceous kidney resolves itself into one of guesswork in a case in which there has been prolonged suppuration or severe syphilis to give rise to it, and in which there may be smooth, firm enlargement of the liver, moderate enlargement of the spleen, and more or less severe diarrhoea, to indicate corresponding lardaceous change in the other organs that are generally affected at the same time as the kidneys.

*Chronic ascending nephritis* arises from precisely the same causes as acute ascending nephritis or surgical kidney, and probably results from recurrent focal inflammations, which heal, each leaving behind a smaller or larger scar, with the result that in the course of months or years the kidneys are converted into a mass of irregular fibrotic scars, which together produce the same local and general changes and effects as are to be found in cases of ordinary red granular contracted kidney.

This is not always kept clearly in mind. At first sight it might seem that there could be little connexion between prolapsus uteri and cerebral haemorrhage, but the latter may be due to the former by the following sequence of events: The displacement of the womb and bladder sometimes produces a bend or kink in the ureters a short distance above their vesical ends; this obstruction, persisting for years, tends to produce chronic ascending nephritis. The fibrotic changes in the kidneys that result from this may lead to thickening of arterioles, high blood pressure, and hypertrophied heart, with tendency to apoplexy, just as other forms of granular kidney do. It is true that this sequence of events is not very common; but this is because prolapse of the uterus, fortunately, is not generally left untreated when it is of sufficient degree to cause the ureteral obstruction referred to above. Nevertheless, it is important to bear in mind that any cause of prolonged obstruction to the urine outflow may cause granular kidney with albuminuria, without pus, but with casts, and a pale and abundant urine of low specific gravity.

The diagnosis will generally be obvious when the obstruction is due to urethral stricture; it is more apt to be overlooked in other cases, though if one bears in mind the kind of causes mentioned in the list above the methods of diagnosis will generally be obvious. One would mention in particular that uterine tumours or displacements are a very common cause for slight albuminuria and a few renal tube casts in women; and that in men of 60 and over enlargement of the prostate causes a precisely similar condition long before there is any definite pyuria.

*Pregnancy nephritis* is sometimes spoken of as though it were an altogether different thing to nephritis of the Bright's disease type in general. I do not subscribe to this view. I hold that Bright's disease has many different causes and many different types. It may be due to scarlet fever, in which case it is very possibly streptococcal; it may be due to pneumonia or empyema, in which cases it may be pneumococcal; it may be due to various other micro-organisms; it occurs in some cases of cholera, and in severe secondary syphilis; it may be due to chemical substances, such as turpentine, cantharides, or oxalic acid; it very often seems to come on from no known cause at all, though in such cases there must be a microbial or other cause that is not discovered; it may be due to pregnancy, in which case it is ascribed to unknown toxins.

In all these cases the types of reaction on the part of the kidney are similar, and one can only regard pregnancy nephritis as a variety of non-suppurative nephritis in general. Very likely it is only a matter of degree whether it is non-suppurative or merges into the type in which there is pyuria as well as albuminuria—pyelitis of pregnancy. Pregnancy may cause a primary acute nephritis which may recover either completely or but partially, and persist as chronic nephritis; or may seem to recover, when in reality it is merely latent, or even slowly and insidiously progressive; it may produce what seems to be a primary acute nephritis which is really but an exacerbation superposed upon a chronic nephritis that has been unsuspected; and very possibly it may produce nephritic changes which are not associated with definite symptoms at the time, but which ultimately result in what is spoken of as chronic interstitial nephritis. When, therefore, albuminuria with renal tube casts, but without pyuria, occurs during pregnancy, it matters little what name is given to the condition, provided it is realized that just the same difficulties offer themselves here as in Bright's disease in general in arriving at a conclusion as to whether the renal lesion is acute, chronic, or acute on chronic.

### *Various Forms of Bright's Disease.*

Of all these, the hardest to diagnose with certainty is *primary acute nephritis* in the adult. The majority of adult cases that are labelled acute Bright's disease are really suffering, not from primary acute nephritis, but from an acute exacerbation upon the top of already existent, but possibly latent, chronic nephritis. The difficulty is to arrive at the diagnosis between these two, particularly since many of the points mentioned in textbooks as occurring in acute nephritis are really due, not to the acute attack, but to the subacute or chronic renal lesion which has until then been unsuspected.

The best examples of primary acute nephritis are to be seen in cases that are already under observation for some other disease, notably scarlet fever or lobar pneumonia.

Sometimes the onset of the nephritis is indicated by general oedema, especially of the eyelids and face, ankles, genital organs, and loins; but it cannot be too strongly insisted upon that oedema is not essential, many cases of acute nephritis having no oedema at all, especially if the patient is already in bed when the kidney inflammation begins, as in scarlatina cases. If the urine were not examined, the renal lesion would often escape recognition altogether; and there can be no doubt that many cases of primary acute nephritis do escape recognition in this way, coming under observation later, when they present symptoms of chronic nephritis, or an acute exacerbation on chronic nephritis.

The essential point in the diagnosis is urine examination. According to the severity of the nephritis there will be more or less diminution in its total daily quantity; it is common for less than 20 oz. to be passed in the twenty-four hours, and often the amount falls to 10 oz., 5 oz., or even to none at all for a while. The specific gravity is raised to 1025, 1030, or even to 1035, but rarely to 1040. The reaction is generally acid at first, but it soon becomes alkaline on standing. The colour is extremely variable, according as little or much blood is present; sometimes it is almost normal or merely that of a concentrated urine; more often there is some tingeing with blood, varying from bright red to brownish, brown, brown-black, or to that peculiar blackish tint which is described as smoky. There is a general cloudiness of the specimen, and on standing it deposits a heavy sediment which often has a dark brownish tint, owing to the phosphates carrying the blood pigment down with them. Microscopically, the centrifugalized deposit consists partly of amorphous débris due to earthy phosphates, and to the disintegration of cells and tube casts; and one expects to find an abundance of red corpuscles, renal epithelial cells, variable numbers of epithelial, fatty, granular, hyaline, and blood casts, an excess of leucocytes, an occasional crystal of calcium oxalate or uric acid, and irregular granular masses which are not definitely tube casts. It is noteworthy, however, that in the very acute stages there may be no tube casts, though shed renal epithelial cells are abundant; in such a case, tube casts will show themselves in a few days.

It is important that each specimen should be examined as fresh as possible, owing to the tendency to alkaline reaction and disintegration of casts and cells on standing. In addition to red corpuscles there is often a considerable amount of free haemoglobin; the tincture of guaiacum test will be positive, and the spectroscope will show the bands of oxyhaemoglobin or of methaemoglobin. Coagulable proteid is generally present in abundance, the proportions of globulin and albumen varying greatly, but together amounting to anything between 2 and 20 parts per 1,000, often about 15 parts per 1,000 at first, rapidly dropping to less after the first few days of treatment, until at the end of from a fortnight to a month it may be 1 part per 1,000 or less, or even absent altogether. In a few cases, however, there is very little coagulable proteid but an abundance of albumose, so that the boiling test gives but a faint cloud, whilst the nitric acid test yields a dense white ring, soluble on warming, reappearing on cooling. There is generally an excess of nucleo-proteid also. The urea, chlorides, and phosphates all fall below the normal totals, though their percentages may be increased if the urine is very concentrated.

With this condition of urine there will be little doubt as to the presence of acute nephritis, the only question being whether it is primary or whether it is an exacerbation upon chronic nephritis. The former is probable, if it is known that the urine was free from albumen up to the time of the attack; if the patient is known to have suffered recently from scarlet fever, pneumonia, diphtheria, secondary syphilis, or some other similar fever; if the heart is of normal size and its sounds natural, the blood pressure natural, and the retinae healthy. It may be that the patient himself may have been exposed to scarlatinal infection, and without having had the rash, may develop nephritis; the association of peeling of the skin, or recent sore throat with enlarged glands in the neck, or otitis media, might suggest the diagnosis in these mild cases of scarlatina, though sometimes acute nephritis in a child may be the sole evidence of the disease. The course of the malady will also assist the diagnosis; the albuminuria of primary acute nephritis may clear up entirely in from a fortnight to six weeks, though in unfavourable cases it persists, and chronic nephritis develops out of the acute. If, on the other hand, it is found that, in a case of apparently recent acute nephritis, with general oedema, haematuria, and the other urinary changes described above, there is cardiac hypertrophy with a prolonged lumpy first sound at the impulse, a ringing aortic second sound, a blood pressure of more than 160 mm. Hg, and possibly albuminuric retinitis, the probability is that the acute nephritis is not primary but an acute exacerbation of an unsuspected chronic nephritis. There is often a history of former scarlet fever or of syphilis in such cases; the patients may be of any age, from childhood to past middle life. If the patient survives, one or other of two conditions usually results: either the albuminuria, the scanty urine, and the tube casts persist, whilst the patient remains waterlogged until the end comes in a few weeks or months, or else the acute exacerbation subsides, and the clinical characters of chronic nephritis remain. Some of these, but by no means all of them, are examples of primary acute nephritis, persisting and becoming chronic.

It must, however, always be very difficult, and indeed almost a matter of opinion in many cases, to decide whether a patient is suffering from a chronic nephritis which is the result of a primary acute nephritis that has not cleared up, or from a chronic nephritis which was present but unrecognized before an acute exacerbation drew attention to it; but my own view is that many cases in which young adults seem to develop acute nephritis from no more definite cause than exposure to damp or cold, are really examples of acute on chronic, and not of primary acute Bright's disease. The albuminuria in these cases does not clear up, and it is a mistake to restrict the diet or the daily occupation after the acute exacerbation has subsided. In spite of the persistence of albuminuria, these patients do best if they are given iron and allowed to go about their ordinary avocations; they have diseased kidneys, and they will not live many years, but there is no need to adopt treatment which constantly reminds them of the fact. As the acute exacerbation subsides in these cases, the amount of urine rises rapidly to 60 or 70 oz. or more per diem, and remains increased even after all oedema has passed away; the specific gravity falls to 1012, 1010, or 1008; the albumen persists to the extent of anything between 0.5 and 8 parts per thousand; blood is absent, though an occasional red corpuscle may be seen under the microscope, and there are moderate numbers of hyaline, granular, or even fatty casts, with an occasional renal epithelial cell.

It happens not infrequently that a young patient suffering from chronic nephritis comes under observation for shortness of breath, palpitations, anaemia, or for inflammation of one or other of the serous membranes, without ever having had any symptoms of acute nephritis at all. The kidneys that would be found in such cases differ from the granular contracted kidneys of older people in that they are pale instead of red. They are *pale, granular, contracted kidneys*, precisely similar to those which may result from a long antecedent acute nephritis that has not entirely cleared up. When they develop without any known preceding attack of acute nephritis, they have been referred to as Rose Bradford kidneys. It is by no means impossible that they are really the result of a preceding acute nephritis which escaped recognition because there was no oedema to attract attention to the need for urine examination. The patient may be of any age, though generally between five and thirty-five. There may be no sign of anything wrong until acute uraemia, with convulsions, leads to rapid death. On the other hand, in a typical case, in addition to the urine changes mentioned above, one expects to find some of the following symptoms or signs: a great increase in the size of the left ventricle, as evidenced by displacement of the impulse downwards and outwards into the sixth left intercostal space below or outside the left nipple, with increase of the precordial impairment of resonance outwards to the left without corresponding increase upwards or to the right; a ringing exaggerated second sound in the second right intercostal space close to the sternum, and a prolongation of the first sound at the impulse, or its replacement by a more or less localized blowing systolic bruit; more or less anaemia, sometimes very considerable and of the chlorotic type; a

maximum systolic blood pressure of 175 mm. Hg or more, sometimes to over 300 mm. Hg, even when the pulse feels comparatively soft to the finger; albuminuric retinitis; a tendency to haemorrhages, especially to epistaxis; headache; insomnia; breathlessness on exertion; and inability to work with the usual energy, either mentally or physically.

The chronic nephritis of old people is diagnosed more often than it exists, if one understands by it the disease associated with small *red granular contracted kidneys*. On the other hand, the kidneys of most old people exhibit a certain amount of interstitial fibrosis, with occasional retention cysts and some granularity of the surface when the capsules are stripped off, without there being any material diminution in their size. Where senile changes that are almost normal end and chronic interstitial nephritis begins, is difficult to determine. The same applies to *arterio sclerosis* and the renal changes associated with this arterial degeneration. Some regard arterio-sclerosis and chronic interstitial nephritis as essentially different maladies; others regard the arterial as secondary to the renal changes; others hold that arterio-sclerosis leads to a variety of red granular kidney that is not the same as the red granular contracted kidney of chronic interstitial nephritis; whilst others, again, favour what seems a likely view—namely, that arterio-sclerosis and sclerosis of the kidneys both have a common cause, and that it is more or less of an accident whether the patient, on *post-mortem* examination, presents more arterial than renal changes, or about the same degree of both. During life the differential diagnosis between them is sometimes impossible. In either case there will be a hypertrophied left ventricle, a loud lumpy first sound, or a blowing systolic bruit at the impulse, a markedly accentuated aortic second sound, a systolic blood pressure somewhere between 150 and 320 mm. Hg, with a tendency to shortness of breath; giddiness, especially on sudden change of posture; singing in the ears; difficulty in concentration of mind; and very possibly cardiac symptoms, varying from a mere consciousness of the existence of the heart, to precordial pain of varying severity, or even extreme heart failure, with oedema of the legs, ascites, nutmeg liver, orthopnoea, and pulmonary congestion. In the latter case the great difficulty will be to decide whether the heart failure is due to primary renal or arterial, primary cardiac, or to primary pulmonary disease, and the only sure methods of deciding that there is a renal lesion are, first, the discovery of more than an occasional granular and hyaline tube cast in the urine; and secondly, the detection of albuminuric retinal changes. Sometimes inflammation of one of the serous membranes is the first symptom; subacute or chronic peritonitis with ascites; pericarditis; or pleuritic effusion. On the other hand, the patient may seem to have been in robust health until the nature of the case is suggested by a sudden apoplectic seizure due to cerebral haemorrhage, followed by hemiparesis or aphasia.

In yet another group of cases the malady is discovered accidentally as the result of examination for life insurance. It is not very uncommon to find glycosuria as well as albuminuria, the sugar occurring in a urine of normal specific gravity, without any associated acetone or diacetic acid. The degree of albuminuria is very variable indeed; when there are signs of cardiac failure there may be oliguria, with much albumen, and not a very large number of casts; when there is no heart failure there is generally polyuria, the patient having to rise several times in the night, passing from 60 to 120 oz. of urine in twenty-four hours. It is pale, of specific gravity 1008 to 1012, often containing only a trace of albumen, and even that not constantly; there are intermediate cases in which the amount of albumen varies from 0.25 to 4 or 5 parts per 1,000. Upon the whole, one may say that if the increased albuminuria due to heart failure, on the one hand, or to a superadded acute attack of nephritis on the other, can be excluded, the more the disease approaches the type of red granular contracted kidney the more likely is the albumen to be small in amount and intermittent; whilst the more the disease approaches in type to arterio-sclerosis with renal changes on the one hand, or to pale granular contracted kidneys on the other, the greater will be the amount of albumen if any is present. There will be tube casts, chiefly granular and hyaline, most numerous with pale granular contracted kidneys, fewest with arterio-sclerosis, and intermediate in number with red granular contracted kidneys. It need scarcely be added that the absence of albuminuria does not exclude arterio-sclerosis; but we are here dealing only with cases in which albuminuria occurs.

*Cystic disease of the kidneys* is found in three entirely different types of patients—namely, (1) the newly born, (2) the young, and (3) the elderly. In the newly born the main symptom is abdominal distension, which may be so extreme as to have caused difficulty in delivery; the bilateral cystic tumours can be felt, and the diagnosis in extreme cases is by no means difficult. Minor cases escape detection at birth, and it may be that several years have elapsed before the diagnosis is arrived at, as the result of finding bilateral uneven renal tumours associated with the passage of abundant pale urine of low specific gravity containing traces of albumen, a few granular and hyaline tube casts, and an occasional red corpuscle. Sometimes a sudden and severe attack of haematuria is the first symptom in the case. The discovery of bilateral irregular renal tumours is the clinching point in the diagnosis. In at least one case they were so large as to meet in the middle line, so that a loop of intestine, having passed in between and behind them, could not get out again, and the patient came under observation for acute intestinal obstruction. The third type of cystic disease of the kidneys, which occurs in old persons, is but a variety of chronic interstitial nephritis in which the agglomeration of retention cysts has reached an extreme degree; the enlargement of the kidneys in these cases is very much less than in young persons, where the lesion is probably congenital, and the symptoms and urinary changes are precisely similar to those that may occur in cases of red granular contracted kidneys already described.

### B.—Albuminuria with Renal Tube Casts and with Pus.

When pus is present in the urine, along with albumen and renal tube casts, the differential diagnosis resolves itself into that of pyuria that is partly or wholly of renal origin. It only remains to add: First, that it is by no means sufficient to rely upon the naked-eye characteristics of the urine or upon chemical tests in excluding minor degrees of pyuria; microscopical examination of the centrifugalized deposit is essential, especially in the detection of acute pyelitis and pyelonephritis, the result of *coli bacilluria* in children, pregnant women, and others. Secondly, that the amount of albumen actually due to pus itself is small, so that if there is any measurable quantity of albumen present it indicates that the kidneys are themselves affected, this being further confirmed when casts are also found. And, thirdly, that blood, like pus, is in itself responsible for relatively little albumen, so that when there is considerable albuminuria associated with blood there is strong ground for believing that the albumen is by no means all due to the blood. The presence or absence of very small quantities of blood does not assist the differential diagnosis of the cause of albuminuria so much as might be expected; the occurrence of much blood with much albumen and many renal cells and tube casts indicates *acute nephritis*, but by itself does not decide between primary acute nephritis, acute exacerbation of a chronic nephritis, or the effects of embolic infarction in cases of malignant endocarditis. *Renal growths, calculus, or tuberculosis* may all cause haematuria and pyuria with albuminuria, and a variable number of granular, hyaline, fatty, epithelial, leucocyte, or blood casts; and occasionally, when the amount of pus is small, it may be difficult to distinguish between these and acute nephritis. Their differential diagnosis was discussed in a previous lecture on haematuria.

### C.—Albuminuria without Tube Casts.

Turning now to the question of the occurrence of albuminuria without renal tube casts, one would first emphasize the fact that more than one microscopical examination may sometimes be required, for if the urine is alkaline, or has stood for any length of time, casts originally present may have become unrecognizable; besides which, even with definite nephritis, there may be very few casts at one time, many at another. This applies particularly to the very acute cases on the one hand and the very chronic on

the other. Assuming however, that no cast, or not more than a very occasional cast, is found, the chief conclusion that can generally be drawn is that the albuminuria is not indicative of organic renal disease.

The cases may, then, be subdivided into: (1) *Those in which the urine presents some other definite abnormality besides albuminuria*, especially (*a*) pyuria, (*b*) haematuria, (*c*) haemoglobinuria, or (*d*) glycosuria; (2) *those in which, were the albumen removed, the urine would be normal.*

1. These cases need not be discussed further here; the differential diagnosis comes under the heading of pyuria, haematuria, haemoglobinuria, and glycosuria respectively.

2. These are clinically of importance in that, until the absence of casts has been determined, the absence of organic renal changes cannot be concluded. Even when casts are absent, a trace or a small amount of albumen may be the first evidence in elderly persons of enlargement of the prostate, chronic interstitial nephritis or arteriosclerosis; or in younger persons of chronic ascending nephritis, the result of such things as former gonorrhoea, repeated pregnancies, uterine prolapse or other displacement, chronic vesical catarrh, or urethral stricture. The chronic effects on the kidneys of interference with the urine outflow are apt to be overlooked; if they are borne in mind they are generally easy of diagnosis.

The following are a number of other conditions which may cause slight degrees of albuminuria without tube casts, but which are obvious, or else diagnosed by other obvious symptoms or signs: Burns, scalds, chronic alcoholism, cirrhosis of the liver, diabetes mellitus, exophthalmic goître, gout, lead poisoning, mumps, secondary syphilis, morphinism, mercurialism, vasomotor neuroses such as Raynaud's disease or angeioneurotic oedema, obstruction to the vena cava inferior by thrombosis or by external tumours, the pressure of considerable ascites, ovarian cysts or solid tumours, pernicious anaemia, Hodgkin's disease or lymphadenoma, lymphosarcoma, lymphatic or splenomedullary leukaemia, splenic anaemia, pemphigus, phosphorus poisoning, chronic arsenical poisoning, pregnancy, severe anaemia the result of syphilitic, malarial, malignant, tuberculous, or phthisical cachexia, ankylostomiasis, or infection with other parasites, such as *Bothriocephalus latus*, or *Trichina spiralis*.

There remain three other groups of conditions in which albuminuria and its differential diagnosis are often important, and these are: (1) *Febrile conditions;* (2) *heart-failure conditions;* and (3) so-called "*physiological*" *albuminuria of young males.*

### 1. *Febrile Conditions.*

In nearly every fever there is some cloudy swelling of the parenchyma of various viscera, especially the kidneys; consequently most fevers may sometimes be associated with albuminuria, and, broadly speaking, the higher the patient's temperature the greater is the liability to it. The amount of albumen present is generally not great. We need not enumerate all the various fevers in this connexion, nor discuss the causes of hyperpyrexia. Suffice it to say that albuminuria is relatively common in scarlatina, diphtheria, variola, erysipelas, pyrexial phthisis, cholera, dysentery, Weil's disease, severe malaria, and yellow fever; not so common in lobar pneumonia, bronchopneumonia, typhoid fever, and empyema; and relatively uncommon in other febrile conditions, such as acute rheumatism, influenza, meningitis, measles, German measles, follicular tonsillitis, and so on. The albuminuria may of course be already present in a person who develops an intercurrent fever; the diagnosis then depends upon considerations mentioned above.

If, on the other hand, the albuminuria is known to have developed coincidently with the febrile illness, the chief point to decide will be whether it indicates actual nephritis or not. Many consider there is an essential difference between "febrile albuminuria" and actual nephritis. This may or may not be so, but it is extremely difficult to be sure of the distinction clinically. It may be urged that—to take scarlet fever as an example—the albuminuria of the first few days is "febrile," whilst that of the second or third week is "nephritic." As a matter of fact, in not a few cases in which death has occurred in the first week the "febrile" albuminuria has been associated with large mottled acute nephritic kidneys, even when there has been no oedema, no haematuria, and no very large numbers of renal tube casts. Probably there are all degrees of acute nephritis, from very slight and transient to very severe and possibly fatal; and it is a mistake to try and make a distinction in kind. The great majority of cases of albuminuria during fever recover completely; some seem to recover, but come under observation years later with pale granular contracted kidneys; others die during the acute attack. The degree of albuminuria is not a direct measure of the renal changes unless the amount of albumen is large; a small amount of albumen does not necessarily indicate trivial nephritis. Absence of oedema is the rule. Microscopical examination of the centrifugalized urinary deposit is essential; the more the renal epithelial cells, red corpuscles, leucocytes, and various renal tube casts, the more conclusively can some degree of actual nephritis be diagnosed.

When doubt lies between scarlatina and measles or German measles, or between diphtheria and other forms of sore throat, the existence of albuminuria sometimes assists in arriving at the diagnosis of scarlatina in the one case, or of diphtheria in the other.

In pneumonia, albuminuria has become much less frequent since blistering with cantharides has gone out of fashion in treating this disease.

### 2. *Heart-failure Conditions.*

The right side of the heart may fail owing to many different causes, which may be arranged under four main headings as follows: (*a*) Valvular disease; (*b*) obstructive lung affections; (*c*) myocardial affections; (*d*) granular kidneys and other high blood pressure conditions. Each of these main headings has many subheadings which need not be repeated in detail. Any one of them may result in albuminuria, though the amount of the latter is extremely variable, some cases of severe heart failure exhibiting no albuminuria at all, whilst others may have as much as 10 parts per 1,000 or more.

The first step in the differential diagnosis is *to exclude primary renal conditions* by negative microscopical examination of the centrifugalized urine deposit for casts, examination of the retinae, and exact determination of the blood pressure. Curiously, even with feeble, irregular pulses, such as are found in panting cases of mitral stenosis, the blood pressure is considerably higher than normal, doubtless owing to partial asphyxia; so that merely finding a systolic blood pressure of 150 or 160 mm. Hg is no proof of granular kidney or arteriosclerosis; sometimes, however, the reading is as high as 200, 250, 300, or even 320 mm. Hg, and then the diagnosis of one or other of the latter is almost certain.

If renal and arterio-sclerotic conditions can be excluded, the diagnosis lies between the other three main groups. The cardiac bruits, the history of growing pains, chorea, and acute rheumatism, the youth of the patient, the family history of heart disease or rheumatic fever, the association of other rheumatic affections, such as recurrent tonsillitis, subcutaneous nodules or erythema, will often serve to point to *primary valvular disease* and its nature; in older patients, especially in men between 40 and 50, there may be aortic disease and a history of syphilis, and not of acute rheumatism. In severe heart failure in children under puberty the result of mechanical difficulty with the circulation, an *adherent pericardium* is generally found, and clinically the heart is large out of proportion to the general physical signs.

When there is a definite history of recurrent winter cough in an elderly person, with a hyper-resonant and overexpanded chest, the likelihood of *emphysema and bronchitis* will at once suggest itself. Similarly *fibroid lung*, or fibroid lung and *bronchiectasis*, as a cause of heart failure and albuminuria only needs mentioning, the diagnosis generally being obvious from the physical signs, the clubbed fingers, and, in the bronchiectatic cases, the abundant, intermittent, and frequently foul, expectoration.

*Myocardial affections*, such as fibroid, fatty, or primary alcoholic heart, are generally diagnosed by guessing at them when other causes of heart failure can be excluded. The patients are generally middle-aged, with precordial pain and even angina pectoris occupying a prominent position amongst their cardiac symptoms; there may or may not be a high blood pressure, the albuminuria is not associated with renal tube casts, there is often no cardiac bruit, or at most a more or less localized blowing systolic

bruit at the impulse; at the same time the heart is clearly enlarged, and it may be beating rapidly and irregularly; there may be a history of syphilis or of chronic alcoholism; the patient may be very stout in the fatty, though generally not so in the fibroid, cases. There may be a history either of an extremely sedentary life upon the one hand, or of overuse of the heart by strenuous hard physical work—as a blacksmith, an athlete, and so forth—on the other. Needless to say, the exact nature of the cardiac lesion remains obscure or uncertain in many of these cases, many a patient who really has mitral stenosis being regarded during life as suffering from chronic bronchitis and emphysema, and so on.

### 3. "*Physiological*" *Albuminuria.*

Finally, we come to that large group of cases of albuminuria in apparently healthy males between the ages of 15 and 30. The condition was unknown until medical examinations at schools or for life insurance, for the army, navy, and civil services became common; and it has received a large number of different names, of which the following are some: "Accidental," "essential," "postural," "cyclic," "orthostatic," "intermittent," "physiological," "functional," "orthotic" albuminuria, Pavy's disease, albuminuria "of adolescence" or "of puberty." It derives its chief importance from the fact that young males who suffer from it are looked at askance by the older examiners for life insurance or for the "services," and are very liable to be rejected altogether. The reason for this was the fear that they were sufferers from some form of nephritis.

Collier and others have thrown much light upon the nature of the affection by their investigations upon the urines of rowing men. It is found that the urine voided just before a boat race being free from albumen, that voided immediately afterwards is generally loaded with it. A few hours later this albuminuria is gone again. Now, university oarsmen are, upon the whole, long-lived; hence this recurrent albuminuria cannot matter in them, and the same applies to the albuminuria of many adolescents. A prominent feature of such a case is that the urine first voided in the morning is quite normal, whilst that passed later in the day may contain anything from a trace to five parts per thousand of albumen, or more; the more the youth has exerted himself physically by walking or otherwise, and the more he has exposed himself to cold, for instance, during a train journey to the city on a winter's day, or in a cold bath, and so on, the greater is the liability to this unimportant, but possibly alarming, albuminuria. Some youths are so liable to it that they may pass albumen for days together before an interval of freedom from it occurs. Sometimes they appear to be in robust health, sometimes they look a little pale, as though they had been overworking at an indoor occupation; they may be nervous, but often they are not. A natural nocturnal emission is supposed to predispose to albuminuria next day. The point is that these individuals have to be differentiated from sufferers from Bright's disease. The method of diagnosis is as follows: A complete routine examination is carried out, and no obvious affection of the heart or other viscera can be detected; the blood pressure is normal; the albumen having been discovered, the patient is directed to supply a series of samples at intervals of a few days, and preferably passed immediately after rising in the morning. If all samples contain albumen it will be very difficult to exclude organic disease; if some contain albumen in abundance, however, and others none at all, the presumption will be that it is "functional"; before being finally satisfied, however, it is important that a careful microscopical examination of the centrifugalized deposit from a specimen containing albumen should be made, no casts or other abnormal constituents being found. The administration of calcium chloride greatly diminishes the tendency to this form of albuminuria. In an adolescent male who has no symptoms albuminuria discovered accidentally, present after exertion or after exposure to cold but absent after rest in bed, and, when present, not associated with renal tube casts or with signs of arterial, cardiac, or other diseases that should be detected by physical examination, is almost certainly a "physiological" albuminuria, which needs no treatment and is not indicative of any underlying disease.

# Clinical Observations

ON THE

# USE OF DIGITALIS IN HEART DISEASE AND DROPSY WITH FIBRILLATION OF THE AURICLES (NODAL RHYTHM).

BY

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SOUTHALL, W.

IN the present paper I purpose to illustrate the use of digitalis in cases of heart disease with dropsy, in which the auricles are in a state of "fibrillation" and functionally inactive—a condition present in a large proportion of cases of severe heart failure, whatever the nature of the underlying lesion may be. Cases of this kind constitute a definite group, and their diagnosis is of great clinical importance both for treatment and prognosis.

It has always been recognized that benefit from the administration of digitalis in cases of severe heart failure is variable, even when classical indications for its use are present. In some patients improvement is rapid and maintained—the heart decreases in size, and dropsy quickly disappears; in others its power for good is limited—improvement occurs to a certain extent, and then comes to a standstill; in others again, particularly cases of mitral stenosis with regular pulse, and those resulting from arterial disease, digitalis is often impotent or even harmful—the heart continues to dilate, and dropsy increases under its use.

An example of such a case is the following:

#### CASE I.

A girl, aged 13, under my observation for some time with a compensated double mitral lesion of rheumatic origin. In August, 1909, severe dyspnoea with marked cyanosis came on after exertion and persisted for several days. The attack was quite recovered from, but later compensation gradually failed, and at the end of October severe dropsy set in. The pulse was quick but regular; heart enlarged to right and left; mitral presystolic, systolic, and diastolic murmurs were present. Although digitalis was well tolerated and given for over a month in full doses, with occasional remissions of a day or two, it had very little influence on the rate of pulse (Fig. 1). For a time

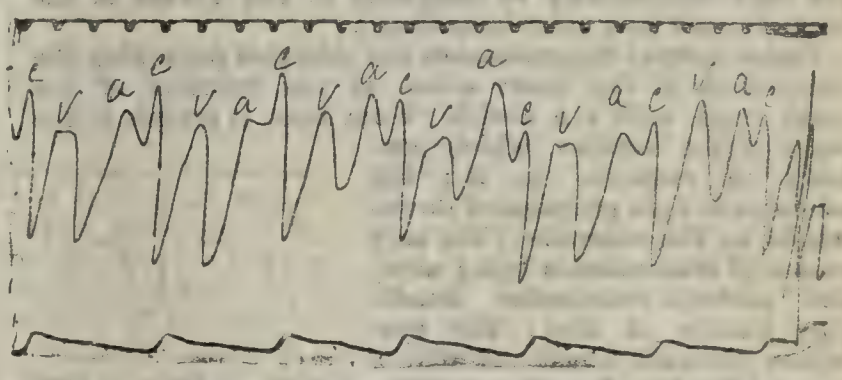

Fig. 1.—Tracing of radial and jugular pulses from Case I after continued full doses of digitalis; rhythm is regular, rate 84 per minute. The jugular tracing shows two pulses, *a* and *v*, to each beat of the carotid artery *c*. The wave *a*, due to contraction of the auricle, precedes the carotid beat by one-fifth of a second (normal, or auricular type of venous pulse).

there was some improvement in the general condition; but subsequently the heart further enlarged, dropsy manifestly increased, the amount of urine diminished, and eventually the lungs became oedematous before death, which occurred two months after the onset of dropsy.

The fact that digitalis often fails to do good in the later stages of heart failure, when the pulse is rapid and regular, was known in the early days of its use. It was recognized that the drug slowed the pulse in some cases more than others, and that to a great extent improvement was proportionate to the degree of slowing which ensued; and, further, that the most marked slowing and rapid response to treatment usually occurred when the pulse was irregular, but it was also recognized that these results were not constant in all cases with irregular pulse.

There was no explanation of this discrepancy forthcoming until Mackenzie differentiated the various forms and causes of irregularity of the heart by means of the venous pulse. He established the fact that in cases which

respond most promptly and certainly to digitalis the pulse was not only irregular, but the irregularity was persistent and very characteristic, consisting of an indiscriminate mixture of strong and weak beats, scarcely ever two being alike in duration and force (absolute irregularity of the heart). He observed further that in this form of irregularity the character of the jugular pulsation was abnormal, and that all signs of contraction of the auricles were absent.

The clinical value of these facts cannot be over-estimated; the determination of the presence or absence of absolute irregularity of the pulse in a given case of severe heart failure furnishes indications for the use of digitalis which can be obtained in no other way. Mackenzie established the fact that it is to its action in cases of this kind that digitalis owes its great reputation in heart failure.

In cases of rheumatic origin with completely irregular pulse, the heart in most cases slows under full doses to a degree which rarely occurs in any other form of heart action, and concurrently there is a rapid diminution in

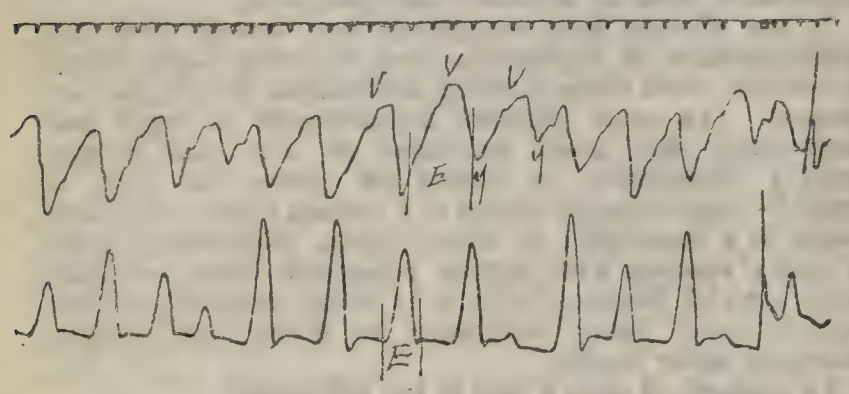


Fig. 2.—Shows ventricular form of venous pulse; the rhythm is completely irregular; the venous tracing shows a single wave, *v*, synchronous with ventricular systole. The space E represents that portion of ventricular systole during which the semilunar valves are open.

size of the heart and liver, together with copious diuresis and disappearance of dropsy.

In order to explain the mechanism of this form of heart action, and make clear the meaning of the terms "ventricular form of venous pulse," "auricular paralysis," "nodal rhythm," and "auricular fibrillation," which are as yet used indifferently to designate it, the events of the normal heart beat must be outlined.

Under normal circumstances the stimulus provoking the contraction of the heart arises at the junction of the great veins with the auricle; from here it travels to the walls of the auricles, which contract in response to it; the stimulus is then propagated downwards to the ventricles; the only means of transmission being along the auriculo-ventricular bundle (the bundle of His); the ventricles contract about one-fifth of a second later than the auricles. These events can be determined by observing the movements of the jugular pulse, and timing them with the heart beat, or carotid pulse. The jugular vein fills and collapses twice to each beat of the ventricle; a pulse due to contraction of the auricle immediately precedes the carotid beat, the second wave follows immediately after the carotid pulse, and is ascribed to diastolic filling of the auricle. These movements are shown in Fig. 1.

In absolute irregularity of the heart the entire character of the jugular pulse is altered; instead of two waves—one immediately preceding and one following systole—there is a single large wave synchronous with contraction of the ventricle—*ventricular form of venous pulse* (Fig. 2). In most cases the venous pulsation in the neck is well marked and can be readily timed; occurring with systole, it closely resembles pulsation of the carotid, for which it is frequently mistaken. The venous origin of the pulse explains the seeming paradox so frequent in these cases of a forcible carotid pulse with a feeble radial beat. Mackenzie concluded that this synchronism of arterial and venous pulsation was due to tricuspid regurgitation; further, that the auricle must be so overdistended as to be incapable of effective contraction. He reasoned that tricuspid regurgitation could not give rise to jugular pulsation unless the right auricle was full of blood at the time in the normal cardiac cycle when it should be empty—that is, at the beginning of ventricular systole—otherwise the blood regurgitated by the ventricle would serve only to fill the empty auricle, and in consequence its wave would not be transmitted through the jugular vein. He found "auricular paralysis" commonly ensued in patients with rheumatic mitral stenosis, and that the onset of absolute irregularity of the heart in such cases was always associated with disappearance of the presystolic murmur and thrill, and *post mortem* the auricle was found enormously distended and the muscle fibres greatly atrophied.

Further experience, however, showed that tricuspid regurgitation was not an invariable concomitant of the ventricular form of pulse; moreover, cases were met with having this form of pulse in which *post mortem* the auricles were found hypertrophied, thus evidencing that they contracted during life. To explain the absence of

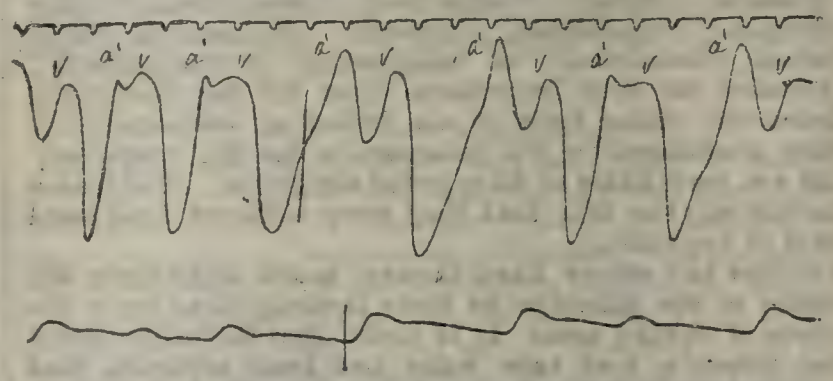


Fig. 3.—From Case II before increasing the dose of digitalis. Pulse is absolutely irregular, rate 95 per minute. The venous pulse is of the ventricular form, with two waves, *a'* and *v*. The wave *a'* occurs at the time of the carotid pulse (down stroke on radial tracing), and is probably due to the auricle contracting at the same time as the ventricle. Tincture of digitalis 5 minims t.d.s. had been given for six weeks up to the time this tracing was taken.

signs of contraction of the auricle in these cases the inference arose that the auricles and ventricles contracted simultaneously. Support was lent to this view by the fact that in these cases two movements could be seen in the jugular vein during ventricular systole. (These are shown in Figs. 3 and 4, *a'* and *v*.) The time of the appearance of *a'* was exactly that of the carotid pulse; there was never any sign of the auricular wave before the wave of the carotid pulse (compare Fig. 1). He suggested that the wave *a'* must be due to auricular

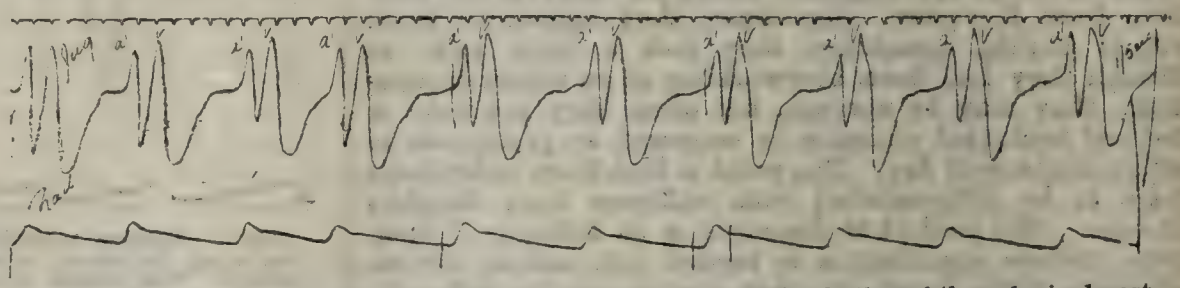

Fig. 4.—From the same case as Fig.3, taken twelve days later. The rhythm of the pulse is almost quite regular; rate 43 per minute. The heart's sounds and impulse correspond with the radial beats; the jugular pulse is of the ventricular form. Regular slowing of the heart to this degree under digitalis does not occur when the auricular form of pulse is present.

systole, and that the auricle and ventricle contracted simultaneously; he concluded that this rhythm was brought about by the stimulus for contraction starting from a place other than the mouths of the great veins; it was assumed that it had its origin in a part of the junctional fibres between the auricle and ventricle (the auriculo-ventricular node) and from thence spread simultaneously up to the auricles and down to the ventricles. Hence the term "nodal rhythm" came to be applied to this condition. The truth of Mackenzie's main conclusions—that absolute irregularity of the heart, ventricular venous pulse, and functional inactivity of the auricle, are causally associated—has been fully established by the researches of Lewis, who has moreover made clear the mechanism by which the association is brought about. He has conclusively demonstrated by means of electro-cardiograms taken from a large number of clinical cases of absolute irregularity with ventricular venous pulse, that in this condition there is an

entire absence of normal contraction of the auricle; its musculature is in a state of unceasing tremulous movement ("fibrillation"). He found further in animal experiments that when the auricles were thrown into a state of fibrillation they became distended and remained in a state of diastole; synchronously, the contraction of the ventricle became absolutely irregular in rate and force, which rhythm is assumed to be due to the disorderly transmission of impulses.

The mode of action of digitalis in fibrillation is as yet imperfectly understood. The question is fully discussed in Dr. Lewis's recent article.[1] It suffices here to say that there are good reasons for the supposition that digitalis acts by depressing the conductivity of the *a–v* bundle; its full effect is to block the passage of stimuli from auricle to ventricle; cut off from the influence of the auricle, the ventricle beats with an independent rhythm of its own. However this may be, the fact remains that the character of the heart's action under the full influence of digitalis in this condition is comparable in every way to that occurring in complete heart-block. The rhythm of the heart at times becomes regular with a rate of 40 or thereabouts (Fig. 4); further, a frequent effect of continued full doses is the occurrence of "coupled heart beats" (Fig. 10). Lewis has shown by galvanometric curves that the weaker beat of this coupled rhythm, which occurs with notable regularity, arises in response to a ventricular stimulus, and it is supposed that a condition of complete heart-block is present.

While the majority of cases of fibrillation respond in a marked manner to digitalis, it is found as a matter of experience that reaction varies under different circumstances of etiology and rate of pulse. Cases which respond most certainly and rapidly are those resulting from old rheumatic lesions, in which the rate of pulse is not greatly above normal, and symptoms of failure arise gradually (Case II).

There is another type of case, also of rheumatic origin, in which fibrillation occurs suddenly, and heart failure soon becomes extreme; in these cases the pulse is usually rapid and reaction is uncertain (Cases III and V). Fibrillation not uncommonly ensues in course of arterio-cardiosclerosis; generally reaction is slight or absent, occasionally the heart slows to some extent, but improvement in the general symptoms is not proportionate. Exceptionally typical reaction occurs (Case V).

### *Common Form of Heart Failure and Dropsy, with Auricular Fibrillation.*

CASE II.

Male, aged 23 years. History of three attacks of acute rheumatism. In 1906–7 he was under my care for haemoptysis and shortness of breath; at that time the pulse was regular; heart slightly enlarged; double mitral murmur, and a marked presystolic thrill and reduplicated second sound were present. The patient was lost sight of until October 3rd, 1909; in the interim he had been attending different hospitals as an out-patient. For six weeks prior to this date he had been almost continuously in bed, and during this time had taken 5 minims of tincture of digitalis three times a day. He was very dropsical, short of breath, and unable to lie down; the radial pulse was 95 per minute and absolutely irregular in rate and force. The heart was greatly enlarged, extending 7 in. to the left and 2 in. to the right of the middle line. No precordial thrill was detected; on auscultation, a systolic murmur was heard in the mitral and tricuspid areas, but the presystolic murmur and doubled first sound present during 1906–7 were no longer heard; the jugular pulse was large and synchronous with the heart beat, the liver was enlarged and pulsating; there was no ascites or hydrothorax; cough was troublesome, with copious expectoration; moist sounds were heard over both bases; the urine was very scanty and contained albumen. The clinical evidence of auricular fibrillation is corroborated by the character of the radial and jugular tracing (Fig. 2) taken at this time. From this date he took 15 minims of tincture of digitalis, at first four-hourly, and then three times a day up to the fifteenth, when Fig. 4 was taken. My note on this date is: "He can lie down comfortably, breathes easily, dropsy much less, and is in every way improved; heart and liver diminished in size." In a fortnight he was downstairs and getting about quietly, and a month later was fit for light work. During this time the digitalis was taken in the same dose three times a day.

This patient is an example of the form of heart disease and dropsy which constitutes perhaps 50 per cent. of cases as met with in general practice. It serves well to illustrate that the presence of fibrillation can be diagnosed by ordinary clinical methods of examination. In most cases graphic records are unnecessary; with the finger on the apex beat, and a close scrutiny of the jugular pulse, the persisting disorderly action of the heart, with synchronous venous pulse, is readily detected. It shows, also, how at times, in cases treated with small doses of digitalis without benefit, prompt and continued improvement results when adequate doses are given. Five minims of tincture of digitalis had been taken three times a day for six weeks continuously, with but little effect on the pulse or symptoms. On trebling the dose and giving it 4-hourly, improvement was rapid and maintained. It is largely to cases of this kind that digitalis owes both its good and bad repute; in small doses it has little or no effect, the heart keeps quick and irregular, and if the true nature of the condition is not recognized the quick pulse may be erroneously ascribed to increased excitability from a "cumulative effect," whereas the case urgently requires more, not less, of the drug. Generally speaking, improvement in cases of this kind is proportionate to the degree of slowing of the heart; and digitalis must be given in sufficient doses to reduce the rate at least to the normal, and in most cases considerably lower, to get the best results. On commencing treatment 15 minims of the tincture should be given four times a day until the pulse slows to 50–60 per minute, which it will do as a rule within a week. In most patients the improvement with this rate of pulse is maintained, when the same dose should be given three times a day and its effect watched. In others the case hangs fire; the drug should then be pushed until its full physiological effect on the pulse is produced. The evidence of this is either a regular slowing of the heart to about 40 a minute (Fig. 4), or the occurrence of coupled heart beats (Figs. 6 and 10). A pulse of 50 or over is always characteristically irregular; when the rate falls below 50 it exceptionally becomes regular, the number of heart beats being the same as the pulse. More frequently the full effect is shown by the occurrence of coupled beats; these are readily recognized on auscultation—two heart beats follow quickly on each other succeeded by a long pause, the first beat is strong, the second short and feeble. The rhythm is phonetically represented thus:

lub-dup tutup——lub-dup tutup.
1 2 1.2 1 2 1.2

Usually the feeble beat fails to reach the wrist, so that the pulse-rate is half that of the heart as shown in Fig. 10. During the pause a long murmur is often heard in the mitral area, due to diastolic inflow to the ventricle. From a large number of observations I have found that the total amount of tincture of digitalis required to produce runs of coupled beats or regular slowing is on the average 450 minims—that is in about ten days with doses of 15 minims. There is, however, no constancy in this respect; at times the full effect occurs with 300 minims, but only very rarely with less. In some patients larger doses and a longer time is required, and in others the characteristic reaction cannot be induced, but this is exceptional and usually only in very advanced cases.

Digitalis should be stopped when long runs of coupled beats or regular slowing occur; no further good can follow its continued use; the full effect is transient, within two or three days the pulse quickens and is again characteristically irregular. The drug should now be given again in increasing doses from 10 to 15 minims three times a day until the pulse slows to a rate approximating that at which the double beats previously occurred; it is with this rate of pulse that the patient will generally be at his best. We thus see that the guide for dosage during treatment is the effect on the heart, and that this can be determined by auscultation, the rate and rhythm of the beats furnishing the necessary indications. There are, however, associated circumstances which have to be considered of which vomiting and the amount of urine passed are the most important. When digitalis is well tolerated—which it generally is—nausea or vomiting does not occur as a rule until the full slowing effect on the heart is reached; then vomiting is almost invariable, and its significance obvious. But this symptom may arise in some patients before the pulse is affected to any appreciable extent or signs of improvement are manifest, and gives rise to doubt as to whether digitalis should be continued or not. In arriving at a decision the rate and character of the pulse, the size of the heart, the amount of dropsy present, and the quantity of urine passed have to be considered. Generally speaking, if the

pulse continues irregular and above normal in rate, digitalis may be pushed with confidence, always providing that the amount of urine passed is not diminishing; under these circumstances vomiting probably signifies no more than gastric disturbance from the direct action of the drug on the stomach. To obviate this the form of preparation should be changed, or strophanthin or digalen given hypodermically. If, on the other hand, together with vomiting dropsy is stationary or increasing and the amount of urine passed is less, as not uncommonly happens in advanced cases with extreme dropsy, the drug should be stopped. Withering pointed out in 1775 that when "the limbs in anasarca are solid and resisting we have but little to hope" from digitalis. These are the cases which fail to react to digitalis, and its continued use may be harmful until the dropsy is relieved by other means—drainage or purgation—then it will usually act like a charm.

It may be questioned whether the doses of digitalis advocated may not produce injurious effects from its "cumulative action." I have not found that the effects of the drug last much longer than the period of its administration; on the other hand, heart-block, extra-systoles, and coupled beats induced by digitalis usually disappear within two or three days; and I have never found any of these conditions arise subsequently to leaving off digitalis, even after it has been given in large doses over long periods.

*The Necessity for the Continued Use of Digitalis.*

An important question is the subsequent history of these patients after treatment is suspended. In my experience they break down very quickly on leaving off digitalis, more readily than cases in which the rhythm of the heart is normal. After compensation is established in mitral regurgitation, for instance, the patient may go on indefinitely without further symptoms of failure, providing he lives quietly.

There is a very marked difference in the behaviour of the heart in nodal rhythm; on leaving off digitalis the pulse quickens and symptoms speedily recur. Digitalis has no action on the fibrillation of the auricle; this persists when the heart is fully under the influence of the drug (see Fig. 9). Compensation results not only from restoration of tonicity, but largely from the cutting off of the rapid irregular impulses from auricle to ventricle—that is, by causing heart-block; this effect, as already indicated, speedily passes off, when the auricular impulses are again transmitted to the ventricle, with the result that within a few days the heart becomes quick and irregular, and symptoms of failure recur. This will happen even with the patient at rest in bed; bodily rest appears to have no influence on the fibrillary movements of the auricle or the conductivity of the *a–v* bundle. Drugs of the digitalis group are imperative; it is the one form of heart action which requires the drug to be given almost indefinitely in order to maintain a condition of slight heart-block. The patient whose case is cited at page 425 serves to illustrate this; he has been taking digitalis in 15-minim doses for fourteen months; it has occasionally been left off for some reason or other, and invariably within a week or so he gets short of breath, and the feet begin to swell. The longest time he has been without the drug is three weeks, then the pulse quickened to 100; he was very breathless and dropsical; on resuming digitalis these symptoms cleared up almost at once. He is at his best with a pulse-rate of 50–55, and this rate can only be maintained by taking the drug. He has observed this fact for himself and he regulates the amount of his medicine accordingly. I could cite many similar cases It is surprising how well most of these cases keep after a breakdown, providing they continue taking digitalis. I have several patients under observation who have passed through severe breakdown, but are able to do fairly laborious work without distress, and I am convinced from repeated trials that their well-being is entirely due to the continued use of the drug; without it they would speedily break down It is a necessary part of treatment to teach these patients how to regulate the amount of medicine in accordance with their symptoms and rate of pulse. There comes a time, however, in the course of these cases when digitalis and all other drugs are impotent. I have at present such a case under my care.

CASE III.

The patient had been the subject of mitral disease, with absolutely irregular pulse, for eighteen years to my knowledge. I have attended her in many attacks of severe failure, but until recently the response to digitalis has been prompt and complete. In December, 1909, a severe breakdown occurred, the face, lips, and extremities were very cyanosed, feet and legs much swollen, breathing continuously laboured, inspiratory crackles at both bases, liver enlarged and pulsating, heart 7 in.

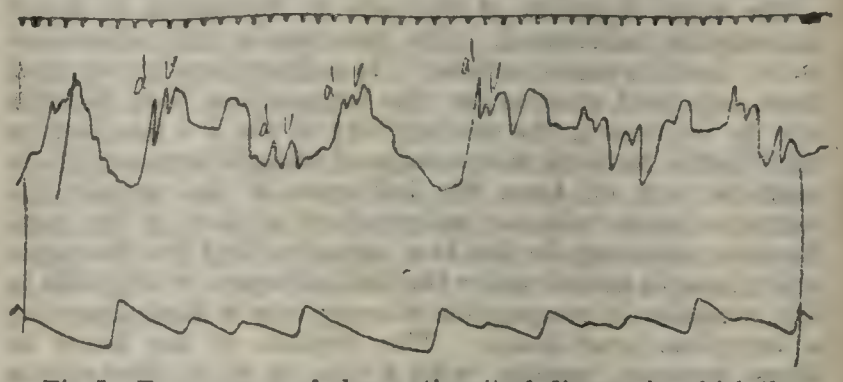

Fig 5.—From a case of rheumatic mitral disease, in which the pulse was continuously irregular for eighteen years Taken before digitalis was given, during a severe breakdown. (Case III.)

to the left, and 3 in. to the right of the middle line. The character of the pulse is shown in Fig. 5. Digitalis was given night and day for nine days in 15-minim doses four-hourly; coincidently with the slowing shown in Fig. 6 there was

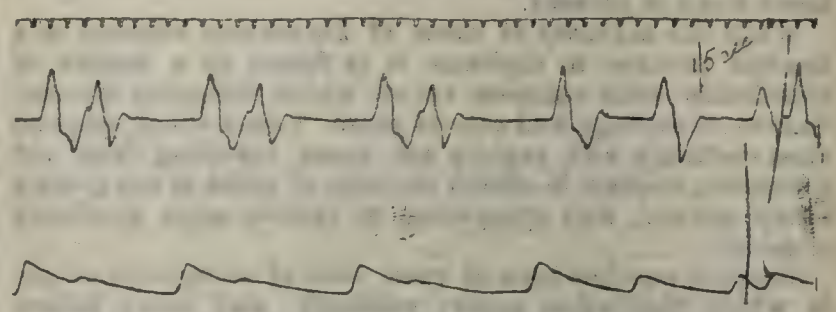

Fig. 6.—From the same case as Fig 5. Simultaneous record of apex beat and radial pulse, after tincture of digitalis 15 minims four-hourly for nine days. Pulse-rate 30 per minute; rate of heart 60 per minute. Coupled digitalis beats are shown in apex tracing, the second of the linked beats being too weak to transmit a wave to the radial artery.

marked improvement and she was soon able to go about again She continued comparatively well up to September, 1910, when severe failure again occurred; no form of treatment had any effect, the pulse kept quick and irregular, dropsy increased, and the fatal issue, three months later, was preceded by oedema of the lungs.

In the majority of cases of heart failure the onset of fibrillation is insidious, and, apart from the increasing degree of heart failure to which it inevitably leads, its occurrence is not usually marked by any special symptoms; in some cases, however, the patient suffers from temporary attacks of rapid irregular heart action which are associated with various subjective symptoms. The attacks tend to become more frequent and last longer, until ultimately permanent absolute irregularity is established. This was probably the sequence of events in the following case:

CASE IV.

A female, aged 39, first seen in December, 1909, for giddiness, vomiting, and palpitation. She has been known to me for some years as the subject of mitral stenosis, but has never had any heart trouble. She had rheumatic fever at 13 years of age; since then she has not had to keep in bed for illness. For the past month the breathing has been a little short on exertion, and she has had attacks of palpitation and giddiness, coming on and passing off quite suddenly. At times two or three attacks occur in a day, or there may be an interval of two or three days between. During the attacks she has been short of breath, and experienced an uneasy fluttering feeling at the chest; the attacks come on quite suddenly and last for about a quarter of an hour, rarely longer, and often only two or three minutes. Giddiness has been the most pronounced symptom; the attacks have lately been more frequent and lasted longer, but she has been able to do her housework as usual up to three days ago, when quite suddenly severe palpitation, giddiness, and vomiting came on, and she had to take to bed. These symptoms have continued up to the present.

*Condition.*—Cyanosis of face and lips, breathing quick, superficial veins of neck distended and pulsating; heart extremely rapid and absolutely irregular, enlarged to right and left; no thrill or friction present. Systolic mitral murmur; soreness and tenderness over the liver, which is just palpable; some

oedema of feet; temperature normal. Fig. 7 taken at this time is a tracing of radial and jugular pulses; the radial pulse shows complete irregularity, and the jugular pulse is of the ventricular type; 15 minims of tincture of digitalis were given every four hours with 20 grains of bismuth carbonate. The symptoms rapidly subsided; vomiting ceased almost at once. By the

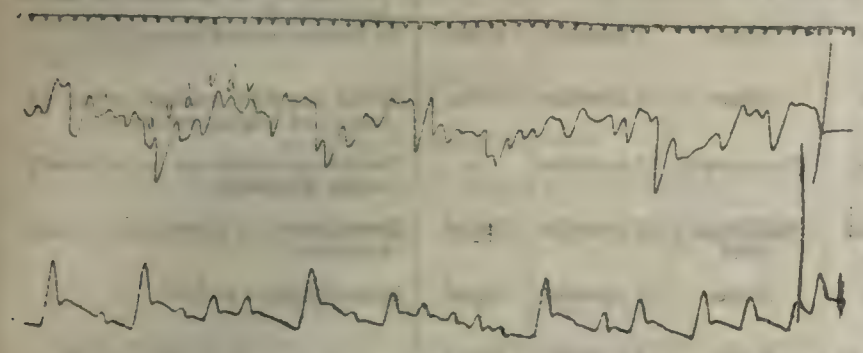

Fig. 7.—From Case IV before digitalis. The pulse is absolutely irregular; rate about 130 per minute. The jugular pulse is of ventricular form.

fourth day the patient was so much better that she was out of bed. On the sixth day the pulse had slowed to 66 per minute, and occasionally the rhythm reverted to normal (Fig. 8). At this time the patient was free from symptoms and able to get about the house without discomfort.

Digitalis was continued in 15-minim doses t.d.s. from this time up to the tenth day, when long runs of coupled

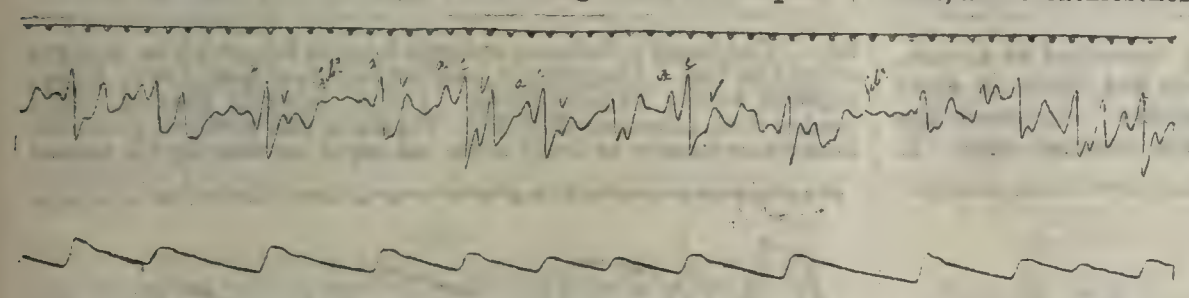

Fig. 8.—From the same case as Fig. 7 on the sixth day. Pulse-rate 66 per minute. In the middle of tracing the rhythm of the heart reverts to normal. Oscillations due to fibrillation of the auricle are shown at *fib*.

beats were present. Oscillations due to fibrillary movements of the auricle are well shown in the venous tracing during the long pauses (Figs. 9 and 10).

In cases with sudden onset of fibrillation, the pulse is invariably rapid, and the embarrassment to the circulation which results from the altered rhythm of the heart may be so great that extreme failure rapidly ensues unless the heart slows down under treatment. In rheumatic cases occurring in young people the response to digitalis is generally prompt, but when the condition occurs in people over middle age, even in rheumatic cases, reaction is uncertain. The following is a case in point:

CASE V.

Female, aged 52. History of several attacks of rheumatic fever; well-compensated double mitral disease; no heart trouble for many years. She was under my care for minor ailments on and off for three years prior to present attack, and I never detected any irregularity in the pulse. In June, 1908, she nursed her son during a serious illness; shortly afterwards she was taken quite suddenly with sickness and severe dyspnoea; the pulse was extremely rapid and irregular; within a few hours marked cyanosis ensued. In spite of treatment the heart rapidly dilated, the liver enlarged and dropsy set in, the pulse continued rapid and irregular, and death ensued on the tenth day after the onset of symptoms.

Fibrillation is present in a large proportion of patients with heart failure and dropsy resulting from arterial degeneration. No systematic observations on the effects of digitalis in cases of this kind have as yet been made except by Mackenzie, who found the drug was all but useless in the majority of patients. My experience of such cases is limited to eleven, which I have summarized in the accompanying table (p. 428).

During the time these patients were under treatment the effects of full doses of digitalis on the pulse were determined by polygraph tracings. Generally speaking, I found in those patients who came under treatment during the early stage of failure, when dilatation was slight and dropsy limited to the legs, that digitalis usually acted well for a time; the pulse slowed, breathing became easier, dropsy decreased, and in some cases quite disappeared; but inevitably the symptoms recurred within a short time, and usually in a more pronounced form, in spite of continued treatment. Again, digitalis was beneficial to a certain extent in some patients, but more often was badly tolerated; small doses readily induced vomiting, and in all cases the effect on the pulse was less marked, and more or less dropsy and breathlessness persisted under its use. This was the course in all the cases except Nos. 1, 4, and 8. Case 11 was extremely dropsical when first seen; within a fortnight, under full doses, the pulse slowed, and dropsy entirely disappeared; it soon recurred again as extensively as before, and digitalis had no effect whatever.

In Case 4 the response was prompt, and improvement has continued up to the present.

CASE VI.—*Heart Failure from Arterio sclerosis; Auricular Fibrillation; Typical Reaction to Digitalis.*

Male, aged 83 years. Always a very healthy man; for a year has been breathless on exertion; lately this has become worse, and feet have swollen. Present illness began with pain in chest, and breathlessness when out walking, he was so ill that he had to be carried home. When seen he was propped up in bed, the expression was anxious, lips and hands cyanosed; breathing very shallow—40 a minute; pulse about 120, very irregular; arteries beaded and tortuous; no apex beat to be seen or felt, heart enlarged to right and left, no murmurs heard. Troublesome cough, with copious frothy expectoration, crackles were present in both lower lobes. Feet and legs swollen, no palpable enlargement of liver. Urine high coloured and scanty. No albumen. The pulse tracing taken at this time is shown in Fig. 11. With continued inhalation of oxygen, and full doses of digitalis (20 minims every two hours for twelve doses), his condition was considerably better in twenty-four hours. The dose of digitalis was then reduced to 15 minims three times daily; on the tenth day the pulse had the characters shown in Fig. 13, and his general condition had so much improved that he was able to sit out of bed for a short time. He continued improving, and

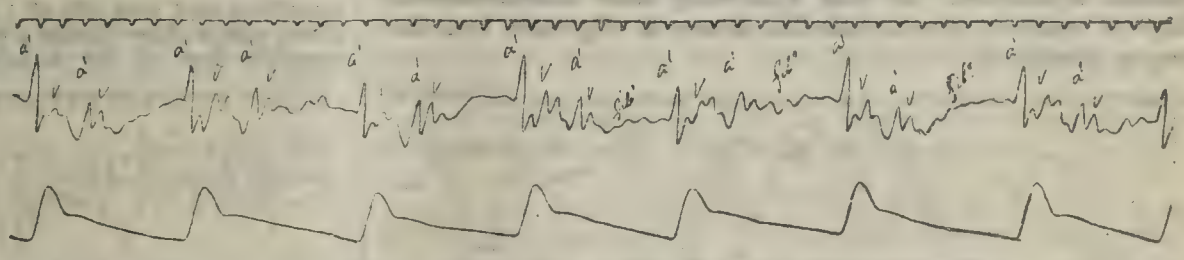

Fig. 9.—From the same case as last tracing, taken four days later. Tracing of radial and jugular pulses. The radial pulse is 41 per minute. Coupled beats are shown in the jugular curve; the oscillations (*fib*) are due to fibrillary movements of the auricle.

within a few weeks he was able to get about the house and take short walks. This patient has been under observation for sixteen months, and has taken digitalis all this time. He regulates his medicine to keep the pulse-rate about 80, and so long as this is the case his breathing is easy and there is very little dropsy. If digitalis is left off entirely for a week—which has been done occasionally to see the effect—the pulse quickens

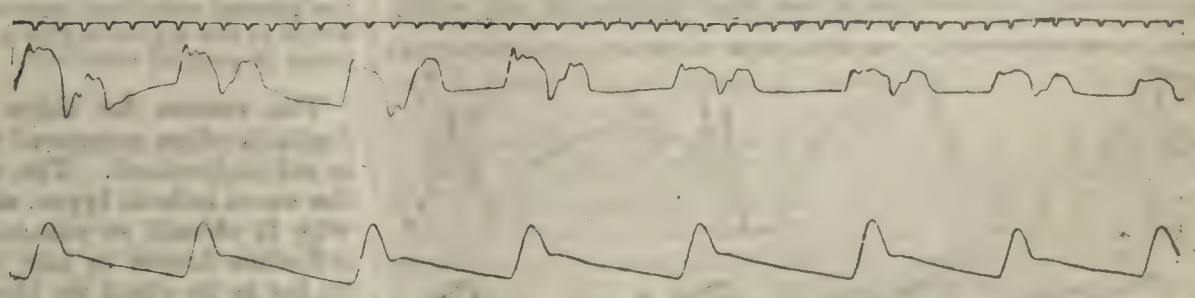

Fig. 10.—Taken at the same time as Fig. 9. Record of apex beat and radial pulse; shows characteristic coupling of heart beats from digitalis.

to over 100 and his symptoms are decidedly worse. On resuming the medicine improvement begins almost at once. For the past twelve months he has taken on the average from 15 to 30 minims of tincture of digitalis a day. My note on December 29th is, "Pulse 80, breathing easy, very slight swelling of feet; can walk quarter of a mile without distress."

| Case. | Age. | Sex. | Arteries. | Heart. | Albumen. | Dropsy. | Effect of Digitalis on Pulse. | Effect on Degree of Dropsy. | Time under Observation. | Result. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 86 | M. | Hard | Enlarged | None | Feet and legs | Marked | Decreased | 3 years | Fatal | Several breakdowns; always responded to treatment until fatal attack. |
| 2 | 69 | M. | Hard and tortuous | Enlarged | Yes | Extensive | None | None | 2 months | Fatal | No improvement occurred. |
| 3 | 81 | M. | Hard and tortuous | Enlarged | Yes | Extensive | None | None | 5 months | Fatal | Nodal rhythm ensued after an attack of angina pectoris. |
| 4 | 83 | M. | Hard | Slightly enlarged | None | Feet and legs | Marked | Disappears | 16 months | — | Condition continues satisfactory under digitalis. |
| 5 | — | F. | Normal | Enlarged | Trace | Feet and legs | Slight at first | Slight at first | 12 months | Fatal | Breathless, dropsical, and cyanosed. |
| 6 | 71 | F. | Normal for age | Enlarged | Yes | Extensive | None | None | 15 months | Fatal | Improvement at first. |
| 7 | 63 | F. | Hard and tortuous | Enlarged | Yes | Extensive | Marked at first | None | 4 months | Fatal | |
| 8 | 52 | M. | Normal | Enlarged | None | Feet | Decided | Disappears | 8 months | — | Keeps well under digitalis. |
| 9 | 61 | F. | Normal | Enlarged | None | Feet and legs | Slight | Decreased | 3 months | — | Improvement at first, symptoms recurred. Digitalis had little effect. |
| 10 | 68 | M. | Hard and tortuous | Enlarged | Yes | Feet and legs | None | None | 10 days | Fatal | Gouty subject. Sudden onset of nodal rhythm. |
| 11 | 46 | F. | Hard | Enlarged | Yes | Extensive | Marked at first | Disappeared at first | 3 months | Fatal | Marked improvement at first. Symptoms recurred. |

In the late stages digitalis is badly tolerated as a rule, and even when well borne has generally but little (if any) effect on the pulse, and none on the dropsy. At times the pulse slows somewhat, but rarely to the normal rate. If

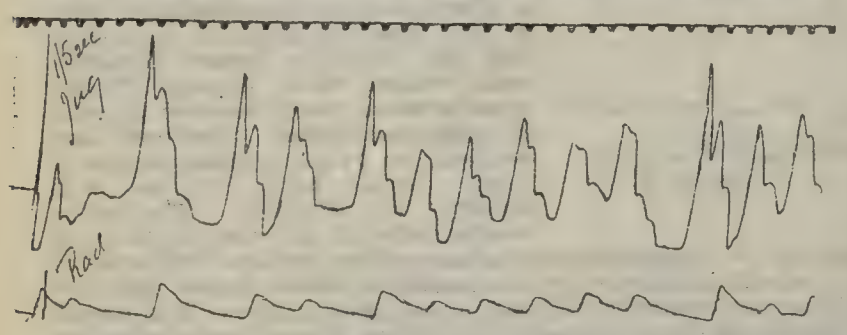

Fig. 11.—Taken from Case VI before digitalis. Pulse rate, 110 per minute.

it does so, there is no proportionate improvement in the general condition. In the following case characteristic coupled beats occurred with full doses of digitalis, but the dropsy persisted.

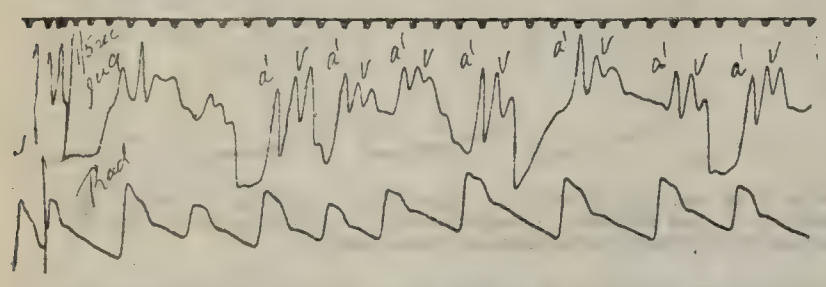

Fig. 12.—Taken from the same case as Fig. 11, on the fourth day. Pulse rate, 90 per minute.

CASE VII.—*Heart Failure in Cardio-sclerosis with Bright's Disease: Ventricular Form of Pulse.*

Female, aged 63 years. First seen February 22nd, 1910; has been more or less short of breath for some years; for the last twelve months breathlessness has been extreme on any extra

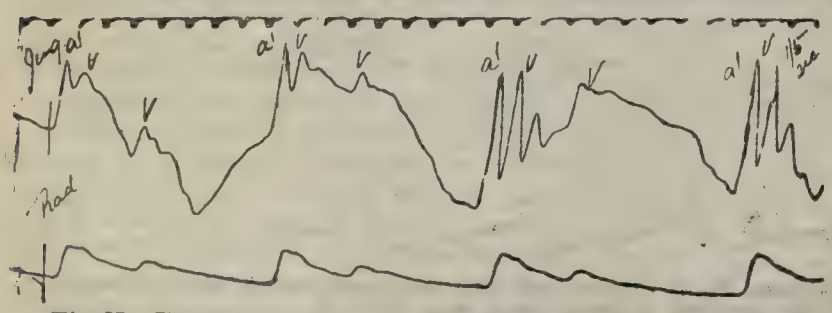

Fig. 13.—From the same case as Fig. 12 on the tenth day. Coupled digitalis beats are shown; this characteristic response to digitalis in arterio-sclerosis is very exceptional.

effort. She is now in bed and cannot lie down, breathing is very laboured, face and lips cyanosed, expression anxious, feet and legs much swollen, body dropsical. Pulse absolutely irregular, arteries hard and tortuous. No apex beat seen or felt. The heart's dullness extends 5 in. to left and 2 in. to right of middle line. Inspiratory crepitations over both lower lobes; copious frothy expectoration. Urine: specific gravity, 1020; loaded with albumen (Fig. 14). Digitalis was given in 15-minim doses four-hourly at first; after taking it for two days it caused

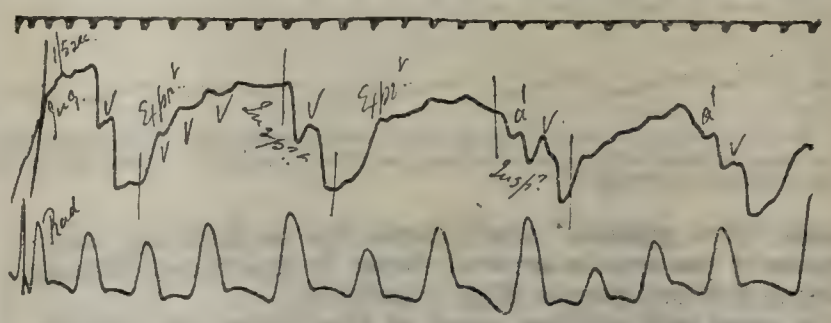

Fig. 14.—From a fatal case of heart failure from cardio-sclerosis and Bright's disease (Case VII). Before digitalis. Pulse-rate 120 per minute. The jugular pulse was obscured by the respiratory movements of the sterno-mastoid.

vomiting and was left off; after a few days the same dose was given again three times a day and was well tolerated up to the twelfth day of its administration, when vomiting ensued.

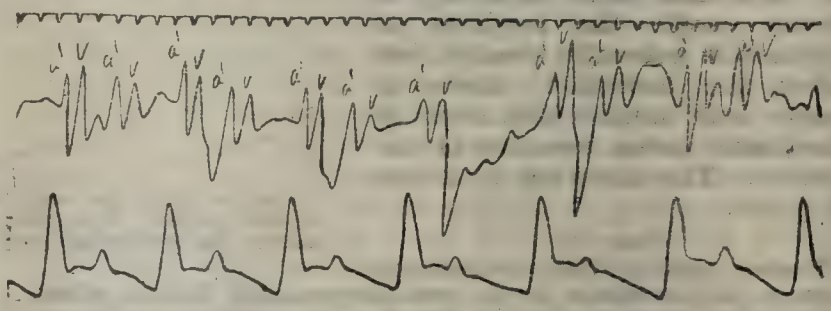

Fig. 15.—From the same case as Fig. 14. After digitalis. Shows characteristic coupling of beats.

Long runs of coupled beats were present in the pulse tracing taken at this time (Fig. 15). The breathing was easier and she could lie down comfortably, but there was no decrease in the dropsy. The patient was not seen again for some weeks, when the general condition was much the same as at first; different drugs of the digitalis group were tried without any effect on the pulse or general condition.

The reason for these discrepancies in the action of digitalis when compared with its effect in rheumatic cases is not understood. The mechanism of the irregularity is the same in both types, and no explanation suggests itself why it should so commonly fail to slow the heart and influence dropsy in one class of case and not the other. So far as its effect on the heart is concerned, the explanation is rather to be sought in the associated clinical circumstances. My impression is, that reaction to digitalis in these cases not only depends upon the extent and degree of degeneration of the heart muscle, but upon the presence or absence of associated renal disease. It is well recognized that digitalis fails to act in toxic conditions of all kinds; the reason is unknown but the fact is well established

Heart disease and Bright's disease are so intimately associated with arterial degeneration that it is often impossible to say in a given case how far the condition is cardiac or renal; the absence of response is to a great extent a measure of the renal element in the case and of value for prognosis, signifying, as a rule, that the condition is terminal.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, November 26th, 1910, p. 1670.

## TWO CASES OF DEATH FROM POST-ANAESTHETIC ACID INTOXICATION.

BY

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IT has long been known that acetone is present in the urine of patients who have been anaesthetized.

Becker, for instance, states[1] that acetone follows anaesthesia in at least two-thirds of the cases, irrespective of the nature of the anaesthetic or the duration of the anaesthesia, "and that if it be already present it is increased thereby." This has been confirmed by Abram[2] in a series of cases at the Royal Infirmary, Liverpool.

The importance of this fact has been recognized by all, though some, like Wallace and Gillespie of the Prince of Wales's Hospital, London,[3] fully appreciate the dangers and take suitable prophylactic measures.

The two cases I have to record both occurred at the Children's Infirmary, Liverpool, within a few weeks of one another.

CASE I.

The patient was a boy aged 6 years, suffering from a chronic intussuception which had been present for six days. On August 10th, 1910, at 11.30 a.m. he was given ethyl chloride, followed by ether by the open method. A right rectus incision was then made, and a large chronic intussusception found and reduced easily; there were no adhesions and practically no congestion. The abdomen was sutured in three layers.

The anaesthesia lasted about twenty-five minutes, and 3½ oz. of ether were used.

*After-progress.*

At 8 p.m. the respirations were very rapid (40), though there were no râles in the chest. He was given atropine gr. $\frac{1}{200}$ four-hourly.

At 1.30 a.m. he was worse, expiration being prolonged at both bases.

At 2.30 a.m. he vomited, so was given sod. bicarb. ʒj in ʒiij of water; this was retained, and no more vomiting took place.

At 10.0 a.m. he was much worse; pulse 160, but hardly perceptible. Cyanosed; dilated pupils; he was given oxygen and brandy. Retained salines well.

At 1.30 the same day the child was just conscious, but obviously dying; the breath smelled of acetone. Respirations 72; air hunger; pulse hardly perceptible. Cyanosis not present as oxygen was given continuously.

*Urine.*

A catheter specimen of urine was obtained and presented the following characteristics:

Light colour, slight deposit of mucus, acetone smell just perceptible, acid, sp. gr. 1028. No albumen, bile, pus, or sugar. Phosphates precipitated on boiling. Acetone present in large amount, demonstrated by both nitro-prusside and iodoform tests. Diacetic acid was present. No microscopic examination was made.

The child died before treatment could be commenced, and no *post-mortem* examination was allowed.

Both the night sister and nurse noticed that the breath had a peculiar odour, but did not report it as they "thought it due to a new kind of chloroform."

CASE II.

This was a child, aged 1 year and 10 months, with inguinal hernia.

On September 17th, 1910, at 5.30 p.m., anaesthesia was commenced with equal parts of chloroform and ether given on a Schimmelbusch mask, but the child stopped breathing twice, although he was not deeply under. Artificial respiration was necessary on both occasions. A change was made to ether by the open method, and this was borne very well.

The anaesthesia lasted about forty minutes; of C.E. mixture ʒij were used, but much was wasted; of ether ʒjss.

*After-progress.*

Had a comfortable night, and was well till 7 p.m. on the following evening, when vomiting occurred and the pulse became 180, temperature 103.2°; ? smell of acetone on breath; respirations 44. Chest normal, child very quiet. Pupils normal.

*Urine.*

Specimen of urine obtained was clear and of light colour; a large amount of white urates appeared on cooling; the urine was acid and smelt o acetone. No albumen, bile, pus, blood of sugar.

Acetone was shown in very great quantity by Legal's nitro-prusside test and Lieben's iodoform test, and diacetic acid was present.

Treatment was at once commenced as follows: (1) Rectum washed out with sod. bicarb. solution; (2) ʒj sod. bicarb. in ʒij water per rectum; (3) sod. bicarb. ʒss in water every hour by mouth.

This had no effect and the child became worse.

1.45 a.m. Much worse, respirations very rapid, pupils dilated, continuous rectal saline commenced.

4.55 a.m. Pulse much weaker, given pituitary extract miij and sod. bicarb. ʒij in one pint of water, subcutaneously.

7 a.m. Moribund, given oxygen, and pituitary repeated.

8.5 a.m. Death.

An autopsy at 2.30 the same afternoon showed the liver slightly paler than usual, but otherwise everything was normal.

REMARKS.

In neither case was the urine tested for acetone before the operation.

Since the occurrence of these cases the urine of every child in the infirmary is tested for acetone on admission by Legal's test, and if present the operation is delayed, if possible, till the acetone has been eliminated, and treatment is continued after the operation.

Wallace and Gillespie pointed out[4] that an individual deprived of carbohydrates excretes acetone and diacetic acid, but the exhibition of carbohydrates rapidly causes the disappearance of these substances. They therefore employ glucose as a prophylactic. So, acting on their suggestions, the following scheme has been instituted at the Children's Infirmary, Liverpool:

All patients admitted to surgical wards for operation (usually admitted 2.30 p.m.) have

1. Glucose, ʒj, at 4, 6, and 8 o'clock on day of admission and 4, 6, and 8 o'clock on following morning. If the child is 8 years or older ʒij are given.
2. Sod. bicarb. in the strength of ʒj to ʒiv of water instead of plain "wash-out" before operation.

If acetone is present in urine on admission,

1. Continue glucose two-hourly in daytime.
2. Give sod. bicarb. ʒj in ʒj of water two-hourly in day and four-hourly in night.

Liquid glucose is more satisfactory than the solid, and children take it well as a sweet. Sod. bicarb. solution is frequently only taken by children after a struggle.

Since the initiation of this measure no serious symptoms have developed in any patient; but the treatment has not been in force long enough to give a reliable comparison, though the post-anaesthetic vomiting has been less.

I am indebted to Mr. Dun for permission to publish the first case, and to Dr. McClellan for the second.

REFERENCES.

[1] *Deut. med. Woch.*, Leipzig, No. 19, 1895, 17 and 18, 1894. [2] *Liverpool Medico-Chirurgical Journal.* [3] *Practitioner*, February, 1910. [4] Ibid.

## RADIUM IN CANCER.

BY

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IT is now some years since the newer method of using radium, advocated by Wickham and Degrais,[1] of Paris, and others, was introduced, but as yet there are few recorded results of cases treated in this country. I have employed the method in suitable cases during the past two years, and a description of some of the more typical may be of interest.

The method differs from the older one of enclosing the radium in glass or metal tubes. Instead, pure radium in the form of sulphate is spread on a varnished surface of metal or linen, and screens of various densities are interposed between the applicator and the tissues. In this way it is claimed that a much smaller quantity of radium is required, and the amount of the radiation can be graduated and concentrated either on the surface or on the deeper parts. The best results appear to be obtained from applicators containing 2½ mg. of pure radium to each square centimetre. I have used two applicators of this strength, one measuring 4½ and the other 9 square centimetres.

In the majority of my cases the disease has been in a very advanced stage. In two only was the cancer still in an operable condition. These were very similar cases of

epithelioma of the floor of the mouth, and in one the treatment was successful; in the other it failed, and an operation was required.

CASE I.

Male, aged 54, under the care of Mr. L. A. Dunn and Dr. W. H. M. Smith of Croydon.

The history was that nine months previously an ulcer appeared below the tongue and gradually spread. Three months later the lymphatic glands behind and below the lower jaw became enlarged. Operation was advised, when it was found that the patient had glycosuria, and he was then referred to me for radium and *x*-ray treatment. When seen there was a hard nodular ulcerated surface, extending from opposite the third left molar tooth to the frenum, both sides of which were indurated. The edges of the ulcer were hard and serrated. The tongue was fixed, and, as the patient said, "He could not lick a postage stamp." There was much discharge, but little pain. A mass of involved glands was seen below and behind the jaw on the left, of the size of a small hen's egg, most prominent above the angle. In the right submental region there was a hard gland the size of a filbert, and a smaller one over the left sterno-mastoid muscle.

Radium was applied to the ulcer in two applications of one hour each on consecutive days without lead, and for eight hours with a lead screen of $\frac{1}{10}$ mm. in thickness. The glands on the left side were treated at the same time for seventy-six hours through lead screens varying from $\frac{1}{10}$ to 1 mm. In eleven days the superficial glands had shrunk sufficiently to expose a deeper layer, lying under and apparently attached to the ulcer. This was treated in a similar way. The gland on the right, which meantime had remained practically unaltered, and was certainly no smaller, was then attacked and subsided as rapidly. In six weeks all the glands had shrivelled to a size less than a pea, and, after a second course of treatment two months later, the small nodules remaining could only be found after careful search. The small sterno-mastoid gland subsided with two treatments of four hours each through $\frac{1}{10}$ mm. lead.

For the ulcer in the mouth another course of treatment was required, after which it was entirely healed and the tongue became freely movable. Now, six months later, the condition remains the same. There is no regrowth and, so far, no metastasis.

In the other case the tumour was rather larger and extended more under the tongue. The involved glands were about half the size of those in the first patient. It was treated at Guy's Hospital by Mr. Dunn and Dr. C. I. Iredell, to whom I am indebted for the opportunity of observing and recording the case.

CASE II.

J. H., a carter, aged 49, admitted October 21st, 1910. *History:* About three weeks before admission he noticed a "scab" below the tongue on the left side. There had previously been some pain in the tongue for four weeks.

On admission, there was an ulcerating ridge-like growth extending from the first right bicuspid to the first left bicuspid tooth. The tumour could be felt extending under the tongue almost to its root. The tongue was fairly movable, but its left side was considerably raised. The submaxillary glands were enlarged. Dr. Iredell applied radium, but after a few days the glands and growth became further enlarged from septic trouble. This subsided after a discharge of pus from under the tongue, and the glands became decidedly smaller. There was no appreciable improvement in the growth itself, the pain became intense and appeared to be aggravated by the treatment, and after four weeks Mr. Dunn operated.

It will be noticed that clinically the first case differed from the second only in its mode of onset. This in the one was comparatively slow and in the other rapid. I have frequently observed that it is in the slow growing cancers that radium acts best, and that the more rapid and malignant the type the less chance is there of improvement. There are, however, some exceptions to this. In the following case there was a very rapid recrudescence followed by an equally rapid regression.

CASE III.

A lady, aged 53, under the care of Mr. Dunn and Dr. Lipscomb of St. Albans. The right breast and glands were removed one year ago for a small nodule in the breast found microscopically to be carcinomatous. She was well until six weeks ago, when she complained of neuralgic pain. Dr. Lipscomb examined the chest wall and found nothing. Three weeks later a small hard lump appeared on the third right costal cartilage and grew rapidly. The pain was intense, at times preventing sleep. I saw her on October 24th, 1910. The swelling then was about the size and shape of the half of a Tangerine orange. It measured 6 cm. in diameter and was raised 4 cm. above the surrounding skin. Radium was applied for eighty hours through lead from ½ to 1 mm. in thickness. A week from the commencement the tumour was appreciably smaller. In fourteen days it was level with the skin, and within a month no swelling or thickening could be felt. The pain disappeared on the fourth day, but returned a fortnight later. It was then referred lower down to a tender thickened spot over the sixth costal cartilage. There was now also a slight enlargement of the supraclavicular glands. In November these places were similarly treated. It was arranged to give another treatment at the end of January, 1911, but in December two fresh growths appeared round the previous one on the sixth cartilage. The growth on the second cartilage also showed signs of activity. These places were again treated and subsided. The case is still under treatment.

In the more chronic cases of cancer radium may be expected to have an ameliorative effect, even when there are numerous and extensive secondary deposits. The next case, an example of a slow growing carcinoma with many relapses after operation, has been kept in check for over eighteen months.

CASE IV.

A lady, single, aged 61, a patient of Mr. L. A. Dunn and Dr. E. J. Moore of Blackheath, was first seen in August, 1908. The left breast and glands had been removed four years previously for a slow-growing carcinoma noticed by the patient some years before. The operation was followed by numerous recurrences in and about the scar and in all five operations were required. The last, for recurrence in the axilla one year ago, was followed one month later by a fresh growth in the same region. When I first saw her there were at least nine definite plaques in the scar and surrounding parts, besides some doubtful thickening of the scar tissues. The supraclavicular glands were enlarged and there was thickening over the subclavian artery.

*X*-ray treatment was given at intervals for a year with decided improvement. Some of the plaques diminished and a few disappeared. At the end of the year several places showed signs of active disease and some of the plaques in the skin increased in size and threatened to become "en cuirasse." Radium was therefore applied to the active nodules and the *x* rays continued to the rest of the chest. In all the places treated, including the supraclavicular region, there was a rapid decrease in the size. Within a month of the first application each growth shrivelled to a small, hard nodule, and now, eighteen months later, there is no regrowth.

In the places not treated by radium several fresh recurrences have appeared from time to time, the latest in December last. All of these have similarly diminished after radium treatment and remained quiescent.

The following case is in many respects an unusual type of carcinoma of the breast in which radium failed to have the slightest beneficial effect. The original growth was comparatively benign. Nine months after it was first noticed it was still small in size. For four years after excision there was no return of the disease. Then it reappeared in the supraclavicular glands and assumed a rapid and malignant form.

CASE V.

A lady, aged 54, sent to me by Dr. W. G. Thorpe of Balham. Four years ago the right breast and glands were excised by Mr. L. A. Dunn for a small nodule found microscopically to be carcinoma. The nodule in the breast had been noticed nine months before. She remained well until two months ago when the right supraclavicular glands became enlarged and were removed. These were found to be melanotic. When I saw her a definite thickening, but no individual glands, could be felt in the supraclavicular region. *X* rays three times a week and radium for 120 hours through lead 1 mm. in thickness were applied. The growth slowly and steadily increased, and therefore after two months the case was referred for further operation.

The supraclavicular tumour was excised and the patient was sent to me four months later for further treatment. There was then a large flattened mass in the axilla below the original scar and a small hard lump in the apex of the armpit. The arm was much swollen and the pain severe. Radium was used and the lower growth was at first retarded. The upper small growth, in spite of large doses, rapidly increased. To it radium, through screens of all thicknesses—from lint to lead of 2 mm.—was applied. The crossfire method from in front, behind, and below was also tried without any benefit. In all, this growth alone had over 500 hours' treatment. The disease latterly appeared to be aggravated by the radium; the pain became more intense and the treatment was therefore discontinued. Dr. Thorpe tells me that soon afterwards extensive ulceration occurred, with fresh growths in the scar and supraclavicular region and metastasis in the liver and stomach.

My remaining cases have all been extensive growths in an advanced stage, frequently with ulceration and much involvement of glands. In the majority of these, including inoperable carcinoma of the cervix uteri and rectum and extensive epithelioma of the jaw, there has been decided temporary improvement. As a rule, the discharge and haemorrhage ceases, the pain is relieved, and often there is some decrease in size.

The following is an example of an old-standing atrophic carcinoma:

CASE VI.

A lady, aged 66, sent to me by Mr. C. J. Symonds. *History:* The patient noticed a lump in her left breast about ten years ago. This gradually increased in size, and after six years an ulcer formed and spread. She kept her trouble to herself, although she thought it was cancer, because she had seen many cases and all had returned after operation. A year ago the discharge and bleeding forced her to consult a medical man, and ultimately, after much persuasion, Dr. Harrison of Braintree induced her to have a trial course of treatment.

When I saw her the breast was atrophied and the nipple had disappeared. There was a large sloughing nodular ulcer with irregular edges, measuring 8 by 5 cm., over the breast. Numerous hard lumps above and below were present, with enlarged glands in the axilla and supraclavicular region. Radium was applied without lead to the ulcer, and through 1 mm. lead all over for about forty-eight hours. This relieved the pain, and the discharge and haemorrhage, which had been profuse, nearly ceased. The improvement was so great that a month later the patient herself asked for a further course of treatment. By then the nodules on the ulcer had almost entirely disappeared, the surface was clean, and it was 1 cm. in diameter smaller. New skin had commenced to grow round the edges. The surrounding growths and glands had also diminished. Unfortunately, during the second course of treatment an acute attack of pleurisy, probably of a septic nature, set in, and she died after a three days' illness. The last two months of her life, however, were at least made tolerable.

In the treatment of these cases I have followed the originators of the method in using lead screens. Recently for growths in or immediately under the skin I have employed another method which I think acts as well and saves valuable time. It consists in placing the applicator either without lead or with a thin lead screen, at some distance, ½ in. or more, away from the skin. As the rays are divergent a much larger area, about four times the size of the applicator itself, can now be irradiated by the more penetrating and effective of the rays, the softer and skin-damaging rays being cut off by the air space and layers of lint or cotton-wool. In deeply-seated growths the radium must be placed on the skin, if it is intact, so as to be as near to the tumour as possible, and the skin must then be protected by lead, 2 or 3 mm. thick, to prevent damage from the prolonged exposures required. In these cases, however, there is no doubt that much better results are obtained by burying the radium in the substance of the tumour. I have found no benefit result in the few cases in which radium emanations have been employed, or in which radium bromide has been given internally. In all my cases *x* rays have been applied to the surrounding parts in addition to the radium treatments.

There is no doubt that some varieties of cancer are much more responsive to radium than others. With few exceptions it is in the slow-growing cases that it acts best, and in which a diminution in size may be expected. Unfortunately we have no statistics of the number of cases in which it fails. That failure occurs not infrequently even in those treated on the Continent with large quantities of radium is well known. We know also that it does not always cure the comparatively benign rodent ulcer or prevent its recurrence. I have seen a rodent reappear as late as three years after its apparent cure by radium. As my earliest successful case of cancer was treated only eighteen months ago, it is too soon to speak of the ultimate result. Recently Nahmmacher[2] reported a case of carcinoma with no recurrence as late as three years after radium treatment.

At present the position of radium-therapy seems to be that while it is of undoubted value in many cases, its chief function is in aiding and not in excluding the other recognized methods of treatment. Until it can be proved that relapse and metastasis are not more common after regression from radium than after excision, the method must be reserved for those cases in which operation is contraindicated and for recurrences.

Apart from the question of the curative effect of radium, there is one point of practical importance which deserves attention. It is that in the cases in which radium acts beneficially it acts at once. Within fourteen days of the beginning of the treatment an unquestionable diminution in size will be found in all cases in which radium is able to exert a regressive effect. Occasionally this decrease is seen as early as the third or fourth day. If no improvement is apparent in this time further treatment is useless, except, perhaps, for its palliative effect.

There appears to be no other certain means of foretelling in the individual case the result of radium treatment, and I have found this test application very useful in determining the advisability of a prolonged and necessarily expensive course of treatment. It will be of still greater value, if radium fulfils expectations and its results are found to be permanent, in deciding the question of operation.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, August 21st, 1909, p. 444 [2] *Wien. med. Klin.*, No. 32, 1910.

# CURATIVE INFLUENCE OF ROENTGEN RAYS IN MALARIA.

BY

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AND

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THE influence of the Roentgen rays in changing the pathological conditions in certain diseases (such as leucocythaemia and lupus) gave one of us the idea that the application of *x* rays over the spleen should have some beneficial effect in cases of malarial fever, where one of the most distressing symptoms is the pain caused by engorgement of the spleen. It was thought that the rays might have some action upon the malaria parasite either directly on the parasite or indirectly by causing changes within the blood which should destroy the parasite.

It seemed not unlikely that the blood changes which are known to be induced within the body after exposure to *x* rays would stimulate the leucocytes to destroy the parasite, or that the altered serum would act in such a manner as to make the continued action of the parasite impossible.

The effect of heat applied over the splenic area in relieving the pain attendant upon an attack of malarial fever gave the idea that *x* rays also might have a therapeutic action as the immediate effect of their similar application.

That these conjectures were not without base is evidenced by the following cases:

### A. *Cases of Malarial Fevers.*

CASE I.—Lance-Corporal S., 1st Royal Munster Fusiliers, admitted with a temperature of 104°; B. T.; spleen slightly enlarged and tender. For two days morning temperature rose to 104°. Had quinine by the mouth with no result; exposure five minutes. Temperature dropped to 97° with no subsequent rise, and the pain and tumour disappeared.

CASE II.—Private H., 91st Battery, R.F.A.; B. T.; temperature on admission 104°; some enlargement of spleen with tenderness in the region. No quinine. Exposure five minutes. Temperature became subnormal, pain and tumour disappeared, no subsequent rise.

CASE III.—Gunner W., 91st Battery R.F.A.; B. T. On admission temperature was 104°. He was put on quinine by the mouth. Temperature rose to 104° next day, and on the next to 104.4°. His spleen was slightly enlarged and tender on pressure, which persisted. Exposure five minutes on third morning. Temperature dropped to subnormal, and pain and enlargement disappeared.

CASE IV.—Lance-Corporal P., 2nd North Stafford Regiment; B. T. On admission temperature 103°; the spleen was enlarged 2 in. below costal margin, and painful. Exposure five minutes. The pain was relieved immediately, and the enlargement was lessened; temperature dropped to subnormal. The next morning there was a slight rise of temperature. Exposure three minutes. Enlargement of spleen disappeared totally, and temperature dropped to normal. No further rise. Convalescent. No quinine.

CASE V.—Sergeant H., 1st Royal Warwick Regiment; B. T.; admitted having had ague the day before. Temperature normal. Spleen enlarged 2 in. below costal margin; very painful. Exposure five minutes. The enlargement and pain disappeared and temperature remained normal without any further rise. No return of pain. Convalescent. No quinine.

### B. *Cases of "Peshawar" Fever.*

CASE VI.—Gunner B., 86th Battery, Royal Garrison Artillery; B.T.; admitted collapsed. Haemorrhage from the bowels; temperature normal; spleen not enlarged. Exposure five minutes. No return of haemorrhage; temperature remains about 98°. No quinine.

CASE VII.—Private McS., 1st Royal Munster Fusiliers; B.T.; admitted in collapsed condition. Haemorrhage from bowel; temperature 99°. Exposure five minutes. No return of haemorrhage. On the second day the temperature rose to 101°. Given exposure of three minutes every day. On the fourth day temperature normal, with no haemorrhage during this time. No quinine.

### C. *Malaria with Cerebral Symptoms.*

CASE VIII.—Private K., 1st Royal Munster Fusiliers, admitted with B.T.; temperature 104·8°; collapsed. No haemorrhage, no enlargement of spleen; mental type. Had one injection of quinine on second morning, and quinine by the mouth on the third and fourth. No satisfactory results; temperature still remained high, and the mental symptoms persisted. Exposure of five minutes on morning of fifth day. Temperature became normal, pulse improved, patient became brighter. No further rise of temperature.

D. *Miscellaneous.*

CASE IX.—Sergeant C., 1st Royal Munster Fusiliers; second admission for M. T.; temperature 103°. Quinine given at first and discontinued when spleen was found enlarged 2 in. below costal margin; hard on palpation, with well-defined border; painful. Exposure five minutes on two consecutive days. Result: Immediate relief of pain and disappearance of enlargement; temperature dropped to subnormal after second day; no further rise in temperature; convalescent.

CASE X.—Gunner P., 91st Battery R. F. A.; admitted with B. T.; temperature 100°. Complaining of dragging pain in the splenic region; spleen enlarged below costal margin. Exposure three minutes. Immediate relief of pain; disappearance of splenic tumour; temperature dropped to subnormal, no further rise; convalescent.

CASE XI.—Bombardier L., 91st Battery R. F. A.; admitted with B. T.; temperature 100°. Complained of dragging pain in region of spleen; spleen enlarged 1 in. below costal margin. Exposure three minutes; relief of pain; disappearance of splenic tumour; temperature dropped to subnormal, no further rise; convalescent

REMARKS.

Our experience has been that the application of *x* rays in cases of malarial fever relieves splenic pain and reduces recent engorgement; that the temperature falls and does not usually rise again; and that recovery is not attended by the anaemia usually present in cases treated with quinine. We have not had to fall back upon quinine in cases treated by the *x* rays, while we have had cases which resisted quinine and yielded promptly to the rays (quinine being discontinued).

We have 5 cases (natives) of chronic induration of spleen (malarial) under treatment, but the progress made has not been sufficiently marked to enable us to make any definite statement as to the special value of *x* rays in such cases. But we are so impressed with the results in malarial fever cases that we have prepared this record in the hope that our experiences may be obtained by others, and on a more extended scale.

## THYROID EXTRACT IN CARCINOMA.

BY

E. HUGHES JONES, M.D.,

RHYL.

ALTHOUGH organo-therapy in some form or another has existed from most ancient times, even amongst savages, the method as at present practised is of recent origin, and of all extracts thyroid gland is still the most successfully used, and for certain conditions, such as myxoedema and certain forms of goître, a specific, even more so than potassium iodide for syphilis or the salicylates for rheumatism. There are many other conditions in which the gland has been more or less successfully employed, though perhaps without definite specific action—for instance, oedema, psoriasis, uterine fibroid, some forms of retarded development in children, and many other cases associated with defective metabolic processes—which is well illustrated by the following most striking case of multiple carcinoma of the skin and subcutaneous tissue. I am aware that this is only a single instance, but the result was so gratifying that a record of the notes of the case may prove interesting.

The patient, a widow aged 61, gave the following history: In November, 1899, she had a large pimple in the right axilla, and at the same time two nodules below the skin on the left side of the chest in the axillary line. The latter seem to have disappeared after the application of some ointment. The lump under the right axilla, however, continued to grow, until it attained the size of an ordinary marble, of a dark purple colour, and at times this was very painful. At this period the general health remained good, apart from an occasional feeling of extreme cold associated with a greenish pallor of the face. The lump under the right axilla became so large and painful that in June, 1900, she went to see Mr. Robert Jones, of Liverpool, who advised immediate operation. This was done. In October of the same year she again consulted him for a growth under her left breast. She was urged to go again in a fortnight, to have this also removed, but, as in the meantime another growth occurred in the left side of the upper part of the abdomen, the patient was discouraged and did not go. During the months that followed several other fresh growths appeared under the skin, two on the right side of the chest, one on the front of the chest above the breast, two on the left side of the chest, and last of all one under the right armpit. This made eight growths in all, varying in size from a walnut to a Tangerine orange.

By this time her general health was suffering severely. I saw her in June, 1901, and found the growths as above described. The growth in the right axilla was the largest of all, fixed and painful, and was the size of a tennis ball; it prevented the arm from being brought to the side, and had recurred at the site of the scar of the previous operation performed by Mr. Robert Jones (in June, 1900). The other growths were smaller, about the size of filberts and walnuts. They were not painful, but were tender on pressure and hard to the touch, and seemed characteristic of scirrhous cancer.

The larger growth (axillary) was to all appearances not far from ulceration and breaking down. The patient appeared to be very anaemic, having a sallow greenish-yellow colour; her pulse and respiration were quickened, and her temperature varied from about 99° to 101°. Sickness was frequent; the appetite was very poor—she was scarcely able to retain anything. The patient had lost 3 st. in weight.

As she had been operated on twelve months previously, with the unfortunate result mentioned, and owing to the dissemination of the growth and her feeble state of health, it was useless to suggest further operative interference, so I decided to try the effect of thyroid medication. Owing to her enfeebled state of health I administered tabloids of thyroid gland with extreme caution, starting with grains v daily, gradually increasing the dose to grains x, and finally to grains xv daily.

To my surprise the patient quickly showed signs of improvement; the palpitation, sickness, and emaciation gradually disappeared *pari passu* with the gradual disappearance of the growths. At the end of August, 1901, the growths had entirely disappeared, the patient was practically well and had recovered her lost weight of 3 st., and up to the present date is quite well, not having suffered in any way from them since. I was so gratified with this result that I almost doubted the nature of these growths, so I wrote to Mr. Robert Jones of Liverpool, in December, 1903, for his opinion of the growth he had removed in 1900. The following is his answer to my inquiry:

It was unquestionably a carcinoma, although I cannot quite recollect any of the pathological details. It was examined by a couple of men besides myself. Some time later there seemed to be a recurrence of the growth trouble, and I recommended removal of the lump. However, she would not agree to that, and I have often wondered what happened to it. This was some years ago; can you let me know in what spot the growth has recurred? Is it in the neighbourhood of the scar, which you will find in the fold of the axilla, or is it in the breast tissue?

After reviewing the results of thyroid administration obtained by other observers, much less after the result in the case I have just recorded, any impartial observer must conclude that thyroid organo-therapy cannot in any sense supersede the well-recognized methods of surgical procedure in operable carcinoma. The free removal of the growth during the operable stage must stand as the soundest and most hopeful measure of curative treatment. When, however, complete radical treatment is out of the question, and when operative measures are refused by the patient, even in the operable stage, thyroid administration offers some hope of checking the rapidity of the growth, favouring spontaneous cure, and possibly achieving the slow but absolute disappearance of the growth.

There are now on record a number of well-authenticated cases of carcinoma, in addition to my own case, which have to all appearance entirely disappeared under the administration of thyroid extract. Their numbers are not great, but they are sufficiently striking to lead me to conclude that the association of thyroid administration with the cure is more than a mere coincidence.

A still larger number of cases of carcinoma have been recorded where thyroid administration was followed by disappearance of secondary nodules, increase of weight, loss of pain, and other signs of marked local and general improvement, but not complete cure of the growth. In these cases treated by thyroid there appeared to be established a negative phase of growth in the neoplasm, during which the nodules or mass ceased to grow—or retrogressed—and in many cases underwent a spontaneous cure.

Many of the cases which were thus favourably influenced by organo-therapy had double oöphorectomy performed previous to the administration of this animal extract. Double oöphorectomy found its great advocate in Beatson, and was applied particularly to women below the menopause. Beatson, supported by other observers, such as Herman, Stiles, Chicken, McAdam Eccles, and

others, advocated oöphorectomy with subsequent thyroid administration as a justifiable procedure to recommend to patients short of the climacteric who were suffering from inoperable carcinoma, particularly of the breast.

It was found by almost all observers that after the menopause there was little or no advantage in performing double oöphorectomy, simply because the ovaries had ceased their active sexual life and ceased to influence the metabolism, and more particularly the proliferating properties of cells of the body.

The case I have just recorded is an example of carcinoma arising after the menopause, and was treated after recurrence of the growth, following operation, by thyroid treatment alone. All the observers—such as Beatson, Herman, and Stanley Boyd—who have employed cöphorectomy combined with thyroid extract are agreed that the results are much better in the combined treatment than where cöphorectomy is employed alone.

In Mr. Stanley Boyd's series of 40 collected cases of cancer of the breast treated by oöphorectomy, or by cöphorectomy and thyroid extract combined, the value of thyroid extract was strikingly exhibited in the 17 cases of this series which were favourably influenced by cöphorectomy (in at least 12 of them this was combined with thyroid administration), whereas in the remaining 23 cases which appeared to derive little benefit from cöphorectomy, thyroid extract was given in only 5 or possibly 6 of the cases.

This would appear to show that the thyroid administration had an important beneficial influence upon the cancerous growth. It must at once be admitted that thyroid extract has given the best results in cancer of breast.

In cancer of the viscera, such as intestine and uterus, it has so far given few, if any, results comparable to its successes in the inoperable cancers of the mammary gland. Nearly all observers are agreed that in cases where visceral metastases already exist thyroid extract, combined or not with oöphorectomy, has little or no influence upon the disease. The kind of case most suitable for thyroid treatment, as urged by Beatson and others, is where secondary growths occur only in the skin and lymphatic glands, but where visceral growths are absent.

Before attempting to explain something of the *modus operandi* of thyroid administration in carcinoma, I would like to refer to a number of cases of cancer which have apparently disappeared under the treatment of oöphorectomy and thyroid treatment, references to which will be appended.

1. The author's case.[1] Cancer of axilla, recurrence after operation with secondary nodules; duration of growth two and a half years; freedom from growth after thyroid treatment alone for eleven years.
2. Stanley Boyd's case.[2] Cancer of breast, secondary nodules, lymphatic glands; duration of disease eight years; freedom from disease three and a half years after oöphorectomy.
3. Herman's case.[3] Cancer of breast, recurrent secondary nodules after operation, axillary glands; duration of disease nine years; freedom from disease after oöphorectomy and thyroid treatment three and a half years.
4. Cheyne's case.[4] Cancer of breast, removed by operation, recurrence in axilla; duration of disease five years; oöphorectomy and thyroid treatment; apparently free from glands twelve months after.
5. Waterhouse's case.[5] Cancer of breast, breast removed, recurrence in axillary and supraclavicular glands; duration of disease three and a quarter years; oöphorectomy and thyroid administration; disappearance of glands in four months and remains apparently well for eight months.
6. Beatson's case.[6] Cancer of breast, recurrence in glands; duration of disease five years; oöphorectomy and thyroid administration; freedom from disease for two years.
7 and 8. Cheyne's two cases[7] of cancer of the thyroid gland.

Writing to me on April 20th, 1909, Sir William Watson Cheyne says:

> I have not written anything on the matter you speak of, but I did mention to Bashford two cases which, I feel sure, were malignant disease of the thyroid which got well after administration of thyroid extract.

It will thus be seen that, in all these recorded cases of apparent cure of cancer, thyroid extract was administered in all except Stanley Boyd's case. In three of them, the author's case and in Sir William Watson Cheyne's two cases of cancer of the thyroid gland, thyroid organo-therapy was used alone. These facts, together with the still larger number of cases in which the growth was undoubtedly favourably modified and partially arrested by cöphorectomy and thyroid administration, compel one to the conclusion that in this form of organo-therapy we have a valuable means of treatment of cancer. In no sense can it be regarded as specific, but that it favourably influences the cancerous growth and enables the tissues to bring about a partial, and in some cases a complete, spontaneous cure, is highly probable. It must of course be understood that the author does not in any sense seek to supplant the well-recognized methods of radical removal by operation where this is possible. It would appear to be applicable to cases of inoperable carcinoma or recurrent cases of a limited extent.

I should, further, be prepared to advise thyroid administration as an adjunct to operative measures in operable carcinoma, hoping by such administration to prevent recurrence, and to enable the tissues to deal with minute foci of cancer which have escaped radical removal by surgical treatment.

The *modus operandi* of thyroid organo-therapy in carcinoma is a matter of pure speculation. Physiologists, however, have evolved so much of the action of thyroid secretion upon body metabolism that it is possible to suggest a plausible theory as to how this internal secretion or the administration of its animal extract by the mouth does influence the cellular growth of malignant disease.

Before attempting this I would like to refer to some of the facts concerning the life-history of cancer cells and their spontaneous disappearance which have been brought to our notice by Bashford, Handley, Bonney, and others.

There is now on record abundant clinical and experimental proof of the spontaneous cure of cancer. The clinical evidence is forthcoming in the authentic cases of complete spontaneous cure of mammary cancer published by Pearce Gould[8] and Mackay,[9] as well as the cases previously mentioned. Further support is given of this in the healing of cancerous ulcers, as shown by Pearce Gould in 1900; the occasional healing of fractures of bone due to cancerous growths; the disappearance of spinal metastases, as shown by Osler[10]; and the shrinkage of atrophic scirrhus. Careful observation has been made upon secondary nodules of the skin and it has now been proved beyond all doubt that many of these entirely disappear.

On the experimental side, Bashford and Murray,[11] at the Imperial Cancer Research Laboratories, have demonstrated clearly that spontaneous disappearance of cancer masses is by no means a rare occurrence in mice after artificial propagation. They have observed tumours at first manifesting rapid growth followed by cessation of growth and frequently by complete absorption.

Handley,[12] in a recent paper dealing with spontaneous cure of cancer in the human subject, enunciates the following law concerning cancerous growth:

> Every aggregation of carcinoma cells has a definite life-cycle, and, after increasing in size for a varying period and at a varying rate, tends spontaneously to undergo degenerative and fibrotic changes. These changes extend from the centre of the mass centrifugally to its periphery, lead to its shrinkage, and terminate in the replacement of the aggregation of cancer cells by a fibrous scar.

In other words, the natural history of a cancer is one of centrifugal growth followed by centrifugal death.

This law, of course, is difficult of proof clinically, because, in the majority of cases, death of the patient takes place before the full life cycle of the cancer mass is complete. What is quite certain, however, is that the spontaneous cure of cancer is a local process and not a constitutional one. In this respect it resembles tubercle. In cancer, the natural cure beginning in the centre of the growth, rarely overtakes the centrifugal spread of the growth at the margin, although, in certain rare cases, the central degeneration and fibrosis is so rapid that it strangles the growing edge and leaves but a scar behind.

Bashford and Murray, in the experimental inoculation of cancer in mice, have made observations upon the life-history of cancer masses which are very much in accord with those of clinical observers. They have demonstrated remarkable fluctuations in the rate of growth of cancer masses, sudden exacerbations of rapid growth being followed by sudden cessations of growth to which they have given the names of positive and negative phase.

These fluctuations are probably due to one of two causes, namely, either to variation of suitability of the soil in which the cancer cells are growing, or to variations inherent within the cancer cells.

Both Handley and Bashford, the one working clinically and the other experimentally, have proved that cancer cells are obligatory parasites, and that they are dependent for their life upon the connective tissue cells in which they lie.

The rate of spread of the cancer is dependent partly upon the suitability of the soil or connective tissue just external to its advancing margin, and partly upon the inherent properties of cell proliferation within the cancer cells.

Victor Bonney,[18] in his Hunterian Lecture, established a new important fact bearing upon the origin of cancer. It was that a local increase in the cellularity of the subepithelial connective tissues, accompanied also by a destruction of the elastic tissue, invariably precedes the appearance of carcinoma. This increased cellularity is due to a precedent chronic inflammation. If the chronic inflammation has progressed farther and has reached the stage of fibrosis and diminished cellularity, he finds that there is little risk of a carcinoma originating in the fibrosed area. The same increased cellularity of the connective tissue is seen at the margin of a growing cancer. It is therefore obvious that, as a cancer cell is but a parasite on the connective-tissue cell, any abnormal aggregation of the connective-tissue cells will only act as a body of hosts or caterers to the cancer cells, and therefore favour their growth.

Therefore, if by any means the proliferating, highly cellular connective tissue at the margin of the cancer mass can be converted into a fibrotic area, the rapidity of the cancer invasion is arrested and a negative phase of growth is obtained.

The above are a few of the facts known to us which govern the growth of cancerous masses. Handley has shown that fibrosis around cancerous masses does take place, not only in the connective tissue around the growth, but also in the lymphatic vessels leading away from it, and in this way the cancerous invasion is arrested.

Is there anything in these facts which can throw any light upon the probable action of thyroid extract in favouring the spontaneous cure of cancer in the human subject?

Physiologists have shown that thyroid secretion has a powerful action upon proteid katabolism as shown by increased nitrogenous excretion and loss of body weight. They have further shown that it lowers the blood pressure, causing increased circulation of lymph. This increased lymph circulation renders the blood more watery, and causes dehydration of the tissues.

These two physiological actions appear to me to offer some explanation of the beneficial action of thyroid extract in certain cases of cancer. The increased proteid katabolism might act in two ways. In the first place, it would shorten the life-history of the cancer cells by stimulating katabolic processes in them, and thereby favour degenerative processes and fibrosis of the central mass of the growth. In the second place, its influence upon the connective tissue immediately adjacent to the cancer focus is probably still more important. By its stimulation of proteid metabolism within the connective tissue cells, its acceleration of lymph flow and dehydration of the tissue, it would modify the increased cellularity of the subcancerous zone of connective tissue which, according to Bonney, is so favourable to cancerous invasion, by converting it into fibrotic connective tissue, and thereby arrest the centrifugal growth of the growing edge. By this dual action of quickened life-cycle of the cancer cells and fibrosis of the connective tissue around, a negative phase of the growth is obtained.

So much stress was laid by Handley and others upon the fortification of the soil, as represented by the connective tissue upon which the parasitic cancer cells depend for their nourishment, that they strongly advised that every attention should be paid to the general health of the individual; for example, they advocate open-air treatment and forced feeding as in tuberculosis, in order to give the tissues every chance of overcoming the cancer nodules.

In some such manner the administration of thyroid extract may favourably influence carcinoma, and help to bring about spontaneous cure.

REFERENCES.
[1] BRITISH MEDICAL JOURNAL, 1901, p. 1145. [2] Ibid., 1900, p. 1162. [3] Ibid., 1900, p. 1167. [4] Ibid., 1900, p. 1162. [5] Ibid. [6] *Lancet*, 1897, p. 884. [7] Private letter. [8] *Clin. Soc. Trans.*, vol. xxxii, p. 272. [9] BRITISH MEDICAL JOURNAL, July 20th, 1907. [10] Ibid., January 6th, 1906. [11] *Science Progress*, Study of Cancer, No. 5, July, 1907. [12] BRITISH MEDICAL JOURNAL, March 6th, 1909, p. 582. [13] *Lancet*, 1908.

## A NOTE ON "SENSORY TETANY," "VASOMOTOR TETANY," ACROPARAESTHESIA, AND RAYNAUD'S SYMPTOMS.

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IT must be admitted that the groups of symptoms described as tetany, acroparaesthesia, and Raynaud's disease overlap each other, and that cases occur in which one symptom-group becomes merged with one or both of the others. Tetany may be preceded or accompanied (or, in mild attacks, replaced) by numbness and tingling in the hands and feet (acroparaesthesia), and the motor symptoms of tetany may, I think, be regarded as the motor analogue of the sensory symptoms described as acroparaesthesia, and of the vasomotor phenomena known as Raynaud's disease. The latter symptom-group, according to this view, might almost be termed "vasomotor tetany," just as acroparaesthesia might be termed "sensory tetany." All these symptom-groups (or "clinical syndromes") seem to a great extent to resemble each other in regard to their etiology, as far, at least, as any causes have been recognized. Is it not possible that they are different manifestations of the same morbid states, the difference in the manifestation being due to age, sex, and individual peculiarities (idiosyncrasy) of the patient?

Thus, exposure to cold, a notorious exciting cause of Raynaud's phenomena and of acroparaesthesia, is likewise an occasional exciting cause of tetany. Conditions of malnutrition connected with rickets, diarrhoea (gastro-intestinal affections), and infectious diseases, are generally acknowledged to be causes of tetany in children. Malnutrition appears to favour conditions resembling Raynaud's disease in children and young adults. Congenital or acquired syphilis, malaria, and various infections often play a part in the production of Raynaud's phenomena both in adults and children. Operative removal of the thyroid gland (with the parathyroids) is a cause of (artificial) tetany, and it is probable that some temporary insufficiency of internal secretions plays a part in the "acrocyanosis" of young ("overgrown") subjects and in acroparaesthesia in elderly persons. Auto-intoxication of intestinal or gastric origin has probably an important share in the etiology, not only of tetany but likewise of acroparaesthesia and Raynaud's symptoms. A kind of auto-intoxication due to dilatation of the stomach is a well-recognized cause of tetany in adults, and F. Langmead has described cases of chronic intermittent or relapsing tetany in children associated with dilatation of the colon.*

To this latter point I wish specially to allude. Atonic dilatation of the colon is not rare in elderly persons with chronic constipation or with large, unformed, and infrequent stools of the "cloacal" kind. Do such persons suffer from symptoms in any way analogous to the chronic or intermittent tetany, described by Langmead, in children with dilatation of the colon? Probably these persons not rarely suffer from numbness, tingling, "pins and needles," sensations of heat, etc., in the hands (fingers) and feet, in fact from acroparaesthesia, which in such cases might perhaps justly be called mild chronic intermittent "sensory tetany."

* F. Langmead, *Trans. Clin. Soc. of London*, 1906, vol. xxxix, p. 48; also *Proc. Roy. Soc. Med.* (Section for Disease in Children), 1909, vol. ii, p. 218. This chronic tetany is apparently not met with in cases of congenital dilatation of the colon of the Hirschsprung type (megalocolon), nor in cases of so-called "intestinal infantilism." I think, by the way, that I have once seen a very severe tremulous spastic condition of the extremities allied to acute tetany in a fatal case of acute or subacute ulcerative colitis in an adult.

I wish to suggest that the motor, sensory, and vasomotor disorders of the extremities to which I have alluded are symptom-groups, which clinically overlap, and etiologically more than overlap, one another; that possibly the causes (as yet very imperfectly known) of these different symptom-groups are similar in kind, the difference in the manifestations being due to age, sex, individual peculiarities, and intensity of exciting action. The motor phenomena occur especially in early childhood and in females of the child-bearing period, the sensory phenomena in middle and old age, and the vasomotor phenomena in later childhood and the first half of adult life.

# The Lettsomian Lectures

ON

## A REVIEW OF THE OPERATIONS FOR STONE IN THE MALE BLADDER.

Delivered before the Medical Society of London.

BY

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### LECTURE II.

Mr. President and Gentlemen,—From Frère Jaques we now turn to Joannes Jacobus Raw, who became the most famous lithotomist in his day. He was born in 1668, and at the age of 14 was apprenticed to a surgeon in Strassburg, where he lived three years. At the end of that time he appears to have been cast off by his parents, and to have in consequence known the pinch of poverty. For some years he travelled about Germany, Norway, Holland, and Spain. Unlike most men of those times, he hoarded what wages he earned, and after a time went to Leyden and commenced the study of medicine in the medical school. Then he visited Paris, and studied anatomy and surgery under the best masters, coming under the influence of Du Verney, Méry, Petit, and Maréchal. He next returned to Amsterdam, where he taught anatomy and practised surgery. It was at this time that Frère Jaques appeared in the city and performed his new operation, which Raw saw and strongly condemned. Soon after this he was appointed lithotomist to the city of Leyden, where he made a great reputation. He was invited to teach anatomy in the public theatre at Leyden, and, on the death of Bidloo, was elected to his chair, and finally became Regent in the university in the year 1713. He died in 1719. When he first began to cut for stone, he performed the Marian operation. When, however, Frère Jaques appeared in Holland, Raw was allowed to examine the bodies of those who died after being operated on by him, and from Jaques he learnt the operation he was then performing. This he practised, though he was probably well aware, both from the opportunities he had of examining such cases as died, and from his knowledge of anatomy, of its dangers and defects. After a time Jaques appeared again, and performed his second and improved operation—that which he had formulated as the result of much dissection and observation under the hands of Fagon and Du Verney, and this operation Raw learned and adopted with great success. At the death of Jaques it was believed that Raw was the only surgeon in Europe who knew his true method. This was generally believed to be the cutting into the bladder behind the prostate, which was, however, his first and imperfect operation. Raw, from motives of his own, was mean enough to delude the profession into the idea that he continued to make that incision, while all the time he was incising the prostate according to the method adopted by Jaques in his improved operation. Nothing would induce him to impart to his greatest friends or pupils the way in which he made his deep incision. He told his pupils that he had to gain his bread by the operation, and would never say one word about it as long as he lived. He forgot that he was bound, by the position he held, to make known for the good of suffering humanity the nature of the operation he performed; and we can only look with contempt on a man who, for personal gain, kept to himself a knowledge of the steps necessary to ensure success in an operation for the relief of such a terrible condition, and who allowed surgeons to blunder on in the dark and patients to suffer as the result of his meanness.

That such an example should be followed was but natural, and Dennis, a surgeon in Holland, let it be understood that Raw had told him on his death-bed the full and true account of his operation, and that he was therefore competent to perform it. Considering the care with which Raw kept his secret, and the fact that for the last few years of his life he was in a state of melancholy and finally died delirious and insane, there was little to support this claim of Dennis, and we may fairly hope that he did not benefit by exploiting this fabrication. Even Albinus, the favourite pupil and assistant of Raw, who had had far more opportunities of watching him than had Dennis, was quite ignorant of the nature of his deep incision. It is difficult to understand how he could have been deceived, but that he was is evident; for he not only believed he knew the exact method, but published an account of the operation he supposed his master performed, in which he said the bladder was opened behind the prostate. This of course was his first operation, which he gave up when Jaques showed him his improved method.

Surgeons all over Europe, on reading this description by Albinus, who had had such opportunities of seeing what was really done, followed it, but with results equally disastrous to their patients and to their reputations. Men like Morand followed in every detail the description of Albinus, and also experimented on the dead body, but in spite of every care they found that the deep incisions varied in almost every case. In some the prostate was divided for the greater part of its length, in others the neck of the bladder, and in others the body of the bladder. Cheselden, also following the description of Albinus, met with disastrous results; and finally Morand came to the conclusion that Raw did not cut behind the prostate, but had cut the neck of the bladder only, and he accused Albinus of having misled the profession by describing, with so much confidence, an operation that he did not really understand. This seems to have opened the eyes of Albinus to the fact that he had been deceived by Raw, and that his description of the operation was not in accord with the practice of Raw; and he then became conscious that he had unwittingly been the cause of surgeons attempting a procedure that must have submitted their patients to grave risks and much distress. There can be no doubt whatever that the mean, selfish, and grasping nature of Raw, in prompting him to keep his true operation a secret, was the cause of many deaths. When surgeons had by experience found out that in spite of the account given by Albinus of Raw's operation the secret of it had died with him, they had to discover a safer method than that attributed to him.

#### *Cheselden's Lateral Operation.*

We in this country may feel proud that English surgeons not only rose to the occasion, but that one of their number, Cheselden, worked out and successfully practised an operation which became associated with his name; and that he freely imparted a knowledge of its principles and details to all anxious to learn. The report of his operation rapidly spread, and Morand, then the most celebrated surgeon in France, came over to England as a delegate from the Royal Academy of France, and at the public expense, for the express purpose of acquiring a knowledge of this operation, and in 1729 he saw the operation performed in St. Thomas's Hospital by Cheselden and learnt its details. He appears at first to have regarded its performance as more difficult than the Marian, but in actual practice he found, to his surprise, that it was infinitely easier, and his praise of Cheselden and his operation was very high. He often saw him extract the stone in twenty-four seconds, and when there was a single stone he seldom took more than one minute. During the time he was attending his practice Cheselden cut twenty-seven patients without losing one. On his return to Paris Morand presented a most favourable report to the Academy, and taught Cheselden's operation to all his pupils; and so great was his reputation that almost all the younger surgeons in the cities of France had been his pupils. Thus before long the operation of Cheselden was widely known and practised on the Continent of Europe.

It may be well here briefly to recapitulate the various steps by which his operation was evolved. Frère Jaques in his first operation aimed boldly at the body of the bladder with his dagger-shaped knife, leaving the prostate untouched, and, though successful in extracting the stone, his patients died in large numbers. He demonstrated, however, that a wound of the bladder in this situation was not necessarily fatal. In his second and improved operation he gave up the use of his dagger-shaped knife, and dissected carefully on to a grooved staff, and made the deeper incision by cutting the prostate and neck of the bladder upon the groove of the staff. A feature of both these operations was that the incision was not limited to the perineum, but passed backwards into the ischio-rectal fossa, thus greatly facilitating the extraction of the stone. Then Raw followed in detail the two operations of Jaques, but refused to divulge the mode of performance of the second, and at his death, which occurred in 1719, the knowledge of this was lost. Cheselden, following the description by Albinus of Raw's operation, failed, as he was only likely to do, to attain his success, and finally systematized the lateral operation. This he performed by a lateral incision between the accelerator urinae and the erector penis, passing backwards into the ischio-rectal fossa and dividing the transversus perinei; the knife was then introduced into the membranous urethra, and, passing along the groove in the staff, divided the prostate. This was the operation he taught Morand, and, though then quite satisfied with it, he had the misfortune later on to wound the rectum in two cases and to experience a difficulty in extracting a large stone. In 1731, therefore, the year after Morand had returned to Paris with full details of the operation, he altered the mode of the deep incisions. The description of these two last operations is given by Cheselden in the appendix to his *Anatomy*. In the fifth edition, published in 1730, he says, after describing the first stage of the operation:

> I then feel for the staff and cut upon it the length of the prostate gland straight on to the bladder, holding down the gut all the while.

In this operation he divided the prostate from before backwards. In the sixth edition, published in 1741, he has altered the description of the incision in the deep parts, and says:

> I then feel for the staff, holding down the gut all the while with one or two fingers of my left hand, and cut upon it in that part of the urethra which lies beyond the corpora cavernosa urethrae and in the prostate gland, cutting from below upwards to avoid wounding the gut.

Such are the descriptions given by Cheselden himself; but in 1808 Allan published an account, based on a description given by Dr. James Douglas in 1731, of Cheselden's third operation which it is difficult to reconcile with his own. In this he is credited with making the same external incision, but instead of entering the urethra just before the prostate, to have turned the back of his knife to the rectum, stuck its point into the groove of the staff through the coats of the bladder immediately behind the prostate, and, drawing it towards him, to have divided laterally the neck of the bladder and the membranous urethra. This operation he is said to have practised until his death in 1752; and the statement seems to have been accepted, in spite of the fact that nowhere in Cheselden's writing does he mention in such terms any such procedure, nor did he communicate any description of this method to the great French surgeon, Morand, who came over to learn his operation, and with whom he was in correspondence after his return to France. It is difficult to trace this last operation of Cheselden's, for his second operation, being the one he taught the French surgeons, was widely practised, and must have been well established, both in this country and abroad, before he gave it up in favour of his third.

Before long, however, we enter a period when the straightforward operation of Cheselden, which required a knowledge of anatomy and a careful dissection, was replaced by one that was performed largely by the aid of mechanical contrivances, such as grooved lithotomes, concealed knives, and cutting directors. We find that Le Cat, Frère Côme, Foubert, and Hawkins were pioneers in this direction, and that the simpler operations were suspended for a time to make way for others done with the assistance of these inventions. Le Cat, of Rouen, not satisfied with dividing the prostate in the way taught by Cheselden in his second operation, invented a complicated set of instruments, which, however, he could not induce any one else to use. The name of one, the *gorgeret cystotome dilatoire composé*, gives some idea of the scope and nature of his inventions. His operation was so complicated that it did not receive much support. Another man who for some time occupied the attention of the public was a priest named Frère Côme, who, like Le Cat, had an inventive faculty, but was ignorant of anatomy or surgery. He made the usual external incision and then introduced into the urethra a concealed bistoury, which was drawn out with the blade so raised as to cut through the prostate and open the neck of the bladder. This was displeasing to Le Cat, who regarded the infringement of his own particular field with much annoyance, and he and Frère Côme engaged in a long and angry correspondence. So much did this agitate the profession that an inquiry was held to decide the respective merits of the two operations. Martiniere, first surgeon to the King, presided, and the King himself took an interest in the debates. A number of experiments were made on dead bodies in five of the principal hospitals in Paris. The debates, however, were conducted with such heat and temper that, after ten sittings of the committee, they were abandoned by common consent, without any decision having been arrived at. The results of Frère Côme's operation seem to have been very bad, many of his patients dying from haemorrhage, wound of the rectum, or from damage resulting from attempting to drag a large stone through a small opening. Another surgeon who was responsible for the introduction of a complicated operation was Foubert, who, like others, was misled by the account by Albinus of Raw's operation, and believed that his incision was made into the body of the bladder behind the prostate, and that it was necessary to save the urethra and neck of the bladder from injury. His method was to puncture the bladder from the perineum, between the anus and the tuber ischii, with a trocar and cannula, to then introduce through the latter a knife, and to enlarge the wound by cutting from below upwards.

Surgeons had long been familiar with the gorget; it was, indeed, the lineal descendant of the conductor of Hildamus, and acted as a dilator and a conductor. An English surgeon, Sir Caesar Hawkins, conceived the idea of converting its right edge into a cutting edge, so that it might be pushed along the groove in the staff and thus divide the prostate more easily, and, it was thought, with less danger, than by using the knife in Cheselden's operation; and for a time this instrument was generally used. It did not, however, meet with universal approval, for Allan, writing in 1808, considered it "the most dangerous innovation in the whole mechanical department of surgery"; in fact, none of the numerous contrivances which were then so largely used received his support, for he writes:

> I am decidedly of opinion that the introduction of complicated machinery into surgery, and the invention of a multiplicity of instruments, has tended rather to retard than to advance the progress of the art. The man who is a good anatomist can accomplish everything with the knife; and when operating feels resources within himself, which an exact knowledge of his subject can only supply.

The chief dangers of the gorget were its slipping from the groove in the staff and passing into the tissue around the bladder. It has even perforated the fundus of the bladder and opened the peritoneal cavity. It failed in cases where the stone was large to make a sufficient opening, so that this had to be considerably dilated, while if the instrument was of a large size the pudic artery was in danger of being wounded.

The operation as originally formulated by Cheselden, that which he taught Morand, does not seem to have found entire favour with surgeons at that time, probably from the fact that though safe and easy when performed by one thoroughly acquainted with the anatomy of the parts and the details of the operation, it was by no means free from difficulties and dangers when undertaken by those less competent. The dangers were principally incident to the deep incision through the prostate and the introduction of the forceps. These dangers were likely to deter the timid and to try the nerve of any one who without due consideration had embarked on this operation. Consequently gorgets almost without number were invented, each with some special feature which was

supposed to render it a safe instrument with which to enter the bladder. If failure occurred after using one of these it could be attributed to the instrument and not to the operator.

Writing in 1825, Mr. H. G. Belinaye says:

For after Cheselden had improved the operation of Frère Jaques, so that it merited the appellation of the glory of English surgery, his implements of success were abandoned for others infinitely more susceptible of erroneous management. Hawkins turned the secondary instrument—the conductor—of Cheselden into a primary engine in lithotomy by imparting an edge to one of its blunt sides.

And of the gorget he says:

Did time and space allow, by collecting all the anathemas which celebrated surgical writers have pronounced against each other's favourite form of gorget, whilst vaunting their own hobby, we might be saved the trouble of proving the many defects to which this much favoured instrument is liable. From the time when Hawkins first made a knife out of what was never intended but for a conductor, every leading surgeon in England, France, Italy, and Germany has unceasingly altered the form of the gorget.

We can, however, trace the decline of the gorget, for Sir Astley Cooper, in his *Surgery*, published in 1836, says:

The knife is now frequently substituted for the gorget, and that which I for some time employed in various cases was straight and narrow, with a probed end. In the young this answers very well, and also in a thin adult, but in a deep perineum or enlarged prostate I prefer the gorget as being more definitive in its cut.

Syme, in his *Principles of Surgery*, published in 1842, refers to the method of dividing the prostate as follows:

The simplest mode of effecting this is to use a scalpel, or other knife, that may be under the surgeon's command; but as it requires an accurate acquaintance with the relative situation of the parts concerned, and considerable manual dexterity to divide the prostate safely with such an instrument, various apparatus have been contrived for cutting in the requisite direction and to a sufficient extent merely in consequence of their form and construction, and without the necessity of precise guidance on the part of the surgeon. But after a hundred years' experience of such substitutes for operative skill, it is now almost universally admitted that the simple knife is by far the safest means for the purpose.

Thomas Gutteridge, referring to the use of the gorget, says:

For nearly a century the vices of the exploded method which existed antecedently to the appearance of the French Friar infected the performance of this operation, and not till Sir Astley Cooper devised the corrective did lithotomy emerge from the darkness in which it had been shrouded so long.

With the disappearance of the gorget a return was made to the simpler method as introduced by Cheselden, and the lateral operation in its original form held the field. As such it was known to those of us who commenced our professional studies before about the year 1885, when as yet it had not felt the full effect of the revival, under improved conditions, of the suprapubic operation, and of the great advance made in the crushing operation by Bigelow. From that time its decline was rapid, and there must be many in this room who not only have never practised it but have never seen it. Who can say that it may not at some future date be revived? Looking, however, to the excellent results of the suprapubic operation, and of crushing in the hands of those accustomed to do it, it seems more than probable that the lateral operation is extinct.

*The Suprapubic Operation.*

The first recorded case of the suprapubic, or high, operation is that by Pierre Franco of Lausanne in 1556. Franco was attempting to remove a large stone by the perineal route from a small boy aged 2 years. Failing in his attempts to get it away, the parents besought him to relieve the child by any means in his power. He therefore passed two fingers into the rectum and pushed the stone up to the lower abdomen, where it was steadied by an assistant. He then incised the abdominal wall over the stone and successfully removed it, and the child finally made a good recovery. In spite of this, however, Franco was not impressed with the possibilities of this method, and he concludes his account by saying that he "does not advise any man to do the like." No more was heard of this method until 1581, when Dr. F. Rosset of Montpelier was making dissections when advocating the Caesarean operation, and it then occurred to him that a stone in the bladder might be removed by opening that organ above the pubes, using a grooved catheter as a guide on which to cut. But, he adds, "the novelty of the operation and the licentious prating of some impudent fellows put a stop to my undertaking anything of that kind." We cannot wonder at men looking for some safer operation than those in use at that time—namely, the Celsian and the Marian—and Rosset says that:

Being moved then by so many and weighty reasons that I had, to dread both of these terrible methods of cutting for stone, and pitying on the one side the deadly tortures of those who were cut either way, and on the other side the perpetual anxieties of those persons who ought to be cut, but are deterred from trying the operation as the fox was from visiting the lion, by seeing the tracks of abundance of feet towards the lithotomists, but a few back again. I have very often thought of some other gentler method of cutting for the stone, for certainly it is lawful to make use of divers remedies against any distemper, provided it be in common attempted by the easiest and safest that can be. And if that old method of Celsus has been changed for that of Marianus why should not that method also be changed, as I hope, for the better?

Soon after expressing these opinions he came across the account of the successful case of Pierre Franco and this further strengthened him in his opinion. The next step was to make experiments on dead bodies, and he found that by distending the bladder with water it was quite possible to open it without wounding the peritoneum. Rosset gives detailed instructions as to the performance of the operation and how the bladder should be distended. The stone was forced upwards by pressure with two fingers in the rectum. He suggests that if the operator's fingers are too short to raise the stone upwards to the pubes, he may make use of artificial fingers made of prepared leather or of silver into which he can fit his own fingers. Though he often practised it on the dead body he never had an opportunity of doing so on the living. He was, however, an earnest believer in the method, and was actuated in his efforts by the desire of benefitting the public, for he concludes by saying:

Whoever can contrive a better, easier, shorter, and safer method than this, let him in God's name do it for the public's good, and may he meet with a good and favourable acceptance.

On Thursday, December 13th, 1635, Peter le Mercier proposed the following question for discussion in the physic schools in Paris, "Whether or no in cutting for the stone in the bladder the incision should be made at the pubes." He did not recommend filling the bladder with water, but used a curved catheter to force the bladder wall against the anterior abdominal wall, and considered that in cutting for stone the incision should be made at the pubes. Writing in 1682, Hildamus expresses the opinion that though the suprapubic operation was good for children, it was not suitable for adults, for the reason that the fingers were not long enough to raise the stone to the incision in the bladder. Operators by this method considered it essential to force the stone upwards by the fingers in the rectum; probably they were influenced by remembering that in the Celsian operation the stone was forced into the perineum by the fingers in the rectum. They apparently did not recognize with what ease a stone could be removed from the bladder, by a suitable pair of forceps, when it was opened above the pubes. Hildamus does not seem to have been in favour of this method, for he says:

I do therefore with Master Franco again and again dissuade every faithful and industrious Surgeon from making use of this dangerous operation of cutting for the stone. But if the stone be of that great bigness and the patient, and the by-standers, by reason of the great and extreme pains under which the patient labours, do very earnestly press and desire help from the physician, then indeed having first implored the divine assistance, and a prognostick being made of the doubtful and uncertain events, I should prefer that cutting in the groin, of which Master Franco writes.

The high operation was not, however, practised to any extent, for in 1718 Tolet in his *Traité de la lithotomie* says: "If one finds himself under a necessity of performing the high operation, it seems one might succeed," and then follows certain details as to its performance, but no mention is made of distending the bladder, though he remarks, "the fuller the bladder is with water or the stone, the more it will appear."

In 1719 John Douglas, F.R.S., surgeon to the Westminster Hospital, performed the high operation in this country, and in 1723 published the details of four cases occurring in boys under 16, all of which were successful.

Cheselden also, in the early part of his career, in 1723, published a treatise illustrating his method, which was similar to that employed by Douglas; but soon his attention was attracted by reports of the success of Raw's perineal operation in Holland, and, hearing that the bladder had by some English surgeons been burst by over-distending it with fluid, and that in other cases the peritoneal cavity had been opened, he set himself to do the lateral operation of Raw as described by Albinus. His description of the high operation leaves little to be desired, and we can only wonder why an operation so carefully planned was so quickly discarded. Previous to the operation he had the intestines emptied to prevent their pressing upon the bladder. This was secured by allowing the patient a slender diet for two days and having the lower bowel cleared out with clysters a little before the operation. The patient was placed upon a table in such a position as to relax his abdominal muscles, and was ordered to pass his urine. Having then passed a catheter, sufficient warm barley water was injected to fill the bladder to its utmost natural dimensions, "more being of little or no use to the operator, but very painful if not dangerous to the patient"; he considered that the proper quantity for every patient may be known from the swelling of the abdomen just above the pubes, if the integuments are thin, by the patients growing uneasy from the distension of the bladder, and from the resistance which the operator feels to his injection. The syringe and catheter were connected by the ureter of an ox. He gives a word of warning which may not be out of place even at the present day:

> I must recommend the passing the catheter deliberately and gently, choosing rather to seem less artful in doing it, than secretly to hurt the patient, for the reputation of doing it quick and dextrously, and indeed I judge this no unnecessary caution in every part of the operation.

The bladder being filled, the catheter was withdrawn, and the penis was grasped by an assistant to prevent the water coming out. The first incision was made with a round-edged knife; this passed through the skin and between the recti, and was about 4 in. in length in an adult. A finger was then placed in the wound, and a straight-edged knife was introduced, and the tissues in front of the bladder were divided. Finally a curved knife was passed into the bladder near the urachus, and that organ was opened down to the pubes. A finger was then passed into the bladder as a guide to the forceps by which the stone was removed. A very considerable controversy arose as to whether Douglas or Cheselden, who both wrote on the subject in 1723, should be considered as having established the high operation as a mode of practice. Deschamps considered that the credit was due to Douglas. There were isolated instances of the operation having been performed before that date, but it was not in general use until this time. Franco had done it in 1556; Bonnet in the Hôtel-Dieu in Paris and Proby of Dublin in 1700, and Greenfield in 1710; but after 1723 it was taken up by Continental as well as by English surgeons.

The high operation had to compete with the lateral operation which had been perfected by Cheselden, and was largely practised, at first in its original form and later on with the various modifications that came into vogue with the advent of the cutting gorget, and in 1750 Samuel Sharp of Guy's Hospital wrote of it as follows:

> Some of the difficulties which occurred in the execution of it appeared so frightful that it was suddenly disused, and at present there is no surgeon in Europe who continues to practise it, nevertheless I should not be surprised if it should be revived and practised with success.

This latter observation showed that Mr. Sharp foresaw that the method was capable of yielding good results when carefully performed. Since then various attempts have been made to reintroduce it on what were supposed to be improved lines. In 1758 Frère Côme directed his attention to this question, for he knew that there were certain conditions that rendered the lateral operation undesirable, such, for instance, as a very large stone. He also saw that one great objection to the high operation was the horrible pain produced by the distension of the bladder necessary to make it rise above the pubes, and to obviate this he greatly modified the operation. He first passed a grooved staff into the bladder, then he cut, as in the lateral operation, on to the groove and opened the membranous urethra; next, a grooved director was passed along the staff into the bladder, and the staff was withdrawn. By means of the director, a kind of catheter, open at the far end and provided with a stilette, was passed into the bladder through the perineal wound. An incision was then made, about 3 or 4 inches in length, above the pubes and in the direction of the linea alba. A trocar, in which there was a concealed bistoury, was next passed into the linea alba close above the pubes, and by projecting the blade from its sheath the lower part of the linea alba was cut from below upwards, and an opening was made which was enlarged with a probe-pointed knife, behind which a finger was kept so as to push the peritoneum out of the way. The fundus of the bladder was then elevated by depressing the handle of the catheter, and its point was felt for in the wound; the stilette was then pushed through the bladder. Along the groove in the stilette a curved bistoury was introduced and the bladder opened from above downwards. The bladder was drained by a gum-elastic catheter through the perineal wound. Deschamps, in 1790, perforated the bladder through the rectum, and through the cannula passed an instrument to make the bladder prominent in the same way as Frère Côme did through the perineal wound. Allan, in his *Treatise on Lithotomy* expresses a poor opinion of the operation; he says:

> It frequently happens from the continued irritation to which the bladder is kept by the stone that its coat becomes too much thickened and contracted to allow it to be sufficiently distended to rise above the pubes, and if this is the case the incision for the high operation will not reach the bladder, but pass through the peritoneum into the cavity of the abdomen. If the operator should chance to break the stone in its extracting—though of this it may be acknowledged there is less danger—the bladder cannot be so easily washed out, nor the small fragments carried away by the urine, as in the lateral method, some of them may remain and form a nucleus for a future stone. The urine sometimes does not pass very freely to the wound, but by insinuating itself into the cellular substance excites inflammation and forms sinuses. The peritoneum, like other membranes which line the great cavities, is very susceptible of inflammation, and from its vicinity to the wound, or from being roughly handled, is liable to become inflamed and produce general inflammation of the abdomen. If the bladder is to be filled by injection much cunning is required in accomplishing it. If too much fluid be thrown in it excites great pain, relaxes its fibres, and destroys its tone; if not sufficiently distended the incision will not reach it. And lastly it is observed that the wound does not heal so readily in the high operation as in the lateral operation. These are weighty objections, and must for ever preclude the general use of the high operation.

In 1820 Sir Everard Home, of St. George's Hospital, performed his modification of the high operation. He passed a catheter with an open end and containing a stillette along the urethra, and, having exposed the bladder by a suprapubic incision, pushed the stilette through the bladder and enlarged the opening with a bistoury. In spite of these and other attempts to improve the operation, it did not commend itself to surgeons as a routine method of treatment, and it was left for such cases as were considered unsuitable for the lateral operation. These were often badly suited for any operative procedure by reason of the length of time they had been suffering from stone and from its consequent size. The high operation done under such circumstances was naturally followed by a heavy death-rate, which, taken by itself and without considering the attendant circumstances, was not likely to encourage surgeons to adopt this method. Even Cheselden himself, who practised the operation in a small number of cases with considerable success, gave it up and devoted his energies to the elaboration of the lateral operation, not because he met with complications in his own cases, but because other surgeons, probably less able than himself, were unsuccessful in their cases.

It is interesting to speculate on the position the high operation might have been placed in had Cheselden devoted the same energy and thought to this operation that he did to the lateral. Had he done so it is probable that operations by the perineal route would have been abandoned, and that the high operation would have attained a position as the routine method of treatment, and the mortality following removal of stone from the bladder would have been diminished to an appreciable extent. For there can be no doubt that, while in the hands of surgeons having frequent opportunities of dealing with cases of stone the lateral operation yielded

good results, it was not so with those who were less familiar with its performance and with its possible difficulties. To such an extent had prejudice and other circumstances militated against the high operation that an American writer, Dr. John Shaw, of Albany, in an article in the *Journal of Foreign Medicine* for April, 1823, made the following remarkable statement:

> We may sum up by saying that all the accidents which are generally assigned as the reason why patients die after the lateral operation are more apt to take place after the high operation.

In 1868 Mr. Holmes Coote, in an article in the *St. Bartholomew's Hospital Reports* upon lithotomy and lithotrity, says:

> I have not in these remarks adverted to the high operation. In many cases it is impossible of performance, and in none offers advantages such as I should have ever liked to avail myself of.

Why it should in many cases be impossible of performance is not, however, stated. Bearing out these statements as to the position of the high operation, there is a remark by Dr. C. W. Dules, in an admirable paper on the subject in the *American Journal of the Medical Sciences* for 1875, which is of interest. He says:

> Suprapubic lithotomy, or the high operation, is assigned a very low place in most works upon surgery, and is now so rarely practised that there are comparatively few medical men who have ever seen it done; indeed, it has surprised me, in my investigations, to find how little is known of it by men of no inconsiderable eminence in the profession.

This condition of affairs must be well within the memory of many Fellows of this society, for those of us who were students in the Seventies hardly ever saw any other operation for stone than lateral lithotomy, crushing at several sittings, and perhaps a median operation. At that time the lateral operation was so firmly established as the routine cutting operation that he would have been a bold man who would have suggested that in the course of a few years its position of supremacy would be disputed, and that in a few more it would be rarely practised, and that it would so soon be regarded as a surgical curiosity belonging to a past age. It had always been associated with so much discussion, and had occupied the attention of surgeons and the public to such an extent, that it seemed to stand by itself. It was, indeed, regarded as a privileged operation, and, on the day fixed for operating by the surgeons, it was the custom for any one having a lithotomy to take precedence of his colleagues, and to operate first. In an annotation in the *Lancet* for April 5th, 1825, it is stated that all cases of stone admitted to St. Bartholomew's Hospital for a period of six months were placed under the care of one surgeon, and that the surgeons took it in rotation to act as lithotomists. From a remark of Cheselden in the appendix to his *Anatomy of the Human Body*, published in 1741, the same arrangement evidently existed at St. Thomas's Hospital, and Cheselden, in addition to being surgeon to that hospital, was lithotomist to the Westminster Hospital, where there were wards for the reception of cases of stone. Though, as already mentioned, the high operation was hardly ever performed thirty years ago, its revival was close at hand. In the *Edinburgh Medical Journal* for October, 1878, Dr. Garson published a paper on displacement of the bladder and peritoneum in the male by distension of the rectum. As the result of experiments on the dead body he showed the influence of distension of the rectum, or of the bladder, or of both, on the relation of the peritoneum to the anterior surface, and he considered that

> in performing the suprapubic operation for lithotomy or puncture of the bladder that viscus can be as easily raised above the symphysis by distending the rectum as by injecting the bladder, and that in every case where it is not advisable to distend the bladder to a large size, distension of the rectum is all that is required to make the parts suitable for operation.

In 1880 Dr. Pietersen, of Kiel, who was present at the reading of Dr. Garson's paper at the Congress of German Surgeons, published an account of experiments made to ascertain the relative position of the anterior fold of the peritoneum and of the upper border of the pubes. As the result of these papers the high operation was again taken up and gradually came into favour. The danger of wounding the peritoneum was minimized by distension of the bladder with fluid and by distension of the rectum by the use of Pietersen's bag. Mr. Richard Barwell, of Charing Cross Hospital, also made experiments on the lines of Garson and Pietersen, and brought the matter before the Royal Medical and Chirurgical Society on March 30th, 1886, when an important discussion took place on the merits of the high operation as then performed. The opinions expressed by most of the speakers were favourable to its superiority over the lateral operation, though some few were not yet convinced. As the result of further experience it was found that the anterior fold of peritoneum could be sufficiently raised by distension of the bladder alone; and the rectal bag, which had many disadvantages and some dangers, was abandoned, and the operation was widely practised.

It is now, with hardly any exception, the only cutting operation resorted to. The choice of method may lie between cutting and crushing, but, if the former is decided on, the suprapubic operation is performed as a matter of course.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### REMOVAL OF A SEBACEOUS CYST DURING HYPNOSIS.

THE subject of the following note is a young male hysteric who has been in this asylum for nearly two years, and who, during that period, has been frequently under the hypnotic influence. Some months ago he developed a small sebaceous cyst at the back of the ear, which suppurated, and which was opened and scraped during hypnosis. As the condition has recurred recently, it was decided to deal with it more radically. On this occasion, too, the cyst had suppurated, and had burst before it could be dealt with otherwise. It was proposed to put the patient to sleep hypnotically, and then, if possible, to excise the cyst as a whole. The following is a brief description of what occurred.

About 4.15 p.m. the patient, J. R., was put in a side room off the ward. Preparations had been made as if for an operation, and these he could see as he entered the room. He was asked to sit on the bed, and was soon put to sleep, and placed flat on the bed so that he lay on the left side. When he was fast asleep he was given the following instructions. He was told to remain asleep whatever was done to him, also that he would not feel anything at all whilst asleep, that he would not have any recollection of what had occurred when he awoke, and, finally, that he would not waken until I told him. There was some difficulty in directing his attention to these orders, as he was in a very deep sleep. The cyst was then opened, the suppurating contents were removed, and an attempt was made to secure the wall of the cyst. It was found very difficult to separate this from the surrounding tissues, especially as there was free bleeding, and I had no adequate assistance. I managed, however, to remove part of the wall of the cyst, and then dressed the wound, and bandaged up the head.

The charge nurse of the ward was present during the whole of the time, and my colleague, Dr. W. Gilmour, was present part of the time. It was observed that the patient never once winced or moved during the operation. At times he mumbled something, like a person talking in his sleep, but I could not make out distinctly what he said. Once or twice he took long sighing inspirations, so that I thought he was on the point of waking, but he did not do so. I stopped and stroked his forehead a little at this point, and he continued to sleep. At this particular time I had been occupied in separating the cyst wall and was pulling on it a good deal, which process, if any, would be likely to cause pain. When the small operation was completed and the bandage in its place, I asked Dr. Gilmour to waken the patient. He took no notice of the doctor for some time—in fact, not until the latter had given him several hard smacks on the face. He then began to stir, to open his eyes, and to gradually waken up, although still apparently very loth to do so. When he was thoroughly awake and sitting up he was questioned by both Dr. Gilmour and myself as to what had occurred. He still appeared to be a little dazed, put up his hand to his

head, and tried to remove the bandage, evidently an offending object, the presence of which he could not understand. He thought that something had been done to his ear, because he had seen the preparations before he fell asleep, and now he knew that he was bandaged up; but he had neither seen, heard, nor felt anything during the whole time. Questioned repeatedly on these points, he stuck rigidly to his story without exhibiting the slightest inaccuracy or inconsistency. Altogether he had been asleep for about three-quarters of an hour. A couple of hours later I changed the dressing for a smaller one, as he wished to attend an asylum dance the same evening. During this process, which caused him some pain, he winced perceptibly, and it was amusing and interesting to contrast his demeanour then with the utter passivity shown during the operation itself. Whilst being aware that there is nothing intrinsically new in the incident above narrated, I would submit that the hypnotic phenomena must always continue to be of absorbing interest, and that a degree of anaesthesia which is compatible with the performance of an operation, however small, can hardly fail to arrest one's attention. Moreover, in the present case I am quite convinced that if a larger operation were at any time contemplated, it could be carried out under similar circumstances; at least, I would welcome the opportunity of testing such an assertion.

In conclusion, I would like to thank Dr. W. Gilmour for his kindly assistance and collaboration in the experiment, and Dr. W. A. Parker, the superintendent of the asylum, with whose permission the case is published.

J. E. MIDDLEMISS, M.R.C.S., L.R.C.P.,
Assistant Medical Officer, Gartloch Mental Hospital.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### ESSEX COUNTY HOSPITAL, COLCHESTER.

A CASE OF TETANY IN PYLORIC OBSTRUCTION.

[Under the Care of Dr. CHICHESTER.]

(Reported by REX C. BREWSTER, M.R.C.S., L.R.C.P., House-Surgeon.)

I THINK the following case is of sufficient interest to record:

Mrs. G. was admitted into the Essex County Hospital in December last on account of long-continued vomiting. She was found to have a very much dilated stomach with a large tumour in the pyloric region. Her condition was so miserable, and she was so anxious to have something done, that on December 30th the abdomen was opened with a view of performing a gastro-enterostomy. Her condition became so grave that the operation had to be abandoned The stomach was seen to be enormously dilated, and the pylorus the seat of a large evidently malignant growth.

On the evening of December 28th, two days before operation, she suddenly called out that she was dying and had a seizure of tetany. The hands were screwed up in the typical "accoucheur's hand" position; the toes were flexed, ankles plantar-flexed, and knee-joints flexed. The spasm lasted about ten minutes and passed off slowly. For some time previous to the operation she had been having daily gastric lavage. Her temperature had been practically normal for a week.

I am indebted to Dr. Chichester, under whose care the case was, for permission to make use of the notes.

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DR. G. F. SYDENHAM of Dulverton recently received a very gratifying testimonial in commemoration of his 50th birthday and of the completion of twenty-five years' professional work in the parishes of the Dulverton union. The testimonial consisted of an address with a purse of gold towards defraying the cost of a motor car. In acknowledging the presentation Dr. Sydenham said that he was much gratified by the fact that the address bore the names of so large a number of subscribers as 600, the majority of whom belonged to the poorer class. They ranged, in fact, from the wealthy landowner to the humble cottager.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

*Friday, February 10th, 1911.*

Sir A. PEARCE GOULD, K.C.V.O., President, in the Chair.

*Mollities Ossium.*

DR. H. D. ROLLESTON and Dr. C. H. S. TAYLOR showed a case of mollities ossium of forty-five years' duration. The patient was a single woman, aged 58, bedridden for forty-four years on account of inability to walk and bony deformities which at first suggested rickets, but, as shown by *x* rays, resembled those of mollities ossium. The deformities generally suggested that the bones were slightly plastic, and they were bent in proportion to the stresses upon them. Thus the long bones, which were subject to unequal stresses, showed most bending, the pelvis showed the effects of weight, while the hands and feet, which had few internal stresses, showed hardly any deformity, and the skull, which had practically no muscle pulls upon it, retained its shape except where its weight caused it to sag, as it were, around its base. When first seen the condition was thought to show the results of late or recrudescent rickets. *X*-ray examination showed that the changes characteristic of rickets were absent, and that the appearances pointed to mollities ossium. The case raised the interesting question if many or most of the cases formerly recorded as "late rickets" were really examples of osseous softening due to some microbic invasion of the skeleton, and not due to rickets in the strict sense. It was suggested that ordinary rickets, by damaging the skeleton, might favour the onset of mollities ossium.

*Exhibits.*

Among the other exhibits were the following: Dr. H. BATTY SHAW: Pictures of two cases showing *Unusual ulceration of the skin*, and a case of *Syphilis, chyliform ascites, dropsy, and albuminuria.* Dr. F. E. BATTEN: A case of *Progressive spinal muscular atrophy of infants* (Werdnig-Hoffmann). Dr. FREDERICK J. POYNTON: A case of *Imperfect osteogenesis.* Mr. WALTON (for Mr. FRANK KIDD): A case of *Imperfect osteogenesis (?)*

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LARYNGOLOGICAL SECTION.

AT a meeting of this section, held on February 3rd, Dr. WATSON WILLIAMS, President, in the chair, Dr. WILLIAM HILL in conjunction with Dr. HERSCHELL, demonstrated on the living subject a combined direct and indirect method of *Oesophago-gastroscopy.* A good view was obtained of the stomach and lower part of the oesophagus, and the great value of this method was pointed out. The stomach was dilated with air, and previously washed out by a special instrument. Dr. FRANK ROSE and Mr. CECIL GRAHAM showed cases of *Tuberculous tonsillitis*, this in Mr. Graham's case being associated with tuberculous laryngitis. An interesting discussion resulted with reference to the frequency of primary tuberculous disease of the tonsils. Mr. HERBERT TILLEY showed plaster casts of an *Unusual malformation of the upper jaw.* There was a markedly V-shaped condition of the hard palate, while the alveolar borders of the upper jaw were hypertrophied. There was also well-marked alar collapse, and much septal irregularity. Pyorrhoea alveolaris was also present. Dr. PEGLER showed cases of *Malignant disease of the larynx and extensive ulceration of the pharynx and tonsils, considered malignant;* he also showed a case of *Tuberculous disease of the vocal cords*, with secondary tuberculous infection of an adenoid growth in the naso-pharynx. The patient was a fur sorter. Both cords were thin and ulcerated; the right cord was also longitudinally split. They approximated badly, causing complete aphonia, but there was neither pallor nor oedema; no lung signs, sweating, nor loss of flesh; general health excellent. Since the first onset a small mass of adenoids had become ulcerated. Sections of this under the microscope displayed giant cell systems, and though staining of tuberculous bacilli had not been successful, material obtained thence and injected into guinea-pigs infected the glands and viscera. Preparation from

one animal was shown, and a section of one of the guinea-pig's glands showing tubercle bacilli. The von Pirquet reaction was negative. Dr. PETERS showed a case of *Malignant disease of a tonsil* with enlarged glands in the neck now undergoing treatment by radium. Dr. DONELAN showed a case of *Swelling at the junction of the right vocal cord and apex of the vocal process* in a professional singer aged 52. Dr. DAN MCKENZIE showed a *Papilloma of the larynx in a child.* Obstruction to breathing had been so great that tracheotomy had to be performed six months ago; subsequently several papillomata were removed by the direct method. Dr. G. W. BADGEROW showed a case of *Lingual thyroid in a female* aged 17. There was a hemispherical swelling over the base of the tongue, which was hard to the feel. Dr. BETHAM ROBINSON detected enlarged glands in the neck, and thought the case might possibly turn out to be one of lymphoma or lympho-sarcoma. Dr. CATHCART showed a case of *Aphonia* (recurrent) in a woman aged 36. The patient had been in the Mount Vernon Hospital. On laryngological examination it was seen that the mucous membrane over the arytenoids and interarytenoid space was swollen, and that the cords did not meet properly. Dr. JOBSON HORNE pointed out the probability of certain cases of aphonia supposed to be hysterical being really tuberculous. Mr. SOMERVILLE HASTINGS showed a case of *Ulceration of the left tonsil* in a man aged 56. The ulcer had lasted for over two months with very little alteration. It extended to the anterior pillar of the fauces, and presented a curious dead white appearance. There was no history of syphilis, but pyorrhoea alveolaris was present. Klebs-Loeffler bacilli could not be found, and the microscopic appearances of a piece removed did not favour malignancy. No glands could be felt. Dr. KELSON pointed out how much the dead white appearance resembled that seen in certain malignant growths of the larynx. Mr. NORMAN PATTERSON showed (1) a case of *Primary sore in the vestibule of the nose* in a female patient aged 38; the lesion was an indurated area which gradually increased in size, and was accompanied by some enlargement of the glands in the submaxillary region. There had been a great deal of pain extending on to the face. Spirochaetes had been found and a positive Wassermann reaction obtained. (2) *Epithelioma of the epiglottis.* The patient, a man of 40, had noticed pain on swallowing for the last two months, shooting from the tip of the great cornu of the hyoid bone on the left side towards the back of the ear. The patient complained of a great tendency to accumulation of the saliva in the throat. There were some glands to be felt, especially on the left side, which might perhaps be accounted for by the septic condition of the teeth. The PRESIDENT showed a man suffering from *Stricture of the oesophagus* situated 11½ in. from the incisor teeth. It was considered to be malignant, and was shown to elicit views as to the suitability of treatment by radium or otherwise. Mr. FITZGERALD POWELL showed a man, aged 48, with history of difficulty in breathing of six months' duration. Examination showed a large mass of *Growth involving the left side of the larynx*, filling up the cavity of that organ, involving the tongue and aryepiglottic folds. The man had been a soldier, and there was a history of syphilis, but the Wassermann reaction was negative. Dr. H. J. DAVIS showed a man, aged 71, whose upper jaw had been excised for malignant disease of the antrum, following polypi and antral empyema. Some oedema of the lower eyelid still remained. Dr. WILLIAM HILL showed a case of tuberculous disease of the nose in a child. There had also been disease in the superior maxillary bone on the left side.

## THE ROYAL SOCIETY.

*Thursday, February 9th, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*Stovaine and its Homologues.*

IN a paper on certain physical and physiological properties of stovaine and its homologues, Dr. V. H. VELEY, F.R.S., and Mr. W. L. SYMES said that the bodies in question comprised the methyl-, amyl-, phenyl-, and benzyl-homologues of stovaine, and, in addition, a new compound recently prepared by M. Fourneau—namely, the propyl ester of dimethyl-amino-oxy-benzoyl-isobutyric acid. The densities of these diminished with increasing molecular weight, and the affinity value of the last named was less than that already found by Dr. Veley for stovaine and for its methyl homologue. Fourneau's new compound abolished the contractility of muscle less rapidly than stovaine or methyl-stovaine. It had also less effect on blood pressure and on respiration. Amyl-, phenyl-, and benzyl-stovaine appeared to act more slowly on muscle than stovaine, presumably on account of partial precipitation of their bases. On blood pressure amyl-stovaine had rather more effect than stovaine. These bodies had been compared with one another, and also with cocaine, as to their effects in blocking the physiological conductivity of frog's nerve. The anaesthetic block produced, when complete for maximal single stimuli (Berne coil at 400 mm.), was also complete for single stimuli many times more intense (Berne coil at 200–100 mm.). A block complete to maximal single stimuli (coil at 400 mm.) was usually also complete to repeated stimuli with the same disposition of the coil. Partial blockage of individual nerve fibres had not been detected. Stovaine, its homologues, and Fourneau's new salt all blocked more actively than cocaine. Stovaine, methyl-stovaine, and Fourneau's new salt blocked more rapidly than the remaining bodies. Amyl-, phenyl-, and benzyl-stovaine blocked more slowly, and the resulting block was less rapidly washed out. Considered as local anaesthetics, phenyl- and benzyl-stovaine offered no advantage over the remaining bodies. Amyl-stovaine might be of value on account of the relatively long duration of its effect. Methyl-stovaine was the least readily decomposed by faintly alkaline fluids such as lymph and cerebrospinal fluid. Fourneau's new salt had the least effect on circulation and on respiration.

## MEDICAL SOCIETY OF LIVERPOOL.

PATHOLOGICAL MEETING.

*Thursday, February 2nd, 1911.*

Dr. BRADSHAW, President, in the Chair.

*Specimens.*

MR. MONSARRAT exhibited specimens of *Adenoma of the palate, Colloid carcinoma of the caecum, Carcinoma of the bladder, Fibro-chondroma of the submaxillary gland, Resected intestine*, and *Sac from strangulated umbilical hernia.* Mr. DOUGLAS CRAWFORD and Dr. MOORE ALEXANDER showed specimens of: (1) *Primary tubercle of the tongue* from a patient aged 27; the ulcer was situated near the top of the tongue. Antisyphilitic treatment had been tried before excision, but with no result. (2) *Secondary tubercle of the tongue in a man aged 45.* The ulcer was situated on the side of the tongue opposite the second molar tooth; there was slight evidence of tubercle at the apex of the right lung. Tubercle bacilli were found microscopically in this specimen, but not in the first. (3) *Sarcoma of the thyroid* from a woman aged 50. The tumour had been there for some years, and had grown rapidly in the last six weeks. (4) *Acinous cancer of the hard palate* in a patient aged 65. Mr. NEWBOLT showed a specimen of *Appendix and liver abscess;* also of *Richter's hernia.* Dr. ALEXANDER showed a culture of *Bacillus leprae.* Mr. ARTHUR EVANS showed *Chondro-sarcoma of the testicle.* Mr. FRANK JEANS showed (1) a *Fallopian tube containing a very early ectopic pregnancy*, presumably about fourteen days. The symptoms simulated acute intestinal obstruction. (2) A *Calculus removed from the ischio-rectal fossa* of unknown origin, possibly from the urinary bladder or from the biliary passages. (3) An *Intussusception* which he had removed from a woman aged 21, involving 3 or 4 ft. of jejunum, about 6 in. below the duodenum. Mr. THELWALL THOMAS and Dr. STOPFORD TAYLOR showed a *Sacro-coccygeal dermoid* from a woman aged 26; large cysts lying by the squamous epithelium existed in both buttocks; in the post-rectal region the growth was sarcomatous. Mr. R. E. KEILY and Dr. ERNEST GLYNN showed a *Glioma from the right lobe of the cerebellum* from a girl aged 3, in which there was a cyst which had been successfully drained by operation three months before death, with relief from all symptoms; also a typical *Squamous-celled epithelioma from the interior of the breast*, which had probably originated in a dermoid. Mr. PAUL showed a fibro-cystic tumour of the testicle, an adeno-

chondroma of the pharynx, and a perithelioma of the breast. The PRESIDENT and Dr. ERNEST GLYNN showed a *Chronic ulcer of the stomach* which caused profound anaemia from occult haemorrhage; at one end of it colloid cancer was commencing.

*Papers.*

Dr. MOORE ALEXANDER related three cases suffering from *Infections of the Bacillus aërogenes capsulatus.* Two of these presented the commoner features of infection through wounds, both being accident cases. The third was infected from the intestine during life, a malignant growth of the rectum ulcerating into the internal iliac vein, and producing symptoms of malignant oedema in the right thigh. The patient died in less than twenty-four hours after the first symptoms. He also discussed the portals of entry and the difficulty of differentiating the pathogenic anaërobes. Dr. WARRINGTON YORKE read a note on the pathology of *Lesions of the cornea and skin in trypanosomal infections.* Reference was made to the close similarity that exists between syphilis and trypanosomiasis. Three goats and a horse inoculated subcutaneously with a strain of trypanosomes derived from a case of human trypanosomiasis all developed interstitial keratitis. In two of the animals the condition was of a remarkably transient character. The corneae became densely opaque, and subsequently cleared again in the course of a few days. The condition was indistinguishable from severe interstitial keratitis of syphilitic origin. Rabbits infected with the same parasite exhibited marked changes in the skin. That of the face and eyelids was usually the first to be involved. The skin and subcutaneous tissues became oedematous and indurated, and later there was considerable loss of hair. In severe cases the whole of the skin of the back was bald and greatly thickened. Sections of the tissues were examined in different stages of the disease with a view to ascertaining the nature of the morbid processes. The pathological changes in the cornea and the skin were essentially the same, and the course of events appeared to be somewhat as follows: In early lesions parasites were present in the tissue spaces. This was followed by an oedematous condition of the part with a more or less marked degree of leucocytic infiltration and some new vascular formation. In the cornea the lesions were, with a single exception, confined to the substantia propria, which was in severe cases about twice as thick as that of a normal eye. In one case the cornea was three times as thick as normal, and the morbid processes were not confined to the substantia propria, but had involved Bowman's membrane and the anterior epithelial layer was separated from the substantia propria by inflammatory exudation. The epithelial cells themselves stained badly and were in parts completely disintegrated. In some cases the parasite had disappeared from the tissue and with their disappearance there was a tendency of the part to recovery. Attention was drawn to the fact that such lesions as those mentioned were essentially due to the local multiplication of the specific parasite and were not merely dystrophic or toxic manifestations. Dr. GRIMSHAW confirmed the accuracy of Dr. Yorke's observations, for he had seen the goats and the microscopic specimens.

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## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Friday, February 3rd, 1911.*

Dr. A. CHRISTY WILSON, President, in the Chair.

*Diagnosis and Treatment of Tuberculosis.*

DR. E. F. TREVELYAN opened a discussion on the diagnosis and treatment of tuberculosis, especially its pulmonary form. He presented a brief and rough summary of 561 cases of phthisis treated in the Leeds consumption institutions. An early and certain diagnosis was most important, as the disease could be healed only in its early stages, and considerable sacrifice was often entailed by its treatment. The importance of careful physical investigation of the chest was reflected in the more recent development of the examination of the extreme apices of the lungs, as seen in the apical percussion methods of Krönig and Goldscheider, as well as to a less extent in the use of radiography. The lightest possible percussion gave the best results. The use of solvents (hot alkalis, antiformin) might, perhaps, in a few cases facilitate the examination of the sputum. Sputum containing tubercle bacilli could sometimes be obtained after a tuberculin injection, and in young children by employing Holt's method. Dr. Trevelyan now used the skin test (von Pirquet's) extensively, and the conjunctival less. These reactions did not localize the lesion, but where an organ, etc., was suspected they became of importance. The subcutaneous test was the most valuable owing to its focal reaction. The chest and the sputum should be carefully examined while it was proceeding. For rough purposes of prognosis cases might be divided into (*a*) those in the early stages of the disease and susceptible of complete healing, (*b*) those in which the health might be so re-established that the patients could return to work again, (*c*) those in which the patients would never work again. Early cases and curable cases were not necessarily synonymous terms. Not only were the early cases benefited by proper hygienic treatment (open-air methods), but under it the worst features of the later disease were much mitigated or even made to disappear. No drug treatment apart from the specific treatment was of any real permanent service against the disease itself, and drugs should be reserved for and sparingly used in the relief of really troublesome symptoms and complications. During the past two years Dr. Trevelyan had used tuberculin rather extensively, first by the mouth and later almost exclusively by subcutaneous injection. By proper individualization, he maintained that no harm could be done and some benefit might be obtained in almost any stage of the disease. Careful clinical observation of each case, in his opinion, sufficed. He had seen improvement in febrile phthisis by the use of even smaller doses than the small doses usually employed. He was against the ambulatory tuberculin treatment of phthisis unless previously initiated in an institution. This did not so much apply to some other forms of tuberculosis of which he had also treated with favourable results a fair number in ordinary out-patient practice. In conclusion some remarks were made upon the early diagnosis and treatment in relation to the social aspect of phthisis. The importance of the tuberculosis dispensary as the centre of the scheme for dealing with phthisis was emphasized as well as the instructional uses of consumption institutions.

Dr. F. W. EURICH drew attention to the necessity of finding suitable work for the poorer patients who were returned from sanatoriums and were unable to resume their former employment. He emphasized Dr. Trevelyan's remarks, and the value of Goldscheider's method of light percussion in the early diagnosis of phthisis. He thought there was need for a more accurate conception of the relation of the lung to the chest wall, and particularly of the position of the apex. He thought that, on the whole, percussion was a better method than auscultation in the detection of early disease. He had had excellent results in the examination for tubercle bacilli from sputum by using a modification of the antiformin method in which an ether and acetone mixture was employed.

Mr. J. F. DOBSON made some remarks on the value of tuberculin injection, principally in relation to surgical forms of tuberculosis. He had had considerable experience of this form of treatment during the last three years, and in a large number of cases had seen considerable improvement. In many cases of tuberculous glands of the neck the improvement had been general as well as local. He started with small doses of T.R. at fortnightly intervals, the patients attending in the out patient department. For the last six months he had used bacillary emulsion, and, on the whole, thought the results were better than those given by T.R. In treating glands of the neck in this way it was necessary that the preliminary treatment—the removal of carious teeth, adenoid, and the correction of otorrhoea—should be attended to, otherwise it was practically useless to give tuberculin. In other cases, such as bone tuberculosis and certain joint lesions, he had also seen improvement.

Dr. G. W. WATSON thought that, in regard to night sweats, there was some periodicity to be found in their occurrence, and they were not entirely prevented by open-air treatment. They coincided not infrequently with an exacerbation and spread of the disease, and often denoted a mixed infection.

*Cases and Specimens.*

Cases and specimens were shown by Dr. E. F. TREVELYAN, Dr. R. A. VEALE, Dr. M. COPLANS, Mr. J. F. DOBSON, Mr. M. J. STEWART, and Mr. A. S. F. GRÜNBAUM.

## SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

*Thursday, February 2nd, 1911.*

Mr. A. CUFF, President, in the Chair.

*Workmen's Compensation Act.*

MR. R. J. PYE-SMITH in opening a discussion on *Cases of Injury under the Workmen's Compensation Act*, in relation specially to diagnosis (with regard to justice of claim), treatment (with regard to completeness of recovery), and prognosis (with regard to resumption of work), referred to statistics to show the large number of workpeople affected by the Workmen's Compensation Act (over seven millions), the number of accidents at employment occurring annually (nearly 350,000), and the fatalities (between 3,000 and 4,000). Probably less than 2 per cent. of all claims come before the county court judges for arbitration. In these cases he thought that the medical referees should be more frequently called on to act as assessors, as their presence exercised a healthy influence over the medical witnesses, and enabled the arbitrator better to appreciate such evidence and the physical condition of the injured man. The advantages of the Act, whereby the honest and industrious man received pay sufficient to keep his house together when disabled by accident, were largely discounted in the case of the dishonest and lazy, by such dangers as the temptation to make the most instead of the least of an injury, to exaggerate its effects, to abstain from proper remedial measures, to shirk work, and finally to cheat his employer, to bring misery on his family, and to degrade his own moral nature. The importance of a definite diagnosis, based on a careful and sufficiently thorough examination, was insisted on, and the need to make immediate written notes of negative as well as positive conditions. The question of pain was dwelt on as being the cause for the prolongation of many cases for an extraordinary length of time after the complete healing of a lesion, and one of the chief causes for honest differences of opinion between medical witnesses, some of whom were in this respect more credulous or less critical than others. In treatment, the necessity for thoroughness and efficiency were remarked on. Sepsis of wounds was still much more frequent than it ought to be. The stiffness resulting from fractures and sprains was often not early enough treated nor long enough attended to. The danger of inconsiderate suggestion was referred to as liable to provoke or foster those perversions of an invalid's mind which were prone to take root in selfishness or dishonest exaggeration and apt to end in hysteria or malingering. Prognosis was considered to be particularly difficult, on account of the surgeon responsible for forming it not usually having control of the treatment, and because so much depended on the degree of honesty of the workman. Too many cases, however, were allowed to drag on for an inordinately long period because no definite idea of how long the case ought to last had been present in the mind of the reporting surgeon. Mr. A. C. TURNER pointed out that the Act was concerned with "loss of capacity for work from an accident," which was defined as "any mishap or untoward event which is not expected or designed." Whether the cause of injury was an accident or not was for the lawyers to decide, but the doctor must say if a given injury could be caused by a given accident. It was necessary not only to examine the injured part but the body generally. It was also very important to know exactly what work the men did, and to personally see such work done. The results of an accident have to be "natural and reasonable." Dr. E. W. ADAMS pointed out that in cases of life assurance and private accidental injury the opinion of the medical referee was not often seriously challenged. But in cases of injury to workmen the doctor must be prepared to defend every statement of his report. In the case of a malingerer the dogged, unvarying statement of a man determined not to go back to work if he could possibly help it, was a strong thing not easily shaken. The examiner must, therefore, not only be well equipped with the latest surgical and medical knowledge, but know the actual work the man had to do. He thought it would be a great help and advantage to have associated with the examiner an intelligent mechanic conversant with the particular process which the man would have to return to if certified fit. The prognosis, which was the most important factor from the insurance company's point of view, must include not merely an estimate of the time necessary for healing or recovery, but also the probable time required for the perfect functioning of the injured part.

*Typhoid Fever Complicated by Meningitis.*

Dr. F. J. SADLER showed a boy aged 8, convalescent after typhoid fever complicated by meningitis, who had been treated by injections of killed typhoid bacilli. The symptoms of meningitis included the meningeal cry, retraction of head, strabismus, and unconsciousness. There was also paralysis of the muscles of deglutition, nasal feeding being necessary for twenty days. The early convalescence was accompanied by a marked cataleptic condition of the muscles, which, after five weeks, was rapidly improving.

## GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

*Wednesday, January 25th, 1911.*

Dr. A. W. RUSSELL, President, in the Chair.

*Specimens.*

DR. A. W. RUSSELL showed congenital stenosis of pylorus in an infant. Dr. DAVID SHANNON showed: (*a*) A large fibroid of uterus that had undergone cystic degeneration (it weighed nearly 14 lb.); (*b*) a well-marked case of chorion-epithelioma; (*c*) a small uterus with numerous interstitial fibroids and one submucous; myomectomy had been performed in this case nine years ago.

*Pathology of the Embryo in Relation to Abortion.*

Dr. JOHN LINDSAY read a paper on this subject. He showed photomicrographs of five embryos of the first and second months, all malformed and four of them dwarfed. There was demonstrated from the sections cell proliferation in the mesoderm such that the tissue did not grow, but its meshes became filled with small round cells which also invaded the hollow organs and body cavities, the specialized tissue cells disappearing before the invasion. The whole of some of the embryos and parts of others showed only undifferentiated round cells in various stages of degeneration. The evidence was clear that the degenerative changes were necrobiotic and not due to *post-mortem* maceration. The ectoderm was intact and well preserved in all the embryos. The pathology being that of malnutrition, the causation was referred to maternal blood states, and it was suggested that similar changes leading to the dissolution of minute embryos rather than the maceration of embryos of a size conforming to the gestation period account for the empty decidual sacs which are frequent in abortion of the second month.

Dr. LOUISE MCILROY asked if there was evidence of thyroid insufficiency in any of the maternal cases. The statement that albumen in the urine was associated with malnutrition in the embryo was of interest when it was remembered that the experimental work done by removing the thyroid in cats caused albumen in the urine. Also experiments of removing the thyroid in pregnant animals caused hypertrophy of that gland in the fetus with diminished function.

Dr. TEACHER agreed with the conclusions that erroneous development of the embryo was a common cause of abortion, and that it was in all probability the expression of defective nutrition or toxic influence acting through the medium of the maternal blood. With regard to those cases in which the embryo was entirely absent, he was of opinion that they were more readily explained by complete failure of development on the part of the embryonic rudiment than by maceration of an embryo which had been formed and possibly grown to a considerable size. While the latter cause could not be excluded, it was apparent from the condition found in the very earliest stages that the embryonic rudiment might be completely absent—for example, Leopold's ovum of 1.5 mm. While it was probable that ova of this class would be extruded at a very early stage, it was clear that there was sufficient power of independent growth in the placental portion of the ovum

to permit of development to a considerable size. In cases of this class Dr. Teacher was of the opinion that there might be not so much unsatisfactory nutritive conditions as simple lack of formative power in the fertilized ovum, so that, although the early stages of formation were passed in safety, a time came when the power of growth was spent and the ovum ceased to grow and was expelled. He disagreed with Dr. Lindsay as to the greater frequency of abortion in ova fertilized towards the end of the intermenstrual period. Doubtless, on the analogy between the oestrous cycle and the menstrual cycle, the earlier part of the period might reasonably be regarded as the normal one for fertilization, but facts were wanting to prove that the latter part of the period was unfavourable to continued development, and the histories of various ova which had been admitted to the Normen-Tafeln of Human Embryology (Keibel) showed that normal development might result from fertilization in the later parts of the intermenstrual period.

*Congenital Stenosis of Pylorus.*

Dr. WEST read a paper on and showed a specimen of congenital stenosis of the pylorus in an infant. The child was quite healthy at birth and weighed 7½ lb. It was applied to the breast on the second day and suckled at regular intervals. When it was one month old vomiting began and gradually became much worse. The child lost weight. The abdomen was distended on account of the dilated stomach, and the characteristic splashing sound could be elicited on shaking the child. On deep palpation in the pyloric area a fusiform mass could be felt. Medical treatment having had no effect the question of operation was raised, but the parents would not give their consent. Twenty-four days after the onset of vomiting the child died in a comatose state. At the *post-mortem* examination the small and large intestines were found empty; the stomach was large, its walls thickened, and its capacity was found to be 4½ oz. At the pyloric end there was a large mass of cartilaginous firmness. The stomach and duodenum were absolutely empty.

## THE NEW LONDON DERMATOLOGICAL SOCIETY.

AT a meeting held on February 9th, Dr. P. S. ABRAHAM, President, in the chair, Dr. G. STOPFORD TAYLOR (Liverpool) showed a case of *Darier's disease* in a man, aged 33, who had suffered for two and a half years with a general hypertrophy of the sebaceous system. The PRESIDENT showed a case of *Dermatitis herpetiformis* in a boy of 5. Dr. G. NORMAN MEACHEN showed (1) a child with *Granuloma annulare;* (2) a case of *Leukoplakia associated with longevity.* Dr. DENNIS VINRACE showed a girl with *Multiple tuberculous lesions* after varicella. Dr. KNOWSLEY SIBLEY showed (1) a case of *Rodent ulcer* upon the elbow of a man, treated by *x* rays; (2) *Lupus* of the nose in a young woman, similarly treated; (3) *Sebaceous alopecia* of the "male type" in a young woman. Dr. Sibley also gave a demonstration upon the hyperaemic treatment of skin diseases, and he showed a case of *Keloid* of the cheek and *Pernio* of the nose, both of which had yielded well to a course of graduated suction with Bier's cups. Dr. WILLIAM GRIFFITH showed (1) a man with *Severe nodular infiltration* and ulceration upon the left thigh, believed by some to be a cases of mycosis fungoides; (2) *Erythema multiforme* in a young man; (3) the apparatus employed in the intravenous injection of arseno benzol ("606"); and Dr. MORGAN DOCKRELL showed a young woman who had thus been injected for syphilis. The inaugural dinner of the society was held on the same evening at Pagani's Restaurant, the President being in the chair. Among those present were Dr. H. Macnaughton-Jones, Dr. J. Barry Ball, Dr. F. J. Waldo, Dr. R. O. Moon, Mr. L. A. Bidwell, and others. The toast of the "New Society," felicitously proposed by Dr. H. MACNAUGHTON-JONES, was enthusiastically drunk, and Dr. P. S. ABRAHAM replied.

## HARVEIAN SOCIETY OF LONDON.

AT a meeting held on February 9th, Mr. J. ERNEST LANE, President, in the chair, Mr. JACKSON CLARKE read a paper on *Two cases of abscess of the liver complicating appendicitis.* Both patients were boys, one aged 8¾, the other 4 years. In both the original lesion was an easily accessible perforated appendix with abscess. The symptoms of liver implication were obscure, there being no downward increase of liver dullness, and the upward increase occurring late; the chief symptom was fever of septic type not otherwise accounted for. In both exploration through the ninth intercostal space revealed the pus, and operation was done by removing part of the ninth rib. The intrahepatic situation of the abscess was established at the operation. Infection of the pleura followed operation in one case, in spite of the usual precautions. Both patients recovered completely. Dr. FREDERICK MCCANN read a paper on the *Surgical treatment of sterility in women.*

# Reviews.

## "SMITH UPON TAYLOR."

TAYLOR'S *Principles and Practice of Medical Jurisprudence*[1] has long been regarded as a classic work by the medical, and perhaps even more by the legal, profession. With the lapse of time it has come to be almost like the doctor's gown of Rabelais at Montpellier, which has been patched and repatched till nothing of the original stuff remains. But that "Taylor" has more than a traditional vitality is shown by the fact that a fifth edition, which appeared only five years ago under the editorship of Dr. F. J. SMITH, has already been exhausted, and a new one has lately been issued under the same auspices. This is about half the period of life of former editions, and shows that in the hands of the new editor—who may more appropriately be called the renovator—the book has gained rather than lost in popularity. "Smith upon Taylor" is, in fact, as indispensable to the student of medical jurisprudence and to the expert of the present day as the original was for so many years. This is a striking testimony to the success with which Dr. F. J. Smith has performed the proverbially difficult task of pouring new wine into old bottles.

In its essential features the present edition is very similar to its immediate predecessor, but some alterations have been found necessary. The chapter on lunacy has been considerably abbreviated. On the other hand the legal aspects of anaesthesia are fully dealt with; whilst to the chapter on life insurance has been added a full discussion of the Workmen's Compensation Act of 1906. The main features of the Act are clearly set forth, and many cases quoted to illustrate the interpretation of its clauses. In view of the frequency of disputed cases under this Act, a proper understanding of it is very important to all practitioners, and this chapter provides in a lucid and readable form the information required.

So vast and complex are becoming the relations of the medical profession with the public health and the courts of law that soon it will no longer be possible for one man to speak with authority on all the matters connoted by the term "forensic medicine." Already recent legislation has largely expanded the sphere of the medical jurist, and in the near future still further enlargements are to be looked for in the direction of death certification, coroners' law, divorce, and other matters in regard to which it is recognized that important changes are necessary. Dr. F. J. Smith, in his preface, says that the time cannot be very long delayed when "Taylor" in its present form will have to give way to a system of legal medicine larger in scope and dealing with so many new subjects that the various sections will have to be allotted to different specialists.

In the meantime the present edition may be commended to doctors and lawyers as a clear and judicious summary of what is definitely known in the large field which it covers. Apart from its merits as a scientific treatise, Dr. Smith's racy style makes the book easy reading; everywhere is visible the hand of a man possessing the rare gift of disentangling the vital point from masses of

[1] *The Principles and Practice of Medical Jurisprudence.* By the late Alfred Swaine Taylor, M.D., F.R.S., F.R.C.P. Sixth edition. Edited, revised, and brought up to date by Fred. J. Smith, M.A., M.D. Oxon., F.R.C.P., F.R.C.S. Two volumes. London: J. and A. Churchill. 1910. (Vol. i, pp. 950; vol. ii, pp. 887. £2 2s. net.)

superfluous and confusing detail. The publishers are also to be congratulated on the handsome and convenient form in which the work has been produced.

## GYNAECOLOGY.

EXPERIENCE has shown that good textbooks may be written by beginners, especially under the auspices of a senior colleague, but the medical public often complain that those who have spent many years in the practice of surgery appear disinclined to publish manuals, or educational treatises of a more ambitious type. Hence *Gynécologie opératoire*[2] will be well received, as M. HARTMANN is known among his countrymen as a gynaecologist of great experience, and his name must be familiar to British workers in the same field, if only on account of his long-standing connexion with the *Annales de gynécologie et d'obstétrique*. The general plan of the work will commend itself to the specialist and the teacher, but it does not show any specially original feature. As in most French works, the descriptive passages are very lucid, and the diagrammatic sketches demonstrating the stages of operations are even bolder and clearer than in most contemporary manuals issued in Paris. We need not dwell on other commendable features, such as an absence of display of personal prejudice and of burdensome references, literary virtues which the Anglo-Saxon writer on both sides of the Atlantic would do well to cultivate. It is for the opinion of this experienced authority on disputed questions that the reader will most probably search his pages. M. Hartmann is absolute about the antiseptic question. In his chapter on the general principles of abdominal surgery he insists, in italics, that directly the peritoneum is opened all antiseptics must be put aside and the surgeon must limit himself to asepsis. He considers that the destructive action of antiseptics on germs is counterbalanced by their deleterious effects on the peritoneal endothelium which, in his experience, may lead to "most disastrous consequences." He admits that absolute asepsis has never been realized, but maintains that it is not indispensable as the peritoneum is very resistant to infection, but in order to allow it full exercise of its resistant powers it must not be damaged or irritated by antiseptics. M. Hartmann objects distinctly to flushing or irrigation of the peritoneum, and states that he has never employed it, preferring drainage and subcutaneous injections of serum in cases in which some surgeons would irrigate. To those who have practised gynaecology for twenty years or more, it must seem strange to find an authority so up-to-date as M. Hartmann advocating drainage, and, what is more remarkable, abdominal drainage. "Whenever the uterus has not been removed entire, we drain by the abdomen." This statement would have startled the gynaecological public ten years ago, but nowadays the drain has once more become popular with many specialists. The author objects to glass tubes which are brittle and may cause pressure lesions; and, like many other writers, he rejects gauze, which if it happens not to lie accurately against the oozing area may actually prevent the escape of serum; besides, as we all know, its removal always causes pain. The treatment of cancer of the uterus is a subject on which M. Hartmann can speak with special authority. He has seen several surgical methods rise and fall, as have many of us who do not yet consider ourselves to be aged. Already there is a reaction against the extremists, of whom Wertheim is the practical exponent, and M. Hartmann is in accord with the most recent views. He refers satirically to those who advocate resection of the bladder or of part of the ureters as routine practice, and implies that even such practices are more logical than the systematic dissection and removal of glands high up the pelvis. For, after all, the bladder and ureters may be involved early in the course of cancer of the cervix; while, as König has shown, early swelling of the iliac, inguinal and lumbar glands is relatively uncommon, at least in primary cancer of the body; when detected such swellings, as a rule, imply that the malignant process has advanced elsewhere to such an extent as to render any operation worse than useless. Once more calling on the aid of italics to emphasize his views, M. Hartmann insists that we are not called upon to hunt up glands when treating cancer of the body of the uterus. But other surgeons will reply: We may be too particular about glands when the cancer has begun in the body, and it has been known for years that cancer of the body is much less malignant than cancer of the cervix, but for that disease surely as glandular infection is so constant, free dissecting away of glands is imperative. The author does not agree, stating that necropsies have proved that the frequency of rapid infection of glands in cancer of the cervix has been exaggerated, and that when the body of the uterus is the primary seat of disease the infection when detected will be too widespread to allow of a successful operation. Kundrat makes out that only about 13 per cent. of the cases where the glands are involved are still suitable for operation. These statistics are against routine removal of the glands, and M. Hartmann adds, a big gland often proves to be simply inflamed, whilst a cancerous gland may be minute. Lastly, the surgeon cannot dissect high up the aorta, whilst, on the other hand, recurrence after operation, as Kundrat himself admits, develops around the cicatrix "in the immense majority of cases." The parametrium is very liable to recurrent disease, and it is especially important to remember that, as M. Hartmann has himself noted, the vagina may be invaded when its mucous membrane still appears healthy. He therefore advocates for cancer of the uterus or cervix the abdominal operation, with free excision of the vagina as well as free dissecting away of the parametric connective tissue. We have dwelt at length on the opinion of the talented and experienced author of *Gynécologie opératoire* on the surgery of cancer of the uterus, because it is at present so prominently before the medical public, and it is necessary to know what he thinks justifiable for teaching through the medium of his treatise. Space remains insufficient for us to indicate his view on other and triter questions, but we may note that M. Hartmann still favours subtotal hysterectomy for fibroid, but, like Mr. Bland-Sutton, prefers to dissect away as much of the muscular tissue of the stump of the cervix as possible, and, above all, to extirpate the mucosa. Other operators maintain that the mucosa has a distinct physiological value, and should be saved. Lastly, it is satifactory to find that M. Hartmann is chary about glorifying uterine fixation, which he speaks of as often satisfactory from a purely orthopaedic standpoint—very qualified praise, no doubt; whilst he objects on the whole to the shortening of the round ligament by an operation, well known to gynaecologists, which involves the opening up of the inguinal canal.

In his *Principles of Gynaecology*[3] Dr. BLAIR BELL has given hostages to fortune of which one might take advantage by citing the instances in which his opinion differs from that commonly held, but inasmuch as he also challenges the critic by presenting his work as an attempt to give an account of gynaecology on new and scientific lines, it is necessary to resist this temptation and consider in how far he has justified his claim, and how far the result is successful as a presentation of the subject for the use of student and practitioner. In general his method may be described as deductive and dogmatic in opposition to the inductive method which must be followed by the practitioner in arranging his own experience, and which has been adopted as the basis of arrangement in some well-known textbooks. After introductory chapters on the evolution and development, the anatomy and physiology of the female genital organs and on case taking, he abandons more familiar topographical classification of the affections of women for a pathological classification with topographical subheadings. Thus we have chapters on anatomical derangements, congenital and acquired, and on physiological derangements in relation to menstruation and to conception. These are followed successively by infective and parasitic diseases, retention and effusion cysts, innocent neoplasms, malignant neoplasms, and "allied conditions." Finally come two chapters on preparation for operation and subsequent management

[2] *Gynécologie opératoire.* Par Henri Hartmann, Professeur de médecine opératoire à la Faculté de Médecine. Paris: G. Steinheil. 1911. (Double demy 8vo, pp. 504, figs. 422. F. 18.)

[3] *The Principles of Gynaecology.* By W. Blair Bell, B.S., M.D.Lond. London: Longmans, Green and Co. 1910. (Pp. xxvii, 551, with 6 coloured plates and 357 illustrations in the text. 21s.)

and on the main principles of operation and technique, and two appendices, one on electro-therapeutics in gynaecology by Mr. Curtis Webb, and one on the classification of the causes of certain symptoms. While the attractions of the pathological classification which Dr. Blair Bell has carried through with logical rigour may be acknowledged, it would be impossible to admit a contention that it is more than usually scientific, and from the practical point it has the drawback that occasionally it fails to give, in Dr. Bell's hands, a clear picture of some gynaecological conditions so well as one, in the main, topographical; and while the dogmatic presentation of the subject may gladden the heart of the student preparing for examination in schools where the dogma is accepted, it cannot, however sane, be recognized as of the same educative worth as the more equal presentation of both sides on debated questions. Dr. Bell's success in presentation is unequal. His descriptions of operations are clear and good, and the section on fibromyoma, which is, of course, independent of the basis of classification, is also effective; but in others, and notably that on menstruation, the result is less satisfactory; and here we note a divergence on fact between the author and Van der Velde as to the time relation of the temperature maximum and the onset of flow. There are also some important omissions, such as mention of the nodular character of early tuberculous tubes and of *Mittelschmerz*. On the whole Dr. Blair Bell is less successful in symptomatology than in pathology. The volume is well printed, and the illustrations, most of which are useful, are generally good, and the index is very full and useful. The omission of all references is deliberate, possibly contributing to the dogmatic method.

## WOUNDS IN WAR.

IN the preface to the third edition of his *Wounds in War*,[4] Colonel STEVENSON indicates that the first reason for its production is the exhaustion of the second. That is all to the credit of his public, but inasmuch as the book has become an established textbook, it may be wished that the secondary reason, the publication of the fullest available records of the Boer war and the new material furnished by the Russo-Japanese, had had more weight with the author. Not that the editor of the Report on the Surgical Cases noted in the South African War, 1899–1902, has neglected the new sources of experience, but he evidently considers that the most recent data can as yet only supplement, and do not supersede, the materials of his previous edition. There are in all fifty pages of additional matter, and an increase in the number of illustrations by five. The revision in 1906 of the Geneva Convention, and changes in "the means employed for the succour and treatment of sick and wounded in war," furnish subjects for comment and elucidation of which so competent an authority as the author has not failed to avail himself. He makes quite plain the essentially military character assumed by all civil agencies for the succour of the wounded immediately upon the outbreak of war, and their complete subservience to military discipline, if they are to benefit by the immunities of the Red Cross. He points out incidentally that the signatory Governments to the Convention have agreed to take such steps as will render illegal the unauthorized employment of such a military emblem as the Red Cross by individuals or commercial establishments for the marking of goods or other non-military purposes. The text of the new Convention is here printed. Mr. Mackenzie Davidson has written anew his article on the localization of bullets and stereoscopic radiography, describing the well-known cross-thread localizer associated with his name, and giving many practical hints on the production and methods of viewing stereoscopic pictures. In view of the enormous strides recently made in vascular surgery, it is a little remarkable that the author has not modified some of his advice as to the treatment of injuries of vessels and aneurysms. Again, in connexion with the surgery of the chest, it seems probable that in future wars, base hospitals, even if not "clearing" hospitals, will be provided with some means of conducting operations under conditions of positive or negative pressure; and, though this book is in no sense a treatise on operative surgery, it deals with general principles of treatment, and with the effects upon the indications for treatment of the characters of the wounds produced by modern weapons and projectiles; surely, then, the technical developments which are applicable in the new conditions, need reference. Possibly the author had in mind, though he is not specially concerned therewith, the conditions of modern naval warfare and the desperate inadequacy of any available resources for dealing with the masses, or the appalling characters, of the injuries inflicted. All these observations are perhaps hypercritical, and must be taken as evidence that, even at a second review after six years, no serious fault can be found with a book that affords an excellent summary of its subject, and a safe guide to practice founded upon carefully sifted evidence from cases and reports.

DR. RIEDINGER'S pamphlet upon the effects of modern projectiles[5] has the pleasant characters of an address delivered before a scientific audience on a more or less festive occasion. The story of the development of modern firearms and bullets is lightly sketched in; the theories, diverse and ingenious as they are, of the "explosive" effects of high velocity projectiles upon the tissues are tersely indicated, and the horrors of the older battlefields, though described, are robbed of their nakedness, if not of their vividness, by quotation from the memoirs of those who wrote upon the spot chastened by the sense of their own impotence to assuage the ills they witnessed. This is an interesting review of the subject, but not an important contribution to surgery.

## THE BRITISH RED CROSS IN 1870–1.

MR. HENRY RUNDLE, now Consulting Surgeon to the Royal Portsmouth Hospital, was one of the first party of surgeons sent out by the British Red Cross Society at the beginning of the Franco-Prussian war. He has recently published his reminiscences of the war in a volume entitled, *With the Red Cross in the Franco-German War*.[6] He belonged to the section of the party which went to Germany. After a visit to Berlin, where their position was regularized and where the Crown Princess received and encouraged them, and after a short time in the neighbourhood of Metz the British surgeons were sent to Darmstadt to establish a reserve hospital. This, the only hospital in Germany under English management, owed much to Princess Louise of Hesse-Darmstadt (Princess Alice of England), and was known as the Alice Hospital. Mr. Rundle gives us to understand that it was mainly organized by Dr. Charles Mayo, Fellow of New College, Oxford, who had previously served in the American Civil War, and later with the Dutch in Atchin, and who died when Medical Officer in Fiji. The Alice Hospital worked for about a year, but Mr. Rundle found an opportunity of visiting the neighbourhood of Strassburg, and entered the city immediately after the surrender. Mr. Rundle has illustrated his little book, which is published for the benefit of the Royal Portsmouth Hospital, by some excellent photographs of the hospital at Darmstadt and of its staff, of Strassburg after the siege and to-day, and of various other appropriate matters. To his reminiscences he has added a chapter of conclusions of a kind to give every thoughtful man much food for reflection. We will not follow the author into all the subjects he has touched upon, but may end this brief notice by quoting one sentence from the last chapter:

> So long as war is possible, so long should we be prepared, not only in the militant sense, but also to render aid to its victims. The organization of our medical and nursing corps should be perfected in times of peace rather than under the stress of national emergency.

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[4] *Wounds in War: The Mechanism of their Production and their Treatment.* By Colonel W. F. Stevenson, C.B., R.A.M.C. Third edition. London: Longmans Green and Co. 1910. (Demy 8vo, pp. 559; illustrations 132. 16s.)

[5] *Ueber die Wirkung moderner Projektile.* Von Dr. F. Riedinger, Professor in Würzburg University. Würzburg: Curt Kabitzsch. 1909. (8vo, pp. 30, illustrations 12. M 4.)

[6] *With the Red Cross in the Franco-German War*, A.D. 1870-1. By Henry Rundle, F.R.C.S., Consulting Surgeon to the Royal Portsmouth Hospital. London: Werner Laurie. (Pp. 90, double pott 8vo. 2s. 6d.)

## NOTES ON BOOKS.

DR. FELDMAN'S little work on *Nursery Hygiene*[7] is another of the now numerous class intended for mothers and nurses. It is more comprehensive than its title would suggest, for it deals not only with the hygiene of infants and children, but with the health of the mother during pregnancy, and the more important measures to be observed during parturition and lactation. In the preface the author expresses the belief that the information afforded would be found to be "practical and accurate," and a perusal of his work favours the view that his belief was well founded. The points he has selected for dealing with seem to be those as to which such knowledge as can be imparted to mothers and nurses might be of service, and his advice is judicious and marked by common sense. As minor details, we would suggest the omission of the first figure, "The Fetus inside its Mother's Womb," and that further precautions than the avoidance of fire or a naked light might be added when advising a mixture of paraffin and olive oil for pediculi. The book is one of the best of its class, and should prove distinctly useful to those for whose benefit it is written.

A pamphlet on *The Nature of Cancer*,[8] by Mr. JOHN CLAY, who is apparently not a member of the medical profession, professes to give an account of a cure for cancer which has been discovered by the author. Unfortunately no description is given of the ingredients or of the mode of preparation of the "solution" by which the cures are said to have been effected. A table at the end of the volume gives a list of the cases which Mr. Clay claims to have treated with success, most of them having been previously submitted to operation, but there is no mention in the table of the length of time which has elapsed since the treatment was decided to be successful. Some details of a few of the cases are given in an earlier part of the volume, and the chief "cure" seems to have been that of a relative of the author, who is said to have suffered from sarcoma. Altogether only a very meagre account is vouchsafed of the new treatment, the greater part of the small volume being taken up with an account of the result of recent cancer research compiled from various writers on this subject. The publication of a book like this can only tend to raise hopes which cannot be fulfilled when an author who professes to be able to cure has not the necessary knowledge to show him on what insufficient grounds his claim is based.

The little pocket guide to therapeutics which has been published by Dr. SCHNIRER[9] is small and light, but contains a great deal of information. It might have a better index, and it does not republish the whole German Pharmacopoeia, but it is emphatically what it is intended to be—a useful guide to the busy practitioner. There is a list of diseases with brief diagnostic indications and notes on treatment: a number of formulae for the cosmetic treatment of the skin, hair, nails, and mouth; a list of drugs, including many proprietary remedies, giving their composition, therapeutic action, and dose; a list of newer remedies arranged under their therapeutic action; a description of the various curative serums with their mode of administration and dose; a list of food preparations, giving their composition, dose, and the addresses of the makers; a guide to the diagnosis and treatment of acute poisonings; first-aid hints in sudden illness; subcutaneous injections; inhalant remedies; a table of the maximum doses of drugs; a table giving the number of drops of given liquids in a gram; tables of body-weights and heights; comparative tables of the metric system and apothecaries' weights; a table of weights for age in infants; a table of age and length in infants from 1 to 30 months; a table of the average height and weight at various ages from 1 year upwards; tables of dentition, pregnancy, of the incubation of disease, of pelvic measurements; the various thermometric scales; a description of the various modes of using tuberculin; a description of infant foods; descriptions of what the author calls "technical treatment," such as bleeding, cupping, applying compresses, hot-air baths, lumbar puncture, and washing out the stomach; diet cures and cookery, with digestion tables; a list of recent therapeutic suggestions; and, finally, a directory of watering places, sanatoriums, and private clinics. It is astonishing that so much can be compressed into a book so small as to be easily carried in the pocket.

[7] *A Manual of Nursery Hygiene.* By W. M. Feldman, M.R.C.S., L.R.C.P. London: Baillière, Tindall, and Co. 1910. (Cr. 8vo, pp. 179; 45 illustrations. 2s. 6d.)

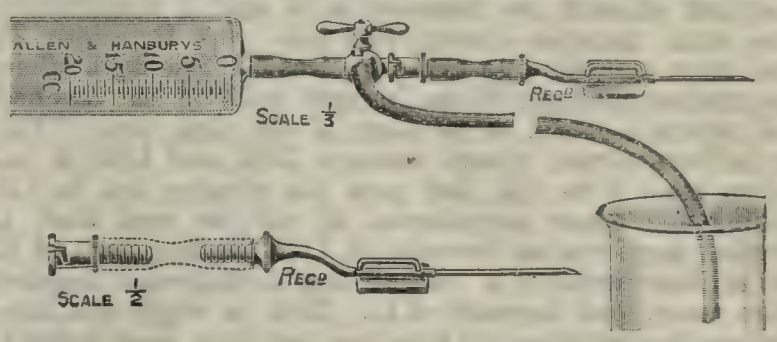
[8] *The Nature of Cancer.* By John Clay. London: Swan and Sonnenschein. (Small 8vo, pp. 159.)

[9] *Taschenbuch der Therapie.* Herausgegeben von Dr. M. T. Schnirer. 7te Ausgabe. Wuerzburg: Curt Kabitzsch. 1911. (Pott 8vo, pp. 450. M. 2.)

## MEDICAL AND SURGICAL APPLIANCES.

*Intravenous Injection of Salvarsan.*

MR. J. E. R. MCDONAGH, F.R.C.S. (London), writes: Messrs. Allen and Hanburys, Limited, of 48, Wigmore Street, have constructed to my suggestions a three-way syringe and cannula for the intravenous method of giving salvarsan. The needle, which is made of platinum with an iridium point, is only just over 1 in. in length; the advantages of a short needle are that it is not so easily dislodged, it is not so likely to injure the vein or to perforate its walls, and the surgeon has more command over it. The point of the needle is on its under surface. Behind the needle is fitted a small plate, concave underneath, to lie more easily on the arm, and above it is a metal bridge, through which a piece of tape can be passed and tied round the forearm or a piece of rubber tubing fastened by means of pressure forceps. The base of the needle curves upwards, and is fixed on to the three-way stopcock by means of a bayonet catch, which prevents leakage. Between the catch and the needle there is a loose connexion made by thick rubber tubing, which is of great advantage, since a movement of either the patient's arm, the stopcock, or syringe is broken at this point, and is not transmitted to the needle.




The stopcock is fitted with a projecting piece, to which is attached some tubing for the purpose of conveying the salvarsan solution to the syringe. The syringe, which should be all glass and of 20 c.cm. capacity or more, fits on posteriorly by means of a small piece of india rubber tubing, which enables any syringe to be used and again prevents leakage. To use the syringe the tap should be turned at right angles to the needle and some saline drawn up along the long tube into the syringe, which should be emptied and refilled until all the air has disappeared. With the syringe full of saline the tap should be turned until it is parallel with the needle, and some of the saline injected to remove any solid particle or air from the needle, then, with the stopcock open the needle should be grasped by the plate behind it and inserted into a vein. The moment the needle enters the vein blood flows back into the syringe. The plate should then be fixed as above described and the tourniquet removed from the arm and some saline injected, to be quite sure that no infiltration forms. The tap is turned back again and the salvarsan solution aspirated into the syringe and injected. When the salvarsan solution is finished the tube should be transferred back to the saline, and finally a small quantity of saline injected to wash out the vein and prevent any leakage of salvarsan into the subcutaneous tissue. To inject a dose in this way occupies about six minutes. The advantages of injection over transfusion are: (1) The needle is not so easily dislodged. (2) The operator has more control over the proceedings. (3) The flow can be stopped immediately, so that should the needle slip out of the vein the amount of salvarsan which escapes into the subcutaneous tissue need not be more than a drop or two. (4) There is no danger of air or a solid particle gaining access to the vein. Air is easily seen in the syringe and remains at the top, never coming over the centre unless the piston is forced right home. A solid particle is also seen; it falls to the bottom of the syringe and is not disturbed if the solution is injected slowly and steadily. (5) The operation is pleasanter from the patient's point of view, and it is also very much quicker. (6) The risks which are alleged to follow injection and not transfusion do not in actual practice exist.

THE Dundee Corporation has ordered from Argylls, Limited, a fire engine with centrifugal pump; the Corporation already possesses an Argyll fire tender.

## THE PROGRESS OF CREMATION.

*Great Britain.*

THE records of cremation show that there was a slight decrease in this country during the year 1910, the total number having been 840, as against 855 in 1909. This decrease has been fairly evenly distributed among the thirteen crematories in Great Britain. The table at the foot of this page, which we take from *Transactions of the Cremation Society of England*, No. XXIV, 1911, shows the total number of cremations carried out in Great Britain since 1885.

The number of crematories under municipal control is now seven—Liverpool, Hull, Leicester, Leeds, Ilford, Bradford, and Sheffield, taking them in the order of seniority. There is, we understand, a movement to establish one at Bristol. From the table it will be seen that in the municipally controlled crematories there has been no progress, but rather the reverse, though the figures are too small to base any induction upon. At Ilford the total number of bodies disposed of by burning since the crematory was opened in 1905 is 115, and the number last year was 22, against 24 in 1909. It is somewhat remarkable that this should be the case, as Ilford is in London, near the centre of the movement, and the fee charged is smaller than at Golder's Green. At Liverpool there was a decrease of 9; at Leicester of 3; at Leeds of 7; and at Sheffield of 10. On the other hand, Hull and Bradford showed an increase of 6 and 1 respectively. The total decrease during the year was therefore 24. The most considerable decrease was at Sheffield, where the number fell from 18, the highest point it has reached, to 8, which is only 1 in advance of the first year (1905). At Golder's Green, where between 1902 and 1909 it had grown from 5 to 421, last year the number fell to 415. Taking the other crematories, it will be seen that at Woking there was an increase of 1; at Birmingham of 8; and at Manchester of 8. At all the crematories together there was a total decrease of 15. This is slight but none the less disappointing, as nowhere has there been a steady increase. The total number of cremations carried out in this country since 1885 is 8,961, of which 3,326 were carried out at Woking and 2,423 at Golder's Green.

Yet there are not wanting signs that, notwithstanding the decrease which has been recorded, cremation is making headway. The Cremation Society of England is in a flourishing condition, and many well-known persons have lately given practical support to the movement by becoming life members. The annual meeting of the Darlington Cremation Society was held on December 19th, 1910, when the chairman said that the statement of account showed that during the year the society had been able to pay the debenture interest leaving an increased balance to carry forward.

In Scotland a cremation society was formed in Edinburgh at the beginning of last year, and at the date of the first meeting, February 2nd, 1910, the membership already amounted to about 180. The president is Sir Henry Littlejohn; among the vice-presidents are Sir Alexander R. Simpson and Dr. T. S. Clouston. The ultimate object of the promoters is to have a crematorium erected in the city, but in the meantime the purpose of the society is simply to popularize and interest the public in the movement. In Glasgow the annual meeting of the Scottish Burial Reform and Cremation Society was held on January 27th, 1910.

Dr. Ebenezer Duncan, who presided, stated that there was still a strong prejudice against cremation among the Scottish people; the average number of bodies thus disposed of during the last few years was only 30. He expressed the conviction that if the facts as to earth burial became matter of common knowledge, cremation would come into favour. Mr. Archibald Denny recently offered to the Dumbarton Town Council £100 as a contribution towards the establishment of a public crematory in or near the town. The gift was accepted by the Council.

Cremation is still almost entirely confined to the well-to-do classes, and the fact that interest in the movement is surely spreading among them is shown by the number of inquiries on the subject addressed to the Cremation Society of England, and by the intellectual distinction or social position of the persons cremated. Among those whose remains have been disposed of in this manner at Golder's Green alone from 1903 are the following: W. E. H. Lecky, Herbert Spencer, Sir Leslie Stephen, Sir Henry Thompson, founder of the Society; Sir Henry Irving, Mr. T. H. Wakley, and Dr. Thomas Wakley, editors of the *Lancet*, Mr. Arnold Forster, Mr. A. J. Walter of the *Times*, Sir William Huggins, Sir William Abdy, and Dr. F. J. Furnivall. The name of Lady Dilke is in the list, to which that of her distinguished husband has been added within the last few weeks. The number of artists is noteworthy. Among them are W. P. Frith, Holman Hunt, R. W. Macbeth, Boughton, Linley Sambourne, all, with the exception of the first-named, having been cremated during the year 1910; to these has been added quite recently the name of Mr. MacWhirter. Among clergymen we note the names of Archdeacon Aglen, Archdeacon W. H. Tribe, and, at an earlier period, the Rev. H. R. Haweis, the Rev. Brooke Lambert, Canon Henry Shuttleworth, Canon W. H. Cooper, Norman MacLeod Ferrers, D.D., and Brook Herford, D.D. Among eminent members of the medical profession we find the names of Dr. Hayle Walshe, Sir Spencer Wells, Mr. Arthur E. Durham, Dr. Langdon Down, Dr. George Harley, Sir Benjamin Ward Richardson, Mr. Ernest Hart, and Sir W. H. Flower. Among other well-known persons whose names are in the

*Table of Cremations carried out in Great Britain since the opening of Woking Crematorium in 1885.*

| | 1885–6. | 1887. | 1888. | 1889. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. | 1905. | 1906 | 1907. | 1908. | 1909. | 1910. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Woking ... ... | 13 | 13 | 28 | 46 | 54 | 99 | 104 | 101 | 125 | 150 | 137 | 173 | 240 | 240 | 301 | 273 | 275 | †143 | 138 | 95 | 140 | 108 | 119 | 105 | **106** | **3,326** |
| Manchester ... | ... | ... | ... | ... | ... | ... | 3 | 30 | 47 | 58 | 52 | 51 | 62 | 88 | 83 | 96 | 81 | 92 | 98 | 97 | 90 | 98 | 116 | 106 | **114** | **1,462** |
| Glasgow ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 10 | 16 | 12 | 16 | 20 | 18 | 20 | 24 | 19 | 35 | 44 | 30 | 28 | 30 | **28** | **351** |
| *Liverpool ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 10 | 27 | 23 | 40 | 40 | 54 | 35 | 40 | 35 | 46 | 34 | 32 | 46 | **37** | **501** |
| *Hull ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 17 | 13 | 18 | 20 | 15 | 17 | 29 | 37 | 15 | **21** | **202** |
| Darlington ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 2 | 1 | 7 | 4 | 13 | 8 | 6 | 9 | **9** | **60** |
| Golder's Green ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 | 158 | 220 | 252 | 298 | 290 | 364 | 421 | **415** | **2,423** |
| *Leicester ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 5 | 8 | 16 | 12 | 12 | 14 | 19 | **16** | **103** |
| Birmingham ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 19 | 22 | 25 | 33 | 18 | 30 | **38** | **186** |
| *Leeds ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 16 | 15 | 16 | 24 | 19 | **12** | **102** |
| *Ilford ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9 | 23 | 18 | 19 | 24 | **22** | **115** |
| *Bradford ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | — | ... | ... | ... | ... | ... | ... | ... | 1 | 14 | 13 | 6 | 13 | **14** | **61** |
| *Sheffield ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 | 6 | 18 | 12 | 18 | **8** | **69** |
| Total ... ... | 13 | 13 | 28 | 46 | 54 | 99 | 107 | 131 | 172 | 209 | 201 | 250 | 341 | 367 | 444 | 445 | 451 | 477 | 569 | 604 | 743 | 707 | 795 | 855 | **840** | **8,961** |

* Municipally controlled. † Golder's Green Crematorium in operation.

list may be mentioned George Meredith, Antoinette Sterling, H. G. Seeley, George MacDonald, Sir Edwin Arnold, W. E. Henley, Miss Ada Ellen Bayly (Edna Lyall), General A. H. Pitt Rivers, Grant Allen, Mrs. Linn Lynton, Edmund Yates, Sir Henry Layard, Lord Bramwell, and James Nasmyth. Only the other day the remains of the father-in-law of the Prime Minister, Dr. Frederick Melland, father of Mr. Asquith's first wife, were cremated at Manchester. The ceremony was attended by the Premier.

There is no reason for the advocates of cremation to be discouraged at the slow progress of the movement. The disposal of the remains of the dead body can hardly be considered a subject likely to excite enthusiasm. The force of traditional custom consecrated by so many centuries must inevitably act as a strong obstacle which only time and the spread of knowledge can overcome.

*Germany.*

A bill making cremation permissible was recently submitted to the Prussian Legislature, but it has not received the support of the Government, and no mention of it was made in the speech from the throne at the recent opening of Parliament. In other parts of Germany cremation is making progress. According to *Die Flamme* the total number of cremations in 1910 was 6,074, being an increase of 1,295, or 27 per cent., on the previous year. There are now 24 crematories in Germany, one having been opened in Reutlingen on January 2nd of this year. This makes the fourth in the Duchy of Würtemberg. Others are in course of erection at Esslingen and Göppingen. The working of the other 23 during the year is shown in the following table:

| | | | |
|---|---|---|---|
| Baden-Baden | 48 | Leipzig | 477 |
| Bremen | 454 | Lübeck | 50 |
| Chemnitz | 643 | Mainz | 410 |
| Coburg | 310 | Mannheim | 188 |
| Dessau | 25 | Offenbach a. M. | 208 |
| Eisenach | 164 | Pössneck (in Saxe-Meiningen) | 89 |
| Gera | 79 | Stuttgart | 356 |
| Gotha | 549 | Ulm | 297 |
| Hamburg | 678 | Zittau | 206 |
| Heidelberg | 112 | Zeickau i. S. | 139 |
| Heilbronn | 36 | | |
| Jena | 413 | | 6,074 |
| Karlsruhe i. B. | 143 | | |

According to the *Muenchener medizinische Wochenschrift* of September 6th, 1910, the number of cremations in these twenty-three crematories in the month of July last was 488, being 22 more than in the same month of the previous year. It is worth mentioning that freethinkers are not the only people who take advantage of this method of disposal of the body after death. In 68 cases the cremations which took place in Germany last July were accompanied by religious rites. From *Die Flamme* of January 15th we learn that in December the number was 604, the largest number yet recorded for one month. There is no more striking proof of the progress in Germany than the fact that this number is not much less than the total number of cremations (639) carried out in that country in 1900.

In Bavaria, perhaps on account of the large Catholic element in the population, a proposal to legalize cremation has met with strong opposition. A petition presented to the city of Nuremberg asking for permission to build a crematory was not only refused, but the petitioners were given to understand by the magistrates that the erection of a crematory would be prevented by the police.

*Italy.*

Italy has been the pioneer country in the use of cremation in modern Europe. The first experiments were made in 1869. In 1874 a Congress which met at Milan addressed a petition to the Chamber of Deputies asking that a clause should be inserted in the new Sanitary Code permitting cremation under the supervision of the Syndics of Communes. In 1876 a body was cremated at Milan; in the same year a cremation society was formed, a building was erected, and in 1880 two furnaces were at work. In Italy twenty-eight crematories exist—namely, at Alessandria, Asti, Bologna, Bra, Brescia, Como, Cremona, Florence, Genoa, Leghorn, Lodi, Mantua, Milan (two), Modena, Novara, Padua, Perugia, Pisa, Pistoia, Rome, San Remo, Siena, Spezia, Turin, Udine, Verona, and Venice. In 1906 the total number of cremations carried out in Italy was 440.

*France.*

In Paris a cremation society was founded in 1880, and in 1886–87 a large crematory was built by the municipal council in the great cemetery of Père La Chaise. The total number of incinerations recorded there down to the end of 1909 was more than 94,000. This number must not, however, be taken as representing the number of human bodies disposed of by cremation; it consists very largely of amputated limbs, embryos, and other human débris from hospitals and dissecting rooms. As a matter of fact, although it might have been expected that in the existing anticlerical atmosphere of France cremation in the proper sense of the word would have been very extensively used, the movement makes little or no progress. This is all the more remarkable as it has been encouraged by the public authorities, crematories having been established at Rouen, Rheims, Lyons, Marseilles, while the establishment of others in great provincial centres is in contemplation. These are, however, mainly adjuncts to the municipal cemeteries. Bodies are buried in graves leased for ten years. At the expiration of that period they are dug up and cremated, the empty graves being used for new tenants. So far, we think, these efforts may be taken to represent an attempt to make the supply create the demand rather than a response to public want.

*Belgium.*

An International Congress on Cremation was held at Brussels in September, 1910, under the auspices of the Society for the Propagation of Cremation in Belgium. Prominent members of the various cremation societies in Europe and influential public men in Belgium formed the organizing committee, and many distinguished persons gave their names as patrons. The society, the honorary presidents of which are MM. E. Goblet d'Alviella, Senator, Paul Janson, Member of the Chamber of Representatives, and Ernest Solvay, a former Member of the Senate, is at present confined to propagandist work, but the movement in favour of cremation is rapidly increasing. A monthly organ entitled *La Crémation* is widely circulated. But cremation has not yet, as far we are aware, been legalized in Belgium.

*Switzerland.*

In Switzerland there are six crematories—at Basle, Geneva, Zürich, S. Gallen, Berne, and Lausanne—in which 905 bodies were burnt in 1909. The oldest of these is that at Zürich, which was established in 1889; the most recent is that at Lausanne, which has been in working order less than two years. The total number of cremations in Switzerland up to the end of 1908 was 4,227.

*Sweden.*

In Stockholm there is a private crematory in which 62 bodies were burnt in 1909. In Goteborg there is a private establishment in which 19 bodies were cremated in the same year.

*Denmark.*

In Copenhagen there is a private crematory in which 105 bodies were burnt in 1909.

*Norway.*

In Christiania a private crematory was opened in July, 1909; 31 bodies were cremated there between the date of opening and January 11th, 1910. In Bergen there is a municipal crematory in which 20 bodies were burnt in 1909. The total number cremated there since it was opened in 1907 now amounts to 88.

The figures here given as to cremation in Scandinavia are taken from an annual report entitled *Baalfaerden, Aarsskrift om Ligbraending*, published by the Folkelig Ligbraendingsforening, and edited by Peder Hedebol (Copenhagen, 1910).

*United States.*

As to the United States it is not easy to get exact statistics, as there is no central body there corresponding to the Cremation Society of England. The number of crematories in the United States in 1908, was 38. At New York, where one was erected in 1885, the total number of cremations to December 31st, 1908, was 10,169. Another crematory was erected at New York in 1907, and a third in 1908; for the former the total to the end of 1908 was 282, for the latter 246 At Buffalo, N.Y., where the first cremation took place in 1885, the total number to December 31st, 1908, was 1,007. At Troy (Earl Crematorium), N.Y., the first cremation took place in 1890,

and the total number was 249. At Swinburne Island, N.Y., the total number of cremations from 1890 to December 31st, 1908, was 142. At Waterville, N.Y., the number from 1893 to December 31st, 1908, was 69. At St. Louis, Missouri, the total number of cremations from 1888 to the end of 1908 was 2,402. At Philadelphia, Penn., the number from 1888 to December 31st, 1908, was 2,057. At San Francisco, Cal., "Odd Fellows" opened in 1895, total to December 31st, 1908, 7,878. Also at San Francisco, Cal., "Cypress Lawn," opened in 1893, total to December 31st, 1908, 1,953. At Los Angeles, Cal., Cremation Society of Southern California, opened in 1887, total to December 31st, 1908, 1,312; No. 2, Evergreen, opened in 1902, total to December 31st, 1908, 785; Crematory Association, opened in 1906, total to end of 1908, 240. At Boston, Mass., opened in 1893, total to December 31st, 1908, 4,087. At Cincinnati, Ohio, opened in 1887, total to end of 1908, 1,417. At Chicago, opened in 1893, total to December 31st, 1908, 2,583; a second crematory was opened at Chicago in 1908, but there appears to be no report of its working. At Detroit, Michigan, opened in 1887, total to December 31st, 1908, 888. At Pittsburg, Penn., opened in 1886, total to December 31st, 1908, 426. At Baltimore, opened in 1889, total to December 31st, 1908, 331. At Lancaster, Penn., opened in 1884, total 106. At Davenport, Iowa, opened in 1891, total to December 31st, 1908, 388. At Milwaukee, opened in 1896, total to end of 1908, 645. At Washington, opened in 1897, total to December 31st, 1908, 423. The Le Moyne (Washington, Pa.) crematory, the first in the United States, was erected by Dr. F. Julius le Moyne in 1876, for private use. The first cremation was that of the Baron de Palin, of New York, December 6th, 1876. Dr. le Moyne died in October, 1879, and his remains were cremated in his own crematory. Total number of cremations (to 1908), 42. At Pasadena, Cal., opened in 1895, total to end of 1908, 621. At St. Paul, Minn., opened in 1897, total to December 31st, 1908, 317. At Fort Wayne, Ind., opened in 1897, total to end of 1908, 46. At Cambridge, Mass., opened in 1900, total to December 31st, 1908, 1,434. At Cleveland, Ohio, opened in 1901, total to December 31st, 1908, 641. At Denver, Col., opened in 1904, total to December 31st, 1908, 324. At Indianapolis, opened in 1904, total to December 31st, 1908, 97. At Oakland, Cal., opened in 1902, total to December 31st, 1908, 3,262. At Portland, Ore., opened in 1901, total to December 31st, 1908, 721. At Seattle, Washington, opened in 1905, total to end of 1908, 600. At Tacoma, Washington, a crematory was opened in November, 1908; the number of bodies burnt there to the end of the year was 5. The total number of cremations in the United States from December, 1876, down to the end of 1908 is given as 48,257. Five other crematories are in course of erection—namely, at Minneapolis; a fourth at Los Angeles; Springfield, Mass.; Spokane, Washington; Sacramento, California. For the figures here given we are indebted to a table published in *Die Flamme* of February 15th, 1911.

*Canada.*

At Montreal there is a crematory, which was opened in 1902. Up to December 31st, 1908, the total number of cremations was 142.

*Argentina.*

In Buenos Aires, since 1844, the bodies of all persons dying of contagious disease have been cremated. There is also a separate establishment for the use of the public.

*Uruguay.*

There is a crematory at Monte Video.

*South Africa.*

There is a proposal to establish a crematory at Durban.

*Australia.*

Of Australia we have nothing to add to what was said in the BRITISH MEDICAL JOURNAL of March 5th, 1910. The Cremation Society of New South Wales is striving to awaken public interest in the subject. The only crematory is one established in Adelaide by the Government in 1907.

*New Zealand.*

Here, again, we can only repeat what was said in our former article A crematory has been established by the City Corporation of Wellington. There is a cremation society at Auckland, which has offered to subscribe £500 towards the establishment of a municipal crematorium there.

## SCIENCE NOTES.

IT is not long since Professor Keeble delivered a course of public lectures on the habits and nature of two strange marine animals called *Convoluta roscoffensis* and *Convoluta paradoxa*. The original account of his investigations on these remarkable organisms appeared as a series of papers in the *Quarterly Journal of Microscopical Science*, and a more complete and semipopular account has now been published as one of the cheap and neat volumes of the Cambridge Manuals of Science and Literature.[1] Professor Keeble's researches on these two minute worms have extended over a period of ten years—a record of patient and painstaking labour, amply justified by the discoveries which he has been enabled to make. The worms belong to the class of Turbellaria, free-living allies of the more familiar parasitic Trematodes and Cestodes. The two species in question are of very circumscribed distribution, being practically confined to the coasts of Brittany and Normandy. The habitat of *C. roscoffensis* is a zone of sand just below the high-water mark of the lowest neap tides. *C. paradoxa* lives 30 yards further out to sea amongst the brown seaweeds, on which it crawls and takes up its abode. The former is green in colour and gregarious in habit, the latter yellow brown and solitary. On a bright day, when the tide is out, myriads of the green *Convoluta* may be seen on the sand basking in the sun and washed by the rivulets of running water which follow the tide. As soon as the returning waves begin to make their presence felt the little worms promptly disappear into the sand, to return to the surface once more when the tide has ebbed. This up-coming and down-going occurs regularly with each tide, and so deeply is the habit ingrained that even when placed in a jar in the laboratory the animals move up and down with the tides for several days. Eventually, however, their phototropism overcomes the habit, and their periods become synchronous with day and night. When kept in the dark they lose the habit almost immediately, remaining on the surface and dying very shortly. A detailed account is given of the various simple habits or tropisms of the worms, but the chief interest lies in their remarkable structure. The animal is flat and unsegmented. has a pair of simple eyes and an otolith; it has a mouth and a gullet, but no alimentary canal and no excretory system. When young it feeds voraciously on diatoms and similar organisms, which it packs away in its body tissues. After a time it ceases to feed and leads a purely vegetable existence. How it effects this forms one of the most remarkable episodes in the whole realm of natural history. The green cells of *Convoluta roscoffensis* are actually unicellular algae, which live symbiotically inside the worm, but they also spend part of their existence in the open sea. When hatched, *Convoluta* is colourless, and if carefully guarded it can be caused to remain so. As soon as it begins to feed, however, it ingests a number of the algae, which proceed to multiply inside its body. Complete symbiosis is soon established, but at first the advantage is all on the side of the alga, for, as has been remarked the worm feeds greedily but has no means of disposing of its waste nitrogenous matter. This forms an acceptable food for the alga. In course of time the worm ceases to feed, and thereafter it lives entirely by the labours of the green weed. The latter, possessing chlorophyll, is able to elaborate carbohydrate by the ordinary photosynthetical process of plants. In addition it has metabolized the nitrogenous waste products of the animal, and now returns them in a form assimilable by *Convoluta*. Not only does the animal not feed; it absolutely refuses to feed. It seems to know it can get on well enough without that trouble. As age advances, however, the algae become unable to keep up with the animal's demand for nitrogenous food. Driven by this nitrogen hunger *Convoluta* turns on its guests and devours them. The partnership is at an end, but *Convoluta's* doom is at the same time sealed, and it soon dies. Numerous questions of biological and physiological importance have been suggested by this curious life-history; for these reference must be made to Professor Keeble's own words; he has a romantic story to relate, and he tells it well.

[1] *Plant Animals.* A Study in Symbiosis. By F. Keeble, Sc.D. Cambridge: The University Press. 1910. (Cr. 8vo, pp. 171. 1s.)

In a paper read recently before the Royal Society Mr. Whytlaw Gray and Sir William Ramsay, F.R.S., suggested the name "niton" to replace the cumbrous expression "radium emanation." On the assumption that when radium disintegrates the immediate products are niton and helium, the atomic weight of niton should be 222.4, for the atomic weight of radium is 226.4, and in the production of the emanation (niton) one atom of helium, the atomic weight of which is 4, is given off. It is known that the "emanation," now proposed to be called niton, belongs to the series of inactive gases, and to complete the series—helium, 4; neon, 20; argon, 40; krypton, 83; and xenon, 130—there is room for two higher members with atomic weights 178 and 222·4. The only sure method of ascertaining the molecular weight of a gas is the determination of its density; in this case it is almost certain that the gas is monatomic, and that its molecular and atomic weights are identical. This constant has now been determined by the help of a balance closely resembling one recently described by Steele and Grant in the *Proceedings* of the Royal Society. Five determinations of the density of niton were made; stated as atomic weights, the figures were: 227, 226, 225, 220, and 218; the mean is 223, which closely agrees with the calculated number. The new name "niton" has been suggested because the authors considered it advisable to indicate by the similarity of name the fact that this gas belongs to the argon series; they regard their results as a further proof, if any were needed, of the beautiful disintegration theory of Rutherford and Soddy.

## LITERARY NOTES.

IN the JOURNAL of January 28th, p. 211, we gave a brief account of part of the Section on Roman medicine contributed by the late Dr. Payne to the *Companion to Latin Studies*, edited by Dr. Sandys for the Syndics of the Cambridge University Press. We now give a summary of his account of the conditions of medical practice in ancient Rome. There were never, he says, any laws at Rome regulating the practice of medicine, or forbidding any one, whether qualified or not, to undertake it. Hence the social status of physicians was very various. Men like Asclepiades and Galen consorted with the highest personages, and there must have been many physicians of a middle position corresponding to that of professional men at the present day. At the other end of the scale were drug sellers, herbalists, bandagists, and rubbers, who bordered closely on simple craftsmen, though all were called *medici*. Many skilful physicians were slaves, but the profession was not generally servile. Julius Caesar conferred citizenship on Greek physicians, and Augustus granted them immunity from civic duties. Young slaves were sometimes educated as physicians, and as such had a high pecuniary value, being taxed at 60 *solidi* in the code of Justinian. They served as domestic physicians, but the master, unless himself a physician, could not make a profit out of their services. Some became freedmen, and this class must have been large, as many physicians of Greek birth had Roman names. Few Quirites entered the profession, which was therefore mainly Greek, though Celsus speaks of some Jewish physicians. Many of them had offices (*tabernae medicae* or *medicinae*) like the Greek *ἰατρεῖα*, which served as surgeries or consulting rooms, and sometimes, temporarily, as private hospitals. These graded off into shops of druggists, sellers of ointments, etc. (*pharmacopolae, unguentarii, aromatarii*). Some cities established public *ἰατρεῖα* like those of the Greeks. The physicians, like other crafts, formed *Collegia* or guilds, and had their regular places of meeting (*Scholae Medicorum*). According to Dr. Payne, there is no evidence of any regular medical education in Republican or early Imperial times. Alexander Severus was the first to assign public lecture rooms and salaries to medical professors. Physicians took pupils, from whom they took fees, and whom they taught either in their *tabernae* or by taking them round on their visits to private patients. There were no hospitals for clinical instruction in the modern sense; no course of study was prescribed, nor any special ceremony by which the student became a doctor. Speaking of military medicine, Dr. Payne says that even as early as the Punic Wars a physician is mentioned at the battle of the Lake Trasymene; Livy alludes in various places to the care of wounded soldiers without describing the organization. The younger Cato, Vibius Pansa, and probably other Roman generals took Greek physicians on their campaigns, but perhaps only as their private attendants. Tiberius, on his Illyrian campaign, is said to have provided a large medical staff for the army; but this may have been something exceptional. Galen speaks of the army doctors who accompanied M. Antoninus in the German wars, and, in another place, quotes an eminent military physician, Antigonus. But the most important information, says Dr. Payne, is derived from numerous inscriptions found in various parts of Europe, including Britain. In the time of Trajan, and probably earlier, there was a regular organization. The troops stationed in Rome, the *Vigiles* and *Cohortes urbanae*, had four physicians allotted to each cohort. The legionaries had *medici legionum*, but how many were allotted to each legion is not known. The troops of the allies, as inscriptions show, had medical officers, *medici ordinarii*, and so had the soldiers in the fleet. The work of Hyginus, *De munitionibus castrorum*, describes military hospitals or *Valetudinaria*, to which special medical officers were assigned. All military medical officers were Roman citizens, and had the rank of *principales*, with immunity from civic duties. It seems that ophthalmic surgery was an important part of military medicine, since the seals of Roman oculists, attached to boxes of ointment and the like, have often been found in France, Britain, and Germany, in connexion with military camps, but rarely or never in Italy.

At this season of the year, when influenza is generally most rife, a certain amount of public interest is usually aroused by its vagaries, and the editors of *L'Hygiène* have therefore chosen the right moment for what our American friends are fond of calling a "symposium" on the subject—an expression which always reminds us of Goethe's sly aside with reference to Madame de Stael's declaration that she liked the poet best when he had had some champagne: "Then I suppose we must sometimes have got *elevated* together." The first part of the inquiry started by *L'Hygiène* appears in the January number of that attractive magazine, where a galaxy of Parisian *sommités médicales* express their views as to the causes and usual symptoms of what was known at the Court of Mary Queen of Scots as the "new acquaintance"—alas! now a very old one to the present generation. They all agree as to the suddenness with which it appears and the extreme rapidity with which it spreads, not only from house to house, but from country to country; and it should be added that these eminent authorities all unite in rejecting Pfeiffer's bacillus as the cause of infection, which they attribute to some specific, but as yet unknown, germ. Another article in the January number of *L'Hygiène* which should arouse general interest—at any rate amongst the feminine portion of its readers—is one by Dr. Nathalie Fédorcff, who writes upon beauty of the face and its cultivation. Believing, as she does, that the human face is "Nature's most perfect masterpiece," Dr. Fédoroff does not look upon the preservation of its beauty and charm as unworthy of the attention of the medical profession. On the contrary, she regards it as a duty incumbent upon the physician, who should be as ready to give the benefit of his special knowledge to a woman troubled by her wrinkles as to one crippled by rheumatism. Much excellent advice as to the benefits both to health and personal appearance which are to be derived from sunshine and fresh air is given by Dr. Lorand in an article on the therapeutic action of sunlight, in which he deplores the custom of shrouding windows with heavy curtains, which exclude the health-giving light and heat. Dr. J. Laumonier propounds a novel theory in his article on the regimen of the lazy, in which he declares that a chronically lazy person should be regarded as an invalid and medically treated by means of special diet, sun baths, and a judicious amount of physical exercise. Other items of interest in this number of *L'Hygiène* include some very practical hints by Madame Augusta Moll-Weiss on the proper heating of private houses in the winter; whilst Dr. Maurice de Fleury contributes his usual interesting article on hygiene and life.

British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1911.

## CREMATION.

ELSEWHERE will be found an account of the progress of cremation throughout the world during 1910. Great pains have been taken to get accurate information, but the sources are so scattered and in some cases so difficult of access that this is no easy matter. It will be seen that in this country there has, from a purely statistical point of view, been no advance; indeed, there has been a slight decrease in the number of cremations. This is particularly noticeable in the case of crematories under municipal control. Yet there are distinct signs that, notwithstanding the slight numerical decrease, the cause is gaining support. The Cremation Society of England is in a flourishing condition, and that interest in the movement is spreading is shown by the fact that a number of persons of prominent position in the intellectual and social worlds have become life members. But still more active support on the part of the public is needed to make the movement successful. No campaign can be carried on without the sinews of war. Propagandist literature has to be distributed, and answers have to be given to the numerous inquirers who seek for information. The society ought to be in a position to help in the establishment and take a part in the control of new crematories, both in London and elsewhere. This it was able to do when Golder's Green was established. There can be little doubt—notwithstanding the apparent stagnation at Ilford, for instance, which is doubtless due to accidental causes—that the demand for other establishments in the west and south of London will make itself heard before long. In such contingencies the society should be able to give not only counsel but practical help. For these purposes money is needed, and of this the society has at present none to spare.

If in Great Britain there has been a slight falling off, on the other hand in Germany very satisfactory progress has been made. The progress is all the more remarkable since Prussia and Bavaria are still held in the shackles of the old law as to the disposal of the dead. But there is an important and growing Cremation Society in Berlin, and it may be hoped that before long the leading State in the German Empire will no longer lag behind comparatively small States like Württemberg. In Italy and in the United States the movement shows no sign of slackening. In Scandinavia cremation has found a footing. Those who advocate cremation as the best method of disposing of the remains of the dead are to be congratulated on the fact that a movement which began only some thirty years ago, and which at first met with strenuous opposition, has now in most countries nothing more to contend against than a fast-dying prejudice.

In former articles[1] we have pointed out the advantages of cremation and dealt with the principal objections which have been brought against it from various sides. It is scarcely necessary to labour these points again. The objections are mainly three—the religious, the sentimental, and the juridical.

The religious difficulty, in an official sense, is now almost wholly confined to the Roman Catholic Church. Within the last few months statements have appeared, both in French and German papers, to the effect that the Pope has an open mind on the subject. We give these reports for what they may be worth. We have taken steps to ascertain whether there is any solid basis for them, but it is not easy to obtain authoritative information on any subject that is being dealt with by the Roman Congregations, till a final decision has been arrived at—and Rome does nothing hastily. We cherish the hope that the report, even if not absolutely authentic, may be taken as an indication that the authorities of the Roman Church may be disposed to reconsider a decision which some of its most enlightened members regard as too sweeping. It may be well to remind our readers that the attitude taken by Rome had its origin in what may be called local conditions. Cremation was unfortunately associated in Italy with Freemasonry, and was with good reason regarded as a badge of defiance of ecclesiastical authority, and therefore was included in the ban pronounced on an organization which on the Continent is regarded as the concrete embodiment of free thought. From a purely theological point of view there is no solid objection to cremation, as is proved by the fact that it is allowed when it is necessary as a safeguard to the public health, as in times of pestilence and other emergencies. No question of doctrine is involved in it; it is purely a matter of discipline.

We should not refer to what may be called the sentimental objection were it not that some months ago it was brought forward once more in some correspondence which appeared in a newspaper of high standing. We are told that "man's body is the temple of the Holy Ghost"; and on the ground of that poetical expression it seems to be urged that quick destruction of the "temple" by fire is a desecration, whereas piety demands that it should be suffered to rot in the ground. Surely sentiment is more on the side of those who, in the words of Sir Thomas Browne, "conceived it most natural to end in fire, as due unto the master principle in the composition, according to the doctrine of Heraclitus; and therefore heaped up large piles, more actively to waft them toward that element, whereby they also declined a visible degeneration into worms, and left a lasting parcel of their composition." Cremation is a veritable purification as by fire, and avoids all the horrors of the grave, the thought of which sickens the imagination that can realize them. In the correspondence of Gustave Flaubert just published, in speaking of the death of a friend, he says: "I see him now in his shroud as if the coffin in which he rots were on my table before my eyes. The idea of the worms which eat his face is always before me." Moreover, the corruption of a corpse is a danger to survivors which becomes ever greater as the number of burials increase. From the sentimental, as well as from the sanitary point of view, cremation is incomparably better than burial; it does quickly and cleanly what putrefaction does slowly and in the foulest way; it is

[1] See particularly leading articles in the BRITISH MEDICAL JOURNAL, vol. i, 1910, p. 585, and vol. i, 1908, p. 339.

at once reverent to the dead and inoffensive to the living. To make a corpse the food of worms is surely a strange way of honouring the "temple of the Holy Ghost." If the sentimental argument is pushed to its logical conclusion, mummification is the ideal method of disposing of the dead. Yet mummies are dug up thousands of years after the passing of the spirit of which they were once the outward wrappings. Surely the "cult of the corpse," as it has been happily called, is one of the strangest forms of human aberration.

The juridical objection is founded on the fact that cremation destroys evidence of crime. In regard to this point we need only repeat that the stringent precautions enforced by the Cremation Act provide safeguards against this much more trustworthy than those required in the case of ordinary burial. A certificate of the registry of death has to be obtained, a statutory declaration has to be made by the executor, administrator, or next of kin, and two certificates of the cause of death signed by registered qualified practitioners must be obtained—one from the doctor who attended the deceased, the other from certain qualified practitioners defined in the Act or nominated by the referee. The certificates are carefully scrutinized by a medical referee, who, if he finds them in any respect unsatisfactory, reports the case to the coroner. Mr. Herbert T. Herring, the Medical Referee to the London Cremation Company, in his evidence before the Departmental Committee on Coroners, stated that since the Cremation Act came into force 2,325 bodies had been cremated at Woking and Golder's Green, of which 11 had been referred to the coroner; in 7 of these cases inquests were held. The results of these inquests were various; some of the deaths were due to accident. But, according to Mr. Herring, there is no doubt that in these 7 cases burial would have been carried out without difficulty on the registrar's certificate had it not been for the cremation authority. "Therefore," he added, "if these figures are any criterion, and taking the death-rate of London at 70,000 per annum, there are at least 210 people buried every year on the registrar's certificate in London alone on whom inquests should have been held." Short of the Utopian scheme of making compulsory a complete *post-mortem* examination on the body of every person who dies, with a toxicological examination of the viscera, there can be no absolute safeguard against crime. But the regulations that must be complied with before a body can be cremated reduce the danger of crime remaining hidden to a minimum.

An objection which we confess is new to us is the fear of being burnt alive. We gather from the report of the annual meeting of the Scottish Burial Reform and Cremation Society that in Scotland at least this dread is a hindrance to the progress of cremation. It is well known that many people are in favour of cremation for precisely the opposite reason—that is to say, that it does away with all possible risk of being buried alive. The fear of premature cremation could easily be got over by the provision of mortuary waiting chapels such as exist at Munich, where bodies could be left till there can no longer be any doubt that the spirit has finally left its tenement of clay, and we are glad to note that the Scottish society is prepared to provide such "moratoria."

Passing from these considerations to the practical side of the question, it is necessary to insist on the fact that, although cremation so far has been almost exclusively used by the well-to-do, it must not be regarded as a luxury reserved for the rich. On the contrary, it is cheaper than burial. The reason why it makes so little progress among the poor is that, in addition to prejudice more likely to be operative among them than among those whom a larger intellectual training has freed from the bondage of inherited ideas, there is the vexatious and complex procedure that, under the Act of 1902, has to be gone through before a body is allowed to be cremated. It involves a good deal of dancing attendance on officials who may not always have the suavity of manner and the readiness to oblige that make the process easy. All this takes time, and to the poor, far more than to the well-to-do, time means money. Under existing conditions no board or council having to do with pauper burial could entertain the idea of cremation, notwithstanding the fact that the adoption of this method of disposing of the dead would be a considerable economy. The cost of a pauper burial is estimated to be not less than sixteen shillings, and this figure would not include the expense of the coffin and the removal of the body to the graveyard; moreover, in this estimate is not included the outlay necessary for acquiring fresh land at intervals. If cremation came into general use it is estimated that the average cost would be ten shillings or less and this sum includes the upkeep and depreciation of the crematory, working expenses, and the disposal of the ashes.

It is not easy to see how the difficulties that have been mentioned can be got over, for it is in the multitude and stringency of the precautions enforced that lies the safety of cremation in regard to the prevention of the concealment of crime. But it is none the less true that if cremation is to become general, as in the interest of the living it should, the procedure will have to be much simplified. As things are, the whole system of death certification is unsatisfactory from a statistical point of view, and dangerous in itself as leaving many openings for crime. On the accuracy of the Registrar-General's returns progress in public health largely depends. That these are even now very misleading, to say the least of it, is beyond question, and the inaccuracy is not wholly due to the inexactitude of medicine; some of it must be ascribed to carelessness, and some, it must be confessed, to ignorance.

The plain truth is that the whole system of death certification, together with Coroners' Law and the existing Cremation Act, requires to be thrown into the melting-pot and recast into a new form that will combine greater simplicity and greater accuracy with more stringent safeguards against crime. In the Report of the Departmental Committee on Coroners it is stated that "the present law of death certification affords . . . every facility for the concealment of crime." If medicine is to become a State service, it might with advantage include a special department of independent medical officers, whose duty it should be to inspect the bodies of all deceased persons and inquire into the circumstances of their decease; on their reports, supplemented by the statement of the doctor in attendance, would be based the certificate of death. The discussion of these reforms would, however, lead us too far from the matter with which we are immediately concerned here: this is to urge all medical practitioners to take every opportunity that comes in their way of impressing on the people with whom they are brought in contact the advantages of cremation.

## STANDARD BREAD.

DURING the last few weeks public attention has been somewhat persistently directed to the composition of bread, chiefly by an agitation in the columns of the *Daily Mail* on behalf of what is there termed "standard bread," in distinction from the white bread generally in use. Any movement having as its object an improvement in any part of our national food supply, whether by legislation or by the more general diffusion of knowledge on the subject, must always command sympathetic consideration, and it must be admitted that public attention and even enthusiasm for a reform may sometimes be aroused through the "working up" of a subject by modern newspaper methods, where the process of reason and argument would fail to obtain support. The agitation conducted by our contemporary is no doubt actuated by the best motives, and by a genuine desire to promote reform in a matter closely connected with national health and stamina; but a good cause may be defeated through exaggeration on the part of its advocates, leading sooner or later to reaction or to renewed indifference on the part of the public. A brief examination of some of the claims now being made may, therefore, be of service.

The principal facts of the case are as follows: The grain of wheat is complex both in structure and in chemical composition; the chief constituents are starch, proteins, fat, mineral salts and combined phosphorus, and cellulose; these constituents are not evenly distributed throughout the grain, but occur in different proportions in the various structures of which it is composed. When the grain is milled, these different structures are reduced to powder at very different rates, especially when the milling consists in crushing between steel rollers, as in modern flour mills, instead of the grinding between stones which was the method formerly in vogue. After the milling, the product is separated into different portions by sifting processes, and that portion which constitutes flour is about 70 to 73 per cent. of the whole; in a true "wholemeal" flour, however, the whole of the grain is ground up together without subsequent grading or separating. The present proposal is that the milling and sifting should be so conducted that not less than 80 per cent. of the grain should go into the flour instead of the usual 70 to 73 per cent., and that this 80 per cent. should include the germ of the grain, at present rejected, and the "semolina." It is such 80 per cent. flour to which the name "standard flour" is applied, and the bread made from it is called "standard bread." Flour, as at present made, consists chiefly of the endosperm of the grain, which is the food material stored up in the seed for use by the embryo plant when the seed germinates, enabling it to live and grow until it is able to produce food for itself from the constituents of the air and soil; the rejected portions of the grain, technically known as offal, consist of the embryo-plant itself, or germ, and the bran, formed of the pericarp of the fruit and the integuments and outermost layer of the seed.

The principal advantages claimed for "standard" flour are: (1) It contains a much higher proportion of iron and phosphorus in a state of combination in which they are absorbed by the body; the usual statement in the *Daily Mail* is "standard flour, conforming with the requirements of the manifesto, contains almost four times as much phosphorus and iron as does the ordinary white flour." Other mineral constituents are also somewhat higher in "standard flour," and it is asserted that this is of great importance for the formation of the bones and teeth of children and young people. (2) It contains a higher proportion of protein (nitrogenous constituents) and fat, and is therefore more nutritious. It is stated that "the all-important value of the germ and the semolina lies in their richness of nitrogen, fat, and gluten." (3) The small proportion of powdered bran which it contains acts as a mechanical stimulant in the digestive tract, and prevents the tendency to cause constipation possessed by white bread; at the same time this material promotes more thorough mastication of the bread and acts as a burnisher to the teeth, while there is less tendency for the bread to cling about the teeth and provide a nidus for the agents of decay.

There is undoubtedly some justification for all these claims; but it is desirable that enthusiasm for a reform should not be allowed to lead its advocates too far from the cold facts. Among the many expressions of opinion by medical men which have been quoted in the *Mail* is the following: "If people would only realize that the whiteness of flour is not in itself an indication of its value as a food, and that bread made of the flour of the whole grain, properly ground, tastes better and is more nutritive than the very white bread that so many insist upon having, it would be a great gain." This is a quite incontrovertible statement to which no exception can be taken (it is to be noted that what is here referred to is "wholemeal," not "standard," flour). But not long afterwards the *Mail* writer speaks of "the universal practice of taking away from the flour the nutritious germ and the inner layer of bran," a "harmful and deleterious practice, inasmuch as it gives the eater of bread an almost useless mass of spongy starch instead of the bone and body building substance which he asks and pays for under the name of bread"; and again, "athletes who wish to fit themselves for trials of strength, speed, and endurance are as strongly advised to eat standard bread as those delicate persons who have found it impossible to assimilate the indigestible, spongy, starch material hitherto supplied to them by bakers anxious to gain a reputation as bakers of white bread." Anyone reading these expressions and not knowing better would conclude that bread prepared in accordance with "the universal practice" is "an almost useless mass of spongy starch."

The fact is that the greater part of the nitrogenous constituents of the grain consists of gluten, which is distributed throughout the endosperm with the starch, and enters into the composition of all flour. The very whitest flour, known in the trade as "patents," is made from the portion of the grain containing least gluten, but this flour is generally used only for fancy bread and pastry; ordinary flour which is used for making white bread contains from 7 to 15 per cent. of protein (gluten), and even if it were desired to reduce the proportion unduly it could not be done, since flour containing insufficient gluten will not make bread. Not only do wheats vary enormously in their content of gluten, some containing as much as 20 per cent. or over, but the same grade of flour will contain a somewhat varying proportion according to the practice of different mills. The residuum of fact which is important is that an extremely white flour or bread is likely, though by no means certain, to be rather low in nitrogenous constituents.

The germ contains a high proportion of both protein and fat—namely, about 35 per cent. of the

former and 13 per cent. of the latter. But since the germ constitutes only about 3 per cent., or less, of the grain, the difference in the amount of protein which results from its inclusion or exclusion is so small that it becomes negligible in comparison with the differences between flours made from different varieties of wheat. It is the rule in this country to mix wheats from different sources to obtain the most suitable flour for breadmaking, and since the suitability is judged by its "strength," which in turn depends on the percentage of gluten, there is really no fear of the latter falling too low. The nitrogenous constituents of the germ do not consist of gluten, but largely of soluble protein, with one or more enzymes, which attack the starch of the flour. The oil in the germ, it should be added, is very prone to develop rancidity, so that flour containing the germ does not keep so well as flour which is free from it, and it is principally for this reason that it is rejected in modern milling. In making certain patent flours, however, the germ is first removed, then sterilized by heat and returned to the flour; the process of sterilization destroys the organisms which would cause rancidity, and also renders the enzymes inactive, so that flour of this kind will keep quite satisfactorily. In an article which appeared recently in the newspaper referred to above, it is stated that "the germ is removed from very white flours, not so much because it darkens the flour, as because, when mixed in a high proportion with other ground wheat, it can be sold at a high price as a special fancy meal." But on another day a London baker writes: "I believe that the separated germ of the wheat can be bought now for £7 a ton. At the same time the price of Town Whites, the standard grade of flour, is about £12."

Besides the nitrogenous constituents of the germ, a certain amount of protein is at present rejected in the bran. The innermost layer of the bran contains protein, the percentage in the total bran being somewhat higher than in the flour which is separated from it. But if it were possible to get the whole of this into the flour by increasing the latter from 70 per cent. or so of the grain up to 80 per cent. (and this would not in fact even then include the whole of the protein) the difference in the percentage of protein in the flour would again be quite negligible in comparison to the differences among the different varieties of wheat. This is, of course, no argument against the flour being made in such a way as to include the maximum possible of protein; but it should prevent any expectation that the nutritive value of the flour will be greatly increased by so doing. "Semolina" is the commercial name of certain grades of the partly ground flour which are rich in protein; in practice, probably none of this is usually removed, and the necessity, already explained, of having enough gluten in the flour if it is to make bread, sufficiently prevents the removal of any undue amount.

The facts just mentioned show that whatever may be the advantages of retaining the germ and a part of the bran in making flour, such procedure would be far from sufficient to warrant the use of the term "standard flour." That this is already being perceived is shown by the following extract from our contemporary: "A dozen different wheats were laid out on his table as an object lesson. There was low-class Russian at 29s. 3d. a quarter at one end of the gamut, and first-class Manitoban, 39s. 6d. a quarter, at the other end. Here one could see immediately that 80 or 90 per cent. of one of the lower class wheats would not be equal in nourishment to 70 per cent. of high-class Manitoban, Australian, or Russian." And an advertisement in the same journal contains the following: "The warning which we feel it necessary to utter is, Beware of 'Standard' Bread made from flour of which you know nothing—flour sometimes made from inferior and injurious wheats imperfectly cleaned. Inferior Standard Bread will defeat the objects of those advocating its use." Obviously, the proposed "standard" is not a standard at all.

The beneficial effect on digestion, and possibly on the condition of the teeth through the greater mastication required, by the inclusion of some proportion of bran in the bread, is doubtless not much open to question. With regard to phosphorus, iron, and mineral constituents generally, it is true that the bran and germ contain a considerably higher proportion of these than white flour. But until it has been shown by exact analyses to be a fact, there appears no reason to suppose that the amounts of iron and phosphorus would be multiplied fourfold by merely increasing the percentage of the wheat which is used as flour from 70 or 73 up to 80.

A consideration which is not without bearing on the question is that of the part played by bread in an average dietary. For the large majority of people bread is only one item in a varied diet, and the differences which it is proposed to make in its composition appear insignificant when considered in relation to the whole diet. Even amongst the poorest bread is not much eaten alone, and a possible increase of ¼ or ½ of 1 per cent. in the fat in it does not appear of much consequence if the bread is spread with butter, dripping, or margarine when eaten. Butter contains 1 to 1½ per cent. of protein, and even margarine about 1½ per cent.; but if the bread is eaten with meat, bacon, fish, or cheese (the two last being two of the cheapest forms of food within reach of almost everyone), the increase in the protein of the bread which is contemplated is a very much smaller percentage when reckoned on the total protein consumed. Here again, of course, the argument is not against securing the maximum of value in any and every food, but only against overrating the importance of a particular alteration.

## TWO MEDICAL ACTIONS.

Two cases—one heard at the Worcester Assizes and the other at the Law Courts, London—reported in our Medico-Legal columns this week, will be read with interest by medical men. In the Worcester case the doctor found himself compelled to bring an action for slander against the vicar of the parish, who held also certain other offices of dignity in the church. The case terminated in a settlement, effected at the instance of the judge, which comprised an apology, entirely exonerating the doctor from the charge which had found currency in the neighbourhood, the defendant undertaking to pay an agreed sum towards the costs of the action. An allegation of intemperance is one of the most serious which can be made with regard to a medical man. It seems to us immaterial whether the allegation arises out of a social incident or not, since a medical man is always on duty, and liable at any moment to be called upon to give his assistance to a sick or injured person. The judge, when he intervened, said he was not at all sure that he

ought not to ask the jury whether they did not think that the words, even though spoken with reference to some festive occasion, did not touch the plaintiff in his profession. Before reading this utterance we should have assumed that there was no doubt at all about the matter. The suggestion that a slander of this nature does not touch a medical man sufficiently in its professional aspects to be actionable without proof of specific instances of special damage accruing as a direct result appears to us altogether untenable. If such a view is in fact well founded, then the sooner the law is amended to place the matter upon a basis of equity and common sense the better. The other case concerned a postal medical officer, and took the form of an action for libel, founded on a paragraph published in the *Postman's Gazette*, which is the official organ of the Postmen's Federation. The charges implied in the paragraph constituting the libel amounted to allegations of negligence and discourtesy on the part of the medical officer in the discharge of his duties. This case also was terminated through the intervention of the judge, who, after some evidence of impatience had been shown by the jury, suggested that the plea of justification should not be persisted in, and that the matter might be capable of arrangement between counsel. Judgement for nominal damages of 40s. was accepted, counsel for the plaintiff stating that his only object was to clear his character; the defendants undertook also to pay the entire costs of the action. We understand that in June, 1908, the Postmaster-General directed a circular to be issued to the various post-office service associations stating that his attention had been drawn to some recent cases in which serious reflections upon the skill and care of the post-office medical officers had been made either in the organs of some of the associations, or by way of questions in the House of Commons. Careful inquiry had shown that in nearly every one of these cases the statements were misleading or inaccurate, and that the charges of carelessness and inefficiency were not substantiated. Mr. Buxton expressed the opinion that the associations would share his strong disapproval of the publication of serious reflections upon the efficiency of medical officers before inquiry has been made, based upon imperfect knowledge of the circumstances and supported by misleading statements of facts. Such reflections, he added, would not fail to have a prejudicial effect upon the professional reputation of the medical officers concerned, and tend to cast discredit upon the medical profession as a whole. The effect of the circular seems to have been, at least for a time, good, although it appears that the United Kingdom Postal Clerks' Association had, in reply, asked the Postmaster-General to terminate the existing contracts between the department and its medical officers, and to leave officers of the post-office at liberty to employ any properly qualified medical man, a system which it was asserted had been successful for some years in connexion with one of the great friendly societies, and had proved by experience to be cheaper than the system of capitation. The fact that such a memorandum had been issued by direction of the Postmaster-General made it all the more obligatory upon Dr. Harneis, the postal medical officer who was plaintiff in the case reported, to vindicate himself from the charges published in the *Postman's Gazette*. The result in each of these two cases is completely to exonerate the medical man concerned, and we venture to congratulate them and the Medical Defence Union upon such result.

## PLAGUE IN NORTHERN CHINA.

EXACT statistics concerning the plague in Manchuria and its extension to neighbouring provinces are not obtainable. The disease was recognized at Kharbin in Manchuria on October 20th, 1910. It was of the pneumonic type; it spread rapidly. It began in the Chinese portion of the town, but the Russian quarter was speedily affected. The dead were in such numbers that burial was impossible, and had it not been that the Chinese followed the Russian example of burning the bodies the calamity would probably have assumed yet more terrible aspects. From Kharbin the disease spread in every direction, but chiefly southwards, owing to the flight of the Chinese in that direction to escape the epidemic. Mukden soon became infected, and subsequently Peking and Tientsin. It is only from these cities, where many Europeans dwell, that any idea can be gathered of the virulence of the outbreak. In the towns and districts unfrequented by Europeans there is no means of gauging the number of people who have contracted or succumbed to the disease. Practically the whole of Manchuria, with its population of between 20 and 30 millions, is in the zone of infection, and the disease has occurred on a large scale beyond the borders of the province. It is stated in a telegram to the *Times*, dated Peking, February 21st, 1911, that "the total number of deaths since the outbreak of the epidemic is given as 19,000." The Chinese, however, have no registration system by which they can even guess the number of their people, far less the birth-rates and death-rates. One method of estimating the actual number of persons that die in any locality is simplicity itself: the governor of the district sends round to the coffin-makers, and asks how many coffins they have made during a specific time. As, however, in many parts of Manchuria dead bodies are being burnt, this simple expedient is not available. If the return of 19,000 deaths in these thickly populated districts represents the number of persons who have died of plague between October 20th, 1910, and February 21st, 1911, then must the number be considered insignificant compared, say, with the returns from the United Provinces in India or the Punjab, where even in 1910, when plague prevailed to a minimum extent, the number of deaths in the Punjab alone exceeded 140,000, and during two weeks in April, 1910, the number exceeded 20,000 amongst a population less than that of Manchuria. But it is evident that the mortality returns from Manchuria seriously underestimate the facts. Ever since 1888 plague has been known to exist in the Transbaikal district of Aksha, on the Russo-Mongolian frontier, where "household" outbreaks of plague occur amongst persons who harbour the tarbagan (*Arctomys bobac*), a species of marmot. The marmot is hunted by the Buriats and the Cossacks of this district, partly for its flesh, which is considered a great dainty, but principally for the peritoneal fat, which is used for greasing straps, harness, and other leather materials. A centre of plague, however, has been known to exist for over twenty years, also at Toung-kia-yng-tze, a small village in Mongolia, some 500 miles north-east of Peking, at the foot of the great Mongolian plateau. Here the marmot also is found in numbers, but the people do not consider that it is the cause of the disease, which is not of the "household" variety, but occurs as an epidemic from time to time, both in the bubonic and the pneumonic forms. Dr. G. F. Petrie, of the Lister Institute, and formerly a member of the Commission for the Investigation of Plague in India, has proceeded to Manchuria, on behalf of the Advisory Committee, to investigate the outbreak of plague there, with special reference to

the existence of epizootic disease and the mode in which the epidemic this winter took origin and spread. As has been said, the epidemic has been so far of the pneumonic form, and in this connexion it may be remembered that the natives of Manchuria, during the severe winter which commonly prevails there, are in the habit of shutting themselves up in crowded dwellings, which they seldom leave, a condition of things which would undoubtedly favour the transmission of the infection directly from man to man; at the same time it is important to ascertain whether, even under these circumstances, there is not some domestic animal or vermin concerned. With the advent of spring weather, when the habits of the people change and they spend the greater part of their time out of doors, it is reasonable to expect that the epidemic will decline, and, in fact, there are already encouraging signs of this. If, however, domestic animals or vermin are infected, there is reason to fear that the disease may persist, though it may not improbably take the bubonic form. At the present moment the area infected is very extensive. The disease prevails from Lake Baikal in the west to the Sea of Japan in the east, some 1,500 miles, and in a direction north and south from the Amur River to the Pe-chili Gulf and the Yellow Sea. The epidemic in Northern China has caused more serious alarm in Europe than any other outbreak since plague appeared in 1894 in Southern China, the reason being probably the direct communication by railway which now exists between North China and Europe, and partly, no doubt, the virulent type of the malady. That the railway is a danger there can be no doubt. Ships can be quarantined and disinfected, and their arrival in the ports of a country notified, but plague spreading by land is far more difficult to check, and no system of quarantine or cordons ever tried has succeeded in preventing the malady from advancing beyond the confines of a district.

## POST-IMPRESSIONIST AND POST-ILLUSIONIST ART.

A VERY interesting and instructive lecture was delivered at the Grosvenor Art Studio on February 21st by Dr. Theo. B. Hyslop, late Senior Physician to Bethlem Royal Hospital, on post-illusionism, or health and disease in art. The lecturer, who, it may be remarked in passing, is himself an artist of no mean skill, deplored the modern tendency to imitate the peculiarities of degeneration, and drew some striking comparisons between the art of the insane—the post-illusionists, as he called them—and that of the post-impressionist school. It was, he said, a well-known fact that the artistic faculty may be present even when the mental development is abnormal or defective, and many of the unnatural and unlovely productions exhibited in picture galleries were, he considered, simply the result of the diseased brains of their creators. The salient features of the post-impressionist type of art were to be found in the sketches and paintings produced by the inmates of any asylum in the kingdom. The perverted sense of colour and form, the blurred outlines and attenuated figures, the utter lack of perspective, and the constant striving after what was merely ugly, terrible, or revolting—above all, the extreme rapidity with which the work is thrown off, and the impatient disregard of all detail, characterize the degenerate both within and without the asylum. It was, he said, still more remarkable that in most cases the first symptoms of brain trouble in a person who may once have been an artist of the first class usually took this form. It was, therefore, at once dangerous and pitiful that pictures which bore all the signs of disease and degeneracy should be exalted as a real advance in the artistic evolution of the world. A movement such as that of the post-impressionists must ultimately mean nothing more or less than a degradation of art to the level of a mere reproduction of the diseased fancies of a disordered brain, and could hardly fail to have a disastrous effect upon those who were taught to consider such crude and obvious monstrosities as works of genius. That their influence would be temporary was a foregone conclusion, for evolution was happily more powerful than devolution, but in the meantime the enthusiasm aroused over art which had many of the characters of insanity must be regarded as pernicious in the extreme. The lecture was rendered doubly interesting by the slide illustrations, which afforded numerous examples of pictures executed by some of Dr. Hyslop's artist patients. At the close of the evening a vote of thanks, proposed by Mr. A. J. Finberg, the chairman, was cordially responded to by a large audience.

## A NURSING PAGEANT.

A VERY pretty pageant and masque illustrating the "Evolution of Trained Nursing and the Right of Life to Health" was performed at the Connaught Rooms on Saturday evening, February 18th, under the auspices of the National Council of Trained Nurses of Great Britain and Ireland, which had adopted this novel, but most effective, method of supporting Lord Ampthill's bill and arousing public interest in the vexed question of State registration for nurses. Nearly 120 nurses took part in the spectacle, which demonstrated in a striking fashion the gradual evolution of the modern highly trained nurse from the humble mediaeval nursing sister, and the pious matrons and devout widows of early Christian times. Opening with a procession of Immortals, headed by Hygeia, who was supported by a stately "Science" and "Spirit of Nursing," whose dejected mien might have suggested to a cynical mind the thought that she entertained little hope of the success of the undertaking, the pageant afforded a kind of bird's-eye view of the history of nursing from the time of Agamede the Fair-haired, who is mentioned in the *Iliad* as one "who knew all drugs, so many as the wide earth nourisheth," down to the present day. The procession included not only representatives of the ancient nursing orders, both male and female, but also such characters as Rahere, the founder of St. Bartholomew's Hospital, St. Catherine of Siena, a fourteenth century plague attendant, attired in the hooded cloak and beaked mask which formed the customary garb of all who approached a plague-stricken patient, St. Vincent de Paul, Elizabeth Fry, and Florence Nightingale, represented by a banner carried by two nurses. A welcome touch of humour was added by a spirited rendering of two persons who are almost as famous as any of the foregoing—Betsy Prig and the immortal Mrs. Gamp. An imposing array of hospital matrons, headed by Miss Isla Stewart, followed the historical characters, and in their turn were followed by representatives of every branch of the nursing profession as it stands to-day, including nurses attached to the Services and Government departments, county councils, Poor Law authorities, and foreign missions. Bringing up the rear was a bevy of nurses bearing banners, who demanded the right of protection and recognition by the State. Petitions were presented to Hygeia, who sat in state to receive the deputations, and who listened graciously to the prayers of her children for justice from the State, a more uniform standard of training and increased efficiency of social service. The goddess promised to grant them their desires, and placing the

hands of the Spirit of Nursing in those of Science, bade them go forth together "to fight the noblest fight man ever waged, and give again to the dwellers of this fair earth the pure clean life that is their birthright." The pageant, which was designed by Mrs. Bedford Fenwick, and written by Miss M. Mollett, matron of South Hants Infirmary, was enthusiastically received by a large audience, a considerable proportion of which consisted of members of the nursing profession.

## CIRCULARS.

Messrs. Knoll and Co. have sent us a publication, entitled *Knoll's Sammelmappe*. It is a collection of notes on some modern drugs in which the firm is interested. It is in German, and the purpose is, we presume, to circulate the collection among members of the medical profession. It is quite a legitimate method of bringing these drugs to the notice of medical men, but we have received from a correspondent, who is medical officer to a public school, a copy of a circular, of which the same cannot be said. It was forwarded to the head master, with an attached slip, requesting him to hand it over to the medical officer of the school. The circular is in reference to bromural, which, it is stated, "has been attested by the whole medical world as a powerful nerve sedative." This is certainly an exaggeration, but, as the correspondent who sent us the circular suggests, medical officers of public schools may be trusted to be acquainted with any drugs likely to be useful to them in their special department of practice. He goes on to observe that head masters have a worrying time, and may not infrequently suffer to some extent from insomnia, by which we understand him to suggest that the head master may himself be tempted to resort to this drug in his own case. Head masters, however, are, it is to be hoped, made of sterner stuff. The next statements in the circular seem to us more objectionable. They are that bromural is an "absolutely harmless, mild hypnotic, and has proved of excellent service in the case of scholars who experience nervous anxiety before undergoing a viva voce examination," and in addition that it gives rest to the nerves and furthers sleep after mental overwork. We believe it to be true that the toxicity of bromural is very slight, and that its hypnotic effect is due not to the bromide but to the other groups of radicals which enter into its composition; but the idea of drugging a boy, even with a relatively harmless drug, before sending him up for an examination appears to us to be a mistake. If the necessity ever arises in the case of English public schoolboys it can only be in very rare instances, and such cases would demand the attention of the medical officer, who may be trusted to know what drug, if any, should be used in the circumstances. From this point of view also it seems to us that Messrs. Knoll made a mistake in sending the circular through the head master.

## INTERNATIONAL MEDICAL CONGRESS.

The first meeting of the International Committee of the seventeenth International Medical Congress will be held in London on April 21st and 22nd. The President of the Committee is Dr. Pavy; the General Secretary Dr. Burger of Amsterdam; and the members are Professors Waldeyer and Posner, representing Germany; Genaro Sisto, Argentina; von Eiselsberg, Austria; Déjace, Belgium; Rousseff, Bulgaria; Rovsing, Denmark; Ruffer, Egypt; Recasens, Spain; Musser, United States; Blondel, France; Kalliontzis, Greece; Koloman Müller, Hungary; Maragliano, Italy; Kitasato, Japan; Fonck, Luxemburg; Uchermann, Norway; Pel, the Netherlands; de Mattos, Portugal; von Ott, Russia; Subbotic, Servia; Henschel, Sweden; Cérenville, Switzerland. In addition to these, the following are members of the Committee; Dr. von Grosz, of Budapest, as General Secretary of the previous Congress; Sir Thomas Barlow and Dr. W. P. Herringham, of London, as President and General Secretary respectively of the forthcoming Congress; and Dr. Lucas-Championnière, of Paris, as President of the International Medical Press Association. The committee will have brought before it for approval the resolutions passed by sections of the sixteenth Congress. It will also consider the date of the eighteenth Congress, arrange the number and nature of the sections, and discuss a general regulation as to the organization of the Congress and its position in regard to international specialist and national congresses. In this connexion the General Secretary of the Committee, Professor Burger, will present a report on a series of proposals made by Professors Waldeyer and Posner. We understand that a proposition will be made to the Committee that the date of the Congress shall be changed from July 29th to August 6th, as previously fixed, to August 4th to 9th, 1913.

## "WHO IS BRANLY?"

This question, which was asked by a reviewer in the British Medical Journal of January 28th, has brought us several replies. It would be presumption to put forward as an excuse for having passed such a lapse uncorrected that *aliquando bonus dormitat Homerus;* but we may perhaps be allowed to cite the humbler precedent of the learned Dr. Pangloss, who pleads guilty to a moment of unguarded dalliance. We owe an apology both to M. Branly and to our readers for the slip. We were fully aware that to M. Branly is due the invention of the "coherer" which makes wireless telegraphy. We also knew that he is a distinguished physicist, and that he was lately elected a member of the Académie des Sciences—which, by the way, we may say for the benefit of one of our correspondents, is not the same thing as the Académie Française. The honour conferred on M. Branly is a tardy recognition of brilliant work which would doubtless have given him his natural place among the immortals of the Institut de France long before now had he not held an appointment which branded him with what is looked upon by the high priests of "Science" in France as the stigma of religious belief. As none of those who have kindly given us information on the subject mention the circumstance, it may be of interest to our readers to know that M. Branly is a member of the medical profession. He was born at Amiens in 1846, and was educated at Saint-Quentin, and afterwards at the Lycée Henri IV. In 1865 he entered the Ecole Normale Supérieure, and took the degree of Doctor of Science in 1873. He graduated Doctor of Medicine in 1882. He was for a long time director of the physical laboratory at the Sorbonne. He is now Professor of Physics in the Catholic University of Paris. It would be impertinence on our part to praise such a man, but we may say that he is a scientist of the best type, working in a humble laboratory very unlike the palatial buildings which many investigators now think necessary, and caring nothing for publicity. He has not been caught even in the wide net of the Editor of *Who's Who*. In connexion with wireless telegraphy we may relate an instance of its practical usefulness which would probably be peculiarly gratifying to Dr. Branly. It is stated in the *New York Medical Journal* of January 21st that the ship's surgeon of the Ward Line steamer *Merida* sent a prescription by "wireless" to the captain of a steamer five hundred miles away, in response to a

wireless message picked up while the *Merida* was off the coast of Yucatan, on January 4th. The message received was to the effect that the commander of the ship was critically ill and needed medical attention. The ship was equipped with a medicine chest, but carried no surgeon. The *Merida* received a message back the same night stating that the prescription had been received, and the condition of the patient was much improved.

## THE BERTILLON LIST OF DISEASES.

THE question of the nomenclature and classification of diseases has again been raised by the recent decision of the Registrar-General for England and Wales, in common with his brother officials for Scotland and Ireland, to adopt the Bertillon list in their mortality tables. This list was drawn up by an International Commission in 1900, in which this country took no part, and has since been accepted by most of the greater and smaller nations of both hemispheres. The first decennial revision was made in 1909, and the next will be made at a meeting of the International Commission at Washington in 1919. Dr. R. Hingston Fox read a paper on February 1st before the Life Assurance Medical Officers' Association upon the mortality records of assured lives, and introduced a schedule for recording causes of death based upon the Bertillon list. The use of this list was defended as convenient, although pathologically it is somewhat retrograde, many infective diseases so defined and grouped in the *Nomenclature of Diseases* prepared by the Royal College of Physicians of London being now again distributed amongst local disorders. It may be hoped that at the next decennial revision of the list this country will exert its due influence in improving it. Dr. Hingston Fox's schedule, which is expanded in detail—for example, under deaths from malignant disease and from nervous system disorders—is intended for use in life assurance offices. By its use statistics would be obtained of the age-incidence of many diseases as to which at present there is practically no such record available.

## MAGIC AND SORCERY.

*Le Progrès Médical* for February 4th contains a most interesting article by M. Ch. Esmonet on the third volume of M. Th. de Cauzons's well-known book, *La Magie et la Sorcellerie en France*. In the preceding volumes the author has sketched the history of sorcery in France from its earliest origin throughout the Middle Ages, and the present one gives an account of its growth and progress from the Reformation to the Revolution—that is to say, during the sixteenth, seventeenth, and eighteenth centuries, *l'âge de la Sorcellerie par excellence*, as M. Esmonet calls that period. For it is a curious fact that in spite of the ignorance and credulity of our mediaeval forefathers, the belief in "magic and spells" was never so general as at the time when the mediaeval faith was being gradually replaced by the worship of philosophy and reason. During these three centuries there was a widespread epidemic of witchcraft, and thousands of unfortunate people were sacrificed to the insensate terrors of an ignorant populace. This, by the way, was the case not only in France, but in England and Germany, where popular belief in the supernatural powers of the magician was even more firmly rooted than in the former country, whose inhabitants lived in a constant state of excitement over such events as the trial of the Dominicans at Berne, the history of Madame de Brinvilliers, and the possessed nuns of Loudun. The culminating point was reached during the reign of Louis XIV, when the number of deaths from poison attained such proportions as to force the clergy to warn their congregations from the pulpits as to the enormous number of confessions they were in the habit of hearing from men and women who had got rid of enemies by this summary process. As M. Esmonet points out, however, at this period the Black Mass and its attendant horrors were no longer a question of superstition pure and simple, as at an earlier date, but were used from motives of vengeance or personal gain. The eighteenth century, credulous as it was, witnessed a change in the popular attitude towards sorcerers, who were no longer treated as criminals but as lunatics. A proof of this more humane view is afforded by the treatment of the convulsionists of Saint-Médard, who chose the tomb of the Deacon Paris as a fitting spot for their outburst of frenzy. The King ordered the cemetery to be closed, and the majority of the convulsionists were allowed to return to their own homes, only a few being kept under lock and key until they regained their senses or became definitely insane. A little later Mesmer caused a transformation in the whole scheme of sorcery which was entirely in keeping with the rationalistic tendencies of the age. Magic became a "science," which was to lead not only to the cure of all human ills, but to the solution of the problems of the universe; and scores of men, both honest and dishonest, gave their lives to the study of the phenomena connoted by the term *la grande névrose*. In the latter category M. Esmonet instances that prince of quacks, Cagliostro, whose life was surely one of the most extraordinary on record, and who undoubtedly owed his escape from the torture chamber and the scaffold to the fact that he flourished during the reign of Louis XVI instead of two hundred years earlier. It is saddening to reflect that, in spite of our boasted progress, there is as much superstition (though of a different kind) rife to-day as in the time of "le roi Soleil" and the infamous vendor of poisons, Madame Voisin.

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MADEIRA is now reported to be free from cholera, and British and other consuls are issuing clean bills of health.

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A SOCIETY for the erection and maintenance of an institute for the treatment of cancer and for research has been founded at Munich. The president is Prince Ludwig Ferdinand, Doctor of Medicine. Information on the subject may be obtained from Dr. Fleischmann, Perusastrasse, No. 3.

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IN the Prussian Diet, on February 18th, Dr. Kirchner, professor of social medicine and hygiene in the University of Berlin, in the course of the debate on the estimates for the Ministry of the Interior, said, in reply to a question, that plague was extraordinarily widely distributed at the present time, that cases had recently occurred in Europe, and that "during the last few weeks three cases had occurred in London, the infection having been conveyed by rats in ships." Professor Kirchner would seem to have been misinformed or to have given a wrong impression. No case of plague occurred recently or during last year in the London docks or on ships in the Thames with the exception of two cases on October 4th and October 5th. Both these cases occurred in natives of India who had arrived in the Thames from Bombay. Last November three rats supposed to have escaped from a ship in the docks were examined bacteriologically, and two of them were found to have plague, but there is at present no epizootic among rats at the Londo docks.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Midwives Bills.**—Mr. Robert Harcourt asked the Prime Minister last week whether it had been brought to his notice that there was a growing feeling of opposition to certain provisions in the two successive Midwives Bills introduced by the Government last Session, notably the proposed importation, for the first time, of the machinery of the Poor Law, and the proposed annual renewal of the midwives' registration; whether, with a view to securing the much-needed amendment of the Midwives Act, he would consider the desirability of omitting the provisions to which so much objection was taken; and whether it was intended to introduce any measure on the subject during the present Session. Mr. Burns, who replied at the request of the Prime Minister, said that he understood that the President of the Council had a bill ready for introduction from which it was proposed to omit what was known as the annual renewal of midwives' registration. The provisions of the bill dealing with the payment of medical men called in at the suggestion of midwives were included in the bill in order to give to the doctors some security for their fees, and he should expect that the omission of the provisions would cause disappointment to the medical profession. He was not in a position to state definitely what the provisions were. He had received two or three deputations on this very point, and he had agreed to receive a deputation from the Municipal Corporations Association on the Clause numbered 17 in last year's bill. The arrangements as to the introduction of a bill in the present Session were under consideration.

**The Sanitation of Holyrood Palace.**—The question of the expenditure on Holyrood came up on Friday in last week, and the Marquis of Tullibardine recalled the fact that a few years ago Lord Leven and Melville complained of the sanitary state of the palace, although it was supposed to have been properly attended to in 1872. In 1903 and 1904 they were assured that the drainage and water supply had been satisfactorily completed, now there was another demand for money for the drainage. Mr. Dudley Ward, representing the Office of Works, said the work had turned out more expensive than had been expected. When it was completed the palace would be quite fitted for the occupation of the Sovereign in July. The whole estimate was something like £6,000, and on that £300 was not a very serious miscalculation considering the unexpected difficulties connected with the structure of the building. The vote was agreed to, after some discussion, without a division.

**Spread of Plague (International Co-operation).**—Mr. Ginnell asked the Secretary of State for Foreign Affairs whether, in view of the danger to unoffending nations from the spread of plague and other preventable diseases, he could see his way to initiating some international movement towards more general observance of the fundamental laws of health and sanitation; and whether British Consuls in the principal foreign cities would be asked to report on these subjects and on any precautions now being taken against plague. Sir Edward Grey said that in 1903 an International Convention was concluded at Paris with the object of applying in a systematic manner the most modern methods of resisting the spread of plague and cholera. His Majesty's Government and most European countries were parties to this convention, and it was open to any country which had not yet adhered to do so at any time. His Majesty's Consular officers abroad always reported the appearance of any case of plague, cholera, or yellow fever within their Consular district, and the special measures or regulations put into force for the purpose of checking the spread of the disease. During the continuance of any outbreak they were expected to furnish short telegraphic reports at least weekly, showing the number of cases and deaths and the name of the locality affected; and in the case of the present epidemic in Manchuria reports were received almost daily. In answer to further questions, Sir Edward Grey said that the object of his answer was to show that practical steps had already been taken, that there was international co-operation, and the Consuls were already doing exactly what the hon. gentleman asked that they should be instructed to do. He would consider whether the short reports could be published.

**Margarine and Milk-blended Butter.** — In answer to Mr. Hugh Barrie, Sir E. Strachey stated last week that the Board of Agriculture had approved of 1,831 names for margarine and 44 for mixtures of butter with milk. Mr. Birrell also stated that the Department of Agriculture and Technical Instruction for Ireland had approved of 411 names for use in connexion with margarine, and a provisional approval had been given of one name, "Bondone," under which milk-blended butter might, subject to certain conditions, be dealt with. A list of the names approved of for margarine would be sent to the hon. member.

**Precaution against Plague (Infected Rats and Rabbits.)**—Mr. George Roberts asked if it had been proved that rats and rabbits in East Anglia were infected with plague bacillus; whether any cases had arisen of such infection being carried to human beings, and whether action was being taken in the matter. Mr. Burns said that a certain number of rats and rabbits in East Anglia had been found to be infected with plague. Four suspected cases of human plague occurred in this area as long ago as September last, but since then no further cases had been observed. Both the local authorities and the Department had been taking active measures in the destruction of rats, and the investigation of the extent of prevalence of plague amongst rodents and the delimitation of the affected area. Careful watch was also being kept at the ports against the introduction or spread of rat plague.

**Patent Medicines.**—Mr. Stephen Collins asked the Home Secretary whether he was prepared to give effect to the view favoured by his predecessor at the Home Office and appoint a Select Committee to consider the advisability of issuing regulations making it compulsory upon all manufacturers of medicines liable to patent medicine duty to print on the label of the bottle or other vessel in which such was sold the full ingredients of such bottles or vessels, as well as the diseases which they purport to cure. Mr. Churchill said that he was making inquiries, and would inform his hon. friend of the decision in due course.

**Poor Law Administration.**—Mr. Goulding asked the President of the Local Government Board (1) whether the latest official declaration of policy from his Department with regard to relief to the respectable aged poor was the circular of the President of August 4th, 1900, printed in the Thirtieth Annual Report, in which it was laid down that such persons were not to be urged to enter the workhouse at all, unless from actual infirmity, etc., but that, irrespective of any medical certificate, adequate outdoor relief should be granted to them; whether it was customary in accordance with this circular in most unions to grant, without any medical certificate and irrespective of any specific infirmity, outdoor relief to such deserving aged persons as were not entitled to old age pensions; and whether the draft order as to out-relief, the issue of which was under consideration, would prohibit such outdoor relief in respect merely of old age; and (2) whether he was aware that the effect of the proposed Outdoor Relief Order would be to transfer the discretion as to the grant of outdoor relief to aged persons from the guardians to the medical officer, and to make it dependent on his giving a certificate that the aged person was suffering from some specific disease; and whether, in view of such a marked reversal of policy with regard to the

deserving aged as compared with that promulgated in the circular of the Local Government Board of August 4th, 1900, some opportunity would be afforded to the House of Commons to express an opinion on the subject before, by the signing of the proposed new Order, the reversal of policy was carried into effect. Mr. Burns said that he saw no reason to dissent from the view that the circular to which the hon. member referred might be regarded as the latest official declaration of the policy of the Local Government Board with regard to relief to the aged deserving poor, and he was happy to think that the principles there laid down were very generally acted upon by boards of guardians. He might point out that it would not be necessary under the Order proposed by the Departmental Committee that a medical officer should certify that an aged person was suffering from some specific disease; a certificate that he was infirm through old age would seem to satisfy the requirements of the Order. The report of the Committee was receiving his careful consideration, and, as he explained in the House on Monday last, he did not propose to take any action upon it at the present moment. As regards discussion of the matter in the House, Mr. Burns said that long before the question could be satisfactorily answered it was important that the boards of guardians, the Poor Law Unions Association, and those most directly concerned in the administration of the Poor Law should have, as they shortly would have, opportunities both as guardians and in conference, to review this Order, and to make criticisms and suggestions, and he would be pleased to receive suggestions from whatever quarter they might come.

**Vaccination in Scotland.**—Sir Henry Craik asked the Lord Advocate whether there had recently been a marked decline in the percentage of infants vaccinated in Scotland; whether there had been at the same time a marked increase in small-pox cases; and whether the Local Government Board for Scotland had found it necessary to impress upon local authorities the necessity for making provision in view of a probably extensive outbreak of the epidemic. Mr. Ure replied that the Local Government Board were continuing their long-standing practice of impressing upon local authorities the need of providing special accommodation for small-pox patients so as to be prepared against the possibility of an outbreak. The statistical information desired was set out in the following table:

*Vaccination in Scotland, 1901–10.*

| Year. | Births. | Infants Successfully Vaccinated. | Percentage of Infants Successfully Vaccinated. | Statutory Declarations of Conscientious Objections. | Small-pox Cases reported to Local Government Board. | Deaths from Small-pox. |
|---|---|---|---|---|---|---|
| 1901... | 132,280 | 111,160 | 84.034 | — | 1,990 | 278 |
| 1902... | 132,360 | 112,775 | 85.203 | — | 915 | 80 |
| 1903... | 133,593 | 114,146 | 85.443 | — | 550 | 41 |
| 1904... | 132,663 | 112,383 | 84.713 | — | 2,527 | 185 |
| 1905... | 131,453 | 111,928 | 85.147 | — | 128 | 4 |
| 1906.. | 132,056 | 109,809 | 83.153 | 253 | 23 | 1 |
| 1907... | 128,891 | 97,453 | 75.609 | 7,258 | 8 | 1 |
| 1908... | 131,406 | 91,194 | 69.399 | 15,846 | 82 | 6 |
| 1909... | 128,720 | 84,036 | 65.286 | 22,746 | 6 | 0 |
| 1910... | 124,000 | † | † | † | 11 | 0* |

* Figures for 1910 for the whole of Scotland are not yet available. The figure 0 is applicable only as regards the eight principal towns, and forty-eight selected registration districts, having an estimated aggregate population of 2,717,595.
† Figures not yet available.

**Inspection of Lunatics (Ireland).**—Mr. O'Shaughnessy asked the Chief Secretary for Ireland whether he was aware that the post of Inspector of Lunatics in Ireland was about to become vacant; and whether he could give an assurance that the position would be filled by the appointment of a person who had had long and residential experience in the treatment of the insane and asylum management. Mr. Birrell replied that he was well aware and was daily reminded by applicants that the post of inspector of lunatics was about to become vacant. In filling the office due regard would be had to the experience of candidates in the management of lunatic asylums and in the treatment of the insane.

**Indian Civil Medical Service.**—Mr. Kelly put two questions to the Under Secretary for India last week, raising the point of the employment of military doctors in the hospitals in Madras, and asking for the abolition of race distinctions. He also called attention to a resolution passed at the Indian National Congress asking for the constitution of a distinct Indian Civil Medical Service and the opening of higher grades of medical service to Indian doctors. Mr. Montagu, in reply, referred Mr. Kelly to the answers given during the last two Parliaments, and said that the resolution referred to had not yet reached the Secretary of State. A dispatch on the general question had been received from the Government of India, and was under consideration. As regards the final sentence of the question, he had nothing to add to the information already given.

**The Public Health (Ireland) Bill** was read a second time and committed to a Standing Committee on February 17th. It is a short bill of only one operative clause, which gives power to Irish urban councils to regulate the conduct and management of abattoirs provided by them, and to make by-laws as to the sale of meat. This is the first private member's bill to reach the Committee stage this session, and that too without any aid from the ballot, but simply through taking wise advantage of the ordinary course of procedure.

**Destruction of Rats.**—Captain Knight asked whether any measures had been taken by the Local Government Board to insure that the various forms of virus sold for the destruction of rats and other vermin were harmless to human beings. Mr. Burns replied that in April, 1909, he had addressed a letter to the manufacturers of these preparations suggesting the adoption of certain precautions to prevent harm arising to human beings, and he was not aware of any recent case of illness attributed to one of these preparations.

**Death of a Child after Vaccination.**—Mr. Glyn-Jones asked the President of the Local Government Board whether his attention had been called to an inquest held at Chelsea, on December 15th, 1910, on the body of a child named William Clark, who was born in the Wandsworth workhouse infirmary, and vaccinated there at the age of 18 days; whether he was aware that its mother asserted that no intimation was conveyed to her of the option to exercise conscientious objection under the Vaccination Act, 1907; and whether he would direct that the mothers of children born in such institutions should be informed of their rights and privileges under such Act. Mr. Burns said that his attention had been drawn to the case referred to, and it had been investigated by one of the medical inspectors, who confirmed the verdict of the jury that the death was due to erysipelas, unconnected with the vaccination. As regards the second part of the question, he understood that the child was vaccinated at the request of the mother. It did not appear to be necessary to take the steps indicated in the third part of the question.

**Vaccination in the Royal Navy.**—In answer to Mr. Pointer, who suggested the extension to naval recruits of the conscientious objector's clause, Mr. McKenna stated on Monday that as the danger of the spread of infection was very largely increased by the peculiar conditions of life on board ship, it was not proposed to relax the present regulations with regard to vaccination.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## ROYAL MEDICAL SOCIETY OF EDINBURGH.

THE annual President's dinner of the Royal Medical Society was held in Edinburgh on February 15th, when Dr. Francis R Fraser presided, and the croupiers were Dr. E. B. Gunson, Dr. J. le F. Burrow, Dr. E. S. B. Hamilton, and Dr. T. C. Ritchie. The guest of the evening was Sir James Crichton-Browne. After the loyal toasts Dr. Gunson gave "The Imperial Forces," and Captain Sir Arthur Henniker-Heaton and Lieutenant-Colonel Cotterill, 2nd Scottish Territorial Hospital replied. The Chairman gave the toast of "The Guest." He said Sir Robert Finlay, M.P., had also intended to be present as their guest, but Parliamentary and professional duties had prevented him. Fifty-two years ago Mr. James Crichton-Browne became a member of the Royal Medical Society of Edinburgh, a year later he was secretary, and in 1860–61 he was one of the presidents. As vice president of the Royal Institution for more than twenty years Sir James Crichton Browne had endeavoured to acquaint the educated public with the discoveries of medical and scientific research.

Sir James Crichton-Browne said his presence there was the return of the native as a devout pilgrim. He looked past and beyond the company before him, and he became conscious of an array of ghosts, conjured up, not by superstition, but by old associations rising from the depths of memory. He was not going to catalogue these ghosts, but there was one name which, out of a sense of justice, he should like to mention—James Bell Pettigrew, who became Chandos Professor of Medicine in the University of St. Andrews, and who was admitted to the Royal Medical Society immediately after he had won the Goodsir Gold Medal for his essay on the "Muscular Structure of the Heart." At a discussion at one of the society's meetings Pettigrew vaguely and indefinitely adumbrated his theory of flight and his discovery of the figure 8 movements of the wings of birds and insects—a discovery, which it seemed to him, lay at the root of modern aviation. In 1873 Pettigrew published his book on *Animal Locomotion*, a work which was anticipatory of much that had been accomplished and of much which was to come. He had recommended an expert in aviation to read that work, and the expert, after doing so, had written that he thought Pettigrew had made good his claim that flight, as practised by birds, was the true model of all flights. It certainly seemed that there must be a great future for any one who made a machine with bird-like wings, but it needed a continuation of Pettigrew's experiments by a capable man with plenty of money behind him. In the marvellous development that had taken place in aviation it was strange that there had never been the slightest mention of that great pioneer, and he wanted to have it on record when the history of aviation was written that one, at least, of the germs of it was planted in the Royal Medical Society. Pettigrew continued his experiments down to the period of his death three years ago, and he had left voluminous notes behind him. These notes should be examined by some competent authority, for it was certain that they must contain many valuable suggestions.

Sir James Crichton-Browne gave the toast of "The Royal Medical Society." He was glad to see his life-long friend, Professor Sir Thomas Fraser, present that evening, and he was sure he must have great and natural pride in seeing his son presiding at the dinner. That the society might prosper was his earnest wish. Dr. L. Burrow replied. Dr. E. S. B. Hamilton proposed "The Sister Professions," and the Very Rev. Dr. M'Adam Muir, and the Dean of the Faculty of Law in the University of Edinburgh (Professor Macintosh), replied.

The health of the Chairman closed the evening.

## GLASGOW AND THE KING EDWARD MEMORIAL.

The Glasgow Town Council at its meeting on February 16th discussed at some length the proposals for a Scottish memorial to King Edward VII, and in the end rejected by a substantial majority the report submitted as to the Holyrood scheme. There was a very strong opinion in the Glasgow Council that the memorial should take the form of a "consumption crusade" similar to that proposed as a memorial from Wales, and when the report of the representatives to the Edinburgh meeting was presented, various motions were tabled as to the procedure to be adopted. In the end the motion disapproving of the report was carried by 35 votes as against a combined vote of 30 for three other motions, only 10 supporting the approval of the report while the others suggested delay. Councillor Pratt then gave notice that at a subsequent meeting he would move, "That in the opinion of this corporation the Scottish national memorial to His late Majesty King Edward VII take the shape of a crusade against consumption."

## GRAVEYARDS AND CREMATION.

Dr. Ebenezer Duncan, who presided at the annua meeting of the Scottish Burial Reform and Cremation Society held in Glasgow on January 27th, referred at some length to the advantages of cremation over earth burial, despite the enormous prejudice still existing in the Scottish mind against cremation. Professor Glaister mentioned at the meeting that in Glasgow alone 17,000 to 18,000 bodies had to be disposed of annually. That required, according to the prevalent idea of disposal of the dead, a large number of acres specially devoted to the purpose around the city, intramural burial being now, of course, forbidden. The acreage of ground periodically required for interment had become a serious affair, and that the ground was not thrown out of use until it becomes overpopulated with the dead. Professor Glaister gave a description of the waiting moratoria at Munich and their purpose, and he was glad to learn that the Scottish Society were prepared to provide these, in order to do away with the idea that cremation was a danger in connexion with premature burials.

## MEDICATED WINES.

At a meeting of the United Free Church Presbytery of Linlithgow and Falkirk, the Rev. John Muirhead, in submitting the report of the Temperance Committee, called special attention to the use of what he called medicated or meaty wines. There was, he said, no form of drinking which wrought such havoc, especially among women, as these supposed strength and health-giving forms of medicated wines. The strength the wines were supposed to give was purely alcoholic strength, and the percentage of alcohol in some was greater than in ordinary wines.

## MEMORIAL TO A PAISLEY DOCTOR.

The committee in charge of the Dr. Archie Donald Memorial Fund has handed over a sum of £600 to the directors of the Royal Victoria Eye Infirmary, Paisley, for the purpose of endowing a bed in that institution in memory of the late Dr. Donald, who for several years was a member of the staff of the infirmary.

## INDIAN MEDICAL SERVICE DINNER.

We are requested to state that the annual Indian Medical Service dinner will take place in Edinburgh on Friday, May 26th next, at 7 p.m. Tickets and any other information regarding the dinner may be obtained from Colonel James Arnott (I.M S., retired), 8, Rothesay Place, Edinburgh. Sir Archibald Christison will preside.

## SALE OF MUNICIPAL MILK DEPÔT PLANT AT GLASGOW.

The last phase of the municipal milk dépôt—which was established some years ago to supply prepared milk for the children of the poorer classes, and was closed last year—was witnessed on February 15th, when the machinery and plant used was sold by public auction. The plant included a refrigerating machine of two tons capacity, steam sterilizers, cream separators, bottle-washing and bottle-filling machines, electric motors of various kinds, and a number of miscellaneous items. There was a good attendance and excellent prices were obtained.

### The Treatment of Mental Diseases.

At the meeting of the contributors to Glasgow Royal Asylum for the Insane, on February 16th, the Chairman, in moving the adoption of the annual report, said that many improvements had been effected during the past year, and that the directors had renewed the contribution of £200 to the Scottish Western Asylum Research Institute, believing that a larger measure of support given for scientific investigation of the problems of insanity would be advantageous. Efforts at present were directed to the production of a substance which when injected into the blood of a person suffering from certain forms of mental disease, would cut short the disease or prevent a relapse. General paralysis was the disease at present engaging attention. Dr. L. R. Oswald, the Medical Superintendent, also spoke, and referred to "the similarity of origin between consumption and insanity," and argued that both might be arrested by timely treatment. He was sure the research work would be more generously supported by the public if they only realized the probable effects of the work. The public, however, did not seem to understand that work was being done in Germany, in Britain, and even in Glasgow, which promised in the course of a few years to throw much light on the causation of mental troubles. He pleaded for more support, as there was a distinct decrease in the causes of mental disorders, and "from a commercial point of view the public would obtain a rich return for their money."

### Medical Officerships in Caithness and Sutherland.

An arrangement has how been concluded in connexion with the medical officership of health and school medical officer in the counties of Caithness and Sutherland. Dr. Dick, who acted as medical officer of health for both counties, has been asked by the county of Caithness to accept the offices of medical officer of health and school medical officer for the county of Caithness alone, and he has accepted this appointment. This step left the county of Sutherland free to disjoin the offices of medical officer of health for the two counties, and conjoin the offices of health and school medical officer in the county as had already been done in Caithness, and at the county council meeting on February 17th this plan was agreed to. The negotiations between the two counties have been going on for over a year, and at one time seemed likely to lead to a deadlock. But wise counsels have now prevailed, and a committee has been appointed from the County Council of Sutherland to arrange with the County Committee on Secondary Education terms for the new combined appointment, and to make the appointment.

## Ireland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

### Honour for Sir Charles Cameron.

A special meeting of the members of the Dublin Corporation was convened on February 20th to witness the affixing of the name of Sir Charles Cameron, C.B., M.D., F.R.C.S.I., to the roll of honorary burgesses of the City of Dublin; a casket containing the certificate of honorary freedom of the city was at the same time presented to him. Several representative citizens were invited to attend the ceremony, which took place in the Council Chamber of the City Hall. Sir Charles Cameron has been the Medical Superintendent of Health in Dublin since 1862, and the present honour is now conferred upon him in recognition of the distinguished services which he has performed during the long period he has held that office. He is the twenty-third person to receive this honour, the previous recipients including such distinguished names as those of Isaac Butt, Parnell, and Gladstone.

### Epidemic Disease in Dublin.

Down to February 18th the number of cases of scarlet fever recorded in the Dublin area since January 1st was 150; cases of diphtheria recorded for the same time numbered 117; and cases of typhoid fever 97. The deaths recorded from these diseases since January 1st are as follows: Scarlatina, 10; diphtheria, 13; typhoid fever, 8. The epidemic of scarlet fever now shows some tendency to abate, the cases notified during the last few days being fewer in number than during the earlier part of the week. Several schools have been closed, and every effort is being made to disinfect infected premises. Most cases notified have been in the southern part of the city, and it is amongst the middle and upper sections of the working classes residing in fairly good houses that disease has been most prevalent, rather than amongst those living in slum areas.

### Medical Motorists.

We understand that the Irish manager for the Automobile Association invites all medical motorists—members or non-members—who have had any difficulty in obtaining the rebate to which they are entitled in respect of petrol consumed by the cars used in the course of their professional duties to communicate with him, giving full particulars of their cases. Many will, we feel sure, be glad to avail themselves of this offer, as in spite of the courtesy shown by the Government officials to those who communicate with them, much delay has arisen in many cases in the allowance of and repayment of the rebate. Down to a quite recent date the necessary forms of application were not even stocked at the Custom House, Dublin.

### President of the Ulster Medical Society.

The President of the Ulster Medical Society (Sir Peter O'Connell, M.D.) entertained the Fellows and Members of this society at a smoking concert in the Medical Institute, Belfast, on February 14th. A large number were present, and a most enjoyable evening was spent. Songs, recitations, and stories were contributed by friends and Fellows, and the generous hospitality of the president, which is so well known in Belfast, was much appreciated.

### Medical Officer of Skibbereen Union.

The board of guardians of the Skibbereen Union met again on February 13th to proceed with the election of a medical officer for the male side of the workhouse. Dr. O'Meara, being the only applicant, was duly proposed and seconded and appointed to the position unanimously so that at last a peaceable ending has come to a very undesirable controversy.

Dr. O'Meara, who was received with applause, thanked the guardians for having elected him unanimously to one of the departments of the workhouse. They had elected him unanimously twelve months ago, but much unnecessary strife had gone on since. It was a most extraordinary thing that the board should elect a man unanimously, afterwards put him out by law, and then elect him unanimously again. The business had cost him £160, but, notwithstanding what had occurred, he intended to co-operate to the best of his ability with the partner the board had given him in carrying out the medical and surgical work of the workhouse, and should any trouble or friction arise in the future, he assured the board it would not be his fault. This is what was expected from a man like Dr. O'Meara, who is a distinguished graduate of the Royal University of Ireland, and who is held in much esteem throughout the length and breadth of the district in which he works.

### County Cork Sanatorium at Streamhill.

The Resident Medical Superintendent of the sanatorium reported that there were 47 patients in the sanatorium at present; most of them were progressing satisfactorily. If the board would allow the acceptance of paying patients as many more could be received, but the sanatorium being for the poor of the county and city, it was decided to keep the beds unoccupied till the right sort of patient was found to occupy them. The Women's Health Association at Rathkeale wrote asking on what conditions the sanatorium would receive poor patients for treatment, as that branch believed the best way to spend its money

was to send patients to a sanatorium. In the Wicklow Sanatorium patients were received at 7s. a week when they were nominated by persons who endowed a bed at £100. Eventually it was decided that £1 a week should be charged for patients who were recommended by charitable bodies.

### Post-office Convalescent Homes Fund.

A very prosperous condition of this fund was disclosed at the third annual meeting of its members, held last week in Dublin, which was honoured by the attendance of Lady Aberdeen. The total membership of the fund is now about 2,500, the number of new members enrolled during last year being no fewer than 800. A branch of the fund has now been established in almost every post-office in Ireland, and during the year many members have benefited through it.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## BRISTOL.

### The Colston Research Fund.

The University Colston Society has published its scheme for the distribution of its funds on the lines proposed at the annual dinner. It now announces that the council of the university has agreed to establish a research fund and to place the laboratories and services of the staff at the disposal of the society. The fund is to be administered under the direction of a committee of seven, four appointed by the society and the remainder by the university council. The society has two years' subscriptions in hand, amounting to upwards of £1,100, and proposes to allocate £900 to research. The list of applications and the grants made reached £624 10s., the balance being carried forward, and a report promised at the next meeting in January, 1912. The grants include a very wide range of subjects. Sums are allotted to the pathological department for research on typhoid carriers and the relation of the tonsils to glandular affection of the neck, to the chemical and pathological department for work on cancer and inflammation attacked from the biochemical standpoint, to the physiological department for the investigation of the action of rennet in milk and critical tests in the bacteriological examination for diphtheria; other grants are made to the chemical, botanical, geological, zoological, engineering—mechanical, electrical, and motor car—departments. The value of these grants can hardly be calculated at present, but the society must be congratulated on the excellent start it has made in giving a hand to stimulate and assist research in all branches.

### The Royal Infirmary.

The annual meeting of the governors of the Royal Infirmary was held on February 14th, when the President, Sir George White, made the following statement: The ordinary subscriptions amounted to £6,062, an increase of £435; donations were £855, a decrease of £2,329; workmen's contributions £2,263, an increase of £54; and minor sums, some showing a slight increase and others a falling off, while the total ordinary income reached £13,714 and legacies £5,386. On the other side, the total ordinary expenditure was £17,282, an increase on that of last year by £113. In referriug to other matters, he said he felt sure the public did not sufficiently realize the tremendous amount of time given by the staff to the duties, and that in the event of invasion the infirmary would be placed at the disposal of the Red Cross Society as a base hospital. The new buildings were being put in hand at once, the price quoted for the work being £48,866; but the whole outlay would reach £70,000, of which only about half was in hand. The meeting concluded with the election of the officials.

## WORCESTERSHIRE.

### School Medical Officers' Salaries.

At a meeting of the Worcestershire County Counci on February 18th the chairman, Mr. J. W. Willis Bund referred to the action of the British Medical Association, which, he said, had declared that it would see, as far as it could, that no member of the medical profession should be appointed as a whole-time school medical officer at a less salary than £250. Two of their officers, Dr. Edith Oversby and Dr. Fowler, who had been receiving £175, had resigned, both having received better appointments, the latter as school medical officer for the city of Worcester. The county council were now offering £250 because of the action of the British Medical Association. He would be the last to say the labourer was not worthy of his hire, and also he would be the last to say that a gentleman who had gone to the trouble and expense of obtaining such a scientific education as was required for a doctor should not be well paid, but he felt very strongly about the British Medical Association or any other body saying what terms were to be offered; but apparently it was in a position to do that because none of the medical papers would take advertisements offering a lower salary. That had been the experience of the city of Worcester. If a lower salary were offered probably gentlemen who were not in the first rank of their profession would be appointed, and would be persons upon whose diagnoses the council could not easily rely. The only way to escape that (and he did not recommend its adoption, though he feared it would be largely adopted) was to appoint an officer who was not required to give the whole of his time to the work, but was allowed to practise privately. Those authorities who did not want their work to be done thoroughly would adopt that course, and in trying to evade this attempt to dictate to public authorities medical inspection would become a failure.

Dr. Dixey, seconding the proposition that they should advertise for an officer at £250 (the other position being left over until the Greater Birmingham scheme is settled and its effect seen on the county), said that considering the salaries paid to its other officials, the council could not expect to pay less than that minimum for a trained and scientific man. If the council were to have really efficient work done by the medical men and women it must pay something like a decent salary. The Medical Association was not unlike that which looked after the interests of the members of another profession (Mr. Willis Bund is a magistrate) with which the chairman was connected. (The Chairman: Hear, hear.)

Mr. Gardner, in moving an amendment that the council should offer only £200, rising in five years to £250, said he hoped that the council would not be frightened by the Medical Association. The amendment was lost, and the proposition to advertise at £250 was carried.

## MANCHESTER AND DISTRICT.

### Tuberculosis in Cattle.

In a lecture to the Mid-Cheshire Farmers' Association Professor Delépine recently dealt with the main causes of the prevalence of bovine tuberculosis in certain farms. Statistics were quoted showing the unequal distribution of bovine tuberculosis, and in attempting to account for this Professor Delépine said that as the result of investigations which he had made as to the effect of altitude, he found that farms situated above the 300 ft. line were rather less liable to tuberculosis than farms below that line, though the difference was not very great. Neither could the inequality be due to any great extent to the keeping of cows in the open all the summer, and the particular breed of cattle did not seem to be a factor in the case. His inquiries into the condition of 460 farms showed that on an average the farms that had the most tuberculosis were the worst kept; but there were exceptions to this rule, as some very well-kept farms were badly affected, while some unsatisfactory farms were

entirely free, so that the condition of the farms was evidently not the dominant factor, and it was necessary to believe in the existence of some cause capable of overcoming the most favourable conditions, and not entirely dependent on conditions generally supposed to be the most influential. He was led to the conclusion that the presence of cows in a state of advanced tuberculosis, and emitting discharges loaded with tubercle bacilli, constituted the chief factor in determining the distribution of the disease. Apparently, then, it was not safe to rely solely or chiefly on ordinary sanitary measures for controlling bovine tuberculosis. It was most important that every animal should be inspected, that every one of those actively infective should be removed, and that no healthy animals should be allowed to remain in places that had been infected so long as those places had not been treated so as to remove as far as practicable all danger of infection. All animals with tubercle were potentially dangerous, but as their age advanced the chances of their becoming actively dangerous increased; it was therefore desirable to reduce as far as possible the number of old animals. Sources of infection were probably present in most farms, and, unless measures were taken to keep herds free from animals in a state of advanced tuberculosis, the best management failed to prevent the infection. The cost of weeding out tuberculous cows would not be great if it were undertaken while the animals were under three years of age.

## LONDON.

### MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

THE Children's Care Subcommittee presented to the Education Committee of the County Council on February 22nd a report in which it stated that since the receipt of the letter of the Board of Education commenting in very adverse terms upon the Council's organization for medical inspection and the lack of provision for preventing "leakage," and for "following up" with medical treatment (BRITISH MEDICAL JOURNAL, February 4th, p. 274), the most careful consideration had been given to the question of the best organization for the efficient carrying out of the powers and duties imposed upon the Council by the Education (Administrative Provisions) Act, 1907, in connexion with medical inspection and medical treatment. Before the receipt of the Board's letter, the Establishment Committee of the Council raised the question whether the Education officer was justified under the terms of his reference in conducting the arrangements for medical treatment. The Council's medical work under the Education Act fell within the reference of the Education Committee, and was carried out by officers whose entire duties were concerned with the administration of education.

As regards medical inspection, the whole of the work—administrative as well as professional—was carried out by the medical officer (Education), who was technically an officer in the public health department, the chief officer of which was the Council's medical officer of health. The medical officer (Education) has enjoyed, however, a large measure of independence, and had had expressly delegated to him by the Council the exercise of the duties of school medical officer under the regulations of the Board of Education. In addition to the expert staff of doctors and nurses, the medical officer (Education) had, for the purpose of assisting him in the administrative side of the work of medical inspection, a clerical staff, whose duty it was to organize the visits of the doctors to the schools, to conduct the necessary correspondence, and generally to assist in the details of organization.

The arrangements for medical treatment were carried out by the Education officer as part of the general machinery of educational administration. As soon as the school doctor, after his inspection of a school, had reported that certain children required treatment, the necessary action for securing treatment was taken (1) by the children's care (school) committees acting through the secretaries with the assistance of the head teachers, the council's organizers and their assistants, and the school attendance officers; and (2) by the central staff of the Education officer's department, who undertook the work of making appointments for the children at the hospitals and medical treatment centres, and saw that the arrangements were carried out in accordance with the conditions laid down in the agreements.

The subcommittee considered it to be of the greatest importance that the arrangements in connexion with medical treatment should be closely associated with those in connexion with medical inspection, and it arrived at the conclusion from the experience gained during the past year that, in order to ensure the proper working of the system, it was necessary that the whole of the administration should be entrusted to one department.

From the moment when Parliament decided that medical inspection and medical treatment were (like the feeding of necessitous children) to be regarded as part of the work of education, the administration of school medical work became closely linked with the general administration of education. Under the present system the Council had in its care committee organization an arm which reached out of the school into the homes of all children in need. The prominence at the moment of the relief functions (direct provision of meals and medical treatment) tended to obscure the real nature of the organization, but, as a matter of fact, the whole work in all its phases was educational. The work in connexion with medical inspection and treatment was apart of this whole, and, in the opinion of the committee, could not be removed without serious injury to the remainder.

The subcommittee had accordingly arrived at the conclusion that the only satisfactory solution was to place the whole of the school medical work in close organic connexion with the general administration of education. The efficient carrying out of the work of medical inspection and the arrangements in connexion with medical treatment involved a large amount of detailed work which is administrative rather than professional.

It would be a wasteful policy to allow the time of medical men whom the Council had appointed because of their expert qualifications to be occupied in superintending such details.

The subcommittee recommended that the work at present under the direction of the medical officer (Education) should be definitely incorporated in the Council's system of educational administration, and placed under the supervision of the Education officer, who should be responsible to the Council for the general administration of the work of medical inspection, and for the arrangements for medical treatment. At the same time the freedom and initiative of the medical officer (Education) in expert advice, opinion, and investigation should be adequately safeguarded, and he should have the right of access to all the subcommittees of the Education Committee, and to submit reports over his own signature, retaining his existing titles of medical officer (Education) for the purposes of the Council, and of school medical officer for the purposes of the regulations of the Board of Education.

### HOSPITAL BEDS FOR MEASLES.

The Local Government Board has issued an order enabling the Metropolitan Asylums Board to utilize spare accommodation in the hospitals of the Asylums Board for the reception and treatment of additional classes of poor persons. Under the authority thus conferred upon them, the Asylums Board will be enabled to receive from any of the Poor Law authorities of the metropolis children suffering from measles or whooping-cough into any of their hospitals, or parts of their hospitals, where there is vacant accommodation. It is understood that some 1,000 beds will be available for these cases.

# Correspondence.

## TUBERCULIN AND THE PREVENTION OF TUBERCULOSIS.

SIR,—Several references in the JOURNAL to my attitude towards the use of tuberculin seem to call for a few remarks, with which reluctantly I trouble you.

It seems hardly necessary to recall the repeated expression of my belief in the great therapeutic significance of tuberculin. Recently, both in the Address in Medicine at the Annual Meeting of the Association in Belfast (1909) and in the course of a discussion in the Section of Medicine at the London Meeting last year, I took occasion to state the clear conviction—the result of continuous use of tuberculin, since its introduction, in a great variety of patients—that tuberculin is a remedy of first importance in suitable cases. The collective outcome of prolonged observation, experimentation, and reflection is, so far as my experience is worth anything, a decisive verdict in favour of tuberculin.

It appears to me that the chief source of risk in tuberculin medication lies in intemperate statements as to its universal applicability. The range of its applicability is wide, but there are limits to its use. Its applicability is increased in proportion as its use can be closely supervised. In this respect the plea of sanatorium doctors, to which reference has been made, is justly sustained. This does not imply that its use is to be limited to hospitals and sanatoriums, but it does mean that its use should be carefully safeguarded.

Apart from the question of mixed infection, which is, in my view, of more frequent occurrence than the statement of one of your correspondents would indicate, there are limits to the applicability of tuberculin. These are of definite scientific character. Speaking generally, we may put it thus: In proportion as tuberculosis is localized tuberculin is likely to be of service. Contrariwise, in proportion to the degree of systemic intoxication, the value of tuberculin is diminished. I have pointed out on different occasions that the limits are, on the one hand, anatomical, and, on the other hand, physiological. Anatomically the cure of pulmonary tuberculosis means contraction and cicatrization of the affected area of lung and more or less retraction of the chest wall. It is impossible to achieve recovery when the limits of potential shrinkage of the chest wall have been overstepped. These limits are reached in the adult, and notably in basal cases, relatively soon. This explains, in part, the large number of chronic cases which hang fire for long. Physiologically the position may be stated thus: So long as the tuberculous involvement—whether it be little or much—remains chiefly local, and systemic intoxication is correspondingly slight, tuberculin is likely to be of service. Contrariwise, if systemic intoxication is pronounced—whether the local lesion be small or great—tuberculin proves of little value and may do serious harm.

In the ordinary *clientèle* of a tuberculosis dispensary, or that of an hospital out-patient department, the proportion of patients who have passed these limits, physiological or anatomical, is considerable. It so chanced in 1890 that Professor Koch gave me one of the early phials of his original tuberculin for trial among the Victoria Dispensary patients, and the conclusion I have formed is based on these and many subsequent observations. To speak of a *routine* treatment by tuberculin of the extremely various types of tuberculosis which present themselves at a tuberculosis dispensary, or are discovered by domiciliary visitation, is, in my opinion, exaggerated and unwise. It conveys a totally false impression of the protean character of tuberculous disease, and suggests an utterly misleading estimate of the problem involved in the eradication of tuberculosis.

The term "tuberculin dispensary," which an extra-sanguine advocate of tuberculin has proposed for certain places where tuberculin can be had, serves to emphasize the limitation of outlook. The use of tuberculin in selected cases, whether at a dispensary or in private, is thoroughly justified. The selection of suitable ambulatory cases requires judgement and experience no less than does the dosage of the remedy from day to day. But much more is implied in the complete direction of the tuberculous patient than the injection of tuberculin, even when the indications for its use are clear. The tuberculous poor require a great deal more. The sphere of the *tuberculosis dispensary* includes every interest of the patient—his person, his home, and his household—and the associated interests of the community of which he is a member. Hence the very careful systematization of effort which is the distinguishing feature of tuberculosis dispensaries worthy of the name.

To invite patients to an institution, as the term "tuberculin dispensary" would indicate, to have an injection of tuberculin, is to take, and is likely to convey to the patient, a dangerously limited view of his needs. To suggest to communities that they are seriously attacking the tuberculosis problem by the erection of institutions for the injection of tuberculin is to throw a red herring across the path of antituberculosis progress, the effects of which will, I believe, prove disastrous in many directions.

It is, perhaps, needless to dwell on the confusion caused in the minds of even thoughtful workers, and still more among the less thinking public, by the ambiguous term which has been applied to these institutions. It seems an awkward and clumsy adoption of the name "dispensary," which has for long connoted something quite different in relation to tuberculosis in this country, in America, and on the Continent. It is a pity to create confusion in a subject which is already sufficiently complex. But apart from this, my objection is absolute to the view—freely promulgated by zealous advocates of the universal applicability of tuberculin—that practically all that is needed for the eradication of tuberculosis is the erection in each community of an office which would be more correctly labelled a "tuberculin station" (on the analogy of the vaccination stations).

Unfortunately the roots of tuberculosis lie too deeply. They have too firm a hold. Their tenacity of life is referable to many elements in social environment which a dose of tuberculin cannot touch. For the *eradication* of tuberculosis communities must not trust to a vaccine, however effective it may be for a limited end. Nor should they restrict their outlook *separately* to notification, nor to the tuberculosis dispensary, wide as are its possibilities of service, nor to the sanatorium, nor the farm colony, nor the hospital for advanced cases. With a clear conception of the far-reaching issues, their endeavour must be to attain an effective combination of the needful factors in a well-balanced and co-ordinated scheme of prevention and treatment. Details may vary in different communities, but the purpose and comprehensive plan are constant.—I am, etc.,

Edinburgh, Feb. 18th. R. W. PHILIP.

## TUBERCULIN AND TUBERCULIN DISPENSARIES

SIR,—As a general practitioner I have read this correspondence with much interest, but cannot satisfy myself as to the value of the evidence on which the claim for the success of dispensary tuberculin treatment is founded. Dr. Camac Wilkinson writes that the Portsmouth Council, in adopting his scheme, was guided by the direct evidence of Dr. Mearns Fraser and the mayor. I have no idea as to what the mayor's evidence was; Dr. Fraser's is, I presume, included in his report on the subject addressed to the council; but the only evidence which I can find there is that which he has taken from Dr. Camac Wilkinson and his book. In this book I find records of 106 cases in Classes 1 and 1–2 treated with tuberculin In 100 of these cases tubercle bacilli were not found; all did well. In the remaining 6 only were tubercle bacilli discovered; unfortunately of the after-history of these there is no satisfactory record, for 1 went to New Zealand and 5 have been lost sight of.

It does not appear to me to be quite logical to mix together for the purpose of such statistics two distinct classes of cases—namely, those in which tubercle bacilli were found, that is to say, those with positive evidence of active disease, and those in which tubercle bacilli were not discovered, that is to say, those with only positive reaction to a tuberculin test which I assume cannot be taken as evidence of active disease. It would be very interesting to have, and I hope that some superintendents will give us, statistics of the results of sanatorium treatment of cases in Classes 1 and 1–2 in which tubercle bacilli were not found, as well as of cases in which tubercle bacilli were found.

There is much good evidence that of every 100 adults 30 at least have suffered from tuberculous disease, and 11 die from it; in other words, 81 per cent. of the tubercle-tainted persons do not succumb to the disease. Dr. Camac Wilkinson in his book claims to cure by tuberculin 80 per cent. of his cases; is he not claiming for his treatment what otherwise occurs in 81 per cent. of all cases?—I am, etc,

Bradford-on-Avon, Feb. 19th. CHAS. E. S. FLEMMING.

## TUBERCULOSIS AND STATE INTERVENTION.

SIR,—In view of recent statements regarding State aid in dealing with tuberculosis, it seems a pity that any question should have arisen as to the verbal accuracy of the resolution which was adopted by the Edinburgh Conference. The question is not, it is true, the form given to the resolution, but the interpretation which has been placed upon it by Dr. Latham and Mr. Garland—an interpretation which, to some at least, will appear quite reasonable.

Six months, however, have now passed since the conference was held, and an outline of the Government scheme of invalidity insurance (the intention to introduce which was made public just on the eve of the conference and supplied a basis for the resolution adopted) has now become materialized in the daily press. The object of the resolution and the provisions of the insurance scheme can thus be compared.

The conference was agreed as to the great importance of giving the prevention and treatment of tuberculosis a prominent place in the Government invalidity insurance scheme. In none of the published outlines of the scheme which I have seen is the disease even mentioned. It would appear, indeed, that it is to be treated financially like other diseases, although the whole point of the argument for State intervention lay in the admission that tuberculosis differs economically from most of them.

Further, the allowance provided under the scheme during sickness, of any sort apparently, would appear to be 10s. a week for six months at least, while we know that the average weekly cost of maintenance in a sanatorium is almost three times that sum. This, again, does not look like giving the disease the prominent place in the scheme which the conference thought desirable, and leaves one with the hope that time and the evolution of events are on the side of the more comprehensive policy, which Dr. Latham and Mr. Garland were, I think, the first to put into practical shape.—I am, etc.,

Glasgow, Feb. 16th. A. K. CHALMERS.

## SWABS LEFT IN THE INTESTINE.

SIR,—I am glad that my views regarding the responsibility of medical practitioners who give evidence against co-workers who are accused of default in treatment of patients have produced expressions of opinion from two eminent surgeons, who, on one point of treatment at least, are not in agreement, because this attitude is further proof of the soundness of the distinguished legal opinion recorded in the last paragraph of my previous letter. With the understanding that that opinion is accepted, I beg leave to appeal for further help, in view of the great, nay vital, importance of protecting ourselves against ourselves.

In the first place, I should like to say that the support of Mr. Herbert J. Paterson will be of great value in the realization of the suggestion which I made, for if this matter be ventilated amongst brother practitioners outside the United Kingdom, I know Mr. Paterson's views will receive due consideration from surgeons in the United States. I am glad also that Mr. Paterson concurs with me in regard to the dangers of the sigmoidoscope in such a case as that referred to in my previous letter.

Mr. Swinford Edwards's letter is notable, not only because of its value from a surgical point of view, but on account of its importance in relation to the attitude of the layman in lawsuits. A layman reading the bald statement that "In spite of the comments of Mr. Lynn Thomas on the dangers attending the use of the sigmoidoscope, I should not *consider that I were running the slightest risk by using this useful instrument*, even if, owing to the fixation of the pelvic colon, success did not attend my efforts," especially the portion I have put in italics, might agree with him; and the same person reading my letter might think that I required training in the use of the sigmoidoscope. I assume that both of us, were we called in in consultation on a given case, would agree to differ, and let the patient judge whether the advice given by the one or the other should be accepted or rejected after hearing our reasons for disagreement. I would strongly object to the adjective "useful" being used to qualify the word "instrument" before a jury, because when it is used it is a question-begging epithet. The word "useful" could be legitimately used before the instrument "fork" were one endeavouring to explain its use to a Kaffir, but its use in connexion with the word "sigmoidoscope" is, I submit, unfortunate for the reason indicated. That "Mr. Ryall learnt his rectal surgery with us at St. Mark's Hospital" is, of course, a recommendation, but the majority of surgeons have not had that privilege, and therefore the extent of their horizon is not limited by that of that particular school. Six years ago this month I brought home my first sigmoidoscope from Freiburg-im-Breisgau after visiting the clinics of Professor Kraske and Goldmann. I use it or its successors whenever I consider it necessary, but notwithstanding Mr. Swinford Edwards's opinion, I still consider it a dangerous instrument. I have for many years passed into the rectum high up out of sight a large swab soaked in tincture of iodine before starting operations on that organ. I do so for two reasons: (1) to prevent soiling the field of operation; (2) to assure myself that undue narrowing of the calibre of the organ is not produced by my suturing. In the majority of cases the swab is moored by a thick silk or thread ligature; on the first occasion I did this the mooring was accidentally cut during the course of operation, and I was much concerned as to the best way of removing it. I sent for my sigmoidoscope, but before its arrival I removed the swab by suitable forceps, and I have done this successfully on several occasions since. In practice I consider this method satisfactory, and I think, nay I believe, that, in a medico-legal case, Mr. Swinford Edwards would not give evidence against me because I did not agree with his views.

I venture to appeal to my professional brethren to co-operate in seeking to establish an ethical code to guide those members of the profession who feel it their duty to support patients who wish to bring action for alleged malpraxis.

The reasons that induce me to appeal for such an important and vital object is founded upon personal experience of the value of doing what I consider to be ethically *right;* and in illustration I will relate a personal experience. Some years ago a lady from one of the Midland cities was sent to me for advice in connexion with intracranial trouble. I advised an operation, and her head was duly shaved for that purpose, but on the morning of the operation a condition had arisen during the previous night which determined me to postpone it. At the end of a week, contrary to my advice, she went home. A few weeks later I received a letter from her husband, in which he stated that an eminent London surgeon had told him that my diagnosis was wrong, and hinted not obscurely at legal proceedings. Happily, not many days afterwards, I received a letter from this surgeon, asking me for particulars as to the condition of the patient at the time when I proposed operating. I gave those particulars, and I had a reply showing that the husband had misunderstood or misrepresented my diagnosis; the reply stated further that it was unfortunate for the patient that she had not accepted my advice, for she was then blind. I need hardly say that I heard no more of the threatened legal proceedings.

I think there should be unanimity with regard to the terms of the articles in a code of ethics which would ensure that our work cannot be wantonly attacked, and that such code should, of course, duly protect the welfare of the patient as well as the interests of the practitioner.—I am, etc.,

Cardiff, Feb. 16th. J. LYNN THOMAS.

## THE DIPHTHERIA ANTITOXIN ORDER.

SIR,—Last month, before you published Dr Goodall's paper and the discussion thereon (JOURNAL, February 11th, p. 292, and SUPPLEMENT, p. 53), I had occasion, as a

member of Battersea Borough Council and its Health Committee, to consider whether we should adopt this Order. I was not convinced of the need for doing so, in a place where the facilities for prompt removal of cases to hospital, at all hours, are so excellent, and, on my motion, consideration of the circular was adjourned for six months with a view to gaining information, whereupon I and my party have been blamed for opposing the interests of the sick poor (and this by acceptors of the Brown Dog Memorial, among others).

After reading what has appeared in the JOURNAL, I am still more doubtful whether those interests would be served by the free supply of antitoxin. The circular itself emphasizes that the removal of cases should not be delayed thereby, but that might easily and probably be its effect. Our cases can always be quickly got into hospital, perhaps more quickly than antitoxin could be obtained from the Town Hall. In severe cases there is, of course, no need to wait for a bacteriological report before sending them away. Stress was laid by non-medical members upon its use in doubtful cases, and as a preventive. It is very important to note that Dr. Goodall's high authority is against such use, as a general rule, with strong reasons.

While fully recognizing the need for early administration of antitoxin in diagnosed cases, and its supreme value when given in time, I feel that when a case is promptly going to a hospital near at hand, which has a resident medical officer, the whole administration had better be in his hands. Divided responsibility would lead to difficulty and discredit of the remedy. So might insanitary conditions of the patient at home in reference to an injection. The rapid supervention of grave and fatal reaction, described by Dr. Goodall in several cases, would be serious in removal.

The Order properly authorizes payment of doctors applying the treatment to the poor, but without details, and it was suggested to me that doctors would be very willing to use the antitoxin, if supplied free, without much regard to payment for their services. Local authorities in and around London that have had such a system in operation before the Order have spent from £1 to £50 per annum upon it.

I can see that it might be desirable and necessary in some places. The views of local practitioners should be expressed and considered. The circular mentions especially Poor Law cases, but I think the supply, if required for these, should be at the cost of the guardians, and I doubt if the borough council here ought to commence in this way the provision of medical treatment. Our province is prevention.—I am, etc.,

London, S.W., Feb. 18th. J. T. RICHARDS.

## QUALIFIED OPTICIANS.

SIR,—The following notes from my eye case book may induce Dr. Seymour Taylor to modify his opinions on the above heading:

Miss N., aged 21. Has worn glasses three years.
Prescribed by an optician F.S.M.C.: + 2 D. sphere, both eyes.
Dist. vision $\frac{6}{10}$ both, and each eye with her glasses. Some little asthenopia at times.
Atropin and cocain. Clock test horizontal clearest.
Right eye: Worked out with stenopaic slit, c + 1.75 D. sph. and + .75 D. cyl. ax. vertical V = $\frac{6}{6}$ nearly.
Left eye: c + 1.25 D. sph. and + 1 D. cyl. ax. vert. V = $\frac{6}{6}$ nearly.
Clock test negative with above correction. Confirmed by retinoscopy.
After atropin cycloplegia had passed off—
Right eye: c + .75 D sph. and + .75 D cyl. ax. v. V = $\frac{6}{6}$.
Left eye: c + .25 D sph. and + 1 D cyl. ax. vert. V = $\frac{6}{6}$.
Together $\frac{6}{6}$ well. Clock test negative.
Above correction ordered for constant use.

I wish to add that I am a general practitioner in a poor country district. The patient paid me less than she paid the optician, and that now, for the first time in her life, she has excellent vision.

If general practitioners will not do simple eye work they must not be surprised if their patients go to eye hospitals or "qualified opticians."

I keep my test types hanging up in my consulting room, and find that these give the clue to many headaches that would otherwise be ineffectually treated with mist. stomachica or coal tar derivatives.

With a little management one can find time to work out all but the more complicated cases, which I send to the hospital, or to a consultant, in a neighbouring city, as I may deem suitable.—I am etc.,

February 19th, COUNTRY G. P.

SIR,—My friend Mr. Percy Dunn means well, but he is myopic in his survey of the subject on which he writes in your issue of February 18th last.

He quotes the case of "a poor man complaining of failing eyesight," who had been wrongly treated by an optician to whom he had applied for glasses. Let us assume that the optician held the diploma of the Spectacle Makers Company. Even then Mr. Dunn must admit that a medical man, as well as an optician, may make mistakes in diagnosis, and that a similar error could have been committed by scores of duly qualified medical practitioners who have not Mr. Dunn's special ability, and who have never undergone any test or examination in eye diseases. Yet according to law all such practitioners are entitled if they think fit to prescribe glasses, and also to sell lotions.

But I have in my mind localities and towns other than, and far from, London and large centres of population. I am thinking of the small township supporting (say) two medical men, and also an optician who holds the spectacle makers' diploma There is no proof that the medical men have any knowledge of errors of refraction; neither of them possibly possesses a set of trial lenses or even an ophthalmoscope. What must a sufferer from errors of refraction do? Must he take an expensive journey to London, pay a fee to consult Mr. Dunn or some other eminent oculist, or must he go to one of the doctors in his little town or village?

In the latter alternative I contend that he will obtain better advice by going to the optician, who holds the Spectacle Makers' diploma granted by a board which includes men of scientific eminence, and who only afford these certificates or diplomas after a most searching examination which most of us would find great difficulty in passing.

Then let us take the midwife as a further illustration. The legislature has ordered that a board of examiners shall be constituted who may, after due trial and examination, grant a diploma to certain women, who are then entitled to attend their poorer sisters in their hour of trouble; it may be miles away from a qualified practitioner, and further still from one possessing great skill in obstetrics. And the results issuing from this wise legislation are obvious to every one.

Mr. Dunn misses the point of my contention. If it is necessary, in order to correct errors of refraction, that a prescriber of lenses should have the "opportunity of seeing and treating the thousands of cases which fall to the lot of ophthalmic surgeons in their hospital work," it logically follows that the poor sufferer must either be led to a hospital or the ophthalmic surgeon must go to the patient; for, according to Mr. Dunn's argument, neither the local doctor nor the qualified optician ("crowds" not consulting them) can have "an expert and a trustworthy experience" . . . "both of the treatment of errors of refraction and of those cases of defective vision dependent upon diseases of the eye for which medical advice is needed." No one else, apparently, should have a look in, in every sense of the term.

But let us put this controversy on a broader basis. Moderately poor people will go where they may please in order to obtain help for their defective eyesight. The profession cannot coerce them to attend at an ophthalmic out-patient room, or to go to a qualified practitioner, though he be ever so skilled. Recognizing this fact, it were surely better that a man should have the chance of consulting an optician with some knowledge, as vouched for by his diploma, than go to the first tradesman whose business is to sell spectacles. And go he will, no matter what our profession may do to try to prevent him. —I am, etc.,

London, W., Feb. 18th. SEYMOUR TAYLOR.

## TREATMENT OF GOUT AND RHEUMATISM BY RADIUM.

SIR,—My attention has been called to an Address on the Treatment of Gout and Rheumatism by Radium, delivered before the Berlin Medical Society on January

18th, 1911, by Professor Dr. Wilhelm His, and published in the BRITISH MEDICAL JOURNAL of the 4th instant. In discussing the methods which enable us to apply radium and its emanation in an effective manner, Professor His mentions emanators constructed by Löwenthal and Gudzent in which a stream of oxygen bubbles through a fluid containing a salt of radium and is saturated with the emanation.

As it is now more than two years ago since I designed an apparatus for the administration of radio-active oxygen, I think I have a just claim to be regarded as the originator of this method of treatment by inhalation. The apparatus which I designed was made by Messrs. Southall of Birmingham and exhibited at the Midland Branch of the Institute of Hygiene in 1909. Since that time I have used it not only for the treatment of gout and rheumatism, but also for whooping-cough, chest affections, and skin diseases.

Without in any way questioning the originality of Professor His's article, I think that my claim to priority in this matter should be noticed in the columns of your widely circulated journal.—I am, etc.,

West Bromwich, Feb. 10th. N. L. USHER SOMERS.

## THE DISTRICT NURSE AND THE GENERAL PRACTITIONER.

SIR,—A letter from Dr. Smith of Boscombe on the above subject, in your issue of January 21st, deserves the thoughtful attention of every member of our profession, for, as regards the district nurse, he states the "whole truth and nothing but the truth"; and if we, members of a very ill-paid profession, wish to hold our own and gain a decent living, would only unite and put our feet down, we could easily quash the schemes of the Ladies de Vere, get our own terms, and have district nurses very much under our own control.

I enclose a circular that is being distributed broadcast in this county, and from it you will see that the Midwives Act is quoted as the reason why district nurses are urgently needed.

If some of the junior members of the profession (it has been done here) go about with Lady de Vere in her motor car advocating district nurses, whether their seniors approve of them or not, I can only see one remedy—that is, to have the question brought up at the Branch Council meeting. We may then hear the general opinion of members on the subject.

Thanking you in anticipation for publishing this letter and enclosing my card,—I am, etc.,

A MEMBER BRITISH MEDICAL ASSOCIATION.

February 18th.

## THE STOAT AND ERMINE.

SIR,—In reference to Sir Jonathan Hutchinson's letter concerning the summer and winter dress of the stoat, it would certainly be interesting to know what the actual circumstances are which determine these seasonal changes, since he throws some doubt upon climatic influence as the direct cause of the winter transition.

During winters in Switzerland, with the snow continually on the ground, and where ermine were often seen, I gathered from a *Jäger* that the white change in the animal always occurred in the snowy winter months, and could not find out from a reliable source that this royal fur was ever seen in an incompletely transformed stage, certainly not a brown colour. This certainly suggests colour adaptation to surroundings in a country where snow remains for a lengthened period on the ground, but in England, with less severe winters, and even mild ones, with a normal surface, we should not—according to old views—expect the animal habitually to take on these resemblances; but this does not throw light on the physiological side of the question.

The change of colour is, as we now know, an actual whitening of the fur in this emblem of purity and justice, and not, as was once thought, a substitution of white for dark hairs—I am, etc.,

West Ealing, Feb. 21st. R. BROOKS POPHAM.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

*Conferment of Degrees.*

IN Congregation on January 26th the following degrees were conferred:

D.M.—D. W. Carmalt Jones.
B.M. AND B.CH.—G. E. Neligan, G. E. Lowns, and A. W. Donaldson.

*Board of Faculty of Medicine.*

The following have been elected members of the Board of Faculty of Medicine: Sir W. S. Church, Bart., Dr. Samuel H. West, Dr. Walter Ramsden, Dr. E. W. Ainley Walker, Dr. William Williams, Dr. H. M. Vernon, Dr. Alexander G. Gibson, and Dr. J. W. Jenkinson.

*Examinations for M.B.*

In accordance with the provisions of the Decree of Convocation of February 7th, 1911, the examinations for the degree of Bachelor of Medicine will commence in the Examination Schools for the first B.M. on June 15th, and for the second B.M. on June 14th, and not as previously advertised.

## UNIVERSITY OF CAMBRIDGE.

*Conferment of Degrees.*

THE following degrees have been conferred:

M.B., B.C.—A. Feiling, J. T. Fox, R. F. Higgen.
M.B.—H. E. S. Stiven.

## UNIVERSITY OF EDINBURGH.

*The Dick Bequest.*

IT has been intimated to the University Court that the trustees of the late Miss Mary Dick desire to make over the moiety of her trust estate which she bequeathed to found a professorship in the University, either of comparative anatomy or surgical anatomy, in memory of the late Dr. John Barclay and Professor John Goodsir. The court resolved to accept administration of the funds.

*Appointment of Lecturers.*

The following University lecturers have been reappointed: Dr. G. H. Melville Dunlop (Diseases of Children), Dr. A. Logan Turner (Diseases of the Larynx, etc.), and Dr. Norman Walker (Diseases of the Skin).

## QUEEN'S UNIVERSITY, BELFAST.

*Special Gold Medal in Anatomy.*

AT the meeting of the Senate of the university on February 16th a letter was read from Dr. Parkinson (London), enclosing the sum of £17 12s. 6d. for a gold medal, to be called "The Juliet Symington Medal," to be awarded to the student obtaining the highest marks in anatomy at the second medical degree examination next July. The Vice-Chancellor referred to the interest the late Mrs. Symington took in the life of the university, and thought it a most appropriate memorial. It would be a special consolation to Professor Symington that her name and memory would be thus preserved. On the motion of Professor Sinclair, F.R.C.S., seconded by Professor Sir William Whitla, the following resolution was passed:

That the Senate accept with pleasure the offer made by Dr. Parkinson of a large gold medal, to be called "The Juliet Symington Medal," and to be awarded in the department of anatomy, and that the Secretary be instructed to convey in due form to Dr. Parkinson the thanks of the Senate.

MEETING OF CONVOCATION.

A meeting of convocation was held in the large Hall of the University on February 14th, the Right Honourable Thomas Sinclair, Chairman of Convocation, presided, and there was a large attendance.

*Standing Orders.*

The chief object of the meeting was the consideration of the Standing Orders, which had been drawn up by a committee appointed at the previous meeting for this purpose. These were passed with a few amendments.

*Honorary Degrees.*

Dr. Leslie, who had given notice, moved:

That we, Convocation of the Queen's University of Belfast, emphatically protest against the disability imposed on the University by the statutes, chap. XXXIII, clause (1), which prohibits the conferring of honorary degrees in the faculty of medicine; and, having regard to the fact that this privilege was exercised respectively by the old Queen's University and by the Royal University throughout their careers, and is enjoyed to-day by the University of Dublin, by the National University, and by the Royal College of Physicians and Surgeons in Ireland, we call upon the Senate to take such steps by appeal to the Privy Council or otherwise as will remove this anomalous disability.

The Medical Faculty, he said, was under a distinct disability in the matter; it did not want the power of conferring medical degrees on those who were not already registered medical men; but occasions might arise when it would be desirable and becoming to confer an honorary medical degree instead of a meaningless LL.D. or some similar distinction. The motion

was seconded by Dr. Calwell, President of the Ulster Branch of the British Medical Association, who said the Senate should not allow itself to be stultified in this matter; there was not the lightest danger of misapplication of the power.

*Standing Committee.*

The Standing Committee was then elected, amongst whom were the following medical men: Vice-Chairman, John Campbell, F.R.C.S.; Dr. R. W. Leslie, LL.D.; Dr. William Calwell, M.A.; Professor J. A. Lindsay, M.A., M.D.; Mr. T. S. Kirk, B.A., B.Ch.; Dr. J. J. Austin; Dr. J. H. Harbinson, B.A.; Dr. W. J. Maguire, B.A.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

*Dental Examination.*

W. J. MAHER and J. L. Moulang have passed the examination of the First Dental Division A. G. Sheedy and A. C. Wiley have passed the examination of the First Dental Division B. P. I. Wigoder has passed the Final Dental Examination and has been admitted a Licentiate in Dental Surgery.

# Obituary.

## WILLIAM WILLIAMS, M.A., M.D., B.CH., M.R.C.S., L.S.A., D.P.H.,

MEDICAL OFFICER OF HEALTH TO THE COUNTY OF GLAMORGAN.

THE sad news of the death of Dr. William Williams, Medical Officer of Health for Glamorgan, has been received with profound sorrow throughout the county. He was in his 54th year, and died at Bournemouth on February 16th. He had been ailing for some time, and went to Bournemouth hoping to recuperate his health in the sunny South. Through his death Wales has lost one of its most prominent and valued public officers and a true son of "Gwalia."

His career throughout was marked by many successes. Born at Esgairgawr Farm, near Dolgelly—as he said, "on the slopes of the prettiest valley in Wales"—he was first educated at the Grammar School, Dolgelly; thence he proceeded to the University College at Aberystwyth, where he obtained a scholarship. He then went to Jesus College, Oxford, where he gained a Scholarship in Natural Science and later was elected to a Meyrick Exhibition. In 1881 he graduated as B.A., with first-class honours in Natural Science, and proceeded M.A. in 1887. In 1882 he won an open Science Scholarship at St. Mary's Hospital, London; he graduated M.B. and B.Ch. in 1887, and took the degree of M.D. in 1894. He held also the diplomas of M.R.C.S., L.S.A., and D.P.H.

He studied science for a time at Berlin, and this gave him a wider knowledge of his favourite subject. He subsequently became Resident Medical Officer of the Ventnor Sanatorium, where he remained two and a half years; then for a while he held the appointment of Assistant Medical Officer of Health in Shropshire. In December, 1892, he was selected from among fifty applicants as Medical Officer of Health to the premier county in Wales—Glamorgan.

In his own branch of medical activity he was a most enthusiastic worker, and his able reports influenced the Glamorgan County Council to join him heartily in insisting upon important sanitary reforms. His frequent reports, calling attention to the defects of those district sanitary authorities which were slow in carrying out necessary sanitary requirements, have had a most beneficial effect upon the sanitary condition of Glamorgan.

By the Sanitary Committee of the County Council he was held in high esteem, and such was his influence with the members that it rarely happened that when he had definitely made up his mind as to the best line of action that course was not adopted. His even temper and fair reasonableness and his sincerity, manifest to all, have done much to bring about that true harmony which has for years existed, and which only became more complete as time went on.

When the Isolation Hospital Act came into force he advised the council as to the best method of procedure, with the result that they have now about sixteen excellent isolation hospitals in various parts of the county, capable of accommodating over 500 patients.

For a long time he endeavoured to impress the council with the necessity of establishing a public health laboratory at which all the water supplies of the county could periodically be chemically analysed and bacteriologically examined. The result is that the county can now boast of an excellent institution, maintained in association with Cardiff, which has been of immense benefit in various directions. He, together with Dr. Walford, acted as directors.

As the first county medical officer of health in Wales he had much pioneer work in public health to perform. This often was not an easy matter, but his unfailing tact, his personal influence, his irresistible courtesy, together with his knowledge of the people with whom he had to deal, enabled him to effect his purpose with very little friction, if any.

As showing the esteem in which Dr. Williams was held by his medical brethren in South Wales and Monmouthshire, although as a medical officer of health he was not so closely associated with the general practitioner, who naturally forms the predominant section of the Association, he was nevertheless chosen as the President of the Branch in 1905, a position he filled with conspicuous ability and distinction. He was held in no less esteem by other medical officers of health and by sanitary inspectors throughout the district, as is shown by the fact that he was selected as the first President of the South Wales Sanitary Inspectors' Association. He served as Examiner in Public Health at the Universities of Oxford and London, and was appointed, though he had not acted, to the same office in the University of Wales. He was a member of the Medical Board of the University of Wales, and took a lively interest in its work.

In 1903 and 1904 he delivered the Milroy lectures at the Royal College of Physicians, London. His contributions to medical literature on subjects of special interest to the branch of the profession to which he belonged will always remain as monuments to his great industry and powers of observation.

He was always exceedingly interested in the water supply of the county, and a few years ago he made a very full report on the supplies of the various authorities in Glamorgan. His work thereon culminated in the promotion by the Glamorgan County Council of two bills in Parliament, which aimed at concerted action in the conservation of the natural heritage of South Wales in respect of the water resources available for the use of its teeming population. Unfortunately, these laudable attempts on the part of the Glamorgan Council were unsuccessful, and South Wales may yet regret the failure to adopt Dr. Williams's far-reaching suggestions.

He leaves a widow and three children—two daughters and a son. His loss to the Principality will be severely felt, and the gap occasioned by his untimely death will be difficult to fill. He was utterly devoid of self-interest and self-seeking; his great aim was to lift to the highest possible standard that branch of the profession to which he belonged, and to which he had wholly devoted his life.

His loss will be deeply felt by a very large circle of friends, to whom he had endeared himself by his kind and genial disposition and his singularly gentle and lovable nature.

## JAMES EDMUNDS, M.D.ST.ANDREWS, M.R.C.P.LOND.,

CONSULTING PHYSICIAN, LONDON TEMPERANCE HOSPITAL.

WE regret to state that Dr. Edmunds passed away at his residence in Brighton on February 16th, in his eightieth year. For some twelve years he had been afflicted with increasing paralysis agitans, and had retired from active work in the profession. He was a man of most varied attainments, and a pioneer in the temperance world and in several other branches of medical and scientific work.

He was the eldest son of an Independent minister in the East End, and at an early age became an apprentice to Dr. Lewis, a general practitioner in Brick Lane. He was a student of the London Hospital, where, at the end of his career, he was Triple Gold Medallist. He obtained the diplomas of M.R.C.S and L.S.A. in 1854, and for the next ten or twelve years carried on a large general practice in the City of London, moving first to Spital Square and then to Finsbury Circus, where he had two partners. For seven years he was the Surgeon to the H Division of the Metropolitan Police. In the midst of a most active life he contracted blood poisoning at a *post-mortem* examination and was ill for six months. He gave up his practice

in the City and commenced a consulting practice in the West End of London. He had taken the degree of M.D.St.Andrews in 1862, as well as the diploma of L.R.C.P.Edin. in 1860, and was admitted a Member of the Royal College of Physicians in 1874.

It was at the meeting of a working men's club in the East End of London that he first conceived the idea of the uselessness of alcohol in ordinary life and the abuse of it in the sphere of medicine, and, in conjunction with several later leaders in the temperance cause, he founded the London Temperance Hospital in Gower Street; he supervised the construction of the present hospital in the Hampstead Road, and for many years was the sole physician and surgeon to it. He was, in fact, the first medical man who preached the gospel of total abstinence, and with no uncertain voice. He was one of the founders of the British Medical Temperance Association, of which he was President 1876–9, and of the United Kingdom Temperance and General Provident Institution, to which he was Senior Physician down to the time of his retirement. He associated himself intimately with Cardinal Manning in the foundation of the Red Cross Temperance Society, and again with Canon Fleming, and with the Church of England Temperance and General Benevolent Society, for which he was also the chief medical adviser. It was nine years after he first took up the advocacy of total abstinence that he was followed by Sir Benjamin Ward Richardson, and later by others. He stood all the jeers of the profession in the early days of the temperance movement. He was called a "crank," "the milk diet doctor," "the porridge and fat bacon doctor," and it must be confessed that he himself, being of a somewhat combative nature, offended many members of the profession by returning the compliments in kind.

Another sphere of action in which Dr. Edmunds was a pioneer was in the medical education of women. He founded a society called the Female Medical Society, which met in or near Fitzroy Square, where he gave lectures on medical and surgical subjects to women; he was one of the first, if not the first, supporter of the cause. This society only lasted a few years, and was merged afterwards in the London School of Medicine for Women; he retired from it because his own views were not altogether favourable to carrying the medical education of women to the point of enabling them to become registered medical practitioners.

For twenty-seven years he was Medical Officer of Health and Public Analyst for St. James's, Westminster, and retired when the old vestry was merged in the new city. It was at his suggestion that a beginning was made of the process of clearing this densely populated district of the many slums and mean streets which formerly occupied so much ground in that part of London.

Dr. Edmunds wrote much on temperance questions, and also contributed some papers on medical and surgical subjects. Before the introduction of antiseptics into general surgery he had been accustomed to paint the skin and wash his hands in iodine, and he performed two of the first thirteen successful operations known for Caesarean section, both mother and child surviving. He was an admirer and early follower of Sir Spencer Wells, and performed numerous ovariotomies, and at an early date adopted the antiseptic system in his general surgical work, which included most of the operations that were known in his time; they were carried out mostly at the Temperance Hospital, and the patients were treated without the administration of any alcohol, and his experience contributed to bring about the gradual change which has come over almost all our great hospitals in regard to the use of stimulants.

For many years he was accustomed to use small doses of mercury with cinchona bark in the treatment of phthisis, in spite of the general opinion against the use of mercury in this disease. He was a constant attendant at the Royal Institution in Albemarle Street, and had an extensive chemical laboratory of his own, where he was constantly engaged in food analyses and chemical experiments. He had one of the finest collections of microscopical lenses and polarizing apparatus that could be procured in his time. From 1878 to 1885 he was a frequent contributor to the *English Mechanic and World of Science* on all sorts of practical scientific subjects. His modification of Wenham's paraboloid illuminator for the microscope, made by cutting the top off flat and cementing it to the slide by a drop of glycerine, thereby rendering it an immersion paraboloid, was described and figured in that paper over twenty years ago. He demonstrated its remarkable defining powers on the podura scale and on diatoms at the Quekett Microscopical and other society meetings, and nothing pleased him more than to show living bacteria and spirilla in decomposing infusions with direct sunlight and his immersion paraboloid, which gave a dark background and made the object self-luminous. This should be mentioned, because quite recently the same instrument has been rediscovered and been found to be of the greatest use in bacteriology. But bacteriology was later than his time, and it was one of the subjects that he did not find time to venture into much. Another sphere of interest for him was ornamental lathe turning. He had some very fine lathes and accessories and eccentric chucks, with which, when he had time, he would amuse himself for hours; but it is difficult to define the whole sphere of his activity, as he dived into geology, astronomy, chemical physics, and many other branches of science.

For the last twelve years of his life he suffered from increasing paralysis agitans. He read all that was known upon this disease with a view to making some original discovery in it and, if possible, to cure himself. In his own case the disorder began in a thumb that he had rather severely cut when working in his laboratory, and seemed to spread from that as a focus; though unable to suggest a definite pathology for the disease in general, he always believed that his own particular case was due to some infection following that accident. Had it not been for this disease he might have lived a very much longer life, as his main organs were all sound, and he retained most of his remarkable intellectual powers almost to the end.

The keynote of Dr. Edmunds's character was constant strenuous work. He was always thinking, studying, theorizing, and experimenting. When not engaged in his professional work, he turned to one of his numerous scientific hobbies for recreation. Many a whole night he would sit up with his microscope, lathe, or telescope. He did a large amount of charitable work, and, although always glad to meet and co-operate with temperance advocates connected with any religious sects, he refrained from mixing up total abstinence with any creed or religion. He advocated total abstinence purely from the health point of view and the self-interest of each individual abstainer. He had the same views against tobacco as against alcohol.

He leaves behind him a widow, three sons (two of whom are members of the medical profession), and a daughter to mourn his loss.

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## COLONEL FRANK HENRY HENSMAN, C.M.G., M.R.C.S., L.S.A.

COLONEL F. H. HENSMAN died at Penkridge on February 21st, aged 71 years. He entered the Army Medical Department in 1862, and soon after joined the 77th Regiment (now 2nd Battalion Duke of Cambridge's Middlesex), and served with that regiment until 1876, when he became Assistant Surgeon of the 2nd Life Guards. Eventually he was promoted Surgeon-Major of the 1st Life Guards, remaining in that position (and as Surgeon-Lieutenant-Colonel) until he reached the age limit in 1894. He was a favourite with all ranks, not only on account of his professional abilities, but also for his kind, sympathetic, and cheery disposition.

He served in the North-West Frontier (Umbeyla expedition), 1863. During the South African war he volunteered for service, and was in command of the American Ladies' Hospital Ship *Maine* (dispatches, medal, C.M.G., and promoted Colonel for his services during the war).

Colonel Hensman married Ann Barnett, eldest daughter of Mr. H. Ward, of Rodbaston, Penkridge, Staffs. His only child, Melville, is a Lieutenant, R.N.

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PROFESSOR GIUSEPPE MYA, one of the leading clinicians of Italy, recently died at Florence in his 54th year. He took his Doctor's degree at Turin in 1881. While he was still a student he published a case of inversion of the viscera and another of wandering liver. After graduation

he was Assistant in the Turin Medical Clinic under Bozzolo. After lecturing on clinical medicine and special pathology at Turin for some time he was appointed Extraordinary Professor, and remained there till 1890. He was then appointed to the corresponding chair at Siena, and in the following year he was called to Florence. In 1898 he was offered the Chair of Medical Pathology in the University of Naples, but he preferred to stay at Florence. In 1900, when the new Institute of Children's Diseases was founded at Florence, Professor Mya was appointed its Director. His reputation both as a pathologist and as a clinician was of the highest.

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We regret to announce the death of Professor Theodor Escherich, a recognized authority on diseases of children, which occurred on February 15th. Born at Ansbach on November 29th, 1857, he was in the 54th year of his age. After studying medicine at Strassburg, Würzburg, Berlin, and Vienna, he took his Doctor's degree in 1881. He qualified as *Privatdozent* in diseases of children at Munich in 1886, where he was Assistant in the Paediatric Clinic. In 1890 he was appointed Extraordinary Professor in the University of Graz, becoming Ordinary Professor in 1894. In 1902, on the death of Widerhofer, he received a call to Vienna. Among his pupils may be mentioned Professors Loos of Innsbruck, Pfaundler and Moro of Munich, and von Pirquet of Breslau; and *Privatdozenten* Meser, Hamburger and Tehle of Vienna. Professor Escherich contributed largely to medical literature, among his works being monographs on the intestinal bacteria in sucklings (1886); the etiology and pathogenesis of diphtheria (1894); diphtheria, croup, serum-therapy, tetany, and the tuberculin treatment of tuberculosis in children.

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Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Hofrat Dr. Gustav von Braun, for many years Professor of Obstetrics and Gynaecology in the University of Vienna, in his 82nd year; Richard Stern, Director of the Medical Policlinic at Breslau, aged 45; Dr. A. de la Garde, formerly Professor of Clinical Pathology in the Medical School of Poitiers; Dr. Christian Bohr, Professor of Physiology in the University of Copenhagen, aged 56; Dr. Alberto Severi, Professor of Medical Jurisprudence in the Medical Faculty of Genoa; Dr. Karl Parrot, a well-known medical practitioner of Munich and widely known as an ornithologist, aged 44; Dr. Kelsch, formerly Inspector-General in the Medical Department of the French Army, Professor in the Army Medical School at Val de-Grâce, and author of treatises on the diseases of hot countries and on epidemiology, aged 70; and Dr. F. Fuchs, Emeritus Professor of Neurology in the University of Bonn.

# Public Health
AND
# POOR LAW MEDICAL SERVICES.

## DISINFECTION OF LACE.

L. E. N.—Fine lace work which cannot be boiled could be disinfected by placing it in a muslin or cambric bag, and then subjecting it to steam in a steamer such as potatoes are cooked in. Or it might be subjected to dry heat by placing it in a double saucepan in the outer one of which water is boiled. Formaldehyde vapour would not suffice.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## CIRCULAR ON DISSOLUTION OF PARTNERSHIP.

"Temporary" is hardly a suitable word to describe a partnership which lasted for nearly four years; in this case it appears that the partnership would have been permanent if it had not been dissolved owing to the inability of one of the parties to fulfil its terms. It would be better if the circular referred to A. as having been in partnership with B. "during the last four years," or whatever was the actual term.

# Medico-Legal.

## POSTAL MEDICAL OFFICERS.

In the case of Harneis *v.* Robinson and others, heard before Mr. Justice Darling and a special jury in the King's Bench Division on February 17th, the plaintiff was Dr. Harneis, and the defendants were officers of the Postmen's Federation, who were responsible for the publication of a widely circulated paper called the *Postman's Gazette*. Mr. Clavell Salter, K.C., and Mr. Hugh Fraser, instructed by Mr. Hempson for the Medical Defence Union, appeared for the plaintiff, and Mr. Leslie Scott, K.C., and Mr. Schwabe, instructed by Messrs. W. A. Crump and Son, for the defendants.

It appeared from the opening statement of counsel, as reported in the *Times*, that Dr. Harneis, who had been a registered medical practitioner since 1901, bought a practice in Hackney in 1905, and in that year was appointed medical officer of the Hackney postal district. The emoluments came to £80 a year, the capitation grant being a little over £50 a year. The area of the district was six miles in diameter. Dr. Harneis undertook to attend at his surgery for one hour after 10 a.m., and for an hour and a quarter after 7.15 p.m. This regulation was very loosely observed by the employees. The alleged libel was contained in the following paragraph published in the *Postman's Gazette*, and sent to the plaintiff in December, 1909, from the Eastern District Office:

"Now that the borough council elections are over, a few words would be appropriate on behalf of our member, Mr. H. J. Mead, who ran strictly on the Labour and Socialist ticket, and made a very good fight, and we must trust that he will be more successful next time. In reference to the proposed removal of the medical officer's premises, which at present are too far away for any man who has to seek medical advice, the new address is to be further off still. At the same time, the present medical officer has not been over-zealous in giving attention to the men, as several have complained of inattention on his part. Furthermore, he seems to be labouring under a delusion that his position enables him to grossly insult those who are unfortunate enough to be compelled to go to him for medical treatment. We would advise all our members to take note of his actions in future, so that further steps may be taken with a view to bringing him to his senses and getting him to treat men properly."

In examination the plaintiff said his surgery was some 1,500 yards from the Hackney Post Office; he did not recollect ever having refused to see applicants out of hours. The plaintiff was cross-examined with reference to an incident in which he was alleged to have assaulted a person who had been a dispenser to the medical man from whom he had purchased the practice. The plaintiff denied that he committed any assault; he merely tapped the individual with his hand. The plaintiff was also cross-examined with regard to a number of post-office employees, and denied that he had treated them with negligence or discourtesy. In re-examination, Mr. Fraser asked Dr. Harneis about the alleged assault, when the jury intimated that they did not wish to hear any more about the incident.

Mr. John Gibson, postmaster of the Eastern District, said he had never heard any complaints relative to Dr. Harneis.

His Lordship then suggested to Mr. Leslie Scott that the plaintiff having been examined and cross-examined on the plea of justification, it might not be necessary for the defendant to insist on it. After Mr. Clavell Salter had conferred with his client, he said that, considering the attitude taken up by the defendants, who had never suggested an apology or ever attempted to meet Dr. Harneis in a proper spirit, he had no option but to proceed with the case. Mr. Leslie Scott raised the legal point whether officials of the Federation could be made liable in damages for a publication not authorized by them.

After an adjournment Mr. Leslie Scott said that the defendants would apologize and withdraw their plea of justification. Mr. Clavell Salter said: "I ask for judgement and nominal damages, 40s. The plaintiff's only object has been to clear his character. He has achieved that object. The apology will be headed with the full names of the parties, and will state that the defendants unreservedly withdraw all the allegations in the *Postman's Gazette*. They apologize to Dr. Harneis and agree to pay the costs of the action. Costs to be taxed as between solicitor and client."

Mr. Justice Darling said: "The parties have been very wise in terminating the case without taking a verdict. There would have been a point of law to decide, raised by Mr. Scott, and it would not have been to the interest of Dr. Harneis to have been the means of settling a very difficult point of law as to the question whether the officials of a union could or could not have immunity in regard to libel, except in cases where they themselves can be proved to have done some definite act with regard to the publication. There the matter will end."

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## ACTION FOR SLANDER BY A DOCTOR.

An action for slander brought by Dr. Roland Riley, of Blockley, against Canon Edward J. Houghton, of the same place, and heard at the Worcester Assizes before Mr. Justice Bankes and a special jury, is reported in the *Birmingham Daily Post* of February 15th. Mr. Arthur Powell, K.C., and Mr. Wrottesley, instructed by Mr. Hempson for the Medical Defence Union, appeared for the plaintiff, and Mr. C. F. Vachell, K.C., and the Hon. R. Coventry, instructed by Messrs. Beauchamp and Gallaher, for the defendants.

Mr. Powell, in opening the case, said that the plaintiff had resided in Blockley for about five years. The defendant was the Vicar of Blockley, honorary canon of Worcester, and rural dean. On March 9th, 1910, a billiard match took place at the Northwick Institute at Blockley, founded and largely supported by Lady Northwick. Among those present was Dr. Riley and an Egyptian pupil of Canon Houghton. The match began about 7 p.m., and the proceedings, including music, continued until 1 a.m. Subsequently the defendant was alleged to have told Lady Northwick that the Egyptian pupil on arriving home from the Institute had said that Dr. Riley was drunk, very drunk indeed, and had offered to help him home. Lady Northwick, who was unable to leave her house, had made a deposition before an examiner, in the course of which she said that, though the canon had spoken in a jocose manner, she thought it was serious for the Egyptian to say that without proof. The canon said that the Egyptians exaggerated. She regarded these statements about Dr. Riley as a very serious matter; it was a matter which ought to be cleared up; it reflected on the Northwick Institute. If it had been true that Dr. Riley had been drunk on the occasion, she would not have asked him to attend anybody in his professional capacity in the parish. Cross-examined, Lady Northwick said that Canon Houghton never gave her the impression that he believed it; he never said he believed it; he only said what the Egyptian had said. Dr. Riley found that a report was going about the neighbourhood that he had been drunk, and it had spread far and wide. Among other persons to whom the statement was alleged to have been made was Mr. Arkell, churchwarden. The defendant had subsequently denied that he had made the accusation and asserted that all he had said was that the Egyptian boy had offered his arm to the doctor in fun.

Dr. Riley, in examination, said that there was not the slightest foundation for the statement that he was intoxicated, and no one helped him home. Having heard that the defamatory statement had been circulated, he saw Mr. Arkell, the churchwarden, and afterwards had an interview with the Canon at the house of Mr. Rushout. The Canon said that the only remark he made to Lady Northwick was that the Egyptian boy had offered his arm to witness, and asserted that he had not told any one else. The witness saw Mr. Arkell, and on June 20th there was a meeting in the school-room, when the chair was taken by Mr. Rushout. Mr. Arkell, in the presence of the Canon, detailed what the defendant had said to him as to the witness's condition. The defendant gave an absolute denial. In cross-examination, witness admitted receiving an apologetic letter, but he did not regard it as adequate.

Mr. Arkell, in cross-examination, said that he had had previous difference of opinion with the Canon. In re-examination by Mr. Powell, he said that he had written as follows to the Canon: "Must resign when you deny repeating to me the idle tale after the billiard match. I think you will agree with me that no other course is open to me."

At the conclusion of the plaintiff's case the Judge said he was not at all sure whether he ought not to ask the jury whether they did not think that the words, even though spoken of Dr. Riley with reference to some festive occasion, did not touch him in his profession.

There was a consultation between counsel and judge, and eventually Mr. Vachell said he was glad to announce that the parties had been able to come to terms. Canon Houghton, having heard the evidence, felt he must have said more than he thought he had said, and that he never intended to convey any imputation upon the doctor at all. He was sorry he had repeated anything his pupil might have told him. He apologized to the doctor for what he did say. By arrangement the record would be withdrawn, and he would say that they had also agreed upon a certain sum which would be paid by defendant to the plaintiff towards the cost. Counsel expressed gratitude to his Lordship for his kind offices in bringing the parties to an understanding. Mr. Powell identified himself with these expressions.

His Lordship said he was glad the case had come to this termination. In his opinion both parties had agreed to what was a very reasonable arrangement, Dr. Riley having got a clear expression of opinion from the defendant that there was no foundation at all for the charges, and a handsome apology from Canon Houghton for having said what he now understood he must have said. This was a happy termination to the dispute, and he hoped after a reasonable interval both parties would be good friends.

## POST-MORTEM EXAMINATION.

A MOST important trial, before Lord Guthrie and a jury, was concluded in the Court of Session in Edinburgh on February 8th, the defender being Andrew Love, M.D., Medical Superintendent of the Greenock and District Combination Hospital, who was sued by a labourer named Boyle and his wife for £200 damages for performing a *post-mortem* examination on their child without their sanction. From the evidence it appeared that the child, aged 2½ years, was taken into hospital in a critical condition, and tracheotomy was performed. Although all that could be done for the child was done, it died the same night. On the following day the father called at the hospital to procure the certificate of death. He saw the medical superintendent, who asked if he had any objection to a *post-mortem* examination. The question to be decided was whether or not consent had been given. Boyle averred that he had not consented, and neither had his wife; while Dr. Love asserted that the father's consent was given, after his explanation that the true cause of death could not be ascertained otherwise, and that for public health reasons such an examination was desirable. The *post-mortem* examination disclosed the cause of death to be tuberculous meningitis.

Lord Guthrie, in his charge to the jury, said that the case was a peculiar one in many ways, and particularly in that the ordinary fact which had got to be proved by the pursuers was here admitted—that what the law considered (unless consent was got) to be a legal wrong was here committed. The result was that the defender had to prove to the reasonable satisfaction of the jury not only that authority was got, but—it was a very important question—whose authority was got. The jury might come to consider that the whole case had arisen through a misapprehension on the part of the pursuers as to the law on that matter, and that that furnished a key to the discrepancy between the statements on the two sides. It must have been noticed in the evidence of the pursuers that they talked of the "parents' consent" not having been got, and they would draw their own conclusions whether the pursuers were not still in the belief that it was not sufficient to get the father's consent, and whether Mrs. Boyle in particular was under the belief that her consent was necessary as well as the father's. If it were the law that the parents' consent was necessary, the jury must find for the pursuers, because it was quite certain that the parents' consent was not got. It was absolutely clear that Mrs. Boyle's consent was never asked, was never obtained, and probably would never have been got. The law, holding that an unauthorized *post-mortem* examination gave a legal remedy, was a sound law. The jury could imagine a case where a doctor, writing a paper on some scientific subject by which he hoped to gain reputation, without any consent, concealing that he was doing it, cut and carved a dead body. The jury would treat a case of that kind very smartly, he should say. It was for them to say whether this was the kind of case contemplated as likely to come before a jury when the law was framed. They would also put out of view the suggestion that the defender ought to have got the consent in writing. They might think that would have been wise, and also to have sent and got the wife's consent, but they knew that practice varied in this matter. This case, whatever the result of it was, would probably tend to make other hospitals besides the Greenock Infirmary adopt the practice, which seemed to be a new one, and get in all cases where possible consent in writing.

The jury, after an absence of twenty minutes, returned a verdict for the defender. The Foreman said the jury wished to recommend that in future no *post-mortem* examination should be made without receiving the written consent of the nearest relatives, if at all possible.

## WORKMEN'S COMPENSATION.

*Capacity of a One-eyed Man.*

A CASE at Newcastle, Staffs. (December 20th), emphasizes the importance of a medical practitioner who is called as a witness in a compensation case making a most careful examination of the workman who is alleged to be incapacitated from work. A collier lost one eye owing to the explosion of a cartridge on February 1st, 1910. From that time down to December 20th he received half wages, when the employers applied for a reduction of compensation owing to the fact that the man had refused an offer of light work. The work offered was the cleaning of gutters on a farm near the colliery. A doctor who was called on behalf of the employers said that he had examined the man on November 8th. The sight of his right eye was entirely gone, for the eyeball had been burst by the accident. The vision of the left eye, however, was practically the normal.

Cross-examined (on behalf of the workman): Did you test his field of vision?—Not particularly.

Would you say it was contracted to the extent of 30 per cent.?—I cannot say.

At this juncture an adjournment was made for lunch, but before leaving the court His Honour expressed a desire that during the interval the doctor should make a further examination of the respondent.

When the hearing was resumed, he was again called, and said that, as a result of the latest examination, he found that Friar's field of vision was contracted to the extent of 50 per cent.—a condition which very seriously impaired the sight of his left eye.

His Honour: If we had taken your original statement about the normal condition of the eye we should have been wrong?—My previous statement was correct so far as my examination of November 8th was concerned.

Counsel for the Workman: Do you now consider him fit to do light work?—I think he would be better doing some light work, but I don't think it would be advisable for him to work where there was any machinery.

It is suggested that, owing to the condition of his eyes, he might suffer from giddiness if he had to do any work which entailed stooping?—That is so.

Then such work as cleaning out gutters would be bad for him?—I think it would.

Counsel on both sides consulted, and counsel for the employers then announced that, after the evidence which had just been given, he could not maintain that respondent was able to work. He had therefore agreed with counsel for the respondent that His Honour should fix a lump sum to be paid in settlement of the matter.

Further evidence having been called,

His Honour said he felt that he must treat this as a case of total incapacity, and he directed that a sum sufficient to secure respondent an annuity of an amount which he fixed should be paid.

# The Services.

## INDIAN MEDICAL SERVICE.

### REVISED RULES RESPECTING MEDICAL FEES.

THE following revised rules have been issued applicable to British Indian and native States regarding the receipt by medical officers of the Government of fees (including honoraria or presents which may be offered for services rendered) for professional services in certain cases:

1. Whenever attendance, whether for an ordinary visit, a consultation, a confinement, or a surgical operation, on a ruling chief or his family or dependants, or on an Indian of position, who holds a hereditary title conferred or recognized by the Government, of a rank not below that of a Rajah or Nawab, or his family or dependants, involves the absence of a medical officer from his station, he shall be permitted to demand or receive such fees as may be arranged between himself and the person employing him, provided that he does not, without the special permission of the local Government, obtained as provided below, demand or receive in addition to his travelling expenses a higher fee than Rs. 500 a day for the first three days and Rs. 250 a day thereafter, the full daily fee being given for every complete period of twenty-four hours' absence, with a proportionate fee for periods of less than twenty-four hours.

2. For similar attendance not involving absence from his head quarters a medical officer may demand or receive fees in accordance with the scale which he has fixed for his patients generally, and in the case of operations and confinements he may accept fees equal in amount to those current in similar circumstances in the profession in the United Kingdom.

3. Before accepting or demanding from a ruling chief or Indians of position, as referred to in rule 1, a fee in excess of the rates laid down in rules 1 and 2 above, a medical officer must report the case confidentially to the local administrative medical officer, who will obtain unofficially and communicate to him the orders of the local Government. When taking the orders of the Government, the administrative medical officer will be careful not to disclose any of the medical particulars of the case.

4. Local Governments and administrations shall have full power to dispose of all cases so reported to them, but shall be at liberty to consult the Director-General, Indian Medical Service, or to refer any particular case for the orders of the Government of India.

# THE PLAGUE.

### PREVALENCE OF THE DISEASE.

#### INDIA.

THE principal centres in India in which plague occurred during 1910, and the deaths consequent thereupon, were as follows: Bombay Presidency, 36,831; Bengal, 30,546; United Provinces, 144,266; Punjab, 143,416; Central Provinces, 42,104; Rajputana, 37,657; Burma, 7,605.

The following are the most recent general statistics: October 22nd to 31st, 1910, 5,641; November, 26,189; December, 39,604. Total deaths, 71,434, making, with deaths, July to October 22nd, 20,828, total for half-year, July to December, 92,262. During the first six months of 1910 the deaths numbered 360,632. Total deaths during 1910, 452,894.

It would appear that the recrudescence of plague in 1911 has begun in a more virulent form than in 1910. In January, 1911, the deaths from plague in India numbered 75,468. This is a higher figure than in 1910, when in January the deaths amounted to 51,437. The deaths were apportioned as follows: Bombay Presidency, 6,252; Bengal, 3 592; United Provinces, 15,006; Punjab, 5,263; Rajputana, 1,927; North-West Frontier Provinces, 25; Kashmir, 26; Central Provinces, 2,837; Central India, 1,452; Hyderabad State, 1.298; Mysore State, 1,655; Madras Presidency, 1,688; Burma, 538.

#### MANCHURIA.

A note on the epidemic in Manchuria is published at page 456.

#### MAURITIUS.

From November 10th to December 31st, 1910, the fresh cases of plague in Mauritius numbered 328, and the deaths from the disease amounted to 188, making for the whole year 1910 a total of fresh cases 667, and the total deaths from the disease 442.

In January, 1911, the fresh cases of plague in Mauritius amounted to 95, and the deaths from the disease amounted to 61.

During the weeks ended February 8th and 15th the fresh cases were 4 and 6 and the deaths 3 and 5 respectively.

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THE total number of lunatics under certificate for whom the Asylums Committee of the London County Council was responsible was, on January 1st, 1911, 26,845 as compared with 26.377 on January 1st, 1910, an increase of 469. During the last twenty-one years the average annual increase of lunatics for whose accommodation provision had to be made was 479.

# Medical News

THE Emperor of Austria has accepted the protectorate of the Austrian Cancer Research and Prevention Society and the campaign against that disease. The President, Professor von Eiselsberg, will deliver an address on the objects and methods of the society at a large gathering for propaganda purposes, which will take place in the Festival Hall of the University of Vienna on March 5th.

THE Morison Lectures of the Royal College of Physicians of Edinburgh will be delivered on Monday, Wednesday, and Friday, March 6th, 8th, and 10th, by Dr. George M. Robertson. The first lecture will be on the differentiation of melancholia, the second on the symptoms of melancholia, and the third on some practical considerations.

A DISCUSSION on modern methods of purification of public water supplies will be held at the provincial sessional meeting of the Royal Sanitary Institute at Bristol on March 17th. An opportunity will be afforded to visit the reservoir, filter beds, etc., of the Bristol Waterworks Company.

THE seventh annual meeting of the Association for Promoting the Training and Supply of Midwives will be held, by permission of Lady Brassey, at 24, Park Lane, W., on March 10th, when the chair will be taken by H.R.H. Princess Christian of Schleswig Holstein at 3.30 p.m.

DR. F. S. PALMER'S paper on traumatic neuroses and psychoses and their medico-legal consideration, that should have been read before the Medical Society of London on February 13th, will be read on April 10th, when papers will also be read by Dr. Parkes Weber and Dr. Chapman.

DR. LEONARD HILL, F.R.S., will open a discussion on rescue work in mines arranged to be held at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on Tuesday, March 14th. The chair will be taken at 8 p.m. by Mr. R. A. S. Redmayne, Chief Inspector, Coal and Metalliferous Mines, Home Office.

MR. HENRY POWER of Bagdale Hall, Whitby, late Consulting Ophthalmic Surgeon to St. Bartholomew's Hospital and the Westminster Ophthalmic Hospital, who died on January 18th, aged 80, left estate valued at £14,958 gross, of which £13,130 is net personalty.

AT the annual meeting of the Cancer Hospital, Brompton, on February 22nd, the Earl of Northbrook, who was in the chair, announced that a short time ago a gentleman entered Coutts's Bank, and handed in a sealed envelope, asking that its contents might be placed to the credit of the hospital; the envelope when opened was found to contain five bank notes of £1,000 each.

THE fifty-eighth annual report of the Samaritan Fund of St. Thomas's Hospital furnishes a detailed account of the income derived from this fund by the hospital during 1910, and the way in which it has been expended, together with a list of past and present benefactors. An account of some actual cases show how the fund is applied. The report is a record of thoroughly good work. An urgent appeal for contributions is made by Mr. J. G. Wainwright, J.P., the treasurer of the fund.

A LECTURESHIP has been established by the National Health Society as a memorial to the late Lady Priestley, who was one of the original members of the committee when the society was started some thirty years ago and attended all the meetings until within a few months of her death. Three lectures have been arranged for March, the first by Sir E. Ray Lankester on living microbes, the second by Sir Almroth Wright on bacteriology and hygiene, and the third by Mr. Stephen Paget on Pasteur and his work.

THE inventor of "606" will soon have as many decorations as a victorious general. The Emperor of Russia has conferred upon him the Order of St. Anne First Class, with a badge set in diamonds. The King of Spain has bestowed on him the Grand Cross of the Order of Alfonso XII. The German Emperor has nominated him a member of the Senate of the recently founded Kaiser Wilhelm Society for the Advancement of Science; on this body the professor is the only representative of medicine. The St. Petersburg Institute of Experimental Therapeutics has elected him an honorary member. The municipal authorities of Buenos Aires have given Professor Ehrlich's name to a street in the suburb of San Fernando.

THE first number of a monthly magazine in Esperanto, entitled *Internacio Medicino*, was published last month. It is edited by a board of medical men representing nearly every civilized country, the British representative being Dr. Jameson Johnston of Dublin. It contains original articles on "606," reviews, hedonal-chloroform narcosis,

and other subjects, with reviews, etc. An interesting trace of the journal's internationality is seen in an advertisement on the last page, where imitations of a certain dentifrice are depicted which come from every country in the world except Great Britain, with an explanation in the neutral language that in this land "it already has been long known that 'malhonesta komerca' is 'malrekompenca laboro.'" The periodical is published by Thalwitzer, Köschenbroda, Dresden, and will be supplied free to members of the International Esperanto Medical Association. To others the annual subscription is 6s.

IN every discussion upon the etiology of diarrhoea the question of nomenclature at once arises. Death which may be due to the same disease are certified under a variety of names according to the caprice of the certifier. In spite, however, of this drawback, much useful work has been done by many observers in the direction of lessening the mortality from diarrhoeal diseases. A valuable contribution to the subject has been made by Dr. G. D. Maynard, of Pretoria, in the paper which he read before the Public Health Section of the South African Medical Congress last year. He expressed the opinion that the organisms which had been claimed as the infective agents in diarrhoea in infants were normal inhabitants of the intestinal tract, and he considered that the case against flies as the cause of epidemic diarrhoea lacked scientific proof. He pointed out that if infected milk were a common cause of the disease it was curious that so few epidemics had been traced to it, and that the foods most prone to bacterial infection were not those associated with the highest diarrhoeal mortality. One of the most important causative factors of infantile diarrhoea, he maintained, was a lowered resistance caused by improper feeding, climatic changes being the determining cause of the appearance of the disease in epidemic form.

THE Army and Navy Male Nurses' Co-operation is already well known to many medical men, but deserves still wider appreciation. The army and navy every year discharge fully qualified male nurses of exemplary character, and these services are indeed the only general training schools certifying fully trained male nurses. The selection of nurses for enrolment on the register of the Co-operation is strictly supervised by a committee of officers on the active list and civilians in the medical profession. As reservists the men may be called upon to serve their country again, and the varied experience gained in civil nursing maintains their efficiency. The Co-operation has a well-equipped residential home, insuring that the nurses come from suitable surroundings, and permitting interviews with the nurses, when required, before they are engaged. The third annual report, presented to the general meeting held at the end of last year, showed that at the commencement of the year then dealt with there were 33 nurses on the roll, and it was expected that the number would be raised to 50. The men had been in more continuous employment and at cases of longer duration, and the receipts for their services had increased from £1,824 to £2,762. The balance sheet showed that the salaries paid to nurses amounted to £2,417. It is expected that the Co-operation will soon become self-supporting.

THE aim of the Women's Imperial Health Association is stated to be to instruct the women of the empire in the elementary principles of hygiene. The work of the association is being carried out chiefly by means of caravan health tours throughout the country. Lectures and health talks are given in districts which are often remote from the opportunities for this form of hygienic education. The lectures, as far as possible, are illustrated by lantern slides and by suitable cinematograph demonstrations, and leaflets are distributed not only at the lectures but also along the line of route of the caravans. The expenses attending the tours of the three caravans amounted in 1910 to about £1,100, and the manner in which the funds required by the association have been raised must cause envious feelings in the minds of those treasurers of charitable societies who are constantly issuing appeals to the public for support. It appears that when the London County Council decided that the cinematograph theatres in London should be closed on Sundays unless the profits of the Sunday openings were given to some recognized charity, the Women's National Health Association at once made arrangements to benefit by this decision, and according to the balance sheet recently published for the year 1910, after deducting all expenses, £4,185 was received from the cinematograph theatres. The association thus finds itself at the end of the year with a balance at the bank of £250 and with investments amounting to over £1,000.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

RUSTIC asks whether a continued course of bromides (40 grains per diem) has an effect in causing atrophy of the testicles. Also if tobacco smoking acts as an aphrodisiac or anti-aphrodisiac.

ANXIOUS asks for advice as to the advantages or the reverse of the crown and bridge system to an ordinary dental plate in the following case: Canine and second incisor missing on left; two incisors, canine, and two premolars missing on right. All others sound. First left premolar stopped ten years ago.

### SOFTENING WATER BY LIME.

DURHAM writes: Many people in this district suffer from the effects of hard water, but this can be remedied by adding a little quicklime. The question, however, arises whether the water is in every way suitable for drinking purposes after the lime is precipitated.

*** Softening of water by lime is the process most commonly adopted, and it does not affect the water for drinking purposes. Care must be taken not to add too much lime, as an excess will again increase the hardness.

### POISONING BY OIL OF SASSAFRAS.

DR. W. B. SECRETAN (Reading) writes: A healthy Scottish terrier dog belonging to me recently became infected with pediculi. I applied, rather copiously, oil of sassafras to his back. The application was repeated several times during about a week. The dog became ill, refusing his food and exhibiting great weakness. A veterinary surgeon, whom I called in, told me that he thought the dog was poisoned, and that he had seen two cases before of poisoning due to this oil. In both cases absorption took place through the skin, as it apparently did with my dog, since he never licked himself. The dog eventually died rather more than a week after the last application of the oil, with no other symptoms than those of great weakness and emaciation. All through he retained his food, which he was made to take every few hours. *Post mortem*, we found liver and kidneys congested, the former being considerably enlarged. I can find no account anywhere of oil of sassafras producing any toxic symptoms. As it is freely used to apply to the heads of children with vermin, it would be interesting to hear if any of your readers have experienced bad results from it. I should certainly be rather chary of using the oil now, especially in weakly and marasmic children.

*** *The United States Dispensatory* states that a teaspoonful of oil of sassafras, swallowed by a young man, produced vomiting, collapse, somewhat dilated pupils, and pronounced stupor. It is added that experiments on animals by Heffter showed that in sufficient dose it kills quickly by centric paralysis of respiration, preceded by great depression of the circulation; in smaller doses it causes death by widespread fatty degeneration of the heart, liver, and kidneys, etc.

## ANSWERS.

D. I.—The preparation of liquid paraffin used as an electuary in the treatment of habitual constipation is simply the paraffinum liquidum of the *British Pharmacopoeia*. It may be taken in doses of 1 to 4 drachms. Martindale makes a preparation of this kind flavoured with a little saccharin and lemon under the name of "liquid aperfine." A preparation is also made in the form of a paste, under the name "aperfine," containing 70 per cent. of the white soft paraffin (*B.P.*) for use in like manner, the dose being similar.

### A NEUROLOGICAL CONUNDRUM.

E. L. writes, in reply to "Justinian," to suggest that the wrist-drop following amputation of the thigh was due to the position of the arm during operation. If by any chance the arm slipped over the edge of the table, there would in all probability be pressure on the musculo-spiral nerve. A similar cause of wrist-drop is frequently seen at out-patients on a Monday when a man who has been imbibing too freely on the Saturday falls asleep in his chair with his arm hanging over the back, with consequent pressure on the musculo-spiral nerve.

DR. C. E. REYNOLDS (London) has also written to make a similar suggestion.

### TREATMENT OF AMENORRHOEA.

DR. H. STANLEY JONES (Bournemouth) writes, in reply to "X. Y. Z.," who, in the JOURNAL of Febuary 18th, asks for advice in the treatment of a case of amenorrhoea of five years' standing: I have found potassium permanganate gr. j in pill t.d.s. very successful, and suggest a trial in the above case.

CHRONIC OSTEO-ARTHRITIS OF THE WRIST.

DR. WILLIAM ARMSTRONG (Buxton) writes: In answer to "Rosaceae," I have had excellent results in cases of chronic osteo-arthritis of the wrist from ionization of the affected part with a 10 per cent. solution of cocaine in guaiacol, followed by light applications of the electric cautery. This may be repeated twice a week for three or four weeks.

GENERAL PSORIASIS.

DR. ERNEST YOUNG (London) writes: I would suggest that "Senex" places his patient upon an exclusive meat and hot-water diet for a month to six weeks. Several obstinate cases of psoriasis have been cured by this method.

DR. P. NEWELL (Cliftonville, Margate) writes: I would suggest that antimony in small doses, and continued for a time, might be tried. Failing any benefit from this, thuja occidentalis is useful. Arsenic I have never seen any benefit from in big doses; on the contrary, it in my experience aggravates. If given at all, it ought to be so in small doses. Failing drugs, there remains the inevitable "high frequency," which is supposed to cure all the ills that flesh is heir to.

## LETTERS, NOTES, ETC.

POISONING AFTER SMALL DOSES OF ASPIRIN.

DR. S. J. KILLEN, D.P.H. (Carrickfergus) writes: With regard to Dr. Conwy Morgan's account of a case of poisoning after small doses of aspirin (BRITISH MEDICAL JOURNAL, February 11th, 1911, p. 307), one evening, a short time ago, I gave a man who was complaining of lumbago a dose of 10 grains of aceto-salicylic acid. I saw him about an hour later when his face was considerably swollen, the swelling being most apparent in his eyelids and lips. He complained that his tongue felt thick, and that he could hardly "swallow his spittle"; an urticarial rash was also present on the body and limbs. The man was very nervous and anxious, and at once attributed his condition to the powder he had taken. I gave him 3 grains of calomel, and saw him next day, when the rash was gone and the swelling almost gone. The pain of which he had been complaining had also disappeared, and he was practically well. A feeling of stiffness, however, remained in the eyelids for about two days.

SIGNS OF DEATH.

W. A. S. writes: In your issue of February 18th (p. 407) is a letter from "Esculapius" on a certainly important subject; but what struck me in one paragraph was his saying, "If decomposition has in the slightest degree commenced," etc. Now, I should like to ask him whether, knowingly, he would sanction any patient of his being buried before decomposition—the only absolutely certain sign of death—had commenced? —a duty many of the profession, I fear, consider unnecessary to discharge, though I personally am most particular.

VACCINE TREATMENT OF CORYZA.

DR. GEORGE WILLETT (Keynsham) writes, in reply to "W. H. G.": My experience of the vaccine treatment of coryza is eminently satisfactory—marked and rapid improvement in symptoms, and gain in weight especially. A careful bacteriological examination of the nasal discharge is all-important. If the predominant organism can be isolated and pure vaccine made so much the better; but if two or more organisms are found in anything like equal amounts, a mixed vaccine is advisable containing them all, so as to provide for the varying resistance of a patient, which seems to fluctuate at different dates. I am of opinion that far more important than merely subduing the symptoms is the getting rid of the toxaemic state which these cases so often show, and which I for one have never till quite lately fully appreciated. The damage to the general health produced by constant nasal catarrh seems out of all proportion to the condition itself, and is, to my mind, the greatest argument in favour of vaccine treatment. The rapid production of immunity is the object to be aimed at (tinkering with ineffective doses is so much waste of time); begin with a small dose, and double it every three days till either a reaction of some sort is produced (for example, rise of temperature) or the highest advisable doses of the particular organism have been reached. Should *M. catarrhalis* be present, the immunizator will very likely notice marked attacks of low spirits and melancholy after the injections; but this is to be regarded as the surest sign that he is on the right track, and that success is at hand.

SEX IN HEREDITY.

DR. ARTHUR TODD-WHITE (Leytonstone, Essex) writes: Reading about Sir F. Galton's views on heredity reminds me of a law of Nature which I have never seen stated anywhere—namely, "Males inherit the characteristics of their female parent, and females inherit the characteristics of their male parent." It is obvious that if this was not the case the difference between the sexes would by now, as regards brain power, be enormous. Until recent years the female sex spent, compared with the male, little time on study, so that in the absence of this law, the "mere man" would by now have an enormous advantage in brain power over the female. We often notice how rarely a great writer, great poet, or great artist has a son who follows in his footsteps, although the daughters may write or paint. If a son does have tastes like his father they are acquired by contact and example from the parent, and are not natural but acquired tastes. Some of our scientific men have been followed by scientific sons, but they should, if the scientific tastes were hereditary, have them in a greater degree than their fathers; but this is never the case, and had the father died during the infancy of these sons then it is probable that scientific work would never have been undertaken by them. In the same way, when an amiable woman marries a bad tempered man the sons will be amiable and the daughters bad-tempered. This is not a matter for statistics; it is simply a matter of every-day observation, and, as I point out above, an absolutely necessary law to preserve the balance between the sexes. If it did not exist, the characters, tastes, brain power, etc., of the two sexes would by now have become so diverse as would make it almost impossible for them to exist together.

EFFECTIVE TREATMENT OF PHTHISIS.

DR. GODFREY W. HAMBLETON (London) writes: The following is a brief note of a system of treatment that I have found effective and permanent in early cases of phthisis. It is founded on inferences drawn from a careful examination of the conditions under which I was better or worse when suffering from phthisis, and examination of the relations of man to his environment in the respective incidence and absence of the disease. I drew the conclusion that the causes of phthisis are the conditions that tend to impede respiratory capacity, and an irritant or poison that accumulates in consequence thereof. Effective treatment of phthisis is based on the following principles:

To eliminate the accumulated irritant or poison from the system, and to establish an equilibrium between the amount of respiratory interchange required to be effected and that effected. To deal with the present state locally and generally according to its requirements. To develop the lungs to the necessary extent. To carry out the above without producing indications of friction.

There is no difficulty in carrying out these principles in cases in which the disease is neither extensive nor associated with or following other disease. The irritant or poison can be eliminated by increasing the functions of the skin, kidneys, and alimentary canal by means of warm baths or sponging the whole body, diaphoretics, diuretics, and saline aperients. The amount of compensatory action required and the organ or organs to be used depend upon the extent of the disease and the state of the patient. Great care must be taken to secure that the patient is continuously under conditions that tend to promote respiratory function, passively at first and actively in the open air as soon as possible. No attempt must be made to *actively* develop the lungs until the disease is quiescent. Then active measures may be gradually adopted and progressively increased until a sufficient amount of development has been obtained, care being taken to avoid either fatigue or strain.

In 1901 I published the results of the first 50 cases. Fifteen cases were lost sight of, 10 died—they were extensively diseased—the disease was arrested in 9, and 16 completely recovered; their average chest girth (males) being 37½ in., and expansion 4½ in., an average increase of 2¾ and 2½ in. respectively (*Lancet*, 1901). In some cases my diagnosis was corroborated by other physicians in consultation or otherwise. Since that date I have heard of no death in those cases, and I know that many of them continue well. I have met with no failure in really early cases where the treatment was systematically carried out. Further experience has confirmed those results, and I am satisfied that this system of treatment is effective in early cases of phthisis.

A MICROSCOPIC DIAGNOSIS.

A CORRESPONDENT writes: The wife of a clergyman was very ill with symptoms of ptomaine poisoning, and remained ill for some days. The husband was well known for his vain tastes, especially that of preserving the juvenile colour of his hair. A certain barber was always his guide and mentor in all matters hairy. Like all quacks, the barber dabbled in medical matters, and possessed a microscope. The clergyman ventured to send him a lock of his wife's hair for examination, and presently he received a communication from the professor of hair to say that his examination of the hair revealed to him the fact that his wife was suffering from *appendicitis*.

ERRATUM.

IN the JOURNAL of February 18th, p. 416, col. 1, line 9, the word "grams" should be "grains."


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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# An Address
ON
# DILATED STOMACH.

DELIVERED BEFORE THE WORTHING BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY

ARTHUR F. HERTZ, M.A., M.D.OXON., F.R.C.P.,

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EFFICIENT treatment requires accurate diagnosis. Accurate diagnosis in a gastric case means the determination of the size, shape, and position of the stomach, the condition of its motor functions with regard to tone, peristalsis, and the rate of evacuation, and lastly, the condition of its secretory functions.

When we think of this long list of requirements and of the comparatively small amount of information given by the ordinary physical methods of examination, we cannot be surprised that diagnosis in gastric diseases is generally much less satisfactory than in thoracic diseases, and that cancer of the stomach is still rarely recognized before it is too late for radical treatment.

I propose first to describe very briefly the causes and symptoms of dilatation of the stomach, then to show in some detail how recent researches on the motor functions of the stomach have made a more accurate diagnosis possible, and finally, to discuss briefly how the information obtained bears upon the treatment of the different forms of dilated stomach.

## I. CAUSES OF DILATED STOMACH.

Dilatation of the stomach may result from (*a*) atony of its muscular coat, and (*b*) obstruction at the pylorus or in the duodenum.

(*a*) *Atony.*—Atony may result from conditions which directly affect the muscular tissue itself, such as prolonged febrile diseases, anaemias, and cachectic conditions. More commonly, however, it is secondary to depression of the central nervous system; this often leads to depression in the peripheral nervous system, upon which the tone of the involuntary muscle of the alimentary canal depends. Consequently neurasthenia, hypochondriasis, and melancholia are common causes of gastric atony, and even in their absence prolonged overwork and depressing emotions may lead to atonic dilatation of the stomach. The atony is increased by the direct effect on the musculature and the nervous system of the malnutrition, which is generally associated with these conditions owing to the accompanying loss of appetite.

(*b*) *Pyloric Obstruction.*—Pyloric obstruction is due in the vast majority of cases to the results of gastric or duodenal ulceration or to cancer. A gastric ulcer situated in close proximity to the pylorus may as a result of the oedema and vascular engorgement at its edges lead to obstruction, which disappears when the ulcer heals. More frequently a permanent obstruction is produced by contraction of the fibrous tissue formed when an ulcer heals. Cancer of the stomach does not commonly arise at the pylorus itself, but in the majority of cases it spreads from the lesser curvature so as finally to involve the pylorus.

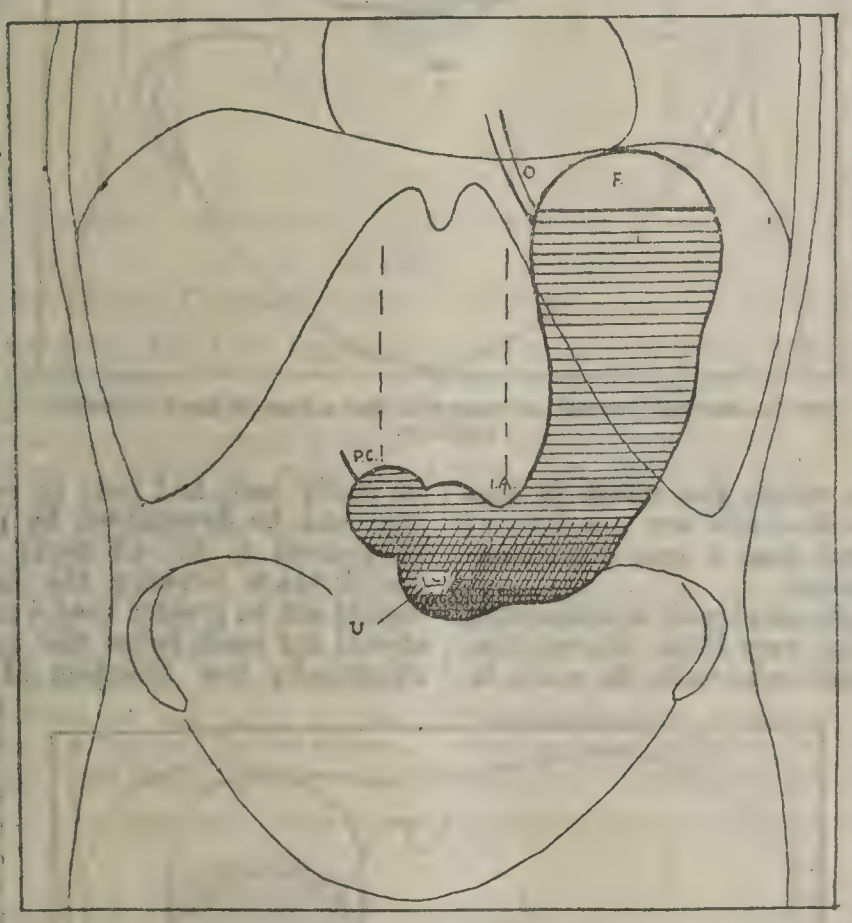


Fig. 1.—Normal stomach, as seen with the *x* rays in the vertical position. O, End of oesophagus; F, fundus of stomach, containing gas; IA, incisura angularis; P C, pyloric canal; U, umbilicus.

Spasm is often stated to give rise to pyloric obstruction, but the evidence that it can do so is inconclusive, except, perhaps, in the hypertrophic pyloric stenosis of infants. External pressure very rarely gives rise to pyloric obstruction, and simple adhesions between the pylorus and the neighbouring viscera do not, as a rule, interfere with the passage of food into the duodenum. Gastroptosis cannot by itself lead to pyloric obstruction, as any kink which it might produce would be in the duodenum at the point where it becomes fixed, the pylorus being sufficiently mobile to drop with the rest of the stomach when the erect posture is assumed. Such a kink in the duodenum only causes obstruction in very exceptional cases, any dilatation in a dropped stomach being generally due to coexisting atony.

## II. SYMPTOMS OF DILATED STOMACH.

(*a*) *Atonic Dilatation.*—In atonic dilatation of the stomach the chief complaint is an uncomfortable sensation of fullness coming on during or immediately after a meal. This leads to a progressive diminution in the amount of food taken by the patient, who hopes thereby to diminish his discomfort, but actually increases the atony by starving his nervous and muscular tissues. In uncomplicated cases pain is never present and vomiting is very infrequent.

(*b*) *Pyloric Obstruction.*—In dilated stomach due to pyloric obstruction, in addition to the sensation of fullness, attacks of severe pain are frequently brought on by the violent peristalsis, which occurs at varying intervals after meals in the attempt of the stomach to overcome the obstruction. Vomiting is a frequent symptom in severe cases; it may occur before breakfast, and articles of food may be brought up which have been eaten many hours or even days before. Wasting is progressive and the tissues become abnormally dry and inelastic; the patient has generally little appetite, but complains of great thirst. The urine is scanty and obstinate constipation occurs.

It is now known that auto-intoxication from the absorption of poisons retained in a dilated stomach is extremely uncommon, tetany, which is a rare complication in severe cases of pyloric obstruction, being the only example of this.

In addition to the symptoms already enumerated others depending upon the cause of the obstruction, such as gastric ulcer or carcinoma, are, of course, also present.

## III. INVESTIGATION OF THE MOTOR FUNCTIONS OF THE STOMACH.

(*a*) *Size, Shape, and Position.*—The *x* rays have shown that the normal shape and position of the stomach differs considerably from the classical descriptions, which were derived from what was found *post mortem* and during operations. Under the latter conditions the tonic contraction of the stomach is, as a rule, almost completely relaxed, and as soon as the abdominal wall is opened the intra-abdominal pressure, which is the chief factor in keeping the viscera in position, falls to that of the atmosphere.

The *fundus* is the part of the stomach which lies above the cardiac orifice; in the vertical position the *body* is of nearly uniform width, and is situated entirely to the left of the middle line, being either vertical or inclined slightly towards the left (Fig. 1). Its separation from the *pyloric part* of the stomach is indefinite, but can usually be

recognized with the *x* rays in the lesser curvature at the *incisura angularis*. The pyloric part of the stomach consists of the *pyloric vestibule*, which is directed upwards and slightly backwards as it turns to the right, and the *pyloric canal*—a definite tubular portion, nearly an inch long, which makes a sharp angle with the pyloric vestibule as it passes backwards. In the vertical position the greater curvature almost invariably reaches below the umbilicus; it rises 2 or 3 inches when the horizontal position is assumed (Fig. 2).

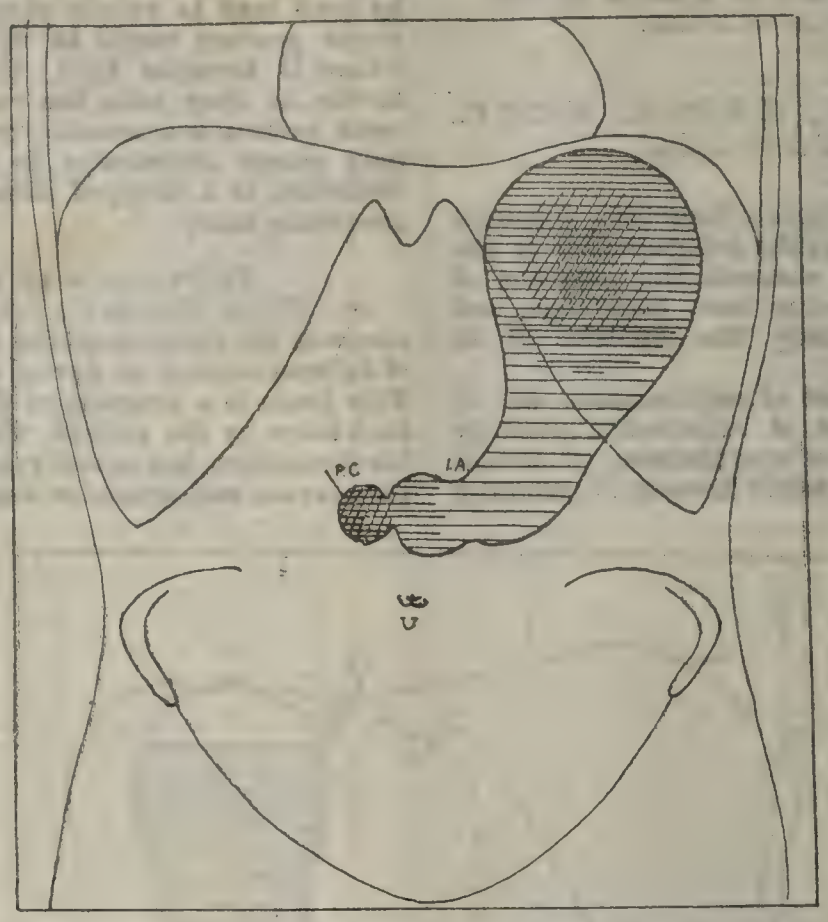


Fig. 2.—Normal stomach, as seen with the *x* rays in the horizontal position.

*Inspection* of the abdomen may reveal the outline of the stomach in patients with very thin abdominal muscles, especially if pyloric obstruction has led to excessive activity of peristalsis. *Palpation* under similar circumstances enables us to feel the lower border of the stomach, and occasionally even in normal individuals a part of it can be recognized. These methods of examination are, however, of very limited application, and with palpation it is often difficult to distinguish with certainty between the stomach and the transverse colon.

When the gastric contents can be splashed with unusual ease on abdominal palpation, or on shaking the patient, it may be possible to determine the approximate size and position of the stomach from the area in which the splash is best heard, but it is often impossible to obtain any splashing at all, and it should be remembered that it may sometimes be produced in the transverse colon.

*Percussion*, although frequently employed in examining the abdomen, can in reality give very little information. The empty stomach is a collapsed tube with its walls in contact with each other, except at the fundus, which contains gas. The latter gives a resonant note, but the note over the greater part of the organ is quite indistinguishable from that over the surrounding viscera. After food has been taken the gas contained in the stomach still gives a resonant note, but the area thus marked out is small in comparison with the total size of the stomach (Fig. 3). Thus percussion may give some idea as to the quantity of gas in the stomach, but it cannot possibly help in the determination of its size, shape, or position.

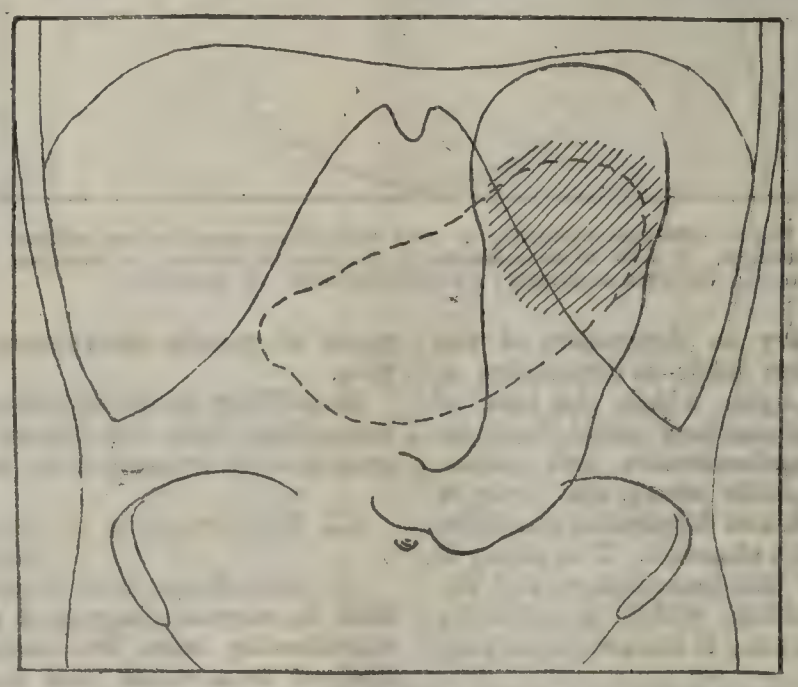

Fig. 3.—Comparison of the results obtained in outlining the stomach in the horizontal position with the *x* rays (continuous outline), auscultatory percussion (dotted outline), and simple percussion (shaded area).

In recent years *auscultatory percussion and friction* have often been used with the object of mapping out the stomach; the stethoscope is placed over a point which is known to lie within the gastric area, and the abdomen is percussed in different directions from the stethoscope until a change in note is heard. A very definite outline is by this means obtained, which often approximately corresponds with what was formerly supposed to be the area occupied by the stomach. Investigations with the *x* rays have, however, shown that these methods are quite valueless. On numerous occasions I have marked out the supposed position of the stomach by auscultatory percussion and friction after a bismuth meal had been given. I have obtained a definite outline, which was identical with that obtained at the same time by other observers, several of whom had, like myself, previously made frequent use of the methods. I have then placed a metal wire over the outline; on looking at the abdomen with the *x* rays it was found that in no case did the area marked out by the wire show any resemblance to the true shape of the stomach (Fig. 3). Often the "stomach" marked out by these methods barely overlapped the position it really occupied. Why such definite areas can be marked out by these methods I do not know, but any one who will take the trouble to compare them with the true outline of the stomach, as determined by the *x* rays, will convince himself of the futility of auscultatory percussion and friction.

*Inflation of the stomach with gas* is an exceedingly valuable method. The stomach being empty, the patient drinks in rapid succession two quantities of 4 oz. of water, in which are dissolved respectively 1½ drachms of sodium bicarbonate and 1½ drachms of tartaric acid. The carbon dioxide evolved distends the stomach in such a way that it can often be easily seen and felt; in every case its size and position can be determined by percussion, as sufficient gas is present to fill all parts of the stomach. Normally the distance between the lesser and greater curvature should not be greater than 4 in., and the greater curvature should not reach below the umbilicus. Dilatation and an abnormally low situation of the stomach can thus be readily recognized. This method, however, has the drawback that it can only be used in a horizontal position, as the gas is immediately eructated on sitting up. It is, therefore, frequently impossible to recognize the presence of ptosis, as in the majority of cases this is only present when a vertical position is assumed. Very little information can be obtained as to the shape of the stomach, as inflation with gas produces considerable distortion, the shape assumed by the stomach when rapidly distended with gas being quite different to its natural shape when slowly filled with food. The method is also contraindicated when a gastric ulcer may be present, owing to the danger of perforation; this is a serious disadvantage, as ulceration frequently leads to pyloric obstruction, hour-glass constriction, and irregularities in the gastric outline, due to adhesions.

*X Rays.*—The size, shape, and position of the stomach can be readily and accurately determined, both in the vertical and horizontal position, by means of the *x* rays after a meal of porridge or bread and milk containing 2 oz. of bismuth oxychloride has been given. There is

no possibility of error in determining the shape of the stomach, although, of course, mistakes may be made in the interpretation of unusual appearances. By palpation during the screen examination, the mobility of the stomach can be investigated and the presence of adhesions recognized.

(*b*) *Tone.*—The normal stomach adapts itself to the volume of its contents in such a way that the intragastric pressure remains steadily between 4 and 6 mm. of mercury, whether it is full or almost empty. The chief factor in this mechanism is the gradual relaxation of the tonic contraction of the fibres of its muscular coat. In atonic dilatation this adaptation is incomplete or absent, the stomach acting as a more or less passive sac, which does not contract upon its contents, the food dropping into the most dependent part of the organ.

*Splashing* and *succussion* give useful information concerning the tone of the stomach under certain definite conditions alone, as in many normal individuals splashing may occur in the stomach after an ordinary meal. If, however, two ounces of water are sipped when the stomach is empty and splashing can then be produced by palpation it may be concluded that atony is present. Normally the stomach contracts upon the fluid in such a way that all the air contained in it is pushed into the fundus, where it gives rise to a resonant note obtained on percussion over Traube's space—the area bounded on the right by the heart and left lobe of the liver, on the left by the spleen, and below by the costal margin, and merging above into the pulmonary resonance. When the stomach is atonic the body and pyloric part does not contract upon the fluid, which forms a layer over the back of the whole of the stomach, the gas being spread over the front so that a resonant note is obtained below the costal margin; the resonance may extend as far down as the umbilicus and even be absent from Traube's area. Under these conditions the part of the stomach which is below the costal margin contains both gas and fluid, and consequently splashing is produced on palpation.

*Inflation.*—When the stomach is inflated with carbon dioxide in the manner already described, the degree of gastric tone may be estimated with a considerable amount of accuracy, 1½ drachms of sodium bicarbonate yielding with 1½ drachms of tartaric acid 1,700 c.cm. of carbonic dioxide at the body temperature and at atmospheric pressure. The normal stomach when rapidly filled has a volume varying between 600 and 1,200 c.cm.; 1,700 c.cm. of gas will therefore be subjected to a considerable degree of tension when set free in the normal stomach, which can be readily felt as a hard tumour with a definite outline; it is generally visible, and can always be accurately mapped out by percussion. A good deal of discomfort is produced, and on sitting up the gas is eructated with considerable force. On the other hand, when the tone of the stomach is deficient, and its capacity even when empty is greater than 1,700 c.cm., it will not be tightly distended; the tumour it forms is therefore softer, and its outline is less easy to determine with accuracy by palpation and percussion. No discomfort is produced; sometimes, indeed, the patient experiences a feeling of relief after the inflation. On sitting up there is less desire to eructate the gas, and it is brought up with more difficulty and less force.

More accurate information can be obtained as to the degree of atony by inflating the stomach through a tube by means of a syringe of known capacity, the amount of air required to give rise to slight discomfort being estimated by the number of times the syringe has to be emptied. When, therefore, a stomach tube has to be passed for other reasons, inflation can be carried out by this method instead of with carbon dioxide.

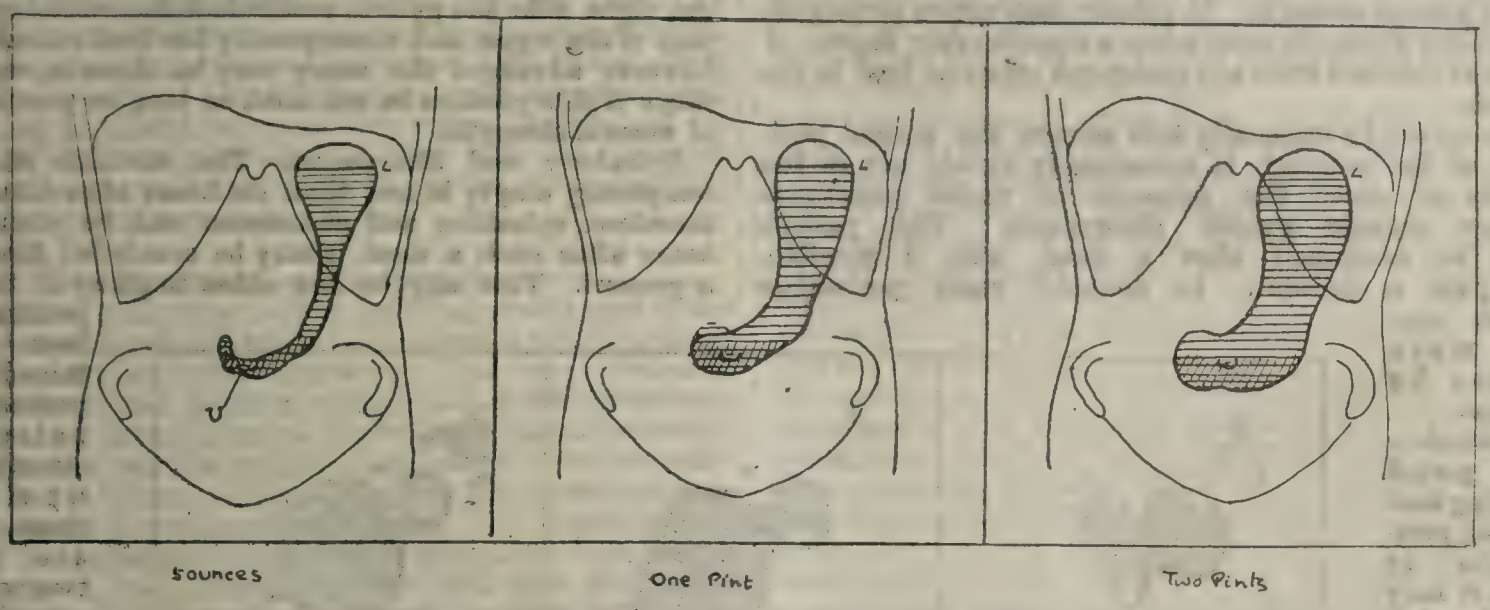


Fig. 4.—Gradual filling of a normal stomach. U, Umbilicus; L, upper limit of gastric contents.

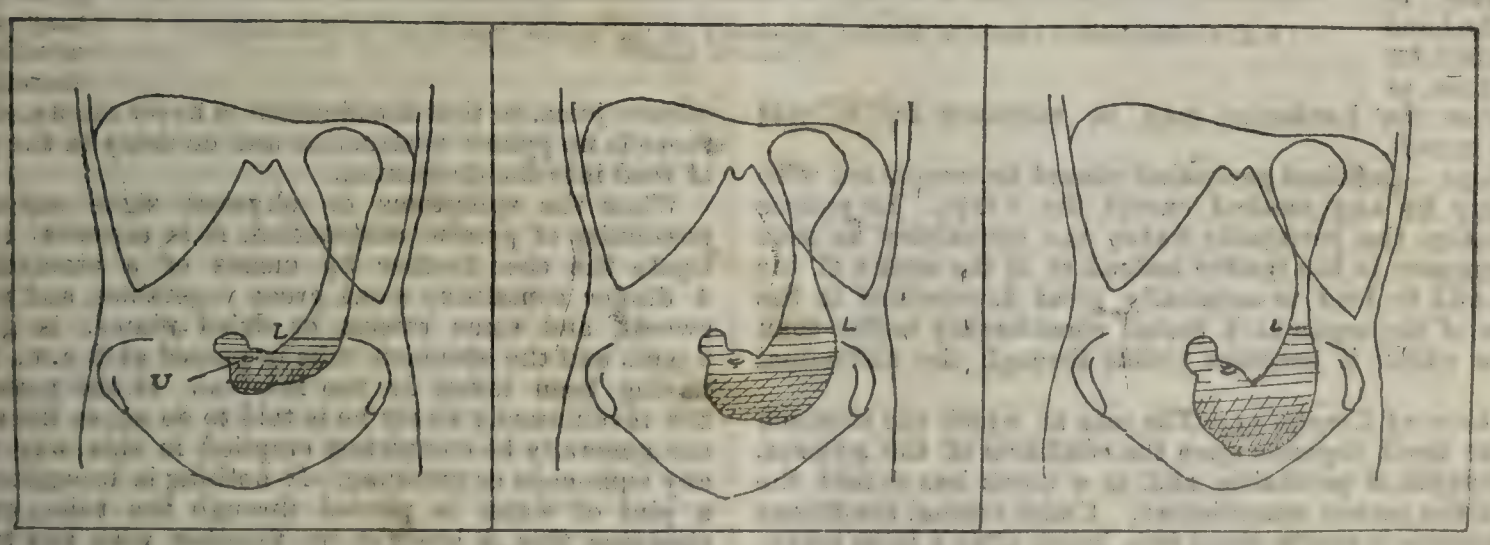


Fig. 5.—Gradual filling of an atonic stomach.

*X Rays.*—Owing to the adaptation of the stomach to the volume of its contents, it is found on examining the stomach in the erect position with the *x* rays that there is little difference in the upper level of its semi-fluid contents whether their volume be 5 oz. or 2 pints, and the greater curvature is very little depressed as the stomach is gradually filled (Fig. 4). When the stomach is atonic this adaptation to the volume of its contents does not occur; the food is seen to drop to the most dependent part, its upper level slowly rising and the greater curvature becoming more dependent as the volume of its contents increases (Fig. 5)

(*c*) *Peristalsis.*—The *x* rays have shown that normal

peristalsis begins immediately after the food is taken, each peristaltic wave starting as a constriction near the middle of the body of the stomach. It deepens as it slowly progresses towards the pylorus, until about 1 in. from the entrance of the pyloric canal it reaches such a depth that part of the pyloric vestibule becomes almost completely separated from the rest of the stomach. The part thus cut off then diminishes in size in every direction, some of its contents being from the first forced through the pyloric canal into the duodenum, the remainder being forced back as an axial reflux stream into the stomach (Fig. 6).

Deficient peristalsis may occur in association with atony, but it is rarely well marked, and in the majority of cases of atonic dilatation of the stomach, peristalsis is seen to be of normal strength. In pyloric obstruction peristalsis is unusually vigorous, even when a considerable degree of atony has resulted from the prolonged stasis of food in the stomach.

*Inspection.*—In unusually thin women the normal peristalsis of the stomach is occasionally visible, but in the majority of cases the presence of visible peristalsis indicates organic pyloric obstruction. The patient should be examined after a meal, and, if possible, when pain is present. In doubtful cases peristalsis can be rendered more obvious by massage.

*Palpation.*—At a period preceding that in which peristalsis is visible it may often be felt if the hand is kept for some minutes gently pressing upon the right side of the abdomen a little above the umbilicus. A periodic hardening can be recognized, during which the hand is raised. It is important to keep the hand in position for some time, as otherwise the hardening may be mistaken for a rigid rectus muscle.

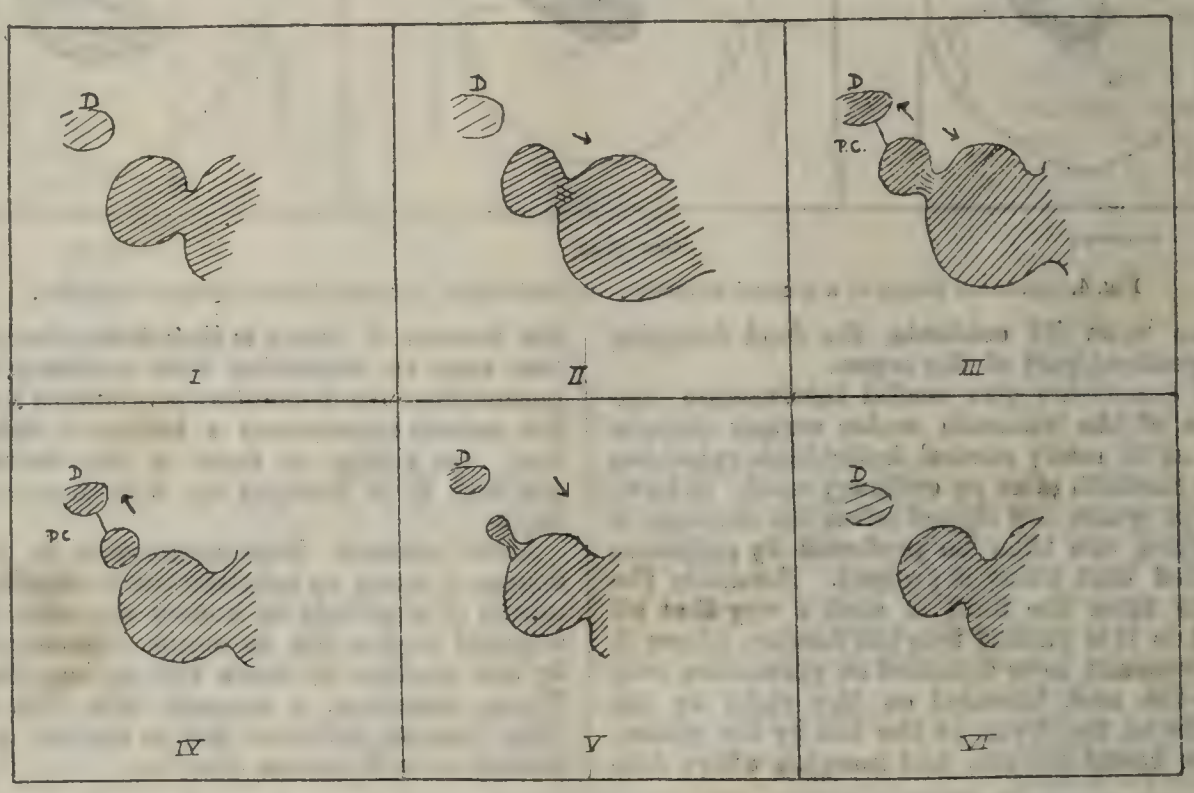


Fig. 6.—Successive stages of normal peristalsis in the pyloric vestibule. D, Duodenum; P.C., pyloric canal.

*X Rays.*—Deficient peristalsis cannot be recognized with certainty by any method except the *x* rays. In pyloric obstruction the peristaltic waves can sometimes be seen to commence in the fundus instead of in the centre of the body, and to lead to unusually great depressions in the outline of the organ at a period considerably earlier than that in which it becomes visible through the abdominal wall.

(*d*) *Rate of Emptying.*—The rate at which the stomach empties itself depends upon the condition of the pylorus, the strength of peristalsis, and, to a much less extent, the tone of the gastric musculature. Under normal conditions the stomach is empty about two hours after a light breakfast and about four hours after an ordinary dinner. If pyloric obstruction slowly develops, hypertrophy of the muscular coat of the stomach occurs, and the increased strength of peristalsis is at first able to cope with the increasing difficulty of evacuation. A time at last comes when compensation is incomplete, and a certain amount of stasis occurs. This steadily increases as the obstruction progresses, and the stagnating food gives rise to catarrh of the mucous membrane and atony of the muscular coat and consequently to dilatation of the stomach, although peristalsis continues to be more vigorous than under normal conditions. The sequence of events is strictly comparable to the dilatation of the left ventricle, which occurs when its hypertrophy becomes insufficient to deal with a progressive aortic stenosis.

As peristalsis is entirely independent of tone, uncomplicated atony has comparatively little effect on the rate of emptying of the stomach. The gastric contents begin to pass into the duodenum immediately after their entry into the stomach, and evacuation continues at the normal rate. It is only in advanced cases of atony that more than the last traces of the food remain abnormally long in the stomach; the terminal stasis which occurs even in slight cases is due to the fact that the gastric tone does not increase *pari passu* as its contents are reduced in quantity, so that the residue remains in the most dependent portion of the body of the stomach, and does not reach the pyloric part at all. When lying on the right side the pyloric vestibule is the most dependent part of the organ, and consequently the food collects in it; however advanced the atony may be, there is very little stasis if this position be assumed, so long as peristalsis is of normal strength.

*Splashing and Succussion.*—The stomach should be completely empty in less than six hours after dinner. If, therefore, splashing and succussion can be elicited six hours after such a meal, it may be concluded that stasis is present. This may be due either to atony (if the erect position has been maintained), feeble peristalsis, or pyloric obstruction. If, however, these signs are present twelve hours after dinner—at 9 a.m., for example, if dinner was taken at 9 p.m.—organic pyloric obstruction is almost certainly present. An important exception is ulceration in the neighbourhood of the pylorus, which may cause a continuous secretion of gastric juice, so that the stomach is never empty, although there is no pyloric obstruction and no delay in the passage of food into the duodenum.

When the symptoms or physical signs suggest the possibility of pyloric obstruction, it is essential to investigate the case further by means of a stomach tube. A dinner containing meat, green vegetables, and potatoes, sweets, and some raisins or dried plums, is given at 9 p.m., and the stomach tube is passed at 9 a.m., nothing having been taken in the interval. If the patient does not involuntarily strain he is told to do so, as the stomach can generally be completely emptied in this way without any siphonage or pumping. If nothing is brought up, half a pint of water is poured through the tube; on again straining this is brought up together with any traces of gastric contents which were insufficient to be expelled alone. In atonic dilatation the stomach is always empty twelve hours after a meal. In chronic gastritis, especially when due to alcohol, a small quantity of thick alkaline fluid, consisting mainly of mucus and often bile-stained, may be present. In the continuous secretion which results from an ulcer near the pylorus even in the absence of obstruction, a small quantity of very acid fluid without any food residue is found. When an ulcer has led to organic obstruction, starch granules and vegetable débris, but no meat fibres, are present, in addition to some acid fluid; the quantity of the latter is much increased if the ulcer is still active, as hypersecretion then occurs in addition to stasis.

When the obstruction is due to cancer, the gastric contents are of thicker consistence and contain débris of both vegetable and animal food; free hydrochloric acid is absent, "active" hydrochloric acid is greatly reduced in quantity, and lactic acid is present.

The *x* rays give much less information than the stomach tube as to the rate of evacuation. Well marked obstruction can be recognized by the contrast between the unusually small quantity of bismuth which enters the duodenum and the very active peristalsis. The time required for complete evacuation cannot be accurately determined; on the one hand a little bismuth frequently sticks to the mucous membrane long after the rest of the meal has left the stomach, especially when the mucous membrane is covered with mucus as a result of catarrh. I have also known the mistake made of allowing the patient to take another meal before the last examination; in that case the remaining bismuth is mixed with the new food, and consequently its final disappearance does not take place until the whole of this later meal has left the stomach. On the other hand there may be a mild degree of obstruction, in which all the finely divided food and bismuth pass into the intestine, although larger particles, such as raisins or insufficiently chewed pieces of meat, are retained.

### IV. Treatment of Dilated Stomach.

(*a*) *Atonic Dilatation.*—The most important part of the treatment of atonic dilatation is to ensure a proper amount of *rest* in the recumbent position. This is very valuable for the depressed nervous system, and it also diminishes the quantity of food required to maintain metabolic equilibrium, and so permits weight to be gained even if no additional food is taken. Moreover it places the atonic stomach in a position of mechanical advantage. This is particularly true if the patient lies on the right side, the *x* rays having shown, as I have already pointed out, that this is the position in which an atonic stomach empties itself most rapidly. The patient should lie down as soon as the meal is finished, but sit up during the meal itself, as otherwise the food may stagnate and undergo fermentation in the dilated fundus, and not reach the pyloric vestibule at all until the next meal is taken. In slight cases it is only necessary for the patient to lie down for an hour after each meal; in advanced cases he should remain in bed all day until the tone of the stomach has improved.

An ordinary mixed diet should be given, but the bulk of the meals should be as small as is compatible with the provision of a proper amount of nourishment, and no fluids should be drunk during meals. The *x* rays have shown that water taken on an empty stomach runs straight out into the duodenum, but mixes with any food which may be present if taken during or after meals, and only leaves slowly with the more finely divided part of the food. Consequently it is best to take the fluids when the stomach is empty. A glass of water may be taken on rising in the morning, a glass of milk or some broth or beef tea at 11.30, if breakfast is at 8 30 and lunch at 1; one or two cups of tea at 5 p.m., and a glass of milk last thing at night. Carbohydrates need not be restricted in uncomplicated cases of atony, but when there is any catarrh the quantity of sweet and starchy foods, which are liable to undergo fermentation in the stomach, should be reduced.

Abdominal *massage* is often very useful. If an *x*-ray examination has been made in the horizontal position the exact localization of the stomach will be known and consequently massage can be applied directly to the organ. If this precaution is not taken the massage may almost completely miss the stomach. I have on a number of occasions allowed the masseur to give his first treatment under the *x* rays after a bismuth meal, as he can then find where and how he can best massage the stomach itself. The treatment should be given every morning an hour after breakfast, when the stomach is nearly empty, the duration of the treatment being gradually increased from ten minutes to half an hour.

*Electricity* is of comparatively little value. My experiments have shown that faradism is without action on the alimentary canal; a tonic contraction, however, occurs in the whole area underneath an electrode during the passage of a galvanic current, a greater effect being produced by the anode than the kathode, but the contraction is probably only slight with the maximum current the patient can tolerate, except in very thin individuals. If, therefore, there are facilities for electrical treatment, the large kathode should be placed on the back and a smaller anode is moved slowly over the gastric area. As strong a current as the patient can bear with comfort should be used, and the treatment may be given for ten minutes after the massage.

It is doubtful whether *drugs* such as strychnine and ergot have any effect upon the tone of the stomach. The former, however, is often of use, as it improves the appetite and thus helps to overcome the malnutrition so often present. It may be combined with dilute hydrochloric acid, particularly if there is any deficiency in the gastric secretion, and with a bitter such as gentian, which stimulates the appetite and consequently increases the psychical secretion of gastric juice. When an aperient is required on account of constipation, which cannot be overcome by other means, a drug such as aloes is most useful, as it probably has a stimulating action on the gastric musculature analogous to that which it exerts on the colon.

In uncomplicated cases *lavage* is likely to do more harm than good. In severe cases complicated by catarrh lavage with plain water may be of use; the addition of antiseptics is unnecessary and likely to increase the catarrh; and it has been shown experimentally that sodium bicarbonate, which is commonly supposed to dissolve the mucus, does not do so under the existing conditions. The tube should be passed last thing at night, and the patient should try to evacuate any gastric contents through the tube before water is poured down. Not more than half a pint should be poured into the stomach, as larger quantities tend to increase the atony by the rapid distension they produce. It is rarely necessary to repeat the lavage with more than two successive half pints, and frequently the first half pint is sufficient. When there is much malnutrition, half a pint of milk containing some concentrated protein food may be drunk after the lavage.

*Gastro-enterostomy is strongly contraindicated.* The bad results following the performance of this operation in the absence of organic disease of the stomach and duodenum have been responsible for the unfortunate disinclination on the part of some medical men to recommend it in cases in which it is really indicated.

(*b*) *Pyloric Obstruction.*—The treatment of pyloric obstruction is gastro-enterostomy. In well-marked cases it is useless to waste time by lavage or other medical treatment, as the improvement which follows operation is immediate and progressive. Only when the patient is already so emaciated that doubts are raised as to whether he is strong enough to undergo an operation, is it justifiable to try by lavage, by the administration of saline solution by the rectum, and by giving frequent small and concentrated feeds to improve his condition before the operation is performed. By this means a considerable gain in weight may occur, which is due particularly to the absorption of fluid, and the gastric atony may diminish, and so increase the probability of a successful result of the operation. The patient should be weighed every day, and it should be clearly understood that no delay is permissible unless the weight is steadily increasing; if there is no gain in weight the operation should be performed in spite of the risk.

When the obstruction is only partial and an active ulcer is present, it is sometimes worth while trying the effect of medical treatment, as the obstruction is largely due to the surrounding inflammation, which disappears when the ulcer heals, and if the ulcer is not very large the scar produced may give rise to no obstruction. I have seen such cases recover completely without operation.

The most striking example of the disappearance of obstructive symptoms was a man of 50, who had suffered for twenty-two years from typical symptoms of duodenal ulcer. His stomach was dilated and there was visible peristalsis. For business reasons he had to postpone the operation, which I advised, for four months, during which he was carefully dieted and treated with oil and alkalis. He lost his pain and the dilatation and visible peristalsis disappeared, but on account of the long history I still thought an operation advisable. Mr. Rowlands operated and found a number of definite scars on the outer surface of the duodenum, but the ulcers had completely healed and there was now no obstruction, although four months earlier at least one ulcer must have been active and the thickening round it sufficient to produce well-marked obstruction.

The treatment of such cases should be that of ordinary gastric ulcer, the use of olive oil being of particularly great

value, as it causes relaxation of the pylorus in addition to inhibiting the secretion of the gastric juice. As there is certain to be more or less continuous gastric secretion, the stomach should be washed out with an alkaline solution every evening. If the symptoms do not disappear after four weeks, or if they recur in spite of careful dieting, an operation should be advised.

## PREVALENT RAIN-BEARING WINDS AND THE MILK SUPPLY OF MANCHESTER DURING THE YEARS 1896-1909.

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In the spring of last year Professor Delépine of Manchester read before the Royal Society of Medicine a very valuable and interesting paper dealing chiefly with the distribution of bovine tuberculous mastitis amongst the farms supplying Manchester with milk. 1,524 farms scattered over an area of nearly 5,000 square miles were carefully investigated and mapped, and it was found that remarkable differences in the prevalence of the disease existed between different districts. Professor Delépine endeavoured to use these differences in prevalence to demonstrate a relation between local incidence of tuberculous mastitis and local state of cowsheds and herds, a relation which, if possible to prove, is obviously of profound importance.

There can be nothing but admiration, in considering this paper, for the way in which the available facts have been collected and arranged, for the great time, labour and skill expended on them, and, not least, for the frank indication of the unavoidable limitations of the material. But with all these in view, seeing the importance of the subject and the apparent magnitude of the opportunity, one cannot but deplore that the result attained fell so far short of being conclusive. While presenting considerable evidence of the influence of what may be called "farm management" in determining a higher or lower degree of prevalence of the disorder, Professor Delépine found himself unable to escape from the embarrassment of some other influence or influences which were unknown to him.

In quoting the following passages from his paper I hope he will not consider I have in any way misrepresented his conclusions. I have lettered the first two paragraphs (A) and (B) respectively for convenience of reference further on. The lettering and figures in the text here and throughout this paper refer to his maps in the *Proceedings of the Royal Society of Medicine*.[1]

(A) It would appear from this that in every respect the shippons which were found to produce tuberculous milk were worse than the others [worse as regards the state of the cowsheds and herds]. But if instead of comparing the averages only one compares in each group the state of the tuberculous and non-tuberculous farms in various latitudinal zones, it becomes evident that the averages do not convey the whole truth, for if the non-tuberculous farms situated south of Manchester (Group A, Division XX to XXXI) are compared with the tuberculous farms also situated south of Manchester, one finds that the tuberculous farms in Zone III to XIX, XX to XXI and XXII, are really more satisfactory than the non-tuberculous farms in Zone XX to XXXI, and that it is only south of Zone XXII that the tuberculous farms are worse in every respect than the non-tuberculous farms (not including the Manchester farms).

(B) Another unexpected fact is obvious. Of the five divisions of tuberculous farms, the one corresponding to Zones XXIII and XXIV is undoubtedly the worst, while Division III to XIX is distinctly the best; but notwithstanding the considerable differences indicated in the table, the number of cows with tuberculous udders per cent. of the total number of cows is about the same in all the zones. The same may be said of the cows suspected of disease of the udder; there are slight differences, but these do not correspond in the least with the condition of the farms in the respective zones. I do not think that the differences in these percentages should be taken to indicate important differences in the incidence of tuberculosis, as they may possibly be affected by the more frequent inspection of the proximal farms, which would almost certainly lead to the discovery of some few cases overlooked in the first visits.

It is, however, clear that the condition of the farm, though important, is not the dominant factor, and this makes it necessary to believe in the existence of some cause capable of overpowering the most favourable conditions, and practically independent of the most influential predisposing factors, to account for the focal distribution of cases of tuberculous mastitis.

A careful consideration of the statistical facts recorded in this paper and of facts which I have observed in connexion with a number of farms that I have been able to study closely has led me to the conclusion that cows in a state of advanced tuberculosis, and *emitting discharges loaded with tubercle bacilli*, constitute the chief factor determining the distribution of bovine tuberculosis.[2]

Reviewing these statements and the facts recorded in his paper, it is evident that Professor Delépine is correct in thinking that some other influence (or influences) which he had not taken into account had interfered with his result, preventing him from demonstrating the relation, which he has otherwise made so probable, between farm management and the prevalence of bovine tuberculous mastitis. His assumption, however, that this influence is that of "cows in a state of advanced tuberculosis, and emitting discharges loaded with tubercle bacilli," cannot be admitted, so far as the distribution of disease *amongst the whole number of farms (tuberculous and non-tuberculous)* is concerned.

Such discharges may, it is true, account for the fact that *within the different groups of tuberculous farms*—that is, amongst farms where advanced cases are generally present (since cows with tuberculous mastitis "are, in the majority of cases, suffering also from more or less advanced tuberculosis of other organs")[3]—no sanitary measures short of the removal of these cases appeared to make much difference in the percentage of cows suffering from tuberculous mastitis; and we may conclude, with Professor Delépine, that this reasonable explanation meets the difficulty raised in his paragraph which I have lettered (B). But it is impossible so to explain away the difficulties referred to in paragraph A, or to account for the *distribution of tuberculous farms amongst the whole number of farms*. Professor Delépine himself tells us[4] that "although infection from farm to farm is not impossible, it is not of common occurrence." Besides, even if one admitted the assumption to be a possible truth—which cannot be done—it would only move the question a step further back to, "What, then, accounts for the distribution of these advanced cases in the whole area?"

The fact is that Professor Delépine has not taken into account, as a possible factor in the problem, a most powerful influence affecting the prevalence of tuberculosis—one to which, during the past ten years, I have repeatedly called attention—namely, the influence of strong prevalent rain-bearing winds. These winds, I have shown over and over again, have a most remarkable power of increasing the mortality from human tuberculosis of the lungs in localities exposed to them, and, as I have more lately indicated, of similarly increasing the mortality from other forms of human tuberculosis.[5] It is not unreasonable to suppose that they may similarly influence the distribution of bovine tuberculosis, though this has not hitherto been suggested. Dr. Delépine's maps afford a unique opportunity of ascertaining whether they do so or not. I propose to show that they do, and that the "cause capable of overpowering the most favourable conditions," which he found to be interfering with his conclusions, was just this influence of wind (possibly together with others which are as yet unknown); also that when steps are taken to prevent the interference of wind exposure with the other investigation, the relation between prevalence of tuberculous mastitis and farm management seems (if I rightly understand and interpret his figures and statements) to become capable of proof.

Before undertaking the detailed examination of the topography of so wide an area it is obviously necessary to inquire into the nature of the available material, in order to ascertain how far satisfactory conclusions may be based upon it; so that it is in no carping spirit that I review the limitations of the very valuable facts which Professor Delépine has presented.

In the first place, the farms indicated are, in many districts, only a few of the milk-supplying farms in those districts, and it might be alleged that these relatively few farms cannot be regarded as representative of their districts. But seeing that they are selected simply because they supply Manchester with milk, and for no other reason, I take it that they may reasonably be regarded as representative of their surroundings, provided a considerable number are grouped together. Dr. Delépine has evidently taken this view.

Again, farms remote from Manchester have apparently

been less often inspected than farms nearer to it, and so the remoter farms may seem freer from tuberculosis than is really the case. There is no escaping from this possibility, and the only means of avoiding error from it is to constantly bear it in mind. Dr. Delépine draws attention to it, but evidently considers any error produced by it will be inconsiderable.

Further, in the maps supplied in the *Proceedings* it has been found impossible, it is stated, to ensure entire accuracy "in square mile areas where farms were numerous." But by tracing out Professor Delépine's mile and four mile squares on Bartholomew's excellent reduced Ordnance Survey Maps (half an inch to the mile, with colours to indicate heights), I believe I have been able to identify the situation of his farms with at least enough certainty to draw the conclusions which follow.

It has also to be remembered that the artificial reduction, so to speak, of the tuberculosis in the farms by removal of infected cattle must tend to reduce the contrasts created by natural predisposing influences. About Manchester itself, especially, this is likely to be the case where the farms are more fully under control, and where so much has evidently been done by the sanitary authorities to reduce the amount of the disease.

Lastly, when one comes to discuss together the influences of wind exposure and of farm management, as only a general idea of the positions of the 385 farms used by Professor Delépine is given in the investigation of the effects of the latter, it will be seen to be impossible to come to any positive conclusion, except that his proposition, whilst extremely probable, still remains to be proved.

In short, it seems to me there is, in Professor Delépine's paper and maps, material provided of a very valuable kind for the investigation of the relation between strong, prevalent rain-bearing winds and the distribution of bovine tuberculous mastitis. To that investigation I will first address myself.

Afterwards, should such a relation be clearly shown to exist, it should be possible, when the masking effect of such an influence is avoided, to show that the relation between bovine tuberculous mastitis and farm management may thereby be made easier to examine.

Incidentally, it will be necessary to consider what possible influences may be exercised by soil and altitude.

### INFLUENCE OF PREVALENT RAIN-BEARING WINDS.

The area discussed in Dr. Delépine's paper is divided by the Pennine Chain into a western region of flat or undulating country reaching from North Lancashire into North Shropshire, and an eastern region of hills and valleys stretching across into Yorkshire, Derbyshire, and Staffordshire.

The western region is swept freely by the prevalent rain-bearing winds of this country—the south-west, west, and north-west—down, at all events, to nearly the latitude of Chester (Zone XXII), where the Welsh mountains begin to afford some shelter from the west and south west winds, and to give, about the latitude of Ellesmere (Zone XXVIII), some shelter also from the north-west.

The eastern region, on the other hand, is predominantly a region of shelter from all these winds, most of the farms lying in valleys which afford pretty effectual protection. It must not, however, be supposed that all of these farms are thus protected; some stand high in apparently wind-swept situations. The contrast, therefore, between the eastern and the western regions as regards such shelter and exposure is not absolute but relative, yet is evidently so pronounced as to afford a very valuable opportunity for investigating the relation between prevalence of bovine tuberculous mastitis and exposure to these winds.

The comparison between shelter and exposure may be best made by dividing the whole area into districts, which I shall now proceed to describe, indicating in each instance not merely its exposure or shelter in respect of westerly winds, but also its geological structure and elevation; for both of these latter factors require to be taken into account—the first because it does actually sometimes affect the frequency of tuberculosis, at all events in man; the second because it is popularly supposed to do so.

*C to G, IX to XIII.*—This district contains the few farms which lie out on the flats of Lancashire in the Zones IX to XIII; they stand on a slightly undulating surface of upper and lower trias (Keuper marl, raised beach and Bunter sandstone) at an elevation of only from about 20 to 100 feet above sea level except a single farm rather higher. There are only 13 of them, and one was tuberculous, giving a percentage of 15.4. Their fewness, their distance from Manchester, and the fact of their slight elevation not exposing them very much to the wind, as well as the comparatively pervious soil, makes these difficult to lay stress on.

*I to L, IX to XIII.*—The hill farms of Zones IX to XIII are included in this district. Most of them are in Ribbledale, from which the hills must block out west and north-west winds considerably, and whose kink near its entrance probably shuts out much of the south-west; other farms lie in even more sheltered situations. They stand at heights varying from about 150 to 750 feet, often on steep slopes, on a soil chiefly composed of the Yoredale series of rocks, a few, however, resting on millstone grit or on coal-measures. Most, I imagine, can be classed as sheltered. Out of 66, only 7, or 10.6 per cent., were found to be tuberculous.

*Zones XIV to XVII.*—Almost all the farms in these zones cluster in and about North Manchester, at elevations of about from 20 to 500 feet—mostly between 200 and 400 feet—in situations exposed for the most part to westerly winds. They nearly all lie on coal-measures, but there are a few on millstone grit or on trias. Amongst 101 only 15, or 14.8 per cent., were found to be tuberculous. It must, however, be remembered that Dr. Delépine points out that the farms in and round Manchester are exceptional in the control exercised over them and the great improvements effected by the sanitary authorities. The lowness of these figures may, therefore, be reasonably attributed to those improvements. At all events, the suspicion that it may be so attributable cannot be put aside. To this I shall refer again presently.

*C to M, XVIII and XIX.*—The majority of these farms also are grouped in and round Manchester, this time on its southern side. The majority are on trias, at elevations of about from 70 to 300 feet. There are 77 of them, and 15 were found tuberculous—that is, 19.4 per cent. It is possible that these farms also have been improved by the care of the sanitary authorities of Manchester, and, but for that, might have shown a higher percentage of tuberculous disease.

Both of these two last districts, being close to the public health authorities, have doubtless been several times inspected, and probably present their true percentage of tuberculosis.

*N to P, XVIII and XIX.*—This district contains a small group of sheltered farms (most of them, at all events, are sheltered) lying amongst the hills between Stockport and Glossop on coal-measures, at heights varying from about 350 to 800 feet. There are 24 of them, and 3 were tuberculous, or 12.5 per cent. Not being far from Manchester, this low figure is probably not due to infrequent inspection.

*C to H, XXII to XXIV.*—The slopes of Delamere Forest afford an interesting comparison. The forest forms a ridge with a general elevation of about 400 ft. running from NNW. to SSE., and at least 18 miles away from the northern commencement of the Welsh mountains, which there rise to about 1,200 to 1,300 feet. The forest affords protection from west and south-west winds to farms on its eastern side, but practically none from north-west winds.

On its westerly slope (G, XXII to XXIV, except one farm in G, XXII, which is clearly on the eastern side), there are 50 farms, of which 20, or 40 per cent., were found tuberculous; and west again of these, in perhaps a rather less exposed situation (E and F, XXII and XXIII), 20 farms had 7 tuberculous, or 35 per cent., 4 of these 7 being on a mound rather higher than the majority of the rest.

On the easterly side of the forest, on the other hand (H, XXII to XXIV, with the single farm taken, as above, from G, XXII), out of 19 farms only 3, or 15.8 per cent., were tuberculous.

The heights of these farms in this area vary from about 30 to 400 feet. Those on the west of Delamere Forest are mostly on lower trias, those on the east of it on upper trias. Those on the east are certainly more elevated than those on the west, and it is possible that the very high percentages to the west of the forest were partly due to dampness of subsoil close to the river Gowy, but this will not entirely explain the facts, since many of the tuberculous farms were well above the river.

*I to M, XX to XXIV.*—This is a 20 mile square lying south of Manchester, consisting of undulating country, low round river beds on the west, but eastwards rising to a height of about 500 feet towards Macclesfield and Congleton. It is generally very exposed, except in its westerly lower lands and in its south-eastern corner; the subsoil is practically all of upper trias; 520 farms here showed 144 tuberculous, or 27.6 per cent.

It is also instructive to compare the five constituent north to south divisions of this area, I, J, K, L, M. In the most westerly, I, the least exposed, the percentage was 15.7; in the next two, J and K, well exposed to west, south-west, and north-west, 31.1 per cent. and 30.6 per cent. respectively, but in the two most easterly, L and M, the percentage fell to 27.1 and 27.6; in M, at all events, a good many of the farms were in shelter at its southern extremity. Being close to Manchester, it is possible that this area has been unusually often inspected, which may have somewhat raised the figures.

In striking contrast to this specially exposed area are the much more sheltered areas across the hills eastwards.

*N to P, XX to XXII.*—Behind Macclesfield and about Chapel-en-le-Frith, mostly well sheltered in high hills at elevations varying apparently from about 500 to 1,000 feet, lie 169 farms, on soil chiefly composed of Yoredale rocks, but also a good deal on coal-measures and millstone grit. Of these 169 only 24, or 14.2 per cent., were tuberculous. These are no further from Manchester than the last, and there is therefore no reason to suspect the figures of being unduly low from want of inspection. The following, however, are further off, and hence may have been less often inspected, and thus present unduly low percentages.

*N to P, XXIII to XXVI.*—Round Leek in Staffordshire, also mostly in shelter, at heights apparently varying about from 400 to 1,000 feet, on soil chiefly and about equally composed of coal-measures and Yoredale rocks, but also partly of millstone grit and lower trias, there are 144 farms, with only 21, or 14.5 per cent., tuberculous.

*Q to S, XX to XXII.*—Even more remarkable is a group of 43 farms near Bakewell, which at elevations apparently of about 400 to 1,000 feet, almost wholly on Yoredale rocks and in marked shelter, only showed 5 tuberculous, or 11.6 per cent.

*Q to S, XXIII to XXVI.*—South of Bakewell, at heights probably varying from 300 to 1,000 feet, and also practically wholly on Yoredale rocks, 172 farms gave 29 infected farms, or 16.8 per cent. Most of these farms are in shelter, but some are evidently in very wind-swept places.

*C to M, XXV to XXVII.*—Crossing the hills westwards again, an area open mostly to the north-west, but less exposed than the areas directly north of it to the west and south-west winds (since it is more under the lee of the Welsh mountains), has 97 farms, with 21, or 21.6 per cent., tuberculous. These farms lie almost all on upper or lower trias, at elevations of about 150 to 300 feet.

*C to M, XXVIII to XXXI.*—Still further south and still more under the shelter of Wales lies a district which, being more undulating, is also more self-sheltering. Here, of 40 farms standing at elevations of about 200 to 300 feet, almost all on upper and lower trias, 6 were found tuberculous, or 15 per cent.

*N to O, XXVII to XXX.*—Lastly, once more passing eastwards over the hills, a small, well-sheltered group of 19 farms, south of Cheadle, at elevations of about 300 to 500 feet, and practically all placed on upper trias, showed only a single farm, or 5.2 per cent., infected.

It is well to observe that a few farms round Uttoxeter, at lower levels on upper trias, just east of this last group, were very tuberculous, but they are in most cases clearly placed in less sheltered situations. Their presence, however, serves to indicate that the more remoteness of this district need not be held to account—wholly, at all events—for its low percentage.

To make clearer the very remarkable contrast presented by the more exposed and more sheltered districts just described, I have constructed first Table I, which, without taking into consideration any modifying circumstances, compares all the districts on the west of the Pennine Chain with all those in its sheltering valleys. The percentages of the farms found tuberculous in the western region are generally considerably greater than in the eastern, and the aggregate figures present a striking contrast.

Table II strengthens this contrast by comparing the

TABLE I.—GENERAL COMPARISON OF THE WESTERN REGION WITH THE EASTERN.

| District. | Soil. | Approximate Elevation. | Total No. of Farms. | No. found Tuberculous. | Percentage. |
|---|---|---|---|---|---|
| | | | *Western.* | | |
| C to G, IX to XIII ... ... | Trias | Feet. 20–100 | 13 | 1 | 15.4 |
| XIV to XVII ... ... | Coal-measures | 20–500 | 101 | 15 | 14.8 |
| C to M, XVIII to XIX ... | Trias | 70–300 | 77 | 15 | 19.4 |
| C to F, XXII and XXIII ... | Trias | 30–100 | 20 | 7 | 35.0 |
| G, XXII to XXIV ... ... | Trias | 78–450 | 50 | 20 | 40.0 |
| H, XXII to XXIV ... ... | Trias | 70–400 | 19 | 3 | 15.8 |
| I to M, XX to XXIV ... ... | Trias | 66–550 | 520 | 144 | 27.6 |
| C to M, XXV to XXVII ... | Trias | 150–400 | 97 | 21 | 21.6 |
| C to M, XXVIII to XXXI ... | Trias | 200–300 | 40 | 6 | 15.0 |
| Totals ... ... ... | — | — | 937 | 232 | — |
| Average ... ... | — | — | — | — | 24.7 |
| | | | *Eastern.* | | |
| I to L, IX to XIII ... ... | Yoredale | 150–750 | 66 | 7 | 10.6 |
| N to P, XVIII and XIX ... | Coal-measures | 350–800 | 24 | 3 | 12.5 |
| N to P, XX to XXII ... ... | Yoredale, Coal-measures, Millstone grit | 500–1,000 | 169 | 24 | 14.2 |
| N to P, XXIII to XXVI ... | Yoredale, Coal-measures, Some trias, and millstone grit | 400–1,000 | 144 | 21 | 14.3 |
| N O, XXVII to XXXI ... ... | Trias | 300–500 | 19 | 1 | 5.2 |
| Q to S, XX to XXII ... ... | Yoredale | 400–1,000 | 43 | 5 | 11.6 |
| Q to S, XXIII to XXVI ... | Yoredale | 300–1,000 | 172 | 29 | 16.8 |
| Totals ... ... ... | — | — | 637 | 90 | — |
| Average ... ... | — | — | — | — | 14.1 |

western and eastern figures *at corresponding latitudes.* Here Zone XIV to XVII is only omitted because it contains no sheltered district to compare with the exposed.

Amongst the districts in Table I are, however, included two districts which I have referred to as doubtful, namely, those including Manchester and its immediate neighbourhood where special measures have been taken to reduce the frequency of tuberculosis, namely, XIV to XVII and C to M, XVIII and XIX.

Another district, C to M, XXVIII to XXXI, which is probably considerably sheltered, as I have indicated, not only by the mountains of Wales, but by its own undulations, is also

TABLE II.—COMPARING PERCENTAGES OF WESTERN AND EASTERN REGIONS AT CORRESPONDING LATITUDES.

| *Western.* | | *Eastern.* | |
|---|---|---|---|
| District. | Percentage. | District. | Percentage. |
| IX to XIII, C to G ... | 15.4 | IX to XIII, I to L ... | 10.6 |
| XVIII and XIX, C to M | 19.4 | XVIII and XIX, N to P | 12.5 |
| XX to XXIV, C to F ... | 35.0 | XX to XXII, N to P ... | 14.2 |
| XX to XXIV, G ... | 40.0 | XX to XXII, Q to S ... | 11.6 |
| XX to XXIV, H ... | 15.8 | XXIII to XXVI, N to P | 14.3 |
| XX to XXIV, I to M ... | 27.6 | XXIII to XXVI, Q to S | 16.8 |
| XXV to XXVII, C to M | 21.6 | XXVII to XXXI, N, O | 5.2 |
| XXVIII to XXXI, C to M | 15.0 | | |

included amongst those which are exposed; and so is district H XXII to XXIV, which, as has been seen, is only exposed to the north-west. Omitting these four districts one obtains Table III, where the more exposed districts

TABLE III.—TABLE I WITH DOUBTFUL DISTRICTS OMITTED.

| District. | Soil. | Approximate Elevation. | Total No. of Farms. | No. found Tuberculous. | Percentage. |
|---|---|---|---|---|---|
| | *Western.* | Feet. | | | |
| C to G, IX to XIII ... ... | Trias | 20–100 | 13 | 1 | 15.4 |
| C to F, XXII and XXIII ... | Trias | 30–100 | 20 | 7 | 35.0 |
| G, XXII to XXIV ... ... | Trias | 78–450 | 50 | 20 | 40.0 |
| I to M, XX to XXIV ... ... | Trias | 66–550 | 520 | 144 | 27.6 |
| C to M, XXV to XXVII ... | Trias | 150–400 | 97 | 21 | 21.6 |
| Totals ... ... ... | — | — | 700 | 193 | — |
| Average ... ... | — | — | — | — | 27.5 |
| | *Eastern.* | | | | |
| The same as in Table I ... | — | — | 637 | 90 | 14.1 |

are seen to have nearly twice the percentage of tuberculous farms that the more sheltered districts have.

But even this striking contrast does not show the full measure of the difference between exposure and shelter. Table IV gives the comparison between 52 fully exposed

TABLE IV.—COMPARISON OF EVIDENTLY WELL-EXPOSED WITH EVIDENTLY WELL-SHELTERED FARMS OVER 300 FEET HIGH.

| District. | Soil. | Approximate Elevation. | Total No. of Farms. | No. found Tuberculous. | Percentage. |
|---|---|---|---|---|---|
| *Exposed.* | | Feet. | | | |
| In M, XX to XXIV ... ... | Trias | 400–550 | 52 | 20 | 38.4 |
| *Sheltered.* | | | | | |
| In Q to S, XX to XXVI ... | Yoredale | 300–1,000 | 82 | 7* | 8.5 |
| In N, O, XXVII to XXX† ... | Trias | 300–500 | 19 | 1 | 5.2 |

* Of the 7 tuberculous 5 were over 600 feet high.
† The farms in this district, though few, are more comparable in soil and elevation.

farms just west of Macclesfield on high ground fronting the west, and 82 farms evidently very well protected in the valleys between Buxton and Warksworth. Here the exposed district shows a percentage of tuberculous farms more than four times as great as does the sheltered!

But, it will be asked, have soil and altitude nothing to do with the origin of these differences?

### THE INFLUENCE OF SOIL.

I have elsewhere shown that the influence of soil on the prevalence of human phthisis is decidedly less powerful than the influence of prevalent rainy winds. For the present inquiry there is not sufficient material to enable one to decide on the part it plays in determining the incidence of bovine tuberculous mastitis. *For that purpose soils must be compared in shelter*, and, as the great majority of the sheltered farms in this area are on Yoredale rocks only, it seems undesirable to found conclusions on the comparatively few placed on other formations. Yet it is worth noticing that N, O, XXVII to XXXI, is the only sheltered district standing on trias, and that it has the lowest percentage of tuberculous farms.

On the other hand, it may be confidently stated that soil has nothing to do with creating the marked differences between the more exposed and the more sheltered districts, for almost all the exposed districts are on trias, which I find is often associated in England with relatively low human phthisis mortality, whereas most of the sheltered districts are on Yoredale rocks, which seem often associated with relatively high human phthisis death-rates in this country. In fact, it is not impossible that soil here tends to lessen the contrast created by rain-bearing wind.

### THE INFLUENCE OF ALTITUDE.

I have shown elsewhere that there is no valid evidence in favour of any influence of altitude *per se* on the *prevalence* of human phthisis, and the only effect I can trace from it in this country is an apparent increase of the effects of wind exposure in elevated situations.

Table V will, I imagine, deter those who are not acquainted with my work from assigning to altitude here any very important rôle.

TABLE V.—COMPARISON OF ALTITUDES, WESTERN AND EASTERN SEPARATELY, OMITTING THE DOUBTFUL DISTRICTS.

| *Western.* | | *Eastern.* | |
|---|---|---|---|
| Altitude in Feet. | Percentage as above. | Altitude in Feet. | Percentage as above. |
| 20—100 ... ... ... | 15.4 | 300— 500 ... ... | 5.2 |
| 30—100 ... ... ... | 35.0 | 150— 750 ... ... | 10.6 |
| 78—450 ... ... ... | 40.0 | 350— 800 ... ... | 12.5 |
| 150—400 ... ... ... | 21.6 | 300—1,000 ... ... | 16.8 |
| 66—550 ... ... ... | 27.6 | 400—1,000 ... ... | 14.3 and 11.6 |
| | | 500—1,000 ... ... | 14.2 |

There can, in fine, I submit, be no reasonable doubt—assuming, as we must, that Dr. Delépine's published maps are not wholly devoid of value—that amongst the farms here indicated during the years 1896 to 1909, exposure to the prevalent rain-bearing winds tended powerfully to increase the prevalence of bovine tuberculous mastitis.

### THE INFLUENCE OF FARM MANAGEMENT.

This brings me to the consideration of the difficulties which have unfortunately hampered Professor Delépine in his research.

In view of the powerful influence of wind exposure which I have just shown to exist, it is obviously no longer admissible to compare together districts of quite different conditions as regards wind exposure in order to trace a connexion between farm management and bovine tuberculosis. Dr. Delépine, in the paragraph I quoted and marked B at the beginning of this paper, has, as I have already pointed out, satisfactorily explained one apparent contradiction. But, in the paragraph which I marked A, his real difficulty has arisen from comparing together zones of quite different exposure conditions. Difficulties so created are of no final importance; and, were one aware of the exact location of the 385 farms he used for his investigation, it is *possible* one could at once establish the fact of the influence of farm management by the *comparison of farms in shelter*; or, failing this comparison which is the safest method to pursue, by comparison of farms in comparable situations as regards wind exposure and shelter. I say "possible" because, as I have already pointed out, without knowing the precise position of these farms one can draw no certain conclusions.

It is worth noticing that the farms in and about Manchester afford a marked contrast between the sanitary conditions presented by the tuberculous and the non-tuberculous; also that south of Zone XXII—that is, where a large proportion of the farms begin to be in shelter—the relation between farm management and tuberculosis is stated to come out distinctly.

In view of the great probability that the relation between bovine tuberculosis and farm management is a real and intimate one and of the great importance of actually showing it to be so, it would seem worth while to reconsider the subject on the lines which I have just ventured to suggest. It only remains to thank Professor Delépine for having afforded me, by his valuable paper, a unique opportunity of examining the effect of these winds on a form of bovine tuberculosis, and to congratulate Manchester on its public health administration.

REFERENCES.

[1] *Proc. Roy. Soc. Med.*, vol. iii, No. 7, May, 1910, Epidemiological Section, pp. 224 and 227. [2] Pages 238 and 239. [3] Page 219. [4] Page 253. [5] *The Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis*, 1910.

# THE DIAGNOSIS OF THE COMMONER CAUSES OF CHRONIC JAUNDICE.*

By P. J. CAMMIDGE, M.D.Lond.

Since jaundice is due to obstruction of the free flow of bile into the intestine, it is only a symptom, and, if a successful line of treatment is to be followed, it is necessary that the nature and situation of the obstruction should be diagnosed as speedily and accurately as possible.

Two principal types of jaundice are met with: (1) Those in which there is gross and frank blocking of the larger bile ducts, without abnormal blood destruction; (2) those in which the obstruction is due to an increase in the viscidity of the bile in the smaller ducts, and in which there is a pathological destruction of red blood cells. In the first group the obstruction may be due to: (*a*) Mechanical blocking of the lumen of the ducts by gall stones, malignant growths, or stricture, or by an inflammatory swelling of the mucous membrane or lymphoid tissue at the duodenal outlet; (*b*) to compression of the ducts from without by swellings of the pancreas, enlarged lymph glands in the portal fissure, lesions of the stomach, duodenum, kidney, etc., or by pressure from an aneurysm of the aorta, hepatic or mesenteric arteries, and other rarer causes, such as uterine tumours, etc. In the second, or toxaemic, group the jaundice occurs as an incidental complication in the course of an infectious disease such as pyaemia, septicaemia, relapsing fever, pneumonia, scarlet fever, epidemic jaundice, Weil's disease, acute yellow atrophy, or as the result of the action of certain poisons or drugs such as phosphorus, toluylendiamene, snake poison, chloroform, chloral, acetanilide, santonin, arseniuretted hydrogen, aniline, copper sulphate, mushrooms, etc.

More than four-fifths of all cases of jaundice met with in ordinary practice belong to the first group, the obstruction to the bile flow being of an obvious mechanical character, the most common causes, in my experience, being biliary calculi and malignant disease of the pancreas. On classifying 400 cases of jaundice that I have had the opportunity of investigating during the past five years, I find that in 46 per cent. it was due to the former cause, and in 28 per cent. to the latter, so that in nearly 70 per cent. of my cases the diagnosis lay between gall stones and malignant disease of the pancreas. Catarrhal jaundice was diagnosed in 15 per cent. of my cases, a growth of the bile ducts or gall bladder in 3 per cent.; cirrhosis of the head of the pancreas, without gall stones, in 4 per cent.; cirrhosis of the liver in 4 per cent., secondary growths in the liver 3 per cent., and in 2 per cent. the jaundice depended upon rarer causes, such as stricture of the duct, etc. In 93.5 per cent. of the gall-stone cases the calculi were found in the common bile duct at operation, and in 6.5 per cent. they were only present in the gall bladder or cystic duct, the jaundice in the latter being apparently due to an associated cholangitis. I may remind you in passing that gall stones may be present in the common bile duct without producing jaundice, and that unless this is borne in mind, the symptoms to which they give rise may be attributed to the wrong cause, notably to "indigestion." In 32 per cent. of my cases of common duct cholelithiasis there was no jaundice, and in several of these the symptoms had culminated in glycosuria, owing to the long continued irritation of the pancreas, which had been allowed to progress unrecognized and unrelieved.

In many instances the history of the case is suggestive of the cause of the obstruction. A sense of weight or distension in the upper part of the abdomen, generally coming on a short time after meals, which is relieved by eructation or vomiting, and is often noticed to be particularly liable to succeed indulgence in certain articles of diet, a gnawing feeling below the ensiform cartilage, a catch in the breath or an acute stabbing pain under the right costal margin on deep inspiration, a feeling of chilliness, or even a slight rigor, are among the prodromal symptoms of cholelithiasis. It will be noted how easily these may be attributed to "indigestion." In such cases the jaundice will have generally appeared suddenly. It may have been preceded or accompanied by paroxysmal attacks of pain starting in the right hypochondrium or in the epigastrium, radiating thence over the abdomen and through to the right scapular region, but in practice typical gall-stone colic is a comparatively rare symptom. If the intensity of the jaundice fluctuates, deepening after each paroxysm of pain and diminishing in the intervals, if there is fever and there are ague-like attacks, gall-stone obstruction is highly probable. Jaundice coming on painlessly, insidiously, and persistently, without intermission, in a previously healthy individual, with no history of abdominal or digestive symptoms, persistent loss of flesh, and marked failure of strength, are suggestive of growth. The character of the jaundice is often indicative of the nature of the obstruction. In all forms of icterus the bile pigment in the tissues is at first in solution, but after a considerable amount has accumulated it may be deposited in a granular form. The deposits of bilirubin then undergo slow oxidation, the colour changing from yellow to an olive or dirty greyish-green, hence the skin appears of a dark green or slate colour, the so-called "black jaundice." Since the obstruction of the bile ducts is more complete and persistent in malignant disease of the pancreas than when it is due to gall stones, "black" jaundice is suggestive of the blocking of the common bile duct by a growth.

Examination of the abdomen will frequently reveal tenderness and rigidity of the right rectus muscle after an attack of gall-stone colic, but distension of the gall bladder is usually absent. A distended gall bladder with jaundice is usually dependent upon malignant disease of the head of the pancreas or common bile duct. Dilatation of the gall bladder may, however, be occasionally due to impacted gall stones in the common duct, but in such cases the distension is as a rule of short duration, since the inflammatory softening of the walls of the duct ultimately allows the passage of the retained mucus and bile, whereas in malignant disease the gall bladder steadily enlarges as the jaundice intensifies. A stone impacted in the cystic duct, stricture of the duct, acute inflammation of the gall bladder, or chronic inflammation of the head of the pancreas, when there is also a stone in the common duct, or a stone in the cystic duct pressing on the common duct, may give rise to a distended gall bladder with jaundice. On the other hand, when the gall bladder has been more or less completely obliterated by previous attacks of inflammation or is congenitally absent, distension cannot occur when the common bile duct is obstructed by a malignant growth. Enlargement of the liver as the result of the biliary stasis is frequently to be made out. In gall-stone cases the liver has a smooth surface and varies in size and tenderness with the intensity of the jaundice. In obstruction due to growth it is often enlarged and may be tender, but the size does not vary. If the surface is irregular and nodular and there is also free fluid in the abdomen and oedema of the feet, advanced cancer of the head of the pancreas is indicated. The presence of small angiomata in the skin, particularly of the abdomen, is a point in favour of cancer. An oblong swelling, due to the enlarged pancreas, can sometimes be felt on deep pressure in the lower epigastric region, especially when the patient is under an anaesthetic. This may be due to malignant disease of the gland, but is more commonly an inflammatory swelling. If the former, it is hard, irregular, and painless; if the latter, it is often not so hard, is smooth, and is generally painful. Chronic pancreatitis is frequently accompanied by attacks of pain resembling those due to gall stones, but the pain in such cases radiates to the left side and is often more severe under the left shoulder blade or in the mid-scapular region.

In cases where there is a characteristic history, and the signs and symptoms are typical, a satisfactory diagnosis may be made from the clinical conditions alone, particularly when the presence of gall stones is indicated, but a diagnosis of malignant disease must always be made with caution, for there are not a few cases in which the clinical evidence points to carcinoma of the pancreas, in which the jaundice is in reality due to an inflammatory swelling of the head of the gland, with or without an associated gall-stone obstruction. It is practically impossible to distinguish by clinical methods alone between cancer of the head of the pancreas and growths of the common bile duct or ampulla of Vater. But in many cases of chronic jaundice

* A paper read before the Hampstead Division of the British Medica Association, February 10th, 1911.

the history is either unreliable or not characteristic and the symptoms are conflicting or confusing. In such doubtful and difficult cases, great assistance in arriving at a reliable opinion may be obtained by a thorough investigation of the digestive and metabolic disturbances revealed by an analysis of the urine and faeces.

Before considering the results and indications yielded by such investigations, it is advisable that we should briefly consider the anatomy and pathology of the common bile duct and its related structures, for unless these are thoroughly appreciated the significance of the chemical changes met with in jaundice due to various causes is not always clear. Commencing at the junction of the cystic and hepatic ducts, the common bile duct courses along the free border of the lesser omentum with the portal vein and hepatic artery; it then passes behind the first part of the duodenum, the portal vein lying to its inner side and the inferior vena cava behind. These sections of the duct are known as the supraduodenal and the retroduodenal portions respectively. The duct now comes into relation with the pancreas, to which it is closely applied, being completely surrounded by pancreatic tissue in about 68 per cent. of cases, and lying in a groove in the posterior surface of the gland in the remaining 32 per cent. The anatomical relations of this, the pancreatic portion of the common duct, are of considerable importance since pathological conditions within the duct are liable to involve the pancreas, and conversely swellings of the head of the pancreas may cause obstruction of the duct, particularly in those instances where the duct passes through the substance of the gland. In its fourth, intraparietal, or interstitial portion the common bile duct enters the wall of the second part of the duodenum, the muscular layers of which it traverses. Beneath the mucous membrane it dilates into a small reservoir known as the ampulla of Vater. The main pancreatic duct, or duct of Wirsung, usually opens into the ampulla of Vater distal to the common bile duct but separated from it by a small transverse fold of mucous membrane. The ampulla communicates with the duodenum by a small round or elliptical orifice, situated about 3 or 4 inches from the pylorus. This aperture is the narrowest part of the bile duct, and it is here that gall stones which have successfully negotiated the common bile duct are apt to lodge and cause the sudden onset of jaundice which is so characteristic. If the stone is large enough to fill the ampulla of Vater it will also occlude the pancreatic duct, preventing the entry of the pancreatic ferments into the intestine and bringing about a catarrhal pancreatitis from the back pressure, and subsequent infection of the retained secretions. The average length of the ampulla is about one-sixth of an inch, and it is usually about one-fifth to one-sixth of an inch in breadth, but it is liable to considerable variation, occasionally being nearly half an inch long. A small stone impacted in the duodenal orifice may not entirely fill the cavity of an unusually large ampulla, and the bile and pancreatic ducts may thus be converted into a continuous channel. Such a condition has been described by Opie, and he has demonstrated that the passage of bile into the pancreatic duct, which is possible in such a case, may bring about acute inflammation of the pancreas. Subsequently Flexner showed that if the bile is modified by a diminution of its salts, or an increase in its colloidal elements, such as occurs in chronic inflammatory conditions of the bile passages, chronic pancreatitis results.

The accessory pancreatic duct, or duct of Santorini, opens in the duodenum about three-quarters of an inch above the bile papilla. Since the accessory duct anastomoses with the main duct within the pancreas in about 90 per cent. of cases, it has been assumed that it may act as a safety valve, and prevent the effects of back-pressure when the duct of Wirsung is obstructed, but as the duodenal orifice of the accessory duct is obliterated, or markedly constricted in about 50 per cent. of cases, it is probable that in at least that proportion it cannot assume the functions of the main duct; moreover, the duct of Santorini may itself be compressed by moderate-sized gall stones in their passage through the pancreatic portion of the common bile duct.

The mechanical view, and even the chemical explanation of Opie and Flexner, of the relation between gall stones and pancreatitis only partly accounts for the pathology of these conditions in my opinion. In both the action of micro-organisms on the damaged tissues is not taken into account. In some instances I believe that the affections are primarily microbic, the disease of the bile channels and pancreas arising from invasion of these structures by intestinal organisms, which in the case of the pancreas activate the pancreatic secretion and set up autolytic changes. Normally the entry of micro-organisms into the duct of Wirsung is prevented by the flow of the secretion and the presence of valve-like folds in the walls of the diverticulum of Vater, but if the passage of bile and pancreatic juice is interfered with, and the valves are obliterated or damaged, organisms may find their way directly from the duodenum into the ducts. If from any cause, such as an intestinal catarrh, the virulence and number of the intestinal bacteria are increased, an inflammatory condition of the bile and pancreatic ducts is apt to follow, originating in the one case cholangitis and gall stone formation and in the other chronic pancreatitis.

In the 50 per cent. or so of cases where the accessory pancreatic duct is patent a more open route for the infection of the pancreatic ducts, and through them of the bile ducts, exists, for there are no valves at the entrance to the duct of Santorini, and, according to Desjardins, the secretion may flow indifferently from the pancreas to the intestine or from the intestine to the gland. Organisms carried in from the duodenum by a reverse current will be conveyed through the head of the pancreas to the point where the ducts of Santorini and Wirsung anastomose, and there, meeting with the direct current from the main duct, be carried into the ampulla of Vater, to pass into the intestine again, or along the common bile duct, according to the conditions that are present. The effects of an arrest of septic organisms will first be evident in the bile ducts, for these, unlike the pancreatic ducts, are not more or less immune from the constant presence of intestinal bacteria. When the virulence of these organisms has been increased by growing in the morbid secretions and diseased tissues of the bile ducts the immunity of the pancreas may be overcome and pancreatitis follow. Inoculation and re-inoculation from the pancreas to the bile passages, and back from the bile passages to the pancreas, will then occur so that the pancreatic lesion will continually progress so long as the obstruction of the common duct is unrelieved. When the blocking of the ducts by gall stones is complete the inflamed walls present a ready path by which infection may travel from the intestine, and we consequently find cholangitis and an infected condition of the bile in practically every case. Absolute blocking of the common bile duct is, however, very uncommon, except in cancer of the head of the pancreas, for, as we shall see later, bile pigment can be found chemically in the faeces in nearly every case of gall stones, even when the stools appear white to the naked eye.

Beside the direct route of entry by way of the bile papilla and accessory pancreatic duct, intestinal organisms may reach the bile ducts through the portal vein. This is probably one of the ways in which simultaneous gall stone formation and damage of the pancreas are initiated, and accounts for the inflammatory changes in the pancreas being more marked in some instances than might be expected from the length of time the mechanical obstruction of the ducts has been known to exist.

The examination of the urine from a case of jaundice should be as complete as possible, in order that every abnormality which it will show may be discovered and considered in arriving at an opinion. It is as misleading to rely on one test as it would be clinically to diagnose scarlet fever only by examining the tongue. The points to which I usually pay special attention are: The presence of bile, urobilin, sugar, albumen, an excess of indican, and the results of the "pancreatic" reaction.

*Bile.*

A very large number of tests for bile in the urine have been described, but after trying most of them I have come to the conclusion that Rosenbach's modification of Gmelin's nitric acid test is the simplest and most reliable. If a sufficiently large quantity of urine is filtered through the same filter paper the test is as delicate as many more complicated methods. It must be borne in mind that it is not always possible to detect bile pigment in the urine, even with the most delicate test, in the early stages of an attack of jaundice and later when the pigmentation of the

skin is clearing up. In the former an examination of the blood serum may be helpful in arriving at a correct conclusion, but the simplest test is to examine the conjunctivae. If a distinct icteric tinge is discovered by daylight—not artificial light, by which the coloration is not so well seen—it shows that there is some obstruction to the free flow of bile into the intestine.

*Urobilin.*

The presence of urobilin in the urine, as shown by the alcoholic zinc acetate test, points to there being interference with the functions of the liver. If abnormal blood destruction can be excluded, a positive reaction is suggestive of cholangitis, which, if there is distinct jaundice, is probably due to the presence of gall stones in the common bile duct. If the jaundice is only slight, and there is also evidence of pancreatitis and intestinal catarrh, the cholangitis may be due to an ascending infection of the bile ducts from the duodenum. A reaction for urobilin is comparatively uncommon in malignant disease of the pancreas and bile ducts, and when present points to the existence of secondary growths in the liver.

*Indican.*

An excess of indican in the urine is suggestive of there being abnormal putrefactive changes in the contents of the upper part of the intestine, with catarrh of the walls. From the supposed antiseptic action of the bile it might be expected that in all cases where it is prevented from entering the intestine such abnormal putrefactive changes would occur, but an excess of indican is rarely met with in cancer of the head of the pancreas, where the blocking of the bile duct is generally absolute, and in cases where there are impacted gall stones in the common bile duct it is also uncommon. It is rather more frequent when the stones are "floating" in the common duct, but is most common with "catarrhal" jaundice where the obstruction is due to swelling of the mucous membrane and lymphatic tissue in and around the biliary papilla, or to swelling of the head of the pancreas, secondary to an ascending infection from the duodenum.

*Sugar.*

The presence of sugar in the urine of a case of chronic jaundice is almost pathognomonic of serious disease of the pancreas which may be malignant or inflammatory. I have met with glycosuria in 7.5 per cent. of my cases of jaundice, and find that it occurs with almost the same frequency in cancer of the pancreas and in jaundice due to gall stones—8 per cent. and 9 per cent. respectively. I found sugar in the urine in 1 out of 8 cases of growth of the common duct. The quantity cannot be relied upon as an indication of the nature of the disease, for in cancer it has varied from traces to about 2 per cent., and in gall-stone cases from traces to 6 or 7 per cent., the gall-stone cases with high percentages being all of old-standing. A small quantity of sugar is no bar to operation if proper precautions are taken and other indications suggest that it is advisable; in fact, it is not infrequently found that if the glycosuria is dependent upon an inflammatory lesion of the pancreas the sugar diminishes or disappears after operation, and with suitable medical and dietetic treatment the patient may live for many years. I have two patients who were operated on—one 12 and the other 14 years of age—who are now in comparatively good health, except for the presence of sugar in their urine. Pancreatic diabetes due to cirrhosis of the gland, secondary to gall stones or duodenal ulcer, is, in my experience, not a very serious disease if the cause of the condition is recognized and means are taken to prevent the progress of the inflammatory changes at a sufficiently early stage. The improvement which follows operation in cases where there is obstruction of the ducts, is to be attributed to the relief of the tension within the ducts and to the subsidence of the associated catarrhal inflammation. The cirrhotic changes are permanent, and it depends upon the extent of these as to whether the glycosuria persists or not. But it must not be too readily assumed that, because the sugar disappears or is very much diminished after an operation, the glycosuria has been cured. The rest in bed and comparative starvation are sometimes the chief factors in bringing this about, and when the patient returns to a more active life and a fuller diet the sugar reappears or increases. He is, however, in a better position to undergo a course of dietetic and medical treatment with hope of success, and if this is properly carried out, bearing in mind the cause of the condition, a further improvement will probably take place. Operative treatment is inadvisable when there is a large amount of sugar or an excess of ammonia nitrogen in the urine with acidosis, which is not readily controlled. The chief dangers, in addition to the risk of coma, which is considerable when there are over 2 grams of ammonia nitrogen in the urine in twenty-four hours, are sepsis and failure of the wound to heal. The former can be guarded against, but the latter has proved in several cases with which I am acquainted a serious complication.

It is necessary to exclude the presence of sugar before proceeding to carry out the "pancreatic" reaction, as the dextrosazone crystals obscure the result. If sugar is found in the urine it may be removed in the way I described in an article on pancreatic diabetes in 1908,[1] but this method is not altogether satisfactory, especially in inexperienced hands, and when the *rationale* of the process is not appreciated. I am at present engaged in perfecting a method of carrying out the "pancreatic" reaction with diabetic urines which is more rapid and appears to give more reliable results.

*"Pancreatic" Reaction.*

A positive pancreatic reaction in the urine points to there being some active degenerative changes of an inflammatory character in the pancreas at the time the urine was passed. It must be noted that no reaction is obtained in quiescent cirrhosis of the gland the result of past inflammation. I have obtained a positive reaction in 64 per cent. of the cases of chronic jaundice that I have examined, suggesting that in that proportion the condition was associated with, or was due to, an inflammatory lesion of the pancreas. In 30 per cent., that is to say in nearly half of these, the jaundice was dependent upon the presence of gall stones in the common bile duct. Common duct cholelithiasis does not necessarily give rise to chronic pancreatitis, for the gall stones may be in the supra-duodenal or retroduodenal portions of the duct, where they do not come into relation with the pancreas, and if in the pancreatic portion this may run behind the head of the pancreas instead of through it. Even when the intra-parietal portion of the duct is reached a small stone may pass without causing obstruction of the pancreatic duct if, as occasionally happens, the bile and pancreatic ducts enter the duodenum by separate openings instead of in the classical manner. Of my cases of common duct cholelithiasis 69.6 per cent. gave a positive pancreatic reaction, and 30.4 per cent. a negative result, which corresponds fairly closely with the 62 per cent. and 38 per cent. in which, according to Helly, the common bile duct lies imbedded in, and runs in a groove on the posterior surface of, the pancreas. If those in which no jaundice was present be excluded, 71 per cent. gave a positive reaction, and 29 per cent. a negative result. The slightly higher proportion giving a positive reaction than might theoretically be expected, especially in the jaundiced cases, is probably to be explained by a simultaneous infection of the bile and pancreatic ducts in the way I have explained. An associated cholangitis and pancreatitis is also the probable explanation of the positive pancreatic reaction obtained with 9 per cent. of the cases in which gall stones were found only in the gall bladder at operation.

With primary malignant disease of the pancreas the pancreatic reaction is usually negative, but in about 30 per cent. of cases it is positive, owing probably to the inflammatory changes set up in the gland tissue by the blocking of the pancreatic duct and the irritation of the rapidly extending growth.

Next to gall stones and malignant disease of the pancreas the most common diagnosis in chronic icterus is "catarrhal jaundice." It is usually, if not always, associated with gastro-intestinal disorders, and, owing to the close relation of the bile and pancreatic ducts to each other and to the duodenum, it is likely that there will be some pancreatitis in cases of this description. In the early stages the pancreatitis will be of the catarrhal type, resulting from obstruction of the ampulla of Vater and infection of the duct of Wirsung from the duodenum; but, if the intestinal catarrh remains unrelieved, and the accessory pancreatic duct is patent, the infection may be

accentuated in the way I have previously mentioned, and marked swelling of the head of the pancreas follow. Should the case be one where the common bile duct passes through the head of the pancreas, the inflamed gland tissue will compress the bile duct, intensifying the jaundice, and, as Mayo Robson has suggested, causing it to persist much longer than is usual, so that a suspicion of gall stones, or even of malignant disease of the pancreas or common duct, may arise. The presence of a positive pancreatic reaction in 80 per cent. of the cases of catarrhal jaundice that I have examined shows how frequently the condition is associated with active degenerative changes in the pancreas. Fifteen of my cases in which the analysis of the urine had pointed to the presence of pancreatitis have been operated on, because of the persistence of the jaundice, and an enlarged and hard pancreas was found in them all.

Growths of the common bile duct may or may not give rise to pancreatitis and a pancreatic reaction in the urine according to their situation and extent. I have had three cases of malignant disease of the ampulla of Vater and each gave a positive reaction, the growth acting like an impacted gall stone in that situation. Cancer of the upper portion of the duct or of the gall bladder may not at first cause pancreatitis, but as the growth extends down the duct it will set up inflammatory changes in the gland. Two of my cases of cancer of the common duct gave a positive pancreatic reaction and six a negative result. The jaundice in twelve of my cases was due to metastatic deposits of growth from primary malignant disease in various situations, and eleven of these gave a positive pancreatic reaction, pointing to the pancreas being invaded by the growth.

It will be seen that, while the pancreatic reaction in the urine is of value as showing the presence or absence of pancreatitis in cases of persistent jaundice, it does not by itself differentiate between the causes, which may be gall stones in the common duct, an ascending infection from the duodenum, malignant disease of the pancreas, or more rarely a growth of the common duct. In addition, the possibility of an inflammatory condition of the gland from disease of the heart, lungs or blood vessels, tubercle, syphilis, etc., with jaundice from other causes, has to be borne in mind. To make a satisfactory diagnosis, the whole of the results to be obtained by a thorough qualitative and quantitative analysis of the urine and faeces must be taken into account, and these again be checked by a consideration of the clinical signs and symptoms.

An analysis of the faeces is of importance in all cases of obstructive jaundice, and is particularly valuable where there is a suspicion of malignant disease. The percentage of unabsorbed fats, the relation between the saponified and unsaponified fats, the presence of stercobilin and occult blood, the results of the pancreatic insufficiency test, and the proportion of inorganic ash must be determined and carefully considered, for from them one can determine with a considerable degree of accuracy the extent of the pancreatic mischief, also whether the biliary obstruction is complete or not, and then infer whether one is dealing with a case of growth or simple obstruction.

The effects of the exclusion of bile from the intestine are shown in the faeces mainly by (1) defective absorption of fat; (2) an increase in intestinal putrefaction; and (3) loss of the faecal colouring matter.

*Fats.*

In the stomach fats undergo little or no change, but when they reach the small intestine they are attacked and broken down by the steapsin of the pancreatic juice into fatty acids and glycerine. A variable proportion of the former unites with the alkalis o the intestinal secretions to form soaps. The soaps thus formed, the uncombined fatty acids, and the glycerine are absorbed by the epithelial cells of the intestinal wall, and are there synthesized to again form neutral fats. The presence of bile favours the action of the pancreatic secretion by helping in the emulsification of the fat, through its alkalinity, and by directly reinforcing the activity of the tryptic ferment. It also makes the free fatty acids, which are insoluble in water, soluble, and increases the solubility of the alkaline soaps. If, therefore, the bile is excluded from the intestine the total amount of fat in the faeces will be increased and the greater part should consist of combined fatty acids or soaps. Such, in fact, is usually found to be the case in simple gall-stone obstruction and malignant disease of the common bile duct, or gall bladder, when the fat-splitting functions of the pancreas are being normally carried out. If, however, the digestive powers of the pancreas are interfered with, from obstruction of the duct of Wirsung by a stone, malignant disease of the head of the gland, or advanced cirrhosis, the cleavage of fats is also defective and they appear in the faeces mainly in the form of neutral fats and free fatty acids. In a typical case it is consequently possible to say whether there is simple biliary obstruction or serious interference with the digestive functions of the pancreas from one or other of the causes I have mentioned, by estimating the fats in the faeces and determining the proportions of saponified and unsaponified fats. The absence of digestive ferments does not, however, cause an entire cessation of the fat-splitting process, for, even in health, a certain amount of fat is broken down into fatty acids and glycerine through the activity of organisms of the colon group in the lower part of the small and upper part of the large intestine. If the activity and number of these bacteria is increased, as appears to be the case in intestinal catarrhs, they may bring about a considerable amount of fat digestion, but, since the fatty acids formed in this way are not absorbed during their passage through the colon and sigmoid but combine with alkalis, they appear in the faeces as soaps, chiefly of calcium and magnesium. Hence in catarrhal conditions of the intestine and also in catarrhal jaundice, it is usually found that the combined fatty acids are in excess and that the inorganic ash is also increased.

The greatest increase in the amount of total fat is seen in cancer of the pancreas, where I have found as much as 93 per cent. of the dry weight of the faeces to consist of fat. In gall-stone cases where there is jaundice and pancreatitis the total fat in my cases has averaged 56 per cent., and in 60 per cent. of them the unsaponified have been in excess of the saponified fats. Simple jaundice due to gall stones, where there has been no involvement of the pancreas, has given about the same reading of total fat in many instances, but in 75 per cent. the saponified have exceeded the unsaponified fats. Growths of the common bile duct, or gall bladder involving the common duct, produce much the same effects as gall stones, the saponified exceeding the unsaponified fats, except when the growth is situated at the ampulla of Vater or is invading the pancreas, when the unsaponified fats are in excess.

*Intestinal Putrefaction.*

The antiseptic action of bile has been much overrated. Its influence on putrefactive bacteria is very slight, and is quickly lost. Indirectly, however, the bile in the intestine has an important function in keeping the putrefactive processes within bounds by stimulating peristalsis, and so preventing stagnation of the intestinal contents. It also acts indirectly on putrefactive processes by aiding fat absorption, and so allowing more complete digestion of the proteid elements of the food. Absence of bile from the intestine, therefore, tends to favour constipation and irregular action of the bowels. The effects of the consequent excessive putrefaction are shown by the offensive smell and markedly alkaline reaction of the stools, and are seen in the urine in the shape of an increase in the ethereal sulphates, an excess of phenol and aromatic oxy-acids, and sometimes by a well-marked reaction for indican. These effects are more marked when there is an associated intestinal catarrh, and are more commonly seen in catarrhal jaundice than in jaundice due to gall-stone obstruction. The presence of pancreatic disease modifies the condition of the stools. If the functions of the pancreas are seriously interfered with, the motions become more bulky, often very strikingly so, are more frequent, and have an acid reaction; the odour, too, is somewhat different, resembling that of rancid bacon.

*Colour.*

Complete diversion of the bile from the intestine gives to the faeces a light grey or slaty tint, producing the so-called "clay-coloured" stools. It should be remembered, however, that although the presence of the normal brown colour of the faeces may be taken as satisfactory evidence that bile is freely passing into the intestine, the existence of "clay-coloured" motions is not of itself a conclusive

sign that there is complete biliary obstruction. This is a most important point to determine with certainty, for while complete obstruction is the exception in gall-stone cases, it is the rule when the obstruction is due to malignant disease of the head of the pancreas. Chemical examination of the faeces in the cases I have investigated has shown that in over 60 per cent. with cancer of the pancreas no stercobilin could be found, and in 34 per cent. only traces could be discovered, whereas traces at least of stercobilin were found in every instance where the obstruction was due to gall stones, and in 82 per cent. a well-marked reaction was obtained, in spite of the fact that in many of them the faeces were quite white to the naked eye. Traces of stercobilin are usually found in malignant disease of the common bile duct and cancer of the gall bladder invading the common duct, for in these the growth is usually of a soft character and allows a certain amount of bile to percolate through, unlike the scirrhous growth of the head of the pancreas which compresses the duct tightly from without. The white appearance of the faeces is usually most striking when the obstruction of the bile flow is associated with well-marked pancreatic disease. The peculiar glistening, silvery character of the motions in these cases appears to be due partly to the presence of fatty acid crystals, which act upon light like snow and other finely crystalline bodies, and partly to the action of anaërobic bacteria, which reduce any bile pigment that may be present to a colourless form.

In catarrhal jaundice the unabsorbed fat is intimately mixed with the other constituents of the faeces and the exudates from the intestinal walls, so that the motions are of a light-grey colour and have a peculiar salve-like consistency. They give a well-marked reaction for stercobilin on chemical analysis.

*The Pancreatic Insufficiency Tests.*

The pancreatic insufficiency tests of Gross and Heiberd give useful indications as to the functional activity of the pancreas, but they only show very gross changes in the digestive powers of the gland, and so are of limited use when taken alone. A negative pancreatic insufficiency test—that is to say, one in which there is normal casein digestion—shows that there is no serious interference with the digestive functions of the pancreas, and in jaundice cases is against a diagnosis of malignant disease of the pancreas. A well-marked positive result points to malignant disease, advanced cirrhosis of the gland, or blocking of the duct of Wirsung by a gall stone impacted in the ampulla of Vater. In cirrhosis of the pancreas and blocking of the duct by gall stones one almost always finds, however, that there is some casein digestion, so that the more incomplete the digestion the more likely is it that the jaundice is due to obstruction of the common bile duct by malignant disease of the head of the pancreas.

*Occult Blood.*

The constant presence of occult blood in the faeces is suggestive of malignant disease somewhere in the course of the gastro-intestinal tract. Its intermittent presence points to simple ulceration. In cases of cancer of the pancreas, common bile duct, or gall bladder, occult blood occurs in the faeces with great constancy, so that a positive reaction in a case of deep jaundice, especially if it is found on four or five consecutive days, points to the jaundice being due to a growth in one or other of these situations. A positive result may also be due to malignant disease of the stomach or intestine with glands in the portal fissure, or more rarely to advanced simple chronic pancreatitis, but a consideration of the results obtained by other methods of examination will usually decide to which of these it is to be attributed.

*Inorganic Ash.*

Normally the inorganic ash of the faeces constitutes from 10 to 15 per cent. of the dry weight, but when from any cause there is a catarrh of the intestinal walls this percentage is considerably increased. One, therefore, usually finds that there is an excess of inorganic ash in catarrhal jaundice and in cases where the jaundice is secondary to growths of the intestinal canal, particularly the colon.

By a timely and correct diagnosis, such as is possible from a careful consideration of the clinical history and symptoms, and the information to be obtained by a thorough analysis of the urine and faeces, the complications and sequelae likely to arise in cases of chronic jaundice, such as serious disease of the pancreas, cholangitis, cirrhosis of the liver, etc., may be avoided. Delay is always dangerous, and it is useless to await developments until the case is only of interest to a pathological anatomist. The cause of the jaundice must be determined at the earliest possible moment and the treatment be based upon the conclusion arrived at. A diagnosis of gall stones obstructing the bile duct, made on the clinical data and confirmed by an examination of the excreta, calls for immediate operation, as the only likely spontaneous cure is Nature's crude and dangerous remedy of making a fistula by which the stone may escape into the duodenum, or elsewhere. Catarrhal jaundice very frequently clears up spontaneously, but if after six weeks' rest in bed, with dieting and medical treatment, the jaundice persists and the urinary "pancreatic" reaction is positive, it is advisable to invoke the aid of the surgeon to perform a short-circuiting operation to avoid further damage to the pancreas. In the last stages of malignant disease operation is only likely to shorten the brief span of life still left to the patient, but in the earlier stages much may be done to make existence more bearable by a cholecystotomy or cholecystenterostomy to relieve the intolerable itching of which complaint is chiefly made. At the same time it is well to bear in mind that many cases diagnosed clinically as inoperable carcinoma of the pancreas have been shown on chemical examination of the urine and faeces, and by their after-history, to be suffering from chronic inflammation of the gland capable of retrogression.

REFERENCE.

1 *Surgery, Gynaecology, and Obstetrics*, January, 1908, p. 22.

## OBSERVATIONS ON THE URINES OF MARATHON RUNNERS.

BY GRAHAM CHAMBERS, B.A., M.B.,

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SINCE von Leube in 1877 reported his observations on the urines of soldiers a number of reports bearing on the relation of albuminuria to physical exertion have appeared, but still the literature is not as plentiful as one might desire. It occurred to me, therefore, that some observations made on urines of Marathon runners might prove instructive and of value to those interested in the subject.

The subjects of the investigation were eight athletes who competed in a Marathon race at Toronto on May 24th, 1910. The race began at 8.30 p.m., and three hours before the contestants ate fairly heavy meals of beef, bread, butter, etc. The urines were obtained immediately before and again immediately after the race, and analysed, tests being made for "nucleo-albumen" (Mörner body), albumen, globulin, sugar, and indican, and the sediment examined microscopically.

The results showed several interesting features. The urine of one contestant, who, on account of abdominal pain and vomiting, was forced to quit in the seventh mile, contained a great excess of indican both before and after the race. I may mention that this runner's previous records had been the best of all the contestants, and in this race he was looked upon as a likely winner.

This observation shows the importance of keeping the digestion of an athlete in a healthy condition, a point which I think is recognized by trainers.

Another interesting feature was the presence of hyalin and faintly granular casts in a urine voided after the race, although "nucleo-albumen," albumen and globulin were absent.

One might also make special mention of the presence of calcium oxalate crystals in the sediments of five of the eight specimens collected before the race. After the contest the urines of the same runners contained the same crystals in their sediments, but they were much less plentiful in each specimen. Indeed, in three of the five they were found only after examining several slides.

The following is a tabulated summary of the important points of the analyses:

*Before the Race.*

1. "Nucleo-albumen," albumen, globulin and sugar absent in every specimen.
2. Indican present in much excess in one urine. In the other specimens it was present in normal quantities.
3. The sediments, which appeared normal to the naked eye, showed nothing abnormal microscopically except oxalate crystals which were present in five of the eight specimens.

*After the Race.*

1. Seven specimens contained "nucleo-albumen," albumen, and globulin, and in the sediments hyalin and faintly-granular casts, and epithelial cells. In three of these there were in the sediments red blood corpuscles; in five calcium oxalate crystals sparsely distributed.
2. One specimen was free from "nucleo-albumen," albumen, and globulin, but contained hyalin and faintly-granular casts in the sediment.
3. Sugar absent in all.
4. The tests for indican gave practically the same results as those before the contest.

## INTUSSUSCEPTION OF THE APPENDIX.

BY

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CASES of intussusception of the appendix caeci have been grouped into three varieties by Kelly. In the first of these the presence of the appendix is a mere incident, being compelled to travel with the intussuscepted colon. In the second the base of the appendix forms the apex of the intussusception, and in the third the appendix is completely or partially inverted, like the finger of a glove, "with or without invertion of caecum, colon, or ileum."

The first case I desire to record does not quite correspond to any of these, but may, perhaps, be included in the first group:

A. S., aged 6, admitted to hospital December 13th, 1909. Slipped on ice, injuring, apparently slightly, the abdomen. Soon after he began to complain of pain in the abdomen, but continued to attend school for a week. The pain was not constant, but occurred in paroxysms, which increased in force and frequency, and was referred to the umbilicus. At home he was treated vigorously with aperients.

I saw him about a week after the onset, and found him suffering severe pain, screaming in agony. A coil of intestine in active peristalsis could be seen to the right of the umbilicus, transverse in direction. He was sent to Wakefield Hospital with a view to early operation. Next morning, however, the pain had greatly diminished, and within a day or two disappeared entirely. At this stage nothing could be felt on palpation; there was no rigidity, no tympany, no pain or tenderness. There was no vomiting at any time, no blood and mucus in stools. Rectal examination revealed nothing. Temperature was always normal. Bowels acted regularly, and urine was normal.

Gradually he returned to ordinary diet and began to get up, and at Christmas he had the extras that the season brings, but no recurrence of pain took place. He was sent home, and the pain returned almost at once.

On readmission the pain quickly subsided, still it was evident that the boy was not thriving, and seemed to be losing weight. On January 25th, 1910, with a tentative diagnosis of appendicular colic, the abdomen was opened by the incision of Battle. The caecum, which was on the level of the umbilicus, could be felt to contain an apparently solid body. The meso-caecum was long, and the caecum was brought into the wound. The base of the appendix was located in its usual position; from this point it passed outwards almost transversely, closely adherent to the caecum in its course for almost 1¼ in.; it then took an almost rectangular turn and disappeared into an invagination of the caecum.

The condition was therefore an invagination of the caecum containing the terminal inch of the appendix. An effort was made to reduce the intussusception, but ordinary methods—namely, expression, expression with slight traction—failed.

The caecum was then incised anteriorly and pressure made from within on the congested hard conical, apparently solid intussusception. Gentle effort was of no avail; less gentle effort merely succeeded in rupturing the caecal wall round the ostium.

The intussusception was then incised, and in it was seen the terminal portion of the appendix closely adherent to the inner side of the invaginated caecum almost to the tip. The tip was loosely attached to the caecal wall. The neighbouring mesenteric glands were enlarged. The caecum was resected. Whey milk and water was given from the first. Bowels acted at the end of the second day, and the child got up on the tenth day. The appendix, though not pursuing a straight course, still seemed tightly stretched from base to apex, and it seemed as if the size of the intussusception was regulated by the length of the appendix.

Was the accident the cause of the condition? A case is recorded in "Kelly and Hurdon" in which a similar injury was supposed to be the cause of a somewhat similar condition. Was the presence of the appendix a mere incident in the case? The curved course of the appendix would seem to indicate that the thickening of the caecal wall was the primary condition. "Any inflammatory process in the head of the caecum causing a localized thickening of its walls would offer a convenient grip for the circular muscle of the bowel to catch and exercise propulsive force in the direction of the current" (Kelly and Hurdon). Or was there paralysis of part of the caecal wall from haemorrhage, and hence intussusception (Sutherland)? The long intervals of freedom from pain or tenderness when taking ordinary diet were remarkable, but still the child was thinner.

Perhaps, at any rate in a somewhat earlier case, a better, and certainly less severe, method of treating such a case would be to detach the appendix at its base and from the caecal wall outside the invagination. Then incise the caecum in a circular manner round the ostium and remove the invaginated part entire with the contained appendix.

The second case was primarily one of Henoch's purpura in a boy aged 4. He was admitted, April 14th, 1908, with swelling and pain in the knee-joints, and a rash resembling that of chicken-pox and haematuria.

About a fortnight after the onset of the illness severe pain in the abdomen set in, with stools of blood and mucus. I saw him two days after this, and now vomiting had begun, and increased till he could retain nothing. There was slight distension of the abdomen; no definite tumour could be felt, but there was rigidity of the right side. At the operation was found an invagination of the caecum, containing the whole of the appendix, the base of the latter forming the apex of the intussusception. It was reduced with ease, and the expressed appendix stood up rigid and vertical, inviting the extirpation which was its fate. Recovery was uneventful. Albuminuria persisted for six months, but the patient is now in excellent health.

**Lorenz maintains that intussusceptions in this region begin, not at the ileo-caecal valve, but originate by a rolling in of the caecum itself. In this case the caecum must have rolled in sufficiently to obstruct the ileo-caecal orifice, and is an example of the invaginatio caeco-colica of Lorenz—a potential intussusception of the ordinary variety.**

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A FRENCH Anthropological Institute has recently been founded in connexion with the Natural History Museum of Paris where there is an anthropological laboratory. The Institute evidently accepts in the fullest sense Pope's dictum that the proper study of mankind is man, and intends to study him in all his aspects. In addition to what may be called anthropologists pure and simple, it is intended that the Institute shall include in its membership palaeontologists, zoloogists, biologists, physiologists, psychologists, linguists, archaeologists, sociologists, geologists, ethnologists, travellers—the list is as long and as varied as that of Don Giovanni's conquests. The President is M. Salomon Reinach; the Secretary-General, M. Lapicque.

THE third International Laryngo-Rhinological Congress will be held at Berlin this year (August 30th to September 2nd) under the presidency of Professor Bernhard Fraenkel. The following is the programme of discussions: (1) The relations of experimental phonetics with laryngology; to be opened with reports from Drs. Gutzmann of Berlin and Struyken of Breda. (2) Bronchoscopy and oesophagoscopy—indications and contraindications; to be introduced by Drs. Killian of Freiburg, Kehler of Vienna, and Chevalier Jackson of Pittsburg, U.S.A. (3) The lymphatic apparatus of the nose and the naso-pharynx in relation to other bodies; to be opened by Drs. Broeckaert of Ghent, Poli of Genoa, and Logan Turner of Edinburgh. (4) The so-called naso-pharyngeal fibromata: the site and manner of their attachment and their treatment; to be opened by Drs. Jacques of Nancy and Hellat of St. Petersburg. All communications relative to the congress should be addressed to the secretary, Professor Rosenberg, 26 Schiffbauerdamm, Berlin, N.W.

# A Clinical Lecture
ON
# CHRONIC TRAUMATIC MASTITIS.

BY
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[*With Special Plate.*]

FOR many reasons the term "traumatic mastitis" has been applied to the class of case I am about to describe. I have not been able to adduce any opsonic indication of an infective process, although cases have been tested, before and after massage, for staphylococcus, streptococcus, pneumococcus, and *Bacterium coli communis* infections; neither has there been any disturbance of temperature when regularly taken, nor in the quantitative and qualitative estimation of leucocytes in the blood. There was no enlargement of lymphatic glands. In two cases I have been allowed to puncture the centre of inflamed nodules; there was no growth on the media inoculated, nor were any micro-organisms stained in the blood extracted from the inflammatory foci. Moreover, the cases recovered when perfectly adjusted corsets and mammary supports were applied.

Added to all these negative points there remains the fact that I have not been able to examine efficiently the actual lesions, because they recovered, and there was no justification for adopting operative procedure. Therefore I am not justified in asserting positively that there is no infective agent in them; but, after all, the practical fact remains that the pathological state of affairs can be prevented and cured by corsets and mammary supports which are properly applied and properly made.

In chronic traumatic mastitis one breast may be affected, in which case it is usually the right; but the affection is more commonly observed in both breasts. The condition is usually worse at the menstrual periods. There are generally two or many painful, tender and hard lumps in the breast. The pain is increased by the jolting of coming downstairs or walking on hard pavements and so forth. The lumps are situated most commonly in the lower and outer parts of the breast, but they are not infrequently found in the extension of the gland towards the axilla, at the lower and inner parts of the gland, and at the edge of the inner part; the situation of the cancer in Fig. 3 is an example of the last. There is sometimes a history of the lumps getting smaller and larger, and during their resolution one comparatively large lump may be observed becoming two small discrete nodules before disappearing. There is no abnormal adhesion of the lumps to the skin, and no enlarged lymphatic glands can be felt. In the case of a young girl blood escaped from the nipple after the patient had bent quickly forward, an act which caused a staybone to dig into the breast at about the situation seen in Fig. 1A. The corset and breast supports in this case were properly adjusted, and there has been no more trouble. In another case the skin was actually bruised by the impact of the staybones upon the breast when the patient bent forwards. I may state here that the bodice of the dress is often stiffened by whalebone or steel supports, and on these the breasts may be impaled in bending either forward or laterally.

Some patients realize that the stays are causing their trouble, and come up with their staybones and steels bent, broken, or removed: or having already adopted a form of corset designed to remedy their condition, after having consulted a corset maker. But most of them have no idea of connecting the cause and effect.

I believe that corset makers do not sufficiently realize that when the patient bends forwards or laterally, even when wearing what appear to be sufficiently low corsets, the breasts practically may be impaled upon the tops of the bones or steels.

The disease is rarely acute enough to necessitate the advice of rest in bed and hot fomentations.

From what has been said, you will realize that the corsets which are worn by these patients are the main cause of the continuation of the symptoms, if not actually their originating factor. I believe these corsets are in most cases the determining cause of this variety of mastitis.

I cannot show you microscopical sections of this condition, because all my cases have recovered and no excision has been necessary. I could show some interesting sections which I have made of breasts, removed *post mortem*, which were supposed to be normal; but I would rather make that the subject of another lecture. Perhaps, however, I may be allowed to digress in order to say that when sections of them are observed under the microscope one finds in some of these cases: (*a*) Chronic mastitis—that is to say, a condition in which lymphocytes, spindle cells, and a few polynuclear leucocytes are seen between the alveoli of the glands, and an immense amount of fibrous tissue separating one cluster of alveoli from its neighbours; (*b*) in other breasts one sees much epithelial proliferation into the alveoli and ducts; (*c*) in other breasts there are to be seen multiple cysts, lined by cubical epithelium, into which are growing intracystic papillomata—the epithelium covering which can be seen to be undergoing regular mitosis; (*d*) whilst in other cases there are signs of tissue proliferation which I have shown to various authorities, some of whom believe that the appearances indicate early duct cancer until I inform them that they have been looking at sections made from breasts taken *post mortem* from patients who died of renal or heart or lung troubles, as the case may have been, and in which no breast symptoms were complained of; (*e*) in yet other cases a combination of any of the above changes may be seen in the same breast. I have never seen in any of these cases an unsuspected alveolar carcinoma.

I refer to these interesting sections not because I believe that they result from traumatic mastitis, although some of the mastitis observed in them may have been traumatic, but because it is important to know that a great deal of pathological change may be taking place in breasts which are apparently normal—a fact which emphasizes the importance of keeping all breasts free from chronic traumatic irritation.

As I have said, the main causes of this type of mastitis are corsets which have not been made upon hygienic principles; and most of the corsets at present worn certainly have not been made and fitted upon these lines.

Traumatic mastitis can be prevented and cured by corsets properly made. Such corsets may be of two kinds; the better, in my opinion, I will describe first.

1. Corsets which are made so low that a breast cannot be impaled upon them, whatever position a woman may assume. A pair of corsets of this kind cannot support the breast, and a corselet must be worn where support is necessary. A corselet may be one of many kinds, but I believe one of the most efficient to be that seen in Figs. 5 and 6. This corselet consists of several turns of

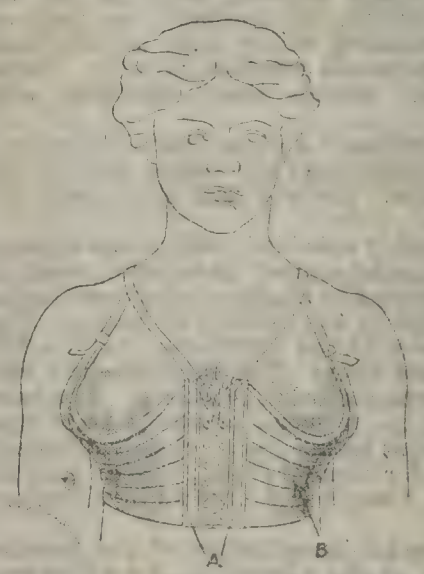

Fig. 5.

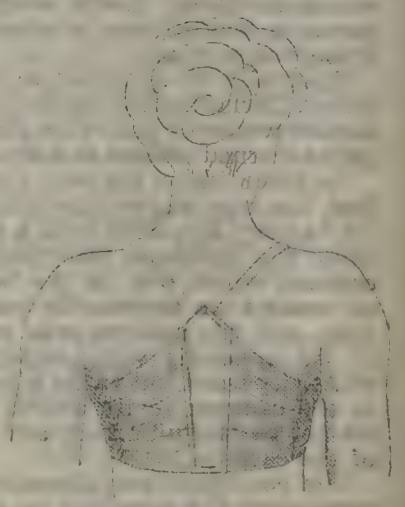
Fig. 6.

webbing adapted to the lower portion of the thorax and shaped to contain the breasts. It is constructed on the principle of a many-tailed bandage; the turns are fixed to a stiffening material behind; in front they end in busks, which must be well padded, especially at the top. The lower border is fixed in front and behind to the corset; the upper border does not reach to the level of the nipples in order to obviate any pressure on them. The corselet is, in the main, self-supporting, but elastic braces

PLATE I.

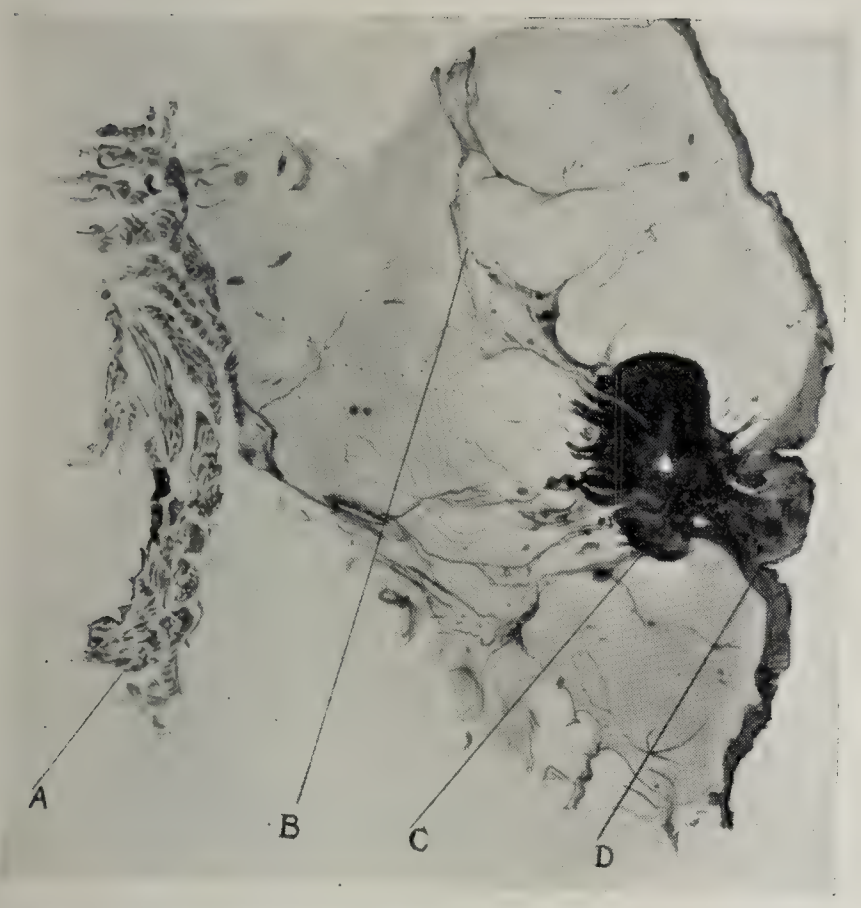


FIG. 1.—ANTERO-POSTERIOR SECTION IN VERTICAL PLANE OF BREAST, SHOWING POSITION OF CANCER IN CASE I. A, Pectoralis major; B, atrophied breast tissue; C, cancer; D, nipple.

FIG. 1A.—DIAGRAM TO SHOW PRESSURE OF STAY BONE AT SITE OF CANCER IN CASE I.

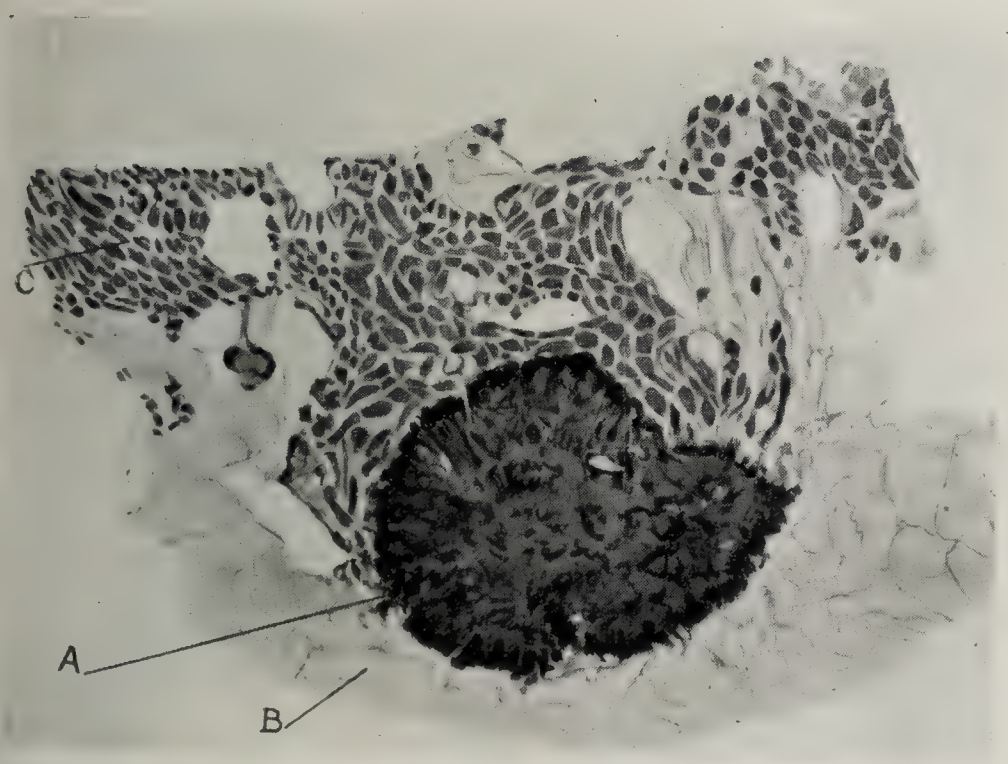


FIG. 2.—VERTICAL SECTION IN TRANSVERSE PLANE, SHOWING CANCER AT OUTER MARGIN OF BREAST IN CASE II. A, Cancer; B, subcutaneous fat; C, normal breast tissue.

FIG. 2A.—DIAGRAM SHOWING STAY BONE PRESSING ON THE CANCER IN CASE II.

TO ILLUSTRATE MR. G. LENTHAL CHEATLE'S LECTURE.

## PLATE II.

FIG. 3.—ANTERO-POSTERIOR SECTION IN HORIZONTAL PLANE OF BREAST, SHOWING CANCER AT INNER MARGIN IN CASE III. A, Pectoralis major; B, cancer; C, nipple.

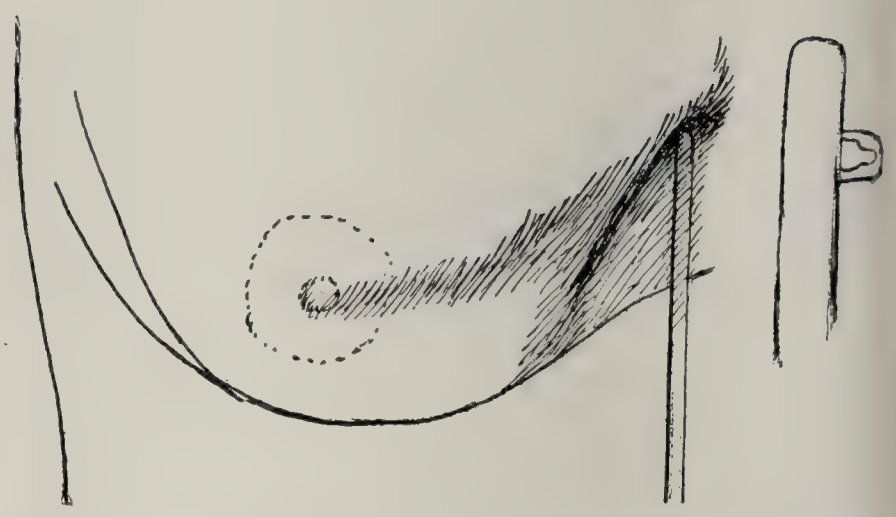

FIG. 3A.—SHOWING THE POINT OF IMPACT OF STAY BONE AT SITE OF CANCER IN CASE III.

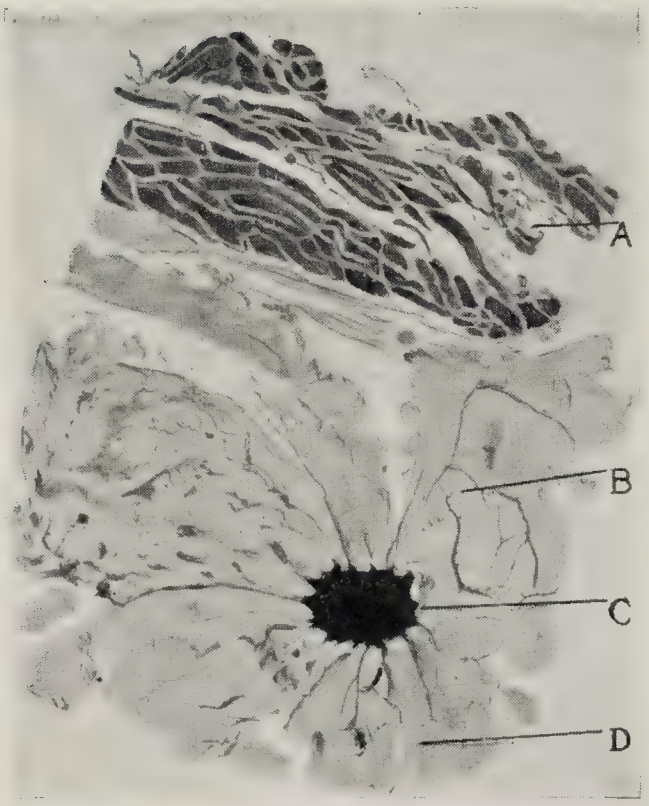


FIG. 4.—ANTERO-POSTERIOR SECTION IN VERTICAL PLANE OF CANCER AT OUTER MARGIN IN CASE IV. A, Pectoralis major; B, atrophied breast tissue; C, cancer; D, subcutaneous fat.

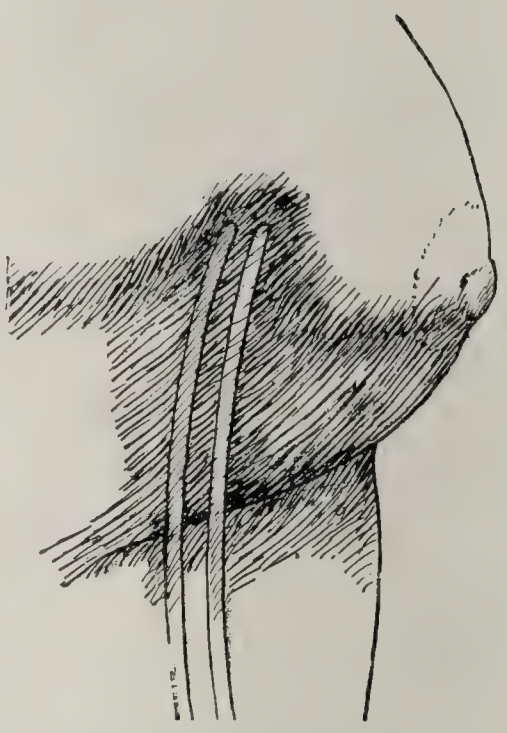

FIG. 4A.—DIAGRAM SHOWING PRESSURE OF STAY BONE ON CANCER IN CASE IV.

TO ILLUSTRATE MR. G. LENTHAL CHEATLE'S LECTURE.

are carried over the shoulders; these join it in the middle line behind, while in front they bifurcate above the breasts, one strap passing to the corresponding busk, the other to the side of the corselet in relation to the anterior fold of the axilla where it supports the axillary expansion of the breast. Each corselet must be made for and fitted upon the individual wearer. In my opinion this is the best system of treating the malady under consideration, but some women will not allow it in any circumstances, not because they are uncomfortable or are not relieved—they admit they are. Fashion steps in and abjures it. It seems that altering the type of stays often necessitates remaking the whole of the lady's outfit. For such cases I advise the second type, namely:

2. Corsets which are made so high that the breast cannot be impaled on any of their bones or steels whatever position the woman may assume. These corsets also require a pad to prevent undue pressure at the top of the front fastening. My objection to these corsets is that the breasts fall into V-shaped cavities and are more or less pinched between the corsets and the chest wall as well as being pushed upwards and towards each other. Further, the nipples are pressed either upwards or backwards, and I cannot suggest any means of protecting them which women will wear. I believe it to be important to protect the nipples as much as possible, considering their important nervous, vascular, and lymphatic relations.

Dangerous corsets, and those which cause most of the trouble, are neither too high nor too low to prevent the breasts from being impaled upon their bones or steels when the wearers bend forwards or laterally. Such corsets look perfectly harmless when the patient is standing and sitting, but directly the body is bent either forwards or laterally the steels and bones can be seen to dig into the breast, as in Figs. 1A, 2A, 3A, 4A. Very often a patient will come to consult a surgeon in new corsets which do not appear to be in any way connected with the changes in the breasts; but when he sees those which were in constant use, the cause and effects are often very obvious.

I would draw your attention to the relation between chronic irritation and cancer. In this connexion I have repeatedly seen cases in which the position of cancer in the breast corresponded exactly to the site of bone pressure of the stays (see Figs. 1A, 2A, 3A, 4A, which are reproduced from the actual cases of cancer of the breast seen in Figs. 1, 2, 3, 4 respectively). Were inquiry to stop here, one would imagine a strong case had been proved, and that a definite relation existed between the constant irritation from bone pressure of stays and cancer of the breast. But on investigating the matter further, I must say that I have also seen cases of cancer of the breast in which the corsets worn could not be definitely anatomically associated with the disease; for I have seen people with severe corset pressure on the lower parts of the breasts, but cancer appeared in the upper parts, where no pressure of the kind existed; and I have had patients suffering from cancer of the breast who had never worn corsets at all, and in many of these cases the cancers were situated exactly where injurious bone pressure would have been expected, that is, in the lower and outer margins of the glands. Lastly, although I have shown you cases where cancer has appeared exactly on the parts where staybones have pressed habitually, I have never seen a case of chronic traumatic mastitis from this cause develop into cancer; and it is rare to see a case of cancer in a breast which is also suffering from chronic mastitis from any cause. I do not believe that a breast suffering from chronic mastitis is very likely to be the seat of a cancer. The relation is by no means so close as that which exists between chronic superficial glossitis and squamous epithelioma, or between leucoplakia around the vulva or anus and squamous epithelioma. Hence I am not justified in assuming that because cancer appears in most cases where direct local irritation is applied, this direct local irritation is the cause. At the same time one must realize that it is very common to find staybones impaling a breast at the point where cancer exists, as seen in Cases 1, 2, 3 and 4, which are only examples of a long series of cases. Still, the relation between cancer of the breast and corset irritation cannot stand merely on the fact that the same area of the breast is affected by the two conditions. It must stand upon the evidence afforded elsewhere of a definite relation between chronic irritation and cancer, a subject which I have discussed in an article entitled Biotripsis, or Lifewear, in the BRITISH MEDICAL JOURNAL, June 12th, 1909. Ample reasons exist for insisting that patients should never wear anything that can act as a constant source of irritation, especially to epithelial tissue, subject to such varying activity as that of the mammary gland.

## AN UNUSUAL FORM OF PERINEAL HERNIA.

BY

A. G. ATKINSON, B.A.CANTAB., M.R.C.S., L.R.C.P.,

UPPER NORWOOD.

THE following case of hernia appears to be one of sufficient interest and rarity to be placed on record. The patient was a fairly well nourished premature (8 months) female child, aged 3 weeks. Nothing had been noticed to be wrong with the child until the morning on which she was admitted to the General Infirmary, Salisbury. That morning it was found that there was a large bleeding mass in the vulva:

*State on Admission.*

When taken into the hospital a few hours later, an intensely congested pyriform swelling, bleeding readily when touched, was found lying between the labia. It measured about 1½ in. in length, and 1 in. in diameter, narrowing at its attached end to a thick, short pedicle. The mass projected backwards, covering the vaginal orifice and anus. On turning it forwards, the vagina was found to be unobstructed, and the pedicle was seen emerging from the urethral orifice. A probe passed readily along the urethra, anterior to the pedicle, but could not be swept round it posteriorly. The probe passed into the bladder for a distance of about 2 in. No reduction was possible, and one could not determine whether any gut was present in the sac.

*Operation.*

The child was operated upon the same evening, and the mass was found to be a thick-walled congested sac, containing a little fluid only. A probe passed readily into the general peritoneal cavity. The sac was removed after ligature of its neck. The stump retracted into the urethra, leaving the external parts quite normal in appearance. There was no difficulty in micturition after the operation, and recovery was uninterrupted.

*Histology.*

Histological examination showed an outer layer of stratified epithelium derived either from bladder or urethra. There was an endothelial lining, presumably peritoneal, a layer of smooth muscular fibres and connective tissue intervening.

There seems little doubt that the hernia was congenital; whether it had been unnoticed by the nurse until the bleeding from abrasion of the congested mucous membrane, and increase in size from partial strangulation made it obvious, or whether it was recently extruded from the meatus, I am unable to decide. The abraded condition of the mucous membrane covering it pointed to the first alternative rather than the second. As there was no difficulty with micturition either before or after operation, one would conclude that the urethra only was involved, and not the trigone or base of the bladder.

The hernia would seem to have arisen from an abnormally deep vesico-uterine pouch, passing down between the urethra and vagina. From this the sac passed forward through the posterior wall of the urethra, being then extruded through the urinary meatus. I have been unable to find any record of a similar case. Macready (*A Treatise on Ruptures*, 1893), discussing 40 recorded cases of perineal hernia, does not include this form, but quotes a case in which the sac appears to have come down between the bladder and vagina, bulging into both cavities.

I am indebted to Mr. H. L. E. Wilks, who operated upon the child, for permission to record the case.

DURING the current winter semester (1910-11) the number of medical students in the several universities of Switzerland is as follows: Basle, 183 (175 men, 8 women); Berne, 351 (190 men, 161 women); Geneva, 584 (289 men, 295 women); Lausanne, 299 (173 men, 126 women); Zurich, 432 (272 men, 160 women); total, 1,849 (1,099 men, 750 women). Of the whole number, 655 are Swiss, and of these 45 are women.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### DIPHTHERIA ANTITOXIN BY THE MOUTH.

I HAVE read with much interest Dr. E. W. Goodall's paper published in the JOURNAL of February 11th. As Dr. Goodall, with his vast experience of the serum treatment of diphtheria, states that he has none of its use by mouth, the following notes of a case under my care last year may be of some interest.

G. O., a boy aged 6 years, had adenoids removed on February 12th, 1910, by a well-known London laryngologist. Every care was taken to sterilize the instruments and swabs. He was seen by the operator the following day, and by February 15th he was apparently quite well again. The next day I was sent for, as the child had sore throat, and seemed feverish. I found him with temperature 101° and some redness of the fauces. This resisted general and local treatment, and on February 18th his temperature was 105°, there was great swelling and redness of the tonsils, soft palate, and pharynx, and swelling and tenderness of the cervical glands. There was no false membrane present, and I assured the parents that the acuteness of the infection negatived diphtheria. I saw the child again that night, when his condition was unchanged, and the case appeared one of virulent septic sore throat.

The following morning (February 19th) I saw the child early. He looked worse; the temperature was still 105°, but there was definite false membrane visible on the soft palate and left tonsil. The child lived some three miles from my house, and I did not care to leave him, so I telephoned for a swab, antitoxin, and a second opinion, asking the consultant to bring with him a syringe.

Meanwhile I gave the boy 2,000 units Burroughs and Wellcome's antitoxin by the mouth, and sent along with the swab a note to Dr. Galt, Pathologist to the Stephen Ralli Memorial Laboratory, Sussex County Hospital, asking him to give an opinion, if possible, from direct examination of the smear. On the consultant's arrival he reassured the parents that the case was not diphtheria, and supported the original diagnosis. As the day went on the temperature fell, and at 2 p.m. was 102.6°. Dr. Galt reported that direct examination was highly suspicious of diphtheria. The temperature continued to fall, the child complained less of pain, swallowed more freely, and had some sleep, and at 10 p.m. the temperature was down to 98°. The result of culture was reported as pure Klebs-Loeffler bacillus, and accordingly, to "mak' siccar," another dose of 2,000 units was administered hypodermically into the back. The following day the patient coughed up the membrane but swallowed it before the nurse could secure it. There was no further pyrexia.

The bacteriological diagnosis received ample clinical support. There was for three weeks albuminuria, ocular and pharyngeal paralysis, and loss of knee-jerks, but by March 12th the throat was free from bacilli, and on March 19th I ceased to attend. On March 31st his mother telephoned to me to come out as he was "walking about like Henry Irving." I found him in the nursery with bent head and chin on breast in an attitude reminiscent of the famous tragedian, but this paresis of the posterior cervical muscles cleared up, and in the end he made a perfect recovery.

While every one will support Dr. Goodall in his advocacy of the hypodermic administration of antitoxin, there are occasions when such use may be inadvisable or impossible. In a vigorous child we have to deal with resistance from the patient, thereby taxing the heart, and in the case described above the injection was given under chloroform. A syringe may not be available for some time, or may be broken accidentally, and yet antitoxin be at hand and time saved by oral administration. Again, in mild and doubtful cases a dose of antitoxin given by the mouth may afford valuable information to the medical attendant and benefit to the patient, when hypodermic administration is considered unjustifiable or objected to by the patient or parents. The rapid improvement in this case within twelve hours of swallowing the antitoxin was preceded by three days of energetic treatment, during which the throat became worse instead of better, and to my mind the antitoxin given by the mouth had specific action.

I may add that, owing to the delay in the diagnosis, prophylactic doses of antitoxin were injected into the parents and nurses, to whom and to the patient calcium lactate was given by the mouth. There was no rash or other after-effect, but, after the very clear and able manner in which Dr. Goodall has pointed out the risk of "anaphylaxis," I for one shall be more careful in inquiring into the history before giving a prophylactic dose in future.

Brighton. DONALD HALL, M.D.Cantab.

### POINTS CONNECTED WITH THE SERUM TREATMENT OF DIPHTHERIA.

DR. GOODALL'S paper published in the BRITISH MEDICAL JOURNAL of February 11th adds an important factor to and is a timely warning of the possible dangers of the treatment, but I hope, even in view of those cases, the prophylatic treatment will not be retarded, and that Dr. Goodall himself hardly intends to convey as strong an impression as his words, "I am quite averse from using antitoxin as a prophylactic," appear to imply. I have collected during the last twelve years many notes, but only give those directly bearing on the point in question. For example, Le Play, reporting from Marfan's clinic in Paris, records that 671 prophylactic injections were given to the brothers and sisters of those admitted into the hospital, and not a single one took diphtheria. The cases taken were consecutive, all were verified by bacteriological examination repeated several times, and they came from small and crowded houses. This is surely strong presumptive evidence of the value of antitoxin as a prophylactic agent. There is no record of untoward results from these injections.

I have never seen the serum fail as a protective agent, and have repeatedly injected many brothers and sisters and contacts of patients who were not isolated, and have never had a second case.

I had a recent instructive control test. The patient had a severe attack, with much membrane; four smaller children and the mother were injected, and allowed to sleep in the same room—in fact, two children in the same bed; none took diphtheria. The father was at work when I called, and was not injected; a few days later he developed a fairly severe attack. In all cases a bacteriological examination was made.

It would be of much value if in all records of untoward results from the injection of the serum it should, if possible, be stated—

1. The source of the serum.
2. The age.
3. The amount injected.
4. The method of standardization.
5. The conditions under which it has been stored.
6. The patient's general medical history.
7. The number of bacteriological examinations made of swabs from the throat.

The dosage I believe to be a most important factor 2,000 units as a prophylactic being apparently an efficient amount. It is highly probable that larger doses may in some cases give rise to undesirable results. In the United States, for example, I find that large doses are the rule; and untoward results, such as local and glandular swellings, rashes, joint manifestations, and general toxaemia, common. I also do not find the mortality low, but this I do not consider a reliable guide as to the value of the treatment. It is possible that divergent statistics as to mortality depend not chiefly on the severity of the epidemic, but are due to the main factors underlying the administration of the serum, varying in different hospitals.

To arrive at statistics of any value, the records should state (1) the conditions previously enumerated; (2) the day of the disease when injected. It is fairly well established that serum efficiency varies directly with the day of the disease. Previously statistics were misleading, as the mortality depended so much on the number of laryngeal cases and their treatment; now it depends chiefly on the anginal cases.

I believe it may be found that early in the disease not only is a small dose—2,000 units—more effectual, but a comparatively large dose may do harm; the later the day of disease the larger the dose necessary. The amount of membrane is probably not a reliable guide as to the dose necessary, nor its non-disappearance a positive indication for increasing the dose. It is probable that early in the infection there is a diminution in the antitropic content of the blood serum, and that a large dose may prolong this stage and do much harm.

It has been shown in other infections that in the ebb stage mentioned above there is a greatly increased susceptibility to infection, which might account for the undesired results following the injection of a large dose in such cases.

GEORGE HARDWICKE, M.R.C.S.Eng., L.R.C.P.Lond.
Snainton, Yorks.

## ANAPHYLAXIS.

IN view of the deaths recorded in Dr. Goodall's most valuable paper in the JOURNAL of February 11th, the following case may be of interest. It occurred in the country, and I was the only available doctor. A second injection of antitoxin had been given in a case of diphtheria, the patient being a healthy man. Within eight hours he complained of intense itching, and when I saw him at 9 p.m. he was suffering from an intense urticaria which involved the greater part of the skin. About 11 p.m. he felt so ill that he lay on the bed (no bed clothes could be borne). Shortly after he complained of thoracic pain, apparently localized along the course of the œsophagus. At midnight he began vomiting, and until 4 a.m. he never had ten minutes' interval. At this time his pulse could only be felt at intervals, respirations were shallow and sighing, and his surface cold. Local remedies to the skin appeared useless, mustard to the epigastrium had no effect. I had never heard of a similar case, but it appeared to me to be an example of poisoning of the nerve centres, causing intense internal and external œdema. The one clear fact appeared to be that the patient would die shortly if the exhausting vomiting was not relieved. On theoretical grounds the proper drug appeared to be morphine, but I was afraid of the depressing effect on the heart. But I decided that if the drug was fatal it would be a less distressing death than the end which appeared inevitable. So I injected gr. $\frac{1}{6}$. In a few minutes the look of distress passed from the face and the thoracic pain lessened. In twenty minutes the patient was asleep. He slept four hours, and awoke weak but cured. The skin urticaria persisted slightly for some days.

Ombersley, Droitwich. MARY HAMILTON WILLIAMS.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.

*Friday, February 10th, 1911.*

J. FORD ANDERSON, M.D., in the Chair.

### *Differential Diagnosis of the Commoner Causes of Chronic Jaundice.*

DR. P. J. CAMMIDGE read a paper on this subject, which is published at p. 486. He demonstrated a number of lantern pictures illustrating various points of his discourse.

Dr. FORD ANDERSON said that it would have been difficult to find any one more competent to give an exposition of this important subject than Dr. Cammidge. He called to mind the gradual limitation of the field of guessing, and of operative exploration, during the past few years, which advance he attributed to the work of Cammidge and others. He then called on Mr. Cairns Forsyth to open the discussion.

Mr. FORSYTH, after expressing his agreement with all that Dr. Cammidge had said in regard to the diagnosis of the various forms of obstruction to the flow of bile, turned his attention to the difficulty of knowing when to operate after the pathological diagnosis had been made. This difficulty was greatest in the so-called borderland cases. He called attention to the fact that formerly surgeons feared to operate on cases of cancer of the pancreas. Nowadays, however, it was recognized that the diagnosis of cancer might be made in cases of advanced chronic pancreatitis and in other conditions. Great relief could be secured by operation in these cases, and in his own experience much good had resulted after operating in cases which would have been left untouched formerly. In some cases the size of the swelling led to the erroneous belief that it was malignant, while at the operation it was found that the condition was inflammatory. Even in cancer relief could at times be attained by operation. Cancer of the pancreas did not always kill rapidly. It used to be held that the fatal termination took place within a few months of the detection. He had seen cases in which the disease lasted for years. He spoke of one case in which the jaundice had disappeared after cholecystenterostomy, and had only reappeared three years later, when the growth nipped the cystic duct. It is a mistake to allow these cases of obstruction to go on too long. The idea formerly held that they yielded an operative mortality of 30 per cent. was entirely wrong. It must be borne in mind that carcinoma might develop on top of gall-stone cases. He cited cases which showed that if the operation had taken place for the removal of the gall stones the cancer could have been averted. He briefly referred to the examination of the urine, faeces, and blood, and pointed out that care, skill, and practice were required. It was an analysis which every one was not capable of doing properly. But, at the same time, he was absolutely certain of the benefit which followed when this was thoroughly done. Lastly he spoke of operation on diabetics. Diabetes following on disease of the pancreas called for care. He would be very guarded in expressing an opinion in general as to the advisability of operation in these cases. He agreed with Dr. Cammidge that the risk of failure on the part of the wound to heal was more serious than the risk of sepsis. Furthermore, relapses were not infrequent.

Dr. CLAUDE TAYLOR referred to the case of a small boy whose motions were said to be white and glistening. The symptoms were those of constipation and indigestion, and he asked Dr. Cammidge whether he would attribute the shining character to the presence of crystals.

Dr. PIDCOCK asked how long Dr. Cammidge would be content to wait before operating on a patient affected with jaundice. He also asked what he considered was the best intestinal antiseptic.

Dr. FORD ANDERSON mentioned cases which he had had where the gall bladder was enormously thickened, the patient jaundiced with high fever and tenderness over the region of the gall bladder. The gall bladder was removed in one of his cases, and was found to be full of stones. The calculi had not reached the cystic or common ducts, and yet there was jaundice present. Was it right to call these cases of haematogenous jaundice caused by an infected gall bladder? and would removal of the gall bladder be indicated? Referring to chlorosis with icteric tint of skin, was it the result of damage to red blood corpuscles by septic conditions of intestinal tract? He next mentioned hereditary chronic jaundice, and asked whether these cases were also haematogenous and whether there were any means of arresting the process. In connexion with the clay-coloured stools of obstructive jaundice, he referred to the clay-coloured stools of infantilism, and remarked that treatment was disappointing in his cases. Dealing with cases of gall stones without jaundice, he mentioned a case of complete obstruction of the bowel from a large gall stone, of which he showed a cast; on the surface of this was an impression which he interpreted as being that of a Peyer's patch. This stone was removed from the small intestine by the late Sir Thomas Smith, and had not produced any symptom at all until the obstruction occurred.

Mr. FORSYTH remarked that he had seen similar cases, and described one of obstruction of the stomach by a very large stone which had not produced any symptoms of colic.

In his reply, Dr. CAMMIDGE regretted that it was impossible to form an opinion with regard to Dr. Taylor's case on the available information. The motions would have to be analysed. To Dr. Pidcock he stated that he would not wait at all when the examination and clinical evidence told him that operation was needed. In catarrhal jaundice, if the pancreatic reaction persisted after rest and other treatment for six weeks, he would operate, although he recognized that some cases cleared up spontaneously after a much longer period. Kehr had suggested this time. With regard to intestinal antiseptics, it was stated that not a single one was known which would sterilize the intestinal tract without injuring the patient by its toxic action. He found calomel useful, and also salicylate, especially of bismuth. Urotropin and its derivatives were also valuable. This drug was excreted rapidly from all the mucous surfaces. He found it wise to start with small doses, for example, 2 grains three times a day, and gradually work up to 10 grains three times a day. In some cases an idiosyncrasy against the drug existed, and unpleasant symptoms might be produced by 5 grains. He also spoke

a few words with regard to sour milk as a method of overcoming fermentation in the intestine. It was useless in putrefaction. In reply to Dr. Ford Anderson he considered the cases referred to as obstructive and not haematogenous. True haematogenous jaundice did occur but was very rare. He deprecated the removal of the gall bladder unless absolutely indicated. Acute pancreatitis might be set up in this way, and would lead to a fatal termination rapidly. With regard to chlorosis being due to sepsis, this view had been held by Andrew Clark. He certainly agreed that it probably was so in what is known as pernicious anaemia. The only suggestion he could make with regard to the hereditary cases of jaundice, in which there appeared to be an hereditary fragility of the red blood corpuscles, was that an attempt might be made to restore the isotonic balance between the corpuscles and the plasma. This might be effected by giving sea water. Infantilism was in some instances due to congenital pancreatic insufficiency. An improvement followed treatment by pancreatic extract, and was most marked in the development of sexual characters which are usually absent in these cases. The choice of the pancreatic preparation must be made with care, as great variations occurred.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF OBSTETRICS.

*Thursday February 2nd, 1911.*

### CAESAREAN SECTION AND ITS ALTERNATIVES IN WOMEN WHO HAVE BEEN LONG IN LABOUR AND EXPOSED TO SEPTIC INFECTION.

A DISCUSSION on the indications for and technique of Caesarean section and its alternatives in women with contracted pelves who have been long in labour and exposed to septic infection was opened by Dr. AMAND ROUTH.

*Introduction.*

After alluding to the importance of the subject and the divergence of opinion regarding the treatment of these "suspect" cases, Dr. Routh drew attention to the difference (Table I) in the mortality of favourable or "clean" cases as compared with that of "suspect" cases—2.9 per cent. as compared with 17.3 per cent. When patients had been "previously examined," or "attempts had been made to deliver them" by other means, the mortality rose to 34.3 per cent. (22 deaths in 64 cases).

TABLE I.—*Showing the Mortality of Caesarean Operations for Contracted Pelvis where Details are Given as to Possible Infectivity (1891 to 1910).**

| | Condition. | Cases. | | Maternal Deaths. | | Percentage Mortality. | |
|---|---|---|---|---|---|---|---|
| A | "Not in labour" ... ... ... | 245 | 469 | 9 | 14 | 3.6 | 2.9 |
| B† | In labour, membranes intact ... | 224 | | 5 | | 2.2 | |
| C | In labour, membranes ruptured | 166 | 230 | 18 | 40 | 10.8 | 17.3 |
| D | Frequent examinations or attempts at delivery ... ... | 64 | | 22 | | 34.3 | |

* From Dr. Routh's collection of 1,282 cases (*Journ. Obstet. and Gyn. Brit. Emp.*, January, 1911).
†B. or "onset of labour," or "in labour but in hospital some days."

At various times Porro's Caesarean hysterectomy, symphysiotomy, pubiotomy, and more recently extraperitoneal Caesarean section had been adopted for these "suspect cases" to prevent the maternal mortality of classical Caesarean section and the fetal mortality of craniotomy. All forms of pelviotomy and all varieties of extraperitoneal Caesarean section were unsuitable in definitely septic cases.

The views of foreign obstetricians regarding treatment, as expressed at the recent International Congress at St. Petersburg, were quoted to show how divergent and often hopeless they were. Views of some British and American obstetricians recently published were also quoted, showing that, whilst some form of hysterectomy was usually advocated in septic cases, the recommendation of craniotomy as a justifiable alternative was by no means unanimous. Some foreign speakers at the International Congress had suggested that the surgical treatment of these "suspect" cases should be varied according to whether the liquor amnii (membranes being ruptured) or cervical contents were proved to be sterile or to be infected by saprophytic or by potentially virulent pathogenic micro-organisms. No British obstetrician appeared so far to have approached the subject of Caesarean operations from this point of view.

Some of the clinical and pathological effects of the various bacteria which might be present, and the remarkable divergence of opinions of foreign observers regarding the appropriate surgical treatment, were then pointed out. He hoped it would prove to be possible for a competent bacteriologist to make a rapid examination of films prepared from swabs taken from the amniotic cavity, or cervix, or upper vagina, and to furnish a report in twenty minutes, which would be so far reliable as to the presence or absence of saprophytic or virulent germs that it would enable obstetricians to vary their surgical procedure with some degree of scientific accuracy. Some investigations had been made, and he considered that, speaking generally, such reports were sufficiently reliable, for they were largely confirmed by subsequent cultures prepared from the same swabs. A possible weak point was that in a few cases two observers found streptococci in the cultures, but not in the film examinations. The main difficulty in this bacteriological investigation was to recognize the dividing line between pure saprophytic and some pathogenic organisms. Streptococci acting at first as pure saprophytes causing toxaemia (sapraemia) might later become infective, and cause true septicaemia by multiplying in the blood. Cases must therefore be treated on the basis of the most potentially virulent germs found to be present. If fluid could not be collected from the amniotic cavity, and if streptococci or other germs were found in the cervix and upper vagina, in cases where vaginal examinations had been made or forceps used, it could be safely inferred that the amniotic cavity was infected. The appropriate treatment under various conditions founded on clinical and bacteriological evidence was then considered and suggestions made as follows:

*Type 1.—Before the membranes were ruptured, if germs were found in the vagina.* Treatment: Probably classical Caesarean section would be safe after the vagina had been well douched with several pints of a 1 in 1,000 sublimate solution or iodine solution (tr. iodi ʒij to 1 pint).

*Type 2.—In labour some hours, membranes ruptured, examinations previously made, no clinical evidence of infection.* If a bacteriological examination proved the liquor amnii to be sterile, classical Caesarean section could be safely done. If germs were present, the treatment would come under 3, 4, and 5.

*Type 3.—In labour some hours, membranes ruptured, examinations previously made or attempts at delivery, some offensiveness of discharges, possibly some feverishness. Putrefactive bacteria are found present,* but no virulent pathogenic bacteria. If germs were plentiful, primary union of the uterine wound would probably fail in these cases, and, unless a utero-abdominal fistula formed, fatal peritonitis would follow. Some of the cases collected by the author,[1] which probably belonged to this group (3 deaths and 3 recoveries), were alluded to. Pelviotomy and extraperitoneal Caesarean section were probably best avoided in such cases, and Caesarean hysterectomy and craniotomy alone remained amongst recognized operations. He had great hopes, however, from Maxwell's intra-amniotic irrigation, which must dilute the number and activity of the germs, even if it did not remove them and their toxins. The irrigation might enable classical Caesarean section to be done with safety in these cases of saprophytic infection. If Caesarean section were not done, intra-amniotic irrigation would certainly render craniotomy safer for the mother, as the inevitable abrasions of the cervix during extraction would be less likely to result in tissue infection. He thought this method might have been found useful in some of the above cases and in many others. If Maxwell's irrigation proved ineffectual and craniotomy was impossible or undesired, Caesarean section should be performed after eventration, followed by

[1] *Journal of Obstetrics and Gynaecology of the British Empire.* January, 1911.

some variety of hysterectomy. Supravaginal amputation of the uterus with intraperitoneal treatment of the stump would in this group be the favourite method.

*Type 4.—Cases with similar conditions to No. 3*, but *pathogenic germs*, such as *Streptococcus*, *Staphylococcus aureus*, or *Pneumococcus* or *Bacillus coli*, are found.

*Type 5.—Cases where gonococci are found*, and the symptoms point to an acute or subacute gonorrhoea. Probably Maxwell's method would be ineffectual in rendering classical Caesarean section safe in these groups (4 and 5) of virulent infection. Probably also the abrasion during a craniotomy would lead to tissue infection and septicaemia in Type 4, even if the amniotic cavity were irrigated before and after the birth of the child, and the uterine cavity were also douched antiseptically after the third stage. Caesarean hysterectomy was therefore indicated.

Dr. Routh then considered the advantages and disadvantages of supravaginal amputation of the uterus with intraperitoneal and extraperitoneal treatment of the stump respectively and of panhysterectomy, and showed a

TABLE II.—*Showing Method of Treatment* of the 230 Cases in Table I (Groups C and D) which may have been Exposed to Infection (1891 to 1910). "Suspect Cases."*

| | | Cases. | Caesarean Section Only. | Deaths. | Supravaginal Hysterectomy. Intraperitoneal Stump. | Deaths. |
|---|---|---|---|---|---|---|
| C | In labour, membranes ruptured | 166 | 158 | 18 (11.4 per cent.) | 8 | — |
| D | Frequent examinations or attempts at delivery | 64 | 58 | 22 (37.9 per cent.) | 6 | — |
| | Total ... ... | 230 | 216 | 40 (18 5 per cent.) | 14† | — |

* The early cases (1867 to 1890), where supravaginal hysterectomy with extraperitoneal treatment of the stump was the technique adopted, cannot be tabulated owing to want of sufficient details regarding the "rupture of the membrane."

† Cases 336, 358, 370, 400, 404, 405, 432, 494, 568, 713, 736, 751, 843, 1255.

table which indicated the success of subtotal hysterectomy with intraperitoneal stump in "suspect" cases compared with those treated by classical Caesarean section, the mortality of the former in 14 cases being *nil*, and of the latter in 216 cases being 40, or 18.5 per cent. In Group D of Table II the mortality of Caesarean section alone was as much as 37.9 per cent. It was pointed out also how relatively safe Porro's supravaginal hysterectomy with extraperitoneal stump had been in the years following its introduction; Dr. Routh considered that it more completely shut off the peritoneal cavity from an infected cervix or vagina than either subtotal hysterectomy with intraperitoneal stump or even than panhysterectomy as now performed. He considered Porro's operation more suited, therefore, to cases with virulent gonococcal infection, such as Cases 441 and possibly 496, and perhaps when streptococci were found.

Panhysterectomy was theoretically the ideal operation for cases of virulent infection, because it removed the infected cervix; but it was evident that it still left the peritoneum capable of being infected from the vagina, both during and after the operation. There was first the great difficulty — which applied also to supravaginal amputation with intraperitoneal treatment of the stump —of preventing peritoneal infection during the preliminary Caesarean section. No means was known by which the uterus could be removed completely, without a preliminary Caesarean section, with such rapidity that the child could survive, even if the uterine vessels were divided as late as possible in the operation, as in Doyen's technique. Peritoneal infection might be prevented by eventration before incision, temporary closing of the abdominal incision, and careful packing round the neck of the uterus. The uterine incision should be fundal (transverse or sagittal). After extraction of the child this incision should be accurately closed, and the uterine peritoneum carefully cleansed before the abdomen is reopened to remove the uterus. The treatment of the vagina before and after the hysterectomy and of the pelvic peritoneum was then discussed, and it was advised that the vagina should be swabbed freely with tincture of iodine and the cervix sewn across per vaginam before the operation, as suggested by Spencer. A safe technique for panhysterectomy in these virulently infected cases would save many lives, for that operation would then be chosen instead of either form of subtotal hysterectomy. He concluded by saying that he was not without hope that a rapid bacteriological examination of films prepared from the liquor amnii or cervical contents in "suspect" cases, when the membranes were ruptured, would enable the treatment of these cases to be put on a more scientific basis. If so, classical Caesarean section would be performed with perfect security if the fluid were sterile; Caesarean section, preceded by some variety or some evolution of Maxwell's intra-amniotic irrigation, and by eventration of the uterus, might be considered safe if non-pathogenic germs were found; and a radical hysterectomy would be considered desirable if pathogenic micro-organisms were discovered. It was possible, also, that some such scientific basis might do away with the need for craniotomy with living children in well-organized obstetric clinics, but craniotomy would still be required in general practice where prompt bacteriological investigation and special technical experience might not be forthcoming.

Dr. HASTINGS TWEEDY said the discussion which would follow Dr. Routh's communication was bound to modify their views, and he trusted it would have the result of relegating craniotomy on the living child to its place amongst the obsolete barbarities of the past. It was melancholy reading to find this procedure still advocated by some of the most skilled operators and ablest teachers at home and abroad. Could it be urged that it exercised a curative effect on the maternal sepsis, then a plausible, but in his opinion an insufficient, argument would be forthcoming to justify it; but no such suggestion was tenable, and they were forced to the conclusion that its popularity resulted from a desire to make Caesarean section and its allied operations appear miraculously successful in the hands of these great operators. For his part he was sick of Caesarean section statistics. The technique of the operation no longer differed in the hands of good operators; should a patient die, her death would not be due to the operation but to the complications of labour. For this reason he trusted Dr. Routh would pardon him for finding fault with his manner of tabulating his statistics. The high death-rate under C and D should not be attributed to Caesarean section, for a similar death-rate would most likely have followed craniotomy. In suspect cases where bacteria could be demonstrated, hysterotomy offered many advantages over Caesarean section. The objections to it were unpractical. The operation was very easy. The incision passed through the thinned-out cervix and extended almost down to the external os, through tissue relatively free from blood vessels and lymphatics. Should suppuration follow, the pus would find its way into the vagina and would not pour into the peritoneal cavity. The weakened scar due to suppurative non-union would be placed so near the external os that the normal course of subsequent pregnancy would not be endangered by it; adhesions between intestines and scar could not take place. But under favourable conditions, and particularly with the os fully open, they possessed in pubiotomy a still better operation. From an experience of nine such operations he could say it was easier of performance than craniotomy. He was acquainted with no other operation where asepsis could be assured in so simple a manner. Patients walked on the seventeenth day, and suffered no pain or inconvenience at any time after the operation. The complications of which they had heard so much—namely, haemorrhage and vaginal lacerations—were entirely due to carelessness and faulty technique. It did not pretend to cure sepsis, and should sepsis be present before its performance the patient might die in spite of it, and thus afford its detractors a favourable opportunity to compile statistics. He asked them not to dwell too much on foreign statistics—to accept the experience of their own countrymen until they found that they were not reliable.

Dr. Briggs said he did not believe that bacteriology had arrived at the stage when it could give an intimation as to where a local infection would stop. Most of the infections were and remained local, but some were general. He believed that in suspect cases there would be found a series of gross errors. Many suspect cases, after an unimpaired convalescence, were classed as clean cases. It was quite true that many cases might be saved where the organisms were local, and quite possible that those operators who did not operate upon suspect cases were refusing to operate upon cases which were entirely local. There were many kinds of suspect cases. He would like to hear the opinion of general pathologists on some of the subjects in that debate. He was inclined to adhere to his original Caesarean section attitude, and to limit himself to clean cases and refuse suspect cases. He questioned whether Dr. Routh had exhibited the darkest side of the results in the suspect cases. He himself was still a strong believer in the induction of premature labour. He knew of many cases upon which Caesarean section might have been performed satisfactorily treated by the induction of premature labour.

Dr. Edge said the scope of Caesarean section should be much enlarged. It was the straightest, the least mutilating, and, apart from sepsis, the least dangerous of all the methods of delivery in cases of contracted pelvis. The question was one of avoidance of sepsis, which at first was confined to the vagina and the lower cervix, and which, when introduced into the uterus, was generally kept at bay for some hours by the membranes covering the uterine wall. The sepsis of ordinary puerperal fever was almost always introduced after the raw surface of the uterus was exposed by the separation of the placenta and membranes. He gave details of three instances in which he performed Caesarean section in suspect cases. In doubtful cases he would be inclined not to do hysterectomy, but ordinary Caesarean section. Since hearing of Dr. Maxwell's irrigation he would use that first. He would then eventrate the uterus and protect both the abdominal incision and the incision in the uterine wall. He would then deliver the child. If there could be more command of the sepsis, safety would lie in the future in what might be called normal Caesarean section without hysterectomy. That, possibly with drainage of Douglas's pouch, unless the case were certainly septic, would have more and more success. If the uterus were taken away, he had always performed the subtotal hysterectomy, because it was so simple. Still, if hysterectomy were necessary, he believed that ultimately Dr. Herbert Spencer's panhysterectomy would almost be universally adopted. Finally, he intended in future to endeavour to push the placenta and membrane into the vagina—that is, to conduct the third stage as much as possible as in a normal labour, *per vias naturales*.

Dr. Arnold Lea said that at St. Mary's Hospital cases were frequently admitted which had been many hours in labour, and had been subjected to many examinations by midwives and doctors, the latter after having used forceps. These he regarded as "suspect" cases. A temperature of 100° F. or 101° F., and some quickening of the pulse, had not been regarded as contraindicating Caesarean section. In 16 cases of this "suspect" type in which operation was done during labour, after rupture of the membranes, and after interference by forceps, all but one recovered. In the last seven years none of the cases he had had of that type had died. The morbidity was 30 per cent. These results seemed to indicate that even after rupture of membranes for many hours, with interference, many cases escaped serious infection. If such cases were sent to hospital earlier the results would be much better. Much had been hoped for from bacteriological investigation of the amniotic fluid, and he believed that the organisms could be detected in "film" preparations, either by introducing a tube into the cervix and obtaining a specimen of the amniotic fluid, or by examining the cervical secretion itself. In hospital practice a report could be obtained in half an hour. The chief organisms found in puerperal infection were streptococci, staphylococci, *Bacterium coli*, and occasionally the gonococcus. In addition, anaërobic bacteria were often present. For present purposes these organisms might be present in the passages of a healthy woman, and there was not as yet any rapid method of distinguishing between saprophytic and pathogenic bacteria. The discovery of streptococci in the amniotic fluid or the cervix in abundance would be presumptive evidence of pathogenicity. He had no experience of the suprasymphysial method of Caesarean section, but the transverse incision was often valuable. He referred to cases of diffuse cellulitis following the transverse operation. In cases of obvious infection complete abdominal hysterectomy was the only safe plan in his opinion.

Dr. Herbert Spencer asked if one was to conclude that a patient was exposed to infection because the membranes were ruptured and examinations had been made? If that were so, many had been operating upon "suspect" cases for years without knowing it, and every woman in labour ought to become infected, because she always had the membranes ruptured, and nearly always was submitted to internal examination. If a woman had not been in labour a long time and the membranes had been ruptured, he was just as willing to operate by conservative Caesarean section as if she were not in labour and the membranes were intact, provided she had been examined with due precaution. How was one to know that the cases were infected? He would pay attention to the patient's general condition, rather than to the fact that the temperature was 100° F.; that was often reached in a normal labour, with an aseptic recovery. Bacteriological investigation might be important in the future, but in the present state of knowledge he would not trust it very much. What should be done in seriously infected cases? He meant such cases as those from the slums of a large city where two or three strong doctors had taken a turn at a case with contracted pelvis, and perhaps killed or mutilated the child. In these gravely infected cases Caesarean section should not be performed. Where forceps had been applied the child's life was in many cases seriously compromised. It was wrong not to do craniotomy in such a case. If the uterus were torn much, he would supplement the craniotomy by vaginal hysterectomy. With regard to symphysiotomy, pubiotomy, and extraperitoneal Caesarean section, he did not think they should be performed in cases of infection. With regard to extraperitoneal Caesarean section, Dr. Hastings Tweedy had given a highly coloured description of the operation in aseptic cases, with which this discussion was not concerned, and the procedure seemed to be so favourable, in Dr. Tweedy's opinion, that one would almost conclude it was the future lot of women to be delivered by extraperitoneal Caesarean section. Yet, on looking at the literature, it would be found that there were cases of rupture of the bladder and peritoneum, and one in which the plexus of veins had bled so furiously that the operator (Döderlein) had had to abandon the operation for the classical Caesarean section. With regard to gonorrhoea, he thought it would be best, if the cervix was probably infected, to remove the whole uterus. For the cases of obstructing fibroids and for cases of cancer where labour was not advanced, he thought Caesarean section with abdominal hysterectomy should be preferred. For advanced cases of cancer which were not operable, he thought the old Porro's operation was the most suitable. The remaining question was as to how to avoid infection of the peritoneum and abdominal wound when doing Caesarean section in suspected cases. Dr. Edge had made some valuable suggestions which should be borne in mind. Precautions should be taken against infecting the abdominal wound, but he did not think it was practicable or necessary to disinfect a putrid amniotic cavity. If the whole of the infected tissues were removed by total abdominal hysterectomy, it did not matter much if the healthy uterine peritoneum was temporarily soiled.

Dr. Thiéle said that even where the labour had lasted for some time and the amniotic cavity had been exposed to the cervical and vaginal infection for hours, it was very rarely that one could find pathogenic organisms spreading in very large quantity; even in a very intense infection the number of organisms might not be at all numerous. Therefore, from the bacteriological point of view, there remained much to be desired in regard to detecting the nature and virulence of infection in possible cases of this sort.

Dr. Lewers pointed out that Dr. Routh's Table I covered a period of twenty years, and showed a mortality in suspect cases of 17 per cent., and a mortality in other cases of nearly 3 per cent. Probably many of the cases in which the mortality was 17 per cent. belonged to the

earlier ten years of that period, and the figures were likely to be much better in the second period, owing both to the improved technique and to more complete asepsis. He could remember the time when in surgical practice generally instruments were not boiled; this was not much more than twenty years ago, if, indeed, it was quite so long. He confessed he would be unwilling to wash out the uterus before the operation. He doubted whether, with the fetus in it, one could wash out sufficiently to get rid of everything which should be removed, and there was danger in doing anything which could be avoided if Caesarean section was going to be done afterwards. The risk of carrying in something, in his opinion, was much greater than the chance of completely washing out septic material if present.

Dr. ERNEST SHAW said that in his routine work he had divided his cases into two main types—(1) those in which there was some chronic infection of the cervix, uterus, and appendages; (2) cases of infection after childbirth or abortion. In the first group he had been concerned chiefly with the detection of gonococci, and while examining films and cultures for this purpose had been struck by the abundance and variety of the bacteria in the cervix and vagina, and also by the common occurrence in the cervical canal of the white staphylococcus. The cases which he had been able to demonstrate to his own satisfaction as septicaemia had been those in which streptococci were present in the blood. In some of the cases which he had investigated he had been told that consultants had diagnosed septicaemia on clinical data; he had found they were mostly free from organisms in the blood, therefore he regarded them as simply examples of sapraemia. He concluded from that that it was difficult to ascertain the degree of infection from the clinical signs—that is, whether the infection was local or general, a most important point for prognosis. He suggested that as the streptococcus was the most common organism found, each case should be treated as one of streptococcal infection until the contrary was proved. He believed that the injection of polyvalent antistreptococcic serum did good in such cases. If he obtained a pure culture he also tried the use of vaccines. He was convinced they did no harm, and had seen some cases do well under this treatment. If the growth were mixed, he subcultured the predominant organism and prepared a vaccine from this. In cases of labour infection, he suggested that the vaccine should be made from the organism grown from the patient either from the blood or cervix. When Caesarean section was done he did not see why some polyvalent antistreptococcic serum should not be put into the uterus, into the vagina, and into the peritoneum. If the uterus were removed why should not some serum be applied to the stump? Some could also be projected down the vagina, and some could even be used subcutaneously.

Dr. W. J. GOW said there had been some confusion between infection of the patient and infection of the liquor amnii. When discussing the treatment of a certain kind of case it was better to distinguish between those two groups. What he would say applied to infection of the amniotic fluid. Obviously, if a patient was infected with streptococci during delivery, she ran risks of dying of puerperal fever, whether she were delivered by Caesarean section or by any other method, But there were cases in which the patient was free from infection constitutionally, and yet the liquor amnii contained pathogenic organisms which, when ordinary Caesarean section was done, would inevitably escape into the peritoneal cavity. In the cases which Dr. Routh called "suspect," it was the liquor amnii which was suspect, not the patient. Forty of his own cases were not in labour, or were only in the first stage of labour, and the membranes were either unruptured or only just ruptured. There were no deaths. There were 8 cases in which the membranes had been ruptured for some time, and of those one died. In this case the membranes had been ruptured forty-eight hours, and several attempts had been made to deliver with forceps before she came to hospital. She died on the fifth day, and a staphylococcus was cultivated from the peritoneal lymph. The difficulty was to know on what grounds one should regard the liquor amnii as suspect. It would be agreed that suspicion was justified when the membranes had been long ruptured and there had been several attempts at instrumental delivery, especially the latter. There were many organisms in the vagina which, when introduced into the liquor amnii, rapidly multiplied, and were very undesirable inhabitants of the peritoneum. How should those cases be dealt with? Some could best be dealt with by craniotomy, especially where the child's life had either been already lost, or was seriously embarrassed by numerous attempts at forceps delivery. The other alternatives were abdominal hysterectomy or conservative Caesarean section, special efforts being made in the latter case to avoid peritoneal infection. Conservative Caesarean section would probably give quite good results in the future if the following precautions were taken: Where attempts had been made some hours before to deliver by forceps, it would be well, where practicable, to irrigate the uterine cavity, as suggested by Dr. Maxwell (this was not practicable when the head was jammed in the lower uterine segment, or in the pelvic brim), then to eviscerate the uterus, protecting the edges of the uterine wound with a sterile towel or sterile gauze, and taking care that none of the liquor amnii got into the peritoneal cavity. Frequently the changes in the liquor amnii were manifested by a highly putrefactive odour. It was the peritonitis which killed the patient, and the peritonitis was set up by the infected liquor amnii gaining admission into the abdominal cavity.

The debate was here adjourned.

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## SECTION OF OTOLOGY.

*Friday, February 17th, 1911.*

Mr. ARTHUR CHEATLE, President, in the Chair.

### *Malignant Disease of Naso-pharynx.*

Dr. EDWARD LAW reported the termination of a case of malignant disease originating in the region of the Eustachian tube, early symptoms of which were deafness and discomfort in the ear.

Mr. WILFRED TROTTER gave a brief summary of the principal features of malignant disease of the lateral wall of the naso-pharynx as exemplified in 8 cases which he had operated upon, including Dr. Law's patient. In 5 or 6 of the cases the tumour was an endothelioma originating about the Eustachian tube, and in them the symptomatology was remarkably uniform. (1) Pain was the first symptom, and lasted some months. The diagnosis at this stage was generally trigeminal neuralgia. (2) Deafness of the type produced by Eustachian obstruction, which in some instances could be temporarily relieved by means of the Eustachian catheter. Failure to give relief had led to further examination, and eventually to the discovery of the disease. (3) An abnormality of the soft palate was sooner or later noticeable; this was raised, but could not be relaxed on the affected side, owing, no doubt, to infiltration of the levator palati. (4) In the later stages oedema of the soft palate and adjacent pharyngeal walls appeared. (5) In none of these cases was nasal obstruction a striking symptom. Dealing with the surgical treatment, Mr. Trotter said that access to the disease was gained by an osteo-plastic operation, the essence of which was reflection of the upper jaw and malar bone in a flap. The base of the skull and lateral wall of the naso-pharynx were thus brought well into view. In some cases it had been necessary to tie the internal or common carotid artery. The patients usually recovered well from the operation, but none had survived without recurrence of the disease longer than fifteen months, a circumstance which emphasized the importance of early diagnosis.

Mr. TILLEY recorded his experiences of similar cases.

### *Cases.*

Dr. H. J. DAVIS showed 3 cases: (1) Caries and necrosis of the temporal parietal and occipital bones following mastoiditis due to scarlet fever in a girl aged 5; operation; recovery. (2) A case of extradural abscess of the posterior fossa tracking through the jugular foramen into the neck; sloughing of middle third of internal jugular vein; operation; recovery. (3) A case of acute vertigo with repeated falls, always to the left, during the last two months. He asked for an expression of opinion as to whether the disease was labyrinthine, intracranial, or due to hysteria. The patient had had mastoid suppuration, complicated by the presence of nystagmus, giddiness, headache, epileptiform fits, and complete left hemianaesthesia. The "caloric reactions" were negative on the left side, but positive on

the right side, and this pointed to an organic lesion. The case was discussed by several members, who agreed that the evidence pointed to an organic lesion occurring in a so-called hysterical patient.

Mr. SYDNEY SCOTT reported a case of fistula of the superior semicircular canal on the left side; bilateral radical mastoid operation; instrumental exploration of the left vestibule; total "vestibular ablation reactions" on left side. One of the points of interest was the evidence which indicated "localization of disease without involvement of the cochlea."

Dr. KELSON exhibited a patient with a very unusual swelling in the tympanum.

Dr. DAN MCKENZIE showed a boy upon whom the complete mastoid operation had been performed eighteen months previously, the bone forming the so-called facial spur having remained bare ever since that time.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

*Friday, February 3rd, 1911.*

Dr. E. J. MCWEENEY, President, in the Chair.

*Medical Inspection of Schools.*

MR. STORY read a paper on medical inspection of schools and scholars, in which he advocated the extension of the recent Education Act to Ireland, more especially Section 13 of the Education (Administrative Provisions) Act of 1907. The paper contained brief abstracts of the regulations and directions issued by the Education Board, and the results of inspection and treatment as published in the first report of the Chief Medical Officer of the Board. The educational arrangements in Ireland differed so much from those in England and Wales that the Act would require considerable modification before it could be applied to Ireland; but the necessity was urgent, as could be inferred from the report of the Dublin Sanitary Association recently published in the daily press. The Act referred solely to elementary schools, but Mr. Story contended that in Ireland the intermediate schools were very nearly as much in need of medical inspection as the national schools.

The PRESIDENT said it must be borne in mind that there was not the same machinery for the management of schools in Ireland as in England. He thought medical inspectors for the schools should be introduced as soon as possible. He had often remarked the extreme frequency of vermin amongst the poorer classes, which vermin he considered gave entrance to staphylococcal infection. As in ringworm this should be treated not by a single bath or towel for a number of children, but by a separate bath and towel for each child.

Dr. BOYD BARRETT said that in England the local authorities dealt with their local schools. The Irish National Board acted as a trustee, and had no power to spend its money on medical inspectors. He laid great stress upon the fact that children were compelled to attend schools, yet no precaution was taken to prevent the spread of infectious diseases amongst them.

Dr. DONNELLY said that children or their guardians should be instructed as to the necessity for cleanliness. In a number of cases parents were not aware of the condition of their children's head, which was a decided source of danger with regard to tuberculosis. He said that children were compelled to go to school under penalty, and he considered it a cruelty that they were not protected from infectious diseases. Mr. Story had shown the small amount of money that was necessary for medical inspectors, and if the matter were put fairly before the public he thought there would be no difficulty in getting this small rate.

Dr. KIRKPATRICK said the schools derived their grant from the National Board of Education on the condition that the regulations of the Board were properly carried out, and if the school failed to do so it should be deprived of its grant. It was a tyrannous thing that a clean and healthy child should be compelled to go to a school where half the children were suffering from infectious diseases. He thought that if compulsory inspection was not adopted compulsory education should be stopped.

Sir JOHN MOORE said that eleven years ago he sat on the Local Government Commission to inquire into the health of Dublin. As one of the commissioners it was his duty to visit the primary schools in Dublin. He then had no idea that such dirt and insanitary surroundings existed in their schools. The Commission made very strong recommendations, which turned out to be practically a dead letter. The Board of National Education was wrongly constituted. There should be a fair representation of medical men on the Board. It was most unfair that there should be no provision for safeguarding the condition of the children who went to the primary schools. These primary schools were hotbeds of infection, especially whooping-cough and measles, and neither of these diseases was notifiable.

Dr. MCVITTIE said a great deal had been said about infectious diseases which caused some benefit by giving immunity from these diseases in adult life. He did not consider them so serious as heart diseases. A number of children with feeble hearts were driven to school by a compulsory Act. If their object was to be gained, it was necessary for the medical profession to agitate persistently and constantly.

Dr. COX said if the people did not move in the matter it was because they were ignorant, and as the profession claimed to be better educated than the people, it must draw attention to the defects under which their children laboured at the present day. In America dirty children were not allowed into a public school.

Mr. STORY replied.

## BATH CLINICAL SOCIETY.

AT a meeting held on Friday, February 3rd, 1911, Mr. F. LACE, President, in the chair, Dr. R. WATERHOUSE showed specimens of the *Thymus gland* weighing 24 grams, removed from a child aged 9 months, who died suddenly whilst being bathed; and the thymus gland of a child aged 3 months, weighing 34 grams, who died from asphyxia from pressure on the trachea, breathing having been embarrassed since birth; tracheotomy gave no relief.

Dr. KING MARTYN read a paper on the *Use of the calcium salts*. He gave a summary of the known physiological effects of calcium on the tissues and blood and the evidence of the regulation of calcium metabolism by the thyroid gland, the intolerance of iodides in myxoedema being due possibly to the liberation of thyroid secretion on the cerebral circulation. He advanced the theory that sporadic goitre was due to compensatory hypertrophy of the thyroid gland to cope with added calcium metabolism induced by drinking certain limestone waters. The treatment of rheumatoid arthritis by thyroid extract was essentially the same as that by iodides. He pointed out that one of the benefits of cod-liver oil in rickets was due to its forming a soluble soap with calcium. As regards calcium increasing the coagulation of blood, clinical experience seemed to be contrary to recent experimental work. He instanced as morbid conditions in which he had found the administration of calcium beneficial—haemophilia, epistaxis, chronic sneezing, chilblains, certain headaches, orthostatic albuminuria, and Henoch's purpura. He pointed out the relation of strontium to calcium and its success where the latter salt had failed. He ascribed the failure of calcium to produce benefit in some cases either to non-absorption or to its not being given over sufficiently prolonged periods. Dr. King Martyn said the question of calcium metabolism was of great interest with regard to the Bath waters. In these calcium was present only as the sulphate and carbonate and in small quantities. Hence it was probably not absorbed at all, or in such minute quantities as to do no harm. He had never seen thrombosis or other phenomena which might be due to calcium absorption occur during the drinking of the waters. If, however, excretion of calcium in the body were desired iodides could be taken with the mineral water. This was a valuable method of administration, preventing iodism. He found the best preparations of calcium to be the lactate, the chloride, and the iodide, and mentioned a case of diplopism lasting twelve hours and a case of "dualism" whilst taking the chloride, which passed off without bad effects. Dr. J. LINDSAY read a paper entitled *Bilious headaches*, illustrating it by a case of a man aged 51, in which these headaches recurred at regular intervals.

## OXFORD MEDICAL SOCIETY.

AT a meeting held on February 10th, Mr. WHITELOCKE, President, in the chair, Dr. A.L. ORMEROD brought forward a scheme for the *Voluntary notification of cases of tuberculosis*. He suggested that the doctor in attendance and the patient should each sign the form of notification, and such notification should give permission for the medical officer of health or his deputy to visit the house, examine contacts, and give general advice. That the doctor for each notification should receive a fee of 2s. 6d. That each patient should only be notified once, and that such notification should only be made after confirmation of the diagnosis by a bacteriological or physiological test. If the notification were signed by both patient and doctor, the responsibility of the doctors became less. The reason for notification once only is obvious when it is considered that in the interests of public health each case must be kept under observation until death, and this in itself would prevent the hasty notification of doubtful cases. Dr. W. D. STURROCK read a paper on some recent work on *Cancer*. Having given a definition of an established cancer as a parasite rooted in its host, he outlined the broad divisions of work done on the subject. While work on metabolism was of great value, he had specially chosen for review the transplantation work done by the Cancer Research Fund workers and others. The main points brought out were that a successful transplantation needed a special reaction on the part of the connective tissue, which had to provide a stroma for the support of the growing graft; consequently the absence of such reaction made a graft powerless, and was an expression of immunity. Such immunity could be obtained experimentally, and suggested the possibility of similar immunity being established towards secondary growths, which were somewhat analogous to transplanted growths. On the other hand, it appeared that too great a response of the connective tissue might strangle an established growth, and this again suggested a possible means of attack upon the primary growth itself by stimulation of the connective tissue.

## UNITED SERVICES MEDICAL SOCIETY.

AT a meeting held on February 8th a paper was read, communicated by Fleet Surgeon R. MUNDAY, R.N., of H.M.S. *Hyacinth*, East Indies Station, entitled *Different Types of Beri-beri occurring in Naval Ships cruising in the Persian Gulf during 1909-1910*. The number of men serving in the Gulf during 1909 was more than double that of any preceding year of modern times, and the service was very arduous. No leave or exercise could be given to the men, and the supply of fresh provisions was very limited and of poor quality. The number of Asiatics serving in the ships of the Persian Gulf numbered 182 in 1909, and during 1910 317—a very considerable increase. In 1909, 19 cases of beri-beri, with 7 deaths, appeared among Asiatics, whose staple diet was white, highly-polished, over-milled, uncured rice, and as the result of substituting cured rice for that, increasing the nitrogenous part of the diet, and instituting many well-thought-out precautions, dietetic and otherwise, only 2 cases, and those doubtful ones, occurred in 1910. Now all this was most satisfactory, but the extraordinary part was to follow, for, although no Europeans were attacked in 1909, when the epidemic among the Asiatics occurred, in 1910 17 cases of beri-beri took place among them, while, with the exceptions before stated, the Asiatics escaped. From the clinical evidence, which was exhaustively discussed in the paper, there could be no reasonable doubt that all these 17 cases should be classed as beri-beri. All classes were affected. Uncured over-milled rice did not form part of their diet—indeed, in many of the cases no rice was eaten; and Fleet Surgeon Munday submitted the apparently paradoxical opinion that when beri-beri occurred in the Asiatic rice-eater the cause lay in the poverty of his rice, which had lost by over-milling certain necessary ingredients, and that when beri-beri occurred in the European *non-rice-eater* the cause lay, not in the rice (which was not his staple food), but in the deficiency of some other article of food, which, or portions of which, were vital to the proper nutrition of his nervous system; that this lack might be brought about by inability to assimilate the necessary portions, even where present in the diet, through maldigestion caused by inferior quality of food, nervous depression due to climate, monotony of service, lack of exercise, etc. The paper was discussed by Fleet-Surgeon HOME and Staff-Surgeon REES, and the debate was wound up by the PRESIDENT (Sir David Bruce), who expressed a strong hope that over-milled rice would be interdicted for the future. While expecting that the work of Fraser and Stanton and other observers would hold good, he could not help thinking that the explanation they offered was almost too simple. For his own part, he thought that probably some peculiar protein body had disappeared from the over-milled rice; what it was no one could yet tell, and the true reason would probably be found later. This protein body might be absent from the diet of Europeans, as in the case of the European outbreak described in the paper. After some further remarks he proposed a vote of thanks to the author of the paper, which was carried by acclamation.

## ASSOCIATION OF REGISTERED MEDICAL WOMEN.

A MEETING held on February 7th, Mrs. DICKINSON BERRY, President, in the chair, was devoted to the exhibition of clinical cases. The following were among the cases and specimens shown:—Miss ALDRICH-BLAKE: (1) A woman from whom three weeks previously she had removed a *Sarcoma in connexion with a rib*. Portions of the rib above and below were removed with it, and a large flap was raised from over the scapular region, and slipped down. Eight weeks before the operation the affected rib had undergone a spontaneous fracture, and a swelling had appeared over it four weeks later. The growth was on both sides of the rib, and was found to be a large oval-celled sarcoma. (2) A girl of 19, with *Swelling of the tibia* for two years, pain and limping for six months. The tibia was bowed and thickened, and there was tenderness over it. No evidence of syphilis found elsewhere. The condition was improving under treatment with potassium iodide. (3) A girl of 22, with a large painless swelling in the left upper abdomen. No symptoms were present except loss of appetite. This was thought to be probably a hydatid of the spleen, but exploration showed it to be *Sarcoma of the left kidney*. No right kidney could be felt. The girl was very thin, but felt well, and her appetite had improved since the operation two months previously. (4) A girl of 17, upon whom a *Decompression trephining* had been performed a year previously for the relief of severe headache. She suffered then from headache, vomiting, and optic neuritis. Blindness came on rapidly, and it was only some weeks after she became blind that permission was given to operate. For some months a large hernia cerebri was present. This gradually flattened out, and the girl's sight has rapidly improved. Mrs. SAVILL showed two cases, one of *Lichen plano-pilaris* in a woman eight months pregnant; the other a severe case of *Secondary syphilis* that had resisted all oral and inunction treatment and had responded rapidly to injections of mercandol and later of grey oil. Miss ANDERSON and Miss STONEY showed a patient from whom had been removed an *Epithelioma of the scalp*. The patient had since twice suffered from superficial ulceration in the scar, that had readily healed under treatment with *x* rays. Miss THORNE showed a patient upon whom she had performed a *Posterior gastro-enterostomy* for the relief of constant vomiting. There had been marked emaciation and a lump in the region of the pylorus and frequent passage of blood in the stools. At the operation several scars of ulcers were seen, as well as marked thickening of the stomach walls in the region of the pylorus. Since the operation two years ago the patient had become strong and well, and the pyloric thickening had totally disappeared. Mrs. SCHARLIEB showed two specimens: (1) A *Columnar carcinoma of the rectum*, removed by the abdomino-perineal method from a woman from whom she had removed double papillomatous ovarian cysts six and a half years before. (2) A *Sinus lined partly by intestinal mucous membrane*, removed from a patient who had had several operations for chronic peritonitis complicated by sinuses and faecal fistulae.

# Reviews.

## CRIME AND CRIMINALS.

MUCH has been written about our prison system—not a little of it by ex-convicts and humanitarians whose voices are united in a chorus of unreserved condemnation. It is therefore with particular interest that we turn to *Crime and Criminals, 1876–1910*,[1] by Dr. R. F. QUINTON, for here we have the question discussed from a different standpoint by a man to whose opinions an experience of thirty-four years as a medical officer and as governor gives special weight. Few have had such opportunities of becoming intimately acquainted with the inmates of our prisons and with the details of the working and the general results of the system. During the period covered by the book a very great change has taken place both in the laws relating to prisoners and in the administration of prisons. When Dr. Quinton joined the prison service as assistant surgeon, local prisons were under the control of the county and borough authorities, who could manage them as they saw fit. One of the results of this was that crime was most frequent in those districts where lenient prison treatment was known to be the rule. The year 1878, however, witnessed a far-reaching change, all the prisons in England being transferred to the direct superintendence of the Home Office. It is a curious illustration of the inborn conservatism of the British mind that this measure at first was regarded with considerable suspicion, not only by the classes directly concerned, but even by respectable law-abiding citizens. So deep-rooted was the notion that centralization meant tyranny, that prison doctors were rudely treated by coroners' juries whenever a death in prison occurred, no matter what the cause. Public opinion, however, before long accepted the change which had at first been denounced as revolutionary.

One result of the centralization of prison control has been the reduction of the total number of prisons in the country. Dr. Quinton shows that for the past thirty years both the total number and the number of criminals in proportion to the general population has been steadily decreasing. This is most marked in the case of convicts. Thus in 1880, when the population was 25 708 666, there was a daily average of 10,299 persons confined in convict prisons. In 1909, with a population of 35 348,780, the daily average number of convicts was only 3,106. Though this enormous reduction may be slightly discounted by the shorter sentences customary nowadays, and by the different treatment meted out to first offenders and to youthful criminals, these figures undoubtedly show that crime is not "one of the flourishing industries of the country at the present time." Not only is there a striking difference in the numbers, but the criminal type has apparently undergone a radical change. Thirty years ago the average convict was a brutal savage, absolutely uneducated and destitute even of rudimentary self-control; more often nowadays the habitual criminal is a weakly nervous, high-strung creature. The work required of prisoners has also changed very much since Dr Quinton entered the service. In his early days the treadwheel was still the recognized machine for first class hard labour, whilst hemp picking and other unproductive forms of labour were general. The prisoner was made to feel that the work which he must perform was absolutely useless and profitless. These things now belong to the past, and the modern criminal who falls into the hands of the law is set to all kinds of useful work which is only restricted by considerations of fair play to outside free labour. In fact the root idea twenty-five years ago was the punishment of the criminal; the modern ideal is his reformation. He is segregated from the community for a given time as a safeguard to the public, and whilst he remains under detention attempts are made to teach him the error of his ways, and by accustoming him to some profitable sort of work to give him a chance to lead an honest life when set at liberty. All the latest Acts are inspired by this ideal. A long term of imprisonment, followed by a lengthy period of "preventive detention" is employed as a last resource of justice, and is only put into force, under the Act of 1908, when a prisoner, by being repeatedly convicted, shows himself or herself incapable of improvement. Mr. Churchill's new rules, which will come into force on May 1st, will do much to mitigate the lot of such prisoners. As nearly all convicts, as distinguished from prisoners under short sentences for minor offences, are what we may be allowed to call "chronics," and never at large for very long, it is hoped gradually to stifle out habitual criminals by locking them up in houses of detention and so preventing them from pursuing their unlawful activities. In this hope lies the explanation of the imprisonment of the "Dartmoor shepherd," whom a tenderness, to which a rough world is unaccustomed in the Home Office, tore from the pastoral pursuits in which his gentle soul found contentment. We may quote the following story told by Dr. Quinton as showing the true significance of apparently severe sentences for trifling offences:

> At one prison with which I was connected during my service a warder overheard the following illustrative conversation between two prisoners in adjoining cells:
>
> A. What are you in for?
>
> B. Forty thousand pounds! What are *you* in for?
>
> A. Six b—— heggs! Seven days hard—more than a day a hegg.

But A. was a person who *lived* by thieving, and, on his record, a month per egg might easily have been his lot before a more discriminating tribunal.

But it is in the treatment of the youthful offender, between the ages of 16 and 21, that the modern system looks to minimize crime in this country. Dr. Quinton has much to say about the Borstal system, and is evidently a sincere believer in it and its possibilities. Many judicial authorities hesitate to sentence youths to a term sufficiently long to enable them to undergo the treatment, but so far the system appears to have been productive of good results, and with a widening of its application should go far towards reclaiming the youthful criminal before he has gone too far. In fact, so sanguine are the supporters of this system of the effects it will produce that a cynic might say that it would be worth the while of a poor boy to commit crime for the sake of the educational chances he will get under the Borstal system. Dr. Quinton does not refer to a weak point in the Borstal system, which is very clearly brought out by a record entitled "How I Spent my Life in Prison: By a Juvenile Adult," quoted in Mr. Thomas Holmes's *Known to the Police*. It shows that while the prisoners are treated with all possible kindness, they in many cases have not enough work given them to do, and they are apparently taught trades which are of no use to them when they are returned to the outer world. Mr. Holmes says:

> Prison industries present a very difficult problem. I believe the officials would be glad to give prisoners twice the amount of work they are at present given; but they have not the work to give them, so a life of semi-idleness results.

In regard to the treatment of confirmed alcoholics, Dr. Quinton is strongly of opinion that the State should take over the management and maintenance of reformatories, as owing to the lack of sufficient accommodation the Inebriates Act of 1898 has practically become a dead letter; so far it has been possible to deal only with the very worst cases, and these, after being treated for the statutory three years, have promptly returned to their old habits, and, as before, continue to spend brief periods in and out of prison.

Dr. Quinton tells many stories to illustrate the mental attitude of the confirmed criminal. Whilst admitting that our prison system may not be perfect, he yet shows that it is on the whole efficient, and certainly none of its detractors has yet suggested any other way of dealing with people who are a pest to society. Written simply and soberly by a man who thoroughly understands the problem, we can strongly recommend this book to all who take an interest in the subject, and not least to those who in ignorance of the facts condemn what they call the degradation and brutality of our English prisons.

[1] *Crime and Criminals, 1876–1910.* By R. F. Quinton, M.D., late Governor and Medical Officer of H.M. Prison, Holloway. Longmans, Green, and Co., 39, Paternoster Row, London; New York, Bombay, and Calcutta. 1910. (Pp. 259. 4s. 6d.)

## PUBLIC HEALTH LAW.

THE Public Health (London) Act, 1891, was based essentially on the Public Health Act, 1875, and certain other enactments relating to public health, so that the experience gained in the administration of these statutes was

available in the drafting of the London Act. Notwithstanding this fact, the courts have been fairly constantly employed in interpreting some of its sections. In the new edition of their book, entitled the *Public Health (London) Act, 1891*,[2] Mr. MACMORRAN and Mr. NALDRETT have, with great industry, collected the decisions which have from time to time been arrived at. As an instance of the need for such a work of reference, it is only necessary to refer to Section 141 of the London Act, which interprets, or seeks to interpret, expressions used in the Act. These interpretations in the text of the Act occupy three pages of the volume, but the authors have found it essential to devote no less than forty-four pages of small print to the interpretations which have been given of the interpretations. "Trade refuse," as defined by the Act, means the refuse of any trade, manufacture, or business, or of any building materials, but the Law Courts have decided that if the refuse to be removed is "house refuse" in character, the mere fact that it has been produced in the carrying on of a trade does not make it "trade refuse." A work on public health law in London would hardly be complete unless it included references to the numerous London County Council (General Powers) Acts. Many of these are concerned with sanitary matters, and where this is the case, the authors have given the text in an appendix. Other statutes which have been usefully included are the Canal Boats Act, 1877, the Cleansing of Persons Act, 1897, the Public Health (Regulations as to Food) Act, 1907, and the section (122) relating to the cleansing of verminous children in the Children Act, 1908. The very excellent and copious index adds appreciably to the value of the work.

Only a very limited experience in the administration of the law relating to the sale of food is necessary in order to ascertain the many pitfalls which have to be avoided. Even for the most experienced it is absolutely essential to have a reliable guide at hand. Fortunately such is to be found in BELL'S well-known treatise on the Sale of Food and Drugs Acts. The fifth edition[3] is edited by Mr. CHARLES F. LLOYD, barrister-at-law, who has had the assistance in the revision of the chemical notes of Mr. R. A. Robinson, barrister-at-law. The Butter and Margarine Act, 1907, is dealt with at some length, and the various sections are interspersed with numerous helpful notes. Not the least useful feature of the work is the inclusion in the appendix of a large number of circular letters which have been issued from time to time by the Board of Agriculture and Fisheries and the Local Government Board upon the subject matter of the volume. The codification of our public health laws is long overdue; it has been promised on more than one occasion. Until it becomes an accomplished fact public health administrators in one department of their work will be well served by Sir William Bell's work. The standard which the author set for correctness and conciseness of expression in the first edition, published in 1886, has been well maintained by the editor of the latest edition.

The law relating to public health in this country has become so complicated by amending statutes and by legislation by reference that it is becoming increasingly difficult for students to obtain a satisfactory knowledge of the subject. It is, however, doubtful whether their difficulties will really be lessened by relying on textbooks compiled after the manner of a catechism. This is the style which Dr. CHARLES PORTER has chosen for his volume on *Sanitary Law*.[4] It is divided into various sections headed water supply, infectious diseases, sewers and drains, unsound meat, power of entry, etc. A short question is set and the appropriate answer given at length. He has very prudently omitted to ask himself the question, "What is a sewer?" On the whole, the information given in the answers is clearly and correctly put, though a few slips have occurred which might mislead a student. On page 63 it is stated that local authorities are directed to make by-laws for the regulation of slaughterhouses. This is only correct as far as urban authorities are concerned. On page 43, after reciting the diseases which are compulsorily notifiable under the provisions of the Infectious Disease (Notification) Acts, he points out that any other disease may be added by the sanitary authority. This should be qualified by the statement that the consent of the Local Government Board is necessary before such addition can be made.

[2] *The Public Health (London) Act, 1891.* Second edition. By Alexander MacMorran, M.A., and E. J. Naldrett. London: Butterworth and Co. 1910. (Demy 8vo, pp. 569. 20s. net.)

[3] *The Sale of Food and Drugs Acts, 1875 to 1907.* By Sir William J. J. Bell, LL.D. Fifth edition. Edited by Charles F. Lloyd. London: Butterworth and Co.; Shaw and Sons. 1910. (Post 8vo, pp 361. 8s. 6d.)

[4] *Sanitary Law in Question and Answer.* By Charles Porter, M.B., B.Sc., M.R.C.P.Edin. London: Longmans, Green and Co. 1910. (Post 8vo, pp. 150. 2s. 6d.)

## DENTAL SURGERY.

*Dental Surgery and Pathology*,[5] by J. F. COLYER, is the third edition of Small and Colyer's *Diseases and Injuries of the Teeth*. In his preface the author says that he has aimed at bringing the study of dental pathology into line with current knowledge of general pathology, and at associating the causes underlying diseases of the teeth with those underlying disease in general. Perusal of the book shows that this has all through been the author's underlying *motif*, and the value of the work is greatly enhanced thereby. Perhaps too full play has been given to this idea on p. 631 (et seq.), where the description of "gouty periodontitis" seems to fail to distinguish it from any other periodontitis. In his prefaces also the author makes an apology for having considered some subjects very fully, and shortly mentioned others perhaps of equal importance; we find, however, that where letterpress is scant no important point is overlooked, though more might have been written on syphilitic manifestations in the mouth and their prevention in general; while the space devoted to subjects more fully considered is, as a rule, worthily occupied. The book is a distinct advance on any treatise on dental surgery we have yet read, and contains, moreover, good expositions of the author's views on special points. In the chapters devoted to irregularities of the teeth a praiseworthy attempt is made to find a more fundamental basis for classification than has hitherto been forthcoming. In his discussion of the treatment of irregularities the author advances his well-known views as to the benefits of early extraction of premolars. The figures given show dental arches excellent in arrangement, but obviously small, to the detriment, we cannot help thinking, of the patient's facial beauty. We must demur to the announcement in large type (p. 234) that the deformity (superior protrusion) is not always associated with adenoids, and should like to know the class of superior protrusion to which allusion is made. Dental caries and periodontal disease (pyorrhoea alveolaris) are considered from both the human and comparative standpoints, greatly to the advantage of the reader. We note (p. 484) that the author thinks that "increased clinical experience has taught that collar crowns should only be employed under exceptional conditions." When it was said above that as a rule the space devoted to subjects more fully considered is worthily occupied, the chapter on bacteriology of the mouth (by Mr. K. W. Goadby) was in mind. There seems to us to be too little for the bacteriologist and too much for the general reader. The writer appears sometimes not to have a very sequent conception of his theme, as when a reference (p. 311) to *the* streptothrix which is met with in the mouth is followed a few lines later by mention of "another variety producing bright pink colour." The thermal death point of tubercle bacillus is said to be 58° C. for fifteen minutes (p. 301). The author himself is not free from the charge of obscurity—(p. 739) "absence of a third molar tooth, a frequent cause of neuralgia," should surely read "presence of an unerupted third molar tooth." Fig. 447 needs explanation to point out the "marked differences" referred to. On p. 809 the maximum dose of cocaine by injection might well have been reduced to $\frac{1}{8}$ grain in place of $\frac{1}{2}$ grain. The illustrations are numerous and excellent, with the exception of Fig. 409, purporting to show *Treponema pallidum* in a syphilitic liver; but Fig. 854 shows not a cyst as is described, but a chronic abscess of the maxilla.

[5] *Dental Surgery and Pathology.* By J. F. Colyer, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon to Charing Cross Hospital and the Royal Dental Hospital. London: Longmans, Green and Co. 1910. (Demy 8vo, pp. 1016. 25s.)

*A Manual on Dental Metallurgy*,[6] by ERNEST A. SMITH, the third edition of which has appeared, is, the preface states, primarily designed for the use of students preparing for examination. This object, we think, the book fully attains, and a perusal of its pages will go far to convince the sceptical of the wisdom of those who insisted on the inclusion of metallurgy in the course of dental instruction. The author, without going too deeply into such questions as the extraction of metals from their ores, has compiled a book of some three hundred pages, every one of which is of interest not only to the student, but to the dental practitioner. We could have wished that the author had felt able on some points to assume a less non-committal attitude, as on the question of cohesion of gold (p. 98), where the strongest statement he feels able to make is, "it is, no doubt, the retention of nitrogen which destroys the cohesive property." The opinions of others are perhaps rather too frequently quoted, as on p. 156, when the author offers no opinion of his own as to the cause of "spheroiding" of amalgam fillings; yet his own opinion would be worth knowing. More might have been said as to gold casting, especially as to the relative strength and fit of cast and swaged plates. There are some rather loose expressions which leave a doubt in the reader's mind as to their precise meaning—for example (p. 10, footnote), "the weight in air divided by the difference of the weight in air and in water is the specific gravity of the metal." But such blemishes are infrequent, and the book as a whole is a careful compilation of knowledge useful to the dental student.

## NOTES ON BOOKS.

*The Chemist's Annual for 1911*,[7] while principally intended for pharmacists, contains a good deal of matter useful to all connected with drugs and medicines, such as legal information in regard to poisons, the Sale of Food and Drugs Acts, proprietary rights in goods, etc., with notes on tablet-making, analysis of water, milk, and urine; this and other matter is bound up with diary and cash pages, interleaved with blotting-paper.

The twenty-ninth issue of the *Yearbook and Diary*,[8] published by the *Sanitary Record*—a very useful publication—comprises a diary with two pages allotted to each week, preceded by memoranda for the use of sanitary engineers and surveyors, compiled by Mr. G. J. G. JENSEN. There is also a list of the Government departments with which sanitary officials are usually concerned, together with the names of the principal departmental officials. A section devoted to sanitary and allied associations contains detailed and accurate information relating to about fifty such societies. Several pages are given to an account of the examinations conducted by the Royal Sanitary Institute and the Sanitary Inspectors' Examination Board, but there is no mention of the examination for sanitary inspectors which has lately been established by the Sanitary Inspectors' Association.

Dr. ALBERT WESTLAND'S book, *The Child*,[9] is written for mothers, nurses, health visitors, teachers, and others interested in the care of the young. Certain suggestions for treatment are made in the hope that they may be useful to mothers in emergencies where medical advice is difficult to obtain, and at the same time enable those in touch with medical advice to assist the efforts of their medical adviser intelligently. It may be said that the author has justified his insertion of medical matters, and that on the whole his objects have been well and judiciously carried out. The chapter on "Some Congenital Defects in Children" might well have been omitted, as in most, if not all, of the defects cited the question of emergency could scarcely arise. The section on infant feeding is unsatisfactory and needs thorough revision and correction. The advice to use the milk from one cow is out of date, and now generally disapproved, and the statement that the only advantage of unsweetened over sweetened condensed milk is that the former keeps longer after opening may fairly be questioned. We emphatically disapprove of the advice to start farinaceous feeding at 3 months old, and to give Ridge's or Neave's food at the same age, made at first with plain water, "if the supply of the mother's milk is fair in quantity." The rest of the work is much more satisfactory, and in many ways can be commended.

[6] *A Manual on Dental Metallurgy.* By Ernest A. Smith, Associate of the Royal School of Mines, London. Third Edition. London: J. and A. Churchill. 1910. (Post 8vo, pp. 310. 6s.)

[7] *The Chemist's Annual and P. J. F., the Pharmacist's Diary and Yearbook, 1911.* Edited by John Humphrey. London: The Pharmaceutical Press, 72, Great Russell Street, W.C. (5s.)

[8] *The Sanitary Record Yearbook and Diary. 1911.* London: The Sanitary Publishing Company. (Post 4to, pp. 72. 2s. 6d.)

[9] *The Child: A Medical Guide to its Care and Management.* By Albert Westland, M.A., M.D., C.M. London: Charles Griffin and Co. 1910. (Demy 8vo, pp. 200. 2s. 6d.)

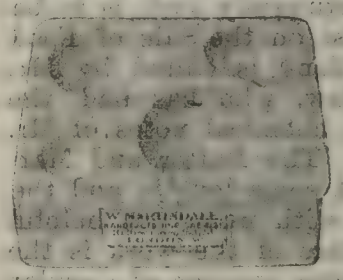
## MEDICAL AND SURGICAL APPLIANCES.

### *Bedstead for Tropical Hospitals.*

DR. A. J. M. PAGET, senior medical officer, Somaliland, has sent a description of a new and inexpensive type of bedstead designed for use in native hospitals in tropical countries. Instead of the wire mattress, which so soon gets corroded, the bed is constructed with rounded framework, which is then strung locally with native fibre rope. The rope both lasts well and is also very cheap (8d.) to renew; this is of considerable importance where discharges have contaminated it in surgical or other cases. The rope mattress is covered usually with a grass mat, which is cool and comfortable to sleep on, besides being easily obtainable in tropical countries. The beds are particularly easy to freight owing to their comparatively small bulk and absence of etceteras. The feet are designed solid, as much more suitable for mud and lime floors, which soon give way under the usual castor-fitted bedstead. Over fifty of these beds have recently been sent to the civil medical department, where they have proved highly satisfactory, and Dr. Paget speaks most highly of the coolness and comfort experienced by the patients. The bedstead is supplied by Messrs. Arnold and Sons, of Giltspur Street, London, E.C.

### *Combined Solution Tray, Staining Bath, and Embedding Mould.*

Mr. W. Martindale, 10, New Cavendish Street, London, W., supplies a combined porcelain solution tray, staining bath, and embedding mould, designed by Dr. Wyatt Wingrave (Pathologist to the Central Throat and Ear Hospital and to the Polyclinic) as a temporary receptacle for different solutions during minor operations. By reason of its stability, cleanliness, shape, and size, it is specially adapted for the consulting-room of practitioners, especially those engaged in aural, nasal, laryngeal, ophthalmic, gynaecological, or dental work. Its use will be found to economize the employment of cocaine, adrenalin, and other costly solutions, while it is readily cleaned and cannot be upset. It will be useful to pathologists for embedding tissue of all sizes, either in paraffin or celloidin, and at the same time provides staining baths for sections. The cells should be wiped out with a very thin film of vaseline before embedding tissues. They are of 3, 5, 15, and 20 c.cm. capacity, which experience has proved to be the most convenient sizes for the different purposes for which they may be employed.



### *Thermogène Wool.*

We have received from the Thermogène Company, Ltd. (Hayward's Heath, Sussex), samples of the impregnated cotton-wool which is sold under the above name. This absorbent wool contains calefacient or irritant agents, and examination showed capsicine to be a principal constituent. It is intended to be moistened with eau de Cologne or other alcoholic liquid, vinegar, or salt solution. A trial showed that it has a powerful stimulating and warming effect on the part to which it is applied.

## MEDICINAL AND DIETETIC PREPARATIONS.

### *Streptococcus Vaccine for Rheumatic Fever.*

MESSRS. BURROUGHS, WELLCOME AND CO., Snow Hill Buildings, E.C., now issue a streptococcus vaccine for rheumatic fever. The presence of an organism (*Micrococcus rheumaticus*) in rheumatic lesions and in the blood of rheumatic patients has been demonstrated, and it is believed by some to be causally connected with rheumatic fever. The vaccine is obtained from this organism, several strains being used in its preparation. It is said to be useful in cases of persistent relapsing rheumatism. It is issued in convenient hermetically sealed phials holding 1 c.cm., containing either 10 or 50 million organisms.

## A COUNTRY HOSPITAL FOR CHILDREN.

THE Royal Liverpool Country Hospital for Children is an institution which has amply justified its existence, and has proved that a very practical economy results from the taking of sick children, and more especially those suffering from disorders which require prolonged care, right away into the country, where their treatment, whether medical or surgical, can be carried out in open-air wards. The Honorary Physician (Dr. C. J. Macalister) and the Honorary Surgeon (Mr. Robert Jones), who have now had experience of this work extending over a good many years, in a report read at the recent (twelfth) annual meeting, gave an instructive comparison of the results obtained under three sets of conditions. In the early days of the work the children were treated in an ordinary ward, but spent a good part of the day outside during favourable weather. Then came a time when, pending the building of the open-air wards now in use, the patients, beds and all, were every day moved into the open air in the early morning and remained there until sundown; latterly, since the completion of these wards, they have been treated entirely in them. The results have been good under all three conditions, but it is abundantly manifest that the last condition is incomparably the best, and that the period of treatment has been in most cases greatly shortened owing to the stimulating effects of constant fresh air and sunshine upon the processes of growth and repair. The invariably rapid gain in weight and the rosy, chubby faces of the children, even though they be the subjects of serious diseases, bear testimony to the advantages to be derived from the system which has been adopted, and which has been so thoroughly and efficiently carried out. The economy to which we have referred consists not only in this shortening of the period of treatment, which enables a larger number of children to be dealt with, but also in the indisputable fact that many of these children would succumb or would become permanently invalided unless cared for under these conditions in a hospital where no time limit compels the discharge of the patient before the greatest possible permanent good has been attained. It has been a common experience to find that cases which resisted prolonged treatment in a general hospital have rapidly improved when removed to the country hospital.

The hospital is situated at Heswall on the high lands overlooking the Dee. It has been constructed in such a way that there are great possibilities of future expansion without involving structural alterations in the administrative and central blocks, which have been designed to deal with an ultimate total of at least 200 beds. The administrative block accommodates the staff and provides a board room, matron's, sisters' and nurses' sitting rooms, and a separate bedroom for each nurse. There are forty-two of these rooms. There are also rooms for resident medical officers in this block.

Open-air Wards: General View. Underneath the lower ward, to the left of the picture, is a covered playground.

The central block is connected with the administrative department by means of a corridor. It is a large building, which contains on the ground floor two medical wards for infants and young children, and a large entertainment room. An isolation block containing several small wards and a kitchen has been constructed on a level with this floor. It is cut off from the main corridor, and is entered from the outside. On the second floor is the theatre, with its associated sterilizing and anaesthetic rooms, and a surgeon's dressing-room. There is also a large $x$-ray room, a surgical ward for such patients as require temporary indoor treatment, rooms for sick nurses, a nurses' dining room, a sewing room, and a splint room.

Open-air Ward: Near View.

Open-air Ward: Interior.

On the top floor is the large kitchen and its attached storerooms, connected by means of separate lifts, for example, for coal and stores, and for distributing food to the various departments of the hospital. The servants' hall and their sleeping accommodation is also on this floor. The dispensary and the laboratories are in the basement. The outstanding features of the hospital which require special mention are the large open-air wards, two of them completed and two in course of construction, which form wings at the north end of the great central corridor. These wards are 85 ft. long by 32 ft. wide. They are entirely open on one side, the walled sides being well

lighted by means of windows. The children live in these wards night and day, and are kept thoroughly warm with plenty of clothes and with hot bottles; for the heating of these bottles a special appliance is provided on each floor. The patients quickly become inured to the weather, and evidently enjoy their open-air life. Rooms are provided in connexion with each ward into which the children are taken for medical examination; there are other side rooms and ward kitchens attached.

At present 82 children are undergoing treatment, and in the course of a couple of months, when the new wards are completed, there will be accommodation for about double that number. As there is no supply of artificial light in Heswall, which is quite in the country, it was found necessary to instal an electric generating plant, which supplies light and power for the lifts and laundry. The hospital stands in ten acres of heather-clad land in surroundings which are entirely beautiful.

We are indebted to Mr. C. H. Schuhmacher for the photographs by which this note is illustrated.

The EARL OF DERBY, President of the hospital, who was in the chair, made a special appeal at a dinner given in aid of the hospital at the Adelphi Hotel, Liverpool, on Thursday, February 23rd. He acknowledged the receipt through Lady Sefton of a gift of £50 from the Duke of Westminster, of gifts of £1,000 from Mr. Edward Hutchinson for the endowment of a free cot, and of £600 from Mr. Cain for the endowment of an appropriated cot. Since the foundation stone was laid in 1906 by Colonel Montgomery, great progress had been made, partly through the energy of that gentleman and partly through the energy and generosity of another gentleman interested in the hospital who declined to allow his name to be mentioned. During the past year 182 children had been treated, and, of the 108 patients, 68 surgical and 40 medical, who had been discharged, all had done well with the exception of 7. The great object of the hospital was not to make rapid, but to make radical and lasting, cures.

The toast of success to the hospital was proposed by the LORD MAYOR OF LIVERPOOL, who observed that the hospital was established for the benefit of children who required long treatment, and had been built on a site where Nature contributed almost as much towards recovery as medical and surgical skill.

Sir THOMAS BARLOW, President of the Royal College of Physicians, in supporting the toast said that physicians and surgeons were the most severe critics of their own work and were fully conscious of the great limitations of the hospitals in many ways, not entirely due to the faults of the physicians and surgeons, but some of them arising out of the conditions of the age. On the other hand, the collateral results of their work were often quite as important and quite as striking as the direct effects aimed at. The great crusade against tuberculosis had produced, besides its direct, many indirect, benefits; he supposed, for instance, that every person in that room now slept with his window open. A great many diseases besides tuberculosis were all the better for sunlight and the free circulation of air. The world was beginning to learn the lesson which Florence Nightingale taught so far back as the Crimean war—the lesson of sleeping with open windows and letting as much air as possible into a room. There was no greater fallacy than the belief that children could not bear cold winds. They could bear cold winds better than grown-up people if only certain precautions were taken—that was to say, they must be given plenty of warm underclothing and care taken to keep their extremities well clothed, with, if necessary, a hot water bottle kept in their vicinity. He took a great interest in this hospital, for though he had not seen it until that day, the principle it embodied had been a dear subject with him for many years past. Dr. Macalister had shown him the hospital and explained its working. The success achieved under the care of Dr. Macalister and Mr. Robert Jones, who had stuck to the work through thick and thin, was astonishing. They had not attempted to deal with all kinds of cases, but had specially fixed their minds upon chronic cases, and that, he would venture to say, was one of the modern developments of true philanthropy. In the old times the endeavour was to patch up, to deal with immediate needs, but if children were only given time enough and put in the right condition, it was marvellous how they would recover. He recommended all persons engaged in the work of hospital reform to study the excellent methods of the Liverpool Country Hospital for Children. It was said that this was the day of municipalization, and some people advocated the municipalization of hospitals. He did not wish to live to see that day. He quite recognized that Liverpool had done splendid work in regard to its municipal hospitals. Excellent results had been achieved in some of the workhouse infirmaries in different directions. He, however, hoped that such an institution as had been founded at Heswall would never be allowed to become municipalized. He hoped that in time it would be possible to make developments on educational lines in teaching handicrafts and other things. If the hospitals were municipalized it would mean that they would lose the valuable and disinterested services of those prominent citizens who at present took such a keen interest in the management of these institutions, and the many ladies who helped in various ways to further the work. The good working of municipal infirmaries was largely dependent upon the initiative of one or two persons, and he ventured to assert that the great improvements in social and medical work were largely due to voluntary effort.

Mr. B. G. A. MOYNIHAN, M.S, who also spoke, said that the scheme of the hospital had been conceived and carried through almost to completion with every circumstance of care, and it possessed every ingredient of success; it had had generous benefactors and had benefited by organized skill and enthusiasm. The difficulties which confronted the surgeon were not primarily those of equipment and maintenance of buildings, but those inherent in the cases with which he had to deal. The means which the surgeon now possessed, and not the surgeon alone, of dealing with these difficulties had been enormously increased by the work of one man whom he ventured to describe as the greatest man now living, Lord Lister, who was spending the evening of his days in this country honoured by the medical profession and men of science throughout the world.

The toast of "The Medical Profession" was proposed by Sir EDWARD RUSSELL, who spoke of the admirable co-operation which existed between those engaged in the management of the hospital and the medical men connected with it. The toast was acknowledged by Sir DONALD MACALISTER, who said that Liverpool might well be proud of the fact that it had bred men who had become medical leaders. One result was that Liverpool was now teaching many of her elder sisters in medicine. Mr. HAROLD J. STILES, M.C. (Edinburgh), who also responded, praised the conception of the hospital and the manner in which it had been realized.

Dr. WILFRED GRENFELL, C.M.G., gave the toast of "The President," which was briefly acknowledged by Lord DERBY.

## MEDICINE IN THE "ENCYCLOPAEDIA BRITANNICA."

### FIRST NOTICE.

A GENERAL review of the new edition of the *Encyclopaedia Britannica*[1] appeared in the BRITISH MEDICAL JOURNAL of February 11th, p. 324. In that preliminary notice we indicated the features which make it virtually an entirely new work, in which a summary of all human knowledge is given by writers who can speak with authority on their special subjects, the mass made up of the several contributions being fashioned by editorial design and supervision into a well-proportioned organic whole. It is, therefore, neither a dictionary nor a mere collection of independent monographs, but a book arranged on a uniform plan—a "mighty maze" indeed, but "not without a plan."

Medicine finds a place adequate to its importance in the ever-expanding field of modern science. The various subjects comprised under this head are dealt with by writers of recognized competence in a manner at once strictly scientific and intelligible to the average lay mind. This of itself gives the *Encyclopaedia* a special character

[1] *The Encyclopaedia Britannica*. A Dictionary of Arts, Sciences, and General Information. Eleventh edition. Vols. I–XIV. Cambridge: University Press. 1910.

of usefulness which should commend it to the medical profession. As we have often said, it is not in legislation that the hope of freeing the mind of the people from the degrading bondage of quackery lies so much as in the diffusion of accurate knowledge as to the structure and functions of the human body and the effects upon it of its surroundings, of food and drink, and of physical and medicinal agents. By the creation of a scientific atmosphere, in which imposture cannot live, quackery will die a natural death.

Towards the attainment of this end the information on medical subjects given in the *Encyclopaedia* will effectually contribute within its sphere of influence. That sphere, therefore, in the interest of rational medicine, which is the most powerful factor in the public welfare, cannot be too wide. The more people know of the medium in which the doctor has to work, of the difficulties he has to meet, and of the resources which he can bring to bear towards overcoming them, the more ready they will be to trust him and the greater allowance they will make for failures which they have learnt to be inevitable. The better, too, will the public be able to appreciate at their proper value the impossible pretensions of quacks, and to discount the exaggerated claims of enthusiasts. By its educative effect in this direction, the *Encyclopaedia* discharges a function of the greatest value to mankind which the medical profession, owing to necessary but none the less artificial restrictions of its activity, cannot itself adequately fulfil.

It is matter for satisfaction, therefore, that in the new edition medicine—taking that term in the most comprehensive sense—and the sciences more or less directly connected therewith occupy a far larger space than was allotted to them in former editions. Not only does the medical section occupy nearly double the space given to it in the tenth edition, but the growth of knowledge has made it necessary to provide articles on a number of subjects that were not previously included in its scope. The arrangement of the matter also differs from that previously adopted. Whereas formerly there existed a number of detached articles on various diseased conditions, an effort has now been made to link up the various sections and groups each in connexion with a heading, and showing the relation of the subsections to it. This has been done by the selection of certain anatomical divisions or main systems, and the addition to them of the physiology and pathology, and in some cases of the medicine and surgery, of that system. As an example we may point to the article, "Respiratory System," which comprises the anatomy of the respiratory system, its physiology, an account of the mechanical movements of respiration and the pathology of respiratory diseases. In addition to such groups there are articles dealing with the clinical side of those diseases and giving a full account of their treatment. Thus, in the respiratory group, there are separate articles on bronchitis, bronchiectasis, pleurisy, pneumonia, tuberculosis, etc., in which an account is given of the conditions predisposing to each disease. The importance of the statistical method as an aid to scientific precision in medicine is becoming more and more recognized at the present day. A valuable feature of the new edition of the *Encyclopaedia* is that in the more important articles on medicine an attempt is made to supply adequate statistics of the disease, not alone in Great Britain, but also in foreign countries.

We propose to refer in some detail to the various articles in subsequent notices. Here it is sufficient to say that even a casual inspection is sufficient to show that a most praiseworthy effort has been made to embody in the *Encyclopaedia* the latest advances in medical science. Although in the case of a subject so progressive that it may be said of it with literal truth that "panting time toils after it in vain," it is impossible in any general review to represent the exact point reached at a given time in every province of research, this eleventh edition of the *Encyclopaedia* is immeasurably more up to date than any of its predecessors. Thus, to take only a few of the most modern instances, we find accounts of the newer methods of diagnosis and treatment of tuberculous disease and a discussion of the sanatorium treatment; descriptions of serum treatment in its later developments, and of vaccine-therapy; and a survey of the newly annexed province of tropical diseases.

It should be mentioned that, in addition to the special articles, a large number of dictionary headings, giving a brief explanation of medical terms, is scattered through the volumes. A touch of human interest is added by numerous short biographies—ranging from Æsculapius to Virchow—of persons who have written their names in the history of medicine. Valuable help to the reader is afforded by the fullness of the index in respect of medical subjects.

In conclusion, we commend the eleventh edition of the *Encyclopaedia Britannica* to doctors who wish to have by them a trustworthy work of reference in which will be found the result of a careful winnowing of the harvest of modern scientific research. To the general reader we commend it as probably the best popular summary of the fruits of the labours of the men who have worked, and are at present working, to transform medicine from a system of speculations and a collection of empirical facts into a science which will afford a foundation for a thoroughly effective art of healing.

## SICKNESS INSURANCE AND PUBLIC HEALTH.

By ROBERT A. LYSTER, M.D., B.Sc., D.P.H.,
County Medical Officer, Hampshire.

THE fact that the issue of a Government scheme of sickness insurance is imminent affords further proof of the desirability and urgency of a scheme for the unification of the medical services as part of a general extension of the scope of prevention of disease. As the working details of the proposed scheme are not yet available, it may not be out of place to submit some suggestions in connexion therewith, and to show how completely such a scheme could be made to accord with a much-needed increase in State activity in the protection of the public health.

It may be assumed that the scheme for sickness insurance will involve:

(1) Contributions from workmen.
(2) Contributions from employers.
(3) Contribution from State funds.

The contributions from workpeople and employers constitute virtually a new tax, and in return for this and also for the considerable annual subvention from public funds the community should see that it gets an adequate return in an improvement in public health, if not also in personal conduct. Any scheme, therefore, that is based on a mere money payment to the sick man must be open to very grave objections from a public health standpoint.

### SCHEME OF UNCONDITIONAL PAYMENTS.

Merely to provide anything like 5s. a week during sickness, with a maximum of say thirteen weeks, and without provision for medical treatment, would be next to useless from a public health point of view. The handing over of any given weekly sum of money would not necessarily promote preventive medicine in any way. Such a plan would neither insure medical treatment nor the adequate maintenance of the patient, and still less of his family. The recipient would not be bound in any way to do anything to promote his recovery; the weekly sum might be spent in drink or betting.

#### *Disadvantages.*

1. If such a plan were adopted it might, in fact, be suggested that, although the workman had had 1d. a week compulsorily stopped from his wages in the past, yet this would not make the 5s. a week in sickness anything other than unconditional, inadequate outdoor relief on a colossal scale.

2. Another result would be that malingering, in all its forms, would become a grave evil; 5s. a week whilst unable to go to work might not be much of a temptation to the skilled artisan of the towns. But 5s. a week to: (*a*) the man in the West of Ireland or the Hebrides, (*b*) the unskilled woman worker everywhere, (*c*) the labourer in discontinuous employment who finds the intervals between jobs lengthening out, and (*d*) the idle man or woman anywhere, would prove, in hundreds of cases, an irresistible temptation to make the most of their rheumatism, sciatica, etc.

3. A free choice of doctors must almost inevitably follow unconditional payments, and the available doctors would necessarily be limited to such as cater for the fees that 5s. a week maintenance would be likely to afford. It may be suggested, therefore, that while the chances of the genuine case would be small as to recovery, yet to the malingerer there would be an irresistible attractiveness about the doctor who was generously lax in giving the certificate that would permit of the 5s. being drawn.

### A PUBLIC HEALTH SCHEME.

In return for any large scheme of contributions and State subsidy, it may be assumed, possibly, that the community would demand for the sick persons:

(*a*) Adequate medical and surgical treatment of the patient, so long as he is ill, together with proper maintenance, and
(*b*) Provision for the dependents of the breadwinner when he or she is unable to work through illness.

At the same time it should be possible to secure these ends in such a way as to insure:

(*c*) Prevention of malingering, and
(*d*) Promotion of the general public health.

In preparing any scheme one must bear in mind the following facts:

1. Six millions of people are already in suitable friendly societies or trade unions providing sick pay; these with their wives represent, perhaps, one-third of the thirty millions of the United Kingdom population over school age.

2. Some more are in unsuitable societies, while probably eight millions are not provided for by any form of insurance; these represent, with their wives, half the United Kingdom population over school age, though falling below the suggested income limit of £150 per annum. This limit might reasonably be reduced to £100.

3. At the same time any system of compulsory contribution must, for administrative reasons, be made applicable equally to all wage earners, whether already provided for or not.

The following scheme is suggested as fulfilling the assumed conditions:

I. *Revenue.*—It is assumed that the statements made as to the "revenue" side of the Government plan are correct, namely: (*a*) Compulsory universal deduction from all wages or salary under £150 per annum. (*b*) Equivalent contribution by employer; these sums to be payable either by taxation upon annual returns of wages or by affixing stamps to a wages sheet. (*c*) Government subvention thereto.

II. *Members of Approved Friendly Societies.*—It is suggested that there should be paid over to all approved friendly societies and trade unions giving sick pay the equivalent of whatever has been paid into the fund (excluding Government subvention) in respect of their own members. This payment could either be made (*a*) an unconditional grant in aid of their sick funds, or (*b*) a sum to be received and appropriated, in accordance with some approved scheme, in any special way desired (for example, reducing premiums, adding new benefits, providing annuities). The State contribution in respect to the same members could be paid over to the above societies and unions as a variable grant to be earned by efficiency.

III. *Non-members.*—With regard to all the rest, the Local Health Authorities should receive the contributions of employees and employers in respect of all the insured population within their area, as a fixed grant in aid of its total public health expenditure on condition that the Local Health Authority makes the following provisions:

(*a*) Suitable medical and surgical treatment to all persons needing it (that is, those not provided for by friendly societies, etc.), either in hospital or at home, as may seem best, and subject to charge and recovery of adequate fees where the income is above the compulsory insurance limit. The method of making the required provision could be left to the locality (county or county borough) to decide upon, subject to approval by the Central Department. One method, for instance, would be for the local authority to fix a scale of payments for all necessary treatment after consulting with the local organization of the British Medical Association. In this way each locality would make its own terms. The local authority would of course retain powers of supervision.
(*b*) Allowances for maintenance of patient and his dependents where necessary.

The State contribution in this case could be paid as a grant in aid to be earned by and depending on efficiency of administration.

*Advantages.*—The following advantages may be claimed for the scheme:

1. Adequate treatment and maintenance of all sick persons by a responsible medical authority is ensured.

2. The greatest possible stimulus is given to the prevention of disease and to public health work in general. In order to avoid unnecessary expense each local authority would search out and treat all forms of disease and a great increase in public health activity would result. Local authorities would quickly realize that it was to their interest to do real preventive work.

3. The best possible safeguard against malingering and against improper use of the provision is afforded. The supervision of the local authority would be sufficient to prevent these abuses.

4. The friendly societies are protected and encouraged, enabling them to increase their membership and to add to their efficiency and attractiveness.

5. The practice of the general practitioner is left untouched. He is in a position to make suitable terms with friendly societies for the medical attention required for their members, and with the health authority for the treatment of the remainder. Such terms may be arranged on the baasis of fixed payments per head or separate fees for work actually done, in accordance with a scale. All these details might be left to be decided upon locally, and there appears no reason why one system should not be at work in some areas and the alternative plan in others. All persons above the income limit would be left in the same position as at present.

## THE ANNUAL REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.

### I.

THE Thirty-ninth Annual Report of the Medical Officer of the Local Government Board for 1909–10,[1] the publication of which has already been mentioned, contains Dr. Newsholme's general report and a number of appendices, including one by Dr. Bruce Low on the progress and diffusion of plague throughout the world during 1909, showing that the disease was widely endemic.

### *The Vaccination Act, 1907, at Work.*

The digest of vaccination officers' returns is of considerable interest and importance as showing the immediate effect of the 1907 Vaccination Act. The summary deals with children whose births were registered in 1908, the first complete year after the relaxation of the law enforcing vaccination, a relaxation which practically afforded invitations to exemption. During the nine years before the 1907 Act the exemptions in England and Wales never rose higher than 5.8 per cent. of the births. In London during the same period the exemptions were never more than 1.5 per cent. A marked change occurred in 1908, when the exemptions in England and Wales rose to 17 per cent. and in London to 7.3 per cent.

We quote the following paragraph and table from the report:

Of 940,640 births reported to the Board by the several vaccination officers in England and Wales as having been registered during the year 1908, the number which, at the time the return was made, had been registered as successfully vaccinated was 594,792 (being 63.2 per cent. of the whole), and the number registered as having died unvaccinated was 80,188 (or 8.5 per cent. of the whole). Of the remaining 265,660 children, 2,438 (or 0.3 per cent. of the whole) had been registered as insusceptible of vaccination; 2 as having contracted small-pox; 14,333 (or 1.5 per cent.) as having their vaccination postponed by medical certificate; and 160,350 (or 17.0 per cent.) in respect of whom certificates of conscientious objection were received; leaving 88,537 (or 9.4 per cent.) as "removed," "not to be traced," or otherwise unaccounted for. If from the 940,640 births returned by these officers the

[1] The Thirty-ninth Annual Report of the Local Government Board, 1909–10. London: Darling and Son, Limited, 34–40, Bacon Street, E. (Medium 8vo, pp. 604. Price 3s. 7d.)

ENGLAND AND WALES.

*"Abstention" from Vaccination and "Acceptance" of Vaccination in 1893-97 and in Subsequent Years.*

| | Per Cent. of Births in Each Instance. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1893-7. | 1898 | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. | 1905. | 1906. | 1907. | 1908. |
| ABSTENTION. | | | | | | | | | | | | |
| "Exempted," "postponed," and "remaining" | 21.0 | 26.6 | 20.8 | 19.9 | 17.3 | 15.2 | 14.7 | 14.5 | 14.8 | 16.8 | 20.3 | 27.9 |
| *Exemption alone ... ...* | — | *5.1* | *3.6* | *4.3* | *4.5* | *3.6* | *4.0* | *4.3* | *4.8* | *5.8* | *8.4* | *17.0* |
| ACCEPTANCE. | | | | | | | | | | | | |
| Vaccinated ... ... ... | 67.7 | 61.0 | 66.4 | 68.7 | 70.8 | 74.8 | 75.4 | 75.3 | 75.8 | 73.4 | 70.9 | 63.2 |

80,188 deaths that took place before vaccination be first deducted, it appears that, of the surviving 860,452 children, there were registered at the time of the return 69.1 per cent. as successfully vaccinated; 0.3 per cent. as either insusceptible of vaccination, or as having had small-pox; 1.7 per cent. as under medical certificate of postponement, and 18.6 per cent. in respect of whom certificates of conscientious objection to vaccination had been obtained; leaving 10.3 per cent. as at that time still unaccounted for as regards vaccination.

It may be true that in some parts of the country applicants for exemption under the 1898 Act had been improperly hampered by magistrates when applying for exemption. This called for amendment, but not for the total removal of all obligation on the part of the parent except the mere declaration so easily obtained. At least, the authorities might have endeavoured to impress on the parent the desirability and importance of having the child vaccinated. As matters stand at present, the average parent cannot tell whether the Government seriously desires the vaccination of his child. He is provided at registration with the means of escape, and, when the child is three months old, he is officially invited (Form Q) to get the child vaccinated or exempted practically on level terms. Under these circumstances, it is remarkable that so large a proportion as 63·2 per cent. of the children born in 1908 were vaccinated. Every parent knows that he can stifle his "conscience" when danger approaches and rush for vaccination. It is known that a very large number of those who go through the formality of declaring "conscientious" objection have no such objection, and simply desire to wait until a more convenient or imperative time. The number of exemptions has increased since 1908, and in the absence of small-pox, will doubtless increase, unless some change is made in the present system. Some influence should be brought to bear on those who are merely thoughtless and indifferent, but have no insurmountable objection to vaccination. Among the many signs of uneasiness and anxiety at the present state of affairs are to be found warning words from medical officers of health to their councils or boards, and in some cases—notably Edinburgh and Glasgow—the increase of exemption is causing grave concern as to the means available for coping with an outbreak of small-pox. The public will certainly be called upon to provide large sums of money to meet such emergency, an altogether unnecessary expenditure if vaccination were properly enforced.

## SCIENCE NOTES.

ROENTGEN rays from ordinary bulbs are usually produced at generating potentials of between 10,000 and 100,000 volts. It is possible by using a special tube with a very thin aluminium window to experiment with rays generated at only a few hundred volts. The rays generated at 1,000 to 3,600 volts have recently been investigated by Mr. R. Whiddington, B.A., whose results were communicated to the Royal Society recently by Sir J. J. Thomson. It was found that such soft Roentgen rays had much the same properties as the harder rays usually experimented with. They produced ionization in air, affected photographic plates, and excited secondary radiations when incident on solid bodies. Their range in air, however, was not many centimetres. For many purposes a Roentgen radiation is sufficiently defined by a knowledge of—(1) the total energy; (2) the penetrating powers in absorbing screens. These two properties had therefore been investigated in some detail, with reference particularly to the influence exerted by—(1) the material of the anticathode; (2) the potential at which the rays were generated. The anticathodes used fell naturally into two groupings: Group A.—Al, Pt. Group B.—Ag, Cd, Cu, Fe, Ni, Pb, Sb, Sn, Zn. The anticathodes of Group A were found to emit secondary radiations; those of Group B did not. Experiment indicated that Al emitted a soft characteristic radiation. In order to arrive at a common explanation of a number of experimental results it was suggested that this Al radiation disobeyed the law of "Roentgen ray fluorescence" recently advanced by Barkla.

Although many plant remains have been found in various geological strata, the perishable nature of vegetable structure in general makes it unsuitable for preservation, and it is not surprising that there are numerous gaps in vegetable palaeontology. It is, however, rather astonishing that so few connecting links have been unearthed between the great groups existing at the present day, the angiosperms, gymosperms, bryophyta, etc. Even the Cambrian strata, in which so many rich finds of animal remains have been made, are singularly lacking in plant life. The sudden appearance of the Cycadofilices and other forms in the Silurian and Devonian, and of the angiosperms in the Cretaceous is rather remarkable. To account for these strange facts Meyer has recently put out an interesting theory. He does not share the view that the connecting links between the various groups have not been preserved. His idea is that practically all our modern vegetation arose from a group of small plants, so delicate and fragile, that though they lived up to cretaceous times, very few traces, if any, of them remain in the geological record. This group may have arisen in Cambrian times from freshwater algae and become differentiated into subgroups. The individual members probably resembled the prothallus of ferns or the gametophytes of mosses. No sporophyte was developed, but only spores or sporangia, giving rise directly to similar individuals. The Cambrian flora was entirely marine, but land was gradually being formed and fresh water appearing, so that from these original marine forms others were developed to suit the changing environment. The theory is plausible, and appears to account for the innumerable gaps which undoubtedly do occur.

A note in *La Nature* refers to Piutti's recent discovery that minerals in a state of fusion can absorb helium, a fact which accounts for the presence of helium in non-radio-active minerals like stibine. This discovery destroys the value of the attempts made by some to estimate the age of rocks by the amount of their radio-activity. A simple formula to this effect was proposed by Strutt, who calculated that $9.13 \times 10^{-8}$ cubic metres of helium would be evolved annually for every gram of uranium oxide present. From this by chemical analysis could be determined the number of years which had elapsed since the mineral had crystallized. Piutti's observations show that this is inapplicable. At their formation in a state of fusion the minerals may have absorbed the whole or part of the helium which they contain, and, on the other hand, they may since then have lost variable amounts of it owing to the heat to which they have from time to time undoubtedly been exposed. On this account the helium content can give no precise idea of the age of rocks.

A very curious newt has recently been studied by two French naturalists. It is like an ordinary newt in most respects, but it has no vestige of lungs. It is an inhabitant of Corsica, where it lives under stones in the dry beds of rivers. In spite of the absence of lungs it performs rhythmical respiratory movements. The buccopharyngeal cavity is highly vascularized, and a certain amount of respiratory exchange is effected, but the bulk goes on through the skin. It is, of course, a well-known fact that in amphibians, although they possess lungs, a considerable amount of respiration is performed by the skin. In *Euproctus montana*, as this strange beast is called, however, the skin is the essential organ of respiration. This was demonstrated experimentally, for the animals remained alive although their mouth was kept shut; but they died within twenty-four hours when immersed in a bath of vaseline from which only their head protruded.

## LITERARY NOTES.

SIGNORA NINA LOMBROSO offers a prize of the value of £40 for the best essay embodying the results of clinical and experimental research relative to the late Professor Cesare Lombroso's theories as to the etiology and prophylaxis of pellagra. Memoirs, which may be printed or in manuscript, must be addressed to the *Archivio di Antropologia Criminale. Psychiatria, e Medicina Legale*, published by the Fratelli Bocca of Turin. They must be delivered there on or before October 19th, 1912.

It is said that Dr. Fielding Ould, of Dublin, the second master of the Rotunda Hospital, was the first obstetrician in Ireland on whom the honour of knighthood was conferred. This distinction was made the occasion of the following epigram:

> Sir Fielding Ould is made a knight,
> He should have been made a lord by right,
> For then each lady's prayer would be,
> "O Lord, good Lord, deliver me."

About a hundred years have elapsed since the appearance of the last volume of Sir J. E. Smith's *English Botany*, with illustrations by James Sowerby, and about fifty years since the appearance of the first volume of Boswell-Syme's edition of that epoch-making work. It is thought, therefore, that the time is ripe for the issue of another great and illustrated flora of this country. The Cambridge University Press has made arrangements for the appearance of such a flora, by Dr. C. E. Moss, Curator of the Cambridge University Herbarium. The author will receive assistance from specialists in several critical genera. Engler's system of classification will, generally speaking, be followed; and the first volume to appear will deal with the earlier dicotyledonous families from the Salicaceae to the Chenopodiaceae. The work will be illustrated with pen and ink drawings by Mr. E. W. Hunnybun, about 1,750 of which have already been completed. In addition to these drawings each volume will contain numerous photographs of plants in their natural habitats; and maps, showing the distribution of the more interesting genera and species, will also be a special feature of each volume. It is expected that the work will be completed in ten volumes.

In the BRITISH MEDICAL JOURNAL of September 24th, 1910, p. 883, we gave some account of that mysterious arch-quack, Cagliostro, of whom Carlyle truly said that "the quantity of discoverable printing about [him] (so much being burnt) is not now great; nevertheless in frightful proportion to the quantity of information given." It is interesting, therefore, to get a glimpse of him through the eyes of one who sat at meat with him at the outset of his career before he had blossomed into the fullness of his evanescent fame, and who was clear-sighted enough to see that he was a vulgar impostor, though, as a lawyer, he seems to have made no difficulty about holding a brief for him. In the *Glenbervie Journals*, recently published under the editorial supervision of Mr. Walter Sichel, the diarist says:

> It is a singular circumstance that I should have known Cagliostro in London, before his fame began. Before he had been in Prussia at Strasburg(h), or Paris. It is perhaps more singular that the first brief I ever had was in a cause of his. He was here about the year 1776 (in which year I was called to the Bar), and then called himself a Colonel in the Prussian service, and, if I recollect, pretended to be a German, though his name and his accent clearly proved that he was not. There was one Bristow or Bristol, who was supposed to be an humble lover of Lady Fitzroy's, the mother of the Duke of Grafton, and was a protégé of hers and of her husband, Mr. Jeffrey. This man who had been in various situations, in trade, a custom house officer, etc., had, about that time, opened a little bookseller's shop near the Tower. He and his wife were toad-eaters to some city acquaintance of mine, and by way of a party, and also to please Mr. and Mrs. Bristow, we went one day to dine with them. At dinner we met Colonel Cagliostro and an Italian *soi-disant* Countess, whom he insinuated to be a sort of incognito wife. She was a handsome woman, tall and rather fair, according to my recollection. She was probably the person who afterwards acted a part in his history. He, that day, pretended to great knowledge in the occult sciences, and particularly gave out that he knew exactly how to calculate and discover the successful numbers in the lottery which was then drawing. Molesworth's imposture was at that time in vogue. The ignorance and, I thought, the stupidity of Cagliostro were sufficiently obvious. However, one of my friends was very near giving credit to his skill as to the lottery, and Bristow either had, or affected, entire faith in it. Bristow and Cagliostro were connected with Mr. Cornelys, a Mr. Sheridan and a Mr. Frere, or a person of some such name, and there had been a traffic among them about certain jewells, which I think Cagliostro claimed, and which Frere got possession of, and an action, or some summary proceeding, had been instituted with regard to them in the Court of King's Bench. Bristow, who was a sort of petty intriguer, and thought I might be of some service to him, or at least wished to oblige my city friends by procuring me a little business, made Cagliostro's attorney, a Mr. James, bring me a motion, in this cause, on behalf of his client. The motion and rule which I obtained will still appear in the rule-book of that time. Bristow soon afterwards broke, and having by the interest of Jeffrey and Lady Fitzroy, obtained some situation in the East Indies, he went there, and died a short while after his arrival. Cagliostro did not find dupes to satisfy him in England, and went, I believe, from London to Petersburgh. He was of a short, thick, stumpy figure, with a florid complexion, and about 35 years of age. I thought his person and manner not unlike those of another famous Italian cheat whom I had often dined with at Prince Kaunitz's at Vienna, Colonel Affligio. I believe both the one and the other were Neapolitans.

Lord Glenbervie, born plain Sylvester Douglas, was, as Mr. Sichel says, "the very Polonius of Diary"; he admits, however, that "his thoughts were often acute, for, as befits a Scotsman, he was shrewd and observant." He began life as a student of medicine, and graduated, both in that faculty and in that of law, at Leyden. Whether he ever practised as a doctor is not clear, but he soon gave up medicine for the law. His connexion with the former profession was not, however, forgotten, and we find him referred to in a lampoon by Sheridan as follows:

> Glenbervie, Glenbervie,
> What's good for the scurvy?
> For ne'er be your old trade forgot—
> In your arms rather quarter
> A pestle and mortar,
> And your crest be a spruce gallipot.

It was, doubtless, his knowledge of medicine that enabled Glenbervie to see through the pretensions of Cagliostro. He makes some shrewd remarks on what we have always held to be the chief cause of the prevalence of quackery. Speaking of a friend sorely afflicted with the gout, he says:

> His surgeon (one of Dr. Moore, the traveller's, sons) was just leaving him. He had been dressing and probing his feet, which are lame from the gout, and constantly throwing out chalk stones. Crawfurd's acquaintance are very apt to blame him for his constant complaints of his health, and the facility with which he used to listen to quacks and try their medicines. For instance, when Cagliostro came over here, after the affairs of the Cardinal de Rohan, he consulted him and took his prescriptions. But it is easy for those who enjoy sound health, interrupted only by temporary illnesses which last but a short time and yield to known and established cures, to exclaim against the impatience or folly of others who, after passing years and years in constant or periodical pain, have experienced the inefficacy of medical science, and are found to catch at anything which has the most distant chance of recovery or cure, even anything which merely *promises* them relief.

We have known a leading physician who avowed that he had taken to "quack" remedies for asthma as his brethren had failed to give him relief; and others, the victims of cancer, who in despair have done likewise after being given up by surgeons. The true hope of suppressing quackery lies in the progress of medical science and the improvement of the art of healing.

British Medical Journal.

SATURDAY, MARCH 4TH, 1911.

## ORGANIZATION OF MEDICAL ATTENDANCE ON THE INSURANCE PRINCIPLE.

PROBABLY no more important report has ever been issued to the Divisions than the Association Report on the Organization of Medical Attendance on the Insurance Principle, which is published in the SUPPLEMENT this week, and it is not too much to say that the future of the profession will largely depend on the answers of the Divisions to the questions appended to the report. The report is long, but, in view of the fact that it had to deal, not with definite proposals of the Government, but with a number of possible contingencies, any one of which might at any time require immediate action, it was felt that the importance and complexity of the subjects to be dealt with made it advisable to place before the profession a full and complete analysis of every aspect of the subject that might arise. Even now it has been found necessary to confine the report to general medical attendance, and the great subject of the provision of hospital treatment for the insured or the co-ordination of the charitable hospitals with an insurance medical service is only dealt with so far as is necessary for the purpose indicated.

After some introductory paragraphs, the report proceeds to state the reasons why the subject is taken up at the present time. Briefly, it may be said that the whole report rests on the assumption that the present medical service for the working classes is in urgent need of reform. From a professional standpoint reform is called for owing to the unsatisfactory conditions of ordinary private practice, the still more unsatisfactory conditions of contract practice, the unfair competition between charitable hospitals and private practitioners, and the way in which the Poor Law medical service is exploited by local authorities. On the side of the public, too, there is urgent demand for reform, and the reports of the Royal Commission on the Poor Law and the discussions to which they have given origin disclose a growing feeling that the medical service, both domiciliary and institutional, for the working classes is inadequate and unsatisfactory; it seems clear that public action in some form will inevitably be taken before long, whether the profession is prepared for it or not. Seeing that State sickness insurance is promised by the Government, it would seem quite natural that it should be accompanied by some reform of the medical service, and the report to the Divisions expresses the opinion that it will be to the interest of the profession that the Association should either undertake or at least co-operate in the organization of a national system for the provision of medical attendance on insurance lines.

In Section B the report deals with the general considerations by which the action of the Association must be guided. The necessity of safeguarding existing interests in private practice or in contract practice is insisted on, and the suggestion of sweeping reforms applicable to and operative over the whole country is recognized to be impracticable until the opinions of the Divisions are declared on certain fundamental questions of principle. Relying, however, on previous declarations of policy by the Association, it is shown that any reforms must be based on three main principles: (1) Throwing the work open to all reputable practitioners, with free choice of doctors by patients; (2) management by medical committees without lay control; and (3) that the rules of the service should be subject to the approval of organized bodies representative of the local profession.

The report then proceeds in Section C to a critical examination of various special points in the actual organization of a service on insurance lines. The constitution of the bodies, central or local, which might institute or carry out the detailed management of a medical service is discussed at length, and occupies something like twenty paragraphs. This would in any case be one of the most difficult parts of the subject, and it is rendered still more difficult by the fact that it is not yet known what the proposals of the Government may be. Nevertheless, it is so important that the profession should decide on the main lines of its policy, whatever form the Government proposals make take, that it has been thought necessary to consider all the possibilities, whether the service be instituted by the medical profession itself, by a Public Assistance Authority on the lines of the Majority Report, by health authorities on the lines of the Minority Report, or by the State under State sickness insurance. Moreover, in each of these contingencies it was necessary to consider what part the British Medical Association should take, no matter whether the State or local public bodies organize and manage the service directly themselves or whether they leave the carrying out of details to the insured, or to the friendly societies or to the medical profession. From this it will be seen that the matter is extremely complicated, for a considerable number of possibilities confront the profession. As a consequence it was thought necessary to present a series of questions for the Divisions to answer as to organization and control of any service; these questions have been carefully framed with the object of presenting all the possibilities in as concrete and practical a manner as possible.

Next come discussions of the questions of wage limits, the admission of women and children and persons who cannot pay their own premium, the range of the medical benefits to be provided, whether domiciliary, institutional, or specialist, and the question whether the provision of medicines and material requirements should be a matter of separate arrangement. It is anticipated that provision will have to be made eventually for every kind of medical and surgical attendance necessary for the insured, but the report suggests that if for any reason the profession undertakes the organization of an insurance service on its own account, it might be better for the premium to be fixed to cover only ordinary medical attendance at patients' homes or doctors' surgeries, leaving to other agencies the provision of other forms of treatment.

A full discussion follows as to the selection of medical practitioners to attend the insured, and it is shown that the Association has repeatedly affirmed that each patient should be free to choose his own doctor from among all those who are willing to attend. The recommendation of the Minority Report in favour of the employment by local health authorities of selected salaried medical officers is discussed in view of the possibility that such a system of selection might be favoured either by the Government or even by the friendly societies. The report shows the advantages both to the public and the profession that would arise from giving patients a free choice of doctor, which would not necessarily be incompatible with the rest of the recommendations of the Minority scheme, and the opinion is expressed that "the supposed advantages of the system of employment of salaried officers are in many respects merely apparent, and that only from an administrative point of view, and not from the point of view of the promotion of health either of the individual or of the community." The question is referred for the definite opinion of the Divisions, with the reminder that under a system of free choice of doctor certain reservations might have to be made as to persons whose whole premium is paid for them by public bodies, and for the protection of holders of existing appointments.

The final part of Section C deals with the three systems of remuneration of medical practitioners which have been suggested—namely, by fixed salaries, on the contract system, or by payment for each attendance. The first system having already been discussed, the arguments and counter-arguments for and against each of the other two are stated, and every aspect of this subject that has been brought to the notice of the committee has received most careful attention. It is not possible to attempt to summarize here this part of the report, but definite questions on various points that would arise under each system of payment are presented for the Divisions to answer.

The report concludes with a general review of the advantages which it is hoped would result both to the community and the profession from a properly organized provision for medical attendance on an insurance basis. The fulfilment of these hopes will very largely depend on the action taken by the British Medical Association, which will in turn depend on the replies of the Divisions to the questions now presented. We make no attempt here to forecast the exact nature of replies to specific questions, but there is no doubt among those who have the best opportunity of judging that, while there may be wide differences of opinion as to details, there will be a practical unanimity on the important matters that affect the relations between the profession on the one hand and the State or lay organizations on the other hand. And for any public bodies to argue that the representations of the Association may be neglected, on the assumption that the Association does not know its own mind, can only lead them to wrong conclusions. The mere presentation of a series of questions to the Divisions must not be understood by public bodies as implying in any way disunion or hesitation in the Association as to certain essential matters. It must rather be taken as an evidence of a sincere desire on the part of the Association to gather from every section of the profession throughout the whole kingdom every possible suggestion that can make for the bettering of the medical service for the working classes.

## INDIAN MEDICAL SERVICE.

THE revised rules respecting medical fees in India, received from India as we went to press, were published last week, and we take the earliest opportunity of calling attention to what appears to be a satisfactory solution of a difficult question.

By the issue on July 1st, 1907, of some new rules which in their very nature were unworkable, which were resented as insulting and oppressive by the officers of the Indian Medical Service, and almost equally resented by the very patients whom they purported to protect from possible excessive demands for services rendered, the Government of India placed itself in a false position. We commented strongly at the time (August 31st, 1907) on these rules, and pointed out how detrimental they were to the prestige of the Indian Medical Service, how they attacked all its honourable traditions and privileges, and how infallibly such rules, if not withdrawn, would affect recruitment for the Service.

The matter was at once taken up by the British Medical Association, and representations made semi-officially to the India Office. It was ascertained that the rules were of a class requiring the sanction of the Secretary of State for India, and that the required sanction had not been given, as the late Secretary of State, Lord Morley, did not approve of them. It is not necessary, nor would it be desirable, to go into the whole history of what occurred subsequently; it will be sufficient to say that from time to time during the last three years official inquiries have been addressed by the Council of the British Medical Association to the Secretary of State for India as to when the rules of July, 1907, would be withdrawn. In November last, by order of the Secretary of State, a copy of the new rules, as finally proposed for issue, was sent to the British Medical Association for information, and for any comment the Association desired to make. This act of courtesy was highly appreciated, and a reply was sent to the effect that, with one or two trifling changes, the proposed rules appeared likely to be quite satisfactory to the Indian Medical Service, to the medical profession generally, and to the persons otherwise concerned. We think we are now at liberty to state that the whole question appears to have been thoroughly threshed out with the help of repeated references to and opinions submitted by the various local Governments throughout India, and that the rules in their final form, as just published in India, will receive general approval.

The Government of India was, it is clear, wrongly counselled, and a certain amount of harm has been done, for the Indian Medical Service has apparently ceased to offer as strong an attraction as it formerly did to large numbers of the best men from the British medical schools, and the competition lately has not been so keen as in the past.

With regard to the new rules, the chief points are the following: (1) Instead of applying to all natives of India "of high position," whatever that term meant, throughout British India, their application is limited to ruling chiefs and to others who hold the hereditary titles of Nawab or Rajah, and to their families and dependants. (2) By the former rules a medical officer could not ask for or take from a "native of high social position" a fee of more than 1 or 2 guineas, or more than 10 guineas, in any given month without asking the previous consent of the Director-General, Indian Medical Service, by an official application made through the local Government under which he was

serving, no matter what might be the urgency of the case or have been the nature of the services rendered, or how far he had travelled to render them. The interference with the legitimate practice of Government medical officers was great, and it was not surprising to be informed that the order soon became a dead letter. The new rules allow a medical officer who has to absent himself from his head quarters in order to render such services to accept or demand a fee of Rs.500 (about 32 guineas) for every full day of absence up to three days, and thereafter of Rs.250 daily for a prolonged detention, in addition to travelling expenses. By permission of the Government concerned these rates may be exceeded in special cases. (3) When the attendance on, or the services rendered to, native chiefs, or other persons specified, do not entail the absence of the medical officer from his head quarters—when, in fact, they fall into his ordinary daily work—the fee is not to exceed that which any ordinary person would pay. This seems a fair provision. (4) The fees for operations and confinements are to be the same as in similar cases in the United Kingdom, and we apprehend that no medical officer will be inclined to raise an objection to the rule. (5) In exceptional cases, where larger fees than those which come under the foregoing heads are offered, or are appropriate, the medical officer will be at liberty to report confidentially the facts of the case to his medical chief, who will unofficially obtain and communicate to him the orders of the local Government. No medical particulars of the case will be disclosed by the administrative medical officer. This rule appears to be satisfactory, since medical confidence is safeguarded, which was not the case in previous rules on the subject. (6) Decentralization is effected by giving the local Governments and administrations full power to dispose of all cases reported to them, though liberty is given to consult the Director-General, Indian Medical Service, and to refer any particular case for the orders of the Government of India.

In the circumstance of the necessity for such rules it would be difficult to frame any more satisfactory to those concerned; they are courteous and helpful, the spirit of them is respectful to an honourable and distinguished service, a spirit entirely lacking in previous rules on the subject. Those in India and in England who have devoted much time and trouble to this matter during the past three and a half years are to be congratulated on the final result, though it has been so long delayed.

## SANITARY POLICE AND PUBLIC ASSISTANCE.

THE new edition which is about to appear of the Right Hon. Charles Booth's important volume on *Poor Law Reform*[1] fully reviewed in the BRITISH MEDICAL JOURNAL of May 7th, 1910, will contain a comment by Sir Arthur Downes on the Poor Law proposals of the Executive Committee of the County Councils Association, a summary of which was given in the JOURNAL for February 4th. Sir A. Downes commences by stating his conviction that it has not yet been proved to be necessary "that existing machinery of the Poor Law should be broken up and replaced by a revolutionary embarkation on untried experiment," and he considers that the scheme of the executive committee of the County Councils Association "does not solve the problem of the great urban populations where need for reform is greatest, while it threatens a maximum of disturbance to the rural districts where need is less pressing." He considers that the scheme, since it advocates that some classes should be assigned to the Education Committee, some to the medical officer of health, and some to the Government, really follows the lead of the Minority Report, whereas his experience has taught him that there are hardly any definite lines of cleavage between the classes dealt with by the Poor Law, as the able-bodied and the disabled, the sick and healthy, the feeble-minded and the sane blend so imperceptibly that classification can only be effectually carried out if the whole is left in the hands of a single authority. As to the proposal that the sick should be placed under the medical officer of health, he says, "here, as in the Minority Report, the principles and services of a sanitary police seem to be confused with those of public assistance. These services are and can be well defined; their fusion would be detrimental to the efficiency of both and to the public welfare." Sir A. Downes points out that Mr. Booth's proposals do not form a hard and fast scheme of settled detail; their essence is simply that the policy of grouping units of administrative areas as local needs require should be continued. As an example of the successful working of this principle it is mentioned that the Metropolitan Asylums Board has now "under admirable care and with infinite classification approximately four thousand Poor Law children," and the satisfactory financial position of the Board shows that a single authority can adapt its accommodation to special needs as occasion may require while avoiding that waste which must attend a multiplication of authorities to take the different classes. Special importance attaches to this short memorandum by Sir A. Downes, not only because it emphasizes the value of Mr. Booth's proposals, but because it would seem to embody the principles on which the Local Government Board for England and Wales is at present working.

[1] London: Macmillan and Co.

## ENTOPTIC PHENOMENA.

MUSCAE VOLITANTES are probably at some time or other visible to every individual. In some conditions of hypersensibility they may become an annoyance flitting as brownish smudges over the writing paper, and dancing before the eyes whenever directed to a moderately illuminated surface, such as a cloudless sky. For centuries their correct cause remained in doubt, although the exact explanation was given long before the age of exact science. It is now fully recognized that they are the shadows of organized material in the vitreous, probably the remains of early embryonic life. An exact study can be made of these filamentary beaded structures by very simple means. Perhaps the best is to replace the eyepiece of a microscope by an objective placed upside down, and to direct the light from the substage mirror through it. The whole question was ably treated by Burdon Cooper of Bath,[1] in a well-illustrated article published a few years ago. In addition to these passive or static entoptic phenomena, there are dynamic entoptic sensations emanating from the physiological life of the retina. Fortin[2] has devised a method which makes observation of the circulation in the retinal capillaries easy. He uses a mercury vapour lamp, and from its spectrum separates a monochromatic light of high intensity. Looking at this light the visual field seems to be in a state of ebullition. The retinal capillaries are seen as brilliant convoluted tubes. The red blood corpuscles, and at times the white, follow one another in rapid succession. No vessels are seen in the immediate vicinity of the fixation point. To examine

[1] *Ophthalmic Review*, 1908.
[2] *Comptes rendus de la Société de Biologie*, 1907.

the detail of the foveal region it is better to close the eyes for a few minutes and then interpose a piece of blue glass between the eyes and the light before looking at it. The vessels surrounding the fovea then appear black on a background of blue, then dark blue on light blue, and finally all detail disappears. The fovea shows up a dark oval area with its major axis horizontal. The dark patch is covered by a number of small brilliant circles giving rise to a mosaic appearance (granular aspect of Helmholtz). Dr. Edridge-Green, in a paper read in the Physiological Section of the last Annual Meeting of the British Medical Association, describes further entoptic phenomena which he believes to be due to streaming of the visual purple into the fovea. If one eye be covered by an opaque disc while both are directed forwards in a not too brightly illuminated room, and special attention be paid to the covered eye, an appearance of whirling currents will be seen with this eye. They appear to be directed to a centre, and resemble a whirlpool. The experiment succeeds best if the eyes have been previously exposed to a bright light. In the author's paper[3] these currents are illustrated, and other methods are narrated by which they may be rendered evident. Edridge-Green has repeated Charpentier's experiment which enables the hexagonal pigment cells of the retina to be seen. If the fingers be slightly separated, and then when the other eye is shut the fingers be moved rapidly backwards and forwards while the open eye gazes at the blue sky, the field will become covered with dark purple hexagonal figures, with a light interval between each. Wolffberg thinks, and Edridge-Green supports his view, that these figures correspond to the hexagonal pigment cells. He describes other methods for seeing these cells which are quite easy to repeat. The paper also describes the best methods for making Purkinje's figures evident. The light of an acetylene lamp concentrated upon the sclerotic answers admirably. The fovea can be rendered evident by Loewi's experiment. If we look at a clear white surface through a solution of chromium chloride, which is a celadon-green colour, we see a central purple spot, consisting of three portions—a central bright disc, then a dark green ring, and centrifugally Loewi's ring, which is purple. The central disc corresponds to the fovea, the middle ring to the non-vascular area of the macula lutea, and the outer ring to the outer feebly yellow portions of the yellow spot. The appearances presented by Loewi's ring vary in different individuals. Helmholtz saw it rhomboidal. Edridge-Green sees it circular, with others it is oval. The paper contains illustrations of the subjective appearances of the fovea as seen by its author on awakening in the morning when the retina is very sensitive. One figure is like a sheet of metal punched with oval holes arranged in a concentric manner along sectors in such a way that each circle contains an equal number of holes, which therefore increase in size from the centre outwards. The whole subject is of great interest, and the experiments can easily be repeated, for most of them require no special apparatus.

## THE TREATMENT OF TRYPANOSOMIASIS.

To the *Journal of Parasitology*, vol. iii, No. 3, J. D. E. Holmes, Imperial Bacteriologist to the Government of India, contributes a paper on the cure of surra in horses by the administration of arsenic. The results obtained have been most encouraging, and the author concludes that arsenic is a specific for surra in horses. He believes that a permanent cure is effected and not merely a temporary tolerance of the disease; that the treatment is simple, and that by a careful dosage over 70 per cent. of surra cases, even when contracted spontaneously and in the last stage, can be cured. The disease as seen in India would seem, however, to be of a somewhat mild strain or type, because, as Dr. Bagshawe recently pointed out in the *Sleeping Sickness Bulletin* (November, 1910), the same species of trypanosome in Mauritius reacts very differently towards arsenious acid. Still, that is no reason why the arsenic treatment should not be universally used in India, and even if the life of the animals were only prolonged, that is always so much gained.

[3] *Journal of Physiology*, vol. xli, November, 1910.

## THE ILLUMINATION IN PUBLIC LIBRARIES.

THE artificial lighting of a public library has its own special difficulties, and it can scarcely be said that those difficulties have hitherto been met in a satisfactory fashion. The illumination of some of the great national libraries leaves much to be desired, while in the case of certain London borough and provincial institutions those concerned in their construction do not appear to have appreciated the fact that a reading-room demands a system of illumination quite different from that which might be installed with advantage in the local assembly rooms. Two recent meetings of the Illuminating Engineering Society, working in co-operation with the Library Association, have been devoted to a discussion upon this subject. In an opening paper, Mr. Stanley Jast, the honorary secretary of the Library Association, described point lighting as a necessary evil, and said that he preferred for point lighting above the reading tables the cone-shaped opal shade, made as deep as possible, so that the reader was unable in an ordinary position to see any part of the lamp. Mr. J. Duff Brown, the borough librarian of Islington, thought that for all departments of the greater number of libraries the most practical system was one of general lighting, reinforced at all weak points by local lighting. He preferred to hang lights from the ceiling instead of attaching them to newspaper stands. A lengthy paper was contributed by Mr. John Darch, architect. His ideal was a separate light for each reader; every lamp should be adjustable, and its distance should be under the control of the reader, who might be trusted, not only to accommodate the amount of illumination to the requirements of his eyesight and the special character of his work, but also to switch off the light upon leaving the table, thereby helping to atone for the extra expenditure which a proper system of illumination necessarily entailed. For newspaper stands he favoured the arrangement which obtains at Cripplegate, where a bracket-lamp, projecting 15 in. at about the level of the top of the stand, was placed above every newspaper. Mr. Haydon Harrison insisted that the general lighting of the bookshelves and of the room should be considered quite independently of the comparatively high individual illumination required for the reader. With regard to the latter, a 10-candle power lamp, at a distance of 2 ft. from the reading surface, was worth much more, both on economical and physiological grounds, than a 50 candle power lamp at a distance of 12 ft. The local and individual lighting was in the nature of a return to the properly shaded candles of our forefathers, who certainly did not suffer from eyesight troubles to anything like the same extent as the present generation. A member of the engineering profession, Mr. McKinney, pointed out that the character of the reading surface had its importance in the matter of illumination, and urged the value of the sloping desk or table. Mr. Middleton deprecated a suggestion that arc lamps should be used in general

lighting, and said that, given good local lighting, a comparatively dim general illumination, just enabling a person to see about the room, was quite sufficient. Mr. Hopwood, of the Patent Office Library, said that what librarians required was a specification as to the minimum amounts of light needed respectively by a man puzzling out a reduced diagram, reading an ordinary book, and making a casual reference at a bookstack. The question of daylight illumination received little consideration in the discussion, but a letter was read from one engineer, who strongly urged the advantages of a glass dome, or at least of windows near the roof. He had seen compositors setting up nonpareil by the sole illumination of a dirty skylight on a dark November day, long after the street lamps were lighted. In closing the discussion, Mr. Darch expressed the opinion that the ideal for desk lighting was a lamp which could be arranged to lift up or down, so that at its lowest the illumination was 2-ft. candles, and at its highest 12-ft. candles; while Mr. Jast thought that the increasing demand of the public for brighter illumination—a demand which had grown notably during the last decade—should be resisted when it passed the physiological limit, and he drew a parallel between too abundant feeding resulting in disease and too brilliant illumination resulting in ophthalmic disorder.

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## COUNTER-ATTRACTIONS TO THE PUBLIC-HOUSE.

THE Temperance Legislation League has issued a small pamphlet by Mr. Arthur Sherwell, Liberal M.P. for Huddersfield, the arguments in which will probably commend themselves to some of those who, convinced of the evils of intemperance, believe that the problem, raising as it does very complex social and biological questions, must be attacked from several directions. Mr. Sherwell states that the League recognizes this complexity, and believes that complete victory cannot be expected until other social problems have found their solution. He adds that so long "as we have problems of poverty and of ill-housing, and a widespread ignorance of the rudiments of the laws that govern health and life, so long, doubtless, may we expect a problem of intemperance." He thinks that no one who contemplates the conditions of poverty and overcrowding in towns to-day can fail to see how enormously attractive the public-house must be to a large class of people. While admitting, as everybody must admit who knows anything of the facts, that bad housing is largely the result of drink, he quotes the statement of the Glasgow Municipal Commission on the Housing of the Poor to the effect "that the condition to which these people have reduced themselves, and the surroundings in which they find themselves, contribute to the fastening of the chains around them, and so make their return to respectability more difficult, if not impossible." He quotes also the saying of Mr. Gladstone at Liverpool in 1893 that drunkenness "often chooses for its victims, not the men and women originally the worst, but persons of strong social susceptibility and open in special respects to temptation." It is pretty certain that a good deal of drink and not a little drunkenness has its root in this otherwise commendable trait of character. Mr. Sherwell asks whether counter-attractions, though they may not touch the regular frequenters of the public-house, would not protect the young life of the nation from affording to the public-house as many recruits as in the past. It is, he says, a disquieting fact that 65 per cent. of the local branches of nine important trade unions in the United Kingdom held their meetings (in 1903) in public-houses, and it appears that the use of public-houses by friendly societies and provident and sick clubs is also widespread. He concludes, therefore, that if the interests of sobriety "are to be permanently and substantially advanced, we must have a national scheme of constructive effort that will not only meet the recreative needs of the overcrowded poor, but provide a meeting-place for thrift societies and clubs apart from the temptations of drink." The cost, he argues, should not be placed upon the rates, and he states that the proposal of the Temperance Legislation League is, that where a monopoly of the local retail liquor trade is granted to properly authorized disinterested companies (as in Norway and Sweden) the whole of the surplus profits accruing from the sale of drink under such conditions (after payment of a small and fixed rate of interest on capital, and the formation of a reserve fund to equal the amount of the paid-up capital) should be paid to the national Exchequer, and be applied as the nucleus of a fund for the establishment and maintenance of counter-attractions to the public-house, in the form of alternative resorts where full opportunity would be afforded for social intercourse and recreation apart from the sale of alcoholic drinks. Grants for this purpose would be made in conformity with a scheme to be prepared and issued under the sanction of a Secretary of State, and would have no relation whatever to the amount of the profits earned, but would be in ratio to population.

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## WEICHSELBAUM ON THE PANCREATIC CHANGES IN DIABETES.

SINCE Lancereaux and Baumel pointed out the frequent association of atrophy of the pancreas with diabetes, their results have been confirmed by many others. The view that there is such a condition as pancreatic diabetes has been generally accepted; as the pancreas has, however, frequently been found to present a normal appearance, this explanation has been supposed to hold good for only a certain proportion of cases. Opie drew attention to the importance of the islands of Langerhans in this connexion, and maintained that the disease depended upon hyaline degeneration of their epithelium, but there has been some difference of opinion as to the importance of the changes observed in them, and Dale has pointed out that their appearance depends upon whether the gland at the time of death is in a state of activity or resting. Weichselbaum has recently made a contribution to the solution of this question, basing his conclusions on the results of 183 autopsies: he found that changes in the islands of Langerhans are constant and peculiar to diabetes; to the naked eye the gland usually presents a normal appearance, but is sometimes atrophied, or may show fatty change. Microscopically there is a diminution in the number and size of the islands, but the changes are classified by him under four headings: (1) Dropsical degeneration in which the epithelial cells become translucent while some are destroyed; there may be small-celled infiltration of the capsule with hypertrophy of the connective tissue, and consequent atrophy and disappearance of the epithelial cells of the islands; this lesion is seen in subjects under 40, and is never associated with arterio-sclerosis; it may easily be overlooked. (2) Sclerosis of the islands with hypertrophy of the surrounding connective tissue and chronic interstitial pancreatitis often accompanied by fatty change; it is seen in persons over 50, and is always associated with arterio-sclerosis. (3) Hyaline degeneration of the sheaths of the vessels with consequent compression of the cells of the islands; this

is seen in advanced age, and is associated with sclerosis of the pancreatic vessels; this form is often combined with the second. (4) Haemorrhage into the islands which may occur apart from diabetes; regeneration or hypertrophy of the islands often ensues. Weichselbaum did not find analogous lesions in any other disease, acute or chronic; he accounts for the fact that many have failed to notice them on the ground that often dropsical degeneration only is present, which may easily pass unperceived, and that the lesions may be restricted to portions only of the pancreas.

## COUNTRY HOSPITALS FOR CHILDREN.

THE Royal Liverpool Country Hospital for Children at Heswall affords an object-lesson to the citizens of other large towns—most of all, perhaps, to London. The hospital, which is described and illustrated at page 505, is built on the sloping south coast of the Wirrall peninsula, and from its wards—for the use of the word "windows" would be inappropriate—the eye ranges over the estuary of the Dee to the mountains of North Wales. The institution differs from a convalescent home in that active treatment, both medical and surgical, is carried out; there is, for example, a well-appointed operating-room with the usual annexes; it differs from the ordinary hospital, inasmuch as it is built on a site every way suitable for a convalescent home, and it differs from both, since patients are admitted, not for the term of a subscriber's letter or until convalescence has commenced, but until it is complete, and the child is, in the opinion of the medical staff, fit to return to its home in the city. The principle that the children should, subject to reasonable restrictions during acute attacks or for a short period after operation, spend as much time as possible out of doors, has been recognized from the first. Since the open-air wards have been taken into use the principle has been extended to mean all their time. The children appear to like it; they look very ruddy, and seem for the most part blessed with boisterous spirits and excellent lungs, which they are encouraged to exercise by singing, and do not seem to suffer from cold. But we do not want to insist too much on this new feature of three-sided open-air wards; it might not be conveniently applicable everywhere. The respect in which the example of Liverpool, in establishing the hospital at Heswall, seems particularly worthy of imitation by other large towns, is the establishment of hospitals, as distinguished from convalescent homes, for the treatment of children in healthy, airy, bracing surroundings.

## INTERNATIONAL SURGICAL SOCIETY.

THE third congress of the International Surgical Society will be held at Brussels next September (26th to 30th), under the presidency of Dr. Lucas-Championnière of Paris. Three questions are proposed for discussion: (1) Pleuro-pulmonary surgery, to be introduced by Drs. Carré of Bonn, Gaudier of Lille, Girard of Geneva, Lenormand of Paris, Ferguson of Chicago, Van Stockum of Rotterdam, Sauerbruch and Friedrich of Marburg; (2) forms of colitis, to be introduced by Drs. Sonnenburg of Berlin, Segond of Paris, Gibson of New York, and Mr. D'Arcy Power of London; (3) pancreatitis, to be introduced by Drs. Michel of Nancy, Korte of Berlin, and Giordano of Venice. In connexion with the congress there will be an exhibition of specimens, models, apparatus, and everything relating to the pathology and treatment of fractures. There will also be a general exhibition of surgical instruments and apparatus. The General Secretary is Professor A. Depage, 75, Avenue Louise, Brussels, to whom all communications relative to the meeting should be addressed.

## PATENT MEDICINES IN WESTERN AUSTRALIA.

WE learn from the *Australasian Medical Gazette* that Western Australia, which already has the most stringent medical Act of all the Australian States, is now taking the lead in passing the most drastic legislation bearing upon the patent and quack medicine trade. In the course of a debate on the new Health Bill at present before the Legislative Assembly, a new clause was inserted which provides that any person who publishes any statement intended to promote the sale of any preparation or medicine for the prevention, alleviation, or cure of any human ailment or physical defect which is false in any material particular relating to the ingredients, composition, nature, or operation of the article, or to the effects following its use, shall be guilty of an offence. Newspapers would be held liable if they published such advertisements after the principal medical officer had given a written warning that the statements therein contained were false. The penalty for the adulteration of food or drugs is £50 for the first offence, and six months' imprisonment for the second.

## CANCER AND HEREDITY.

THE fifth report of the Cancer Commission of Harvard University[1] contains many papers of interest and well deserves careful study by all those who are following the research now proceeding in most countries into the nature of the disease. Perhaps the most suggestive articles are two by Professor Tyzzer on the tumours occurring spontaneously in mice and on the varying susceptibility to transplantable growths exhibited by different races of these animals. He investigated the life-history of a family of mice consisting of 100 individuals, a *post-mortem* examination being made immediately after the death of each. Three were still alive at the date of the paper, and among the remaining 97 growths had developed in 9 out of 68, the offspring of parents neither of which had a tumour, while of the 29 of which one of the parents had a tumour a growth had appeared in 11; thus a cancer developed in only 13 per cent. of Class I, as against 39 per cent. in Class II. As the author himself suggests, the numbers are too small to form a solid basis for deduction, but the figures are certainly striking, and it is not improbable that the modern view that heredity has but little influence in regard to susceptibility to cancer may require to be modified as a result of experimental research. It is rather surprising that so large a number of mice are described as having been spontaneously affected by some form of malignant growth and the possibility of contagion can scarcely fail to suggest itself. In this respect the experience of various laboratories seem to differ. More information is wanted as to the frequency of tumours in mice living under more natural conditions. Some very curious facts were also observed by Tyzzer as a result of inoculations with a tumour originally occurring in Japanese waltzing mice, and which, while giving practically 100 per cent. of successes on transplanta-

[1] Fifth Report of the Cancer Commission of Harvard University. Medical School of Harvard University, Boston, U.S.A. 1909. (Pp. 230. 4to.)

tion into animals of the same breed, in no case was the growth able to establish itself in common mice. It was found that hybrids bred from common mice with the Japanese waltzing variety, whether the latter were fathers or mothers, were as susceptible to the tumour as the pure-bred Japanese. On the other hand, when these hybrids were bred together, the second generation showed an absolute insusceptibility, and the same negative result followed on attempts to transplant the growth into the third and later generations. It is difficult to see how these facts can be explained by any accepted theory of heredity. Seeing that the whole of the first generation of hybrids proved to be susceptible to the tumour, it is evident that, according to the Mendelian law, it was to be expected that a considerable number of the second generation would have been equally susceptible. Not the least among the difficulties surrounding the study of cancer by experiments on the lower animals is the specificity of the tumours, in so far as they appear to be only capable of successful transplantation into individuals of the same race, and often only of special varieties of that race. The unexpected results of the experiments just mentioned seem to import fresh complications into the problem. In a paper by Professor Burgess the view is put forward that the degeneration of the inoculated tumour elements in insusceptible animals is due to an inflammatory exudation, which impairs their nutrition, and not, as has been often held, to the fact that no stroma is supplied by the host. This conclusion, which has been reached by a study of the conditions in the second generation of hybrids mentioned above, suggests the existence of a more active immunity in some animals than has hitherto been supposed. An investigation into the effect of trypsin in preventing the development of morbid growths resulted in the conclusion that "in these experiments trypsin had no appreciable effect in causing cancer to disappear."

### ANTIVIVISECTION IN AMERICA.

A BILL was introduced into the New York Assembly on February 1st, on behalf of the Antivivisection Society and the Society for the Prevention of Cruelty to Animals. It provides for the appointment of a commission consisting of seven members—two physicians or scientific men residing in New York, two active members of some organization of the State of New York having for its purpose the prevention of unnecessary cruelty in vivisection; two lawyers practising within the State; the remaining member of the commission to be "appointed at large." The bill has been referred to the Assembly Committee of Public Health. The danger of the bill, as the *Medical Record* points out, lies in its apparent harmlessness; it asks merely for an investigation. In regard to this our contemporary quotes the following suggestive utterance in the *New York Times*: "The passage of a similar measure in Great Britain was followed by a train of consequences that checked medical progress in that kingdom. Had the forces which that investigation let loose in Great Britain operated on the Continent and in the United States, the cures that have been perfected, and are being perfected, for yellow fever, typhoid, diphtheria, meningitis, pneumonia, tuberculosis, infantile paralysis, cancer, and grave diseases of the blood, would have been prevented, and progress in modern surgery would have been achieved at an added sacrifice of human life."

### COMMISSIONS.

ON February 18th we called attention under this heading (page 416) to a case in which a maker of corsets had sent a circular to a medical man offering to give him a commission of 25 per cent. on all first orders of clients recommended by him. We have this week received from correspondents in three West Yorkshire towns specimens of a circular issued by another maker of corsets, offering in respect to every customer introduced by the doctor a commission of 10 per cent. on the amount paid for the corset. Enclosed with the circular is a a book of numbered "introduction" forms with a counterfoil. Each book contains some twenty forms, and the numbers in one are in the three thousands, and in another in the seven thousands, so that if the books have been numbered consecutively the offer must have been pretty extensively made. The circular adds: "We feel sure that in adopting the methods suggested you will be greatly benefiting your clients, and at the same time combining a mutual advantage." Another paragraph in the circular runs: "Any suggestions you can give me regarding this matter will be greatly appreciated." We do not know what proposals may so far have been made, but our suggestion would be that the circular and the introduction forms should be at once withdrawn with an apology to the medical profession for the unfortunate mistake made in its issue.

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SIR CLIFFORD ALLBUTT, Regius Professor of Physic, Cambridge, will give an address on Arterio-sclerosis and the Kidneys at the next meeting of the Kensington Division, which will be held at the Kensington Town Hall, High Street, Kensington, on Friday, March 10th, at 4.30 p.m. Members may introduce visitors at this meeting. Dr. Batty Shaw, Dr. C. O. Hawthorne, and others who have made a special study of the relations of arterio-sclerosis, high blood pressure, and renal disease, will take part in the discussion.

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THE premises erected for the New South Wales Branch of the British Medical Association (to be known as the British Medical Association building) at Sydney are nearing completion. The *Australasian Medical Gazette* of January 20th states that the whole of the first floor will be used for the purposes of the Branch, including meeting hall and library, reading rooms, and offices. The hall has a floor space of about 1,450 sq. ft., and will seat from 200 to 250 persons. The annual meeting will be held in it in March. Messrs. Allen and Hanburys, Limited, took possession of the southern half of the ground floor on January 6th, where the surgical instrument department of their business will in future be conducted. Several other tenants were expected to move in on February 1st. One thousand and twenty-three (1,023) debentures out of the 1,200 authorized have been issued.

## Medical Notes in Parliament.

**Insurance against Sickness and Invalidity.**—Mr. Booth asked the Chancellor of the Exchequer whether his attention had been called to the statements in the Press purporting to give details of his proposals for State insurance against sickness and invalidity; whether they were issued with his authority; and if he could state how soon the House would be placed in possession of the main outlines of his scheme as disclosed in confidence to a certain representative of a particular friendly society. Mr. Hobhouse, Secretary to the Treasury, answered that the Chancellor of the Exchequer's attention had been called to the statements referred to, which were issued entirely without his authority or knowledge.

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**The Nurses' Registration Bill** was presented and read a first time on Monday last. It is described as a bill to regulate the qualifications of trained nurses, and to provide for their registration, and is backed by Mr.

Munro-Ferguson, Sir James Gibson. Sir Luke White, Mr. Rainy, Dr. Addison, Mr. Bryce, Viscount Morpeth, Mr. Scott Dickson, Mr. Remnant, Mr. Younger, Mr. Ramsay Macdonald, and Mr. Field. The bill was introduced on behalf of the Central Committee for the State Registration of Nurses, of which Lord Ampthill is Chairman, and is supported by the following societies, which appoint the delegates constituting the committee: The British Medical Association, the Matrons' Council of Great Britain and Ireland, the Royal British Nurses' Association, the Society for the State Registration of Trained Nurses, the Fever Nurses' Association, the Association for Promoting the Registration of Nurses in Scotland, the Scottish Nurses' Association, and the Irish Nurses' Association. The second reading was put down for Monday next.

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**Poor Law Commission (Cost).**—Mr. Pike Pease asked the President of the Local Government Board whether he could state the total cost of the recent Poor Law Royal Commission for England and Wales. Mr. Hobhouse replied that the total expenditure to date was:

| | £ |
|---|---|
| From Temporary Commissions Vote ... | 34,573 |
| From Stationery Office Vote (net) ... | 14,000 |
| From Public Buildings Vote ... ... | 4,330 |
| Total ... ... ... ... ... | £52,903 |

Some small disbursements not expected to exceed £100 remained to be made.

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**Water Supplies Protection Bill.**—Mr. Burns stated, in reply to Mr. Remnant on Monday, that, in pursuance of an order of the House, a return was being prepared relating to the water supply of every district in England and Wales. This would include information as to the quantities of water now being supplied in each district, and as to what further quantities could be supplied from sources at present in use, together with information as to the character and situation of these sources. He had also obtained the authority of the Treasury to the appointment of a geologist on the staff of the department. He was not without hope of introducing a bill giving effect to the recommendations of the Select Committee on Water Supplies (Protection) Bill, 1910, and earlier Commissions.

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**Pauper Children.**—Mr. Burns stated on Monday that the number of pauper children over 3 years of age and under 16 who, on July 1st last, were maintained in institutions was 59,496, and, excluding those in infirm wards or receiving wards, the number of these children maintained in workhouses was 9,223, being 16 per cent. of the total number. The large majority, therefore, were in other establishments, which included scattered homes and the various classes of separate schools and cottage homes.

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**Small-pox in London.**—Mr. H. Lawson asked the President of the Local Government Board whether his attention had been called to the outbreak of small-pox in the East End of London; and whether he was satisfied that all proper steps were being taken to deal with it by the Metropolitan Asylums Board and the other local authorities. Mr. Burns said that his attention had of course been drawn to this outbreak, and his officers had been inquiring into it. The reports he had received showed that all the authorities concerned were, through their officers, taking active measures to deal with the outbreak. Should the disease assume wider dimensions no doubt these measures might require to be supplemented.

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**Vaccination and Small-pox.**—Mr. Crawshay-Williams asked whether any cases of small-pox had occurred in England among children since the passing of the Vaccination Act, 1907; and, if so, whether any of those patients had been exempted from vaccination under the Conscience Clause of that Act. Mr. Burns said that cases of small-pox had occurred amongst children since the passing of the Vaccination Act. Their number could not be given, but in the two years 1908 and 1909 the number of deaths from small-pox of children under 15 recorded by the Registrar-General was six. Four of these cases were stated to have been unvaccinated, in the other two cases it was doubtful whether they had been vaccinated or not. He had no information as regards these six deaths, whether certificates of exemption from vaccination had been obtained.

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**Arm-to-Arm Vaccination.**—Mr. Weir asked the Lord Advocate, in view of the fact that arm-to-arm vaccination had long since been abolished in England with satisfactory results, if the Secretary for Scotland would take such steps as might be necessary to secure its abolition in Scotland. The Lord Advocate answered that the practice of arm-to-arm vaccination was almost if not quite obsolete in Scotland, but it could not be directly abolished without further legislation. The Local Government Board invariably recommended the use of glycerinated calf lymph, and supplied it free of charge to parish vaccinators. He might add that during the last two years no applications for humanized lymph were received by the department.

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**Osborne and Colonel Kilkelly's Resignation.**—Last week Mr. Douglas Hall inquired as to the complaints made of interference on the part of the Office of Works with the Medical Superintendent at Osborne. Mr. Dudley Ward said that, as he had already informed the hon. member, the First Commissioner had a prolonged interview with Lieutenant-Colonel Kilkelly and made full inquiry personally into his complaint. As Lieutenant-Colonel Kilkelly addressed his complaint and request for an interview to the First Commissioner personally, Lord Beauchamp dealt with the matter himself. Lieutenant-Colonel Kilkelly had been informed of the result of the First Commissioner's inquiry He had further been informed that the House Committee, to whom Lord Beauchamp also referred his complaints for investigation, arrived at the conclusion that they were without foundation. Lieutenant-Colonel Kilkelly made no application to attend any meeting of the committee, and Lord Beauchamp did not think it necessary to suggest that he should do so, as he apparently preferred to interview the First Commissioner. In answer to a further question as to Colonel Kilkelly's position, Mr. Dudley Ward said that Lieutenant-Colonel Kilkelly occupied the position of surgeon-lieutenant-colonel in the Grenadier Guards, his pay being at the rate of £1 10s. per diem. He retired on a pension of £1 per diem. On becoming House Governor and Medical Superintendent at Osborne, he was given a salary of £600 per annum with quarters, fuel, and light, less 10 per cent., in accordance with the terms of the Superannuation Act of 1887. The First Commissioner was not aware that Colonel Kilkelly had suffered any forfeiture of pay or pension. All reports received by the First Commissioner were confidential, and he did not think it would be in the public interest to treat them otherwise.

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**Standard Bread and the Navy.**—Last week Sir C. Kinloch-Cooke asked whether, in view of the higher nutritive value of bread containing the germ and inner cuticle of the wheat berry over ordinary white bread, he would consider the desirability of providing that, in Admiralty contracts, no bread and flour should be supplied from which these constituents have been eliminated. Mr. McKenna said that it was the practice until recent years to supply the navy with "stone-ground" flour produced in Government mills at the victualling yards; but there was considerable prejudice amongst the men against the dark-coloured bread and puddings which this flour produced, and very little was consumed. It was consequently decided to dismantle the Government mills, and to purchase from millers the "roller-ground" flour which was used in the private trade. The bread, etc.,

made from this flour was very popular in the navy. Before eliciting the present opinion of the fleet on the subject it was proposed to wait until the Local Government Board experts, who were at present investigating the comparative nutritive qualities of the various descriptions of flour, had made their report. Mr. Burns, in answer to a question on the same day, said that he hoped a preliminary report on the subject would be shortly issued. Mr. Kellaway pointed out that in the opinion of some of the leading millers in the country the so-called standard bread consisted of ordinary bread made with ordinary flour to which a little pig meal had been added. Mr. McKenna said he was not aware of that. He could only repeat that the bluejacket who had this bread did not seem to like it.

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**International Exhibition of Hygiene, Dresden.**—Mr. Byles asked the President of the Board of Trade upon what grounds the promoters of the British exhibit at the forthcoming International Exhibition of Hygiene at Dresden were refused by his Department the grant which they asked for, although similar assistance had been given to the exhibition in Turin; and whether such discrimination had been interpreted in any quarter as a slight upon the German nation. Mr. Buxton replied that at the time when this country was invited to take part in the Dresden Hygiene Exhibition, the Board of Trade had already entered into engagements to organize official British sections at International Exhibitions at Brussels, Buenos Aires, and Vienna in 1910, and at Rome and Turin in 1911. In these circumstances and in view of the exacting demands made upon British manufacturers by too frequent participation in international exhibitions the Board of Trade felt unable to undertake, or to give official support to, the organization of an exhibit of commercial products at the Dresden Exhibition of Hygiene. He had, however, expressed to the organizers of the exhibition in London the cordial interest which His Majesty's Government take in the scientific side of this undertaking. He was convinced that no fair-minded person could possibly have construed the action of His Majesty's Government in the manner suggested in the last part of the question.

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**Measles at the Royal Naval Colleges.**—Last week Mr. W. J. Wilson asked a question as to the possibility of measles being introduced through the insanitary surroundings of the places where the cadets' uniforms were made, and the First Lord replied that the Admiralty had no reason to suppose that the firms who were employed by the parents of naval cadets to make uniforms did not take proper precautions for the protection of their customers, or that infectious disease had ever been introduced into the colleges in the manner suggested.

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**Public Health Department of Egypt.**—Mr. Ramsey Macdonald asked whether, with reference to the resignation of Drs. E. H. and H. C. Ross from the Public Health Department of Egypt, Sir Horace Pinching, the late Director-General, was consulted upon the question of what offers he made to the Drs. Ross which induced them to surrender positions in the navy in order to join the Egyptian service; whether Sir Horace Pinching had, or had not, admitted that he offered them permanent appointments in the Egyptian service; and whether the Government proposed to accept responsibility for the actions of its responsible officers and accredited agents in Egypt. Sir E. Grey said that Dr. E. H. Ross held an appointment on the permanent staff of the Egyptian Public Health Department until his resignation, which, it was understood, took effect from the beginning of this month. From a letter addressed by Sir Horace Pinching to Dr. H. C. Ross (dated May 25th, 1906), a copy of which had been communicated to him, it was evident that this gentleman's appointment was temporary. He would refer the hon. member to the reply he returned to his question of May 25th, 1909. The reply to the last part of this question was in the affirmative, but he must point out that officials of the Egyptian Health Department were in the service of the Egyptian, and not of His Majesty's, Government.

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**Plague.**—Last Monday, in reply to a question by Mr. Lonsdale, the President of the Local Government Board stated that there was no foundation for the statement that cases of plague had recently occurred in London.

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**Sleeping Sickness, Rhodesia.**—In answer to Mr. Nield, on Monday, Mr. Harcourt stated that considerable areas in the Luapula and Luangwas Valleys had been declared sleeping sickness areas. He did not think that cultivation was necessarily suspended, though it was necessary sometimes to clear areas near the rivers, and the disease was a most serious hindrance to ordinary life and industry. Travelling was forbidden without permits, villages had been removed at the expense of the Government, and the British South Africa Company was taking various other measures in co-operation with the Belgian authorities for dealing with the sickness. The company had strengthened its medical staff, and was now sending out a special commission of investigation with a scientific staff and a fully equipped laboratory. He was not aware of any special destitution, certainly not among the Europeans, of whom there were very few in North-Eastern Rhodesia. But the prevalence of this terrible disease must necessarily cause suffering among the populations affected. In reply to another question, he was indicating the measures taken by the British South Africa Company, which was responsible for the government of the country, to grapple with the disease.

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**American Imported Meat.**—Last week Mr. Hunt asked as to the use of borax in preserving meat sent from America, while it was criminal to use it in America, and Mr. Burns replied that he was advised that, so far as the public health was concerned, these matters were sufficiently dealt with by the regulations which had been made under the Public Health (Regulations as to Food) Act, 1907. He did not consider that further steps were at present called for. In answer to a further question as to the marking as fit and wholesome food carcasses from which tuberculous parts and malignant tumours had been removed in America, and how the entry of such meat could be prevented, Mr. Burns said that, under the Public Health (Unsound Food) Regulations, 1908, the medical officer of health was empowered to seize any article of food landed within the district which was unsound, unwholesome, or unfit for human consumption. He did not at present think it necessary to make further provisions on the subject. He might observe that the rules laid down by the United States authorities governing the inspection of carcasses of cattle intended for export, either interstate or foreign, were not less stringent than those observed in this country. In the case of the pig the United States standard was less stringent than that obtaining in this country, and, in accordance with the provisions of the Foreign Meat Regulations, American pork, fresh, chilled, or frozen, was only admissible if it came in the form of the whole carcass, so as to permit of examination for disease. He had nothing to do with the American regulations; but this he did know, that there was no country in the world where the regulations as to the importation of unsound, unfit, and unwholesome food were as stringently administered as in this country.

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**Chinese Pork.**—Mr. Fell asked as to the ultimate disposal of 600 carcasses of Chinese pigs condemned at Liverpool last year, and Mr. Burns replied that he understood from the medical officer of health that all the carcasses were destroyed, the fat being used for lubricating purposes, and the rest of the carcass rendered into manure. The processes were under the supervision of an inspector of the local authority.

# England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

## MANCHESTER AND DISTRICT.

### THE EARLY NOTIFICATION OF BIRTHS ACT.

A PROPOSAL for the adoption of the Notification of Births Act in Manchester came before the city council at its last meeting, but was adjourned on a point of order to the March meeting. In the meantime the Joint Committee of the Manchester and Salford Divisions of the British Medical Association met and resolved unanimously to offer a strenuous opposition to the proposal, and the following circular letter has been sent to every member of the city council:

BRITISH MEDICAL ASSOCIATION.
*Joint Committee of the Manchester and Salford Divisions.*

MANCHESTER,
*February*, 1911.

Dear Sir,

The Joint Committee of the Divisions of the British Medical Association, which directly represents the great bulk of the medical profession in Manchester, has heard with regret that a proposal is now before the City Council to adopt the Early Notification of Births Act, and we are instructed to call your attention to some reasons why the medical profession is resolved to offer the most strenuous opposition to the proposal.

1. In the first place, it would involve a serious breach of professional confidence for a medical attendant to notify births which he attends. Our committee feels that the sanctity of the confidential relationship between patient and doctor, most particularly in matters relating to sex, should be held inviolable, and that no Act of Parliament could possibly justify the breach of such relationship. We are confident that you must be personally acquainted with numerous families where the notification of a birth by the medical attendant would be greatly resented, seeing that the chief object of the notification is to enable a subordinate official to make a domiciliary visit. Except in cases of extreme necessity, as for the detection of crime, our committee strongly objects to medical men being compelled to lay open the private affairs of their patients to officials.

2. Again, it is felt that the duty of notification is one which, if required at all, ought to be imposed on the parents and not on the medical attendant who learns the secrets of his patients through the necessities of his calling.

3. Further, it is altogether unjust that the State or the municipality should impose on medical men this or any other duty without a fee. The tendency to impose work for the community on the profession has increased so much of late years that the British Medical Association has been driven in some cases to adopt measures which it would gladly avoid. In the present case, however, the offer of a fee would by no means remove the objections stated above, though in cases where the patient agreed to notification by the medical attendant a fee ought to be paid.

4. Again, regard being paid to the object of notification, our committee claims that cases of confinement that are attended by medical men are not cases where any good could be derived from early notification of births. The patients remain for some time under the personal care of the medical man, and no visits by health visitors or other officials are necessary; such visits would in fact generally not be accepted.

Finally, we are bound to say that the imposition of the duty of notification on the medical profession would be greatly resented, and there is some ground for fear that the resentment might be carried to the extent of refusing at any cost to comply with the requirement. But even short of that, the adoption of the Act in Manchester would not tend to improve the relations between the profession and the health authorities.

We are therefore instructed to express the hope that you will endeavour to be present and vote against the adoption of the Act when the subject comes before the city council.

Yours faithfully,

T. A. HELME, M.D., M.R.C.P., Chairman.
R. G. MCGOWAN, M.D.,
J. H. TAYLOR, M.A., M.B., } Hon. Secs.

299, Eccles New Road, Salford.

### THE EDUCATION COMMITTEE AND THE HOSPITALS.

At the last monthly meeting of the Manchester Education Committee a discussion took place on an application from the Manchester Children's Hospital for financial assistance from the education authority, the ground of the application being that school children were referred in such large numbers to the hospital for treatment. Councillor Woollam said that, owing to the medical inspection of school children, the claims of the hospitals had increased very considerably. It was no use having children inspected unless they gave poor parents an opportunity of obtaining treatment, and an application from so deserving an institution as the Children's Hospital ought not to be allowed to pass without some inquiry as to how far the committee was in a position to give assistance. He suggested that the whole question of contributions to hospitals and dispensaries should be considered. The Chairman, Sir T. T. Shann, pointed out some difficulties. For instance, there was the difficulty of the ordinary medical practitioner, who thought the cases ought to be sent to him. The committee, however, had nothing to do with that, as the parents said they could not afford to call in a private doctor and there was the hospital to go to, where they could get treatment for nothing. The authority already paid something to some hospitals, but the question of expense must be considered, and the Government auditor might surcharge anything paid unless the committee got special benefits. Councillor Meadowcroft suggested that the matter would better be dealt with by the Town Council, and that a report showing the amount already paid in this way should be prepared. It ought to be remembered that the parents already contributed to the Hospital Sunday and Saturday Funds, and ought not to be asked to contribute in so many ways. Miss Dendy thought the parents in Manchester did not contribute as much as they ought to the hospital funds, and hundreds of people were obtaining the benefits of the hospitals who never paid a farthing to help them in any way. Mr. Lane Scott said the committee was by no means sure of its ground. Some of the other committees which contributed to the hospitals did not come under the Government auditor, but the Education Committee did, and was liable to be surcharged. In fact, a few years ago the auditor gave a hint that the committee must withdraw the subscription from certain dispensaries where children were assisted. He did not think the hospitals ought to be too insistent in this matter, for though the committee had no power to contribute to the hospitals themselves, it had power to establish two surgeries and clinics, and he thought the medical profession would welcome action of that sort. Sir A. Hopkinson said he would be would be sorry to think that this was merely a professional matter. The hospitals were now extremely short of money, and yet new work was continually being put upon them which they could not possibly refuse because they were children's cases that required the best possible skill. The hospitals needed some support, and the community as a whole ought to do more to meet the additional burdens which ought not to be put on the shoulders of the willing horse. The Chairman said he would be sorry to see the hospitals rate-aided, as it would do away with the voluntary feeling and the interest in the work. The working people, however, were not doing what they ought to do. He would be sorry to see the Education Committee with a surgery or clinic under its care, as it had enough to do already. He quite sympathized with the medical profession, who paid rates and had to live. Miss Ashton considered that to put the cost of the medical treatment on the education rate was false economy. The cost of hospitals and the running of clinics ought not to come out of the education rate, as it gave an entirely false idea of the cost of education. Medical treatment was not education, and she strongly resented all such matters being put upon the Education Committee.

It may be pointed out that the Education Committee seems entirely to have overlooked the fact that at present it is practically thrusting the work of treatment on to the shoulders of the unpaid hospital staffs. This will not be tolerated much longer in Manchester. The great majority of the cases of children found on

inspection to be defective do not require any specialist treatment. They could quite well be treated by private practitioners, and there is no reason why public charities or the hospital staffs should accept a responsibility which can only properly belong to the education authority. The Joint Committee of the Manchester and Salford Divisions of the British Medical Association has been driven to regard this matter as one of urgency, and has fully endorsed the decision of the British Medical Association "that the Association should oppose the reference of school children found upon medical inspection to be defective to public medical charities for treatment, whether or not accompanied by payments or subsidies." It has therefore been decided to hold a general meeting of the whole of the profession of Manchester to consider the matter. Sir Victor Horsley has kindly consented to address the meeting, which is arranged to be held on Wednesday, March 8th, at 4 p.m., in the Memorial Hall, Albert Square, Manchester. All members of the medical profession are cordially invited and urged to be present, whether members of the British Medical Association or not. The chair will be taken by Dr. T. A. Helme, Chairman of the Joint Committee.

## PORTSMOUTH.

### MEDICAL TREATMENT OF SCHOOL CHILDREN.

THE report of Dr. Victor Blake, school medical officer for Portsmouth, shows that during the last two years out of 3,567 cases recommended for treatment only 985 received it; 1,029 cases were lost sight of, and in respect of 1,553 it was ascertained that they had not received treatment. Dr. Blake rightly condemns this state of things, and there appears to be a general agreement in Portsmouth that a school clinic should be established, but as to the manner in which it should be organized and conducted there is a difference of opinion.

The Portsmouth Division of the British Medical Association has presented to the Town Council a scheme founded upon the principles approved by the British Medical Association, and proposed that it should be administered by a committee composed of equal numbers of the Portsmouth Education Authority and the Portsmouth Division of the British Medical Association. It suggested that provision should in the first instance be made for disorders of the eyes, ears, nose and throat, and for ringworm. The scheme would allow of expansion to include the treatment of teeth when the Education Authority considered it desirable that this should be done. It was recommended that suitable rooms should be provided by the Portsmouth Education Authority, equipped with the necessary fittings for examination and treatment of cases, including *x*-ray apparatus for the treatment of ringworm. It was further recommended that the clinic should be staffed by members of the profession resident in Portsmouth, each member undertaking to devote two or three hours on one afternoon in each week for at least forty-four weeks in a year to his department. It was further suggested that the number of the staff required would be two for eye diseases, two for ear, nose, and throat disorders, one for ringworm, and two for giving anaesthetics. The remuneration proposed was £50 to each member per annum, except as regards ringworm, for which a fee of 1 guinea a head was suggested. It was also proposed that the Education Authority should supply a nurse for six half days a week, and a servant if necessary.

Dr. Blake has recommended the Town Council to establish a school clinic on a totally different principle, the main point of which would seem to be that the cases should be treated by the nurses under the supervision of the school medical officers. He says of the scheme of the Portsmouth Division:

> I have come to the conclusion that there is much that is unnecessary in it; and that the appointment of part-time local practitioners is not required, as the treatment of such cases as of sore eyes, sore heads, discharging ears, skin disease, scabies, ringworm, verminous condition, already diagnosed by the school medical officers, requires only the necessary supervision by them of the school nurses, who would carry out by daily and constant attention the treatment ordered. Without going into any further details in connexion with the scheme presented, I am of opinion that the work of the school clinic should be dealt with purely by the school medical officers, and all that is further required is the requisition of the services of a speciaist in eye diseases, to carry out refraction work, and for the prescribing of suitable glasses.

A deputation from the Portsmouth Division was received by the School Clinic Subcommittee of the Portsmouth Education Authority on February 24th. There were present: Dr. W. P. McEldowney (chairman), Drs. J. Ward Cousins, Jas. Green, J. Blackwood, D. A. Sheahan, A. Milne Thomson, and L. K. H. Hackman. Dr. McEldowney, in introducing the deputation, spoke of the acknowledged necessity of a school clinic, and said that there could be no doubt that the great difference between the numbers of those recommended for treatment and those actually treated was due to the want of a routine system and a definite place in which to treat the cases. The great desire of the local medical profession was to evolve a system which would lead to harmonious working. He laid stress on the fact that a similar scheme was working in London, and he asked the permission of the Chairman of the School Clinic Subcommittee (Alderman T. Scott Foster, Mayor) to be allowed to introduce Dr. E. Rowland Fothergill, late of Wandsworth, who was familiar with the practical foundation and working of that particular scheme.

On the invitation of the Mayor, Dr. Fothergill described the Wandsworth School Clinic, which he said was working well and would develop a dental side from May 1st. He laid stress on the fact that in Wandsworth the clinic was entirely under the management of the House Committee, on which the London County Council had no representative. This House Committee was elected by the local medical profession. He claimed that such a scheme was more economical in working than by permanent officials, and enforced the point that the medical inspector should not advise or treat cases. He alluded to the waste of time in carrying out the double duties of inspection and treatment by one man, and said that such a course of action was unfair to the general medical practitioner, who was quite capable of undertaking the treatment required. He stated that the London County Council had given a grant of £100 for instruments, drugs, etc., and £50 had been raised privately for furnishing the rooms; the cost of treatment was estimated at 2s. a head, and not less than 1,500 cases in the year were guaranteed. He spoke of the usefulness of care committees in following up cases treated in the clinic, and also those treated privately. The nurse was provided by the London County Council, but was under the strict control of the medical staff. He said that about 95 per cent. of the children required dental treatment, and a dental inspector would be appointed in the future. They had no experience as yet of the doctors being changed, but he did not think that such changes would lead to any special difficulty. He laid stress on the fact that under their rules no operation was to be performed which would require detention and special after-treatment.

Dr. Sheahan spoke of the necessity for studying economy with efficiency, from the ratepayer's point of view. He insisted on the competency of the local medical practitioners to do all that was required, and the danger of putting too much work and responsibility on the nurse.

Dr. J. Ward Cousins urged the necessity of making provision for sudden emergencies, and asked if Dr. Fothergill had any experience of such in Wandsworth. Dr. Fothergill answered, "No," and referred to their rule governing the class of operations to be undertaken.

Dr. James Green said that treatment and inspection by one man was diametrically opposed to the whole policy of the British Medical Association.

Dr. A. Milne Thomson was of opinion that treatment could be carried out more efficiently by a staff of experienced general practitioners than by an equal number of permanent officials.

The chairman of the subcommittee, the Mayor, invited Dr. Victor Blake to make any comments on the discussion, but he declined.

## LIVERPOOL.

### ANNUAL MEETINGS OF THE HOSPITALS.

THE medical charities have now held their annual meetings, in which are brought forward an increased amount of work done in the past year, and varying degrees of indebtedness, with the usual appeal for support.

The Royal Infirmary has announced that the new out-patient department will be formally opened by the Earl of Sefton on March 29th. The building, with furnishings and fittings, has cost £30,000. In the past there have been about 80,000 attendances annually, but the new buildings will probably lead to an increase in the numbers of out-patients.

The Royal Southern Hospital formally opened a new out-patient department in November last, but work has not yet been started in it. The hospital is about £8,000 in debt, and appeals for funds.

The Hospital for Women, Shaw Street, made a special appeal during last year to wipe off a debt of £800; as a result £1,463 were subscribed, so that the hospital, almost for the first time in its history, started the year with a small balance to its credit. The treasurer announced that Sir William Tate had sent a cheque for £250 towards the expenses of the present year. The expenditure at this hospital is £4,500 per annum, and the subscription list only amounts to £700; the rest of the income has to be obtained from fluctuating and precarious sources.

The Samaritan Hospital for Women found itself with a debt of £260, which was met by a cheque for the amount from its chairman, Mr. Charles Cain.

At a meeting of those interested in the Children's Convalescent Home at West Kirby it was announced that Mr. E. F. Callister had offered £800 for the erection of an open-air ward. There were alterations in the present building required which would cost £650, which, with an overdraft at the bank, would amount to £1,200; towards this one of the committee, Mr. C. Boult, had promised £100. The work of the matron, Miss Giddings, who has served for twenty-three years, and is now retiring, was highly praised at the meeting.

The annual meeting of the Dental Hospital has given rise to some correspondence in the daily press, in which it has been suggested that the hospital is used by a class which should not need charity; that charges made by the hospital are such as to prevent the poor from making use of it, and that the hospital thus competes unfairly with the younger dentists in practice. A new hospital was opened last year and forms part of a dental school, students doing a large portion of the work.

## LONDON.

### SMALL-POX.

AT a meeting of the Metropolitan Asylums Board on February 25th, Canon Sprankling, Chairman of the Hospitals Committee, said that at that time the cases of small-pox were confined practically to Mile End. There were two from other districts—one from Poplar and one from St. George Hanover Square, but the latter could be traced to the East End infection. It was further reported that in May, 1909, the managers had approved of the plans for the adaptation of the shore buildings at Long Reach for small-pox purposes. The Local Government Board, whose sanction was required, had asked for certain details, and the matter had remained in abeyance until last July, when the managers decided that the Joyce Green Hospital, when not required for small-pox purposes, was to be regarded as part of the fever hospital accommodation, and that the Long Reach Hospital and the shore buildings should in future be the only accommodation permanently reserved for small-pox. The Hospitals Committee reported that, as it was proposed to keep the shore buildings in continuous use, it was desirable to make certain alterations to render the buildings more comfortable. As soon as the sanction of the Local Government Board to the proposed alterations, which will involve a small extra expenditure, is obtained, the work will be proceeded with; meanwhile, the small-pox patients are being admitted to the Joyce Green Hospital.

A statement with regard to the small-pox epidemic was made by the Chairman of the Public Health Committee at the meeting of the London County Council on February 28th. After defining the relations of the Council and the Metropolitan Asylums Board, Mr. Freeman Barrett said that when information of the outbreak reached the Council on February 21st, a medical officer visited the Mile End Infirmary, and the tracing of contacts led to additional cases being found. Persons at common lodging-houses and shelters had been examined, and everything possible was being done to check the outbreak. The disquieting circumstance was that cases had been found in other districts besides that in which the epidemic broke out. Three cases had been notified in Bethnal Green, one in Westminster, and one at Deptford. It was thought that some of these cases might have received infection from persons in Lancashire, where also small-pox had occurred. That, of course, was only a theory at present.

It appears that altogether down to noon on February 28th, 47 cases of small-pox had been notified; 3 cases were admitted to Joyce Green Hospital on that day, 1 from Bethnal Green, and 2 from Mile End. Two deaths had then occurred, one of a vaccinated woman about 60 years of age, and the other an unvaccinated child.

### EPIDEMIC OF MEASLES.

Measles is prevailing in an epidemic form not only in Edinburgh, Dublin, and Newcastle, but also in London, where at the beginning of this week there were 557 cases under treatment in the hospitals of the Metropolitan Asylums Board. We have received the following letter from Mr. T. Duncombe Mann, Clerk to the Board, with regard to the regulations for the admission of cases of measles or whooping-cough to the Board's hospitals:

> Misunderstanding seems to have arisen in some quarters as to the scope of the order recently issued by the Local Government Board empowering the Metropolitan Asylums Board to receive into their hospitals cases of measles and whooping-cough. I should therefore be glad if you would kindly allow me to inform medical practitioners and others through your columns that this Board are only authorized to admit poor persons, under 16 years of age, on the order of a relieving officer, or master of a workhouse, or medical superintendent of an infirmary or district sick asylum, or the superintendent of a Poor Law school, accompanied by the certificate of a Poor Law medical officer.

## Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### REGISTRATION OF SCOTTISH NURSES.

THE annual meeting of the Association for the Promotion of the Registration of Nurses in Scotland was held in the Medical Theatre of the Edinburgh Royal Infirmary on February 24th, when there was a large attendance of representatives from various parts of Scotland. Lord Inverclyde, president of the association, was in the chair, and explained the nature, scope, and work of the association. The various societies interested in the question of registration of nurses had formed a joint committee under the chairmanship of Lord Ampthill, and had agreed to support one bill instead of each promoting a separate bill. His lordship expressed the association's gratitude to Lord Ampthill for presiding at the various meetings, and by his tact and firmness in bringing all parties together. The bill as drafted would, he hoped, be presented to the House of Commons without any great delay, but in face of the Government business it might be some little time before it was read. It was a bill of compromise all round, and there had been no difficulty in finding members of Parliament representing every shade of politics to back it.

Dr. D. J. Mackintosh (Glasgow), the Honorary Secretary, submitted the report for the past year. There were, he said, over 2,000 matrons and nurses members of the association, 234 nurses having joined during the year. These figures did not include a large

number of prominent medical men who were members of the Executive Committee and took a deep interest in the training and registration of nurses. He referred to the various meetings and conferences held in connexion with the promotion of the bill. Dr. Mackintosh, in the absence of Dr. Johnston, the Treasurer, submitted the financial statement, showing a satisfactory balance in hand.

Professor Glaister, in moving the adoption of the report, said that Mr. Munro-Ferguson had again consented to present the bill. The motion was seconded by Miss Gill, Matron of the Edinburgh Infirmary, and carried unanimously. On the motion of the President of the Royal College of Surgeons of Edinburgh (Dr. George Berry), seconded by Miss Wise, a resolution approving the action taken during the year was unanimously adopted. The President of the Royal College of Physicians of Edinburgh (Dr. Byrom Bramwell) moved and Miss Maccallum seconded the re-election of the President and other officers and the appointment of a small committee to watch the progress of the bill in Parliament. This motion was carried, as were also votes of thanks to the managers of the Royal Infirmary and Lord Inverclyde, moved by Dr. Renton, of Glasgow, and Dr. Affleck.

### SCOTTISH DEFENCE UNION.

The council of the Medical and Dental Defence Union of Scotland has issued a circular dated February 28th, dealing with the three following matters: (1) The council has completed negotiations with one of the leading insurance companies whereby members of the Union will be enabled to effect insurances on special terms, which are stated to be considerably lower than those offered to the general public. (2) The council has issued a pamphlet entitled *Instructions to Members in Regard to Income Tax Returns* containing various particulars which ought to prove helpful to practitioners in adjusting income-tax returns; it contains a special chapter on deductions allowed. (3) In view of the numerous prosecutions under the Sale of Food and Drugs Act against chemists and medical men supplying or selling to the public drugs alleged to be deficient in quality, the council has decided to recommend members who keep open dispensaries to obtain a warranty from wholesale dealers with each invoice for goods. To enable this scheme to be carried out satisfactorily in practice, without the necessity of requiring members to negotiate with wholesale dealers on individual account, the council has made arrangements with a leading firm of wholesale druggists whereby to each invoice a warranty will be attached that the drugs conform to the standards of the *British Pharmacopoeia*.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### ST. PATRICK'S NURSES' HOME.

AT the annual meeting of the supporters of St. Patrick's Nurses' Home, Dublin, for supplying trained nurses to the sick poor, a satisfactory record of work done during the past year was presented. Lady Aberdeen, who proposed one of the customary resolutions, referred to the fact that over 27,000 tenement dwellings of one room existed in Dublin, and stated that the existence of such a vast number of poor people as was indicated by this figure demonstrated the importance of the work carried on by the institution. She further threw out an interesting suggestion derived from the working of a similar institution in Canada, where, at the request of one of the large insurance companies, the nurses visit the clients of that company, and the latter subscribes a sum of money to the order. She suggested that possibly some of the local insurance companies would find it to their advantage to subscribe on similar terms to the St. Patrick's Home.

### INSPECTORS OF LUNATICS.

At a recent meeting of the Committee of Cork District Lunatic Asylum the rumoured impending retirement of one of the inspectors of lunatics was referred to, and a resolution was passed to the effect that inasmuch as the lunatic asylums are in the main homes for chronic inmates, and inasmuch as their upkeep is costly, and requires the careful superintendence of a person trained in business methods, the committee are of opinion that one of the inspectors of lunatics should be an expert in mental diseases, and the other should be a layman. The committee therefore request the Lord Lieutenant to appoint to the post of second inspector now to become vacant a layman of business ability and of strong grasp of finance. Such an appointment would, however, we believe, require fresh legislation as the Act prescribes that the inspector must be a medical man.

### EPIDEMIC DISEASE IN DUBLIN.

Sir Charles Cameron reports that the epidemics of scarlatina, diphtheria, and typhoid fever in Dublin are now steadily declining, more especially that of scarlatina. He attributes the decline of scarlatina to the closing of the primary schools, and believes that the epidemic will be at an end if they remain closed for another week.

## India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### NEW RULES REGARDING FEES FOR MEDICAL OFFICERS IN INDIA.

REFERENCE has frequently been made to the very unpopular and degrading rules limiting to an injurious degree the fees which can be received from Indian princes and gentlemen without first obtaining permission from the local governments. It has been known for some time past that they were under consideration with a view to amendment in the direction desired by medical officers. New rules which are a great improvement on those which they replace have just been issued. They are applicable uniformly to British India and Native States. Medical officers are to be free to make with their patients arrangements which will not require to be reported to the local government for sanction, provided that, in addition to travelling expenses, a higher fee is not charged than Rs.500 a day for the first three days and Rs.250 a day thereafter, the full daily fee being given for every complete period of absence of twenty-four hours, with a proportionate fee for periods of less than twenty-four hours. A second rule lays down that when at head quarters a medical officer may charge his usual fees, and in the case of operations, etc., fees equal to those current in the United Kingdom. A third rule provides that in case a fee larger than those mentioned in Rules 1 and 2 be asked for the medical officer will report the case confidentially to the administrative medical officer, who will obtain the orders of the local government without disclosing any of the medical particulars of the case. The local governments are to have full power to dispose of all such cases, or to consult the Director-General of the Indian Medical Service or the Government of India if they so desire.

Although the scale of fees is still considerably below the amounts received by consultants in the great English centres visiting a patient at a distance from the town in which they reside, and also less than the fees paid by the local governments themselves to the leaders of the legal profession, nevertheless they may be accepted as just and as removing all serious ground for discontent. It now behoves all members of the Indian Medical Service to see to it that the new rules are most strictly complied with so as to give no grounds for any retrograde measures in the future. Surgeon-General Lukis has earned the thanks of the members of the service for his successful vindication of their honour. Should he prove equally successful in obtaining the annulment of the order of the late Secretary of State for India restricting the present and future scope of the Indian Medical Service, as is confidently expected will be the case in view of

the well-known views of the local Governments on that dispatch, much will have to be done to restore the rapidly-waning popularity and to revive the prestige of the Indian Medical Service.

# Special Correspondence.

## BUDAPEST.

*Annual Congress of the Hungarian Medical Association.*

On Sunday, January 29th, the Hungarian Medical Association met in the old Parliament House to hold its annual congress. The opening address was delivered by the President of the Association (Professor Kétly), who gave a short account of the disputes which have arisen between the association and the sick clubs. Ever since January 1st, 1908, when the Workmen's Compensation Act first came into force, the number of men belonging to these clubs has been three times greater than before, and it was naturally expected that in consequence the number of doctors would be doubled. As a matter of fact, however, the increase in the latter only amounted to some 50 per cent. The association has always insisted upon the "free choice" system, but the sick clubs have decided that such a system is impracticable, at any rate at present. Some six months ago the governing board of the sick clubs issued a new set of rules relating to discipline, service, and salaries, which were extremely derogatory to the medical profession. For instance, under these new rules the present system of contracts between the clubs and their doctors (by means of which the latter can attend their patients as long as they like) is to be changed. The clubs, in the case of negligence or any other fault on the part of the doctor, will have the power to break the contract by giving him three months' notice, after laying the matter before a board composed of equal numbers of members and non-members. On the other hand, the clubs wish to discard such a system entirely, and propose that the doctors should be ranked as members over whom they should possess certain disciplinary rights. In concluding his address, Professor Kétly spoke most strongly against such a system, and called upon the profession to oppose it by all means in their power.

Dr. Nándor Flesch, the Secretary of the association, who spoke after the President, called the attention of his audience to the regrettable fact that the new law relating to village and parish doctors has as yet only served to throw fresh work and responsibility upon the doctors, whilst the rights it professes to confer on them are non-existent, owing to the carelessness and indifference of the authorities. Consequently hundreds of posts are now vacant, a fact which can easily be understood, considering the circumstances. The speaker suggested that a proposal should be made to the Secretary of State for Public Hygiene to the effect that the association is willing to undertake to supply doctors for the vacant Government posts in villages and parishes, and through them to do all that is possible to improve the hygienic condition of the country, on condition that the Government will ensure their full rights to these doctors, not only with regard to the nature of their service, their position amongst other State officials, and their salaries, but also in respect of the proposed system of pensions, which has hung fire for so long. The pensions ought to be provided partly by the State (that is, the respective villages and parishes, which should be especially taxed) and partly by the doctors themselves. In reply to this proposal, Gynla Böles, the Ministerial Secretary, said he was authorized to state that the Minister took a very great interest in the medical profession, for whose members he entertained the most friendly feelings; and that preparations for a complete system of pensions were already far enough advanced to make it possible to promise that it should be brought into force by July 1st, 1911. Referring to the complaints of the club doctors, the Ministerial Secretary added that he was convinced that they would be able to keep to the present contract system, and that he himself would do all in his power to prevent them becoming employees of the clubs. He considered the claim for higher fees on the part of the club doctors fully justified, and intimated his intention of introducing a "seven days' system" to cover the additional expense. This means that the clubs, instead of receiving a fixed fee for six days' attendance on the part of the doctor, would be paid for seven days' medical treatment, their income thus being augmented by one-seventh. This announcement on the part of the Ministerial Secretary was received with great applause. The proceedings terminated with a banquet given by the city of Budapest to the members of the association.

# Correspondence.

## THE MODERN TREATMENT OF BONE INJURIES.

Sir,—Much is learnt by personal experience, and a recent fracture in my own case has made me think seriously as to the general treatment of bone injuries, particularly with regard to after-treatment, which is where most of the failures in general surgical treatment take place, and it is at this point that the bonesetter comes in, because the proper treatment has either not been given at all or has been discontinued too soon. The essential of the radiograph for a proper knowledge of the conditions of the fractured bones is far more appreciated now than formerly, but is still too often neglected. The immediate treatment, and the operative treatment when necessary, are, as a rule, well carried out, and the undesirability of continuing the use of splints too long is appreciated, as is also the value of early and proper massage.

What is probably not sufficiently recognized is the amount of damage and laceration of muscles that may occur in any given fracture. This can perhaps only be properly recognized when a fracture is operated on.

The desirability of this knowledge is obvious when one thinks of the amount of repair that has to take place and of the treatment necessary to obtain this with the least loss of power and with the least amount of pain. This is best obtained by daily massage, commencing usually after the eighth day, and in addition excellent help is obtained by what Dr. Eliot Creasy calls the "lamp treatment" combined with the wave current. From these I have had the greatest relief and help. I have seen it also in others. The following is a description from Dr. Creasy of this form of treatment:

> The 500 candle power incandescent lamp is peculiar in the character of the reflection; instead of a parabolic reflector with one focal point, there is a corrugated reflector and conical side reflectors which project lines in parallel and crossing lines of radiation having two parallel fields of greatest brilliancy and intensity. This arrangement permits the operator to move the lamp about in such a manner that these two fairly large fields of intense radiation can be tolerated as they cannot be when detained in one position directly over the regions of tenderness or inflammatory involvement. At the same time the whole surface receives a liberal radiation of light and heat. The effects upon simple inflammation, unaccompanied by infection, is to induce general tissue relaxation with relief of pressure and pain; by increasing local metabolism and elimination to relieve the tissues of the irritating products of defective metabolism present in conditions associated with myalgias and similar conditions; and in conditions of mild traumatic injury, treated promptly after injury, to remove early stasis.
>
> The electric wave current may be classed as an agent which is capable of increasing the physiological resisting power of the part to which it is applied. It restores the metabolic equilibrium which is disturbed in all conditions characterized by increased venous and decreased arterial pressure. Passive congestions are removed by improving the physiological "tone" of the affected region. Pain is relieved because nutrition is rectified and toxic material turned into the proper excretory channels. Health has been defined as a condition characterized by perfect equilibrium of arterial and venous blood pressure. Disturbance of this equilibrium results in locally increased arterial pressure or locally augmented venous pressure, both conditions resulting in disturbed nutrition of the nerves, whose cry for proper nutriment is called pain. The wave current, in restoring the physiological tone of the affected area, tends to re-establish the normal equipoise of the two forms of pressure, and in this way counteracts stasis and relieves pain.

The immediate effect of this treatment with regard to the alleviation of pain is interesting. I have seen a patient who, after a fractured clavicle, suffered intense pain, so much so that he was scarcely able to move his arm at all, and was quite unable to sleep. After about five minutes of the wave current, which had been preceded by treating the affected area with the lamp, the patient was

able to extend the arm shoulder high without any pain at all. A certain amount of stiffness returned after some hours, but a distinct improvement remained, which is still further increased after each application. When the worst of the pain has disappeared by this method, exercises should be combined with it.

The exercises which cause the greatest and best effect without any risk of being overdone or causing harm are carried out by a system of pulleys, which are so delicately adjusted that the amount of force with or against the operator can be regulated to half an ounce. This, as Mr. Frank Romer explains, is far superior to any form of elastic apparatus, which, owing to its elasticity may, say with the extension of a foot, give a resistance of 6 pounds; at the distance of another foot the resistance may be five or six times this amount, and a source of risk to a weak arm if it cannot resist the tension. Also the patient cannot do as much or as well, because there is a lack of confidence when the elastic apparatus is used. On the other hand, the patient works away with the finely adjusted cord pulleys with every confidence, as he knows that no harm can possibly happen to him.

It is of the greatest interest to see a certain exercise started which, owing to weakness and stiffness, it seems almost impossible for the patient to attempt. It is started with a very slight amount of resistance, and after two or three movements the patient continues the movement alone and repeats it thirty or forty times with increasing power and confidence. After two days an exercise so laboriously begun can be carried out with ease.

These pulley exercises combined with the lamp and wave current treatment mentioned above, if taken at the proper moment, will in a week convert a painful crippled limb into a useful working limb. This I can speak of from experience, and the rapid progress which can be made will be appreciated when I say that when this treatment was started I was unable to raise my arm, to hold a spoon or fork, and that at the end of a week I could feed, dress, and shave myself, and also write, and at the end of ten days I was able to resume my work.

This treatment may be said to be ideal and not within everybody's reach, but it is the ideal one aims at, and, if this cannot be obtained generally as yet, then the best must be done under the circumstances. A proper knowledge of the after-treatment of fractures and a general knowledge of the principles of massage will, if carried out, produce better results than can ever be obtained by any unqualified bonesetter.—I am, etc.,

FRED. C. WALLIS, F.R.C.S.,
London, W.C., Feb. 28th. Surgeon to Charing Cross Hospital

## SWABS LEFT IN THE INTESTINE.

SIR,—I cannot understand why Mr. Lynn Thomas should consider that the sigmoidoscope is a dangerous instrument. That there is undoubtedly danger when it is used by any one who has not had considerable practice in passing the instrument, or by any one who is inexpert or rough, is, of course, obvious; and I have myself heard of accidents due to its use, but only where it was used by some one who had no, or very little, previous experience in passing it, and so far as I have been able to ascertain by careful inquiry in all of these cases the instrument was used in an entirely improper manner—namely, it was passed by feel with the obdurator in place, and not, as it should be, entirely by sight. When used correctly and passed only by sight, slight puffs of the bellows being used to separate the walls of the bowel, and not the end of the instrument itself, it is, I believe, quite impossible to cause any damage with this instrument, even in cases where the bowel wall is seriously diseased. I have myself been using this instrument for about eight years, and have not only never seen any serious consequences, but have never even met with a case in which there was the slightest discomfort after the examination. I have several times used the instrument to examine an anastomosis in the pelvic colon soon after the operation has been performed, and I cannot conceive how, if properly used, the instrument can possibly cause any harm, nor have I ever known it do so.

On the other hand, it is extremely useful to be able to see the condition of the anastomosis; to see whether the stitches in the mucous membrane have separated; and to see whether the lumen left after the anastomosis is sufficiently wide.

I have also repeatedly used it to examine cases of severe ulcerative colitis, and, although I should by no means advocate its use in such cases unless the surgeon has had considerable practice in using the instrument, there is not the smallest risk in the hands of experts.

At St. Mark's Hospital the instrument has been used continuously now for a number of years, and there has never been anything approaching an accident with it.

In other words, any danger attending the use of the sigmoidoscope is, in my opinion, entirely due to its being used in difficult cases by surgeons who have not had much experience in its use. Mr. Lynn Thomas has evidently had considerable experience with the instrument, and I understand from his letter that he has never had an accident with it. I cannot, therefore, understand why he should describe it as a dangerous instrument, except, as is obviously the case, in the hands of inexperienced persons.—I am, etc.,

London, W., Feb. 27th. P. LOCKHART MUMMERY.

## RHEUMATIC PURPURA AND PELIOSIS RHEUMATICA.

SIR,—I have been much interested in the letters on this subject by Drs. Poynton and R. J. Miller. Dr. Miller appears to consider that it is probably only a coincidence when Schönlein's peliosis occurs in connexion with an attack of rheumatism; Dr. Poynton looks upon the condition as a manifestation of rheumatism in many cases, but sometimes as an indication of a special infection. Some years ago I read a paper before the Bradford Medico-Chirurgical Society on this subject, enumerating some cases and showing several illustrations. One case was that of a young man, 22 years of age, who had contracted rheumatism after getting extremely wet. He had acute pains in the arms and legs, the ankles and knee-joints being especially affected. He had been in this condition over a week when the typical patches began to appear on his legs, on which they became pretty equally distributed. Each day some fresh maculae appeared, gradually involving the thighs and abdomen, and afterwards a few came out on the chest and back of the hands. As successive crops came out maculae in all stages of coloration were to be seen. He was treated with salicylates and alkalis, and in the later stages with iron and arsenic, and quite recovered. Another case was a lady, 27 years of age, in apparently excellent health, with no rheumatic history, who was alarmed by noticing one morning a crop of red spots come out on the dorsum of both her feet and the fronts of her legs. Within a day or two she began to suffer from acute articular pain in the toe-joints, ankles, and knees, with oedema, which was especially marked over the dorsum of the feet. Large irregular purple patches formed from the coalescence of the smaller spots, and in some cases bullae containing a yellow serum formed. She was also treated with salicylates and by rest in bed, and afterwards with arsenic. In four to five weeks the blotches gradually disappeared. In both these cases the temperature was never high—in the young man only 100° F., and in the lady 101° F.

The impression I gained from a consideration of these cases was that in the first case quoted the infection was a rheumatic one, and the purpura an incident; the second case appeared as if it was due to some specific infection, and the arthritic pains its sequelae. These inferences appear to bear out Dr. Poynton's conclusions.—I am, etc.,

Bradford, Feb. 19th. JAMES METCALFE.

## CONTINUOUS ANTISEPTIC INHALATION IN PULMONARY TUBERCULOSIS.

SIR,—I think the profession is greatly indebted to Dr. Lees for his persistence in calling attention to the value of continuous antiseptic inhalations in the treatment of pulmonary tuberculosis.

I do not feel that I have tried his methods for a period sufficiently long to form a decided opinion, yet I have come to certain conclusions, though they are not precisely those arrived at by Dr. Lees. After twenty-five years' experience as a physician to consumption and chest hospitals, I believe that a common cause of the febrile

disturbance and of the activity of the tuberculous process is the presence of mixed infections. The toxins of tuberculosis are themselves liable to produce both a wide oscillation of the daily temperature and fever, especially when the auto-inoculation is exaggerated by movement or excessive muscular exertion. But in a considerable number of cases there is little doubt that the disease is accelerated and the symptoms enhanced by the presence of some coincident organisms. And this is especially the case in city life.

Thus the acute and stormy pneumonic onset, and often the intercurrent pneumonia of tuberculous cases, is frequently due to the presence of the *Diplococcus pneumoniae*, while the associated asthma that is occasionally present in extremely chronic cases of tuberculosis may be due to the same cause or to the presence of some other catarrhal organism. Also many of the febrile phases of a case of chronic pulmonary tuberculosis are complicated by the presence of the *Micrococcus catarrhalis* or other catarrhal microbes of similar nature.

The cases of acute necrosis and suppuration of lungs are usually accompanied by one or more of the various pyogenic organisms—streptococci and staphylococci.

I have often endeavoured, with the assistance of our clinical pathologist at Brompton Hospital (Dr. Inman), to obtain an isolation of these extraneous organisms, and to have a vaccine prepared and injected, with the hope of eliminating this mixed infection. At the same time this is a most difficult and elaborate process, and can only be done in a few selected cases. I am struck by what Dr. Lees affirms with regard to the influence that continuous antiseptic inhalations have upon the common cold, due to one or other of the "so-called" *infective catarrhal organisms*.

So far I have formed the opinion, in the few cases in which I have tried this method (and which I hope still further to verify), that this plan of treatment is of importance in dealing with these mixed infections of tuberculous cases.

It is a common experience at our Frimley Sanatorium that, after two or three weeks' "open-air" treatment, the sputum becomes free from all other organisms except the tubercle bacillus, and that this is accompanied by a corresponding subsidence of excessive oscillation of temperature.

My present strong feeling is that continuous inhalation, such as Dr. Lees advises, is of great value in eliminating all these mixed infections. In many of Dr. Lees's cases the patient has been placed under recent favourable conditions as to rest, good food, and other hygienic influences, at the time the inhalations were commenced.

I have come to the conclusion that this treatment aids in the elimination of extraneous organisms that invade the respiratory passages and that increase the activity of the tuberculous disease. I have not yet been able to satisfy myself that the tuberculous process itself is affected except in this indirect manner.—I am, etc.,

London, W., Feb. 20th. S. H. HABERSHON.

## TUBERCULIN AND TUBERCULIN DISPENSARIES.

SIR,—Seeing that my report to the Town Council of Portsmouth on the provision of tuberculin dispensaries has received some criticism in your columns, I should be glad if you would allow me space for a reply. I should not have troubled you with this were it not for the curious misconceptions as to tuberculin dispensaries which seem to have occupied the minds of your correspondents.

Dr. Pringle, medical officer of health, Ipswich, sent a circular letter to the "medical superintendents of the principal sanatoriums of England and Wales" stating that I had in a report recently published at Portsmouth advocated the "establishment of tuberculin dispensaries in place of sanatoriums or other provision for the treatment of phthisis," and he asks for their opinion on the matter. On the receipt of their replies he pens his article against tuberculin dispensaries, and against, what he erroneously attributes to me, namely, the "indiscriminate administration of tuberculin."

The fact that Dr. Pringle does not give the names of the gentlemen whose opinions he summarizes rather detracts from the value to be attached to his statements. This, however, is of small importance compared to the fact that he does not state in his article whether he merely asked the superintendents their opinion generally on the use of tuberculin at a dispensary or whether he asked their opinion on the particular method of administration—namely, that employed by Dr. W. Camac Wilkinson—which I advocate. If, as I believe, thereplies of the superintendents were based on their experience of Koch's Old and New Tuberculin, and not on the system employed by Dr. Wilkinson, of gradually increasing the active immunizing power of the body by a course of some of the less toxic tuberculins, then the replies he has received are absolutely valueless as a criticism. Dr. Wilkinson has repeatedly stated that if he were dependent only on Old and New Tuberculin he would never advocate tuberculin dispensaries. The attempt to secure immunization by means of the indiscriminate administration of Old and New Tuberculin at a dispensary would probably result in a recurrence of the disasters that attended the indiscriminate use of tuberculin soon after its introduction by Koch in 1891 and 1892. I may say, indeed, I have never seen a dose of New Tuberculin given at Dr. Wilkinson's dispensary, and it is only toward the end of the course of treatment that the patient is given Old Tuberculin.

The latter part of Dr. Pringle's article is devoted to showing, theoretically and logically, that tuberculin dispensaries are useless and dangerous. To answer his arguments would be waste of time. The question will be settled, and is now in course of being settled, not by argument, but by practice. Tuberculin dispensaries, in which the treatment is administered on the lines advocated by Dr. Wilkinson, have been for some eight or nine months carried on at Kennington Road, S.E., at Street (Somerset), and at Aldershot. Numbers of patients have already been treated at these places. Not only has there been not one single untoward result, but I believe I am correct in saying that every patient, without exception, has benefited by the treatment. Many cases are apparently quite cured, and in many others the improvement is remarkable. Moreover, the cases have not been limited to those in the first stage of the disease. I have seen patients in the later stages who had already had a course of sanatorium treatment without benefit commence rapidly to improve under a course of treatment at the dispensary.

I would like here to correct a misconception. I have been accused of being hostile to sanatoriums. Such is not the case. I am far from wishing to deny the value of these institutions; the opinion I hold is simply that, owing to their expense, they can never be relied upon to solve the consumption problem, and at the present time I do not suppose they are capable of dealing with 10 per cent. of the consumptives in this country who need treatment. There is no doubt that sanatoriums have effected a number of cures amongst persons who without them would not now be alive. It is also found that in Germany the usefulness of sanatoriums is greatly increased by the adoption of the tuberculin treatment, and in the three years 1905–7 the numbers of private and public sanatoriums systematically employing tuberculin increased from 29 to 57 per cent. (Bandelier and Roepke). I do not advocate tuberculin dispensaries to the exclusion of sanatoriums; there is plenty of work for both, and the best results will undoubtedly be obtained by a system that incorporates the employment of both.

I had been given to understand that Dr. R. W. Philip of Edinburgh was opposed to the provision of tuberculin dispensaries, but, after carefully reading his letter in the JOURNAL of February 25th, I am unable to ascertain whether he is still of that opinion or not. One thing, however, is clear, and that is that, in his opinion, a tuberculin dispensary is simply a place—a station, he says, it ought to be called—which is used merely to give a person a dose of tuberculin. I have never before heard of so limited a conception of such institutions. I do not know upon what it is based; it cannot be upon experience of the Kennington Road dispensary, where a nurse is attached who visits the patients, and also lady visitors who advise and help needy cases with nourishing food and in other ways. Nor can it be based upon Dr. Hilda Clark's tuberculin dispensary at Street, where, in addition to the above, open-air shelters are provided, and beds are also maintained at a sanatorium where the tuberculin treatment is continued. Nor will such a definition apply

to the tuberculin dispensary which, on my advice, the Portsmouth Town Council are going to provide, for here there will be health visitors to visit and instruct the patients and their families, a committee of ladies will assist in following up and helping the patients in their homes, and I hope also that beds will be at our disposal for the use of certain patients who may need continued medical observation and attention. In fact, an endeavour will be made to employ all those useful agencies which are found of value in tuberculosis dispensaries, with this important addition, that here will be given a specific curative agency which other tuberculosis dispensaries in this country have so far not made use of.

Dr. C. E. S. Flemming states (JOURNAL, February 25th) that the only evidence he can find in my report of the value of tuberculin dispensaries is that taken from Dr. Wilkinson and his book. I fear he can have read my report but carelessly, or he would have seen that I also quote the results obtained at Aldershot and Street. It is true that I have not quoted any other results, but these are the only places that I am aware of where the treatment of out-patients by tuberculin is carried on in this country; further evidence, therefore, is impossible unless one goes to Germany where it is also practised. I have, however, preferred to quote only such evidence as is available in this country, so that it is in the power of any one to see for himself and judge for himself whether or not I have attached too much value to the facts that are open for the investigation of any medical man.

In conclusion I suggest that the academic discussion of the value of tuberculin dispensaries is rather a waste of time. I have no wish that medical men should take my opinion upon them—at the same time they will be foolish to take the opinion of those who, having had no experience of such institutions, yet feel qualified to condemn them. The solution of the matter is very simple: the dispensaries I have mentioned are being carried on openly, and I believe I am warranted in saying that those in charge of them will offer medical men interested every opportunity of seeing for themselves the methods of treatment and the results that are thereby secured. Let medical men, therefore, visit the dispensaries and form their opinions from actual experience. I have little hesitation in saying that if they do so they will agree with the opinion I have expressed in my report, and that is, that the evidence available is amply sufficient to warrant a thorough and extensive trial being given to tuberculin dispensaries in this country.—I am, etc.,

Town Hall, Portsmouth, Feb. 25th. A. MEARNS FRASER.

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SIR,—The close proximity of Dr. Wilkinson's and Dr. Lees's letters in your issue of February 18th, pp. 403, 404, should surely make the thoughtful pause and consider. In both letters a claim is put forward that a cure for pulmonary tuberculosis has been found at last. At first sight it would seem that their methods of cure have nothing in common, and yet, I venture to think they are nearly related, a great deal more so than their authors really imagine.

A great deal is said about continuous antiseptic inhalation, and very little about the mechanical effects of wearing a respirator continuously. If no antiseptic be used, a respirator may do good in the following directions: (1) It will keep the patient from talking and laughing; (2) in certain cases it will mitigate the cough; indeed, if wearing a respirator will stop cough, it has done one of the most necessary things towards promoting a cure of early tuberculosis of the lungs. The cough is stopped, chiefly I imagine by the air being warm and moist after passing through the respirator. It is especially useful during the prevalence of dry east winds. The respirator method of treatment is simply a method of producing rest. From my own experience I should say that the last thing which an early case of pulmonary tuberculosis is made to do, is to go to bed; for one thing no doubt these patients generally object to this form of treatment. It thus happens that patients with night sweats are encouraged to walk about, and are thus made into chronic cases. A week or a fortnight of strict seclusion in bed, will often do wonders in the early stage of pulmonary tuberculosis. I do not believe that the antiseptic has any effect on the tubercle bacillus.

Now in those cases in which rest cures, it is probable that the tubercle bacillus brings about its own destruction. Owing to the vascularity of the lung there is reason to suppose that tuberculosis of that organ is more often cured without treatment than tuberculosis affecting any other organ. If, however, the cure does not take place, the increase of tubercle, situated in so vascular an organ, will speedily, by autoinoculation, produce a bankruptcy of the body with regard to antibodies; it is at this stage that tuberculosis of the lungs first shows symptoms. Rest is the only measure known for stopping the increase of bacilli; even with rest in bed there will, however, usually be sufficient movement to bring about sufficient autoinoculation to promote a cure.

Whether it is correct or not to give tuberculin at dispensaries, or whether such a course is beneficial, I can give no opinion. From theoretical considerations it would appear not to be a wise proceeding; and any one who has watched the effect of tuberculin on visible surgical lesions might well pause before giving it indiscriminately when so vascular an organ as the lung is affected. The cross-sectional area of the vessels in that organ is so great that it is much if a tubercle will not ulcerate into one of them, and so produce considerable spread of the disease, or even a generalized tuberculosis. That tuberculin is sometimes valuable in treating tuberculosis of the lung, no one who has used it will deny. That it is particularly useful in the majority of cases which come to this sanatorium I do not admit. Sanatorium physicians have for some years been trying this remedy in the hope that it would improve their results. Had it done so to any appreciable extent, I think it is clear that sanatoriums would not have been subjected to the harsh criticisms which have been poured upon them of late.

Whatever is true as to the correct method of treatment, it seems to me quite clear that when a medical man suspects a patient of suffering from tuberculosis of the lung, the first thing to do is to place him in bed; if he coughs a great deal, and talks too much, it may be advisable to give him a respirator. Whether or not tuberculin should be given may be considered later.—I am, etc.,

EDWARD E. PREST.

Ayrshire Sanatorium, New Cumnock, N.B., Feb. 18th.

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SIR,—Your correspondent, Dr. R. W. Philip of Edinburgh, no doubt refers to me as "one of your correspondents" and "an extra-sanguine advocate of tuberculin," though he does not mention my name. In discussing the limitations of tuberculin as a remedy he seems to forget that these limitations were considered and determined long before he himself "pointed them out." Dr. Philip has been and still is, from my point of view, a timid advocate of tuberculin. I have furnished incontestable evidence that tuberculin in large doses is a safe remedy, and often the only remedy, even in late stages of pulmonary tuberculosis. Dr. Philip stated at the meeting of the British Medical Association in London that it was useful in a limited number of early cases, and that he could not make up his mind which was the better method for early cases—the method of sanatorium treatment or the method of tuberculin treatment.

I am not aware that I did more than say how many times a mixed infection occurred in a small series of cases, yet Dr. Philip tells us that "mixed infection" is of more frequent occurrence than the statement of "one of your correspondents would indicate." I have given much time to the study of mixed infection, and the frequency of mixed infections varies, *inter alia*, with the prevalence or otherwise of epidemics—notably of influenza. When, in 1897, I was preaching the definite doctrine of mixed infections, no Englishman or Scotsman had ventured upon any clear statement of the meaning and importance of mixed infections in pulmonary tuberculosis.

By scientific methods it is easy to determine the range of mixed infections, and this being done one is competent and ready to use tuberculin both in diagnosis and treatment. Tuberculin may be used in all cases of pulmonary tuberculosis free from mixed infections, but the degree of improvement and recovery is in inverse ratio to the stage of the disease. Hence the enormous value of early diagnosis; and while I am entirely with Professor Koch in using tuberculin in a routine fashion as the best means of

establishing the diagnosis at the earliest period, Dr. Philip is not. He is still afraid of it. Therein lies the pre-eminent advantage of the tuberculin dispensary, and herein lies the reason of Dr. Philip's opposition to it.

Again and again I have stated that the work of the tuberculin dispensary begins with the use of tuberculin both for diagnosis and treatment, but it does not end there. Any one who takes the trouble to read the appendix in my book will see that the outlook of the tuberculin dispensary is just as wide as the outlook of Dr. Philip's scheme; and I have not borrowed a comma from Dr. Philip's writings, though Dr. Philip may have borrowed something from me, and we have both borrowed freely from others.

Lastly, I cannot refrain from restoring to its proper place and form the blurred picture of the tuberculin dispensary presented to your readers by Dr. Philip. The tuberculin dispensary has come to stay, and its name is both apt and definite. My institution can be called nothing else than a dispensary, as it resembles all other dispensaries in being a place where disease is treated. On the other hand, according to the very analogy which Dr. Philip has cited, his institution is an antituberculosis station. There is no resemblance between a tuberculin dispensary and a vaccination station, which is a place where healthy people are vaccinated.

The essential function of the vaccination station, as of the antituberculosis dispensary, is prevention. Dr. Philip gives his own case away when he styles his letter "Tuberculin and the *Prevention* of Tuberculosis." I know of no other dispensary that aims essentially at the prevention of disease. It is therefore Dr. Philip who has applied the label "dispensary" to an institution which is unlike all other dispensaries. On the other hand, the tuberculin dispensary is the only dispensary where tuberculin is dispensed as the agent for recognizing tuberculosis, and also, month after month for many months, as the essential remedy in the treatment of tuberculosis. The tuberculin dispensary will outlive the antituberculosis station, wrongly labelled "dispensary," and will prove itself the simplest, most economical, and most valuable means of dealing with tuberculosis, especially pulmonary tuberculosis among the poor.

The Tuberculin Dispensary League has not been a year in existence, and yet there are already five active centres, and others are contemplated at Portsmouth, Aberdeen, Leith, Poplar, Banbury, and Oxford. "*Vires acquirit eundo*."—I am, etc.,

W. CAMAC WILKINSON, M.D., F.R.C.P.

London, N.W., Feb. 25th.

## THE AVERAGE MEDICAL INCOME.

SIR,—The temperance with which Dr. Bunting protests against my "dangerous inaccuracy" and "annoying intemperance" is very refreshing to me, and I promise to do my best to amend my ways in future. This I do with all the more grace because Dr. Bunting is at one with me in the desire for a State medical service, and one can suffer criticism better from a friend than from an enemy. It is wonderful how many strong adherents are arising for a State medical service, and they will increase by many thousands when through our negligence the whole medical service of the country, practically, has been put under the control of the friendly societies by the new State insurance proposals.

Dr. Bunting quite correctly states that he asked me seven months ago for the basis of my statement that the average medical income was well within £200 per annum. At the time I wrote a reply, in which I stated that the figure was none of my invention, but one which was frequently quoted, and I believe I am correct in stating that it occurred in an Educational Number of the BRITISH MEDICAL JOURNAL a few years ago. Two or three months later, in an article in the JOURNAL, intended to demonstrate the great cost when capitalized of buying out the medical profession in order to establish a State service (a quite unnecessary proceeding, by the way), the total annual income of the profession was set down at eight millions, which sum divided by thirty-two thousand, the total number of medical men, gives £250 as the average annual income. There is no reference to my statement in this article, and it would appear to be an independent opinion. So that, if I have been guilty of any intemperance in endeavouring to find a basis for necessary calculations, others have sinned with me. Those who know me will believe that I have no desire to belittle the medical profession, to which I belong, or to understate the incomes of its members. I want to serve both community and doctors in this matter, and I have a burning desire to get at the truth and state it.

The value of the average medical income is an important factor, which ought to be ascertained as accurately as possible, and it could be got at quite closely if practitioners would lend their assistance. Let us do this, instead of arguing as to what it is. Here is one method by which the problem can be approached, remembering that we are not dealing with what incomes ought to be, but solely with what they actually are at the present moment. A very large amount of work is done at present through contracts with clubs, etc., and a very common rate of payment is 4s. per annum for each member. I do hope this is not an intemperate statement. The club doctor often gets the wife and family to attend to also, and it is surely a liberal allowance to say that he or some other doctor gets as much for the wife and for each child as for the father or other club member; so that for a family of about the average number of five, say, the doctor would get £1 sterling annually. Such a rate of payment would, I know for a fact, be admitted by many doctors in working-class practices to be quite as much as they actually get nowadays, if it is not over it. For example, a doctor who had 500 families in his care would have £500 a year, and one who looked after 1,500 families, as many do, would have £1,500 annually, these being gross incomes. Supposing this to be a fair statement, let us see at what figure the average income works out. Our basis is 4s. annually per individual; the estimated census of population is 44,000,000, so that we must divide by five to get the gross annual income in pounds of the profession. This yields £8,800,000 for the total gross income, and, as this has to be divided amongst 32,000 men, the average income comes out at £275 per annum. This is gross income, and there remains to be deducted an average amount to cover costs of drugs and that portion of residence which is used for professional purposes; an annual amount of £35 would not seem to me to be an intemperate sum to deduct, and this would leave a net average income of £240. If, instead of taking a basis of 4s. a head—man, woman, and child—a basis of 5s. is taken, the net average income becomes £310.

There are of course the "upper ten thousand" who pay large fees, but these are at least counterbalanced by the hundreds of thousands of casuals who are treated free in hospitals or paid for at a rate of less than 4s. a head by the Poor Law authorities. Again, critics might object to the division by 32,000 on account of the number of doctors in full-paid or part-paid public posts; the percentage amount of these is not large, however; and, further, most of them are engaged upon Poor Law or municipal work which is not otherwise paid for, so that if we deducted them from the 32,000 we should have to deduct their huge non-paying *clientèle* of patients from the 44 millions of contributors.

If these varying outlying factors balance one another, therefore, and we take 4s. a year as the *average* amount paid for medical attendance by every inhabitant of the country, we arrive at the conclusion that the average income is £240 a year.

In striving to obtain as accurately as possible an estimate of the annual income, I have not gone upon preconceived notions, but have discussed the matter with dozens of practitioners from all parts of the country. Moreover, I have not only discussed the average income with them, I have gone into methods of medical practice, and especially of club practice, and I know that the things I say in my book are true and might have been put even more forcibly. Therefore, I cannot accept the honour of academic eminence which Dr. Bunting accords to me if that is to be taken as evidence that I have not "actual contact" with general medical practice, for I have studied this subject deeply and actually on the spot in many differing districts. If, however, Dr. Bunting cannot accept my evidence because I am not actually in general practice, there are two other books, written by men actually in practice, which he should not miss reading. One of these is *Dr. Grey*, by Stephen Andrew (Greening);

the other is *The Lion's Whelp*, by Dr. Gilbert Irvine (Simpkin, Marshall). These men, at any rate, write of things they do know.

It is unfair to me to quote one half-sentence from a long reasoned statement in my book, showing how club practice arose, and what are its weaknesses and its strength, and how it can be set upon a fair and equitable basis by a national service and all its viciousness removed, and then to accuse me of intemperance of language. My descriptions are given in strong colouring, I admit, but they are true to nature, and it is necessary to hold up the naked truth and tell it to the people, if one desires to see the remedy applied swiftly.

Again, I am accused of saying on the one hand that a large proportion of the profession is grossly underpaid, and at the same time using the present average income as a basis to estimate the cost of a model State medical service. Now, if Dr. Bunting will turn again to the *Dawn of the Health Age*, page 52, he will see that after stating, as accurately as I knew how, the present income of the profession, I definitely state that the profession is underpaid, taking into account the duration and expense of professional training, and suggest that one-fourth additional should be added. All my calculations are based on this 25 per cent. increase in professional incomes. If Dr. Bunting does not regard it as sufficient I am truly sorry, but it must be remembered there are always two sides to any bargain, and in my opinion we might well be content with a 25-per cent. increase, at any rate as a commencement.

Finally, in my book I have nowhere attacked any person or body of persons. I may, perhaps, for the first time have publicly told unpalatable truths, not only about club doctors, but about consultants, medical professors, hospitals, public health authorities, etc.; but I am never dealing with individuals. I am dealing with the chaos of a system which loses a quarter of a million lives annually by deaths from preventable causes, which is sweating and ruining our profession, and causing untold misery and suffering to our entire community.

The persons involved in this chaos cannot help themselves by individual action, and I am not blaming them; I am trying to incite them, and the public, to take common and united action for betterment. But in the process I am rediscovering that "one cannot make omelettes without breaking eggs."—I am, etc.,

Birkenhead, Feb. 18th. BENJAMIN MOORE.

## QUALIFIED OPTICIANS.

SIR,—Dr. Seymour Taylor, by pointing out the similarity of the case of the midwife and the sight-testing optician, has unconsciously hit the chief point against either.

We are rapidly finding ourselves surrounded by a number of unqualified specialists, who, it seems to me, will gradually reduce the work done by legitimate practitioners.

If each organ is to have besides its consulting specialists attached to a hospital, an unqualified specialist behind the chemists' shop, the sooner the ordinary general practitioner disappears the better for him.

I am doubtful, however, whether such a result will in the end be beneficial to the public.—I am, etc.,

Eye, Suffolk, Feb. 27th. HENRY E. BARNES.

SIR,—May I point out that Dr. Dunn's analogy (p. 406) between the chemist and optician is not sound. The chemist supplies drugs for usually progressive morbid conditions of the human body; the optician supplies lenses for mere fixed aberrations of the eye (just as an instrument maker supplies elastic leggings for varicosed legs); the morbid cases he refers to medical specialists.

It is not correct, then, to assert that "the sight-testing optician, whatever may be said of his qualifications, is exactly on a par with the prescribing chemist." Simple myopia, presbyopia and hypermetropia are not diseases; but crippled conditions needing a crutch of proper measurement, and not medicinal treatment.—I am, etc.,

London, E.C., Feb. 17th. CHAS. HYALL WOOLF,
Editor, *The Optician*.

## THE SWEATING OF DOCTORS BY THE LONDON COUNTY COUNCIL.

SIR,—If "Unitas" desires an answer to the query in the last paragraph in his letter in the JOURNAL of February 11th, he should obtain a copy of the *London County Gazette* for January 9th and carefully examine, with the aid of a *Medical Directory*, the lists of school doctors and assistant school doctors on pp. 14 and 15. As it is generally understood that many of those holding these appointments are willing at present to accept the terms offered for examinations, it is not likely these terms will be increased for the lesser lights outside the school and assistant school doctors; but that the London County Council can pay adequate fees is within my knowledge, as one of the school doctors has received £3 3s. an hour for a course of lectures in one of the evening schools.

Another aspect of the question of the new system of examination is the discontent of the students with the results and methods of the examinations, leading to the conclusion that the old and experienced examiners have refused to accept the terms offered, or have been supplanted by those without sufficient experience, for questions have been asked at the recent examinations outside the official syllabus, and it appears to have escaped the attention of the examiners that the examinees have already done a day's work before sitting for the examination.—I am, etc.,

February 14th. L. L.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—For the second time within a short period I am in receipt of a circular letter from the Royal Sanitary Institute, suggesting that I should advise my authority to accept women with certificates of "lady health visitor" for our appointment of woman sanitary inspector. This urges me to bring forward a question of importance to public health departments—namely, whether the holder of such a certificate is quite the person a medical officer of health could conscientiously recommend for an inspector's appointment?

For reasons I am about to state, it appears to me that the establishment of an examination for a certificate as "lady health visitor and school nurse" was a great mistake on the part of the institute.

The circular states that already 216 women have been granted such certificates, no one of whom was obliged to produce evidence that she had served as a pupil under a medical officer of health, or that she was equipped with a good general education. Thus, the institute has introduced, or has endeavoured to introduce, into the public health service a great number of persons who, having passed an *easier* examination, now compete for appointments against those women who have (in the past) obtained the same institute's certificate of "sanitary inspector" or that of the Sanitary Inspectors' Board. If, as suggested by the circular, my authority accepted such certificates, it must lead to a large competition for every vacancy, and therefore a lowering of the salaries paid, already (in my opinion) inadequate.

Incidentally I might state my view that the title of "lady health visitor" is not a happy one. It leads to her being classed by the people with the vicar's district visitors. Therefore she is not expected to look over the dwelling, but to read the Bible, give a tract and a shilling, or an order for coals, blankets, or groceries, and then take her departure.

The institute and the Royal Sanitary Inspectors' Board will be well advised not to invite women to take exactly the same course and examination as men for qualification as sanitary inspectors, but they should institute quite a separate examination for "women sanitary inspectors," which should be of a standard equal to that of men, but complementary and not identical in its character. For example, women do not require meat inspection, slaughter-houses, or stables as subjects of study, or such a wide range of knowledge in sanitary law, but, on the other hand, they require a sound, though elementary, knowledge of diet and sick and infant nursing.

The action of the Royal Sanitary Institute has placed medical officers of health in an embarrassing position to choose whether they will recommend for election a woman with a man's training, or a woman only half-trained for her important duties.—I am, etc.,

SIDNEY C. LAWRENCE,
Edmonton, Feb. 27th. Medical Officer of Health for Edmonton.

## THE ORIGIN OF THE LONDON SCHOOL OF MEDICINE FOR WOMEN.

SIR,—May I correct an inaccuracy which occurs in the obituary notice of Dr. James Edmunds in the JOURNAL of February 25th? It is stated that the Female Medical Society, founded by Dr. Edmunds, "was merged afterwards in the London School of Medicine for Women, and that he retired from it because his own views were not favourable to carrying the medical education of women to the point of enabling them to become registered medical practitioners."

The London School of Medicine was opened in 1874, and had no connexion with the classes organized by Dr. Edmunds some eight to ten years previously, nor did Dr. Edmunds at any time take part in the foundation or management of the school.

My mother (Mrs. Isabel Thorne), Miss Jex-Blake, and Miss Chaplin attended a few of Dr. Edmunds's classes, but finding the teaching inadequate, went to Edinburgh to try and gain admittance to the university. This, after some five years, proving impossible, they returned to London, and, with the help of Mrs. Garrett Anderson, the late Sir William Broadbent, Dr. Cheadle, Dr. Thomas King Chambers, Professor Huxley, and many others, organized and opened the London School of Medicine for Women.—I am, etc.,

MARY THORNE,
Honorary Secretary, London (Royal Free Hospital) School of Medicine for Women.

London, W., Feb. 26th.

# Universities and Colleges.

## UNIVERSITY OF CAMBRIDGE.

*Conferment of Degrees.*

The following degrees have been conferred:

M.D.—C. H. Gregory, W. V. Naish.
M.B.—L. M. Routh.

*Proposed Establishment of a Diploma in Psychological Medicine.*

The Special Board for Medicine have drawn up a report for communication to the Senate, in which they state their belief that an examination in Psychological Medicine and its cognate subjects could not fail to raise the present standard of efficiency in applicants for asylum posts, and that it would lead to the provision of appropriate courses for the training of those who wished to advance our knowledge of Psychiatry. They believe that the Legislature would quickly come to recognize the diploma as a qualification which must necessarily be held by all medical officers of public institutions for the insane, and is desirable in candidates for medical appointments connected with education, the Poor Law, and the Prisons.

The Board recommend that the examination consist of two parts, the subjects of examination in Part I being: (1) Anatomy and Physiology of the Nervous System, (2) Psychology; Part II, (1) Neurology, Clinical and Pathological; (2) Psychiatry, Lunacy Law, and Asylum Administration. Part I should be open to all who hold a registrable qualification in Medicine, Surgery, and Midwifery.

Before a candidate can present himself for Part II he shall have been a registered medical practitioner for not less than two years and have had one year's clinical experience in an institution for the insane which is recognized by the university

## UNIVERSITY OF SHEFFIELD.

*Appointments.*

THE Council at its last meeting made the following appointments: Dr. Sinclair White, M.D., M.Ch., R.U.I., F.R.C.S., to the Professorship of Surgery in the University, in succession to Mr. R. J. Pye-Smith, resigned; Mr. George Stanfield, B.Eng. (Sheffield), to the post of Demonstrator in Engineering; Mr. Ll. Lloyd, B.Sc.Lond., to the post of Assistant Curator of the Zoological Museum.

## SOCIETY OF APOTHECARIES OF LONDON.

AT the February examinations the following candidates passed in the various subjects indicated:

SURGERY.—W. J. Gibson (Sections I and II), London Hospital.
MEDICINE.—M. J. A. des Ligneris (Sections I and II), Berne; C. B. Hawthorne (Sections I and II), Cambridge and Birmingham; J. B. Holmes (Section I), Manchester; J. C. Johnson (Sections I and II), Middlesex Hospital; H. T. Roberts (Section II), St. Mary's Hospital.
FORENSIC MEDICINE.—M. J. A. des Ligneris, Berne; D. M. Hunt, London Hospital: H. Rowntree, Middlesex.
MIDWIFERY.—H. R. Budd, St. Mary's Hospital; C. de C. W. Langdon, Manchester; J. G. Lewis, Durham; T. T. O'Callaghan, Guy's Hospital.

*Diplomas Granted.*

The diploma of the society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:

W. J. Gibson, J. C. Johnson, and M. J. A. des Ligneris.

# The Services.

## UNIVERSITY OF LONDON OFFICERS' TRAINING CORPS.

THE second annual report by the Military Education Committee on the administration and work of the London University Contingent of the Officers' Training Corps was presented to the Senate on February 22nd. This committee was, in accordance with the War Office regulations, entrusted with the general administration of the contingent by the Senate, and was enlarged on December 14th last. The contingent itself has during the past year been increased by the formation of two new units—namely, one section of Field Artillery armed with two 18-pounder field guns, and a Transport and Supply section of the Army Service Corps. A fourth section formed by cadets at Middlesex Hospital, where its head quarters are established, has also been added to the Field Ambulance. The strength of the contingent as at December 31st, 1910, was 953, an increase of 170. Of this total the Field Ambulance supplies 321, 77 being in A Section at St. Bartholomew's Hospital, 95 in B Section at Guy's, 74 in C Section at the University College Hospital, and 75 in the new D Section above mentioned. There are nine medical officers—two majors, three captains, and four lieutenants. For the A certificate examination held in November, 1909, 202 candidates entered. Of these 105 were medical and 56 passed. Twenty-six medical candidates entered for the May, 1910, examination, and 15 passed. For the B certificate 2 medical candidates entered at the May examination, 1 of whom passed; 11 entered at the November, 1910, examination, and 10 passed.

That the training corps has already begun to fulfil its recognized objects is evident even during its second year, as 11 of its members received commissions in the Regular or Territorial Forces—5 in the former and 6 in the latter. One passed to the R.A.M.C., and 3 received commissions in the contingent itself. This is considered most encouraging, as the full advantages of the training in the corps do not accrue until cadets have taken the B certificate, for which at least two years' service in the Officers' Training Corps are required.

The criticism of the inspecting officer on the inadequacy of the general head quarters of the contingent has resulted in the promotion of a scheme for a considerable increase in the available accommodation, which the committee hope to have completed before the next annual inspection falls due.

## TERRITORIAL FORCE.

FIRST SOUTH MIDLAND FIELD AMBULANCE.

THE annual supper in connexion with the 1st South Midland Field Ambulance of Territorials was held at the Old Royal Hotel, Birmingham, on February 25th. Lieutenant-Colonel Cyril Howkins was in the chair. Proposing the toast of "The First Field Ambulance," Colonel W. P. Whitcombe, A.M.O., South Midland Division, said the success of the unit had been remarkable. A few months ago it had attained its full establishment, but now possessed 96 per cent., and with recruits coming in fast the full 100 per cent. was assured. In a few months many of the men would come to the end of their term of enlistment, but he hoped they would earnestly consider the position of the Territorial Force, and sign on for another period of service. Four years was not a sufficient time in which to learn their work, but by remaining in the unit they would be doing something for their country, helping to relieve suffering, and bringing many advantages to themselves. Lieutenant-Colonel Howkins, responding, appealed to the men whose time was nearly up to remain in the ambulance till it got into a more settled condition. There was not the slightest doubt, though War Office sanction had not yet been received, that their head quarters would soon be at the Great Brook Street Barracks. There was room there for a riding school and outdoor drilling, and plenty of accommodation for the holding of lectures.

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THE (American) National Association for the Study and Prevention of Tuberculosis will hold its seventh annual meeting this year at Denver, Colorado, on June 20th and 21st, under the presidency of Dr. William H. Welch, of Baltimore.

THE New York State Legislature has been asked to appoint a commission to investigate the prevalence of tuberculosis in the State, and to suggest whatever legislative measures may seem necessary to remedy the condition favouring such prevalence. It is suggested that the commission consist of three assemblymen, two senators, the State Commissioner of Health, and one physician to be selected by the Governor. Another resolution contains a proposal for an amendment to the Constitution authorizing the Legislature to set aside an area of a thousand acres or less in the Adirondack State Park, on which may be erected a State hospital for the treatment of tuberculosis. According to the *Medical Record*, the supporters of this resolution urge in its favour that a proposal to erect a country hospital for the treatment of the disease nearly always meets with opposition from the people of the neighbourhood, whereas a State institution in the State park would meet with no objection.

# Obituary.

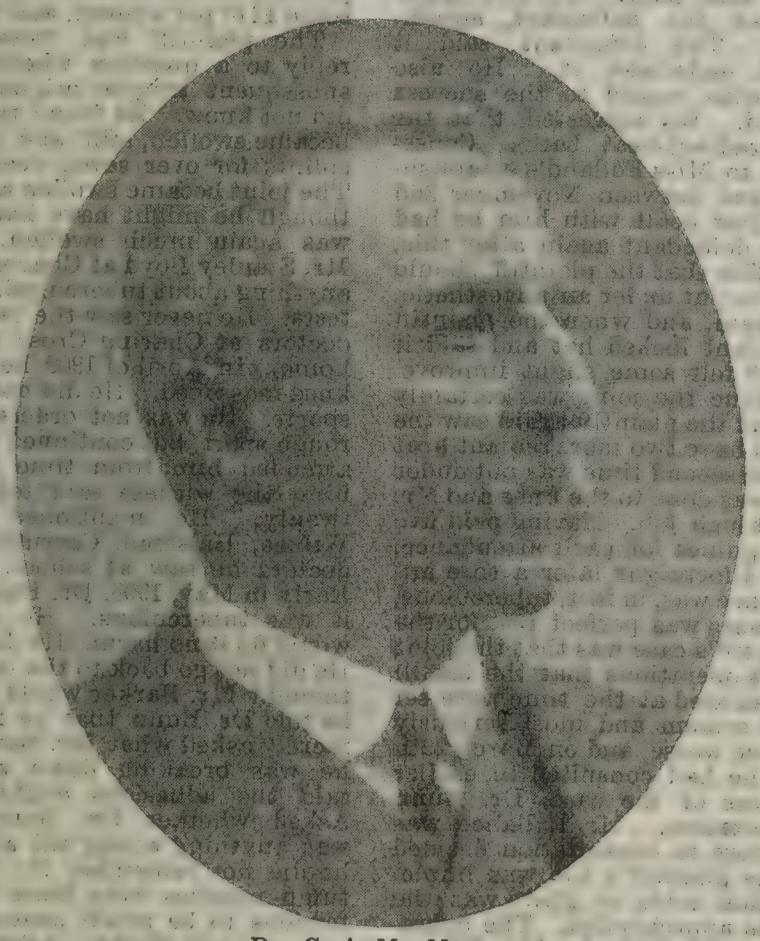
## C. A. MACMUNN, M.A., M.D.,

FORMERLY HONORARY PHYSICIAN, GENERAL HOSPITAL, WOLVERHAMPTON.

DR. C. A. MACMUNN, of Wolverhampton, well known for his physiological researches in relation especially to the application of the spectroscope to physiology, died after a long period of indifferent health at his residence in Wolverhampton on February 18th.

Charles Alexander MacMunn was the son of Dr. James MacMunn, and was born at Seafield, co. Sligo, in 1852. He was educated at Trinity College, Dublin, where he graduated B.A., with honours, in 1871, and M.B. in 1872. He became Honorary Pathologist and Physician to the General Hospital, Wolverhampton, and was subsequently appointed Honorary Consulting Physician to the Royal Orphanage, Wolverhampton. For some twenty years he was busily engaged in practice in Wolverhampton, and took an active share in the life of the town. Dr. MacMunn took a great interest in the Volunteer movement, and rose to the position of Brigade Surgeon-Lieutenant-Colonel of the Staffordshire Volunteer Infantry Brigade and received the V.D. He later became Administrative Medical Officer of the North Midland Division of the Territorial Force, from which position he retired in 1909.

When the South African war broke out he volunteered for service and served from 1899 to 1902 on the special hospital staff; he was appointed by Lord Roberts staff officer to accompany the Royal Hospitals Commission. For his services during the war he was mentioned in dispatches and received the war medal with three clasps; he also received the Coronation gold medal. After his return from South Africa, Dr. MacMunn had pleasing evidence of the esteem in which he was held, for he received a presentation from the medical profession and was entertained at dinner. He was appointed a Justice of the Peace for the county of Stafford in 1907. Dr. MacMunn was fond of sport and of foreign travel, and he recently presented a number of interesting objects he had collected to the Birmingham University, of which he was a life governor.



DR. C. A. MACMUNN.

*Photograph by* [*Bennett Clark, Wolverhampton.*

In spite of a life full of other interests and the calls of a busy practice, Dr. MacMunn found time to devote much of his energy to work of a scientific nature; but he frequently deplored the scantiness of the leisure time which he was able to devote to research work. His name has been mainly identified with the spectroscope, and his important work, *The Spectroscope in Medicine*, will for long remain a standard publication. He was not merely interested in the instrument itself, though he introduced many improvements in it, but was particularly occupied with its applications in physiological and medical directions. He published his very numerous monographs mainly in the *Proceedings of the Royal Society* and the *Journal of Physiology*. They dealt with numerous pigments in all parts of the vegetable and animal kingdoms, vertebrate and invertebrate, and his skill in the use of the microspectroscope enabled him to identify pigments in minute organisms, or minute parts of larger animals. His work on the pigments of muscular tissue, and his discovery of myo-haematin, were important as elucidating some of the problems of tissue respiration. His work on chlorophyll was also of far-reaching interest. His discovery of uro-haematoporphyrin was an important addition to our knowledge both of blood disintegration and of urinary composition in health and disease. But although the spectroscope was his favourite hobby, he possessed a wide knowledge of physiological and pathological chemistry, much of which is embodied in his book entitled *The Clinical Chemistry of Urine*. During the last ten years or so his scientific publications have been less numerous, and no doubt his busy life and his ill health will explain that. The scientific world, as well as his professional brethren and his patients, will unite in deploring the loss of one who did so much to advance scientific medicine. We understand that up till the time of his death he was engaged on a new work on spectroscopy, which unhappily he did not quite finish. He used new and special methods of his own invention, and all those who regret his too early death will hope that this posthumous work will see the light. Judging from his previous record, we cannot doubt that it will be full of interest, and have far-reaching effects in extending that branch of science to which he would have loved to have been able to devote all his life.

Dr. MacMunn was twice married, his second wife, who survives him, being the sister of the late Captain Webb who was drowned in attempting to swim the Niagara Falls. By his first wife he leaves three sons, one of whom is in the medical profession.

The funeral took place on February 23rd. The coffin, being placed on a gun-carriage provided by the local R.F.A. and accompanied by the military band and officers and men of the R.A.M.C.(T.), was drawn from the Drill Hall to St. Peter's Church, where the first portion of the service was held, and subsequently to the churchyard at Penn Fields.

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DR. DUNCAN KENNEDY, Perth, died at his residence on February 16th, after a short illness. Dr. Kennedy, who was 60 years of age, was a native of Oban. He came to Perth thirty years ago, and took over the practice of the late Dr. Nairne. For several years he acted as indoor medical officer to the Perth Parish Council and Poorhouse, while he was also medical officer of health for the Burgh of Auchterarder. Dr. Duncan is survived by a widow and grown-up family.

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THE death of Major R. E. WRAFTER at Dehra Dun on January 23rd, at the age of 77, is announced. Major Wrafter entered the Honourable East India Company's Bengal Medical Service in 1848, and served through the Punjab campaign in 1848–9, being present at the affair of Ramnuggur, the passage of the Chenab, and the battles of Sadoolapore, Chillianwalla, and Goojerat. At the outbreak of the Mutiny he was at Meerut, and subsequently took part in the engagements of the Hindun and Budleeke-Serai. He was at the siege and capture of Delhi, at the action of Nudjuffghur, at the siege and capture of Lucknow, and continued on service till the end of the campaign, including the attack on Fort Rooya, the action at Albygunge, the capture of Bareilly, and the pursuit of the rebels to Shahjehanpore and Mohumdee. He entered civil employ in 1864, and was civil surgeon at several stations in the United Provinces and the Punjab. He retired from the service in 1888, and settled in India.

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THE Orient Line announce a cruise at Whitsuntide by the *Otranto*, visiting Spain, Morocco, Gibraltar, Madeira, Canary Islands, and Portugal. The cruise is to occupy twenty-one days, and the fares range from 18 guineas.

# Medico-Legal.

## ALLEGED NEGLIGENCE OF A BONESETTER.

*Thomas v. Barker.*

THIS was an action brought by Mr. Charles Rowley Thomas, of Messrs. Ouseley, publishers, against Mr. Herbert Atkinson Barker, bonesetter, of Park Lane, for damages for alleged negligence in the performance of operations which were alleged to have resulted in the amputation of the plaintiff's leg. The defendant denied the negligence. The case was tried by Mr. Justice Darling and a special jury. Sir Edward Clarke, K.C., Mr. A. H. Spokes, and Mr. S. Ingleby Oddie appeared for the plaintiff; and Sir Edward Carson, K.C., and Mr. Holman Gregory, K.C., appeared for the defendant.

The following account of the case is summarized from a full report which appeared in the *Times* of February 21st, 22nd, and 23rd. Sir E. Clarke said the plaintiff, a young man aged 24, when a schoolboy at Shrewsbury had twisted his knee in diving from a diving board. He suffered weakness and stiffness of the knee from time to time, but it was only occasionally that it seriously interfered with his enjoyments. After leaving school he went to Cambridge, where he remained for three years. When he left the university he was for a time a student at Charing Cross Hospital. Between 1906 and 1908 the knee gave him serious trouble, and he determined to leave the medical profession for employment in a firm of publishers. Occasionally he was able to take exercise; he played tennis and swam, and, although the condition of his knee was improving, there was considerable stiffness and pain. In the latter part of 1909 the plaintiff visited the defendant, accompanied by one of his sisters. The defendant said it was a bad case, but he would undertake it. He also used very encouraging language with regard to the success he had had in cases of that kind. He suggested that the plaintiff should first have some radiant-heat baths. Consequently the plaintiff decided to go to Miss Folland's establishment in Royal Avenue, Chelsea, and between November 2nd and the date when the defendant first dealt with him he had these baths. The plaintiff saw the defendant again after this, and it was arranged on November 25th that the plaintiff should attend at the defendant's place to be put under an anaesthetic. Gas was administered by Mr. Axham, and when the plaintiff recovered consciousness the defendant looked hot and said it had been a tough job. The plaintiff felt some slight improvement after that, and for a short time the joint was certainly looser. The pain returned later, and the plaintiff again saw the defendant, who suggested he should have two more radiant-heat baths. On December 16th he for the second time was put under an anaesthetic. Again something was done to the knee and Mr. Barker again said it had been a tough job. Having paid five guineas for each operation and one guinea for each attendance, the plaintiff found that ten days or a fortnight later a sore appeared on the side of his leg. The knee was, in fact, tuberculous, and the proper treatment in such cases was perfect rest for the limb. What happened in the plaintiff's case was that the joint was so disturbed by the defendant's operations that the bacilli which were in the knee and encapsulated at the time were set free, and made their way into the system and most seriously injured his health. The sore became worse, and on March 29th the plaintiff saw Dr. Bunn, whom he had consulted in earlier years. Recognizing the seriousness of the case, Dr. Bunn called Mr. Waterhouse into consultation. Mr. Ballance was also called in, and the various doctors in consultation decided that the only chance of saving the plaintiff's life was immediate amputation. On the operation table so grave was the plaintiff's condition that death was apprehended. The operation, which was performed on April 15th by Mr. Waterhouse, together with Drs. Bunn and Carruthers, proved successful. Before the operation a letter was sent by the plaintiff's solicitors on April 13th to the defendant, claiming compensation. The solicitors replied that the defendant undertook no responsibility and promised no cure. The defendant had also written a letter to the plaintiff in these terms: "I am very surprised at your letter. I only undertook your case on the condition that I undertook no responsibility. You admitted you felt better, and that fact is recorded in my books. I said to you that I could do no more than give treatment under gas, and I also informed you that amputation would probably be necessary, and that it looked as if sarcoma were present. I also said the case was an unsatisfactory one for me, but that I should have pleasure in returning your fees and those of the doctor who gave you gas." Sir E. Clarke said there was in fact no such condition as that alleged in the letter. It was absurd to say that he accepted no responsibility, as if that covered any negligence. The letter also stated that the defendant had begged the plaintiff to see Mr. Rock Carling, and that that was recorded in the casebook. In fact the name of that gentleman was never mentioned until January 19th, when the plaintiff showed defendant the wound in his leg. The defendant sent another letter on April 15th, in which he said: "Since sending you the hurried letter of yesterday I have looked up my notes," and then the writer gave what purported to be extracts from a casebook. So far, continued counsel, the casebook had not been produced, and he would abstain from comment on that omission until he should see Mr. Barker in the box. Then they would see whether such a book existed at all, and whether, if so, the entries corresponded to those alleged to have been inserted. There was, however, an appointment book, and there was in that book an entry against the date November 25th, 1909: "Rowley Thomas—Follands—tubercle: no hope: received radiant-heat bath to allay swelling." Sir E. Clarke said he referred to that entry because it appeared that the defendant knew that there was tuberculosis in the joint. If he knew that on November 25th, two days before the operation was performed, not only was that operation of November 27th bad treatment in the case, but it revealed the highest degree of negligence, inasmuch as it was agreed on all hands that wrenching was dangerous. Furthermore, the way in which the anaesthetic was administered was improper. The character of anaesthesia produced by gas was that the muscles became rigid. Presumably the operation was performed in order to improve the condition by gentle movement. Ether or something else should have been used, which did not produce rigidity of the joints.

The plaintiff, Mr. Charles Rowley Thomas, examined by Mr. Spokes, bore out the opening statement of Sir E. Clarke. He injured his knee in the summer holidays of 1901. He played football later, and did not suffer very much pain. He knew the defendant was not a qualified surgeon, but he thought the defendant would put him right at once. He did not know there was tubercle in his knee. The defendant made an appointment for November 27th, 1909, for the first operation. He said he would put witness under an anaesthetic and break down adhesions. Between November 27th and December 3rd the knee was swollen, and on December 2nd the defendant suggested two more radiant-heat baths. On December 14th the defendant said the knee was going on well. On December 16th the second operation was performed, and gas was again administered by Mr. Axham. At an interview on January 26th the defendant said plaintiff would be able to dance again next year. His salary was some £110 per annum, and he was absent for some six months.

The plaintiff was cross-examined by Sir E. Carson. In reply to a question whether he had any doubt that all his subsequent trouble originated from the accident, he said he did not know. He found that when he played football the leg became swollen, stiff, and painful. He was laid up in bed with splints for over seven weeks. In 1905 he again hurt his knee. The joint became swollen and full of fluid. He was not lame, though he might have had a slight limp. In 1908–9 the knee was again much swollen, and he then saw Mr. Clogg and Mr. Stanley Boyd at Charing Cross Hospital. Neither told him anything about tuberculosis; they said they would make some tests. He never saw the result of the tests, but afterwards the doctors at Charing Cross communicated with his doctors at home. In April of 1909 he went to a nursing home and had his knee massaged. He did not after that give up tennis and other sports. He was not ordered a complete rest. He gave up all rough sport, but continued to swim. Asked how many doctors attended him from time to time before Mr. Barker attended him, the witness said ten for certain; it might have been twenty. He mentioned Messrs. Boyd, Clogg, Layton, Wilkes, Halstead, Carruthers, Bunn. That did not include doctors he saw at school. He saw no doctor at Cambridge. Early in May, 1909, Dr. Halstead saw his knee. He did not say it was tuberculous. He said swimming and light exercise would do it no harm. He did not tell him to be careful and rest. He did not go back to the doctors at Charing Cross because he thought Mr. Barker would put him right at once. He believed he told Dr. Bunn that he had been to Mr. Barker. Dr. Bunn merely asked what Mr. Barker was doing, and the witness said he was breaking down adhesions. He thought Dr. Bunn said the adhesions ought not to have been broken down. Asked whether Dr. Bunn had ever suggested there was was anything wrong till after the operation, the witness said he did not remember it. When he first saw Mr. Barker the thigh muscles were more or less wasted. He did not feel the tendons to be much contracted. He walked with the aid of one, not two sticks. Asked if Mr. Barker had not said there was evidence of a vast tuberculous disease, the witness said he did not think so. He would not swear that he did not. He swore positively that the defendant did not say anything about amputation. The defendant did not tell him on November 25th that the leg was hopelessly tuberculous and that there was no hope of anything but temporary relief. He would not swear that the defendant did not say he must have gas to produce complete relaxation. Asked whether defendant did not do everything he could to induce him to see a surgeon, the plaintiff said he did not think so. Mr. Barker only mentioned a surgeon twice. Asked who suggested that he should bring this action, the plaintiff replied that one of the doctors did. He did not know which one; all of them, he thought.

Miss Alice Thomas, examined by Mr. Oddie, said she went with her brother, the plaintiff, to the defendant, who said what had to be done could not be done without an anaesthetic. He said he was quite sure he could do her brother a lot of good, and that he would be able to walk without a stick. Cross-examined as to whether Mr. Barker said he hoped he would be able to relieve her brother's leg, the witness replied in the affirmative.

Mr. Joye, a cousin of the plaintiff, giving evidence as to what occurred at the first operation performed on the plaintiff, said the defendant perspired very much after it, and said it had been "a tough job"—or "a hard job." Asked in cross-examination when he first remembered all about the conversation at the operation the witness said it was always present to his mind.

Miss Elizabeth Muriel Thomas, examined by Mr. Oddie, said when she accompanied her brother the defendant looked hot after performing the operation. He said it was a very bad knee, and he rather thought it was sarcoma. Cross-examined sh

said she thought she was told the meaning of sarcoma by one of their family doctors.

Dr. Bunn, giving evidence, said in the beginning of December, 1908, there was a recurrence of the knee trouble. He treated plaintiff with iodine to reduce the effusion. In 1909 the plaintiff underwent massage and there was a softening of the joint. The next time he saw the knee was in April, 1909. It was then improved in appearance. That was before any operation. He next saw the plaintiff's knee in March, 1910, when he was in bed. The limb was much swollen and heated, and there was a sore on the right side below the knee. He could not say for certain whether there had been an abscess there before, although the plaintiff suggested it. Dr. Bruce was called in to make a radiogram of the knee, and after consultation an amputation was decided upon. The operation was necessary to save the plaintiff's life. His general condition was so bad that they were afraid he would die on the operating table. They were afraid of septic poisoning. In answer to other questions, the witness said violence was dangerous because the disease from being merely localized became generalized. The effect of breaking down adhesions would be to set free tubercle bacilli, which might attack the lung or any other organ. In cross-examination he was asked if he ever diagnosed the case. He replied, Yes, as synovitis in the knee; and he was suspicious of tubercle in April, 1909. He advised plaintiff to be out of doors as much as possible, and to use his leg very gently. He rather thought he had not told the plaintiff that he suspected tubercle, because the plaintiff was nervous. He did not think the condition of the bones was such as to point to tubercle long before November, when the plaintiff came to him. There was thickening of the tissues round the joints. There was a partial dislocation of the lower bones and some wasting of the muscles. Asked if the disease plaintiff was suffering from was what is known as "white swelling," the witness said he did not know. It was a very loose term. The knee-cap was diseased, but had not been diseased when he saw plaintiff before. He would not say the walls of the sinus were hard and fibrous and hard to cut. Displacement of the tibia might mean other things than tubercle; it might mean ankylosed joint.

In re-examination by Sir E. Clarke, Dr. Bunn said that at no time before March, when he saw the plaintiff, was there active tuberculosis.

Dr. Carruthers, examined by Sir E. Clarke, said he had heard Dr. Bunn's evidence and fully agreed with it. Cross-examined by Sir E. Carson, the witness said he had first noticed the wasting of the thigh muscles in April, 1902. Asked if he said he could estimate the violence of the wrench and the condition of the knee in 1910 when he had not seen it for ten months, the witness replied that he never tried to estimate the amount of the violence.

Dr. Ironside Bruce said he had no doubt when he saw the plaintiff in 1909 that he was suffering from tubercle. (A radiograph taken in 1910 of the condition of the femur, tibia, and patella was then put in.) Asked if he told the plaintiff he was suffering from tubercle, he said No; they were not in the habit of telling patients that.

Mr. Waterhouse, Surgeon to Charing Cross Hospital, examined by Sir E. Clarke, said when he saw the plaintiff in April, 1910, the knee-joint was much swollen, and the sinus on the outer side was discharging. The plaintiff was in a feverish condition, and showed all the symptoms of toxaemia. He judged from the symptoms that the tuberculosis was of long standing, but pyogenic infection had been superadded and masked the symptoms. The microbes gained entrance to the joint through the sinus. It would require force to re-alight the tuberculous process if quiescent. Encapsulation was the effort of Nature to render the bacilli harmless. He formed the opinion that the patient had an equal chance of living or dying under the operation for amputation. The witness then read a report of the condition of the knee-joint at the time of the amputation, from which it appeared that the knee-joint showed septic arthritis supervening on a tuberculous condition. Assuming the disease were quiescent in 1909, there would have been a good prospect of recovery, with, however, some limitation of the movement of the limb. Asked by the Judge what would become of the bacilli, he said that was rather an open question. After a lapse of a considerable number of years the bacilli became disintegrated. One might say they died of old age. In answer to further questions, the witness said it was most improper to break down adhesions by force in the case of quiescent tubercle. The result of such breaking down would be swelling and pain, and the tubercle bacilli would multiply and attack adjacent parts. Speaking as to anaesthetics, he said gas was the safest anaesthetic for a sudden, violent operation. Assuming a limb were to be examined, gas would be most inappropriate, and no anaesthetist or surgeon would choose it. Gas was usually accompanied by rigidity, and therefore rendered examination of the joint impossible.

In cross-examination by Sir E. Carson, the witness said he had broken down adhesions himself. It was a very violent operation. One could not do any prolonged operation under gas. Fifty to sixty seconds was the average. He had no doubt, from the history of the plaintiff, that he had had tuberculosis for a long time, probably since 1901. He had never known swimming to cause any injury to the knee. He did not agree that the muscles of the back of the leg were consistent with the heels having been drawn up for a long time. He did not suppose the heel was ¾ in. from the ground. The bones did not indicate that the disease was of long standing. There was absolutely no doubt the case was not one of pure tuberculosis. Tubercle microbes emitted no smell. Putrefying microbes were swarming when he cut into the joint, and the stink was appalling.

Mr. W. M. Anderson, an anaesthetist to Charing Cross Hospital, examined by Mr. Oddie, said he administered the anaesthetic to the plaintiff on the occasion of the amputation in April, 1910. In the case of an operation on a knee-joint he would use chloroform. Gas was the worst possible thing to use, because it produced rigidity. In cross-examination by Sir E. Carson, he said if there were tuberculous trouble he would not give ether. Asked, if the patient felt better immediately after the operation that would not look as if the muscles had been relaxed, he said not in his opinion. Re-examined, he said it was impossible to perform a careful examination under gas because there would not be time.

Mr. Ballance, examined by Sir E. Clarke, said he was called in on the occasion of the proposed amputation of the plaintiff's leg. He felt certain that the knee was tuberculous. No forcible movement of the joint would be defensible. If the patient were in the habit of swimming and taking exercise there would be no reason at all for administering an anaesthetic for the examination of a limb. Gas was never administered for the examination of the knee-joint unless one wanted to break down adhesions. There was no justification for breaking down adhesions if there were any suspicion of tubercle.

Cross-examined by Sir Edward Carson, the witness said that if a man would not make an examination of a tuberculous joint without an anaesthetic he ought to give up his profession.

Sir E. Carson, in opening the case for the defendant, said that if Mr. Barker had been one of the regular fraternity of the profession the action would never have been heard of. They were asked to attribute to Mr. Barker the whole of the effects of a disease from which it was clear the plaintiff had been suffering for years. The defendant had attended to some 30,000 cases, and was a perfect genius in his profession. Some 94 per cent. of his cases were absolute successes. They were dealing with a tuberculous patient. He had been suffering since 1901, and it was clear that whenever he twisted his knee he did not recover in the way any ordinary young man would. He had to lie up for weeks. The hypothesis of encapsulation was absolutely theoretical. The plaintiff had no doubt played tennis and engaged in swimming, but the theory as to his condition before he saw the defendant was pure imagination. The plaintiff never had been well. Mr. Barker not only asked but pressed the plaintiff to see a surgeon. The defendant never held out hopes of being able to cure. He was a mere manipulator of joints. The reason he asked the plaintiff to see a surgeon was because he had made up his mind as soon as he had seen the plaintiff's knee that sooner or later the tuberculosis in the joint would necessitate amputation. After the first occasion the defendant had no wish to see the plaintiff again. But he consented to see him again from time to time, partly because the plaintiff was in such distress, partly because the plaintiff assured him he was a medical student, and partly because he hoped the swelling would in the meanwhile be reduced by radiant-heat baths. Anaesthetics were always employed by the defendant in examining the joint, the reason being that rigidity was essential, because patients could not bear the pain of having their limbs touched. There was not a particle of truth in the allegation that he had used force in breaking down the adhesions. The defendant's case was that such violence would undoubtedly have been most improper. The sore on the side of the leg was produced by a fall in Switzerland, a fact which the plaintiff had communicated to the defendant.

Mr. Herbert Atkinson Barker, examined by Mr. Holman Gregory, said he had cured about 90 per cent. of the cases he had undertaken. When he saw the plaintiff there was every evidence of a vast tubercular disease. The hamstring tendons were very much contracted, and the tibia was displaced backwards on the femur and flexed to an angle of 40°. It was not a case for manipulative methods. He urged the plaintiff to see Mr. Rock Carling and Mr. A. H. Tubby. The witness told him he could do nothing and that the joint would probably have to be amputated. The plaintiff said he did not think it was tuberculosis, and also said he had been a medical student. The witness then suggested radiant baths might give him some relief. The witness said he would undertake no responsibility, and that it was only on that understanding that he would continue to see the plaintiff. It would be suicidal to break down adhesions in the case of a tuberculous joint. He had never mentioned such a thing to the plaintiff. He did say—probably on the first occasion—that he would put the plaintiff under an anaesthetic in order to make an examination of the knee. He had some three or four cases a day. He seldom examined tuberculous cases under gas; he always sent them to Mr. Tubby. As a rule he did not bother himself about tuberculous cases, but if he did, he put them under gas. He told the plaintiff's sister that the knee was very bad indeed and that the joint was probably sarcomatous. He certainly did not say to her that he would cure the plaintiff or that he would soon be able to walk without a stick. The plaintiff returned to him three weeks later, said he had had some ten or eleven applications of the hyperaemic treatment by radiant baths and looked very jubilant. The plaintiff agreed to being examined under gas. The witness then gave details of the result of the first examination on November 27th. There was no question that the knee was in the most advanced state of tuberculosis. He used no force on that occasion, nor did he break down any adhesions. The examination lasted about forty-five seconds. There was nothing to make him hot. He next saw the plaintiff on December 3rd, and told him that he

might have more radiant-heat baths; he again told him to see a surgeon. The next occasion on which he saw the plaintiff was December 14th, and the plaintiff then said he could move his leg and had more control over it. On December 16th the plaintiff again visited him, having in the meantime had some radiant-heat baths. The hamstrings were much softer and relaxed and the joint seemed smaller. He examined him under gas for the second time, and on his regaining consciousness the plaintiff said he felt much better. On January 19th, when the plaintiff returned from Switzerland, he saw him again. He found a slightly broken area on the outer side of the knee. Plaintiff said he had slipped and twisted his knee. Witness again advised him to see a surgeon. He never saw the plaintiff again after that, and presumably he had taken his advice.

In answer to questions by Mr. Holman Gregory as to a casebook, the witness said he only made entries in cases which required to be recorded. He did not enter one in a hundred cases. The witness then read the following recorded entry: "Told could not hold out any hope of recovery, as suspected disease of joint. Sent to Miss Folland's house for radiant-heat baths to ease joint. Recommended to surgeon watch joint, but accept no responsibility. Patient agreed. Expect amputation necessary." The entry was made in his own handwriting on November 2nd, 1909.

Cross-examined by Sir E. Clarke, the witness said he had no book in which he recorded particulars of his cases. On its being put to him that the casebook produced was not of much use if there were only seven entries since the entry *re* Thomas, the witness said he very rarely used it. Sir E. Clarke said the entry of November 27th, 1909, ran: "Mr. Rowley Thomas af. op. gas," and asked what "af. op." meant. The witness said it meant he had an anaesthetic given. The examination proceeded:

Sir Edward Clarke: The entry of December 14th is: "12.15 Mr. Rowley Thomas," and "December 16th, 12.15 Mr. Rowley Thomas (E)," and then against note (2), "Moved joint under gas gently; undoubtedly diseased." Now where in any one of those entries do you find that at such visit Mr. Thomas said he felt better?—There is a mistake in my letter. There is no such entry in my casebook.

Sir Edward Clarke then put to the witness his letter to the plaintiff's solicitor of April 15th, in which he had given what purported to be a series of notes from his book relating to the case. When you wrote that letter saying "Since writing the hurried letter of yesterday I have looked up the notes in the case *re* Thomas, and send them along for your perusal," did you intend Mr. Thomas and his advisers to believe those were notes from your casebook?—I did not intend Mr. Thomas's solicitors to believe anything. They were notes from my recollection.

Why did you not say you were making the notes up? Do you think the letter is an honest one?—The notes were elaborated. I admit now I ought to have said they were not exact.

Asked if he wrote in his casebook "Tubercle. No hope case," he said at the time of the appointment, Yes. On its being put to him that it had been said in the course of the trial that on that day he told Miss Thomas the patient was suffering from sarcoma, he replied that he also said it might be tuberculosis. He was not an authority. The examination proceeded:

You have said your treatment was manipulative only. If it were a hopeless case why did you go on treating him?—I expressed the strongest disinclination to go on seeing him.

The methods you afterwards adopted were manipulative movements?—No, certainly not. I merely slightly moved the joint to make my examination. There was no treatment.

You knew your treatment would be useless, yet you continued to see him?—I was perfectly entitled to see him.

You saw him on November 19th and 27th and December 14th and 16th. Do you suggest you were entitled to go on charging him five guineas each time for an examination and other fees for seeing him when you knew you could do him no good?—He was having radiant-heat baths, and I wanted to confirm my opinion.

In answer to other questions the witness said he would probably charge less in the case of a medical student. Had he been operating he would have charged four or five times as much. In the case of any person other than a medical student he would have charged 10 guineas for an examination.

Asked if he had ever mentioned in any letter or note that he found a swelling on November 2nd, he said No. It would ordinarily be associated with tuberculosis. In reply to further questions, he said he pointed the swelling out to the patient and advised him to see a surgeon. Any one could have seen it was a case of tuberculosis. It was put to him that if a wrench took place on December 16th the result would be a sinus and an abscess and then a sore on the surface, and he was asked if he agreed with that sequence. The witness replied that he would rather not express an opinion. Asked, further, if any one could see it was a case of tuberculosis on November 2nd, what need there was to administer gas on November 27th and December 16th, he replied that he wished to see the displacement, both for his own satisfaction and the patient's benefit. Asked if when he saw the patient on January 19th with the sore and the swelling he did not recognize that that was just what would have occurred if he had wrenched the knee, the witness replied: "Yes; but it might have been caused by a twist or a fall." Asked if he recognized that a forcible wrench by a bonesetter might cause it, he said: "Yes, some bonesetters. But I have had no experience of wrenching such joints. A surgeon even might cause it."

Re-examined by Mr. Holman Gregory, the witness said his reputation was such that he could now charge very heavy fees. He had to refuse more than half the applications that came to him. If the plaintiff's had been a case for manipulative treatment, he would not have suggested his going to a surgeon. Asked the exact meaning of the word "Op." in his appointment book, he said in every case where gas was going to be given for any purpose whatever and when a doctor was going to be at his side he put the word "Op." Asked by the Judge what he meant by saying he undertook no responsibility, he replied that it was very bad and was bound to go from bad to worse. Asked further why he did not say in his letter that he undertook "to watch only," he replied that the letter was written under great stress. The examination proceeded:

You say in your letter that the casebook records that you undertook no responsibility. That was not written under stress.—I had not then looked at the casebook.

You wrote another letter on the 15th, saying, "Since sending you the hurried letter of yesterday I have looked up the notes, and send them along." What notes had you looked up?—The notes in my appointment book, the casebook.

How came you to write out all these dates in your letter when they were not notes at all?—I agree it was an amplification.

Did you think you could make out such a strong case that the proceedings would be dropped?

The witness was understood to reply: I don't think I thought so. I was too agitated to think about anything.

Sir E. Clarke: He began by saying, "I thought they would hesitate to bring an action."

The jury at this point asked to see the casebook. The book was handed to them, and Mr. Justice Darling said they would have a room in which to look at the books. A juror said they noticed there were two pages torn out.

Mr. Axham, L.R.C.P.Ed., M.R.C.S., examined by Sir E. Carson, said he had administered nitrous oxide gas in a great many cases for Mr. Barker. He attended on the occasion of the administration of gas on the plaintiff on November 27th. There was no violence used. If there had been he would have protested, because it would have been wrong, the knee being tuberculous. He noticed nothing unusual in the defendant's face after the examination. Mr. Barker's face was usually rather oily. It was an oily exhalation.

Cross-examined by Sir E. Clarke, the witness said his fees came from the public, not from Mr. Barker. Mr. Thomas never paid him anything, but sometimes patients paid him and sometimes it was included in Mr. Barker's fee. Asked as to the appointment book, he said the word "Op." meant nothing at all. "D.D." meant probably a fairly large fee. "E" meant five guineas, and "A" four guineas. Sir E. Carson, interposing, said he was told the witness was wrong about it. Mr. Barker could speak as to this. In reply to further questions by Sir E. Clarke, the witness said he did not remember the nature of the operations on the three occasions other than the first. He could not remember whether Mr. Barker handled the plaintiff's knee. He could only remember a gentle handling of the joint. In reply to the Judge, the witness said he had reason to remember Mr. Thomas's case. He went home and said to his wife he was sorry the defendant had taken up the case.

In answer to further questions by Sir E. Clarke in cross-examination, the witness said he really could not follow counsel's questions, as they were so confusing. He had a wretchedly bad memory for names and faces.

Miss Folland then gave evidence. She said the plaintiff came to her home for radiant baths, each lasting one and a quarter hours. The plaintiff told her when she called attention to the sore that he had had a fall.

Cross-examined by Sir E. Clarke, the witness said she had not had patients from Mr. Barker before 1908. Mr. Thomas paid a guinea each for the baths, but she had no entries to fix the dates of the baths.

Dr. Garrard, surgeon of Eversfield Hospital, giving evidence-in-chief, said he had had experience of tuberculous joints, and had operated on such cases. They frequently ended in amputation. He had known the defendant for under one year. He was a man of great skill.

The Judge said he could not see what issue evidence of general skill went to. The evidence was therefore not admissible.

Continuing, Dr. Garrard said he saw the plaintiff at Dr. Bunn's house. The plaintiff said on that occasion that Mr. Barker insisted on his having gas, as he could not examine the knee without. The plaintiff said he was in no pain whatever after he returned to consciousness. He said he had walked without the aid of sticks down Piccadilly. He did not remember the plaintiff saying anything about violence having been used. There had been dislocation of the bones when he examined the limb after the amputation had been performed; but that might have taken place when the limb was put in a jar of formalin. The whole of the indications showed tuberculosis in a very advanced state. The ligaments and muscles were gone. The joint was flexed almost to a right angle. From the radiograph he could see nothing from which he could deduce encapsulation. After encapsulation was set up the joint should be at rest for some time; the patient might have to rest for years. He should say encapsulation certainly could not be broken down in thirty or forty seconds. If it had been broken down in an operation the patient would be in considerable pain, because the tissues would be broken, and would not be able to put his foot to the ground or walk. In a week an inflammatory process would be set up, and there might or might not be a septic condition. He had known of two cases of encapsulation being broken down. One case had resulted in amputation in

three days, and in the other case the patient died. He himself had never examined a knee of this kind with an anaesthetic. Asked if he saw any impropriety in giving gas for an examination, the witness answered that he would not give it himself. He would use chloroform. The witness agreed that gas was the least dangerous anaesthetic.

Cross-examined by Sir E. Clarke, he said he had frequently had to examine tuberculous joints. It took a considerable time. He had always been able to make an examination without an anaesthetic. He would use chloroform if he used one at all, because one had longer time for examination, and the joint was relaxed. Gas caused rigidity, and defeated the purpose of the examiner. He had never heard of the examination of a tuberculous joint in forty seconds. When he saw the knee it had been in formalin for nine months.

Sir Edward Clarke then put to the witness the report signed by Mr. Waterhouse, Drs. Bunn, Carruthers, and Anderson, saying that all the muscles were oedematous, that the pyogenic organisms had gained access to the joints through the sinus, and that the condition was one of septic arthritis supervening on tuberculosis, and asked him if he agreed with that report. The witness replied in the affirmative. Re-examined, he said the arthritis was caused by microbes going up the sinus into the joint.

Dr. Phillip said he had been in practice twenty-two years. For twelve years he had been practising as operating surgeon in Belfast. He now practised in London. He saw the plaintiff at Dr. Bunn's on January 18th. The plaintiff said he felt no pain after the gas, but that he did not remember much about it. When he examined the limb after the amputation, the joint was in a very advanced state of tuberculous disease. He should say the limb was doomed to amputation in November, 1909. There was no effective encapsulation as a rule. Great violence would be required to break it down. In a very short time—within twenty-four hours—the plaintiff would have been in exquisite pain. There would have been signs of fracture and tearing of the tissues about the joints had violence been used. There were no such signs in the case of the plaintiff. He would never have been able to walk again had violence been used.

Cross-examined by Sir E. Clarke, he said he had never heard of an intentional case of wrenching a tuberculous knee. He did not think the fact that the plaintiff was able to use his leg indicated a quiescent state of the disease. The fact that he had some pain would show that it was active. The tissues were actually destroyed. Asked whether he agreed with the report of Mr. Waterhouse and the other doctors, the witness said he believed the joint was disorganized before the amputation. Answering other questions as to the report, the witness said there would not have been, under proper antiseptic treatment, any pyogenic organisms.

Mr. Justice Darling said: But there was not proper antiseptic treatment here. There was a sore, and it burst, and that sore had existed for months.

Mr. Walter Whitehead, one time Professor of Clinical Surgery at Manchester, examined by Mr. Holman Gregory, said he agreed with the evidence of the previous witnesses called by the defendant. He had recently seen the amputated leg, and formed the opinion the knee must have been in a hopeless condition in November, 1909, when it was examined by defendant.

Sir E. Carson, in addressing the jury, said the defendant had been able to secure three of the most eminent surgeons in the profession to give evidence on his behalf. They were asked to find negligence. Let them be sure there were adequate grounds and not be satisfied with such slender ground as that of the theory of encapsulation. The defendant's letters no doubt were unfortunate in wording, but the main fact remained the same, that everything in April, 1910, could be deduced from the facts admitted and the notes the defendant had actually made upon the case. If the note in the casebook was written at the time it purported to be written, all the prejudice imported in the case from the letters the defendant had written went by the board. Sir E. Clarke had not, when he read the entries in the appointment book, read the entry of the 16th, which ran, "Moved joint under gas gently — undoubtedly diseased," and Sir Edward had made use of the entries in the appointment book, and then, when it suited his purpose, had suggested by his cross-examination that they were made up for the purposes of the action. Counsel commented upon the absence of Messrs. Boyd and Clogg, of Charing Cross Hospital, who had examined the limb and taken tests. There was not a single witness who could give any evidence that there was encapsulation in November and December, 1909, and if that theory went, there was no case against the defendant. There was no calling in question the skill of the defendant in diagnosing the case; and if he had diagnosed the case accurately what need was there of any force? With regard to the evidence of Mr. Axham, Counsel said there was absolutely no reason why he should take the trouble to come to the court and give untrue evidence. If the believed the defendant, he had told the plaintiff every time he saw him that he must see a surgeon; and th plaintiff admitted having been so advised on two occasions. Yet, notwithstanding that, Sir E. Clarke was suggesting that so anxious was the defendant to snatch a few guineas from a young man that he grasped at the case at all costs.

Sir E. Clarke, addressing the jury, said the case practically resolved itself into one thing: Did they believe the plaintiff's account of what took place, or did they believe the defendant? Mr. Barker's evidence was not such as they could rely upon. Writing on April 15th, he had referred to what he calls his notes of the case. There were no such notes as were indicated, and defendant admitted he had elaborated what were there. If, knowing the plaintiff's leg to be in the last stage of tuberculosis, the defendant made any statement to the plaintiff or to the plaintiff's sisters to the effect that he would effect a cure, then surely that was an end of the case. Sir Edward Clarke then referred to the evidence of Dr. Garrard, who had said that he had made many examinations of tuberculosis, but would never have dreamt of making such examinations under gas. Alluding to the report signed by Mr. Waterhouse and Drs. Bunn, Carruthers, and Anderson, as to the condition of the limb when it was amputated, he said that that condition was exactly what one might have expected if the bacilli were set free by some such wrench or other violence as was alleged. He asked them to say that on the defendant's own evidence alone he had been guilty of gross negligence.

Mr. Justice Darling, summing up, said there was no doubt the defendant was a man of great skill in his business. But, though he had no degrees, he could not rely upon that to excuse any want of knowledge. The greater his skill in the manipulation of joints, the greater was the degree of care the plaintiff was entitled to expect of him.

Referring to the evidence in detail, His Lordship said that if at the first examination (assuming it were an examination) the defendant had really told plaintiff the case was such a hopeless one that he must go to a doctor, and that there was no chance of saving his leg, then why put the plaintiff to the expense of another 5 guineas for a second examination? What need was there for a second examination at all? Did they believe that only an examination took place on each occasion? If they could not make up their minds upon that, the plaintiff's case was gone. Referring to Mr. Joye's evidence, His Lordship said if they believed that evidence it certainly pointed to something having been done very much otherwise than a gentle movement such as the defendant had described in his letters and evidence. The crux of the case was what was done on the two days in question, and the evidence of the defendant upon that was absolutely irreconcilable with what the plaintiff's witnesses said.

The jury returned a verdict for the plaintiff for £21, having been away for one hour.

Judgement and costs accordingly.

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### WORKMEN'S COMPENSATION ACT, 1906.

THE Home Office has published a list of the names, addresses, and districts of certifying factory surgeons in England and Wales. The duties of the certifying surgeon have since 1907 been extended to industries outside the Factory Act by the provisions in the Workmen's Compensation Act with respect to compensation for industrial disease, under which a worker in those industries before he can claim compensation for disease has to obtain a certificate from the certifying surgeon; and this list has been prepared as a ready means of reference for workers and their representatives desiring to ascertain the name and address of the certifying surgeon to whom application must be made in any particular case. (Persons employed in factories or workshops can always ascertain the name and address of the certifying surgeon by reference to the abstract posted up in the works.) The list is published at 1s., and can be obtained, either directly or through any bookseller, from Messrs. Wyman and Sons, Limited, Fetter Lane, London, E.C. Similar lists for Scotland and Ireland will be published in due course.

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## Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

### PROFESSIONAL CHARGES.

F. C.—The fees mentioned seem to be extremely reasonable, and under the circumstances it is quite fair to expect the estate to pay.

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## Medical News.

AT the meeting of the Pharmaceutical Society of Great Britain at 17, Bloomsbury Square, W.C., on Tuesday next, at 8 p.m., a paper on the therapeutic uses of radium, illustrated by an emanatorium and other exhibits, will be read by Messrs. H. C. T. Gardner and O. A. Elias.

PROFESSOR KITASATO has been commissioned by the Japanese Government to proceed to Manchuria with an official from the Colonization Office to report on the measures to be adopted to prevent the diffusion of the plague. The Government has asked for a subsidy of £200,000 to meet the expenses caused by the epidemic.

A CONFERENCE on the medical inspection and treatment of school children, promoted by the Fabian Education Group, will be held on Thursday, March 16th, at Clifford's Inn Hall, Fleet Street. The chair will be taken at 8 p.m.

by Sir Victor Horsley, and Mr. Reginald Bray, L.C.C., will read a paper on what has been done by the County Council. Miss Marian Phillips, D.Sc., will follow with a criticism, and Miss Margaret McMillan will speak on what might be done. Questions and debate will follow.

THE annual general meeting of the British Medical Benevolent Fund will be held at the house of the Medical Society of London, 11, Chandos Street, W., on Monday next, at 5 p.m. The meeting will be addressed by the Presidents of the Royal Colleges of Physicians and Surgeons, and the Master of Downing College, Cambridge (Professor Howard Marsh).

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on February 17th, 1911, Dr. de Havilland-Hall in the chair. The accounts presented showed that the business of the society during the early part of this year has been exceptionally good. The number of new entrants has been greater than in any similar period since the commencement of the society's operations, and although at this season of the year a number of sickness claims considerably in excess of the average is looked for, the experience so far has been even under the average. The annual general meeting of the society will be held in May, and the accounts for 1910, which will then be presented to the members, will show a very successful year's working. The total sum disbursed as sick pay is well under the amount expected and provided for in the tables of contributions, and a large increase has been made in the reserves, which now amount to over £240,000. The society is purely mutual, and its reserves have been produced by economy of management, cautious investments of funds, and careful superintendence of its ever-increasing operations. No agents are employed, and no commission or payment of any kind is allowed for the introduction of new business, yet the rate of management expenses is little more than half what was thought to be necessary and accordingly provided for when the society started in 1884. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE annual dinner of the West London Medico-Chirurgical Society was held on February 22nd at the Hotel Great Central, London. Dr. Phineas Abraham, the President, was in the chair, and a large muster of members and guests were present. The musical programme was excellent; Mr. John Ivimey, whose talents as a pianist and accompanist have secured him a high reputation, was supported by Messrs. J. Davis, Edgar Coyle, Charles Collette, and Stuart Debnam. Mr. McAdam Eccles proposed the toast of "The Imperial Forces." Sir James Porter, K.C.B., Medical Director-General, R.N., in reply, referred to Mr. Haldane's scheme of National defence, and expressed the opinion, much as he disliked the word conscription, that if this scheme did not succeed, it would be necessary to call on each man to serve in the forces. In dealing with the navy, he spoke of the recent statements made in Berlin that the estimates of the Prime Minister and of the First Lord as to the strength of the German fleet and the number of ships laid down were erroneous. Construction would continue, he stated, in both countries, and the building of larger, stronger, and swifter ships by our friends across the North Sea was of course only intended to be for defensive purposes. We, however, must continue to pay our national life insurance premiums year by year cheerfully. The toast of "The West London Medico-Chirurgical Society" was ably proposed by Mr. Charters Symonds. In the course of his remarks, he paid a tribute to the Cavendish Lecturers and to the social side of the society's work. Dr. Abraham returned thanks for the toast, referring in sympathetic terms to the work of the late Mr. Keetley, to whom the society owed its existence. After touching on the scientific work of the society, he congratulated the members on the fact that several of the original members were present at the dinner; out of the total number of 115 original members, 34 were still active, including several of the past presidents. For the kindred societies, Dr. Barry Ball spoke of the amicable relations existing between a number of these and the West London Medico-Chirurgical Society. Mr. Ernest Lane responded, as President of the Harveian Society. The remaining toasts, namely, "The Guests" and "The Chairman," were ably proposed and replied to, Mr. T. Mostyn Pigott, as a lay guest, entertaining the assembly with a charming and witty speech. A graceful compliment was paid to the Honorary Secretary, Dr. Page, by the Chairman in his response.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

D. S. HY. asks for references to accessible literature on the present methods of control and prevention of scarlet fever, the defects and the necessary remedies or modifications of these methods.

NORTH asks for suggestions as to the treatment of a case of "burning heat" and pains in the legs and feet, which come on immediately on patient getting into bed at night and prevent all sleep for many hours. Otherwise the patient enjoys good health, though leading a sedentary life, and there is nothing to be seen wrong with the legs except slight swelling occasionally; no varicose veins.

PEDESTRIAN asks for a remedy for tender feet. He has suffered very much of late years even after a short walk. Boric acid and talc, naphthol and spirit, boric ointment, etc., do not give relief, and knitted socks seem to make matters worse. After a long walk the feet are moist, but perspiration is not excessive. He inquires if a preparation of formalin would be useful and safe.

### INHABITED HOUSE DUTY.

A. C. R. inquires whether a house used partly for professional purposes is chargeable at a reduced rate of house duty, and, if not, whether the case would be altered if he were to live away and use the house as a surgery.

*** No relief from house duty is allowed in the circumstances first named; if the surgery were not dwelt in at all, and were not within the curtilage of the house occupied by the practitioner, no house duty would be chargeable.

## ANSWERS.

### GENERAL PSORIASIS.

DR. J. O'DONOVAN (Kingstown) writes: If "Senex" will try 10-minim doses of Donovan's solution in 1 oz. compound decoction of sarsaparilla three times a day for one month, *after food*, he may see some good results.

### TREATMENT OF GLOSSITIS.

DR. H. J. THORP (Ipswich) writes: For the treatment of glossitis I recommend the following mouth wash:

| | | | | | |
|---|---|---|---|---|---|
| ℞ | Mercuric chloride | ... | ... | ... | gr. ij |
| | Ac. hydrochlor. fort. | ... | ... | ... | ♏viij |
| | Glycerine | ... | ... | ... | ℥ss |
| | Aquam... | ... | ... | ad | ℥viij |

Fiat garg.

### A NEUROLOGICAL CONUNDRUM.

F. W. M. P. writes: In answer to "Justinian," I should like to suggest that the patient was allowed to get up and move about on crutches, and that the head of his crutch pressed on the musculo-spiral nerve, and caused crutch palsy, one of the symptoms of which is drop wrist.

## LETTERS, NOTES, ETC.

### THYROID EXTRACT IN CARCINOMA.

DR. FRANK B. SKERRETT (Forest Gate, E.) writes: It appears to me that Dr. Hughes Jones, in his article on thyroid cancer in the issue of February 25th, p. 432, is not free from criticism in placing so great a stress on the fact that cancerous tumours sometimes undergo a degenerative change beginning at the centre and spreading towards the periphery, and assuming, as he evidently does, that this shows a definite natural life-cycle for the cancer cell. I may be wrong, but I was always under the impression that this change was not due to an inherent tendency on the part of the cancer cell to degenerate, but that it was simply due primarily to mechanical causes—namely, self-strangulation—cutting off the blood stream, and thereby stopping the nutrient supply to the central cells and the elimination of the products of their metabolism. It is true, probably, that the centrally placed cells are the oldest, but still they are also the furthest removed from a gradually diminishing blood supply, so that it is a point worth settling before any hopes are based upon it.


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

| | £ | s. | d. |
|---|---|---|---|
| Eight lines and under | 0 | 4 | 0 |
| Each additional line | 0 | 0 | 6 |
| A whole column | 2 | 13 | 4 |
| A page | 8 | 0 | 0 |

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

# A Clinical Lecture
ON
# SOME OF THE COMMON INJURIES OF THE KNEE-JOINT AND THEIR CONSEQUENCES.

DELIVERED AT GUY'S HOSPITAL.

BY W. ARBUTHNOT LANE, M.S.,
SURGEON TO GUY'S HOSPITAL.

IT would seem that the most common form of injury of the knee-joint is some damage to the internal semilunar fibro-cartilage. The semilunar cartilages form what one might call variable intermediaries between the tibia and femur, accommodating themselves to the altering mutual relationship of these articular surfaces to one another. They occupy a space that must necessarily be filled with some material, whether solid or liquid. If a cartilage is removed and there is no fluid present in the joint, a new growth of connective tissue spreads into the interval between the bones from the interior surface of the adjacent portion of the capsule. The function of the external fibro-cartilage is much more simple than that of the inner, since it is more circular and the fixation of the external tibio-femoral joint is much more secure than is that of the inner. The outer joint performs the function of a hinge up to a certain point, movement taking place on a transverse axis, while beyond that the movement between the bones is one of rotation on a vertical axis to permit of the further movement of the internal condyle around a transverse axis, and when complete the external femoro-tibial joint forms the fulcrum of a lever in a transverse plane. This movement of extension of the knee-joint is limited by the posterior ligament, by the anterior crucial ligament, and by both lateral ligaments, which are placed behind the transverse axis of rotation. This is particularly true of the internal lateral ligament, since it does not sustain a maximum strain till after the external lateral ligament, and consequently permits of a greater degree of relaxation also than the external. The fibro-cartilage is therefore evolved in order to fill what would otherwise be a varying vacuous cavity between the bones, and its extension into the joint is limited by the impact of the cartilaginous articular surfaces on one another. For this reason the firmer this bearing is and the more accurate the apposition of the articular surfaces the smaller is the area and bulk of the interarticular fibro-cartilages and their mobility is correspondingly less. Now the fit of a joint varies directly with the degree of development of the muscles which control that joint. In other words, the area of the articular surfaces which come into direct contact is great in the vigorous labourer, while it is small in the badly-nourished, inactive subject.

When the knee-joint is flexed the internal lateral ligament is relaxed and in a degree directly proportional to the flexion.

When also the foot is abducted the superjacent weight of the trunk is transmitted outside the centre of the joint, and there exists a tendency to the diminution of the external femoro-tibial angle and to the separation of the internal condyle of the femur from the corresponding aspect of the tibia, the external condylar joint forming the fulcrum around which movement takes place. This leads to an increase in the influence of the factors which are primarily responsible for the development of the internal interarticular fibro-cartilage and produces a tendency to the separation of the internal condylar surfaces and to the consequent displacement of this fibro-cartilage between the bones. The sudden removal of the superjacent pressure tending to reduce the external femoro-tibial angle permits of the articular surfaces regaining their normal relationship, and may result in the bruising of the inner portion of the inner fibro cartilaginous crescent, or even in its rupture from the internal lateral ligament and adjacent capsule should it not have had time to escape. This tendency to damage of the fibro-cartilage increases with the degree of flexion of the knee joint and diminishes as the knee approaches the position of extension. The more secure the fit of the joint the greater must be the amount of force necessary to damage the fibro-cartilage, while in a loosely fitting joint the amount of force required to produce the same injury may be very slight. Any bruising of the free margin of the articular crescent results in its swelling and possibly, later, in its destruction. The portion most liable to damage is the back part of the middle third. In proportion as a segment of the free margin of the cartilage is destroyed so its total length is increased, and also its mobility or liability to injury. This is shown by Figs. 1, 2, and 3 (p. 538).

In proportion as the leg approaches a position of extension the greater is the force requisite to produce any displacement and consequent damage of the fibro cartilage, and the more severe is the strain sustained by the internal lateral ligament of the joint. This latter strain is felt most at the point of attachment of the upper extremity of the internal ligament, where it is most limited. When the knee-joint is in a position of extreme extension abduction of the articulation must be sufficiently forcible to rupture the internal lateral ligament before any separation of the internal condyle from the tibia can be effected by it. Therefore, besides the damage to the fibro-cartilage, there may be a certain amount of laceration and consequent inflammation of the upper part of the internal lateral ligament, varying chiefly with the degree of extension of the knee-joint. When the interarticular fibro-cartilage is torn away from its attachment to the capsule and internal lateral ligament, and is displaced between the condyles, it is not possible to extend the joint completely, as the back part of the fibro-cartilage intervenes between the articular surfaces of the tibia and femur.

The symptoms of damage to the internal fibro-cartilage vary considerably. In the milder form of injury there may be merely pain and tenderness along the anterior two-thirds of its length which exists only when the knee is bent, but the pain may be absent when the knee is retained in a position of extension. In the more severe forms the fibro-cartilage is very swollen and tender on pressure, and may form a distinct protrusion along its length.

There may be a varying amount of synovial effusion, and when the cartilage is still compressed between the articular surfaces or displaced from its marginal attachment it is not possible to extend the joint completely. If the cartilage is displaced an endeavour should be made to restore it to its normal position by forcibly separating the opposing surfaces of the internal condyle and of the corresponding surface of the tibia by flexing the knee, and at the same time abducting it, using the external condylar joint as a fulcrum. Should the surgeon be unsuccessful in freeing the displaced cartilage from its abnormal position, the sooner it is removed by an incision into the joint the better, as there is always a difficulty in extending the knee completely after it has been kept flexed for any length of time.

Apart from this condition, I believe that the best treatment for a damaged fibro-cartilage is efficient massage and exercises, commenced as soon as possible after the injury has been sustained. As long as the fibro-cartilage is painful and swollen, the patient should retain the limb in a position of extension when he gets about, which must at first be very little.

It is very important that any synovial effusion should be removed, and the muscles about the joint restored to their normal bulk and function as soon as possible, since impaired function means liability to recurrence of the trouble.

The patient should be instructed to avoid the attitude of flexion of the knee and abduction of the foot in which the cartilage was injured. The inner margins of the feet should be kept parallel during locomotion and the universally accepted attitude of turning the feet out discarded. One may assume that anything that is universally accepted as true is certain to be false. Perhaps nothing is more generally taught and accepted than that in walking the feet should include an angle between them open forward; the mother, the schoolmistress, the schoolmaster, the dancing master, the drill sergeant, etc., all seem to conspire to preach this doctrine, which is obviously wrong and mechanically disadvantageous. If the individual wants to lace or button his boots, the foot should

be turned inwards or adducted and approached from internal to the knee. If the patient must kneel, he or she should do so on an adducted foot, and not on an abducted one. There are certain games—as tennis, golf, cricket, and football—in which the posture producing damage to the cartilage is constantly recurring. These games should be avoided in bad cases or the function of the knee-joint limited to a hinge movement by a suitable apparatus. Each succeeding squeeze tends to destroy an increasing quantity of the fibro-cartilage and so render it abnormally long and liable to injury. Later, after the cartilage has been completely divided, the anterior portion is sucked still further in between the bones, and is cut off from its attachment to the capsule. Finally it forms a tag which has only a small attachment to the tibia in front of its spine. This plays freely about in the joint, and may even be felt beneath the inner margin of the ligamentum patellae. When this stage is reached, its connexion with the internal fibro-cartilage may be readily missed, since a structure resembling the original fibrous wedge is then generally pretty well developed.

If the damage to the cartilage is repeated, the sooner it is removed the better. Surgeons differ as to the position and form of the incision necessary for its removal, some preferring a vertical, others a transverse, and others, again, a curved incision. Providing the fibro-cartilage is neatly removed, I do not think it matters much which incision is employed, but the accurate and efficient suturing of divided capsular structures and the early restoration of the functions of the joint are important factors in treatment. Synovial effusion can be readily controlled by elastic pressure.

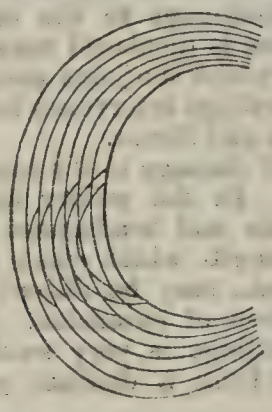

Fig. 1 represents diagrammatically the upper surface of the right internal semilunar cartilage. In it I have attempted to represent as lines running along its length the resistances offered to its elongation, and consequently to its relaxation and outward displacement, and in smaller concentric crescents the manner in which these resistances are progressively obliterated when the cartilage is nipped between the bones and severely bruised and destroyed. The force opposing the excessive suction of the fibro cartilage between the bones is the resistance offered by the capsule and internal ligament and the structures uniting the fibro-cartilage to them.

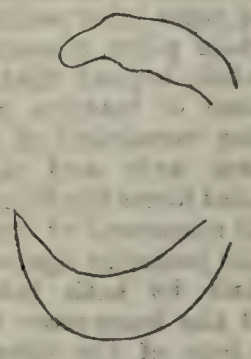

Fig. 2 represents a right internal fibro-cartilage which has been completely divided. Its posterior third retains its normal attachment, while the remains of its anterior two-thirds are shown as a tag attached by its extremity only to the tibia.

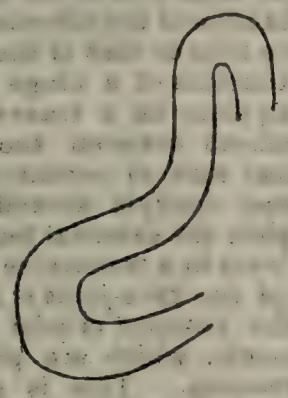

Fig. 3 represents the appearance presented by the right internal semilunar fibro-cartilage, whose anterior two-thirds have been separated from the capsule of the joint, and been displaced outwards beneath the internal condyle. The anterior extremity still retains its attachment to the tibia.

In children especially, and in patients of all ages in whom there is a tendency to the development of tubercle, owing usually to a lowering of the resisting power to its entry consequent on autointoxication from intestinal stasis, or possibly from the influence of such an organism as the influenza bacillus, it is very important that the joint should recover its normal character as soon as possible, so that it may not form a culture medium for the bacillus of tubercle.

Some years ago[1] I called attention to the fact that the large majority of cases of tuberculous infection of the knee-joint originate in the local depreciation of vitality consequent on damage to the internal fibro-cartilage. I had then on very many occasions satisfied myself as to the accuracy of this conclusion, and always took it into consideration when asked to treat cases of injury of the cartilage occurring in subjects likely to develop tubercle or already possessing some tuberculous focus in any other portion of the body.

It does not follow that the tuberculous organism should of necessity first obtain a foothold in the inflamed fibro-cartilage or in the synovial membrane or tissues immediately in relation with it whose vitality have been lowered through their share in the inflammation; but the effusion in the knee-joint itself, and the general inflammation of the synovial membrane of the articulation, which is secondary to the local inflammation of the fibro-cartilage, may form the nidus in which these organisms can grow and thrive.

Therefore, contrary to the usual teaching, I concluded that tuberculous affection of the knee-joint was in adult life almost always consequent upon damage to the internal semilunar fibro-cartilage, and that in young life it frequently resulted from it either directly or indirectly. When the joint has become affected by tubercle the condition becomes one of great anxiety. In slight cases rest and tuberculin, with the most scrupulous attention to the gastro-intestinal drainage, are the most effective. The use of the tuberculin should be in the hands of an expert bacteriologist who is thoroughly familiar with the work. My experience of the treatment by tuberculin is that the failure is due in most cases to the practitioner and not to the principle. Believing as I do that tubercle rarely affects patients whose resisting power is not depreciated by intestinal autointoxication, I employ pure liquid paraffin as a vehicle to facilitate drainage, having completely discarded all drugs of a purgative character, and I have been most pleased with the result. Should the condition of the joint be such that it is not likely to improve under this treatment, I divide the ileum and put it directly into the rectum as low down as I can. I used to do it by means of a lateral anastomosis, as I believed it to be the most secure and safe method of establishing the junction, but now I invariably put it in direct into the side of the rectum. I do this as, however accurate the lateral anastomosis, there is always a tendency to pouching of the ileum beyond the junction sufficient in certain cases to require an operation for its removal. The use of a soft rubber tube passed up through the anus, lower part of the rectum, and through a length of the ileum, serves to drain the small bowel and reduce the risk of the operation enormously. I have practically quite discarded such operations as erasions and excisions of joints for tubercle, and obtain far better results in every way by dissociating their cesspool. Should any surgeon care to see the results in apparently hopeless joint cases of the operation of short-circuiting the bowel I shall be very pleased to furnish him with the names and addresses of these patients. In these cases the rectum is generally very elongated and easy to deal with.

The other injuries about the knee-joint are rare as compared with those which I have described. They consist of bruising of a synovial fringe, or the removal of a portion of the articular cartilage with or without a part of the surface of the subjacent bone. The fringe of synovial membrane may be damaged by being squeezed or nipped between the articular surfaces or by a blow upon the knee. The symptoms may resemble very closely those of damage to the semilunar fibro-cartilage, and if the joint be explored during a period of quiescence it may be impossible to differentiate between these conditions. It is only by a careful study of the symptoms that any conclusion can be arrived at before operation. If the joint is opened during the acute stage the swollen and inflamed fringe can be readily recognized and dealt with. I have seen several cases of this condition in which the internal fibro-cartilage has been removed without affording the patient

any relief, which at once followed the removal of the bulky ligamentae alaria. Practically most, if not all, cases of this sort which have come under my observation have been regarded as damaged or displaced semilunar fibro-cartilages, and have been treated more or less actively. It is a mistake one is very liable to make. A portion of the articular cartilage may be removed from the joint in two different ways. One is by direct impact as in a fall upon the knee. In these cases a triangular piece of articular cartilage breaks off the subjacent bone and separates from the adjacent articular cartilage by a vertical fracture.

In flexion of the knee beyond a right angle there exist two considerable areas of the articular surfaces of the condyles of the femur below the patella and on either side of the ligament, which are covered merely by skin and by the capsule of the joint. In the position of kneeling with the knees separated by a moderate interval, the portion of the under surface of the internal condyle comes into immediate relationship with the ground. When kneeling on one knee the under surface of the external condyle comes into contact with the ground. In falling on one knee the same portion of the articular surface of the external condyle sustains much of the impact. If the force of the blow sustained is sufficiently great a portion of the articular cartilage is fractured and is displaced from its connexion with the femur. It moves about in the

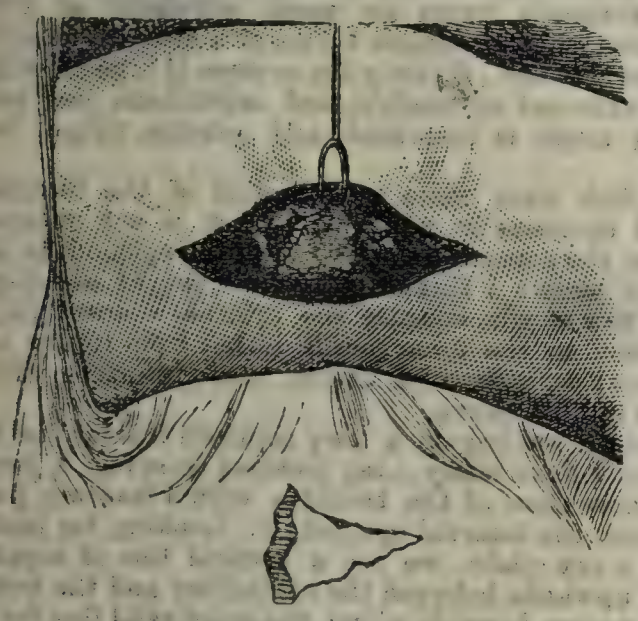

Fig. 4.

joint and forms a loose body. If left for some time the sharp cut edges, both of the loose piece and the depression left by its removal, are gradually rubbed down, and I believe that after a time the loose body may be completely absorbed, and the place from which it escaped may be represented only by a slight concavity in the articular surface. I can best illustrate this by a case which I published in the BRITISH MEDICAL JOURNAL, December 2nd, 1893, page 1207:

E. P., aged 25, had a loose body in each knee-joint. The right knee-joint was opened, when a piece of articular cartilage (as illustrated in Fig. 4) was removed. It had evidently been very recently broken, since its edges were sharp and clearly defined. In the outer part of the under surface of the external condyle there was an area in this articular cartilage into which the separated piece fitted accurately. On opening the left knee-joint a piece of articular cartilage of about the same size was removed. This piece was completely altered in character, its edges being smoothed down like a flat stone in a brook. On the same area of external condyle as in the right knee a smooth depression in the articular cartilage was observed. Its edges were smoothed down, and its floor was covered with articular cartilage. In neither case was there any bone attached to the cartilage.

I have not invariably removed the piece of loose cartilage from the knee-joint when I felt that it was disappearing pretty rapidly and when it appeared to be doing very little or perhaps no harm. That these pieces of cartilage may absorb completely I have no doubt. If, however, they give trouble they can be readily removed if they can be felt. At the same time I have known of several cases in which a joint has been opened and the small movable foreign body has eluded the surgeon.

There is another group of cases showing similar symptoms, in which the loose body can be shown by the *x* rays if the rays are transmitted through its breadth, for the reason that there is a thin scale of bone attached to the under surface of the articular plaque. The cartilaginous fragment differs in shape from that previously described, since it is not triangular but broadly square with thin edges.

In these there is never a history of impact on the knee, but a definite one of a twist or strain of the knee-joint. The fragment is generally found in the upper and outer part of the knee-joint. It presents all the appearances of being pressed off the bone, a portion of which frequently appears to come away with it.

Unfortunately, in the few cases on which I have operated for removal of the fragment an incision was made directly over it above and outside the patella, and I did not feel justified in enlarging the incision and exploring the knee-joint more thoroughly merely to determine the seat of damage in the femur or tibia. They all experienced pain or tenderness when pressure was made on the inner portion of the articular surface of the internal condyle where it articulates with the patella.

REFERENCE.

[1] The Surgery of the Internal Semilunar Fibro-cartilage. *Clinical Journal*, June 6th, 1900.

# A Lecture

ON

# INJURIES OF THE LOWER END OF THE HUMERUS.

DELIVERED AT GUY'S HOSPITAL.

BY CHARLES H. FAGGE, F.R.C.S.,

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GENTLEMEN,—The study of injuries of the lower end of the humerus is naturally divisible into two classes: one which comprises injuries occurring in childhood before the lower epiphysis of the humerus is united to the diaphysis; and the other, including fractures in adults, of the lower end of the diaphysis—the common type of supracondylic fracture. This distinction is in reality largely an artificial one, for, as I shall attempt to show, a simple separation in children of the lower humeral epiphysis uncomplicated by any fracture is very rarely met with; in fact, the common injury to the lower end of the humerus in childhood is in many features similar to that of adult life. A true understanding of the injuries likely to affect the lower end of the humerus in childhood depends on an accurate knowledge of its ossification, and, as the diagrams in most anatomy books have been, until recently, inaccurate in respect to the relative amount which is formed by the lower epiphysis, I shall spend a few minutes talking about its development. My first diagram shows the lower end of the humerus entirely cartilaginous during the first year after birth, and the second diagram shows that certainly up to the fourth, and often well into the fifth, year of life the lower epiphysis consists of one cartilaginous mass, encircling a gradually increasing ossific nodule, known as the centre for the capitellum which may be seen during the second year.

In the next figure we come to the point on which former descriptions were inaccurate, for in them we were told that the whole lower end of the humerus is formed from the lower epiphysial centres; whereas we know recently, partly from anatomical work and partly from Poland's pathological researches upon the lower epiphysis of the humerus, that the diaphysial centre, beginning to grow in the eighth week of fetal life and forming the whole of the shaft, gives a downgrowth, which forms anteriorly and posteriorly a considerable finger-like process of bone, separating the internal epicondyle from the rest of the lower epiphysis. This hypophysis begins to extend towards the lower border soon after the fourth year, and definitely forms the lower non-articular margin just internal to the trochlea in the thirteenth year; so that after the thirteenth year a simple separation of the total lower epiphysis of the humerus is impossible, for any injury which dissolves the continuity of the bone at the level of the epiphysial line

must, in truth, entail a fracture of this downgrowth of the diaphysis; and what is true absolutely after 13 years of age is certainly in a sense true after 4 years, for the diaphysial downgrowth has already begun, and has interrupted the regularity of the epiphysial line as seen at birth. In exact agreement with these facts we find that in the early years separation of the total lower extremity of the humerus is quite common, whereas after the fourth year it is comparatively rare.

Ossification takes place in the lower end of the humerus by four centres, the first of which appears between the second and third year in the capitellum; and it not only forms the articular surface for the head of the radius, but spreads inwards, forming a large part of the trochlea as it almost reaches to the antero-posterior groove which divides the trochlea into two halves. In the fifth year an ossific granule appears in the internal epicondyle; about the eleventh year or twelfth year the centre in the inner part of the trochlea appears to form two-thirds or less of the trochlear articulation, and finally, in the thirteenth year a nucleus is seen which forms the external epicondyle. These diagrams indicate that the lower epiphysial line skirts the articular margin of the lower extremity so that the whole of the surface which forms in front the coronoid fossa and behind the olecranon fossa is formed from the diaphysis. And here I should mention that whereas this lower cartilaginous mass of the humerus in newly-born infants is relatively deep, in the later years of childhood it is relatively shallow: that is to say, the diaphysis appears to grow more down into the region of the articular surface in childhood than in infancy. At about 16 years of age the three outer centres which since 13 have formed one mass—the true epiphysis of the lower end of the humerus—fuse with the shaft; and at the eighteenth year the internal epicondyle joins with the shaft separately, being separated from the lower epiphysis by the downgrowth of the diaphysis, which I mentioned before. One may suppose that this diaphysial downgrowth exercises a natural beneficial function, acting as a splint or support, for the protection of the ulnar nerve, which passes round the bone and lies posterior to it at this point.

You will see that in general direction this epiphysial line traced on the front of the bone passes from within outwards and downwards, and as it reaches the external epicondyle it passes upwards again: similarly, at the back it skirts the upper margin of the articular cartilaginous surface, and my diagram will draw your attention to the fact that this epiphysial line is distinctly within the synovial membrane of the elbow joint, and is supported and strengthened by the attachment of the capsular ligaments, which pass upwards well over the coronoid fossa anteriorly and downwards below it on the inner margin of the trochlea. Here is a diagram which shows the epiphysial line—the junction of the blue cartilaginous mass with the shaft—crossed both by the reflection of the synovial membrane from the diaphysis, where it is lining the olecranon and coronoid fossae, and by the attachment of the capsule where it is passing down on either side to skirt the articular margin. The lower epiphysis obtains, in addition to the usual periosteal bond, support from the attachment of the comparatively feeble synovial membrane and of the comparatively strong capsule of the elbow joint; for, though in the dissecting-room we do not regard the capsule of the elbow-joint as a very strong structure, yet in childhood it is the chief support the epiphysial line obtains. The relation of the synovial membrane to the lower epiphysial line affords it some slight protection also, and quite apart from this the relation of the parts I have mentioned is of the first importance, because firstly, disease of the juxta-epiphysial line will readily spread to the joint—a subject in which we have no interest to-day, though in connexion with disease of the joints, such as tubercle, it should always be in your mind; and, again, in any case of injury to the epiphysial line the synovial membrane is almost certainly lacerated, and both haemorrhage into the joint and secondary synovial effusion are not only important difficulties in accurate diagnosis, because the swelling interferes with the careful manipulation of the fractured extremity, but also subsequent organization of this effusion may ultimately interfere with the free mobility of the injured joint.

I will try to put before you shortly some of the facts in connexion with the various injuries of this epiphysis, and much of what I shall say is gathered from a very full account of the results of traumatism on the lower extremity of the humerus in Mr. Poland's *Injuries of the Epiphyses*. These injuries may be described under five headings. I have referred already to the first one, which is separation of the whole lower end of the humerus. This is common under four years of age, and is not possible after the internal epicondyle becomes cut off from the main epiphysis by the downgrowth of the diaphysis about puberty. Then there is a separation of the true lower epiphysis, consisting of the external epicondyle, capitellum, and trochlea; this is comparatively common about puberty, though it is considerably more rare than the injury I mentioned first—a total separation of the lower end of the humerus. The next variety is a separation of the internal epicondyle and the trochlea with it; and this also is only possible before the internal epicondyle is separated from the trochlea, and is therefore only met with under 4 years of age. In my fourth subdivision the outer epicondyle and the capitellum are detached together. In either of the last two varieties you will readily gather what deformity is likely to result, because in the case of separation of the internal epicondyle and the trochlea it is clear that if these portions of bone are driven upwards and shortened the natural carrying angle of the elbow, which normally forms an angle outwards of 170°, is diminished, so that cubitus varus, or a straight position of the elbow, results. Exactly the reverse is true after injury of the external epicondyle and capitellum, the natural carrying angle is increased, and cubitus valgus is the result.

In a fifth class come a separation of the internal or external epicondylic epiphysis, which is not uncommon. Of these, the separation of the internal epicondyle is the only one which I think is, in the hour at our disposal, worth a few words, because the internal epicondyle, from its relation to the ulnar nerve, either from injury or the subsequent formation of callus, may interfere with the function of that nerve.

The sixth variety is a very common fracture in childhood, and I have many *x*-ray pictures showing it here; it is the separation of the trochlea with a fracture passing up through the internal epicondyle. Looking, for instance, at this *x*-ray plate, we see a vertical line of separation passing upwards between the capitellum and the trochlea, it then passes inwards along the epiphysial line for some distance, nearly to the inner margin of the trochlea, when it ascends to reach the inner border of the humeral shaft. Mr. Shenton tells me that this is one of the very commonest injuries which he meets with in the surgical *x*-ray department. In teaching us the exact anatomy of this, as of so many other bone injuries, *x* rays have considerably corrected the former ideas of the nature of such injuries about the joints, where exact diagnosis is difficult solely from physical signs: I speak particularly of conditions which are not fatal, and after which, therefore, it is difficult to collect pathological evidence as to their causation, nature, and frequency.

My last variety of injury, which is also common in adults, is supracondylic fracture—a fracture passing straight across the shaft of the bone in its weakest part, because here it is thin antero-posteriorly. Here is a good example of an *x*-ray picture of this injury, which is complicated by a vertical fracture passing through the trochlea into the elbow joint, so that the internal epicondyle is drawn inwards and the external epicondyle outwards (see Fig. 5). Of all the varieties that I have mentioned, I think the supracondylic fracture, both in childhood and adult life, and the sixth variety—namely, a fracture passing upwards through the inner epicondyle with a partial separation of the trochlear epiphysis—are the most common; and there are numerous modifications of both of these. What I have recently had impressed on my mind by the writings of Mr. Shenton and others, and by looking through a large number of *x*-ray photographs taken in the last ten years, is that true separation of the lower epiphysis of the humerus is relatively uncommon, and that in some portion of its course the line of diastasis of continuity of the bone passes through the bony diaphysis, and therefore is partially a real fracture.

The physical signs which exist when the epiphysial line is injured are, first, deformity, and this commonly is as is seen in this *x* ray plate, in which the lower end of the diaphysis is carried forwards, and the epiphysis lies behind (see Figs. 1 and 2). So we see the lower end of the diaphysis projecting into the antecubital space, and this no doubt partially compresses all structures which lie in front of it, and that it does not frequently injure the brachial vessels is probably due to the rounded form of the lower end of the diaphysis when the diastasis is entirely through the epiphysial line. If the epiphysis includes the epicondyles, the attachment of the flexor and extensor tendons are seen on either side, but this epiphysis is one to which no muscular or tendinous structure is attached which is of any value in acting as a tractor to help you to reduce the displacement. As a result of this displacement, a depression is seen posteriorly immediately above the olecranon, and again, because of the projection of the lower end of the shaft forwards, the biceps is put on the stretch and the triceps is more or less relaxed. The action of these muscles determines the position of the patient's arm, which usually at the time it is examined is one of semi-flexion. The last point I have to mention about the deformity is that it is very like that of dislocation of the elbow-joint, in which both the bones of the forearm are driven backwards. Should the case be seen within a few hours of the injury there will be no swelling; but very rapidly considerable swelling ensues, due not only to superficial bruising but also to exudation of blood and synovial fluid into the elbow-joint; and in many cases this renders accurate diagnosis impossible. The deformity is characteristic in that if it is reduced it tends to recur, and this is one point which distinguishes this injury from dislocation.

Under an anaesthetic, or without, it may be possible to obtain a sensation of muffled crepitus—a smooth crepitus compared with the rough grating of a fracture. I do not lay stress on this muffled crepitus, because if it is unwise in the case of a fracture to complicate the injury to soft parts by rubbing together two surfaces of bone to satisfy diagnostic curiosity, it must be even more so in the case of the delicate epiphysial line of a child. Undue mobility of the arm at the level of the epiphysial line is a sign of much greater value; the upper arm will be shortened as measured from the olecranon to either of the epicondyles. This is not a sign of much value, because one knows how difficult it is to measure the arm accurately under any conditions, owing to a want of definition about the upper and lower bony points, and if there is much swelling about the elbow this difficulty will naturally be increased; the movements of the elbow will in nearly all cases be limited, because of the effusion into the joint, but they are never so limited as in a case of dislocation.

I have already referred to supracondylic fracture, which produces exactly the same deformity, and gives the same physical signs as separation of the lower humeral epiphysis, except that the lower end of the upper fragment, as the fracture takes place higher up the shaft, does not come so far down into the flexure of the elbow, and distinct evidences of bony crepitus are obtainable in the child or in the adult. If a supracondylic fracture in children or adults is produced by hyperextension of the elbow, the lower fragment is driven backwards, and therefore lies behind the lower end of the shaft; whereas if the injury is due to hyperflexion, the reverse is true, and the lower fragment lies in front of the lower end of the upper larger fragment.

### COMPLICATIONS.

When Mr. Poland's book first appeared, several years ago, I wrote a review of it, and in looking it through for this purpose I remember being much struck by the frequency with which separations of all epiphyses were compound, and by the frequency with which a simple separation of the epiphysis was likely to end in suppuration. But apart from the question of the incidence of sepsis and the consequent complication of the issue, there is one local complication which is fairly common—injury of the brachial artery. Mr. Wright, now a well-known surgeon in Manchester, when he was a Surgical Registrar here in 1879, wrote a paper in the *Guy's Hospital Reports* on this question, recording a case of Mr. Bryant's in which, eleven days after the separation of the lower epiphysis of the humerus in a child, the radial pulse was lost: this was no doubt due to injury to and subsequent blockage of the brachial artery. Mr. Poland, in commenting on this case, suggests that it might have been caused by an ill-fitting splint, though I do not find any inference in Wright's paper to support this view. There are several other cases of a similar complication scattered about in the literature on this subject. It is natural that an occasional associated injury to the soft tissues over the front of the elbow is likely to result in the very distressing contraction of the flexors of the hand which is well known as Volkmann's ischaemic paralysis, and is due to a fibrous degeneration of the flexor muscles of the forearm. Whether it results from primary inflammation of muscles, or is secondary to injury of the nerves, or injury of the blood vessels, is not at present decided. Opinions on the matter seem to be divided.

The only other complication which is common is an injury to one of the adjacent nerves, commonly the musculo-spiral, resulting in a dropped wrist. When the internal epicondyle was involved, injury to the ulnar nerve, as evinced by loss of sensation or "pins and needles" in the little finger, with atrophy of the muscles of the hypothenar eminence, has been noticed in a few cases.

In connexion with the differential diagnosis there are certain anatomical points to be borne in mind. (1) Under normal conditions of the elbow a line drawn through the two epicondyles passes above the olecranon. If the olecranon be pushed backwards, as in dislocation, its relationship to the line drawn across between the epicondyles will be altered from the normal. If the total lower end of the humerus be separated, the relationship of the epicondyles to the olecranon will be unaltered, and therefore the line drawn across the epicondyles will still be above the olecranon. (2) Another line which I should have thought of distinct clinical value, but which seems to have escaped general notice, is that which Wright (loc. cit. supra) described. He says a line drawn from the internal epicondyle through the tip of the olecranon, over the back of the elbow-joint, passes through the head of the radius in any position of the elbow-joint. Clearly, if any one of these three bony points is altered in its relation to the others, this line would show it.

The diagnosis of injury to the lower humeral epiphysis will be in the first place from dislocation of the humerus forwards at the elbow-joint, and I think that in dislocation the absence of crepitus, and the fact that deformity does not tend to recur if it is reduced, will usually differentiate the two injuries. Again, in the common dislocation of the elbow-joint, the lower extremity of the humerus will project much further downwards—well below the level of the elbow-joint—than in separation of the epiphysis, where the lower end of the diaphysis generally reaches just to the level of the antecubital crease.

It is not so important to diagnose a separated humeral epiphysis from supracondylic fracture, because having decided that there is loss of continuity at some point on the lower end of the humerus you will treat it on active lines. Muffled crepitus and the greater width of the lower end of the upper fragment are in favour of separated epiphysis, and undue mobility at a level well above that of the elbow suggests supracondylic fracture. With regard to prognosis, Poland is of opinion that here, as in all separations of the epiphyses, complete and rapid union usually occurs, and this, while being an advantage in some respects, is in others a disadvantage, because if you neglect to make an accurate diagnosis during the three or four weeks in which the swelling is subsiding, you will have by that time a fair amount of union in a bad position. Radiography now plays an important part in the diagnosis and prognosis of these injuries, and recognition of the exact position of the fragments immediately after the injury is only possible by this means. This photograph (Fig. 1) shows a fracture through the lower end of the humerus in a child, in which apparently the position was fairly good. When *x* rayed, the lower end of the diaphysis was seen to be considerably in front of the lower fragment, and even putting it up with the elbow fully flexed at an acute

angle did not accurately correct the deformity. (See Fig. 2.) I operated on the patient in June, 1909, and levered the lower epiphysis forwards into its normal relation with the shaft, and when replaced it remained in good position without any mechanical assistance. You see (Fig. 3) that some weeks afterwards there is apparently complete alignment between the lower epiphysis and the shaft. In one respect this last photograph gives a fallacious idea of the result, because it looks perfect, but the range of movement at the elbow, though smooth and free from extreme flexion to about an angle of 150°, is limited beyond this point and the joint cannot be fully extended: this is no doubt due to the formation of external callus in the olecranon fossa. On the whole the result is satisfactory, for it is probable that there will be considerable reabsorption of the callus in the fossa under normal movements of the forearm.

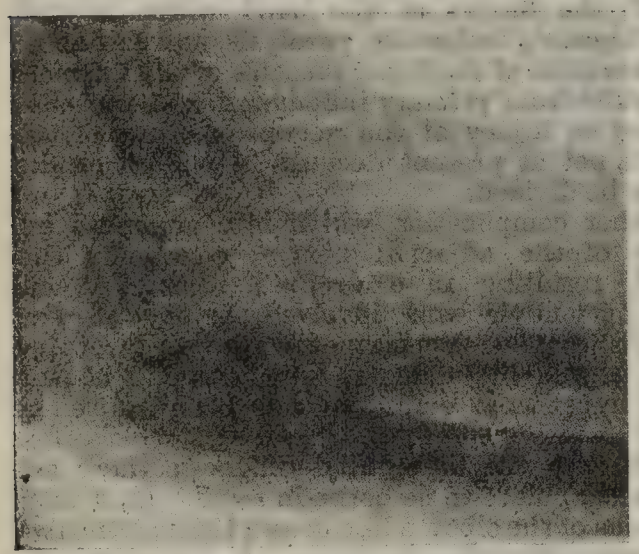

Fig. 1.—Fracture of lower end of humerus, showing position of fragments immediately after accident.

Such impairment in mobility, both in flexion and in extension, is very common; it will have resulted from callus formation in several of the cases, of which you have seen *x*-ray plates on the screen to-day. And, again, considerable deformity of the elbow is quite common, though not uncommonly associated with very good movement. Here is an *x*-ray photo of the elbow of a boy who came to my out-patient department with considerable cubitus varus. Instead of the forearm forming with the arm an angle open outwards, the forearm passes downwards and inwards, so that there was bowing, or an angle inwards, at the elbow-joint: here there was considerable deformity, yet movements were perfect. The usual causes of impairment of movement are non-reduction of displaced epiphyses, the resulting callus filling up the adjacent fossae either in front or behind, and injury to the ulnar nerve owing to its implication in the callus around the joint.

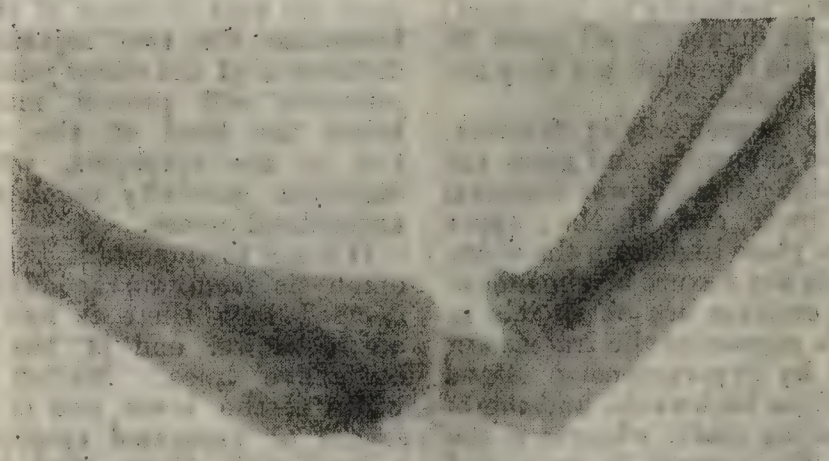

Fig. 3.—Ultimate result; union in good position.

The last evil result of these injuries which we have to consider is arrest of growth, and fortunately in this particular position it is not important. This epiphysis is probably second to that of the lower end of the femur in frequency of being injured, but the results of these two injuries are in marked contrast in their effects on arrest of growth, for the lower end of the femur has a far greater influence on the length of the limb. The practitioner should warn patients that, after an injury near a joint in a child, arrest of growth of the epiphysis is at least probable. There are few conditions not of vital importance in regard to which practitioners so frequently seek a second opinion, because they do not like to take the entire responsibility of treatment; and I cannot do better than impress upon you the words of Velpeau, who said that "one of the worst things which could happen to a young surgeon beginning practice is to meet with a case of injury of the elbow in a child," because of the prospect of some permanent deformity or limitation of movement.

With regard to treatment, there seem to be three camps of those who advise fixation in splints. Poland, who has had an unrivalled experience of these injuries in England, recommends a right angle splint Bardenheuer recommended fixation in a position of full extension, while American surgeons are generally unanimous in believing that the only way to prevent some abnormality of the carrying angle of the elbow which could result in cubitus valgus or varus, is to treat the condition in the extended position; on the other hand, Hutchinson's observations on the lower epiphysis of the femur and of the humerus have in recent years led English surgeons to treat these injuries near the elbow in the completely flexed position. There is no doubt in my mind that if a separated lower humeral epiphysis of a child is put in a position of complete flexion with the hand supinated, possibly using no splint but strapping the forearm to the arm and bandaging them over the front of the chest, the deformity will usually be reduced, but I form my opinion from a comparatively small personal experience of the treatment of this injury in this way, and I must own that I have seen one or two cases which have been treated by right-angle splints, in which alterations in the carrying angle of the elbow have occurred; and I can therefore realize, as regards its influence on the carrying angle at the elbow, that the American criticism of treatment by complete flexion is probably justified. Then remember that union occurs rapidly, and delayed union is very uncommon, so that after three or four weeks supporting apparatus may be entirely omitted. Massage should be begun on the fourth or fifth day, and gentle passive movements at the end of two weeks. These latter are one of the best means of preventing a certain amount of immobility of the joint; but, as Mr. Robert Jones has pointed out, if they are instituted before firm union has occurred, disturbance of union results: external callus is thrown out, and the effect they were designed to annul is increased by them.

Fig. 2.—Fragments not in apposition, even in full flexion of elbow, with hand supinated under an anaesthetic.

It is natural I should say something about the treatment of these injuries by operation. If any operation is to produce its best results, it must be carried out within a fortnight or, at most, three weeks of the accident. This puts on the general practitioner the serious duty of deciding whether he has got the fragments into such apposition that a reasonable functional result is likely to ensue, and of course considerable help in coming to a decision on the question

of the apposition of the fragments is given by the *x*-ray picture. I have here an interesting series of *x*-ray photographs of a case of fracture of the lower end of the humerus, in a man of 42 years, who fell off his bicycle on April 3rd, 1910 (see Figs. 4, 5, 6, 7): you will see that

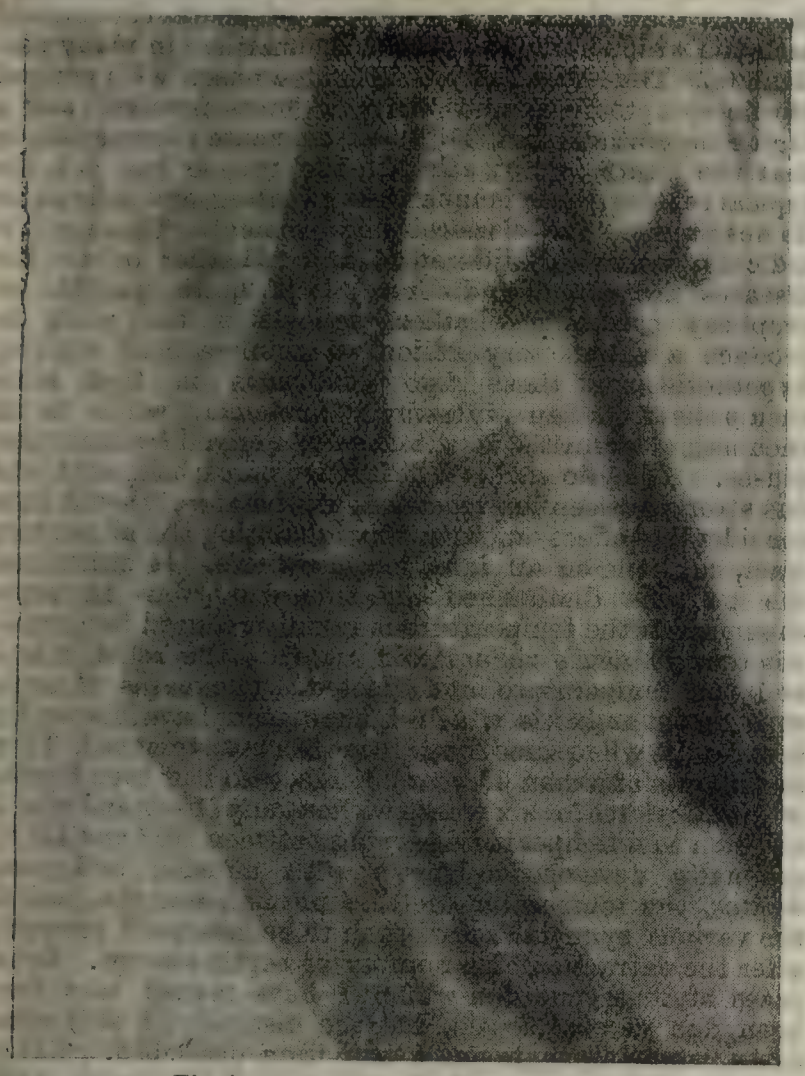

Fig. 4.—Lateral view before operation.

both condyles are driven apart, and the shaft comes down between and behind them. His medical attendant, Dr. G. B. Batten, of Lordship Lane, a very keen and expert radiographer, at once applied himself to the *x* rays,

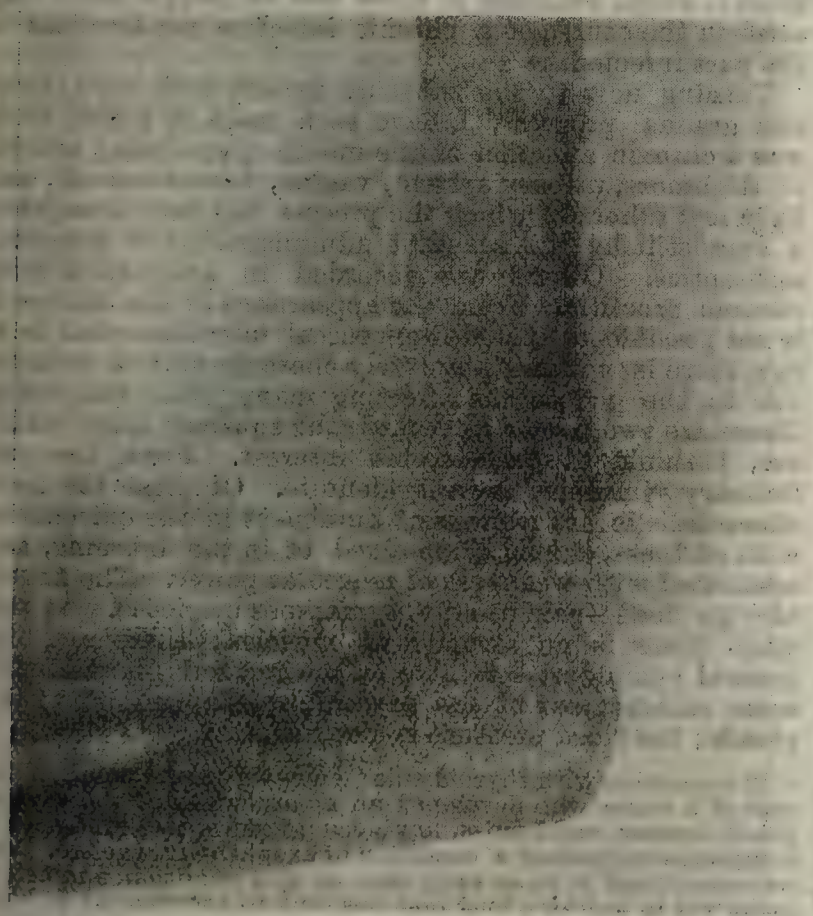

Fig. 6.—Lateral view after operation.

and finding it impossible to rectify the displacement by manipulation under an anaesthetic, operation was decided upon and was carried out on April 7th in spite of a superficial wound on the back of the elbow joint. Good restoration of the normal alignment of the bone was effected by means of one of Mr. Lane's plates, and the patient has regained a very considerable range of movement of the elbow.

In the case of the child's elbow which I put in front of the screen you noticed there was no wire, plate, or other opaque substance (see Fig. 3). In operating upon children or adolescents it is unwise to put a screw or wire into the

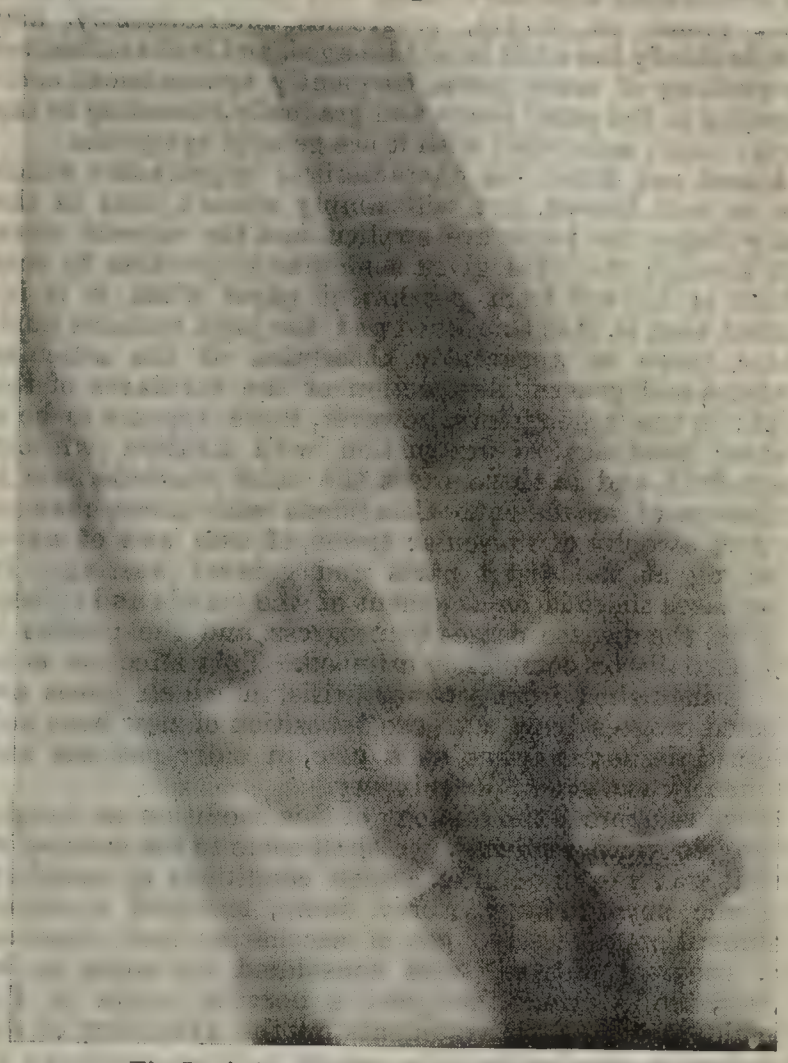

Fig. 5.—Antero-posterior view before operation.

lower growing end of the bone, because such a substance tends to determine a local arrest of growth.

The specimens from the Museum on the table show that in former years the operative treatment of these injuries near the elbow-joint, either because of the incidence of suppuration or because of im

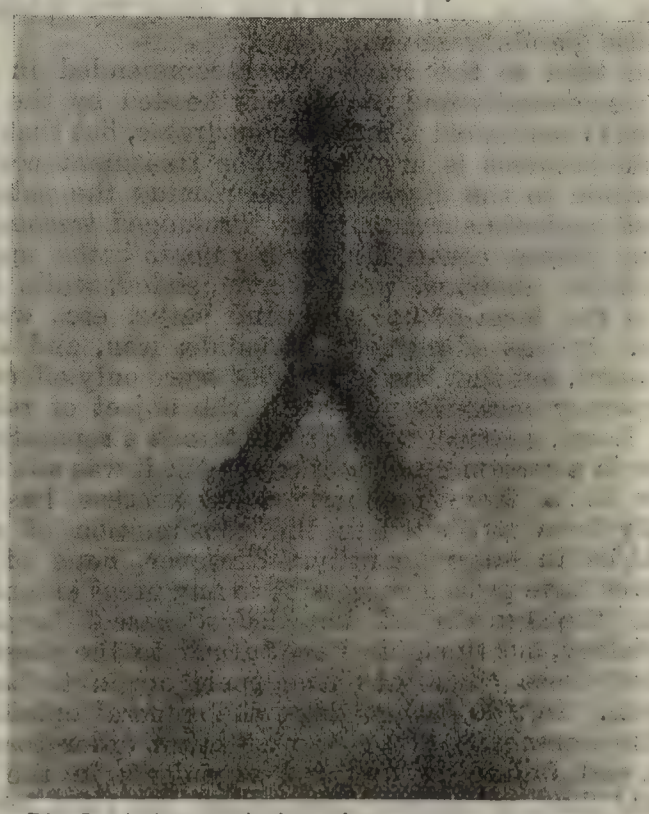

Fig. 7.—Antero-posterior view some weeks after operation obscured by callus.

paired mobility of the joint, was limited to excision. Excision of the lower end of the humerus for an unreplaced fracture or separation of the lower epiphysis at the present time is really the result of an error of judgement as to the suitability of the case for operation in the week following the accident.

# RHEUMATOID ARTHRITIS.*

BY J. CHARLTON BRISCOE, M.D., F.R.C.P.,
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By rheumatoid arthritis I mean the condition which, as a rule, comes on slowly, progresses intermittently, and affects chiefly the adult or middle-aged, and is characterized by swelling of many joints, frequently symmetrical, commencing in the small joints and gradually extending to the larger ones; associated with it are general symptoms.

I need not detail the characteristic appearances which are so well known, but will simply remark that in the early stages the joints are swollen, and the capsule when felt through the skin gives a similar impression to that which is derived from parchment paper when it is indented, that is, it is thickened and the joint contains fluid. Later there is apparently absorption of the articular surfaces and general destruction of the cartilages of the joint; in the larger joints, however, there appears to be a greater tendency to destruction with fixation without much fluid, and in these cases the chief characteristic is limitation of movement. Coincident with these changes we find atrophy of muscular tissue, of skin and of nails, sweating at the distal parts and general wasting. In some cases there is enlargement of the glands and spleen. Finally, the disease ceases to progress, and the patient is left partially or completely crippled. This affection is to be distinguished from osteo-arthritis, in which joints are affected progressively with the deposition of new bone and calcified tissue; it arises, as a rule, in older patients and frequently at the site of an injury.

If we remember the etiology of this condition as taught when we were students, we shall come to the conclusion that it was very indefinite. Such conditions as heredity, hygienic surroundings, worry, damp, localized anaemia, malnutrition, excessive use of saccharine food, dissolute life, venereal disease, were considered by some to be causes, while others assigned a nervous origin to the affection, basing their arguments on the symmetry of the distribution, similarity of the lesions to those occurring in locomotor ataxy, syringomyelia, etc., and on the atrophic conditions associated with those diseases, and on the importance of mental exhaustion, shock, etc. Following these came the theory of the infective origin of the disease, supported by the fact that micro-organisms had been found in the tissues, that an acute onset occurred in a small proportion of cases, that it occasionally followed an acute affection, and that in some cases the spleen and lymphatic glands were enlarged.

If we turn to the treatment recommended in those times, we generally find that this is headed by the statement that rheumatoid arthritis is incurable, but that sometimes the progress is arrested. The treatment consisted in attention to the digestion, and placing the patient in the best hygienic surroundings. Prolonged treatment at watering places, consisting, as a rule, in baths, massage, and copious libations, were recommended, while locally heat, in the form of hot air, sand baths, etc., was prescribed. It was admitted that iodide, iron, and arsenic were useful, but that the salicylates were only effective as a temporary measure and with the object of relieving pain. Later, guaiacol carbonate obtained a reputation for success in a certain number of cases, but it was admittedly useless in a large number. Some success has more recently been attributed to the consumption of certain vegetables in large quantity. However, none of these measures have proved successful to any great extent.

With the growth of knowledge, based largely on bacteriology, our thoughts have turned to the question of whether these conditions owe their origin to bacterial infection. In the earlier days the general opinion was that the organisms must be present, in order to cause a lesion, and failure to find the organisms in the blood, synovial fluid, or tissues surrounding the joint tended to put this suggestion out of court. Further, those who found the same organisms in each case were not believed. Latterly it has been recognized that lesions may result from the toxins of the organisms, the latter remaining at a distance and not producing septicaemia. If this view be accepted—and I think clinical evidence points to its correctness—it is obvious that the site of the original infection may be various and not always patent. The different sites of a primary lesion may also explain the varied results of treatment.

Turning now to the clinical side, there is sound evidence to show that there is a condition of acute rheumatoid arthritis which simulates acute rheumatism in many particulars. Thus there may be a sudden onset, with general febrile symptoms, a multiplicity of joints involved, and a high temperature; but it differs from acute rheumatism in that the heart is not affected, the tongue has not the typical coating, there is much less sweating, and salicylates do not produce the classical improvement. These points indicate a marked difference, and, whether or no the diseases are actually different, it is quite possible to prophesy correctly whether salicylates are going to produce a satisfactory action. I think a good working hypothesis for these two conditions is that acute rheumatism is an intestinal toxaemia, while acute rheumatoid arthritis is a toxaemia derived from another source. Salicylic acid is a derivative of carbolic acid, and has strong antiseptic properties; it, therefore, should have considerable effect on organisms inhabiting the alimentary tract, but little on an infection elsewhere. In either case the pain is diminished by this drug, but in acute rheumatism the temperature is rapidly reduced to normal; whereas in acute rheumatoid arthritis the relief is less, and the temperature not affected. The cases of acute rheumatoid arthritis which I have seen have shown the best results when some septic focus has been removed. Thus, in the case of a man 43 years of age, who had been treated with salicylates for six weeks without any effect, and who in addition to a temperature varying between 101° and 103.5°, gradually developed pleurisy with effusion and some ascites, the temperature fell to normal, and the fluid in the various synovial sacs began to be absorbed promptly after the extraction of a number of septic stumps. Other cases of that condition which I have myself seen have been due to oral sepsis, but the histories of still other cases, where an acute onset had been described, point to such conditions as pus in the antrum of Highmore, infection of the urinary tract and closing of a discharging sinus, as being capable of producing a similarly acute attack. The association of arthritis with the gonorrhoeal infection also comes readily to mind. I think, therefore, there is ample evidence to show that acute symptoms may arise in the course of a chronic infection not localized to the part infected.

Turning now to the subacute variety with slow onset and gradual progress, I have seen cases in which there was a chronic affection of the mouth (pyorrhoea), antrum of Highmore, urinary system, vagina, bronchiectasis, and have met others in which the process has been brought to a standstill by the constant administration of intestinal antiseptics. Others are recorded in association with chronic proctitis. From the appearance of the lesions it is not possible to exclude gonococcal infection—that is to say, there is nothing absolutely characteristic of arthritis due to the gonococcus affecting many joints subacutely. There are two points as regards the subacute cases which are, I think, of considerable interest. First, the preliminary symptoms are very definite. Of these the most characteristic are feelings of numbness in the extremities with stiffness, chiefly complained of in the morning, and associated with weakness of muscular power. The fingers also go dead—pale usually, sometimes cyanosed. At this stage there is no atrophy of muscles; there are also general symptoms referable to the anaemia, occasionally some enlargement of the thyroid, spleen, and lymphatic glands; the blood pressure is also low.

In connexion with thyroid enlargement I might mention the case of a nurse who developed an enlargement of the thyroid gland, tremor, rapid pulse, low blood pressure, and some general symptoms suggesting a condition of exophthalmic goître. She was considered to be an early case of this condition, and before being put to bed for a long rest was sent to the dentist to have her mouth put in order. Several teeth were stopped and three bad ones removed. She was then put to bed, but at the end of a fortnight all her symptoms had disappeared; she resumed her duty and during the past three years has had no recurrence of symptoms of a similar kind.

The second point of interest is that, as far as clinical history can determine, the joint condition does not come

* A paper read before the Lambeth Division of the British Medical Association at the Evelina Hospital, S.E., November 24th, 1910.

on simultaneously with the commencement of the infection. Apparently there is always an interval of at least a year or eighteen months before the joints begin to swell. Two severe cases of this condition occurred in patients one of whom had had a discharging maxillary antrum for thirty-five years, and the other of whom did not know of any site of infection. In this case, however, the urine was always cloudy, even a catheter specimen (the patient was a girl), and microscopical examination and cultural methods showed that this cloudiness was due to staphylococci in large quantities.

There must, of course, be some other factor at work besides infection. Probably the toxin has to be absorbed rapidly and in large quantities in a short time. Some of the worse cases have occurred in patients who had pyorrhoea beneath a dental plate or teeth on which gold caps had been placed in the usual manner—that is, so as to project below the free margin of the gum—which would in either case produce local irritation with increased areas of vascular granulation tissue. The latter is a frequent device of the American dentist, and has been copied in this country, whereas the former condition is not uncommon in patients who have been to some quack dental operator where payment is made in proportion to the number of teeth supplied. To these cases the operator naturally wishes to supply a full set, and, "to prevent the shape of the mouth falling away," breaks off the crowns of all the remaining sound teeth, and leaves the roots *in situ*. These decay, and the pus is found exuding from the sockets from within and without the root. This condition may frequently be seen in the out-patient department. It is a remarkable, and from the patient's point of view unfortunate, clinical fact that these patients assert that they do not know what tooth-ache is. To illustrate these points it may be worth while to give one or two cases more fully.

CASE I.

H. B., aged 23 years. *History:* She was first seen by me in November, 1909; two years previously she had been for seven weeks an in-patient in hospital, suffering from typical rheumatoid arthritis, affecting hands, feet, wrists, and elbows. Under general treatment she improved, and was able to do her work until May, 1909. At this time her left knee began to swell, the right got painful, her neck became stiff, and the movement of her jaw was limited. The right wrist and hand were also affected, and the joints swollen and painful. Examination showed that all these joints were distended with fluid, that there were in addition two septic stumps and a small amount of diffusely scattered pyorrhoea. The stumps were removed and the pyorrhoea treated. This was followed by general improvement, so that two months later the only trouble complained of was the left knee, which still contained fluid, but it was noticeable that the synovial membrane, instead of being distended, was now quite slack. This was painted with iodine and bandaged, and a month afterwards the swelling had completely disappeared. Two months after this she returned again with swelling of the joint. Inspection showed that, while pyorrhoea was not extensive, there was a sinus between the two front teeth in the lower jaw. As she had a particularly good set of teeth, and as the retention of these teeth was important to her, she being a mannikin, a culture was made, and a vaccine, obtained from the streptococcus cultivated, was injected. She now turns up, at periods varying from six weeks to two months, for an injection, coming as soon as there is any symptom of swelling or pain. Her joints, with the exception of these occasional recurrences, are perfectly natural.

CASE II.

B.C., aged 29, a domestic servant, was sent up on account of pain and swelling in hands and feet, and occasionally in other joints. This had started two years previously with stiffness in the fingers and sensations of deadness which were worse in the mornings and gradually passed off with the use of the hands. A year after the onset the joints began to swell, the metacarpal and metacarpo phalangeal joints of both hands were distended with fluid, and the synovial membranes were thickened. The feet were painful, but not swollen, the knee-joints were symmetrically distended with fluid, but almost painless. The skin of the hands was moist, and she complained of this as a source of trouble to her in her occupation. She was well developed, but said that she was thinner than previously. Intestinal symptoms were marked—indigestion, flatulence, and constipation. The teeth were good, there was no bacilluria, and there was nothing to point to any disease of the antrum; in fact, nothing to suggest localized infection anywhere. She was treated with purgatives and 5 grains of guaiacol carbonate three times a day, and 1 grain of menthol when there was any symptom of indigestion. At the end of three and a half months the swelling of the joints had disappeared, but the pain still came on in the morning. She was then put on to 15 minims of dilute phosphoric acid, and a minim of creosote three times a day. Under this treatment, to which I shall refer later, the pain disappeared in the course of a month, and the stiffness in the course of a further month. During the eight months she was under treatment she gained 14 lb. in weight.

CASE III.

This case, to which I have referred earlier, illustrates the long period over which suppuration may last before the onset of symptoms supervenes. Thirty-five years previously the patient had a discharge from his nose, for which he underwent two operations on his antrum, which were unsuccessful in relieving the discharge. In the intervening time he suffered from various pains, but three years ago his joints began to swell, toes, ankles, and knees. Eighteen months ago the following joints were affected, swollen, or deformed: Wrists, ankles, elbows, hands, shoulders, and the knees and jaws were stiff. He was a managing clerk in a good position, intelligent and cheerful. He volunteered the fact that aspirin and the salicylates were quite useless. He had been told to consume large quantities of spinach, but this had had no effect on his pains. He presented a very severe condition of this disease; there was marked ulnar deflection of both hands. The joints of his fingers and wrists were swollen and the capsule thickened; he had no arch to his foot; the ankle-joints were enlarged, distended with fluid, and painful. There was much pain under the balls of his toes, and there was marked restriction of movement at the elbow. The shoulders, elbows, knees, hips, and spinal vertebrae showed various degrees of ankylosis. He was very averse to an operation on his antrum which I urged on him, saying that he had had two previous operations, in both of which he had been promised a cure, and in neither had any such thing happened. I therefore obtained pus from his antrum, which contained streptococci in pure culture, and prepared a vaccine. The injection of this had no effect at all. He obtained six weeks' leave of absence, and was operated on, a radical cure of the antrum being undertaken. This operation proved successful, with the result that the fluid absorbed from the joints, but owing to the disorganization which had taken place, his general condition is certainly no better, probably worse. He has more pain in the ankles, due to pressure as a result of the absorption of the fluid, and is not able to get about as freely as before. He has now been recommended to try artificial supports, but I am afraid the outlook is not very hopeful for him.

CASE IV.

I will quote one more case of rather a different type. A. K. was admitted to the Hospital of St. John and Elizabeth with pain and swelling in the hands and feet. She was a bright girl of 19, who gave a history of the gradual onset of pain in the fingers and feet two years previously, commencing with stiffness and tingling, worse in the morning. She had gradually developed swellings of the metacarpo-phalangeal joints, first interphalangeal articulations and of the wrists. She had double flatfoot, distension of the ankle-joints, hallux valgus and tenderness under the balls of the toes. Sweating was marked; there was no appreciable atrophy of the muscles. All the other systems were normal, except that she was passing large quantities of cocci in the urine. These on culture proved to be *Staphylococcus aureus*. Attempt was made by the administration of urotropine and other antiseptics, and by washing out the bladder, to get rid of these organisms, but with no success. Bier's treatment to the legs and arms was also tried, but was equally futile. Vaccines were also injected, prepared from the culture obtained from the urine, but beyond producing some temporary relief of pain, did not influence the disease. At the end of a year she was in much the same condition as when first seen except that albumen had appeared in the urine, with epithelial and some fatty casts. She also had occasionally oedema of the ankles. None of the above measures had any effect, and she is passing into a condition of parenchymatous nephritis.

I have seen this happen in another case, and it is interesting as a possible cause of kidney change. These four cases illustrate some of the conditions which may be associated with this sort of joint affection.

If the source of infection in these cases of rheumatoid arthritis can be detected and removed, the condition of the joints does not progress, and providing this is done before deformity has taken place, with local and general treatment, they improve to a considerable extent. Indeed, the joints may so far recover as not to leave any sign of the pre-existing condition. It is a question how much treatment has to do with this improvement. I recently saw the case of a man, 38 years of age, who had had, two years prior to 1908, most of the joints of his hands and fingers swollen and distended for a period of eighteen months. Under no special treatment, either local or general, directed against this condition, they had so far recovered as not to arouse any suspicion of the preceding state. The relief coincided with the removal of bad teeth, and wearing a false set. On the other hand, when disorganization has occurred, removal of the original cause resulting in absorption of the fluid from the affected joints, may leave the patient in a worse condition than before. The roughened ends of the bones press one upon the other, and in such joints as those of the ankle and the

smaller joints of the feet, which have to withstand considerable pressure, the pain may be worse than before, and even produce actual crippling. This was the case in the patient mentioned previously, whose antrum had been discharging for many years. In this patient the disease had advanced to such an extent that the ulna was entirely dislocated from the carpus, and could be moved in any direction away from the radius.

The question next presents itself, Can anything be done to assist in restoring a joint to a better condition where impairment has occurred to only a slight degree? There is, of course, a natural tendency for the joint to revert to its original condition as the fluid absorbs. Care must be taken not to allow any loss of mobility, owing to the repairing process proceeding too far, and for this purpose massage and passive movements are very useful. When the original source of infection has been removed, such treatment as hot sand baths, local hot air baths, and counter-irritants are almost unnecessary. It must, however, be remembered that these patients are frequently wasted and thin and have lost muscular power and subcutaneous fats. Extra diet is therefore advisable and tonics to promote appetite and digestion are also of use. Pains may be relieved by counter-irritation of varying degree, temporary fixation, and anodyne ointments. In connexion with diet and tonics in this disease, the work of M. Joulie, a Frenchman, deserves mention and, I think, considerable praise. This work seems to have escaped notice owing, perhaps, to the fact that M. Joulie is not a medical man, but his principles have been acted on by Dr. Nicolaidi of Paris. My attention was directed to this work through an article by Dr. Watkin, which was published in the *Lancet* of June 20th, 1908, which gives a good account of M. Joulie's work. The principle of the treatment consists in rectifying the condition of the urine in two points—first, the acidity, and, secondly, the quantity of phosphates which are excreted—and is based on the fact that the acidity of the urine is normally due to acid sodium phosphate. Both of these quantities are estimated relatively to the specific gravity of the urine. This appears to be a fair method, because the specific gravity of the urine is dependent on the quantity of solids, and there should be in freshly-passed urine a definite relationship between the acidity, the phosphates (when the acidity is dependent upon acid sodium phosphate), and the total solids.

It should be noticed that by this method it is claimed that the acidity is estimated in relation to the phosphoric acid, which is capable of holding lime in suspension. The French workers take this a step further and claim that the acidity and phosphate excretion in the urine depends on a similar condition in the plasma, and say that urine which is too acid indicates a plasma which is also too acid, and vice versa. Similarly, when the urine contains a quantity of phosphates above the normal, the deduction is that phosphates are circulating in the plasma in excess of the normal. There may be thus several abnormal conditions, three of which will be mentioned here, as bearing on arthritis. The first stage is an increased excretion of both alkaline and earthy phosphates, with no symptoms. When all the phosphates which can be spared have been eliminated, the quantity excreted diminishes, the cells of the body retaining all that is possible, and the deficit is further accentuated by faulty digestion. Then follow the next two stages in which symptoms of pain, etc., are present (*a*) Both acidity and phosphate output are less than normal, but the acidity is proporately too high; (*b*) the acidity is above normal, and the phosphate output is below normal, the acidity again being proportionately high. The acidity is here due to some other acid than the acid sodium phosphate. The alkaline phosphates are more easily excreted than the earthy phosphates. The earthy bases, combined with some other acid, such as oxalic, and insoluble owing to deficient acid phosphate, are carried as sand or gritty particles in the circulation. These settle especially where the circulation is slow—for example, in granulation tissue and inflamed areas—causing pain, etc. This may be an explanation of the deposition of lime in the neighbourhood of these chronically inflamed joints. It may seem strange to suggest that the plasma is acid, but acidity is, after all, a relative term, and is to some extent dependent on the indicator used. For instance, acid sodium carbonate $NaHCO_3$ is a chemically acid salt, and yet turns red litmus paper blue, but is neutral to phenolphthalein and wholly alkaline to methyl orange. It is well recognized that carbon dioxide exists in simple solution in the plasma, and it could not do so unless the plasma acted as an acid. In this sense, therefore, the plasma may justly be regarded as an acid of an avidity comparable with that of $CO_2$. M. Joulie ascribes these changes to the results of faults of digestion, but it is equally possible that they follow toxic conditions.

There has only been time to give the briefest outline of this work, and many points have been left untouched. This is, of course, only a theory, and is probably too simple to be true, but it forms a working hypothesis. It is certainly possible to modify both the acidity of the urine and the amount of phosphate it contains by the administration of different preparations of phosphoric acid or phosphates. It is also true that the urine in these patients does contain too low a quantity of phosphate and is proportionately high in acidity. After making a large number of observations, I do not feel justified in accepting the French standard of the normal, but the deviations from the normal encountered after a prolonged illness and in cases of arthritis are very great, and certainly fall outside the limits which I find to be compatible with a normal standard. By the administration of phosphoric acid or of different forms of phosphates, as indicated by the estimation, bringing the proportion of these substances—acidity and phosphates in the urine—up to a normal, there is undoubtedly improvement in the general and local condition. I therefore advocate the employment of the various forms of phosphoric acid and phosphates in conditions of chronic arthritis, as relieving pain and producing improvement in the local conditions of the joints and in the general physical condition.

In conclusion I should like to mention one case, which, although not arthritis, indicates the value of this method of treatment.

A girl, aged 23, came to King's College Hospital complaining of a swollen thumb and of the presence of certain yellowish particles which kept appearing, coming to the surface, and then discharging a putty-like material. She gave the history that some two and a half years previously she had run a splinter into this thumb while polishing a table, that the thumb had suppurated, been opened, and then healed, and that subsequently these yellow points had appeared. The thumb was bulbous, and there were five or six yellow spots under the cuticle about the size of the head of a bonnet pin. These on being examined proved to consist of calcium carbonate; there was, in addition, some contracture of the palmar fascia, and marked limitation of pronation in both arms, stiffness and pain in the forearms also being complained of. It was in connexion with this case that I first looked up the French work. An estimation of the urine showed that the acidity was not normal, and this was therefore corrected. This treatment resulted in the prevention of the deposit of further spots, and in the disappearance of the fascial contractions, so that the fingers can now be extended and the arms fully pronated.

It is inviting to suggest that the fascial pains and contractures which were present in this case were due to a deposit of lime in the fascia, and to go further and suggest, following M. Joulie, that the common fascial pains which most of us experience owe their origin to a similar cause.

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THE Jeyes' Sanitary Compounds Company has received the warrant of appointment for disinfectants to Queen Alexandra. They also hold the royal warrant to King George.

UNDER the will of the late Lord Swaythling, head of the banking firm of Samuel Montagu and Co., the London Hospital, the Metropolitan Free Hospital, and the Jews' Hospital and Orphan Home, each receive a sum of £500.

THE total number of medical students in the Universities of Germany during the current winter semester is 11,156, being an increase of 31 as compared with the corresponding period of the academic year 1909–1910. Of the number 496 are women. The students are distributed as follows: Berlin, 1,864, of whom 159 are women; Bonn, 452 (including 30 women); Breslau, 438 (19 women); Erlangen, 291 (15 women); Freiburg, 732 (50 women); Giessen, 209 (17 women); Goettingen, 248 (10 women); Greifswald, 212 (2 women); Halle, 308 (7 women); Heidelberg, 509 (52 women); Jena, 305 (11 women); Kiel, 412 (13 women) Koenigsberg, 399 (13 women); Leipzig, 758; Marburg, 328 (6 women); Munich, 2,119 (59 women); Muenster, 162 (4 women); Rostock, 240 (2 women); Strassburg, 318 (7 women); Tuebingen, 333 (12 women); Wuerzburg, 530 (8 women).

# NOTE ON TWO CASES OF PERNICIOUS ANAEMIA TREATED BY SALVARSAN.

BY

BYROM BRAMWELL, M.D., P.R.C.P.E., F.R.S.E.,

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SINCE I began to treat cases of pernicious anaemia by arsenic in the year 1875 I have had a large experience of the disease. The results of my observations show: That in a large proportion of cases marked improvement, and, in many cases, temporary cure, result from the arsenical treatment; that the improvement is greatest in first attacks and in cases in which the patient can take large doses of arsenic; but that in the great majority of cases, notwithstanding the arsenical treatment, relapses occur, and death ultimately takes place.

The term "pernicious," in my opinion, correctly represents the tendency of the disease notwithstanding all modern plans of treatment. When Ehrlich introduced his "606" (arseno-benzole) for the treatment of syphilis, it occurred to me that the remedy might perhaps be useful in the treatment of pernicious anaemia; I consequently decided to try it in that disease.

In the following two cases the patients were suffering from all the typical symptoms of pernicious anaemia. Under ordinary arsenical treatment (the maximum dose in one case 36 drops per diem, and in the other 27 drops per diem of Fowler's solution) considerable improvement occurred both as regards the condition of the blood and the general symptoms.

The arsenic (Fowler's solution) was then discontinued for several days, the condition of the blood and of the patients remaining practically unchanged.

The treatment by salvarsan was then commenced; each patient has had four doses of the remedy administered intramuscularly. In both cases very marked and continued improvement has resulted, both as regards the condition of the blood and the general symptoms (see below).

I do not wish to draw conclusions from two cases, or to attach too much importance to the beneficial results which have occurred in these two cases in which salvarsan has been administered; all I would say is that in them, notwithstanding the discontinuance of the ordinary arsenical treatment (Fowler's solution) and the administration of salvarsan, marked and continued improvement has occurred. Whether this improvement is the result of the salvarsan or not will have to be decided by the observation of further cases, and particularly of cases in which no arsenic has been previously administered. But the improvement in these two cases has been so marked as to justify a thorough trial of the remedy ("606") in this disease (pernicious anaemia).

The notes of the cases are as follows:

### CASE I.

J. S., aged 49, married, electric hoist man, formerly a soldier, was admitted to the Edinburgh Royal Infirmary on October 12th, 1910, suffering from marked pernicious anaemia.

*Previous History.*

The patient first came under my observation in October, 1909, as an out-patient; he was then suffering from pernicious anaemia, not very marked in degree. He was treated with arsenic, and rapidly recovered. He returned to work, and remained fairly well until the beginning of October, 1910; he then got a chill, rapidly became markedly anaemic and very short of breath; his feet swelled, etc.

The patient denies having ever suffered from venereal disease. The bridge of his nose is sunken. The disease of the bones of the nose developed spontaneously when he was 18 years of age, and was, perhaps, the result of congenital syphilis; there are, however, no other stigmata of that condition.

*State on Admission to Hospital.*

The patient presented all the typical symptoms of pernicious anaemia. The blood count was as follows: Red corpuscles, 1,035,000; haemoglobin, 30 per cent.; colour index, 1.5; whites, 7,800. Differential count: Polymorphs, 56.6 per cent.; mononuclears, 41 per cent. (large 15 per cent., small 26 per cent.); eosinophiles, 2.3 per cent. The red corpuscles showed marked alterations in size and shape (poikilocytosis), polychromasia and granular degeneration. No nucleated reds were seen.

The patient was very short of breath on exertion; his feet and ankles were oedematous; there were no retinal haemorrhages. The systolic blood pressure was 88 mm. of mercury. Blowing systolic murmurs were present in the mitral, pulmonary, and aortic areas. The tongue was clean and moist. There had been no sore spots on the tongue or mouth. The patient had had no teeth for several years; his gums were perfectly normal; the false teeth which he wears had given rise to no irritation. The urine was pale in colour, specific gravity 1012, and contained no abnormal constituents.

*Treatment and Results.*

Rest in bed; milk diet; arsenic (Fowler's solution), commencing with 2 minims, three times daily. When the arsenic was increased to 4 minims three times daily, diarrhoea developed; this was, however, easily restrained (as I have found to be the case in other cases) by combining a small dose of morphine (5 minims of the liquor morphinae hydrochlor.) with each dose of the arsenic. The arsenic was gradually increased to 12 minims, three times daily. The patient improved considerably under this treatment as regards his general symptoms, appearance, and the condition of the blood.

On December 16th, when the Fowler's solution was stopped, the red corpuscles numbered 1,830,000, the haemoglobin equalled 52 per cent., and the colour index was 1.44.

From December 16th to 21st no drugs were administered.

On December 21st the condition of the blood was: Red corpuscles, 1,720,000; haemoglobin, 50 per cent.; colour index, 1.4.

On this date the first dose of "606" (0.2 gram) was given, the remedy being injected into the left buttock. On January 5th and 19th and on February 9th the injections of "606" were repeated, 0.3 gram being given on each of these occasions.

Coincidentally with this treatment very marked improvement has occurred. The patient now (February 23rd, 1911) looks and feels quite well. The blood count is as follows: Red corpuscles, 3,580,000; haemoglobin, 78 per cent.; colour index, 1.1. The white corpuscles, which before the administration of the "606" numbered 4,600, now number 8,000 per c.mm. The systolic blood pressure has increased to 135 mm. of mercury.

Each injection was followed by inflammatory hardness and pain in the buttock, but by practically no constitutional disturbance. The first injection was made into the left, the second into the right, the third into the left, and the fourth into the right buttock.

The condition of the blood at different dates is shown in Table I.

### CASE II.

Mrs. E. P., aged 40, married, housewife, was admitted to the Edinburgh Royal Infirmary on November 15th. 1910, suffering from marked pernicious anaemia of four months' duration The disease commenced after the birth of her last child; this and her previous seven confinements have all been attended with considerable haemorrhage.

TABLE I.

CASE I.—*Pernicious Anaemia—Showing the Results of Treatment.*

| Date. | Treatment. | Dose. | Red Corpuscles. | Haemoglobin. | Colour Index. | White Corpuscles. | Blood Pressure. |
|---|---|---|---|---|---|---|---|
| | | | | Per Cent. | | | |
| October 12, 1910 ... | Arsenic begun | 2 m., t.i.d. | 1,035,000 | 30 | 1 5 | 7,800 | 88 |
| December 16, 1910 ... | Arsenic stopped | 12 m., t.i.d. | 1,830,000 | 52 | 1.44 | 4,400 | 102 |
| December 21, 1910 ... | First injection "606" | 0.2 gram | 1,720,000 | 50 | 1.47 | 4,600 | 100 |
| January 5, 1911 ... | Second injection "606" | 0.3 gram | 2,500,000 | 68 | 1.3 | 5,600 | 130 |
| January 19, 1911 ... | Third injection "606" | 0.3 gram | 2,960,000 | 70 | 1.18 | 8,200 | 100 |
| February 9, 1911 ... | Fourth injection "606" | 0.3 gram | 3,200,000 | 72 | 1.1 | 9,000 | 118 |
| February 20, 1911 ... | — | — | 3,380,000 | 78 | 1.16 | 8,000 | — |
| February 23, 1911 ... | — | — | 3,580,000 | 78 | 1.1 | 8,000 | 135 |

TABLE II.

CASE II.—*Pernicious Anaemia—Showing the Results of Treatment.*

| Date. | Treatment. | Dose. | Red Corpuscles. | Haemoglobin. | Colour Index. | White Corpuscles. | Blood Pressure. |
|---|---|---|---|---|---|---|---|
| | | | | Per Cent. | | | |
| November 15, 1910 ... | Arsenic begun | 2 m., t.i.d. | 990,000 | 30 | 1.6 | 4,600 | 108 |
| December 16, 1910 ... | Arsenic stopped | 9 m., t.i.d. | 1,460,000 | 45 | 1.5 | 4,200 | 94 |
| December 24, 1910 ... | First injection "606" | 0.3 gram | 1,760,000 | 52 | 1.48 | 3,000 | 102 |
| January 7, 1911 ... | Second injection "606" | 0.3 gram | 2,450,000 | 68 | 1.38 | 4,000 | 108 |
| January 24, 1911 ... | Third injection "606" | 0.3 gram | 3,125,000 | 74 | 1.19 | 7,000 | 98 |
| February 9, 1911 ... | Fourth injection "606" | 0.3 gram | 3,350,000 | 78 | 1.16 | 7,800 | 98 |
| February 18, 1911 ... | — | — | 4,140,000 | 88 | 1.07 | 7,600 | 102 |
| February 21, 1911 ... | — | — | 4,020,000 | 88 | 1.1 | 6,200 | — |

*Previous History.*

Two years ago Professor Caird removed a tuberculous tumour from the sternum; otherwise she had enjoyed good health until the present illness commenced. Some three weeks before her admission she suffered from sore spots on the mouth and tongue. For many years past her teeth have been extremely bad. There is no suspicion of syphilis, unless two miscarriages and the death of a child, aged 8 months, were due to syphilis. The patient has six children alive and well.

*State on Admission to Hospital.*

The patient was very pale; during the past two years she has lost more than a stone in weight. There is a curious patch of herpes on the nose.

The condition of the blood was as follows: Red corpuscles, 990,000; haemoglobin, 30 per cent.; colour index, 1.6; whites, 4,600. Differential count: Polymorphs, 74 per cent.; mononuclears, 17 per cent. (large 6 per cent., small 11 per cent.); eosinophiles, 7 per cent.; basophiles, 2 per cent. The red corpuscles varied very greatly in size and shape. There were some nucleated reds; no granular degeneration or polychromasia.

Blowing systolic murmurs were present in the mitral, pulmonary, and aortic areas. The pulse numbered 100. The systolic blood pressure was 108 mm. of mercury. The tongue was pale and clean; the teeth very bad. The urine was dark in colour, specific gravity 1010, and contained no abnormal constituents. There were no haemorrhages in the retina.

*Treatment and Results.*

The arsenical treatment was commenced on November 15th; 2 minims of Fowler's solution three times daily. The dose of arsenic was gradually increased until December 16th, when the patient was taking 9 minims of Fowler's solution three times daily. On November 26th, 1910, a slight thrombosis developed in the lower part of the right calf, but this rapidly yielded to treatment.

On December 16th Fowler's solution was stopped. The red corpuscles then numbered 1,460,000, the haemoglobin was 45 per cent., and the colour index 1.5. From December 16th to 24th no drugs were given.

On December 24th the red corpuscles numbered 1,760,000; haemoglobin, 52 per cent.; colour index, 1.48.

On December 24th, January 7th and 24th, and February 9th, 0.3 gram of "606" was injected into the buttock. Coincidentally with this treatment very marked improvement has occurred. The patient now (February 23rd) looks and feels quite well.

On February 21st the blood count was as follows: Red corpuscles, 4,020,000; haemoglobin, 88 per cent.; colour index, 1.1. The white corpuscles, which before the administration of "606" numbered 3,000, now number 6,200. The systolic blood pressure has remained practically unaltered during the treatment.

Considerable hardness and tenderness in the buttock resulted from each injection, but there was little or no constitutional disturbance except after the last, which was followed for a few days by a swinging temperature.

March 3rd. Since the last note there has been pain and pleuritic friction over the lower part of the left chest, and some painless enlargement of the glands in the neck.

The condition of the blood at different dates is shown in Table II.

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IN a report to the Persian Sanitary Council, Dr. MacConaghy, the representative of the council in the Persian Gulf, states that the sanitary facilities at Bender-Abbas, Jask, Bouchir, Lingah and Mohammerah are relatively satisfactory. Each of these ports has a disinfecting apparatus, and at Bouchir there is also a Clayton installation for what is rather quaintly called the "deratisation" of ships. Bouchir also possesses a portable disinfector which can, when necessary, be sent to any point on the coast.

# The Lettsomian Lectures

ON

# A REVIEW OF THE OPERATIONS FOR STONE IN THE MALE BLADDER.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON.

BY

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## LECTURE III.

AN attempt was made by Deschamps in 1796 to revive the Marian operation on modified lines by what he termed a "mixed method." This resembled the lateral operation in the external incisions and the Marian in dilatation of the prostate and neck of the bladder, and he says, "who knows but at some future time surgeons may not be tempted to return to this method?" In 1819 Sir Astley Cooper extracted a stone as large as a walnut by this mixed method; in 1830 it was advocated by Dr. Buchanan of Glasgow, and in 1842 it was again brought forward by Dr. Willis. It received the name of "lithectacy," and then was heard of no more. By this time the lateral operation was becoming firmly established, and in 1853 Coulson says, "The lateral operation is now universally adopted, not only in this, but in all other countries, and hence we have prima facie reason for concluding that as a general method it is the best." The rectangular staff of Buchanan was by some preferred to the ordinary curved staff as facilitating the opening of the urethra and the passage of the knife through the prostate, but this in no way modified the steps of the lateral operation, nor was it at all widely used.

The first idea of the bilateral operation appears to have been due to Le Dran, who, in performing the lateral operation, sometimes found his internal incision was not sufficiently free. He therefore divided the right side of the prostate as well as the left. Sir Astley Cooper and others adopted the same practice. These operations, however, resembled the bilateral method only so far as the double incision of the prostate. The bilateral operation as a definite procedure was finally established by Dupuytren in 1824, and is described by William Coulson in his work on lithotrity and lithotomy published in 1853: "The patient is placed in the same position as for the lateral operation, an assistant holding the staff in an exactly vertical direction. The surgeon keeps the integument tense with the fingers of the left hand, and with a double-edged knife makes a semilunar incision in front of the anus. The incision commences on the right side, between the anus and the right ischium, ascends towards the raphe, and terminates on the left side, on a level with a point whence it set out. The middle point of the semilunar incision should traverse the raphe about ten lines in front of the anus. It involves the skin, the superficial perineal fascia, and the anterior fibres of the sphincter ani. The left forefinger is now passed into the wound, and guides the knife during a second incision which lays bare the membranous portion of the urethra; the nail now guides the point of the knife

into the groove of the staff at this part, and the membranous portion of the urethra is opened transversely to the extent of two or three lines, in order to avoid any danger of wounding the rectum. The extremity of the double lithotome is next introduced into the groove of the staff through the small incision alluded to, with its convexity turned towards the rectum, and, once fixed in the groove, it is pushed on into the bladder. The staff is now withdrawn, and the lithotome turned so as to present the concavity downwards, the blades are opened, and the instrument withdrawn in a perfectly horizontal direction. The parts divided in this second stage of the operation are the membranous portion of the urethra along the middle line, the prostate, and the neck of the bladder on both sides, in a merely transverse direction, and to an extent proportioned to the separation of the blades of the lithotome." The quadrilateral method of M. Vidal de Cassis was proposed in 1828. The first transverse incision was made as by Dupuytren, and then the prostate was divided in four directions, but the operation was never taken up. In 1824 Aston Key of Guy's Hospital published "a short treatise on the section of the prostate gland in lithotomy with a safe and easy method of conducting the operation on the principles of Cheselden"; in this he gives an account of the staff he invented for the purpose. This he designed to obviate the dangers attending the use of the gorget, and at the same time to adhere closely to the principles laid down by Cheselden in his second operation. His first attempt was made on a child who had died with a stone in its bladder, and having no proper instruments at hand he used a scalpel, a director and a pair of dressing forceps, and was struck with the ease with which the director entered the bladder. His original staff was therefore made straight, but, thinking that in depressing the handle its point might be caught by a projecting fold in the bladder, it was made subsequently with a slight upward curve at its extremity. The groove was deeper than in the common staff, to prevent any risk of the knife slipping out. The extremity was not grooved but rounded to prevent abrasion of the prostate, or mucous lining of the bladder. He points out the advantages of a straight over a curved line as a conductor to a cutting instrument, but its chief superiority consists in allowing the surgeon to turn the groove in any direction he may wish.

Before carrying the knife into the prostate, the groove, which has been held downwards for the first incision, may be turned in any oblique line towards the patient's left side that the operator may think preferable. If the surgeon preferred to use a gorget he could do so. The knife used resembled an ordinary scalpel, but was longer in the blade, and both superficial and deep incisions were made with this. The opening in the prostate could be regulated by the angle the knife made with the director. The operation was performed by passing the staff, making the usual lateral incision down to the urethra; the point of the knife was then placed in the groove in the staff. The handle of the staff was next taken in the left hand of the operator and depressed, and the groove in the staff and the edge of the knife were both turned obliquely to the patient's left side. The knife was passed on into the bladder and the prostate divided; on removing the knife the finger was introduced into the bladder and the staff withdrawn. The forceps were then passed and the stone removed.

This operation found great favour at Guy's Hospital, where it was practised for many years. Skey, however, in his *Operative Surgery*, published in 1850, criticised the straight staff of Key. He considered that "however successful in his hands, it has this defect, that it forms no guide, and as it were gives no support to the first incision. It is, however, very efficient as an agent of directing the second incision into the bladder, when its groove is once opened." He therefore had a staff "made convex in the perineum and straight beyond the curve to the point," allowing "facility of exposure of the groove, and ease in the transmission of the knife into the bladder." He also advised that the whole operation should be performed with one knife, as was first done by Aston Key.

The recto-vesical operation is said to have been performed by the Egyptian lithotomists from time immemorial, and was written about in the sixteenth century by a writer under the assumed name of Vegetius. It was described by Hoffman in 1779, and by Martin in 1817. M. Sanson brought it before the notice of the profession in France in 1817. He performed it in two ways. By the first method the patient was placed in the lithotomy position, and a staff was introduced into the bladder, the assistant being directed to keep it perfectly vertical. The left forefinger was introduced deeply into the rectum, and a straight bistoury was passed sufficiently high up (10 to 12 lines) into the gut. The edge was then turned upwards, the point of the bistoury was passed through the anterior wall of the rectum, and, with a single cut as the knife was withdrawn, the external sphincter and the inferior portion of the rectum were divided along the middle line; the lower surface of the prostate was thus exposed. The forefinger then easily felt through the thin walls of the bladder the groove in the staff. The point of the bistoury was now made to enter the groove in the staff just behind the prostate, and the wall of the bladder was divided in the middle line for about an inch in length. Sanson, however, soon gave up this method, and substituted for it the one practised by Vacca. In this, the point of the knife having passed through the wall of the rectum, the sphincter ani and the perineum were divided from the anus to the bulb. The prostate was now exposed, and in front of it the operator felt the groove in the staff in the membranous urethra; he then inserted the blunt end of the bistoury in the groove at this part, and, raising the staff a little, he passed the bistoury forwards until its point was just beyond the neck of the bladder. The handle of the bistoury was then lowered, and the prostate was divided directly downwards on the middle line. This incision did not go beyond the limits of the gland, or touch the incision already made in the intestine. This method does not seem to have received any real support, for though by it the stone could be easily extracted, the danger of a recto-vesical fistula resulting was found to be a very real one.

The median operation was to some extent a modification of the Marian. In 1727 Douglas having observed the capability of distending the urethra under a gradual dilatation, suggested making an opening through the perineum into the urethra and then dilating with gentian and other tents; he came to the conclusion that "these artificial fistula may be dilated so as to extract any stone without cutting the body of the bladder or lacerating any of its parts." In 1796 Deschamps proposed a mixed method, but his incision was oblique and not median, and he dilated as in the Marian operation but more slowly. In 1819 Sir Astley Cooper extracted a stone through a fistulous perineal opening enlarged by the hydraulic dilator of Dr. Arnott. The dilatation lasted thirty hours, the stone was as large as a small walnut, the diameter of the passage being dilated to the extent of ¾ in. In the *Medico-Chirurgical Review* for 1846 there is an account of an operation by Joseph Bresciani de Borsa. This operation was a modification of one by Signor Manzoni of Verona published in 1808, and de Borsa states that of 100 cases operated on by that surgeon and himself only one died, and that from causes irrespective of the operation. Manzoni's operation consisted in cutting into the spongy portion of the urethra only, and then dilating the proximal portion sufficiently with the finger to admit the introduction of the forceps and the removal of the stone. De Borsa, however, carried his incision from the bulb to the prostate, not dividing this but dilating the prostate with his finger. A keen advocate of the median operation in this country was Allarton, who in 1854 published a work dealing with it under the title of *Lithotomy Simplified*. His method was as follows: After introducing a grooved staff into the bladder the left index finger was inserted into the rectum, its point resting against the prostate so as to fix the staff and serve as a guide to the knife. The perineum was next pierced just above the anus and the knife pushed on with its back to the rectum until it touched the groove in the staff. Its point was then pushed into the prostate for a distance of ¼ in. to ½ in., and the membranous urethra slit up to its full extent. As the knife was withdrawn the external incision was enlarged to from ¾ in. to 1½ in. by cutting upwards. A bullet probe was then passed along the groove of the staff into the bladder and the staff was withdrawn. The left index finger was next gradually introduced along the probe into the bladder and the forceps being inserted the stone was removed. He claimed the following advantages for this operation:

The impossibility of missing the bladder, the smaller amount of cutting than in the lateral operation; the neck of the bladder was uninjured; only a small quantity of blood was lost as the prostate was dilated and not incised; the urine was passed at once by the urethra as well as by the wound; the stone was easily reached; it was possible to break or crush the stone if necessary and to wash out the fragments from the bladder; the small amount of pain; the absence of danger from urinary infiltration; no muscle or vessel of any consequence was divided; there was no danger of wounding the rectum, the operation was easy to perform and recovery was rapid. The operation, however, though extensively practised in the provinces, never found much favour in London.

### LITHOTRITY.

The occasional passage of a stone by the urethra must have suggested to the careful observer the possibility of dilating the urethra so as to facilitate the passage of a small stone, or to enable one to be seized with a suitable instrument and drawn through the urethra, or of being able to break up a stone, already too large to pass, into small fragments which could be voided with the urine. Indeed, the breaking of a large stone had been practised from time to time for many centuries, when it was found to be impossible to extract it through the incision made in the Celsian operation. The Egyptians practised the removal of small stones by dilating the urethra, and the same method was adopted by the Arabians. Tolet, in his *Treatise of Lithotomy* published in 1683, quotes Prosper Alpinus, in his book of the medicine of the Egyptians, who describes their practice of extracting a small stone without making incision, but only by dilatation of the urethra by blowing into the yard. He, however, owns that he does not comprehend this method, nor does it seem that it could have been of much value. Like many other surgical procedures, the origin of lithotrity can be traced back for many centuries, though it was not placed on a sound footing until nearly one hundred years ago. The idea of extracting a calculus from the urethra without cutting was naturally suggested when it was impacted in that canal and was within reach. Such calculi were sometimes extracted whole, at others broken up to facilitate their removal. Hippocrates refers to Ammon of Alexandria, who broke up calculi with a mason's chisel, and was therefore called Lithotomos. The operation of breaking up urethral calculi was described by Albucasis, a Moorish surgeon, who lived at the end of the eleventh century (1090). The penis was tied between the stone and the bladder to prevent the stone slipping back, which was then broken by a kind of drill. Franco, in 1561, refers to the breaking of a stone, and gives the drawing of an instrument for perforating the calculus which he borrowed from Gui de Chauliac (1546). Franco also employed an instrument which he calls vesical à quatre for the extraction of calculi from the bladder. This consisted of an iron rod supporting four branches at its extremity, and enclosed in a cannula. Hildamus used a similar instrument having three branches, and later on these were reduced to two. Similar instruments were used by Hunter and by Sir Astley Cooper. The shape of these instruments may have been suggested by the ball extractor of Alphonso Ferri (1553), which was a three-branched instrument enclosed in a cannula, and both worked by a screw. With such instruments calculi were extracted from the bladder as well as from the urethra. In 1506 Antonio Benevieni broke up a stone in a female bladder by percussion; he fixed it by passing a hook behind it, and then struck it with an iron rod. In 1519 Alsaharavius suggested the idea of breaking small friable stones in the bladder with an instrument, but gave no description of it. In 1626 Sanctorius gave the plan of an instrument composed of a tube, one extremity of which was divided into three flexible branches. He says that if a fragment of a stone or an entire stone descended from the kidney and was not expelled with the urine soon after its descent into the bladder, it might be extracted by first filling this organ with water and then introducing the instrument through the urethra, the branches of which, when arrived in the bladder, should be expanded and applied close to the neck. He thinks that by then letting the water escape the stone would be carried forwards towards the three branches, seized by them, and extracted by withdrawing the instrument from the bladder. The next advance on this was to suggest that if the stone was too large to be removed it should be perforated, and this Haller seems to have suggested, though he believed it to be impracticable. In 1671 Ciucci, an Italian surgeon, speaks of a "tenacula tricuspis" for seizing the calculus and breaking it into fragments; and in 1791 Thomassini broke up small friable calculi in the bladder. In 1559 an Irish gentleman was cured of a stone by instruments being passed into his bladder, by which the stone was broken. The case of Colonel Martin is a somewhat similar one. He first tried to break off fragments of his stone with a catheter with small holes in it, but, not bringing away much, he then tried a bougie with a serrated extremity with more success; but, from his own account, it is evident he never really got rid of the stone. The case is referred to by Sir Everard Home in his *Disease of the Prostate*, and, though the colonel wrote an account of his case to his friends in 1791, saying that he was completely restored to health, Sir Everard says:

> There is nothing in his own narrative that gives the idea of his being free from considerable distress during any part of the time after the stones are stated to have been removed; and as he was allowed by his best and most intimate friends to shoot with a long bow upon ordinary subjects great allowances are to be made for him upon this, which was his hobby horse, on which he was anxious to be carried down to posterity as a conspicuous character.

In 1813 a Bavarian physician, Dr. Gruithuisen, demonstrated, what was known before, that a large straight sound could be passed on the living subject, and conceived it possible to attack stones in the bladder by mechanical power. Through a straight tube introduced into the bladder he recommended another to be passed conveying a metallic wire nicely adapted to encircle the stone and fix it against the open mouth of the second tube; a small trephine was to be introduced through this tube, and with this the stone, which was to be fixed by the loop of wire, was to be perforated. The trephine was to be worked by means of a drill bow; the instrument was, however, never used, and the project was soon forgotten. In 1819 an English surgeon, Dr. Elderton, proposed a somewhat similar instrument, but this was curved instead of being straight. In 1822 Amussat and Leroy introduced two instruments for breaking stones in the bladder. In M. Amussat's the destruction was effected by the pressure of the branches of which it was composed, which were made to act alternately by means of a lever. M. Leroy's instrument consisted of a hollow straight sound, through which passed a metallic rod turned by a winch handle and by this means the stone was to be perforated. The stone was secured by four watch springs, united together at one end by a kind of button, which, when the instrument was shut, formed the extremity of the sound, and when pushed out the two loops crossed and grasped the stone. M. Leroy successfully demonstrated its action on the dead body. He was not, however, satisfied with the instrument, and designed another made of a steel tube supporting three branches of the same metal, diverging from each other by their own elasticity and closing again by means of the external tube which drew them together when they were drawn into this. A drill was passed down the tube for the purpose of perforating the stone. To Civiale is due the credit of establishing the operation of lithotrity. In 1817, when an impecunious medical student, working under Dupuytren, he made some models in wood of an instrument for breaking up a stone in the bladder. He then applied to the French Minister for pecuniary assistance towards constructing his instruments, and forwarded a short memoir, entitled, "Some Details of a Lithontriptic." The matter was referred to the Faculty of Medicine, but no notice was taken of his invention. Nothing daunted, Civiale, who was convinced that his method would in time be successful, continued his researches, and in 1819 he reduced the six branches of his instrument to four, and in 1820 to three, adding the bow drill and other improvements. In January, 1824, he again addressed a memoir to the Institute of Medicine, and on the thirteenth day of that month he performed his first operation in the presence of the Commissioners who had been appointed to report on his work. The patient was freed from his stone in two sittings. On February 4th his second patient was operated on and the stone removed in four sittings, and on March 4th he secured a

similar success. On March 22nd, the Commissioners, Barons Percy and Chaussier, reported favourably on Civiale, and considered that he not only discovered the principle but the means of carrying it into practice. As the result of this impartial report, M. Civiale may fairly be regarded as the discoverer of lithotrity. The actual destruction of the stone was effected, after it had been seized, either by perforation, by percussion, or by crushing.

In 1825 Dr. Haygarth invented a sliding instrument for the purpose of extracting small calculi from the bladder, and at the suggestion of Mr. Hodgson, of the General Hospital, Birmingham, a screw was attached to the instrument so that it might be used for crushing, and in the same year Mr. Hodgson tried the instrument. Mr. Weiss had made in the previous year a crushing instrument, with the blades placed one over the other and having a gliding movement. True crushing appears to date from 1832, when Baron Heurteloup produced his percussor; this was soon modified so that it could be used either for percussion or for crushing. Some surgeons, however, returning to the principle of Mr. Weiss, gave up percussion, and crushed either by pressure with the hand alone or with a screw. Baron Heurteloup's percussion instrument may, therefore, be regarded as having led on to the adoption of crushing. In the same year Dr. Costello introduced to the Westminster Medical Society his improved instrument consisting of a male and female blade, and a controversy arose between him and Mr. Weiss, whose original instrument was made in 1824, as to priority of invention. Mr. Weiss had at that time demonstrated the power of his screw instrument to Sir Benjamin Brodie, and the screw acted with so much force on a hard calculus that it was feared the bladder might be injured by the force with which the fragments would fly apart, and to avoid this risk Sir Benjamin suggested the addition of a saw.

The principle of crushing by means of a screw was, however, rejected for a time until the use of Heurteloup's percussor showed that the danger from flying fragments was imaginary. Since that time many improvements in detail have been made, but the principle remains the same. The object of the surgeon was to crush the stone by repeated operations or sittings as they were called, each lasting only a few minutes and repeated at intervals of three or four days. Some of the débris was brought away in the lithotrite, and of that remaining in the bladder the smaller fragments were expelled by the urethra, and the larger portions were again crushed and the process continued at suitable intervals until all were removed. There was then, as indeed there is now, much difference of opinion as to the respective merits of cutting and crushing operations. In the *Lancet* for 1835 there is much discussion on this point, and in an annotation in the number for May 2nd the position is summed up as follows:

> So far as our own observations and inquiries have extended, we are inclined to believe, that if lithotrity were to be taught generally in the schools, and brought into ordinary use amongst practitioners, the cutting operation for stone would in a few years become obsolete; because the facility with which small stones could be crushed, would leave no large calculi to require the use of the knife.

Twenty years later Sir Benjamin Brodie read some "Notes on Lithotrity" before the Royal Medical and Chirurgical Society on March 13th, 1855, in which he says:

> Although the operation of lithotrity has been for many years extensively and successfully practised in a neighbouring country, it has hitherto been adopted only to a limited extent by British surgeons: yet if I may be allowed to judge from the results of my own experience of it, it must be regarded as a method of relieving those who suffer from calculus of the bladder which is attended with much less uncertainty and danger—being at the same time much less formidable to the patient—than the operation of lithotomy.

He then quotes the figures of Mr. R. Smith of Bristol, published in Volume XI of the *Transactions* of the same society, as to the deaths after lithotomy—in Bristol they were 1 in 4½, in Leeds 1 in 5, and in Norwich 1 in 7½—and remarks "there is no reason to believe that the success of lithotomy is greater now than it was when Mr. Smith collected his observations"; the truth of this observation is borne out by these statistics of the cases operated on in the London Hospital in 1854, collected by Mr. Charles Hawkins: Fifty-nine patients were operated on and 10 died, being in the proportion of rather more than 1 in 6. The deaths in children were 1 to 14 recoveries, while among adults the deaths and recoveries were equal.

In spite of the obvious objections to lithotrity as then practised, and of the fact that the instruments were being improved as further experience was gained, no great advance was made until 1878, when Bigelow of Boston showed that it was possible to break up a stone so completely at one operation that all the fragments could be washed out through a large evacuator. For some years previously to this various attempts had been made to remove fragments by suction through evacuating catheters, such, for instance, as the apparatus designed by Clover, but there had been no recognition of the fact that it was possible completely to remove a large calculus on these lines at one operation. Moreover, the use of these evacuating catheters had not proved satisfactory to those best qualified to judge of their efficiency, so that the method introduced by Bigelow was a veritable revolution and struck a blow at the rules previously laid down by experts for the safe performance of the operation. He boldly used large lithotrites and large evacuators; the patient was placed under an anaesthetic, and he did not hesitate to prolong the operation until all fragments were removed. To this procedure he applied the name of "litholapaxy," though at the present time the older name of "lithotrity" is perhaps more generally used, and is understood to refer to crushing and evacuating completely at one operation. The earlier lithotritists were in favour of short and frequent crushings, and when anaesthetics came into use they considered it undesirable to employ them for fear of possibly inflicting injury to the bladder by prolonged efforts on an unconscious patient. Some few, however, and notably Sir Henry Thompson, frequently used anaesthetics for this operation, and did not meet with any bad results by so doing.

With the establishment of Bigelow's operation surgeons were enabled to consider the possibility of dealing with larger stones by crushing than was formerly the case, and also of extending the operation to boys who up to this time were not considered suitable for this method. Their efforts in this direction were assisted by the improvements made in the construction of the lithotrite, for it was found that, while its size could be materially diminished, its efficiency for such calculi as were likely to be met with in boys was in no way impaired. Lithotrity does not occupy the position in this country that it does in India or Egypt. In those countries it is the operation of choice, and the brilliant results that have been obtained there are ample testimony to the skill of the surgeons, who have, with an unrivalled experience, brought this operation to a state of perfection that leaves little room for improvement. The large number of cases of stone coming for treatment has enabled them to acquire great manipulative dexterity, and they have demonstrated, beyond any doubt, that in skilled hands and with suitable instruments the operation is well adapted for almost any stone that may be met with. For these advances we are indebted to Keegan, Freyer, Forbes Keith, Dennys, R. Baker, Milton, and many others. It is probable that lithotrity will never be so generally adopted in this country as in those where stone is so common, for it is essentially an operation that requires much practice to enable the surgeon to become thoroughly efficient, and it is evident that with us the opportunities for treating cases of stone are becoming less frequent; while, therefore, it is practised by some in certain selected cases, there is no doubt that, under the circumstances here, the suprapubic operation is on the whole preferable. The operation of perineal lithotrity was first performed as a definite procedure by Dolbeau, a French surgeon, in 1862, and some years later was reintroduced by Mr. Reginald Harrison. It was performed by passing a grooved staff into the bladder, and making a small incision with a tenotome through the perineum into the membranous portion of the urethra, which is then dilated to the required dimensions either by the index finger or by a specially constructed pair of forceps, or by the passage of metal bougies. This dilatation must be just sufficient to allow the lithotrite to pass without difficulty. If too extensive, the water will escape from the bladder, and difficulties will be caused by the contracted condition of that organ.

The advantages claimed for this operation by Mr. Reginald Harrison (*Lancet*, April 7th, 1894) were:

1. That it enables the operator to crush and evacuate large stones in a short space of time.
2. It is attended with very small risk to life as compared with other operations when any cutting is done, and is well adapted to old and feeble persons.
3. It enables the operator to wash out the bladder, and any pouches connected with it, more effectually than by the urethra, as the route is shorter and the evacuating catheters employed are of much larger calibre.
4. The surgeon can usually ascertain, either by exploration by the finger or by the introduction of forceps into the bladder, that the viscus is cleared of débris.
5. It enables the surgeon to deal with certain forms of prostatic overgrowth and obstruction complicated with atony of the bladder in such a way as to secure not only the removal of the stone, but the restoration of the function of micturition.
6. It allows of efficient drainage by means of a tube through the wound.

Mr. W. H. Henderson refers to this operation in the *Indian Medical Gazette* (August, 1900), and points out that it can be performed when the urethra will not admit a sufficiently large instrument, or when the stone is large and hard; that convalescence is very rapid, and that micturition is usually a voluntary act, the wound consequently is not irritated by the constant passage of urine. Dr. P. Darrell Pank, writing in the same journal, says, "Lateral lithotomy is, in my opinion, the best operation when it is necessary to do a cutting operation at all, and if the stone be so large that the surgeon has doubts of successfully extracting it through the perineum, then I think the best thing he can do is to make a small median perineal incision on a grooved staff into the bladder, sufficiently large to admit a lithotrite big enough to crush the stone, the fragments of which should be removed by a large cannula and aspirator, as one would operate by litholapaxy in the female." He reserves this operation only for those cases which from some very uncommon cause cannot be operated on by litholapaxy. This method has not met with much support, and it is doubtful whether even in the few cases that are considered suitable, it offers any advantages over a suprapubic operation.

In order to ascertain what operations surgeons are performing for vesical calculus in this country, I ventured to send out certain questions to those attached to the larger hospitals, with a request that they would favour me with replies. I should like to take this opportunity of thanking all those who have returned answers to my inquiries for the trouble they have taken in supplying me with the information I required. Before dealing with the several points at issue I wish to draw attention to some general remarks that have been made on the subject; and first, as to the prevalence of stone. Quite a number of surgeons have remarked that they do not see so many cases of vesical calculus in their hospitals as formerly, and this statement does not refer to any particular part of the country but to districts widely separated. For instance, from Norwich: "We scarcely get any cases of stone in the bladder now, though fairly common in the kidney, this is a great change, as I can remember about thirty years ago seeing three lithotomies in one morning" From Liverpool: "Stone in the bladder is comparatively rare here, certainly ten in the kidney to one in the bladder." From Northampton: "Used to have a number of stone cases, but for the last ten years have been almost none." A London surgeon says: "Very few cases of stone (vesical) come into the London general hospitals." From York it is stated that "cases of stone are very scarce in this district," and practically the same remark is made from Oldham, Sunderland, Sheffield, Bradford, Chester, Bristol, Cumberland, and Huddersfield. There seems to be a very strong expression of opinion that vesical calculi are not as commonly met with as formerly, though renal calculus is regarded as being more frequent. It may be that improved methods of diagnosis have demonstrated the presence of calculi in the kidney that formerly would have been undetected, and that might not have shortened the patient's life. Why stone in the bladder should be less common now than formerly is an interesting and difficult question, but is one that is outside the scope of these lectures.

Another point to which attention has been incidentally drawn is how far it is advisable for a surgeon to perform lithotrity when his opportunities of acquiring practical experience of it are limited. Several surgeons have expressed their opinion on this point, and the views they hold may be summarized by saying that unless you see enough of stone to become proficient in lithotrity it is better to cut.

To the first question—What operation do you usually perform on the removal of a stone before the age of puberty?—there were 221 replies, which may be grouped as follows:

- Suprapubic lithotomy, 144.
- Lithotrity for small stones, suprapubic lithotomy for others, 35.
- Lithotrity if possible, 9.
- Lithotrity, 7.
- Suprapubic lithotomy as a rule, sometimes lithotrity, 9.
- After 4 years lithotrity; before, suprapubic, 2.
- After 7 years lithotrity; before, suprapubic, 1.
- Lithotrity almost invariably, but in large hard stones in very small children suprapubic, 6.
- Lithotrity if no permanent cystitis, 2.
- Lithotrity or suprapubic, 1.
- Lithotrity or lateral lithotomy, if the stone is large, suprapubic, 1.
- Median lithotomy, 1.
- Lateral lithotomy but lately suprapubic, 1.
- Suprapubic, and if the stone re-forms median or lateral lithotomy, 1.
- Lateral lithotomy, rarely lithotrity, 1.

From an analysis of these figures it is clear that the suprapubic operation is the one usually performed. Seven only refer to lithotrity as the method adopted, without any reference to the size of the stone or other circumstances. The others who perform lithotrity do so only after making choice of such cases as seem suitable in their opinion for the operation. The lateral operation as well as the median are still mentioned, though apparently are very seldom performed.

To the second question—What operation do you usually perform for the removal of a stone from the male bladder after puberty when there is no evidence of prostatic enlargement?—there were 240 replies, as follows:

- Suprapubic lithotomy, 116.
- Lithotrity, 29.
- Lithotrity as a rule, 28.
- Lithotrity for small stones, suprapubic lithotomy for others, 48.
- Almost always suprapubic lithotomy, otherwise lithotrity, 8.
- If the stone is small and smooth, lithotrity; an oxalate or a stone of 1 in. diameter, suprapubic lithotomy, 3.
- Lateral lithotomy occasionally, especially when the urine is foul, 2.
- With persistent foul cystitis, suprapubic lithotomy in two stages, the bladder being attached to the deep part of the incision in the parietes and opened in forty-eight hours, 1.
- Formerly lateral lithotomy, of late suprapubic lithotomy, 1.
- If the stone is large median urethrotomy with crushing after the method of Reginald Harrison, 1.
- If stone is small, median or lateral lithotomy; if large, suprapubic, 1.
- Lithrotrity except with sacculation or sepsis, then suprapubic lithotomy, 1.
- Lithotrity if possible, if not, suprapubic lithotomy, 1.

These returns show that surgeons are prepared to consider the advisability of performing lithotrity in the adult more frequently than in boys, but the number of those who practise the suprapubic operation is in excess of those who use lithotrity, and it should be noted that of these a large number reserve it for small stones, doing the suprapubic operation for large ones.

The third question, as to the treatment of stone when there is evidence of prostatic enlargement, elicited 224 replies, as follows:

- Suprapubic lithotomy, 202.
- Perineal prostatectomy and lithotomy combined, 1.
- Suprapubic operation if there is obstruction with residual urine and cystitis; crushing and washing out if no cystitis, 1.
- Suprapubic operation and perineal drainage, 2.
- Suprapubic operation, rarely a perineal with enucleation, 1.
- Lithotrity with well-elevated pelvis or suprapubic if necessary, 2.
- If slight enlargement, lithotrity; if considerable, suprapubic lithotomy, 6.
- Lithotrity if possible, if not, suprapubic lithotomy, 5.
- Lithotrity in the majority of cases, 3.
- Sometimes perineal lithotomy with removal of prostate, 1.

For the treatment of stone in the prescence of an enlarged prostate, the suprapubic operation is, from these

returns, the method adopted by almost all surgeons, only 16 out of 224 being prepared to discuss the desirability of attempting lithotrity under these conditions.

The fourth question dealt with the treatment of the wound in cases of suprapubic lithotomy. There were 230 replies, as follows:

Complete suture of the bladder and of the abdominal wall without drainage, the urine being normal, 33.
Complete suture of the bladder, suture of the greater part of the abdominal wall with drainage, either by a tube or by gauze above the pubes, 71.
The same with in addition a catheter in the bladder, 9.
Complete suture of the bladder and of the abdominal wall without suprapubic drainage, but with a catheter in the bladder, 5; or with the passage of a catheter at regular intervals, 1.
Partial suture of the bladder and of the abdominal wall with drainage by a tube entirely, 9; by a tube for a time and then by some apparatus, 5; or by a catheter, 1; or by drainage at once by some apparatus, 1.
No suture of the bladder or of the abdominal wall, drainage by a tube entirely, 42; by an apparatus, 18; by a tube for a time and then an apparatus, 24; by a tube and catheter, 1; by pads only, 2.
Suture of bladder to abdominal wall and drainage by a tube, 4; by an apparatus, 1; without either tube or apparatus, 1.
Perineal drainage, 1.
No sutures or drainage, 1.

The chief point of interest in this question is as to suture of the bladder and of the abdominal wall, and whether a drain is used or not. It is evident that there are few surgeons who venture to sew up the bladder and close the abdominal wound without some form of drainage, though there are many who will close the bladder and use a drain to it; while rather more than half the number prefer to use either partial suture or none at all.

Such is the condition of practice for stone in this country at the present time, and though it is always uncertain what changes may take place in the future, it does not seem probable that there will be any great alteration in the immediate future. No doubt, under modern conditions, the lateral operation would yield good results, so far as the mortality of the operation is concerned, if done by surgeons who had fairly frequent opportunities of performing it. But, in addition to those dangers which might be avoided by a skilled operator, there is the possible injury to the ejaculatory ducts, and consequent sterility, which is beyond the control of the surgeon. There does not seem to be any real effort at the present time to displace the suprapubic operation by crushing, nor does it seem likely that any great improvement can be made in the details of the former, so that we may fairly regard the mode of treatment of to-day as likely to continue for some time. I have ventured to bring this subject before this society in the belief that it is good at times to review the methods we adopt. I can only hope that by so doing I have aroused an interest in the past, and have shown that we are indebted to no small extent to the labours of those who have preceded us.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### TREATMENT OF THE URETHRA FOR LOCOMOTOR ATAXIA.

AFTER the notice on Dr. Jaworski's book, in the JOURNAL of January 21st, 1911, page 142, some observations on this treatment may be of interest. For the past year I have been practising this method after instruction from Dr. Denslow. Dr. Harry Campbell sent me most of the cases, which have reported progress to him from time to time. There have been seven, of one to ten years' standing. One suffering from phthisis after showing decided improvement in tabetic symptoms during February and March, 1910, developed acute phthisis in July and died in September. Six others have all improved, they say, more than under any other treatment. Three may at present be considered clinical cures (Cases 1, 2, and 5).

1. S., aged 39, an incipient case of about a year's standing, with loss of knee-jerks, marked Rombergism, Argyll Robertson pupils, and neurasthenia, with depression; is now apparently well.

2. V., aged 57, a case of nine years' standing, with "pains," advanced ataxia, amblyopia, anaesthesia of feet, and numbness of hands; has practically lost all these symptoms; he can now read without glasses and walk several miles at a stretch without the aid of a stick. Previously to walk a few hundred yards was a task. No longer emaciated.

3. D., aged 46 (ten years), improved considerably in gait, but has not lost his rectal crises.

4. W., complete ptosis of left eyelid, is now partial, and he "feels much better." He had no ataxia.

5. The case of B., aged 42 (ten years), is interesting, for though frankly admitting gonorrhoea and bad stricture, he denies convincingly that he has had syphilis. He was previously laid up for a week or so in nearly every month, with "pains," but since August, when he began treatment, he has not so suffered. His pains during this ten years did not get much worse. He is now practically free, and, like W., feels better, indeed well.

Knee-jerks do not seem to return, nor has the pupil improved noticeably in any case yet treated.

A noteworthy feature has been that urethral dilatation seems to reproduce symptoms at the time, while diminishing them in the interim. Two got violent eructations; one does still; the other then had his worst attack, and, save for a few minor eructations, did not so suffer again, though they had been of almost daily occurrence.

B. always gets pain down his left leg during treatment. His lightning pains were only in this leg.

I can bear out Dr. Jaworski's advice to "go slow," for I believe rapid dilatation does more harm than good.

The conclusion would seem to be that with an organism vitiated by a syphilitic virus the symptoms of locomotor ataxia can be produced by constant impulses from a peripheral focus of irritation (not necessarily an *obvious* stricture), and it is conceivable that changes in the cord could be effected by disturbance in the blood supply there, caused by the same or accompanying impulses. Further, cases like those of B. suggest that if the exciting cause (stricture) be sufficiently intense tabes may be produced without the predisposing cause (syphilis). The prevalence of tabes in males seems to favour the foregoing. Sclerosis of the cord was, I take it, made to account for the symptoms and has not been proved to be the primary cause, the whole cause, and the only cause of the symptoms.

I may add that, save in Case S, who was told that he had deranged nerves, no patient has been promised improvement. All were told only that some good results have accrued from the treatment. If they are now hypnotised, they must have hypnotised themselves or one another.

The late histories of syphilitics known to have had stricture might throw some light on this subject.

London, W. E. T. JENSEN.

### TEAR OF THE PERINEUM: ENDOCARDITIS: RECOVERY.

A PATIENT was admitted to the Royal Infirmary, Edinburgh, on October 30th, 1909, with the following history: She was a dairymaid, aged 19, and at 4 a.m. on the same day was attending to her duties in a cowshed and cleaning out a feeding-trough; she was bending down just in front of one of the cows which had its head down eating, when the animal suddenly raised its head and one of its horns struck the girl on the perineum. The girl lost a considerable amount of blood before the arrival of a doctor at 4 p.m., and she was sent to the infirmary, where she arrived at 6 p.m.

There was a complete tear of the perineum, and the recto-vaginal septum was torn through for about one inch. As the wound was not very clean, no attempt was made to repair the perineum at the time. Three weeks after admission the girl had a rigor, felt sick, and the temperature rose suddenly to 104° F.; a soft blowing murmur was discovered over the heart in the mitral area. A diagnosis of endocarditis was made, and, after other remedies had failed, polyvalent antistreptococcal serum was given by the rectum, with the result that the acute symptoms gradually subsided, although for three weeks the girl's condition was very grave. After her recovery from the endocarditis the perineum was repaired, and she left hospital ten weeks after admission, well but with a systolic mitral murmur.

The case is interesting because of the very rare accident which resulted in a complete tear of the perineum. There was no malice on the part of the cow, which was a very quiet animal. The horn struck the perineum directly without first passing through any of the girl's clothes, for there was not a mark of any kind on her garments; and there can be no doubt that the endocarditis was the result of septic infection from the wound in the perineum.

I am indebted to Mr. N. T. Brewis for permission to publish this case.

A. E. Turnbull, M.B., Ch.B.Edin.,
Late Resident Gynaecologist, Royal Infirmary, Edinburgh.

## FOUR CASES OF INFECTIVE PNEUMONIA.

In view of the outbreak last year in this country of plague in pneumonic form, it may be of interest to place on record the following cases:

On March 16th, 1910, A. B., aged 44, went to work in the morning; he had a violent rigor, and had to come home to bed. I saw him about midday, with a temperature of 104.2°, flushed face, quick pulse, rapid breathing, and dry skin; there were no other physical signs. On March 18th he developed signs of pneumonia in the left lung; this did not follow the ordinary course of acute pneumonia. It occurred in varying sized patches all over the lung. On March 21st the other lung became affected in a similar manner; he became very delirious, and died in the early hours of March 24th.

His son, J. B., aged 17, was taken ill on March 30th; he developed the same symptoms of a patchy pneumonia in both lungs, but his temperature never rose above 102.8° F., nor was his illness so acute. He had a sort of crisis on the sixth day, and then very rapidly became convalescent.

E. T., aged 56, sister of A. B., living in the next street, and who nursed him during his illness, was taken ill on April 1st, and developed signs of a patchy pneumonia in the left lung on April 3rd. She seemed better on April 5th; the temperature was lower, the breathing was not so rapid, and the physical signs were abating. On April 6th signs developed in the other lung; she became delirious, and died on April 8th.

R. C., female, aged 21, who was engaged to J. B. and visited him during his illness, was taken ill on April 15th. She was attended by Dr. Williams, who kindly allowed me to see her with him. Her symptoms were exactly the same as in the other three: high temperature, patchy pneumonia, dry skin, furred tongue, etc. She was convalescent on May 1st

The sputum in all these cases was alike. It was very viscid, transparent, and airless, but had only a very faint suspicion of the rusty colour of pneumonic sputum. Bacteriologically it was reported to contain a few pneumococci, but the predominant organism was a short Gram-negative bacillus morphologically resembling Friedländer's bacillus. A further report by the Lister Institute stated that this organism did not answer to the cultural reactions of Friedländer's bacillus, nor did it resemble any of the more commonly known pathological organisms, but it most closely resembled Grünthal's bacillus, a "coliform" organism.

The medical officer of health had all the rooms thoroughly disinfected, and no further cases occurred.

London, W. Percy W. Spaull, M.R.C.S., L.R.C.P., D.P.H.

## MIGRAINE AND ERRORS OF REFRACTION.

The memorandum from Dr. Pocock in the Journal of January 28th is very instructive. Among other things it shows the great value of a minutely careful retinoscopy. During the few years I have worked at refraction it has surprised me to note what immediate and complete relief is obtained by the correction of a very small degree of astigmatism. It is these cases of slight ametropia that give most trouble to the refractionist and that most easily lead to mistakes in prescribing. When, as in Dr. Pocock's case, the ametropia, though slight, is nevertheless unsymmetrical, the resulting distress appears to me always to be greater than in a symmetrical case.

London, N. A. Howie.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### BIRMINGHAM BRANCH:

Pathological Section.

*Friday, January 27th, 1911.*

Dr. Melson in the Chair.

*Scleroderma.*

Dr. Melson showed a case of scleroderma in a girl aged 12. Although conforming to the rarer diffuse variety in its main features, the disease was strictly unilateral in its distribution. In this respect it resembled the earlier condition of the classical case of Eliz. Nicholls, from the later developments of which Addison published the account of the circumscribed form of the disease bearing his name. There was a history of unhygienic surroundings, and a probable taint of both tubercle and rheumatism in the family. The onset was sudden two years ago, and followed by a rapid development of diffused patches of the hide-bound condition, especially upon the face, neck, chest, body, and lower limbs, all strictly of the right side. The main stress of the disease seemed to have expended itself by about the eighth week, to be followed by gradual contraction and progressive general emaciation. Pigmentary changes were very noticeable in the eyelashes and in the ivory-white centres of some of the patches, with their marginal colourings of various shades and depths, chiefly of a dirty brown hue. The atrophy had fixed the right side of the mouth, giving a corpse-like look to that part of the face. There was thinning of the hair and deformity of the toe-nails, the hand, however, escaping anything approaching a condition of sclerodactyly often observed. Some of the joints, especially the right knee, had become fixed by the contracted, and in places ulcerated, skin. There was little pain or nerve disturbance. The action of the skin had led in places to epidermal accumulations of an offensive nature. The general appearance of the case left no difficulty in the way of diagnosis, but the unilateral distribution and want of general diffusion over the parts affected approximated the condition somewhat to the circumscribed form described by Addison. A tendency to improvement had certainly set in, and this had been helped by good hospital management and injections of "fibrolysin" some months ago. A return home, however, retarded the progress. Further trial of "fibrolysin," with galvanism and tonic régime, was advocated.

*Circinate Secondary Syphilides.*

Dr. Douglas Heath showed a girl, aged 22, suffering from syphilis. The case was shown on account of the very large amount of circinate eruption present. The circles were very abundant on all parts of the face, but seemed especially prominent over the temples and the angles of the mouth. On the extensor surfaces of both forearms symmetrically were large, dusky red circular areas of a much more pronounced type. These were closely set and intermingled, and were desquamating to a slight degree. At the back of the neck similar prominent circinate syphilides were present. A fading roseola was present on the trunk, and the hair had fallen to a marked degree. A primary sore had been noticed on the vulva a month ago, but it was probable that circinate eruption corresponded with a later period of syphilis than this would seem to indicate. No large papular syphilides that had not gone on to ring formation could be seen.

*Erythema Circinatum.*

Dr. Douglas Heath also showed a woman, aged 24, in whom a very marked circinate erythema had developed five days previously without evident cause. The eruption covered the whole of the trunk, and was especially prominent on the lower half of the abdomen when the patient was shown. It was also present in a less degree on the upper arms and around the knees or the extensor surfaces. In places where the rash had disappeared the skin was stained purple red in colour, and a few recent

crops of eruption could be seen here and there on this pigmented area. The patient's temperature had been slightly raised since the eruption started, but there were no gastro-internal symptoms, and there had been no pains in the joints. The eruption only itched slightly when it first appeared.

*A Case of Trigeminal Palsy.*

Dr. SAWYER showed a woman, aged 31, suffering from a peculiar form of trigeminal palsy on the right side. She had received a blow on the face in October, 1910, which made her unconscious for about half an hour. She received no medical treatment until December 2nd, when she came to the General Hospital, complaining that she could not open her mouth. It was found that this was due to spasm of the gustatory muscles. On examination it was found that the first and second divisions of the fifth nerve were paralysed, as shown by the usual anaesthesia, and that the motor branch only of the third division was affected. The temporal muscles, the masseter and external pterygoid muscles were paralysed on the right side. It was suggested that the condition was due to a fracture of the middle fossa, and that the fracture involved the sphenoidal fissure, the foramen rotundum, and possibly the foramen ovale. The sensory portion of the third division of the fifth nerve was very large, while the motor branch was extremely slender, lying underneath the Gasserian ganglion and against the dura mater; it seemed possible for the motor branch to be torn without any injury to the stout sensory parts of the third division taking place.

*Radiograms of Injuries to Carpal Bones.*

Mr. NUTHALL read a brief note on the anterior dislocation of the semilunar bone, and illustrated the condition by skiagrams of three cases. In two of the subjects the injury resulted from forcible hyperextension of the hand at the wrist-joint. The patients presented themselves for treatment six, ten, and fourteen weeks respectively after the accident, with symptoms of weakness, pain, and complete loss of flexion of the wrist. Under the anterior wrist-crease was a bony mass, tender on pressure, over which the flexor tendons moved with perceptible lack of freedom. The skiagrams disclosed the semilunar bone lying in a plane completely in front of the carpus, and with its transverse axis rotated into the axis of the limb, and its concavity facing towards the tendons and skin. One patient, six weeks after the accident, made such good progress under treatment by massage and passive movements that he declined operation. Two submitted to operation—removal of the displaced bone—and of these one was now at work, with a good but not perfect result, while the other still had considerable stiffness in the wrist and fingers, but was able to follow his employment as a gardener.

*Ulcer of the Stomach.*

Mr. BILLINGTON showed a specimen of ulcer of the stomach obtained by operation from a woman aged 27, who for five years previously had suffered from severe indigestion, and had vomited blood on two occasions. For several months before operation it was evident that she was becoming increasingly anaemic, while careful inquiry elicited the fact that melaena was going on. The ulcer, which was the size of a florin, was situated on the posterior wall of the stomach near the lesser curvature, and about 3 in. from the cardiac orifice. It was incised through an opening in the transverse mesocolon, an elliptical incision in the long axis of the stomach being employed. This was sewn up without gastro-enterostomy being performed. The patient made an uninterrupted recovery, and six months later was in excellent health.

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THE French Congress of Scientific Societies will be held this year at Caen. Among the subjects of medical interest proposed for discussion are: Tuberculosis and the means of lessening contagion; sanatoriums at high altitudes and by the sea; methods of disinfection against contagious diseases, and the results obtained in towns, rural districts, and establishments where disinfection is carried out; the water supply of towns; the pollution of underground collections of water; the part played by insects, and especially the common fly, in the spread of contagious diseases; hygiene of school children.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF OBSTETRICS AND GYNAECOLOGY.

*Friday, February 3rd, 1911.*

Dr. H. MACNAUGHTON-JONES, President of the Section, in the Chair.

### INDICATIONS FOR, AND TECHNIQUE OF, CAESAREAN SECTION AND ITS ALTERNATIVES, IN WOMEN WITH CONTRACTED PELVES, WHO HAVE BEEN LONG IN LABOUR AND EXPOSED TO SEPTIC INFECTION.

THE debate on Dr. Routh's paper (see BRITISH MEDICAL JOURNAL, March 4th, p. 496) was resumed.

Dr. MAXWELL said he had done only four cases of Caesarean section, but he had been fortunate enough to have had opportunities of studying the methods and technique of many of the senior members who had taken part in the debate. That experience had certainly impressed him with the necessity of exercising the greatest care in investigating these cases from the point of view of prior sepsis. As a resident medical officer in Queen Charlotte's Hospital in 1903 Dr. Maxwell recollected that the routine inquiry made in these "suspect" cases embraced not only the nature of the previous obstetric manipulations, but even went further in the attempt to find out who had performed them. All present had probably seen Caesarean section performed in cases where there was reason to regard the patient as more certainly exposed to infection than those even of Dr. Routh's "suspect" group. Before accepting these cases as evidence that all precautions were unnecessary one would have to investigate the puerperal morbidity most carefully. Some of these cases caused the very greatest anxiety. There was the gravest ileus in some; in others the belly wound suppurated; again, sometimes localized abscesses pointed and burst by the abdominal wound or per vaginam. Now, the border line between the cases that eventually recovered after grave morbidity and those that died of a rapid peritonitis in two or three days was such a very narrow one that the speaker held that all serious puerperal morbidity should be frankly accepted as evidence that embryotomy or some modification of technique should have been carried out rather than the classical Caesarean section. Dr. Maxwell had great difficulty in convincing himself that in any case where forceps had been applied the amniotic cavity had escaped infection. It was important that they should be quite clear on the distinction between infection of the amniotic contents and infection of the patient. In those circumstances he felt that any attempt to get rid of the infected liquor amnii, or at least to dilute its toxicity, was a rational procedure. The technique was perfectly easy in his case; a soft pewter douche tube was passed up to the fundus past the fetal head, and normal saline, temperature 105° F., was allowed to flow for five minutes. The uterus was then eventrated, and incised at the fundus after most carefully packing off of the peritoneal cavity. Subsequently, after closing of the uterus, towels and rubber gloves were changed, and the belly sewn up with fresh instruments. The method obviously had its limitations. As regards the ethical aspect of embryotomy, Dr. Maxwell said he would have no hesitation, in the presence of clinical signs of sepsis, of sacrificing a living fetus *in utero*.

Mrs. SCHARLIEB said she had but a small number of Caesarean sections to her credit. All would admit that there was great difficulty in knowing which cases were infected or suspected of infection, and which were not. With regard to bacteriology, all must hope that in future science would so advance that the results could be obtained more certainly and more quickly than hitherto. It was the duty of those who undertook those cases to have a bacteriological examination made of the liquor amnii and of any discharge which might be present, not only with the view of guiding the treatment at the moment, but also in order to furnish a vaccine, which might prove of inestimable value in the subsequent treatment. Dr. Maxwell's suggestion of interamnial investigation seemed a very good one, but where there had been repeated examinations, not only was the amnial cavity

infected, but in many instances the cervix and the lower portion of the uterus were damaged. If so, no disinfection of the amnial cavity and no ordinary Caesarean section would avail to save the patient from infection. In such a case she thought the wisest plan was to perform abdominal panhysterectomy, leaving a sufficient opening in the vaginal vault through which drainage could be carried out, either by iodoform gauze or by bismuth gauze. If in spite of the delay which had occurred the child was alive, the uterus could be eventrated, the abdominal wound temporarily closed behind it, and ample packing done with sterilized towelling to prevent, if possible, infected liquor amnii from entering the abdominal cavity. An incision should be made to permit of the removal of the fetus, in whatever position seemed to be most convenient at the moment, carefully avoiding the placental site. As soon as the child was removed and the incision in the uterus closed, panhysterectomy could be performed, an operation which under the circumstances presented remarkably little difficulty. She could not believe that in any infected cases either extraperitoneal hysterectomy, or symphysiotomy, or any variety of pubiotomy, was advisable. The latter two had a very limited field of application in any case, and in the infected cases surely it must be difficult, if not impossible, to avoid infection. The establishment of a hystero-abdominal fistula might be a refuge for the destitute, but it was not a method which would be elected. She thought all would prefer the absolute removal of the whole of the infected organ by panhysterectomy and general drainage. No doubt all detested the idea of doing craniotomy on a living child; still sometimes it was a regrettable necessity. There was no reason in sacrificing two lives when one sufficed. The younger members of the profession should be encouraged to do abdominal work, so that they would not be taken at a disadvantage in a critical case, and could give the patient the benefit of panhysterectomy or a conservative Caesarean section, as might be indicated in cases with narrow pelves, so narrow that there was no hope of delivery *per vias naturales*. She thought it a pity not to say a word in favour of the old-fashioned English treatment of inducing premature labour. In early days in India, when she had no skilled chloroformist or skilled assistant, she would have failed to save many lives of mothers and infants if she had not been able to bring about induction. She had never found it dangerous to the mother, nor had she seen a woman even ill in consequence of the induction of labour. A considerable percentage of children lived after it, especially if it were possible to postpone the operation of induction until the child was not only technically viable, but sufficiently developed to have a really good chance of life.

Sir FRANCIS CHAMPNEYS said he intended to refer to only one point. In the abstract Dr. Routh referred to "the inevitable abrasions of the cervix during the operation" (of craniotomy). Now craniotomy consisted in perforation of the fetal head, and he did not see why this should inflict any "inevitable abrasions." Dr. Routh probably included in the term "craniotomy" the further operation of extraction, but the two were separate operations, and extraction need not always follow perforation. The first perforation for contracted pelvis which he ever saw was left to Nature, and expulsion followed without difficulty. He believed that the danger of "craniotomy" was essentially the danger of extraction, and this might be considerable. In any future statistics of craniotomy he thought that the cases should be divided into two classes —those in which extraction did not, and those in which it did follow perforation. It was obvious that natural expulsion was not likely to occur when the conjugate was less than a certain size—say 3 in., or at least $2\frac{3}{4}$ in.—the labour being at full time, and the child of average size. As regarded the ethics of craniotomy, the perforation of a living child was, of course, a most painful and unpleasant operation, but it ought to be less painful than allowing the mother of a family to die for want of it.

Dr. A. J. WALLACE said that for some years he had been endeavouring, in cases of contracted pelvis, to bring about a condition of affairs whereby a second and subsequent Caesarean section might be made by an incision direct from the skin into the uterus without opening the peritoneal cavity. The method he adopted was to sew the parietal peritoneum to the wall of the uterus. In one case he had done extraperitoneal Caesarean section by that method. In the first "suspect" case referred to the abdominal incision was made, and the parietal peritoneum was sewn to the wall of the uterus by a suture which was duplicated, two rows of overlapping sutures all round, the resultant opening being 6 in. in length and 3 in. wide. A vertical incision was made into the uterus, and, after the extraction of a living child, a drainage tube was placed through the abdominal wall, down to the uterus. From the first there was a foul purulent discharge through the drainage tube; the patient's pulse was rapid, and on the third day the wound showed signs of opening up. When opened up it was found that universal sloughing was going on. In course of time a slough came away from the uterus. The patient ultimately recovered, and the utero-parietal fistula closed up. The second case was dealt with in a similar way. The patient came after labour had been in progress thirty-six hours, and forceps had been repeatedly used. A purulent discharge occurred from the two drainage tubes used. The uterine wall did not slough. He inoculated the wound with the lactic acid bacillus, which he thought was of use in such cases. Two days afterwards all the offensive purulent discharge had ceased. That was his usual experience with the lactic acid bacillus when inoculated into offensive wounds. He considered that in the first case certainly, and perhaps in the second also, life had been saved by the preliminary use of the utero-parietal suture.

Dr. GRIFFITH wished to point out that, while it was obviously the duty of all who had the opportunity of investigating their "suspect" cases to do so in the most accurate and scientific manner possible, it would still, in the emergencies of practice, be necessary for the great body of practitioners to depend on their experience and powers of observation rather than on scientific methods of bacteriology for the determination of the method of treatment most suitable in the case before them, especially as even the most experienced bacteriologists were often unable to state more than in general terms the exact nature and virulence of the organism present. The same criticism, he submitted, applied to the custom of most writers to apply methods involving mathematical accuracy in the measurements of the pelvis by which to determine the treatment applicable to the various degrees of contraction. He would ask Dr. Routh, did he or any one present determine his treatment by those methods except in the rare cases of excessive contraction? Was he not guided as much by other important factors? They could neither rely on their exact measurement of the conjugate, nor even on their calculation of the duration of pregnancy. With regard to the term "craniotomy," which, like so many terms in obstetrics, was so loosely used, he would point out that it was not the perforation that endangered the mother's life, but the method of extraction which followed it. He had only had one bad septic case on which to perform Caesarean section; in this there was in addition a mass of fibroids for which he performed hysterectomy after delivering the child. That patient died, the only fatal case in his series.

Dr. A. W. RUSSELL said he had now had 33 cases of Caesarean section—intraperitoneal and extraperitoneal—with no maternal death; 29 of these appeared in Dr. Routh's list. In 3 of them he attempted extraperitoneal section, and in 1 since that list was completed. His cases were probably unique in regard to the frequency of contracted pelvis as an indication for the operation. It had been the only indication for operation, except in one case in which it was a last resort owing to repeated eclamptic attacks some time before the full term of pregnancy had been reached. The patient was in such a bad condition that if he had tried to induce labour in the usual way the convulsions might have recurred, and her life would almost certainly have been lost. In that case he had consulted with his colleague, Dr. Munro Kerr, and had the benefit of his assistance at the operation. Both mother and child survived, although the latter at first weighed under $3\frac{1}{2}$ lb. In regarding cases as "suspect," he had not considered the previous history, or attempts with forceps, so much as the state of the mother at the time and the vitality of the child. But he knew the risks of handling. He had a great dislike of the barbarous procedure of craniotomy. He laid great stress on the disinfection of the vagina by copious douching, and scrubbing of the parts, which he personally supervised. The

disinfection of the surgeon and his assistants was also important; they wore rubber gloves, armlets, and masks. He had never eventrated the uterus before incising it, but carefully packed it round with large swabs. He had everything ready beforehand, in order to get through quickly. He thought an operator would be justified in doing panhysterectomy in such a case, but he had risked the conservative operation. With regard to extraperitoneal Caesarean section, as he was one of the very few who up to the present had done the operation several times in this country, he might be allowed to refer to its scope in the kind of cases under discussion. It was now admitted that it was not freely available for actually septic cases, as was expected by its original promoters. There was a class of cases, however, in which the classical intraperitoneal operation would seldom be considered—namely, the cases that were advanced in labour with the presenting part bulging forwards above the symphysis and the lower uterine segment stretched. In undoubted cases of infection that were otherwise favourable he would certainly say there was a place for extraperitoneal section, either draining into the vagina or keeping the wound temporarily open by sterile gauze packing till the danger of spreading infection was over.

Dr. LEATHEM said that when Dr. Routh first spoke to him of the possibility of ascertaining the presence or absence of pathogenic organisms by means of examination of films, he (the speaker) expressed the opinion that a fairly reliable report could be given as to the presence of certain pyogenetic cocci provided they were present in considerable numbers. The question as to the identity of bacilli was more difficult, and when a Gram-negative bacillus was present, and was of about the same size as *Bacillus coli*, one would have to regard it as being in all likelihood the *Bacillus coli*. The number of swabbings he had examined was of course far too small to enable conclusions to be formed as to the reliability of this attempt at diagnosis as to whether or not the amniotic cavity had been infected. But he did think that the conclusions he arrived at by the examination of films were sufficiently justified by the results of the subsequent cultural examinations to encourage further investigation in this direction. With regard to the use of antistreptococcic serum, he did not think much good was likely to result from washing out the uterus and vagina with antistreptococcic serum. The way in which this serum acted was a little doubtful. *In vitro*, at all events, it had no bacteriolytic action if it had any in the uterus. If staphylococci or streptococci were seen in films, he would assume that they were pathogenic, not saprophytic. He admitted that the attempt to recognize pathogenic organisms in films made direct from swabbings would probably come to this—that the presence in the films of Gram-positive cocci, unless they were obviously sarcinae, or the presence of Gram-negative bacilli, would lead to the idea that dangerous infection was present, and that this view might in some cases lead to measures that were unnecessary. Still the error would be on the side of safety. Professor Bumm made use of this method of examining films made direct from the amniotic fluid and appeared to find it satisfactory.

Dr. C. HUBERT ROBERTS said that at Queen Charlotte's Hospital from time to time they got the most serious cases of obstructed labour, cases in which every possible attempt at delivery had already been made outside, and where, clinically at all events, infection seemed very evident. In such cases the child was dead or dying, and craniotomy or embryotomy was performed, yet such women often went through a normal or almost normal puerperium. He contended that if Caesarean section were done on such cases it would have added a grave risk to the mother and would not have saved the child. Now, as to the question of Caesarean hysterectomy in infected cases, he admitted, with others, that it was the ideal operation, but he did not know how to make a sufficiently correct diagnosis in order to say that "this is a case for preservation of the uterus, or this is a case for complete removal." Even bacteriologists seemed to admit that they could not help much; moreover, in desperate cases there was little time for delay. Though he joined issue with those who thought that complete removal of a septic uterus after Caesarean section was the best operation in certain cases and under suitable conditions, he felt disposed to support those who treated the infected stump extraperitoneally after removal of the uterine body by some modified method of Porro's operation (the uterus being eventrated before opening), and especially if the mother was *in extremis*. He had treated one such case by this method, after Caesarean section, in which there was a partial rupture of the uterus. This patient recovered, though her convalescence was slow. The most important point of all was to foresee obstructed labour, partly by timely and frequent examination of women in their pregnancies, and, better still, by the proper tuition of students and midwives, so that they might recognize pelvic contraction or malpresentation before labour came on, or before the hopeless obstruction occurred. Finally, he was one of those who thought that the operations of symphysiotomy and pubiotomy had only a very limited field in obstetrics, and in really septic cases he would not perform them at all.

Dr. EDEN had twice performed craniotomy on the living child in a septic uterus, and he expected to have to do it again some day. Despite the stigmatization by the Rotunda Hospital authorities, in Dublin, of craniotomy as a criminal offence, he did not modify his opinion. In abdominal surgery one was dealing day by day with areas of infection through transperitoneal operations, and by careful technique they were got through without disaster. Surely the same should be true of the cases now under discussion. He would eventrate the uterus first, carefully packing off the abdominal cavity above and below with sterilized towels and swabs, including the edges of the abdominal incision. It would then be possible to open the uterus, evacuate the contents, and sew it up again, without anything coming into contact with the peritoneal cavity at all. And if the surface of the uterus were irrigated before returning it to the abdomen, he did not see why there should be peritoneal infection. If from extreme pelvic contraction in a septic case craniotomy was impracticable, and Caesarean section had to be done, the only safe plan was to remove the uterus. The danger of extraperitoneal Caesarean section was that an infected uterus was left.

Dr. S. CAMERON thought that very frequently it was impossible to state whether a case was infected or not. Even if a case were infected there was no reason why Caesarean section should not be performed. In cases where repeated examinations had been made, or where forceps had been applied, his technique was briefly as follows: After the abdominal cavity had been opened the uterus was dragged into the wound. Large swabs were then introduced into the cavity, and the lower portion of the uterus was encircled with towels so that the fluid might not escape into the peritoneal cavity. When the uterus had been emptied a large swab was thrust into the uterine cavity and the edges of the uterine incision were covered with gauze. Supravaginal hysterectomy was then performed. In future he intended to introduce the lactic acid bacillus into the vagina when dealing with septic cases, as he had obtained fairly satisfactory results in gonorrhoeal cases from this method of treatment. Supravaginal hysterectomy should be preferred to panhysterectomy, and he questioned if the introduction of gauze into the vagina in order to obtain drainage was of any benefit whatsoever. He did not feel inclined to perform extraperitoneal Caesarean section, because it took a longer time to perform. In conclusion, he said it was his intention to continue to perform Caesarean section in preference to craniotomy in all cases where the mother was not moribund and the child was alive, as he was strongly of opinion that the application of forceps by a practitioner, or even the presence of organisms in the liquor amnii, did not justify the destruction of a living child.

The PRESIDENT (Dr. Macnaughton Jones) said the main questions on which this discussion hinged were, to his mind, sepsis—a living or dead child—uselessness or inadvisability of trying recognized obstetrical methods—the child's life as against the mother's. He had barely time to say a few words embracing these four points. He disliked the term "suspect" introduced into obstetrics. The mere fact of examinations having been made, or an attempt at delivery having failed, did not in the vast majority of cases, unless reckless or wholly unwarrantable practice had been pursued, justify the conclusion

that a woman was threatened either with sapraemia or septicaemia. The various opinions expressed by the bacteriologists who had spoken only showed that they were not yet on sufficiently firm ground to rely on bacteriological examination to determine this. Were they not rather inclined to make too great a bogey of this "suspect" sepsis in the face of their modern aseptic and antiseptic possibilities? He said this, regarding it both from the point of treatment and operation, no matter what method of delivery was adopted. As to the all-important point, accepting the presence of a local sapraemia or a commencing systemic sepsis, and that the case was then seen for the first time, at any stage of a labour in which delivery by any other than operative methods was impossible, they were at once brought face to face with the remaining question—was the child living or dead, and was the performance of Caesarean section, or one of its alternatives, the right course to pursue? He presumed that they were all fairly agreed that if the child was dead, whether under "suspect" or recognizable septic conditions, cephalotripsy or craniotomy was the correct one. Then arose the question of a living child. Personally, in view of modern asepsis and improved technique, he would favour, in those cases in which the nature and degree of the septic invasion did not contraindicate it, the patient being surrounded by the precautions of a hospital technique—Caesarean section. In cases where the only alternative was hysterectomy, and a choice had to be made between the supravaginal operation and panhysterectomy, *caeteris paribus*, he would prefer panhysterectomy, though here again the decision must depend on the local condition. As regards consideration for the child's life, as against that of the mother, when forced to make a choice he would unhesitatingly move in the direction of the mother's safety rather than that of the child.

Dr. Amand Routh, in reply, said that at Queen Charlotte's Hospital the saving of fetal life by the adoption of Caesarean section and late induction of premature labour instead of craniotomy and early induction, in the last ten years, as compared with the preceding ten years, represented 36 per cent. Yet craniotomy could not be entirely dispensed with, especially in general practice, where prompt bacteriological assistance and skilled technique in abdominal surgery might not be available. In spite of the fact that some speakers had said that bacteriology could not yet be an efficient guide as to the presence and significance of the infective germs, he had great hopes that in the future such help would be forthcoming, and that further improvement in differential staining and other methods would enable the obstetrician to know the extent of his patient's infection, and guide him as to the operation he should perform, and possibly also assist him by in some way strengthening the resistance of the patient. He hoped obstetricians would help by having the liquor amnii examined bacteriologically in all "suspect cases," and at the same time make a note of the operation performed and its results in every case. In time the evidence thus collected would enable the treatment of these cases to be put on a real scientific basis.

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## Section of Medicine.

*Tuesday, February 28th, 1911.*

Dr. J. Mitchell Bruce, President, in the Chair.

### *Low Blood Pressure.*

Dr. Wilfred Edgecombe read a paper based on extensive observations on a healthy person the subject of persistently low blood pressure. He described the normal rise following the taking of food and exercise, also rises after mental exertion, worry, and excitement, and the more enduring rise following removal to a high altitude. He described the effect of alcohol in this subject as a lowering of the normal daily rise, even going as far as a fall in the record for the day; the rise after tea and coffee and caffeine, so much after afternoon tea as 8 mm., lasting from half an hour to an hour; and the definite rise after smoking, particularly obvious in the early morning. In regard to drugs, the ordinary cardiac tonics had but little effect on it; a negative result was obtained with calcium salts and strychnine, and a trifling rise with moderate doses of digitalis. Pituitary extract gave an enduring rise of 7 mm. Glycogen and ernutin gave negative results. Of hydrotherapeutic measures three alone—the Vichy douche, the aërated Nauheim bath, and the needle bath—permanently raised the pressure. To raise a low blood pressure was apparently a much more difficult thing than to lower an abnormally high blood pressure.

Dr. C. O. Hawthorne thought the active agents showed their influence by increasing the force of the left ventricle. He held that so-called blood pressure was more than a question of maximum force with which the artery was distended. Thus digitalis, which was known to have a powerful influence on the cardiac contractions, judged by the records of the sphygmomanometer, was inactive. The length of time the pressure endured and the fashion in which it declined were of equal if not greater importance. He would combine the method with that of sphygmographic tracings.

Dr. Nathan Raw referred to the effect of high altitude and calcium chloride on blood pressure.

Dr. F. H. Humphris referred to the effect of static brush discharges in raising blood pressure.

Dr. O. K. Williamson described the influence on blood pressure of high altitudes, especially as observed on himself in the Alps. It was chiefly a matter of a slight rise. In the case of another subject there also was very little effect after climbing the Finsteraarhorn. In his own case, moreover, tea produced a fall in blood pressure. Thus varying effects were obtained in different persons, as was the case in regard to taking food.

Dr. R. Hutchison said there were important sources of fallacy in the method, and thought the diastolic blood pressure was of greater moment. Idiosyncrasy was also a source of fallacy.

Dr. F. W. Price said that recent work at the Mount Vernon Hospital showed no obvious rise in blood pressure after even large doses of digitalis.

Dr. G. Oliver thought observations of systolic blood pressure were very misleading, and the mean or diastolic pressure of much greater value.

After remarks by the President, Dr. Edgecombe replied.

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## Pathological Section.

*Tuesday, February 21st, 1911.*

Dr. F. W. Mott, F.R.S., President, in the Chair.

### *Asphyxia under Chloroform.*

Dr. A. G. Levy related an elaborate series of experiments upon the effects of inducing partial and complete asphyxia in animals whilst under the influence of chloroform and of ether. The asphyxia was not obstructive, but produced by allowing the animals to breathe the same air till its oxygen was exhausted. The experiments were done exclusively on cats, and on this account the results might need modification before being applied to man. The author's conclusion was that asphyxia told with greater effect under ether than under chloroform, and that (in cats at least) an intercurrent asphyxia was not particularly destructive.

### *Tumours of Small Intestine associated with Carcinoma of Larynx.*

Dr. B. H. Wedd showed an example of tumours of the small intestine associated with laryngeal cancer. The intestinal tumours were not metastatic and differed in structure from the growth in the larynx, which was a squamous-celled carcinoma; their multiplicity was of interest.

### *Uterine Tumours in Rabbits.*

Dr. A. E. Boycott described tumours in four rabbits; their growth was connected with pregnancy, and in structure they suggested a decidual origin.

### *The Action of Pro-thyroid and Anti-thyroid Preparations.*

Mr. W. Edmunds recorded some work on the action of pro-thyroid and anti-thyroid preparations. He had previously shown that the administration of thyroideum siccum caused death in rats, with changes in the adrenals. This knowledge was used to test the value of the milk of thyroidless goats in the treatment of chronic thyroid

poisoning. As a control the milk of a normal goat was used. It was found that the rats died sooner when fed on thyroidless milk than with normal. It was pointed out that this could be explained by the operation of thyroidectomy having caused a tendency to myxoedema, which might give rise to an antimyxoedemic body which would be a pro-thyroid body, and aid the thyroideum siccum in causing death.

*Lamarckism and Callosities.*

Mr. S. G. SHATTOCK observed that it was a maxim in the investigation of biological problems that they were best approached by a study of their simplest expressions. The question whether acquired characters were transmitted was one still under discussion. It was necessary to define what was meant by acquisition. The acquirement of secondary or external sexual characters at puberty was not, for example, a proper instance of it; these were delayed characters only. The term must be limited to an acquisition which was under control, so that when the circumstances which would call forth such acquisitions were prevented from acting, the acquisition would not arise. This was essentially Lamarck's position. And Weismann's category comprised precisely such characters: Overgrowth of parts from increased use; atrophy from diminished use; changes due to climatic influence; mutilation. In regard to the non-transmission of the negative characters resulting from disuse and mutilation, Paley (*Natural Theology*) had long ago written: "The mammae of the male have not vanished by inusitation, nec curtorum per multa saecula Judaeorum propagini deest praeputium." Even in the famous case of those blind among the deep sea fish from the *Challenger* dredgings, it was unproven that the transmitted want of the eyes had resulted from an atrophy resulting from disuse; for such fish were possessed of a phosphorescent organ in the neighbourhood of the eye, the growth of which was probably, the speaker suggested, correlated with the disappearance of the eye—as the gills of the tadpole disappear with the growth of the lungs. In regard to overgrowth from increased use, the author took the case of the well-known callosities on the sternum, knee, carpus, and other parts of the camel. No simpler example could be given of overgrowth due to increased exercise. The callosities were present on every camel, whether bred in a menagerie or under natural conditions. Were they present at birth? The author had critically examined into this from material especially obtained from Cairo. In the full-term fetus there was absolutely no trace of want of hair, or any epidermal thickening in a single one of the proper positions. The character, simple as it was, was not transmitted, in spite of its universal and long-continued acquirement; all that was transmitted was the capacity to acquire it, should the external conditions come into play. The gluteal callosities in the baboon were of a more ambiguous kind. These were present at birth, but in a certain sense only. The author had studied these histologically in the Guinea baboon, and in Macacus. The skin was here quite hairless at birth, but it was particularly thin, and devoid of papillae and glands; the epidermis over it was no thicker than on the piliferous skin around. The thickness of the epidermis of the palm and sole of the monkey at birth was due to the abundant development of papillae, the intervals between which were filled with it; these parts were essentially tactile areas, adapted in the first place for arboreal progression. The hairless gluteal areas were not so. By use the epidermis over them became notably thickened, yet this being a proper acquisition from use, was not transmitted. The author provisionally suggested that the thinly skinned hairless districts were related to cutaneous scent gland areas, of which they might be vestiges. Such cutaneous glandular areas were largely found amongst antelopes, though not gluteal; in some cases the glandular patch was piliferous, in others it was bare; and in yet a third set there was a thinly skinned smooth, naked area, the glandular zone being around this. Such a disposition suggested that the hairless area in the monkeys (of the Old World) was related to a peripheral glandular zone; and that the area in question was not essentially due to the commonly supposed cause, namely, the sitting attitude adopted by apes; the hairs were not worn down as in the camel; they were congenitally absent.

## MEDICAL SOCIETY OF LONDON.

PATHOLOGICAL MEETING.

*Monday, February 27th, 1911.*

Mr. CHARTERS J. SYMONDS, President, in the Chair.

*Exhibits.*

THE following were among the exhibits:—Dr. F. J. POYNTON: Specimens of cases of acute leukaemia and acute carditis. Mr. A. E. BARKER: (*a*) Primary carcinoma of the caecum with a secondary nodule in the sigmoid flexure—? implantation from the upper caecal growth; (*b*) carcinoma of the lower rectum, with another smaller cancerous ulcer 4 or 5 in. higher up—? extension along the submucous lymphatics in the sense of Sampson Handley's infection; (*c*) extensive tubercle of colon (hepatic flexure) removed by operation. Dr. ERNEST H. SHAW: (*a*) Carcinoma of the kidney; (*b*) carcinoma of the oesophagus and liver; (*c*) carcinoma of the oesophagus involving the trachea; (*d*) chronic nephritis in undeveloped organ; (*e*) calcareous degeneration of aortic valve with two segments, atheroma of coronary arteries. Dr. PARKES WEBER: Specimens from a case illustrating the occurrence of prolonged or fatal syncopal attacks in elderly persons. Dr. R. C. JEWESBURY: (*a*) Mitral and tricuspid stenosis; (*b*) dilatation of the oesophagus. Mr. CHARTERS SYMONDS: Specimens of gangrene of the gall bladder. Dr. H. M. TURNBULL: Cases of mesaortitis, apparently an isolated syphilitic manifestation, in father and daughter; mesaortitis in a child of 7; ectopic chorion-epithelioma. Mr. T. B. LAYTON: (*a*) Ununited fracture of the tibia; (*b*) fibrous union of a fracture of the femur, with ankylosis of the knee-joint; (*c*) osteo-myelitis of the tibia, with epithelioma of skin. Mr. MAYNARD HEATH: (*a*) Cyst of the upper extremity of the femur; (*b*) a post-anal tumour—? teratoma. Mr. T. P. LEGG: The right kidney, containing a large branched calculus, removed from the bony pelvis by operation; patient aged 18 years. And cases by Dr. B. SPILSBURY.

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## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

*Liverpool, Friday, February 17th, 1911.*

Dr. HELLIER, President, in the Chair.

*Exhibits.*

DR. BRIGGS (Liverpool) showed several obstetrical mannikins which he claimed rendered the teaching of operative midwifery both easier and more satisfactory. Dr. HELLIER (Leeds) showed an intramural myoma removed from the abdominal wall of a woman, aged 25, in her second pregnancy. The tumour had grown with great rapidity, and showed some signs of degeneration. The patient had done well and had not miscarried. Dr. GEMMELL (Liverpool) showed (*a*) A specimen of an ovarian abscess simulating a fibroid which had been noticed during a pregnancy some seven months before the operation. In the course of separating adhesions during the operation the abscess, which appeared to be intimately connected with the uterus, and as large as a five months pregnancy, was ruptured, and so panhysterectomy was performed. It was only on subsequent dissection that the tumour was found to be ovarian in origin; (*b*) a specimen showing multiple fibroids of the uterus in one of which red degeneration had taken place. The operation (subtotal hysterectomy) was undertaken on account of severe haemorrhage.

*Persistent Metrorrhagia.*

Dr. GRIMSDALE (Liverpool) described a case of persistent metrorrhagia in a woman of 35. The patient had been curetted on two occasions, but with only very temporary relief, so after consultation the uterus and one ovary, in which there was a blood cyst, were removed.

*The Use of "Endometritis" and Similar Words.*

Dr. W. E. FOTHERGILL (Manchester) read a paper dealing with the proper use of the word *Endometritis* in teaching gynaecology. If this could be settled, definition in the

use of other words like "metritis" and "ovaritis" would naturally follow. Endometritis certainly implied the inflammatory reaction of the tissues to irritation by septic, gonorrhoeal, tuberculous, and other micro-organisms. The word was, in fact, the name of a pathological process. But it was constantly used as a name for various clinical states or diseases which were not caused by infective or other irritants. Amongst the conditions often called "endometritis" were pelvic hyperaemia, hyperplasia of the endometrium, subinvolution, the menorrhagia of puberty, the menorrhagia of the menopause, and even menorrhagia secondary to various general diseases. Dr. Fothergill considered, in the first place, that the teaching of gynaecology would gain in simplicity and accuracy if the use of words ending in "itis" were confined to cases in which there was clinical evidence in the form of history, symptoms, or signs, that infection had played a part in the causation of the condition. Further, he thought it would be of advantage if words ending in "itis" were used only for pathological processes which occur in the course of infective disease, and were not used as if they were the names of diseases with independent and separate existence.

## MEDICAL SOCIETY OF LIVERPOOL.

AT a meeting held on February 9th, Dr. T. R. BRADSHAW, President, in the chair, Dr. H. H. CLARKE read a paper on the use of *Tuberculin in the treatment of phthisis*. He gave a short account of the plan of treatment he adopted. When dealing with patients in the hospital he gave a course for forty-two days, starting with $\frac{1}{5000}$ c.cm. of the original solution of the bacillary emulsion as prepared by Meister, Lucius and Brüning. For the first ten days the dose was doubled each day, thus $\frac{4}{50}$ c.cm. was soon reached; this on the 12th, 20th, 30th, and 42nd days was again doubled. If the patient had to be treated in the out-patient department he gave a weekly dose of $\frac{1}{500}$ c.cm. He considered the oral method as useful as the hypodermic method of administration. He concluded that tuberculin was of use in the treatment of phthisis. Dr. E. W. HOPE, the medical officer of health, read a paper on the *Local administrative control of tuberculosis*. He pointed out the great difficulties which had confronted the early attempts to deal with the prevention of tuberculosis due to the neglect in bygone years of sanitary principles, and to the large amount of unskilled and casual labour which had existed in Liverpool. He emphasized the view that efficient methods must begin at the control of the recognized predisposing causes of tuberculosis, and showed by charts how the adoption of these methods had in Liverpool been crowned with success. When insanitary areas were first condemned the mortality from phthisis was 4 per 1,000; in the last two years it had fallen to 1.9 per 1,000. Dr. Hope exhibited models of the new and the old workmen's dwellings. Speaking of sanatoriums, he said that these must fail as great preventive means, whilst they had other uses. He gave an account of the sources of information at the disposal of the health authorities for the recognition and subsequent amelioration of tuberculosis, and considered that the various authorities now engaged in this work could with advantage be unified. He advocated as wise and economical the support of the dependents whilst the bread-winner was undergoing treatment, and considered that accommodation for advanced cases and possibly the compulsory detention of dangerous cases were required. He estimated that the disappearance of phthisis would mean a saving to the nation of one-eleventh part of the total cost of pauperism—that is, of £1,000,000 per annum. There was compulsory notification in the case of pauper consumptives, and he thought this rule should be extended to all those who sought relief in any medical charity. Voluntary notification had worked well in Liverpool. Notwithstanding that the population had increased by 115,000 from 1895 to 1910 the total number of deaths last year from phthisis was 3,056 less than in 1895. Dr. Hope then gave an account of the German system of insurance for sickness, which he said deserved earnest attention. Dr. PERMEWAN said that the radical cause of consumption was to be found in the housing conditions of the people, and he paid a high tribute to the work that Dr. Hope had done in connexion with this problem. In view of the great prevalence of tuberculosis amongst barmen, Dr. PERMEWAN urged the necessity of the power of inspection by the health authorities. This they had not at present. The lighting and ventilation of public-houses was very often deficient. Dr. NATHAN RAW favoured the prospect of unification of the authorities dealing with tuberculosis. At the present time there were about 800 persons with phthisis, mostly in an advanced stage, under the care of the Poor Law, and thus isolated. He was in favour of compulsory removal and detention of advanced cases. He looked forward to the time when the whole problem of the control of tuberculosis would be undertaken by the health authorities in each district. Dr. BUCHAN, M.O.H. of St. Helens, urged the necessity of compulsory notification. Dr. MOFFAT of Bolton said that in that town the poor people were recognizing the infectivity of tuberculosis, and compelling members of households suspected of suffering from that disease to attend the medical charities.

## SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 16th, Mr. A. CUFF, President, in the chair, Dr. JOHN ROBERTSON (Birmingham) read a paper on *The Present Position of Infection*, in which he stated that there had probably been no greater change in the whole range of medicine than that which had taken place in their views in regard to the nature of infection and the methods by which it was conveyed from one person to another. They now recognized that from 60 to 70 per cent. of all deaths were due to processes which were known as infective, while, of the remaining ill-defined causes, many were of similar origin. There was still a group of infective diseases, of which measles and small-pox were types, in regard to which their knowledge was very incomplete, as they did not know how the infection was given off from the infected person. They had, therefore, invented as an explanation the theory of aërial convection. Clinical and bacteriological investigation had, however, given reliable information as to how the infection in most of the other diseases was conveyed either directly or indirectly. Careful observations in fever hospitals and in private practice had demonstrated beyond doubt that in the majority of diseases the infection was transported from one to another directly or indirectly, and that passage through the air did not play the part which it was at one time thought to play. While this was so in practice, it could be demonstrated that in the act of loud talking particles of saliva were ejected from the mouth and carried in the air to distances of 30 or 40 feet. It was therefore probable that this projection of infection should be taken into consideration in dealing with cases where coughing or sneezing was present, such as occurs in measles, whooping-cough, and tuberculosis of the lung. No two diseases could be regarded as alike in the way in which the infection was spread. Carrier cases were now a recognized source of infection. Dr. Robertson thought they played a much less important part in practice than theoretically they should play. The problem of infection spread by flies, mosquitos, fleas, etc., was also dealt with. Dr. ARTHUR HALL showed a case of combined posterior and lateral sclerosis, *Ataxic paraplegia*, in a youth of 23. The symptoms began eighteen months ago, and consisted of marked ataxia with weakness in the legs and pain in the knees. The gait was very ataxic and was associated with some jerkiness of movement and slight tremors at times. The eyes were normal in every way; also the head and neck and upper limbs. Romberg's sign was well marked; patellar jerks much exaggerated; toe extension on both sides; no true ankle clonus; no tenderness; no definite alteration of sensation; sphincters normal; no family history of similar cases; no syphilis; no etiological factor discovered.

## SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting held on February 10th, Dr. W. G. WILLOUGHBY, President, in the chair, Lieutenant-Colonel C. H. MELVILLE, R.A.M.C., in a paper on the *Sanitary Service of the Territorial Forces*, spoke mainly of the duties of those officers who are on the *à la suite* list, and

whose services would be available on mobilization. After stating that in the Territorial Force regulations it was laid down that on mobilization these officers would be appointed, under arrangements made by the administrative medical officers in whose divisional areas they held appointments, to perform sanitary duties within their districts, should these happen to be occupied by troops, he sketched roughly the exact place which the administrative medical officer occupied in the general system of army administration from the point of view of prevention of disease. In addition to duties connected with the removal of sick and wounded, that officer was the responsible sanitary adviser of the general officer commanding on all sanitary matters, and his duties consisted, broadly speaking, in making recommendations regarding precautionary and remedial measures relating to billets, camps, garrisons, hospitals, transports, dress, duties, etc., conducive to the preservation of health and to the mitigation and prevention of disease in the army and civil population. He was provided with a sanitary officer, whose duty it was to supervise the details of those recommendations, and to assist his chief with expert advice concerning them. Colonel Melville laid stress upon the fact that the duties of these officers were only advisory, and that the ultimate decision as to the occupancy of camping grounds, etc., was in the hands of the officer commanding the force, no matter how small or large it might be. The *à la suite* officers could render invaluable assistance to the administrative medical officer by helping to maintain that touch between the military and civil systems of sanitation which was of such great importance. If he was the local medical officer of health he was the only person who could furnish authoritative information with regard to the prevalence of disease among the civil population. He could also be of enormous assistance in collecting sanitary intelligence. This would have reference to the habitation of troops either in buildings or in camping grounds, to water supplies, roads, etc. Suitable camping grounds should be inspected and their location identified on the map. They should be described as to their acreage, whether grass, heather, or open heath, or if ever under cultivation, whether level or of a gentle slope, and whether liable to floods. The quantity and quality of the water supply should be ascertained. The water supply of the district as a whole should be described, and the officer should make himself familiar with the position of good and bad supplies. This collection of what might be called sanitary intelligence would fill a serious gap in our knowledge, and any officer on the *à la suite* list who would set about collecting it as regarded his own district would be doing a useful piece of work and would render the State good service. After remarks by Mr. F. E. FREMANTLE and Dr. EDWARD SERGEANT, Dr. J. R. KAYE urged the importance of educating the rank-and-file in sanitary matters. The art of hygiene stood as high as the art of strategy, and in every campaign disease had been the master. Dr. CALDWELL SMITH considered that the members of the *à la suite* service should be obliged to attend camp, and should receive the pay of their rank. Mr. H. STOTT said that in Sussex lectures had been given on sanitary matters to the non-commissioned officers, and he considered they had done a great deal of good. Dr. HERBERT JONES emphasized the importance of every *à la suite* officer recording in detail particulars of camping grounds and water supplies in his district. Professor W. R SMITH and Dr. TUBB-THOMAS also spoke.

## BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 23rd a demonstration of *Kinematographic microscopy* was given by Dr. BURNET of Leamington. The films exhibited showed *Trypanosoma brucei*, *Trypanosoma lewisi*, *Spirochaeta gallinarum*, *Spirochaeta pallida*, the organisms of relapsing fever, and spirochaetes of Vincent. The demonstration was a most interesting one, and a large audience listened with the greatest interest to the explanation of the various points shown by the films given by Dr. Burnet. A hearty vote of thanks to the demonstrator concluded the proceedings

# Reviews.

## THERAPEUTICS AND PHARMACOLOGY.

PROFESSOR ROBIN of Paris, in the preface to his book, entitled, *Thérapeutique usuelle du praticien*,[1] states that his object has been to provide a condensed survey of the application of medical practice to the practical relief and cure of disease. He says: "I am a believer in therapeutics, and what I have seen in the course of my career enables me to assert that scepticism is an avowal of ignorance much more than an admission of impotence; further, my most cherished ambition is to inspire my hearers with the faith which I possess." In his introductory lecture he expresses the belief that the insufficiency of active and well-defined therapeutic treatment is not the least potent cause of the encroachment of surgery on certain fields of practice which ought, save with rare exceptions, to remain the territory of physicians. Of the many subjects with which Dr. Robin deals, none perhaps will appeal more forcibly to the busy practitioner than the chapters on dyspepsia. To an admittedly difficult subject he brings a clear and precise judgement which enables him to formulate a simple and yet comprehensive classification under which may be marshalled all the endless varieties of this troublesome and ubiquitous disorder. On the important questions of diagnosis and treatment, details are set forth which, when thoroughly grasped, will enable dyspeptic conditions to be dealt with on a well-ordered working plan, and to substitute for mere empiricism a system of all-round management resting on reasonable and comprehensive conclusions as to the etiological and pathological factors which have contributed to physiological incompetence. In the treatment of gastric ulcer, Dr. Robin lays special emphasis upon the value of absolute rest for the stomach for a period of not less than nine or ten days, so as to allow cicatrization to occur. During this time he advocates the complete suspension of food and drink by the mouth, and forbids even the giving of water. Nutrition can, he says, be sufficiently maintained by nutrient enemata. He follows this by a dietary confined entirely to milk, given in progressively increasing amounts for a month, and thereafter he gradually adds to the daily diet until eventually a full regimen is reached. He urgently protests against the present-day tendency towards treating all cases of appendicitis surgically, and although he fully admits that circumstances occur in which operation becomes essential, he pleads for some return to the ancient belief in the efficacy of other measures. He advocates, contrary to many authorities, the immediate use of purgatives in doses sufficient to produce an active effect, and he prefers to all others calomel or castor oil. He pays a striking tribute to the value of gelatine injections in the treatment of aortic aneurysm, as recommended by Lancereaux and Paulesco, and declares that more favourable results are obtained by this than by any other plan of treatment in many cases of this formidable and distressing condition. He gives definite rules for carrying out the method, and states that in favourable cases, after the third injection, the pulsation of the aneurysm tends to diminish. The functional disorders due to the compression improve after the sixth injection, and the volume of the sac itself to diminish after the tenth injection. From thirty to forty injections are required to produce a lasting and satisfactory effect. The modern treatment of neuralgic conditions by injections of alcohol does not meet with his approval. He says of them that, though they frequently produce temporary alleviation of the pain, recurrence is the rule and permanent cure the exception. The injections, moreover, cause some suffering, and are not exempt from the possibility of undesirable consequences. He suggests as a more safe and also a more reliable alternative, injections of glycerophosphate of soda. These points have been taken at random to indicate the scope and versatility of this book. It is replete with valuable suggestions, moderately stated, and sufficiently detailed to enable every practitioner of medicine to repeat in his practice the experiences of

[1] *Thérapeutique usuelle du praticien.* By Albert Robin, Professor of Clinical Therapeutics in the Faculty of Medicine of Paris, Member of the Academy of Medicine. Paris: Vigot Frères. 1910. (Med. 8vo, pp. 532. Fr. 8.)

the author. It may be thought that many of the formulae quoted are examples of polypharmacy, but reasons, it will be found, are given for the presence of each ingredient, and many readers will be converted to the older view, which nowadays is somewhat disdainfully regarded, that a judicious combination of drugs in compatible amalgamation and selected to meet the several indications which a given patient presents, is often more efficacious than the prescription of the one remedy which the prominent symptom of the pathological condition most urgently suggests. Dr. Robin's book deserves to become popular, and will amply repay practical men for the time spent over its perusal.

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e congratulate Professor CUSHNY on the appearance of the fifth edition of his well-known textbook on *Pharmacology and Therapeutics*,[2] Besides being a mine of information both to student and expert, it is written with lucidity and directness. Professor Cushny says in the preface that the amount and importance of the researches published in recent years testify to the growing interest in the action of drugs and their application, and to the abandonment of the nihilistic attitude towards therapeutics which was at one time so discouraging. He says also that there is a notable ebb in the flood of new remedies, which threatened to submerge medicine at the end of the last century, and that the use of many of the minor older remedies is also declining; he has, therefore, been able to curtail the discussion of many of them, and some have been entirely discarded from his book. With such an introduction as this, the reader may be encouraged to feel that he has in Professor Cushny a trustworthy guide to the use of drugs. Before many pages are read he will find the timely warning not to expect in disease the same or as much effect as pharmacological experiment would indicate as possible, for the reactions on infected may be different from those on normal tissues; moreover, there is what may be called the idiosyncrasy of the lower animals to be thought of, with the result that it is possible that a drug which in a lower type produces one form of reaction may in man produce a different effect. The volume is divided into six parts. In the first those organic substances are discussed which are characterized chiefly by their local action; it is shown, for instance, as a result of the teaching of Pawlow that bitters have a real place in medicine in that they improve the psychic desire for food. The second part deals with substances characterized chiefly by their action after absorption and includes the members of the alcohol-chloroform group, strychnine, atropine, quinine, the antipyretics such as the acetanilide and antipyrine series, and salicin and its allies the salicylates. We commend to the reader Professor Cushny's description of digitalis and its therapeutic uses, for very pointed directions are given not only as to when to use it but when not to use it, and if the reader rather gains the impression that the restrictions laid down swamp the opportunities for its use, he must feel that the newer studies of Dr. James Mackenzie have added so much to the knowledge of cardiac disease, that it is easier now to tell beforehand when digitalis may or may not be employed. As Professor Cushny does not set out to write his book as an expert pathologist, the student must read his own knowledge of this subject between the lines of this textbook, and will understand better why it is that digitalis used in therapeutic doses is unable to produce those improvements in the blood pressure which clinical observations show are so desirable. The third section of the book deals with combinations of the alkalis, alkaline earths, acids, and allied bodies, and due attention is paid to the developments which have shown that in this group in particular the pharmacological effects are as much if not more due to the physical properties of the particular drug as to the chemical; in other words, the "ion" theory has received at Professor Cushny's hands a full and appreciative attention. The fourth part includes a discussion of the heavy metals, and iron comes in for a full share of the author's attention. Its use in chlorosis is still maintained by Professor Cushny. No doubt the work of Professor Haldane and his followers upon the content of the iron in the blood of chlorotics is well known to the author, and possibly he is aware of further researches which may have tended to upset their contention that in this malady there is no reduction of iron in the body, and to prove that what does exist is an increase of the wateriness of the plasma. The fifth part includes a discussion on ferments, secretions, and toxalbumins, and the last section deals with menstrua and mechanical remedies. Despite the advantages accruing from the relegation of pharmacology to the non-clinical worker, by which he is given more time for the study of the subject, we cannot close the book without feeling how great would be the advantage to medicine if such an authority as Professor Cushny could be provided with access to the wards of a hospital, so that his profound pharmacological knowledge should receive more of the clinical "salt," which could not fail to render it the more serviceable.

[2] *Pharmacology and Therapeutics, or the Action of Drugs.* By Arthur R. Cushny, M.A., M.D., F.R.S., Professor of Pharmacology in the University of London. Fifth edition. London: J. and A. Churchill. 1910. (Royal 8vo, pp. 744; illustrated with 61 figures in the text. 15s.)

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## ALLBUTT AND ROLLESTON'S SYSTEM.

THE study of nervous disease has received great attention from British workers for at least three generations; we can, indeed, congratulate ourselves that much of the good work upon this intricate and fascinating branch of medicine has been done by our countrymen. The logical mind seeks out the mazy paths of the central nervous system with a keen pleasure, for in no other organ or system of organs are the teachings of histology and physiology so accurately illustrated by the effects of disease. In the volume before us—the seventh volume of Allbutt and Rolleston's *System of Medicine*, comprising diseases of the muscles, the trophoneuroses, diseases of the nerves, vertebral column, and spinal cord[3]—a glance at the list of contributors leads us to expect valuable monographs, an anticipation which is fulfilled. The editors have been fortunate in retaining the services of many who wrote for the former editions, whilst several new articles are contributed by well known workers on the subjects they describe. Diseases of the brain and mental diseases are not included, but will appear in the next volume.

Dr. F. E. Batten is responsible for more than half the section on diseases of muscles, having written the article on myositis, and revised the article on myopathy, written by the late Dr. C. E. Beevor. The article last named gives a concise account of the myopathies, pointing out the relationships of the various forms. As the number of carefully recorded cases grows more links between the types are recognized; hence what might appear to the casual reader of neurological journals a heterogeneous collection of cases has been shown gradually to present evidence of a common though obscure congenital cause. Dr. Farquhar Buzzard writes an interesting account of myasthenia gravis with a full illustrated description of the morbid anatomy. No satisfactory hypothesis of the causation of the disease has been propounded. Dr. Michell Clarke describes family periodic paralysis, and Dr. Hale White and Dr. James Collier myatonia congenita and amyatonia congenita respectively. Dr. Turney discusses the trophoneuroses judicially, including the trophoedemas and neurotrophic affections of the bones and joints. His classification of the trophoedemas is based upon what physiological knowledge we have of the transudation of lymph. Sir Thomas Barlow's accounts of Raynaud's disease and of erythromelalgia will be read with much pleasure; they are full and informing, but at the same time interesting, and the reader leaves them with a clear impression of the present state of knowledge of these conditions.

The diseases of the nervous system are introduced by a new article of 116 pages from the pen of Dr. Mott, entitled "An Introduction to Neuropathology." An account of the development of the neuron theory is given first, including the recent researches of Ross Hamilton, who has observed the actual outgrowth of the axis cylinder from embryonic spinal cord cells. The view that regeneration of a divided nerve takes place by a growth downwards of the proximal end of the severed axis cylinder is fully supported by the newer evidence; the sheath cells of the distal portion appear to guide the direction of the new fibre by a chemiotactic attraction for the outgrowing nerve process.

[3] *A System of Medicine.* By Many Writers. Edited by Sir Clifford Allbutt and H. D. Rolleston. Vol. VII. Diseases of the Muscles, the Trophoneuroses, Diseases of the Nerves, Vertebral Column, and Spinal Cord. London: Macmillan and Co. 1910. (Pp. 900, 99 illustrations and 7 plates. 25s. net.)

The mode of connexion of neurons with one another has been in dispute from the foundation of the neuron concept. Dr. Mott reviews Held's contention that during the process of growth the protoplasm of related neurons fuses, but concludes that, although in certain invertebrates there is a "fibrillar continuum" through several ganglion cells, yet in more highly developed animals there is neuronic independence, which is associated with the property of conveying impulses one way only in any neuronic system, although the axis-cylinder processes are capable of transmitting in each direction. The neuraxon of a psychomotor cell is not connected with one only, but "with a number of spinal motor neurons forming the final common path for a multitude of different voluntary muscular activities." Hereditary predisposition is placed first among the causes of nervous disease; in a healthy nervous system the balance of reserve is high, but in the neuropathic individual there may exist systems of neurons with an inherited low power of storage of energy or an instability of bio-chemical substance. The most important extrinsic cause of nervous disease is the presence in the blood of abnormal constituents, as in uraemia, alcoholism, lead poisoning, syphilis, and other bacterial infections. The results of experimental work upon the nervous system are discussed at length, and much interesting matter is put in such a way as to bring out most clearly its bearing upon human disease. Dr. Mott's article will long be of value to all who wish either to form or renew their conceptions of the basis of modern neurology. Professor Sherrington, who contributes a physiological section on tremor, tendon phenomenon, and spasm, makes claims upon the close attention of the reader, who, however, is rewarded by enjoying a rare accuracy of thought. Dr. Sharkey writes on the same subject from the clinical and pathological aspect. The chapter on medical ophthalmology is another general article by means of which the practitioner will be able to look up any point on which he may desire information more quickly than by searching through the descriptions of several diseases. Affections of the muscles of the eye and the ophthalmoscopic changes of disease are described in a manner for which the name of Sir William Gowers is a sufficient guarantee. Drs. G. A. Gibson and R. A. Fleming are responsible for the account of diseases of the spinal nerves, Dr. Judson Bury for that of peripheral neuritis. Dr. Head, who has done much to define the pathology of herpes zoster, writes an able article upon it, demonstrating clearly the analogy, now well recognized, between that disease and anterior poliomyelitis. Dr. Head also writes on trigeminal neuralgia, recording the success of the operation for removal of the Gasserian ganglion in the treatment of the major form; the method of injection of alcohol into the nerve is described, but no opinion is expressed upon its value as compared with operation, doubtless because a sufficient trial of it has not yet been made. Dr. Aldren Turner describes the diseases of the cranial nerves, and Sir Victor Horsley those of the vertebral column. For compression of the cord from caries of the spine laminectomy is recommended in all cases in which improvement has not begun after extension for about two months, unless vasomotor paralysis of the paretic parts be present, as shown by redness or swelling, in which case the spinal cord may be inferred to be the seat of diffuse myelitis, and beyond the possibility of amelioration. Dr. Starr, of New York, an authority who will be read with much interest, writes on anterior poliomyelitis, relating the many occasions on which the disease has occurred in epidemic form, the infective agent probably being a filterable and ultramicroscopic virus; the section on treatment is full of sound practical advice.

Enough has been said to show the important nature of the various chapters; if further witness were needed, we could point to those on myelitis, by Drs. Frederick Taylor and F. Buzzard; on tabes dorsalis, by Dr. Ormerod; on disseminated sclerosis, by Dr. Risien Russell; on caisson disease, by Dr. Leonard Hill; and other articles, from the pens of Drs. Edwin Bramwell, Wilfred Harris, and Gordon Holmes. In comprehensiveness, in accuracy, and in authority this volume is equal to its predecessors. It has not the atmosphere of the textbook, but a live interest which we attribute to the fact that so much of the work described in it is new work, written at first hand. The text is illustrated by plates, photographs, and tables. We congratulate the editors once again upon the continued high standard of the work; this book is one which every practitioner may be proud to have upon his shelves, and will be wise to consult frequently.

## THE PHYSIOLOGY OF REPRODUCTION.

PROFESSOR SCHÄFER contributes a short but pithy preface to Dr. MARSHALL's book entitled *The Physiology of Reproduction*.[4] He says: "This is the first time that the physiology of the organs of reproduction has been presented in a complete form." Professor Schäfer, if any one, should know if a similar account has been published before. We do not know of anything so comprehensive. This work has nothing in common with some recent books on sexual life, in which a little science is mixed up with a good deal of pornography. This book is pure science. "Sexual life," in the sense of the books to which we have unfavourably referred above, means the ways in which the life, health, and character of men and women are influenced by sexual feeling. This work enters not into such questions. Dr. Marshall describes the various ways in which in different organisms, from protozoa upwards, the gametes are brought into contact.

The subject is important from the point of view not only of the gynaecologist but of breeders of animals. The author has not trusted entirely to his own judgement, which on many points covered in so vast a field must be that of an amateur, but on many matters he has consulted the best experts available to him. In the earlier chapters of the work—on the breeding season and the oestrous cycle—a great many facts concerning the reproductive function in the lower animals are brought together. They illustrate Herbert Spencer's great generalization as to the inverse relation between complexity of structure and function—that is, high development—and reproductive energy.

Next we have a chapter on the changes in the non-pregnant uterus during the oestrous cycle. The author points out, what is not generally recognized, that menstruation in the human female does not correspond to "heat" in the lower animals, but to the "pro-oestrum." It has been shown long ago that the week following menstruation is that in which conception is most apt to take place, and this is the week that corresponds to the oestrum in the lower animals. The next section is on the changes in the ovary. Miss Jane Lane-Claypon's work on ovigenesis is summarized. Observations are quoted which go to show that in some animals at least the maturation of the ovum and the extrusion of the polar bodies takes place in the ovary before the rupture of the Graaffian follicle, so that it appears to be conditioned by the mere act of copulation, and does not require the presence of the sperm cell. Dr. Marshall accepts the view of Bischoff as to the origin of the corpus luteum: that it is formed by the hypertrophy of the epithelial cells of the undischarged Graaffian follicle. Then follows an account, traced from the lower forms of life to the higher, of spermatogenesis, insemination, and fertilization. Many instances of parthenogenesis are referred to, and it is noted that parthenogenetic offspring are usually imperfect. The next chapter, on the biochemistry of reproduction, though full and carefully written, shows how much has yet to be learnt about these things. Then follows an account of the internal secretions of the sexual organs, which is of much clinical interest and importance to the operating surgeon and the general practitioner.

No less than 134 pages are devoted to the placenta. The account given of the formation and development of this organ in different classes of mammals—the origin of the syncytium, the decidua, the allantois, and other structures, is more complete than any other that we know of in the English language. The subject is very difficult and appeals to the histologist rather than to the practitioner. The last six chapters of the book deal with matters of interest not only to the general practitioner, but to every thinking man, namely, the changes in the maternal

[4] *The Physiology of Reproduction.* By Francis H. A. Marshall, M.A.Cantab., D.Sc Edin., Fellow of Christ's College, Cambridge, and University Lecturer in Agricultural Physiology. With a preface by Professor E. A. Schäfer, Sc.D., LL D., F R.S., and contributions by William Cramer, Ph.D., D.Sc., and James Lochhead, M.A., M.D., B.Sc., F.R.C.S.Edin. London: Longmans, Green and Co. (Med. 8vo, pp. 723. 21s.)

organism during pregnancy, parturition, lactation, fertility; the determination of sex, the duration of life, and the cause of death. The one which treats of the determination of sex is headed with a quotation from BACON, "What was a question once is a question still," which indicates the result of the inquiry. Many theories have been propounded to account for the determination of sex; and each that has deserved serious attention has been supported by some evidence; but so far each theory that has been apparently supported by a set of facts has not been confirmed by further facts disclosed, when inquiry has been pushed. The author's final conclusion about this is that "it seems certain that sex is not determined by the same factors in all cases, neither is it determined at the same period of development." Many of the facts enumerated point to the conclusion that the sex of the future organism is determined in different cases by different factors and at different stages of development—either in the unfertilized gamete, or at the moment of fertilization, or in the early embryo.

In the final chapter, on the duration of life and the cause of death, the author remarks that "many instances are on record of extraordinary longevity among men and women, but perhaps the most trustworthy is the famous case of Thomas Parr, described by Harvey: 'He dyed after he had outlived nine princes, in the tenth year of the tenth of them at the age of one hundred and fifty-two years and nine months.'" That is, he was supposed to have been born in 1515, in the reign of Henry VIII, and died in 1668–9, in the reign of Charles II. There was no registration of births in those days; there is no account, as far as we know, of Harvey having made any attempt to test the accuracy of old Parr's memory during his life, or sift his statements in any way. The statement about the "nine princes" has no bearing upon his age, unless we know who the princes were. If "princes" is taken as equivalent to "sovereigns of England," we can only make eight of them, even by including Oliver and Richard Cromwell (which would be, we suppose, the first time that Richard Cromwell was called a "prince"); and two of the sovereigns were queens. It seems to us that Thomas Parr was a very old man with confused and cloudy memories, whose exact age is by no means to be taken as a historical fact. In the chapter on fertility, Herbert Spencer's great generalization, that individualization and genesis vary inversely, is again discussed, and illustrations of it are quoted. To show how thoroughly up-to-date the work is, we may mention the effect of $x$ rays and radium in producing sterility, as one of the matters included.

We might fill many columns with discussions of questions raised in this volume. We will only say that it is the greatest work on the subject in the English language. We hope it may not be the last word on the subject, but it is certainly the latest. Every person who takes an interest in biology will find it most instructive and interesting.

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## DISEASES OF THE NOSE, THROAT, AND EAR.

THE general tenor of Dr. VICTOR LANGE'S essays on diseases of the ear and nose[5] is indicated in the first chapter which deals with the relations of general to special medicine. The author quotes with approval the words of Lipowski, who, in his guide to the treatment of internal diseases, expresses himself as follows: "But in the main point, that is in the development of the art of healing, he (the medical student) is seriously neglected. So it comes about that the young physician—*quoad internam medicinam*—begins his professional life as a therapeutical nihilist. While, dazzled by the bright immediate results of surgery and its surrounding sphere, he renders homage to the bold action he looks down slightingly upon the sphere of energy of internal medicine." The tendency of the writer, obviously a practitioner of prolonged experience, is to give a slight check to the over-readiness to resort to operation and to encourage a little more hopefulness in the use of conservative treatment. He advises that the specialist should be in the first instance a practitioner of general medicine and that he should not specialize too soon, in order that his view of medicine should be as wide as possible, and that he should never forget that "all hangs together." He dwells on the importance of attention to the naso-pharynx, and gives in detail the local, the general, and the balneological treatment. He does not attribute any great importance to the adenoid physiognomy and insists that enuresis is in extremely few cases attributable to the presence of adenoid vegetations. A middle course is advocated in regard to acute inflammation in the middle ear, but leaning towards promptness in paracentesis. He is not favourable to the insufflation of powders, but has a good word to say for the use of instillations which, in his opinion, have the power of liquefying the secretions. He is hostile to the knife in furuncles of the external meatus, and calls attention to the occurrence of genuine intermittent otalgia which is to be treated as a pure neuralgia. A special chapter is devoted to the formation of crusts and fissures in the anterior nares; for the fissures he recommends the use of the sharp spoon. The chapter on acute angina is extremely interesting, the author looking upon oedema of the uvula as suggesting the onset of a peritonsillar rather than a tonsillar abscess. The little work is extremely readable and all the more because it is interspersed with scraps of proverbial philosophy culled from Goethe's *Faust* and other sources which enliven the dissertations and help to drive the arguments home. There are many hints which the modern aspirant in otology and rhinology may wisely take to heart.

The praise we felt justified in giving in the BRITISH MEDICAL JOURNAL of January 16th, 1904, and November 3rd, 1906, to the first and second editions of Dr. ZARNIKO'S treatise on diseases of the nose and naso-pharynx is still more amply due to the third.[6] The work now reaches 758 pages, but the compact first edition which appeared in 1903 contained in 313 pages a full account of rhinology as at that time existing. Condensation was then perhaps studied to the detriment of the literary style, and though it made it possible for the seeker for the dry facts to find them with great rapidity, the expansion practised in the second and the present edition makes the reading of the book easier and pleasanter, even if it weighs a little more in the hand. Two chapters have been added, and the whole work has been carefully revised. One of the new chapters deals with the significance of the pharyngeal tonsil, the author coming, however, to the conclusion, after a consideration of all the views concerning the functions of this and other tonsils, that there is still great uncertainty. He reviews the various suggestions made, as that the tonsil material simply forms a functionless packing (*indifferentes Füllgewebe*) for certain recesses in the tract, or that it gives rise to an important internal secretion; again, that the tonsils help in the formation of the blood, being exactly analogous to cervical lymphatic glands. The author has evidently some sympathy with Brieger's view that they act as a protective mechanism in clearing away injurious substances of all kinds, both mechanically and through their bactericidal power. The objections to this theory are also set forth in deference to those who look upon the tonsil as offering mainly a means of entrance for infective material, giving rise to various metastatic diseases, among which have been included acute articular rheumatism, muscular rheumatism, erythema nodosum, purpura rheumatica, ulcerative endocarditis, pyaemia, latent tuberculosis of the cervical glands, and epidemic cerebro-spinal meningitis. The other new chapter deals with foreign bodies and concretions in the accessory sinuses. We cannot lay aside the book without emphasizing the great assistance afforded to the reader by the care bestowed upon the references, which are repeated whenever necessary, thus avoiding the use of the somewhat irritating "loc. cit." with which the pages of so many books bristle. When a figure is referred to, the page on which it is to be found is given at the same time. The references, which in the first edition numbered 399, have now reached the total of 2,431. It will be observed that the names of English writers are not so frequent as might have been expected, but in the preface the author requests those whose writings have not appeared in German medical journals to supply him with reprints

[5] *Klinische Mitteilungen aus dem Gebiete der Ohren- und Nasenkrankheiten.* Für Studierende und Aerzte. Von Dr. Victor Lange, Kopenhagen. With a portrait of the late Dr. Max Schaeffer of Bremen. Berlin: S. Karger. 1910. (Sup. roy. 8vo, pp. 126. M. 3.60.)

[6] *Die Krankheiten der Nase und des Nasenrachen, mit besonderer Berücksichtigung der rhinologischen Propädeutik.* Von Dr. Karl Zarniko, Hamburg. Third Edition. Berlin; S. Karger. 1910. (Sup. roy. 8vo, pp. 758; 166 illustrations and 5 plates. M.18.)

of the same; he thus indicates his recognition of this hiatus and his desire to fill it.

In 1895 we had the pleasure of commenting favourably on the first edition of Professor GERBER'S valuable monograph on syphilis of the nose, throat, and ear,[7] and it is with equal gratification that we can speak of this the second enlarged and revised edition. The increase in knowledge is typified by the greater size of the book, which now contains 143 as against 74 pages. Possibly the author, by issuing his first edition, gave impetus to the study of the subject, and at all events it was well calculated to awaken interest in the minutiæ of the disease as affecting the parts here dealt with. It is scarcely necessary to emphasize the necessity for early detection of the disease in parts in which the results of neglect may be disfigurement, disturbance of functions, and even loss of life. In these regions, again, the symptoms are often so slight and so little characteristic that it is only through a knowledge of the lesions which may occur, and by a skilled and purposive physical examination that we are enabled to detect and to control them. The author cites a case of syphilis of the maxillary antrum, and refers to the absence of reference to such cases in the literature of the subject. Syphilis occulta tertiaria of the nasopharynx is, as before, excellently described (p. 30), and tellingly illustrated by two coloured plates of the posterior rhinoscopic appearances. The student cannot fail to be impressed by them. The picture of diphtheroid tonsillar chancre is very typical, and the danger of its acquisition by nurses tasting the food from the spoon or bottle of a syphilitic infant is well illustrated (p. 38). The present edition has been increased by an excellent section on the disease as it affects the ear, and the description of syphilitic catarrh of the middle ear (p. 101) merits particular attention. The nerve-deafness occurring during the secondary period is considered by the author to be due to an affection of the labyrinth rather than of the nerve trunk (p. 104). Due reference is made to the spirochaete, to Wassermann's reaction, and to atoxyl, all, of course, unknown at the time of publication of the first edition. The chapter on therapeutics is much enlarged from its former exiguous dimensions, and contains in a condensed form a great amount of helpful instruction. It will no doubt be still further extended in future editions. The coloured drawings have been increased in number, and some of the old ones have been replaced. The bibliography is extensive, but it would seem from it that contributions to the subject from British pens are singularly few, at least of recent years. The perusal of this work will encourage the methodical study of a department of work in which early diagnosis and treatment are fruitful in brilliant results.

## DISEASES OF THE HEART.

SEVERAL excellent and indeed almost epoch-making books on heart disease have appeared during the last few years, the most notable being, perhaps, Dr. Mackenzie's. We have received from America another first-rate volume on *Diseases of the Heart and Aorta*,[8] by Dr. A. D. HIRSCHFELDER, and welcome it as a valuable addition to the extensive literature of cardio-vascular disease. It is divided into four parts. The first deals with general considerations and methods of diagnosis, and includes much-needed descriptions of the modern instruments (sphygmomanometers, viscosimeters, sphygmographs, electro-cardiograms) used in investigating the activity of the heart, and of the alterations in the cardiac rhythm that may be met with. Part II deals with diseased conditions due to diffuse pathological processes—heart-strain, hypertrophy, myocarditis, arterio-sclerosis, and the like. Part III, 260 pages in length, describes diseased conditions due to localized lesions, such as endocarditis, valvular disease, congenital morbus cordis, the Adams-Stokes syndrome, pericarditis, cardiac trauma, and aneurysm. In Part IV, on the functional diseases without anatomical lesion, are included paroxysmal tachycardia, thyroid heart, and the cardiac neuroses; the book ends with an adequate index. The author has made excellent use of the literature of the subject, and the numerous lists of references scattered throughout the volume give convenient indications of the most important and most recent papers that may be consulted. At the same time the clinical aspects of heart disease are thoroughly discussed, while prognosis and treatment are also adequately dealt with. The illustrations are for the most part original, well chosen, and well reproduced; they, with the many diagrams and tracings, are one of the most attractive features of the volume, and do much to render a difficult subject more readily comprehensible. The book may be cordially recommended to advanced students and medical practitioners in search of a well-written and scientific textbook on diseases of the heart and aorta. It is well printed, and appears to contain no more misprints than are almost inevitable in so large a volume. Place might, perhaps, be found in a second edition to mention Curschmann's important paper on pericardial effusion, which would seem to have escaped Dr. Hirschfelder's notice.

## A MEDICAL NOVEL.

*Doctor Grey*[9] is a realistic story of the life of an ordinary general medical practitioner told by one who has evidently had a personal experience of such life. There is a good deal of similarity both in material and its treatment between this book and the author's first novel, *The Serpent and the Cross;* but though the earlier work had more varied incidents, the later is distinctly stronger in many respects. Arthur Grey is first met with as a house-physician nearing the end of his term of office, somewhat sated with the hospital life and eager to settle down to a practice of his own. Next we get Grey as an assistant to a firm of practitioners with a large number of club and parish patients. Here he saw something of the seamy side of club practice, and had to follow the method of his principals, which was simply to avoid as far as possible making any serious mistakes. Next comes Grey's search for a practice in which he could settle down for himself. His first visit was to a country practice which he found on arrival had already been sold, but the principal gave him an insight into what is meant by the professional loneliness of a country practitioner who has no opposition, "with no one to swap ideas with and no one to keep him him up to the mark." His next venture was with a bibulous doctor in a country town where there were only two doctors, "one of whom had the Church connexion and the other doctored the chapel people." At last he found a practice at Wonstone, a manufacturing town near Birmingham, and from this point onwards we get a series of vivid pictures of life among the poorest working classes in a manufacturing town. Among the persons with whom he struck up a friendship were a curate and a journalist of socialistic ideas, and we are treated to interesting discussions between the three friends as to the conditions of the lower working classes, the ways of the Church in dealing with them, and the ideals of the socialist. Speaking of the medical service for the working classes, the journalist says that it is anything but satisfactory; and when Grey suggests that poor people can get a doctor by paying a penny a week, the journalist retorts:

> "But what sort of doctoring do people get for their pennies You know perfectly well you can only make your club work pay by scamping it."
>
> "Yes," replies Grey, "club work only pays at all well when a man has so many club patients that he can look after none of them properly. Poor devils! it is bad for clubbers to be really ill. Loads of them go undiagnosed, and so are never properly treated."
>
> "Just so," said the journalist; "if you run your practice as a business the patients suffer; if you do your work with a keen regard to ethics it is hard on the doctor."

Later the journalist treats Grey to some opinions which are worth quoting:

> You know perfectly well that most people think a great deal more of a doctor's manners than they do of his professional skill. . . . As long as people are content to leave doctoring to private enterprise they must expect to be doctored inadequately. . . . The present system is hopelessly ridiculous,

[7] *Die Syphilis der Nase, des Halses und des Ohres.* By Dr. P. H Gerber, University Professor and Director of the Royal University Polyclinic for Throat and Nose Diseases at Königsberg. Second altered and enlarged edition. Berlin: S. Karger. 1910. (Sup. roy. 8vo, pp. 144' 4 plates, 1 illustration. M. 6.)

[8] *Diseases of the Heart and Aorta.* By A. D. Hirschfelder, M.D., Associate in Medicine, Johns Hopkins University, Baltimore, with an introductory note by L. F. Barker, M.D., LL.D. Philadelphia and London: J. B. Lippincott Co. (Roy. 8vo. pp. 655, with 329 illustrations. Price 25s. net.)

[9] *Doctor Grey.* By Stephen Andrew, author of *The Serpent and the Cross.* London: Greening and Co., Limited. (6s.)

and I cannot imagine why you doctors have not kicked against it long ago. . . . One of these days it will be seen how absurd it is to leave the care of the sick to individuals who are struggling to make a living. Then, perhaps, it will occur to those in authority that it may be a good thing to make the care of the sick a national affair. It may even dawn upon them that to make the medical profession a branch of the Civil Service might be useful all round.

Whether we agree or not with these sentiments, the author contrives, in spite of all the drawbacks of the life of a general practitioner, to throw a certain glamour of attractiveness over Grey's life. He has none of the nauseous sentiment of the vicarious philanthropist, but simply a quiet sense of the dignity and privilege of being able to render skilled and self-sacrificing service for the poorer classes. In this the author has seized on what is the great compensation in general practice, though it may perhaps be the source of the weakness of the profession when it has to fight for its rights. The whole book is refreshing reading for the general practitioner.

## GYNAECOLOGY.

WITH reference to the review of Dr. Blair Bell's *Principles of Gynaecology*, published in the JOURNAL of February 25th, page 445, we have received a letter from the author headed as follows, and containing the subjoined passages:

*When is a Review not a Review?*

No doubt reviewers would answer the question that heads this letter by saying, "when it does not please the author." The impartial man, however, will say, "when it does not review the contents of the book concerned."

For a perfectly deliberate intention not to say a single good word for a book commend me to your recent review of my *Principles of Gynaecology*. Almost the whole review is taken up with a depreciation of my method of arrangement, which has met with universal approbation elsewhere. The objections hinted at are clearly due to encapsuled orthodoxy and a want of appreciation on the part of the reviewer of the pathological significance of certain "gynaecological conditions" such as haematocele, which in my book is *not* considered as a disease, but as an accident that occurs in connexion with ectopic pregnancy, etc., under which it is sufficiently discussed.

The points in favour of the pathological as opposed to the old anatomical method of arrangement (noted by others) are ignored in your review, though mention might at least have been made of the unquestionable advantage of a full and complete discussion of syphilis and gonorrhoea in one place instead of under scattered "topographical" divisions.

Of the two "omissions" mentioned, one thing is not omitted at all, as your reviewer will find if he will remember that "Mittelschmerz" is not an English word, nor is this somewhat indefinite symptom (*i.e.*, pain) an entity of itself. The point of the other so-called "omission" is quite beyond me to appreciate.

With regard to your reviewer's remarks on my description of menstruation, will he refer me to a fuller, more scientific, and accurate one?

Further, I must ask you to believe that your reviewer is ignorant of the meaning of the terms "induction" and "deduction." The most casual reader would be forced to admit that my method is essentially "inductive."

I should never have dared to write this letter did I not possess spontaneous letters of appreciation of my book from a very large number of eminent gynaecologists, and had not a very large proportion of all the reviews—at home and abroad—been most generous and encouraging.

No one has a right to expect a flattering review, but one is entitled to demand a competent and fair one. In order to ensure this, I think it is quite time that the Journal Committee insist that the reviews be initialled or signed.

*** The perusal of Dr. Blair Bell's book was looked forward to with considerable interest by the reviewer and it was with regret that he came to the conclusion expressed that in its presentation of the subject for students it was not so successful as the older method. The discussion of menstruation in Marshall's *Physiology of Reproduction* may be cited in answer to Dr. Bell's query. The two "omissions" were on points which arose in a clinical demonstration while the book was under consideration. One had been noticed in reading the text and the other, which it seems is only nominal, was looked for in the index; it is not necessary here to canvass their importance in symptomatology.

## NOTES ON BOOKS.

DR. WILHELM STERNBERG'S somewhat violent booklet on the "exaggerations of abstinence" (*Die Uebertreibungen der Abstinenz*)[1] which has reached a second edition in Germany, is an answer to such a condemnation of alcohol as was published by Professor Georg Rosenfeld in Professor A. Albu's System of Diseases of Digestion and Metabolism, and is written with considerable literary ability, but is vehemently personal and abusive to those who differ from the author. Dr. Sternberg asserts that the word "poison" is used too freely, for the injurious effects of most substances depend upon the dose, and there are few articles of diet which do not contain substances which are poisonous in sufficiently large doses. He ridicules the unqualified statements of many of his German brethren who at times, he alleges, seem to take a too ascetic view of life and forget that human nature will seek what is pleasant as well as what is strictly necessary, and that their crusade against even a moderate enjoyment of the pleasures of the table may defeat its own object. Nevertheless we cannot agree with Dr. Sternberg's general line of argument, for he overlooks the supreme fact that alcohol, like opium, when taken in even small quantities may start a craving for intoxication, and that this abuse of alcohol is in our northern climates so common as to constitute a grave social evil. It therefore stands on quite a different footing to the other articles of diet with which he seeks to compare it, and it is futile to pretend that there is no greater reason for the campaign against alcoholic excess than against the over-use of other articles of diet which, no doubt, may be the causes of derangements of health.

One drawback to a career as a distinguished explorer must be the necessity (in the case of safe return home), of writing a history of one's travels, and many books of this kind are spoilt by too great learning or a lack of literary skill. Fortunately, however, this is not always the case. Dr. KARL KUMM has long been a recognized authority upon Africa, and his latest book will do much to enhance his reputation both as writer and explorer. *From Hausaland to Egypt*[2] is an extremely interesting account of his most recent expedition, which, in less than fourteen months from the time of its leaving England, managed to make its way from Forcados, on the West Coast of Africa, right across the Continent to Khartum, much of the country traversed having been previously totally unknown to any white man. Naturally enough, in these circumstances, Dr. Kumm and his companions had some curious experiences, one of the most exciting being their journey through a tribe of cannibals who "had tasted the flesh of many different nations; they had eaten Hausas, Fulanis, Ankwes, Montoils, and others, but they had never tasted a white man yet, and they were watching for one to come along!" But, interesting as is the recital of the various adventures encountered by the little band of pioneers, the chief charm of Dr. Kumm's book lies in the pictures of native life and customs, and the numerous thumbnail sketches of native character, so ably and so sympathetically drawn. Dr. Kumm writes as one who knows and loves his subject, and his clear, forcible style and keen sense of humour combine to make a most readable book of travels. The book is well printed, and the interest of the narrative is greatly increased by the coloured plates, and the large quantity of photographs, maps, and diagrams which serve as illustrations.

In the volume on *Hay Fever and Paroxysmal Sneezing*,[3] which Dr. EUGENE S. YONGE has published, the reader will find a careful summary of all that is at the present day known regarding these minor, but none the less aggravating, ailments. Volumes which are devoted, like this one, to the detailed study of an individual disease, necessarily reproduce, while they also elaborate, the teaching to be found in the many textbooks on medicine with which the profession is familiar. The multiplication of

[1] *Die Uebertreibungen der Abstinenz: eine diaetetische Studie fuer Mediziner und Nichtmediziner.* Von Dr. Wilhelm Sternberg. 2 Auflage. Würzburg: Curt Kabitzsch. 1911. (Sup. roy. 8vo. pp. 101. M. 2.40.)

[2] *From Hausaland to Egypt, through the Sudan.* By H. Karl Kumm, Ph.D. London: Constable and Co., Limited. 1910. (Pp. 324; illustrated. 16s.)

[3] *Hay Fever and Paroxysmal Sneezing* (Vasomotor Rhinitis). By Eugene S. Yonge, M.D.Edin., Physician to the Manchester Hospital for Consumption and Diseases of the Throat. Edinburgh and London: William Green and Sons. 1910. (Med. 8vo, pp. 150; 2 coloured plates. 6s.)

these monographs makes serious demands upon the time of the busy man who is also an omnivorous reader, but there is this justification for them, that they focus the greater part of the work done by others in no less degree than they relate the personal experience of their authors, and so constitute for themselves a valuable position in the literature of medicine as works of reference. Dr. Yonge's book will prove a valuable addition to every reference library and a useful guide to the individual practitioner who is specially interested in its subject-matter, for these two ailments, though generally trivial, are sometimes attended by considerable anxiety and difficulty in their successful management.

That a second edition of Dr. MYERS'S little book *On the Care of Children*[4] has been called for in less than a year after the publication of the first justifies the author's claim "that the book has evidently fulfilled a want amongst a certain section of the public." An appendix has been added, "demonstrating a simple method of making and sterilizing the baby's milk mixture without the use of expensive apparatus." The method is simple enough, and can be easily carried out in any household into which the book is likely to find access. It might have been mentioned, however, that many authorities consider that there are advantages in the use of fresh raw milk, over that which has been boiled, pasteurized, sterilized, or cooled in any way, as a routine food for infant use. In the height of summer, and where there is any reason to doubt the purity of the milk, then the steps the author advises should certainly be carried out. The half-dozen books he recommends as suitable for children is certainly a meagre list in response to a request from "many mothers in England." Mrs. Molesworth's books for girls we know, but the rest are strangers to us. It may be, then, that some of them contain Cinderella, Bluebeard, Puss in Boots, and the redoubtable Jack. If they do not, we would enter a protest against the rising generation being deprived of the heroes and heroines whose adventures afforded generations of their ancestors such unalloyed delight. Why should the "*post nati*," too, be deprived of Andersen, Grimm, and the Arabian Nights. The first three pages of the chapter on "Mental Education of Children" might have been revised with advantage; much of the matter contained in them being trivial and obvious. That an infant calls its mother "mummy," its father "daddy," a horse "gee-gee," a steam engine "puff-puff," and so on, seems hardly worth recording. For children of 4 or 5 years old Dr. Myers is so enthusiastic and whole-hearted an advocate of the Froebel system that he would seem never to have heard anything to its possible disadvantage. All would agree with him in emphatically condemning any attempts to cram knowledge or instruction into a young brain. But it is held that a large portion of all knowledge, and juvenile knowledge in particular, is only valuable in proportion to the mental training undergone in its acquisition. There are schoolmasters who, rightly or wrongly, complain that with children trained in kindergartens they often find a difficulty in rousing the mental efforts necessary for dealing with the tasks of later years. There would seem to be two sides to a system in which the acquisition of knowledge is a mere matter of pleasure. In a review of the first edition we expressed the view that in the chapter on "Illnesses and Accidents," much of the matter relating to diseases might be omitted, and that referring to accidents expanded. We still fail to see what benefit mothers and nurses can derive from brief descriptions of such complaints as rheumatism, tuberculosis, pneumonia, pleurisy, diphtheria, typhoid fever, harelip and cleft palate, deaf-mutism, heart disease, and many others. It is equally unnecessary, too, in our opinion, to deal with the treatment of such complaints, which must be left to medical hands, and statements such as that in rickets "beef-juice, orange or grape juice, and maltine and cod-liver oil, in suitable quantities, are *all* given daily," are far from necessarily correct. That the little work has merits is not denied, but its value might be enhanced by omissions and expansions in the directions we have indicated.

[4] *The Care of Children, from Babyhood to Adolescence, for the Use of Mothers and Nurses.* By Bernard Myers, M.D., etc. Second edition, revised and enlarged. London: Henry Kimpton. 1910. (Cr. 8vo, pp. 189; 1s 6d.)

As Madeira has been declared free from cholera, the steamers of the Royal Mail Steam Packet Company leaving London every fortnight for Gibraltar, Morocco, and the Canary Islands will resume the call at Madeira after calling at Teneriffe. The cruise occupies twenty-two days. Further particulars can be obtained from the company, 18, Moorgate Street, London, E.C.

# THE ANNUAL REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.*

*(Continued from page 509.)*

II.

A CERTAIN amount of difficulty has been encountered in regard to local authorities who neglect to carry out their duties in a proper manner, and Dr. Newsholme, in his introduction, suggests that as central compulsion has failed,

> the only provision—apart from an educated and responsible public opinion—likely successfully to replace compulsion would be the institution of grants in aid of definite execution of sanitary administration, the grants depending on the efficiency of the work actually accomplished.

In some general remarks on the subject of *infantile mortality* Dr. Newsholme compares the evil to a vicious circle and shows how the circle is being broken in several places simultaneously. He refers to the difficulty of improving domestic hygiene whilst the sanitary authority allows nuisances to persist outside the dwellings.

### INDIGENOUS DISEASES.

Discussing the falling mortality from *scarlet fever*, Dr. Parsons concludes that the main cause of the fall is the change in the type of the disease. With relation to a small but very fatal epidemic in the Isle of Portland it is suggested that the high death-rate, which could not be attributed to the importation of any very virulent strain, might be due to the fact that the population affected had not been immunized by former epidemics. Any explanation of the decline in the death-rate from *diphtheria* is regarded as very difficult and is complicated by the peculiar features of the long-continued epidemics. The position with regard to *enteric fever* is more satisfactory as the decline still continues, and owing to the knowledge gained in recent years as to the spread of the infection by flies, carriers, and the consumption of shellfish, there is good reason to suppose that the decline will continue. *Small-pox* was quiescent during the year, apart from some small outbreaks, one of which was probably due to infection by Egyptian cotton. The low mortality from *epidemic diarrhoea* must be ascribed to several causes—the lower birth-rate, sanitary administration, and most of all to the cool and rainy weather during the summer.

### EXOTIC DISEASES.

Dr. Bruce Low gives a summary of the data with regard to plague and cholera. In India plague increased again after a fall in 1909. The Indian authorities have to rely upon three measures for the control of plague: evacuation of infected dwellings (which necessitates provision of temporary dwellings), injections with Haffkine's prophylactic, and an organized rat campaign. There is a note of the small outbreak in California due to an epidemic amongst ground squirrels.

Cholera has shown some decline in India, but the continued prevalence in Russia continues to cause alarm, which will not be mitigated by the fact that the water supply of St. Petersburg is badly contaminated with the organism, and that it will take about fifteen years to provide a satisfactory water supply. Small outbreaks in Europe and a solitary case in this country were traced to Russia, which is thus a continued menace. Cholera "carriers" have been discovered both in India and in Holland.

### TYPHOID FEVER.

*Prevalence of Typhoid in the County of Durham.*

Dr. Newsholme writes an introduction to Dr. Wheaton's report on this subject, and charges many of the local authorities with gross neglect of their statutory duties. Durham has the highest typhoid mortality in the country, and the excess is mainly in the rural districts, which, though so-called, are really small urban districts concentrated round the pit heads. There was an absolute lack of evidence to incriminate the water supply. There was also no evidence of milk infection; in fact, the only food upon which suspicion could justly be laid was shellfish, often collected from sewage-contaminated beds, and

* The Thirty-ninth Annual Report of the Local Government Board, 1909-10. London: Darling and Son, Limited, 34-40, Bacon Street, E. (Medium 8vo, pp. 604. Price 3s. 7d.)

eaten in large quantities by the mining population. It had been suggested that the infection might be spread in the mines; but though it was impossible definitely to exclude this source of infection, there was no evidence pointing to it. Attention is directed to the neglected state of the sanitary administration with regard to the disposal of excreta, and some of the details given are positively disgusting. In order to bring home the importance of the question to the authorities concerned, Dr. Newsholme calculates the actual monetary loss to the county from typhoid during the last six years as reaching £315,600.

*A Small Endemic of Typhoid due to Carriers.*

Jennet Hill, a small hamlet in Berkshire, has been a focus of typhoid for many years. All efforts to trace it to milk, water, etc., failed, and an attempt was made to investigate the question from the carrier standpoint. The investigation was incomplete, owing to the refusal of many of the inhabitants to supply excreta for examination; but three carriers were found, and it was discovered that one of them had come into the district three years before the outbreak.

FOOD INSPECTION.

Dr. Buchanan's report on this subject contains much that is of public importance. Here we can only note a few of the most salient facts. It is satisfactory to learn that the certificates of inspection of meat slaughtered in foreign countries have been shown by subsequent inspection in this country to be reliable. Inspection of meat imported under these "official certificates" has rarely resulted in the discovery of disease. Difficulty has been encountered with regard to "inedible fat"—that is, the fat from diseased animals which is allowed to be sold for industrial purposes. It has been discovered that in one case at least the label "Inedible Fat" had been destroyed and a label "Best Continental Lard" substituted for it. The butchers in Newcastle seem to have settled the difficulty in regard to tuberculosis by co-operating to insure themselves, and they now work in harmony with the meat inspectors. At Middlesbrough there was an increase in the number of samples of milk reported as deficient in fat, and the explanation is interesting. It was proved in one or two cases that the milk from the cow was actually deficient in fat. This fact was seized upon by the milk purveyors, and it soon got to be generally known that the local authorities would not proceed against the purveyor if the percentage of fat was below 3 and above 2.7. The resulting laxity has undoubtedly caused a loss to the consumer. Attention is also directed to the adulteration of margarine with paraffin. Rice is apt to contain an excess of the steatite used in facing it; steps are being taken to minimize the quantity of steatite.

THE TYPHOID "CARRIER."

Dr. Ledingham furnishes a most valuable critical review of all the work which has been published on this subject. It is a very thorough piece of work, and embodies much valuable criticism grounded upon the author's considerable experience. From it are here abstracted many of the interesting facts, but the original will be indispensable to any one actively interested in the matter.

The urinary carrier was discovered by Horton Smith in this country, but the general recognition of the chronic intestinal carrier and the dangers arising from him is due to the German workers in the typhoid stations established under the guidance of Koch. He held that many infections were due to premature discharge of patients whilst still infective, and to unrecognized atypical cases of the disease. It was then found that many cases of infection could not be explained by the existence of known cases of typhoid fever, and Frosch was the first to suggest that the bacillus might lead a purely saprophytic existence in the human body. Drigalski then demonstrated the fact that 4.7 per cent. of fever cases continued to pass the bacilli in the faeces for more than three months after infection. The figures given by different observers in answer to the question, How many fever patients excrete the bacilli in the stools? vary very much, but recent work tends to show that the more careful the work the larger the percentage of positive findings. Gaehtens and Brückner found the bacillus in 75 per cent. of the cases during the third week. It has also been shown that the bacilli may be found in the stools during the incubation period. Lentz in 400 convalescent cases found 12 chronic carriers who continued to excrete bacilli for an indefinite period. Here again the evidence tends to show that the more careful the work the larger the percentage of chronic carriers discovered, for the excretion of the bacilli may be intermittent, hence several examinations of the stools are necessary. Several cases were investigated a year after the attack, and some chronic carriers were then found who had escaped discovery by the examinations during convalescence. Semple and Grieg discovered that among soldiers in India 11 per cent. became chronic carriers—that is, passed bacilli for more than three months. They made daily examination of the excreta, and this explains the high percentage found by them.

Klinger has provided a useful summary of the German "carrier" notifications and classified them according to age, sex, and nature of the carrying condition. Out of 220 "chronic carriers" 80 per cent. gave a history of an attack of typhoid fever. Females were to males nearly as 5 to 1. A definite diagnosis of gall stones was made in 13.6 per cent of these cases. The greatest number were about middle age. Out of 211 "transitory carriers" only 43.6 per cent. gave a history of an attack. Very many of the transitory carriers were children, and it is possible that they had had a mild abortive attack. These transitory child-carriers may be very dangerous, and one remarkable case is on record where a suckling "carrier" infected six people.

Another important fact which has emerged from the German work on the subject is that the patient may be very dangerous in the incubation period, and some statistics indicate that almost as many contact cases become infected during the incubation period of the primary cases as during the later stage of the disease. The incubation period may vary from five to forty-five days.

Dr. Ledingham gives summaries of many outbreaks of the disease which have been proved to be due to carriers. In all house outbreaks attention should be directed to detection of a carrier. The infection may reach the other members of the household in various ways. When the carrier is engaged in the preparation of food the path of the bacillus is not difficult to guess. In other cases defective sanitary precautions in the form of defective privies contaminating the water supply are the means of spread of the infection. The most extensive epidemics are those due to contamination of milk by a carrier; several instances are given, but the most striking is the case of the Folkestone carrier, a milkman, "N." From 1896 to 1909, 359 cases of typhoid had occurred in Folkestone; of these, 36 were definitely known to have been imported cases; whilst of the remaining 323, 207 were known to have had milk within three or four weeks of the commencement of their illness from one or other of the farms upon which from time to time "N" acted as milker. This fact did not escape Dr. Thomson, who investigated the matter in 1901; but, as the facts about typhoid "carriers" had not at that time come to light, he dismissed the coincidence with the remark: "No milker, even if uncleanly in his ways, could convey infectious material unless the infectious material be there to convey." In lunatic asylums, again, the carrier is very dangerous, and it has been suggested that the increased frequency of the carrier state among asylum inmates was due to some predisposing action of the psychosis, but Dr. Ledingham thinks that the fact of the matter is that in an asylum the opportunities are so favourable for the spread of infection that a single "carrier" may infect many others who become chronic carriers. In the army the "carrier" question is of the highest importance, and it is satisfactory to learn that some of the best work on this aspect of the question has been done by our fellow countrymen, Semple and Grieg, working in the Indian cantonments. As above mentioned, they have shown how common is the chronic carrier among convalescents, but they have also shown that the nursing orderlies are very apt to become infected. They suggest that it would be a useful precaution to have a special trained body of men who should be confined to this work. In one German case it was discovered that a urinary carrier had apparently been followed about from regiment to regiment by a crop of typhoid fever cases. A Japanese regiment which had suffered severely during

the Manchurian campaign was subsequently examined, and eleven chronic carriers were discovered.

*Pathogenesis of the Carrier State.*

There is an intimate connexion with the occurrence of gall stones. All the carriers who have been examined either *post mortem* or at operation have been found to suffer from gall stones. This also explains the hitherto unexplained fact that cases of jaundice are apt to give a positive Widal reaction. The fact that only about 14 per cent. of the cases have symptoms of gall stones agrees fairly well with the known fact that only about 10 per cent. of those who have gall stones suffer from symptoms of cholelithiasis. The evidence seems to point to the conclusion that the bacilli invade the gall bladder from the blood and are there found in nests within the mucous membrane. They set up a chronic or acute cholecystitis, which results in the formation of gall stones. The increased incidence in the female is probably due to biliary stasis, which is promoted by pregnancy and the wearing of corsets. An attempt has also been made to show that the menstrual and puerperal loss of blood by decreasing the immunizing powers of the individual may predispose to the condition. In the case of the urinary carrier the bacilli are probably lodged in nests in the mucosa of the pelvis of the kidney and the urinary bladder.

The carrier suffers under some physical disabilities. Headaches are very common, and it has been found that they are relieved when the carrier condition is cured. Some of the cases have died, apparently from the results of a generalized autoinfection with the bacillus. In other cases there have been some indications of minor infections with symptoms of intestinal disturbance, and in some the Widal reaction, previously negative, has become positive during these attacks.

*Treatment.*

Drugs, sour milk, vaccines, *x* rays, and even operation, are known to have failed in many cases. The cures which have been claimed must be accepted with reserve, as the intermittency may easily be mistaken for a cure. One urinary carrier was apparently cured by urinary antiseptics pushed to their physiological limits.

*Diagnosis.*

The Widal reaction, which is positive in perhaps two-thirds of the cases, may be used for the preliminary investigations, but the only reliable means of diagnosis is the examination of the stools for the bacillus, and it cannot be too strongly emphasized that a single examination is not sufficient. For the recognition of the bacillus in the stools numerous methods have been tried and advocated, but Ledingham thinks that the most important factor is that the worker should be familiar with one medium. For himself he prefers MacConkey's bile-salt-lactose agar.

*Statistical Data.*

The question how many cases of typhoid fever are due to infection from carriers is very difficult to answer, and again we find that the more thorough the method of investigation employed the larger the percentage of such cases appears to be. Kayser gave the percentage as 9.5, whilst later Mayer, who is a very reliable authority, put the figure at 32 per cent.

*The Immunity Question.*

Here again the question is very complicated. Agglutinins are not always present, and are by no means a reliable index of the immunity. Bactericidal substances have not been demonstrated satisfactorily. Ledingham has found an increased opsonic index, whilst complement deviation seems to have given a fair number of positive results. Many of the paradoxical carriers who have never had the disease may in reality have had an abortive attack.

*Preventive Measures.*

One thing certain is that the worse the sanitary surroundings of the carrier the greater the danger to others. In asylums, where the filthy habits of some patients are uncontrollable, every patient on admission should be examined for bacilli, and, if found to be a carrier, should be isolated in a separate block. In the army no man who has ever had typhoid should be employed as cook until he has definitely been proved to be free from the bacilli. Carriers should not be allowed to prepare food in civil life, and, where it is impossible to prohibit this, the hands should be very carefully washed. It has been shown that thorough washing with soap and water will remove the bacilli from hands smeared with faeces containing the bacilli, but, if an antiseptic be considered desirable, the best is alcohol, which may be used in the form of eau de Cologne.

Routine examination of every case of typhoid fever, to determine the freedom or otherwise from the bacilli, is at present impossible, but it is suggested that it might be wise to send them all to special convalescent homes. Two purposes would be fulfilled by these homes: The immunity reaction would be encouraged, and at the same time the patient could be educated.

PYOGENIC COCCI.

Dr. Andrewes continues his laborious researches on the immunity phenomena induced by the pyogenic cocci. He confirms the results published by himself and Dr. Horder in a former report. These point very strongly to the conclusion that in the case of the staphylococcus the streptococcus and the pneumococcus the leucocytosis plays an important part in the recovery of the animal from a dangerous dose of the organisms in question. The reaction of other bacilli was also studied. Injection of the tubercle bacillus was found to be followed by practically no leucocytosis nor was there a leucoblastic reaction in the bone marrow. He concludes that the leucocytes take little part in the resistance to an invasion with this bacillus.

In diphtheria the leucocytes seem to play a part in the resistance. The colon bacillus acts in a very similar manner to the pyogenic cocci. There are differences, however, as immunization with the colon bacillus did not produce any leucoblastic reaction in the marrow. One animal recovered from a severe septicaemia with a very slight leucocytosis. Dr. Andrewes suggests that bacteriolysis plays an important part in the resistance to colon infections. With the typhoid and Gaertner bacilli similar relations obtain.

GAERTNER BACILLI IN PREPARED MEATS.

Dr. Savage adduces evidence to show that the epidemics of meat poisoning are due to infection with Gaertner bacilli, and that this bacillus is not a common excremental bacillus of man or of the domestic animals, but a specific pathogenic organism. He examined fifty specimens of meat from different sources, and in only one case did he find the true Gaertner bacillus, although he found there was plenty of bacterial evidence of excremental pollution. The methods used to identify the organisms were the various fermentation tests, which are not accepted as reliable by some authorities, but we note that serological investigations confirmed his conclusions.

The fact remains that there is a great deal of unnecessary pollution of foodstuffs with excremental material, and therefore much need for more careful supervision. It was also shown that the true Gaertner organism could survive—in spite of the competition of other organisms—on various meatstuffs. Both the Gaertner bacillus and the colon bacillus die rapidly in brine which contains 15 per cent. of salt.

MILK.

*Bacterial Measurement of Milk Pollution.*

Dr. Savage's report on this subject is of great practical importance, as it gives an answer to the much disputed question, What is the best test of milk pollution? Dr. Savage's reply to the question will certainly not meet with universal acceptance, but he brings forward very good evidence for his conclusions. He found that the estimation of the acidity, the methylene blue reduction test, and the changes after incubation for six hours are of little value as routine tests. Similarly, the total number of organisms per cubic centimetre is of little value. The quantitative tests for the number of *B. coli* and for the spores of *B. enteritidis sporogenes* were of value, as was the examination of the centrifugalized deposit for organisms when the bacteriological results were compared with the known conditions under which the milk was collected. He estimates that a standard of 1,000 *B. coli* per c.cm.

during summer and 100 during winter would ensure that proper conditions were observed as to the collection and storage of milk. He very strongly objects to the use of strainers by the farmer, as they form an excuse for dirty methods, and he has found that straining, even by one of the best strainers on the market, may actually increase the bacterial content of the milk. The strainer might also assist in spreading a specific infection—that is, *B. typhosus*—from one sample of milk to another.

*Chemical Changes in Milk and their Relation to Summer Diarrhoea.*

This difficult chapter in pathology has been the subject of some very suggestive experiments by Dr. Scholberg and Mr. Mackenzie Wallis. They have shown that bacterial decomposition of milk leads to the formation of peptones at the expense of the casein, and that these peptones have an action like that of secretin. It is suggested that the peptones act as stimulants to the pancreas of the infants fed on cow's milk, with subsequent exhaustion of the gland. Their conclusions are supported by *post-mortem* examination of some cases of epidemic diarrhoea.

BODY CELLS AND THE TUBERCLE BACILLUS.

Dr. James Miller describes the cytology of tuberculous lesions, especially those following the intraperitoneal injection of the tubercle bacillus. In the normal animal the polynuclear cells supply the first line of defence, but are soon supplanted and themselves consumed by the large mononuclears. If the animal be injected with tuberculin the polynuclears are more in evidence. We note that he did not find Much's method more valuable than the ordinary carbol-fuchsin method for the staining of the bacilli.

PURIFICATION OF CHALK WATERS BY CHEMICAL MEANS.

Mr. C. G. Moor and Professor Hewlett report a long series of investigations into some of the methods of purification which appeared practicable. Their conclusions are that softening alone is very unreliable, but that sterilization by means of ozone deserves further investigation, as it appears practicable and reliable. They also produce good experimental evidence to show that the addition of 0.25 part of free chlorine per million (from bleaching powder) produces sterility (as regards *B. coli* and cholera vibrios). Some means of removing the chlorine would have to be devised; but that appears to be practicable.

## MEDICINE IN THE "ENCYCLOPAEDIA BRITANNICA."[1]

SECOND NOTICE.

COMING to special articles, we may say in general terms that they reach a high standard of excellence. Of course they vary in merit, but on the whole they supply just the amount and kind of information that is wanted. In style they are neither too popular nor too scientific. In the article on Adulteration a broad view of the subject is given, but special attention is devoted to our own laws on the subject. Our forefathers dealt with adulteration with a severity that would seem barbarous to adherents of the *caveat emptor* principle in commerce. The first statute in which the adulteration of human food was expressly prohibited was passed in the reign of Henry III. This enactment was strictly enforced in the days of Edward I, for it is stated in the *Liber Albus* that "if any default shall be found in the bread of a baker in the city, the first time, let him be drawn upon a hurdle from the Guildhall to his own house through the great street where there be most people assembled, and through the great streets which are most dirty, with the faulty loaf hanging from his neck; if a second time he shall be found committing the same offence, let him be drawn from the Guildhall through the great street of Cheepe in the manner aforesaid to the pillory, and let him be put upon the pillory, and remain there at least one hour in the day; and the third time that such default shall be found, he shall be drawn, and the oven shall be pulled down, and the baker made to forswear the trade in the city for ever." Long before that day we read of punishments that show that even before the Conquest Englishmen would allow no tampering with their beer. In the reign of Edward the Confessor a brewer in the city of Chester was taken round the town in the cart in which the refuse of the privies had been collected. Ale-tasters had to test the ale by spilling some on to a wooden seat, and sitting on the wet place in their leathern breeches. The stickiness of the "residue obtained by evaporation" afforded the evidence of purity or otherwise. If sugar had been added the taster adhered to the bench; pure malt beer was not considered to yield an adhesive extract. On the Continent those guilty of adulteration were treated in an equally drastic fashion. In 1390 a wine-seller of Augsburg was sentenced to be led out of the city with his hands bound and a rope round his neck. In 1435 "were the taverner Christian Corper and his wife put in a cask in which he sold false wine and then exposed in the pillory. The punishment was adjudged because they had roasted pears and put them into new sour wine in order to sweeten the wine. Some pears were hung round their necks like unto a Paternoster." In Biebrich on the Rhine in 1482 a wine falsifyer was condemned to drink six quarts of his own wine. From this he died. A clear account is given of modern legislation in regard to the adulteration of food, drugs, and beverages.

It is impossible within the space at our disposal to refer to every article dealing with matters that come under the head of Medicine; we can only touch here and there on certain points. The article on Anaesthesia gives a concise account of the history of the subject and of modern methods of producing insensibility to pain. We are sorry to have to point out two misprints in the article. "Wildie," the Liverpool chemist who is said to have suggested a trial of chloroform to Sir James Simpson, should be Waldie, and "Trendelenburgh" should be Trendelenburg. In the article on Anatomy the admirable history of the evolution of the science written for the ninth edition by the late Dr. Craigie of Edinburgh is substantially reproduced. It may not be amiss to point out that it is scarcely correct to describe Celsus as "one of the most judicious medical authors of antiquity." Most authorities are, we believe, now agreed that Celsus was not a physician, his treatise, *De Medicina*, being only one of a series of works intended to form a system of knowledge of things in general comprising all that a Roman gentleman should know. That Celsus was not recognized as a medical author by his contemporaries and followers seems to be proved by the fact that he is not quoted by them. It is unsatisfactory that the number of subjects for dissection has been steadily diminishing, especially in London, since 1895. This is said to be due partly to the modern system of insuring lives for small sums, which tends to cause a decrease in the number of unclaimed bodies, and partly to the fact that the Anatomy Act is permissive, and there are still some boards of guardians which will not allow even unclaimed bodies to be used for dissection or the teaching of operative surgery.

Mr. Edmund Owen discusses appendicitis in an article which gives all the essential facts without a superfluous word. The article is an admirable example of the kind of exposition which will enable the head of a family, without embarrassing him with technicalities, to deal intelligently with a situation with which he may be confronted at any moment. The same author gives a good account of diseases of the bladder and prostate. The article on the brain, which occupies twenty pages, is by Professor Sherrington. It is a lucid exposition of a difficult subject.

[1] *The Encyclopaedia Britannica.* A Dictionary of Arts, Sciences, and General Information. Eleventh edition. Vols. I–XIV. Cambridge: University Press. 1910.

THE eleventh annual report of the Association of Certifying Factory Surgeons brings the history of this body up to the end of 1910 and to the beginning of its new career as an incorporated body. The first president of the new association is the late secretary of the original body, Dr. Dearden of Manchester, who gives in this report a general sketch of the proceedings of the association since its inception, and makes grateful acknowledgement of the support which factory surgeons have received from the British Medical Association.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE provincial meeting of the Association was held on Thursday, February 23rd, at the Cardiff City Mental Hospital, by the courtesy of Dr. Edwin Goodall and the Committee of Visitors, under the presidency of Dr. JOHN MACPHERSON. There was a good attendance of members and visitors.

*Luncheon.*

The business of the sitting was preceded by a luncheon in the large hall of the hospital, at the invitation of the Lord Mayor (Alderman Charles H. Bird), and among those present at that repast were the President in the chair, the Lord Mayor, Alderman Morgan Thomas, J.P., Dr. G. H. Savage, Dr. Charles Mercier, Dr. Tenison Collins, Dr. Hayes Newington (Treasurer), Dr. Hubert Bond (General Secretary), Dr. Percy Smith, Dr. Miller (Registrar), Dr. Drapes (President-elect). After the toast of "The King," the Lord Mayor proposed that of "The Medico-Psychological Association of Great Britain and Ireland," coupled with the name of the President. He pointed out that the membership of the Association was 700, and that its organ, the *Journal of Mental Science*, reflected the most recent researches bearing on the speciality. An important part of the activities of the association consisted in awarding special prizes to assistant medical officers, granting certificates to mental nurses of both sexes, and in other ways raising the status of all who were connected with the care and treatment of the insane. He concluded by extending a cordial welcome to the association in the name of the citizens af Cardiff.

The PRESIDENT, replying on behalf of the association, expressed gratitude for the city's kind hospitality, and remarked that the function of the members being the care and treatment of the insane, it was necessary continually to educate themselves, and it was in pursuance of that aim that the opportunity of the visit to the Cardiff Mental Hospital was welcomed.

The PRESIDENT proposed the toast of "The Lord Mayor and the Corporation," and expressed a high opinion of the new mental hospital, which was well worthy of emulation. In replying, the LORD MAYOR said that in constructing the hospital the aim had been to have an institution which should be worthy of the city and of the cause, one in which patients could be properly housed and cared for, and yield a fair proportion of cures. That fair degree of success he could claim had been achieved. A further aim had been to make the hospital, by means of an efficient staff and adequate laboratory accommodation, a centre of investigation, and already distinct scientific advances had been made. He hoped one result of the visit of the association would be to encourage the workers at the hospital, and to show the ratepayers of Cardiff the wisdom of the course which had been pursued.

Alderman MORGAN THOMAS, J.P. (chairman of the Cardiff Mental Hospital Committee), proposed the toast of "The Visitors," coupled with the names of Dr. George H. Savage, Dr. Charles A. Mercier, and Dr. E. Tenison Collins. He animadverted upon the importance of our more enlightened treatment of the insane, as compared with the old heathenish method, with its hopeless outlook; and pointed with great satisfaction to the fact that the cures at the hospital in acute cases had been 46.7 of the admissions. There was also much wisdom in using the word "Hospital," for, as Dr. Goodall said when the matter was discussed, the aim was not merely to detain mental cases, but to cure them. Dr. Savage, Dr. Mercier, and Dr. Tenison Collins, each replied.

*Wassermann Reaction in Mental Disorder.*

At the scientific meeting in the afternoon the first paper was a report of an exhaustive research by Drs. H. A. SCHOLBERG and EDWIN GOODALL, both of the Mental Hospital. It was entitled "On the Wassermann Reaction in 172 Cases of Mental Disorder (Cardiff Mental Hospital) and 55 other Cases (Cardiff Infirmary, etc.), with Historical Survey." The authors dealt with the work of Bordet and Gengou on complement fixation and its application to the case of syphilis by Wassermann, and then reviewed the published statements on the subject since 1906. The paper set out in detail the results in general paralysis and other kinds of mental disorder, including dementia praecox, epilepsy, idiocy or imbecility with epilepsy, idiocy and imbecility, and various other kinds of mental disorder. The results were also given in the case of controls from syphilitic non-mental cases for purposes of comparison. In addition they set out the results obtained by the dilution and concentration of the human amboceptor. An important point dealt with concerned the absolute and relative frequency of the reaction in serum and liquor cerebro-spinalis, and its variability in individual cases. They found that the reaction became negative during a remission of the symptoms in general paralysis of the insane in several cases, but considered that there was need for a more detailed investigation on that point. Other points brought out were the necessity for repeated examination, the diagnostic value of a positive reaction in the liquor cerebro-spinalis, the value of the Nonne-Apelt tests, and the desirability of ascertaining the relative frequency of the reaction in cases of general paralysis with known syphilitic history as compared with all cases of that disease.

Dr. PARKER, in discussing the paper, said that in 10 cases in which "606" had been used there was no alteration in the reaction after treatment.

Dr. G. H. SAVAGE regarded the contribution as an epoch-making one. The fact that one case in which the reaction was negative proved to be one of injury and not syphilis, reminded him of a claim which had been made for compensation for injury, in which the defence was that it was a disability due to specific disease and not to injury. If it could be definitely established that the positive reaction to the Wassermann test meant the disease in question, such cases could soon be disposed of.

Dr. PERCY SMITH heartily congratulated the authors on their work. He had not the opportunity of laboratory work, and as his work was mainly clinical, he was glad to hear Dr. Scholberg say that there were cases in which reliance must be placed chiefly on the clinical aspect. He understood that there were cases of general paralysis in which, even late in the disease, there was a negative reaction, and also some in which in the early stage the Wassermann test was negative, although the physical signs might point to the disease, but in which a positive reaction only developed as the disease progressed. There could be no doubt that the test was a most valuable aid to diagnosis. He related a case in which there appeared to be all the typical symptoms of general paralysis, but in whom the Wassermann test was negative. There was no history of specific disease, but there had been a severe injury to the head. It was probably traumatic general paralysis. One case, which seemed to be general paralysis, and in which there was specific disease, was given "606," and following that exhibited increased excitement and exaltation. But the physical signs still remained in abeyance. At the Berlin Congress on the Care of the Insane a paper was read showing that the Wassermann reaction was positive in many cases of malaria, presumably those in which there was no syphilis.

Dr. FAULKS asked whether the authors had compared their results with the cell counts in the cerebro-spinal fluid, and whether they would describe the details of the precipitation test.

Dr. SCHOLBERG replied that cytological counts were not done.

Dr. GOODALL replied that the observers who made the test and the cytological count found that the results did not necessarily coincide.

*Production of Indigo in the Human Organism.*

Dr. R. V. STANFORD read a paper on the production of indigo in the human organism.

Dr. SAVAGE remarked that it was going rather far to say that there was no parallel to be traced between the presence of indican and the mental symptoms in a stuporose case.

Dr. GOODALL said he had been watching the work, and was of opinion that the whole matter was in a state of flux; there was no exact knowledge on the subject of the production of indigo in the urine. Indigo occurred in the urine in other states than constipation and obstruction in the bowel, in such state as marasmus, cachexia from carcinoma, phthisis, etc. The paper showed the need of the subject being taken up by skilled workers qualified

chemists, because those medical men who had made statements on the matter up to the present were not competent chemists or physiologists. This applied especially to certain Italian workers. They said one could associate the presence of indigo in the urine with clinical conditions. But this reseach did not warrant that statement.

*Gynaecological Conditions in Mental Disturbances.*

Mr. E. TENISON COLLINS, Gynaecologist to Cardiff Infirmary, read a paper entitled Notes on Gynaecological Conditions coincident with Mental Disturbances, in which he showed the close connexion between the nervous and generative systems. The disorders of the latter, in females, were often accompanied by headache, epilepsy, insomnia, hallucinations, the cure of which was followed by disappearance of the disturbances. If abnormalities of the pelvic organs in the insane were treated, there was generally improvement in the state of health, and, if the abnormalities were present before the onset of the insanity, the mind would also improve in some of the cases. But operations upon the reproductive organs were inadvisable for the amelioration of the insanity alone. The selection of the proper cases for this must be made by the medical staff.

*Metabolism in the Insane.*

Mr. R. L. MACKENZIE-WALLIS read a paper on metabolism in the insane. His investigation showed that there was but little difference in the metabolism of the insane in comparison with that of normal people; but there were differences in the products derived from cellular activity, especially in some forms of insanity. In this it was suggested that the ductless glands played a large part, as the effects of disease of those glands on the metabolism were well known.

*Dinner.*

At the dinner in the evening at the Royal Hotel, Cardiff, Dr. MACPHERSON proposed "The City and Port of Cardiff," and spoke highly of the vigour and wealth of the city and its progressive and enlightened policy. Nowadays people were not so much asking how rich the rich were, but what they were doing with their riches. If there were slums in Cardiff, their parks and open spaces formed an excellent set-off to them. The Mental Hospital was unique in its efficiency and in the work it was doing.

The LORD MAYOR, in his reply, said the thanks of all Cardiffians were due to Dr. Macpherson for his kind words. They were proud of their city and of its trade, which was a very large one. They felt great pride in having had a visit from such an association.

Dr. G. H. SAVAGE proposed "The Mental Hospital Committee," coupled with the names of Dr. Goodall and Alderman Morgan Thomas, J.P., and spoke of the high quality of the work being done at the hospital in the attempts to advance the knowledge of mental disease.

Mr. ALDERMAN MORGAN THOMAS, J.P., in responding, spoke of the excellent work being done at the Mental Hospital by Dr. Goodall and his staff, and said he believed that general hospitals ought to be supported out of the rates. The old idea in regard to diseases of the mind was that when once a person went into an asylum he or she was doomed as far as this life was concerned. But better ideas now prevailed, and the old heathenish idea of mere detention had long been discarded. He saw no reason why diseases of the mind, provided they were not chronic, should not be as curable as those of the body.

Dr. GOODALL also responded, and expressed his belief in the German system of clinics, whereby a patient was investigated from the standpoint of all the specialities—that of the mind included—and treated as his case was found to require. The staff and the Board of Management would feel in the visit of the association an incentive to continue their work with even increased enthusiasm, so as to add their quota to the sum of scientific knowledge.

Dr. MERCIER proposed "The Health of the Visitors," coupled with the name of Dr. Maclean; and that gentleman replied.

"The Medico-Psychological Association" was submitted by Mr. SHEEN, and he specially mentioned the welcome of local members of the medical profession.

The PRESIDENT OF THE ASSOCIATION (Dr. Macpherson) replied in a graceful speech, in which he bestowed high praise on the work being done at the Mental Hospital, and voiced the gratitude of the visitors for the reception they had enjoyed.

## SEIGEL'S SYRUP AND "SECRET REMEDIES."

WE have received from a correspondent particulars of letters which have passed between the proprietors of Seigel's Syrup and himself. They are characterized by a direct terseness on his side, and the opposite qualities on the other, that make them somewhat entertaining reading. The correspondence opens with a letter from the makers of this nostrum, which is self-explanatory:

Dear Sir,

We received today by post a wrapper which had enclosed one of our Mother Seigel pamphlets addressed to you and on which the sender had copied the stupid so-called analysis of our Syrup from the publication of the British Medical Association. You also copy the still more silly averment "Cost of 3 fluid ounces ⅓ of 1d." and your own comment on the whole is, "Nice profit at 2/6! What humbug"!!

As you seem to be inclined to believe whatever you read, we desire to say: That the pretended analysis is positively absurd; That it does not remotely resemble the actual formula of our medicine, which really contains over a dozen vegetable or herbal extracts; That it costs much more than ⅓ of 1d. for 3 fluid ounces; That it is actually worth more than it sells for as an effective curative remedy; That it is not a "humbug"; That humbugs do not last forty years and still continue as business successes in all parts of the world as our preparation does.

From your penmanship we think it not unlikely that you are a medical practitioner, in which event your animus becomes quite intelligible. If you are a layman, please consider fairly our assurance that the published analysis (?) is merely an effort of the "Doctors' Trust," or "Medical Practitioners' Trade Union" to injure successful rivals. Don't let them humbug YOU!

It is of course quite possible that the preparation in question "really contains over a dozen vegetable or herbal extracts," even though the statement follows the phrase "as you seem to be inclined to believe whatever you read." There is nothing in the report of the analysis, as set forth in *Secret Remedies*, to the contrary; but in that case the dozen extracts must have been present in too small quantity to be recognizable by chemical or physical tests, which reveal most active drugs even in traces. In the introduction to that book it is pointed out that vegetable extracts which contain no active principle cannot always be recognized by analysis, and a similar caution is repeated several times; but to any one acquainted with the nature of drugs it is obvious that such limitation of the powers of analysis are of little moment, since active drugs can almost always be recognized with certainty.

The reply to the above letter was the remark that:

The sole question is whether the public is more likely to be humbugged by the British Medical Association, which is certainly a responsible body of experts, or by the unknown vendors of a quack medicine;

And the writer adds:

Most of these abominations hail from America. Did yours originate there?

The makers reply to this in a long letter containing various assertions about their article in nine numbered paragraphs, although they commence by saying:

We have no desire to continue a correspondence which would probably not be accepted in a fair and reasonable spirit on your side.

And they omit to answer the one question that was asked as to the country of origin of the syrup. In acknowledging this letter, the recipient says:

As regards your letter generally, if the British Medical Association have issued false statements damaging to you and to your concoction, your remedy is patent.

If you, and all the other quack medicine dealers, specified in the 184 pages of *Secret Remedies*, and in the pages of *Truth Cautionary List*, choose to "take it lying down," the fair presumption is that the statements are true.

The makers do not appear to have found a further reply, and so the correspondence closes.

## BRITISH MEDICAL BENEVOLENT FUND.

### ANNUAL GENERAL MEETING.

SIR JOHN TWEEDY presided over the annual general meeting of the British Medical Benevolent Fund on March 6th.

In presenting the Treasurer's statement, Dr. SAMUEL WEST said that the balance sheets were three in number—that of the Annuity Department, showing a balance at the bank of £62; that of the Grant Department, with a balance of £1,018, which, however, would all be expended during the lean months that were to come; and that of the Ladies' Guild, with a sum of £168 to the good. The Annuity Department derived the whole of its income from property invested in trust securities. Since 1897 it had been the policy of the Fund to invest all legacies, instead of depending upon this fluctuating quantity as income. During the year under review £2,450 had been received in legacies and invested. In the Grant Department, to which the subscriptions were allocated, the income from this source had reached the record level of slightly over £2,000, but even this sum only represented an average of a few pence a head from each member of the profession. This department was a source of considerable anxiety, dealing as it did with the painful cases of the younger beneficiaries who were not eligible for annuities. Dr. West paid a warm tribute to the work of the Ladies' Guild.

Mr. E. PARKER YOUNG moved the adoption of the accounts, and related some personal experiences among those whom the Fund benefited. Their gratitude, he said, was very touching. One poor old ex-practitioner had obtained a grant, and was looking forward to the security of an annuity. On the morning after he was voted the latter, the speaker called at his house, and was told by the old man's niece that as soon as the treasurer's letter had come he had tottered off to the house of God to render praise.

In seconding the adoption of the report, Sir RICHARD DOUGLAS POWELL expressed the hope that the policy of investing the legacies would not be carried beyond a certain point. He did not greatly believe in the accumulation of very large funds in benevolent enterprise. He urged the value of the small subscription, say 5s., respecting which there was a certain amount of unnecessary shyness among members of the profession.

The balance sheets having been adopted, Dr. WEST submitted the report proper, which announced increased income, and also increased distribution in relief. The total income for the year was £5,408, of which £4,860 was distributed among the beneficiaries. Annuities representing a total of £2,559 were paid to 131 annuitants. The report thanked the medical and lay press for a continuance of their interest, "more especially the BRITISH MEDICAL JOURNAL and the *Lancet* for the insertion of the monthly record of cases relieved, and for their courtesy on all occasions."

Sir THOMAS BARLOW, in moving the adoption of the report, said that there were two things into which one was entitled to inquire before supporting any philanthropic enterprise—namely, Was it managed on sound business lines? and also, Was it backed up by personal service? The treasurer's statement supplied the answer to the first question, and the organization of the Ladies' Guild to the second. The Fund possessed fully the spirit which had become characteristic of modern philanthropy—a largeness of action, going out beyond the individual concerned. A great debt in this connexion was due to the tuberculosis campaign which had shown how necessary it was to consider, not only the sick man, but his family and dependents and the whole of the relationships of his life. He could not conceive anything more humane and admirable than the individualized care and personal service which infused the whole work of the Fund.

Professor HOWARD MARSH, Master of Downing College, Cambridge, in speaking to the motion, said that no man could belong to the profession, or even to the public and be associated in any way with the profession, without realizing the bitterness of the checked career—a career started with sanguine hopes and good qualifications, and shattered by the premature failing of health or the occurrence of prostrating accident. Even more bitter was the case of the practitioner's widow faced with the indignity of unaccustomed poverty. It was said sometimes that young doctors were improvident because they married. But "to run the risk of getting married" was almost essential to a man in practice as a family doctor. It was incumbent upon such a man, or nearly so, in view of the position he held, that he should have the complement of a wife. How could a man be out all day long, working mostly for other people, when there was no one to regulate and organize his household? Was the old proverb, "Nothing venture, nothing win," to be ignored? The man had to be careful, of course, remembering that he was giving hostages to fortune, but it was not fair to call him improvident because he had married early. Everybody believed in the principle of insurance, but there was more than one form of insurance. Sometimes a man who wanted a practice would borrow money with which to pay for it, and then insure his life to meet the debt. That was a thing that should seldom be done, because it involved too dangerous a risk. On the other hand, every practitioner should insure his life, if possible, and if the bonuses were not drawn out there was no better investment for money. But it was certain that the newly-started practitioner was often unable to find the 10 or 20 guineas a year necessary to effect an adequate insurance. Therefore he urged upon such a practitioner the value of identifying himself with the Fund, and helping it as he was able, knowing that, should misfortune overtake him, he in his turn would receive the sympathetic assistance of his brethren. In order to tap new subscription revenue, Professor Marsh suggested an appeal to doctors' wives—women were so tenacious—who might help the Fund in a systematic way by seeing that, perhaps, 6d. a week was set aside on its behalf, and that the modest accumulation descended upon the treasurer at the end of the year. He was one of those who believed—he asked excuse for the brutality of the phrase—in "shoving the women to the front in every department of life, *except some*," and he was confident that if only half the men in the profession were to put the matter into the hands of their ladies the Fund would be lifted out of the reach of anxiety.

A vote of thanks was accorded to the President, coupled with a felicitous mention of Lady Tweedy, on the proposition of Sir VICTOR HORSLEY, seconded by Dr. LANGLEY BROWNE, as was a vote to the Medical Society of London for the use of its rooms.

## MOTOR CARS FOR MEDICAL MEN.

A CORRESPONDENT asks for advice with regard to the selection of a small motor car, preferably a 2-cylinder of about 9–10 h.p. We are unable for obvious reasons to recommend cars made by individual makers, but the following list of small cars at moderate prices may be of use to our correspondent:

| | Cylinder. | Price. | H.P. R.A.C. Rating. |
|---|---|---|---|
| 9 h.p. De Dion ... | ... 2 ... | £235 | ... 6.9 |
| 8–10 h.p. Panhard ... | ... 2 ... | £225 | ... 7.9 |
| 8–10 h.p. Delahaye ... | ... 2 ... | £232 | ... 8.0 |
| 9–11 h.p. Delahaye ... | ... 4 ... | £262 | ... 9.2 |
| 10–12 h.p. Enfield ... | ... 2 ... | £252 | ... 11.2 |
| 10–12 h.p. Austin ... | ... 4 ... | £240 | ... 10.0 |
| 12 h.p. Standard ... | ... 4 ... | £275 | ... 11.0 |

The prices given are of a chassis only, with the exception of the Enfield, which includes an open body. The discrepancy between the makers' h.p. and that of the R.A.C. is due to the latter's formula not taking into account the length of stroke but only the diameter of the cylinders. If the owner generally drives himself it is possible to have a body in which the steering wheel, etc., are within the closed body. Our correspondent says that the cost of the De Dion is rather higher than that of some others, and asks whether this is counter-balanced by increased reliability. The answer to this must be very much a matter of opinion, but there is no doubt that these cars have an exceptionally high character for reliability, as have also the Panhards, the Delahaye, and the Enfield, but the difference in reliability is not so great as it used to be; there are many small cars now the construction of which leaves little to be desired.

Dr. F. L. Nicholls of Fulbourn has addressed to us a letter in which he speaks highly of the Clyde, made by a Leicester firm. He says that the gear changing is silent and simple, the gears being always in mesh, and that the differential is included within the one gear box. These cars have White and Poppe engines, which he states to be powerful, although the compression is not high, an advantage in ease of starting. As the starting handle is on the side it can be used when necessary without getting out of the car. The transmission is by chain, which is well protected from dirt, and in the car which he has used for six months has given him no trouble. Dr. Nicholls also speaks well of a Stanley steam car. He has had one in use for four years and has been able to do all that is necessary by himself, except such as the firm of agents have done for him. He speaks particularly well of them as hill climbers.

## ORGANIZATION OF MEDICAL ATTENDANCE ON THE PROVIDENT OR INSURANCE PRINCIPLE.

MEETINGS are being arranged by many Divisions of the British Medical Association throughout Great Britain to consider the report on the Organization of Medical Attendance on the Provident or Insurance Principle which has been prepared by the Special Poor Law Committee and Contract Practice Committee of the British Medical Association sitting in conference. The report was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL on March 4th, and has been referred to the Divisions as a matter for their consideration, with a request for answers to the series of questions with which the report concludes.

Meetings have already been arranged at a number of convenient centres, and to them not only the members of the Division in which the meeting is held, but also all members of the profession, whether members of the British Medical Association or not, as well as members of neighbouring Divisions, are invited.

Among the meetings already settled are the following, which we understand will be attended by the Medical Secretary of the British Medical Association, who will be prepared to afford additional information on any points which may be thought to be not entirely clear, and to give assistance in arriving at decisions which may enable the Divisions to answer the questions set out in the report.

| | | |
|---|---|---|
| Thursday, March 9th | ... | Altrincham (Lancashire) |
| Thursday, March 16th | ... | Gloucester |
| Friday, March 17th | ... | City of London |
| Saturday, March 18th | ... | North Suffolk |
| Friday, March 24th | ... | Newcastle-on-Tyne |
| Monday, March 27th | ... | Glasgow and West of Scotland |
| Tuesday, March 28th | ... | Northampton |
| Wednesday, March 29th | ... | Leicester |
| Friday, March 31st | ... | Liverpool. |

The preparation of the report has involved an enormous amount of labour, and its text appears to put all aspects of the matter fully and fairly before the profession. The importance of the matter is beyond question, and the conference by which the report was drawn up entertained, we understand, a strong opinion that the Divisions will be well advised to give early and full attention to the many questions which arise. This importance will not be diminished if the statement that the Chancellor of the Exchequer hopes to be able to introduce his measure to provide for sickness and invalidity insurance before Easter should prove to be well founded.

The meetings enumerated above will, as stated, be attended by the Medical Secretary, and similar meetings are being arranged by other Divisions. It will, therefore, be desirable that Divisions which desire the Medical Secretary's assistance should communicate with him as early as possible, and should fix their meetings with regard to the above table.

## LITERARY NOTES.

MR. MURRAY'S publications for March will include a new book by Sir Rubert Boyce, entitled, *Yellow Fever and its Prevention.*

Messrs. Longmans will shortly publish *The Life and Letters of Sir John Hall, M.D., K.C.B.*, who, as Inspector-General of Hospitals, was in charge of the wounded during the Crimean war. The book is the first biography of a distinguished Englishman written by a well-known Hindu writer, the author being Mr. S. M. Mitra, author of *Indian Problems*, *Hindupore*, etc., who deals with Sir John Hall's career in Flanders, the West Indies, Spain, South Africa (including the Kaffir war of 1852), India, and the Crimea. Among the illustrations is one of the wounded at Waterloo, whom Dr. Hall attended as hospital assistant. Rear-Admiral Sir Massie Blomfield, who served throughout the Crimean campaign, has written an introduction to the book.

The second and last part of the collective investigation of influenza appeared in the February number of *L'Hygiène*, which also contains a report of a most interesting lecture on mosquitos delivered some time ago by Professor Raphael Blanchard. After a lucid description of the evolution of the mosquito from a harmless looking egg into a little insect capable of inoculating a human being with some deadly sickness, Professor Blanchard goes on to explain the close connexion which exists between these tiny carriers of infection and such diseases as malaria or yellow fever, and briefly indicates the necessary precautions to be taken in order to protect mankind from their ravages. Another interesting article is Dr. Lucien Jacquet's account of the hygiene of the hair, which, under a cloak of airy persiflage, contains some valuable hints as to the care and preservation of the hair. Much useful information concerning the treatment and prevention of lithiasis may be gathered from this month's *Bréviaire de l'arthritique*, whilst Dr. Maurice de Fleury offers some sound advice with regard to the frequent taking of purgatives. As usual *L'Hygiène* is beautifully illustrated, this month's number containing, amongst a number of others, reproductions of such famous pictures as Holbein's "Portrait of a Man" from the Berlin gallery, Reynolds's exquisitely graceful painting of Mrs. Carnac, and a couple of Chardin's most charming scenes of eighteenth century life.

The gratitude of patients to their doctors is proverbially short-lived, but it is none the less curious that when a cure is wrought, the tendency of people is to ascribe it to anything rather than medicine. A striking example is given by Brântome in his *Vies des dames illustres de France.* Speaking of the Queen of Spain, Elisabeth de France, he says that a year before she returned to France and stayed at Bayonne, she had a very serious illness, and the doctors despaired of her life. Then a little Italian physician, who was not thought much of at Court, went to the King and told him that if he was allowed to treat Her Majesty he could cure her. Having obtained the King's permission, he administered some medicine to the patient; and directly she had swallowed it, not only did those about her see the colour return "miraculously" to her cheeks, but she recovered her speech, and soon was convalescent. During the whole course of her illness the Court and the Spanish people made the public highways impassable by processions and crowds going to and from the churches, some in their shirts, others barefoot and bareheaded, all offering to Heaven on behalf of the Queen not merely their prayers, but also fasts, macerations of the body, and the like "good and holy devotions." Therefore it was firmly believed by all that Her Majesty's health had been re-established by means of these prayers, tears, vows, and cries, and the skill of the doctor was counted as nought. In like manner, many a cure that is really due to medical science is credited to some quack remedy taken at the critical moment.

At the 117th annual meeting of the friends and supporters of the Belfast Maternity Hospital, held on February 28th, Mrs. Crozier, wife of the Archbishop of Armagh and Primate of all Ireland, in seconding the adoption of the reports, made the following interesting personal reference to her relative, Dr. Bartholomew Mosse, who founded the Rotunda Hospital in Dublin:

> At such meetings they generally heard of the Rotunda Hospital in Dublin quoted as a pioneer hospital. It owed its existence to the benevolent exertions of one man, Dr. B. Mosse, who at his own private expense opened a house in George's Lane as a hospital. This was the first maternity hospital established in the British Dominions. Two years later application was made by some well-disposed persons in London to the directors of the hospital for plans of the scheme and regulations, and a year later a hospital was established in London. The hospital in George's Lane became too small, and eventually Dr. Mosse in 1748, with his own restricted means, purchased the ground where the present Rotunda stands. He died in 1759 at the early age of 47, but his work lived after him, for they knew that not alone as a hospital but also as a school of teaching the Rotunda Hospital stood on the highest platform.

Mrs. Crozier proceeded to read portions of a report on the work of the maternity nurses amongst the poor on the County Down side of the river, and, concluding, said she hoped that work so beneficent and so sorely needed would never be allowed by the people of Belfast to be crippled by want of funds. As the great-great-granddaughter of Dr. B. Mosse she had the greatest pleasure in seconding the adoption of the reports, and she would be a worthless descendant of his if she did not do what she could to help that work.

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## PHARMACOLOGY AND THERAPEUTICS.

PRACTICAL therapeutics is a subject much neglected in the curriculum of the British medical student; most textbooks of medicine deal with treatment in a brief and inconclusive manner, which contrasts rather strongly with the elaborate discussion of etiology, diagnosis, and prognosis. The contrast cannot fail to have an influence on the student's mind. It is true that many books entirely devoted to treatment have been published, but in regard to very many of them it may be said that, though replete with formulae and useful as works of reference, they do not give the comprehensive and ordered information needed in times of doubt and emergency. Such information should not only indicate the medicaments that may be depended upon, but should also formulate the *rationale* of their action, direct attention to the limitations of their activity, point out the combinations in which the most good may be expected from them, and warn against the conditions in which they may possibly do more harm than good. Pharmaceutical teaching in our universities and colleges is lamentably inadequate, and nine men out of ten graduate with the most insufficient knowledge of a branch of their art which to no small extent affects success in practice. Their information must be gained from experience and reading after they have exchanged the quadrangle for the consulting-room.

With few exceptions, as has been said, textbooks of medicine do not give the therapeutic guidance desired. In many this important subject is almost contemptuously brushed aside, while in others it is dealt with empirically and without sufficient elaboration to establish full confidence that, under certain conditions, certain drugs, if administered in certain combinations and in a certain way, may be depended upon to give certain results. Pathology provides the working hypothesis, but the practical application depends upon the proper adaptation of means suitable for the transmutation of theory into accomplished fact. The *vis medicatrix Naturae*, of which so much is glibly spoken, is an inherent power which Nature possesses for the rectification of errors and abnormalities in the working of vital processes, but the guidance of this beneficent law by the application of the dietetic, hygienic, and therapeutic discoveries of man to the rectification of organic and functional departures from the standard of perfect health is no less essential than the control by corresponding scientific regulation of heat, light, or electricity to the requirements of humanity. Diet, hygiene, climatic influence, and habits of life receive general recognition as factors which demand consideration, but the use of drugs is still a territory of doubt and suspicion, explored with precision and faith by a comparatively small number of practitioners. This is partly accounted for by the disappointment that ensues upon the failure of pretentious advertisers and over-credulous enthusiasts. It is also due, in some measure, to the impossibility of reducing drug administration to terms of strict and unalterable accuracy. But, when allowance has been made for all this, another important and regrettable factor must be admitted to be the inadequate recognition of therapeutics as a fundamental subject of study and investigation in the training of the medical student.

If we now turn to the consideration of a kindred topic, namely, the apparent divorce which is taking place between pharmacology and therapeutics, it will be found that there is much which must arouse concern. It must be asked, perhaps, whether there are really any signs of such alienation; is it true that pharmacology is tending to travel along lines different from those along which therapeutics must proceed? If we consider the subject of the treatment of infection and its effects, which has been, is, and always must be, one of the most important matters for the physician, we shall find that the pharmacologist is disposed to seek for agents which shall have the power of *relieving* the various *symptoms* produced by infection. Antipyretic remedies loom largely on his horizon. There is scarcely a medical student who, if interrogated as to the treatmsnt of what we call rheumatic fever, would hesitate to say that sodium salicylate or its allies are the drugs to prescribe, and he carries the idea out in practice most thoroughly. Just as surgery has taught medicine how to treat cases of appendicitis and gastric ulcer, so, too, it has given salutary lessons in the use of antipyretics. When called into consultation by the physician, the surgeon too often has to keep an eye upon his colleague as well as upon the patient. Has opium been given or any drugs which are masking the existence of pain or fever? These are questions to which too often the physician must give an affirmative answer.

The pharmacologist, shut off from access to the bedside, continues, if we may judge by the literature most prominently brought to notice, to spend most of his time in the analysis of the mode of action of antipyretics and anodynes, of their toxic symptoms, and even possibly of the ways to counteract such symptoms when they arise. His colleague the physician, who, as the literal derivation of the word "therapeutics" originally indicated, is the servant and attendant of the patient, no longer relies on the use of antipyretic remedies, or at most administers them very sparingly.

Again, if we take the very interesting and practical therapeutic problem of the treatment of anaemia, a gulf seems to yawn between the pharmacologist and the therapeutist. The former enters into a discussion of the action of iron and arsenic, alone or combined, upon the healthy animal, but not often does it happen that it is his daily duty to deal with the pathology and clinical aspect of cases in which anaemia is an important symptom. He knows the effects produced when iron or arsenic is administered to animals, but as to the effects of these two drugs in disease he can but quote the opinions of physicians who say they have seen improvement follow the administration of such remedies. That there is ground for criticism of the point of view as to the treatment of anaemia which the student may learn from the pharmacologist, is shown by the fact that at the bedside improvement and even cure are now secured by attention to the teeth, by the discovery and cure of an occult peptic ulcer, and by such reasonable procedures as the cure of leucorrhoea by douches and of metrorrhagia by curettage. The way in which

the facts of pharmacology are now brought to the notice of the student is not calculated to impress on his mind the fact that chlorosis and pernicious anaemia are but symptomatic of primary conditions which pathology, slowly perhaps, but surely, is showing to be amenable to principles of treatment not within the domain of the pharmacologist. The pharmacologist seems indisposed to tear himself away from the investigation of such active principles as atropine, physostigmine, conium, and the like. No doubt such agents have their use, but will any practical clinician hesitate to admit that their therapeutic applicability falls far short of their pharmacological interest?

We must seek a remedy for the anomalies which exist. The pharmacologist has a great future before him, but he must be prepared to turn attention, his own and that of his pupils, to the problems which beset the study of infection; in the past he has leaned on physiology for inspiration, but in the future, while this alliance must continue we must ask that he shall be more ready to enter into the difficulties, more disposed to follow closely the development of thought and practice in therapeutics, and, while not relaxing his endeavour to add to our materia medica, to make it more suitable as a means of cure. The physician, too, must learn from the pharmacologist, and will, perhaps, be the more ready to do so, for he already knows that he must take off his coat and turn up his sleeves, not only metaphorically, but actually, and give much of his energy to the study of subjects like immunity and chemical pathology, as the foundation stones, with pharmacology, of the therapeutic structure.

It may be asked how the happy conjunction of clinical observation and rational therapy is to be brought about. In a few cases, a gifted clinician is able, by his reading and by his power of work, to combine these studies, but when the clinical teacher is not able to do this, he should be able to command the active co-operation of a pharmacologist, of a bacteriologist, and of a pathologist. Such a conjunction would not only benefit the teacher, his patients, and his students, but would prevent his more purely scientific collaborators from being "sterilized" by the too exclusive devotion to the particular and necessarily somewhat narrow field in the cultivation of which he is a specialist.

## A CASE OF "BLOODLESS SURGERY."

ONE of the most important points in the action Thomas *v.* Barker, a report of which appeared in the BRITISH MEDICAL JOURNAL of March 4th, is the fact that such an action should have been brought. As a rule persons who have suffered injury at the hands of bonesetters or other irregular practitioners are ashamed to expose their folly to the fierce light that beats about a judge's seat. Naturally from the bonesetters as from other empirics, we hear much of their successes but nothing at all of their failures. It is the frankness in recording their whole experience, extenuating nothing nor setting down aught in malice—for the purpose of self-advertisement—that makes the difference between the scientific worker whose aim it is to advance scientific truth and enlarge the scope of the healing art, and those whose primary object it is to make personal profit of any manipulative dexterity they may have acquired. These are restrained by no rules of professional ethics from vaunting their own skill and achievements, and this with the mass of people gives them a great advantage over members of a profession who are bound by its rules. In the one case the appeal is made to ignorance, and therefore the loudest trumpeting is the most effective; in the other, methods and facts have to be brought before the bar of scientific judgement, where evidence is closely sifted and statements subjected to searching criticism. With the public, therefore, the bonesetter has much in his favour; it only hears of his successes. On the other hand, it is chiefly the failures, real or supposed, of the doctors that come before the public.

It is recognized by all surgeons that manipulation applied in the proper way and in suitable cases gives good results in many cases, especially where stiffness is caused by adhesions following injury. In such cases what an eminent surgeon used to call "judicious violence" will often effect a cure; we have, however, seen bones fractured and joints laid open even by skilled surgeons. In these cases there was no question of disease in the joint; the disability was purely mechanical.

It is an obvious reflection that if such accidents may happen in the hands of men whose knowledge has taught them the dangers to be guarded against in breaking down adhesions, these dangers must be far greater when the operator is, to use Sir Edward Carson's description of his client, a "mere manipulator of joints." The sphere of "bonesetting" is, in fact, extremely limited as far as the range of its manipulations is concerned, and it cannot be too strongly impressed on the public that disease of the joints lies altogether outside that sphere. Even if it were admitted that many cases of joint diseases are the mere despair of surgery, at any rate the properly-trained surgeon may be trusted not to make the evil worse by mischievous manipulation.

We need not say much about the case recently tried before Mr. Justice Darling. Without touching upon contested matters, we only call attention to certain points admitted by Mr. Barker, or put forward on his behalf by his counsel. Mr. Barker himself stated that the result of his first examination satisfied him that there was no question that Mr. Thomas's knee was in the most advanced state of tuberculosis. This being the case, it is somewhat remarkable that, as he himself admitted, he told the plaintiff's sister that the joint was probably sarcomatous. He also wrote on April 13th, 1910, to the plaintiff when compensation was claimed, that "it looked as if sarcoma were present." Yet he had written in his appointment book on November 25th, 1909, "Tubercle; no hope." When confronted by Sir Edward Clarke with these contradictory statements, Mr. Barker said he was not an authority. Two or three days before the trial, however, he had written in the *Times* of February 18th that "no one with even ordinary discrimination or the vaguest knowledge of etiology or pathology could mistake a case of, say, tuberculous arthritis for simple traumatic adhesions or be guilty of forcibly manipulating a diseased joint." Mr. Barker stated in court that "as a rule he did not bother himself about tubercular cases." Nevertheless, "partly" (to use the words of Sir Edward Carson) "because the plaintiff was in such distress, partly because the plaintiff assured him he was a medical student, and partly because he hoped the swelling would in the meanwhile be reduced by radiant heat baths," he consented to see

Mr. Thomas again from time to time. So great is Mr. Barker's consideration for medical students that he kindly reduced his fee to five guineas for an examination from his ordinary figure of ten guineas. Perhaps the particular medical student for whose pocket he showed such tenderness would have more appreciated a little more regard for his knee-joint.

It is not altogether easy to make out from Mr. Barker's evidence or that of Mr. Axham, who administered gas for the examination, what was actually done. Mr. Barker admitted that his notes of the case had been "elaborated" and amplified, and that they were in fact "not exact." In his letter of April 13th he had stated that "he could do no more than give treatment under gas." In court he stated that he merely slightly moved the joint to make his examination. On being asked by the judge why, if it was a case of tuberculosis on November 2nd, there was any need to administer gas on November 27th and December 16th, he said he wished to see the displacement both for his own satisfaction and the patient's benefit; but on his own showing he thought the patient could not derive any benefit from his treatment.

Mr. Barker stated that he had treated 30,000 cases, in 90 per cent. of which he had effected a cure. His counsel claimed an even larger proportion, 94 per cent., but we need not dwell on this trifling discrepancy. As M. Clemenceau said of an orator who dealt in round numbers of imposing magnitude, *Il a le chiffre généreux*. In the letter published in the *Times* of February 18th, Mr. Barker says he has been in practice nearly twenty years, and in the handling of some thousands of cases has not heard of one disaster. It must again be pointed out that this was written just before the action; it would seem, therefore, that Mr. Barker does not consider the loss of a leg a disaster. He used to call his speciality "bloodless surgery"; is amputation to be looked upon as one of the natural results of this art?

It is an interesting coincidence that for some weeks before the trial the public had the advantage of reading in the press an encyclical from that pontiff of unorthodoxy in medical science, Mr. W. T. Stead, praising Mr. Barker and anathematizing the doctors. Mr. Barker, as we have seen, overstepping the natural modesty of his nature, wrote in praise of himself. We do not suggest, of course, that these utterances were intended to predispose the public mind in favour of a benefactor of mankind unjustly accused of having caused a disaster of the very nature Mr. Barker in his triumphal career had never heard of; but there is no doubt that the press paeans were remarkably opportune.

A particularly gratifying feature in the case is that there was, as Sir Edward Clarke pointed out, no conflict of medical testimony; the witnesses called on Mr. Barker's behalf confirmed that of the others in all essential particulars. Even the gentleman who administered the anaesthetic stated that he had expressed regret that Mr. Barker had taken up the case. We are sure that all unprejudiced persons who read the evidence must have agreed with the verdict of the jury. Mr. Barker professes to be anxious to make his methods known to the medical profession. He writes, in the *Times* of February 18th: "To reject such evidence as I can furnish as the result of many years of study and experience may be in accordance with medical etiquette and procedure." We take it upon ourselves to say that the profession would not reject such evidence if supplied with the guarantees demanded of its own members. May we suggest to Mr. Barker that the first step towards gathering evidence that will be considered by the medical profession should be to keep accurate records of his cases, not elaborated after the event?

## THE "COVERING" OF UNQUALIFIED PERSONS.

A RECENT case under the Midwives Act which came before the magistrates in Manchester must be regarded as containing a serious warning to medical practitioners as to the danger they may unwittingly run of being charged before the General Medical Council with "covering" unqualified persons if they allow themselves to be drawn into any co-operation with women who "habitually and for gain" attend cases of labour without being registered under the Midwives Act. The case was one in which was concerned a midwife who at one time was registered, but who for some offence had been struck off the roll. In spite of this, she appears to have continued to practise as a midwife, regardless of the fact that since last April it has been illegal for any unregistered person to attend confinements "habitually and for gain." She was accordingly charged with the offence and, on conviction, was heavily fined. In her defence, she stated that she had made it her practice in cases that she attended to call in a medical practitioner, and she thought that was a sufficient protection and excuse. But it appeared from the evidence that in most of the cases mentioned no practitioner had been present at the time of the confinement, though one had been summoned and had visited the cases on the following day. She was asked if she wished to call any medical man to give evidence, but she declined. In imposing a fine, the magistrate remarked that it would appear from the evidence given that she was not the only person to blame, but that she had been assisted in breaking the law by some medical man. No medical man was present to give evidence in his own defence, or an adequate explanation might have been forthcoming, but the remarks of the magistrates are sufficient to act as a warning. There is nothing in the law to prevent any neighbour or friend on an odd occasion attending a woman in her confinement and even receiving payment for so doing; neither is there anything that can prevent a medical practitioner going to the assistance of such a neighbour or friend or any other unregistered person if anything serious occurs. It appears from this case, however, that as far as the unregistered person is concerned everything depends on the court's interpretation of the words "who attends habitually and for gain," and, in a secondary way, to some extent the position of the medical man as regards his liability to a charge of "covering" also depends on this. In other words, if a medical man repeatedly goes to the assistance of an unregistered person who habitually and for gain attends confinements, he is certainly liable to be charged with "covering." Moreover, it seems to be regarded as doubtful whether it would be a successful defence to say that he did not know that such person was unregistered and yet habitually and for gain attended cases on her own responsibility. At any rate, the pitfalls, as shown in the case at Manchester, are sufficiently numerous to make it incumbent on every practitioner to satisfy himself as to the status of any nurse who repeatedly calls for his assistance; and it may even be found to be necessary, if only in self-defence, to report to the Midwives Supervising Authority if he is repeatedly called to assist any particular nurse or supposed midwife without receiving the official form for calling in medical aid with which registered midwives are

supplied. The same dangers occur in going to the assistance of ordinary sick nurses in some parts of the country. In Manchester and Salford the district nurses are not allowed to attend any cases except under medical orders and supervision, but in some parts of Lancashire district nurses do attend on their own responsibility what are regarded as simple cases, only calling in a doctor if the case becomes, as they suppose, serious; the position of the medical practitioner as regards "covering" in these cases would seem to be in many respects similar to that in which the Manchester magistrate made such pointed remarks. To say the least of it, the situation is one of considerable danger to practitioners under such circumstances. The rule of the General Medical Council against "covering" is designed to protect not only the public but the profession against the evils of practice by unqualified and unregistered persons, and in the case of midwifery, apart from any personal risk to the medical man himself, the Midwives Supervising Authority may quite rightly expect him to lend such assistance to the authority as comes within his power to prevent the practice of midwifery by unregistered women.

## DILETTANTE HYGIENE.

THE latest annual report of the Governor of Jamaica to the Secretary of State for the Colonies contains some notable observations on medical matters. Alluding to a statement of the Superintending Medical Officer that the adult population of Jamaica is almost entirely unprotected against small-pox and his suggestion that steps should be taken to remedy this position by revaccination at puberty, the Governor not only condemns the suggestion as beyond the scope of practical politics, but goes on to express the opinion that possibly the island would be better advised if it devoted the money at present spent on infant vaccination to the isolation of cases of yaws and syphilis. These, together with malarial fever, typhoid, and vomiting sickness, His Excellency concludes to be the diseases most troublesome to the community in Jamaica by the simple process of counting the number of times they are mentioned in the reports of the various district medical officers. His observations become hardly more impressive but certainly less surprising when, on turning to *Who's Who*, one finds that the present Governor of Jamaica describes his recreations as "the normal forms of loafing and dilettantism." Since Jamaica enjoys the advantage of a House of Legislature and an active council the Governor's enjoyment of the first of these recreations will probably do it little harm, but the public health must certainly suffer if his amateur views on medicine are allowed to prevail. The Fabian policy of waiting upon events seems hardly applicable; we would rather recommend the Curzonian system of intelligent anticipation of events before they occur. We seem, indeed, to remember that some five or six years ago Jamaica had considerable difficulty in grappling with an outbreak of small-pox, and, seeing the importance of its fruit trade with the American mainland, we regard it as folly for the island not to protect itself fully against the disease. A very few weeks of quarantine would cost infinitely more than a proper system of vaccination. Apart from this, the value of the Governor's dictum on the point is sufficiently gauged by the fact that, whereas most civilized countries have managed to establish more or less complete systems of revaccination at puberty, no country yet has ever managed to secure the isolation of cases of syphilis. An island whose public health organization is so far undeveloped that only in about 33 per cent. of all recorded deaths is it possible to obtain a medical certificate as to the cause thereof is certainly not one which should abandon health measures of well proved value to indulge in experiments which much richer and far more advanced communities have shunned.

## ECONOMIC ENTOMOLOGY.

THE study of entomology as an applied science is likely to be considerably advanced by the attention now being paid to the subject at the Imperial College of Science and Technology, South Kensington. The Committee of Entomological Research, which was established there not long ago, has proved active, and one of the first steps it took—namely, that of dispatching two experienced entomologists to travel about the British colonies and protectorates in tropical Africa, and to supply any official or any other resident with the necessary apparatus for entomological research and practical instruction therein—has already had good results. The latest step has been to institute a series of lectures on entomology, which is in the hands of Mr. Maxwell Lefroy. Mr. Lefroy, who as Imperial Entomologist to the Government of India has had long practical experience of the subject, delivered his inaugural lecture on March 2nd, and had no difficulty in convincing those present of the value to the community which this new departure is likely to prove. In addition to illustrating the disastrous part which insects play both in the propagation of disease and the destruction of growing and collected crops, he showed that, although entomology as an applied science has been recognized for some twenty years, no adequate attempt has hitherto been made to provide in Great Britain for the practical and scientific training of the large number of men thoroughly skilled in scientific and practical entomology of which the empire stands in need. Mr. Lefroy was introduced to the audience by Lord Cromer, who in the course of his remarks stated that the object of the committee was to stimulate interest in the study and observation of insects in general, and provide facilities for men who desire to obtain a sound general training in entomology as a whole. From his further remarks it would appear that the Research Committee is often asked by colonial authorities and other persons to recommend the names of experienced economic entomologists for work in the colonies. Naturally the number of young men trained in this country who answer that description is very small, for hitherto applied entomology has been treated mainly as a side issue in a general course of agriculture or medicine. The fact that there is an apparent call for work of this order is worth noting in these days of professional overcrowding, especially as many of those who pass successfully through the medical schools have much stronger leanings towards natural science than the practice of medicine.

## THE TYPHOID CARRIER.

THE typhoid carrier has been the object of a great deal of attention, both in this country and abroad, for several years past, and only last November we gave some account of a report of Dr. Ledingham to the Local Government Board on the subject. It is, however, one of so much practical importance that it has seemed well to recur to it; we therefore give elsewhere in this issue an analysis of Dr. Ledingham's facts and conclusions. Briefly put, the facts are that the bacilli may be passed, more or less continually, by several classes of persons apparently in good health. The incubation period of the disease may last in an infected person from five to forty-five days, and during this period infection of contacts is probably very common; similarly the discharge of bacilli may

continue for decades after the attack. People in contact with a patient or another carrier may become temporary or chronic carriers without necessarily suffering from the disease. Another most important fact is that some cases presenting symptoms which may lead them to be classed as influenza or diarrhoea are in reality examples of atypical typhoid fever. It is shown that the relationship between gall-stone disease and the carrier state is very intimate—an observation which confirms work done many years ago on the etiology of gall stones. Our conception of the epidemiology, pathology, and even the clinical manifestations of typhoid fever have undergone radical changes, and some very interesting questions are raised by the new knowledge. There is, first, the fundamental problem—the paradox—why should one person be invaded by virulent typhoid bacilli and suffer no ill effects whilst another individual readily falls a victim to the disease? The answer apparently is not that the "carrier" is well provided with immune bodies, for, as a matter of fact, he seems to possess very little of these substances; he, or more often she, is not immune, for a fatal typhoid septicaemia may ensue. The theory elaborated by Wolff-Eisner and others, that the fever and its symptoms result only when the host has elaborated sufficient immune bodies to kill the parasite and liberate the endotoxins contained in its body, offers a possible explanation. Again, the fact that on one occasion alone over 200 individuals were infected by typhoid fever, owing to their milk being polluted with the excrement of one milker, shows how perilously easy may be the path of the bacillus from one man's bowel to another man's mouth. It shows that the campaign for elaborate cleanliness in food preparation, so often urged by the medical press, and so often derided by the general public as a medical fad, is justified in every particular. That other diseases, such as epidemic diarrhoea and dysentery, may be spread in this manner is more than probable. The question of typhoid in children evidently deserves renewed attention; there would seem to be some relation between infantile mortality and the prevalence of typhoid fever in a community. The fact that carriers are often sufferers from gall stones raises the further question, What should we do with our cook when she has an attack of biliary colic? Can we trust the usually obstinate woman to wash her hands so carefully as to secure asepsis in preparing our food? Very few of us would care to do so. The outlook as regards typhoid mortality has improved, for milk epidemics and house endemics can now be nipped in the bud. Domestic and culinary cleanliness must be cultivated, and possibly the working man will take more interest in the disposal of excreta when he learns that his neighbour's intestinal flora is dangerous and liable to reappear on his own tea-table. The German public, it is said, has responded very willingly to the campaign; why should not the English public prove equally ready to learn?

## EDINBURGH ROYAL ASYLUM.

THE report of Dr. G. M. Robertson, the Physician-Superintendent of the Royal Edinburgh Asylum for the Insane, contains, as may be gathered from the abstract published on page 584, many passages of interest. None will be read with more attention by medical men than those which refer to the laboratory which is maintained by the managers for the study of the etiology, pathology, and treatment of the insanities. The results of the researches carried on in this and other laboratories in recent years are truly said to have animated asylum physicians with hopeful views of future possibilities to which not long ago they were strangers. One of the most interesting of these possibilities is related in a special note contributed by Dr. Robertson which is incorporated in the article at page 585. On the assumption that one of the factors, perhaps the most active, in the production of general paralysis of the insane is syphilitic infection, Dr. Robertson gave injections of salvarsan in a series of cases. In one presenting acute symptoms the improvement was striking, but in the others without acute symptoms there was little or no change. Basing himself on Ehrlich's view that the action of salvarsan on the *Treponema pallidum* is direct, and that the curative process is due to the liberation from the parasite of specific bodies which give rise to a specific antibody, Dr. Robertson has devised a very interesting method of treating cases of general paralysis in which the symptoms are not acute. In these conditions treponemas have not been found, and the assumption is that they are very few in number, although it is possible that they may exist in the cerebro-spinal fluid, where salvarsan would not reach them easily, if at all; in consequence, the administration of the drug would not be followed by the liberation of the specific protein, and therefore the specific antibody would not be produced. To supply this deficiency, he proposed to use the serum obtained from patients in whom salvarsan has been injected intravenously for the treatment of secondary or tertiary symptoms, for it is known that the serum in such cases is full of antibody. The injection of such serum, therefore, may supply the curative agent owing to the absence of which salvarsan does not produce its beneficial action. The Edinburgh Asylum for the Insane is one of the greatest institutions of its kind in the British Isles, and it is therefore rather surprising to learn that the advantages which it offers to private patients do not seem to be sufficiently appreciated. Such patients are admitted at the rate of £45 a year. For this sum accommodation is provided for persons accustomed to live in comfort and refinement, including members of the professional classes whose incomes have never been large, and who cannot afford the more expensive accommodation of Craig House. This department is to some extent a charity; the loss on it last year was calculated to be over £1,000, but its maintenance is regarded by the managers as one of their highest duties.

## MATURATION IN GERM CELLS IN THE OVARY.

SEVERAL matters relating to the early phases of maturation in the germ cells of the mammalian ovary are still subjects of discussion. Dr. Louise McIlroy, who has made use of the ovaries of the pig, puppy, kitten, and human subject, has found[1] that the mammalian ovary has a typical development, the apparent differences being due to the rate of development before and after birth. Some of the differences, and some also of the special descriptive terms in use in different animals, have their origin in the smaller or greater amount of stroma present. It is specially in regard to mitotic changes in the oögonia and in the primary oöcytes that the interest of the research lies, and Dr. McIlroy has come to the conclusion that mitotic changes do not occur in the follicle cells, but only in the oögonia and in what she calls the oöcytes of the first stage, and that multiplication by mitosis ceases altogether at a given time, apparently before or just after birth in the human subject. The oöcytes which are destined for fertilization pass through a number of stages, known as thin spireme, synapsis, thick spireme, double filaments, and the resting stage

[1] *Proc. Roy. Soc. Edin.*, xxxi, pp. 151–178, 1910.

(the familiar germinal vesicle); the resting stage may last for years, and is very prolonged in the human subject. In the stage of synapsis the chromatin filaments undergo a pseudo-reduction. Another somewhat important conclusion reached is that the follicle cells (that is, those of the stratum granulosum) are derived from the oögonia and not from the stroma cells, which are only supporting and vascular. The writer's views regarding the reserve cells, as they are termed, and their power of functioning as follicle or as interstitial cells, are noteworthy. Miss McIlroy obtained no evidence of the presence of cells in the medullary cords which may lead to the formation of primary oöcytes. The glandular structures in the hilum are the remains of the Wolffian and rete tubules. This statement as to the Wolffian tubules is in accordance with the views of Coblenz, Doran, and Bland-Sutton, whilst as to the rete testis homologies she is in accord with the relatively new views of Professor Arthur Keith, who would trace the so-called "parovarian" or broad ligament cyst to tubular homologues of the rete testis in the female.[2] This will remind us that more original research in the domain of ovarian pathology is demanded, as the discoveries made by Miss McIlroy will aid the pathologist in mastering a subject which he has not thoroughly understood up till now—namely, the normal histology of the ovary. On March 2nd Dr. McIlroy gave an epidiascopic demonstration of numerous specimens illustrating the origin of the follicle cells of the ovary, at a meeting of the Obstetrical and Gynaecological Section of the Royal Society of Medicine. The demonstration proved of extreme interest, and it showed what admirable work in the field of original research is now undertaken by British physiologists. The public demonstration of the results of work of this kind is very useful, though study of the monograph itself, with its photomicrographs and main text and summary, will be essential to the specialist.

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## THE DRESDEN HYGIENE EXHIBITION.

WE have several times appealed for support for the Hygiene Exhibition which is to be held at Dresden from May till October. We are pleased to be able to state that more than half of the £10,000 required to carry out the work has been subscribed. The list shows that the medical profession has responded generously to the appeal. The letter from the Lord Mayor of London which appeared in the *Times* of March 6th will, it is reasonable to hope, be a powerful help to the British National Committee in collecting the rest of the sum needed. Of that Committee the Lord Mayor is President, and among its Vice-Presidents are Sir Thomas Barlow, President of the Royal College of Physicians of London; Mr. Henry T. Butlin, President of the Royal College of Surgeons of England; Sir William Church, past President of the Royal Society of Medicine; Sir William Bennett, President of the Incorporated Institute of Hygiene; Surgeon-General Sir Alfred Keogh, Director of the Imperial College of Science. Among its members are Lord Ilkeston, Sir Lauder Brunton, Professor G. Sims Woodhead, Dr. C. J. Martin, Director of the Lister Institute; Sir Shirley Murphy, Sir William Ramsay, Sir Henry Roscoe, and many other eminent men of science. Lord Ilkeston is treasurer, and contributions should be sent to him at 47, Victoria Street, S.W. The British public is showing its patriotism by its efforts to secure the representation of this country at what may justly be regarded as a meeting of the nations for the furtherance of hygienic science. The *non possumus* attitude taken up by our Government in regard to the exhibition has been the subject of adverse criticism in Germany. In his reply to a question asked by Mr. Byles in the House of Commons, reported in the BRITISH MEDICAL JOURNAL of March 4th, page 519, the President of the Board of Trade expressed the conviction that no fair-minded person could possibly have interpreted the refusal of the British Government to give a grant in aid of the British exhibit at Dresden as a slight upon the German nation. How Mr. Buxton could have arrived at such a conviction we cannot conjecture. On August 6th the *National Zeitung*, one of the leading newspapers of Germany, referred sarcastically to the "remarkable sidelight" thrown on the friendly feelings entertained by England for Germany by the refusal of our Government to take any part officially in the Dresden Exhibition. Again, so recently as March 2nd, the editor of the *Deutsche medizinische Wochenschrift*, commenting on the reply of the President of the Board of Trade to Mr. Byles, said: "It is obvious from this Ministerial explanation that the Government has not rightly estimated the importance of the Dresden International Hygiene Exhibition. . . . The result will be that England, as compared with other nations, will be at a disadvantge at the Dresden Exhibition." From every point of view but the purely commercial one, the Dresden Exhibition is of far greater importance than those which are to be held at Brussels, Buenos Aires, and Vienna in 1910, and at Rome and Turin in 1911. Yet to all these the Board of Trade has given its official support. Mr. Buxton has indeed assured the committee of the "profound interest taken by His Majesty's Government in any project for the advancement and diffusion of scientific knowledge with regard to matters relating to the health of the community." The Premier also said smooth things to the same effect to a deputation headed by Lord Ilkeston which waited upon him on February 28th. But the Government will not translate its fine sentiments into hard cash. The committee therefore will, like the Major in *Patience*, have to be contented with its heart-felt sympathy. Something better than mere otiose blessings might have been expected from a Cabinet which numbers among its most active members Mr. John Burns, whose invaluable work at the Local Government Board shows how well he understands everything connected with the maintenance of the public health and the development of hygiene.

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## INCOME-TAX REPAYMENT CLAIMS.

THE 5th day of April is the latest day for the admission of certain claims of repayment or adjustment of income tax. Some account of the claims that may now be made by persons who have not had the full relief due to them in certain directions may therefore be found useful. Claims in respect of the abatements of £70 to £160, allowance for life assurance premiums and total exemption may be made within three years of the expiration of the fiscal year to which they relate, so that it is now open to taxpayers to prefer such claims for the four years 1907–8, 1908–9, 1909–10, and 1910–11. The necessary forms in each case, which are comparatively easy of completion, may be obtained from the local surveyor of taxes, whose address will be ascertainable from the collector of King's taxes. It should be borne in mind that from whatever sources the income is drawn a person with a total income not exceeding £700 is entitled to have a certain portion, varying from £70 to £160, free of tax.

[2] A Demonstration of Specimens illustrating Cysts of the Female Appendages, *Journ. Obstet. and Gynaec. of British Empire*, October, 1910, p. 246.

Similarly, a reduction is due on account of life assurance premiums to an extent not greater than one-sixth of the assessed income, no matter from what source the income be derived. As an extreme example we may take the case of a junior partner to whom no allowances for abatement or life assurance premium have been made, and whose share of the firm's assessment for the year 1908–9 was £180. Suppose him to own the house in which he resides, assessed to property tax at £60 and to have paid £40 in life assurance premiums. The total income in such a case for the year 1908–9 would be £240, and the partner would be entitled to repayment of tax at 1s. in the £ on £160 "abatement" and £40 for life assurance premium, making a repayment of £10 for the single year. There are other classes of adjustment for which the full period of three years is not allowed and for which it is advisable to put in a precautionary application as soon as there are indications that occasion for a claim may arise. It is not now possible to get relief on the ground that the profits of a particular year fall short of the amount of the assessment for that year, *unless* such falling short is due to a succession to another person's practice, or to a change in the *personnel* of a partnership. Where these conditions exist, or where the practice (1) is an entirely new one set up within three years, or (2) has entirely ceased, a claim may be made for adjustment of the assessment (by way of repayment) to the amount of the actual profits of the year. There is a further description of claim that may be found beneficial to medical men with income from taxed sources, who, whether through setting up a new practice or from other causes, are carrying on their profession temporarily at a loss. In such cases it is open to the practitioner to claim repayment of income tax to the extent of the loss as against the tax that has been deducted from his other income, and if by this operation the residue of his income for that year is reduced below £160 he can claim repayment of the balance of the tax on the ground of exemption. Claims of this nature are usually admitted within twelve months of the close of the fiscal year to which they relate. Notices of claim, as in other cases, are required to be given to the surveyor of taxes.

## RHEUMATISM AND SUPPURATIONS IN THE URINARY TRACT.

IT has been contended that certain cases of chronic inflammation of the urethra and ureter, not traceable to gonorrhoea and other well-known diseases, may be due to tonsillitis. This theory was the theme of a communication read last December by Dr. Hunner of Baltimore, at a meeting of an American medical association.[1] He argued that in such cases the inflammation of the urinary tract was set up by infections or toxins from the tonsils; the importance of this fact would only be appreciated when it was recognized that urethritis at least could not be permanently cured until the tonsils were thoroughly extirpated. He reported some cases thus treated, admitting that all were not absolutely successful. The patients were women. Dr. Hunner also noted that the fact that acute prostatic abscess sometimes followed inflammation of the tonsils suggested a possible relationship between the tonsils and certain cases of chronic urethritis in males. In the discussion it was hinted that the theory in question might lead to excessive tonsillectomy unless the practitioner could determine with accuracy the nature of a local infection of any kind and its focus. Howard Kelly reported an instance in which a married lady had been under his care and observation for fifteen years. Careful inspection of the urine revealed pus in varying amounts; so far as the local conditions were concerned the patient was without symptoms, but she had been subject to rheumatism for twelve years, and had enlargements of the joints. Dr. Kelly used the ureteral catheter and found that pus came from the left kidney, which he washed out after dilatation of the ureter. There was some temporary benefit, but the kidney became large and tender and much pus appeared in the urine. The organ was therefore drained, and Dr. Kelly did a plastic operation on the semilunar ureteral valves, cut down on the fascia at the end of the ureter, and drained from the side. The drainage gave some relief, but the rheumatism continued. Dr. Kelly therefore removed the kidney and the "rheumatism disappeared like magic." That there is a relation between tonsillitis and rheumatism is well recognized.

[1] Transactions of the Southern Surgical and Gynaecological Association. *Amer. Journ. Obstet.*, February, 1911, p. 306.

## THE "℞" OF PRESCRIPTIONS.

How many medical men when, in accordance with immemorial custom, they head their prescriptions with the symbol "℞," know that they are unconsciously perpetuating the practice of invoking the aid of Jupiter to the efficacy of their drugs? This, which has long been the accepted view, is supported by Dr. R. M. Lawrence in a chapter of his recent work on *Primitive Psycho-therapy* devoted to the subject of ancient medical prescriptions. Dr. Lawrence believes that the medical ℞ is a synthesis of the initial R of recipe and of the symbol ♃, which is one of the astrological denotations of the planet Jupiter. "From very early times," he says, "it was a universal custom to place at the beginning of a medical prescription certain religious verses or superstitious characters, which formed the invocation or prayer to a favourite deity." A counter claim has recently been made on behalf of the Egyptian sun god Ra, but does not seem to be well founded. It appears that the astrological signs were thus introduced in the reign of Nero, and Dr. Lawrence infers that Christian physicians may have been constrained to conform to the pagan practice of prefixing to their prescriptions invocations to Jupiter. The language teemed with words—for example, "jovial," "mercurial," "saturnine," "disastrous"—testifying to the former universality of the belief in planetary influences. Among the various interpretations of the symbol ℞, that of Johan Michael Moscherosch (1600–69), also cited in the work mentioned above, is more humorous than complimentary to the faculty. He maintained that it is equivalent to *Rec.*, an abbreviation standing for *per decem*. The appropriateness of the denotation was attributed by him to the fact that one prescription in ten might be expected to prove beneficial to the patient. The symbol "℞" was not always universally employed, however, even during the Middle Ages. Dr. Otto Wall, in his work entitled *The Prescription*, states that during the sixteenth century physicians, either through piety or in fear of the Inquisition, frequently used the sign of the Cross as a superscription. Others replaced the symbol of Jupiter by the Greek letters ΑΩ; J. D., for *Juvante Deo*; C. D., for *Cum Deo*; or N. D., for *Nomine Dei*. Whatever conclusion may be formed as to the origin of the symbol now in vogue, there can be no doubt that the physicians of antiquity commonly headed their prescriptions with an invocation to some deity, nor, therefore, of the correctness of Dr. Lawrence's contention that "modern medical prescriptions may be classed as the lineal descendants of the healing spells of former ages."

SIR ARTHUR CHANCE has been elected the Representative of the Royal College of Surgeons in Ireland on the General Medical Council vice Sir Thomas Myles, whose term of office expired on February 23rd. Sir Arthur Chance, who is surgeon in ordinary to the Lord Lieutenant and senior surgeon to the Mater Misercordia Hospital, was president of the college from 1904 to 1906.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Small-pox in London.**—In answer to a question put last week by Mr. Cooper, Mr. Burns stated that from January 1st to the evening of February 27th, 41 cases were notified and removed to the Metropolitan Asylums Board's Hospitals. Of the 36 cases in the hospitals of the Asylums Board on Sunday evening last 29 were vaccinated and 7 were unvaccinated. In 24 of the cases the vaccination was performed more than fifteen years ago, and in 2 others at least ten years ago. The 3 other vaccinated cases were those of children, and the attack was said to be mild. In answer to later questions, Mr. Burns stated that since the beginning of the present outbreak 47 persons had been admitted at South Wharf; 3 of these had been found not to be suffering from small-pox; 43 cases, notified as small-pox, had been sent to Joyce Green—one case remained at the Wharf. Seven of the cases notified were persons employed at the Mile End Infirmary (five as nurses and two as scrubbers). He could not give the age and vaccinal condition of each patient, as these particulars had not yet been verified; but it was stated that of the 44 patients 6 were 5 years of age or under, and of these 3 had not been vaccinated, 3 were vaccinated in infancy, 2 had been revaccinated since the onset of the disease. Seven were between 5 and 15 years of age, of whom 1 had not been vaccinated, 5 were vaccinated in infancy, 1 case was doubtful; 4 cases had been vaccinated since the onset of the disease. Fifteen were between 15 and 30, of whom 2 had not been vaccinated, 12 were vaccinated in infancy, 1 was doubtful; 8 of these had been revaccinated since the onset of the disease. Sixteen were cases of persons over 30, of whom 14 were vaccinated in infancy; 2 cases were doubtful; 10 cases had been vaccinated since the onset of the disease. There had been 1 death—a case of an unvaccinated child of 3 years.

**The Council Schools and the Small-pox.**—On Monday last Mr. Ramsay Macdonald asked whether any inspection of school children attending London County Council schools to ascertain the vaccinal condition of such children had taken, or would take place; whether it was proposed to exclude unvaccinated children from such schools; whether such action was in accordance with the regulations of the Board of Education; and what action he proposed to take in the matter. Mr. Runciman said that he had no definite information as to any action which the London County Council had taken, or were about to take, to ascertain whether children in public elementary schools had or had not been vaccinated. He had several times expressed his view on the matter, and might refer the hon. member to an answer which he gave in the House on October 14th, 1910, when he said that: "I strongly deprecate any attempt on the part of local authorities to use the machinery of medical inspection for the purpose of enforcing vaccination. Such action is likely to discredit medical inspection in the eyes of many parents who would otherwise be glad to take advantage of it." With regard to the second part of the question, he had no information as to any proposal to exclude unvaccinated children from the schools. In the circumstances the third and fourth questions did not arise. Asked whether, in the face of the epidemic, he would not reconsider his advice, Mr. Runciman said that he had no intention whatever of altering his advice. The case of epidemics was fully dealt with in the code.

**Vaccination.**—In answer to Dr. Hillier, who asked as to the number of exemptions from vaccinations, Mr. Burns said that he was not at present able to supply figures for the whole year. During the first half of the year, however, 456,533 births were registered and 110,851 exemption certificates were received. In answer to Mr. Sutton, who asked about the death of a child named Fisher after vaccination, Mr. Burns said that the circumstances had been investigated by one of the medical inspectors in January last. The lymph which was supplied belonged to a series of which 1,629 tubes were despatched, and no complaints had been received in regard to other cases for which the tubes were used. The same public vaccinator vaccinated five other infants with the same lymph without any abnormal effects. The correctness of the view expressed at the inquest that generalized vaccinia was extremely rare, was supported by the fact that, although during the two years 1909 and 1910, over a million vaccinations were performed, only two cases were known to have occurred. He did not think it necessary to take any further steps in the matter.

**Vaccination and Small-pox Hospitals (Scotland).** — Mr. Munro-Ferguson asked the Lord Advocate whether it was the view of his department that vaccination no longer deserved encouragement, and that the best precaution against small-pox was an ample provision by local authorities of small-pox hospitals; and whether the Government intended to make any contribution towards the cost of providing small-pox hospitals. Mr. Ure replied that the view suggested was not that of the Government, nor was there, so far as he was aware, any fund out of which the suggested contribution could be made.

**Invalidity Insurance.**—Mr. Booth asked the Chancellor of the Exchequer if he was in a position to say when the information given to a representative of the Manchester Unity of Oddfellows respecting proposed legislation for State insurance of sickness and invalidity would be at the disposal of the House. Mr. Hobhouse replied that the information given to a representative of the Manchester Unity of Oddfellows was in the nature of confidential and provisional suggestions put forward at an informal conference, and it would be exceedingly undesirable to publish them at a time when he was inviting suggestions from all quarters as to his scheme for State insurance against sickness, invalidity, and unemployment.

**The International Plague Commission.**—In answer to a question put by Mr. Chancellor on Monday as to the methods of investigation of the Commission, Mr. Burns said that the International Plague Commission, which had been appointed on the invitation of the Chinese Government, would meet at Mukden on April 3rd, and, as at present arranged, would sit from two to five weeks. Dr. Farrar, the British representative, would arrive in the country some time earlier than this, so that he might make himself personally acquainted with the local conditions. He was not at present aware of the precise nature of the methods of investigation which the Commission might decide to adopt. In answer to the suggestion that he should send out a sanitary engineer, Mr. Burns said that he did not think it necessary to do so.

**Measles Outbreak among Naval Cadets.**—Mr. Tyson Wilson asked the Home Secretary whether he was aware that the uniforms for the naval cadets at Dartmouth and Osborne were made to a very great extent by home-work in the district of Portsmouth; whether he was aware that there had been in that

district over 200 cases of children being absent from the schools this year on account of measles; and, whether, in view of the recent outbreaks of measles in the Dartmouth and Osborne naval colleges, he would have a searching inquiry made as to whether the uniforms referred to were made under proper healthy and sanitary conditions. Mr. Churchill said that he had received the following information from the factory inspector for the district: About 85 per cent. of this work was done by a single firm, which employed thirty-five out-workers. Twenty-seven of these were occupiers of workshops which were periodically visited by the factory inspectors and officers of a local authority, and the sanitary conditions of which were satisfactory. Eight were out-workers in the ordinary sense; their premises, which were subject to inspection by the local authority, were frequently visited, and the medical officer of health considered them to be satisfactory from the point of view of health. No cases of school children suffering from measles had been reported in connexion with any of these premises.

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**The Shops Bill** was introduced on Monday last by the Home Secretary, and is backed by Mr. Masterman, Mr. Herbert Samuel, and the Solicitor-General. It is understood that the bill will be pressed on by the Government, and, if possible, passed this session. The new bill will be found to be not weaker than its predecessor of 1909, but more elastic, and the peculiar interests of special trades are provided for. There is a general desire that the hours and conditions of labour of shop assistants in retail trades should be properly regulated, and the deputations received by the Home Secretary have enabled him to consider carefully the whole question and introduce a measure that has a good chance of passing.

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**Motor Spirit Duty (Medical Practitioners).**—Mr. Ginnell asked the Secretary to the Treasury if a medical practitioner in claiming rebate of motor spirit duty was not bound to prove payment of duty by manufacturer or dealer, would he explain why the rebate due to Dr. Gibbon of Mullingar in respect of 1909 and 1910, duly claimed and vouched, had not yet been paid, and had in effect been refused; and, as many cases depend upon this one, would he say when payment would be made in all those cases of overdue rebate. Mr. Hobhouse said that a claim for rebate of motor spirit duty in respect of 1909 had been made by Dr. Gibbon of Mullingar, but had not been allowed because the firms who were stated to have supplied the dealers from whom Dr. Gibbon purchased the spirit could not show to the officers engaged in testing the validity of the certificates of sale that duty had been paid to the Crown on the spirit in question. Two claims for rebate in respect of 1910 had also been made by Dr. Gibbon. Payment of these claims had been delayed because the certificates submitted with the claims were incomplete. It was expected, however, that the claims would be decided upon at an early date.

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**White Bread and Physical Degeneracy.**—In answer to a question by Mr. Charles Bathurst, Mr. Trevelyan said that the Board's medical officers had expressed no opinion as to the relation between the consumption of bread of any particular character and decay of the teeth. The best hope of arresting tendencies to physical degeneration appeared to the Board to lie in the development of the school medical service and of school hygiene in its various aspects. In this connexion the Board relied upon the efforts of local education authorities, care committees, and others to secure the co-operation of parents. The Board did not propose at present to attempt to deal with the matter by means of the issue of syllabuses, but the whole subject was engaging the earnest consideration of the Board.

**Phosphates in Flour.**—Mr. Lonsdale asked last week about the adulteration of flour with phosphates, and Mr. Burns replied that he was expecting to receive at an early date the report of the officer who had been investigating the question of flour. When he had received it, the whole question would have his careful consideration. Since his hon. friend had asked a similar question five months ago he had deemed it advisable to extend the scope of the inquiry. He was glad to say that the whole report would probably be out next month. The interest that was being taken in this question was due to the fact that the Press ascertained that he had appointed two officers to make this investigation eight months ago.

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**Flannelette Wearers Burnt to Death.**—Mr. Theodore Taylor asked the Home Secretary whether he was aware that in England and Wales 700 persons were annually burnt to death owing to flannelette garments catching fire; that during the months of November, December, and January last over 400 persons were burnt to death in consequence of their clothing catching fire; and that it was possible to treat flannelette in such a way as to render it permanently resistant to flame; and whether the Government contemplate the introduction of any legislation as a result of the evidence presented to the coroners' committee on this question. Mr. Churchill said that the figures referred to had not been brought to his notice, and he did not know on what authority they were given. From the Registrar-General's last returns, which were based on coroners' certificates, it would appear that in 1909 the number of deaths from burning clothes was 689, but only in seventy-three cases was it stated that the clothing was made of flannelette. As regards the possibility of treating flannelette in such a way as to render it permanently resistant to flame, he must refer his hon. friend to the findings of the coroners' committee on the point. He feared there was no prospect of legislation on this question during the present session.

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**The University of Wales Bill** was introduced last week by Sir David Brynmor Jones and read a first time. It is backed by Lord Ninian Crichton Stuart, Sir Herbert Roberts, Sir Francis Edwards, and Mr. Ormsby-Gore. It is described as a measure to define and enlarge the rights of graduates in medicine of the University of Wales, but is not yet printed.

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**American Meat.**—Mr. Hunt asked whether, according to American statistics, hundreds of thousands of carcasses of animals were marked as fit for human food from which parts affected with disease had been removed, and what steps were taken to detect imported tinned or preserved meat derived from such carcasses. Mr. Burns replied that he was aware of the American statistics and referred to answers he had previously given. He afterwards added, in reply to further questions, that each case was dealt with on its merits or its demerits, and all he could say, as a general answer, was that the Liverpool shipowners, representing 33 per cent. of the shipping of the United Kingdom, were complaining of what they term the excessive stringency and zeal with which the Board were administering the Food Regulations Act of 1908. In certain cases no objection could be raised on health grounds to using as food the carcasses of cattle from which some parts had been removed. On Tuesday Mr. Hunt asked about the supply of meat to the British army, and the Secretary of War assured him that all necessary precautions were taken to ensure that frozen meat for the army was perfectly good and fit for consumption by the troops. Preserved meat canned in America for army contracts was prepared under the supervision of expert army corps' officers, who also inspected the cattle before and after slaughter.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### THE KING EDWARD MEMORIAL.

THE special committee appointed by the Glasgow Corporation to report as to the form which the national memorial to the late King Edward should take has unanimously agreed to the following recommendation: That the proposed Scottish national memorial should take the form of a crusade against consumption, and that the Executive Committee in Edinburgh should take into consideration the rescinding of their proposal for the Holyrood scheme in favour of such a crusade, the bringing of such a scheme before the Scottish people for their approval, and the raising of a fund of £500,000 to initiate the scheme.

### THE NOTIFICATION OF INFANTILE OPHTHALMIA.

The Glasgow Town Council has decided that steps be taken to have infantile ophthalmia placed in the list of those compulsorily notifiable under the Infectious Diseases Notification Act within its district. The motion that the matter should be discussed by the Health Committee was made by Councillor Dr. Erskine, and it is on its recommendation that the council has decided. A special meeting must be called to order the disease to be added, and the Local Government Board must approve of the order before it comes into force on May 1st, the date decided upon.

### THE DECLINE OF TUBERCULOSIS IN SCOTLAND.

Professor Matthew Hay, of Aberdeen University, says in a report which, as medical officer of health, he has furnished to the Town Council of Aberdeen, that he has been for some years collecting information regarding the conditions of the prevalence of tuberculosis in that city. Speaking of the causes of the decline in the mortality from tuberculosis, Dr. Hay says that the decline has been going on in Aberdeen for at least fifty years, although it did not begin to be felt in Scotland as a whole until after 1870. It began earlier in towns than in rural districts. It had not been due to changes in diagnosis and to the labelling, in recent years, as bronchitis or asthma cases that would formally have been diagnosed as phthisis. The decline began long before the germ origin of tuberculosis had been demonstrated by Koch, although the infectious character of the disease had never been without believers; but, what was more remarkable, the rate of decline was almost as great before any administrative attention was being paid to the infective character as it had been after such attention began. It was therefore plain that the ameliorating agencies had been of a general and not of any specific character. Everyday experience showed that there was almost no disease so amenable as tuberculosis to general hygienic conditions. He was aware that at least one eminent medical authority attributed the fall almost entirely to the increasing segregation of consumptive cases in poorhouses, asylums, and infirmaries. The figures for Aberdeen, so far as obtainable, did not support this view in regard, at least, to the remarkable declension in the first half of the last fifty years, and it was only reasonable to infer that the agencies at work in the earlier period had not ceased to be operative in the later period. It would, however, scarcely be possible to deny that in more recent years such segregation, although still very limited relatively to the number of tuberculous cases and the long duration of the illness, must have been exercising a beneficial influence.

### ROYAL EDINBURGH ASYLUM FOR THE INSANE.

The annual meeting of the Court of the Royal Edinburgh Asylum for the Insane was held on February 27th, the Right Hon. Lord Provost Brown in the chair. The report of the ordinary managers for the year ending December 31st, 1910, showed a year of prosperous work. The Physician-Superintendent, Dr. George M. Robertson, then read his annual report for the year 1910. On January 1st there were 752 patients on the register, of whom 14 were absent on probation. On December 31st the number was 758, of whom 12 were absent on probation, an increase of 6 for the year. There were 195 admissions (79 men and 116 women), 129 discharges (46 men and 83 women), and 60 deaths (28 men and 32 women). Of the 129 discharged, 70 were recovered and 59 unrecovered. The average number resident during the year was 752. The average population of the asylum has risen steadily from 732 in 1907 to 752 in 1910. Thus the sudden removal of so many patients to Bangour Village Asylum, and of the loss of so many of the admissions belonging to the parish of Edinburgh, has not disturbed the stability of the institution. The prosperity of the Craig House, as indicated by the number of patients and by its revenue, has never been exceeded at any previous time.

The members admitted to Craig House maintained the average of the last six years, but there were fewer private patients at the £45 and lowest rate admitted to the West House. The number of patients cared for in the intermediate (£45) department has, however, not diminished, as patients have been transferred to it from Craig House or from the lowest rate, and these are not included among the new "admissions" in the statistics. There is a practice of a highly commendable nature, which tends to increase the direct admissions to Craig House, and subsequently the indirect admissions to the intermediate (£45) department at the West House. The friends of patients are prepared to maintain them at the higher rates of Craig House, so long as there is a prospect of their recovery, even though this involves a strain on their resources. They feel that the excellent homelike accommodation provided there softens the initial hardship entailed by the loss of liberty, and also gives the patient the best chance of recovery. When all hope of this has fled and the patient is likely to become a lifelong burden on their finances, then the expenditure upon his care is naturally reduced to accord with their means, and he may then be transferred to the comfortable but less expensive department at the West House.

#### *Causes of Insanity.*

1. *Alcohol.*—Among the definite causes of insanity the premier place continues to be occupied by alcoholic excess, and it existed as a factor, probably the most important but not the sole agent, in 12.3 per cent. of the admissions. This is a much smaller percentage than in the past, and it is accounted for in two ways. The Edinburgh parish now sends its patients to Bangour (they are chiefly drawn from the working class), so that the admissions to the asylum have altered in social character, and the professional and the leisured classes are in much larger proportion than formerly. It is an undoubted sociological fact that temperance is practised by these to a greater extent than by their poorer brethren. Then it is universally recognized that hard times and the increased duty have diminished the expenditure on alcohol. The percentage of so-called alcoholic insanity amongst men is only 13.9 of the male admissions, less than ever before, but among women it has risen steadily during the last three years from 7.5 to 9.8, and last year it was 11.2 of the total admissions of women. The working man is probably spending more on amusements and entertainments of various kinds, and undoubtedly these conduce to sobriety. The working woman, on the other hand, in many instances is spending more on alcohol, and how to deal with this tendency is a problem for the social worker.

2. *Influenza.*—Among the definite causes the next place in importance is assigned to influenza; in as many as 7 per cent. the mental breakdown was attributed to this disease.

#### *Discharges.*

The recovery-rate during 1910 was 36 per cent. of the total number of admissions, a more satisfactory result than for ten previous years.

#### *The Thyroid and Insanity.*

Among the recoveries, three are referred to as showing the progress science is slowly but surely making:

1. *The Insanity of Myxoedema.*—Under thyroid treatment the patient was "in a week transformed from a misshapen stupid object into a bright and pleasant-featured woman—her natural self—and quite unrecognizable as the creature of a week before.

2. *The Insanity of Exophthalmic Goître.*—Serum from a goat whose thyroid gland had been removed was exhibited. Apparently as the result of this treatment the patient recovered.

3. A patient, deranged and impulsive for about a year, was treated with large doses of thyroid under careful supervision. In a fortnight the patient completely recovered. Fifteen years previously the same experiment had been tried upon her during an attack, with the same result.

*Divorce and Insanity.*

In view of the public attention that has been given to incurable insanity as a possible cause for divorce, the length of residence of some of those who recovered is an interesting feature. Three patients recovered who had been respectively six, seven, and fifteen years in the asylum, and there was a fourth whose insanity had existed for over five years. They were all cases of melancholia, and apparently in all the nutrition of the brain was not being seriously disturbed. There was therefore no tendency to the production of dementia or permanent enfeeblement of the mind. It is safe to infer that if ever incurable insanity of five years' duration be legalized as a cause of divorce, no patient diagnosed to be suffering from true melancholia need have any fear. If divorce is to follow insanity, such a measure will certainly cause unhappiness to many patients and retard their recovery, but it may nevertheless be desirable in the public interests.

*Deaths.*

These were in the proportion of 8 per cent. of the average number resident, the lowest rate for over twenty years. There were only 5 deaths due to consumption, of which 4 were admitted with that disease. There were 15 deaths from general paralysis of the insane, as in the previous year, and of these 11 were men and 4 women. The general health of the institution had been most satisfactory.

*The Royal Asylum Laboratory.*

The managers, apart from the initial cost of equipment, are spending at least £600 a year in salaries and working expenses on this modern necessity for an asylum. A feature of the research work recently done in the laboratories is the wave of optimism it has produced. Asylum physicians are now animated by most hopeful views of future possibilities, and this has been a very useful stimulus to them in their work. Even with regard to diseases labelled incurable in our textbooks, no man will now deny that the day seems dawning which will see them treated with success. "I can assure any one who has the means," said Dr. Robertson, "and who is interested in the cause of insanity, that the gift of a sum of £100 or £150 towards the support of a research scholar would be money well expended at the present time, the laboratory providing the material and the apparatus required." The public has always taken a gloomy and pessimistic view of the prospects of recovery from insanity, although it appears from the statistics last year that 36 per cent. of the admissions were discharged recovered, and among the admissions were a large proportion of obviously hopeless cases.

*Treatment by Injection of Salvarsan and Human Serum.*

The treatment of general paralysis of the insane by salvarsan has been tried in the asylums, and we are indebted to Dr. Robertson for the following note on the *rationale* of the combined salvarsan and human serum treatment:

"It has been known for some time that the milk of a syphilitic mother under treatment by salvarsan cures the symptoms of syphilis in her infant. It has been concluded from this that the cure has been effected by antibodies and not the drug, because, if injected intravenously, the latter is all excreted in about four days. With regard to the production of this antibody, Ehrlich has stated that salvarsan kills the spirochaetes, and that the dead spirochaetes liberate a protein which stimulates the production of a syphilitic antibody, and that on the extent on which this is done the cure of the syphilis depends. Now the results of the use of salvarsan in general paralysis (parasyphilis) have not been so successful as in most syphilitic conditions, and this is possibly due to a deficiency of antibody. This is a reasonable hypothesis, because the number of spirochaetes (whose death would liberate the necessary protein) is probably few, seeing that none have ever yet been found. It is also possible that they have retreated into the cerebro-spinal fluid, where the salvarsan cannot come into a very efficient contact with them. Both these conditions would result in a deficiency of antibody. The serum taken from a patient who has been intravenously injected with salvarsan for secondary or tertiary syphilis from three to fourteen days before is full of antibody, and if in its turn it be injected into a case of general paralysis which has already been treated with salvarsan, and the injection be occasionally repeated, it may supply the curative agent which is wanting. If acute symptoms be absent, the most that successful treatment can do is to stop the progress of the disease, for the damage that has been already done by the destruction of nerve cell and nerve fibre is of course irreparable. Proof that the course of the disease is checked must be a question of time. If, however, this proof be obtained, then treatment could be applied to cases in the earliest stages before any serious damage has resulted. Thanks to the Ross-Jones test for proteids in the cerebro-spinal fluid, lymphocytosis and the Wassermann reaction (all of which should be applied to persons with nervous and mental phenomena who have had syphilis), it is possible now to diagnose the disease at a very early stage with great accuracy and to exclude it with certainty.

"The serum is obtained by drawing off blood with scrupulous antiseptic precautions from any prominent vein at the elbow. If about 30 c.cm. be drawn off about 15 c.cm. of serum is obtained. The tubes with the blood are kept on ice for twenty-four hours. The serum is then drawn off and centrifuged in sterilized tubes to remove red blood corpuscles. It is then kept on ice till required. A broth culture is made from it to test its sterility. Ten c.cm. of this serum is subcutaneously injected into the abdominal wall, and another dose of 20 c.cm. given within a fortnight. There have been no toxic serum results either after the first or the second dose, and the reaction has been scarcely noticeable.

"We have had one case of general paralysis with acute symptoms which has improved in a most striking manner after salvarsan treatment, but in the other cases, without acute symptoms, there has been little or no change in the dementia and physical phenomena. Whether the progressive course of the disease has been checked it is yet impossible to say. It will be interesting to note whether the addition of human serum containing antibody confers increased power to the salvarsan treatment of parasyphilis or not. The results in yaws obtained by Dr. Henry Alston of Trinidad by the use of serum from a blister from a person who had himself been treated by serum only has demonstrated the value of the antibody in treatment, and has encouraged me to hope that if the toxaemia of general paralysis be primarily derived from the *Treponema pallidum*, benefit will be obtained."

*Care and Nursing of the Insane.*

The general care of the patients was continued on the lines fully explained in last year's report. Endeavour was made to remove all features peculiar to asylums, and to convert the institution into a true hospital for the treatment of a special disease, by organizing it on the lines of a general hospital, and by administering it through female officials, who, in addition to experience in the care of the insane, had been fully trained in hospital nursing. The administration of a mental hospital could be conducted on lines very closely resembling those of a consumption sanatorium. Manacles, the strait-jacket, the padded room, seclusion, have become anachronisms under the hospital system. This had become possible by the number, skill, intelligence, and devotion to duty of nurses and attendants, and in their discipline and supervision. At the Stirling District Asylum, with an average population of over 700, Dr. Campbell reports that 2,200 patients have been admitted during

the last nine years, and neither mechanical restraint, "seclusion," nor the padded room have been made use of, and no patient has been locked up in a single room, night nor day, during all that time.

*Structural Additions and Improvements.*

The managers have spent about £3,000 on the fabric and furnishings of Craig House, and about £5,000 to bring them fully into line with the most modern institutions.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### Royal National Hospital for Consumption.

The report presented at the annual meeting of the Royal National Hospital for Consumption stated that by far the largest number of patients admitted were between the ages of 21 and 25, the next largest number between 26 and 30, and the next between 16 and 20. In 52 per cent. of admissions no family history of tuberculosis could be traced. The deaths numbered 10 out of a total number of 440 patients; while 25 per cent. of those admitted were classified as "very much improved," and a further 26 per cent. as "much improved." Arrangements have lately been made whereby patients returning from the hospital to the country are put into communication with a local branch of the Women's National Health Association, and are thus assisted in carrying on their treatment at home. It is widely felt that one of the most important functions of the hospital is to act as an educative force. Every patient who has been an inmate of the hospital learns practically the rules of hygienic living and the best methods of combating consumption, and on his return home is enabled both by precept and by example to educate his neighbours.

### Dublin University Biological Association.

The annual dinner of the association was held on March 4th at the Gresham Hotel, Dublin. The President, Dr. Wheeler, occupied the chair, and there was a very large attendance of students and medical men. The speakers included the President, who proposed the health of the guests in a witty and entertaining speech; Sir Thomas Myles, Professor Kennedy, Mr. E. H. Alton, and Professor W. H. Thompson. An excellent programme of music was provided by members of the Trinity College Medical School.

### Presentation to Sir Charles Cameron.

On March 4th Sir Charles Cameron was made the recipient of an interesting presentation by the chief officers and staff of the Public Health Department of the Dublin Corporation. The presentation consisted of a replica in Irish walnut of the Speaker's chair in the last Parliament in Ireland. The original has for long been in the possession of the Massereene family in co. Antrim, but lately has been exhibited in the Science and Art Museum of Dublin. The replica given to Sir Charles Cameron bore the following inscription:

Replica of Speaker's Chair of Irish House of Commons. Presented to Sir Charles Cameron, C.B., M.D., Medical Superintendent Officer of Health of the City of Dublin, in his jubilee year in the service of the citizens, by some members of the staff of the Public Health Committee.

### Carlow Union.

A report of the master of the Carlow Union to his board of guardians concerning the recent admission of a patient to the union infirmary gave rise to some interesting remarks on the part of the attendants at the board meeting. From the account before us, it is impossible to state what the patient was suffering from, but it appears that his removal from his home to the workhouse during the night gave rise to much offence, presumably owing to the fact that it entailed some trouble on the part of the officials concerned. One of those present desired to make a regulation to the effect that patients should not in future be removed at the dead of night, but this was not carried. In the course of the discussion it was stated, without contradiction, that when a patient had to be removed the medical officer has no authority to specify the hospital to which a patient should be conveyed; that duty is performed by the relieving officer. If this be true, it points to the existence of an absurd and anomalous regulation, which should be altered.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

### "An Unholy Traffic."

The outstanding feature of the recent Manchester Assizes was the unusually large number of cases in which the charge was that of illegally procuring abortion. In some of the cases the charge of murder or manslaughter was not substantiated and two persons were discharged, one of them after only a short consideration by the grand jury, though the coroner's jury had returned a verdict of murder. In another case the charge of murder was reduced to that of illegally using a certain instrument with the intent of procuring a mishap, and Mr. Justice Grantham, in passing sentence of eighteen months' imprisonment, said that it was clear from her own evidence that the prisoner, a married woman of Longsight, had committed the offence to which she had pleaded guilty. He said:

> This crime is terribly rife in this district, the North of England, Yorkshire and Lancashire, among those towns where there are a large number of operatives who are doing well as far as most of them are concerned, though I dare say there is a good deal of poverty, particularly when they are not on full time. People ought to maintain the families which God has given them, and if it were not for women like you, and other horrible creatures, men and women, who get large incomes by this trade, this would not be done. Whatever your intentions, you must have known from your experience in these cases the risks run and the number of lives that are lost every year by people going through these operations desirous of saving these people from the inconvenience of having children. I hope it will be a warning to other women and men who engage in this unholy traffic.

There can be no doubt that the remarks of the judge as to the frequency of the crime in Lancashire are not in the least too strong. It may be, of course, that a greater proportion of actual cases are detected in Lancashire than in other places through the greater activity of the police, but the fact is beyond doubt that the "unholy traffic" is terribly rife. It is stated that there are actually places, so called nursing homes, where women may be instructed how to pass an instrument into the womb themselves, and it is by no means rare for medical practitioners to be called to cases of illness of pregnant women, and to find that they are suffering from lead poisoning. In one such case a practitioner elicited that the patient had spent over £4 in lead pills, which she had obtained from an old nurse at a guinea a box. It was impossible to obtain the name of the nurse, but the pills were simply small pieces of common emplastrum plumbi roughly rolled up between the fingers into pill form.

The position of medical men in these cases is extremely difficult even when no miscarriage occurs and the patient recovers, and unfortunately it cannot be said that the police, or even some of the coroners, sufficiently realize the difficulties, nor have they shown the consideration for the profession which it can rightly claim. It would even seem that in a case of miscarriage from natural causes, where curetting has had to be done to save a patient's life, a medical man may afterwards be charged with doing an illegal operation, and even though a second practitioner be called into consultation, both of them are liable to be arrested on the charge, and a subsequent acquittal would by no means recompense them for the trouble, annoyance, and damage to their practice which would be certain to follow. So great has the danger been felt to be recently that unless more consideration is

shown to the profession, many practitioners will simply refuse to attend cases of abortion or miscarriage, as the opportunities for false charges are so great, and appear to be so readily listened to by the police, even when practitioners of unblemished reputation are concerned. The medical profession in Lancashire is doing its best to lessen the horrible practice of procuring abortion, but it has a right to demand sympathy, and not suspicion, from both coroners and the police.

THE MANCHESTER MEDICO-ETHICAL ASSOCIATION.

The sixty-third annual report of the Manchester Medico-Ethical Association shows a membership of 90 at the end of the year 1910. The committee expresses its sense of the great loss to the association caused by the deaths of Dr. Samuel Buckley and Dr. Bagley, both of whom were active workers for the association. In addition to the annual meeting, three ordinary meetings and a smoking concert were held during the year, the average attendance being 29. The papers communicated maintained the high standard of former years. On April 12th Dr. Margaret M. Smith opened a discussion on the admission of women to the resident staffs of general hospitals, and on this occasion the members of the Manchester Branch of the Northern Association of Medical Women were the official guests of the Association. On October 11th Dr. Savatard, the Honorary Secretary, opened a discussion on King Edward's Memorial from a medical point of view, and he moved a resolution, which was lost, in favour of the establishment of a local King Edward's Hospital Fund. On November 22nd, Dr. J. H. Taylor read a paper on medical attendance under State sickness insurance. The Treasurer's statement of account shows a balance in hand of about £126. The President for the year, Sir William Sinclair, gave an address on February 28th on physical and mental degeneracy in modern England: its causes and prevention.

## LEEDS.

THE GENERAL INFIRMARY.

THE King Edward memorial fund in connexion with the infirmary now amounts to £86,300, and it is hoped that the sum of £100,000 may soon be announced, though every one is aware that the later thousands are more difficult to secure than the earlier. Meanwhile the work of clearing away the glass and iron covering of the central hall is progressing. This was put up as a temporary structure in connexion with the holding of an exhibition in the year 1868, when the infirmary was opened. When the exhibition was over it was thought that the central hall should be left with its covering and used as a winter garden or airing place for the patients. It has, indeed, not been used much for this purpose, though the covering has remained and has been from time to time repaired. Visitors, and especially those visitors who may be described as experts, have severely criticized the retention of the glass roof, as being at variance with the original intention and wise design of preserving an open space in the centre of the building. No doubt the more fresh air there is about any building the better, but all the wards in Leeds are provided with windows on both sides, and are independent of any ventilation from the central hall. It has also been held that the presence of a covered central hall is tantamount to throwing the wards into mutual communication. It is not felt, however, that there is really any ground for criticism on this score, and it is the opinion of the board and of their expert advisers that the ventilation of the wards and of the building generally is fully provided for, and will not be interfered with when the structural alterations, for which the removal of the glass and iron covering are paving the way, are completed. The intention is that the space left should be in part occupied by the new suite of operating theatres. These will be most conveniently situated, being readily accessible from the wards, well lighted both from the roof and the side, and will be compatible with the existence of a space of some width between them and the surrounding corridor, by which light will reach the latter. Active consideration is being given to the plans of the new theatres, but there are many points of detail to be decided upon before specifications are obtained. The provision of new theatres is, of course, only one of the many tasks which the board have in hand, among which may be mentioned the rearrangement of the out-patient department, the extension of the pathological rooms, and other equally pressing necessities.

*Statistics of the General Infirmary.*

The statistical tables in connexion with the infirmary, which will form a part of the annual report, have for some time been in the hands of the members of the Board of Management, and are of considerable interest. The total number of patients admitted into the wards during the year 1910 was 7,494, an increase of 451 over the year 1909. On January 1st, 1910, there remained in the wards of the infirmary 355 patients. The increase in admissions affected all the departments, the increase in medical patients being 129, in surgical patients 119, in accident cases 8, in eye and ear cases 173, and in gynaecological cases 31. The daily average number of patients in the wards was 377, as contrasted with 375 for the previous year, the average number of days each patient was resident in the infirmary was 17.5, as against 18.6, and the average number of patients to each occupied bed was 20.8, as against 19.6. The deaths amounted to 506, 1 more than in 1909. This gives a percentage of 6.4, but if the number of deaths occurring during the first forty-eight hours after admission be deducted, the percentage works out at 4.7. From the infirmary patients are drafted to the two semi-convalescent hospitals at Cookridge, 1,231 being so dealt with, as compared with 1,038 for 1909. At these two semi-convalescent hospitals there were at the beginning of the year 86 patients, so that the number of patients—none of whom were ready to go home or to ordinary convalescent homes—treated at these hospitals amounted to 1,317. As has been pointed out before, this arrangement, which has developed in Leeds for a good many years, is attended with a considerable amount of economy, for the cost per patient is less at these hospitals than at the parent hospital. The number of new out-patients shows a decrease of 3,658, and stands at 28,681. In view of the fact that it is held by many that a considerable number of people go to the infirmary who could well afford to pay, or who are suffering from very trivial affections, this diminution may be looked upon as satisfactory, and it is hoped it may continue. The casualties have increased by 3,029 and amounted to 19,141, and these figures may probably be associated with the happy lack of unemployment which has characterized 1910. The extern Maternity Department shows a total of 509 confinements. Here, it may be mentioned, that some pressure has been brought on the authorities to extend the area within which cases of labour are attended from the infirmary, but as yet it has not been found possible to fall in with the wishes of those from whom the request has come. The figures which have been given above show that the infirmary is being run at high pressure; additional accommodation is required, and though this will in a small measure be provided by the contemplated alterations in the hospital, it is clear that in the not far distant future Leeds will be called upon to provide additional accommodation for in-patients. The cost per bed at the infirmary main building was £76 5s. 8¼d., calculated on the ordinary expenditure, and £85 4s. 4d. when the calculation was made so as to include the extraordinary expenditure.

WORKPEOPLE'S HOSPITAL FUND.

The twenty-fourth annual meeting of this fund was held in the Civil Court at the Town Hall, Leeds, on February 22nd. The objects and management of this organization have been described on several previous occasions, and the report deals with another successful year's work. As was very truly said at the

meeting the amounts of the various workshop collections always act as some kind of index of the condition of the trade of the city, and the increase in these amounts this year is in harmony with the no less satisfactory diminution in the amount of unemployment which is reported from other sources. For the first time in the history of the movement the collections from the large and small workplaces of the city amount to more than £10,000, being in fact £10,738, which is an increase of £856 as compared with the year 1909. This sum, along with that obtained from other sources, such as public-house collections, various kinds of entertainments, carnivals and concerts, together with the balance left over from last year, amounts in all to £13,628. The expenditure on the two convalescent homes at Ilkley and Horsforth for the year 1910 was £3,905, and the other expenses, including the purchase of recommendations for subscribers to the fund going to other convalescent homes, amounted to £933. This left a balance of £8,789, which it was determined to distribute as follows:

| | |
|---|---|
| General Infirmary ... ... ... | £5,250 |
| Leeds Public Dispensary ... ... | 800 |
| Hospital for Women and Children ... | 800 |
| Tuberculosis Association ... ... | 315 |
| District Nursing Association ... ... | 250 |
| Maternity Hospital ... ... ... | 150 |
| Bramley District Nursing Association ... | 50 |
| Stanningley District Nursing Association | 50 |
| Leeds Homoeopathic Dispensary ... | 15 |

The sum of £1,134 was carried forward to next year.

## WEST YORKSHIRE.

### DEATH FROM WIND STORM IN BRADFORD.

AN extraordinary accident which has aroused great interest, not only locally but all over the country, occurred in Bradford on February 23rd. A girl 16 years of age, attending the Hanson secondary school, had occasion to go into the playground, and shortly afterwards was caught by a veritable tornado of wind, which carried her bodily into the air; she fell to the ground and sustained injuries so severe that she quickly succumbed. The case appeared so extraordinary and of such importance from a medico-legal point of view that it seemed desirable to make careful inquiries, and to ask for the views of Mr. Hutchinson, the Bradford coroner, in regard to it. The school playground is in a very elevated position, and the assistant caretaker, in his evidence, stated that he had on several occasions seen girls blown off their feet, but never actually into the air. He saw this girl go out into the playground, and within three minutes she was carried into the teacher's room fatally injured. He had never in thirteen years' experience at the school seen the wind so violent as on the morning of the accident.

Mr. F. A. Parsons, a commercial traveller, who was waiting for a tramcar in front of the school, said he saw the girl in the air, her skirts blown out like a balloon and her arms extended. She was 25 to 30 ft. in the air, just above the school balcony. (The latter, the coroner remarked, was 20 ft. high.) If she had fallen from a window he would have seen her.

The caretaker at the school, in his evidence, stated that he had many times seen girls blown down in the school-yard and pinned against the wall, and frequently he had had to assist them into the school. Dr. McEwan, who was called, said he found the girl unconscious and pulseless, suffering from severe concussion of the brain and compound fractures of the lower jaw, the right arm, wrist, and thigh. It appeared that the girl was wearing a pair of bloomers with an ordinary skirt, but without petticoats. The evidence was against the possibility of the girl having thrown herself out of a window. She was in good spirits, and it would not have been feasible for her to get to the window above the balcony, which was in the boys' school. The jury returned a verdict of "Died as the result of a fall caused by a sudden gust of wind."

It is said that, although wind in a gale, according to the anemometer, may only be travelling some fifty to seventy miles an hour, there are paths and points in which it may be enormously more rapid. Under these conditions any object caught in the particular path and affording sufficient purchase may be raised bodily from the ground. It appears that this must have happened here. Happily such accidents are very rare in this country.

## LIVERPOOL.

### ROYAL COUNTRY HOSPITAL FOR CHILDREN.

THE net proceeds of the subscriptions at the dinner in aid of this hospital, over which Lord Derby presided on February 23rd, were £1,068, exclusive of the cots given by Mr. Hutchinson and Mr. Cain. On the previous evening the children of the Park Street Council School had given an entertainment in aid of the hospital, and the sum thus collected was £35, the amount necessary to keep a cot for twelve months. It appears that two or three children from the school have been treated at the hospital, and the suggestion to give an entertainment arose in consequence. The cot has been named the Emily Booth cot, in memory of a lady who took much interest in the children of Liverpool. At the entertainment Dr. C. J. Macalister gave a short address describing the objects of the institution and the services it renders to children.

## LONDON.

### PROPOSED REORGANIZATION OF SCHOOL MEDICAL INSPECTION.

A LONG debate arose at the meeting of the Education Committee of the London County Council on March 1st with regard to the proposal of the Children's Care Subcommittee to place the organization and administration of school medical inspection and treatment under the control of the Education officer, Mr. Blair. An amendment to make Dr. Kerr responsible to Sir Shirley Murphy, the Council's general medical officer, was placed before the committee immediately, but members appeared to be dubious as to the wisdom of either course. The disadvantages of placing a layman at the head of a medical department were keenly appreciated, but, on the other hand, ardent educationists feared that the Public Health Department was not sufficiently in touch with the special requirements of school medical work to exercise effective supervision or secure close co-operation with school managers, teachers, and local care committees. Mr. Gray, the Chairman of the General Purposes Committee of the Council, which has to revise all proposals by other committees to make administrative changes, moved the following amendment:

> That the medical inspection and treatment of school children be placed under the control of the medical officer for Education purposes, and that he be directly responsible to the Education Committee and be a chief officer of the Council.

A vote was taken, and there voted; For the amendment, 14; against, 14. The Chairman declined to exercise his casting vote, and the amendment fell to the ground.

The reference back of the report was mooted, but the chairmen of the committee and subcommittee and several members urged that the matter was one of extreme urgency, as, pending the settlement of the question of responsibility, the consideration of methods of supplying the deficiencies in the medical treatment scheme complained of by the Board of Education must be suspended.

Mr. Ernest Gray said every one was struggling with an illogical position. Medical treatment would be overshadowed by ordinary public health work if one scheme were carried, or a layman would be placed in charge of medical work if the other scheme were adopted. The committee might overcome the difficulty by taking a step which he believed it would be

driven to take eventually if it did not take it now. School medical work would grow, and it would demand the services of a chief officer of the Council. In his opinion it could and should be dissociated from ordinary public health work. That was why he moved his amendment, to test the feeling of the committee. It received more support than he thought possible, and that method of dealing with the difficulty should have further consideration in subcommittee.

Only seven members voted for the reference back, and the subcommittee's recommendation to place the medical officer (Education) under the control of the Education officer was accepted by 19 votes to 11. The matter next comes before the General Purposes Committee and then the Council.

### FURTHER PROVISION FOR DENTAL TREATMENT.

The London County Council on March 7th decided, as a further step in the direction of providing dental treatment, to contribute £400 to assist the authorities of the St. George's Dispensary, Surrey Row, Blackfriars, to resume the dental treatment dispensary, discontinued recently owing to lack of funds. Having regard to the statement of the medical officer to the Board of Education that the critical time of attack on the teeth was the six year molar period, from 7 to 8 years of age, the Education Committee advised that experience should be obtained at the dispensary of dealing with children of these as well as other ages. In the experiments at Poplar and Deptford the age-group (8 to 9) was selected because it was covered by the ordinary medical inspection. The selection of another age-period would necessitate the employment of an inspecting dentist on one half day a week. From May 1st to December 31st next it is proposed to treat 1,300 cases under this scheme.

### THE NEW KING'S COLLEGE HOSPITAL.

It is anticipated that the new buildings for King's College Hospital will be ready for occupation in about eighteen months, or, in other words, within about four years from the date of the laying of the foundation stone by His late Majesty King Edward VII. The portion of the hospital so far practically completed—namely, the out-patient and casualty departments and the administrative block—made an excellent impression when thrown open for public inspection on February 25th. The ward blocks, operation theatres, special departments, and chapel are now being taken in hand. When the decision to remove the hospital from Lincoln's Inn Fields to Denmark Hill in South London was reached the total expenditure, excluding the site—a gift from the Hon. W. F. H. Smith—was estimated at £300,000. Of this sum, £190,000 has been collected, and an appeal for a further £150,000 is now being made. A dinner in support of the appeal will be held at the Connaught Rooms on May 4th.

### SMALL-POX.

The Public Health Committee reported to the London County Council on March 7th the steps that had been taken to deal with the outbreak of small-pox in the East End of London (as related by the Chairman last week and reported in the BRITISH MEDICAL JOURNAL, March 4th, p. 522) and added that it was impossible to state with any certainty whether those measures would suffice to bring the epidemic to an end. Further extension might occur especially as in several cases the source of infection had not been discovered, and the time of year was not unfavourable to an extension. On that day 40 cases of small-pox remained under treatment at the Joyce Green Hospital; the total number of deaths so far is eight.

## BIRMINGHAM.

### EPIDEMIC OF MEASLES.

AFTER an immunity for two years measles is again epidemic in Birmingham. During the past three weeks nearly 1,400 cases have been reported from the elementary schools alone. For the week ending January 28th, 142 cases were reported to the City Health Department from the schools. Thenceforward the disease became rapidly progressive. In the following week the number of cases jumped up to 378. The next week 431 new cases were reported, and for the week ending February 18th the fresh cases totalled 570. The deaths from measles during this week numbered 26.

### DENTAL CLINIC FOR KING'S NORTON.

The Education Committee of the King's Norton and Northfield Urban Council has decided, upon the recommendation of the School Hygiene Subcommittee to establish a dental clinic for the treatment of the defective teeth of the school children. It is proposed to advertise for a dentist at a salary from £300 to £350 per annum. It is estimated that the full cost of the dental clinic will be £600 for the first year and about £500 a year afterwards, as some of the expenses of the first year would not recur. A skilled nurse would be required to keep registers and assist in numerous minor respects.

### REBUILDING OF THE CHILDREN'S HOSPITAL.

It is hoped that the rebuilding of the Children's Hospital will commence in the spring of next year on the Ladywood site. The rebuilding has been made possible by the proprietors of the *Birmingham Daily Mail*, who opened a King Edward VII Memorial Fund. It was decided to devote the proceeds to the erection of a statue in memory of the late King and to place the balance at the disposal of the Committee of Management of the Children's Hospital. The building when completed will be called the King Edward VII Memorial Hospital. It is hoped that the amount eventually received through the instrumentality of the *Birmingham Daily Mail* may reach £30,000. Had it not been for the cordial response of the public to this appeal, the future of the Children's Hospital would have been uncertain inasmuch as the Broad Street lease is expiring, and there was very little prospect of sufficient funds being raised in time to erect new buildings elsewhere. The plans for the new buildings are not yet finally settled. The open-air treatment which it is hoped to make a special feature of the new hospital, involves the planning of buildings on somewhat novel lines, and consequently, improvements in design and arrangement continually suggest themselves. The plans also have to be framed to allow of the approximate cost of the building not being in excess of the funds in hand, and it has been found most difficult to design a building within these means which will meet present requirements and, at the same time, allow of economical additions when circumstances allow.

## PORTSMOUTH.

### THE ROYAL PORTSMOUTH HOSPITAL.

AT the annual meeting of the Royal Portsmouth Hospital, on February 28th, when Sir George E. Couzens was in the chair, it was reported that the number of patients treated in 1910 was: In-patients, 1,936; out-patients and casualties, 15,379; a total of 17,315; and that the excess of expenditure over the income during the year was £2,016. To relieve this financial embarrassment two remedies had been suggested—namely, municipalization, and the opening of wards for paying patients, a course which had been strongly urged in the local press. In reply to these proposals it was stated that the trustees held the institution for charitable purposes, and that they had no authority to hand over the possessions of the subscribers to the municipality so long as it was possible to maintain the hospital for charitable purposes. The system of paying wards had been adopted for some time; in fact, the report showed that £337 had been received from such patients during the past year, but its development was a practical impossibility owing to want of accommodation. The first duty of the committee was to provide for the sick poor of Portsmouth, and to ask the subscribers to do anything which would take away beds from the poor was to ask for that which was impossible. The hospital had sustained a severe loss

in the death of Admiral the Hon. Sir Assheton Curzon-Howe, G.C.V.O., K.C.B., C.M.G. During the time he had held the position of Commander-in-Chief at Portsmouth he had taken a very warm interest in the hospital, and his memory will be held in grateful remembrance for his many services to the institution. The promise of a gift of £1,000 has been received from Inspector-General Henry Hadlow, R.N. (retired), for the endowment of a bed in memory of his daughter.

# Natal.

[*FROM OUR SPECIAL CORRESPONDENT.*]

## THE PUBLIC HEALTH DEPARTMENT.

IN the eighth annual report of the Public Health Department of the colony of Natal the medical officer reports that the year 1909 was notable for low death and morbidity-rates.

### *Vital Statistics.*

The estimated European population (including mixed races) as at June 30th, 1908, was 99,745; at June 30th, 1909, it was 98,934. The native population was estimated at 996,445.

The present laws regulating the registration of births, deaths, and marriages are defective in many points which are essential for the provision of adequate information from which proper vital statistics can be compiled. They bear throughout the impress of being directed solely to provide safeguards in respect of succession to property, and not to secure accuracy in the record of the facts which are needed as a basis for ascertaining the condition of the people and deducing the nature of the measures necessary to ameliorate evil conditions which are remediable. Thirty days' grace are allowed for the registration of births even in towns, and this period, unnecessarily long, debars the medical officers of health from opportunities of lightening the mortality of infants. The law also allows thirty days for the registration of a death, and provides that, if a body be buried without an order from the registrar, notice shall be given to him of such burial within two months. No medical certificate of cause of death is demanded. On account of this laxness persons dying from poison or any other cause can be buried without any inquiry.

The birth-rate among Europeans, 27.23 per 1,000 living, is low, and is diminishing. Amongst the Indian immigrants the birth-rate is high, being 35.20 per 1,000 living.

All deaths of persons not domiciled at Natal have been eliminated, but no information has been received of the death in any other part of South Africa or elsewhere, of any person belonging to Natal. The death-rate among Europeans was only 8.14 per 1,000 living, among Indian immigrants 16.09 per 1,000 living. The principal causes of death during 1909 were diarrhoea, dysentery, enteritis, tuberculosis of lungs, and other lung affections. Infantile mortality, although high, showed a marked decrease on the rate of previous years, in 1909 it was among Europeans 56.79 per 1,000 births as against 76.64 in 1908. Indian immigrants showed a death rate of 117.82 per 1,000 births in 1909; nearly 7 per cent. of Europeans, and over 12 per cent. of Indian immigrants die in the first year of life.

### *Vaccination.*

The "conscientious objector" exists among the European parents in Durban; no less than 32 per cent. sent in depositions signifying conscientious objection. On acount of the large number of these objectors, especially in Durban, the opinion is expressed that some amendment should be made in the Act.

Accompanying the report, which is drawn up by Dr. Ernest Hill, medical officer of health for the colony, who is to be congratulated on his lucid treatment of the vital statistics, are reports by the port health officer, Durban, and of the district health officers.

# Correspondence.

## PLAGUE IN HARBIN.

SIR,—In the midst of the fight it is almost too soon to attempt the elucidation of all the facts of this pneumonic plague in North China, and as the International Conference invited by the Chinese Government meets in Mukden in April, the results of the personal investigations of members, together with the reports of the various chiefs of work, will accomplish this end more thoroughly. As, however, four British graduates have figured largely in this Harbin epidemic, perhaps a few items may be of interest.

The plague spread to Harbin from surrounding districts in the beginning of December. I think the conference will be able to show that its origin is unquestionably the Mongolian marmot. The Russians dealt with the epidemic very effectively whilst in their zone of influence, but the Chinese city of Fu-Chia-tien, separated from Russian Harbin only by a railway crossing, was for the first six weeks left entirely in the hands of the local Chinese officials and quacks. It was not until the deaths numbered nearly 100 a day that political pressure caused the Central Chinese Government to move.

Dr. Wu, M.A., M.D.Cantab., of the Tientsin Imperial Army Medical College, and Dr. Gibb, M.D., F.R.C.S., of Union Medical College, Peking, were appointed by the Foreign Office to take control and organize the Antiplague Administration; they were joined shortly after by Dr. Stenhouse, B.A., M.B.Cantab., and myself. We were assisted by fifteen other Chinese doctors, who had all received Western medical training, either in China or Japan, and thirty students of the senior years from our medical schools.

It would hardly interest medical readers to read of the state of things as we found them on arrival. A few details will suffice. Here is a Chinese city with a population variously estimated at 25,000 to 40,000 people, the majority composed of the coolie class, from the provinces of Shantung and Chihli, who come here yearly for agricultural pursuits—milling and lumbering—returning home for the Chinese new year. When the Government actually became alarmed at the growth of the plague, it immediately stopped all second and third class passenger traffic on the railway, the main idea being to prevent the plague entering inside the great wall at Shan-hai-Kuan, and so keep it from Tientsin, the big commercial city, and Peking, the imperial city.

It soon became evident that this move was unwise, for the coolies, finding the railway closed, set off to tramp by road, with the result that they left a trail like a red line from Harbin to Shantung, a distance by land of about 1,200 miles. To Kuang-Chieng-tzu, Mukden, Hsin-min-tien, Yung-ping-Fu, Tientsin, Peking, Dalny, Chefoo, all down the new Tientsin-Pukow Railway to Shantung, also from Peking to Pao-ting-fu, the plague spread, with the rapidity of men doing forced marches.

After delay, which seemed inevitable in organizing a work so totally new to the Chinese mind, a little fear gradually gained hold of the usually stolid Chinese, and to a limited extent the people began to assist. Quarantine was effectually established, and the city divided into four main sections, each with its staff of doctors, students, sanitary coolies, stretcher bearers, search parties, dead removers, police, and messengers, numbering between 300 and 400 for each section. Each main section was again subdivided, and under the charge of junior doctors, and all sections linked up to the Administrative Bureau by telephone. Every individual in the streets had to wear a Government badge, the colour of the section in which he lived, and no one was allowed out of his section without permit. A military cordon round the city, which has no wall, prevented ingress and egress. By the time this was all arranged the deaths numbered nearly 200 a day; about half of these deaths only occurred in our already organized plague hospitals; the remainder were collected on the streets by the sanitaires and police. In order to escape quarantine, the dead were thrown into the streets at night, or in hundreds of instances the sick were forced out of doors in a staggering condition, to drop in the street and probably freeze to death before killed by the plague.

With the institution of the military cordon, the police doing cordon duty were liberated for city work, and in a short time bodies ceased to be thrown out; but, worse still, the people were hiding them in cupboards, boxes, roofs, ceilings; this added greatly to the duties of the search parties. The greatest difficulty was the disposal of dead. Graves could not be dug; the thermometer stood constantly in the neighbourhood of 20° F. below zero; so after a long half-mile of bodies and coffins had collected, the Government rose to the occasion and sanctioned what in the Chinese eyes is an unwarranted desecration—namely, burning. In three days over 4,000 bodies were burnt, and since then every few days, as a few hundreds would accumulate, similar burning.

Our quarantine section was composed of 100 railway trucks, each holding about 20 persons, a plague hospital for 30 people, a suspect hospital for 30, and a disinfecting station, together with administration building and kitchens. The advantage of railway trucks for quarantine work could be much enlarged upon.

When the administration got well to work, a few days saw the beginning of a decline in the number of deaths. It hung for a week or more at 170 to 180 a day, then gradually fell to 140, and with a few rises and falls, as I write to-day, after six weeks of Western scientific administration, the deaths number only seventeen. This is the Chinese side. The Russian city work, assisted by special professors of Moscow, and Dr. Paul Haffkine in charge of the plague hospital, will be more ably reported on by the conference. A few medical details in closing.

First, the plague is absolutely pneumonic and septicaemic in type, not a single instance of bubonic.

Secondly, not a single case of undoubted plague has recovered (our deaths in the Chinese city are well over 6,000).

Symptoms are unreliable during the maximum intensity of the plague. In the quarantine daily examinations we picked out on first examination all fast pulses and then took the temperature. If the case was septicaemic, the temperature was mostly subnormal; if pneumonic, there was a slight rise, but positively nothing to indicate the severity of the condition. Patients, laughing, talking, and joking, were in scores of cases dead in a few hours. Finally, in the rush of work, as our suspect hospital converted itself into a plague hospital by the rapidity of death, we simply relied on the only one positive symptom—bloody expectoration: first, expectoration tinged with blood, then the whole expectoration pinkish as anchovy sauce, and, finally, all blood red when death was only distant a couple of hours.

Headache was more or less constant, and during the last few hours staggering gait like a drunken man.

I am sorry to say that most of the scientific facts will have to come from Dr. Paul Haffkine, for, with the rush of organization and the masses to deal with, none of us have had time for laboratory work. I think, judging from our own observations, that:

1. A very large number of cases were primarily septicaemic, showed no pneumonic symptoms, and died very rapidly.

2. That nearly all pneumonic cases became septicaemic if they lived over twenty-four hours after diagnosis.

3 All bodies became a dark purple colour—patches before death and general after.

4. Many without pneumonic symptoms were intensely yellow—conjunctivae yellow—and the Chinese skin converted the yellow into almost an orange bronze, and such cases were not subject to further examination, but diagnosed by appearance.

5. Age incidence confirms the reports of bubonic plague—under 20 and over 50 rare, but in a place like this, made up of coolies, it would not be wise to draw a fast line. Women, very few; but then the place has few women. Children, next to no deaths, although attended and nursed by their mothers until within a few hours of death.

6. I think the conference will reveal, as the result of Dr. Paul Haffkine's work, that there is a negative stage following inoculation with Haffkine's vaccine lasting from five to seven days; and whilst there have been deaths amongst all classes of workers, Chinese and foreign, *not one* is known, amongst those successfully inoculated, who had passed the negative stage before commencing plague work.

7. Some cases, besides being septicaemic, showed an intestinal form with diarrhoea. Dr. Wu has a pure culture of *B. pestis*, which was simply a portion of the motion passed.

8. That the plague reached its maximum about three months from the beginning, and bacillus began to show involution forms at this time.

9. That this great epidemic covering North China will be the birth epoch of Western medicine, for, with all the vaunted powers of the old-time practitioner, here he failed completely, and Western science, in the minds of the officials, has now received an indisputable precedence.

With these few hurried notes,—I am, etc.,

W. H. GRAHAM ASPLAND, M.D., F.R.C.S.Edin.

Antiplague Car, Harbin, Feb. 20th.

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## TUBERCULIN AND THE PREVENTION OF TUBERCULOSIS.

SIR,—It was with some reluctance that, a fortnight ago, I asked to be allowed to clear up certain points in relation to the prevention of tuberculosis. It appeared very desirable that these points should be made clear, and numerous communications received by me since led me to hope that the purpose of my letter of February 25th had been achieved. Further correspondence in the JOURNAL this week shows that the plain statement in that letter has not been plain enough. Yet I cannot think that the number of persons who misapprehend the issue is a large one.

It was my wish to present the larger view of prevention which prolonged and close study of tuberculosis had forced upon me, and should be taken by every community in the interests of its citizens. It seemed necessary, because of the exaggerated projection of tuberculin across the line of progress, to emphasize that, if I advised a cautious estimate of its significance in prevention, it was not because I underestimated the therapeutic value of tuberculin. Not many physicians can have used tuberculin in hospital, in dispensary, and in private more than I have done, and on that ground I ventured to refer my colleagues to a definite statement of opinion, to which they had ready access in the JOURNAL.

As to the London meeting of the Association, to which reference has again been made, may I direct those who are interested in the question to the report of the discussion regarding a paper read by Dr. Wilkinson in the Section of Medicine, which will be found on pages 1055–57 of the JOURNAL of October 8th, 1910? In that paper an attempt was made to place treatment by tuberculin in opposition to sanatorium treatment. It was stated by Dr. Wilkinson that sanatorium treatment had failed in the majority of cases, and that tuberculin treatment could achieve far better results at far less cost, and that he knew of only one contraindication to tuberculin, and that was despair. Throughout the paper sanatorium treatment was deliberately and, as it seemed, wrongly put in opposition to treatment by tuberculin. On that account, in summing up the discussion I said that it would be unfortunate if the impression were conveyed by the discussion that there was an antagonism between treatment on sanatorium lines and treatment by tuberculin; that no idea could be further from the truth; and that vaccine-therapy and aëro-therapy were not mutually exclusive.

Returning to the question of prevention—which involves vastly wider issues than the cure of persons presently affected by the disease—it is unnecessary that I should dwell further on the far-reaching significance of the tuberculosis dispensary. It is an old institution, with a record of almost a quarter of a century behind it, and its purposes are widely recognized. It does seem, therefore, a pity that confusion should have been recently created by the adoption for a different institution of a name which, in relation to tuberculosis, has already a definite significance throughout the empire, America, and different parts of the world.

To many communities in many lands the tuberculosis dispensary stands for the nucleus, the base of operations, and the *nodus* of the various factors which must be included in an effective antituberculosis organization.—I am, etc.,

Edinburgh, March 6th. R. W. PHILIP.

## TUBERCULIN AND TUBERCULIN DISPENSARIES.

SIR,—From the recent correspondence in your columns it would seem that those in favour of the establishment of special dispensaries for tuberculin treatment are determined to ignore the two essential objections to this proposal. While tuberculin is an invaluable adjunct to treatment in private, sanatorium, or dispensary practice, it is inaccurate to term it a remedy or cure for all cases. The exponents of tuberculin dispensaries admit that it is contraindicated in "mixed infection," and in what proportion of cases of open pulmonary tuberculosis mixed infection exists is a much debated point, on which further investigation is required. My contention is that, even from the point of view of treatment, it is against the interests of the public and of the profession to limit this to a special line, which is admittedly inapplicable to all cases.

Even if tuberculin treatment could cure all early cases, it is merely a palliative and not a preventive measure, so far as the larger outlook on the ultimate abolition of this disease is affected. Sanatorium treatment or open-air treatment can attain lasting cures in the great majority of early cases; yet, even if there was sanatorium accommodation for all early cases, this could never bring about the eradication of pulmonary tuberculosis. What has limited the sphere of sanatorium treatment also limits the value of tuberculin or any other special treatment. We may cure the early cases by open-air treatment at a sanatorium or at home; we may treat them on general, medicinal, or specific lines; but, so long as the sources of infection continue to exist in our great centres, so long will each new generation continue to be infected and the evil remain. Were we dealing with a disease the causes whereof were unknown it would be right to concentrate solely on the treatment of individual cases. As, however, we are faced with a disease the cause of which is known, the conditions predisposing to which have been ascertained, a policy which neglects these factors is hopelessly limited. It is the advanced, undiagnosed, and ignorant consumptive who scatters infection throughout the overcrowded, ill-ventilated, and underfed homes of the poor, so that whole families are literally decimated, and children infected before they enter the critical age periods of life.

In the practice of curative and preventive medicine tuberculin should have its place, and, so far as the consumptive poor are concerned, its place should be as a diagnostic and therapeutic agent in selected cases in the practice of an antituberculosis dispensary, as the term is used in Europe and America, which correlates this and all known weapons at our command. At these dispensaries cases in all stages receive suitable treatment, but beyond that the dispensary is the base from which an aggressive warfare against the sources of the disease is carried on. We realize that the chief sources of infection exist in the homes of the people in our great cities, and here the dispensary attacks the malady. To the dispensary, which is free to all, patients who are not already under a medical practitioner may go for examination, diagnosis, and treatment. From the dispensary a physician and nurse visit the homes of the patients, who are thus educated in open-air treatment, and in the protection of others by the observance of a few simple precautions. The ignorant consumptive is the source of infection at home and abroad; the educated consumptive is a danger to no one. The medical officer also examines all those who have been in contact with the patients, and thus the early cases are diagnosed and cured while they are yet curable. From the dispensary suitable cases are sent to sanatoriums for cure, advanced cases to special hospitals, and children are taught the value of fresh air and sunlight. In every department of its activity the dispensary works in intimate association and co-operation with the public health authority, and with various charitable agencies. The dispensary is the central bureau for the collection and dissemination of all information regarding tuberculosis.

This is the dispensary system for the prevention of consumption which has received the official endorsement of the Local Government Board of Scotland, and is now a world movement. It is a scientific and philanthropic effort: scientific because it is based on convinced knowledge and systematized reason; philanthropic because it places treatment within the reach of every consumptive in this country.—I am, etc.,

London, March 1st. HALLIDAY SUTHERLAND.

## CAESAREAN SECTION IN SEPTIC INFECTION.

SIR,—In the report of the Royal Society of Medicine's meeting appearing in the BRITISH MEDICAL JOURNAL for March 1st, I am made to say:

> In suspect cases where bacteria could be demonstrated hysterotomy [hysterectomy] offered many advantages over Caesarean section.

The omission of the word "not" has entirely altered the meaning of what I really did say. The sentence should read: "In suspect cases where bacteria could 'not' be demonstrated," etc.

In suspect cases with demonstrable septic bacteria in the liquor amnii I believe complete extirpation of the uterus would offer the best hope of subsequent recovery, and I clearly pointed out that such an operation could be undertaken without fear of spreading the infection thereby.—I am, etc.,

Dublin, March 7th. E. HASTINGS TWEEDY.

## DIAGNOSIS AND TREATMENT OF SYPHILIS.

SIR,—A statement was attributed to me on page 1826 of the JOURNAL of December 3rd, 1910, by Drs. Stopford Taylor and R. W. MacKenna, who, in referring to my letter in the JOURNAL of October 15th, 1910, state:

> The Major has committed a serious error in tactics by admitting that he does not believe in the reliability of the Wassermann test, and then making use of a quotation by Mr. McDonagh, who found that it was almost a rule to obtain a *negative* reaction after a patient had had a course of inunctions or *less frequently injections*.

I wrote that,

> In the *early primary stage* before development of rash, and before the stage of *systemic* generalization, the classical signs of induration in the chancre associated with bullet glands, discrete or hyperplastic matting, are, in my opinion, more reliable signs of infection with syphilis than the Wassermann serum diagnosis test. The test *at this period* is unfortunately very uncertain, and not infrequently in my experience when a *negative* result has been recorded syphilis has later supervened. The test, therefore, in order to be conclusive, requires, I think, to be standardized.
>
> In order to ensure scientific accuracy it might be preferable that the clinical signs should be unknown to the pathologist who performs the test. Such independent results are more convincing.

Speaking of intramuscular *insoluble* mercurial injections, it is further stated by Drs. Stopford Taylor and R. W. MacKenna:

> Of the 26 fatal cases to which Major French refers, we have access at the moment to the details of two only, which occurred in the troops of the Egyptian command in 1901.

The large bulk of these fatal cases occurred, however, in civil practice on the Continent, and not in military practice. The details are readily accessible, as 7 were quoted by Dr. Pernet,[1] and some 12 or 14 by me.[2] Drs. Stopford Taylor and R. W. MacKenna replied to these articles.[3] Sir Jonathan Hutchinson, I believe, also quotes some 6 or 8 fatal cases in the last edition of his work,[4] and comments adversely on intramuscular injections of insoluble preparations of mercury in civil practice. The experience of a large number of other persons on the relative therapeutic utility of mercurial injections and inunctions was recently given in a discussion on the present position and treatment of syphilis at University College, London, on June 7th and 14th, 1910.[5]

Later, a discussion took place on the diagnosis and treatment of syphilis.[6]

The evidence in England, according to the above recent literature, does not at all support intramuscular insoluble mercurial injections as the best method of treating syphilis.

Speaking of mercury in its relationship to the Wassermann serum reaction, Mr. McDonagh, London Lock Hospital, stated:

> Injections play a subordinate rôle to inunctions.

Mr. C. F. Marshall stated:

> Injections are no doubt useful in army and navy cases, but irksome and expensive in private practice.

Mr. H. W. Bayly, as the result of Wassermann tests stated:

That 82 per cent. of cases treated by inunctions and 35 per cent. of cases treated by injections showed some effect of treatment after only three months. As far as he (Mr. Bayly) has gone, therefore, his conclusion is that inunction is the best form of administration of mercury, and he gathers that Mr. McDonagh's large Continental experience leads him to this opinion.

Mr. McDonagh, who has applied the Wassermann test in over 5,000 cases of syphilis, stated:

That it was almost a rule to obtain a negative reaction after a patient had had a course of inunctions or *less frequently injections*.

Mr. Jonathan Hutchinson, junr., stated:

That in cases of inherited syphilis he gathered that the Wassermann reaction was present whatever courses of intramuscular injections were given . . . if it was true, it was a commentary on the advantages of intramuscular injections.

The foregoing evidence is quite distinct from any opinions that I may have personally expressed on the *therapeutic superiority* of inunctions over injections of *insoluble* preparations of mercury.

In my practice in the army I am primarily concerned with utilitarian aspects. I reserve grey oil injections, therefore, as convenient for out-patients, and merely to supplement mercurial *inunctions* in hospital. I consider that at least one thorough course of forty to fifty inunctions—

Ung. hydrarg. *B.P.* ⅔ of a drachm; lanolin or other base ⅓ of a drachm—

in the early stages (that is, first six months) is of inestimable value, whilst the patient in military employ is *necessarily* in hospital in the chancre and initial secondary stage. The length of time in hospital and relapse are ultimately considerably lessened.

The inunction, like other methods, naturally requires care and experience. The mortality, however, is small; I have only personally known of one fatal case, which was not under my care. The total list on record, however, will bear very favourable comparison with mercurial injection: 26 deaths; and salvarsan ("606"), 15 fatal cases during the past year.—I am, etc.,

Malta, Feb. 7th. H. C. FRENCH, Major R.A.M.C.

REFERENCES.

[1] *Lancet*, July 24th, 1909. [2] Ibid., September 25th, 1909. [3] Ibid., October, 1909. [4] *Syphilis*, 1910. [5] *Proceedings of the Royal Society of Medicine*, Surgical Section, July, 1910. [6] British Medical Association, Dermatological Section, August, 1910.

## CONTROL OF VENEREAL DISEASES.

SIR,—Having read the letters bearing on the above subject, which appeared in the BRITISH MEDICAL JOURNAL,[1] I beg to offer the following remarks:

1. A careful study of the Blue Books, dated 1881 and 1882, embodying the Report on the Contagious Diseases Acts, will demonstrate the fact that of all the arguments raised by those opposed to the Acts the strongest and least refutable alleged that State legislation was useless, because:

(*a*) There was no means of determining whether a vaginal discharge was of venereal origin or not.

(*b*) There was no means of distinguishing between primary venereal sores, between hard and soft, or dirt sores.

(*c*) There was no means of definitely prognosticating whether any given sore would or would not be followed by constitutional symptoms.

(*d*) There was no means of knowing when a patient ceased to be infective and might be discharged from hospital.

(*e*) That venereal disease could not be accurately diagnosed by the mere appearances of the case under several circumstances.

(*f*) That there was no power to compel patients to remain in hospital till apparently cured, and if such was granted there would not be sufficient accommodation or funds to enable patients to be detained perhaps for years.

It is needless to argue that the discovery of the bacillus of Ducrey, the gonococcus, and *Treponema pallidum* now remove all but two of these specified objections. The Bordet-Gengou and Wassermann reactions will disprove another. And it may reasonably be expected that modern methods of treatment would reduce the lengthy detention in hospital. If "606" only partially fulfils all that is hoped from its use, then indeed the last objection I enumerated may be cancelled. Certainly a combination of the various scientific discoveries now at our disposal should, by the blessings they bestow, go far to compensate and appease those whose susceptibilities were distressed by the application of the Acts.

2. The several Commissions appointed from time to time to report on the working of the Acts went exhaustively into the *pros* and *cons* of the subject, one committee extending its inquiries over an unprecedented time. One cannot help feeling, therefore, that with the exception of an account of the advances made in medical work, not a single point could be conceived which has not already been thoroughly deliberated upon in the several reports of the Commissions. The Blue Books of 1881 and 1882 alone contain in dense type over 1,000 folio pages. For this reason I do not think that any definite advance can be made in limited letters addressed to the medical press.

3. The utility of the "Acts" was considered by experts. They considered reams of evidence extending over many years, and as the result of their prolonged and impartial deliberations they in each instance declared in favour of State legislation.

4. In "notification" I believe we have a great prophylactic power. The objections to the Acts would not here apply. I refer to the grievance that only one class of the community were penalized (women), whilst men were allowed to go free. If notification were adopted medical men should be compelled to warn each patient of the dangers of infecting others. In the majority of instances, if not in all, it should be possible to trace the disease to its origin, and the offender not being able to plead ignorance should, irrespective of sex and social status, be proceeded against by the Crown as the author of a criminal offence.—I am, etc.,

Dublin. SEYMOUR STRITCH.

[1] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 2005, and January 7th, 1911, p. 58.

## CONGENITAL HEART-BLOCK.

SIR,—The Epitome of Current Medical Literature on January 28th, par. 46, contains an abstract of a paper by Fulton, Judson, and Norris, entitled "Congenital heart-block occurring in a father and two children, one an infant" (*Amer. Journ. Med. Sci.*, 1910, cxl, 339–348).

The time is not far distant when a sufficient number of cases of heart-block will have been reported to allow of their collective and systematic analysis. It is the appearance of the note in the Epitome, and the fear that in a synoptic article heredity may find its place under the usual heading "Etiology," which induce me to criticize the paper of the authors named.

The conclusion arrived at or implied, namely, that heredity may be directly and solely responsible for heart-block, is of so startling a character, that we should show little wisdom if we accepted it, in the absence of anything but the fullest evidence. The evidence brought forward by Fulton, Judson and Norris is outlined in the following paragraphs, which also include the criticisms which I venture to offer in respect of it.

CASE I.—J. S. B., the father, aged 41, "On one occasion after severe exertion lasting all day, he had general epileptiform convulsions" (presumably a single attack of unknown nature, and occurring at least seventeen years ago), "vertigo on stooping." Average pulse-rate, 50. The pulse curves purport to show 3:1 heart-block.

The criticism of this report is as follows

1. The symtomatology, on the whole, is rather opposed to, than in favour of, persistent partial heart-block.

2. The curves do not show heart-block. The waves marked *a* in the jugular curve occur at a rate of 156 per minute. The patient must be supposed to be the subject of a persistent acceleration of sinus rate of a high grade. Despite the presence of this supposed acceleration, in itself throwing the gravest doubt upon the interpretation of the curve, the *a* waves are not placed in regular sequence. From one complete cycle to the next the waves marked are: $a^1$, *c*, $a^2$, $a^3$, $a^4$, *c* (numbered for the convenience of present description). The distance between $a^1$ and $a^2$ is usually 0.5 second, between $a^2$ and $a^3$ 0.3 second, between $a^3$ and $a^4$ 0.4 second, or slightly less. What is there to account for this deviation from the positions which would be held by a regular series on the assumption of heart-block? There is nothing.

Now the wave $a^2$ falls precisely at the point where $v$ is expected, and $a^3$ falls where in the instance of a slow pulse Hirschfelder's $h$ wave is due. The general appearance of the latter ($a^3$) in the curves favours a distinct mechanism of production. The rational interpretation of the curve is: $a$, $c$, $v$, $h$, $a$, $c$, a normal and not infrequent type of venous curve when the pulse is slow. The curve certainly does not justify a diagnosis of heart-block.

Case II.—M. B., aged 20. "Does not suffer from vertigo, faintness, or dizziness, and has never had convulsions. Pulse 63 in sitting posture, 60 lying flat." The curves purport to show 2:1 heart-block.

The criticism of this report is as follows:

1. The usual symptoms of partial heart-block have been totally absent.

2. The curves do not demonstrate heart-block. The waves marked $a$ in the jugular curve occur at a rate of 150 per minute. Here, again, the patient must be supposed to be the subject of persistent acceleration of the sinus rate of high grade. And again, and despite the acceleration, the $a$ waves marked fail to show the expected even spacing. From one complete cycle to the next the marked reading is: $a^1$, $c$, $v$, $a^2$, $a^3$, $c$. The distance between $a^1$ and $a^2$ is usually almost twice as great as between $a^2$ and $a^3$, an occurrence which hitherto has never been seen in association with clinical heart-block.

Now the summit of the wave $a^2$ falls at the opening of the tricuspid valves, as calculated from the arterial curve, the point at which $v$ is expected. The rational interpretation of the curve, therefore, is: $a$, $c$, $v$ (split), $a$, $c$. Splitting of $v$ into two component parts is well known, and curves such as that published are often obtained from patients in which no suspicion of heart-block exists.

Case III is of little consequence, as it is not used in the main argument.

Case IV.—L. B., aged 22 months. Pulse slow, 40–58. In regard to the curve published the authors state: "The interpretation of some of the waves may perhaps be questioned, but considering the difficulty of 'tracing' such a young subject, a better result could hardly be expected."

The curve is admittedly defective, and as such it is impossible to analyse it in detail. Personally it gives me the impression of having been taken, as the authors believe, from a case of complete heart-block, but it is impossible to feel secure about it where such an important conclusion is founded upon it.

In brief, of three cases in one family instanced as the subjects of heart-block, in no single case is heart-block proved, and in only one instance, in which admittedly defective curves were obtained, does the account given render its existence in the least degree probable. It is upon *this evidence* and not upon the summing up of the authors that we are called upon to accept or reject the proposition that heart-block may be hereditary. If we admit the authors' interpretation of those curves which are clearly inscribed, we admit not only the unique occurrence of familial heart-block, but we admit the occurrence of a rare, if not undescribed, familial disorder—persistent acceleration of the fundamental heart-rate of high grade, an acceleration accompanied by types of auricular irregularity quite unexplained and hitherto never reported. It is obvious that there is but one safe course open to us, and that is to reject the main proposition until we are supplied with far more certain data. Personally, I should hesitate to accept such a conclusion with any but the clearest venous curves before me, and it would be far more satisfactory if electro-cardiographic evidence was forthcoming.—I am, etc.,

Thomas Lewis.

University College Hospital
Medical School.

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## OSTEO ARTHRITIS AND ITS RELATION TO CHRONIC RHEUMATISM.

Sir,—At the recent meeting of the Section of Balneology and Climatology of the Royal Society of Medicine, reported in the Journal of February 18th, p. 365, Dr. Buckley, in discussing this question, said that "bony changes occurred in many diverse forms of arthritis, such as pyaemic tuberculosis, gonorrhoeal and gouty arthritis, and in the arthropathies, as well as in those conditions to which the name was more definitely applied; but in many cases of so-called osteo-arthritis the stage of bony change was never reached."

I presume by bony change Dr. Buckley means bony proliferation. Now, the osteo-arthritic changes occurring in pyaemic tuberculosis and other destructive forms cannot in the strict sense of the word be called true osteo-arthritis, because in these cases the bone proliferation always takes place at the point of infection, wherever that may be, and not at the margin of the cartilage as in true osteo-arthritis. Again, Goldthwaite, of Boston, says that in skiagrams of what he calls infectious arthritis, changes in the cartilage and bone are not observed, but that in gout and rheumatoid arthritis atrophic changes are seen in both cartilage and bone. The group of pathological changes which we call at present osteo-arthritis embrace a variety of states of bone proliferation, such as Heberden's and Bruce's nodes, and cases with marked eburnation and hypertrophy.

Now osteo-arthritis appears to be a degenerative process and has in many ways a considerable similarity to arteriosclerosis. Both conditions as a general rule tend to make their appearance in subjects who are over 45, and it is in these patients suffering from gout, rheumatoid and infective arthritis who have reached what I might term the "degenerative period of life" that we see bony proliferation taking place. Numerous cases of rheumatoid arthritis which have existed for ten, fifteen, or twenty years show no bone proliferation, but on investigation it will be found that the great majority of these have not reached this "degenerative period." This is well seen in the skiagrams of Strangeways and Burt reproduced in the first number of the *Cambridge Bulletin of Special Diseases*, and accounts for the great difficulty experienced in distinguishing the skiagrams of gouty and rheumatoid arthritis without the clinical histories. I think that far too many cases of arthritis are labelled "rheumatoid." Compared with other types of infective arthritis, rheumatoid arthritis is a comparatively rare condition, and, as Dr. Mouillot says, many patients' lives are made miserable by being told that they are suffering from rheumatoid disease.

Briefly, rheumatoid arthritis is a disease which commences in young adults, and is characterized by premonitory symptoms of cramps, atrophy of muscles, and vasomotor changes, followed by periarticular changes, more especially in the small joints of the fingers, affecting subsequently the larger joints. The disease is atrophic, progressive, symmetrical, and very frequently centripetal. Atrophic changes subsequently follow in the cartilage and bone, producing marked deformity and ankylosis, both fibrous and bony. There is atrophy of the skin and of the subcutaneous tissue of the joints involved, frequently pigmentation of the skin of the face, tachycardia, and slight pyrexia. In the ordinary infective varieties of arthritis there is marked pyrexia, localized redness and swelling of the limb or the affected joint. The large joints are by preference attacked; the disease is not progressive, symmetrical, or atrophic; cartilage and bone are not involved. The wasting of the muscles is not excessive, and there is frequently well-marked leucocytosis.

In addition there are a large number of chronic infective joint conditions, known to us by the name of "chronic rheumatism," or "chronic villous arthritis," and it is in these cases that the great difficulty in diagnosis occurs. I think that they must be regarded as very chronic types of infective arthritis, in which the dose of the poison is continuous but small in amount, or, as Ackerley suggests, the personal resistance is greater. In these cases there is no bone proliferation unless the patient has arrived at the "degenerative period" of life. The knee-joints of women about the time of the climacteric are typical examples; here there is a very chronic infective condition, which gives rise to few, if any, symptoms beyond a little stiffness until osteo-arthritic changes commence at the climacteric on the under surface of the patella and at the margin of the articular cartilage of the femur. In no sense can these cases be called rheumatoid disease, as is so frequently done. Whether these changes are entirely due to an infective condition, such as leucorrhoea, or colitis, or in some way occasioned by the withdrawal from the

system of the ovarian secretion, it is at present impossible to determine.

I believe, with Dr. Ernest Young, that only by careful clinical notes of these cases carried over several years, together with skiagrams of the joints taken from time to time, shall we be in a position to say definitely that the condition we call osteo-arthritis is simply a degenerative process, which may follow in any joint where there has been chronic irritation, be it gouty, infective, rheumatoid, or due to trauma.—I am, etc.,

Harrogate, Feb. 20th. G. L. KERR PRINGLE.

## PHYSIOLOGICAL OR POSTURAL ALBUMINURIA IN GIRLS AND YOUNG WOMEN.

SIR,—The fact that postural, physiological, or orthostatic albuminuria is met with so frequently in young males that its occurrence in females also is apt to be forgotten depends to a considerable extent upon the fact that far larger numbers of healthy adolescent males are examined as to their urines in connexion with bank clerkships, entries into Government services, life insurance policies, and so forth, than is the case with females. It would be an error to suppose that similar physiological albuminuria cannot also occur in adolescent females, and my particular attention has been drawn to this fact by the following letter from Dr. Edward Somers:

4, Leaf Square,
Pendleton, Manchester.

Dear Sir,

I have read with great interest and advantage your clinical lecture in this week's BRITISH MEDICAL JOURNAL. Such a lecture is a delight to the general practitioner, but I venture to point out that in the last section on "postural albuminuria" you convey a very distinct impression that that condition is limited to young males. I have several young females whose urine and general condition I have tested repeatedly for five years and upwards, and their urine has all these freaks that you mention—free from albumen first thing in the morning, and with more or less even after a cup of tea; sometimes albumen absent in the afternoon and in considerable quantity at night. These girls are in every other way normal, and some of them fine girls, developing splendidly from childhood up. Some have had definite scarlatina without any albumen during the attack and showing it afterwards, whilst some have never had any signs of scarlatina. It would be well, I think, if you could correct the impression which undoubtedly your able lecture will give. I hope you will pardon my presumption in writing this note.

Yours faithfully,
EDWARD SOMERS.

I am grateful to Dr. Somers for his permission to publish this letter, which will, I hope, serve to correct what otherwise might be an erroneous impression in regard to the sex distribution of physiological albuminuria.—I am, etc.,

London, W., March 2nd. HERBERT FRENCH.

## THE CAUSE OF APPENDICITIS.

SIR,—Some of the views as to the cause of appendicitis recently expressed in the JOURNAL seem rather far-fetched.

We all know that Nature is an excellent designer, and she has really designed the appendix as a grease cup to lubricate the passage of the faeces up the ascending colon—a very stiff climb. The semi-liquid intestinal contents pass readily enough along the small intestine, but when they reach the ascending colon the fluid part has been absorbed and the faeces are more or less solid, and the coefficient of friction being greatly increased (to say nothing of the work done against gravitation) Nature has wisely fitted an automatic lubricator—the appendix. I think this is indisputable. Any one who has taken the trouble to palpate the ascending colon in thin multiparous women must often have noticed the hard accumulation of faeces which fill the ascending colon.

Is it any wonder that the appendix in its endeavour to supply more "grease" should become congested? and if the hard faeces block its exit, it is only natural that it should dilate and suppurate.

A mixture of magnesium sulphate, especially if the case is seen early, will soon put matters right, and we shall read and hear less frequently that "he died after an operation for appendicitis."—I am, etc.,

Sunderland, Feb. 20th. THOS. A. WATSON.

SIR,—It may be of interest to note, in connexion with the correspondence on the above, that in Madagascar (Betsileo Province) appendicitis is a comparatively rare disease. In a total of from fifteen to twenty-five thousand patients per annum we had not more than three or four cases annually. It was also noted that in a large series of abdominal operations the organ appeared almost invariably healthy and free of adhesions.

Remembering that the appendix has been called the "abdominal tonsil," it is also remarkable that enlarged tonsils and adenoids are equally uncommon, and that typhoid fever is almost unknown except in one or two large centres with mixed populations, where the disease has evidently been introduced by Europeans, and in whom it most frequently occurs.

Does this indicate an increased vulnerability in the lymphoid tissues of the white man, and is appendicitis more frequently found in those who have had any of the above affections?

The diet of the Malagasy consists mainly of rice and herbs, and a fair amount of beef and pork is consumed in the large towns and more populous districts. The natives rinse their mouths after every meal. They assume the squatting posture when defaecating, and go regularly to stool in the early morning immediately after rising. This posture, I believe, partly accounts for the infrequency of acquired herniae amongst them. Ought we not invariably to advocate this position at stool, not only in those who suffer from constipation, but also when there is a tendency to the formation of, or after operations for, herniae, and for all children?—I am, etc.,

Parkstone, Dorset, Feb. 24th. GEO. H. PEAKE, F.R.C.S.E.

## THE TREATMENT OF MORPHINOMANIA BY THE COMBINED METHOD.

SIR,—In the JOURNAL of February 18th Dr. John Q. Donald criticizes at some length the views contained in my paper on this subject. Dr. Donald says: "In my opinion the pain and distress which arises (*sic*) in the cure is valuable as a deterrent to resumption of the habit." I repeat that, in my opinion, the first requisite of any such treatment must be *painlessness*. It follows that as our therapeutic aims are so divergent our methods must necessarily be at variance. Under these circumstances discussion and comparison are alike futile.

I shall only add that from what I gather of Dr. John Q. Donald's method I feel convinced that it attains to his ideal of being a *painful* treatment for morphinomania.—I am, etc.,

H. CRICHTON MILLER, M.D.Edin. and Pavia.

San Remo, Feb. 22nd.

SIR,—I cannot let Dr. Donald's indictment of Dr. Miller's paper, seeing that it concerns me along with Dr. Miller, pass unnoticed.

The "combined treatment," resting as it does first, last, and always, on the recognition of two distinct stages in the treatment of morphinism, is sufficient to show that we have not lost sight of them.

The question, "Why does Dr. Miller insist on the cure being painless?" concerns me as much as Dr. Miller. I insist on the cure being as painless as possible for what seem to me good and sufficient reasons:

1. On ordinary humanitarian principles.
2. Because I believe the first principle of therapeutic treatment to be the relief of pain, physical and mental, except in the few cases where it is impolitic to relieve pain completely for fear of cloaking unduly the progress of disease towards recovery or the reverse.
3. Because we aim at mental and physical rest, and pain and mental distress are inimical to their attainment.
4. Because I emphatically deny that there is any proof that suffering experienced during a cure is any deterrent to relapse.

This question has caused me considerable surprise, but no more surprise than other points in Dr. Donald's letter, which seem to me inconsistent and contradictory. For instance, he condemns the alleviation of pain and mental distress, and then goes on to tell us how he alleviates "mental distress," "neuritic pains," and "insomnia." I have never had the misfortune to encounter a "tendency to coma" or "delirium" in the treatment of morphine habit, and am surprised to find that Dr. Donald counts

them among the "principal symptoms that may arise as reduction goes on." Are not "neuritic pains," "insomnia," "diarrhoea," and "mental distress" invariable symptoms of reduction rather than symptoms that may arise? Is not "constipation" a symptom of morphinism rather than a symptom "that may arise during reduction"?

It would be interesting to know on what grounds Dr. Donald makes the following dogmatic statements: "*It is absurd* to try it [hypnotic suggestion] on a patient who is actively taking the drug, *it is of little use* when the drug is being abolished, *and it is of no use* in effecting a permanent cure." (The italics are mine.)

Do not such statements argue a want of knowledge of treatment by hypnotic suggestion or do they argue an experience and knowledge of it far in advance of that of such men as Bramwell, Bérillon, Forel, and Moll, to say nothing of such "American medical men" as Munsterberg, Sidis, Freud, and others, whose teachings do not bear out in any way these dogmatic statements? To say that in "the few cases he has met where a permanent cure has followed hypnotic treatment," he believes the patients would have been cured without, is a mere statement of belief, for the adoption of which he gives us no grounds whatever.

I would suggest to Dr. Donald that it might be "putting" less "strain," and "taking" less "liberties with a patient," to reduce his sensibility to pain and distress by bromidization than to subject him to such physical pain, mental distress, and exhaustion as would tend to make him liable to develop "delirium" or "a tendency to coma."—I am, etc.,

J. W. ASTLEY COOPER.

Ghyllwoods Sanatorium, nr. Cockermouth, Feb. 24th.

*** This correspondence must now close.

## RADIUM IN CANCER.

SIR,—I read with much interest Dr. Morton's paper (February 25th, p. 429), especially that part on the combined use of radium and *x* rays in the treatment of recurrence after operation on malignant growths in the breast. He is to be congratulated on the favourable results obtained in a certain proportion of his cases. He refers to the fact that few cases so treated have been recorded in this country, but most of the radio-therapeutists here have not had their cases long enough under observation to give a fair opinion as to whether a cure has been effected.

Dr. Morton's method is the one I have carried out in an increasing number of cases, at first sceptically and with little hope, but later with a much more favourable expectation. For nodules of cancer recurring in the scar or skin around I use the radium applicators, guarded or unguarded with the lead screens as seems advisable for the particular application. I also use them well guarded for the enlarged glands. In addition I apply *x* rays to these and surrounding parts, using a tube (4 to 6 in. spark gap) suitably guarded by thin aluminium foil and two layers of tungstate lint. Dermatitis is avoided easily by this method.

In about 15 per cent. of the cases treated the skin growths have disappeared, the enlarged glands dwindled very much, and the patients remain in good health after a year. The failures are the remaining 85 per cent.; some are dead, some very ill indeed, and in some the disease is slowly but surely progressing. In all the cases which "recovered" (?) no time was lost on the first sign of recurrence.

Probably the percentage of recurrences might be sensibly diminished if the application of *x* rays were a routine procedure after operation. A case sent on to me was one in which early recurrence was expected. The patient has undergone two courses of *x* rays since her operation, and at present—one year after—is free from any signs of the malignant growth. This, of course, proves nothing; but another patient, a lady of 65, had definite skin recurrences which have gone altogether, and a mass of enlarged supraclavicular glands which have shrunk until they are only just palpable. For six months since her last treatment she has remained well.

Pain in many was greatly relieved, although the disease was not arrested.—I am, etc.,

C. FRED. BAILEY.

Brighton, Feb. 27th.

## RHEUMATIC PURPURA AND PELIOSIS RHEUMATICA.

SIR,—Permit me to acknowledge Dr. F. J. Poynton's courtesy in replying to my letter of February 11th, and to express my thanks to him for so clearly stating that in his opinion peliosis rheumatica is "sometimes, possibly often, a rheumatic symptom."

It is of course true, as Dr. Poynton says, that purpura is the result of many diseases, but I see no necessity to suppose that the particular form of purpura known as peliosis rheumatica is similarly due to many causes. That it has been so definitely separated out from the other forms of infective purpura suggests that it is a separate condition, and to me it appears at least as distinct an entity as is erythema nodosum.

If this be granted the objections to its being considered as ever due to rheumatism remain. The haemorrhagic lesions in rheumatism (including rheumatic purpura) occur in the severest forms of the infection; while in peliosis the "rheumatic" symptoms are slight, and are not greater than in some other infections (for example, influenza or erythema nodosum). Before making peliosis an exception to this rule apparently governing the appearance of haemorrhage in rheumatism we need very convincing proof of its rheumatic origin—evidence far more convincing than that at present forthcoming. The examples in which unmistakable rheumatism and peliosis are in any apparent relationship to each other are so very few that the very paucity of the evidence suggests to my mind that they are due, not to the same, but to different infections. It seems to me almost impossible if rheumatism ever produces peliosis, that, both conditions being so common, the evidence suggesting a direct causal relationship should be so very small.

As to the etiology of rheumatism in which I too am keenly interested, I cannot help thinking that an accurate conception of the symptomatology of the infection and the exclusion of doubtful and border-line phenomena will be found to be essential to further progress.—I am, etc.,

REGINALD MILLER.

London, W., Feb. 20th.

## TREATMENT OF PEENASH.

SIR,—I have read with very great interest Dr. J. W. Lindsay's memorandum on Treatment of Peenash in the BRITISH MEDICAL JOURNAL of February 18th.

For more than a quarter of a century I have used calomel in this condition whenever occasion arose, and described the treatment in the BRITISH MEDICAL JOURNAL of February 13th, 1904, from which the following extract is taken:

> The other drugs, such as turpentine, which have been recommended for destroying maggots, are uncertain, irritating, and very painful. On the other hand, calomel acts rapidly, certainly, and without causing the slightest pain or discomfort. It also seems to destroy or neutralize the excretory products of the larvae, which are often sufficiently irritating to excite considerable inflammation and high fever.

—I am, etc.,

G. H. YOUNGE, F.R.C.S.I.,
Lieutenant-Colonel, R.A.M.C. (Ret.).

Clacton-on-Sea, Feb. 20th.

## A PLEA FOR THE COMPULSORY NOTIFICATION OF MEASLES.

SIR,—For some years now it has been evident that there is full need for the compulsory notification of measles.

The *Daily Telegraph*, in its issue dated February 21st, 1911, contained the statement, quoted from a "well-known coroner": "That among the very poor it is estimated that 20 to 30 die out of every 100 attacked by measles."

Again, recently we had the annual mortality statistics for the London area, showing that measles ranks first in the death-rate. Only last week the deaths from this eruptive fever in London were 103, being 60 above the average. Then the present epidemic at Dartmouth will have emphasized the serious nature of this infection, as out of a total of 101 cases 2 deaths have occurred from meningitis—and this, too, among lads who have all the advantages that healthy surroundings, good food, medical attention, and efficient nursing can ensure.

In the reports of the L.C.C. Medical Education Officer

for the twelve months ending December 31st, 1909, we are told that Mr. Macleod Yearsley carefully analysed 500 cases of deafness in the L.C.C. Deaf Schools and found that 77 of these were due to acute infectious diseases, 41 being the result of measles, 22 of scarlatina, and 6 of diphtheria.

To come to the part with which I am more directly concerned—namely, the after-effects of measles on the eyes—it is my wish to impress the fact that many eyes are permanently damaged through this cause, the most frequent result being corneal opacities with impaired visual acuity, and this fact has been more forcibly brought to my notice during the last nine months, through the exceptional opportunities that I have had of seeing such results in the treatment of over 600 eye cases in the departments for the treatment of London County Council school children at Moorfields Eye Hospital and the Great Ormond Street Hospital for Sick Children. Among the commoner results noted are blepharitis with displacement and loss of lashes, keratitis, corneal opacities, and leucoma adherens with irregular astigmatism, strabismus, and nystagmus as indirect results. As may well be imagined, the loss of visual acuity attendant on these sequelae is of real and serious import, and I feel most strongly that if, only from the ophthalmic point of view, yet there is full and grave need for the compulsory notification of measles, and moreover, if notification were adopted, that these disfiguring and disastrous results would be almost entirely obviated, for notification ensures medical attention, as well as serving to impress on the laity the severity of the infection, which up to now—at any rate among the poor—has been looked upon as one of the minor childish complaints.—I am, etc.,

Harrow, Feb. 22nd. FRANK MOXON.

## QUALIFIED OPTICIANS.

SIR,—The letter written by the editor of the *Optician* in the JOURNAL of March 4th established the following somewhat interesting points: (1) By displaying an advertisement to the effect that all kinds of defects of eyesight are examined *without charge* by means of the latest scientific apparatus, the optician succeeds in attracting to his shop a number of people who could pay not only the fee of the general practitioner but also that of the consultant. (2) He thereafter, assuming professional medical functions, decides whether the case is a "morbid" one or not, and, in the rare event of his discovering a "morbid" condition, such a case is referred to a medical specialist.

It is superfluous to remark that the sum paid for spectacles frequently amounts to a great deal more than the fee of a general practitioner for examination alone or even for examination and the supply of glasses.

In time the greater interest taken in the study of ophthalmology by medical men will discredit this fee-less examination by opticians. In the meantime, those practitioners who wisely undertake the treatment of optical defects would do well to consider whether it is advisable to send their patients to be supplied with glasses to those opticians who are doing their best to decoy them from their only safe and legal advisers.—I am, etc.,

March 4th. KRYPTOK.

SIR,—In arguing this case from the standpoint of similes, my friend, Dr. Seymour Taylor, exposes the weakness of his position. He cites "as a further illustration" of his pleading for the qualified optician the fact that "the Legislature has ordered that a board of examiners shall be constituted who may, after due trial and examination, grant a diploma to certain women, who are then entitled to attend their poorer sisters in the hour of their trouble." But matters of midwifery are generally matters of urgency, thus making a competent midwife often a necessity. On the other hand, there is no such urgency—no case involving life and death—in respect to an error of refraction. Hence the principle of expediency and necessity, which has led to the legalization of an "inferior order of practitioners"—using this term in no offensive sense—in midwifery, does not, cannot, apply to opticians. As a matter of fact, every effort made by representative opticians to obtain legislative regulation of their status has failed. But again the qualified midwife differs, in the character of her diploma, from the qualified optician. The former is compelled by law to summon medical aid in all cases of difficulty, while the optician, under the diploma granted by a livery company by which he becomes "qualified," is under no compulsion to act otherwise than as he pleases in any and every case, save, I believe, that he is prohibited from using a cyclopegic in the examination of the vision.

The picture which Dr. Seymour Taylor draws of the forlorn "township supporting two medical men and also an optician who holds the Spectacle Makers' diploma" is scarcely an arguable asset in favour of the qualified optician. The question concerned is not one of mathematics, geometry, or environment, but of principle and of principle alone. That is the point, the only point in this discussion, whether it was advisable to express publicly approval of the establishment of a "new order of practitioners," represented by the sight-testing optician, for the performance of duties which are distinctly medical, and which belong to the medical man's work. Another point of weakness in Dr. Seymour Taylor's argument is—that errors of refraction are not the only defects from which the poorer class community to which he refers suffer. What becomes of their other ailments when such people cannot afford the fees of a consultant and are loth to visit a hospital? Let us suppose a case of deformity of the spine—the logical inference from Dr. Seymour Taylor's argument would be that such a patient should at once go to the shop of a maker of surgical appliances for a spinal support, and possibly this practice would prove very largely to be the case were the surgical instrument makers to advertise themselves and their work to the same extent and in the same manner as do the "qualified" opticians of the present day in the lay press.

But there is a moral to this discussion, and that is, seeing the hold which, through the action of the Spectacle Makers Company, the qualified optician has acquired over the public, medical practitioners should for the future realize the necessity of acquiring a practical knowledge of refraction work. In the past, it must be admitted, this has been neglected; hence the sight-testing optician has come into vogue publicly. On the other hand, if it came to be generally understood that the correction of errors of refraction always formed a part of the routine work of every medical man, it is possible that much of this class of work would pass into the hands of the profession, which now filters through the shop of the optician.—I am, etc.,

London, W., Feb. 27th. PERCY DUNN.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—As one who was to some extent responsible for the institution of the examination for health visitors by the Royal Sanitary Institute, I cannot allow Dr. Lawrence's letter to pass without a word or two of comment.

Dr. Lawrence is in social matters, as a rule, such a clear thinker, that I am surprised he appears to have failed to appreciate the difference between the functions of a health visitor and a sanitary inspector. Some of us with most experience in the matter think the training of a health visitor should be quite different from that of a sanitary inspector, and when a few years ago the appointment of health visitors became more common, it was difficult to find women who could show evidence of training and qualification for the work, hence the institution of the examination and certificate.

Dr. Lawrence suggests that the health visitors' examination is easier than that of the sanitary inspector, but having examined some hundreds of candidates for health certificates, I am conpelled to disagree with him in this statement. The subjects are to a very large extent different, and hardly therefore comparable, but it is certainly an error to suppose that it is easier for a woman to obtain a certificate as a health visitor than that of a sanitary inspector.

The main subject raised incidentally by his letter, however, is that of women's work in a sanitary department. Personally I have long since come to the view that a woman sanitary inspector is an anachronism. I can understand such an appointment in the first instance in

the course of evolution of sanitary administration, but now, when I hope that the old idea of sanitary work as being chiefly associated with plumbing and drain pipes is fast passing away, and that the true meaning of hygienic effort is beginning to be understood, I cannot understand the perpetuation of the office. There is an enormous field in which women can work, but their chief function should be a personal one, dealing with mothers and children, and I hold therefore that any such title as that of sanitary inspector militates against the value of their work. The less there is of an inspector about a woman the better, and in my own county I have ceased to give the health visitors any distinctive official badge on their uniform.

Dr. Lawrence objects to the title of lady health visitor, and I agree with him as far as the use of the word "lady" is concerned. This, I think, is certainly unnecessary and possibly objectionable, but with a very large experience of the use of the title of health visitor in every class of district, I have never observed the difficulties suggested by Dr. Lawrence—in fact, the one thing which has surprised and gratified me most is the testimony invariably received of the value of the work done from all classes of those among whom they visit.

There should be no mistake about one fact, namely, that the health visitor's certificate is given with the idea of showing that the recipient is better fitted for true health visitor's work than if she held only the sanitary inspector's certificate.

If Dr. Lawrence wants a woman to undertake the official work of the sanitary inspector, then by all means let him ask for evidence of training and certification in this work as well.—I am, etc.,

A. BOSTOCK HILL,
County Medical Officer of Health, Warwickshire.

Birmingham, March 6th.

## THE MEDICAL BRANCH OF THE NAVY LEAGUE.

SIR,—May I ask for the hospitality of your JOURNAL again to draw the attention of the profession to the Medical Branch of the Navy League?

The object is to enlist the interest of medical men throughout the country, and to ask their help by their example and influence in keeping the country alive to the necessity of a strong navy. Without the absolute command of the sea our freedom and our life-interests are in peril. Still less can we regard the imperial and colonial portions of the British Empire as secure. Twelve years ago we were able to transmit more than 100,000 troops and all the transport for an extensive campaign 6,000 miles to the base of our operations without the mobilization of a single extra warship, and this in the face of the scarcely veiled hostility of two if not three first-rate Powers. Such at that time was our naval prestige that the millions necessary for such mobilization were spared; would it be so to-day?

Each medical man has much influence in his own locality, and can do much by himself joining and inducing his friends to join in the league, which is a strictly non-political body, and has for its object the advocacy of a strong navy to safeguard that security which forms an essential background to all advance in commerce, science, and the social conditions of the people.

I would point out that to be a member of the league a 5s. annual subscription is all that is necessary; it is the influence and advocacy that is wanted much more than money.—I am, etc.,

R. DOUGLAS POWELL,
President of the Branch.

London, W., March 6th,

P.S.—All who desire to respond to this invitation to join should send their names to the Secretary, Medical Branch of the Navy League, 54, Welbeck Street, W.

## TO INCREASE THE MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—In your issue of February 18th, p. 405, Dr. Mears suggests that a whole-time man be employed to bring into the Association every member of the profession, and to do this suggests that the subscription be increased—so far, so good.

I have a suggestion to make, namely, that we form sub-branches in every county and do not increase the subscription; these could be run on somewhat the same lines as our friends "the clergy" run their ruridecanal meetings. There are somewhere about forty medical men in this county and I am not aware of a medical society of any sort. I therefore think a sub-branch or a medica society would be a welcome innovation.

A great number of men give us their reasons for not joining the British Medical Association that they cannot afford time to attend the meetings, as in many cases it would oblige them to be a night from home; and really I think this argument holds good, especially in Wales.

Trusting my letter will bring forth the views of others, I am, etc.,

Y. M. JONES-HUMPHREYS.

Cemmaes, Montgomeryshire, Feb. 28th.

## THE ORIGIN OF THE LONDON SCHOOL OF MEDICINE FOR WOMEN.

SIR,—As the question has been raised respecting Dr. Edmunds's supposed connexion with the London School of Medicine for Women, it may be well for me, as founder of the school, to say positively that he never had anything whatever to do with it; in point of fact I never saw him, nor had any communication with him, in my life. No doubt some classes of his were attended by Mrs. Thorne and Miss Chaplin, before they came to Edinburgh, but they had nothing to do with him subsequently, and in point of fact both of these ladies were, I think, in Paris when the first steps were taken about the London School. Miss Pechey was the only one of the Edinburgh students who was present with myself at the preliminary meeting on August 22nd, 1874, from which the school had its rise. When Mrs. Thorne returned from France, a few weeks later, she was amazed at the progress already made, and immediately gave me all the help in her power, but she never suggested that Dr. Edmunds should be consulted in any way. Miss Chaplin remained in France to complete her education, and took no part in the London movement.

The three medical men whose help and influence were absolutely vital to us at the time, and to whom the existence of the school was due, were Dr. Anstie, Dr. King Chambers, and Mr. A. T. Norton, and to them we all owe a debt of gratitude we can never express, though I have tried to record it in my book on *Medical Women*, where further details can be found.—I am, etc.,

SOPHIA JEX-BLAKE, M.D.

Mark Cross, Sussex, March 4th.

## CORONERS' LAW AND DEATH CERTIFICATION BILL.

SIR,—I quite agree with Dr. Ffennell that death verification and certificates of death should be paid for, either by the relatives or the State. The bill before Parliament, if passed as it now stands, would be putting upon the underpaid practitioner another burden and responsibility without remuneration. It is a disgrace that as the law now stands medical men are compelled to give a certificate of death without remuneration, while the registrar of deaths gets a fee of 2s. 6d. for a copy of a death certificate. I—for one, with others, will do all we can to quash the present bill. One of the reasons I am replying to Dr. Ffennell's letter is this—that our association has already a bill before Parliament which has passed its first reading, and which was presented by Mr. George Greenwood and supported by Sir Walter Foster (now Lord Ilkeston), Mr. John Robertson, Mr. Smeaton, Dr. Rutherford, Mr. Hart-Davies, Dr. Shipman, and Mr. Athersley Jones.—I am, etc.,

J. BRINDLEY JAMES,
Examiner-in-Chief, Association for the Prevention of Premature Burial.

## THE VALUE OF DIPHTHERIA ANTITOXIN AS A PROPHYLACTIC AGENT.

SIR,—In my note in the JOURNAL of March 4th, p. 494, the number 2,000 units as a prophylactic should read 500 units. In my own cases I have always found this amount efficient. It is injected into the arm with an ordinary hypodermic syringe, and is thus no trouble, even

in very young children. I find people anxious to have it done, which is good proof that it causes little or no inconvenience.

Since the serum probably acts by stimulating the formation of antibodies, a small dose may reasonably be sufficient to initiate the process.

In some cases 2,000 units would probably be an overdose, and might lead to poisoning affecting chiefly the respiratory and cardiac centres and accompanied by symptoms of profound shock. Such cases would be looked for in those subject to affections in which a nervous element largely enters, as asthma. In such conditions the propriety of giving even a small dose should be considered, until more evidence is forthcoming as to its possible effects in such cases.

It has been said that in cases receiving prophylactic injections and developing diphtheria on some future date, the injection of serum at the later period would probably have little curative effect. I know of no evidence to support this view; our knowledge of analogous conditions points only to the assumption that the attack would more likely be less severe and the amount of serum necessary relatively smaller.

It would not be a difficult matter for the authorities of a hospital to inject every member of the family and contacts in cases admitted into hospital. The relative value of the injections would be shown partly by the value of the serum as a prophylactic in the cases injected, but chiefly by the diminution in the number of cases admitted into the hospital.

Since it is known that cases left at home may harbour the most virulent infection without themselves showing any symptoms, the importance of investigating this question becomes at least as great as the care bestowed on the cases admitted into the hospital.—I am, etc.,

GEORGE HARDWICKE, M.R.C.S.Eng., L.R.C.P.Lond.

Snainton, Yorks, March 4th.

## THE MODERN TREATMENT OF BONE INJURIES.

SIR,—I wish to endorse most heartily the letter of Mr. Wallis in the JOURNAL of March 4th. This treatment has been employed for many years in the United States of America, where, I believe, there are some 10,000 static machines in use.

May I add a few remarks to the excellent note of Dr. Eliot Creasy, chiefly on the manner in which the high candle-power lamp and the static wave current effect their result?

As in most injuries we have to deal with stasis and an exudation of serum, and the pressure which these exert is productive of pain, so it is to the expression or elimination of these products of inflammation to which the treatment by the two agents mentioned is directed.

The high candle-power incandescent light induces an active hyperaemia of the skin, and with the dilatation of the capillaries a better circulation is induced in the deeper structures, thus improving the circulation. Also we have generated not only at the surface, but in the deeper structures, a certain amount of heat. This is due to the resistance to the energy of the light. It is well known that whenever energy meets resistance there heat is generated. Now the skin is a poor conductor of heat, but it readily transmits light; this light in the deeper tissues meets resistance (otherwise it should be transmitted through the whole body), and it is, I think, at the various points of the absorption of rays that the light energy is transformed into heat energy.

The static wave current induces a series of successive contractions with intervals of rest. With such contractions stasis cannot long exist, and the fluid from the infiltrated area must be forcibly expelled. With the expulsion of the fluid elements of the exudate and the removal of the stasis a healthy cell activity is induced and a physiological energy replaces the pathological torpor. Apart from any electrical effect, the mechanical action—which may be termed a microscopical massage—renders the static wave current too valuable a method of treatment to be neglected. The effect is immediate, and relief from pain occurs and a sensation of lightness or freedom in the affected limb will be noted by the patient from the commencement of the treatment.—I am, etc.,

London, W., March 4th. F. HOWARD HUMPHRIS.

## BACTERIOLOGY AND THERAPEUTICS.

SIR,—I have read with interest much that has appeared in the BRITISH MEDICAL JOURNAL recently. In the number for February 18th, 1911, a brief abstract is given of Dr Buckley's paper and the discussion which followed on arthritis. Such points as he raises to my mind only make confusion more marked in this controversial subject. It has been pointed out time after time that any known infection may set up any known form of joint disease. The various manifestations are merely a question of degree. The contributory causes of course are very numerous. Much time and energy have been expended in trying to isolate the germ of rheumatoid arthritis. I have for several years contended that even if success is achieved it will merely add one more to the list of known germs. After all, only a comparatively few cases will show this micro-organism. If, of course, it can be isolated and a vaccine prepared that will successfully combat the disease, well and good. Then take peliosis rheumatica. Personally I do not regard this as pathognomonic. Dr. Poynton admits that it is merely a purpura occurring sometimes as the result of true rheumatic fever. In other words, again, almost any infection may set up purpura. If, of course, some method is discovered of differentiating the various forms, it will be valuable. I take it there is a marked difference between the purpura of measles and that of rheumatic fever or Henoch's purpura. Psoriasis is sometimes associated with arthritis; more often it is not.

As for appendicitis and mucous colitis, here again infection is to my mind the chief cause. I often marvel at the persistence with which lingering infection is ignored. Once infected always infected should be an axiom. Under favourable circumstances it dies down; under unfavourable it crops up again. If a severe superficial infection of the whole colon exists, then the operation for appendicitis cannot afford much relief. Measles, scarlet fever, diphtheria, pneumonia, or any known infection may set up mucous colitis or appendicitis, in some cases years after the original acute specific illness.—I am, etc.,

Bournemouth, March 1st. W. J. MIDELTON.

## THE AVERAGE MEDICAL INCOME.

SIR,—Dr. Benjamin Moore has written a good deal to prove that the average medical income is £240 per annum. Whether it is £240 or twopence-halfpenny does not concern me at present, but the fallacy of which he is guilty seems a very big one.

He takes the total number of men on the *Register* and a hypothetical sum as their joint earnings, and divides one into the other and then allocates the resultant to "general practitioners," not to "every man on the *Register*."

To be logical, this is the income which "any man on the *Register*" ought to be pinned down or up to. The newly-fledged man who is just beginning his apprenticeship to general practice, the whole army of hospital resident and budding specialists, every whole-timer in every service, whether military, naval, municipal, Poor Law or public health; all professors, teachers, specialists, demonstrators, tutors, and consultants, and all general practitioners—to *all* these must be assigned £240 per annum, no more and no less; no intellect, genius, industry, intelligence, application, energy, or perseverance, no idleness, lethargy, drunkenness, incapacity mental or physical, must raise or lower the income—it has already been allowed for in the "average." You cannot average their incomes and then pin only one section (even the general practitioner) down to the result.

Dr. Benjamin Moore is clearly not a general practitioner, so we must presume it is "socialism" which animates him in his desire for the "betterment of those who need the treatment of general practitioners," for I conclude he imagines that they are the persons to be "bettered," although it is highly questionable if mere cheapness is the great benefit some persons imagine it to be. The greatest Socialist who ever lived—but He was an altruistic Socialist—said, "Sell that thou hast and give it to the poor"; but modern socialism seems to begin and end with taking what other people have.

This is not a sermon; it is only meant to be a *tu quoque* argument, and I lack the facile pen of Dr. Moore. Nobody

will surely object to Dr. Moore breaking eggs and making omelettes, and even giving them away, provided only that he will not rob his neighbours' henroost to get his eggs.—I am, etc.,

Northwich, March 5th. HENRY EDWARD GOUGH.

## THE CURATIVE INFLUENCE OF ROENTGEN RAYS IN MALARIA.

SIR,—I was much interested in the article by Lieutenant-Colonel Bruce Skinner, M.V.O., R.A.M.C., and Lieutenant H. W. Carson, R.A.M.C., on the above subject in the BRITISH MEDICAL JOURNAL of February 25th. The results obtained by them are very remarkable. I would like, however, to point out the possibility of certain fallacies which they may have overlooked.

1. Cases of malaria admitted to hospital and put to bed in comfortable circumstances very often improve spontaneously without any treatment. They may have one or two paroxysms of fever, and then it quite suddenly disappears, and no relapse may occur for ten to twenty days, even though they are not kept in bed all that time. Such cases, however, nearly always relapse sooner or later, and parasites can usually be detected in their blood by carefnl search during the period of quiescence of the disease. Quinine treatment does not prevent the anaemia from rapidly improving, even where doses of 30 grains daily are administered.

2. Quinine may be given for one or two days, but may not reduce the fever immediately. If a new treatment is given on the third day and the temperature falls, it is not right to attribute the fall to the new treatment. The fall of temperature on the third day was very likely due to the quinine given on the two previous days. Quinine never fails to reduce the number of malarial parasites rapidly, if given in doses of 15 grains or more daily.

I would therefore venture to point out that some of the cases set forth by the above authors as cured by short exposures of Roentgen rays over the spleen may have been cases in which the fever subsided spontaneously; also those cases where the fever subsided after the short exposure to Roentgen rays, and where quinine was given on the previous two days, do not prove that the Roentgen rays, and not the quinine, produced the results. The authors do not state whether or not the parasites could be found in the blood after their treatment, nor do they state how long their patients were kept under observation.

In a case under my observation, after twenty minutes' exposure to Roentgen rays over the spleen, the malarial parasites increased in number in the peripheral blood, and next day a relapse occurred.—I am, etc.,

DAVID THOMSON.

Liverpool School of Tropical Medicine, Feb. 27th.

THE enormous extent of the work of a large assurance company is well shown in the valuation report of the Prudential Assurance Company for the year 1910, recently issued, where it is stated that in the Ordinary Branch the number of life policies in force at the end of the year 1910 was 903,896, assuring with bonus £99,726,566, and producing a premium income of £4,789,686 per year; 762,206 of these policies were effected under the endowment assurance tables, where the sum assured is payable in the lifetime of the policy holder. The life annuities payable are 4,379 in number, and amount to £152,322 a year. The claims of the year amounted to £3,240,957. In the Industrial Branch the number of policies was 18,820,427, and the amount assured £190,837,433. The premiums receivable in respect of these policies amounted to £148,308 a week, or £7,712,016 a year. The average duration of the policies exceeds 11¾ years, and the average age of the assured is 33½ years. The claims of the year amounted to £2,805,069. The number of free policies granted during the year to those policy holders of five years' standing and upwards who desired to discontinue their payments was 145,187. A sum exceeding £5,500,000 is provided in respect of free policies granted in lieu of discontinued assurances, for the increase in the sums assured given to industrial policy holders, and also for the concession granted in respect of policy holders attaining the age of 75 whose policies have been in force 25 years. The assets of the company in both branches, as shown in the balance sheet after deducting the amount written off securities are £77,529,226, being an increase of £3,327,525 over those of 1909.

# Medical News.

DR. URQUHART, James Murray's Royal Asylum, Perth, has been elected a Corresponding Member of the Société de Psychiatrie of Paris.

MAJOR R. J. BLACKHAM, R.A.M.C., Sanitary Officer of the First Division, Indian Army, was among the recipients of New Year honours; he received the Kaisr-i-Hind medal of the Second Class.

THE annual general meeting of the Medical Graduates' College and Polyclinic will be held at 22, Chenies Street, London, W.C., on Friday, March 31st, 1911, at 5.15 p.m. The report for 1910 is published in the March number of the *Polyclinic*.

DR. GEORGE M. ROBERTSON, Lecturer on Mental Diseases in the University of Edinburgh and Physician-Superintendent of the Royal Morningside Asylum, Edinburgh, has been elected a Corresponding Member of the Society of Psychiatry of Paris.

THE mother of Dr. A. F. Jackson, of Liverpool, who died of plague at Mukden, where he was on duty at the Mission Hospital, has presented to the Medical College of Mukden the sum of 10,000 dollars received by her from the Chinese Viceroy.

THE eighty-third annual court of the Royal Free Hospital, Gray's Inn Road, will be held at the hospital on Wednesday next at 3.30, when the annual reports and accounts will be presented. The President of the hospital, H.R.H. Princess Christian of Schleswig-Holstein, will take the chair.

WE note that the Giggleswick-in-Craven parish magazine contains a tabular statement relating to zymotic disorders, more especially periods of incubation and quarantine of contacts. The vicar suggests that the page should be cut out and hung up at home by parents. The idea should prove useful.

WEST HAM GENERAL HOSPITAL is in future to be known as the West Ham and Eastern General Hospital. Towards the recent extensions King Edward's Hospital Fund for London at its last distribution meeting made a grant of £5,000; the institution thus starts on its new career free from debt. The in-patients last year numbered 607; the total attendance of out-patients was upwards of 131,000.

THE annual debate of the Chelsea Clinical Society is to take place next Tuesday, March 14th, at the Chelsea Dispensary, commencing at 8.30 p.m. The debate (on colitis) will be opened by Drs. Hale White and Robert Hutchison, and reopened on the following Tuesday, March 21st, by Dr. J. W. Eyre and Mr. Lockhart Mummery. There will be a general discussion each evening. These meetings are open to all members of the medical profession.

THE festival dinner of the Irish Medical Schools' and Graduates' Association will take place on Thursday, March 16th, at the Hotel Cecil, when the President, Sir Charles Cameron, C.B., will take the chair. The guests of the evening will be the Duke of Abercorn, K.G.; Sir Thomas Barlow, President of the Royal College of Physicians of London; and Sir Henry Morris, President of the Royal Society of Medicine.

DR. JOHN SPENCER FERRIS, who has recently retired from practice after some forty-two years' work in Uxbridge, was the recipient on February 27th of a piece of plate and a cheque, the presentation being made to him at a gathering in the Town Hall. The piece of plate—a large silver-gilt flower bowl—bore an inscription stating that it was presented to him by his old friends and patients as a mark of their affection and esteem and in appreciation of the many services rendered by him, and was accompanied by a roll on which was engrossed a list of the donors' names.

THE Nottingham and Notts Association for the Prevention of Consumption has organized a Tuberculosis Exhibition, to be held in the Mechanics' Hall, Nottingham, which will be opened on Monday, March 13th, by His Grace the Duke of Devonshire. It will include the exhibits of the National Association for the Prevention of Consumption and the Women's National Health Association of Ireland, together with many items of local interest. The following have consented to give lectures in connexion with the exhibition during the week: Dr. Philip Boobbyer, Dr. Marcus Paterson, Dr. R. W. Philip, Dr. J. D. Slight, Dr. Jane Walker, Dr. Ralph Williams, and Professor Sims Woodhead. Further particulars can be obtained from Dr. O. Kentish Wright, Municipal Sanatorium, Bagthorpe, Nottingham.

IT is announced that the new series for 1911 of *The Crusade*, the monthly organ of the National Committee for

the Prevention of Destitution, is not only to be enlarged, but that any special articles of more than passing importance will be published in the form of a supplement of twelve to sixteen pages. The supplement for January contains a number of articles on unemployment, including one by Mr. Sidney Webb on "Unemployment Insurance." One of Mr. Webb's chief points is that insurance against either sickness or unemployment is in no way preventive, though he admits there would be some advantages "if we could somehow get provided for every person who was so ill as to be unable to go to work both medical treatment and sick pay, and, though this would in no way prevent the occurrence of disease, it would be an enormous boon," and he thinks our aim should be to obtain "such provision as will make the benefits as genuinely curative and as nearly universal as possible." The supplement for February is devoted to the problem of the feeble-minded. A useful summary is given of the conclusions of the Royal Commission on the Feeble-minded, and a series of articles follow with a select bibliography on the subject. In an editorial note the scheme of Poor Law reform advocated by the County Councils Association is accepted only as a basis for compromise, because it contains three things for which the Minority has contended—namely: (1) The transfer of children in institutions to the Education Authority; (2) the unified medical service under the county M.O.H.; and (3) the transfer of the unemployed to a national authority. On the other hand, objection is taken to the scheme because it retains a destitution authority and offers no guarantees for the disappearance of the mixed workhouse. In an article on the proposed new Outdoor Relief Order there is some strong criticism of the proposal of the Departmental Committee that the Prohibitory Order should be more strictly enforced and made universal; the article concludes that if Mr. Burns adopts the proposal he may be able to congratulate himself and his Department on a striking reduction of pauperism, but that "the amount of that reduction will be a more or less exact measure of the increase of suffering and destitution caused by the new Order."

THE twenty-first annual report of the New York State Commission in Lunacy for 1908–09 has, we learn from the *Medical Record*, recently been issued. It states that on September 30th, 1909, the number of registered lunatics in the State of New York in institutions under the supervision of the State Commission in Lunacy was 31,541, of which number 15,107 were males and 16,433 were females. The number of patients to each 100,000 of the population of the State in 1909 was 348.9 among males, 375.5 among females, and 362.3 in the total population, or a ratio of 1 insane male to each 287 males, 1 insane female to each 266 females, and 1 insane of either sex to each 276 of the general population. Of the psychoses, dementia praecox predominated among the total first admissions, general paresis was second, senile insanity was third, and alcoholic psychoses were fourth. The largest absolute number of first admissions was between the ages of 25 and 30, with numbers nearly as large in each of the five-year periods from 20 to 40 years of age. As to the nativity of the patients in 1909, 44.7 per cent. of the male and 48.3 per cent. of the female first admissions were of foreign birth. The most marked difference between the distribution among the several forms of mental disorder of first admissions of native birth and that of first admissions of foreign birth was the excessively high proportion among Irish first admissions of alcoholic and senile psychoses, the great preponderance of senile insanity among the Germans, and the preponderance of dementia praecox among the Russians, Italians, and Austrians. Statistical studies of the etiological factors assigned in the first admissions during the year ending September 30th, 1909, have been considered only on two issues—that of alcohol and that of heredity. Alcoholic habits were recorded in 45.7 per cent. of the male and in 15.7 per cent. of the female first admissions, or in 32 per cent. of the total first admissions. The influence of heredity in the causation of insanity was traced in 61 per cent. of the total first admissions, but of family history it was found impossible to obtain trustworthy accounts, positive or negative, in 23 per cent. of the total number of cases reviewed. One fourth of the deaths occurring during the year 1909 were due to diseases of the nervous system, the most prominent in this group being general paralysis of the insane. The next most prominent cause of death was tuberculosis, and over 55 per cent. of the total deaths due to tuberculosis were among cases of dementia praecox, and over two-thirds of those due to cerebral haemorrhage and apoplexy were cases of psychosis with brain or nervous diseases, cases of dementia praecox, or of old age.

# Medico-Legal.

## HAS THE ACCOUCHEUR THE RIGHT TO CHOOSE THE NURSE?

A LEGAL point of some professional interest was decided recently (*La Semaine médicale*, 1911, No. 8) by a French court in a manner which seems not only reasonable but is in strict accordance with the public interest. A lady sued her medical attendant for £60 damages on the ground that he had failed to carry out his engagement to attend her in her confinement, thereby causing her much grief and trouble. On the part of the doctor it was shown that he had given her ample notice and held himself at her disposal should she require his services before she had been able to make other arrangements. The reason which led the doctor to decline further attendance was that the patient and her family insisted upon introducing a nurse of whose antecedents and recent engagements the doctor knew nothing, while he was prepared with a nurse whose aseptic status he was able to guarantee. The court dismissed the claim, while the doctor got his fees, with the addition of a franc claimed as damages for the slur cast by the action upon his professional reputation, and the whole of his costs. In view of the universally admitted importance of aseptic purity in all those who have to take part in surgical proceedings, we think no other course was open to the doctor; and although it is not likely that many patients would be so wrong-headed as to bring an action under such circumstances, it is satisfactory to find the French court giving such an unqualified expression of opinion in favour of the medical contention.

## WORKMEN'S COMPENSATION ACT.

*Choroiditis.*

IN a case at Edinburgh (December 6th, 1910) it appeared that the claimant had been engaged in "chipping" a boiler on February 10th, 1910, when a splinter from the incrustation struck him on the right eye, causing a scale to grow over the pupil. He was totally incapacitated from work, and the respondents paid him compensation down to June 4th, when they stopped payment on the ground that the claimant had recovered. Counter-actions were then brought, one at the instance of the claimant to have a compensation memorandum recorded, and the other by the respondents to have the compensation ended or diminished. On November 8th, 1910, the case was heard by Sheriff Guy and Dr. George Mackay as medical assessor. This was the first occasion in which a medical assessor has been appointed in such a case in the East of Scotland. The Sheriff held (1) that at the time of the accident the claimant suffered to a certain extent from central choroiditis of the left eye, which was unconnected with the accident; and (2) that as a result of the accidental injury to the claimant's right eye, and having regard to the condition of his left eye, he was partially incapacitated for work when his compensation was stopped on June 4th, and he continued to be partially incapacitated. In coming to this conclusion the Sheriff disregarded any further deterioration in the condition of the left eye since the date of the accident. He therefore ordered the registration of the claimant's memorandum for a reduced amount of compensation, expenses being awarded to neithe party.

*Failure of an Operation.*

It is material to notice that where an operation fails or partially fails the workman may be awarded compensation as for partial injury. In a case at Hanley (October 6th) it appears that an accident happened in February, 1909, when the respondent sustained an injury which necessitated an operation, and an agreement was come to by which he received 17s. 10d. per week. He subsequently did light work—sawing wood—but left this because of fluid on the knee. The question in dispute was whether an operation which followed the accident was completely successful, and whether respondent was still incapacitated for work by reason of the accident. The case had been adjourned from the last court in order that the matter might go before a medical referee. The judge read a report from the medical referee (Dr. Alcock), which stated that respondent had undergone an operation for hernia in the right groin. The deep tissues of the abdominal wall underlying the linear operation scar had failed to unite quite firmly—probably because he tore the stitches by jumping up in bed—and consequently a large hernial gap remained. The left knee was now quite well. Its swelling was, in his opinion, quite independent of the hernia or operation in 1909. The condition of the abdominal wall rendered Shaw unfit for employment involving heavy lifting. He would be best suited for a light job, such as sweeping. The judge stated that the report only left the question of capacity for light work, and that was admitted in this case. In considering the question as to whether compensation ought to be reduced, His Honour asked who was going to take that man in his present state, and with all the liability to pay him compensation if something happened to incapacitate him. His experience was that no one would take the man under such circumstances. In that case it would be impossible, or next to impossible, to obtain light work unless he got it from the Shelton Company. At present the order must be that the application to alter the compensation be refused. If the company were willing to give the respondent light work the difference in the amount of compensation may be arranged between the parties.

*Exercise of an Injured Limb.*

In the case of Vincent *v.* Hicks (*Illustrated Western Weekly News*, January 14th) it appeared that a milkman sustained an injury to his arm on December 1st, 1908. On July 4th, 1910, an award was made of 10s. 9d. a week, to commence from April 9th, 1910, but respondent had been paid from the date of the accident to that time. The employer now sought to terminate the award on the grounds that the continuance of the disablement was entirely due to the respondent having persistently neglected to use and exercise his arm or to take any other measures for the purpose of restoring his wage-earning capacity. The respondent contended that the last allegation was untrue; that he was still suffering from the effect of the accident; and that through his injuries he was unable to resume his employment. He had been medically examined and told that nothing could be done for him. He had been able to do light work at 1s. 3d. a day, but he had frequently to cease work on account of the pain in his arm. He contended that the circumstances had not materially altered since the award was made. A number of medical witnesses having been called, His Honour, in giving judgement, said that his first impression of the case was confirmed. It was not an alteration in circumstances, but really what amounted to a rehearing of the case. The evidence adduced was no more than evidence given at the original hearing, that the respondent might by constant exercise have improved the condition of his arm. Now the allegation in the application was that he persistently refused to use and exercise the arm properly, but there was no evidence given of any persistency of his doing anything at all. The evidence was that he had obtained work whenever he could, but it was also clear that when the pain was greater than he chose to bear he gave up using the arm. It was not everybody that could persist in giving themselves pain in order to arrive at what might not even be a definite end. It was more than could be expected. In many instances where people were better off, the improvement was brought about by the doctors doing it for the patient themselves. When the patient was left to himself he neglected the matter and pretended to the doctor that he had followed his instructions. His Honour came to the conclusion that the application must be dismissed.

*A Paralytic Stroke.*

In the case heard by Judge Bradbury at Wigan, Williams *v.* Barbould Collieries (*Wigan Examiner*, January 14th), it is interesting to find that where a man was in such a condition that he might have suffered from a paralytic stroke the county court judge refused to award compensation. It appeared that the applicant on July 14th and 15th was working in a hayfield. About four o'clock on July 15th, while using his hayfork, his story was that he got caught and fell over, bruising himself very badly and being unable to get up. It was stated that the applicant was ruptured and badly bruised.

Dr. Rose of Harwich stated he was called to see applicant on Monday, July 18th, and found him suffering from paralysis of the left arm and left leg and also from contusions of the left ribs and left arm. The applicant said he had spat some blood, but witness did not see any. He had the typical symptoms of a paralytic stroke.

Questioned by His Honour, the witness said the applicant had certainly not had sunstroke. The applicant was prematurely old, and his arteries were inelastic, and any extra pressure would be calculated to cause arterial rupture, which in its turn would cause paralysis.

His Honour: Can you say what would be the initiating cause?

Witness.—Work itself does it sometimes, such as bending. With arteries, such as in the present case, it was sometimes caused by any sudden effort; stooping would do it, or anything that increased blood pressure—sometimes even excitement, sudden joy, or sudden sorrow. The fact that the applicant was giddy showed that he had increased blood pressure before he fell.

Questioned by counsel for the employer, the witness said that the condition of the applicant's arteries was such that the stroke might have occurred at any time and at any place, given an exciting cause.

His Honour said that he had to decide whether substantially—because that was the real thing in these cases, and they must not look at the matter too much from one side or the other—looking all round, whether as a matter of substance it could be said that it was due to accident arising out of work. Working in a hayfield did not produce a paralytic stroke. It was common knowledge that when a man's arteries were in a condition such as stated this consequence might arise. He knew of his personal knowledge cases where this sort of thing happened without any work at all. Mere stooping down, or even any emotion of any kind, would be sufficient to cause it. This stroke might have happened at any time. The court must be satisfied that this accident arose out of the applicant's work, and it was not made out in this case. There must be an award for the respondent company.

*Blood Poisoning.*

In Reid *v.* Wilson (*Glasgow Herald*, January 24th) the applicant, a widow, sued for £198 5s., three years' wages, as compensation to herself and two children in respect of the death of her husband, who contracted blood poisoning, the germs of the disease gaining admission to his system through a wound under the nail of his right thumb from garden soil with which he came into contact in the course of his employment. The claim was resisted by the insurance company with which the employer was insured, on the ground that the cause of death was not an injury by accident arising out of and in the course of the employment. Sheriff Baillie held that there was no proof how the dirt under the fingernail was obtained, but that it was most probable that it was gained during his employment. He found that the deceased died from a personal injury by accident, but that the accident did not arise out of or in the course of his employment. He therefore refused compensation, and found the pursuer liable to the defender for expenses.

*Neurasthenia.*

In the case of Lowden *v.* Dawson, heard at Sunderland on January 18th (*Newcastle Daily Chronicle*, January 18th), it appeared that a youth named Lowden had been injured in an accident in May, 1909. Since then the employers had paid compensation, but they now applied that it might cease. Four doctors stated that the lad was fit to resume work. The sympathy the lad received at home accounted for part of his symptoms. Lowden stated in the witness-box that he was afflicted with injuries to the spine caused by the accident, pains in the stomach, lumps in the back, vomiting after every meal except breakfast, and fits almost daily. He had to lie in bed on his face, with his head turned to avoid suffocation, though he said it did not matter much if he were suffocated. He had not walked more than half a mile at one time since the accident, and could not do so. He spent most of his time sitting in a shop. Four doctors, called for respondent, said he was suffering from neurasthenia. They did not, however, see any lumps on his back, and thought he would be better away from the sympathy of his friends. Counsel for the employer said his client was willing to renew an offer of light work he had previously made. His Honour: Have you any doubt what the result would be? Do you think it would last seven minutes? It would be self-contradiction if he worked an hour. The boy is perfectly well aware of that. He won't stoop; he refuses to stoop. It was mentioned that the respondent had only worked one day for applicant when the accident occurred. Eventually a lump sum of £37 10s., without costs, was awarded the respondent as a settlement.

According to a report in the *Times* of January 15th a case was heard at Maidstone County Court before Judge Emden in which a carman applied for an award under the Workmen's Compensation Act, having, it was asserted, suffered from neurasthenia as the result of an accident which he met with in May last. A doctor who examined the applicant stated that he could discover no signs of shock or anything likely to cause neurasthenia. His Honour, in dismissing the action, said it ought not to have been brought. The applicant was alleged to have suffered from neurasthenia, a complaint which was very little heard of until the Workmen's Compensation Act came into operation, but which appeared to be now rapidly increasing. The number of workmen suffering from neurasthenia was extraordinary, and he felt sure that none of these workmen knew what the malady was until the Act was passed. The worst of these cases was that they destroyed the nice feeling between master and servant which existed before the passing of this Act. Such cases also showed an absence of self-respect and manly independence on the part of the workman. If the Act in question had not been passed the court would not have been troubled with such a claim as that.

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MIDWIFERY FEES.

J. B. W. asks whether a medical practitioner is legally entitled to charge for a confinement, where he had been engaged to attend, but was not summoned at the time.

*** According to the law of England a contract once properly entered into, if of a lawful character, cannot be voided without the consent of both parties. Where there has been a breach on one side, the other party can recover damages for the same, but the measure of the said damages will be the loss entailed on the other party in consequence of the breach. We do not know of any specific cases that have been reported, but speaking generally, it is we believe not "the habit of the profession," to use our correspondent's term, to sue for fees in such cases, except under very special circumstances.

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# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

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CIRCULARS ON STARTING PRACTICE.

ARCTURUS.—Any one in the position of our correspondent should be sufficiently well known to require no introduction, and the fact that he is starting an independent practice will be quickly made known through his medical friends without

sending round any circular; but he may write to his medical and lay friends and tell them of the change, and there can be no objection to his stating that in future his practice will be independent. With regard to the proposed change of address, there would be nothing unusual in placing a small notice under his doorplate, or, as is sometimes done, at the side of his railings, as soon as he pleases, and it can be left there for as long as it may seem useful. Probably the new tenant of the house will desire its removal, and it will surely have done its work after a few months. There ought to be no desire to take advantage of changes of this sort, and of the legitimate announcements which may be made in connexion with them for the purposes of advertisement.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

*Examinations.*

MR. EDWARD TREACHER COLLINS has been appointed Examiner for the Diploma in Ophthalmology for 1911 and 1912.

The Board of Faculty of Medicine has given notice that, in accordance with the provisions of the Statute approved by Convocation on November 15th, 1910, it has added to its regulations a clause providing that no candidate, unless already a registered medical practitioner, shall be admitted to the examination in Medicine, Surgery, and Midwifery, until a period of at least twenty-two months has elapsed from the date of his passing the first examination for those degrees.

*Degrees.*

Mr. R. C. Wingfield has been approved for the B.M., B.Ch. degree.

## UNIVERSITY OF DUBLIN.

THE following was among the degrees at the meeting of the Senate on February 28th:

M.D.—G. C. P. Smyly.

## CONJOINT BOARD IN IRELAND.

THE following candidate has been approved at the examinations indicated:

D.P.H. (BOTH PARTS).—R. H. Bremridge.

# The Services.

## SCOTTISH COMMAND LECTURES.

THE fourth of the series of lectures on the technical training of R.A.M.C. officers in field duties was given in the Carlton Hotel, Edinburgh, on March 2nd, by Major R. J. Ross, General Staff Officer of Scottish Coast Defences. The subject was "Some Principles of Strategy and their Bearing on Medical Service in the Field." Major Ross described the main principles of strategical and tactical operations, and pointed out how medical arrangements must be made to conform to the principles laid down. He illustrated these principles by reference to the campaign of Novara between the Austrians and Sardinians, in which six divisions were engaged on each side; as the British expeditionary force would be composed of six divisions, the illustration was an apt one. He showed the lines of advance, the position of clearing hospitals and hospitals on the lines of communication, and the arrangements for speedy evacuation, which should be the main strategy of the medical service.

On the afternoon of the same day Captain A. M. McLaughlin, R.A.M.C., delivered the fourth of the series of medical lectures in the library of the Military Hospital, the subject being "Sanitary Organization in War." After the lecturer had described the organization of the British Army, Colonel Heuston, R.A.M.C., related some valuable experiences in China and South Africa, and a most interesting discussion ensued. These lectures complete the series of four in each course organized for the Scottish Command winter training.

## ROYAL COLLEGE OF SURGEONS IN IRELAND OFFICERS' TRAINING CORPS.

THE first annual dinner of the Officers' Training Corps connected with the College of Surgeons was held last week in Dublin, and proved a great success. This corps has been in existence now for about a year, and has been joined by a large body of students. Sir John Lentaigne bore testimony to the great and beneficial change which the formation of the corps had produced in the lives of medical students, and other speakers referred to the important asset which the country would shortly possess in the existence of bodies of medical men trained in military methods.

# Obituary.

## CHRISTOPHER BENSON, L.R.C.P., M.R.C.S.,

SHIPLEY.

WITH much regret we have to record the death at the comparatively early age of 51 of Mr. Christopher Benson, L.R.C.P.Lond., M.R.C.S.Eng., which took place at Shipley on February 17th, where he had been for many years in practice. Mr. Benson began the study of medicine as a student of the Leeds school at about the age of 25, later in life of course than is usual, and from the outset of his curriculum he brought to bear on his work that steady and uniform diligence which he has always manifested through his life. He was a brilliant student, and early in his career he was stricken with a serious malady which at one time threatened his life. This illness and its consequences unquestionably curbed his efforts, and though those who were his patients doubtless derived the benefit of having such a man to attend them. his early devotion to what proved, and was doubtless intended by him to be, a quiet and unambitious sphere of life, stood in the way of his taking that position in his profession to which his abilities would seem to have entitled him. Apart from his professional abilities Benson was a man of general culture and a good linguist, being well versed in French and German literature. He will long be remembered by all who knew him and especially by his teachers and fellow-students, as a man of a charming and striking personality with original views on many subjects and with a very keen sense of humour.

# Public Health AND POOR LAW MEDICAL SERVICES.

## CERTIFICATION OF PAUPER LUNATICS FOR ASYLUM.

P. B. asks whether a medical man attending a working-class patient who is certifiable as a pauper lunatic entitled to fill in the necessary form for his removal.

*** Any registered medical practitioner in actual practice is entitled to certify a patient for an asylum as a pauper lunatic, but only if called upon to do so by the justice acting in the case who, by Clause 16 of the Lunacy Act, 1890, has to call to his assistance a medical practitioner, who may or may not be the previous medical attendant of the patient as the justice may think fit. The only fee payable in connexion with such cases is that which the magistrate is empowered to order the guardians to pay for certifying the case on the statutory form.

THE first Congress of French Medical Journalists will be held in Paris on March 23rd. A very large number of well-known men have intimated their intention of being present. Amongst others may be mentioned Professor Landouzy, Dean of the Faculty of Medicine, who will take the chair; MM. Lucas-Championnière, Hallopeau, Ricard, Valude; Professors Poncet, Grasset, Régis, Moure. A number of eminent medical journalists from Latin countries will likewise attend the congress. Among these are MM. Crocq, Coppez et Delsaux, of Brussels; Charles, of Liège; and Merveille, of Chénée; Senators Maragliano, of Genoa, and Mangiagalli, of Milan; Professors Rummo, of Naples; Cattaneo, of Parma; Pires, of Lima; Antonio de Azevedo, of Lisbon; Ricardo Horno Alcorta, of Saragossa; Barbera Marti, of Valencia; Jorge Leyro Diaz, of Buenos Aires; Aristotle Konzis, of Athens. Esperanto will be represented by M. Thalwitzer, of Dresden. The following questions are in the programme proposed for discussion: (1) The right of reprinting medical articles (to be introduced with a report by M. Vitoux). (2) The connexion of the medical press with congresses and other manifestations concerning the art and practice of medicine (to be introduced with a report by M. Ausset). (3) The organization of a bureau for immediate relief (to be introduced with a report by M. Duchenne). (4) The usurpation of the title of doctor (to be introduced with a report by M. Dieupart). The general secretary of the congress is Dr. Cabanès, 9, rue de Poissy, Paris. A bureau of information will be open at the Faculty on Wednesday, March 22nd, from two to six o'clock.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

## QUERIES.

Devonian asks whether there is any instance of a woman being elected on the committees—visiting, finance, or other—of hospitals.

Perplexed asks if in the case of autogenous vaccination for *B. coli* in the pelvis of the kidney an increase in the bladder symptoms, accompanied by pains in the right thigh and lumbar region, may be looked upon as unfavourable.

W. J. L. asks for advice in the treatment of a girl of 15 years, who has suffered from epileptic fits for a number of years. The bromides, borax, and arsenic have been given for long periods, besides dieting carefully. So far no improvement is manifest, even since menstruation (which is regular) appeared.

## ANSWERS.

J. W. B. writes, in answer to "North," to suggest the wearing of thick bedsocks—the only treatment he found efficacious in his own case.

Drs. Mooney and Ferguson (Preston) write, in reply to "Pedestrian," to recommend him to try a 5 or 10 per cent. solution of acidum chromicum (chromic anhydride) to be painted on after washing the feet first.

In reply to an inquiry from a correspondent, Dr. N. L. Usher Somers informs us that particulars with reference to the inhaler for the administration of radio-active oxygen, referred to in his letter published in the British Medical Journal of February 25th, 1911, p. 459, can be obtained from Messrs. Southall, chemists, Birmingham.

Dr. H. J. Thorp (Ipswich) writes in reply to the inquiry from "Aden," published on February 4th, for the treatment of warts: Thorough cleanliness; saturated solution of salicylic acid in alcohol repeatedly applied; and continued purgation of sulphate of magnesia in infus. rosae acid., t.d.s., or a carminative; enough mag. sulph. to produce two or three evacuations daily.

### Dental Plate or Bridge?

Mr. J. Battersby, L.D.S.Eng. (Nottingham) writes: In reply to "Anxious," the main advantages of a bridge in the case referred to are: (1) Fixation in the mouth, enabling it to be cleaned like the natural teeth; this is about the most important point in favour. (2) No bands will be present to cause decay in sound teeth. (3) No possibility of thermal changes being noticed when anything very hot or cold is taken into the mouth. Against these points must be put: (1) The mechanical principle that roots can only withstand a certain stress. In the case given the roots of the left central incisor, first left premolar, and first right molar will have to stand the stress normally withstood by nine separate roots. The three teeth mentioned will have to be prepared for crowning to form abutments between which the dummy teeth will be suspended—four between the molar and incisor on the right side, and two between the premolar on the left of the central. The stress on the six suspended teeth and that on the three crowns will be much too great, and in a few years' time one or more of the roots will be loosened. It is a safe rule not to suspend more than two dummy teeth between two abutments—a condition which would be ideally met by the left side of the case in question. This point of strain is the crux of the whole matter. (2) Difficulty of satisfactory repair. The advantages of a plate (metal) are: (1) *No* strain or stress on the teeth. (2) Ease of repair. Disadvantages of a plate: (1) The plate is not a fixture, and has to be removed from the mouth to be cleansed; but this enables thorough cleanliness—a difficult point in a bridge. (2) The plate will require two bands to keep it in position, one round the molar the other round the first left premolar—teeth placed in an ideal position, by the way—and, if not kept clean, these two teeth will soon begin to show signs of caries. If the bands be kept perfectly clean by rubbing the inside on a taut piece of silk night and morning, and special attention be devoted to the molar and premolars by brushing after each meal, I venture to say that caries will not attack these two teeth any more quickly than the other teeth. The bands must of course not be fixed too close to the gum. (3) Thermal changes on taking anything very hot or cold into the mouth; not of much consequence. A metal plate (gold or dental alloy) will be found quite satisfactory, and its presence in the mouth will soon be unnoticed. It may be of the ordinary or "skeleton" pattern. From the foregoing points it will be gathered that I am in favour of a plate in the case referred to. There are one or two other points—for example, time, expense, etc.—which, apart from mechanical principles, sometimes decide a case; but these have not been considered.

### Treatment of Coryza.

Dr. S. B. Walsh (Merthyr Tydfil) writes: With reference to the treatment of this disagreeable affection, my personal experience may be of interest, and possibly of advantage, to your correspondents. I suffered for many years from an intractable nasal catarrh. I tried pretty well everything in the way of insufflations from boric acid to tannin. I had the mucous membrane cauterized, the antrum explored, and the turbinates removed, without appreciable benefit. I was contemplating vaccine treatment as a *spes ultima* when I hit on the following simple line of action: I had noticed that if I went into the air after washing the head the chilly feeling produced thereby on the scalp was invariably followed by an aggravation of the nasal symptoms. I attributed this to a congestion of the nasal and post-nasal mucous membranes produced by the contraction of the scalp arterioles. I reasoned that if chilling and contraction of the scalp vessels produced congestion of the nasal and sinosal mucous membranes, warmth and dilatation should produce the reverse. On this assumption I started treating my nasal trouble by counter-irritation of the scalp. After some experimentation I found that friction with a coarse flesh-glove was the most satisfactory method; and I am not exaggerating in the slightest when I say that from the day I first tried it—that is, during six years—nasal catarrh with all its attendant miseries has been to me a memory of the past. If an attack threatens, as it does occasionally, a thorough friction at night, with possibly another the following morning and night, gives prompt relief. Now presuming that coryza is microbic in origin, as it almost certainly is, this simple method of treatment would seem altogether too unscientific to account for such a wily foe as the *Micrococcus catarrhalis*. But, on the other hand, like most micro-organisms, it gains easiest entrance through injured or diseased tissue. If, then, the nasal mucous membrane is turgid and congested, the omnipresent microbe grows, multiplies, and produces its characteristic symptoms. But if the turgidity and congestion can be replaced by the normal, the microbe dies of inanition: at least so I explain it. And the explanation pleases me, since the results are so satisfactory. I do not wish to say that this will relieve every case of coryza, or to dogmatize in any way on the point. Every man is a law unto himself. And the most I am prepared to affirm is that it cured me, and that it may be worth a trial in your correspondent's cases. I might add that, as might reasonably be expected, the treatment has a most beneficial effect on the growth of hair on the head. You have thus the chance of killing two annoying birds with the one stone, all at a trifling cost.

## LETTERS, NOTES, ETC.

### A Laboratory Visitor.

Professor G. H. F. Nuttall of Cambridge sends us the following description of a man who it is believed has been going round the British laboratories for some time:

"Short, stout, dyspnoeic man, about 5 ft. 4 in. in height; aged about 55 years; Jewish-looking; complexion tawny; full head of greyish-white hair, which is slightly curly; similar moustache. Nose thick, and bent slightly to one side. Manners very insinuating; well dressed; American accent. Poses as a medical man, and speaks as if he knew prominent colleagues intimately."

Professor Nuttall suggests that his colleagues should be on their guard.

### Treatment of Scarlet Fever.

A Medical Officer of Health writes: The medical profession has had more than one opportunity of hearing from Dr. Milne an exposition of the method in which he deals with scarlet fever occurring in children and young persons in Dr. Barnardo's homes (British Medical Journal, 1910, vol. ii, p. 594). The results which he states that he has obtained are so surprising and so contradictory of all previous ideas of what can be done in that way, that it is of the first importance that they should be either corroborated or refuted. The facilities for practically testing them on a sufficiently large scale to avoid possibility of fallacy are so much greater in large isolation hospitals like those of the Metropolitan Asylums Board and of our great provincial cities than elsewhere, that one naturally looks to these establishments for the crucial proof as to the value of Dr. Milne's method, and I, in common probably with many others who appreciate the great importance of this subject, have been hoping from week to week to see some statement about it. There ought to be by this time such a mass of evidence accumulated on this matter as should leave no doubt as to the truth.

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# An Address
ON
# APHASIA.

READ BEFORE THE BIRMINGHAM BRANCH OF THE BRITISH MEDICAL ASSOCIATION ON NOVEMBER 15TH, 1910.

BY

**ROBERT SAUNDBY, M.D., LL.D., F.R.C.P.,**

SENIOR PHYSICIAN TO THE GENERAL HOSPITAL; PROFESSOR OF MEDICINE AT THE UNIVERSITY OF BIRMINGHAM; PRESIDENT-ELECT OF THE BRITISH MEDICAL ASSOCIATION.

I HAVE had recently under my care two cases of aphasia which terminated after a few weeks' illness, and we were able to complete our notes by careful *post mortem* examinations. They illustrate the two principal clinical types of aphasia and the lesions associated with them, and may serve to introduce a discussion of the recent criticisms which have been directed against the doctrine of Broca.

These types are:

(1) *Motor or Ataxic Aphasia*, in which inability to speak is associated with paralysis of the right side of the body. This is generally held to be dependent upon a lesion of the third left frontal convolution or the fibres coming from it.

(2) *Sensory or Amnesic Aphasia*, in which the patient can speak although his vocabulary is limited, and he uses wrong words, but he can neither read nor write, although his eyesight is good and the movements of his hands are not affected. In this the lesion is localized in the neighbourhood of the first temporal sphenoidal convolution, the angular gyrus and the supramarginal convolution. The first case illustrates the former type.

CASE I.—*Motor Aphasia.*

J. M., coachman, aged 64, was admitted to the General Hospital on February 17th, 1910, with a history that three days before he had suddenly lost his speech; he was at dinner, and when his wife spoke to him he could not answer her; he wanted to return to work, and was annoyed when she stopped him. There was no convulsion, or any sign of paralysis or loss of consciousness. When admitted he was quite unable to speak, and could make only inarticulate noises when pressed, but he seemed to understand all that was said to him, and was able to read and write. He could do a simple addition sum, but when set an equally simple sum in division he failed. There was slight flattening of the lower part of the right side of the face, and the tongue deviated towards the right side, but there was no weakness of the right arm or leg; the knee-jerks were normal on both sides, and the plantar reflexes were flexor. His pulse was 56, blood pressure 120; the artery felt thickened; the heart was not enlarged, its sounds were normal; the urine was free from albumen.

On February 23rd some weakness of the right hand was noticed, and later on he lost the power of writing, became dazed and stupid, and by midday he could not be roused to take his food. The right side of the face was paralysed, and the right arm and leg were motionless and slightly stiff. The right plantar reflex had become extensor, and the leg was not drawn up, while on the left side it was flexor, and the leg was drawn up briskly. He lay in this condition for three or four days, but on the 27th he improved, and showed response when spoken to, but could not speak, and the right arm and leg were completely paralysed. On February 28th he was found to have lost the power of reading, and the attempt to write his name with his left hand was a miserable failure. He went on for some time without any change, but on March 17th there was a sudden rise of temperature, reaching on the following day to 102.8°, and after that his temperature remained irregular until he died on March 31st.

*Necropsy.*

The *post-mortem* examination was performed by Dr. Douglas, a summary of whose report is as follows:

The body was thin and wasted; both lungs showed considerable emphysema, and the lower half of the right lung was hepatized. The right ventricle of the heart was dilated, and the radial arteries were thickened. There was some fibrosis present in both kidneys.

*Brain.*—There was no external change visible in the brain. On section the softened area was found lying internal to the grey matter of the island of Reil on the left side. Portions of the deep-lying nuclei were completely macerated. The anterior part of the thalamus and the internal capsule seemed to be of normal consistence, but the posterior external part of the thalamus, and that part of the corona radiata entering the posterior portion of the internal capsule and a small portion of the capsule itself were softened. The posterior part of the nucleus caudatus was softened. Of the lenticular nucleus, the putamen was entirely destroyed, except for a small portion occupying its antero-inferior aspect, while the globus pallidus was normal. The posterior two-thirds of the external capsule and the claustrum were softened. The grey matter of the island of Reil was intact except a minute portion at the posterior extremity, but the posterior half of the white matter, between the grey matter of the convolutions and the claustrum, was softened. No blocked vessel was seen, but the arteries at the base of the brain were thickened, and showed numerous atheromatous patches. The third left frontal convolution was quite normal.

This is a case of pure motor aphasia, in which the patient could do everything but speak: he could hear and understand all that was said to him; he could read and write, and, although his power of calculating was not very good, it is not possible to say that this was the result of the brain condition that had supervened. This is the type of aphasia which Professor Wyllie has called infrapictorial motor aphasia, due, in his opinion, to a subcortical lesion, which cuts across the fibres running through Broca's convolution and also that coming from the right hemisphere, termed the "callosal speech tract." He says it would appear that a lesion in the upper and anterior part of the island of Reil may, by penetrating into the subadjacent white matter, cut them both across, and so produce the infrapictorial variety of motor aphasia, and this, in fact, was what was found at the *post-mortem* examination. It is difficult to see why a lesion which severs the fibres before they reach the internal capsule should be capable of producing aphasia, but after they have combined together and form part of that band of fibres should not do so. Professor Wyllie says that below the upper part of the internal capsule the direct fibres from Broca's convolution on the left side and the callosal fibres from the right side diverge from each other after entering the internal capsule, and are less and less likely to be cut across by the same lesion until they come near each other again in the pons, and therefore lesions at and below the upper part of the internal capsule usually produce merely a dysarthria or difficulty of articulation, and not an aphasia of the infrapictorial motor type. This explanation may satisfy those who believe that the function of the third left frontal convolution has been established and are ready to accept any excuse for those awkward facts which do not conform to this view.

CASE II.—*Sensory Aphasia.*

J. B., brass-caster, aged 35, was admitted to the General Hospital on March 16th, 1910, with a history that three weeks before admission, while at his work, he was taken with sudden giddiness, temporary loss of sight, and severe headache. He stayed at home for three days, and then went back to try to do his work, but was unable to do it, and had been at home since. After his attack there was numbness and weakness in the right arm and hand, and to a less extent in the left hand. His speech was unaffected, but he was irritable, and complained of constant headache. Three days before his admission he seemed worse; he forgot words, and was unintelligible. The weakness of the right arm and leg increased, so that he dragged his right leg. His memory was defective, and he seemed at times not to understand what was said to him. He was drowsy by day and sleepless by night.

On admission he was a well-developed man of healthy and intelligent aspect. The right side of the face was flattened, and the tongue deviated to the right. The right arm was weak, but could be moved freely, and the right leg was dragged a little in walking. The right knee-jerk was increased, and the plantar reflex was extensor; the organic reflexes were normal. The movements of the eyeballs, the pupils, and ophthalmoscopic appearances were all normal; there was impaired sensation over the right trigeminal area.

*The Aphasia.*—The patient could say short sentences, pronouncing his words perfectly well; for example, when he was asked how he was, he said, "All right." Asked if he had any pain, he said, "In my head," but he could not tell his own or his wife's name, yet he said quite distinctly, "I do not know now." He could not tell the day he had been accustomed to get his pay, nor his age, but when 35 was suggested to him he agreed. Asked to repeat his name, he said, "I cannot." Asked why, he said, "It is a funny thing, ain't it?" but after pressing a little he repeated his name, but had forgotten it immediately afterwards. He was unable to read even large letters in a spelling book or to write his name or copy words, but he could point out objects named to him, and recognize their uses when they were shown to him, though he could not tell their names, and seemed unable to repeat their names when they were told to him. He seemed worried by his inability, and evidently tried hard to do what he was asked, but complained that the effort made his head ache. On the 24th he is reported to have become excited and incoherent, and on the 28th his mental power was evidently failing. He did not seem able to understand what was said to him, and when asked how he was, said, "Two lots, Tuesday," and did not

seem in the least aware of the incongruity of the remark. On April 1st he was in a drowsy condition, which by the 3rd had deepened into coma, which was followed by death on that day.

*Necropsy.*

The *post-mortem* examination was performed by Dr. Douglas, whose report I summarize briefly here, omitting, as there is nothing important in them, the descriptions of all the organs except the brain.

*Brain.*—Meninges were normal, and there was no optic neuritis to be seen in the left disc. A large tumour occupied a considerable proportion of the left cerebral hemisphere measuring 2½ in. from before backwards, 2 in. from side to side, and 2 in. from above downwards. It involved the ascending parietal angular and supramarginal convolutions, these being much distorted and stretched by it. Its front part was degenerated into a large cyst, but behind it was solid, its lower part being haemorrhagic and dark red, and the upper a pale pinkish-white. It extended anteriorly as far as the fissure of Rolando; below it reached the lower border of the second temporal gyrus. It lay external to the lateral ventricle, being situated in the white matter of the parietal lobe. The grey matter at the lower extremity of the anterior limb of the supramarginal gyrus was much eroded.

The lesion here corresponds with the descriptions which have been for many years accepted. The tumour involved the ascending parietal, the angular and supramarginal convolutions, especially the angular gyrus, which is the visual centre that has been found to be affected in cases of word blindness. The patient was an intelligent man of fair education, but he was quite unable to read or recognize even the letters of the alphabet in a spelling book. Moreover, although there was no true paralysis, he could not write his name or copy words that were given to him, so that the graphic centre, which is probably closely related to the visual centre, was also affected. Writing, like drawing, depends upon the exercise of visual memory or the memory of form, and although this might be supposed not to apply to copying, yet we know it is by no means easy to induce a child to copy letters set before it, and our patient may be regarded as reduced to the level of a perfectly uneducated person who is asked to copy handwriting.

It is usually said that auditory memory is situated in the first temporo-sphenoidal convolution, but the patient heard and understood perfectly well all that was said to him. The characteristic of the case was the fact that although the patient could speak he talked nonsense, and was unable without great effort to repeat words when asked to do so, as, for example, to repeat his own name; yet what he said was clearly articulated and properly pronounced. This remarkable condition was due to the loss of memory of the greater part of his vocabulary from destruction of the centres concerned in originating the impulses for speech production. When a normal individual is asked to repeat a word this may be accomplished with more or less effort, which is great in proportion to the strangeness of the word, and by practice becomes easy and automatic, but where the centres concerned are damaged or destroyed it is difficult or impossible.

The association of motor aphasia with a lesion of the third left frontal convolution is called Broca's doctrine, and has been for the last thirty or forty years generally accepted by the medical profession, but a powerful protest has been in these later years made against it by Professor Pierre Marie.

Let me relate briefly the circumstances under which Broca announced his discovery: In 1808 appeared the work of Gall and Spurzheim on phrenology or the localization of the mental faculties in the brain; and in subsequent writings appearing between 1810 and 1822 Gall localized the centres of language in the supra-orbital lobes of the brain. According to his view, the development of this region tends to depress the eyes and make them prominent, so as to cause distension of the lower eyelids, and it is said, although this may not be true, that Gall had been led to this opinion by the garrulity of one of his schoolfellows who had this defect. However derived, the doctrine of the localization of the faculty of language in the anterior lobes of the brain was adopted and supported by Professor Bouillaud in a series of memoirs produced at the Academy of Medicine in Paris. The first was read in 1825, and was entitled "Clinical Researches to demonstrate that the Loss of Language corresponds to a Lesion of the Lobules of the Brain, and to confirm the opinion of Gall on the seat of the organ of articulated language." In this paper he maintained the existence of a special distinct and independent centre in the brain for the movements of the organs of speech, and he localized it in the anterior "lobules." He distinguished loss of the faculty of speech from that of the movements of the tongue and lips.

These doctrines did not pass without criticism from such eminent persons as Cuvier, Flourens, and Gratiolet. Andral in his clinical lectures, published in 1834, drew attention to the coincidence of affections of speech with right-sided hemiplegia, and localized the lesion in the left corpus striatum and attacked Bouillaud's doctrine. He had collected altogether 37 cases of various lesions of the anterior lobes of the brain, of which 16 showed no disturbance of speech, while, on the other hand, 14 cases of disturbance of speech were without alteration in this region. From time to time Bouillaud returned to his subject, and his persistence, joined to his great authority as a physician, as a clinical teacher, and as Dean of the Faculty of Medicine, invested his views with no mean authority. In 1861 Broca was Secretary of the Society of Anthropology and surgeon to Bicêtre. Bouillaud in 1848 had offered a prize of 500 francs to any one who would produce a single case of an individual who had lost his speech without presenting a lesion of the anterior lobes of the brain, and this prize had never been claimed. In April, 1861, Broca having received at Bicêtre the patient Leborgne, asked Auburtin, Bouillaud's son-in-law, to examine him, and shortly after was able to present to the Society of Anthropology notes of the case and the brain. This showed considerable softening of the anterior lobe of the left hemisphere, but the lesion was extensive. He spoke of the loss of language as "aphemia," and defined it as a condition in which, while "the general faculty of language persists unaltered, where hearing is intact, where all the muscles except those of the voice and articulation obey the will, articulate language is abolished in consequence of a lesion of the brain." "All that is wanting in these patients is the faculty of articulating words." "They understand all that is said to them; they are intelligent, they can emit vocal sounds with facility, and execute with their tongue and lips all the movements which are required for the articulation of sounds, and yet they are unable to express themselves in language beyond, perhaps, a short series of syllables or a monosyllable." He goes on to say that the seat of the lesion was in the second or third frontal convolution, most probably in the last; it is therefore possible that the seat of articulate language is in one or other of these convolutions.

Shortly after this Broca had an opportunity of making a *post-mortem* examination upon another aphasic patient, and, to his astonishment, he says the lesion "occupied rigorously" the same seat as in the first case, and he regarded this coincidence as confirming the seat of the lesion. In 1863 Parrot showed the brain from a case in which there was complete atrophy of the right island of Reil and of the third right frontal convolution, with complete preservation of intelligence and the faculty of language; a case which led Broca to modify his views so far as to restrict the localization to the left side of the brain. By 1865 Broca had come to regard his doctrine as a dogma which could not be disputed, but he availed himself of the suggestion that in a certain number of exceptional persons the faculty of language was seated in the third right frontal convolution, in order to explain such an observation as that of Moreau of Tours, who was able to show the brain of a woman aged 47 who had never presented the slightest trace of aphasia, in spite of the extensive destruction of the third left frontal convolution!

Left-handedness and the power of the opposite hemisphere to become educated to supply the place of the damaged left centre sufficed to explain all the contradictory cases published from time to time, and in spite of abundant evidence of the existence of lesions of the third left frontal convolution without affection of speech the doctrine became accepted by Trousseau and Charcot in France, by Hughlings Jackson, Bastian, and Broadbent in England, and by Seguin in America; it was introduced into all textbooks, and has existed triumphantly to the present day. The other main fact to be remembered in the history of aphasia is that in 1874 Wernicke drew attention to a type of aphasia differing from that of Broca, in which the patient retains the power of speaking, although he has lost to a considerable extent the memory

of words, his conversation is incoherent, and of the kind which has been called jargon-aphasia. The lesion in these cases was localized by Wernicke in the first left temporal convolution, and this doctrine has, with the inclusion of the supramarginal gyrus and the angular gyrus, held its ground. This area of the brain is the seat of the cortical centres for visual and auditory memory. Wernicke's paper led to the separation, now generally recognized, of aphasia into two types, ataxic or motor and amnesic or sensory aphasia, the orthodox view being that the former is localized in the third left frontal convolution, and the latter in the first temporo-sphenoidal, the supramarginal and angular gyrus of the left hemisphere.

Ataxic aphasia is met with clinically most commonly in association with right-sided hemiplegia, and the condition of the patient is usually unfavourable to any careful or detailed investigation of his mental condition. The paralysis of the right arm makes it impossible for him to write, and his power of communicating by gesture is limited, but it is admitted that in most of these cases there is some mental defect, and that they are not simply cases of loss of power of speech, all other functions of the brain being intact. Most of the cases of aphasia in which a lesion of the third left frontal convolution has been observed have been caused by embolic plugging of the left middle cerebral artery at such a point that not only Broca's convolution but a considerable part of the brain is involved.

The extensive character of the lesions and the complexity of the symptoms have made it difficult to test the truth of Broca's doctrine. But the doctrine was assisted by the experiments of Fitz and Hitzig, Ferrier and Yeo, Horsley and Schaefer, who place the centres for the movements of the lips, mouth, and tongue in this region of the brain; these discoveries caused Charcot to overlook the cases he had reported in opposition to Broca and to accept the now popular opinion.

There is no doubt that the almost universal acceptance of Broca's view was due to its fitting in with the then prevalent philosophy; opposing facts were passed over, and even such a sound observer as Hilton Fagge explained those where "the third left frontal convolution may fail to present any obvious morbid change" as being due to some "unrecognizable interference with the blood supply." Broadbent[1] and Fagge were such stout supporters of Broca's theory that after Wernicke's paper appeared they would not admit any other form of aphasia than that connected with the third left frontal convolution. We are generally told that the explanation of the association of right-sided hemiplegia with aphasia is due to the fact that the left side of the brain is the more educated, or, to use Hughlings Jackson's picturesque expression, "the left side of the brain is the elder brother." The main argument for this is that in left-handed people, in whom we may believe that the right side of the brain takes precedence, left-sided hemiplegia is associated with aphasia. A good example was published by Dr. Wadham in the *St. George's Hospital Reports* for 1869. The boy was ambidextrous, but there was a good deal of evidence that he was really left-handed, and that his ambidexterity resulted from his having taught himself to use his right hand later. This boy could not speak, but could write and spell correctly; he was re-educated to speak to a certain extent, and then died. At the *post-mortem* examination both third frontal convolutions were healthy, but the right island of Reil was destroyed.

Professor Marie is the Director of the great asylum of Bicêtre in Paris, which is for male patients what the Salpêtrière, where Charcot made his reputation, is for women. He has occupied this position for ten years, after having been Charcot's principal assistant at the Salpêtrière, and he is probably well known to most of us as the discoverer and describer of acromegaly and of the allied condition, osteo-pulmonary arthropathy. At Bicêtre he has studied no fewer than 100 cases of aphasia, of which he has been able to follow 50 to the *post-mortem* room, so that he speaks on no narrow basis of facts.

Professor Marie's view is that Wernicke's aphasia or sensory aphasia is the only true aphasia; that the loss of speech associated with right-sided hemiplegia should be called anarthria, and is a true motor paralysis which has nothing whatever to do with Broca's convolution. He localizes it in the part of the brain which is bounded externally by the convolutions of the island of Reil, internally by the lateral ventricle, and anteriorly and posteriorly by lines drawn at right angles to the extremities of the convolutions of the island of Reil. When the lesion is limited to this space it causes only anarthria, where it extends further forward it produces no known extension of the symptoms, but if it extends backward it involves those intellectual centres a lesion of which causes sensory aphasia; under these conditions a mixed affection results, that is to say, anarthria *plus* more or less sensory aphasia, and it is to this type that most of the cases of Broca's aphasia belong. Professor Marie would therefore describe three conditions: (1) Pure anarthria, (2) anarthria *plus* a certain amount of aphasia, and (3) true aphasia or sensory aphasia.

Under the auspices of Professor Marie, Dr. Moutier has published (*L'Aphasie de Broca*, Paris, 1908) a complete account of the whole literature of aphasia, giving an analysis of all the cases that have been recorded. From these he has collected 27 examples in which the third left frontal convolution was alone involved, but in which no aphasia occurred; of these, 4 were traumatic, 2 were surgical resections, 14 were tumours, 5 softenings, and in 2 there was bilateral softening of both third frontal convolutions. The two cases in which there was destruction of both third frontal convolutions seem to me to be absolutely inconsistent with the orthodox doctrine of localization. They cannot be explained by any supposed right-handedness or supplementary education, and are therefore worth quoting briefly.

The first, published by Echeverria, was an epileptic aged 67, who was able to speak up to his death, although there was from time to time transitory trouble in his speech. At the autopsy both third frontal convolutions were atrophied.

The other was a case published by Comte in 1900: The patient was a working jeweller, aged 51, who at the age of 31 had an epileptiform attack, which was followed by transitory right-sided hemiplegia with aphasia. The hemiplegia disappeared but the difficulty of speaking remained. He spoke continuously, but he presented disorder in the articulation of his words, in deglutition, and in mastication from slight paralysis of the masticating muscles of the lips and tongue, such as are generally called pseudo-bulbar symptoms. At the *post-mortem* examination, on the left side of the brain there was atrophy and sclerosis from chronic encephalitis of the whole of the third frontal, of the lower half of the ascending frontal and ascending parietal convolutions, and of the first temporo-sphenoidal. On the right side there was atrophy of the foot of the third frontal, of the lower half of the ascending frontal, and of the ascending parietal.

The surgical resections were two cases presented by Burckhardt to the International Congress at Berlin in 1890, and are to be found in the *Transactions* of the Congress, and also in the *Zeitschrift für Psychologie*, 1891, p. 463. In both cases the third left frontal convolution was excised in the hope of removing or diminishing verbal hallucinations from which the patients, who were lunatics, were suffering. In neither case did motor aphasia result.

The first patient was a young painter, right-handed, aged 26, who suffered from auditory hallucinations, and the operator suggested that the centres of language of Wernicke and Broca might be excised. At the first operation he removed the posterior part of the first and second left temporo-sphenoidal convolutions; after this the patient spoke little and the auditory hallucinations diminished. There was no trace of verbal deafness. Some days afterwards there was slight hesitation in speaking, but this disappeared. The following year there seemed to be a relapse in his condition, so Burkhardt resected the third left frontal. As the patient was coming out of the chloroform he said, "Listen"; at no time did he show any ataxic aphasia.

The other case was a woman aged 51, right-handed; the operation was performed for a similar condition. At the first operation he removed part of the left superior parietal and the supramarginal gyrus; after the operation there was temporary incomplete hemiplegia in the left side. In the second operation the lower part of the first and second left temporo-sphenoidal convolutions were removed. Two months afterwards the third operation was performed, and he removed part of the superior parietal, the supramarginal gyrus, and the angular gyrus. There was no interference with speech after this operation. The patient was constantly talking. At the fourth operation he removed the third left frontal convolution; she recovered from the operation without at any time showing defect of anguage.

A remarkable case, published by Professor Pierre Marie

and Dr. Moutier, is that of an old man aged 64, who died at Bicêtre under their care.

He had been admitted for mitral disease and bronchitis, and there can be no doubt that language was quite unaffected. Moreover, he had always been right-handed. He died on December 11th, 1906; on the 2nd of that month he complained of a little numbness and weakness of the right hand, but there was no hemiplegia nor any Babinski's sign. There had been nothing to attract attention to the brain, which was only being examined in accordance with their rule of making a thorough autopsy of all cases, and this is what they found: In the left hemisphere the foot of the third frontal convolution was very distinctly atrophied in comparison with the foot of the right third frontal. Moreover, a "worm-eaten" patch had destroyed the grey matter of the upper half of the posterior branch of the cap and of the superior third of the foot of the third left frontal.

The published photograph[3] shows better than any description the extent of the lesion, and is almost an exact copy of the lesion shown in the plate published by Tuke and Fraser[2] in the account of their case. It differs from Tuke and Fraser's case in there never having been any disturbance of the faculty of language.

It is difficult to see how it is possible to escape from the amount of evidence brought forward to show that destruction of the third frontal convolution, even on both sides, does not cause aphasia; but almost equally cogent, and even more abundant, is the evidence that aphasia occurs in cases where this convolution is intact. The usual answer in this evidence is that while it may appear intact, it is not so really; but Professor Marie has lately published three cases of this kind in which the convolution was examined microscopically by serial sections without any lesion being discovered. The only rejoinder that the supporter of Broca can make is that the lesion is functional in character, and reveals itself by no changes which can be detected by our present means of research. But those who make this assertion must bear the onus of proof, and it is not easy to produce evidence in its favour. If the convolution of Broca is the seat of the faculty of language its destruction should be invariably followed by loss or impairment of that faculty; further, when there is loss or impairment of the faculty of language this convolution should show always some demonstrable change; if neither of these relations exist, then the only possible verdict must be that the existence of the supposed relation is not proved.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1876, vol. i, p. 433. [2] *Journal of Mental Science*, vol. xviii, p. 46. [3] *L'Aphasie*, p. 397.

## TWO CASES OF HEREDITARY CONGENITAL WORD-BLINDNESS.

BY

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AT the Exeter meeting of the British Medical Association in 1907 I read a paper[1] in the Section of Ophthalmology on four cases of congenital word-blindness occurring in the same family. Dr. C. T. Thomas[2] in a paper in the *Ophthalmic Review*, in August, 1905, had already called special attention to the fact that congenital word-blindness may assume a family type and that a hereditary tendency is probable. I recorded the four cases in one family as a confirmation of the correctness of this observation. The two cases I am about to record are a still further confirmation of the hereditary tendency, as they occur in the second generation of the same family which afforded the subjects of my communication to the British Medical Association in 1907.

The four cases previously reported were the youngest members of the family. The two cases in the present paper are the children of the oldest daughter of the same family, and hence are the nephew and niece of the cases previously reported. The mother of these two children never herself experienced any difficulty in learning to read. She has six children and the other four members of the family have learnt to read without any special difficulty.

A., a girl 12 years of age, has been at school for seven years. She has experienced the greatest difficulty in learning to read, and at present can only read very imperfectly, being able to recognize by sight only some of the commonest monosyllabic words. For several years she seemed to make very little progress, but has done much better during the last year. She knows all the letters of the alphabet, but was a very long time in learning them. She can recognize by sight most of the common words of one syllable, such as *the*, *of*, *in*, *are*, *which*, *to*, *with*, and so on, but most of the rarer monosyllabic words she cannot recognize by sight alone, although she recognizes them nearly all at once when spelt out aloud to her. She recognizes by sight scarcely any words of more than one syllable, but many of these she also recognizes, if they are spelt out aloud to her. She has never had the slightest difficulty with arithmetic, and in fact has been rather good at it and above the average. She is at present in the compound rules, and has no difficulty in keeping up with the rest of the class in this subject. She has no difficulty in committing things to memory, and seems a sharp, intelligent girl in every other respect.

D. is a boy aged 10 years, and has been at school for four years. He has made very little progress in learning to read by sight. He does not know by sight all the letters of the alphabet, although he can repeat them correctly in sequence. He can scarcely recognize any words by sight. Out of a whole page of a child's primer he recognized by sight only two words, *to* and *go*. When I spelt the words out aloud to him and appealed to his auditory memory he recognized every word on the page. He can spell nearly all the small words, and can recognize them when they are spelt aloud to him, but he cannot recognize them by the sense of sight alone. Whilst the visual memory for words is so defective the auditory memory seems good. He has therefore experienced no difficulty in committing things to memory which have been read aloud to him, such as pieces of poetry. With regard to arithmetic he has had the same difficulty as with regard to reading. He can repeat the figures in sequence up to "100," and can write them also. But if the figures are written down separately he can only recognize them with certainty up to "20," and very few combinations after that.

In other respects than learning to read and count, he seems quite a smart intelligent boy.

The first case, that of the girl, does not call for any very special remark. It is a typical case of abnormal difficulty in registering in the brain the visual symbols of letters and words. The degree of difficulty in this case, however, has not been nearly so great as is met with in many cases. The difficulty, of course, varies greatly in degree, some cases being comparatively mild, and others where the difficulty is so great as to seem at first insuperable. The girl's case is a mild case, because she has now, after seven years of teaching in the ordinary way, acquired the visual memories of the most common monosyllabic words. I have seen and recorded cases where, after seven years of ordinary training, the child had practically acquired nothing so far as the visual memory of words and letters is concerned. The case of the girl may be regarded as a mild case of congenital word-blindness, and if now taught in the proper way, I am certain will soon be able to read quite well.

The second case, that of the boy, is of a much more severe type. Here the difficulty has been much greater than in the case of the girl, as, after four years' similar training, he has acquired scarcely any visual memories of words or letters, not even recognizing by sight all the letters of the alphabet. An important point in his case is that he has experienced the same difficulty in dealing with figures. This is in contrast to his sister, and also in contrast to the four cases which I reported in 1907, none of whom experienced any difficulty with arithmetic and some of whom were above the average at it. When this difference exists, it is helpful in the diagnosis.

In my book[3] on letter, word, and mind blindness I have shown from the study of cases of acquired word-blindness that the visual memory for words and letters is completely independent of that for figures, and hence in congenital word-blindness it is not surprising that whilst the visual memory for words may be very defective, that for numbers may be perfectly normal.

In my last paper[1] I remarked, in discussing this subject, that too much importance in the diagnosis should not be assigned to the relative difference in acquiring the visual memories of words and figures, as cases had been reported where the difficulty extended to both figures and words. The case now under consideration affords confirmation of this observation. It is a typical case of congenital word-blindness, where the difficulty also extends in equal degree to figures. Nor should the occasional occurrence of this

combination surprise us, since we know that the cerebral areas utilized for the storage of the visual memories of words and figures, though distinct, are close together, and hence may be sometimes simultaneously involved, as in the present case.

In the discussion that followed the reading of my paper on hereditary congenital word-blindness at the Exeter meeting in 1907, Mr. Sydney Stephenson narrated a striking example of six cases of congenital word-blindness affecting three generations of one family, which he subsequently published.[4] Mr. T. Herbert Fisher[5] also published a case of congenital word-blindness, and in his paper called special attention to the fact that the uncle of the child had also experienced the greatest difficulty in learning to read. The evidence is thus gradually increasing as to the hereditary tendency in congenital word-blindness. I have little doubt that in future, if observers in every case would make careful inquiries into the family history both of the present and previous generations, the evidence would rapidly increase as to the frequency of this hereditary tendency.

The fact that congenital word-blindness is sometimes hereditary, as is typically exemplified by these six cases occurring in two generations of the same family, is of some importance from the etiological standpoint. In my paper on congenital word-blindness at the Oxford meeting of the British Medical Association in 1904,[6] I said that in these children their difficulty in learning to read can most readily be explained on the ground of some defect in the special area of the brain, generally the left angular gyrus, where are stored the visual memories of words and letters, and that if there be any abnormality within this area, due either to disease, to injury at birth, or to faulty development, it was easily conceivable how such children should experience abnormal difficulty in learning to read. In these six cases belonging to the same family and other hereditary groups it is evident that the abnormal condition of the visual memory centre is a matter of faulty development, and it is probable that in most cases of congenital word-blindness the condition is the result neither of disease nor injury at birth, but of defective development of this definite cerebral area occurring in the early stages of embryonic growth. This view, that congenital word-blindness is the result of faulty development and not of disease or injury, derives considerable further support from the fact that homonymous hemianopsia, which is so frequently associated with acquired word-blindness, has never been met with in any case of congenital word-blindness. In a paper of mine on word-blindness with right homonymous hemianopsia[6] I discuss the reason for the frequency of this combination, and have in my own experience met with five cases of acquired word-blindness associated with right homonymous hemianopsia. The fact that this association, so frequently observed in acquired word-blindness due to cerebral disease, has never yet been met with in the congenital form is important and significant.

With regard to the future of these two cases of congenital word-blindness, I have no doubt that both children can be taught to read. In the case of the girl, she has already, although very slowly, made definite progress, and this will be much accelerated if she is taught in the proper way. Even in the case of the boy, where little progress has been made after being four years at school, I am certain he can be taught to read if the task be undertaken in the proper way and with sufficient persistence and perseverance. For my views on the proper method of teaching these cases I would refer to my two previous papers on this subject in the BRITISH MEDICAL JOURNAL.[1 6]

Of the many cases of congenital word-blindness which I have seen all have ultimately been taught to read. But it is to be observed that by congenital word-blindness I mean pure cases, where this defect exists alone in an otherwise healthy and normal brain. Cases of inability to learn to read associated with general defective intelligence and defect of other cerebral centres belong to quite another category, and in such cases the prognosis is not so hopeful.

Pure congenital word-blindness, which is a local affection of a limited cerebral area, can always be overcome by perseverance and proper methods of education, and herein lies the great importance of the recognition at an early period of the true character of such cases.

REFERENCES.

[1] Hinshelwood, BRITISH MEDICAL JOURNAL, November 2nd, 1907. [2] Thomas, *Ophthalmic Review*, August, 1907. [3] Hinshelwood, *Letter, Word, and Mind Blindness*, London, H. K. Lewis, 1900. [4] Sydney Stephenson, *Ophthalmoscope*, September, 1907. [5] Fisher, *Ophthalmic Review*, November, 1905. [6] Hinshelwood, BRITISH MEDICAL JOURNAL, November 12th, 1904.

## AN EPIDEMIC OF INFANTILE PARALYSIS IN BRISTOL.*

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THE spread of infantile paralysis in an epidemic form during the last few years over a great part of Europe and America has been so extraordinary, and the outlook for the future is so serious, that I need hardly apologize for bringing before you the facts of an outbreak in Bristol from June, 1909, to January, 1910. It is one of the first which have occurred in England. W. W. Treves reported a group of 8 cases in 1908, and in 1910 some 13 were recorded at Maryport. The cases which I have collected by the kind help of friends and colleagues number 37. I have seen nearly all of them myself, and examined their present condition. If the numbers are small compared with those of some foreign epidemics, they are, I think, quite enough to show that we have more than the sporadic form of the disease to deal with. Happily we have not yet reached the condition of the United States, where Flexner estimates that 20,000 cases occurred during the last summer.

I could find hardly any cases here in the first months of 1909. In June 5 appeared, and 27 more by the end of October, leaving 5 only during the next three winter months. The usual time is during the three summer months, and it is curious that our attacks should go on past mid-winter. The summer, too, had been cold and wet with us.

The age of the patients varied from 4 months to 16½ years, giving an average age of 3 years, or if we omit three adolescents the average age of the rest was almost exactly 2 years. There were 24 males and 13 females.

Gowers has remarked that in the epidemic, as distinct from the sporadic, type there are a considerable number of complete recoveries without paralysis, that the mortality is considerable, perhaps 10 or 12 per cent., because fatal bulbar and cerebral attacks are recognized as due to this disease, and that adults suffer as well as children. As our statistics were collected after the outbreak, and as public attention was not directed to poliomyelitis at the time, it is probable that most of these abnormal cases were overlooked. I have not included in my list any cases where paralysis was absent throughout. On the other hand, I cannot point to any absolutely complete recovery, though three or four are practically well. The great majority are more or less crippled for life. Two patients died, a mortality of nearly 6 per cent.

Most of the children had a febrile attack before or immediately after the onset of paralysis. In about a quarter of them pains of a rheumatic character are recorded. In one child the knee was kept flexed for some days as if from joint pain, a symptom which I have seen before. Some had pain down the spine, and in two retraction of the head was noticed, which might lead to the diagnosis of meningitis. Facial paralysis occurred in No. 21. In view of Flexner's suggestion that the entrance of the infection is often through the naso-pharyngeal membrane, we may remark that tonsillitis appeared in two cases, Nos. 36 and 37, and pulmonary troubles in several, such as Nos. 8, 20, and 25, whilst in three there were symptoms of measles—Nos. 15, 24, 36. How far the latter were real attacks of measles, which predisposed the patient to the infection of poliomyelitis, or merely symptoms of the latter disease, it is hard to say.

On the other hand, there were half a dozen children who were suddenly paralysed while apparently in perfect health—for example, 7, 11, 14, 21, 22, 31, 32. In others the history of a previous fall or blow was recorded. The importance of this is problematical. In one, the details of

* Read before the Bristol Medico-Chirurgical Society, January 11th, 1911.

which are absent, the attack came on after a surgical injury.

The question of how the infection is conveyed is an important one. There can be no doubt whatever of the existence of a transferable virus, since it has been conveyed to thirty or forty monkeys in succession, reproducing all the symptoms of the disease. The germ is ultra-microscopic, and can be obtained from the spinal cord of either a sporadic or epidemic case. But, as Flexner says, it is necessary to bring it into direct relation with the central nervous system; and the remarkable thing in most outbreaks is that while instances of direct contagion and of carriage by healthy persons are common, the vast majority of contacts show no symptoms. Whether this is due to insusceptibility, numerous abortive attacks, or to difficulties of the entrance of the organism, is not clear.

In different epidemics infectiousness varies enormously. In Sweden, at Trostëna, the infection of otherwise isolated families was clearly traced to a school. In Nebraska, Holt says there were six families with 2 children each attacked, five with 3, three with 4 cases, and one with all the 6 children in the house struck down. A boy was attacked nine days after the return of his mother and brother from a house in another town, in which house a child was suffering from it. On the other hand, at Vorpommern, in 51 cases with a 17 per cent. mortality, no case could be traced to any other. In some places instances of the long duration of infection in persons or houses seem clear. Indeed, the Massachusetts report for 1909, which is perhaps the most careful and minute of any, mentions "for what it is worth" eleven instances where the disease followed intimate contact with old cases of infantile paralysis often of several years' standing.

In Bristol there was one family of eight children in which a boy was attacked severely and taken to the Royal Infirmary. The very next day a sister, who had had some previous bronchial trouble was found to be paralysed too. The other children seemed to have escaped. Again, Cases 1 and 31 were living a few doors from one another, but one was attacked in July and the other in November. So, too, Cases 3 and 8, where the attacks came on in September and December. In the great majority of the children no connexion with other cases has been established. Thirty-four of them lived in an urban area stretching across the southern part of the city, and three in outlying districts. Most of them were treated by massage and electric baths at the Royal Infirmary, the General Hospital, and the Royal Children's, and the Orthopaedic Hospitals.

CASES OF INFANTILE PARALYSIS IN BRISTOL, JUNE, 1909, TO JANUARY, 1910.

1. R. D., 2 years and 6 months, male, Lincoln Street, Barton Hill, was attacked in November "with fever and vomiting, but no convulsions," and on the third day was *paralysed in the left leg*. There was no pain at any time. He can now (November, 1910) move the thigh and leg feebly, and to-day for the first time the toes are seen to be moved. The entire limb is wasted and the foot still cold and red. There is no knee-jerk on the left side. He lived a few doors from No. 31. (Attended at Bristol General Hospital.)

2. K. W., 2 years and two months, male, Park Terrace, School Road, Totterdown, was in good health till suddenly on August 25th *great weakness in the right leg* came on. After this he became feverish, his head ached and could not be lifted from the pillow. He complained of pains all over for fourteen days. There was retraction of the head, but no loss of consciousness. The right thigh, leg, and foot were paralysed. He can now support himself upright for a few moments, and swing the right leg to and fro, but he has talipes calcaneus. There is no knee-jerk on either side, and the left foot also is cold and bluish. (Attended at Bristol General Hospital.)

3. H. R., 13, female, Victoria Avenue, Redfield. The eldest brother died of pernicious anaemia six months before, all the other children were in good health. She was attending school and had recently passed an examination. On September 13th had pains all over which lasted for a week, and on the 15th was *paralysed all over* both in limbs and trunk. This passed away except as to the left thigh and right foot, which were wasted and very feeble. There is no knee-jerk on either side. She lived a few doors from No. 8. (Attended at Bristol General Hospital by Dr. J. M. Clarke.)

4. F. S. M., 1 year and 3 months, male, Phœnix Street, Barton Hill, fell out of his mail-cart one day in June, and two days later was feverish and started in his sleep. The next day *complete paralysis of the right thigh and leg* came on. He then slept for two days and nights and finally lost the use of the right arm also. The arm is now strong and the leg has regained some power. He can walk a little alone. The peronei are still very feeble, the leg is blue and wasted, and there is no knee-jerk on that side, though it is present on the left. (Attended at Bristol General Hospital.)

5. A. M., 16 years 6 months, male, Clifton, was attacked with fever (temperature 104°) on October 10th. Next day the temperature fell. For a week he had slight pains in his limbs, but went to school. On October 17th severe pain came on in the head and neck and *paralysis of the left arm*. The reflexes in this arm disappeared, but sensation was normal. There was no optic neuritis, but photophobia and epistaxis. On the 18th paralysis of the shoulder muscles of the right arm came on, and on the 22nd death from respiratory failure—that is, bulbar paralysis. (Reported in the *Lancet* by Dr. Symes.)

6. D. G., 2 years 8 months, female, Richmond Park Road, Clifton. On January 14th, 1910, had headache and fever, and on the 16th was attacked by *paralysis in both legs*, with some pain. Afterwards the paralysis in the right leg below the knee became absolute, with the exception of some movement in the toes. Knee-jerk absent. The paralysis almost entirely passed away after some months, but the limb remained cold and wasted for a long time. For a while she suffered from pavor nocturnus and mental irritability, but she is now in fairly good health. (Attended at Bristol General Hospital by Dr. Parker.)

7. W. H., 2 years 5 months, male, South Road, Bedminster, was attacked on June 19th. The only symptom was weakness, and then complete *paralysis of the right leg*. There was no fever or other illness. He had always been in good health previously. The leg gradually improved, and he can now walk alone fairly well. The limb below the knee is red, wasted, and feeble. Knee-jerk little or none in either leg. (Attended at Bristol General Hospital.)

8. H. L., 1 year 2 months, male, Victoria Avenue, Redfield. Had no previous illness, but on December 11th was taken ill with fever (temperature 102°), pains in the head, and pulmonary symptoms. Continuous sweating was a marked symptom, and

Map of the City and County of Bristol.

on December 22nd flaccid *paralysis of all four limbs* was noticed. There was a gradual recovery of power, but the muscles were wasted for some time. The knee-jerks were absent. This patient lived a few doors from No. 3. (Attended by Dr. Alexander.)

9. A. G., 2 years 10 months, male, Tennyson Terrace, Speedwell Road, St. George. In October he was found to be feverish, and complained of pains in the limbs. The head was retracted, and the *left leg became paralysed*. In December, 1910, the left thigh, buttock, and leg were still wasted, and the muscles flaccid; the colour was normal, but till lately it was blue. The patient could just move two toes, but could not walk, even with crutches. (Attended by Dr. Foss, and at Bristol General Hospital.)

10. M. E., 1 year and 3 months, female, Stanley Terrace, West Street, Bedminster, was found to be feverish on June 23rd, and on the next day *the left leg was paralysed*. Later on the absence of the knee-jerk and of the reaction to faradism was noted. The foot could not be dorsiflexed, and there was no plantar reflex. The whole limb still remains cold and atrophied. Patient can walk very fairly, but the foot turns out nearly to a right angle. (Attended at Bristol General Hospital by Dr. Coombs.)

11. W. J., 2 years and 7 months, male, St. Luke's Road, Bedminster, early in August was found to have *partial paralysis of the right leg*. The knee was at first contracted; no fever was apparent. He was admitted to the General Hospital and gradually improved. At the present time the thigh and leg are somewhat atrophied, but the knee-jerk is present and the patient walks very well. (Attended at Bristol General Hospital by Dr. Neild.)

12. F. H., 1 year, male, Cathay, Redcliffe, fell out of bed and bruised his left knee in the first week of September. No febrile attack was noticed. About September 19th, sudden *paralysis of the right leg* appeared. He had always been strong and hearty. Present state cannot be learnt. (Attended at Bristol General Hospital by Dr. Neild.)

13. E. W., 2, male, Victoria Avenue, Horfield, complained of pains all over on August 4th, and was found to be shivering. This went on for three weeks. About August 25th *paralysis of the right leg* was noticed. He recovered some power so as to be able to walk a little by October. There was no knee-jerk in

either leg, and the right quadriceps femoris was wasted. The leg remained cold, and the foot dragged in walking. (Attended at Bristol General Hospital.)

14. A. C., 4 months, male, Dean Terrace, Moorfields, was attacked in August by *paralysis of the left leg*, but retained the power of moving the toes. There had been no fever or diarrhoea observed. When seen by a doctor there was wasting and absence of the knee-jerk. In November, 1910, the entire leg and thigh were wasted, but not cold. He had foot-drop, but could walk two or three steps. The knee-jerk was present in both legs. (Attended at Bristol General Hospital by Dr. Neild.)

15. R. O. C., 1 year, male, Beaufort Street, Stapleton Road, suffered from an attack of "German measles" in September. Fourteen days later he was attacked with *paralysis in all four limbs*. The right leg was most affected, the left leg less so, and the hands least of all. The back muscles were also enfeebled. He now has complete use of his hands, moves both legs to and fro, but cannot stand. There is no knee-jerk present. His mother died from a tumour of the brain. (Attended at Bristol General Hospital.)

16. F. J., 4 years, male, Shepherd Street, St. Philips, became feverish July 24th. This lasted four days, and was followed on July 28th by *paralysis of the right leg*. In September he was found to have the limb cold and wasted; foot dragged in walking; dorsiflexion of foot and toes very feeble, but the knee-jerk was present. (Attended at Bristol General Hospital.)

17. A. P., 2 years and 6 months, female, Sandown, Brislington, was feverish for a week from June 24th, and complained of pain in the hip. About June 30th the *left leg was paralysed*. This gradually lessened, and she can now run about with a limp. The buttock and thigh are cyanotic and wasted; knee-jerk feeble; the peronei and common extensors of the toes are very weak. (Attended at Bristol General Hospital.)

18. G. O., 1 year and 10 months, female, Colston Street, Cathay, Redcliffe, was found to be feverish on August 17th and *partially paralysed in both legs*. Admitted August 19th. Temperature 101°. Could stand with difficulty and could not walk. Right leg was the worse; knee-jerk not present on that side, but normal on the left. Plantar reflex absent on right and extensor on left. August 20th: Temperature 98.4°. Later on the right leg atrophied below the knee. She now walks fairly well, but the foot turns outwards. Knee-jerks are active on both sides. There is no blueness of the skin. (Attended at Bristol General Hospital by Dr. Parker.)

19. E. B., 12 years, male, Bedminster, was attacked in August and the *right shoulder was paralysed*. In September wasting of the shoulder girdle was found to have taken place. No details could be obtained. (Attended at Bristol General Hospital.)

20. T. D., 1 year and 3 months, male, Pearl Street, Bedminster, was attacked in August with vomiting, fever, and "pneumonia," which lasted six weeks. *Paralysis of all four limbs*. This gradually improved till in seven months he could stand with a little help. There was then complete paralysis of the extensors of the right foot only, with loss of the faradic reaction. The calf and other muscles were wasted; the leg was still cold and discoloured, and there was no knee-jerk on either side. (Attended by Dr. Murray Smith, and at Bristol General Hospital.)

21. J. W., 4 years, female, Henry Street, Barrow Street, had always good health till in August sudden *weakness in both legs*, especially the left, came on. There was no fever or diarrhoea; left facial paralysis was also noted but this cleared up. When seen in 1910 she could walk fairly well, but both legs were wasted to a marked degree and very cold but not discoloured. The knee-jerk was then present on both sides but no clonus. (Attended by Dr. Finzel.)

22. B. J., 7 months, female, Penpole Place, Shirehampton, had no previous illness and no feverish attack at the onset. In September the *left leg became partially paralysed*, was flaccid, and began to waste. At the present time the leg is wasted and the foot cold; knee-jerk present on both sides. (Attended by Dr. Burd, and at Bristol General Hospital.)

23. C. J., 3 years 3 months, male, Hillside Road, St. George, was said to have been attacked with fever and rheumatic pains in August, and then *paralysis of all four limbs and back*. The right leg seems to have been most affected, and showed the reaction of degeneration; knee-jerks were absent on both sides. (Attended by Dr. Blagg, Orthopaedic Hospital, and at Bristol Royal Infirmary.)

24. E. K., 1 year 8 months, Silver Street, City, was attacked with running at the eyes and nose and fever on September 10th. The next day the *right leg was completely paralysed*, and the patient could not sit up, and complained of pain in her back. There was gradual recovery, but for eight months she could not walk. The limb is still wasted and bluish, and the foot turns out; no knee jerk is present though active on the left side. (Attended by Dr. Maddison.)

25. E. M., 1 year and 10 months, female, Dove Street, Kingsdown. In July had diarrhoea and then bronchitis. Her brother was attacked on August 7th, and on the 8th her *right arm and leg were paralysed*. Gradual improvement took place, and in November, 1910, she could stand up with assistance, but both ankles gave way in the attempt. The right thigh and leg were wasted, cold, and paretic, and the knee-jerk absent. The arms were normal, except that the forefinger of the right hand generally remained flexed when the others were extended. When lying down the foot-drop on both sides was very marked. (Attended at Royal Children's Hospital by Dr. Lavington.)

26. W. M., 2 years and 8 months, male, Dove Street, Kingsdown, was at play on August 2nd, and fell and knocked his head. He said that he felt giddy, his eyes twitched, he vomited twice, and remained unwell. On August 7th he was *paralysed in every limb*, and was admitted to the Royal Infirmary; temperature 97°, pulse 120, lungs full of râles. Complained of pain in the neck, and the head fell back and to the left side, if not supported. Fundi oculi normal; pupils reacted to light and accommodation; Kernig's sign absent; no knee-jerk obtained. Plantar reflexes both extensor. Shoulder and upper arm muscles on both sides, except left triceps, showed reaction of degeneration when tested. Movement of arms and legs very feeble; no loss of sensation. He slowly improved, and is now able to run about, and shows little trace of his illness. The arms recovered more slowly than the legs, and the neck last of all. There were six other children in the family besides this boy and his sister. (Attended at Bristol Royal Infirmary by Dr. Nixon.)

27. L. M., 2 years and 6 months, female, John Street, Mina Road, was suddenly *paralysed in the left leg* about September 25th. This was discovered in the morning when she got up. She was feverish, and after a week was admitted to the Royal Infirmary. At the present time the leg is wasted and cold, and there is no knee-jerk on that side. She walks with difficulty, and cannot dorsiflex the foot. (Attended at Bristol Royal Infirmary by Dr. Prowse.)

28. A. C., 5 years, female, Oldland Common, was taken ill about September 3rd, and was *paralysed in the left shoulder*, for which she was admitted to the Children's Hospital on October 10th. The paralysis passed away more or less completely. The patient has moved away, and her present condition cannot be discovered. (Attended at Royal Children's Hospital.)

29. M. F., 6 months, female, Compton Martin, in September had a feverish attack for one week, then *paralysis of all four limbs*. The left leg remains feeble, cold, and wasted. (Attended by Dr. Gough at Royal Children's Hospital.)

30. W. R., 1 year, male, Short Street, St. Philips, had a long attack of "bronchitis" in December, and in January the mother noticed that he was partially *paralysed in the left leg* and unable to "put his heels down to the ground." At the present time there is some wasting in the left leg, and the foot till lately turned out when walking and could not be dorsiflexed. (Attended at Bristol General Hospital.)

31. A. F., 3 years, male, Lincoln Street, Barton Hill, went to bed quite well on July 1st, but when the morning came *the left leg below the knee was completely paralysed*. There was no history of pain at any time. The leg below the knee is now wasted, cold, and blue. It is 2 in. less in circumference than the other and is 1 in. deficient in length. He can stand and walk a little, but the arch of the foot has given way and he cannot dorsiflex the foot. He lived a few doors from No. 1. (Attended at Bristol Royal Infirmary by Dr. Stack.)

32. J. K., 2 years and 8 months, male, Harford Street, St. James, had always been healthy till in October the mother noticed that *his left leg was partially paralysed*. It is now wasted and cold, and there is no knee-jerk on that side. The arches of both feet have given way, but the boy runs about merrily. (Attended at Bristol Royal Infirmary by Dr. Nixon.)

33. D., male, address unknown, while attending as an outpatient for an injury to the elbow in January, 1910, was attacked with *paralysis of the shoulder muscles*, for which he was treated in the massage department. Present condition cannot be ascertained. (Attended at Bristol Royal Infirmary by Dr. Stack.)

34. F. M., 5 months, male, Hill Street, St. Paul's, was attacked with convulsions, diarrhoea, and sickness in August, and some time after was found to be *paralysed in the left leg*. The limb is still cold and wasted. The patient cannot stand alone, and there is no knee-jerk on the left side, though it is active on the right. (Attended at Bristol Royal Infirmary by Dr. Walters.)

35. C. S., 1 year and 4 months, male, Thomas Street, Stokes Croft, was said to have had a fall on June 13th, which was followed by convulsions. The next day he was *paralysed in both legs and the back*, and was taken to the infirmary. The temperature was 102°. The fundi oculi were normal. The knee-jerks were absent. The paralysis of the left leg became more marked, but the right was only slightly affected. An examination of the spinal fluid showed polymorphonuclears, 26 per cent.; lymphocytes, 68 per cent.; and endothelial cells, 6 per cent. There was gradual improvement, but the left leg is still much wasted, and shows no knee-jerk. The patient walks fairly well in an iron support. (Attended at Bristol Royal Infirmary by Dr. Edgeworth.)

36. F. S., 5 years, female, Greenbank Road, St. Mark's, had always been healthy. She had a sore throat on October 17th, and after three days' illness was admitted to the Royal Infirmary on October 20th, found to be affected with *paralysis of all four limbs*. The legs were completely paralysed, and the knee-jerks absent. On November 5th tonsillitis occurred (no Loeffler bacilli), and on the 9th a rash like measles appeared with enlargement of the glands behind both ears and below the jaw. Bronchopneumonia followed, and the patient died on the 13th. The *post-mortem* examination showed typical lesions of acute anterior poliomyelitis. (Attended at Bristol Royal Infirmary by Dr. Edgeworth.)

37. R. S. F., 3 years and 5 months, male, Alexandra Park, Redland, was always well and active till on August 14th he became drowsy and feverish. About four days later the *right leg was paralysed*. Gradual improvement took place, and he can now walk fairly, but with a limp. The right leg is still cold and wasted, but the knee-jerk is active. At the beginning of his attack there was some throat trouble, but two examinations for diphtheria gave a negative result. (Attended by Dr. Atchley and at Bristol General Hospital.)

# ETIOLOGY OF POLIOMYELITIS.

BY

A. E. VIPOND, M.D. MONTREAL,

SENIOR PHYSICIAN, OUTDOOR DEPARTMENT, CHILDREN'S MEMORIAL HOSPITAL, AND THE MONTREAL DISPENSARY; PHYSICIAN TO THE PROTESTANT INFANTS' HOME.

DURING the past seven years poliomyelitis has been met with as an epidemic in many parts of Europe, America (including Canada and the United States), Australasia, etc. I need not refer to Wickman's classical description of this disease. New York in 1907 had a total of over 2,400 cases, and about one-half of this number in 1908. In 1909, during the months of July, August, September, October, and the first part of November, an epidemic of this terrible disease occurred at Montreal. It was widespread, most of the cases being from the poorer districts. Some, however, were found in the suburbs of the city and a few in the country districts, within a radius of fifty miles. Several hundred cases were treated here, between 50 and 60 of which were under my personal care.

During the autumn of 1910, while we have had only a few cases in Montreal, probably six to eight altogether, the epidemic has been present in many districts of Quebec and Ontario. In the Province of Quebec many cases have occurred at Sherbrooke and North Hatley; while in Ontario the disease has been prevalent in both Toronto and Hamilton, some one hundred cases having occurred at Hamilton alone.

The epidemics have differed in severity in different places. In Montreal we have not had many fatal cases. Among the number treated by me personally, the results were fatal in only three instances, or, in other words, a fatality of a little under 6 per cent. In many places, however, they have had a fatality of 12 per cent., and even as high as 17 per cent. In this respect it resembles typhoid fever.

Although the number of fatalities has not been great, the disease has added a great number of crippled little ones to our homes. It is, indeed, a sad sight, after an epidemic of this type, to see the number of children crippled and maimed for life.

During the past five years great progress has been made in the pathology of this peculiar disease. We have had opportunties to study it in recent cases which have ended fatally, and much of interest has been written on the subject.

What about the etiology?

In all the great medical centres distinguished pathologists and bacteriologists have devoted a great deal of time, attention, and skill in an endeavour to ascertain the cause of poliomyelitis. Landsteiner and Popper have done the pioneer work. They inoculated two monkeys successfully with the spinal cord obtained from two fatal cases of poliomyelitis. The injections were made into the peritoneal cavity, and one of the monkeys died on the sixth day; it was paralysed in the lower extremities. The other was killed on the nineteenth day, and the pathological changes were the same as those found in fatal cases in the human beings.

It remained for Flexner and Paul A. Lewis, at the Rockefeller Institute, New York, to make another step in advance. They succeeded in producing the disease in six successive monkeys. They employed intracerebral and intraperitoneal injections, but at this time they failed to find or to cultivate any organism. They have pointed out that portions of a bacteria-free filtrate were inoculated into a bouillon, containing 10 per cent. of rabbit's serum, which had been rendered perfectly clear and sterile by being put through a Berkefeld filter. On the second day the fluid in the upper half of the tube was cloudy. On the fourth day the fluid was used for inoculation into a monkey, which developed paralysis on the thirteenth day. This is practically the same inoculation period for typhoid fever. Flexner has definitely established the infectious nature of the virus. However, they have made sections and film preparations without having found either bacterial or protozoal parasites that could account for the infection, so that they have concluded that the infecting agent of poliomyelitis belongs to the class of minute and filterable viruses which have not thus far been demonstrated with certainty under the microscope.

Landsteiner and Lavaditi showed that not only was the virus capable of being transmitted through a series of monkeys, but that it was so minute as to be able to pass through the finest filter.[1]

Dr. Holt cites instances where 7 cases occurred in one family, 5 where 3 were affected, 5 where 4 had it, and 40 in which 2 were attacked. In 37 of the cases the interval between the first and second cases was ten days or less.[2] This certainly points to its contagious nature.

Several of my little patients who developed it lived in the same yard; and in other cases several lived in the same street and on the same side of the street. I think that it can rank with typhoid fever as far as contagion is concerned.

During the past few months I have been much impressed with the similarity between typhoid fever and poliomyelitis.

1. In the first place, both diseases occur in the late summer or fall months.

*Table showing the Results of Examination of the Blood of Thirteen Cases of Poliomyelitis, and for Comparison the Blood of Three Normal Cases of Members of Infected Families to prove that the Widal Reaction was not a Family Peculiarity.*

| Initials. | Age. | Parts Paralysed. | Date of Onset. | Date of Examination. | Widal Reaction. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Positive. | Highly Suggestive. | Negative. |
| 1. U. C. ... | 3 years | Left and right legs | Nov. 2 | Nov. 23 | — | Yes | — |
| 2. J. M. ... | 4½ years | Right and left legs, left arm, thoracic muscles | Oct. 18 | Nov. 23 | — | Yes | — |
| 3. B. M. ... | — | Right and left legs | Oct. 30 | Nov. 18 | Yes | — | — |
| 4. B. L. ... | — | Both legs | Oct. 10 | Nov. 14 | — | Yes | — |
| 5. M. L. ... | — | *Normal case* | — | Nov. 14 | — | — | Yes |
| 6. B. W. ... | 19 months | Left leg | Sept. 25 | Nov. 17 | Yes | — | — |
| 7. B. M. ... | 14 months | Both legs and upper arms | Sept. 4 | Nov. 4 | — | Yes | — |
| 8. E. S. ... | 28 years | Right arm and leg | Sept. 17 | Nov. 20 | Yes | — | — |
| 9. S. W. ... | 1½ years | Both legs | Oct. 18 | Nov. 20 | Yes | — | — |
| 10. H. F. ... | 14 months | Both legs | Sept. 15 | Nov. 20 | Yes | — | — |
| 11. F. J. ... ... | 4 years | Both legs | Sept. 25 | Nov. 20 | Yes | — | — |
| 12. J. K. ... ... | 3 years | Right leg slightly | Aug. 20 | Nov. 20 | — | — | Yes |
| 13. Mr. W. ... | 28 years | *Normal case* | — | Nov. 20 | — | — | Yes |
| 14. P.C. ... ... | 1½ years | Left leg | Sept. 10 | Nov. 20 | — | — | Yes |
| 15. F. J. ... ... | 2½ years | Left leg | Sept 25 | Nov. 20 | — | — | Yes |
| 16. J. M. ... ... | 5 years | *Normal case* | — | Nov. 20 | — | — | Yes |

2. As soon as the cold weather commences both, to a great extent, become extinct. During the late summer and fall months of 1909, while we had a severe epidemic of typhoid fever in Montreal amongst the adults and young people, at the same time we had an epidemic of poliomyelitis amongst the young children and babies.

3. Diarrhoea is just as common a symptom in poliomyelitis as in typhoid fever.

4. The incubation period of one is practically the same as that of the other. This has been proved by Dr. Flexner to be thirteen days experimentally, and Dr. Holt found it to be ten days clinically.

5. Both diseases are prevalent in large cities and small towns at the same time where and when the cause of typhoid fever is traceable to the water and milk supply; whilst, on the other hand, where the supply of water and milk is pure, both of these diseases are less frequent. It is practically the same degree of contagion.

These observations led me to believe that the micro-organism of poliomyelitis might be of the same character as the bacillus of typhoid fever.

Upon examination of the blood in cases suffering from poliomyelitis, I have found the Widal reaction present as in typhoid fever, proving conclusively that the disease is from the same source and cause, and that the germ of the one is allied to that of the other; further, I do not hesitate to make the assertion that the precautions necessary to prevent typhoid fever will also have the same effect in arresting the spread of poliomyelitis.

It will be seen that I obtained the Widal reaction in 6 cases of the blood examination out of a total of 16 cases. In four instances the report is highly suggestive, while in 6 cases the result was negative. However, three of these were taken from individuals in good health to prove that the Widal reaction was not a family peculiarity. This only leaves 3 negative cases to deal with. Two of the negative results were obtained from cases of poliomyelitis about two and a half and three months from the time of onset of the disease, and both of the cases were mild in character, only one leg being partially paralysed.

It appears to me that these results correspond fairly well with the results which would be obtainable from the examination of a similar number of typhoid patients. I may add that the blood was examined in every case by physicians who make a speciality of this work.

As typhoid fever affects the most vulnerable part of the adult—the intestinal tract, so poliomyelitis attacks the weakest point of resistance in the child, which is the nervous system.

As to treatment, there is no doubt that within the near future a serum will be obtained; and, if so, in suspected cases, during an epidemic of poliomyelitis, it is well to look for the Widal reaction, and, if present, the serum should be injected, which should have the effect of either modifying or preventing the development of the disease. In cases in which the disease has already developed, to prevent further extension the serum might be injected into the spinal canal, and would be likely to have an effect similar to that obtained by the method of treatment in cerebro-spinal meningitis.

References.

[1] Editorial note, *Archives of Pediatrics*, February, 1910. [2] New York Academy of Medicine, Section on Poliomyelitis, January 20th, 1910.

The late M. Auguste Loutreuil, a Frenchman who made a large fortune by industrial enterprise in Russia, has bequeathed £120,000 to the Académie des Sciences, £100,000 to the Sorbonne, £40,000 to the Fund for Scientific Research, and £4,000 to the Paris Pasteur Institute. The money is intended to be applied in furtherance of scientific research.

It was recently decided to form a Plymouth West Devon, and Cornwall branch of the Research Defence Society, a Devon branch already existing under the presidency of Mr. Eden Phillpotts. The following are officers of the branch: President, Mr. W. Paul Swain; vice presidents, Admiral Marrack, Colonel Giles, and the Rev. Dr. Trelawney Ross; honorary secretary, Dr. R. Jaques; honorary treasurer, Mr. Cyril A. Pode; committee, the president, honorary secretary, honorary treasurer, Miss Kirk, Colonel Giles, with two others yet to be appointed. A ladies' committee is to be formed.

# THE GASTRIC ORIGIN OF ANGINA PECTORIS.

BY

H. WALTER VERDON, F.R.C.S.Eng.

On January 2nd, 1911, when I entered Dr. X.'s room he was suffering from an anginal seizure which had already lasted half an hour. He had been making ineffectual efforts to expel wind from his chest, and allowed me to introduce an oesophageal tube, a procedure which resulted in an exhaustive liberation of gastric flatus. The effects of the operation became instantly apparent in the altered aspect of the patient. His colour returned, and he seemed no longer in pain. The seizure was manifestly at an end. On the last day of January Dr. X. informed me that on two occasions he had again resorted to the operation of gastric deflation, and upon each he had brought the seizure to a sudden and abrupt close. Dr. X. is 63 years of age, and has suffered from anginal seizures from time to time for several years. His first severe attack occurred in 1908

When a seizure has been brought to an abrupt and complete termination by the introduction of the oesophageal tube, as in the case of Dr. X., and when later seizures have shown themselves amenable to a similar operation, the fact that the seizures are the result of tension of the gastric atmosphere is demonstrated beyond question.

Admission of this fact involves the recognition of the theory of the gastric reflex in the case of Dr. X., and also having regard to all cases of the type to which Dr. X.'s seizures genetically belong.

This type appears to be a prevalent one, since in descriptions of anginal seizures gastric symptoms are often mentioned as holding a prominent place. Time after time in an account of this disease Dr. James Mackenzie refers to flatulent distension, and even propounds the theory of air-swallowing to account for it. Moreover, Heberden in his classic description states that the seizure comes on more particularly when the patient walks after eating.

Probably in the same category are to be classed cases dying in an anginal seizure when at the autopsy no traces of disease in the coronary arteries are found. These number nearly 50 per cent. in a long series of collected cases.

If this be so, the theory of the gastric reflex must be admitted to occupy at least an equal place in our regard with that of the cardiac reflex.

Recently a case came under my notice demonstrating the fact that under certain favouring circumstances tension of the gastric atmosphere is associated with painful attacks indistinguishable from those of angina pectoris.

Mr. M., aged 62, for many years a subject of flatulent dyspepsia, had lately lost flesh, and in the course of his wasting had developed seizures of a painful character. The pain affected him when he walked and on going upstairs. It was felt in the region of distribution of the upper intercostal nerves including the costo-humeral branch. The seizures came on earlier in the walk after he had taken food than when he fasted, they were associated with sensations of gastric distension and they subsided upon free eructation of flatus. Seizures of a similar character often awakened him from sleep, and alike were relieved by expulsion of gas from the stomach. Mr. M. had suffered for years from attacks of flatulence coming on when he walked and disturbing his rest at night, but never before had they been accompanied by pain. Since pain had grown severe morphine had been taken, but with no satisfactory result. In this case the exhibition of nitroglycerine* proved to be exceedingly effective in the relief of pain, seizures always subsiding immediately after its administration, and its efficiency remained unimpaired until the day of his death, which occurred about eight weeks afterwards. The *post-mortem* examination revealed the presence of carcinoma which had infiltrated the wall of the oesophagus in the lower third of its length There were secondary growths in the coeliac glands and in the neighbourhood of the liver. The oesophagus was slightly dilated in the region corresponding with carcinomatous infiltration and the cardiac orifice was patent. The heart, coronary arteries, and systemic vessels were quite healthy.

The seizures of pain in this case might be explained as being the result of pressure from a tense gastro-oesophageal atmosphere transmitted through the oesophageal wall and impinging upon the fibres of the plexus gulae. The plexus gulae surrounds the oesophagus in the lower

* The action of the nitrites is upon every kind of plain muscle throughout the body (Dixon's *Pharmacology*, p. 194).

part of its course, and its deep border lies an inch or more above the fusion of this tube into the stomach. It is formed by the breaking up of the vagi trunks into their constituent fibres, which anastomose at points and build up a network or cage which envelops the gullet; at the lower margin of the plexus the fibres converge and are again formed into two separate bundles. This plexus is reinforced by filaments from the sympathetic chain, and some of these filaments are of peculiar interest.

Sympathetic filaments worthy of special note arise in the second, third, and fourth thoracic segments of the spinal cord. They leave the spinal cord in connexion with the intercostal roots derived respectively from these segments and pass into the sympathetic chain; thence they proceed to the posterior pulmonary plexuses,[1] and when in this situation join the diverging fibres of the vagi as they descend to form the plexus gulae.

The significance of this sympathetic connexion lies in the fact that incidence of pain in the seizures from which Mr. M. suffered occurred in the cutaneous distributing area of the second, third, and fourth intercostal nerves, whose roots are associated with these filaments having connexions with the plexus gulae.

The paroxysmal nature of the seizure is also explainable on this hypothesis. Stimulation of the vagi results in contraction of the oesophagus, contraction of the pylorus, opening of the cardiac orifice of the stomach, and contraction of gastro-mural muscle[2]—in other words, imprisonment of the gastro-oesophageal atmosphere under pressure. A sequence of gastro-circulatory symptoms is thus set up, which only ends upon the escape of flatus or relaxation of gastro-mural muscle.

The case of Mr. M. therefore demonstrates the manner in which painful seizures of an anginal character may occur as a result of gastric tension.

Arguments in favour of the theory of a cardiac reflex are chiefly based on the doctrine of intermittent claudication introduced into the literature of angina pectoris by Benjamin Brodie in the year 1846. It is asserted that functional or organic obstruction of the coronary arteries, incomplete or complete, by narrowing the blood stream flowing towards the myocardium, or by withholding it altogether, is the cause of the seizure. Upon first impressions the doctrine looks probable enough; moreover, it is persuasive, since it can be made to apply in all cases. When death occurs during a seizure impacted emboli may be found in the coronary arteries, or these vessels may be thrombosed by blood clot of old or recent formation. Then the cause of death is obvious, and the seizure is accounted for. If these morbid conditions be absent and a state of arterio-sclerosis alone exists, it is argued that the arterial supply is sufficient while the heart is acting under normal conditions, but, when its action is increased by walking exercise or mental excitement, the supply falls short of the augmented needs of the myocardium, and consequently a seizure occurs. Nor is there any difficulty in accounting by this hypothesis for the 49.9 per cent. of cases belonging to a series introduced below, in which the heart and coronary arteries are found at the autopsy in a healthy state without sign, either macroscopic or microscopic, of any trace of organic disease, for even in regard to these cases, which might be considered by some as constituting a weak point in the orthodox doctrine of cardiac reflex by claudication, the student is reminded that functional spasm may exist in the coronary vessels as in any other in the circulatory economy. Since the days of Sir Benjamin Brodie these arguments have approved themselves to writers of textbooks and teachers of schools, and I do not remember noticing anywhere that they have been under question. Yet I do not think they can survive even a superficial examination, since a result of recent investigations into the physiology of the coronary arteries published by Schäfer[3] shows that the coronary arteries are not endowed with any vasomotor mechanism, nor do they suffer vaso-constriction in the presence of any known stimulus. It is idle, therefore, to continue to speak of functional spasm of these vessels as a cause of the seizure. Thus, by a stroke of the pen, 49.9 per cent. of anginal cases on the list of autopsies introduced below have already ceased to repose under the sanction of the doctrine of claudication. What of the 50.1 per cent. of anginal cases in which coronary disease is found at the autopsy? Do statistics warrant the assertion that coronary disease is a predisposing cause of angina pectoris? This question can be answered by a consideration of two further questions—namely, Is coronary disease more frequently found in autopsies made on anginal subjects than in autopsies made on other classes of circulatory disorder? And another, Is the age-period of life in which coronary disease is most frequently found also the age-period at which angina pectoris claims the greatest number of victims?

Taking under consideration a long series of autopsies in angina pectoris, numbering 283 cases collected by Tacchi, Sir John Forbes, Lusani, Potain, Gothair, Huchard, and Osler, I find a percentage of 50.1 in which coronary disease was present, and a percentage of 49.9 in which coronary disease was absent.

Compare this series with a list of 398 cases of arterial disease affecting indifferent visceral arteries, collected by Dr. Harlow Brooks, assistant professor of pathology, Bellevue Hospital and University, New York. These cases are described as coming under his notice consecutively in the ordinary course of his necropsial duties, the average age-period being 45 years. Brooks observed in this list 270 instances of coronary disease. This number represents a ratio equal to 73.3 per cent. of coronary disease.[4] It is thus evident that the prevalence of coronary disease in angina pectoris does not exceed that found in another class of circulatory disease. Brooks also states that of all visceral arteries the coronaries are far more frequently affected than any other, and that in aged persons coronary disease is almost universal.

Moreover, if coronary disease be a predisposing or exciting cause of angina pectoris, the death incidence of angina pectoris might be expected to increase annually after 60 years of age, when year by year the incidence of coronary disease is bounding upwards. But, just when the incidence of angina pectoris ought to be rising, in accordance with the accepted hypothesis, it is falling.

Osler gives the age-periods of mortality from angina pectoris. I quote from his Lumleian Lectures on the subject:

> There were under 30 years of age, 9 cases; between 30 and 40, 41 cases; between 40 and 50, 59 cases; between 50 and 60, 81 cases; between 60 and 70, 62 cases; between 70 and 80, 13 cases; above 80, 3 cases.[5]

According to Osler's figures, which correspond fairly accurately with those of the Registrar-General; the incidence of death from angina pectoris after 60 years of age declines year by year, until at 80 it approaches nullity, whereas during the same age-periods the incidence of coronary disease is increasing year by year until it reaches universality.

It is thus gathered from statistical evidence that the effect of the incidence of coronary disease on the causation of true angina pectoris of Heberden is nil. Nevertheless, its influence in the determination of a fatal issue is enormous; a myocardium impoverished through the attenuation of its nutrient supply soon falls victim to the exigencies of an anginal seizure. Nor is it to be wondered at if during this period of cardiac disturbance diseased coronary vessels become obstructed with thrombus or embolus.

In accordance with this argument, thrombus and embolus of the coronary arteries, and even rupture of the ventricle, are the result and not the cause of the anginal seizure.

Moreover, when these accidental or cataclysmal phenomena spontaneously occur, the seizure resulting therefrom, although painful and fatal, does not belong to the anginal category; and finally, all cases presenting the true paroxysmal characteristics as described by Heberden are probably the result of a gastric reflex, and perchance may be made amenable to gastric treatment by surgical methods, palliative or radical.

REFERENCES.
[1] Cunningham's *Anatomy*, p. 710. [2] Starling's *Physiology*, pp. 358, 361, and 362. [3] Schäfer, Oliver Sharpey Lectures, April, 1908. [4] *Amer. Journ. Med. Sci.*, May, 1906, p. 781. [5] *Lancet*, March 12th, 1910, p. 698.

UNDER the will of the late Mr. Henry Veasey of Aspley Guise, Bedfordshire, the Royal Medical Benevolent Fund and the Hunstanton Convalescent Home receive £300 and £200 respectively. The testator, who died in January at the age of 92, was a medical man formerly in practice in the village in which he died. He received his medical education at Guy's Hospital, becoming L.S.A., and M.R.C.S. in the year 1840 and F.R.C.S. in the year 1862. His estate was valued at £36,479.

## A NOTE ON THE BENEFICIAL EFFECT OF THE INGESTION OF CANE SUGAR IN CERTAIN FORMS OF HEART DISEASE.

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THE idea of using sugar for this purpose is somewhat startling, until one has thought over the physiology of sugar for a moment; I shall therefore briefly run through the changes undergone by cane sugar from its ingestion to its storage and use in heart muscle.

That glycogen is essential to healthy, well-nourished muscle is shown by the fact that it furnishes a source of energy for the needs of the tissue cells, and particularly for muscular work. The glycogen of a muscle disappears in proportion to the work done by the muscle, and, indeed, prolonged muscular work, especially in starvation, may wipe out quickly the entire store of glycogen in the body—in the liver as well as in the muscles.

All modern physiologists agree that the glycogen stored up in a muscle is converted into dextrose by an amylolytic ferment before being actually used for producing muscular energy. Such a ferment has been discovered by Nasse. In cane sugar, therefore, we have a simple means for supplying the muscles with dextrose for the purposes of their activity.

All the foregoing is, of course, well-known straightforward physiology, but what is not so generally known, apparently, is that dextrose is capable of nourishing the heart muscle in a most wonderful and peculiar manner. F. S. Locke (King's College, London) has kept the excised mammalian heart beating for ninety-one hours after the death of the animal from which the heart was taken. Perfusion with solution of dextrose was carried out daily for five days, and at the end of that time the heart was beating so regularly that it was used by Professor Halliburton to demonstrate to a class of students. Again F. S. Locke says: "Experiments have been made with galactose, rhamnose, l-arabinose, and glucoheptose. No action at all comparable to that of dextrose could be found."

I have said enough to show the beneficial effect of dextrose on mammalian heart muscle, and in my hands the good effect of taking cane sugar to improve the nutrition of the musculature of the heart has been quite in accordance with what was to be expected from what is known of the physiology of the subject.

I will now very briefly give a few cases illustrating the clinical value of this mode of treatment of certain forms of heart trouble. I should mention that I have always used Glebe granulated cane sugar, which is, I am told, one of the purest cane sugars on the market.

*Definition.*—I take the physical signs of dilatation given by Broadbent in his work on the heart. The pulse is irregular in rhythm and unequal in force of beat; usually easily compressed. On deep percussion the heart is more rounded in the apex region than normal, and the area of dullness is greatly extended to the left. The first sound is short and sharp, and it is almost always audible in the aortic area.

*Dilated Heart of Advanced Age.*

Lady, 74 years of age. Dilated heart, with systolic murmur. Treated with drugs with little benefit. She was so ill that she had to be kept in bed in the recumbent position. She was put on cane sugar, and in the course of three months was able to go out walking. She has been quite well ever since, but she takes the sugar from time to time when she feels she requires it. This lady could not stand without feeling faint, but for the last four or five years she has been able to travel alone visiting her friends. She is now in her 81st year, and is quite well and walks out alone daily.

Gentleman, 77 years of age. In the habit of taking alcohol freely. His heart dilated and he was losing flesh. All alcohol was stopped and he was put on the sugar. In three months he was much improved. For the last two years he has enjoyed wonderfully good health. He is rather proud of his achievements in the walking way. Since beginning the sugar treatment he has had an attack of acute bronchitis and one of severe diarrhoea, but he got over both attacks in a wonderful way, and he is now at 80 years of age in excellent health, both mentally and physically.

*Valvular Heart Disease.*

Woman, 34 years of age. Admitted to hospital August 18th, 1910. August 27th, 1910, the note is: "There are very audible systolic and diastolic murmurs at the aortic base." She was treated for three months without benefit, and on December 1st, 1910, she was put on the sugar. She has now (January 20th, 1911) complete compensation, and her pulse is quite regular and of good tension, and she is assisting in the ward work.

Woman, 27 years of age. Admitted to hospital October 27th, 1910. On November 4th, 1910, "the apex beat is 1 inch outside the nipple line. Systolic murmur heard all over the chest, and a pre-systolic murmur at apex." The pulse is hardly perceptible, and her feet, legs, arms, and cheeks are blue (livid). Heart acting extremely feebly. On December 1st she was put on the sugar. On January 5th, 1911, she was up and helping in the ward work. She left the hospital January 20th, 1911.

For the two previous hospital cases I am indebted to the kindness of Dr. H. Davy, who, on December 1st, 1910, allowed me to select these cases as suitable for the treatment.

*Post-influenzal Dilatation of Heart.*

Gentleman, 60 years of age. In September, 1913, he had a sharp attack of influenza, after which his heart dilated with the usual symptoms. He was put on the sugar and improved rapidly, and has been well ever since.

*Heart Strain.*

Young man, 21 years of age. For some months has been riding all over Devonshire and Cornwall on a bicycle, carrying a heavy load of books on his back. He now complained of feeling weak, and unable to do his work. His heart was dilated. I ordered rest, and put him on the sugar. This was two years ago. He is now quite well, and there are no signs of his former trouble. I should mention that he suffered from pyorrhoea alveolaris, and it is possible this had something to do with the dilatation as a contributory cause.

*Heart Failure in Tuberculous Phthisis.*

Woman, 35 years of age. Strong family history of tubercle, from which her father, mother, and brother had died. Eighteen months ago she was extremely thin, and had decided symptoms of tuberculous phthisis. The right apex was consolidated, and there was slight expectoration, and she was losing flesh rapidly, and was confined to her bed. I put her on the sugar and Easton's syrup. In the course of six months she improved sufficiently for her to go out of doors for a short walk. Now (January 25th, 1911), she can run and do anything in the way of exercise as other people, and she is getting rid of the slatey appearance of her skin, and has a healthy colour. She has put on flesh and retains it. She still takes the sugar, but not in so large quantities. Her heart symptoms have almost disappeared—that is to say, the dull area is only slightly increased to the left, and the apex beat is nearly in the normal position.

I have had good results also in anaemic cases with dilated hearts and also in a case of chloroform heart.

In all these cases I have rarely found any sugar in the urine although so much sugar was taken; but occasionally there was a trace.

BIBLIOGRAPHY.

*Textbook of Physiology*, vol. i, edited by E. A. Schäfer. *Textbook of Physiology for Medical Students and Physicians*, by W. H. Howell. F. S. Locke and O. Rosenheim, *Centralblatt für Physiologie*, December 30th, 1905, Bd. xix, Nr. 20. F. S. Locke, *Journal of Physiology*, vol. xxxi.

## MECHANO-THERAPEUTICS IN THE TREATMENT OF CHRONIC CONSTIPATION.

BY
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I HAVE followed with great interest the recent discussion on chronic constipation and its treatment, opened by Dr. J. F. Goodhart at the last meeting of the British Medical Association, which was reported in the BRITISH MEDICAL JOURNAL for October 8th, 1910. I could not but be struck by the scanty references which the various speakers at the meeting made to the value of mechano-therapy in alleviating the condition referred to.

The movement cure in its modern phase dates back to the commencement of the last century, when it was invented by the Swede, P. H. Ling (1776–1839.) After his death his pupils developed the work which he had begun, the chief ones being L. G. Branting, Hj. Ling, and H. Kellgren. Ling's Swedish treatment, at first entirely empirical, has in the course of a century undergone a development which grounds it firmly on a rational basis of physiology, anatomy, and pathology.

On considering the pathology of constipation from the mechano-therapeutic point of view, the following three features are apparent:

1. *Diminution in the Expulsive Power of the Intestine.*

This is generally a secondary state due to the second feature.

2. *Diminution in the Function of the Abdominal Sympathetic.*

The integrity of the sympathetic mechanism is dependent upon a normal amount of sensory conductivity in the sympathetic and a normal amount of discharge of motor impulse to the viscera. Diminution if sufficient in amount in either of these will, in the course of time, lead to defective innervation.

To test the functionability of the abdominal sympathetic, ordinary deep palpation is useful, noting the amount of tenderness. Instead of this, however, a friction with the finger tips across the portion of the abdominal sympathetic that is being palpated is an equally good if not a better guide. Frictions across the ganglion impar—that is, across the anterior surface of the coccyx—can also be used to test its condition. The friction will normally call forth certain definite sensations which may be rather acute. In abnormal cases, however, these may vary in amount from great hyperaesthesia to practially complete anaesthesia. With chronic constipation the tendency is nearly always towards diminished sensation, though this is more marked in the lower part of the abdominal sympathetic, and not so much in the case of the solar plexus and semilunar ganglion; in cases of rectal atony the ganglion impar is commonly found to have very little sensation, sometimes, indeed, none. The amount of sensation elicited by the above method is an excellent index to the state of functionability of the abdominal sympathetic.

3. *Diminution in the Power and Tone of the Muscles of the Abdominal Wall.*

(*a*) *The Muscles of the Anterior Abdominal Wall.*—It is extremely common to find these weakened in chronic constipation; the result is that there is a tendency to negative pressure in the abdomen and the intestinal contents suffer. Peristalsis is reduced, the intestine can more easily overdilate and less readily contract, enteroptosis will ensue with greater facility, the abdominal circulation will not be so good, stasis and varicosity will ensue. The act of defaecation will be rendered more difficult.

(*b*) *The Diaphragm.*—There is frequently coincident weakness in the diaphragm. Downward displacement of the diaphragm is a frequent if not invariable accompaniment of enteroptosis (Keith).[1] Furthermore, diminished action of the diaphragm will not bring about the continual changes in the shape of the liver, stomach, etc., which are so necessary to the fulfilment of their functions, and to the maintenance of the circulation within them (Hasse,[2] Walz,[3] Moebius[4]).

As regards the Swedish manual treatment referred to earlier in this article, the following exercises and manipulations are those best adapted to combat the foregoing pathological conditions.

1. *Active Movements (Purely Active or Resisted) bringing into Play the Muscles of the Abdominal Wall.*

A great number of these exist, but I shall content myself by merely referring the reader to the numerous articles and books that deal with the subject, only remarking that a suitable selection of movements must be made for each individual case.

2. *Respiratory Exercises.*

During Swedish manual treatment all active exercises should be executed (as already mentioned) with full regard to deep and free respiration on the patient's part, so that all such exercises are also respiratory exercises. There are, however, many exercises, both active and passive, which are solely used for the purpose of improving the respiratory mechanism. Again I would refer the reader to the extensive literature that deals with this particular class of movement.

3. *Passive Manipulations of the Abdominal Viscera.*

I shall confine myself to describing those most commonly employed.

(*a*) *Deep pétrissage of the abdomen* is given so that the abdominal contents receive a thorough kneading, the direction of the manipulation being, generally speaking, in the line of the large intestine, commencing at the ascending colon and ending at the sigmoid flexure.

(*b*) *Special Manipulations for the Liver.*—The lower border of the liver may be submitted to *pétrissage* or strong vibrations, either stationary or running along the costal margin. Frictions in a zigzag direction can also be applied here, and even tapotement of the liver. The amount of sensation induced is a good guide to the duration and intensity of the manipulation.

The effect on the abdominal contents of the above manipulations on the intestine is due to two main factors: (*a*) Alternate compression and relaxation, and (*b*) mechanical stimulation, chiefly direct, but partly reflex. The individual phenomena are as follows:

(*a*) Promotion of the venous flow in the portal system and the inferior vena cava (that is, unloading of the abdominal veins) and vaso-dilatation of the splanchnic area (that is, improved arterial supply).
(*b*) Stimulation of the intestinal peristalsis. In cases of largely dilated colon this is often quite visible to the naked eye; and quite recently it has been studied by some observers by means of the administration of bismuth and then the use of the *x* rays.
(*c*) Onward progression of scybalous masses—that is, unloading of the contents of the atonic intestine. This is frequently apparent during the actual application of the abdominal *pétrissage*.
(*d*) Improvement in the secretion of the pancreas, intestine, and liver.
(*e*) Increased absorption by the lacteals.
(*f*) Stimulation of the stomach proper, which tends to react favourably on the intestinal peristalsis.
(*g*) Stimulation to a certain extent of the abdominal sympathetic (see under next section).
(*h*) Stimulation of the abdominal parietes (see under active exercises).
(*i*) Various reflex effects on the heart, cerebro-spinal system, etc., which it is unnecessary to consider here.

4. *Passive Stimulation of the Abdominal Sympathetic.*

There are three ways of effecting this by means of "nerve frictions":

*Reflexly.* (*a*) Through the external branches of the posterior divisions of the spinal nerves.
(*b*) Through the anterior divisions of these nerves.
*Directly.* (*c*) Through the abdominal wall, as already stated.

A friction on a cerebro-spinal nerve is administered by drawing the fingers across it as nearly as possible at right angles to its long axis. Frictions on the external branches of the posterior divisions of the spinal nerves, or along the course or across the anterior cutaneous branches of the lower six intercostal nerves, can be employed in order to stimulate the muscle of the abdominal wall directly and the abdominal viscera reflexly. Friction on the abdominal sympathetic direct can be applied in the manner described on any portion of the sympathetic that may be needed; with topographical anatomy as a guide, it is possible to reach the solar plexus, semilunar ganglia, and inferior hypogastric plexus.*

REFERENCES.
[1] *Lancet*, 1903, p. 631. [2] *Arch. f. Anat. (u. Phys.)*, 1886, 185-210; and ibidem, 1903, pt. 1, 23-26. [3] *Muench. méd. Woch*, 1902, xlix, 785-787. [4] *Muench. med. Woch.*, 1899, xlvi, 313-315.

* Further details on the manual treatment of the abdominal sympathetic can be found in the *New York Medical Journal*, 1910, pp. 171-175, and in the *Arch. gén. de thér. phys.* for November, 1910.

THE twenty-first Congress of French-speaking Psychiatrists and Neurologists will be held this year at Amiens (August 1st to 6th) under the presidency of Dr. Deny, physician to the Saltpêtrière. The following are the questions proposed for discussion: *Psychiatry:* Different kinds of psychopathic pains; their significance and the part played by them. *Neurology:* Tumours of the pituitary body. *Legal Medicine:* The value of the testimony given by lunatics in courts of law. A number of original communications on subjects connected with psychiatry, neurology, medical jurisprudence, and the care of lunatics, will be made.

# THE TREATMENT OF SYPHILIS BY SALVARSAN (DIOXY-DIAMIDO-ARSENO-BENZOL).

*OBSERVATIONS UPON FORTY-FOUR CASES.*

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**SINCE November 28th, 1910, I have treated 44 selected cases of syphilis with the Ehrlich-Hata preparation. These include, for the most part, cases of chancre alone, cases of chancre *plus* early secondary manifestations, secondary lesions, and 11 tertiary lesions. Thirty-four cases were treated by the intramuscular injection of a neutral suspension of the drug, 10 cases by the intravenous method.**

CASE I.—A male, aged 40, with a primary chancre of penis, "bullet" buboes in groin, a papular rash over the trunk and limbs, and a number of mucous patches in the mouth. Spirochaetes were present. This, the first case treated, was given a small dose, 0.4 gram, injected into the buttocks, half into each side. The chancre showed signs of softening within twenty-four hours; in forty-eight it was markedly diminished in size. The rash began to fade on the fourth day, and by the twentieth day had completely disappeared; the chancre had gone by the seventh day.

CASE II.—This patient was injected with the remainder of the capsule, amounting to 0.2 gram. A male, aged 28, with large ulcerating chancre, shotty glands in groins (spirochaetes had been previously demonstrated). Within a week the chancre and glands had entirely disappeared. The patient was discharged on the fourteenth day.

**Following these, a number of other primary cases were treated with full doses of salvarsan (0.6 gram). The result was consistently the same as regards the gross primary and early secondary symptoms, as instanced by the rapid disappearance of the chancre, and of the adenitis, and the healing of the mouth and throat lesions.**

**A number of secondary cases were now treated, with similar success—condylomata, mucous patches, ulcers of the fauces, venereal warts on the vulvae, etc., disappearing with wonderful rapidity.**

**The effect on the rash on all our cases injected intramuscularly has not been so striking as on the more localized lesions; it tends to fade slowly, there being no appreciable diminution until the fourth or fifth day, or later. In two cases in which a full dose was given, an increase in the intensity of the rash was observed some twelve hours after the injection. Herxheimer has noted this in some cases, and attributes it to too small dosage.**

**The tertiary lesions treated included many gummatous ulcerations of the skin, a syphilitic infiltration of the lips, producing great thickening and induration, with stenosis of mouth, and a perforating ulcer of the hard palate.**

**It would be wearisome and unnecessary repetition to fully detail each case, but notes on a few of the more striking ones may be interesting.**

CASE VII.—Male, aged 37, was admitted to the Lock Ward at Brownlow Hill Infirmary on August 7th, 1910, with a primary chancre of penis, contracted in May, 1910. He had been continually on mercury and iodides up to the beginning of November, when mercurial treatment was stopped, owing to salivation and general debility. The chancre had then disappeared, but he was still covered with a deeply pigmented papular rash. There were several superficial ulcers on the soft palate and fauces. His voice was hoarse and rasping; he was unable to swallow solid food, owing to pain from involvement of the lower part of the pharynx in the ulcerative process. In addition he suffered from stomatitis and soreness of the gums, with marked emaciation.

On December 15th he was injected with 0.6 gram of salvarsan. In forty-eight hours there was a marked improvement in the voice. The patient volunteered that he could speak and swallow without pain or difficulty. The rash began to show signs of fading on the sixth day. He put on flesh rapidly, and the ulceration of the mouth and fauces disappeared. In three weeks the rash had entirely gone, except for some deep-seated pigmentation, and he was discharged on January 21st and resumed his work as a labourer.

CASE XXXI.—Male, aged 38, had a number of healed scars on the trunk and limbs, periosteal nodes on the tibiae, and a marked gummatous infiltration of the lips. The condition had been present for nineteen years, the patient undergoing nine operations at various hospitals in London and the provinces, in order to overcome the contracture produced by a general thickening around the mouth. He had been on mercury and iodides for months at a time, with no benefit. His speech was greatly interfered with, both lips being greatly thickened and uniformly indurated.

On December 29th, 1910, 0.6 gram of salvarsan was injected into the muscles of the buttock. In a few days a marked softening of the tissues was evident. The lips began to be more pliable and elastic, and to diminish in size. As this proceeded, various operation scars became evident, two of which formed tight bands at each angle of the mouth. The orifice of the latter became more patent, and the patient was able to show his teeth. These bands have now been divided by operation, and the patient can use his mouth for all normal purposes.

CASE XXXIII.—Male, aged 29, contracted venereal disease in the army, 1900; he had suffered from ulcers on the right leg since May, 1910. He had had no previous treatment. There were two extensive serpiginous, deeply excavated ulcers on the lower third of the leg, the floor showing the usual yellow slough. These ulcers were surrounded by four smaller ones of a similar nature.

Injected on February 3rd intramuscularly with 0.6 gram of salvarsan. Signs of healthy healing were evident in a few days, and on February 21st the crater-like cavities had entirely filled up, and the growing edges of the skin completely fused. The leg is now entirely healed over (February 23rd).

CASE XXXVIII.—Female, single, aged 46, had had ulcerated legs for the past two and a half years. She gave no history of syphilis, but examination shows a very extensive irregular ulcer on the outer side of the right leg, surrounded by eight smaller ones in shape and appearance typical of a syphilitic lesion. There were no other evidences of syphilis.

Injected intramuscularly on January 21st, 1911, with 0.6 gram of salvarsan. Complete healing resulted in four weeks' time. This patient was in hospital for twelve weeks eighteen months ago for the same complaint, but left before healing took place.

**It would perhaps be unwise to draw any definite conclusion at this early stage, but I can certainly, and without exaggeration, state that in all the cases treated by us with salvarsan it has been our experience, as regards the primary lesions treated, to see rapid improvement, with complete disappearance of the chancre in *all* cases before the fourteenth day, and in most cases earlier than this. Secondary manifestations have also disappeared very rapidly.**

**Nearly all the tertiary cases have shown marked improvement, gummatous ulceration of the skin, lesions of mucous membrane of the mouth, etc., healing in a most satisfactory manner. In only one case has the reaction been somewhat disappointing—a case of perforation of the hard palate, the necrosis extending to the septum nasi. This looks much healthier than before, but the necrosis of the septum still persists, and a further injection has recently been given.**

**Furthermore, in a number of the most chronic cases which had been under mercury and iodides for months with no perceptible improvement, the injection of salvarsan has been followed by rapid reaction. Almost immediately the chronic lesions seem to assume a healthier look; healthy granulations spring up; deep crater-like ulcers of the skin fill up from the bottom, with a rapid ingrowth from the margins, the patient puts on flesh rapidly, and the general metabolism improves. How much of this may be due to "suggestion" time alone can tell.**

**With regard to the choice of methods—intramuscular or intravenous injection—we have had as good results with the former as with the latter in the tertiary stages. In the primary and early secondary stages the intravenous method produces a more rapid disappearance of the lesions.**

**The intravenous injection has been performed in nine cases by exposing one of the veins near the elbow by dissection under cocaine, the cannula being introduced well into the lumen of the vessel. In the last case, as the veins were prominent and the skin thin, the needle was inserted directly into the vein.**

**The solution must be prepared with great care.**

Fifty c.cm. of sterile normal saline solution, made from *distilled* water is put into a graduated sterile flask of 500 c.cm. capacity; to this the salvarsan is added, and a yellow solution results on shaking. A 15 per cent. sterile solution of sodium hydrate is now added, drop by drop, at first producing a precipitate, the flask being vigorously shaken from time to time. When from 25 to 30 drops have been added a golden yellow solution results. This is diluted up to 400 c.cm. by the addition of more saline and is ready for use. The solution is kept at a temperature of 104° to 105° F.

We have used, up to the present, the ordinary transfusion apparatus, but Messrs. Sumner and Co. are making for me a special vessel on the principle of the Dewar's flask, which will retain an even temperature for some considerable time.

A column of normal saline solution is first allowed to flow into the vein, followed by the solution of "606," which is strained through sterile gauze. Finally, saline is again allowed to flow.

By this method no portion of the solution can enter the tissues at the point of injection.

It is important that distilled water should be used for making the solution. Tap water produces a fine suspension. We have had no untoward occurrences. There is always a rise of temperature followed by headache and vomiting, and in some cases rigors and diarrhoea.

The condition of the patient is a cause for anxiety at first, but within twenty-four hours all symptoms clear up. In men 0.4 gram, and in women 0.3 gram doses diluted in saline solution have been given.

The intramuscular method has the disadvantage that great pain follows the injection, which may persist for several days, and in some cases weeks. In two cases sterile abscesses occurred at the site of the injection. No culture could be obtained from them, neither could any arsenic be demonstrated. The reaction as regards pain, temperature, headache, vomiting, etc., seems to be much less in women than in men.

In conclusion, I owe much to my house-surgeon, Dr. W. Messer, for his help in assisting me and making notes on the cases. I have also to thank Dr. Stopford Taylor and Dr. R. W. MacKenna for supplying me with some tubes of salvarsan before it was obtainable in this country; also Dr. Moore Alexander for isolating the spirochaete in doubtful cases.

## THE CURATIVE EFFECT OF SALVARSAN IN FRAMBOESIA.

BY HENRY ALSTON, M.B.,
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I STATED in my first communication in the BRITISH MEDICAL JOURNAL of February 18th, 1911, page 360, that the injection of 18 cases of yaws with salvarsan at the St. Augustine Yaws Hospital, Trinidad, on January 4th and 11th, was followed by immediate and wonderful improvement. I subsequently injected 3 cases, and I am now (February 18th) able to give the results in these 21 cases. Each received only one injection.

| | | | |
|---|---|---|---|
| Cured | ... | ... | 13, or 61.9 per cent. |
| Nearly cured | ... | ... | 3, or 14.3 per cent. |
| Stationary | ... | ... | 5, or 23.8 per cent. |

The shortest period taken to cure was thirteen days, and the longest twenty-eight days.

I find that salvarsan has no effect on yaws tubercles of the nostrils (tubercles situated at the junction of the mucous membrane of the nose and the skin). This failure was noticed in two cases treated by salvarsan and in one treated by serum.

The cases of yaws injected with serum taken from recovering salvarsan cases on the fourth or fifth day all improved for two or three weeks. Some remain stationary, and others have got worse. I believe that if yaws cases were injected with serum every seven or ten days they would be cured with three or four injections.

I injected a goat that had two kids a month old, with 0.3 gram (4½ grains) of salvarsan, and the milk was given to two children in the female ward. Improvement began in the children on the third day, and continued slowly and surely for fourteen days. The goat was borrowed for two weeks, and was sent back to the owner. I intend injecting a cow, and using the milk on a more extensive scale. If my experiment with a goat is verified by others (using more salvarsan than I did) it means a complete overthrow of the theory of Professor Ehrlich, for it must be the salvarsan itself which produces the antibody, and it is probably of the nature of a ferment.

My further experiments with serum are not connected with salvarsan. I put blisters on some yaws cases and used the serum—dose 16 c.cm. for adults—to inject, each case getting his own serum. The object of this experiment was to see if the blistered surface secreted a beneficial substance. I got no results.

I put blisters on some cases cured of yaws by ordinary means, and used the serum on four yaws cases. There was a slight improvement, which did not last for more than a week.

I tried cacodylate of soda, arsacetin, orsudan, atoxyl, and soamin. I find that only orsudan and soamin are of some benefit in yaws. A 9-grain injection (adult dose) was given once a week. The formula given for soamin is the same as for atoxyl, and I am at a loss to account for the failure of atoxyl, a failure previously recorded by Professor Castellani in Ceylon.

I had salolized capsules prepared by the dispenser and filled with 1 grain of methylene blue and an inert substance. The capsules were gummed and powdered with salol, and allowed to dry. This was done three times. When given to patients and healthy persons, four hours elapsed before the urine was discoloured, so I conclude that absorption takes place in the bowels. I am now trying soamin in these personally tested capsules, and so far as the experiment has gone, it acts well. I will try salvarsan in this way, when a supply comes from England. I suggest the use of tested salolized capsules made with a double end, the small compartment containing 1 grain of methylene blue. On filling such a capsule with a drug, the discoloration of the urine would exactly indicate when absorption began.

It is my intention to try 1 per cent. injections of the hydrochloride of quinine and urea before injecting with salvarsan intramuscularly so as to mitigate the pain by producing local anaesthesia.

### SUMMARY.

Salvarsan is the best drug for use in yaws. I have no doubt that this fact has been discovered in every yaws hospital. The experiments in Trinidad have contributed to knowledge in four directions:

1. The serum of cases recovering under salvarsan has been shown to have a curative effect.
2. Nostril yaws tubercles are not affected by salvarsan nor by serum.
3. The milk of a goat injected with salvarsan has a curative effect.
4. Soamin and orsudan are the only organic compounds—excluding salvarsan, of course—that cause some benefit in yaws.

Full details of all my experiments are recorded and communicated to the Acting Surgeon-General of the Colony. My thanks are due to him and others for their appreciation and encouragement. Further experiments will be undertaken.

# THE SCIENCE COMMITTEE OF THE British Medical Association.

## OBSERVATIONS ON THE OCCURRENCE OF FLUID IN THE ABDOMINAL CAVITY IN PREGNANT RABBITS.

BY

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THE presence of free fluid in the abdominal cavity of the pregnant rabbit has been noticed in the course of research by several observers, but as far as we are aware no special observations have been made with regard to the nature of the fluid present nor to the possible cause of its occurrence. It has occurred to us that some such observations may be of value, especially in relation to the work done by one of us (C. B.) on the pathology of cardiac dropsy.

*Relative Frequency.*—The relative frequency of free fluid in the peritoneal cavity has been estimated in a series of pregnant and non-pregnant animals:

(*a*) Non-pregnant: Ten non-pregnant animals were examined, 4 males and 6 females, and although the intestines were moist in all cases, in only 2 was a measurable quantity of free fluid obtained, and in these 2 cases (1 male and 1 female) the quantity was very small, as indicated below.

(*b*) Pregnant: In 16 pregnant animals examined, we only failed in 2 cases to obtain a measurable quantity of fluid. This gives the following percentages of cases with free fluid:

(*a*) Non-pregnant, 20 per cent. (probably is much smaller).
(*b*) Pregnant, 87.5 per cent.

*Distribution.*—The presence of free fluid in the pleural cavity was noted in 3 cases in pregnant animals and in no case in a non-pregnant. In the pericardium a small quantity of fluid was generally found in all cases. In no case was subcutaneous oedema present.

*Amount of Fluid Present in the Abdomen.*— (*a*) Non-pregnant: In the 2 cases occurring in the series of 10 non-pregnant animals examined the quantity of fluid amounted to 2 c.cm. and 3 c.cm. respectively.

(*b*) Pregnant.—In the series of 16 animals, 14 had fluid in quantity varying from 1.15 c.cm. to 25 c.cm.

The series is as follows:

| | | |
|---|---|---|
| I. 1.15 c.cm. | VII. 3.50 c.cm. | XII. 2.50 c.cm. |
| II. 14.50 c.cm. | VIII. 2.50 c.cm. | XIII. 2.00 c.cm. |
| III. 9.00 c.cm. | IX. 3.50 c.cm. | XIV. 1.50 c.cm. |
| IV. *Nil.* | X. 8.00 c.cm. | XV. 25.00 c.cm. |
| V. 3.00 c.cm. | XI. 5.00 c.cm. | XVI. 15.00 c.cm. |
| VI. *Nil.* | | |

We feel justified from these figures in concluding that the presence of free fluid in the abdomen is a more or less general occurrence in pregnant rabbits and not merely a coincidence.

*Blood Pressure.*—We have examined a series of non-pregnant and pregnant animals with a view to ascertain whether any blood pressure changes were to be noted in animals with free abdominal fluid.

*Technique: Anaesthesia.*—Ether was used in all cases, anaesthesia being induced with a mask. Tracheotomy was then performed, and the administration of ether continued through an apparatus attached to the artificial respiration pump. Special care was taken to imitate the natural respirations of the animals by careful regulation of the pump, a free outlet of air being provided.

*Position.*—The animals were fixed to a board in the supine position, care being taken to tie them down loosely so as not to interfere with the venous flow. The head was slightly raised on a small board, the same board being used for all experiments.

*Method of taking Blood Pressures.*—The following routine was followed in all the cases after the first two or three. First the pressure was taken in the right carotid artery with an ordinary mercurial U tube manometer; then the blood pressure in the left external jugular was taken by passing a cannula down the large auricular vein until the mouth of the cannula came to lie flush with the wall of the jugular vein without obstructing the flow of blood in that vessel. The cannula was then connected with a manometer containing a solution of $MgSO_4$ (specific gravity 1046) and the pressure in millimetres recorded; the height of the vein above the table on which the manometer stood was then measured and deducted from the pressure recorded. The pressure in the common iliac vein was now recorded in a similar manner by passing a cannula up the femoral vein. At the end of each experiment the pressure in the left carotid artery was again taken.

In a few cases we attempted to take the pressure in the portal vein, but we found this rather difficult, and therefore decided to work it out in a separate series of animals.

The results obtained are indicated below:

*(a) Non-pregnant Animals.*

| No. of Experiment. | Sex. | Carotid Artery B. pressure in mm. Hg. | Jugular Vein in mm. $MgSO_4$ Sol. | Iliac Vein in mm. $MgSO_4$ Sol. | Fluid in Abdomen in c.cm. |
|---|---|---|---|---|---|
| 1 | M. | 90 | 55 | 83 | — |
| 2 | M. | 60 | 60 | Not obtained | — |
| 3 | F. | 110 | 50 | 85 | — |
| 4 | F. | 58 | 35 | Not obtained | 2 00 |
| 5 | F. | 70 | 37 | 85 | — |
| 6 | F. | 75 | 20 | 120 | — |
| 7 | M. | 65 | 50 | 89 | — |
| 8 | M. | 80 | 45 | 115 | 3.00 |
| 9 | F. | 80 | 39 | Not obtained | — |
| 10 | F. | 77 | 51 | 112 | — |

*(b) Pregnant Animals.*

| No. of Experiment. | Carotid Artery in mm. Hg. | Jugular Vein in mm. $MgSO_4$ Sol. | Iliac Vein in mm. $MgSO_4$ Sol. | Fluid in Abdomen in c.cm. |
|---|---|---|---|---|
| I | 70 | 42 | 125 | 1.15 |
| II | 90 | 50 | 75 | 14.50 |
| III | 50 | 56 | 88 | 9.00 |
| IV | 50 | 38 | 74 | *Nil.* |
| V | 90 | 54 | Not obtained | 3.00 |
| VI | 90 | 70 | 96 | *Nil.* |
| VII | 52 | 53 | 83 | 3.50 |
| VIII | 70 | 62 | 110 | 2.50 |

It will be seen from the foregoing that the difference in blood pressure in the two cases is not appreciable, and we feel justified in assuming that there are no pressure changes in the peripheral circulation in the animals with ascites. We believe the same to be true of the portal circulation, but our experiments have not so far enabled us to make a definite statement on this point.

*Composition of Fluid in the Abdominal Cavity.*—We have examined the blood, the fluid found in the abdominal cavity, and in some cases also the chyle, for total solids.

*Technique.*—The blood serum was obtained by bleeding the animals from the carotid artery into dried glass tubes, allowing the blood to clot, and centrifugalizing. A portion of the serum was weighed in a dry glass capsule, dried at 60° C., and finally heated to 108° C. and weighed again.

The fluid from the abdominal cavity, which was a practically colourless fluid, was collected into similar tubes with a pipette and allowed to coagulate spontaneously, which it did in all cases in about half an hour. It was then centrifugalized and treated in the same way as the blood serum.

In order to obtain the abdominal fluid for analysis we used only animals in which the blood pressure had not been taken, in order to avoid the possible error of producing ascites by introducing $MgSO_4$ solution into the circulation.

Considerable difficulty was experienced in obtaining chyle in sufficient quantity for estimating the total solids; we first attempted to obtain it from the subclavian vein after ligature of the surrounding blood vessels, but failed to obtain undiluted chyle. We also found isolation of the thoracic duct unsatisfactory, and finally obtained the chyle by opening the receptaculum chyli, after all the abdominal fluid had been removed and the animal bled to death.

The examination of the various fluids for their total solid contents gave the following results:

| No. of Experiment. | Blood Serum. Total Solids per Cent. | Abdominal Fluid. | | Chyle. Total Solids per Cent. |
|---|---|---|---|---|
| | | Amt. c.cm. | Total Solids per Cent. | |
| IX | 6.896 | 3.50 | 2.741 | — |
| X | 6.324 | 8.00 | 2.349 | — |
| XI | 7.352 | 5.00 | 3.978 | — |
| XII | 5.866 | 2.50 | 2.254 | — |
| XIII | 7.691 | 2.00 | 3.115 | 8.629 |
| XIV | 6.738 | 1.50 | 4.220 | 3.738 |
| XV | 7.509 | 25.00 | 3.226 | 6.122 |
| XVI | 7.433 | 15.00 | 4.567 | 3.550 |

These figures closely correspond with those obtained in the case of heart disease in the human subject.

We have not yet had the opportunity of comparing the results thus obtained with fluid obtained from non-pregnant animals, as we used the only two cases that have come under our notice for blood-pressure experiments.

The type of dropsy in these animals, therefore, corresponds more closely to that of heart disease than to that seen in disease of the kidney or in hepatic cirrhosis, in both of which conditions the oedema fluid contains much less solid matter.

This conclusion is not at variance with the pathology of cardiac ascites, because, as shown by one of us,[1] in that condition there may be no changes of pressure in the peripheral circulation.

REFERENCE.

[1] Bolton: (*a*) *Journal of Pathology and Bacteriology*, August, 1903; (*b*) *Proceedings of the Royal Society*, B., vol. lxxix, 1907; (*c*) *Journal of Pathology and Bacteriology*, vol. xiv, 1909.

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# THE HISTOLOGY OF RHEUMATIC CARDITIS AND OTHER RHEUMATIC PHENOMENA.

BY

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*Heart.*—In all three parts of the cardiac wall certain inflammatory lesions, which have been called "submiliary nodules," are found. These nodules consist of (*a*) a groundwork of homogeneous material which gives the staining reactions of fibrin; (*b*) a more or less defined zone of cellular proliferation, the characteristic cells being large and of a fibroblastic type, with a deeply staining cytoplasm, and from one to six nuclei in which a somewhat loose chromatin skein takes haematoxylin with avidity. They are therefore similar in structure to the larger subcutaneous node so characteristic of rheumatic infection. The shape of the nodule is dependent to some extent on its surroundings, being globular when lying in a loose bed of connective tissue, but fusiform where it is limited laterally, as it is when it develops in the interstitial tissues of the myocardium. In rheumatic lesions of the heart degenerative and necrotic changes are not intense in degree; exudation of leucocytes is moderate and diffuse, mononuclear types predominating.

*Myocardium.*—Recent work has confirmed the conclusions already stated.[1] The nodules are closely related to coronary arterioles; there are more in the wall of the left than in that of the right ventricle (though in one case the only nodule found was in the wall of the right ventricle) and only once has a nodule been found in the auricular walls apart from a few in contact with the mitral ring. In this case it lay near the base of the Eustachian valve in the interauricular septum. In two cases a nodule has been noted in the connective tissue limiting the *a–v* bundle, and in another case arterial changes in this region coincided with nodule formation at the point of junction between the *a–v* node and the bundle. In one case segmentation has been observed, and in another a close relation between nodule formation and the distribution of intracellular fatty change was seen. On the whole, the muscle cells appear less altered than might be expected, probably owing to the relative coarseness of the staining methods at our disposal.

*Endocardium.*—Here again recent investigation has merely confirmed observations already recorded.[2] The points of main interest are the almost constant occurrence of nodules in the deeper parts of the valves, the presence of a diffuse and mild mononuclear leucocytosis, and the ultimate vascularization of the inflamed valve. The endothelium proliferates; the surface cells float off owing to degenerative changes, and the fibrin deposited in this stripped surface—sometimes mingled with leucocytes from the intracardiac blood—becomes permeated with new connective tissue bearing young capillaries.

*Pericardium.*—The chief facts are that nodules have been found in all cases of active pericarditis, but not in quiescent cases. They have not so far been seen in the parietal but only in the visceral layer, where they are scattered over the cardiac surface. They lie at a varying distance beneath the endothelium, in which proliferation, superficial degeneration and stripping, fibrin deposit and capillary formation, are seen as in the endocardial endothelium. In the subendothelial tissue a moderate leucocytosis is seen.

The *aorta* has been examined several times but without the discovery of such lesions as have just been described. Mesaortitis and small patches of subendothelial inflammation have been seen, but there has been nothing in these to distinguish them from the similar lesions which occur in most infections.

*Arteries, Arterioles, and Capillaries.*—In one case the lumen of a coronary arteriole in the vicinity of the auriculo-ventricular bundle was almost closed by swelling of the arterial wall on one side, due apparently to the development of a nodule in its middle coat. Endothelial proliferation with thrombosis has been noted also in the arterioles and capillaries of a rheumatic joint. Coronary periarteritis was alluded to in the paper on myocarditis.

*The central nervous system* has been more or less fully examined in four cases of chorea.

Here it may be said that widespread chromatolysis is present throughout the cortex, and to a less degree in the optic thalamus and the pontine and medullary ganglia, while in the cord almost no changes were discovered. The pia mater, which has been fully examined both on the convexity and at the base, shows no change beyond intracapillary clotting and an occasional small extravasation of leucocytes. The one is probably due to *post-mortem* clotting and the other to passive hyperaemia.

Only two *joints* have been available. In one, a large and very definite nodule was found, with others less clearly defined, corresponding essentially with those seen in carditis. It lay just beneath the endothelium, which at other spots was proliferating. Throughout the synovial membrane and extending into the periarticular tissues was a mononuclear leucocytosis; there were further, the vascular changes already noted.

The other organs examined have been the lungs, in which an intense passive hyperaemia was seen, together with a mild bronchial catarrh; the lymphatic glands at the base of the heart, in which passive oedema and congestion were manifest; the spleen and liver; the kidney, in which spots of parenchymatous degeneration have several times been seen; the tonsils, thymus, and adrenals; and the thyroid gland from a case of Graves's disease with chorea, in which the changes peculiar to the former disorder were found. In none of these organs has any kind of interstitial inflammation been seen.

Other types of cardiac infection have been examined by way of comparison with rheumatic carditis. In practically all cases of destructive endocarditis and purulent pericarditis foci of inflammation are found in the myocardium; but in no such case has an inflammation of all three layers been seen. Further, the inflammatory reaction is chiefly characterized by an exudation of leucocytes, usually polymorphonuclear, not by a proliferation of the cells of the part invaded. In one case of protracted cardiac and articular rheumatism, terminated by a lobar pneumonia from which the pneumococcus was readily isolated, two sets of lesions were visible side by side in the heart, and even in the same section—the one characteristic of rheumatic infection, the other a polymorphonuclear focus. In one of these latter pneumococci were demonstrated.

Finally, it may be added that examination of lesions produced by inoculation of animals with micro-organisms said to be the cause or causes of rheumatism is proceeding. A good deal of material has been dealt with, but any statement as to the results would be premature at this stage.

It is my pleasant duty to thank my colleagues at the Bristol General Hospital: Dr. J. A. Nixon, Dr. G. A. Sutherland, Dr. Reginald Miller, Dr. E. H. Kettle, Professor J. M. Beattie, Dr. W. V. Shaw, Dr. W. T. Longcope, and Dr. James Fletcher, for allowing me to use material; and Professor Walker Hall for kind help and for laboratory accommodation.

REFERENCES.

[1] *Quarterly Journal of Medicine*, October, 1908. [2] *Lancet*, May 15th, 1909.

## THE RAT FLEA AS THE INTERMEDIATE HOST OF A RAT TAPEWORM.

BY

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A LARVAL tapeworm was brought to me by Professor Minchin for identification, and it was suggested that it bore a close resemblance to the scolex of *Hymenolepis diminuta*, one of the commonest tapeworms of the rat. The cysticercoid was found during the dissection of some rat fleas (*Ceratophyllus fasciatus*), and apparently occurred free in the body cavity. Further investigation showed that it was present in about 4 per cent. of the fleas, and usually only a single specimen in each, although three were found on one occasion.

The most characteristic feature of the cysticercoid is its small rostellum, devoid of hooks. This at once suggests *Hymenolepis diminuta*, but that is not the only unarmed tapeworm infecting rats. Several other less common species have been described—for example, *Hymenolepis relicta* (Zschokke), *H. horrida* (v. Linstow), and *Catenotaenia pusilla* (Goeze), along with a number of imperfectly described forms, such as *Taenia ratti* (Rud) and *Taenia umbonata* (Molin).

With the view of determining what tapeworms were present in the stock of rats from which the fleas were obtained an extensive examination of the faeces was made. The ova of *Hymenolepis diminuta* were found in great abundance, and the only other tapeworm eggs which were found were similar to those but considerably smaller. A number of rats were then dissected, and *Hymenolepis diminuta* was found in moderate numbers in several. Another smaller, undetermined, tapeworm was found on one occasion. It was also unarmed, and resembled *Hymenolepis diminuta* to some extent, but its eggs were considerably smaller.

The common occurrence of *Hymenolepis diminuta* amongst the rats rendered the identity of the cysticercoid in the flea almost certain, but in order to establish it a series of feeding experiments were undertaken. Five young rats, newly weaned, were isolated. Their cages were protected, as far as possible, from the entrance of insects, and they were fed on boiled bread and milk. Three of them received nothing else, but the other two were fed daily with 20 fleas. The faeces were examined daily, but no ova were observed until at the end of nineteen days one of the two rats died, and eight specimens of *Hymenolepis diminuta*, in various stages of development, were found in the intestine. On the twentieth day ova of the tapeworm were found in the faeces of the other rat. No other species was present. The faeces of the remaining three rats were examined daily for a fortnight further, but no ova were obtained from them, and at the end of two months the faeces were still free from ova. A similar experiment was conducted later with the same result. There can be, therefore, little doubt that the cysticercoid in *Ceratophyllus fasciatus* is the larva of *Hymenolepis diminuta*. That the rat kills and eats fleas is a matter of common observation.

The cysticercoid (*Cercocystis*) of *Hymenolepis diminuta* was first described by Grassi and Rovelli[1] in 1892 (under the name *Taenia leptocephala*). The cysticercoid which they describe corresponds precisely with that in the rat flea. It is a small ovoid body measuring, when fully grown, about 0.31 × 0.25 mm. The unsegmented tail on which the embryonic hooks remain visible is longer and narrower than the body, and may reach a length of 0.8 mm. In the invaginated state the body wall consists of four layers—an outer radially striated cuticular layer, a layer of columnar cells, a layer of connective tissue cells continuous with those in the tail, and a layer of cells forming an internal membrane. Within this is a small lacuna which separates the posterior part of the scolex from the cyst wall. The scolex itself measures about 0.075 mm. in length and 0.09 mm. in breadth. The suckers have a diameter of 0.055 mm. The rostellum is small but distinctly prominent. When the scolex becomes evaginated the wall of the cyst is rapidly replaced by parenchymatous cells like those in the tail, and the lacuna, which is at first rendered more obvious by the evagination, is also filled up by cells.

This is the first record of the occurrence of this cysticercoid in the rat flea. Grassi and Rovelli found it in four different insects, but do not appear to have examined the rat flea. They established the identity of the cysticercoid, which they found, by means of feeding experiments not only in rats but also in the case of man. The adult tapeworm is an occasional parasite of man, and has been recorded several times from America, and in a few instances from Denmark, France, and Italy.

Only two instances are yet known of fleas serving as the intermediate hosts of tapeworms. The first of these is the well-known *Dipylidium caninum*, the larval stage of which is passed in the dog flea and the human flea. The other has been described quite recently by Dampf from the flea *Mesopsylla eucta*, which is parasitic on the jerboa (*Alactaga* (*Dipus*) *jaculus*). No corresponding tapeworm is known from the jerboa, but the cysticercoid bears a certain resemblance to *Hymenolepis nana*. It is evident that fleas and lice form very convenient intermediate hosts, and it would not be surprising if a much larger number of instances were recorded in future, especially amongst the *Hymenolepididae*. Tapeworms of this family, however, usually pass their larval stage in small crustaceans.

REFERENCE.

[1] Ricerche embriologiche sui cestodi. *Atti Accad. di sci. nat. in Catania.*

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### ARE POLIOMYELITIS AND HERPES ZOSTER THE SAME DISEASE?

DURING August and September, 1910, when acute anterior poliomyelitis was epidemic in Maryport, Cumberland, I noted that we were also having an unusual number of cases of herpes zoster. The appearance of these diseases simultaneously in epidemic form struck one at the time as being rather remarkable; I pointed it out to four colleagues here during the first week of September, and argued that there was possibly some etiological connexion between the two diseases on the following grounds:

1. The lesion in poliomyelitis is situated in the anterior cornual cells, and in herpes zoster in the posterior root ganglia—that is, in morphologically equivalent parts of the motor and sensory nerve paths.

2. The *nature of the lesion* is in both diseases essentially the same—it is variously described by different writers as "inflammation," "haemorrhage," "thrombosis"—it is not yet definitely settled what the exact nature of the pathological process is, but, at any rate, it is in both cases *a vascular lesion.*

3. The constitutional symptoms are in both diseases the same.

4. Both diseases were distinctly epidemic here at the same time.

The suggestion that there might be some connexion between the two found no favour, and the matter dropped from my mind. But recently, in reading Dr. Henry Head's article on Herpes Zoster in Allbutt and Rolleston's *System of Medicine*, vol. vii, p. 473, I came across the following passage:

> A typical attack of herpes zoster arises without any obvious peripheral or central cause, and must be considered as an acute specific disease of the nervous system analogous to acute poliomyelitis. For it starts with a prodromal period of varying length, during which, in the majority of cases, the temperature is raised. During this period the patient feels ill, and has more or less pain, but it is impossible then to make a diagnosis. If a child, he is supposed to be sickening for an acute febrile disease. Suddenly, after a variable period, the rash comes on, and the disease declares itself. Thus in their onset herpes zoster and acute poliomyelitis closely resemble one another. Moreover, the lesion is in the one case an acute inflammation in the region of the motor cells of the anterior horns, followed by more or less secondary degeneration in consequence of the destruction of these cells; in the other an inflammation or haemorrhage into the posterior root ganglia, also followed by secondary degeneration due to the destruction of the ganglion cells of the posterior root. Now the cells of the posterior root ganglion are the morphologica equivalents of the large cells of

the anterior horn, and thus the parallel between the two diseases is complete. The reason that zoster is commoner than poliomyelitis is probably that one who has suffered from zoster is not hampered in the struggle for existence, whilst anterior poliomyelitis materially diminishes the likelihood of the patient's survival in the struggle.

Since reading it, I have tried to collect the cases of herpes zoster that appeared during the summer and autumn, and have already been able to trace ten cases occurring during the period of the poliomyelitis epidemic. Infantile paralysis is a rare disease here, and therefore the occurrence of an epidemic was easily recognized. Shingles is, on the other hand, a fairly common disease, and we see, on an average, perhaps one case every other month; but there is no doubt that it was unduly prevalent during the summer months—that it was, in fact, *epidemic*.

The wonderful analogy that exists between these diseases, looked at from every point of view, and the fact that they were simultaneously epidemic here, raises the question, May they not be dependent on the same infective process, attacking the anterior horns of the spinal cord in the one case and the posterior root ganglia in the other? In other words, Are not infantile paralysis and shingles one and the same pathological entity?

Maryport. R. P. GARROW, M.B., Ch.B.Aberd.

## GOAT'S MILK FOR INFANTS.

THE circumstance that a mother is unable to nurse her child satisfactorily is unfortunately one of very common occurrence. In default of the natural supply, the physician has the choice of either a prepared food or of cow's milk modified in a more or less complicated manner. A third alternative, which, although of great antiquity, seems now to be almost entirely neglected, is goat's milk. The circumstance that I have alluded to has recently happened to an infant whom I have had the opportunity of observing, and the addition to the dietary of goat's milk has had such satisfactory results that I thought the information might be of interest to medical men similarly placed. The administration began when the baby was 7 weeks old with one feed of 3 oz. in the day. This amount was gradually increased as the natural supply fell off, and at 3 months the baby was fed entirely on goat's milk, taking six feeds in the day of 4 to 5 oz. each. The milk was given without any preparation, as it came straight from the goat. Digestion was practically perfect. The average gain in weight each week increased from 3 to 4 oz. to from 6 to 8 oz., and the infant retained the fine bloom of health so characteristic of a wholly nursed child.

The convenience of having a first-class food that requires no sterilization or elaborate preparation needs no emphasis.

As a physiologist has no private practice I am unable to give a series of cases from my own experience, but I have come across, in the course of a very brief inquiry, five infants with a similar history. The second of these cases was interesting. She throve extremely well on the goat's milk. When her sister arrived the goat had left, and the usual modified cow's milk was adopted, with markedly inferior results, giving therefore a rough control experiment.

Goat's milk appears to lie somewhere between human milk and cow's milk as regards its physical and physiological properties. I hope shortly to be in a position to communicate the result of some experiments on this subject.

N. H. ALCOCK.

Physiological Laboratory, St. Mary's Hospital.

## CAESAREAN SECTION FOR DYSTOCIA DUE TO VENTRIFIXATION OF THE UTERUS.

THE following case should make a useful addition to those already recently recorded by Drs. Masson Fergusson and Amand Routh:

On January 20th, 1910, Mrs. W., aged 32, 3-para, after being in labour for some hours, sent for Dr. Collington, who, immediately recognizing the condition, sent for me to assist him. The patient, who had now been twenty-four hours in labour, was restless and exhausted. Ventrifixation had been performed eighteen months previously. The uterus was contracting every three or four minutes, and the wall was very thin. The cervix was dragged up quite out of reach. I took the case into hospital and operated at once. The operation lasted about twenty-five minutes. Both tubes were ligatured in two places. The fundus was firmly adherent to the scar in the anterior abdominal wall. Both mother and child did well, and are to-day in perfect health.

F. L. HARMAN BROWN, M.B., C.M.,
Honorary Surgeon, Coventry and Warwickshire Hospital.

# Reports
ON
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## ST. BARTHOLOMEW'S HOSPITAL.

### ACUTE TORSION OF THE GREAT OMENTUM.

(Reported by R. M. VICK, M.A., B.C.Cantab., M.R.C.S. Eng., L.R.C.P.Lond., House-Surgeon.)

THE patient in the following case, a wood-carver, aged 29, was admitted to hospital on November 9th, 1910, suffering from abdominal pain. He had suffered from pain described by him as "stomach-ache" at intervals for several years. The seat of the pain had usually been the right iliac fossa.

*Recent History.*

The present attack began with pain in the right iliac fossa on Friday, November 4th. He was ill and stayed at home all day on November 5th. On November 6th the pain became much more severe, and was of a shooting character. He attended at the hospital and was treated with medicine, and advised to take a light diet. He vomited on the evening of that day, and again on the 8th. He was admitted to this hospital on the evening of November 9th.

Acute torsion of omentum.
*A*. Point of ligature. *B*. Omentum twisted into a stalk.
*C*. Distal part of omentum matted and gangrenous.

*Condition on Admission.*

Unhealthy man. Tongue covered with a thick brown fur. Breath very foul. Temperature 100.2°; pulse 96; respirations 24.

The abdomen moved well. Some fullness, tenderness, and rigidity of the right iliac fossa. The swelling was very definitely limited, and had a well-marked edge. Its edge extended upwards from the pelvis on the right side about 1 in. from the midline to the level of the umbilicus. It was dull to percussion, and with a definite point of maximum tenderness at McBurney's point. *Per rectum*, nothing abnormal felt.

The case was diagnosed as one of localized appendix abscess, and operated upon on Thursday, November 10th.

*Operation.*

The abdominal cavity was opened by a longitudinal incision, 4½ in. in length, starting 1 in. below and 1 in. external to the umbilicus. On opening the peritoneal cavity several ounces of sero-sanguineous fluid escaped. The appendix was found to be adherent to the caecum and one light adhesion connected it to the great omentum. It was removed and the stump invaginated into the caecum. The great omentum was then examined, and it was found that all the large veins in it were thrombosed and that the omentum was twisted on itself seven times and resembled a rope. It was covered all over with nodular thickenings; these were examined microscopically later and found to be composed of inflamed fatty tissue with the blood vessels engorged and thrombosed. The whole omentum was then drawn from the wound and found to be twisted right up to its attachment, with all the veins thrombosed. It was ligatured with interlocking sutures at its base and removed. The wound was closed and a collodion dressing applied.

*Result.*

The patient made a rapid and uneventful recovery and was discharged on December 13th.

A pathological examination of the appendix showed both old and recent inflammation. The annexed engraving from a pen-and-ink sketch of the parts removed shows the general appearance of the condition.

The recent literature on this condition[1] has established in nearly all cases a more or less mechanical causation for the torsion. It seems clear that in the great majority the omentum is twisted between two fixed points—its colic attachment and some adhesion below, usually the sac of an old hernia. Dr. Siegmund Madda,[2] of Breslau, has collected 92 cases of torsion of the great omentum.

The present case is interesting in that there was no hernial sac and no history of rupture. The adhesion to the appendix was quite small, and it is hard to imagine that it could have acted as anything but a weak anchor to the lower end of the omentum. The patient did not at any time suffer from constipation, but the history of pain in the right iliac fossa for several years at intervals was very clear. The clinical history of the condition appears to be fairly definite, though its pronounced resemblance to a mild recurrent appendicitis with a severe exacerbation is likely to prevent a pre-operative diagnosis. A continuous dragging sensation in one or other iliac fossa with indifferent health and often constipation, followed by an acute attack of pain in one or other of these regions and the gradual formation of a fluid swelling, localized, and increasing daily in size, are amongst the most prominent signs. It is almost certain that the condition is not in the first instance an acute one, but that the omentum becomes attached below, and for, perhaps, years goes through a process of gradual torsion; then one day, as the result of some strain, for example, violent purging, or possibly a blow on the abdomen, an extra twist is given, the veins are obstructed and the whole condition becomes acute.

The patient in the present case never at any time appeared as ill as a patient with an appendix abscess of the size of his swelling would have done. The infectivity of the fluid could not have been great as there were never any signs of general peritonitis and the patient made a very rapid recovery.

I have to thank Mr. D'Arcy Power, under whose care this patient was, for his kind permission to publish these notes.

[1] Picquet, *Bull. et mém. de la Soc. Anat. de Paris;* Cernezzi, *Chirurgica Clinica.*

[2] Langenbeck's *Archiv f. klin. Chirurgie*, vol. xcii, 1910. Part III.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### ULSTER BRANCH.

*Belfast, Thursday, January 26th, 1911.*

Dr. WILLIAM CALWELL in the Chair.

*Intravenous Injection of Salvarsan.*

DR. CALWELL showed Grünbaum's apparatus for the intravenous use of salvarsan, and explained its technique; he had at first employed it, but found it rather cumbersome, and it was difficult to keep the injection at blood heat; he had finally used the ordinary saline transfusion apparatus, keeping the 300 c.cm. measure with the contents standing in a jug of water at blood heat, and poured it in as required, using a little normal saline before and after, and it acted perfectly satisfactorily. It was difficult to put the sharp-pointed needle into the lumen of the vein through the skin, so he had under a little eucaine exposed the vein and introduced the blunt cannula. He had done three cases without any bad symptom, except one—a woman developed an urticarial erythematous rash with high temperature for a few days, eight days after the injection. A typical case of early secondaries had improved very rapidly, the rash fading, the throat improving, and the glands disappearing. A woman—a patient of Dr. Houston's—with lung trouble strongly suspected to be syphilitic, and a perforating palate, improved, but there was little change in the lung. The third patient—general pains and one eruption which was impetiginous in places—showed an improvement. In all three there was a well-marked Wassermann reaction.

*Rapidly Intensive Treatment of Chorea by Arsenic.*

Dr. CALWELL also read notes of a case of chorea in a little girl where he had tried mx of Fowler's solution thrice daily. Formerly he had begun with small doses, and increased, but had noticed that it was not uncommon for the patient to improve to a certain stage and then stop. This patient took only four of the larger doses, and began suddenly to vomit. This persisted for a few days, the eyes got sunken, the pulse rose to 160, and the respiration became sighing. The case did not resemble an ordinary gastritis from large doses of the drug. The parents, on interrogation, said she was liable to attacks of this nature, although not so severe; acetone was found in the urine. Under large draughts of soda, and soda by rectum, she improved, and in a week was perfectly well and completely freed from the chorea. The attack seemed to be one of acute acidosis, possibly induced by the Fowler's solution; the case bears some resemblance to one described by Dr. McCaw in the Children's Section of the Association in the London meeting. This child had also had attacks of bronchitis, although their nature was not clear.

The paper was discussed by Drs. MAGUIRE and BROWNRIGG.

*Abdominal Surgery.*

Mr. ROBERT CAMPBELL read notes of four cases of interest: (1) Acute haemorrhagic pancreatitis treated by incision of the pancreas and drainage; (2) acute intestinal obstruction due to impaction of a gall stone in the ileum; (3) perforation of a tuberculous ulcer of the ileum; (4) severe intraperitoneal haemorrhage from rupture of a small ovarian cyst. These were commented on by Drs. DARLING, JOHNSTONE, and FULLERTON.

*Cardiac Dilatation after Obstructed Labour, with Unusual Precordial Murmur.*

Dr. H. L. MCKISACK described the case of a young lady who had been delivered on June 6th, 1910, by Dr. Hicks after a tedious labour. When first seen by Dr. McKisack, on June 9th, 1910, her pulse was of low tension, regular, and 130 to 140 per minute; aspect pale, breathless on slight exertion, heart considerably enlarged, apical pulsation well marked and extensive; also pulsation in epigastrium and in neck. A systolic murmur was heard at the apex, growing fainter towards the sternum. In the fourth right intercostal space, close to the sternum, and restricted to that immediate region, a loud rough murmur, systolic in time, was heard. On listening at the corresponding spot on the left side, a similar but somewhat less noisy murmur was heard, while over the intervening surface of the sternum the bruit was almost lost. It was soon found that while very gentle pressure of the stethoscope made no change in the character of the murmur, moderate pressure increased its intensity, and firm pressure caused its disappearance, and one could easily determine the exact spot where the edge of the bell of the stethoscope could best abolish the murmur. After a week the murmurs became less distinct, and the pulse improved in rate and in quality. In the course of about two months the patient's recovery was complete; the heart had regained its normal dimensions, and all the murmurs had disappeared; the pallor and breathlessness had also gone. It was mentioned that about two years previously, after an attack of influenza, the lady had suffered severely from anaemia, with extreme dyspnoea and palpitation. The strain of a difficult labour had evidently been sufficient to cause acute dilatation of the heart muscle, which was doubtless in some degree degenerated, as during her pregnancy the patient had suffered a good deal from anaemia. The murmurs close to the sternum were evidently produced in the internal mammary artery at each side, which, owing to the hypertrophied condition of the breasts, was of large calibre. As the murmur could be heard when the pressure of the stethoscope was almost *nil*, doubtless the arteries were constricted at some portion of their passage through the intercostal chest wall tissues. Moderate pressure with the stethoscope intensified the murmur; still greater pressure caused its disappearance. The turgescence of the breasts rapidly disappeared, as the infant was weaned from the beginning, hence the arteries rapidly diminished in size and their murmur gradually disappeared.

The case was commented on by Drs. HICKS and CALWELL.

*Open Ether Anaesthesia.*

Dr. P. T. CRYMBLE read a paper on this based on 140 cases. He divided them into three groups:

1. *Children under Three Years.*—The inhaler which he used was a small metal cylinder having sixteen layers of gauze on one end and a rubber facepiece on the other end. He said a hernia operation could be done with 2 oz. of ether. The method was very safe, efficacious, and easily mastered by the student.

2. *Three to Sixteen Years.*—The inhaler used was the Roth-Draeger with the addition of a rubber facepiece. The induction period was long (five to seven minutes), during which there was much struggling. There was excessive mucous secretion. His conclusion was that the narcotile, then closed ether, then open ether, sequence was better.

3. *Sixteen Years and Upwards.*—Many women, old persons, and those exhausted by illness could be anaesthetized by dropping ether on to a gauze mask (sixteen layers of gauze). In a large number of adults ether given in that way did not produce anaesthesia in a reasonable time—that is, ten minutes. The following procedures overcame this difficulty: (*a*) Thirty minutes before operation a hypodermic injection of atropine $\frac{1}{100}$ grain, morphine $\frac{1}{6}$–$\frac{1}{4}$ grain, was given. This reduced the struggling, rendered less anaesthetic necessary, and prevented excessive mucous secretion. (*b*) The use of the Roth-Draeger inhaler and a rubber facepiece. Its advantages were that the patient could only inspire air laden with ether; less ether was used (℥vi–℥viij per hour was sufficient); clicking of valves was a useful guide as to respiration and as to fitting of facepiece. (*c*) Anaesthesia induced by chloroform one part, ether two parts. This was continued until the skin incision was made, when pure ether was used.

*Conclusions.*

1. Induction of anaesthesia, four to eight minutes.
2. Six to eight ounces of ether per hour (℥vi per hour in closed method).
3. Sickness in open ether 32 per cent.; in closed ether 76 per cent. (Osgood).
4. Absence of vomiting and spasm during operation (frequent in narcotile followed by closed ether).
5. Breathing quiet.
6. Absence of cyanosis.
7. A constant depth of anaesthesia easily maintained.
8. The apparatus could easily be sterilized.

*Collapse.*

Three cases of collapse were related:

1. Woman, aged 60. Cancer of breast, heart sounds weak and flapping. No hypodermic. $C_1E_2$; corneal reflex absent in seven minutes; eight minutes incision, pure ether. Respirations somewhat rapid. Respirations ceased; colour good; facial pulse present; artificial respiration; pulse disappeared; face cyanosed; head lowered, spontaneous respiration.

2. Boy, aged 16. Naso-pharyngeal sarcoma. Hypodermic, then $C_1E_2$, then laryngotomy, then ether on gauze mask held over laryngotomy wound. The tumour was then removed. There was some haemorrhage. Corneal reflex absent. Ether withdrawn; one minute later respiration ceased; pulse good; artificial respirations; pulse and face colour disappeared; head lowered, and at once breathing restarted.

3. Man, aged 40. Large rodent ulcer on scalp. Hypodermic, then $C_1E_2$, then E. Free haemorrhage, then breathing and pulse disappeared. Artificial respiration was performed; the head was lowered, and the feet raised. One and half minute later breathing restarted.

These cases of collapse were evidently due to cerebral anaemia, probably in Cases 2 and 3 following severe haemorrhage.

The paper was commented on by Dr. FIELDEN.

*Angeioma of the Foot.*

Mr. FULLERTON read notes of a case of this condition in an old lady treated successfully by ligature of the femoral artery in Hunter's canal.

*Ballooning of the Vesical End of the Ureter into the Bladder.*

Mr. FULLERTON read notes of a case of this condition which he had observed, and which was due to stenosis of the vesical opening of the ureter dating back for seventeen years.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, March 2nd, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*$CO_2$ Output in Decerebrate Rigidity.*

DR. H. E. ROAF made a preliminary communication on carbon dioxide output during decerebrate rigidity. The object of the research was to determine the amount of energy required to maintain muscular rigidity in decerebrate cats. As an indication of the energy production, the carbon dioxide output was measured. The animals were maintained under constant conditions. The experiments were divided into two periods of two hours each. During the first period the carbon dioxide production of the decerebrate cats was measured, and during the second the carbon dioxide production, after abolishing the rigidity, was estimated. The results show that abolishing the rigidity did not alter the carbon dioxide output, and hence there did not seem to be any more energy used to maintain the rigid condition than when the muscles were flaccid. Decapitation abolished the rigidity and at the same time lowered the carbon dioxide output. The cause of this lowering of the carbon dioxide output was being investigated.

*Cattle Trypanosomiasis.*

Colonel Sir DAVID BRUCE, C.B., F.R.S., A.M.S., and Captains A. E. HAMERTON, D.S.O., and H. R. BATEMAN, R.A.M.C. (Sleeping Sickness Commission of the Royal Society, Uganda, 1908–10), reported experiments to ascertain if certain Tabanidae act as the carriers of *Trypanosoma pecorum*. In the latter part of 1909 the Commission noted that an outbreak of cattle trypanosomiasis due to *T. pecorum* at Mpumu, Uganda, coincided with the appearance of swarms of *Tabanus secedens* in certain places where the cattle went to graze. In 1910 the following researches were commenced to ascertain if *T. secedens* might be the carrier of this trypanosome. An investigation of the biting flies occurring where the cattle became naturally infected showed twelve species of *Tabanus*, five species of *Haematopota*, two species of *Chrysops*, *Glossina palpalis*, and a new species of *Rhinomyza*. Before this investigation it was thought that some five or six species comprised all biting flies inhabiting the locality. *Glossina palpalis* was found inhabiting an inland stream having no connexion with Victoria Nyanza, and situated six miles from the Lake shore. Tabanidae appear suddenly in great numbers in certain localities for a few months only, then as suddenly disappear. *Haematopota* was found in open swampy places and forests. *Chrysops* and *Rhinomyza* were comparatively scanty; found about fords of streams in the forests. The three species, *T. secedens*, *T. fuscomarginatus*, and *T. thoracinus*, were the most common of the Tabanidae. Their eggs or larvae were never found, and only wild flies were experimented with. The flies would not live in cages. Transmission experiments were carried out in a fly-proof kraal built amidst the natural surroundings. Sick and healthy calves were daily placed together in a compartment of the kraal in which the above-named species were set free, the experiments being performed with only one species of fly at a time. The flies only lived a few days, but were frequently observed to bite the cattle. A control calf was kept in a compartment of the kraal to which no flies had access. Large numbers of flies of the above-named species were used, but no normal calf contracted the disease. Two series of dissections were made—first, of the wild flies obtained near the laboratory the same day they were caught; secondly, of wild flies introduced into the fly compartment of the kraal, after they had had the opportunity of biting the infected calf therein. In the first series 138 *T. secedens* and 49 *T. thoracinus* were dissected. Of the former, 5 per cent. showed a heavy infection of flagellates in the hind-gut, rectum, and proctodaeum only; of the latter, flagellates were found in hind-gut, rectum, and proctodaeum of 25.5 per cent. Inoculation of these parasites into white rats failed to cause disease. In the second series, liberated in the fly compartment of the kraal, 50 *T. secedens*, 24 *T. thoracinus*, and 37 *T. fusco-*

*marginatus* were dissected; two *T. secedens* were infected with flagellates, and one *T. thoracinus*; none of the *T. fuscomarginatus* were infected. Inoculation of these parasites into white rats also failed to cause disease.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, March 1st, 1911.*

Dr. BYROM BRAMWELL, President, in the Chair.

### *Duodenal Ulcer.*

PROFESSOR CAIRD, opening a discussion on this subject, said that the profession was greatly indebted to the clear and dogmatic teaching of Mr. Moynihan respecting it. He had established a definite symptom-group for the condition. At the same time, cases were not infrequent in which the characteristic symptoms were absent; on the other hand, these symptoms might be present in other conditions—for instance, cases of cancer in the neighbourhood of the duodenum might closely simulate the characteristic symptoms. The local conditions at the ulcer fell into three groups: shallow erosion appearing as whitish patches, thickening and induration, and fibromatous tumour masses. Medical treatment was often successful in early cases. Where operation was indicated, that of posterior gastro-jejunostomy was brilliantly successful. The speaker, in his own series, had not had a single case in which there was recurrence of the symptoms of ulcer, though, in a few, functional disturbances of digestion had occasionally returned. Any local treatment of the ulcer by the various means commonly advocated was unnecessary. Dr. RUSSELL said that with regard to signs and symptoms there was a complete parallel between gastric and duodenal ulcer; the one condition could produce the same clinical picture as the other, while in both conditions hyperchlorhydria was present in the great majority of cases. He strongly repudiated the view of Moynihan, who seemed to identify hyperchlorhydria with duodenal ulcer; but the former certainly often existed without the presence of ulcer. The speaker would divide the cases into early ulceration where medical treatment was successful, chronic ulcer where medical measures were useless and surgical interference was needed, and perforating ulcers. Dr. GIBSON reviewed his hospital cases for several years back; in all the diagnosis of ulcer had been confirmed *intra vitam*; chemical examination of the gastric contents showed that hyperacidity was often absent, or only present in very slight degree. There was no danger in using the stomach-tube in these cases, if there had not been recent haemorrhage. He was a convinced advocate of the value of operation, and especially where closure of the pylorus was added; in these the results had been most brilliant. Dr. DEWAR (Dunblane) said that in his own case attacks of severe and acute dyspepsia had alternated with intervals of perfectly efficient digestion. The result of operation in his own case had not been so brilliant as Professor Caird described, for though there had been improvement, he had had two attacks of melaena in the two years since the operation. Professor ALEXIS THOMSON said sex incidence had been very marked in his cases; he had operated on fifty males and five females. It was peculiar that whereas cancer frequently attacked the site of a gastric ulcer, he had never known this complication in the duodenum. One practical point in perforating ulcer was to transport the patient to hospital in a sitting posture, so that the stomach contents might find their way to the more resistant peritoneum of of the pelvis. Dr. AFFLECK advocated a thorough trial of medical measures before operation, though admitting that his experience of the results of operation had been very satisfactory. He cited cases of very severe haematemesis in which there had been complete recovery and no recurrence after many years. Mr. STILES alluded to the difficulty of diagnosis in certain cases. Malignant tumour of the hepatic flexure of the colon, and chronic adhesive peritonitis round the gall bladder, might give symptoms indistinguishable from those of duodenal ulcer. He had practised closure of the pylorus in cases of ulcer complicated by dilatation of the stomach, and also in pure cases of atonic dilatation of the stomach, and with good results. Those cases were apt to give trouble with vomiting ("vicious circle") where only a gastro-enterostomy was performed. Dr. GULLAND believed that recurrence after operation was more frequent than was indicated by surgical statistics. Examination of the faeces by fine chemical tests not infrequently showed the presence of blood in small traces. But, on the whole, he agreed with the beneficial effects of operation. Mr. CATHCART said that in his own experience the mortality in perforated duodenal ulcer was much higher than in perforated gastric ulcer. Mr. DOWDEN said that in operating on two cases of hairball of the stomach he had been struck by the way in which the harder masses of the ball were held close against the lesser curvature and pylorus, and were connected by prolongations with similar hard masses in the duodenum. He suggested the possibility of gastric and duodenal ulcers being caused by the similar apposition of unmasticated lumps of food. Mr. MILES said that statistics from general practitioners who could follow the after-history of operation cases for many years would be very valuable. Mr. WILKIE had succeeded in producing experimentally gastric and duodenal ulcers in cats by retrograde embolism through the gastric and duodenal veins. Appendicitis was now believed by some to be a cause of duodenal ulcer, and might effect it by this way—setting up first an omental inflammation and thrombosis, and next a retrograde embolism of omental venous thrombi. Dr. BOYD had found that fat, given as olive oil or cream before food, was a most efficient remedy for hyperchlorhydria. The PRESIDENT said that duodenal ulcer was a comparatively rare condition, as shown by the statistics given them that night. The sex incidence was of value, and made one diagnose the condition with caution in women. He suggested that those cases of profuse bleeding where operation revealed no ulcer might be due to very shallow erosions which had rapidly healed over. Professor CAIRD replied.

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Thursday, March 9th, 1911.*

Dr. G. A. BERRY, President, in the Chair.

### *Optic Nerve Tumour.*

DR. HILL GRIFFITH described and illustrated three cases of optic nerve tumour. Two were intradural, the other extradural. In the first case there had been protrusion of the right eye for seven and a half years. Movements were good except downwards. There was a lobulated swelling between the globe and the inferior edge of the orbit. Distinct resistance was encountered. Vision J. 16. The disc was pale and atrophic. At the operation the eyelids and entire contents of the orbit were removed, the eyebrow being preserved. A month after the operation five Thiersch grafts from the patient's thigh were transplanted into the orbit. When seen recently the orbital cavity was well lined with skin, except at one spot. There was no discharge. Professor Lorrain Smith's report was that there were widely dilated lymphatics and lymph spaces in a matrix of vascular fibrous tissue. The larger spaces were lined with endothelium. In the second case there was marked displacement of the eyeball forwards, which had been noticed a few weeks. There was marked optic neuritis in the affected eye, but no haemorrhages. He removed the entire contents of the orbit in one mass. The tumour consisted of small round cells, and the tissue was richly supplied with thin-walled blood vessels, and there were many widely dilated lymph spaces. The third case had had protrusion of the left eye for some years, and latterly it had increased. The eye movements were good. There was recent optic neuritis with blurring of the edge of the disc all round. There were no haemorrhages. Shortly before the operation the vision had fallen to $\frac{6}{12}$, and there was well-marked proptosis. No growth could be felt. The external rectus tendon and outer canthus were freely divided, and then the growth could easily be felt, obviously surrounding the optic nerve. The entire orbital contents were removed. The growth consisted of cylindrical masses, made up of large epithelial-like cells, with a round central nucleus. He strongly recommended the procedure he adopted in these cases.

### *Morgagnian Cataract.*

Mr. JOHNSON TAYLOR read a paper on a Morgagnian cataract in an elderly spinster who had had the condition

in the left eye twenty-five years without any discoverable adequate cause.

The eye, doubtless from long disease, had become amblyopic, and, though the direct pupillary light reflex was quite brisk and the tension normal, the projection was very defective. During the operation, which was a difficult one, owing to the sunken state of the eye, the small size of the cornea, and the narrowness of the palpebral aperture, no trace of a nucleus was discovered; the whole lens was found transformed into a milky fluid, with the exception of some inspissated material lining the capsule, which was removed by repeated introduction of iris forceps; after a subsequent needling the vision was $\frac{5}{12}$ and J. 1.

Two points were insisted upon: (*a*) That operation should not be refused just because the projection was bad, if the direct pupillary light reflex was brisk and the tension normal; (*b*) that prevention was better than cure, and that as a general rule one-eyed cataracts should be operated upon before getting over-ripe, although the other lens was perfectly clear.

*Granuloma of the Retina.*

Messrs. F. G. THOMAS and G. COATS read a paper on a peculiar form of granuloma of the retina.

The patient, a lad of 18 years, became ill in March, 1908, with influenza. Afterwards he developed pain in the hypogastrium, and suffered from retention of urine and pyrexia. He had severe pain in the left brow, and became drowsy and irritable. Examination of the eyes showed, in the region of the left papilla, an area resembling a greatly enlarged disc, and consisting of a central flat structureless portion, of the colour of fundus elsewhere, surrounded by a ring of swollen nerve fibres. The retinal vessels emerged from the inner edge of this ring. The right fundus was normal. Subsequently a discharge from the left ear developed and he recovered. Nearly two years later he came to hospital again. The eye was blind and glaucomatous, the anterior chamber very shallow, the retina detached. Enucleation was therefore performed. Pathologically an oval yellow mass measuring 4 mm. by 2.5 mm. was found in the stalk of the detached retina close to the papilla. The growth was purely retinal, and consisted of densely crowded cells, mostly slightly elongated. There was very little stroma and no organization within the mass, but on its vitreous surface a small quantity of old organized tissue was found. The corneo-iridic angle was occluded.

Looking to the histological characters alone the growth resembled a sarcoma more than a granuloma, but this diagnosis seemed improbable in view of its small size and slight amount of growth in two years.

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## ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

*Friday, February 24th, 1911.*

Dr. E. CAUTLEY, President, in the Chair.

*Cases and Specimens.*

THE following cases and specimens were shown:—Dr. E. BELLINGHAM SMITH: A case of *Spasmus nutans* in an infant aged 11 months. The movements, which were side to side, were first noticed two months ago, and were followed in a week by nystagmus. There was occasionally a convergent strabismus, and twitchings of the left hand were said to occur. Dr. PORTER PARKINSON: A case of *Congenital dilatation of the colon* in a girl aged 6 years. Except for constipation and occasional colic, the child had been healthy from birth. There was no history of consumption or syphilis in the family. The girl was healthy-looking and not in the least anaemic. *X*-ray photographs, taken after injection of bismuth, showed the great enlargement of the colon, and examination of the stomach by auscultatory percussion and other methods suggested that there was some enlargement of that organ. Dr. E. CAUTLEY: A case of *Cerebral athetotic diplegia* in a girl aged $2\frac{3}{4}$ years. The family history was negative, but the mother was only 19 years of age when the child was born. At four months the patient could sit up, and this was an important point in favour of the condition being post natal in origin. She cut her teeth quickly and was said to have talked well at two years of age. She could walk a little by herself last October, but was never able to walk well, as her feet turned out. Nine months ago she had a fall, and about that time her back was found curved. For the last four months she had been kept on her back, and for a month or so she was said to have become "strange in her mind." The child was well nourished, and her mental condition was lively, but defective. The pupils showed no abnormality and there was no nystagmus. The fundi were normal. The palatal arch was high and the teeth were well developed. The head was asymmetrical, $18\frac{1}{2}$ in. in circumference, and was always held a little to one side as if there were slight torticollis, while the chin was receding. The hands showed ataxic and purposeless movements while at rest and some inco-ordination on movement. There was a little scoliosis in the mid-dorsal region with convexity to the right. The knee-jerks were exaggerated, especially on the left side. The legs were a trifle stiff and the feet in the position of equino-valgus, but the deformity was easily reduced. The toes were not hyperextended. The gait was ataxic and slightly spastic, and the right leg was somewhat flexed at the hip and externally rotated. There was also incontinence of urine. The condition was probably due to structural damage, possibly by mild encephalitis, of the frontal and parietal regions of the cortex. Mr. D. C. L. FITZWILLIAMS: A case of *Congenital absence of the pectoral muscles* in a girl aged 13 years. Dr. J. W. CARR: A case of *Anorexia nervosa* in a Jewess aged 10 years. She was said to have been healthy until she was 5 years old, when she lost her appetite, had pain in the stomach after food, and began to waste. On admission to the Victoria Hospital last September her weight was 26 lb., and since then she had gained about 1 lb. The child was excessively emaciated, but could walk with ease. She had been sick nearly every day since admission, often five or six times, usually very soon after taking food. Her temperature was generally subnormal, and there was no evidence of disease in any part of the body. Bismuth and radiography showed that there was no obstruction in the oesophagus and no dilatation of the stomach. The bowels acted fairly regularly. Treatment had included isolation and massage, faradism, feeding by nasal tube, gastric lavage daily, starvation and chloretone to produce drowsiness, but the vomiting had continued and the general condition remained unaltered. Dr. A. W. G. WOODFORDE: Specimens from a case of *Delayed chloroform poisoning* in a boy aged 9 years, who was anaesthetized for the removal of an enlarged gland in the right side of the neck, there being no other signs of disease. Anaesthesia lasted about fifteen minutes. On recovering consciousness, he vomited once and passed a comfortable night. On the following day he vomited twice, but took the usual light diet well and appeared to be in a satisfactory condition. Two days later he had slight vomiting on three occasions. The next morning he ate part of his breakfast, and was then noticed to be in rather a collapsed state. He reacted well to simple restoratives and slept heavily during most of the day, but was never unconscious. In the evening he vomited, and later became unconscious, respiration ceasing two hours afterwards. With artificial respiration the heart continued to beat for five hours after the breathing ceased. The urine, tested shortly before death, contained a large amount of (?) acetone. *Post mortem* a gross, fatty degeneration was found in the liver, which was golden yellow in colour, and in the heart, kidneys, and spleen. A few submucous haemorrhages of small size were seen in the stomach. Caseating tubercle was found in one of the bronchial glands, and also in a mesenteric gland. Sections of the liver, heart, muscle, kidney, and spleen all showed an extreme grade of fatty degeneration. Dr. E. I. SPRIGGS and Dr. J. B. DE W. MOLONY: A case of *Angiomata of the left loin and leg* in a girl aged $4\frac{1}{2}$ years. The condition was present at birth. Except for enlarged inguinal glands on both sides, the child showed no signs of other abnormalities. Dr. C. RIVIERE: A case of *Congenital aortic stenosis* in a boy aged $5\frac{1}{2}$ years, with no history of rheumatism. The heart appeared to be of normal size, but the impulse was forcible. There was a thrill over the aortic area, but no pulsation. A rough systolic murmur was audible over the whole heart, but of maximum intensity over the aortic area, and conducted a long way into the large arteries. The aortic second sound was clear, and there was no evidence of a patent ductus arteriosus. The pulse, 100 per minute, appeared to be rather small and soft. Dr. J. L. BUNCH: A case of *Lichen spinulosus* in a child aged $2\frac{1}{2}$ years.

*Oculo-motor Type of Polio-encephalitis.*

Mr. S. STEPHENSON read a paper on the oculo-motor type of polio-encephalitis. He drew attention to a group of

cases of squint in young children, which he believed to be due to polio-encephalitis. Any of the extrinsic muscles of the eye might be affected, but in two-thirds of his cases the external rectus was alone involved. The intrinsic musculature of the eye was seldom attacked. The squint, which was of paralytic nature, was associated in about one-third of the cases with fits, convulsions, stupor, or other symptoms indicative of an affection of the brain. The common form of encephalic strabismus was apt to be confused with the ordinary form of concomitant convergent strabismus, although the age incidence of the two affections was different. For purposes of differentiation a careful examination of the corneal reflexes was all-important. The cases and paper were discussed by the PRESIDENT, Dr. H. SKELDING, Mr. D. C. L. FITZWILLIAMS, Dr. L. GUTHRIE, Dr. F. LANGMEAD, Dr. C. R. BOX, Dr. C. W. CHAPMAN, Dr. PARKES WEBER, Dr. J. BLUMFELD, Dr. E. BELLINGHAM SMITH, Dr. J. D. ROLLESTON, and Mr. P. L. MUMMERY.

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### BALNEOLOGICAL AND CLIMATOLOGICAL SECTION.

AT a meeting on March 1st, Dr. T. F. GARDNER, President, in the chair, Dr. RINGROSE GORE (Llandrindod Wells), in a paper on the *Climatic and balneological treatment of neurasthenia*, said that in no disease were the details of general treatment of greater importance. One essential factor in treatment was time, and many failures resulted from non-appreciation of this fact. It was very important to impress this upon patients; otherwise they became unduly depressed when a short course of treatment failed to effect a cure. Patients in a marked debilitated state of health required rest in bed combined with massage and careful dieting before being subjected to spa treatment. On the other hand, neurasthenics, in whom the disease was dependent on some chronic abdominal condition, such as gall stones, chronic appendicitis, or some abdominal displacement, should be recommended spa treatment before and not after operation. Practically all cases of neurasthenia had a toxic basis, and a very large number of cases were due to or associated with some form of digestive trouble. It was in these cases that properly regulated spa treatment was of signal value. At Llandrindod Wells the chief treatment consisted in drinking a natural saline water every morning. The action of this water was mainly one of gastro-intestinal lavage, which aided the elimination of toxic products. There was also a chalybeate spring which was prescribed for its tonic effect. High-frequency currents, douches of different kinds, and reclining baths at various temperatures, were all valuable accessory methods of treatment, and flushing of the colon as practised at Plombières was beneficial in cases in which mental depression was a prominent symptom. The choice of climate depended to a great extent upon the stage of the disease and the age of the patient. In most cases a preliminary rest cure was advisable, and subsequently a stay at a quiet bracing station should be recommended. Mountain or sea air were to be preferred unless they induced insomnia. In the summer it was easy to find a suitable climate in the British Isles, but in winter difficulty arose, inasmuch as neurasthenics required an open-air life. Young patients, especially those on the road to recovery, did well at an Alpine resort, so long as they were content to keep to the milder forms of exercise. Dr. BUCKLEY (Buxton) said that there was one important mode of treatment which was of extreme value in neurasthenia, especially if accompanied with restlessness and insomnia—namely, the cold pack at a temperature of about 90°. Dr. PRESTON KING (Bath) considered that in the treatment of neurasthenia change was all-important, with rest and, as far as possible, absence of worry. Physical disease, as colitis, arthritis, or affections of the heart, must be treated. Properly used, suggestion was a distinct help to cure, not only in neurasthenia, but in all illness. Dr. EDGCOMBE (Harrogate) regretted that the author of the paper had not defined clearly what was meant by the term "neurasthenia." The more severe cases, characterized by profound fatigue, formed a well-marked group, the main factor in the treatment of which was rest. The milder cases were so ill-defined and protean in their manifestations that it was impossible to formulate definite rules for treatment. Each case must be treated on its merits; the tact and personality of the physician in charge was not the least important factor in procuring a good result. Dr. WILLIAM ARMSTRONG (Buxton) considered that neurasthenia depended upon disturbance of the sympathetic nervous system, in some cases preceded, in nearly all followed by, autointoxication. He strongly advocated direct treatment of the cervical ganglia of the sympathetic in minor cases by means of ionization of the neck; in more severe ones by anaesthetic ionization followed by light application of the electric cautery. For the autointoxication nothing was so helpful as the drinking and inhalation of strong radium emanations in water (8,000 machi units per litre), which greatly increased nervous force and also strongly stimulated the excretion of waste products, especially increasing the output of carbonic acid. Dr. REES (Llanwrtyd Wells) alluded to the fact that preceding speakers had not mentioned influenza as a possible cause of neurasthenia; in his opinion cases of neurasthenia had been much more numerous since the advent of influenza in this country. He concurred with the previous speakers that it was desirable to have a definite conception as to what conditions should be included under the term "neurasthenia." In the absence of any authoritative pronouncement on the matter, he had for himself adopted the meaning of the word from its Greek derivatives, which signified lack of nerve force. The term "neurotic," on the other hand, he had always considered as applicable to a highly excitable and unstable state of the nervous system associated with exaggerated reflexes. Dr. F. G. THOMSON (Bath) was of opinion that the first essential in the treatment of neurasthenia was to get a clear mental conception of the nature of the disease. Dr. Gore's statement that it was due to gastro-intestinal toxaemia was not borne out by facts. It was not the *bon vivant* who became neurasthenic, but the patient who, after years of anxiety and worry, eventually broke down under the strain. Neurasthenia was a psychosis of exhaustion, and the primary factor in treatment must be complete mental and physical rest. The great majority of severe cases were bad sleepers, and such cases were likely to derive far more benefit from a sedative than from a bracing climate. The PRESIDENT agreed with Dr. Preston King that much in the treatment of neurasthenia depended on the personality of the physician and the wise use he made of suggestion suited to each particular case.

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## ULSTER MEDICAL SOCIETY.

THE fifth meeting of the Society was held in the Medical Institute on February 9th, the President (Sir P. R. O'CONNELL, M.D., D.L.), in the chair.

### *Obscure Pyrexia.*

Professor LINDSAY read a paper in which he said all practitioners occasionally encountered cases where for a considerable time the only objective fact was a continued pyrexia of doubtful causation. Physiologists and pathologists were not fully agreed as to how far pyrexia was due to increased heat production or diminished heat loss, nor to what extent it was simply an irritative disturbance of the thermo-taxic mechanisms of the body or one of the protective arrangements of the organism. The causes of pyrexia were very numerous, but probably two of these causes covered most of the ground concerned with "obscure pyrexias." These were infection—using that word in its widest significance—and nervous influences, the former being by far the more potent and far-reaching. Certain causes of obscure pyrexia, very frequent in some countries, hardly concerned the Irish practitioner. Examples of these were malaria and Malta fever. An aphorism attributed to the late Sir William Jenner might be recalled with advantage:

> A patient who has suffered for one week from continued fever, without other physical sign, is the subject either of typhoid fever, pus-formation, or tuberculosis. A patient who has suffered for a month from continued fever, without other physical sign, is the subject either of pus-formation or tuberculosis. A patient who has suffered for two months from continued fever, without other physical sign, is the subject of tuberculosis.

That aphorism was no bad starting point from which to undertake the investigation of a difficult case of "obscure pyrexia." It at least secured that three of the most important causes of this condition would receive adequate attention. Certain causes of continued pyrexia were not so much "obscure" as easily overlooked—that is, if duly

inquired for, their detection did not present any real difficulty. Of such causes there might be mentioned cholecystitis, pyelo-cystitis, secondary syphilis, septic conditions of the mouth, throat, and naso-pharynx, and acetonuria. These conditions were fertile causes of "obscure pyrexias," but could be discovered if adequate inquiry were made and modern methods of diagnosis fully employed. Ulcerative endocarditis was another cause of "obscure pyrexia," which was easily overlooked, especially the chronic form described by Osler. Rheumatism might be very latent in some of its manifestations, especially in children. The state of the heart might give the required hint. Pneumonia, again, might be a source of error, either from latency of the physical signs or from a preponderance of cerebral, typhoid, or gastro-intestinal symptoms. Of cases wrongly admitted to fever hospitals as typhoid fever, pneumonia accounted for a large number and usually headed the list. Influenza was a frequent cause of an "obscure pyrexia," but was oftener erroneously supposed to be present than overlooked. Few terms more often covered a multitude of diagnostic sins than "influenza." The influenzal pyrexia was not really very difficult of recognition. The onset was always more or less definite; signs of defervescence usually appeared by the fourth, fifth, or sixth day, and were never delayed beyond the tenth day. The patient felt irritable and depressed, and the blood showed a leucopenia, unless there was a mixed infection, usually with the pneumococcus. A most interesting yet difficult question was how far intestinal autointoxication was a frequent cause of an "obscure pyrexia." He had seen a good many cases where this seemed the only probable explanation. A good many of these cases were probably examples of *Bacillus coli* infection. It was said that a leucocytosis was always present in these cases, a point which might help to distinguish them from typhoid fever. Pernicious anaemia was another cause of "obscure pyrexia," but the aspect of the patient and the blood examination would serve to clear up these cases. It was well to be watchful for the possibility of malignant disease in such cases. This was no uncommon error, and one not always easily avoided. How far the terms "nervous fever" or "hysterical pyrexia" were valid, was a moot point. He was rather inclined to look askance at the theory which underlay these expressions; yet it could hardly be doubted that there were persons whose thermotaxic mechanisms were unduly mobile, and who developed relatively high temperatures from slight causes of disturbance. The practitioner should, however, be on his guard when told that "So-and-So is always having a high temperature," lest haply some day he should overlook an incipient pneumonia, scarlatina, or typhoid fever. The three conditions mentioned in Jenner's aphorism—typhoid fever, pus formation, and tuberculosis—were the more common causes of an "obscure pyrexia," and often involved the most difficult of all the problems which arose in connexion with the subject. The practitioner must recognize that typhoid fever was one of the most protean of diseases, and that all the most characteristic signs and symptoms might be absent. Initial headache, gradual onset, the eruption, diarrhoea, tumid abdomen, dicrotic pulse, characteristic course of the temperature, might all be wanting. In his experience the following points were the most trustworthy: (*a*) A history of slight epistaxis, slight bronchial catarrh, giddiness, and deafness; (*b*) enlargement of the spleen; (*c*) Widal's test, which was often of essential service; (*d*) the detection of the specific organism in the urine. The detection of pus was often a most difficult matter. The temperature, the aspect of the patient, and the general symptoms might all be misleading. History and some probable source for pus were most important. Pain and tenderness were rarely quite absent. Leucocytosis was a help, especially in excluding typhoid fever. Tuberculosis might long evade detection, even when every care was taken and all the modern methods of diagnosis put in operation. Acute miliary tuberculosis was especially difficult of early detection. Cyanosis was an important hint in the diagnosis of this condition. Tubercles might be discovered in the choroid or in the spinal fluid. Calmette's, von Pirquet's, and Moro's tests were usually helpful, but all involved possible fallacy. Tuberculous meningitis was often difficult of prompt detection, and the distinction from typhoid fever might tax diagnostic acumen to the utmost. The psychical condition of the child—usually one of restlessness and irritability—the decubitus in bed, Kernig's sign, and the persistence of headache after the advent of delirium, and the state of the fundus oculi, were among the most helpful points. The examination of the spinal fluid might determine the nature of a doubtful case. Ordinary pulmonary phthisis was an occasional cause of an "obscure pyrexia," but in general the history, the state of the chest, the examination of the sputum, and the application of one or other of the tuberculin tests would make these cases clear, though time might be necessary for arriving at a definite diagnosis. Professor Lindsay related various cases in illustration of his views.

A number of Fellows joined in the discussion—Sir JOHN BYERS, Dr. DARLING, Dr. GARDNER ROBB, Dr. MCKISACK, Dr. KEVIN, Mr. SINCLAIR KIRK, and Dr. CLEMENTS. Sir John Byers laid stress on modern aids to diagnosis, and mentioned some obscure cases in which the streptococcus was found to be the causative organism. Dr. Darling mentioned some cases in which the source of mischief lay in the pharynx. Dr. Robb gave his experience of the value of Rousseau's test in typhoid fever, which he found a reliable confirmatory sign, even early in the disease. Dr. McKisack enumerated some cases in which the term "gastric fever" seemed applicable.

## CLINICAL SOCIETY OF MANCHESTER.

*Tuesday, February 21st, 1911.*

Mr. J. HOWSON RAY, President, in the Chair.

*Treatment of Diseases of Lymphatic Glands and Spleen.*

Dr. GEORGE R. MURRAY read a paper on the treatment of some diseases of the lymphatic glands and spleen. In Hodgkin's disease he laid stress on the necessity of carefully examining the mouth, nose, ears, and skin, and on the avoidance of all mental and bodily strain. He referred to the ordinary lines of treatment by drugs, and discussed the advantages and disadvantages of surgical treatment, removal of enlarged glands, and treatment by *x* rays. His experience of surgical treatment had not been very encouraging, and, unless there was pressure on important nerves or vessels by the enlarged glands, he would not advise it. He had seen most satisfactory results follow the use of the *x* rays, but thought the best results would be got if arsenic were administered at the same time. The rays reduced the gland enlargement as nothing else would, but unfortunately the patient's general condition did not show a corresponding improvement. Whatever line of treatment was adopted, however, cure could not be attained; the disease could only be kept under control. The apparatus used should be a powerful one, and the rays given two or three times a week for periods depending on the condition of the patient. Several cases were quoted, amongst them being that of a lady with marked enlargement of the mediastinal glands, in which the rays had produced a very wonderful improvement in the condition of the glands, her general condition, however, being very little better. In leukaemia, when there was a rise of temperature, the patient should be absolutely confined to bed and great care taken to avoid injury to the spleen. He strongly urged open-air treatment for these cases. Arsenic should be given in large doses; in one case he had given 25 minims of the Fowler's solution three times a day. The *x* rays led to a surprisingly rapid reduction in the size of the spleen and markedly controlled the excess of white blood corpuscles. The applications should be persisted in for two or three months and then given once a month. Here, again, the rays did not lead to a cure, and where relapses occurred they frequently proved valueless. In lymphatic leukaemia the acute cases ran a very rapid course and the chronic ones were very protracted. Cases were quoted to prove that in this condition the *x* rays were of little value. They certainly reduced the white blood corpuscles, but, at the same time, there was a ery marked reduction of the red. In splenomegaly the *x* rays were of no value. He thought excision of the spleen held out the best chances for the patient. Where ascites was present tapping must be resorted to.

Dr. C. H. MELLAND said that his experience of removal of one set of glands, in Hodgkin's disease, was that it frequently led to a rapid lighting up of the disease in other glands. Arsenic had yielded excellent results. It

should be given in large doses, stopped for a while, then large doses again, and finally the patient kept on a course of small doses. *X* rays he thought were effective, but he preferred to start with arsenic, and when this appeared to be failing in its effect to then go on to the rays. In leucocythaemia he regarded arsenic as invaluable. He had seen the leucocytes reduced, in ten months, from 150,000 to 800 per c.mm. by its use. The reduction, too, was usually accompanied by an improvement in the general health of the patient—a fact which was often absent in Hodgkin's disease. In splenic anaemia he thought arsenic should be given in increasingly large doses. In one case under his care he had observed a reduction in the size of the spleen to one-half what it was when the arsenic was started, and this in two months, and the accompanying anaemia had entirely disappeared. A recurrence of the condition would make him seriously consider the advisability of surgical interference.

Dr. P. R. COOPER said he regarded lymphadenoma as being very closely allied to lymphosarcoma, and acting on this opinion he had some years ago treated an advanced case of the former with injections of Coley's cancer fluid. He started with injections of ½ minim, and finally was giving 5 minims. The injections had on two occasions been followed by serious collapse. He was of opinion that treatment with vaccines would most probably in the future prove to be of value.

The PRESIDENT briefly referred to the effects produced by the injection of Coley's fluid. He had seen collapse follow the injection of ½ minim, while 2 or 3 minims had no effect.

Dr. A. A. MUMFORD asked Dr. Murray if the *x* rays had proved of any value in the treatment of enlargement of the thyroid gland.

Dr. MURRAY, in reply, said he had not observed the effects of surgical treatment, referred to by Dr. Melland, but would bear it in mind. He pointed out to Dr. Cooper that the structure, microscopically, in lymphadenoma and lymphosarcoma had been definitely proved to be entirely different. The *x* rays had proved of no value in the treatment of enlargement of the thyroid.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, February 15th, 1911.*

Mr. W. MORLEY WILLIS, President, in the Chair.

*Syphilitic Throat and Skin Lesions.*

A DISCUSSION on this subject was opened by Mr. J. MACKIE, who confined his remarks chiefly to the diagnosis between syphilitic, tuberculous, and malignant disease of the throat and larynx. It was rare to see a chancre in this region; on the other hand, it was a favourite site for secondary and tertiary manifestations of syphilis. The secondary stages did not last long, and readily responded to treatment. In the tertiary stages gummata usually appeared on the posterior surface of the uvula, the palate, and the base of the epiglottis. The importance of the family doctor, who knew the history of the patient, was emphasized in the question of diagnosis. In doubtful cases potassium iodide frequently cleared the diagnosis. Again, a careful examination of the chest would often reveal the presence of tubercle.

Mr. J. P. GRAY said primary chancres were very rare in the region of the throat; they were accompanied by great enlargement of the cervical and submaxillary glands. After six weeks secondary manifestations appeared, chiefly as (*a*) multiple, slightly infiltrated mucous patches on the fauces, or as (*b*) superficial ulceration of the mucous membrane accompanied with rather deeper infiltration. These symptoms were seen more commonly in women than in men, because the men, as a rule, were already under treatment, and so often escaped. Five years after infection gummata might be found as tumours infiltrating the surrounding tissues. As these frequently arose behind the soft palate they often escaped detection. Moreover they broke down with surprising swiftness, leaving a deep ragged ulcer, sometimes involving most of the uvula and one side of the pharynx. As this healed it led to serious deformities, in some cases adhesions almost entirely shutting off the post-nasal space from the pharynx. Syphilitic rhinitis in congenital disease was very amenable to treatment. The treatment consisted in giving mercury and iodides, and in all cases ordering a mercurial lotion as well.

Dr. F. H. JACOB dealt chiefly with syphilitic skin lesions and the bacteriology of syphilis. The organism was best examined through a dark-ground condenser. Lupus was often difficult to diagnose from syphilis; the chief aids in diagnosis were the pressure of a watch-glass, which showed the apple-jelly granulations in lupus, the tuberculin test, the microscope, and the Wassermann reaction. The latter reaction had shown that antisyphilitic treatment should be continued for three years; also, that the best methods of treatment were (1) "606," (2) the inunction method, (3) the injection method, (4) by means of suppositories, and that (5) oral treatment was the slowest and least satisfactory. In the tertiary stages potassium iodide should be pushed to large doses—for example, ʒj three times a day. Very often arsenic added to a mixture of iodide and mercury proved of great value.

Drs. C. H. CATTLE, STANLEY GREEN, and PARRY JONES continued the discussion.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 17th, Dr. J. DOBSON in the chair, Mr. H. COLLINSON read a paper on the *Acute aspects of appendicitis in children*. Dr. T. CHURTON showed two cases of *Graves's disease* and made some comments on the prognosis, drawing attention to the fact that it was in many cases favourable. He related the case of a woman who had been under his observation for thirty-three years. She recovered from the first attack in twelve years, less completely from a second attack. She died in 1910 from (it was said) heart disease and dropsy, at the age of 54. Another patient still under observation had been free from symptoms for eleven years. Dr. T. WARDROP GRIFFITH gave a short demonstration of the information obtained by the use of the *Clinical polygraph* in cases of actual and of apparent pulsation of the liver, in connexion especially with cardiac disease. Two cases were especially commented on in which there was great hepatic enlargement. In one of these, in which there was a pulse of the continuously irregular type, with a jugular pulse of the ventricular variety, there was extreme hepatic expansile pulsation, which was shown to be also of the positive or ventricular character. In another case, in which the enlargement was quite as great, the pulsation of the liver was shown to be apparent only, and due to an upward drag on the liver exercised on that organ by the contraction of the ventricles. In a third case an auricular as well as a ventricular wave was shown. The bearing of these observations on diagnosis was briefly pointed out. Mr. H. SECKER WALKER showed a case of *Chronic glaucoma*, affecting both eyes, for which Herbert's small scleral flap operation had been done with successful results ten weeks previously; also a case of *Excision of the laryngeal sac for chronic dacryocystitis*. Mr. J. A. COUPLAND showed a girl, aged 18, with an *Ulcer exposing the inner end of the right clavicle*. The ulcer, which was of seventeen months' duration, had firmly healed under complete rest with fixation of arms, but recurred in two months. The ulcer showed no characteristics of syphilis or tubercle and did not react to antisyphilitic treatment. It was suggested that it was artificially produced by the patient herself. Mr. W. THOMPSON showed a boy aged 12 in whom four years ago the greater part of the right tibia was removed for *Acute osteomyelitis*. The upper epiphysial line of the tibia had been destroyed, and it was 3 in. shorter than the other tibia. The fibula was ½ in. shorter than the other, and had overgrown the tibia both above and below. Mr. W. GOUGH showed a *Villous tumour* removed from a woman who had had several attacks of painless, profuse, paroxysmal haematuria. Through Nitze's cystoscope a small tumour was seen at the left ureteral orifice. A large Kelly's cystoscope was then passed, and the tumour was avulsed by means of a pair of long-nibbed forceps. Removal left only one small raw point. Mr. H. LITTLEWOOD and Mr. S. W. DAW showed a boy aged 12 in whom there was a massive *Keloid of the neck* following burns from ignition of a celluloid collar two years ago. The

tumour began to appear as the scar was healing. Mr. G. CONSTABLE HAYES showed a case of *Disease of the ear and nose.* The patient was a woman aged 24 who had had a discharge from both ears from childhood. She had suffered from snuffles and sores around the mouth as a baby (marked scarring at angles of mouth). The right ear showed complete destruction of the membrana tympani and ossicles. The opening of the Eustachian tube was seen in the middle ear. Watch was heard at 5 in. The left ear showed an aural polypus presenting at the external auditory meatus, with its origin from the attic. Watch was heard at 15 in. The nose showed extreme atrophy of ethmoid with rhino-pharyngitis sicca. Mr. H. COLLINSON showed a case of *Bismuth poisoning after the use of Stiles's paste.* Cases and specimens were also shown by Dr. E. F. TREVELYAN, Mr. J. STEWART, Dr. J. B. HELLIER, Dr. R. A. VEALE, Mr. MICHAEL A. TEALE, Dr. W. H. MAXWELL TELLING.

### A CORRECTION.

IN the report of the discussion on low blood pressure in the Medical Section of the Royal Society of Medicine on February 28th, published in the JOURNAL of March 11th, page 558, the remarks made by Dr. W. Bezly Thorne were incorrectly attributed to Dr. G. Oliver.

# Reviews.

## THE ARMY MEDICAL OFFICER IN WAR.

MILITARY regulations, and especially military medical regulations, make very dull reading, and yet a medical officer on active service must have a fairly good working knowledge of them if he does not wish to find himself severely handicapped, as well as a source of trouble to those around him. To make a study of the regulations attractive Oberstabsarzt WITTMANN has written a diary of a medical officer in a future war.[1]

The supposed author of the diary is appointed to the charge of a regiment on mobilization, and, being of a methodical turn of mind, keeps notes of all daily occurrences of interest during the war. The hero of the work, on receiving the order to mobilize, reports himself to the regimental commander, and is permitted to inspect the mobilization time-table. Remarking incidentally that it would have been much better to have allowed him to study the scheme quietly during peace time, he proceeds to draw up his own plans for inspecting the men of the regiment, taking over the regimental medical stores, and arranging for his own field service kit. The various duties are carried out methodically according to the mobilization scheme, and on the appointed day the regiment marches out of barracks and proceeds by railway and road to join the main army in the area of concentration. This portion of the narrative emphasizes the importance of the medical officer's sanitary duties on the march, in billets, and bivouacs. During the strategical concentration several serious cases occur among the troops, and the men are transferred to the proper hospitals, the necessary formalities being described.

The work of the medical service in a battle, an attack on a prepared position, is most graphically depicted. Medical officers of our army and Territorial Forces would be interested in the description of the German method of establishing a dressing station and providing ambulance transport. For the latter purpose any kind of wheeled transport which can be found in the neighbourhood is collected and adapted for the conveyance of sick by improvised fittings; needless to say, very few vehicles can be found, as the inhabitants have removed nearly all of them. In order to equip the dressing station the services of half a company of infantry are obtained; under the directions of the medical officer these men search the houses in the village and collect bedding, cooking utensils, lamps, and, in fact, anything which might be of use. To the great annoyance of the inhabitants, these articles are loaded up on the requisitioned wagons and driven off to the site selected for the dressing station. The impossibility of rendering medical assistance to the wounded during the actual fighting is clearly brought home to the reader.

Field hospitals having taken over the wounded and replaced some of the expended surgical stores, the regimental medical detachment pushes on and rejoins its unit. At each town or village the medical and surgical supplies in the place are requisitioned to complete the deficiencies. Shortly afterwards another battle is fought, but this time the army is defeated and has to beat a hasty retreat. The medical arrangements during a retirement, eapecially with reference to the disposal of wounded who cannot be carried off, are detailed in a highly realistic manner. The army then halts, and during this time one battalion is found to have become infected with typhoid fever; this affords an opportunity for describing the measures which should be adopted in similar circumstances.

In the next battle the hero is himself severely wounded, and is evacuated by slow stages to the home territory. He gives a short description of the hospital arrangements at each halting place, and in this way gives a fairly complete sketch of the medical service on the lines of communication. Having recovered from the effects of his wounds, the officer is next sent to duty at one of the posts on the lines of communication, and the opportunity is taken of briefly referring to the nature of the duties in these posts. From here he proceeds to do duty with a besieging army, and details the sanitary precautions which should be taken for troops occupying a stationary position. The medical arrangements during the assault are also fully described.

Three sketch maps of the battles are given at the end of the book which make the descriptions of the medical arrangements much more realistic.

For a German reader a most valuable feature of the book lies in the fact that whenever the medical officer has to take any action a marginal reference is given to the authority under which the particular act is carried out. In his introduction Wittmann says that he has tried to create as many different probable situations as possible, and has then made his hero adopt what is apparently the best course under the circumstances. Wittmann, however, points out that there may be other, and possibly better, ways of solving each of the problems, but at all events those he gives are feasible and in accordance with the German regulations.

There are two appendices. One contains a list of the articles of personal equipment which a medical officer should provide, and tells him where they should be carried; this list should prove of the greatest service to any one who is called on to proceed on active service for the first time—that is, if he can manage to carry all the things which Wittmann recommends. The other appendix shows the mobilization allowance and monthly pay of all medical officers according to the position which they may happen to fill.

The book is written in a light and attractive style which makes it most interesting to read; it gives a great insight into German methods in the field. To a German medical officer of the reserve who wishes to keep himself up to date the work should be of the greatest help, as Wittmann has really succeeded in presenting a dull but necessary subject in an attractive and at the same time most instructive form.

[1] *Der Sanitätsdienst im Zukunftskrieg: ein Kriegstagebuch.* By R. Wittmann, Oberstabsarzt der Königlich. bayerischen Sanitätsinspection. Berlin: Mittler und Sohn. (9½ by 6½ in.; pp. 163, with sketch maps. 3s. 6d.; unbound)

## BIOLOGY.

THE general teaching of medical students has formed a butt for many shafts of hostile criticism, and no part of it more so than the preliminary training in biology, physics, and chemistry. The amount of each of those subjects which should be taught is a much-debated question; as to the manner, there ought to be more unanimity. It should be recognized that the medical student does not want a long course on biological classification, the periodic law, or mechanics. These matters are useful enough and interesting in a general way, but their practical utility is not great; they do not, as maintained by some, add culture, but are at best a "mere smattering." To such medical men as are ambitious enough, and have time to spare, to desire a wider academic culture, the way of an arts or science degree is open. In biology the field is wide enough to provide material for a

three or even six months' course, which will include nothing that is not of essential importance to every medical student, and which will not only enable him to appreciate more fully his later studies, but will also be of use to him throughout his whole career. This has appealed strongly to Professor MCFARLAND, of Philadelphia, who has just published a new textbook of biology.[2] The book is practically a new departure, and its scope and treatment are unlike those of any with which we are familiar. Starting with the principle that medical science is a branch of biology, and should be studied as such, the author, who it may be remarked holds the Chair of Pathology in his university, proceeds to weave an entrancing story around man as a biological unit. The tale is told with characteristic American verve; a touch of melodrama is skilfully added here and there, but not more than is sufficient to arouse a commendable scientific curiosity and to stimulate a desire for a fuller understanding. That, we take it, is a fit and proper aim for an introductory volume. The book, however, is not intended exclusively for medical students, but appeals to the general reader; yet we cannot admit that it has such strong claims on the latter, for the very method of treatment which renders it so admirable for the one lays it open to the charge of being fragmentary and incomplete for the other. Thus the various forms of animal life are dismissed in sixty pages. These contain more than sufficient wealth of illustration for the medical reader, but are inadequate for a more general knowledge. The comparative system is used throughout with strikingly successful results. There is a large mixture of the historical and philosophical element, which, while it adds to the general interest, might have been somewhat reduced. Thus it is unnecessary prolixity to give a list of the six Greek philosophers who flourished in the sixth century B.C., and who "busied themselves with cosmical speculation, and offered various evolutionary hypotheses for the genesis of our planet." In his opening chapters the author follows the usual lines, dealing with the criteria and manifestations of life, and the cell and its various functions. The morphology of the higher organisms is, as already remarked, dealt with in a single, albeit the longest, chapter. Reproduction and development are fully and instructively treated. Four short chapters are devoted to the history of evolution and its diverse applications. The concluding chapters are of most particular medical interest, and occupy more than a quarter of the book. An excellent account is given of the biological and medical aspects of subjects such as parasitism, infection and immunity, mutilation and regeneration, and senescence and death. Each and all of these subjects, treated from the comparative biological point of view, will be read by the medical student with much greater interest and profit than the usual fare which is provided in the shape of the detailed structure of the earthworm or cockroach. Although usually taught in the bacteriology class, the subject of infection and immunity is essentially biological in the strict sense. It is a phase, and an important one, of the struggle for existence. For satisfactory study, however, it involves a knowledge of medicine, and is thus beyond the scope of an elementary student. At the same time, it must be remarked that the book is not explicitly intended for the elementary medical student, and it certainly contains much that would be quite too advanced for a first reading. The principle, nevertheless, is excellent, and we know of no other textbook better worth recommending.

We are glad to welcome a second edition of PARKER and HASWELL'S *Textbook of Zoology*[3] We well remember the feeling of pleasure and satisfaction with which we made our first acquaintance with this book, and it has remained a familiar and useful friend for many years. The student of zoology who has passed beyond the elementary stage has no great choice of a book to suit his extended needs. Between the introductory textbooks, of which there are dozens, and the elaborate many-volume works, Ray Lankester's *Treatise* and the *Cambridge Natural History*, there is a gap which is but indifferently well filled. Unless he is specializing in some particular groups, the student finds these latter works rather voluminous, apart from the fact that they may be quite beyond his means. A book of intermediate size and scope, dealing with the subject in a comprehensive yet compact fashion, becomes a real necessity, and Parker and Haswell's textbook meets this need in a satisfactory and fitting manner. Originally published twelve years ago, it has continued to be a standard work, and the present edition is in the main practically unaltered. A considerable number of new illustrations have been added, and in each case the addition seems to be an improvement. Even in the first edition, however, the excellent illustrations were quite a feature. The advance of knowledge within the last dozen years has necessitated the rewriting of several portions of the book, and this is, perhaps, more apparent in the systematic than in the descriptive sections. In the latter a few features are noticeable at first sight, and we may instance here the account of the nephridial system in Polychaet worms, founded on Goodrich's well-known work. In the systematic sections, however, numerous changes are apparent, and the authors are to be congratulated on having kept so well abreast of the times. In view of the kaleidoscopic way in which the names and classification of even the commonest organisms have changed about in these latter days we fancy that taxonomy and nomenclature will prove a grievous stumbling-block to writers of textbooks for some time to come. It seems impossible for any author to keep himself informed of the wholesale and almost daily alterations that are made. Parker and Haswell have succeeded fairly well in this respect, but not completely, yet it is possible that in many cases they have preferred an older name to its more modern, and perhaps less stable, equivalent. The general arrangement of the book remains the same as before. A type, in some cases more than one, of each class of the various phyla is described in detail; its systematic position and relation to other allied organisms is discussed, and this is followed by a classification and general summary of the characteristics of the group. Intermediate types and aberrant forms receive due attention. In addition, there are special chapters on the general structure and physiology of animals, and the history and philosophy of zoology. A very regrettable feature of the present edition is the large number of errata, which can hardly fail to confuse and mislead students. The haste with which the new edition was prepared may account for their presence. The majority are fortunately of no great importance, but several occur in the spelling of proper names. In addition to those noted in the errata slips we might point out the occurrence of *Leuckhart* for *Leuckart* on pp. 262 and 263, *Dicroelium lanceolatum* for *Dicrocoelium lanceatum* on p. 285, and the jumbling of the classification of the *Coelenterata* on p. xxv, where the *Hydrozoa* have been mixed up with the *Alcyonaria*.

Dr. PRUDDEN'S *Story of the Bacteria*[4] is intended obviously for the lay reader, but it is calculated to arouse the interest of even well-informed medical men. It is told in the characteristically forceful American way which aims at striking the attention by an unlimited appeal to the imagination on the one hand and a skilful handling of the facts on the other. Here is no prosy account of the morphological characters and cultural reactions of cocci and bacilli; they are made to live and disport themselves before the reader's eyes, their good or bad qualities are openly exposed and they receive their meed of praise or blame in no measured terms. All the bacteria pathogenic to man are dealt with in interesting detail, and the account is in every case sufficient to give a reasonably lucid idea of what they are, what they do, and how they do it. A chapter bearing the alluring title of "a round-up of undesirables" contains short remarks on syphilis, rabies, malaria, and small-pox. "A dangerous neighbor" invites conjecture and is found to refer to our familiar enemy, the common housefly, whose misdeeds are dilated upon. The farmer's friends, the nitrogen bacteria in the soil, also receive poetic treatment, and in Dr. Prudden's apt phrase-

[2] *Biology: General and Medical.* By Joseph McFarland, M.D. Philadelphia: W. B. Saunders Company. 1910. (Demy 8vo, pp. 440. 7s. 6d.)

[3] *A Textbook of Zoology.* By T. Jeffery Parker, D.Sc., F.R.S., and William A. Haswell, M.A., D.Sc., F.R.S. In 2 vols. Vols. i and ii. London: Macmillan and Co. 1910. (Med. 8vo; vol. i 878 pp., vol. ii 748 pp. 36s.)

[4] *The Story of the Bacteria.* By T. Mitchell Prudden, M.D. Second edition. New York and London: G. P. Putnam's Sons. 1910. (Cr. 8vo, pp. 242. 3s. 6d.)

ology are designated agricultural conjurers. The titles of the chapters are an indication of the delightful vein in which the whole book is written, but beneath the free-and-easy manner the serious purport of the facts is never concealed. The author's information is in every case well up to date, and his recommendations are based on sound hygienic principles. His forcible style can hardly fail to carry conviction, and we could wish that the book should fall into the hands of some of those members of the public who talk glibly of "germs."

Dr. FRIEDERICH KANAGIESSER has written a small but comprehensive volume[5] on vegetable poisons, which ought to meet a ready welcome from those interested in the subject, and more especially medical men. He has brought together and arranged in a systematic and satisfactory fashion a varied assortment of information which is usually scattered throughout larger works and not always easy of reference. At the same time he has condensed the matter to a very small bulk, giving little more than the absolute essentials. There are three fairly common classes of cases which medical men are called upon to diagnose and treat. The first of these results from the eating of poisonous or harmful plants, particularly by young children. A list is given of over sixty kinds of plants which are known to have caused symptoms of poisoning, and where fatal results have followed the species is specially marked. Besides such well-known poisonous plants as monkshood, nightshade, hemlock, foxglove, hellebore, and poppy, the list includes several other common plants the poisonous nature of which is not so generally recognized, such, for instance, as the horse chestnut, anemone, marsh marigold, sheep sorrel, potato, and mistletoe. In most cases the harmful substance is contained in some particular part of the plant, very commonly the berry, or at one season more than another. The symptoms in the majority of cases are those usually associated with gastro-intestinal irritation, and the treatment is to promote elimination of the poison, which in early cases is most readily effected by vomiting. Here Dr. Kanagiesser advises against the use of medicinal emetics, and recommends that emesis should be stimulated by tickling the back of the throat, or by giving draughts of lukewarm water in which a little butter has been dissolved. Only when such simple measures have failed does he suggest the administration of apomorphine. He strongly advocates washing out the stomach, more particularly in cases in which a certain amount of the poison has already been absorbed by the stomach wall. The second class of cases are those due to medicinal remedies of vegetable origin. Here are included atropine, cocaine, quinine, digitalin, morphine, santonin, and pilocarpin. Remarks are made upon the symptoms of overdosage and of chronic poisoning by those drugs. The third group is of particular interest to dermatologists, and consists of those plants the etiological importance of which in connexion with certain mysterious skin diseases has been recognized only within comparatively recent years. Such plants are the notorious Chinese primrose, with five other species of *Primula*, the poison sumach (*Rhus toxicodendron*), chrysanthemum, clematis, ivy, hyacinth, hop, and many others. The idiosyncrasy displayed towards these various plants is one of the most interesting features, and in this connexion the author states that about 1 in every 200 persons is susceptible to the influence of the primroses, and that in most cases the sufferers are women over 40 years old. Other sections of the book are devoted to poisoning by mushrooms, by cereals, and by such alkaloids as caffeine and nicotine.

A somewhat strange and not particularly intelligible mixture of thoughts on the universal energy of organisms is contained in a small book by CARL LÜDERITZ.[6] It is an exposition of certain ideas and propositions on biological conditions which, according to the author, have not found their way into, or been recognized by, general scientific literature. We are very much inclined to doubt the accuracy of the author's statement, and a perusal of the book has not led to the discovery of anything strikingly novel either in theory or treatment. The general laws of energy are shown to hold good in the case of living beings from the lowest to the highest. An organism is, in short, a transformer of energy. In the case of those more highly developed organisms there is a division of labour, and at the same time a co-operation in the elaboration of energy. Further, there is a constant interchange of energy between organisms and their environment, and this is of varying degrees of complexity in proportion to the grade of organization. From these several considerations the conclusion at which the author arrives, unavoidably he says, is that the spaces occupied by the human brain are distinguished from all other spaces known to us by the fact that they absorb a maximum amount of energy in proportion to their size. This is a physiological correlation of the complicated structure of the brain, compared with which the starry heaven is, the author thinks, a simple thing; and this establishes man as the centre of the universe.

[5] *Vergiftungen durch Pflanzen und Pflanzenstoffe. Ein Grundriss der vegetalen Toxikologie für praktische Aerzte, Apotheker, und Botaniker.* By Friederich Kanagiesser, Dr. med, and phil. Jena: Gustav Fischer. 1910. (Post 8vo, pp 49. M. 1)

[6] *Gedanken zur allgemeinen Energetik der Organismen.* Von Carl Lüderitz. Berlin: August Hirschwald. 1910. (Demy 8vo, pp. 59. M.1.20.)

## TRANSPLANTATION OF THE OVARY.

WITHIN the last few years some excellent work on the ovary and its functions has been carried on in laboratories in the British Empire. Some reports on this work deserve to be studied by all physiologists and gynaecologists. We refer to Dr. Louise McIlroy's essay on the Development of the Germ Cells in the Mammalian Ovary, mentioned in a recent issue, and to several monographs on the ovarian functions by Blair Bell, Hick, Bond, Marshall, and Scott Carmichael. The last named, in writing on the Possibilities of Ovarian Grafting in the Human Subject, showed that in the rabbit, though the whole ovary might be transplanted with success, it as a rule underwent degeneration. He concluded that it was unlikely that the whole human ovary can be grafted with success, but considered that partial grafting, especially of the cortical portion of the ovary, was more likely to succeed. Dr. J. H. NATTRASS, of Melbourne, has published an instructive report of physiological work on similar lines in a monograph entitled *Autoplastic Ovarian Transplantation and its Clinical Significance.*[7] He reports a series of experiments undertaken in the laboratories of the University of Melbourne. He quite rightly considered what mammal is the most suited for experimentation. In the bitch the anatomical relations of the ovary make transplantation difficult, and in the guinea-pig there are similar impediments to effective oöphorectomy. In the rabbit the anatomy of the Fallopian tubes and ovaries is, on the other hand, very favourable for the purpose in question. That animal does not bear shock and takes chloroform badly, but Dr. Nattrass found that it takes ether well. The subject must be kept warm by artificial means for several days to counteract the effects of shock. Except in one case, in which for special reasons a bitch was chosen, Dr. Nattrass selected rabbits; he practised autoplastic grafting—that is to say, the excised ovary was transplanted on some part of the same animal beyond the genito-urinary tract. He succeeded in grafting ovaries on the kidney, the spleen, peritoneum, periosteum, external intercostal muscles, and subcutaneously on the external oblique muscle. Shortly after transplantation the ovary was found to be firm in consistence and slightly larger, not however from hypertrophy, but from fatty degeneration and swelling of the cells of the stroma. The degeneration was most marked in a subcutaneous and least in a renal or splenic graft. In the older grafts—and this result is worth noting—there was a diminution in the size of the ovary, an increase in the amount of fibrous tissue, a progressive absorption and repair of pathological products, and a continued development of ova and Graafian follicles, "although not nearly to the same extent as in the normal ovary." Union to the tissue on to which the ovary was transplanted occurred rapidly, and well-developed fibrous bands were detected in a fourteenth day's graft. Nutrition was at first carried on by transudation of fluid from the lymph spaces in the adjacent tissues, hence the periphery of the ovary, the egg-bearing part, retained

[7] *Autoplastic Ovarian Transplantation and its Clinical Significance.* By J. H. Nattrass, M.D., B.S., Honorary Obstetrical Surgeon to the Women's Hospital, Melbourne; late Honorary Clinical Assistant. Children's Hospital. From the Physiological Laboratory, University of Melbourne, June, 1910. Melbourne: Austral Publishing Company.

its vitality. Later on blood vessels developed. In order to observe the influence on sexual heat the ovaries of a fox-terrier bitch were transplanted, the right subcutaneously on to the surface of the right external oblique, and the left into the sheath of the left rectus abdominis. The animal came on heat three times during the year, each period being characterized by vulval swelling, sanguineous discharge, and display of instinct. Dr. Nattrass concludes that as the functions of the ovary are continued when transplanted in animals, the same may happen in the human species, and he makes numerous suggestions in respect to hysterectomy, ovariotomy, and sterilization. Conservation of the ovaries in hysterectomy for fibroid is a recognized practice; and when haemostasis cannot be secured in cases in which both ovaries are drawn up on the surface of a big tumour, Dr. Nattrass's advice that they should be amputated with the tumour and then transplanted is probably sound. Dr. Nattrass's valuable essay is illustrated by thirteen fine photomicrographs. He himself must admit that the sexual function in *Lepus* and *Canis*, both subjected by him to experimentation, are not identical with those of the human species. We know of at least one case in which transplantation failed in the human subject. Sauvé and Quénu reported at a meeting of the Société Anatomique de Paris in 1907 the case of a woman who underwent hysterectomy for bilateral disease of the Fallopian tubes. An ovary was grafted, but nine months later Quénu found it necessary to do a second operation for the removal of the graft, which had grown excessively painful, whilst at the same time menopause symptoms, just what it was sought to avoid, set in. But Dr. Nattrass's work shows a distinct advance in the experimental physiology of organs often in these days submitted to operation, diseases of the adjacent uterus being in many of such cases also existent. The author is aiding in the solution of a grave problem.

## SPECIAL NURSING.

IN the writing of books for nurses there is even greater difficulty than in writing for the student. How much it is advisable for a nurse to be taught, how much she is in a position to understand and retain, is a most debateable matter. It depends on the mentality and character of the individual nurse rather than on the requirements of nurses as a class. Again, the knowledge acquired by reading stands in a totally different category from that gained by work, observation, and personal instruction at the bedside. The methodical education received by a mediocre medical student prepares his mind for the appreciation of the relative value of a number of facts subsequently placed before him. Information which he derives from books is, therefore, comparatively free from danger, because his mental digestion has gone through a process of gradual training, such as that of the nurse, as a rule, has not received. Some nurses, no doubt, possess very high capabilities for assimilating oral or written instruction, and they will pursue their studies even further than the volume on *Nursing in Diseases of the Eye, Ear, Nose, and Throat*,[8] issued by the Committee of the Manhattan Eye, Ear, and Throat Hospital, takes them, with every advantage to themselves and those for whom they work. Some, on the other hand, will read a good deal of the more theoretical part without very great benefit, but will do very well if they confine themselves to the practical instructions. These may, nevertheless, be quite as useful and valuable nurses as their more lettered sisters, or may even surpass them.

The work is constructed in a very rational way, and the attempt to avoid redundancy without omission of important matter has met with a considerable measure of success. No nurse can study it without advantage, and if she carries out her instructions in accordance with it, the surgeon will rarely, if ever, find himself at a loss. The chapter on the nurse's duties in emergencies is naturally one of the most important and one of the most difficult to construct, but the account of what she may do, as laid down in this chapter, may in general be accepted if the nurse has behind it a certain amount of observant experience. We may notice, incidentally, that the use of hydrogen peroxide is recommended, but we see no statement as to the strength of the solution. The paragraph on shock strikes us as particularly good. In regard to cocaine poisoning we have a difficulty in understanding the applicability to the nurse's work of the sentence on p. 62 that "Opium and chloral are given by mouth, while the inhalation of chloroform or ether will shorten the existence of the symptoms," or of the following on p. 93, where it is stated with regard to convulsions, "Chloroform is the best means of quickly controlling the convulsion. Morphine hypodermically and chloral by rectum should be relied on to ward off continuance of the attacks." We trust that the average nurse will not consider this as an instruction to herself.

It is said in regard to chronic catarrhal deafness that "the office nurse will appreciate the benefit to be derived from treatment commenced early in the course of the disease and the hopelessness of benefiting those of long standing"; also, on p. 233, that "the operation for cleft palate or hare-lip is a difficult one, and is not always attended with success." In view of the tendency in the course of conversation for the nurse to convey such opinions to the patient, we think that these remarks might have been omitted, as they may clash with the views of the surgeon in any given cases. On the other hand, the chapter on the management of troublesome children will be gladly recommended to the notice of nurses by many surgeons.

We should have liked to see greater caution inculcated in regard to the use of douches for the nose; otherwise, the instructions and illustrations with regard to them are most excellent. The book is full of valuable information, though by omitting some very long quotations from an old edition of *Quain's Dictionary of Medicine*, room and to spare might have been found for some special warnings to nurses with regard to the dangers of inoculation and infection in cases of actual or possible sepsis, tuberculosis, or syphilis. The book is so attractive and useful that it is sure to have an extensive sale, and alterations of the kind here mentioned in another edition would, we are certain, increase its value.

[8] *Nursing in Diseases of the Eye, Ear, Nose, and Throat.* By the Committee of the Manhattan Eye, Ear, and Throat Hospital. Philadelphia and London: W. B. Saunders Co. 1910. (Demy 8vo, pp 281. Illustrated. 6s. 6d.)

## A LAND OF SUNSHINE.

LORD ROSEBERY the other day somewhat needlessly reminded us that in these islands we live under sunless skies. It is no wonder, therefore, that so many of the "idle rich" should every winter seek for a brighter clime where they can forget for a time the vexations of the supertax and land valuation. To them it is a holiday, but to invalids the search for sunshine may be a matter of life or death. In this search Dr. GUBB will be found an excellent guide. He takes as the motto of his booklet,[9]

> I speak of Africa and golden joys.

But the words are more appropriate in his mouth than in that of Ancient Pistol, for the part of Africa he describes offers to those fortunate enough to be able to visit it the joys of a golden sunshine which are a more precious cordial than the old *aurum potabile*. It is true enough that, as the poet says, *Coelum non animum mutant qui trans mare currunt;* but to many to whom the leaden skies of an English winter are the near forerunners of the funeral pall, it is much to be able to exchange grey bleakness for a blue heaven and vitalizing sunlight.

Dr. Gubb, who practises at Mustapha Supérieur in the winter, has made a close study of the climate of Algiers, and is thoroughly well acquainted with the country, of which he gives a short but interesting sketch. He gives an account of its flora, which makes one, like the ancient writers to whom he refers, think of the Garden of the Hesperides. To any one doomed to pass the long months of winter amid streets darkened by houses begrimed by smoke and fog, Dr. Gubb's description comes like a breath of the sweet South. The climate of Algiers itself differs in many important respects from that of other parts of Algeria, the superiority, according to Dr. Gubb, being due to the combined factors of seaside and moderate altitude.

[9] *Algiers as a Winter Resort, and its Therapeutical Indications. Together with Notes on Hammam R'Irha, Biskra, and other Places of Interest in Algeria.* By Alfred S. Gubb, M.D., M.R.C.S.Eng., L.R.C.P. Lond., Diplomate in Public Health; Author of *Aids to Gynaecology*; late editor of the *Medical Press and Circular*. London: Baillière, Tindall, and Cox, 8, Henrietta Street, Covent Garden. Price 1s. 6d.; pp. 104.

The winter temperature is relatively high and remarkably equable, the extreme limits during the winter season, as established by ten years' meteorological observations, being 48° and 67° F. The winter begins about the middle of October, and during that and the following months the weather is such as would "do honour to an ideal English summer." From December to March what we should call fine autumn weather is the rule, while April and May are summer months. The heat does not become excessive until July, but most of the Mustapha hotels close in May. Besides the comparative uniformity of temperature, the climate of Algiers has a brightness peculiarly its own. Without being relaxing it is reposeful. It is interesting to learn from Dr. Gubb that the European population of Algiers comprises a large proportion of persons who were in the first instance sent there young on account of incipient pulmonary disease. Having regained their health they have remained living testimonies to the curative action of the climate in cases not too advanced to permit of complete recovery. Among the other conditions for which he has found the climate of Algiers useful are chronic heart disease, the subacute and chronic forms of Bright's disease, arteriosclerosis, rheumatism, and gout. To neurasthenics the sunlight is a most useful stimulus.

Statue of Æsculapius at Timgad.

There is no lack of amusements, though sport has to be sought for a good many miles away. Dr. Gubb with a few touches gives the reader a good idea of Hammam R'Irha, Blida-Les-Glacières, Biskra, the desert city, and of other places of interest within reach of Algiers. The historically minded will find many remains of Roman power at Cerchell, known in antiquity as Caesarea, the capital of Mauritania; at Timgad, where there are extensive ruins; and Lambessa, where at one time was stationed the famous Third Augustan legion. Excavation is still being carried on by convicts from the military prison. Among the ruins is a temple of Æsculapius.

Dr. Gubb's little book is written in a readable style, and is well illustrated. It contains a great deal of information in a small space. It should be useful to physicians in selecting a winter climate for patients, while the practical details as to hotels, itineraries, and so forth, will be a help to those who wish to visit Algiers in search of sunshine and health.

## NOTES ON BOOKS.

The report of Dr. Amand Routh to the fifth International Congress of Obstetrics and Gynaecology at St. Petersburg in September last, to which reference was made in the Journal of January 28th, page 219, has been reprinted from the *Journal of Obstetrics and Gynaecology of the British Empire* in a separate volume, entitled *Caesarean Section in Great Britain and Ireland*.[1] The report is founded upon 1,282 cases of Caesarean section performed by over 100 obstetricians and gynaecologists in Great Britain and Ireland. Brief particulars of all the cases are set out in a table which occupies about four-fifths of the volume.

Volume XLVII of the *Minutes of the General Medical Council*[2] and of its various committees for the year 1910, recently issued, contains nineteen appendices. One of these is a second edition of the report as to the conditions under which medical and dental practitioners registered or legally qualified in their own country may practise abroad. The General Index[3] to the Minutes of the General Medical Council and of its Executive and Dental Committees and of its three Branch Councils, Volumes XL to XLVII (1903-10), has also been received. The system of issuing a periodical index to the Minutes of the Council greatly facilitates the task of consulting the volumes.

[1] *Caesarean Section in Great Britain and Ireland.* By Amand Routh, M.D.Lond., F.R.C.P.Lond. London: Sherratt and Hughes. 1911. (Sup. roy. 8vo, pp. 233. 5s.)

[2] *Minutes of the General Medical Council* and of its Various Committees for the year 1910, with nineteen appendices. Vol. XLVII. London: Spottiswoode and Co., Limited. 1911. (Demy 8vo, pp. 546. 12s.)

[3] *General Index to the Minutes of the General Medical Council*, of its Executive and Dental Committees, and of its three Branch Councils. Volumes XL to XLVII (1903-1910). London: Spottiswoode and Co., Limited. 1911. (Demy 8vo, pp. 131.)

Dr. Cemach of Vienna has published some tables for diagnosis[4] which were originally drawn up for his own guidance, and have proved useful to him in his practice. Whilst admitting that it is a valuable discipline to draw up tables for oneself, it must be insisted that tables of diagnosis lead to a mechanical pigeonholing of cases, with all its attendant disadvantages of routine therapeutics and clinical stagnation. Sound diagnosis must eventually be based on a knowledge of pathology, and these tables cannot be said to be so based. Scrofula is classed with diseases of metabolism. There is little reference to laboratory methods of diagnosis. The tables contain an enormous mass of readily available information, and may at times be useful to a puzzled practitioner, but their utility must be very limited.

[4] *Differential-diagnostische Tabellen der inneren Krankheiten.* By Dr. Cemach, Vienna. München: J. F. Lehmann. 1910. (Med. 8vo, pp. 144; 1s.)

## MEDICAL AND SURGICAL APPLIANCES.

*Intravenous Injection of Salvarsan.*

Hugh W. Bayly (Pathologist to the London Lock Hospitals, etc.) writes: In the Journal of February 25th, page 447, Mr. J. E. R. McDonagh describes his modification of Schreiber's syringe apparatus for the intravenous injection of salvarsan. He concludes his description of the apparatus by dogmatically stating six "advantages of injection over transfusion." These six advantages are in my opinion, non-existent. I consider a simple transfusion apparatus, such as I described in the *Lancet* of January 21st, as far superior, in that it is easier to work with and combines the advantages of simplicity and economy. The only fragile part is the container, which can be purchased for half a crown. In this opinion I follow that expressed by Major Gibbard and Captain Harrison of the Military Hospital, Rochester Row, who have had a very much larger experience of the administration of salvarsan by the venous route than any one else in this country. Captain Harrison writes[1]:

> We thought it best at first to use the syringe devised by Dr. Schreiber that Dr. McDonagh has shown you to-night. We found, however, that when injecting into a narrow vein it required the very closest attention to prevent the needle from either coming out of the vein or else perforating it again, because it is so hard to keep the needle still while the syringe is being filled. We now use an ordinary transfusion apparatus.

I have personally given about fifty infusions with the apparatus that I advocate, and have found it most satisfactory in every way. I always allow a couple of ounces of saline solution to flow from the container after I have punctured the vein, and make sure that it is flowing freely and without the production of any local swelling before I pour the saline solution into the container. The flow can be stopped instantly by applying the clip to the rubber tubing, and I think that any one who has used my needle holder will agree that "the operator has more control" than with Schreiber's apparatus. The resident medical officer at the Female Lock Hospital now uses an infusion apparatus with my needle holder in preference to a syringe. I particularly insist on the importance of *slow* infusion (about ten minutes), so that the salvarsan solution may be largely diluted with blood and the risk of phlebitis reduced to a minimum.

## MEDICINAL AND DIETETIC ARTICLES.

*Suchard's Chocolate and Soluble Cocoa.*

Chocolate in some form is a popular sweetmeat, and probably there is none of higher nutritive value, for, when properly manufactured, it contains large proportions of fat and nitrogenous constituents as well as sugar, and as beverages chocolate and cocoa are consumed in very large quantities. Among preparations of this kind the chocolate and cocoa of the firm of Ph. Suchard (Neufchatel; and 33, King William Street, London, E.C.) deserve a high place. Samples which have been submitted to us recently gave the following results on analysis:

| | Chocolate. | "Soluble" Cocoa. |
|---|---|---|
| Nitrogenous constituents calculated as protein ... | 5.6 per cent. | 20.7 per cent. |
| Fat ... ... ... ... | 28.2 ,, | 31.8 ,, |
| Mineral constituents ... | 1.4 ,, | 7.1 ,, |

The flavour of both is delicate and agreeable; the cocoa is in very fine powder and makes a most satisfactory beverage.

[1] *West London Medical Journal*, January, 1911, p. 46.

## SHEFFIELD ROYAL INFIRMARY.

*The New Buildings.*

THE Sheffield Royal Infirmary was erected in 1797, and has been enlarged from time to time to meet the necessities of an ever increasing population. Its centenary was marked by the additions of an ophthalmic block, a new home for nurses, and new operation theatres. Three years ago the need for further accommodation became urgent, and the weekly board took in hand the present scheme of extension. The older parts of the infirmary, although structurally quite sound, were recognized to be unsuitable for the requirements of a modern hospital, and unduly expensive to work. For these reasons it was decided to utilize some of the older wards in extending the quarters for nurses, servants, and the resident medical staff, and to erect a new building which would provide accommodation for about 200 patients.

Thanks to the foresight of its founders, the infirmary grounds, which comprise about ten acres, afford plenty of room for the erection of the present addition without encroaching on the space occupied by the older buildings.

The new building is a plain stone-faced pavilion, 360 ft. in length, connected with the rest of the infirmary by a large well lighted underground corridor. It comprises an extensive basement for stores, calorifiers, and disinfecting apparatus; three main floors containing wards and their accessories; and above this a flat roof broken in the centre by the new operation rooms.

The main floors are identical in design. In the centre are the staircase and lift, which are continued up to the roof. Next, on either side, are ward kitchens, stores of various kinds, and then the wards. These are arranged in six units—two on each floor. Each unit comprises one large and two small wards. The latter are for isolation cases, and have one bed each. The large wards are 121 ft. by 26 ft., and contain 28 beds each. At the extreme ends of the building are situate the sanitary towers, one in each angle, while between them are balconies leading out of the wards by wide folding doors.

A cloak room and lavatory for the nurses and a clinical room are provided on each floor.

The operation rooms comprise a large theatre 34 ft. by 19 ft., with anaesthetic, sterilizing, and instrument rooms adjoining, and a smaller theatre with similar annexe for septic cases. The walls and ceilings are lined with opaline tiles, and the floors are of vitreous mosaic. The ventilation is by the plenum system, the air being washed and heated by an ingenious process introduced by Mr. Talbot of Sheffield.

The flat roof is reached from the top of the main staircase, and will be used by patients suffering from tuberculous lesions, in the treatment of which outdoor life counts for so much.

The wards are unusually large. They provide 1,460 cubic feet of air space per bed. Inquiry at other hospitals elicited an almost unanimous verdict in favour of large wards, on the grounds of economy in construction and working, including nursing. The modern view of one window to each bed has been departed from by providing one window to every two beds. The interior effect is more pleasing to the eye, and much more comfortable for patients, who, when out of bed, are able to avoid direct draughts. The windows are of the "magic balance" pattern, which, by a mechanism alike simple and ingenious, provides excellent control over the ventilation, and admits of cleaning being done entirely from within.

The floors are constructed of concrete without supporting girders, and are covered with oak blocks set herring-bone fashion in the wards, and by Venetian mosaic in the sanitary annexes, kitchens, and storerooms.

The building is practically "fireproof," but additional safety is secured by an outside escape staircase at either end.

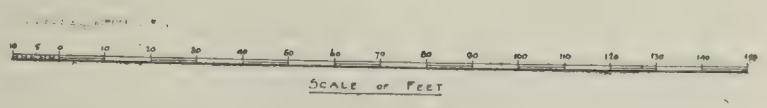
The heating of the entire infirmary has been remodelled, a single set of boilers taking the place of a number of isolated ones.

THE ROYAL INFIRMARY, SHEFFIELD. NEW PAVILION BLOCK.

THIRD FLOOR PLAN.

FIRST FLOOR PLAN.

A, Flat roof: B, surgeon's room; C, sterilizing room; D, operating theatre; E, recovery room; F, instrument room; G, anaesthetizing room; H, lift; I, microscopic room; J, cloaks; K, W.C.; L, bath; M, balcony; N, ward, 121 ft. by 26 ft.; O, stove; P, separation ward; Q, kitchen; R, brooms; S, pantry; T, clinical room; U, linen; V, clothes; W, store; X, nurses' lavatory.




The new pavilion, which will be used exclusively for surgical cases, provides accommodation for 194 patients—150 adults and 44 children.

The architects—Messrs. Gibbs, Flocton, and Teather—deserve great credit for the evolution and carrying out of the scheme, which it is confidently predicted will bear favourable comparison with any of the recently erected hospitals, while in point of cost—£150 per bed—it is enormously cheaper.

## MOTOR CARS FOR MEDICAL MEN.

CHOICE OF A BODY.

G. W. writes: Having had great difficulty in obtaining for a small (10 h.p.) chassis a body suitable for both professional and family use, my experience may be useful to others. The ordinary "double-purpose body" does not, I think, supply the want; it gives a rather small two-seated closed coupé with a small or large bucket seat at back, which is cold, uncomfortable, and ugly. One is told that anything more commodious and presentable means a larger and more expensive chassis. I have been driving for some months, in rather a hilly district, a very roomy, completely closed two-seater, with plenty of room for professional impedimenta, and with exit and entrance possible on driver's side. In a few minutes it is convertible into an open full-sized, but high and handsome, touring car, with no obstruction left standing in front. It was made by Alford and Alden, London, S.E. The 10 h.p. carries it very well indeed.

## MEDICINE IN THE "ENCYCLOPAEDIA BRITANNICA."[1]

THIRD NOTICE.

THE article on Cancer in the new edition is very decidedly more informing than the one on the same subject in the previous edition of the *Encyclopaedia*, on the meagreness of which we felt it our duty to comment. In discussing the alleged increase of cancer, it is pointed out that the question how far available statistics represent a real increase cannot be satisfactorily solved, because it is impossible to ascertain how much of the apparent increase is due to more accurate diagnosis and improved registration.

> Some of it is certainly due to those causes, so that the recorded figures cannot be taken to represent the facts as they stand. At the same time it is certain that some increase has taken place in consequence of the increased average length of life; a larger proportion of persons now reach the ages at which cancer is most frequent. Increase due to this fact, though it is a real increase, does not indicate that the cause of cancer is more rife or more potent; it only means that the condition of the population in regard to age is more favourable to its activity. On the whole it seems probable that, when allowance has been made for this factor and for errors due to improved registration, a real increase due to other causes has taken place, though it is not so great as the recorded statistics would indicate.

An account is given of the various endeavours to organize cancer research, beginning with the foundation of the cancer ward at the Middlesex Hospital in 1792. It is interesting but somewhat surprising to read that in 1804 a society for investigating the nature of cancer was formed by a number of medical men in London, Edinburgh, and other towns, "at the instigation of John Hunter." John Hunter died, as is well known, on October 16th, 1793, as recorded by Clift in his account book, "on the same day, and perhaps hour, that the unfortunate Marie Antoinette, Queen of France, was beheaded in Paris." Some further details as to this society would, therefore, doubtless be welcomed by the Society for Psychical Research. Whatever may have been its origin, the collective investigation which the society undertook soon came to nothing owing to the imperfect means of communication then existing. A clear account of recent theories as to the origin of cancer is given. With regard to cures, mention is made of trypsin and of its failure at the Middlesex and the Cancer hospitals. It might have been well if, in connexion with this subject, mention had been made of Dr. William Seaman Bainbridge's elaborate and conclusive report on *The Enzyme Treatment for Cancer* (New York, 1909). In speaking of the *x* rays, the writer says that "until more is known both of cancer and of *x* rays their use must be considered not only experimental but risky." Nothing is said about radium. To Christian Science about a column is given. Nothing is said of Mrs. Eddy's indebtedness for what she herself called her knowledge of the "Science of Mind-healing" to Phineas P. Quimby. As regards healing, we are told that "very remarkable successes have been claimed for the treatment," but no attempt is made to sift the evidence or to indicate the kind of case in which success has been obtained by means of Christian Science as by other forms of faith healing. We think also that it would have been advisable to say something about the cruelty of subjecting children who cannot form a judgement for themselves to such a system of healing, and to warn people of the danger to which parents who accept the gospel according to Mrs. Eddy may expose school children and the general public by the dissemination of infectious disease. The article seems to us inadequate alike from the theosophic and the healing points of view. There is an interesting little note on Cramp-rings, anciently worn as a cure for cramp and "falling-sickness" or epilepsy. The belief in the curative powers of circlets of metal has lingered on to the present day, and rheumatism rings may be bought in our enlightened metropolis for a few shillings. In a most interesting article on the Deaf and Dumb the subject is thoroughly dealt with from every point of view. Much attention is given to a description of the signs by which deaf-mutes can communicate with each other and with the outer world. It may not be generally known that it was a Spanish Benedictine monk, Fray Pedro Ponce de Leon, in the sixteenth century, who was the pioneer in the teaching of the deaf "to speak, read, write, reckon, pray serve at the altar, know Christian Doctrine, and confess with a loud voice." The article on Dentistry contains some interesting historical statements. For instance, the transplantation of teeth, usually attributed to John Hunter, is referred to by Paré, 1509–1590, and there is said to be evidence to show that it was practised even earlier. The subject of artificial teeth in antiquity is very cursorily dealt with. Yet the Etruscans could fix artificial teeth, and sometimes used gold settings for the purpose; and as early as the fifth century before Christ a law in the Twelve Tables shows that the practice was common among the ancient Romans (*Cui auro dentes juncti escunt, ast im cum illo sepeliet uretve, se fraude esto*). Under the Empire they were in ordinary use, as we learn from Martial's epigram:

> Thais habet nigros, niveos Lecania dentes.
> Quae ratio est? Emptos haec habet, illa suos.

Modern dentistry begins with Fauchard, who in 1728 published a work entitled *Le chirurgien dentiste ou traité des dents*. He says in his preface that:

> The most celebrated surgeons having abandoned this branch of surgery, or having but little cultivated it, their negligence gave rise to a class of persons who, without theoretic knowledge or experience, and without being qualified, practised it at hazard, having neither principles nor system. It was only since the year 1700 that the intelligent in Paris opened their eyes to these abuses, when it was provided that those who intended practising dental surgery should submit to an examination by men learned in all the branches of medical science, who should decide upon their merits.

It was a Frenchman, Joseph Lemaire, who in 1781 introduced dentistry into America, where it has since undergone such startling developments. In this country the publication of Dr. Blake's work on the anatomy of the teeth in 1801 marked the dawn of dental surgery. Bone, ivory, and later porcelain, were used in the manufacture of artificial teeth. No mention is made of the use of human teeth for the purpose. That they were employed on a large scale is shown by the fact that a large trade in these commodities was driven by the "resurrection" men whose occupation continued to be plied till the passage of the Anatomy Act in 1832. Bransby Cooper, in the life of his uncle, tells of several "resurrection men" who made expeditions to the Continent during the Napoleonic wars for the purpose of getting teeth on the battlefields. One of these men returned with £700 worth of teeth, which were disposed of to dentists in various parts of London. The article on Dietary gives details as to the allowance of food supplied in workhouses and prisons, and to soldiers and sailors, not only of our own but of foreign services. In the article on Dietetics a concise review of the whole subject is given. It is inspired not only by the results of recent scientific research, but by common sense and practical experience. The text of it may be said to be, "What is one man's meat is another's poison"—a proverb which expresses a simple fact too often forgotten by the advocates of the fads so common at the present day. In the article on Diphtheria a hint that might be useful to some of those who decry antitoxin is conveyed in the statement that the Registrar-General's returns record the number of deaths, not the number of cases. It is shown that the prevalence of diphtheria has notably decreased in recent years. Tables are given showing the case-mortality in hospitals of the Metropolitan Asylums Board during five years before and five years after the introduction of antitoxin, and it is pointed out that the broad result is a reduction in mortality by more than one-half. The writer says it is a fair inference that the treatment saves the lives of about 1,000 children every year in London alone. But, it is added, the evidence is not from statistics alone. The beneficial effect of the treatment is equally attested by clinical observation. Dr. Roux's original account has been confirmed by a cloud of witnesses year after year. He wrote:

> One may say that the appearance of most of the patients is totally different from what it used to be. The pale and leaden faces are scarcely seen in the wards; the expression of the children is brighter and more lively.

We can confidently refer the practitioner who may be perplexed by the misleading statistics published by the fanatics who oppose progress to this temperate, judicial, and well-documented article. Dreams form the subject of a very interesting article, and the description

[1] *The Encyclopaedia Britannica*. A Dictionary of Arts, Sciences, and General Information. Eleventh edition. Vols. I–XIV. Cambridge: University Press. 1910.

of the Ductless Glands is a model of clearness and succinctness. The articles on Dysentery and Dyspepsia are sound, but call for no special remark. The anatomy of the ear is well described and illustrated by Dr. Parsons, and a somewhat meagre account of the diseases of that organ is given by the late Mr. Cresswell Baber. The diseases of the eye are much more satisfactorily dealt with by Mr. G. A. Berry. The article on Electro-therapeutics scarcely gives an adequate presentment of the subject. We do not know why, unless it is owing to the fear of Mrs. Grundy, the article on Gynaecology is printed entirely, with the exception of a somewhat jejune historical introduction, in small type. The inference would appear to be that the literature of the subject is considered as of greater importance than the diseases that may afflict women. The writer apparently accepts as historical the story of Agnodice, the Athenian midwife, whose eagerness to learn is said to have led her to disguise herself as a man; it is regarded by Withington, and we think with good reason, as a myth. In a work generally so well edited it is a little surprising to find so clumsily redundant a phrase as "The credit of being the first to perform the operation of ovariotomy is now credited to McDowell."

## MEDICAL INSPECTION OF SCHOOL CHILDREN.

DISCUSSION AT THE MEDICO-LEGAL SOCIETY.

AT a meeting of this society held on February 21st, Dr. L. Haden Guest, School Medical Officer to the London County Council, read a paper entitled, "The Administration of the Law relating to the Medical Inspection and Treatment of School Children." Sir WILLIAM COLLINS was in the chair.

Dr. GUEST said that medical inspection was now being carried out on general lines prescribed by the Board of Education. It included a large number of observations on the body, beginning with the skin and ending with the nervous system. Was there any right to examine a child if the parent objected? Apparently there was not; but, although the question had sometimes arisen, it was generally found that parents were willing to allow the inspection to take place, because they realized that it was to the advantage of the child. If the inspection was carried out on the lines prescribed by the Board, it covered the mental and physical condition of the child. Defects of the ears, eyes, and teeth were generally found to be the most frequent. Striking abnormalities were infrequent, because as a rule children with grave mental or physical defects were not sent to the schools. Inspection having taken place, the further question arose, What was to be done with children found to be defective? Under ideal conditions of course the parents would take the child to their own medical man; but unfortunately the large majority of parents who sent their children to the elementary schools had no private medical attendant. One plan was to send all children requiring treatment to hospital; but there was often no hospital near the school. Further, as medical inspection was a means of discovering pathological abnormalities, it followed that a large number of cases were brought to light. If these were all sent to hospital there would soon be overcrowding. The London County Council had made arrangements with certain hospitals, but as it had been unable to make an arrangement with all the hospitals, it often happened that a child had to be sent to a hospital two miles away, instead of to one next door to the school. He recorded a case where a woman came with tears in her eyes to say that she had been compelled to take her child to a hospital far away, leaving two small children alone at home. Again, it was a serious matter for a woman to have to waste possibly a whole day at a hospital when she might have been earning money at home. Hospital treatment, moreover, was not altogether satisfactory. The consultation was too hurried; a parent came away, having heard hasty instructions which were imperfectly understood. For his part, he "plumped for school clinics." Medical inspection could not, in his view, long continue without their establishment. Two classes of children had to be considered—a medical group and a poverty group. The medical group would consist of children whose parents were ready and willing to look after them. The children who would attend the school clinic would be the poor children whose parents could not afford to give them medical treatment. In his view, there would be no difficulty about separating the two classes. A "poverty group" child, it often happened, had more than one disease. If one was cured the others remained. Nothing less than a long period of treatment would be of permanent value. They could not be cured in a home where the father and mother were addicted to alcohol or were too slack to look after the children. If it was made easy the most shiftless parent would be willing to let the child be treated. Acting in conjunction with the School Care Committee those in control of the school clinic could obtain better conditions for the child. The position of the inspector and those responsible for inspection—whatever it was before—was very much strongor after the inspection had been held and a disease found; for then in case of neglect the parent could be prosecuted. The school clinic would in his view at some future time become the centre round which education would revolve. This movement was to join forces with the movement indicated by the Minority Report of the Poor Law Commission. They were there concerned with great reconstruction forces in the nation; forces which require that order and organization should prevail. The nation was determined that the child should be equipped, both mentally and physically, as well as possible.

Dr. ASHTON asked Dr. Guest whether any legal actions had been brought in respect of compulsory examination. Speaking as a private practitioner, he would be very glad if the school authorities would send their cases to him. In common with many other doctors, he felt not a little hurt at cases being taken out of their hands. It was inevitable that medical treatment must follow medical examination, but the British taxpayer and the general practitioner were entitled to be considered.

Mr. ROWLAND BURROWS said that while it was true that the State should know what was wrong with the children, it was essential that the obligation of looking after the children should be put upon the right shoulders—namely, the shoulders of the parent. This was another move in the direction of putting the patients of the private general practitioner on the rates. He could say that without prejudice, as he was only a lawyer himself.

Mr. WILLIAMS said that sympathy was always aroused with all forms of suffering, particularly with suffering in the child; but there was such a thing as individual responsibility. As one who lived in a poor neighbourhood he saw that the comforts of life were enjoyed by the thriftless and idle. To work was optional, and the idle lived on the industrious.

Mr. VALENTINE BALL pointed out that the proposals made were one step further in the direction of relieving the parent of all responsibility for the child. What was to be the cost of it all? It was rumoured that, owing to the rules made by the Board of Education, the County Council already stood committed to a large increase in expenditure upon the schools. What was to be the cost of school clinics? As a mere lawyer, he would like to raise his voice on behalf of the general practitioner, whose life was already devoted to the poor. What was to be his position if school clinics were universally established?

The CHAIRMAN pointed out that this was an accidental piece of legislation. It was first introduced by an amendment of Mr. Tennant in 1906. It claimed to be ancillary to education, in which respect it was like the feeding of school children. As he understood the legal position, it was now obligatory to provide for inspection; but medical treatment was optional, and could only be carried out under a scheme sanctioned by the Board of Education. He fully anticipated that the question of parents' consent would emerge sooner or later. By an Act passed in 1909 the education authority could recover the cost of medical treatment from the parent. As to whether treatment was to be a part of inspection, very different views were expressed on that point when the Act was under discussion in the House of Commons. It was interesting to compare the reports of the Board of Education for 1908 and 1909. In 1908 the policy was to exhaust all available means before establishing school clinics; but in 1909 there seemed to be a tendency to accept clinics as inevitable. As the Act originated in the House of Commons the question of treatment was put on one side. There was a tendency to make the period of 5 to 14 a period of State

handling rather than instruction; and this was leading up to a system which was to provide for the health rather the instruction of the child. There was no task which would trouble the statesmen of this century more than the decision between liberty on the one hand and State benevolence on the other.

Dr. GUEST, in reply, said that his answer to those who complained that the responsibility of parents would be diminished was that it was necessary to sacrifice something to build up the nation; but he did not agree that to look after the health of the child was to diminish the interest of the parent. On the contrary it stimulated the parent. He was unable to say what the cost of school clinics would be; but he thought it would not exceed £700 or £1,000 a year in any district; and when estimating the cost it was necessary to set off the expense now incurred to achieve the same object partially.

## BRITISH MEDICAL BENEVOLENT FUND.

AT the February meeting of the committee 27 cases were considered and grants amounting tc £223 made to 19 of the applicants. Appended is an abstract of the cases relieved:

1. Daughter, aged 40, of late F.R.C.S. No income; delicate health and dependent on mother, whose income is only 10s. a week. Relieved 11 times, £98. Voted £12.
2. M.B., C.M.Edin., aged 61. No income and incapacitated by hemiplegia; four children, all dependent. Voted £12.
3. Widow, aged 52, of L.F.P.S.Glasg. No income; takes in boarders, and receives a little help from a daughter earning 14s. a week; health very delicate. Relieved seven times, £70. Voted £12.
4. Widow, aged 37, of L.R.C.P., L.R.C.S.Edin. Unprovided for at husband's death about ten years ago and has supported herself by nursing; two children. Now asks for a little help towards the school fees of the elder daughter, aged 15. Voted £10.
5. Widow, aged 62, of M.D.Lond. At husband's death twelve years ago took a boarding house, but has been obliged to exhaust all her capital in order to meet expenses. Voted £12.
6. Daughters, aged 70 and 63, of late M.R.C.S., L.S.A. Were comfortably provided for at father's death twenty years ago, but made very unfortunate investments and are now practically penniless. Voted £18.
7. Widow, aged 65, of M.R.C.S. Husband's means were exhausted by a long illness, ending in death a few months ago, and applicant has chronic glaucoma. No children. Voted £12.
8. Daughter, aged 62, of late M.R.C.S., L.S.A. Since father's death in 1903 has held situations as cook-housekeeper, etc., but is now unable to obtain employment. Voted £12.
9. M.R.C.S., aged 64. Has completely broken down in health and is practically penniless. Voted £12.
10. Daughter, aged 49, of late M.R.C.S. Quite unprovided for at father's death and has maintained herself for nearly twenty years, but is now in a delicate state of health, and can only undertake occasional and light work. Voted £12.
11. M.R.C.S., L.R.C.P., aged 31. Is in pecuniary distress through no fault of his own, and asks for a little help towards unavoidable expenses before going abroad. Voted £5.
12. Widow, aged 49, of M.B.Durham. At husband's death twenty years ago started a nursing home and supported herself and a widowed mother, but is now broken down in health and requires a rest. Two children, both delicate, and barely self-supporting. Relieved three times, £29. Voted £12.
13. Widow, aged 66, of L.R.C.P.Edin. Has given music lessons and taken lodgers, but is now in bad health and dependent on a daughter earning £1 a week. Relieved six times, £60. Voted £12.
14. Widow, aged 60, of M.D Glasg. No income and dependent on a son who can ill afford to help. Relieved once, £12. Voted £12.
15. Daughter, aged 56, of late M.R.C.S. Endeavours to support herself by letting lodgings, but finds it impossible to meet unavoidable expenses. Relieved four times, £55. Voted £10.
16. Widow, aged 69, of L.F.P.S.Glasg. Husband's means were exhausted by a long illness which preceded his death, and applicant endeavours to maintain herself by taking boarders; health indifferent. Relieved three times, £22. Voted £12.
17. Daughter, aged 49, of late M.R.C.S. No income; health too delicate to admit of employment, and dependent on a brother-in-law whose earnings are extremely small. Relieved twice, £24. Voted £12.
18. Widow, aged 65, of L.R.C.P., L.R.C.S.Edin. Is quite penniless, and dependent on a married son earning £1 a week. Relieved twelve times, £129. Voted £12.
19. Widow, aged 45, of L.R.C.P., L.R.C.S.Edin. No income and children unable to help; is incapacitated by a chronic complaint, and practically dependent on help given by this Fund and another society. Relieved fifteen times, £172. Voted £12.

Contributions should be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

## TYPHOID FEVER AND FRIED FISH.

SIR SHIRLEY MURPHY has presented to the Public Health Committee of the London County Council a report confirming the suspicion which has been entertained for some ten years or more that plaice, at any rate as supplied by fried-fish shops, is a cause of typhoid fever in London. The investigation has been in the hands of Dr. Hamer, Medical Officer for Special Purposes, and the result is an illustration of the advantage of continuity in such inquiries, as it is by cumulative evidence that the case becomes established.

The report now submitted deals mainly with an outbreak in the East End of London last autumn. The inquiries were directed to some 300 cases, notified from the thirty-third to the forty-second week of 1910. Having regard to the behaviour of typhoid fever in the affected localities during the period in question as compared with preceding and succeeding periods of 1910, and as compared with the behaviour of the disease in adjoining areas, it became clear that at least two-thirds of the total 300 cases must have been due to some special cause, the remaining 100 cases representing the number reasonably attributable to the causes ordinarily operative. During the period mentioned the special incidence of typhoid fever showed a marked tendency to develop in clusters or groups, of which there were thirty-one in London proper and two just beyond the border. Of the 200 patients in these groups, all but five or six belonged to the poorest classes in the population, and among the exceptions four were nurses and one was the wife of a fish vendor. Among the whole 300 sufferers, however, there were some twenty persons who did not belong to the poorest class. Water, milk, and the consumption of mussels could be excluded, and it was noted that the outbreaks were explosive, the dates of onset in Bethnal Green and in most of the other localities affected suggesting that infection was contracted on August 10th, 11th, or 12th. Where more than one case occurred in the same household the dates of onset were, as a rule, within a few days of one another, and in the great majority the infection would seem to have been introduced into the infected household at one and the same time. Among the 79 cases in Bethnal Green 68 gave a history of having eaten fried fish within a month of the onset, and of 50 cases in an area of special prevalence all but one had eaten fried fish in the area, and this exception afterwards proved to have been a case notified in error. In all "multiple house invasions" the sufferers had partaken of the suspected fish at home, while in the large majority of cases in which only one member of a family suffered that member had been in the habit of obtaining a fish dinner or fish supper away from home. Within the special area in Bethnal Green there were twenty-seven fried fish shops. Giving due weight to the extent of the business done at each shop and of the shop's position in the area, a calculation of chance was made, and it was found that three shops had been more frequented by the persons attacked than the remaining twenty-four; thus one shop was named by the sufferer more than six times as often, and two other shops six times as often as would have been anticipated were the distribution a mere matter of chance. In fact it appeared that forty-nine of the sufferers had obtained fish from one or other of these three shops; the fifth was the case in which an error in diagnosis was made. All these shops, it was found, obtained their supply from Billingsgate; in all instances the fish falling under suspicion was plaice, including flounders and dabs, and all were what is known as "late-steamer fish" Now, it appears that only one tenth of the fish sold at Billingsgate would be classified as late-steamer fish. It appears not to be the custom of the "friers" to go to Billingsgate until the higher-priced fish has been disposed of, and the "late fish" falls largely into the hands of costers and small friers.

The inspection of fish in London is carried on under peculiar conditions. The fish trade has its own inspectors, appointed by the Fishmongers' Company, and, although the City Corporation has taken action in particular instances, more particularly as regards shellfish, there is no systematic control by a sanitary authority such as is now regarded as necessary in the case of other sources of

food. In fact the question as to whether the "late fish" shall be sold or not is left very largely to the discretion of the coster or frier. Plaice it is stated is practically the only fish used by vendors of fried fish which is not gutted as a matter of course at sea; this is due to the fact that as the food of the plaice consists largely of shellfish, it is possible to retain the gut without injuring the fish, while the character of the intestinal contents of fish consuming "softer food" necessitates removal of the gut forthwith. In recent years the practice of gutting plaice also would seem to be coming into favour, but the London steamer companies do not as a rule attempt to gut the small plaice.

How the fish become infected is not clear, but it appears that plaice are commonly caught in an immature state in vast numbers in certain shallow parts of the sea near the coast, and it is known that small flat fish enter tidal waters. The suggestion arises that they become infected in the estuaries of large rivers on one or other side of the North Sea. From the point of view of the possible depletion of the fish in that sea, it has been suggested that fishing on the so-called nursery grounds should be prohibited, and it is stated that retail traders would welcome the rigorous imposition of a size limit at Billingsgate; a 20 centimetres limit (about $7\frac{3}{4}$ inches) is imposed, but, low as it is, even this is at certain times of the year not always observed.

It appears that the Corporation of the City of London has been in correspondence with the Fishmongers' Company in consequence of the report made in 1906 to the London County Council by its Public Health Committee on the subject of the infection of food by riparian sanitary authorities, and Sir Shirley Murphy suggests that a copy of the reports by himself and Dr. Hamer, to which reference is here made, should be forwarded to the Corporation for consideration in connexion with the report of their own Sanitary Committee made in June, 1909.

## ORGANIZATION OF MEDICAL ATTENDANCE ON THE PROVIDENT OR INSURANCE PRINCIPLE.

WE called attention last week to some of the arrangements made by Divisions of the British Medical Association in Great Britain for the consideration of the report on the Organization of Medical Attendance on the Provident or Insurance Principle, prepared by the Special Poor Law Committee and Contract Practice Committee of the British Medical Association sitting in conference, and published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th. Meetings were held on March 9th at Altrincham, and on March 16th at Gloucester and meetings have been arranged in the City of London at Winchester House, Broad Street, E.C., on Friday, March 17th, at 4 p.m., and by the North Suffolk Division at Lowestoft on Saturday, March 18th, at 4 p.m. The following is a list of meetings at which arrangements have been made for the Medical Secretary to attend:

| | | |
|---|---|---|
| Thursday, March 23rd | ... | Rochester (Divisions in North and East Kent), afternoon |
| Friday, March 24th | ... | Newcastle-on-Tyne (Division in North of England Branch), 4.30 p.m. |
| Saturday, March 25th | ... | Carlisle (English portion of Border Counties Branch), 4.30 p.m. |
| Monday, March 27th | ... | Dumfries or Castle Douglas (Scottish portion of Border Counties Branch), afternoon<br>Glasgow (West of Scotland Divisions), evening |
| Tuesday, March 28th | ... | Northampton (South Midland Branch), Board Room, Northampton General Hospital, 2.30 p.m. |
| Wednesday, March 29th | ... | Leicester (Midland Branch), 4 p.m. |
| Thursday, March 30th | ... | Bradford (Yorkshire Branch) |
| Friday, March 31st | ... | Liverpool (Western portion of Lancashire and Cheshire Branch) |

The invitation to attend these meetings is extended, not only to members of the Division in which they take place, and of neighbouring Divisions, but to all members of the profession, whether members of the British Medical Association or not, who may find the place selected convenient.

Similar meetings are, we understand, being arranged by other Divisions, and it is asked that Divisions which desire the attendance of the Medical Secretary should communicate with him as early as possible and fix their meetings with regard to the above table.

## SCIENCE NOTES.

AT a recent meeting of the Zoological Society, Dr. Woodland read an interesting paper on the structure of the gas glands and retia mirabilia in Teleostean fishes. As is well known, the swim bladder or air sac of fishes contains a mixture of gases, a certain proportion being oxygen. The mixture is not air, and Dr. Woodland therefore considers the term "air sac" inappropriate. Again, the bladder does not enable the fish to swim, except in so far as it imparts buoyancy, and so the term "swim bladder" is also hardly exact. The chief function of the organ is to enable the fish to change its level in the water. For this purpose a mechanism is necessary to produce a rapid evolution of gas; this is the gas gland, and the gas evolved is oxygen. The gas gland assumes various forms in different fishes, but in all cases it consists essentially of an excretory epithelium supplied by a rich vascular system of peculiar construction. To this system of blood vessels the term "*rete mirabile*" is applied. The artery supplying the gland breaks up into a large number of minute branches, which spread out in a fan-like array. In some cases these arterioles run direct to the excreting epithelium. In others they unite together into a single vessel which again splits up to furnish the ultimate branches. The veins conveying the blood from the gland follow the course of the arteries closely, and in the *rete* the capillary arteries and veins lie side by side. It had previously been shown that the liberation of the oxygen was due to a process of haemolysis, and it was suspected that this was caused by the production of a haemolytic substance from the excretory cells. The action was believed to take place in the near vicinity of the excretory cells. Dr. Woodland, however, shows that the facts do not entirely support this belief. The liberation of the oxygen takes some time, and if the process only started in the vicinity of the excretory epithelium the blood would be on its way back before the gas was set free. Dr. Woodland suggests as the true explanation that the haemolysin is taken up by the venous blood and diffuses from the veins into the arteries in the *rete mirabile*. In this way haemolysis would be initiated in the *rete*, and by the time the blood reached the gland the oxygen would be set free.

A very close study has recently been made by Guyer of the reducing divisions in human sperm cells and of the behaviour of the accessory chromosomes in the process. This process, whereby the number of chromosomes in the sexual cells is reduced to half that in the somatic cells, is not quite so simple as is usually represented. The presence of the accessory chromosomes introduces a considerable amount of asymmetry. In all the cases in which Guyer was able to make a definite count the number of chromosomes in the spermatogonia was 22. In the primary sperm cell there are 12 chromosomes, of which 10 are bivalent and 2 accessory. During division the accessory chromosomes pass undivided to one pole of the spindle, while the other 10 split, half going to each pole. In this way one daughter cell receives 12 chromosomes, the other only 10. When these cells again divide the chromosomes divide equally, and the sperms derived from these are thus of two kinds—one with 12, the other with only 10 chromosomes. The presence of accessory chromosomes has been determined in man and other vertebrates as well as in insects and spiders, and Guyer is of opinion that they have something to do with the determination of sex.

THE International Hygiene Exhibition to be opened at Dresden in May includes a section devoted to the popularization of a knowledge of the dangers of unqualified practice.

## LITERARY NOTES.

IN the March number of *Knowledge* there is a photograph taken by Mr. Frederick Bonney at Momba, River Darling, New South Wales, in April, 1881, of an old native Australian woman who is shown in "half-mourning" (*num-muyn-ka*). Mourning consists in covering the head with plaster, and in half-mourning a broad band of the latter is put over the head from front to back. The special interest of the photograph is that the signs of sorrow were put on, not for the loss of a human relative, but for a favourite dog. The old woman would doubtless find "spiritual affinities" among the members of some of our antivivisection societies. It would not surprise us to learn that some of them have put on trappings of woe in memory of the Brown Dog, of whom it may now be said, *Etiam periere ruinae.*

In the February number of *Janus* Dr. Charles Singer exhumes the work of an old physician, Benjamin Marten, whom he calls a neglected predecessor of Louis Pasteur. In 1720, he says, there was published in London a small volume entitled, *A New Theory of Consumptions, More Especially of a Phthisis or Consumption of the Lungs*, wherein, according to the subtitle, "Enquiry is made concerning the Prime, Essential, and hitherto accounted Inexplicable Cause of that Disease, so very Endemick to this Nation." The book is divided into four chapters:

Chapter I. "Of Consumptions, more especially a Phthisis, or Consumption of the Lungs; all its various Symptoms throughout its several Degrees."

Chapter II. "An Enquiry concerning the Prime, Essential, and hitherto accounted Inexplicable Cause of Consumptions, etc."

Chapter III. "Of the . . . various Methods of Cure recommended for Consumptions . . ."

Chapter IV. "Of the Possibility of Curing a Phthisis . . . With Directions about exercise, Diet and manner of Living in General, proper for Consumptive Persons."

Dr. Singer says it is in Chapter II that the main interest of the book is concentrated. The first part of this chapter consists of various hypotheses concerning the nature and causes of phthisis, quoted from such authors as Hippocrates and Galen among the ancients, and Helmont, Paracelsus, Sylvius, Willis, Morton, and Gideon Harvey (senior) among other modern writers. Dismissing all these hypotheses as inadequate, Marten proceeds to set forth his own theory, which is neither more nor less than the germ theory of disease as we know it to-day, clearly conceived and applied, not only to consumption, but to other infectious diseases, among which he includes plague, venereal disease, small-pox, measles, the common rheum, and leprosy. The following is his own statement of his views:

The *Original* and *Essential Cause* then, which some content themselves to call a vicious Disposition of the Juices, other a salt Acrimony, others a strange Ferment, others a malignant Humour (all which seem to me dark and unintelligible) may possibly be some certain Species of *Animalcula* or wonderfully minute living Creatures, that, by their peculiar Shape, or disagreeable Parts, are inimicable to our Nature; but however capable of subsisting in our Juices and Vessels, and which being drove to the Lungs by the Circulation of the Blood, or else generated there from their proper *Ova* or Eggs, with which the Juices may abound, or which possibly being carried about by the Air, may be immediately convey'd to the Lungs by that we draw in, and being there deposited, as in a proper *Nidus* or Nest, and being produced into Life, coming to Perfection, or increasing in Bigness, may by their spontaneous Motion, and injurious Parts, stimulating, and perhaps wounding or gnawing the tender Vessels of the Lungs, cause all the Disorders that have been mentioned, viz. a more than ordinary Afflux of Humours, upon the Part, Obstruction, Inflammation, Exulceration, and all other the *Phenomena* and deplorable Symptoms of this Disease.

Marten says further:

And as by good Glasses we can discover an infinite Number of Animals, that are not apparent to our Sight without them, so we may reasonably conclude there are Myriads of others infinitely smaller and wholly imperceptible to our Eyes, tho' assisted with the best Glasses that can be made . . .

He maintains the possibility of intrauterine infection, and holds that specific diseases are due to specific organisms:

Thus one species of *Animalcula*, by means of their wonderfull Smallness and injurious Parts, may instantly offend the Brain and Nerves, and cause Apoplexies and sudden Death, whilst other Species may produce the Plague, Pestilential or Malignant Fevers, Small Pox, etc., and others again Chronick Diseases, such as Hypochondriack Melancholly, Vapours, Scurvy, Gout, Rheumatism, Evil, Leprosy, Consumption, etc. . . . For how can we better account for the regular types, the Small Pox, Malignant, and all other Continual and Intermitting Fevers, as well as many other Distempers, keep, and the peculiar Attributes and *Crises etc.* they have, than by concluding they are severally caused by innumerable *Animalcula*, or exceeding minute Animals that variously offend us according as their Species are different, and as their peculiar Shape and Parts are more or less injurious to our Fluids and Solids . . . By what has been said, I think it appears highly probable that Minute Animals, stimulating, wounding or gnawing the parts they are lodged in, are the cause of these Diseases; and in a Word, there is possibly no ulcer or ulcerated Matter, but what is stock'd with *Animalcula*, and as these are of different Species, and more or less capable of injuring the Parts in which they are bred or lodged, so those Ulcerations may be more or less stubborn or Inveterate.

Leprosy he thinks was, perhaps, propagated by means of imperceptible volatile animals. But Marten says he would not be understood to advance that all distempers are caused by minute organisms. He urges only the possibility and likelihood of their being the essential cause of the plague, pestilential and other malign fevers, small-pox, and some other diseases, as well "Chronick as Acute, and Particularly of . . . a *Phthisis*." The book itself was published in 1720, but the preface shows that it was completed in the previous year, for it terminates with the legend, "From my House in Theobald's Row near Red-Lyon Square in Holbourn, September 1, 1719." A second edition appeared in 1722. In it he expressed satisfaction that "many learned Gentlemen" approved of his theory. Nevertheless, he hints several times that his views have not been accepted by the profession at large. There is no mention of Marten or his theory in the works of Blackmore (London, 1721), Richard Mead (London, 1720), R. Brookes (London, 1721), or Phillip Rose (London, 1721), or in a number of contemporary works on phthisis.

The *Encyclopédie Médicale* is a monthly bibliographical summary of the contents of the medical publications of France and other countries. It is the work of a committee of doctors. Being arranged alphabetically it is convenient for reference. As far as we have tested it, the abstracts are brief but sufficient for practical purposes. Foreign literature, however, occupies a very subordinate place. The *Encyclopédie Médicale* is published in Paris (32 rue Madame); the subscription for foreigners is £1 yearly.

The W. B. Saunders Company have sent us a copy of their new illustrated catalogue, revised to January, 1911, which contains the announcement of a number of important new books and new editions. It extends to eighty pages. Since the issue of the last list, about a year ago, no fewer than twenty-one new works and thirteen new editions have been added to their catalogue; detailed particulars of each book are given, and are supplemented in many cases by reduced specimen illustrations. The catalogue is produced in a style which may truly be called artistic, many of the illustrations being quite admirably executed.

We have received the first number (January) of the *North of England Clinical Journal*, described on the title page as the organ of the Newcastle-upon-Tyne Clinical Society. The society has been in existence for more than a quarter of a century, and to-day is more flourishing than it has ever been before. The journal contains an address on the menopause by Sir John Halliday Croom; a paper on obstetrics in relationship to some of the allied sciences, by Dr. Napier Burnett; and one on the pathology of lymphadenoma, by Dr. Stuart McDonald. Dr. Harold Kerr contributes a review of the year's progress in public health; Dr. Herbert J. Slade writes on salvarsan; and Dr. T. M. Allison records a case of actinomycosis. The journal also contains a number of reports of cases and descriptions of specimens, and concludes with a review of the annual report for 1909 of the Chief Medical Officer of the Board of Education. The motto of the journal—

> . . . To urge us on
> With unremitted labour to pursue
> Those sacred stores that wait the ripening soul,
> In Truth's exhaustless bosom—

is particularly appropriate, as it is from a famous Novocastrian, Mark Akenside, now better remembered as a poet than as a physician. We congratulate the editor, Dr. George Foggin, and his committee on having made an excellent start, and we wish our new contemporary a prosperous career.

British Medical Journal.

SATURDAY, MARCH 18TH, 1911.

## ETIOLOGY AND TREATMENT OF ACUTE POLIOMYELITIS.

GREAT as has been the advance of epidemiology during the last fifty years, owing partly to increased accuracy in the recording and analysis of international vital statistics, and partly to the growth of experimental medicine, including the coming into existence of the science of bacteriology, the factors which cause an infectious disease commonly limited in extent and incidence to become epidemic or pandemic still remain for the most part obscure. The observation has many applications even at the present day, when plague seems once again to be spreading to the dimensions of a pandemic; but it applies also to the strange fact that for some years acute infectious poliomyelitis has existed as an epidemic in the United States and in Canada, and appears to be establishing itself in most of the countries of Europe. Great Britain has not escaped, although the number of outbreaks is small, as is also the actual number of cases when compared with the shocking figures from the United States. Dr. Parker of Bristol gives elsewhere in this issue an account of an epidemic occurrence in that city during 1909. He is able to record particulars of thirty-seven cases, which probably comprise all that could be recognized clinically.

One good result of the unfortunate opportunity which has been afforded to bacteriologists by the recent prevalence of the disease has been the establishment of the hypothesis that it is an acute infectious disease, due, as it would appear, to an organism so minute that it cannot be recognized microscopically. It has been shown, however, that the infective agent can be transmitted from men to monkeys, and from monkey to monkey in series. In this issue Dr. Vipond gives some particulars of the prevalence of the disease in Montreal, and records the observation that in at least six out of the thirteen cases of poliomyelitis the Widal reaction was present, and a reaction which he calls "suggestive" in four other cases; completely negative results were yielded by three cases only; in two of these the attack had occurred two or three months earlier. What the exact significance of this may be we cannot pretend to say. Taken together with the observations of Dixon, Fox, and Rucker, noted in the EPITOME (163), it may raise a suspicion that the pathological lesions of acute poliomyelitis may be produced by more than one agent, for it is impossible to suppose that bacteriologists as skilled as Levaditi or Flexner could have overlooked the presence of an organism so conspicuous as that recorded from the Pennsylvania Laboratory. In this issue, also, Dr. Garrow, of Maryport, where there was a small epidemic of acute poliomyelitis last autumn, calls attention to Dr. Head's observation on the analogy between acute specific herpes zoster and acute poliomyelitis, and states that an unusual number of cases of the former disease occurred at Maryport during the epidemic of the latter.

Dr. Simon Flexner, of the Rockefeller Institute for Medical Research in New York, whose earlier observations were noted in these columns about a year ago,[1] has now published, in association with Dr. Paul F. Clark, a ninth note[2] which is interesting, although, like a serial story, it leaves off at the most interesting point. Flexner had previously established experimentally the fact that an attack of experimental poliomyelitis protects against reinfection with the virus of the disease, and that the blood of monkeys and of persons who have recovered from the acute effects of epidemic poliomyelitis contains neutralizing principles for the virus on which their immunity must be considered to depend. The immunity principles by which it must be assumed that the acute process is brought to an end have been shown to reside in the blood serum, and are, therefore, probably of the nature of antibodies. What have come to be designated abortive cases occur, and it is possible to determine experimentally in such a case whether the patient has or has not suffered from poliomyelitis, since normal human serum has no power to neutralize the virus, while the serum from recovered cases of poliomyelitis has. The diagnosis of many cases has been established in this manner. During the first one or two months the immunity principles may exist both in the blood and in the cerebro-spinal fluid; but, even at this early period, these principles, though present in the blood, have not always been detected in the cerebrospinal fluid. At later periods, and after one or more years, it is highly exceptional to secure neutralization of the virus by means of the fluid. The conclusion, therefore, is that during the earlier stages of epidemic poliomyelitis, when the blood vessels of the leptomeninges and the central nervous system are abnormally pervious, the immunity antibodies escape into the membranes and nervous tissue; but as the vessels return to normal the antibodies are no longer secreted and thus tend to disappear. The immunity principles persist in the blood for several years, and it is probable, therefore, that they are elaborated in the situations—namely, in the lymphatic and blood-forming organs—in which antibodies in general are prepared.

With regard to treatment, it appears that urotropin (hexamethylen-tetramin) holds out some hope of benefit. The fact established by Cushing and Crowe that this drug is in part eliminated into the subdural space led Dr. Roger S. Morris of Baltimore to suggest its clinical use. Flexner and Clark have tested its efficiency in experimental poliomyelitis in monkeys, and were able to demonstrate its presence in the cerebro-spinal fluid soon after the administration of a large dose by the mouth. They have ascertained that when the virus of poliomyelitis is injected intracerebrally in monkeys in which the hexamethylen-tetramin is already present in the fluid, and the drug is administered by the mouth daily thereafter, in a proportion of animals so treated, but not in all, first, the incubation period of the disease is prolonged (from six to eight days to twenty-four days), and next, the onset of paralysis is entirely prevented. When the drug is administered by the mouth and the immune monkey serum by injection into the subdural space, the paralysis can also be prevented, and possibly with greater certainty.

The fact that the abortive and mild cases appear to play an important part in disseminating the infection, and the further fact that there is now some hope of

[1] BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 221.
[2] *Journal of the American Medical Association*, February 18th, 1911.

controlling the disease by a drug, renders early and certain diagnosis very important. In monkeys, the cerebro-spinal fluid at the height of the lesions in the meninges exhibits a very slight turbidity or opalescence, due to a large increase in white corpuscles, best seen on gently agitating the fluid, and contains an excess of protein matter. The white corpuscles consist partly of polymorphonuclear and partly of mononuclear (lymphatic) cells. The excess of protein is readily detected by applying Noguchi's butyric acid test. Flexner and Clark have been able, in a case of Dr. L. F. Frissell's, to determine that the facts just stated hold good also for human beings the victims of epidemic poliomyelitis. An early and certain diagnosis of the disease in a suspicious instance has been made by examining the cerebro-spinal fluid in the manner indicated. The paralysis was observed to follow the height of the cellular and protein changes in the fluid, and the cessation of the extension of the paralysis to coincide with a beginning reduction in these changes, as is the case in the monkey. In monkeys the virus of epidemic poliomyelitis passes from the meninges into the nasal mucosa, and infection can readily be produced by bringing the virus into contact with the scarified mucous membrane. This fact led to the suggestion that the naso-pharynx acts in human beings as the portal of entry of the virus into the central nervous system. Observation on monkeys showed that in some instances they remained, after recovery from the effects of inoculation, passive carriers of the virus; but, so far, the nasal and pharyngeal mucosa of a person who has succumbed to epidemic poliomyelitis has not been examined for the virus. This Flexner and Clark propose to do.

## PERSECUTION OF A MEDICAL OFFICER.

Readers of Ibsen will remember the fate that overtakes Dr. Stockmann, the medical officer of the baths, when he tries to prevent the wholesale spread of disease by polluted water. At a public meeting of citizens he is unanimously denounced as an enemy of the people. He is hooted by the crowd, who yell insults after him as he goes home; they break his windows, tear his clothes, boycott his family, and drive him from the town and his native country. Under this severe tuition he learns two lessons—one, that "a man should never put on his best trousers when he goes out to battle for freedom and truth"; the other that "the strongest man in the world is he who stands most alone." Not a few medical officers of health in this country have been made to feel the wrath of Bumble when they have dared to denounce the owners of slum property, and to stand up for the right of the poor to decent dwellings and wholesome conditions of life. But everywhere the doctor whose means of livelihood depend on a public appointment is at the mercy of his official chiefs, or may be a victim of some misdirected movement of the "great heart" of the people.

One of the most tragic cases that has come to our knowledge occurred recently in the market town of Riedau in Upper Austria. There Dr. Richard Franz had spent himself in work as district medical officer for some four years. In the summer of last year he notified to the local authorities the occurrence of a case of typhoid fever in the school-house at Riedau. At the time military manœuvres were being carried on in the district, and in consequence a large body of troops was quartered in the town. Dr. Franz, therefore, gave information to the military authorities and thus prevented further billeting. The manœuvres were very properly discontinued. His action was the more justified since Riedau is frequently visited by typhoid fever. The diagnosis was fully confirmed by bacteriological examination. The townspeople, however, taking offence at this obvious measure of precaution, instituted a systematic boycott of Dr. Franz; there seems to be some reason to believe that in this action they had secret supporters among officials, administrative and military. Shopkeepers refused to sell him food; he was overwhelmed with abusive letters, threatened with violence, and became involved in a lawsuit. He was dismissed from his post by the local sanitary authority. After a time the Government came to the rescue; the doctor's dismissal was cancelled and the sanitary authority was dissolved. Nevertheless the boycott continued. As the result of the persecution of which he was the victim Dr. Franz died on January 8th of heart failure brought on by worry. If ever a man died a martyr to duty, it was the district medical officer of Riedau. He was only 36, and has left behind him a widow, a little boy, and an aged mother, who were wholly dependent on him. The indignation among members of the profession is very great, and they promptly combined to ensure some kind of provision for those he has left behind. The Austrian medical journals called on the Government to support the family of the dead man, and after a meeting of protest at Linz, the Medical Association of Upper Austria passed a resolution that it would help the family according to the means at its disposal.

The matter was brought before the Austrian Chamber of Deputies, and has been taken up by the daily press and by the public. The Committee of the Austrian Medical Chamber has unanimously passed a resolution expressing its deep regret that such an event could have occurred in a civilized country. The committee further declares that the existing defenceless state of doctors is dangerous not only to the medical profession itself, but also to the public, and a hope is expressed that it will not be long before doctors are endowed with distinct legal rights and powers. At a meeting of the Society of German-speaking Medical Practitioners recently held at Prague, Dr. Kramer, the President, urged the assembly to protest against the treatment that had been meted out to Dr. Franz. The doctors, he said, must insist that the present sanitary authorities shall take the case into consideration, and hold up those responsible for the tragedy to public condemnation. A large sum was subscribed at the meeting. The Vienna Medical Orchestra gave a large concert for the benefit of the family on February 5th. According to the most recent information, the sanitary district has been ordered by the Government to pay the full pension that would have been due to Dr. Franz. This, together with the contributions voted by various medical associations, will, it is said, make a sufficient provision for the unfortunate doctor's family.

The case shows the power of organized action by the profession in defence of its members. It is interesting to note that when the post was vacant one doctor, ignorant of the state of affairs, applied for it, but on learning the state of affairs withdrew his application. This was the result of a "warning notice" issued by the local medical association.

It is said that this is by no means a solitary instance of boycotting of a medical officer for doing his plain duty. In other parts of Austria and in Vienna itself similar cases have occurred. At a meeting of the executive committee of the Austrian

Medical Chamber, at which the principal subject of discussion was the tragedy of Riedau, the president stated that the drama, *An Enemy of the People*, had already been enacted in Austria. The part of Stockmann was played by Dr. Meissner, a doctor in a Bohemian health resort. Meissner—who was the father of the well-known German-Bohemian author, Alfred Meissner—on one occasion had to report a case of cholera to the authorities. The result was that the people, looking upon him as an enemy to their town, persecuted him to such an extent that, sick in mind and body, he was forced to leave the scene of his labours. The fate of Meissner is believed by many to have supplied Ibsen with the idea of his play.

The lesson of these tragedies is obvious. Medical practitioners must combine and stand shoulder to shoulder, resolutely opposing the tyrannous misuse of authority. Nothing could more strikingly show the necessity of such an organization as the British Medical Association for the protection of the interest of practitioners threatened by the oppressor's wrong and the insolence of office. It is only by such combination that the profession can expect to secure fair treatment and respect of its rights.

## THE PREVENTION OF DESTITUTION.

DURING the week preceding Whitsuntide—May 30th and 31st and June 1st and 2nd—a conference will be held at Caxton Hall, Westminster, at which will be discussed practical methods of preventing destitution. Poor Law questions, in so far as they refer to the relief of destitution, will not be considered at the conference, and it has been decided by the promoters that the discussions shall not culminate in definite resolutions. The questions to be dealt with at such a gathering are many, so that it is proposed to divide the meeting into sections. The Public Health section will have for its president Sir Clifford Allbutt; the Education section, Professor M. E. Sadler; the section on the Mentally Defective, Sir William Chance; on Unemployment, Sir Alfred Mond, Bart., M.P.; and the Legal and Financial section, the Hon. Mr. Justice Phillimore. Among the questions proposed to be discussed by the Public Health section are the administrative control of tuberculosis in relation to the prevention of destitution; the relation of sickness and invalidity insurance to the public health; the work of the public health authority in relation to birth and infancy; the need for a unified public health service; and the relation of such a service to voluntary agencies. The Public Health section will discuss with the Educational section the medical and dental treatment of school children, and with the Unemployment section the question of physical disabilities for employment. Although the Lord Mayor of London is the President of the conference, and among those actively concerned in its promotion are many public officials, voluntary agencies will be largely represented, and the best means of bringing official and voluntary bodies into co-operation will come under discussion.

## THE "MEDICAL REGISTER."

THE *Medical Register*[1] for 1911 has just been issued. The number of names contained is 40,483, which is exactly 500 in excess of the average for the last five years, and 5,626 in excess of the average for the last twenty-four years. The number of names added by registration in 1910 was 1,062, as compared with an average of 1,152 for the last five years and 1,296 for the last twenty-four years. The number of names removed as ceasing to practise and under Sections XIV, XXVIII, and XXIX of the Medical Act, was 13, and on evidence of death 578, making a total of 591. This is nearly 1,100 fewer than in 1909, the diminution being due to the fact that only one person was removed under Section XIV of the Medical Act, which empowers the Registrar to remove the name of a person who does not respond to inquiries. The number of names removed in 1909 under this section was 960; as only 194 names were restored to the *Register* during 1910 it would appear that a very large proportion of the names removed in 1909 were those of persons who were deceased or had retired from practice. The number of names on the Colonial list is 294, and on the foreign list 36. All the foreign names are those of persons holding degrees of Italian universities, with the exception of two who hold the M.B. degree of the Imperial University of Japan. The volume contains prints of the Medical Acts, the Dentists Act, Midwives Act, and most other Acts touching questions of registration and practice, with the exception of the Apothecaries Act of 1815. It might be worth while for the sake of completeness to insert the text of this Act in future editions of the *Register*.

[1] London: Spottiswoode and Co. To be btained through all book sellers. (10s. 6d.)

## "STANDARD BREAD."

WHILE the advocacy of the so-called standard bread continues to occupy a good deal of space in the *Daily Mail*, many other journals have referred to the matter in terms of anything but approval or support. We pointed recently to the probability that exaggerated claims would lead to reaction and renewed indifference; there are not wanting signs that the public is beginning to tire of the crusade, and such a statement as that made in a prominent weekly journal, that "the 'standard bread' agitation is really the silliest nonsense that has possessed the British public for years past," shows that our anticipation of a reaction was fully justified. Naturally, the technical journals dealing with the milling and baking trades have had a good deal to say on the subject, without finding much in favour of the agitation except the fact that it has enabled millers to sell at the price of flour a part of the product which could formerly only be sold as "offal." The council of the National Association of British and Irish Millers recently appointed a committee to report on the subject, and although the report of this committee, which has now been published, makes no pretence to be other than an *ex parte* pronouncement, it contains some interesting and useful information. Analyses are given of four kinds of flour obtained from the same blend of wheats. These were respectively "high grade flour," "town households"—which is the kind supplied for making ordinary white bread—"whole-wheat flour," and "80 per cent. or standard flour." The results show that both protein and phosphate are lowest in the "high grade" and highest in the "whole-wheat," whereas in the "town households" and "standard," which for the present purpose it is most important to compare, the figures are almost identical, the small differences being in favour of the former. The actual percentages were: "Town households," protein 12.36, phosphate 0.327; "standard," protein 12.17, phosphate 0.321. We have already pointed out, however, that the really important matter is how much of the valuable constituents can be assimilated and absorbed in the body, and this is not always proportionate to the amount present in the food. A series of feeding tests carried out by Professor Snyder in Minneapolis for the United States Department of Agriculture are important in this connexion. Young

healthy men were fed on bread prepared from three flours of the kinds known there as "Graham," "entire wheat," and "patent." The first of these is made by grinding the whole wheat, and the last-named is ordinary white flour of best quality, while the so-called "entire wheat" is intermediate, and therefore corresponds approximately to "standard" flour. The proportions assimilated were ascertained by analyses of the food taken and of the total excreta over a period of time, in the usual way. The results obtained were: "Patent" flour, protein 88.6 per cent., carbohydrate 97.7 per cent. assimilated; "entire wheat," protein 82 per cent., carbohydrate 93.5 per cent. assimilated; "Graham," protein 74.9 per cent., carbohydrate 89.2 per cent. assimilated. These results are in accordance with those which have been obtained in other investigations, and may reassure those who prefer to continue the use of well-made white bread prepared from good wheat.

## RESCUE WORK IN MINES.

DR. LEONARD HILL, in a paper read recently before the Royal Sanitary Institute, demonstrated a self-contained diving dress for penetrating flooded mines where the divers with pipe and life line were not able to go. In connexion with this, he considered the question of oxygen poisoning and how far it was safe to breathe high partial pressures of oxygen, also the effect of breathing oxygen on the metabolism and power to work. Next, he considered the atmosphere of mines, the deoxidation of the atmosphere produced by the coal, the output of methane, and the effect of breathing air containing small partial pressures of oxygen and air containing excess of carbonic acid, "dead air," and "choke damp." He then dealt with the temperature of the mine, and considered the very great hygienic importance of the coolness and movement of the air, and detailed experiments he had recently conducted, contrasting the relative effect of an atmosphere which was hot, motionless, and moist, and an atmosphere which was cool and moving, but chemically impure, so far as regards the partial pressure of oxygen and carbonic acid. In discussing explosions he spoke of the importance of coal dust as a cause of great colliery disasters, and the methods of lessening the danger due to this cause, and then dealt with "after damp" and the poisonous effect of carbon monoxide; after this he demonstrated the Fleurs or "Proto" breathing apparatus, which he had endeavoured to perfect on physiological lines. The apparatus was shown in use, and the method of cleaning and recharging it explained. He described the work that could be done with the dress, its use in the last great colliery explosion, its suitability for use in hot atmospheres for putting out fires in mines, and the precautions which must be taken when the wet bulb temperature was high. He also demonstrated the Salvator apparatus for rescuing entombed miners and the apparatus for restoring cases of "after damp" poisoning. Lastly, he described the type of rescue stations already set up and the regulations for rescue work recently issued by the Mines Committee appointed by the Government.

## INSURANCE FOR SMALL SUMS.

A CIRCULAR sent to medical men last autumn by the Pearl Insurance Company was the subject of two editorial notes and some letters in our correspondence columns at the time. The suggestion then made by the company was that medical men should undertake to examine candidates for insurance at the following rates: If the sum assured was £25, then a fee of 3s. 6d.; if over £25, but not exceeding £50, then 5s.; if over £50, but not exceeding £100, then 7s. 6d. The recipients of the circular were invited to believe that the number of applicants for insurance for small sums would be so great as to make it worth while to undertake their examination, while by way of reducing the apparent amount of work which would have to be done in connexion with each case, the form of report was greatly abbreviated. The two more important criticisms to which the suggestion seemed open were that the amount of work required was not really reduced by lessening the number of questions to be answered, and that if the examiner were underpaid for an examination, the greater the number of candidates the greater the number of times that such examiner would do a guinea's worth of work for a 3s. 6d. fee. In view of these criticisms and of the fashion in which the suggestion was generally received by medical men, the company has now put forward a fresh suggestion. The proposal now is to pay an examination fee of 2s. 6d. for assurances under £50; 10s. 6d. for assurances over £50 but under £300; over £300 but under £1,000, one guinea; for £1,000 and upwards, two guineas. The form of report for candidates for assurance under £50 does not ask any specific questions, but requires the medical examiner to fill in a statement that he has seen and carefully examined the candidate, that his age is so-and-so, that his family history is so-and-so, and that he is of normal height and weight and healthy appearance, has not suffered from accident or disease tending to shorten life, and that all his vital organs are sound and their functions properly performed. In conclusion, the examiner is asked to state in what class he would place the life of the proposer. The form for proposers for assurances of over £50 are of an ordinary character. We criticize this fresh circular with some regret, but feel bound to point out the objections which may be properly lodged against it. No conscientious medical man could fill in the form described without having made an examination of the candidate of just as searching a character as if he were asked to answer specific questions regarding the condition of each organ. Hence the amount of work entailed by reporting on a candidate for an assurance of less than £50, in return for a fee of half a crown, would be just as much as that done for the higher fees. There is some reason to believe that the company does not expect as careful an examination of candidates for assurances under £50 as of those for higher sums, and in their case is prepared to be guided by views based on mere cursory inspection. But if this be so, then the wording of the report should be entirely altered. In the reverse case, only two conclusions can be drawn from the circular: Either the company is endeavouring to induce medical men to do for half a crown work which is worth a great deal more, or it does not realize that, whatever the sum secured by the policy, a sound opinion as to the class in which a life should be placed is not possible without an extended examination of the candidate. Such opinions are essential to any well-devised insurance enterprise, and the cost of obtaining them should be recognized as one which cannot be reduced beyond a certain limit. However fully the medical profession may sympathize with the company in its desire to extend the benefit of insurance to the working classes, there is no reason why it should not ask and insist on reasonable fees for its co-operation.

## THE FOTHERGILLIAN MEDAL.

THE 138th anniversary dinner of the Medical Society of London was held on March 8th at the Hotel Métropole, London, with Mr. C. J. Symonds, the

President, in the chair. To the right of the Chairman were seated the President of the Royal College of Physicians, the President of the Royal Society of Medicine, the Director-General of the Army Medical Service, Professor Howard Marsh, the President of the Hunterian Society, and the President of the West London Medico-Chirurgical Society; to the left of the Chairman were seated the President of the Royal College of Surgeons, the Regius Professor of Physic, Cambridge; the Mayor of Marylebone, the Director-General of the Royal Navy Medical Service, the Master of the Society of Apothecaries, the President of the Harveian Society, the President of the Ophthalmological Society, and the President of the Society of Tropical Medicine. The event of the evening was the presentation to Dr. F. W. Mott, F.R.S., of the Fothergillian Medal of the society for his research work in the pathology of the nervous system, more especially in regard to syphilitic disease. Dr. Mott, in acknowledging the honour, referred to the assistance the medical profession had received from the London County Council. This Council helped forward the scientific work of medicine in every possible manner, and it was due to its public spirit and energy that preparations were nearly completed for procuring a site for a new hospital for mental disease, towards which Dr. Maudsley had given £30,000. Sir Thomas Barlow, in proposing the toast of "The Medical Society of London," gave historical details of its founder. The response to this toast was from Mr. Symonds, the President, who was able to give a glowing account of the success and prosperity of the society. Speeches were also made by Dr. A. F. Voelcker, Dr. F. J. Goodhart, Professor Howard Marsh, and the Mayor of Marylebone.

## THE EPIDEMIC OF MEASLES.

A PRIVATE conference, to discuss the measures to be taken to control the epidemic of measles, was held under the presidency of Dr. Newsholme, Medical Officer to the Local Government Board, on March 13th. It was attended by Dr. Theodore Thomson, Assistant Medical Officer of the Board; Dr. Crowley, representing the Medical Department of the Board of Education; Sir Shirley Murphy, Dr. Kerr, and twenty-two out of twenty-nine metropolitan medical officers of health. Mr. John Burns, President of the Local Government Board, took part in the conference, and in summarizing the main points which the discussion had elicited, he referred to the possibilities of notification of the disease, the possible need for further hospital accommodation, the further use of educational means for preventing the spread of infection, the degree of utility of disinfection in measles, the question of excluding children under 5 years of age from school attendance during epidemic periods or at other times, and the need for regulating private schools, including Sunday schools. During the past four weeks there have been 546 deaths from measles in London, and at the end of last week there were 748 cases under treatment in the hospitals of the Metropolitan Asylums Board and the London Fever Hospital. The disease, as has already been noted, is prevailing in epidemic form in other parts of the country also. In Birmingham since January 14th the number of cases notified has been 2,841 and the number of deaths 130; the number of fresh cases reported last week by the school authorities was 429, being 40 less than the total of the previous week; the number of deaths was 29, an increase of 10. There has been a recrudescence of the disease in the Royal Naval College, Dartmouth, where 25 new cases occurred on March 11th, bringing the number of cases under treatment up to 35.

## CELLAR BAKEHOUSES.

VERY unsatisfactory conditions of labour in a Southwark underground bakehouse were revealed in the course of evidence given at an inquest recently held before Dr. F. J. Waldo with regard to the death of a foreman baker from apoplexy in Guy's Hospital. The bakehouse was completely underground, beneath a shop and living rooms, there was no outside area, ventilation being on the level with the street; there was one oven in the bakehouse and three gas jets, two of which were constantly burning. It appears that the man worked from 6 p.m. one day until 1 p.m. the next, and at 8.30 on the night before he was taken ill he and another workman lay down to rest on the top of the dough trough with the dough rising underneath them. Dr. Waldo reminded the jury that when he was medical officer of health to the vestry of St. George's, Southwark, he did his best to close bakehouses which were completely underground unless they were properly constructed, ventilated, and lighted. He considered that baking might very properly be scheduled as a "dangerous trade," and that bakehouses as well as kitchens should be placed above ground. The men employed in the baking trade are themselves agitating for improvements in their surroundings, and the instance to which we draw attention is a justification of their action, for it is most disquieting to find that under existing regulations a man should be able to spend nineteen hours at a stretch in a cellar bakery, taking his food there and actually sleeping over the fermenting dough. In the interests of bread consumers no less than of bread makers, definite action on the part of the proper authorities is necessary to prevent the possibility of such a practice.

## CANCER RESEARCH IN AMERICA.

A BILL has been introduced into the New York State Legislature providing for an appropriation of £13,000 for the establishment of a cancer research hospital in Buffalo. The site is to be given by the State. The management of the institution, which will contain twenty-five beds, is to be vested in a board of trustees consisting of seven members, one of whom will be the State Commissioner of Health. In the list of trustees we note the name of Dr. Roswell W. Park. It is announced that Dr. Gaylord has presented a special report, in which he states that after ten years of research he is prepared to supply a serum which he believes to be curative of cancer. Hitherto nearly all the experiments under his supervision have been made on rats, mice, and rabbits. Dr. Gaylord claims to have entirely cured one patient of cancer by means of the serum, and it is now proposed to make the treatment general for all who volunteer to submit to it under the supervision of the laboratory doctors. The number of deaths in New York State from cancer is between 6,000 and 7,000 a year, and Dr. Gaylord in his report expresses the belief that this number will be largely reduced if the State gives the necessary financial support for the new institution. While every effort to discover a cure is to be encouraged, we think it right to point out in the public interest that one case, even assuming the cure to be complete and permanent, is a very slender foundation for the belief that a really curative serum has been found. Dr. Gaylord may, of course, have much more solid ground for his belief than appears from the report we have quoted, and we are the more inclined to think that this is the case, as we find it impossible to suppose that a man of his reputation would make public a statement that might excite hopes of cure among sufferers from cancer unless he felt himself fully warranted in so doing.

## COUNTRY HOSPITALS FOR CHILDREN.

IN the JOURNAL for March 4th, p. 505, an illustrated description of the Royal Liverpool Country Hospital for Children was published, and the conclusions which its history justifies were accentuated in a separate note at page 516. Since then there has come into our hands the annual report of the New York State Hospital for the Care of Crippled and Deformed Children. It is of special interest, since this institution, though much smaller and as regards its present arrangements more primitive, is in all essentials precisely of the same kind—that is to say, neither a home nor a sanatorium, nor an ordinary hospital, but a place in which children are actively treated by surgical and other measures for as long a time as is esteemed necessary to restore them to complete health as far as circumstances permit. Its work during the ten years that have elapsed since its opening in the year 1900 is summarized by its surgeon-superintendent, Mr. Newton Shaffer. The average length of treatment seems to be nearly two years; hence of the 231 patients so far admitted, only 184 have yet been discharged. Of these, 62 left the institution entirely cured, and 108 improved, many of them materially and permanently. There have only been three deaths, all being due to the chronic tuberculosis which led to the admission of the children. No child has died from any acute disorder. This result is partly ascribed to the fact that fresh air treatment is the basis of the work of the institution, whatever the immediate cause of the deformity. In about 50 per cent. of all cases this cause is tuberculosis, and such children are now kept in open-air shacks or shelters throughout the year and whatever the state of the weather. All those, says the writer, who see these little ones in their happy outdoor environment are struck by the appearance of health which they present. Later on he adds that while the occupants of the wards have their slight ailments, the occupants of the shacks escape, almost without exception, the ordinary ailments incident to childhood. As the net upshot, a new hospital is being planned in which outdoor treatment and life will be secured for all the patients, whether these are admitted for tuberculosis of joints or for the operative or mechanical treatment of conditions such as club-foot, bow-legs, and knock-knees. In other words, New York intends to do what Liverpool has already done, and has reached this decision on the basis of entirely independent but precisely identical experience—namely, that children, provided they are kept warm, flourish amazingly in open air, however inclement the weather, and, besides responding more rapidly to surgical and other treatment, remain free from the common ailments of children. No one who has ever been in charge of a children's ward or hospital will fail to recognize the importance of the latter circumstance.

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## THE INFLUENCE OF ENVIRONMENT ON ENZYMIC ACTION.

THE *Journal of Physiology* (Nos. 2 and 4, 1910) contains an interesting communication from Dr. F. W. Pavy and Dr. H. W. Bywaters on the influence of environment on enzymic action. They point out that it has been long known that the power of the liver to convert glycogen into sugar increases greatly *post mortem*, and this suggests that it is not alone the presence of the ferment or its quantity which determines the result. Their first experiments were made with yeast; an unboiled extract of 10 per cent. strength was made, 5 c.cm. of this product being used to convert 1 gram of saccharose and water for two hours at a temperature of 40°. Upon the strength of the results obtained by Harden and Young, which showed the effect of boiled yeast juice in increasing the activity of zymase, they added 5 c.cm. of boiled yeast extract and compared the results. This showed the enormous influence of the boiled yeast extract. For example, 5 c.cm. of unboiled yeast extract produced 51.2 mg. of invert sugar, but when 5 c.cm. of boiled yeast extract were added to the same quantity, no less than 394 mg. were formed. Further experiments showed that this result varied with the amount of boiled yeast extract used. Other experiments showed that this action of the boiled yeast extract depended upon its acidity, and that precisely the same result could be obtained by adding equivalent quantities of decinormal solution of acetic acid, while, on the other hand, basic substances diminished or completely destroyed the invert action. Experiments with diastase obtained from the liver of the oyster showed that boiled extract of oyster liver also enormously increased the diastatic action of the unboiled oyster extract, although not to the same extent as in the case of yeast, while acids and alkalis also favoured or inhibited the enzymic action in a similar manner. Injection of solution of sodium carbonate into the liver completely arrested the *post-mortem* production of sugar, and here again acidity seemed to be the determining factor. The authors quote Magnus-Levy's observations on the production of acid in the liver as a *post-mortem* event, and they show that this is true also of blood, spleen, kidney, pancreas, and muscle, the production of acidity setting in immediately after death. As fluoride is known to be a strong inhibitor of enzymic action, it was thought it might also inhibit *post-mortem* production of acidity and this was found to be the case. The authors suggest that the activation of the enzymes in the conversion of starch into sugar for the nutrition of the embryos of plants may result from the simple formation of an acid in the seed.

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## INTERNATIONAL CONGRESS ON TUBERCULOSIS.

THE seventh International Congress on Tuberculosis will be held in Rome next September (24th to 30th). The congress, which is under the patronage of the King and Queen of Italy, will be presided over by Professor Guido Baccelli. The work of the congress will be distributed among three sections, dealing respectively with (*a*) the etiology and epidemiology of tuberculosis; (*b*) the pathology and therapeutics (medical and surgical) of tuberculosis; (*c*) social defence against tuberculosis. A special committee is organizing an exhibition of social hygiene, to be held at the same time with the congress. The Secretary-General of the congress is Dr. Vittorio Ascoli, to whom all communications relating thereto should be addressed at 36, Via in Lucina, Rome. The subscription for members is 25 francs; tickets can be obtained for their relations for 10 francs. The arrangements for this country have, at the request of the Italian authorities, been placed in the hands of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, 20, Hanover Square, London, W. An executive committee has been formed for the purpose of arousing interest in the congress in this country, and for collecting information, papers, etc., and inducing local authorities to send delegates to be present. The following form the committee: Sir Shirley Murphy, Professor Osler, Professor G. Sims Woodhead, Dr. Arthur Newsholme, Dr. Theodore

Williams, Dr. T. D. Acland, Dr. Hector Mackenzie, Dr. E. W. Hope, M.O.H. for City of Liverpool, Dr. Nathan Raw of Liverpool, Dr. R. W. Philip of Edinburgh, and Dr. J. J. Perkins, who will act as honorary secretary. A representative national committee has also been formed. Communications relative to the congress should be made to the Honorary Secretary of the National Association for the Prevention of Consumption, to whom also intending contributors should send their papers.

### THE ANNUAL MEETING, LONDON, 1910.

THE Executive Committee of the Annual Meeting, London, 1910, met on Monday, February 20th, to wind up the financial business of the meeting and pass the accounts. The balance-sheet submitted showed that the total receipts amounted to £4,388. The total expenditure amounted to £4,354. The committee agreed to vote the balance of £34 towards the Office Staff Superannuation Fund and the Office Staff Cricket Club respectively, as an expression of its appreciation of the very able assistance rendered by the entire staff of the central office to the officers and various committees responsible for the arrangement of the London meeting.

ON March 5th a monument to the late Professor Cornil was unveiled at the Paris Medical Faculty. The President of the French Republic presided at the ceremony.

A COMPLIMENTARY dinner is to be given by former students of King's College Hospital to Sir David Ferrier, M.D., F.R.S., to congratulate him on receiving the honour of knighthood. The dinner will be held on Wednesday, March 29th, and any King's man who may not have received an invitation is requested to communicate with the Honorary Secretary, Ferrier Dinner, King's College Hospital, W.C.

AMONG the fifteen candidates recommended by the council for election into the Royal Society are Dr. W. E. Dixon, professor of materia medica and pharmacology at King's College, London, and university lecturer in pharmacology in the University of Cambridge; Dr. J. B. Leathes, professor of pathological chemistry in the University of Toronto; Mr. E. A. Minchin, of the Lister Institute of Preventive Medicine, professor of protozoology in the University of London; and Dr. R. Muir, professor of pathology in the University of Glasgow.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Medical Examination of Territorial Recruits.**—Mr. Hunt asked whether, seeing that county associations are only allowed 1s. for the medical examination of each recruit, and that the shilling is only paid for those recruits whom the doctor passed, what steps were taken to prevent this small amount of payment having the effect of causing inefficient recruits to be passed. Mr. Haldane answered that the grants paid to associations for these and other medical examinations formed a common fund from which fees were paid when necessary. There were many cases where fees were not payable, as in camp. There was no reason to think that medical practitioners negligently passed medically unfit recruits into the force. Mr. Hunt then asked whether a shilling was considered enough remuneration to the medical officer, whether the recruit passed or not. Mr. Haldane replied in the negative, and said it depended on the circumstances as explained, and the shillings were put into a common fund.

**Small-pox and Vaccination (Scotland).**—Dr. Hillier asked the Lord Advocate whether he was aware that the Local Government Board for Scotland, in a recent communication to the Public Health Committee of Edinburgh and Leith, had, in suggesting the provision of further hospital accommodation for small-pox, alleged as one of their reasons for doing so the danger to the community consequent on the slackening of compulsory vaccination; and, if so, what steps the Local Government Board for Scotland proposed to take to bring this danger to the notice of other sanitary authorities. Mr. Ure replied that the hon. member's inquiry was probably based on the wording of a report obtained by the Local Government Board for Scotland which was communicated by them to the local authority of the city of Edinburgh. He was informed that the Board on February 28th, 1911, communicated with all the local authorities in Scotland that did not appear to have made provision for the isolation and treatment of cases of small-pox, requesting to be informed of the steps they proposed to take to secure that such provision would be available in the event of a case or cases of small-pox occurring. He was not aware that the ground alleged for making this recommendation was the increasing charges from the diminution in the number of vaccinations.

**Small-pox (Vaccination).**—Mr. Astor asked how many cases of small-pox so far returned in London had been vaccinated, in how many revaccinated during the past ten years, and in how many were they unvaccinated; and what had been the respective number of deaths in the above three classes of cases. Mr. Burns said that the information asked for was as given below:

*Return of Cases of Small-pox compiled from Metropolitan Asylums Board Sheets up to Sunday Evening, March 12th, and of Deaths from Small-pox up to March 11th.*

| | Ages. | | | | | |
|---|---|---|---|---|---|---|
| | 0-10. | 10-20. | 20-35. | 35 and Over. | Total Cases. | Deaths Among those Cases. |
| Vaccinated ... ... ... | 4 | 9 | 13 | 15* | 41 | 2 |
| Unvaccinated ... ... | 8 | 3 | 2 | — | 13 | 6 |
| | 12 | 12 | 15 | 15 | 54 | 8 |

*One patient in the vaccinated group, aged 37, was stated to have been revaccinated at the age of 10 years. This case had not died. No other vaccinated patient had been vaccinated or revaccinated since infancy, except after having contracted small-pox.

**Vaccination of School Children.**—Mr. Ramsay Macdonald asked if the Trustees of the French School, Soho, had required children attending the school to be vaccinated, and had ordered the exclusion of children not vaccinated. Mr. Runciman replied that he took the reference to be to the Westminster French Protestant Church School. He had no information as to what steps might have been taken of the nature indicated. The school was not a public elementary school in receipt of grant, and it did not appear to be within the power of the Board of Education to intervene in the matter.

**Vaccination and Exemption Certificates.**—Dr. Hillier asked the President of the Local Government Board whether, in view of the recent outbreak of small-pox, and the continued increase in the numbers of children exempted from vaccination, he would give instructions to have issued with the vaccination notices a circular pointing out the value of vaccination as a means of preventing the contraction of small-pox. Mr. Burns replied that the suggestion was not one which he was able to adopt. Dr. Hillier then asked if the right hon.

gentleman was aware that at the present moment in many localities 50 per cent. of the children were being exempted from vaccination. Mr. Burns answered that he was aware that exemption from vaccination was on the increase, but he did not know one case of 50 per cent.

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**Vaccination.**—In answer to Mr. Wedgwood, Mr. Burns said on Monday that he could not state the number of public vaccinators who had been appointed as medical inspectors of school children. The Local Government Board had stated that both they and the Board of Education oonsidered that the office of medical inspector of school children might with advantage be combined with the office of medical officer of health in a county district, and that, amongst the other public offices which a medical officer of health might be allowed to hold was that of public vaccinator.

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**Chicken-pox (Deaths).**—In reply to Mr. Crawshay Williams the President of the Local Government Board stated that the numbers of deaths, certified as resulting from chicken-pox, of children under 15 years of age in England and Wales were 93 in 1908, and 94 in 1909. The vaccinal condition of these children was not stated in the death returns. Although chicken-pox in the vast majority of cases was a very mild disease, it was well known that severe cases occasionally occurred which might be fatal.

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**Measles.**—In reply to Mr. Jowett the President of the Local Government Board stated that, having regard to the statistics which were regularly issued by the Registrar-General, he doubted whether any further return of deaths from measles was required. As regards the methods adopted for dealing with measles in London, much information would be found in the report of the Medical Officer of Health of the county for the year 1904.

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**Precautions against Cholera.**—Earl Winterton asked the President of the Local Government Board what steps had been taken at the Channel ports to examine medically persons arriving from districts in Eastern Europe where cholera existed. Mr. Burns said that the steps to be taken in regard to cholera were governed by the Order of the Local Government Board of 1907, and were similar to those which were to be taken in regard to plague. These he had already explained. With a view to reassuring the noble lord, he might say that he was advised by the medical department that the danger of importation of cholera infection by way of the Channel ports was extremely remote.

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**Beri-beri Cases at Galway.**—Mr. Patrick White asked the Chief Secretary for particulars as to the cases of beri-beri under treatment at Galway, and Mr. Birrell replied that there were at present four patients from a Norwegian ship under treatment in the intercepting hospital at Galway, three of whom were undoubtedly suffering from beri-beri, whilst the other was under observation. The Local Government Board understood that the patients were in a well-ventilated ward in every way suitable for their treatment, and were under the charge of three nurses. One patient became suddenly delirious and violent, but was got under control by the nurses, and had become quiet before the medical officer arrived. The latter had since procured the assistance of two male attendants, one of whom would at all times be on duty, and the other easily available.

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**Anthrax.**—Mr. Jowett asked the Secretary of State for the Home Department if his attention had been called to the report of an inquest held on the body of a man named Richard Richards, of Bradford, who had been employed by Messrs. Campbell and Harrison, woolcombers, of Shipley, at which it was found that the cause of death was anthrax, contracted in the course of his employment; and whether all the precautions now enforced for the protection of woolsorters when they were working with or near dangerous wool were also enforced when similar classes of wool were dealt with in woolcombing establishments; and, if not, what he intended to do in the matter. Mr. Churchill replied that he had received a report on this case. The circumstances were unusual, as the disease did not show itself until some time after the deceased had left his employment at these works. The Wool Regulations required that certain precautions should be observed in woolcombing establishments, and these were fully observed at the works. He was also informed that wasted wool only was dealt with in the carding-room in which the deceased worked. The case called for further inquiriry, which should be made at once.

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**Anthrax and Yew Poisoning.**—In answer to Mr. Bathurst, who asked as to the prevalence of anthrax and its confusion in some cases with yew poisoning, Mr. Gulland said that in every case in which anthrax was suspected the veterinary inspector was required to give information as to the possible cause of the outbreak, and such further inquiries were instituted as the circumstances required. In almost every case of sudden death among cattle the existence of anthrax might reasonably be suspected. A microscopic examination of the blood would show whether the suspicion was correct or whether the death was attributable to some other cause. It was well known that yew poisoning frequently caused the death of animals, and the Board did not consider that any advantage would be gained by further investigations.

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**Rice (Polished and Adulterated).**—In reply to Mr. C. Bathurst, Mr. Burns said that copies of the report made by Dr. Hamill, of the Local Government Board's Food Department, had been circulated to the local authorities concerned in the administration of the Sale of Food and Drugs Acts, and he found that action had been taken by them in accordance with the recommendations in that report. As a result, a considerable reduction had been made in the amount of extraneous matter left on the rice after the process of facing, and it did not seem necessary to take further action at the present time. He might explain that the process of polishing or facing did not remove any of the nutritive elements of the rice.

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**The Shops Bill** to consolidate, amend, and extend the Shops Regulation Acts, 1892 to 1904, was issued on Monday. The hours of shop assistants are limited to sixty per week, exclusive of meal times, with an afternoon holiday on one week-day. Overtime is allowed except in the case of boys under 16 and girls under 18 years of age. With regard to Sunday closing, Jewish shopkeepers who close their places of business from nightfall on Friday to nightfall on Saturday are permitted to open on Sundays for the convenience only of Jews. Local authorities are empowered to fix the hours of closing shops in their districts, the hour to be not earlier than 7 and 1 o'clock on the early closing day. Local inquiries may be held for the purpose of promoting and facilitating early closing, all expenses of the inquiry to be paid by Parliament. In every shop where female assistants are employed seats behind the counter are to be provided for them in the proportion of one seat for every three assistants. The trades and businesses exempted from the provisions of the Act are: Public-houses, refreshment rooms, shops where motor and cycle accessories are sold to travellers, and newspaper, sweetmeat, confectionery and tobacco shops, and dairies. The sale of bread is permitted up till 10 o'clock on Sunday mornings, and hairdressers may keep open until 2 o'clock in the afternoon.

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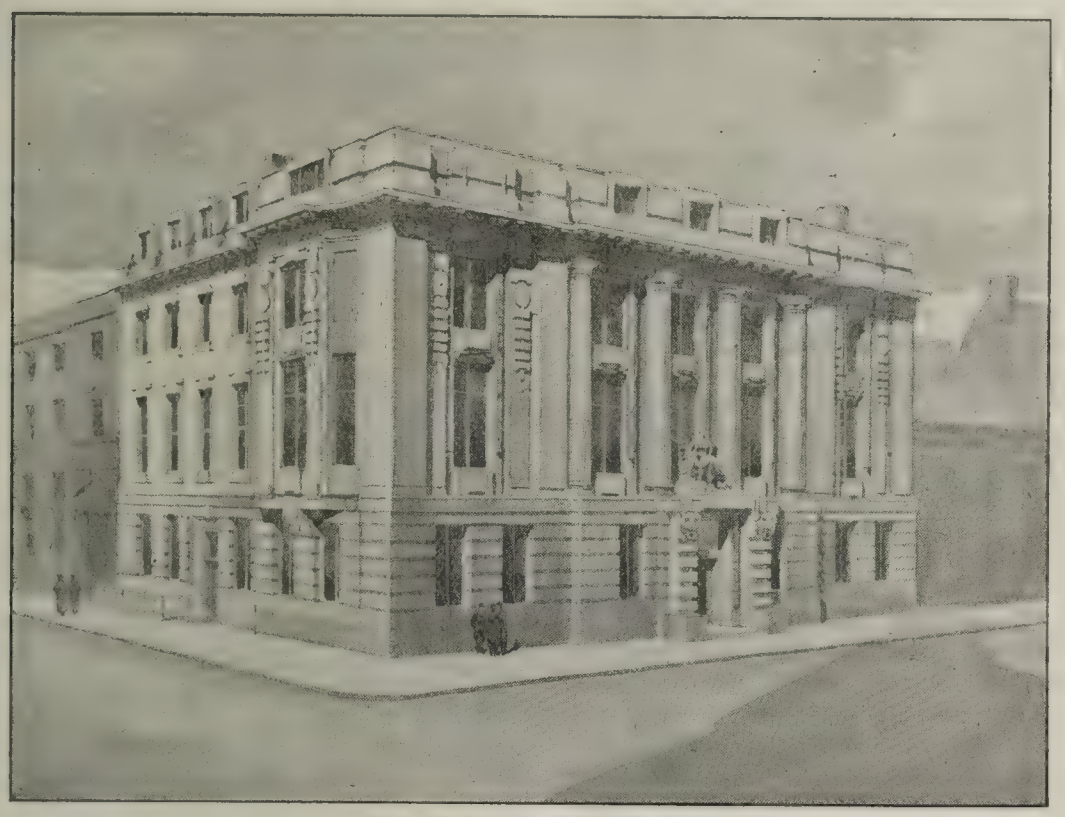
**The Midwives Act.**—Mr. Burns informed Dr. Addison that the Government were not without hope that it might be possible to introduce a bill to amend the Midwives Act this session.

## ROYAL SOCIETY OF MEDICINE'S NEW HOUSE.

THE Royal Society of Medicine (London) is now erecting, on a site at the corner of Wimpole Street and Henrietta Street, Cavendish Square, a house which, it is expected, will provide ample accommodation for many years to come, even if the society continues to increase, as it is confidently expected it will. The site has an area of nearly 100,000 square feet, and the building, which, as will be seen from the illustration, is of classical design, will have its main entrance in Henrietta Street and a second commodious entrance from Wimpole Street.

It will consist of a large and well-lighted basement, a ground floor, and three additional floors. On the ground floor will be a handsome and spacious vestibule, two meeting halls—one capable of holding about 500 persons, the other somewhat smaller, holding about 150 persons—patients' rooms (for both sexes), cloakrooms, cashier's and porters' rooms. The whole of the first floor will be taken up by the library and by the offices of the secretary, editor, and clerks. The library will extend the whole length of the building, and will be 110 ft. long, 28 ft. wide, and 19 ft. in height. The Periodical Room will be an annexe extending back 21 ft. from the Library proper at its eastern end. The Library will have a gallery; and a mezzanine room with additional tables for readers will open off the gallery, and extend back the whole depth of the building at the Wimpole Street end. The main part of the second floor will be occupied by the Council Room, over the centre of the Library; and by two Committee Rooms—one over either end of the Library—each of which will communicate with the Council Room. There will also be a tea and conversation room, and lavatories. On the third floor there will be a Museum; a room properly fitted and equipped for examining specimens and for histological work; a smoking room; a tea and conversation room and ladies' lavatories. In the basement there will be dressing rooms and lavatory, and storage for 250,000 volumes. The architect is Mr. John Belcher, R.A.



*(From the Architect's drawing.)*

The site of the new house was purchased out of invested money, and at the meeting of the fellows last month it was decided to make a special effort to raise the whole cost of the building, about £30,000, by means of voluntary gifts from the fellows of the society, the members of the sections, and the friends of fellows and members. At the beginning of March promises of £12,224 had been given by 614 out of 2,313 fellows, 112 out of 976 members and other subscribers, and of this amount £7,558 had actually been received. The building is now being rapidly proceeded with, and as this involves periodic payments as the several stages of the work are completed, an appeal is made to fellows and members to send the amounts of the donations or subscriptions they intend to give to the treasurers as soon as possible. The office of the society is at present at 15, Cavendish Square, W. In a circular letter issued by the President, Sir Henry Morris, it is pointed out that fellows, in considering the amount of their contribution to the building fund, should bear in mind that before the amalgamation many of them belonged to several of the societies now amalgamated, and paid annual subscriptions of five guineas or more, some even as much as ten guineas; the annual subscription since the amalgamation is three guineas, and fellows of the society, besides receiving the volumes of proceedings, obtain greater advantages than were enjoyed even by those who were members of several of the former societies. The society's financial position is strong, owing to the fact that the debenture debt is more than amply secured by the property in Hanover Square; the rent received from the present leaseholders of that property not only covers the interest on the debenture debt, but provides a surplus of over £1,600 a year.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### NOTIFICATION OF OPHTHALMIA NEONATORUM, CEREBRO-SPINAL FEVER, AND CHICKEN-POX.

THE London County Council has issued an Order under the Public Health (London) Act, 1891, making the provision of that Act with respect to the notification of infectious disease applicable to the disease known as ophthalmia neonatorum. The Order has been approved by the Local Government Board and came into force on March 13th. The Council has also renewed for another year the Order making the notification of cases of cerebro-spinal fever (epidemic cerebro spinal meningitis) compulsory.

The Council decided on March 14th to make chicken-pox a notifiable disease under the Public Health (London) Act, 1891, for three calendar months from March 22nd, 1911. The Public Health Committee, which brought forward the recommendation, stated that slight cases of small-pox were sometimes mistaken for chicken-pox, and so were not isolated as early as they would have been had the real nature of the disease been recognized.

## MANCHESTER AND DISTRICT.

### THE MEDICAL TREATMENT OF SCHOOL CHILDREN IN MANCHESTER.

FOR some time past it has been increasingly evident that the facilities for the medical treatment of school children found on inspection to be defective are far from satisfactory in Manchester. The Education Committee has simply been content with insisting that the necessary treatment should be obtained, leaving it to the parents to go either to private doctors or to hospitals as they liked. The practical outcome, however, has been the overcrowding of the out-patient departments of the charitable hospitals and a strain on the resources of the hospitals which can

no longer be met. Frequent protests made by members of the hospital staffs have been practically disregarded. The enormous number of children that presented themselves have made it quite impossible to inquire into the parents' ability to pay for treatment, and the abuse of the charities is acknowledged even by members of the Education Committee. The tendency of events was finally shown by what is officially described in the epitome of the proceedings of the Education Committee as "an application from the Manchester Children's Hospital for financial assistance in respect of school children referred to the hospital for treatment." The committee was not sure of its ground at the time, but there is considerable danger that unless some radical steps are taken Manchester may drift into the unsatisfactory position with which London has been faced. Manchester medical men have, however, taken to heart the object-lesson of London, where the complete failure of the system of subsidizing the hospitals for the treatment of school children has been so fully demonstrated.

The joint committee of the Manchester and Salford Divisions of the British Medical Association last week convened a general meeting of the profession to consider the question. There was an attendance of about 150 medical men, which in itself is evidence that the profession is at last roused, and the practical unanimity on the two resolutions laid before the meeting ought to convince the Education Committee that the profession will no longer tolerate the present policy of drift, which is unfair to the charities, equally unfair to the profession, and shamefully negligent of the interests of the children.

Dr. T. Arthur Helme, the chairman of the meeting, in his opening remarks, said that public opinion had arrived at that point where problems for the betterment of the people held the field. Medical men, by virtue of their professiou, were well informed on these questions, and this imposed on them a responsibility both individually and collectively. The meeting was called not simply to discuss the interests of the profession, which, however, must be safeguarded, as the true interests of the profession never conflicted with the interests of the people. The interests of the profession were threatened by the maladministration of the charities. The treatment of school children by public authorities would soon be an established fact, and it was the duty of the profession to use its influence to direct aright the policy of the authorities. First of all the meeting would have to come to some decision on one important principle—the relation of charitable institutions to the medical treatment of school children. Should it be given gratuitously by the honorary medical officers of charitable hospitals, or, if not, was it right that the charities should accept sums of money, either as fees or subscriptions, from the education authority? He reminded the meeting that the British Medical Association had adopted a resolution against the reference of school children to the hospitals whether accompanied or not by payments or subsidies, and he called on Dr. Wolstenholme to move a similar resolution.

Dr. Wolstenholme moved:

> That voluntary hospitals and other medical charities should not be used for the treatment of school children, referred for treatment by the Manchester Education Committee, whether or not accompanied by payments or subsidies.

He said that he spoke both as a ratepayer and a general practitioner. Medical inspection without treatment was pretty nearly a waste of money, and the question was how to get treatment without injustice to the charitable or to the profession. To his mind, the only way was that the State should pay for the treatment where the people themselves were unable to pay for it. He did not think that the Education Committee could cover its responsibility by paying a subsidy to a hospital, and whatever payment the authority made should go to the men who treated the children, and not to an institution.

Dr. Dulberg, who seconded the resolution, said that it was an injustice to expect the medical profession to treat cases gratuitously.

Sir Victor Horsley, in supporting the resolution, said the question had been referred by the British Medical Association to the whole profession as it was not a mere Association matter. Manchester was fortunate in having an open field on this question, while in London they had had to uproot weeds planted by other people. The question that had to be considered was one that concerned the national physical well-being and the profession had responsibilities to the State. Unfortunately the State had got the idea that the profession existed to do work without remuneration—an idea that was entirely due to the fault of the profession, which was the only one that had muddled together charity and State responsibility. That had led to the position that if a question of a national medical service came up it was expected to be provided by the profession for nothing. This was the idea of the Act of 1907, or rather this had been read into that Act, for the proposition that the education authorities were to send the children to hospitals would not be found in the Act. Yet in London the County Council had gone to the hospitals and had got them to do the work without consulting the medical staffs. The hospitals relied on the almoner system which was a very weak reed. It was impossible to refer cases to the Poor Law as had been well shown by the Poor Law Commission. Three years ago the London County Council appointed a committee on which he represented the British Medical Association; that committee found that the number of children needing attention was enormous, and by no possible means could the hospitals in London provide for all, and that nothing would meet the case except school clinics in suitable positions. The use of the hospitals was opposed, but the London County Council disregarded the protests and negotiated with the hospitals. No support was obtained from the hospital staffs. The Association then went before the Board of Education, and the attitude of the Board was now against the hospital system. The hospital scheme of the London County Council had been running for fifteen to eighteen months, but it was now an admitted failure. If the hospital scheme could succeed anywhere, it ought to have succeeded in London; but it had failed completely. Only about one-third of the children ever got to the hospitals, and those who did often crowded the hospitals at inconvenient times, and many of them were sent away untreated. Much distress and suffering had been caused to these unhappy children by the action of the London County Council. It would always remain to the credit of the Labour Party that it recognized ten or twelve years ago that medical inspection was a weapon by which we could fight against physical deterioration. Even the Board of Education had written condemning the London County Council because it was not doing inspection properly. All this public evil was due to what was called economy. It was part of a cheese-paring policy, and no great national movement could be carried out by such means. The most convenient method of treatment from the children's point of view was the establishment in the most important centres of child population of school clinics, small houses of three or four rooms, suitably staffed and maintained by the education authority. It was questionable whether the example of Bradford should be followed of staffing these school clinics with whole time medical officers. The feeling of the British Medical Association was that they should be staffed by the practitioners of the district, and a scheme on these lines had been satisfactorily carried out in four Divisions of the Association in London. The work was organized by medical committees, half of the members being members of the British Medical Association, and the other half non-members of the Association. The committee selected the medical officers to do the work, and also provided that specialists should be brought in when necessary. The remuneration of the medical officers was that adopted by the Representative Meeting of the British Medical Association. Side by side with this system was the voucher system under which the patient was treated at the doctor's own surgery and a voucher given, the payment being

made by the local education authority. But he thought that the method most likely to find general adoption was the school clinic, staffed by the practitioners of the district. He had read with interest the discussion in the Manchester Education Committee, and it would be necessary for the profession in Manchester to approach the Education Committee with a well-thought-out scheme. He strongly supported the resolution, as he was convinced that the hospital system was utterly bad.

The resolution was carried unanimously.

A second resolution was then proposed by Dr. C. Melland as follows:

> That this meeting calls on the Manchester Education Committee to make arrangements, in co-operation with the medical profession, by which the medical treatment of school children found on medical inspection to be defective shall be carried out by private practitioners, apart from charitable hospitals, either at recognized centres or clinics to be specially established for the purpose, or at private surgeries, or when necessary at the homes of the children; and, further, that the Joint Committee of the local Divisions of the British Medical Association be authorized to represent the profession in negotiations and arrangements with the Education Committee, with instructions to co-opt a proper proportion of members for the purpose who are not members of the British Medical Association.

Dr. Melland said that much of the work to be done was new, but that should not be an excuse for throwing more work for nothing on to medical men. The sending school children to the already overburdened hospitals, such as the Ancoats Hospital or the Northern Children's Hospital, had rendered it impossible for the work to be satisfactorily and thoroughly done.

Dr. Cotterill said the profession was at one on this matter, and medical men must absolutely refuse to have further work thrust upon them for which they received no remuneration. The Death Certification Bill was only one example, for under that bill medical men had not only to give a certificate, but to hold a sort of preliminary inquest without any fee, and it was high time to protest against this attempt to exploit the profession.

Dr. Ritchie, School Medical Officer for Manchester, said that Manchester flattered itself that it had done better than London, but it was by omission rather than by commission. London had moved too fast, but Manchester had not moved at all. The Education Committee simply insisted on treatment; it did not refer the children to any one. In Manchester the whole question of treatment was an open one. He did not think there would be any immediate result from the resolution, as it would be a costly business, and nothing would be done until the Government gave some money. The outcome lay with the profession very largely. The Manchester Education Committee never thought of getting everything for nothing, though, of course, it would try, as any business men would try, to get as much as possible for as little as possible. The meeting would recognize that as an official he was unable to take part in any movement, and all he could say was that any scheme favoured by the profession should be a workable one, or it could not be accepted.

Dr. Westmacott had felt for some time that something would have to be done in this matter. No one had felt the work more than he had at the Children's Hospital, as within the last two years he had done over 1,200 operations on school children at the hospital, and the cost of this work ought not to be thrown on the charitable public. The attitude of the parents would be that if the State required this work to be done the State must pay for it. He had opposed a grant to the hospitals, because hospital committees had no right to undertake the work and receive money for it, since by so doing they were robbing the poor of the work that ought to be done for them in the ordinary way of charity. The only way was for the authority to examine the children as it did now, and then, after the children had been selected the parents should be notified, and the form taken to the parents' own doctor, or the case referred back to the school clinic. In Manchester one central establishment would be first needed where specialists could act, and where general practitioners should be at liberty to go and treat cases.

Dr. Vipont Brown asked that the resolution should be modified so as to allow of whole-time appointments at the clinics, as at Bradford. He would have the greatest objection to his patients being treated by neighbouring practitioners. He moved that the words "private practitioners" should be altered to "medical practitioners," so as to allow of the appointment of whole-time medical officers for the clinics.

This amendment having been seconded, Dr. Brassey Brierley said he was greatly disappointed with Dr. V. Brown's suggestion, and did not agree with Dr. Westmacott's idea of a large central establishment. As for Dr. Ritchie's suggestion that nothing would be done immediately, he thought there was no need to wait till the Government provided money. It was the business of the profession to pave the way, and then the funds would soon be forthcoming.

The amendment was then put to the meeting, but obtained less than a dozen votes, and the original resolution was carried *nemine contradicente*. The meeting closed with a hearty vote of thanks to Sir Victor Horsley, who had kindly come from London specially to attend the meeting.

It may be noted that on the day following the meeting the *Manchester Courier*, in a sympathetic leading article on "The Abuse of Medical Charities," pointed out that at a recent trade union conference the suggestion was made that working men in London should withhold their subscriptions from medical charities as a protest against the present use of the hospitals by the London County Council. The article went on to express the opinion that the arrangement between the Education Committee in Manchester and private practitioners through the local Divisions of the British Medical Association, as suggested at the meeting in Manchester, was desirable from the point of view of the medical charities which "were not designed and are not supported for such work," and that we were now threatened with a perpetual flow of child patients to our medical hospitals, which had more than enough work to do among the adult poor. The editor considered that the recent paper by Dr. Niven before the Statistical Society and the meeting addressed by Sir Victor Horsley "should do good service by bringing before the public the importance of health, the necessity of supporting the provision made for fighting disease, and the desirability of preventing abuse of our medical charities by families well able to obtain medical assistance for themselves and their children from the private practitioners."

## THE COST OF DISEASE.

At a meeting of the Manchester Statistical Society last week, Dr. Niven, M.O.H. for Manchester, read a paper on the cost of disease. He said that in one of the appendices to the report of the Poor Law Commission Mr. W. Marlow gave a table for thirty-three societies with 2,894,000 members, showing that the amount of sick pay and funeral claims for the year 1905 reached the total of £2,313,113. It was not clear whether medical attendance was included in this, but at the same rate in the city of Manchester the cost would be over £523,000 a year. It was probable, however, that the total cost of disease in Manchester far exceeded this amount. He gave the following estimate of the annual expenditure on sickness and prevention of sickness in Manchester:

| | £ |
|---|---|
| Public voluntary institutions, including nursing | 110,000 |
| Poor Law expenditure on sickness ... ... | 70,000 |
| Private expenditure on sickness ... ... | 300 000 |
| Municipal sanitary ... ... ... ... | 116,000 |
| Municipal education ... ... ... ... | 20,000 |
| Funerals ... ... ... ... ... | 40 000 |
| Drugs and appliances, private... ... ... | 40,000 |
| Miscellaneous ... ... ... ... ... | 10,000 |
| Employers' Liability Act ... ... ... | 30,000 |
| Income of midwives ... ... ... ... | 5,000 |
| Total ... ... ... ... | £741,000 |

This was the cost of disease in its totality, but from the standpoint of life values those diseases which exacted their highest death-toll in the middle period

of life were much more destructive of economic value than those which were most fatal in the early and late ages. Moreover, losses in the middle period of life affected also the life and fortunes of the next generation. He estimated that the economic loss from tuberculosis alone in Manchester was not less than £500,000 a year, and if the city, by expending £1,000,000, could effect its extinction, the result would be cheaply arrived at. It was quite certain that the amount of fatal tuberculosis was comparatively small among those sections of the community who were well off, and that well-to-do artisans and their families suffered far less than labourers and their families. The mortality from phthisis fell at a more rapid rate between 1860 and 1900 than it had done since, and it was noticeable that the steepest period of its fall coincided with a great access of commercial prosperity as had been recently the case in Germany, an increasing proportion of the community reaching a point at which the family could be maintained in a well nourished condition. This suggested the very important question whether the reduction of tuberculosis could be most effectually brought about by expending money in raising the level of nutrition of families in which tuberculosis had made its appearance or by housing consumptives in sanatoriums, or other methods, or by a judicious combination of these methods. From the crude materials out of which his estimate was constructed it was certain that questions relating to disease involved enormous sums of money. He hoped that this country would show an appreciation no less keen than that displayed abroad of the money value of health, and at least an equal ability to turn it to account for the general welfare.

## LEEDS.

### DENTAL DEPARTMENT OF THE LEEDS PUBLIC DISPENSARY.

WHEN some few years ago the dental department of the Leeds Public Dispensary was instituted, it was arranged that the members of the honorary dental staff should in each case be appointed for a period of three years. Recently the feeling has naturally arisen that it is desirable that the dental staff should hold office under the same conditions as to length of service as the other honorary officers of the institution. Opinion was practically unanimous on the subject, and at a meeting of the subscribers held recently the necessary alterations in the rules were made. The election of the members of the honorary staffs of the general infirmary and of the dispensary is in each case in the hands of a special election committee, influential in character and limited in number. The old custom which used to prevail in Leeds, and which still exists in many other places, under which the election of the honorary staff is entrusted to the general body of the subscribers, entails on the unfortunate candidate labours which are almost endless, which are not infrequently undignified, and which tend to accentuate the unpleasant features of contests for honorary posts. It is felt that a more satisfactory result is obtained by placing the election in the hands of a few men who can seriously consider the claims of the candidates, and who in proportion to their small number will have a greater sense of responsibility. At a meeting of the special election committee the following members of the staff were elected on the new footing:

*Honorary Dental Surgeons:* Messrs. Percival T. Leigh, Walter Marston, A. G. G. Plumley, Stephen D. Hey, David Saville, and J. Newsome Taylor.

*Honorary Assistant Dental Surgeons:* Messrs. Thomas Mitchell, James W. Mower, and Geoffrey A. Phillips; and three new appointments to vacancies: Messrs. J. V. Lambert, H. A. Mahoney, and H. R. Bentley.

The success of the Leeds School of Dentistry may now be regarded as secure; the students are increasing in number, and the work done is being more and more appreciated by the class of the public for whom the charity is intended. Some description of the department, which has lately undergone considerable development, will shortly be given in this column.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### THE EDINBURGH ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

FOR some time there has been a feeling of resentment on the part of the Royal College of Surgeons of Edinburgh regarding the precedence which has been in the past given to the Royal College of Physicians. This feeling has now taken a more active form, inasmuch as it is to come within the purview of the law courts. Briefly the history is this. On March 13th, 1901, Lord Balfour of Burleigh, then Secretary for Scotland, intimated to the Royal College of Surgeons his decision that on the occasion of the presentation of addresses to His late Majesty King Edward VII the Royal College of Physicians should take precedence over the Royal College of Surgeons, and that this decision should be acted on by the Scottish Office until disturbed by any higher authority. Recently the College of Surgeons presented a petition to the Lord Lyon King-of-Arms claiming on various grounds, and in particular by virtue of the Royal Parliamentary and other grants in their favour, as well as by virtue of usage, that on all public or ceremonial occasions it was entitled to precedence over the Royal College of Physicians of Edinburgh, or otherwise that such precedence should be granted to them. The College holds that Lord Balfour of Burleigh in 1901 acted *ultra vires*. Answers to the Surgeons' petition were lodged by the Royal College of Physicians, explaining that on February 9th the college presented a petition to His Majesty the King praying that His Majesty would be graciously pleased to ordain and declare that on all occasions, place, pre-eminence, precedence, and pre-audience, as between the two colleges, should be given to the Royal College of Physicians, and to grant a warrant to the Lord Lyon King-of-Arms to see His Majesty's gracious order observed and kept, and to record the same in the Lyon Office in Edinburgh, to the end that the Officers of Arms of Scotland and all others upon occasion may take full notice, and have knowledge thereof. This petition is still before His Majesty, and it is submitted that the present proceedings before the Court of the Lyon King ought to be sisted *in hoc statu* to await the declaration of the King's pleasure on the petition of the Royal College of Physicians. Further, the physicians say that the petition of the Surgeons contains: (1) No statement that the petitioners hold any grant of precedence; nor (2) any reference to the grants in their favour produced by them which is sufficient to make them relevant to the petition; nor (3) any statement of any facts on which they found their contention that they enjoy a title by usage.

The Lord Lyon King-of-Arms had fixed March 9th for the purpose of hearing parties as to further procedure, but on March 8th he stated that after consultation with the Lord Advocate, the Secretary for Scotland was of opinion that the Lyon King had no jurisdiction in the matter, that it would be unnecessary to have a hearing, and that he should issue an interlocutor "in terms of the instructions he had received from the Secretary for Scotland." On this the Surgeons protested that neither the Secretary for Scotland nor the Lord Advocate for Scotland had any power to interfere with one of the courts of the realm in the discharge of its functions, or to instruct a judge to decline jurisdiction without hearing parties, and appealed to the First Division of the Court of Session, and the appeal was heard on March 14th. Mr. Horne, K.C., for the College of Physicians, said that the question was whether the Lyon King had jurisdiction as a court in this matter, or whether he simply exercised a function under the King and that the King and his executive officers had for the time withdrawn the authority. Mr. Anderson, K.C., for the Secretary for Scotland, explained that the Lyon King had framed his interlocutor in such a way as to make it look as if the Secretary for Scotland had laid down

**by way of instruction the course which the Lyon King should follow. All that the Secretary for Scotland had done was to advise the Lyon King how to proceed. The petition was remitted back to the Lyon King to deal with the case.**

### EDINBURGH AND THE VALUE OF VACCINATION.

**Following on the strong representation on the value of vaccination and revaccination and contrary representation by the Antivaccination Society, the Public Health Committee of the Edinburgh Town Council called for a report from the medical officer of health (Dr. Maxwell Williamson) and the medical superintendent of the Edinburgh City Hospital at Colinton Mains (Dr. Claude B. Ker). That report has now been made public. It says:**

Without going into elaborate statistical details, it appears to us that the following facts are sufficient to justify the practice of compulsory vaccination and revaccination as a necessary public health measure:

1. *The marked fall in mortality from small-pox dating from the introduction of vaccination.* This has been noticed everywhere where comparative returns of the number of small-pox deaths are available.

2. *Vaccinated persons suffer from small-pox in a much smaller proportion than do the unvaccinated*, and the more recent the vaccination the less is the chance of attack. Some instances may be quoted:

(*a*) At a time when only 10 per cent. of the children of London were unvaccinated, of 2,863 patients admitted to Homerton and Fulham Hospitals, no less than 76 per cent. had never been vaccinated. The unvaccinated population, therefore, yielded for its numbers nearly five times as many cases of small-pox as the vaccinated.

(*b*) M'Vail, analysing the experience of Warrington, Dewsbury, Gloucester, and Leicester, shows that at all ages the vaccinated population of the houses invaded by small-pox in these towns had a much lower attack-rate than the unvaccinated, and the distinction between the two classes becomes more marked when the susceptibility to the disease of children under 10 years of age is alone considered.

3. *Since the introduction of vaccination, the age at which persons are most likely to take small-pox has altered.* Befor vaccination was introduced nearly every one took small-pox in early life, just as we see with measles to-day. Nowadays in vaccinated communities the patients are chiefly adults, while in unvaccinated communities children take small-pox as freely as ever.

Thus, in Gloucester, a town in which, just before the epidemic, 85 per cent. of the infants were left unvaccinated, no less than 64 per cent. of the persons attacked were under 10 years of age; whereas in Glasgow, a well-vaccinated city, out of the 1,730 patients in 1900, only 5.5 per cent. were under 10 years.

4. (*a*) *Of those who take small-pox, the vaccinated show a lower mortality than the unvaccinated.* In the year 1900, of 9,659 cases treated in the London hospitals, 11.5 per cent. of the vaccinated died, as against 51.6 per cent. of the unvaccinated.

(*b*) *In the vaccinated themselves the mortality is less in those who present numerous or good marks.* In London the percentage death-rate of those with one mark was 13.5, with two marks 8.4, with three marks 6.4, and with four or more only 3.8. Similar differences are noted if the character and superficial extent of well-marked surface is compared with the death-rate.

(*c*) *Severe forms of the disease occur with much greater frequency in the unvaccinated.* In Glasgow, in 1900, 56 per cent. of the unvaccinated cases were of a very "severe type," whereas only 19 per cent. of the vaccinated were of a "very severe" type. We noticed the same in the last Edinburgh outbreak.

5. *Revaccination properly practised has been proved to afford complete protection against small-pox.* (*a*) In Germany, since revaccination has been enforced at school age and military service age, small-pox is so rare that it is unnecessary to maintain hospitals to deal with it. The cases that do occur are largely among foreigners. Berlin has 12 beds for small-pox in a pavilion of a general hospital. London has 2,500 in hospitals specially constructed and maintained for the purpose.

(*b*) Hospital attendants and nurses, if revaccinated, do not contract small-pox. Of 734 attendants employed in hospitals of the Metropolitan Asylums Board, 79 had had small-pox previously and 645 had been successfully revaccinated before undertaking duty. None of these took the disease. The remaining 10 had not been revaccinated, and all took small-pox. In Glasgow 230 workmen were employed at Belvedere in 1903 extending the Small-pox Hospital accommodation. Of these, 217 were successfully revaccinated, and 13 refused or were passed over. Not one of the 217 took small-pox, but 5 of the 13 were attacked and one died. In the last thirty-two years in Edinburgh the only nurse who has taken small-pox at the hospital is the only nurse who refused revaccination.

We consider that the above reasons are sufficient to justify our belief in the protection afforded by vaccination and revaccination against small-pox.

The objections raised by antivaccinationists may be briefly dealt with. There is not the slightest evidence in favour of the view that vaccination has increased the amount of such diseases as leprosy, tuberculosis, or cancer throughout the world. As long as arm-to-arm vaccination was practised the risk of the transmission of such conditions as syphilis and tuberculosis doubtless existed, although such accidents were extremely rare. Nowadays when all vaccination is performed with glycerinated calf lymph their possibility need not be considered. The risks of vaccination are very slight, but should the wound become dirty it may be followed by erysipelas or blood poisoning, as is also the case with other trivial scratches.

We are aware that the antivaccinationist attempts to explain away some of the figures quoted above by doubting the good faith of the medical men who note the presence or absence of vaccination marks.

In our experience the greatest care is always taken to obtain reliable data. Another surprising statement made in a tract which has been recently circulated is that nurses do not take small-pox for the same reason that they do not take the other infectious diseases which they nurse.

Unfortunately, however, the committee has only to examine the annual reports of its own hospital to find that nurses in large numbers do take all the other infectious diseases. On the other hand, in the great antivaccination centre—Leicester—six nurses are said to have taken small-pox in the last epidemic. Such accidents do not happen with a revaccinated staff. Small-pox, indeed, is the one infectious disease of our acquaintance that can be nursed with perfect safety to the attendant. It cannot be held that the fall in mortality from small-pox is merely due to improved sanitary conditions. The diseases most nearly allied to it—that is to say, the other eruptive fevers, measles and scarlet fever—are as common as ever, in spite of sanitary improvements.

### ODONTO-CHIRURGICAL SOCIETY OF SCOTLAND.

**The report presented to the annual general meeting of the Odonto-Chirurgical Society of Scotland on March 10th stated that there were 105 members on the roll of the society at December 31st, 1910, as compared with 107 in the former year. The financial position was considered satisfactory. Office-bearers for the year were appointed. In the evening the annual dinner was held in the Caledonian Hotel, when about fifty gentlemen were present, under the presidency of Mr. J. Douglas Logan. After the usual loyal and patriotic toasts, Mr. Naismith gave the toast of "The Edinburgh Dental Hospital and School," and Councillor Malcolm Stuart replied. Mr. Johnston gave the toast of "The Royal Colleges of Physicians and Surgeons," to which Dr. Byrom Bramwell and Dr. R. Mackenzie Johnston, replied. Dr. Drinkwater gave the toast of "The Odonto-Chirurgical Society," and the President replied.**

### CARNEGIE TRUST AND MEDICAL INSPECTION.

**The Carnegie Dunfermline Trustees have just issued the annual report on the medical inspection of school children undertaken by them. The system carried out by the Trust is more elaborate and thorough than that adopted by any public authority, as expense is not stinted. A complete examination of the children at the four school periods is made, including inspection of every child, and complete examination of those with special defects; 4,454 children have been examined during the year. In his report on the work Dr. J. C. Bridge states that reports are valueless unless suggestions are made for betterment. He points out that two of the schools are not well situated from the health standpoint; that children lack proper nutrition and fall below the standard owing to loss of sleep and overwork as messengers after school hours; that an hour for dinner is too short a period in the school day; and that in 102 badly nourished children there was no trace of organic disease, but simply evidence of want of proper feeding. With regard to cleanliness the standard is being raised, and he urges that no house should be built without a bath, which is as much a necessity as the kitchen. The report is a most interesting volume of ninety pages of letterpress and charts.**

### COMPLIMENTARY DINNER TO DR. HALKET.

**On his retirement from the visiting staff of the Samaritan Hospital, Dr. George Halket was entertained to dinner by the past and present honorary and acting members of the Royal Samaritan Hospital, Glasgow. Dr. Halket was one of the founders of the hospital, and had been on the staff for twenty-five years. On retiring from the post of visiting physician Dr. Halket has been made consulting physician to the hospital.**

### AN ACQUITTAL.

At the recent High Court of Justiciary in Glasgow, Dr. George Bell Todd had to stand his trial on the serious charge of having performed illegal operations. We are glad to say that after a trial which lasted over a day and a half the jury found so little difficulty in deciding in Dr. Todd's favour that after a brief retirement of eight minutes they were able to bring in a verdict of Not Guilty (which it is understood was unanimous).

### THE SCOURGE OF TUBERCULOSIS.

The question of the treatment of consumption by local authorities is now engaging the attention of the Local Government Board, and a mass of statistics and other data is being collected with the view to action on a comprehensive scale. The notification of phthisis has shown that in one year there were over 3,500 cases in Glasgow alone; the Health Department is now making a very careful investigation, and a census is being compiled to reveal the extent of infection. As far as the public health departments in Glasgow are concerned, they provide an out-patient department for phthisis at the Sanitary Chambers, and similar facilities, by arrangement with the parish councils of Glasgow and Govan, at five outdoor dispensaries throughout the city. To each of these a visiting physician has been appointed, a special medical assistant has been added to the staff of the medical officer of health, and four nurses supervise cases at home where necessary. Besides this, the Glasgow Parish Council provides 540 beds for phthisical cases at an annual cost of £21,000, and there are available in the sanatoriums near Glasgow, 236 beds—140 at Bridge of Weir, 52 at Bellefield, and 44 at Lanfine. These three sanatoriums, however, have been described as "all in a condition of bankruptcy more or less," and requiring increased financial support. Fully 1,200 deaths occur annually in Glasgow from phthisis, and the medical officer of health, Dr. Chalmers, has estimated that by providing 100 beds for training purposes, a number of patients equivalent to the number of deaths could receive one month's training at a cost for maintenance alone of about £8,000 per annum.

### NEW SMALL-POX HOSPITAL FOR GLASGOW.

For the past six years the propriety of erecting a new small-pox hospital on the land at Robroystoun belonging to the Cleansing Department of the city has been under the consideration of the Health Department. At one time it was suggested that an area of about 54 acres would suit the purpose of the Hospitals Committee, but subsequently it was resolved that an area of 151 acres be acquired. The whole question has now been reconsidered, and the Town Council has decided to utilize the ground originally agreed on extending to 54 acres. The position selected occupies the highest part of the Robroystoun Estate, purchased by the Cleansing Committee some years ago for the deposit of their waste material from the city. The whole estate comprises over 680 acres, and originally cost £40 000, but has greatly increased in value by the Cleansing Department's operations. Designs for the new hospital buildings have already been submitted to and approved by the Local Government Board.

### PROTECTION OF CHILDREN: A SOCIAL PROBLEM.

At the annual meeting of Glasgow Lock Hospital special attention was drawn to the increase in the number of infants and young children admitted during the past year. Thirty children under 16 years of age were admitted, of whom fifteen were under 9 years, and several mere infants. The cause in most cases was criminal assault. The directors called public attention to this condition of things, which constituted a grave social problem, and representatives of various public bodies have had joint meetings with the view to having the state of affairs dealt with as its importance demands. The outcome has been the formation of a vigilance society to cope with the evil. At the hospital a special ward has been opened for children.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### PROPOSED TARIFF FOR MEDICAL ATTENDANCE.

A VACANCY for a medical officer at present exists in the town and district of Swinford, and, preparatory to advertising the same, a meeting was convened of the local guardians and clergy, which adopted a scale of fees requiring the medical officer to afford advice, attendance, and medicine to all classes at certain fixed charges. The acceptance of the scale was to be one of the conditions of the appointment. The scale was transmitted to the Local Government Board for approval, but the Board has refused its approval, and has pointed out that, however desirable it may be that a scale of reduced fees and charges should be arranged, no legal authority exists whereby a candidate for a dispensary appointment can agree to accept any formulated scale of fees for attendance on private patients. It is added that no private patients should be seen at the dispensary buildings. The Swinford guardians, on receipt of this reply, determined to refuse to make a permanent appointment until the matter had been brought before Parliament. Meantime a temporary medical officer, at a remuneration of £3 3s. a week, is to be nominated. This attempt to enforce a tariff for medical attendance is a new departure in Ireland.

### EPIDEMIC DISEASES IN DUBLIN.

At the close of last week 52 cases of measles remained under treatment in Dublin hospitals, 17 new cases having been admitted during the week. The number of scarlatina cases was 118, with 18 admissions for the week; diphtheria, 84 cases, with 13 admissions; enteric fever, 92 cases, with 8 admissions. In addition to the above-named diseases, 13 cases of pneumonia were admitted to hospitals during the week, and 39 cases remained under treatment at the end of the week.

### REST FOR THE DYING.

The Archbishop of Dublin presided at the recent annual meeting of the supporters of the institution known as the "Rest for the Dying." This institution during its six years' existence has proved of the greatest value, and has afforded shelter to many who would otherwise have been compelled to end their days in the workhouse. During the past year 73 patients were maintained during their last illness. Of the many Dublin charities, this institution is one of the most deserving.

### HEALTH OF KINGSTOWN.

Some months ago the post of Medical Superintendent Officer of Health at Kingstown became vacant owing to the death of the previous occupant. The post was advertised as vacant, and a meeting of the District Council was summoned for the purpose of making the appointment. When the meeting was convened, however, a motion was carried postponing the election indefinitely, and it was decided that the duties pertaining to the office of medical superintendent should be carried out by the two dispensary medical officers of the district. As Kingstown is a watering-place and health resort, the opinion is held in many quarters that this action on the part of the District Council will be detrimental to the township, and will also result in danger to the public health, more especially as one of the duties of the medical superintendent was to act as port sanitary authority. A protest has been addressed to the council by the Dublin Sanitary Association, but by a majority of 9 to 7 the council has refused to reconsider the question. The action of the council appears to be determined solely by economical considerations.

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DURING last year 4,390 cases were attended by the nurses of the Birmingham Nursing Society, and this entailed no fewer than 117 319 visits. The East Birmingham Home proved a great success, 576 cases being attended and 11,981 visits paid. The committee regrets that the income of the society does not increase in proportion to the amount of work done, there being a deficiency of £358 in 1910.

# Correspondence.

## THE AVERAGE MEDICAL INCOME.

SIR,—The importance of forming a correct estimate of the average medical income is emphasized by the publication of the report on the Organization of Medical Attendance in the SUPPLEMENT of March 4th. If too low an estimate prevail, it will form the base upon which remuneration will be founded, whatever scheme may be adopted. I therefore hope that all members able to do so will contribute either criticism of Professor Moore's estimate, or facts upon which to base one more correct. Professor Moore's calculations seem imperfect on the following grounds:

1. They assume that people who are not in clubs pay no more per head for medical attendance than those who are, taking the average of the whole country. Even amongst the working classes this is at best doubtful. One has often heard the assertion that friendly societies at 4s. a head are worth taking, only because their doctor gets also private practice amongst the members' families. One would therefore assume that this paid at a higher rate. In addition, there are enormous numbers of lower middle-class patients who pay higher fees than the working classes, and there are the rich who pay much higher fees. Professor Moore considers that these are counterbalanced by the paupers and hospital casuals, who pay nothing. No one can know if this be so. It is astonishing how many of the latter class do also pay fees to doctors. At all events, an assumption, unsupported by evidence, that the whole nation pays at the same rate as a minority which is not even representative of the whole, allows so wide a margin of error as to be quite inadmissible.

2. They take no account of confinement fees, which are always—and of surgical fees, which are often—extras for club patients.

3. They reckon nothing for insurance work, factory surgeoncy, vaccination, part-time medical officerships of health, and the many other minor appointments which add to the incomes of many general practitioners.

4. They rightly do not deduct from the total of doctors amongst whom the aggregate income is to be divided those men in Poor Law and municipal work who are engaged in treating patients. But neither do they deduct the whole-time medical officers of health, the teachers, pathologists, and retired practitioners, who should be deducted, because they treat no patients, and their incomes are not derived from the source under consideration.

The whole question would be capable of easy and accurate settlement if we could get definite returns from a fair sample group of medical men; without that we are dependent on indirect methods. The average income probably differs in various parts of the kingdom somewhat in proportion to the cost of living in each part. I am under the impression (it is only an impression) that an ordinarily competent man in an industrial district can be reasonably sure of a net income of about £400 per annum after being five or six years in practice. Some practitioners make very much more, a few probably make less. I judge from their style of living, and from positive knowledge in a number of cases. Assistants, who are very few comparatively, make from £180 to £250, reckoning in value of board and lodging. Taking all together, I shall be surprised if the average income in such a district falls much below £400 per annum, and it may be higher. The whole profession will be indebted to those who can supply a more accurate estimate; failing that, the well-considered impressions of a number of observers might land us near the truth.

The other points in Professor Moore's letter are of minor importance. His accuracy I may well leave to be judged by readers of this correspondence, and his method of expression by readers of his book, who will find there much in the same style as the sentence which I quoted. His apparent attacks on club doctors and on other groups of medical men seemed more important, but he now says that he nowhere in his book attacked any body of persons. There is therefore nothing to say except to apologize for my utter lack of power to comprehend the meaning of words.

There are other contentious matters in Professor Moore's letter, but I refrain from remarking on them in order to concentrate attention on the main question—the average medical income.—I am, etc.,

March 8th. T. L. BUNTING.

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SIR,—The letter in which Dr. Benjamin Moore attempts to justify his statement that the average medical income is "well within £200 per annum" ought not to allowed to pass without a protest from those who have some knowledge of the facts. One would have thought that any observer, taking a walk through any town and noticing the houses of the medical practitioners, would have inferred that such houses could not be kept up on an income of £200 a year; and, further, a glance through the advertisement pages of the BRITISH MEDICAL JOURNAL for a few weeks or months would disclose the fact that a practice of that size is distinctly rare.

Probably a locumtenent would be as well qualified as any one to judge of the average medical income. He goes to all sorts of practices all over the country, and can estimate from the work done, and from the style of living kept up, pretty well what the income must be. It might be objected that a locumtenent is only employed by a practitioner who can afford to take a holiday; but this is not so, for the greater number of such engagements are due to the illness of the principal, and not to holidays, and the man of small income is as likely to be ill as he of the large income. I was recently acting as locumtenent for a period of nearly two years, and during that time I only once took charge of a practice the income of which was not obviously largely in excess of Dr. Moore's figure; and the one exception was in the case of a young man who had recently commenced practice.

I cannot agree that it is right to take "4s. a year as the average amount paid for medical attendance by every inhabitant of the country." For ten years I was practising in an entirely working-class town, but even there the average was higher. While Dr. Moore discounts the "upper ten thousand," he entirely leaves out of his calculation the very large middle class, whose average annual contribution to the doctor would be many times 4s.

The latter part of Dr. Moore's letter seems to me very regrettable. While reaffirming that the average income is "well within £200," he suggests as adequate an increase of 25 per cent., making £250 in all—just the salary that is paid to a decent assistant. Is it well, especially at the present time, that the Government and the public generally should be given the impression that the average medical man would think himself well off with this amount?—I am, etc.,

London, S.W., March 7th. A. W. HARRISON, M.D.

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## TO HELP THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—At the annual meeting of the British Benevolent Fund held on March 6th, I ventured to suggest a plan which I think would secure a large increase of income. However convinced they may be of the value of the work of the society, and however clearly they may see both the duty and the advantage of subscribing, practitioners in the hurry and worry of their lives forget the matter, or let it slide, and nothing is none. My suggestion was that men so situated should get their wives to take the subject over. A kindly disposed and shrewd woman would have two motives for action. She would be helping those who were in distress, and—well aware that her husband had not been able to make any provision—she would embrace the opportunity of securing some assistance should the evil day come to those who were nearest and dearest to her. The amount subscribed need not be large enough to be a burden even to a practitioner of narrow means. What is wanted is a large number of subscriptions coming in regularly, for if the number is considerable the individual sums may be small. Suppose it were agreed that every Saturday night the wife should put sixpence into a box provided for the purpose. Could not every one afford this? By such an arrangement, in the course of the year 26s. would almost insensibly accumulate. In many cases the amount might just as easily be a shilling, or still more. And there should be a

general clearing day, say at Christmas, when the sums collected could be sent to the Honorary Treasurer (Dr. Samuel West, 15, Wimpole Street, W.). If even half the practitioners of Great Britain joined in this plan, it is obvious that a very large amount would come in. Everyone interested in the work of the society will have heard with the keenest satisfaction of the guild which has been established, and in which ladies are rendering such admirable and highly encouraging service. Would not their advocacy secure a large measure of success for the scheme which I have thus roughly outlined?—I am, etc.,

HOWARD MARSH.

Cambridge, March 14th.

## CONTINUOUS ANTISEPTIC INHALATION IN PULMONARY TUBERCULOSIS.

SIR,—There is one untoward event that must not escape attention in the treatment of pulmonary tuberculosis by the continuous inhalation of drugs, and that is the danger of causing haemoptysis. A patient given a respirator saturated with an antiseptic solution naturally takes deeper and longer breaths. In lungs where a tuberculous ulceration is in progress this is very liable to cause rupture of the capillaries and oozing of blood. I remember distinctly being taught in my student days, although I am unable to give chapter and verse for it at the moment, that the best chance a tuberculous lung has of healing is when it is kept as much as possible at rest. But theories are of small avail in medicine.

Since reading the article of Dr. Burney Yeo in the BRITISH MEDICAL JOURNAL I submitted a patient of mine, an elderly gentleman, who has been what the French call a *poitrinaire* for many years, but who has now developed typical signs and symptoms of pulmonary tuberculosis, to the continuous inhalation treatment, giving a mixture of equal parts of creosote and spirits of chloroform. One week of this treatment brought on very profuse haemoptysis, from which he was quite free previously.

To those who may cavil that my argument is merely *post hoc ergo propter hoc*, I may say that at any rate the continuous inhalation treatment did not succeed in so far healing the lungs as to prevent the haemoptysis.—I am, etc.,

J. A. W. PEREIRA.

Exeter, Mar. 5th.

SIR,—I understand that the objections to the continuous inhalation of antiseptics advocated by my former teacher, Dr. Lees, are largely based on the idea that the antiseptic effect is too weak to have any appreciable effect on the tubercle bacillus.

I have no knowledge of what the experience of others who have adopted the method as advocated by him may be, but in one of two or three cases in Dr. Moxon's practice here, in which I am trying Dr Lees's prescription, I have had, after a few days of continuous inhalation, acute carbolic acid poisoning. I have made it a practice in all cases of dilated stomach to give mij–iv of liquid carbolic acid t.d.s, and have so given it in many scores of cases for considerable periods without ever having any symptoms of poisoning.

I gather, therefore, that more is absorbed by the inhalation method than its detractors suppose.—I am, etc.,

HENRY BAZETT.

Matlock, March 6th.

## TUBERCULIN AND TUBERCULIN DISPENSARIES.

SIR,—It counts for much that the discussion upon tuberculin dispensaries has drawn from Dr. Philip and Dr. Halliday Sutherland that tuberculin can and should be used in dispensaries. This is a step forward, because I believe that not very long ago Dr. Philip did not approve of the use of tuberculin for treatment at dispensaries, and did not even approve of its use in diagnosis in private cases.

In discussing the value of tuberculin dispensaries *v.* sanatoriums as means of *treating* tuberculosis, Dr. Philip omits to state that I have always been discussing the problem as it affects the poor. I am ready to meet Dr. Philip and all who agree with him on any public platform, and discuss the relative merits of tuberculin dispensaries and sanatoriums as means of treating pulmonary tuberculosis among the poor. This is a huge national question.

The greatest authority in the world on the treatment of tuberculosis among the poor, Dr. Weicker of Goerbersdorf, deliberately confessed, after a careful and prolonged trial, that sanatoriums had failed. Not many years ago Dr. Ransome, after carefully investigating the evidence, came to the conclusion (1) that no evidence from English or Scottish sanatoriums was trustworthy (see also Dr. Bulstrode's report), and (2) that the only available evidence—that of German sanatoriums—seemed to prove that four years after treatment one-third of the cases treated were still fit for work.

Dr. Philip claims that the fall of the death-rate from pulmonary tuberculosis in Edinburgh, amounting to a 42 per cent. reduction, is due to the antituberculosis dispensary in Edinburgh. How, then, does he explain as great a fall, even a greater fall, in Aberdeen and Glasgow, where his scheme has not existed? How does he explain a reduction, not by 42 per cent., but by 50 per cent. in Sydney and New South Wales, where we had no sanatorium and no dispensary? I admit that I was using tuberculin in Sydney during that time, but I am not so foolish as to suggest that my presence in Sydney and my use of tuberculin caused this great fall in the death-rate. I am sure that my work did reduce the death-rate, and Dr. Philip's work did the same, but for either of us to claim the credit for the whole fall, or even for most of it, would be absurd. However, with such direct encouragement from Dr. Philip and Dr. Sutherland, we shall continue to use tuberculin both for diagnosis and treatment at the tuberculin dispensaries. *Solvitur ambulando.*

It seems to be forgotten that the tuberculin dispensary is the best place for learning the use of tuberculin and the meaning of mixed infections. I hope that medical men will use the opportunity.—I am, etc.,

W. CAMAC WILKINSON, M.D., F.R.C.P.

London, W., March 13th.

SIR,—It is a great pity that individuals who discuss the *pros* and *cons* of Dr. Camac Wilkinson's method of treatment by progressive doses of tuberculin do not visit his dispensary and make themselves familiar with the process before attempting to criticize it.

Next to Dr. Mearns Fraser, I believe I was the second medical officer of health in the kingdom to investigate the treatment of tuberculosis by massive doses of tuberculin as carried out by Dr. Camac Wilkinson, but I have not yet reported to my authority, as I considered that such an important matter should not be lightly reported on, in view of the opposition there is from those interested in sanatoriums, but I should like to put forward, in a perfectly unbiassed way, what I have seen as the result of my investigations.

One of the earliest cases I saw was a man who had been turned out of one, if not two, sanatoriums as hopeless, and on his first appearance was only able to walk 200 yards with the aid of two sticks. When I saw him last he looked well and said that, save for some indigestion, he felt well, and was able to, and did actually, walk six or seven miles every day. But the most striking point was the district nurse's testimony, who knew the man and visited the houses on either side of his She stated that previous to his coming to the dispensary the neighbours complained bitterly that they were unable to sleep night after night owing to the man's incessant coughing, but that since his improvement they never heard him at all. When I saw the man last he stated that he felt ready for work.

In another instance a doctor entered the dispensary and sat down next to me and stared hard at a girl that Dr. Wilkinson had just been injecting; then he suddenly exclaimed that the girl had improved so much since he sent her to Dr. Wilkinson some two or three months previously that he did not recognize her at first. In addition, there is the testimony of patient after patient, not only that they feel better, but that they can work better, and such things as these certainly warrant prolonged investigation.

Dr. Camac Wilkinson, both in his book and in his teaching, advocates sanatoriums in cases where the patients can afford it, and in cases of mixed infection. A certain number of the mixed infections he treats by injections of collargol until they are fit to be treated with tuberculin. As a matter of fact, he possessed a sanatorium

of his own in Australia. In his book, on p. 150, he states that:

> The ideal treatment is specific treatment combined with those general methods adopted in the sanatorium that are of undoubted value in increasing the tissue energy, upon which the success of tuberculin treatment depends.

The dispensary in Kennington is run as an experiment to demonstrate the value of his method of using the various tuberculins; for that reason he neither gives them medicine, nor alters their home surroundings, nor the food which they take, so that their recovery can be credited to nothing but his treatment; and the point which he insists on is that for the treatment of the poor, from a public health point of view, the treatment by tuberculin as carried out by him is both the cheapest and the most efficient. He estimates that the treatment of early tuberculosis from first to last costs about £1. What is the alternative in the way of sanatorium treatment? The best figures I can give are those which were put before my authority when they were asked by one of the other authorities in the joint board to utilize our small-pox hospital for phthisis, namely, about £500 a year for seven beds; in view of the cost and the alternative given by the tuberculosis dispensary system I advised against the proposal.

If we take the figures from the Paddington Tuberculosis Dispensary with regard to consumption we find that of 286 contacts which were examined 64 were suffering from pulmonary tuberculosis, 3 from other forms of tuberculosis, and in 104 cases tuberculosis was suspected, that is, 59 per cent. of the contacts. Now in the case of these contacts who are definitely found to have tuberculosis, what form of treatment can a municipality offer which will not take them away from their employment and at the same time by so doing label them as social lepers? The experiences of all authorities that have had to deal with the poor and early phthisis have shown the difficulty in getting people to relinquish their employment, especially when they are the wage-earners. If these cases can be treated efficiently by graduated doses with the various tuberculins, and at the same time kept at their work an immense advance will have been made from a public health point of view, because I am convinced that should this form of treatment prove to be efficient we should have far less difficulty with regard to notification and dealing with consumption generally than we have at present.

If this method of treatment by tuberculin proves to be of value it would become part of the treatment given at the tuberculosis dispensary, and form an integral part of the means of combating the disease at the disposal of the public health service; the time has gone when charitable enterprise should be utilized for provision of means of combating consumption, and it would be a mistake to dissociate this method of treatment, if it proves a success, from the general plan of attack.

I hold no brief for Dr. Camac Wilkinson, but all I ask is that a system that may prove to be in advance of anything that has yet been seen should be given a fair and unbiassed trial. I believe that the number of superintendents of sanatoriums who have visited Dr. Camac Wilkinson's dispensary can be counted on the fingers of two hands. I have seen a large number of cases and have followed up others that I have advised to seek treatment there, and in no instance have I seen any untoward symptoms whatever, and children of 12 to 14 have their injections and make no fuss about it. I think practically all the medical men who have taken the trouble to go to Kennington and actually see the work being done have been amazed; personally my interest has been very great as I have been unfortunate enough to have a case of abdominal tuberculosis amongst my relations. This case was treated by a dose of $\frac{1}{10000}$ mg. of tuberculin, with due observance of Wright's negative phase. This treatment was accompanied by fifteen months', more or less, open air treatment at the seaside, as far as I can see with complete recovery; but one is quite unable to say how much of it was due to the tuberculin and how much to the sea air. In view of this I have been intensely interested in the views which Dr. Camac Wilkinson puts forward with regard to the size of the dose and the negative phase. I am inclined to think that it is his absolute disregard of Wright's teaching and his somewhat cavalier treatment of Wright's work on every public occasion which has helped to arouse a certain amount of opposition to his system of treatment.

I have not yet finished my observations, but I thought it only right to put these facts down, because, whatever the system be, it should be investigated thoroughly and fairly.

Lastly, may I repeat the warning which I gave to my fellow medical officers of health—that is, that no one should attempt to undertake this treatment until they have been to see Dr. Wilkinson's methods, as I am convinced that unless they are familiar with his intricate methods of dosage, the same failure and disappointment will inevitably ensue as was the case with Koch's original efforts.—I am, etc,

ELWIN H. T. NASH.

Public Health Department,
Town Hall, Wimbledon, March 7th.

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SIR,—Permit me to say a few words *re* tuberculin and tuberculin dispensaries. I had the great privilege last year of visiting the dispensary conducted by Dr. Camac Wilkinson at Lambeth. I attended, off and on, for two months, and saw about 35 to 40 cases under treatment. During that time I noticed improvement in every single case, and in some wonderful improvement.

There can be no doubt as to the value of the method, and, furthermore, tuberculin, properly given, is perfectly safe. So impressed with this fact have I been that I have not hesitated to select cases at all stages of phthisis from among those attending my out-patient department of the Colonial Hospital, Gibraltar, and to treat them with tuberculin.

Over 10,000 cases of all kinds are seen by myself annually. I began in December, 1910, and some of my cases (especially two third-stage cases, with abundant sputum and bacilli) have improved wonderfully, and none are any the worse. Unfortunately, we do not get early cases. I hope to publish details later.

In diagnosis tuberculin is indispensable; I have excluded a diagnosis of tubercle in three cases suspected of it, and have diagnosed two cases of lupus by the same means. Both these latter had been treated for years by specialists and others without benefit—four and ten years respectively.

I would strongly advise those who have the opportunity to go and see for themselves. "Tuberculin" dispensaries have come to stay, and will prove an untold blessing to the poor.—I am, etc,

L. D. PARSONS,
Assistant Surgeon, Colonial Hospital,
Port Surgeon, and Police Surgeon.

Gibraltar, March 8th.

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SIR,—With reference to tuberculin dispensaries, will you permit me to make the following important quotation from the preface by Koch (not present in the English translation), written in 1909 for Bandelier and Roepke's admirable textbook:

> With the employment of specific treatment in ambulatory practice, but only with careful choice of cases, I might express myself as being in agreement.

We have here in 1909 the authority of Koch himself in support of the dispensary treatment by tuberculin, but only, be it noted, *in carefully selected cases.*

Elsewhere Koch states that "in tuberculosis prevention is incomparably more important than treatment, and from the public health point of view the preventive functions of a tuberculosis dispensary are clearly so.

It is obvious that the antituberculosis scheme, first inaugurated in this country by Dr. Philip, together with the institution in connexion therewith of a department for the ambulatory treatment by tuberculin, meets the situation in an infinitely more statesmanlike manner than the more limited tuberculin dispensary with its restricted *careful choice of cases.* But great credit is due to the tuberculin dispensary movement as to the opsonic index for popularizing this most important subject.

It is unnecessary to discuss details of tuberculin treatment. There are great differences of opinion. The most comprehensive exposition of the subject is to be found in the textbook mentioned. But the general principle of the successful ambulatory treatment by tuberculin *in carefully selected cases* has been established beyond a shadow of

doubt, and one is therefore justified in incorporating it in any public antituberculosis movemement.—I am, etc.,

London, S.W., March 14th. ROBERT CARSWELL, M.A., M.B.

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SIR,—I am one of the "medical superintendents" mentioned by Dr. Pringle of Ipswich in his recent communication, and should like, in a spirit of chastened humility, to express my views on this important subject, the more so as my experience of tuberculin treatment during the last three years has been limited to the observation of its effect in 150 cases.

One of the features of the present-day campaign against tuberculosis is that it embraces several distinct lines of attack, which though individually of great importance, yet fail to secure the best results, by reason of the absence of any sustained united action. It is unfortunate that those who believe in the special virtue of any particular line of treatment should proceed to advocate it publicly as the one and only means by which tuberculosis can be stamped out, and not infrequently attempt to magnify its importance by depreciating the results obtained by other methods, or even by the same method under different conditions.

In the pages of the JOURNAL recently we have had two separate methods advocated for the treatment of tuberculosis, one the inhalation of volatile antiseptics, and the other inoculations with tuberculin. It is evidently necessary to emphasize once more that modern sanatorium treatment includes both these measures; and if these methods when employed alone have proved to be curative measures of such value, by how much more will they prove of value when used under medical supervision in combination with the other important details of sanatorium treatment? In the sanatorium these two distinct methods of treatment are found to yield the best results in different types of cases. Whereas in closed tuberculosis of the lungs antiseptic inhalations are quite useless, it is in this type that inoculations with increasing doses of tuberculin is found to be the treatment *par excellence*. On the other hand, the continued inhalation of volatile antiseptics is of great service in cases of acute and mixed infection in which inoculations with tuberculin are contra-indicated. These two methods of treatment serve to illustrate the futility of recommending one line of treatment in opposition to another, instead of insisting that the one is supplemental to the other.

The correspondence on the treatment of tuberculosis by tuberculin has arisen from the somewhat trenchant advocacy of the tuberculin dispensary by Dr. Wilkinson. Personally, I believe that the dispensary as a weapon in the warfare against tuberculosis has a future, and that inoculations with tuberculin should form part of the treatment at all antituberculosis dispensaries, provided always that when the stronger tuberculins are used in increasing doses a careful record of the temperature is kept. The result of Dr. Wilkinson's tuberculin campaign will be a more extended use of that specific remedy in the treatment of tuberculosis, and this can only be regarded as a distinct gain when viewed, not from a restricted one-sided standpoint, but in its broad relationship to the whole question of treatment. It is to be regretted, however, that instead of falling into line and grafting his scheme on to the existing movement against tuberculosis, Dr. Wilkinson should have compelled attention to his views by depreciating much of the beneficial work which has been done in this country during the past ten years, giving rise thereby to much confusion of thought and uncertainty as to action. Moreover, the title "tuberculin dispensary" conveys a wholly wrong impression. It suggests vaccine treatment alone, whereas the dispensary embraces much more, as is shown by the explanation which Dr. Mearns Fraser has given. Those who have under contemplation a scheme for the treatment of tuberculosis may have confidence in adopting, as an initial step, either the sanatorium or the dispensary, but a combination of both is what should finally be aimed at. It is altogether a matter of personal opinion as to which method of treatment should be adopted first. After careful consideration of the subject, Dr. Mearns Fraser has decided to recommend the dispensary system, but he frankly admits that provision for the treatment of reactive cases will probably have to be made.

The following conclusions are based on a somewhat wide experience of sanatorium methods, including tuberculin treatment:

1. That inoculations with tuberculin T.R. or bacilli emulsion have a specific beneficial effect in suitable cases.
2. That the use of any milder form of tuberculin is unnecessary in cases non-reactive to walking exercise and manual labour.
3. That in open pulmonary tuberculosis the use of the stronger tuberculins should always be accompanied by a careful record of the temperature.
4. That the continuance of tuberculin treatment after leaving the sanatorium is desirable in many cases.
5. That the dispensary, as pointed out by Dr. R. W. Philip years ago, is a necessary adjunct to the sanatorium, and should work in co-operation with it.
6. That any adequate scheme for the treatment of tuberculosis in populous districts must have co-ordination of effort and unity of action, and should include sanatorium accommodation, a tuberculosis dispensary, and provision for the isolation of advanced cases.—I am, etc.,

Liverpool Sanatorium, March 13th. H. HYSLOP THOMSON.

*** While willing to receive corrections of errors of fact into which any correspondent may have fallen, we are unable to find space for the prolongation of this correspondence.

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## THE VALUE OF DIPHTHERIA ANTITOXIN AS A PROPHYLACTIC AGENT.

SIR,—With regard to Dr. George Hardwicke's letter suggesting the extended use of diphtheria antitoxin as a prophylactic, I believe it is now regarded by most authorities as a dangerous method, in view of the possibility of the necessity of an injection later on, should the patient contract diphtheria, in which case the further treatment by serum injection may result in anaphylaxis.

As for the dose mentioned, most authorities agree that with the smaller dose used in the first instance the onset of anaphylaxis after the second dose is likely to be the more severe.

It appears to me to be better to use a vaccine in prophylaxis, and in cases of prolonged persistence of diphtheria bacilli in the throat this latter treatment has proved of benefit in causing their disappearance.—I am, etc.,

Bristol, March 12th. JOHN WM. TAYLOR, M.B.

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## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS.

SIR,—The letter published in the BRITISH MEDICAL JOURNAL for March 4th, p. 529, under this heading, will probably create some confusion in the minds of your readers between the two officials named, and it may be of interest to state how the matter stands.

When the first General Public Act of 1875 came into operation, the Sanitary Institute inaugurated examinations for inspectors of nuisances, and these examinations have been regularly continued up to the present time, and have been extended to all parts of the Empire. The examination is open to both men and women, and latterly an increasing number of women have entered for the examination and obtained certificates.

In practice the duties of women sanitary inspectors differ from those of men, but as there is no distinction in the duties as set out by the Local Government Board, it has been considered well that all candidates as inspectors of nuisances should pass the same examination, the certificate for which is recognized by the Local Government Board as a qualification for this office outside London.

Local authorities, however, found that, in addition to the duties carried out by the sanitary inspector, other useful work could be done by rather differently trained women in visiting the homes in the poorer districts, advising with regard to the home arrangements, and the feeding and care of children, therefore another officer, called a health visitor, was appointed for this purpose.

At first candidates prepared themselves for this new office by passing the examination for inspectors of nuisances, but as the nature of the duties rendered it important that they should be specially qualified in

natters relating to personal hygiene and the care of children, subjects which do not come within the scope of he duties of an inspector of nuisances as set out by the Local Government Board, the Council of the Royal Sanitary Institute thought well to establish a separate examination; and when on the passing of the County Council (General Powers) Act of 1908 the appointment of health visitor became a statutory office in London, the Local Government Board in a memorandum defining the duties of these officers cited the certificate of the Royal Sanitary Institute as a qualification.

For both of the examinations candidates are required to give evidence of practical training in the subjects before entering for the examination, and, although the two examinations are for their respective purposes of similar standard value, the syllabus and subjects for each are very different. In one examination a certificate is given as "Inspector of Nuisances," and for the other a certificate or "Women Health Visitors and School Nurses."

The title of "Lady Health Visitor" is not used by the Royal Sanitary Institute, nor has the Institute ever suggested that the training or examination for women health visitor would be appropriate for the post of inspector of nuisances.—I am, etc.,

LOUIS C. PARKES,
Chairman of Council,
Royal Sanitary Institute.

London, S.W., March 8th.

## QUALIFIED OPTICIANS.

SIR,—Two important points have hardly been touched upon in the correspondence on this subject. One is that myopia is often progressive, and requires more knowledge and experience for its treatment than these so-called qualified opticians can boast of; the other is that these men are not allowed to use a cycloplegic, and they are therefore unable to work out the refraction of patients who are suffering from spasm of accommodation, and in many cases of hypermetropic astigmatism they either order simple spherical lenses or if a cylinder is added the angle is very often incorrect. This I can prove from my own casebooks, and last year I had no less than 25 cases of uncorrected astigmatism amongst the *clientèle* of one qualified optician; in many cases the patient had been wearing the glasses for twelve months.

Dr. Seymour Taylor says, "Moderately poor people will go where they may please," etc. Quite so; it is a free country, but it was quite unnecessary for Dr. Taylor to try to shepherd them into the fold of unqualified practitioners (many of these opticians are also prescribing chemists).—I am, etc.,

Lincoln, March 12th. STANLEY GREEN.

SIR,—The additional contribution which Mr. Percy Dunn makes to this discussion does not convince me. He merely makes statements, doubtless believing that they are unanswerable. This method of controversy is not logical, though it may be argumentative.

Are "matters of midwifery generally matters of urgency"? This is indeed news. In my earlier days in a country practice I was generally spoken to by an expectant mother some months—always some weeks—before the event.

But the qualified midwife is as much a member of a lower order of practitioner as is an optician with a diploma, and, no matter to whom the midwife is responsible, she is allowed to undertake work and to perform minor operations, such as hypodermic injections, which, according to Mr. Percy Dunn's views, should only be done by a qualified medical practitioner. The reason of all this is that a certain class of women can neither engage a qualified medical man nor go to a hospital.

Further, I would inform Mr. Percy Dunn that a certificated optician does seek the aid of an oculist in such cases as require special skill, and he is admonished to do so by those who grant him his certificate.

But Mr. Percy Dunn now shifts his basis of argument. In a former contribution he contended that no one was competent to correct a misshapen eye unless he had "an expert and trustworthy experience" derived from "treating the thousands of cases which fall to the lot annually of ophthalmic surgeons in their hospital work." Does Mr. Percy Dunn not see that this statement implies that few practitioners are competent to deal with errors of refraction?

But now he says that the question is "one of principle and of principle alone." Here I am in agreement with my friend. The first principle of our profession is not one of self, but the alleviation of bodily suffering.

Spectacle makers have a right to live and to sell spectacles. Therefore it were surely wiser to train them, so that they shall have some knowledge of a deformed eye and the requisite corrections, rather than to allow them to prescribe in ignorance. And I can assure Mr. Percy Dunn that the diplomates of the Spectacle Makers' Company have a very expert knowledge of errors of refraction, and that the mistakes which they make are relatively very few.

Again, people will take their children "to the shop of a maker of surgical appliances for a spine support" if their children have twisted spines; they will buy compensatory boots or other apparatus for a distorted limb, and I do not hear such wails and laments from the orthopaedic surgeons as emanate from the oculists.

Let us take a broad view of matters. The optician is consulted by the moderately poor because it is found that he affords relief which is comparatively quickly and easily obtained. It is only here and there that we find a medical man, whether consultant or general practitioner, who is so competent.

The fault of all this heart-burning really lies at the doors of our controlling authority. A fairly competent knowledge of eye diseases and deformities should be required of every candidate for medical registration. At present such a knowledge is not compulsory, and examiners seldom ascertain whether the candidate possesses it or not. In proof of this I would refer my friend, Mr. Percy Dunn, to a resolution recently adopted by the Council of the British Medical Association, and forwarded to the Council of the Royal College of Surgeons of England, in which it is stated "that it is desirable that the estimation of refraction errors . . . should be compulsory subjects in every medical curriculum," etc. I could not wish for stronger support of my contention than this.—I am, etc.,

London, March 11th. SEYMOUR TAYLOR.

## THE ORIGIN OF THE LONDON SCHOOL OF MEDICINE FOR WOMEN.

SIR,—The letters of Miss Mary Thorne and Miss Sophia Jex-Blake in your recent issues concerning the foundation of the London School of Medicine for Women in 1874 are no doubt perfectly correct so far as they go. My father, the late Dr. James Edmunds, took no part whatever in this later stage of the movement for the medical education of women, because, as your kind obituary notice states, "he was not altogether favourable to carrying the medical education of women to the point of enabling them to become registered." I do not read into your obituary notice any such meaning as these ladies have done; and I should have thought their disclaimer unnecessary. Any possible ambiguity in the meaning has been increased by Miss Thorne leaving out the first part of the sentence she has quoted and prefixing it with my father's name.

At the same time, I venture to think that these ladies have done themselves a slight injustice in omitting any acknowledgement of my father's very considerable services in the early days of the movement. No doubt, it is to the ladies themselves, especially to Mrs. Garrett Anderson, that the prime credit of both originating the movement and bringing it to a successful issue is due. But Dr. Edmunds was the first medical *man*, by his organization of and work for the Female Medical Society, who helped ladies medically disposed with his sympathy and practical labour, and that, too, in the days when a medical woman was regarded with public ridicule and with professional disfavour. He helped them to grow the wheat; others helped them later to bake the bread.

If I may trespass further on your space it seems right to state the following facts about the Female Medical Society, derived from the printed and other records of the society which are still available:

The Female Medical Society was inaugurated on October 3rd, 1864, at a meeting in the Hanover Square rooms. The Marquis Townshend was the first president, followed later by the Earl of

Shaftesbury. In the list of some forty-three patrons, vice-presidents, and members of committee are the following names: The Duke and Duchess of Argyll, Archbishop Manning, Baroness de Rothschild, Mrs. Gladstone, Lord Houghton, Professor F. W. Newman, Drs. Aldis, Buchanan, Mackenzie, Hardwicke, Elliott, and others eminent in almost every branch of public life. Its objects were:

"1. To promote the employment of properly educated women in the practice of midwifery and the treatment of the diseases of women and children.

"2. To provide educated women with proper facilities for learning the theory and practice of midwifery and the accessory branches of medical science."

Dr. Edmunds was the honorary secretary, and also one of the lecturers. The other lecturers were E. W. Murphy, A.M., M.D., D. H. Dyte, M.R.C.S., C. H. Drysdale, M.D., M.R.C.S., J. A. R. Newlands, F.C.S., John Locking, M.D., and George Ross, M.D. The course on obstetrics alone comprised eighty lectures of one hour each; and each student was required to attend personally twenty-five deliveries under qualified superintendance at a lying-in hospital or maternity charity. Other courses comprised anatomy and physiology, chemistry, materia medica, diseases of women, diseases of infants, and "general medical science." The earlier lectures were given at 4, Fitzroy Square, the later ones at 164, Great Portland Street. One of the later prospectuses states, "This society has carried on for five years the Ladies' Medical College. . . . Eighty-two ladies have already availed themselves of its advantages, and many of these ladies are settled in practice, and succeeding admirably.

Apparently the society came to an end in 1869, partly from want of funds and partly because the ladies themselves, being dissatisfied with its scope, broke off. Some of them (as Miss Thorne states) spent five years unsuccessfully trying other fields, such as Edinburgh, which brings us to 1874 and the foundation *by them* of the present London School of Medicine for Women, giving a full curriculum and opportunity to register.

Now if these statements are true (if untrue they stand to be corrected), I submit that the Female Medical Society is entitled to rank historically as the first organized nucleus and platform of the movement for the medical education of women; that the London School of Medicine for Women is a later and much more perfect development of the same movement, the continuity between the two institutions having been preserved by the lady medicos themselves; and that your statement that "The Female Medical Society only lasted a few years, and was afterwards merged in the London School of Medicine for Women" may be passed as a substantially accurate abbreviation of the facts.—I am, etc.,

London, W., March 13th. PERCY JAMES EDMUNDS.

# Universities and Colleges.

## UNIVERSITY OF LONDON.

*University College Hospital Medical School.*

THE *Calendar* of the school for the session 1910–11 is illustrated by photographs of the hospital and of the medical school building opened in 1907. There is a directory of the former students in the faculty of medicine in University College in two parts, arranged alphabetically and topographically. (London: Langley and Sons, Limited. 1910. Med. 8vo, pp. 177; 2s. 6d., post free 3s.)

## THE UNIVERSITY OF LEEDS.

*The Medical Terms.*

IN consequence of the new regulations which are now in operation, the ending of the second term will not be marked by the holding of any degree examinations in the Faculty of Medicine, except in the subjects of preliminary scientific training; the lectures will end on March 22nd. On April 24th the third term of the Faculty of Medicine begins, and will be a short one, for the second and final examinations for the degrees of M B., Ch B., begin on June 24th. On this occasion the degrees in all the faculties will be conferred on the same day—namely, July 1st.

*Teaching of Mental Diseases.*

Some months ago Mr. W. Bevan-Lewis, who for many years has been the medical superintendent of the West Riding Asylum at Wakefield, resigned his position at that institution as he was beginning to feel the necessity of a complete rest. The loss to the West Riding of a man of the calibre of Bevan-Lewis is one which will be felt in many circles, and his place will be hard to fill. Happily Mr. Bevan Lewis retires in good health, and those who know him best will be assured that his resignation from the trying duties of the supervision of a large asylum will not carry with it a cessation of work, but that his activities will find some outlet in scientific and literary directions. Consequent on his leaving Leeds the Chair of Mental Diseases at the university became vacant, and in the annual report of the council his services have been duly and suitably referred to in the following terms:

"As the Medical Director of the Wakefield Asylum he worthily sustained the scientific reputation of that institution which it had gained under the notable administration of Sir James Crichton-Browne, and by his untiring labours and remarkable ability he was able to advance in a marked degree the knowledge of his special subject. His connexion with the School of Medicine, which extended over twenty-six years, has added greatly to its reputation, and his relations with his colleagues and students were always of the most pleasant character."

It may be remembered that some two years ago Professor Bevan-Lewis placed his resignation of the professorship in the hands of the council, but that he yielded to their request that he should continue to conduct his clinical teaching at the West Riding Asylum, and in respect of that to retain the title of professor. At the same time Dr. Bedford Pierce, of York, was appointed Lecturer on Mental Diseases. In order that the council of the university might be free to place the teaching of mental diseases both by lectures and by clinical means in the hands of one man, Dr. Bedford Pierce very generously placed his resignation of the lectureship before the council, which they reluctantly accepted with a cordial expression of thanks for his services. The council of the university have been fortunate in finding in the successor of Mr. Bevan-Lewis as Superintendent of the West Riding Asylum one who is fully competent to undertake the work, and at a recent meeting they invited Dr. J. Shaw Bolton to accept the professorship. This invitation has been accepted, and the new superintendent of the asylum will be cordially welcomed by his colleagues in the university, and especially by those of the Faculty of Medicine.

## UNIVERSITY OF DURHAM.

ARMSTRONG COLLEGE, NEWCASTLE-ON-TYNE.

THE *Calendar* for 1910–11 (London and Newcastle-on-Tyne: Andrew Reid and Co. Price 1s. 4d., post free) gives a full account of the College, including the scholarships at its disposition and courses required for the various degrees of the University of Durham. Mining and marine engineering, as well as Arts, figure largely in its pages. Since the year 1909 the College has ranked as one of the three constituent units of the University of Durham. At its foundation in 1871 it was intended to be the home of the Faculty of Science of that University. Its name was changed on its enlargement in 1904.

## UNIVERSITY OF WALES.

THE *Calendar* of the University of Wales for the Academic Year 1910–11, (Oswestry: Woodall, Minshall, Thomas, and Co.) sets forth the original charter of the university, and the supplemental charter which empowered it to grant degrees in medicine and surgery; also its statutes, which impose on candidates for medical degrees a curriculum longer than that of any other university in Great Britain. The volume includes several appendices detailing the courses of study proposed for initial degrees during the current year, and a list of members of the graduates' guild.

## UNIVERSITY OF BOMBAY.

THE *Calendar* for the year 1910–11 is issued in two volumes, and supplies very detailed information regarding the University of Bombay, its constitution and charters, degrees, holders thereof, and the very numerous scholarships and prizes at the disposition of its authorities. The second volume contains all the examination papers set in the various faculties in the year 1909.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on March 9th, Mr. H. T. Butlin, President, in the chair.

*The Examination in Dental Surgery.*

The following recommendation from the Board of Examiners in Dental Surgery was adopted:

That the following alteration be made in Clause 2, Section II, of the Regulations for the Licence in Dental Surgery, to enable candidates who have complied with the necessary conditions to present themselves for examination in Mechanical Dentistry and in Dental Metallurgy separately:

*Present Clause.*

2. The First Professional Examination consists of Mechanical Dentistry and Dental Metallurgy. Candidates who have passed the Preliminary Science Examination may present themselves for the First Professional Examination for the Licence on production of the certificates required under Section I, Clauses 2, 3, and 4.

*Proposed Clause.*

2. The First Professional Examination consists of: Part I, Mechanical Dentistry, and Part II, Dental Metallurgy. These parts may be taken together or separately. Candidates who have passed the Preliminary Science Examination may present themselves for Part I on production of the certificates required under Section I, Clauses 2, 3, and 4 (*c*) and (*d*), and for Part II on production of the certificates required under Section I, Clauses 4 (*a*) and (*b*).

*The Royal Commission on University Education in London.*

It was decided that evidence should be offered on behalf of the College to the above Commission. The names of those already appointed for this purpose are Sir Henry Morris and Sir Alfred Pearce Gould.

The following resolution was passed:

That, as it has been found to be impossible to proceed with the suggestion adopted by this College for combined examinations for medical degrees by the Royal Colleges and the university, the Council do not lay any detailed proposals before the Royal Commission, but instruct their delegates, besides stating their individual views, to point out: (1) The disability under which London medical students are placed owing to the difficulty of obtaining degrees in the Faculty of Medicine of the university, a disability not experienced in other parts of the United Kingdom. (2) The action taken by this College in the past with the object of removing this disability. (3) Its continued willingness to co operate in any scheme for making the degrees in the Faculty of Medicine more accessible to London medical students.

*Central Midwives Board.*

The thanks of the Council were voted to Mr. C. H. Golding-Bird for his annual report of the proceedings of the above board. In concluding his report Mr. Golding-Bird expressed the hope that a new Midwives Act might be forthcoming to correct the anomalies and supply the deficiencies of the present one.

# Obituary.

## ANDREW SMART, M.D., F.R.C.P.E., LL.D.EDIN.,

FORMERLY LECTURER ON CLINICAL MEDICINE, EXTRA-ACADEMICAL SCHOOL, EDINBURGH.

AT his son's house, 78, Bertram Road, Hendon, N.W., on Wednesday, March 8th, Dr. Andrew Smart died at the ripe age of 87 years. Half a century ago Dr. Smart graduated in medicine at the University of Edinburgh after a distinguished course. Later he studied at London, Dublin, Berlin, Prague, Vienna, and Paris, a procedure not so common in those days as now. In 1864 he became a Member of the Royal College of Physicians of Edinburgh, and a Fellow in the following year. In this year, at the request of the Lord Provost and magistrates of Edinburgh, he presented his report "On the Pathology, Treatment, and Prevention of Rinderpest," in which he described an infective agent. It is remarkable that a comparatively young practitioner of medicine in the city of Edinburgh would thus seem to have been the first to find a germ in living tissue. In the description of one of the drawings of the blood appearances in rinderpest he delineated the "chains of minute bodies lying between and completely surrounding the blood cells and other histological elements. The structures," he added, "in virtue of their prodigious numerical superiority, occupy the entire microscopical field." The observations published in 1865 attracted much attention, and a report of a committee of pathologists and agriculturalists made to the New York State Agricultural Society in 1867 contains the following passages referring to Dr. Smart's observations: "We have seen that when the virus of rinderpest has been absorbed it permeates, within a few hours, every portion of the blood, rendering each drop a fresh medium for inoculating the healthy animal with the pest. It would almost seem credible that the poison is a vital germ feeding upon the cells and serous portion of the blood, thereby appropriating its vital constituents and propagating its kind until the red corpuscles become amorphous and shrivelled." Thus in his earlier days Dr. Smart was somewhat in advance of his time.

In 1883, he published *Germs, Dust, and Disease; Two Chapters in our Life-History.* He also published papers on the "Treatment of Anaemia and Chlorosis by the Chief Irons Commonly in Use," "Trephining in Basal Haemorrhage," "Undescribed Cardiac Sounds Liable to be Mistaken for Murmurs of Valvular Origin," "Alcoholic Paralysis," "Undescribed Respiratory Neuroses," and "Effects of Diet and Drugs on the Elimination of Sugar in Diabetes Mellitus." He was formerly Physician to the Edinburgh Royal Infirmary, and at the time of his death was Consulting Physician to the Institution; he was also an Honorary Physician to the Royal Public Dispensary. He was an Extraordinary Member of the Royal Medical Society, and an Honorary Member of the New York Agricultural Society. At various times he held the appointments of Assistant to the Professor of Practice of Medicine and to the Professors of Clinical Medicine in the University of Edinburgh, Lecturer on Clinical Medicine in the Extra-Academical School of Edinburgh Examiner in these subjects for the colleges and the university, the first University Lecturer for the Higher Education of Women in the subjects of Physiology, and Institutes of Medicine, and President of the Royal Medical Society.

Dr. Smart, who was a member of the British Medical Association, took an active part in the work of the annual meetings in Edinburgh, being Secretary of the Public Medicine Section in 1875 and Vice-President of the Section of Tropical Diseases in 1898. He is survived by his wife, four sons (one of whom is in the medical profession), and two daughters.

# Medico-Legal.

## WORKMEN'S COMPENSATION ACT.

*Death from Angina Pectoris.*

POWELL'S Tillery Steam Coal Company, Limited, *v.* Hawkins, heard in the Court of Appeal on February 23rd, affords a very interesting corollary to the famous case of Clover, Clayton, and Co., *v.* Hughes, where the House of Lords laid it down that if death is caused by exertion in the course of the employment of a diseased workman, it is death by accident, although the exertion could not have injured an healthy man. In the present case it appeared that the man, on the day of his death, had been engaged to sharpen props, his usual work being to help another man to push trucks. He made no complaint at the time he went to this other work, but after he had been engaged upon it for about ten minutes he had to stop owing to illness. He was taken home, and died the same afternoon from angina pectoris. The medical evidence was to the effect that the deceased's heart was in a bad condition of long standing. Angina pectoris might be brought on by several causes; it might be due to circumstances which could scarcely be called an accident at all. It might be due to very slight exertion, and it did not always follow immediately on exertion, and it could not be foreseen that the exertion would immediately or after a given space of time result in an attack. The county court judge came to the conclusion on the whole of the evidence that the deceased, who was an elderly man, over-exerted himself during the operation of pushing or tumbling a tram, and thereby brought on an attack of heart trouble from which he died, and consequently he made an award in favour of the applicants. On appeal, the Master of the Rolls said that he was unable to arrive at the same conclusion as the learned county court judge. In the House of Lords the Lord Chancellor said, in the case of Barnabas *v.* Bersham Colliery: "In cases under this Act, in the same way as in cases under any other Act or at common law, the plaintiff must prove his case; and although he may establish a state of facts which leads one to think that his version is quite a possible version of what took place, he must do something more than show a state of facts which is consistent with either one or with another view." And Lord Halsbury said: "Propositions must be proved in a court of law by proof of evidence and that is not satisfied by surmise, conjecture or guess" The appeal must be allowed, because there was no evidence that the accident arose out of the employment.

*Alleged Injury from Vitriol.*

In Farley *v.* Kynochs, Limited (*Birmingham Daily Post*, February 24th) it appeared that Farley had worked for the respondents for about twenty-five years, and for eighteen years had been engaged in cleaning empty cartridges. On November 16th he was so engaged when some solution of vitriol and water which was used for the purpose of treating the cartridges, and which was in a boiling state, splashed into his eye. Suffering some pain, the applicant consulted a doctor, and on November 30th he went to see the foreman, and applied for a ticket for admission to the hospital. On the advice of a surgeon he became an in-patient, and remained there from December 3rd to 10th. He was still an out-patient of the hospital, and owing to the condition of his eye had been unable to follow his employment.

The applicant said that about twenty-two years ago he met with a mishap to his right eye, the result being that it had to be taken out. This accident occurred while he was employed at Kynochs. He admitted the compound was very weak, containing about 1 per cent. of vitriol.

Dr. Martin Young said that the state of the man's eye was consistent with the condition he should expect to find had a splash of boiling vitriol solution gone into it.

Dr. Jameson Evans, on behalf of the respondents, said when he first saw the applicant at the hospital, he had superficial and deep inflammation of the left eye. Four days later the sight was becoming hazy. This haziness increased, and on December 29th a fresh spot appeared. The inflammation had subsided, but the spots had not cleared off. Witness stated that he could not attribute the condition of the applicant's eye to a burn by sulphuric acid or hot water. It might have been caused by other things; there was no burn on the eye.

Dr. Clarkson, who was consulted by the applicant on November 17th, said he found no trace of a burn then.

His Honour held there had been an accident, and allowed compensation at the rate of 18s. 10d. a week from December 3rd, the date on which the man left work.

*Loss of Finger.*

H. J. writes: What would be reasonable compensation for a man at 60 to claim? He was employed at £3 a week; his job, a special one, requires the use of a finger which has been rendered useless by an accident. He is fit for other work—if he can get it.

*** The full compensation provided by the Act would be £1 a week so long as total incapacity lasts. If there is partial incapacity, the employer may provide such work as the man is able to do, and at this he may earn his old rate of wages. If no such work can be obtained either from the employer or others, then it will be for the county court judge to award, having all the facts of the case before him, the amount of compensation to which, in his judgement, the man is entitled, either by a weekly payment or by an agreement under which the workman receives a lump sum, the amount of which the judge will decide.

### VALUE OF OUTSTANDING ACCOUNTS.

E. J. C.—There is nothing to prevent an outgoing partner from accepting an agreed sum for his share of outstanding debts. The amount to be paid will depend on the value of these debts—that is to say, on the financial position of the debtors; and without knowing this it would be impossible to say what would be a fair sum in any particular case.

## Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

### BRANCH SURGERIES.

ETHICS.—Branch surgeries are open to the objection that they involve responsibility for patients at too great a distance to be supervised properly; but telephones and motor-cars have diminished the force of this, and it has always been recognized that in scattered districts, where there are few doctors, a branch surgery is permissible as being a public advantage.

## The Services.

### ROYAL ARMY MEDICAL CORPS.

EXAMINATION FOR PROMOTION.

*Stations Abroad (except India).*

THE following is the result of the promotion examination held in December last for Majors of the Royal Army Medical Corps in "Technical Subjects," Part I, Appendix XIV, King's Regulations:

Major J. G. BROGDEN, (*d*) ii; .75. Already passed in Part I. Exempt Part II, Appendix XIV, King's Regulations.

Major A. C. FOX, Part I, Subject 2, Appendix XIV, King's Regulations. Already passed in (*d*) ii and in Part I, Subjects 1 and 3. Exempt Part II, Appendix XIV, King's Regulations.

Capt. N. J. C. RUTHERFORD, M.B., (*d*) ii; .75. Already passed in (*h*).

Capt. M. H. BABINGTON, (*d*) ii. Already passed in (*h*).

Capt. J. A. ANDERSON, M.B., (*d*) ii; .75. Has yet to pass in (*h*).

Capt. E. T. POTTS, M.D., (*d*) ii. Already passed in (*h*).

Capt. J. B. G. MULLIGAN, (*d*) ii; .75. Already passed in (*h*).

Lieut. C. MCQUEEN, (*h*) ii and iii. Already passed in (*b*), (*d*) ii, and (*h*) i.

Lieut. A. N. R. MCNEILL, M.B., (*d*) ii and (*h*); .75 in (*d*) ii and .8 in (*h*). Special certificate. Has yet to pass in (*b*).

Lieut. H. H. LEESON, (*h*). Already passed in (*b*) and (*d*) ii.

[All the above have yet to pass in a "Medical Staff Tour," Part II, Appendix XIV, King's Regulations.]

AT a meeting at Battersea Town Hall, on March 9th, a presentation to Dr. L. S. McManus was made by Mr. Shirley Benn, M.P., in recognition of Dr. McManus's twenty-five years' work in Battersea. It consisted of a cheque for £300, two fruit dishes and an album, together with a bracelet for Mrs. McManus. Remarkable testimony was paid to Dr. McManus's public and municipal work in pushing forward schemes for improving the health and advancing the social welfare of the people in Battersea. Among the objects for which he had worked the museum and recreation room, gymnasiums, and youths' clubs were specially mentioned. Many working men paid tributes to the kindness and generosity which Dr. McManus had displayed throughout his practice, and Dr. S. H. Curry, a member of the Borough Council, testified to the regard which the profession in the district felt for Dr. McManus. We regret to learn that Dr. McManus, owing to illness, was unable to be present at the meeting.

## Public Health AND POOR LAW MEDICAL SERVICES.

### NOTIFICATION OF BIRTHS ACT.

IN the House of Commons Mr. Wedgwood asked the President of the Local Government Board how many local authorities had adopted the Notification of Births Act, the names of the county boroughs which had not adopted the Act, and the average infant death-rate in 1905 and 1910 in those county boroughs which had and in those which had not adopted the Act.

Mr. Burns has made the following reply: The Act has been adopted for or put in force in 271 areas of local government, namely:

| How the Act was Put in Force. | Metropolitan Boroughs (Including City of London). | County Boroughs. | Non-County Boroughs. | Urban Districts other than Boroughs. | Rural Districts. |
|---|---|---|---|---|---|
| By adoption by local sanitary authorities | 22 Comprising the whole County of London. | 53 | 46 | 59 | 1 |
| By an order under Section 3 | 7 | — | — | — | — |
| *By adoption by the Worcester County Council | | — | — | 4 | 7 | 17 |
| *By adoption by the Herts County Council | | — | — | 3 | 16 | 13 |
| *By adoption by the Leicester County Council | | — | — | 1 | 9 | 13 |
| Total ... ... ... | | 29 | 53 | 54 | 91 | 44 |

* The adoptions by the County Councils of Worcestershire, Hertfordshire, and Leicestershire were in respect of the whole of their administrative counties except the urban districts of (1) King's Norton and Northfield (Worcester), (2) Stourbridge (Worcester), (3) Watford (Herts), and (4) Market Harborough (Leicester), the Urban District Councils of which had previously adopted the Act. The administration of the Act in the Stourbridge Urban District was subsequently transferred to the County Council of Worcestershire by an Order under Section 2 (4) (*b*). The adoption by the Hertfordshire County Council does not take effect until June 1st, 1911, and the formalities for the adoption of the Act by the Leicestershire County Council are not yet complete.

As regards the latter part of the question, the figures for 1910 were not available, and the figures for 1909 were therefore given in the following tables:

*County Boroughs in which the Notification of Births Act is in Force, with the Infant Mortality Rates (Deaths under 1 Year of Age per 1,000 Births) in 1905 and 1909.*

| Name of County Borough. | Infant Mortality. 1905. | 1909. | Name of County Borough. | Infant Mortality. 1905. | 1909. |
|---|---|---|---|---|---|
| Bath ... ... ... ... | 91 | 83 | Newport (Mon.)... ... | 125 | 115 |
| Birmingham .. ... | 154 | 134 | Northampton ... ... | 126 | 110 |
| Blackburn... ... ... | 146 | 126 | Norwich ... ... ... | 174 | 119 |
| Blackpool ... ... ... | 133 | 112 | Nottingham ... ... | 155 | 150 |
| Bolton ... ... ... | 167 | 128 | Oldham ... ... ... | 150 | 119 |
| Bootle ... ... ... | 155 | 122 | *Portsmouth ... ... | 133 | 96 |
| Bradford ... ... ... | 144 | 116 | Preston ... ... ... | 154 | 136 |
| Brighton ... ... ... | 101 | 96 | Reading ... ... ... | 121 | 95 |
| Burnley ... ... ... | 173 | 156 | Rochdale ... ... ... | 133 | 104 |
| *Burton-upon-Trent ... | 87 | 102 | Rotherham ... ... | 123 | 116 |
| Bury... ... ... ... | 147 | 130 | St. Helens ... ... | 134 | 150 |
| Cardiff ... ... ... | 118 | 103 | Sheffield ... ... ... | 167 | 118 |
| *Chester ... ... ... | 122 | 118 | Smethwick ... ... | 137 | 113 |
| Croydon ... ... ... | 95 | 80 | Southampton ... ... | 132 | 106 |
| Derby ... ... ... | 151 | 123 | Southport ... ... | 113 | 103 |
| Dudley ... ... ... | 167 | 140 | Stockport ... ... | 168 | 132 |
| Exeter ... ... ... | 122 | 99 | Stoke-upon-Trent ... | 147 | 126 |
| *Great Yarmouth ... | 132 | 125 | Swansea ... ... ... | 131 | 159 |
| Grimsby ... ... ... | 174 | 118 | Walsall ... ... ... | 141 | 139 |
| Halifax ... ... ... | 131 | 97 | *Warrington ... ... | 147 | 130 |
| Ipswich ... ... ... | 144 | 92 | West Bromwich ... | 146 | 123 |
| Kingston-on-Hull ... | 152 | 114 | West Ham ... ... | 153 | 124 |
| Lincoln ... ... ... | 148 | 82 | *Wigan ... ... ... | 164 | 173 |
| Liverpool ... ... ... | 153 | 144 | Wolverhampton ... | 137 | 138 |
| Merthyr Tydvil ... ... | 193 | 143 | Worcester ... ... | 154 | 101 |
| Middlesbrough... ... | 173 | 158 | York ... ... ... | 129 | 99 |
| Newcastle-upon-Tyne ... | 135 | 119 | | | |

* Act adopted since 1909.

*County Boroughs in which the Notification of Births Act is not in Force, with the Infant Mortality Rates in 1905 and 1909.*

| Name of County Borough. | Infant Mortality. 1905. | 1909. | Name of County Borough. | Infant Mortality. 1905. | 1909. |
|---|---|---|---|---|---|
| Barrow-in-Furness ... | 135 | 81 | Leeds ... ... ... | 151 | 122 |
| Birkenhead ... ... | 127 | 123 | Leicester ... ... ... | 148 | 127 |
| Bournemouth ... ... | 83 | 100 | Manchester ... ... | 157 | 134 |
| Bristol ... ... | 122 | 100 | Oxford ... ... ... | 116 | 75 |
| Canterbury ... ... | 119 | 73 | Plymouth ... ... ... | 135 | 131 |
| Coventry ... ... ... | 108 | 97 | Salford ... ... ... | 148 | 141 |
| Devonport ... ... ... | 113 | 96 | South Shields ... ... | 146 | 137 |
| Gateshead ... ... ... | 138 | 112 | *Sunderland ... ... | 142 | 135 |
| Gloucester ... ... ... | 118 | 95 | Tynemouth ... ... | 153 | 129 |
| Hastings ... ... ... | 113 | 79 | West Hartlepool ... | 146 | 113 |
| *Huddersfield ... ... | 119 | 95 | | | |

* Compulsory notification of births has been in force under the provisions of local Acts in Huddersfield since 1906, and in Sunderland since 1907.

## DUTIES OF MEDICAL OFFICERS OF HEALTH.

AT a meeting of medical officers of health, representing thirty sanitary districts in the Administrative County of Devon, held at Exeter recently under the chairmanship of Dr. S. Noy Scott, President of the South-Western Branch of the British Medical Association, to discuss, with the county medical officer, the extra duties imposed by recent legislation in public health matters, it was resolved to inform the sanitary authorities that the meeting was in favour of antitoxin being used as a prophylactic, as well as a curative agent, for poorer people and Poor Law cases, as defined in the letter of the Local Government Board, dated August 15th, 1910. It was also resolved to request the various authorities to grant an increase of salary, as suggested by the Local Government Board, on account of the many extra duties thrown on medical officers of health by recent medical discoveries, Acts of Parliament, Orders and Regulations of the Local Government Board, and the Memorandum of the Board of Education and Local Government Board, 1910, in relation to infectious diseases among school children, and contacts and school closure.

## DUTIES AND REMUNERATION OF DISTRICT MEDICAL OFFICERS.

E. C. C. writes: I. Would the L.G.B. sanction extra payment for using diphtheria antitoxin and attending in: (*a*) Parish patients; (*b*) patients unable to pay for antitoxin in one's opinion, and on whom the antitoxin may be used previous to consulting guardians?

II. My guardians have saddled me with thirty old age pensioners. They tell me probably I will have to attend another 200, with no addition to present remuneration. Is that what the law allows?

III. Can the guardians' clerk deduct pension money from an extra pay for a fracture?

IV. I charged £2 for a fracture of left humerus and dislocation of left ulna and radius. I was granted £1. Is that correct?

V. Can you recommend any up-to-date book on the duties of a district medical officer?

*** I. We are not aware of any regulation which enables district medical officers to make a special charge for using antitoxin either for pauper or other patients. It is for the sanitary authority of the district to decide in what circumstances antitoxin may be supplied gratuitously.

II. It is the duty of all district medical officers to attend all old age pensioners who may be granted medical orders by authorized officials.

III. Fees paid as extras are properly taxed towards pensions in the same way as fixed salaries.

IV. The authorized fee for the case in question is £1.

V. We are not aware of any monograph of recent date on the duties of district medical officers, but we are told that it is not unlikely that one will shortly be published.

IT has already been announced in the JOURNAL that the first meeting of the International Permanent Committee of the seventeenth International Congress of Medicine will be held in London on April 21st and 22nd, 1913, under the presidency of Dr. F. W. Pavy. Any suggestion as to the arrangement of the list of sections should be sent on or before April 1st, 1913, to the honorary general secretary of the Permanent Committee, Professor H. Burger, Vondelstraat 1, Amsterdam, or to the bureau of the committee, Hugo de Grootstraat 10, The Hague. The committee will be glad to receive, before the same date and at the same addresses, any other communications concerning the organization of the congress.

# Medical News.

AT the meeting of the Royal Society on Thursday afternoon next Mr. C. G. Douglas and Dr. J. S. Haldane, F.R.S., will read a paper on the causes of absorption of oxygen by the lungs in man.

AT the time of the Exhibition of Hygiene which is to be held at Tunis in April (18th to 28th) under the presidency of Dr. Conseil, Director of the Tunis Bureau of Hygiene, there will be a Congress of Colonial Hygiene.

AT the annual meeting of the Liverpool Medical Institution it was resolved to change the name to "The Liverpool Medical Society." The proposed change excited a good deal of opposition, and on March 6th the decision was reversed.

THE *London Gazette* of March 7th announces that the King has been pleased to approve the appointment of John Pringle, C.M.G., M.B., and John F. Ker, Superintending Medical Officer, to be nominated members of the Legislative Council of the Island of Jamaica.

AT the meeting of the Medico-Legal Society, at 11, Chandos Street, London, W., at 8.30 p.m., on Tuesday next, two papers will be read, one on how far the abuse of drugs can be prevented by law, by Mr. H. W. Gadd, and the other on "patent medicines," by Dr. Tunnicliffe.

THE Mayor of St. Marylebone will preside at the fifth annual meeting of the St. Marylebone Health Society at the Town Hall, Marylebone Lane, W., at 5 p.m., on Monday next. The meeting will be addressed by Miss Broadbent, Dr. Eric Pritchard, and Dr. Charles Porter, M.O.H.

THE next course of instruction in the diagnosis and treatment of fevers in the hospitals of the Metropolitan Asylums Board will begin on May 1st. The fee is three guineas for two months' or four guineas for three months' course. Full particulars can be obtained from the clerk of the Metropolitan Asylums Board, Embankment, E.C.

THE annual general meeting of the Association of Medical Officers of Health will be held at the Holborn Restaurant on March 23rd, at 3.15 p.m. The annual report states that the number of members is 258, and that the financial state is satisfactory. The council will recommend the election of Dr. Davison as chairman, and the re-election of Dr. Belilios and Dr. Gibbes-Smith as honorary secretary and treasurer respectively.

DR. PHILIP FRANK, Major F. A. Brooks, M.D., and Lieutenant-Colonel Edwin Lee, M.R.C.S. (from Honorary Associates) are appointed Knights of Grace of the Order of St. John of Jerusalem in England. Major Brooks is of the First East Anglian Field Ambulance, Territorial Force; Lieutenant-Colonel Lee is medical officer, 4th Battalion the King's Own Yorkshire Light Infantry.

AT Bury, Lancashire, there are seven cases of small-pox in the hospital; two cases, notified on March 14th, were women who worked in the same cotton mills as the first person affected; a man suspected to be suffering from the disease also worked at the same mill. In London the number of cases under treatment at the Metropolitan Asylums Board's hospitals is 48, and a case has occurred at Hampton in a young man engaged in London every day.

IN its report of a bazaar held in aid of the Tuberculin Dispensary established by Dr. Hilda Clark at Street, the *Central Somerset Gazette* states that in addition to the tuberculin injections the patients follow the open-air treatment, with due regard also to diet, etc. It is understood that, so far, Mr. W. S. Clark has been largely responsible for providing the working funds, but for continued work it is necessary that a proper fund should be established and also money be obtained for the purchase of shelters for the following of the open-air treatment. In these shelters, either hired, lent to the patients, or purchased by them, the patient can rest in bed or on a couch in the open air, yet sheltered from the rain or sun, as the sides are made to open or close.

SINCE the date of the visit to Bath paid after the Annual Meeting of the British Medical Association last year, an important addition has been made to the equipment of this natural mineral water health resort. This is a department provided with all forms of the apparatus originally devised and advocated by Zander of Stockholm for securing the rhythmical use of different groups of muscles, and the movement, either active or passive, of the joints which such muscles normally control. As the work done with the assistance of these machines can be very precisely graduated and calculated, their utility in dealing with patients either indisposed to exercise or partly incapacitated therefrom by contracted joints is indubitable.

THE fifteenth annual report of the Yarrow Home for Convalescent Children of the Better Class shows that during last year 900 children were admitted, 462 being boys and the rest girls. The average stay of each child was 37.5 days, and the weekly expenditure on each child £1 1s. 7d. Of 864 children who left the home during the year 808 showed an increase in weight, averaging a little over 3.5 lb.; 30 had decreased in weight, and 26 showed no change. This home, situated at Broadstairs, is privately endowed and is specially intended for children whose parents are of the professional and educated middle classes but whose means are somewhat limited. The weekly charge is 5s. Further information can be obtained from the secretary, Mr. W. F. Sheldrick, 6, Holborn Viaduct, London.

AMONG the fixtures for July is the First Universal Races Congress, which is to be held at London University from July 26th to July 29th, and has the support of eminent persons in as many as fifty countries. Its object is the discussion "in the light of modern knowledge and modern conscience of the general relations subsisting between the peoples of the West and those of the East, between so-called white and so-called coloured peoples, with a view to encouraging between them a fuller understanding, the most friendly feelings, and a heartier co-operation." The list of readers of papers includes many well-known English names. In connexion with it there will be an exhibition of books, documents, photographs of the highest human types, skulls, charts, etc., under the direction of Professor Alfred C. Haddon, D.Sc., F.R.S. Further information can be obtained from the Honorary Secretary, Mr. George Spiller, 63, South Hill Park, Hampstead.

THE fifth annual meeting of the Association of Certificated Dispensers was held in the Court Room of the Apothecaries' Hall, Blackfriars, E.C., on March 9th, Mr. Montagu Smith, Lewisham Infirmary, presiding. There was a large attendance, the majority of those present being engaged in one or other of the public services. After confirmation of the minutes of the previous annual meeting, the financial statement showing a balance of £69 7s. 7d. to the credit of the association was submitted. Mr. A. Howell, hon. secretary (Dalston Dispensary), in his annual report stated that the number of members was about 450. The extension of the Local Government Board's orders to the Metropolitan Asylums Board service was instanced as a result of the association's activity. Several matters of interest and importance to the members had received careful consideration in the proper quarters, and important developments might be expected in the near future. The register kept by the honorary secretary had been successful in assisting members to fill vacancies. The committee for the ensuing year was elected; the three principal officers being re-elected. Votes of thanks were passed to the master and wardens for the use of the court room, and to the chairman, treasurer, secretary, local secretaries, and committee.

THE greater part of the milk consumed in London, as in other large towns, is brought by trains from country farms. The fact that it comes from the country used to be a consolation to householders and anxious parents, but many investigations both in London and elsewhere show that the advantage is illusory, and that the milk brought into large towns is very frequently grossly contaminated with dirt of various sorts. There is no doubt that cows can be kept in a city in good health and good yielding if they are properly looked after, and if the dairyman understands his business and handles his milk carefully it will be a cleaner and wholesomer fluid than most of the fluid introduced from the country. We have recently inspected the cowsheds of Mr. E. J. Walker, 48, Sloane Street, S.W., and we were able to satisfy ourselves that the dozen cows in Church Street, S.W., were free from tuberculosis, not only on the evidence of the tuberculin tests, but also on the evidence of the examinations made at the Lister Institute, which showed that no guinea-pig developed tuberculosis when injected with the samples sent at short intervals. The sanitary condition of the sheds is excellent, the udders of cows are kept in good order, and every reasonable precaution is taken to render the milk clean and pure. The filters remain almost free from deposit after the nursery milk has been passed through. Milch cows, as has been said, respond well to artificial diet, if this be properly chosen, and the result as far as quality of milk is concerned is highly satisfactory. We should therefore recommend medical practitioners who find a reliable source of nursery milk of value in their practice to pay a chance visit to the dairy and cowsheds of this firm, and ascertain for themselves what is being done in a crowded part of London to improve the milk supply for infants and invalids.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

A. B. C. asks, as to the use of fibrolysin injections in uterine fibroids, for information as to the method, dose, and results.

J. A. asks: Should a woman, 30 years of age, marry, whose brother had an attack of acute mania after an attack of appendicitis? Two cousins on the maternal side have suffered from depression entailing ceasing work for three months in one case and one year in the other.

PERPLEXED would be glad of advice respecting a girl, aged 16, who is 4 ft. 11 in. in height, and has grown only 1 in. since she began to menstruate at the end of her thirteenth year. She is healthy and strong; is of studious habits, passing the Senior Oxford Local Examination with honours and distinction when 15 years and 4 months old. Any practical suggestion to increase her stature would be gratefully received.

### SOFTENING WATER BY LIME.

A. W. writes: Our local water supply has 10 degrees of hardness (Clarke's scale), which has been reduced by a softening process to 10 grains per gallon; but this is still too much for my rheumatism. What weight or quantity of quicklime would *precipitate* the utmost amount of the lime still remaining—that is, 10 degrees (Clarke's scale)? I note your pregnant caution as to not adding too much.

## ANSWERS.

H. C. D.—No notice can be taken of anonymous communications.

DR. S. C. REID (Blackburn) writes to recommend "W. J. L." to try chloretone in small doses. [In Martindale and Westcott's *Extra Pharmacopoeia* the dose of chloretone, trichlor-tertiary-butyl-alcohol, is given as 5 to 24 grains in cachet, capsule, or tablet, followed by a draught of water or milk, or suspended in a mixture.]

J. E.—We presume that our correspondent's inquiry has reference to a chief medical officer resident in London who would act as adviser and consultant of a friendly society. So far as we know, a fixed salary is offered, and its amount, no doubt, would be dependent on the amount of work required from the officer.

DR. H. J. THORP (Ipswich) writes, in reply to "North," that the burning pains in the legs and feet at night are probably gouty manifestations, and should be treated accordingly, both medicinally and dietetically.

### TREATMENT OF AMENORRHOEA.

DR. JOS. S. BOLTON (Nottingham) writes: In reply to "X. Y. Z." (February 18th, p. 415), sparks to the spine from a static machine or high-frequency apparatus are very successful.

### WOMEN AND HOSPITAL COMMITTEES.

MR. CONRAD W. THIES, Secretary of the Royal Free Hospital, London, writes, in reply to "Devonian," that women have been members of the Committee of Management of that hospital since 1896. At the present time, out of a total of thirty members of the Committee of Management, there are four ladies, of whom two are members of the weekly board. Mr. Thies adds that the advice and views of women on many questions of hospital administration, especially in regard to the nursing and domestic departments, have proved of great value to the committee.

## LETTERS, NOTES, ETC.

### TUBERCULOSIS OF JOINTS.

DR. J. REID (London) writes: The treatment recommended by Mr. Lane (BRITISH MEDICAL JOURNAL, March 11th, 1911, p. 538) will recall the good effects of a rhubarb mixture thirty years ago, in tubercle cases, by old practitioners, when the fashion was to order antiseptic inhalations, etc. Just think of the satire of Molière on M. Purgon.


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# A Post-Graduate Lecture
ON
# INDIGESTION.

DELIVERED AT THE LONDON SCHOOL OF CLINICAL MEDICINE,

BY GUTHRIE RANKIN, M.D.GLASG., F.R.C.P.LOND. AND ED.,
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IN selecting "indigestion" as a suitable theme for our consideration this afternoon, I have been determined in my choice by the fact that, though often a symptom of many of the organic disorders which we see together at the bedside, it is also a frequent—perhaps of all others the most frequent—functional disturbance for the alleviation or cure of which our services are requisitioned. It is no exaggeration to say that, whether in hospital or private practice, there is no descriptive answer so frequently given to the first inquiry, "What is the matter?" as this comprehensive word "indigestion." It supplies to the patient a self-satisfying explanation of a wide variety of subjective symptoms, and equally suggests to the physician the greatest of all generalizations for the exercise of his diagnostic and therapeutic acumen.

I need scarcely remind you that though functional indigestion is universally regarded as a trivial affection, it may become one of the most serious detriments to the comfort of life. Neglected or imperfectly treated in its earlier stages, when cure is so often possible, it may prove the forerunner, if not the direct etiological antecedent, of such organic diseases of the stomach itself as catarrh, ulceration, or cancer. It may be associated, whether as cause or effect, with many subsequent intestinal disorders, such as constipation, diarrhoea, colitis, appendicitis, or duodenal ulcer. It is constantly responsible for congestion of the liver, haemorrhoids, and other consequences of disturbance in the portal circulation. Glycosuria may ensue upon it, and unless recognized and properly treated may gravitate into true diabetes. Albuminuria is no uncommon accompaniment, and though functional and intermittent at first may end in true Bright's disease. Phosphaturia, another frequent associate, may pave the way for calculus, cystitis, or pyelitis. The heart often declares its sympathetic association with the digestive disturbance by palpitations, intermittency, or pseudo-angina; while the arteries probably often owe to the presence in the blood of toxaemic products their first departure from health in the direction of arterio-sclerosis. More almost than any other part of the body the delicate nervous system offers a vicarious sacrifice to digestive unrighteousness in the shape of insomnia, vertigo, migraine, neurasthenia, and a whole army of bewildering neuroses. The respiratory apparatus pays its tribute in cough, dyspnoea, asthma, and bronchial catarrh. The skin enters its protest in the form of prurigo, urticaria, or eczema. There is good reason to believe that some forms of arthritis, certain varieties of anaemia, and many uterine and ovarian disturbances are directly sequential to dyspeptic troubles. This constitutes a serious indictment against such an apparently simple condition as indigestion, but it is related in order to emphasize the importance of our subject.

One of the greatest difficulties which most of us have encountered in our endeavours to attain a clear conception of indigestion has arisen from the diversity of views which have been expressed concerning its etiology, the multiplicity of classifications which have been promulgated for its proper understanding, and the hopeless tangle of suggestions which have been made for its dietetic and therapeutic treatment. For a good working scheme which will enable us readily to classify the majority of our cases, and, on the basis of that classification, treat them along well-defined lines of common-sense management, none is better than that proposed by Professor Robin of Paris. It has the superlative merit of simplicity, and confines itself to three divisions which are based upon the physiological functioning of the stomach. There are three ways in which function may be disturbed, namely, by excess, by insufficiency, and by perversity. Indigestion, in its purely functional aspect, may be divided, therefore, conveniently into three varieties, viz., *sthenic*, *asthenic*, and *fermentative*. Such a classification is obviously open to many objections, but so is every artificial division to which any subject is submitted for purposes of description and orderly arrangement.

Each type is applicable to individual cases only in its main features. No two patients are quite alike, and though in their morbid manifestations they come under one or another category of the disorder from which they are suffering, each yet preserves the *ego* sufficiently to stamp the illness with individualistic details. The main features remain prominent enough to determine the type, which is not altered but only modified by idiosyncrasy.

1. *Sthenic Indigestion.*—The sufferer from this variety of indigestion is usually a man of full habit of body who has been accustomed to "do himself well" as regards both food and drink. The discomfort of which he complains is referred to the pit of his stomach. He is quite comfortable for three or four hours after his meal; then he begins to complain of weight and fullness in his epigastrium, waterbrash, sour risings from his stomach, and a desire to empty it of its contents. Should vomiting occur he is temporarily relieved till some hours after the next meal, the story being then repeated. When the stomach still contains a sour residue, food relieves the discomfort by counteracting the excess of acid. At first the attacks of pain are moderate and intermittent, but they increase gradually in severity, and become so constant that the patient, even if ordinarily hungry, is afraid to eat, because, though the first effect of a simple meal is to afford relief, the malaise returns in an accentuated form later on. The pain is of a burning, boring character, and is accompanied, as in other forms of dyspepsia, by flatulence, yawnings, hiccups, and cardiac uneasiness. The patient becomes nervous and irritable; he loses weight, and experiences increasing feebleness and incapacity for his daily work. He is subject to recurring attacks of pyrosis, and he suffers constantly from his throat, which frequently will be found congested and granular. As a rule there is obstinate constipation, and mucous colitis is a frequent complication. With the progress of his malady fermentative discomforts are added to his previous miseries. These are favoured by the physical condition of the stomach, which is usually more or less distended. This distension is probably due to a double cause—first, to enfeeblement of the muscular wall from debilitated innervation; and secondly, to spasm of the pyloric and cardiac sphincters from irritation of the hyperacid gastric contents. The sphincter at the cardiac orifice is more feeble than that at the pyloric orifice; it therefore, as a rule, yields first to intragastric pressure, and permits of a copious eructation of gas by which temporary relief is obtained. If the contents are siphoned off and examined chemically it will be found that they are abnormally acid from the presence of free hydrochloric acid in excess, and of organic acids produced by fermentative processes. There is usually tenderness on pressure over the epigastrium; the tongue may be slightly coated, but is often red and sensitive, pointed at the tip, and with enlarged prominent papillae. The urine, though perhaps scanty, is faintly acid or alkaline, and is deficient in chlorides.

The patient is often of good colour, but if his disorder has been of long duration he may be thin and ill-nourished, and he wears a look of wretchedness, which is unmistakably expressive of mental depression and physical uneasiness.

2. *Asthenic Indigestion.*—This type of indigestion is most commonly met with in young and badly-nourished persons, who have suffered privations from insufficient food, overwork, and mental anxieties, and who have become in consequence anaemic and neurotic. It has not inaptly been called "gastric myasthenia," and appears to depend upon a want of power in the stomach as regards both secretion and contractility. The patient—most frequently a woman—is usually worn, pale, with puffy features and cold extremities. She complains of constant weariedness, shortness of breath on exertion, sleeplessness, and a complete absence of appetite, except for highly seasoned or pungent articles of food. She is never thirsty for ordinary liquids, but always feels the better for tea, alcohol, or other form of stimulant. Her tongue is flabby,

pale, indented by her teeth, and coated; and she complains of a constant bitter, disagreeable taste in her mouth. The gums are pallid and often spongy, and the teeth are frequently decayed and badly looked after. Always after eating she becomes languid and sleepy, gets uncomfortably distended, and experiences an unpleasant flushing of her cheeks and nose. She suffers from a feeling of weight in her stomach, which compels her to loosen her corsets and waistbands, and finds relief in frequent eructations of tasteless and odourless gas. She soon becomes aware that certain articles of diet—tea, pastry, green vegetables, etc.—increase her misery, and, in her search for relief, she often drops one article of diet after another from her daily bill of fare, until nutrition comes to suffer seriously. The influence of strong, coarse tea, which has been allowed to infuse for hours on the hob by the fire, in the causation of this variety of indigestion, is particularly apparent among mill girls, seamstresses, laundresses, and others who are in the habit of drinking this noxious infusion several times a day. The patient is alarmed by the occurrence of palpitation, and is liable, on sudden exertion, to feelings of faintness. Her pulse is soft, small, and feeble. Her skin is inelastic and clammy. Frequently, about an hour after a meal, she vomits the food she has taken, almost unchanged and not strikingly acid, and her comfort is thereby so promoted that she is often induced to produce sickness artificially by putting her finger down her throat. If no vomiting occurs, her discomfort continues for three or four hours, after which she remains free from all symptoms until another meal has been taken. The bowels act irregularly, being at one time constipated and at another relaxed, and, though the whole abdomen is distended with flatulence, it is unusual for the stomach to be dilated to any remarkable extent. There is no pyloric spasm in these cases, and therefore no obstruction to the passage of the gastric contents into the duodenum. None the less, atony of its walls and consequent undue retention of food within its cavity, causes the stomach to sag, and splashing sounds can always be elicited in it during digestion because of these physical conditions. If the stomach contents are examined chemically, the hydrochloric acid is found to be less than normal, but in cases of long standing the organic acids produced by fermentation are present in considerable quantity. The urine continues acid after meals, and is frequently found to contain large quantities of urates. The patient suffers constantly from headaches, vertigo, lassitude, and is apt to become so introspective that she can concentrate her attention upon nothing but her own miseries, from which she feels convinced she will never recover. This form of indigestion is frequently secondary to other ailments, such as pernicious anaemia, Bright's disease, diabetes, gastritis, tuberculosis, heart disease, etc., but in the present connexion we are interested in it only as a primary affection.

3. *Fermentative Indigestion.*—As has been already mentioned, it is extremely rare to meet with indigestion as a consequence of a primary fermentation. When such does occur, its inevitable consequence is to create a gastric irritation, which sets up, according to circumstances, either the sthenic or asthenic type of the disorder. Fermentation is, in the large majority of cases, a superaddition to a pre-existing condition of indigestion. When it ensues upon the sthenic variety of the disorder, we have, in addition to the ordinary manifestations which have been detailed, a greater prominence of three symptoms—giddiness, vomiting, and eructations. The vertigo is extremely distressing and alarming; the vomiting is frequent, the rejected contents of the stomach being unpleasantly sour and offensive; and the eructations are abundant and of a disagreeable odour. The breath is heavy, and the tongue becomes thickly coated with a yellowish pasty fur, which clings to the teeth and roof of the mouth, and produces a constant subjective feeling of a foul taste in the mouth. The appetite, though not banished, is easily appeased, and there is a disinclination to take much food because of the subsequent increase in the vomiting which is sure to follow. If the fermentative processes continue over any length of time, the portal system becomes loaded with the toxic products of food decomposition, and the patient acquires a characteristic muddy complexion, lustreless eyes, icteric conjunctivae, and a somnolent expression, which we are accustomed to associate with a commencing cachexia. Haemorrhoids often occur, and add considerably to the other discomforts. The abdomen becomes distended and tympanitic, and the stomach dilated often to a point below the level of the umbilicus. This abnormally prominent abdomen forms a striking contrast to the rest of the body, which, in many cases of long duration, has become thin. The liver is usually larger than normal, and may be tender when palpated below the costal arch at the end of a deep inspiration. The bowels are obstinately constipated, and the stools are extremely offensive. The urine is always scanty, contains lithates in excess, not uncommonly a haze of albumen, and, in many instances, indican in varying amount. Chemical examination of the gastric contents would reveal an excess of total acidity, the greater portion of which would be found to be due to the products of decomposition, especially of albuminoid materials.

When fermentation ensues upon the asthenic variety of indigestion the same grouping of symptoms—vertigo, vomiting, eructation, etc.,—is met with, but there are certain distinctive features to be borne in mind. The patient complains of a sense of over-fullness after the first few mouthfuls of food and immediately desires to relieve her oppression by loosening her clothes. She has choky sensations and eructations, which cause her to become temporarily purple in the face, and by and by she reaches a state of mental and physical inertia, from which she is often unreleased, an hour or so later, by the regurgitation unchanged of the small quantity of food she has swallowed. She generally suffers from diarrhoea with fetid, frequent stools, both during day and night, accompanied by such urgency of demand for their evacuation that she is unable to risk going any distance from a place of convenience. She has constant headaches, often of the migrainous type, has her sleep disturbed at night by terrifying dreams, and experiences such continuous mental depression that life no longer possesses for her either brightness or hope. She has constant, and often extreme tenderness, over the pit of her stomach, the least pressure against which from without, or the mere contact from within of the blandest and simplest food, is almost certain to provoke a paroxysm of retching, acute epigastric pain, subsequent exhaustion, and not infrequently a terminal hysterical crisis. Chemical analysis of the stomach contents from a case of this type would reveal a condition of superacidity just as in the previous instance, but here it would be found that the carbohydrates had been imperfectly digested and that the fermentative processes had taken place almost altogether at their expense.

All forms of gastric fermentation are due to micro-organisms which inhabit or find their way into the stomach, and though the specific action of any of them as promoters of a special fermentation is uncertain, it would seem that some species have a preference for albuminoids and others for carbohydrates. The conditions which favour fermentation are: Unsuitable or excessive food, imperfect mastication, alcoholic beverages except in physiological amount, undue retention within the stomach of its contents, and abnormal ingestion of micro-organisms with the food or from the alimentary tract. The occurrence of fermentation always aggravates ordinary indigestion; it increases the irritability of the gastric mucous membrane, and readily leads to the establishment of catarrhal or other pathological conditions; it also contributes to the enfeeblement of the stomach wall, and favours dilatation.

These three varieties of indigestion usually remain true, more or less, to type throughout the continuance of the illness, but it occasionally happens that a patient suffering originally from the atonic form of the disease subsequently develops symptoms of its sthenic variety and ultimately presents unequivocal manifestations of fermentative processes. The victim of such a sequence of digestive troubles often takes his food fairly well after having forced himself to make a beginning. His appetite grows with what it feeds upon, and not unfrequently he rises from table without feeling quite satisfied. Within half an hour or so he experiences fullness and weight in the stomach; his face gets hot and flushed, he becomes restless, and cannot settle to read or to do any kind of work; he acquires a sensation of fatigue which tempts him to seek the comfort of an armchair or sofa, where he eventually falls

into an uneasy sleep. If he does not sleep too long he is refreshed and awakes with his local discomfort much improved, but he continues to complain of palpitation, swimminess, flatulent eructations, and regurgitations of mouthfuls of food without taste other than what belongs properly to it, without odour, and without marked acidity. The process is almost one of rumination, but when it is finished a period of complete comfort ensues, during which the ordinary occupations of every day are resumed comfortably. Later on, at from four to six hours after the meal, he gets a recurrence of malaise, ushered in by irrepressible yawning, general lassitude, excessive salivary secretion, and a sense of sinking in the epigastrium. "Hunger pain" is often felt, and cries out for the immediate relief that comes temporarily from any kind of food. It is not infrequently preceded by heartburn. The sense of emptiness at the pit of the stomach, which has not inaptly been described as "hunger pain," is spoken of sometimes as being pathognomonic of duodenal ulcer, but it occurs in many other conditions, and is especially associated with hyperacidity. The discomfort in the stomach sometimes increases to an acute burning sensation, which may radiate to the interscapular space or down into either iliac region or to the hepatic or cardiac areas, and in any of these situations is liable to arouse suspicion of local mischief, and lead to an erroneous diagnosis. The eructation of gas from the stomach or its passage from the intestine brings relief, and this is further increased by the next meal, which is by this time due. The meal being over, there is a repetition of the previous sequence of symptoms. If it happens to be dinner, the patient may go to bed feeling quite comfortable, and may fall into a profound and natural sleep; but in the early hours of the morning—often between two and three o'clock—he is awakened or disturbed by unpleasant nightmares, or violent palpitations, or a sensation of choking, or an extreme irritation of the skin, or a feeling of intolerable heat that compels most of the bedclothes to be thrown aside, and the rest of the night is more or less restless, so that in the morning, when it is time to rise, the man clamours for longer rest, and declares he is more tired than when he went to bed.

What is the explanation of such a succession of events? Under normal circumstances, when food is taken into an empty stomach it excites the activity of the gastric glands, and the acid secretion which they pour out automatically produces closure of the pyloric orifice. The digestive processes act upon the albuminoid elements of the meal and render them fit for assimilation, and in this occurrence the acidity of the chyme is gradually diminished. The pylorus then relaxes and allows the gastric contents to pass on to the duodenum, where their remaining acidity is completely neutralized by the biliary, pancreatic, and intestinal secretions. Roughly, this is the normal process. But in a case of complex indigestion such as we are now considering, the original excitation produced by the entry of food into the stomach is insufficient to call forth an adequate supply of gastric juice, with the result that the food tarries too long in the stomach, as proved by the regurgitations of unchanged aliment which is one of the accompaniments of the condition. The subjective symptoms which characterise this period of gastric inactivity are precisely those which have been recorded as demonstrative of the asthenic form of indigestion. The stomach contents during this time are already undergoing fermentative changes, and are being projected, in this condition, into the duodenum. Coincidentally the gastric juice, which was at first delayed, is now provided superabundantly some hours after the meal, and, mixing with the acid remnant of the previous meal, rapidly converts an asthenic into a sthenic type of disturbance. Unless treatment rapidly remedies the sthenic condition, fermentative changes will increase, and the patient will pass into the ranks of those who suffer from the third variety of the classification we have adopted.

We are now in a position to pass on to the most important problem connected with this disorder—namely, the application of our knowledge to the question of practical treatment. But there are certain leading facts which should be recalled, and some general principles which must be referred to as being applicable to all varieties of indigestion.

The hydrochloric acid which is secreted by the stomach is derived from the chlorides of the blood, which are split up so as to leave the alkaline element behind. During active digestion, therefore, both the blood and the urine become more alkaline than during the intervals when the gastric functions are in repose. When gastric juice is not secreted in sufficient amount, the urine remains acid after meals, and there is a more or less complete absence of the normal "alkaline tide."

During normal digestion certain fermentative processes go on in the stomach without producing symptoms of any kind; but when there is either an insufficient secretion of hydrochloric acid, or an abnormal delay of food in the stomach, fermentative decomposition becomes excessive and pathological.

The discharge of the stomach contents through the pylorus is not constant, but takes place by intermittent jets. The time which the food takes to leave the stomach can be ascertained by the administration of a fifteen grain dose of salol. This substance does not undergo any change in an acid medium, but in alkaline surroundings it splits up, at the ordinary temperature of the body, into phenol and salicylic acid. The presence of the latter is readily determined in the urine by the addition of a neutral solution of ferric chloride. Though the time of its appearance is subject to considerable variation, the reaction may be expected to declare itself, when the condition of the digestive organs is normal, within the limits of from forty-five to seventy-five minutes after the salol is taken.

The absorptive power of the gastric mucous membrane can be tested by means of potassium iodide. If three or four grains of this salt be given in a capsule it will be possible, in a normal state of the stomach, to determine its presence in the saliva in from ten to fifteen minutes after the capsule has been swallowed. Filter-paper soaked in a solution of starch is moistened from time to time with saliva and then touched with fuming nitric acid. Whenever iodine is present in the saliva the filter-paper, at the point of this contact, will turn blue. According to Ewald, if absorption is delayed until one or more hours after eating, it is pathological.

The imperfect comminution of the food by undue hurry over meals, or by decay or absence of teeth, is frequently the starting point of digestive troubles. Carious teeth form admirable breeding grounds for microbes of all sorts, which readily and continually find their way from the mouth to the stomach, where they rapidly set up lactic acid and butyric acid fermentations should hydrochloric acid be at all deficient in amount.

Heredity has an important bearing upon the etiology of indigestion. Certain families throughout many generations give a history of dyspeptic disorders in many of their members, and it is noteworthy that a gouty ancestry generally connotes a likelihood of sthenic indigestion, whereas a neurotic and anaemic inheritance is associated with the asthenic type of stomach disorder.

Appetite is powerfully influenced by the state of the portal circulation; the desire for or dislike of food is therefore largely dependent upon the condition of the liver. Speaking generally, appetite is increased in sthenic and diminished in asthenic cases. Lauder Brunton says that "a lack of appetite, restored by eating, indicates an atony of the stomach which is likely to be benefited by tonics and stimulants; a craving appetite, easily satisfied, or anorexia with a tendency to nausea in eating, indicates irritation and requires sedative treatment."

Pyrosis, which is a leading symptom in the sthenic variety of indigestion, is the result of reflex activity of the salivary glands from some form of stomach irritability, of which excessive acidity is the most common. There seems to be an appeal on the part of Nature for sufficient of the alkaline saliva to neutralize this hyperacidity and cure the sensation of heartburn produced by the contact of acrid fluids with the lower end of the oesophagus, whose mucous membrane is much more sensitive than that of the stomach itself.

Flatulent discomforts are caused both by active fermentation and by the swallowing of air.

When indican is found in the urine its presence is to be regarded as evidence of albuminous decomposition, and in cases of indigestion this is most frequently the result of putrefactive changes in the small intestine.

An acute form of indigestion is encountered either in people of gouty habit or in those who have eaten an unsuitable and excessive meal. Pain and discomfort some hours after the meal announce that the stomach is unfit to overtake its duty, and the condition is usually relieved by active vomiting. If the fermenting contents of the stomach have been retained long enough to produce a mild toxaemia, some days may be required for complete recovery.

Motor insufficiency of the stomach may be recognized by splashing of the gastric contents on shaking the patient. This splashing sound is not of itself a morbid symptom; it only becomes so if it is persistent and is confirmed by other physical signs.

For its successful treatment indigestion requires care and judgement on the part of the physician and obedience and perseverance on the part of the patient. No two cases can be treated exactly alike, because there is no disorder in which so much attention to idiosyncrasy is necessary, especially in matters of diet. Dietetic rules are none the less necessary both to correct habits of imprudence that may have been formed, and also to educate the dyspeptic patient to a disciplinary routine which experience proves to be requisite for the maintenance of a proper balance between his intake of food and his capacity for digesting it.

With the reservation, then, that the following suggestions are to be regarded in the light of general principles only, let us consider first the procedure to be adopted in cases of:

1. *Sthenic Indigestion.*—Treatment of this variety of indigestion must be essentially sedative, both as regards medicine and food. It must also aim at counteracting the hyperacidity, which is the principal disturbing factor in the illness. The patient should give himself as much rest, both mental and physical, as he can conveniently command. He should have long nights in bed, observe the greatest regularity and moderation in regard to his meals, take a suitable amount of daily exercise in the open air, and indulge in a comfortably warm bath with subsequent active towelling every morning before breakfast. A Turkish bath once a week, if taken with due regard to individual requirements, followed by the use of a flesh brush, vigorous massage, and spirit rubbing, is a helpful addition to other treatment. In some cases it is a good plan to restrict the diet for the first three days entirely to milk. If your patient can be induced for these three days to remain quietly at home and to live wholly upon milk and Vichy water—two parts of the former to one of the latter—in quantities of 6 oz., taken every two hours, he will establish an excellent foundation upon which to build up successfully his subsequent treatment. In many cases it will be found that the addition to each pint of milk of from 20 to 30 grains of citrate of soda makes it more easy of digestion. Peptonization is unnecessary. Passing from this preliminary and drastic restriction, his meals afterwards should be arranged on the following plan: In the early morning a tumblerful of water as hot as can be borne, to which has been added half a teaspoonful of bicarbonate of potash, to be slowly sipped; for breakfast, oatmeal porridge or quaker oats with cream, hot milk and water without sugar, toasted bread or rusks and butter, and one egg, boiled, poached, or scrambled. For luncheon, chicken, game, tripe, or calf's-head; purée of vegetables; fresh fruit, cooked with glycerine or saccharin, and cream; biscuit, or toast, with butter and cheese; an alkaline table water. In the afternoon cocoa made from the nibs, dry toast, and butter. For dinner, clear soup, white fish, boiled or grilled, without rich sauce; pâté of macaroni, rice, vermicelli, etc.; a course consisting of a freshly-cooked vegetable in season, with melted butter; a simple omelette or pancake, with compôte of fruit, unsweetened; one to two ounces of well matured whisky or brandy in one of the alkaline table waters. Fluids should be reserved for the end of the meal, bread should be taken in small amount and toasted, salt ought to be indulged in sparingly, and after luncheon an hour's complete rest is desirable. Medicinally, each meal should be preceded by some such sedative mixture as the following: Tincture of belladonna and tincture of opium, of each 10 minims, liquid extract of ergot 15 minims, spirits of peppermint to 1 drachm; to be taken in two tablespoonfuls of water a quarter of an hour before the meal. This combination of drugs controls the glandular secretion of the stomach and diminishes the excitability of the mucous membrane. It does not, however, prevent hyperacidity later on, and therefore it is desirable to deal with this by ordering the following powder to be given immediately after the first sensation of epigastric discomfort declares itself: Magnesium carbonate, sodium bicarbonate, and bismuth carbonate, of each 20 grains; Dover's powder, 3 grains; to be mixed in Vichy or other mineral water and taken after meals as directed, with a second powder an hour later if the discomfort persists. The liver should be stimulated and the bowels kept in order by an occasional mild antibilious pill. Constipation should be corrected by a sufficient dose of Carlsbad salts taken in the morning tumblerful of hot water. After the stomach symptoms are controlled it is often desirable to establish a better tone of the nervous system by a suitable tonic.

2. *Asthenic Indigestion.*—In the treatment of asthenic cases the object to be achieved is stimulation of the feeble gastric functions, bearing in mind that both secretory and motor power are at fault.

As regards food, it is a point of importance to remember that, in contradistinction to sthenic cases, milk should be given at first sparingly, because it tends to diminish gastric secretion; it also delays hepatic activity and induces constipation. The following arrangement of food will suit many cases: In the early morning a tumblerful of hot water, to which a thick slice of fresh lemon has been added, to be sipped slowly; for breakfast, weak tea or coffee, sweetened with saxin, toasted bread and butter, bacon and egg, cold ham, or white fish; during the forenoon a small cupful of meat jelly with a finger of toast; for luncheon, freshly cooked red meat thoroughly minced or pounded, and, in small quantity, purée of vegetables, milk pudding, biscuit and cheese; one claretglassful of an infusion of malt, prepared according to Robert's formula; in the afternoon, cocoa, biscuit or toast spread with butter, and Liebig's extract of meat, or with raw-meat pulp; for dinner, white fish, chicken or game, mashed potato or other cooked vegetable, stewed fruit or omelette, one glass of Burgundy, claret, or wood port wine; at bedtime, one teacupful of Benger's food, to which has been added one dessertspoonful of brandy. Bread should be taken sparingly, and must always be stale or toasted; condiments such as pepper, mustard, chutney, Worcester sauce, etc., may be allowed, to stimulate the appetite; ammonium chloride should replace common salt; a short rest after the principal meals is desirable; residence in the country rather than the town; moderate exercise in the open air; a morning warm bath, followed by a cold douche to the spine while still standing in the hot water, with subsequent vigorous towelling; and superficial massage over the stomach for ten minutes before going to bed at night. As regards medicines, each meal should be preceded by a simple bitter alkaline mixture, such as the following: Potassium bicarbonate 15 grains, tincture of nux vomica 10 minims, tincture of capsicum 5 minims, compound infusion of gentian to 1 oz. Should epigastric discomfort ensue in the early days of treatment after a meal, one of the powders suggested for sthenic cases should be taken at once. The bowels, when constipated, as they usually are, should be regulated by a simple pill taken every evening before dinner. A useful combination will be found in leptandrin 1 grain, aloin $\frac{1}{4}$ grain, powdered ipecacuanha and extract of belladonna, of each $\frac{1}{6}$ grain, extract of rhubarb 2 grains. After we have succeeded by these methods in stimulating the gastric functions to such activity that the subjective symptoms are controlled, the alkaline bitter mixture before food should be replaced by tonic medication so arranged as to assist Nature's efforts until stability of function is restored and the general tone improved. For this purpose such a prescription as either of the following may be ordered: (*a*) Dilute hydrochloric acid 15 minims, pure carbolic acid 2 grains, strychnine solution 5 minims, tincture of ginger 15 minims, infusion of calumba to 1 oz. To be taken three times a day, one hour after meals. (*b*) Finkler's papain 2 grains, pure carbolic acid 2 grains, strychnine $\frac{1}{30}$ grain, extract of cannabis indica $\frac{1}{4}$ grain, and extract of taraxacum 2 grains; to be dispensed in a capsule and taken after meals three times a day.

3. *Fermentative Indigestion.*—As has been pointed out, this form of indigestion is most frequently a sequel to the sthenic or asthenic varieties of the disorder. Its proper

management consists in supplying an aliment as little fermentable as possible; in preventing prolonged accumulation of food in the stomach; in promoting normal gastric activity; and in the administration of suitable antiseptics.

It is of first importance to ascertain whether the fermentative processes are mostly concerned with the albuminoid or with the carbohydrate constituents of the daily menu—whether, in short, the preceding type of indigestion has been of the sthenic or of the asthenic variety. The diet being arranged on a plan to meet the one or the other of these indications, ought to have, as an addition to luncheon, sour-milk cheese, which should be thickly spread on toast or biscuit and taken at the end of the meal. There are endless lactic acid preparations, but one of the best and most reliable is sold under the trade name of "Uga." It is supplied in small squares, one of which should be consumed in three or four days.

The next point of importance is to deal with the distension of the stomach from undue retention of the food which all fermentative cases present. There are two methods by which this fault can be overcome: either by the administration of emetics or by the practice of lavage. On the whole, it will perhaps be found that the best results are obtained by a combination of these plans. Despite its unpleasantness, there can be no doubt that the old-fashioned system of clearing the stomach by 15 grains of ipecacuanha, 30 grains of sulphate of zinc, or $\frac{1}{8}$ grain of apomorphine given hypodermically has much to commend it. The effect is not only to empty the stomach thoroughly, but also to stimulate its contractile power, and to counteract the tendency to pyloric spasm. When resorted to, the emetic should be administered first thing in the morning, and repeated every alternate day for three doses. If this does not succeed in affording relief and improving the tonicity of the stomach wall, it is then desirable to wash out the stomach every morning for a week or ten days with a mild alkaline solution, taking care that the lavage is carried out so effectually as to ensure the removal of every particle of fermenting food which the viscus contains.

As regards drugs, it is in this variety of indigestion that antiseptics find their greatest value; they may be given either in acid or in alkaline media, according to the requirements of the case. For acid mixtures pure carbolic acid in 2-grain doses, and for alkaline mixtures sulphocarbolate of soda in 15-grain doses, will be found extremely serviceable.

Examples of carbolic acid combinations have already been quoted in dealing with the later treatment of asthenic cases.

Constipation is the rule in these cases, and must always be corrected by simple aperients in combination with calomel. In cases that prove very rebellious it is often helpful to rest the stomach entirely for forty-eight hours. During this time of fasting the patient's nutrition can be satisfactorily maintained by nutritive enemata given every six hours. A suitable enema can be prepared in this way: The yolk of 1 egg, Carnrick's peptonoids 1 oz., glucose $\frac{1}{2}$ oz., chloride of sodium $\frac{1}{2}$ eggspoonful, peptonized milk to 6 oz.; to be made comfortably warm and slowly introduced into the bowel by a soft rubber tube and funnel.

The prescriptions which are here suggested must obviously be subject to modification according to the requirements of each case, and are to be accepted only as examples of drug combinations that have been, in my own experience, useful.

The complications which may attend indigestion have not been referred to; they are many, and require to be treated on general principles as they arise.

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A VOLUME has been issued giving an account of the proceedings of the Association Médicale Internationale contre la Guerre since the date of its foundation up to its annual meeting last year. The body is one which was brought into existence mainly through the energies of Dr. J. Rivière during the Russo-Japanese war, and has for object the bringing to bear the influence of its medical adherents for the suppression of warfare. The next general meeting of the association is to be held in Paris in September. Information regarding it can be obtained from its President, Dr. J. Rivière, 25, Rue des Mathurins, Paris.



# Remarks ON HOUR-GLASS CONTRACTION OF THE STOMACH.

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HOUR-GLASS contraction of the stomach is said to be a very rare disease, but it is probably not so rare as it is supposed to be, for I have operated upon six patients who were suffering from it during the last three years. The narrowing was due to the contraction of a simple ulcer in five, but carcinoma had been grafted upon simple ulcer in the sixth case. The condition would not have been recognized in at least three of these without the aid of the bismuth and *x*-ray method of examination. No operation would have been performed, and the patients, who are now living and well, would have died unrelieved with their condition unrecognized. Twice a diagnosis of late carcinoma had been made, and a hopeless prognosis had been given. The bismuth method undoubtedly affords the most reliable means of diagnosis of hour-glass contraction, and it ought to be used more frequently. Five of the patients were extremely ill at the time of operation, and had been invalids for many years. Earlier diagnosis and treatment would have saved them much pain and misery. It is even possible that malignant disease would have been prevented in the sixth case. All the patients fortunately recovered from the operation, and they are now in fair but not robust health. The patient with malignant disease, although greatly relieved, is of course only better for a time. Early operation not only lowers the mortality, but makes the restoration of health more complete. The mortality of recorded operations for hour-glass contraction is high, therefore the recovery of these patients, in spite of very grave conditions, is gratifying, and is chiefly due to recent improvements in technique, and in the treatment of patients before and after operation. In most cases gastro-gastrostomy is the most suitable operation, but in two of these patients pyloric stenosis had to be relieved at the same time. For this gastro-duodenostomy, after Finney's method, was easily done and was efficacious. On account of the interest of the condition, a detailed account of the six cases will now be given, and this will be followed by a short discussion of the pathology, diagnosis, and treatment of hour-glass contraction.

### CASE I.

Mrs. M. D., an American lady aged 42, was brought to me by Dr. J. C. Cook towards the end of October, 1909.

*History.*

She gave a history of lifelong constipation and indigestion. About ten years ago she began to have attacks of biliary colic about once or twice a year, but these entirely ceased four years ago. She has never been jaundiced. Since she was a girl she has suffered a great deal from indigestion. For the last three years she has had almost constantly a dull pain in the epigastrium, but this has become a great deal worse within the last few months, and has lately shifted up the sternum as high as the sternal notch, where it is sometimes very severe, especially when the patient swallows. The indigestion has been very bad during the last eighteen months. At first she used to vomit about once or twice a week, but gradually this has increased in frequency to once every day, and lately after every meal containing any solid. She has never had haematemesis or noticed melaena. Gradually the amount that she can swallow at a time has diminished. After the food she has a feeling of a lump in the throat and under the breast-bone. For months she has not been able to take solid food in comfort. The attempt has always been followed by great pain, which is only relieved by the return of all the food. One day she took an oyster divided into four pieces; this was followed by great pain and vomiting, which was only relieved when the last piece of oyster was returned four hours later. The only solid that she could occasionally take in comfort was a Welsh rarebit. Occasionally her mouth fills with water, and then she brings up a small amount of mucus. The act of swallowing itself is not painful if the patient is content with a small amount of liquid at a meal. For the last year she has not been able to take tea. For months she has lived on peptonized milk, Benger's food, Brand's essence, and so on, in decreasing quantities at a time. These have been supplemented by nutrient enemata and suppositories. She has wasted progressively for two years, but much more

rapidly during the last six months. About two years ago her weight was 130 lb.; now she is only 56 lb., although she is 5 ft. 9 in. in height. During the last few months she has had several attacks of shivering, associated with exacerbation of vomiting. In spite of all this the patient has led an active life, often travelling 200 miles a day in her motor car and managing the business affairs of her daughter. She was taken to see a well known consulting physician in May, 1909, who is said to have diagnosed malignant disease in the abdomen, possibly in the stomach or pancreas. He gave a bad prognosis, and advised that the patient should be allowed to live and do as she liked.

*Condition upon Examination.*

The patient was extremely thin and feeble (Fig. 1). She was only able to walk into my consulting-room with difficulty. She was not able to dress or undress herself. Her skin was yellow, dry, and wrinkled. The temperature was 97°. The hands and feet were cold. There was some oedema of the ankles.

Fig. 1.—Case 1: A month before operation. She was thinner at the operation. She weighed 56 lb.

*Alimentary System.*—All the natural teeth were missing, having been extracted about fifteen years ago and replaced by complete sets of artificial teeth. The tongue was raw and red. When asked to swallow a glass of milk she was only able to take half a tumblerful in small sips. Any attempt to take more gave rise to pain and a feeling of distension at the lower end of the sternum. The abdomen was carinated, and in spite of the fact that the abdominal wall was very thin, no tumour could be felt anywhere in the abdomen. There was a little resistance in the gall-bladder region, but no dullness or tumour. A succussion splash could be obtained a little below the level of the umbilicus. A pelvic examination revealed no abnormality. The respiratory system was normal, in spite of a history of possible phthisis at the lower part of the right upper lobe. The nervous system was normal except for great irritability of temper. In view of the difficulty of diagnosis between oesophageal stricture and hour-glass contraction of the stomach with pyloric obstruction, an *x*-ray and bismuth examination of the stomach was advised. Three days later the patient was asked to swallow a tumblerful of milk containing 1 oz. of the oxychloride of bismuth. After much coaxing she was only able to swallow half this amount. She was then placed standing before the *x*-ray apparatus. It was at once seen that the oesophagus was not distended, so that the obstruction could not be in it. A small shadow was seen just below the diaphragm, and from the right border of this a narrow streak of bismuth extended into a lower shadow, giving the characteristic appearance of hour-glass stomach, with an unusually small cardiac pouch (Fig. 2). As the patient swallowed more bismuth the lower shadow gradually increased until it was much larger than the upper one. It extended from 2 inches below the umbilicus to a little below the symphysis pubis. The fluid took a long time to run away from the upper sac, so that the obstruction was evidently severe. The size of the pyloric pouch and the delay in the exit from the stomach made it clear that there must be pyloric obstruction as well. An operation was advised and the patient consented. The next day was spent in preparation. The patient was given nothing but sterilized milk and boiled water by the mouth and nutrient enemata and salines were also administered alternately every four hours. This improved the pulse and the general condition of the patient to a great extent. The false teeth were taken away and the mouth thoroughly cleansed several times a day with an antiseptic mouth wash.

Fig. 2.—Case 1: Hour-glass contraction and pyloric stenosis. Bismuth shadows. Note unusually small size and high position of the cardiac shadow above and to the left of the umbilicus o, The pyloric shadow was partly behind the pubis, and took some time, and repeated swallowing of small amounts, to reach the size indicated.

*Operation.*

On the morning of the second day after the examination Dr. Page gave an anaesthetic, and the abdomen was opened through an incision made as high as possible in the left rectus muscle, some of the fibres of which were cut across in order to give more room. The stomach was explored and the conditions suggested by the *x* rays were discovered. The upper pouch was very small, being about the size of an ordinary hen's egg. The lower pouch was fairly large, being about the size of a normal stomach. The pylorus was considerably narrowed, but fairly movable. The scar of a healed ulcer was seen upon its anterior surface. The constriction in the stomach was very hard and tight. There was not enough thickening of the wall to suggest carcinoma, nor were there any signs of any enlarged glands in the small or large omentum or pancreas. The stricture was 3 in. long and appeared to be due to the healing of a large saddle-shaped ulcer occupying the lesser curvature quite close to the oesophagus and extending far downwards upon both the anterior and posterior walls of the stomach. The lower part of the stomach was pulled downwards and to the right so as to bring the cardiac pouch into view. For reasons that will be presently discussed, a gastro-gastrostomy was decided upon. It was found to be impossible to control the cardiac pouch with clamps without passing one blade through the gastro-colic omentum into the lesser sac of the peritoneum and upwards behind the stomach towards the oesophagus. The other blade was placed in front of the stomach and the lesser omentum, and the forceps were locked and closed. Another long clamp was applied on the anterior wall of the pyloric pouch near the greater curvature, and with its points directed upwards and to the left. The clamped portions of the stomach were then carefully isolated with moist packs, and they were joined together by two layers of direct sutures, just as in gastro-jejunostomy. Linen thread was the suture material used. The opening in the cardiac pouch extended from the lower and right border upwards, and to the left of and above the oesophageal orifice (Fig. 3). This was the only way to make it long enough. The wall was extremely thick and hard. The mucous membrane was inflamed and closely adherent to the other coats, so that none of it could be removed separately. Therefore an ellipse of the whole thickness of the fibrous wall was removed. It was impossible for the through-and-through suture to pick up the mucous membrane all the way round without unduly narrowing the anastomotic opening; but the other coats were so extremely fibroid that there did not appear to be any danger of the stitches cutting out. The external sero-muscular suture having been completed, tags of the lesser and gastro-colic omenta were fixed over the suture line. The pylorus was then brought into the wound, and an incision was made along its supple lower border and prolonged into the lower borders of the duodenum and stomach, which were close together. The wound was closed after Finney's method of gastro-duodenostomy, but with continued instead of interrupted sutures. Before the opening was made, clamps were applied to prevent leakage and haemorrhage. The gall bladder was found to be full of stones, but it was neither inflamed nor adherent, and the cystic duct was patent. There was no indication for removing the stones, especially as any prolongation of the operation would probably have resulted fatally. Moreover, the gall stones had given rise to no symptoms for five years. When the operation was completed the stomach seemed to be about the normal size and shape. The new pylorus was very wide. The gastro-gastrostomy had drawn the pyloric pouch upwards and to the left. The abdomen was closed in layers, the opera-

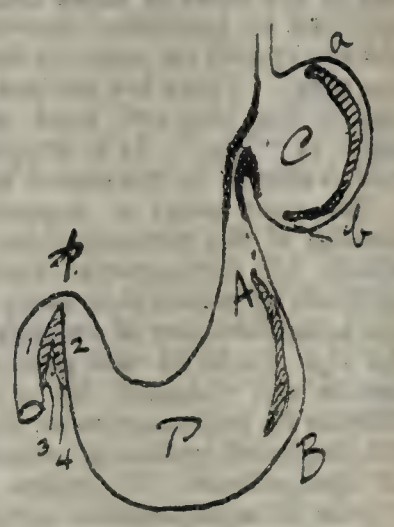


Fig. 3.—Case 1: The cardiac and pyloric pouches were anastomosed, A, *a* and B, *b* being joined together respectively. The constricted pylorus *p* was greatly enlarged, after Finney's method. The incision along its lower border is shown extending into the duodenum and stomach. The edges were sewn together in such a way as to enlarge the pylorus without tension 1 to 2 and 3 to 4.

Fig. 4.—Case 1: Four months after the operation. She is now much fatter. She weighed 104 lb.

tion being completed in forty-five minutes. A saline enema was given immediately on the return of the patient to bed. The patient was rather collapsed for the first two days. She was given water to drink from the first, and saline and nutrient enemata were administered alternately every four hours. The mouth was exceedingly dry and thirst was very severe. Towards the end of the second day milk was given by the mouth, and from that time onwards nutrients were discontinued. The food given by the mouth was gradually increased so that at the end of fifteen days she was on minced full diet. Gradually the patient became able to swallow larger amounts at a time. She left the home after five weeks with her condition very much improved, having gained over a stone in weight (Fig. 4). She was last seen at the end of September, 1910. She was then very well and looked years younger. She weighed 7 st. 10 lb., having gained 3 st. 10 lb. since the operation about a year ago. She was said to be well at Christmas, 1910.

### CASE II.

H. B., a married woman aged 40, was admitted into Guy's Hospital under my care on March 17th, 1909. She was sent to me by Dr. J. E. Hancock of Hurst Green, Sussex, for recurrent attacks of abdominal pain and vomiting. The following is the report of my ward clerk, Mr. Samuel: The patient had always been pretty strong and healthy as a young girl, but about twenty-two years ago, whilst in service in London, she was suddenly attacked with violent pains in the stomach accompanied by vomiting. She was attended by a doctor, who told her that she had an ulcerated stomach, and that this condition had been brought about by the dampness of the bed in which she had been sleeping. She was admitted to Hastings Hospital for her condition, and, after being detained there for a few weeks, she was discharged much better. Since then she has had repeated attacks, which vary in duration from days to months and the intervals between which vary from days to years. The patient has been married for fourteen years, and from about two years prior to that time she has been almost continually a victim to gastric troubles. About fifteen years ago she was in Charing Cross Hospital for the same trouble, and was treated there by means of rest and dieting for some weeks before being discharged much better. The pains, which are usually extremely acute, are situated in the pit of the stomach, and usually shoot into the right shoulder blade, and sometimes into both shoulder blades, but never into the left without the right being implicated, and when both shoulder blades are affected the right is always worse than the left. Occasionally the pain is in the shoulder blade but not in the stomach, and vice versa. During the attacks of pain there is usually much vomiting, and this, like the pain, is much worse after the patient has exerted herself in any way, and is sometimes worse after meals. Occasionally she brings up a little blood when vomiting. Lately she has vomited about three or four times a day without definite relation to food. During the attacks she is constipated, but she attributes this to the low diet which she usually follows when she is ill. In the intervals between the attacks of pain the bowels are always quite free, but certain foods such as cheese, meat, tea, etc., and violent forms of exertion, soon bring on the attacks again. The last attack began in November, 1908, and has lasted ever since. For the past month she has been practically living on nothing else but milk and arrowroot, but still she gets no relief. The pain has been very great, and the patient has begun to feel very weak. She sleeps very badly. Since November the patient has lost flesh, has had no appetite, and has felt very ill in herself.

*Condition on Admission.*

The patient is extremely thin and sallow. She is always cold, especially in her extremities, and she is very irritable in temper. The tongue is swollen and raw. The patient suffers very much from thirst. The abdominal wall is tender on pressure, and the recti muscles seem somewhat rigid in the upper parts. There is nothing else abnormal to be felt. The teeth are in a horrible condition. The lower incisors form the seat of very bad pyorrhoea alveolaris. There are many carious teeth and several septic roots present in the mouth, whilst the gums are spongy and hyperaemic. She is to have dental treatment and diet, and is to be kept under observation. On March 18th Dr. Morton kindly examined the patient with the *x* rays, and sent the following report:

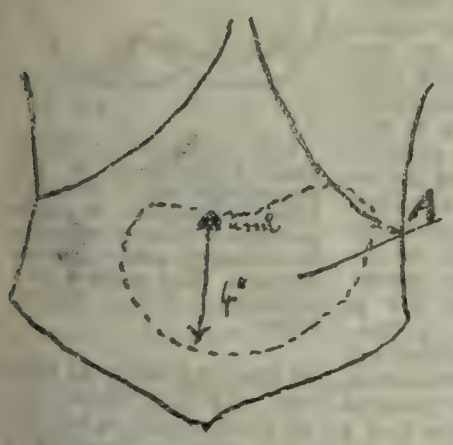


Fig. 5.—Stomach area after inflation with $CO_2$—that is, dilated and dropped, but no sign of being bilocular. Possibly a second division might be at the fundus, but there was no delay in filling up of pyloric pouch.

"Examination after bismuth showed the bismuth retained in the upper part of the stomach (cardiac end) for several minutes. The bismuth gradually passed down to 3 in. below the umbilicus and collected there. Small streaks of bismuth could be seen passing between the two places, but the two were never actually united. There is active peristalsis of the cardiac end. After air injection there was no definite shadow of any neoplasm, and the condition appears to be one of hour-glass contraction."

Dr. Hertz kindly examined the patient in various ways and reported as follows:

"Stomach area, after inflation with $CO_2$ i.s., dilated and dropped, but shows no sign of being bilocular. (Fig. 5.) Possibly a second division might be at the fundus, but there was no delay in filling up the pyloric pouch. After a bismuth meal the food passed slowly through the narrow constriction into the pyloric pouch, which is dilated and low, as shown by the $CO_2$ inflation. (Fig. 6.) The examination was in the vertical position, when the cardiac pouch extended below the neck leading to the pyloric pouch. On washing the stomach out three and a half hours after the test meal, there was no food residue. A fair amount was found on a second occasion after one hour and twenty minutes. Hence there is no constriction sufficient to produce stasis of food. Of 5½ pints run in, 4 pints could be withdrawn. On the second occasion it appeared as if most food was in the lower division, as the water returned almost clean when the tube was introduced a short distance, but turbid and blood-stained when introduced any further.

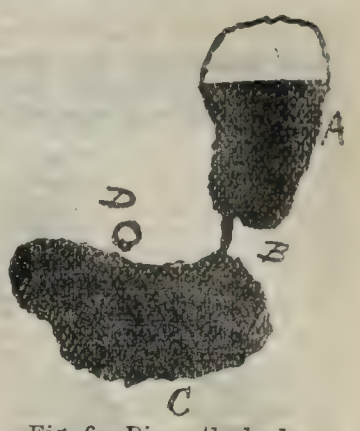


Fig. 6.—Bismuth shadows. A, Cardiac pouch. B, Constriction. C, Pyloric pouch. D, Umbilicus.

*Operation.*

On April 1st, 1909, the patient was anaesthetized, and the abdomen was opened through the upper part of the left rectus muscle. The left costal margin was retracted. The stomach was examined and found to be hour-glass in shape, due to a very large saddle-shaped ulcer on the lesser curvature near the oesophageal orifice, and extending on to the anterior and posterior walls. Contraction of this ulcer had greatly narrowed the stomach at this point, the lower border being drawn up in a striking manner. The pyloric pouch was the larger, and was joined to a smaller cardiac pouch by a narrow constriction. The ulcer was extensively adherent to the under surface of the liver, which it had deeply eroded. The pylorus and duodenum were healthy. Gastro-gastrostomy was decided upon because the cardiac pouch was so fixed high up under the ribs as to make posterior gastro-jejunostomy very difficult. Gastroplasty was not chosen owing to the depth at which the sewing would have to be done. Moreover the incision would extend into the thick-walled ulcer, making the suturing difficult and risky. About 4 in. of the anterior wall of each gastric pouch near the greater curvature was clamped obliquely on each side of the constriction. The points of the strong clamps were directed upwards and to the left. After carefully packing with moist gauze, the clamped portions of stomach were joined together by means of two continuous silk sutures, one piercing all the walls and the other only the serous and muscular coats. Elliptical pieces of mucous membrane were removed. The opening was 3½ in. long. A few more sero-muscular sutures were used at intervals round the anastomosis for greater security. After mopping with moist gauze, the packs were removed, and the abdomen was closed in layers, catgut being used for the peritoneum and the rectus sheath, and salmon-gut for the skin, superficial and deep fascia. The wound was then dressed aseptically. The operation lasted thirty-five minutes. Soon after the operation the patient was given water to drink, and a rectal saline was also administered. She vomited three times after the operation, bringing up a little brown fluid which contained blood. Otherwise her recovery was uninterrupted. The wound healed perfectly. The temperature was normal throughout. The diet was gradually increased. She rapidly put on weight, and left the hospital on April 20th, just three weeks after the operation. The food was minced, because the patient had no teeth. When she went home her food was also minced, and as far as possible the diet was restricted for the same reason. In spite of this she put on weight, and rapidly improved in general health. About six months later she was able to buy a set of artificial teeth, since when she has got on even more rapidly. She suffers no pain, and has not vomited. The bowels act regularly. About fifteen months after the operation there was some recurrence of indigestion. The patient was working very hard at the time. The symptoms abated under treatment, with avoidance of overwork. At Christmas, 1910, the patient was very well, and expecting a baby.

### CASE III.

Mrs. A., aged 60, a patient of Dr. Colin King, Dr. Owen Lankester, and Dr. Hertz; a housekeeper. The patient had suffered from indigestion for many years, and had vomited about once every twenty-four hours for the last fifteen years. She had had a great deal of abdominal pain, especially in the epigastrium. This was considerably relieved by vomiting. The bowels had been constipated for years, and she had been in the habit of taking tabloids of cascara sagrada every other night. She never saw any blood in the vomit until about Christmas, 1909. There was no history of melaena. Gradually the attacks of sickness have become much worse and more frequent, and the patient has been unable to do her work since Christmas, 1910. At that time she brought up a large quantity

of black vomit which was proved to be blood by Dr. Colin King. She has not seen any blood since. She has had to limit her diet more and more, and to mince her food. She was able to take chicken finely minced a fortnight ago. The patient has lost all her teeth except two for many years, but she uses artificial ones. For about two months she has been in the habit of having the stomach washed out about once every third day without getting much relief. She has been sleeping badly and has wasted a great deal, but she has not weighed herself.

*Examination.*

On examining the stomach with the *x* rays an hour after bismuth oxychloride had been taken with bread and milk, a dark shadow was seen above the costal margin and about 3 in. to the left of the navel. After about six hours a second pouch was seen towards the right iliac fossa, and a very narrow black streak connecting the two pouches, the upper of which had emptied somewhat. A diagnosis of hour-glass stomach was thus established. On a second examination on June 28th, after a tumblerful of milk containing bismuth oxychloride had been taken, the upper pouch was well seen, but not the lower one. After about half an hour, a nipple-like process appeared on the right border of the cardiac pouch, and this was thought to be the commencement of the narrow track leading to the second pouch. On further examination, no evidence of dilatation or hypertrophy of the pyloric pouch could be made out. An operation was advised, and the patient was taken into Dorset House for this to be performed on Saturday, July 2nd, 1910.

Fig. 7. — A Shows the shadow seen by Dr. Hertz one hour after taking bismuth oxychloride. B Indicates the appearances six hours later. Without the second examination after some hours a mistake in diagnosis would have been made. o Indicates the umbilicus.

During the four days that the patient was in the nursing home she was sick once or twice every night, bringing up a large quantity of sour fermented material. She could not sleep until vomiting had occurred in the early hours of the morning. She was able to take milk, fish, jelly, and beef-tea. The bowels were only opened once, in spite of several large doses of cascara sagrada and some white mixture. Saline enemata were given three times in twenty-four hours, and these were well retained. The stomach was washed out on the night of July 1st, and again before the operation on the morning of July 2nd, half a pint of water being left in. The patient was sick in the night, in spite of the washing out. Her general appearance improved a good deal; she became less shrivelled, and had less pain.

*Operation.*

At 9 a.m. on July 2nd, Dr. Shipway giving the anaesthetic, the abdomen was opened through the upper part of the left rectus. The constriction was at once seen, and it was found to be adherent to a band stretching from it to the round ligament. The upper pouch was of a large size, the lower one being about a third the size of the upper. The upper pouch was very thick-walled and white, and showed prominent muscular bands. The lower pouch was thin and natural. There was no contraction or ulceration of the pylorus or duodenum, and the gall bladder was also healthy. Above the constriction a funnel-shaped ulcer could be felt. It was thick-walled, and was hard. No enlarged glands could be felt in the lesser omentum, the gastro-colic ligament, or about the head of the pancreas. The ulcer was fairly movable posteriorly. The band already mentioned was ligatured and divided, and very large pouches of the cardiac and pyloric parts of the stomach were emptied and clamped. The points of the clamps were 1 in. below the constriction and their bases on the greater curvature, 5 in. on either side of the constriction. A gastro-gastrostomy was performed in the usual way, except that two layers of perforating sutures were used posteriorly instead of one. The opening was 3½ in. long. The stricture was extremely tight, the external circumference just beyond the ulcer being no thicker than an ordinary lead pencil, so that it was difficult to imagine anything getting through. Pagenstecher's thread was the suture material used. The abdomen was closed in layers in the usual way. The operation lasted three-quarters of an hour. The patient was not shocked when she was put back to bed. She was given ¼ grain of morphine and 1 pint saline enema. During the next twenty-four hours the patient vomited several times, bringing up small quantities of brown material. The stomach was therefore washed out, and this immediately relieved the vomiting. Afterwards the patient made an uninterrupted recovery, and was last heard of in November, 1910, when she was quite well—in fact, better than she had been for over twenty years.

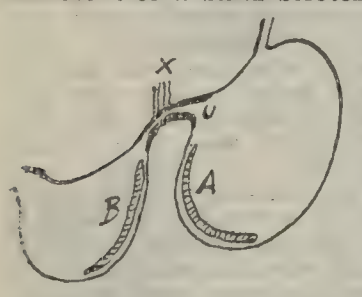


Fig. 8.—Case III: Hour-glass contraction. U, Circular ulcer and stricture with suspensory adhesion *x* extending to the abdominal wall. The A and B incisions into the cardiac and pyloric pouches start an inch below the stricture and run an inch in front of the curved lower and inner border of each pouch. This method allows very large openings to be made without either invading the ulcer above or trespassing on the gastro-colic omentum and its large vessels below. The ordinary short vertical incisions are less radical.

CASE IV.

E.B., aged 47, a married woman, having had eighteen children, thirteen of them dying before they were 1 year old. Five are now in excellent health. She has not yet reached the menopause. Apart from the present illness the patient has been remarkably healthy.

*History.*

The present illness started two years ago, a little before the birth of the last child. She then vomited frequently, and had severe abdominal pains. She had also been excessively constipated ever since, having to take large doses of castor oil at frequent intervals. These symptoms got gradually worse, and the patient states that at one time the bowels were not opened for six weeks and two days, and that she was only able to take slops during this period. She went to the Greenwich Hospital on February 19th, 1907, where she had her stomach washed out. She was referred to Guy's Hospital, but was too ill to come up until February 25th. The bowels were opened once during the interval. She states that she has lived mostly on milk and fish for the last two years, and that any attempt to take meat or other solid food made her vomit. For the last month she has vomited frequently every day after any kind of food. When she was admitted she was thin, sallow, and anaemic, and appeared to be in pain. Many of her teeth were missing and her breath was foul. On watching the patient the stomach became prominent above the umbilicus, and marked peristalsis could be seen. On February 27th the stomach was washed out, and a large amount of partly digested vegetable food came away. There were pieces of carrots, turnips, and cabbage, clearly proving that the patient's statement as to her diet was inaccurate. No meat was found. The food must have been taken before the patient's admission into hospital three days before. There was no free hydrochloric or lactic acid. The bowels opened several times after the washing out, but the vomiting continued to get gradually worse until March 7th, when she vomited frequently all night and during the following day. On March 8th, at 12 a.m., the patient complained of loss of power and stiffness in the legs and fingers. The fingers were fully extended and the patient was unable to flex them. Then suddenly, while the clinical clerk was watching her, the fingers became forcibly clenched, the elbows flexed, and all the muscles of the arm and forearm were firmly contracted and then slightly relaxed again to their fullest extent. Her legs also became suddenly extended to the full, being stretched out in bed with the balls of the big toes touching. The calf muscles were very hard and so were all the thigh muscles. The facial muscles contracted, distorting the face. The patient could not speak. After about half an hour the attack slowly passed off. Then the patient lay in bed quite exhausted. She said that the contractions had been very painful. She had similar attacks at 1 p.m., 5 p.m., and 8 p.m., the latter developing while the stomach was being washed out.

*Operation.*

An operation was decided upon and performed at 10 p.m. on March 8th. It was not thought wise to wait until the next day on account of the increasing severity of the tetanic attacks. When the abdomen was opened a large saddle-shaped ulcer was found 3 in. to the left of the pyloric ring. This was situated at the lesser curvature and extended to the anterior and posterior walls of the stomach, mostly the latter. The greater curvature had been drawn close up to the ulcer, thus making a very tight constriction and an hour-glass stomach, but there was no obstruction of the pylorus, so that the small pyloric pouch was not dilated. It was therefore decided to make an opening between the cardiac pouch and the jejunum. There was clearly no indication either for a plastic operation upon the stomach or for a double gastro-jejunostomy. A posterior gastro-jejunostomy without a loop and without inversion was made, the opening being at least 3 in. in length (Fig. 9). The patient was very bad under the anaesthetic and the operation had to be performed as rapidly as possible. The patient was back in bed within twenty-five minutes of leaving it. A saline rectal infusion was given shortly after the operation and the patient then developed her most severe attack of tetany, and it was feared that she was dying in it, but fortunately it passed away. She had one other slight attack at 6 p.m. the following day, twenty hours after the operation. From this time she made an uninterrupted recovery, gaining flesh rapidly. She left the hospital quite well about three weeks after the operation. An attempt to trace her in September, 1910, failed. She had left her former address, but when she was last heard of, about a year after the operation, she was quite well.

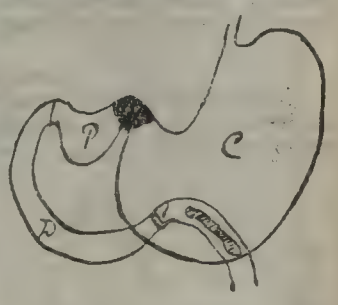


Fig. 9.—Case IV: Hour-glass contraction in the prepyloric region without pyloric stenosis. A single posterior gastro-jejunostomy proved entirely satisfactory. The patient was suffering from severe tetany.

CASE V.—*Hour-glass Contraction and Pyloric Stenosis.*

Miss N., aged 40, sent by Dr. Wynne of Northiam, was admitted into Guy's Hospital on June 9th, 1910, for gastric symptoms which were very suspicious of hour-glass contraction of the stomach. The following is the report of the ward clerk, Mr. Price Harris

*History.*

The patient first noticed symptoms fifteen years ago. These were acute attacks of indigestion followed by vomiting. These attacks lasted from a week to a month, there being some very acute stages when the patient had to lie down for some hours to get relief. On careful dieting with milk the patient was then able to keep off another attack for two or three months. During the attacks she often had a burning sensation which she referred to her throat, and after taking food it would generally be vomited up about an hour and a half later. In the vomit slight streaks of blood were noticed in the early attacks. During later years the attacks have not been so frequent, but they have been more severe. Four months ago the patient had her worst attack. This was accompanied by a great deal of bleeding, the patient being unconscious for twenty-four hours. In the interval between the early attacks and the last one, no blood had been noticed in the vomit. The patient has always been very constipated. For months she has not been able to take any solid food without vomiting. The pain comes on soon after eating.

*Examination.*

The patient is rather thin. No enlargement of the stomach could be made out on palpation. No splash could be discovered and no peristalsis could be seen.

*X-Ray Report.*

*X*-ray examination shows an irregularly shaped stomach, especially at the lower end of the cardiac and pyloric portions. The bismuth was retained at the cardiac end, and passed with difficulty to the pyloric end. Once there it passed freely through the pylorus. From appearance this may be due to adhesions or to a neoplasm.

*Operation.*

An operation was performed on June 10th. The abdomen was opened through the upper part of the left rectus and the stomach was examined. The pylorus, which showed two scars anteriorly, was constricted, but not very tightly, and it was adherent to the neck of the gall bladder. The pyloric pouch was dilated, and there was a tight constriction of about 1 in. long a little above the middle of the stomach, due to the healing of a saddle-shaped ulcer above the lesser curvature. No open ulcer could be discovered. With the aid of clamps gastroplasty was performed, and pyloroplasty after Finney's method was performed for the relief of the pyloric constriction. (Fig. 10.) This was not quite so satisfactory as usual, because the pylorus was not freely movable. The patient made a rapid and good recovery. She was last heard of early in December, 1910, when she was in excellent health and able to eat full diet.

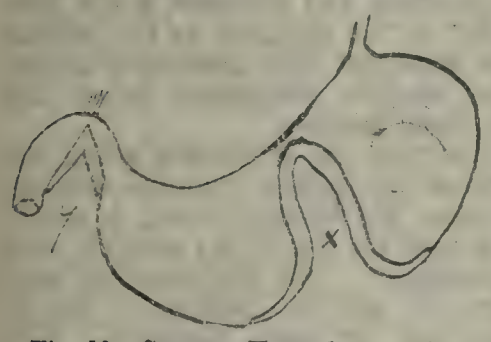


Fig. 10.—Case v: Hour-glass contraction and pyloric stenosis. Gastroplasty and pyloroplasty openings are shown at *x* and *y* respectively. The incision at *x* is a little anterior to the border of the stomach, which is occupied by the drawn-up gastro-colic ligament and its large blood vessels. In this case the cardiac pouch was the smaller.

CASE VI.

*Previous History.*

Mrs. W., aged 39. The patient (sent by Dr. A. J. Russell and by Dr. John Robertson) has never been very robust, although she never suffered from any illness until she was 17 years of age, when she had attacks of sickness. A gastric ulcer was diagnosed and treated. The attacks passed off and the patient remained fairly well, except for indigestion, of which she had a very severe attack about nine years ago. Two years before admission she began to suffer from attacks of sickness after meals. The sickness occurred sometimes directly after a meal and sometimes after two or three hours. The vomiting was sometimes unaccompanied by nausea and almost effortless. A clear, colourless fluid was first brought up, followed by food. The sickness was unaccompanied by any other symptoms, except that the constipation, from which the patient had always suffered, became more severe. The attacks of sickness lasted usually for two or three days, and have persisted, with intervals of not more than a month, till admission. The patient began to waste. Nine months before admission the patient began to suffer from severe pain after meals. This was situated a little below the left costal margin close to the middle line. It was relieved by vomiting and tended to spread downwards to the hips. It was frequently referred to the right and left lumbar regions and to the left shoulder. With the pain a number of other symptoms appeared. Bright blood was passed in the motions, which gave place later to tarry motions during the attacks. The patient had difficulty in swallowing solid and semisolid foods, but not liquids. A feeling of obstruction was referred to the episternal notch. The patient was unable, both during and between the attacks, to take more than a cupful of food at a time. A lump appeared under the left costal margin. It was especially marked after taking food, but never quite disappeared. The attacks, which now became more frequent, were accompanied by severe headaches and shivering. The patient began to lose weight more rapidly. Between the attacks she feels fairly well and is able to take a light diet of fish, etc. She has been feeling better during the last few weeks.

*Examination.*

The patient, when examined on November 3rd, 1910, was very thin, with a carinated abdomen and no subcutaneous fat. No tumour could be felt and no signs of dilatation of the stomach could be made out. The diagnosis of hour-glass contraction was suggested chiefly because of the patient's history, and the absence of signs of dilatation of the stomach, the recent rapid wasting, and the fact that she could not take more than half a tumblerful of liquid at a time, and even that gave her great discomfort. She was admitted into Guy's Hospital on November 9th. A test meal was given and the contents of the stomach removed some hours later and sent for chemical examination. There was no free hydrochloric acid. On the morning of the 10th the patient was given a bismuth meal and examined with the *x* rays. This immediately showed the cardiac pouch, and soon afterwards a narrow streak of bismuth passing downwards to the right from the right border of the cardiac pouch. No second examination was possible some hours later, because the apparatus had gone wrong, but hour-glass contraction was strongly suspected from the *x*-ray appearances.

*Operation.*

On November 11th, 1910, the abdomen was opened through the epigastric angle a little to the right of the middle line. There was some free fluid in the abdomen and a large hard mass was found under cover of the liver to which it was adherent. This mass was a little to the right of the middle of the stomach, the lower border of which had been drawn up towards the upper, which was firmly adherent to the liver. It was 3 in. long, and the constriction was tubular and very tight. The mass was also adherent posteriorly and to the mesocolon. The pyloric pouch was small, and the pylorus was not constricted. The duodenum was dilated. It was impossible to bring the cardiac and the pyloric pouches together, because of the small size of the pyloric pouch, and especially the rigidity and extent of the growth. Moreover, it was clearly sufficient to drain the cardiac pouch into the intestine. The cardiac pouch was small, and so tightly distended that it could not be brought into the wound. A stomach tube was sent for, but meanwhile an attempt was made to empty the cardiac pouch through the constriction, and this succeeded sufficiently to allow a pouch of the stomach to be got into the clamps. A posterior gastro-jejunostomy was impossible, because the growth was adherent to the mesocolon. Therefore the jejunum, 8 in. from the duodenum, was joined to the front of the lower left anterior part of the cardiac pouch well away from the growth, the jejunum being turned to the right, so that the distal part of it could be attached to the lower end of the gastric wound for better drainage. The splenic flexure was so movable that it was easy to place the loop of the jejunum to the left of the transverse colon instead of in front of it and the lumbar spine. As it lay in the hollow of the left loin it seemed to be in a very satisfactory position for drainage. The abdomen was closed in layers, catgut being used for the peritoneum and rectus sheath, salmon-gut uninterrupted sutures for the skin and rectus sheath, and catgut for the skin.

PATHOLOGY.

For a long time hour-glass contraction was thought to be nearly always congenital in origin, but Moynihan has shown that it is almost invariably due to gastric ulcer. The ulcer, which is generally placed at the lesser curvature and extends on to the anterior and posterior surfaces of the stomach, gradually contracts and draws the greater curvature upwards. Adhesions also form to the under surface of the liver, to the anterior abdominal wall, or towards the spine. These may drag upon and narrow the stomach. In a few cases carcinoma may give rise to hour-glass contraction, but it is probable that even then a simple ulcer is the primary lesion. The history of my sixth case suggests this view. There is little doubt that spasm of muscle around an ulcer also plays an important part in narrowing the tubular orifice joining the two gastric pouches, and it must be remembered that hour-glass contraction frequently develops in the neighbourhood of the mid-gastric sphincter. There is a specimen in the museum at Guy's Hospital showing a moderate degree of hour-glass contraction due to gastrostomy. In 5 of my patients the contraction was undoubtedly due to gastric ulcer. In 4 of them there was active ulceration at the time of operation, and in one of these the left lobe of the liver was excavated by the ulcer. In the other 2 there was so much thickening and scarring as to leave no doubt as to the previous existence of ulceration. The situation of the constriction varied a good deal; thus the cardiac pouch was the larger in 3 and the pyloric in the other 3. In Case I the cardiac

pouch was extremely small, being only a little larger than an ordinary hen's egg. Usually, the cardiac pouch is the larger. In 2 of my 6 patients the pylorus was also contracted as the result of previous ulceration. In these 2 the pyloric pouch naturally was dilated, and was even larger than the cardiac.

### DIAGNOSIS.

It is a very striking fact that 5 of the 6 patients had suffered from severe gastric symptoms for many years—1 for 26 years, 1 for 22, 1 for 15, 1 for 9, and 1 for many years. The chronic course of the disease is dependent upon the position of the ulcer opposite a wide part of the stomach, where it takes a long time to cause obstruction. It is notable that in the only case in which the ulcer was in the pre-pyloric region the symptoms progressed far more rapidly and terminated in tetany within two years of the first symptom. It is noteworthy that melaena only occurred in one of the patients, and that haemorrhage is not recorded at all in 3 of them and only once in the others. All the patients had wasted a great deal, and 3 of them looked so ill as to suggest the existence of malignant disease. Various signs which are supposed to be of diagnostic value may now be mentioned. The following account is taken from Mr. Moynihan's[1] classical paper upon the subject:

1. If the stomach tube be passed and the stomach washed out with a known quantity of fluid, the loss of a certain quantity will be observed when the return fluid is measured. Thus, if 30 oz. be used, only 24 can be made to return. Wölfler, who called attention to this sign, said that some fluid seemed to disappear "as though it flowed through a large hole"—as, indeed, it has, in passing from the cardiac to the pyloric pouch. (Wölfler's "first sign.").

2. If the stomach be washed out until the fluid returns clear, a sudden rush of foul, evil-smelling fluid may occur; or if the stomach be washed clean, the tube withdrawn and passed again in a few minutes, several ounces of dirty offensive fluid may escape. The fluid has regurgitated through the connecting channel between the pyloric and cardiac pouches. (Wölfler's "second sign.")

3. *Paradoxical dilatation.* If the stomach be palpated and a succussion splash obtained, the stomach tube passed, and the stomach apparently emptied, palpation will still elicit a distinct splashing sound. This is due to the fact that only the cardiac pouch is drained; the contents of the pyloric remain undisturbed, and cause the splashing sound on palpation. For this phenomenon Jaworski has suggested the appropriate name of "paradoxical dilatation." Jaboulay has pointed out that if the cardiac loculus be filled with water, a splashing sound can still be obtained by palpation over the pyloric pouch. The sign of paradoxical dilatation is best elicited after washing out the stomach in the ordinary manner. When the abdomen is examined at the completion of the washing, and when the stomach has been apparently drained quite dry, a splashing sound is readily obtained, for some of the fluid used has escaped into the pyloric pouch through the connecting channel.

4. Von Eiselsberg observed in one of his cases that on distending the stomach a bulging of the left side of the epigastrium was produced; after a few moments this gradually subsided, and concomitantly there was a gradual filling up and bulging of the right side.

5. Von Eiselsberg also called attention to the bubbling, forcing, "sizzling" sound which can be heard when the stethoscope is applied over the stomach after distension with $CO_2$. If the two halves of a seidlitz powder are separately given, and the stomach be normal or dilated, no loud sound is heard anywhere except at the pylorus; if a constriction is present in the stomach a loud, forcible, gushing sound can be easily distinguished at a point 2 or 3 in. to the left of the middle line.

6. I first called attention two years ago to a sign which I have since found of great service in establishing a diagnosis of hour-glass stomach. The abdomen is carefully examined, and the stomach resonance is percussed. A seidlitz powder, in two halves, is then administered. On percussing, after about 20 or 30 seconds, an enormous increase in the resonance of the upper part of the stomach can be found, while the lower part remains unaltered. If the pyloric pouch can be felt or seen to be clearly demarcated the diagnosis is inevitable, for the increase in resonance must be in a distended cardiac segment. If the abdomen be watched for a few minutes the pyloric pouch may sometimes be seen gradually to fill and become prominent.

7. Schmidt-Monard and Eichhorst have both seen a distinct sulcus between the two pouches inflated with $CO_2$.

. . . The two aids to diagnosis of greatest value are, it will be seen, the washing out of the stomach and its inflation with gas by the administration of a seidlitz powder in two portions.

But most of these methods are only of historical interest, and although they are worthy of notice on this account, no reliance can be placed upon negative results obtained from their application. Positive results are certainly of value, especially the escape of turbid fluid through the tube after the stomach has been apparently washed clean. The result of inflation with gas may also be useful. It is obvious that positive results cannot be expected from these tests if the constriction is at all tight, and these are the very cases in which prompt diagnosis is most important.

The bismuth and *x*-ray test if carefully applied is reliable and is by far the best clinical method of finding out if there is or is not hour-glass contraction. It also serves to show if there is pyloric obstruction as well, for in the absence of this complication the bismuth passes from the pyloric pouch into the intestine in a natural way. To obtain accurate results from it, experience and careful interpretation are required, for a casual examination may lead to a wrong diagnosis. It is absolutely necessary to examine the patient both in the vertical and horizontal positions.

1. Hour-glass contraction has been diagnosed when a subsequent operation has shown that the condition does not exist. Dr. Hertz tells me that the mistake is due to the weight of the bismuth in the lower part of a *dilated* dropped stomach. This drags upon and narrows the middle part of the stomach, giving it an appearance somewhat resembling, but not identical with, that due to hour-glass contraction. If a patient with dilatation of the stomach and gastroptosis be examined upon the screen while taking the bismuth, the latter can be seen to pass *immediately* into the lower part of the stomach, whereas with hour-glass contraction the bismuth takes *a long time to reach* the pyloric pouch. Moreover, the dark line joining the two shadows passes from the *lowest point* of the upper one when the stomach is merely dilated, but from the *right border* when there is true hour-glass contraction. It is also probable that spasm of the mid gastric sphincter occasionally makes a narrowing somewhat resembling hour-glass contraction. The writer has seen this spasm during an operation for duodenal ulcer. An ulcer upon the lesser curvature and adherent to the liver may so limit the mobility of the stomach as the patient stands as to produce an apparent hour-glass contraction. The constriction of the shadow disappears when the patient assumes the horizontal position.

2. Hour-glass contraction may be overlooked when the stricture is very tight, unless the screen examinations are repeated several hours after the bismuth meal is taken. The bismuth method was used for five of my patients, and in all of them it was successful. The examinations were kindly made by Dr. Hertz (2), and Dr. Morton (3), one of the patients being examined by each observer. The writer examined Case I. Other methods of examination were used, but the results compared very unfavourably with those obtained by the bismuth method. In two cases the constriction was so tight as to make all other methods useless.

Case I presented unusual difficulties of diagnosis because the patient was unable to swallow more than a very little at a time, although there were evident signs of dilatation of the stomach. The first sign suggested oesophageal stricture and the latter pyloric obstruction; but hour-glass contraction with a small cardiac pouch seemed the most likely explanation in view of the history. Examination by the *x* ray and bismuth method settled the point in a few minutes in a most graphic and conclusive way. It is important to ascertain if there is any active ulceration as well as hour-glass contraction. If there is much pain and also localized tenderness in the epigastrium, the presence of ulceration may be suspected. This suspicion may be confirmed by the discovery of blood pigment in the vomit or faeces. Superadded malignant disease may be strongly suspected by the absence of free hydrochloric acid in the gastric contents or the presence of a hard swelling in the epigastrium, or of enlarged glands at the root of the neck.

### TREATMENT.

The experience of pyloric constriction and the past history of hour-glass contraction make it clear that medical treatment by dieting and lavage should not be continued if the patient is losing ground. The risk of operation is slight if undertaken before the obstruction is severe, and before the general condition of the patient has been allowed to get bad. It is particularly necessary to operate without delay when ulceration is present, for even if the ulcer does heal as a result of medical treatment, this must lead to an increase of the obstruction. The bismuth method gives a good indication of the tightness of the stricture. The first thing to do

after opening the abdomen is to examine the stomach, the pylorus, and the duodenum thoroughly. Without this precaution it would be easy to overlook either a cardiac pouch or pyloric obstruction. The exact nature of the operation to be performed must depend upon the conditions found upon exploration. The same operation is not suitable for all cases. A good deal depends upon the presence or absence of ulceration, of pyloric obstruction, and of adhesions. When there is no pyloric obstruction, and especially if the pyloric pouch be small, a single posterior gastro-enterostomy is all that is necessary, the cardiac pouch, which is generally large, being easily joined to the jejunum. With an open pylorus there is no fear of stasis in the pyloric pouch. The condition then differs very little from ordinary pyloric obstruction, for which posterior gastro-jejunostomy is satisfactory. When pyloric obstruction complicates hour-glass contraction there is more doubt as to the best treatment. A double posterior gastro-enterostomy is not satisfactory for various reasons. It is difficult to drain the two pouches thoroughly through the limited space available within the loop of blood vessels in the mesocolon. Moreover, there are usually a great many adhesions to the back wall of the lesser sac, and the transverse mesocolon may be considerably shortened; and in some instances, as in Case I, it is impossible to join the jejunum to the posterior surface of the very small cardiac pouch without risk of obstruction of the drawn-up jejunal loop by the contraction of the opening in the transverse mesocolon. Moreover, a double gastro-enterostomy through the small bloodless space available in the transverse mesocolon would be difficult and would probably lead to retraction or kinking of the jejunum with vicious vomiting. A double *anterior* gastro-enterostomy would be still more unsatisfactory, judging from the results of a single anterior gastro-enterostomy for pyloric obstruction. In some cases a single posterior gastro-enterostomy may be combined with gastroplasty or gastro-gastrostomy. The jejunum is then joined to the pyloric pouch, but I did not adopt this combination in either of my two cases, because in them the strictured pylorus was freely movable and clearly amenable to treatment by Finney's operation. This, to my mind, is more satisfactory in these cases, because it can be performed in far less time, and particularly because it carries no risk of vicious vomiting, which is still to be dreaded, especially in women exhausted by years of chronic gastric disease. It may be said that Finney's operation does not drain the stomach so well as gastro-enterostomy, but this depends a great deal upon the size of the opening, which can be made very large by Finney's method. Gastro-enterostomy is considerably better when there is active ulceration or extensive adhesion at the pylorus. As to the relative merits of gastroplasty (Kammerer) and gastro-gastrostomy, much depends upon the presence or absence of active ulceration, intractable adhesions, and upon the size and accessibility of the cardiac pouch. When there is active ulceration around the tubular stricture it is clearly better not to cut into the ulcerated area, but to adopt gastro-gastrostomy. Inseparable adhesions, especially with ulceration invading the liver (as in Case II), or a very small cardiac pouch (as in Case I), make gastroplasty very difficult and unsuitable, for some of the sewing would have to be done very deep in the epigastrium under cover of the left costal margin. For such cases, at least, gastro-gastrostomy is safer and preferable, although it may not appear to be so perfect in an anatomical sense. It must be remembered, however, that the pyloric is almost vertically below the cardiac pouch in these cases, as shown by the bismuth and *x*-ray method, and that a gastro-gastrostomy, with a very large opening therefore, provides satisfactory drainage. Usually a very large opening can be made in fairly healthy tissues. The aperture should be, whenever possible, at least 4 in. long. Unless the cardiac pouch is very small this can be provided if the aperture in the stomach be made curved, starting about 1 in. below the stricture and extending about 1 in. in front of the greater curvature as far as may be required. (Vide Fig. 8.) A vertical incision, as figured in some of the books, cannot be made of sufficient length. There is very little tension upon the suture line when this method is adopted, for the pyloric is not folded in front of the cardiac pouch. The stricture, which is relatively fixed, is neither displaced nor folded. The very movable lower borders of the gastric pouches are simply approximated. As far as external appearances go the natural shape of the stomach is almost restored by the operation. In only one of my patients was Kammerer's operation feasible. (Vide Fig. 10.) Moynihan[2] records one remarkable case in which it was impossible to join the cardiac to the pyloric pouch owing to adhesions. In this case he opened the pyloric pouch, and dilated the stricture in a retrograde manner, and to his surprise the patient made a good recovery. In the absence of complicating pyloric obstruction it is not necessary to add gastro-enterostomy to gastro-gastrostomy or gastroplasty, although it would appear at first to be a precaution against recurrence of ulceration and stenosis. As already pointed out, the *x* rays have shown us that sufficient drainage of the cardiac pouch can be provided by joining it to the pyloric one, which is not nearly so far to the right as we used to think. Moreover, a superfluous gastro-enterostomy increases the immediate danger of the operation, and introduces the risk of vicious vomiting, which is still to be remembered, especially in women. When hour-glass contraction is due to growth, or there is a reasonable suspicion that the chronic ulcer is becoming carcinomatous, partial gastrectomy is the only radical treatment. The open end of the duodenum may then be closed, and the jejunum joined to the cardiac pouch. Occasionally it may be possible to perform a radical operation, and then to join together the remainder of the cardiac and pyloric pouches without tension. When the growth is irremovable, temporary relief may be obtained by joining the jejunum to the cardiac pouch as far away from the growth as possible. For my sixth patient anterior gastro-enterostomy was the only possible operation, for the carcinoma had invaded the transverse mesocolon. The opening into the stomach was made as far as possible to the left, and well away from the growth, and the jejunal loop was then placed in the left loin to the left of the splenic flexure of the colon, with the object of lessening the risk of vomiting.

REFERENCES.
[1] *Med.-Chir. Trans.*, 1904, lxxxvii, 143. [2] Loc. cit.

## ACUTE DILATATION OF THE STOMACH: GASTROTOMY: RECOVERY.

BY

GEORGE G. FARQUHAR, M.B., CH.B., F.R.C.S ENG.

**NEARLY all the recorded cases of acute dilatation are alike in obscurity of cause and fatality of termination. The following notes refer to a case in which *one* cause was not only clear but removable, and the result was uninterrupted recovery.**

A girl, aged 23, was advised by a wise woman to eat figs in order to burst a small abscess in the axilla. She ate nearly a pound of dried Turkey figs at 11 a.m., December 24th, 1910. Two hours later ineffectual retching set in with abdominal pain, which continued with increasing severity all day and the following night. The bowels moved slightly in the evening. The girl had several alarming attacks of breathlessness in the night.

I was summoned at 9 a.m. next day. The abdomen was not distended, and moved slightly with respiration. There was a general slight increase of resistance and a diffuse tenderness, most noticeable between the umbilicus and the *left* anterior superior spine. The pain had come on gradually and was now severe, especially in the epigastrium, but also in the left iliac region. The pulse was 84 and the temperature normal.

After examination she sat up with a sudden cry and gasped for breath; the pupils dilated fully, and showed momentarily a slight red reflex. For about ten seconds she looked as if she might fall back dead. When she regained her breath a little brandy and water was given and she began to retch, but only a little fig pulp came up. As this seemed too thick to flow through a stomach tube, none was passed lest it should provoke another attack of dyspnœa.

One hour later a slightly-distended dull area could be made out below and to the left of the umbilicus. An enema of soap and water was ordered and hot applications to relieve the pain, but no morphine was given at this stage.

At 3 p.m. (twenty-six hours after the onset of pain and vomiting) the patient felt no better, although the enema had acted well. The abdomen hardly moved on respiration and was distended, especially in the hypogastric and left iliac regions, which were dull. The left flank was also dull. A uniformly tympanitic note was elicited from the ensiform cartilage to a point well below the umbilicus. The stomach

resonance extended up to the nipple, and to the left as far as the posterior axillary line. There was no obliteration of liver dullness. The rectum was not ballooned. A catheter was passed, but only about 2 drachms of urine escaped. Very little urine had been passed since the onset of symptoms. The patient wished to be sick, and I gave her a teacupful of warm water with bicarbonate of soda. Although this was not vomited, the normal stomach area remained entirely tympanitic, but the dulliness in the left flank and left iliac region increased. Having given ¼ grain of morphine hypodermically, I had her removed to hospital for operation.

At 6 p.m. Mr. John Hartley opened the abdomen. A large swelling like an ovarian cyst presented in the wound. It was tympanitic above but dull below, and was found to fill the whole of the front of the abdomen. It was recognized as an enormously distended stomach, the greater curvature being hidden below the pubis, and the lesser curvature appearing like a vertical chink between the inflated halves of the organ. The dilatation seemed to extend to the second stage of the duodenum. An area of the stomach was drawn forward and packed off with gauze from the peritoneal cavity. A small incision was made to allow gas to escape. Then the patient was turned on her right side, the stomach kept drawn forward and the incision enlarged. Fluid containing fig juice and emitting a strong vinous odour, flowed freely for a time, and then masses of half-masticated figs were removed with a scoop. The pylorus and the first part of the duodenum were found to be dilated sufficiently to admit three fingers. When all the contents had been removed the stomach contracted gradually till the greater curvature was just below the umbilicus. The wound in the stomach was closed in three layers, and the abdominal wall brought together in the usual way without drainage.

The patient bore the operation well, had a fair night, and expressed herself as much more comfortable next morning. No sickness followed the anaesthetic nor was there any disturbance of digestion during convalescence. She was fed by nutrient enemata for two days and no solid food was given for a week. Recovery was uneventful and complete.

Looking back on this case, one wonders how the branches of the vagi in the stomach could recover. Some of them must have been stretched to three times their usual length. Is it not possible that this may account for the attacks of dyspnoea?

## THE TREATMENT OF APPENDICAL ABSCESS WITH PURE CARBOLIC ACID AND IODOFORM.

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The value of pure carbolic acid as a preventive of sepsis has been known since 1865, when Lister first employed it for that purpose in compound fractures. How powerful a deterring agent it is to the extension of septic processes is well known to all those who have employed it to check the advance of traumatic gangrene. By freely swabbing a putrid wound and soaking with the acid all necrosing tissue any further extension of the gangrenous process is prevented, and in a very short time pain and fever disappear and the wound takes on a healthy healing action.

The striking inhibitive effects of the drug when thus used for external conditions led me to venture upon its employment for cases of appendical abscess where the extreme offensiveness of the discharge and the necrotic processes in the appendix suggest conditions not altogether unlike those met with in traumatic gangrene.

### Operation.

Let me outline the method of procedure before making further comment:

1. The abdomen is opened in the right iliac region by the usual "gridiron" incision. Should more room be required the incision must be carried either upwards or downwards, dividing the fibres crossways of the internal oblique and transversalis muscles. This extension of the wound should always be avoided, if possible, as rendering the subsequent formation of a hernial protrusion much more likely.

2. If there are no adhesions encountered between the visceral and parietal peritoneum sufficient to effectually cut off the general peritoneal cavity, gauze plugs are inserted so as to afford complete protection of the cavity when the abscess is opened.

3. The abscess is now sought for by carefully breaking down the adhesions, and when once pus begins to well up it is rapidly swabbed away until the cavity has been freely exposed and practically dried.

4. The appendix is then sought for, and, if reasonably possible, removed; the caecal stump is touched with pure carbolic acid, and invaginated by a purse-string gut suture.

5. The abscess cavity is freely wiped with a small gauze swab soaked in pure carbolic acid. An effort is made to reach every part of the cavity. A dry swab is then introduced to soak up any of the remaining acid, and immediately thereafter any amount up to half a teaspoonful of iodoform is put into the cavity, and with a blunt instrument smeared over its walls.

6. A rubber drainage tube about a quarter of an inch in diameter is conducted to the lowest part of the cavity, and on one side of the tube a narrow strip of iodoform gauze is packed in zigzag fashion, just sufficient to fill the cavity; this, with the tube, is conducted out of the abdomen about the centre of the wound.

7. The protective gauze plugs encircling the involved area are withdrawn, the edges of the wound dusted with iodoform, and closed by through-and-through silkworm gut sutures.

### After-Treatment.

The after-treatment is as follows: On the second day after the operation the iodoform gauze packing is partially removed; on the third day it is completely removed; and, however fetid may have been the pus at the time of operating, the plug will be found to be perfectly "sweet." On the fifth or sixth day the drainage tube is taken away, and on the tenth day the stitches are removed. At the end of four weeks the patient is allowed up.

### Synopsis of Cases.

The accompanying table, which I have been enabled to draw up mainly through the kind help of my Resident Infirmary Assistant, Dr. John P. Kinloch, contains all the cases in the hospital in which I have used pure carbolic acid in the way just described.

It will be noticed, first, that in 16 out of the 27 cases the abscess was reached by the ordinary "gridiron" incision, neither muscle nor aponeurosis being divided across the direction of their fibres.

Secondly, in every instance the peritoneal cavity was opened—that is to say, the abscess had to be reached through the non-adherent walls of the visceral and parietal peritoneum.

Thirdly, in 25 cases out of the 27 the appendix was sought for and removed. In one of the remaining two it was only partially removed, as a portion had disappeared, while in the other it could not be found.

Fourthly, every case recovered, and in none were there any subsequent complications, such as subdiaphragmatic abscess, pylephlebitis, pneumonia, or other conditions suggestive of septic absorption or local accumulations. The pulse and temperature usually fell within twenty-four hours.

Fifthly, the subsequent results of operation were traced in 25 out of the 27 cases, and 19 of these 25 were seen and examined. With the exception of the twenty-seventh case, which had only been operated upon a month previously, the interval between operation and report ranged from three months to four and three-quarter years. An examination of these results shows: (1) That where the "gridiron" incision was employed in 10 out of 14 cases there was some bulging of the cicatrix, mostly slight and in almost every instance at the place where the drainage tube and gauze packing emerged. (2) That where the internal, oblique, and transversalis muscles were cut across by extending the incision upwards 3 out of 6 cases showed bulging, the protrusion being in one case at the seat of exit of the drainage tube, and in the other two at the lower part of the cicatrix. (3) That where the internal oblique and transversalis muscles were cut across by extending the incision downwards and inwards the three cases so treated showed bulging—in one "considerable bulging for about 5 in."; in a second "marked bulging at lower part"; and in a third "slight bulging at lower part." Thus, then, it is seen, in reviewing these results collectively, that out of 23 cases only 7 showed no signs of bulging, and lapse of time may even lessen still more the number of these latter. Further, the bulging was least in those cases in which a "gridiron"

incision was employed with no cross division of muscle or aponeurotic fibres. And, lastly, that while the number of cases is possibly too few to admit of a very positive statement—9 in all—where the incision had to be carried either upwards or downwards, it seems probable that downward extension is more likely to be followed by a bulging cicatrix than upward.

CONCLUSIONS.

1. That, where proper precautions are taken to protect the general peritoneal cavity, this method of operating admits of every abscess being opened and every appendix sought for and removed with perfect safety.

2. That this method prevents any subsequent septic complications, such as subdiaphragmatic abscess, pyelephlebitis, pneumonia, thrombosis, and other septic manifestations connected either with the wound locally or with deeper and more distant parts.

3. That, as drainage is considered advisable in every instance, the probabilities are in favour of a weakened cicatrix at the seat of exit of the tube and gauze, with, later, hernial protrusion; but, provided the incision is of the "gridiron" variety, with no cross division of muscle or aponeurotic fibres, and neither the tube too large nor the packing excessive, the bulging may be only slight.

4. That abscess formation in appendicitis must be considered a serious complication, whether regarded in its immediate or in its remote effects; and inasmuch as we can never forecast the possible formation of pus in any given acute attack of appendicitis, we should proceed to remove the appendix before such a complication could take place—that is to say, within, at the latest, forty-eight hours of the initial seizure.

*Cases of Uncomplicated Appendical Abscess Treated with Pure Carbolic Acid and Iodoform.*

| No. | Sex. | Age. | Nature of Abdominal Opening. | Date of Examination after Operation. | Condition of Cicatrix: *a*. Reply by Letter; *b*. Patient Seen and Examined. |
|---|---|---|---|---|---|
| | | | | Years. | |
| 1 | F. | 37 | Gridiron; no cross division of muscles | 4¾ | *a*. Bulging at site of drainage tube. |
| 2 | M. | 22 | Incision in median line over situation of abscess | 4½ | *b*. Ditto. |
| 3 | F. | 12 | Gridiron; no cross division of muscles | 4½ | *b*. Ditto. |
| 4 | F. | 34 | Internal oblique and transversalis muscles divided upwards | 4½ | *a*. No bulging. |
| 5 | M. | 53 | Gridiron; no cross division of muscles | 3⅝ | *b*. Ditto. |
| 6 | F. | 12 | Ditto | 3¾ | *a*. Ditto. |
| 7 | M. | 22 | Ditto | 3½ | Case not traced. |
| 8 | M. | 17 | Internal oblique and transversalis muscles divided downwards | 3¼ | Ditto. |
| 9 | F. | 10 | Gridiron; no cross division of muscles | 2 | *a*. No bulging. |
| 10 | M. | 51 | Internal oblique and transversalis muscles divided upwards | 2 | *b*. Ditto. |
| 11 | M. | 39 | Ditto | 2 | *b*. Bulging at lower part. |
| 12 | M. | 21 | Gridiron; no cross division of muscles | 2 | *b*. Marble-size bulging at site of drainage tube. |
| 13 | F. | 5 | Internal oblique and transversalis muscles divided upwards | 1½ | *b*. Bulging at lower part. |
| 14 | M. | 40 | Internal oblique and transversalis muscles divided downwards | 1½ | *b*. Considerable bulging for about 5 inches. |
| 15 | M. | 34 | Gridiron; no cross division of muscles | 1½ | *b*. Bulging at site of drainage tube. |
| 16 | M. | 13 | Ditto | 1¼ | *b*. Ditto. |
| 17 | M. | 11 | Ditto | 1⅛ | *b*. Ditto. |
| 18 | M. | 21 | Internal oblique and transversalis muscles divided downwards | 1⅛ | *b*. Slight bulging at lower part. |
| 19 | M. | 17 | Ditto | 1 | *b*. Bulging marked at lower part. |
| 20 | M. | 8 | Gridiron; no cross division of muscles | ½ | *a*. Slight bulging. |
| 21 | M. | 27 | Ditto | ½ | *b*. No bulging. |
| 22 | F. | 44 | Ditto | ½ | *b*. Bulging at site of drainage tube. |
| 23 | M. | 16 | Internal oblique and transversalis muscles divided upwards | ¼ | *b*. Ditto. |
| 24 | M. | 29 | Ditto | ¼ | *b*. No bulging. |
| 25 | M. | 22 | Gridiron; no cross division of muscles | ¼ | *b*. Slight bulging at lower part. |
| 26 | F. | 17 | Ditto | ¼ | *a*. Slight bulging. |
| 27 | M. | 56 | Ditto | ½ | *b*. No bulging as yet. |

NOTE.—The appendix was removed in all cases except No. 4, where removal was partial, and No. 24 where the appendix was not found. The peritoneal cavity was opened in all cases; there was no subsequent complication in any, and the result in all was recovery.

## A CASE OF IDIOPATHIC DILATATION OF THE COLON.

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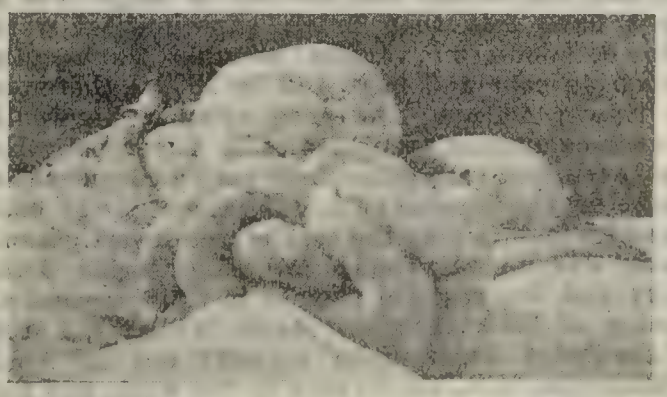
OWING to the comparative rarity of this condition, the following notes and accompanying photographs may be of interest. Unfortunately actual measurements of the patient were not taken in such a way as to be of practical value; but it is possible that the photographs will convey a clearer and more interesting impression of the appearance of the abdomen than a mere statement of measurements.

The patient—an imbecile of low type—a native of Shetland, aged 34 years, first came under notice in May, 1904. No family history was apparently available. He was then described as "suffering from marked distension of the abdomen, through whose wall the peristaltic movements of the intestines can be readily observed. Over the middle of the right tibia in front is a typical syphilitic ulcer, another is situated on the leg posteriorly, at the junction of the middle and lower thirds." Otherwise there appeared to be no marked pathological changes other than the physical defects frequently associated with imbeciles. An attempt was made to reduce the abdominal distension by giving purgatives and by the administration of enemata, but no appreciable change took place as regards dimensions, though a free action of the bowels resulted from a large dose of castor oil. In fact, the abdominal distension appeared to become gradually greater during the first eighteen months he was under observation; then for about two years practically no change took place.



At the end of this time—that is, about three and a half years after he was first seen—he developed, without any apparent cause, a severe attack of diarrhoea, with vomiting and complete disappearance of the distension. After a couple of days, when the diarrhoea had ceased, the abdominal distension returned to about its original size. During all this time the patient persistently refused every kind of medicine, including aperients. Enemata were tried without success. The result was that he sometimes went for ten days or even a fortnight without evacuating the contents of his bowels. These evacuations took place without the administration of any drugs, and the average time between successive motions was about seven or eight

days. He always took his food well, consequently his motions were very large. He constantly passed his urine in bed, and seemed to have very little control over the acts of micturition and defaecation.

Having recovered from his first attack of diarrhoea, and the abdominal distension having returned, the patient remained in the same condition for about eighteen months, when he developed a second attack of diarrhoea and vomiting, the distension again disappearing, only to return in a couple of days when the diarrhoea had ceased. It was noted that he did not feel so well until he regained his distended condition.

He now remained in his usual health for about nine months and then began to get gradually worse. His abdomen became enormously distended, absolutely tense and of highly glazed appearance. This stage lasted about three or four months. Finally breathing became so difficult and the heart's action so much impeded that he died. There was also severe vomiting before death. The condition was diagnosed independently by several of his medical attendants as idiopathic dilatation of the colon.

*Necropsy.*

A *post-mortem* examination was performed, when the following pathological conditions were noticed:

There was great oedema of the legs and scrotum, the abdomen being distended to an extreme degree. On opening the latter the small intestine immediately bulged out; and on extending the incision, a quantity of pale greenish fluid flowed out of the abdominal cavity.

The alimentary tract from rectum to stomach was greatly dilated and contained practically nothing but gas. Dilatation was greatest in the descending and transverse colon. Commencing at the sigmoid flexure, it rapidly increased so that the lumen of the descending colon measured about four times its normal diameter after being deflated. At the splenic flexure the bowel was constricted, and dilatation again occurred in the transverse colon, which was between three and four times its normal diameter. Another constriction was found at the hepatic flexure, and the bowel again became dilated. Dilatation, however, was not nearly so extreme in the ascending colon and caecum.

The appendix was normal. The small intestine and stomach were considerably distended and filled with gas. The diaphragm was abnormally high and arched, the liver small, nodular, and freely movable, and showed some fatty degeneration. The spleen was normal in appearance; the kidneys showed some congestion and interstitial changes.

The heart was markedly displaced upwards and very small; the valves appeared healthy, but the pericardium contained excess of fluid. The lungs were pushed upwards, but appeared healthy.

## SOME EXPERIMENTS ON COLD-CHAMBER TREATMENT.

BY

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*With Prefatory Note by*

PROFESSOR RONALD ROSS, C.B., F.R.S.

### Prefatory Note.

Some years ago Sir Edwin Durning-Lawrence, Bart., offered funds to the Liverpool School of Tropical Medicine for the purpose of experimenting on the effect of cold on yellow fever, a subject in which he had long been interested owing to various reports which had come to his knowledge. The school found it difficult to give effect to his wishes, and the matter was allowed to drop. For a long time I have felt that much experimental work remains to be done on various possible therapeutic agencies, such as cold and heat, and in 1909 I therefore asked Sir Edwin Durning-Lawrence whether he would not assist us to commence such studies in Liverpool. He assented at once, and very generously gave a considerable sum of money for the purpose of making the required cold chamber and for maintaining the cost of the investigation. The chamber was made by the Haslam Engineering Company, Derby, and the researches were in full progress at the beginning of 1910. At first Major Williams, I.M.S. (retired), conducted them under myself; but in April Mr. J. G. Thomson, M.B., Ch.B., took up the work, and has continued it to date. He reports the total results in the following paper. I may add that there are considerable difficulties in the way of such researches, many of the experiments being rendered invalid by the death of the animals owing to various causes. Experiments with many diseases is almost impossible owing to several small difficulties.

I think, however, that some evidence has been obtained the effect that a cold dry air may retard certain infections, and will therefore probably have some beneficial effect in disease. In such an important matter as treatment, this may be looked upon as of value, and also as an indication for work in the same line in connexion with human patients. We should therefore like to advocate the construction of cold chambers in connexion with hospitals—that is, chambers where human patients suffering from various disorders, such as phthisis, could be kept under observation; and I hope that efforts may be made to carry out this idea. We should like cases for trial.

R. R.

### Preliminary.

No noticeable change can be observed in a patient's body as a consequence of alteration of external temperature; but nevertheless changes may be produced in his blood and tissues which may be inimical to the parasites living in him.

It is common to send patients suffering from malaria to temperate climates, for example the hills of India, and it is easier to treat such patients in England than in the tropics. Again, from a careful study of the statistics in India it has been noted that a sudden rise in the malaria-rate occurs at the end of the cold season before any new brood of *Anophelines* has been hatched out. This may be due to relapses caused by the greater heat.

In discussing relapses in malaria, R. Ross (1910) puts forward as a hypothesis that external heat probably tends to encourage these. Although the temperature of the body remains much the same, the parasites may be stimulated by the heat in some way, owing to the fact that warm climates are specially suitable to them and to their dissemination by mosquitos. The same observer, while conducting experiments in India with birds, noted when he took these to a cold climate, such as the Himalayas, that the parasites in their blood greatly diminished in numbers. Many observers, especially in Italy, have noted that season affects the plasmodia, especially the sexual forms, quite apart from the proliferation of the carrying agents.

Not many years ago phthisical patients were shut up in hot rooms, and now such patients go to the hills of Switzerland, where they are subjected to a cold dry atmosphere. In fact, there is good reason to believe that the cold acts in these cases as a tonic to the whole animal organism, and without doubt acts almost as beneficially as the purity of the air inhaled.

It has been shown by Raubitschek (1910) that white rats fed on buckwheat and exposed to the sunlight develop a disease which has been called fagopyrismus, a condition which in many respects simulates pellagra, whereas those kept in the dark remain quite healthy. Before this experiment, a suggestion that sunlight was capable of aiding disease would have been regarded as most improbable, but here we have absolute and direct proof of the influence of such natural agencies.

It is usually admitted that people who live in cold climates have more vitality and energy than those who live in the tropics. More work is done and greater energy displayed in cold climates. Too much heat and too much cold will both lower vitality. In suggesting cold treatment, however, we do not mean exposure, and we did not in any way lower the vitality of the animals observed by us. It has been well proved, after about eighteen months' experimental work with rats and guinea-pigs, that the animals in the cold chamber are livelier and take their food better than those in the varying atmosphere of the animal house, the temperature of which in the summer months was often very high. A cold moist atmosphere or exposure to a sudden change of temperature may be exceedingly dangerous to the vitality of an organism, but this is quite a different thing to the cold dry bracing atmosphere of Switzerland and Canada during the winter. All visitors to the cold chamber here admitted the efficacy of a short sojourn in it, and this was most noticeable during the heat of summer. One feels more vigorous in this chamber, and this probably better than anything else may suggest the possible value of treatment in it.

Very little seems to be known of the physiological action of cold air on the living organism. It is known that cold causes constriction of the peripheral arterioles of the skin, and that a cold bath stimulates leucocytosis. We know that animals which are homoithermal, if anaesthetized with ether, become poikilothermal, but have

little precise knowledge what exactly are the changes produced by heat and cold in the blood and tissues.

### HISTORICAL.

In 1906 Dr. W. W. Crane suggested the value of cold air in the treatment of tetanus and yellow fever, and pointed out that the onset of tetanus was commoner during hot weather than during cold. Vincent of France noted (as Crane reports) that a case of idiopathic tetanus in a young man occurred several days after a "heat stroke." Experimenting with guinea-pigs inoculated with tetanus culture, he discovered that those kept in an incubator and subjected to a high temperature all developed the disease and died, while none of the controls were affected. As Crane points out, this shows that heat is an important factor in the development of tetanus. Dr. Charles C. Allison, of Omaha, has reported (Crane) on a desperate case of tetanus in a boy placed at the suggestion of Dr. W. J. McCrann, of South Omaha, in a cold storage room; he was much relieved immediately and finally recovered. Crane also points out that each temperature, high, medium, and low, has an influence of its own; that the summer incidence of such diseases as dysentery, enterocolitis, cholera morbus, etc., are well known; and that the winter incidence of bronchitis and pneumonia is also well known. He points out also that measles and typhoid are more severe and scarlet fever is less severe in warm climates.

Dr. Louis Perna, in 1909, severely criticized treatment of yellow fever by cold. Its advocate, Dr. Garcia, had said that the cold "increases the resistance of the organism" or favours the means of defence. Dr. Louis Perna says, however, that if the cold only "favours the means of defence," the statement should be accompanied by facts which sustain it. As a matter of fact, the figures of experiments given in this paper by Perna show that cold gave results which would condemn the use of the "polar chamber," or at least show that the treatment is futile. The experiments (in Havana) are reported as being made under the most favourable circumstances; but this seems almost to be incorrect when we learn that some of the patients suffered from chilblains, some from rheumatic pains, and some even had gangrene. It may be assumed that, if such complications as these did take place, the patients were not treated under favourable circumstances, but were exposed to too much cold. The first essential in cold-air treatment is proper comfort and protection for the patient. It is not suggested that patients should be scantily clothed, and that the vitality of any part of the body should be lowered. It must again be pointed out that cold air may either lower or raise the vitality of an animal; under favourable circumstances it unquestionably raises the vitality, but under unfavourable circumstances lowers it.

Raphaël Blanchard and Marc Blatin (1907) discussed the immunity of the marmot in hibernation to certain trypanosome infections. The marmot awake is fatally affected by inoculation with *T. brucei*, *T. gambiense*, *T. evansi*, and the trypanosome of El Debab; but, on the other hand, the marmot in hibernation, that is, asleep, is immune to the four species of trypanosome enumerated above. This, he says, is not due to the action of antibodies, but to the fact that the animal during hibernation is subjected to a low temperature. C. C. Bass (1910) draws attention to the fact that pellagra is greatly benefited by the onset of cold weather, and that patients sent to Colorado were greatly relieved, and in fact became quite well, when subjected to the cold bracing climate. One patient was bedridden when she left, but was up in ten days and without recognizable symptoms of disease in two weeks. In view of this fact experimental cooling of wards was attempted, but was a mechanical failure, as expense evidently prevented proper experiments being carried out.

### OBSERVATIONS.

I will now give as concisely as possible the results obtained in our experimental work here at the Liverpool School of Tropical Medicine.

A chamber was constructed 12 ft. long by 7 ft. wide by $6\frac{3}{4}$ ft. high. It can be kept at any temperature between about 15° F. (= 9.4° C.) and 150° F. (65.5° C.). The temperature is reduced by an ammonia compressor worked by a 6-h.p. motor and a fan which drives in air through a chamber in which a saturated solution of calcium chloride is kept constantly trickling over corrugated iron plates. The chamber receives light through a window, and is also fitted with an electric lamp. The motor is stopped during the night, and the temperature usually rises during that time to 36° or 38° F., or thereabouts, but this of course varies with the external temperature.

The animals treated were subjected to a temperature of 20° F. during the day, and in no way suffered discomfort. They were well fed and allowed plenty of straw. It is of great importance also to note that the atmosphere of this chamber was of low humidity (40 per cent. to 60 per cent.).

### MAJOR WILLIAMS'S EXPERIMENTS.

Major C. L. Williams, I.M.S. (ret.) was in charge of the experimental work with this chamber from September, 1909, until April 13th, 1910, and I will first give a short account of the results of his experiments.

So far only one human case has been treated here by the cold. The patient, W. A., suffering from sleeping sickness contracted in North-Eastern Rhodesia, spent several days in the chamber and seemed to be greatly benefited by it. The patient himself said he felt much better after treatment, and several times he walked back to the hospital, a distance of fully $1\frac{1}{2}$ miles, after his cold-chamber rest.

*Table by Major Williams.*

| Animal Infected. | Number of Animals. | | Average Incubation in Days. |
|---|---|---|---|
| *T. lewisi* (rat)... ... ... | 13 | Cold chamber—6<br>Controls—7 | 14 |
| *T. brucei* (rat) ... ... | 15 | Cold chamber—8<br>Controls—7 | 18<br>17.7 |

It will be noted that the incubation period was delayed in the cold in animals inoculated with *T. lewisi*, and slightly in those inoculated with *T. brucei*. The only animal which failed to show trypanosomes was one inoculated with *T. brucei* and placed in the cold chamber. Further, it was observed that the life of rats infected with *T. brucei* was prolonged in the cold; those of animals infected with *T. lewisi*, on the other hand, were shorter in the cold. It is difficult, however, to draw definite conclusions in this case, as animals tend to recover spontaneously from this infection. Major Williams also noted a slight prolongation in the life of animals infected with Caderas. Five guinea-pigs with tetanus were placed under observation; 1 died in nine days and a half when in the cold chamber, but it is doubtful whether this animal ever developed the disease. Two injected with $\frac{1}{500}$ c.cm. of culture, and placed one in the cold chamber and one as control, died with similar symptoms in a similar time—fifty hours. As regards increase of or loss of weight in the animals, Major Williams says that in those animals on which accurate data can be founded, the results are as follows:

*Table by Major Williams.*

| Animal. | Cold Chamber. | | Controls. | | Total. |
|---|---|---|---|---|---|
| | Gained Weight. | Lost Weight. | Gained Weight. | Lost Weight. | |
| *T. lewisi* (rats) ... ... | 3 | 1 | 1 | 1 | 6 |
| *T. equiperdum* (rats) ... | 6 | 1 | 4 | 2 | 13 |
| *T. brucei* (guinea-pig)... | 3 | — | 2 | — | 5 |
| Tubercle ... ... ... | — | 1 | 1 | — | 2 |
| *T. evansi* ... ... ... | — | — | — | 1 | 1 |
| | 12 | 3 | 8 | 4 | 27 |

It will be noted that all animals in the cold gained weight (with the exception of three, of which one was a case of tubercle), and this shows, on the whole, a favourable influence of the general nutrition. Major Williams also

inoculated 7 rats with pneumococcus culture, but these experiments were unsatisfactory as these animals evidently never developed the disease. Of 6 guinea-pigs inoculated with bovine tubercle, it was noted that the swelling at the site of inoculation burst a month later in 2 animals in the cold chamber.

Put shortly, the results brought out by experiments made by Major Williams in about 100 animals show:

1. The animals were comfortable in the cold chamber and their nutrition seemed to be favourably influenced.
2. The incubation period of *T. brucei* was delayed in the cold chamber and one after inoculation did not develop the disease.
3. The incubation period of *T. lewisi* was delayed in the cold.
4. Negative results were obtained in pneumonia, tetanus and cancer in mice.
5. The lives of Nagana and Caderas cases were prolonged slightly.
6. After inoculation of tubercle bacilli the abscess at the site of inoculation developed more slowly—that is, a month later in guinea-pigs treated in cold.

### Author's Experiments.

In April, 1910, at the suggestion of Major R. Ross, a more accurate method for investigation of the number of parasites in the peripheral blood was begun. This was the thick film method elaborated by him and Mr. David Thomson in their study of a case of sleeping sickness (1910). By this means it is possible to detect parasites quickly when there are few in the blood, and it is possible also to count the parasites per cubic centimetre of peripheral blood.

Counts were made of the parasites at regular intervals of twenty-four hours; and as this was a laborious process and other parallel experiments were being carried out at the same time with drugs, etc., the number of animals was necessarily few. Hence the conclusions are drawn from few animals; but when we add these observations to those conducted by Major Williams we find that the results obtained by him are confirmed. I give as shortly as possible the results obtained since April 13th, 1910. In all these experiments regular counts were made every twenty-four hours.

*Table of Guinea-pigs Inoculated with Trypanosomes.*

| Infection. | Number of Animals. | Treated in Animal House. | Treated in Cold Chamber. |
|---|---|---|---|
| *T. gambiense* ... ... | 7 | 4 | 3 |
| *T. rhodesiense*... .. | 2 | 1 | 1 |

| | |
|---|---|
| Average incubation in animal house ... ... | 4 days. |
| ,, ,, in cold chamber ... ... | 13.5 ,, |
| Duration of life in animal house ... ... | 64.2 ,, |
| ,, ,, in cold chamber ... ... | 97.25 ,, |

*Table of Rats Inoculated with Trypanosomes.*

| Infection. | Number of Animals. | Animal House. | Cold Chamber. |
|---|---|---|---|
| *T. gambiense* ... ... | 5 | 3 | 2 |
| *T. rhodesiense*... ... | 3 | 2 | 1 |

| | |
|---|---|
| Average incubation in animal house ... ... | 4.8 days. |
| ,, ,, in cold chamber ... ... | 6.3 ,, |
| ,, life in animal house ... ... ... | 14.2 ,, |
| ,, ,, in cold chamber ... ... ... | 16.3 ,, |

The results obtained with *T. rhodesiense* and *T. gambiense* are, therefore, in favour of treatment in a cold dry atmosphere. The animals did not develop the disease so quickly and they lived longer. There is another point of interest brought out, and that is the influence of cold upon the numbers of parasites actually circulating in the peripheral blood. Here the general rule is that the parasites are fewer at the beginning of infection when an animal is treated in the cold—that is, if we examine the graphs of the numbers of parasites in blood of two guinea-pigs of practically the same weight inoculated with *T. rhodesiense*, and in both of which the numbers of trypanosomes injected were the same, we find the following (see charts):

Guinea-pig 1 (animal house), 364 grams in weight, had an average number of 7,976 trypanosomes per c.mm. of blood per day during the first four weeks of infection.

Guinea-pig 2 (cold chamber), 350 grams in weight, had an average number of 4,272 trypanosomes per c.mm. of blood per day during the first four weeks of infection.

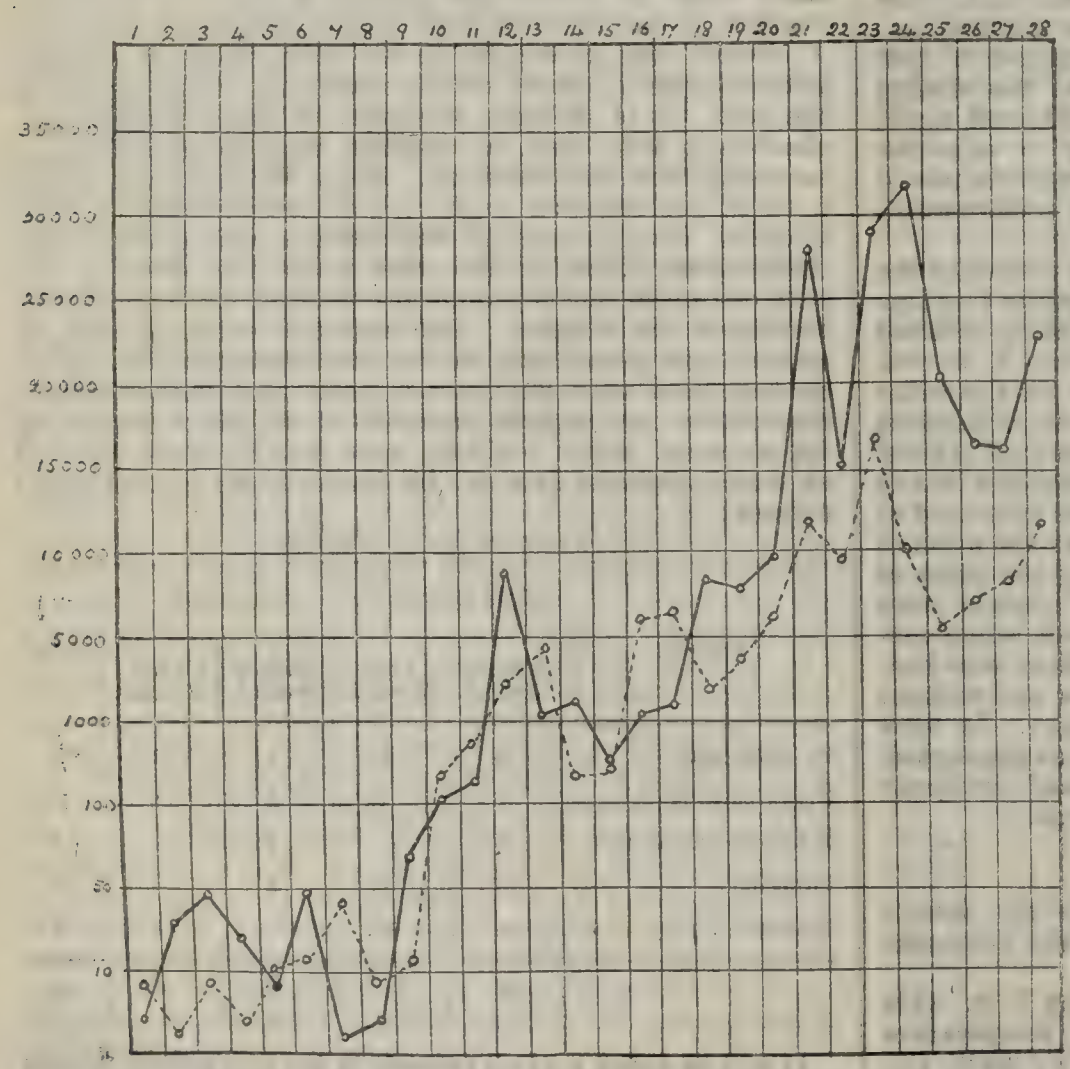


Chart 1.—Graphs of the number of parasites per c.mm. of peripheral blood of guinea-pigs 1 and 2. Continuous line=guinea pig 1 (animal house). Dotted line=guinea-pig 2 (cold chamber).

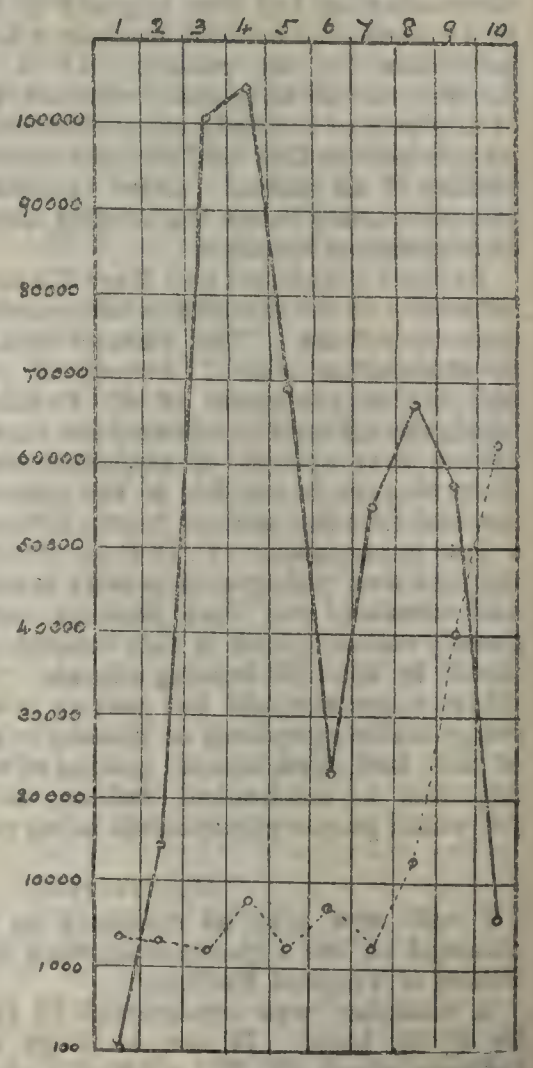


Chart 2.—Graphs of numbers of parasites per c.mm. of peripheral blood of rats 1 and 2. Continuous line=rat 1 (animal house). Dotted line=rat 2 (cold chamber).

Again, the same point is illustrated by the graphs of two rats of the same weight—namely, 113 grams—both inoculated with *T. gambiense*.

Rat 1 (animal house), had an average number of 54,171 trypanosomes per c.mm. of blood per day during the first ten days of infection.

Rat 2 (cold chamber), had an average number of 14,728 trypanosomes per c.mm. per day during the first ten days of infection.

We must admit, however, the existence of cases which did not seem to react to the cold, and in which the parasites quickly developed, in spite of treatment; but the conclusion to be drawn from all our animals is that the parasites tend to be fewer in the cold if the animal is not subjected to exposure. This we would explain by the fact that the body resistance of the animal is raised.

I would also point out that the charts refer to two selected cases, chosen because the animals were much the same in weight. We must be guarded in drawing hasty conclusions till further work has been done and until the question of individual resistance of the animal hosts (apart from treatment) has been further considered. These charts show distinctly lower numbers of parasites in those treated in the cold chamber.

We found that in rats the incubation period of *T. brucei* was delayed in the cold, but the parasites develop very rapidly afterwards, and the animals are quickly killed (in about six days). In guinea-pigs we found that the incubation period was three days in both the cold and the animal house, but the animal kept in the cold developed the trypanosomes much more slowly. In four rats inoculated with *Sp. duttoni* we found that the parasites were less numerous in the peripheral blood of those in the cold chamber.

SUMMARY.

1. We must distinguish carefully between cold and exposure, only the former being likely to be beneficial.

2. Animals in the cold chamber were livelier than those in the animal house, and the fact that the majority of these gained weight shows a favourable influence on nutrition.

3. Experiments in rats and guinea-pigs inoculated with *T. gambiense* and *T. rhodesiense* show:

(*a*) Delayed incubation in the cold.
(*b*) Prolongation of life in the cold.
(*c*) Tendency for fewer parasites to occur in the peripheral blood of animals kept in the cold.

4. Incubation period of *T. lewisi* and *T. brucei* delayed in the cold.

5. Prolongation of life of animals infected with Caderas and Nagana.

6. It was noted in two guinea-pigs after inoculation with tubercle that the superficial abscess which formed at the site of inoculation developed much more slowly in the cold (a month later).

7. In rats infected with *Spirochaeta duttoni* the numbers of parasites circulating in the peripheral blood were fewer in the animals treated in the cold chamber, and this was also observed in guinea-pigs infected with *T. brucei*.

8. The patient, W. A., said he felt better after his sojourn n the cold chamber.

BIBLIOGRAPHY.

1906. W. W. Crane, M. D.: Cold Air in the Treatment of Tetanus and Yellow Fever, *St. Louis Medical Review*, July 7th, 1906.
1907. Raphaël Blanchard et Marc Blatin: Immunité de la marmotte à l'hibernation. Extrait des *Archives de parasitologie*, tome xi, No. 3, 1907.
1909. Dr. Luis Perna: The Treatment of Yellow Fever, *Sanidad y Beneficencia*, August, 1909.
1910. C. C. Bass: Climatic Treatment of Pellagra, preliminary note, *Journ. Amer. Med. Assoc.*, September 10th, 1910.
1910. Major R. Ross and Major C. L. Williams: Preliminary Experiments on the Effect of Cold on Various Diseases in Small Animals, *Annals of Tropical Medicine and Parasitology*, vol. iv, No. 2, July. 1910.
1910. Raubitschek (Hugo): *Wien. klin. Woch.*, June 30th, 1910, xxiii, 6. Zur pathogenese der Pellagra, pp. 963–5.
1910. R. Ross: *Prevention of Malaria*. London: John Murray.
1911. Major R. Ross and J. G. Thomson: *Proc. Roy. Soc.*, B, vol. lxxxiii, pp. 227–34 (1911).

UNDER the will of the late Mr. William Taylor of Eastbourne, the Consumption Hospital, the Cancer Hospital, the Royal Hospital for Incurables, Putney; the Royal Free Hospital, London; the Royal Infirmary, Liverpool, and the Home for Confirmed Invalids each receive (subject to the life interest of the testator's wife) a sum of £2,000, half that sum going to the Samaritan Free Hospital for Women.

# AN ANALYSIS OF THREE HUNDRED AND TWENTY-SIX CASES OF ASIATIC CHOLERA.

BY HENRY STEVENS, M.R.C.S., L.R.C.P.,
FUNCHAL, MADEIRA.

I AM indebted to my friend Dr. Lomelino for the following statistics. He was medical officer in charge of the Funchal Isolation Hospital during the recent cholera epidemic, and I had an opportunity of watching his devoted work during that period.

From the time that he took over the charge of the isolation hospital until the end of the epidemic he had under his care 326 cases of cholera, of which 120 ended fatally.

*Deaths.*

3 died of syncope during convalescence, but had previous history of morbus cordis.
2 died of meningitis.
1 died of bronchopneumonia.
1 died of thrombosis and pulmonary embolism.
2 died of uraemic coma following upon suppression of urine.
2 arrived dead.
5 arrived moribund and died within two hours.
The remainder died of collapse while under treatment.

Of the 326 cases, in roughly 75 per cent. there was an acute onset; in many it was fulminating. In the remaining 25 per cent. the onset was gradual. The duration of symptoms in those who recovered was three to ten days. In only 5 per cent. of the cases were cramps in the legs and abdomen absent. After acute symptoms had passed off some 3 per cent. of the patients went into a condition resembling typhoid, with tympanites, slight secondary diarrhoea, headache, and temperature above 101° for more than a week. Some of these gave Widal's reaction in the stronger dilutions, but they all recovered within a fortnight.

About 10 per cent. of the patients were chronic alcoholics, and this class of the community seemed especially prone to take the disease.

Of the female patients fully 10 per cent. were lactating, which seems a high percentage. There were also 5 pregnant women among the patients. Of these, 4 aborted, 2 between the second and third month and 2 between the sixth and seventh month; 2 died, but without any puerperal complications.

Among the 326 patients there were 30 babies under 3 years of age and 42 persons over 60.

*Complications.*

Among the 326 cases there were:

| | Cases. |
|---|---|
| Anuria of more than three days ... | 15 (only 2 died) |
| Urticaria ... ... ... ... | 12 |
| Intestinal haemorrhage ... ... | 9 |
| Parotitis ... ... ... ... | 5 |
| Thrombosis and embolism ... ... | 1 (fatal) |
| Temperature of over 101° for more than first week of convalescence ... | 8 |
| Ophthalmic complications: | |
| Conjunctivitis ... about | 30 |
| Keratitis... ... ... ... | 10 (some ulcerative) |
| Iritis ... ... ... ... | 2 |

*Carriers and Contacts.*

The epidemic, comprising about 1,700 cases for the whole island, has been disseminated entirely by food and actual contact, and not by means of water supply. It has only been stamped out by rigid isolation or segregation of all "contacts."

Systematic examination of the faeces was carried out in the case of all convalescents, all inmates of the "contacts'" segregation block, and all hospital employees. Of the 206 convalescents, 20 carried the vibrio in the faeces for more than a fortnight after the disappearance of all active symptoms. Out of about 350 inmates of the "contacts'" block, only 6 actually developed the disease, but many who never showed symptoms were found to carry the vibrio in their faeces for more than three weeks after being in contact with a patient.

Out of 71 people employed in various capacities at this hospital, in no single instance was it possible to show the presence of the vibrio in the faeces. This speaks well for the excellent precautions adopted by the authorities.

The fact that in nearly all cases which have been carefully investigated it has been possible to establish a history of direct contact, or at any rate a visit to an infected house, has gone far towards establishing the limits of the incubation period. These seem to be from a few hours up to eight or nine days. A man in the poor quarter of Funchal, out of bravado, wrapped himself in the blankets of a cholera patient. He developed the disease in six hours, and died in eighteen hours. His family of three all developed the disease subsequently, but not until six days after his death.

The severe outbreak at the neighbouring township of Machico was traceable to one man who had slept a night in an infected house in Funchal, and developed the disease three days after his return.

Of the "contacts" who were isolated in their own homes, instead of being segregated in the isolation hospitals, a very much larger proportion than the above-mentioned 6 out of 350 subsequently developed cholera. This seems to lend colour to the statement one often sees, that even when carrying the germ one can probably avoid the disease by regular meals and by careful hygiene, such as was observed in the "contacts'" block.

*Clinical Notes.*

The probable explanation of the frequency of ophthalmic complications lies in the fact that the secretion of tears is almost entirely inhibited, as is the case with all the other fluid secretions of the body, owing to the tremendous loss of fluid by diarrhoea. From the same cause stomatitis, parotitis, laryngitis, and bronchitis were of relatively frequent occurrence.

A striking feature of many cases, which I have not seen mentioned in the textbooks, was the continuance of watery, choleraic vomiting long after the diarrhoea had stopped. In the only case I had to treat among the foreign residents this occurred, the vomiting continuing for forty-eight hours after the diarrhoea had ceased.

The fewness of the cases of prolonged anuria in this epidemic was probably due to the use of saline infusion as a routine treatment in all severe cases. Urticaria was just as common among the mild cases as among the severe, where saline infusion had been resorted to.

The disease has been almost entirely limited to the lowest and dirtiest of the population. No English residents have had it.

*Pathological Notes.*

Autopsies were only carried out in a few cases, owing to the tremendous prejudice of the peasants. In these few instances it was found that there had been great loss of the gastric mucosa, though not to quite the same extent as with the mucous lining of the jejunum and ileum, where the mucosa had been so completely cast off that it is difficult to understand how regeneration can ever take place. In most cases the bacteriological examination of the faeces and vomit seemed to show that the comma vibrio remains in undisputed possession of the alimentary canal for the whole period of the disease, to the exclusion of all the ordinary intestinal flora. Those cases in which the patient subsequently fell into a sort of typhoid state were probably instances of the comma bacillus failing to establish this undisputed possession, so that there was a rapid absorption of intestinal toxins through the denuded mucosa, resulting in a condition of profound copraemia. In these cases, and also in the afebrile secondary diarrhoeas, very good results were obtained with intestinal irrigation and the exhibition of such drugs as salol and benzo-naphthol. There were one or two cases of long-standing enteritis (a common condition among the poor here) in which a complete cure was the result of a sharp attack of cholera. In one case, a woman aged 74, who had been the victim of mucous enteritis for ten years, and had been bedridden for two years, left the hospital after an attack of cholera, with complete cessation of all symptoms of her former malady.

I can cordially endorse the remarks of my colleague, Dr. Scott, in his letter to the British Medical Journal of February 18th, in which he attributes the prompt stamping out of this epidemic to the excellent measures prescribed by Drs. Magalhaes and Carlos França, who were sent from Lisbon. I must again thank Dr. Lomelino for his great kindness in placing this material at my disposal and for the opportunities which he has given us English doctors of seeing the cases under his care.

## THE AFTER-HISTORY OF THIRTY CASES OF MOVABLE KIDNEY TREATED BY OPERATION.

BY

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More than one writer on surgical treatment has complained that there are in the literature few reliable statistics of the end-results of the various forms of operative treatment practised for movable kidney. There are a few figures culled from the private practice of individual surgeons, but these always need supplementing by hospital reports before they can be used as indications for treatment by other hands. The writer claims to be unbiassed in favour of any particular operation.

Appended is a list of all the cases of movable kidney treated by operation during the ten years 1900 to 1909 at the Bristol Royal Infirmary It is possible that one or two may have been accidentally omitted. The after-history has been obtained, occasionally by finding a note of a subsequent visit to the infirmary, occasionally by report of the medical attendant, but in most cases by correspondence. Many of the patients kindly came to be personally interviewed by me. They were examined both sitting up and lying down.

Unless otherwise stated, the indication for the operation was repeated attacks of dragging pain. It is not customary to operate here unless the kidney is sufficiently movable to allow the hands to get above and hold it down.

I have thought it better to include in the list even those whose after-history could not be traced, owing to removal from residence, etc. The total number reported on is therefore 38, which, however, represents more than that number of patients, on account of relapses on the same or opposite side of the body. During the same period, 21,143 surgical patients were treated at the infirmary.

It may be remarked that all the patients were women, that the ages ranged from 22 to 58, and that the right kidney alone was operated on in every case except one (E. D.), in whom both sides were fixed at an interval of a year.

It has not been customary to prescribe a belt after operation.

Operations Performed.

Three totally distinct operations are well represented. The first shows a good deal of variety in detail.

1. *Transcortical Suturing.*—The kidney is stripped of its fatty capsule, and as far as possible of its true fibrous capsule. Sutures, usually three, are passed by means of a curved needle through the substance of the organ, and by them it is fixed to the muscles of the loin, taking a deep hold both of kidney and of muscles. In at least three cases (probably more), a turn including the last rib was taken. The suture material has usually been stout catgut, in some cases reindeer tendon, and occasionally silk or silkworm gut. The muscles are then carefully sewn together. An effort has usually been made to avoid injuring the last dorsal nerve. I have included here two cases in which mattress sutures were carried through capsule and kidney substance, muscles and skin.

2. *Fixation by the Capsule only.*—The true fibrous capsule is partially stripped off, and sutures of catgut or reindeer tendon are used to attach the flaps of capsule to the muscles.

3. *Pure Carbolic Acid and an Iodoform Gauze Sling.*—The kidney is exposed by the usual lumbar incision, the fatty capsule removed, and the whole surface painted with pure carbolic acid. Then a sling of iodoform gauze is arranged to support the lower pole, the ends being brought

out and tied over a supporting strand of dressing placed on the wound. The muscles are sewn up in layers (in the earlier cases they were sewn by a through-and-through suture of silkworm gut). The gauze sling is left in for about a fortnight.

REPORT OF CASES.

I. *Cases in which the Kidney was fixed by Transcortical Suturing (Sixteen Cases, with After-History in Fourteen).*

*Case 1.*—A. M., aged 18, was seen in 1904 on account of pain in the right side and vomiting. The appendix had already been removed without giving relief. The kidney was fixed with catgut sutures. The nephropexy relieved her for only a short time.

This patient was again seen in 1907, when the symptoms were as before. The kidney was found to be lower than normal, and moved with respiration, but not freely. It was again fixed, catgut sutures being employed as at the previous operation. *After-History:* Little or no relief was obtained. Later in 1907 gastro-jejunostomy was performed, and the patient has since been perfectly cured of her symptoms. The kidney was found satisfactorily fixed when the gastro-jejunostomy was performed.

*Case 2.*—M. M., aged 48, was operated on in 1905, the kidney being fixed with catgut sutures. *After-History:* The patient was seen and examined in February, 1910. She considers that the operation has given her great relief, and regards it as a success. She still gets a little pain when weary. The kidney has become quite loose; hands can be got above it.

*Case 3.*—S. V., aged 29, operated on in 1905, catgut sutures being employed. *After-History:* More than a year afterwards the doctor wrote to say that she was quite well. No recent information.

*Case 4.*—A. H., aged 32. Operation took place in 1908, the kidney being fixed with catgut sutures. *After-History:* In February, 1910, the patient writes: "I feel great benefit from it."

*Case 5.*—E. S., aged 23, was operated on in 1905; the kidney was fixed in position by catgut sutures. No information has been obtained as to the subsequent history of this patient.

*Case 6.*—L. D., aged 25, underwent operation in 1900, reindeer tendon being employed for suturing. *After-History:* In February, 1910, the patient writes: "I do not find much permanent relief from the operation. . . . I still have much pain in my right side at times. This may be due to the fact that I am obliged to earn my living by machining."

*Case 7.*—M.A., aged 25, operated on in 1900; the kidney was fixed with reindeer tendon sutures. *After-History:* Five months later was quite well, with no pain. No recent information.

*Case 8.*—E. B., aged 40; operation in 1900, reindeer tendon sutures being employed. *After-History:* The patient was seen and examined in February, 1910. The kidney pain was quite cured. For the past three years she had had some pain periodically in the groin. The kidney was not palpable.

*Case 9.*—E. J., aged 45, operated on in 1902; reindeer tendon sutures. No information as to after-history.

*Case 10.*—E. W., aged 30, seen and operated on in 1901, silk sutures being employed. *After-History:* Seven months after operation the patient was relieved of the original pain and the kidney was securely fixed, but there was pain on the left side. She was readmitted in 1907, complaining that she had had abdominal pain ever since. The kidney was not palpable and appeared to be fixed. Enteroptosis and neurosis was diagnosed.

*Case 11.*—E. D., aged 22, first seen in 1907. Both kidneys were painful and movable. At operation the left kidney was fixed with silk sutures. The patient was seen again a year later, when the right kidney was fixed, the same material being employed. *After-History:* Seen and examined February, 1910. She is completely cured, both kidneys remaining securely fixed. "Has not been so strong and well for four years."

*Case 12.*—A. R., aged 30, operated on in 1900, the kidney being fixed by means of two reindeer tendon sutures tied round the last rib. *After-History:* Seen February, 1910. Is quite cured. The kidney was recently examined by her doctor and found fixed.

*Case 13.*—M. P., aged 27. At the operation, in 1907, the kidney was fixed with catgut sutures carried over the last rib. *After-History:* The patient writes, February, 1910, that she was free from pain for six weeks, but since that time has been "more or less troubled with the pain in the lower part of the back." She has worn a belt, but still "finds it a great deal in walking."

*Case 14.*—A. S., aged 37, underwent operation in 1909, the kidney being fixed with two catgut sutures carried over the last rib. *After-History:* Seen and examined February, 1910—an in-patient for gastric ulcer. The kidney pain has been quite cured for the seven months which have elapsed since operation. The kidney is fixed; it lies rather lower than usual.

*Case 15.*—M. T., aged 52, operated on in December, 1908, two Halstead sutures (catgut) being carried through the kidney substance, capsule, muscles, and skin. The patient was very ill; vomiting; explored for possible growth of bowel. *After-History:* Seen and examined February, 1910. Right side quite satisfactory; left side now gives pain; not able to work. The right kidney is fixed—lower than usual; the left is movable.

*Case 16.*—L. T., aged 34, seen in 1907. At the operation the kidney was fixed with two Halstead sutures (silkworm-gut) carried through the kidney substance, capsule, muscles, and skin. *After-History:* She writes, February, 1910: "Have never felt the slightest inconvenience since the operation."

II. *Cases in which the Kidney was fixed by stripping up Flaps of Capsule and suturing them to the Muscles. (Twelve Cases, with After-History in Eight.)*

*Case 17.*—E. E., aged 39, operated on in 1900, reindeer tendon sutures being employed. The kidney had been fixed in 1896 by transcortical suturing, stripping the fatty but not the true capsule. It was loose in 1898; very loose and painful in 1900. *After-History:* The patient writes in February, 1910, that "the operation has been of no benefit whatever." Pain and violent vomiting returned in a few weeks; has been an invalid ever since. A little better recently.

*Case 18.*—A. D., aged 49, operated on in 1902, the kidney being fixed with catgut sutures. *After-History:* Writes, February, 1910, that she "has had no return of the pain," and "considers her cure permanent."

*Case 19.*—M. W., aged 26, seen in 1902, catgut sutures being employed at the operation. *After-History:* Writes, February, 1910, that she is "thoroughly cured."

*Case 20.*—A. R., aged 30. At the operation, in 1903, the kidney was fixed by means of reindeer tendon sutures. *After-History:* Five weeks after operation pain returned as before; no cause found. No recent information.

*Case 21.*—A. M., aged 33, operated on in 1903, catgut being the material used. The patient died of sloughing of the wound, a few days after the operation.

*Case 22.*—H. C., aged 35. The kidney was fixed in 1904, by means of catgut sutures. *After-History:* Seen March, 1910. The kidney is quite fixed and she has had no further pain.

*Case 23.*—H. T., aged 56, operated on in 1905, catgut sutures being employed. *After-History:* Writes, February, 1910, that she is much better. She gets pain in the side sometimes, because, she says, a few months after operation she strained herself getting out of a high dogcart, after which the kidney "slipped"; her doctor examined her and confirmed her opinion. However, except when working hard, she is in fair comfort.

*Case 24.*—A. G., aged 39, was operated on in 1905, catgut being used for suturing. *After-History:* Seen and examined February, 1910. Nervous, twitching patient. She says pain has not been at all relieved; she also has frequency of micturition. The kidney is quite loose, and hands can be got above it.

*Case 25.*—M. F., aged 32; operation in 1902; catgut sutures. No after-history.

*Case 26.*—E. I., aged 31; operation in 1903; catgut sutures. No after-history.

*Case 27.*—E. F., aged 37; operation in 1905; catgut sutures. No after-history.

*Case 28.*—A. A., aged 45; operation in 1905; catgut sutures. No after-history.

III. *Cases in which the Kidney was fixed by Painting with Carbolic Acid and a Gauze Sling. (Ten Cases, with After-History in Eight.)*

*Case 29.*—G. W., aged 24, operated on in 1900, carbolic acid and a gauze sling being used for fixing the kidney. *After-History:* Writes, February, 1910, that "the operation has proved very successful," and she is "quite free from pain." She was examined at Guy's Hospital, and told the kidney was securely fixed.

*Case 30.*—M. M., aged 25, first seen in 1900, when the kidney was fixed by painting with carbolic acid and a gauze sling. She remained well for nine months, then pain of the same nature as that she had previously experienced returned. She was again seen in 1901, twenty months after the first operation. At the second operation the kidney substance was transfixed with silkworm gut and the muscles sutured in layers. At the operation the kidney was thoroughly embedded in firm adhesions, and was accidentally cut into; it was not at all mobile. No subsequent information beyond the first few weeks, in which she was completely relieved.

*Case 31.*—A. D., aged 33, was operated on in 1901, carbolic acid and a sling being employed. *After-History:* Writes, February, 1910, that the operation has given her relief, and that she can perform her duties as a saleswoman with a fair amount of strength. She was seen again in April, when the right kidney was found to be low, but fixed and not painful; the left kidney was movable, but she did not say that it hurt her.

*Case 32.*—E. K., aged 47, had her kidney fixed in 1903 by painting with carbolic acid and a gauze sling. *After-History:* She went on well till 1905, with no more pain in the kidney; in that year she was admitted and operated on for perforated gastric ulcer, and died. At the autopsy the kidney was found firmly fixed in adhesions and could not be shelled out.

*Case 33.*—L. N., aged 30, operated on in 1904, carbolic acid and a sling being employed for fixing her kidney. *After-History:* Writes, February, 1910, that "the operation has put her all right." She gets a little aching at times.

*Case 34.*—K. C., aged 39, seen and operated on in 1906, her kidney being fixed by means of carbolic acid and a sling. *After-History:* Writes, February, 1910, that "since the operation she has been much better. It appears to have been a permanent relief from the pain." In May, 1910, gastro-jejunostomy was performed, on account of gastric pain. The right kidney was found fixed and not painful; the left was movable but not painful.

*Case 35.*—E. S., aged 58, operated on in 1908, carbolic acid and a sling being employed. *After-History:* Writes, February, 1910, that she is "much better; can get about and do a little of her work. The pains are entirely gone, and everthing is very satisfactory."

*Case 36.*—A. S., aged 44, seen and operated on for movable kidney in 1908, carbolic acid and a sling being employed. Appendicectomy also was performed. The patient had long been an invalid; Mr. Grieg Smith had removed her ovaries on account of pain. *After-History:* After the operation in 1908 she was well for a year, but since then she has had much pain in the appendix region, and is a chronic invalid. She was seen and examined in February, 1910, when the kidney could not be felt and appeared to be fixed. No general enteroptosis. I thought some such condition as mucous colitis probable, from the history and character of the pain.

*Case 37.*—A. B., aged 33, was operated on in 1902, carbolic acid and a gauze sling being employed; the kidney was stitched to the rib to rotate it. The patient had hydronephrosis and kinked ureter. Two months after operation she was relieved. No subsequent information.

*Case 38.*—E. W., aged 22; operation in 1905; carbolic acid and sling. No after-history.

It will be observed that I have been able to obtain some after-history in 30 out of 38 cases, not including one (A. B.) who was well two months after the operation. Of these 30 cases a classification may be made as follows:

| Operation. | Cases. | Cured. | Considerable Relief. | Little or no Relief. | Death. |
|---|---|---|---|---|---|
| 1. Transcortical suturing | 13 | 9 | 1 | 4 | 0 |
| 2. Suturing of capsule | 8 | 3 | 1 | 3 | 1 |
| 3. Carbolic and sling | 8 | 5 | 1 | 2 | 0 |
| Total, all methods | 30 | 17 | 3 | 9 | 1 |

One patient had both kidneys fixed with complete relief, but I have only counted her once.

It may be simplest to use the information at our disposal to find an answer for certain important questions.

*Is the Operation for Movable Kidney to be Urged on Patients?*

The figures have been collected by writing to hospital cases, in several instances many years after the operation was performed. This is to put a severe strain on the reputation of any operation. Such highly esteemed procedures as appendicectomy and gastro-jejunostomy would be considerably criticized by such a testing. The patient may include all sorts of subsequent troubles in the reply, and call a success a failure in consequence. In many of the "failures" here recorded the fixation of the kidney was excellent. Again, these patients are hardworking women, unable to take care of themselves and rest when weary. Nevertheless, they were well pleased with the result in 20 out of 30 cases. As we shall see, the failures were often due to an erroneous diagnosis. It may be concluded that when other possible causes of the symptoms can be eliminated the operation for movable kidney is usually satisfactory.

*What are the Usual Sources of Failure?*

There are two. The first is slipped kidney. In the list before us we have clear evidence that in two cases (A. M., M. M.) following the transcortical operation, and in probably two cases (A. G. and probably H. T.) following the operation of suturing the capsule, the kidney has become loose again. In a case operated on before 1900 by the transcortical method relapse occurred (E. E.), and she had a second fixation in 1900. There is no proof of relapse following the carbolic and sling operation.

It does not necessarily follow that the symptoms will return in full force. Two of the cases of slipped kidney have been classed as having obtained "considerable relief."

Some care is necessary before deciding that a kidney has really become loose again. In many cases the kidney is fixed lower than its normal anatomical position, and it may move an inch or two with respiration, and even allow the hands to meet above it, without becoming abnormally mobile.

The other source of failure is an erroneous diagnosis. Evidence for this is fairly clear in some of the cases. One patient (A. M.) had her appendix removed and her kidney fixed twice without relief; she then had a gastro-jejunostomy for slight dilatation of the stomach from healed gastric ulcer, and has been perfectly well for more than two years. Another (E. W.) had general enteroptosis. Another (A. S.) had already had her ovaries removed, and her appendix was removed when the kidney was fixed. In one other patient (M. M.) relapse appeared to be due to dragging on the scar, the muscles not having been sutured in layers.

*After how long an Interval may the Patient be regarded as in all probability Cured?*

Various dates are given for relapse of the pain—five weeks, six weeks, four months (kidney slipped during accidental strain), nine months (scar became weak), and one year. This last was the patient (A. S.) referred to above, in whom the kidney was probably not at fault.

*What Method of Operating Gives the Best Results?*

While the aggregate numbers are large enough to judge of the success of the operations considered as one, I do not consider that they are adequate to decide with authority between the three operations practised. I was particularly unsuccessful in tracing the after-histories of the second operation, and so may have missed cases that would have put it in a more favourable light. When larger statistics are available to be added to these, we may be able to speak with more confidence. We must give the third method credit that it is not yet proved that the kidney can slip afterwards, but it would be unwise to build too much on the negative evidence of only 8 cases.

*Is the Suture Material of any Importance?*

Three kidneys were sutured with silk, and are known to have remained fixed. In 12 cases catgut was used, and 4 have failed, possibly on account of slipping. In 6 cases reindeer tendon was used; of these 2 were not relieved, possibly owing to slipping of the kidney. Cases in which the return of pain was certainly not due to the kidney are not included here.

SUMMARY.

1. Complete or considerable relief was afforded in 20 out of 30 cases, treated by several different methods of operation.
2. In at least 3, probably 4 cases, the kidney again worked loose.
3. Several of the failures were certainly due to a mistaken diagnosis as to the cause of the pain.
4. No cases of slipping were found in 8 cases treated by the carbolic paint and gauze sling method, and followed from two to ten years.

## THE "CARDIO-SPLANCHNIC PHENOMENON" OF ABRAMS.

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IN the *American Journal of Medical Sciences* of January, 1904, p. 125, will be found a paper by Dr. Albert Abrams, of San Francisco, on what he terms the "cardio-splanchnic phenomenon," and defines as follows:

> If the lower sternal region—that is, the sternum contiguous to the heart—is first percussed in the standing and then again in the recumbent posture, one may appreciate a decided alteration in the percussion tone; in the former attitude it is resonant or even hyper-resonant, in the latter it is dull or flat. This is the cardio-splanchnic phenomenon.[1]

Now this description is absolutely contrary to fact, and, thus defined, there is no such thing as the "cardio-splanchnic phenomenon." I was unaware of Dr. Abrams's statement till my attention was called to it last year, when I published a paper[2] dealing with the rightward edge of the cardiac dullness and the changes which occur in it with change of position. This paper slightly amplified what I had already pointed out in 1905.[3] I showed that, alike in health and in disease, the rightward margin of the

heart's dullness is, almost always, and often much, further to the right in the erect than in the recumbent posture; also that this is a point of great clinical importance, since it necessitates comparisons in comparable positions; and finally that in most cases the transverse measurement of the dullness in the erect position yields a closer approximation to the true width of the heart than the measurement made in recumbency.

The question at issue is thus no academical one; the error involved is not of the pleasant sort which can be left to die a natural death. On the contrary, this error stands right across the path to a better appreciation of the effects of posture on cardiac physical signs, that *terra incognita* to the majority of cardiac case-recorders. It must therefore be summarily disposed of, and I would ask my readers to satisfy themselves, as they can very quickly, of the absolute incorrectness of the statement I have quoted.

In order to percuss similarly in the two positions, I would suggest—though such a precaution is by no means essential—that the margin of dullness be mapped out in the sitting-erect and recumbent postures, with the fingers of the hand on the chest pointing down the body, so that no error can be thought to be introduced by a different mode of application of this hand. It will be observed that Dr. Abrams's results and mine were both arrived at by the ordinary digital method of percussion.

As sufficient instances of my own percussion have been already published, and as it may be desirable to show to some that I am by no means alone in my conclusion, I subjoin the following observations, kindly made for me, on unselected normal chests, by my friends Dr. Ransom Pickard and Dr. R. V. Solly. "R." and "L." mean "to right" and "to left" of the mid-sternal line. It will be noticed that there is not a single exception in the series. For convenience of comparison with previously published measurements, the dullness has been taken as beginning at the right side of the finger laid on the chest where the note on it, moving leftwards, is first noticed to become dull.

*Dr. Solly's Measurements.*

| Sex. | Age. | Sitting Erect. | Recumbent. |
|---|---|---|---|
| M. | 30 | R. 1½ in. | R. ⅜ in. |
| F. | 30 | R. ⅝ in. | Mid-sternum. |
| F. | 16 | R. 1 3/16 in. | Mid-sternum. |
| F. | 21 | R. 1 3/16 in. | L. 1/16 in. |
| M. | 20 | R. 1 3/16 in. | L. 1/16 in. |
| M. | 23 | R. 1 3/16 in. | L. 1/16 in. |

*Dr. Pickard's Measurements.*

| Sex. | Age. | Sitting Erect. | Recumbent. |
|---|---|---|---|
| M. | 31 | R. 1 in. | L. ⅛ in. |
| M. | 19 | R. 1 in. | L. ⅝ in. |
| M. | 22 | R. 1½ in. | L. ⅛ in. |
| *F. | 28 | R. 1¼ in. | Mid-sternum. |
| F. | 30 | R. 1¼ in. | Mid-sternum. |
| F. | 20 | R. 1⅜ in. | Mid-sternum. |

* This patient was slightly anaemic.

I have explained these changes (in the way which naturally occurs to one) as being due to a dropping back of the heart from the anterior chest wall, when the recumbent posture is assumed. Dr. Abrams does not agree with this view, and states that skiagrams show that no such dropping back occurs. But Professor Rudolf of Toronto has published a skiagram showing plainly that it does occur,[4] and my friend, Dr. J. D. Harris, has taken skiagrams of three chests which also show this. Indeed, it is difficult to see why the heart should be independent of gravity, unless we assume it to be, what it usually is not, a rigid organ completely filling the interval between the spine and the sternum.

But, in any case, the appeal to skiagrams does not greatly help Dr. Abrams, for it is not difficult to introdnce error in such lateral photographs by slightly differing the direction of the rays passing through the chest. And he has himself found it impossible to demonstrate a change in sagittal skiagrams of the heart corresponding to the change he describes in the percussion dullness.

The following facts can be easily enough explained, if it be assumed that the heart tends to fall back from the anterior chest wall on recumbency when free to do so, but are difficult to account for otherwise.

1. Whereas in most hearts, normal or diseased, the changes indicated above in the rightward margin of dullness can be readily identified, in cases of extreme cardiac enlargement it is not uncommon to find no change whatever, the heart being apparently firmly wedged, owing to its size, between the anterior chest wall and the spine.

2. In the great majority of cases of cancer in their later stages—and in some cases rather early—the heart is lax like the other muscles, and is imperfectly filled (as the patient's pale surface, feeble pulse, and heart sounds, and half-empty arteries indicate), besides being sometimes smaller in size than normal; in these cases the transverse measurement of the cardiac dullness may be almost normal in the erect position, yet when the patient lies on his back this measurement becomes strikingly reduced, and, indeed, the dullness sometimes actually vanishes altogether.*

How, then, can such an error have arisen? Apparently from two causes:

1. Dr. Abrams has evidently approached the subject with a biassed mind. He begins his paper thus:

> To my knowledge this is a heretofore undescribed phenomenon as far as its clinical manifestations are concerned. The facts, however, up to the point of its clinical identification have been fully established by the physiological investigation of others.

And writes further on:

> In the erect posture the blood leaves the right heart, which topographically is beneath the lower sternum, and tends to accumulate in the splanchnic area, whereas recumbency opposes this influence of gravity.

2. He has confused percussion *sounds* with percussion *sensations of resistance*—two very different things, which must especially be kept apart in this investigation, seeing that in recumbency the anterior chest wall itself usually falls slightly towards the spine, as I have shown,[6] a change which may possibly affect the sensation of resistance in percussion. He expressly states that "in the elicitation of the cardio-splanchnic phenomenon palpatory percussion must be our chief mentor," explaining this term thus:

> The skilled clinicist in his interpretation of percussional phenomena is guided not so much by the ear as by the *tactus eruditus*; thus, palpatory percussion will often yield results which would wholly escape the observer who is influenced only by what he hears and not by what he feels.

In his definition, however, of the "cardio-splanchnic phenomena" above quoted he uses terms which are well understood to describe sounds and sounds only. "Resonance," "hyper-resonance," "flatness," and "dullness" are not descriptive of resistances. As his definition stands, his description of the effect of change of position is, as I have said, absolutely contrary to fact.

* It should also be remembered that a sort of spurious emphysema often exists in cancer cases, which may help to produce the remarkable reduction of dullness. Dr. Soltau Fenwick, I think, first called attention to this.[5]

References.
[1] Loc. cit., p. 128. [2] British Medical Journal, June 4th, 1910. [3] *Med.-Chir. Transactions*, vol. lxxxix. [4] British Medical Journal, October 20th, 1906. [5] *Cancer and Tumours of the Stomach*, 1902, p. 74. [6] British Medical Journal, March 15th, 1902, "Posture and Heart Murmurs."

The Isle of Man Hospital and the Children's Home each receive £1,000 under the will of the late Mr. James Mylchreest, late Lloyds agent in the island.

Under the will of the late Mrs. Margaret Eliza Clague, the widow of a Manx medical man, Guy's Hospital, London, and the Royal Infirmary, Liverpool, each benefit to the extent of £1,000. To Noble's Hospital in the Isle of Man is left a house in Douglas.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### A CASE OF METASTATIC GONORRHOEAL CONJUNCTIVITIS.

F. G., sailor, white, 30 years of age, single, came to the hospital with swollen and inflamed conjunctivae, and with a urethral discharge.

His family history was negative. He had followed the sea practically all his life. He drinks whisky, and uses tobacco to excess. He has always been healthy until about five years ago, when he was sick in bed with articular rheumatism. He had trouble with his eyes also at this time, and he had a specific urethritis.

At this time the eyes did not discharge much, but his trouble lasted two months, and evidently resembled his present attack.

Two or three years ago he again had a specific Neisserian urethritis, and in six months a similar "rheumatic" attack, followed in about one month by ocular trouble. He says his physician called the eye condition at that time "rheumatic ulcers," and the eyes were washed twice a day, and drops were instilled to dilate the pupils. The joints involved were the knees and joints of the right great toe, as at present.

About two weeks before admission to the hospital for the present attack he had again specific urethritis. In about one week he complained of "rheumatic" pains and swelling of the feet, so that he could not walk. Two days before admission his eyes became inflamed and a small amount of watery discharge appeared.

The left eye pains when winking. He says he first noticed the urethral discharge by heat and pain on urination two days before admission. The right great-toe has lately caused him much trouble. Tongue coated. Marked injection of conjunctivae. Much pain caused him on examining left eye. Small amount of watery discharge from this eye, and at the inner canthus a purulent accumulation is seen. Right pupil slightly dilated. Left does not react well. Abdomen tympanitic. Right great-toe swollen and tender. Smear from eyes negative for gonococci.

He was sent to the venereal ward for treatment of his urethra. This was cured in about fourteen days.

Vision, March 28th, 1910: Right eye = $\frac{5}{5}$; left eye = $\frac{2}{3^{6}0}$. Left eye, catarrhal conjunctivitis, ciliary injection, and punctate keratitis. Iris thickened and discoloured.

Diagnosis: Kerato-irido-cyclitis.

March 13th, 1910.—O.D. = $\frac{5}{5}$; O.S. = $\frac{3}{15}$. Fields somewhat contracted for light.

March 29th, 1910.—O.S. better; O.D. similarly involved for three days.

April 6th, 1910.—Anterior chamber very deep. Cornea punctured and fluid spurted out. The bacteriological report shows xerosis bacillus present (probably from the conjunctiva). Another slide negative.

April 10th, 1910.—The patient improved greatly under hot packs and salicylates, and saturated solution of boric acid and drops of atropin solution (4 grains to 1 oz.) in the eyes.

Similar cases to this have responded readily to treatment of the urethral discharge, eliminative treatment, including hot packs, and the administration hypodermically of half-billion doses of antigonococcic bacterins. Such cases are liable to relapses with each recurrent attack of the Neisserian infection. It is supposed a toxin from the disease travels through the lymph channels, affects the serous membrane of the joints, and sets up the iritis.

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### PUERPERAL ECLAMPSIA COMPLICATED BY GASTRIC HAEMORRHAGE.

MRS. H., aged 26, primipara, well nourished, had always enjoyed good health. All through the pregnancy she suffered considerably from sickness, associated with troublesome cough. The legs began to swell towards the end of the sixth month of gestation, but the urine examined at the time was found to be quite free of albumen. She was not seen again till the middle of the eighth month, when the swelling of the legs had increased considerably, and there was dimness of vision in the mornings, headaches, and severe pain in the epigastrium, which she put down to indigestion. The urine contained a large amount of albumen. She was ordered to bed and dieted, but diarrhoea set in, and seemed to start labour two days later. Labour pains had been present twelve hours when the first fit occurred, and the os being fully dilated forceps were applied, and a living child delivered fairly easily, as it was not quite eight months' gestation. The first fit occurred at 1.30 p.m. An hour later the patient was fully conscious, and the after-birth had come away. The patient was left an hour after delivery, and within five minutes of my leaving she had another fit, at 3 p.m. At 4 p.m. she had a third fit. As soon as she had recovered she was given 1 drachm of compound jalap powder and 20 grains of potassium bromide and chloral hydrate by the rectum, this injection being repeated every two hours. A fourth fit occurred at 5 p.m. One-sixth of a grain of pilocarpin nitrate was injected hypodermically; it acted very well, and in half an hour the patient was perspiring most profusely.

The fifth fit occurred at 8 p.m., and the sixth at 9 p.m. Chloroform inhalations used continuously did not prevent the seventh fit, which occurred at 11 p.m. She was now transfused with a quart of saline subcutaneously, and kept under chloroform while it was running in, as she was very restless and irritable. One-tenth of a grain of pilocarpin also given acted very well. At 1.30 a.m. she had the eighth and last fit, which was very severe; pulse 132 and axillary temperature 101.5° F. By the morning she had had some good sleep, took barley water and milk, the bowels had been well opened, and she had passed urine. She still complained of epigastric pain.

On the second day, after some milk and rusk for breakfast, she vomited dark altered blood, and this continued at intervals through the day, diluted as it was with a large amount of gastric juice, it amounted to at least three quarts in the twenty-four hours. She was kept on salines per rectum, only a little ice being allowed by mouth. On the third day vomiting had stopped, but frequent small tarry motions were passed. Pulse 124. Temperature in the evening 100° F.

Afterwards she had no more epigastric pain. She was allowed out of bed at the end of four weeks. The eye symptoms had quite cleared up.

The points of interest in this case are:

1. What was the cause of the gastric haemorrhage? Was it due to an ulcer, as the pain in the epigastrium might suggest, or was it due to sudden relief of intra-abdominal pressure caused by delivery? I formed the opinion at the time that there was an ulcer present, and treated the patient for such.

2. Transfusion of saline seems to be the treatment for these cases, and my regret is that I did not employ it earlier. (See case recorded in BRITISH MEDICAL JOURNAL for January 14th, 1911.)

3. Eclampsia does recur in subsequent pregnancies, I believe fairly frequently, and so in this case being such a bad one, I advised against a further pregnancy.

Swanage. W. A. REES, M.D., F.R.C.S.

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### MULTIPLE PREGNANCY WITH CONVULSIONS DURING LABOUR.

ON December 10th, 1910, I was summoned to attend Mrs. D., a multipara aged 32. On my arrival I found her in labour, which had then lasted an hour. She almost immediately gave birth to a child, which had presented by the breech. I then found that the uterus contained two other children, the lower of whom was presenting by the vertex, with an unruptured bag of membranes. The pains continued, but were very weak. Half an hour after the birth of the first child the patient had an epileptiform convulsion, the tonic stage lasting a minute and the clonic stage rather less. I decided to rupture the membranes and apply forceps, and easily delivered the second child. The patient then had another convulsion, which was easily controlled by the administration of chloroform. The third child presented by the breech and was born without

difficulty. The mother again had a convulsive seizure, which was again controlled with chloroform. Two placentae were delivered half an hour after the birth of the third child.

There was considerable haemorrhage, but not more than might have been expected after such distension of the uterine walls and consequent atony. Two injections of ernutin and continued massage were successful in arresting this and getting fair contraction of the uterus. The patient had no more fits, and made an uninterrupted recovery, the temperature never rising above 99.8°. The children all survived, and continue to do well.

The patient had a large ventral hernia, and subsequent inquiry into her past history revealed the fact that five years previously she had undergone ventral fixation of the uterus for prolapse. Unfortunately I had no opportunity of examining the urine previous to labour, but a catheter specimen taken afterwards contained a trace of albumen; this entirely disappeared by the sixth day.

The occurrence of the convulsions is interesting, and, as they can hardly have been eclamptic in nature, were possibly due to the fixed position of the uterus. The patient's previous confinements were quite normal, and she has never suffered from fits of any description previous to this.

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Hereford.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### BLAENAVON COTTAGE HOSPITAL.

EXTENSIVE FRACTURE OF SKULL.

(By A. H. JAMES, M.D.Edin., Senior Surgeon.)

R. L., a collier, aged 47, received injuries in a coalpit by a fall of roof at 11 a.m. He was brought into hospital at 2 p.m.

He was suffering from a severe horseshoe-shaped scalp wound, which, except at its base, was completely torn off from the skull at the top of the head. It measured 12½ in. The skull was uninjured. Haemorrhage from the left ear indicated fractured base. There was a lacerated wound posteriorly over the occipital bone, a fissured fracture of the skull 3 in. in length, and a lacerated wound of the scalp over the right eye extending through the upper eyelid along the zygoma backwards to the ear. On raising the flap it was found that the patient had a depressed comminuted fracture involving the frontal, parietal, and temporal bones. His back was severely bruised and cut; he complained of great pain in the right chest when breathing.

The patient took the anaesthetic badly. His pupils were pin-point; pulse weak and irregular, and breathing caused great anxiety. I considered that the best method of raising the depressed fracture was by trephining above over the frontal bone, so as to raise the pieces *en bloc*, in preference to raising them piecemeal, thereby giving them a better chance of keeping in their respective positions.

An icebag was applied to the head; purgatives were given freely. As no action resulted, an enema was given on the second morning; afterwards the purgative acted satisfactorily. On the second morning it was found that the patient was suffering from traumatic pleurisy over the sixth, seventh, and eighth ribs on the right side. On the fifth day he suffered from retention of urine for thirty-six hours, and a catheter had to be used. Haemorrhage from the ear continued until the fifth day. On the third day facial paralysis developed on the left side and the left pupil became very dilated. For the first ten days the patient seemed to have great difficulty in swallowing and all his slop diet had to be given him with his head reclining to the right side. Stitches were removed on the ninth day, the parts having healed by first intention, except the posterior wound over the occiput, which suppurated. On the ninth evening he developed a sharp, continuous, pneumonic cough, due to hypostatic congestion. The temperature, which had varied from 99° to 100°, was 101°. The icebag was removed, the patient raised in bed, and brandy (℥ss) given every four hours. A mixture, containing digitalis tincture ♏viij and vinum ipecac. ♏xij, was given at 10 p.m., 2 a.m., and 6 a.m. each night until the congestion passed off on the thirteenth day. He became very delirious, especially at night, from the ninth day, and on the fourteenth day the delirium was replaced by illusions, especially in the evenings. These gradually became less severe, and on the eighteenth day his mind was quite clear. The patient appears to be making a rapid and perfect recovery, but the facial paralysis and dilatation of the pupil on the left side remain.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

SECTION OF SURGERY.

*Tuesday, March 14th, 1911.*

Mr. RICKMAN J. GODLEE, President, in the Chair.

### *Traumatic Myositis Ossificans.*

MR. MAKINS, in a paper on myositis ossificans of traumatic origin, said this condition was more frequent than had been supposed; 233 cases were recently collected from German army records. His paper dealt with two typical, and a few collateral, cases. The injury was usually single; although multiple or repeated traumata were alleged as causes, the determining factor was generally of greater severity. The masses most frequently were found in the quadriceps or brachialis, muscles arising from flat, plane surface of bone. Histologically they were of the cancellous type, without marrow, and embedded in fibrous tissue; the muscle proper was unaffected, and the process was in no sense a myositis. He believed they had little in common with the ossification of tendons, of which "rider's bone" was an example, or with the osseous plates met with in the fascial planes about joints in certain conditions, but were due to detachment of periosteal fibres. It was possible that there was some individual peculiarity of the tissues comparable with that "ossific diathesis" alleged in the occurrence of exuberant callus. The point he wished to emphasize was that with rest the tendency was towards reabsorption. Skiagrams illustrated the gradual disappearance of bony deposits, even of considerable size. Mr. BOWLBY described two cases affecting the elbow region, in one of which there was no blow, but severe wrenching of the muscles, whilst in the other there was a dislocation. In both the bone disappeared with rest. Most cases were met with in young people. Mr. GODLEE described a case due to a kick upon the thigh. Speaking of two others that had been operated upon by him, he said the results confirmed the opinion that they should be left alone for at least a year. At the same time operation might be necessary to remedy limitation of movement, and in most cases had at any rate done no harm. He exhibited several bones from museums at late or intermediate stages of absorption. He deprecated the use of the term "myositis." Mr. HEATH exhibited a specimen removed in a similar case, to permit free flexion of the knee, which had been seriously hampered by a mass in the quadriceps. Mr. SYMONDS referred to two cases affecting the soleus muscle, in one of which operation was performed, and was not a complete success. Some were certainly the results of sprains. Mr. CARLING exhibited radiograms of two cases.

### *Congenital Diverticulum of the Bladder.*

Mr. BERRY detailed the history of a large congenital diverticulum of the bladder operated upon at the age of 21. The interesting feature of the case was that the left ureter entered the sac 2½ in. from the bladder proper. There was no case precisely like it in the literature. Mr. JOLY exhibited the specimen, and described a case very similar to that of Mr. Berry, except that the ureter

passed underneath the sac to the bladder. The wall of the cyst in his case contained muscular tissue. In Mr. Berry's it was purely fibrous.

*Femoral Hernia.*

Mr. Fagge described a method of radically curing femoral hernia by suture of the conjoined tendon to Cowper's ligament, the stitches being passed behind Poupart's ligament. He had examined 18 of his 33 cases a considerable time after the operation, and found but three recurrences.

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Section of Laryngology.

*Friday, March 3rd, 1911.*

Dr. Watson Williams, President, in the Chair.

The following were among the exhibits: — Professor Hobday, F.R.C.V.S.: Specimens of the equine larynx, illustrating the results of the ventricle stripping operation for the relief of the conditions known as "*Whistling*" *and* "*roaring*" in horses. The operation consists in removing the mucous membrane completely from the pouch or ventricle at the back of the paralysed vocal cord, with the idea that two raw surfaces will thus be made, and the two sides of the ventricle adhere together, and thus completely obliterate it. It thus follows that the paralysed vocal cord which is the cause of the "roaring" must of necessity be retracted out of the lumen of the larynx, and become firmly adherent to the wall of this organ. In the discussion which followed, it was generally considered that the operation could have but a very limited application as regards the human larynx. Mr. Gay French: Endothelioma of the palate, with metastatic growths in the neck, which had derived great benefit from *Treatment with radium*, the amount used being 50 mg. Mr. Herbert Tilley: A portion of a rabbit's bone removed from the right bronchus after three years' impaction, and which had produced signs of bronchiectasis. Skiagraphy in this case had failed to reveal the presence of any foreign body. Dr. W. H. Kelson: Tumour of the right side of the neck, involving the pharynx, in a woman aged 30. The growth was a very slowly growing *Sarcoma*, taking origin apparently from the transverse processes of the cervical vertebrae. Owing to the agonizing pain suffered, an operation had been performed by the exibitor, and as much as possible of the growth removed, with complete relief to the pain. Rapid healing had taken place. Dr. Dan Mackenzie: Antrum suppuration treated by nasal antrostomy, followed by blocking of the nasal duct. The exhibitor thought that the duct must have been wounded at its lower end at the time of the operation. In the discussion that followed, the view of many members was that temporary epiphora after the radical operation on the maxillary antrum was not uncommon. Mr. Francis Muecke: A case of *Ventricular voice* in a woman aged 28; hoarseness first appeared when 3 years old, after scarlet fever. Since about 15 years old the voice had got gradually better. The general health of the patient was good. The left vocal cord could be seen, the right was atrophied; the ventricular bands were rounded, large, and on phonation came closely together, the arytenoids turning inwards and assisting to close the glottis.

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## ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

*Friday, February 10th, 1911.*

Sir John Moore, President, in the Chair.

Dr. O'Carroll showed: (1) A case of *Athetosis* in a school-girl aged 9. The patient's right hand had been for four or five years unmanageable for action. The thumb was fixed in a position for adduction, but otherwise there was no noticeable difference between the hands when at rest. Once movements were attempted, slow spastic movements were noted in the right hand and fingers. The child had had severe whooping-cough before the affection was noticed. The exhibitor considered this had led to a cortical haemorrhage into the right hand area, the athetosis resulting therefrom. When left to herself the child, who had learnt to write with her left hand, exhibited perfect "mirror writing." The condition was improving. (2) A case of occupation spasm in a barber who exhibited weakness and choreiform movements in his right hand. His trouble had begun some ten months previously. At first there was malaise and difficulty in hair-cutting and shaving. These actions gradually became impossible. The patient was of a neurotic temperament. His work had kept him busy from early morning till late at night for many years. The exhibitor considered the movements in the patient's hand were fatigue phenomena, due to excessive use.

*Cerebral Tumour.*

Drs. Parsons, Benson and Wigham, and Mr. Johnston brought forward a case of intracranial tumour which was successfully localized and removed.

The patient, aged 36 years, was admitted to the Royal City of Dublin Hospital suffering from severe and continuous headache of about five months' duration. On examination he was found to have double optic neuritis, more marked in the right eye than in the left; slight paresis of lower half of the face on the left side, and slight deflexion of the tongue, when protruded, to the left. He positively denied any history of syphilis. He was given potassium iodide, 15 grains daily, for the following month, but the progress of his disease was definitely downward. He became odd in his manner, stupid, passed under him, and developed marked ataxy of lower extremities. A diagnosis of a tumour in the right frontal lobe in the neighbourhood of the face and tongue centres was made. Mr. Johnston trephined over this region, and removed a hardened mass in three portions, which was handed to Dr. Wigham, who reported that the mass was syphilitic. The operation was followed by complete loss of power in the left arm and leg. The latter soon recovered, and later on he gained free power in both arm and leg. The optic neuritis rapidly subsided, and vision was almost normal when he was discharged. There was a marked improvement in his mental condition, and all ataxy had disappeared. His blood, tested by Wassermann's reaction, gave a positive result.

He was discharged from hospital a little over two months after the operation, in full possession of his mental and physical faculties, except slight traces of optic neuritis, which was, however, in process of subsidence. In reply to questions, Dr. Parsons said the patient had been given over 400 grains of potassium iodide, but that, despite this, his condition had got steadily worse.

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Section of Obstetrics.

*Friday, February 17th, 1911.*

Dr. H. Jellett, President, in the Chair.

Dr. Hastings Tweedy brought forward a series of 46 cases of *Wertheim's operation*. His mortality was 19.5 per cent. This percentage was swelled by the inclusion of his early cases, in which the mortality worked out at 33 per cent. for his first year. He operated on 90 per cent. of the cases seen by him, and advocated operation in advanced cancer, not in the hope of bringing about a cure, but to mitigate pain and distress. The surgeon, he said, who could count a large percentage of cures after a two-years' interval must have obtained them by selection of cases, and must, therefore, have consigned numbers of operable cancer patients to a hopeless outlook and a horrible death. Professor Smith, speaking of treatment of the ureter, mentioned Dr. Latzko's method. He made a relatively big incision into the bladder, but he did not stitch the ureter to the bladder. He anchored the bladder to the stump of the suspensory ligament of the ovary; he drew the bladder well over to the side of the damaged ureter, leaving the damaged ureter in the bladder, where, he said, it became adherent, and no trouble followed. In regard to the preliminary treatment of cancer of the cervix, he thought a bathing-cap made of rubber was one of the finest methods he knew of. The cap is fitted on to the cervix and stitched there. This would prevent implantation of the cancer cells. Dr. Purefoy, speaking of "inoperable cases," said that, providing the patient was willing, operation should be attempted on any case where the patient was likely to survive the shock thereof. Indurated tissue was no doubt often cancerous but not invariably so. Glands enlarged and hard when removed had often been shown under the microscope to be free from cancerous tissue. Sir William Smyly said that Wertheim's method was still the best, and it would be best for beginners at least to stick closely to the rules laid down by him in a work just published founded upon an experience of 500 operations. It appeared that his methods differed now very little from those advocated at the Belfast meeting of the British Medical Asso-

ciation. The cause of ureteral fistula appeared to be still an unsolved riddle. Wertheim had varied his methods with the different theories as to causation, but seemed to have had about the same number of fistulae in each hundred cases. Wertheim laid great weight on draining the subperitoneal spaces, and unfortunate results were due to this closing up. He no longer tried to expose the ureters at the beginning of the operation, but looked for them after dividing the infundibulo-pelvic ligaments. He did not try to separate the bladder down to the vagina at the beginning of the operation, but separated the bladder from the uterus, and after the ureters had been fully exposed, the bladder from the vagina. By doing so there was less risk of injuring the ureter, and it was possible to go further out to the sides; in cases where the bladder was fixed to the uterus or vagina a finger could be passed from the side underneath the cancerous part, and so an idea obtained of how much cancerous tissue had to be cut through. Dr. THOMPSON asked whether it would not be advisable to remove the kidney on the side of an injured ureter, as many people got on well with only one kidney. The PRESIDENT said, with regard to the technique of the operation there were two modifications—one, originally taught by Wertheim, in which the first step was to separate the bladder from the uterus; the other by Bumm, in which the infundibulo-pelvic ligament was divided, and the peritoneum at the base of the broad ligament cut through, after which the ureter was easily seen. It seemed to him (the speaker) simple to find the ureter by this method, and it could then be traced into the cancerous mass. Dr. TWEEDY, in reply, said he was surprised at the great number of cases of ureteral fistulae and cystitis met with in Wertheim cases, and this in spite of the most elaborate aseptic precautions and preparation of the patient. The preparation could be carried a great deal too far. Personally, he thought a fortnight a shocking interval to leave a woman without operation, and tended to make the chances of recovery graver and less hopeful. Therefore he would say an interval of two or three days should be the utmost to leave a patient without operating, as every hour was only adding to the chances of metastasis. Wertheim made a mistake in not using gloves, as in this operation especially gloves were required. Drainage of the cellular tissue was greatly advocated by Wertheim. On the other hand, many great authorities—for instance, Dr. Lockyer of London—hardly used drainage at all. He did not operate on 90 per cent. of patients, but selected his cases. In other words, he looked for early cases of cancer. If it was an early case it was not necessary to drain. If a late case, it must be drained. But early or late, gloves were used. It was necessary for Wertheim to drain, but not for Lockyer. Removal of the kidney had been done very many times. Of course, it added greatly to the shock of a patient who was already in a wretched condition. His objection to the President's method was that he was afraid of going too deep down. The ureter retracted towards the cervix, and got buried in a mass of cancer tissue. He was very fond of draining through the abdominal wound, and in this operation there was no better channel—the plugging in the subperitoneal spaces passed through the vagina, but was completely closed off from the pouch of Douglas, and this he drained with the gauze through the lower angle of the wound. The great feature of Wertheim's operation was the complete shutting off of the peritoneum with drainage, and abdominal drainage was also at times a great advantage.

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## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, March 8th, 1911.*

Dr. F. W. N. HAULTAIN, President, in the Chair.

### *Anaphylaxis in Pregnancy.*

DR. R. W. JOHNSTONE described the supersensitiveness following on the injection of certain complex proteins into an animal, and gave the prevailing explanation of the phenomenon. Within recent years attempts had been made thereby to explain the toxaemias of pregnancy, the idea being that an alien protein from the fetus might supersensitize the mother. Some observers had found that the injection of placental extracts produced toxic symptoms, but these were probably due to products of autolysis, and did not occur when perfectly fresh extracts were used. Dr. Johnstone had carried out experiments with saline extracts of placentae, and with suspensions of powdered placentae, in which autolysis had been guarded against. Evidence of anaphylaxis was obtained in eight out of twelve animals after the injection of the juice of normal human placenta; no such evidence was obtained with the placenta of an eclamptic patient; the injection of placental juice into animals of the same species gave negative results; no anaphylaxis followed the intraperitoneal introduction of a suspension of placental powder. The conclusion was that anaphylaxis did not explain the commoner manifestations of the toxaemia of pregnancy.

### *Gastro-Mesenteric Ileus.*

Mr. E. SCOTT CARMICHAEL read a paper on so-called gastro-mesenteric ileus, and gave an account of 3 cases: (1) Operation of ventrifixation for retroverted uterus. On the third day after, frequent vomiting, which was mistaken for delayed chloroform poisoning. At the patient's own request, she was turned on her left side and partly on her face. She soon vomited several pints of fluid and was completely relieved. (2) Operation for hydatid cyst of the liver. From the second to the ninth day frequent vomiting without much effort. Generalized peritonitis suspected, but distension was confined to the epigastrium and left side of abdomen. Five pints drawn off by stomach tube with immediate relief. Recurrence of vomiting, and gastrostomy performed. The stomach was seen to be a flaccid bag extending into the pelvis. The distension involved the duodenum as far as its junction with the jejunum. Death occurred from exhaustion five hours later, and at the autopsy the stomach and duodenum were found to be almost normal in size. (3) Operation for ovarian cyst-adenoma. Frequent vomiting and distension confined to upper part of abdomen. Instant and complete relief after removal of $1\frac{3}{4}$ pints of fluid through a stomach tube. The condition might arise in eclampsia and the septicaemia of pregnancy. The features of the condition were gastric atony and hypersecretion. The extent of the distension in one case to the duodeno-jejunal flexure proved that in this instance it was not due to pressure of the mesenteric vessels at the point at which they crossed the duodenum. The vomiting was not accompanied by much retching. It was rather a welling up, and the fluid was frequently irritating, causing excoriations of the lips. If the case was seen early, it could almost invariably be cured by passing a stomach tube one or more times. Gastro-enterostomy, gastrostomy, and duodeno-jejunostomy had been tried.

### *Dilatations of the Graafian Follicle.*

Dr. FREELAND BARBOUR and Dr. B. P. WATSON demonstrated by naked-eye specimens and lantern slides the formation of cysts in the ovary by the dilatation of Graafian follicles. They arose as a sequel to the non-bursting of the follicles, perhaps owing to a change in the tunica albuginea. Even in the absence of rupture, lutein cells were present in abundance. The time necessary for the development of such cysts was not yet known. In one specimen shown they had certainly formed within eighteen months. The PRESIDENT said the demonstration might prove helpful to the operating surgeon in deciding whether to remove or leave an ovary. He believed that the conservative surgery of the ovary was only in its infancy. Mr. SCOTT CARMICHAEL said that if the patient's complaint was pain, the ovary should be removed; if pain was not severe, it should be split open; if the cyst arose in a Graafian follicle, the ovary should be stitched up again and left. In one instance he had found that a cyst as large as a walnut had developed within three months.

### *Extreme Dilatation of the Tuberculous Tube.*

Dr. FREELAND BARBOUR and Dr. B. P. WATSON also gave a lantern demonstration of the appearances of the tube in tuberculous pyosalpinx. Sections were made from three regions—the more dilated part, the less dilated part, and the uterine end. In the less dilated part there was an extraordinary development of epithelium resembling a carcinoma, and fusion of the processes projecting into the lumen of the tube. The secretion was mucoid in character, and increased in amount, distending the lumen. This represented the first stage in the reaction to the tubercle

bacillus. In the next stage the tube was lined by typical tuberculous granulation tissue, and nodules were plentifully scattered throughout the mucosa. In the third stage, found at the more dilated part of the tube, the muscle was covered with tuberculous granulation tissue containing fewer nodules, and the lining was composed of a single layer of epithelial cells. The contents were mucus mixed with tuberculous *débris*. This represented a process of healing. At the uterine end tuberculous nodules were absent from the mucous membrane, but were present in the muscular layer. These phenomena suggested that infection occurred through the fimbriated end from the peritoneum, and was gradually carried along the tube by the stream of fluid. Later the active process was found in the less dilated part of the tube nearer the uterus, while the outer part had begun to heal. In the specimens examined, infection had probably been carried to the muscle of the uterine end by lymphatics. The PRESIDENT said he had found tuberculous tubes thickened throughout. Mr. CARMICHAEL said he believed, from his experience of suppurative appendicitis and pneumococcal peritonitis, that infection of the tube from the peritoneum through the fimbriated end frequently occurred. Dr. YOUNG said that the intense proliferation of epithelium in response to the stimulus of the tubercle bacillus touched the question of the etiology of cancer.

## MEDICAL SOCIETY OF LIVERPOOL.

*Thursday, February 23rd, 1911.*

**Dr. T. R. BRADSHAW, President, in the Chair.**

### *Lepra.*

DR. FRANK H. BARENDT read a note on lepra, and exhibited a patient showing the macular type. After a brief reference to the nomenclature and history of leprosy, and its endemicity in Great Britain during the Middle Ages, he showed on the screen a typical case of the nodular type and contrasted the two forms of the disease. The patient, by birth a Scotsman, had acquired the disease a year before in South Africa. He first noticed a large anaesthetic patch on the anterior surface of the right thigh, and in the course of six months there appeared patches, varying in size, in the following sites: Right malar region, right side of nose, chin, and lower lip, left pinna, cubital regions, both hypothenar surfaces, and gluteal regions. He complained of pain and tingling in the affected areas. In October last he was admitted to the Tropical Ward of the Royal Southern Hospital under the care of Professor Ronald Ross. Nastin had been administered, but without benefit. Locally $x$ rays had been used, especially to the right thigh, the site of the initial patch, and here a distinct improvement was noted. Leucocytosis was being produced, and nastin would be resumed and the results reported later.

Dr. GROSSMANN said that the appearance of the patient was not at all that generally met with in the macular form of leprosy. In his experience the colouring of the spots had never been such a deep reddish tint; in the white race they had been pale, mostly towards pink and purple; in the dark races pale, even to white. Nor had he ever seen such a swelling as the coloured part of the lower lip showed. It hardly looked like a mixed form of macular and nodular leprosy. As to treatment, he felt inclined to suggest in this case mercury in large doses.

### *Salvarsan in Tabes.*

Dr. C. J. MACALISTER showed a patient suffering from tabes who had been treated by salvarsan with much benefit. The patient had acquired syphilis six years ago, the symptoms of tabes being first noticed four years ago. These were lightning pains, marked unsteadiness in gait, nocturnal incontinence, and loss of the knee-jerks, etc. In one eye there was old iritis and there were also several tertiary ulcers on the skin. On January 19th salvarsan was given intravenously. The injection was followed by some transitory constitutional disturbances. Manifest improvement followed the treatment. The pains, ataxia, and inco-ordination were greatly relieved; also disturbance of sensation was less marked and the patient was able to walk a considerable distance.

Dr. GORDAN GULLAN was not surprised at the improvement, since many cases of the disease were greatly benefited by mercury, if given in the early stages and continued for a long period.

Dr. WARRINGTON briefly mentioned the very divergent views that were held on the question of the antispecific treatment of tabes.

### *The Rôle of Reflex Inhibition.*

Professor C. S. SHERRINGTON read a paper on this subject. A distinction was drawn between the inhibition which acted upon the skeletal muscles and that which acted on other muscles, such as heart, intestine, and blood vessels. In the latter cases the muscles were supplied with two kinds of nerves, excitatory and inhibitory, both nerves issuing as efferent from the central nervous system. In the case of the skeletal muscles no efferent inhibitory nerve was provided, but only an excitatory efferent, namely, the ordinary motor nerve. Nevertheless, inhibition played an even more potent and extensive rôle in controlling skeletal muscles than it did in regard to any other kind of muscle. Its mode of action was, however, always reflex, and it inhibited the muscle by inhibiting the histo-neurone which actuated the muscle. The main purposes which this reflex inhibition served in its control of skeletal muscles were as follows:—(1) It cut short the contraction of one set of muscles when another set was called into play. It thus helped, and indeed was an essential factor for, the transition from one reflex action to another. It also guarded and maintained a reflex already in operation by preventing its being interrupted by other stimuli which would disturb it; it did so by inhibiting the influence that those stimuli would otherwise produce on the nerve centres. (2) It graded the degree of intensity of the discharge from nerve centres by diminishing it to any required extent. When two afferent nerves, one excitatory and the other inhibitory, were concurrently stimulated, their effects could be so adjusted as to algebraically sum. In this way inhibition made itself apparent as a graduated moderating influence by which the required discharge from any motor centre could be adjusted with delicacy to any required intensity. (3) Reflex inhibition exhibited itself in the taxis of a number of important reflexes, such as those of stepping and respiration and eyeball movements, in a form known as reciprocal innervation of antagonistic muscles. In this, while the protagonistic muscle contracted the antagonistic relaxed, and the relaxation was due to central inhibition of the histo-neurones of the latter. This applied apparently universally to true antagonists, but not to pseudo-antagonists. Pseudo-antagonists were dealt with by identical innervations. (4) Inhibition was the main means by which rhythmic reflexes were produced. This occurred in the following way: To take, for instance, the rhythmic reflex of stepping—one phase of the rhythmic reflex was excited and then its very execution produced a stimulus which evoked a reflex inhibition, cutting that phase short and interrupting the action of the stimulus which excited it. The inhibition then was removed in virtue of the movement which caused it having under the inhibition lapsed. The original stimulus thus became operative again. And so the rhythmic reflex was maintained, rhythmically repeated inhibition being a main factor in its production. (5) Inhibition was followed on its withdrawal by a great augmentation of activity of the inhibited centre. This was called post-inhibitory rebound. This post-inhibitory rebound was responsible for one of the two phases of various diphasic reflexes, such as stepping, mastication, respiration, etc. Post-inhibitory rebound was very weak and irregular when the afferent nerves of the muscle had been destroyed. In other words, in tabetic muscles, or rather in tabetic spinal centres, the normal rebound occurred feebly or not at all. In the tabetic patient its place had to be taken by voluntary effort. (6) Strychnine had as its peculiar effect the conversion of reflex inhibition into excitation. Tetanus toxin and rabies virus had the same effect. These agents, therefore, worked havoc with the elemental co-ordination of the skeletal muscles, changing reciprocal innervations into identical innervations. Hence, in tetanus patients the greater the effort made to open the jaw the more tightly was the jaw closed, and in the hydrophobia patient the greater the attempt made by the sufferer to inhibit his inspiration in order to swallow, the deeper and more pro-

longed the inspiration which, contrary to his desire, ensued, inhibition being converted by the virus into excitation.

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AT a pathological meeting on March 2nd, Dr. T. R. BRADSHAW, President, in the chair, the following were among the exhibits:—Mr. THELWALL THOMAS and Dr. STOFFORD TAYLOR: (1) A large intracanalicular *Fibroma of the breast* (weight 7 lb.) containing a cyst, removed from a patient aged 44; the fibrous tissue was undergoing myxomatous degeneration, and in one place had fungated through the skin. (2) A large round and oval celled *Periosteal sarcoma* of the scapula of a woman aged 20; an interscapulo-thoracic amputation had been performed. (3) A large *Cancellous exostosis* from the lesser trochanter of the femur in a patient who had fourteen others, small in size, distributed at the epiphyseal ends of many of the long bones. Mr. DOUGLAS CRAWFORD: (1) A right kidney with large *Branching calculus*, removed from a woman aged 65, producing no symptoms except occasional pus in urine. (2) *Volvulus* of lower end of small intestine, which had lodged in the pelvis, producing symptoms of appendicitis in a woman aged 31; it had been excised with excellent results. (3) (With Dr. MOORE ALEXANDER) An *Embryoma*, probably malignant degeneration of the remains of branchial cleft, from a youth aged 21, which had grown rapidly recently. Cysts were present. Microscopically, there were carcinomatous masses and tubes lined by ciliated epithelium. Dr. ERNEST GLYNN: (1) A specimen of cellulitis and suppurative thrombosis of the orbit due to *Actinomycosis*; pus was found in the sella turcica. The source of infection was not discovered. (2) Multilobular *Cirrhosis of the liver*, with multiple small old and recent red thrombi in the capillaries and smaller branches of the hepatic and portal veins. The cause of the thrombosis was not discovered. (3) Enormous *Dilatation of bladder* without obstruction from urethral stricture or enlarged prostate; the dilatation was proved microscopically to have resulted from chronic interstitial myositis following chronic cystitis. Dr. R. BUCHANAN demonstrated a method for the examination of red blood corpuscles by means of Edington's solution in combination with stains; the blood was mixed in a Thoma-Zeiss pipette with a solution, then placed on a slide and allowed to dry. The erythrocytes by this method did not undergo any distortion from spreading. He also read a note on the appearance of the erythrocytes from a case of recurrent attacks resembling Henoch's purpura for thirteen years. When examined by the method just described 90 per cent. of the erythrocytes from the peripheral circulation contained one or more peculiar basic staining bodies not unlike parasites. The blood in the urine contained identical bodies. Dr. WAKELIN BARRATT exhibited the technique of making models of cells undergoing mitoses. Dr. STEPHENS, in a paper on recent researches in *Sleeping sickness*, dealt with the following points: (1) Are there other species than *Trypanosoma gambiense* which cause sleeping sickness in man? He pointed out that some of the trypanosomes had a nucleus at the posterior end. This trypanosome was also far more pathogenic for animals than *T. gambiense*. It remained to be seen whether this trypanosome was really different from *gambiense*. (2) The mode of transmission of *T. gambiense*. Up till recently it was believed that the transmission was mechanical, but recent work had shown that the fly was not infective until twenty or thirty days after biting an infected person. (3) What is the reservoir of sleeping sickness? Probably antelope and cattle and some of the domestic animals must be regarded as potential reservoirs. (4) Is sleeping sickness curable? In the early stages it was practically certain that some cases had been definitely cured by arsenic or antimony used in various ways, but if the trypanosome gained access to the subarachnoid space it was doubtful whether a cure was possible.

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## SOCIETY OF MEDICAL OFFICERS OF HEALTH.

*Friday, March 10th, 1911.*

Dr. W. G. WILLOUGHBY, President, in the Chair.

*Treatment of Phthisis by Industrial Insurance.*

DR. T. D. LISTER, in a paper on the treatment of phthisis by industrial insurance, with special reference to the Benenden Sanatorium, said that the want of immunity on which consumption chiefly depended among the industrial classes was largely due to ignorance, to lack of sunlight, fresh air and ventilation, and to lack of a certain standard of ventilation. The educational difficulty was perhaps the greatest they had to face. The great mass of the tuberculous population was so familiar with the apparent inevitableness of consumption that it was difficult to persuade them that any alteration of their own habits was going to help them. Some could not even learn in a sanatorium itself. He urged the importance in any scheme for an industrial sanatorium of providing only the simplest domestic surroundings, with the sole addition of means for efficient treatment by hygienic methods. The luxuries in the way of architectural and mechanical contrivances to be found in some institutions were liable to confuse the mind of the patient, who on returning to his own small house was apt to think that his cure was in some way connected with the extraordinary facilities that existed in the sanatorium in which he had been treated. Taking into account the condition of those discharged from Benenden, 81 per cent. of those who left with the disease "arrested" were still doing full work from more than six months to more than two years after discharge, while 37 per cent. of those who left as "improved," and 7 per cent. of those who left "unimproved," were doing full work at the same periods after discharge. Dr. F. C. SHRUBSALL considered that if a suitable superintendent were chosen for a sanatorium the locality of the institution was a minor consideration. Elaborate methods of ventilation were not needed, for, except in inclement weather, the patients were exposed to the open air. A capable superintendent would teach the patients how they should conduct themselves when they returned to their own homes, even to the extent of teaching them how to feed themselves. Mr. C. H. GARLAND urged that the State should deal with the question of tuberculosis upon insurance lines, and he considered that the Edinburgh system might very well be applied to the whole country. Dr. J. S. TEW emphasized the importance of simplicity in the arrangements of a sanatorium, so that their patients' home conditions, when they returned there, would be similar to those of the institution. Dr. E. H. T. NASH spoke of the importance of impressing patients with the idea that they would be able to return to their own employments. Dr. C. SANDERS thought that the main question was not so much the treatment of the patient as of his family. Drs. J. R. KAYE, HERBERT JONES, W. BUTLER, and F. E. FREMANTLE also spoke.

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## MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

AT a meeting held on February 17th, 1911, Professor MUIR, President, in the chair, Dr. NAPIER described the *Treatment of phthisis pulmonalis* as carried out in his wards. Mr. MAYLARD showed a series of abdominal cases illustrating the following conditions: (1) *Congenital narrowing of the pyloric orifice* treated by gastro-jejunostomy. (2) *Hypertrophic stenosis of the pylorus* in the adult; pylorectomy with gastro jejunostomy for supposed malignant disease. (3) *Hour-glass contraction of the stomach* treated by gastro-gastrostomy. (4) *Intractable gastric neuroses* treated by exploratory gastrotomy. (5) *Tuberculous caecum*—excision and implantation of ileum into ascending colon by invagination. (6) *Carcinoma of colon*—excision—continuity established by intestinal invagination. (7) *Carcinoma of colon*—inoperable—short-circuiting by intestinal invagination in place of artificial anus. (8) *Acute intestinal obstruction*—faecal vomiting—evacuation of contents of intestine and introduction of magnesium sulphate into the bowel. (9) *Appendicitis with abscess*—appendicectomy and swabbing of abscess cavity with pure carbolic acid. (10) *Tuberculous peritonitis*—laparotomy—removal of fluid, and exploratory manipulation of parts. (11) *Uterine and ovarian tumours* removed by subumbilical transverse incision. (12) *Invagination of divided ureter into bladder.* (13) *Transperitoneal nephrectomy* by transverse incision. (14) *Lipectomy for pendulous abdomen and ventral hernia*—removal of 10 lb. 11 oz. of fat, by a 21-in. transverse elliptical incision. (15) *Abdominal cicatrices after transverse or oblique division of the rectal*

*sheaths and recti muscles.* Mr. PARRY showed cases to illustrate points in the surgical treatment of (1) *Torn cartilage in knee-joint;* (2) *Exophthalmic goître;* (3) *Fractures into joints;* (4) *Gangrene of gall bladder;* (5) *Duodenal ulcer.* Mr. GRANT ANDREW showed (1) cases of *Renal calculi*, with skiagrams; (2) two children suffering from *Infantile spastic paraplegia*, who, prior to orthopaedic treatment, were unable to walk; (3) an infant who had been operated on for *Congenital hypertrophic stenosis of the pylorus.* Dr. ROBERT CARSLAW showed (1) a patient operated on three months ago for *Perforation of pyloric ulcer* (excision of ulcer, pyloroplasty), who developed empyema suddenly after two months of good health; (2) Card specimens: (*a*) *Acute carcinoma of breast* removed from a young woman, aged 29; (*b*) *x* ray photographs of two cases of *Tuberculosis of the acetabulum*, with pathological dorsal dislocation of the head of the femur (photographs taken before and after operation). Dr. BROWN KELLY showed cases presenting the following conditions: (1) *Double abductor paralysis;* (2) *Pharyngeal and laryngeal nystagmus;* (3) *Cornu of hyoid projecting into pharynx;* (4) *Cicatricial stricture of oesophagus;* (5) *Submucous cleft palate;* (6) *Keratosis of pharynx and larynx;* and others. Dr. A N. MCLELLAN showed (1) a patient operated on for *Extrauterine pregnancy of right tube*, in whom the left tube was distended with blood-stained fluid and closed; (2) a case of *Carcinoma of body of uterus;* (3) a case of *Fibroma of left ovary* with extensive adhesions to bowel and pelvic floor—large accumulation of fluid in pleural and peritoneal cavities, which was removed on several occasions by tapping—removal of tumour, followed by complete disappearance of fluid from both cavities; the patient was now in good health. Dr. ALBERT A. GRAY showed (1) microscopic sections showing the *Organ of Corti;* (2) microscopic sections showing the *Cochlea of a deaf-mute;* (3) microscopic sections from a case of *Oto-sclerosis;* (4) macroscopic specimen showing *Fixation of the stapes in oto-sclerosis;* (5) family tree showing the *Influence of heredity in oto-sclerosis.* Dr. HUGH WALKER showed some *Ophthalmic cases.* Dr. JOHN ANDERSON showed pathological specimens illustrating some of the *Enlargements of the kidney.* Dr. D. O. MACGREGOR showed a series of *Skiagrams* illustrative of various medical and surgical conditions

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 1st, Mr. W. MORLEY WILLIS President, in the chair, Dr. J. W. SCOTT, in opening a discussion on *Anaesthetics*, said that, as a prophylactic against chloroform poisoning, it was advisable to give glucose and sodium bicarbonate to patients who were passing acetone in their urine; also to avoid prolonged fasting and to wash out the rectum. Ether was safer than chloroform in its immediate effect, but more difficult to administer, and very often led to serious pulmonary complications. The open method was the best; he had frequently used it with children without causing any bronchitis. A mixture of chloroform and ether was the most satisfactory of all, as it maintained a more constant blood pressure. Dr. R. ALDERSON said he never limited himself to one anaesthetic, but preferred giving a mixture of ether and chloroform by the open method and varying the percentage according to the needs of the case. The open method did away with the objections of a Clover and rendered the patient less liable to post-anaesthetic vomiting. The mixture should be slowly given. Miss A. M. LE PELLEY found that emergency cases took anaesthetics well, and thought the ordinary preparation of patients was too drastic; operations should be performed, when possible, in the morning, and fright reduced as far as possible. As a rule, the temperature of the operating theatre was too high. Mr. KENNETH BLACK said he had seen thirty patients die on the operating table, twenty-three of these after chloroform. In all cases the cause of death was an overdose of the anaesthetic, some cases, of course, being more susceptible than others. Dr. T. B. GILBART-SMITH always started anaesthesia with A.C.E. mixture, and generally continued with chloroform. In abdominal operations the patients stood the operation better if deeply "under." Dr. A. WARING preferred A.C.E., and believed in giving as little as possible. He found heart disease no contraindication to giving an anaesthetic if it was administered slowly and carefully. Mr. R. G. HOGARTH preferred to have ether administered by the open method, but mentioned one case which was followed by acute bronchitis. Mr. R. WOOD (Ilkeston) always gave chloroform in midwifery cases with success. Mr. W. HUNTER preferred A.C.E., and regarded chloroform as most dangerous. He deplored the present system of newly qualified assistant house-surgeons being suddenly called upon to give, say, eight anaesthetics for major operations in a morning. Mr. H. BELL TAWSE said chloroform was the anaesthetic of choice in nasal cases, as ether caused so much haemorrhage. The PRESIDENT thought chloroform was perfectly safe in skilled hands; it was quite pleasant to take, and produced the best results from a surgeon's point of view. Drs. SCOTT and ALDERSON briefly replied.

## THE NEW LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on March 9th, Dr. PHINEAS S. ABRAHAM, President, in the chair, the following were among the exhibits:—Mr. DENNIS VINRACE: A man with *Traumatic alopecia*, simulating the senile variety, consequent upon a douche of boiling water to the scalp. Dr. TOM ROBINSON: A butcher, aged 46, with *Tuberculosis verrucosa cutis* upon the back of the hand, following a cut twenty-six years previously. Dr. DAVID WALSH: A girl, aged 9, with *Dermatitis herpetiformis.* The present attack had lasted for three months, and she had had a similar one two years ago. The lesions were grouped symmetrically, were recurrent, and accompanied by itching. Dr. MORGAN DOCKRELL: (1) A case of *Bazin's disease* in a woman aged 19. The disease had lasted four years, and was confined to the lower limbs. A discussion took place upon the relationship of this affection to tuberculosis. (2) A man, aged 31, with *Ul-erythema* of the scalp, the left ear also showing some signs of the disease. Dr. W. KNOWSLEY SIBLEY: (1) A man with *Psoriasis*, in whom the mucous surface of the glans penis was affected. (2) A woman, aged 31, with *Erythema bullosum.* The attacks had commenced at an early age, and now there were numerous scarred and pigmented lesions upon the back and limbs, many of the recent ones being bullous. At first sight the condition upon the chest resembled that seen in some cases of dermatitis artefacta. Dr. W. GRIFFITH: (1) For Dr. M. K. HARGREAVES, a woman, aged 25, with extensive *Favus* of the scalp and trunk, which had existed since childhood. She was under treatment with *x* rays. (2) The patient shown at the previous meeting with *Mycosis fungoides*, to show the improvement that had taken place with *x*-ray treatment. Dr. G. NORMAN MEACHEN: (1) A woman with *Ul-erythema* of the scalp alone; (2) a case of *Papulo-necrotic tuberculides (follicles)* affecting the calves of the legs and the backs of the hands.

ERRATUM.—In describing his case of Morgagnian cataract at the Ophthalmological Society of the United Kingdom, on March 9th, Mr. Johnson Taylor attributed the amblyopia to long disuse, and not to long disease, as stated in the account of the meeting at page 626 of our issue for March 18th.

THE third International Congress on the Hygiene of the Dwelling will be held at Dresden next October (2nd to 7th). Communications should be addressed to the General Secretary, Dr. Hopf, Reichstrasse 4 II, Dresden.

THE Prussian Chamber of Deputies has now before it the draft of a bill as to cremation. The bill as it now stands makes cremation lawful. Before a body can be burnt there must be produced the official death certificate, the medical certificate stating the cause of death, documentary evidence that the deceased expressed a wish that his remains should be cremated, and a certificate from the local police authorities of the place where the death occurred. These precautions are intended to remove any scruples concerning cremation, and to prevent suspicion that the death was due to violence. With regard to the medical certificate, it is provided that a *post-mortem* examination should be made if one of the doctors concerned in the case considered it advisable in order to ascertain positively the cause of death.

# Reviews.

## PATHOLOGY IN CLINICAL PRACTICE.

THERE is no department of medical science in which such rapid advances have been made in recent times as in pathology. So much that is comparatively new has come to be the established routine of everyday practice that a book embracing a comprehensive and intelligible survey of the present position of pathology in relation to practical medicine has become a need of the times. The opportunity has been seized by Dr. THOMAS J. HORDER, to whom the profession is indebted for a volume on *Clinical Pathology in Practice*,[1] which, we venture to think, will supply an admitted want. He sets before his readers a simply told account of recent pathological and bacteriological developments in terms of critical discussion that will commend themselves to all who desire accurate and reliable information on the latest discoveries and hypotheses by which modern laboratory research has brought within the scope of practical medicine new and promising methods of investigation, upon which depend important aids to accuracy in diagnosis, valuable assistance in the prevention of disease, and potent agencies for the cure or alleviation of many maladies.

Dr. Horder's volume is written in a commendable spirit of the strictest moderation, and with much wisdom he insists upon caution in drawing conclusions. Pathology is and must remain the handmaiden of clinical medicine, and no attempt to change the physician for the pathologist is to be encouraged; but Dr. Horder epitomizes the truth of the present position when he says that "to add to sound clinical observations the findings of the microscope and the test-tube sums up all the notable advances in medicine since the days of Laënnec. . . . The whole truth will never be found at the bedside, still less will it be found in the laboratory; the hopes of medicine lie in the close dependence of each field of observation upon the other."

He deals, *inter alia*, with such matters as the collection of material for pathological examination; blood culture; laboratory examinations of blood, sputum, urine, and faeces; the information to be gained from puncture of the pleura, spinal canal, lungs, joints, etc.; the value of specific serum tests in diagnosis; and vaccine-therapy. In these days when treatment by serums and vaccines has taken hold of the public imagination, and when, even by medical men, the limitations, and in many instances the problematical value, of such measures of therapeutic management are forgotten in the need for meeting, so far as may be, the popular demand, it is well to be reminded by such an authority as Dr. Horder that indiscriminate vaccinations or serum injections are non-scientific, and from the curative point of view worse than useless. In a reference to septicaemia, which may be taken as the type of disease against which this form of medication is mostly directed, he says that "treatment, whether by bactericidal serum or by specific inoculation, or by a combination of both of these, must depend for its success upon the isolation from the patient's blood of the micro-organism present, and at as early a stage of the disease as possible." Discredit and disappointment, if nothing worse, must attach to the introduction into the body fluids of serums or dead micro-organic cultures at haphazard.

A very careful account is given of lumbar puncture, and the diagnostic indications for its use are clearly stated. The technique of the little operation is accurately described; it is one which may safely be undertaken if the rules which Dr. Horder lays down are followed. Examination of the cerebro-spinal fluid gives us valuable information in many cases, and we owe much to Quincke for having added to our clinical resources the therapeutic and diagnostic guidance that is to be got from lumbar puncture.

It is now generally accepted that microbic activity at the orifices of the body, and especially in the nose, mouth, and throat, is responsible for many obscure forms of pyrexial illness, and though the air passages and the alimentary tract are the habitat of innumerable bacteria which under normal conditions of health are innocuous, no reliance can be placed upon a continuance of their benign characteristics. Dr. Horder points out, for example, that "the pneumococcus which is found in normal saliva, though a harmless inhabitant of the mouth and throat during health, may become highly injurious, causing serious diseases." This change is supposed to be due either to a more or less sudden attainment of virulence by the germ, or to a lowering of the vitality of the patient, or to both of these events. What is true of the pneumococcus is true also of the streptococcus. There is a strain of streptococcus constantly present in the normal mouth, *Streptococcus salivarius;* in normal circumstances it causes no disturbance of health. In the condition known as pyorrhoea alveolaris, however, this streptococcus is found to be definitely pathogenic, producing a series of morbid changes around the teeth with consequent disease. These and other instances which he enumerates indicate that too much reliance must not be placed upon microscopic appearances alone, and justify his warning that the bacteriological evidence in every case must be considered in the light of the clinical manifestations with which it is associated.

As regards vaccine-therapy, Dr. Horder frankly admits that it is still in an initial and tentative stage, and he points out that in the important question of dosage there are yet great differences of opinion and of practice. In his judgement no definite rules can be formulated, but he promulgates the following principle as a safe one for guidance: "The more virulent the micro-organism, and the more acute and the more generalized the disease process, the smaller should be the dose of vaccine employed." A statement so conservative coming from an authority so skilled justifies an attitude of extreme caution in regard to the therapeutic possibilities of a system which, though it possesses much of promise, is yet too youthful to justify unqualified confidence in its curative capacity except in carefully selected cases, or in circumstances where treatment which experience has taught us to trust proves ineffectual. The plan of using vaccines which are manufactured and kept in stock by wholesale chemists leads, as Dr. Horder warns his readers, to a temptation to waive the important preliminary of bacteriological diagnosis, and is liable, if resorted to indiscriminately, to bring vaccine-therapy into disrepute. He admits that there are instances in which the use of a stock vaccine is imperative, but he recommends that, as far as possible, "the particular vaccine used should be specially prepared for each patient." In regard to vaccine inoculation as an addition to our therapeutic armamentarium, he finally concludes that it "is not to be regarded as a panacea for all diseases which are of microbic origin. Still less is it to be regarded as a panacea for all diseases. It is a valuable adjunct in the medicinal and surgical treatment of bacterial infections." This seems to be a judicial and judicious summary of the correct attitude to adopt towards this latest development in curative medicine. We commend, with confidence, the perusal of Dr. Horder's volume to all who are concerned with the cure of disease. It is pleasantly written, conveys a large amount of practical experience temperately expressed, and may be taken as a safe guide to the legitimate and scientific application of serum-therapy and vaccine-therapy, as at present understood, to the cure of disease.

[1] *Clinical Pathology in Practice.* With a Short Account of Vaccine-therapy. By Thomas J. Horder, B Sc., M.D., F.R.C.P., Medical Registrar and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital; Physician to the Great Northern Hospital and to the Cancer Hospital, London. London: Henry Frowde, Oxford University Press; Hodder and Stoughton. 910 (Demy octavo, pp. 224; 5 illustrations, 6 figures. 7s. 6d

## FOOD INSPECTION.

THE methods of meat inspection adopted in this country are still admittedly behind those of some other European states, although in recent years more sustained attention than formerly has been paid to the subject in some districts. In the customary memorandum as to their annual reports which was addressed to medical officers of health by the Medical Officer of the Local Government Board in 1908 it was for the first time stated that the Board desired information as to meat inspection, disease in meat, and the condition of slaughterhouses in the various sanitary districts, and in the following year the memorandum contained a request that information on these matters should be given by medical officers of health, even though it could only be of a negative character. There are other indications that the central authority is fully alive to the need for improved methods of meat inspection, and local

authorities are giving practical effect to the desires of the central body by appointing trained men to carry out the necessary inspections. The training required is essentially practical, but hand in hand with this practical portion there must be the acquirement of theoretical knowledge. To assist in this acquirement Walley's *Practical Guide to Meat Inspection* still holds a foremost place, and the fifth edition,[2] edited by Mr. STEWART STOCKMAN, has been so carefully revised and brought into accord with present-day views that its prominent position as a safe and reliable textbook stands in no peril. Mr. Stockman favours the central hall form of slaughterhouse in preference to the booth system, and he urges the necessity for a properly equipped laboratory in connexion with public slaughterhouses. He is very definite in his statement that inspectors should be scientifically trained, and that at present the veterinary surgeon is the proper person to act as a meat inspector.

In his handbook on *Food Inspection*[3] Dr. HUGH A. MACEWEN has dealt not only with meat, but with fish, poultry, game, vegetables, and fruit, though more than one half of the work is concerned with meat inspection. The chapters on the inspection of live animals and on the method of inspection in the slaughterhouse are extremely well written, and contain numerous practical suggestions which cannot fail to be of service when applied by the inspector. Upon the different methods of slaughtering Dr. Macewen has not much to say. He gives a short description of Greener's patent killer, but no mention is made of the improved killer which has been introduced by the Royal Society for the Prevention of Cruelty to Animals, nor of Behr's pistol for killing small animals. We should like to believe that he is correct in the statement that before bleeding, pigs are, as a rule, stunned with a wooden mallet. Such is not the case south of the Tweed, though we are glad to learn that the Local Government Board has confirmed a by-law for the Corporation of Liverpool which provides that no person shall proceed to slaughter any bull, ox, cow, heifer, calf, or pig until the same has been effectually stunned. The greatest number as well as the most important diseases of animals, in Dr. Macewen's opinion, are bacterial in origin, and he considers that meat inspectors should have such a knowledge of the principles of bacteriology as will serve to guide them in the many problems involved in meat inspection. The forty pages devoted to a consideration of bacterial diseases should prove most helpful to the inspector, for after a general account of these diseases there follows a lucid description of special lesions. The sections on the law relating to unsound food and to slaughterhouses contain, for the most part, correct information. But in view of the decision of the High Court given in April, 1907, in the case of Goodwin *v.* Sale, it is not quite correct to say that slaughterhouse licences granted under the Towns Improvement Clauses Act, 1847, certain sections of which are incorporated in the Public Health Act, 1875, are granted once and for all The decision referred to made it clear that such licences are personal and temporary licences, continuing in force only during the life or occupancy of the original licensees. In his preface the author states that he has constantly kept in view the needs of those working for the food inspectors' certificate of the Royal Sanitary Institute and other bodies. In this respect he has admirably succeeded, for he has employed the simple, terse language of a teacher, while he has shown a wise discretion in treating the most important aspects of his subject at sufficient length without sacrificing adequate mention of the less important.

After the disclosures concerning the slaughterhouses and stockyards of Chicago which were made a few years ago, it was confidently anticipated that permanent reforms would be carried out. That such has not been the case is asserted by Dr. ALBERT LEFFINGWELL in his work on American meat.[4] Dr. Leffingwell is a former President of the American Humane Society, so that he naturally lays some stress upon the opportunities for cruelty which are associated with the celerity with which living creatures are turned into food products in the Chicago packing houses. Sheep led by a little goat into the slaughter pen are caught by the hind leg in bunches of three and four at a time, passed on to the butcher, who cuts the throat, and then to a long line of assistants, each of whom has one thing to do. It is evident, says Dr. Leffingwell, that too little time is allowed for dying, and removal of the skin is, he thinks, almost certainly commenced before sensibility can have ceased. Other portions of the work deal with the methods of inspection of meat adopted in the United States, and instances are given of the facilities which are given for the evasion of inspection. One chapter is set aside for the consideration of the apparent increase in cancer among human beings and the incidence of the disease among cattle, the author advocating the condemnation of an entire carcass if any portion is affected by a malignant growth. The reforms advocated are the transference from the Board of Agriculture of the control of meat inspection and the marking with a descriptive label of canned meat and of lard which, though prepared from animals somewhat affected with tuberculosis or other diseases, or by injuries, has been subjected to processes believed capable of destroying all disease germs. Such a product, it is maintained should be marked as of inferior quality, and those products derived from animals altogether above suspicion should be marked as of first quality. A perusal of this work leaves us with an unpleasant feeling that the foreign meat regulations which were made by the Local Government Board last year have not been put into force too soon.

## MEDICAL LEXICOGRAPHY.

PHYSIOLOGY is as subject to revolutions as a South American Republic; it has been estimated that the average expectancy of life of a theory is about ten years. In other departments of medical science the changes brought in by the whirligig of time, though not perhaps quite so vertiginous, are rapid enough to make it impossible even for the most determined reader of the scientific pemmican supplied by the journals to keep pace with them. Each step in advance entails a corresponding enlargement of medical terminology. This necessary evil is aggravated by the new words which many workers find needful to express their peculiar ideas. From these causes comes the ever-increasing output of medical dictionaries in recent years; the number of new editions of these that is called for at short intervals shows the keenness of the demand. Dr. GEORGE M. GOULD is the Johnson of medical lexicography. His various dictionaries, adapted to the needs of student, practitioner, and scholar respectively, have had a commercial success that of itself is sufficient to prove their practical usefulness. More than 200,000 of these works have been sold. The *Practitioner's Medical Dictionary*[5] is intended to supply the practitioner "with trustworthy definitions of such medical words and terms as he may need in his reading of standard medical textbooks, monographic or journalistic literature." How satisfactorily this object is attained is shown by the fact that a second edition has already been called for. Many new words have been included without increase in the size of the book.

*Lippincott's New Medical Dictionary*,[6] by Dr. HENRY W. CATTELL, is somewhat larger than that of Dr. Gould. On testing it here and there with reference to recent additions to medical science we have not found any omissions. In addition to illustrations of anatomical details, parasites,

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[2] *A Practical Guide to Meat Inspection (Walley).* By Stewart Stockman, M.R.C.V.S., Chief Veterinary Officer to the Board of Agriculture and Fisheries. Edinburgh and London: William Green and Sons. 1909. (Demy 8vo, pp. 295; 79 figures. 10s. 6d.)

[3] *Food Inspection.* By Hugh A. Macewen, M.B. Ch.B.Glasg., D.P.H.Lond., D.P.H.Camb. London: Blackie and Son, Limited. 1909. (Med. 8vo, pp. 264, illustrated. 5s.)

[4] *American Meat and its Influence upon the Public Health.* By Albert Leffingwell, M.D. London: George Bell and Sons. 1910. (Cr. 8vo, pp. 220. 3s. 6d.)

[5] *The Practitioner's Medical Dictionary.* An illustrated Dictionary of Medicine and Allied Subjects, including all the words and phrases generally used in medicine, with their proper pronunciation, derivation, and definition; based on recent medical literature. By George M. Gould, A.M., M.D. Second edition. Illustrated. London: H. K. Lewis. 1911. (18s.)

[6] *Lippincott's New Medical Dictionary.* A Vocabulary of the Terms used in Medicine and the Allied Sciences, with their pronunciation, etymology, and signification, including much collateral information of a descriptive and encyclopaedic character By Henry W. Cattell, A.M.Laf., M.D., U. of P. Freely illustrated with figures in the text. Philadelphia and London: J. B. Lippincott Company. (21s.)

apparatus, and so forth, there are portraits of Jenner, Pasteur, Lister, and other men who have moved the landmarks of knowledge. The aim of the book is described in the preface as being "to furnish the medical student, the practitioner of medicine, the laboratory worker, and whoever has occasion to use a medical dictionary, with a single volume of moderate compass . . . which shall attain the ideals of the user in regard to thoroughness, accuracy, perspective, and proportion." We congratulate the editor and the publisher on having successfully achieved their purpose.

The fact that Dr. GUTTMANN'S book, *Medizinische Terminologie*,[7] has reached a fourth edition shows that it supplies a definite demand. To German scholars it is likely to be very valuable, as the definitions are at once clear and concise. A useful feature is the insertion in the text of the names of distinguished workers, with a brief enumeration of their contributions to the sum of medical knowledge. The book includes the terminology of chemistry, physics, botany and zoology, and other allied sciences, as well as that of medicine proper.

## EVOLUTION.

IN an extremely interesting little book entitled *The Coming of Evolution*[8] Professor JUDD has given a charming account of the eventful passages in the lives of Lyell, Darwin, Scrope, and Wallace, which led to the epoch-making changes of the middle of last century. Professor Judd had the privilege of knowing each of these men personally, and, indeed, of sharing what was to some extent a common friendship. When it is added that he possesses a fascinating literary style, it may be understood that the book is delightful, and our only disappointment is that it is so short. So much has been written about those men, however, and so much appears in their own writings, that we feel inclined to attribute it as an additional merit to Professor Judd that he has kept well within the limit of interest. With his skilful pen he gives a short but succinct account of the state of the natural sciences before the advent of Lyell and Darwin. The "Theory of the Earth" forms the main theme, and we are introduced to men whose names are now forgotten by all save a few, and who were ignored or even persecuted in their own time. Foremost amongst these, tribute is paid to the Scottish philosopher Hutton, who foreshadowed Lyell's views half a century before. The obscurity of his style, his uncompromising attitude, and the general trend not only of religious but of scientific thought at the time effectually overwhelmed Hutton. The brilliant work of Playfair, thirty years later, in support of Hutton was also swamped by the same current of adverse opinion, and it was only the irresistible genius and tact of Lyell that saved him from a similar fate. By that time, however, men's minds were more receptive, the glorious dawn of the scientific activity of the nineteenth century had just broken, there was a spirit of inquiry abroad and a search after demonstrable truth. In advancing his doctrine of gradual evolution as opposed to catastrophism Lyell was greatly aided by Scrope, whose fame has somewhat unjustly been overshadowed by that of his contemporary. Their ideas were opposed to those of all the eminent geologists living at that time, and the manner in which the innovators succeeded in their fight against the seemingly impregnable mountain of preconceived and fast-rooted opinions is an added testimony to their genius. That Lyell paved the way for Darwin there can be little doubt; that he exerted a strong influence upon him is beyond question, and there existed a lifelong friendship between the two men. Each had the most intense admiration for the other's powers; it was Darwin's chief aim to do what should please or interest Lyell, and the latter in turn was the willing friend and ready adviser of the younger man. The appearance of Russell Wallace on the scene added fresh lustre, and his self-abnegation lives as a type of the highest ideals in science. Professor Judd's intercourse with Darwin is very fully portrayed, and his picture of the great man, weighted by a chronic disease, grave yet cheerful, never relaxing from the laborious task to which he had set himself, is finely done. The idea of evolution, given concrete birth by Lyell, was moulded into shape and made to live by the patience and acumen of Darwin. We could have desired to set forth at greater length the charm of Professor Judd's little book, but to do so adequately would necessitate its reproduction *in toto*.

To effect a reconciliation between religion and science has been the object of many well-meaning and conscientious efforts, and it is to be regretted that not a few of these have been rejected both by the theologian and the scientist. *The Faith of an Evolutionist*,[9] by Dr. T. A. PALM, is one of the latest attempts to accomplish this task, and it is one which certainly deserves recognition and no small meed of praise. It is a short book, devoid of polemical redundancy, dealing only with simple and essential matters, and written in a pleasing style. It is indeed a sweet and charming faith that Dr. Palm expounds; moreover, it is consistent, and it contains little to which the most ardent devotee of the goddess Science would not subscribe with perfect freedom of conscience. The only difficulty is in the matter of interpretation, and on that point we are afraid neither Dr. Palm nor any of his successors will give entire satisfaction to all parties for quite a long time to come. Dr. Palm, in fact, is decidedly guarded. He believes in the evolution of religions, yet he would seem to hold that the Christian idea of God is a thing by itself, although it has been modified by the evolution of the Christian religion. He deals with the relation of evolution to the creation, to ethics, to the Christian belief, revelation, atonement, and to character. He argues that the facts of evolution do not invalidate the belief in the existence of a Divine mind and in a creation by design, but merely alter the conception of the way in which the Divine mind has seen fit to work and to shape things. The whole teaching of evolution, moreover, is altruistic, and is accordingly in agreement with the highest ethical ideals. The morals and ideals of any age supersede the lower code of a previous age, and give place in turn to the higher and nobler aims of the succeeding ages. The morality of to-day will fall far short of future ideals. The incarnation is somewhat boldly likened to a mutation, the appearance of a new type, and the atonement is regarded as the supreme instance of the struggle for existence, not of self, but that of others. In dealing with revelation the author argues very skilfully that the distinction between natural and so-called supernatural is merely relative to our ignorance, and the supernatural passes into the realms of the natural as our knowledge increases, and as increasing knowledge of the processes of thought affords a basis for the belief in inspiration and revelation. The concluding chapter—on character—is full of suggestion, and in fact the whole book is well worth reading.

## NOTES ON BOOKS.

IN the 336 pages of his little book on *Garden Foes*[10] Mr. T. W. SANDERS describes every pest and every disease of any serious importance that are looked upon as foes by gardeners, and indicates the means of destroying or preventing them as far as these are known. Fruit, vegetables, flowers, and trees all come within the author's province. Insecticides and fungicides have not escaped his attention. Spraying and fumigation are fully discussed. Mr. Sanders does not confine himself to garden foes. A chapter is devoted to a description of the various friends—insect, animal, and bird—met with in gardens, which it is essential gardeners should be able to distinguish from the many foes described in the earlier chapters. The volume is profusely illustrated, most of the chief pests and diseases being portrayed. The book, which is clearly and pleasantly written, will be useful to all who take an active interest in gardening.

[7] *Medizinische Terminologie.* Ableitung und Erklarung der gebrauchlichsten Fachausdrucke aller Zweige der Medizin und ihrer Hilfswissenschaften. Von Stabsarzt Dr. Walter Guttmann, in Mulheim A. D. Ruhr. Vierte Umgearbeitete und erweiterte Auflage. Berlin und Wien: Urban und Schwarzenberg. 1911. (M.19.)

[8] *The Coming of Evolution.* By J. W. Judd, C.B., LL.D., F.R.S. Cambridge: University Press. 1910. (Fcap. 8vo. pp. 171. 1s.)

[9] *The Faith of an Evolutionist.* By Theobald A. Palm, M.A., M.D London: H. R. Allinson, Limited. (Post 8vo, 159 pp. 2s. 6d.)

[10] *Garden Foes.* Insect, Animal, and Fungoid Pests injurious to Fruit and Vegetable Crops, Hardy Plants, Trees, Shrubs, and Greenhouse Plants, with all the latest remedies for their eradication, etc. By T. W. Sanders, F.L.S., F.R.H.S. Illustrated. London: W. H. and L. Collingridge.

The concluding issue for last year of *International Clinics*,[11] a freely illustrated quarterly collection of papers of clinical interest, contains some twenty-six papers. Among those seeming specially worthy of note are a favourable review of the claims of salvarsan by the editor; one on the treatment of leukaemia by *x* rays by H. K. Pancoast; on the functional test of cardiac efficiency by A. D. Hirschfelder; on the technique, aims, and limitations of spinal anasthesia in the young by Tyrrell Gray; on the psychological interpretation and practical uses of hypnosis in medicine by J. Victor Haberman; on the law respecting compensation to workmen for accidents by John Glaister; and an elaborate consideration of the physical results produced in human bodies at the moment of contact by the missiles used with modern firearms by W. S. Wadsworth, the "coroner's physician" in Philadelphia.

Though anatomical models, however realistically executed, can never supply the place of the actual subject, they are useful for the purpose of furbishing up anatomical knowledge, which is apt to get rusty perhaps more quickly than any other branch of the varied lore acquired at the cost of so much labour by the student of medicine. The reproduction of dissections of various parts of the human body shown on a life-sized female model, issued by the Gresham Publishing Company,[12] with a descriptive index by Mr. FREDERICK NORMAN and Dr. W. G. STONE, is likely to be helpful to practitioners as well as to students, as it shows the interior of the uterus and its contents at the different stages of pregnancy. There are seven plates, all well executed, which will enable a doctor to refresh his memory of the relations of important parts at a time of need more easily and more practically than by reference to a textbook.

It is hardly a paradox to say that an Englishman cannot understand the Gothic architecture of his own country unless he knows something of the cathedrals of Northern France. No doubt many of the architects and the bishops, when the bishop was not also architect, and even the artificers came to England from Northern France, or were of French extraction, or knew France well, but this is not the whole explanation. The great churches with which the citizens of every important town between the Loire and the Tweed endowed posterity were the outward and visible signs of an inward and spiritual grace. The men who conceived and designed, the artificers who wrought and carved, and the citizens and peasants who found money and material believed with a singleness and simplicity which do not belong to this age. Very many of the men, women, and children who gazed on the *Beau Dieu* of Amiens or the thronged portals of Chartres could not read, and the sculptured doorways of these great churches have been called the bibles of the poor, for they tell the history of the prophets and saints of the Old and of the New Testaments. We believe that with many members of the medical profession church architecture is a hobby, and any man who knows the cathedrals of England will be well advised to make a holiday visit to Northern France. If he does so, he cannot do better than take Mr. BUMPUS'S *Cathedrals of Northern France*[13] as a guide, studying it beforehand, for the author not only gives short historical accounts of each cathedral and describes their plan and architecture, but deals adequately with all those great buildings, with the exception of those of Brittany, which are reserved for another volume. The book is illustrated by photographs which are sufficient to whet the appetite, and the fly-leaves have been utilized to show an outline map of the country and block plans of some of the chief churches.

[11] *International Clinics*. Edited by H. W. Cattell, M.D. Vol. IV. Twentieth Series. Philadelphia and London: J. B. Lippincott Company. 1910. (Medium 8vo, pp. 308. Annual subscription, 35s.)

[12] *Human Anatomical Model (Female)*. A Life-sized Reproduction of the Dissections of the Various Parts of the Human Body; showing the Relations of Internal Organs to one another, as well as the Interior of the Uterus and its Contents at the different Stages of Pregnancy. With a Descriptive Index by Frederick Norman, F.R.C.S Eng., and W. G. Stone, M.D.Oxon., F.R.C.S.Eng. London: The Gresham Publishing Company, 34 and 35, Southampton Street, Strand. 1909. (£2 5s.)

[13] *The Cathedrals of Northern France*. By T. Francis Bumpus. London: T. Werner Laurie. 1911. (Post 8vo, pp. 396. 6s.)

AMONG the bequests made by the late Sir Charles Rackham Gilman of Norwich were £300 to the Norfolk and Norwich Hospital, £200 to the Jenny Lind Infirmary at Norwich, and sums of £100 each to a number of Norfolk institutions, including the Norwich Eye Infirmary, the Children's Convalescent Home at Great Yarmouth, and the Convalescent Home at Norwich.

## MEDICAL AND SURGICAL APPLIANCES.

### *A New Eye for Needles.*

MR. J. LYNN THOMAS, C.B., F.R.C.S. (Cardiff) writes: I have had surgical needles made for me by Messrs. Shrimpton and Fletcher, Redditch, with the new eye I devised for ordinary needles some three years ago, and I have found them in practice to answer the purpose for which they were invented. The ideal requirements of an eye of a needle are not to be found in that which has been in general use from the dawn of the bronze age, and which has not been materially altered for many thousands of years. Many special eyes and special needles have been made during the last few years for surgeons and for blind people, but none of them, in my opinion, possess the following necessary essentials of an ideal eye: (1) Ease and simplicity in threading the eye; (2) means of fixing the sewing material in the eye to prevent it slipping when used single; (3) ease of unthreading. I have used for many

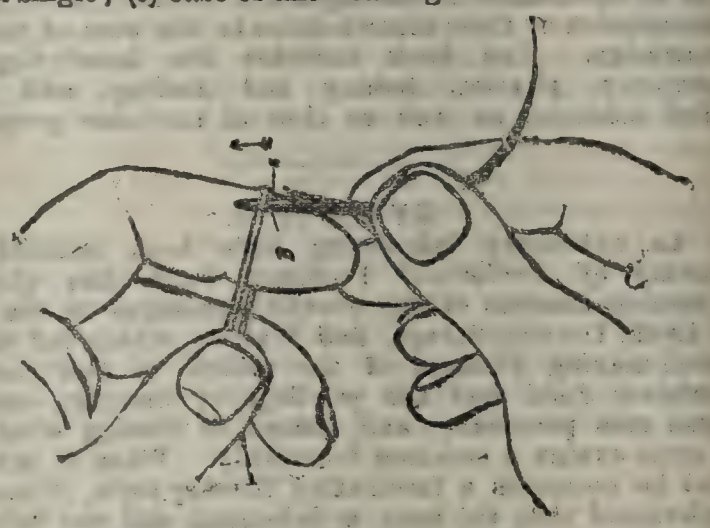


Fig. 1.

years: (1) The "Kratz" or calyx-eyed needles; the frequent slipping of the thread is its annoying drawback. (2) The "Reverdin" needle I have found extremely handy for certain work, but one must have a trained assistant in order to get the advantage in speed over that of the ordinary eye. (3) The "Doyen" eye; I have found the field for its use too limited owing to its large size and also to the rigid sides of the tapering lance-shaped eye not allowing gripping of the silk or thread. (4) The "Paterson" eye meets all the essentials of an ideal eye, but retains the drawbacks of the antique process of "threading the needle." (5) Every other variety of eye which I have tried, such as the lateral slot eye, or "side entrance spring-eye," possesses either a positive disadvantage as compared with the ordinary eye or an improvement which I am quite unable to appreciate. The eye to which I wish to draw attention has not only novelty in construction, which will be easily appreciated from the accompanying illustrations, but the method of threading the needle, which I find to be the best (see Fig. 1), perhaps ought to be described as "needling the thread," because the part played by the thread in the process is absolutely passive, which is a reversal of the part taken by the thread in the ordinary course of "threading the needle." A detailed description of the eye is rendered superfluous by the illustrations. It may be shortly stated that it possesses "a side entrance" with a "spring-grip"; that the projection against which the spring is checked is made prominent enough to be easily felt; and that the vanishing point between the spring, S, and the diminutive part of the body of the needle, B, allows any size of thread which can enter the "side entrance" to be firmly gripped between S and B. The makers have made for me ten different sizes of needles, with special forms for skin and hernia operations, and also some with Mr. Moynihan's curve, which has pleased me much, both in closing deep

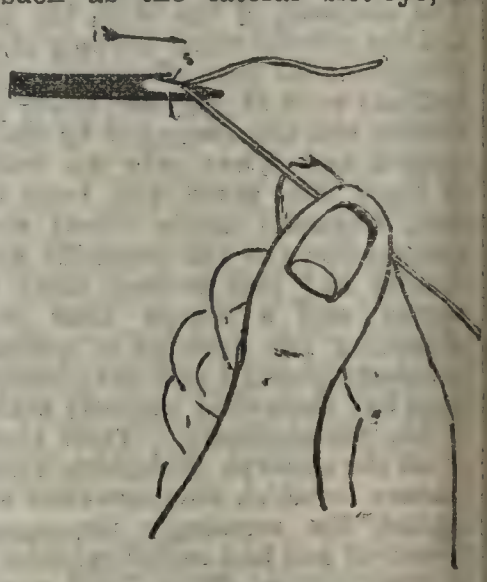
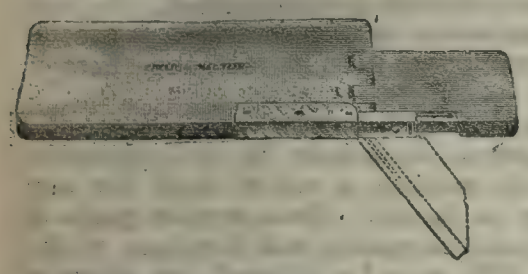


Fig. 2.

incisions and in restoring abdominal wounds in their normal stratified condition. The arrows in the illustrations indicate the direction of the movements of the needle in "needling the thread." In Fig. 1, the thread is being picked up, and in Fig. 2 it is being fixed.

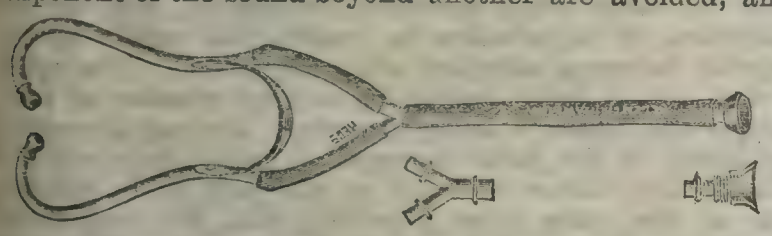
*Splint for Colles's Fracture.*

Dr. G. M. DAWKIN (Pontypridd) writes: The drawing represents a splint I have designed for the treatment of Colles's fracture. The hand-piece of the front splint is locked by the brass slide; then the splints are padded and applied in the usual way, care being taken that the back splint does not go beyond the wrist-joint and that the hinge of the front splint just corresponds with the joint. The bandage must not go beyond the wrist-joint, and when fixed, a second bandage should be put on, extending to the fingers. When it is deemed desirable to move the wrist the second bandage should be removed and the brass slide pushed forward, which will allow the hand-piece to be turned back and the joint manipulated as desired. The advantages claimed for the splint are: (1) It secures movement of the joint without interfering with the fracture; (2) leaves the fingers free for voluntary movement; (3) deviates the hand to the ulnar border; (4) by being bevelled it corrects the displacement of the radius forwards; (5) can be applied to either arm. The splints are made in three sizes by Messrs. Mayer and Meltzer.



*An Improved Stethoscope.*

Dr. T. C. BLACKWELL (Oxshott, Surrey) has devised a stethoscope which he claims is mathematically and physically correct throughout. The combined sectional areas of the two smaller tubes are equal to the sectional area of the larger tube. The worm on the chest-piece is external; the diameter of the rubber tube is the same as that of the proximal end of the chest-piece; the latter has a knife edge, so that the constriction which ordinarily occurs immediately beyond the attachment of a rubber tube to a rigid tube does not take place; the three orifices of the "Y" tube have also knife edges. There is no lessening of the calibre at the junction of the tube and ear-piece. The opening of the latter is slightly larger than that of the tube, so that when placed in the ear there is no choking. The advantages of the instrument are that all exaggeration of the sound, and also any accentuation of a component of the sound beyond another are avoided, and



the exact sound produced is conveyed to the ear. Moreover, adventitious sounds are excluded with great ease. This is particularly noticeable in listening to the breath sounds. The convenience of the single tube is great. If the test recommended by Hutchison and Rainy in their *Clinical Methods* be applied, it will be found that the intensity of the sound—the ticking of a watch—is at least double that of an ordinary binaural instrument. The stethoscope is made by Messrs. Allen and Hanburys.

## MEDICINAL AND DIETETIC ARTICLES.

*"Hemisine" and Cocaine Injection.*

THE employment of the vessel-constricting principle of suprarenal gland in combination with a local anaesthetic presents obvious advantages, and is now very general. A useful combination of this kind, intended especially for use in dental work, is supplied by Messrs. Burroughs Wellcome and Company (Snow Hill, London, E.C.), in the form of "Vaporole" hemisine and cocaine hydrochloride. "Hemisine" is the active principle of the suprarenal gland, and each vaporole contains $\frac{1}{2160}$ grain (0.03 mg.) of it together with $\frac{1}{3}$ grain of cocaine hydrochloride, in 1 c.cm. of liquid; the vaporoles are hermetically sealed and sterilized, and they are so shaped that each stands firmly on a foot before or after opening, which is a distinct convenience. The same solution is also supplied in bottles, holding 10 c.cm. each.

## PROPOSED AMENDMENT OF THE DENTISTS ACT.

WE have received a copy of a draft bill, entitled "An Act to Amend the Dentists Act, 1878, and for Other Purposes in Connection therewith," and we are informed that the British Dental Association intends shortly to take a referendum with regard to its provisions. We have received also from the London and County Medical Protection Society a copy of a resolution passed at a meeting of the council of that society, on the unanimous recommendation of its Dental Committee, strongly disapproving of the bill, and urging its dental members to offer strenuous opposition to this or any other Act by which unqualified practice may be legalized. To this resolution considerable exception has, we understand, been taken by members of the British Dental Association, on the ground that the Act has been misread by the Dental Committee of the London and County Medical Protection Society.

In view of the fact that both the British Medical and British Dental Associations are actively engaged in elaborating bills for the betterment of medical and dental practice, and remembering the proposed Anaesthetic Bill, it is eminently desirable that no misconception should exist in the minds of members of either the general or specialized branch of the medical profession as to the meaning and probable operation of any proposed bill, and it will be well to indicate the essential features of the amendment to the Dentists Act proposed by the British Dental Association.

In the first place, it should be pointed out, with reference to the expression "promoted by certain members of the British Dental Association," used by the London and County Medical Protection Society in its circular, that the members referred to include eight out of ten immediate past presidents of the British Dental Association, and that they are supported by a large section of the members. The expression is perhaps unfortunate, but it at least indicates that dental opinion is divided as to the merits of the proposed bill. The essential portions of the bill are quoted below:

PART I.—PROHIBITION OF PRACTICE OF DENTISTRY BY UNQUALIFIED PERSONS.

1. *Penalty on Unqualified Person practising Dentistry.*—(1) Every person who (not being a registered Dentist or a registered Medical Practitioner or a person certified under this Act to be exempt from the provisions of this section) either by himself or in conjunction with others applies any dental treatment for or in expectation of any fee gain or reward or in any way practises dentistry or dental surgery for or in expectation of any fee gain or reward or holds himself out as competent to practise dentistry or dental surgery or as being engaged in the practise of dentistry or dental surgery shall be guilty of an offence against this section and shall be liable on summary conviction to a fine not exceeding £50 . . .

(3) . . . the expression "person" shall include any body of persons corporate or unincorporate.

2. *Exemption of existing Unregistered Dental Practitioners from Provisions of last preceding Section.*—(1) Any person who

(i) is of the age of 21 years or upwards, and

(ii) is at the passing of this Act and for a period of not less than five years immediately before the passing of this Act has been bona fide engaged in the practice of dentistry (such practice not being combined with any other occupation or calling) and is not a registered dentist or registered medical practitioner

may at any time before the expiration of six months from the passing of this Act apply if resident in England Wales or Ireland to the judge of the county court within the district whereof he resides or if resident in Scotland to the sheriff within whose sheriffdom he resides for a certificate that he is exempt from the provisions of the section of this Act the marginal note whereof is "Penalty on unqualified person practising dentistry." In this subsection the expression "the practice of dentistry" means the performance of dental operations upon and the application of other dental treatment and the giving of dental attendance and advice to dental patients.

(2) . . . Thereupon such judge or sheriff (as the case may be) if satisfied

(i) that the applicant is of the age of 21 years or upwards and

(ii) of the truth of the said declaration

shall write at the foot of or endorse upon each duplicate of the said declaration a certificate that the applicant is exempt as aforesaid in the form contained in the Second Schedule to this Act.

(3) One duplicate of the said declaration and certificate shall be preserved in the County Court or Sheriff Court (as the case may be) and the Registrar of the County Court or Sheriff Clerk

of the Sheriffdom shall deliver to any person applying for the same upon payment of the sum of 1s. a copy of such declaration and certificate under the hand of such Registrar or Sheriff Clerk (as the case may be).

(4) The other duplicate of the said declaration and certificate shall be delivered to the applicant.

3. *Avoidance of Certificate of Exemption.*—If a person who has been certified under this Act to be exempt from the provisions of the section of this Act the marginal note whereof is "Penalty on unqualified person practising dentistry" is convicted of an offence against any of the provisions of the Dentists Act 1878 as amended by the Medical Act 1886 the certificate of exemption granted to him shall as from the date of such conviction become and be by virtue of this section absolutely void and of none effect and all the provisions of the said section shall as from the date of such conviction extend and apply to such person in like manner as if he had never been certified under this Act to be exempt from the provisions of the said section.

Part II, 7, provides that every person practising dentistry, whether registered dentist or person exempted from the penalty for unqualified practice, shall in each year take out from the Commissioners of Inland Revenue a duly stamped certificate; the first certificate taken out by any person is to cost £1, any subsequent certificate £5; Subsection 8 specifies as part of the penalty for evasion of Subsection 7 inability to recover professional fees or cost of material supplied or used.

Part III deals with direct dental representation on the General Medical Council, and a dental board providing three such representatives, who are to be registered dentists elected by registered dentists.

Part IV, which it is not proposed to insist on, deals with a State dental examination.

In 1859 the Royal College of Surgeons instituted a voluntary dental diploma. In 1878 the Dentists Act was passed providing for the registration of qualified dentists, with the object of protecting the public by enabling it to distinguish between the educated and the uneducated. To this register were admitted not only qualified dentists, but all who could make good a claim to be at the date of the passing of the Act engaged in dental practice. By this Act the use of the title "dentist," etc, was restricted to those on the *Dentists Register* or *Medical Register*, but actual practice of dentistry by unqualified or unregistered persons was not prohibited. It now is, and always has been, legal for any person, qualified or not, to practise dentistry provided he does not assume the title of "dentist," etc.; those engaged in elaborating the Dentists Act of 1878 did not consider it expedient to ask the Government to interfere so far with "the liberty of the subject" as to prohibit entirely unqualified dental practice, whatever its evils. The recent decision of the House of Lords in the case of Bellerby *v.* Heyworth and Bowen clearly showed that the Act only prohibits the use of the title "dentist," etc., and the result has been an unprecedented increase in the number of unqualified practitioners who are now estimated at some 30,000, large numbers being utterly untrained and many of alien extraction. That a large body of untrained practitioners constitutes a serious public danger there can be no gainsaying, and, as will be gathered from the above extracts, the proposed bill aims at dealing with the evil by prohibiting dental practice by any but registered dentists and those unqualified persons who can show that they are "of age," and have been for five years engaged in bona fide dental practice at the time of passing of the Act. The source is to be dammed, and time is to deal with the existing evil.

The promoters of the bill seem justified in asserting that there is here no question of legalizing unqualified practice, since unqualified practice is not illegal; and it is further claimed that there is no question of a register or of registration of unqualified practitioners. They are to receive certificates of exemption from penalty, but they gain no right to vote as registered practitioners in the election of direct dental representatives on the General Medical Council. Further, they are to be made amenable to the provisions of the Dentists Act, 1878, as amended by the Medical Act, 1886. The controversy, in effect, ranges round the question of recognition of the unqualified practitioner. For thirty years the British Dental Association has maintained that the unqualified practitioner is a public danger; now, say the critics, you are ready to recognize, in fact to register, 30,000 of them! The promoters reply, Because vested interests and the liberty of the subject must be respected we recognize, but we do not register, nor do we give rights of registration, and in return we prevent any future addition to the ranks of the unqualified.

But is it true that there will be no registration of unqualified and no addition to their ranks? By Part I, 2 (3), a duplicate of the certificate is to be kept in the county court, and on payment of 1s. any person may obtain a copy thereof. The certificates are filed, and for purposes of reference constitute a "register." Further, Part II, 8, by prescribing as penalty for failure to take out a certificate inability to recover professional fee or cost of material, recognizes the right of a certificated person to recover such moneys—a right, at least as regards professional fees, hitherto denied the unqualified. So that both for purposes of reference and as conferring a special right this storing of certificates has, in fact, the effect of a "register."

Then as regards future additions to the ranks of the unqualified. The dental mechanic is indispensable. What is to prevent his making a set of teeth for any one who may ask him to do so? True, certain parts of the work must be done in the mouth, and the lines of the proposed Anaesthetic Bill may be followed by allowing such work to be done only under the supervision of a duly qualified (or registered) practitioner; but a very strong case must be made out to show that the fitting of artificial teeth by such persons is a danger to the public, and the possibility of future unqualified practice is obvious.

The opinion of counsel, published in the *British Dental Journal* (March 1st, 1911, p. 301), quoted below, shows how far in some people's opinion the proposed Act would be effective in preventing future additions to the ranks of the unqualified:

> There is nothing to prevent any individual—though not registered or certified—or any company from charging for dental materials, or goods sold and supplied—for example, an advertisement to the effect that "A. B. supplies and adapts artificial teeth. Consultations free. No charge made for attendance, advice, or treatment," would not subject the adviser to penalties under the proposed bill, or prevent him recovering for dentures or materials used in filling.
>
> ARTHUR W. SAMUELS, K.C.
>
> 80, Merrion Square, Dublin,
> January 17th, 1911.

Now, the spirit of the Dentists Act of 1878 was the protection of the public by ensuring that those practising dentistry were duly qualified (educated), and by the institution of registration to enable the public to distinguish between educated and uneducated. The spirit of this Act is being broken by a large number of men, though the letter is being observed. Instead of seeking legislation in the form proposed, it might be possible to ask the Legislature to insist on the spirit of the existing Act, at the same time providing that the unqualified now in practice shall be admitted *sine curriculo* to any final dental examination of the United Kingdom till the expiration of two years from date.

Yet another means of dealing with the question is to leave it alone, and let the unqualified multiply till they destroy themselves by their own competition, while raising continually the standard of medical education essential to the dentist, and unobtainable except at a medical school with the attendant cost in time and money, till the public appreciates the value of the educated dentist. Meanwhile the qualified and the registered men might well assert their rights, and at once distinguish themselves from the unqualified and unregistered by assuming on their door-plates the legitimate title "Dentist," "Dental Surgeon," or "Surgeon-Dentist."

Strenuous opposition to the proposed Act is to be expected from others besides those of the dental profession, who see no good to be gained by it. There is the Incorporated Society of Adaptors and Extractors, numbering some 3,000, with rules, organization, and funds of their own, which enabled them to give a very good account of themselves before the Coroners Committee; the National Dental Corporation, Limited, for registered and unregistered; a dental mechanics' union; all the unattached; and, finally, all those who have promoted or financed or own shares in dental companies.

## MEDICINE IN THE "ENCYCLOPAEDIA BRITANNICA."[1]

FOURTH NOTICE.

HALLUCINATIONS are fully discussed by Professor McDougall. The subject is a difficult one, and it is not the fault of the author if the impression left on most people who are not specialists after reading his explanation of the phenomena may be conveyed in the words, "No light but rather darkness visible." A considerable amount of space is given to the researches of the Society for Psychical Research on apparitions and telepathy. Coleridge, when asked if he believed in ghosts, said that he did not—because he had seen so many. A similar experience would seem to be not uncommon. Of 17,000 replies to questions addressed to a number of people asking whether they had seen ghosts, or been touched by invisible things or heard voices, received by a committee of the Society for Psychical Research in 1889, rather more than 2,000 were in the affirmative. On further testing the statements of these persons, it was estimated that about 1 in 43 is the proportion of "coincidental death apparitions" to the total number of recognized apparitions among the 17,000 persons. Now, says Dr. McDougall:

> The average probability that any person will die within any given period of twenty-four hours' duration is about 1 in 19,000. Hence the probability that any other particular event, having no causal relation to his death, but occurring during his lifetime (or not later than twelve hours after his death) will fall within the same twenty-four hours as his death is 1 in 19,000—that is, if an apparition of any individual is seen and recognized by any other person, the probability of its being experienced within twelve hours of that individual's death is 1 in 19,000, if no causal relation obtains between the two events. Therefore, of all recognized apparitions of living persons, 1 only in 19,000 may be expected to be a death coincidence of this sort. But the census shows that of 1,300 recognized apparitions of living persons 30 are death coincidences, and that is equivalent to 440 in 19,000. Hence, of recognized hallucinations, those coinciding with death are 440 times more numerous than we should expect if no causal relation obtained; therefore, if neither the data nor the reasoning can be destructively criticized, we are compelled to believe that some causal relation obtains; and, since good evidence of telepathic communication has been experimentally obtained, the least improbable explanation of these death apparitions is that the dying person exerts upon his distant friend some telepathic influence which generates an hallucinatory perception of himself.

He adds that the committee could not find in the results of the census any evidence sufficient to justify a belief that hallucinations may be due to telepathic influence exerted by personalities surviving the death of the body. It may be gathered that to the famous questions of Truthful James—

> Are things what they seem?
> Or is visions about?

the learned author would reply, if we may borrow the style of the Roman Curia: To the first part, *Negative;* to the second, *Affirmative.*

Of William Harvey there is a good account from the erudite pen of Dr. Pye-Smith. The discussion of the question, often raised in recent years, whether Harvey was the true discoverer of the circulation of the blood, is a model of critical sifting of facts—brief, clear, and convincing. The only further remark we have to make is that in the list of biographies of Harvey given at the end of the article no mention is made of the most recent and not the least interesting of them, that by Mr. D'Arcy Power in the "Masters of Medicine" Series. The omission is the more noticeable since Mr. D'Arcy Power's work is dedicated to Dr. Pye-Smith.

The article on Hearing, by Professor McKendrick, is a lucid exposition of a somewhat abstruse subject. Dr. Parsons describes the anatomy of the Heart; a general view of its diseases is given by Sir John Broadbent; while all that need be said in a book intended for the instruction of the public as to the surgery of the organ is tersely set forth by Mr. Edmund Owen. Mr. Owen is also the author of an excellent article on Hernia.

In the article on Hippocrates it is stated that the "asclepia" of ancient Greece "were very carefully conducted hospitals for the sick possessing a curious system of case-books in the form of votive tablets left by the patients on which were recorded the symptoms, treatment, and results in each case." Hippocrates is said to have had these records at his command, and it appears to be implied that they were of some use to him as supplementing his clinical experience. Now, the "cures" in the Asklepieia were largely of the nature of faith-healing, and the records, not to speak it profanely, are like nothing so much as the testimonials one reads in modern newspapers to the marvellous virtues of Pilgarlic's pyrotechnic pills or Diddlem's elixir. It is not a little curious that the writer should take these things seriously, as he himself points out that Hippocrates was the first to dissociate medicine from priestcraft, and that his mind revolted against the use of charms, amulets, and incantations.

Dr. William Todd Helmuth, formerly Dean of the Homoeopathic and Medical College, New York, gives a very fair account of Homoeopathy, in which he states that Hahnemann borrowed his famous formula without acknowledgement from Paracelsus, and that modern homoeopaths have rejected his theories as to the origin of chronic diseases from psora, syphilis, or sycosis. He says:

> Most homoeopathists believe more or less in the action of minute doses of medicine, but it must not be considered as an integral part of the system. The dose is the corollary, not the principle.

The question of dose has, it seems, divided the members of the homoeopathic school into bitter factions. We agree with Dr. Helmuth that homoeopathy has had a salutary effect on medicine in some ways, but this effect has been indirect and can scarcely be looked upon as the outcome of Hahnemann's doctrine. If it taught physicians that the old drastic remedies formerly in common use were useless and often injurious, this was because homoeopathy with its infinitesimal doses proved that many diseases tend to get well without any drugs. It may be admitted that homoeopathy has done something to stimulate the study of the physiological action of drugs; for this more credit should be given than some of the "orthodox" are willing to allow. Nevertheless, if, as Dr. Helmuth complains, in the medical profession homoeopathy remains under the stigma of being a dissenting sect, that is surely the fault of its adherents. They would do well to follow the example of a well known Nonconformist divine who announced *urbi et orbi* that he would wear no clothes (let no misguided comma intrude itself here or equivocation will undo us) to distinguish him from his fellow Christians. "Instead of which," to quote a familiar judicial oracle, homoeopaths seem to prefer to decorate themselves with a badge which, on Dr. Helmuth's own showing, has now ceased to have any particular meaning, and to hold themselves out as representing a "new school," differing fundamentally from that which they somewhat disingenuously call the "old." It cannot be too strongly impressed on the public mind that the rational physician is neither an allopath nor a homoeopath. Like Molière, he takes what suits him wherever he finds it. There is no such thing as a homoeopathic pathology, and there is nothing distinctive in homoeopathic surgery. The whole thing resolves itself, as far as theory is concerned, into a dogma, which—again on Dr. Helmuth's admission—may be traced back to Hippocrates, and which anyone may hold without incurring anathema; and in practice to the use of pilules and globules, credited with mystical properties which defy scientific analysis. There can, then, be no excuse for a homoeopath wearing a phylactery that may lead people to suppose that he is something different from an ordinary doctor. As a matter of fact Dr. Helmuth tells us that the American Institute of Homoeopathy, the national body of the United States, has adopted the following resolution, and ordered it to be published conspicuously in each number of the *Transactions* of the society:

> A homoeopathic physician is one who adds to his knowledge of medicine a special knowledge of homoeopathic therapeutics. All that pertains to the great field of medical learning is his, by tradition, by inheritance, by right.

He adds:

> It has been publicly announced that if the homoeopathists would abolish the name "homoeopathy," and remove it from their periodicals, colleges, hospitals, dispensaries, and asylums, they would be received within the fold of the regular profession.

[1] *The Encyclopaedia Britannica.* A Dictionary of Arts, Sciences, and General Information. Eleventh edition. Vols. I-XIV. Cambridge: University Press. 1910.

These conditions have been accepted by a few homoeopathists who have become members of the most prominent medical association in the United States.

It is perhaps significant in connexion with this statement that the United States is the only country in which homoeopathy really flourishes. Dr. Helmuth admits that it is not "rapidly extending" in Great Britain — a diplomatic phrase which Polonius might have called "good."

The article on Hospitals is contributed by Sir Henry Burdett. He lays stress on the great advantages to the patients afforded by the presence of students and nurses.

Nowhere else have the patients so continuous a guarantee that the treatment they receive will be of the best, while the provision made for their comfort and welfare, owing to the unceasing and ever varying quality of the criticism to which the work of everybody, from the senior physician to the humblest official, is subjected in a clinical hospital, is unequalled anywhere else. At a great voluntary hospital, not only do hundreds of medical students and nurses work in the wards, but thousands of people, in the persons of the patients' friends, and those members of the public who take an interest in hospitals, pass through the wards in the course of every year.

He makes a detailed comparison of the voluntary with the rate-supported hospitals, and carefully weighs their relative advantages and disadvantages. We give his conclusion in his own words without comment:

We should regard the establishment of a complete State-provided or rate-provided system of gratuitous medical relief either for in-door patients or for out-door patients, or for both, as a grave evil. Such a system must eventually lead to the extinction of voluntary hospitals. If this disaster ever happens, it must result in the gravest evils, for it could not fail to injure the morale of all classes and tend to harden unnecessarily the relations between the rich and poor, who, under the voluntary system, have come to share each other's sufferings and to be animated by respect and confidence towards each other.

Those interested in the hospital question will find food for thought in Sir Henry Burdett's article, whether or not they agree with his views.

## THE FUNCTION OF VOLUNTARY HOSPITALS.

MR. J. COURTNEY BUCHANAN, Secretary of the Metropolitan Hospital, has made a valuable contribution to the discussion of the question of hospital reform in an essay on *The Function of the Voluntary Hospitals in Relation to the Proposed Public Assistance Authority*.[1] He begins by showing that the reforms which may follow the reports of the Poor Law Commission are bound to have some effect on the voluntary hospitals, and dwells on the increasing difficulty there is in obtaining sufficient charitable subscriptions, which in itself will compel some radical changes. He is evidently opposed to any such municipalization of hospitals as would throw them on the rates and put the entire management in the hands of the local public authorities, as he considers it important to retain the voluntary principle. The overcrowding of the hospitals by unsuitable patients and by persons that could well afford to pay for treatment, the want of co-ordination with the public health authorities on the one hand and the poor law authorities on the other, the serious competition of the hospitals with general practitioners, are all in turn discussed in a very practical way, with a full appreciation of the rightful claims of both patients, consultants, and general practitioners. Special stress is laid on the keen competition that exists between the hospitals themselves in their endeavours to obtain subscriptions, and the author is evidently satisfied that the establishment of provident dispensaries, as suggested in the Majority Report of the Poor Law Commission, may with certain modifications be of the greatest benefit to the voluntary hospitals. He would entirely reverse the present system by which the hospitals refer patients to private practitioners or to provident dispensaries, as he holds that "it should not be possible for patients to attend at hospitals until they have been previously examined by medical men, and recommended by them as suitable cases for treatment at hospitals." It is further argued that "provident dispensaries, giving choice of doctors, who will be adequately remunerated, taking in all existing medical clubs, private and other dispensaries, would form the connecting link required between the voluntary hospitals and the various State, State-subsidized or rate-supported, or public assistance institutions." The hospitals, it is said, should not be places where patients can come at will, but patients should be obliged first of all to apply at the provident dispensary, and if they are unable to pay the charges of the dispensary they should be sent on to be dealt with by the authority which will perform the functions of the present relieving officer. In this way it is thought that the working of the provident dispensaries would bring general practitioners more closely into touch with the consulting staffs of hospitals to their common advantage.

Mr. Buchanan's main object would seem to be the establishment of a central hospital council. It is pointed out that the "three great funds" — King Edward VII Hospital Fund for London and the Metropolitan Hospital Sunday and Saturday Funds — have simply the power of the purse without any legal control. The central council he proposes ought "to be invested with full and general advisory and supervisory powers, and not mainly, as in the case of the King's Fund, with powers for the collection and distribution of money." Otherwise it should be constituted on the lines of the council of the King's Fund, and, if possible, under the patronage of the King. Among numerous other suggestions for the future administration of voluntary hospitals under this central council the following may be mentioned:

1. The function of the voluntary hospitals should be treatment by specialists.
2. Patients should be made to pay all they can afford for their treatment.
3. The provident dispensaries should be a kind of court of first instance maintained by the Public Assistance Authority, and tending to reduce the number of out-patients and to increase the work of, and benefit to, general practitioners.
4. The voluntary hospitals should remain independent of the Public Assistance Authority or the Poor Law Authority, as a supplementary service.
5. The work of classifying should be done in the provident dispensaries, and only patients should attend at hospitals who are recommended by their dispensary doctor or their medical attendant.
6. If voluntary subscriptions are not sufficient, the central council should have power to make grants, and in return should have power to control the erection of new hospitals, and so to supervise as to ensure efficiency, but without undue interference with hospital boards, each hospital being left free to develop its own peculiar characteristics.

Suggestions as to the constitution of the central council are made; and without necessarily expressing agreement with all the details of the scheme, it may be said that there can be no doubt that it would go a long way towards securing proper hospital reform and the co-ordination of voluntary hospitals with domiciliary treatment which is so desirable, while safeguarding the interests of both patients, consultants, and general practitioners.

[1] *The Function of the Voluntary Hospitals in Relation to the proposed Public Assistance Authority.* By J. Courtney Buchanan, Secretary of the Metropolitan Hospital, London. Second Edition; revised and enlarged. London: Bradbury, Agnew, and Co., Limited; and the Times Book Club. 1911. (Pp. 74. 1s.)

## MOTOR CARS FOR MEDICAL MEN.

### A DOCTORS' EDITION OF THE "MOTOR."

OUR contemporary the *Motor* devoted its issue for March 14th to a consideration of the special needs of medical motorists. The issue commences with an article in which Dr. Bernard Secretan sets forth what seem to him the advantages and attractions of using automobiles for professional purposes; then follow editorial descriptions and illustrations of a large proportion of all such cars as are considered by their makers to be specially suitable for medical men; similar treatment of car equipment and accessories; an article on motor insurance; one on the electric lighting of cars, and others on economizers and on the choice of a car. This "doctors' edition," issued at 1d., the habitual price of the *Motor*, contains much useful information, and is well worth acquiring.

M.D. writes: It may interest your correspondent who was inquiring about motor cars for medical men to know what has been my experience of a 10–12 h.p. two cylinder Swift car. I had never driven a motor car until I took delivery of this car at the works on June 12th, 1908. After being driven through the streets of Coventry I took charge of the car and drove it home. I have driven it ever since day by day in my professional work and occasionally for long-distance runs, and have, so far, never had an involuntary stop except for tyre trouble. The cost of running—including insurance but not including wages of man, who acts also as gardener—was £42 9s. 1d. the first year and £59 1s. 4d. the second. My stable expenses in the previous years averaged about £65, but with the motor I am able to do three times the mileage and still save time.

# Nova et Vetera.

## FRANCIS GALTON AS A MEDICAL STUDENT.

THE late Sir Francis Galton has bequeathed his residuary estate to the University of London, in furtherance of the study of national eugenics. This, as appears from his will recently proved, will amount to about £45,000. In a codicil to his will Sir Francis Galton describes the scope of his new foundation as follows:

I devise and bequeath all the residue of my estate and effects, both real and personal, unto the University of London for the establishment and endowment of a professorship at the said University to be known as "The Galton Professorship of Eugenics," with a laboratory or office and library attached thereto. And I declare that the duty of the professor shall be to pursue the study and further the knowledge of national eugenics—that is, of the agencies under social control that may improve or impair the racial faculties of future generations physically and mentally. And for this purpose I desire that the University shall, out of the income of the above endowment, provide the salaries of the professor and of such assistants as the Senate may think necessary, and that the professor shall do the following acts and things—namely:—

1. Collect materials bearing on eugenics.
2. Discuss such materials and draw conclusions.
3. Form a Central Office to provide information, under appropriate restrictions, to private individuals and to public authorities concerning the laws of inheritance in man, and to urge the conclusions as to social conduct which follow from such laws.
4. Extend the knowledge of eugenics by all or any of the following means, namely:—(*a*) professorial instruction; (*b*) occasional publications; (*c*) occasional public lectures; (*d*) experimental or observational work which may throw light on eugenic problems.

He shall also submit from time to time reports of the work done to the authorities of the said University.

I also declare that the said University shall be at liberty to apply either the capital or income of the said moneys for any of the purposes aforesaid, but it is my hope that the University will see fit to preserve the capital thereof wholly or almost wholly intact, not encroaching materially upon it for cost of building, fittings, or library. Also that the University will supply the laboratory or office at such place as its Senate shall from time to time determine, but preferably in the first instance in proximity to the Biometric Laboratory. I state these hopes on the chance of their having a moral effect upon the future decisions of the Senate of the University, but they are not intended to have any legally binding effect whatever upon the freedom of their action. And I declare that it shall be lawful for the Senate of the said University, if they shall think fit so to do, to postpone the election of the first or any subsequent professor of eugenics for a period of not exceeding four years from the date of my death, or from the date of the occurrence of any vacancy in the office as the case may be. . . .

I declare it to be my wish, but I do not impose it as an obligation, that on the appointment of the first professor the post shall be offered to Professor Karl Pearson, and on such conditions as will give him liberty to continue his Biometric Laboratory now established at University College.

In 1904 Galton endowed a Research Fellowship in the University of London for the promotion of the study of national eugenics, and in 1907 a laboratory for its prosecution was established at University College.

Francis Galton was originally intended for the medical profession, and gives an interesting account of his experiences as a medical student in his *Memories of My Life*, published by Messrs. Methuen and Co. in 1908. The whole chapter (iii) in which he records these experiences is worth reading; here only a brief summary can be given.

He says it was strongly desired by both his parents that his profession should be medicine, like that of his mother's father, Erasmus Darwin, F.R.S., and her half-brother, Robert Darwin, F.R.S. They acted largely on the advice of Mr. Hodgson, who had brought Galton into the world, and who, after acquiring a high reputation as a surgeon in Warwickshire, left Birmingham and settled in London, where he was President of the College of Surgeons in 1864. In 1838 it was arranged that Galton should accompany William (afterwards Sir William) Bowman, the famous ophthalmologist, who was going for a tour of a few weeks abroad, partly for vacation, partly to see certain medical institutions. In the autumn of 1838 Galton took up his abode as indoor pupil in the Birmingham General Hospital, Snow Hill. His immediate chief was the house-surgeon, Mr. Baker, who ultimately gained considerable repute as a surgeon in Birmingham. At first he was set to work every morning to help in the dispensary. He learnt to do most of his work pretty well in a few weeks, after which he was promoted to higher things. The duties gradually imposed upon him were to go with the surgeons on their morning rounds, always to attend in the accident room, where persons suffering from accidents were received whether in the night or the day, and to help in dressing them; also to be present at all operations, and to take part at every *post-mortem* examination; of such examinations there were perhaps two or three weekly. At that time the stethoscope was considered generally to be new-fangled; the older and naturally somewhat deaf practitioners pooh-poohed and never used it. Here Galton makes a characteristic suggestion. He says:

I cannot understand to this day why youths selected for their sharp hearing should not be so far instructed as to be used by physicians, much as pointers and setters are used by sportsmen. They could be taught what to listen for, probably by means of some sound-emitting instruments more or less muffled, and how to describe what they heard. A patient during the incipient stage of his disease might be submitted to examination by one or more of these quick-hearing youths, who would report to the doctor, who thereupon would form and express his opinion. Similarly as regards touch, of which great delicacy is of the highest importance. Conceive what help might be given them in discovering deeply seated tumours, abscesses, and much else. The touch of a person far less sensitive than that of the wandering princess of the well-known fairy tale might prove of vital importance. It will be recollected that her princess-ship was acknowledged by all, through her discovering a pea surreptitiously inserted as a test below the bottom of the pile of feather beds on which she slept.

After describing the ordinary work that fell to his lot as a dresser, he described a case of serious accident brought in at night, which gives a good picture of early Victorian surgery. The patient was a man, a small piece of whose skull had been depressed by something falling on his head and stunning him.

He was brought in utterly unconscious, with the "stertorous" respiration characteristic of such cases. The man had to be trepanned, so the surgeon was sent for. In the meantime everything was prepared for his arrival. The trepan is a hollow steel cylinder with teeth cut out of its lower rim, used to saw a circular wad out of the sound bone nearest to the fracture. A miniature steel crowbar is used to raise the depressed fragment, and a rod to lay across the sound bone as a fulcrum, for the crowbar. I seem to see it all before me as I write. The brightly lighted room, the apparatus in order, the surgeon at work, the eager faces of the bystanders, and the utterly unconscious patient. The wad was cut out, the crowbar adjusted, and still the monotonous snore continued unchanged. Then pressure was put on the free end of the crowbar, the broken bit of skull was raised, and instantly life rushed back. The man continued a sentence that he must have begun before the accident; then he stared wildly, and said, "Where am I?" The clock of life had stopped through a temporary obstruction, the obstruction was removed and the clock ticked on as before. He was soothed, a silver plate was inserted over the hole, the scalp was replaced and stitched together, and he was sent into the ward. In due time he wholly recovered, the scalp having grown over the plate.

Galton says it was a surprise to him to notice so few signs of pain and distress in the wards, even among the mortally stricken. He met with no instances of terror at approaching death, while the ordinary interests of life seemed powerful up to the close of consciousness. He goes on to say that the opinions held by the students about the several physicians and surgeons were curiously guided by a mixture of loyalty and irreverence.

There was no doubt of the fact that M., one of the doctors who never professed or had a claim to scientific acquirements, got his patients out of hospital more quickly than any of his colleagues. His treatment was as simple as that of Dr. Sangvado, though of quite another kind. It consisted of a strong purgative followed by low diet, and a subsequent feeding up as soon as all fever had gone. The composition of his drench never varied; a big bottle of it was made every morning in the dispensary, in readiness to be served out. It was so cheap that the overplus could be thrown away and a fresh infusion made the next day.

Galton expresses the wish that some "index of curative skill" could be awarded to doctors, based on their respective hospital successes. He tells us that he often amused himself with imaginary schemes to this effect.

If it could be compiled truthfully, it would be an excellent guide to those who wanted a doctor but were doubtful whom to consult. A high index of curative skill would serve as a measure of merit, and the fee to the doctor might be regulated by its height.

The following incident in those pre-chloroform days set Galton thinking:

A powerful drayman was brought in dead drunk, with both his thighs crushed and mangled by a heavy waggon. They had

to be amputated at once. He remained totally unconscious all the time, and it was not until he awoke sober in the morning that he discovered that his legs were gone. The question that then presented itself to me was, "Why could not people be made dead drunk before operations? Could it not be effected without upsetting their digestion and doing harm in other ways?" The subsequent discovery of *inhaling*, instead of drinking the intoxicating spirit, whether it be chloroform or ether, solved that question most happily.

As a matter of fact we believe that in the days before anaesthesia patients who had to undergo severe operations were not seldom stupefied beforehand with alcohol. Galton noted that different persons feel pain with very different degrees of acuteness. He gives instances which he had an opportunity of observing in later life. In 1851, when about to start from a mission station on his exploration of Damaraland, he saw two women who had escaped from a raid on a branch missionary outpost twenty miles off, in which most of the people had been murdered. Each of the women had had both feet hacked off in order that the raiders might secure the heavy copper rings on their ankles. In this mutilated state the two women crawled the whole of the twenty miles. The stumps had healed when Galton saw them. When asked how they stanched the blood, they explained by gesture that it was by stumping the bleeding ends into the sand, and they grinned with satisfaction while they explained. Later, when Galton was President of the Anthropological Institute, numerous instances were given of indifference to pain. The one that most impressed him was related by Sir James Paget, who had received it from a trustworthy authority. At the time referred to it was the height of fashion for Maoris to wear boots on great occasions, and not appear barefooted. A youth had saved money with which he bought a pair. When he tried to put them on he found that one of his feet had a long projecting toe which prevented it being thrust home. He calmly took a billhook, and, putting his foot on a log of wood, chopped off the end of his long toe and drew on the boot!

Galton was so keen about his work that, being desirous of appreciating the effects of different medicines, he began by taking small doses of all that were included in the *Pharmacopoeia*, commencing with the letter "A." It was, he dryly remarks, an interesting experience, but had obvious drawbacks. However, he got nearly to the end of the letter "C," when his scientific enthusiasm was checked by the effects of croton oil.

We next find Galton at King's College. While attending the classes there he was an inmate of the house of Professor Richard Partridge, whom he describes as at that time a brilliant man of about 34 years of age, yellow haired, full of humour and of quips, as well as of shrewdness and kindliness. He had known Charles Lamb well. Under his roof Galton spent a happy time. All the professors whose lectures he had to attend were notable men. His studies at King's College, he says, had much the same result in opening the mind that a similar experience must have on every keen medical student. He did pretty well in his work. His chief competitor was George Johnson, afterwards Sir George, whose thoroughness of work and character he admired. He was first in physiology, Galton coming in second. The only prize Galton ever got all to himself was in forensic medicine, a subject in which he delighted. He says:

It had a sort of Sherlock Holmes fascination for me, while the instances given as cautions, showing where the value of too confident medical assertions had been rudely upset by the shrewd cross-questioning of lawyers, confirmed, what I was beginning vaguely to perceive, that doctors had the fault, equally with parsons, of being much too positive.

Speaking of the advance of medical knowledge, Galton says there is still much lack of exact knowledge of what Nature can do without assistance from medicine, if aided only by cheering influences, rest, suggestion, and good nursing. He expresses the wish that hospitals could be turned into places for experiment more than they are. Suppose, he says, two different and competing treatments of a particular malady: let the patients suffering under it be given the option of being placed under Dr. A. or Dr. B., the respective representatives of the two methods, and the results be statistically compared. A co-operation without partisanship between many large hospitals ought to speedily settle doubts that now hang unnecessarily long under dispute. He adds:

Medical statistics are, however, the least suitable of any I know for refined comparisons, because the conditions that cannot be, or at all events are not taken into account, are local, very influential, and apt to differ greatly. It is, however, humiliating to find how much less has failed to attract attention for want of even the rudest statistics. I doubt whether the unaided apprehension of man suffices to distinguish between the frequency of what occurs on an average four times in ten events and one that occurs five times. Much grosser proportions have been wholly overlooked by doctors.

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As to rules of diet, the changes are ludicrous. Robert Frere, one of my fellow-pupils when with Professor Partridge, became through marriage in later years a managing partner in a very old and eminent firm of wine merchants. They had supplied George IV with his brandy and the like. He told me that the books of the firm showed that every class of wine had in its turn been favoured by the doctors.

In 1840 Galton went to Cambridge, where he attended a few lectures by Dr. Haviland, in order to obtain some more of the necessary certificates to qualify him for obtaining a doctor's degree. After he left Cambridge he was for a short time a pupil at St. George's Hospital, where he says he attended the lectures in a desultory way. In 1844 his father died, and with that event the direction of Galton's life changed. He abandoned all thought of becoming a physician, but he says he felt most grateful for the enlarged insight into Nature which he had acquired through medical experiences.

## IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE St. Patrick's Festival dinner of the Irish Medical Schools' and Graduates' Association was held at the Hotel Cecil, London, on March 16th, with Sir CHARLES CAMERON, the President, in the chair. Covers were laid for nearly 300 guests, and the proceedings throughout were marked by the utmost enthusiasm, the presence of ladies adding to the charm of the evening.

After the usual loyal toasts had been duly honoured, Dr. Samuel Hamilton was presented to the Chairman by Dr. Crampton to receive the Arnott Memorial Medal. Dr. CRAMPTON described the heroic act performed by Dr. Hamilton in the catastrophe known as the Newport Dock disaster. At this disaster the sides of an enormous trench fell in and overwhelmed many men. Dr. Hamilton, in imminent risk of his life, descended into the trench and attended to the wounded, in one case performing an amputation which was finished just in time before the tide rose in the trench. In response to the loud cheers and calls of the guests for a speech, Dr. HAMILTON acknowledged the honour conferred upon him in a few modest and manly words, for which he was loudly applauded.

The next toast was that of "The Royal Colleges"; it was proposed by Dr. H. MACNAUGHTON-JONES, who gave an interesting sketch of the origin of the respective corporations of the three divisions of the kingdom, and their relation to the different chartered bodies which had previously existed. The earliest incorporation was that of the Irish Guild of Barbers in 1446, though in 1303 a Company of Barbers existed in London, and the earliest incorporated Royal College was that of Edinburgh (1505), closely followed by the English College in 1518. In touching on the history of the Irish College of Surgeons, he urged the injustice it suffered through the altered condition of education in Ireland that had followed on recent legislation. The endowments by the State of competing institutions had placed the College at an unfair disadvantage. The depleted funds of the College did not enable its school to keep pace with modern medical advance. Consequently, numbers left Ireland to study and qualify elsewhere who would otherwise have preferred the diploma of the Irish College. Also, the grants to the new National University and affiliated colleges placed the College of Surgeons' school and its teachers at a great disadvantage with the schools of the university. There were precedents for a State endowment, for from 1784 to 1808 the Irish College had received nearly £30,000 through State grants. It had never been tainted by

politics or sectarianism. The Royal College of Surgeons of England, when the matter was brought before its Council, had been most sympathetic, and under the presidency of Sir Henry Morris had responded in warm terms, expressing its hope that this just complaint might be rectified. Dr. Macnaughton-Jones hoped that the promise of the Premier would be kept: that if it should prove that in the working of the new system the Royal College of Ireland suffered, the Treasury would not be indisposed to consider favourably the application of the College to place it in a satisfactory position. The Chairman might take back to the parent college in Dublin the assurance of the undiminished loyalty and reverence of the members of the Irish Medical Schools' and Graduates' Association, both in London and throughout the provinces, and their willingness at all times to do everything in their power when called upon to assist it.

Sir THOMAS BARLOW, in responding to the toast, referred in sympathetic terms to the views set forth by Dr. Macnaughton-Jones, and in a few well-chosen words acknowledged the compliment paid to the Colleges.

Dr. J. A. MACDONALD in proposing the toast of "The Guests" voiced the feeling of regret of the members of the association at the absence of the Duke of Abercorn owing to illness.

Sir JAMES DEWAR in a felicitous speech replied to the toast, and amused the company with Irish stories told in an inimitable manner.

Sir JAMES CRICHTON-BROWNE then submitted the toast of "The Association," and his polished periods, which were distinctly heard throughout the enormous dining hall, held his delighted audience so mute that the proverbial pin might have been heard to drop. He complimented the Irish on possessing the dash of imagination that was always such a valuable auxiliary in the practice of medicine.

After the PRESIDENT had spoken in reply,

Professor THOMPSON gave the toast of "The President," which was suitably acknowledged.

The proceedings terminated with a cordial vote of thanks to the officers of the association, submitted by Dr. JAMES STEWART, and replied to by Dr. DOUGLAS, one of the honorary secretaries.

## "QUALIFIED OPTICIANS."

### THE MANCHESTER AND NORTH OF ENGLAND OPTICAL SOCIETY.

'DISEASES OF THE EYE" was the subject of an address delivered recently before the members of the Manchester and North of England Optical Society by Mr. J. C. KIDD, pharmaceutical chemist, and President of the society. The subject, he said, a few months ago would have been considered outside their province as opticians to discuss. But it behoved them to safeguard themselves from malicious prosecution by acquiring as much knowledge as they could of the commoner diseases of the eye which they were likely to meet with in everyday experience, in order that they might avoid the traps of what he described as "medical philanthropists." Before proceeding to test the refraction, much time could often be saved, and valuable information obtained, by making a few external observations, asking a few questions, and allowing the patient to give a history of the case. Among the points to be observed were the conditions of the eyelids, the lacrymal points, and the neighbourhood of the tear sac. Then the eyelids might be turned over and the inner surface examined. Following this the cornea should be examined by focal illumination, as well as the iris and lens. Those who were able to use the ophthalmoscope could then proceed to examine the fundus. Diseases of the eyelids, he said, might appear to some to be a little outside the consideration of the refractionist, but as in many cases they might be either a cause or a symptom of impaired vision, it was well to pay some attention to them. At considerable length Mr. Kidd dealt with various diseases and affections of the eyes, describing their causes and diagnoses. The different forms of cataract, he said, could all be diagnosed by focal illumination or by ophthalmoscope. Slight milkiness of the lens in old age must not be mistaken for cataract. As primary acute glaucoma might be mistaken for iritis, Mr. Kidd enumerated and contrasted the symptoms.

A short discussion followed the address, and at the conclusion a vote of thanks was passed to Mr. Kidd, who, in responding, said that, whilst it was no business of the optician to treat diseases, it was highly desirable he should be able to distinguish them.

It was decided that a mass meeting of opticians be held in Manchester next month, when the aims and objects of the National Federation of Ophthalmic Opticians would be explained by delegates. A meeting of opticians will probably be held in Liverpool on the following day to consider the question of forming there an Optical Society to be affiliated to the Federation.

### ACTION FOR NEGLIGENCE AGAINST AN OPTICIAN.

The action, Markham *v.* Abrahams, heard before the Lord Chief Justice and a special jury on March 16th and 17th, raised questions as to the duties and liabilities of an optician. The following notes are founded upon the report in the *Times*:

According to the opening statement of counsel plaintiff was a young lady who, in 1907, was preparing for an examination to qualify as a science teacher. Having trouble with her eyes and suffering from pain, dizziness, and difficulty in reading she went to the shop of the defendant, Thomas, who carried on business under the style of Wood Abrahams, in Manchester, who described himself as an "eyesight and spectacle specialist" and a "qualified optician," of London, and stated that his "consulting hours" were from 9 a.m. to 6 p.m. One of the defendant's assistants prescribed spectacles, but not finding them satisfactory she returned on more than one occasion, and in 1909 was seen by the defendant himself. In that year she consulted an ophthalmic surgeon, who found that she was suffering from conical cornea of long standing; she had to abandon all hope of a career as a teacher. It was submitted on behalf of the plaintiff that if the defendant had exercised reasonable care and was possessed of reasonable skill he must have seen that it was a case of disease and not one of ordinary short sight. The defendant had represented himself as a specialist, and was bound to show reasonable care and skill as such, and could not now avoid liability by saying that he was merely a tradesman engaged in the sale of spectacles.

The plaintiff gave evidence in support of counsel's statements. In cross-examination she said that the only sums she paid the defendant was 25s. and 15s. 6d. for the spectacles and glasses he supplied to her; the glasses had been altered without charge; the assistant she saw on the first occasion told her that she was suffering from astigmatism.

Mr. Charles Wray, F.R.C.S., said that the existence of the disease conical cornea was easy to discover. It was essential to be extremely careful in the selection of glasses, and to forbid reading, writing, and all work at reading distance; astigmatism was always present in conical cornea. When the plaintiff consulted him in November, 1909, he formed the opinion that she must have had conical cornea for at least eight years. In cross-examination, he said that it was not true that he had long held a strong view that no optician should be allowed to prescribe spectacles. Conical cornea was a rare disease, and perhaps one in a thousand of his eye patients had it. The only fault he found with the spectacles supplied by defendant was that they were not strong enough. Mr. Bishop Harman also gave evidence.

For the defendant it was contended that he did not profess to be a person able to diagnose and cure diseases of the eye, but was simply a maker and seller of spectacles. The assistant who first saw the plaintiff said he had had eight years' experience in testing eyesight. He supplied her with spectacles for astigmatism. He had not made a study of diseases of the eye. Cases were referred to an oculist when the results of their own tests were unsatisfactory. In cross-examination, he said that if he had known or suspected that the case was one of conical cornea he would have sent her to an oculist; he had never seen a case of conical cornea, and had not attended any lectures on eye disease. The defendant, in examination, said he had been twenty-two years in business as an optician; he possessed the certificate of the British Optical Association. He had no training or experience in diagnosing or dealing with diseases of the eye. The only time he saw the plaintiff was in April, 1909, when she said that she wanted glasses to enable her to read better than those she then had, and he supplied them. In cross-examination he said that the billheads described him as an eyesight specialist; he was an ordinary optician and something more. He had the diploma of the British Optical Association, but that did not set out the qualifications of an eyesight specialist, nor had he any other document to show them. His letter paper also showed that he had consulting hours, but he had altered that to business hours; the alteration was not in consequence of this case. Beyond being able to detect an advanced cataract, he was entirely ignorant as to diseases of the eye or how to detect them. If a customer was satisfied with the glasses supplied he had done his duty as an eyesight specialist, and it was not for him to discover disease.

At the beginning of the second day's proceedings the Lord Chief Justice recalled Mr. Harman, and asked him whether there was any practical reason why, the trade of an optician being well known, the optician should not supply glasses if the eye responded to the tests described by the defendant.

Mr. Harman replied that an eye might pass the tests perfectly, and yet blindness or even grave brain disease might be impending; an optician should make it clear to his customer that he was only giving advice and supplying glasses to the best of his ability.

Mr. Sydney Stephenson, F.R.C.S., who was called for the defence, said that he had examined the plaintiff along with Mr. Wray in February, 1910, and found her suffering from conical cornea. From the history of the case he would say that when the plaintiff first went to the defendant in 1907 the disease would be in an incipient stage, and had existed for a few months. Conical cornea was rare, and he estimated it to occur once in ten thousand eye patients; in its incipient stage it was difficult to discover, and no optician would be likely to detect it. The glasses supplied by the defendant could not have increased the progress of the disease and no glasses would have retarded it. There was no evidence to show that reading made the disease worse, though he thought it might be unwise to allow reading. In cross-examination he said it was important to avoid strain in the condition in which the plaintiff's eyes were, and that to endeavour to read with glasses that were too weak would cause strain. In re-examination he said that to detect diseases of the eye required medical training.

Mr. Hartridge, F.R.C.S., said that the spectacles supplied by the defendant were suitable in view of the tests taken. In cross-examination he said that the duty of an optician must depend on what he held himself out as able to do in the particular case. In conical cornea it was important that the glasses should be of sufficient strength. In re-examination, he said there was no known treatment which would avail in conical cornea.

Further evidence was called, and counsel for the defendant and plaintiff addressed the jury.

The Lord Chief Justice, in summing up, said that the case was one of difficulty both of law and fact. The action was brought for a breach of duty by an optician who carries on a well-known form of business, and, if they thought he had been negligent as an optician, they must find for the plaintiff. The plaintiff admitted that she had not been influenced by the defendant's description of himself as an eyesight specialist, and she admitted that she knew an optician was not an oculist. Conical cornea was admittedly a very rare disease, and there was a conflict of evidence as to whether it could be easily discovered in its early stages. Could they say, in view of the fact that opticians carried on a well-known trade, that opticians were under any obligation to discover disease. Having reviewed the facts and pointed out certain inconsistencies in the plaintiff's story, he told the jury that to find in favour of the plaintiff they must be satisfied that the defendant had been negligent as an optician, or had taken on himself and had not performed duties outside those of an optician.

The jury returned a verdict for the plaintiff for £25. Judgement was entered accordingly with costs.

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A Legal Correspondent writes:

This case can hardly be quoted as an authority for the proposition that a jury has declared that an optician professes the skill of, and must be held liable for negligence as, an ophthalmic surgeon. Due regard must be had to what each optician professes to be able to do. If a man goes into a shop and tells the optician behind the counter that he is short-sighted, and the optician, after testing the sight, prescribes certain glasses, it is difficult to see how he could be held responsible if the real source of trouble was disease which he did not profess to be able to detect. *A fortiori* he would be exposed to no risk if he told his customer that he knew of nothing of the diseases of the eye. His liability would be the same as that of the proprietors of the penny-in-the-slot eye-testing machine.

There is no reason for suggesting that this particular lady refrained from going to an ophthalmic surgeon because she disliked having to pay his consulting fee; but there can be no doubt that hundreds of people go direct to opticians for this reason. It appears to be impossible to convince a large section of the community that he who essays to practise medicine in any one of its various branches is entitled to the fee which he asks for the services rendered.

The fact that the ophthalmic surgeon, in order to become competent to practise that speciality, has spent many years of his life, not only in estimating refraction, but in studying diseases of the eye, is wholly overlooked. The failure of many people—even among the better educated classes—to distinguish between what for lack of a better analogy may be termed "mental and manual dexterity" in not confined to the medical profession. The solicitor's charge of 3s. 4d. for writing a letter is sometimes considered exorbitant; the barrister who demands a guinea for saying, "If your lordship pleases," or even for going to court and holding his tongue is sometimes declared to be a fraud. The person who jibs at these professional fees fails to remember that there is nothing to prevent him from acting as his own physician, or from conducting his own cause. If he is unwell he can buy drugs; but he does not know what to buy. If he is engaged in litigation, he can write his own letters; but he does not know what to write. If he is haled before the court, he can plead his own cause, but he does not know what to say; or, what is perhaps more important, he does not know when to be silent. In each case he is without knowledge and experience. It is for that knowledge and experience that he has to pay the professional man his fee.

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## SCIENCE NOTES.

AN interesting account of some experimental observations on the mode of transmission of certain blood parasites of freshwater fishes was given at a recent meeting of the Royal Society by Miss Muriel Robertson, whose earlier work on the transmission of the trypanosome of the skate through the intermediary of a blood-sucking leech is well known; her present observations show that the life-cycle of the trypanosome parasites in such freshwater fishes as goldfish, perch, bream, pike, and rudd is completed by a similar intermediate host. In this case it is the small freshwater leech, *Hemiclepsis marginata*. By rearing these leeches in captivity it was ascertained that the trypanosomes were not transmitted from parent to offspring, and that the adult leeches became infected by sucking the blood of an infected fish. When the trypanosomes are sucked along with the blood into the crop they begin to multiply rapidly, and undergo a striking change of form. In a few days very slender forms make their appearance, and these increase in number until the blood in the crop is completely digested; shortly afterwards they migrate forward into the proboscis sheath. In this stage, which is apparently the infective stage, no further division takes place. The trypanosomes remain in the proboscis sheath until the leech feeds again, when they are inoculated into the fish. There is a curious anomaly in the fact that after an infected leech has fed on an uninfected fish the characteristic slender forms entirely disappear from the crop of the leech, and infection is carried on by means of short broad forms. One feed suffices to clear the proboscis sheath. These results form a valuable contribution to our knowledge of what is undoubtedly a somewhat complicated process.

The origin of the sympathetic nervous system has always been somewhat a mystery, and, according to the latest work of Kuntz,[1] several of our generally accepted ideas are not altogether correct. The sympathetic system, so far as is known, is peculiar to vertebrate animals, and it only reaches its fullest development in the highest vertebrates. It may thus be regarded as an indication of a high degree of specialization, and its first appearance looked for comparatively late in embryonic life. Kuntz has studied its origin in both mammals and birds. The main trunks arise as a pair of cell columns on the dorsal surface of the aorta. They are derived from cells which have migrated from the nerve cord into the dorsal and ventral roots. These make their way along the spinal nerves and their terminal branches to take up a position alongside the aorta. The prevertebral plexuses arise directly from the sympathetic trunks, and first appear as small cell masses lying on the ventral surface of the aorta. On the other hand, the cardiac plexus and the visual sympathetic plexuses are not, as has hitherto been believed, derived from the sympathetic trunks. They owe their origin to nerve cells which have migrated along the vagus nerves from the hind brain and vagus ganglia. To indicate this origin the author suggests the term "vagal sympathetic plexuses." These migrating cells do not all take part in the formation of the sympathetic system, for some go to form the neurilemma. At the same time, there seems reason to believe that the sympathetic system is largely augmented by cells which do not have a nervous origin. No sensory neurons are demonstrable in the sympathetic trunks or prevertebral plexuses, but from experimental evidence it appears likely that such do exist in the sympathetic plexuses of the alimentary canal. From his observations Kuntz comes to the conclusion that the sympathetic system is not a thing *sui generis*, but is an intrinsic part of the nervous system homologous with its other functional divisions. This conception may lend a new aspect to the problems connected with the functional relationships of the sympathetic system.

[1] *Journ. Compar. Neurol.*, xx. 212-258, and 283-308.

To commemorate the twenty-fifth year of Sir J. J. Thomson's tenure of the Cavendish professorship in Experimental Physics at Cambridge, an interesting volume, entitled *A History of the Cavendish Laboratory*,[1] has been published. It takes the place of the more familiar *Festschrift* of the German universities, and forms what is in many respects a more entertaining and valuable souvenir. It is almost twenty-six years now since Thomson commenced his duties as Cavendish professor, and during that period he has been one of the greatest living forces in modern physics, and has raised Cambridge to the pre-eminent position which it at present occupies in that science. Perhaps no post has been held by three men in succession of such commanding ability and varied genius as have occupied the Cavendish chair. Clerk-Maxwell was the first professor, and held the chair until his death in 1879. Lord Rayleigh was his successor, and filled the years till Thomson's appointment in 1884. The wide reputation of these three men alone would have conferred undying fame upon the laboratory, but they have the greater merit in having founded a thoroughly efficient school, which has attracted workers from all parts of the world, and which has provided professors and teachers for a very large number of universities, not only in this country, but also in America and overseas Britain. The extent and scope of the original work which has issued from the laboratory is evidenced by the large bibliography of published papers which finds a place in the commemoration volume, and which further shows the rate at which the number of competent workers has increased. This has been particularly noticeable during Professor Thomson's incumbency. Another interesting feature is a list of all those who have been engaged in original research in the laboratory since its foundation. The number is well over 200, and amongst the names we find those of men who are distinguished not only in the world of physics, but also in other walks of life. Amongst the latter may be mentioned Professor Chrystal, Sir G. H. Darwin, Sir Oliver Lodge, and Sir Donald MacAlister. The volume presents much that is of interest to the general reader, but the main interest is naturally for those who are in the happy position of being physicists. Several of the chapters, indeed, will be intelligible only to them. Each chapter is the work of a separate contributor, who deals with a short period. An attempt is made to give not only an account of the history of the laboratory during each period, but also of the work done and of the trend of thought leading up to that work and the many instructive sidelights associated therewith. The various contributors, each with his own light, have followed this plan with greater or less success, and have produced what must be regarded as an exceedingly harmonious whole. One of the most interesting chapters is a survey of the last twenty-five years by Professor Thomson himself. The history of the early difficulties in the teaching of experimental physics and of the events which led up to the founding of the Cavendish Laboratory through the generosity of the Duke of Devonshire also make interesting reading. The original building in course of time naturally became insufficient to meet the growing demands for accommodation, and various makeshifts had to be resorted to. This state of affairs, however, was eventually remedied, first by the generosity of Professor Thomson and later of Lord Rayleigh, who made over £5 000, the bulk of the proceeds of the Nobel Prize, towards providing adequate extensions. The new buildings were completed in 1908, and then only, the first time for many years, were the whole of the lectures on physics concentrated within the Cavendish Laboratory. The need for this was very great, for in intervening years two new university lectureships in physics had been created, and the number of lecture courses delivered annually had increased enormously. The value of the volume is enhanced by a series of plates, including portraits of Clerk-Maxwell, Rayleigh, and Thomson, and we offer our congratulations to those responsible for the form which the commemoration has taken.

[1] *History of the Cavendish Laboratory, 1871–1910.* London: Longmans, Green, and Co. 1910. (Med 8vo, pp 352. 7s. 6d.)

UNDER the will of the late Mr. John Howard Colls, late chairman of a firm of contractors, Camberwell Dispensary receives a bequest of £500, and the Evelina Hospital for Sick Children one of £200.

## A BOARD OF GUARDIANS AND ITS MEDICAL OFFICER.

A DIFFICULTY has arisen between the medical practitioners resident at Thornton Heath and the Croydon Board of Guardians in connexion with the appointment of medical officer for the No 2 District of the Croydon Union. The holder of this appointment (Dr. W. B. Addison) applied some time ago for an increase of salary, but his application was refused. The salary was fixed at £75 a year nineteen years ago; since then there has been an enormous increase in the population among the class from which parish patients are drawn, and a very large increase in the amount of work. In consequence the salary for some years has come to be, in proportion to the amount of work required, lower than in any other district of the Croydon Union. Dr. Addison consequently resigned, and at a recent meeting of the Croydon Board of Guardians the special out-relief subcommittee reported that applications had been invited for the appointment at a salary of £70 a year, which, it will be observed, is a reduction of £5 as compared with the salary previously given, but that none had been sent in. The committee further reported that it had received the following letter:

Thornton Heath,
March 1st, 1911.

Ladies and Gentlemen,

We beg to acknowledge the receipt of the forms of application for the post of Medical Officer for this district and thank you for the same. We note that the salary is to be £70 per annum. Since this remuneration per patient attended would be less than half that in any other district, and as very many more patients have to be seen in this district than in any other, and the distance covered would not be materially less, we are unanimously of opinion that in order to efficiently discharge the duties of this post, the salary should not be less than £120 per annum. Trusting that you will give this matter your consideration.

(Signed) E. P. CHENNELLS.
J. MURDOCK.
C. H. PASSMAN.
C. E. PEPPER.
C. S. RIPPON.

In the discussion which ensued Miss Musselwhite moved to refer the matter back for further consideration, observing that the district was the largest and poorest in the union; for many years the medical officer for it had been treated with conspicuous injustice, yet it was now proposed to reduce the salary still further.

Councillor Clarke, who seconded the motion, said that he sincerely hoped the guardians would have considerable difficulty in finding anybody to take up the post at the salary offered.

In reply to a question, the Clerk stated that the value of the additional fees was about £34 a year.

Mr. Moffat said it was not a credit to the union to ask a professional man to take 834 cases at a cost of 2s. 2½d. per case. If they added the £34 a year it was only 3s. 3½d. per case.

Mr. W. H. S. Aubrey, LL.D (New York), said that the special fees had amounted to £44, and that he felt that the medical men were trying to terrorize the board of guardians.

Mr. Williams considered that the doctors were perfectly justified in making the representation, and it could not be considered in any way as terrorizing.

The amendment was then put, and there voted—for 13, against 13. The Chairman declined to give a casting vote, and the amendment fell through. Afterwards the report was adopted.

The position is therefore clear enough. A board of guardians pay an inadequate salary to the holder of an appointment who asks that the injustice may be remedied; this request is refused; he resigns; a subcommittee advises the guardians to seek a medical officer at a salary still further reduced; all the local members of the profession decline to apply and indicate the salary, certainly not a large one, which they consider would be reasonable. One-half of the members of the board present agree with the doctors, but, by the operation apparently of a standing order, the report is accepted and the office will be advertised. We imagine that no self-respecting medical man will respond to the advertisement.

THE second annual meeting of the Hampstead Public Medical Service will be held at 4.30 p.m. on Wednesday, March 29th, in the fencing studio of the Hampstead Conservatoire, Swiss Cottage. Dr. A. R. Roche (Secretary) informs us that any one interested in the public medical service movement is cordially invited to be present.

## LITERARY NOTES.

MESSRS. PUTNAM will shortly publish a study of *Criminal Man according to the Classification of Lombroso*, by his daughter, Signora Ferrero. The work summarizes the leading characteristics of criminals, and presents a general outline of the ideas of the modern penal school originated by Lombroso.

*Modern Theories of Criminality* is the title of the somewhat similar work with which Mr. Heinemann will begin his "Modern Criminal Science" series, the object of which is to make accessible to English readers the leading Continental treatises on the subject. This volume is by C. Bernaldo de Quiros, of Madrid, translated by Dr. Alphonse de Salvio.

Messrs. Macmillan will shortly publish an English translation of Professor Luigi Luciani's *Human Physiology*, which is now in its third Italian edition, and has already been translated into French, German, and Russian. The work is being translated by Frances A. Welby and edited by Dr. M. Camis, of the University of Pisa, who is adding to each chapter a selected list of English monographs and papers on the subjects dealt with. The first of the four volumes will, it is announced, be ready immediately, with a preface by Professor J. N. Langley.

In reference to the epigrams on Sir Fielding Ould and Lord Glenbervie (formerly Sylvester Douglas) which appeared in the Literary Notes of March 4th, a correspondent furnishes us with the following additional obstetric ones from Ulster. Some time in the Seventies of the last century a well-known Dublin doctor and also an ex-Master of the Rotunda Hospital, Dr. Evory Kennedy, who first described the *funic souffle*, which he supposed was due to some interference with the circulation of the blood through the umbilical arteries—a hypothesis which subsequent investigations have confirmed—became a candidate for the representation of Derry, well known as the "Maiden City." Dr. John S. Drennan, son of Dr. William Drennan, the celebrated Irish politician and poet, in one of whose poems, "When Erin first rose from the dark swelling flood," the phrase so often quoted, "the Emerald Isle," first occurs, wrote the two following amusing epigrams:

No. 1.

An Accoucheur for Derry! Shame and pity!
What a reflection on the Maiden City!

No. 2.

Rejoice, old Walls! Ye Prentice Boys be merry!
Another *Great Deliverer* for Derry.

Either Dr. Kennedy or one of his friends replied as follows:

Remembering King William's fame,
A Deliverer surely has a claim.

Dr. J. S. Drennan's *Poems and Sonnets*, which, to quote from the preface, "reflect in some degree the broad and philosophic views, the cultured mind, and the keen sense of humour of one to whom the world of letters was more familiar and perhaps more congenial than the world of men," have been published in a charming volume by his children in loving remembrance. Here are two short pieces which illustrate his delightful humour:

*To the Girls.*

Dear girls, in your pursuit of knowledge
Two things observe—you need no other;
Matriculate in Cupid's college,
And get diplomas from his mother.

These lines were written when it was first announced that Queen's College, Belfast, would be open to women.

*Medical Recipe.*

By a patient too fair sat a doctor too young,
With eyes more intent on her lips than her tongue;
He tested her heart, as its pulse's recorder,
But, alas! in his own was the fatal disorder;
And soon from the region in which it was bred,
This sad "*tremor cordis*" so muddled his head,
That instead of some physic to mend her condition,
He urged as a recipe, Take your physician.

The Selborne Society, of which the president is Lord Avebury, has enlarged its magazine and printed it on art paper. For many years it was called *Nature Notes*, but two years ago the old name of *The Selborne Magazine* was once more adopted. In the February number Miss Hodgson, who has so successfully introduced nature study into the Croft School and the Croft School Circle, gives some hints on the teaching of natural history in connexion with geography and archaeology. There are many interesting natural history notes, and the number is thoroughly well illustrated. A children's corner has been started, and in it the editor continues his article on "Brasses and how to rub them." All particulars with regard to the magazine and the society can be obtained from the Honorary Secretary, 42, Bloomsbury Square, London, W.C.

The question of compulsory school athletics is one upon which, as is well known, there is every possible divergence of opinion, and the different points of view held by the opposite camps are clearly illustrated by a collection of short articles on "Athletics and School Life," which have been contributed to the March number of *The Child* by a number of experienced school doctors and others concerned with the mental and physical training of the rising generation. Quite apart from the excellence of their subject matter, these articles are extremely interesting for another reason, for they represent every side of the case, and contain arguments both for and against the adoption of compulsory school games, ranging from Mr. Oscar Browning's denunciation of "the present condition of athletic worship in our public schools as nothing short of a national calamity," to the emphatic protest of Dr. Clarence W. Haig-Brown, who declares that "athletic sports are an essential means by which the man is educed from the boy." The opinion of the majority of writers, however, appears to be that up to a certain point physical exercise is not only excellent but necessary, both for the minds and bodies of growing children of either sex, but is unquestionably dangerous when indulged in to excess; and Dr. Robert Jones even goes so far as to regard the modern craze for athletics as a possible cause of the "increase in the numbers of cases of primary insanity in young people of both sexes." It is one thing, however, to diagnose the disease, and quite another to prescribe the remedy. Dr. David Forsyth truly remarks that "the problem of athletics and school life cannot be solved by general principles. It is a question of the individual child"; but a suggestion made by Dr. Clive Riviere would seem to meet the difficulties of the case. Though a firm believer in the system of compulsory school games, Dr. Riviere admits that the adoption of such a system places an immense responsibility upon the school that enforces it, and for that reason he considers that "it is of the utmost importance that such games and their players be under medical supervision." If this suggestion were carried out, there can be little doubt that a great deal of unnecessary suffering might be avoided for nervous or delicate children, in after-life as well as during their school career. Besides the series of articles just mentioned, the March number of *The Child* contains, as usual, a large variety of interesting matter on other subjects. The beneficial effects of "The Medical Supervision of Children in Orphanages and similar Institutions" are well described in an article by Dr. Robert Milne; Robert J. Parr has contributed a moving account of the work done by the National Society for the Prevention of Cruelty to Children; an interesting sketch of life at the large co-educational public school of St. George's, at Harpenden, is given by Miss Emma Gurney Salter; whilst Dr. John J. Buchan's article on "The Declining Birth-rate" contains a much-needed warning to those who should have the welfare of their country at heart.

Spanish students of medicine seem to take very seriously the venerable jests against their profession that have tickled the ears of the groundlings from time immemorial. In a comedy recently played at Madrid one of the characters was made to say of medical students, "Those small boys cut up the dead bodies of the poor that they may learn how to cure the diseases of the rich." The remark is stupid in itself, for, as Macaulay pointed out in the debate that led to the passage of the Anatomy Act, the poor benefit more than the rich by the study of anatomy. The rich man can always get the best skill, while if anatomical and, it may be added, physiological work is hindered, it is the poor who must suffer from the want of knowledge on the part of their advisers. In this country we can hear ourselves called "Sawbones" and equally complimentary names with indifference. The Madrid students, however, hissed the author, threw all available missiles on the stage, and destroyed the furniture of the theatre. Many people were injured, and the police had to be called in to quell the riot. We do not defend such conduct, but when will authors learn that cheap sneers at the medical profession are in bad taste and out of date?

British Medical Journal.

SATURDAY, MARCH 25TH, 1911.

## EUGENICS AND UNEMPLOYMENT.

THE problem of unemployment is but one of the many social problems with which we, in common with most other civilized countries, are being brought face to face. These problems are by no means new, but they are becoming year by year more pressing, and will continue to do so until a really serious effort is made to deal with these questions in a broad scientific spirit. Much strenuous and well-intentioned effort has been directed for some years past to the mitigation of the evils attendant upon unemployment, to the solution of the economic problems to which it has been ascribed, and to its prevention, or at least its diminution, in the future. The results of all this effort have been disappointing. Charitable organizations and individual effort have done something to mitigate the sufferings consequent upon unemployment, but the problem itself has hardly been touched. The establishment of labour bureaux by the Legislature may help to diminish the evil to a certain limited extent, but that it will do more is very doubtful. Little serious attempt has been made to consider social problems as a whole from a biological standpoint. It would almost appear as if it were generally assumed that the laws of natural selection, of inheritance and other natural laws altogether cease to be operative when we come to deal with problems affecting the human race. Unemployment is but one aspect of the complex problems of the social organism, and ought not to be considered by itself.

A very interesting lecture on eugenics and unemployment was delivered last year in Trinity College, Cambridge, by Mr. W. C. D. Whetham, who with his wife was joint author of that admirable book, *The Family and the Nation*. Mr. Whetham is an ardent believer in Mendelian inheritance, and to heredity he attaches the utmost importance even in connexion with unemployment. Mr. Whetham perhaps is inclined to place rather too much stress upon inheritance to the exclusion of environmental effect, just as the practical reformer in the past has directed his attention too exclusively to environment to the exclusion of any considerations of the effects of inheritance and of the rate of multiplication in the lower strata of society. There are some hopeful signs that the rational biological method of attacking the problem is coming to be recognized in quarters where one might not have expected it. At the recent Church Congress held in Cambridge a whole morning was devoted to a discussion on the care of the feeble-minded. The meeting was crowded. An extremely able paper was read by Mrs. Pinsent, who dealt with the inheritance of certain classes of disease, of feeble-mindedness, and of criminality, in a way that would hardly have been attempted before such an audience a very few years ago. Segregation was urged as a partial, if not a complete, remedy. The outburst of applause which marked the conclusion of Mrs. Pinsent's paper was as unexpected as it was significant of the change that is gradually coming over public opinion.

Mr. Whetham and others have drawn attention to the disproportionate rate of increase among the population of unemployables, compared with that of the desirables. The facts and figures quoted by them are striking, not to say alarming. Some of the facts which have to be faced are these: First, owing to the struggle for existence the number of children in families which are of most benefit to the country is steadily and rapidly diminishing. The causes of this diminution, whether voluntary or not, we cannot enter into on the present occasion. Secondly, the number of children born to parents of the undesirable classes is steadily and rapidly increasing. These two facts taken conjointly must have the effect of lowering the mean "desirability" of the nation as a whole. Efforts directed entirely, as has hitherto been the case, to improving the environmental conditions of the latter class, tend, it is argued, to accentuate the evil by affording opportunity and encouragement for a still further increase in the birth-rate.

The remedy would appear to lie in the direction of (1) encouragement to the "fit" to have larger families, and (2) prevention of the "unfit" from propagating their kind, at any rate in disproportionate numbers. A start has been made in the first-named direction by the allowance on income tax for each child under a certain age. This innovation in the Budget of last year, though on a very small scale, is certainly a step on the right road, and it may be hoped that the Chancellor of the Exchequer may see his way to increase the amount allowed, and thus encourage the desirable class of persons with small incomes to raise larger families.

It is when we come to deal with the question of prevention among the unfit that the main difficulties have to be faced. Two possible methods have been suggested, segregation and asexualization. Of these the former will undoubtedly meet with least opposition. It is apparently a comparatively simple expedient and does not offend sentiment, but there are matters connected with it which have to be considered. To compel celibacy in a class of people in which the sexual passions are strong or may be perverted, as is not nfrequently the case among those very people which it is desirable to segregate, is a doubtfully humane method of treatment. The tendency to immoral and vicious practices may possibly become a serious matter. There are, in fact, serious objections to the principle of segregation, to say nothing of the enormous present expense to the community, though the ultimate benefit is unquestionable.

The objections to the policy of asexualization would in this country undoubtedly be very strong. The fact, nevertheless, remains that we are face to face with a very serious condition of affairs; a complacent public prefers not to think about such unsavoury subjects, but the public conscience must be aroused. The present position is due to the fact that by interference with the law of natural selection —which, be it remembered, is operative in man as in other organisms, plant and animal—there have been brought about quite unnatural social conditions. Efforts to ameliorate environmental conditions are very necessary, but the important factor of heredity must be fully considered, and Mr. Whetham is quite justified in calling public attention to this factor in the problem. It is earnestly to be hoped that any future schemes which may be under-

taken to deal with the problem of unemployment, whether by the Government or by local authorities, will be considered in a really broad spirit, and that upon all advisory boards medical men and biologists who have studied these problems will be adequately represented. Social problems must be dealt with scientifically and by men of scientific training, for they are essentially biological problems.

## THE PUTNEY HOSPITAL.

AT the Annual Representative Meeting, 1909, two resolutions dealing with the inception and management of new public medical institutions were adopted, and are likely to exercise great influence on the future development of the hospital system. The first was that no fresh public medical institution should be started without previous consultation with the local medical profession; the other affirmed the desirability of the co-operation of officially recognized representatives of the local medical profession in the promotion and general management of hospitals and other medical charities, and urged that for the appointment of such representatives use should be made of the machinery afforded by the Divisions of the British Medical Association. These decisions need no defence. Without the co-operation of the medical profession such institutions could not exist, and the lines on which they should be managed with least danger of abuse is clearly a matter on which the profession is able to give expert advice. The most effective and appropriate way in which the rights of the local profession can be recognized, and advantage taken of its advice, is by inviting it to appoint representatives on the governing board of the institution. If the desirability of consulting the profession at the inception of institutions of this kind and the necessity for subsequent medical representation be granted, there can be no doubt that the only organization which can in most localities claim to speak for the profession in any representative and continuous way is the Division of the British Medical Association.

This preamble may fittingly introduce a few remarks on the history of a pioneer effort to secure the recognition of these principles. In 1900 the late Mr. Henry Chester of Putney left about £80,000 to sustain a hospital at Putney. The money was not to be used in building the hospital, but simply in maintaining one when built, and the only conditions imposed were that the hospital must be a general hospital; that it must be in the parish of Putney; and that its site must be approved by the Haberdashers' Company, the trustees under the will. On the initiative of Dr. E. F. White of Putney, who was approached by the trustees, the local profession were consulted as to its attitude towards the proposed hospital, and agreed to support it. As a consequence of a public meeting called later, a building committee was formed, and two well-known local practitioners were elected on it. In 1906, the attention of the Wandsworth Division (in whose area Putney is situated) having been directed to the possibilities of the institution of a new hospital in the district, that Division, in conjunction with the Richmond and Chelsea Divisions, which were closely concerned in the matter, established what was known as the South-West London Medical Hospital Committee. The Chairman was Dr. Gilbert Richardson of Putney, and Dr. E. R. Fothergill of Wandsworth acted as Honorary Secretary. This committee approached the Building Committee, and with the assistance of the two medical members of the latter succeeded in obtaining the acceptance of the following principles: (1) That there was no necessity in that neighbourhood for a large general hospital, and that one of 20 beds would suffice for the needs of the district; (2) that an out-patient department was unnecessary; and (3) that the number of non-paying beds should not be greater than the needs of the district or the resources of the endowment. The South-West London Committee then endeavoured to secure the support of the local profession for a scheme for the management of the hospital, which included such valuable provisions as that a certificate of a local medical practitioner should be a sufficient and necessary recommendation for admission; that every local practitioner should have the opportunity of attending his own patients in pay beds; that the staff should be divided into two parts—a consultant staff, the members of which should practise exclusively as physicians, surgeons, and gynaecologists respectively, and an attending staff of four local practitioners, who should be appointed on a system of rotation and retire after four years' service; that the hospital should be governed by a council, one-third of which should be composed of persons elected by the Chester trustees, one-third of persons elected by the original donors, and one-third of medical practitioners representative of the local profession, the latter to be appointed in accordance with conditions laid down in the rules of the Wandsworth Division; and that there should be a medical committee formed of all the medical members of the council, together with all the attending staff. Protracted negotiations, a report on which has just been presented to the Divisions represented on the South-West London Committee, took place between that committee and the Putney Hospital Committee elected by the Putney doctors. The net result is that the latter, while favouring the greater part of the scheme, prefer a staff on ordinary hospital lines to one founded on a rota of local practitioners, and instead of accepting the suggestion that the representatives of the profession on the Hospital Council should be elected in accordance with conditions laid down by the rules of the Wandsworth Division prefer to keep the election of these representatives entirely in the hands of the profession in Putney. They have, however, agreed that the member of the profession who for the time being represents Putney on the Executive Committee of the Wandsworth Division shall have a seat on the local committee, thus to some extent keeping that body in touch with the hospital in the future. The report of the South-West London Committee points out the improbability of the operations of the new hospital being permanently confined to Putney, and urges that the executive of the Wandsworth Division should be authorized to act, if and when necessary, in safeguarding the interests of the profession surrounding the Putney postal area.

If it has not been found possible to secure unanimity in the local profession as to the best method of organization of the Putney Hospital, certain points of great professional interest have emerged. The action taken has secured that the local profession has been consulted in the inception of the hospital, and is certain of recognition in the further stages of its organization. If the local profession had done nothing more than prevent the founding of an out-patient department in a district in which such a department

is not needed, it would have amply justified its great expenditure of time and trouble. But, in addition to that, and in addition to securing the adoption of other important principles in connexion with the local hospital, the Divisions concerned have been largely instrumental in securing the adoption by the British Medical Association of the general principle of the right of the local profession to be consulted when schemes for the institution of new medical charities are being discussed, and of their representation as a profession on the governing boards of such institutions.

## ANNUAL EXHIBITION, BIRMINGHAM.

IN connexion with the seventy-ninth Annual Meeting of the British Medical Association in Birmingham from July 25th to July 28th, the usual exhibition of (*a*) medical and surgical instruments; (*b*) drugs, foods etc.; (*c*) sanitary and ambulance appliances and all articles of special interest to the medical profession, will be held. In addition it is hoped to arrange a special section devoted to motor cars, motor cycles and accessories and carriages. The exhibition will be held in the Bingley Hall, a building which affords ample space and is situated within a few minutes' walk of the buildings in which the reception room will be established and the sectional meetings held. Section (*a*) of the exhibition will include displays of books, charts, etc. The applications already received make it certain that the exhibition will be on a large scale and have a representative character.

## LIFE ASSURANCE FOR RESIDENTS IN THE TROPICS.

Now that more and more young people are yearly seeking an outlet in the tropical and subtropical regions of the Empire, the question of insurance risks becomes increasingly important. It has been the custom of British offices for many years to add a considerable "load" to any such life accepted by them if the insurer lived permanently abroad or was liable, in the course of his business, to be called frequently out of England. Such a "load" may have been justifiable fifty years ago, when sanitation was bad, the laws of health imperfectly understood, and access to and from England much slower than it is now. But in these days of rapid locomotion, prophylactic treatment, and vastly increased knowledge of tropical medicine, it is held by many that the present premiums are much too heavy for the risks undertaken. That there may be considerable justification for this belief seems indicated by the fact that some American companies do not thus handicap their policy holders, and a large business is therefore done by them amongst residents abroad, especially in China, who have been deterred by the excessive rates charged by the British offices. From an article by Mr. James Cantlie,[1] it appears that the tabooed countries include all those lying between 33 deg. N. to 30 deg. S., irrespective apparently of the fact that these latitudes include health resorts like the Canaries, Egypt, and some of the West Indies, equally with the West Coast of Africa, Mauritius, and the Amazons. This is like putting a premium on a man in Edinburgh because typhus fever is endemic in county Mayo. The absurdity is carried so far that a man, ordered abroad for his health, has to pay an extra premium while he is abroad because he has left the place where he is likely to die for one in which he has a chance of recovery. Another fact brought out is that insurers of all ages are equally penalized. This, again, it is stated, is quite unjustifiable, a youth of 18 being much more liable to disease than a man of 30, the incidence of disease being between 18 and 25 two to one, between 18 and 30 ten to one. The more mature a man is when he goes to the tropics the less likely he is to suffer from the effects of climate; the longer he has been in the tropics the less likely he is to succumb to any of the special tropical risks. This the insurance companies ignore, acting on the principle of "lumping" the risk—what they lose on the younger man they gain on the older. The fact is that as there are no reliable statistics to go upon, the companies overcharge indiscriminately to protect themselves. Mr. Cantlie suggests that after seven years in a "proscribed" country the extra premium should be reduced one-half if examination by the company's medical officer shows that no permanent ill effects have been produced by the residence abroad. After ten years it might similarly be reduced to one-third, and in the fourteenth year be the same as that ruling in England. It is unfortunate that for insurance purposes the younger lives should be the greater risk, for a youth of 18 to 21 is much less likely to be able to afford the extra premium than one of 30, a man of 30 to 35 going to the tropics being usually in receipt of a much larger salary. To meet this, Mr. Cantlie suggests as an alternative that if a man, say in some shipping office, is insured for £1,000, and his firm in course of time sends him out to the tropics, instead of increasing his premium, it might be arranged that the risk should be reduced, say to £750 or £500, according to the unhealthiness of the climate. After the first five or seven years the risk could again be increased according to the medical report.

[1] *Journal of Tropical Medicine and Hygiene*, February 1st.

## SCHOOL LIGHTING.

Two recent meetings of the Illuminating Engineering Society have been occupied with a discussion of school and college lighting. So far as the elementary day schools are concerned, the thing of chief importance is to ensure a plentiful and properly directed supply of daylight, but the increase of evening classes has made artificial illumination in schools a serious problem. Dr. James Kerr, dealing with the daylight question, arrived at the following conclusions: (1) That the window-lighting on the side of the class-room on the scholars' left should be as ample as possible, and equal at least to one-fifth of the floor area; (2) that window-lighting facing the children or coming from behind them, so that (in the latter case) they sit in their own shadows, ought no longer to be permitted; (3) that the rapid diminution of light with the distance from the window, which the photometer proves to be appreciable within the length of an office writing table, makes it inadvisable to have class-rooms of greater width than 20 ft. He added that many rooms were capable of great improvement by a judicious wall-covering. Above a height of 5 ft. from the floor the colour should be very light, and the beams and rafters should also have a coating of white paint. In the subsequent discussion an architect, Mr. Percy Waldram, expressed the view that it was vitally important to have high-angle illumination, and urged that the authorities should be prepared to sacrifice a great deal in order to have top lights in class-rooms. Mr. Bishop Harman, oculist to the London Education Committee, said that the minimum artificial illumination on the school desk of a child had been estimated at 10 metre-candles, an amount not large when compared with ordinary daylight in a fairly lighted room. An ideal distribution of gas pendants or electric lamps for a class-room would be

to hang the first lamp—a 16-candle power lamp with 90 degree shade—slightly in front of the dual desk at the extreme left of the first row, and to make the others follow it from that point across the width of the room at distances of not less than 6 nor more than 9 feet. This line of lamps should light the first and second row of desks, a second line being hung in the same relation for the third and fourth rows. Indirect illumination by reflection, although useful in shops, show rooms, and museums, was inadvisable for continuous and detailed work at the desk. Dr. W. J. M. Ettles emphasized the bearing of wrongly directed lighting—more particularly lighting from behind, but also from the right side—upon posture, and, consequently, its ill effect upon the growing spine. The good results of scientific lighting in schools, however, were largely nullified by wretched lighting at home, and he advocated the abolition of home lessons. Two reports were presented, one, by Mr. Leon Gaster, giving the results of tests of the actual conditions of illumination prevailing in various London elementary schools, and the other, by Mr. J. S. Dow, dealing similarly with colleges and technical institutions. The voluminous data collected by these two investigators related mainly to artificial illumination, especially upon desks and blackboards. On the desks in the class-rooms of four typical elementary schools in London the illumination in foot-candles was found to vary from 1.6 to 5.0, the average being about 2 or 3 foot-candles. Two seemed to be sufficient for ordinary class work. Complaints arose when more delicate tasks, such as shorthand, sewing, or the reading of music, came into consideration. For such labour Mr. Gaster recommended 5 to 10 foot-candles. Blackboard illumination was the least satisfactory feature in the cases taken, varying within wide limits and having apparently no scientific basis at all. Comparative figures for German schools showed a relatively high illumination—never less than 4 foot-candles in the cases given, and sometimes as much as 8—though the consumption per square foot of floor area was not noticeably different from that usually met with in this country. It was claimed for the high-pressure indirect gas lighting used in Munich that the actual brilliant source of light was well screened from the eye, and that the possibility of shadows being cast by the writing hand was reduced to a minimum. In dealing with colleges and technical institutions Mr. Dow said that the lighting of the lecture theatre in many cases was of the rule-of-thumb order. It was the exception for special provision to be made for lighting the blackboard and diagram sheet, and the illumination on the desks—a less important matter in lecture theatres than in schools—often exceeded that on the lecture table. A requirement generally felt was some form of fixture which would evenly distribute the local illumination of demonstration table and blackboard and at the same time screen the eyes of the audience. Both Mr. Gaster and Mr. Dow emphasized the need for effective shading; no unscreened source should be allowed near the direct line of sight.

## GASTRIC SURGERY AND PHYSIOLOGY.

ADVANCES in science are not always followed immediately by corresponding progress in practice, partly owing to the conservatism of the practitioner of every art, and partly because it is not always at once apparent that the advance offers a sound foundation for new departures. Progress in the art of surgery is often due to the marvellous intuition which inspires the born surgeon, although the work of Lister stands out prominently as an eminent example of the other method. The introduction of gastro-enterostomy can hardly claim to have been based upon definite scientific principles, but it is interesting to see that a somewhat belated science can furnish explanations of its success. In a recent address to the New South Wales Branch of the British Medical Association[1] Mr. John Flynn has taken for his text the bearing of recent advances in the physiology of the digestive glands on gastric surgery, and attributes the good effect of gastro-enterostomy in ulcer of the stomach to the breaking of the vicious circle which exists so long as spasm of the pylorus induces excessive secretion of gastric juice and increased acidity keeps the pylorus closed. The new outlet not only permits the timely exit of the stomach contents before they have become excessively acid, but also allows acid chyme to enter the duodenum, where by the formation of secretin it stimulates the flow of biliary and pancreatic juices, thereby relaxing the pyloric spasm through the duodenal reflex. He suggests incidentally that the diminished hydrochloric acid secretion observed in cancer of the stomach is due less to atrophy of the peptic glands than to diminished formation of gastric secretin when cancer involves the pyloric portion of the stomach. Recent observations on the variations in intragastric pressure justify the selection of the fundus for the seat of the opening when, as in ulcer, it is desirable to facilitate the regurgitation of the alkaline secretions of the liver and pancreas, while an opening nearer the pylorus is more appropriate if simple drainage is aimed at, as in cases of cicatricial pyloric obstruction. As the results of the operation are most certain where there is a permanent pyloric impediment, he believes it may be useful to cause such an impediment artificially by blocking the pylorus where it is wished to compel the contents to follow the new route. Bolton's experiments have shown that healing of a gastric ulcer is retarded when there is motor insufficiency of the stomach—a fact which affords a further explanation of the beneficial result of gastro-enterostomy in gastric ulcer. Finally, Mr. Flynn recalls the results of recent experiments, which have shown that the digestion of milk is impaired after gastro-enterostomy, probably owing to the inhibition of the secretion of rennin, consequent on the regurgitation of alkaline fluids. This he holds should teach us that a diet of pure milk ought to be abandoned as quickly as possible after the operation, while a liberal allowance of fats, which stimulate the secretion of the liver and pancreas, should be regarded as an essential element of the after-treatment.

## THE PSYCHOLOGY OF HUMOUR.

WE not infrequently read in the report of a case of perhaps capital importance the words, "Laughter, which was instantly suppressed." The occasion of this merriment may have been a matter quite trivial in itself—as, for instance, some harmless witticism on the part of the presiding judge, the bovine stupidity of some rustic witness, or, as in the case which occurs to us, the sudden appearance of a black cat at the learned judge's elbow. The physiological interpretation of this sudden outburst of laughter offered by Herbert Spencer was that the pent-up nervous energy of those in court, but for the introduction of this humorous interlude, would have been employed in the production of an equivalent amount of new thoughts or ideas. The sudden interruption, causing a cessation of the mental strain, results in the discharge of this nervous energy and its diversion into the channel of an irregular motor energy. Unguided by purpose,

[1] *Australasian Medical Gazette*, December 20th, 1910.

this results in the stimulation of those muscles most habitually stimulated by feeling and emotion, and as the feeling becomes intensified an increasing number of muscles become affected, until sometimes the whole body is thrown into a convulsive motor activity. This muscular convulsion is of ancient origin, and has always been the physiological result of the humorous as appealing to eye or ear. It is interesting, therefore, to the biologist as well as to the psychologist. But when we come to the psychological aspect of the matter, interesting and fascinating as the study is, it evades accurate analysis. Be the physiological interpretation of laughter what it may, the exciting cause in all cases is that quality which is called humour. The quality of the joke emanating from the learned judge may have been sufficient in any circumstances to stimulate the sense of the ludicrous in those who had the privilege of hearing it—we would not wish to deny such a possibility. On the other hand, defining humour, in the words of Lowell, as being "in its first analysis a perception of the incongruous," the momentary alliance of the laughter-loving god with the majesty of the law may of itself have sufficed. There is, however, another influence which may explain the sense of humour so commonly shown in these circumstances. A sense of humour being generally reckoned one of the cardinal virtues, we are ever ready to give ourselves ample credit for its possession. We instinctively shrink from the imputation of having no sense of humour, but our eagerness to seem possessed of it cannot arise from the fact that it indicates any especial standard of intellect, for although the humour of Cervantes is as little likely to perish as the fiery imagination of Dante, it is quite possible to be a philosopher without being a humorist, though no doubt every true humorist is also something of a philosopher. At the same time we do not seem to have heard that any of the great band of philosophers from Aristotle downwards have been specially distinguished by a sense of humour, and cannot imagine Hegel or Kant positively rocking in their chairs at the most side-splitting judicial impromptu. Briefly, then, humour consists in the display of incongruity between two otherwise associable objects of thought, as distinguished from wit, which has been defined as consisting in the revelation of an unsuspected similarity between two otherwise dissimilar objects of thought. Now the hall-mark of true humour is its humanity, and if not of itself a moral quality, it is bound up with certain moral virtues of primary importance. The humorist may make mankind his laughing-stock, but never holds it up to scorn, and he as often as not laughs through his tears. It is a truism, indeed, that the greatest humorists have themselves been the victims of the most profound melancholy, and it is precisely because such men as Charles Lamb, Dickens, and Thackeray were conscious of the low sad music of humanity that their humour has become for us an abiding possession. But this is, perhaps, only for the few, and a certain cynical funniness divorced from pity and sympathy, esentially antipathetic rather than sympathetic, too often does duty for it. We may quite well suppose, as a writer in the *Fortnightly Review* suggests, that it was vastly humorous in the eyes of paleolithic man to see one of his fellows cut himself accidentally with a flint knife; in the same way, to take an everyday instance, it appears very entertaining to the majority of observers to see a man pursuing his hat on a windy day. Indeed, now, as then, anything which gives man a chance and fleeting superiority over the infirmities of his fellows, satisfies a sense of humour of this kind. This type of humour is in essence cruel, and may, and does, quite often become actively brutal. Physical deformities were ever a good joke among the Romans, as well as in Greece, and the stage sometimes gives us cause to ask whether even now we can boast ourselves altogether free from this reproach. Humour, save for the few, has not yet purged itself of a sense of joy in our neighbours' ills. If this be so, the possession of a sense of humour of the popular kind appears to be rather a questionable virtue after all, and while it may be true that women as a sex are lacking in humour, the fact that they are temperamentally and consciously averse from cruelty, may quite well account for this. Everything goes to show, in fact, that the average man has as much sense of humour as the Irish bishop who averred that there were some things in *Gulliver's Travels* that he really could not believe. So that on the whole we may quite fairly deduce from such incidents as those quoted above, that much that goes for humour nowadays, far from indicating any especial virtue in its possessors, can best be summed up in the words o Pope: "Gentle dullness ever loved a joke."

## ISLE OF WIGHT COUNTY MEDICAL OFFICER OF HEALTH.

IT is with sincere regret that we have to report that our prediction made in the JOURNAL dated February 11th, that in relation to the proposed appointment of a medical officer to succeed Dr. Gibson there would be "absolute unity" in the profession has not been fulfilled. We then suggested that the right course for the Isle of Wight Council to adopt would be to withdraw the advertisement, and to offer to Dr. Gibson a salary commensurate with the position. We now learn that the appointment of county medical officer has been applied for, and that at a meeting of the council held last week Dr. Barford was appointed. From the report of the meeting in the *Isle of Wight County Express* it appears that twelve applications for the post were received, but that nine of the applicants withdrew their applications; it was stated that two other applications had been received after the appointed time. The three candidates remaining for the consideration of the council were Dr. Arthur M. Barford of Chichester, Dr. C. D Outred of Gravesend, and Dr. John A. Rose of Oakingates, Salop. Dr. Barford's qualifications for the post were stated to be that he was M.R.C.S Eng., L.R C.P.Lond., and M D.Brussels (with honours), D.P.H Edin.; that he held the appointments of Surgeon to the Portsmouth and South Hants Eye and Ear Infirmary (five years); Assistant Surgeon to, and Surgeon, Throat, Nose, and Ear Department, West Sussex and East Hants General Infirmary; Medical Officer, Board of Education and Chichester Post Office; Lecturer upon Hygiene to City of Chichester and West Sussex County Council Joint Education Committee. It was further stated that he had had experience in Public Health administration under the Medical Officers of Health for Reading, Hackney, and Stoke Newington. The qualifications of the other candidates we need not specify. At the meeting, it is somewhat satisfactory to note, considerable discussion arose, and some members expressed themselves strongly as to the remuneration which was offered. In the end, however, the election went through, and Dr. Barford was appointed to the office by a majority of twenty votes; there were five blank papers. Whilst not criticizing in any way the qualifications of the medical practitioner who has been appointed, we must express our opinion that Dr. Barford has not exercised a wise discretion in coming forward as a candidate. To hold a position as medical officer of health for a county

contrary to the expressed desire and approval of the local members of the profession, and in addition without the approbation of the leading medical association of the country, cannot lead to other than trouble and friction. Whilst acknowledging the medical officer as an authority in matters of public health, the cordial relations which should exist between such an official and the profession cannot, we fear, be established in the island under the present conditions; and the council, by riding roughshod over medical practitioners generally, as it has undoubtedly done, will have sown discord which cannot be reaped otherwise than disastrously by the community. To lower the dignity of the position of medical officer by offering a salary which is not commensurate with the important duties involved is a policy which can only reflect upon its originators. That a medical practitioner with the qualifications and experience of Dr. Barford should have by his action rendered it possible for the council to treat Dr. Gibson in the way it has is most regrettable, and, in our opinion, most mistaken. We did not ask for professional unity from selfish motives; we considered that by advising the profession to hold aloof from the appointment we were acting for the good of the community in respect of public health matters, in that an appointment of this nature should be not only one of honour and distinction, but so remunerated as to draw the best qualified and most highly trained into the list of candidates. What is the position in this instance? The candidates for the medical officership of health of a county numbered three, whereas the applications for similar appointments in other places are far more numerous. Can it be said that this redounds to the credit of the county or of the county council? Dr. Barford cannot be congratulated upon having accepted a position in the teeth of the opposition of his medical brethren. With Dr. Gibson our sympathy is great; but sympathy alone cannot compensate him for the position in which he is placed. Ousted from his appointment, prevented from practising in the island through no fault of his own, he deserves the support and help of the profession. The principle adopted by the council was, as one of the councillors stated at the meeting, a bad one, and the able and efficient services of Dr. Gibson should have been retained in the best interests of the Isle of Wight. The description given by one member of the conduct of the council as "mean, scurvy, and dirty" was ruled out of order by the chairman and withdrawn, but it is a sad commentary upon medical ethics that some medical men should have been ready and willing to fall in with the wishes of the majority of the council.

## MEDICAL EDUCATION IN ONTARIO.

JUDGING from sundry private communications and the contents of Canadian medical journals, more especially the *Canadian Practitioner*, questions of medical education and professional control in Ontario are receiving at the present time somewhat more than their wonted meed of attention. Just as in this country, considerable differences of opinion exist as to the right curriculum to impose on medical students and the precise amount of time which should be allotted to each subject. Though the official length of the curriculum was not long ago raised to five years, this period is found too short fully to meet all the demands made, and some experienced authorities believe that the real essentials of medicine and surgery are being sacrificed to its finer studies. So far, therefore, the position is in many respects on all fours with that in this country. In respect of the control of the medical profession the reverse would seem to obtain. The medical profession in Ontario achieved a good many years ago, both in respect of admission to its ranks and the composition of its controlling body, a position which many would like to see reached in Great Britain. Its Medical Council is much less representative of schools and of degree and diploma granting bodies than is the General Medical Council of this country, and that council, by imposing its own examinations on applicants for registration, has established what is to all intents and purposes a one-portal system. A movement would, however, seem to be on foot to upset the present position of matters and to obtain for certain approved bodies, primarily the University of Toronto, entire freedom from the jurisdiction of the Medical Council. The desire is that the university in question shall not be subjected to the rules of the council in respect of the education of the students of its medical faculty, and shall be accorded by the legislature the right to demand from the council the registration as a medical practitioner of any person to whom the university has accorded its degrees in medicine and surgery. The motive of this endeavour would appear to be less dissatisfaction with the requirements of the council than a feeling that now that the medical faculty of the university has been so thoroughly developed it should no longer be subjected to the control of an outside authority. So far this movement has not gone very far, the predominant opinion seeming to be that if the provincial legislature were persuaded to fall in with the idea there would, in the end, be a complete reversion to the original state of affairs, some twenty or thirty years ago, when eclectic institutions of every kind had the right in Ontario to claim for their students full recognition as legally qualified medical men.

## SALVARSAN OR "606."

THE correct constitutional chemical name of the organic arsenic compound introduced by Ehrlich, Bertheim, and Hata for the treatment of syphilis being dioxy-diamino-arsenobenzol-di-hydrochloride, it is not wonderful that the investigators who had to talk about it sought a shorter term, but we venture to think that the use of "606" should now be given up. It was at best nothing more than a convenient piece of laboratory slang, which has served its purpose and may now be abandoned. The full chemical term is doubtless too cumbrous for every-day use, and the chemical manufacturers have, we understand, definitely chosen "salvarsan."[1] This term is to signify the chemical compound dioxy-diamino-arsenobenzol-di-hydrochloride and nothing else. As was perhaps to be expected, persons having no claim to medical knowledge or skill have already sought to exploit to their own advantage the great amount of public interest excited by the announcements made in the newspapers last autumn. They advertise that they will treat patients with "606," but it is at least doubtful whether it could be established to the satisfaction of a jury that "606" meant dioxy-diamino-arsenobenzol-di-hydrochloride and nothing else. It may, of course, be that the people who at present advertise that they will treat persons who apply to them with "606" employ dioxy-diamino-arsenobenzol-di-hydrochloride, but there is no guarantee that they and their rivals or successors will do so in the future, and it must be remembered

[1] A good account of the chemistry and pharmacy of salvarsan with a history of its introduction will be found in *Salvarsan*, by W. Harrison Martindale, Ph.D., F.C.S., and W. W. Westcott, M.B.Lond., D.Ph. (London: H. K. Lewis. 1911. 5s. net.) The volume also contains therapeutic notes

that all the organic arsenic compounds are two-edged weapons. They may do good, but imprudently used may do a great deal of irreparable harm. In the first place the question of diagnosis arises, and this, as is well known, may be difficult; in fact it has been suggested that the remedy ought not to be used until after a Wassermann reaction has been found. The number of deaths which can be attributed to salvarsan is small, but cases have occurred, and it would appear that the supposed immunity from optic atrophy which was believed to distinguish salvarsan from other organic arsenic preparations is not invariable. A man who found himself hopelessly blind for life would be justified in thinking the cure worse than the disease.

## A GOSPEL OF DIRT.

SIR ALMROTH WRIGHT has been lecturing to the National Health Society on bacteriology and hygiene, and some fragments of his discourse have found their way into the newspapers. How far these accurately represent what he said we do not know, but, as he has not taken the trouble to repudiate the statements attributed to him, we may assume that they are fairly correct. As to washing, he is reported to have said that there was a belief that people washed off the microbes. We did, he went on, take off a certain amount of microbes, but we also destroyed the protective skin which was all round our bodies like the tiles of a house. When one had a horny hand no microbe could ever get through the skin. If one had a skin like a tortoise microbes would never get through. To have a Turkish bath was to take away one's horny protection, and he objected to that. With regard to fresh air, why was it only applied to tuberculous disease? He held it to be a dreadful superstition. The whole of the doctrine of fresh air required to be revised. He did not feel that, with regard to public, domestic, or private hygiene, we had reached any valuable knowledge, and if we never applied that which we had we should not be much worse. Epidemic diseases were but incidents, and did not matter much; the permanent disabilities were local infections. Hygiene was a question of fighting microbes. It was said that prevention was better than cure. He did not believe it. And so on, in the style to which we have become accustomed. Some one defined dirt as matter in the wrong place; we gather that Sir Almroth Wright holds the contrary view. Lord Justice Fletcher Moulton, who was in the chair, seems, in the language of the police courts, to have felt his position and tried to explain away the opinions expressed by Sir Almroth Wright by suggesting that he wished to arrest the attention of his hearers. This, we take it, exactly expresses the intention of the distinguished lecturer. Like a true artist, Sir Almroth Wright loves *épater le bourgeois*. As an Irishman he is *ex vi termini* a wit, and it doubtless delights him to see the dull-witted Britons take him seriously. But he might be more original. His gospel of dirt is not new. The essence of it was preached to a somewhat unappreciative world by another oracle of science, Dr. John H. Clarke, a few years ago in his book entitled *Vital Economy*. Long before him an eminent German professor had cried *Fort mit dem Bad!* The doctrine was practised wholeheartedly in the early Middle Ages, when the prevention, which Sir Alemroth Wright does not believe in, was yet unheard of. It is true that nations were then decimated by epidemics; but we now have it on high scientific authority that such things do not matter. Sir Almroth Wright's prophetic vision sees the man of the future living, like St. Simon Stylites, an intellectual machine on a tripod. Of course, the tripod will be carefully sheltered from the open air. We suppose this embodiment of the new hygiene will have cultivated a thick layer of dirt on his skin, and—perhaps with the occasional use of a vaccine to cure the pimples that may "grow," like Topsy—he will live happily, freed from the superstitions of soap and open air, and die at last in the odour of unwashed sanctity.

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WE regret to record the sudden death on March 21st of Dr. Leonard Sedgwick, who has not long survived Mr. Henry Power, co-editor with him of the *Lexicon of Medicine*, issued by the New Sydenham Society. We hope to publish some account of his career in an early issue.

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THE scheme for the establishment of an international university at The Hague, drawn up by Professor Nippold, seems to be in a fair way towards realization. The international committee, formed at the suggestion of Mr. Carnegie, and in which Holland is represented by Mr. Asser, the Secretary of State, has considered proposals made by various countries. Among these is one from America which would involve an outlay of ten million dollars for the necessary expenses, and which includes the provision of an institution for the residence of students. The University will be erected in the neighbourhood of the Peace Palace.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**The Public Health (Ireland) Bill** has passed through Standing Committee A, and reported to the House with amendments. The amendments limit the bill to the inspection of meat intended to be sold in any urban district, and the prohibition of its sale if necessary. The bill will be considered on an early day, and will probably be the first private member's bill to pass this year.

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**The Coal Mines Bill**, which passed its second reading last week, has 123 clauses, and is drawn so as to consolidate the law regulating the coal mining industry. It contains many new provisions of great importance in connexion with ventilation, supervision, the use of safety lamps, and the employment of children. Boys under 14 years of age will not in future be allowed to work underground, and girls and women are excluded altogether. In addition to provisions for lessening the danger of the miner's calling, there are clauses for protecting his health by insisting that sanitary conveniences shall be established, and also baths, to be used on coming out of the pit, and there are also provisions dealing with disease which may be acquired by working in the mine. The bill was very favourably received, but it was nevertheless a very noteworthy feat on Mr. Churchill's part to pass it through the second reading stage in less than two hours.

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**The Health Visitors Bill**, introduced last week by Mr. Burns, enables local authorities under the Notification of Births Act, 1907, to appoint health visitors. Suitable women, to be known as health visitors, for the purpose of giving advice as to the proper nurture, care, and management of children under 5 years of age, and as to the promotion of cleanliness, may be appointed by local authorities outside London. The qualifications of health visitors will be settled by the local authority after consultation with their medical officer of health.

**The Rag Flock Bill**, which Mr. Burns presented last week, seeks to prohibit the sale and use for the purpose of the manufacture of certain articles of unclean flock manufactured from rags. Flock made from rags will have to conform to a standard of cleanliness laid down by the Local Government Board, and any person having in his possession for sale, or the making of upholstery, cushions, or bedding unclean flock will be liable to a fine of £10, or for a second offence £50. It will be the duty of the sanitary authority to enforce the Act through the medical officer of health or the sanitary inspector. Samples of flock are to be taken for analysis and examination. The expenses of administration, except in the City of London, will be incurred under the Public Health Acts.

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**Health Resorts and Watering Places Bill.**—Last week this Bill to empower local authorities in England and Wales to levy a rate for advertising health resorts and watering places, was presented by Sir Thomas Roe. The supporters of the Bill are Sir Luke White, Mr. Theodore Taylor, Mr. Nield, Mr. Alden, and Mr. Raffan. It will be remembered that a similar Bill was passed for Ireland a year or so ago.

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**Rebate on Petrol (Medical Practitioners).**—In answer to Mr. Ginnell last week, Mr. Hobhouse stated that under the provisions of the Finance (1909-10) Act, 1910, a medical practitioner was not entitled to any rebate in respect of the duty of motor spirit used for supplying motive power to a motor car kept for the purpose of his profession, except on proof, to the satisfaction of the Commissioners of Customs and Excise, that the full duty had in fact been paid to the Crown on the spirit so used. The duty was not paid by the medical practitioner himself, nor by the dealer from whom he bought the spirit, but by the importer or manufacturer, and any voucher or certificate of payment of duty given by a dealer to a purchaser must be verified by the Customs and Excise authorities at the source at which the duty had been charged. Where claims for rebate could be so verified they were at once allowed, but the Commissioners of Customs and Excise could not admit a claim where evidence that the duty had in fact been paid was not satisfactory. The practice of the Commissioners in dealing with claims for rebate was the same, whether the claims related to the year 1909-10 or 1910-11.

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**Dentists' Motor Cars.**—In answer to Mr. Wilkie Mr. Hobhouse stated last week that the relief allowed in respect of motor car licence duty and motor spirit duty to duly qualified medical practitioners under the Finance (1909–10) Act, 1910, was not applicable to dentists using motor cars. He might point out that the saving of human life and suffering frequently depended upon a medical man possessing an expeditious means of locomotion, and in this respect the case of a dentist was not parallel.

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**International Hygiene Exhibition, Dresden.**—Sir Herbert Raphael asked the Secretary to the Admiralty last week whether his attention had been called to the fact that several of the medical officers of his department had resigned their membership of the British Committee formed for the purpose of preparing a British exhibit at the International Hygiene Exhibition at Dresden, on learning of the decision of His Majesty's Government not to support this exhibition; and whether, in view of the recent expression of commendation addressed by the President of the Board of Trade in the name of the Government to the chairman of the committee, he would advise these gentlemen to join the committee again and assist in preparing a suitable exhibit in connexion with diving, naval hygiene, and other cognate matters. Mr. McKenna said that he was unaware whether naval medical officers had at any time taken part privately in the work of the committee. None had joined it officially. The Admiralty could not undertake to send an exhibit, and he regretted, therefore, that he could not act on the suggestion contained in the second part of the question. Mr. Byles then asked the Home Secretary whether he agreed to the inclusion of the names of Dr. Smalley and Captain Eccles, of the Prison Commission, in the list of the British Executive Committee for the International Hygiene Exhibition at Dresden; and whether he proposed to send delegates to the conferences on prison hygiene and on factory legislation and regulations which were to be held in connexion with that exhibition. Mr. Churchill said that he understood that the organizer of the Scientific Department of the British Executive Committee sent an invitation last year to Dr. Smalley and Captain Eccles to join the committee, and that he was informed by the Prison Commissioners, to whom the matter was referred, that no objection would be raised to their doing so. Nothing further had been heard on the subject, nor had the Home Office received any invitation to send delegates to conferences either on prison hygiene or on factory legislation to be held in connexion with the exhibition.

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**Vaccination and Small-pox.**—Last week Mr. Staveley Hill asked several questions on this subject. He first asked as to the efficacy of vaccination and the steps being taken to secure vaccination and revaccination. Mr. Burns replied that small-pox was a contagious disease, and the most effective means of preventing its spread from the person attacked consisted in removing the patient to a place of isolation and surrounding him by protected persons. Statistics relating to vaccination and small-pox obtained by the department were published, and he did not think it necessary to attempt to interpret them. Boards of guardians were empowered by Section 28 of the Vaccination Act, 1867, to pay reasonable expenses incurred by them in taking measures to promote vaccination upon any actual or expected outbreak of small-pox. His officers had visited the districts in London recently affected by small-pox, and had conferred with the officials of the authorities as to the measures to be taken. In reply to another question by Mr. Staveley Hill, Mr. Burns said that the Local Government Board had not taken any general action in regard to loss of income sustained by vaccination officers since the operation of the Vaccination Act, 1907. The Board had sanctioned gratuities to meet the loss of income in the past and had suggested to the guardians that where the deficiency was likely to be permanent the officers' fees should be increased. Many boards of guardians had adopted this suggested, and the Board had sanctioned increased fees. In some cases vaccination officers had informed the Board of the loss they had sustained and that their guardians had not taken any steps to make up the deficiency. In these cases the Board had written to the guardians setting out the average earnings of the vaccination officers in 1903–7 and the earnings since, and had suggested to the guardians that they should award gratuities based on the figures given and increase the officers' fees. Some boards of guardians had adopted the Board's suggestion, but others had declined to take any action. There were about twenty-five of the latter cases. In answer to a further question as to the areas in which small-pox had been notified this year, Mr. Burns said the following list showed the counties in which cases of small-pox had been notified since January, 1911, and the number of cases notified in each: Cheshire, 8; Durham, 13; Essex, 2; Glamorgan, 1; Hertfordshire, 1; Lancashire, 26; London, 58; Middlesex, 1; Norfolk, 8. Total, 118.

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**The Number of Conscientious Objections.**—Mr. Burns stated that the number of certificates of conscientious objection to vaccination received by the vaccination officers in respect of children whose births were registered during 1906 was 53,828. The numbers of certificates actually received in the years 1907–9 and in the first half of 1910, irrespective of the dates of the birth of the children, were: 1907, 57,675; 1908, 162,799; 1909, 190,689; 1910 (first half), 110,851. The

Board had not allowed boards of guardians to pay a fee to their vaccination officers for each statutory declaration of objection to vaccination received.

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**The Free Supply of Lymph for Vaccination.**—Mr. Snowden asked whether the town clerk of Stalybridge had sent a circular to all the medical men in his town offering a free supply of lymph for vaccinations; whether the Local Government Board had supplied this lymph; whether, in that case, his attention had been called to the fact that only public vaccinators might legally be supplied with it; whether the Stalybridge Corporation was offering free re-vaccination; and, if so, whether he proposed to take any action in the matter. Mr. Burns said that the Local Government Board had not supplied lymph to the Corporation of Stalybridge, but, except as to this, he understood the facts were generally as stated in the question. No action on his part seemed to be called for. To the best of his knowledge the circumstances or statistics of the recent outbreak of small-pox had not thrown doubt, in the opinion of medical officers, upon the utility of vaccination as a preventive of the disease.

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**Diphtheria and the Use of Antitoxin.**—Mr. Chancellor asked a question as to the action of the medical officer of health for Islington in recommending the use of antitoxin the moment diphtheria was suspected, and inquired if any action would be taken, seeing that antitoxin had been definitely proved to have caused death in healthy persons. Mr. Burns replied that he had seen the report referred to, but he did not propose to interfere with the discretion of the local authorities in acting upon the provisions of the order recently issued. Dr. Addison then asked whether it was not a fact that of some 8,000 cases of diphtheria treated with antitoxin in the Brook Hospital, London, the results were as follows:

| Number of Cases. | Day of Disease on which Antitoxin was Given. | Case Mortality per Cent. |
|---|---|---|
| 2,135 | First | 0.0 |
| 1,441 | Second | 4.3 |
| 1,600 | Third | 11.12 |
| 1,276 | Fourth | 17.24 |
| 1,645 | Fifth or later | 18.72 |

And whether, in view of the uniform experience of officers of fever hospitals, that the sooner antitoxin was administered in cases of diphtheria the better it was for the patients, Mr. Burns would use every endeavour to make this invaluable remedy as early, and as easily, available as possible to poor persons afflicted with this terrible disease. Mr. Burns said that the facts might be as suggested, but they did not arise out of this question. Mr. Chancellor asked whether—seeing that Section 77 of the Public Health (London) Act, 1891, and Section 133 of the Public Health Act, 1875, under which the Local Government Board Order authorizing local authorities to supply diphtheria antitoxin free was made, applied only to cases of a temporary nature—that Order would be withdrawn. Mr. Burns answered that the fact that the sections under which the orders authorizing the supply of antitoxin had been made referred to the provision of a temporary supply of medicine and medical assistance did not, in his opinion, necessitate or render desirable the withdrawal of the orders. He was not in a position to say how many local authorities were supplying diphtheria antitoxin to medical practitioners out of the public rates. Asked further as to whether the Kensington Borough Council had offered a fee of 5s. for every inoculation and how many other authorities had done the same, and if he sanctioned the use of public money as a premium on a form of medical practice, Mr. Burns said that as regards the authority for the orders issued by the Local Government Board in August last empowering local authorities to provide diphtheria antitoxin, he might refer to the answer of November 23rd last. By the terms of the order the arrangements as to the keeping, distribution, and use of the antitoxin were required to be in accordance with the advice of the medical officer of health. He had no complete information as to the arrangements which had been made in Kensington or elsewhere.

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**Plague in India.**—Last Friday Mr. Montagu stated, in answer to Mr. Keir Hardie, that the virulence of the epidemic normally increased each year during the cold weather and diminished rapidly when the hot season set in in April. During the present cold weather it had been more severe than in any of the last three years, notwithstanding the fact that 1910 showed a very large increase over 1909 and 1908. Deaths last month numbered 88,498. The disease was worst in the United Provinces, South-Eastern Punjab, and Western Bengal. It was, he need hardly add, a matter for profound concern to the Government that this disease did not show much sign of permanent improvement despite the persistent, and he might truly say heroic, efforts of our doctors and administrators.

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**Maintenance of Sewers.**—Sir Fortescue Flannery asked the President of the Local Government Board whether his attention had been called to the error in drafting Section 19 of the Public Health Acts Amendment Act, 1890, upon the subject of the ownership and responsibility for maintenance of sewers, so that under that section a private drain taking the drainage of more than one house belonging to the same owner was a sewer, repairable by the local authorities, whereas in cases of houses similarly drained but belonging to different owners the local authorities were not responsible for them; whether the Local Government Board had received a memorial asking that a private bill drafted to rectify this mistake should be accepted as a Government measure; and whether the Government could see their way to adopt the Bill or to assist it as a non-contentious measure. Mr. Burns said that he was aware of the difficulties that surrounded the present law with regard to sewers and drains. He had received the memorial alluded to in the question. Without expressing any opinion on the merits of the private bill to which reference was made, he might say that he should be very glad if it were possible to arrive in a non-contentious manner at a settlement of the problem, and he believed that efforts were being made to that end.

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**A Question of Precedence: Royal College of Surgeons and College of Physicians.**—The Marquess of Tullibardine asked the Lord Advocate under what authority the Secretary for Scotland recently advised or instructed the Lord Lyon King of Arms to refuse to decide a question of precedence between the Royal College of Surgeons and the College of Physicians; and whether the Secretary for Scotland has any jurisdiction, direct or indirect, over the Lyon King of Arms as such. Mr. Ure answered that questions of precedence were, in the view of the Secretary for Scotland, exclusively for the Sovereign to decide. The jurisdiction of the Lyon King was exclusively statutory, and did not embrace questions of precedence. And the Lyon King having invited an expression of opinion on the question referred to by the noble lord, received an answer on the lines above indicated.

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**Epilepsy and Postal Work.**—Mr. Clynes asked a question as regards the discharge of a postman at Manchester on medical grounds by Dr. Watson, and Mr. Herbert Samuels replied that the medical officer's opinion that Mr. Potts suffered from epilepsy was based not only on personal examination but on admitted attacks of fainting in circumstances tending to confirm the diagnosis, and to establish Mr. Potts's unsuitability for the duties of a postman. With the facts now before him he did not think further examination necessary; but any evidence which Mr. Potts desired to produce would be considered carefully.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### SITE FOR THE PROPOSED MENTAL HOSPITAL.

ON March 21st the Asylums Committee reported to the London County Council that a site had been found for the proposed mental hospital, towards the cost of which Dr. Henry Maudsley has promised a gift of £30,000. This offer was accepted by the Council on March 31st, 1908, and on June 29th, 1909, a capital estimate of £41,000 was approved. The committee stated, as the cause of the delay that had occurred, that almost immediately after the expenditure had been authorized the vendors of a site then before the Council withdrew their offer to sell. Since that time the committee had given careful consideration to a number of other possible sites, and was now in a position to submit particulars of one which seemed thoroughly suited to the purpose. The property consisted of two residential houses, Nos. 107 and 109, Denmark Hill. The site was about 600 ft. long by 300 ft. wide, and some 4½ acres in area; Denmark Hill station, Ruskin Park, and the site of the new King's College Hospital were near the property. The price asked for the freehold land and buildings was £10,000. The site had been approved informally by the Commissioners in Lunacy. It was estimated roughly that the cost of building and equipping a hospital for 100 patients would be £40,000, which, with £10,000 for the site, pointed to a total capital expenditure of approximately £50,000. Sufficient provision had been made in the capital votes for the current financial year to cover the purchase money, and the committee understood that Dr. Maudsley was only waiting for the Council's consent to hand over the amount of his promised donation.

In accordance with standing orders the consideration of the report, as one involving an expenditure of over £5,000, was adjourned for a week.

### ASYLUM INS AND OUTS.

At the same meeting the Asylums Committee submitted, for the information of the Council, particulars of the case of a male patient, aged 37, admitted to Banstead Asylum on February 13th, 1911, for the eighth time. Information supplied by the board of guardians to whom the patient was chargeable showed that apparently he had his first attack of insanity at the age of 15, and had been in other asylums besides those under the control of the Council; in fact, he had been in thirteen altogether. The man married in 1903, and there were five children by the marriage, ranging from 13 months to 6 years and 10 months. All the children were now chargeable to the guardians of a London parish. The whole family had been in receipt of indoor or outdoor relief at intervals since 1906. These facts, the committee considered, indicated the great difficulty of dealing with cases of recurrent insanity, upon which comment had been made in more than one annual report of the Asylums Committee. As the law stood at present such cases must be discharged as soon as they were apparently recovered, but it was often quite evident that with the removal of the restraints of an asylum, and the resubjection of the patient to the stress and hardship of normal existence, he would speedily break down. Moreover, as in the present instance, opportunity was afforded by the intervals of liberty for the propagation of children who must share in the mental and nervous instability of the parent, and who in their turn would probably swell the number of persons for whom asylum accommodation and care had to be provided.

### MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

*The Hospital Scheme.*

At a meeting called by the Fabian Society at Clifford's Inn Hall on March 16th, Sir Victor Horsley in the chair, the London County Council's arrangements for the medical inspection and treatment of school children were the subject of discussion. The room was well filled with an audience consisting of medical men, social workers and "persons interested in education," in the words of the Act of 1902. The various speakers condemned the hospital scheme of treatment and urged that school clinics should be established.

Sir Victor Horsley emphasized the importance of medical inspection, and said that the plans carried out by the Council at present did not fulfil the intentions of the Act of 1907. The Council's action amounted to a breach of faith with the nation; instead of taking selected schools and inspecting a few children the Council should have done the work thoroughly. Alluding to the Education Committee's recent report recommending that Dr. Kerr should be placed in the department of the Education officer for the purposes of school medical work, the Chairman said that such an arrangement would be ridiculous from a medical point of view. All that was provided was that Dr. Kerr, whose duties were of primary importance, should have access to subcommittees! Dental treatment, which the Council had scarcely begun to undertake, was of paramount value.

Mr. R. A. Bray, L.C.C., described the arrangements for school medical work as approved by the Council and reported in the JOURNAL from time to time during the last three years.

Dr. H. Beckett-Overy spoke strongly in favour of school clinics, urging that the children needed a centre to which they could go conveniently every day. Most of the ailments from which they suffered needed not so much treatment by a specialist as constant attention by a nurse under the supervision of a doctor. In the case of adenoids, for example, the actual operation was not of so much importance as physical and breathing exercises afterwards.

Dr. Marion Phillips spoke of the incomplete fashion in which medical inspection was carried out, and of the difficulties parents had in taking their children to the hospitals for treatment.

Dr. Hastings urged that the hospitals did not want the routine work of medical treatment, but only the "interesting" and difficult cases.

Other speakers urged that a vigorous campaign should be inaugurated to persuade the Council to establish school clinics, and that definite information as to their cost and practicability should be furnished.

*Criticism by the Board of Education.*

At the end of last year the London County Council decided to ask the Board of Education to sanction the renewal for twelve months of some of the first agreements entered into with hospitals for the medical treatment of school children, the view of the Council being that sufficient time had not elapsed to give the present scheme a fair trial (BRITISH MEDICAL JOURNAL, December 31st, 1910, pages 2041–2). The Board's reply was that it could not sanction an extension of more than six months, and it entered into a long and exhaustive criticism of the hospital scheme of treatment. This letter was withheld from publication pending the preparation of a detailed reply by the Children's Care Subcommittee, and the two documents —the letter and the reply—were submitted to the Education Committee of the Council on March 22nd.

The Board of Education first commented upon the "incomplete findings" in regard to only six hospitals, upon which the Council relied in asking for a year's extension of the present arrangements. The absence of the report on the first year's working, promised at the beginning, was "very disappointing." The Board regretted that, at all events up to the end of November last, no effective remedy had been applied to the incidental or inherent defects of the scheme as pointed out by the Board's chief medical officer. Unless the Council's administration was to be gravely discredited it was essential that the machinery for selection and following up of ailing children should be reformed without any delay. The letter went on

to specify the "graver defects" in the Council's scheme. These were, briefly:

1. Treatment was divorced from inspection, the medical officer (Education) administering the latter and the Education officer the former. [Proposals are now under consideration by committees of the Council for dealing with this matter (BRITISH MEDICAL JOURNAL, March 11th, pp. 588–9).]
2. Under the present arrangements no officer of the Council visited the hospitals systematically to obtain first-hand information as to the working of the scheme. Unless officers of the Council were in close and continual touch with the hospitals, regular attendance of children could not be secured, and the system must be extravagant and ineffective.
3. The Board doubted if it would be wise to increase, as proposed, the number of cases sent to the six hospitals whose agreements were under consideration, the machinery having already proved unequal to the strain. The children attending these hospitals came from too wide an area. The child population of several of the densest areas of London was out of reach of any existing hospital, and could only be reached by school clinics.
4. The Board, in sanctioning last year the Council's "experimental" proposals for making use of hospitals, never desired that they should be made applicable to the whole metropolis, and could not resist the conclusion that present difficulties arose from experimenting on too large a scale.
5. The late date of applying for sanction to renewal had occasioned the Board needless difficulty; if sanction was withheld, no treatment might be available, and even the present scheme was better than none at all.

On these grounds the Board declined to sanction renewal for more than six months, but, as has been reported already (BRITISH MEDICAL JOURNAL, February 4th, p. 274), the Council made a further appeal asking that all agreements might be made to conclude on December 31st next. To this the Board, in a letter dated March 14th, replied that it was constrained to agree that much time would indeed be required to work out a systematic scheme. Subject to an assurance that the present arrangements would not continue during the whole of 1911, but that a new scheme would be in at least partial operation by October, the Board would accede to the request.

The Children's Care Subcommittee addressed itself, in reply to the Board's letter, to the question of what temporary improvements could be made pending the settlement of the larger matter of organization as between Dr. Kerr and Mr. Blair. The subcommittee advised that organizing officers should attend the hospitals (subject to the concurrence of those institutions) and assist in securing that children needing treatment attended at the hospitals, and were "followed up" afterwards, and that the Council should pay for increased clinical assistance at the hospitals.

It was reported to the Education Committee at the same meeting that arrangements are being made to provide dental as well as other treatment at the centres managed by the medical practitioners at Wandsworth and Norwood.

## COUNTRY HOMES FOR TUBERCULOUS JOINT DISEASE.

A conference organized by the Invalid Children's Aid Association was held at Denison House, Vauxhall Bridge Road, on March 15th, for the purpose of bringing about a better co-operation between the London surgeons and the staffs of the surgical or nursing homes in the country to which children suffering from tuberculous disease of the hip, knee, spine, and other joints are sent for prolonged rest and other forms of treatment. Sir William Bennett, who was in the chair, made special reference to the types of nursing or convalescent homes to which invalid children are sent. In some the medical staff consisted of general practitioners residing in the neighbourhood who visited the institution occasionally, while in others there was an organized medical staff. With regard to the difficulties which arose in connexion with these two types of homes, he read three letters. In the first, the writer stated that the practice of his home was to carry out the treatment prescribed by the London surgeon, unless some complication arose which rendered it advisable to change it. From the second letter the staff appeared to be of opinion that the treatment must be left in the hands of the surgeon at the home. In the third letter it was pointed out that difficulties arose when the instructions of the London surgeon were not specific or were wanting altogether, when no history of the case was given to the medical officer of the home, and when no intimation was given by the London surgeon as to whether the splint or other instrument was to be worn for weeks or months. These homes did not alter the treatment of the London surgeon without first communicating with the association. Sir William thought that an understanding could be arrived at if there were a little give and take on both sides.

Mr. T. H. Openshaw, speaking from the point of view of surgeons attached to the London hospitals, said that the whole question turned upon the kind of homes to which the children were sent. He recognized that the workers of the Invalid Children's Aid Association had effected much improvement in these homes, and a large number of the visitors now kept in touch with and to a certain extent controlled the homes. The treatment prescribed by the surgeon depended for its success on continuity. He hesitated in sending cases to some of these homes, because of the risk of want of this continuity. When the house-surgeons or other medical officers of the homes materially altered the treatment they should take over the whole responsibility of the case. Mr. Openshaw thought that the ideal condition would be for the State to take over the treatment of every case of surgical tuberculosis, to place it in the hands of the county to deal with it until complete recovery ensued. It was, however, too early to advocate such a proposal. In turning to the actual state of affairs, he found that the surgeon could apply medicinal remedies and injections, warm clothing and the like, in London as well as in the country. Better air and better food were, no doubt, obtainable in the country than in London. If rest, continued for a very long period, were not to be had in the country, he would prefer to do without the better air and food and keep the children in London. Speaking of the special conditions applying to hip-joint disease, he said that he now made it a rule to keep the limb at rest in a splint for at least twelve months after pain has disappeared. Until the workers of this association, the matrons of the homes, and the staffs of the homes became convinced of the wisdom of this rule, it would be impossible for the treatment to be successfully carried out. In his experience, knee cases did better than hip or spine cases, because he put them up in plaster-of-Paris, and this was troublesome to remove and reapply. He repeated that since the essential for success in the treatment of tuberculous disease of the joints was prolonged rest, he could not agree to a change of treatment after he sent his cases for this purpose to a home.

Mr. Gerald Sichel, speaking as a general practitioner on the staff of a convalescent home, said that the medical men undertaking this work should not be regarded as mere dressers. He was only too glad to have the suggestions with regard to treatment from eminent surgeons, but it was necessary at times, in the interests of the patients, to make changes in the treatment.

Mr. H. M. Raven pointed out that no information was available and no instructions were sent by the London surgeon with the patient. He found it best to try to get his cases from a certain hospital, since he knew what the surgeons at that institution desired with regard to the continued treatment.

Mr. Crowley spoke of the difficulty of getting information from surgeons in London. He had nineteen patients from various London hospitals, and only in two cases had he received a word of explanation when the patients were sent to him. Mr. Openshaw had objected to the splints being taken off at all, but it was necessary to replace the old splints by larger splints from time to time as the child grew. When the cases came through the Invalid Children's Aid Association, a short note was usually sent with regard to the treatment prescribed in London. He agreed with Mr. Openshaw that rest for a long period must be kept up. He thought that the medical officer of the

home should be able to carry out the treatment required for abscess and other complications.

Miss Fitch, speaking of the special work of the Alexandra Hospital and its convalescent home, said that a child was never sent to any outside convalescent home when it was still lying down; it was either kept in hospital or sent to the hospital's own home.

Mr. McAdam Eccles drew a distinction between true convalescent homes where non-tuberculous cases were sent to recover from a past illness and treatment homes, where tuberculous cases could be sent for long-continued treatment. He thought that in the latter institutions measures should be adopted for the education of the children, while they were kept at rest. These homes were much more expensive than true convalescent homes. He recognized from the speeches delivered by the medical officers of homes that the patients were in these instances at all events in good hands. Good nursing and efficient medical staffs were essential for successful treatment. He advocated more and closer co-operation between the staffs of the homes and the surgeons who sent their patients to the homes.

Mr. T. H. Kellock expressed himself satisfied with the way in which the children are treated in the homes. The intelligent medical officers of these homes did not need specific instructions with regard to the treatment. In criticizing Mr. Openshaw he asked why he did not put up his hip cases in plaster-of-Paris if he got such good results in this way in his knee cases.

Miss Broadbent spoke of the diminution of tuberculous cases, and especially of severe cases during the past twenty years, and, dealing with the work of the Invalid Children's Aid Association, said that some homes had to be avoided because the splints were taken off early. There was sometimes difficulty in getting information with regard to the cases; almoners could not be trusted.

Mr. J. W. Haward thought that the discussion had revealed a desire of the surgeon in London and the medical officer of the home to co-operate better in the future than in the past. He would not attempt to dictate to the medical officer of the convalescent home, but would trust the judgement, care, and skill of those who were good enough to undertake the treatment of the cases.

Mr. Crowley then moved and Mr. Sichel seconded:

> That on the application forms for admission into nursing homes separate lines should be filled up, indicating the form of treatment adopted in the past and recommended for the future.

After considerable conversational discussion, in which an objection was raised by Mr. Openshaw that this resolution might pledge him to approve of the treatment adopted in the homes, Mr. Haward suggested as an amendment:

> That it is desirable that in all cases applying for admission to a surgical home information should be furnished with regard to the treatment adopted in the past and recommended for the future.

It was pointed out that the practical question as to who should supply this information would be left undecided by this resolution.

Mr. Crowley accepted the amendment and formally seconded it. The amendment was carried.

The meeting then terminated.

## MANCHESTER AND DISTRICT.

### Small-pox in Lancashire.

Up to the present there seems to be little more than suspicion that the outbreak of small-pox at Bury is to be attributed to the handling of raw cotton. At Stalybridge four cases have occurred, but here the authorities are inclined to think that the source could not have been cotton, as the first case which gave rise to the others was not a cotton worker, and, so far, no likely source has been found. At Bury, however, the first case was a girl engaged on the cotton in the first process after the opening of the bales. The man who opened the bales had been vaccinated, and had well-marked scars, but the girl had never been vaccinated; the disease was not recognized until it had reached its third week, and for more than a week she had been working among hundreds of other operatives who had noticed the pustules on her face. There is thus no wonder that many of the subsequent cases were directly traceable to her. Up to the time of writing 23 cases have occurred at Bury, of whom 20 are women or girls. Most of them have the disease in an extremely mild form, except where they have never been vaccinated, but, so far, all are doing fairly well. A scare occurred at the mill where the girl first attacked had been working, and the operatives, 300 in number, refused to continue work. The mill is said to be one of the cleanest in Lancashire, but as soon as the first case was discovered much of the raw or partly finished material was burnt and the rest of the stock thoroughly disinfected. The Girls' Grammar School has also been temporarily closed for disinfection, as a relative of one of the girls had contracted the disease. It is stated that many of the workpeople have refused to be vaccinated as a precautionary measure, though some of the authorities have offered free vaccination and several hundreds have been vaccinated. In some previous epidemics in Lancashire there has been good reason for believing that the source of the infection was in Egyptian cotton, but in the present case it appears that only cotton from the Southern States of America was being used, and it yet remains to be proved whether or not it could have been the cause of the present epidemic.

### The Manchester and Salford Provident Dispensaries.

In the thirty-sixth annual report of the Provident Dispensary Branch of the Manchester and Salford District Provident Society the council states that there has been a decrease in the membership of 337, the total number of members at the end of the year 1910 being 14,887, in addition to 2,434 children under 14 years of age from whom no subscription is required. The new members enrolled during the year were 2,466, but the withdrawals were 2,803, these being due to deaths, removals, joining friendly societies where medical attendance is provided, lapses through non-payment of subscriptions, etc. The society is managed by a lay council, with some slight representation of the medical men, and there are nine branch dispensaries. Taking the receipts and expenditure of the whole of the branches together, there was a gross surplus of £139, but from this have to be deducted some payments out of surplus to the medical staffs, grants to the council and certain donations, leaving a net loss of £1 4s. 8d. The member's subscription is 1d. a week, with an entrance fee of 6d., and 1d. is charged each time a member is supplied with medicine. Applicants for membership who are ill at the time are only admitted on payment of an entrance fee of 5s., and the whole of the family of the applicant must join at the same time. Any member is considered sick and required to pay accordingly if he apply for medical aid within a month of his admission to membership. Female members may be attended at their confinements upon payment in advance of 15s.; if a medical officer who has not attended the confinement is called in to any serious complication arising out of confinement within a month of the time of delivery, the member must pay the medical officer a fee of 10s. 6d. Every member may select from the dispensary staff the medical officer by whom he wishes to be attended, if there are more than one, but no change must be made during an illness without the consent of the committee. The least satisfactory feature of the society is the large amount spent in management and other expenses; the total income of the nine branch dispensaries, including members' subscriptions, payments at entrance and for medicines, interest, and sundries, is given as £4,139 6s. 1d., and of this only £1,695 1s. 11d. was paid to the medical officers, while no less than £505 was paid for collection, £363 for rent, rates, and taxes, £1,134 for drugs, bottles, and dispensing; after payment of various sundry expenses, there was, as has been said, a net loss of £1 4s. 8d., the

sum of £31 19s. having been transferred to a reserve fund account. This may be put in another way, for, omitting all other sources of income, the receipts for members' subscriptions and entrance fees alone amounted to £3,187, and the fact that the sum paid to the medical staff was £1,695, means that only slightly more than half of the members' payments reached the medical officers. The total number of prescriptions dispensed during the year to the 14,887 paying members was 127,398, an average of 8.55 prescriptions per member, the number varying in the different dispensaries from 5.14 to 11.9 per member. Taking this side by side with the amount paid—£1,695—to the medical officers, it will be seen that the medical officers received less than 3¼d. each time a prescription was dispensed. Moreover, it must often happen that visits are made to members at their own homes without a prescription being required each time, so that the actual remuneration per visit or consultation must be reduced very considerably. In previous reports the number of visits and consultations actually made was stated for some of the dispensaries, but in the present report this useful information is omitted. Of course the small payment of a penny for each supply of medicine by no means covers the actual cost, for the total payments for medicines, cod-liver oil, and bottles amounted to £763 19s. 3d., while the expenditure on drugs, oil, corks, bottles, and dispensing amounted to £1,134 4s. 10d., and the deficit of £370 5s. 7d. is thus a tax on the amount available for the medical officers. To sum up, the Manchester and Salford Provident Dispensaries afford a good example of the results of lay management of sick clubs.

The report further gives the results of the investigations of the officers of the District Provident Society into the circumstances of applicants for charitable medical relief at certain of the Manchester and Salford hospitals. We are told that the percentage of those found to be entitled to gratuitous medical treatment was 94·9, being, out of the total number visited, 0.20 more than in 1909. At the Royal Infirmary the percentages of those who were found to be able to subscribe to a provident dispensary were in 1909, 7 per cent., and in 1910, 6 per cent. At the Manchester Northern Hospital the percentages were in 1909, 6 per cent., and in 1910, 5 per cent. At the Ancoats Hospital the percentages were in each year 4 per cent., and at the Salford Royal Hospital 3 per cent. It is not stated what standard is applied in giving these figures, and little value can be attached to them, though they are often quoted, because the officers of the District Provident Society only deal with cases referred to them by the hospitals, while as to the circumstances of a very large percentage of the patients at the hospitals no investigation at all is made.

### THE LANGHO INEBRIATES HOME.

The annual report of the medical superintendent, Dr. F. A. Gill, of the Langho Inebriates Home, states that 227 women have been discharged, and of these 34 were doing well, 17 were much improved, 88 had relapsed, 13 had died, and 50 who were imbeciles had been transferred to the State reformatory, while 10 were not traceable. It is remarked that the reclamation of 15.8 per cent. of confirmed criminal inebriates may seem a poor result, but eliminating the obviously hopeless, the aged, and the bodily infirm, the percentage was raised to 51.3, which was no mean achievement. It is also pointed out that reformation is not the only object, as society demanded protection from those who could not or would not obey its behests. Experience showed that in about 60 per cent. of the cases inebriety was due to, or associated with, some degree of mental defect, and it was a mistaken conception of the cause of inebriety to exact a full degree of responsibility from these unfortunates, and to punish them as if they were sane and responsible. Mr J. T. Travis Clegg, Chairman of the Lancashire Inebriates Board, said much had been said about the decline in the birth-rate, and, unfortunately, the decline was not taking place among the unfit, where it might prove a blessing in disguise. Among the inebriate classes families were growing beyond normal, and he would be content to risk further decline in the national birth-rate if it was brought about by the prevention of the propagation of children by those who, like the unfortunate women at Langho, were almost certain to hand on mental deficiency. He was certain that the public would not tolerate any method other than that of separation of the sexes, which, to be of any value, would have to be permanent, since a temporary separation, such as that at Langho, could only be temporary in its results. Stress was laid on the fact that women were not discharged from Langho because they were cured, but because their term of detention had been completed. Thus the institution could not accept any responsibility for the failures that occurred.

### THE HOSPITAL SATURDAY FUND.

The annual report of the Manchester and Salford Hospital Saturday and Convalescent Homes Fund shows that the total amount collected from the workpeople during the year 1910 was £7,052, a decrease of about £161 compared with 1909, while the amount from other sources was £114, which is just about half of the previous year, the decrease in the latter being due to two large firms having diverted their collections to the hospitals direct, and also to the omission of two matinée performances given in 1909. The total decrease in the fund is thus about £275. The committee decided to transfer £250 from the reserve fund, and in this way were able to distribute among the medical charities £4,400—the same sum as last year. There has been an increase in the number of new branches enrolled, but the decreased collection is due to the falling off in the amounts contributed by existing branches, the only reason assigned for this being the bad state of trade during the year. It is, however, very doubtful whether this can be accepted as the real reason. There is, in fact, some ground for believing that in the Manchester district there is a gradual alteration in the attitude of the working classes towards the medical charities. There is a distinct idea that a subscription of a penny a week, or even a penny a month, entitles to full hospital treatment whenever required, and the hesitation of the hospitals to accept such an impossible condition has certainly led to the refusal to subscribe on the part of many workpeople.

### COUNTRY HOME FOR PHTHISICAL CHILDREN.

Mr. C. C. Grundy of Bury has just presented to the Manchester Education Committee a substantial mansion and outbuildings, with about twenty acres of garden and meadow-land, situated at Higher Summerseat, near Bury, and the Lord Mayor last week received from Mr. Grundy the deed of gift. It is intended that the house should be used as a home for school children suffering from incipient phthisis, where they could have a modified course of school work, while spending much of their time in the open air. The property is about 500 ft. above sea level, and offers facilities for keeping a number of cows for the provision of milk. A beginning may be made with forty or fifty children, though, with some alterations, accommodation could be provided for many more.

## LEEDS.

### THE LATE LORD AIREDALE.

BY the death of Lord Airedale, which occurred suddenly in Paris on March 16th, Leeds loses one of its best citizens, and the University of Leeds one of its staunchest supporters. The history of Lord Airedale's life is not a matter for these pages; in its earlier phases it was one of strenuous effort in the development of the extensive engineering enterprise which had been started by his father, politics claimed much of his time and thought, but throughout the whole of his life he seems to have been actuated by a very high sense of public duty and of the higher functions of citizenship. In the different charitable institutions of the city he took the greatest interest, to their funds he was a generous and willing donor, and one of the

last of his public acts was the contribution of a handsome donation to the fund, which is at present being raised, for the infirmary in memory of the late King. Many members of the British Medical Association will remember the cordial way in which he greeted them at Gledhow Hall on the occasion of the annual meeting held in Leeds in the year 1889, when he gave a large garden party, and will recall his speech at the annual dinner of the Association. When the University of Leeds was inaugurated some seven years ago, the occasion was marked by the granting of a certain number of honorary degrees, and that of D.Sc. was conferred on Lord Airedale, or as he then was, on Sir James Kitson. A city is fortunate if from time to time it can number among its citizens such a man. The good he has done will for long live after him, and Leeds will cherish his memory for many years.

### Work of Lady Almoners in Leeds.

Some twelve months ago it was decided by the three larger medical charities of Leeds—namely, the Infirmary, the Dispensary, and the Hospital for Women and Children—that the system of associating lady almoners with their work, a system which has been in operation in London, but which had not at that time been tried in the provinces, should be initiated. The institutions were fortunate in securing the services for twelve months of Miss Mudd, whose experience of the work in London has been extensive. During a considerable part of the time Miss Mudd has been at work she has had associated with her three ladies who have become familiar with the work, and who will be able to carry it on and to develop it after her departure. The almoners in a report dealing with the first twelve months state that when beginning work in Leeds they were unacquainted with the social and industrial conditions peculiar to the city, and with the charities to which they could look for help, but that a short experience was sufficient to show that the difficulties were substantially the same as in London, and that while each city has peculiarities of its own, the chief lines of work should be the same. The work has been carried out mainly on the following lines: First, to ascertain the home conditions of those to whom out-patient treatment is granted, and take steps to ensure that the advice given at the hospital can be carried out; secondly, to act as a connecting link between the out patient department and the many outside charitable and social agencies; and, thirdly, to put a check on the overcrowding of the out-patient departments either by those who are able to pay for the requisite treatment or by those who are too poor to benefit by such treatment, and who therefore can be more suitably treated by the Poor Law authorities. During 1910 nearly 100,000 patients attended in the three out-patient departments concerned. Some of these might have paid but one visit, others might have attended many times. It is true that in some respects the number quoted may convey a wrong impression, for a patient might discontinue treatment and on again presenting himself for the same or another complaint might be entered as a new case; still the fact remains that the numbers are very large—in fact, far too large. It is interesting to note that the almoners attribute this overcrowding of the out-patient rooms to two classes of patients—those, namely, with trivial affections, and those who are chronically on the verge of destitution; and no one who has worked in a large hospital can doubt the accuracy of this opinion. Could those be eliminated to a large extent the work in the department would be of a higher standard and more real good would be done. In the investigation of the home conditions of the patients a large amount of information has been obtained which will be productive of good, and which has already been attended with practical benefit. The almoners report that they have been much impressed by the willingness shown to take advice, although this advice may have to be explained carefully and repeated many times before it is acted upon. There are in Leeds, of course, as there are in all large centres, many charitable agencies with different or in some cases similar aims. Among these may be mentioned the Maternity Hospital, the Babies' Welcomes, of which there are now several, and the different associations for promoting the welfare of older children, such as the Summer Holiday Fund, the Invalid Children's Aid Society, and the Poor Children's Holiday Camp. There is also an active Charity Organization Society. Through the latter, or in some cases directly, patients have been put in relation with the appropriate charity or charities, and much good done with a minimum of abuse. The work thus happily initiated will be carried on by the three ladies who have extended their experience under Miss Mudd's supervision. Hitherto the attempts to limit the abuse of the out-patient department have been limited to the inquiries made by the officer appointed for that purpose. These will probably be continued, but it is anticipated that a large amount of abuse will be brought to an end by the work of the lady almoners, and their efforts will be sympathetically watched by those who are interested in hospital work.

### Leeds District Nursing Association.

The annual report of this useful society gives an interesting record of the work done during the past year, and shows that the institution continues to fill an important position among the charities of Leeds. Beginning on a small scale some thirty-two years ago, the organization has steadily grown and has extended the scope of its activities. There are now three superintendents and twenty-four nurses on the staff; of these, twelve are in the Lovell Street Home, six in the Domestic Street Home, Holbeck; three in the Hunslet Home, two at Armley, and one at Kirkstall. Three of the nurses are candidates for the Queen Victoria Roll; these are fully-trained nurses, received for six months into the Lovell Street Home, during which period they are instructed in the routine of district nursing, this being supplemented by lectures on hygiene, sanitation, and the elements of the Poor Law. The association is always willing to undertake new work and to open up new districts, and in January last work was begun in a new district in Wortley and Farnley, to which funds will be given by the local nursing associations. The special feature of the work of the society is the nursing of the sick in their own homes, and it may confidently be said of this charity that there is no abuse such as may easily attend the work of most other charities, no matter how much care may be exercised in their administration. During last year 87,806 visits were paid, and the new cases numbered 3,143. Medical men were assisted in their operations in 246 instances.

An important innovation has been made during the past year to meet the case of those people who cannot afford a private nurse and who do not require the continuous attendance of a nurse. A daily visiting nurse may now be obtained on application at the central home and on payment of a small sum; 1,141 visits have been paid by the nurse who acts in this capacity as part of her duties.

For work of the kind done by this society there is yet a large unsatisfied demand in Leeds. It is certain that an extension of the work would stave off the necessity on the part of many poor people of applying for admission to the already overstrained infirmary, and in many cases saves people from coming on the rates. The charity, therefore, is one which has strong claims on the community. It is a regulation, and a very wise one, that the society will not undertake the care of any one who is not under the supervision of a medical man.

Following the example of the Leeds Association, but quite unconnected with it, there are several other district nursing associations doing excellent work. Among these may be mentioned the Horsforth Society, which has a well-organized home with two nurses. The work is carried on in the same way, and during the year which has just come to an end no fewer than 7,350 visits have been made by the nurses.

## LIVERPOOL.

### EUGENICS AND THE FEEBLE-MINDED CHILD.

ON March 16th, under the auspices of the Eugenics Education Society, an address was delivered by Mr. Damer Harrisson at the School for the Blind, with Sir James Barr in the chair. The subject of the address was "The Eugenic Aspect of the Feeble-minded Child." The meeting was attended by a large and appreciative audience. Mr. Harrisson pointed out that, with the progress of civilization, as opposed to evolution or the survival of the fit, society was to be held responsible for the survival of the unfit, and so of the increase of the feeble-minded. Forgetfulness of natural selection must eventually lead to disaster, especially in national life. He held that the survival of the fittest did not necessarily mean the survival of the best, in the sense of the highest organism, but that which was best suited to the circumstances, good or bad, in which it was placed. Civilized man had proceeded so far in his interference with extra-human nature, and had produced such a special state of things by his rebellion against natural selection, that he must go on and acquire firmer control of the conditions or perish. With every step forward man rendered himself liable to greater and greater penalties, and having emancipated himself from the destructive methods of natural selection had accumulated a new series of dangers and difficulties with which he must incessantly contend. He considered that restrictions in respect of the right to multiply must be imposed on the unfit for the welfare of the community, and especially with respect to the feeble-minded. He pointed out the close association between the feeble-minded and the habitual criminal, and regarded both as transmissible defects, threatening the safety of the nation. It had, he said, become a matter of urgent importance that the State should at an early date deal with this evil, which was becoming an ever-increasing burden upon society. He advocated segregation of the mentally defective during their lives in order to eradicate this growing evil. The lecture was illustrated by a series of lantern slides. Sir James Barr, Dr. R. J. M. Buchanan, the Rev. Mr. Lund, and Mr. Ball also spoke, and a hearty vote of thanks was accorded to Mr. Harrisson for his lecture.

### QUEEN VICTORIA NURSING ASSOCIATION.

On March 17th the annual meeting of the Queen Victoria Nursing Association was held in the Town Hall, the Lord Mayor presiding. The report stated that the staff comprised 6 matrons and 62 nurses, and that during the past year 9,955 cases were attended and 257,328 visits paid. The four school nurses, together with the other nurses on the staff, had been able to give about 191,000 attendances to children. The work was much appreciated, and was undoubtedly of real value. A sum of about £5,600 had been subscribed for the proposed Florence Nightingale Home. Expenditure had apparently surpassed income to the extent of between £500 and £600 a year. The Lord Mayor, in moving the adoption of the report, eulogized the institution and its work. Sir Archibald Williamson seconded, and the report was adopted.

## BRISTOL.

### AN ANTIVIVISECTION DEBATE.

THE HON. STEPHEN COLERIDGE addressed a meeting at the Victoria Rooms on March 7th, under the auspices of the National Antivivisection Society, on the subject of the Research Defence Society, and was replied to by Mr. Stephen Paget. This is the first time that these two gentlemen have met on a platform, and a large number of persons supporting either society's views were present. Both were allotted twenty minutes to speak, questions asked were to be answered by both, and a ten minutes' reply was granted to them. Mr. Stephen Coleridge began by saying that he had been twitted with having done nothing. He claimed he had, as he had given birth to the Research Defence Society, which, as no one had attacked research, was misnamed. His society objected to "torture" of animals, which he defined as pain inflicted upon animals not for their own benefit, and he wanted to know whether Mr. Paget defended that "torture." The Act contained nothing to prevent extreme "torture," and any one who held a licence could inflict it. Parliament recognized this and appointed inspectors, though this inspection was a perfect farce. Inhumanity existed in all classes, and he asked why vivisectors were supposed to be immune from this passion. He failed to see that the cutting up of animals should be the necessary concomitant of a tender heart. There were thousands of animals cut up alive with a knife, and if his audience believed that inoculations were painless they must be gullible creatures. He had never said a word against the medical profession. Antivivisectors took their stand on moral results, and if persons could not learn physiology without torture of animals, they had better go without physiology. Mr. Paget said he supposed Mr. Coleridge did not like to repeat all the abuse he had flung at the Research Defence Society at Oxford and elsewhere that night, for he had hardly spoken on it. The society was founded three years ago to make generally known the truth about experiments on animals, and the great value to mankind of the results that had been obtained by such research. The society had now 4,000 members, and had nothing to do with licences or certificates, and was not founded because the men of science were afraid of the Antivivisection Society, as Mr. Coleridge had stated, but because they were sick to death of the misleading statements, the exaggerated horrors and lurid literature of the Antivivisection Society. Mr. Coleridge had asked if he defended torture, but Mr. Coleridge could not define severe pain. Cancer killed a large number of persons, and he (Mr. Paget) held that it seemed right, ethically and from a Christian point of view, to study the disease on animals. He had no objection to a greater number of inspectors. Mr. Coleridge charged the men of science with cruelty, but, said Mr. Paget, it is the antivivisectors who would withhold antitoxin in diphtheria, refuse to allow the proper study of cancer, and would rob the very animals themselves of the advantages that came from experiments on animals. A large number of questions were asked, and the two speakers replied.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### OBSERVATION WARDS FOR MENTAL CASES.

IN his report to the Edinburgh Parish Council, Dr. W. L. Martin, certifying physician in lunacy to the council, said that the number of cases admitted to the observation ward during the year, the high percentage (67.7) of cases "recovered" and "improved," the low percentage of cases ultimately requiring certification, and the low percentage of deaths, spoke for the highly satisfactory results of the work done in the observation ward during the year. Notwithstanding the insufficiency of the accommodation, the observation ward had been doing good work (1) in securing early treatment for patients suffering from temporary mental disorder and the milder and incipient forms of insanity; (2) in increasing early recovery by inducing patients and their friends to have recourse to treatment before the mental disorder had become confirmed; and (3) in saving a certain number of worthy citizens from the asylum stigma, and thus admitting of their return on recovery to their civil duties. The accommodation, however, was quite insufficient. This ought to be remedied without delay. A mental observation hospital was needed, and it would be of great value to the community, as well as a beneficent undertaking.

### MUSSELBURGH, MUSSELS, TYPHOID FEVER, AND CONSUMPTION.

In his annual report to the Local Government Board for Scotland, Dr. J. H. Horsburgh, medical officer of health for the burgh of Musselburgh, said that there had been a marked decrease in the number of typhoid cases notified since the notices warning people not to eat shellfish gathered on the shore had been put out. As regards pulmonary tuberculosis, a system of voluntary notification was in force, whereby the local authority had offered periodical disinfection of houses, but this offer was not being taken advantage of. The medical officer thought that it would be a benefit to the community if some form of compulsory notification were adopted, say for five years, whereby the local authority would obtain powers to disinfect at intervals infected houses. The number of children who had not been vaccinated had been increasing yearly. Last year the number was 80, so there was in the burgh a large number of children not protected by vaccination from small-pox—a standing danger to the community.

### AN ASSOCIATION OF SCHOOL MEDICAL OFFICERS.

An Association of School Medical Officers for Scotland has recently been formed. The first meeting will be held on Saturday, April 8th, at 11.30 a.m., in the offices of the Govan Parish School Board, 151, Bath Street, Glasgow. All medical officers connected with schools in Scotland are invited to be present. The first President is Dr. Ernest T. Roberts, Principal Medical Officer to the Glasgow School Board, and the Honorary Secretary is Dr. J. King Patrick, County Buildings, Ayr.

### GESTO HOSPITAL, EDINBANE, SKYE.

The trustees of the Gesto Hospital, Edinbane, Isle of Skye, are seeking to obtain a resident medical officer for that institution. We have received from a correspondent a statement, printed as a leaflet, dated Portree, March 11th, 1911, setting out the conditions of the appointment. It contains the following statement with reference to private and consulting practice: "The trustees, in making the appointment, allow private and consulting practice in the district, and provide that it shall be followed." We have received from a well-informed correspondent in the North of Scotland the following note:

Intending applicants should inquire carefully into the question of private practice; this is said in the advertisement to "be allowed." My information is that the trustees make it obligatory on the resident to attend all crofters who may wish to be visited at their homes, the consequence being that very few, if any, pay any fees, not even the expenses which are incurred in making these visits. If the resident refuses to give his services then a complaint is lodged with the trustees. Another point is that the sanitation and water supply of both the hospital and resident's house are unsatisfactory, and although this has been reported to the trustees nothing has been done to remedy the defects. The resident's house requires a thorough overhauling, fresh paper and paint being very much wanted, while the furniture is worn out and somewhat scanty. The number of beds in the hospital is ten, although the secretary states in a circular which is being issued to intending candidates that each of the two wards is capable of containing six or seven beds. It would be well if intending candidates would write for particulars of the appointment to any past resident, or even to the present resident, who I have no doubt would be quite willing to give his experience in connexion with the work expected to be done.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### IRISH MEDICAL ASSOCIATION.

THE Cork Branch of the Irish Medical Association has invited the association to hold its annual meeting in that city on June 13th and the two following days. It is twelve years since the last meeting was held in Cork, and no pains are being spared to make the meeting a success. Already some twenty new members have joined the association. The annual meeting will take place in the examination hall of University College at 3 p.m. Before this, Dr. Cotter, President-elect, and Mrs. Cotter will entertain the members and their lady friends at luncheon. After the annual meeting Dr. Windle, president of the college, will conduct members through the different departments, and he and Mrs. Windle will entertain the visitors at tea. The annual banquet will be held in the evening at the Imperial Hotel. On June 14th, by invitation of the County Cork Branch, a steamer excursion will be made round the harbour. At Queenstown the party will be entertained at tea by the Royal Cork Yacht Club. In the evening the Lord Mayor and Lady Mayoress will hold a reception in the City Hall. A special ladies' committee has been formed to look after the fair sex who grace the proceedings with their presence. On June 15th a golf competition for a gold medal will take place at the Douglas Golf Links between members of the association. Entries must be forwarded to the honorary secretaries, 4, Camden Place, Cork, on or before June 13th. On June 15th there will be a short excursion also to Blarney, and in the afternoon the High Sheriff and Mrs. Beamish will entertain the members and their lady friends at a garden party. Dr. Philip G. Lee, of 26, St. Peter's Hill, Cork, has been made an additional Honorary Secretary, and it is believed that his experience will contribute to make the general meeting a success.

### SEAWEED NUISANCE AT BELFAST LOUGH.

The Commissioners appointed to inquire into the methods of treating and disposing of sewage have issued their report on the seaweed nuisance on certain parts of the foreshore of Belfast Lough. In 1909 the Belfast City Council proposed to ask the Local Government Board to sanction a loan of a large sum sufficient to carry out purification works for the sewage of the city. The Local Government Board asked the assistance of the Sewage Commissioners, who undertook the investigation.

For a number of years a very serious nuisance has existed on the banks of the lough, especially on the County Down side, in the neighbourhood of Tillysburn. At first this was put down to the deposit of the town sewage; but, chiefly through the investigations of Professor Letts, the true cause was discovered in the decomposition of seaweed, chiefly the *Ulva latissima*, which collected in enormous quantities on the slob lands and rotted in the summer and autumn sun. It was then said that the sewage pollution of the water caused the excessive growth of this seaweed. Dr. Letts carried out many experiments, and reported that if the effluent sewage were purified to a certain extent before discharge the overgrowth of the *ulva* would cease.

The Commissioners instituted experiments and investigations embracing detailed surveys, float experiments to ascertain set and rate of the currents, dredging and trawling deeper portions for the *ulva*, observations to discover typical nurseries of the weed, chemical and bacteriological analysis of the water and sewage at various points, of the *ulva*, of sludge; investigation into the growth of the *ulva*, fermentative changes; into the effect on the *ulva* of removing mussels from the banks, and on the application of copper sulphate to the banks.

The Commissioners have arrived at the opinion that the nuisance is not mainly caused by the deposition of sewage solids, and that the superabundant growth of the *ulva* can only to a very small extent be due to the sewage solids; the sewage should be freed from the greater portion of its suspended solids, but they doubt the possibility of purifying it bacteriologically as to render uncooked shellfish from the sloblands a safe article of diet.

They point out that *ulva* is growing only in certain districts of the lough; that it is found where the sea water is free from sewage; that its growth depends on the presence of sheltered and shallow waters with sluggish currents, and the existence of means of anchorage for the weed. At Crossness, in the estuary of the Thames, although there is an enormous discharge of the precipitation liquor from London sewage, no *ulva* is found. It grows best when attached to some fixed anchorage, but is easily detached; there was an inconsiderable quantity only in deep water. The greatest abundance was found on

banks uncovered at low tide and sheltered from strong currents and rough water. Considerable areas of these sloblands are more or less thickly covered with mussel beds. In several places the weight of the wet *ulva* was 100 lb. to the square yard; the total quantity growing was more than sufficient to account for the quantity of detached fronds cast up on the foreshore. Both Poole and Southampton waters furnish illustrations of the effect of anchorage on the growth of the weed; the mussel fed the *ulva* by the ammonia of its excretions, and the *ulva* helped to purify the foul water in which the mussel grew. Experiments made by Professor Letts suggested that mussels would travel some way to the *ulva*, and attached itself by its threads.

Elaborate experiments were made on the effect on the growth of the *ulva* in sea water mixed with varying proportions of (*a*) tap water, (*b*) sewage, (*c*) purified sewage effluent, and (*d*) sewage and tap water. Although some results were conflicting, on the whole it appeared that the addition of nitrogen in any form was apt to produce rapid increase. Dry *ulva*, taken from pure sea water, had a percentage of nitrogen as low as 1.13 (Durlston, Dorset); the mean of twelve samples from Belfast Lough was 3.92. Although the nuisance from the decomposing *ulva* is due to the liberation of sulphuretted hydrogen, yet the amount of sulphur in *ulva* growing in pure sea water is practically the same as that growing in polluted waters. Given similar conditions of decay, the *ulva* from Durlston would be as capable of producing as serious a nuisance as that from Belfast Lough.

An experiment on the effect of sulphate of copper was tried on a small scale. The effects were so marked that the Corporation of Belfast tried it over a considerable area. The conclusions were as follows:

1. The weeds were almost completely destroyed in a week by the distribution of the crystals at the rate of 1½ cwt. per acre, but the effect only lasted two months.

2. But by destroying the weed, and to some extent the mussels, it assists in the actual cleansing of the banks. The decomposing mussels give rise to some nuisance; they also constitute the food of some marketable fish, and the salt of copper is also poisonous to these fish.

The ultimate remedy is reclamation of the affected lands, and, pending the final solution, cleansing the foreshore, removing the mussels, and the occasional use in suitable localities of sulphate of copper are recommended.

The Commissioners also recommend that the whole sewage of the town should be brought to one outfall at the northern side of the river; that not less than three times the dry-weather flow should be passed through sedimentation tanks; that a properly constructed culvert should be provided to deliver the effluent during the first three and a half hours of the ebb. There should be no delay in freeing the sewage of its bulk of suspended solids, to prevent the silting up of the navigable channels and the deoxygenation of the water.

### PHILANTHROPIC REFORM ASSOCIATION.

The Right Hon. T. W. Russell, who presided at the annual meeting of this association, made an important speech on the subject of Poor Law reform. He stated that he did not agree with those who wished to break up the workhouse system, and in his opinion the proposals of the much-talked-of Minority Report would delay rather than advance reform. He preferred an attempt to create a tolerable workhouse system out of existing materials. Children should not be admitted to workhouses at all, but should be boarded-out in families. The boarding-out system was carried out by the Orphan Society of the Presbyterian Church with much success. As regards the feeble-minded and sane epileptics, he thought that by administrative reform a certain number of workhouses could be cleared of their ordinary inmates and set aside as auxiliary asylums or workhouses for these poor sufferers. Such a step would be facilitated by the Old Age Pensions Act, which would largely diminish the number of ordinary workhouse inmates. Tramps, he thought, should be specially dealt with, while the sick should be treated in an infirmary and not a workhouse. Mr. Russell's views have excited much interest in Dublin, more especially as of late so much has been said in favour of the Minority Report referred to, and so little on the other side.

### DUBLIN SANITARY ASSOCIATION.

The work done by this association during the past year has been most satisfactory. The condition of the primary schools in Ireland has continued to occupy its attention, and strong representations have on several occasions been made to the Commissioners of National Education regarding the insanitary condition of many of the buildings and the importance of establishing regular medical inspection of the school children. Much time also has been devoted to the subject of vaccination in consequence of the anti-vaccination campaign in Wexford. In Dublin itself the extension of the main drainage scheme, the importance of regular watering of the streets, and many other matters of minor importance have been dealt with.

### STEWART INSTITUTION FOR IMBECILE CHILDREN.

This is the only institution in Ireland devoted to the care and instruction of imbecile children. It receives both free and paying patients from all parts of the country. During the last year the average number in the home was 122, including 70 boys and 52 girls. The boys are employed at weaving, mat-making, carpentry, and farm work, and instruction is also given in the working of the loom. Three deaths occurred during the year, two of which were from pulmonary tuberculosis.

### THE CENSUS.

Active steps are now being taken to facilitate the work of the Census. Pattern tables have been issued with instructions and examples of the method in which the forms are to be filled up. In addition, the Registrar-General delivered an address on "The Development of the Irish Census and its National Importance" at a recent meeting of the Statistical Enquiry Society of Ireland. The address contained much valuable information concerning the importance of an enumeration of the population from a sociological point of view.

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# New South Wales.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### LUNACY IN 1909.

THE annual report for the year 1909 of Dr. Eric Sinclair, Inspector-General of the Insane for New South Wales, shows that on December 31st, 1908, the total number on the register was 5,705, and on the corresponding date of 1909 it was 5,934, giving an increase for the year of 229, as compared with 98 for the preceding year, or with the increase of 82 for 1907. The increases of these two years, however, were unusually low, and the increase for 1909 is merely a return to a normal figure, and, Dr. Sinclair says, does not denote any serious increase in the occurrence of insanity. Insanity in this State, he says, does not appear to be increasing in a markedly different proportion to the population. The proportion of registered insane to population in 1909 was 1 in 277, which is about the same as it has been for some years. This steady ratio of insane to population is further borne out by the ratios of admissions to general population, these fluctuating between 1 in 1,585 in 1900 to 1 in 1,538 in 1909, and giving an average for the decennium of 1 in 1,511.

#### *Accommodation.*

As in previous years, Dr. Sinclair has to call attention to a considerable shortage in accommodation. The seven hospitals for the insane of the State have a total accommodation for 5,173, whereas the number of patients in these hospitals (statistics of licensed houses not included) was 5,613, giving an excess of

patients over provided accommodation of no less than 440. On December 31st, 1908, there were in the hospitals and licensed houses 5,673 patients, and on December 31st, 1909, there were 5,599. The total number of cases under care during the year was 6,994, and the average number daily resident 5,599.

*Admissions.*

During the year 881 were admitted for the first time, and 189 readmitted, while 251 were transferred from one institution to another. Of the total number, natives of New South Wales formed 55 per cent.; other Australian States, 9 per cent.; England, 15 per cent.; Ireland, 11 per cent.; Scotland, 4 per cent.; and other countries, 6 per cent.

The total admissions and readmissions were classified according to the forms of mental disorder into: Mania of all kinds, 492; melancholia of all kinds, 258; dementia, 145; general paralysis of the insane, 43; epileptic insanity, 33; and congenital or infantile defect, 99. It will be noted that the general paralytics formed only 4 per cent. of the total admissions.

As to probable causation, alcohol was assigned in 161 or 15 per cent., and venereal disease in 38; diseases of skull and brain and epilepsy in 72; other bodily disorders in 99; childbirth, etc., in 43; bodily trauma in 18; and mental stress in 154. An insane heredity was ascertained in 152, and congenital defect existed in 105, whilst in 135 no cause could be assigned.

*Discharges, Deaths, etc.*

During the year 402 were discharged as recovered, giving a recovery-rate of the total admissions and readmissions of 37.57, as compared with 40.32 for the ten years ended 1909; also 87 as relieved; 251 were transferred, and 2 escaped. During the year 350 died, giving a death-rate on the average numbers resident of 6.25 per cent., as compared with the average for the preceding ten years of 7.13 per cent. The deaths were due in 153 to cerebro-spinal diseases, including 52 from general paralysis; in 94 to chest diseases; in 38 to abdominal diseases, with only 7 from dysentery and diarrhoea, and in the remainder to general diseases. Of the total deaths, 33, or 9.4 per cent., were due to pulmonary consumption; also 6 to suicide and 2 to accident.

*Reception Houses.*

There are two reception houses in the Colony, one at Darlinghurst and the other at Newcastle. These institutions do valuable work both to the patients and for the asylums they relieve. Patients with slight and brief attacks are treated there till recovery, and in many cases certification is avoided. Naturally many of these cases are of alcoholic origin. An experiment is being tried, Dr. Sinclair says, in an attempt to extend the privileges of the reception houses to certain of the country towns, by gazetting a room at the local gaol as a reception house. As might have been, and probably was, expected, the experiment has not proved of much advantage. In any case, for want of any other place to send them, the patients in many country districts go to the gaol. Unfortunately the county hospitals, as a whole, refuse to admit these cases.

A return furnished by Dr. Sinclair shows that there were 297 such cases detained in gaols "for observation on account of supposed insanity" during the year. Of these, 87 were certified and sent to asylums, 192 were found not insane and were discharged, and 18 remained in the gaols under observation at the end of the year.

At the reception houses proper 21 were in residence at the beginning of the year, and 1,072 were admitted during the year. During the year 38 were discharged recovered by certificate, and 438 from the police-court; 397 were sent to the police-court and returned to the reception house under certificate, 182 were transferred to hospitals for the insane or to licensed houses, and 22 died. At the end of the year 16 remained in the reception houses.

*Criminal Insane.*

The hospital for the criminal insane is a separate building, attached to the Paramatta Hospital for the Insane. It is reported to be entirely unsuitable and out of date. During the year 15 were certified to be insane whilst awaiting trial, 4 were found insane by jury on arraignment, 24 were acquitted on the grounds of insanity, and 18 were certified as insane while serving sentence. At both Paramatta and Darlinghurst gaols there are observation wards for prisoners suspected of insanity, and to these wards 143 were admitted during the year; 15 were discharged as of sound mind, 10 to hospitals for the insane, 117 to police-courts, and 15 remained at the end of the year.

*Cost.*

The weekly cost per patient was 11s. 8¼d., or, after deducting collections, 9s. 6½d.

*Proposed Legal Amendments.*

It is hoped that at an early date certain alterations in the Lunacy Act may be made. The principal are the following: Provision for the admission of voluntary patients to hospitals for the insane and licensed houses; provision for placing on a proper footing the treatment of uncertified insane patients in private houses; provision for facilitating admissions to the reception house, the granting of absence on leave from hospitals for the insane, and also a number of amendments as to legal procedure for making more secure the control over patients' property by the Master in Lunacy.

# Cape of Good Hope.

[*FROM OUR SPECIAL CORRESPONDENT.*]

## HEALTH OF CAPETOWN.

THE annual report of the medical officer of health, Dr. Jasper Anderson, for the year ending June 30th, 1910, states that the population was last enumerated in April, 1904, and since then has undoubtedly decreased. For the purposes of the report the population is estimated at 66,550—namely, 34,300 Europeans and 32,250 other than Europeans.

*Births.*

During the year there were 777 births amongst Europeans and 1,615 amongst the coloured population, giving a birth-rate of 22.6 for Europeans and 50.0 for coloured. Illegitimacy increased to 9.50 per cent., a higher rate than has ever been reached.

*Deaths.*

The deaths which occurred in the city during the year were 454 Europeans, 1,138 coloured, and 1 person whose race was indeterminable. Capetown includes a number of public institutions to which persons suffering from serious illness are admitted from outside the boundaries of the city, so that the totals include deaths not properly belonging thereto; 193 Europeans and 197 coloured persons died in the various institutions in the city during the year; the death-rate among Europeans was 13.23 and among coloured 35.28.

A classification has been made of the deaths occurring in the different months of the year, which shows that the most fatal months for Europeans were July, December, and January, and September and February the least so. For the coloured, April and March were the most fatal, and July the least. As Dr. Anderson remarks, the death-rate amongst infants under 12 months old is an index of the social condition of the population. There were 104.2 deaths per 1,000 European births, and 216.1 deaths per 1,000 coloured births. For all classes the deaths were 179.4 per 1,000 births. The rate for Europeans increased from 89.3, and for coloured from 209.3 in the previous year. With the view of lessening the infantile mortality, the lady sanitary inspector is mainly employed in visiting houses where children have been born, taking notes of the methods of feeding adopted, and any uncleanliness or obvious sanitary defects in the buildings. She at the same time takes the opportunity of explaining to the mother any points as to feeding and hygiene of the infants which may be necessary as the result of her

observations. This work is appreciated by the mothers. One of the causes of the high infantile mortality amongst the coloured population is the difficulty of obtaining prompt medical treatment owing to inability to pay for medical attendance. This delay affects not only the children under 1 year of age, but also all ages, and in infectious diseases and tuberculosis particularly, leads in the first place to dissemination of the diseases, and secondly to the diminution of the chance of recovery.

Local diseases give the largest percentage of deaths, the next being zymotic diseases. Of these the principal are diarrhoea and dysentery; these account for 182 deaths. There was a serious outbreak of measles during the year, with 65 fatal cases. As in most other parts of the empire tuberculosis accounts for a large number of deaths (57 Europeans and 226 coloured). Compulsory notification of phthisis pulmonalis has worked well, 417 cases were notified during the year under review.

*Water Supply.*

The water supply of Capetown is derived from springs on the north-west of Table Mountain, and the catchment area on the summit thereof. The chemical and bacteriological examinations of the water made during the year showed that the water delivered to the inhabitants is remarkably pure and free from all injurious matter.

*Abattoirs.*

The public abattoirs in Capetown, as in not a few towns in the United Kingdom, would seem to be in a very unsatisfactory state. The report states that though some improvement has taken place in the private slaughterhouses within the area of the Cape Rural Division there is no adequate inspection of animals before and after slaughter. The medical officer of health has commented adversely on these abattoirs and has made several recommendations to the municipality, but they have not been carried out.

*Mosquitos.*

During the year an attempt was made to check the prevalence of mosquitos within the city. The catchpits were disinfected and flushed, with the result that the number of mosquitos was diminished in the town.

*Meteorology.*

From the meteorological table appended we find that the total rainfall amounted to 23.84 in., rain falling on 107 days. The mean temperature of the air in the shade for the year was 58.21° F. with a maximum mean of 70.8° F. and a minimum mean of 53.8° F. The mean barometrical reading for the year was 30.164.

## Jamaica.

[*FROM OUR SPECIAL CORRESPONDENT.*]

ANNUAL REPORT OF REGISTRAR-GENERAL.

SOME interesting figures may be gathered from the report of the Registrar-General for the year ending March 31st, 1910.

The population on which the various rates are calculated is estimated at 862,422, or an increase on the previous period of nearly 14,000. The marriage-rate is 4.1, and the registered birth-rate 37.8 per 1,000 of population. The number of deaths registered during the year was 18,636, giving a rate of 21.7 per 1,000 of population, the lowest since 1902–3, when the rate was 19.8. In Jamaica, as elsewhere, the mortality amongst children is high; 5,657, or 30.4 per cent., of the deaths in the year were those of children under 1 year of age, and 8,152, or 43.7 per cent., were of children under 5 years old. That is to say, of every 100 children whose births were registered 17 died under 1 year old and 8 more failed to reach the age of 5 years.

In only 4,353 of the 18,636 deaths was the cause of death medically certified, that is, of every 100 deaths in the year 76.6 were registered without any medical certification of the cause of death. In Kingston, the percentage of uncertified causes of death, 27.1, is very much lower than in any other parish, but if the deaths in the public institutions are eliminated the percentage of uncertified cases is 59.7, which is an exceedingly high rate, though no doubt many of these cases had been medically treated at some stage of the illness.

The principal causes of death in the parish of Kingston were phthsis, malarial fever, diarrhoea, enteric fever, and "ill-defined." Under this head is classed debility, atrophy, inanition, forming a total of 16.0 per 100 of total deaths.

The Registrar-General states that on April 1st, 1909, there were 132 names on the Medical Register, and eleven names were added during the year. One medical practitioner died, and seventeen names were cancelled, the addresses of the owners not being known, leaving 125 names on the Register on March 31st, 1910. There were thirty-eight dental practitioners on the Register on March 31st, 1910.

# Special Correspondence.

## VIENNA.

*Vacant Clinics in Vienna.—A Grant of Six Millions to the Austrian Hospitals.*

OF late much interest has been aroused in Vienna by the fact that at the present moment there are two clinics whose chairs are unoccupied. One of these is the chair of the Second Medical Clinic (formerly occupied by Strümpell). This vacancy has been caused by disputes between the Government and the University Senate, the former desiring to nominate a man who would not prove too independent, and who would consequently be easily controlled, whilst the latter was anxious that their candidate should encounter no difficulties in connexion with his scientific requirements. A compromise has been effected, however, and the Government has consented to ratify the choice of the Senate. As is the custom in Austria, the Senate elected as many as three candidates for the vacant post, Sahli of Berne, Chwostek of Vienna, and Ortner of Innsbruck, whose names were sent in for the consideration of the Government. Sahli, however, immediately informed the university authorities that he did not wish to leave his native town. Of the other two candidates Ortner is considered to have the better chances of success. The other vacancy was caused by the sudden death of Escherich, which is likely to prove a serious loss to the scientific school in Vienna. As yet no successor has been nominated, but it seems most probable that he will be succeeded by one of the German pediatrists.

The finances of the State and university hospitals have lately been in a very serious condition, though several attempts have been made to bring some sort of order into the existing chaos. By the death of Baron Rothschild, however, who left over 700 million kronen, the Austrian Government receives some 25 million in death duties, etc., of which about 6 million kronen (or a quarter of a million pounds sterling) must be devoted to the Austrian hospitals. Thanks to this windfall, the hospitals of Austria will be saved from bankruptcy, and various clinics will in addition be properly endowed. It should now be possible to do away with the system of placing the hospitals under the care of the various political parties, and the Government has two whole years in which to think out a substitute for the present deplorable arrangement.

ACCORDING to statistics published in Professor Schwalbe's *Reichs-medizinal-Kalender für Deutschland auf das Jahr 1911*, the total number of medical practitioners in the German Empire in 1910 was 32,449, the total population being 65 millions. As compared with the previous year, the number of doctors showed an increase of 480. In 1901 the number of practitioners was 27,978. The proportion of population has kept nearly at the same level during the period from 1901 to 1910; it has varied from 4.92 to 5.08 per 10,000. It is estimated that the proportion will rise within the next few years, as the number of students matriculated in the medical faculties of Germany in the last semester was 11,125, as against rather under 6,000 in 1905. The number of students has thus nearly doubled in the space of five years.

# Correspondence.

## TO HELP THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—In your issure of March 18th there appears an appeal from Professor Howard Marsh for increased assistance from the rank and file of the medical profession to this fund. With that appeal all must sympathize. Ladies' guilds, collecting boxes under the control of lady members of our families, and all similar attractive devices for bringing in additional support are in their own way, no doubt, admirable.

But, if I may say so, Professor Howard Marsh has not touched the spot when he makes his proposal. It must be remembered that the medical profession has in the British Medical Association an organization recognized by the Government, the community, and the profession itself competent to deal with all the interests that affect the medical profession as such. Professor Howard Marsh would seem to recognize this by writing to its JOURNAL.

Let the fund and those associated with it seriously consider during the next few months whether it is not possible to make the interests of both come into line, and as a means to this end to offer to the Association seats for directly-elected representatives on all committees of the fund, and at the same time to form through all the Divisions of the Association local committees.

If the committee of the fund can place before the Representative Body of this Association next July a definite offer based on the above suggestions, there is no doubt that the excellent and efficient central and local machinery of the Association could be associated with the experience of the fund in a manner advantageous to all.

It might then be reasonably expected that in a few years one would hear no more of lack of sympathy, as nearly every practitioner, by giving his 5s. a year would, while helping a fund acceptable to all, find himself relieved of many personal anxieties, and at the same time would know that he was assisting those dependent on colleagues who had fallen by the way.—I am, etc..

Brighton, March 20th. E. ROWLAND FOTHERGILL.

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SIR,—In his letter of March 14th the Master of Downing points out a means of raising additional funds by weekly savings to be effected by the wives of general practitioners. Doubtless the shillings and sixpences thus collected would carry a double blessing to the givers and to the takers, but the duty of bringing aid to their less fortunate brethren does not fall upon the general practitioner alone.

Ought not the more successful or more wealthy members of the medical community to provide the funds whereby the wives and daughters of the victims of professional accident or misfortune may be helped to obtain the bare necessaries of life?

The list of subscribers and donors to the fund contains many well-known names, but one looks in vain for many others, equally well known in London and in the large provincial towns—names associated with lucrative practice and generous hospitality towards their professional friends and supporters. As leaders in medical science and practice, their support of the leading medical charity is even more urgently to be desired than that of the overworked and often underpaid practitioner.—I am, etc.,

March 18th. E. C. B.

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## OSTEO-ARTHRITIS AND ITS RELATION TO CHRONIC RHEUMATISM.

SIR,—The letter of Dr. Kerr Pringle in the JOURNAL of March 11th conveys, in some respects, a mistaken impression regarding my paper on osteo-arthritis. He quotes the words "pyaemic tuberculosis" from your abstract; this is a misprint for "pyaemia, tuberculosis," and I think this is a correction of some importance. Probably by this time he has read my paper in full, as published in the *Proceedings of the Royal Society of Medicine*, and, if so, he will find that we are in agreement as to the main issues which he raises.

There are two points, however, calling for notice. He regards the hypertrophic bony changes as degenerative, whereas I believe them to be compensatory and reparative, though degenerative changes may have been the original cause of the mischief calling for repair; certainly arterio-sclerosis plays an important part in many cases. Further, he invokes an infective factor in chronic villous arthritis. That such a factor is possible or even probable must be admitted, but while such well-marked changes as those of Charcot's disease can occur in the absence of infection, I think that wear and tear or trauma *plus* any condition affecting the nutrition of the joint, such as varicose veins or arterio-sclerosis, are sufficient to account for the majority of those slight cases met with in women at the menopause. The most important thing is to differentiate such cases from rheumatoid arthritis and other definitely infective conditions, and I hope that he will, in common with other members of the Balneological Section, collect careful clinical notes of these cases with a view to future discussion of this question.

As to Dr. Midelton's view that an investigation of the contributory factors other than infection makes the confusion even more marked, is not such investigation an essential step to the comprehension of any group of diseases? I am unable to discover whether he is in favour of, or opposed to, attempts to isolate the specific germ of an infective condition. To advocate identical measures of treatment in joint disorders presenting similar symptoms, without regard to the cause, is hardly consistent with modern methods of treatment.—I am, etc.,

Buxton, March 19th. CHARLES W. BUCKLEY.

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## WAS IT A CASE OF ANAPHYLAXIS?

SIR,—Dr. Goodall's article in your issue of February 11th on Some Points connected with the Serum Treatment of Diphtheria has interested me acutely, for a reason which will soon appear. But, independently of the personal aspect of the subject, it riveted my attention as the best exposition of that dread catastrophic phenomenon anaphylaxis I have come across. It may have been equally well described by others, but, if so, there must have been gaps in my reading.

At the end of September, 1910, I visited London, having always found a change to its drier atmosphere very beneficial after the moisture of the west coast. The first two days after I arrived I felt the usual improvement, and did a good deal of quiet walking about. On the third day the left knee became rather painful, and this soon went on to slight effusion, very much limiting my movements. Four days from the commencement of the arthritis I was attacked with moderate diarrhoea, which also lasted about four days. Almost as soon as the diarrhoea commenced the arthritis disappeared. About the fifth day from the commencement of the diarrhoea I was seized with violent coryza of influenza type. Immediately this began the diarrhoea ceased. The influenza was most severe, the temperature considerably raised, and much malaise. About the third day of this, being much interested in the inoculation treatment of these catarrhs, and thoroughly dissatisfied with the older methods of treatment, I went to St. Mary's Hospital and introduced myself to Sir Almroth Wright, whose kindness and courtesy I shall always gratefully remember—and laid my case before him. As, of course, there had been no identification of the particular micro-organism responsible for my troubles, at my urgent request he ordered me their "blunderbuss" injection. This is a vaccine made from several of the various microbes etiologically related to such attacks as mine.

No improvement followed, and two days after, the illness passed from the nose to the chest, and the temperature, which had fallen, rose to 102°, with hard cough and heavy lumpy expectoration. The pulse-respiration ratio was about 2½ to 1, and there was a heavily coated tongue, thirst, and total anorexia. After this had lasted a few days I went to St. Mary's again, where a specimen of my sputum was taken, and I received instructions to call in four days. This was on a Tuesday. On Friday I returned with much difficulty, for I was very ill, weak, and dyspnoeal, and had much pain through the left lung. The temperature varied from 101° to 102°, exceptionally going for brief periods to 103°. Cultivation gave an almost pure culture of the pneumococcus. A vaccine had been prepared therefrom, and I received an injection as before in the right flank. This would be about seven or eight days since the first injection.

The injection was made about 3.30 p.m., and by 5 p.m. the temperature had come down to normal, a gentle perspiration replaced the heat and dryness, and I felt hungry.

I had a chop and bread-and-butter and tea, having been quite contented previously with two or three glasses of milk a day. Not long after I began to feel not so well. The temperature rose to 101°, and a severe eruption of nettle rash appeared. For the next two days I kept having returns of this urticaria, the attacks coming about every four hours, and lasting nearly two hours. The eruption was of a most terrific intensity, affecting

the inside of the nose, the conjunctivae, the auditory meatus, the pharynx, and each time there was an intense feeling of oppression at the epigastrium and some nausea. I restrained with difficulty the desire to vomit. At the same time I had some difficulty of breathing and my throat was sore, and am convinced these symptoms were caused by an urticarial eruption on the gastric and respiratory mucous membranes. My condition was almost serious. I could get little sleep, and the gastric and respiratory symptoms were so severe as to occasion considerable anxiety. The temperature rose again to a little over 101°. On the morning of the third day since the second injection I remembered that I had read an article in the BRITISH MEDICAL JOURNAL by a gentleman who stated that salts of lime were a specific for urticaria. Research discovered some glycerophosphate of calcium, and I had a mixture made containing ʒij in the ʒvj. The first dose I took stopped the urticaria. It made two or three feeble attempts to return, but they aborted. I continued the calcium salt gr. x ter die, and from that time I rapidly convalesced, and in a month was much better than even before I became the victim of this series of painful experiences.

Now I want to know, Was this a case of anaphylaxis, and what will happen if I have another inoculation, as I had intended if I should be attacked with influenza again?

It appears that the arthritis, the diarrhoea, the coryza, and the pneumonia were intimately related to each other. Were they all caused by the pneumococcus?

A very interesting fact in my case is the effect of the calcium salt. When I was at the worst I wrote Sir Almroth Wright, and he replied advising a lime salt, but before I got his advice I was cured.

Is it possible that the anaphylactic predisposition is caused by a deficiency of lime in the blood and tissue? If so, the obvious suggestion is to combine inoculation with the administration of a lime salt—as, for instance, the lactate.

Dr. Goodall's anaphylactic cases were, I think, all caused by antidiphtherial serum, but mine by anti-pneumococcal serum. Probably any vaccine with a horse-serum basis would be liable to cause these untoward effects.—I am, etc.,

Blackpool, March 7th. WM. HARDMAN.

## BLEEDING IN CEREBRAL HAEMORRHAGE.

SIR,—In Allbutt's *System of Medicine* (1899), in the article Treatment in Cerebral Haemorrhage, Dr. H. H. Tooth writes:

> Bleeding in cerebral haemorrhage, as in everything else, has passed through a long period of disrepute, brought about by its indiscriminate use. . . . On physiological grounds it is difficult to see that it can do anything but good.

I noticed lately the announcement of the death, at 78 years of age, in the Midlands, of a gentleman to whom I was called at Cap Martin just seven years ago, and found unconscious from a severe attack of cerebral haemorrhage. As Dr. Philip Hensley was staying in Mentone, I asked him to see the patient, and he was strongly of opinion that he would die. The next day he was even worse, so I bled him to 16 oz., when he became semiconscious, and resisted further interference. He then made a slow but steady improvement, and returned home. Since that time he has taken, as before, an active part in municipal life. His medical man says that he did not die from any return of the cerebral haemorrhage, but from independent causes. I have no doubt that he owed the last seven years of life entirely to opportune bleeding.

In a bad case of dilated heart the best result from any treatment I also obtained by bleeding.

Perhaps our successors will fear fresh cold air as we do bleeding when the folly of the present day indiscriminate advocacy of it is fully revealed. If, however, they swing to the extreme of condemning it altogether, they will miss its obvious utility, as we have that of bleeding, through an unreasoning prejudice.—I am, etc.,

Mentone, Feb. 28th. D. W. SAMWAYS.

## ETIOLOGY AND TREATMENT OF ACUTE POLIOMYELITIS.

SIR,—I have read with great interest the papers upon infantile paralysis by Drs. Geo. Parker and Vipond appearing in the JOURNAL for March 18th, especially in view of the theory of Flexner that the infection is conveyed by the naso-pharyngeal mucosa. This theory is mentioned by Dr. Parker, but not by Dr. Vipond.

In the *New York Medical Journal* for December 17th, 1910, there appeared an article upon epidemic poliomyelitis from the pen of Dr. Sohier Bryant, and his observations will, I think, be of interest to readers:

> Eighteen months of careful clinical observation led him to the belief that the disease is infectious and contagious, and that the contagion emanates from the naso-pharyngeal secretions. From observations made in 1898, whilst acting as chief surgeon of the Seventh Army Corps at Savannah, he has concluded that poliomyelitis, with regard to its inception and development, is analogous to epidemic cerebro-spinal meningitis, an outbreak of which occurred among the United States troops. In this epidemic it was observed that the disease always began with naso-pharyngitis, spread chiefly among associated soldiers, and the meningeal affection was transmitted by individuals who showed none but the naso-pharyngeal symptoms. Further, local treatment by mild nasal antiseptics gave good results. Dr. Bryant found that the course of epidemic poliomyelitis in the recent outbreak in America resembled exactly that of the cerebro-spinal meningitis in Savannah. From his observations he concludes that, in epidemic poliomyelitis, as in cerebro-spinal meningitis, lobar pneumonia, true influenza, and diphtheria, the symptoms remote from the naso-pharyngitis are not really pathological entities of the disease itself, but are to be considered in the light of complications.
>
> His treatment of epidemic poliomyelitis has, therefore, consisted of isolation during the whole of the naso-pharyngeal or active stage, mild antiseptic applications by a post-nasal spray, rest in bed, and restricted diet with a maximum amount of potable water. The effects of this treatment he has found to be restriction of the pharyngeal inflammation, rapid recession of the febrile conditions, and apparent prevention of paretic symptoms. He further considers that infantile paralysis should be included among those diseases for which children are excluded from school, and that in times of epidemic poliomyelitis all cases of naso-pharyngitis should be regarded as suspicious and treated promptly.

—I am, etc.,

London, W., March 18th. MACLEOD YEARSLEY.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—In the letter of mine which appeared in your issue of March 4th last I ventured to say that the subject was one of great importance to public health departments. This statement appears to be correct, as your own columns have already received communications thereon from Dr. Parkes, the Chairman of the Council of the Royal Sanitary Institute, and from my friend, Professor Bostock Hill, who is also prominent in that institute. They, naturally, are both on the defence. My letter has been quoted in the *Sanitary Record* and other journals interested in hygiene, with comments (in the main) supporting my views. Anyway, I am glad the subject is receiving the attention it merits.

My view, strongly held, is that there is no room on the staff of a public health department for a lady health visitor as distinct from a woman sanitary inspector. Is not the whole ever better than a part?

The regulations of the institute for the health visitors' examination are now before me. No. 4 says:

> Every candidate is required to furnish the Board of Examiners with satisfactory testimonials of *recent* date as to *age*.

The italics are mine. I never had the good fortune to see such a testimonial, nor to be asked to furnish one. The latter, I judge, would be a dangerous task, if dealing with a militant member of the other sex. Regulation No. 5 says:

> The candidate must be able to write legibly, spell correctly, be able to make an outline sketch to scale, read ordinary building plans, and must possess a fair knowledge of arithmetic.

But yet no preliminary test of her general education is made, as it is by the Sanitary Inspectors' Examination Board. Regulation No. 1 says:

> Candidates are required to furnish satisfactory evidence that they have had opportunities of gaining a *practical* knowledge of the subjects set out in the syllabus.

Again the italics are mine. This regulation strikes one as excellent, until one sees on a previous page what kind of evidence the institute is prepared to accept as "satisfactory." The list is certainly varied. Any one of seven qualifications are accepted as evidence of a knowledge of hygiene. Amongst them are: (1) A certificate as midwife; (2) three months' training in a children's hospital, or a general hospital, or a Poor Law infirmary. The one certificate that should be required is not insisted on—

namely, a certificate from a medical officer of health of continuous practical training for not less than three months.

As regards the standard of the health visitor's examination, a gentleman who prepares many candidates for it writes to me: "The standard is not high enough." This is a frank admission from one who ought to be thankful for the same. He also writes: "Exceedingly short courses of more or less disjointed lectures are accepted as sufficient training. This is wrong, as it tends to produce mere cramming."

Whilst I prefer my woman inspector to have a midwife's certificate as an additional qualification, it appals me to find that midwives, with perhaps only three months' training in that subject, are allowed to sit for the examination of health visitor without any further preparation whatever. A three years' hospital-trained nurse is permitted to do the same, and no training in public health work nor any attendance at lectures is required, although her knowledge of infants may be meagre and of the homes of the poor *nil*.

Professor Bostock Hill deems a woman sanitary inspector to be "an anachronism." My opinion is that her utility is only *beginning* to be generally recognized, and for properly trained ones there are good prospects in proportion to the rapidity with which local authorities recognize the great benefits arising from their work under the supervision of the medical officer of health. The professor appears to think that a knowledge of plumbing and drainpipes is also an anachronism, and cannot be included in what he terms "the true meaning of hygienic effort." I maintain, however, that "plumbing and drainpipes" are, and will continue to be, worthy of study by sanitary inspectors, both male and female, so important is the part these things take in domestic life.

Dr. Bostock Hill is wrong in thinking that I wish a woman to supersede a man inspector in my department. I want to get one properly trained to do the work that either her male colleagues cannot do at all, because of their sex, or that for cognate reasons they cannot do half so well. Work amongst lying-in mothers and their infants is only a portion of a woman inspector's work, albeit an important one. I may add that none of my inspectors wears uniform.

Dr. Parkes admits that in practice the duties of women sanitary inspectors differ from those of men. Why, then, does he not urge his institute to hold examinations for them quite distinct from those for men? I agree with paragraph 4 of his letter, provided the letters "in" precede "differently." Reference to Dr. Parkes's letter will make my meaning clear.

I observe also the final statement of Dr. Parkes's letter, that women who have passed the institute's examination for health visitor are no good as sanitary inspectors of a public health department. Local authorities and medical officers of health will kindly note this opinion, for it answers "the question of importance" asked in my first letter to your Journal—namely, "whether the holder of such a certificate is quite the person a medical officer of health could conscientiously recommend." The answer, as will be observed, is in the negative.—I am, etc.,

Sidney C. Lawrence,
London, N., March 19th. M.O.H. of Edmonton.

## QUALIFIED OPTICIANS.

Sir,—Arguments suffer in common with a good many other things in this life—they do not improve with age. They soon outlive their energy, then they are apt to degenerate. After having served their purpose, wholly or in part, it is best to leave them. With some signs of the vigour of youth still remaining, they are apt to be more helpful in effecting their purpose than when stimulated ineffectually in their declining days, they cease to exist amid scenes which are not peaceful. I do not, therefore, propose to reply to the spirited rejoinder of my friend, Dr. Seymour Taylor, to my last "contribution," save to remark that I am sure that the position which he has assumed in this matter, although entirely untenable from the point of view which I have sought to inculcate, has nevertheless been based upon perfect good faith.—I am, etc.,

London, W., March 17th. Percy Dunn.

*** This discussion may now cease.

## TUBERCULIN AND TUBERCULIN DISPENSARIES.

Dr. R. W. Philip (Edinburgh) writes to make a correction of errors of fact as follows:

My attitude towards tuberculin has again been completely misrepresented. Can I do more than say that ever since receiving the first supply of tuberculin from Professor Koch in 1890 I have made regular use of tuberculin, in one form or another, both for diagnosis and treatment, in a great variety of tuberculous cases? There is a further statement in the same letter to the effect that I "claim that the fall of the death-rate from pulmonary tuberculosis in Edinburgh is due to the anti-tuberculosis dispensary in Edinburgh." That this is a misrepresentation of my position in several ways will be clearly seen if you will allow me to quote the *ipsissima verba* of the reference (vide lecture before the International Congress at Washington, 1908). After comparing the mortality from pulmonary tuberculosis in London and in Edinburgh for a period of twenty years (1887–1906), I go on to say:

> The curves are interesting in both cases. They illustrate sufficiently what has been frequently pointed out—namely, the steady improvement in relation to tuberculosis which is in progress in many centres.
>
> In the case of Edinburgh, I think, without straining the point, the curve affords sufficient evidence of the influence exercised on tuberculosis by the institution of organized and co-ordinated effort. In addition to less definite agencies, there has occurred in Edinburgh from 1887 onwards the gradual evolution of an antituberculosis scheme, including the dispensary, with its system of domiciliary visitation, etc., the sanatorium, the hospital for advanced cases, the working colony, and, finally, compulsory notification.
>
> The charts show how, from 1887 onwards, the mortality from tuberculosis has fallen progressively. The Edinburgh fall during the *latter* ten years is especially striking. It is quite out of proportion to that of the precedent ten years, and remarkably more rapid than that shown in the London curve. It seems fair to associate this to some degree with the development of the completer organization.

Dr. John B. Hawes (Boston, U.S.A.) write to inform us that there have been at least three tuberculin dispensaries at work in the United States for the past five or six years—namely, at the Johns Hopkins Hospital under Dr. Louis Hamman, in New York under Dr. James Miller, and in Boston, at the Massachusetts General Hospital, under his own care. He continues as follows:

> Such dispensaries are intended not to replace, but to supplement, the work of the sanatorium, the patients being treated with tuberculin and kept under observation during the interval before they can be sent to an institution, and, of still more importance, after they have been discharged from the hospital and are going back to their regular work.
>
> The use of tuberculin in dispensary patients, where it is in careful and skilled hands, has met with distinct success. I have yet to hear of any instance where any unfavourable incidents have occurred which could be attributed to the fact that the patients were not under strict supervision of the sanatorium all the time. My own work at the Massachusetts General Hospital has been under the constant supervision of Dr. Edward L. Trudeau of Saranac Lake, who has watched this experiment with interest. He has provided me with tuberculin (bouillon filtrate) and his invaluable advice.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

The electors to the Radcliffe Travelling Fellowship have reported to the Vice-Chancellor that they have elected Mr. E. P. Poulton, B.M., Balliol College.

## UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

*M.B.*—A. E. Stansfeld.
*M.C.*—S. Gordon.
*M.B., B.C.*—G. G. Bulter, J. H. Crofton, W. H. Hodgson, J. B. Ronaldson, C. J. Stocker, W. W. C. Topley, W. E. Wallis.

## UNIVERSITY OF LONDON.

### Meeting of the Senate.

A meeting of the Senate was held on February 22nd.

*Physiological Laboratory.*

Sir Lauder Brunton was re-elected Chairman of the Physiological Laboratory Committee for 1911, and Dr. A. D. Waller and Dr. Mears were re-elected respectively Director and Treasurer of the Physiological Laboratory for 1911.

The annual report of the Physiological Laboratory Committee

was presented. Under the head of general and physical physiology the report stated that the two committees appointed by the British Association, under the chairmanship of Dr. Waller, to investigate respectively the action of anaesthetics on animals and electromotive phenomena in plants, had continued their work during the year. In the department of experimental psychology Miss G. W. Martyn, B.Sc., continued her research on fatigue, having supplemented her laboratory experiments by experiments on children in elementary and secondary schools and on college students. The department of chemical physiology initiated in 1905 had worked very satisfactorily under the supervision of Mr. J. A. Gardner, M.A. Under the direction of Dr. F. L. Golla there had been started during the year a department of chemical pathology and pharmacology, which was working in close touch with St. George's Hospital.

*Appointments.*

Professor H. C. Maudsley, M.D., F.R.C.S., has been appointed as representative of the university at the ninth session of the Australasian Medical Congress to be held at Sydney, N.S.W., in September, 1911.

The Principal (Dr. H. A. Miers) and Dr. A. D. Waller have been reappointed governors of the Imperial College of Science and Technology for 1911–15, and Dr. J. F. Nicholson was reappointed a governor of Hymers College, Hull.

*University Studentship in Physiology.*

A university studentship in physiology, of the value of £50 for one year, will be awarded to a student qualified to undertake research in physiology, and will be tenable in a physiological laboratory of the university or of a school of the university. Applications must be received by the Principal on or before May 31st, 1911.

### INTER-COLLEGIATE SCHOLARSHIPS BOARD.

THE London Inter-Collegiate Scholarships Board announces that an examination will be held on May 9th for eighteen entrance scholarships and exhibitions of an aggregate total value of about £1,500, open to men and women, and tenable in the Faculties of Arts, Science, and Engineering of University College, King's College, and the East London College.

Particulars and entry forms may be obtained from the Secretary of the Board, Mr. A. E. G. Attoe, University College, W.C.

### UNIVERSITY OF EDINBURGH.

*University Court.*

AT a meeting on March 13th, a letter from the treasurer of the Crum Brown Presentation Fund was read, intimating that the contributors had resolved to hand over to the University Court for the purpose of awarding annually a silver medal in the Chemistry Department the surplus on the fund, amounting to £39 6s. 3d. The Court accepted the donation with thanks.

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST FELLOWSHIP.—E. Connell, C. Cooper, H. A. S. Deane, T. W. Harley, Captain I.M.S., A. Humphreys, J. C. Khambatta, T. J. R. Maguire, and J. C. Sproule.

FINAL FELLOWSHIP.—L. L. Cassidy, R. V. Slattery.

# Medico-Legal.

### LIBELS ON A MEDICAL PRACTITIONER.

AT Trowbridge, Ellen Chapman, cook, residing near Devizes, was charged on a warrant with publishing a defamatory libel on Dr. James Pearse, one of the surgeons to the Cottage Hospital, and also Medical Officer of Health. The prosecution was undertaken by the Medical Defence Union, and Mr. Walter Taylor of Bristol informed the bench that the libels had been going on for the last two or three years. In 1904 defendant was treated at the Trowbridge Hospital by Dr. Wise. The defendant appeared to be suffering from some hallucination concerning Dr. Pearse, and in 1909 commenced to send letters and postcards to the rector, Mrs. Bond, wife of Dr. Bond, and prominent tradesmen, making allegations against Dr. Pearse as to his conduct to her in hospital.

Giving evidence on oath, Dr. Pearse said he had never seen the woman before that day, and had never attended her. When asked if she had any questions to ask Dr. Pearse, defendant said he was a liar.

Sergeant Read, of Market Lavington, spoke to arresting the defendant in Bristol on Tuesday night. Some months ago he told her if she did not stop sending the postcards she would get herself into serious trouble. She then said Dr. Pearse was a brute, and had tried to murder her when she was in the hospital.

On oath, the defendant gave an account of what she alleged took place in the hospital, from the consequences of which she said she had suffered ever since. She did not deny writing the postcards, and declared that every word written was true.

The defendant was committed for trial at Wilts assizes.

### QUESTION OF ASSISTANCE AT *POST-MORTEM* EXAMINATIONS.

BEFORE giving evidence in a case at Deptford Coroner's Court on March 21st Dr. Burney, Divisional Surgeon of Police, said: Before taking the oath I would like to make a protest against the annoyance and indignity to which the medical men of this district are subjected in making *post-mortem* examinations at this mortuary. Before making an autopsy in this case I was informed by the mortuary-keeper that he had been forbidden by the Deptford Borough Council, his employers, to assist in even the most menial duties in an examination. I have performed *post-mortem* examinations in all parts of London during the past fifteen years, but I have never yet experienced the annoyance and indignity to which I was subjected when making the examination in this case.

The Coroner: You received no assistance from the mortuary-keeper? The Doctor: None whatever. I take it that the doctor is not supposed to do the toilet of the dead. Up to the present case I have always had the assistance of the keeper.

The Coroner: I quite sympathize with you in your difficulty. You have to make your examination and determine the cause of death in order to give it in evidence, and I consider that no obstacles should be placed in your way. In all the other districts the mortuary-keeper gives his assistance, in washing the body, etc., but the Deptford Borough Council have forbidden the present keeper to follow the custom in view of the fact that his predecessor met his death by blood poisoning, which he contracted from a corpse suffering from this malady. Substantial damages had been won by the widow, and the council had decided not to risk another such fatality. I should suggest that the medical men of the district should make a representation to the Deptford Council on this subject.

### WORKMEN'S COMPENSATION.

*Delay in Submitting to Medical Examination.*

IN Boyle *v.* Gibb and Son (*Scotsman*, February 26th) the Court of Session had before it the case of a workman who on May 11th, 1910, was asked to submit himself for examination, but it was not until August 1st that his agents undertook that he would do so. The Lord Justice Clerk said that where an employer intimated that he was prepared to pay compensation under the Act, and called upon the workman to submit himself to medical examination, any unnecessary delay on the part of the workman in submitting himself to medical examination would cut him off from compensation during the delay. The Court accordingly refused to allow compensation for the period in question.

*Accident to a Diseased Man.*

In Hart *v.* Swan, Hunter and Richardson (Newcastle, February 25th) a claim was made by John Evans, a holder up, who received an injury through over-reaching himself while sitting astride a plank at his work in August, 1910. A few weeks after the accident he was operated upon at the Royal Infirmary, and the operation appeared to be successful. Shortly after, however, the man was found to be tuberculous, and the injury restarted in an aggravated form. Counsel for the applicant cited the decision of the Lords, who held that if something happened to a man whilst at work, however diseased he might be, it was an accident within the meaning of the Act. Medical evidence was given to the effect that the applicant was suffering from tuberculosis and from two hernias which, it was admitted, might conceivably have existed before the accident. His Honour agreed that there were elements in the case which pointed to an accident, but having regard to his conscience he could not say that the injuries were due to such an accident. The application was accordingly dismissed.

A CORRESPONDENT who has been requested by large employers of labour to act as their medical adviser in cases for compensation, especially those such as are likely to go into court, asks what would be a suitable scale of fees.

*** Our correspondent would probably find the scale of fees provided by the Home Office for medical referees under the Workmen's Compensation Act a good guide.

### COMMISSION.

A LEGAL correspondent writes: The proposal embodied in the circular recently commented on in the BRITISH MEDICAL JOURNAL appears to come dangerously near an offence under the Prevention of Corruption Act, 1906. Section 1 (1) of that Act (taking the material part) provides that "If any person corruptly . . . offers any . . . consideration to any agent as an inducement . . . for doing . . . any act in relation to the principal's affairs or business or for showing . . . favour . . . to any person in relation to his principal's affairs or business . . . he shall be guilty of a misdemeanour." The expression "agent" as used in the Act includes "any person employed by or acting for another." The terms of the circular appear to amount to an offer of a bribe to the doctor (who is the agent) to induce him to persuade the customer (that is the principal) to show favour to the corset maker. The *fiat* of a law officer is necessary before proceedings can be taken under the Act.

# Medical News.

DR. E. S. YONGE, Physician to the Manchester Hospital for Consumption and Diseases of the Throat, has been appointed English representative in connexion with the Hay Fever Department of the Scientific Section of the International Hygienic Exhibition to be held at Dresden.

THE net proceeds of the concert given on February 5th by the Vienna Medical Orchestra for the benefit of the family of the late Dr. Richard Franz, whose case was referred to in a leading article published in the BRITISH MEDICAL JOURNAL of March 18th, was about £326.

Mr. H. M. HOLT, M.R.C.S., L.S.A., D.P.H., of Malton, has been admitted an Honorary Associate of the Order of the Hospital of St. John of Jerusalem in England, in recognition of services rendered in connexion with its ambulance department.

UNDER the will of the late Mr. Joseph Thomas of Haverfordwest the University College of Wales receives £1,000 for the foundation of a scholarship, a corresponding sum going to the Pembroke and Haverfordwest Infirmary for the maintenance of a bed.

ARRANGEMENTS have been made for lectures on tropical subjects to be delivered to nurses at the London School of Tropical Medicine, Royal Albert Dock, E. Any qualified nurse may attend the course, whether she intends proceeding abroad or not. Further information may be obtained from the Matron, Seamen's Hospital, Albert Dock, E.

THE fifth International Congress on Thalassotherapy will be held at Kolberg next June (5th to 8th). The Congress is under the patronage of the Grand Duke of Mecklenburg-Schwerin. Communications relative to the Congress should be addressed to Dr. Kaminer, 9 Potsdamerstrasse 1346, Berlin, W.

IN his Harveian Lecture before the society of that name, at 8.30 p.m., on March 30th, Mr. C. B. Lockwood will deal with fractures of the patella and their surgical treatment. The society meets at the Stafford Rooms, Tichborne Street, W.

THE number of medical students in the universities of Austria in the winter semester 1910–11 was 5,319, of whom 247 were women. They were distributed among the several universities as follows: Vienna, 2,410; Innsbruck, 274; Graz, 449; Prague (German), 400; Prague (Tchech), 801; Lemberg, 429; Cracow, 559.

ASSOCIATIONS for the prevention of tuberculosis have been formed in Cuba, Porto Rico, and Trinidad. In Cuba (says the *Medical Record*) the deaths from tuberculosis are more than 40,000 a year, a figure which is relatively nearly three times as high as that in the United States. In Porto Rico the disease annually causes more than 6,000 deaths among one million inhabitants. The conditions in other islands of the West Indies are said to be even worse.

DR. AND MRS. M. J. NOLAN were the recipients, on March 13th, of a number of handsome gifts from the officers and staff of Down Asylum, of which Dr. Nolan has been medical superintendent for the past seventeen years. The occasion was their silver wedding; the gifts included a silver salver and cigarette box, and a pair of antique Sheffield plate candelabra.

AT the annual meeting of the Warneford Hospital, Leamington, Dr. Thursfield, in replying to a vote of thanks to the medical, surgical, and orthopaedic staff for their services, stated that that would be the last occasion on which he would appear at the annual meeting as an active member of the staff of the hospital. On ceasing to be honorary physician after twenty-nine years' service, Dr. Thursfield has been elected honorary consulting physician, and will thus retain his connexion with the hospital, and be able to serve it on committees and in other ways.

THE dean and staff of the Post-Graduate College, West London Hospital, held a reception on Wednesday, March 15th, which was attended by a large number of medical men from various parts of London. There was an excellent exhibition of pathological objects by Drs. Bernstein, Hare, and Elworthy, a demonstration by Drs. Bernstein and Elworthy, and a lighter kind of entertainment of music and bioscope. The consultation rooms of the out-patient department were appropriately transformed into refreshment rooms. There was an exhibition also of drugs, surgical and other instruments, etc. The Post-Graduate College is to be congratulated on its methods of providing means for social as well as scientific entertainment of its members and their friends. In these days of hurry and continuous endeavour opportunities afforded to the busy practitioner to converse on social and other topics with his colleagues are all too few.

# The Services.

## ROYAL ARMY MEDICAL CORPS.

A COMPETITION for not fewer than twenty commissions in the Royal Army Medical Corps will be held on July 26th next and following days. Applications to compete should be addressed to the Secretary, War Office, not later than July 17th. The presence of candidates will be required in London from July 24th.

## INDIAN MEDICAL SERVICE.

IN a communication from an officer in the Madras branch of the Indian Medical Service we are informed that the annual dinner of the branch which should recently have taken place was abandoned at the last moment owing to a feeling among those responsible for the arrangements that the conditions essential to a successful dinner did not exist. The position indicated is regarded by our correspondent as a by-product of the treatment now extended towards the Indian Medical Service by the Government.

## R.A.M.C. (T.F.), GLASGOW.

UNDER the auspices of the Lowland Mounted Brigade Field Ambulance, the last of a series of lectures for officers and non-commissioned officers was delivered in the head quarters at 17, Royal Terrace on March 7th by Lieutenant-Colonel Gordon Hall, R.A.M.C., who dealt with "Tactical Dispositions for Mobile Medical Units." He dwelt on the necessity for a knowledge of tactics, in order that the medical units might be manœuvred to best advantage. During the southern manœuvres the position of a force was on more than one occasion given away by the appearance of the ambulance wagons with their large white covers; a knowledge of the tactical dispositions and their importance on the part of the medical officers would have rendered such a premature disclosure of the plan of operations unnecessary. The various mobile units, their main purposes, and their general dispositions in advance, retreat, attack, and defence were described and illustrated by apt examples from recent campaigns. At the close of the lecture Major Erskine, R.A.M.C., Staff Officer to the A.M.O., Lowland Division, opened an interesting discussion; and Colonel Hall, after replying, was accorded hearty thanks for his lecture.

## FIRST SOUTH MIDLAND AMBULANCE SWIMMING CLUB.

THE annual meeting and concert of the First South Midland Field Ambulance Swimming Club was held on March 17th. Lieutenant-Colonel C. Howkins presided over a large company, and amongst others present were Captain F. A. Stephens, Captain G. Craig, Lieutenants Sturrock, McCall, Boeddicker, and E. J. Boome (Honorary Secretary). The Chairman congratulated the swimming club on its prosperous condition, and expressed the hope that every effort would be made by men who were not good swimmers to become so before the proposed camp at Towyn Bay in August. The Rev. F. Gillingham, Vicar of Holy Trinity, Bordesley, a well-known Essex cricketer, presented certificates for proficiency in swimming; he said he was glad to hear that the club had seventy members, and warmly praised the Territorial movement. The concert which followed was most successful, and a thoroughly enjoyable evening was spent.

# Public Health AND POOR LAW MEDICAL SERVICES.

## POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on March 16th. Dr. D. B. Balding presided.

*Shoreditch Guardians.*

The Honorary Secretary reported that in the matter of the claim of the district medical officers of St. Leonard, Shoreditch, to have their salaries increased on account of increase of work, the Local Government Board had written to the guardians of that parish stating that, in its opinion, some of the salaries were inadequate, and that it was to be hoped that the guardians would see their way to remedy this "in the interests of good administration." There did not seem much prospect of the guardians following this advice, so that it remained to be seen whether the Local Government Board had the power to compel an increase of salary under such circumstances. The Honorary Secretary and Dr. Napper reported that they had attended on behalf of the association the last meeting of the Poor Law conference, and that their recommendations as to Poor Law medical reform had been adopted by that conference with some slight modifications. The Honorary Secretary had also sent a copy of the same to the Local Government Board, with a request that they might be laid before the departmental committee now sitting.

*Effect of Old Age Pension Act.*

Several letters were considered by the council from country members complaining of the addition to the work of the district medical officer without any extra remuneration, caused by the recent Old Age Pension Acts. In many cases orders were given for attendance on old age pensioners who in the past had been accustomed to pay a private doctor. Before the passing of the Pension Acts the relatives had been willing to assist the pensioners, but now they held aloof, and the burden fell on the district medical officer. The chairman pointed out that it was illegal to place old age pensioners on the permanent list of the district medical officer, and that a special order must be granted in each case. But it was clear that under the present system in many cases these pensioners would have to receive Poor Law medical relief.

*Relief Orders and Private Practitioners.*

A complaint was received from a private doctor that his certificate was refused by the guardians in the case of a poor patient, who was applying for relief; so that his patient had to be visited by the district medical officer. While recognizing that in some cases this might be a grievance the council felt that there can be no doubt that the guardians were fully justified in their requirement. It was necessary, both for administrative reasons and to safeguard the public purse, that all applicants for relief should at the discretion of the guardians be certified by their own medical officers.

*Periodical Publication.*

The council then considered a matter that had more than once come before it previously — namely, the need of a closer communication between the executive of the association and the members generally throughout the country. The honorary secretary reported that the editor of the *Medical Officer* had offered to publish monthly a supplement of eight columns for the association similar to the *Jennerian* that was published in the same journal for the Public Vaccinators' Association. After some discussion, it was decided to authorize the honorary secretary to accept the terms offered, subject to some slight modification.

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"FIT FOR HUMAN HABITATION."

J. H. G.—It would be impossible to lay down any definite rules to guide a medical officer of health in deciding as to whether any particular house is unfit for human habitation. A house can rarely be condemned on account of a single adverse condition. A sanitary authority expects to be guided by its trained officer in assessing the value of a combination of conditions, which individually might be more or less trivial, but collectively would warrant condemnation. With the exception of the qualified prohibition of back-to-back houses, there is nothing in the Housing, Town Planning, etc., Act, 1909, to guide a medical officer of health in deciding whether a house is "in all respects reasonably fit for human habitation." The grounds for condemnation have been left to the individual judgement of the medical officer of health.

# Obituary.

DR. ALOYSIUS O. J. KELLY, a well known physician of Philadelphia, died after a short illness on February 23rd in the 41st year of his age. He was professor in the Woman's Medical College of Pennsylvania, and also held the chair of the theory and practice of medicine in the University of Vermont. Since 1906 he had been editor of the *American Journal of the Medical Sciences*. Dr. Kelly was the author of a treatise on the practice of medicine and was co-editor with Dr. J. H. Musser of a *System of Therapeutics*.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Edward Gamaliel Janeway, sometime Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, New York, one of the leading clinicians in the United States, aged 69; Dr. F. A. Sutor, Professor of Clinical Surgery at Lima, Peru, aged 36; Dr. Friedrich Ernst, sometime Professor and Director of the Medical Policlinic of the University of Zurich, aged 82; Dr. C. von Cauwenberghe, Professor of Obstetrics and Gynaecology in the Medical Faculty of Ghent; Dr. W. F. Sprimon, of Moscow, founder and for thirty years editor of the *Mediziniskoje obosrjenige* (Medical Review); Dr. Innocencio Felix Louis Orfila, the oldest *professeur agrégé* of the Paris Faculty of Medicine, nephew of the famous toxicologist, and author of a monograph on the elimination of poisons, and of lectures on toxicology, aged 84; and Dr. Alexis Chavanne, Physician to the Lyons hospitals, and a former Deputy for the Rhône department.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

PRESCRIPTION OF GLASSES.

R. writes: I have recently seen a lady aged 25, who had not previously worn glasses. She has mixed astigmatism, and, on testing each eye separately, the following were found to be the correcting lenses:

Right: × 3 Sp. — 4.5 cyl. ax. 160.
Left: × 0.5 Sp. — 2.75 cyl. ax. 60.

This combination, however, gives rise to diplopia, the image in the right eye appearing immediately above that in the left. Should I advise the patient to wear the correcting lenses for some weeks, in the hope of the diplopia disappearing, or should I proceed to correct the diplopia with a prism?

*** It is impossible to give a definite answer without knowing a good deal more about the case. The diplopia may be due to the glasses being wrongly centred. Then there is the question as to whether there is any imbalance of the extra-ocular muscles when no glasses are worn. It would be necessary to know what the vision is of the two eyes with and without the glasses. If everything is quite correct and there is no muscle error, it would be quite wrong to use prisms, and the discomfort would be likely to disappear with continued use of the glasses. If, however, there is a muscle error, prisms may do some good, or possibly some operation may be required. To advise on such a case without being in full possession of the facts, and particularly without seeing the patient, would not be possible.

PETROL DUTY.

"SPIRIT" refers to a published statement that a customs duty of 3d. per gallon and an excise duty of 3d. per gallon have been imposed on motor spirit, and inquires whether the proper rebate to medical men should not therefore be 3d. instead of 1½d. per gallon.

*** The customs and excise duties are alternative duties, the former on spirit imported and the latter on spirit manufactured in the country. The proper rebate is 1½d. per gallon.

INCOME TAX.

I. T. inquires (1) whether reduction in income tax may be claimed for accident and sick insurance, and (2) whether in the case of a person residing in his own house the rental value must be added to his other income for assessment, and what deduction, if any, may be claimed in such case.

*** (1) No allowance is made for sick insurance, but an allowance is made for accident insurance to the extent that the premium covers the risk of death. (2) No addition to his return for assessment of profits is required in regard to the rental value of a house owned and occupied by the practitioner, but a proper proportion (not exceeding two-thirds) of the rental value as assessed to income tax may be deducted from the gross receipts as a professional expense under the head of rent. In making a claim for "abatement" or assessment at the lower rate of income-tax, however, the full assessed value on which tax is paid under Schedule A must be shown separately as income from property.

OPERATION FOR DISPLACEABLE PATELLA.

CANTOR writes: A young woman is liable to occasional outward displacement of patella. This brings her to the ground, and is followed by pain and swelling of the joint, lasting some days. She has had it many years, and it is a constant source of anxiety. It has been proposed to split the patellar tendon and pass the outer half of the tendon over the inner half, and fix this outer piece to the front of the tibia inside the still attached inner half. I wish to know, does the transplanted tendon always take root in its new situation, and is this operation really a successful way of dealing with the displacement of the patella, and are any special risks or detrimental sequelae ever met with after this operation?

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## ANSWERS.

GENERAL PSORIASIS.

DR. H. J. THORP (Ipswich) writes, in reply to "Senex," to suggest the following ointment: ℞ Hyd. am. chlor., gr. xv; liq. carb. deterg. (Wright), 3j; vaselin. alb., 1 oz. ℞ Salicin, gr. xx, t.d.s.

TEST FOR OCCULT BLOOD.

R.—Weber's test is performed in the following manner: A small quantity of faeces, if not already liquid, is diluted with water and rubbed up in a mortar with 1 to 2 c.cm. of glacial acetic acid 5 to 10 c.cm. of this mixture are then extracted

in a test tube with an equal quantity of ether, the test tube being closed with an indiarubber cork and turned upside down, not shaken, for a few minutes. The ether extract is then decanted off, but if an emulsion has formed it must be filtered and the fluid collected in a test tube; then ten drops of a freshly prepared tincture of guaiacum (as much powdered guaiacum as will go on the point of a knife to about 3 c.cm. of absolute alcohol), and ten drops of oil of turpentine are added. In the presence of mere traces of blood a blue coloration of the ether extract occurs, which may be brought out better by adding water and shaking with chloroform; peroxide of hydrogen solution may be used in the place of oil of turpentine. Meyer's test is not known to us. It is possibly a modification of Weber's, which itself is not new and has to a certain extent been superseded by the benzidine test. There is a good account of the various chemical tests of occult blood on p. 193, vol. v, of Osler and McCrae's *System of Medicine*.

## LETTERS, NOTES, ETC.

### Nail Biting.

A. B. B.—The case of a girl of 9 who, not content with biting her finger-nails, indulges in the habit of keeping her *toe-nails* bitten well down to the quick, seems worth recording as a curiosity seen recently in my practice.

### Tear of the Perineum.

Dr. Philip G. Borrowman (Edinburgh) writes: Referring to Dr. Turnbull's note on this subject in the Journal of March 11th, page 553, it may be of interest to record that a few years ago I was called to see a married woman who had met with an exactly similar accident, except that the cow's horn penetrated her clothes and (*post hoc ergo propter hoc?*) there was no septic poisoning.

### The Cause of Appendicitis.

Dr. A. Z. C. Cressy (Wallington, Surrey) writes: Dr. Watson, in the Journal of March 11th, speaks of recent views as "far fetched." To say the least, I think his own views novel. We should none of us like to criticize Nature. I was not aware that the appendix was more abundantly equipped with secreting glands than the caecum, and the impoverished condition of the appendix, so often found due to adhesions, would suggest that its secretive power was not very powerful. Dr. Watson speaks of gravitation; surely for a third of the twenty-four hours the caecum has not this to contend with. I should say that the accumulation of faeces in the caecum would be soft, though probably abundant; neither, as a rule, have I found the appendix dilated except when full of pus, rather the whole wall gets thickened and the lumen often nearly closed. I strongly object to his expression as to the frequency of "he died after an operation for appendicitis." In early operations this very rarely occurs—at least, that is my experience; it is only when purgatives have been given and "delay" has occurred that the operation is likely to be unsuccessful. I think, if there were less procrastination and a keener calculation of the meaning of the early symptoms, we should hear still less frequently that "he died after an operation for appendicitis."

Mr. P. Seymour Price (London, W.) writes as follows on the subject: Dr. Watson says, "We all know that Nature has designed the appendix as a grease cup to lubricate the passage of the faeces up the ascending colon." I, for one, must confess ignorance of the fact, and should be interested to know on what grounds Dr. Watson bases his assertion. Many physiologists have worked upon the subject without being able to assign a definite function to the appendix. Assuming for a moment that the appendix is a "grease cup," and therefore necessary for lubricating purposes, how do the poor patients fare who are robbed of their "automatic lubricator"? Yet they seem happier and better without it. His next assertion is that "any one who has taken the trouble to palpate the colon in thin multiparous women must have noticed the hard accumulation of faeces which fills the ascending colon." Now I take it that most of us have at different times taken the trouble to palpate the ascending colon, not only in thin and multiparous women but also in people of both sexes and all ages, and I do not think our findings will agree with those of Dr. Watson unless marked constipation is present. If Dr. Watson can indeed cure an early case of appendicitis or a case in any stage of inflammation with a mixture of magnesium sulphate, then truly he has more success with his medicinal treatment than falls to the lot of most of us. His final thrust about hearing and reading that "he died after an operation for appendicitis" is amusing, because if he will take the trouble to collect statistics he will be surprised to find that the mortality after operation is under 4 per cent. of all cases.

### Society of Infant Consultations.

Dr. Ronald Carter, 11, Leonard Place, Kensington, writes that the honorary secretaries of this society are extremely grateful for the information which they have received from the medical officers of health in various parts of the country. They are anxious to make the list complete, and therefore beg to remind those that have not yet sent their communications that their replies will add greatly to the value of those which have already been received.

### A Disclaimer.

Mr. Stephen Paget (London, W.) writes: Mr. Dixon, a Christian Scientist, lately said in the *Saturday Review* that I "declared openly, a few months ago, that there is such a mania for the removal of the appendix." Let me say that I never said anything of the kind, nor wrote it, anywhere. Mr. Dixon is attributing to me what somebody else may have said.

### Death from Windstorm.

Dr. F. G. Haworth (Education Department, Health Offices, Darwen) writes with reference to the account given by our Bradford correspondent (page 588) of the death of a child in a windstorm: All of us have at times noticed during a windstorm the small eddies of dust, straw, paper, etc., set up at street corners, and, in a miniature fashion, simulating a cyclone, inasmuch as the direction of the wind has been, like that in its larger prototype, in the direction opposite to that of the hands of a watch. In my opinion the small cyclone was set going by the surroundings induced probably by the hot rays of the sun beating down on a particular spot; the girl, going into the playground quite by accident, stood in the way of the travelling storm until she was exactly in its centre, or, as it is called, the eye of the storm; the air rushes in on every side and that in the centre rushes upwards with great force; this would collect under her dress and round about her legs with such force as to lift her like a waterspout to the full height of itself; then, because the uplifting power of the air is exhausted and the small cyclone passes out of the zone of the girl, she would fall with great force to the ground. I mention this for the sake of accuracy, not that I have any method of preventing a similar accident in the future to offer.

### Absent-minded Doctors.

In a play, entitled *Chou Blanc*, recently played in Paris, one of the characters was a hooligan, who, in order to get out of a tight place, passed himself off as a doctor, and went to sleep on the breast of the patient whom he was pretending to auscultate. However improbable this may seem, the thing has actually occurred. About a year before his death Professor Potain was called to a man suffering from severe bronchitis. The physician asked to be left alone with his patient, and proceeded to auscultate his chest, asking him to count aloud. Waiting behind the door for the deliverance of the oracle, the anxious wife was surprised at the length of the consultation, and at last went in to see what was the matter. She found the doctor asleep on the breast of her husband, who was steadily counting, and was well on the way to 500. This reminds one of the doctor who had been dining and was called from a game of cribbage. He tried to count the patient's pulse, and got on well enough till he reached the critical number 15, when he proceeded: "15, 2; 15, 4; one for his nob," and so on. Another instance of a doctor going to sleep in examining a case, though still more unlikely than the story related of Potain, was told to us by one of the parties concerned. As all of them have long since passed away, there is no harm in repeating it. A well-known American physician had been recommended to a famous invalid lady with a warning as to his temper when suddenly aroused—as the French say, *il avait le réveil brutal*. He went to her for the first time when he was tired out. Having to make a vaginal examination, he found the bed too tempting as a resting place for his head and went to sleep in that somewhat abnormal position. The unfortunate lady, who would never allow even her maid to be present on such occasions, remembering the warning she had received, was afraid to move or call for help. How long the doctor's slumbers lasted we do not remember, but we have no doubt that the lady accurately described the situation when she said it was "very awkward." A story is told of a celebrated physician called in to examine Joseph II of Austria. The doctor was either absent-minded or overawed by being brought into such close contact with an Emperor, even in bed. Putting his hand under the bedclothes to feel the patient's pulse, he laid hold, not of the wrist, but of another part of the Imperial person which happened to offer itself to his touch. His Majesty called his attention to the fact in the gracious words: *Erras, amice. Hoc est nostrum Imperiale membrum!* What the physician's feelings were is not recorded. One must, however, admire the tact with which the Emperor dealt with a delicate situation.


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# An Address

ON THE

# ACUTE EMERGENCIES OF ABDOMINAL DISEASE.

DELIVERED BEFORE A CONJOINT MEETING OF THE BRIGHTON, EASTBOURNE, TUNBRIDGE WELLS, AND HASTINGS DIVISIONS OF THE BRITISH MEDICAL ASSOCIATION.

BY B. G. A. MOYNIHAN, M.S., F.R.C.S.,

PROFESSOR OF CLINICAL SURGERY, UNIVERSITY OF LEEDS.

THE subject of my address to you to-day is one which has been chosen for us by your President, and the choice has my warm approval. It may perhaps be thought by some that it is already rather a hackneyed one, that the matter has been so often and so plainly discussed that little or nothing new or helpful remains to be said, and that hardly any further lessons remain to be learnt. If happily that were so, we should, I am sure, hear less of the matter; we should be less often shocked by the untimely loss of a valued life; and the awful death roll of abdominal diseases would be greatly curtailed. It is in medicine as in finance—much poverty and much paper may coexist. It is not the settled problems of medicine about which much is written, it is rather concerning those matters of which many things still need to be made clear. And so far as this question of the acute abdominal catastrophes is concerned, I feel that we are not yet in possession of the real secret of prevention, which is most important of all, of early diagnosis or even of treatment. There is much that has yet to be written for our admonition; there is still a great deal diligently to be learnt.

The most formidable and the most frequent of all the acute emergencies in abdominal disease is concerned with the vermiform appendix. An acute attack of inflammation in that organ, attended by gangrene or followed by perforation, is still the most common cause of a catastrophe, placing the life of the patient in instant jeopardy, and needing for its certain and most speedy relief the immediate intervention of the surgeon. I believe firmly that the serious characters and the terrible fatality of this disease are due very largely, if not exclusively, to the measures which are, with the best intentions but with profoundest unwisdom, directed to the relief of those earliest manifestations of the disease, the full significance of which is hardly yet appreciated.

Of the functions of the appendix we know almost nothing, but that they are of some real significance is probable from the fact that the vascular supply of this little tube is considerable and apparently out of all proportion to its size or manifest importance. The appendix communicates by a valvular opening with the interior of the caecum at a point an inch or more beyond the ileo-caecal valve. At this valve and in the lowest part of the ileum there is a development of the circular muscular fibres of the intestine to a degree which results in the formation of a sphincter muscle. The anatomical arrangement of the pyloric sphincter with the opening of the diverticulum of Vater at the beginning of the small intestine is in some degree reproduced here at the beginning of the large, and, though identity of architecture need not mean similarity of function, it seems reasonable to suppose that the glairy mucoid secretion of the appendix possesses some small digestive power. This function, however, is not to be condemned as trivial and without value because ablation of the appendix involves no digestive losses, for I can recall more than one case of permanent biliary fistula in the old days when every drop of bile was discharged on to the abdominal wall and was lost to the economy. In spite of this, there was no apparent diminution in bodily health or weight or capacity; yet no one was disposed to deny the value of this copious secretion. Because we do not know the use of the appendix and are unable to measure its function, we are not rashly to condemn it as devoid of worth. The position of the appendix at the junction of the small and large intestine is also noteworthy. The small intestine, as we know, is concerned almost exclusively in the digestion and absorption of solid matters from the food. The solid particles which are to be absorbed first by one side and then by the other of the valvulae conniventes, as they are waved to and fro (and so filled and emptied) by peristaltic action, must be kept in suspension. If fluid were taken up in the small intestine there would be no vehicle for the conveyance of the solid matters downwards, and vast and various changes would be needed in the structure of the alimentary canal. It is roughly computed that only 10 per cent. of the fluid taken by the mouth is absorbed before the caecum is reached. In the ascending and transverse colon water is freely taken up, and the faecal residue is stored, till a convenient moment for discharge, in the sigmoid flexure. The fore-gut prepares the food, the mid-gut digests and absorbs it, the hind-gut stores and expels it. The mid-gut extends from the second part of the duodenum to the left end of the transverse colon; and the function is so divided that the small intestine appeases our hunger, the large intestine slakes our thirst. It is known that fluid taken by the mouth speedily excites a wave of peristaltic activity in the lowest ileum. In cases of typhlotomy or of enterostomy, in which the caecum or lowest ileum is opened, it can constantly be observed that the drinking of a little fluid excites a considerable disturbance in this region. I have elsewhere quoted instances to prove how excitable this part of the bowel becomes in response to the swallowing of fluids. If the interior of the caecum and the mouth of the ileo-caecal valve be visible (as in cases of typhlotomy) the increasing activity of the appendix, when water or other fluids are freely given, can be constantly witnessed, and never fails to excite wonder and surprise.

It has been shown by Harvey Cushing, Gilbert and Domenici, and others that the bacteria in the alimentary canal are most numerous and of greatest activity at the junction of the large intestine and the small. Harvey Cushing has also shown that starvation will render sterile all those parts of the intestine which can be caused to empty. On the other hand, it is also well proven that the administration of any aperient medicine not only excites a greater tumult of activity in the small and large intestines, but that secretion is more profuse and the bacterial virulence throughout the canal is considerably augmented. These points also can be corroborated by the examination of the patients upon whom typhlotomy has been performed. In order that we may see the bearing of these facts upon cases of appendicitis, let me recount to you the type history of a patient attacked by this disease. The first symptom in an attack of acute appendicitis is pain. It is always pain, and never sickness or vomiting, nor malaise nor any other symptom whatever. If pain should not be the inaugural symptom in a case of acute abdominal illness, the possibility of the appendix being at fault may definitely be excluded. The pain is absolutely abrupt in onset, it is of varying degree of severity, is often, indeed, usually at first referred to the epigastrium, but after the lapse of a few hours becomes as a rule distinctly worse in the right iliac fossa. The pain may be rapidly followed by a rigor or a sharp elevation in temperature, by vomiting, and frequently by diarrhoea. A slight elevation of temperature occurs without exception in cases of appendicitis in the early stages. The symptoms one and all show a tendency to steady abatement if proper treatment is adopted, if the patient is denied food of all kinds, fluid or solid, and if aperients are strictly and sternly withheld. It seems to be the natural and instinctive desire of the mother, wife, or nurse, in such a condition to administer forthwith a brisk purgative. It is held that something has "disagreed" with the patient, and the offending substance is to be sharply expelled. Castor-oil is the usual remedy in the district where I practise, and it is administered unsparingly. It is no uncommon thing to be told that because the first dose was vomited (a most proper act of rebellion on the part of the stomach) a second, or it may be a third, has been given. A few hours after the aperient is swallowed, frequently in the early hours of the morning, the patient is seized suddenly with a new and more intolerable agony, vomiting occurs, and diarrhoea may be repeated. The abdominal wall becomes rigid, tenderness spreads rapidly across the lower part of the belly, and at last is everywhere present; the pulse rises steadily, and all the signs and symptoms of an acute peritonitis are ushered in without delay. When an

operation is performed, a gangrenous appendix, very probably adherent near its attachment to the caecum, is found, and the peritoneum, already extensively and severely attacked by an acute inflammatory process, replies to the insult by pouring out freely a thin, clear, sterile, and actively bactericidal fluid. It is now about seven years since I was first brought firmly to the conviction that in cases of appendicitis it is the administration of an aperient that is responsible for the acute catastrophe of gangrene and perforation which ends in an acute peritonitis. I do not remember one single case that I have operated upon since in which it was not perfectly clear that the same sequence of events—pain, aperient, perforation—had occurred, and I therefore do not hesitate to say that in almost every instance of acute peritonitis due to the perforation of an appendix it is the treatment directed to the relief of the condition that is the cause of the serious and so often fatal catastrophe. The taking of a purgative medicine is something more than an impressive antecedent—it is, in my judgement, a definite cause. The only possible exceptions occur in those rare cases where direct violence gives rise to a rupture of the appendix or the laceration of the adhesions which enwrap it. In cases of appendicitis, however acute their origin may be, perforation followed by an acute general peritonitis does not seem to occur if no aperient is given and if absolute starvation is adopted from the first. The acute spreading or general peritonitis which occurs in this disease is due to treatment; it is a "therapeutic peritonitis." I am quite prepared to learn that this emphatic statement is received with a shrug of doubt and the tolerant smile of disbelief, but if strict inquiry is made into the intimate details of the history of the cases I cannot think that my experience of this disease will prove to be singular. In appendicitis perforation spells purgation.

The facts that I have already stated show that the indications for treatment at the onset of an acute inflammation in the appendix are absolute starvation, so that all peristaltic activity in the intestine is quieted, and the bacterial virulence of the contents of the bowel greatly reduced. The administration of fluids, which must reach the caecum to be absorbed, and the turbulent action and the high bacterial malignity caused by an aperient are to be avoided. It is in the caecum that bacteria are most prolific and most virulent, and the vast increase in both these qualities which comes from the giving of aperients is especially to be avoided when the appendix, which opens into the caecum, is inflamed.

The theme, then, which I desire to expound in this connexion is that appendicitis is a disease which derives its fiercest activities from the means which are taken to treat it; that acute spreading peritonitis is rarely, if ever, the result of an untreated disease, and that it is the administration of aperients which transforms a simple disease into one of the most serious type. Peritonitis so arising is surely avoidable; the catastrophe is the result of misguided therapeutic activity.

I am coming again by degrees to the conclusion that, in spite of the undoubted advantages which may in many cases accrue from the starvation plan of treatment in acute appendicitis, early or instant operation is always desirable. If the surgeon, when he is called in consultation, hears that a purgative has been given, that alone should, in my judgement, decide him to advise an immediate operation. In children especially there must be no exceptions to this law. An acute attack in a child should always be treated surgically, for the usual signs and symptoms present in an adult are conspicuously lacking here. Twice within the last few weeks, and many times before, I have found on my arrival at the house to which I was summoned that the child I was asked to see was fast asleep, and on examining the abdomen I have found it flaccid and soft, though tender; and this in spite of the fact that at the operation I have found a gangrenous appendix and a widespread peritonitis to which no slightest barrier was set. I make, and admit, no exception to the rule that in acute appendicitis in children urgent and early operation is essential. And by some means or another parents should be made to know that the dosing of children with aperients is an evil, and that they must put a check upon those "philo-cathartic propensities" which seem inseparable from motherhood. I would like to have the power to write in every nursery in the kingdom in large letters, in the most prominent place, the two words, "Avoid aperients." Or perhaps the warning and appeal might be brought home a little more forcibly in an amended edition of nursery rhymes:

Perforation means purgation
With the appendix kinked and bad;
Both food and drink will worry him,
And aperients drive him mad.

To give aperients to children who have a "stomach-ache" is homicidal, yet so far as I can hear it hardly occurs to a mother or nurse to do anything but this the most disastrous thing of all. While I am speaking of this let me say that the evidence now appears to me conclusive that the "bilious attacks" of children, accompanied by pain of a griping or colicky character, by vomiting, occasionally by diarrhoea, by slight fever, and by headache, and ascribed to the greedy indulgence in "indigestible" foods, are nothing other than mild attacks of inflammation in the appendix. When an attack more severe than all the rest is plainly one needing operative treatment, and the appendix is then removed, nothing is again heard of the recurrent "bilious attacks." In these attacks, however, the appendix undergoes certain changes, for in my experience it is rare to find in operating upon cases of acute peritonitis, with gangrene or perforation of the appendix, that this structure is free from adhesion or obstruction. It is often difficult to deliver the caecum openly into the wound, because adhesion of the base of the appendix about one inch from its attachment to the intestine is so often found. I believe it therefore to be the rule, both in children and in adults, that an acute attack of inflammation of the appendix arises in an organ already diseased by reason of milder antecedent attacks, that perforation and the spreading peritonitis which it causes are almost invariably the result of the administration of aperients, and are accordingly preventable complications. There is here only one safe therapeutic rule, and it is "in all cases of abdominal pain, avoid aperients." It cannot be denied that in some cases of appendicitis in which the administration of an aperient has caused a perforation there is a history of one or many attacks having been relieved by the remedy which on this occasion has led to dire disaster. There is no difficulty in accepting and appreciating this statement. For there is little doubt that the manifestations of appendicitis are often due to obstruction in the lumen of this tube, and an aperient, by exciting an increased activity of muscular contraction, may at one time expel the obstructing material, and so give relief, and at another time, being powerless to overcome the block, may determine a rupture of the wall of the appendix at or behind the point of difficulty. If the general experience of others should coincide in these matters with my own, the conclusion must be drawn that in a very large proportion of the cases, probably I think in all, the serious complications of appendicitis could be prevented by a timely recognition of the disease, by absolute starvation from the first moment of suspicion, and by the strict avoidance of aperient medicines. But this state of perfection is not yet within sight, and we must accordingly be on the watch for those earliest signals which indicate that perforation has occurred and that peritonitis will be swift to develop. The most significant of all indications is indubitably abdominal rigidity. If a case of gangrenous appendicitis is seen at the very earliest stage there will be universal rigidity and immobility of the abdominal wall, but the rigidity is appreciably greater on the side and over the area of the lesion. The earliest case of acute gangrenous appendicitis I have seen was one to which I was summoned by Mr. F. H. Mayo:

P., male, aged 36, on January 7th, 1909, had a sudden attack of slight abdominal pain, which did not abate during the day. On the morning of January 8th he was still suffering from an aching pain and discomfort, and was unable to take his usual breakfast. At 11 o'clock, as the bowels had not acted, he took an aperient, and a little later a dose of Apenta water. During the afternoon he tried to attend to business, but had to return home. At 7 p.m. he took a little hot soup, and at 7.30 was seized with a most agonizing attack of abdominal pain, which prostrated him. His father, hearing him cry out, went upstairs to his room and found him lying on the floor, unable to raise himself. Mr. Mayo saw him within a few minutes, and I was in the house at 8.30 p.m. The patient was in great pain, and was huddled up on a couch, the thighs flexed on the abdomen.

The pulse was 90; the abdomen was everywhere resistant, but was intolerably sensitive over the right side. The abdomen was opened in a nursing home between 9.30 and 10 p.m., and the appendix was found very much swollen and injected in its distal end. The veins in the appendix and in the mesentery were thrombosed. There was an obstruction in the lumen of the appendix about 1 in. from the caecum.

This case showed that the sudden onset of thrombosis of the vessels of the appendix, as of the vessels in the enteric mesentery, is indicated by a sharp attack of prostrating pain, and by the instant setting up of a barrier of firmly contracted muscle, to act both as a protection and a splint.

The sudden onset of acute intolerable pain and the development of tense muscular rigidity in the whole belly wall—these two signs and these alone enable one to say that a serious lesion has occurred in the abdomen which for its most certain relief will need the intervention of the surgeon. A rapid pulse is never present, so far as we know, within the first two or three hours; in all the very early cases I have seen of perforation of any viscus the pulse at first was under 90. The alteration in its character and rapidity are, however, not long delayed, and a steadily augmenting rate, the pulse adding a few beats more hour by hour, is most significant. Nausea, vomiting, and diarrhoea may all be present, but hardly add anything of value to the other features of the disease. A strained and alert anxiety is noticed in the expression, and the breathing is rapid and shallow, and of the thoracic type. The diaphragm is as loth to move as the other muscles with which it forms a wall around the peritoneal cavity. It is, however, never held at first in so firm a contraction, in cases of perforative appendicitis, as in cases of rupture of the stomach or duodenum or gall bladder—lesions which are, of course, in closest proximity to it. This is another example of the fact that muscular rigidity, though universal, is most strongly developed in those parts which are most in need of rest and protection.

The catastrophe which in point of frequency comes next to appendicitis is concerned with the perforation of an ulcer of the stomach or of the duodenum. Of these ulcers there are, as we know, two types, the acute and the chronic. The acute is probably toxaemic in origin, and appears when an infection, generally of an unusually malignant character, is present in one part or another. In the course of typhoid fever, in cases of burns and scalds, in acute bullous pemphigus, in pneumonia, in cases of septic infections following operations or independent of them, and in erysipelas and the like disorders, an acute ulceration of the stomach or of the duodenum, attended by haemorrhage and perhaps proceeding to perforation, may be found. The frequency with which these ulcers are present in all periods of life is considerably under-estimated. For example, Helmholz,[1] by devoting his attention to the subject of duodenal ulcer in children, found in six months as many examples as were contained in the whole literature up to that time. In approximately 50 cases of perforating ulcer that I have had under my care, once only has an acute ulcer been found. In the rest the ulcer has been of the chronic type, and it has for months or years declared its presence by the production and perpetuation of symptoms as to whose significance no doubt ought to have been felt. Not only does the ulcer which at last ruptures into the general peritoneal cavity give clear and sustained evidence of its presence, but in the few days or weeks preceding the final rent it often declares its greater activity and more pressing danger by a considerable exacerbation in the severity of the symptoms.

It is by degrees becoming more generally recognized that chronic ulcers of the stomach and of the duodenum are conditions that can be diagnosed with an approximation to accuracy which, though it leaves much to be desired in the case of the former, is almost exact in the case of the latter. And increasing confidence is being displayed in the view, which some among us have long expounded, that chronic ulcers are in all cases in need of surgical treatment. We may accordingly have reasonable expectations that with earlier and more confident diagnosis and with a speedier resort to operative measures, the final and often long-deferred catastrophe of perforation in a chronic ulcer may be wholly avoided. Whenever a patient who has complained at intervals of indigestion begins to suffer in the present attack more acutely than in an earlier one, the signal of impending perforation is being raised and the clear warning should by no means go unheeded.

At the moment when perforation occurs there is the most agonizing and unendurable pain. Patients will afterwards say that there is no pain so horrible in its torture as this. The least movement seems to add something to its severity, so that a patient will perhaps remain for hours almost without stirring. A medical man upon whom I operated told me that the perforation had occurred while he was crouched on his hands and knees in bed in a position which seemed to relieve his pain. When the rupture of the ulcer took place he could not move to reach the bell, and had to wait motionless until help came to him in the early morning. The tense rigidity of the whole body is in striking contrast to the ceaseless unrest of a patient who is suffering the agony of hepatic colic. In him a constant change of position and of pressure seems in some measure to cause abatement of the pain, or, at least, to be imposed upon the patient in the search for relief that never comes. The abdominal muscles are found to be in a condition of inflexible rigidity, but even here some difference in the various parts of the abdomen can be felt. Over the ulcer the stiffness is of the most obdurate character; one might almost think that a disc of metal replaced the supple muscle. This local increase of a general resistance is most definite and distinct, as a rule, and it affords a decided help not only in the diagnosis of the lesion but in its location. The patient's expression is of one who is terror-struck. The approach of a hand to the abdomen for the purposes of examination is quickly resented, and the most piteous appeal for gentleness is made. The breathing is short, jerky, and shallow, and the patient may indeed cry out that he "cannot breathe." This is due in part no doubt to a spasm of the diaphragm, and in part also, I believe, to that great over-distension of the stomach which is so commonly seen when the abdomen is opened. Though the patient looks generally ill—with pallid face, staring eyes, and sweating brow—the pulse will be found at the first to be hardly altered in frequency or in volume. This is one of the surprises which must not fail to be recognized and remembered. I have often been told by medical men that at the first view of a case they could hardly bring themselves to believe in the occurrence of a perforation, since the pulse was so tranquil and full; and in a case I saw some years ago with Dr. Carlton Oldfield, we deliberately postponed for a few hours any question of operative treatment because the pulse, in rate and volume, was normal. Unhappily, this fact of the unaltered pulse-rate is even now not generally recognized; accordingly delay, which is always serious, may occur. The pulse increases in frequency and depreciates in value very soon, but this is due not to the perforation but to the peritoneal contamination which is the inevitable sequel. No one has any difficulty in recognizing the presence of peritonitis, but our aim must always be to discover at the moment of its occurrence the lesion to which the peritoneal infection is secondary. The symptoms and the signs of the perforation of a hollow viscus are not those of the peritonitis, which make haste to develop.

Among the catastrophes to which attention has been especially directed within recent years, the most remarkable, from many points of view, is that which involves the pancreas in an acute inflammation. For some time after the remarkable paper by Dr. Fitz in 1889, the condition of "acute haemorrhagic pancreatitis" was believed to be of great rarity; but, as in so many other cases, the recent investigations of the surgeon have shown that infrequency of occurrence meant inadequacy of observation. I have operated upon 11 cases of the most acute kind, and 7 patients (the last 6 in succession) have recovered. Of the less acute cases which pass over the initial stage, to be operated upon some days or weeks later, I have had several more.

The onset of pain in acute pancreatitis is usually sudden; a moment before the patient may have been going about in comfort, conducting the ordinary affairs of the day. The absolutely instantaneous onset of the very severe pain is constant, but some of the patients will say that they have been conscious for a few hours, or it may be for a few days, of a sense of discomfort or milder pain in the upper part of the abdomen. About one-third of the total number of observed cases have occurred in patients who

were the subject of recurring flatulent dyspepsia. The patients are generally stout; women are affected slightly more than men, and pregnancy would seem to be a factor of some importance in the causation. The intense pain, then, is sudden in onset, is confined within the abdomen to the upper portion, but passes almost always through to the back; it is agonizing beyond endurance, and is not seldom the cause of fainting or a profound collapse. The face is drawn and white, though the lips are often blue. In many of the cases I have seen there has been a curious leaden colour of the whole face, a slight but unmistakable and I think characteristic cyanosis. Halsted, an early and shrewd investigator, pointed out that lividity of the face and abdominal wall was often a striking feature of these cases. The whole appearance and attitude of the patient suggest that death may be imminent, for the extremities are cold, the heart beats with great rapidity, and the quality of the pulse is poor. Vomiting is an early symptom, is frequently repeated, and may last for days or weeks if the patient should survive so long. The food that has last been taken is the first to be rejected; afterwards all the vomited matters are deeply stained with bile, and pure bile, to all appearance, may be brought up in large quantities. This has suggested in several cases a diagnosis of high obstruction in the jejunum. The patient, as will be grasped from this description, presents the aspect and the symptoms of profound poisoning; and the researches of Gulecke, Egdahl, and others make it appear probable that the toxic substances are produced as a result of the digestion of the pancreas by its own escaped secretions. The abdomen, when examined early, presents the most indomitable rigidity and some fullness in the upper part; the remaining parts may be quite soft and flaccid, yielding readily to the hand, or they may be held with some degree of firmness. The upper portion of the abdomen, the epigastric region especially, never ceases to offer the most incoercible resistance, and, however gentle the examination may be, it is grievously resented and is repelled at the earliest occasion. When the records of published cases of acute pancreatitis are studied, it is seen that the number that have been correctly diagnosed before the operation is extremely small; yet I am confident that the symptoms are of such a character as to make a recognition of their cause a matter of very little difficulty. Briefly to recapitulate, there is, perhaps, in a patient inclined to stoutness a history of antecedent dyspepsia which presents nothing of the characteristic features of duodenal, or indeed of gastric ulceration, but which suggests rather the presence of stones in the gall bladder, and jaundice may have been noticed on one or many occasions. The severe pain comes quite suddenly, is beyond the limits of human fortitude to withstand, is associated with collapse of a profound character, and may cause the patient to swoon. The limbs are cold, the pulse extremely poor, rapid, and thin, or even hardly to be felt and not to be counted. The face may be cyanosed. The upper part of the abdomen is exquisitely tender, and all the muscles there offer the most resolute resistance to any examination. Vomiting is an early and often a conspicuous feature. I do not think a group of symptoms at all similar is to be found in any other form of abdominal calamity. There can be no doubt that, as in the case of perforations of the stomach or duodenum, recovery may follow an attack of acute pancreatitis. Every now and again I find the evidence of this in the abdomen. Very extensive fat necrosis in or upon the pancreas, and in its immediate vicinity, is to be seen, and the pancreas itself may show the remnants of old haemorrhages or contain a cyst, an abscess, or a slough. But these occasional survivals cannot impugn the fact that the safest course here also lies in early operation upon the lines first followed by Dr. Ramsay of Bournemouth. I have recently operated upon a case of acute pancreatitis with Dr. Macklin of Whalley, who had the fortunate opportunity of seeing the patient within a few minutes of the onset of the severe pain. He has kindly written for me the following very graphic account:

The patient was a lady, aged 54, of stout build. When summoned to her, about 3 p.m. on December 7th, 1910, I found the patient verging on collapse, suffering great pain and vomiting freely. The vomit was evidently partially-digested food of which she had partaken very heartily an hour or two before. There was no relief from the vomiting, and the pain was aggravated on assuming the recumbent position, which I induced her to adopt, and almost immediately she had to resume the semirecumbent position in which I had found her. From the first the pulse was very rapid and very faint and the respiration very shallow and sighing. In about a quarter of an hour or so she became almost pulseless, the features very pinched and pale, although there was a suggestion of cyanosis in her appearance. At this point ether was injected hypodermically as she appeared to be about to die. The effect of this was seen very quickly as the pulse began to improve and the colour to return to her face. Soon after I had the patient removed to a couch, but she could not assume the recumbent position without aggravating the pain, which had begun to abate in some degree by this time. In the meantime the vomiting had diminished in frequency and profuseness, although from time to time a small quantity of fluid came up which was mostly water (of which she drank from time to time) stained with bile. Previous to my arrival the patient had had brandy, and some more was given by my instructions during my brief temporary absence to procure the ether. About two hours after the beginning of the attack she was removed home, less than a mile off, by motor and put to bed, which had previously been prepared for her reception. On examining the abdomen there was some considerable distension generally found, but more pronounced in the epigastric region, where there was great tenderness, so much so that the patient could hardly bear the slightest attempt at pressure. The lower part of the abdomen was very flaccid and not at all tender. Pain continued very severe and vomiting continued more or less frequently, but in all very small quantities. The pulse became very irregular and weak after the temporary increase during which she was removed home. The degree of prostration continued so great that I considered it advisable to inject an ounce of brandy per rectum from time to time during the night. About 4 a.m. I left her, as the severity of the symptoms had abated somewhat and the pulse had become more regular and stronger, but I felt it safer to leave a hypodermic with ether and strychnine with the nurse in case of emergency. At 9 on Thursday, the 8th, I found the patient still complaining of much pain and still vomiting at intervals, but otherwise better, wherefore I injected ⅓ grain of morphine, which induced after a short time a few hours' sleep. Towards nightfall the patient began to complain of pain again, but more of a dull aching character, which was felt almost entirely to the left side, passing through to the back and shoulders. There was less tenderness on palpation, the abdomen was still tense, but no peritonitis was present; vomiting recurred, similar in character but small in quantity. Towards Friday morning, the 9th, the character of the vomit changed, and it became more abundant in quantity. The vomit consisted of a dark green looking fluid which had a suggestion of "coffee grounds" about it.

At the operation we found widespread fat necrosis especially in the upper part of Morison's pouch on the right side, an enormous enlargement of the pancreas, which was like a phlegmon, and a deep purple engorgement of the gall bladder. Cholecystotomy was performed, and thick black bile drained from the tube for two weeks; two drains of rubber tissue were also passed down to the pancreas. The patient made a most excellent recovery.

So far as my own experience goes, the only other abdominal emergency in which there occurs a profound collapse, with instant lowering of the blood pressure and a general depression of the circulation, is dependent upon the rupture of a tubal gestation. But in over a score of cases of this condition which I have treated I have only once felt any slightest doubt as to the diagnosis, and that was in a case which occurred twelve years ago, at a time when the diagnosis of abdominal diseases could not be made with that confidence and accuracy which we possess to-day. The history in cases of ruptured tubal pregnancy is characteristic. The patient is generally between the ages of 20 and 40, and one menstrual period has been missed. About two or three weeks after the time at which the period should have occurred (sometimes, though rarely, even later than this; in one of my cases over ten weeks after) there is a slight vaginal discharge of blood, and almost at the same time an attack of severe abdominal pain, followed very speedily by pallor, faintness, collapse, air-hunger, sighing restlessness, and all the symptoms of great loss of blood. The pain is acute, but does not even remotely approach in intensity that which is present in the conditions I have already described. The patients, indeed, usually say that they feel as if "something had given way" or as if "something had burst" within the body. The abdomen becomes full, especially in its lower half, where a feeling of tumidity, of "doughiness," is often present; and occasionally one side is more tender than the other. Resistance to the examining hand is not present. The muscles, it is true, may be in some degree tightened, by reason of the sudden increase in the contents of the abdomen, but the stubborn and unchanging muscular rigidity of the other catastrophes is never present

in this. In a few of my cases there has been, as it were, a miniature attack of this kind before the formidable and final seizure has come; such are due, no doubt, to little leakings from a tiny rent, whose edges are presently torn widely asunder to give vent to the profuse bleeding which is taking place. It is, I think, quite impossible for any one now to mistake this clinical picture for any other; the correct diagnosis should always be easily possible.

The crises that develop in the course of cholelithiasis are exceedingly few. In more than a thousand gall-stone cases I have only twice met with a sudden rupture of the gall bladder, only thrice with acute phlegmonous cholecystitis, and only once with acute gangrene with perforation of a common bile duct, which was completely occluded by a large stone. The attacks of hepatic colic, especially those which are due to the temporary impaction of a calculus in the cystic duct, are terrific in severity, but they are not lethal; the agony is almost unendurable while it lasts, and the very extremity of endurance is reached, but the danger to life is quite inconsiderable. The acute cholecystitis which results will almost without exception subside in the course of a few days, so that a deliberate operation can then be undertaken with every circumstance of care. That which chiefly distinguishes a patient suffering the torture of colic, whether hepatic, renal, or intestinal, from one in whom the perforation of a hollow viscus has occurred, is his ceaseless agitation and unrest. The former patient tosses and throws himself about, writhes on the floor or the bed, doubles and twists himself in the constant effort to get ease; the latter at the moment of the catastrophe seems to be struck motionless, and for hours may be hardly able to breathe or stir. However acute the torment of hepatic colic there does not seem to be any rigidity of the abdomen except in the immediate region of the gall bladder. All other parts are supple, and free from any tenderness. A rigor, or a brief shudder, with only a trivial increase of temperature, is seen not infrequently in cases of incipient cholecystitis. When perforation takes place the temperature always falls. In all my hospital experience I have only known one case of hepatic colic sent in as a case of perforated gastric ulcer, and in that case there was also a subacute pancreatitis, for when an operation was undertaken some days later recent evidences of fat necrosis were to be seen.

These are the chief among the various and most serious forms of calamity that occur in connexion with diseases of the abdominal viscera. Of all such it is true to say that they should rarely be allowed to occur. We are now able to recognize with rapidly increasing accuracy the correct interpretation of many symptoms formerly ascribed to "functional" causes. We are quickly being brought to realize that those recurring symptoms formerly supposed to indicate some vice in the action, some change in the secretion, or some disorder in the sensation of an abdominal organ, are in reality due to a perceptible alteration in its structure, and that though medical treatment and continued watchful care may allay for a longer or a shorter time the symptoms which such organic diseases arouse, surgical treatment alone is capable of giving complete and lasting relief. And so it would appear certain that by efficient treatment of the chronic disorder the acute emergency for which it is surely responsible will be forestalled. Yet still the need remains, not only that we should learn to evade the catastrophe whenever possible, but also that we should recognize with fullest accuracy all those manifestations which swiftly develop when once the crisis has occurred. We must free ourselves from the tyranny of the textbook, which still chiefly deals with terminal events, and make certain that we know the essential difference between the signs and symptoms of the primary catastrophe and those of the various complications which finally develop. We must have a conception of abdominal diseases which is radically wrong if we do not realize that the exigencies which spring up so quickly and prove so serious are each one of them a very heavy rebuke both to our power of early diagnosis and to the resources of medical and dietetic treatment.

### CONCLUSIONS.

What, then, are the conclusions of the whole matter that we are entitled to draw? They are, I think, as follows:

1. The catastrophes which occur within the abdomen are not, strictly speaking, "acute"; they are, on the contrary, usually the result of the abrupt transition from a quiescent to an acute phase in a disorder of long standing.
2. An acute emergency can, therefore, be prevented by a timely recognition of the value and the significance of the early symptoms, so often ignored or misunderstood, of the chronic malady in which it is the final development.
3. The occurrence of a sudden attack of intolerable agony in the abdomen, associated with tense rigidity of all the abdominal muscles, indicates that there is an acute lesion which needs immediate surgical attention. These two signs, and these alone, are an urgent warrant, and compulsion to us to treat the case at once by operation.
4. A differential diagnosis is generally possible if strict attention be paid to the details of the anamnesis, and if the firm abdominal wall be searched for a tender area of supreme resistance.
5. Shock is not a symptom of perforation, for in the early hours after this disaster has occurred the pulse is very little altered in volume or in rate.
6. In all cases of abdominal pain, especially in children, the use of aperients should be avoided.

REFERENCE.
[1] *Archives of Pediatrics*, September, 1909.

# THE CHEMICAL COMPOSITION AND MODE OF FORMATION OF RENAL CALCULI, AND THE METABOLISM OF CALCIUM IN GOUT AND ALLIED CONDITIONS.

ABSTRACT OF A HUNTERIAN LECTURE DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, FEBRUARY, 1911.

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AN examination of the literature on the chemical composition of renal calculi, with a view to collation of knowledge as to the comparative frequency of occurrence and amount present of different constituents, reveals an amazing wealth of discordant statement, on which has been built a multitude of theories as to etiology and treatment.

The reason for this condition of affairs appears to be a discarding, in many instances, of all chemical analysis on account of an erroneous notion that the chemical nature of a calculus can be judged from its physical appearances—a process very much resembling that of judging a book by its cover. Secondly, in that minority of cases in which renal calculi have been subjected to chemical examination it has often been deemed sufficient to demonstrate the presence of constituents by qualitative tests. Cases where the complete quantitative chemical composition has been worked out carefully are few.

There is no doubt that a calculus has often been described as consisting of urates simply because it has given the murexide reaction for uric acid, when probably it contained 10 per cent. or less of calcium urate.

In the chapter on urinary lithiasis and renal and ureteral calculi in Osler and McCrae's *System of Medicine*[1] the statement is made that "the physical characteristics of calculi vary greatly, and are somewhat indicative of their constitution. On these, rather than on chemical analyses, have been based many statements as to the nature of renal calculi." Now, as we shall see later, the physical characters give us no clue of any value to the composition of calculi, and hence the many statements as to the chemical composition based on these physical properties are worthless.

Again, Sir Henry Morris[2] states:

> It would seem, from the cases of renal calculi removed during life which I collected and tabulated from all available British and American sources between 1883 and 1893 inclusive, that other surgeons, like myself, have been unwilling to have the trophies of their surgical operations broken up for chemical

analysis. Hence it happens that out of 203 published cases the chemical nature of the calculus is only mentioned in 77.

It is evident from the chemical statements in the record which follows that even in most of these 77 cases the examination was incomplete, and often of a cursory and qualitative nature.

The quantitative analyses here recorded on a series of 24 cases of calculus were made upon stones removed during life, in most of the cases by Mr. W. Thelwall Thomas of Liverpool, and my thanks are due to him for his generosity in allowing me to break up these "trophies of his surgical operations" and use them for chemical analysis. In each case before the stone was broken up a careful model, reproducing the physical appearances, was made by a skilled modeller.

The results obtained, when contrasted with the usual statements as to the composition of renal calculi, are surprising; so it may be well to point out that the conclusions drawn in this lecture, strictly speaking, refer to this set of calculi only, and may require confirming or modifying when in the future careful and complete quantitative analyses are made of other series of stones. Still there is nothing either in the nature of the cases or of the composition of the water of the wide district from which the cases were drawn which would explain the results, and also the number of cases is not inconsiderable. The cases were drawn from a wide area in Liverpool, West Lancashire, Cheshire, and North Wales, and the drinking waters in these areas are usually soft surface water containing practically no calcium salts.

Before passing to the methods of analysis and results in this series of calculi, I may quote from the literature a few extracts to show present views, and their variations, in regard to the constitution of calculi. Morris[3] writes as follows:

> Uric acid and urate calculi are generally stated to be the *most* frequent of renal calculi. Roberts estimated that they constituted five-sixths of all renal concretions; Legueu, from the statistics of Billroth, Ultzmann, and Carter, says uric acid or its derivatives enter into the composition of 73 per cent. of urinary calculi. Out of 649 calculi in the Hunterian Museum referred to by Beneke, 479—that is, nearly 74 per cent.—had urates or uric acid in their composition.

The many clinical resemblances between the conditions leading to stone and the conditions leading to gout made the clinicians, who had concluded that uric acid and its congeners were the obnoxious products in gout, anxious to conclude that uric acid and the urates were also the offending bodies in renal calculus. On this account the small percentage of urates present in most stones was made to cover the entire contents, and had urates not been entirely lacking in a fair number of stones, it is probable that calcium oxalate as a constituent might never have been discovered.

It is probable that the significance of urates in gout has been much exaggerated; it is quite certain that in renal calculi they are a constituent of but third-rate importance.

The various classifications also of calculi, such as (1) that of chemical composition judged from physical appearances, which leads to quite erroneous results; (2) that of inorganic from organic, which possesses no functional relationships; (3) that into primary and secondary, according to very antique and naïve notions as to origin, which cannot be substantiated—all these are of little service and should be abandoned. It is of little consequence whether a degenerated kidney cell or a micro-organism forms the nidus around which a renal calculus starts to grow, or whether it starts spontaneously, since it is only a certain type of disordered metabolism producing certain insoluble salts of calcium which can keep it growing. In the presence of this disordered metabolism there is gravel in the urine or stone in the kidney; in its absence, and whether kidney infection be present or absent, there can be no gravel and no renal calculi. To classify renal calculi, on the favourite classification of primary and secondary calculi, is accordingly only to produce mystification by interchanging cause and effect. Gravel and renal calculi more often lead to infection of the kidney than primary kidney infection leads to renal calculi; if, indeed, this latter ever occurs. The presence of micro-organisms in renal calculi is the absurdest kind of evidence that the stone arose from renal infection.

A proper classification can only be made on the basis of a careful and complete quantitative analysis of the calculus in each case, and such an analysis may be of service both in elucidating the formation of a stone of a particular composition, and by giving valuable evidence as to after-treatment and advice as to dieting. Nearly all the statements regarding treatment and dieting usually found under the heading "renal lithiasis" are based on the supposition that renal calculi consist of urates, and are directed towards increasing urate solubilities. Thus, one often observes in textbooks of medicine the prescription of a vegetable diet, or one not rich in proteins, along with alkalis and alkaline waters, and then following close upon this reads the statement that such treatment often fails. Little wonder, either, that it should fail, if the two most important and abundant constituents in renal calculi are calcium oxalate and calcium phosphate, the solubilities of both of which are enormously decreased by increased alkalinity, and the former of which, and much the commoner and more abundant of the two, is increased in amount by a vegetable diet. Again, while the patient is prohibited the purin-rich animal proteins containing the progenitors of the obnoxious uric acid, no one suspects the harmless milk puddings or interdicts the ripe Stilton cheese, which becomes much beloved when other animal proteins are cut low. Yet these various forms of milk proteins load up the body with the calcium, which is always the base present, whether the main bulk of the calculus be oxalate or phosphate or urate. The calcium salt of each of these three acids is the most insoluble one which exists, and that is the reason why it is the invariable one present in renal calculi.

Since the indications are different according to whether the calculus consists of oxalates and phosphates on the one hand, or of urates on the other, the analysis of the calculus is a procedure which ought never to be omitted, for recurrence of renal calculi is a frequent event.

The summary which has been quoted from Morris bears a general resemblance to the more recent account in Osler and McCrae,[4] where we find recounted the same preponderance of urate calculi, and the same disposition to connect physical and chemical properties, and to judge of the latter from the former without the tedious processes of analysis.

> By far the most common are the mixed stones of urates and calcium oxalate in varying proportions, and usually in layers, in which one or the other salt predominates sufficiently to reveal on section more or less complete concentric rings.

Statements relating physical properties and chemical compositions are given as follows:

> The "mulberry stone" of calcium oxalate is tuberculated, stained blackish by altered blood, very hard, and of varying size up to about a walnut or over.
>
> The "pebble" of urates is of similar dimensions, oval, of sandy surface, medium hardness, and greyish to reddish from admixture with urinary colouring matter.
>
> The "jackstone" calculus, of the shape its name implies, of brownish to blackish colour and hardest consistency, is another form of oxalate (Fowler).
>
> "Staghorns," or "coral calculi," are of the same materials—that is, urates (Osler)—colour, consistence, and surface appearance, but of size and shape like a mould of the renal pelvis. Fagge says they are "always composed of mixed phosphates."

It would appear as if it might take quite an expert to judge beforehand between a "pebble" of urates and a "jackstone" of oxalates; personally, I should prefer to make a quantitative analysis in such a case. The inconsistency as to the nature of the "staghorn" calculi—"urates (Osler)," "mixed phosphates (Fagge)"—is also somewhat amusing; quite possibly both may be right.

The conflicting evidence in these older statements as to the composition of renal calculi, as well as the remarkable difference between them and the present analyses, may in part be due to the fact that on account of advance in surgical technique stones are now removed much earlier, and directly from kidney or ureter. Many of the earlier chemical examinations were made upon stones found in the kidney after death, or removed from the bladder. In these larger concretions the outer part is often different in character and arises from changes in the urine brought about by the presence and irritation of the stone, and not like the first portion, from a chemical composition of the urine arising from a particular faulty metabolism. From this point of view it is interesting to observe Hilton Fagge,[5]

although he agrees that uric acid ("lithic acid") is the chief ingredient of most calculi, even in these comparatively early days when calculi were not as yet removed from pelvis or ureter by surgical means, had discovered that calcium oxalate forms the most frequent constituent of the central part of the calculus, or nucleus, as it has been termed.

Even when the apparent nucleus really consists of uric acid, the microscope generally shows that the very centre of all has a different composition. It consists either of an aggregation of spheroids or dumb-bells of oxalate of lime, or else of hedgehog crystals or urate of soda.

If we suppose that a concretion starts as calcium oxalate, like nearly all the stones in our present series, the predisposing cause being a faulty metabolism by which the very insoluble calcium oxalate is excreted in larger amount than it can be held in solution in the urine, and if we take it that this growing concretion of calcium oxalate is nowadays usually removed by surgical intervention before it has grown to such a size that it induces secondary changes in the urine and deposition of calcium urate, then we can explain the results obtained in the present series of analyses. If we take it that this calcium oxalate concretion goes on growing, causing irritation and infection, and giving a rough foreign surface in the kidney pelvis, or in the urinary bladder, we may then get a deposit of calcium phosphates or acid urates according to the reaction of the urine, simply because these are the least soluble constituents of the urine, and for reasons in nowise connected with the original formation of the stone. Such a process of reasoning would explain the urate and phosphate formation and deposition of the outer rings of the large renal concretions of former days. Some support is given to this hypothesis by Fagge's statement in speaking of small calcium oxalate stones. He says:

As a cause of haematuria, pyelitis, or renal colic in middle-aged people, such little calculi [of oxalate of lime] are more frequent, in the author's experience, than those of any other kind.

A review of the literature accordingly shows few cases of complete quantitative analyses of renal calculi, and a great want of accord and absence of exact knowledge of the chemical composition of these concretions, and this want of knowledge is reflected in the many widely different notions as to the etiology of renal lithiasis and renal calculi. To the subject of etiology I shall return after describing the methods of analysis employed in the research and the results obtained as to composition of the stones.

### METHODS OF ANALYSIS.

Great care must be taken in analysing the calculi to thoroughly separate from each other any oxalates or urates which may be present, as in the final titration with potassium permanganate these are both reduced and increase the amount of permanganate required, so falsifying the results unless separation has been complete. Also the amount of phosphoric acid present must be separately determined.

The usual course of analysis was as follows: The physical characteristics of the calculus were noted, and it was then modelled by a skilled modeller, and afterwards crushed and ground to a fine powder in a mortar. The percentage of moisture was roughly determined after drying for about two hours at 100° C. and the weight again taken. All subsequent analyses were carried out upon, and all results expressed as, percentages of the dried stone. A qualitative analysis was then made; in all cases ammonia, xanthin, cystine, magnesium, and sulphates were tested for carefully and invariably found to be absent. The only base present in appreciable amount was found to be calcium.

As regards quantitative analysis, the total nitrogen was determined in one portion of the stone, and this was reckoned out as uric acid, not on the view that it was really all present as uric acid, but to show conclusively that even when one accepted all the nitrogen as nitrogen present as uric acid still the percentage in the majority of cases was a low one. As mentioned below, a direct determination of uric acid by permanganate titration in sulphuric acid solution was also made upon that portion of the stone left undissolved by hydrochloric acid (1 in 4).

In a separate weighed portion of the calculus powder the phosphoric acid was determined by a modification of Neumann's process, which, briefly, consists in destroying all organic matter by strong nitric acid, precipitating phosphates as ammonio-phospho-molybdate, washing thoroughly from acid, dissolving in standard alkali, driving off ammonia, and titrating back with standard acid.

In a third and larger portion of the calculus powder oxalates and urates were separated by thorough treatment with hydrochloric acid (1 in 4), the uric acid determined by titration with permanganate in the insoluble residue, and the calcium oxalate thrown down along with phosphate, by adding ammonium chloride and ammonia to the acid solution, filtering into a Gooch crucible, washing thoroughly till chloride-free and dissolving in sulphuric acid and titrating with permanganate solution. In some cases the precipitate in the Gooch filter was dried and weighed, and the amount, if any, of calcium phosphate deducted, so giving the amount of calcium oxalate by difference which was then controlled by titration as above described.

The results of the analyses are concisely shown by the following table:

*Table of Percentage Composition of the Calculi.*

| No. | Origin. | Moisture. Per Cent. | Calcium Oxalate. Per Cent. | Calcium Phosphate. Per Cent. | Uric Acid. Direct Method. Per Cent. | Total Nitrogen. Kjeldahl. Per Cent. | Total Nitrogen calculated to Uric Acid. Per Cent. |
|---|---|---|---|---|---|---|---|
| 1 | Right kidney | 2.0 | 69.1 | 1.7 | 9.9 | 3.9 | 11.9 |
| 2 | Left kidney | 17.9 | 87.3 | 5.8 | 4.2 | 2.6 | 7.8 |
| 3 | Left kidney | 3.5 | 86.7 | 7.4 | 6.9 | 2.6 | 8.0 |
| 4 | Right kidney | 6.8 | 99.0 | none | 1.7 | 2.3 | 7.0 |
| 5 | Right kidney | 2.7 | 99.7 | none | none | 1.3 | 3.9 |
| 6 | Right ureter | 2.4 | 85.1 | 14.5 | 1.5 | 0.9 | 2.8 |
| 7 | Bladder | 6.5 | none | none | 97.5 | — | — |
| 8 | Right kidney | 13.2 | 31.5 | 60.9 | 6.7 | 7.0 | 21.0 |
| 9 | Right kidney | 1.5 | 79.6 | 1.9 | 10.6 | 4.6 | 14.0 |
| 10 | Right kidney | 1.9 | 90.0 | 8.7 | 4 0 | 1.2 | 3.6 |
| 11 | Right ureter | 1.9 | 94.4 | none | 2.5 | 2.2 | 6.8 |
| 12 | Bladder | 9.0 | none | none | — | 32.8 | 98.5 |
| 13 | Right kidney | 2.5 | 86.1 | 6.6 | 1.8 | 1.0 | 3.0 |
| 14 | Left kidney | 2.1 | 84.7 | 13.0 | 3.7 | 1.3 | 4.0 |
| 15 | Left kidney | 12.8 | 51.7 | 40.4 | 2.4 | 1.4 | 4.2 |
| 16 | Left kidney | 1.7 | 93.8 | none | 5.8 | 0.7 | 2.2 |
| 17 | Left ureter | 3.9 | 41.3 | 47.8 | — | 1.2 | 3.8 |
| 18 | Left ureter | 15.7 | 16.8 | 69.3 | 9.6 | 2.3 | 6.9 |
| 19 | Right kidney | 2.6 | 81.0 | 4.1 | 11.9 | 5.2 | 15.8 |
| 20 | Ureter | 3.9 | 31.6 | 63.5 | — | 1.0 | 3.1 |
| 21 | Right kidney | 9.3 | 95.0 | none | — | 1.2 | 3.8 |
| 22 | Right ureter | 11.6 | 32.5 | 51.7 | — | 3.6 | 11.0 |
| 23 | Right ureter | 2.7 | 90.4 | 3.8 | 5.0 | — | — |
| 24 | Prostate | — | 96.1 | none | none | — | — |

All percentages, except that of moisture, are calculated in terms of the dried stone.

All the total nitrogen is not present as uric acid; it is shown in the final column calculated as uric acid to furnish a proof, *a fortiori*, that in nearly all these calculi the percentage of uric acid is a low one.

### ANALYSIS OF THE TABULAR PERCENTAGES AND DISCUSSION OF THE BEARING OF THE RESULTS.

There are two calculi of the series absolutely different from all the others in chemical composition—namely, Nos. 7 and 12, and it is remarkable that these two alone were from the bladder, all the others coming from the kidney, ureter, or prostatic pouch. The two bladder calculi were almost pure uric acid, containing no trace of calculi were almost pure uric acid, containing no trace of calcium, either as oxalate or as phosphate. All the other calculi contained calcium oxalate in large amount, only one less than 30 per cent., and more than two-thirds of

them over 70 per cent., of this insoluble calcium salt. The next most abundant constituent was tricalcic phosphate, also a very insoluble calcium salt; this constituent reached over 50 per cent. in four out of the twenty-two calculi, and was present in quite appreciable amount in six others.

The most remarkable fact, and perhaps most important, is the strikingly low uric acid percentage in all save the two bladder stones; the figures only reach the neighbourhood of 10 per cent. as a maximum in four out of the twenty-two calculi, when the direct titration method is taken for survey, and even the total nitrogen (Kjeldahl) figures show only slightly higher percentages, with one exception (No. 8), where a good deal of the nitrogen was obviously present in other than urate forms.

The contrast in the two bladder stones is so obvious as to raise doubts in our minds as to whether these two calculi ever were formed in the kidney, and it would be most interesting if these were really concretions of vesicular origin.

It is also interesting to note that these two purely uric acid calculi were transparent to $x$ rays, and we find, as was first noticed by Morris, that the ordinary kidney and urethral calculi are opaque, because, like bone, they contain these large percentages of insoluble calcium salts (oxalate and phosphates).

The presence of calcium oxalate as an abundant and frequent constituent of renal calculi—in fact, as the chief constituent of such calculi—opens up a field of most interesting thought as to the metabolism of renal calculus formation. In the first place, the incompletely oxidized oxalate, just like uric acid, points unmistakably to embarrassed oxidation or increased reducing conditions attending their formation.

It might be supposed also that if under pathological conditions there is a tendency to production in the system of oxalic acid, then calcium oxalate being the least soluble oxalate there would be a tendency to formation of this insoluble salt, followed by its precipitation as a calculus around any available nidus of already precipitated or formed material.

The association of the three salts, calcium oxalate, calcium phosphate, and calcium urate, as the three commonest components in this series of calculi, is most interesting, and since two of the acids concerned are associated with incomplete oxidation of proteins and carbohydrates, and the third, namely, phosphoric acid, although a completely oxidized body itself, is always increased as an excretive under conditions of diminished oxidation, the suggestion is awakened that calculi are formed usually in conditions of reduced oxidation associated possibly with disordered calcium nutrition or metabolism.

Since all three of the acids concerned possess very insoluble calcium salts, this circumstance alone might account for the precipitation in the observed form. This is made more probable by the fact that the frequencies and amounts in the foregoing table are such as considerations of relative solubilities would suggest on a basis of physical chemistry, calcium oxalate being the most insoluble salt, then calcium phosphate, and lastly calcium urate.

Even with a normal calcium metabolism, therefore, if oxalic, phosphoric, or uric acids begin to be formed in increased amounts, it may be expected that they will commence to be deposited as calcium salts; at the same time there is little doubt that, in case of deposition of such acids from such dilute solutions as are present in the body fluids, any concentrating of the kation, calcium, will increase the tendency to precipitation and cause an increased rate of deposit, other things being equal. In recommending diet after removal of calculi containing calcium salts it would accordingly seem rational to interdict or diminish foods rich in calcium, such as all those containing milk in its many variants used in cooking—for example, milk itself, milk in tea, coffee, and other drinks, milk biscuits, soups made with milk as a basis, milk puddings, pasties, and bread made up with milk; all the varieties of cheese, and made dishes containing them; again, many vegetable products used in cooking containing calcium salt, especially in the outer layers of seeds, such as the whole meal of wheat and oats. It is also noteworthy that many varieties of wine, even in the better qualities, and practically all inferior quality wines, have undergone the process known as "plastering" to remove undesirable ingredients from the point of view of the palate, and contain calcium salts for this reason in quantities quite detectable by analysis. Malt liquors as sold in this country nearly all contain appreciable quantities of calcium salts, present naturally in the brewing waters from which they are made or added artificially in imitation of such waters, although porters and stouts are not so deleterious as beers and ales in this respect. In addition to the effects of the calcium salts in these varieties of alcoholic drinks, all the heavier wines, as well as alcohol in general, have the defective quality of decreasing rate of oxidation in living tissues, and hence tend towards that incomplete metabolism which gives rise to the oxalates and urates.

As might be expected from the nature of the calculi and concretions, the subjects of both renal calculi and of gout show a preponderance of individuals of sedentary occupation or of inactive habits of body from the physical point of view. The natural disposition and bent of such people is against exercise and accompanying increased oxidation, and affairs are made worse by their disposition which accompanies this set of conditions, and is probably an intrinsic part of the whole, to pile on more fuel instead of lessening the intake, and so to still further check the rate of oxidative processes. It is probable that a great share of the beneficial action of courses of baths abroad, or away from home, arises from plunging such people into a new routine in which they take far more exercise in an interesting form than they are normally accustomed to when at home. The alkaline waters, as also alkaline medication at home, are probably of but little value. These forms of treatment are based on the solubilities of the supposed preponderating uric acid and urates, but the solubilities of the calcium oxalate and calcium phosphate are exactly the reverse, and, if these solubilities give any true index, acid treatment is more indicated in the majority of cases than alkaline. As age increases the alkalinity of the tissue fluids also increases, and this fact may be responsible for the increased depositions of concretions as middle age is reached and passed—this, and the less active habits of life which take possession, with decreased oxidizing powers.

The deposition of insoluble calcium salts under conditions of diminished oxidation in the kidneys as renal calculi is not an isolated and peculiar occurrence, but can be linked up in etiology with the formation of many types of insoluble calcareous deposits in other situations in the body, at first sight apparently quite different in type and origin.

Such deposits, as a rule, occur in situations which are more remote from the blood stream and oxygen and where there is no rapid flow of lymph to prevent the precipitation of the insoluble calcium salts; and, secondly, under pathological conditions of deposit at least, the deposit always contains variable amounts of incompletely oxidized products such as calcium oxalate and calcium urate in addition to calcium phosphate and carbonate.

Taking first of all normal bone formation, we observe that the first calcification of cartilage occurs in a tissue which is extravascular with no blood supply permeating it, and hence farthest removed from oxygen supply. Again, in the bones we notice that, as age progresses, with diminished oxidation processes the percentage of calcium salts goes on increasing, and the deposit keeps becoming denser, until frequently in advanced old age the bones become excessively brittle from the high percentage of calcium salts.

Passing on to more specially pathological deposits, we find that the deposits of gout also are made in parts more remote from the blood stream and oxygen, in the cartilages or joints, that is, in extravascular areas. Usually also in the joints of hands or toes, where the circulation is feebler, and oxygen still less plentifully supplied, combined with that stasis which favours precipitation. Complete modern quantitative analyses of gouty deposits are highly desirable, but I have hitherto been unable to obtain supplies of material; "tophi" and "chalky knuckles" appear to be scarcer than in the days of our forefathers.

The tendency to increase in the calcium content of tuberculous foci upon which the radiographer doubtless depends for his early diagnosis of phthisis, and the hard calcareous deposits found in older and larger healed tuberculous areas,

are examples of the same general law of diminished oxidation at work. The tuberculous area as it grows begins to be cut off from the blood supply and oxygen and reaches the point of breaking down on this account. At this stage calcareous deposition commences for the same reasons which we have seen holding elsewhere.

Finally, in the calcification of arterial walls in old age and arterio-sclerosis, we see a fine example of the same process of diminished oxidation accompanied by calcareous deposition. The calcareous plaques are formed where the arterioles of the coat of the artery have broken down or become partially obliterated, and the supply of oxygen to the tissues has consequently been decreased, oxidation has become embarrassed, and insoluble calcium salts, the congeners of diminished oxidation, have appeared.

Recent analyses of the calcareous plaques from aortae, made by Drs. O. T. Williams and G. F. N. Joseph in my laboratory, have shown that these consist of mixtures of calcium salts of phosphoric, carbonic, oxalic, and stearic acids, as well as of other products of incomplete oxidation, which are now being more fully investigated.

Accordingly, it is seen that the formation of renal calculi has for its basis a condition of diminished oxidation, in which there appear primarily calcium salts of incompletely oxidized bodies, such as calcium oxalate and calcium urate, associated with calcium phosphate. Further, such diminished oxidation, occurring locally or generally, is seen in many pathological conditions, such as calcium salt deposition in bone in old age, in tuberculous lesions, in gout, in arterio-sclerosis, and generally in calcification processes in the body. The tendency towards such deposition increases with age, and is probably accompanied by an increased alkalinity of the body fluids.

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REFERENCES.

[1] Vol. vi, 1909, p. 316. [2] *Surgical Diseases of the Kidney and Ureter*, vol. ii, p. 51. [3] Loc. cit. [4] Loc cit. [5] *Textbook of Medicine*, edited by Pye-Smith, vol. ii, 1888, p. 657.

# THE EXAMINATION OF SUSPECTED SMALL-POX:

## *SOME POINTS OF PRACTICAL IMPORTANCE.*

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AN attempt is made in this paper to approach the subject of diagnosis from the point of view of the practitioner who may be called upon to examine, and perhaps forthwith to express his opinion on, a suspected case of small-pox. The subject is considered in the light of the experience gained at the receiving station of the Metropolitan Asylums Board during the London epidemic of 1901–2. It is convenient, therefore, to follow the routine examination to which the patient certified to be suffering from small-pox was subjected at the receiving station during that outbreak, and in doing so to try to emphasize those features of the disease which rose into prominence and gradually acquired a position of major importance as experience in differential diagnosis increased.

The method of examination employed at the receiving station was based upon the recognition of the fact that the most constantly present, the most persistent, and the least variable feature of the disease is found in the distribution of the vesicular rash. The high position which the characteristics of the small-pox distribution occupy in differential diagnosis was first recognized, and has lately been* admirably demonstrated, by the author of a recent work on the diagnosis of small-pox. On his teaching, in its broader aspects, the method of examination followed at the receiving station was based.

* *The Diagnosis of Small-pox.* By T. F. Ricketts, M.D., B.Sc.Lond., M.R.C.P., D.P.H. Illustrated from photographs by J. B. Byles, M.B., B.C.Cantab., F.R.C.S.Eng., D.P.H.

### A.—SUBJECTIVE CONDITIONS.

#### (*a*) *The Statements of the Patient.*

A method of investigation which assigns a position of major importance to a feature of the disease so purely objective in its nature must tend to deprive the statements of the patient respecting his symptoms of much of their reputed value. It has a similar effect, although not so extreme, on the general history of the case—namely, the movements of the suspect, the source of his infection, his vaccination record, etc. But, even if one avoid any preconception regarding the relative importance of the various symptoms and signs of the disease, it does not require a long experience in dealing with suspected small-pox to prove how unreliable and not infrequently how misleading are the indications derived from subjective conditions.

Small-pox finds the great majority of its victims among the most ignorant of the population. These people resent compulsory examination. They dread an outbreak of the disease, but they object more strongly to the rigid seclusion of the patient and to the life under tiresome medical supervision which follows its recognition. Such conditions combine to produce an individual whose statements are almost always unreliable and at times wilfully misleading. But the failure to obtain assistance of much value in diagnosis from inquiries about symptoms does not depend altogether on the peculiarities of the patients with whom we have to deal. It is associated also with the variability of the symptoms themselves. Some patients who desire to be accurate are unable to recall the details of an illness which was neither recent nor severe. The onset of present day small-pox does not differ in any material respect from the onset of several other acute febrile diseases. It is usually sudden. Headache, vomiting, or nausea and shivering are frequent. General ill-defined aching is a common feature. But the "backache," the severe lumbar pain, so often mentioned as one of the most important features of the onset, is not always present. When it occurs, this local pain varies greatly not only in position, but also in severity, in different cases. The patient may complain only of a slight discomfort or stiffness in the neck.

In a feverish attack with sudden onset the presence of severe pain in the back does not necessarily point to small-pox, nor is the absence of this local pain inconsistent with the onset of small-pox of the most virulent type.

The following cases may serve to illustrate this point:

1. A boy, aged 8, had a sudden onset of pain in the abdomen, vomiting, and high fever. There was an indefinite history of contact with small-pox. Twenty-four hours after the onset he was complaining of severe headache and pain in the abdomen but not in the back; there was no skin eruption; the abdominal pain seemed to increase, and the patient became delirious and difficult to control; the abdomen was generally tender, but there appeared to be greater resistance to palpation on the right side than on the left. The abdomen was explored but nothing abnormal was found. *Post mortem* a large retro-peritoneal haemorrhage was discovered. The illness was almost certainly due to small-pox of the most virulent type but during life there were no signs on which a diagnosis could be based.

2 A youth, aged 18, was sent to the receiving station from a common lodging-house, where on the same day a case of small-pox had been discovered. His illness had a sudden onset, with chill, headache, severe pain in the back, and vomiting. There was a patch of herpes on the face but no other skin eruption. His condition was due to lobar pneumonia.

3. An educated man, aged 36, was admitted with a vesicular and pustular eruption on the face, trunk, and extremities. He stated that for two to three days before the rash appeared he had suffered from sickness, headache, and pain in the back. The backache he described as so severe that movement was difficult. The eruption was chicken-pox.

It is hardly necessary to discuss the symptoms of invasion at greater length. None of them is peculiar to small pox. They are important because they indicate the possibility of the presence of an acute infectious disease, and so point to the necessity for complete examination of the skin. The first lesions to appear, as well as the late widely scattered pustules and crusts of a modified small-pox rash, are easily missed if this examination is incomplete.

#### (*b*) *Source of Infection.*

A history of contact with the disease.

The suspicion aroused when the patient attacked by a feverish illness is known to have been exposed to the

infection of small-pox can be tested only by subsequent developments. If the presumption in favour of small-pox is strong enough to justify removal to hospital, it is a wise precaution to vaccinate the patient before he is brought into an area where undoubted small-pox is concentrated.

In this connexion the following figures are of interest: In the twelve months from August 1st, 1901, to July 31st, 1902, 197 patients who were "contacts" were sent to the receiving station, probably on account of a feverish illness, since they had no rash of any sort. Of these, 55 developed the rash of small-pox while they were under observation. In 142 another disease declared itself, or the symptoms passed off with no further development. It is possible that among the latter there may have been a number of abortive attacks of small-pox in which the rash was entirely suppressed.

A few cases occurred in which it seemed probable that the reported contact of the patient with small-pox was based on an error in diagnosis. For example, a seaman developed feverish symptoms and was detained under observation on account of the report that small-pox had occurred recently among the crew of the steamer from which he had been discharged. When his rash appeared it proved to be chicken-pox.

### B.—Objective Conditions.

#### (*a*) *General Aspect of the Small-pox Patient.*

The conditions grouped under this heading and observed not infrequently in the patient attacked by small-pox are the expression of the prostrating effect of the onset and primary fever. They have frequently been described. Their intensity varies with the severity of the initial symptoms. The small-pox patient whose invasion period has been severe, and whose pain has abated with the beginning of the eruption, gives one the impression that he has passed through an exhausting struggle. His face and his attitude express weariness and apathy. His voice is apt to be low-toned and monotonous. His mental processes are slow, and control over his movements is apt to be defective. For example, his reply to a question may be appreciably delayed, the question may have to be repeated, and his movements are often retarded, tremulous, and jerky. In the presence of such conditions he may assert that he feels much better since the pain has abated. But he will stagger if he tries to walk, and is apt to fall if not supported. It is not suggested that these conditions are peculiar to small-pox; but they are frequently present in severe cases of this disease, and they have their value as indicators. From their association with the stage of the primary fever towards its end, they are at their highest value when, after a day or two of a severe "influenzal" illness, their presence is accompanied by an eruption of "spots," however discrete the eruption may be.

A few examples of a rare type * of case, in which the presence of the signs of prostration becomes of especial value in diagnosis, occurred during the epidemic. A boy, 6 years of age, a contact, was admitted to the receiving station on the first day of his illness. There were four vesicular lesions on the skin, which was covered by verminous petechiae. One vesicle was situated on the back near the lower angle of the right scapula, another on the right flank, a third on the right side of the abdomen, and the fourth on the right thigh. They were flat, white vesicles, measuring about ¼ inch in their longest diameter. Those on the trunk were oval; the one on the thigh was irregular in outline. They had a superficial resemblance to the lesions of varicella, but they had a stronger pellicle, and they were larger than the usual chicken-pox vesicle. Each vesicle was set on a slightly raised inflammatory base. All appeared to be of the same age. They developed slowly. On the next day there was little change in their appearance, except a decided increase in size and also in prominence, due to further inflammatory induration of the base. Between the second and third day after admission the general small-pox rash began to appear, and the patient was sent on to the hospital. In this case the signs of prostration were not well marked. But in another patient, a boy 12 years of age, admitted on the second day of his illness, the apathetic facies and general appearance of prostration were very evident. In his case the only lesion present on admission was a large flat vesicle with irregular margin and indurated base situated near the centre of the forehead.

Two cases representing the most fulminant and rapidly fatal type of the disease were sent to the receiving station during the epidemic. Extreme pallor, great restlessness, and frequent outcry on account of severe pain were noted in both patients. One, the case of a boy whose pain seemed to be altogether abdominal, has already been mentioned. The other was a woman, 21 years of age. Her child was in hospital with small-pox. She was admitted at the receiving station on the afternoon of December 6th, 1901, with a history of a sudden onset of great severity in the forenoon of the same day. She suffered from continuous nausea and retching, but complained chiefly of a feeling of "weight on the chest," which seemed to interfere seriously with respiration. Her temperature was 101° F. During the night and the following morning her eyes became suffused, cough became very frequent, and the sputum more and more deeply blood-stained. In the evening of December 7th, purpuric spots were noted on the eyelids and on the abdomen and lower part of the back. Subconjunctival haemorrhage also appeared. Death occurred shortly before 6 a.m. on December 8th, less than forty-eight hours after the beginning of her illness. No papules or vesicles were present. The skin remained quite clear until eight or nine hours before death, when haemorrhage began to make its appearance.

In this case the sudden and violent onset after exposure to infection pointed to small-pox. But in cases of this rare type if the history of exposure to infection is wanting, it is hardly likely that the disease will be suspected until its purpuric character reveals itself.

#### (*b*) *Temperature.*

In cases which have been under observation during two or three days of a feverish illness, a fall in temperature associated with the appearance of "spots" on the skin, however few and widely scattered the lesions may be, is an indication of the highest importance.

#### (*c*) *The Buccal Mucous Membrane.*

That small-pox vesicles are apt to occur on the mucous membrane of the mouth is a fact of considerable importance in the recognition of the disease. The soft palate is their favourite site, but if numerous they also invade the hard palate, the cheeks, and the tongue. They appear early in the eruptive period, and may precede the beginning of efflorescence on the skin. Their presence at this early stage becomes of the highest importance in diagnosis, because, on account of the rapidity of their evolution, they can be recognized as vesicles at a time when the lesions on the skin, being recent and small, may not present any features which will suggest a diagnosis of small-pox. But the period during which their assistance is available is short. Situated on a mucous membrane these lesions are naturally shallow; vesiculation is rapid; the pellicle is thin, becomes rapidly macerated, and is easily torn. After rupture of the pellicle it may be possible by the aid of strong illumination to see on the mucous membrane of the palate a slight depression with shreds of the torn pellicle adherent to its margin. But very frequently the rupture of the pellicle is followed by the rapid and complete disappearance of the lesion.

As a differential test between chicken-pox and small-pox the presence of vesicles on the mucous membrane has a limited value. They are probably less common in chicken-pox than in small-pox, and the probability in favour of small-pox increases with their number. But individually the lesions present no features by which they may be distinguished.

#### (*d*) *The Signs of Previous Vaccination.*

In determining whether a rash is or is not due to small-pox a little help may be obtained from inspection of the patient's vaccination marks, if one is careful not to over-estimate their value as negative evidence in diagnosis. The immunity against invasion by small-pox conferred by vaccination does not remain perfect. If not reinforced it undergoes a gradual but progressive diminution, a process which depends mainly on the combination of two factors: (1) the efficiency of the operation, and (2) the time which has elapsed since it was performed. Without an accurate knowledge of both conditions no assistance in diagnosis can be expected. Patients with signs of previous vaccination may be divided into two groups, according to the condition present at the time they come under examination, namely: (1) those with lesions of vaccinia in their active stage (vesicles or pustules); (2) those in whom the active stage has passed (crusts, ulcers, pigmented scars, and white scars).

1. In cases of the first group the operation is evidently both recent and successful. But this condition is of little value as negative evidence in diagnosis. Small-pox and vaccinia can develop together. The evolution of the vaccinal lesion may have been delayed, or the patient may have been vaccinated after exposure to infection. On the other hand, a successful vaccination performed after the

* These cases seem to be examples of inoculated small-pox. In the first the arrangement of the lesions suggests that the inoculation was brought about by vermin.

appearance of the suspected rash may be regarded as excluding small-pox.

For example, a boy, 8 years of age, an in-patient of a general hospital, unvaccinated, was sent to the receiving station on account of a very discrete rash. The lesions were situated on the face and on the right leg near the ankle-joint. They were dome-shaped, yellowish-white vesicles. On an assumption that they were the lesions of small-pox, they were evidently well advanced in the pustular stage. The opinion was formed that the rash was not due to small-pox, the patient was vaccinated, and returned to hospital. Six days afterwards he was sent back to the receiving station as it was considered that the possibility of small-pox was not altogether excluded. On readmission the rash was still present. The lesions had not changed in appearance. They were still yellowish-white dome-shaped vesicles. The vaccination was successful. Its lesions were well-formed normal vesicles, a result which was of value as corroborative evidence that the rash in question was not due to small-pox.

The rare type of case known as Generalized Vaccinia or vaccinal eruptive fever may be mentioned in connexion with cases in the first group. One case in which it was suggested that this condition was the cause of the eruption was admitted during the epidemic.

The patient was a young woman, a domestic servant who had been vaccinated along with the rest of the household because small-pox was active in the district. The vaccinal lesions had reached the eighth or ninth day of development. A very discrete pustular eruption was present on the face, trunk, and extremities. The units of the rash varied very much in size, but with this exception the eruption presented no features inconsistent with a mild and modified small-pox rash, and as the patient came from a district in which small-pox was rife, the certificate seemed to be fully justified

2. In cases of the second group the *crust* or *ulcer* have no features which are peculiar to a successful vaccination, and therefore can afford no reliable means of judging of the efficiency of the operation. With very few exceptions, the statements of patients about the result of vaccination are quite unreliable, because they do not appreciate what is meant by "successful vaccination."

The relationship which has been shown to exist between fatality in small-pox and number of vaccination cicatrices has no practical value when the possibility of *invasion* in individual cases has to be decided. It does not seem likely that a more accurate standard for diagnostic purposes will be attained by attempts to assess the protective value of the scars of individuals attacked by small-pox, since it will never be possible to ascertain what share secondary infections have had in the production of the scar, and since it is unlikely that similar investigations among those who have been exposed to the infection, but have escaped attack by the disease, will ever be recorded.

The following case is of interest as representative of a type of rash presenting difficulty in diagnosis, and as an illustration of associated conditions in which the result of vaccination *after the appearance of the suspected rash* cannot be expected to afford reliable evidence for or against small-pox:

A girl between 6 and 7 years of age, vaccinated in infancy, was sent to the receiving station on account of a rash, of which the diagnosis lay between chicken-pox and small-pox. The rash was present on the face, trunk, and extremities. There were a few lesions on the forearms and hands, and on the legs and feet. The majority of the lesions had desiccated. A few on the face and extremities were pustular. Two vaccination scars of more than average size were present. The opinion was formed that the rash was chicken-pox. Revaccination at the receiving station was not successful.

### (*e*) *The Cutaneous Signs of Small-pox.*

Small-pox is capable of producing three distinct types of eruption:

1. Erythema.
2. Purpura.
3. Vesicle (the pock).

During the period (commonly called the pre-eruptive stage of the disease) between the onset of the illness and the appearance of the first lesions of the vesicular rash the skin may remain quite free from eruption, or the clinical picture may be dominated by the presence of an erythematous or purpuric rash.

1. *Erythema.*—That difficulty is encountered in the identification of this sign of small-pox is evident from the number of varieties of the rash which are described in the textbooks. The small-pox erythema is said to conceal its identity under many disguises—to appear at one time as a scarlatiniform rash, at another time as a morbilliform erythema, and at another as an erysipelatoid eruption. In a recent article on the prodromal rashes of small-pox no fewer than seven subdivisions of the condition are recognized. The making of these minute subdivisions is of doubtful value for the purposes of diagnosis. Even in the most simple classification there exists the very important disadvantage associated with the nomenclature which is employed. To one who is unfamiliar with the disease from the want of opportunity of observing it, the use of such terms as "scarlatiniform," "morbilliform," etc., with their definite connotation, must almost inevitably emphasize a likeness which is superficial or confined to one feature of the condition at the expense of distinctions which are often all-important in diagnosis.

The rash occurs most frequently in patches. In the majority of cases it tends to fade rapidly and leaves no trace. It varies in the intensity of its colouring on different parts of the body. Sometimes it seems to migrate. Patches of colour may appear on the chest soon after the onset of the illness and gradually or rapidly fade, while a similar rash makes its appearance on the extremities. These patches are not urticarial in character. The position which this rash occupies as a differential test for small-pox may, perhaps, be most easily indicated if the following features are taken to represent the type:

1. It has no definite unit, but consists of patches which are irregular in contour and vary much in size.
2. It is haphazard in distribution.
3. It is not a raised rash.
4. It does not affect the face.

This negative method of setting out the characters of the rash may serve to indicate that in a considerable proportion of its examples the erythema is in itself of little assistance in diagnosis, but acquires importance only from being associated with a purpuric or vesicular eruption, present at the time of examination or superimposed on the erythema during a short period of observation.

The exceptional examples may be considered in two groups: (*a*) Cases in which the rash, by assuming more positive features, becomes in itself an indicator of considerable value; (*b*) cases which are apt to be mistaken on account of a resemblance to other more common conditions.

(*a*)—(1) A rare form which the erythema may assume is exceptional in its tendency to symmetry in distribution. Soon after the onset of the disease brilliant, almost vermilion, patches may appear over the extensor surfaces of the larger joints, the knee, the shoulder, and the elbow, affecting both sides of the body, but usually in an unequal manner. Along with these symmetrical patches others of equal brilliance may be seen on the trunk. Such patches may show at one side a margin where the transition from erythema to unaffected skin is very abrupt. In some cases symmetrical patches occur along the inner margin of the feet or along the radial side of the forearm on the dorsal surfaces.

(2) The onset of the most virulent toxic attack may be accompanied by the appearance of a rash occurring not in patches, but as a continuous sheet of erythema. Usually the face is also affected. This rash is remarkable not only for uniformity and evenness of distribution, but also for its colour, which is frequently brilliant. It can hardly be mistaken for scarlet fever, since it is entirely wanting in the characteristic punctation. At its first appearance this universal form of the small-pox erythema is not unlike the blush which may be produced on the hands and arms when they are plunged into hot water.

(*b*) The cases in this group, unlike those mentioned in the preceding paragraphs, cause considerable difficulty in diagnosis on account of the manner in which they mimic more common conditions.

The following case, recently under observation, illustrates very well the difficulty which may be encountered:

A female, aged 18, was admitted to hospital on March 2nd, 1911, under certificate of scarlet fever. The patches of erythema were very distinctly raised. The rash was almost confluent on the forearms and legs, and very discrete on the back and on the front of the chest. Discrete patches were present on the neck, and these extended upwards over the skin of the jaw, and were present on the cheeks. The face, therefore, was affected, but there was only one patch on the forehead, and the circumoral region was free from eruption. There was a history of sickness and headache on the day before admission. Temperature was 99.8° F.

The patient had been labelled scarlet fever probably on

account of the confluent rash on the arms and legs, but there was no evidence anywhere of the characteristic punctate rash. The eruption at first sight had a considerable resemblance to measles, and with a rash so well developed the absence of Koplik's lesions could not be regarded as conclusive negative evidence. There was a slight suffusion of the eyes.

The anomalous character of the rash, which was certainly not the rash of scarlet fever and did not satisfy all the conditions required for measles, led to a closer examination of the condition. In the isolated spot on the forehead there was a small papule; another was found on the cheek near the left side of the nose. Others were found on the arms and back, and one on the right palm. The total number of lesions was under twenty. They were all insignificant, and search had to be made for them. The patient was isolated, and on the following morning the diagnosis was no longer in doubt.

2. *Purpura.*—The poison of small-pox, in common with that of the majority of infections, has the power in some cases of producing extravasation of blood. The condition is dealt with here only as it affects the skin and the more exposed mucous membranes—for example, the mucous membrane of the mouth and the conjunctiva. The severity of the purpuric sign in toxaemia varies within wide limits. There is, for example, the staining, more or less persistent, left not infrequently when an erythema fades. Such staining occurs in some cases of scarlet fever and in many cases of measles. The same condition is seen after some examples of the small-pox erythema. Again, there is the more severe form of purpura, the small, bright red petechiae of the size of a pin's head or smaller, which are also not uncommon as accompaniments of the rash in scarlet fever, in measles, and in some cases of food poisoning. The favourite sites of these petechial lesions are in and about the flexures—for example, in the groin, in the bend of the elbow, and about the armpit. The same condition occurs in some cases of small-pox. Again, the exaggerated tendency to bruising, or to accentuation of the result of slight injuries, seen in diphtheria and in enteric fever, and the still more severe form of purpura in which the lesions are of deep purple colour, of considerable size, and contain an appreciable quantity of blood—the type of lesion to be seen in severe septicaemia and in diseases which, for want of accurate differentiation, are classed as purpuras of different varieties, can all be paralleled in some cases of small-pox; that is to say, the purpuric lesions of small-pox do not differ either in their type or in their arrangement from those found in the other diseases of its class. But this sign of toxaemia is of considerable value in the recognition of the disease; its importance depends altogether on the frequency of its occurrence and on the severity of its manifestations. Small-pox, above all other diseases of its class as we see them in this country, is a purpuric disease. To obtain an estimate of the frequency of the purpuric sign in small-pox, an examination was made (by kind permission of Dr. T. F. Ricketts, Medical Superintendent) of the records of 1,232 consecutive cases of the disease completed in the Metropolitan Asylums Board Hospital during 1901, and it was found that purpuric skin lesions were noted at some time during the attack in 271, or in 22 per cent. A considerable number of these cases first came under observation in the late stages of the attack, at a time when the sign, if it had been present, must have faded completely. Therefore, in regard to this series of cases, 22 per cent. cannot be considered as an overestimate of the frequency of the condition.

Of the severity of the condition in small-pox, the petechial lesions of the flexures afford a good illustration. As they occur in small-pox, they are usually very densely set, and they tend in a marked way to pass beyond the exact line of the flexures. Frequently they extend from the groin upwards over the abdomen and flanks, and from the axilla downwards over its inner and outer walls. A band of scattered petechiae may extend across the abdomen below the umbilicus or across the small of the back.

The value of the purpuric sign in the differentiation of small-pox may, therefore, be stated as follows: Given an onset of a febrile disorder pointing to the presence of an acute infection and associated with purpura, small-pox should be considered as occupying the first position as a possible cause, and one may go further and say that the probability of the presence of small-pox increases according to the severity of the purpuric lesions as regards both their number and their type. Assuming that this is the position, it seems hardly necessary to separate the so-called petechial initial or prodromal rash from the other more severe purpuric lesions of the disease, or still further to accentuate the difficulties of diagnosis by describing a so-called haemorrhagic variety of small-pox as if it were to be classed by itself, the descriptive method so constantly adopted by writers on this disease. One can hardly avoid forming the opinion that some at least of the missed cases of small-pox, and most certainly those rare and virulent examples (by *virulent* meaning of high infective power as well as deadly to the individual) which have the purpuric sign as their outstanding feature, would not escape if these facts were fully recognized. Several missed cases belonging to this type which had been labelled "blood poisoning" came under notice during the epidemic of 1901–2. Each acted as a centre from which infection spread, and from one of them more than twenty patients contracted the disease by direct contact.

3. *The Vesicle or Pock.*—The influence of the high infective power which seems to be possessed by cases of the type just referred to is limited by the rarity of the type, by the complete prostration of the patient, and by the termination, which is almost invariably rapidly fatal. The majority of the population possesses some degree of immunity. Most are susceptible to attack by the disease, but not to death. The febrile disturbance, the pain, and the other more or less severe toxaemic effects of the invasion frequently subside with the appearance of the pocks, and the severity of the later stages of the attack, in the uncomplicated case, depends entirely on the number of the pocks and on the manner of their evolution. Therefore, in many of the cases occurring in a partially protected population, the illness is over with the appearance of the peculiar rash, the patient is able to resume his usual life, and may become an active agent in the spread of infection. The presence of a few "spots" or "pimples" may not cause remark. From one-third to one-half of all cases, a proportion which depends on the prevailing epidemic type, belong to this class. Therefore, there is a very considerable number of cases in which diagnosis must be based on the characteristics of the peculiar rash of small-pox, and on these alone.

In discussing these characteristics one may view the rash from two different standpoints. One may lay stress on the features of the individual lesion, the unit of the rash, or one may consider the whole rash, the multiple rather than the unit, attaching the greater importance to the collective features of the lesions, namely, the very important tendency they have to group themselves on some areas of the skin surface more than on others, and the less important relationship which is gradually established between one group and another as the lesions pass on through the successive stages of their evolution.

The collective features of the lesions have the greater value in diagnosis. The unit of the rash is a gross inflammatory focus, which passes through several stages in the course of its life-history. Appearing first as a macule which very rapidly becomes a papule, the typical lesion advances steadily through vesicular and pustular stages to the formation of a crust, which on separating leaves a scar. *This quality of continuous change inherent in the lesion is of considerable assistance in diagnosis.* It is very useful in many difficult discrete eruptions which may be under observation on suspicion of small-pox. But the lesions are subject to accidental disturbances—for example, to injury by the patient himself, a factor which may have considerable influence on the very discrete rash. Their evolution is influenced by a lowering of the general physical condition of the patient—for example, by old age or previous ill health, and it is affected also by the presence in the patient of a degree of immunity against the disease.

On the other hand, the more important of the collective features of the lesions depend much less closely on the personal factor in observation. They begin to appear with the beginnings of the eruption. They become fully established when efflorescence is completed, and they must remain as unchanging evidence as long as the rash lasts.

### I.—The Features of the Lesion or Unit.

It has been pointed out that the pathology of the lesion is essentially the life-history of a vesicle. In this life-history there are two stages: (*a*) *A stage of progression or formation* leading up to full vesicular development, and

passing almost imperceptibly into the second stage: (*b*) *the stage of retrogression*, which begins with the onset of purulent change in the contents of the vesicle, and terminates with the separation of the crust. The peculiar features of this inflammatory process are found:

(1) In its deep-seated origin;
(2) In its intense and localized character; and
(3) In the acuteness of its course.

In the typical lesion clinical evidence of these features begins to appear as soon as the papular element is recognizable. It attains its greatest prominence when vesicle formation becomes apparent. It gradually declines as pustulation advances, until in the end it has almost completely disappeared.

(*a*) *The Stage of Progression or Formation.*

The early macule has no characteristic features, but this stage of the lesion is so transient that usually in practice one can recognize a distinctly papular condition in the lesion which appears on inspection to be a simple macule. It will usually be noted that the papule does not involve the whole macule of which the outer part is the areola. The pain which is frequently associated with the beginning of this process is of considerable importance in diagnosis. It is described by the patient as a pricking sensation, and it may be produced or increased by pressure on the area in which the lesion is growing. It is to be ascribed to the intrusion of the process on the true skin, and being associated with the presence of a papule it indicates a deep-seated, localized, and intense inflammation. This pain is accentuated on parts where the lesion is bound down by the thickness and density of the outer strata of the epidermis. Therefore, in some cases, it is of value in locating lesions which may be present but scarcely visible on the palms and soles. At the same time further evidence of the depth of the lesion and of its localized character may be obtained in passing the finger over it, at first lightly and then more heavily. With light pressure the lesion may be scarcely appreciable, or it is felt as a slight elevation with gradual slope and a considerable area. With firmer pressure it seems to assume a smaller size and to acquire a sharper outline. This evidence also is more easily appreciated where the epidermis is thick and dense, or where the lesion can be pressed against the bone. As growth goes on the greater prominence which the lesion acquires on parts where the skin is of finer texture becomes more and more accentuated. The major part of the growth of the papule is the result of serous exudation. As this exudation goes on the tension of the lesion increases, and by a systematic examination of the rash at this early stage some lesions may be found in which this condition of tension can be demonstrated by means of a small lens. Under the lens the erythematous area in which the lesion is situated may be seen to resolve itself into three zones. The margin of the tiny lesion is marked by a narrow ring of a tint distinctly paler than the area within it, or the much more extensive and irregular area outside it which forms the areola. As the central area increases in diameter it loses its colour, and at last, when the vesicle is quite apparent to the eye, the anaemic marginal ring becomes merged in the translucent pellicle of the lesion. At this stage, as before, the degree of prominence of the typical lesion depends on the character of the outer strata of the epidermis. Where the skin is of finer texture the vesicle stands well out from the surface. It can be grasped, but it cannot be ruptured by pressure, and attempts to rupture it cause considerable pain. The sensation of unyielding solidity imparted by a lesion which appears to be a translucent vesicle is a feature of very considerable importance in differentiation. Where the outer strata are dense the lesion scarcely rises above its surroundings. The vesicle situated, for example, on the palm cannot be grasped, and is much less refractile than the lesion on other parts. It appears as a small, dark, almost black area, in striking contrast to its well-defined marginal ring.

(*b*) *The Stage of Retrogression.*

The formative stage of the vesicle merges almost imperceptibly in the retrogressive stage. With continuous increase of the lesion, both in size and in prominence, its contents gradually become opalescent, opaque white, and yellow when pustulation is completed. Swelling of the surrounding skin and induration of the margin of the lesion accompany this change; therefore the lesion becomes less definitely localized. As it fills out with pus, the outer layers of the epidermis are stretched and thinned and the remaining intercellular connexions are broken down; therefore the sensation of unyielding solidity imparted by the vesicle is lost. The lesion becomes superficial and can be easily ruptured. Its tendency is to rupture, collapse, or dry up and form a crust. Small-pox crusts may be yellow or dark brown; they may be circular or of irregular outline; they may be flat or dome-shaped. In some lesions the margin of the dome-shaped crust is overlapped by the surrounding skin, giving it the appearance of a "jewel in its setting" (Kaposi). None of these features is peculiar to the small-pox crust. The differentiation of the fully-developed pustule and of the crust depends entirely on such evidence as can be obtained that the origin of the process was deep-seated. Where the outer strata of the epidermis are dense, as on palms and soles, the pustule frequently fails to break through. Its contents are partially absorbed, and the remainder, with the thick pellicle, forms the deep-seated crust or "seed" so well known as the last remains of the small-pox rash.

Therefore the latter stages of the lesion are clinically retrogressive. The peculiar features of the process gradually become concealed, and, in the end, the differentiation of the lesion depends almost entirely on its locality.

The conditions which interfere with this process of evolution are important, but they are not in every respect a hindrance to diagnosis.

1. *Accidental injury to the lesion*—for example, by the patient himself—may entirely destroy its characteristic features. The importance which such injuries may assume in a very discrete rash has already been referred to.

2. *The presence in the patient of a degree of protection against the disease.* The clinical effect of partial immunity is twofold. The severity of the rash is lessened

(1) By decrease in the number of its lesions, and
(2) By decrease in the severity of the local inflammatory process.

In regard to diagnosis the latter factor is the more important. It is associated with a shortening of the period of evolution. As a result there is a general decrease in the size of the lesions and also an accentuation of the variation in size which is present even in the unmodified rash. Vesiculation does not involve the whole lesion. The vesicle, pustule, and crust are small and may appear as if set on the top of the papule. From want of evidence throughout the process, its true nature as a deep-seated vesical formation may not be recognized. On the other hand, in most cases some lesions are to be found which conform more closely to type, and in every case the lesions situated in the thickened epidermis of the hands and feet appear to be less profoundly modified than those on other parts of the body. In addition, in many puzzling discrete eruptions, observation for a short period by demonstrating the rapidity with which the lesions hasten through their evolution will satisfactorily differentiate the small-pox rash from many other conditions—for example, from the papular rash sometimes resulting from mosquito bites, from severe acne, from a pustular syphilide, from impetigo, and from some drug rashes.

3. *The lowering of the general physical condition of the patient, for example, by old age or previous ill health.* From the point of view of diagnosis this condition is the most important. Under its influence the lesion develops badly. The period of eruption tends to be prolonged. The early lesion is less definitely localized, and the vesicle, as it grows, tends to become irregular in outline, flat and flaccid, to increase in area, but not much in prominence. Except for its area, there may be nothing which can distinguish it from severe types of the lesion of chicken-pox. One feature of such a lesion, and not the least important, is its tendency to linger in its evolution, a tendency which in some cases lessens the value of the assistance expected from a short period of observation. The *mild*, very discrete rash, found with considerable frequency in the old and infirm, may be overlooked when it is, as it may be, entirely composed of this type of lesion. An interesting series of such cases occurred during the

1901–2 epidemic in one of the large metropolitan infirmaries. This type of lesion occurs also in the *severe* rash of the badly-nourished infant, and in the rash of the adult worn out by disease, by hard living, or by the severity of the invasion period of his attack; but in these cases the nature of the condition is less likely to be missed since it is so frequently associated with very obvious signs of toxaemia.

II.—The Collective Features of the Lesions.

1. *The Tendency the Lesions have to Group Themselves on some Areas of the Skin more than on others.*—It has long been recognized that the lesions of the vesicular rash of small-pox tend to cluster about an area subjected to pressure, or where a local irritant has been applied. The classical illustration of the induction of such an artificial and local increase in the density of the lesions is the effect produced by the mustard plaster, applied, it may be, for the pain of the invasion period.

Other illustrations may be given, such as the increased incidence of the rash on the buttocks and upper parts of the thighs in the neglected baby, the marking out by the lesions of the line of pressure of a garter, or the line of a scratch, their tendency to cluster round sores caused by vermin, round recent vaccination lesions, round the nipple of the nursing mother, especially if a fissure is present, and so on.

It has also long been recognized that in the great majority of small-pox eruptions the evident natural tendency of the lesions is to prefer the skin of the face and extremities to that of the trunk; that on the trunk they favour the back more than the front, and the front of the chest more than the abdomen; and also that they tend to avoid the lower parts of the abdominal wall, and especially the flexures of the groins, the site of election of the petechial lesions. These natural distinctions in distribution strike the eye at once in many severe discrete or semiconfluent eruptions. They are seen to the greatest perfection in this type of rash occurring in the unvaccinated child.

Dr. T. F. Ricketts has shown that a common factor is concerned in the production of all these variations in the density of the lesions, not only of the artificial variations induced by the mustard plaster, the garter, etc., but also of the seemingly natural variation in grouping so easily recognized in many of the more severe small-pox eruptions. This common factor is exposure to irritation. He shows that its influence is at work in controlling the disposition of the rash over every part of the skin surface. He has demonstrated not only that the presence of this factor determines a greater incidence of the rash on the part of the skin surface so exposed, relative to other parts, but also that its absence—that is, freedom from irritation or protection against irritation—determines a slighter incidence of the rash on the part so protected relative to other parts. The latter effect can be shown by direct experiment.

The term "irritation" as applied to this factor must be interpreted in a wide manner. As Ricketts says: "The operative causes are manifold, but the most potent factors are exposure to air and friction with clothing, and to their efficacy every case of small-pox is a testimonial."

The working of this general law is easily seen in the seemingly natural variations in the incidence of the lesions, which have been so long recognized. The face, so constantly exposed to the weather, never escapes from eruption, and almost without exception suffers more severely than other parts. The hands also, from continuous exposure and constant use, almost never escape. The feet, exposed to friction in walking and having a range of movement a little less free than the hands, are almost always invaded, but a little less constantly, and on an average less severely than the hands. The back, being liable to considerable friction from the clothing, shows a denser crop of lesions than the front of the trunk, where the friction is less, and the flexure of the groin and the walls of the armpit, the parts of the skin surface where protection from exposure and friction is most complete, are very frequently avoided by the vesicular rash. It is to be noted that the same principles apply in considering the details of the distribution of the lesions. For example, the more prominent parts of any region—for instance, of the face—are prone, other things being equal, to be more severely affected than the less prominent parts or the hollows.

The application of the test of the small-pox distribution to a suspected rash therefore implies a search to discover the working of this law, and it is essential to its value as a differential test to assume that the theoretical conditions which determine the site of the lesion are not influenced by any degree of immunity against the disease. Let me illustrate shortly, from the experience of the 1901–2 epidemic, some of the difficulties which seem to arise in the differentiation of small-pox, and how they are overcome by the application of this test.

(*a*) *Severe Eruptions.*

I have pointed out that the severe discrete or semiconfluent small-pox eruption in which the gross inequalities in the distribution of the rash are very apparent is not usually missed. But a mistake in the other direction—the certification of severe non-small-pox eruptions composed of units more or less closely simulating the small-pox lesion—is not infrequent. Difficulty in these cases seems to arise on account of the severity which the eruption may assume on the face, on the trunk, and even on the upper parts of the extremities, and the error is due to want of appreciation of the fact that the forearms and hands and the legs and feet, if not entirely devoid of rash, as often happens, are at least comparatively free from the eruption. The great majority of the cases of chicken-pox and of the syphilitic eruptions certified as small-pox belong to this group.

In a similar way the great majority of the severe measles eruptions and other erythemata, which are not infrequently mistaken for small-pox on account of the papular condition of the rash, may be excluded. Almost without exception, these rashes are almost confluent on the face, trunk, and upper parts of the extremities, and thin out on the forearms and hands and on the legs and feet.

(*b*) *Mild Discrete Eruptions.*

In the great majority of mild discrete small-pox eruptions the working of the general law is not less evident than in the severe discrete and semiconfluent attacks. If any distinction can be made, the advantage seems to lie usually on the side of the more discrete eruption. The gross inequalities in density seem to become more emphasized the more discrete the rash. The only reason for considering mild discrete eruptions under a separate heading is that in a minority of small-pox cases of this type the complementary factor of freedom from irritation or protection against irritation acquires considerable importance in its effect on the distribution. The distinction between freedom from irritation and protection against irritation is rather one of degree than of actual difference, but it is convenient for purposes of illustration. The former is the result of the patient's occupation and station in life. For example, the costermonger's feet may be found to be more severely affected than his hands, and the hands of the manual labourer will attract the lesions to a greater degree than the hands of the costermonger, and to a still greater degree than the hands of the shopwalker. But if each is living his usual life previous to the attack of small-pox, the face will carry its usual proportion of eruption, and the general disturbance in the gross inequalities of the distribution will rarely cause much difficulty. On the other hand, if the patient previous to his attack has been living a life in which he is protected from irritation, this general disturbance may be considerable. This happens most conspicuously in the chronic invalid, especially if he has been bedridden for some time. It is a frequent feature of the rash of the old and infirm, and in these cases it may be sufficiently powerful to mask the typical gross inequalities in the density of the lesions. A very scanty eruption is the rule in cases of this type. But the face very rarely escapes, although the hands and the feet are occasionally free from eruption. The most remarkable series of cases admitted during the 1901–2 epidemic belonged to this class. They were female inmates of a large infirmary, and several had for years been living the infirmary life. In the majority lesions were present on the hands and feet as well as on the face. But in a few the total number of lesions was less than twenty;

the feet and hands were almost or quite free, and the trunk carried the majority of the lesions. In some of the latter cases it was easily noted that the lesions on the trunk were grouped at the waist, following the line of pressure of the band of the dress.

2. One or two points of minor importance may be noted among the collective features of the lesions.

Eruption begins at the end of the second or on the third day of the illness. It is probable that the same condition which determines the relative density of the rash when efflorescence is completed also determines the part of the skin surface on which the lesions will first appear. In the majority of cases this part will naturally be the face, followed by the distal parts of the forearms and the hands. But definite local irritation may be sufficient to interfere with this usual sequence. For example, a washerwoman admitted as a contact developed a rash which had its densest setting on the arms and hands, and it was on these parts that the first lesions were seen.

In practice an opportunity of observing the beginnings of the eruption is not frequent. The eruptive period is not usually prolonged, and within a few hours of the appearance of the first lesions others will be found on every region of the skin. No assistance in diagnosis can be expected from attempts to discover a sequence in the invasion of the various regions if the eruption is well advanced or completed. But the appearance of lesions on the extremities as well as on the face, and particularly the invasion of the hands or feet, very soon after the beginning of the eruption, is an observation of the highest importance in the differentiation of small-pox.

As evolution progresses the lesions which were the first to appear will naturally maintain their priority. In the severe, unmodified eruption the natural sequence in the invasion of regions is continued throughout the evolution. At any time it will be seen that the lesions on the face are most advanced. Those on the trunk and upper parts of the extremities are usually next in order, followed by the lesions on the forearms and hands, and then by those on the legs and feet. But this sequence can at best only apply to the majority of the lesions on any region. It is easily observed in the severe, unmodified eruption, on account of the enormous mass of the lesions and of the regularity and completeness of the stages of their evolution. In the discrete and modified rash efflorescence is more rapidly completed, and priority of one region over another in invasion or during evolution may not be evident. That is to say, in the cases in which difficulty in diagnosis is apt to arise, this feature of the typical eruption may not be available for differentiation.

Reference has already been made to the way in which the persistence of the lesion is influenced by the texture of the epidermis at its site. The importance of this condition in the examination of "contacts" and "suspects" is obvious.

3. In conclusion, a few examples may be given from cases sent to the receiving station during the epidemic, to illustrate the importance of the assistance afforded in the differentiation of the disease by the presence of more than one of the three types of skin eruption at the time of examination, or as a result of subsequent development during a short period of observation.

1. A girl, 11 years old, vaccinated in infancy, whose father, brother, and sister were in hospital with small-pox, developed a patchy erythema on the day before her admission. On admission, her temperature was 98.6° and pulse 96. An erythematous rash, consisting of patches of varying size, of irregular shape, and scarcely raised above the surrounding unaffected skin, was present on the trunk and extremities. The colour of the patches varied considerably. It was a bright scarlet on the buttocks, thighs, legs, and upper arms, and a dull pink on trunk and forearms. Next day most of it had faded, leaving no trace, but a few fresh patches had appeared on the upper part of the back. On the same day one small papule, which rapidly crusted, was noted on the right forearm.

2. A man admitted with a history of three days' illness had an erythematous rash consisting of a few large and brilliant patches of irregular shape and varying size, but with well-defined margin, situated on the trunk and on both knees. Within one of the areas on the trunk there was a dark, almost black, papular lesion surrounded by a purpuric areola.

3. A hotel waiter had the history of a very sudden and severe onset in the early morning of the day of his admission. On admission, in the forenoon, a brilliant erythematous rash covered the whole body. It was evenly spread over every part, and everywhere it faded completely on pressure. Towards evening it was noted that the rash was losing in brightness; it became dusky. In the groins and on the adjacent abdominal wall it no longer faded completely, but definite small red petechiae remained when pressure was applied. Next morning these lesions had greatly increased in number and larger, deep purple purpuric lesions were scattered over the trunk and face.

4. Another man was admitted with an erythema of very similar characters to the last case. During three days' observation the rash gradually faded, leaving no staining. No purpuric lesions and no vesicular rash developed.

5. A man admitted on the second day of his illness had a rash, which on first sight appeared to be a brilliant erythema. It affected the groins, the adjacent abdominal wall, the walls of the armpits, and, to a less extent, the flanks. It was almost vermilion in colour. On close examination it was seen to be made up of small, very closely set petechiae. Next morning the rash had passed further on to the abdominal wall and over the walls of the axillae. The flanks were also more thickly covered, and petechiae were present on the back and on the forearms. On the following morning—fourth day of illness—a dense crop of papules was present on the face, the small petechial rash had faded to a red-brown colour, and larger deep purple purpuric lesions were scattered over the area in the groins, abdomen, and flanks, which the petechial rash had occupied. The patient was sent to the hospital. He died on the tenth day of his illness.

In cases of this virulent type, which have as their outstanding feature the early and rapid development of a severe purpura, the patient may die before the vesicular rash has had time to appear. More frequently life is prolonged sufficiently to allow this rash to pass through the earlier stages of its evolution. In the latter cases the further development of the clinical picture depends on the severity of the toxaemic manifestation.

Purpuric lesions in increasing severity may continue to be the predominant feature of the case, while here and there on the trunk and extremities there may be found a few vesicular lesions of the flat, badly-developing type, which has been referred to in a previous paragraph. Frequently haemorrhage occurs below, around, or into these isolated vesicles. In such cases it seems as if the widespread and excessive purpura replaced the greater part of the vesicular rash. In other cases the purpuric manifestation may partially subside, while the skin of the face, of the hands, and forearms, and, to a less extent, of the legs and feet, becomes swollen. On the forehead it is felt to be thickened and less freely movable than is normal. This change is due to the rise of a very densely-set vesicular rash, in which the units are "so closely crowded the one against the other" (Kaposi), that individual lesions cannot be distinguished on the face and can hardly be separated on the hands and arms. In these cases the skin of palms and soles is tense and may be very tender. As its evolution advances, the vesicular rash gradually assumes a more and more conspicuous position, and, if life is further prolonged, confluent vesiculation occurs, resulting in the formation on face, trunk, and extremities of large flat blebs, which may be torn during the patient's restless delirium. In the end there may be seen all over the body large areas of raw surface exuding blood-stained serum, interspersed with patches of unbroken opaque white pellicle and large and small purpuric lesions.

6. A man who had been admitted to a fever hospital on certificate of scarlet fever was sent to the receiving station for observation. He had a petechial rash in the groins and on the adjacent parts of the abdominal wall. Petechiae were present on the flanks and on the walls of the armpits. The majority of the lesions were bright red points, but scattered over the area there were a few of larger size and deep purple colour. During three days' observation there was no development towards small-pox. A case with very similar features occurred later in the epidemic, and the history of both suggested that the condition was due to food poisoning.

The persistence of the staining left by a petechial rash in the groins and armpits is at times of considerable assistance in difficult discrete pustular or crusted eruptions.

7. In a girl, 5 years of age, a contact, there were present on admission several large circular purpuric lesions situated on the trunk and thighs. In colour they were deep purple or almost black and varied from one-fourth to one-eighth of an inch in diameter. The vesicular rash began to appear in the evening of the day of admission.

8. A homeless and destitute man had, on admission, a discrete vesicular rash. The lesions generally varied much in size and were of the badly-developing type. This condition was noticed particularly on the legs, where each vesicle was surrounded by a narrow bright red purpuric ring. No other purpuric lesions were present.

This accidental purpuric condition is seen in the vagrant class, in the debilitated, and in those who have not been confined to bed during the earlier stages of the disease. If limited to the legs and feet it is not necessarily of serious significance. In similar circumstances it occurs occasionally on the lower extremities in varicella.

I am indebted to Dr. W. McConnel Wanklyn for much kind assistance and for permission to quote several of the cases referred to throughout the paper.

# A Lecture
ON
# RENOGRAPHY:
OR,
## A STUDY OF THE ABNORMAL MOVEMENTS OF THE LIVING KIDNEY, AND A HINT OF ITS BEARING AND INFLUENCE UPON RENAL SURGERY.

BY

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[*With Special Plate.*]

GENTLEMEN,—Let us admit that the unduly mobile kidney may be a cause of renal change, bodily suffering, and even mental distress; let us frankly confess that our treatment of it is sometimes unsatisfactory, and our operative interference not always successful. It follows, then, that our knowledge of the defect is insufficient, and the forces we employ to remedy it are often unwisely wielded.

I submit that the hiatus in our knowledge may, to some sxtent, be filled by employing more scientific methods of studying its various forms, and especially of gauging the direction in which the organ moves during exaggerated respiratory effort—a phase in its life-history which has, I believe, been overlooked by clinicians and operating surgeons.

A few years ago we were quite content to diagnose a kidney as being unduly mobile if we could feel it beneath the costal arch and press it back again into its bed. This method was rough, but amply sufficient, I admit, to detect one form of over-mobile kidney — the "dropped" variety. But this is only one form, and incidentally I may characterize it as being the least dangerous, the least painful, and the one least necessary to operate on. But the bimanual examination is powerless to detect, and therefore to diagnose, the more dangerous and the more painful variety, that in which axial rotation of the organ bends the pelvo-ureteric junction and produces dilatation of the renal pelvis (the hollowed kidney).

I admit we recognized such rotations could occur on clinical grounds, because we spoke in general terms of "torsion of the kidney" and "cinder-sifting kidneys" (Morris), but we could not demonstrate it in a way that would disarm acute criticism. We are able to effect this now.

In my first lecture on the hollowing of the kidney[1] I chanced to mention that I had been using for eighteen months an accurate method of judging the length of the excursion of the over-mobile kidney, the direction of its movement, and of its axial rotation if this existed.

I understand that you would like me to demonstrate the method, and I do so willingly, as I have not seen it used or heard it advised, and, as circumstances have not permitted me to work in the radiographic department here, you are unfamiliar with the matter. My study has been carried on with the expert technical assistance of Mr. Coldwell in his West End laboratory. My work has considerably altered my conceptions of movable kidney, and it will alter yours as well as interest you. It will refurbish for you a very threadbare subject, and give you scientific reasons for rebutting the diagnosis of "hysterical" pain, and for advising or declining operation in cases in which a movable kidney in the female is the subject of discussion. But it may do more. It may open up for you, as it has for me, a far wider and more fruitful field; it may influence your clinical acumen, your prognosis, and even your operative technique.

The method is simplicity itself. It consists in utilizing respiratory efforts and posture during radiography. To render the matter clearer I must ask your attention to one point.

### *The Shadow Cast by So-called "Dense" Kidneys.*

Occasionally you will see in your radiographs the shadow of the outline of a kidney in the ileo-costal space, and the opinion will be expressed by the radiographer that the kidney is unusually "dense."

I was much exercised in 1900 about these "dense" kidneys. I had a number of kidneys affected with chronic and acute nephritis removed in our *post-mortem* room and *x* rayed; I could not detect any difference between the depth of the shadow cast by the diseased organs and that cast, under similar circumstances, by normal kidneys. It may well be that my technique was faulty; improvement in the art can easily rectify that failure. But I soon learnt that all kidneys in which the true capsule was thickened cast shadows like "dense kidneys." I had previously learnt that no truly over-mobile kidney existed which did not have a thickened true capsule. I do not now concern myself with the reason for this, I merely state it as a fact. I commenced, therefore, studying "dense" kidneys in the living by utilizing movable kidneys; I selected females as being the more prone to this complaint and the easier sex to radiograph. At first I forced the movable kidney from under the ribs and held it down with my fingers while it was being *x* rayed. This failed, because the shadow of the kidney area blended with that cast by the iliac bone and spine. Special steel clips and other contrivances failed for similar reasons. I now utilized forced inspiration, then forced expiration, and, finally, a combination of both with posture, and the results are most striking, not only as bearing on the detection and study of the over-movable kidney, not only in aiding in the detection and elucidation of false shadows, but in indicating the technique of operative procedure.

### DESCRIPTION OF SPECIAL PLATE.

Fig. 1.—Radiograph of the outline of a movable kidney in full expiration (Arrow 1).

Fig. 2.—The same under full inspiration (Arrow 2).

Fig. 3.—Composite tracing of both figures showing descent on full inspiration.

Fig. 4.—Radiograph of the outline of movable kidney with a stone in the pelvis under full expiration (Arrow 1).

Fig. 5.—Same under full inspiration (Arrow 2).

Fig. 6.—Composite tracing of both figures showing descent on full inspiration. Note change in shape of stone.

Fig. 7.—Radiograph of stone in the upper ureter of a movable kidney under full expiration (Arrow 1).

Fig. 8.—Same under full inspiration (Arrow 2).

Fig. 9.—Composite tracing of both figures showing the descent of the ureter with the stone in it.

### *A Graphic Record of the Downward Movements of the Over-mobile Kidney.*

We can now approach the first question, How can we accurately detect and measure the amount of the downward excursion of the over-mobile kidney?

Many of you have seen me pin on to the board in the operating theatre a sketch on paper of the exact size and shape of the stones I was about to remove from a kidney, and, after the operation, you have verified the accuracy of the sketch by placing the stones on the paper. I have always explained that the sketch was made by placing tracing paper on the radiographic plate, by outlining the shadow of the stone exactly, and then, in order to allow for the increased size caused by the spread of the rays, by reducing the contour of the shadow by a millimeter.

I utilize the same method, slightly modified, for movable kidney, because the outline of the organ is well marked in favourable cases by its thickened capsule. Three plates are taken without the body being moved in the slightest degree, or the axis of the lamp altered in any way. For the first, the patient is supine. After breathing oxygen and air for a minute or so, the air is fully expelled from the chest, and the larynx closed. Then—with the diaphragm at its highest point and the liver and kidney at their highest level and fixed—the *x* rays are switched on. Generally the patient can keep rigidly in this expiratory condition for ten seconds, which is quite long enough to take the radiograph. The plate is labelled "*Expired supine.*"

TO ILLUSTRATE MR. HURRY FENWICK'S LECTURE ON RENOGRAPHY.

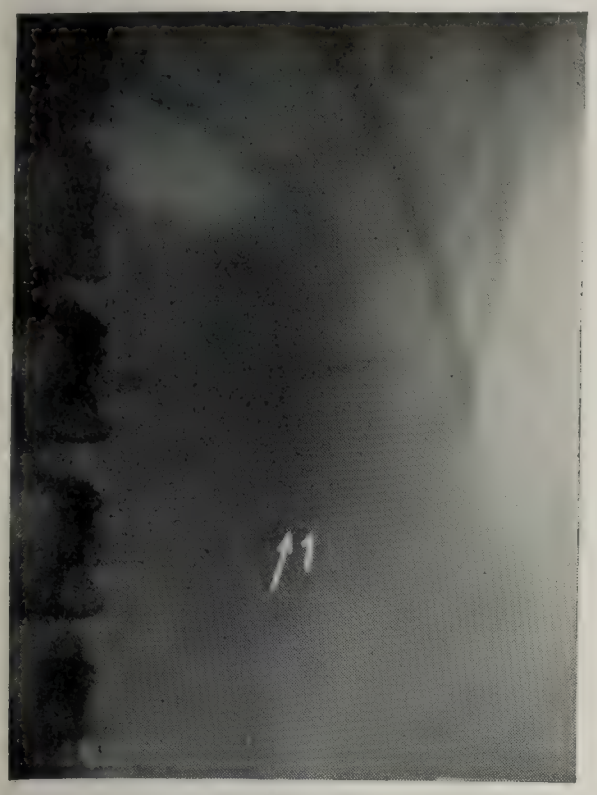


Fig. 1.

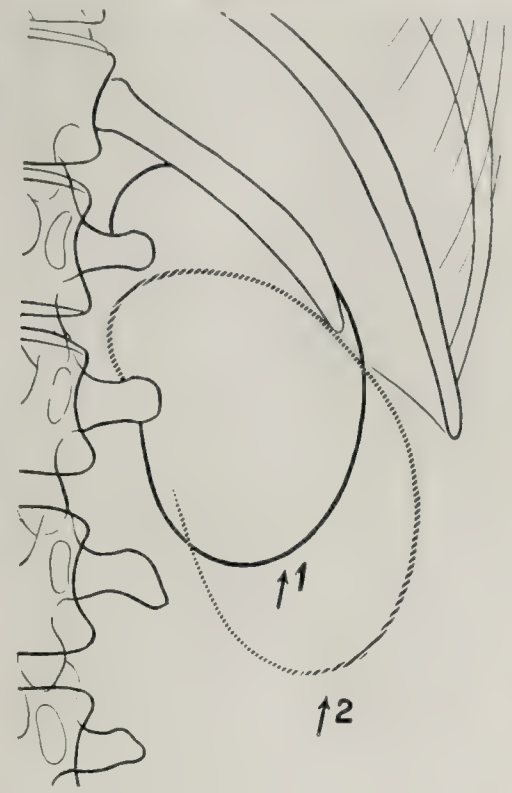


Fig. 3.

Fig. 2.

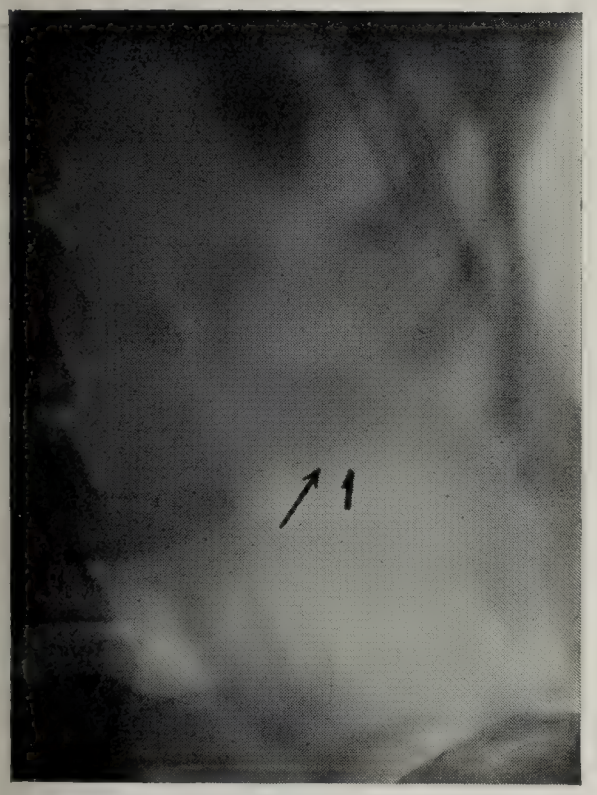


Fig. 4.

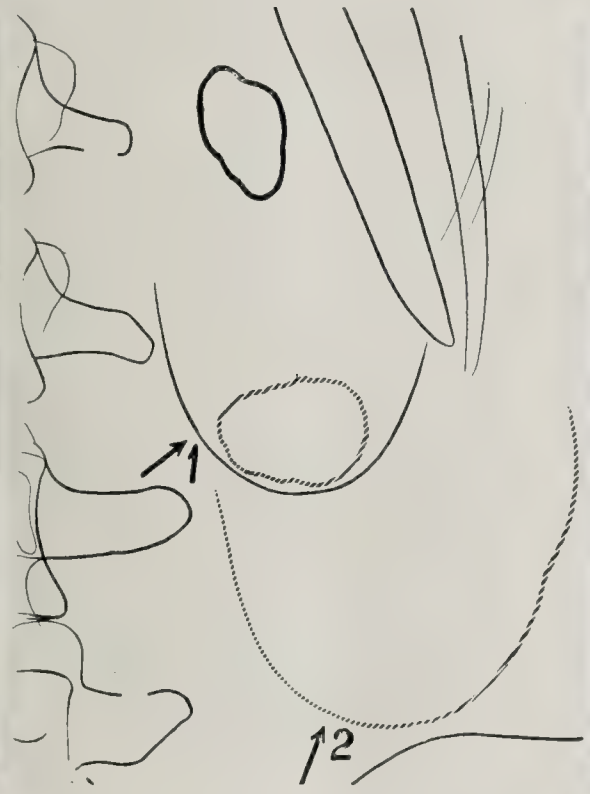


Fig. 6.

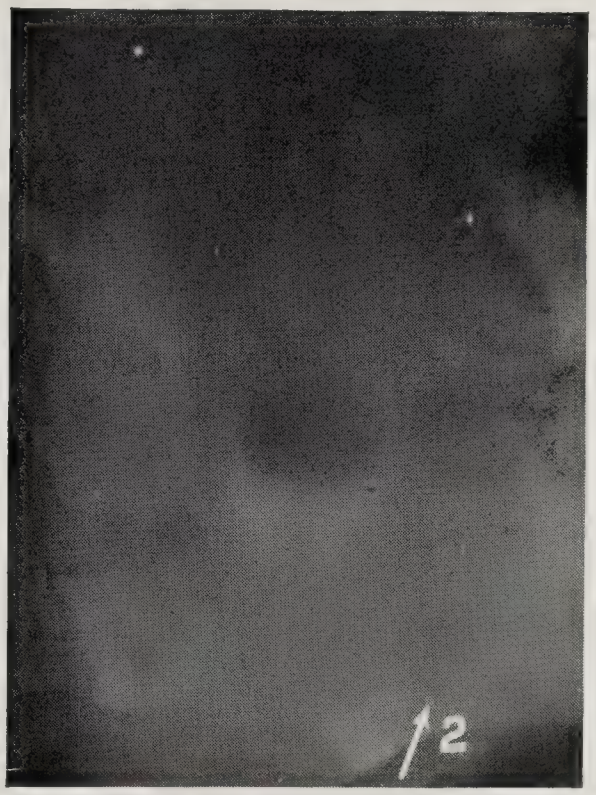


Fig. 5.

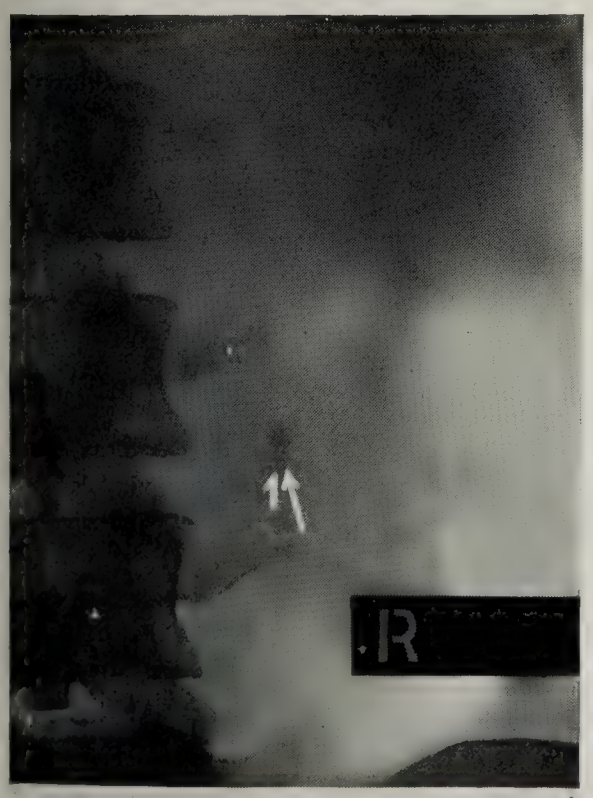


Fig. 7.

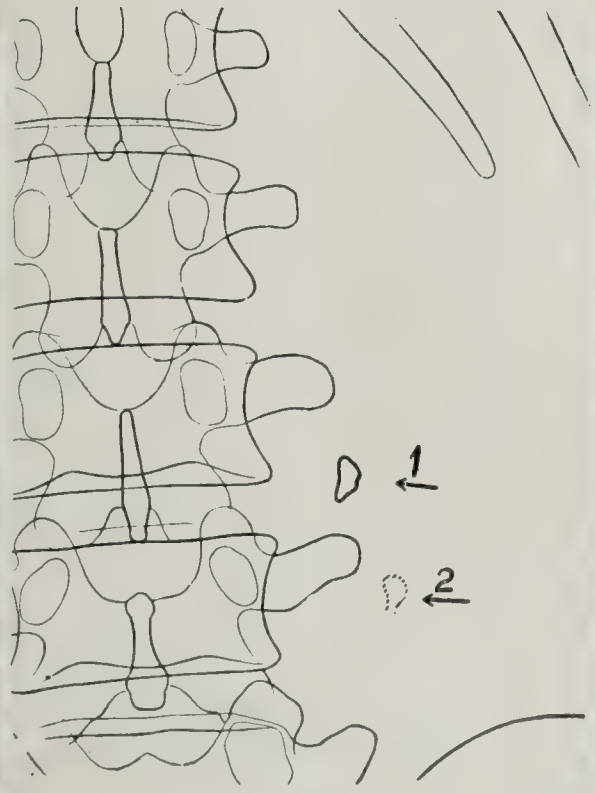


Fig. 9.

Fig. 8.

# TO ILLUSTRATE MR. HURRY FENWICK'S LECTURE ON RENOGRAPHY.

Fig 10.

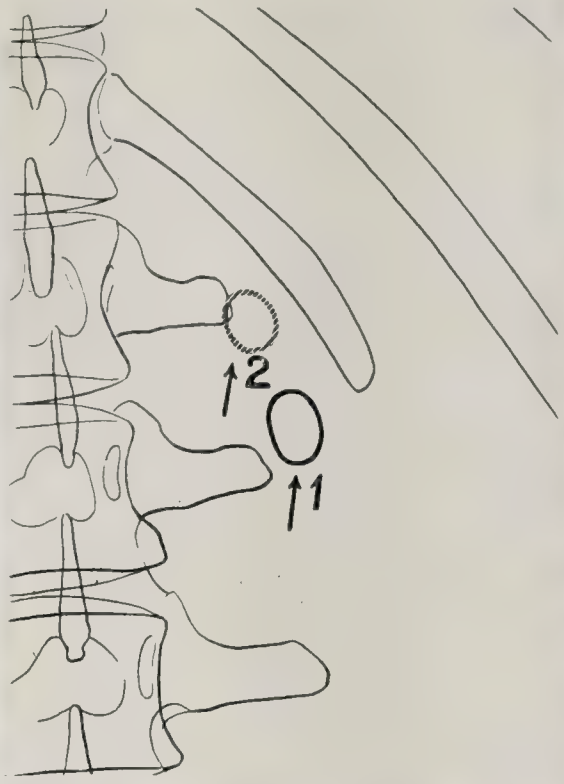


Fig. 12.

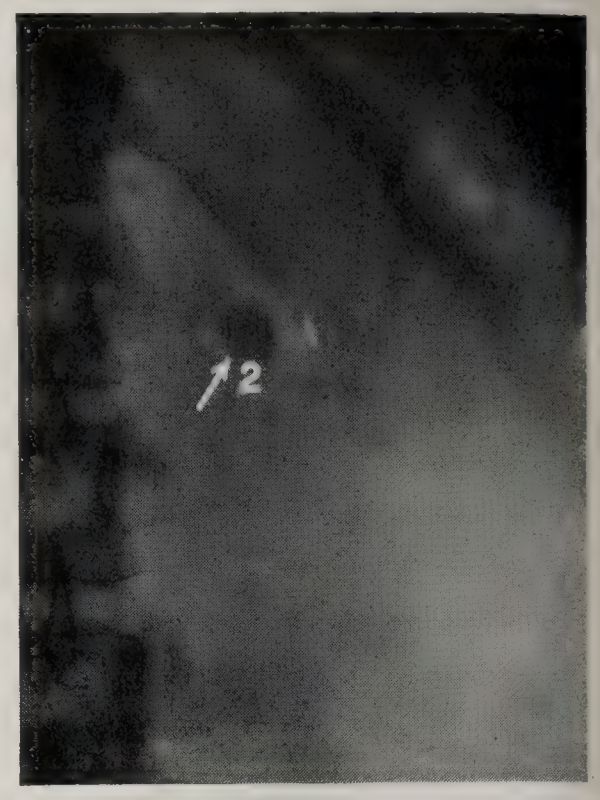


Fig. 11.

Fig. 13.

Fig. 14.

Fig. 15.

Fig. 16.

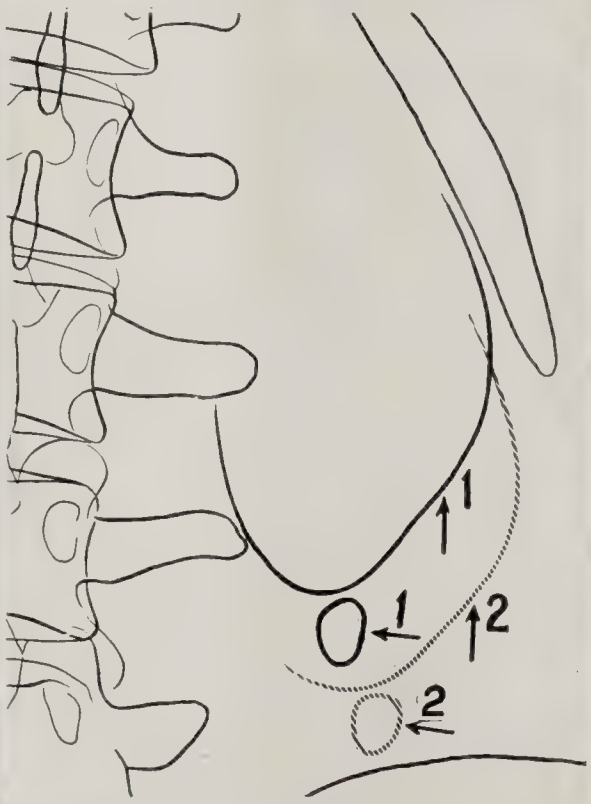


Fig. 18.

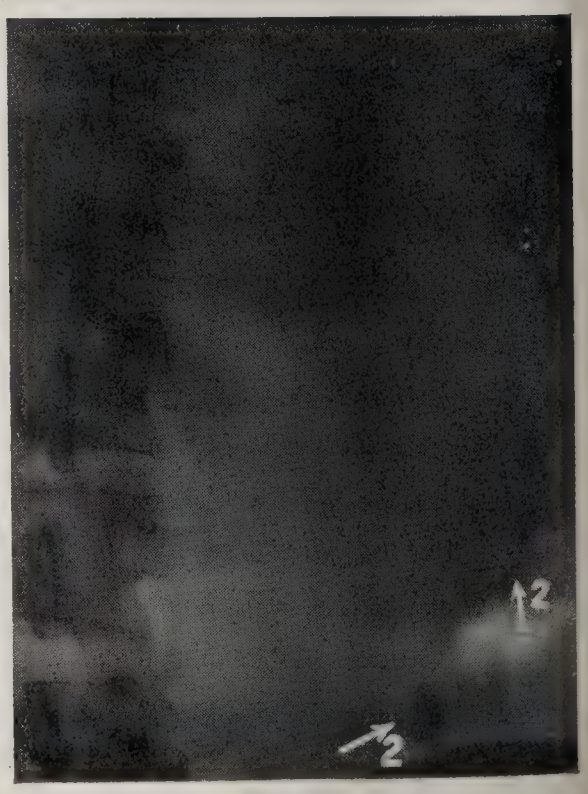


Fig. 17.

For the second plate the patient takes another dose of oxygen and air, though this is not necessary, and fills the chest as full as is possible, and holds the breath. Then, with the kidney thus thrust down and *fixed*, the *x* rays are switched on, and the second plate is taken. This is labelled "*Inspired supine.*"

The entire couch is now raised by the head until the body is at an angle of 45 degrees, or even till the patient is almost erect. The kidney is thrust still lower by this position, aided by forced inspiration, and the third radiograph is taken. The plate is labelled "*Inspired erect.*" This position is difficult to obtain, and it may often be dispensed with.

These three plates are now carefully developed and dried. Three sharp pencils are taken—black, red, and blue, and a sheet of the thinnest tracing paper.*

The first plate, the "*Expired supine,*" is inserted into the negative viewing box, behind which is a strong electric light. The tracing paper is clipped on firmly to the plate, so that it cannot be shifted by the movement of the pencil, and the entire *bony* outline of the spine and iliac bone visible on the plate is minutely copied with the black pencil. The outline of the kidney is now traced in the same way, and any contained stone is also marked. The tracing paper, which is now an exact reproduction in outline of the "Expired supine" plate, is transferred to the second plate, "Inspired supine," and is manœuvred until its black pencil outline of the bony framework shadow is exactly superimposed over the corresponding bony shadows of the second plate beneath. This is adjusted and readjusted until there is but one bony outline visible. If the two bony outlines do not exactly correspond, the patient has moved his body on the plate, or the axis of the light has been changed. The attempt has failed; it is useless.

Provided the outlines correspond exactly, the red pencil traces the kidney shadow, and if there is a stone present it also is marked. If you now glance casually at the result you will be surprised to find how greatly the forced inspiratory effort has thrust the kidney down—the red curve of the cortex of the lower pole may be an inch or more below the black curve. Measure the vertical distance and you will have the measurement of the downward excursion due to the down thrust of inspiration (Plate, Figs. 3, 6, and 9). But this is not all. Clinically, you often want to know what happens when the patient is on his feet; or, it may be, the "Inspired supine" renal contour differs but little from that visible in the "Expired supine," and you must see if gravity will shift the kidney.

Take the third plate—"*Inspired erect*"—and repeat the manœuvre of bony shadow superposition, and mark the kidney outline in blue. Your tracing paper now has all the evidences of the downward movements of the unduly mobile kidney increased by gravity, which you can estimate with an ordinary inch or centimetre rule.

You might remark, "But supposing the kidney has not moved at all?" Well, that is another subject to which I will return shortly, for we have not yet exhausted our present subject.

You notice that in most cases the black, red and blue concave lines which mark the cortex of the lower pole do not lie directly one below the other, as they would do if the kidney dropped directly downwards with inspiration and posture, but tend outward, away from the spine (Plate, Figs. 2, 6, and 18). This shows that the lower pole turns outward when the sliding drop of the kidney is finally checked by the restraining pull of the renal pedicle.

Try and visualize what this tilt means to the due drainage of the kidney pelvis—for all problems in kidney pathology and surgery, except that of malignancy, find their centre and answer in this—the facility or difficulty of renal pelvic drainage.

Will the tilt outwards of the lower pole bend the pelvis at its junction with the ureter, and so impede the outlet? No, it favours the outlet, for it opens the pelvo-ureteric angle, and this position is aimed at by operators in fixing the kidney.

Occasionally, however, you will notice the lower pole turns toward the spine. Surely this will bend the pelvo-ureteric junction, kink the orifice, dilate the pelvis, hollow the kidney, and induce suffering? Not necessarily, for the upper ureter is movable in these cases. The down drag of the kidney has loosened it, and it moves with the kidney in respiration, and it therefore does not kink. If it were fixed, and the kidney movable, a kink must occur at the pelvo-ureteric junction, and all the dangerous and distressing results of kinking and therefore of insufficient drainage ensue.

Some of you will at once say, "But this is in direct opposition to our textbooks! Gigon,[2] in 1856, asserted that the upper ureter was fixed by the peritoneum and could not follow the kidney in its wanderings, and therefore the ureter kinked and hydronephrosis ensued." And you may add that "since his time it has become an accepted fact by the observations and published records of many surgeons."[2] Ah! but this is a half-truth. It does apply to the rotating kidneys, but not to the "dropped" variety which we are now considering. Mark the difference clearly in your mind. The dropped kidney with its huge excursion loosens the ureter, and this does not produce hydronephrosis. The rotating kidney does not loosen the ureter so much, and it is liable to hollowing. If you ask me where is the evidence of this, I answer at once, "The radiograph and a tactile and visual examination of dropped kidneys obtained during operation."

First, the radiographic evidence. Let us take an unequivocal instance.

Plate, Fig. 7, is an oxalate stone in the ureter of a movable kidney in a *male*. You recognize this as a ureteric shadow at a glance, but with forced inspiration the kidney, and with it the ureter, is forced downwards, and the stone shadow is seen to be an inch lower down (Figs. 8 and 9). The upper ureter is therefore movable, for if the ureter were fixed the kidney might drop as much as it liked, but the stone shadow in the ureter would not change its position (confirmed by operation).

But we can now do better than this—we can inject the ureter with collargol, and the *x*-ray shadow demonstrates its curves. Operatively you will find very few of these greatly dropped kidneys have any hollowing of the pelvis or any other signs of kinking of the ureter; the ureter is thrown into curves, of course, but unless there has been periureteritis there is no kink. No, the mobility of the upper ureter does not cause hydronephrosis; it prevents it.

Let me press home this aphorism: The secretory health of the movable kidney, its symptomatology, and the necessity for operative relief depend on the mobility or fixity of its upper ureter.

### *A Graphic Record of the Exact Line along which the Kidney Moves.*

If you desire to see the exact line along which the kidney moves either in drop or rotation, you must utilize another of the expedients I employ. This consists in photographing a stone in the renal pelvis, or a pelvis injected with a shadow-producing fluid (collargol, colloid silver) while it is *moving*. I call it the "snail track," for instead of a sharply defined outline of the stone you obtain a long, broad, blurred trail of shadow which marks the track of the stone as it slowly moves from its lowest to its highest posture during the exposure of the *x* rays. Let your patient take the deepest inspiration and hold it for five seconds;

### DESCRIPTION OF SPECIAL PLATE.

Fig. 10.—Radiograph of a stone in a kidney pelvis under full expiration (Arrow 1).

Fig. 11.—Same under full inspiration, showing *ascent* of stone shadow (Arrow 2), this change being due to rotation of kidney.

Fig. 12.—Composite tracing of both figures.

Fig. 13.—Radiograph of stone in kidney under full expiration (Arrow 1).

Fig. 14.—Radiograph of same under full inspiration (Arrow 2).

Fig. 15.—"Snail track" of stone under prolonged expiration, the elongated shadow (Arrow 3) showing the axis of the movement in the kidney.

Fig. 16.—Radiograph of a calcified gland in meso-appendix attached to lower pole of the kidney under full expiration (Arrow 1).

Fig. 17.—Same under full inspiration, showing descent of gland shadow with kidney (Arrow 2).

Fig. 18.—Composite tracing of 16 and 17, demonstrating the certainty of the shadow being a body attached to the lower pole and outside the kidney (elimination of "false" shadows).

* French (vegetable fibre) tracing paper, obtainable at Reeves's, High Holborn, is the best.

time it with your watch. Now let the patient allow a little of the inspired air to escape every three seconds until the fullest expiratory effort is reached; then continue the expiratory effort five seconds. Now look at the radiographic result (Plate, Figs. 13, 14, and 15). You will find a broad stripe of shadow which accurately delineates for you the line along which the stone, and therefore the kidney, has moved. With nervous patients, let them slowly but deeply breathe in and out, and the shadow of the track of the moving stone will appear.

I have now described to you the radiography of the simplest form of dropped kidney—which you can detect bimanually—which drags on and deranges the digestive organs (chylopoietic viscera), but, because its ureter has become *freed* and because its pelvis does not distend, does not evoke the amount of local suffering, nor the same depreciation of renal function as the succeeding, the rotatory, form.

Let us now take the more important group—those kidneys which do not drop greatly but which rotate on an antero-posterior axis, and in doing so kink the fixed ureter and induce back pressure, create a hollowed pelvis

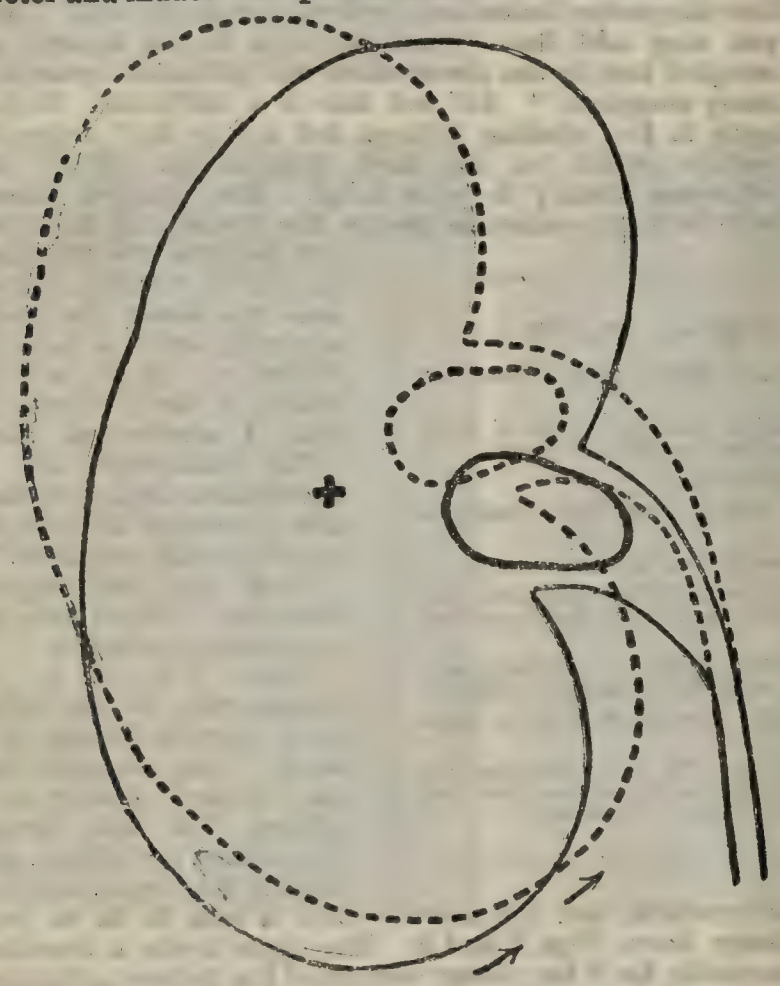

Fig. 19.—Kidney rotating inwards on antero-posterior axis +.

and evoke all the symptoms and renal changes consequent upon that condition.

*Axial Rotation of an Unduly Mobile Kidney without Marked Downward Displacement.*

When the kidney is placed high up in the thorax its contour can still be followed in favourable cases under forced expiration, although the shadow cast by the kidney tends to blend with that of the liver or spleen.

Suppose you notice the black, red, and blue concave markings of the lower pole do not descend much, but tend rather to rise towards the spine. What may be surmised? Well this: That the upper pole is more or less attached while the lower pole is movable, and the down thrust of inspiration drives the lower pole towards the spine by rotation on an antero-posterior axis.

Two problems arise: What action has this rotation on the renal pelvis? The upper third of the ureter, mark you, is more or less fixed, for it has not been loosened by the long down-drag of the kidney, as occurs in the preceding form. The pelvo-ureteric junction is therefore intermittently bent. Gradually the pelvis is softened, for it is intermittently prevented from easy evacuation, and it distends. Hence comes that hollowing of the kidney which is found operatively in these cases. Hence also the characteristic renal pain at the ileo-costal angle, and widespread nerve distress, and the altered renal function.

The other problem, which to me is of exceeding interest, is why the kidney is fixed at the upper end so that its upper pole moves but slightly? I believe in some instances that corticitis has fixed it; in other words, that adhesions there are most marked.

In some cases history of hepatic, gastric, and duodenal troubles may be elicited, each of which may cause adhesions around the upper pole to fix it. In some cases there is an aberrant renal artery which, I believe, often tethers the upper pole and allows the free lower pole to rotate and kink the pelvo-ureteric junction.

Can we demonstrate this form of axial rotation more exactly?

It is easily done if an oxalate of lime stone chances to be in the pelvis, for its shadow *rises* and passes inwards on forced inspiration (Plate, Figs. 10, 11, and 12). Look at this clay model of a right kidney (Fig. 19). You will realize that it is only by turning on an antero-posterior axis that the shadow of a stone in the pelvis can rise upwards and inwards.

But supposing there is no oxalate of lime stone—and it rarely happens that one is present in the early stages of pelvic hollowing—to help us follow the movement of the kidney by the excursion of its shadow. Inject a little collargol into the renal pelvis, and you obtain a shadow. On the movement and the contour of that shadow in inspiratory effort, whether it opens out or becomes restricted in outline, whether it moves in and up or out and up, will be demonstrated the movements of the kidney. Pyelography will open up a hitherto closed book of problems in the causation of the pathology of surgical affections of the kidney, and its pages will surprise and charm the worker and render renal surgery more accurate, and therefore more beneficent, than has hitherto obtained.

*Clinical and Surgical Inferences.*

By this method I can generally avoid the mistake of false shadows. True shadows in the kidney move with the kidney. Look at Plate, Figs. 16 and 17. This is not a stone in a kidney but a calcareous gland outside the kidney. By this method I can urge operation for painful kidneys I cannot feel, and dissuade from operation those whose kidneys are not rotating but merely dropping outward. But more than this. At the beginning of the lecture you might have asked, "But suppose the kidney does not move?" Then it is a *fixed* kidney, and a knowledge of it is of real value in operative surgery.

I cannot deal with this subject at present. I can only hint as to its value to the careful surgeon.

If I come across a fixed dense kidney, with profuse haematuria, I know I have to deal with a carcinoma of the kidney that has passed through its capsule, and has fixed it so that there is no use operating; that I shall not be able to get the kidney away without damaging the inferior vena cava or abdominal aorta, or without getting a rapid recurrence by opening up planes along which the malignant growth has interpenetrated.

A fixed dense kidney shadow, I repeat, high up under the costal arch, with profuse, intermittent haematuria, means a "too-late" cancer, for it denotes a malignant kidney that has become glued, and is therefore inoperative.

A fixed shadow of a dense kidney, with stinking pyuria and shadow of pelvic stones, means nephrectomy, and, if the surgeon is wise, subcapsular nephrectomy by the lumbar incision, without touching or separating more of the pericapsular attachments than is just necessary to enucleate the organ and control its pedicle. The surgeon who acts thus will not lose these severe cases.

A fixed dense kidney shadow without stone, but with *coli*-pyuria or staphylococcic pyuria, generally needs the simplest pelvic drainage through the loin without disturbance of the pericapsular area.

A dense fixed kidney shadow without pyuria needs serum treatment for the treatment of the corticitis. But the subject is too big for me to enter upon here more fully. I am painfully aware that time and space permit me but to touch upon the fringe of it. I have said enough to convey to you something of the importance, not only radiographically, but clinically and operatively, of the use of forced expiration and forced inspiration with or without vertical posture of the patient, and I leave you and your radiographic department to utilize or condemn the hints I have conveyed.

REFERENCES.

[1] Renal Pain, BRITISH MEDICAL JOURNAL, January 7th, 1911. [2] Quoted by Sir Henry Morris, *Surgical Diseases of the Kidney*, vol. i, p. 99.

# ANTHRAX AND FATALISM.

BY

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According to Bacon "the chief obstacles in the way of truth (or causes of error) are four—namely, the plea of an authority that does not deserve the name, long-standing habit, popular prejudice, and an ingrained ignorance that masquerades as so much knowledge." I quote this in connexion with the attitude of most medical men towards internal anthrax or pulmonary anthrax, commonly known as woolsorters' disease; and I wonder why an attitude of fatalism should be reserved for this particular microbic disease and why we should refuse to believe that it is governed by the same biological laws as govern other germ diseases. The prevalent attitude may be thus stated: "If a patient has got internal anthrax that patient must of necessity die; if he does not die, it is not internal anthrax." Giving evidence at an inquest at Shipley last autumn my friend and colleague, Dr. Eurich, Bacteriologist to the Bradford Anthrax Investigation Board, stated "there was not a single case of lung anthrax known to have been cured by injections of any kind."

To my mind in regard to this disease we are reasoning in a circle. We know in undoubted cases of internal anthrax—proved to be such both *ante mortem* and *post mortem*—that bacteriological examination of blood and pleural and pericardial effusions rarely discovers anthrax bacilli more than twenty-four to thirty-six hours before death. Therefore it follows that if these fluids had been examined, say, forty-eight to sixty hours before death the examination would have been negative, and had the patient from the time of that examination begun to improve and eventually recovered, then we should have been placed in the absurd position of maintaining that it could not have been anthrax because we did not find any anthrax bacilli; and (again arguing in a circle) if it had been anthrax the patient would have undoubtedly died. I am quite willing to admit that when the disease has advanced so far that examination of the blood and fluids prove the presence of anthrax bacilli then the patient is beyond hope of recovery and will die. But I hold that until that fatal stage is reached we are justified in making a diagnosis from clinical symptoms alone, just as we do in many other diseases probably microbial, in which the bacteriologist has not been able to help us even to the extent of finding and isolating the germ at any stage of these diseases.

If, then, we can diagnose internal anthrax by symptoms alone, before the fatal stage where the bacilli may be demonstrated, and apply suitable treatment, say by Sclavo's or other anti-anthrax serum, and so bring about recovery; it follows that, bacteriologically, we are then unable to *prove* that the disease was anthrax. To continue the reasoning a little further, all who have had considerable experience of anthrax know that external or cutaneous anthrax, if subjected to no treatment whatever, will by the natural resistance of the body in many cases undergo spontaneous cure. Why, then, may not the same thing occur if the area that is infected primarily is situated in the lung or alimentary tract? We say, "because these local lesions have very seldom been found *post mortem* in the lungs and intestines in cases that have died." But the reason why we have not found these internal local infections clearly is that many have recovered and that those who have died have died of a secondary general infection, and at not one *post-mortem* examination in twenty is any real attempt made to locate the original seat of inoculation. In most cases it would not be practicable to do so, all the pulmonary tissues being altered by the conditions due to the general infection.

During the last half-dozen years, while acting as medical adviser with regard to anthrax for twenty-four large woolcombing firms, forming about 90 per cent. of the woolcombing industry in Bradford and district, I have had the opportunity of examining hundreds of employees who have been off work through illness; many of these cases being suspicious, I have treated with Sclavo's serum with good results. The following notes of one of the best examples of the kind I have had were published in the annual report of the Bradford Medico-Chirurgical Society in 1906:

T. H., aged 53, a finisher, working amongst brown Persian and other dangerous wools, began to feel ill on January 16th, in the evening, was seen by me on the morning of January 19th; was then complaining of "shivering," cough, dyspnoea, nausea, headache, and vertigo; pulse 74, regular but small; temperature, mouth 100.4°, rectum 103.0°; respirations 30. No external sores. Examination showed diminished respiration over whole of right lung. Heart sounds normal. As I considered the case distinctly suspicious of anthrax I gave 40 c.cm. of Sclavo's serum hypodermically under the skin of the abdomen. At 11.30 the same night, pulse 120; rectal temperature 103.4°; respirations 33. Breath sounds puerile over right apex in front. Patient refused more serum that day.

January 20th.—Pulse 104; temperature, rectum, 102.4°; respirations 26. Auscultation gave same results as before; 40 c.cm. more serum given. Bacteriological blood examination for anthrax bacilli gave negative results.

January 21st.—Pulse 85; temperature, rectum, 100°; respirations 21. Breath sounds over right apex not so harsh as before, but some small sibilant rhonchi present.

January 22nd.—12 noon: Pulse 96, weak; respirations 34; temperature, rectum, 102° F.; some lividity of dependent parts. Four inches of fluid in right chest; about 1 in. in left side (took some for bacteriological examination—absolutely sterile); skin cold and clammy. Gave intravenous injections in median basilic vein of 40 c.cm. serum. At 11 p.m.: Pulse 90; temperature 101.6° F.; respirations 38. Patient feels better and is a better colour and skin warmer.

January 23rd.—Pulse 100, regular; respirations 38; temperature, rectum, 100.4° F. Fluid in both pleural cavities increasing.

January 24th.—11 a.m.: Pulse 84, weak and irregular (heart beats 100); respirations 28, laboured; temperature, rectum 100°, mouth 95.6° F. Superficial cardiac dullness absent. Pleural effusion still increasing. Rhonchi over both apices in front. Cyanosis of hands and feet. Gave 30 c.cm. in loin. 10 p.m.: Pulse 102, regular and stronger; respirations 28; temperature, rectum, 100.6° F. Looks bright and feels better. Aspirated 42 oz. blood-stained fluid from right chest. (Bacteriological examination of this fluid negative.)

January 25th.—Pulse 105; temperature, rectum, 100.6°; respirations 34. Fluid still in both cavities. Took some from left side—free from blood; sterile. Gave 40 c.cm. more serum, hypodermically.

January 26th, 11 a.m.—Pulse 106, small, weak, and irregular; could only count by auscultating the heart. Temperature, rectum, 100.4°; respirations, 28. Hands and feet cyanosed. 40 c.cm. serum *by mouth*; 15 minims liq. strych. hypodermically. 5 p.m.: Pulse 100, very small; respirations 24; temperature, rectum, 99°; looks better; 15 minims liq. strych. hypodermically.

January 27th.—Pulse 90, much stronger; temperature, rectum, 99.2°; respirations 15, full and deep (was sleeping, first time for some days); cyanosis of hands and feet less marked. Still fluid in both sides of chest. Bacteriological examination of specimen from right side negative.

January 28th.—Pulse 95, quite regular and much fuller; respirations 22; temperature, rectum, 98.6°; slept two hours. Cyanosis almost gone. Slight diminution of effusion. For the next three days improvement was steady, except that fluid increased in right chest and diminished in left. On February 4th I aspirated 70 oz. from right side—blood-stained, sterile.

From that date recovery was uninterrupted.

The principal features of the case were cardiac feebleness, cyanosis, double pleural effusion, the usual prodromal symptoms, headache, vomiting, and rigors. I based my diagnosis on these symptoms occurring in a man engaged in handling highly dangerous wools, where such symptoms, in the absence of pleuritic friction or pain, pneumonia, tuberculosis, cardiac or renal disease, could not be well explained by anything else. The injections of Sclavo's serum were in nearly every instance followed by a fall of temperature and an increased feeling of comfort and well-being. In all 230 c.cm. of serum were given.

I write this in the hope of combating the feeling of fatalism which attends this disease, and of urging a more generous use of the anti-anthrax serum—to give it, in fact, a "sporting chance." I have used it in many cases, and have seen serum fever and skin eruptions in only a few. They occur about the ninth day, and are accompanied by joint pains.

Since writing the above, some months ago, my ideas have received support from the last report of the Bradford Anthrax Investigation Board. In that report the following passage occurs:

> Last year it was pointed out that of the 13 patients of whom the length of employment was ascertained, 5 had handled scheduled materials for only six months or less. The figures this year are still more remarkable, 6 out of the 10 having been employed only for six months or less continuously amongst scheduled materials. It would seem as though length of employment amongst scheduled materials gave immunity

from anthrax to some workers, or at any rate made them less susceptible to an attack of this special form of blood-poisoning.

Now I know of only one way in which immunity against, or diminished susceptibility to, a specific contagion can be accidentally acquired—namely, by contracting the specific disease in question. If, therefore, the above extract has any meaning at all, it can only mean that these wool-workers acquire slight forms of anthrax which give them immunity; in other words, that the views I have been inculcating for the last half-dozen years are supported by the statistics of the incidence of anthrax.

Messrs. F. M. Rimmington and Son, Bridge Street, Bradford, keep a constant supply of Sclavo's serum.

## THE INFECTIVE GRANULE IN CERTAIN PROTOZOAL INFECTIONS, AS ILLUSTRATED BY THE SPIROCHAETOSIS OF SUDANESE FOWLS.

BY ANDREW BALFOUR, M.D.,

DIRECTOR, WELLCOME RESEARCH LABORATORIES, GORDON COLLEGE, KHARTOUM.

### PRELIMINARY NOTE.

AT the first meeting of the Tropical Medicine Section of the British Medical Association in London last year I advanced the view that, in all probability, what might be called the "infective granule" would yet be found to play an important part in certain protozoal infections, and more especially in spirochaetosis and trypanosomiasis. I based this belief on the work of Leishman as regards the changes undergone by *Spirochaeta duttoni* in *Ornithodorus moubata*, and on the allied changes which I had found to occur in the Sudan fowl spirochaete when ingested by *Argas persicus*. I have been continuing the work on fowl spirochaetosis and have recently arrived at some most interesting and significant results, which may yet have considerable bearing on the view we must take of the pathology of this and other spirochaetal diseases, and possibly also on their treatment.

The full account of these later researches will be presented in the fourth report of these laboratories, which is now in the press, and is due to appear in the autumn of the present year; here I wish merely to place on record a few of the more salient features of the work.

It will perhaps be remembered that one found intracorpuscular forms in this fowl spirochaetosis, and that, following Sambon, one had come to the conclusion that these endoglobular bodies represented a stage in the life-cycle of the spirochaete—constituted, in short, its stage of schizogony in the fowl. Sambon, however, who expressed this view from the study of a few slides I gave him, did not indicate how this red cell invasion occurred. For a long time I believed the spirochaetes themselves entered the red cells and broke up, or coiled up, within them to form these remarkable bodies. As the parasites can and do enter and leave the erythroblasts of the fowl, there was good ground for this supposition. Now, however, I know better.

By the use of the dark-field method, and more especially by practising liver puncture on chicks at the crisis or on chicks which have been given a sufficiently large dose of salvarsan, I have found that in the liver in particular, also in the spleen and lung, the spirochaetes undergo an astonishing change. They discharge from their periplastic sheaths spherical granules, and it is apparently these granules which enter the red cells, develop in them and complete a cycle of schizogony. The appearance is very remarkable. If a well-infected chick be given a dose of salvarsan, the peripheral blood is soon cleared, or nearly cleared, of spirochaetes. If then a drop of liver juice be examined by the dark-field method, it will be found swarming with spirochaetes and with highly refractile granules. The source of the latter is soon apparent, for attention will be directed to spirochaetes which are not moving in the usual way, but are in a state of violent contortion, or are, so to speak, shaking themselves to and fro. Indeed, I cannot give a more apt comparison than by likening their movements to those of dogs which have been in water and are shaking themselves vigorously to dry their coats. The object of the spirochaetes, however, is to rid themselves of the bright, spherical granules which can be seen within them, and which may or may not be aggregations of the so-called chromatin core. These are forced along the periplastic sheath and suddenly discharged, so that they become free in the medium and dance hither and thither as tiny, solid, spherical, brilliantly white particles. In process of time the spirochaete loses its activity, becomes difficult to see, and eventually all that is left of it is the limp and lifeless sheath drifting aimlessly in the fluid and liable to be caught up and swept away by some still vigorous parasite. Such a sheath may still retain one or two of the granules which it has been unable to discharge.

As may be imagined, the process is most fascinating to watch, and my observations have been confirmed by Captain Fry and Mr. Buchanan, of these laboratories, and by Captain O'Farrell, R.A.M.C. I may also say that the first-named had previously seen a shedding-off of granules by trypanosomes in the peripheral blood of experimental animals, a phenomenon which he is now studying.

It is these spirochaete granules in the liver, spleen, and lung, and possibly also in other internal organs, which, I believe, invade the red cells. I think I have seen the penetration occur, but require to make further observations in order to be certain as to the mode of entry. Such a chain of events fully explains all the puzzling features which this intracorpuscular infection has hitherto presented, and, moreover, brings it into line with the infective granules found in the ticks, for these very closely resemble those seen in liver-juice films, both when examined by the dark-field method and when stained by the Levaditi process. There are various other points, more especially as regards the peculiar staining reactions of these granules, into which I need not enter beyond saying that the fact that, when free, they do not appear to take on the Romanowsky stain may explain why they have not previously been noticed. The work is also not yet complete, as it is necessary to find out if the spirochaetes ingested by ticks behave in a similar manner and thereby produce the granules of Leishman.

I see that Jowett in South Africa has recently discovered what appears to be an identical form of fowl spirochaetosis, and I trust he will employ the dark-field method and endeavour by liver puncture and the use of salvarsan, for the purpose of creating an artificial crisis, to follow out the curious cycle I have indicated.

From these observations and others which will be fully detailed at a later date I have come to the conclusion that this fowl spirochaete must be classed as a specific entity, and I am proposing for it the name *Spirochaeta granulosa penetrans*, which, though lengthy, suitably indicates its more important peculiarities. At the same time it is quite possible—nay, even probable—that other pathogenic spirochaetes behave in a similar manner. I have found these granules to be resistant forms, and their presence in countless numbers in the tissues might explain part of the mechanism of relapse and the difficulty of curing completely some of the more chronic spirochaetal infections, as, for example, syphilis and yaws.

In conclusion, I must thank Professor Ehrlich for most kindly placing at my disposal an ample supply of his new and valuable remedy.

AN Anticholera Congress has recently been held at St. Petersburg, under the presidency of the Minister of the Interior.

WE are informed that over 100,000 copies of the leaflets on "clean milk" published by the National League for Physical Education and Improvement (4, Tavistock Square, London, W.C.) have been distributed within the last few months mainly by officials connected with health authorities, and also through national and local health societies. The leaflets specially addressed to the householder have been supplied to many education authorities for distribution to the children when lessons on domestic hygiene are being given and for the instruction of the teachers themselves. The league is no doubt well advised in trying to influence the rising generation, and we are glad to congratulate it on the evidence of the good progress made in its useful campaign.

## NOTE ON THE THERAPEUTICS OF SUGAR.

BY

SIR JAMES SAWYER, M.D.LOND., F.R.C.P.,

SENIOR CONSULTING PHYSICIAN TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

THE profession is much indebted to Dr. Goulston for his paper in the JOURNAL* showing forth the good effects of the exhibition of sugar in certain forms of cardiac failure. His therapeutic suggestions rest upon sound physiological foundations, based upon recent experimental research, and, illustrated as they are by clinical records of results in medical practice, they promise to become one of the greatest additions to our remedial resources in failure of the musculature of the heart of later years.

I desire now to record that I have used cane sugar freely and frequently during the last ten years or so with success in a variety of morbid conditions. In wasting disorders, in various forms of anaemia, in adynamic varieties of rheumatism, and especially in the neurasthenic manifestations of neurotic persons, I have found the continued ingestion of cane sugar markedly beneficial, increasing weight and power, and appearing to act not merely as a nutrient but also as a tonic in the best senses of that word—namely, as a very valuable medicine, "the continued administration of which in debilitated and relaxed conditions of the body imparts strength and vigour without producing any sudden excitement,"[1] and as a corroborant gently stimulating the vital energies to an aroused action by a kind of mild stimulation, slowly produced and permanent in effect. For an adult I have usually prescribed from a quarter to half a pound of lump cane sugar, to be slowly eaten daily, a lump or two to be taken at odd times through the day or night, but not just before a meal, the patient always carrying a little store of the remedy with him, and eating some of it when so disposed.

Now we shall have to think of members of the sugar group especially as sustainers and developers of the musculature of the heart, as in failure of compensation, and in a large variety of cardio-vascular troubles. It would seem that our obstetric brethren might find the remedy useful in conditions of uterine atony, say as a particular nutrient during pregnancy.

I have found it useful to recollect that cane sugar may be distinguished from other forms of sugar by its luminosity in the dark when two lumps are rubbed together.

REFERENCE.

[1] Neligan's *Medicines*, etc.

*Note on the Beneficial Effect of the Ingestion of Cane Sugar in Certain Forms of Heart Disease. BRITISH MEDICAL JOURNAL, March 18th, 1911.

## THE CARDIGAN CANCER CURES.

BY

G. M. DAWKIN, M.R.C.S., L.R.C.P.,

PONTYPRIDD.

IT was my lot to visit the town of Cardigan during the time when the cures had been boomed, and when there were scores of people going there for treatment, some of them with malignant growth, some for benign, but all diagnosed as cancerous.

My first visit was with a lady patient who was suffering from cancer of the throat; she had seen several London specialists, including Sir Felix Semon, and the case was considered quite inoperable and hopeless by him and by Mr. Tilley. On the evening of our arrival the two brothers came to visit her and examined her throat. The growth was pharyngeal, and invaded the posterior part of one tonsil; but this state of affairs did not prevent them from assuring her that she might confidently expect recovery, as they had cured worse cases. They gave some oil which had to be rubbed on the neck, and treatment was continued for a couple of months, when the end came, not in the promised recovery, but in death.

The second patient of mine who went there was an elderly man with cancer of the lip, which he had refused to have removed by operation. When I saw him in Cardigan he was quite hopeful, and considered the treatment was doing him good, but I could find no reason for this belief except that he was having a great deal of pain, and he had been assured that this was a most desirable thing, as the remedy had now reached the roots of the cancer, which were being tugged away. He came home in about six weeks worse than he went, and ultimately died of his disease.

A painful feature of this case had reference to his daughter, who had accompanied him to Cardigan. For some reason or other she had been induced to show her breasts to the "doctors," and cancer was at once diagnosed and active treatment commenced on the right breast. When she returned to Pontypridd she was given some powder and oil to apply according to their instruction. The treatment was most agonizing, and I was asked to see her. The breast was simply raw; all the skin had been completely eaten away; there was nothing in the breast beyond the ordinary glandular structure, and the treatment was stopped and the breast healed up under ordinary treatment. She was only about 27; and she was married last year, giving birth to a child recently, and, of course, suffering from the inconvenience of having her right breast useless.

A third case came under my notice, that of an elderly lady with cancer of the breast. After nearly twelve months she came home to die. It was on my first visit to Cardigan that I was told that Mr. W. T. Stead had sent down a test case, and I went to see him. This man's name was Drummond, and he stayed at Adelphi House. He was, I should think, about 40 years of age, and lived in either East or West Ham. He told me he had been at several hospitals, and was a patient at the Middlesex before coming down to Cardigan. When I saw him he told me that the "cancer doctors" were very hopeful about his case, and he too, poor fellow, had been inspired with a hope that was to be falsified very soon. I found that he had a sarcoma on the left side of the neck as large as a small orange. He had been under treatment for several weeks, and the surface of the tumour was almost black and cracked in several places, suggesting that it had been treated with some strong escharotic like chloride of zinc. The application of the remedy gave much pain, but here, as in other cases, the pain was considered as a clear indication that the growth was being eradicated. I saw Drummond about three times at intervals of about three weeks. There was no change in the tumour except that the surface was fissured and a little shrunken. Soon after my last visit he returned to London and died.

A fifth case that I saw was a man with cancer of the throat. Here again a most cheerful view was taken, and great hope given, all to end as usual—in death.

The faith that even educated people place in quackery was curiously illustrated by a lady whose husband was a relative of a distinguished physician. She was supposed to be suffering from cancer of both breasts, and was undergoing very active and agonizing treatment. I was allowed to examine her breast, and the gland had been practically eaten away by some eroding agent. The detached parts which fell from the breast when I examined it had the appearance of mortar, and crumbled on pressure. No antiseptic treatment was followed, but in spite of this there was nothing offensive or putrescent about it, showing, I suppose, that some powerful mineral had been employed in the remedy.

In no case have I known an authentic and unquestionable malignant growth yielding to the Cardigan cure, and I think all the boomed successes are cases of warts, fibromata, and other non-malignant conditions.

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A PAMPHLET, under the title of *No Irish need Apply* and intended for circulation among the public, sets forth the views of the Association of Fellows of the Royal College of Surgeons of Ireland as to the impropriety of the regulations of any English hospital being so framed as to limit candidature for appointments on the surgical staff to those possessed of the diploma of fellowship of the Royal College of Surgeons of England, thus excluding, among others, persons possessed of diplomas and degrees from Irish corporations and universities. By way of illustration is appended a recent correspondence between the association and the authorities of the Manchester Royal Infirmary and some comments thereon by the medical journals. The pamphlet is stated to be the first of a series.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### OPERATION FOR DISPLACEABLE PATELLA.

AT page 731 of the JOURNAL of March 25th is a short communication from "Cantor" referring to a proposed operation on a case of outward displacement of the patella in a young woman. Having recently had to deal with a case of this sort, "Cantor," I am sure, will be interested in this reply:

In March, 1905, a lady of 25 years was brought to me because she was rendered unsafe and unhappy by recurrent dislocation of the right patella. Sometimes the displacement occurred three times a day. Eighteen months previously the dislocation happened at the top of a flight of stairs, with a disastrous result. On the other side she had a congenital displacement of the head of the femur, and occasionally the patella of that side also slipped out, but she regarded this as being of quite secondary importance. She had genu valgum on both sides, and although "Cantor" says nothing as to the existence of this defect in his patient, I am inclined to assume that it is present. If he will fully extend the legs and then bring the knees together thus extended, he will probably find a separation of two or more inches between the internal malleoli. In the case of a knock-knee, the energetic action of the rectus femoris and its partners causes the patella to be displaced a little outwards, and one day the knee-cap slips right off the trochlear surface, a true dislocation resulting.

To remedy this defect in my patient I advised subcutaneous division of the femur just above the joint, and the conversion of the condition of genu valgum into that of genu excurvatum. She entered a nursing home, and I did the operation with a keyhole saw, fixing the limb in a slightly bowed position, the concavity of the bow being, of course, diverted inwards.

About five months after the operation she came to report herself, and told me that the knee had behaved perfectly well ever since, though I confess that I was somewhat alarmed at the perilous way in which the patella glided outwards when the knee was flexed. It was like a man standing upon the edge of a cliff where a puff of wind might suffice to blow him over. Still, it had never slipped out since the operation, so I had no real cause for fright.

In the following November I saw her again, when she said that soon after her last visit she had caught her dress in a door, and that, falling, she had hurt the left knee, dislocating the patella outwards, but that the patella of what she was pleased to call "my" knee had remained steadfast. With drilling and exercises her limbs greatly improved, as did also her general condition; but the patella of the left, the poor, hip-shot limb, gave constant anxiety, for it was ever apt to slip out, giving her intense pain.

In October of last year she came suggesting that I should do for the left knee the operation which had proved so successful on the other side. Dr. Tanner, of Farnham, came with her and supported her suggestion. Seeing that, at the best, the left limb was but a poor one, I hesitated to operate without the approval of an independent surgeon, and Mr. Bowlby was kind enough to see her with Dr. Tanner and me. Shortly after this interview subcutaneous osteotomy was done on the left femur, the limb being fixed up in an outward bowed condition, and, though the limb is still weak, this patella has also kept in place in spite of a serious fall which the lady met with some weeks ago.

If it be suggested that it is early days yet to publish the second operation as a perfectly satisfactory one, my reply is that I have not hurried in with my report in order to announce the "successful result" which is apparently inseparable from the account of a surgical operation at the present day before there has been time for it to prove a failure—I merely send it in as an attempt to answer "Cantor's" request for advice in a somewhat rare but extremely troublesome condition.

London, W. EDMUND OWEN.

### GOAT'S MILK FOR INFANTS.

I READ with interest Dr. Alcock's note on goat's milk, in the BRITISH MEDICAL JOURNAL of March 18th, and I can thoroughly endorse his suggestion of the value of goat's milk in many cases of infant feeding. My own four children have been brought up largely on goat's milk, the last two from birth. As we keep our own goats no sterilization is done, nor would it be necessary in any case in view of the extreme rarity of tuberculosis in goats. This is of course a great advantage. I have found its digestibility to be greater than that of cow's milk, and, as is well known, its proportion of fat is considerably higher. I recently tested a sample from a goat that was nearly eleven months from kidding, and found 5.4 per cent.; while an analysis of dairy cow's milk made at the same time gave only 3.25.

It must be borne in mind, however, that with goat's milk the cream is in much finer globules and does not so easily separate out as does the cream of cow's milk; hence testing with a creamometer does not give correct results. The amount of fat must be determined by a proper butyrometer; and no doubt this apparent absence of cream has given rise to the opinion prevalent in some parts that goat's milk is "poor." There is no doubt that as an alternative to cow's milk where the latter disagrees or the child is not thriving, goat's milk is greatly neglected by the medical profession of this country.

London, S.W. SIDNEY H. SNELL, M.D., D.P.H.Lond.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### VICTORIA HOSPITAL, BANGALORE.

EXTRAPERITONEAL TRANSPLANTATION OF THE URETERS INTO THE RECTUM.

(By J. V. ARUMUGUM, M.B., Medical Officer in Charge.)

THE following two cases show the result of extraperitoneal transplantation of ureters into the rectum for extroversion of the bladder after the lapse of over four years in each case.

The first patient, a boy aged 18 years, underwent operation for extroversion of the bladder on August 20th, 1906, when the ureters were transplanted into the rectum according to the method advised by Mr. Peters, of Toronto. The patient was discharged from the hospital fifty-eight days after the operation. At the time he left he was able to retain urine in his rectum for about four hours during the day, and nearly for nine hours at night—that is, during sleeping hours (from 9 p.m. to 6 a.m.).

The second patient, a boy aged 13, had the same operation performed for the same cause on April 15th, 1907, and was discharged from the hospital on June 15th, 1907—that is, two months after the operation. This patient was able to retain urine in the rectum for about four hours during the day, and for nearly five hours at night, at the time of his discharge from the hospital.

I have seen both these patients several times since their respective operations, the second case being last seen by me on February 16th, 1911. I then found the patient was able to retain urine in his rectum for nearly six hours during the day, and was at times disturbed at night only once between 9 p.m. and 6 a.m.—that is, during his sleeping hours.

The first case was last seen by me about three months ago, that is, after four and a half years, when the patient was able to retain urine in his rectum from five to six hours during the day, and for nearly eight hours at night—that is, during sleeping hours from 9 or 10 p.m. to 5 or 6 a.m.

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AT the recent examination for sanitary inspectors under the Public Health London Act 1891, held by the Sanitary Inspectors Examination Board, 31 candidates passed, of whom 16 were women.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### BIRMINGHAM BRANCH.

*Birmingham, Friday, February 24th, 1911.*

Dr. Melson in the Chair.

Pathological and Clinical Section.

*Raynaud's Disease.*

Dr. Short showed a woman, aged 49, suffering from gangrene of the tips of two fingers of each hand. She said she had suffered from cold hands all her life, and about five years ago they went white and dead. Structural changes commenced one year ago in one hand, followed by a similar condition in the other six months later. Considerable improvement had taken place from prolonged treatment by faradism applied by passing the current through hot water to the immersed hands several hours at a time, with great subsequent relief to the acute pain. Vasomotor dilators and calcium lactate had proved disappointing in their effects, and the best results had been obtained by the faradism combined with morphine at intervals.

*Sudden Blindness after Haemorrhage.*

Dr. Short showed a man, aged 55, who had become totally blind in the left eye, and partially so in the right, immediately following a severe haemorrhage, probably from oesophageal varices. He had been drinking for some months, and had a severe bout just prior to the bleeding. The discs showed commencing atrophy following a slight optic neuritis, with moniliform and irregular vessels of restricted range over the retinae. The atrophy was more marked on the left side. There was no sign of embolism or thrombosis. Vision charts of the case prepared by Dr. Jameson Evans were also shown.

*Multilocular Cystic Disease of the Testicle.*

Mr. B. J. Ward showed a specimen of multilocular cystic disease of the testicle, which was found at the autopsy of a man, aged 50, who died of some other disease. The cystic condition was situated between the epididymis and the body of the testis. The cysts were thin-walled, transparent, and contained clear, watery contents which showed no spermatozoa under the microscope. It was a matter of considerable speculation as to what was the seat of origin of the cystic dilatation. Mr. Ward was of the opinion that it probably arose in the paradidymis rather than in the epididymis.

*Embryoma of the Testicle.*

Mr. Seymour Barling showed three specimens of embryoma of the testicle. All three tumours had been removed from adults between the ages of 20 and 30, and had given rise to a painless steady enlargement of the affected organ over a period varying from two to five months. Two of the tumours contained derivatives of each of the three germinal layers—epiblast, mesoblast, and hypoblast. In one of these, however, the hypoblast had undergone carcinomatous degeneration, while another presented the appearance of cystic adenoma of the testicle, and no malignant change could be detected. The third case contained only mesoblast and hypoblast, and the mesoblastic portion had become sarcomatous.

*Diffuse Sarcoma of Spinal Cord.*

Dr. Kauffmann showed the spinal cord and brain of a child, aged 23 months, which exhibited a diffused subarachnoid sarcoma of the cord, together with multiple growths of the same kind springing from the arachnoid over the pons and cerebellum. Many of the spinal nerve roots within the vertebral canal showed similar small growths, and the lumbar plexus of each side did likewise. The Gasserian ganglion and the ganglia of the vagus and glossopharyngeal nerves were involved in tumour growth. Death had occurred from intracerebral pressure due to distension of the ventricles with clear cerebro-spinal fluid. There were no tumours within the brain cavities. In the arachnoid of the cisterna magna it could easily be seen that the tumours sprang from the pial face of the arachnoid, and that they had in some cases not yet become attached to the pia mater. In the cord the diffuse growth, which in the dorsal region still showed distinct nodulation, was equally fixed to the outer face of the pia and the visceral face of the arachnoid. Section at several levels showed the cord itself to have apparently escaped pressure. Section of a Gasserian ganglion demonstrated the nerve fibres, apparently unaltered, running through a dense mass of sarcoma (round and spindle-celled). Symptoms had lasted only four months, and began with severe pains in the head and violent screaming fits. Blindness had come on within the first three months, and was apparently total. Muscular power had been well preserved, and up to a fortnight before death the child had been able to walk, and still later had used both the arms and legs vigorously. It had played, when not in pain, up to nearly a week before death. Hearing had been acute, comprehension the same, and speech perfectly normal in content and utterance until the onset of the final pressure signs, which had commenced ten days before death.

*Chronic Intussusception of Caecum.*

Mr. Lucas showed a specimen of chronic intussusception of the caecum removed from a man aged 32 in August, 1910. The patient had tenderness over the duodenum, and suffered from wasting, vomiting, incomplete obstruction, occult blood in stools, and a mass thought to be over the pylorus. He was subjected to exploratory laparotomy under the impression that the condition was one of duodenal ulcer. The tumour, however, was found to be in the caecum, and was removed in the belief that it was malignant. After resection a lateral anastomosis was made. The patient made a good recovery. On microscopical examination the mass was found to be purely inflammatory as a result of an intussusception. There was no evidence of malignancy.

*Tuberculous Kidney.*

Dr. Melson showed a specimen of tubercle of the kidney from a male aged 19. There was a family history of tubercle. The patient's illness commenced fourteen months prior to operation, with pain at the end of the penis and slight frequency of micturition. In April, August, and November, 1910, he had attacks of haematuria lasting a few days. In November he consulted Dr. Melson for the first time. During that month he was cystoscoped by Mr. Leedham-Green. He was examined with the *x* rays without result. The function of each kidney was then tested by methyl blue and ureteral catheterization. Tubercle bacilli were found in the right kidney secretion, and its function was very seriously impaired. The left kidney appeared to be healthy. Lumbar nephrectomy was performed by Mr. Green on February 21st, 1911, and the patient up to date was doing well.

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### YORKSHIRE BRANCH.

At the spring meeting, held at the Huddersfield Infirmary on March 15th, Mr. Pye-Smith, President, in the chair, the following specimens were shown: Mr. Crossland (Huddersfield): (1) Sarcoma of kidney; (2) submucous fibroid; (3) undescended testicle and hernial sac; (4) enlarged prostate and prostatic calculus. Mr. Marshall (Huddersfield): (1) Epithelioma of tongue; (2) abnormally long appendix; (3) fetus and placenta from a ruptured ectopic.

Professor Hellier (Leeds) gave a brief report of 101 cases of *Procidentia uteri treated by operation* since 1906 by a method described by him in the *Lancet*, September 24th, 1910, which combined amputation of the hypertrophied cervix and narrowing of the vaginal walls with Wertheim's plan of vesico-vaginal interposition of the anteverted uterus. If the child-bearing period was not over, partial salpingectomy was added. The age most suitable was from 35 to 60. Dr. Hellier had investigated the after-history of 55 of his earlier cases, and about 19 out of 20 seemed to be permanently cured. There had been one death in an elderly patient, otherwise there had been a remarkable freedom from suppuration or other operative mischances.

Mr. Michael Teale, with Mr. Reginald Hann, related two cases of *Recurrent headache associated with oculomotor paresis* ("*Ophthalmoplegic migraine*"):

CASE I.—A girl, aged 9 years, was seen in 1909 with almost complete paralysis of the third nerve on the right side, which had followed severe headache and vomiting. Recovery was practically complete in six weeks. In 1910 two similar attacks occurred. The child appears to have suffered regularly from such attacks every summer since she was 3 years old.

CASE II.—In 1903 a young lady, aged 21, was seen by Mr. Hann. She had been subject to attacks suggestive of migraine since childhood, and when seen in 1908 suffered from headache, divergent squint, left ptosis with dilatation of left pupil. Recovery in three weeks. Several attacks of headache and double vision since then.

Dr. ARTHUR HALL read notes of a case of *Cryptogenetic septicaemia*. A man aged 40, a solicitor's clerk, whose previous health had been quite good, had a sudden attack of abdominal pain, vomiting, diarrhoea, and rigors. The other symptoms subsided, but the rigors recurred daily, accompanied by pyrexia, up to 103° or 104° F., and this continued for about three months. He was admitted to the Sheffield Royal Hospital seven weeks after the beginning, and a thorough and complete examination of every organ and secretion showed nothing abnormal except the presence of a streptococcus in the blood. The teeth were all extracted on account of possible oral sepsis, but without causing any diminution of the rigors and fever. Malaria could be absolutely excluded. Anti-streptococcic serum and vaccine were successively tried without any benefit. At the end of about three months, when the condition appeared to be as severe and hopeless as ever, he was placed out of doors, on the balcony of the ward, night and day. Within twenty-four hours of this being done the rise of temperature ceased and the rigors stopped. From that time onwards he made steady and complete recovery, and now, more than a year afterwards, he is still in perfect health and doing his full work as well as ever. Dr. Hall also read notes of a case of *Acute secondary syphilitic nephritis*, which ended fatally, in spite of antispecific treatment. Symptoms of nephritis appeared coincidently with the other usual secondary symptoms, and proved fatal in the course of six months. The case corresponded with those described as nephritis syphilitica praecox.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, March 16th, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*The Venom of Echis Carinatus.*

Sir THOMAS R. FRASER, M.D., F.R.S., and Dr. JAS. A. GUNN had found the minimum lethal dose of Echis venom by subcutaneous injection per kilogram was: For the frog, 0.009 gram; for the rabbit, 0.0009 gram; for the rat, 0.00075 gram; for the cat, 0.008 gram; and for the pigeon, 0.004 gram. The frog and the cat, therefore, showed a relatively high resistance to this venom, the minimum lethal dose for these animals being about ten times that for the rabbit or rat. In the case of Sepedon venom, which might be taken as a typical colubrine venom, a different ratio of lethality for those animals had been found, the cat showing relatively even a higher resistance, but the frog no increased resistance, as compared with the rabbit or rat. This of itself pointed to an intrinsic difference between the actions of viperine and colubrine venoms. The chief effects produced by Echis venom in the animals investigated were—haemorrhages occurring locally and distally, alterations in the coagulability of the blood, and secondary effects upon the respiration, heart, and central nervous system. The symptoms of experimental poisoning thus very closely resembled those which have been described in cases of Echis bite in man. Echis venom differed from colubrine venoms in having little or no direct action on the central nervous system or on the nerve terminals in voluntary muscle. It had a direct action in lowering the blood pressure in mammals by slowing and weakening the heart's contractions; lethal doses also produced a fall of temperature in mammals. The chief toxins in Echis venom, in the order of their potency, were a haemorrhagin, a substance which altered the coagulability of the blood, and a haemolysin.

*Development of T. Gambiense in G. Palpalis.*

Colonel Sir DAVID BRUCE, C.B., F.R.S.; Captains A. E. HAMERTON, D.S.O., and H. R. BATEMAN, R.A.M.C.; and Captain F. P. MACKIE, I.M.S. (Sleeping Sickness Commission of the Royal Society, Uganda, 1908–10), reported the results of further researches on the development of *Trypanosoma gambiense* in *Glossina palpalis*, as follows: (1) In the course of the development of *Trypanosoma gambiense* in *Glossina palpalis* the proboscis does not become involved, as in the case of some other species. (2) A few days after an infective feed the trypanosomes disappear out of the great majority of the flies, but in a small percentage this initial disappearance is followed by a renewed development. (3) After a very short time the flies which have fed on an infected animal become incapable of conveying the infection by their bites, and this non-infectivity lasts for some twenty-eight days, when a renewed or late infectivity takes place. (4) A fly in which this renewed or late infectivity occurs can remain infective for at least ninety-six days. (5) An invasion of the salivary glands occurs at the same time as this renewal of infectivity, and without this invasion of the salivary glands there can be no infectivity. (6) The type of trypanosome found in the salivary glands when the fly becomes infective is similar to the short stumpy form found in vertebrate blood, and it is believed that this reversion to the blood type is a *sine quâ non* in the infective process.

*Spontaneous Cancer in Mice.*

Dr. M. HAALAND (Imperial Cancer Research Fund) reported observations upon 300 mice in which cancer had developed spontaneously. The tumours originally observed numbered 350. Many of the mice presented multiple growths. It was important to note that forty-two tumours had a structure distinct from that of the well-known mammary tumours of the mouse. Spontaneous healing was recorded of undoubted malignant new growths. The reasons for that preponderance of mammary tumours which was characteristic for the mouse had been sought. The physiological demands made upon the mamma by repeated pregnancy and lactation could be excluded, since many of the mice which had been under observation since birth had never littered, and twenty had been completely isolated from possibility of association with a male. The histological examination of the mamma of a large number of old mice, cancerous and non-cancerous, showed the frequency of chronic inflammation combined with hypertrophic and other changes in the epithelium. The latter passed through all stages to definite tumours. The only explanation found for the chronic inflammatory and other changes was the presence of nematodes. Numerous experiments of diverse kind were made to define the parts played by local causes, such as those described above, and by constitutional conditions. All the evidence pointed to the importance of local causes—for example, chronic irritation—and to the absence of general constitutional changes favourable for the growth of cancer. The part played by the irritant was a mediate one, so that it produced the altered conditions under which either the first departure of the cells from the normal took place, or permitted spontaneously occurring sports of cells to multiply and adapt themselves to a new mode of life as observed in propagated tumours.

## MEDICAL SOCIETY OF LONDON.

*Monday, March 13th, 1911.*

Mr. CHARTERS J. SYMONDS, President, in the Chair.

*Syphilis and Tubercle.*

MR. D'ARCY POWER, in a paper on the influence of syphilis and tuberculous infections of the human body, said that children with hereditary syphilis often showed signs of tuberculous disease of the joints, in the form of "gummatous" synovitis, which did not improve beyond a certain point under treatment by antisyphilitic remedies. In young adults born of syphilitic parents an attack of pneumonia or other infective disease might be followed by signs of syphilitic inflammation (*syphilis hereditaria tarda*). The syphilitic lesions thus manifested might become tuberculous and the patient might die of tuberculosis. Adults who acquired syphilis whilst suffering from tubercle were liable to have any pre-existing tuber-

culous inflammations rendered much more active. It was to those persons that the generalization applied: "The tuberculous bear syphilis badly." Old persons who had acquired syphilis many years previously might be attacked by senile tuberculosis. The tuberculous inflammation ran a more chronic course than usual in such persons, and there was less liability to suppuration.

*Tubercle Diabetes, and Gout.*

Dr. NATHAN RAW, in a paper on the influence of diabetes and gout on the tuberculous infections of the human body, said it was possible that persons predisposed to diabetes might be unusually susceptible to infection by tubercle bacilli, while the increasing debility associated with diabetes favoured the rapid progress of a tuberculous infection. If diabetes and gout were both disorders of nutrition, he felt certain that tuberculosis was also to a great extent a matter of nutrition. The infection of human beings by tuberculosis must be fairly general in a community in which it was rife, and if blood nutrition were good the risk of an active growth was small, because after all the tubercle bacillus was a parasite to man. If, on the other hand, blood nutrition were poor, as in diabetes, the danger of an active infection by tubercle was great, and the process was often acute and rapidly fatal. During the last twenty years he had had under his care in hospital over 4,000 cases of tuberculosis, but he could not recall a patient admitted with sugar-free urine in whom diabetes mellitus developed. The only deduction he could draw from that clinical observation was that diabetes did predispose to tuberculosis, while tuberculosis had no predisposition towards diabetes. What the explanation of that really was he could not say. It was a fact, however, that during the course of a tuberculous infection other intercurrent infections were uncommon; hence it would seem that the blood plasma could only tolerate one infection at one time. He had come to regard the gouty diathesis as antagonistic to tuberculosis; the blood of a gouty person was not a medium in which tubercle bacilli would flourish, while diabetic blood seemed to stimulate and foster the development and rapid growth of tuberculosis. It was a matter of common experience that if they were able to improve the nutrition of a tuberculous person to a high degree of efficiency they might expect, and often obtained, an arrest of the tuberculous infection, and their patient got well; but if they were unable to do so, all their efforts were of no avail, and the tuberculosis prevailed. He had often thought that in the so-called open-air treatment of consumption they really produced in their patients an artificial gouty condition with increased nutrition on which they improved, but he must confess he had never seen a cured consumptive develop an acute gouty attack.

## ROYAL SOCIETY OF MEDICINE.

SECTION OF ANAESTHETICS.

*Thursday, March 2nd, 1911.*

Dr. MCCARDIE, President, in the Chair.

*Scopolamine-Morphine Narcosis.*

DR. DUDLEY BUXTON, in introducing a discussion on the use of scopolamine and morphine, atropine, and similar drugs by injection before inhalation anaesthesia, gave a history of the subject, showing that the underlying idea was no new one. The advantages of preliminary semi-narcosis were that it removed pre-anaesthetic alarm, lessened the amount of the general anaesthetic, and so diminished after-effects and gave prolonged post-operative sleep and mental tranquillity. When open ether was used, he considered the addition of atropine to the scopolamine and morphine essential. Dr. F. S. ROOD recorded 300 cases in which he had used scopolamine, morphine, and atropine, and drew the following conclusions: From the point of view of the patient, it either blots out or robs of its terrors the preliminaries of an operation, which in some cases—as, for instance, exophthalmic goitre—is a very real advantage. Also it diminishes the discomforts of after-pain, etc., by lengthening the period of unconsciousness, and vomiting certainly seems to be lessened. From the point of view of the operator, the quiet respiration and relaxation which is usually obtained is of great assistance; and, finally, there is the undoubted advantage of being able to substitute, with equal results, a safe drug like ether for a dangerous one like chloroform. Dr. MACNAUGHTON-JONES said that he had been using scopolamine-morphine and chloroform anaesthesia in serious abdominal and pelvic operations for nearly five years. In the great majority of his cases a subcutaneous injection of morphine, gr. $\frac{1}{3}$, and scopolamine, gr. $\frac{1}{100}$, were given the night before, after the bowel had been well emptied; a second injection was given the following morning after a rectal enema; and, one hour before operation, strychnine, gr. $\frac{1}{30}$, and atropine, gr. $\frac{1}{100}$, was administered subcutaneously. A "Vernon Harcourt" regulator was invariably used. The last 30 of his gravest cases might be taken as typical of the effect and advantages of this form of anaesthesia. In regard to vomiting, in 18 of these cases there had been little or no sickness; some sickness occurred in the instance of five patients on the day of operation, and four had not vomited until the second day. Only in one case had there been persistent vomiting. In this three coeliotomies had been performed at comparatively short intervals. It was clearly a case of idiosyncrasy. The patient had been operated upon previously under chloroform anaesthesia, and there had been persistent vomiting for some days. Dr. J. BLUMFELD had used morphine and atropine before various general anaesthetics, and considered less mucus and additional quiet were obtained. He had heard from Mr. Page of cases of respiratory difficulty and actual cessation of respiration from morphine administered too short a time before the operation, and its effects deepening while this was proceeding. Mr. BARTON used $\frac{1}{100}$ grain scopolamine and $\frac{1}{6}$ grain morphine three-quarters of an hour before operation. He found it specially useful in laryngeal and oesophageal work. He found induction shortened and abdominal rigidity diminished. Open ether was used. There was also less tendency to shock, which counterbalanced the occasional tendency to respiratory difficulty. Dr. F. SILK said there was difference of opinion as to rigidity, some finding less, others more, when scopolamine and morphine were used. In the latter cases he thought probably too little anaesthetic was used. There was also a good deal of uncertainty about the duration of stupor and the frequency of vomiting. Mrs. DICKINSON BERRY stated that atropine and morphine, $\frac{1}{100}$ and $\frac{1}{6}$ grain, had been used at the Royal Free Hospital and discontinued because much increased restlessness and vomiting had resulted in cases where they had been used. Scopolamine had recently been added in a few cases, and better results were obtained. Dr. W. J. MCCARDIE considered that the effects of the drugs depended largely on what preparations were used. He found some of the German preparations were far more satisfactory than any of the English ones. He used them when light anaesthesia was required, and found the effect was to deepen the anaesthesia from the surgeon's point of view and to lighten it from that of the anaesthetist. With regard to atropine, he observed that though it was considered generally to stimulate the heart, recent investigations made by Webster of Winnipeg pointed to its producing a paralytic effect on heart muscle.

PATHOLOGICAL SECTION.

*Tuesday, March 21st, 1911.*

Dr. F. W. MOTT, F.R.S., President, in the Chair.

*Thickening of Mucosa of Caecum.*

MR. C. G. WATSON recounted a case of extensive thickening associated with a polypoid condition of the caecum and ascending colon. The muscular wall was involved in the thickening. Clinically the resistance of the gut and the associated obstruction led to the diagnosis of intussusception. The parts were excised. No tubercle bacilli were found, nor were the histological changes those seen in tuberculosis. Although some such cases were instances of hyperplastic tuberculosis, the etiology in the present was doubtful.

*Relation of the Meningococcus to Pseudo-glioma.*

Dr. COATS and Dr. FORBES recorded observations which showed that the suppuration in the vitreous of children (producing a semblance to the growth of a glioma—whence the name) was due to the meningococcus. The infection occurred by the blood, and not infrequently arose

after measles or whooping-cough. It was only in rare cases that the condition occurred in connexion with cerebro-spinal meningitis. The micro-organism was diagnosed microscopically and by its cultural characters.

*The Typhoid-Carrier Rabbit.*

Dr. MORGAN related some endeavours to produce typhoid-carrier rabbits by intravenous injection of broth cultures of the typhoid bacillus. In only two animals was the bacillus recovered from the faeces. In one of these the gall bladder was found some time afterwards, infected; typhoid bacilli were present in its walls. The bile from the other rabbits proved to be sterile.

*Inhibition of Pigment Production.*

Dr. F. W. ANDREWES recorded certain observations showing that inhibition of pigment production in *B. prodigiosus* could be brought about by the simultaneous growth of *B. faecalis alkaligenes*. If colonies of the two organisms grew on the same surface, the *B. prodigiosus* in the close proximity failed to produce its pigment. The importance attaching to the fact was that *B. prodigiosus* was largely used in testing the conveyance and distribution of bacilli, and the diagnosis of the organism depended upon the pigment it produced; if this were inhibited, erroneous conclusions in practical hygiene might result. The pigment formation of *B. pyocyaneus* was inhibited by the same organism.

Dr. H. R. DEAN recounted an elaborate series of observations on the relation of specific precipitation to complement fixation.

## MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

*Friday, March 3rd, 1911.*

Professor MUIR, President, in the Chair.

*Rupture of the Intervertebral Disc.*

DR. JOHN H. TEACHER read a paper by Dr. George S. Middleton and himself upon a case of injury of the spinal cord due to rupture of an intervertebral disc during muscular effort.

The patient, a man aged 38, was lifting a heavy plate from the floor to a bench about 3 ft. in height, when he felt a "crack" in the small of his back. He suffered intense pain, and was unable to straighten himself. Paraplegia soon developed, and the patient died sixteen days later, principally from the effects of bedsores and septic cystitis. The cause of the paraplegia was haemorrhage and softening in the lumbar enlargement of the spinal cord, and the cause of this found in a mass of the pulp of an intervertebral disc, which had been displaced into the vertebral canal.

The authors suggested that the case seemed to throw light on certain cases of spinal myelitis and haemorrhage arising out of strains and wrenchings of the back in men engaged upon heavy work. They had been unable, after considerable search in literature and inquiry among pathologists and surgeons, to find any record of an exactly similar case.

*X-Ray Treatment of Tinea.*

Dr. J. GOODWIN TOMKINSON demonstrated a case of tinea tonsurans treated in the Western Infirmary, where the entire scalp had been epilated at one séance by Kienbock's *x*-ray method. In this there was no variation from Sabouraud's method as regards dose and distance from the source of *x* rays, but the dimensions of the area treated were considerably increased, with a corresponding diminution in the total time necessary for the epilation of the whole scalp.

*X-Ray Measurement.*

Dr. JAMES R. RIDDELL, in a paper on *x* rays in treatment, insisted on the necessity for administering carefully measured doses only. The pastille methods of measurement devised by Holzknecht and Sabouraud were open to the objection that in order to use them successfully one must be able to appreciate very fine shades of difference in colour; this was easy in good diffused daylight, but difficult in dull weather or sunshine, and in artificial light almost impossible. The method of measurement he recommended for routine work was the use of a milliampèremeter on the tube circuit, and a meter to count the number of *x* ray impulses administered at one sitting. An impulse was orignated each time the current in the primary circuit was interrupted; one had therefore only to count the number of revolutions the interrupter made during the course of the sitting. This was done by attaching to the spindle of the revolving interrupter a revolution indicator such as is commonly used on the wheel of a bicycle to record the distance travelled.

A FURTHER meeting on March 17th, Dr. J. M. COWAN presiding, took the form of a demonstration of cases of children's diseases and specimens connected therewith. The latter included the brain from a girl aged 4½ years with tuberculous tumours in the left crus and pons (Dr. R. BARCLAY), and the former (*a*) a girl who in 1905 had been trephined over the middle meningeal region on both sides for extensive compound fracture of the skull, and (*b*) a boy, aged 9, in whom a large gap, resulting from a depressed and comminuted fracture of the vault of the skull, had been repaired by bone grafting; they were both shown by Dr. ARCHIBALD YOUNG. The proceedings also included a lantern and case demonstration of varieties of hare-lip and cleft palate and their operative treatment.

## LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on Thursday, March 9th, Dr. T. R. BRADSHAW, President, in the chair, Dr. MACALISTER described two cases of a rare form of *Arthropathy*. The one was a woman advanced in life; the other a child, aged 6. The characteristic features in each were that the knees were dislocated, both the ankles were ankylosed, and there were partial dislocations of both wrists and of the elbows and shoulders; the neck was bent forward and fixed in the case of the woman; the small joints of the hands and feet were similarly affected. The disease in each case began somewhat acutely with fever and swelling of the affected joints. The initial attack was followed, after periods of remission, by other exacerbations, and the dislocation of the joints took place in each case rather suddenly. The change was in its nature an osteo-arthritis, with rarefaction of the bony ends and disappearance of the cartilages. In the case of the child there was a condition of the skin resembling a scleroderma, and the skin over each knee resembled a thin cicatrix. Dr. WARRINGTON pointed out that a sclerosing process affected in the more usual cases the skin only, as in the diffuse form of scleroderma, but that sometimes the muscles were also affected, and in rare cases the bones as well. He alluded to an instance of the latter condition. Dr. BLAIR BELL, in a paper on *Septic puerperal thrombo-phlebitis of the pelvic veins*, said the diagnosis was the chief difficulty, and the following points should be considered: (1) The late onset, ten to twenty days after parturition, and following a moderate degree of morbidity; (2) rapid rise in temperature and pulse-rate, generally with rigors; (3) mobility of the uterus; (4) absence of pain; (5) dark coloration of the cervix from venous congestion. He also described two cases on which he had operated—the first unsuccessfully, the second successfully. Under expectant treatment of the condition, the mortality was about 65 per cent., but with early diagnosis and operation should be reduced to about 5 per cent. Professor ERNEST GLYNN considered that general pathological considerations justified the operation. Dr. ARTHUR WALLACE spoke in favourable, though guarded, terms of the procedure, whilst Professor BRIGGS held that familiarity with figures and statements concerning the past—peripatetic—methods of treatment in cases of puerperal fever brought out the fundamental difficulty in separating the local from the general infections. He himself was a firm advocate of early local treatment, but believed that on the evidence now available the term "septic thrombo-phlebitis" was misleading, from confusion between the changes in the thrombi themselves and in the surrounding tissues.

## SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 16th, Mr. A. CUFF, President, in the chair, Dr. W. BRANDER, in a paper on the *Clinical value of the pulse pressure range*, defined pulse pressure as the difference between the systolic and diastolic pressure, the physiological and pathological relationship existing between the force and output of the left ventricle and the peripheral resistance. Amongst others, Dawson and Gorham found

that in dogs the pulse pressure varied exactly with the systolic output, not only under normal conditions but during various procedures. The author's many determinations with Erlanger's sphygmomanometer in health and disease included a series of estimations showing the effect of measured exercise on 100 patients with cardiac affections. He drew the following conclusions: (1) It is possible to differentiate arterio-sclerosis of the vessels of the splanchnic area from that confined to the superficial vessels, the former exhibiting a large, and the latter a low pulse pressure. (2) Pulse pressure measurements afford us a help in estimating the loss of vascular tone in arterio-sclerosis and aortic insufficiency. (3) Pulse pressure determinations are a valuable guide in deciding how far the hypertension of kidney disease, arterio-sclerosis and cerebral haemorrhage ought to be reduced. (4) For a better understanding of the complex circulatory disturbances in lobar pneumonia systematic observations are very desirable. (5) By measured exercises we can arrive at a very fair estimate of the functional capacity of the heart and the adequacy of the circulation. (6) In cardiac dilatation from any cause we can often throw light on the complex factors concerned in the production of dyspnoea. Dr. F. J. SADLER, in a paper on *Vaccine treatment of enteric fever*, showed photographs of the temperature charts of cases treated with injections of killed typhoid bacilli during 1910 at the Kendra Hospital, Barnsley. After showing the charts of mild, medium, and severe cases of enteric treated without vaccine in 1909, and with vaccine in 1910, he showed the charts of all the cases which had contributed to establish his present arrangements of doses and intervals between doses, and also the charts of those patients in which the vaccine had failed to give benefit. He claimed that with suitable doses and intervals enteric fever was markedly reduced in severity in all cases except a few of those with bad brain poisoning, provided the treatment was commenced in the first fortnight of the disease. Dr. ARTHUR HALL showed: (1) A case of *Conglomerate acne* due to potassium bromide in a baby, 7 months old, who had been given small daily doses of a patent soothing mixture during a period of three weeks. The drug was at once stopped, but further spots continued to appear in large numbers for over five weeks, as commonly happens in cases of bromide eruptions in infants. (2) A case of *Pneumococcal peritonitis* in a little girl, which had been diagnosed as tuberculous, allowed to burst at the umbilicus. This was followed by uninterrupted recovery. Gram-positive diplococci were found in the pus. (3) Two cases of *Recurrent cholaemia* with splenomegaly of family type. The patients were mother and son, aged 46 and 24, each subject throughout life to recurrent attacks of jaundice. Another son who only lived one year was similarly affected.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 15th, Mr. W. MORLEY WILLIS, President, in the chair, Dr. SARAH GRAY, in a paper read in her absence by Dr. AMELIA LE PELLEY, said there were two types of dysmenorrhoea—spasmodic and congestive. In the former there were waves of pain preceding the flow and lasting from a few minutes to several days. This type was associated with an infantile uterus, anteflexion, and sterility, and was generally cured by pregnancy or artificial dilatation of the cervix. In the congestive type, pain was different, being of a constant, heavy, dragging type and preceding the flow; this type was more common in multiparae, in cases of retroflexion of the uterus, and where organic disease of the pelvic organs was present. Dr. H. MICHIE thought that where there was no disease of the appendages the condition of the uterus was responsible for dysmenorrhoea. The chief conditions leading to it were retroflexion, anteflexion, occasionally stenosis of the os, polypus of the cervical canal, and myomata. Drug treatment was only palliative, while surgery made an attempt at a radical cure. His practice was to improve the general health as far as possible and give ergot when the flow was excessive. For the actual pain, antipyrin, phenacetin, and even opium might be tried, but alcohol should never be given. He also advised dilating with Hegar's dilators to No. 12 or 14, and curetting any granulations which might be present. Malpositions of the uterus should be corrected by means of pessaries. In membranous dysmenorrhoea the endometrium should be swabbed with chromic or weak nitric acid. Mr. R. G. HOGARTH thought it difficult to dilate with Hegar's dilators beyond No. 8 without tearing the cervix. He advised cutting through the posterior lip of the cervix and permanently enlarging the canal by removing a wedge-shaped piece and uniting the edges to the vagina. For membranous dysmenorrhoea he urged supravaginal hysterectomy as the only safe cure.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a pathological meeting on March 3rd, Dr. J. B. HELLIER in the chair, Mr. A. S. GRÜNBAUM and Dr. H. G. GRÜNBAUM made a communication on *Inhibition of growth of inoculable tumours* in rats, showing, among other things, that antivenom serum caused almost invariably regression of growths which were within a certain size limit at the time of its injection. An apparent antagonism between tumour growth and immunization to cobra venom was also described. The same authors also gave an account of the human *Pituitary gland* based on the examination of over fifty specimens. They showed that the colloid material does enter the blood vessels, and drew attention to the frequent occurrence of multinuclear areas in cases of malignant disease. Dr. MYER COPLANS showed specimens of a *New culture medium* as a means for the readier recognition of *B. diphtheriae* in sub-cultures from swabs of suspicious nose and throat cases. It was made as follows: To sheep's blood serum to which there has already been added 1 per cent. glucose—acid producer—and 1 per cent. of ½ per cent. aqueous solution of neutral-red indicator (this preliminary combination being denoted as "S") there is added, either singly or in combination, one or more of the following salts: (A) Potassium sulphocyanide 1 per cent., (B) potassium ferrocyanide 2½ per cent., (C) potassium ferricyanide 1 per cent., (D) boric acid about 1 per cent. The medium on coagulation and inspissation should be faint primrose-yellow in colour, the reaction being faintly alkaline. The sheep serum is best pipetted off from recently drawn clotted blood and then allowed to stand in a refrigerator for three days in order to eliminate red corpuscles by sedimentation, only the supernatant liquid being finally utilized. With combination S A, *B. diphtheriae* grows red with a bluish-pink tint, diffusing through the medium in all directions; *B. hoffmann* grows yellow, with yellowish diffusion; some varieties of staphylococci simulate *B. diphtheriae* on culture, but on further incubation the tint does not intensify as with *B. diphtheriae*, and should be readily distinguished; *B. subtilis* grows brownish; *B. megatherium* and torulae grow as faint pinkish-white colonies, which are raised; streptococci grow apparently colourless. Combinations S A B, S B, and S D in particular show up to advantage the reddening and bluish-pink diffusion brought about by *B. diphtheriae* as compared with various staphylococci. It was stated that confirmation as to the diagnostic value of the combination S A had been furnished by Dr. C. Rankin (Senior Assistant Medical Officer to the Leeds City Fever Hospitals) who has used the medium in more than a thousand cases as a test for the absence of *B. diphtheriae* from the nose and throat in patients already convalescent from the disease as a preliminary to their discharge from hospital. Suitable control measures had been carried out all along, and, as a result of this experience, it was considered possible to adopt the dictum, "No red coloration, no *B. diphtheriae*," seeing that there had not as yet been a single exception to the rule. The test was by means of the naked eye, and the labour of microscopic examination was greatly reduced, since it was possible, after a short experience, to distinguish readily at a distance the various tints produced, either from the front or back of the changed medium. In case of doubt, further incubation intensified the tints and facilitated the naked-eye diagnosis. These results were part of a research to determine the effect of salts of saliva on the growth of mouth and intestinal organisms in nutrient media.

# Reviews.

## SCIENTIFIC TREATMENT OF CHOLERA.

HIS extensive experience of the disease in Calcutta makes Professor LEONARD ROGERS particularly well equipped to write on *Cholera and its Treatment*.[1] In cholera there is a remarkable loss in the fluid content of the blood. In mild cases, the author finds, the loss of serum amounts to 35 per cent.; in moderately severe cases it is 52 per cent., and in the most severe fatal cases it amounts to 64 per cent. These observations have been made by means of the haematocrite. A simpler method, which yields parallel results sufficiently accurate as a guide to treatment, is to determine the concentration of the blood by taking its specific gravity. This can be done at the bedside, and thus has the advantage of not necessitating resort to a laboratory. Professor Rogers uses for the test a series of bottles containing aqueous solutions of glycerine ranging in specific gravity from 1040 to 1076. By placing small drops of blood in the bottles and observing whether they rise or sink the specific gravity may be determined in about two minutes. Of the results of his observations he says:

> In the acute stages of the disease the specific gravity nearly always varies between 1060 and 1072 in natives of India, in whom the normal figure in health is about 1054. I have seen it as high as 1076, but only in extremely severe cases. The most common point is about 1063 to 1065, which means a loss of about half the fluid from the blood, and is nearly always accompanied by general symptoms indicating the necessity for transfusion.

Another fact of the highest practical importance is that in the blood of cholera patients there is a loss of salts as well as a loss of fluid. In the most severe cases, in which about two-thirds of the plasma had been lost,

> the chlorides in the serum were slightly lower than normal, instead of being three times as great as would have been the case if no salts had disappeared from the circulation.

Equally important is the estimation of the blood pressure by means of a mercury sphygmometer. Professor Rogers's observations have been made chiefly in Calcutta on native patients whose normal blood pressure is only from 100 to 120 mm. In the majority of cholera cases he has found the pressure at the wrist on admission to hospital to be below 70 mm.; it is often as low as 50 or 60 mm., and in extreme collapse

> it is too low to be measured at all at the wrist, such cases forming over one-third of the admissions to Calcutta hospitals.

By adopting a system of treatment based on his scientific observations, the author has succeeded during the last three years in reducing the death-rate of his cholera cases by one-half, or even more. Whenever collapse occurs, with a blood pressure below 70 mm., he replaces the lost fluid and salts by a hypertonic saline intravenous injection of sufficient amount to raise the blood pressure as nearly as possible to normal. It is particularly important to use a hypertonic solution, since so-called "normal" saline, containing only 0.65 per cent. of sodium chloride, would tend to lower the percentage of salts in the blood, leading to a further escape of liquid and the immediate reappearance of copious evacuations and renewed collapse.

> By the use of hypertonic solutions, on the other hand, the saline content of the blood is immediately raised very considerably, with the result that the osmotic currents will tend to carry more fluid into the blood rather than to allow it to escape from it, and thus the diarrhoea is checked instead of encouraged, as by normal salt solutions.

The solution he recommends contains, per pint of water, 120 grains of sodium chloride, 4 grains of calcium chloride, and 6 grains of potassium chloride. Intravenous injection, whenever practicable, is better than either subcutaneous or intraperitoneal. As to the amount to be injected, if the specific gravity of the blood is over 1063 four pints may always be given to an adult, and if this has not diluted the blood to the normal point, an additional pint may be run in at a slow rate.

In addition to saline injections, Professor Rogers attaches much importance to free administration by the mouth of oxidizing agents, for the purpose of destroying the toxins which are being formed in the gastro-intestinal tract. Immediately on admission he gives a pill containing 2 grains of potassium permanganate every quarter of an hour for two hours, and then one pill every half hour, any pills rejected by the stomach being replaced without delay. The pills are continued until the stools become green and less copious, a result usually attained with this treatment in from twelve to twenty-four hours. The patient is also allowed to sip a weak solution (1 to 6 grains per pint) of calcium permanganate. With regard to the safety of the above dosage the author says:

> I have given over 50 grains of permanganates by the mouth within twenty-four hours in cholera cases without the slightest harm, and intend to use still larger amounts in severe cases in future.

As it is not impossible that cholera may make an early reappearance in this country, medical practitioners and public health authorities would do well to make a careful study of Professor Rogers's book. It will be read with pleasure; it is simple, direct, and practical, and is of equal interest to the pathologist and the clinical physician, who will both find in it a model of what clinical research ought to be—science applied to therapeutics.

There is plenty of room for expansion, and in the next edition we should like to see the book considerably enlarged, with a much more detailed account of what is known about the bacteriology of the cholera vibrio.

[1] *Cholera and its Treatment*. By Leonard Rogers, M.D., F.R.C.P., F.R.C.S., B.S., I.M.S. London: Henry Frowde, and Hodder and Stoughton. 1911. (Demy 8vo, pp. 236. 10s. 6d. net.)

## HEATSTROKE.

REMEMBERING our chilly summers, to review a book on the nervous system and insolation[2] might almost appear to home-dwelling members to be a work of supererogation; but there are many in other parts of the British Empire who will read Dr. STEINHAUSEN'S monograph with the interest which familiarity ensures. He first gives an interesting historical survey of the subject, pointing out the great variety of clinical forms in which heat-trauma occurs, and identifying sunstroke with heatstroke for all practical purposes. Clinically speaking, heat exhaustion ends and heatstroke begins when consciousness is affected and mental confusion occurs; frontal headache, feelings of depression, and various sensory auras may be noted as warnings before the onset of the stroke itself. In nearly half of the 449 cases which afforded the materials for his conclusions the temperature was not within the first hour of the onset raised above 39° C.; in the rest it varied from 39° to 43.4° C. Dr. Steinhausen does not believe that heatstroke ever occurs without elevation of the body temperature. He divides his cases into six groups, as follows: (I) Cases without impairment of consciousness, which are really instances of heat-exhaustion rather than of heatstroke; the affection is mild, and never fatal. (II) Comatose form; 80 cases with 3 deaths; the coma usually begins gradually, and may be interrupted by intervals of mental confusion. (III) Epileptoid or convulsive form; 118 cases with 9 deaths; in some instances the fits seem to be hysterical. (IV) Delirious form; 103 cases with 31 deaths; the delirium may take on many forms, and the high mortality of heat delirium has often been noted. (V) Encephalitic form; 60 cases with 4 deaths; non-purulent encephalitis, due to heatstroke, and often haemorrhagic, is, the author maintains, a definite pathological entity, giving rise to such various symptoms as hemiplegia, paraplegia, monoplegia, optic neuritis, aphasia, ataxia, in accordance with the main incidence of the cortical lesion. (VI) states of mental confusion (*Dämmerzustände*), 32 cases with 1 death, similar to those that often precede forms III or IV, and described by other authors as instances of transitory mania, amentia, *délire onirique*, pseudo-stupor, etc.; the confusion rarely lasts for more than a day, and is followed by amnesia for the events that occurred while it lasted. In all these forms of heatstroke the onset is usually sudden and immediate; relapse may occur, and mental depression or apathy is common during convalescence, with increased suggestibility. The author finds that 333 of his 449 patients recovered, 48 died, and 68 were discharged uncured; death occurred within

[2] *Nervensystem und Insolation: Entwurf einer klinischen Pathologie der kalorischen Erkrankungen*. Von Dr. A. F. Steinhausen. Bibliothek v. Coler—v. Schjerning. Band XXX. Berlin: A. Hirschwald. 1910. (Demy 8vo, pp. 231. M. 5.)

from three hours to six days, usually within five to twelve hours. The uncured cases suffered from sequelae such as functional heart disease, chronic anaemia, various forms of neurosis, psychosis, or dementia, which might not come on for some weeks or months, and are considered in detail by Dr. Steinhausen. In general, three-quarters of the cases (and 96 per cent. of the fatal cases) occurred from direct exposure to the rays of the sun; the author has little to say about the influence of alcohol in promoting the occurrence of sunstroke or heatstroke; only 37 of his own patients gave histories of recent or chronic alcoholic excess. The diagnosis, prognosis, prophylaxis, and treatment of the condition are briefly considered. The book is well written and well arranged, and may be recommended to the attention of all practitioners in hot climates; several hundred references to the literature are given.

## OLD AGE.

PROFESSOR SCHWALBE of Berlin, the editor of a textbook of the diseases of old age,[3] echoes the complaint of Constatt (1839) that little is written upon this subject as compared with the flood of literature on diseases of women or of children, but he admits that many valuable contributions have been made, mentioning especially the late Dr. G. W. Balfour's monograph on the senile heart. At the time he planned this work Professor Schwalbe knew of no systematic treatise later than that of Charcot (second edition, 1874); since then Rauzier's book (*Traité des maladies des vieillards*, Paris, 1909) has been published. He is disposed to attribute this paucity of books on the subject either to the prevalence of the view that old age is not so much a disease as an inevitable change, which no medical art can oppose successfully, or to the circumstance that those who know most about the subject share to some degree in the want of elasticity and depressed vitality characteristic of that period of life. *Senectus ipsa morbus* may be pleaded as an excuse for the negative attitude of practitioners who are contented to shrug their shoulders with a sympathetic remark about Anno Domini, or a hint that the patient is breaking up. Still, in the opinion of the editor, old age presents peculiar types of disease as well as special forms in which diseases occur. Arterio-sclerosis, senile dementia, and senile pruritus are given as instances of the former, and pneumonia, typhoid fever, and cancer, of the latter. He quotes with approval the saying of Erasmus, that "old age is a heavy burden on the dying as inevitable as death itself," but medical aid may often postpone its beginnings and alleviate its troubles. Professor Schwalbe has enlisted the assistance of thirteen of the most eminent authorities in Germany as his co-workers. We may mention Professor B. Naunyn, Professor C. A. Ewald, and Professor W. Ebstein. Professor Naunyn's introductory chapter on general pathology attempts to describe—for he will not define—what is meant by old age, and he gives the following morbid characteristics: (1) Diminished resistance to all external noxae; (2) impaired functional activity of the various organs; and (3) special organic diseases peculiar to that period of life. He expresses no decided opinion as to the truth of the suggestion that the intestinal poisons are less thoroughly destroyed in the body, or imperfectly excreted, and so are free to exercise their poisonous properties to a greater extent than earlier in life; but he is sure of the influence of the mind on the body, and believes that so long as the mind keeps fresh the body retains its vigour. He urges that interest in work, sound sleep, moderation in the use of tea, coffee, alcohol and tobacco, care in diet, the regulation of the bowels, with "perhaps occasionally a little wine to aid digestion," make up the best general measures for maintaining health in old age. On the whole, we find the book unduly long. Its size (over 900 pages) is attained by including a description in systematic fashion of practically all diseases irrespective of their special relation to advanced age, nor are these descriptions limited to those features which are peculiar to advanced age. As of special interest, we would draw attention to the articles on digestion, metabolism, nervous diseases and skin diseases, that on nervous diseases by Professor Siemerling being especially worthy of note.

[3] *Lehrbuch der Greisenkrankheiten.* Herausgegeben von Professor Dr. J. Schwalbe, Berlin. Stuttgart: Ferdinand Enke. 1909. (Sup. roy. 8vo, pp. 934. M. 26.)

## OPHTHALMOLOGY.

COLONEL HENRY SMITH, of Jullundur, is so well known to the whole world of ophthalmology as the champion in recent years of the operation for removal of cataracts in their capsule, that a book he has recently published on *The Treatment of Cataract*[4] is likely to be read with unusual interest. In it we find his method of operating carefully described, together with a description of the more usual method of extracting the lens from within the capsule. The book is the result of his experience after operating on upwards of 24,000 cases, and if we say that this is a record for any one man, probably no one will challenge the statement. The book consists of only 121 pages, and the last few are devoted to an appendix by Captain A. E. J. LISTER, I.M.S., who gives certain details, and after-results of the cases which could be traced. It is profusely illustrated by drawings originally sketched during the operations by Dr. Derrick T. Vail, of Cincinnati. They show the details of the operation, and are reproduced as special plates. The question of removing the lens with the capsule or without it resolves itself into one of expediency, for all will agree that if we can safely get rid of the capsule the eye is far better without it, "after-cataracts" would be abolished, and whether we agree with Colonel Smith that iritis following the usual operation is due to the presence of capsule or lens matter in the eye or not, yet all will acknowledge that the inclusion of capsule in the wound is the cause of most of the complications after an ordinary successful operation. It may be taken for granted that Colonel Smith is the most experienced and no doubt the most skilful operator by his method, but even he admits that loss of vitreous is more common than in the more usual operation, and it is obvious that this must be so; nevertheless he fears it not a bit, for he finds that loss of vitreous from a trace up to about one-third makes very little difference to the subsequent result. Thus in five cases in which the largest amount of vitreous was lost, in only one was the vision as poor as $\frac{6}{9}$, while one had $\frac{6}{3}$, one $\frac{6}{5}$, and two had $\frac{6}{6}$. Such results may be described as perfect. The one thing upon which Colonel Smith insists is that the operator must virtually be trained by himself, and not the operator only but the assistant as well, for he takes a far more important part in the operation than in any other method. Many surgeons have tried to extract lenses in their capsule and have made miserable failures of it, and have condemned "Smith's" method accordingly, but he will have none of it, and flatly refuses to consider that an operator who has not seen him operate and been instructed by him can possibly operate by his method. It is a far more difficult operation than the ordinary extraction, and every detail is of importance. All will agree that the removal of the lens and capsule is the ideal method, but the fact remains that we are unacquainted with any European operator who thinks it sufficiently safe to do it habitually, and no doubt for the present the ordinary operation will claim the greater number of adherents. The book is produced in India, and we cannot congratulate the printer on the excellence of his work, while numerous errors of spelling, etc., should have been noted by the proof reader; certain places give almost the impression that the proof has not been read at all. The text is most interesting, and we can strongly recommend its perusal to all those who are interested in ophthalmic surgery.

The *Handbook of Diseases of the Eye*,[5] by Dr. CURT ADAM, the translation of which (from the second German edition) has been made by Drs. W. G. SYM and E. M. LITHGOW, is written especially for surgeons in general practice who frequently come across more or less serious affections of the eye but are not specially skilled in this line of practice. We consequently find that the diagnosis and treatment of the ordinary diseases are pretty fully gone into, while the more uncommon diseases are much less fully described; many, indeed, are only just

[4] *The Treatment of Cataract.* By Lieutenant-Colonel Henry Smith, B.A., M.D., M.Ch., I.M.S. With Appendix by Captain A. E. J. Lister, M.B., B.S., F.R.C.S., I.M.S. Illustrated by Dr. Derrick T. Vail, Professor of Ophthalmology, University of Cincinnati. Calcutta: Thacker, Spink, and Co. 1910. (Demy 8vo, pp. 129.)

[5] *Handbook of Treatment for Diseases of the Eye (Ophthalmic Therapeutics).* By Dr. Curt Adam (Berlin). Translated from the Second German Edition (1910), by W. G. Sym and E. M. Lithgow (Edinburgh). London: Rebman, Limited. 1911. (Roy. 8vo, pp. 264; 36 illustrations. 10s.)

mentioned. Scarcely anything is said concerning the ophthalmoscope, or of diseases requiring its use for their detection; but detailed directions are given of such things as the passage of probes down the nasal duct, a procedure of which the author would seem to approve. The chapter on refraction is one of the most unsatisfactory in the book, and really amounts to advising the surgeon to order the glasses with which the patient says he can see best. It requires no special training to know how useless it is for any one to imagine that refraction work can be done in this manner. A very curious statement is made when speaking of artificial illumination. "Incandescent gas stands next to daylight, and evolves only half as much heat as the incandescent electric light, but it consumes oxygen and gives off carbonic acid." A chapter at the end is devoted to prescriptions, in which the translators have, for the convenience of the English reader, given the amounts of the different drugs in grains, drachms, ounces, etc. The book is a useful addition to the list of those devoted to therapeutics, and is not of such an unwieldy size as some of those we have seen.

The thirtieth volume of the *Transactions of the Ophthalmological Society of the United Kingdom*[6] is in size and appearance like its predecessors. It contains the presidential address given by Dr. George Berry in October, 1909, as well as a number of interesting papers and descriptions of rare cases read or shown before the society during the session. One of the most important papers is that by Colonel Herbert describing a small flap operation for glaucoma, now usually known as Herbert's sclerotomy, being very largely practised with excellent results. It has for its object the making of a small filtering scar. Mr. Bishop Harman and Mr. Priestley Smith describe interesting family histories of cases of peculiar cataract; and there is a long paper by Mr. W. M. Beaumont on oxycephaly. The whole volume is, as usual, well got up, and contains much of interest not only to the ophthalmic surgeon but also to the physician and general surgeon.

## HEREDITY.

IT is a pleasure to welcome a book such as Dr. C. E. WALKER'S *Hereditary Characters*.[7] The subject has called forth a small shoal of books, but none will be read with more interest than the present one. Dr. Walker is the director of research in the Glasgow Cancer Hospital, and the author of *The Essentials of Cytology*, and he has the advantage over many biologists of a knowledge of cytology, which is the starting point of all discussion on the subject of heredity. To this he has added a wide knowledge of general biology, and a wider acquaintance with the literature dealing with the matter in hand. The book is not merely an interesting compilation of recent work; it is an able critical review, to which the author has contributed much that is illuminating and not a little that is new. His style and method of treatment are clear, direct, and almost invariably convincing. Amongst the number of fresh points of view skilfully introduced perhaps none will arrest greater attention than the theory, which, if not absolutely novel, is yet here emphasized for the first time—that hereditary characters are divisible into two categories, individual and racial, and that to each must be attributed a different mode of transmission. On such a hypothesis much that has hitherto baffled interpretation, and much that has upset Mendelian prognostication, may receive explanation. On general grounds alone the theory commends itself, for it is obvious that there are on the one hand characters which are transmitted through an extended series of generations without appreciable change, while on the other are such as constantly vary from parent to offspring. At the same time it must appear that the comparatively stable racial characters have been derived from the less stable hereditary characters on the assumption that evolution has proceeded by the natural selection of variations. The author, like Dr. Archdall Reid, is a close adherent of Darwin's original theory of natural selection, and rejects unhesitatingly the mutation theory of De Vries. In regard to the part played in hereditary transmission by the various constituents of the cell, Dr. Walker differs from what are generally regarded to be well-established views. Hitherto the opinion has found general acceptance that the nucleus is the chief or exclusive bearer of hereditary qualities, but several facts are put forward as evidence that to the cytoplasm must also be ascribed an important part in conveying hereditary characters. There is not wanting proof that the nucleus is the bearer of individual characters, but "nothing like a demonstration as to the nature or situation in the cell of the substance that carries the *common* hereditary qualities has yet been made." In considering the mental qualities of man, the author takes the view:

> that almost all are acquirements, and that very little besides consciousness, memory, capacities for making various acquirements and a few instincts is inborn. All the other characters are acquirements dependent upon the existence of consciousness and memory in the individual.

It is important to keep in mind this distinction between the capacity for an acquirement and the acquirement itself. In discussing the subject of adaptation, the inadequacy of the mutation theory in this respect is insisted on. Whatever the results of mutations may be, they are not, as a rule, the basis of evolution. A favourable mutation might possibly be preserved, but under natural conditions this could happen but rarely. No analogy, it is argued, can be drawn between domesticated and natural races. Man is able to select mutations, to preserve them, and at the same time to dispense with the necessity of accurate adaptation. Throughout the remainder of the book the author is in close agreement with Archdall Reid, and he arrives at many of the same conclusions as the latter has stated in his recent *Laws of Heredity*, which, however, had not been published at the time that Dr. Walker's book went to press. The conclusions must therefore be regarded as having been arrived at independently.

## NOTES ON BOOKS.

THE monograph in which Dr. MAURICE CHIBRET[8] advocates the use of magnesium chloride in small doses as a remedy for constipation is worthy of attention although it may by some be regarded as a plea *pro domo suo*, Dr. Chibret being a physician practising at Chatel-Guyon. This salt is not mentioned in the *British Pharmacopoeia* or in the British Pharmaceutical *Codex*, but in Martindale and Westcott's *Extra Pharmacopoeia* the dose is said to be from a ¼ oz. to 1 oz.; the dose advocated by Dr. Chibret is much smaller, ½ drachm to 1½ drachms taken in half a pint of hot water, and he finds it valuable for the treatment not only of constipation but of various stomach derangements. In his historical retrospect he shows that the salt had a reputation in former days which it has lost, and he quotes from Sinclair, who, in his *Principles of Hygiene*, writes: "I have frequently seen artificial sea-water made with the muriates of magnesia and potash succeed admirably for certain dyspeptic symptoms which had resisted other stomachics," and a letter from Piorry to Lebert, written from Edinburgh, contains the following interesting statement: "In his course of Materia Medica which I followed at Edinburgh in the winter of 1821–2 Dr. Home recommended the muriate of magnesia in dyspepsia and stomach disorders." Magnesium chloride is an important constituent of the waters of Chatel-Guyon, Homburg, Kissingen, and Monte Catini. It is a salt which has undoubtedly been neglected and would probably prove useful as a mild stomachic aperient, its pleasantness would be enhanced if it could be supplied in an effervescent form, and administered in doses of one or two teaspoonfuls dissolved in half a pint of hot water.

THE annual report of the Nurses' Co-operation for 1910 shows that the gross receipts from patients amounted to £46,359, of which £43,692 were paid to the nurses. The balance, *plus* the invested capital of the co-operation, sufficed to pay all the working expenses and to leave a surplus of £256.

[6] *Transactions of the Ophthalmological Society of the United Kingdom.* Vol. xxx. Session 1909–10. London: J. and A. Churchill. 1910. (Medium 8vo, pp. 493. 12s. 6d.)

[7] *Hereditary Characters and Their Modes of Transmission.* By C. E. Walker, M.Sc., M.R.C.S., L.R.C.P. London: Edwin Arnold. 1910. (Demy 8vo, pp. 251. 8s. 6d.)

[8] *De l'emploi thérapeutique du chlorure de magnesium administré à faibles doses.* Par le Docteur Maurice Chibret. Paris: G. Steinheil. 1910. (Double Cr. 8vo, pp. 136.)

## THE NEW EDITION OF THE GERMAN PHARMACOPOEIA.

THE publication of a new pharmacopoeia must always be a matter of much interest to both medical practitioners and pharmacists in the country to which it belongs; the former, while free to order unofficial drugs at will, see in the pharmacopoeia an indication of what the appointed professional authority and the majority of practitioners deem worthy of official recognition, and what combinations or preparations of particular drugs can be obtained of uniform composition by ordering a single remedy. Pharmacists, who are bound by the directions of the pharmacopoeia in regard to the composition, strength, and purity of all the medicines therein described, have an even greater concern in the changes which are made when it undergoes its periodical revision. The interest in any given pharmacopoeia is necessarily less outside the country in which its provisions are binding; but science, industry, and commerce are so largely international that the progress in medicine and pharmacy in one country, as registered in the differences between two successive editions of its national pharmacopoeia, is roughly representative of the progress in the same direction in any of the countries of Western civilization. The fifth edition of the *Deutsches Arzneibuch*[1] (the German pharmacopoeia), which came into force on January 1st of this year (exactly ten years after the fourth edition), is perhaps of more than usual interest in this country from the fact that it is the second edition of the German to appear since the last revision of the *British Pharmacopoeia*, and that a new issue of the latter is to be expected before long.

While the compilation or revision of a pharmacopoeia necessarily entails the work of both medical men and pharmacists, great variations are possible in the way in which their collaboration is secured; and the merits or otherwise of the production are likely to depend a good deal on the proper allocation of the different kinds of work and on the nature of the authority ultimately responsible for it. The Pharmacopoeia Commission created in Germany in 1887 has now ceased to exist, and the production of the present book has been undertaken by the Health Council of the Empire (*Reichs-Gesundheitsrat*), acting through a committee divided into medical and pharmaceutical subcommittees. This committee consisted of twenty-six members, representing clinical and practical medicine, pharmacology, applied chemistry, pharmacy, pharmacognosy, and bacteriology. All new matter useful in the revision which has been published anywhere since the work on the fourth edition was completed has been collected and utilized; medical and veterinary practitioners and pharmacists have been invited to contribute information and suggestions; the special requirements of the army and navy have been taken into consideration, and the pharmacopoeias of other countries which have appeared since the fourth German—twelve in number—have also been utilized.

From whatever point of view the fifth edition of the German pharmacopoeia is regarded, most of the changes which distinguish it from the fourth appear to be improvements. There is a net increase of forty-four in the number of articles included; the additions include many galenical preparations and also a large number of synthetic organic compounds. In connexion with the latter a new departure has been made which will occasion some surprise, and which is not likely to be followed in this country; this is the inclusion of such compounds under trade-mark names which are the property of particular firms, thus giving official recognition to some one brand of a substance, to the exclusion—more or less complete—of the similar product of competing makers. Such exclusion may be less than complete, as official recognition is given also to chemical names, and it will be possible, therefore, to order the various substances by these; but in many cases the length of the chemical name is a guarantee that it will not be used. The trade-mark name is given as the principal name in some cases, and as a second name in others—for example, one monograph is headed "novocain," with "p.-aminobenzoyldiaethylaminoaethanolum hydrochloricum" as subsidiary name; another is headed "acidum diaethylbarbituricum," with "veronal" as subsidiary name.

The additions and deletions reveal some considerable differences between German and British prescribing, several drugs or preparations which have long been in regular employment here being now accorded official recognition in Germany for the first time. Such are calcium hypophosphite, gallic acid, liquid extracts of cascara sagrada and cinchona, and white and yellow vaseline; on the other hand, colchicum wine, ipecacuanha wine, hydrobromic acid, solution of ammonium acetate, and lithium salicylate, are now omitted. Most of the new substances added, however, are of fairly recent introduction in both countries. Besides the synthetic organic compounds already alluded to, two organic combinations of silver, the proteinate (protargol) and colloidal silver (collargol) have been added: collemplastra, plasters with caoutchouc base, which are a good deal used here, but are not official, are made into a separate group, and a new plaster containing zinc oxide introduced; new arsenic compounds are represented by sodium arsanilate (atoxyl) and acetyl-arsanilate (arsacetin); arachis oil, sesame oil, phenolphthalein, and physiological saline solution are among the other additions. None of the deletions except those named above are of much interest in this country.

Serum-therapy was recognized in the fourth edition by the inclusion of antidiphtherial serum; the monograph on this is now somewhat extended, and is followed by a new one on antitetanic serum. It is stated that these serums may only pass into commerce after having been tested at the Royal Prussian Institute for their content in immunization units and antitoxin units respectively, for the absence of organisms, and for the amount of the preservative present; the monographs are therefore chiefly descriptive, with directions for storing. Tuberculin now appears with the name "Old-Tuberculin," and with a similar restriction that it is only to be supplied after testing at the Royal Prussian Institute for Experimental Therapy; the monograph is much extended, and detailed directions are given for the preparation of dilutions. Koch's new tuberculin is not included.

In the monographs on drugs and chemicals there is a very marked increase in the application of tests for purity and strength, and in the precise definition of the way in which the tests are to be applied. The percentages of active constituents or pure substance which are to be present are now stated clearly, instead of being involved, as formerly, in the limits of some more or less intricate assay process; similarly, the impurities which are required to be absent or not to exceed certain limits are stated instead of being merely implied. The microscopic characters of all the chief vegetable drugs are given in some detail, and sophistication of the drug when in powder is further guarded against by giving limits for the amount of ash which may be present. The appendix of the book contains sections on test solutions and reagents, with various tables, and in addition there is a new section on reagents for urine testing and blood testing, etc., and bacteriological stains. The book will no doubt receive in this country—at least until the publication of the next *British Pharmacopoeia*—the attention due to the thoroughness and care with which the revision has evidently been carried out.

[1] *Deutsches Arzneibuch.* 5 Ausgabe, 1910. Berlin: R. v, Deckers Verlag. 1910. (Roy. 8vo, pp. 680. Paper covers, M.3.90; bound, M.5.70.)

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THE Association of German Scientists and Medical Practitioners will hold its eighty-third annual meeting this year at Karlsruhe, September 24th to 30th.

ON the application of its governors, His Majesty the King has accorded permission to add the word "Royal" to the present title of Sunderland Infirmary, which henceforth will be known as "The Royal Infirmary, Sunderland."

AT the thirty-third annual meeting of the Home Hospitals Association on March 24th Sir Henry Burdett, who was in the chair, said that Fitzroy House, the society's institution for paying patients, was the pioneer nursing home in the country. Last year the average stay of each patient was only sixteen days, or five less than the average for acute surgical cases in the best general hospitals. That fact spoke volumes for the hygienic condition and good management of the home. During the year as many as 78 members of the medical profession had found in it all they required for their cases.

## CAMBRIDGE HOSPITAL FOR SPECIAL DISEASES.

On several occasions we have called attention to the work that is being done in the Research Hospital of the Committee for the Study of Special Diseases at Cambridge.* It may not be out of place briefly to recall the circumstances which led to the foundation of the hospital. The Committee for the Study of Special Diseases was founded a little more than five years ago. Its members are Sir Clifford Allbutt, Professor Osler, Sir William Church, Sir Jonathan Hutchinson, Sir Richard Douglas Powell, Sir Henry Morris, Sir W. Watson Cheyne, Professor Howard Marsh, Sir Thomas Barlow, Sir Victor Horsley, and Sir Donald MacAlister. The objects for which the hospital was established are clearly set forth in an appeal on its behalf issued by the Committee some years ago. In that appeal it was pointed out that: "Much and fruitful research has been done in acute diseases, but there are many chronic and widespread maladies which have not yet received the attention they deserve. These, though not commonly immediately fatal to life, incapacitate the sufferer from active work, cause great pain and misery, and finally leave the victim helpless and entirely dependent on the kindness and charity of his friends or of strangers. Patients suffering from these diseases, owing to the slow progress and long continuance of their illness, are not suitable for reception into general hospitals, which as a rule (and rightly so) admit by preference cases of the more acute diseases. The mode of origin or progress of these affections is very imperfectly known, and little therefore can be done in the way of their rational treatment. The great need of scientific research on these chronic diseases has been strongly felt by the medical profession for many years."

The diseases which the Committee had in mind had not attracted the serious attention of the pathologist till lately, while to the physician they were unsatisfactory as offering no field for brilliant efforts of curative skill. They were mere wastes of dullness unrelieved by scientific interest, or in too many cases uncheered by the hope of effecting much good. To the sufferers themselves, however, they mean virtual loss of all enjoyment in life, and, in the case of persons who have to earn their living, disablement from active work and consequent dependence on public or private charity. And public charity is seldom available, for it is already overtaxed by the burden of cases calling for immediate treatment if life is to be saved and the worker restored to usefulness. Yet nothing can be more pitiable than the state of the victims of one of these chronic diseases, such as rheumatoid arthritis. Their condition may be one of almost ceaseless pain, making life an almost uninterrupted torture; yet to those about them they are a burden made all the heavier by the monotony of an indefinite continuance. Even to those who devote their lives to the relief of suffering out of a spirit of Christian charity or of humanitarian altruism, such patients are necessarily a severe trial. We have seen the life of a wife or daughter sacrificed to the invalid, whose misery frequently makes him irritable, selfish, exacting in his demands to the verge of tyranny, and withal ungrateful. In such cases the vitality of the attendant is slowly sapped by the patient as by a deadly parasite. These tragedies of the sick-room arouse no sympathy outside because life is not directly threatened; nevertheless, they are as distressing to those who understand them as the more sensational dramas of disease in which the battle is waged against death.

The work of the Cambridge Hospital for Special Diseases has therefore little in it that appeals to the public mind. There is not the sentimental element that so powerfully helps hospitals for children and consumption hospitals, nor is there what we may call the element of activity as shown by the statistics of cure given in the reports of general hospitals. The work of the Hospital for Special Diseases lies in obscure and inglorious ways. None the less it is doing a work of pre-eminent importance to mankind, and the results already obtained by the careful observation of the few cases its limited resources have allowed it to deal with, have fully justified the hopes of those to whose humanity and zeal in the furtherance of knowledge likely to benefit humanity it owes its foundation.

Fig. 1.—South-east Elevation.

At present the hospital is lodged in a small private house containing four bed for patients. We may justly feel proud of the fact that it is for the most part by subscriptions from members of the medical profession itself that so far the institution has been supported. A *Bulletin* giving the results of the work of the staff is issued from time to time. If it cannot be said that any great advance in knowledge has yet been made, it may fairly be claimed by the workers that they have prepared the way for further investigations by the removal of misconceptions and the destruction of erroneous theories. To use a phrase of Francis Bacon, if the work has not yet been directly *frugiferum*, it has been to a considerable extent *luciferum*.

We consider it in the highest degree important that the sphere of observation which the hospital affords should be enlarged and that the scope of its work should be widened.

*British Medical Journal, November 16th, 1907, p. 1542; December 12th, 1908, p. 1764; February 26th, 1910, p. 522.

The investigations carried out under the auspices of the Committee for the Study of Special Diseases at Cambridge have for some time past been grievously hampered by the fact that the hospital is at a distance of nearly two miles from the laboratory. The house used as a hospital is small and in many ways inconvenient, and while these inconveniences have been cheerfully borne by the workers, it is felt that the time has come when this loss of time and energy caused thereby should no longer take place and when the work should be concentrated in one building, provided with all the equipment necessary for clinical research on scientific lines.

We are glad to be able to state that it has been decided to build a hospital of the kind required. A suitable freehold site of one acre, situated on the outskirts of the town on a south-east slope, has been purchased. The site is triangular in shape; the soil on which the building will stand is gravel. The building has been designed with a view to simplicity and economy, and the style chosen is Georgian. The external walls are to be faced with 2 in. red bricks, and the roof covered with green Welsh slates.

The main staircase from the entrance hall leads to a spacious landing on the first floor. A fireplace is provided, and access can be obtained to the front balcony by means of a doorway. It is intended to furnish this landing as a comfortable lounge for the use of the patients. Four wards open directly off this landing. Provision has been made for access to the balcony on the south-east side of the building by means of a doorway opening out of the central ward.

The sister's room, situated on the left of the landing, commands an easy view of all the wards. There is also a small room between wards 1 and 2. A service lift has been provided between the kitchen and first floor. The two bathrooms and lavatory are situated above the scullery and downstairs lavatory, and are so arranged that cross ventilation is obtained, and that all the service pipes are in that part of the building farthest removed from the residential portion.

The back staircase leads on to the attics, in which are situated the nurses' and servants' rooms and a large linen cupboard.

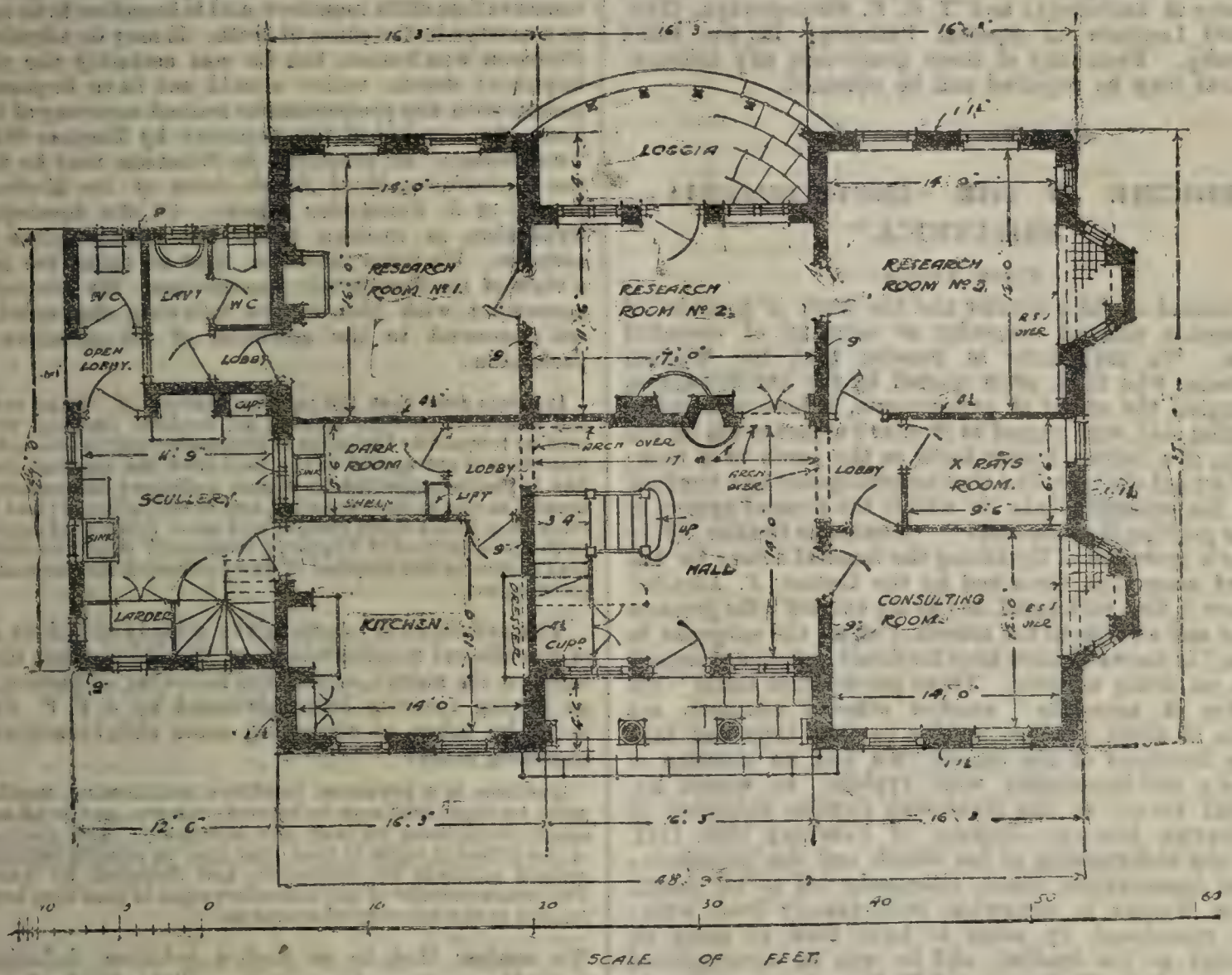


Fig. 2.—Ground Floor Plan.

The front and back elevations have N.W. and S.E. (Fig. 1) aspects respectively. Balconies have been provided on both N.W. and S.E. fronts for the convenience of the patients.

On the ground floor is an entrance hall with fireplace and a well staircase leading up to the first floor by a series of easy flights. Opening off the hall are the consulting room and library and the three rooms to be used at present as research rooms and museum. A photographic dark room and a room for the *x*-ray apparatus have been provided on this floor, the latter being connected with the research and consulting rooms by means of a lobby. The ground floor plan here reproduced (Fig. 2) gives an idea of the arrangement of what may be called the working department of the hospital. It will be observed that all the research rooms can be entirely shut off from the rest of the hospital. The domestic offices are entered from the left side of the hall through a lobby. A good sized kitchen with scullery, etc., has been provided. From the scullery a back staircase leads to the upper floors. An open lobby is provided to the scullery, forming a side entrance.

The architect, Mr. Herbert W. Maguire of London, has skilfully carried out the difficult task of designing a building which can be used either as a private residence, a hospital, or a hospital and laboratory combined. It is estimated that the building will cost £1,600, a most reasonable sum considering the accommodation provided.

It is expected that the foundation stone of the building will be laid at an early date, and that it will be completed within a few months. We are sure that the existence of a properly appointed hospital will of itself serve to give a great impetus to the study of the diseases for the investigation of which it has been founded. We congratulate all concerned on the success of their persevering efforts, and we wish them every success in the enterprise on which they have embarked.

In the article published in the JOURNAL of February 26th, 1910, we pointed out that it was most desirable that the hospital should be placed on a sound economic footing. The funds for the building have been provided, but it is necessary that those who have charge of the hospital should not have their minds distracted from research by

sordid cares. The profession, as we have said, has out of its scanty resources hitherto kept the hospital going. If medicine were a trade this would be a very foolish policy, as it amounts to contributing towards the discovery of means of relieving suffering—a discovery that will tend to dry up a Pactolus of fees from wealthy patients. This consideration has never been allowed by the medical profession to stand in the way of its ceaseless search for means of relieving pain and restoring health to the sick. We are sure that it will continue the support, moral as well as financial, which it has given to the Hospital for the Study of Special Diseases. But the hospital has very distinct claims on the public to whose benefit its work is directed. If that work is not showy, it is sound, and success in the aims of those who have given themselves to it with such self-sacrifice would bring about a greater diminution of the mass of human misery than the discovery of a cure of cancer. The treasurers of the Committee are Sir W. Selby Church, Bart., K.C.B.; Sir Clifford Allbutt, K.C.B., Regius Professor of Physic in the University of Cambridge; G. Sims Woodhead, Professor of Pathology; and T. S. P. Strangeways, Huddersfield Lecturer in Special Pathology in the same university. From any of these gentlemen any information that may be required can be obtained.

## MEDICINE IN THE "ENCYCLOPAEDIA BRITANNICA."[1]

### Fifth Notice.

The account of John Hunter and his work is a model of compression without obscurity or sacrifice of essential details. We may note in passing that Sir William Fergusson, who is so often quoted by the antivivisectors as denying the utility of experiments, is here referred to as having said, with regard to Hunter's experiments on the grafting of a human incisor tooth on the comb of a cock: "May we not claim for him that he anticipated by a hundred years the scientific data on which the present system of human grafting is conducted?" (Hunterian Oration, 1871.) Hunter's operation of ligaturing the femoral artery for the cure of aneurysm, described by the Italian, P. Assalini, who saw it first performed, as having excited "the greatest wonder and awakened the attention of all the surgeons in Europe," is shown to have been the direct outcome of experiments on living animals. These proved that under "the stimulus of necessity" smaller arterial channels are capable of rapid increase in size so that they can take on the functions of the larger. We find no mention of Hunter's self-inoculation with syphilis, to which Mr. Edmund Owen, in the Hunterian Oration published in the British Medical Journal of February 18th, 1911, traces the undermining of his health and the progressive arterial degeneration which ultimately led to his death. William Hunter is somewhat inadequately dealt with; he is considered by some to have been as great an anatomist as his brother, and he was an accomplished scholar besides. Hydrocele and Hydrocephalus are briefly but sufficiently described. Of Hydropathy an interesting account is given, but it is somewhat odd to read of "abdominal typhus" in an English work. Some twelve columns are given to Hypnotism. We find in the article a reference to the French Royal Commission, of which Benjamin Franklin was a member, appointed for the investigation of the claims of Mesmer. It is stated that the Commission reported that "it could not accept the evidence for the existence of the magnetic fluid; but it did not express an opinion as to the reality of the cures said to be effected by its means nor as to the nature of the magnetic sleep." The writer can scarcely have studied with any attention the original report, which, after a detailed account of numerous observations, states expressly that "these facts have given the Commissioners the opportunity of observing that magnetism has seemed to have no effect in those patients who submitted to it with some incredulity; that the Commissioners, even those who have more impressionable nerves, having purposely diverted their attention, have not felt the sensations which the three patients of the lower classes experienced, and they were led to suspect that these impressions, admitting them to be all real, were the consequence of an anticipated persuasion and might be an effect of the imagination." As to the nature of the "magnetic sleep," the writer himself says, in a paragraph preceding the one from which we have quoted, that "it would seem that Mesmer himself was not acquainted with the artificial somnambulism which for nearly a century was called mesmeric or magnetic sleep, and which is now familiar as hypnosis of a well-marked degree." As a matter of fact, however, the Commissioners do refer to drowsiness occurring in one case—that of a lady—but this is attributed to weariness caused by the length and monotony of the procedure. Again, we do not think that the writer, in speaking of the attitude of the medical profession at a later date towards "magnetism," is right in saying that it was not justifiable. It might be gathered from his statement that John Elliotson was "driven out of the profession" by the blind conservatism of its members, and is therefore to be regarded as a martyr in the cause of truth. It may be admitted that Elliotson was honest, but he was certainly the victim of impudent deceit, which should not have imposed on a person with any pretensions to trained accuracy of observation. An account of the exposure by Thomas Wakley of "magnetism" as practised by Elliotson may be found in the *Autobiographical Recollections of the Medical Profession* of J. Fernandez Clarke. Of the development of hypnotism in modern times the author gives a good account. We think, however, that he takes too generous a view of its therapeutic possibilities. We are entirely in agreement with him in the following statement, which we commend to the attention of all members of the profession:

> It seems clear that the various systems of "mind-curing" in the hands of persons lacking all medical training, which are now so frequently the cause of distressing and needless disasters, owe their rapid spread to the fact that the medical profession has hitherto neglected to attach sufficient importance to the mental factor in the causation and cure of disease; and it seems clear, too, that a more general and more intelligent appreciation of the possibilities of hypnotic treatment would constitute the best means at the disposal of the profession for combating this growing evil.

The article on Hysteria gives a fairly sufficient account of the clinical manifestations of the disease, but throws no light on its nature, unless the following definition, quoted as having recently been advanced by J. F. F. Babinski, is to be taken as conveying some enlightenment to the inquiring mind:

> Hysteria is a psychical condition manifesting itself principally by signs that may be termed primary, and in an accessory sense others that we may call secondary. The characteristic of the primary signs is that they may be exactly reproduced in certain subjects by suggestion and dispelled by persuasion. The characteristic of the secondary signs is that they are closely related to the primary phenomena.

We confess that to us such a nebulous definition is a veritable *asylum ignorantiae*. This kind of oracular jargon is unfortunately too common in writers on obscure nervous disorders. The article on Influenza is a good review of the subject. The account of the ravages committed by this painfully familiar disease during the last twenty-two years is particularly valuable. Insanity in all its medical, legal, and other aspects is exhaustively discussed in an article extending over nearly forty-four columns. It is marked throughout by clearness of exposition and a sense of perspective that is often wanting in descriptions of the various forms of mental aberration. The third section of the article, entitled Hospital Treatment, which is by Dr. F. Peterson of New York, may be commended to the careful attention of members of all public bodies which have to deal with the care of the insane.

[1] *The Encyclopaedia Britannica.* A Dictionary of Arts, Sciences, and General Information. Eleventh edition. Vols. I-XIV. Cambridge: University Press. 1910.

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Dr. Paul C. E. Tribe, M.R.C.P., Honorary Physician to the Anglo-American Hospital, Cairo, has been granted by the Khedive of Egypt the Imperial Ottoman Order of the Medjidieh, Third Class, and Captain R. B. Black, M.B., R.A.M.C., the Imperial Ottoman Order of the Osmanieh, Fourth Class, in recognition of valuable services rendered by them.

## MEDICO-LEGAL SOCIETY.

### The Abuse of Drugs.

At a meeting of this society on March 21st, with Sir John Tweedy in the chair, Mr. W. W. Gadd, barrister, read a paper entitled, "How far can the Abuse of Drugs be Prevented by Law?"

*The Law and the Abuse of Drugs.*

He said his object was to state briefly the present state of the law in regard to the abuse of drugs, and to indicate how far it deals with them: (*a*) Theoretically, (*b*) effectively, and to what extent it needed strengthening. Dealing with the criminal and vicious abuse of drugs, Mr. Gadd pointed out that the criminal abuse of drugs was but little restrained by English law. Legislation had been aimed apparently rather at punishing offenders than at preventing offences. Having drawn attention to the provisions of the Offences against the Person Act, 1861, which penalize the administering of any noxious thing, he said that the question as to what was a poison or a noxious thing was one of fact, it being essential to show that the substance was noxious in the amount used in any particular case. In none of the cases provided for in this Act was there any prohibition of the sale of poisons or noxious substances by persons having no guilty knowledge of the unlawful purposes for which they were procured. The only English Act which prohibited the sale of poisons was the Poisoned Grain Prohibition Act, 1863. As for the Arsenic Act and the Pharmacy Act of 1868 and 1908, they allowed even scheduled poisons to be sold to any one known to the seller after due performance of certain rites and ceremonies connected with the Poisons Register which sellers had to keep. He did not doubt the usefulness of the Poisons Register, for it was the opinion of those qualified to judge that even in the case of intended suicides the difficulties placed in the way of the persons seeking to obtain the poison often disgusted them sufficiently to turn what was probably the ill-defined purpose of an unbalanced mind. Nevertheless, the weakness of the existing schedule was its want of elasticity. It contained only certain definitely named substances and classes of substances. Whilst expressly including all poisonous vegetable alkaloids, it did not embrace synthetic substitutes for alkaloids of equal or greater potency, as for example, eucaine, novocain, and stovaine. Again, whereas sulphonal was specifically included, similar hypnotics, such as veronal, trional, etc., were outside the schedule. The Privy Council might add from time to time to the schedule, but seemed to be reluctant to exercise this power. For example, in spite of the fact that representations had been repeatedly made concerning the use of lead plaster as an abortifacient, the Council had declined to put it upon the schedule. In other countries, and in some of the American States, there was more elasticity in such schedules—thus, speaking from memory, the Poison Schedule of the State of Michigan, U.S.A., contained a provision to the effect that any drugs, the medicinal dose of which is no more than some few grains, as stated by medical authorities, became *ipso facto* a scheduled poison. An addition might be made to the English schedule to the effect that any drug, the maximum medicinal dose of which was stated by the makers thereof, or by competent medical authorities, not to exceed 2 grains for an adult, should be considered a poison within the meaning of the Pharmacy Acts. But the schedule was practically useless as a means of restraining excessive use by victims of the drug habit. For such, in most civilized countries and particularly in the United States of America, there were prohibitive laws.

Having alluded to the laws of other countries with regard to the sale of narcotics, he proceeded to deal with unqualified prescribing. The only statute directly restricting unqualified practice in this country was the Apothecaries Act, 1815.

The only alternative to seeking the advice of a vendor of repute with a character to lose was usually the swallowing of both the advice and the nostrum of an anonymous medicine-monger, probably an American, and certainly immune to any form of moral suasion. There should be no consideration for the quack blatant; the law allowed any one to manufacture and sell medicines for human use, provided only that if he claimed either that his preparation would cure disease or that he, and he alone, knew the secret of its composition, he was taxed under the Medicine Stamp Acts. In addition to this, proprietary articles were subject to the provisions of the Pharmacy Acts. Very few proprietary articles were the subjects of actual letters patent, and the Pharmaceutical Society had on many occasions secured the revocation of patents for medicines containing scheduled poisons, great weight being given by the Chancery Courts to the argument that the effect of the patent would be to enable the patentee to sell without restriction an article which, if not protected by letters patent, could not be thus sold.

Certain groups of articles were excepted from the Medicine Stamp Acts. Thus, preparations known, admitted, and approved of as remedies when sold by chemists and druggists, surgeons, and apothecaries, were excluded, provided always that the vendor did not (*a*) claim to possess occult secret or art in making the preparation; (*b*) claim or possess any exclusive proprietorship. This provision had for a number of years remained a dead letter; the question of its applicability was raised in the case of Farmer *v.* Glyn Jones, and was decided in favour of the defendant both by the magistrate and on appeal. After this decision the Board of Customs and Excise had declared that a preparation shall be regarded as known, admitted, and approved: (1) If the label bears a statement of the ingredients of the medicine or adequate indication of the active ingredients; (2) if the medicine is prepared according to some well-known book of formulas, and a number permitting ready identification of the particular formula is stated or indicated on the label. The onus of proving that the composition of a preparation sold accorded with the assertion made or implied on the label rested with the vendor who claimed the exemption. Since this decision a pharmacist could sell remedies for specific complaints without stamps under cover of this exemption, the active ingredients being indicated on the label, or the source of the formula denoted by initials or numbers. There appeared to be no objection to making all manufacturers put forth their claims to cure disease, and to state the composition or at least the active ingredients of their preparations in some such way as was already done by those who sought to evade the incidence of the stamp duty.

In dealing with the sale of these articles the Quackery Prevention Act, 1908, of New Zealand might usefully be imitated; by it every person committed an offence who published any statement intended to promote the sale of any article as a medicine, etc., for the prevention, alleviation, or cure of any ailment or physical defect, and which was false in any material particular. A statement was deemed to be published within the meaning of this Act if inserted in any newspaper printed and published in New Zealand or otherwise advertised.

A modern ill of increasing virulence was the habit of persons purchasing and taking potent drugs for morbid conditions, real or imaginary, from which they were suffering, or supposed themselves to be suffering. The practically unrestrained access to hypnotics and analgesics and other potent medicaments fostered this abuse. To remedy this evil the Poisons Schedule might be made to include all powerful drugs. The abuse of drugs by the unauthorized use of medicines originally prescribed by duly qualified medical practitioners for a particular patient in a specific state at a certain time ought also to be checked. He admitted that the question of the repeated dispensing of medical prescription was one of some difficulty. It appeared that the prescription was the property of the patient, who had received it in return for a fee, and that the only restraint on its undue repetition was by an honourable understanding between physicians and pharmacists, any breach of which should be treated rather as a violation of professional etiquette than as a legal offence.

*"Patent Medicines."*

Dr. Tunnicliffe then read a paper on "Patent Medicines," in the course of which he said that, owing to growth of the sale of proprietary articles, the local pharmacist was suffering. The unqualified pushers of secret remedies had been somewhat checked since 1905, but fraud and actual harm were still possible. The use of remedies harmless in themselves meant loss of time, and made

the task of the genuine healers more difficult. The term "patent medicine" was inconvenient, because it included both useful and fraudulent articles. With regard to true patent medicines, the proprietor was generally able to establish a commercial title, so that his business went on after the lapse of the patent. Last year deaths caused by scheduled poisons were 20 in number, while 29 persons died of unscheduled poisons. An advantage of having a poison on the schedule was that it gave notice to the public that certain things were poisonous. He desired to see formed a new schedule of drugs which could only be sold under a medical prescription. The majority of so-called "patent medicines" were not patented at all. If they contained poison the fact had to be stated, but there need be no description of the kind of poison, and no notice to the purchaser of how much poison they contained. There were a large number of drugs not yet on the Poison Schedule the consumption of which he would like to see placed under a greater degree of control. The patent medicines usually sold might be conveniently divided into four classes—namely: (1) Abortifacients; (2) nostrums which were obviously frauds upon the public; (3) active medicines: and (4) mixtures containing alcohol. As to the first class, while savin and ergot were to be found in the Poison Schedule, the active principle of parsley was not to be found there. Again, lead was used as an abortifacient, and it was a significant fact that of the persons who died last year of lead poisoning the large majority were of the female sex. Sulphate of iron and aloes might also be used for this purpose. Having referred to various medicines sold for neuralgia, and to a number of other quack remedies, Dr. Tunnicliffe enumerated a number of tonics which often contained a larger percentage of alcohol than was to be found in ordinary vinous liquors. In his view, the doctrine of *caveat emptor* was stretched to the breaking point when invoked to protect the vendors of patent medicines in this country.

## THE LONDON SCHOOL OF CLINICAL MEDICINE.

THE members and friends of the London School of Clinical Medicine, Seamen's Hospital, Greenwich, dined together on March 24th at Prince's Restaurant, Piccadilly, under the genial chairmanship of Admiral Lord CHARLES BERESFORD, M.P. There was a large attendance.

The CHAIRMAN, in proposing the toast of "The London School of Clinical Medicine," announced that the King had doubled his subscription to the Greenwich Seamen's Hospital (Dreadnought). The school had been established to provide instruction for medical men who, having already qualified, were desirous of keeping themselves informed of the latest methods and discoveries in medicine and surgery. The rapid growth of science, and especially the science of healing, rendered it imperative, if a doctor meant to do the best for his patient, that he should attend some centre of instruction where he could hear and see the latest developments of his art. That was particularly necessary in the case of medical officers in the navy, the army, and other services of the Crown, for they were frequently at a distance from centres of medical education, and could only at intervals devote themselves to study and research. There was no more fitting place for men of that class to obtain instruction than the Seamen's Hospital at Greenwich, and here had been established the London School of Clinical Medicine. That hospital, with 300 beds, treated every form of ailment, and especially ailments which attacked men in the services. The hospital and school were equipped with a staff of physicians and surgeons who had attained the highest rank in their profession, and who were willing and ready to give their services free to the sick and injured, and to devote their energies to the students of the school. The work done at the Dreadnought Hospital comprised many phases. There the student could study for the higher examinations; there might be found the missionary home on leave, and men from Greater Britain and from foreign countries. There the aspirant for entry to the services obtained instruction prior to going up for his examination, and there the general practitioner spared from his busy life an hour now and then to hear a lecture by the bedside, to listen to some demonstration, or to see some operation conducted. Although the school had only been in existence five years, 479 students had taken out courses, and among those he was gratified to find that there were no less than 47 naval surgeons. These had been seconded for study by the Admiralty, and an arrangement now existed whereby about 30 naval officers attended the school annually. Lord Charles concluded his speech with an earnest appeal for the supply of hospital ships for the navy.

Sir W. H. BENNETT, in replying to the toast, said that post-graduate teaching in this country was under the disadvantage of not being officially recognized by those who had the control of medical education. In every other European country post-graduate teaching was regarded as of great importance. He had received a letter from Sir Thomas Barlow, who expressed his satisfaction at the progress made by the London School of Clinical Medicine, and said that a post-graduate teaching must have recognition sooner or later. He deprecated the waste of energy caused by three or four well-equipped post-graduate institutions working in rivalry—in friendly rivalry it was true—in the metropolis. He concluded by giving details of the satisfactory financial position of the London School of Clinical Medicine.

Professor R. TANNER HEWLETT, who also responded to the toast, said that the school acted up to the policy of making the London School of Clinical Medicine thoroughly competent to fulfil the duty it had undertaken.

The toast of "The Guests" was proposed by Captain A. W. CLARKE, and was acknowledged by Sir WILLIAM H. ALLCHIN, who contrasted the modern methods of teaching medicine with the methods that obtained when he was a student. He considered that the London School of Clinical Medicine had before it an enormous field of work.

Dr. FREDERICK TAYLOR proposed the toast of "The Chairman," and after a brief reply the proceedings terminated.

## SURGERY BEFORE LISTER.

ON March 23rd the Fishmongers' Company entertained at dinner at Fishmongers' Hall a number of members of the medical profession. In the absence of the Prime Warden owing to indisposition, the chair was taken by the EARL OF PORTSMOUTH, one of the junior wardens. After giving the usual loyal toasts, the CHAIRMAN proposed that of the medical profession, coupling with it the names of the President of the Royal College of Physicians and the President of the Royal College of Surgeons.

Mr. Butlin's reply was reminiscent of a period when surgery was about to be transformed by the spread of the antiseptic method, and, as it gives a picture which many of the most active surgeons of to-day cannot know from personal experience, it has seemed well to reproduce it in full.

Mr. BUTLIN: I think it might interest the Wardens and the Livery of the Corporation to hear my own personal experience of the great revolution which has been effected in surgery, and to which reference has been made. In order that you may understand it, I must carry you back to the Sixties of the last century, when I was house-surgeon to that eminent man, Mr. (Sir James) Paget. At that time the ordinary course of events was in this wise: Mr. Paget would perform an operation, such as the resection of a joint, on the Saturday; it would be performed properly, and the limb would be fixed upon a splint, and all would go well for a few days. But perhaps on the following Thursday the house-surgeon would receive a message from the Sister of the ward to come at once because the patient was shivering. He would find the Sister by the patient's bed, the child wrapped in a warm blanket, but still shivering from head to foot so that her teeth chattered, and he knew at once that this was the almost certain presage of that terrible blood poisoning, pyaemia, which would surely end fatally in the course of five or six weeks. Sometimes it meant septicaemia, not less deadly but more merciful, because it did its work in five days instead of five weeks. And the best hope was that it might only mean an attack of erysipelas, which would probably not be fatal. It was not only after large operations that these blood poisonings

occurred. I have seen a child die within forty hours of the division of a tendon, and a strong and healthy man die within five days of the removal of an ulcer from his arm. There were always cases of blood poisoning in the surgical wards at that time. Nor was this all. For there were horrible diseases of wounds which spread with singular rapidity, and one of them, hospital gangrene, spread from bed to bed until there was not a wound in the ward free from it. It may well be understood that the surgeons of those days were very sad over such conditions, and constantly wondering what could be done to prevent or remedy them.

It was at this time that Mr. Paget came down one day and found in his wards a man with a crooked spine, and an abscess by the side of it, a kind of case which was the terror of the surgeon, for he was between the devil and the deep sea. If he opened the abscess the patient would almost certainly die of blood poisoning. If he left it to open by itself there was no knowing when and where it might choose to open. When he saw the case Mr. Paget said: "Now, Butlin, we will treat this by a new method. There is a man called Lister in Scotland who has recommended a method for the treatment of such cases. I will bring down the description of it to-morrow." On the next day he desired me to have a kind of putty made of certain ingredients, among which the most important was carbolic acid. The opening was to be made beneath a piece of lint soaked in a solution of carbolic acid; then the putty was to be put upon it, and over that a piece of sheet lead. The principles of the treatment were not explained to us. All the directions were carried out: the putty was applied with the sheet-lead over it, and was fixed with plaster and bandage. But as it was only a lump about as large as a small fist, it soon slipped down, and slipped down again and again, until the usual blood poisoning occurred and the patient died, as he might have done with the old treatment. This was the first time we had ever heard the name of Lister, and you may be sure we were not favourably impressed by what had happened under his name.

Ten years later the name of Lister was well known, and surgeons all over the world were divided into two great camps—those who were for Lister and those who were against him. It was very interesting to trace the part which he himself took in the contest. Born of a Quaker family, a man of peace, of kind and courteous manner, incapable of a harsh word, he did more for his cause by his persistent and quiet advocacy than he would have done had he been eloquent and a born fighter.

Every one now knows how, some twenty years ago, the fight was practically over, and every one now knows what the condition of surgery is. There are men of the younger generation in the room to-night who have never seen a case of blood poisoning after operation and who have no idea what hospital gangrene was like. Operations are practised so well and so frequently that the public has come to regard them almost as a form of innocent recreation. They are confident even to rashness.

This vast result, greater in its effect upon every civilized country than the French Revolution was in France, was accomplished by one man upon the work of another man—a Frenchman—and I have often thanked the kind fate which brought me into surgery when Providence had given to the world such men as Pasteur and Lister, so that I should actually have known and conversed with one of them.

I should like to say that these great results were not procured without experimental investigation. Not only did Professor Lister think himself justified in testing his methods on animals before he applied them to men, but he would not have thought himself justified in applying them to human beings unless he had first tested them on animals, where that was possible. I say this not with any intention to apologize for this great man—there is no need for that—but because this is a period of maudlin sentimentality, when there are many persons going about the world objecting first to one thing then another. They might well be called "antibodies." They object to many of those things which have made this dinner so agreeable—to the eating of flesh, to the drinking of wine, to the smoking of tobacco. They are antivaccination, antivivisection. Many of them are opposed to thrift and some object to religion. And they believe they have not performed their daily round of duty unless they have passed some part of their time in shouting out their own opinions, and in shouting down those persons who do not agree with them.

## ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

The second annual meeting of the association was held at the Holborn Restaurant on March 23rd, with Dr. Crookshank in the chair. The report of the council was considered and adopted. Dr. Marshall, of Lowestoft, and Dr. Dunbar Dickson, of Marlow, expressed appreciation of the work done. The following officers were elected: Chairman, Dr. Rashell Davison; Honorary Treasurer, Dr. Senior; Honorary Secretary, Mr. D. A. Belilios. In accordance with the rules of the association, six members of the council retired on this occasion. The following, Drs. Chronnell, Cross, and Dykes were re-elected, and Drs. Gibbs-Smith, Butler Harris, Parkinson, and Spreat were elected to fill the vacancies. A hearty vote of thanks was passed to Drs. Crookshank, Gibbs-Smith, Barrow, and Fremantle for their very valuable services. A letter from the Council of the British Medical Association was read and was referred to the council. The question of a journal was considered, and it was decided to issue a quarterly supplement in the *Medical Officer*, to be sent to all members.

The conference convened by the association was held later, when delegates from the following associations were present: Certifying Factory Surgeons, Postal Medical Officers, Poor Law Medical Officers, and Metropolitan Police Surgeons. Mr. D. A. Belilios, the temporary secretary, stated that the Association of Public Vaccinators had agreed to attend the meeting, but, owing to there being no council meeting till the end of April, they could not appoint delegates till that time. The delegates then voted Dr. Crookshank to the chair, and he, in his preliminary statement, said that no votes would be taken on the questions to be discussed. He invited opinions as to (1) the desirability or otherwise of some joint action being taken by the various associations of medical men holding part-time appointments, when their various interests were threatened, and in the event of the answer being in the affirmative, (2) the methods by which co-operation could be rendered possible. He suggested that the delegates should return to their respective societies, and come back with definite instructions. He then briefly referred to the recent memorandum of the Local Government Board, with special reference to the policy outlined of giving the medical officers of health in the smaller districts the posts of public vaccinators, police surgeons, Poor Law medical officers, factory surgeons, and postal medical officers, so that the medical officer of health could be independent of private practice, and to the co-operation of the Local Government Board with the Home Office in the matter. All the delegates expressed the opinion that a joint permanent committee should be formed. It was decided that the delegates should return to their associations for definite instructions, and forward the results to the Honorary Secretary of the Association of Medical Officers of Health, who would convene a meeting later.

## LITERARY NOTES.

Referring to a paragraph which appeared under the head of Literary Notes in the Journal of March 25th, the Rev. Fielding Ould (Kensington) writes: "I was interested to see the quotation from M Clintock's memoir referring to Sir Fielding Ould in the British Medical Journal this week. An alternative verse of the period is as follows:

> Sir Fielding Ould the sword of knighthood gained
> For saving ladies' lives in child-bed pained.

As the point has been sometimes raised, may I say that there seems no doubt that Ould attended the Countess of Mornington at the birth of the "Iron Duke"? I have seen at an old-established chemist's shop in Dawson Street, Dublin, entries of the prescriptions given by Ould on that occasion. I am the fifth "Fielding" directly descended from the old Doctor."

The vivisection question is the subject of lively controversy in America at present: *Puck* of February 22nd has a telling cartoon. In the foreground is the investigator

in his laboratory. On one side is a group labelled "The Sentimentalists"; it consists of three excited women of different "freak" types and a clergyman whose physiognomy does not suggest what our Transatlantic cousins call "braininess," shrieking "For Mercy's Sake, Stop!" On the other side are "The Sufferers" crying "For Humanity's Sake, Go On!"

Many attempts have been made to account for genius, and Lord Rosebery, in his recent book on *Chatham: His Early Life and Connections*, has made one more. It occurs in the course of the following paragraph, in which he sums up the elements which combined to mould the mind and the temperament of the first William Pitt:

> Heredity counts for much, for more than we reckon in these matters. We breed horses and cattle with careful study on that principle; the prize bull and the Derby winner are the result. With mankind we heed it little or not at all. With Pitt it was everything or almost everything. From his ancestors, most probably the Governor, who, we infer, was a free liver in a tropical climate, he derived the curse of gout. From the same progenitor he inherited a nervous, violent temperament, and some taint of madness. All this told partly for him, partly against him. The gout drove him to study and reflection, but it constantly disabled him. His temperament roused him to great heights of energy and passion both in eloquence and politics, but it also alienated his fellow-men, and made him sometimes eccentric, and sometimes turbulent. We cannot in such a matter hold the balance. What is genius? None can tell. But may it not be the result in character of the conflict of violent strains of heredity, which clash like flint and steel, and produce the divine spark?

The Governor, Thomas Pitt, Governor of Madras, the "reformed filibuster," as Lord Rosebery calls him somewhere else, best known to most people perhaps as the first European owner of the Pitt diamond, was his grandfather. William Pitt suffered from gout even while a schoolboy at Eton, and his biographer evokes the shadow "of the lean, saturnine boy as he limped by the Thames shaping a career, or pondering on life and destiny, dreaming of greatness where so many have dreamed, while he watched half enviously, half scornfully, the sports in which he might not join." The gout drove him prematurely from Oxford after little more than a year of residence, and it pursued him throughout his life. In what might well have seemed the crisis of his fate in 1754, he was so completely pinned to his bed or chair in Bath that, on the very brink of his ministry, he assured Henry Fox that his health would not allow him to hold office. Indeed, as Lord Rosebery says, "in the glimpses we obtain of him, apart from great speeches and the results of victorious policies, we almost always find him prostrate with illness. It is generally the gout or its allies which disable him; but later it is disorder akin to, if not identical with, insanity." The gout was a fearful handicap; the only conceivable compensation was that it drove him into himself, and gave him time to read and think when other men of his age were amusing themselves. Lord Rosebery, in referring to him in that stage of his career when he was an officer of the army, speaks of him as "preserved from mess debauches and idle activity by his guardian demon the gout." Of his fourth sister, Betty, it is charitable to suppose that she was really insane; and as to Anne, who kept her brother's house for many years, and with whom he finally quarrelled fiercely, as was the manner of the Pitts, it seems pretty clear that in the later years of her life her mind became unbalanced. Like Anne, Pitt was as a rule faithful to Bath, but his uneasy quest of health made him seek other resorts, including the spring of St. Rumbold at Astrop Wells, Tunbridge Wells, and Sunninghill. "He thus," says his biographer with that malice which enlivens his pages, "became a constant participator in the tepid diversions of these sickly haunts."

Dr. Fritz Loeb, writing in the *Muenchener medizinische Wochenschrift*, No. 45, 1910, states that in the academic year 1908 to 1909 4,062 inaugural dissertations and discourses for qualification as private lecturers were presented to the various universities of Germany. Of the total number, 1,154 were medical. These he groups as follows: In 263 they consisted of clinical cases. Of those dealing with special subjects, 72 of the 1,154 related to eye disease, 52 to therapeutics, 153 to internal medicine, 55 to tuberculosis, 222 to neurology and psychiatry, 67 to otolaryngology, 93 to dermatology, 23 to medical statistics, 157 to diseases of women, 125 to cancer, and 164 to social medicine. We would not for the world hint a doubt that these theses were the work of any one but the candidates themselves. There was a time, however, when theses could be bought at a regular tariff. In his *Chirurgie vor 100 Jahren*, Georg Fischer tells us that in the German universities of the eighteenth century an ordinary thesis containing a brief description of a disease in Latin of a more or less "doggy" character cost four pistoles; one making some display of learning and written in fairly good Latin could be had for eight, and a still better quality for sixteen pistoles, while a very superior article, containing new and "original" views expressed in Ciceronian Latin, might be bought for thirty-six pistoles. There used to be men at Edinburgh, and doubtless elsewhere, who made a living by putting theses for medical candidates into Latin. The practice was not, however, confined to aspirants for medical degrees. One of the principal characters in Gustave Flaubert's *Education Sentimentale* is described as living by the manufacture of theses for degrees in law. Members of Parliament, we suspect, sometimes have their speeches written for them. Even sermons were once upon a time, if they are not still, marketable commodities. We are far indeed from suggesting that the orators who deliver introductory and other addresses to medical audiences buy their eloquence in the same way. But if they did, there would probably be a sliding scale of prices. Thus a humdrum homily, without any pretension to style, might be purchasable for, say, £5; one with a few literary tags and stock English quotations for £7 10s.; one with a good show of erudition and some Latin quotations, with the quantities plainly marked, for £10 or £15. These might be kept in stock. Superfine medico-philosophico-historico-political discourses on things in general, with new applications of the theory of evolution, references to the tendencies of the age, and a varied assortment of novel metaphors, warranted free from mixture, with a good allowance of purple patches (suitable for the newspapers), all writ in the choicest English, might be supplied to order at rates to be agreed upon, according to the requirements of the purchaser.

As "dichotomy" is practically unknown in this country, a definition of it may not be superfluous. It is a "surgical operation," consisting in the division of the fee for a consultation or an operation between the surgeon and the practitioner who brings him the case. The practice would appear to be not uncommon in France; it forms the subject of one of Gyp's best known books, *Docteur Tant pour Cent*, and it gives the title to a play now running at the Grand-Guignol in Paris. We only know the piece from an account of it given by a critic, M. Joseph Galtier. The plot turns on the question of operating on the wife of a rich contractor for the trifling fee of £1,200. The general practitioner had given to the director of the famous surgeon's laboratory a section of a tumour of the breast. The examination does not prove the existence of a cancer as was feared. Removal is therefore not necessary; but dichotomy must be performed all the same. The general practitioner, when he hears the result of the histological examination, would willingly give up his £600. He is an honest man, who does not wish to be guilty of an infamy. But his wife has luxurious tastes, and frets at the narrow means which check her social ambition. There is a "scene in the house," and the lady threatens to leave her husband. Then the unhappy man gives way. The second act passes in the surgeon's clinic, where everything necessary for the ritual of modern surgery is shown in realistic detail. The patient is brought in on a stretcher, and soon from an adjoining room come cries, groans, and sighs. The sacrifice proceeds, and the woman dies under the anaesthetic. Then the surgeon appears in his operating dress with bloody hands and arms and bloodstained apron. There are degenerates no doubt who like, with Macbeth, to sup full of horrors. But to persons of healthy mind such things are revolting. Apart altogether from the implied insult to the medical profession, they violate the canons of dramatic art. The dagger and the bowl have their place on the stage, and even plays in which, as Byron says, "all stab and everybody dies," need not be offensive. At the end of *Hamlet* the stage is littered with corpses. But we think that surgical operations come within the terms of the Horatian precept, *Nec pueros coram populo Medea trucidet.*

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## NURSE OR MINOR MEDICAL PRACTITIONER?

DURING the past few months we have received a good deal of evidence from all parts of the country that there is a real risk of the establishment of a new form of unqualified practice, all the more dangerous because it is an outgrowth from a system which is universally approved. There seems to be an increasing tendency for both nursing associations and private persons to employ nurses who are not only allowed, but apparently in many places encouraged, to prescribe and administer drugs, to treat minor injuries, and generally to act as minor medical practitioners. The usual history is that some Lady Bountiful, whose heart is better than her head, introduces a nurse who is often also a midwife. Some kind of association or club is formed to which the tenantry and small tradespeople are induced, by those delicate means of persuasion so effective in rural districts, to subscribe, and in order that they may receive full value for their money, the nurse is placed at their disposal for all so-called minor cases. The definition of what is a minor case is left to the discretion of the subscribers and the nurse. It is almost a work of supererogation for a medical journal to praise the work of nurses. In her proper place a nurse is invaluable both to the patient and to the doctor. Properly conducted nursing associations which place at the disposal of poor people trained nurses whose services they would be unable in the ordinary way to procure have been a boon to profession and public alike. But it is necessary to insist upon the elementary fact that the training and qualifications of a nurse do not fit her, and were never intended to fit her, to discharge the functions of an independent practitioner. She is not taught to diagnose disease, or to discriminate between the slighter and more dangerous forms of it, or to weigh the values and dangers of drugs. She is trained to be the assistant of the medical man in a limited though very important sphere. Those who encourage her to aspire to a position of independence are assisting to mislead the public, and are, perhaps unconsciously, but none the less certainly, helping to undermine the present definite and honourable, if subordinate, status of the nurse.

Some of our correspondents who live in remote districts where the social influence of Lady Bountiful is all-powerful have been placed in an awkward dilemma. Their natural tendency is to refuse to countenance nurses who, under pretext of attending to a cut finger or of giving advice in some trifling ailment, are—unconsciously, it may be, in some instances; deliberately, we fear, in others—training the public to believe that the nurse should be called in first and that she should decide whether it is necessary to call in the doctor. But to take up this attitude exposes the country doctor to the displeasure of the patrons of the club or fund, and must inevitably cause a good deal of friction. On the other hand, to countenance such doings is to acquiesce in a fraud on the public, namely, the substitution of a person trained in one kind of work for another whose training and qualifications are quite different. In this difficult position several of our correspondents have asked, "Can the Association do nothing to help us?" We would direct the attention of our correspondents and others placed in the same position to the fact that on December 24th last was published in the SUPPLEMENT to the JOURNAL a set of Model Rules for Nursing Associations, together with a very significant correspondence which had passed between a member of the Association and the General Medical Council. The key to the situation will be found in these documents. In the letter signed by the Assistant Secretary of the General Medical Council it was clearly stated that, although the Council had no jurisdiction over nursing associations which employ unqualified persons to attend and treat patients as if they were qualified, the Council has jurisdiction, and will exercise it, over practitioners who lend themselves to covering such organizations by associating with those so acting.

It appears that the remedy for many of the cases complained of is there plainly indicated. It is open to the practitioners concerned, either personally, or preferably through the agency of the Divisions of the Association, to inform the responsible persons that if as medical practitioners, they countenance nurses who attend on and prescribe for patients, without medical supervision, they will render themselves liable to have their names struck off the *Medical Register*, a risk they do not propose to run. There need be no fear of crippling the legitimate work of the nurses, which is to act under medical instructions, for where those responsible desire to carry this principle into effect the profession may be counted upon to co-operate heartily.

In connexion with this aspect of the question it is to be noted that the Divisions have been informed that in any case in which there is reason to believe that such covering is going on assistance will be given from the central office in dealing with the matter. Members should therefore make use of the machinery which has been placed at their disposal by bringing their difficulties before their Divisions. If this were done generally and promptly, the evil to which we allude might be scotched before it attains really alarming proportions.

Where nurses are under the control of large and responsible organizations, such as a county nursing association, such a state of things as that described is less likely to exist, and if it does, would probably be best dealt with by reference to the Model Rules of the Association. If the rules of the nursing association are found to be so defective as to allow nurses to play the part of minor practitioners, the matter should at once be raised at a Division meeting, and the executive instructed to bring the matter before the notice of the committee of the nursing association in question. The model rules could be submitted as a set of regulations which had received the approval of the recognized organization of the profession. Whether these rules were adopted literally or whether their spirit was infused into some other form of words the result would be the same. The nurse would be relegated to her proper sphere of usefulness, the public would be protected and the legitimate interests of the profession would be conserved. We believe that timely and tactful representations by the Divisions or Branches concerned, in the manner

suggested in the memorandum which accompanied the Model Rules and the correspondence with the General Medical Council (issued to the Divisions on December 21st, 1910), would be sufficient in most cases to achieve the desired end. If these failed, the Divisions concerned would have to be prepared, in the interests of the public as well as of themselves, to adopt a sterner attitude, and to call upon their members to refuse to countenance the work of associations which, openly or tacitly, persist in allowing their nurses to assume the false position of which complaint is made. This latter course of action will, we venture to prophesy, rarely be necessary, but there can be no hesitation in adopting it where courteous representations fail.

## OEDEMA.

THE oedema of heart disease has been attributed in the past by most writers to "back pressure." The heart, inefficient as a pump, is supposed to congest the blood within the veins and so increase the capillary pressure and the mechanical transudation (filtration) of fluid into the tissue spaces. To explain the oedema of kidney disease and other toxic states it has been supposed by the champions of the mechanical school that the permeability of the capillary wall is altered by toxic agents, and that this leads to the increased filtration of fluid. Asher and others have urged that the formation of lymph depends not on capillary pressure but on tissue activity—thus the flow from the lymphatics of the neck of a horse may be increased five-fold when it masticates food. The flow from the lymphatics of the salivary glands is increased when saliva is secreted, but not when the secretion is paralysed by atropin, and yet atropin does not affect the vaso-dilatation brought about by the stimulation of the cranial salivary nerves. It has also been shown by the same investigators that the flow of lymph may be increased some hours after death by the injection of certain lymphagogues when no circulation exists. Leonard Hill has insisted that there is no evidence of a rise of capillary pressure due to back pressure; that the capillary pressure and the tissue fluid pressure in any organ or tissue is the same, and therefore there cannot be any filtration pressure; that the wet films of protoplasm, which form the capillaries, tissue cells, and lymph spaces, cannot be compared to rigid filtration membranes; that there is no constant capillary pressure in the parts of the body where oedema occurs, for the fluid contents of the organs and tissue are squeezed on by contraction and relaxation of the muscular mechanisms, by peristalsis, by the action of the skeletal and respiratory muscles, and by change of posture, so that the capillary pressure varies from zero as the sponge-like organs and tissues are emptied or filled by muscular action. The transudation of lymph, therefore, must depend on alterations of the tissue metabolism, on their chemical state, osmotic pressure, and surface tension phenomena.

Charles Bolton has proved by exact measurements that there is no such thing as back pressure. After experimentally obstructing the heart or venae cavae, there only occurs a temporary and trifling rise in venous pressure, and oedema follows at a period when the venous pressure has returned to its normal level. All the recent evidence has gone to show that oedema is not due to increased capillary pressure and transudation, but to diminished blood flow, which leads to want of oxygen, alteration of colloidal state of the living tissue and consequent varying uptake of water by it.

Professor Martin Fischer, of the Oakland Medical School, California, has recently contributed an illuminating and valuable essay on this subject.[1] He has brought the strongest evidence against the mechanical theory. He starts with some simple but very striking experiments on the frog. If a ligature is tied round one leg above the knee so as to obstruct entirely the circulation and the frog is returned to a water tank, the obstructed leg becomes markedly oedematous and blebs form under the skin: there is no question of capillary pressure here. If an ox or sheep eye is put in acidulated water, it swells till the sclera bursts. The addition of salts in very dilute solution diminishes the swelling, some more than others—for example, chlorides least and citrates most. Gelatine and fibrin swell and imbibe much water from acid solutions—for example, $\frac{1}{40}$ normal HCl—and shrink if $\frac{1}{40}$ molecular solution of a salt is added to the acid solutions. An urticarial-like wheal can be induced in a cake of gelatine, immersed in water, by injecting into it a drop of formic acid, and this can be diminished by ammonia or sodium citrate solution. Here we have an exact comparison with the effect and relief of a bee-sting. An instructive model illustrating in part the renal functions can be made by packing some powdered fibrin into a U-tube, and arranging over it a constant hydrostatic pressure of physiological salt solution. The fluid drips through the fibrin at a constant rate. If sodium citrate (or other diuretic salt) be added, the fibrin shrinks, and the rate of outflow increases. If acid be added, the fibrin swells, the outflow is scanty, and albumen comes through! This is removed by again adding sodium citrate. Professor Martin Fischer has found that he could not only relieve the tension in several cases of glaucoma, but keep it low for several days by the simple expedient of injecting $\frac{1}{8}$ to $\frac{1}{6}$ molecular solution (4.05 to 5.41 per cent.) pure sodium citrate solution subconjunctivally. For him oedema is caused solely by tissue change, by alteration in the colloidal nature, and affinity for water.

Physical chemists recognize two kinds of colloids—emulsion colloids and suspension colloids; the former are a mixture of two liquid phases, the latter a mixture of a solid and a liquid phase; the former are viscous, gelatinizing, and not readily coagulated by salts and hydrophilic, the latter non-viscous, non-gelatinizing, and readily coagulated by salts and hydrophobic. To the former belong gelatine, starch, dextrin, albumen, etc.; to the latter colloidal solutions of ferric hydroxide, aluminium hydroxide, etc., and haemoglobin. There will be no difficulty in accounting for the various experimental facts concerning oedema if we ignore the theory of the existence of impermeable or partially permeable cell membranes and simply remember that the substance of a cell consists of a mixture of different colloids. There are colloids with physical and chemical properties analogous to those of gelatine, and lipoid colloids having the power to take up substances soluble in fat-like bodies; also carbohydrate colloids, etc.

The laws of simple solution, of adsorption, of partition, and of surface tension came into play in these colloids, and these will help us to disentangle the maze of phenomena included under the heading absorption. We know that an insufficiency of blood

[1] *Oedema.* By Professor Martin H. Fischer. The 1909 Nathan Lewis Hatfield Prize Essay of the College of Physicians of Philadelphia. Figs. 51. London: Chapman and Hall. 1910. (Med 8vo, pp. 209. 2 dols.)

flow lessens the oxygen supply and increases the production of acid by-products of metabolism; lactic acid appears in the blood and urine of the dyspnoeic runner (Ryffel); the final stages of metabolism, leading to the production of $CO_2$ and $H_2O$, are not completed owing to oxygen want. According to Martin Fischer, the increased acidity leads to oedema. The tissues take up more water, just as fibrin, gelatine, the excised eye, or the frog's leg swells in acidulated water.

Hence the oedema in heart disease is due to obstructed circulation, deficient blood flow, diminished oxygenation, acid production, and increased hydrophilic property of the colloids of the tissues. He says: "The blood and lymph circulate fluid to the tissues and away from them, but what the tissues will take up or give off rests with them. Only as these circulatory systems carry to the tissues substances which directly threaten their existence, or fail to remove such as these tissues have produced, which, if allowed to accumulate, will overcome them, only in so far are the circulatory systems masters of the tissues."

Martin Fischer finds that oedema of the kidney can be produced just as surely by ligation of the renal artery as of the renal vein, for the organ, cut off from arterial blood and oxygen, takes up water from the surrounding collateral vessels; that oedema of the liver is produced by ligation, not of the portal vein, but of the hepatic artery, which maintains the oxygen supply to the tissues of this organ; that oedema of the lungs is produced by obstruction of the bronchial arteries, which feed the tissues of the lung itself. The fact that the bronchial arteries arise from the thoracic aorta explains why pulmonary oedema is the last to supervene when the circulation is failing.

A great advance will be made when it has become generally recognized that the mechanical theories concerning oedema are unsound, and that causation and treatment depend on the nutrition of the tissues. Professor Martin Fischer's suggestive work will well repay the study of the thoughtful clinician.

## THE COUNTY COUNCILS ASSOCIATION AND THE POOR LAW.

IN the BRITISH MEDICAL JOURNAL for February 4th was given a summary of the Poor Law proposals of the executive council of the County Councils Association, and on March 4th some criticisms by Sir Arthur Downes on these proposals were noted. The association has now published its proposals in a pamphlet,[1] which contains also an account of the meeting of the executive council at which the proposals were adopted, a tabular statement of the administrative provisions of the Majority and Minority reports of the Royal Commission which Lord George Hamilton and Mrs. Sidney Webb have approved as accurately presenting the two sets of proposals, and reprints of the expressions of opinion about the proposals by a considerable number of the Royal Commissioners which have appeared in the *Morning Post*. In a preface the secretary of the County Councils Association attempts to combat the impression, said to have been produced in some quarters, that the scheme of the association ignores existing boards of guardians, but he is bound to admit that under this scheme guardians would lose some of the independence they now enjoy. Among the criticisms here collected is one by Lord George Hamilton, who expresses the opinion that the scheme is an endorsement of the Majority Report, though it differs in some important respects. Several other signatories of the Majority Report consider that the scheme forms a useful basis for a few concessions which would convert the divergent reports of the Commission into a practical instrument for reform. On the other hand, Mrs. Sidney Webb and other signatories of the Minority Report profess to regard the scheme as equally satisfactory from their point of view. The Dean of Norwich (Dr. Russell Wakefield), however, foresees serious opposition to it from boards of guardians. By far the most trenchant criticism is that of Mr. C. S. Loch, who, among other things, complains that the scheme makes no reference to methods of medical administration, as, for instance, the promotion of a paying or provident system, the association of voluntary with public hospitals, etc., for the better treatment of sickness. Mr. Loch expresses the greatest regret that the County Councils Association has placed so meagre and insufficient a report before the public. There seems, in fact, to be some ground for the fear expressed by Mrs. Bosanquet that "something at least of the general acceptability of the scheme is due to the scope it affords for different interpretations," and until the scheme is presented in a more definite form and in greater detail, it is quite impossible that it should be accepted without the greatest reserve.

[1] *County Councils Association's Proposals for Poor Law Administration, after consideration of Majority and Minority Reports. Also Views of Royal Commissioners on the Scheme.* London: P. S. King and Son. 1911 (Demy 8vo, pp. 86. 1s.)

## THE OXFORD EYE HOSPITAL.

THE Oxford Eye Hospital, which was founded in 1887 and which in 1894 obtained a lease, since extended, of a block belonging to the Radcliffe Infirmary, has now attained a position of national importance, inasmuch as, thanks to the initiative of Mr. R. W. Doyne, Margaret Ogilvie Reader in Ophthalmology in the University, there is now annually conducted a post-graduate course of ophthalmology, followed by a congress of ophthalmic surgeons; last year the course was attended by twenty persons and the congress by 120. The year 1910 witnessed the first examination for the diploma in ophthalmology, and numerous surgeons from all parts of the British Empire and America attended the hospital for three months' clinical work. At the last congress, which was attended by Lagrange of Bordeaux, Remy of Dijon, Heine, and Holth, several operations were performed at the Eye Hospital by their originators for the first time in this country, and the members had an opportunity of witnessing several intracapsular operations for the extraction of cataract after the method of Colonel Smith, of the Indian Medical Service, performed by Major Gidney, of the same service, while he was attending the diploma course. The number of new patients who attended the hospital during the year showed an increase, and the only regret which Mr. P. H. Adams, one of the honorary surgeons who signs the medical report, has to express is that the hospital is still handicapped owing to want of proper room for carrying on the scientific work in a satisfactory way.

## THE FUTURE OF LONDON UNIVERSITY.

AT the annual dinner of the University of London Graduates' Association on March 24th, Sir William Collins, the chairman of the evening, said that the association stood for the Imperial scope of the University of London, for freedom, for a Senate independent of sectarian or institutional representation, and for securing for London the best teaching that the world possessed. It stood, too, for the high

standard of degrees which had made the reputation of the university. The Royal Commission which had been appointed to consider its affairs did not contain a single graduate, and the Senate of the university had decided not to give evidence before it. Hence that commission was foredoomed to failure. Later in the evening Sir Philip Magnus said that the real cause of the appointment of the Royal Commission was the Imperial College of Science, which might possibly become a powerful rival to the university unless its constitution could be so altered as to enable the college to be incorporated under some form of home rule. This we believe to be the literal truth, the executive of the college having declined to be placed in subordination to a body constituted as is the present Senate of the university. The decision of the Senate not to give evidence before the Royal Commission may have been due to a natural modesty, as one of the matters into which the Royal Commission has to inquire is the conduct of the business of the university by the Senate during the last decade, but on the other hand it may have been due to a sharp division of opinion within the Senate with regard to external students. Here again we find Sir Philip Magnus confirming our impression, for he said he had heard it whispered that the Commission might recommend that the external students should be handed over to the Board of Education, adding that such a proposal would meet with the strenuous opposition of large numbers. If, as Sir William Collins thinks, the Royal Commission is foredoomed to failure, it must be on this account, and such a result would be not a little tantalizing to those who are interested in medical education in London. The rights and grievances of external students have not very nearly concerned the Medical Faculty for generations, since it has long been necessary for a candidate for the medical degrees of the university to pass through a stated curriculum in a recognized college or medical school. The matter concerns the medical faculty to-day less than ever, for with the multiplication of universities the number of candidates for London medical degrees from schools other than those in London is a steadily diminishing proportion. Medical education in London is at present in a very unsatisfactory state, the vast clinical resources of the metropolis are being largely wasted, and these facts are in a measure due to the failure of the University of London to march with the times. The fates of the university and of the London medical schools are bound up together.

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## THE FIRST ISOLATION HOSPITAL IN FRANCE.

THE idea of isolation wards and hospitals set apart for contagious diseases was practically unknown in the Middle Ages, and the wards of a mediaeval hospital usually contained examples of all the ills that flesh is heir to, not even excepting madness or plague, cases of which were sometimes placed in the same bed with patients suffering from scarlet fever or a broken leg. It took many centuries for our forefathers to realize the danger, not only to the inmates of the hospital itself but to the whole community, of the terrible outbreaks of infectious disease which from time to time decimated the hospices and lazar houses of mediaeval Europe; and it does not appear that in France, at any rate, there was any attempt to isolate fever or plague-stricken patients till Henry IV founded the hospital of St. Louis, and, dedicating it to his saintly ancestor, who had died of plague in the East, declared that in his honour it should be reserved solely for those suffering from the same malady. An interesting account of this institution is given in a recent number of the *Paris Médical* by Professor E. Gaucher and Dr. H. Gougerot. The new hospital was built in 1607 (the King himself laying the foundation stone on Friday, July 13th), in a secluded spot outside the walls of Paris, where, save for windmills and a few gardeners' cottages there were no other human habitations in sight. The buildings were not finally completed until the beginning of 1611, when the wards were immediately filled by plague patients from the Hôtel-Dieu. It is interesting to note, by the way, that these wards, which were very large and high with vaulted roofs, were all on the first floor, it being strictly forbidden to lodge either patients, healthy people, or stores on the floor above contagious cases. So stringently were the rules of segregation enforced, that soldiers were actually picketed outside the walls to prevent any communication between the patients and the outside world; whilst, to make assurance doubly sure, the whole building was bolted and barred like a prison. The hospital, in fact, was so completely isolated, that in 1639 an edict was passed authorizing a supply of halberts and other weapons to be sent there in order to provide the inmates with some means of defending themselves in the case of attacks from armed burglars. At the commencement St. Louis seems to have been used simply as a convenient annexe to the Hôtel-Dieu, and was worked by the doctors and nursing nuns belonging to the older hospital, and in the latter half of the seventeenth century, when the plague was for a time more or less in abeyance, it was turned into a sort of convalescent home, where patients were sent to recruit after their stay in the mother house. Later, from 1670 to 1690, it was used for scorbutic patients from Bicêtre and la Salpêtrière, and during the terrible famine at the end of the reign of Louis XIV the hospital buildings were utilized partly as granaries, and partly as a refuge for the hordes of starving beggars who were then terrorizing the countryside. During the twenty years which elapsed from 1709 to 1729, the hospital was closed, and had, in fact, a narrow escape from being converted into a government office. The authorities of the Hôtel-Dieu were happily able to save their property from such a fate, and shortly after St. Louis was reopened and its wards refilled, at first with scorbutic patients, but little by little with all kinds of cutaneous diseases, which at that period were all grouped together under the heading of "ulcers." Situated as it was too far from Paris to allow the physicians to visit it daily, it is easy to see how St. Louis, in the course of time, came to be used solely for chronic and incurable cases; and it was in this manner that the hospital gained its special character. It was about the year 1772 that St. Louis finally ceased to be an isolation hospital, and entered upon its own separate existence as an independent establishment, and since that date its wards have never been closed. A few years later it was officially recognized as a skin hospital; and it only needed the reflected glory of Alibert and those who followed him to render the ancient pesthouse one of the most famous centres of dermatology in the world.

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## EDUCATION OF CHILDREN IN HOSPITALS.

AT the annual meeting of the Orthopaedic Hospital of Ireland, held recently in Dublin, Mr. Justice Ross, in moving the adoption of the report, spoke of the importance of attending to the education of children who were detained in hospital for long periods, as was by no means uncommon in orthopaedic hospitals. He stated that, as a Commissioner of National Education, he had brought the matter before his Board, and representations had been made to the Treasury, but hitherto without effect. He pointed out that in America arrangements already existed for the efficient

teaching of children who are condemned to long hospital treatment, and added that he himself intended to press the matter further, and hoped to be able to make some statement on the subject at the next annual meeting. It may be interesting to add that in the orthopaedic hospitals of the United States schools for the child patients have existed for a long time. The most notable institution is the splendid Widener Home and School for Cripples in Philadelphia, where they are surgically treated and taught trades. In this country the first hospital to organize a school was the Liverpool Country Hospital for Children, where those children who are able to get up are taught in a day ward. At the National Orthopaedic Hospital in London teaching was started in the children's wards about 1897. This school was afterwards taken over by the School Board and transferred to the County Council. It continues in the Amalgamated Royal National Orthopaedic Hospital, and is reckoned one of the schools for physically defective children. Here, as in the Alexandra Hospital for Hip Disease, the patients are taught in their beds. It is hardly necessary to mention the teaching work at the Alton Home, an institution organized somewhat on the lines of the Liverpool Country Hospital for Children.

## MR. COLERIDGE AND ANTIVIVISECTIONIST METHODS.

OUR attention has been called to a letter published in the Paris edition of the *New York Herald* of March 19th, which bears the signature of Mr. Stephen Coleridge. It appears that Dr. Herbert Snow has lately been preaching a crusade against vivisection in the United States. His efforts, as far as we can judge from the few references to them that we have seen in the American journals, have not, if we may use a French phrase, broken any windows. His speeches seem to have been of the usual antivivisectionist kind; he only repeated "a tale of little meaning though the words are strong." Mr. Coleridge, however, is greatly shocked by the following statement attributed to Dr. Snow: "Vivisection is useless because a final experiment must be performed on a man, no matter how many tests have previously been practised on living animals. For this reason human vivisection is secretly practised in hospitals on an extensive scale. This is not denied by surgeons who have regard for the truth." Mr. Coleridge says he is sure that this must be a misleading report of what Dr. Snow said, as it seems to put into his mouth an accusation made in general terms of a very grave offence committed by surgeons in hospitals, without the citation of a single specific instance to support it. He goes on to say: "I cannot think that Dr. Snow would accuse surgeons in general of vivisecting their patients in hospitals for experimental purposes, as though they were animals, without citing some authentic instance, as such an utterance on his part would, of course, be entirely unjustifiable, and would be certain to do the cause of antivivisection injury. There are no doubt occasions when a new treatment sincerely anticipated to be beneficent may with perfect propriety and the consent of the patient be applied experimentally. Such occasions ought not to be confused in the public utterances of antivivisectionists with criminal assaults, by way of experiment, upon patients for experimental purposes unconnected with their particular malady, and perpetrated without their knowledge or consent. If Dr. Snow has evidence of the latter outrage having been committed by any surgeon in any hospital, at any time, upon any patient, he could not do the cause of antivivisection a greater service than to specify the occasion and denounce it." Mr. Coleridge looks forward to an explanatory letter from Dr. Snow, and in the meantime, as representative of the National Antivivisection Society, dissociates that body from Dr. Snow's statement until that gentleman "either supports it with specific instances, or repudiates it as being an inaccurate report of his words." Mr. Coleridge's sentiments are truly edifying, but his letter reminds us of a passage in the *Fortunes of Nigel:*

> "O, Geordie, Jingling Geordie, it was grand to hear Baby Charles laying down the guilt of dissimulation, and Steenie lecturing on the turpitude of incontinence!"
>
> "I am afraid," said George Heriot, more hastily than prudently, "I might have thought of the old proverb of Satan reproving sin."

As for Dr. Snow, except as far as his own reputation may be concerned, what he may have said is of no consequence. He resembles a famous philosopher in one point:

> When Bishop Berkeley said "there was no matter,"
> . . . . . 'twas no matter what he said.

## UNQUALIFIED PRACTICE.

SOME account was given in the JOURNAL of November 26th, 1910, page 1729, and December 3rd, page 1784, of the Blue Book containing the substance of the replies received by the Local Government Board, the Scottish Office and the Irish Government in answer to a circular letter issued in 1909 to the medical officers of health in the United Kingdom inviting their opinion as to whether the practice of medicine and surgery by unqualified persons was assuming larger proportions, and as to the effect produced by such practice, on the public health. Unfortunately in many places the medical officer of health seems to have taken little trouble to ascertain the truth, if we may judge by the considerable number of returns in which it is stated that there is no unqualified practice at all. Others, on the contrary, have evidently taken much trouble to get at the facts, and as an example of the results that may be obtained when care is taken we may quote the annual report for 1909, presented to the Hampshire County Council by the county medical officer, Dr. Robert A. Lyster. He addressed a circular letter of inquiry to every registered medical practitioner in the county area, enclosing a form asking whether unqualified practice was increasing and its effect, and for further details under the headings of unqualified practitioners, chemists, nurses, midwives, quack doctors and herbalists. The evidence he obtained proves the prevalence of unqualified practice and the consequent damage to the public health. It is carried on not only by the recognized quack who has no other calling, but by midwives, district nurses, chemists, grocers and other shopkeepers, while by means of advertisements the rupture specialist, abortion-monger and vendor of cures for piles, consumption, rupture, cancer and drunkenness reap an abundant harvest from a foolish public. Although medical men know very well how much harm is done, not only by the loss of precious time when diseases are treated by ignorant persons, perhaps the most valuable illustrations of the injury to the public health are afforded by the interference of unqualified persons with the treatment of infectious disease. Dr. Lyster gives instances of chemists treating for mumps children suffering from diphtheria; of a district nurse who attended a case of typhoid fever for several days without recognizing the disease, six other cases arising from it and the nurse herself contracting the disease; another district nurse attended a child with nasal diphtheria until shortly before death took place; another treated a child for sore throat until on the fourth day she advised that a

doctor should be consulted, who found the child to be desperately ill with diphtheria; it died shortly after. Another district nurse wrote to Dr. Lyster to say she was treating so many cases of chicken-pox that her midwifery practice was being interfered with! Another nurse attended a case of scarlet fever, allowing the child to play about the roads until acute nephritis developed, when a doctor was called in; meanwhile the nurse had continued to attend midwifery cases. He quotes a letter from a doctor to say that he was called to a serious accident, but was informed by the patient's mother that "the nurse saw to all their ordinary ailments." There seems reason to believe that this unqualified practice by district nurses is too often directly encouraged by the committees which engage them and pay for their work, and from the complaints we receive it is clear that many committees fail to recognize the importance of associating the local medical practitioners in their work and taking care to provide that the nurse shall be under his supervision and direction, tacitly encouraging her to be his rival not only in midwifery, for which, presumably, she has had some training, but as a general practitioner in medicine and surgery in what she deems to be "simple ailments," but for which she has had no training which can qualify her either to recognize their nature or to treat them efficiently.

## FIXATION OF THE COMPLEMENT IN THE DIAGNOSIS OF HYDATID CYSTS.

THE relative rarity in England of echinococcus disease may account for the apparent neglect of the adaptation of the Bordet-Gengou reaction, or what is known as the fixation of the complement, as an aid in diagnosis. The suggestion originated in the observations of Weinberg and Parvu, who in 1908 brought before the Société de Biologie[1] the results of their examination of the blood of forty-one horses to ascertain the reaction to various parasites. Definite positive results were obtained in twenty-one, but where the parasites were found at the necropsy to be few the reaction was sometimes negative. In a second communication[2] they stated that the blood serum of human patients suffering from echinococcus disease gave a positive reaction, the antigen employed being the liquid derived from a hydatid cyst. These observations were confirmed by Weinberg and Bodin,[3] by Lejars, Delbet, and Tuffier.[4] Later Weinberg[5] gave the results in thirty-two cases, but he insisted upon the necessity of: (1) Titrating the alexin carefully in a dilution of one-fourth; (2) ascertaining previously that the serum of the patient did not by itself fix the alexin, as might happen in cases of chronic jaundice; (3) employing a constant maximum dose of antigen with increasing doses of the patient's serum; he drew attention also to the fact that patients who have been cured of echinococcus disease by operation may show the reaction for some time afterwards, in one case so long as in six years and three months. In a recent article Lejars has extolled the utility of the test in suppurating hydatid cysts of the liver, especially in those cases of which the diagnosis is difficult, owing to the absence of any localized swelling or other obvious sign, and it would be quite possible to regard the case as one of diffuse suppurative angio-cholitis. He relates several interesting cases in which a positive reaction obtained by Dr. Parvu gave him the courage to explore deeply and evacuate cysts which he would have otherwise overlooked. It is noteworthy that eosinophilia, which has been accepted as an aid to the diagnosis of this disease, does not run parallel with the Bordet-Gengou reaction (Parvu and Laubry), as in two of Lejars's cases it was only 1 per cent., and in another two 2 per cent. Though Lejars has had a considerable number of cases in which he has proved the trustworthiness of the reaction, he admits that a negative result may be obtained in spite of the presence of a cyst, and he argues with some force that no one would allow a negative result to outweigh other clinical considerations; but, on the other hand, a positive finding, apart from that observed in old cured cases, can be absolutely relied upon. As the diagnosis of deep-seated hydatid cysts is often a matter of great doubt and difficulty to the operating surgeon, it is of the utmost advantage to have a means by which he may obtain before operating a certain knowledge of the existence of a cyst. The method throws no light on its position or size, but here the Roentgen rays come to the aid of the surgeon; if in addition to a positive reaction he can see on the screen a vaguely outlined area, he can proceed boldly with his task of exploring deeply, in spite of haemorrhage which may be so formidable as to deter an operator unsupported by such an assurance.

[1] *La Sem. méd.*, 1908, p. 323.
[2] Ibid., p. 610.
[3] Ibid., 1909, p. 59.
[4] Ibid., p. 152.
[5] Ibid., p. 167.

## THE CARDIGAN CANCER "CURES."

IN the JOURNAL of March 23rd, 1907, we gave an account of the Cardigan "Cancer Curers" and their methods. In the issue of December 5th, 1908, Mr. Lynn Thomas reported a case of cancer of the breast said to have been "cured" which he had an opportunity of examining. He summed up the treatment by saying that (1) an attack had been made upon the skin alone, and the procedure of treatment had never reached the disease; (2) much pain had been caused to the patient, and valuable and irredeemable time had been wasted. He concluded: "In popular language, the cancer is still where it was originally, but grown bigger; and the 'roots' extend from the growth under the armpit right up to the neck." Mr. Lynn Thomas sent us the "cancer" which had "fallen off," together with a sample of the "healing oil" which was said to have been applied. Our analyst found that in the bottle containing the cancer crusts zinc chloride was present in considerable quantity, together with a very appreciable quantity of an insoluble compound of lead which might have been in a soluble form in the application used. The "healing oil" was found to contain 27 per cent. of oil of turpentine, the remainder consisting principally of an ordinary saponifiable oil, probably cotton-seed or olive oil; there was, besides, a fairly considerable amount of a deposit which proved to consist almost entirely of barium sulphate. Elsewhere will be found a short paper by Dr. G. M. Dawkin, of Pontypridd, in which he relates what he saw in the course of a visit to Cardigan. It will be seen that in no case has he known of an unquestionable malignant growth yielding to the Cardigan "cure"; all the "boomed successes" are, he thinks, cases of warts, fibromata, and other non-malignant growths. Special interest attaches to one of the cases which Dr. Dawkin reports, as it seems to have been one of Mr. W. T. Stead's "test cases." It may be well to recall that in the *Review of Reviews* for March, 1907, that undaunted champion of "cures" that fail announced that he would undertake an investigation of the claims of the Cardigan cancer curers. He asked for three or four "unmistakable duly certified cases of inoperable external cancer," and offered to make arrangements with the Evans brothers for their treatment at Cardigan, "on the sole condition that they are willing to have the result of the experiment published with full particulars for the satisfaction of

the public." As we pointed out at the time, the certificates as to the nature of the disease which Mr. Stead asked for were quite inadequate, and he vouchsafed no hint as to what was to be regarded as a cure, or who was to decide that a cure had been effected. But the fact remains that Mr. Stead offered to have the treatment tested, and to publish the results. Has he done so? As far as we know, nothing more has been heard from him on the subject. Dr. Dawkin accounts for one of his cases; where are the others? Probably —if there were any—with the snows of yesteryear. For Mr. Stead's opinion of the art of healing or of its professors we care nothing; in such matters, unlike Brutus, he speaks of that which he does not know. But the publicity which his utterances command through the resonant mask of his journal make him a danger to the ignorant. His "test cases" have now extended to the three year limit; it is his duty, therefore—which in common honesty, to say nothing of humanity, he should not shirk—to fulfil his promise and publish the results of the experiment for which he made himself responsible.

## THE SPECIFICATION OF COLOURS.

As the means of communication extend, and intercourse between nations develops, the need for a fixed international standard for the exact determination of colours becomes increasingly necessary. In the journal of the Danish Apothecaries' Association[1] there will be found a valuable paper by Hans Jacob Möller, which suggests a solution of the problem. As early as 1646 the Jesuit Athanasius Kircher attempted to determine colours. In his treatise "*Ars magna lucis et umbrae*" there is a special paragraph devoted to colours: "*De rerum naturalium chromatismis, sive De Colore lucis et umbrae sobole, quae et ars chromatica dicitur.*" This famous scholar of the seventeenth century divides colours into five primary hues, namely, white, black, and three intermedial hues, yellow, red, and blue. In 1704 Sir Isaac Newton took up the task of determining colours, his starting point being the solar spectrum, in which he detected the seven well-known primary spectral colours. Of these only six are visible to the normal individual, for only a very few can see indigo as a separate hue. Colours were also studied by Buffon in 1743, who maintained the correctness of Newton's classification. The first man who endeavoured to determine colours with a view to their purely practical use was the French chemist, Michel Eugene Chevreul. In 1864 he published a collective description of his colour studies. He started with three primary colours—red, yellow, and blue. From these he derived by blending—orange, green, and violet. With these six colours he produced further intermediate hues. Thus, Chevreul constructed his *cercle chromatique* of seventy-two colours. They were further divided into shades which in all numbered 14,421. In 1877 Otto Radde published an international colour scale, which is now out of print. The Italian botanist, Saccardo, in 1891 brought out a small Latin book dealing with colours, especially for geological and botanical use; it, however, comprises only fifty shades. A scheme of international colour determination, which is considered to be thoroughly practical, has been envolved by Paul Klincksieck and Th. Valette. They arranged a colour book on the following principles: (1) To give a sufficiently large number of colour specimens, which were all distinctly different. (2) To arrange the colour specimens according to a known and proved, but easily intelligible, method. (3) To produce them in as durable a form as possible. (4) To collect them in a small book in pocket form; and (5) to omit all colour indications other than the six primary solar spectral colours, and to indicate the colour specimens by a number. The specimens, to the number of 720, are arranged in twenty-four tables of thirty each. A cardboard frame (*mirette*) is provided, which covers all the colours except the one looked at, to avoid colour contrast. The colours are numbered as follows: 1–100, red; 101–200, orange; 201–300, yellow; 301–400, green; 401–500, blue; and 501–600, violet. This *code des couleurs*[2] will be valuable to botanists, zoologists, chemists, and many other scientific workers; artists also may perhaps find it useful.

[1] *Archiv. for Pharmaci og Chemi*, November 14th, 1910.

## EPIDEMIC POLIOMYELITIS IN THE UNITED STATES

A WEEKLY report of the United States Public Health and Marine Hospital Service, published on March 3rd and summarized in the *Boston Medical and Surgical Journal*, contains a tabulated statement of the cases of poliomyelitis and the deaths caused by the disease recorded in the United States during the year 1910. Pennsylvania heads the list both in prevalence and in mortality; there were 1,097 cases and 172 deaths in that State. In Iowa there were 638 cases and 161 deaths. In Massachusetts there were 588 cases; the number of deaths is not given. Apparently the epidemic was most continuous in Iowa, for that is the only State from which cases and deaths were reported for every month of the year. The maximum number of cases in any month was 378 in September in Pennsylvania; the maximum number of deaths—64—in the same month and the same State. The maximum number of cases in any month in the entire Union was 1,146, in September; the maximum number of deaths, 182, in August. The total number of cases and deaths of poliomyelitis in the United States during the calendar year was 5,093 and 825 respectively, a mortality of about 13.75 per cent.

## CHRONIC SPASM OF THE COLON.

CASES of severe chronic spasm of the colon are sufficiently rare to be unfamiliar, and considering their severity and apparent gravity, the example recently recorded by Dr. R. Schuetz of Weisbaden[3] is worth noting. The illness of the patient, a girl aged 17, the daughter of an excitable neurotic mother, had begun two and a half years earlier with an attack of gastro-enteritis, followed by colicky pains and tenderness over the descending colon; there was obstinate constipation requiring the regular use of purgatives or oil enemata. Nine months later she began to pass membranous mucus from the bowel, and a second attack of gastro-enteritis led to a series of cures at various watering places and sanatoriums. At length she recovered her health, and was able for some time to lead a normal life. An attack of German measles was followed by a relapse, and an operation was contemplated for supposed growth in the neighbourhood of the splenic flexure, but the indisposition of the operator caused its postponement, and meanwhile the patient got well. The improvement did not last many weeks, and when she came under the care of Dr. Schuetz she had been in bed for five or six weeks. She complained of painful spasm over the sigmoid flexure, and of a stabbing pain which lasted many hours and was always worse before and after an action of the bowels, which occurred only after strong purgatives. The stools contained mucus. A portion of the descending colon 2 to 3 in. long was tender, but

[2] *Librairie des sciences naturelles.* Paul Klincksieck, editeur. Leon Lhomme, Succr., 3, Rue Corneille, Paris. Price 11s.

[3] *Berl. klin. Woch.*, 1910, No. 37.

the abdominal wall over it was rigid. The absence of distension and of stenotic gurgling, together with the continuous character of the pain, negatived the notion of an obstruction from growth or twist. Radiographs taken after a bismuth meal showed the ascending colon to be full, and the dark shadow continued to the beginning of the transverse colon; beyond this the faeces formed discrete, rounded, and gradually diminishing lumps; the descending colon was distended with gas. The patient next complained of difficulty in micturition, and this was followed by complete retention of urine, requiring the daily use of the catheter. There was distinct obstruction encountered in passing the instrument, and when belladonna bougies were introduced they had to be held in position while they melted to prevent their expulsion. There was marked diminution of sensibility to touch, pain, and heat over the back and as far forward as the mid-axillary line and in both legs. The difficulty with the urine disappeared after belladonna had been used for two days; the patient was placed on a mixed diet, and all purgatives stopped except regulin (agar-agar with some cascara); the constipation then ceased, the pain grew less, the mucus disappeared, and she gained 14 lb. in weight. Three weeks later she treated her medical attendant to another surprise by presenting an enormous distension of the abdomen, which measured 37 in. in circumference at the umbilicus, and was uninfluenced by the injection of strychnine and physostigmin, but in the course of some weeks gradually disappeared. Four months later the patient was able to play tennis and ride a bicycle, and the sensory condition was almost entirely normal. Dr. Schuetz believes that while the contraction of the bowel was the result of he injurious effect of the purgatives that had been used, and their cessation allowed of its recovery, the main effect was psychical, as the frequent examinations with the Roentgen rays evidently impressed her considerably. Commenting on the doubtful prognosis, Dr. Schuetz refers to the cases of two young girls and a young married woman; in all three the cause was emotional disturbance. The married woman dissolved her unhappy marriage, and, although little benefited by a long course of treatment, is now in good health, but the two girls whose surroundings are unfortunate remain in the same wretched state. One was operated on twice, but nothing was found, and the pain became localized in the scar! A third operator refused further interference. Spasm of the colon is at times secondary to organic disease—for example, chronic appendicitis and removal of a diseased appendix have been followed by diminution of the pain and tenderness, but removal of a healthy appendix did not benefit another patient. These cases can hardly be mistaken for peritonitis, as the abdomen is soft, usually concave, and without tenderness except in the neighbourhood of the contracted gut, and, although chronic hyperplastic colitis gives rise to a hard, thickened, and tender bowel, it is obviously increased in diameter, and not thinner than normal, as it is when spasmodically contracted. Radiography affords valuable assistance in the diagnosis, and an accurate conclusion is of greatest importance, since it is the only guide to the selection of appropriate treatment.

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WE regret to have to record the death on March 26th of Dr. L. S. McManus of Wandsworth after a long illness. Dr. McManus, who was fifty-four years of age, was elected one of the Direct Representatives of England and Wales on the General Medical Council in 1907. We hope to publish an obituary notice in an early issue.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Milk Legislation.**—When the Newcastle-upon-Tyne Corporation Bill came on for second reading last week an instruction was moved and carried by Mr. Courthope to leave out Part xii of the bill dealing with milk supply. On this point Mr. Burns said that he had been asked to express the Government view on the question of milk. He had only to say that in 1909 he introduced a Milk Bill which had for its object dealing with the question of milk production and distribution in a general way by a general Act rather than by private bills. He had intended in 1909 to press that forward, but that turned out impossible in consequence of legislation which, in the opinion of the House, had a greater claim upon its time. In 1910 they had an exceptional session and two elections, and it was impossible, willing though he was, to secure the passing of the Milk Bill. He might say that he was still hopeful this Session—now that he had been in what he trusted might be successful negotiation with those who previously differed from him about the Bill of 1909 and 1910—notwithstanding the exceptional nature of the work for this year, to secure the passing of a general Milk Bill. It was right at this moment he should say that not quite so much harm had been done as was anticipated by the non-passing of the Milk Bill in 1910, because the discussion that took place in 1909 and 1910 in that House and elsewhere had brought home very clearly to the agricultural and milk-producing industries that they must put their house in order, and adapt themselves to the growing requirements of the time with regard to milk supply. During the last four years there had been an extraordinary diminution in infantile mortality. Some people contended that infantile mortality had been largely contributed to by a defective milk supply. Dairymen, farmers, and those connected with the agricultural industry were beginning to see that from the point of view of enlightened self-interest it was wise for them to adapt themselves to producing a cheap, more plentiful, and a more pure milk supply. He trusted that by the introduction of a bill on this subject by agreement of all parties they should be able to accelerate that very useful object.

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**The Public Health (Scotland) Bill** was read a second time and referred to a Standing Committee on Tuesday last. The bill consists of one operative clause which seeks to enact that the powers and provisions of the Public Health (Scotland) Act, 1897, enabling local authorities "to construct and carry sewers within and beyond the district of such local authorities, shall extend and apply to, and, subject to the provisions of the said Act, may be exercised by any statutory trustees or commissioners authorized to supply water within the district of any one or more local authorities in the same way and to the same effect, in relation to water mains and pipes, as any local authority may now, under the said Act, exercise such powers in relation to sewers and sewer outfalls, and all the provisions of the said Act applicable to sewers and drains shall apply *mutatis mutandis* to the water mains and pipes of such statutory trustees or commissioners."

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**Small-pox.**—In answer to Mr. Staveley-Hill, Mr. Burns stated on Tuesday that from the weekly summary of cases of infectious disease notified since January 1st, 1911, to March 18th, 1911, inclusive, 84 cases of small-pox were notified in England and Wales, exclusive of London. He had no information showing the vaccinated condition or otherwise of these small-pox patients. In answer to Mr. Astor, Mr. Burns said that some 2,000 beds were available at short notice for small-pox cases in London, and this number could be largely increased within no long time if necessity arose. Similar information for the rest of the country was not available in any complete form.

**Vaccination (Conscientious Objectors).**—Mr. Pointer asked the President of the Local Government Board whether he was aware that it was stated in the report of the medical officer of the Local Government Board for the year 1908 that in the counties of Bedford, Northampton, and Leicester the declarations of conscientious objection to vaccination made under the Act of 1907 had exceeded 50 per cent. of the births; and would he say whether any cases of small-pox had been recorded in those counties during the present year. Mr. Burns said that he was aware of the statement referred to. With regard to the second question, he might say that there had been no cases of small-pox this year in forty-six out of the fifty-five registration counties. These forty-six included the three counties mentioned.

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**Small-pox in Prussia (Deaths).**—Mr. Black asked the President of the Local Government Board whether he would explain why the figures relating to the deaths from small-pox in Prussia for the years 1906, 1907, and 1908, which he gave in the House in July last, and those cited by the Registrar-General on page 132 of the Seventy-first Annual Report and on page 134 of the Seventy-second Annual Report were all three at variance; and would he state which statistics were correct. Mr. Burns said that he understood that the figures given in the Registrar-General's Seventy-second Report corresponded with the corrected figures issued by the German Imperial Health Office. Those published in the Seventy-first Report were supplied to the Registrar-General by the President of the Prussian Statistical Department, but appeared to have been provisional or unrevised figures. The figure of 107 in the answer to his hon. friend's question of June 29th last should have been 114. With that correction, the information then given agreed with that in the Seventy-second Report of the Registrar-General.

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**Health of the Royal Naval College, Osborne.**—Major Gastrell put several questions last week to the First Lord respecting the outbreaks of measles and pink eye at Osborne during the present term. Mr. McKenna answered that 115 cadets had had measles, 258 had had German measles. There had been 60 cases of conjunctivitis, popularly miscalled pink eye, but many of them only slight, and in association with attacks of measles. In answer to the suggestion that trained matrons should be appointed, Mr. McKenna said in the opinion of the Admiralty the existing medical staff were qualified to detect the first symptoms of disease, and it was not considered advisable to adopt the suggestion. Conjunctivitis (the disease sometimes miscalled pink eye) could not be said to be prevalent at Osborne. There was an outbreak of it in 1904, and it was considered by the medical authorities to be microbic in character, the organisms being spread by contagion and not airborne. There had been a few sporadic cases since, and during the present term, as he had just stated, there had been a number of slight cases mostly in association with the current epidemic of measles. He would add that pink eye, being an equine disease, had no known connexion with the conjunctivitis to which some cadets at Osborne had been subject. The suggestion that the material uralite, used in the construction of houses, was responsible for the disease was not accepted, and the temporary character ascribed to the buildings arose from the term being used to distinguish them from buildings put up to last a hundred years.

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**Diphtheria in Herefordshire.**—Mr. Webb called attention to an outbreak of diphtheria at Madley, Herefordshire, and to the fact that the Dore District Council had refused to vote a sum of £8 for this purpose; and asked if steps would be taken to substitute the district council by an official sanitary authority for the Dore area. Mr. Burns replied that his attention had been drawn to a newspaper report of this matter, and he was in communication with the local authority in regard to it. He was advised that bacteriological examinations were a great aid in diagnosing cases of diphtheria.

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**Medical Inspection of School Children (London).**—Mr. Wedgwood asked whether the attention of the Board of Education had been given to Sir Victor Horsley's criticisms of the inspection of school children as carried out by the London County Council. Mr. Runciman said that he had seen a newspaper report of a recent speech of Sir Victor Horsley on this subject. He had a great respect for this distinguished surgeon's opinion upon the subjects on which he spoke with special authority, but he was not sure that the organization of the medical inspection of school children was one of them. The Board were cognisant of the circumstances of medical inspection in London, and had recently had important communications with the London County Council on the matter.

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**Measles Epidemic (London).**—Mr. Dawes asked the President of the Local Government Board whether, in view of the serious epidemic of measles prevailing at present, he would make measles a notifiable disease. Mr. Burns replied that he was at present considering what further steps could be taken to deal with this serious outbreak, and the question of making measles a notifiable disease would have his attention. In answer to Mr. Lansbury, who urged that the social and housing conditions should be investigated in the worst districts as regards mortality, Mr. Burns said that he was very pleased to say that that particular point had been dealt with at the several conferences that had taken place during the last few weeks between the officers of the County Council, the Education Department, and the officers of the Local Government Board.

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**Destruction of Rats and Plague.**—Last week Mr. Charles Bathurst put a question as to organization by county councils for the destruction of rats and the cost involved, and Mr. Burns replied that it was the duty of the county medical officer of health to inform himself, as far as practicable, respecting all influences affecting or threatening to affect injuriously the public health of the county, and he was to consult with the district medical officers of health whenever the circumstances rendered this desirable. The county medical officer of health was thus able to coordinate the measures which were taken by the several local authorities for the destruction of rats in districts which were infected or threatened with plague in rats. The county council, however, were not empowered to expend money on the destruction of rats.

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**The Dresden Hygiene Exhibition and Tropical Medicine.**—In reply to Mr. Allen Baker the Secretary of State for the Colonies said that he understood that there would be a joint exhibition from the London and Liverpool Schools of Tropical Medicine at the International Hygiene Exhibition at Dresden, but he had no information as to the form which the exhibit would take. As the schools were not under the control of His Majesty's Government there had been no question of giving instructions. In reply to another question from Mr. Allen Baker the Secretary of State for India stated that he had transmitted the documents relating to the International Hygiene Exhibition, Dresden, 1911, to the Government of India; he had no intimation from the Government of India as to whether it was proposed to send an exhibit to Dresden.

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**Aliens (Vaccination).**—Mr. Astor asked whether aliens were examined by the medical inspector on landing, to see whether they had been vaccinated, and whether any steps were taken to secure the vaccination of aliens who were found not to have been vaccinated. Mr. Masterman replied that this was not a matter which came within the duties of a medical inspector under the Aliens Act.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### CARE OF THE FEEBLE-MINDED.

THOUGH there are several associations in England which undertake the care of the feeble-minded, the only Scottish institution is the Glasgow Association for the Care of Defective and Feeble-minded Children. Starting from a very small beginning five years ago, this useful voluntary institution has been steadily growing. The addition undertaken during the past year has brought up the number of beds to 46. That there is great need for such an association has been abundantly proved by the experience of the Glasgow Association. Though with but few exceptions the children are admitted only on the understanding that a small weekly payment is made for them, the institution is constantly full, and there is a considerable number of applicants on the waiting list. The institution is economically managed, as the average weekly payment (slightly over 8s.) more than covers the working expenses. It is largely taken advantage of by public boards, such as school boards and parish councils, which have to deal with the problem of the education of the feeble-minded. It is certified as an industrial school by the Home Office, and as such has received two cases committed under warrant from the courts. The present arrangements only permit the admission of girls, and the directors are constantly receiving application for boys which they are unable to accept. At the recent annual meeting there was a large attendance, and in seconding the adoption of the annual report, Dr. Macpherson, His Majesty's Principal Commissioner in Lunacy, said that the lunacy officials considered the work of great importance as the beginning of a general movement, and perhaps even the directors were not aware how important was this work they had undertaken. The report of the Commission on the Feeble-minded issued two or three years ago showed that 1 out of every 270 of the population was more or less feeble-minded and unfit for the duties of citizenship—a fact of immense social importance. The moral consequences became obvious when it was realized that the vast number of defective people mixed, without supervision or adequate care, on equal terms with the ordinary population. Lacking in self-control and unable to protect themselves, they readily became the tools and accomplices of vicious people. These feeble-minded people swelled the ranks of the criminals, crowded the prisons, and complicated the question of unemployment. If all the feeble-minded were properly looked after, there would probably be an extraordinary change in the prisons, courts, and streets. The country as a whole was doing nothing to deal with the great problem, but two lines of treatment had been suggested. The eugenic doctrine argued that the production of the feeble-minded ought to be controlled by State regulation, but this view was hardly practicable at present, and belonged to a remote future. The other point of view was that adopted by the Glasgow Association—namely, the isolation of the feeble-minded, their proper care and treatment, and their removal from the temptations to which they were constantly submitted. The institution was doing good work on these lines, and should make its objects more widely known. In a matter of this kind, it was essential to educate public interest and public sympathy. Without this the movement could not go much faster, and to cope with the problem it was necessary to go much faster. At the ratio of 1 feeble-minded individual out of every 270 of the population, there were in Glasgow alone some 2,500 feeble-minded; and, if only 1 out of every 3 of them was not adequately cared for at home and required institutional treatment, that meant that about 500 would require to be provided for. Dr. Yellowlees subsequently pointed out that the problem was really too great for a charitable institution to deal with on an adequate scale. It could but be a pioneer in a work which must eventually be taken up by more powerful hands. Some larger provision was necessary from the State. The problem could not be dealt with simply by looking after feeble-minded children. Though the great object was to train the children that they could control themselves and become self-supporting, in many cases this could not be done, and in the majority of cases the feeble-minded would continue to require supervision.

### A PORTRAIT OF EMERITUS PROFESSOR CRUM BROWN IN CALCUTTA.

On Wednesday, February 15th, a meeting of the Calcutta Chemical Club was held in the Professor's room of the Presidency College when Dr. P. C. Ray, the President, introduced Dr. Aghore Nath, a distinguished graduate of Edinburgh University in the Seventies. Dr. P. C. Ray, who is Professor of Chemistry in Calcutta, was himself a student at the University of Edinburgh from 1882 to 1886, and a fellow student, Professor James Walker, is now Professor Crum Brown's successor. Professor P. C. Ray had presented to the college a portrait of their old and revered teacher, Professor Crum Brown, and the portrait was on this occasion unveiled. The subject of Dr. Aghore Nath's lecture—the amine bases—was specially appropriate, as Professor Crum Brown, in collaboration with Professor (now Sir) T. R. Fraser, was the first to undertake the classical researches on the relationship between the chemical constitution and the physiological action of drugs in the year 1868–69, by proving that these amine bases behaved like the active principle of curare.

### THE EDINBURGH ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

On Monday last, March 27th, counsel were heard before the Lord Lyon King of Arms in regard to the petition in which the Royal College of Surgeons claim precedence on all ceremonial occasions over the Royal College of Physicians. The speeches were of a highly technical nature, and judgement was reserved.

### GLASGOW HOSPITAL SUNDAY FUND.

The seventeenth annual report states that in the past year 408 churches and 222 Sabbath schools contributed to the fund. The total income was £4,726 19s. 6d., an increase on the previous year of £69 0s. 8d. Of this sum, £4,510 was divided among the infirmaries, the Royal Infirmary being allocated £1,987 12s. 3d., the Western Infirmary £1,712 14s. 4d., and the Victoria Infirmary £809 13s. 5d. During the seventeen years in which this hospital fund has been in existence it has been the means of distributing the sum of £87,000 among these three institutions.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### WOMEN'S NATIONAL HEALTH ASSOCIATION.

THE Bray Branch and the Terenure Branch of the above association held their annual meetings last week. A feature of both meetings was the large attendance of the general public, showing the increasing interest taken generally in questions of public health. Satisfactory reports were presented of the work done during last year. By the employment of district nurses working under the control of the local doctors a great deal of useful work is performed at minimum cost.

### RESEARCH DEFENCE ASSOCIATION.

The annual meeting of the Dublin Branch of the Research Defence Association was held in the buildings of the Royal Dublin Society on Friday, March 24th. Mr. R. H. Woods, President of the Royal College of Surgeons, was in the chair, and there was a large attendance of the general public. The annual report, which was read by Sir Henry Swanzy, stated that the number of members had been well maintained during the past year. The literature of the society has been freely distributed, over 3,000 of the

clergy and laity having received pamphlets. The objects of the society had also been made known by means of the delivering of an address and the holding of a drawing-room meeting. Out of the funds of the branch £35 had been contributed to the parent society, and at the close of last year a credit balance of £60 remained. After the adoption of the report, a committee was elected for the ensuing year, and Professor Schäfer then delivered an address, which will be published. The proceedings closed with a vote of thanks to Professor Schäfer.

### Notification of Chicken-pox.

The Dublin Sanitary Association has passed a resolution urging the sanitary authorities of Dublin and its suburbs to make chicken-pox a notifiable disease during the next six months. The reasons adduced for the necessity of the step are the possibility of extension of small-pox from England to Dublin, and the risk of small-pox cases being mistaken for chicken-pox.

### Dublin Hospital Sunday Fund.

The amount contributed to this fund during 1910 was £3,340 17s. 9d., which is a decrease of a little over £100 as compared with 1909. Collections were made in 282 places of worship in all, and, in addition to the sums thus yielded, £100 was realized by the hospital football match. The expenses amounted to £227 5s. 6d., which was equal to about 6 per cent. of the total sum collected.

### Bequest to Dublin Hospitals.

By the will of the late Miss Magan of Dublin, who died some months ago, the residue of her personal estate was directed to be divided into three equal parts for the erection of three new hospitals in Dublin in commemoration of the mother of the deceased, of the late Dr. Fleming, and of the late Colonel Bernard. The trustees and executors in administrating the estate found that the sums available were not sufficient for the building of new hospitals, and therefore requested permission of the courts to apportion the sums to already existing Dublin hospitals. This request was acceded to, but considerable litigation followed as to which of the hospitals could be shown to have the best claim on the estate. Last week the Master of the Rolls finally decided in favour of allocating one-third part of the estate to the Adelaide Hospital and one-third to Sir Patrick Dun's Hospital. The destination of the remaining third will be decided later.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

### The Manchester Children's Hospital.

The recent application of the Manchester Children's Hospital for financial assistance from the Manchester Education Authority in respect of the school children referred to the hospital for treatment lends special interest to the figures given in the annual report which was presented at the annual meeting of the supporters of the hospital last week. The report shows that the total number of in-patients during the year 1910 was 2,702, the largest ever recorded. The average stay in hospital was 20.8 days, which is about two days a case less than in 1909 and three days less than in 1908. Each in-patient cost 3s. 2d. a day, against 3s. 3¾d. in 1909, and the average total cost per in-patient discharged was £3 6s. 3d. per head, against £3 12s. 8½d. in the preceding year. The cost per occupied bed was £58 2s. 2d., against £60 17s. 5¾d. in 1909. There was thus a general reduction in the cost per in-patient and per bed, which is attributed to the fact that the hospital has been worked to its fullest capacity. The number of operations had been 1,351. In the out-patient department there had been 34,135 new out-patients, and the total attendances were 105,534, compared with 30,970 patients and 96,583 attendances in 1909. Excluding Sundays, this gives an average for every working day of 109 new out-patients and 337 attendances. It was stated that the cost per head of the out-patients had been 1s. 6d., as against 1s. 6½d. in 1909. The general financial position showed that the ordinary expenditure had exceeded the income by £2,122. At the convalescent home at St. Anne's 364 children had been treated, and the income of the home fell short of the expenditure by £532.

There is the strongest possible feeling in Manchester that the hospital is being exploited by the Education Committee, in spite of the fact that the education authorities simply insist on the children found on inspection to be defective obtaining treatment somehow and somewhere without systematically referring them to any particular hospital. But the practical outcome is almost the same as if the children were directly referred to the hospital, for to tell parents who cannot afford to pay for medical treatment for their children that they must get treatment or they will be prosecuted is in every way tantamount to driving them to this or some other hospital, or to some practitioner who never gets paid for his services. It is a physical impossibility for the Children's Hospital to treat over 300 children a day in anything like a satisfactory way, and no grant that the Education Committee would ever make would enable it to do so. The parents are bitterly complaining of having to wait often three hours or more in an uncomfortable waiting hall before they get one minute, or even less than one minute's, attention. Many of them have to travel several miles to the hospital, and it is becoming intolerable that they should have to waste the best part of a day to obtain such meagre attendance. In addition to this, quite 90 per cent. of the cases require nothing like specialist treatment, and could quite well be treated by general practitioners, and it is practically certain that if the Education Committee should by any possibility be induced to subsidize the hospital for the treatment of defective school children, the charitable subscriptions will be reduced in nearly the same proportion as the subsidies are raised. As was expressed at the recent meeting of Manchester medical men, medical inspection without treatment is much of a farce; the inspection is being done as far as the limited staff enables it to be done, but the facilities for treatment are totally inadequate, and to subsidize the hospitals for the purpose would simply mean that the Education Committee was shuffling off its responsibility on to other shoulders.

### The Charity Organization Society.

The seventy-eighth annual report of the District Provident and Charity Organization Society of Manchester and Salford gives an account of the various activities of the society, in which are included the provision of a sick and relief fund, a special fund for the assistance of consumptives, which at present only amounts to about £300, the convalescent home at Southport, a pensions fund, a savings bank, the Surgical Aid Society, and the Provident Dispensary Association alluded to in this column last week. In addition to these special activities the society does a large amount of work in investigating the circumstances of persons who apply for relief at the various charities, especially the medical charities of the district. Of the cases investigated by the society's officers, 36,480 were referred to it by the Manchester Royal Infirmary, 8,547 by the Salford Royal Hospital, 9,900 by the Northern Hospital, 8,511 by the Ancoats Hospital, 331 by the Victoria Dental Hospital, 760 by St. Mary's Hospital, and 474 by the Manchester Midwives Supervising Committee, the last being in order to ascertain whether the persons were able to pay for medical aid or whether the Supervising Committee should pay the medical fee when midwives had found it necessary to summon medical assistance. Full particulars are given only of the first four named hospitals, for which 63,438 cases were investigated, and it is stated that of these no less than 8,259 belonged to other towns and 1,624 could not be found, having

given wrong or insufficient addresses. Of the remainder it is said that 48,603 out-patients and 1,888 in-patients were suitable cases for free treatment, 2,590 out-patients were in a position to obtain treatment by joining a provident dispensary without depending on charity, 19 out-patients were able to pay a doctor's ordinary fees, and 455 in-patients were able to make some payment for their treatment. Expressed as percentages, of the out-patients visited 5.09 per cent. were found to be provident dispensary cases; and of the in-patients visited, 19.41 per cent. were able to make some payment. The number of visits made by the society's officers was 55,179.

Without detracting in any way from the good work of the society's officers, these figures cannot be accepted as a reliable criterion of the amount of hospital abuse; for in the first place no hint is given as to the standard fixed by the society in deciding suitability for free treatment, and in the second place by no means all the applicants for free medical treatment at the hospitals named are referred for investigation. As a single example, the average number of in-patients at the Royal Infirmary is about 8,000 a year, but only 1,493 were investigated by the society. Moreover, few, if any, of the 8,259 persons belonging to other towns could be investigated, and the fact that they were able to pay the cost of travelling shows that the bulk of them could have afforded to pay something for treatment at home. Further, of the 1,624 cases in which persons gave wrong or insufficient addresses, probably in a large proportion this was done purposely in order to avoid inquiries. Thus the two large sections which probably embrace the greatest number of cases of abuse practically escape investigation altogether. Indeed, the figures given in the report cannot be said to have much practical value except in so far as an investigation made into any particular case may have some deterrent effect.

## LEEDS.

### DINNER TO SIR CLIFFORD ALLBUTT.

WHENEVER Sir Clifford Allbutt revisits Leeds—the scene of the most active years of his strenuous professional life—he can be sure of a welcome as sincere as it is cordial, and when it was announced that he had accepted the invitation of the Leeds and District Medical Practitioners' Association to dine with them on the occasion of their second annual dinner, it was certain that the gathering was destined to be a success. Under the presidency of Dr. Hawkyard about 130 medical men and their guests assembled to meet and honour their old friend.

The toast of the evening was in the able hands of Mr. Moynihan, who in the opinion of those who were present voiced the sentiments of the gathering in a way that probably no one else could have done, and who surpassed himself, though that is a hard thing to do, in the grace of his language and in the felicity of his expressions. He said truly that Sir Clifford's position in respect of Leeds was a peculiar, even a unique, one, for it was something like a quarter of a century since he had ceased to be an individual and had become a tradition. His appeal had always been made to a much larger audience than could ever be gathered within the walls of a lecture theatre. He was without doubt the most fecund author and editor of the present day. There was certainly no physician or surgeon of this generation who could match him in one particular: he was absolutely supreme as a master of English prose. Those who wished to know the rhythm and majesty of English prose could not do better than read the writings of Sir Clifford Allbutt. In his works they would find many a polished gem of literary perfection; indeed, the magic and beauty of his words were sometimes so distracting that attention was called away to gloat over their majesty, while something of their message escaped the reader. Yet the message was expressed in words which were the fewest and the most fitting. As an orator among men of the present day Sir Clifford stood absolutely without a rival, at any rate in respect of short speech. No summary of Sir Clifford Allbutt's association with the district, continued Mr. Moynihan, would be complete which did not say something of the loyal devotion and affectionate pride in which he had been held by the lay public. His had been a well-proportioned life from the beginning. In his university he had received that ineffacable stamp which men of the right metal alone seemed able to receive. He had years full of the most beneficent activity when in Leeds, and he performed work of a character which made it absolutely necessary that he, and be alone, should be called to fill the chair of Regius Professor at Cambridge. But in Leeds he had always been looked upon as a Leeds man, and they were now giving him a welcome home. It has seemed well to quote Mr. Moynihan's speech fully from the excellent report which appeared in the *Yorkshire Post*, for it may reach the eyes of some who, from one cause or another, were prevented being present at the dinner.

Sir Clifford was most warmly received on rising to reply, and in a speech which was partly reminiscent, dealing as it did with old colleagues and friends, and partly prophetic in so far as it dealt with the indications which all could see that unless care were taken the work of medical men would be exploited for the public welfare without adequate remuneration, displayed all his old vigour and charm. It is indeed difficult for any one to credit that it was in the year 1884, and at the end of twenty years' service as physician, that Sir Clifford Allbutt retired from the active staff of the infirmary, in which he yet retains so keen an interest.

## BIRMINGHAM.

### HOSPITAL SATURDAY FUND.

THE Birmingham Hospital Saturday Fund has since its foundation collected the large sum of £436,000, at an expense of less than 5 per cent. Besides giving for many years £10,000 per annum to the various hospital and nursing institutions of the city, the Fund has administered the convalescent homes it possesses in a most economical and successful manner. These homes are as follows: Tyn-y-coed, Llanrhos, the convalescent home for men, in which last year there were 1,230 patients; Marle Hall, Llanrhos, the women's convalescent home, in which there were 1,388 patients; the Red House, Great Barr, the home for children, in which last year 615 children and 110 women were treated. Since the first convalescent home was established nineteen years ago, 37,909 patients have been received—16,744 men, 16,149 women, and 5,016 children. The scheme for the Sir William Cook Memorial Sanatorium for the treatment of consumptive patients has made considerable and practical progress. When the sanatorium is completed it will accommodate fifty patients. Last year the total collection for the fund amounted to £20,375, the largest with once exception since the fund was established, and the number of contributing firms was 2,188, as compared with 2,171 in the previous year.

## LONDON.

### KING EDWARD'S HOSPITAL FUND FOR LONDON.

THE annual meeting of the Governors and General Council of King Edward's Hospital Fund for London took place on March 28th at St. James's Palace under the chairmanship of H.S.H. the Duke of Teck. This meeting is usually of a purely formal character, the affairs of the fund being reviewed and discussed at length at the distribution meeting in December,[1] but on this occasion there were some occurrences of interest. The accounts submitted showed that the total receipts for the year exceeded £205,169, of which sum £76,935 (or very nearly half the total sum distributed, £155,000), represented interest on invested capital. The balance of the receipts was made

[1] BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1986, and SUPPLEMENT, p. 463.

up of £34,495 donations and annual subscriptions, some £55,000 in the form of legacies, and £18,000 from the League of Mercy and a few odd items. It was also stated stated that the total distributions made by the Fund since its foundation have now reached over a million and a quarter pounds. The special committee on the out-patient department question, the Duke of Teck observed, had been sitting regularly since January and had made considerable progress with the receipt of evidence. The report of the Distribution Committee on the question of the suspended grant to St. George's Hospital was also submitted and approved. Payment of the grant was delayed, owing to complaints having been made to the effect that the Fund was according its support to St. George's Hospital, although that hospital was making over to the medical school carried on in connexion with it part of the contributions received by it. The answer made by the hospital in general terms was that any sums passing from the hospital to the school were in payment of services actually rendered by it in the treatment of patients, and came well within the terms of the Minute on the subject of the financial relations between hospitals and medical schools drawn up Sir Edward Fry's committee. This explanation having been traversed, the Distribution Committee of the Fund was asked to make a special investigation of the matter before paying the award for 1910. The committee endeavoured to make an estimate of what the payment from the hospital to the school should be by ascertaining the average cost of laboratory work at the large hospitals in London. Only a few hospitals were able to supply useful figures on this point, but they seemed to the committee to justify the conclusion that the corresponding expenditure at St. George's was, owing to some circumstance or other, too much in excess of the average to be regarded as satisfactory. It also received from the governors of St. George's Hospital a detailed account of the fashion in which they and the school authorities together had endeavoured to assess the various amounts reciprocally payable by one to the other. The committee did not feel in a position to decide upon the justness of each of these assessments, and therefore, though convinced that the balance eventually struck seemed to the two authorities entirely just, it thought it best to base its own recommendations on the average expenditure of allied institutions. It therefore suggested that the school should repay to the hospital in respect of the year 1909 some £800.

### The Medical Inspection and Treatment of School Children.

It was reported to the Education Committee of the London County Council on March 29th that the General Purposes Committee of the Council has referred to a special committee, chosen from members of the Public Health, General Purposes, and Education Committees, the whole question of the organization of medical inspection and treatment of school children, with regard to which the Education Committee sent a scheme to the Council on March 1st (British Medical Journal, March 11th, p. 588).

# Special Correspondence.

## BERLIN.

*Schools for Speech-Cripples.—Medical Inspection of School Children in Berlin.—Antivaccinist Propaganda.—Death of Professor Lucae.*

For nearly ten years now Berlin, in common with other German towns, has devoted special care and attention to the teaching of deaf, or rather partially deaf, school children; in twenty-four municipal schools there are special classes for them, with properly trained teachers. But it is not generally known that since 1907 an entire school has been devoted to these little sufferers, where they are taught by a new method—a compromise between ordinary speech and pure lip-reading—and where they have medical care as well as tuition. Twelve is the maximum number of pupils in each single class. No mentally defective children are admitted, but only "speech-cripples"—that is, children whose defective hearing alone is responsible for their not being able to speak properly. Articulation is carefully taught, and so are lip-reading and a special kind of acoustic exercises. But the teachers' chief aim is to strengthen and develop the interplay of the senses of sight and of hearing. The results so far have been most encouraging. The children very soon lose their helplessness and become teachable, with a prospect of being able to earn a living when they grow up. Each year some of the more advanced pupils have been drafted off to ordinary municipal schools, where they are able to get along with the other normal children very fairly.

But deafness, alas! is only one of the heavy handicaps that press on the child population from the crowded homes of our modern cities. The Berlin school doctors have issued their report of work done in the year 1909–10, and its figures speak an eloquent, a sad, language. No less than 1,462 boys and 1,562 girls, that is, 8.70 per cent. of the little "school recruits" had to be refused admission on account of bodily or mental unfitness. Twenty per cent. of the pupils had to be kept under supervision. and almost 56,000 medical examinations were made; 399 children (305 boys and 94 girls) were stammerers, 2 children showed the symptoms of commencing atrophy of the optic nerve, and 1 of tuberculosis of the lumbar vertebra. Seven children attended school with cannulae in the trachea, there were 6 cases of gonorrhoea and 4 of syphilitic eruptions. Several children suffered from psychoses and were removed from school, and 4 girls, whose dissolute habits and moral degradation made them unfit to associate with other children, were transferred to special homes.

Like the poor, the antivaccinationist we have always with us, even in Germany. He worries the sanitary authorities by refusing to bring up his children for vaccination at the legally fixed age, he gets up petitions, spreads his fallacious arguments and absurd conclusions broadcast, and whips up the agitation until at last even the Imperial Parliament is not proof against it, for it has made its entry into the debates of the German Reichstag. Strange to say, not a few of the members seem not averse to the introduction of a "conscientious objector's" clause on the English model, and this in a country that has succeeded in completely stamping out the fell disease (practically speaking) within a comparatively short period of time by stringent vaccination legislation. The fact is, that the present generation of antivaccinationist Germans have not lived through, or have forgotten, the terrible epidemics of the times before the Seventies of last century, while keeping count of and grossly exaggerating accidents and unfortunate by-effects that are bound to occur in isolated cases among hundreds of thousands of yearly vaccinations. At the last meeting of the Berlin Medical Society, March 14th, Professor A. Baginsky (director of the Emperor and Empress Frederick Children's Hospital) gave a historical survey of the German vaccination laws and their efficacy, and called upon German doctors to be on the alert, lest holes should be made insidiously in the protective fabric, which has done the nation such admirable service. He recalled the labours of the committee of 1884, instituted under the pressure of antivaccinationist petitions, on which doctors of both camps sat. Robert Koch said at that time that not the statistics of morbidity, but those of mortality must be accepted as conclusive. Revaccination was introduced in the German army as early as 1834, and under its influence mortality from small-pox has declined from 75 per 100,000 to *nil*, and in the non-military population (since 1874, the year of the vaccination law which is still in force) from 62 to 0.1 per 100,000. With these figures, that speak a language so plain and clear, it would be absurd to institute a new committee of enquiry. In England the introduction of the conscience clause in 1898 has materially contributed to the recrudescence of small-pox, though the insular position of the country is a safeguard against infection from other countries, while Germany is permanently endangered by its proximity to Russia, Austria, and France. Finally, Baginsky proposed a resolution setting forth that the Berlin Medical Society, in view of the late discussion in

the Reichstag, declares its conviction of the absolute necessity for upholding the vaccination law of April 8th, 1874. The resolution was carried without further discussion.

August Lucae, the otologist, in his time one of the celebrities of the Berlin University, from which he had retired some years ago, died last week, at the age of 76. He was extremely musical, and when he began his medical career Virchow, recognizing his great talent and his interest in the physiology of the ear, induced him to devote himself to the speciality, at that time little cultivated in Germany. Lucae then worked as assistant under Politzer and Koenig in Vienna, and spent some time in Paris, but his chief impetus was given him in London by Toynbee, under whose influence he remained for some time. Lucae was chief of the well known clinic for ear diseases in the Ziegelstrasse; among his researches the best known are "The Conduction of Sound through the Bones of the Head and its Importance for the Diagnosis of Ear Diseases," and "The Origin and Treatment of Subjective Sensations of Sound."

## BUDAPEST.

*Neurasthenia in Women.*

SOME interesting statements with regard to neurasthenia in women were made in a recent address by Dr. Maurice Porosz, in which the speaker (who has a very large practice in neurasthenic and hysterical cases) remarked that he had frequently noticed that women who came to him for nervous and mental troubles were married to men who found it necessary to consult him for impotence or quick ejaculation; and his large experience in such matters had led him to believe that there existed a close connexion between the neurasthenia of the wife and the sexual impotence of the husband. He made it a rule, therefore, when consulted by the former, to question them on the delicate matter of their sexual life; and the results amply justified his action, since the majority of his female patients lost their neurasthenic symptoms directly he had cured their husbands. As an instance he mentioned the case of a widow who had been under his care, and who had married, *en secondes noces*, a lawyer, aged 36. During the first year of her second marriage the wife suffered greatly from general nervousness and frequent nervous headaches; and during the second year she discovered that these distressing symptoms generally followed nights during which she had had intercourse with her husband, and particularly when her *libido* had remained unsatisfied through the rapid ejaculations of her husband. Upon comparing her present sexual experiences with those of her first marriage, she came to the conclusion that her husband was ill, and, in spite of his indignant denial, persuaded him to consult the family physician. Upon examination the latter found his patient to be suffering from prostatic atony, defaecational spermatorrhoea, which had been preceded before his marriage by frequent nocturnal pollutions. During the first month of marriage he frequently cohabited with his wife, but this gradually became more and more difficult, and was always followed by great exhaustion. About the same time his wife developed symptoms of nervousness and restlessness, due to his abstinence from repetitions. She consulted a neurologist, who advised her to try some hydrotherapeutic treatment, from which she obtained no apparent benefit; but she grew steadily stronger as her husband's condition improved, and on his complete restoration to health her symptoms disappeared entirely, a state of things which lasted some years. Another case mentioned by Dr. Porosz in support of his theory was that of a married woman, the wife of one of his patients, who developed symptoms of melancholia, and complained of the persecution of her neighbours, whom she declared looked upon her as her husband's concubine rather than his legal wife. She refused to see people, and grew so much worse that she was placed in a sanatorium. During her absence her husband consulted Porosz for frequent micturition, quick ejaculation, and erectional disturbances. He told the doctor that throughout the first year of marriage he had cohabited with his wife almost every day, but latterly his ejaculations had grown rapid and his erections more and more feeble, so that his wife could not reach the orgasm, which had the result of making her very jealous and discontented. This led him to cohabit still less, so that during the previous year as much as one or even two months passed without a single coitus, though he had previously made it a rule to keep a pause of two weeks only. This state of affairs lasted for about two years, and during the last months the wife developed symptoms of insanity. After a stay of several weeks under proper treatment at a sanatorium, she returned home in a normal condition, save for an occasional display of jealousy during the first few weeks after her return. During this period, however, the husband's cure was completed, and his wife is now completely restored to health, sleeps well, wakes refreshed, and is able to attend perfectly to her household affairs. The connexion between the interrupted sexual intercourse and the malady of the wife is in this case perfectly obvious, remarked Dr. Porosz in concluding his address. The wife had got accustomed to extremely frequent intercourse, and suffered from the lack of it, which she ascribed to unfaithfulness on the part of her husband, a belief which naturally enough gave rise to jealousy. This belief, once firmly rooted, became an obsession, and gradually warped her judgement. Then the central nervous system became disturbed, and hallucinations were the result. The rest and change at the sanatorium combined to readjust the mental balance, but a radical cure was only effected by the commencement of a regular and systematic sexual life. Such cases as the foregoing were by no means scarce, and many unhappy marriages might be avoided if family doctors took more pains to discover the causes of neurasthenia in women, and did not hesitate to inform themselves as to the sexual life of their patients.

# Correspondence.

### THE HONOUR OF THE MEDICAL PROFESSION.

SIR,—I read your article on the honour of the medical profession with particular interest, the more so because during my year of office as Lord Mayor of Cardiff I had the honour of having as my guest at the Mansion House the celebrated surgeon, Dr. Lucas-Championnière. You will remember that he visited Cardiff on the occasion of the dinner and the presentation of a large sum of money by the members of the medical profession to Mr. J. Lynn Thomas and Dr. Skyrme in connexion with an action brought against these gentlemen by a patient. I was present at the hearing of the action in Cardiff and heard the now distinguished President of the Divorce Court use the following words, quoted in the letter of Mr. Lynn Thomas in your issue of January 28th, 1911: "Questions of this nature would be a matter of interest for a learned medical society to discuss, but not a jury of laymen to pass a verdict upon," with which opinion I unhesitatingly agree. From my recollection of the case, there was no serious question of fact involved; it was entirely one of the correct treatment of a fracture. Who were asked to decide? Twelve "good men and true" undoubtedly, but not one of them probably even possessing a first-aid certificate—excellent men in their own particular vocations, but surely not the tribunal which should be called upon to give a verdict upon a highly technical question of surgery. In that verdict there was at stake something far more important than the plaintiff's claim — namely, the professional reputation of the defendants. It is not like ordinary litigation arising out of breaches of contract or of tort, where statute or case-law define the respective positions of the parties, the judges being asked simply to interpret the law. The judges are bound by precedent, and there is a final court of appeal. Not so a medical practitioner. He is not bound by precedent—in fact, he may create one himself. Circumstances vary, conditions arise continually of an exceptional character calling for exceptional and immediate treatment. A precious life, possibly, is in peril. He has no time to think of what Dr. Popoff or Dr. Finishem would do in the circumstances. He has to decide for himself; a matter, therefore, probably of forming an opinion quickly. In the event of any question arising as to the propriety of the treatment, who should be his judges? Unquestionably men who, by their education, training, and experience, are rendered capable of forming a just and unbiassed estimate.

It would not only be in the interest of the profession but also in the public interest if such a tribunal as that referred to in your article were created. Call it by any name you like. All that would be necessary to satisfy the public would be that the tribunal should be composed of men of the highest integrity and distinction in the profession. Supposing that public opinion is not sufficiently ripe for the appointment of such a tribunal as the one suggested by you, there would be no difficulty, I apprehend, in securing legislation for the appointment of assessors in all medical cases, assuming the profession were united. Either party to have the right to call for them, similar to what now obtains in the Admiralty Court in London. There you have Trinity Brethren assisting the court in collision cases. You have Admiralty assessors sitting with the judge in the county courts. You have assessors also in the police courts sitting with the stipendiary magistrates in Board of Trade inquiries. These men are selected because of their technical knowledge and experience, and therefore are called upon to *assist* the court. Again, under the Workmen's Compensation Act, you have medical referees. The county court judge, when there is a conflict of testimony, refers the medical question to the medical referee appointed under the Act. If it is considered necessary or desirable that the court should be assisted by technical advisers where probably only a question of seamanship is involved, *a fortiori* should the court be *assisted* when it is a question of the treatment of a patient and the professional reputation of a medical man. Writing not as a medico but as a member of the legal profession, I am strongly in favour of such a change as I have indicated above. Faith in the treatment and in the medical man himself plays so important a part in the cure of many ailments, that everything possible should be done to strengthen this faith.—I am, etc.,

LEWIS MORGAN
(Alderman).

Cardiff, March 22nd.

## TO HELP THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—The appeal made by Professor Howard Marsh in the JOURNAL of March 18th, 1911, on behalf of the British Medical Benevolent Fund, will, I trust, receive cordial support from all who can possibly afford to give. Dr. Fothergill and "E. C. B." in the JOURNAL of March 25th, 1911, offer suggestions which may serve well, provided there is some one, paid or not paid, always ready in and out of season to bring the good work of the society to the notice of medical men. In the absence of such a man or men, who make it their business to collect for this laudable object, the work must often bring feelings of disappointment, both with the response to the appeal and with the inability to render help where really needed.

From such and other considerations I have for some years advocated among personal friends a scheme which, at any rate, deserves careful thought from the members of the Association. This scheme is based upon the principle of insurance, and would be compulsory on every member. The capital would be obtained from an entrance fee levied on each member—say the sum of £5. If the present members were to subscribe £5 each, a sum of about £100,000 could be forthwith raised, and the income derived from this alone would go a long way towards making full provision for a poor medical man's widow and the education of his children, if any, together with help to the needy members who may be in distress from illness or misfortune or both. By one single payment a young medical man—though it is true that as a general rule he has no capital to spare—could make a moderate provision for his widow and for the education of his children, and to secure this should, I maintain, be his first aim, if by the united action of the members of the Association it can be done at such a small sacrifice. My idea would be not to give where plenty is left, but to supplement where, in the opinion of a local body of members of the Association, guided by definite rules, help is needed not only for the widow to keep and bring up the family but also to educate the children, much as if the father had been saved to do his work and provide in full.

The profession of medicine can hardly plead poverty, and it is scarcely becoming to appeal to the public whenever a distressing case arises. Where a man makes untold sacrifices for the community and dies in consequence, as now and again happens, then a public appeal is welcomed, not so much because he has left his widow and family without adequate provision, but because he has rendered a service which appeals to humanity and humanity endeavours to make some amends. We should, it seems to me, provide for ourselves, and we can well and easily do so if the Association as a whole endorses a proposal similar to the one I have ventured to make public. Further, it is my firm opinion that only by some such means can we make the Association what it should be to one and all of us—namely, a real help, whether it be in promoting our knowledge of the sciences and practice of medicine, in guiding us in our professional conduct, or in helping us to make the most of our circumstances. Perhaps there is some member who is willing and able to work out such or a similar scheme, and thus show the Association whether it can be made possible or not. An entrance fee of £5 cannot, I think, be regarded as beyond the reach of any medical man, for even supposing he has to borrow capital to start practice, it will make but little difference to add this odd £5.—I am, etc.,

JOSEPH GRIFFITHS.

Cambridge, March 28th.

## MEDICAL TREATMENT OF INOPERABLE CANCER.

SIR,—My attention has been called to a letter from Dr. Alexander Haig upon this subject in the BRITISH MEDICAL JOURNAL of January 14th. Dr. Haig invites co-operation in trying the effect of "uric acid-free" diet upon patients suffering from inoperable cancer, stating that he has seen "cases that gave the impression that by alteration of diet we may sometimes cure."

I am able to meet Dr. Haig's difficulty in getting suitable cases for this trial of his diet, as I have twenty patients suffering from inoperable malignant disease continuously under my care in the wards of the Cancer Hospital. The Medical and House Committees of this institution welcome the scientific trial of any reputed remedy for cancer, always provided the use of such remedy does not in the end entail more bodily or mental discomfort than the disease from which the patient is suffering. I am, of course, unable to transfer these patients to the hospitals in which Dr. Haig is directly interested, but I am prepared to set aside the 30 or 40 cases (which Dr. Haig considers would constitute a good trial of his treatment) to be dieted on whatever lines he may lay down, assuring him that such lines will be most strictly carried out. I should reserve to myself and to my assistant the right of supervising the usual clinical and pathological observations now being made upon all our cases, and should of necessity retain my responsibility for the patients' welfare to the committee of the hospital in the matter of deciding whether or no the treatment should be continued in any case in which the effect might seem undesirable. Neither of these reservations, however, would impair Dr. Haig's efforts—indeed, I hope the former reservation would prove an assistance to him. I may add that it would be easy to select a sufficient number of patients fulfilling Dr. Haig's sole desideratum—that they should carry an expectation of life of at least six months.—I am, etc.,

THOMAS J. HORDER,
Physician to the Cancer Hospital,
London.

London, W., March 27th.

## BROCA'S APHASIA.

SIR,—In his able and interesting address on aphasia, reported in the BRITISH MEDICAL JOURNAL of March 18th, p. 605, Professor Saundby has hardly, I am afraid, done justice to the opinions of some of the writers on aphasia.

In the comments on his Case I he has either failed to express clearly what he means, or he has misunderstood what Professor Wyllie has written in explanation of why it is that a lesion subjacent to Broca's convolution, without involving the convolution, produces the subcortical or infrapictorial motor aphasia, whereas a lesion in the internal capsule does not produce aphasia, but only dysarthria. The views of Wyllie will be found at pages 422 and 423 of his book on the *Disorders of Speech*.

It seems to me that Professor Saundby has made the mistake of supposing that the "callosal speech tract" Wyllie refers to as being cut by a lesion subcortical to Broca's convolution is a tract coming *from* the third

frontal on the right side, joining the direct tract from Broca's convolution on the left side, and then passing down the internal capsule on the left side, whereas the "callosal speech tract" is a tract passing *to* the third frontal on the right side from Broca's convolution on the left side, and therefore carrying impulses from Broca's convolution through the corpus callosum to the right hemisphere, and by the internal capsule on the right side to the pons. A limited subcortical lesion between the internal capsule and Broca's convolution can, therefore, interrupt this tract as well as the direct tract, whereas a limited lesion in the internal capsule is not likely to interrupt it, because in its course to the corpus callosum it has diverged from the direct tract.

A subcortical lesion may thus produce infrapictorial motor aphasia, as was shown in Professor Saundby's case, although the lesion in his case can hardly be described as a limited one, whereas a lesion in the internal capsule produces only dysarthria.

Professor Saundby says it is difficult to see why a lesion which severs the fibres before they reach the internal capsule should be capable of producing aphasia, but after they have combined together and form part of that band of fibres should not do so. The explanation is as given above—namely, the callosal speech tract does not combine and form part of the internal capsular band of fibres; it diverges above the level of the internal capsule and crosses in the corpus callosum to the opposite side. This explanation has hitherto been accepted, and is as satisfactory whether Broca's convolution be considered a speech centre or not; in other words, whether or not Marie's position be accepted or not. Nor does Professor Saundby, as far as I understand him, put forward any other explanation, although from his remarks—

> This explanation may satisfy those who believe that the function of the third left frontal convolution has been established, and are ready to accept any excuse for those awkward facts which do not conform to this view—

he apparently does not accept this one.

I am not at present discussing whether the views of Marie will ultimately be found correct or not. Many hitherto inexplicable facts are explained by them; but, on the other hand, it is difficult to reconcile some known facts with his views and this particular form of subcortical motor aphasia, and the points raised by Professor Saundby are some of them.

It has hitherto been supposed that a limited lesion in Broca's convolution and one subcortical to it can produce a "motor aphasia" or "anarthria" as some prefer to call it, whereas a lesion in the internal capsule only produces dysarthria. If Marie's views are correct, Broca's centre has nothing to do with speech, but the neighbouring motor centres are the grey matter or motor centres from which the nerve tracts concerned in the production of vocal and oral speech arise, and are merely motor centres like the others in the Rolandic areas.

A lesion in those centres should differ little in its symptoms from a lesion of the fibres coming from those centres in any point of their course down to the bulb. Is this a clinical fact or is it not?

Only accurate clinical and pathological observation can settle it, and with its settlement must Broca's centre either be allowed to retain the position that it has hitherto held for nearly fifty years as being probably the best known and one of the most important convolutions in the cerebrum or be relegated to the position of one of the centres with a much talked and written of past.—I am, etc.,

WILLIAM ELDER, M.D., F.R.C.P.E.

Leith, N.B., March 25th.

## THE CARDIO-SPLANCHNIC PHENOMENON OF ABRAMS.

SIR,—In the correspondence last year on the influence of posture in physical examination, Dr. Gordon stated that his observations on attitudinal changes affecting the rightward edge of the cardiac dullness were opposed to those of Abrams, and asked which was right, Abrams or himself. Now, Dr. Gordon declares that he is right and Abrams wrong. But I think it can be shown that he is mistaken in his deliverance.

Dr. Gordon has never made plain whether he is dealing with the superficial dullness only, or with, in addition, the deep dullness. This was pointed out last year by Sir James Barr, who, I think, described Dr. Gordon's diagrams as denoting a "compromise." In making his quotations from Abrams, Dr. Gordon omits to supply a very essential statement, namely, that the phenomenon in question relates to the deep dullness. Not only is this stated in the text, but the description underneath the photograph accompanying the paper in Dr. Abrams's book says that the light area is the superficial dullness, and that the dark area to the right of this, the deep dullness, is the expression of the cardio-splanchnic phenomenon. When Abrams states also that palpatory percussion should be employed, it becomes still more evident that he cannot be considering the easily defined and more limited area described by Dr. Gordon. As to the remarks of Dr. Gordon that Abrams is confounding the sounds, they may be dismissed as little likely to apply to such a master of technique. Dr. Gordon is doubtless right in his opinion, so far as the superficial dullness is concerned, but this is a very different thing from meaning that Abrams is wrong.—I am, etc.,

A. G. AULD.

London, W., March 26th.

## CONGENITAL HEART-BLOCK.

SIR,—On page 593 of the BRITISH MEDICAL JOURNAL, published on March 11th, 1911, I find a communication from Dr. Thomas Lewis regarding an article entitled, "Congenital Heart-Block," etc., by Drs. Fulton, Judson, and myself, which appeared in the *American Journal of Medical Sciences*, 1910, p. 339. In brief he makes the point that the tracings do not, as stated, demonstrate heart-block.

I have restudied the tracings as published together with a number of others in my possession and regret to state that I believe Dr. Lewis to be entirely right in his contention, and that I have been in error in interpreting the tracings as evidences of auriculo-ventricular dissociation.

I wish to take this opportunity of entirely absolving my *confrères*, Drs. Fulton and Judson, of any participation in this mistake. The tracings were made and construed by myself alone.—I am, etc.,

Philadelphia, U.S.A., March 20th. GEO. W. NORRIS.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—In pursuance of the correspondence that has recently appeared under this heading, will you allow me to draw your attention to the fact that there exists a strong feeling among both women sanitary inspectors and health visitors that these two offices are best combined in one person. If sanitary inspection were a mere question of drainage work and plumbing, it would be another matter, but as Dr. Bostock Hill has pointed out, this is not the case. In the poorer class of house, plumbing and drainage work is reduced to the barest minimum, and what there is is usually outside the house, and yet these houses are often most insanitary. The absurdity, therefore, of sending a woman sanitary inspector into such houses and forbidding her to look at the children, is surpassed by the folly of sending a health visitor to the children and telling her that the sanitary condition of the home is no concern of hers.

Dr. Bostock Hill states that he considers the woman sanitary inspector an anachronism. We do not think that this opinion is based on actual observation of our work, and we understand that Dr. Hill's health visitors (who are, we believe, some of the most contented officers in England) are largely employed in sanitary inspection, and find it most interesting. This is not in the least surprising. No really zealous medical officer of health could afford to ignore the woman's point of view in sanitary work, however firm his opinion that she had no business to hold views, and no woman engaged in public health work could fail to take an interest in sanitary administration.

The trouble seems to be in the title. Dr. Bostock Hill objects to the term "inspector" as applied to a woman; we object even more strongly to the term "visitor" as applied to officials. May we not leave that title to the voluntary worker?—I am, etc.,

M. CAREY,
Chairman,
Women Sanitary Inspectors Council.

London, S.W., March 22nd.

SIR,—I have followed with interest the correspondence under the head of "Lady Health Visitors or Women Sanitary Inspectors," and I think, perhaps, my experience may be of interest, as I am one of the few women doctors who has herself worked as an official health visitor. I may say that my medical qualifications are M.B., B.S.Lond., and D.P.H.Camb.

After receiving the latter diploma I wished to obtain some first hand experience in public health work among infants and children, and worked under Dr. Meredith Richards, M.O.H. for Croydon. Here some portion of my time was spent in visiting the homes of newly-born infants and endeavouring to give help and advice to their mothers. In this work it was not my knowledge of sanitary law that helped me most, but the knowledge I had gained in my midwifery training and the post-graduate work I had done in children's hospitals. Of course, where there were obvious defects in the drains, etc., these were reported to the sanitary inspector's office, but no regular inspection was attempted by me as health visitor.

The value of a woman in the capacity of a health visitor lies in her knowledge of the laws of health which must be observed in order that an infant may thrive, and in her possessing the tact and human sympathy by which she is able to induce the mother to obey these laws. To understand an infant's needs requires a long training, and the ideal qualification for a health visitor is a thorough midwifery course, including work in the homes of the poor, and added to this further training in a children's hospital. This being obtained, a very small knowledge of drains and sanitary law will suffice, just enough to enable the health visitor to report anything which is obviously wrong. For a woman to spend any portion of her time as an ordinary sanitary inspector is a waste of good material; a man can do that. A woman's province is *persons*, and above all *children*, and not *things*, and her place is as a helper and adviser and not as an inspector of nuisances, and if she acts ever so little in the latter capacity it weakens her power in the former.

The difficulty is to get the class of health visitor which I have indicated. The training is one extending over three or four years, and the pay as a health visitor is small and the work so arduous that few can do their duty and continue at it for any length of time.—I am, etc.,

Kensington, W., March 23rd. WINIFRED WARNER.

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SIR,—On perusing Dr. Lawrence's letter in the JOURNAL of March 25th I cannot but feel that the difference between us is to some extent one of terms and methods. We both appear to want the same work done by our women officers, but do not agree as to the way this can best be achieved. Dr. Lawrence thinks it can best be done by a woman educated and holding office as a sanitary inspector, while I, and I think a good many more, believe that the training of the sanitary inspector is not well suited to produce the best type of female official. Apparently this is the view of the Local Government Board and its advisers, for in your same issue it is noted that a bill has been introduced by the President of the Board to enable local authorities to appoint health visitors for the purpose of giving advice as to the proper nurture and care of children under 5 years of age, and as to the promotion of cleanliness. If it were thought that a woman sanitary inspector was suited for this work there would have been no necessity to introduce such a bill, but as a matter of fact this is simply a means of giving force to a want long felt by those who believe that in the future public health must develop on somewhat different lines than it has done in the past.

Dr. Lawrence says:

> Dr. Bostock Hill is wrong in thinking that I wish a woman to supersede a man inspector in my department. I want to get one properly trained to do the work that either her male colleague cannot do at all because of their sex, or that for cognate reasons they cannot do half so well.

I am pleased to have his assurance on this point, because much of his criticism of the Sanitary Institutes examination falls to the ground. This examination was established to give woman an opportunity to show that they had a general knowledge of what is called inspectors' work, and had at the same time acquired some insight into matters which for a woman's work in hygiene some of us think are more important, namely, elementary nursing, the care of infants, etc. The syllabus of the examination shows this, and I can assure Dr. Lawrence that not only is just as much required at the examination from the health visitor as from the inspector, but that the average candidate is, as far as I can judge, a better educated person altogether.

One other point raised by Dr. Lawrence deserves comment—namely, the insufficient training required by the institute. Let me at once say that I should like to see an extended training, but in matters of this sort we must "hurry slowly." When qualifications in medicine were first instituted, the training required was very different from that now necessary. I hope that in the near future it will be possible to increase the demands on candidates in this direction. I cannot, however, agree with Dr. Lawrence that three months with a medical officer of health would be a sufficient training for the work even now demanded. Neither do I attach much importance to the opinion of the coach who has favoured Dr. Lawrence with his view on the standard of the examination. The last time I examined candidates for the institute two-thirds of those who presented themselves at my table failed to reach the necessary standard, so that apparently many of them find it difficult to reach the alleged low standard of the present time.

In conclusion, I would say that I think Dr. Lawrence does not treat quite fairly my colleague, Dr. Louis Parkes, when he purports to quote his final statement "that women who have passed the institute's examination for health visitor are no good as sanitary inspectors of a public health department." I have referred to Dr. Louis Parkes's letter, and find that what he says is as follows:

> The title of "Lady Health Visitor" is not used by the Royal Sanitary Institute, nor has the institute ever suggested that the training or examination for women health visitors would be appropriate for the post of inspector of nuisances.

The interpretation put on this by Dr. Lawrence is hardly justified. The training of the two officers is quite different, the scope of the examination is different, and, as I believe, the work to be done by the officers has but little in common.—I am, etc.,

Birmingham, March 27th. A. BOSTOCK HILL.

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## THE "NURSE" OR THE DOCTOR—WHICH?

SIR,—The question whether the doctor is to submit to accept a position ancillary to the unqualified woman practitioner has to be faced; it is one which affects nearly every village in the kingdom.

Illustrative of this the following. Being called in urgently to a primipara, the wife of a well-to-do working man in a comfortable cottage, I found she had frittered away her energies in various ways, and that progress was feeble and troublesome. The os was dilated and the waters had mostly escaped "with a rush" some hours before I was called. With a good deal of trouble and by aid of rather large doses of chloral hydrate I got the patient to rest and to sleep, and some thirty hours later the birth occurred. But whereas when I went the first time the occiput was in the usual position, when the birth occurred the face was anterior and the perineum suffered. This was no fault of the nurse, of course, at all; she did her part very well, and seeing this I was content merely to superintend, more especially as I came in only when the head was partly through. So that I was up a great part of two nights, I had to pilot the woman through the period of inertia with aid of drugs, and I had to stitch up a bad tear. In these circumstances I think it was not discreditable to feel somewhat sore when I took my part some six days later in the following conversation: "I think nurse deserves very great credit." "Most certainly," I said, tentatively. Then she added: "Yes, the greatest credit—for everything," with impressment. The perineum repair is quite successful.

Which will the women of England choose—for I think they must make their choice—the unqualified woman practitioner or

February 13th. THE DOCTOR?

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## PROPOSED AMENDMENT OF THE DENTISTS ACT.

SIR,—Your editorial article with the above title, which appears in the last issue of the BRITISH MEDICAL JOURNAL,

is an eminently just and fair comment on the present political situation in the dental profession.

While there are, certainly in some quarters, signs of "the unqualified multiplying till they destroy themselves," and of "the public appreciating the value of the educated dentist," this is small comfort to the young L.D S. who is starting practice and has to face the wiles, opposition, and ridicule of the quack.

The reason why there have been such large accessions to the ranks of the unregistered during recent years is the introduction of local anaesthesia for the purpose of extracting teeth in a so-called "painless" manner.

The advertisement pages of the March number of a quarterly periodical issued by a body of "Extractors and Adaptors of Teeth" contain fourteen advertisements of local anaesthetics. On pp. 105 and 106 of the text occur these words:

Its (the proposed Anaesthetics Bill) apparently modest clauses were much more dangerous and far-reaching than at first sight appeared to be the case. It was drafted with a subtlety and cunning which would have reflected great credit upon the framers had the cause been a just one and its purpose honest, for, whilst professing to be a bill dealing with anaesthetics, it was in reality meant to make the practice of dentistry an impossibility by members of the Incorporated Society, since without the use of anaesthetics and "drugs which produce insensibility to pain" no dental operation is possible. It was also intended to hit the pharmacist in the practice of his calling. It was unjust, inasmuch as it ignored the established rights and privileges of existing practitioners, and it was dishonest, as its real purpose was not "the safety of the public," but a monopoly for the registered.

All these people want is to "pull out" and "put in" teeth. I am convinced that if the Anaesthetics Bill as at present drafted could be passed by the legislature dental quackery in the United Kingdom would receive its *coup de grace*.—I am, etc,

A. HOPEWELL-SMITH.

London, W., March 25th.

## STANDARD BREAD.

SIR,—In view of the present agitation in favour of the so-called "Standard Bread," the following extract from Dr. Robert Hutchison's article on Dietetics in the latest edition of Allbutt's *System of Medicine*, vol. i, may be of interest, especially as I believe the author's name has been freely used in furthering the campaign. He states:

The average composition of bread prepared from white flour and from whole wheat meal is as follows:

| | White Bread. | Whole-meal Bread. |
|---|---|---|
| Water ... ... ... | 40.0 | 45.0 |
| Protein ... ... ... | 6.5 | 6.3 |
| Fat ... ... ... | 1.0 | 1.2 |
| Starch, etc. ... ... | 51.2 | 44.8 |
| Cellulose ... ... | 0.3 | 1.5 |
| Ash ... ... ... | 1.5 | 1.2 |

It will be noticed that owing to the greater amount of moisture which it contains, whole-meal bread is not appreciably richer in any of the nutritive constituents than white. On the other hand, digestive experiments show that the absorption of whole meal bread in the intestine is considerably inferior to that of white bread, so that the supposed superiority of the former as a source of nutriment is really based on a fallacy.

It may be argued that this comparison does not apply as between white bread and "standard bread," but it does, if only in a somewhat lesser degree; and in any case some of the more or less extravagant claims that have been put forward have referred to whole-meal bread, as mentioned in your recent editorial article, which for its calm scientific manner of dealing with the subject may be commended to certain members of our profession whose enthusiastic utterances are not justified by the facts.—I am, etc.,

STEPHEN G. LONGWORTH.

District Asylum, Melton, Suffolk, March 27th.

## PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—We learn, from a recent SUPPLEMENT to the BRITISH MEDICAL JOURNAL that the Council of the Association propose to recommend to the next Representative Meeting an amended form of the now famous Minute 234 (1909). It would follow from this amendment that, "as a rule," no medical officer of health should engage in any kind of consultative work, or hold extra-official appointments, such as those of teacher or professor of hygiene. It is not, however, clear whether or no it is intended that the 'official" duties which are to be allowed to medical officers of health by the Association should embrace those suggested by the Local Government Board—namely, those of a public vaccinator, factory surgeon, police surgeon, and Poor Law medical officer.

We do, however, note with satisfaction that it is no longer proposed to differentiate, in respect of security of tenure, between whole and part time officers. This is the more important, inasmuch as the new policy of the Local Government Board is apparently not so much directed to the extermination of part-timers generally, as to their conversion from part-time officers engaged in private practice to holders of omnibus appointments. There is some reason to believe that this policy is not so much dictated by any dissatisfaction with the work actually done by the part timers who are engaged in practice as to the difficulties caused by the unnecessary jealousy of other practitioners. As the Medical Secretary of the British Medical Association observes, in an approved official letter we have just received:

Many private practitioners are of opinion that it is on the whole easier for them to co-operate satisfactorily with medical officers of health who are not at the same time their competitors in private practice than with those who are.

This feeling has apparently found expression in the declarations of policy of the British Medical Association, and unless those practitioners who hold public appointments bestir themselves, we may in a few years see its results in the removal from private practitioners of all opportunity of holding part-time public appointments of whatever nature.—We are, etc,

F. G. CROOKSHANK,
Chairman.
D. A. BELILIOS,
Honorary Secretary.
Association of Medical Officers of Health.

Wimbledon, S.W., March 22nd.

# Universities and Colleges.

## UNIVERSITY OF LONDON.

### MEDICAL ENTRANCE SCHOLARSHIPS.

A COMBINED examination for twenty-two medical entrance scholarships and exhibitions, tenable in the Faculties of Medical Sciences of University College and King's College, and in the Medical Schools of University College Hospital, King's College Hospital, St. George's Hospital, Westminster Hospital, and the London School of Medicine for Women, has been fixed to be held in London by the London Intercollegiate Scholarships Board on Tuesday, September 19th, and following days. Application should be made to the Secretary of the Board, University College, Gower Street, London, W.C., for forms of entry.

## UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

FIRST M.B (*All Subjects*).—*W. Stott, †C. H. Keay, †E. J. Tyrrell, A. F. R Dove, J. D. Ferguson, Mary S. Gordon, N. A. Martin, C. R. Smith, C. G. Strachan.

FIRST M.B (*Elementary Anatomy and Biology only*).—H. G. B. Dove, Ethne Haigh, G. Irving, E. E. D. Lau, J. E. Measham, W. M. Pettigrew, J. D. Proud, B. Sergeant, A. Smirthwaite A. C. Taylor. *Chemistry and Physics only*—G. G. Baty, W. J. Bowden, J F. C. Braine, P. A. Clements, C. C. H. Cuff, H. H. Elliot, F. W. Harlow, J. D. Johnson, D. R. Jones, H. L. P. Peregrine, D. O. Richards, P. Savage. *Elementary Anatomy*.—W. Herbertson, B Sc.

SECOND M.B (*Anatomy and Physiology*).—†F. J. Nattrass, †Mary L. Haigh, †W. K Russell, W. Bell, G. A. Berkeley-Cole, A. Butterfield, I. G. Cummings, I. D. Evans, A. C. Freeth, C. S. P. Hamilton, M. H. de J. Harper, E. R. A. Merewether, R. P. Ninnis, Grace W. Pailthorpe, I. M. Pirrie, D. C. Scott, A. Smith, F. B. Robson, S. Thompson.

* First-class honours. † Second-class honours.

## UNIVERSITY OF LEEDS.

### ANNUAL REPORT.

THE seventh annual report of the University of Leeds, being that for the year 1909–10, refers to a good many points of interest in connexion with medical education.

*Women Medical Students.*

Satisfaction is expressed with a recent decision of the Board of the Leeds Infirmary, in accordance with which women students will in future be admitted to the practice of the infirmary. As is pointed out, the step taken b the infirmary makes it possible for women to receive the whole of their medical education in Leeds. Inasmuch as there are a considerable number of resident and other post in Leeds which are open to qualified medical women, several being at present filled by women, this is a matter of importance to the city as well as to the university.

*Statistics.*

The number of medical students on the list was 138, of which it is interesting to note that 55 came from Leeds, 13 from Bradford, 47 from the West Riding County Area, and the remainder in smaller groups from other districts.

*The Board of Education and Medical Teaching.*

In the report of the council, comment is made on the decision of the Board of Education to recognize the teaching in schools of medicine as a proper subject for their aid, and, consequent on this, on the satisfactory arrangements come to with the teaching staff of the infirmary by means of which all the clinical, as well as the academic, teaching will be brought under the control of the university. In harmony with this it has been possible to appoint a medical and a surgical tutor to supervise the earlier work of the students at the infirmary.

## UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B.—*Part A* (*Anatomy and Physiology*): C. W. Dixon, R. W. Gemmell, H. E. Marsden, W. F. Young. *Part B* (*Materia Medica*): L. R. G. de Glanville, H. P. C. de Silva.

FINAL M.B., CH.B.—*Part I*: D. H. Clarke, J. E. Gething. *Part II*: Ethel M. Baker, J. E. Gething, R. Heald, E. W. Moore. *Part III*: J. Bamforth, T. C. Clarke, *P. Lé F. Nortjé.

* Second-class honours.

## VICTORIA UNIVERSITY OF MANCHESTER.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B. (*Part I, Inorganic Chemistry and Physics*).—H. W. Bennett, C. P. Brentnall, R. Chevassut, J. S. Chorlton, E. Granger, J. Rigby, C. G. Todd, F. Vause, B. Walley, R. Willan.

FIRST M.B., CH.B. (*Part II, Biology*).—H. W. Bennett, C. P. Brentnall, J. E. Brooks, R. Chevassut, E. Granger, A. Haworth, K. G. Haworth, J. B. Leigh, J. F. C. O'Meara, J. Rigby, J. R. Slack, C. G. Todd, F. Vause, B. Walley, R. Willan, *H. H. Stones.

* Chemistry and Botany.

SECOND M.B., CH.B. (*All Subjects*).—Ada L. Bentz, F. C. Bentz, W. R. Blore, H. N. Crossley, H. C. Duffy, Joseph Fielding, H. S. Gerrard, C. G. Lees, F. G. Prestwich, Gladys H. Ramsden. (*Anatomy only*) R. MacGill. (*Physiology only*) *F. L. Newton, J. F. O'Grady, E. Talbot.

* Distinction in Physiology.

THIRD M.B., CH.B. (*General Pathology and Morbid Anatomy*).—W. Barnes, L. T. Challenor, C. L. Graham, H. Harrison, G. Jackson, A. H. Macklin.

FINAL (*Forensic Medicine and Toxicology*).—C. T. G. Bird, N. Duggan, †W. H. Kauntze, T. W. Martin, N. Matthews, Mabel E. May, †F. Oppenheimer, S. B. Radley, C. M. Stallard, R. P. Stewart, H. D. Willis.

FINAL.—J. F. Cocker, ‡J. Cowan, *E. R. Eatcock, P. S. Green, E. Grey, W. H. Parkinson, A. Reid, J. R. Rigg, J. P. Stallard, G. Whitehead. (*Medicine only*) Mabel E. May, J. B. Scott. (*Obstetrics only*) H. Heathcote.

* Passed with distinction in three subjects and awarded first-class honours.
† Passed with distinction.
‡ Passed with distinction in Obstetrics.

D.P.H. (*Both Parts*).—W. J. Cox, C. M. Craig, D. R. Gilder, W. E. Henderson, R. H. Titcombe, H. M. Williamson, B. M. Wilson.

## SOCIETY OF APOTHECARIES OF LONDON.

THE Gillson Scholarship in Pathology has been awarded this year to Dr. H. Letheby Tidy, medical registrar at the London Hospital and physician to the Great Northern Central Hospital.

The following candidates have been approved in the subjects indicated:

SURGERY.—*E. M. E. Hall, *†F. O'Niell, *†A. D. Vernon-Taylor.
MEDICINE.—*A. De Luyck, *†J. Ellison, *†T. T. O'Callaghan, †T. F. O'Mahony.
FORENSIC MEDICINE.—H. R. L. Allott, H. H. Budd, T. T. O'Callaghan.

* Section I. † Section II.

The diploma of the society has been granted to Messrs. H. R. L. Allott, J. Ellison, F. O'Niell, and A. D. Vernon-Taylor.

THE report submitted at the annual meeting of the Catherine Gladstone Free Convalescent Home for the Poor on March 14th showed that during last year a total of 747 patients were admitted, of whom 294 were men, 348 were women, 48 boys, and 57 girls. A greater number of patients were sent to the home direct from hospitals than in any previous year. Some 35 patients were readmitted—that is to say, were allowed to stay three or more weeks after the expiration of the first three weeks, and 392 were discharged quite well and 225 greatly improved. Six patients were sent back to the institution which had sent them, as being too ill for a convalescent home. The surgical work undertaken by the home was successful, only 4 of the 41 patients sent for treatment from St. Thomas's Hospital having been returned. The average weekly expenditure on each patient was 15s. The balance of total expenditure over total income was £217 19s.

# Medico-Legal.

## WORKMAN'S COMPENSATION.

*Failure to give Notice of Accident.*

THE case Wright *v.* Soothill Wood Colliery (Dewsbury, March 9th) shows that "notice of accident" is of special importance when the case is one of industrial disease. It appeared that a contracting hurrier was attacked by industrial disease which developed into "beat hand" in May, 1910, and claimed compensation.

His Honour in his judgment, dealing with the points of the defence, thought that the process in which the applicant was employed was "mining" within the meaning of the Order, that the disease of "beat hand" was due to the nature of the employment, and that the applicant was a workman to whom the Act applied. About the beginning of June it seemed that Wright went to Dr. Stewart, who desired to lance the wound a second time; but Wright declined, and although the doctor told him that he was running a serious risk he still persisted in his refusal, and ultimately visited a female "quack" in the district. Later he had to go to the hospital, where three of his fingers were taken off. As to the defence that the present incapacity was due to the man's own unreasonable conduct, he found that the applicant's conduct in not submitting to the second lancing, and also the going to a "quack," was unreasonable. But whether the loss of his fingers was due to that he was unable to say. The onus of proof was on the defence. As to the defence *re* the want of proper notice, he thought that Wright ought to have given some notice before the arrival of the certificate. He therefore found that the notice was not filed as soon as practicable. The main question was whether he could find that the employers were not prejudiced in their defence by the want of notice. He could not so find, for if they had been informed of the disease in May they would have probably called in their own medical adviser and have been able to produce further evidence upon the point of the likelihood of recovery had the patient submitted to Dr. Stewart's further treatment. The result was that no compensation could be awarded.

## LIBEL ON A MEDICAL PRACTITIONER.

ELLEN CHAPMAN, the woman charged with having wilfully and maliciously libelled Dr. James Pearse of Trowbridge, as reported in the JOURNAL of March 25th, p. 729, was removed to the prison at Devizes; Dr. Mackay, medical officer of the prison, reported to the Trowbridge Bench on Thursday, March 23rd, that he considered her to be insane. She was formally committed for trial.

## FEES FOR MEDICAL ATTENDANCE IN INDIA.

A. A. P.—Fees for medical attendance, etc., recoverable in Indian law courts depend on local usage and on the status of the medical practitioner and position of the patient. These matters are ascertained by the judge by means of evidence, and his decision is given accordingly. There is no authoritative code of rules regarding fees in India; the gold mohur (Rs. 16) has been established and recognized by custom as the basis of ordinary remuneration for a single service, and multiples of it for extraordinary services such as night visits, confinements, operations, etc.; but this basis of charge is subject to very considerable modification according to circumstances. Resort to law courts for the recovery of fees is extremely rare in India.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## THE OBLIGATIONS OF A SUBSTITUTE.

F. C. writes: A. buys a practice from B.; C. is another practitioner in the same district who has frequently done B.'s work when he has been ill or away. Naturally many of the patients knowing C. call him in when B. has gone; is it correct for C. to accept them?

*** While it cannot, we believe, be said that a person in C.'s position must refuse to take patients with whom he has become acquainted in the manner described, yet where a practice has been sold owing to a death vacancy or serious illness, when there has been no introduction and the price paid depends upon the receipts, there is a fraternal obligation to give the purchaser a fair chance by recommending old patients to go to him.

# Obituary.

## THOMAS REID, M.D., LL.D.,

CONSULTING OCULIST TO THE WESTERN INFIRMARY AND THE CHILDREN'S HOSPITAL, GLASGOW.

By the death of Dr. Thomas Reid the medical world of Glasgow loses its oldest and most distinguished ophthalmologist. He was born in Shotts in 1830, and was thus at the time of his death in his 81st year. He pursued his medical studies at Glasgow University, and graduated M.D. in 1857. Previous to his study of medicine he had for some years been trained as an engineer, and the mechanical dexterity obtained in this way stood him in good stead during later life.

After graduating he commenced practice in Glasgow, but soon became warmly interested in ophthalmology. After being in general practice for over ten years he joined the staff of the Eye Infirmary, and thereafter gradually devoted himself more and more to eye work and withdrew from general practice. He was essentially a broad-minded man, deeply interested in all scientific matters, and though eye work became his special subject he was ever alive to the wider claims of science and never restricted his studies within the narrow limits of one branch of medicine. Thus, in the early days of microscopic research, Dr. Reid did work which was little short of marvellous considering the poor facilities and defective apparatus at his disposal.

His work with the microscope brought him into touch with Professor Allen Thompson, a connexion which proved valuable when, on the death of Dr. Rainy, the Waltonian Medical Lectureship fell vacant. At the instigation of Professor Thompson, Reid applied for and was appointed to the vacant post. The Waltonian Lectureship was founded at the end of the eighteenth century, and the lecturer is required to take for his subject that branch of medicine or science connected with medicine which may be assigned to him by the governing body of the university. From its inception the lectureship has been utilized to teach important subjects not otherwise provided in the medical schools. Thus in turn it provided for lectures in midwifery and materia medica before the foundation of systematic chairs in these subjects. From 1831 the lectureship had been devoted to ophthalmology, a subject not then compulsory in the medical curriculum. For twenty-seven years Dr. Wm. McKenzie had lectured on ophthalmology, and in 1871 Dr. Reid took up McKenzie's work. He continued to hold the lectureship till 1900, when he resigned it on retiring from active hospital work. During this long tenure, Dr. Reid, though never attracting large classes, carried on the teaching of ophthalmology with great success. His enthusiasm and his scientific manner of discussing varied problems made his lectures interesting, and as he had as a rule only a select number of students, representing the very best type, he was able to discuss points of interest in an exhaustive fashion.

Apart from his teaching work, Dr. Reid was keenly interested in many other aspects of scientific work. He was one of those who gave financial assistance to the Millport Marine Biological Station. He was ever deeply interested in histology. His work on the anatomy of the special sense organs is well known, and in later years he became a thorough master of the art of microphotography. For a series of photomicrographs which he exhibited at a congress in the University of Turin he was awarded a gold medal. Though he contributed many articles to the medical journals, Dr. Reid never did himself full justice in this respect. He was interested in research for its own sake, and therefore, unfortunately, much of his work will have no permanent record.

One of the old type of medical men, Dr. Reid filled a somewhat unique position in local medical circles. An unassuming man, he never took a prominent place in society, but by a large circle of intimate friends he was appreciated and honoured, not only for his great scientific attainments, but also for his character and lovableness. Among the well-deserved honours which he received was that of LL.D. from his Alma Mater, conferred on him in 1896. In 1908 the King of Italy made him Commendatore of the high Order of the Crown of Italy.

## WILLIAM PALEY, M.D., J.P.,

PHYSICIAN EXTRAORDINARY, PETERBOROUGH INFIRMARY.

DR. WILLIAM PALEY, formerly of Peterborough, died on March 13th at Ealing, where he had lived with one of his married daughters since 1903. He was in the 95th year of his age, but retained his mental abilities and active outdoor habits until within a few weeks of his death. Born in 1816, Dr. Paley received his medical education at the London Hospital, becoming M.R.C.S. in 1839 and M.D. Lond. in 1842. With Peterborough, where he established himself soon after this date, he had an hereditary connexion, his grandfather, the author of the famous *Evidences of Christianity*, having been born in that city. Originally joining the infirmary as a house-surgeon, Dr. Paley was appointed Physician to it in 1846, held office as such for over thirty years, and then remained connected with it as Extraordinary Physician for an almost equally long period. Professional success came to him early. His own practice was large, and for many years he was in constant request throughout the Fen country as a consultant in medical cases. During the latter part of his professional career Dr. Paley associated with himself his eldest son, and it was on the death of the latter that he finally retired from practice. As a citizen Dr. Paley was equally successful. When still quite young he was elected to the mayoralty, an office then only of recent creation in Peterborough. He continued to play a prominent part in public affairs until his departure in 1903, an event which was marked by a public presentation to him in acknowledgement of the services he had rendered to the town. A man of strong religious convictions, excellent judgement, abundant nervous energy, and passionately fond of active outdoor exercise, he enjoyed general esteem, and had held office as President of the Cambridge and Huntingdon Branch of the British Medical Association.

His funeral took place at Peterborough on March 16th, and was attended by the Mayor and Corporation, representatives of the Bench, the infirmary, and the medical profession, and by the Bishop of Leicester and other clerics. Dr. Paley was predeceased by his wife and by both his sons.

## ARTHUR FRAME JACKSON, B.C., M.B.CANTAB.

A REMARKABLE tribute was paid to the memory of Dr. A. F. Jackson, who died of plague at Mukden on January 25th, by His Eminence Hsi Liang, the Viceroy of the three eastern provinces. Dr. Jackson, who was only 26 years of age, had gone out to China as a medical missionary last September, and was serving at the Mission Hospital, Mukden, when the epidemic broke out. He was educated at the Universities of Cambridge and Liverpool, taking the degrees of B.C. (1908) and M.B. (1909) from the former university, and the diploma of Tropical Medicine from the latter (1910). He had served as House-Surgeon and House-Physician to the Royal Infirmary, Liverpool. The Viceroy's speech was delivered at a solemn memorial service, and although it has already been published in this country we think that it will be interesting to many readers. Even in a translation it retains some of the eloquence which it possessed in its native tongue.

We have shown ourselves unworthy of the trust laid upon us by Our Emperor; we have allowed a dire pestilence to overrun the sacred capital.

His Majesty, the King of Great Britain, shows sympathy with every country when calamity overtakes it; his subject, Dr. Jackson, moved by his Sovereign's spirit, and with the heart of Christ, who died to save the world, responded nobly when we asked him to help our country in its time of need.

He went forth to help us in our fight daily, where the pest lay thickest; in the midst of the groans of the dying, he struggled to cure the stricken, to find medicine to stay the evil.

Worn by his efforts, the pest seized upon him, and took him from us long before his time. Our sorrow is beyond all measure, our grief too deep for words.

Dr. Jackson was a young man of high education and great natural ability. He came to Manchuria with the intention of spreading medical knowledge, and thus conveying untold blessings on the Eastern people. In pursuit of his ideal he was cut down. The Presbyterian Mission has lost a recruit of great promise, the Chinese Government a man who gave his life in his desire to help them.

O, Spirit of Dr. Jackson, we pray you intercede for the 20,000,000 people of Manchuria, and ask the Lord of Heaven to take away this pest so we may once more lay our heads in peace upon our pillows.

In life you were brave; now you are a Spirit, Noble Spirit, who sacrificed your life for us, help us still and look down in kindness upon us all.

### THOMAS DOBSON, M.D.

AT the advanced age of 93, there has passed away one of the most respected of the medical men of Leeds in the person of Dr. Thomas Dobson, whose death occurred on March 26th at his residence in Marshall Street, Holbeck, Leeds, where the whole of his long professional life was passed. After the customary pupilage with a practitioner of Leeds, Dobson became a licentiate of the Society of Apothecaries in 1840, subsequently adding to this the Membership of the Royal College of Surgeons of England and the Licentiateship of the Royal College of Physicians of Edinburgh, and then in 1861 proceeding to the degree of M.D. at St. Andrews.

Though Dr. Dobson was a man of many parts, taking a keen interest in public affairs, both political and social, and though he filled many positions of public responsibility, he will be best remembered by his numerous professional and lay friends and by several generations of patients as a medical man of the very best type. His public work embraced such various spheres of activity as the Leeds Town Council, the Holbeck Board of Guardians, the Holbeck Mechanics' Institution—in the foundation of which he was associated with the late Lord Airedale, and of which he was at one time President—and the Leeds and Holbeck Permanent Building Society, of which for many years he was the honorary head.

Dr. Dobson's professional work consisted in the building up and in the maintenance of a large working-class practice. He was a man of the most strenuous activity, and the amount of work he got through in his earlier days would probably surprise even the more diligent of the younger medical men of to-day. He was a man of sterling integrity and always actuated by the highest ideal of professional conduct. Dignified in demeanour, courteous in manner, and kindly in disposition, he was for many years honoured and respected not only by his patients, but by a very large circle of the general public of Leeds.

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WE regret to announce the death at the Queen Alexandra Military Hospital, Millbank, after an operation, of Major ARTHUR FREDERICK TYRRELL, Royal Army Medical Corps. Major Tyrrell was born in 1865, and received his medical education at Middlesex Hospital, became L.R.C.P. and M.R.C.S. in 1888. He entered the Army Medical Service in 1892. He served in the North-West Frontier of India campaign in 1897–8, receiving a medal with clasp, and in the South African war in 1900–2, when he was Orderly Officer to the Principal Medical Officer in South Africa; he was present in operations in the Transvaal, was mentioned in dispatches, made Brevet Major (1902), and granted the Queen's medal with four clasps and the King's medal with two clasps.

# Public Health
AND
# POOR LAW MEDICAL SERVICES.

### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Heston and Isleworth Urban District.*—Based upon an estimated population of 36,311 persons, the birth-rate in 1910 was 30.8 per 1,000 of the population, the death-rate from all causes 14.0 per 1,000, and the infantile mortality-rate was 106 per 1,000 births. The medical officer of health, Dr. G. F. Buchan, considers that the latter death-rate is capable of being considerably reduced, and he records with satisfaction the decision of the council to appoint a lady health visitor, who, he considers, ought to exert a beneficial influence in reducing the number of infantile deaths. The council has decided to promote a bill in the Parliamentary Session of 1912 to enlarge its powers with regard to the local government of the district. Dr. Buchan has included in his report suggestions as to powers it is desirable should be obtained in connexion with sanitary matters. He advises the inclusion in the bill of the model milk clauses, of provisions relating to the manufacture of ice-cream, to the licensing of slaughter houses and of common lodging houses, with regard to the registration and regulation of hairdressers' establishments, and for other purposes.

*St. Anne's-on-the-Sea Urban District.*—The medical officer of health, Dr. F. Booth, has estimated the population of St. Anne's-on-the-Sea at the middle of 1910 at 11,033. This estimate is not calculated in the usual manner on the assumption that the annual increase in the current decade is the same as that which prevailed in the previous ten years, but upon the number of inhabited houses in the district. The birth-rate during 1910 was 11.7 per 1,000 of the population, the death-rate from all causes 7.8 per 1,000 and the infantile mortality-rate equal to 69 per 1,000 births. Measles is compulsorily notifiable in the urban district. It would have been of interest to have had Dr. Booth's opinion as to the advantages or otherwise which he has found to follow this course. Presumably he is satisfied with it, for he advocates the compulsory notification of phthisis. Six cases of typhoid fever occurred during the year, some of which were associated with the consumption of cockles. The veterinary inspector and Dr. Booth have distributed among the dairy farmers of the district a card on which are printed suggestions for the management of dairies, cattle, etc., on up-to-date lines. The inclusion in the report of a copy of the card would have added considerably to its value.

# Medical News.

THE Hunterian Society on March 22nd awarded its medal to Dr. Davenport Windle for an essay on abnormal forms of breathing associated with pulsus alternans and angina pectoris.

UNDER the will of the late Mr. James Archibald Duncan, at one time member of Parliament for Barrow-in-Furness, Perth New Infirmary receives the sum of £500.

THE King has been graciously pleased to accede to a request by the Committee of Management that the two central Ward Blocks of the new King's College Hospital at Denmark Hill should be named the King Edward VII Block and the King George V Block.

THE Bakerian Lecture before the Royal Society will be given by Professor the Hon. R. J. Strutt, F.R.S., on Thursday next, at 4.30 p.m. The lecture, which will describe a chemically active modification of nitrogen produced by electric discharge, will be illustrated by experiments.

AT a meeting of the council of the Hospital Sunday Fund for London on March 28th the question was considered whether the Fund should tacitly approve of certain hospitals, to which it customarily makes awards, participating in the proceeds of cinematograph entertainments on Sundays. Eventually the council adopted a resolution to the effect that in the event of it being found that the Fund suffered from the practice in question, the Distribution Committee should take this fact into consideration in making awards to the hospitals concerned.

A MEETING of the Organizing Committee of the Seventeenth International Congress of Medicine, to be held in London in 1913, was held at the Royal College of Physicians on Wednesday afternoon under the presidency of Sir Thomas Barlow. It was settled that the opening session of the Congress should take place on Wednesday, August 6th, and the closing session on the afternoon of Tuesday, August 12th, 1913. The date of opening had, it appeared, been to some extent determined by the fact that August 4th will be a Bank Holiday in England. Various matters with regard to the arrangements of sections were considered, and it was determined that an exhibition of medical and surgical appliances should be held.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C,, on March 17th, 1911, Dr. de Havilland Hall in the chair. The accounts presented showed that the business of the society during the first three months of this year had been exceptionally good. These months always produce a large number of sickness claims, and a considerable number of applications had been received; but for the most part the illnesses were of unusually short duration, and the total amount of sickness pay disbursed had been below the average expectation, and therefore much under the amount anticipated. Since January 1st a greater number of new proposals had been received than in any previous period of equal length since the society first started operations in 1884. As no commission is paid and no expenditure incurred for advertisement, this seems to show that the growth of the society is quite natural, and may be expected to continue. Another very gratifying fact is the large increase in the number of those members who avail themselves of the recent alterations in the rules to increase the amount of sick benefit they have previously secured. In 1910 the number of such increases was greater than in any previous year. These increases, generally to £6 6s. or £8 8s. per week, are, of course, accompanied by a solid increase in contributions. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

D. asks for advice as to the treatment of extremely painful feet in a lady aged 44, otherwise healthy. She is not flat-footed; there are no physical signs of any abnormality.

### TREATMENT OF PROSTATIC URETHRITIS.

INQUIRER asks for the experience of other practitioners in the treatment of prostatic urethritis where saturated solutions of tannic acid have been tried, and whether any complications (vesiculitis, blood poisoning, or abscesses of the follicles of the prostate gland) have followed such applications, by the tannin uniting with the albumen and forming an insoluble albuminate and so blocking up the ejaculatory and prostatic ducts. He has never seen tannic acid used stronger than ℥ss ad ℥j.

### RESCUE WORK IN MINES.

RESCUE asks to be referred to textbooks or monographs on rescue work in mines giving technical details of the apparatus employed and directions for training of rescue parties.

*** A full description of the chief forms of rescue apparatus, with illustrations, will be found in the First Report of the Royal Commission on Mines (Parliamentary Paper Cd. 3548, 1907, price 1s. 3d.). Directions for the organization and training of rescue parties and the conduct of rescue operations will be found in Appendices to the Second Report of the Commission (Cd. 4820, 1909, price 3s. 6d.).

### ASTIGMATISM AND INTOLERANCE OF MYDRIATICS.

EXILE writes that a lady examined five years ago by an ophthalmic surgeon without the use of atropine now requires alteration in her glasses for hypermetropic astigmatism; she suffers from constant headaches, and is extremely intolerant of atropine, the instillation of a few drops being followed within twenty-four hours by headache, palpitation, frequent pulse, and nervous excitement; homatropine has very similar results. Retinoscopy attempted under these circumstances showed much spasm of accommodation. He asks how correction is to be arrived at.

*** As our correspondent resides in a remote part of the empire, we have referred his inquiry to Mr. Devereux Marshall, who advises as follows: Such a case is extremely difficult to treat, and it may not be possible to correct the refraction satisfactorily without a mydriatic. An attempt should be made to do a retinoscopy even without a mydriatic if that causes such unpleasant symptoms. Whether a good result will be obtained or not is doubtful, though it is quite possible that an expert might be able to get at the truth even under unfavourable conditions. Such a case is very hard on any surgeon who is not constantly doing refraction work. There is not, unfortunately, any easy way in which to treat such a case, and nothing but care and attention at the hands of a skilled ophthalmologist is likely to overcome the difficulty. It is not probable that matters would be assisted by any of the complicated instruments which are frequently sold. Possibly the extrinsic muscles of the eye may be at fault, and these should be investigated, though it is a long and complicated process.

## ANSWERS.

IN reply to "Dublin," who asks for information as to a preparation of iron suitable for injection, we would suggest the green ammonio-citrate of iron in half-grain doses.

DR. H. J. THORP (Ipswich) recommends "W. J. L." to try in treatment of epilepsy: ℞ Pot. iodi., ℥ij; pot. brom., ℥j; am. brom., ℥iij; am. carb., ℥j; tr. calumb., ℥j; aqua ad. ℥vj M.Ft.mist. One teaspoonful before each meal, and three teaspoonfuls at bedtime. If *petit mal* exists alone, or coexists with complete epilepsy, the dose of am. brom. must be larger and that of the other diminished. If the epilepsy depend on some visceral affection, the treatment should be directed against that affection. There should be no cessation whatever in these remedies for two years after the date of the last attack, not even for a few days.

### DROSERA (SUNDEW).

H. L.—Drosera (*Drosera rotundifolia*, sundew) and a tincture made from the whole plant (1 in 5) are official in the French Pharmacopoeia (1908). The plant yields (*National Standard Dispensatory*, 1905) a greenish brown, odorous, very acrid resin, glucose, citric and probably malic acid, and a ferment which converts albumen into peptone. It is added that "sundew has been recommended in the treatment of chronic bronchitis, whooping-cough, and tuberculosis, but probably has no medicinal value in these conditions." The dose is stated to be 5 minims of a 10 per cent. tincture. Our correspondent has heard that the preparation is in Norway regarded as a specific for whooping-cough, and asks if any British practitioners have had experience of the drug.

## LETTERS, NOTES, ETC.

### DEATHS UNDER SALVARSAN.

MAJOR H. C. FRENCH, R.A.M.C., writing from Malta, states that he was recently informed by a visitor from Cairo that a Syrian in that city had died suddenly four hours after receiving an injection of salvarsan. Major French states that fifteen other deaths after the use of this drug have already been reported, and asks whether our readers know of any other fatalities. He quotes Dr. Lieven of Aix-la-Chapelle, who stated after a visit to Berlin that "there were 30 to 40 per cent. of relapses in the first three to five months—roseola, mucous patches, etc. The roseola took a long time to disappear." Major French observes that it is desirable that in cases of death the dose should be stated. He adds that in Berlin a good many cases of necrosis have been observed after hypodermic injection, and that Dr. Lieven had stated that a claim for damages had been made in consequence of those sequelae. Major French concludes as follows: "Syphilis, unlike cancer or sleeping sickness, is not a fatal disease, and when safer, cheaper, and infinitely better remedies, which have stood the test of centuries and are conclusively supported by recent modern research, lie ready to our hand, the practice of getting the patient's consent in writing before employing salvarsan appears to be a wise precaution."

### PERNICIOUS ANAEMIA TREATED BY SALVARSAN.

DR. W. RINGROSE GORE (Llandrindod Wells) writes: The article by Dr. Byrom Bramwell (JOURNAL, March 11th, p. 547) on the treatment of pernicious anaemia by the injection of salvarsan is of peculiar interest in view of the suggestion that has been made that it is a trypanosome disease. The primary improvement and later toleration to arsenic is with the general course of the disease most suggestive of this cause.

### A DISCLAIMER AND AN EXPLANATION.

MR. FREDERICK DIXON (Office of District Manager of the Christian Science Committees on Publication for Great Britain and Ireland) writes, in reply to Mr. Stephen Paget's disclaimer, published in the JOURNAL of March 25th, p. 732, to the effect that he had occasion to refer to Mr. Paget's remarks on Christian Science owing to his name being dragged into the *Saturday Review* by an anonymous writer. Later, he says, he had occasion to refer to certain remarks by Dr. Page on appendicitis, and the typesetter, evidently becoming mixed between Mr. Paget and Dr. Page, produced the latter's name as Dr. Paget.

### TO MASONS.

THE EDITOR has received from a correspondent three votes for boys at the election to the Royal Masonic Institution for Boys and one vote for a girl at the corresponding institution for girls. The forms do not indicate whether any of the candidates are connected with the medical profession.

DR. WILLIAM WILSON (Secretary, St. Luke's Medical Lodge of Instruction, 184, Goldhawk Road, W.), writes: May I once again, through the medium of your widely-read columns, appeal to medical men, and medical Freemasons in particular, for votes for the Masonic charities. At the forthcoming elections there are four medical candidates. Votes for any of the Masonic institutions are equally valuable, as exchanges can be affected, and will be gratefully receive and acknowledged by me.

### BEGGARS AMONGST MEDICOS.

A CORRESPONDENT who describes himself as a member of the British Medical Association, Medical Defence Union, and Medical Sickness Assurance Society, writes: Men who do not attempt to insure against death and sickness are acting selfishly in relation to those dependent on them. Some of us have paid hundreds of pounds, which have gone to help other unselfish insurers, as we have not needed any help ourselves. This is the just answer to the begging letters which at intervals come round.


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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|---|---|---|---|
| Eight lines and under ... ... ... ... | 0 | 4 | 0 |
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An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers

# The Oliver-Sharpey Lectures

# HEART FAILURE.

Delivered before the Royal College of Physicians of London,

by

JAMES MACKENZIE, M.D.Edin., LL.D.Aberd., M.R.C.P.Lond.,

lecturer on cardiac research, London hospital; physician, mount vernon hospital, etc.

## Lecture I.—An Analysis of the Present-day Conception of Heart Failure.

Mr. President and Gentlemen,—I thank you for the honour you have conferred upon me in inviting me to give these lectures.

In seeking for a suitable subject, I considered the type of lecture usually given before you, and I found that most of your lectures deal with observations made in laboratories, or drawn from hospital experiences, and rarely, if ever, deal with practical observations derived from general practice. It is now many years since it was forced upon me that the study of disease and its treatment would never be satisfactorily accomplished until the general practitioner took his share in the work of research. Hitherto his position in the rank of investigators has not been appreciated, and if he has had no actual discouragement, his attempts have been too often received with a chilling indifference. The need for his help will be realized if we but reflect upon our imperfect knowledge of the course of many chronic diseases, where neither the inception nor the different phases of the progress are understood. Usual exponents of medical science are not brought into intimate contact with the varying manifestations of disease. The trivial ailments by which the beginning of the diseases are often made manifest are lost to them. The subtle changes that go on as the disease advances are usually missed, and the links between the stages are too often based on inference alone. When such a process takes the place of observation in the study of disease, it may be taken for granted that the result will be entirely unsatisfactory. On the other hand, the general practitioner has the opportunity of seeing all the changes as they proceed and the behaviour of the individual under all sorts of conditions. Were he helped and encouraged, his assistance would be found invaluable. But it needs a patience and a perseverance that is called for in no other line of investigation, for he may have to watch individuals for decades for the solution of a problem.

I have therefore chosen my subject with the twofold object of demonstrating, first, the need for observation, such as the general practitioner alone can undertake; and, secondly, the results that have been obtained by such a line of observation. I feel, however, that an apology is needed for the imperfection of the observations I propose to place before you. When I began these observations it was not with any expectation that they would yield results of much value, and it was only as time went on that the importance of the investigations dawned upon me. Imperfect as they are, I am not without hope that they may throw some light on disease processes, and justify the views I have expressed as to the line of observations I have mentioned.

If an attempt be made to obtain some definite conception of the present-day aspect of heart failure and the significance of symptoms, no account of sufficient precision is to be obtained from the study of any textbook. The subject is of so much importance and touches the members of the profession so closely and at so many points that it is a matter for marvel that writers have not realized the necessity for formulating their ideas in language that the student or reader can appreciate. The reason for this absence of definition is probably because most writers have not had the opportunity of watching the development of disease in individual cases for long periods of time. They have devoted themselves mainly to describing the details of the numerous features by which the circulatory system is made manifest to us. As these features vary in character, those that most impress the observer's senses have been elevated above their fellows, and an undue significance attached to them. For this reason, phenomena that appeal to the sense of hearing are considered to be the chief manifestations of disease, and we find that the majority of diseases of the heart are described according to the auscultatory phenomena associated with them. In thus accentuating the importance of limited lesions, the appreciation of the heart's action as a whole has been lost sight of, with the result that the real significance of symptoms has never been fully appreciated, while the study of heart affections from the point of view of isolated disease has actually led to a misinterpretation of the meaning of many of the most obvious phenomena.

It seemed, therefore, not inappropriate that I should take the opportunity of presenting to you a view of heart failure which I have employed for many years, and which in the vast majority of cases has given me a satisfactory basis on which to determine the value of phenomena, even when I had a very imperfect notion of the manner of their production.

Before elaborating the manner in which I seek to estimate the degree of heart failure and the significance of symptoms, I think it necessary to demonstrate the need for such a procedure, following in this respect the method of theologians, who teach that, before a sinner is fit for repentance, he must be brought to an appreciation of his own shortcomings.

### *The Popular Conception of Heart Failure.*

Let us consider how the average medical practitioner acquires his ideas of heart failure. A young fellow has passed all his examinations, and may have had some hospital experience as a house-physician. He passes into general practice, and is surprised to find that diseases present very different aspects from what he expected. During his hospital experience he has seen many patients seriously ill from heart failure. In some murmurs have been detected, and the valve lesions have been regarded as the cause of the heart failure. The patients have died, and the diagnoses have been verified, for the suspected valves have been found thick and shrunken, and the cause of death has been duly certified as disease of the valves. The manner in which heart failure had been brought about has been explained to him: the systolic murmur indicated incompetence of the mitral valve, the leak from the left ventricle had distended and embarrassed the left auricle, stasis in the lungs, with subsequent embarrassment of the right ventricle had been produced, and this, again, had been followed by dilatation of the right ventricle, with consequent tricuspid regurgitation, irregularity of the heart's action, embarrassment and dilatation of the right auricle, back pressure into the veins, followed by dropsy and enlargement of the liver. This view presented such a simple and intelligible explanation that he never dreamt of calling it into question.

With this belief in the mechanical production of heart failure, we can readily understand how the practitioner came to estimate the significance of a mitral systolic murmur. The heart failure is sometimes divided into stages, more or less corresponding to certain evidences, which are taken to indicate stages in the gradual process of heart failure by backward pressure. Consequently any given case is placed in a definite stage, according to the presence or absence of certain phenomena. Even a person who is in perfect health, when a murmur is detected, is looked upon as being in the first stage, with what is called "good compensation." That is to say, the individual is considered to have a valve defect, and that defect indicates disease, or at least impairment of the functional activity of the heart, and it is but a matter of time when the heart will no longer be able to maintain the circulation, and heart failure is bound to follow.

He has also been taught that a heart to be normal must be regular in its action, so every form of irregularity is looked upon as a form of disease. As time goes on he finds murmurs and irregularities at all ages, in the young, in the middle-aged, and in the old. He detects them in people in the enjoyment of good health. He frightens many with his evil prognostications, he forbids the young to play games, he rejects people for life insurance. As

years pass, for one case where his prognosis has come true there are dozens who have falsified it. He seeks more light, and turns to the writings of authorities. He wants to know the significance of irregularities. His own ideas are confused, and the numerous authorities but add to his bewilderment. Many carefully avoid all reference to the subject, others speak with mingled courage and fear—irregularities may be of little significance, but on the other hand, they may be grave—in certain cases they are of no importance, in others they are of serious importance. But how to distinguish the serious from the harmless he can find no answer. It is the same in regard to murmurs. His experience has shown that many individuals in whom he detects murmurs do not suffer from heart failure. Again, authorities are silent on the differentiation of the serious from the harmless, and although most writers recognize that there are differences of significance, yet practically all agree that murmurs are evidence of impairment, if not disease, and no clear definition can be gleaned of the real significance.

The views I have put forth represent broadly the manner in which heart failure is viewed by the practitioner, and when we come to the higher authorities we get little further satisfaction. It is a matter of everyday experience to find cases judged and treated, because of some supposed abnormality, as a murmur, an irregularity, or an increase in the size of the heart. I fully acknowledge that many physicians do recognize differences in the significance, and do give valuable and trustworthy opinions. But when we inquire upon what grounds this differentiation is based they fail to produce evidence sufficiently tangible for practical use, and I do not think I am overstating the case if I assert that to-day many leading authorities would admit that a murmur or an irregularity or an increase in the size of the heart, singly or altogether, implies impairment if not disease.

*Origin of the Conception of Heart Failure.*

In order that the profession may appreciate the position held in regard to heart failure and the significance of such symptoms as murmurs or irregularities, it will be profitable to inquire into the origin of some of our most cherished beliefs. If we would really seek to find the true reason for many accepted beliefs, we must first consider those who propound them. For that purpose it is necessary to consider the mental attributes of the physician himself. It is a characteristic of the human mind, seen in primitive man, in the child, and in the scientist, to attribute to malign influences phenomena which are obscure in origin and which are assumed to be unnatural.

Our profession is not immune from this trait of seeing evil in the unknown. It is the cause of many gloomy forecasts. The real nature of heart failure not being understood, and experience showing that death occurs unexpectedly, signs or symptoms which are considered abnormal, and whose nature is not known, are viewed with suspicion or as portents of evil. So general is this tendency to imagine evil in the unknown that I am continually seeing members of our profession who are apprehensive because in themselves or their patients some supposed abnormality has been observed in the heart's action. I also see a large number of people who are handicapped in their life's work, subjected to long periods of treatment, and made readily apprehensive because of this tendency to see evil in that which is not understood.

To obtain a just appreciation of the significance of any symptom it is simply necessary to seek out its cause and its bearing on the heart's efficiency. Before we proceed to inquire as to the significance of such symptoms as murmurs and irregularities, it will be instructive in the first instance to see on what grounds they were assumed to be evidence of cardiac infirmity. Practically in all the present-day teaching their significance is taken for granted. If it be borne in mind that murmurs were practically not recognized till the days of Laënnec, we shall find how this mystery of sound has affected the whole profession. In Laënnec's time murmurs were looked upon as evidence of heart disease. It will be observed that this view was taught and accepted at a time when the cause of murmurs was not understood, and before any physician had observed individuals for a sufficient length of time to acquire the knowledge of what happened. That is to say, before even the most elementary facts were appreciated, a definite decision was accepted, with the result that the views so hastily acquired remain the accepted beliefs of this day. No doubt support of this view was supposed to be found in the fact that patients died from heart failure who had had murmurs during life. Later the identification of specific murmurs with certain diseased valves was supposed to establish this view. The profession, influenced by this very limited experience, has been so impressed with the association of murmurs and heart failure and diseased valves, that the great majority of heart diseases are distinguished by the noise that the heart happens to make, although these noises may have little or no connexion with the heart failure.

*The Significance of Murmurs.*

I repeat that I am well aware that many physicians do distinguish between murmurs that are functional and organic, and that some regard the former as of little significance. But I want to direct attention to the fact that the outcome of all these attempts to appreciate the nature of murmurs has been to impress the majority of the profession with the idea that murmurs are evidences of an impaired heart; and so strong is the hold that this view has upon the profession that many physicians reject all candidates for appointments or life insurance in whom a murmur is present, and army medical officers unhesitatingly reject all candidates who show a murmur or an irregularity. If you inquire from the latter the reason for this rejection, you will be told that many soldiers break down from valvular disease and irregular hearts. But I may point out that this is not proof, inasmuch as those who have murmurs or irregularities are not admitted into the army, and that those who do break down have never previously been shown to have had these symptoms.

Considering how widespread is this belief among many members of the profession, that functional murmurs may lead to heart failure, it would have been expected that numerous instances would have been published. Strange as it may seem, there is not in all the literature which I have searched the record of a single instance where people with these so-called functional murmurs have suffered from heart failure. What we do come across occasionally is an isolated reference to a case concerning which the writer expresses surprise that an individual in whom a murmur has been detected had falsified entirely the prognosis of the physician.

Seeing that murmurs were considered to be evidences of disease before even the nature of their causation was understood, it is surely time that we sought to estimate them at their real value.

*Are Murmurs Necessarily a Sign of Impairment?*

What ground is there for supposing that a perfectly normal heart should of necessity be free from murmurs? I have put such a question to many of my colleagues, and the mere suggestion of such an idea has seemed to them absolutely uncalled-for. It is an article of belief so deeply and firmly embedded as to be beyond the province of dispute, but, as a matter of fact, it is based on the assumption that the function of the valves is only to close the orifices. And yet there are no grounds to justify the belief beyond the fact that certain valvular murmurs are associated with conditions that lead to heart failure. But surely it is not logical to reason that because some valve murmurs indicate defects all valve murmurs are therefore signs of defects. The assumption has been made and taken for granted without sufficient evidence. That these orifices and valves have other functions has not yet entered into the imagination of most physicians.

If we consider the function of a healthy heart, we shall realize that a murmur may be quite consistent with perfect health. Let us take into consideration the mechanism of the tricuspid valve, for instance. John Hunter described the tricuspid valve as being barely sufficient to close the tricuspid orifice, and the experiments and clinical observations of Gibson have shown how easy it is to induce tricuspid regurgitation. A well-acting heart possesses the power of altering the size of its chambers in accordance with the calls made in its work, apart altogether from its systole and diastole. This is due to the muscular walls possessing the function of tonicity—a function which enables the heart to alter the size of the chambers in order to accommodate itself to the exigencies

of life. When we consider the extremely varied amount of effort which the heart is called upon to expend, it will be easy to understand that a physiological dilatation may often be called into operation. If, then, the tricuspid valves are barely competent, it is readily understood that a slight degree of physiological dilatation will render them incompetent.

*The Function of the Auricles.*

Moreover, if we consider the functions of the auricles, we shall find out that they are specially constructed to meet this incompetence. The older physiologists were wont to describe the main function of the auricles as being that of reservoirs, capable of varying their contents to meet the varying circumstances of cardiac activity. This is probably their most important function, for in many cases the work of the heart can be carried on efficiently when the auricles cease to act as contracting chambers, as, for instance, in certain cases of auricular fibrillation, to which I shall allude later.

*The Function of Tricuspid Incompetence.*

Wilkinson King has shown that this tricuspid incompetence, with the reservoir function of the auricles and great veins, and even of the liver, is a special provision in diving animals, and he described the modified condition in man as the "safety valve function" of the tricuspid valve.

What is the common notion of tricuspid regurgitation? In many textbooks it is looked upon as the beginning of the end. When tricuspid regurgitation sets in, the heart is supposed to have entered on a critical phase of exhaustion. This view is simply the outcome of the back pressure conception of heart failure. Many writers recognize the normal incompetence of the tricuspid valve, but the vast majority of writers do not appreciate the simple mechanism of its production in healthy hearts.

*The Harmlessness of Mitral Incompetence.*

What I have said of tricuspid incompetence applies also to mitral incompetence. The mechanism by which a functional murmur arises is probably the same. But in the case of the mitral valve we get better evidence of the harmlessness of mitral regurgitation due to damaged valves, from the study of cases with organic changes in the valves, for, as I shall show later, mitral regurgitation can go on for fifty years, with absolutely no crippling of the heart in its work.

*Are Irregularities Necessarily a Sign of Impairment?*

The same form of inquiry reveals that the significance of irregular action of the heart is misunderstood. On what grounds is it assumed that a heart to be normal must be regular in its action? A historical retrospect will throw little light upon the subject, for from the dim pages of history obscure references to irregular heart action show that it has been regarded as abnormal long before any true idea was acquired of the real causes of its production, and long before it was shown that irregularities were of different kinds, and had widely divergent significance.

Let us consider the irregularity so common in the young, where its presence is often looked upon as a sign of disease or of impairment. We know that the heart is remarkably sensitive to nerve influences. In certain individuals the respiratory movements, by stimulating the vagus nerve, produce a transient slowing of the pulse, and this may be so marked that a recognizable form of irregularity may arise from this cause alone. This irregularity occurs most markedly in the young, and mainly, if not entirely, in those with a perfectly healthy heart muscle. Any cause that irritates or excites the heart muscle, as fever, excitement or effort, at once abolishes the irregularity. So marked are these causes in abolishing the irregularity that I have for some years looked upon the presence of the irregularity as a possible evidence of the integrity of the heart muscle, and so far from considering it an evidence of disease or of infirmity, it may, within certain limits, be considered a positive evidence of a healthy heart.

*The Real Test of the Significance of Murmurs and Irregularities.*

Although it might be objected that this way of looking upon certain murmurs and irregularities as within normal and physiological limits is purely conjectural, I do not base my argument solely on such grounds. The real test of this reasoning is the practical one of close observation of individuals who have shown these murmurs and irregularities for many years, while they have been exposed to all the exigencies of a strenuous life. This test I have applied in so many cases and watched individuals for so many years that I have no hesitation in saying that the irregularity and murmurs found so frequently in the young are evidence neither of disease nor of infirmity, but are normal phenomena, and, in many cases, are positive evidences of a healthy heart.

I know very well that many physicians recognize the harmlessness of irregularities and murmurs, and are quite prepared to admit the position I have taken up when the matter is the subject of an academical discussion. I have, however, found from practical experience that these phenomena are taken, to all intents and purposes, as abnormal signs when any particular individual presents them. Thus, for instance, a youth at school or college is examined by a physician, and when these phenomena are present the symptoms are looked upon as signs of weakness, if not disease, and treatment is at once directed to their cure, and the youth is forbidden to indulge in those games and pastimes which call for strenuous exertion. Not only have I watched with particular interest individuals with these functional murmurs and irregularities, and have never seen one suffer from heart failure, but what is more significant, I have never seen, in the twenty-eight years I spent in general practice, a single case of heart failure from a functional affection of the kind with which I am dealing. I may point out that my experience has been a very extensive one, and that people whom I have observed have led hard and strenuous lives, so that the condition of life would aggravate any defect that tended to heart failure.

*The Harmlessness of Organic Murmurs.*

So far I have been dealing with what are described as functional murmurs, and many physicians recognize that these are of less significance than murmurs due to an actual lesion of the valves, and teachers usually describe certain evidences which distinguish an organic from a functional murmur. In order to appreciate better the significance of murmurs, I can cite from my experience cases with mitral disease whom I have watched for twenty to thirty years, and who have never shown the slightest sign of heart failure. From this it will be seen how unjustified is the view that mitral regurgitation is of necessity a serious trouble. The view that the auricles are adaptable reservoirs is supported by such evidence as that of a heart unimpaired by mitral regurgitation which has been going on for fifty years. Take, for instance, cases with a history of rheumatic fever, after which a rough systolic mitral murmur was left, which from its character and history and propagation leaves no doubt as to its being the result of an endocarditis, acquired during the attack of rheumatic fever. What is the significance of this murmur? We may take it for granted that an individual with such a murmur would be rejected for life insurance or made to pay an enhanced premium, while for all occupations, as the army or navy, he would be unhesitatingly rejected. Yet I have observed such patients pass into middle life and old age, some of them leading strenuous lives, and have never shown the slightest sign of heart failure.

*The Harmlessness of Organic Irregularities.*

Irregular action of the heart is in the same unsatisfactory position. Though irregularity in the human heart is a phenomenon of the greatest frequency from youth to old age, few writers attempt to deal with the subject in such a manner as to enable the reader to understand their position. They either ignore the subject (and you may find textbooks of considerable size where the subject receives at the most only an incidental reference), or they deal with the subject in such an indefinite manner that no clear idea of their position can be ascertained. On the other hand, when we come into everyday dealings with the subject, we find that irregular action of the heart is looked upon by our profession as an evidence of serious heart impairment. From middle age onwards, sometimes before, there appears in most people an irregular action of the heart of a very characteristic form. This is due to the

auricle or ventricle contracting prematurely. The contractions are often so small as not to be perceptible in the pulse, which is then spoken of as being intermittent.

As a matter of fact, after watching individuals for long period of years, I can say that the great majority of those people are in no danger, the irregularity is of no grave significance, and treatment is unnecessary. In certain grave conditions its presence may be one of several symptoms, and in such instances it is difficult to tell whether the condition producing it is related to the cause of the heart failure, and in such cases the physician must base his opinion on a study of all the symptoms. There are indeed certain irregularities which are evidence of grave exhaustion, but there are other signs by which we can appreciate the gravity of the case.

*The Back Pressure Theory of Heart Failure.*

I have already referred to the notion that heart failure with valvular incompetence or disease is due to the gradual increase of pressure in the lungs and in the chambers behind the incompetent valves. Practically the whole conception of the significance of regurgitant murmurs has been based on this conception of back pressure. In order to get a clear idea of the unsatisfactory basis on which the present day conception of heart failure rests, it is necessary to look a little more closely into this accepted doctrine.

I have failed in my endeavours to trace the origin of this notion, but have come across it evidently in full acceptation in Bellingham's *Diseases of the Heart*, published in 1857. At the period when it was accepted the meaning of the signs on which it was based were imperfectly understood. Like all theories based upon the application of mechanical laws to vital phenomena, there is some truth in it, but like all such theories, it leaves out of consideration so many factors as to render it in the main untrue. Considering the assurance with which this view is taught it might be assumed that abundant evidence was forthcoming for its support. We do, indeed, get many realistic diagrams, illustrating imaginary changes in the circulation, but there is a sad lack of trustworthy detail. I may say that I have failed to find in literature the record of a single case giving evidence sufficient to justify this explanation. Moreover, I have seen cases with their first attack of endocarditis; I have patiently followed their subsequent progress, and have seen heart failure and death ensue, but never in my experience have I seen one case which followed the course supposed to be characteristic of heart failure from back pressure. Although back pressure may be present, and may modify the symptoms of the heart failure, the back pressure is never the essential cause of the heart failure.

*The Essential Causes of Heart Failure.*

When we watch cases with heart lesions, associated with mitral disease, which ultimately lead to heart failure, we shall find symptoms arise which, if properly appreciated, give us a clue to the essential cause of heart failure. We may find, for instance, the character of the murmur changing, and the appearance of new murmurs as the years go on. This indicates that the lesion producing the murmur is not stationary, and that there are slow insidious changes going on in the heart. Now these changes are never limited to the endocardium or the valves, but invariably involve the heart muscle. When it is borne in mind that the whole efficiency of the circulation depends upon the integrity of the heart muscle it will be seen how important it is to appreciate these myocardial changes. I shall in my next lecture point out that the essential cause of heart failure is due to the changes in the heart muscle, which, by impairing its contractile force, render it unable to maintain the circulation. The valve defect which is revealed by the murmur is, as a rule, a mere embarrassment to the heart in its work. Moreover, there are many fatal forms of heart failure in which the valves are perfectly competent till the end. It must be further understood that the coincident changes in the muscle, which lead to heart failure, are not limited to one chamber, but may affect all the chambers of the heart.

Not only does this view of back pressure overlook the real source of the heart's inefficiency, but it has misinterpreted the most significant change in the heart's action, a change which induces or precipitates those signs of heart failure which are looked upon as characteristic of back pressure. It is frequently recognized that, accompanying such signs of heart failure as dropsy or orthopnoea, the rhythm of the heart has become irregular. The symptom is worked into the back pressure theory as being due to the distension of the auricles. As a matter of fact, the onset of the irregularity precedes the heart failure in a large proportion of cases, and is itself a sign of a change which has taken place in the heart's action, which at once embarrasses the heart in its work, and leads directly to extreme heart failure. This change is due to the auricles passing into a state of fibrillation, a condition which alters the whole aspect of the mechanism of heart failure.

*Auricular Fibrillation.*

In order to obtain a better view of extreme heart failure, and in order to call attention to probably the greatest discovery of practical importance that has yet been made in the domain of the clinical pathology of the heart, I will briefly describe some of the features of the condition, which we now recognize to be due to fibrillation of the auricle. I think it all the more necessary to deal with this matter, because even yet many observers who detect the cause of the altered rhythm of the heart are not aware of its immense importance. The recognition of this condition and the phenomena accompanying its onset presents the subject of the most common form of heart failure in an entirely new light, and affords grounds on which a sound prognosis and a rational therapy can be based, in many obscure cases. The response of hearts affected with auricular fibrillation to remedies differs so much from the response of hearts with the normal rhythm, that its recognition throws a light upon the action of cardiac remedies which modifies the whole conception of cardiac therapy.

*Definition of Auricular Fibrillation.*

Within the last few years the attention of those engaged in the study of the heart's action has been directed to a condition of which little has hitherto been known. Physiologists have long recognized that under certain obscure circumstances the muscular fibres of the heart muscle, in place of contracting in a normal and orderly fashion, could be put into a state where the individual fibres or small bundles of fibres contract, rapidly, and apparently independent of each other, so that the chambers cease to contract as a whole but stand still, while all their fibres are in incessant movement. The result of these fibrillary contractions is at once to suspend the contractile function of the chambers affected. When the ventricles pass into a state of fibrillation death ensues, and MacWilliam suggests that this is, in all probability, the cause of sudden death in the human subject. When the auricles pass into fibrillation death does not ensue, for the fibrillation cannot pass along the bundle which connects the auricles with the ventricles. But what does happen is that the stimuli for contraction are rapidly and irregularly thrown upon the bundle by the fibrillating auricles; and if the bundle is able to transmit the stimuli, and the ventricles able to receive them, the ventricles are stimulated in a rapid and irregular manner. In some cases we find the onset of auricular fibrillation accompanied by a rapid and irregular pulse, in others by one of moderate rate or even slower than the normal, but almost invariably irregular. This variation in rate depends upon the susceptibility of the auriculo-ventricular bundle or of the ventricle to stimuli—a point of the greatest importance when treatment has to be considered.

*Pathological Changes Inducing or Associated with Auricular Fibrillation.*

The cases in which fibrillation is most frequently found are those with a previous history of rheumatic fever, or in elderly people. The pathological changes found in the heart which seem to bear upon this question are an increase of fibrous tissue and of nucleated cells in the walls of the auricles. There are also in many cases calcareous changes in the arteries. Accompanying these changes in the auricle are similar, and sometimes more extreme, changes in the muscle walls of the ventricles, and it is very probable that the degrees of heart failure that follow the onset of auricular fibrillation are dependent on the extent of these changes in the ventricular muscle.

*Frequency of the Occurrence of Auricular Fibrillation.*

This condition, as I have already remarked, is of great importance when we come to deal with cases of heart failure. I have observed nearly a thousand cases, and watched a large number for many years. About 70 per cent. of the cases of severe heart failure met with in general practice, with dyspnoea and dropsy, owe the onset of heart failure to this condition. There are, of course, underlying conditions of the heart muscle which lead up to it, and so far as the future of the patient is concerned, it depends upon the degree of impairment of the heart muscle. In addition to cases of severe heart failure, auricular fibrillation is frequently met with in people with heart failure of varying degrees, in some with little or no impairment of the heart's efficiency, in others with long and persistent enfeeblement.

*Auricular Fibrillation and Heart Failure.*

Although I was at a loss to account satisfactorily for the mode of production of the phenomena produced by what I now know as auricular fibrillation, I had recognized twenty years ago that the group of symptoms in these patients indicated a very definite condition, which I described in my writings first as paralysis of the auricle, and later as nodal rhythm. I had therefore little difficulty in recognizing the condition when it arose. By keeping in touch with my patients I had observed cases when the fibrillation started and watched their progress. In many I found that the onset of heart failure was directly due to the fibrillation. Some of them have drifted and died, irresponsive to all treatment, within a few weeks or a few months. Others have responded to treatment, and led useful lives for many years, while others have maintained but a crippled existence. Some, on the other hand, have been very little affected, and have led energetic lives with little or no treatment. In order to be able to give a reasonable opinion as to the prospects of these cases, I have carefully observed the phenomena which distinguished those who fared badly from those who have been but little affected, and by this means I have obtained an estimation of the value of some of the phenomena and their bearing on heart failure, which I will describe in my next lecture.

*Auricular Fibrillation and the Back Pressure Theory.*

It is necessary to recognize that auricular fibrillation is not the outcome of back pressure, inasmuch as I have seen it repeatedly in individuals in whom there were no signs of cardiac enfeeblement, even after its inception. In many cases its inception was at once followed by the first symptom of heart failure. Why this should happen will be understood when it is recognized that the four chambers of the heart are simultaneously thrown into abnormal action. The auricles are standing still, so that the heart loses what benefit is obtained by the orderly contraction of these chambers. In the cases that do badly the ventricles are stimulated to rapid and irregular action. They are not filled in the normal fashion. The periods of rest between the beats are shortened, and are of insufficient length to restore the strength of the heart muscle. The beats therefore are less effective, and with persistence of the rapid rate, exhaustion of the heart muscle sets in, and gradually there supervene all the phenomena which we recognize as characteristic of extreme heart failure. This explanation dealing with a certain class is borne out in many ways, but I refer to it here in order to show that heart failure in these cases does not follow the route mapped out in the scheme of back pressure, but that all four chambers are at once rendered inefficient.

*The Inadequacy of the Back Pressure Theory to Explain Heart Failure.*

To sum up, the theory of heart failure from back pressure lays stress upon and magnifies factors of little importance and ignores entirely the essential factors in the production of heart failure. The back pressure theory leaves out of consideration the fact that the valve lesion may be a steadily progressive one, and it omits the still more important fact that there are coincident changes going on in the structure of the heart muscle, impairing its efficiency, and leading up to the essential cause of heart failure. But most important of all, this back pressure theory has failed to recognize that the changes which have led directly to the production of heart failure and produced such symptoms as dyspnoea, dropsy, enlargement of the liver, are due to the sudden inception of a different rhythm in the heart's contraction by fibrillation of the auricle.

The main object I have had in this lecture was to show that the accepted view of heart failure has been based upon a misconception of the means by which it has been brought about, and that certain phenomena associated with heart failure had attributed to them, in consequence of this association, a significance which they do not possess. To obtain a just estimate of their significance, and a clear idea of what is really the essential nature of heart failure, is the subject to which I propose to devote myself in my next lecture.

# An Address

ON

# ANTIVIVISECTIONISTS AND THE RESEARCH DEFENCE SOCIETY.*

BY

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Mr. Chairman, Ladies, and Gentlemen,—I have thought that it might be of interest to this society to put before it the views which have been propounded by the antivivisectionists, seeing that it is the object of our society to combat those views. In order to obtain them we need look no further than the five volumes which have been already issued in the reports of the Commission on the Act which is known as the Cruelty to Animals Act, 39 and 40 Vict., cap. 77. I am not going to burden you with many details upon this subject, but in order that you should understand the kind of views which are held by our opponents I have called a few excerpts from the statements of representatives who were sent up to give evidence before the Commission on behalf of their societies.

*Place aux dames.* One lady, an authoress and theosophist, appeared as the representative of a society calling itself the Parliamentary Association for the Abolition of Vivisection. She began by stating that the practice of vivisection causes great moral and ethical deterioration of the race which far outweighs any conceivable value. She then proceeded, on being questioned with regard to this extraordinary statement, to admit that she had no evidence in support of such deterioration, but that in her opinion animal experimentation was not justifiable, even if 20,000 lives a year could be saved by it. That, for example, in India, where 20,000 people a year are killed by snake-bites, if a method could be devised which involved experiments on animals, and which would prevent these deaths, it would not be justifiable to employ it. She further admitted that, in her opinion, it is not justifiable to inoculate a guinea-pig with milk in order to determine whether the milk is deleterious to infants—whether it is capable of communicating tubercle or other disease to them. This lady objects to any exploitation of animals. She was not asked the question, but I have no doubt that, quite consistently, she would object to the miner taking a mouse with him into the pit in order to see if the air which he was to breathe was respirable or irrespirable, or of a sparrow being lowered into a well in order to see if a man could live in that well or not.

Another lady, also an authoress, who came as a representative of the same association, objected to animals being even treated by inoculation to prevent illness. She thinks this should be left to Nature; if Nature chooses to kill an animal by a particular illness, then let it die. This is not a sentiment which would appeal to farmers, who know that by certain inoculations they can save their animals in times of epidemic, but it is, at any rate, consistent. She does not deny the possibility of prevention or cure,

*Delivered at the annual meeting of the Dublin Branch of the Research Defence Society, held on March 24th.

but would not avail herself of it. There is another class of antivivisectors who are not prepared to say that we are not to accept benefits which can be obtained from experiments upon animals, but, in order to get over the difficulty they would be placed in by such acquiescence, they refuse to admit that any benefit has ever been discovered, or that any utility has ever come out of experimentation; they refuse to believe that animals can be immunized from such a disorder as rinderpest, or that diseases can be diagnosed by injections of such substances as tuberculin or mallein. They reject demonstrable facts.

Other persons who came on behalf of the antivivisection societies made the wildest of statements. One gentleman informed the Commission that hundreds of thousands of dogs had been used for experiments in order to determine the functions of the brain. This is obviously a ridiculous exaggeration. I do not suppose that a hundred animals have been used for this determination. At any rate, to talk of hundreds of thousands of dogs being sacrificed for the purpose is sheer nonsense. Yet it is made explicitly before a Royal Commission, and appears in black and white, and such a statement is quite likely to be taken up by antivivisectionists and published as if it were an actual fact. But this gentleman is not satisfied with the result of such experiments. Assuming hundreds of thousands of dogs were sacrificed—he says that the result of this is that only 33 per cent. of the cases operated on in man recover. Supposing one-third of the cases operated on recover, what would we not sacrifice in animal life in order to obtain such a result? As a matter of fact, the sacrifice was small, and the experiments were in no case painful, for it is well known that the brain is itself insensitive. But this is not stated; the fact is carefully omitted.

Another gentleman, who appeared on behalf of the Church Antivivisection Society, whatever that may be, was for total abolition of experiments on animals, and was so far consistent that he would also put down the killing of animals for sport. He admitted that he eats meat, and that it is inconsistent of him to do so, and a similar admission was made by one of the ladies that I have quoted from. She stated that she had tried to be a vegetarian, but that the discomfort was so great that she had to give up the attempt.

While there is one kind of antivivisector who is fairly consistent, there is another who is quite inconsistent. The only operations on animals that he will endeavour to prevent are those which will advance knowledge, or be beneficial to mankind, or to animals themselves. The first—the consistent antivivisector—desires total abolition, on the ground that mankind has no right to take animal life in order to exploit animals for his own purposes. All such persons should be vegetarians. They should not wear boots or shoes made of leather, they ought not to be driven by horses, they ought not to drink the milk of cows, they should in no way countenance the use of animals for the benefit of mankind. Some of them even go so far as to say that this would be a right course to pursue. The other kind of antivisector is more sensible if less sensitive. While contending that mankind has no right to use animals for the purpose of acquiring knowledge, whether the knowledge is useful to man or not, he claims the right to use animals, to operate upon them, to slaughter them, for his own subsistence, or for commercial purposes, or to promote his pleasure or comfort. Now most persons—most uneducated persons at any rate—are profoundly ignorant of the methods of treating young animals that are destined for food and for other purposes; they are unaware that every year in this kingdom millions of such animals, both male and female, are painfully mutilated without antiseptics or anaesthetics, that millions of lambs, for commercial purposes, have their tails removed without these precautions to prevent suffering, that millions of sheep and pigs are slaughtered in a painful manner, in order that their meat may be more white or more tender than it otherwise would be. They ignore the fact that millions of harmless and defenceless creatures are sacrificed every year for sport, the pleasure which this yields being measured by the sacrifice of animal life involved. The relative painlessness of scientific experiments on animals counts for nothing. Such experiments may be merely for the purpose of advancing knowledge, and this suffices to condemn them.

As I have already stated, many antivivisectionists deny that any benefits are obtained from animal experiments, or that knowledge has been advanced by these experiments, or that the suffering of mankind and of animals has been in any way alleviated by them. It is not possible to argue with the wilful ignorance which statements like these involve. We medical men and physiologists know that there is no single fact of importance in the whole history of medicine that has not been either discovered or elucidated by the experimental method. Without this method no advance is possible in medicine or surgery, for these are founded on physiology and pathology, and both of these are essentially experimental sciences. It is true that Nature occasionally makes experiments on man, but until such experiments have been controlled by others on animals their interpretation is always difficult, and sometimes impossible. You might as well expect chemistry or physics to advance without experiment as medicine or surgery. Many of the results of these experiments are still incomplete, but from others important results have already been obtained. Certain diseases of both man and animals have been almost eliminated, and others have been reduced to relatively small proportions, or are, at any rate, capable of being brought under control, so as no longer to present the formidable aspect they presented to our ancestors. It is sufficient to mention such diseases in man as smallpox, diphtheria, malaria, yellow fever, and Malta fever; in animals as anthrax, rinderpest, pleuro-pneumonia, tetanus, hydrophobia, and swine erysipelas. The whole system of modern surgery also depends on experiments. When I was a medical student, forty years ago, there were many parts of the body that it was impossible to operate on. Even the simplest of wounds was liable to become infected, and the so-called "surgical fever" claimed each year a holocaust of victims. Now there is no part of the body which the surgeon cannot explore with impunity, simply on account of the development of the Listerian method, which was founded on the experiments of the immortal Pasteur, and on those of the great Lister himself. I need say nothing about the treatment of wounds in war. In our latest war we saw how recovery could be obtained from wounds which in former days it was hardly possible to treat—quite impossible to expect recovery from.

I have spoken of the two classes of antivivisectors as the consistent ones, and the inconsistent ones. The consistent antivivisectors are, I admit, almost worthy of sympathy. At any rate they, in their evidence, have admitted profound ignorance of many of the facts that I have put before you regarding sufferings inflicted on animals which are exploited for human convenience, and several expressed their detestation of such exploitation, especially when it is for human pleasure.

But the other antivivisectionists are the more dangerous opponents of progress. They profess that they are unable to sleep sometimes for thinking of the sufferings inflicted on animals in experiments planned for the advancement of knowledge, or with a view of alleviating human pain, but yet are willing to condone the destruction of thousands of innocent lives for the pure pleasure of killing. They are well aware that there is more suffering and slaughter inflicted in a single day's sport organized by one of their wealthy patrons than is inflicted during a year in all the laboratories in the United Kingdom. I can put myself in the position of a consistent antivivisectionist. I can assume that I am ignorant of what is done to animals for the sake of profit or the sake of sport. I can sympathize with his feelings, and imagine the horror he experiences when he reads an account of operations which he is told and believes are daily and hourly performed upon animals which he is informed are not anaesthetized, a statement he is strangely anxious to believe. He is even smitten with horror at experiments in which no operation is performed. Some of you may remember, a year or two ago, a question being addressed to Mr. Herbert Gladstone, when he was Home Secretary, about a terrible experiment made by Dr. Waller, of the London University, on a dog, and that Mr. Gladstone, at Dr. Waller's invitation, went to see this experiment. The dog is well known in London. It accompanies Dr. Waller in his car, and is known as "Jim," and although a bulldog, is a perfectly innocuous animal. Mr. Gladstone found that the experiment con-

sisted in the dog being trained to stand with its paws in saucers of water to which a little common salt was added. The saucers were connected with a wire which passed round r magnet, and by this means the several phases of action of the dog's heart were exhibited. By experiments of precisely the same nature it is possible to diagnose cases of heart disease in man which it would not be possible to diagnose aocurately by other means. Of course it is not a painful experiment. The accusation was ridiculous, and Mr. Gladstone himself held it up to ridicule by saying that the amount of suffering which the dog sustained could be best appreciated by his questioner if he had ever paddled in the sea. He was taken severely to task for treating a serious subject in so frivolous a manner. This is an instance of misinterpretation, the result of entire ignorance of science. These people hear of such things as galvanometers, and imagine them to be instruments of physical torture. They believe all the stories that they are told by the professional agitators. If they honestly think that mankind has no moral right to inflict any suffering on the lower creation for his own benefit, one can honour them for that opinion while pitying the credulity that is willing to accept such testimony as is furnished to them by the agitator. Indeed, the evidence that the average antivivisector is willing to accept is incredible to a well-balanced mind.

But one can have no manner of sympathy with the antivivisector who will not lift his little finger to prevent the vast amount of animal suffering that he well knows is perpetrated every year to afford mankind pleasure or profit, and yet agitates against the comparatively small number of experiments performed on animals not for the purpose of inflicting pain, not for pleasure or for profit, but for the advancement of knowledge, and for the benefit both of mankind and of animals themselves. For such antivivisectors as these no word of contempt is too scathing. Hypocrisy and cant are written large over all their proceedings. Some of them pretend that they do not wish for the total abolition of vivisection, but are willing that it should be performed under what they are pleased to consider proper safeguards, and the proper safeguard which they suggest is that at every experiment an inspector should be present. This is so obviously impossible that it would amount to aqolition. It is like the adoption of a regulation ordering that an inspector should travel with every motor car in order to see that the speed limit shall not be exceeded. This very illustration was brought forward by Mr. Stephen Coleridge, who contended that because motorists, like himself, are constantly breaking the law, and would not hesitate to deny such infringement if challenged by a police constable, physiologists would be equally ready to infringe the regulations of the Act, especially those regarding anaesthetics, and would also deny that they had ever done so. I confess I draw the line at Mr. Coleridge endeavouring to place us upon the ethical level which he is satisfied to occupy himself.

Before going further, it may be well to explain what kinds of experiments are performed upon animals, because there are many people who do not understand the differences between them. There are two kinds of physiological experiments. One is conducted from first to last under anaesthesia. The animal is never allowed to recover. Before being placed on the operating table it is completely anaesthetized. Such an animal from first to last can feel nothing. There is no pain in such an experiment, and no sensible person—admitting that valuable results can be got from such experiments—no sensiqle person, however humanitarian, can possibly object to them. The mode of death is less painful than that to which stray dogs are ordinarily put. I believe that about 20,000 such dogs are sacrificed in London alone every year. They are put into what is known as a lethal chamber. This sounds not unpleasant, but none of us would care to be put into it, for it is only another name for a suffocation chamber. Suffocation is probably not a very painful mope of death, but most people would think it so, and if they were told that for scientific purposes 20,000 dogs were suffocated every year, there would be a thrill of horror through the land. It was the custom in Edinburgh, and perhaps is still the custom in other places, to drown stray dogs. Drowning is another form of suffocation, and is not attended with much pain, but if a physiologist drowns c few dogs for the purpose of discovering an improved method of resuscitating drowned persons he is held up to opprobrium as an embodiment of cruelty. And this, even if his drowning is done under full anaesthesia.

In the second kind of physiological experiment the operation is performed under an anaesthetic, just as in the case of a hospital patient. The animal is allowed to recover from the anaesthetic, and the after-treatment is carried out as carefully as would be done in the case of a human being under the treatment of a surgeon. The wound is dressed in the same way with aseptic or antiseptic dressings; and everybody knows that a wound which is aseptic is painless. All these operations are practically painless operations. The Act orders that if after such an operation the animal should show signs of pain it is immediately to be killed by chloroform. Nothing could be more merciful than this. If we assume, as we know to be the case, that important results accrue directly to physiology and pathology, and indirectly to surgery and medicine, from these experiments, we are bound to affirm that we have a moral and ethical right to perform them.

The object of the first kind of experiment is to discover more immediately the functions of the organs to be investigated (this can often be discovered even while the animal is completely under an anaesthetic) and to determine if the organ acts under the influence of nerve fibres, or if it acts independently of nerves. For this purpose it might be necessary to stimulate a nerve. The nerve may or may not be a sensory nerve, but its stimulation would produce no sensory effect on an animal which is not capable of sensation. Yet such experiments are quoted in the evidence before the Commission as experiments of a highly painful character. This arises, of course, from sheer ignorance on the part of those who gave the evidence.

The object of the second class of physiological experiment is to determine what happens when an organ is injured or removed. Most important results have been obtained in this way. It is the only way in which the functions of certain parts of the brain can be discovered, and in which you can find out the functions of the internally secreting glands. No one supposed that certain small organs found in deep parts of the body had any functions at all until physiologists removed them—such organs, for example, as the suprarenal capsules, small bodies about the size of the end of one's thumb; but these are essential to life, and it has been found that if they are removed the animals soon die. It is also known that if they are destroyed by disease in man death results. Quite recently from experiments upon animals it has been discovered that the toxins generated in certain diseases render these glands functionless, and in all probability the fatal result of the disease is due to this loss of function. This is an obvious step towards curing the disease, for if death results from loss of function in these glands, we must try to find out how we can prevent or compensate for that loss, and thus avert a fatal result.

A third kind of experiment consists of those which are employed to test the action of drugs. The action of drugs ought always to be tested first on animals. Supposing a new drug were discovered as potent as snake poison, the one-thousandth part of a grain of which might be fatal, it would not be safe to test such a drug, even in the minutest amount, on man. It also is necessary to test drugs on animals, because there are certain effects of drugs that we cannot see in man. You may require to see the effects which they produce on internal organs. Take, for instance, drugs that act on the liver. All practitioners in the days when I was a student knew of a number of drugs that act on the liver. If there was anything wrong with you which they otherwise failed to diagnose "your liver was out of order." They gave you some drug which as they supposed would act on the liver and promote a flow of bile. When these drugs came to be tested by experiments on animals, no one of them was found to have any action on the liver at all!

There is yet a fourth kind of experiment, which is not physiological or pharmacological, but pathological, and these experiments constitute the bulk of those that are actually performed. The operation consists in the first instance of a mere puncture in the skin, which may or may not inoculate the animal with disease. The object of the inoculation is usually to ascertain if the germs of the disease are present in a particular fluid, or for the

diagnosis of a disease in man or animals. After the disease is communicated there may be some pain, although the pain that animals suffer in disease cannot be the same that mankind suffers. And there is this difference between experiments of this kind and those which Nature performs —that in the case of experimental animals, when the pathologist has found that the disease germs are present, and that the disease is beginning to show itself, all that he then has to do is to kill the animal under chloroform. The animal is not allowed to suffer prolonged pain. There may be a few cases in which it is imperative that death should be allowed to result from the disease in order that it may be seen more exactly what organs are affected, but such an animal does not suffer more than animals which are naturally infected by the disease under investigation—usually less.

To apply the word "cruelty" to such experiments as I have described is a gross abuse of the term. Cruelty is the wanton infliction of pain. No one thinks of a surgical operation as cruel; no one considers the dentist cruel if he inflicts pain in the extraction of a tooth. In animal experiments, as in surgical cases, every precaution is taken to avoid unnecessary pain. The difference is this, that the one operation is performed for the sake of an individual patient, whereas the other is undertaken with the object of advancing human knowledge; one is for the benefit of the individual, the other for the benefit of the race.

Lastly, there is another kind of operation, performed for a different purpose. These are the experiments made in order to produce preventive or curative serums. Such experiments are initially performed in order to obtain a knowledge of the methods of producing immunizing bodies. After this preliminary knowledge is gained, similar operations are performed, not with a scientific object, but in order to obtain the curative material. These operations come under a commercial heading, and the serums so prepared are largely used in medicine and surgery to cure or prevent disease, and by agriculturists to prevent the spread of epidemics in their animals; they are, in fact, equivalent to manufactured commercial drugs. The amount of suffering which is caused by this manufacture is infinitesimal. The animals are inoculated in such a way that the symptoms of the disease are hardly apparent. Horses are mostly used for the purpose. The blood is drawn in such a manner that the horse may be quietly munching oats in his manger, and does not wince while blood is being drawn for the object of obtaining serum from it. The pain of blood-letting is, in fact, far less than that to which the animal has been subjected by the application of the whip and spur. Even if the pain were greater, I contend that we should be justified in procuring a material which is so necessary for the treatment or prevention of disease in man and animals. The time may come when chemists will be able to make these substances in their laboratories, and we shall not be required to call upon animals to supply them, but until that day arrives it is necessary that they should be got in the manner which Nature herself provides.

As to the exploitation of animals for food or for drawing our carriages, no sane person contends that it is unjustifiable. It is true that some persons are prepared to go to amazing lengths in this matter. One witness for the abolitionists would not draw the line even at mosquitos; and I am not sure that if these people understood there was no essential difference between animal and vegetable life they would not shudder at the idea of boiling a cabbage or frying a potato alive. But for those who are prepared to admit that animals may be used for the benefit of man there can be only one answer to the question whether we are ethically justified in using them to gain such knowledge as may result in assisting us in our battle against disease and death. Physiology is the actual foundation upon which medicine is based, and no advance has ever been made in physiology, no important fact has ever been discovered in it, without animal experimentation. Clinical observation alone can only grope blindly without the guiding light of experiment. Those who profess to practise medicine without the knowledge that has been acquired by such experiments either deceive themselves in ignorance or deceive their patients by misrepresentation. Such doctors are few in number and either antediluvian or obscure. Their views are repudiated by the medical profession. Nevertheless, the opinions of these men are put forward by antivivisectionists as of equal weight with those of the great leaders of medicine and surgery. I believe there are some 36,000 doctors in practice in the United Kingdom. I doubt if 100 of them will be found willing to endorse the antivivisectionist view. It is mainly the ignorant and ill-informed members of the community who support the agitation. It receives little encouragement from the educated classes. But ignorance will always be in the majority, and, unless we take means to dispel it, serious impediments may be imposed on the future progress of medicine. To prevent this is the purpose of the Research Defence Society, and that is why we ask the co-operation of all educated men and women in our efforts to advance the knowledge of the functions of the animal body both in health and in sickness—a knowledge which alone can render it possible to alleviate the sufferings, not only of man, but also of the creatures which are dependent upon him, and of which, in our judgement, he is entitled to make use for his subsistence and comfort.

# SOME MEDICO-LEGAL AND PRACTICAL CONSIDERATIONS RELATING TO MELANCHOLIA.

BEING THE THIRD MORISON LECTURE ON INSANITY, DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

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## I.—HEALTHY AND MORBID DEPRESSION.

A RECOGNITION of the differences between natural and morbid depression, between melancholy and melancholia is very important. Any difficulty that may arise can only be with cases of simple melancholia, for in delusional melancholia even the layman can discern that the mind must be disordered. The problem, therefore, is, How can we distinguish the symptoms of simple emotional or affective melancholia from those of natural melancholy? In the first place, we may not be able to do so by the symptoms themselves, whether mental or physical; they may all simulate analogous phenomena in health. Maudsley has stated that they "caricature" the symptoms of natural melancholy, and that is usually true, but in the most difficult cases the phenomena are not caricatured but simulated with fidelity.

The first evidence we have rests on the fact that melancholia is a departure from the normal mental condition of the patient himself. From a person of equable mind, or even of bright and cheerful disposition, he is more or less suddenly transformed into a being always in a state of gloom or apprehension. While this may not be complete proof of mental ill-health, it is quite sufficient to arouse grave doubts.

In the next place, normal melancholy is a reaction to some event or cause in the environment, such as produces painful feelings in the normal or average person. Melancholia does not arise in relation to anything in the environment; it is a subjective or internal condition due to a disordered function of the brain. In the majority of cases there is no difficulty on this point, because the patient is found wrapped in gloom, and himself informs you that he cannot tell the reason of it. These two tests are usually sufficient to settle any doubts.

In some cases it happens that there is a cause of a painful kind to which the melancholia is attributed, such as the loss of a friend or some business difficulty. In most of these cases there is no difficulty either, as the reaction to this alleged cause is out of all proportion to it either in intensity or duration or in both, and has in reality nothing to do with it except indirectly.

In a very few cases there is a real difficulty when the exciting cause is of a profoundly moving nature, as, for example, in the case of the reaction that occurs when by one false step a man's reputation is hopelessly ruined, or

when he is suffering from the agonies of a fatal disease. In these cases there may be a doubt, and the right course to follow is to suspend the diagnosis and keep the patient under observation.

In these cases help may be received in the diagnosis by seeking for the secondary and associated phenomena which are so rich in melancholia. There is usually hereditary predisposition to insanity in melancholia, there has often been a previous attack, the health is usually run down, and there is loss of weight; insomnia, loss of appetite, and constipation are present, as well as motor, sensory, and intellectual symptoms.

A knowledge of these associated secondary phenomena is also useful where malingering is suspected. I have a patient at present who is suspected of pretending to have simple melancholia. If she complained only of feeling depressed, it would be difficult to decide the point, but her chief complaint is "of bad thoughts which never leave her, and of her brain, which somehow won't work." The presence of these characteristic secondary symptoms confirms my belief in the existence of a fundamental depression. I cannot therefore discharge her on account of the danger of suicide, of which she occasionally hints.

### II.—When Melancholia becomes Insanity.

The second difficulty that arises is to decide: When is it possible to say of a person who is admitted to be suffering from morbid depression or melancholia that he is now legally insane? The patient himself will tell you: "I am not insane; I may be ill and suffering from depression, but I have my senses and I know what I am doing." The patient's friends always scout the idea of insanity. They say: "Doctor, he is as sensible as you or I; if he would only cheer up and stop thinking about his business he would be all right." In discussing this important point we must be careful to employ words with very definite meanings. We must have, in the first place, a medical term of an inclusive character applicable to every form of morbid mental state. The term "mental disease" will suit our purpose. Mental diseases, from the legal point of view, are divided into two groups—those in which the law has no special interest, and those in which the law is deeply concerned. The legal term for the latter is "states of lunacy," but as there are objections to the medical use of this term we will refer to these states as "insanity." Now the symptom the presence of which divides the legal form of mental disease or insanity from the other is disorder of conduct. Medicine deals with disease, and law with behaviour. So long as the symptoms of melancholia do not result in any loss of control over the conduct, then the patient is suffering from an ordinary disease, and cannot be reckoned insane or a lunatic. Whenever his conduct is based upon the mental symptoms of his disease, then he is to be regarded as insane or a lunatic. Whenever a person suffering from melancholia begins to act from motives entirely different from those of other people or of himself when well, and fails to conduct himself like other people, then his condition must be looked upon as one of legal insanity.

In the most simple and slight forms of melancholia the patient may struggle heroically against all the tendencies of his disease, and he may outwardly appear to be normal and may perform his duties more or less satisfactorily. So far his melancholia is purely a personal and medical question. Later on he fails to cope with his work, although physically there is no defect, he neglects the most ordinary social duties, and eventually he may cease to speak, or even to eat, and would starve himself if permitted. His melancholia is now a social, as well as a medical, question, involving as it does responsibilities to his family and to society in general. He is insane because his conduct is not that of an ordinary healthy person, but is determined by the symptoms of a disease.

### III.—Certification.

The third question that arises is to decide the stage at which a person suffering from melancholia may be certified to be insane, and a proper person for placing under care and treatment in an asylum. At inquests upon those who have committed suicide, the doctors in attendance frequently reply, when asked why their patients were not under safe care, that it was impossible to certify them. It is, therefore, very important to know when a patient may be certified as being not only insane, but a proper person for care and unfit to be at large. He may be thus certified whenever his conduct becomes unsafe to himself or to others. Of all the forms of insanity, there is less difficulty in the certification of melancholia than any other, by reason of the danger of the patient taking his own life. The desire to die and to find oblivion is not a rare symptom in melancholia. Nor is it a symptom late to appear, but the very reverse, for the early stage of simple melancholia is the most dangerous period of the disease. Nor do the patients conceal their feelings on the subject, though they may not say in so many words that they are going to take their lives. They constantly say that life is not worth living, that they have no wish to live, and that they will be better in their graves. Knowing the frequency with which the attempt is actually made, no medical man has any right to ignore these indications in melancholia, and he incurs a great responsibility when he says they mean nothing. If in the opinion of the medical attendant there is reason to believe that a suicidal tendency exists, there can be no difficulty whatever in granting a certificate that the patient is a proper person for care and treatment in an asylum if it be necessary to care for him in that way.

If melancholia be a disease so easy of certification at an early stage, it is instructive to inquire why medical men frequently find it so difficult, and fail to do so. In the first place this is due to the fact that the symptoms of disordered conduct in melancholia are of a negative and not of an active kind. If a person shouts and uses violent language, if he destroys articles and attacks others, and if he gets into trouble owing to his foolish acts, all day long, one has no difficulty in filling up facts indicating insanity in a certificate. On the other hand, if he sits quietly, interferes with no one, and commits no offences, the indications of insanity are not so apparent. The omissions of the melancholic are nevertheless very serious and definite departures from normal conduct. I have, however, found from experience of students attending my classes that they have the greatest difficulty in recording negative facts in their certificates of insanity.

The other reason is probably the more important. It is, I suspect, believed by some medical men that unless a patient entertains definite delusions, he cannot be regarded as insane. We know of course that this is quite wrong, for most cases of melancholia are of the variety known as simple or non-delusional. The symptom of mental disease in these cases is not intellectual but emotional—they suffer from morbid depression. This symptom, moreover, affects the conduct more extensively than any delusion can, and the case therefore fulfils the requirement of disordered conduct needed by the law in all cases of insanity. It would, indeed, be a *reductio ad absurdum* if simple melancholia, the form of insanity in which the conduct is so disordered by unsoundness of mind that the patient's life is in the greatest danger, were not to be regarded as insanity!

### *Medico-Legal Summary.*

Before dealing with the question of suicide, I desire to summarize in tabular form these medico-legal aspects of melancholia and of insanity in general.

Under the general term "mental diseases" we include every form of disease or morbid condition with mental symptoms. It includes the simplest derangement of mental function as well as the wildest disorder of the mind, the slight failure of memory which, like failing powers of vision, is an accompaniment of advancing years, as well as acute delirious insanity.

Mental diseases are divided into two groups. First, those which are not accompanied by any loss of the power of self-control or disorder of conduct, such as, for example, the slight failure of memory which I have mentioned. The diseases of this group are purely medical and personal. In the second group are those diseases in which there is loss of the power of self-control with disorder of conduct, and therefore these conditions are of legal as well as medical interest. The term "insanity" or "lunacy" may be applied to all these.

This group in its turn is also divided into two: those in which the conduct is not dangerous to the patient or others, and those in which it is or there is good reason to believe that it is. The former cannot be certified and sent to an asylum, but the latter may. Every case of melancholia in which the danger of suicide can be reason-

ably suspected of being present falls under the certifiable group. A person suffering from melancholia, who refuses his food, is endangering his life, and so he also is certifiable; if he be in such a state that he fails to take an interest in his general environment and welfare, and therefore cannot take proper care of himself, he also may be regarded as endangering his life by his conduct.

These views are summarized in the following table:

| | | |
|---|---|---|
| Mental Disease | A. No loss of self-control, and not involving conduct. (Personal and purely medical.) | |
| | B. Loss of self-control, and involving conduct. (Social and medico-legal.) | (*a*) Not dangerous (non-certifiable). |
| | | (*b*) Dangerous (certifiable). |

### SUICIDE.

Many cases of simple melancholia are allowed to drift along, no serious view being taken of their mental condition till at length a definite attempt at suicide is made. If the patient be fortunate enough to escape with life, then it is suddenly realized by all that he is actually insane and in a dangerous state of mind. The majority of these attempts, luckily for all of us, are unsuccessful, because the defect of will power, which is the prevailing feature in the conduct of the melancholic, impedes him in the performance of this act as much as any other. He delays till the opportunity passes, or the attempt is half-hearted.

No case should be allowed to run these risks, nor would it if it were fully realized by the medical profession that every case of melancholia is a case of potential suicide. I believe that at one stage or another every case entertains the idea of it. There are stages, no doubt, in which patients, far from desiring to commit suicide, may dread to do so; but with all my experience I would hesitate to take the responsibility of saying that any melancholic was not suicidal.

There are two arguments which are sometimes advanced against these views. The subject may have been discussed with the patient. He may have admitted that he at one time entertained the idea, but asserts that he has now got over it, and that it was very foolish. He is now prepared in the first place to give the solemn assurance that no danger exists, and in the second place promises faithfully that he will not harm himself. Is the patient's word to be taken, and is he to be trusted? When he makes this statement he is perfectly honest and believes what he says, but in the course of a few hours, or a day or two, there may be an exacerbation of the disease, or an opportunity may occur. If he now desires to end his misery, and all his organic fear of death has vanished, and there is nothing between him and oblivion but the promise, the promise becomes a poor protection indeed. It is not fair to the patient to subject him to this danger; and to rely upon his word and his word alone at such a time is a very hazardous proceeding.

In the next place it may be said that the patient has had many opportunities of taking his life and has not availed himself of them. It is not generally known that people have fancies and whims as regards the means of committing suicide just as in other matters, and the favoured means may not have presented themselves. Thus a melancholic patient told me he walked along the banks of a canal without any suicidal desire, but when he came to any of the viaducts he had great difficulty in getting across safely. Then it must be remembered that, owing to defect of will power, the melancholic hesitates over every act, and he may not have been able, owing to this reason, to seize and take advantage of good opportunities. Some years ago a man drowned himself by jumping off a ferry-boat, and on his body there were found sixteen tickets. This man had crossed the ferry safely fifteen times, but still that did not demonstrate that he might be trusted to cross it always or even once more with safety.

The physician has usually great difficulty in convincing the friends of melancholic patients of this danger and of getting their consent to have the patient efficiently protected. Till he actually makes an attempt at suicide they do not regard him as insane. The patient naturally objects, and says: "If you get people to follow me about and watch me and treat me like a lunatic, you will turn me into one." Although he has no delusions, he is not only insane, but suffers from a dangerous form of insanity, and sooner or later if you do not guard his life for him he will take it.

Every person who has the charge of a case of melancholia bears the weight of a heavy responsibility on his shoulders, and I am afraid this responsibility is not always realized. If I were asked to concentrate the information contained in these lectures on melancholia into one sentence of practical value I would say, "Guard your cases of melancholia from the danger of suicide."

### NEURASTHENIA.

Many of the suicides we see recorded in the newspapers are said to have been of persons suffering from neurasthenia. No doubt in some cases this is a mere euphemism which has been employed to spare the feelings of the patient and of his relatives. In other cases it is to be feared that the diagnosis of melancholia has not been made. This is a mistake of a most serious nature in view of the great difference that exists in the two conditions in their relation to suicide. In melancholia the danger is so great that the treatment of this one symptom colours the whole management of the disease. In neurasthenia and psychasthenia, on the other hand, the danger of suicide is very slight indeed, for, as a general rule, those suffering from them are remarkable for the great care they take of themselves. As the consequences of a mistake of this kind may be serious it is necessary to say something about their differential diagnosis.

The two disorders—neurasthenia and psychasthenia on the one hand and melancholia on the other—are quite distinct from one another. Nor do they tend to run into one another, for the great majority of neurasthenics, even with well-marked obsessions, may be so more or less all their lives, without any tendency to become melancholic or insane. Indeed, there are some who go further, and assert that the presence of neurasthenia affords a degree of protection from insanity. This question was very carefully gone into at the International Congress of 1889, and it was found that only in rare instances was it complicated with delusions of persecution, or with those of anxious melancholia, and then only at an advanced stage of the disease.

A considerable number of patients with melancholia, however, suffer from neurasthenic symptoms, and this is not surprising considering the fact that most of them have a neuropathic family history. In these cases it is usually found that a very definite cause or series of causes has been in operation. For example, lactational melancholia is often found associated with neurasthenia as a result of the nervous exhaustion produced by frequent and prolonged lactation, loss of sleep, deficiency of nourishment, and overwork and worry in domestic affairs among women of the working classes. The fundamental symptom of depression is present in these cases, and the diagnosis, therefore, of melancholia should not be difficult. It is feared that this failure to diagnose it is therefore due to the fact that this depression is confused with the mental anguish that is associated with obsessions in psychasthenia. It will therefore repay us if we consider the difference between the painful feelings in psychasthenia and in melancholia.

### DIFFERENTIAL DIAGNOSIS.

The psychasthenic is subject to obsessions of an intermittent character, and for an example we will take misophobia. He, or, as is more frequently the case, she, has the idea or feeling that her hands get contaminated with dirt or disease whenever she touches anything, and as a result of this, although she knows that the idea is absurd, she feels compelled to wash her hands. I have known a patient do so 120 times a day. An obsession of this kind passes through four phases in the patient's mind. There is the first or *introductory phase*, marked by the entrance into consciousness of the idea or feeling. It is an unwelcome and unbidden guest, but the patient cannot escape its intrusion. This is succeeded by the second phase, or *latent period*, during which an internal conflict is going on in the patient's mind. She is struggling against the obsession, and so severe an effort may this be, that beads of perspiration may break out on the brow, and she may suffer from palpitation. At this stage the patient is melancholic, in so far as she suffers anguish owing to a sense of utter helplessness. The third phase

is marked by *victory for the obsession*, which grows irresistible, for the patient is compelled to wash her hands and actually does so. The final stage is reached by the *departure of the obsession*, and the patient then experiences feelings of great relief. She now becomes a fairly normal individual, takes some interest in things, and enjoys some of the pleasures of life, and continues to remain in this condition till the obsession visits her again.

There is no difficulty in most cases in differentiating between the anguish of the obsessed person and the depression of the melancholic. The former is markedly intermittent in character, with long intervals in which there is no depression, *except such depression as a sane person feels* who knows he has a trying disease. It is also secondary in origin and is due to the presence of the obsession. In melancholia, on the other hand, the depression is a continual gloom, and the patient derives no pleasure from life. It is also a primary condition, for which the patient is at a loss to account.

In addition to these essential differences in the origin, duration, and nature of the depressed feelings in these two conditions, they differ in numerous secondary respects. Physical and sensory phenomena are more definite and numerous in neurasthenia, whereas mental phenomena, such as well-marked retarded ideation and lack of interest, are very characteristic features of melancholia.

One word more may be said of aboulia, or defect of will power, which exists in both diseases. On analysis this will be found to be of a very different nature in the two conditions. In melancholia the patient is apathetic and indolent, and, for lack of a strong enough motive, fails to act, but the failure does not distress him much. On the other hand, the neurasthenic patient has every desire to act, yet, in spite of the most exhausting and agonizing efforts, he finds he has not the power. In the one case there is lack of desire and in the other want of the executive power to act, and the exhaustion and fatigue of the effort to act causes the neurasthenic the greatest distress. After a patient and careful analysis of the acts and feelings of the patient it is usually not difficult to decide which of these two conditions is present.

The differential diagnosis between neurasthenic and psychasthenic states and simple melancholia is one of the most important that requires to be made on account of the question of supervision—the former states being free from the danger of suicide, whereas in the latter this danger is the most urgent and cardinal symptom. It is quite certain from the records and the consequences that the diagnosis is very often wrongly made. It is therefore a wise and a safe precaution in every case of suspected neurasthenia to exclude melancholia by a careful analysis of the emotional condition. If there should still remain any doubt as to the exact nature of the case, the safer course to adopt till one has obtained further information is to regard it as one of melancholia, or complicated by melancholia.

### Treatment—General Principles.

In treating melancholia certain general principles must be acted on.

In the first place, bear in mind that melancholia is a disease, not a mental state that can be quickly removed by argument or persuasion. Like many other diseases, it runs its course, which is often not a short one. Recovery may take time, but in the end it comes and is complete. It is therefore necessary to have patience.

In the second place, like other diseases, those of the mind must be treated by physical means through the body. It is necessary to make a thorough physical examination, and if any disorder exists in any part of the body it should be carefully attended to. Almost all melancholic patients are in bad health, and therefore it seldom happens that good cannot be done. If there be an exciting cause for the attack, like prolonged lactation or excessive indulgence in alcohol, it is obvious this should be removed.

In the third place, I have been greatly impressed by the fact that good results are got by paying great attention to detail. Melancholia and other forms of insanity are not usually the result of one definite cause, but of a chain or sequence of many causes, which in their sum overwhelm the mental health of the patient. A similar principle should be followed in the cure of insanity, and recovery may be obtained by not relying exclusively upon one form of treatment, but many measures simultaneously. Any one of these details singly may be valueless, but in the mass they have often a definite effect.

In the last place, no form of disease is so benefited by the open-air treatment as insanity. Insanity does not tend to occur in those who are in good health—it is, indeed, surprising what the brain will stand if the health be good. It occurs in those who are run down through the prolonged action of debilitating causes. For such people no form of tonic treatment has yet been devised which is so efficacious as rest in the open air.

### *The Treatment of Melancholia.*

The disorders of the gastro-intestinal tract must receive the first attention, as so much depends on proper alimentation. Indigestion and constipation are usually present, with the absorption of putrefactive substances from the bowel, for the ethereal sulphates can be demonstrated in the urine. The result of these is that the patient suffers from malnutrition, and becomes thin and anaemic, with a muddy complexion. It may be necessary to wash out the stomach. Calomel should be given, and the bowels should be periodically purged. Intestinal antiseptics may also be given, and the lactic acid bacillus treatment has done well in some cases.

If attention be given to the alimentary system, improvement often follows immediately, and the first sign of this is a rise in the patient's weight. In a disease which is possibly metabolic, and in which there is almost always disordered nutrition, there can be no more accurate test of improvement than this.

Among the faults of omission which form the symptoms of disordered conduct in melancholia one of the most important is the neglect and refusal of food. This must, of course, be overcome, and in the first place the patient should be coaxed. If coaxing will not do, the nurse must force the patient, and if this be impossible, then the patient must be fed by means of a stomach tube or nasal tube. Many patients suffering from melancholia gradually starve themselves, and a practical point of great importance is this—that it is not the patients who refuse *all* their food who starve. When this happens those in charge of the patient are so alarmed that artificial feeding is adopted practically at once. I regret to say, however, that I have admitted a patient who has not had food for nearly a fortnight. The patient who is most likely to starve is one who has for a prolonged period taken only a mouthful or two at each meal but has never absolutely refused. As something has always been taken, it is assumed that enough has been taken to keep body and soul together. Such cases are those most likely to starve, and whenever they begin to refuse food a daily chart should be kept, and the patient should be weighed weekly. It is perhaps not generally known that it is possible to tell whether a patient be starving or not by the sense of smell. Whenever the carbohydrates in the body are used up, there is the production of acetone, and the sweet distinctive odour of this substance can be smelt in the patient's breath.

The overfeeding of melancholic patients was at one time practised, but it is obvious that if the function of digestion be disordered, extra work should not be thrown on the stomach. Moreover, a patient is not fattened by the amount of food that goes into his stomach, but by the amount that is digested and assimilated by him. Milk is by far the best food, and as there is a tendency to putrefaction in the intestines, nitrogenous food should not be given at first.

The next symptom to receive attention is sleeplessness, and there are very few in the early stages who do not suffer from insomnia. Natural means should of course be tried in the first place to overcome this, such as the open air, moderate exercise, a quiet room, etc. If these fail, the two best hypnotics to use are paraldehyde and potassium bromide.

Paraldehyde is a perfectly safe drug. Two drachms may be regarded as a standard dose in the insomnia of melancholia, and it can be dissolved in 2 oz. of cinnamon water. As it acts as quickly as alcohol does, it should not be given till the patient is in bed. Its action can be assisted and prolonged by the administration of potassium bromide, in doses of 30 grains to 2 drachms. In the larger doses it should not be given continuously, as it has

a tendency to accumulate in the system. In my own experience veronal, of the newer drugs, while sometimes producing giddiness, unsteadiness of the gait, headache, and sickness, has been the most useful. In some cases of melancholia the blood pressure is high, and sleep will not be obtained till this symptom has been treated.

The third symptom needing treatment is the tendency to suicide, and this is of course done by means of continuous supervision exercised by skilled mental nurses over the actions of the patient. It is not necessary to add anything to what I have already said on this important subject. The nurses are also expected to occupy and interest the patient, and if by their attention and sympathy they win his confidence, they become therapeutic agencies of great value.

*Three Special Methods.*

There are three other modes of treatment to which I desire to refer briefly. The first is directed to a lowering of the blood pressure, which has often been found to be abnormally high. A warm bath lowers the blood pressure, and this is often followed by temporary relief of the symptoms. It also enables the patient to sleep if taken at bedtime. The most convenient way of reducing the blood pressure is by the administration of tetranitrate of erythrol. Half-grain tablets may be given twice daily, slowly increasing the dose till two or three grains daily are given. It is thought by some that the high blood pressure has an important bearing on the presence of feelings of depression, for in the converse state of maniacal exaltation the blood pressure is usually low. This form of treatment sometimes acts well, and is worth trying when other measures have failed. In one case of mine it was very successful where high blood pressure and depression were found to vary together in a remarkable way.

Another form of treatment also directed to remove the mental pain is the administration of opium. Some believe this feeling of pain is due to a sense of resistance and difficulty in the environment, the result of muscular sensations and impairment of movement. It is more probable that it has an organic basis, and is due to the general malnutrition of the body, the result of which is that the important organs transmit nervous impulses to the centres of a disagreeable kind. These impulses we are not conscious of, but it is believed that the massive effect of the whole forms the background of our consciousness, and produces our feelings of well-being or malaise as the case may be. The rational way of removing mental pain due to such a cause would be to remove the malnutrition by tonic treatment. This is attempted, but in addition it is believed that this feeling of depression can be alleviated by opium. In France it has been largely used for this purpose, and I have found it of marked service, especially in some cases of anxious melancholia. It is best given in the form of tinctura opii, starting with 5 minims three times a day, and rapidly increasing the dose till definite results are obtained. This form of treatment has many disadvantages, among which are two: It tends to increase the difficulties caused by constipation and sluggish action of the liver, and it tends to create a habit to which the patient may fall a victim. If administered, it should be done without the knowledge of the patient.

Lastly, melancholia tends sometimes to become very chronic, and in these cases, if the state of the nutrition permits it, and there is no organic disease to contra-indicate its use, fairly large doses of thyroid may be given for one week. Three tabloids of 5 grains each should be given the first day, then 6, 9, 12, 9, 6, 3 daily in succession—an increase of three each day, till a maximum dose of 60 grains is reached on the fourth day, followed by a decrease of three each day. The patient must be kept strictly confined to bed and the pulse carefully watched. This drug undoubtedly acts as an excitant of the nervous system, but it is believed that its beneficial effects in melancholia are largely due to its influence on the general metabolism. There is a stirring up and a quickening of the trophic activities, and on the basis of this change a fresh start towards recovery may be made.

PROPHYLAXIS.

In conclusion I desire to say one word on prophylaxis. In all other departments of medicine the prevention of disease is considered the highest aim, and we have now reached a stage in psychiatry in which our attention is being given to the prevention of mental disease. I say nothing at the present time on the interesting subject of eugenics, but I would urge on the family physician the necessity of dealing promptly and seriously with the earliest indications of disordered mental function. This is particularly necessary in the cases of those who have suffered from previous attacks, and in the members of families known to them to have a neuropathic history, when they are undergoing any severe strain. For example, a neurotic daughter will nurse an aged mother, with morbid conscientiousness and anxiety, losing her natural rest and depriving herself of relaxation and fresh air and exercise. When the shock of the inevitable end falls upon her, or even before then if she be a victim to influenza, she suffers a complete mental breakdown. It is the duty of the family physician to foresee the possibility of this, and to prevent it if that be possible. The early stages of mental disease are functional, and this is more applicable to melancholia than to any other form. Complete rest, a change of scene, agreeable companionship, and simple attentions to the health may then in a few days or a week or two be the means of averting a threatened attack. The mental as well as the physical health of these individuals and families should be in the mind of the family physician.

# THE ETIOLOGY OF IRITIS.

BY

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ON July 16th, 1910, an article appeared in the JOURNAL upon the etiology of iritis, which led to a very interesting correspondence. Mr. Kenneth Campbell stated that in his experience, taking all cases of iritis into consideration, 70 per cent. were due to syphilis, 20 per cent. to gonorrhoea, 9 per cent. to oro-alimentary, uterine, and tubal infection, and 1 per cent. to tuberculosis. He denies the existence of "rheumatic iritis." Römer, in his new textbook, embodying his lectures at the University of Greifswald, states that 25 per cent. of his cases are due to syphilis, a disease which is at least as common in Germany as in England. He devotes several pages to a consideration of rheumatic iritis, and carefully distinguishes it from gonococcal iritis. Worth, in a letter which appeared in the JOURNAL for August 13th, 1910, finds that only 30 per cent. of his private cases are due to syphilis, and ascribes more than one half to oral sepsis and kindred conditions. Beaumont, of Bath, believes that the rheumatic iritis is uncommon, and that many cases ascribed to rheumatism are really gonococcal. C. W. Jennings (*Ophthalmology*, 1909) found that among 500 cases of iritis 25.4 per cent. were rheumatic, and only 5.2 per cent. were gonococcal. Kenneth Campbell states that "of double iritis the cause is almost certainly syphilitic."

In view of this wide divergence of opinion it has seemed to me worth while to go through my casebooks, both private and hospital, and extract all the cases of iritis with a view to determining what proportion must be allowed to the different sources of infection, and whether any guide to diagnosis can be ascribed to the fact that one eye or both is affected.

Among 5,710 patients I found 100 suffering from iritis, a percentage of 1.75 only. I have included all cases of primary irido-cyclitis, but have excluded examples of interstitial keratitis complicated with iritis, and all traumatic cases, which are very common in a manufacturing town like Coventry. A septic foreign body in the cornea often induces a fairly severe iritis.

I shall first deal with the cases as a whole, and then compare my private with my hospital patients. I am fully aware that it is impossible to formulate any absolute law upon 100 cases, but it is possible to gather some valuable information, even from such a small number.

Exact diagnosis is exceedingly difficult, often quite impossible. In most cases one cannot determine the etiology

from the local signs, although occasionally the appearance of the iris is quite pathognomonic. I have examined the cases in the following way. The local examination has always been made in the dark room with the aid of a Zeiss loup, and with the ophthalmoscope. The patient has then been examined for rashes, enlarged glands, sore throat, and has been questioned closely to exclude syphilis. As iritis is chiefly a secondary symptom, when no other signs of infection can be detected, and no history can be obtained, it seems fair to regard the syphilitic etiology as improbable unless the local appearances are characteristic of that disease. Römer carefully distinguishes between an early syphilitic roseola of the iris, corresponding to the early skin roseola, an early papular form, a late papular form, and a gummatous iritis. The syphilitic changes are situated deep in the iris, and the adhesions to the anterior capsule are broad and are not confined to the pigment layer of the iris. But what one often sees in early secondary iritis is a ciliary blush, slight muddiness of the aqueous, little or no change in the appearance of the iris, with tiny thread-like adhesions between the capsule and the iris pigment layer. In addition, there are usually precipitates upon the anterior capsule, and less frequently in these very early cases upon the back of the cornea. When the pupil has been dilated with atropine—and it often dilates fully—a *ring* of pigment is seen on the anterior capsule. A ring in contradistinction to isolated islets of pigment is at least suggestive of syphilis.

If syphilis can be excluded and the patient is a man, one can inquire about recent or past gonorrhoea. It is quite unnecessary that the gonorrhoea be recent. I have seen gonococcal iritis in a man who had had the disease twenty years before, and had been free from it since that date. In gonococcal iritis there is a tendency for a gelatinous-looking exudate to accumulate upon the iris, and occasionally in the anterior chamber, but this condition is often absent.

Having excluded syphilis and gonorrhoea as far as possible, I then inquire for joint pains, and evidence of osteo-arthritis, the so called "rheumatism." This condition is almost certainly an autotoxaemia, and I would prefer to class these cases as autotoxaemic rather than as rheumatic.

The teeth and nose should now be examined, for iritis, and especially an insidious cyclitis, are frequently due to toxins absorbed from pyorrhoea alveolaris, from sinus disease, and from other septic foci in the nose. Probably a septic otorrhoea may be responsible for some obscure forms of irido-cyclitis. Suppuration elsewhere in the body should not be neglected.

It is now well to go into the question of tuberculo-toxaemia thoroughly. When other causes have been excluded, and the patient has enlarged glands, or a history of such, a tuberculous family history, or other signs of this infection, the iritis may be due to the presence of tuberculo-toxins in the blood. Such examples should be tested by the subcutaneous injection of tuberculin, and treated by von Hippel's method. I have dealt fully with this subject in a paper in the *Ophthalmoscope* for December, 1910, and it need only be mentioned. Tuberculous iritis proper is rare. I have only seen one case among over 5,000 patients. If all these probable causes have been excluded, the probability of intestinal sepsis must be investigated, but it is hardly scientific to ascribe iritis to this cause unless indican, phenol, and an excess of sulphates are present in the urine. I am certain, however, that intestinal conditions can and do originate chronic cyclitis. I saw a case a year ago in which chronic cyclitis was associated with mucous colitis. When the colitis was actively treated the evidences of cyclitis, precipitates upon the back of the cornea, entirely disappeared.

The results of my investigation appear in the accompanying table. As there are 100 cases all the figures are percentages.

Cases of iritis formed 1.84 per cent. of 1,630 cases seen in private, 1.16 per cent. of 600 cases seen at the Warneford Hospital, and 1.77 per cent. of cases seen at the Coventry Hospital. The combined hospital percentage is 1.69, as against 1.84, the percentage among my private patients. Twenty-nine per cent. of my private patients had an iritis of unknown etiology. In half of these 8 cases only one eye was affected; in half, both. Five were females, three males. It is only to be expected that in hospital practice

*Table showing the Etiology of Iritis in 100 Cases, both Private and Hospital.*

| Etiology. | Number. | Male. | Female. | Single. | Double. |
|---|---|---|---|---|---|
| Doubtful ... ... | 41 | 16 | 25 | 27 | 14 |
| Syphilis ... ... | 22 | 9 | 13 | 10 | 12 |
| Oral sepsis, nasal, etc. | 12 | 7 | 5 | 7 | 5 |
| Gonococcal ... ... | 6 | 6 | — | 4 | 2 |
| Rheumatic ... ... | 6 | 5 | 1 | 5 | 1 |
| Tuberculo-toxaemia. | 5 | 2 | 3 | 3 | 2 |
| Intestinal stasis ... | 4 | 1 | 3 | 1 | 3 |
| Albuminuric ... ... | 2 | — | 2 | 2 | — |
| Diabetic ... ... | 1 | 1 | — | 1 | — |
| Tuberculous ... ... | 1 | 1 | — | 1 | — |
| Gout ... ... ... | 0 | — | — | — | — |
| Total ... ... | 100 | 48 | 52 | 61 | 39 |

*Table comparing the Etiology of 31 Private Cases of Iritis with 69 Hospital Cases expressed in Percentages.*

| Etiology. | Hospital. | Private. |
|---|---|---|
| Doubtful ... ... ... ... ... | 47.8 | 29 |
| Syphilis ... ... ... ... ... | 18.8 | 25.8 |
| Oral, nasal, and general septic conditions | 5.8 | 25.8 |
| Gonococcal ... ... ... ... | 7.2 | 3.2 |
| Rheumatic... ... ... ... ... | 5.8 | 6.4 |
| Tuberculous toxaemia ... ... | 5.8 | 3.2 |
| Intestinal sepsis ... ... ... ... | 2.9 | 6.4 |
| Albuminuric ... ... ... ... | 2.9 | — |
| Diabetic ... ... ... ... ... | 1.45 | — |
| Gout ... ... ... ... ... ... | — | — |
| Percentage total ... ... | 99.45 | 99.8 |
| Total ... ... ... ... | 69 cases | 31 cases. |

the proportion of doubtful cases is higher. But in most of my cases the advice to see the dentist was written upon the prescription paper, and not in the notes, which until recently were kept in books. A comparison of the percentages of private and hospital cases due to oral sepsis shows that over four times as many private cases suffered from oral sepsis as hospital patients, which is contrary to reason. It is only recently that I have realized the immense importance of oral sepsis in the genesis of iritis, although I have long known its etiological value in cyclitis. I am of opinion, then, that a large proportion of the doubtful cases are really due to oral sepsis. Few of them can have had secondary syphilis, for I have invariably gone into this question very carefully.

The net result of the inquiry is that in at least 30 per cent. of all cases it is almost impossible to determine the real origin of the disease. Twenty-five per cent. are due to syphilis, and only about 5 or 6 per cent. can truly be termed rheumatic. An examination of the figures shows that in 22 syphilitic cases 10 were monolateral and 12 bilateral, so that this question cannot be considered in coming to a diagnosis. Cases due to oral sepsis and to intestinal stasis are more frequently bilateral than syphilitic cases. One patient put down as rheumatic iritis had had an acute attack of rheumatic fever only five weeks before the iritis came on. Two cases were associated with albuminuria. In one there was albuminuria, iritis, and a single retinal haemorrhage, but no retinitis. The other was a case of albuminuria and general anasarca. No case due to gout has ever been seen by me. The investigation lends no colour to Mr. Kenneth Campbell's view that 70 per cent. of all cases are due to syphilis. Even allowing that *all* my doubtful cases were syphilitic, which

is absurd, even then the figure only reaches 63 per cent.! I believe that Römer's estimate, 25 per cent., is the correct one. It is interesting to note that in Palestine iritis is almost unknown, although pyorrhoea is very prevalent. I only remember seeing two or three cases among several thousand seen at the British Ophthalmic Hospital.

## A FEW POINTS ON SOME COMMON AFFECTIONS OF THE EYES.*

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I propose to touch upon some affections of the eyes which every busy general practitioner is liable to meet fairly frequently, and will endeavour to give a few practical points that may be of some help.

We all know the difference between the injection of an eye in iritis and conjunctivitis. In iritis the injection is immediately around the cornea and is of a pinkish hue, whereas in conjunctivitis the hyperaemia is more marked towards the periphery of the bulbar conjunctiva. But it is not very uncommon to come across cases of conjunctivitis where there is, from the appearance of the eye, some doubt as to iritis being also present, and I am sure you will all have seen cases like the following:—

A patient with one or both eyes markedly red, with no diminution of the injection towards the margin of the cornea. We often find that the eye has been treated at home by keeping it tied up, or by poulticing it—perhaps with tea leaves. Such treatment, besides increasing the vascularity of the conjunctiva, may cause partial maceration of the corneal epithelium, and this, if one is not on one's guard, may be mistaken for turbidity of the aqueous, which is another sign of iritis. To proceed with the diagnosis, we next test the reaction of the pupil to light, and, if this is not satisfactory, inquire as to pain; stabbing pain in the eye, waking the patient about 2 or 3 a.m., is very characteristic of most cases of iritis. If still in doubt whether there is or is not some iritis present one next puts in a drop of ½ per cent. atropin (provided glaucoma can be excluded), and if the pupil dilates well in half an hour, with no iris pigment or exudate on the anterior capsule of the lens, we may then conclude that there is no iritis. Giving such a patient atropin to use regularly at home, in addition to the correct treatment for the conjunctivitis, may in many retard the cure, and is only permissible when, after a thorough examination, there is still some doubt as to threatened iritis; in such a case it is better to order weak atropin drops (½ to 1 grain in the ounce) and see the patient in a day or two, when the eye may be found free from any suspicion of iritis, and the drops can then be discontinued.

The mistake usually made in treating conjunctivitis is in using strong astringents or strong antiseptics at the commencement; the condition is thus usually aggravated.

Boracic acid lotion, to wash out the conjunctival sac *thoroughly*, or even only sterilized water with some sodium chloride in it, will in many cases bring about the cure. In other cases astringents may later on be necessary, and as there are many of these to choose from, it is better to avoid the *lead lotions*, because, if there be an ulcer on the cornea, a white and disfiguring incrustation of lead forms at the site of the ulcer. This could only be removed afterwards with great difficulty. I have seen this occur on more than one occasion after a patient has had a lead and opium compress on the eye for a short time to relieve pain. These ulcers proved most obstinate to get to heal, required scraping several times, and were very painful. Attention to the patient's health and surroundings and getting him into the open air are extremely important, and may effect a cure without any applications to the eyes.

Unless advised not to do so, patients think they should stay indoors when they have what they call "cold in the eyes," and that they should even keep in a darkened room. There is no advantage in keeping a patient suffering from conjunctivitis in a darkened room. Dr. Berry points out that though the actinic rays are known to cause irritation of the conjunctiva, which may indeed, as in snow blindness and electric light ophthalmia, be so great as to lead to violent inflammation, on the other hand they have a powerful bactericidal effect. The light of an ordinary room when the sun's rays are not directly passing into it has no bad effect on conjunctivitis.

There is one form of inflammation of the lids, *angular conjunctivitis* (Morax diplobacillus), in which zinc salts are the most effective treatment; here the inflammation is of a subacute type, with the redness most marked at the angles of the lids.

Poulticing, or what comes to the same thing, tying an eye up (as the tears and discharge from the eye keep the bandage moist), is usually harmful; it increases the vascularity, and favours the growth of germs which are always present in the conjunctival sac. Nature by the act of blinking does much in the way of cleaning the sac.

If one eye alone be affected by conjunctivitis, be on your guard against the *tear sac* being the source of the trouble. In chronic blenorrhoea of the sac without marked distension the condition may easily be overlooked. Here it is the contents of the tear sac regurgitating through the puncta that keep up the irritation of the conjunctiva. Firm pressure over the sac with one finger will force some purulent matter through the canaliculi, and show the cause of the conjunctivitis.

Many early cases of inflammation of the tear sac, especially in young infants, can be cured by instructing the patients or the parents to empty the sac by firm pressure applied to it by the finger as frequently, it may be, as every half-hour. If the secretions are allowed to remain in the sac they act as an irritant to the mucous membrane, which becomes still more swollen, and so any stricture at the junction of the sac with the nasal duct is increased. Inflammation of the tear sac besides causing troublesome epiphora is a constant source of danger owing to the risk of infecting any corneal wound; a slight scratch of the cornea may in this way lead to a hypopyon ulcer, and perhaps to the ultimate loss of the eye. Similar danger to the cornea must be guarded against in ophthalmia neonatorum and in gonorrhoeal ophthalmia of adults; rough handling in examining such an eye may easily cause an abrasion of the cornea, and so allow its inoculation by the conjunctival discharge, which may result in a perforating ulcer and total loss of the eye. It is advisable, therefore, before examining such eyes to first instil a drop of cocaine inside the lids.

Credé's method is an excellent prophylactic. I find the number of cases of ophthalmia neonatorum seen at the Eye Infirmary within the last few years has markedly decreased.

You may be called to see a patient complaining of pain in one eye, and on looking at it you find no conjunctivitis to speak of, but distinct circumcorneal injection. Assuming that the tension of the eye is not raised, and that glaucoma can therefore be excluded, you have to deal with either an affection of the iris (or deeper part of the eye) or of the cornea. It is not necessarily the iris that is affected; it may be a corneal ulcer, only to be discovered on minute examination. Many, I am afraid, at once jump to the conclusion that it must be iritis, and the patient thereby may be placed at a great disadvantage. A small corneal ulcer without any infiltrated edge may have to be searched for very carefully to be detected; the same remark applies to herpes of the cornea, or to the presence of a minute foreign body on the cornea, or to a slight abrasion of the cornea.

Here I wish to draw attention to the great advantage of using fluorescein (resorcin-phthalein anhydride) as a means of diagnosis in corneal affections. It may be used as drops (fluorescein 2 and sodium bicarbonate 3 in 100); one placed in the conjunctival sac, and then the excess washed out with, say, boracic lotion or sterilized water, will leave a brilliant green stain on any part of the cornea that has been denuded of epithelium, thus mapping out beautifully any corneal ulcer. A minute foreign body on the cornea would be more readily detected after using fluorescein, owing to the green ring which would appear round it, and it would therefore be much more easily removed. Fluorescein can be obtained in small tabloids to place inside the lids, a more convenient form for carrying about.

* Read before the Newcastle-on-Tyne Division of the British Medical Association.

Another aid to diagnosis is oblique illumination combined with the use of a magnifying lens or corneal loup. By this method it is often possible to recognize signs of iritis, which otherwise might be difficult, for fine deposits on the anterior capsule of the lens can thus be detected. This method is extremely useful to see the punctate deposits on the posterior surface of the cornea, which are sometimes the only signs of cyclitis, and which may be so faint that it may be impossible to see them with the unaided eye. These deposits are due to inflammatory exudates from the ciliary processes, and, owing to gravitation, are usually situated on the lower part of the cornea.

Yellow oxide of mercury, or Pagenstecher's ointment, is extremely valuable in suitable cases, but if indiscriminately used it can do much harm. I am afraid that in some quarters it is almost looked upon as a panacea for diseases of the eye. The suitable cases for its use are phlyctenular conjunctivitis, strumous or superficial keratitis, blepharitis, and to aid in the clearing up of corneal opacities, when the eye is free from inflammation. There is a tendency to think that, if any ointment is to be used to the eyes, it must be the yellow oxide, and that if any drops are necessary they must be atropin drops.

In conclusion, I wish to insist on the importance of being able to tell whether the tension of an eye is raised. Take every opportunity of testing the tension; if in doubt as to what normal tension is, try your own eyes. Unless you are able to appreciate difference in tension you will fail to diagnose many cases of glaucoma. When house-surgeon, I saw admitted into an infirmary two spinster sisters almost completely blind through chronic glaucoma. Their medical attendant had diagnosed cataract, and had not sent them in till he thought the cataracts must be ready for extraction, as they came from a considerable distance. Nothing could be done at this late stage to avert complete blindness.

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# THE MECHANICAL ETIOLOGY OF OPTIC NEURITIS.

BY

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OPTIC neuritis, or papilloedema,[1] to give it its more recent appellation, is the most interesting and at the same time the most puzzling symptom of intracranial disease.

The views held with regard to its causation are numerous, and we could do no better than quote F. W. Mott's summary of them:[5]

1. That it is due to inflammation or irritation of the optic nerve sheath, produced either by irritation arising from substances in the cerebro-spinal fluid of the sheath of the optic nerve or by direct extension of meningitis.

2. That it is due to obstruction to the outflow of venous blood from the ophthalmic vein by increased intracranial pressure on the cavernous sinus. But this theory of von Graefe has been disproved by the fact that a free anastomosis occurs between the ophthalmic and facial veins.

3. That the intracranial pressure interferes with the return of lymph from the sheath of the optic nerve.

Sir W. Gowers,[6] for instance, favours the first view by attributing optic neuritis to the possible presence of toxic substances in the cerebro-spinal fluid; and Osler[7] and Elschnig[1] regard the presence of inflammation as essential to its production.

It is obvious that the above views are more or less conjectural, and are of little or no help in trying to elucidate the condition which causes this change in the optic nerve by so many morphologically, pathologically, and regionally different lesions.

We should be in a position to account for the presence of papilloedema, for instance, in connexion with minute growths, especially of the cerebellum; its conspicuous rarity in cases of certain cerebral neoplasms of large size, notably of the corpus callosum; its comparative frequency in otitis media; and its inconstant character in cases of meningitis, abscess, and other inflammatory lesions.

Clinical evidence has gone far to prove that the toxic or inflammation theories are untenable. The fact that papilloedema is rare in post-basal meningitis, even in cases in which the inflammatory exudate has been found, *post mortem*, to have extended as far as the optic commissure,[10] and its predominance in non-inflammatory conditions, such as tumour, chlorotic and other non-infective sinus-thrombosis, and cerebral aneurysm, constitute an uncontestable negation to such hypotheses.

Recent clinical and experimental work, especially the researches of Sir Victor Horsley[1] have greatly helped to convert us to the belief that increased intracranial pressure is the principal mechanical agent in the production of papilloedema. In spite of the unanimity of most observers as to this point we cannot but agree with the opinion of Horsley and Swanzy[1] that the chief factor which produces this increased intracranial pressure has not been definitely ascertained as yet, and, furthermore, it cannot even be said that any successful theoretical attempt has been made to correlate, or to suggest an interpretation applicable to all cases of increased intracranial pressure with optic neuritis, from all causes, irrespective of their character, site, or dimension.

There can be no doubt that most clinicians have viewed this question from a purely pathological standpoint, and have looked for its answer solely amongst morbid causes. A survey of the work of Hill,[12] Cushing and Bordley,[13] Mott,[2] and others, shows, however, that a correct solution of the problem must be based upon physiological findings, which may now be said to be sufficiently advanced to enable us to locate, so to speak, any derangement in the physiological mechanism which induces increased intracranial pressure, and to which we now propose to refer.

It has been conclusively established that the cerebro-spinal fluid is secreted by the choroid plexuses of the ventricles, and that the channels of its resorption are the superior cerebral veins which join the superior longitudinal sinus.[14] The ventricles, then, may be looked upon as reservoirs for the constantly secreted cerebro-spinal fluid, while the subarachnoid space constitutes the main absorptive area. Each vein is surrounded by a sheath, which is an "intracerebral prolongation of the subarachnoid space" (Mott[12]), and the capillary interval between this perivascular lymphatic sheath and the vein wall is normally surrounded, to use Mott's words, by a cuff of cerebro-spinal fluid, and thus these veins are chiefly concerned with the withdrawal of fluid from the subarachnoid space.[15]

Our observations lead us to advance the contention that arrest of, or marked interference with, the cerebral venous return (with consequent subnormal cerebro-spinal fluid absorption) is the predominant factor in producing increased intracranial pressure, and that papilloedema is due to the resulting rise of fluid pressure in the optic nerve sheath. Given a condition of inhibition of the process of absorption, the pressure in the subarachnoid space will increase, either by continued secretion of cerebro-spinal fluid or by the diminution of the cerebro-cranial space.

We hold, therefore, that in every case of optic neuritis, from whatever cause, the patency of the veins is obliterated or the flow of their contents obstructed by blockage somewhere in the "superior longitudinal jugular line" (commonly the right), or they are rendered impervious by disease of the lymphatic sheaths. Thus, our view is diametrically opposed to that of Thomson Henderson,[8] whose deductions are based upon the assumption that "the intracranial pressure represents the venous pressure" (Hill),[12] in all pathological conditions, and who asserts that whenever there is increased intracranial there is increased venous pressure. But in cases of increased intracranial pressure with choked disc, there being no corresponding rise in the intraocular pressure, he ascribes the oedema and tumefaction of the nerve head to the intravenous pressure of the retinal veins reaching a higher level than the intraocular pressure. To refute Mr. Henderson's argument, suffice it to quote a few lines from the review of his book in the BRITISH MEDICAL JOURNAL[9]: "Chronic irido-cyclitis often ends in a soft eye, it may be one like a pudding bag with no tension." In such a globe the tension is

manifestly lower than the intravenous tension. If the Henderson theory were correct, we should have optic neuritis in all "soft" eyes!

Needless to say, the anatomy of the venous sinuses of the brain has an important bearing on this question. We have already seen that the superior longitudinal receives the superior cerebral veins, and is the principal carrier of cerebro-spinal fluid. The superior usually becomes the right lateral,[14] which thus acquires greater importance than the left. The same remarks apply to the right and left jugulars. The other sinuses take part in the production of papilloedema in so far as they may bring about closure of what we may term the primary sinuses by consecutive thrombosis.

We may now consider the pathological conditions which give rise to optic neuritis, to see whether they present any features which are not compatible with our views, which we may summarize, for the sake of clearness, as follows.

Papilloedema results from the lessened or arrested absorption of fluid from the subarachnoid space, in consequence of:

(*a*) Obliteration of the patency of the superior cerebral veins.
(*b*) Disorganization of the perivascular lymphatic sheaths.
(*c*) Occlusion of one or more of the venous sinuses.

Optic neuritis is found in association with (*a*) vascular, (*b*) organismal, and (*c*) neoplasmic lesions.

(*a*) *Vascular.*

The explanation of the papilloedema from thrombosis of the superior longitudinal sinus, as in chlorosis, typhoid, marasmus, pneumonia, etc., is self-evident, being due to the fact that the main channel for the discharge of surplus cerebro-spinal fluid is occluded. The observation that the subsidence of the neuritis in chlorosis is due to canalization of the clot[10] lends strong support to our theory. Blockage of the venous stream at any point, more so on the right side, may produce the same results, and the papilloedema of otitic origin is due to lateral sinus thrombosis, especially if the clot extends into the superior longitudinal. We venture to assert that even ligature of the right jugular in the neck may be capable of producing papilloedema if the emissary veins, especially the mastoid vein, are insufficient to establish compensatory venous return or are occluded by thrombosis or other cause.

(*b*) *Organismal.*

1. *Syphilis.*—The histology of cerebral syphilis constitutes one of the most important links in the chain of our arguments. The lymphatic sheaths have mainly been studied in this disease as they become thickened and conspicuous.[2] This endolymphangitis is doubtless responsible for the impairment of the absorptive function of the superior cerebral veins.

2. *Meningitis.*—We have already stated that in some cases of extensive basic meningitis there is no optic neuritis. In all probability in these cases the lymphatic sheaths are not involved. Papilloedema, however, is bound to result whenever the inflammatory process seals the openings of these "intracerebral prolongations of the subarachnoid space." For obvious reasons "abscesses" will be considered with tumours.

(*c*) *Neoplasmic.*

Tumours in the cortex or substance of the cerebrum act by compressing the brain tissue adjacent to them, and ultimately the veins. Obviously, a tumour of the cerebrum must attain a considerable size before it can press upon the veins. A point of some importance is the well-known fact that optic neuritis is not so common a sequel of abscess in the temporo-sphenoidal lobe as it is of abscess in the cerebellar region, for the simple reason that a much larger accumulation of pus or more extensive accompanying meningitis is needed for its production in the cerebral than in the cerebellar area. On the toxic or inflammatory theory, however, optic neuritis should be equally common in both varieties.

*Tumours of the Cerebellum and Corpora Quadrigemina.*

We may first direct attention to the following facts:

1. Optic neuritis is present in 100 per cent. of quadrigeminal, and 89 per cent. of cerebellar, tumours.[7]

2. The neuritis is generally equal and bilateral.*[10]

3. Subtentorial abscesses are more frequently accompanied by optic neuritis than abscesses in the cerebrum.

4. A condition of internal hydrocephalus is present in connexion with cerebellar and quadrigeminal tumours with optic neuritis.

Growths or abscesses in the cerebellum or tumours of the corpora quadrigemina bring about compressional closure of the iter, which may also be closed by intraventricular tumours. The foramina of Majendie and Luschka may become occluded by lymph or scar stenosis (meningitis). The secretion of cerebro-spinal fluid being uninterrupted, the shutting-off of its natural outlet results in the production of internal hydrocephalus. The dilatation of the ventricles under considerable internal hydraulic pressure cannot but produce collapse of the delicate veins in the brain substance, and therefore cessation of cerebro-spinal fluid absorption. It may be argued that, there being no increase of fluid in the subarachnoid space owing to the non-patency of the iter or the foramen of Majendie, there should be no rise of pressure in the subarachnoid space, and therefore no neuritis. It must be borne in mind, however, that by the dilatation of the ventricles the size of the brain generally undergoes increase, and the cerebro-cranial space becoming diminished, the intervening fluid, however small in quantity, is bound to be subjected to pressure, and driven into the sheath of the optic nerve, and at the same time plays the rôle of an additional force in compressing the veins.

Mott describes a most instructive case[2] of a tumour of the choroid plexus which gave rise, intermittently, to all the symptoms pathognomonic of cerebral tumour, and which, according to Mott, seems to have acted like a ball valve in periodically blocking the iter. He attributes the intermittency to a condition of cortical *anaemia* resulting from the temporary internal hydrocephalus. The production of anaemia or ischaemia by internal hydrocephalus is taught, then, by so great an authority as Mott. We venture to differ from him, however, in so far as we believe that it is unlikely that the arteries are interfered with, and that the thin-walled minute veins with their low blood pressure are the vessels that undergo collapse, a view which also affords us an explanation for the drowsiness, vomiting, and other symptoms of intracranial disease, and has an important bearing upon operative measures.

In conclusion we may refer to a valuable paper by J. Stoddart Barr and John Rowan of Glasgow.[4] We have already stated that papilloedema in connexion with ear disease is, in our opinion, evidence of sinus thrombosis, and we are supported by Grüning[4] and Friedenberg.[4] Barr and Rowan found 6.8 per cent. of optic neuritis in cases of middle-ear disease that came under their observation, and they attribute it to the possible existence of "serous meningitis"—a vague statement, which does not harmonize with their declared belief in the mechanical origin of papilloedema. We have little difficulty in persuading ourselves that the cases they reported as otitic optic neuritis consequent upon serous meningitis were cases of laternal sinus thrombosis.

The following case, which presented many remarkable features, is a characteristic example of sinus thrombosis with optic neuritis.

H. W., aged 28, was admitted to the Ashton District Infirmary (sent in by Dr. Spencer of Ashton) on October 5th, 1910, suffering from acute mastoiditis. He gave a history of six years' discharge from the right ear. On admission his temperature was 99°, pulse 120. He had a well-marked retro-auricular abscess. He was operated on immediately. The complete mastoid operation was performed, but as the disease had spread into the cranial cavity, more bone was removed so as to get a thorough exposure of the lateral sinus. The latter was bathed in sanious pus, with a conspicuous erosion on its wall which bled profusely on entering the skull. The bleeding was rapidly arrested with gauze plugging. The patient's condition gave rise to anxiety, and we did not deem it advisable to carry out our original intention of tying the jugular vein. Accordingly the wound was plugged, and he was returned to bed. He progressed satisfactorily for the next three days. His temperature rose, however, on October 8th, and he had a rigor on October 11th. The wound looked perfectly clean. On October 12th there was some swelling and erythema on the right side of the neck. He was operated on again this day. The right jugular vein was exposed and found full of clot as far as the omo-hyoid. Its cardiac end was ligatured, and the cephalic segment dissected up to its junction with the common facial vein. The latter was ligatured, and the jugular itself, being emptied of its clot, was sutured to the upper angle of the wound,

* Sir Victor Horsley holds that in its early stages the neuritis is always more pronounced on the side of the lesion.

which was closed without drainage. The wound healed per primam, and the vein, after discharging for three days, became completely obliterated five days after the operation. From the date of the jugular operation the patient had neither circulatory nor thermic disturbance, and seemed quite comfortable. On October 15th he complained of his sight being dim and of being unable to read his papers. His eyes were examined for the first time by us and by Mr. Wilfrid Lawson, ophthalmic surgeon to the hospital. He had intense double optic neuritis. We decided to relieve his pressure by lumbar puncture. At the first tapping his cerebro-spinal fluid pressure was 13 in. by Eve's instrument; ʒiv were removed, and the pressure reduced to 1 in. He was thus tapped successively on November 2nd, 5th, and 10th, removing on each occasion ʒvi, ʒiv, and ʒviij respectively, and leaving the pressure at 1 in. every time. The improvement after each aspiration was marked but transient, and so we decided to submit him to a subtemporal decompressive operation. On removing the disc of bone, the dura bulged out of the opening, but no pulsations were discernible. The dura was slit open by a crucial incision. A large amount of cerebro-spinal fluid escaped. On inspection the following were the striking features: There was an interval of about half an inch or more between the brain and the skull. The pial veins were prominent and distended. Even towards the close of the operation there was no tendency on the part of the brain to herniate or even to approach the skull. The tips of the four dural flaps were brought together, leaving four minute slits for drainage. The wound was closed in the usual way. Convalescence was uneventful. The patient's sight rapidly improved, and the papilloedema had entirely subsided on December 12th.

Peculiarly enough, we had the opportunity of watching another case presenting similar features, but involving the left mastoid, and, though the antrum, sinus, and jugular procedures were carried out, there was no optic neuritis.

With regard to the advisability of performing a decompressive operation in these cases Barr and Rowan disagree with Sir Victor Horsley. They state that, in their experience in these otitic cases, the optic neuritis clears up without operative interference. Their attitude is right in a sense, as compensatory venous return does get established in most instances by canalization of the clot or otherwise; but in severe types of papilloedema delay may cause irremediable damage to vision, while a decompressive operation—a minute opening is sufficient in these cases—is a precautionary measure the delay of which entails greater danger than its performance. In this connexion the words of a renowned surgeon (!), Oliver Cromwell,[11] are worth bearing in mind:

> But as in quinsy or pleurisy where the humour fixeth in one part, give it scope; all diseases will gather to that place to the hazarding of the whole, and it is natural to do so till it destroy life in that person on whomsoever this befalls. So will these diseases take accidental causes of aggravation of their distemper, if a timely remedy were not applied.

We are indebted to Sir Victor Horsley for his kindness in reading our contribution, for the encouragement he has given us, and for drawing our attention to Schieck's work.

REFERENCES.

[1] Sir Victor Horsley, Optic Neuritis, BRITISH MEDICAL JOURNAL, March 5th, 1910. [2] F. W. Mott, On the Cerebro-spinal Fluid (Oliver-Sharpey Lecture), *Lancet*, July 9th, 1910. [3] F. W. Mott, On the Cerebro-spinal Fluid, ibid., July 16th, 1910. [4] Barr and Rowan, Optic Neuritis and Suppurative Otitis, BRITISH MEDICAL JOURNAL, March 26th, 1910. [5] F. W. Mott, Cerebral Tumours, Gibson's *Textbook of Medicine*. [6] Sir W. Gowers, Optic Neuritis, ibid. [7] Osler, *Textbook of Medicine*. [8] T. Henderson, *Glaucoma*. [9] Review of *Glaucoma*, BRITISH MEDICAL JOURNAL, January 7th, 1911. [10] Clifford Allbutt, *System of Medicine*. [11] Oliver Cromwell, *Letters and Speeches* (Carlyle), Speech IV. [12] Hill, *Physiology and Pathology of the Cerebral Circulation*. [13] Cushing and Bordley, *Johns Hopkins Hospital Bulletin*, 1909. [14] Cunningham, *Practical Anatomy*, 1907. [15] Schieck, *Archiv für Ophthalmologie*, Bd. 78, 1911.

## THE CURATIVE EFFECT OF SALVARSAN SERUM IN A CASE OF SYPHILIS.

BY

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HAVING read the interesting article of Dr. Henry Alston in the issue of the BRITISH MEDICAL JOURNAL for February 18th, we applied this treatment to a patient suffering from syphilis in the Lock Hospital, Harrow Road.

It will be remembered that Dr. Alston produced a blister on patients who were suffering from framboesia and were under the influence of salvarsan. He then injected the serum obtained into other patients suffering from framboesia, with excellent results.

The history of the case in which we adopted the same method is as follows:

X. Y., aged 19 years, was admitted into hospital on February 8th, 1911, suffering from syphilis

1. *Genitalia.*—The vulva and anal regions were covered with large vegetating condylomata and mucous tubercles discharging a watery fluid.

2. *Skin.*—Universal areas of raised papular, somewhat scaly, syphilide, the face being also involved; syphilitic alopecia was present.

3. *Glands* of groin and neck discrete, soft, moderately large.

4. *Mouth and Throat.*—Fauces normal; general stomatitis; tongue normal.

The patient was also suffering from scabies.

Date of infection about July, 1910.

Weight 6 st. 2½ lb.

Wassermann + +.

February 14th. The patient's general condition being very feeble she was ordered sulphur baths and inunction of mercury. Three baths and one inunction only were administered.

February 19th. The patient weighed 5st. 8 lb., having lost 8½ lb. The scabies was better but the syphilitic signs were worse. The patient was injected with 10 c.cm. of a serum obtained from a cantharides blister on the abdomen of another syphilitic patient who four days previously had had an intravenous injection of 0.4 gram of salvarsan.

February 24th. Genitalia better, condylomata and mucous tubercles drier. Rash clearing up. Mouth practically well.

February 25th. 15 c.cm. of similar serum were given. After the third bath a good deal of sulphur irritation was noticed; baths were therefore discontinued. Mucous tubercles were now present on the tongue. Weight 5 st. 11¾ lb.

March 3rd. 18 c.cm. of a similar serum were administered. Genitalia much better, condylomata flatter and drier. The patient was feeling much better in health.

March 8th. 25 c.cm. of a similar injection from a patient seven days after an injection of salvarsan. Weight 5st. 13 lb.

March 12th. 10 c.cm. of a similar injection.

March 13th. Genitalia much drier, condylomata much flatter, mucous tubercles gone. Rash fading fast, being flat and showing no hyperaemia. Mouth, fauces, and tongue quite well. Glands as before. Weight 6 st. 1¾ lb.

Wassermann + ± March 7th.

REMARKS.

The noteworthy features of this case are:

1. The marked improvement in general health and increase in weight as soon as the serum treatment was begun. Previously the patient had lost 8½ lb. during the eleven days she was in hospital in spite of being carefully nursed and tended.

2. The effect on the Wassermann reaction is most striking; a deviation of 15 per cent. (+ +) of complement is reduced to a partial deviation of 15 per cent. of complement (+ ±) in sixteen days; this compares very favourably with any known treatment.

3. In our experience of some 30 or 40 cases of intravenous injection of salvarsan the results of the serum treatment are found as good as those of the drug, while the treatment produces no signs of illness.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### POST-ANAESTHETIC ACID INTOXICATION.

WITH reference to the two cases of post-anaesthetic acid intoxication reported by Dr. Gilbert Brown, I should like to point out that the administration of sodium bicarbonate in large doses, although ideal theoretically, practically never appears to have the slightest effect, or, if any, in the wrong direction.

There is, however, a remedy, tincture of iodine, which appears to quiet the stomach, and, as I have thought, to lessen also the smell of acetone in the breath. I believe that, if it had not been for its use, I should have lost a little patient who had been operated upon for tuberculous glands, and who vomited for four days, gradually getting worse, but who rapidly improved after the administration of single drop doses of tincture of iodine in a tablespoonful of water. I can well remember the smell of acetone in his breath.

Whilst resident in different hospitals I saw several mild cases, but owing to the early administration of this simple remedy I never saw any severe symptoms follow the prolonged administration of anaesthetics.

Not very long ago a rather stout virgin, from whom I removed some caruncles, suffered from severe vomiting, acid breath, etc., on the third day. The first administration

of tinctura iodi mv in a tablespoonful of water was instantly rejected, but I immediately gave her another similar dose, and ten minutes later got her to swallow rapidly a tumblerful of sherry whey, and with repetition of this every hour, and afterwards every two hours, substituting milk and soda water for the whey, she rapidly improved.

No doubt the iodine acts primarily as a sedative to the stomach, but I also think it steadies the poisoned liver cells. After a severe attack of acute alcoholism a similar condition may occur and often yields to a similar treatment.

In pointing out the little benefit derived from large doses of sodium bicarbonate, I must admit having seen benefit follow the washing out of the stomach with alkaline warm water. Diabetic coma is a condition in which acetone is present, and sodium bicarbonate is usually tried, in my experience with no benefit.

Seacombe. F. WILLIAM INMAN, M.B., Ch.B.Vict.

## A SUGGESTED OPERATION FOR SUPRAPUBIC DRAINAGE OF THE BLADDER.

THE object of this operation is to provide a channel for drainage of the bladder lined by mucous membrane, and therefore less likely to contract than one formed by ordinary puncture. A prostatic catheter, or a sound with a similar curve, is passed into the bladder, and made to press upon the anterior wall sufficiently to be felt above the pubes. Above this an incision is made and the point of the sound protruded, carrying a small section of bladder wall before it. Silkworm-gut sutures are then passed through the edges of the incision. The protruded bladder wall is then stitched to the skin by fine silk interrupted sutures, the mucous coat not being perforated. Finally, the silkworm-gut sutures are tied. The slightly protruded portion of bladder wall may be left until adhesion has taken place, and then incised for the passage of an india-rubber catheter; or, if necessary, this may be done at the time.

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## CONGENITAL ABSENCE OF THE KIDNEY.

THE case of this anomaly reported by Dr. Maughan in the BRITISH MEDICAL JOURNAL for January 28th, leads me to record the following case:

M. L., aged 75, a widow who had had two children, was admitted into the Suffolk District Asylum on February 19th, 1908, in a state of senile dementia, and died on March 20th, 1908, from acute bronchitis.

The necropsy showed no evidence of any previous abdominal operative procedure. The right kidney was very large and prominent occupying a position considerably anterior to the usual site. No trace of a left kidney, its vascular supply, or ureter could be found, nor any evidence of a ureteric attachment to the bladder on this side. The vascular supply of the right kidney was dissected out before removal of the organ, and consisted of two arteries about equal in size, arising directly from the aorta, and two veins also of about similar calibre entering the vena cava separately. The capsule of the hypertrophic organ (weight, 222 grams) was somewhat adherent in places, but otherwise it was healthy, presenting an unusual depth of cortex. The attachment of the right ureter to the bladder was normal. There was a fibroid about the size of a marble attached to the fundus of the uterus, and the left ovary was replaced by a thick-walled cyst about the size of a walnut containing pale yellow fluid and anchored by a slender pedicle 6 in. in length. The left ventricle of the heart was considerably hypertrophied. The urine, tested a few weeks before death, was found to be normal.

Suffolk District Asylum, Melton. STEPHEN G. LONGWORTH.

## FATAL CASE OF MELAENA IN THE NEWLY BORN.

THE following case of melaena neonatorum, which occurred in my practice two years ago, resembles the case reported by Dr. W. J. Lord in the JOURNAL of January 14th, 1911, p. 83

On December 5th, 1908, I attended a woman in the country in her confinement, and, after rather a difficult labour, I delivered with forceps a girl well developed and apparently healthy, weighing 8 lb.

On visiting the house the next morning the nurse told me that the child had vomited a small clot of blood just staining the linen. In the evening I was called again, as the child was vomiting blood and passing dark, jelly like clots of blood per rectum. Every time the child strained she evacuated quite large clots of blood, and continued to do so until she died at 1.30 a.m. on December 7th, about forty hours after birth.

I did not perform a *post-mortem* examination, unfortunately. The mother stated that her first child had died very young some years previously; the cause of death I do not remember. The parents both appeared to be strong and healthy people, and have since removed from the district.

My father, Dr. P. W. Rolston (R.N., retired), when practising in Manitoba, had about twenty years ago a case of melaena in a child which died within a week of birth.

CECIL MICHELL ROLSTON, M.D., C.M.
Duncans, Vancouver Island, B.C.

# Reports
ON
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## THE SEAMEN'S HOSPITAL, ROYAL ALBERT DOCK.

### A CASE OF EXTENSIVE PLEURAL EFFUSION.

(Reported by L. ERASMUS ELLIS, M.D Brux., M.R.C.S., L.R.C.P., House-Surgeon.)

THE patient in the following case, a Zanzibar native, aged about 35, a seaman, was admitted with a history of having been ill on board for some six days. During this time he had complained of pain in the right side of his chest, accompanied by cough. No history of any past illness or of any tropical disease was obtainable.

*State on Examination.*—The patient's breathing was obviously distressed, the respirations numbered 28 to 30 per minute, and were very shallow. The heart's action was laboured, the beats 100 to the minute, and the apex beat was in the fifth intercostal space, 1½ in. outside the nipple line. The right side of the chest was absolutely dull and board-like up to the clavicle, with practically no respiratory movements nor breath sounds. The temperature was 98°.

*Paracentesis.*—A diagnosis of pleural effusion having been made, I inserted a trocar and cannula into the pleural cavity, through the seventh intercostal space, in the posterior axillary line, and siphoned off fluid which on careful measurement proved to be 8½ pints in quantity.

This fluid was dark and blood-stained, and on bacteriological examination proved to be sterile.

While withdrawing this effusion, I watched the patient's condition carefully, in the expectation that he would show some signs of distress. This, however, was not the case, and he suffered but slightly from cough. It was, therefore, possible to withdraw the whole quantity at once.

*Result.*—The patient was immediately much relieved; the heart came back towards its normal position, the apex beat being in the nipple line at the end of the operation; his general condition was also greatly improved.

A somewhat strange feature about this patient's symptoms was that he had pain in the right deltoid muscle; it was immediately relieved on the removal of the fluid from the chest.

The patient suffered from a slight cough, and brought up a certain small amount of expectoration. This, on being examined, proved to contain tubercle bacilli. Other signs of tuberculosis, however, were not marked.

In conclusion, I wish to tender to Sir Patrick Manson, under whose care the patient was admitted, my thanks for allowing me to publish this note upon it. Owing to the extraordinarily large amount of the effusion, it may be of some general interest.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### OXFORD AND READING BRANCH: OXFORD DIVISION.

A meeting was held on March 17th, Dr. Turrell in the chair.

*Cases, etc.*

Mr. H. P. Symonds (Oxford): A case of *Plastic surgery.* He showed a man on whom he had performed a Tagliacozzian operation for an epitheliomatous ulcer of forearm, taking a flap from the chest wall, and separating it on the tenth day; the resulting union was satisfactory. Mr. Dodds-Parker (Oxford): A case of *Hernia cerebri*, the result of a gunshot wound in the back of the head on January 15th. The patient, a boy aged 7, was shown with the brain protruding and pulsating through a hole 2 in. square, just above the external occipital protuberance. He had been brought in collapsed and apparently dying. The parts were painted with 1 per cent solution of iodine in alcohol; and, though he had lost brain substance to the amount of a Tangerine orange, his condition had steadily improved and was wonderfully good. There was evidence of damage to the ocular reception centres, but his sense-memory had to a great extent recovered. Dr. Boissier (Banbury) sent the record of a case of *Pneumothorax* and emphysema of head and neck and upper part of chest walls in a child aged 1½ years. This condition developed within twenty four hours after the onset of the illness, which was characterized by dyspnoea and rapidity of the heart's action. No cause could be discovered, and the child rapidly sank within two hours of being seen. Puncture was performed, but without relief. On *post-mortem* examination, the cause was found to be a small pointed bony exostosis growing from the neck of the fifth rib and perforating the trachea at the bifurcation. Dr. Collier (Oxford) recorded a remarkable recovery in a case of *Pyaemia complicated by endocarditis and pericarditis and nephritis.* The patient, a man of about 35, had been treated with salicylates without success, and pyaemia affecting the right knee-joint and sterno-clavicular articulation was diagnosed. The urine was solid with albumen, and an extraordinary musical cardiac murmur (systolic) could be heard some feet away from the patient. The joints were laid open and drained, and a complete recovery ensued. It was noted that alcohol was given in only very small doses in this case. It was an example of the difficulty of prognosis in acute diseases. Dr. Croly (Charlbury): A case of *Incarcerated uterus*, with haemorrhage into the bladder. A woman aged 30, four and a half months pregnant, presented an abdominal swelling, with general oedema and scanty urine. The catheter drew off 113 oz. of urine, followed by blood; but a swelling could still be felt through the abdominal walls and also per rectum. Labour pains commencing, the patient was anaesthetized, but sank under the anaesthetic. *Post mortem* the uterus was found incarcerated in the pelvis, and the swelling was found to be the bladder full of blood clots. Dr. Cruickshank (Eynsham) related a case of *Foreign bodies in the rectum* which illustrated the aphorism, "When in doubt, examine the rectum." A girl, aged 16, was seized with abdominal pains, mainly in the left iliac region. There was constipation, but no sickness or distension. Calomel, grain ½, was ordered every hour until the bowels acted; nothing more was heard of the patient until two days later, when he was called to see her again, and found her very ill, with distended abdomen, and a temperature of 102.5° F. Watery stools, with blood and mucus, had resulted from the calomel treatment. Dr. Cruickshank inclined to the diagnosis of colitis, but before leaving examined the rectum, and found a large mass of wood impacted above the sphincter; this he removed with difficulty by douching, and found it to consist of many dozens of wooden matches. The specimen, filling a large pickle-bottle, was exhibited. The girl had for the last six weeks been eating matches, apparently without their heads. In the discussion which followed, a case of glass-eating was recorded, and another of impaction of ink-bottle in the rectum. Dr. Duigan (Oxford) gave an account of *Extensive injuries* found *post mortem* in a man who had been run over by a brewer's van. The pelvis was fractured through the rami of the pubes and ischium on both sides, the bladder being torn. The liver and spleen were lacerated, seven or eight ribs fractured on both sides, together with a fracture of the sternum. The lungs were lacerated by the fractured ribs, but the most remarkable injury was that of the heart, which was torn away from its basal attachments, the big vessels being severed through. Dr. Gibson (Oxford) recorded a case of *Angeio neurotic oedema* in a woman of 58. The attacks had occurred since childhood, lasting ten to fourteen days; they were characterized by vertigo, swelling of various parts of the body, sickness, and scanty urine. The blood pressure was increased during the attacks, which were initiated by drowsiness and salivation. The extreme violence of the vomiting was a noticeable feature. Dr. Gooch (Oxford) described a *post-mortem* examination in which there was found a *Round worm*, occupying 2 in. of the bile duct; thence it was traced up the pancreatic duct, its head lying in the duct of Santorini. The patient had undergone an operation for acute pancreatitis, but collapsed soon after. Dr. Good (County Asylum) described a case of *General paralysis.* After an attack of right hemiplegia the patient lost sensation of that side of the body. A year later he was found one day to have eaten the first finger of the right hand, and the last phalanx of the thumb; he had also commenced eating the middle finger. Three days later there was pain felt in dressing the hand—evidence of returning sensation. He died shortly after. Dr. Graham (Brill) recorded a case showing the value of *Antiseptic treatment.* A man of 50 had gangrene of the foot, necessitating amputation below the knee; the urine contained albumen and sugar. Three days later the stump showed signs of sloughing, and a second amputation was considered; but under persevering treatment with mercuric iodide, the flaps became healthy, and a good stump resulted; the patient living for two years after. Dr. Hayward (Abingdon) described what was thought to be *Nuclein poisoning after parturition.* The patient was a primipara, who, seven days after a normal delivery, had a rise of temperature (103°F.), with distended and tender abdomen, and vomiting. There was no apparent cause of sepsis, and the symptoms subsided after uterine douching. The midwife informed Dr. Hayward that the patient's husband had connexion with her on the seventh day, and Professor Ritchie had suggested that the symptoms were due to nuclein poisoning, the nuclein being contained in the heads of the spermatozoa. Dr. Neil (Warneford Asylum) described the discovery *post mortem* of a *Filament of whale-bone in the right heart* of a middle-aged insane man in the Macclesfield Asylum. It was 6 in. long, and lay in the right auricle, being attached by organized blood clot to the tricuspid valve; it was the thickness of a knitting needle. Death was not due to heart disease, and the man had apparently been none the worse for the foreign body. The whalebone was a fragment of a sweeping broom; the patient had swallowed it. It lodged in the oesophagus, worked through into the left innominate vein to the superior vena cava, and so to the right auricle. Mr. Style (Moreton-in-Marsh) recorded the successful *Removal of a large gall stone impacted in the ileum*, 10 in. above the ileo-caecal valve. The stone weighed 195 grains, and was 1½ in. × 1 in. The case was an example of the remarkable vitality of the aged, the patient being an old woman of 78. Mr. Whitelocke (Oxford) gave an account of a case of *Acute volvulus of the sigmoid* in which he performed colostomy on three occasions. The symptoms returned six months after the first operation, and the fourth day after this second operation the stitches gave way during a night attack of sickness, allowing the escape of the intestines into the bed. They were carefully cleansed and returned, the wound being closed by through-and-through sutures, and the patient left the hospital quite well a month later. Two months after he returned for the third time, and sank nine days after operation. The sigmoid was found to be enormously dilated, and Mr. Whitelocke considered that he should have excised the bowel on the first occasion. At the conclusion of the agenda Dr. Collier showed the chart of a patient (an undergraduate born in India), which recorded a *Fall of temperature through 10° in thirty-six hours.* The pyrexia was evidently malarial, as the malarial parasite had been found in the blood. The

highest temperature was 105° F., and thirty-six hours later, after 15 grains of quinine, it fell to 95° F. The highest pulse rate was only 80. A discussion ensued on subnormal temperatures, several members with an experience of malaria expressing the view that the higher the temperature during the attack the greater the fall afterwards. Dr. Collier's patient had only spent the first eighteen months of his life in India, and had not suffered from malaria in infancy. His age was 20

# Reports of Societies.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

*Friday, March 10th, 1911.*

Sir JOHN MOORE, President, in the Chair.

*Paratyphoid Fever.*

DR. G. PEACOCKE described three cases which occurred among the nursing staff of a hospital in November, 1910. The symptoms were similar in all cases, and closely resembled those of enteric fever. Rose coloured spots were present on the abdomen in two cases, but in none was the spleen palpable. Convalescence was in all cases prolonged. The agglutination test with Eberth's bacillus was negative in all the cases, but clumping occurred with a bacillus isolated from the urine of one case. This bacillus was subsequently proved to be *Paratyphoid A*. Dr. SCOTT said there was a peculiar condition in which the clumping consisted only of two or three bacilli, and in which he always felt in doubt as to whether he should call the reaction positive or negative. When such clumping with typhoid bacilli occurred, further investigation often proved the case to be one of paratyphoid fever. Dr. DAY said that on making an examination of the blood in the mild cases which first seemed to be typhoid, one often eventually found them to be paratyphoid. He did not think that paratyphoid was necessarily a mild disease, and mentioned the case of a man who went from bad to worse, and finally died from this disease. Dr. O'KELLY said he had a case of paratyphoid in which Peyer's patches were inflamed but not ulcerated; but on the ileo-caecal valve there were very deep ulcers. Dr. BEWLEY mentioned three cases in young men who were brought into hospital. In one of these there was profuse haemorrhage. Paratyphoid was much commoner than it was thought to be.

*Diabetes Mellitus.*

Dr. CROFTON, in a paper on the etiology and treatment of diabetes mellitus, said that the removal of the pancreas in animals produced a complete picture of diabetes, and in diabetes lesions of the pancreas were frequently found. Since the pancreas was induced to secrete by the hormone secretin, absence of it would lead to glycosuria. The absence of this substance would account for those cases of diabetes in which the pancreas was found normal. All cases of true diabetes were due to functional or organic disease of the pancreas. Absence of secretin was due to inflammation of the intestinal mucous membrane produced by microbes, and a common source of the infection, amongst others, was pyorrhoea alveolaris. If the lesion was in the pancreas it might be due to blocking of the ducts, to spread of microbes from the intestine, or to infection of the gland through the blood stream. These considerations of etiology gave two lines of treatment which were complementary. The first was the removal of the infection by specific means—namely, by inoculation with vaccines. The second, the replacement of the absent substance—namely, secretin, or co-ferment, or both. The co-ferment could be obtained commercially as Hormonadin. By these means he had obtained marked improvement in many cases, while the patient was always kept on the ordinary full diet. He did not think a "cure" was possible in most cases, as the essential tissues were destroyed, or too badly damaged to recover, when the patient came under treatment. But he did think it possible to enable a patient to live an ordinary life on an ordinary diet and to prevent the disease progressing. Dr. MOORHEAD said the treatment of diabetes mentioned by Dr. Crofton was built up by hypothesis based upon hypothesis. As regards secretin, he had given the drug a fair trial, and did not believe it to be of any use. Dr. Crofton laid special stress on the fact that his patients improved on the extracts, and were given a full diet. The speaker could not see where was the improvement, considering the so-called improved patients passed more water with a greater percentage of sugar. A mere statement by a patient that he felt better was worthless. Professor COLLINGWOOD said as regards Cohnheim's experiments it was possible that they were due to bacterial invasion. There was a further action of secretin which had been neglected. If pancreatic ferments were mixed with secretin these ferments were activated by the fact that secretin had come in contact with them. Dr. KIRKPATRICK had tried secretin in several cases, and could not say there was any satisfactory result. But a patient who continued to lose weight under secretin increased in weight by 5 lb. with Dr. Crofton's extract, and no longer complained of thirst or hunger. His experience of the drug in other cases justified his continuing its use. Dr. WINTER agreed in this view. The PRESIDENT referred to the uses of codeine and liquid extract of sagrada. The former he regarded as more useful than any ferment.

## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, March 23rd, 1911.*

Dr. T. R. BRADSHAW, President, in the Chair.

*Rheumatic Fever and Chorea.*

DR. R. J. M. BUCHANAN, in a paper on the pathogenesis and treatment of rheumatic fever and chorea, considered in some detail the researches on the bacteriology of these diseases, and concluded that the organism described by Poynton and Payne was the cause. Rheumatism seemed to him a lingering process with exacerbations resulting from the presence of the infective agent, and hence the essential object in treatment should be to increase the resistance of the patient. For this purpose he had used a vaccine made from a short streptococcus obtained from the blood of a patient suffering from rheumatic endocarditis. Some 20 cases had been treated in this way. He advocated such vaccine treatment in early cases, and considered that it might have a favourable action even on endocarditis. In more chronic cases it was useful for the joint affections and might prevent relapses. The PRESIDENT remarked that the bacteriology of rheumatic fever was very uncertain, and he did not consider that the causal nature of the organism of Poynton and Payne had yet been proved. Much of the improvement seen in Dr. Buchanan's cases might be due to the rest and general hygiene of the hospital. He had extensively used the salicylates and had not encountered any bad results, with the exception of vomiting in children; this he found ceased if the acid was substituted for the sodium salt. Dr. PERCY MARSH emphasized the importance of treating seriously rheumatism of the muscles and fasciae in children, since the manifestations of joint rheumatism were often slight. Neglecting to do so in the case of growing pains was the cause of many hearts being permanently crippled. He had treated 10 cases with the *Streptococcus rheumaticus* vaccine; of these, 9 had improved considerably under the treatment, but in 3 relapses had occurred within a few weeks of leaving the hospital. One case of chorea had shown no improvement, and had, in fact, developed endocarditis whilst under treatment. The usual dose given was 10 millions. Dr. MURRAY BLIGH, working on the value of the von Pirquet tuberculin reaction, had found it invariably positive in cases of chorea. He had, in fact, never seen a case of chorea in which the tuberculin reaction was not positive. He recalled the statement of Dr. R. W. Philip that chorea was not uncommonly associated with tuberculosis. Dr. J. HILL ABRAM doubted the correctness of the premisses in Dr. Buchanan's work. Dr. E. T. DAVIES alluded to the cases of so-called imitation chorea. Dr. MACALISTER held that there was little doubt as to the infective character of chorea, and related several instances where the disease had apparently been directly conveyed from one child to another. Regarding the relation of chorea to acute rheumatism he felt that there was some doubt, and referred to a paper previously published in which he pointed out that the toxicity of the blood plasma

in chorea was great to white blood cells taken from healthy children, whereas the blood cells of children suffering from chorea having attained some immunity were less influenced by it, and he thought that if the diseases were due to identical poisons the cells of rheumatic patients ought to be as immune as those taken from people suffering from chorea. He regarded the salicylates as specifics for acute rheumatism. He referred to a paper which he had published in 1902 in which he stated that he regarded sodium salicylate as almost a chemical test for acute rheumatism, and that those cases which did not respond to it were really to be classed among the rheumatoid fevers. Dr. Macalister also referred to the eosinophilia which was so constantly present in chorea, but never present in rheumatic fever, a point which marked another distinction between the two diseases; he also directed attention to his experience that this blood condition remained for some considerable time after the disease was apparently better, and that relapses were very apt to occur so long as it existed, and consequently he made a practice of keeping his patients in hospital until the blood became normal.

## CHELSEA CLINICAL SOCIETY.

*Tuesday, March 14th, 1911.*

T. W. PARKINSON, M.D., President, in the Chair.

*Annual Clinical Debate.*

THE subject chosen for the debate was *The treatment of colitis*, in reference to which Dr. HALE WHITE said that the first point to decide in colitis was whether the attack was primary or secondary. The cause might be injury or inflammation in a neighbouring part, or a septic fever, or Bright's disease, absorption of pneumococci, malignant disease, or appendicitis. In the latter case the really appropriate treatment for colitis, appendicostomy, was rendered impossible. In primary colitis the important thing was to keep the bowel empty. Whether it was advisable to inoculate as well was a debatable point. If this treatment was followed, the inoculation should be from a culture of the dominant microbe; this was not always easy to find, and the patient often got well while it was being discovered. Muco-membranous colitis was almost always the result of constipation. Here, again, the treatment was to keep the bowel empty; this was best effected by a light peptonized diet and castor oil. The principle of the Plombières treatment was just the same, and usually very effectual, though perhaps in a neurotic patient it was liable to keep the subject rather prominently before the mind. Regular abdominal massage by a properly trained nurse often did good, but electricity the speaker found useless. When enteroptosis was present support should be given by suitable stays. Diet did not seem to matter. There were two opposite forms of treatment, both apparently successful. One consisted in a bulky diet, the other in one which left practically no residue. Opium should never be given if it could be avoided. For the more severe cases appendicostomy gave the best results, but in membranous colitis it was well to avoid it if possible, on account of the nervous element in this form of the disease. Ulcerative colitis was due to a variety of organisms—coli, streptococci, and pneumococci. A diet of milk and eggs was most suitable in these cases, and opium might sometimes be needed to relieve the pain. Intestinal antiseptics were sometimes useful, but not always, and there was often a relapse after vaccine treatment in two or three months. In this case appendicostomy should be performed, and in severe cases earlier. It should not be forgotten, too, that in these relapsing cases the micro-organisms might have got into the blood, and that the condition might have become general instead of being merely local.

Dr. ROBERT HUTCHISON, speaking of primary colitis, said that between the different forms there was no hard and fast line; one often passed into another, or they might coexist. In muco-membranous colitis with neurasthenia it was difficult to distinguish cause from effect, and both conditions must be treated. In regard to diet, he favoured the French system of avoiding all residue as far as possible, and especially the exclusion of cellulose, which was never digested by these patients. Peptonized milk, as an exclusive diet, was very serviceable, but sour milk was generally a failure. Aperients were useful in all cases, but they should be chemical as distinct from mechanical aperients. The most suitable were castor oil or senna. Astringents generally should be avoided, but were sometimes indicated in chronic catarrhal cases, combined with antiseptics, such as bismuth salicylate or zinc sulphocarbolate. Opium, of course, should be avoided, except in severe cases of pain and tenesmus. For the pain due to spasm in muco-membranous colitis belladonna was most useful. Treatment by intestinal antiseptics he did not consider sound either in theory or practice. Of injections, he had found the best to be warm olive oil and a normal saline. Some of the silver salts were occasionally helpful if the disease were sufficiently localized. Operation, from the physician's point of view, might be directed either to diverting the passage of the bowel contents by throwing the colon out of gear, to facilitating the cleansing of the bowel, or to the removal of sources of infection, as in appendicectomy. Colostomy should be reserved for the gravest type of cases, but in some it might be the only means of saving life. Though appendicostomy was very successful, relapses often occurred. It was most useful in ulcerative cases, but not often advisable in muco-membranous cases. As to specific remedies, ipecacuanha had often a very striking effect in ulcerative colitis, stopping the haemorrhage and healing the ulcer. He was rather sceptical as to the value of any form of vaccine treatment, owing to the difficulty of isolating the organism which was the actual cause of the symptoms.

## OXFORD MEDICAL SOCIETY.

AT a meeting on March 10th, Mr. ANGLIN WHITELOCKE in the chair, the following were among the exhibits and communications:—Dr. WATERS: A case of *Mitral stenosis* in a man of 21 who had had chorea at an early age, and again when aged 12. The remarkable feature was an antero posterior curvature of the spine, which had been becoming much more marked lately. The case was shown especially to elicit opinions whether the spinal and heart conditions had any connexion with one another. In the discussion Dr. MALLAM mentioned a patient with lateral curvature of the spine in whom he had watched the development of mitral stenosis, and Dr. GIBSON mentioned the views of certain French writers that there existed a close relation between thoracic deformity and enlargement of the heart. Mr. A. P. DODDS-PARKER: A case of *Tertiary syphilis* which he had recently treated by the intravenous injection of salvarsan. The patient had had no inconvenience from the injection, and had expressed himself as markedly improved in general health. Mr. E. C. FOSTER recorded a case of *Pyelitis* in a woman aged 30, which came on two months after the birth of a child, and recurred on three occasions, two days before the onset of menstruation. Mr. COUNSELL related the history of a postman, aged 22, who had consulted him for laryngitis and sore throat. He had not suspected anything more than an ordinary cold, and had advised the patient to stay indoors until his voice became better. He improved a little, but six days after first being seen he was called to see him in great difficulty of breathing, and apparently moribund. He recovered, but the same day had another attack, and died. There had been no laryngeal obstruction necessitating tracheotomy. A culture of the throat showed the presence of streptococcus. Subsequent inquiry convinced the speaker that death was due to *Diabetic coma*. Dr. GILLETT related the history of a patient, a middle-aged woman, who had suddenly been attacked with *Haemorrhage from the bowel*, and symptoms necessitating surgical interference. At the operation the greater part of the transverse colon was found to be very much thickened and dark red in colour. The transverse mesocolon had petechial haemorrhages in it. As the patient had mitral regurgitation the intestinal condition was thought to be due to infarct, and a short circuit was performed. The patient, however, did not recover. A *post-mortem* examination was performed but no evidence of infarct was found, either by dissection of the vessels or by microscopical examination. The localization of the affection to the middle part of the transverse colon was very definite. The mucous membrane and submucous layer of the intestine were necrotic, and

showed the invasion of organisms from the lumen of the bowel. The muscular layer and peritoneum were in a state of acute inflammation. Dr. HAYWARD read the history of a male patient, aged 58, who consulted him for what he found to be an *Aneurysm of the aorta*. There was stridor, dyspnoea, pain in the right arm and shoulder, and dilatation of veins, and some oedema of the right side of the neck. There was pressure on the right bronchus. Thirty years previously the patient had consulted Sir Jonathan Hutchinson for leucoplakia, who suggested that it was due to tobacco smoking, and advised abstention from it. No history of syphilis could be ascertained. The aneurysm had begun while mountaineering, when, during a climb, he suffered from a sudden pain in the chest, became very short of breath, and suffered from marked collapse. The patient had persevered for six weeks in a rigid Tufnell treatment, which was effective in relieving all symptoms, but had left some wasting of the upper arm muscles, which had subsequently recovered their power. Later the patient developed an epithelioma of the palate, for which he was operated upon. The operation, which had been very difficult, was successfully performed; the patient made a good recovery, and was at the present time in good health. *X* ray photographs showed the presence of a saccular aneurysm of the second part of the aorta.

## UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on March 8th, Colonel Sir DAVID BRUCE in the chair, the following were among the communications: Lieutenant-Colonel P. J. FREYER, I.M.S.(ret.), in a paper on the symptoms and diagnosis of *Stone in the kidney and ureter*, laid special stress on the value of radiographs of the parts as a precedent to operation; it was only in exceptional cases and in those of pure uric acid calculus that one would be justified in dispensing with them. Dr. IRONSIDE BRUCE afterwards showed a number of radiographs in point, and emphasized the necessity for always taking the picture in a standard position. Colonel H. HATHAWAY, A.M.S., in a paper on *Ambulance transport*, after pointing out that there was likely to be a shortage of horses in future campaigns on account of the large growth of motor transport, said it would be necessary to provide motor transport for wounded in all except the immediate front, where it would still be necessary to have horse transport on account of the difficulties of getting motor wagons over rough country away from roads. The use of motor transport would have many advantages, not only in the more rapid clearing of the front, but also in the greater comfort to the wounded and quicker attention to their needs in the better adapted hospitals of the rear. He discussed the various types of motor vehicles at present in use, and suggested that the most economical method of use would be to remove the body, and replace it by a platform adapted for the carriage of wounded lying down or sitting up. If large users of motor transport in peace time were subsidized, it might be possible to arrange that they should have their chassis built to standard sizes which in war time would fit bodies kept in mobilization stores. Major CROFTON ATKINS, A.S.C, said that probably the best solution of the problem would be the subsidizing of cars with a standard chassis; these would be registered, and would be available for military purposes in case of mobilization. It was doubtful if motors could be much used away from roads, but on roads there was no doubt that they would add greatly to the comfort of the wounded, as well as to their more rapid removal to the rear.

## ULSTER MEDICAL SOCIETY.

AT a meeting on March 2nd, Sir PETER O'CONNELL, President, in the chair, Dr. HICKS showed two tubal fetations removed successfully by operation, and gave short histories of the cases. Dr. MITCHELL read a short paper based on 110 consecutive operations for ulcer of the stomach and duodenum, all cases of perforation or of cancer being excluded. Haemorrhage had occurred in about 40 per cent. of the cases, local hyperaesthesia in only 3 per cent. As regards haemorrhage he recommended the subcutaneous use of normal horse serum. In 19 cases he removed the appendix.

## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting in Sheffield on March 17th, Dr. J. B. HELLIER, President, in the chair, the following were among the exhibits:—The PRESIDENT: A *Fetus with webbed extremities* and complete absence of the kidneys, ureters, and bladder. Otherwise it had apparently developed normally to about the eighth month. Mr. CUFF (Sheffield): A hairpin removed from the bladder by vaginal cystotomy. Dr. GEMMELL (Liverpool): A *Compound teratoma* of the ovary, and preparations and photographs connected therewith; in external appearance it simulated a small fetus with head, back, and limbs. On dissection the portion resembling the head was found to be an oval, egg shaped body, calcified all over; at its broader end it showed indications of occipital and parietal sutures. This closed cavity contained a yellowish material, of the consistency of gruel, containing cholestrol and a substance resembling "protagon" or some similar brain lipoid. Other portions of the ovary contained thyroid gland tissue of an adenomatous type, and calcareous nodules and masses, but without any definite arrangement resembling fetal limbs. Dr. WALLS (Manchester): Two cases of *Ectopic gestation* accompanied by inflammation of the tube of the opposite side. In both cases it was necessary to perform double salpingo-oöphorectomy. Mr. MILES H. PHILLIPS (Sheffield): A case of *Chorion-epithelioma of the Fallopian tube*. In September, 1908, the patient, a 3-para of 28 years, had the left tube removed for what appeared to be a tubal gestation. Its inner end was enlarged to form a cylindrical mass measuring $3\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in.

On section it appeared to consist of organizing blood clots; there was no trace of an ovum. Microscopical examination of peripheral portions of the tumour showed typical chorion-epitheliomatous tissue deeply invading the wall of the tube. The uterus was then explored, with a negative result. Six weeks later a recurrent mass could be felt in the left broad ligament, and an ovoid swelling of purplish colour had appeared in the anterior vaginal wall. The patient had become much thinner and paler. Total hysterectomy, with removal of the apparently healthy right appendages and left ovary, was then (November, 1908) performed. At the same time a nodule ($1 \times 1 \times \frac{3}{4}$ in.) was excised from the upper wall of the bladder, and another ($1 \times 1 \times \frac{1}{2}$ in.) from the anterior vaginal wall. No attempt was made to remove a nodular mass situated at the root of the mesentery. The recurrent growth and the two metastatic nodules consisted largely of blood clot, but all showed typical chorion-epithelioma.

The patient made a rapid recovery from the operation, and steadily gained weight and strength. At one time there was a cough with blood-stained sputum, but no physical signs of growth in the lungs were detected. Ten months later the mesenteric swelling had quite disappeared, and in March, 1911, two years and four months after the radical operation, there were no signs of recurrence in the pelvis or elsewhere.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 3rd, Dr. PHINEAS S. ABRAHAM, President, in the chair, Dr. HAROLD PRITCHARD read a paper on the present position of *Vaccine-therapy*. He said that a slight local reaction was the end to be desired after an initial dose of vaccine; if the size of the subsequent doses was properly gauged, and the interval of administration carefully fixed, there ought to be no subsequent reaction. A general reaction should never be obtained. A reaction depended on these factors: (1) Size of dose; (2) virulence of vaccine; (3) reaction of patient. The first factor was the only one under complete control, so that it was impossible to lay down rules for the administration of vaccine applicable to every patient. Generally speaking, the more acute the case and the more general the infection the smaller should be the dose. Dr. J. L. BUNCH thought the immediate effects of treatment by vaccine could be more readily studied in diseases of the skin than in diseases of internal organs. He did not himself feel inclined to dispense with opsonic estimation, as it was the only available method of estimating the anti-bacterial defences of the body. Mr. H. WANSEY BAYLY thought the method employed in the preparation of vaccines specially important. It was best not to expose

them to a temperature above 55° C. Personally he did not use heat at all, but sterilized them with 1 per cent. carbolic in saline. He had seldom noticed either local or general reaction except with typhoid vaccines and occasionally gonococcal vaccines. He agreed that the opsonic index could not be considered a reliable method of estimating immunity or for controlling vaccine treatment; also that gonococcal vaccines varied greatly in virulence, and therefore the initial dose should be minimal. His experience of pneumococcal vaccine in the treatment of acute pneumonia, though limited, had been encouraging. He had, like Dr. Pritchard, not been successful in the treatment of pyorrhoea alveolaris with vaccines, nor in acute gonorrhoea. Mr. McAdam Eccles said that in many chronic affections the effects of vaccine were truly marvellous. For *coli* infections of the urinary tract vaccine-therapy was very helpful. Dr. Abraham said he admitted that vaccine-therapy constituted an enormous advance, but in his own experience many results had been the reverse of satisfactory. For instance, in acne, six of the worst cases he had seen had been made worse by vaccines; two of these were disfigured for life by the treatment. Acne could be cured by common sense and rational treatment, external and internal. As regards boils, he failed to see why any case should be treated by vaccines. Many cases of boils treated by vaccines had recurred.

## BATH CLINICAL SOCIETY.

At a meeting on March 3rd, Mr. F. Lace, President, in the chair, the following were among the exhibits:—Mr. Forbes Fraser: A case of ascites in a woman, aged 58, cured by *Drainage through the femoral canal.* Dr. Rupert Waterhouse: A specimen of *Cysticercus cellulosae* removed from the subcutaneous tissue of a man, aged 28 (also shown), who had been suffering from headache, vomiting, optic neuritis, fits, and paralysis of the right external rectus muscle. There was pronounced eosinophilia of the blood and cerebro-spinal fluid and twenty-seven cysticerci could be discovered in different parts of his body and limbs. The optic neuritis had completely disappeared and the other symptoms were subsiding. Mr. Pagan Lowe, in a paper on *Metatarsalgia*, said this disease was of fairly common occurrence. Many patients labelled gout or rheumatism were really suffering from this disease, which he considered to be a pressure neuralgia, although in one-third of the cases there was a history of injury. He divided the cases into three classes according to their severity, and the treatment depended upon the degree present. He found that in the first degree it was sufficient to abstain from any action which produced pain and to modify the boot so as to invert the foot. That was readily done by adopting the wedge-shaped sole. In the second degree, in addition to the measures already enumerated the sole of the boot should be thickened about ½ in. behind the heads of the metatarsal bones, and a band of hospital strapping worn round the instep. Hot and cold douches or the local application of belladonna were very useful when the pain was severe. In the third degree he found that excision of the head of the fourth metatarsal bone was the only treatment.

## ASSOCIATION OF REGISTERED MEDICAL WOMEN.

At a meeting on Tuesday, March 7th, Mrs. Dickinson Perry, President, in the chair, Miss Stoney, M.D., showed 2 cases of *Exophthalmic goître treated by x rays*, and reported on the 8 cases she had shown last year. This completed a series of 25 cases of this disease treated by *x* rays; 18 were definitely much better, 2 had relapsed, 2 had been lost sight of, and 2 had been treated so recently as not to be judged yet. In the 18 that showed marked improvement, the heart condition, if irregular, gradually became regular, and the rapidity came down to something between 80 and 100. The palpitation stopped and sleep returned. The throbbing disappeared, and in many cases the area of cardiac dullness became normal. The nervousness disappeared, and the patients became happy and gained, and put on weight. The irritability and tremor disappeared, the exophthalmos was improved in all, and in 5 seemed cured. The goître was smaller, but had only absolutely disappeared in 2. Miss W. Cullis, D.Sc., read a paper, illustrated by lantern slides, to show the work that had been done to prove the myogenic nature of the heart-beat. After speaking of the earlier theories of the production of the heart-beat, she gave in some detail the main experiments of Gaskell to prove that the explanation of the heart beat was not nervous but muscular. His work was conducted mainly on the simpler animals, as the tortoise, and received great corroboration by the discovery by Stanley Kent of the auriculo-ventricular bundle or bundle of His. The speaker exhibited many slides showing the alteration in the heart-beat caused by stimulation or section of this bundle, and also its situation and extent both in the frog's and in the human heart. Section of this bundle was followed by absolute cessation of the ventricle. Stimulation resulted in vigorous contraction of the heart which passed in both directions.

# Reviews.

## PUERPERAL INFECTION.[1]

It may be said of Dr. Lea that he is a bacteriologist among clinical physicians and a clinical physician among bacteriologists, and we know not which description is the more appropriate. Dr. Lea sets out in italics the proposition that "*all cases of fever during the puerperium, unless clearly attributable to some extraneous cause, should be considered as forms of wound infection.*" He is, of course, not the first person to assert this, but he introduces his readers to a more intimate acquaintance with the infinitely little organisms which take advantage of the breaking down of protective barriers in childbirth to intrude themselves upon the puerperal woman and multiply at the expense of her fluids and tissues. In his second chapter, on definition and classification, it seems to us that, although he mentions Koch, he hardly does him full justice. We wish he had set his face against the confusing practice of inventing new names for old things. It was Koch who first drew a clear distinction between the two conditions then known as "septic intoxication" and "septic infection." Soon for these names were substituted "sapraemia" and "septicaemia," names which were better because shorter. Dr. Lea allows, without condemnation, the words "toxaemia" and "bacteriaemia"—the latter a most awkward word to pronounce. Dr. Lea says, "Much difficulty may be met with in drawing an absolute distinction between the two types of disease, as in every case of septicaemia a variable degree of toxaemia exists." True; but cases are met with of sapraemia without septicaemia, in which, when the putrid stuff is removed, the patient is well within a few hours. In this chapter we encounter an error which we at first thought must be the fault of the printer; but it is so persistently repeated that we cannot suppose it due to defective proof reading. It is the spelling "ærobic" and "anærobic." These misspelt words are derived from the Greek ἀήρ, which cannot possibly be represented by a Latin diphthong; on the contrary, the separateness of the two vowels is often indicated by a diæresis (aër). The author's third chapter shows the gratifying diminution of puerperal mortality and morbidity brought about by Lord Lister's discoveries, and the enforcement of their application by the Midwives Board. Then comes a full, accurate, and up-to-date description of the changes in the female genitalia during the lying-in period, and of the bacteriology of the genital passage under normal conditions. The author shows that organisms indistinguishable from pyogenic organisms are found in abundance in the vagina during healthy pregnancy and normal puerperium.

Dr. Lea next discusses the bacteriology of puerperal infection. He tells us that "the *Streptococcus pyogenes* is the organism most frequently present in puerperal infection, and its causal relation to the disease has been completely established." Further on he tells us that

[1] Oxford Medical Publications. *Puerperal Infection.* By Arnold W. W. Lea, M.D., B.S.Lond., B.Sc.Manch., F.R.C.S.Eng., Lecturer in Obstetrics and Gynaecology, the University, Manchester; Surgeon, Northern Hospital for Women; Assistant Surgeon, St. Mary's Hospital, Manchester. London: H. Frowde, and Hodder and Stoughton. 1910. (Sup. roy. 8vo, pp. 400. 25s.)

"the streptococcus of erysipelas and the organisms frequently found associated with scarlet fever and diphtheria are identical with those present in puerperal infection." The next paragraph begins: "The *Streptococcus pyogenes* manifests extraordinary variations in virulence. Thus, it frequently exists in the genital tract as a sapropbyte, whilst in other instances the introduction of even a small number of streptococci on to a wound is followed by severe infection." We believe that Dr. Lea is in harmony with nearly if not all bacteriologists in making these statements of fact. Nevertheless we think it certain that in the future they will be shown to require modification. The bacteriologist may fail to distinguish between (1) the erysipelas coccus of Fehleisen, (2) a streptococcus that produces spreading suppuration of the cellular tissue, and (3) a haemolytic streptococcus that kills the patient too quickly for suppuration to take place. But the human body knows the difference, and Fehleisen showed that his erysipelas coccus bred true: it produced cutaneous erysipelas, and nothing else. We believe Dr. Lea is right when he says: "After labour the gonococcus most frequently produces localized infection of a mild type." Further on he tells us: "In rare instances acute peritonitis has been observed within a few days of delivery, and the gonococcus has been found in pure culture in the pus." Many bacteriologists hold such extensive changes to be the result of a mixed infection, and so, we imagine, would Dr. Lea; but he does not say so.

After the section on bacteriology comes an admirable chapter on etiology. Here we have "Toxaemic infection. Synonyms: Sapraemia, Pure toxaemia, Bacterial intoxication." As to the first of these, "toxaemic infection," which the author seems to prefer, for he puts it in special type, the word "infection" is surely superfluous, for "toxaemia" means that poison is in the blood. "Bacterial intoxication" is plainly incorrect, for the patient is not intoxicated with bacteria, but with poisons formed by bacteria. Dr. Lea says this condition was first clearly recognized as occurring in the puerperium by Matthews Duncan. Duncan, we believe, gave the credit to Koch. But why not stick to Duncan's name, "sapraemia," the shortest, most distinctive, and most expressive of any? The chapter as a whole is one of the fullest and best accounts we know. The author lays stress on the increased danger of infection accompanying frequent examinations, operative delivery, retention of membranes, intrauterine manipulations, and extensive lacerations.

Chapter X is on the "localized infection of the genital tract." It describes the different ways in which the genital canal may be injured in parturition, and the local effects when to these injured parts different microbes get access. The symptoms and diagnosis of the different forms of pelvic inflammation are carefully and well described. The section on pelvic cellulitis might have been more illuminating if the author had studied the cases—which are fairly numerous—in which Americans ignorant of this disease have opened the abdomen and been astonished to find that everything within the peritoneal cavity was healthy.

The next division of the work describes the diagnosis of puerperal infections. The author quotes Boxall's papers, in which he showed, beyond possibility of disproof, that a lying-in woman infected by scarlatina, but protected from septic poisoning, gets scarlatina and nothing else; and that an epidemic of scarlatina in a well-managed lying-in hospital does not in the least raise the morbidity, excepting in so far as it is raised by the scarlatina itself. But Dr. Lea is not convinced. He says "it is generally believed that the presence of a wound predisposes to the development of scarlet fever . . . the rash commences at the vulval orifice and is associated with signs of local infection. . . . It is therefore impossible to distinguish between these cases and puerperal infection of the usual type." We do not think Dr. Boxall's conclusions can be thus dismissed.

In Chapter XII we get to what, from the practitioner's point of view, is the vital question—namely, the prophylaxis of puerperal infection. Dr. Lea's first important proposition runs: "It is therefore certain that in normal labour vaginal douches are unnecessary, the essential feature being to carry out complete antisepsis of the vulva." He discusses very fully the question of india-rubber gloves. He points out that at Basle, where the hot water alcohol method is in use without gloves, the morbidity is at present one of the lowest on record. He recommends gloves chiefly as a protection for the doctor's own hands. He insists on the increased risk of infection involved in operative delivery. Before any operation he says the pubic hair should be cut short, "*or even shaved.*" Does he know any English practitioner who would propose in private midwifery practice to shave the vulva? If not, why mention it? The practice has been followed in a few places in France, with the result of provoking so much angry feeling among the public that it has been soon given up.

After prophylaxis, the next question is treatment. Continuous irrigation of, and steaming, the uterus find no favour with Dr. Lea. Brushing out the uterus (*écouvillonage*), he tells us, is "a most valuable method of treatment, worthy of more general adoption." He has used it for some years. He discusses at length the advantages and disadvantages of scraping out the uterus in puerperal sapraemia, and his conclusion is that "the place of the curette in the treatment of acute puerperal infection cannot as yet be finally decided." Which means that the wise practitioner will not scrape out the uterus—at any rate, as a routine measure—in such cases. There is a possible alternative to brushing or scraping which is not explicitly mentioned—namely, the removal of retained membranes with a forceps capable of grasping. If there is general infection, cellulitis, or local peritonitis, Dr. Lea says that all forms of intrauterine treatment must be avoided. His next section is on "the production of artificial leucocytosis," a modern name for some old methods—icebags, hot fomentations, hot-air baths, etc. Then we come to "general and symptomatic treatment"—a carefully-written and creditable chapter, but containing little that is new. The more recent weapons that we have acquired come in the next section, "On the methods of destroying organisms and neutralizing toxic products." Here we are introduced to collargol, nucleinic acid, saline injections, either into a vein or the rectum—artificial abscess formation. The author has diligently collected the evidence for the value of these methods, but hardly seems to have convinced himself that these are specifics. In Chapter XIV he deals with "Methods for the direct destruction of organisms or toxins." The intravenous injection of formalin or a salt of mercury finds no favour with him. The value of antistreptococcic serum is, he thinks, questionable. He holds that it is not yet possible to form a final judgement on the value of vaccine treatment in cases of general infection. Chapter XV is devoted to the operative treatment—the most active, and some may think the most promising, method. The author begins by laying it down that no operative procedure should be undertaken without clear evidence of local disease. He then describes when and how parametric abscesses should be opened. Next he discusses the treatment of diffuse puerperal peritonitis by incision, irrigation, and drainage. This method, he says, "has proved to be of the greatest practical value, and has most materially diminished the mortality." In connexion with this form of disease the author mentions colpotomy, which he says "should always be performed" when "with the symptoms of peritonitis a definite bulging or sensation of resistance is felt in the pouch of Douglas." It is probably from inadvertence that in the chapter on localized peritonitis colpotomy is not mentioned. The next operation to be considered is hysterectomy. The results, Dr. Lea tells us, are "not encouraging." His conclusion is that hysterectomy is useless as a means of preventing death from septicaemia in the absence of local lesions, in all forms of general peritonitis, and in thrombo-phlebitic infection. The next operation Dr. Lea writes about he evidently wishes he could recommend—we refer to the ligature or removal of thrombosed veins. He says: "If the operation is successful, the results are often surprisingly good." But, alas! in his summing up all he can say is: "It is not possible at present to formulate the precise indications for the operation." If it is to be done, he thinks the most suitable route is by abdominal section; and that it is better to be content with tying the veins on both sides, and not to try and remove them. The book ends with a final chapter containing a general summary of treatment.

This book is not, of course, the last word on the subject. But, so far at least as the English language is concerned, it

is not only the latest, but the most complete. It is a most creditable book. Dr. Lea may be proud of it, and Manchester may be proud of Dr. Lea. It shows wide knowledge, practical research, sober and sane judgement. We hope that as time goes on increased opportunities may enable him to speak with precision about matters which he now leaves in doubt.

## REFRACTION.

The influence of an early training in arts is evident in the scholarly tone of Mr. Percival's little book on the *Prescribing of Spectacles*,[2] and we can fully endorse his claim that it is not a slavish summary of the works of others. It is a valuable treatise upon the subject with which it deals which no ophthalmic surgeon can afford to dispense with. At the present day the sight-testing optician is well grounded in the optical principles of spectacles, and the mysteries of decentration and prism effects, and claims to measure errors of muscle imbalance and defect of convergence; it is all the more essential therefore that the profession should possess such a book, and not only possess it but read and comprehend it, even though most of us have not the author's knowledge of mathematical optics nor the same delight in formulae which is evidenced by his publications. The title is a little misleading, for the book would be of no value to the student or the general practitioner wishing to learn refraction; in fact, a casual glance at it would lead many to give refraction up in despair. This being so, certain elementary facts, such as that "accommodation is brought into play by a contraction of the ciliary muscle," et seq., might well have been omitted. Nor are the chapters upon actual sight testing at all equal to the later chapters upon convergence, heterophoria, and kindred subjects. Surely it is better at once to perform a retinoscopy without a mydriatic—a procedure which in most cases gives very accurate results, and thus in a few minutes to find the best correction—than to waste valuable time pottering with a trial case. Again, Mr. Percival advocates the use of a concave mirror in retinoscopy, and does not adequately discuss the relative advantages of concave or flat mirrors. The concave mirror is now rarely used, and is probably less accurate than the plane mirror, which can be conveniently employed at arm's length. Lister's mirror, which gives the illumination of the concave, with the optical properties of the flat retinoscope, is not mentioned; nor is McNab's retinoscope alluded to. We rejoice that the author refuses to accept the absurd notation of cylinder angles recommended by the Naples Congress in 1909, and adheres to the scientific system adopted by the Optical Society in 1904. Mr. Percival appears to place great reliance upon hormatropine, and uses a mydriatic for almost every case. There is no doubt that if all mistakes are to be avoided a mydriatic must be always used, but when subjective sight-testing agrees with a non-mydriatic retinoscopy the chance of error is small, and an occasional slight under-correction of hyperopia is probably better than the routine use of mydriatics. Homotropine is a treacherous friend, and not infrequently less hyperopia will be found after instilling the drug than retinoscopy without a mydriatic gave. Is it a good rule only to correct one-third of the latent hyperopia? Why one-third? Why not all? It is impossible to praise too highly the later chapters of the book, especially that treating of the relationship of accommodation to convergence. The book should be carefully studied by candidates for such examinations as the D.O.Oxford.

We need not do more than chronicle the publication of a new edition of Mr. Hartridge's handy volume on *The Refraction of the Eye*.[3] There seems to have been a new edition about every second year since the book appeared in 1884, and the publishers state that altogether 33,000 copies have been printed. The author in his preface to this, the fifteenth edition, states that he has spared no effort to make the work more worthy of the favour with which it has been received at home and abroad; it is described as a manual for students; it will be found a useful and trustworthy guide by any medical man taking up refraction work.

The most experienced refractionist cannot fail to pick some hints from Mr. Ernest Maddox's *Golden Rules of Refraction*[4] and the general practitioner who does refraction will find it of great value. Teachers of ophthalmology in medical schools may be advised to place it in the hands of every dresser in the eye departments. It contains much clear, concise, and yet adequate teaching condensed into a few pages. Mr. Maddox's rules embody the most modern ideas of the practice of refraction. He has torn himself away from the older methods, still followed with some additions by the sight-testing optician. We are advised to practise retinoscopy first without a mydriatic, and to do the "fine adjustment" alone with the test glasses and trial frames. The use of Jackson's crossed prisms is mentioned as a valuable means of saving time, and to-day who cannot refract quickly cannot be said to refract at all. Here again we must express some surprise that Lister's retinoscopy mirror is not suggested. Mr. Maddox must have been exceptionally fortunate with his operations for removal of the lens in high myopia, for he appears to give the operation his unqualified approval. Professor Hirschberg, in his recent work on the treatment of myopia, sounds a warning note, and, unfortunately, the most brilliant results may end in retinal detachment and total blindness. These are the only criticisms which we can offer after carefully reading the book. We fail to see how it could be materially improved.

Dr. Heilborn's recent work[5] on the significance of ocular hygiene to the State is not likely to be widely read in the United Kingdom, for the special conditions with which it is mainly concerned do not obtain here to any great extent; 116 out of 185 pages of text are devoted to a somewhat tedious treatise upon myopia, its symptoms, classification, and prevention. It appears to be admitted that in the German classical schools, the *gymnasia*, over 25 per cent. of the scholars are myopic. We have no statistics of the prevalence of myopia in British public schools, but probably the percentage at such schools as Eton, Harrow, or Rugby would be nearer 10 than 25. The subtitle of the book is "With Special Reference to the Recruiting Problem," and the author regards the prevalence of myopia in Germany as so serious that he would like to see the State watch officially over all shortsighted individuals from the time they enter school till they leave the army. Dr. Heilborn asserts that the improvements made in school conditions of recent years, and the careful examinations by school medical officers, have not so far resulted in any material diminution of the number of shortsighted children. The only fact which he considers clearly demonstrated is that the myopia figure is inversely proportional to the time children spend in games in the open air. Widmark has stated that in the Swedish schools, as soon as open-air games upon the English system were introduced into the State schools, the myopia percentage steadily dropped. We are unable to agree with Dr. Heilborn that we possess no means of diagnosing myopia under one dioptre in children; a retinoscopist of even moderate experience ought to be able to measure this amount of myopia. The author calls astigmatism a "child of sorrow," tells us that it is rarely possible to correct it at one sitting, and talks of the tiring effect upon the patient, of trying glass after glass, and the long time necessary to obtain a correct result. Surely accurate retinoscopy enables the best correcting glass to be discovered in a very few minutes. The last portion of the book deals very superficially with such subjects as trachoma, accidents, tubercle, toxic amblyopia, and ophthalmia neonatorum. It is rather difficult to determine for what class of readers the book has been written. The facts are known to the specialist, and the author advances nothing new, and the general practitioner would be wearied by the book, which is tedious and full of

[2] *The Prescribing of Spectacles.* By A. S. Percival. Bristol: John Wright and Sons, Limited. 1910. (Cr. 8vo, pp. 159. 5s 6d.).

[3] *The Refraction of the Eye.* By Gustavus Hartridge, F.R.C.S. Fifteenth edition London: J. and A. Churchill. 1911. (Cr. 8vo, pp. 275; illustrations 110. 5s.)

[4] *Golden Rules of Refraction.* By Ernest E. Maddox. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Bristol: John Wright and Sons, Limited. Golden Rule Series No. XII. Third edition. (Demy 32 mo, pp 96. 1s.)

[5] *Die Bedeutung der Augenheilkunde für den Staat.* Von Dr. Franz Heilborn, Breslau. Berlin: S. Karger. 1910. (Roy. 8vo, pp. 198; Abb. 4. M. 4.)

repetition. The school medical officer may find the statistics useful for purposes of comparison.

During the last few years scores of books and card systems have been arranged to facilitate medical book-keeping and the work of the doctor from a business point of view, but very few have been arranged simply to facilitate scientific work. Ophthalmic surgeons may therefore be glad to have attention called to a register for oculists, arranged by diagnoses, published some time ago by Dr GEORGE HIRSCH of Halberstadt.[6] The conception is excellent, though unfortunately the execution leaves something to be desired. The register contains space for over 20,000 entries, each case being entered as a name or number by which it can be found in the case-book or hospital notes. Each entry is made under its appropriate heading, according to diagnosis, so that one may look up all cases of any special affection. The headings are in Latin, and are very complete, the chief being found in a thumb index at the side of the page. The defect of the book is the inordinate space devoted to errors of refraction—space for 1,600 entries under the head of presbyopia, for instance—while there are only thirty spaces each for cases of detachment of the retina and retinitis, which are far more likely to be referred to. With some improvements in the classification—which can, indeed, be made by the user, the register is likely to prove most useful, especially to teachers of ophthalmology.

## FOOD AND FEEDING.

IN *Food and Feeding*[7] Dr. CHALMERS WATSON claims to have devoted "less attention to details of the chemical composition and heat value of food, and more to its influence on the digestion and bacterial processes in the gastro-intestinal tract," which course he believes to be more in harmony with the general trend of modern physiological science as well as of clinical experience. The volume, however, follows the usual description of food and its destiny in the body, its composition, and the daily amount of the various components required, and then goes on to give an account of the kinds of food—for example, milk, animal food, vegetables, beverages, and proprietary foods; there is a chapter also on food preservation and adulteration. Diet at different periods of life is discussed, and after a general introduction on the feeding of the sick, the dietary suitable in various diseases is explained in detail, a number of cookery recipes being supplied. There is a chapter upon special diet cures and on hospital dietaries, which last might be fuller, as the only table given appears to be that of some Scottish hospital, as indicated by the presence of those excellent national dishes, porridge and minced collops. He makes the suggestion that coldness of the extremities and liability to chilblains may depend upon pancreatic defect, and indicate the need for a smaller proportion of carbohydrate food with a larger allowance of meat. He sticks to the old view that red meats are less suitable than white meats in the treatment of renal disease, although recent investigations have shown that the latter have no advantage, at least so far as purins are concerned, chicken containing as much as beef and more than mutton. We are glad to read that "the results of treatment by a salt-free diet in cases of renal disease associated with dropsy have been by no means uniformly satisfactory in the hands of those who have tried this system," for it is too much the fashion for physiologists to speak of disappearance of dropsy on the withholding of chlorides as having been fully established by clinical experience. The following statement, for example, is to be found in Professor McCay's *Investigations on Bengal Gaol Dietaries* (p. 169): "It is generally admitted that by controlling the proportion of sodium chloride in the diet the oedema of Bright's disease can be made to appear and disappear, a dechlorinated diet causing the oedema to disappear in a relatively short period." We believe that the general experience of clinical observers supports the opinion expressed by Dr. Watson. It would have been well to give more tables showing the chemical composition of various articles of food, with especial reference to purins, starch, sugar, and lime, and in beverages to alcohol, sugar and sugar-forming extractives, in order to help medical men to construct dietaries for their patients, or to express an opinion for or against the use of any particular article which they may desire to take. As might be expected from his previous writings, Dr. Watson leans towards moderation in the use of meat, and regards the work of Chittenden and others as proving the wastefulness of an excessive meat diet. In twenty-two appendices he reprints papers published by him during the last few years in association with seven collaborators upon the influence of protein or meat diet upon growth and nutrition, and upon various glands such as the thyroid, liver, adrenals, the reproductive organs, and upon the skin and teeth, the last being a study of the influence of meat diet in gout.

A book on sick diet,[8] written jointly by Frau EMILIE KIESLINGER and Dr. KARL WIRTH of Vienna sets out with a statement by the lady that not only the physical well-being but even the happiness of the family depends upon a well ordered kitchen, and, if the dependence be as close as she thinks, many families must, we fear, suffer in both these respects. However this may be, she goes on to argue that, if it is indispensable for the ordinary family of healthy people, it is still more necessary for the sick. She claims that, though she is an Austrian, her cookery is not Austrian, but international. Her share of the book, we presume, is all the cookery directions, while Dr. Wirth has written the introductions and the special accounts of the dietetic treatment of particular diseases. His part is small, and the book is, in fact, an excellent cookery-book; people in good health might wish they could be fed on such dishes as occupy the greater part of it. The only criticism we suggest is that most sick people do not require such elaborate cookery, and that the great bulk of these dishes would find no place in the treatment of ordinary illness, but in such diseases as diabetes a variety of palatable dishes of a suitable kind is a great boon, and English cookery is not strong in the cooking of eggs, cheese, and vegetables. Madame Kieslinger would have every nurse be an expert cook, but, if they were, few would have opportunities of exercising their skill. This book will be valuable to people who are not nurses but have invalid relatives for whom they desire to provide suitable and tempting food. They will find here all the help they need, and in addition many useful hints on the management of the sickroom.

## SIGNS AND SYMBOLS OF PRIMORDIAL MAN.

DR. ALBERT CHURCHWARD dedicates his volume, *Signs and Symbols of Primordial Man*,[9] to brother Masons. It is to a large extent an amplification of his former monograph on the *Origin and Antiquity of Freemasonry*, and an attempt to meet some of the criticisms with which the latter was received. The book is therefore primarily addressed to Masons.

To form a just estimate of this lengthy volume in all its aspects one would require to be well versed in eschatology, Egyptology, physical anthropology, and other cognate branches of science. We have come to the conclusion, moreover, that the reader should be a Freemason of high degree in order fully to appreciate the significance of much that it contains, although we observe that the author holds that the ordinary Mason of the third degree can comprehend the import of all that he writes.

Dr. Churchward seeks to prove that all Masonic rites and ceremonies sprang not from the "Roman College of Artificers," as some have held, but that Freemasonry is now, and always has been, an eschatology, having originated in Ancient Egypt, "from the sublime teachings of Ptah," and that these teachings "were carried out of Egypt by Moses, and the original or first High Priests of the Druids that came to these islands." This is, in brief, the thesis which the author seeks to establish.

That Dr. Churchward has written an interesting book

[6] *Nach Diagnosen geordnetes Register für Augenärzte.* Von Dr. Georg Hirsch, Halberstadt. Leipzig: Wilhelm Englemann. 1909. (Dbl. fcap. 4to, pp. 192. M 7.)

[7] *Food and Feeding in Health and Disease: a Manual of Practical Dietetics.* By Chalmers Watson, M.D., F.R.C.P.E. Edinburgh and London: Oliver and Boyd. 1910. (Med. 8vo, pp. 654. 10s. 6d.)

[8] *Die Krankenkost.* Von Emilie Kieslinger und Dr. Karl Wirth. München: J. F. Lehmann. 1910. (Demy 8vo, pp. 258. M. 3.60.)

[9] *The Signs and Symbols of Primordial Man; being an Explanation of the Evolution of Religious Doctrines from the Eschatology of the Ancient Egyptians.* By Albert Churchward, M.D., M.R.C.P., etc. Swan Sonnenschein and Co. 1910. (Roy. 8vo, pp. 473. 25s.)

and one full of evidence of wide reading, cannot be doubted; but that he has succeeded in proving his case will not, we believe, be the verdict of the majority of his readers.

It is impossible in the limited space at our disposal to discuss the very many debatable points which arise, but the book throughout appears to be one long piece of special pleading. In several instances recognized authorities, whose opinions are at variance with those of the author, are simply dismissed without further argument as being inaccurate or erroneous. For example, in discussing the meaning and import of the "cable-tow," we are told that Father Burgo and Juan de Cordova are wrong in their translations, and that the ceremonies which they observed and described "show how ignorant they were of the true meaning of the ceremony." It is not made clear why they are wrong. Again, on p. 15 Dr. Churchward writes that Dr. Edward Seler "has not succeeded in giving the true decipherment of any of his translations of the various codices of the Mayas, Mexican, and Central American nations that he has attempted to, and until he recognizes Egypt as the primordial and origin we are of opinion that he will not." The author may be right, but arguments of this kind fail to carry conviction. It is to be regretted that the author is so prone to attribute "lamentable ignorance" to those who do not agree with him; this attitude is observable throughout the book, but is particularly pronounced in the preface.

With regard to the anthropological aspect, Dr. Churchward says that "the human race originated, or was planted, in the north-east of Africa (including the sources and banks of the Nile)." No doubt such a view is a very picturesque explanation of the position of the newly I at the N.E.C., but is it scientifically proved, and what is the evidence? Polygenism is not yet dead, and we believe that Professor Keane, himself an ardent supporter of monogenism, still believes with much reason, the cradle of the human race to have been situated somewhere in the Indo-Malayan region. Neither do the researches of Professor Elliot Smith into the ancient races of Egypt lend support to the views expressed in this book.

The vexed question of the origin and significance of Totemism cannot be entered into, but it may be suggested that Dr. Churchward forces his analogies too far. Zoologists are everywhere finding evidences of "convergence," and now fully recognize that morphological similarities do not of necessity mean phylogenetic kinship. Is there no such thing as mental convergence? May not similarity of natural surroundings have given birth to similar elemental ideas in the primitive mind, leading to comparable rites and ceremonies in different parts of the world? We are inclined to think that such may be the case.

While a careful perusal of Dr. Churchward's book has led to the opinion that there is much in its general tenor open to adverse criticism, we desire to add that it contains much interesting material and is very suggestive. It is well got up, and some of the many illustrations are beautifully executed. It is singularly free from verbal mistakes for so long a work, showing that the proofs must have been most carefully revised. "*Viddas*" does not appear to be the correct method of spelling the word, but this is, however, a minor point.

Many Freemasons will agree with the author in thinking it a pity that a greater number do not interest themselves in what may be termed the archaeology of the Order, and Dr. Churchward will have performed good service if by his writings he succeeds in stimulating further research into so fascinating a subject; at the same time one ought to be very cautious in accepting Dr. Churchward's conclusions upon the evidence which he has so far been able to produce.

## NOTES ON BOOKS.

A small handbook entitled *Massage in Practice*,[1] by Miss Margaret Atkey, is addressed to persons who already hold a certificate for massage. The reader is, therefore, spared the anatomical and physiological details with which some books on this subject have been overweighted. The book is well arranged, has a good index, the directions are clear, and, as far as we have observed, the writer gives no encouragement to the practitioner of massage to usurp the position of an independent practitioner. It will serve, perhaps, to dispel the notion that massage to be effective must be violent, and therefore useful only in disorders in which such violent movements can be endured by the patient. It will also be of use to medical practitioners in suggesting to them certain disorders in which massage is useful but for which it is not often prescribed.

[1] *Massage in Practice.* By Margaret Atkey. London: The Scientific Press, Ltd., 28 and 29, Southampton Street, Strand, W.C. 1910. (Post 8vo, pp. 115. 2s. 6d.)

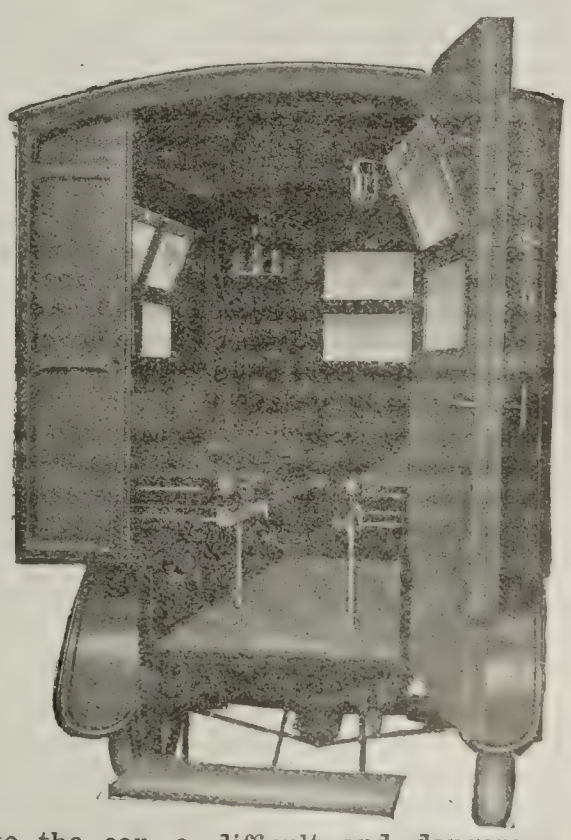
The transactions at the Conference on Tuberculosis,[2] which was held in connexion with the annual meeting of the National Association for the Prevention of Consumption and other forms of Tuberculosis in Edinburgh last July have been issued in a volume with a preface by Sir Alexander Christison, Bart., who was the chairman of the local committee which arranged the conference and the exhibition held at the same time. Among the subjects discussed were the avenues of infection, introduced by Professor Sims Woodhead and Dr. Theodore Williams; the administrative control of tuberculosis, introduced by Dr. Hermann Biggs of New York and Dr. Leslie; the incidence of tuberculosis in childhood, introduced by Dr. Franz Hamburger of Vienna and Dr. J. E. Squire; and the working man in relation to tuberculosis, introduced by Mr. Garland and Dr. J. C. McVail.

[2] *Transactions of Edinburgh Meeting and Conference on Tuberculosis*, July, 1910. National Association for the Prevention of Consumption and other forms of Tuberculosis. Edinburgh: Morrison and Gibb, 1911. (Super roy. 8vo, pp. 219. 2s. 6d.)

## MEDICAL AND SURGICAL APPLIANCES.

*Motor Ambulance for Pretoria.*

The use of motor traction for ambulances is, as we have noted from time to time, extending. The accompanying illustration shows a motor ambulance made by Messrs. J. and A. Carter, 2, 4, and 6, New Cavendish Street, London, W., for the fire department of Pretoria. The chassis is of 1911 pattern, fitted with "Silent Knight" four-cylinder engine, four speeds, specially geared for ambulance work and hill climbing, with a colonial clearance of 9 in. from the ground. Solid tyres are fitted to this model for traversing rough roads in country districts; and three brakes. The body of the car affords unique accommodation; the stretchers along each seat-line are drawn towards the centre door at the rear, and the loading of stretchers is facilitated by an extension piece upon which the stretcher can rest, and this obviates the necessity for attendant climbing into the car—a difficult and dangerous operation when carrying an injured person. The stretchers and swing frames upon which they rest are collapsible, folding into small compass for packing, and both are easily detachable, so that the car can be instantly converted into a travelling conveyance for passengers or convalescents, the spring stuffed cushioned seats and back-rests, combined with the special resilience of the springs, eliminating all jar or vibration. The car is designed for a maximum load of thirteen persons.



*The Measurement of Surface Brightness.*

A discussion at the Illuminating Engineering Society in the early part of 1910 on the subject of glare (reported in the British Medical Journal at the time) has had a practical outcome in a little instrument called the Holophane Lumeter (R. and J. Beck, Limited, 68, Cornhill, London, E.C.). This is an instrument for measuring in

candle-feet the brightness of any surface as distinct from that of an illuminating source. It consists, to put it briefly, of a box with a white disc having an aperture in the centre. On illuminating the disc with an incandescent electric lamp within one of the box chambers, and pointing it towards the object to be examined, the relative brilliance of the disc can be graduated until it appears to be exactly the same as that of the object seen through the aperture, and this degree of illumination is then read upon a scale which ranges from $\frac{1}{100}$th of a candle foot to 100 candle-feet. Many uses suggest themselves for this development of the photometer, such as the determination of the light on a book or wall-paper, the relative intensity of lights and shadows in a landscape or a room, the absorption of light by glass or other transparent substances. Many people take it for granted that an illumination of one candle-foot is sufficient for newspaper reading, irrespective of the newspaper surface, but the inventors of this apparatus state that the reflecting capacity of a newspaper may represent only a fraction of the light impinging upon it. The *Westminster Gazette*, for example, has 90 per cent. of the reflecting power of white cardboard; the *Globe* 80 per cent. approximately, and the *Sporting Times* 53 per cent.

*Blood Test Case.*

The "Soloid" Blood Test Case, recently introduced by Burroughs, Wellcome and Co., measures 4 in. by 3½ in. by 1½ in. The contents comprise: One tube of "Soloid" brand Romanowsky Stain (Leishman's Powder), one 20 c.cm. drop bottle; 10 c.cm. stoppered phial of distilled water; 10 c.cm. stoppered phial of methyl alcohol; 1 c.cm. pipette; grease pencil and vest pocket case containing six microscopic slides and Hagedorn needle in alcohol. The materials have been selected with discrimination, and the case being very portable is likely to be of considerable use to medical men.

## MEDICINAL AND DIETETIC ARTICLES.

*Tea.*

WE have received from Messrs. Thos. Christy and Co. (Old Swan Lane, London, E.C.) samples of a tea which they are introducing under the name "Py-shan Points" tea. It is stated to consist of the edges and tips of the leaves and young shoots. The absence of stalk not only gives a tea which is economical in use, but a substantial advantage is also gained through the absence of the tannin of the stalk. In our experiments an eight-minute infusion of this tea was compared with similarly-prepared infusions of ordinary tea sold at the same price, and of a considerably more expensive China tea; tests showed that Py-shan tea gave an infusion containing decidedly less tannin than the ordinary tea, though the amount was not so small as from the China tea. The aroma of the Py-shan tea is good.

*"Calogen" Fumigators.*

The calogen blocks supplied by Messrs. Chas. Zimmermann and Co. (9 and 10, St. Mary-at-Hill, London, E.C.) are intended for use in fumigating rooms, cupboards, etc., with moist gaseous formaldehyde. They consist of a mixture of permanganate and bichromate compressed together; this is placed in a pail, and ordinary 40 per cent. formaldehyde solution poured on to it; after a few seconds chemical action begins, and quickly becomes so violent that the liquid boils vigorously, expelling clouds of vapour of formaldehyde and water. The reaction which occurs is an oxidation of part of the formaldehyde by the permanganate and bichromate, but excess of formaldehyde is employed, and the heat is developed so quickly that much of the aldehyde vapour is expelled unaltered; it is stated that 6 oz. of the solution added to one block is sufficient for the disinfection of 1,000 cubic feet of air-space. The specimen which we tested was of the size just referred to, but smaller sizes are also prepared. The use of these fumigators certainly ensures a vigorous evolution of formaldehyde, accompanied by abundance of the water vapour which is requisite for its efficiency as a germicide.

THE twenty-first Congress of French-speaking Alienists and Neurologists will be held at Amiens next August (1st to 6th) under the presidency of Dr. Deny, physician to the Salpêtrière. The work will be arranged under three heads as follows: *Psychiatry:* Different kinds of psychopathic pains—their significance and the part they play; *Neurology:* Tumours of the pituitary body; *Forensic Medicine*: The value of the testimony of lunatics in the eyes of the law.

## SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

A MEETING of the Organizing Committee was held on Wednesday, March 29th, at 5 p.m., in the Library of the Royal College of Physicians. Sir THOMAS BARLOW was in the chair, and forty-eight members were present.

The following report was brought up from the Executive Committee:

That the Treasurers be authorized to open a general account with the London County and Westminster Bank.

That the Treasurers be authorized to open a petty cash account to meet current secretarial expenses, the sum deposited not to exceed £100 (With a view to start such a current account it was resolved to apply for part subscriptions to members of the committees already appointed—Executive, Finance, and Reception.) The Chairman of the Finance Committee stated in reply to a question that it was impossible to make any definite estimate of receipts and expenses, but that a large sum—probably not less than £7,000 or £8,000, would have to be raised.

That it is desirable that an exhibition of medical and surgical appliances be held.

That the Permanent Commission be asked to consider the question of the number of Government delegates to be invited from each country, and that it be suggested that each Government should be asked to select one delegate to represent it officially.

That invitations be issued only to Governments and accredited universities.

That the opening session of the Congress should take place on Wednesday, August 6th, and the closing session on the afternoon of Tuesday, August 12th, 1913. In reference to this it was explained that the inconvenience of Bank Holiday (August 4th) on the one hand, and the impossibility of meeting earlier than August owing to the curriculum of foreign universities on the other, were so great that it was found better to include a Sunday in the week of the Congress than to try to complete the whole in the week August 4th to August 9th, as had been originally intended.

**These resolutions were adopted.**

The Executive Committee reported further:

That the surplus left over from the congress at Budapest had been devoted to a "Prize of Hungary," to be awarded under special regulations at each future meeting of the International Congress.

That the University of London, the Imperial College of Science and Technology, and the City and Guilds (Engineering) College had expressed their willingness to put the rooms in their buildings at the disposal of the congress, and that negotiations were proceeding with other bodies.

**The report of the Executive Committee containing the following recommendations was brought up:**

1. That the Sections of Laryngology and of Otology be continued as two independent sections.
   (*a*) That the Executive Committee be requested to allocate to them two adjoining rooms.
   (*b*) That it be a recommendation to the councils of these two Sections to arrange their programmes in a conjoint council meeting.
   (*c*) That the transactions of these two Sections should be published in one volume and supplied to each member of either Section.
2. That a Section of Radiology be included in the Congress.
3. That the Section of Pathology include a Subsection of Chemical Pathology.
4. That a Section of Anaesthesia, both general and local, should be established.
5. That Sections XX and XXI of the last congress be altered so that one Section should be devoted to naval and military medicine, and another Section wholly devoted to tropical medicine.
6. That the titles of the following Sections be altered, and that instead of
   Section III, General and Experimental Pathology,
   Section IV. Bacteriology and Pathological Anatomy,
   Section XVIII, Hygiene and Immunity,

   the sections be entitled:
   Section III, General Pathology and Pathological Anatomy,
   Section IV. Bacteriology and Immunity,
   Section XVIII, Hygiene and Preventive Medicine.

**These resolutions were adopted.**

**The Executive Committee further reported as follows:**

7. That it is desirable that when at any of the Sections subjects are appointed for discussion, the papers (*rapports*) introducing such subjects should be previously printed and distributed: (*a*) To all the members of the Section who have intimated their intention to join in the discussion; (*b*) to any members who may apply for them; and that a stock of such papers be kept at the central office, to be handed to other members of the Section at the time of the meeting.

**It was further stated, in answer to questions, that though the introductory papers could not each be printed**

in full in the four official languages, abstracts of them would be printed in all four languages, as was done at the last congress in London.

8. That it is desirable:

(*a*) That in each Section the morning sessions shall be devoted to discussions on subjects of interest to be selected by the officers of the Section.

(*b*) That each such discussion shall be introduced by not more than two speakers, to be selected by the officers of the Section, with due regard to the international character of the meeting.

(*c*) That it shall not be allowed to read the introductory papers already printed, but a time of not more than twenty minutes shall be allowed to each introducer to read and elaborate an epitome of his introductory paper. Subsequent speeches in the discussion shall not exceed ten minutes each.

(*d*) That none but the introductory speakers shall be specially invited by the officers of the Section to take part in the general discussion, and that no written papers be allowed to be read in the course of the discussion.

(*e*) That at the morning sessions no papers or communications on subjects other than the subject for discussion shall be taken unless the general discussion has terminated before the hour fixed for the termination of the morning session.

(*f*) That the afternoon session shall be devoted to papers offered by members of the Section.

(*g*) That the staff of the Section shall have the power of selection from among the papers thus offered, and of rejection of any which they do not think advisable for the work of the Section.

(*h*) That not more than fifteen minutes be allowed for the reading of any such paper, nor more than five minutes for any speech in the discussion thereof.

(*i*) That the staff of the Section shall have power to arrange the order in which papers thus offered shall be taken, and shall be guided by the intrinsic importance of the papers, and not by the priority of their reception.

(*j*) That there shall be no Honorary Presidents of Sections.

(*k*) That in the event of a President of a Section being prevented from attending one or other of the meetings of his Section, one of the Vice-Presidents or Members of Council shall take the chair in his absence.

The above resolutions were adopted.

It was stated that the whole of the above resolutions would be submitted to the Permanent Commission of the International Congresses of Medicine, the first meeting of which will be held in London on April 21st and 22nd.

The Executive Committee further reported the following resolutions:

9. That Dr. Clive Riviere be appointed Secretary to the Reception Committee.

10. That it be an established principle that, if Sectional Dinners be held, each member dining at such dinner shall pay his own expenses.

11. That a Ladies' Committee be appointed.

12. That the following Subcommittees be appointed, with power to add to their number and to elect their own chairmen:

*Dinner and Soiree Committee.*—Sir William Bennett, Sir Havelock Charles, Sir Anderson Critchett, Sir Thomas Crosby, Dr. George Ogilvie, and Mr. D'Arcy Power.

*"London Sights" Committee.*—Dr. T. D. Acland, Dr. Bertrand Dawson, Mr. W. H. H. Jessop, Dr. Norman Moore, Mr. Stephen Paget, Dr. Parkes Weber, Dr. Leonard Williams.

*Excursions Committee.*—Mr. L. A. Bidwell, Dr. Gordon Dill, Sir Francis Laking, Professor Wm. Osler, Mr. Mayo Robson.

13. That the following be appointed to deal with an exhibition or exhibitions of pictures, antiquities and other objects of interest in the history of medicine: Dr. Norman Moore (Chairman), Sir Wm. Allchin, Dr. Leonard Mark, Mr. D'Arcy Power, Dr. Rice-Oxley, Dr. Parkes Weber.

These resolutions were adopted.

The Executive Committee further reported:

14. That, for the purpose of communication with foreign societies or with foreign medical men, the central office of the congress shall be at the disposal of secretaries of sections and that translators shall be provided by the central office when required by the secretaries of sections.

15. That all official correspondence connected with the sections shall pass through the central office.

These resolutions were adopted, and the Committee adjourned.

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WILLIAM ANDREW BETTS, Esq., M.D., of the Department of Public Health, Cairo, has received the Royal permission to accept the insignia of the Third Class of the Imperial Ottoman Order of the Medjidieh, conferred upon him by the Khedive of Egypt, in recognition of valuable services rendered by him.

## LITERARY NOTES.

THE Italian Government offers a prize of £400, open to competitors of any nationality, for the best essay on the prophylaxis of anthrax of industrial origin. The essays, which must be written in Italian or French, should reach the Ministry of Agriculture on or before December 1st, 1911.

On March 29th Dr. Lloyd Roberts lectured before the Manchester Dante Society on "The Scientific Knowledge of Dante." He first dealt with Dante's life at Florence, and adverted to the fact that the poet became a member of one of the great guilds of the city (Arte de' Medici e Speziali), with the craftsmanship of which he was best acquainted. He afterwards spoke of the Apothecaries' Establishment in Florence, and the state of the medical art in Dante's time. He next dwelt on the University of Bologna, its equipment, curriculum of studies, system of graduation, etc, and said that Thaddeus of Florence, the great Hippocratist, founded the Clinical School of Medicine at that famous seat of learning. Dr. Lloyd Roberts argued that Dante studied medicine at Bologna, and that he owed his great scientific knowledge and his profound acquaintance with the different departments of medicine to the training he received in that "rinomato Ateneo." The relations of Dante with Giovanni del Virgilio, a professor at Bologna, were also considered. Finally, the lecturer discussed the scientific allusions in Dante's works (embryology, pathology, physiology, psychology, physics, botany, physical geography, etc.), quoting the original passages, thus showing Dante's wondrous many-sidedness.

The April number of the *Cornhill Magazine* contains a brightly written article on a country practice by "A Doctor's Wife." She says:

> The uncertainty of a doctor's life is its hardship. He must be as alert at any summons of the bell as if he had had an eight-hour night's rest behind him, instead of perhaps a long drive and hours of a stuffy cottage bedroom, of which the windows are not even made to open. The inhabitants may not much regret the fact that the picturesque casements under the thatched roof are not made with hinges, but the effect on the doctor of the air he is compelled to breathe is, of course, very bad. I say nothing of the harm it does the patient, because that is not so obvious, at the time, at any rate. No doubt the bodily result of fresh air would be excellent, but the mental discomfort endured by many a farmer and cottager at the mere suspicion of a draught is so great that a feeble person might really be made very ill by a little fresh air. This also applies to washing. A substantial layer of dirt is a warm covering, and when people's food is not nourishing and heat-producing enough, they instinctively shrink from water. Also, perhaps for the same reason of economizing their natural store of warmth, it is not the custom for cottagers to undress as we do when we go to bed. They generally wear more clothes than we in the daytime, and at night content themselves with taking off the top layer, sometimes adding a nightgown as a finishing touch over the remainder of their garments. It seems a very uncomfortable plan, but it is no doubt a warm one.

Unconsciously, it may be, but none the less thoroughly, country people follow the teachings of that superscience which have recently been delivered to a public always eager, like the Athenians of old, to hear some new thing. But dirt is as old as the human race, and doubtless the gospel preached by the prophet of Paddington was practised by the passengers in the Ark with as simple a faith as it is by the country folk spoken of by "A Doctor's Wife." We all know the importance attached by hospital patients to the appearance of their physic. The more vivid the colour, the nastier the taste, the greater is believed to be the efficacy of the medicine. Some country people even pin their faith on the shape of the bottle in which it is contained. "A Doctor's Wife" says:

> Some of the poor people are very particular as to the exact colour and consistency of their medicine, and even as to the shape of the bottle it is dispensed in. The old sexton of the next village has a bottle of a peculiar size and appearance, which he always brings round to the surgery to be filled. One day my husband thought it well to give him a small quantity of some special medicine, and put it into a bottle which exactly contained the dose. But the old man remonstrated at the non-appearance of his old friend, but after that his medicine was always put into the favourite bottle.

This is an illustration of the obstinate conservatism of the untutored mind. It would doubtless remind Macaulay's schoolboy of the old priest of pre-Reformation days who habitually used a wrong word in saying Mass, and when his error was pointed out to him declared that he was

not going to change his old Mumpsimus for the new Sumpsimus! The same temper has been displayed in wider spheres throughout human history. Even in matters of science it has been a retarding influence, and adherence to the old Mumpsimus has nowhere played a larger part than in medicine. We find it difficult to refrain from further comment on the delightful article by "A Doctor's Wife." We will conclude by quoting an old rendering, attributed by her to Timothie Kendall, of the well-known epigram beginning *Tres medicus facies habet medicus:*

Three faces the Phisition hath;
First as an Angell he,
When he is sought; next when he helps,
A god he seems to be;
And last of all, when he hath made,
The sicke, diseased, well,
And asks his guerdon, then he seems
An oughly Fiend of Hell.

It is a common reproach to specialists that they will always find what they seek. In this they are no different from the type of investigator for whose benefit a famous scientist uttered the warning, "Beware in your experiments of looking for a particular result, or you will be sure to get it." The following, which we take from the *Medical Press* of 1844, kindly sent us by a correspondent, supplies an amusing example of this tendency; it also illustrates what may be called the contagion of enthusiasm:

The late Lord ——— had a daughter, who, falling ill at Bath, was attended by the late Mr. ———. Of course, he soon persuaded her that she had a stricture of the rectum. The young lady wrote to her mamma in town an account of her case, and of Mr. ———'s procedure to cure her. Mamma communicated this to papa, who, not liking the thing much, went straight to an eminent practitioner, who showed his Lordship the great improbability of his daughter being affected in the manner indicated; and made him aware that Mr. ———'s patients were all—man or woman, matron or maid—presumed to be affected with stricture in the rectum, and treated accordingly. His Lordship was in a great fume; he would not even write; he posted off the same evening to Bath to rescue his child from the malpraxis, as he believed it, of Mr. ———. But what ensued? The London surgeon received a letter in a couple of days from Lord ——— to say that his Lordship felt his visit to have been quite a providential one; that Mr. ——— had not only satisfied him that his daughter had a stricture of the rectum, but that he himself had one, and that he meant to remain at Bath to have it cured!

And yet there be those who doubt the power of suggestion!

Mr. Victor Plarr has sent us a reprint from the *Dublin Journal of Medical Science* of a paper on the Catalogue of the Royal College of Surgeons of England, of which he is librarian. He gives an amusing account of the pitfalls that surround the feet of the maker of medical catalogues. The old writers, he says, seemed anxious to put the best part of their book into the title, and the habit has not quite died out.

We still from time to time have to deal with some heavy work, the paper of which is loaded with clay and the title page with quite unnecessary verbiage. It would be an excellent plan, to be sure, if children at school could be taught how to christen a book, since in these latter years we are all by way of commencing authors. The making of a title is, indeed, a small art in itself.

If small, it is not one easily mastered, if one may judge from the vague and often misleading titles which are the despair of librarians. Mr. Plarr says he speaks feelingly on this subject, as a book title of his own has won for itself the "dubious distinction" of an elucidatory addendum (in brackets) in the British Museum Catalogue. The book is entitled, *The Twilight of the Jenners*, and, says Mr. Plarr, with just indignation, "the Museum cataloguer has thought fit to specify (parenthetically) who the Jenners were, as though there were some doubt about the matter." This recalls a story we heard about Sir William Jenner, who is still often confused with Edward, and who, especially in the early part of his career, was generally thought to be related to the discoverer of vaccination. He was so often questioned about the matter that at last any allusion to it was a cause of irritation. He was in an omnibus one day with Dr. Edward Cator Seaton who had so much to do with the promotion of vaccination in this country. Seaton seized the opportunity of a stoppage to bend over towards Jenner, and began "Are you . . .?" Before he had time to finish his question, the other broke out with an emphatic "No, not the slightest!" It will doubtless be interesting to many readers to learn that there is a "reserved collection" in the College Library in which "suppressed books" are kept safe from the curious eye. Among these is "a work, involving a grave breach of medical etiquette, relative to the illness of the late German Emperor." This, we suppose, is Morell Mackenzie's *Frederick the Noble;* when and in what sense was it "suppressed"? As an example of the difficulties which beset the cataloguer, Mr. Plarr mentions the following:

Such a lumbering title, for instance, as "An Account of the Sufferings of two Ladies during a six weeks' detention at the bottom of the crevasse in the Alps of the Bernese Oberland, with an Appendix containing a brief Historical Survey of the History of Mountaineering from the Earliest Times to the Present," should come under some such heading as "Endurance, Physical," or "Fatigue," and cross-references can be made to this heading from "Mountaineering" and "Bernese Oberland." It is best not to worry ourselves unduly over the question as to whether we have rightly classified our title so long as we make plenty of cross-references.

It appears that librarians are in the habit of testing the knowlege of candidates for classifying clerkships by means of obscure or tricky titles. Mr. Plarr himself was invited to classify a work with the title *De Cornutis.* He says:

It loomed on me horribly as something catchy and incomprehensible, and with the perspiration starting out on my juvenile forehead I gasped "De Cornutis—concerning horned beasts."
"Yes," said the eminent librarian very grimly, "they *are* horned beasts."

Mr. Plarr says his knowledge of mediaeval satire was then necessarily limited and he did not know the meaning of *cornuti* in the language of "ancient satirists." He questions "if many would pick up this piece of information at any time during their earthly pilgrimage." Surely there are still a few people who have looked into Shakespeare, and who have not forgotten Touchstone's reflection on his intended marriage in the forest:

A man may, if he were of a fearful heart, stagger in this attempt; for we have no temple but the wood, no assembly but horn-beasts. But what though? Courage! As horns are odious, they are necessary.

* * * * *

As a walled town is more worthier than a village, so is the forehead of a married man more honourable than the bare brow of a bachelor.

Mr. Plarr gives instances of fantastic indexing, citing the familiar entries, which have so long been the *opprobria* of the catalogue maker, "Mill on Liberty," "Mill on the Floss." To this somewhat musty instance of the vagaries of the cataloguer we can add another probably less known. A learned clerk of Oxenford, who was interested in the subject of the Immaculate Conception, wished to consult a rare work on that theological dogma, which he had been told was in the library of a certain college. The catalogue, however, gave no clue, and, after exhausting his ingenuity in the matter of possible entries, the divine was driven to apply to the custodian, who, with the weary smile of one who has had long experience of human stupidity, at once directed him to the subject heading, "Obstetric Anomalies," where, sure enough, the elusive tractate was found. Recently a correspondent of the *Tablet* wrote that he had noted in a current list of the "Times Book Club" the new edition of Dalgairn's *Devotion to the Sacred Heart.* In the absence of a department of physiology, he says, this entry is made under "Natural History," and its companion volume is *The House Fly.*

The *Biochemical Journal* of March 4th contains an interesting sketch of the late Dr. Christian A. Herter of New York, who is described as "one who championed the cause of imagination and idealism in the medical sciences." Though only 45 at the time of his death he left his mark in many fields of activity. In 1892 he published a work entitled *The Diagnosis of Diseases of the Nervous System.* Later the field of medical chemistry attracted him, and he gave up practice. In 1897 he was appointed Professor of Pathological Chemistry in the Bellevue Hospital Medical College. He founded the *Journal of Biological Chemistry*, and with Professor Abel was one of its first editors. He ensured the permanent stability of the journal, and provided a board of directors for the perpetuation of its publication.

# THE COMPOSITION OF CERTAIN SECRET REMEDIES.

## OBESITY CURES.

*Third Series.*

We have on two previous occasions[1] published the results of analyses of medicines advertised for the reduction of obesity; some of the preparations which were dealt with were then being advertised extensively, but are little, if at all, in evidence now, but whether this is in any way due to the publication of our analyst's reports we are not able to say. Others, however, are now being advertised; some are apparently newly put forward, while others have been established for varying periods. We now give the results of analyses of some of those at present advertised and sold.

### A. GORDON WALLACE'S "TREATMENT."

This is advertised by A. Gordon Wallace, London. It is priced at one guinea for a month's "treatment," but as the first fortnight's medicine is supplied free, the actual amount to be paid for it is 10s. 6d. The following extracts from advertisements will show the nature of the claims advanced.

ARE YOU TOO STOUT?

Famous Obesity Specialist tells how everyone can lose Superfluous Flesh and Improve their General Health. . . .

If you are one of the thousands of much-enduring men and women who are unhealthily stout, or growing too stout, this article will bring new hope to you. If your appearance is marred by a double chin, or an ungainly bust, or a protruding abdomen, or any other disagreeable evidence of Obesity, here is an offer that will help you to remove the ugly defects in your physical appearance. If your health is threatened—as it must be—by superfluous flesh, which generally carries in its train gout, or rheumatism, or palpitation, or "fatty" heart, or some other serious ailment, read and profit by this advice from a famous Obesity Specialist. . . .

I do guarantee to reduce your weight safely and scientifically, and strictly according to well-defined and recognised physiological laws if you will conscientiously follow out my directions while you are taking a course of my Treatment.

Medical men have, on their own admission, been so far baffled for A REAL AND EFFECTIVE CURE that will bring in its train no other injury to the patient's system. I know I have found a cure at last. I know what it has done for thousands of others and I know it will do the same for you. All you need do is to write to me to-day, and you will receive my book, which will be of invaluable service to you, by return post, free of charge. . . . I will send securely and privately packed, to any reader who forwards me 3d. for postage, a full-size fortnight's package of my remedy free of charge. . . . You will not have to wait for weeks, or even days, before deriving benefit. You will experience at once a wonderful feeling of lightness and brightness; you will be able to walk longer distances without being fagged; your heart will beat more regularly; and your breathing will be better.

The "fortnight's package" was accompanied by a letter, of which the following is a part:

As a rule, One Month's Treatment is sufficient, though, of course, I need scarcely say that in some cases the Treatment must extend to two or even three months, in order to secure complete and permanent results. My usual fee for an ordinary month's course is One Guinea (credit, of course, being given for the cost of the free fortnight's trial treatment enclosed) and on receipt therefore of P.O. for 10s. 6d., together with the accompanying Consultation Form, fully filled up, I will at once formulate and send you the directions and various preparations suited to your requirements, thus enabling you to complete the full month's course at half price without any interruption.

The second fortnight's treatment really begins the actual flesh-reducing portion of my system following upon the elimination of the impurities that are robbing you of your vital NERVE FORCE, and I would emphasize the importance of this continuity of treatment to ensure a satisfactory reduction of your superfluous flesh, and also generally improved health.

The "book" referred to was also sent; it is a small paper booklet of about fifty pages, entitled, "Obesity: Cause and Treatment. By A. Gordon Wallace, Specialist." This curious qualification is the only one that is mentioned on the title page; but on page 33 the following appears under the heading

In Plain Language.

It is apropos for me to here mention that I am a physician holding diplomas by examination, and I have made the cause and treatment of Obesity a special study. My methods of treatment are based on sound physiological grounds, and not merely tentative or empirical.

This little treatise is not an essay such as I would deliver before a medical society, but is a talk to the laity, therefore I purposely avoid the use of technical language. I am to discuss the subject here in as simple a manner as I possibly can so that everything will be clearly understood.

I am confident that this method of stating the facts will be appreciated.

On other pages it is stated that

My method is unlike any other. I give my patients a true physiological treatment that restores lost Nerve-Force, and Nature does the rest.

*My Treatment allows you to eat what you like and drink what you like.*

The "fortnight's package" contained 54 sugar-coated tablets. The directions on the label were "Two Tablets to be taken three times daily between food." At this rate the "fortnight's" supply would last nine days.

After removal of the coating, the tablets had an average weight of 2.9 grains. Analysis showed them to consist of an extract and a vegetable powder; the extract agreed in characters with extract of bladder-wrack (*Fucus vesiculosus*), which is the basis of a great many of the nostrums for obesity; although this extract is not known to contain any definite active principle which can be isolated and identified, its mineral constituents differ so much from those of most vegetable extracts that a careful examination of these, together with the characters of the extract itself, enable it to be identified with practical, though not absolute, certainty. The vegetable powder was found by microscopic examination to consist of liquorice root, together with a large proportion of the cells characteristic of powdered nutshells, olive stones, etc.; the cheapest liquorice powders in the market are largely adulterated with powdered nutshells and olive-stones, and this fact may perhaps account for the presence of the tissues in question. The quantity of extract in each tablet was about 2 grains. Similar tablets can be obtained wholesale at about 1s. a thousand.

### DR. VINCENT'S ANTI-STOUT PILLS.

These pills are supplied by Dr. Vincent's Medicine Co., London at 2s., 4s. 6d., and 10s. per box. A 2s. box was found to contain 38 pills.

In an advertisement of these pills it is stated that

One 2s. Box of Dr. Vincent's Anti-Stout Pills has in hundreds of instances completely cured, and in any case will do more to reduce corpulency than any other remedy extant.

Dr. Vincent's Anti-Stout Pills are small, harmless, pleasant to take, and without change of diet will reduce superabundant flesh as much as 10 lbs. in a week.

A printed circular and a circular letter were sent with the pills, and the following are extracts from these:

Dr. Vincent's famous and most successful method for the elimination of superabundant flesh is now well known throughout the English speaking world. . . . Where a fair trial has been given it has never been known to fail. . . . The pills are purely vegetable, and present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous.

Every case is amenable to my treatment if two simple rules are followed. First, the treatment must be carried on with regularity, and second, without interruption. . . . Naturally you want to complete your cure and I have a special offer to make you. The Ten Shilling box of Dr. Vincent's Treatment is usually sufficient for a complete and lasting cure, and so as to encourage you to continue the process of reducing your weight, I shall be pleased to send a Regulation Full Size 10s. box for a remittance of 8s. In other words I allow you the 2s. you have paid for the Trial box sent herewith off the price of the 10s. Treatment, if you apply within 21 days of the date of this letter.

(The letter, however, was undated.)

The directions on the box are: "Dose.—Two Pills every night, also One Pill every morning."

The pills were coated with talc; after removal of the coating they had an average weight of 2.6 grains. Nearly half the mass consisted of "extract"—apparently a mixture, about 15 per cent. was resinous in nature, and the remainder consisted chiefly of the tissues and cell contents of powdered vegetable substances. The nature of these was investigated with the aid of the microscope, and from the histological characters of the powder together with the results of tests applied to the pill, evidence was obtained of the presence of

Jalap
Colocynth
Cloves
Aloes, or extract of aloes
Extract of *Fucus vesiculosus*

[1] BRITISH MEDICAL JOURNAL, 1907, vol. ii, pp. 24, 150; 1908, vol. ii, p. 1566.

The last named could not be identified as fully as in the preceding case, owing to its being present in not very large proportion in admixture with the other drugs named, but the evidence for its presence appeared adequate.

It is not possible in such a mixture to give with any certain near approximation the proportions in which the different ingredients were present.

### PHATOLENE TABLETS.

"Phatolene" Tablets are sold by the Phatolene Co., Ltd., London, at 6d., 4s., and 10s. per box.

An advertisement of these tablets is in the following terms:

Don't be fat when Phatolene Tablets will cure you absolutely. The only safe and certain remedy. Registered by Government. Thousands of Testimonials. Phatolene Tablets are guaranteed to cure you of stoutness without starvation, aperients, or interference with your ordinary method of living. Phatolene Tablets are the most remarkable scientific discovery of the present age. Phatolene Tablets are an aid to health, make you look younger, and produce a charming figure. We are so confident that Phatolene Tablets will reduce your weight daily, that we offer to send you a large trial box in return for a sixpenny postal order only.

The box which was sent bore no patent medicine stamp, and so presumably "registered by Government" refers to the name being registered as a trade-mark. It is clearly intended to suggest much more than this. A letter sent with the "trial box" was headed:

The Phatolene Co., Ltd.,
(Sole Agents for the Discoverer of the "Phatolene" Remedy)
F. Lawrence, Manager and Certified Chemist.

It should be observed that "certified chemist" is not a legal qualification, and may mean anything or nothing; it is not to be confused with "registered chemist and druggist" or "pharmaceutical chemist." Some extracts from the letter are:

As a chemist of over 20 years' practice I have often been personally consulted by my clients of both sexes in regard to obesity and local overfatness. But it is even more pleasure to me to come in touch with those who prefer to do so under the Government-guarded secret service of His Majesty's Post Office. . . . As a matter of fact I have to charge more if people use up my time as well as their own in personal consultations. And there is no necessity for this time-wasting or money-wasting, as I know that my Phatolene discovery will succeed in your case as it has done in others. . . . My One Week's Trial Supply is not sufficient of course to overcome a bodily condition that may have been developing for nearly a year. My Phatolene reduces all fat within the body at a steady and safe rate, and one, two, or three months' supply is sufficient to restore all but the unusually fat to their proper size, weight, and appearance.

What quantity may I send you? For your guidance I may point out that my experience enables me to inform you that you will require the following quantities according to these conditions.

If you have been fat or growing fat less than one year, you will require one month's supply for 4s., post free. If fat or growing fat one year, and not two years, you will require three months' supply for 10s., post free.

From a second letter:

To cure any ordinary case takes about 12 weeks, for if the reduction is forced in a more violent way the stoutness is sure to return and thus you gain only a temporary relief, and you should therefore take advantage of our 12 weeks' treatment which will cost you 10s. only. . . .

You are aware I have made a study of obesity, and you can naturally understand I am interested in your case and shall be only too pleased at all times to answer any questions on the subject, but please enclose stamped directed envelope.

**In a leaflet enclosed with the package occurs the following impudent attempt to make it appear that the nostrum has the support of medical practitioners and of this JOURNAL:**

The Treatment of obesity should not be quick, but slow. To attempt to reduce superfluous fat by violent or sudden means is dangerous, especially if the heart is at all weak, and this is why medical men invariably recommend Phatolene Tablets. . . . Doctors cannot dispute the fact that this preparation has for a long time had the reputation of reducing corpulence.

*The Practitioner* says: "Taken three times a day reduced the fat of a lad who had suddenly become corpulent."

*The British Medical Journal*: "Given to lessen fat with good results."

Again, the same Journal says: "Given with good results and does not produce dyspepsia or diarrhoea. A lady lost 20 lbs. in 9 weeks when taking this, and a gentleman 8 lbs. in 3 weeks without bad results."

**It is scarcely necessary to say that neither the nostrum in question nor any other has ever been referred to in this JOURNAL in the terms quoted.**

The directions on the package are:

Dose.—For the first week take one tablet three times a day, and afterwards increase the dose to three Tablets three times a day, one hour before meals. Can be swallowed whole or allowed to dissolve in the mouth.

The "tablets" were really ovoid pills, coated with talc and coloured brown externally. The "6d. trial box" contained twenty-one. After removal of the coating the pills had an average weight of 2.7 grains. Analysis showed them to consist of an extract agreeing in all respects with extract of bladder-wrack (*Fucus vesiculosus*), together with about 10 per cent. of powdered liquorice root. No other ingredient was found.

### KELLOGG'S SAFE FAT REDUCER.

Kellogg's "Safe Fat Reducer" is an American preparation, supplied by F. J. Kellogg, Battle Creek, Michigan, U.S.A. It is also advertised in Great Britain, and the following extracts are from an advertisement appearing here:

4/ Box of my Safe Fat Reducer Free.

I Want To Prove To You Before Your Own Eyes and At My Expense That I Can Reduce You to Normal Weight Safely, Without Starvation Diet or Tiresome Exercises.

It Doesn't Matter What You Have Tried, Send For This Free 4/ Box of my Safe Fat Reducer To-day.

My treatment is prepared scientifically. It does not stop or hinder digestion; on the contrary, it promotes proper digestion and assimilation of food, which 99 fat people in a hundred haven't got, and that's why they are fat.

**On applying for a sample, it was sent accompanied by a circular letter, and this was followed by others at intervals. Some extracts from these are here given:**

Of course, I do not promise that this 4s. treatment alone is going to cure you of all your fat, but I want to start you on the treatment without any expense to you so that during the next few days it will put your system in such a condition that the next treatment may produce results without any waste of time. . . .

You have a right to feel sure that Kellogg's Safe Fat Reducer is safe. You can depend upon it that it is positively safe, and you need never fear that it will reduce you too much.

Kellogg's Safe Fat Reducer builds up the entire system from one of the fatty weakness to muscular strength, and the results have been that it makes patients grow remarkably healthy as they continue the treatment.

Excess fat, I found, is the result of mal-assimilation of food. My Kellogg Safe Fat Reducer stops this defect; it prevents the stomach from its unnatural tendency to produce fat; it makes the stomach "mill out" the food into muscle fibre, bone, nerve tissues, brain pigment, and rich blood, instead of fat; it resolves the unnatural fat you have and expels it naturally and harmlessly through Nature's channels.

As a result there is no other treatment in the world like Kellogg's Safe Fat Reducer. It does not interfere in the least with your business. You don't have to diet yourself, but you can eat all you want. You don't have to go through any tiresome exercise at all. All you have to do is to be faithful to the treatment, take it according to directions and go about your work as usual; then you should be happy in feeling that the reduction will be sure to come in a few days, that you will be healthier than ever before, and more muscular, energetic, and athletic. A loss of a pound a day is nothing unusual, and will by no means hurt you. . . .

Now that I have started you on the treatment, I want you to continue. I will send you a full treatment of my Kellogg's Safe Fat Reducer for only £2 1s. 1d. There is positively no doubt of the result. And I know you will appreciate it when after a few days you will be able to note a distinct relief from the heavy burden you are now carrying, and the terrible dangers of apoplexy and paralysis, which threatens all fat people, are lifted from your mind forever.

From the second letter:

I make each case an individual case, thus I have to have the enclosed blank filled out, so that I may understand exactly the conditions, and thus employ the means that will most rapidly, and at the same time safely reduce your fat and make strong, healthy tissue and muscle. . . .

The price of the treatment is but £2 1s. 1d. Order it to-day, and be free from your heavy weight in a few weeks. Don't stop to figure or argue with yourself. I hope to receive your order by return mail, but if you cannot order write me frankly what stands in your way of securing a reduction.

From the third:

I really cannot understand why you do not order my wonderful treatment, and begin at once to reduce your fat that has so long been a bother and annoyance to you. . . . I have given much thought to your case [no case had been even mentioned in sending for the sample] and I feel sure if you still had any doubts of the splendid power of my remedy to reduce you of fatness, you would have written me fully at once. As I have not received any letter from you, I have concluded that you do not feel that you can afford to take the treatment at present.

I believe so positively that I can reduce you, and I feel so sure that you would appreciate fully the splendid reduction I will give you, that I am going to make you a strictly confidential proposition, by which you can secure the treatment you so much desire, and at the same time do me some good.

You certainly know a number of people in your vicinity who are annoyed by fat, and who would be glad to know of my treatment so if you will send me £1 8d and the names of six fat people, I will send you a regular full month's treatment. Remember I do not ask you to become my agent, and I shall not refer to you in any way when I write to your friends or acquaintances whose names you send me . . . if you have not got the money by you, it seems to me that it would be no more than right to go to some dear friend and ask a favor for a short time. Surely no one could refuse you when it means your health and happiness.

The "trial box" sent contained 16 tablets and 6 "casca beans," recommended as an aperient; the latter were not examined. The directions are "Eat one tablet before each meal and one at bed-time, thoroughly masticating them before swallowing." The tablets had an average weight of 70 grains each; analysis showed them to contain starch, dextrin, a sugar (glucose or maltose), protein, mineral salts, vegetable tissue, and a small quantity of an organic compound containing iodine. The proportions of the different constituents were determined as far as practicable, and the figures obtained, together with microscopical examination of the tissue, showed that the tablets consisted principally of wheat flour from which much of the starch had been removed, made into a coherent mass by means of malt extract or glucose; traces of the germ or embryo of the wheat were found. All this is, of course, a vehicle for the organic substance containing iodine; both thyroid gland (or its extract) and extract of bladder-wrack are characterized by containing iodine in combination in small quantity, and many tests were employed to ascertain which was present; no further evidence of extract of bladder-wrack was obtained, but there was a good deal of evidence, not quite amounting to positive proof, of the presence of a preparation of the thyroid gland. It is impossible to state the quantity present in each tablet, and it would convey no real information if it could be given, as preparations of thyroid may differ so widely in their activity and no standardization has as yet been attempted.

### "NORMAL" PILLS.

These are supplied by the Normal Powder Company, Beauty Specialists, Southport, at 10s. 6d., a "trial box" being priced 6d. They are advertised in the following terms:

Too Stout!

Simply follow our instructions and we will guarantee a perfect cure. Our treatment is in every way as scientific and complete as that for which a London Specialist charges £21.

FREE OFFER!

To prove the great value of our remedy we will send you a large trial box—14 days supply—Free on receipt of 6d. P.O. to cover cost of packing and postage, etc.

The 6d. box was accompanied by a "chart, to be carefully filled up," for particulars as to weight, measures, etc., and the following to be signed by the purchaser:

I duly received your "free" sample of the "Normal" Pills quite safely, and since using them I have lost —— lbs. in weight. I quite understand that the cure cannot be completed without continuing the treatment for some time, and in conjunction with the London Specialist's diet instructions, which I promise to faithfully follow out. Please send me per return, carriage paid, in plain wrapper, a large box of the Pills and the instructions which cost you £21. I enclose you cheque P.O. for 10s. 6d. as requested.

The box, which bore no label, contained 83 pills, which were coated with talc. After removal of the coating their average weight was found to be 1.28 grains; analysis showed them to consist of a mixture of extracts with vegetable powder. The powder consisted partly of liquorice root, with a large proportion of the tissues characteristic of ground nutshells, which, as mentioned above, is a regular adulterant of the lowest grade of liquorice powder; the microscope also gave indications of traces of bladder-wrack (*Fucus vesiculosus*), such as are contained in extract of this substance. Various tests indicated that the extracts present in the pill were those of cascara sagrada and bladder-wrack, the proportions being approximately as follows:

| | | |
|---|---|---|
| Extract of cascara sagrada ... | ... | ½ grain |
| Extract of *Fucus vesiculosus* ... | ... | ½ ,, |
| Powdered liquorice (adulterated) | ... | ½ ,, |
| Talc and moisture ... ... | ... | ½ ,, |
| in one pill. | | |

### MRS. SEYMOUR'S TREATMENT.

This is supplied by Mrs. M. Seymour (London) at 15s.

An advertisement of this preparation is headed "A woman's offer to over-fat women"; some extracts from it are as follows:

I invite other ladies to participate in a discovery which reduced me 4 st. 8 lbs. and got rid of my ugly double chin. . . . . My remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only. . . . I am presenting 5,000 free boxes of my cure and copies of my book, *Obesity in Women*. I ask you to post the coupon below to me now and accept one of these free packages. . . .

The passages which follow are from the "book" in question:

Every one of the cures I have made is a proof of the all-important fact that obesity in women is a different ailment from corpulence in men. It has an absolutely different origin. . . . There is no case of obesity in which heart trouble has not been reckoned with. . . . It is heart failure that is responsible for 75 per cent. of cases which end fatally. What happens in these cases is fatty degeneration of the heart, which leads of syncope. . . .

Obesity is always due to imperfect nutrition. The food which is eaten makes fat instead of healthy tissue, muscle, bone, and nerve. Up to a certain point the process of nutrition (whereby the food is transformed into the constituents which make up the various parts of the body) is practically the same in women as in men. Beyond that point it is obviously an entirely different process, for the generative organs then become involved.

Now the all-important secret which governs the whole subject of obesity in women is this: Obesity is caused as the result of a species of mal-elimination in those stages of the nutritive processes wherein the organs peculiar to the sex are involved. In other words, the unhealthy, fat-forming process is set up because of the imperfect disposal of those nutrient elements with which the menstruous organs are concerned.

You are certain to have noticed how any marked stage or change in the functions of the menses will influence fat formation. For instance, girls who from childhood are inclined to fatness invariably become of normal proportions on attaining puberty, while at least 70 per cent. of the cases of obesity in women occur at the menopause, between the ages of 40 and 50.

Now there are changes connected with the organs under consideration which occur without any outward or visible signs—changes which induce obesity. These are changes which result in the fat-loading of the blood, and the depositing of fat in the different parts of the body as the blood circulates. . . . Please remember that I treat women only. I have no cure for corpulence in men.

The free sample which was sent with the book consisted of nine capsules containing a dark extract of bitter taste. The quantity in the sample was not sufficient for analysis. A "symptom form" was received with the sample; on sending for a further supply, a letter was received asking for certain particulars, and the symptom form was accordingly filled up as follows (the words in italics are the answers given):

Age.—*38*. Weight.—*13 st. 13*. Height.—*5 ft. 7½ in.* Waist.—*33 in.* Bust.—*42 in.* Hips.—*50 in.*

How long have you been about this weight?—*Gradually increasing for a year or two.* What parts are fattest?—*Abdomen and bust.* Constipated?—*No.* Have you backache or any kidney trouble?—*No.* Palpitation?—*No.* If married, how long?—*14 years.* How many children?—*3.* Age of youngest?—*5.* Any sediment or peculiarity about the urine, etc.?—*No.* Had miscarriage?—*No.* What is your general health and condition now?—*Fair.*

The medicine which was sent in reply was not capsules, but sugar coated tablets, 169 in number. Directions were given as follows:

There are sufficient tablets for you to take four each day, one just before each meal. If you only take three meals—and I strongly advise you to—take two tablets before the heaviest meal.

I want to impress upon you the great importance of keeping the bowels perfectly free all the time you are taking this treatment. For a day or two the treatment itself may keep the bowels open, but afterwards most ladies require an aperient. I have made many experiments, and I find there is only one way to keep the system clear without hindering the process of reduction. Pills, Epsom salts, cascara, etc., are quite useless. You must have genuine Vichy and Kissingen salines. You can get them in powder form of any good-class chemist, but they must be guaranteed full-strength, be saccharine-sweetened, and contain no sugar.

Take them, dissolved in water, half an hour before breakfast, as follows: A Vichy powder the first morning; none the second morning; a Kissingen powder the third morning; none the fourth morning; a Vichy powder the fifth morning; and so on. If you prefer to purchase the powders from me I can supply you with sufficient to last the six weeks' treatment for 3s 6d. post free. I can guarantee these to be full strength, and exactly suited to the purpose.

Get into the habit of breathing deeply. Take at least a hundred deep breaths in front of the open window every morning on rising. Breathe deeply whenever you think of it. It will soon become habitual. For exercise take a gentle walk every day.

I have just one other suggestion to make in your case, and that is in regard to food. You will find on page 15 of my booklet particulars of the foods and beverages I avoided during the first month of my cure, and I strongly advise you to do as I did in this matter. I also advise you to eat only bread, cakes, etc., made from gluten flour; that is, flour from which the starch has been removed. Masticate your food thoroughly. Always stop eating just before you feel you have had enough, and wait until you have finished eating before you take anything to drink. Drink as much hot water as you can between meals.

The tablets were sugar-coated, and of a bluish colour externally. After removal of the coating their average weight was found to be 4 grains. Examination showed that they consisted, wholly or in part, of roughly ground up sugar-coated tablets or pills, the coating of which was coloured pink; since the coating of these had been ground in with the tablets, it was not possible to separate it, and the mass accordingly contained a good deal of sugar and starch; besides these, an extract was found agreeing, as far as its characters could be ascertained, with extract of bladder-wrack; a trace of iodine in combination was present, such as is found in preparations of bladder-wrack and of thyroid gland; also a very small quantity of boric acid, and a little vegetable powder. Part of the last-named showed the characters of the débris of a seaweed, though it could not be definitely identified with *Fucus vesiculosus*; a further small portion, amounting to an extremely small proportion of the whole, consisted of woody tissue which did not agree in characters with any drug in common use. The boric acid points to the probable presence of an animal gland or a preparation of such, and some collateral evidence was obtained of the presence of thyroid in small quantity, but definite proof of the latter is impossible in such a mixture.

## THE AUTOBIOGRAPHY OF AN ANTHROPOLOGIST.

So many memoirs and volumes of reminiscences have flooded the literary market of late, that we are in danger of growing more than a little weary of this particular form of book making. It is all the more pleasant, therefore, to come across such a book as Dr. John Beddoe's delightful *Memories of Eighty Years*,[1] for its author has succeeded where very many fail, and out of the storehouse of his recollections of a long life, crowded with varied work not unmixed with adventure, has compiled one of the most interesting memoirs published in recent years.

Born at Bewdley in Worcestershire, in 1826, "a quiet sickly boy, greedy of knowledge and not without originality," Dr. Beddoe seems to have given signs very early of the bent towards anthropology which has made him justly famous throughout the scientific world. His love for this particular branch of science has coloured all his life, and the "ruling passion" shows itself in every page of his book, in his comments upon the many countries he has visited, and the innumerable famous or interesting people he has met. It is in connexion with this hobby that he tells an excellent story of Scott, which he got from Sir Robert Christison. As is well known, Scott had a very lofty head, which made some of his brethren of the law call him "Peveril of the Peak." The artists who painted him regarded this as a deformity, and insisted upon eliminating as much as possible. Says Dr. Beddoe:

Somewhere in the twenties Spurzheim visited Edinburgh and lectured to the Royal Society of that city. There had been a good attendance of members; and when the meeting broke up, the last to depart were Sir Walter Scott, Professor Christison, and a third person, whose name I have forgotten—it is not material. This man took up his hat, Christison took up his, and Sir Walter took up and put on the only remaining hat, which came down to the bridge of his nose. Taking it off again, he addressed the janitor in his native Doric:

"Jone, that's no ma hat!"

"But, Sir Walter, it maun be your hat, for there's nae ither."

"Na, na, Jone, it canna be ma hat; it maun be the hat o' some great genius!"

It turned out that the hat belonged to a mathematician who is described as "anything but a genius."

Dr. Beddoe's adoption of the profession of medicine was due to the merest accident. He was originally intended for the Bar, but having read up physiological chemistry in view of the dyspepsia from which he often suffered, he hit upon a method of estimating the relative value of nutriments which was in advance of any plan known or used at that time.

It was in effect the method of calories, though the word had not then been coined, nor, as far as I know, had the idea been conceived.

The result of these studies was that the embryonic lawyer was alluded to in a paper which appeared in the *Lancet* as "Dr. Beddoe, of Bewdley," and this error ultimately led to his following the advice of his connexion, Sir Charles Hastings, founder of the British Medical Association, and entering University College, London, as a medical student. It was in Edinburgh, in the summer of 1854, that Beddoe, who had taken his degree of M.D. a year before, narrowly escaped being the innocent cause of a death which would have affected very materially the entire human race. He had persuaded the present Lord Lister to climb Salisbury Crags, but half way up the latter, who at that time was not in the best of health, became giddy, and they were obliged to descend.

I suppose much experience of the place had made me careless. A large fragment came away in my hands, and the stone and I both fell upon Lister. He was looking up at the time, and squeezed himself cleverly against the face of the cliff; but the huge stone struck him on the thigh with a grazing blow, and then whirled down the talus below with leaps and bounds, and passed harmless through the middle of a group of children who were playing hopscotch at the bottom right in its way.

Lister was badly bruised, but no bone was broken. I went off at once to the infirmary and procured a litter and four men, wherewith I returned to Lister. As our melancholy procession entered the courtyard of the surgical hospital, there met us Mrs. Porter, the head nurse then and for many years after. She wept and wrung her hands, for Lister was a universal favourite.

"Eh, Doketur Bedie! Doketur Bedie! A kent weel hoo it wad be. Ye Englishmen are aye sae fülish, gaeing aboot fustlin upo' Sawbath."

I do not suppose Lister ever whistled on Sunday. I am certain I did not, for I never could whistle in all my life; but we had suffered for a national offence.

The result of this adventure was a fortnight in bed for both men and the complete loss of his nerve for climbing on the part of Beddoe, who only regained it after resolutely returning to the scene of the accident and forcing himself to undertake the entire ascent.

Dr. Beddoe's stay at Edinburgh was marked by another incident which is worth quoting. He says:

Before leaving Edinburgh I had the good fortune to secure the reversion of a clerkship or house-physician's post in the infirmary, under Dr. Andrews. . . . Concurrently with my settlement in warm quarters in the thickly-walled infirmary, where I always had a fire in my room, my pulmonary symptoms finally vanished. This fact does not very obviously square with some modern theories or practices. But both now and previously I usually slept with a window not quite closed.

It may, perhaps, be gathered from this that Dr. Beddoe is no fanatical devotee of the open-air treatment. This impression may be confirmed by the following story. Many years afterwards, when he was President of the Health Section of the Social Science Association at Edinburgh, he mentioned in his opening address that the substitution of well-built and consequently ill-ventilated cottages for rude but airy hovels appeared to have been followed in Athol by an increase in the mortality from consumption. Dr. Farquharson, who had seconded the vote of thanks, walking away with the speaker afterwards, said to him:

Beddoe, I am eternally obliged to you! I was thinking about spending money on rebuilding all the cottages on my Aberdeenshire estate, and now I won't touch one of them.

In 1854 Beddoe with a number of fellow students volunteered for service in the war against Russia, and he gives a vivid account of his experiences in Asia Minor and the Crimea. The civil hospital staff, as it was called, suffered a good deal from the want of efficiency at the War Office. Some of the mistakes, says Beddoe, were due to the manifold divisions and the deplorable jealousies between the various official departments concerned, and the effect produced on his mind was that

[1] *Memories of Eighty Years.* By John Beddoe, M.D., LL.D., F.R.S. Published by J. W. Arrowsmith, Bristol, and Simpkin, Marshall, Hamilton, Kent, and Co., London. 1910. (Pp. 322. Price 7s. 6d.)

things would never go on rightly till the War Office was burnt down, and that if a few of the clerks were inside at the time it would be so much the better. Beddoe never fully appreciated the phrase "red tape" till he had seen the accumulation of dusty papers that filled up the passages of the War Office. Once hours were wasted in searching for a document which was thought absolutely indispensable by the officials, and which was ultimately discovered in a waste basket between the legs of the chief!

Of his travels in Holland, Germany, Austria, Italy, and other countries, Dr. Beddoe has much that is interesting to say. When he visited Vienna the medical school was at the zenith of its reputation. Its lecture rooms and the wards of the great hospital were thronged with foreigners. Beddoe himself was acquainted with men who belonged to at least sixteen European nations, not including Germans of various districts, besides Americans and Asiatics, who had gone there to supplement their experience and perfect their knowledge. He gives the following description of the famous Skoda:

"He was a podgy, round-faced little man, with small dark eyes and a somewhat Mongoloid aspect. He had the reputation of despising drugs, but that was really not the case; the fact was that he used them only when the indications for their employment were distinct, but not as a matter of routine. Thus standing at the bedside of a fine vigorous young peasant he would say, Gentlemen, this patient from acute left pneumonia suffers. Some in such a case would mercury exhibit; others tartarized antimony would employ; but seeing that this man well constituted is, and well nursed and cared for will be, it is to be expected that he without any of these drugs perfectly well and that in short time will become. Wherefor (to his assistant) Herr von Speckhausen, recipe, etc. And he would proceed to order a solatium of diluted raspberry syrup.

Beddoe tells an amusing story of a meeting of the Vienna Medical Society when somebody read a paper upon koumiss (fermented mare's milk) and drew an enthusiastic picture of its virtues as a cure for pulmonary consumption. Several speakers followed, one alleging one probable cause for its efficacy and one another. Last of all, Skoda delivered himself thus:

Gentlemen,—Respecting these wretched Bashkirs, how that owing to their of this fermented mare's milk copiously drinking, from phthisis almost or altogether free they be, has this night very much been said; but for my part I do most powerfully and constantly believe that, in addition to all the other miseries of their God-forgotten condition, from phthisis they not only as much as we, but even much more do suffer.

This dogmatic utterance brought the discussion to an end.

On his return from the Continent in 1857 Dr. Beddoe settled at Clifton to wait for practice as a physician. He was appointed to the staff of the Bristol Infirmary, and found some compensation for the number of his out-patients in the opportunities of ethnological observation they afforded. He always noted down the name, age, sex, conjugal status, birthplace, and colour of hair and eyes of the patient, and the resulting statistics led him to the conclusion that conjugal selection might have much to do with change of type. In 1863 he published a paper based on these observations, entitled, On the Supposed Increasing Prevalence of Dark Hair in England. This was read by Darwin, who wrote to the author that his conclusion would be of considerable service to him if absolutely trustworthy. But he wished to know, first, whether he could suspect any flaw in the reasoning. On thinking the matter over carefully, Beddoe found such a flaw, and acquainted Darwin with it. It was connected with the varying age of the material; hair continues to darken long after adolescence—in fact, until it begins to grizzle. Darwin, therefore, did not use the figures. This, says Beddoe, is one out of the innumerable instances of the caution and absolute candour of the author of *The Origin of Species*.

Among the persons of whom Beddoe speaks was Miss Frances Power Cobbe, whom he describes as "a large person in every way, large in body, heart and soul, full of all sorts of generous instincts, and by no means an ascetic." She assisted Miss Mary Carpenter in her philanthropic work at Bristol. Miss Carpenter used to buy a leg of mutton once a week, have it roasted or baked and served hot one day, after which she fed on it till it was finished. The simple life in this form did not suit Miss Cobbe, and she and Miss Carpenter parted company after a few months. Some years later Miss Cobbe became a violent fanatic on the subject of vivisection. She had a beautiful dog called Hajji, which she loved with all the ardour of her nature. Dr. Beddoe goes on:

We always supposed that the idea of Hajji's possible falling into the hands of a vivisector was too horrible to her, and prompted her views and actions on the subject. Anyhow, she cast me off entirely. Not that I personally was a vivisector, but that I was a member of an accursed profession, and for years she never spoke to me. I took no notice of this, and in the course of years she came round and we resumed our very friendly intercourse as if nothing had happened.

The eagerness of the scientific observer sometimes overpowers any tact which he may possess. We have heard a story of a distinguished anatomist who, noting something that struck him as an anomaly on the neck of a lady in a ballroom, startled her and the company by proceeding to make an examination of the part. Dr. Beddoe's anthropological ardour never seems to have displayed itself so inopportunely, but he tells a story against himself which shows that his enthusiasm occasionally showed itself in an unconventional fashion.

At a dinner given by the Lord Provost of Edinburgh to the council of the British Association he sat next to Sir William Huggins, whom he describes as perhaps the ugliest man in the Royal Society—"small, swarthy, pig-eyed, and potato-faced, he had only his fine cranial development as a redeeming feature." To him Beddoe propounded the view that scientific men are generally ugly. Naturally enough Huggins did not agree. Beddoe asked him to look down the rows of profiles along the table; Huggins did so, scanned them deliberately, and then said that he believed Beddoe was right. Beddoe adds that in scientific men, especially those with much genius or originality, the features are apt to be irregular. "It is the men of action—dragoons, huntsmen, engineers—who are often handsome."

Dr. Beddoe's position in the scientific world brought him acquainted with most of the leaders in science of the Victorian era. But he knew many persons prominent in various spheres of intellectual activity. He was acquainted with Francis Newman, John Bright, William Froude, brother of James Anthony, and a distinguished engineer, Dean Farrar, and many others. Of Freeman, the historian, he saw a good deal, and, unlike most of those who did so, always got on well with him. John Addington Symonds was his patient.

He tells the following story of Virchow, which he got from Dr. A. P. Stewart, and which he does not think has ever before appeared in print:

Queen Victoria, with Sir William Jenner in attendance, King William of Prussia (afterwards the first German Emperor), and Professor Virchow, then a leading Radical in the Prussian Parliament, were all staying at Ems. Jenner had been telling the Queen what a great man Virchow was, and the Queen had spoken with King William on the subject. Next day the King, recognizing the Professor on the parade, called him up, and told him what the Queen had said of him, "a Professor in my University of Berlin."

"And now, Professor," he added graciously, "one little word! Don't you think it might be better if you confined yourself to these scientific subjects, in which you have earned so great a reputation, and avoided politics, in which, you will pardon my saying, you do not equally shine?"

"Your Majesty," said Virchow, "I do not see how I can possibly answer you unless you graciously permit me to tell you a little story."

"Say on, Herr Professor."

"When your royal ancestor invaded France in 1792, he encountered the enemy at Valmy, where a French artilleryman, after greatly distinguishing himself, was taken prisoner. Your royal grandfather, always ready to give honour to valour, desired that the Frenchman should be brought before him. When this had been done, he said, 'You appear to be a very valiant man, but it is a pity that you should exert so much gallantry on the wrong side.' 'Citizen William!' replied the Frenchman, 'O let us talk about something else, for on that subject you and I will never agree.'"

To us the most interesting part of this story is that the King of Prussia was obviously ignorant of the existence of his most distinguished subject. Even Queen Victoria had apparently to learn about Virchow from Sir William Jenner. Had he been a Professor of Physical Culture he would doubtless have been better known to Royalty.

But we must refrain from quoting more of the stories of which Dr. Beddoe has so abundant a store. His records of the sights he has seen and his recollections of the many celebrities he has met, both at home and abroad, interesting as they are, are not the most attractive feature of his book. What makes it so delightful is the kindliness and breezy good humour with which Beddoe writes, his cheery outlook on life and his utter lack of the "envy, hatred, and all uncharitableness" which so frequently mar a work of this kind. There is also a total want both of the vanity and egotism and of the intolerance which are characteristics of many scientific autobiographies. Dr. Beddoe thinks nothing that is human foreign to himself, and in reading his modest narrative one almost forgets that one is reading the life of a man on whom learned societies throughout the world have showered honours.

## THE ACCIDENT COMMITTEE'S REPORT AND CERTIFYING SURGEONS.

THE volume containing the evidence on which the Home Office Departmental Committee on Accidents in places under the Factory and Workshops Act has based its recent report[1] has not yet been published, so that we are not in a position to note how far the findings are in accord with the views of witnesses, but it appears somewhat strange that an attempt should be made to deal with the causation and prevention of factory accidents without obtaining the fullest information possible from the class of surgeons whose duty it has been since 1844 personally to investigate every reportable accident. It is true that one certifying surgeon, from a moderately-sized manufacturing district, was called, but as his experience, however valuable in itself, is practically confined to one industry, his evidence can scarcely be regarded as sufficient to indicate the common views of this branch of the profession. The want of this variety in the technical evidence taken is well shown in the part dealing with the accidents occurring during the cleaning of machinery in motion, where the opinions of employers and employees appear in many cases to have been much at variance, and where an unbiassed view as to the actual danger in cleaning certain parts of machinery could easily have been supplied from knowledge based on a study of machines solely from the point of view of their capablilities of causing injury to the workers. Further instance is to be found in the grave manner in which the committee discusses the possibility of the increase of "blood poisoning" being due to the substitution of vegetable for mineral oil in lubricating, and eventually confesses its inability to give any satisfactory explanation. We can only observe that it would have been easy for a properly qualified witness to explain that, as no accidents were reported previous to 1906, unless they caused absence from work during the first three days after the accident, there was not the same chance of septic wounds coming to light as there is now, when absence of a whole day any time after the accident qualifies for notification. It is particularly unfortunate that the committee should, on the partial and inadequate class of evidence it took, come to the definite conclusion that the time has now come when the certifying surgeon's investigation can be wholly or mainly disposed of. Its reasons may be stated as follows:

1. The investigation is superfluous because the inspectorate is now so closely in touch with factories.
2. The inspector can judge from the occupier's report whether his personal investigation is required, whilst the certifying surgeon's report seldom adds anything which it is necessary for him to note, and does not generally dispense with the need for his visit.
3. As the certifying surgeon is not an expert in accident risks, his report cannot do away with the visits of the inspector if investigation is required or preventive measures called for.
4. That the certifying surgeon is not called upon to report on the cause of the accident, but on the "nature and cause of the death or injury caused by such accident," and that such information will seldom be of use to the department.
5. That the sum of £9,000 to £10,000 annually expended in this way might be more usefully directed into other channels.

The validity of these arguments cannot be admitted. As regards the first, it would appear from page 51 of the report that the inspector is so much in touch with the factories that his visits to each average 0.75 per annum.

Concerning the second, the inspector has never yet been without the certifying surgeon's report, and has, therefore, never felt the necessity of relying upon the occupier's notice in forming his judgement. We venture to suggest that if he were put to the test he would very soon feel that want. The important items as to causation, usual occupation, precise occupation at the time of accident, nature and degree of injury, are rarely given with anything like correctness, and no amount of clerical work could compensate for the present personal investigations.

According to our information the inspector does not, as a matter of routine, pay his special visit until after receipt of the surgeon's report, and then only if he judges from this document that such visit is advisable.

The paragraphs numbered 3 and 4 appear to confuse the issue. If the certifying surgeon, who personally investigates every reportable accident in his district, is not an expert on the degree of risk attached to the processes concerned, it may be asked who is? Certainly not the inspector, whose duty it is to devise means of preventing such an occurrence in the future after the cause has been accurately ascertained by the surgeon and pointed out by him to the inspector. The surgeon's duty in the matter we admit to be accurately stated, and we do not wish to claim anything further for him. It was very well laid down by Sir Victor Horsley, who formed one of a deputation which waited on the Under-Secretary of State in 1905 on this particular subject, that the causation of the injury inflicted by machinery constituted the causation of the accident, and that to discover this the injured person must be interviewed and particulars of the injury ascertained, the machine and process being also examined. He further stated that the skill of the surgeon must be brought to bear in deciding to what extent any particular part of the machine could cause the particular injuries noted, and was very definite in his opinion that it was not within the province of a mechanical inspector to decide upon the causation of machinery accidents producing surgical injury.[2]

As regards the utility of the report to the Factory Department, it is worth while to draw attention to the remarks of a prominent inspector, who now holds a very high position, made at the annual meeting of the British Medical Association in Leicester, when the subject of industrial accidents was being discussed. This gentleman quite agreed as to the importance of reports from certifying surgeons on industrial accidents, and held the view that, owing to the intimate and personal relations between these gentlemen and employers and workpeople locally, there might exist a greater opportunity for unfettered inquiry than was possible in the case of the inspectors.[3] As for the contention that the certifying surgeon is no check on the occupier, is it likely that, if the occupier became the sole channel of information, he would show too clearly the necessity of a visit by an inspector, who is generally supposed to have views on the fencing of machinery?

It is somewhat of a relief, however, to find that the committee is of opinion that the certifying surgeon's examinations for certificates of fitness are extremely useful in preventing children and young persons from working at dangerous processes, though it somewhat contradicts its previous views by emphasizing the necessity of the certifying surgeon understanding the work at which an applicant is to be put, and of his being able to define the parts of a factory or machine at which the applicant should be occupied. We venture to suggest that this knowledge of process, which has been found so extremely useful in the certifying surgeon, has been acquired mainly from his systematic investigation into accidents.

We trust, in conclusion, that the views on this subject here expressed may be of service to those who will probably be asked, as a result of this inquiry and report to attempt some doubtless very necessary legislation for the prevention of this class of accidents.

[1] To be purchased directly or through any bookseller from Wyman and Sons, London; Oliver and Boyd, Edinburgh; and E. Ponsonby, Dublin; price 7d. [Cd. 5535.]

[2] BRITISH MEDICAL JOURNAL, July 1st, 1905, p. 52.
[3] Ibid., October 14th, 1905, p. 932

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SATURDAY, APRIL 8TH, 1911.

## CHOLERA PROSPECTS IN EUROPE.

THE unusual prevalence of cholera in Russia and in some parts of Southern Europe in the autumn of last year makes it a matter of no little interest and importance to review the present position in the light of the histories of previous epidemics. During the nineteenth century Asiatic cholera spread from India to Europe on no less than six occasions. In one of these epidemics over a million deaths are stated to have occurred in Russia alone, while 53,000 deaths were recorded in England. In the earlier epidemics the disease, as a rule, spread overland through Afghanistan and Persia to South-Eastern Russia; thence it overran Europe and was usually carried also to the Western Hemisphere. The third epidemic, however, spread from Western India through the Persian Gulf, while a fourth was carried by sea from Bombay to Mecca, and invaded the South of Europe through Mecca.

At the present time the oversea routes are so carefully safeguarded that the danger of the spread of cholera in this way is much diminished. On the other hand, the more common overland route is much less easy to control, while the increased rapidity of communications, due to the steady progress made in the construction of railways, has added considerably to the liability of Europe to invasion by cholera. The first great European epidemic of which we have accurate records originated in Bengal in 1826, reached Afghanistan in 1828, and Persia in the following year. As it did not invade European Russia until 1831, it took five years to cover this distance. In 1867 cholera broke out among the Hurdwar pilgrims in April, was epidemic in Afghanistan in July, and reached Persia by the end of the same year. In 1868 it was very widespread throughout Persia, and reached Russia during the following year. Again, in 1892, the disease followed the same route. Beginning at the Hurdwar fair in March, it reached Afghanistan and North-Eastern Persia in May, the South of Russia, by way of the Trans Caspian Railway, in June, and Hamburg in July. This outbreak thus spread from India to Europe in as many months as the 1826–31 epidemic took years to cover the same ground, so greatly had the construction of railways altered the pace of communications. During the next ten years Europe escaped any serious visitation by cholera, but in 1904 the disease reappeared in Southern Russia along the course of the Volga, the artery through which the disease usually enters Europe by the overland route. It recurred in 1905 in the same country. Again in 1908 cholera was unusually prevalent in India and reached Russia in the autumn. In the following year it was again widespread in Russia and 6,000 deaths were recorded by the end of August; a small outbreak occurred in Holland. During last year the disease assumed epidemic proportions in Russia, nearly 200,000 cases and 90,000 deaths having been reported by the end of September, or nearly as many as occur in the whole of India in some years. A serious outbreak also took place in Italy, causing 1,000 deaths in the Naples district in September. Turkey was widely affected in the autumn months; the disease also broke out in Portugal, while Madeira was severely affected a little later. Thus by the end of 1910 cholera was more widely spread in Europe than at any time since 1892, and Southern Europe was affected to a greater extent than in any year subsequently to the invasion from Egypt in 1884. The position last year is also very similar to that in 1870, which was followed in the next two years by widespread cholera in Europe and subsequently in Canada and the United States.

During the last forty years only sporadic cases have occurred in England, the system introduced by Simon of inspecting all vessels arriving from infected ports, isolating suspicious cases and keeping a watch on the remainder wherever they went, having proved very satisfactory in preventing cholera from gaining a foothold in this country, while not interfering to any serious extent with trade. Since that time the sanitary condition of English towns, especially as regards water supply, has been so greatly improved that there need be little fear of any serious outbreak in Great Britain during the ensuing summer. Unfortunately, the same cannot be said of Russia and some of the southern parts of Europe. As is usual, there has been a marked lull in the disease during the winter months; but if history repeats itself, there is good reason to fear a recrudescence of the disease in the hot months of this year in those parts of Europe which suffered last autumn, and grave danger of the extension of the infection to other areas. The comparative mildness of the past winter makes a recrudescence of the disease all the more likely. As we have previously pointed out, when the Medina Mecca Railway is completed and hosts of pilgrims are rapidly carried to Turkey, the invasion of Europe by cholera will be still further facilitated.

We have, then, two opposing factors in operation at the present time. First, increased rapidity of communications, especially overland, bringing the infection of cholera more frequently into Europe; and secondly, improved sanitation, tending to lessen its ravages. Unfortunately, the latter factor is least in evidence in just those countries which are most liable to be first attacked, and to become foci from which the disease may spread further west. Quarantine measures have over and over again proved futile in preventing the spread of cholera overland, so it behoves all threatened countries to lose no time in providing a pure water supply as the most practical safeguard against epidemic cholera. The serious outbreak of cholera in London in 1853 led to the passing of the Metropolitan Water Supply Act, which made London the healthiest of the great cities of the world. Should the present invasion of Europe by cholera lead to similar measures in the less advanced communities it may yet prove to be a blessing in disguise.

## CONDITIONS GOVERNING THE BODY TEMPERATURE.[1]

THE conditions which govern the temperature of the body have been systematically studied by Dr. J. Lindhard, the medical officer of the Danish arctic expedition to the north-east coast of Greenland in the years 1906–8. During a great part of this period Dr. Lindhard must have fairly bristled with thermometers,

[1] *Danmark Expeditionen Til Grönlands Nordöstkyst*, 1906–8, vol. iv. No. 1.

judging from the numerous temperature charts and tables which he has published illustrating various observations on himself. Some of these are of exceptional interest. The rectum was found to be the most reliable site for measuring the body temperature, but it does not give "an exact expression for the body temperature," as claimed by one author. It is, in fact, merely an exact expression for the rectal temperature, and the readings of the thermometer vary according to its position in the rectum. Thulstrup has shown that the temperature increases from the sphincter upwards, and that the highest and lowest readings generally give a difference of 0.4° to 0.9° C., the difference being even as great as 1.1° C. Occasionally Erlandsen, again, has found in nervous patients that the temperature in the region of the sphincter is higher than at a point further up the rectum, owing to contractions of the sphincter. Lindhard found the temperature in different parts of the rectum to vary slightly, but these differences were not uniform. Most of these temperatures were taken in the ampulla recti, in the lying down position, which usually gives a lower reading than the standing position.

The relation of the rectal temperature to the metabolism of the body, as measured by the amount of $CO_2$ given off, was found to be intimate, the curves illustrating the two conditions following a similar course. The slight variations which appeared were inevitable, as the rectal temperature is a local one, and is consequently subject to influences which have no direct connexion with the metabolic changes, which in their turn are not completely expressed by the amount of $CO_2$ given off.

As digestion is a comparatively continuous process, its influence on the temperature of the body is difficult to gauge. But at mealtime and directly after, when the process is most active and the rectal temperature is correspondingly higher as a rule, the average difference before and after a meal is 0.375° C. The rise of temperature is greatest when sleep has preceded a meal, and it is least when a meal follows exercise. The mouth temperature also rises at mealtime, but this rise is largely independent of the rise of the rectal temperature, as the former shows greater fluctuations than the latter; the mouth temperature may even rise when the rectal temperature falls. The average rise of the mouth temperature is 0.5° C. The nature of a meal affects the mouth temperature considerably. Warm food highly seasoned may even raise the mouth temperature above that of the rectum. Hard ship's bread, which made great demands on the masticating organs, never raised the mouth temperature much, and the writer therefore concludes that mastication and the exercise of the masticating muscles are subordinate factors in the observed changes of temperature. The local rise of temperature in the mouth is undoubtedly due to the circulation in the mucous membrane of the mouth being affected by thermic and chemical stimulants. The reduction of the heightened temperature of the mouth takes a few hours in a warm room; in the cold the fall may take place in a few minutes. The temperature of the skin of the forehead was also found to increase during a meal, but as this temperature varies considerably with the temperature of the surrounding air, with brain work, and other factors, it is difficult to estimate accurately; a rise of 0.85° C. is probably the most common.

The relation of the mouth temperature to muscular exercise was found to be quite inconstant. As a rule, it does not rise during work indoors, while out of doors it falls in spite of work. Even energetic indoor exercise may fail to prevent the fall of temperature which occurs shortly after a meal. The mouth temperature, again, does not follow the course of the rectal temperature during sleep, nor is it lowest on waking, as is the case with the rectal temperature. It is lowest in the cold air, and in this respect it resembles the skin temperature, which, again, is only slightly affected by work. Brain work, however, raises the temperature of the skin of the forehead several tenths. A record of the temperatures of the rectum, mouth, and skin of the forehead taken before and after an hour's reading in a temperate atmosphere showed a marked fall in the two former, and no change in the latter.

The temperature of the surrounding air affects not only the skin and mouth temperatures, but also the rectal temperature, though to a less degree. Thus, in a series of rectal temperatures taken on waking, when the temperature of the air ranged from 12° C. to 30° C. below zero, the average rectal temperature was 36.26° C. In the summer, when the temperature of the air averaged 0° C., the rectal temperature of the same individual averaged 36.52° C., and when he changed his sleeping quarters to the engine-room his rectal temperature on waking rose to an average of 37.0° C. In the Arctic summer the morning temperature of the mouth and rectum are almost equally high (about 36.5° C.), while in the winter, owing to the fall in the atmospheric temperature, the mouth temperature is considerably lower than that of the rectum. Lindhard confirms Agnes Bluhm's observation that the loss of heat from the mouth takes place directly through the soft parts, and not through the inspired air. He found also that the rectal and skin temperatures differed to such a degree that on going for a walk with the thermometer 36° C. below zero the rectal temperature rose, while the temperature of the skin fell to a point at which "the dismal white spots" of frostbite appeared.

The axillary temperature resembles the skin temperature rather than that of the rectum in its dependence on the temperature of the surrounding air. This is also borne out by Kraft, who found differences of 0.5° C. to 1° C. between the right and left axillary temperatures of the same individual—a difference that cannot easily be explained otherwise than by admitting the influence of the atmospheric temperature.

The view that the temperature curve follows a fixed course in each individual, or, as Finsen puts it, "belongs to the mysterious land of periodicity," is scouted by Lindhard, who concludes that it follows a course dependent on the physiological functions the range of which we may consciously control and limit. Thus the clergyman, the navvy, and the sailor show temperature curves which vary with the occupations and mode of life of each. While the rectal temperature, with the slight deviations already indicated, represents the body temperature, the mouth temperature rises and falls with the temperature of the atmosphere, which must be constant if the curves of the mouth and rectal temperatures are to be similar. It is, therefore, illusory to fix the normal mouth temperature at any given figure, such as 37.2° C., when it varies so much with the climate and season of the year, and, as in Lindhard's case, ranges from 37.45° C. to 34.58° C., which is a difference of 5.17° on the Fahrenheit scale.

## NOSTRUMS FOR OBESITY.

ALTHOUGH the extraordinary range of curative power claimed for many secret remedies makes it impossible to connect them closely with any particular set of symptoms, yet it might be maintained with some show of probability that a direct relation could, speaking generally, be detected between the kind and number of proprietary medicines which are largely advertised and the greater or less prevalence of various complaints from which the public suffers or believes that it suffers, for there is a fashion in diseases as in frocks.

The nostrums reported on by the analyst this week (page 823) relate to obesity. The narrowness of the field compels the advertiser to keep to a fairly circumscribed set of symptoms to which, by the use of weighing machine and tape measure, it is possible to assign numerical values. It is worthy of remark that although two other reports on this particular class of secret remedies have been published during the last four years, so many new ones are being pushed forward that a third report has been called for; the inevitable conclusion appears to be either that obesity is increasing in prevalence, or that a consciousness of its disadvantages and a desire to get rid of them are becoming more general. In very many instances the examination of other series of secret remedies, advertised for the cure of other disorders, has revealed, in spite of variations in outward appearance, a curious similarity in constitution. Although in the case of most of the secret remedies advertised for obesity the ill-defined chemical characters of the ingredients generally used has made it impossible in most cases for our analyst to give the quantities in each in a dose, he has been able to show that there is in their composition a similarity even greater than usual. Extract of bladderwrack is apparently the chief ingredient of all but one of those now dealt with; in the exception thyroid extract, which used to have a considerable reputation as a reducer of superabundant fat, was almost certainly present. In the previous series[1] bladderwrack also figured largely, and in two instances bladderwrack and thyroid extract appeared together. In some of the earlier series, however, the chief ingredient appeared to be citric acid. As was then pointed out, bladderwrack (*Fucus vesiculosus*) is a common seaweed, containing sodium salts in large quantity with a small proportion of iodine, much less than many other seaweeds. In Ireland it was once thought to be good for pigs, making them fat; how it has acquired a reputation for producing the opposite effect on human beings is not very clear, but any such effect must be very slight and uncertain.

It is not only in the composition of their wares that the makers of these preparations show uniformity of practice; even the devices used in advertising and selling them have a strong family likeness. The plan of giving away a free sample, and accompanying it with statements as to the importance of following it up with a "full treatment" are characteristic of nearly all the advertisers dealt with. It is, moreover, quite in keeping with what we are accustomed to find that each should advance the claim that his own preparation, though found on examination to contain the same drug as those of his rivals, is totally different from all others, and that each should claim to be the discoverer of this wonderful substance. The absurdity of the claims becomes more striking when they are brought together. The first of the nostrums described is put forward with the assertions, "I know I have found a cure at last." "My method is unlike any other." The next maker says that his pills "in any case will do more to reduce corpulency than any other remedy extant," and they "present a striking contrast to many so-called remedies so freely offered at extravagant prices to the public, some of which are useless and others dangerous." A third calls his "the only safe and certain remedy," "the most remarkable scientific discovery of the present age," and guarantees to cure; and so on. Such vague titles as "specialist" and "certified chemist" are so used as to imply that they are qualifications; and the usual feature, exorbitant price—the mainspring of the whole business—is, of course, conspicuous, drugs costing a few pence being supplied for various sums up to £2 1s. 1d. One advertiser appears to have hit on a little novelty with the claim that "my remedy is a woman's cure for women only. Nobody but a woman could have discovered it, and it is offered to women only," while a certain amount of originality must be allowed to the statement, emanating from the same source, that, "what happens in these cases" (of heart failure) "is fatty penetration of the heart, which leads of syncope."

[1] *Secret Remedies: What they Cost and What they Contain.* London: British Medical Association, 429, Strand. 1909. (Price 1s., post free 1s. 3d.)

## COMMITTEE ON FRACTURES.

IN consequence of the recommendation made by the Section of Surgery at the last Annual Meeting on the conclusion of the discussion on the operative treatment of simple fracture, the Council has appointed a committee to inquire into and report on the ultimate results obtained in the treatment of simple fractures with or without operation. The discussion emphasized the need for inquiry into this point in practice, and in this issue (p. 843) will be found a letter signed by the officers of the Association concerned, the Chairman of the Science Committee, the President of the Section of Surgery of the Annual Meeting in London, and the Chairman of the Special Committee on the Treatment of Fractures, inviting the co-operation of surgeons in the inquiry. It will be noted that the committee asks for information as to cases of simple fracture of the long bones occurring within the last five years. Members of the profession who have records of such cases are invited to help the committee by permitting access to these, and by assisting it to follow up the patients. The committee is specially desirous of obtaining the co-operation of the surgical staffs of hospitals in the large towns. Communications or inquiries should be addressed to the Medical Secretary of the Association, 429, Strand, London, W.C.

## SHIP SURGEONS AND THE BRITISH MEDICAL ASSOCIATION.

THE unsatisfactory conditions under which surgeons of passenger ships are too often called upon to serve has frequently been the subject of comment and correspondence in these columns for a good many years past. A correspondence on the subject took place last year, and demonstrated that the defects to which this branch of medical practice is subject have not diminished. In consequence of representations received from many members of the profession, and of the favourable response to an appeal to ship surgeons and ex-ship surgeons who were desirous of some special form of organization, which appeared in

the BRITISH MEDICAL JOURNAL on July 9th, 1910, the Medico-Political Committee has appointed a special Ship Surgeons' Subcommittee, which has just held its first meeting. It consists, in addition to representatives of the Medico-Political Committee, of Drs. Elliott and Metcalfe Sharp, who took an active part in the recent correspondence, and Dr. F. MacCarthy of Plymouth. The subcommittee at its recent meeting considered various ways of getting into touch with ship surgeons. As a preliminary step it is intended to appoint correspondents at the chief ports of the kingdom, who will keep the subcommittee in direct contact with ship surgeons, and who will be able to ascertain what are the special questions to which they desire consideration to be given. The chairman of the subcommittee (Dr. J. H. Taylor) will be glad to receive suggestions as regards the work of the subcommittee from those who are specially interested in the matter. Communications may be addressed to him, care of the Medical Secretary British Medical Association, 429, Strand, London, W.C.

## SPA TREATMENT IN BRITAIN.

IT has been made a reproach against the health resorts of this country that they have failed to achieve the success of their competitors in foreign lands because among other reasons, they have not devoted sufficient attention to details, other than those pertaining to the use externally and internally of the waters, with which Nature has provided them as bountifully as their rivals abroad. It is sometimes alleged that the climate of Great Britain is not so well adapted to an out-of-doors life for an invalid as that of some other countries where certain famous spas are situated. On this account, it is held that many of the amenities possible and customary abroad are impossible at home. To some extent this is true, but the disadvantage is by no means so great as some apologists would have us believe. Moreover, even when full weight is allowed to the climatic uncertainties from which we suffer, it may still be maintained that, in other respects, our health resorts are "behind the times." The main factor which contributes to this inferiority is lack of municipal enterprise to develop certain sides of spa life. At how many British spas is there provision of music of such excellence as to make it a feature of "the cure"? At how many are adequate inducements afforded for the early promenader to sip the waters, with a subsequent saunter to some neighbouring café or restaurant, at which the simple morning meal may be enjoyed either out of doors or under cover, according to circumstances of weather and inclination? Where are sufficient efforts made to bring to bear on natural conditions the skill and ingenuity that is necessary to produce picturesque and aesthetic effects such as will tempt those in search of health to take the exercise so essential to their recovery? These and many other adjuncts to spa treatment are too often either wanting or inadequate; though the weather may be made the scapegoat, the true stumbling-block is parsimony. If municipal authorities would but apply to civic development the methods which are a necessity for the success of every ordinary business enterprise, and such as are adopted at the leading health resorts abroad, the climate would, for many months in the year, offer no greater obstacle in England than it does in many parts of Germany and France. It is no doubt true that the fashion of the day makes it with many people an accepted part of each year's programme to drink the waters at one or other of the foreign spas, and the impression is deeply rooted, among ladies especially, that our health resorts at home, though good enough in a way, are second best only, and not to be thought of unless circumstances of convenience or economy necessitate a compromise. We are convinced that, given the whole-hearted and liberal devotion of the municipality and of the local profession to a thorough emancipation from traditional practices, many of our home spas would rapidly acquire such a repute as would not only attract the British public but would also induce invalids from other countries to avail themselves of the curative properties of its waters and of the many attractive features which characterize life in England. At Bath, where comparatively recently a commendable spirit of enterprise provided a complete institute for medico-mechanical treatment, the local Branch of the British Medical Association has now adopted a "special Bath diet" for those undergoing the cure, and has persuaded the leading hotels and boarding-houses in the town to arrange that this diet shall always be procurable. Next to the use of the waters themselves, the question of diet is of all the most important, and in this country this essential element of a spa cure has hitherto been far too much left to look after itself. Patients have no doubt been told in a general way what they may and what they may not eat and drink, but definite lines have not been laid down and insisted upon in anything like the systematic way customary abroad. It would probably be better that every patient had his diet chart, like his drug prescription, supplied by his medical adviser according to the indications of his personal condition; but a "special diet" is better than no diet at all, and we congratulate those in authority at Bath on having taken a step in the right direction. We hope to see the example speedily followed elsewhere, and trust that their initiative may prove the herald of a spirit of reform which will render impossible the accusation so commonly heard from both lay and medical lips, that the authorities of British spas are content with things as they are.

## A MEMORIAL TO MISS FLORENCE NIGHTINGALE.

A MEETING in support of the Florence Nightingale Memorial, at which the Lord Mayor presided, was held at the Mansion House on March 31st. It was attended by a large and enthusiastic audience. Incidentally it supplied the occasion for some interesting reminiscences concerning the state of the nursing profession some forty or fifty years ago. The proposals laid before the meeting by the Memorial Committee were two in number—namely, the erection of a statue of Miss Nightingale on a suitable site in London, and the providing of annuities (to be known as "Florence Nightingale annuities") for trained nurses who, through no fault of their own, have been unable to make adequate provision for illness or old age. In a moving appeal for support from the public, the Lord Mayor (Sir T. Vezey Strong) remarked that this memorial was intended to commemorate the work of one who was perhaps the greatest Englishwoman who ever lived. Lord Haldane, who followed the Lord Mayor, spoke very strongly regarding the changes brought about in the nursing profession through the efforts and example of Miss Nightingale. There were circumstances, he said, which rendered it peculiarly incumbent on the Minister responsible for the War Department of this country to be present on such an occasion, but it was difficult for him to express fully all that the army owed to the illustrious woman whose name the meeting desired to commemorate, for it was due to her that England to-day possessed one of the finest army medical services in the world. It would be a great mistake, however, to

suppose that when Miss Nightingale took up her life-work she was merely inspired by the impulse of genius. For years previously she had laboured to equip herself for her task, and it was by sheer hard work in the hospitals of France and Germany that she had succeeded in fitting herself for the pursuit of her vocation far more thoroughly than most people are prepared for the work they are called upon to undertake. Even genius could not make up for the lack of knowledge of detail; and if genius be an infinite capacity for taking pains, then Miss Nightingale was indeed a genius. She found in the Crimea a state of things which at the present day would seem inconceivable; she spent her health and her energies in doing to the best of her ability the work which her country looked to her to do. The result was an achievement which had lasted beyond her time. Never again should we be face to face with the situation which confronted Florence Nightingale in the Crimea. But her work did not end with the close of the war. She came home not to rest, but to put the lesson she had to teach in such a form that there should be no excuse for the authorities to neglect it; and the rest of her long life, in spite of impaired strength and shattered health, was spent in the work she had so closely at heart—the raising up and perfecting of the noble profession of nursing. It was not only the army, but the entire medical profession, that had learnt from Miss Nightingale how science could be applied most effectively to the problems with which it was confronted, and Englishmen ought to be proud to have had one of the foremost women of this or any age amongst them, and to have their country associated with the glory attached to her name. Lord Haldane's address, which was received with hearty applause, was followed by interesting speeches from the Hon. Sydney Holland and Mr. Butlin, President of the Royal College of Surgeons of England. The Earl of Pembroke, who mentioned that the movement had the sympathy and support of the King and Queen, moved a resolution expressing approval of the scheme advanced by the Memorial Committee. This resolution, which was seconded by Mr. J. G. Wainwright, the treasurer of St. Thomas's Hospital, was carried unanimously. Since the meeting it has been announced that Mr. G. Q. Roberts, of St. Thomas's Hospital, has accepted the honorary secretaryship of the Memorial Fund.

## THE EXTENDED ABDOMINAL OPERATION FOR CANCER OF THE UTERINE CERVIX.

The publication by Wertheim of a careful analytical report[1] of his first 500 cases of this operation is an event of importance for the whole profession. The specialist is eager to compare his technique with that of an operator of such wide experience, and all wish to know what prospect of relief can be offered to the victim of so malignant a disease. The cases are tabulated in order of their occurrence in a list extending over 126 pages. The operation was performed on the 250th patient on May 15th, 1905, and on the 500th on October 29th, 1909; inasmuch as not a single case has been lost sight of, the whole forms unexceptionable material for statistical treatment. The operation mortality was 93, and is thus distributed in successive hundreds—30, 22, 17, 9, 15; in each case the cause of death is given by the pathologist. The first 250 cases are now all over five years old, and suitable for the calculation of the permanent gain. Recurrence was found in the successive years after the operation in 41, 24, 6, 4, 3 cases, or 78 in all. Three died of intercurrent illness, and were found free from cancer. The total number of cases of cancer presenting themselves in the period was 607; if we deduct 28 who refused operation and 3 who died from intercurrent illness, we have of 576 original cases of cancer 106 free from cancer for over five years, and so a permanent cure rate of 18·4 per cent. For certain purposes the whole material from which the 500 cases were drawn can be brought under review. Thus it is interesting to note that in 79 cases the proposed operation resolved itself into a mere exploratory coeliotomy; and that in 21, on account of adiposity or some other contraindication to abdominal operation, vaginal hysterectomy was resorted to. While the detailed discussion of the technical questions raised must be sought in the monograph itself, which no specialist can afford to neglect, two are of sufficient general interest to be mentioned here. The first concerns the relations of the ureters to the carcinoma. The exposure of the ureter in its whole extent is of course the cardinal point in the operation, but the contention has been raised from the pathological side that the ureter should frequently if not always be resected. Wertheim resected the ureter deliberately in six cases only, and even of these it was found on microscopic examination that four were not actually invaded. In one the connective tissue was not quite free, and in one the mucous membrane was carcinomatous in half its circumference. In a more recent case a nodule was found in the wall of the ureter similar to that figured by Leitch in the *Journal of Obstetrics and Gynaecology of the British Empire* (April, 1910). In 11 cases there was unintentional injury to the ureter, in 32 ureteral fistula developed, in 5 being bilateral. In some of these cases the exposure of the ureter had been easy. The other question relates to the lymph glands. In a quarter of the cases, 62 in each 250, they were obviously carcinomatous, and of 41 of these from the first series, suitable for the estimate of permanent results, only 5 were cancer-free at the end of five years, and in these 5 only isolated glands had been found. As compared with 142 cases without obviously infected glands, of whom 100 were cancer-free after the five years, this gives a frequency of recurrence more than three times greater. The recurrence was usually at the site of the removed glands and indicates the difficulty of completely extirpating them. In only one case did the recurrence seem due to glands higher up than the originally infected group. The general technique of the operation is illustrated in six plates and several points relating to the ureters and lymph glands are shown by figures in the text.

[1] *Die erweiterte abdominale Operation bei Carcinoma Colli Uteri auf Grund von 500 Fälle.* Von Prof. Dr. E. Wertheim in Wein. Urban und Schwarzenberg. 1911. (Pp. 223, with six plates.)

## A FESTIVAL OF SLUM CHILDREN.

This is an age of pageants, and nearly every year sees a succession of gorgeous historical displays; but it would be hard to picture one more charming than the Masque of the Children of the Empire, which was acted by 300 children belonging to the Bermondsey Guild of Play at Bermondsey Town Hall on the afternoon and evening of Saturday, April 1st. The hall was packed from floor to ceiling at both performances, and for nearly two hours the spectators enjoyed an opportunity of witnessing a sight that must have delighted every lover of children, and that must have won the praise of every judge of spectacular effect. Looking at the happy, healthy faces of the childish performers, it was difficult to believe that they had been taken from the very heart of the slums, whose dreary streets would be their only playground if it were not for the devotion of a little band of child-lovers who have charged themselves with the congenial task of bringing bright-

ness into the joyless lives of the children of the poor. The masque opened with a "Dance of the April Fools," performed with delightful vigour by a crowd of small boys in motley; this was followed by an imposing procession of the most famous characters in English history from the time of Alfred the Great down to the present day, including such widely divergent celebrities as William the Conqueror, Blondel, an extremely youthful Wycliffe staggering under the weight of an enormous Bible, George Washington with his famous cherry tree and the air of conscious rectitude proper to one who never told a lie, and a top-hatted Darwin affectionately hugging a large ape. The procession passed slowly round the hall to do homage to a very stately little Britannia, who majestically bade all welcome to the Masque, and some beautifully executed national dances followed, in which the exquisite lightness and grace of the little dancers compared very favourably indeed with that of girls at a fashionable boarding school. The dancing was accompanied by some excellent singing, and the effective grouping and pretty old-world costumes combined to make up a picture which will not easily be forgotten. But perhaps the most pleasing feature of the whole entertainment was the obvious and whole-hearted enjoyment of the children, who flung themselves into their parts with a verve and abandon which is too often lacking in amateur actors of maturer years. The performance was unspoilt by a single hitch, and went with a swing from start to finish; and what is even more remarkable, considering the tender years of the small actors, many of whom looked the merest babies, there were no outward and visible signs of stage management, and the children appeared to act as they would play, naturally and without prompting. There can be surely no more striking proof of the excellence of their discipline and training, and, it may be added, of the infinite patience of those who have taught them. To teachers and children, and indeed to all who have had a share in the arrangement of the festival, the greatest praise is due; and no praise can be too high for those who, by means of song and dance, are gathering round them the neglected and sickly children of our poorest classes in the endeavour to convert them into healthy and useful English men and women. The Masque was produced under the direction of the founder and honorary secretary of the guild, Mrs. C. W. Kimmins. The costumes were designed by Miss Alice Rennie; the dances were arranged by Mrs. Woolnoth; and the music was adapted and arranged by Mr. Richard Chanter. It may be mentioned that there are two guilds—that of the Brave Poor Things for cripples, and the Guild of Play for slum children. Mr. G. T. Kimmins stated that the freehold of the Craft Schools for Crippled Children at Challey, in Sussex, had now been bought, but funds were wanted for the further development of the work. The President is the Bishop of London, and the head quarters is the Bermondsey University Settlement.

## SINGLE KIDNEY AND NEPHRECTOMY.

THE removal of a single kidney where the surgeon has not taken into account the fact that it has no fellow is so grave an error in operative surgery that when it occurs it ought to be recorded, and all honour is due to those who have bravely recorded their errors. Dr. T. S. Cullen[1] recently read before an American medical society an account of an operation on a girl of 17, the subject of arrested development of the genito-urinary tract. The uterus was absent, the vagina reduced to a shallow depression, and the right ovary and apparently the left were in the inguinal canal. A body in the pelvis, which had been taken for a haematometra, proved to be the right kidney, about half as large again as a normal kidney. The left kidney was absent. These anomalies were discovered in the course of an abdominal section, and the patient recovered; nothing, however, was removed or fixed by suture in a relatively natural position. Haste would obviously have wrought fatal disaster. Dr. Cullen referred to Palk's case, reported in 1882, where a tumour in the pelvis was removed and proved to be a right pelvic kidney. The patient lived for thirteen days, and at the necropsy it was found that the opposite kidney was absent. In discussing Dr. Cullen's case, Dr. Seth Gordon observed that, several years before surgeons had at their disposal those appliances by which the existence of a second kidney can be made sure, he operated on a patient for painful displaced kidney. Death occurred eleven days after the removal of the organ, and then it was found that the opposite kidney was wanting. The subject was a man. A second accident of this kind had a remarkable sequel. Dr. Gordon performed nephrectomy for the removal of a sarcomatous kidney. The patient, a woman, lived twenty-seven days and twelve hours without any sign of uraemia even in the breath. Her brain was clear to the last, and she died from exhaustion. There was no indication of any excretion of urine. Lastly the surgeon must remember that it is not only the horse shoe kidney that is single. In none of the above cases was the single kidney of that type, whilst in two it was pelvic in position. The pelvic kidney may easily be mistaken for a tumour of the ovary or uterus. Should the operator cut down on a pelvic "tumour" of this kind through a vaginal incision he would find himself in an awkward position for more than one obvious reason.

[1] *Trans. Amer. Gyn. Soc.*, vol. xxxv, 1910, p. 420.

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THE Senatus Academicus of the University of Edinburgh intends to confer the honorary degree of LL.D. upon Dr. Thomas S. Clouston of Edinburgh, Sir William R. Gowers, F.R.S., and Dr. James Mackenzie of London, and on Professor Ernest Rutherford, F.R.S., of Manchester.

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AN official announcement has appeared in the Danish press to the effect that the King of Denmark has withdrawn his patronage from the "Animal Protection and Antivivisection Congress" to be held this year in Copenhagen. One of his Ministers has taken similar action; and the Speakers of the Danish Houses of Parliament have withdrawn their assent to the use of the Rooms of the Representatives by the Congress.

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THE death of Dr. McManus, of whose career we publish some account elsewhere in this issue, creates a vacancy among the Direct Representatives of England and Wales on the General Medical Council. He was elected in 1907, and his term of office would have expired at the end of this year. Apparently it will be necessary to hold an election at an early date, in spite of the fact that another election must take place at the end of this year owing to the expiration of the terms of office of Dr. Langley Browne and Dr. Latimer. The Medical Act, 1886, provides that the returning officer shall, "as soon as conveniently may be after the occurrence of any vacancy arising from the death or resignation," issue his precept to the Branch Council, in this case the Branch Council of England and Wales, enjoining it to cause a representative to be elected within twenty-one days after the receipt of the precept. We understand that an official announcement will shortly be made.

# Medical Notes in Parliament.

[From our Lobby Correspondent.]

**The Shops Bill** came on for second reading on Friday last and occupied the whole sitting. The debate was full of interest, and in the course of it some excellent speeches were made. The Under Secretary for the Home Office, who moved the second reading, showed how the Act of 1904, which endeavoured to solve the problem by closing shops at certain times, had failed. The present bill sought to effect its object by limiting the hours of labour for shop assistants to sixty hours a week exclusive of meal times. He contended that the long hours (sometimes as much as ninety hours a week) now worked were prejudicial to health. The voluntary closing provision was also enlarged in the second part of the bill, while steps were taken in the third part to check any increase in Sunday trading. Mr. Bottomley and Sir F. Banbury opposed the second reading. Mr. Churchill defended his bill very earnestly, and it was finally read a second time without a division. Mr. Bottomley then moved that it be referred to a Select Committee, but was beaten on division by 262 to 21, and the bill was referred to the Standing Committee.

**Vivisection.**—A bill to provide for the abolition of vivisection was presented and read a first time on Wednesday in last week. It is backed by Mr. Lansbury, Sir John Rolleston, Mr. Chancellor, Mr. Wm. Thorne, Mr. John Wilson, Mr. Tyson Wilson, Mr. John Taylor, Mr. James Thomas, Colonel Lockwood, Mr. Keir Hardie, Mr. Snowden, and Mr. Albert Smith.

**The Prevention of Destitution Bill**, which excited so much interest last session and led to a noteworthy debate in its second reading on Poor Law Reform, was introduced again last week by Sir Robert Price. The bill is supported by Mr. Robert Harcourt, Mr. George Greenwood, Sir Alfred Mond, Mr. George Roberts, Mr. Barnes, Mr. Hills, and Sir George White. The second reading was put down for April 27th.

**Invalidity Insurance.**—Mr. Morrell asked the Secretary to the Treasury whether he could say when the proposed bill to provide for insurance against sickness and invalidity would be introduced; and whether the scheme had yet been submitted to representatives of the medical profession. Mr. Hobhouse answered that he could not yet say when the proposed bill would be introduced. The scheme was not yet in a sufficiently advanced stage to be submitted to representatives of the medical profession.

**Trade Unions (Unemployment and Sick Pay).**—Mr. John Ward asked the President of the Board of Trade whether he was aware that the reports of the Registrar-General showed that 100 trade unions had paid out to their members during ten years, for unemployment, £4,018,176; for sickness and accident, £3,424,376; for superannuation, £2,363,254; for death, £954,007; and whether he had any means of deciding the amount of similar benefits paid by the remaining 1,073 trade unions not dealt with in the report. Mr. Buxton said that the figures referred to were based on a report issued by the Board of Trade on Trade Unions in 1909. They related to 100 principal trade unions, and represented the great bulk of the expenditure of all trade unions on these benefits. He would, however, consider whether similar information could be furnished as regards the other trade unions.

**Vaccination.**—Mr. Snowden asked the President of the Local Government Board whether sanitary authorities had power to supply vaccine lymph or to pay for vaccinations; and, if so, under what Act and section. Mr. Burns replied that in some few cases sanitary authorities had been empowered to provide facilities for vaccination by virtue of orders issued by the Local Government Board in pursuance of Section 130 and 134 of the Public Health Act, 1875. There was no provision in the general law otherwise enabling them so to act.

**Vaccination (Ireland).**—Sir Thomas Esmonde asked the Chief Secretary to the Lord Lieutenant of Ireland what provision was made in Ireland to provide a pure supply of lymph for the purposes of the Vaccination (Ireland) Acts. Mr. Birrell answered that glycerinated calf lymph was procured by the Local Government Board under contract from the National Calf Vaccine Institute, Sandymount, Dublin, for gratuitous distribution to the workhouse and dispensary medical officers in Ireland. The lymph was distributed from the Board's Vaccine Department, and, before its issue for use in public vaccinations, it was most carefully tested as to its efficiency at the Board's Vaccine Department in Dublin, and only the purest lymph was issued by that Department. Previous to its being used in the Vaccine Department it was subjected to bacteriological examination by the bacteriologist to the Board, Professor McWeeney, who superintended the methods employed in its preparation. The lymph was very favourably reported upon by the medical officers who used it. In answer to a further question, Mr. Birrell said he was aware of the objection to compulsion in North Wexford, but the Government did not propose to introduce legislation to assimilate the law in Ireland to that in England.

**Leadless-Glazed Ware.**—Mr. Steel-Maitland called attention to the report of the Committee which urged the use of leadless-glazed ware in Government departments, and asked what action the Colonial Office had taken. Mr. Harcourt said that the Colonial Office did not purchase for its own use any of the goods mentioned, though a small amount of crockery was obtained a short time ago for a refreshment committee, most of which was, he was informed, leadless-glazed ware. In answer to another question Mr. Dudley Ward, replying for the Office of Works, said that in October, 1908, the First Commissioner ordered that in future leadless glaze only should be used wherever possible, and should be so specified in all contracts. The First Commissioner hoped that this attitude, which would be firmly maintained in the future, had stimulated the use of leadless glaze.

**Police Medical Officer (Somers Town Appointment).**—Mr. Martin asked whether Dr. Starkie was appointed medical officer to the police in Somers Town, East St. Pancras, as part of an arrangement by which the previous incumbent, Dr. Thompson, sold his practice to Dr. Starkie; and, if so, why were medical men resident in the district asked to send in applications for the position. Mr. Churchill said that Dr. Starkie was not appointed divisional surgeon at Somers Town as part as any such arrangement. The invariable rule in making these appointments was to select from among the applicants the candidate who was considered to have the best qualifications for the post, and this rule was observed in the present case. A non-resident medical man was never appointed, but length of residence was obviously a minor factor. Dr. Starkie had, he understood, been residing near Somers Town Police Station since May last.

**Medical Service (Scottish Collieries).**—Dr. Chapple asked the Lord Advocate whether he was aware of the practice of many owners of collieries and brickworks in Scotland of deducting sums from their workmen's wages for medical service, notwithstanding the fact that such workmen belonged to friendly societies and had their own medical men; and, if so, whether he would introduce legislation on the subject. Mr. Churchill replied that he was aware that the practice mentioned existed in some parts of Scotland as well as in other parts of the United Kingdom, but he did not know to what extent it affected workmen who

were members of friendly societies. Such arrangements were authorized by Section 23 of the Truck Act of 1831, but it was expressly stipulated that there should be an agreement signed by the workman. Evidence on the subject was taken by the Truck Committee, and the recommendations of the Committee in this matter would be considered when the amendment of the Truck Acts was taken in hand.

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**Anthrax.**—Mr. C. Bathurst inquired on Monday last as to the increase of anthrax in Great Britain during the last two years and the proportion of reported cases wrongly diagnosed. Sir Edward Strachey answered that the increase in the number of recorded cases of anthrax was probably due, speaking generally, to the fact that the existence of this disease was more frequently reported. It was not possible to give a full reply to the last part of the question except in considerable detail. Perhaps the hon. member would allow him to refer him to the Board's Annual Reports for the past two or three years.

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**Rats (Extermination).**—Mr. Noel Buxton directed the attention of the Board of Agriculture to the effect of the trapping of stoats and weasels on the prevalence of rats, and asked that a leaflet dealing with this point might be issued, Sir E. Strachey replied that the Board issued a leaflet in December last calling attention to the enormous damage done by rats, and urging upon farmers the necessity for their destruction. Nearly 50,000 copies of the leaflet had been circulated. It would shortly come forward for revision, when the Board would be glad to consider the suggestion made.

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**Flour Bleaching and Improving.**—The reports promised some time since by Mr. John Burns on behalf of the Local Government Board were laid on the Table of the House on Monday last. They are three in number—namely: I. On the bleaching of flour and the addition of so called "improvers" to flour, by Dr. J. M. Hamill. II. On the chemical changes produced in flour by bleaching, by Dr. G. W. Monier-Williams. The third report is on the presence of calcium sulphate in baking powder and self-raising flour, and is by Dr. J. M. Hamill.

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**International Hygiene Exhibition, Dresden.**—Last week Mr. John Burns informed Mr. Mallaby-Deeley that the Local Government Board did not propose to send any exhibits to this exhibition.

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**Medical Service (India).**—The Under Secretary for India has informed Mr. Kelly that students for the military assistant surgeon's grade were trained for four years at the expense of Government. The qualifications which they obtained were not as a rule registrable in the United Kingdom. The number of such students and the cost of their training could not be stated without reference to India. No change of the system of recruiting the Indian Subordinate Military Medical Service was under contemplation.

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**Cholera and Typhoid in India.**—In answer to Mr. Barton, who asked that the supply of filtered water should be made compulsory in Indian factories, Mr. Montagu said that the maintenance of an adequate supply of good drinking water in Indian factories was already secured by rules made under the Factories Act by the local governments. The Labour Commission found that little, if any, exception could be taken to the arrangements for supplying water; and that in many factories special attention had been given to the question.

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**The Course of Business.**—The Easter recess will be short this year, and begin on Wednesday next and last till Tuesday, 18th, when the Commons will resume the Committee work of the Parliament Bill. The House of Lords adjourned on April 6th to April 26th.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## LONDON.

### MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

WITH regard to the letters from the Board of Education criticizing the present methods and organization of medical inspection and treatment in London, the Education Committee of the County Council on March 29th approved the recommendations of the Children's Care Subcommittee that officials of the Council should co-operate with those hospitals that would permit it by attending during treatment, checking attendances, making arrangements for following up, and so on; and also the second recommendation, that the salaries of additional clinical assistants should be paid in cases where hospitals agreed to treat a larger number of cases than before (BRITISH MEDICAL JOURNAL, March 25th, page 716). The Education Committee also approved the following definite assurance to the Board of Education:

> That the Board of Education be assured that the Council is taking and will take all practical steps which, from time to time, can be taken to improve the existing arrangements for the medical inspection and treatment of school children, and will ensure that, at an early date, substantial progress will have been made in the establishment of a complete scheme of inspection and treatment which will be brought into at least partial operation not later than October, 1911; and that the Council will communicate to the Board any important steps to that end that may be taken during the ensuing six months.

When the resolution came before the Council for confirmation, on April 4th, the Finance Committee reported in tones of strong disapproval. The Committee said it had no information as to the exact scope of a scheme which would be acceptable to the Board, or as to the meaning attached to the term "a complete scheme." Neither had information been submitted by the Education Committee as to the nature of the proposals intended to give effect to the assurance proposed to be given to the Board of Education, or as to the probable cost. It appeared that the Council, by agreeing to the recommendation of the Education Committee, would part with all control of its future action in regard to medical treatment and commit itself to early expenditure of unknown amount and future outlay not improbably very considerable. The Finance Committee directed special attention to the emphasis laid by the Board of Education on a co-ordinated scheme of medical inspection and treatment, and remarked that this gave rise to grave apprehension as to the intentions of the Board, and the policy into which the Council might be driven in regard to medical treatment. In the opinion of the Finance Committee it was undesirable on financial grounds that the optional service of medical treatment should be regarded as in the same category as the obligatory service of medical inspection, although, no doubt, on administrative grounds they should be co-ordinated. Further, no indication was given either by the Board of Education or the Education Committee as to the scope of medical treatment contemplated. The Council had confined its operations hitherto to treatment of diseases of the ear, nose, throat, and teeth, and of ringworm, but there was nothing to show that if the proposed assurances, which were in very general terms, were given to the Board the scope of such treatment would not have to be considerably enlarged. The Council should not take any action which might commit it to such an extension without full information as to the ultimate expenditure involved.

The Finance Committee was strongly of opinion, therefore, that in the financial interests of the Council the recommendation of the Education Committee should not be agreed to its present form. In the first place, it should be made clear that any assurances given to the Board must be subject to financial considerations. Medical treatment was emphatically a national service, and the Council should not embark

upon an expansion—to an altogether indefinite extent—of its expenditure in this direction in the absence of substantial grants in aid from national funds. Nor should the Council commit itself in any way to the establishment of a complete scheme of treatment, such as the Board of Education apparently contemplated, without having before it information, at least, as to the general lines of such scheme and an approximate estimate of the cost. If the resolution of the Education Committee were confined to giving assurances that, subject to financial considerations, the Council was taking and would take all practical steps to improve the existing arrangements for medical inspection and treatment, and to communicate to the Board any important steps taken in that direction during the next six months, the Finance Committee would be prepared to agree thereto.

The report was not reached until a very late hour, when, by general consent, discussion was adjourned.

### The Site of the Proposed Mental Hospital.

After a protest by a local member, Mr. F. Hall, M.P., who alleged detriment to the neighbourhood, "in addition to that caused already by the erection of King's College Hospital," the proposal to purchase a site at Denmark Hill for a mental hospital[1] was approved.

### The Epidemic of Measles.

The Board of Education and the Local Government Board have approached the Education Committee of the London County Council as to the adoption of special measures to check the "serious epidemic of measles now prevalent in the metropolis." Measles being at present a non-notifiable disease, information regarding it comes first to the school attendance officers, and the central authorities, in a letter received by the Education Committee on April 5th, asked whether arrangements could be made for the communication *forthwith* of this information to the medical officer of health in each metropolitan borough. At present some delay occurred, and this should be avoided in time of epidemic. The Public Health Committee advised that, as no loss of grant would be incurred, all infants' departments should be closed for one week previous to Easter, and that to expedite action in dealing with epidemics the school attendance officer should notify the school teachers at once, instead of waiting until, in the ordinary course, he submitted his usual weekly returns. The Education Committee stated, in reply, that teachers were already notified by the school attendance officers, who also forwarded information to the local medical officers of health. As to closing the schools, the Education Committee said that experience had shown that the older method of closing schools when measles were prevalent was ineffective in preventing dissemination. Closing the schools made it difficult to keep the disease under observation, except so far as it might reveal itself in the death statistics. Consequently, for some time the more accurate method had been in vogue of excluding individual children, and of close observation of the children themselves. As the condition of the children having contracted it was highly infectious before the rash appeared, any exclusion should take place five days before this symptom was in evidence. This early exclusion of the child was generally secured under the operations of the present rules. The vigilant application of these rules would be more effectual than action such as the Public Health Committee advised. The present epidemic was rapidly declining. The Committee decided to take no action on the suggestion of the Public Health Committee.

### Medical Graduates' College and Polyclinic.

The annual general meeting of the Medical Graduates' College and Polyclinic was held at 22, Chenies Street, London, on March 31st. Sir James Crichton-Browne, who was in the chair, said in the course of some introductory remarks that the claims of the Polyclinic and its merits were well known; notwithstanding certain adverse circumstances, it had done and was doing its work. He wished that more frequent opportunities could be taken of bringing the Polyclinic to the notice of the public and of enabling them to realize its aims and its means. He would not say that it blushed unseen, for it certainly had no cause to blush, but it was to a large extent hidden from view, and outside the professional circle he found very little was known about it. If not the man in the street but the man in the West End club, the educated and intelligent man, were asked what he knew about the Polyclinic he would probably respond by asking whether it was a new game, or a new kind of mineral water, or some new kind of athletic device. It was highly desirable that the public should know something about the Polyclinic, because it was in their interests that it existed, and it was for their ultimate benefit that it was struggling along. It was imparting the knowledge, manufacturing the skill which would afterwards be available by many sick beds, and it was therefore discharging a public trust and a public duty. It was thereby contributing to the saving of life and of suffering, and it was but right that the general public who benefited in that way should do something for it and assist in supporting it in its work. There was a tendency to-day—it was a tardy tendency, but it was a tendency which was growing—towards the endowment of research, and a general and universal interest was felt in all matters educational. It seemed to him that the Polyclinic was both an educational institute and an institute for research, and those who were endowed with wealth could not do better than contribute of their surplus funds to secure its position and extend its usefulness. There were rich and far-seeing men about who, if they really knew the work that the Polyclinic was doing would, he thought, be glad to contribute and to see that it was no longer embarrassed or curtailed in its work in any way by want of funds. It was leading the way in a movement which must inevitably extend and expand, and everything that was possible should be done to expedite that movement. In no profession in which science was concerned, least of all in medicine, could any resting stage be now reached. In conclusion, Sir James said that he was fully convinced that among the many and great services to medical and surgical science and to his profession rendered by his old and esteemed friend, Sir Jonathan Hutchinson, the part he had taken in the initiation of the Polyclinic would be remembered as not the least.

Dr. C. O. Hawthorne, in moving the adoption of the annual report, which was duly seconded and carried, said that the year 1910 was the most successful year in the annals of the Polyclinic. The evidences of that success were, first, that the membership or the list of subscribers had increased by the addition of 150 names. Necessarily in such an institution there was a constant loss of members, but there was a nett gain. If the financial basis of the institution was to be secured it was, however, necessary that it should have a membership of not less than 1,000 names. Secondly, the evidences of the success of the institution were to be found at 4 or 5 o'clock every afternoon, save Saturday and Sunday, in the week. Where was there an institution in this country—where was there an institution in the world perhaps—at which forty, fifty, or seventy medical men, medical practitioners, could be found every afternoon engaged in clinical observation and study? That was a sight which could be seen regularly and continuously at the Polyclinic, and the reason was that the Polyclinic was able, fortunately, to command the generous and liberal services of most of the best known physicians and surgeons and clinical teachers of the great motropolis.

Dr. Dundas Grant moved the adoption of the balance sheet, which was duly seconded and carried; and, Dr. Drummond Morier having spoken, Dr. F. J. McCann, in proposing a vote of thanks to the chair, said that he was one of those who had always believed that the metropolis should have the finest post-graduate school in the world. He had been more than ever impressed with that belief after a recent visit to Vienna, where no fewer than 150 American medical men were studying

[1] British Medical Journal, March 25th, page 716.

and paying £1,000 a month in fees. On going into the subject with several Americans on a visit to their association—for they were excellently equipped there—they told him that they were quite prepared to move the association to London if London could give them what they wanted. The Polyclinic was only the nucleus of a great post-graduate institution. It must be run quite independently of any existing hospital, and it must be one in which the policy of the open door was maintained. Men did not come from Canada or Australia or any other colony to see one particular man; they came to see several men, men who might be attached to several hospitals, and it was only by getting those men to come into one central institution that they would be able to give what the visitors desired to obtain.

The Chairman having acknowledged the vote, the proceedings terminated.

### KENSINGTON TUBERCULOSIS EXHIBITION.

A Tuberculosis Exhibition, arranged by the North Kensington Dispensary for the Prevention of Consumption, was declared open at the Campden Technical Institute by Princess Louise on April 4th. Among those present were Surgeon-General Sir Charles Cuffe and Dr. Theodore Acland. The latter, in seconding a vote of thanks to the Princess, said that few people realized what the ravages of consumption really were. In the Crimean war the number of men who died in battle or of wounds afterwards was only one-twelfth of the number of persons who died from tuberculosis during the years that that war lasted. A corresponding statement might be made in regard to the Boer war. In the years 1899 to 1902 there died of tuberculosis in London alone more persons than were killed by wounds and disease in South Africa during the war, and double the number of those who were killed by the enemy in battle. The exhibition is on the same lines as that which was opened in Whitechapel in 1909 and has since been on view in many parts of the country. The doors will be open from noon until 9.30 p.m. every weekday up to April 17th inclusive, and a number of ladies and gentlemen have undertaken to attend each day to explain to visitors the meaning of the exhibits. In addition a lecture illustrated by lantern slides will be delivered every day at 8 p.m.

## MANCHESTER AND DISTRICT.

### TREATMENT OF CONSUMPTION IN MANCHESTER.

AT the annual meeting of the Manchester Hospital for Consumption held last week some important points as to treatment and provision for consumptives were brought out. The report referred to the extension of the Crossley Sanatorium, the cost of which, amounting to £1,470, had been defrayed by Mr. Alfred Crewdson. The financial statement showed a debit balance at the bank of over £3,000, the income falling short of the expenditure by £1,100, while the additions to the Delamere Sanatorium would cost a further £800 a year. The medical report showed that the total number of new patients at the out-patient department had been 10,065, which was nearly 400 less than in the previous year, the decrease being attributed in part to the milder weather during the later months of the year. Dr. Renshaw read the report of the in-patient departments at Bowdon and Delamere, showing a slight increase in the admissions at both places, Bowdon having received 123 patients and Delamere 296 patients. The demand for male patients' beds continued to exceed that for females. The public health departments of Manchester and Salford had recommended a number of cases, and had greatly facilitated their selection by furnishing information as to home environment and other circumstances which made cases specially suitable for sanatorium treatment. Appreciation was expressed of the efforts of the two corporations to arrest the evils of spitting in public vehicles and other places, especially in the closed upper decks of tramcars where smoking is allowed. A further trial had been made of treatment by Koch's new tuberculin T.R, but the results up to the present were inconclusive. It was noticed that an appreciable deterioration in health often followed on the return of the patients to their ordinary occupations; in spite of the fact that they had been built up and fortified by the sanatorium treatment, they were liable to suffer a return of distressing symptoms in a short time.

The Lord Mayor of Manchester said there had been a considerable reduction of the mortality from consumption, the figures having fallen from 2.2 per 1,000 in 1901 to 1.64 last year, and if the hospital did nothing more than educational work it was doing a splendid service to the city, as it taught thousands of patients how to live. He suggested that it would be useful if centres could be established in various parts of Manchester where workers might be seen by medical officers in the evenings, and treatment of the first stage of the disease given. Not only could the actual sufferers be seen, but every member of the family could visit these centres from time to time to see that they too did not become inflicted. He thought that this would help very much to wipe out consumption. He agreed with Dr. Niven that it would be a good thing if the bread winner suffering from phthisis could be more assisted in the early stages, as it frequently happened that very little could be done owing to such persons keeping at work until it was practically too late for the hospital to be of much service.

Sir Wm. Crossley said that owing to the pressure for beds they were bound to give a preference to Manchester and Salford, which were the chief subscribers, and they had now made a rule that if towns outside an area of seven miles from Manchester wanted to send patients, they might do so by subscribing about £20 a year, as several already did. The Samaritan Fund, which was to aid poor patients after leaving the hospital, needed more public support. It often happened that a patient was dismissed much improved in the view of the doctors, but he had lost his work, and on returning to his old surroundings his condition rapidly deteriorated, and he died. A farm colony to harden the patients before their dismissal might be a good thing, but at any rate the Samaritan Fund deserved greater assistance, as last year it received only £43, and spent £107. He had noticed that as unemployment had decreased during the year there had been fewer patients; he thought this arose from the fact that people being in work were not willing to leave it even to obtain a cure, and there was fear that they would see the results later in an increase in the number of deaths.

Dr. Niven, in proposing a vote of thanks to the officers and the medical officers, said the hospital did great work not only in treatment, but in instruction. The great difficulty was to get cases early enough, as they would not leave their work and closed their eyes to the encroachments of the disease. That difficulty could only be met by assisting families in which cases of consumption occurred. There was a scheme on foot for a great national system of sickness insurance on the German lines, and undoubtedly a vast amount of good had been done in Germany in connexion with phthisis. But he was not sure that a special fund for the purpose of relieving families of consumptives would not do more good than a general system of national insurance in connexion with that particular disease. He did not suggest who should bear the burden of such a fund, but the public as a whole should, perhaps, do so. As to dispensaries, he thought that something might be done by the establishment by the Consumption Hospital of local centres attended by medical men.

Mr. Alderman Fildes, Chairman of the Sanitary Committee, said there were about 4,000 persons suffering from consumption in Manchester, and, apart from the provision made by the guardians, there were only 150 beds available in the hospitals. He thought that consumption should be made compulsorily notifiable, and that there should be no half-measures. A parent advanced in consumption was often at home with children about, and such patients should be taken away, even if in a dying condition. As far as the

medical department was concerned, the work should be done by specialists. Dr. Niven did not mind where the money for this work came from, but some of them felt that it should be a charge on the rates.

From information mostly given in the reports of the medical officer of health it is calculated that the loss of wages due to cessation of work of the notified cases of phthisis in 1909 was not less than £48,000 a year. There are about 1,000 deaths a year, and it is estimated that there must be about 3,000 infective cases at any one time in Manchester. The beds at present available for treatment are 585, but this includes the union hospitals, where the cases are liable to overflow on to the able-bodied side, so that the prevention of infection is by no means what it should be. It is calculated that at least 200 more beds are required, but, to deal effectively with the great number of cases in an advanced stage, it would be necessary to obtain powers of compulsory detention which would involve a provision far greater than any now even contemplated. It is strongly held that poverty is a most potent factor in the spread of consumption, and above everything else it is necessary that consumptives and their families should not be allowed to sink into destitution, as in such circumstances not only is the progress of the disease more rapid, but the overcrowding that ensues has a most deleterious effect. The suggestion that national insurance on the German lines is not the best means of making provision for the needs of consumptives seems to be founded on some misapprehension, for, though it is correct to state that the sickness insurance expires after a certain number of weeks, there still remains the invalidity insurance which makes an indefinite provision. As to the death-rate from phthisis in Manchester, there has certainly been a decrease as compared with 1901, but it is to be noted that the rate was higher in 1909 than in 1905, 1907, and 1908. The male death-rate is persistently higher than the female rate, being for the years 1901–5—for males, 2.439, and for females, 1.464. In the central parts of the city the death-rate was as high as 5.396 for males and 2.624 for females. This largely depends on poverty, which leads to overcrowding and bad sanitary conditions in certain parts of the city. An estimate founded on the histories obtained by inquiry officers as to the likely sources of infection is to the effect that of 1,073 cases notified in 1909, not including those from workhouses, 277 were more or less probably infected from relatives, 60 from companions, 219 from workfellows or workplaces, 100 from houses including public-houses, and the rest from various sources often not ascertainable. Somewhat similar figures are given for workhouse cases, except that an unusual number seem to have been infected from houses, including public-houses, and lodging-houses seem to have been especially to blame. It also appears that the pauperism of Poor Law consumptives is determined to a very considerable extent by intemperance, as out of 640 cases over 20 years of age notified from Poor Law sources no less than 388 were reported as intemperate. It is suggested that the union hospitals should have the power and duty imposed on them of retaining Poor Law cases unless it can be shown that their discharge would not be liable to cause infection to others, and that phthisical poor persons should not be allowed to wander about from place to place or to go from one lodging-house to another. The opinion is expressed that the sources of failure in the present methods of administration would not be touched by the establishment of dispensaries for consumptives in various centres of the district.

## WEST YORKSHIRE.

### THE BRADFORD DIVISION.

AN interesting meeting of the Division took place on March 30th to hear an address by Mr. Smith Whitaker, Medical Secretary, on the Organization of Medical Attendance on the Provident or Insurance Principle. The meeting was largely attended, and the members were delighted with the lucid manner in which Mr. Smith Whitaker handled the subject. It was an exposition which will largely help the medical men of the West Riding in coming to a decision on this momentous subject. Before the meeting Dr. Manknell, chairman, entertained the officers of the Division to dinner to meet Mr. Whitaker.

### THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Yorkshire branch of the Incorporated Society of Medical Officers of Health held its annual dinner at the Hotel Metropole, Leeds, on March 29th, when a large number of members and friends met under the chairmanship of Dr. S. G. Moore of Huddersfield, the President of the branch. After the usual loyal toast, submitted by the President, had been duly honoured, Sir Lauder Brunton proposed the toast of "The Public Health Service." No branch of the medical profession was deserving of more honour for excellent work done, and no branch got so much less than it deserved. The public, indeed, had little idea what was owing to the medical officers of health for their assiduous labours to keep out infection. He spoke of the ravages of plague in the Middle Ages, and said that the present experience in Manchuria proved that this fell disease had lost none of its power. Plague had in quite recent times found footing within our shores, but there had been little excitement, for the prompt action of the medical officers of health and the Local Government Board at once held it in check. So successfully was this done that no spread of infection occurred, and the disease was completely stamped out. If this kind of work were recognized in its entirety, a monument would be erected to those who had performed their duties so efficiently. Consumption, Sir Lauder Brunton went on to say, was in one respect worse than the Black Death because of its power of selecting from among the very best. With concerted action by the public health service and the whole people this disease would in a very short time be abolished. With regard to the medical inspection of school children and the treatment of defective conditions, he said that he was not prepared with any cut and dried scheme, but felt that the responsibilities of parents should not be lessened too much, and that the school medical officers should, as a rule, only exercise supervisory powers over the treatment of the children. After advocating the establishment of a central institute of public health, Sir Lauder concluded by urging that the tenure of office for the medical officer of health should be permanent. He would like to see the work which is being done by them day by day understood more fully by the public at large—work which was not limited to arresting epidemics, but which serves to increase the happiness and productive power of the individual, and indirectly the welfare and stability of the State.

Alderman B. Broadbent (Huddersfield), responding to the toast, said that he considered the public health service as important as either our military or naval services, for while the latter tended to preserve us from invasion by foreign countries, the public health staff preserved us from dangers which were no less real, and certainly closer at hand. He advised that those engaged in the regular forces of the service should keep their souls in patience, for the time was coming when they would have the opportunity of doing for the benefit of the public those things which the public now fail to see the import of.

Dr. J. Spottiswoode Cameron, of Leeds, also acknowledged the toast.

The Lord Mayor of Leeds (Mr. W. Middlebrook, M.P.,) proposed the toast "This Society," and said that he understood that the society had existed for about half a century and that the branch was in a strong position numerically, which was as it should be, because for many reasons such a society should be widely supported. It was safe to prophesy that the duties which the legislature would place on the shoulders of medical officers of health would tend greatly to increase.

Dr. J. R. Kaye, the Honorary Secretary of the Branch, replied on behalf of the Society, and said that a survey of current events corroborated the statement of the

Lord Mayor as to the growing importance of health matters, not only to the individuals, but to the nation. Examples of the legislative expansion of preventive work were seen in the Children Act, the Housing Acts, Notification of Births, and in the schemes for health visitors, sickness insurance, and other projects which were fast coming to the front. Dr. Kaye concluded by thanking Sir Lauder Brunton for his kindness in coming down to encourage the society, and acknowledged the cordial support given to him as secretary by the members of the branch. The toast of the "Guests" was proposed by Dr. Webster, of Colcar, and acknowledged by Councillor Boyle (Chairman of the Leeds Sanitary Committee) and Dr. Trevelyan. Dr. Martin, of Brighouse, proposed the health of the President. During the evening songs were given by Dr. Kaye, Dr. Smith, Dr. Clark, and others.

### BRADFORD MEDICO-CHIRURGICAL SOCIETY.

The annual dinner of the Bradford Medico-Chirurgical Society took place at the Midland Hotel, Bradford, on March 29th. Before dinner an address was given on "X Rays and Radium" by Dr. Mackenzie Davidson, of London. The address was most interesting, and illustrated by lantern slides and radiograms. Dr. Davidson was treated as the chief guest at the dinner, which, although not so largely attended as usual, was of an enjoyable character.

## LEEDS.

### LEEDS WORKPEOPLE AND THE KING EDWARD MEMORIAL.

A SPECIAL meeting of the committee of the Leeds Workpeople's Hospital Fund was held on the evening of April 3rd to consider the question of co-operating with the Lord Mayor in an appeal which he proposes to make to the workpeople of the city that they should take their part in subscribing to the fund being raised for the General Infirmary in memory of King Edward. This special fund has made good progress, and now amounts to £95,000. As was pointed out by Mr. Charles Lupton at the annual meeting of the Infirmary, this sum represents the subscriptions of some 400 people, and it is considered that the time has come when the appeal should be made to a very much larger circle of possible subscribers. There should really not be the smallest difficulty in securing that the sum obtained should reach the original amount aimed at—namely, £150,000. As has been stated by the Lord Mayor, the population of Leeds stood at 207,000 in the year 1870, about the time the present Infirmary was opened—and now it is estimated at over 500,000. There must be at least 150,000 people in Leeds who, without any considerable sacrifice, could afford to subscribe 6s. 8d. each, which would practically complete the fund. It is most gratifying to those who are responsible for the working of the Infirmary to find the workpeople of the city following the excellent example of their more wealthy fellow-citizens and, perhaps, what is of as great importance, setting an example which it is hoped the middle classes will not be slow to follow. The meeting was very enthusiastic, and after a general agreement had been come to as to the desirability of the workpeople of the city making a united effort, it was arranged that every workman, workwoman, boy, or girl earning 20s. or more per week should subscribe 1s. each, and that those earning less than that amount should subscribe 6d. each. It is hoped and believed that many will give more than this, and it was announced that at one of the works in the city it had been arranged by the workpeople themselves to give £150, a sum which represented an average subscription of about 2s. 2d. There are some who think that the amount obtained by this special effort will reach £10,000. The meeting was addressed by the Lord Mayor, who has shown the greatest interest in the matter, and who has carried on the work so ably initiated by Mr. Charles Lupton. In the course of his remarks he contrasted the number of in-patients in the year 1870, which was 2,584, with that of the year 1910, when the number amounted to 7,043; in the same period the out-patients had increased from 7,496 to 48,451, while the number of operations on in-patients had gone up from 496 in 1870 to 4,075 in 1910.

### INCREASE IN THE HONORARY STAFF OF THE GENERAL INFIRMARY.

When some months ago it was decided that in future some restrictions should be placed on the holding of honorary appointments in other institutions by those who were on the staff of the Infirmary, the only ultimate difficulty in the equitable framing of the new rules, which, by the way, were supported by the honorary staff of the Infirmary, arose from the consideration that other institutions in the city might be injured by their operation. Most of the difficulties melted away on calm examination, with the exception of that which affected the Tuberculosis Association, and when the new regulations were discussed in this column just after their confirmation at a general meeting of the Infirmary, it was stated that the anxieties of the Tuberculosis Association had been met by a general understanding that at the ensuing annual meeting of the General Infirmary a rule would be proposed which would secure to the Tuberculosis Association the services of at least one of the junior members of the Infirmary staff. At the annual meeting of the Infirmary on March 30th it was proposed and carried that a third assistant physician should be appointed, who, in addition to his duties at the Infirmary, should have charge of 15 beds at the Leeds Tuberculosis Association Hospital at Armley. This special appointment will be a bond of union between the two institutions, and it will further secure that the junior members of the staff are not cut off from acquiring a special knowledge of tuberculous diseases of the lungs, for it is undoubtedly the case that, since the launching of the Tuberculosis Association some years ago, the number of in-patients suffering from phthisis has decreased owing to the large number which are dealt with by its agency.

In connexion with this latest increase in the numbers of the honorary staff, it may be of interest to note that in the year 1883 the staff consisted of three physicians, four surgeons, two ophthalmic and aural surgeons, and one dentist. The growth of the out-patient departments led in 1883 and 1884 to the appointment of two assistant surgeons and two assistant physicians. On the appointment of the two assistant physicians the number of the full physicians was reduced from three to two. In 1885 the gynaecological and extern maternity department was started, with, of course, a new honorary officer. In 1890 the growth of the ophthalmic and aural department called for the appointment of an assistant honorary officer in that department. The full physicians were increased to the former number of three in the year 1892. In 1905, on the appointment by the University of Leeds of a professor of pathology, it was thought wise that the occupant of the new position should be afforded opportunity for pathological investigation within the walls of the Infirmary, and the position of honorary pathologist was created, a position to which the Infirmary was empowered to appoint the Professor of Pathology. In this year also there was appointed an assistant surgeon whose duties were confined to the charge of the two semi-convalescent hospitals at Cookridge. In 1909 the radiographic department, which had been supervised by a member of the staff, was reorganized and equipped, and placed under the charge of an honorary radiographer. The latest change was the increase in the number of the assistant surgical staff from three to four. The two junior assistant surgeons have charge respectively of the casualty department and of the semi-convalescent hospitals and isolation department. When effect has been given to the decision to increase the number of the assistant physicians, the honorary staff will consist of 21 members as compared with 10 in the early part of 1883—a notable increase, but one which is an accurate indication of

the great increase in the amount of the work accomplished. It is of interest to note that within the same space of time the number of the resident staff has increased in the same ratio, for in 1883 it was 7, and now it amounts to 14.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MORISON LECTURES ON INSANITY.

THE Morison Lectures on Insanity were delivered before the Royal College of Physicians of Edinburgh by Dr. George M. Robertson, Lecturer on Insanity in the University of Edinburgh, on March 6th, 8th, and 10th. In the first lecture, which dealt with the differentiation of melancholia and the depressive phase of manic-depressive insanity, Dr. Robertson said that until recently the term melancholia was employed in a very inclusive sense. The differentiation of the disease had been placed on a surer basis by increased accuracy of observation. Not all patients who happened to be depressed were diagnosed as melancholic, but only those in whom painful or depressed feeling was the primary and fundamental disorder of the mind. A man suffering from systematized delusions of persecution, however depressed he might be, even were he to commit suicide, would not be regarded as such. The whole course of the disease and its termination—the picture of its symptoms as a whole—formed an essential part of our conception. This extended observation had led to the discovery that mania and melancholia were closely associated. There was a melancholic stage at the beginning of mania very often and an exalted stage at the end of melancholia. Kraepelin suggested that mania and melancholia were different phases or manifestations of the same disease process, to which the name of manic-depressive insanity had been given. *Folie circulaire*, in which disease the patient was at one stage the picture of misery and at another in boisterous high spirits, gave support to this hypothesis. This form of insanity, so anomalous in former classifications as to require a class by itself, was found to be the key in the symptoms of both mania and melancholia. The lecturer described the continuous, the alternating, and the double forms of the disease, and discussed their relationship to melancholia. Melancholia, like *folie circulaire*, had a tendency to relapse—an irregular periodicity. It also tended to alternate, as some of the relapses later in life were of mania. It tended to recover, and to recover completely, there being no tendency to dementia. As with the periodic attacks of *folie circulaire*, so with the relapses of melancholia, there might not be any definite cause. The disease was an idiopathic, not an acquired, form of insanity, and resulted largely from the inheritance of an unstable nervous system. The hereditary predisposition to insanity was probably stronger in *folie circulaire*—hence its greater tendency to alternation and periodicity and the absence of exciting causes for these phases. The lecture concluded with a lantern exhibition of photographs, in which the expression of melancholia was analysed on the basis of Darwin's hypotheses. Several of the illustrations were taken from Sir Alexander Morison's classical, work *The Physiognomy of Mental Diseases*

In the second lecture symptoms of melancholia were dealt with. The symptoms of disease being the natural functions of the body acting in an unusual way, the rational way of studying melancholia, or disease of depressed emotional states, was in association with the corresponding functions as they occurred in health. All melancholics were depressed, but the shade of painful feeling varied from despondency, to acute anxiety and abject misery. This was a subjective and morbid feeling, with no real external basis. Associated with this was inactivity or paresis of other emotions. The melancholic was unable to enjoy anything, or even to take an interest in anything. The ideas were all gloomy, and there was sluggishness in their flow, and, associated with this, poverty in their number. The patient was conscious of this; it may be due to lack of interest. There was no confusion or enfeeblement, and he had a true insight into his condition. There was a tendency to continuous ideation of a monotonous character on any depressing subject. In this limited sphere there might be excitement, and, finally, delusions might develop. The contents of the delusion were of no importance; the important point was that the delusion was the explanation the patient had adopted to account for his melancholy condition. Hallucinations might occur, but they were never a prominent feature of the condition. The expressions, attitudes, and gestures were very interesting, important, and characteristic. There was defect of will power, and failure to perform those acts and duties expected of a sane person—faults of omission, and failures to do the things that ought to be done. He refused to do his work, or to go out of the house, or to dress, or even to eat. Associated with this there was a strange condition of restiveness, a meaningless and automatic resistance to everything; extreme restlessness might develop. The one serious act of commission was the attempt to commit suicide. . . At one stage or another the desire to do so was present in every case of melancholia. Among the physical symptoms, disorders of the stomach and digestion and of the alimentary tract were the most common and important. The patients always lost weight; there was sluggish metabolism and impaired vitality. Insomnia was an almost universal and most distressing symptom. The muscular system was involved in the expression and attitudes, and the voluntary movements were slow and feeble. Sensory phenomena, especially paraesthesiae, were very numerous, and were without doubt the cause of many hypochondriacal delusions The choking feeling in the throat, simulating globus, being the basis of the idea that the throat was closed, and that it was impossible to swallow, was one of the commonest of all melancholic delusions.

The third lecture is published in full in this issue.

## FREE DIPHTHERIA ANTITOXIN IN EDINBURGH.

A recent letter from the Local Government Board pointed out the value and importance of using antitoxin at an early stage of diphtheria, and suggested that it should be supplied free by local authorities. At a meeting of the Public Health Committee of Edinburgh Town Council on March 28th, the medical officer of health for the city (Dr. Maxwell Williamson) suggested that the antitoxin should be supplied free of charge to the medical profession; he also suggested that he should be empowered to call upon practitioners to take swabs from the throats of people who had come in contact with cases of diphtheria, so that these swabs should be examined bacteriologically and preventive measures taken, and to pay a small fee. The committee agreed to the free distribution of antitoxin but declined to pay a fee in respect of swabs, instructing the medical officer of health that for a period of six months he should call the attention of medical practitioners in whose practices cases of diphtheria occur to the facilities which the Public Health Committee had arranged for having swabs examined at the Usher Institute free of charge. The committee also resolved to communicate with the School Board, requesting the medical officer of the board to take swabs immediately from the pupils attending each class in which a case of diphtheria occurred.

## ANTIVIVISECTION IN EDINBURGH.

The annual meeting of the Scottish Branch of the National Antivivisection Society was held in Edinburgh on March 28th, when Miss Lumsden presided over a considerable audience, mainly of ladies. Dr. Charles Reinhardt, London, gave an address in which he dealt with some of the arguments put forward in favour of vivisection, and Miss Lumsden expressed the opinion that the law with regard to the practice of vivisection was at present in a most unsatisfactory state; better inspection was necessary. A motion for a wide campaign of meetings in Scotland throughout the summer, made by Mr. Ernest Bell, Chairman of the Central Committee in London, was not seconded.

### Nursing Home for Edinburgh.

At a public meeting held in Edinburgh on March 29th in support of the proposal to open a nursing home for the Edinburgh, Leith, and country districts, Sir Robert Usher, the chairman, said that it might seem strange that any one should have the hardihood to suggest that another hospital should be opened in Edinburgh. The provision of hospital accommodation for the working classes was ample and generous. For the rich there were excellent homes, but the charges were proportionately high, and the middle class of moderate means very much left in the cold. He referred to shopkeepers, clerks, commercial travellers, tenant farmers, and other people who had a competence, but had nothing to spare for any very great strain on their resources. It was for this class that the new scheme was proposed. Roughly, the scheme was to start an hospital of moderate size, where beds might be had at from one to three guineas a week, including food and proper appliances and attendance, and that in that home the patients should be allowed to call in their own doctors, and if necessary, any surgeons their doctors should decide upon. The scheme as now presented had the support of the doctors, who had already promised or subscribed £900. He knew that the present was rather a bad time to ask the £10,000 required, for the springs of their charity were inclined to be dried up, owing to the very heavy burdens that the tax gatherer was putting on them. Sir Thomas R. Fraser, on behalf of the medical profession, expressed the opinion that the scheme would be a very great benefit to a class not already provided for. Professor Lodge moved a resolution that the meeting cordially approved of the scheme outlined, and resolved to do its utmost to raise the funds required for building and furnishing the home. Lady Susan Gilmour seconded. Provost Smith moved, and Treasurer Harrison seconded, the election of an executive committee. The sum of £2,150 has now been raised.

### The Residence for Western Infirmary Students.

The Residence opened in October at 9, University Avenue, has been quite successful, and the students have realized the advantages of seeing urgent medical and surgical cases at the Western Infirmary. The committee will open a second hostel at 20, Ruthven Street on April 10th. It is arranged in the same way as the first, but is lit with electric light, and is almost equally near the Western Infirmary. If a sufficient number of students give in their names to Dr. J. Mill Renton, 1, Woodside Terrace, a third hostel will be opened on October 10th. The charge for board and residence is one guinea a week.

## Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### Women's National Health Association.

A largely attended meeting was held last week in Dublin for the purpose of founding a "babies' club" in connexion with No. 4 South City Dispensary District. Apart from its main object, which was successfully accomplished, the meeting was notable owing to a statement made by Lady Aberdeen with reference to the policy which the Women's National Health Association was willing to adopt towards the Association of United Irishwomen. Recently formed, its objects, according to Sir Horace Plunkett, are, in the first place, to endeavour to induce women living in the country to take an active part in all those parts of the work of co-operative societies with which women are especially competent to deal, and, in the second place, the promotion of better social life in the country. Lady Aberdeen thinks that these objects will make the work of the United Irishwomen in rural communities run very much on the same lines as that of the Women's National Health Association, and in consequence she thought it wise to state publicly that the association of which she is president was willing to work in alliance with the new association. By such an alliance, if it could be brought about, she hoped that overlapping of work and friction could be avoided.

### The Housing Question in Dublin.

Two members of the Dublin Corporation recently paid a visit to Birmingham with the object of studying the housing of the working class and other matters of sanitary administration. Their report, with suggestions, will shortly come before the Municipal Council. They urge the Public Health Committee to make it thoroughly understood that in future preventable dilapidation will not be tolerated, and that, if property is allowed to become unfit for human habitation, its demolition will be insisted on. They believe that such a policy will have no appreciable influence in raising rents, and will undoubtedly promote the health of tenants. The necessity of further legislation to regulate the conduct of careless tenants, and to give power to prevent houses now in good repair being allowed to fall into decay is insisted on. They are also of opinion that the formation of a voluntary society for the acquirement of small open spaces throughout the city would achieve excellent results, and they desire that the law relating to feeding of necessitous school children should apply to Ireland.

### Royal Victoria Hospital, Belfast.

The annual meeting of this institution was held in the Council Chamber, City Hall on March 29th. The Lord Mayor (Mr. R. J. McMordie, M.P.) occupied the chair. Mr. R. J. Johnstone, F.R.C.S., honorary secretary of the medical and surgical staff, moved the adoption of the medical report, which stated that 3,260 new cases (2,006 surgical and 1,254 medical) had been admitted to the wards; these had been 215 deaths (54 moribund on admission, 96 surgical, and 65 medical); 1,667 surgical operations had been performed with a mortality of 2.8 per cent. The mortality in the surgical wards had been 4.86, and 5.27 in the medical; in the out-patient department 33,124 new cases were treated, including 1,413 ambulance cases. Mr. Johnstone drew attention to the frequent refusal of admission of patients owing to all beds being full, and to the wards kept vacant from want of funds.

Sir John Byers, in moving a vote of thanks to the press, drew attention to the triple function of hospitals—the cure of the sick and relief of suffering, the training of men and women as doctors and nurses for the public, and the advancement of the science of medicine by studying with the aid of the very latest methods of every available science the complicated problems of disease. Sympathetic reference was made in the annual report to the loss sustained by the deaths of Dr. Nelson, consulting ophthalmic surgeon, and Dr. McQuitty, assistant physician.

## Special Correspondence.

### FRANCE.

*Demography.—The Disease of Old Age.—Surgical Selection.*

While we are waiting for the results of the census of France it may be worth while to call attention to a short but very well-conceived essay in which one of the pupils of Dr. Berillon, our great statistician, has analysed the movement of the population during the last century in a town which it is considered well reflects the general demographic movement in France. It is a small agricultural community in the centre of France; it receives few immigrants, furnishes few emigrants, and has escaped any sudden and serious change such as is caused by the foundation of new industries; its population has varied in the same proportion as the total population of France. The author draws four conclusions from his examination of the statistics—that there has been: (1) A progressive diminution in the births; (2) a fall in the rate of infant mortality; (3) a fall in the mortality at adult ages

(4) a rise in the number of old persons and in the mean age of death among the old.

This fourth conclusion is particularly interesting, for it confirms M. Berillon's estimate that in the whole of France during the period 1850–1890 the total number of persons at ages above 60 increased from 3,628,815 to 4,769,153, and that this increase accounted for half of the general increase in the population, and exceeded by nearly a third the increase of the population at the active age—that is to say, from 20 to 60 years. Ought we to congratulate ourselves on this increased multitude of old people? Is it an honour to medicine? Or ought we to commiserate the Minister of the future who will be called upon to adjust the budget to provide workmen's pensions? It is to be feared that too many of our fellow citizens live only to grow old, and throughout the whole course of their working life resign themselves too easily to depressing conditions, looking forward to the blessed day when, loaded with decorations and with years, the State shall take upon itself the duty of providing for their declining days. May there not be in this very thought and in the strength of the hope it engenders a kind of auto-suggestion which in itself conduces to longevity? Professor Metchnikoff would call this a bad joke, since for him old age is a disease, the origin of which should be looked for in the large intestine. This eminent man of science has quite recently again averred that nobody so far has ever died a natural death. People die of injury, of bronchitis, or arterio-sclerosis, and especially and in largest number from intoxication due to poisons elaborated in an abdomen ill-adapted to the habits of modern man; for man has become too omnivorous, and has not learnt how to digest what he has not learnt properly to eat. What then, it may be asked, would Professor Metchnikoff consider natural death to be? Coming after a full life lasting long enough to ensure the complete education of the senses and of the intellect, it would be infinitely blessed and happy. Even then, indeed, it would be due to poisoning, but it would be a poisoning by the toxins of the internal secretions which would accumulate little by little, and their action, as is known of some of them at least, including those of the pancreas and the suprarenal bodies, is remarkably gentle. This view has recently been confirmed by Dr. Arnold, of Carlsbad, who holds that our vital force depends upon the state of certain glands—the thyroid, the liver, the kidneys—the examination of which is becoming daily easier and its results more exact, so that the strength of the individual's resistance to disease and the number of years of life upon which he may count can be estimated. This is all very satisfactory: can there, indeed, be a less scientific way of stating the age of an individual than by giving the number of years that have elapsed since he was born? Here, then, we mark a very great advance. How very satisfactory, for instance, the new system will be in the case of an engaged couple who when they present themselves to be married before the proper officer are able to produce certificates giving the results of the examination of the secretions of the thyroid gland showing that he has forty years to live, while the heiress can count on no more than three? Legal formalities might even be shortened still further by there and then delivering to them their death certificates. These calculations, however, would apply only to those misguided persons who continued to live in the old-fashioned way. There would apparently be no reason why those who carefully superintended the manner in which the large intestine (Metchnikoff's system) and the secretory glands (Arnold's system) discharged their functions should not attain the age of the patriarchs. If so, we shall have to find a new definition of medicine; we might use a phrase which is not new, though he who first uttered it did not understand its full significance—we might say that "Medicine is our guide on the road to a natural death." It appears, indeed, as though the French were on the high road to attain—and, what is more, to attain instinctively—to this natural death; the statistics quoted above show that we have already gone some way along this road, and that we have begun to learn that to be born is nothing, the essential thing is to know how to grow old.

We are encumbered by a crowd of cretins, of feeble-minded persons, of idiots, degenerates of all kinds, whose livers, kidneys, brains, and thyroids are often from the beginning worth nothing. They are no better than places for the acclimatization of micro-organisms which eventually attack healthy persons. The *Revue politique et parlementaire* has recently begun to concern itself with these abetters of an inverse selection, and has supported the demand that their power of procreating should be stopped by the section of various canals. I do not propose to discuss this plan, which, starting from the State of Indiana, has already made the tour of the world and has regained the banks of the Ohio without attracting many adherents on its journey. I would only observe that surgery, whose origins were so humble, since it proceeded from the honourable corporation of barbers and began to exercise its art by performing mere pogonostomies (this word, I hope, is formed in a manner to satisfy your advocates of compulsory Greek), may look forward to a great future; for while it used to be the most intensely individualistic of the arts, it can now legitimately claim to supervise, to control, and to direct the future of the species. Controllers of the birth of useful citizens, guarantors of complete lives, do not doctors more and more justify the appreciation of them expressed by the divine bard of the Odyssey:

> Round the wide world are sought these men divine
> Who public structures raise, or who design;
> Those to whose eyes the gods their ways reveal,
> *Or bless with salutary arts to heal;*
>
> * * * * *
>
> These states invite, and mighty Kings admire
> Wide as the sun displays his vital fire?

# Correspondence.

## COMMITTEE ON TREATMENT OF FRACTURES.

SIR,—The Council of the British Medical Association has appointed a Committee with the following reference:

> To inquire into and report on the ultimate results obtained in the treatment of simple fractures with or without operation.

The Committee is desirous of having the assistance and co-operation of such surgeons, surgical registrars of hospitals, and other practitioners throughout the country as may be in a position to assist the inquiry by letting the Committee have access to records of suitable cases, and by affording assistance in following up the patients to whom the records relate. The investigations of the Committee will be limited to simple fractures of the long bones which have occurred within the five years from January, 1906, to December, 1910.

We shall be glad if members of the profession able to help the Committee in the ways stated will kindly communicate with the Medical Secretary of the Association, 429, Strand, W.C.—We are, etc.,

HENRY T. BUTLIN,
President of the Association.
EWEN J. MACLEAN,
Chairman of Representative Meetings.
J. A. MACDONALD,
Chairman of Council.
EDWIN RAYNER,
Treasurer.
W. J. GREER,
Chairman of Committee on Treatment of Fractures.
FRANK M. POPE,
Chairman of Science Committee.
VICTOR HORSLEY,
President of Section of Surgery, Annual Meeting, 1910.

London, W.C., April 4th.

## RENOGRAPHY.

SIR,—The paper by Mr. E. Hurry Fenwick in the BRITISH MEDICAL JOURNAL for April 1st forms a most valuable contribution to the radiographic study of the kidneys; and I gladly hail a lecture of this kind, backed by the world-wide reputation of Mr. Fenwick, as the best means of familiarizing medical men with the powers of *x*-ray diagnosis of throwing light on the condition of the kidneys. There are, however, a few points in his paper which call for comment; these points do not concern matters of skill in carrying out the examinations or in interpreting the results, but concern principally the

method of making the examinations. Again, one feels strongly that *x*-ray examinations should no longer be entrusted to the care of unqualified assistants, though one is tempted to make an exception in favour of the expert technical assistant who has carried out excellent work for Mr. Fenwick. I have personal experience of the technical ability of this gentleman, and of his unfailing courtesy and patience. He took up the work in its most dangerous early days, and he has never shrunk from continuing his labours. In future, however, unqualified men should be strongly dissuaded from taking up this work.

At Guy's we carry out our *x*-ray examinations with the tube below the couch, a method introduced by my colleague Mr. Shenton many years ago. The advantages of this method are very great, and never greater than in the examination of the kidneys. The patient lies prone on the couch, with a loosely filled air pillow under the abdomen; the fluorescent screen rests on his back. If Mr. Fenwick had been in the habit of observing the kidneys on the fluorescent screen, he would not have been surprised to find that the kidneys might descend "an inch or more" with inspiration. He would be aware that the *normal* kidneys have an excursion considerably greater than this, frequently amounting to fully 3 in., the amount of the movement depending not on the condition of the kidneys but on the range of movement of the diaphragm in the particular subject, for it is seen that both kidneys move up and down with the diaphragm, and almost to the same extent as the diaphragm. At the same time, most of the other abdominal viscera (the stomach and intestines, small as well as large) are seen to move. By reducing to a small size the opening in the tube box through which the *x* rays escape, the size, position, and number of renal calculi may be observed on the fluorescent screen, and all the movements of the kidneys described by Mr. Fenwick as occurring with the different respiratory phases may be readily seen and demonstrated to a class. The exact range of movement may be ascertained by the orthodiagraphic method; that is to say, the opening in the tube box is reduced to a very small size, the position of the kidney border is marked on the glass of the fluorescent screen (with a special pencil) during forced expiration. The patient then takes a forced inspiration, the tube box is moved so as to bring the borders of the kidney into view once more, and these borders are marked in the new position. This method is far more accurate than that described by Mr. Fenwick, for it requires no correction for the divergence of the rays which occurs with his method.

The condition which Mr. Fenwick describes as "dense kidney," and supposes due to thickening of the true capsule, is, in fact, entirely different in its significance. The apparent darkness of the kidney shadow depends not on any feature of the kidney, but on the amount of gas present in the colon. Very frequently a patient is brought for *x*-ray examination with the colon so full of faecal matter that it is impossible to make out the outlines of the kidneys. The loins appear uniform in opacity. The patient is then sent back to the ward and given an enema. If he has succeeded in retaining the enema sufficiently long (twenty minutes) to break up the faecal masses before obtaining an evacuation, it is commonly found that the colon then contains enough gas to make the outlines of the kidney shadows stand out sharply defined. Thickening of the renal capsule makes far too little difference to be perceptible.

True dropping of the kidneys is, as Mr. Fenwick remarks, more difficult to measure in the erect posture, for the dropped kidneys commonly fall away from the loin when the patient is upright. Consequently their shadow s far less defined. The free movement of calculi in the upper ureter is a fact well known to those in the habit of carrying out their renal examinations by the method I have described. Accidental shadows in the loins unconnected with the kidneys are recognized at once, for a shadow in the kidney is seen to move with the kidney on respiration, and at the same rate as the kidney; whereas an extraneous shadow (for example, a calcareous gland) may remain at rest while the kidney moves, or (say a faecal concretion in the colon) may move in the same sense as the kidney, but at a different speed and to a different extent. Skiagrams are taken by simply slipping a plate (in light-tight bags) under the fluorescent screen, and making the exposure in any desired phase of respiration.

The method of introducing collargol through a ureteral catheter for investigating the pelvis of the kidney was introduced by Dr. W. F. Braasch, of Rochester, Minnesota. He has obtained very striking results. We are taking up this work at Guy's, and hope to obtain valuable information, but it is essentially work which demands the cooperation of one, like Mr. Fenwick, exceptionally skilled in the use of these special instruments for investigating the bladder and ureters.—I am, etc.,

ALFRED C. JORDAN, M.D.,
Medical Radiographer, Guy's Hospital, S.E.

London, W., April 2nd.

## ACUTE EMERGENCIES OF ABDOMINAL DISEASE.

SIR,—In the JOURNAL of April 1st, p. 734, Mr. Moynihan says: "I make, and admit, no exception to the rule that in acute appendicitis in children urgent and early operation is essential." Mr. Moynihan's experience is large, and judging from his address unique. His experience may justify his action, but if followed by other men disaster and discredit are sure to follow. Many of us can testify to the large number of satisfactory recoveries following rational medical treatment of acute appendicitis in children, and I am sure our results will compare very favourably with those of others who adopt the heroic method.

Mr. Moynihan's position is comfortable, because should success not follow an operation then the physician is to blame for not recommending it earlier; if successful the surgeon gets the credit. I have had a large experience in the treatment of appendicitis in children and with most satisfactory results, and rarely have I found it necessary to have an operation in the acute stage, whilst in adults I have found it proportionately more often necessary. I believe my experience to be general, and it is surely a safer course to follow than the heroic system advocated in the otherwise suggestive address.—I am, etc.,

JOHN R. HAMILTON.

Hawick, April 3rd.

SIR,—I have read with much interest the address on the acute emergencies of abdominal disease, by my friend Mr. Moynihan, and published in your issue of April 1st. I was particularly struck by the sentence—

> The evidence now appears to me conclusive that the "bilious attacks" of children, accompanied by pain of a griping or colicky character, by vomiting, occasionally by diarrhoea, by slight fever, and by headache, and ascribed to the greedy indulgence in "indigestible" food, are nothing other than mild attacks of inflammation in the appendix.

The number of cases of children operated upon for acute appendicitis whose parents give this antecedent history is surprising, and seemed to me so remarkable, that for some months back, during the course of my examination of school children, as officer to the Huddersfield Board of Education, I have taken short notes and kept record of such cases. I find that many of them have tenderness on pressure in the right iliac fossa, and have pleasure in endorsing Mr. Moynihan's opinion that they are mild attacks of appendicitis.

The following are a few instances of this class of case:

F. B.—Bilious attacks, vomiting and diarrhoea, abdominal pain.

J. B.—Vomiting attacks with colic, pain on the right side.

E. D.—Migraine with vomiting, tenderness in the right iliac fossa.

H. P.—Bilious attacks, mother has had appendicitis, three other children all have similar attacks.

F. W.—Attacks of "gastric catarrh," has mass in the right iliac fossa.

These are all school children at present attending school, the histories being obtained from their parents. The fact is, I think, of grave significance, and well worth following up.

What part, if any, food that is "indigestible" plays in the causation of appendicitis is difficult to say, but I feel sure that it has some relation to the onset of this disease. So many patients give an indigestible meal, or article of diet, as the first cause of their symptoms.

With reference to this, a case I saw last week under the care of my colleague, Mr. Marshall, is of interest: A family had partaken of tinned salmon, and a few hours

afterwards several members were ill with ptomaine poisoning. One, a child, was brought into the infirmary with acute appendicitis, a gangrenous appendix with most offensive pus being present.—I am, etc.,

Huddersfield, April 4th. G. W. KILNER CROSLAND.

## BROCA'S APHASIA.

SIR,—I am obliged to Dr. Elder for his courteous comment on my paper, and I admit that I had failed to understand what Professor Wyllie had written, although I tried to avoid misrepresenting him by so far as possible using his own words. This hypothetical callosal speech tract which is supposed to run from the third left frontal convolution across to the right side of the brain and thence through the right internal capsule to the medulla, would explain why in certain cases a lesion of the left internal capsule would only cause partial disorder of speech.—I am, etc.,

Birmingham, April 3rd. ROBERT SAUNDBY.

## THE CARDIO-SPLANCHNIC PHENOMENON OF ABRAMS.

SIR,—If Dr. Auld had given a little more attention and thought to my papers he would have saved us both trouble. I have not said that Dr. Abrams has "confounded the sounds," but that he has "confused percussion sounds with percussion sensations of resistance." That is perfectly obvious from the passages I have quoted. I have not discussed "deep dullness" and "superficial dullness" because the distinction between them does not affect in the least the difference between Dr. Abrams's statement and mine. The dullness measurements of Dr. Pickard, Dr. Solly, and myself are incompatible with Dr. Abrams's statement. That also, I venture to say, is obvious. Does Dr. Auld suppose that "deep dullness" and "superficial dullness" are two quite separate phenomena which may overlap?—I am, etc.,

Exeter, April 1st. W. GORDON.

## MEDICAL TREATMENT OF INOPERABLE CANCER.

SIR,—I gladly accept Dr. Thomas J. Horder's offer[1] to set aside a certain number of cases of those under his care at the Cancer Hospital in order that the effects of diet may be tested.

I feel sure that his clinical and pathological observations will be of great assistance; indeed, I could hardly undertake this extra work without such help. I see also a further advantage in this offer, in that the treatment at the Cancer Hospital will probably be more permanent and continuous than it can possibly be in a general hospital, where patients often have to be sent out at the end of a few weeks, so that there is no certainty either that the treatment will be properly carried out, or that one will ever hear any more of the patient.

I think it must be admitted that, in regard to the cases which impressed me, there is as yet no scientific certainty that the disease was cancer (for some fibroid tumours are curable by diet, and one of my own cases may have been of this nature). On the other hand, there is nothing inherently improbable in the suggestion that the diet which prevents cancer and cures the rheumatism, so often associated with it, may in some cases even cure cancer. In our present condition of uncertainty on these subjects, I welcome Dr. Horder's offer of a cautious scientific trial of diet in selected cases of undoubted cancer.

Even if we do but succeed in mitigating the symptoms in these inoperable cases, it would be an encouragement to further experiment in cases not so far advanced towards an end that is now considered inevitable.—I am, etc.,

London, W., April 4th. ALEXANDER HAIG.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—I was very pleased to read the contributions from Miss Carey and Mrs. (Dr.) Warner in the JOURNAL of April 1st. The former, of course, shows that the women who have gone to the trouble and expense of qualifying as sanitary inspectors can see that the action of the Royal Sanitary Institute is jeopardizing their prospects considerably. Only a few large and wealthy authorities can afford to pay more than *one* woman official in the public health department. The question with them will now be, Which shall we have, a woman sanitary inspector or a lady health visitor? Their next query will be, not, Which is the better kind of woman? but Who is the cheaper? It will be of no use for the medical officer of health to tell his councillors that he prefers a well-trained woman to a half-trained one.

Mrs. Warner's own letter shows that as "lady health visitor" at Croydon only part of her time was spent in visiting lying-in mothers and newly-born infants. Quite so. Her duties probably included visiting women home-workers, women and girls in the factories or workshops, women and children suffering from erysipelas or tubercle, cases of puerperal fever, etc. She would probably be expected also to visit homes where scholars were suffering, or said to be suffering, from measles, whooping-cough, mumps, chicken-pox, etc. The one woman official in a small district would be.

Your readers will note that Mrs. Warner considers that the training should extend over three or four *years*, not three or four months. I agree, in so much as my ideal woman inspector is one with three years' hospital training, which has included some experience in children's wards, and, if possible, in fever wards, with the certificate of midwife, and, lastly, at least three months' pupilage under a medical officer of health. Mrs. Warner must admit that the better a woman official's training in general sanitation has been the better reports she is able to present to the medical officer of health as regards the sanitary or insanitary conditions of the houses she has visited the day before. A sanitary home is as much a necessity for keeping an infant or the children healthy as matters of clothing and diet.

Professor Bostock Hill is apparently unaware that one of the chief objects of Mr. John Burns's bill is to make a woman engaged in the public health service a statutory official, so that the local authority can get back half of her salary from the county council.

The recent methods of the institute will encourage specialism. We shall presently have further examinations established and certificates given for each of as many sections as that body can divide hygiene into. The Sanitary Institute has already established examinations and certificates with reference to no less than six sections. Are these all necessary? Local authorities, unless large and wealthy, cannot maintain specialist inspectors, male and female. What they require are good all-round officials. I hope Professor Hill will use his great influence with that of Dr. Parkes to check the Institute in its sectional activities, and to establish one good examination after proper training which will qualify women to take office in any public health department, not only in the provinces, but also in London.—I am, etc.,

SIDNEY C. LAWRENCE,
London, N., April 3rd. M.O.H. Edmonton.

## TO HELP THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—Having acted as Honorary Secretary some years since to the British Medical Benevolent Fund, I have been much interested in the letters of my old friend Professor Howard Marsh and others advocating the claims of this charity. I wish most heartily to support them, as I have long been in the habit of saying to others that this is the most excellent charity with which I am acquainted either in or outside the profession. The quiet, unobtrusive way in which inquiries are made as to the circumstances of the applicants and assistance promptly given makes the donation or annuity bestowed doubly welcome. Having acted as almoner on many occasions, I can testify to the beneficial results and as to the earnest gratitude of the recipients.

My immediate object in writing, however, is in regard to Dr. Joseph Griffiths's proposal in your issue of April 1st that a sum of £100,000 should be raised and invested for the purpose of relieving distress among the widows and orphans of the profession, in order to point out that one of our medical charities has at the present time more than that amount invested in first-class securities.

It is true that the Society for the Relief of Widows and Orphans of Medical Men confines its operations to London and its vicinity, but even so, how few of those entitled to become members avail themselves of the

[1] BRITISH MEDICAL JOURNAL, April 1st, p. 785.

privilege? If, instead of its 300 members, there were 3,000, I take it there would be fewer calls upon the other and less wealthy charities. I have heard medical men practising in the country say, "Would that I had joined the Widows and Orphans Society before I left London." Let me, as an old house-surgeon who wishes to do a good turn to those who are following him, call the especial attention of London house-surgeons—and others whom it may concern—to the following extract from a recent annual report of the society:

Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty mile radius of Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member. The annual subscription is two guineas.

As to the advantages to be gained I must refer those interested to the secretary at 11, Chandos Street, Cavendish Square, W.—I am, etc.,

STAMFORD FELCE.

Newbury, April 3rd.

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SIR,—What is to hinder the Association taking this up in a practical way? I have read many letters in the JOURNAL dealing with this subject, but none so sensible or practical as Dr. Joseph Griffiths's (BRITISH MEDICAL JOURNAL, April 1st, p. 784). I am quite sure that a fund on the lines he suggests would meet with the approval of general practitioners. There is no reason, other than apathy, why we do not provide for ourselves. The present would be a good time to discuss the matter, when the Branches are whipping up their members.—I am, etc.,

G. P.

April 3rd.

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SIR,—I am afraid Dr. Griffiths's suggestion in reference to the British Medical Benevolent Fund is hardly practical. He evidently overlooks the benevolent funds already started many years ago, and those of us who have been subscribers for years would hardly entertain the idea of being made compulsory subscribers to some new fund. I may mention the one to which I have belonged for nearly a quarter of a century—the Essex and Herts Medical Benevolent, which not only assists widows and orphans of medical men, but also gives help to its members when they have fallen upon critical times. I would suggest that every county organized such an association, and on similar lines, for those residing in it who are not already provided for in that way; but for the British Medical Association to make anything of the kind compulsory would lead to the resignation of a number of its members.—I am, etc.,

F. L. NICHOLLS.

Fulbourn, near Cambridge, April 2nd.

*** An account of all the medical benevolent societies of which particulars could be obtained was published in the BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 512.

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## POOR-LAW INFIRMARIES AND HOSPITALS.

SIR,—My attention has been drawn to the report of a speech delivered by the Hon. Sydney Holland, at a meeting held in connexion with the Poplar Hospital, in which he gives utterance to one or two remarkable statements regarding the management of Poor Law infirmaries. His words, as I have them before me, taken from the issue of the *Daily Chronicle* of March 23rd, were as follows. He said:

In the management of the Poor Law infirmaries there was one thing missing—that was, a big heart. The whole spirit of the Poor Law was to do as little as possible for people in distress, whereas the spirit of the hospital was "We do all we can for you." That was the difference between the hospital and the Poor Law infirmary.

If the Hon. Sydney Holland has been accurately reported—and I have no reason to believe otherwise—then I venture respectfully to inform him that what he says is a distinct travesty of fact; nay, more, that it is a libel upon institutions which are carrying on work for the alleviation of the sufferings of the poor as good as, if not better than, the hospitals are.

Any one who is conversant with Poor Law work and knows the truth concerning the conduct and management of our London Poor Law infirmaries cannot but conclude that either Mr. Sydney Holland is quite ignorant of the subject on which he professes to speak as one having authority or else he has been sadly misinformed. No one will dispute his right to speak concerning hospitals, but has he had sufficient practical experience of, and is his knowledge of Poor Law infirmaries sufficiently intimate, to warrant his wholesale condemnation of them? I venture, from the tone of his speech, to suggest not.

In the first place, he accuses the Poor Law infirmaries of being lacking in large-heartedness. Does he mean that they are indifferent to the sufferings of their patients? As one who has had experience of general hospital and Poor Law infirmary work, both in the provinces and in London, I can honestly aver that so far as the "milk of human kindness" is concerned the supply of that is as plentiful in the Poor Law infirmary as it is in the hospital. Sometimes I think it is even more so, because the class of patients met with in the infirmary—old people, infirm and helpless, people with incurable diseases, homeless youths, and parentless children, to say nothing of the numerous "cast-offs" from the hospitals, which in themselves constitute a fair proportion of the total cases—is quite different to that met with in the general hospital. Should Mr. Sydney Holland, however, be inclined to disbelieve this, I would invite him to pay a visit to any one of our Poor Law infirmaries, and I am sure his mind will be speedily unburdened of its doubt.

The second and more serious accusation is that the Poor Law infirmary is actuated by the spirit of "do as little as possible," in contradistinction to the hospitals, which are moved with the higher (*sic*) motive "do all that is possible" for those in distress. In other words, the Poor Law infirmaries are accused of shirking their work, and of being disloyal to the charge reposed in them by the public. To his entire statement I give an emphatic denial. If it were true, Mr. Sydney Holland would be able to substantiate it by facts. I challenge him to do so. Quoting again from my own experience, I will assert emphatically that the work done in the London Poor Law infirmaries is as well and as thoroughly done, and with as good results, considering the numbers dealt with and the size of staff available to do it, as it is in any one of the London general hospitals. Doctors and nurses give their best to the work, and that often under very hard and trying conditions, of the nature of which no general hospital staff can have any conception; and what can the staff of any hospital give more than its best?

Let me renew my appeal to Mr. Sydney Holland either to substantiate his allegations against the London Poor Law infirmaries, or if that is not possible, as I hold it is not, to withdraw.—I am, etc.,

J. JOHNSTONE JERVIS, M.B.Edin.

London, N., March 24th.

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## "A GOSPEL OF DIRT."

SIR,—I have read with interest the article in the JOURNAL of March 25th entitled "A Gospel of Dirt," and I cannot help feeling sorry that only the negative part of a lecture full of great constructive ideas has been referred to in the JOURNAL.

I think that any one who heard the lecture would agree with me that the point of it was, not that we must *not* wash, must *not* breathe fresh air, and so forth, but that we must not sit with folded hands complacently believing that we have solved the mystery of disease by the mere opening of windows and the like.

Mankind can only be relieved from the great scourges which afflict it by the work of the scientist, and the scientist cannot live on air alone, pure or impure. Therefore until enough money is given to enable a sufficient number of scientists to devote their time to research work we shall continue to be afflicted with numerous diseases—epidemic or otherwise.

Of the fact that disease can be conquered by science, we of the general public have ample proof. Vaccination for small-pox, the vaccine treatment of typhoid, and the serum treatment of diphtheria must convince the most unbelieving. But, as Pasteur said, "there is so much yet to do." These great discoveries have only been made after years of patient work in the laboratory.

I have no doubt that, had the papers reported Sir Almroth Wright's lecture in full, instead of printing a few mutilated fragments, which they conceived might make amusing reading for the less thoughtful among their readers, money would now be pouring into the research funds of our hospitals.—I am, etc.,

DOROTHY WINKWORTH.

London, W., March 27th.

*** We should be grieved if we thought that we had in any way helped to divert the stream of gold which in our

correspondent's ecstatic vision would now, but for the frivolity of the newspapers, be pouring into the research funds of our hospitals. But we must be allowed to point out that the fault is not ours even if a Chrysostom of the medicine of the future fails to impress "great constructive ideas" on a popular audience when he goes out of his way to scoff at the lowlier facts that lie within their own experience. We must submit to be numbered among the "less thoughtful," all the more cheerfully since we are in such good company as that of Lord Justice Fletcher Moulton, who was in the chair on the occasion when Sir Almroth Wright tickled the ears of the groundlings by his warning as to the dangers of soap and water, and his denunciation of the "dreadful superstition" of fresh air in tuberculosis. As we have not seen any report of his lordship's speech in the papers, it may not be out of place to quote his remarks here:

"Lord Justice Fletcher Moulton, in proposing a vote of thanks to Sir Almroth Wright for his address, referred to the skill with which he had commanded the serious attention of those present while he was attacking all their cherished beliefs. But these beliefs were not to be surrendered without a struggle. They were exhorted not to wash, because the defensive outworks which Nature had cast round the body would be weakened thereby. But was this argument quite conclusive? He believed that one of the first duties of a commander of a beleaguered fortress was to clear away any woods that were within reach so that nothing would be left to shelter the enemy around him; and Sir Almroth Wright would be the last one to deny that perhaps washing would rid them of something which in a similar way might harbour microbes. He felt in his mind that the very extreme views so cleverly expressed by Sir Almroth Wright in his lecture had been put forward perhaps by him in this unqualified way as a means of arresting the attention of his hearers, and in order to impress on them with more force the very valuable result of the work with which his name was associated, and in which such rapid strides had been made of late years. It represented a side of knowledge which had been neglected, and his words would make them all reflect; and, whether they accepted his destructive criticism or not—and Sir Almroth Wright would be the last one to wish them to do so without due consideration—he was satisfied that those present would think over the ideas he had put before them, and he trusted that the National Health Society would realize their value and not fail to give heed to the dangers to which he had referred and their remedy."

In these remarks Lord Justice Fletcher Moulton displays the argumentative subtlety which might be expected from so distinguished a lawyer. But could there be a more pathetic picture of that which the ancients looked upon as a sight for the gods—a good man struggling with adversity?

# Obituary.

## LEONARD STRONG McMANUS, M.D., M.Ch.R.U.I.,

DIRECT REPRESENTATIVE, GENERAL MEDICAL COUNCIL.

On Sunday morning, March 26th, at Mayo House, Spencer Park, at the comparatively early age of 54, there passed quietly away, after a long and trying illness, one of the Direct English Representatives on the General Medical Council—Leonard Strong McManus, M.D.

Dr. McManus was born at Killeadean, co. Mayo, educated in Dublin, and in 1882 took the degrees of M.D., M.Ch. at the Royal University of Ireland. About a quarter of a century ago he settled in Battersea and at once showed himself an indefatigable worker, not only in purely medical, but also in ecclesiastical, political, municipal, and social affairs. In all of these he was always willing to give his services ungrudgingly, to act as chairman of meetings, on committees, or drawing-room meetings at his own house, or in any other way which would forward the interest in hand. He was a Churchman, Conservative in politics, and a Moderate in municipal affairs on the Battersea Borough Council, and it was largely through his untiring work that at the last borough election the Progressives were beaten and the Moderates placed in an overwhelming preponderance.

His municipal work was done chiefly on the Public Health Committee, and it was whilst serving in this capacity that he was mainly instrumental in starting the milk dépôt, and was always to the front in demanding that all work done in this department should be thorough and up to date.

He was an active member of the British Medical Association, and when under the new constitution the Wandsworth Division was formed in 1903, he became a member and served on the Executive Committee in 1904; he was Vice-Chairman in 1905, and Representative in 1905, 1906, and 1907. He also served on various Central Committees—Medico-Political, 1905–6; Parliamentary Subcommittee, 1905–6; Lunacy Law Amendment Subcommittee, 1905; Public Morality Subcommittee, 1905–6; Contract Practice Subcommittee, 1906; Joint Subcommittee of British Dental Association and British Medical Association on Medical and Dental Acts Consolidation Bill; Midwives Subcommittee, 1906; King Edward's Hospital Fund Bill Committee, 1906; Special Finance Inquiry Committee, 1906.

This list would, no doubt, have been much longer had he not been obliged to resign his membership of the British Medical Association on taking his seat on the General Medical Council. His election to the latter body was a proof of the respect and confidence of the medical profession in his ability to represent their interests in a body strictly limited in its activities by statute; there he was eager, in concert with his colleagues, to do all he could for the benefit of his professional brethren. No better proof of this can be given than the fact that he attended the last session in November during his illness, and had to go direct from his bed to the meetings.

In Battersea he carried on a large practice in addition to his other numerous engagements; he was twice elected President of the South-West London Medical Society, his last year of office only expiring in October, 1910. During his last illness he was engaged as arbitrator in a dispute between two medical men, and such was his energy that he had to leave his bed to take part in this matter, and a great part of the business was transacted in his room. There can be no reasonable doubt that in spite of his splendid physique he wore himself out by his excessive labours.

He was a typical Irishman, and, like all his educated fellow countrymen, a charming companion, full of wit and racy and appropriate stories, and awake to the humorous side of things. His appearance denoted great physical strength.

He was a born fighter, and never so pleased as when he had a cause to be won by hard fighting, and yet his opponents, even after a severe castigation, could not bear enmity, owing to his personal charm. The local medical profession has lost a fighting comrade from its ranks, and such members, being always rare, are much missed.

He served for years on the Board of the Bolingbroke Hospital, and in that capacity was always ready to listen to and do his best to remedy any abuse. During the last year of his life he was much interested in the establishment of the Battersea Antituberculosis Dispensary.

His general popularity was attested on Saturday, April 1st, by the large concourse of people of all ranks who attended the funeral; the first part of the service was held at St. Peter's Church, Plough Road, where he used to attend during the earlier years of his residence in Battersea, and his remains was committed to the grave at St. Mary's Cemetery, Battersea Rise. Among those present at the funeral were Mr. John Burns, President of the Local Government Board, Dr. Alfred Cox, Deputy Medical Secretary, attending on behalf of the Council of the British Medical Association, and representatives from the Wandsworth Division of the British Medical Association, the South-West London Medical Society, the Irish Medical Schools' and Graduates' Association, and of the various bodies on which Dr. McManus had served, and all felt that he had worked heartily whilst it was yet day, knowing that the night cometh, when no man can work.

Professor SAUNDBY writes: I was grieved and surprised to see the announcement of the death of Dr. L. McManus, whom I had come to know, respect, and like very sincerely since he was elected a Direct Representative on the General Medical Council nearly five years ago. He was present at the session of the Council in November last and I did not notice any departure from his usual appearance of good health. I cannot speak too highly of him as a member of the Medical Council and as Direct Representative of the profession. To sound judgement he added considerable ability as a speaker, and all that he said and did was marked by a dignity and grace that enforced his arguments and conciliated his opponents; it was, in fact, a happy combination of *suaviter in modo* and *fortiter in re*. His death is a great loss to the Medical Council and to the whole profession, for men of his type are of the utmost value, and we may all hope that when the autumn elections come round a successor may be found to take his place as worthy, as genial, and as able.

## GEORGE WILLIAM POWELL, B.A., M.B., B.CH.DUB.

SENIOR PHYSICIAN, THE CHILDREN'S HOSPITAL, BIRMINGHAM.

WE regret to announce the death of Dr. George William Powell, which occurred, after a brief illness, on March 23rd at his residence at Edgbaston, Birmingham, at the early age of 49. He was the son of Dr. John Allman Powell of Parkmore, Roscrea, co. Tipperary, Ireland, and he came of a family of doctors, for he had two brothers and a nephew in the medical profession. Only the year before last he was married to the eldest danghter of Mr. Henry Parish of Edgbaston, and with this lady great sympathy is felt in her bereavement.

Dr. Powell received his medical education at Trinity College, Dublin, where he took the degrees of B.A., M.B., B.Ch. in 1884. He studied also in Vienna. At the time of his death he was Physician to the Children's Hospital, Birmingham, and had been the Senior Physician for the last six years. His first appointment at this hospital was upwards of twenty-two years ago, when he became Junior Resident Medical Officer, and this post was followed by that of Senior Resident Medical Officer. He was elected Extra-acting Physician in 1891, and full Physician in 1897. His term of office would have come to an end in May of this year, when in the ordinary course of events he would have been elected consulting physician. He was greatly attached to the Children's Hospital; he entered with vigour and keenness into the plans for its rebuilding in Ladywood Road, and made most valuable suggestions for the general arrangement of the wards.

With his medical colleagues Dr. Powell was very popular; he was a good physician, and most conscientious in the performance of his professional duties. He was one of the most charming men it was possible to know, having a most kindly disposition and courteous manner; he had a great number of friends who mourn sincerely his early death.

The funeral took place at Harborne Parish Church on March 28th. The service was conducted by the Ven. the Archdeacon of Birmingham and the Rev. A. Perowne. There was a large gathering present, including his medical colleagues at the Children's Hospital, many of the members of the Board of Management, and numerous medical men and other personal friends.

## SURGEON-GENERAL JEFFERY ALLEN MARSTON, C.B., A.M.S.,

HONORARY SURGEON TO THE KING.

SURGEON-GENERAL JEFFERY ALLEN MARSTON died at his house in London on March 31st at the age of 79. He took the diplomas of M.R.C.S. and L.S.A and the degree of M D. (St. Andrews) in 1854. He became M.R.C.P.Lond. in 1887 and F.R.C.S Eng. in 1888.

He entered the Army Medical Service as Assistant Surgeon November 10th, 1854; became Surgeon June 8th, 1867; Surgeon-Major March 1st, 1873; Brigade Surgeon November 27th, 1879; Deputy Surgeon-General November 18th, 1882; and Surgeon-General May 7th, 1889. He retired on October 16th, 1889. He served for a considerable time in India, and while holding a sanitary appointment there came under the influence of the late Dr. Bryden, who held strong views with regard to the nature and seasonal prevalence of cholera. These Marston adopted, and they led him to entertain considerable doubts as to the waterborne theory of the disease and as to the validity of the bacteriological observations which have within the last twenty years become established.

He was Sanitary Officer during the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir; he was mentioned in dispatches, granted a medal with clasp and the Khedive's bronze star, was promoted to be Deputy Surgeon-General, and awarded the third class of the order of the Osmanieh. In 1887 he became Acting Professor of Military Hygiene at the Army Medical School, Netley. He was afterwards appointed head of the Sanitary Branch of the Medical Department of the War Office, Member of the Army Sanitary Committee, President of the Army Medical Board, Member of the Indian Medical Board, Member of the Commission on Queen's College, Ireland, and Delegate of the British Government to the International Medical Congress at Washington. During the time that he was at the head of the Sanitary Board he took an active part in the medical life of London, often attending and speaking at meetings of the medical societies when epidemiological subjects were under discussion. He was made a C B. in 1887, and Honorary Surgeon to Queen Victoria in 1899, and occupied the same position under her successors.

## LIEUT.-COLONEL J. T. W. LESLIE, C.I.E., I.M.S.

MANY Aberdeen graduates will learn with deep regret of the death, which occurred on March 27th, of Lieutenant-Colonel Leslie, I.M.S., Sanitary Commissioner to the Indian Government. Colonel Leslie had been suffering from functional derangement of the heart, brought on by overwork, and after some weeks spent at Agra he was invalided home. He reached Bombay much exhausted by the long railway journey, and joined the P. and O. steamer *Egypt*. His health improved with the sea voyage, but he relapsed at Port Said, and on reaching Marseilles on March 24th he was taken to a nursing home, where he died.

He was born in Aberdeen in 1861, and spent his early boyhood at the Gymnasium, Old Aberdeen. From school he went, at 16 years of age, to Aberdeen University, where he graduated M.B., C.M. in 1882. Entering the Indian Medical Service, he passed out first from Netley. He was sent to Allahabad and, on the outbreak of the war, to Burma, where he saw active service. After a period of sick leave he was sent to Rangoon, but the climate there did not suit him, and in 1892 he accepted the position of Acting Chemical Examiner to the Government, and Professor of Chemistry in the Medical College in India. As a lecturer he was very successful, and at the close of the session in 1893 he was appointed Secretary to the Director-General of the Indian Medical Service and Sanitary Commissioner with the Government of India, and took up his residence at Simla. As Sanitary Commissioner, Colonel Leslie lived for his work, and did much to stay the plague. For weeks he lived in railway carriages, travelling thousands of miles all over India, accompanied by a couple of clerks, with whom he worked unceasingly. He organized

the Malarial Conference opened by Lord Minto at Simla in 1909. He received the C.I.E. in 1909.

He leaves a widow and two daughters to mourn his loss; to them the sympathy of all old friends and brother officers is heartily extended.

## LIEUT.-COL. SIMPSON POWELL, M.D., R.A.M.C.,

S.M.O. RANGOON.

WE regret to announce that Lieutenant-Colonel Simpson Powell, M.D., R.A.M.C., died of pneumonia at Rangoon, where he was Senior Medical Officer, on March 23rd, aged 53.

Colonel Powell was the eldest son of the late Christopher Bolland Powell, of Southborough, Kent. He was educated at Bury St. Edmunds School, and received his medical education at King's College, London, where he held in succession the appointments of House-Physician and House-Surgeon. He took the diploma of L.S.A.Lond. in 1880, and that of M.R.C.S.Eng. in 1882. He was also a graduate of Durham University, having taken his M.B. degree (with honours) in 1883, and that of M.D. in 1896. Among other distinctions he gained the Parkes Memorial Bronze Medal for Hygiene and the Todd Memorial Medal for Clinical Medicine. He was also elected a Fellow of the Royal Geographical Society in 1904, and of the Linnean Society in 1910.

He entered the Army Medical Service in 1885, and from that year until 1892 he served in India; he then returned to England, and was attached to the Grenadier Guards as Surgeon for five years. In 1897 he again went to India, and served there until 1904. During 1902 he was for a few months in charge of the Boer Camp at Trichinopoly, leaving there for Tientsin, China, to take up the appointment of Senior Medical Officer at that place; this was just after the Boxer rising, when the European troops were occupying the city.

On returning to England he was appointed Officer-in-charge of the Louise Margaret Hospital (the hospital for the wives and children of the soldiers of the Aldershot Command). He held this appointment for three and a half years, and after that was in temporary charge of the Military Isolation Hospital at Aldershot. He was gazetted Lieutenant-Colonel in 1905. In 1908 he again sailed for India and was appointed to Secunderabad, and the following year he was posted to Burma.

He is survived by his widow and four daughters.

DR. LEONARD W. SEDGWICK, who died recently at his residence in Gloucester Terrace, Paddington, at the age of 77, had practised there for over forty years. He received his medical education at St. Thomas's Hospital, and took the diplomas of M.R.C.S. and L.S.A. in 1850, and the degree of M.D. (St. Andrews) in 1859. Dr. Sedgwick was a member of the British Medical Association, and was President of the Metropolitan Counties Branch in 1894. In that capacity he delivered an address on the personal factor in disease, which was published in the BRITISH MEDICAL JOURNAL. He was at one time Vice-President of the Medical Society of London, and was for many years a familiar figure at its meetings and at other medical gatherings in London. He is perhaps best known to the profession as the joint author with Mr. Power of the excellent *Lexicon of Medicine* issued by the New Sydenham Society.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

*Diploma in Ophthalmology.*

THE next examination for the diploma in ophthalmology commences on July 17th, and in anticipation thereof a special course of instruction will commence on May 1st, and continue daily for six weeks. It includes systematic and clinical lectures on ophthalmology, practical pathology, anatomy and physiological optics. For the systematic lectures a special panel of lecturers has been prepared. The clinical lectures will be given by the Reader in Ophthalmology (Mr. R. W. Doyne). A certificate of satisfactory attendance at the course of instruction is one of those which a candidate for the diploma must present, but in certain approved cases candidates of obvious experience may be exempted from attendance except on Wednesdays and Thursdays. The lectures on ophthalmology have been so arranged that those doing clinical work in London can leave by the 1.45 train from Paddington. Parts of the course are open as a form of post-graduate work to those not seeking the diploma. Other information concerning the course and the diploma can be obtained on application to the Assistant Registrar, Clarendon Buildings, Oxford, or, if only of an informal character, from the Reader in Ophthalmology, 30, Cavendish Square, London, W.

## UNIVERSITY OF LONDON.

THE following candidates have been approved at the examinations indicated:

SECOND M.B. (*Part I: Organic and Applied Chemistry*).—D. R. Alexander, B. P. Allinson, A. R. Balmain, F. G. L. Barnes, S. Batchelor, A. L. Blunt, F. H. Bray, C. M. Brophy, J. E. Cheesman, Dorothy Chick, J. E. Clark, Lilian A. Clark, Mabel C. Clark, C. Cooke, E. J. Coombe, P. G. S. Davis, A. D. d'Avray, J. N. Deacon, C. I. de Silva, H. Ellis, H. A. Fawcett, I. Feldman, H. R. Friedlander, E. D. Granger, A. E. Gravelle, H. S. Griffith, E. F. Guy, S. A. Hall, Norah Hamill, A. G. P. Hardwick, C. E. Harrison, Jessie E. Hart, H. W. Hay, S. H. Hodges, H. F. T. Hogben, R. N. Hunter, G. M. Jackson, L. P. Johns, Mary E. Joll, C. O. H. Jones, R. T. Jones, S. W. M. Jones, T. A. Jones, N. E. Kendall, W. M. Lansdale, R. H. Leigh, *A. S. Liebson, G. C. Linder, O. C. Link, E. R. Lovell, Helen M. M. Mackay, S. S. Malkani, P. S. Marshall, A. Menzies, V. M. Métivier, S. Miller, D. G. F. Moore, J. B. Mudge, Violet Newmarch, O. Parry-Jones, Margaret R. Paterson, A. H. Pemberton, *A. C. Perry, L. D. Phillips, Emma C. Pillman, L. E. Pimm, Mary C. Poonen, C. L. G. Powell, A. L. Punch, K. N. Purkis, J. S Ranson, T. W. Robbins, Violet I. Russell, P. Sai, B. Sampson, S. K. Sanyal, Hilda M. Scarborough, P. R. J. Schmidt, Edith A. Shaw, B. B. Silcock, A. G. Simmins, J. F. H. Stallman, Elsie Stansfeld, J. G. Stevens, F. R. Sturridge, T. C. Summers, E. B. Sunderland, *W. E. Tanner, D. G. C. Tasker, J. O. Thomas, G. M. Vevers, Katharine A. Waring, C. M. Williams, L. H. W. Williams, M. S. Woolf, J. M. Wyatt.

*Awarded a mark of distinction.

SECOND M.B., PART II (*Anatomy, Physiology, and Pharmacology*).—F. D. Annesley, J. Appleyard, B. W. Armstrong, Elizabeth L. Ashby, E. Bach, W. C. P. Barrett, J. R. Barrow-Clough, F. V. Bevan-Brown, A. C, L. O'S. Bilderbeck, Marjorie A. Blandy, J. Bostock, A. E. Bullock, P. Butler, G. M. Campbell, R. J. Clausen, T. P. Cole, Dora C. Colebrook, D. M. Connan, M. B. Cooper, J. A. Cowan, W L. G. Davies, F. H. Dodd, H W. Evans, J. T. E. Evans, W. S. Evans, H. J. O. Ewing, H. Gould, Olive G. M. Gray, C. F. Hacker, A. C. Hancock, Mary E. Harding, C. C. Harrison, J. Higgins, E. S. W. Hirsch, A. H. Hudson, G. B. Jameson, Mildred A. Jukes, M. M. Khan, R. M. Kharegat, W. J. T. Kimber, W. E. Kingdon, E. A. C. Langton, W. Leslie, W. H. Lister, R. J. McN. Love, Helena R. Lowenfeld, *†Edith M. Martland, ‡W. E. Milligan, P. J. Montgomery, L. Page, S. G. Papadopoulos, T. B. Paul, A. F. Potter, R. A. Preston, J. L. Priston, A. L. H. Rackham, A. E. Roberts, T. E. Roberts, H. E. Robinson, E. D. Scott, R. Silcock, ‡J. S. Sloper, Margaret E. E. Smith, T. R. Snelling, E. S. Sowerby, W. C. Spackman, C. W. Sparks, J. E. Stacey, Grace Stapleton, E. J. Storer, C. K. Sylvester, H. Thomas, E. W. Wade, G. A. Walker, F. C. Watson, W. L. Webb, E. W. Whiting, F. E. S. Willis, D. H. D. Wooderson, Mary Woods.

*Distinguished in Anatomy. †Distinguished in Physiology. ‡Distinguished in Pharmacology.

## UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

THIRD M.B. (*All Subjects*).—*J. S. Arkle, E. Babst, Theonie R. Burrell, *H. G. Dodd, L. E. S. Gellé, W. J. Hickey, F. S. Rood, S. Scott.

* Second-class honours.

### DEGREES.

At a Convocation on Saturday, April 1st, the following were among the degrees conferred:

M.D.—G. Denholm, Helen M. Gurney, T. C. Hunter, A. C. H. McCullagh.

M.D. (*for Practitioners of Fifteen Years' Standing*).—P. Barragry, G. Bryce, J. J. Fitzgerald, L. G. Hill, J. S. Mackintosh, J. Robinson.

M.B.—W. G. Bendle, R. Errington, F. P. Evers, H. T. Hunter, E. P. Martin, T. A. Peel, J. A. Sacco, Matilda A. Sinclair, A. T. Thompson, Olivia N. Walker, T. R. West.

B.S.—W. G. Bendle, R. Errington, F. P. Evers, H. T. Hunter, T. A. Peel, Matilda A. Sinclair, Olivia N. Walker.

B.HY.—T. L. Bunting, M.D.Edin., Ruth Nicholson, M.B., B.S.Durh.

## UNIVERSITY OF EDINBURGH.

*Degrees.*

THE following were among the degrees conferred at a meeting of the Senate on March 31st:

M.B., CH.B.—A. G. Brown, M.A., C. M. Ganapathy, S. Hodkinson, G. Macdonald, M.A., J. P. M'Gregor, R. C. Malhotra, C. K. Pole, A. Simpson, T. Singh, and J. Watson.

D.Sc.—A. C. MacGilchrist, M.D., Captain, I.M.S.

The following candidates have been approved in the subjects indicated:

FIRST M.B., CH.B.—*Botany:* T. Bahadur, Isabel Mitchell, B.Sc., H. P. Rudolf. *Physics:* F. A. Anderson, J. M. Anderson, J. S. Armstrong, T. Bahadur, F. W. W. Baillie, Dorothea I. Baird, T. Y. Barkley, G. E. Besson, I. Block, I. Borrah, R. B. Boston, J. Brown, J. G. L. Brown, F. J. Cahir, A. F. Campbell, A. G. Carmichael, A. Chapelle, J. E. Chow, W. M. Christie, A. G. Clark, T. L. Clark, I. A. Clarke, W. A. Cochrane, C. H. H. Coetzee, R. C. Crawfurd, M. W. Danzig, H. J. Davidson, J. Dick, D. Dunlop, R. B. Eadie, H. F. Ferguson, G. W. M. Findlay, F. J.-N. Fook, E. Fullerton, E. L. Galgut, Helen M. Gall, A. B. Grant, R. G. Haggarty, F. M. Halley, J. A. Henderson, J. Hepburn, H. A. Hewat, Helen G. Hewat, R. M. Hume, A. I. Humphreys, J. E. Hurwurth, O. D. Jarvis, F. J. C. Johnstone, C. W. S. D. Jones, A. Kennedy, S. A. Kuny, Jean E. Larche, N. B. Laughton, A. R. Laurie, R. Lawson, A. J. E. G. Lim, H. H. I. G. Lim, J. G.

Louden, J. E. M'Cartney, Helen M'Dougall, I. M'Dowall, R. J. S. M'Dowall, W. M. Mackay, M. M'Kerrow, J. H. Mackie, R. M'Kinlay, J. W. Malcolm, D. Malloch, W. Marwick, M. F. Meiring, C. E. Mervon, R. W. H. Miller, Isabella Morison, T. C. St. C. Morton, J. S. Munro, W. T. Patterson, R. N. Phease, W. B. Postlethwaite, J. W. Potter, O. D. Price, W. J. Purdy, J. S. Rankin, C. B. B. Reid, N. L. Reis, J. W. G. H. Riddel, J. W. Riddoch, J. Rodger, W. Shanks, A. H. Shennan, J. M. Smith, J. M. Stalker, M. Stewart, S. H. Stewart, T. M. J. Steuart, C. W. Stump, J. Suares. L. G. Thomas, G. Torrance, A. E. P. Vanier, B P. Varma, J. Walker, J. S. Webster, M E. Willcock, J. M. Wishart, H. D. Wright, Margaret K J. Wright, C. J. Young. *Chemistry:* F. A. Anderson, J. M. Anderson, J. S. Armstrong, T. Bahadur, F. W. W. Baillie, M. Barseghian (Basil), G E. Besson, I. Block, I. Borrah, J. Brown, H. J. Bruwer, F. J. Cahir, A. F. Campbell, A. G. Carmichael, J. E. Chow, A. G. Clark, T. L. Clark, I. A. Clarke, W. A. Cochrane, C. H. H. Coetzee, M. W. Danzig, H. J. Davidson, J. Dick, D. Dunlop, H. F. Ferguson, G. W. M. Findlay, F. J. N. Fook, E. Fullerton, E. L Galgut, Helen M Gall, R. G. Haggarty, J. A. Henderson, J. Hepburn, H. A. Hewat, R. M. Hume, J. E. Hurworth, E. B. Israel, M. K. Jardine, O. D. Jarvis, C. W. S D. Jones, A. Kennedy, S. A Kuny, Jean E. Larche, N. B. Laughton, R. Lawson, A. J. E. G. Lim, H. H. I. G. Lim, P. M. Little, T. J. Lloyd, J. G. Louden, J. E. M'Cartney, Helen M'Dougall, I. M'Dowall, R. J. S. M'Dowall, G. C. M'Ewan, A. L. M'Ilwaine, W. M. Mackay, M. M'Kerrow, J M'Leman, I. R. Macphail, D. Malloch, A. P. Meiring, M. F. Meiring, R. W. H. Miller, J. S. Munro, R. F. T. Newbery, R. N. Phease, W. B. Postlethwaite, J. W. Potter, W. J. Purdy, J. W. G. H Riddel, J. W. Riddoch, I. Rostowsky, A. J. D. Rowan, A. H. Shaikh, B.A., W. Shanks, A. H. Shennan, J. M. Smith, S. H. Stewart, T. M. J. Stewart, C. W. Stump, J. Suares, A. J. Taylor, G. Torrance, A. E. P. Vanier, J. Walker, J. W. Watthews, J. S Webster, J S. Westwater, M. E. Willcock, W. Williams, J. M. Wishart, H. D. Wright, C. J. Young.

SECOND M.B., CH.B.—*Physiology:* C. W. Aikman, H. S. A. Alexander, R. H. Alexander, W. W. Anderson, C. Atkinson, J. H. Baird, R. G. Bannerman, M.A., R. Mary Barclay, J. W. Bennett, J. Biggam, H. E. Collier, W. M. Dickson, T. Doe, G. D. Fairley, M.A , H. R. Friedrichs, R. E. Gibson, G. F. P. Heathcote, Gertrude Hersfeld, J. Hogarth, S. Huddlestone, C. P. M. Joubert, H. B. Kirk, C. G Lambie, P. T. T. Macdonald, M.A., R. M. Mackay, J. J. R. Mackenzie, E. Mansfield, G. Millar, E. M. Molesworth, G. T. Mowatt, G. S. Pirie, R. C. Rogers, M.A., B. Shires, H. J. Simson, A. F. Sinclair, H. C. Sinderson. J. Sircar, B.Sc., F. M. Stewart, F. E. Tillyard, F. G. Wright. *Anatomy:* E. W. Adcock, S. Arnott, Mary A. H. Baird, E. G. von B. Bergh, J. V. Buchanan, A. Cameron, W. S. H. Campbell, J. W. Cannon, K. D. Falconer, T. C. Findlater, A. C. Giles, D. Gilmour, D. A. R. Haddon, Julia V. Henslow, J. H. Hood, J. H. G. Hunter, R. W. R. Jones, J. L. C. Lagois, J. Lawson, J. I. Lawson, J. Loftus, J. M'Caig, Margaret N. MacCallum, W. Mackenzie, Celia M. C. MacNeil, G. M'Neill D. M'Vicker, Jean G. Marie, S. L. Mitra, S. R. Moll, R. M. Muir, W. H. Pallett, D. Pottinger, C. D Rogers, C. Sand, J. Sircar, B.Sc., S. W. H. Stuart, G T. Vijver, J. H. D. Watson, W. G. Weston, E. L. White, A. Wotherspoon, G. D. Yates.

THIRD M.B., CH B.—*Pathology:* H. F. W. Adams, P. Baillie, S. K. Basu, J. H. Boag, W. A. Bowie, W. N. G. Boxer, G. M. Brown, W. E. Bullock, B.Sc., P. W Carruthers, S C. Chatterjee, A. F. Cowan, P. K. Dey, D. A. Donald, J. M. Donnan, A. K. Forbes, W. R. Gardner, J. Geoghegan, A. S. Glynn, C. Gordon, A. C. V. Green, J. W. C Gunn, M.A., J. F. C. Haslam, R. C. Irvine, T. W. Jackson, F. N. Johns. K. L. Kapur, L. Levy, W. S. Lindsay, B.A., G. J. Linklater, R. L. Lloyd, M. R Macaulay, A. M. MacKay, M. R. MacKay, E. F. W. Mackenzie, F. de S. M'Menamin, H. Mahmud, A. Mearns, A. J. A. Menzies, M.A., R. W. Miller, A H. Murch, B. P. B. Naidu, S. O'Flynn, E. E. S. P. Pattison, C. R. Patton, H. F. Penman, C. Scales, D. M. Smith, J. W. Steel, R Thorp, M. A. Wajid, Mary B. Walker, G. Wilson, P. C. V. Woudberg, A. Wright, Mg Ba Yin. *Old Regulations:* C. M. Austin, E. O Beckley, J. P. Blockley, J. R. Bulman, G. Harrison, T. M Fetridge, F. G Power, T. W. Smart. *Materia Medica:* R. P. Anderson, F. C. K. Austin, P. Baillie, W. Barclay, J. C. Booth, R. M. Brown, M.A., W. T. Brown, W. K. Chalmers, T. W. Clarke, A. Cowe, Lucy D. Cripps, A. M. Davidson, P. K. Dey, Janet S. Doak, D. A. Donald, G. K. Edwards, F. G. Foster, J. Gifford, B.A., A. C. V. Green, Agnes R. H. Greig, Muriel H. Kerr, C. Larsen, G. J. Linklater, J. S. Lloyd. J. S. M'Laren, J. T. H. Madill, D. Martin, G. E. Martin, M.A., J. Maxwell, S. C. Mitra, A. J. M. C. Morrison, K P. Pannikkar, E. Percival, W. W. Phillips, A. N. Pollock. E. D. Pullon. B Sc . A. Rahman, G. Rankine, D. S. Robertson, M A., W. J. Robertson, L. R. Sharples, H. K. Shaw, Ruby Thomson, C. V. Thornton, W. StC. Thwaites, H. L. Tikku, B.A., P. G. Tuohy, G. Walker, J. Walker, Janet P. Walton, D. G. Watson, M.A., B. Weinbren, W. G. Wylie, Mg Ba Yin.

FINAL.—*Midwifery:* W. J. Adie, J. R. Aeria, R. Aitken, J. E. Allan, W. H. Armistead, A. A. Atkinson, W. R. Bayne, P. W. P. Bedford, H. Bedingfield, D. Bell, A. J. Bennee, A. G. Biggam. C. M. Birnie, H. F. Blacklee, R. B. Blair, A. Bloom, N. H. Bolton, J. R. Boyd, N. H. Bronnum, D. L. Brown, W. Bruce, H. M. Buchanan, C. Burnham, F. D. Cairns, W. Campbell, E. R. Carlos, M.A., B.Sc., R. C. Carlyle, A. B. Cheves, Anna Chose, G. J. Cillie, Lilian Cook, A. N. Craig, F. W. Craig, D. H. D. Cran, B. A. Crow. R. Dow, J. M. Drew, B.A., G. M. Elliott, H. H. C. Fuller, P. K. Ghosh, K. A. Gilchrist, J. M. Gillespie, R. G. Gordon, B.Sc., C. W. Graham, J. V. L. Grant. J. Gray, J. W. Gray, M.A., H. F. G. Hall, T. Hayhurst, A. M. V. Hesterlow, J. G. Hill, S. Hodgson, H. F. Holmden, H. J. Hopps, J. L. Huggan, A. Jassinowsky, W. H. Johnston, B.A., N. J. Judah, B. B. Kapila, Cicely M. Kerby, H. W. Kerrigan, H. A. Khin, A. L. Krogh, A. Langwill, D. C. Lee, G. L. Leggat, A. S. Loutit, B.A., A. H. Louw, F. R. Luke, Eva M. Lyon, G. M'Connell, I. C. Macfarlane, J. W. M'Kinney, W. S. M'Laren, P. M'Nab, J. G. MacQueen, C. D. Maitland, B.Sc., L. B. C. Marksman, C. de C. Martin, J. S. S Martin, W. C. B. Meyer, B A., A. B. Mitchell, A E. Moore, J. T. Morrison, R. V. Morrison, T. P. Noble, M. J. Paris, R. Park, H. G. Parker, B. Prasad, H. H. Proudfoot, Mary D. Rankine, S. D. Reid, G. Richardson, H. A. von Ronn, M. Rougvie, L. Sammy, J. Scott, E. St. J. Seelly, R. G. Shaw, S. F. Silberbauer, W. D. D. Small, B. M'C. Smith, S. S. Sokhey, B.Sc,, B. H. H. Spence, R. S. Stevenson, H. H. Stewart, R. M. Stewart, S. D. Stewart, W. Stewart, J. H. Tennent, C. M. R. Thatcher, G. ap Thomas, A. H. Towers, A. L. Urquhart, J. van O. de Villiers, C. D. Walker, C. C. Wang, D. Watson, F. H. C. Watson, H. W. Webb, H. E. Y. White, J. B. Wilkie, D. M. Wilson, W. Q. Wood.

## QUEEN'S UNIVERSITY OF BELFAST.

THE following candidates have been approved in the subjects indicated:

FIRST M.B. (*Chemistry*).—W. L. Agnew, J. B. Alexander, R. G. B. Calvert, P. Clarke, D. Corry, J. Cullenan, C. F. Davey, T. W. E. Elliott, Lizzie Finnegan, Mary A. Gallagher, A. Gaston, Mary E. Henry, S. J. Hutchinson, P. Kane, R. G. M'Elney, J. W. M'Kee, T. B. M'Kee, J. C. M'Millan, Sylvia Marsh, J. F. Meenan, A. J. Millar, T. Milling, J. B. Minford, F. P. Montgomery, W. N. Montgomery, H. Moore, J. J. Murray, A. Porter, W. Russell, J. P. Smyth, A. C. Taggart, W. A. Thompson, Elizabeth S. Walker, R. F. Walker, D. K. Watterson, N. W. F. Whesler, T. K. Wheeler. *Physics.*—W. L. Agnew, J. B. Alexander, R. G. B. Calvert, P. Clarke, D. Corry, C. F. Davey, J. Dunlop, Lizzie Finnegan, Mary A. Gallagher, A. Gaston, W. J. Harvey, S. J. Hutchinson, P. Kane, J. J. Kerr, R. G. M'Elney, J. C. M'Millan, J. F. Meenan, T. Milling, F. P. Montgomery, A. Porter, J. P. Smyth, W. A. Thompson, L. Tweedie, T. K. Wheeler. *Zoology.*—L. Jefferson, J. J. Kerr, A. J. Millar, J. N. Smith, J. J. Walker, J. G. Wilson, F. N. Woods, R. Woodside. *Botany.*—C. F. Davey, S. J. W. Donald, G. Gordon, C. C. Humphries, L. Jefferson, J. J. Kerr, J. R. M. Mackenzie, R. J. Maguire, W. Russell, F. R. Sinclair, J. N. Smith, R. F. Walker.

SECOND M.B. (*Anatomy and Physiology*).—*N. Beattie, †E. C. Emerson, W. Gault, H. P. Hall, H. M. Jackson, W. S. Lynd, W. M'K. H. M Cullagh, V. Magee, V. C. Montgomery. *Anatomy only.*—T. M. Adamson, F. L. Cleland, S. M'Comb, E. U. M William, S. E. Picken, H. R. Sinclair. *Physiology only.*—E. W. Mann, A. G Mitchell, R. S. Ross, Martha J. M. Stewart.

THIRD M.B. (*Pathology, Medical Jurisprudence, and Hygiene*).—W. F. Algeo, †J. H. Beverland, Sarah E. Calwell, F. Carson, S. H. Davison, *S. R. Foster. C. L. Gaussen, J. M'I. Gibson, *N. B. Graham, *N. C. Graham, J. V. Holmes, J. T. Kyle, H. H. C. Lynch, J. Lyons, J. M'Fadden, M. M'Ging, E. M'Sorley, I. W. M'Gill, *R. Marshall, H. H. Mulholland, W. Tyrrell, W. M'N. Walker. *Medical Jurisprudence and Hygiene only.*—S. Acheson, W. W. Allison, H. A. Skillen. *Materia Medica, Medical Jurisprudence, and Hygiene.*—J. Porter. *Pathology and Medical Jurisprudence only.*—A. E. H. Reid. *Pathology and Materia Medica.*—L. D. I. Graham, H. V. Walsh. J. R. White. *Medical Jurisprudence only.*—J. Hill, E. Morison. *Pathology only.*—J. Patrick, W. Wilson, S. I. Turkington. *Materia Medica and Physiology under Old Regulations.*—E. W. Mann.

FINAL.—S. Campbell, P. J. Gaffikin, G. S. Glass, W. S. Haydock, R. J. M'Feeters, J. P. J. M'Givern, U. J. G. Mulligan, ‡W. Paul, A. H. Rentoul.

D.P.H. (*Both Parts*).—G. F. Campbell, J. E. Clements, J. Dodd, J. M'Gill.

* With honours. † With honours and recommended for a prize.
‡ With second-class honours.

## UNIVERSITY OF SHEFFIELD.

THE Council has made the following appointments:

Mr. R. J. Pye-Smith, Ch.M.Shef., F.R.C.S., to be Emeritus Professor of Surgery.

Mr. Arthur M. Connell, F.R.C.S.Edin., to the Lectureship in Surgery, which was rendered vacant through Dr. Sinclair White's appointment to the Professorship of Surgery.

Mr. J. D. Fiddes, M.A., B Sc., M.B., Ch.B.Aberd., to the Demonstratorship in Anatomy, in succession to Mr. Alexander Wilson, resigned.

Professor Beattie has been appointed representative of the university at the celebration of the five hundredth anniversary of the foundation of the University of St. Andrews, to be held from September 12th to 15th next.

## UNIVERSITY OF TORONTO.

*President's Report.*

FROM the report of the President of the University of Toronto for the academic year ending last June it would appear that, despite the fact that a higher matriculation standard has been applied and the length of the curriculum for some of the degrees increased, the number of undergraduates is growing rapidly and steadily. In the year under consideration the total was 4,044. The university has six faculties, which, placed in the order of the relative number of students, are as follows: Arts (2,314 students); Applied Science (730); Medicine (641): Education (237); Household Science (85); Forestry (40). The degrees granted numbered 704, and included, besides those specifically indicated by the names of the faculties, degrees in music, law, veterinary science, and pharmacy. It is stated that for some professions more students are being educated than can find employment in the province of Ontario itself, but that there is plenty of room for them in other parts of Canada. In the faculties of medicine and of forestry there are combined courses which lead to degrees in arts as well as to those of the faculty primarily concerned. In the Medical Faculty this combined course takes seven years, and is known as the physiological and bio-chemical sciences course; the B.A. being obtained in four years, and the M.B. in three more years. A corresponding course in the Faculty of Forestry takes six years.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

*Prize Awards.*

THE following are the winners of the first and second prizes awarded for the work of the winter session:—*Systematic Anatomy:* W. H. Carden, and L. S. O'Grady and R. P. Weldon (bracketed equal). *Practical Anatomy* (first year): A. F. Carbury and P. J. Polson. *Practical Anatomy* (second year): M. Shipsey and W. Morrow. *Practice of Medicine:* M. J. Hillery and V. J. White. *Surgery:* M. J. Hillery and V. J. White. *Midwifery:* M. J. Hillery and V. J. White. *Physiology:*

W. H. Carden and R. P. Weldon. *Chemistry:* L. M. Rowlette and P. J. Polson. *Pathology:* G. N. Smyth and G. E. Pepper. *Physics:* J. W. E. Graham and J. C. Fergusson.

In each subject the first prize was a medal and £2 in money, and the second a certificate and £1 in money.

Work for the summer session commenced on April 3rd.

# Medico-Legal.

## CERTIFICATE OF MEDICAL OFFICER TO A FRIENDLY SOCIETY.

A CASE of some interest to the medical profession has been decided by Sheriff Gardner Miller, Glasgow, in which a man named Rowan sued Dr. Dunning, Glasgow, for £275 damages for granting a certificate excluding him from benefits given by a society of which the pursuer was a member. The Sheriff Substitute found in favour of the doctor, and the pursuer appealed against this judgement, which, however the Sheriff Principal has now confirmed.

In his "note," the Sheriff said pursuer was a member of the Glasgow and West of Scotland District Branch of the Irish National Foresters, and defender was the surgeon employed by that society to examine the cases of injured members with a view of certifying their condition to the society. There was no privity of contract between pursuer and defender, as pursuer's contract was with the society, under which he was entitled to certain benefits. Defender was not employed by pursuer, but by the society, to which he acted as an independent adviser with regard to the cases brought before them. Accordingly, the present action could not be on the ground of breach of contract, and the only ground was that of a delict committed by defender on pursuer. The Sheriff had some doubt whether pursuer had stated a relevant case upon that ground. The delict was said to be that defender gave a certificate with regard to pursuer which he knew to be false, or otherwise that he culpably and recklessly granted this certificate. Pursuer's remedy, if he were deprived of the benefits of the society, seemed to him to be against the society itself for breach of their engagement. He seemed to have taken full advantage of his recourse against the society in the method open to him, because he said he appealed from the decision of his section of the Branch Arbitration Committee and afterwards to the District Arbitration Committee of the society when the decision went finally against him, and now he sought to make defender liable in respect of his certificate. Assuming that the action was relevant, the Sheriff was clearly of opinion that pursuer had failed to prove that defender's certificate of September 14th, 1909, was false, or that defender had any reason to believe that it was false, or that the certificate was either culpably or recklessly granted. Defender had stated in the witness-box that he believed the certificate to be true, and that evidence was supported by the evidence of Sir George Beatson, Dr. Alexander Moffat, and Dr. George Henry Edington, who stated that, from the examination of pursuer's arm which they made shortly before the proof, he had quite recovered from the accident then, and that, from what they saw, they thought it was highly probable that he had recovered at the date when that certificate was granted. Drs. Maylard and Young had stated that they did not think pursuer had recovered; but, while they differed from the defender upon the medical question, they did not say that the certificate must in their opinion have been false within his knowledge, nor that a person who granted such a certificate must have acted culpably and recklessly, found their evidence therefore fall short of what was necessary to sustain pursuer's case. In the Sheriff's judgement there was no proof whatever of lack of professional honour or skill on the part of defender.

# The Services.

## REGIMENTAL MEDICAL EXERCISE.

THE Lowland Mounted Brigade Field Ambulance carried out a most interesting and instructive medical exercise in Ayrshire on March 19th, under the direction of Lieutenant-Colonel Gordon Hall, R.A.M.C., and Major W. D. Erskine, R.A.M.C., Staff Officer to the A.M.O. Lowland Division. All the officers of the unit took part, and also Major Shaw and Captain James A. Aitken of the 2nd Lowland Field Ambulance, and Captain Fraser, R.A.M.C., Adjutant of the School of Instruction. The preliminary work entailed the study of a scheme of a hostile landing at Stranraer, the work of the cavalry from Maybole towards the various crossings of the River Ayr, and the possible developments as they affected the work of medical officers and units. Two tasks were set each officer for a meeting on March 18th, when the results were discussed. Thereafter the company proceeded to Ayrshire, and studied the problems on the ground, covering the distance from Girvan to Maybole, Coylton and Ayr by motor car. Meals were served at Turnberry and Ayr, and lectures delivered by Colonel Gordon Hall and Lieutenant-Colonel Halliday, commanding the unit. Fresh tasks were also set and discussed. This was the first tour undertaken by the unit, but arrangements are being completed for further interesting work during the season.

# Medical News.

THE annual meeting of the Society for the Study of Inebriety will be held in the Rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, April 11th, at 4 p.m. A short address will be delivered by the President, after which a discussion on "Alcohol and Insanity" will be opened by Dr. F. W. Mott, F.R.S.

BEFORE finally choosing the London memorial to King Edward VII, the Mansion House Committee is to consider a proposal urged by the National League for Physical Education and Improvement. It holds that the best memorial to him who said, "If preventable, why not prevented?" would be a centre for all popular health crusades created by building in Kingsway a permanent exhibition or museum of hygiene with connected lecture rooms. Copies of a pamphlet detailing the scheme can be obtained from the Secretary of the League, 4, Tavistock Square, London.

THE council of the Nightingale Fund has presented to Mr. Lunn (late Medical Superintendent of the St. Marylebone Infirmary, W.) a picture, entitled, "Flooding," by Reginald Jones. It bears the following inscription: "Presented to Mr. John R. Lunn, F.R.C.S., in recognition of the valuable services rendered by him to the training school of nurses at the St. Marylebone Infirmary, at the time of its establishment by the guardians of St. Marylebone with the co-operation of the late Miss Florence Nightingale until his retirement, July 9th, 1910, and in remembrance of the interest she took in it, and the sympathy she showed in its success."

THE St. John Ambulance Brigade has placed the whole of its metropolitan corps at the disposal of the police authorities during the Coronation festivities for day and night duty, and has undertaken to bring up from the various provincial corps as many more members as may be deemed necessary. The metropolitan corps numbers 2,000, the provincial corps bringing up the total strength available to over 20,000. During the funeral procession last year the brigade had upon duty 1,400 men, and attended between 6,000 and 7,000 cases of injury and illness

A NURSING conference has been in progress during the current week at the London County Council Technical Institute in St. Vincent Square, the proceedings commencing on Tuesday and concluding on Friday. On Tuesday massage was discussed in the afternoon, under the chairmanship of Dr. May Thorne, and in the evening midwifery, under the chairmanship of Dr. Elizabeth Macrory. On Wednesday the subject was mental nursing, the speakers including Sir James Crichton-Browne, Dr. Robert Jones, and Sir William Collins. The rest of the programme included a discussion on district nursing and midwifery, under the chairmanship of Sir Francis Champneys, on Thursday; and on Friday a discussion on race degeneration and eugenics, introduced by Dr. Murray Leslie, with Dr. G. E. Shuttleworth in the chair.

MRS. S. A. BARNETT has reprinted in a small pamphlet the paper which she read at the Church Congress last autumn on the State treatment of widows who have children dependent on their personal exertions. Mrs. Barnett contends that the money spent by boards of guardians in assisting such women is for the most part at present wasted, either because it is inadequate in amount or because the mothers are too ignorant, too careless, or too busy to spend it properly. Mrs. Barnett, as the outcome of the experience of thirty-three years' work in Whitechapel, would have these cases treated in one of several ways. Briefly summarized, these are as follows: (*a*) If the mother has the same sort of qualities as those habitually sought for in the foster parents of boarded-out children, the State should board out with her her own children, subjecting her to the supervision of an ordinary boarding-out committee; (*b*) less competent mothers she would group in cottages under supervision, employing them for part of the day at one of the official institutions for the infirm or imbeciles scattered all over the country; (*c*) widows too ignorant to be effective mothers she would educate to rear their own children at the expense of the State; (*d*) to women already suitably employed, but too busy to attend to their household duties, she would afford relief on condition that they so arranged their work as to allow them to attend to their household duties or to secure proper assistance. From other widows requiring assistance she would remove their children altogether, sending them for choice to the colonies, in order that when of wage-earning age they may not be ruined by a bad parent.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

M.D. desires information regarding the climate of Barbados from the point of view of English residents there.

L. asks what dose of tuberculin is recommended for an early case of phthisis with tubercle bacilli, and how often should it be used.

HAEMORRHAGE desires to hear of a book on the treatment of emergencies suitable to be placed in the hands of a nurse or matron of a small sanatorium.

J. F. asks for advice in the treatment of a girl, aged 16, who has developed a thick, fluffy growth of hair on the face and neck. Electrolysis has been tried, but is too tedious.

Q., who has conducted treatment according to the recommendations of the textbooks for some time, asks for advice in the management of a case of writer's cramp which tends to grow worse.

PIGMENT desires information (or reference to where it may be obtained) regarding the constitution of human hair pigment, and the best means of removing the pigment in a black patch of hair.

J. J. asks for advice in a case of nocturnal incontinence of urine in a boy of 12 years. The urine seems normal. The following have been tried, but without relief: Belladonna, circumcision, passing of sounds, and training the stopping mechanism.

### CANE SUGAR AND HEART DISEASE.

DR. F. W. JOLLYE (Alresford, Hants), after expressing his interest in the paper by Dr. Goulston on the beneficial effect of the ingestion of cane sugar in certain forms of heart disease, published in the JOURNAL of March 18th, p. 615, writes: I should like to ask Dr. Goulston what alterations he made in the previous diet after the addition of sugar. Many cases of heart disease are much benefited by the restriction of the diet or even the total withdrawal of all food administered by the mouth and feeding by the rectum substituted. This method of feeding lessens the flatulent distension of the stomach and allows its walls to contract, and considerably lessens the embarrassment of the heart's action. It is recommended by physiologists that the addition of fats or carbohydrates should be resorted to if an additional source of energy is required, and which in cases depends upon the digestion of the patients, but that sugar is preferable when a rapid output of energy is required.

## ANSWERS.

DUBIOUS, who asks as to the scheme for improvement of the Royal Navy Medical Service, is advised to "wait and see."

### ASTIGMATISM AND INTOLERANCE OF MYDRIATICS.

DR. JOSEPH JONES (Leigh, Lancashire) writes: "Exile" does not say whether his patient tolerates cocaine. If she does, he might dilate the pupil by its aid, which will give him a brighter reflex in the performance of retinoscopy, and enable him to arrive at some result, even though the accommodation be not paralysed.

### TREATMENT OF PROSTATIC URETHRITIS.

MR. JAMES MACMUNN (Finsbury Pavement) writes: In answer to "Inquirer," I used saturated solution of tannic acid a few times in the past in the treatment of prostatic urethritis. On one occasion epididymitis and vesiculitis were caused, but I have not met the other complications mentioned. I consider tannic acid peculiarly irritating to the deep urethra, and look upon the complications which often arise as being due to this fact, and not to the blockage of ducts, which blockage after all would be very temporary. Glycerine of tannin and tannic acid in rectified spirits I often used with benefit through a long endoscopic tube in atonic as distinguished from inflammatory states. Tannic acid should never be injected, and all irritating prostatic applications should be preceded by a sedative rectal injection of such things as antipyrin, morphine, cocaine, etc., best in combination. I may add that some of my patients suffering from subacute posterior urethritis have volunteered the statement that watercress did them more marked good than anything else. The point is interesting considering the chemistry.

## LETTERS, NOTES, ETC.

### "BACILLUS COLI" IN URINE.

DR. W. H. SPURGIN (Newcastle-on-Tyne) writes that in a case of herniotomy which developed *B. coli* in the urine rapid improvement followed the use of helmitol in conjunction with a saline mixture containing cascara.

*** Helmitol is stated to be the anhydro-methylene citrate of hexamethylenetetramine; the trade name of hexamethylenetetramine is urotropine.

### COUNTRY HOMES FOR TUBERCULOUS JOINT DISEASE.

MISS M. E. BROADBENT (London) writes: My attention has been called to a statement with regard to almoners in the report which you kindly gave of the conference convened by the Invalid Children's Aid Association (BRITISH MEDICAL JOURNAL, March 25th, p. 717), and I shall be grateful if you will allow me to correct it. Speaking unexpectedly and without preparation, I may inadvertently have given rise to a false impression, but I desire to say that the workers of the Invalid Children's Aid Association have always found the help of the almoners of the London hospitals of the greatest possible value. The almoners constantly refer children to us, quoting the opinion and wishes of the member of the staff under whom the children are, and they act as a link between the hospitals and the outside agencies, which are ready to co-operate in obtaining the treatment required.

### CONTINUOUS ANTISEPTIC INHALATION IN PULMONARY TUBERCULOSIS.

DR. C. MUTHU (Hillgrove, Wells) writes: I am sorry that in the JOURNAL of March 18th, p. 656, Dr. Pereira alleges haemoptysis as a result of continuous inhalation in a case of pulmonary tuberculosis. I have used continuous inhalation in more than 300 cases, and have not found any ill effect even in a single case. Of course a little caution and discrimination is necessary in regulating the dose, in selecting the patients, etc. For instance, it is not wise to saturate the inhaler with an inhalant containing some irritant drugs, and to use it in cases of advanced tuberculosis where a sudden fit of violent coughing might be likely to cause rupture of a blood vessel already diseased. The dose should be small to begin with, say, 10 drops sprinkled every half-hour, and gradually increased. I use a mixture of formalin, chloroform, menthol, pumiline pine, and rectified spirit, sometimes with the addition of creosote. Here the formalin is administered not only for its antiseptic properties, but also for its hardening and soothing effect on the mucous membrane of the bronchial and air passages, thus minimizing irritation and cough. To obtain the best effect, continuous inhalation should be combined with the open-air treatment which includes manual exercises.

### OSTEO-ARTHRITIS AND ITS RELATION TO CHRONIC RHEUMATISM.

DR. W. J. MIDELTON (Bournemouth) writes: Dr. Buckley has not grasped my point. I contend strongly that infection should be considered the chief factor in the production of arthritis. I do not believe that, apart from infection, cold, damp, trauma, worry, or shock can set up arthritis. Also I still contend that the attempt to classify arthritis as rheumatoid, osteo-arthritis, infective arthritis, etc., as if each were a different disease, leads to confusion. Gout and rheumatism should be considered infectious diseases—that is, due to micro-organisms. I am very emphatically in favour of searching for causes, and do not wish to throw cold water on the attempt to isolate a micro-organism and prepare a vaccine. I wished to point out that in my opinion any micro-organism may set up the train of signs and symptoms said to be characteristic of rheumatoid arthritis. This being so, how are we to deal with a case of arthritis in which many germs are present and contribute? How are we to say which particular germ is the chief factor? Are we to fold our hands and wait until a long series of costly investigations has been carried out before we commence treatment? I take it Dr. Buckley does not hesitate to prescribe Buxton waters and various baths in nearly all diseases coming under his care at Buxton, and I doubt very much if he or any one else is fully aware of all the causes that have contributed to each. He struck a keynote when he alluded to greater powers of resistance in some patients than others.

### POISON BOTTLES.

WE have had an opportunity of examining a new device for the prevention of cases of poisoning due to accidental confusion of medicine bottles. Attention is drawn to the nature of the contents by a glass collar, which is kept projecting above the orifice of the bottle by means of a loose spring. Such collar must be pressed down before the contained liquid can be poured out. The device is novel and should take a good place among its rivals. Further information can be obtained from the inventor, Mr. F. G. Meyer, 33, Grosvenor Park, London, S.E.


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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# An Address

ON

# ARTERIO-SCLEROSIS AND THE KIDNEYS,

DELIVERED BEFORE THE KENSINGTON DIVISION OF THE METROPOLITAN COUNTIES BRANCH.

BY

SIR CLIFFORD ALLBUTT, K.C.B., M.D., F.R.S.,

REGIUS PROFESSOR OF PHYSIC, UNIVERSITY OF CAMBRIDGE.

## INTRODUCTION.

GENTLEMEN,—The problem which I have chosen to discuss before you to-day is one of the most alluring and the most baffling in pathology—alluring, perhaps, by its very subtlety. Whether we think to approach it by the way of clinical observation or of the exacter methods of clinical research—the methods of chemistry and physics, or, again, by way of experiments in animals, or of empirical tests in man, we find ourselves on every way disconcerted. These ways are strewed with conjectures and speculations withering untimely even before the early spring of a working hypothesis. At the bedside the physician, who indeed has made more of the task than his comrades, justly believing himself to have delineated certain broad lines of difference between kinds of kidney disease, when he has followed his cases into the deadhouse, is disconcerted to hear that his "tubular" cases, being also "interstitial," and his interstitial cases being likewise tubular, the pathologist will have none of his divisions. Moreover, he is informed that, although a certain group of these diseases may be obviously and extensively correlated with cardio arterial disease, yet that few cases of chronic Bright's disease fail to reveal to the pathologist—at least within the relics of the kidney—some measure of arterial disease. The physicist and the chemist, studying the freezing points and the electro-conductivity of the urine or of the blood in Bright's disease, told us but yesterday that evidence of retained katabolic products of a non-conductive quality—and therefore of organic nature—was secured; to day we are told, on authority as good, that had these investigators thought of applying the same tests to the normal man they would have received much the same response; and that in either case the variables are too many to issue in consistent results.

Again, but yesterday we were told that in renal disease the urine indicated a lack of nitrogenous waste—waste remaining in the body to poison it; to-day we hear that, other things, especially food intake, being equal, the total urine in Bright's disease, save *in extremis*, is often as well loaded as in health. Once more, we were to have found some standard of renal efficiency in the rates of discharge of conspicuous bodies—such as methylene blue or potassium iodide—but now these tests likewise are said to have failed in constancy; the kidney, it seems, may work hard on one set of bodies and either neglect others or, more probably, refuse to take notice of them until properly presented to it. Finally, the physiologists were surmising that some of the occult influences of renal function might be due to an internal secretion, perhaps of a pressor quality; and there were rumours of a hypothetical "renin"; later investigators turn us back with the announcement that if renal extract, like almost any other organic extract, may raise blood pressure momentarily, yet the main effect is depressor or neutral. Well may Professor Adami say in his new *Principles of Pathology*, that arterio-renal problems are among the most complicated and obscure in the whole of pathology.

But from these diversions we must turn to the part of the subject which is to be the matter of my discourse to day—namely, the relations of arterio-sclerosis to the kidney, sick or sound.

### *Historical.*

A generation ago, when "high arterial tension" began to awaken the interest of physicians, this condition was regarded as belonging essentially to disease of the kidneys. Such was Traube's view of it; such was George Johnson's, Burdon-Sanderson's, Mahomed's likewise. The first shifting of this attitude was, I believe, due to Mahomed, who proved that persistently excessive arterial pressures were not rarely to be found in persons in whom symptoms of renal disease had not become manifest; still Mahomed supposed, none the less, that this increase of tension essentially pertained to renal disease in one kind or another. In his brief but fruitful life Mahomed did not get beyond the doctrine that these high arterial pressures constituted an initiatory, latent foreboding of renal disease,[1] a stage which he denoted as the "prealbuminuric stage"; not very happily as it proved, for, as we now see much more clearly, albuminuria is far from being a peculiar or decisive symptom of Bright's disease. Not only so, but as Huchard and I argued fifteen years later, albumen and high blood pressures, even when taken together, are not by any means decisive of a diagnosis of chronic renal disease in the ordinary sense of the term.

Soon afterwards arose another dislocation of opinion, when Lancereaux and Gull and Sutton[2] contested Johnson's alleged arterial hypertrophy, and in so doing lifted the whole problem of cardio-arterial disease, and especially of the red granular kidney, from the narrower notion of a kidney disease into the larger conception of a general constitutional distemper of which the kidney disease and the vascular disease were but coefficients. Besides, the exaggerated notions of the effects on blood pressure of vaso-constriction in the kidneys, as interpreted especially by Traube, were shaken by Cohnheim's proofs that arterial constriction confined to the renal areas is quite inadequate to produce even a temporary rise of general arterial pressures.

On account of my association with Sanderson and Mahomed in their researches, I was requested by Dr. John Ogle, then editor of the *British and Foreign Medico-Chirurgical Review*, to report upon these problems. And, while preparing for that now obsolete article, certain suspicions that Mahomed's prealbuminuric stage did not always issue in what, clinically speaking, we classify as one or other kind of Bright's disease—suspicions I had discussed with my lamented friend shortly before his death—grew and took more definite form in my mind. By the nature of this inquiry, however, a long period of time had necessarily to elapse before it was possible by experience to be assured that excessive blood pressure may enter into more than one clinical series; and a still longer interval before I could hope to carry this persuasion to others. To compare morbid series so protracted as these, was, generally speaking, possible only in private practice; yet in private practice at the end of such a clinical series to obtain a necropsy was a very infrequent opportunity. On the other hand, in hospital practice patients came and went too irregularly for long and continuous observations of disease. Sphygmographic curves, again, however suggestive to a practised operator, were not of much value for record of pressures. We had no pressure gauges; and even yet the graphic record of any continuous course of blood pressures depends too much on the occasional zeal of a house-physician. At any rate no trustworthy and continuous series of such records were then, if they be now, open to the inquirer; as they are, for instance, in the courses of pyrexia. Still in time, by observing some private cases throughout, by watching one case in particular of hyperpiesis without Bright's disease—a thread upon which much of my material was strung—from first to last through its period of eighteen years, by selecting and patching longer and shorter terms of other cases seen piecemeal, and, latterly, on the invention of pressure gauges, I was enabled, by approximate verifications, to apply some standards of comparison, and to satisfy myself that a certain process marked by excessive arterial pressures may and often does arise without the initiation, intercurrence, or sequel of the events known to the clinical physician as chronic Bright's disease in any of its forms; and is significant of another and a different clinical series, though ultimately damaging the heart and arteries in like manner and no less irreparably. This alternative clinical series I named at first "senile plethora," but, the malady being not one of senility, I suggested the alternative name of "Hyperpiesis."* Unfortunately, many too literal authors

* In my first publication on this subject, an address to the Hunterian Society, written in 1894 from materials collected between 1870 and 1889—in which year, for three years, I retired from practice—the term "hyperpiesis" was introduced as an alternative name. In 1896, in my Lane Lectures, I preferred this name.

persist in detaching this name from the malady or total morbid series thereby indicated, to confine it to the mere phenomenon of high blood pressure under whatsoever circumstances. But, whatever our terms, I think it is now admitted that, although in Bright's disease or in certain kinds or modes of it, persistent excess of arterial pressures is an obligate condition, a like persistent excess may nevertheless, in obedience to some causes as yet unknown, arise independently of it, and, indeed, be engaged in another morbid series.

During the years of which I have spoken Huchard was engaged in similar observations, and also in discriminating this alternative clinical series, not Bright's disease though correlated with high pressures. He attached to it the name of "Presclerosis," a name even less happy than mine, as it seemed to signify, and, indeed, was intended by him to signify, that the disease, when fully manifest, would be that of Arterio-sclerosis. To this issue I shall return presently.

Now, to digress for a moment from renal disease and to return to arterio-sclerosis, Professor Osler, in the third edition of his textbook, New York, 1898 (p. 771), when speaking of arterio-sclerosis, concluded:

> There are certainly two groups of cases, one in which the arterio-sclerosis is the first change, and the other in which it appears to be secondary to a primary affection of the kidneys. The former occurs, I believe, with much greater frequency than has been supposed.

Dr. Samuel West, in his Lettsomian Lectures for 1899, speaks on the problem under discussion no less definitely; although, as I shall say presently, I cannot quite accept his views on the whole. However, he separated from Bright's disease, as I had done, the deteriorated kidneys connected with advanced atheromatous disease, or the—

> "So-called senile or gouty kidneys" . . . because although "often markedly interstitial . . . they need not necessarily be granular, and are often large." . . . "*Moreover the cases need not run the clinical course of granular kidney.*"

I italicize this sentence as it coincided very nearly with my previous discrimination. To judge by the context, Dr. West clearly intended by the name "red granular kidney" to signify, not a mere aspect of the kidney in the literal meaning of the adjective, but something more specific; namely, a particular series of clinical events—a certain morbid process or "disease." That Dr. West had not, in 1899 at any rate, accepted my farther distinction between arterial degeneration secondary to excessive pressures and the decrescent form—indeed, he did not then record any arterial pressures—made his testimony peculiarly valuable by its clear separation of the group of renal patients from other arterio-sclerotics, and of the red granular proper from other rough or deformed kidneys. I must assume, however, that Dr. West's contrasted group of non-nephritic arterio-sclerotics was a mixture of the cases I had distinguished as decrescent (or involutionary) and hyperpietic respectively. He may indeed have regarded all high pressure cases as renal.

Again, whatever pathologists may decide concerning the late Dr. Savill's testimony to Johnson's arterial hypermyotrophy, I may at least quote his seventh proposition:[3] That arterio-sclerosis may be independent of renal disease, as "in 22 of the 31 cases [forming the basis of his paper], the urine was healthy during life, and the kidneys found normal after death, excepting for the slight degree of fibrosis commonly found in all the organs of aged people." If Dr. Savill had thought fit to accept my distinctions between infective, involutionary, and hyperpietic arterial disease, the proportion of the high pressure cases would have been considerably lower; but the argument would not have lost its importance.

For further weighty testimony to the same effect I must pass over some intermediate years and come to the

### *Opinions of the Present Day.*

Professor Krehl, whose authority in such matters is unquestionable, says[4] that we are disposed to attribute all persistently high blood pressure to nephritis, which assuredly is an error ("es ist gewiss nicht richtig alle starken Erhöhungen des arteriellen Drucks auf eine chronische Nephritis oder Arteriosklerose zurückführen"); to the sense of the words "oder Arteriosklerose" I shall refer again. He relied upon a "series of cases with high arterial pressure in which during life there was no reason ("Anhaltspunkt") to assume the presence of chronic nephritis; and in one of these, in which a necropsy was obtained, neither macroscopically nor microscopically were there any signs of renal disease.

My friend Dr. John Cowan of Glasgow, with whose researches in this respect I became acquainted when he was preparing for the M.D. thesis which he read before me in 1902,[5] expressed the following opinions:

> Arterio-sclerosis is very frequently associated with chronic renal disease, especially the granular variety; but it may occur without any renal lesion at all, or associated with one which is evidently secondary to itself (arterio-sclerotic kidney). The one common factor of all these cases is the presence of continued high arterial tension, which is now accepted as its immediate cause.

That in this broad division Dr. Cowan did not discriminate as I had done, and do still, between arterio-sclerosis, the result of high pressure, and those of toxic and of involutionary origin need not concern us now.

And, farther, at Toronto, in 1906, Dr. Stengel reiterated what I had pointed out many years before, that albuminuria in cases of arterio-sclerosis must not be taken alone as evidence of Bright's disease, nor necessarily as a foreboding of it. And in 1907[6] Professor Rose Bradford, while warning us likewise against the mistake of arriving at a diagnosis of renal disease merely on the result of one examination of the urine, said that no mistake is more common than to diagnose acute or chronic nephritis merely on the presence of albumen. He reminds us, in a phrase which I desire to emphasize, that "diagnosis must depend on clinical examination."

Fränkel says:

> That general arterio-sclerosis can be the result of renal disease is seen in the young "Nephritikern," but that high pressure cases exist independently of it (of renal disease) is seen in many in which the urine, if it may contain a little albumen, is of full colour and specific gravity, with but few casts of any kind, and practically no granular casts.

Romberg also collected notes of cases of plus pressures without evidences of renal disease. In one of these he obtained a necropsy, and found the kidneys practically normal both to the eye and to the microscope; but he oddly objected to these cases being regarded as the arterio-sclerosis of high pressure lest by this view of the matter physicians should be induced to treat this symptom! Surely if we are to discover causes, and to neutralize or prevent them, we must discriminate between the several series of phenomena as well as we can.

Geigel, in some reflections which, again, seem not to distinguish between the arterio-sclerosis due in the main to exorbitant blood pressures and that due to other causes, says that the relation of high arterial pressure to renal disease is not understood, for the arterio-sclerosis may be the previous event.

Dr. Leonard Williams says[7] that high arterial tension is, in the minds of far too many, so indissolubly connected with renal disease that, if by examination of the urine and otherwise they persuade themselves that the kidneys are not affected, they are unable to realize that the excessive pressure can be doing any harm.

In the pathological laboratory reports of Berlin City Hospital I see that cases of high arterial pressure have recently been divided into the two classes of "Arterio-sclerosis" and "Chronic Nephritis," which betrays the still prevailing assumption that arterio-sclerosis is the cause of persistently excessive pressures rather than—in one of its kinds—the effect of it; yet still the division does serve provisionally to segregate the renal from other cases of similar and often no less exorbitant arterial pressures.

### *Clinical Criteria.*

I have stated, on my own testimony and on data obtained from other authors, that the presence of albumen in the urine is of itself no criterion. About 1878 I was consulted by a medical friend who believed himself to be the subject of chronic renal disease. He had a large heart, a sustained pulse of high resistance, some slight oedema on the shins, and a little albumen in the urine, which was, however, of good colour and specific gravity, and often lateritious. On repeated examinations but a few casts were found, and these hyaline. As my experience then stood I was unable to give a definite diagnosis; but in the absence of the

ordinary clinical symptoms of renal disease, in the absence, for instance, of characteristic headache, of nausea, of anaemia, of retinitis, and so forth, I ventured to speak encouragingly. My patient was a man of means and had lived well—too well. On a restricted dietary, some rest, and courses of alterative and laxative drugs, his life was spared for many years; no symptoms of renal disease appeared, and he reached old age before at length his heart was defeated. This case was one of the signals on my path, and as I discovered more and more cases of a similar kind I ceased to regard albuminuria, even with high arterial pressure, as necessarily indicative of Bright's disease. In the deposit may be found a few leucocytic or epithelial cells, and some hyaline casts; granular casts, on the other hand, if found repeatedly and in some numbers, are of grave omen, and probably significant of chronic Bright's disease.

The mean age of the subjects of granular kidney, again, is somewhat lower, not than that of gathering pressures but than that of the later and graver consequences of their long-continued strain—the later stage which too often is the first to be submitted to the physician or to be detected by him. One of my M.B. candidates found the mean age of death in 261 cases of Granular Kidney (definite cases selected from hospital and *post-mortem* records) to be 56. "White forms," of course, have a lower mean age incidence. In Hyperpiesis the ultimate defeat of the heart is accomplished, so far as I can reckon, about a mean age of some five to ten years higher.

As regards the more refined methods of appreciating renal values we meet with some difficulty. The researches of Professor Rose Bradford, of Pässler, v. Noorden and Ritter, and others have shown that in damaged kidneys nitrogenous secretion may for short periods be at least normal in amount, but yet drop suddenly or shade off gradually into periods of inefficiency. Dr. Thomson Walker[8] has discussed this source of fallacy, and examined the urine by the methods of cryoscopy, toxicity to animals, electric resistance, and so forth. He decided that the phloridzin and methylene blue tests were, on the whole, the most trustworthy, but as the phloridzin method is somewhat delicate he regards that by methylene blue as the best for ordinary use. Moreover, it is perhaps safer than the phloridzin test. Dr. Walker published some interesting charts of the behaviour of these substances. Cryoscopy of the blood or urine, so I am informed by friends who have used it, has proved an untrustworthy test, at any rate as far as renal affection is concerned. Sir James Barr, who has paid some attention to the method, writes to me: "I have had to be careful so far not to draw any decisive inferences from it."*

*Morbid Anatomy.*

In respect of the kidneys, what, in the confused heap of cases which are huddled under the title of arterio-sclerosis, do we find after death? We find in some of them kidneys which are either irreproachable or so little deteriorated as to be acceptable as "fairly healthy"; in not a few there is genuine "granular kidney"; and in another large class the kidneys present a fibrosis, from slight or moderate degrees to extensive layers, streaks, or bands with conspicuous deformation.

But as we enter into the histology of renal disease there are certain conditions of a preliminary kind which we must bear in mind. We must remember that the parts of organisms so highly differentiated as the mammalia have themselves become so specialized in structure as to stamp a peculiar character not only upon their normal functions, but also upon their defects. As the more peculiar the structure of an organ, and the more peculiar its business, the wider its separation may be from the forms and the functions of co-operating parts, so with its faults and impairments; these likewise, especially in initial stages, will have their special features and their limits. Thus, in the kidney we should expect that the features of derangements of function and of structure would have much of their own; as the liver, the heart again, the nervous centres, and the rest go right and wrong each after its own fashion. The kidney consists, it is true, of vessels, secretory cells, and connective fibre—elements which all over the body obey certain general laws of growth and decay; yet, notwithstanding, because in the kidney they have special dispositions, relations, and functions, so the modes of growth and decay in the kidney proceed on lines congruous among themselves but differential in respect of other organs. And within the organ itself the reciprocal changes of the tissues will prove to vary more quantitatively than in quality. Renal disease, then, has its own histological features, features not those of disease of the heart, of the nervous centres, of the stomach, and so on; to the observation of renal disease, then, we must bring certain views—views obtained from a consent of experts—views not precisely those deriving from observation of disease in other organs. For instance, as the arteries distributed in the kidney are terminal arteries, an interference with one of them will partake of the form of an isolated infarction. Also, as by their tufts in the glomeruli, and in their relation to capsular and connective tissues, they are peculiar, so their affections will have according and differential features, and will play within a narrower range. Furthermore, the canaliculi, as they take origin from the tufts, depend in a peculiar manner upon the functions and the disorders of these sources. Thus it is that diseases of the kidney, because it is a kidney, have characters peculiar and narrow; not those of diseases of any other organ.

Now, if this be so, the several diseases of the kidney, in so far as they present features which mark them off from diseases of other parts, will among themselves and amid their particulars present certain and considerable resemblances, resemblances in the features which separate them from diseases elsewhere. In all of them we shall expect to observe common characters; and this especially in the first stages of shortcoming or injury, for, in so far as failure or injury may have proceeded, we shall expect these structures to have descended from peculiar to more general characters. They will be melting into the common run of tissue decay, returning into the common dissolutions of all living tissues. It is, then, in the earliest stages of impairment that we should expect still to discern the characters specific of the renal diseases but alien from the diseases of other parts; in the later stages we shall expect to find these characters drifting into a universal kind of wreck. And as it is chancy to catch an internal viscus in an initial stage of defect, but easy to lay hands upon it in the ultimate issue, so we are apt to make too much of the ruins in which the metamorphoses characteristic of the organ have vanished.

To press these considerations a little closer. In the early stages—the stages of initiation—we find in the kidney, according to its several arterial units, a lobular arrangement of its affections,, yet within each area a mutual dependence of disordered constituents; we shall scarcely anticipate that disease will express itself in single tissues, such as the connective or the parenchymatous or the vascular, because these elements in the terminal arterial unit live a common life—the disorder of one is the disorder of all. For instance, the blood on leaving a tuft has lost much of its water, but is not yet relieved of the corresponding quantity of waste;† if then this waste happen to be abnormal, or, still worse, if it contain some toxic ingredient, the efferent vessels and the tubes, however considerable their capacity of repair, must undergo at least temporary disturbance. Probably the tufts themselves and their capsules will suffer also; no ideal limits can be set to the implication of the whole functional unit. That nevertheless in the kidney substance the visible effects are generally scattered and focal is curious; but this inconsistency I do not stay now to consider, as it is not a peculiarity of the kidney, nor of terminal arterioles; it is notable in the affections of most, if not of all organs—of myocardial lesions, for instance. For some obscure reason, over all dimensions of an organ there is not equivalence; some sections seem to be more vulnerable than others. Especially as regards the kidney, then, we are not to look now for a disease of the vessels, now for a hyperplasia of fibre, now for a degeneration of the secreting cells; but, if in some irregular proportions of incidence, a group lesion. And investigation tells us that, strictly speaking, there is no such process as an interstitial nephritis, as exclusively contrasted with a parenchymatous

* In an article on viscosity of the blood in the forthcoming number of the *Quart. Journ. of Med.*, these questions will be discussed more at length.—C. A.

† It is true that the tufts are supposed to be a little more than filters—to have some excretory virtue, but not so much as to invalidate these reflections, which, by the way, are made in principle by Adami and Nichols also (*loc. cit.*).

or with an arterial nephritis; or if at the outset there be any such difference, this will soon become blurred, and blurred more and more until the special features of renal disease are confounded in general dissolution. And yet it is with these ultimate stages, when specific features are waning or obliterated, that pathologists have for the most part to be content. For these reasons the name Chronic Interstitial Nephritis is misleading; the perversion is at least as much in the blood vessels.

It is understood, then, that although disease of sundry kinds, of different nature and clinical course, may affect the kidneys, yet that when we come to the ultimate states with which we have usually to be content, we are examining documents in which the inscriptions of whatsoever disease have become blurred or erased; moreover that if indeed we obtain access to specimens in early stages, we must expect, even from the outset, that the peculiar structure of the kidney will by its very peculiarity be limited in its range of expression; its manifestations must be in its own vernacular.

Now, as we have to study such kidneys as we can get, and as their morbid anatomy in its early stages is peculiar in mode, and in its later, that is in most of our specimens, is falling into chaos, we shall be the more persuaded of the importance of controlling the necropsies by the clinical records. We shall deprecate the modern seclusion of pathology from clinical medicine, each in its solitary office; we shall regret that laborious papers should be written on the morbid anatomy by pathologists who are often ignorant of the clinical history of the cases from which their materials were detached, or inexpert in co-ordinating the two lines of study. In terminal states, for instance, the two shrunken kidneys which in this country we have been accustomed rightly to distinguish as the small white and the red granular, may, alien as they are in nature, be so far reduced by decay to a common denominator that microscopic analysis no longer marks any signal differences. Let us grant, then, that a classification of renal diseases cannot be founded on a mere anatomical basis; at any rate not in the obsolete stage known as the "shrunken" kidney.

In the earlier stages, then, we shall seek what I may call the provincial features of its tissue changes, the stages of kidney diseases on which the specific conditions inherent in the organ itself will stamp each kind, however different, with its own seal; in them all, while each retains its identity, its range of expression will be limited by the renal style of organic reaction.

If these thoughts seem tedious, I must plead again that they are too often forgotten. Thus, in Germany rather than in our own country it is true, we peruse long and really admirable researches into *Schrumpfniere* (shrunken kidneys), painful endeavours still to decipher in these relics the characters of the several modes of Bright's disease. If in shrunken kidneys remnants of differential character may still be detected, yet the seals are broken; at this stage—a stage in which the peculiar renal devices are obsolescent—we can hardly expect to decipher the notes of foregone specific series. If in these blurred characters we are to read anything, I reiterate that we must have with us continually the whole morbid series—the clinical story. When at length the amyloid kidneys, small whites, terminal whites, red granulars, are merged in a common degradation, what scrutiny then can discern what were the original relations of time, place, or quality between the parenchymatous, the arterial, and the fibrotic perversions? The mutual interdependence and the integration of function and structure in the kidney being such as we have seen, shall we be surprised if then, at any rate, no absolute divisions betwixt parenchymatous, interstitial, or glomerular disease can be made? We may find in the proclivities of this vitiated tissue or that variations in the relative rates or quantities of change, but we shall find the seal of renal idiosyncrasy upon them all, and we shall, I repeat with emphasis, be more and more convinced that it is only by a close combination of clinical with pathological investigations that we can frame any fruitful classification of renal diseases—a classification based not upon superficial but upon profounder affinities. Jores, Jores and Prym, and Roth, in their minute histological descriptions of the shrunken kidney (*Schrumpfniere*), admit—or, rather, in his latest essay,[9] Jores admits—that, invaluable as dissections may be, yet the anatomist, without the clinical histories of the cases, cannot go very far to interpret the various diseases by which the kidneys had been damaged. When, therefore, an author on the subject so eminent as Professor Saundby hesitates to follow the English "dualistic" conception of chronic parenchymatous and interstitial nephritis (I use these names for convenience), because on the *post-mortem* table intermediate forms can be procured all the way between the large white and the small red kidney, the validity of his argument is not convincing. For instance, upon what anatomical notes of aspect or of tissue change in ultimate shrunken kidneys can we explain the correlation from the outset of high pressures and cardiac hypertrophy in some of them, and the uncertainty and irregularity of their occurrence in others?

With these reflections let us turn to consider so much of renal disease as may bear on arterio-sclerosis; for such are the limits of my subject. What, with the indispensable assistance of Professor Lorrain Smith, I argued before the Association of Physicians at Liverpool last summer, I would now enter into a little more fully for the sake of the study of arterio-sclerosis which I have long had in hand.

In coming to close quarters with the pathological anatomy of the kidney, I would note that one broad result of the researches of Jores and his pupils is, that in shrunken kidney, whether small white or red granular, the arterio-sclerosis, even if restricted to the renal arterioles alone, is arterio-sclerosis proper—that is, subintimal hyperplasia with splitting of the internal elastic layer.* Renal arterial disease, then, does not differ from arterio-sclerosis elsewhere, as generally recognized by modern observers. If renal disease without arterial disease, discoverable at any rate by the microscope, is rare, yet there is no arterial disease peculiar to the kidney. And generally in renal disease the state of the arteries is arterio-sclerosis; yet there are at least two other forms of change in them which need some discrimination—namely, endarteritis obliterans, and the hypertrophy of the media alleged by Johnson, Ewald, and Savill.

The former, endarteritis obliterans, is incidental to a twig caught in a focus of inflammation, which thus becomes itself inflamed but, in unmixed cases, does not degenerate. The distinctions to the microscope are that the elastica is intact, no fatty granules are seen as in arterio-sclerosis, all the coats are involved, there is more cell proliferation, more persistent fibrosis, and the vessel tends directly to occlusion of its lumen, with consequent atrophy of the area of its supply (canaliculus). Excellent illustrations of this process are to be seen in the fourth edition of Professor Woodhead's *Practical Pathology*, pp. 347–9. Endarteritis obliterans is, then, a local incident, with secondary consequences. Forasmuch as arterio-sclerosis, on the contrary, does not tend so much to closure, it is less of a menace to the nutrition of its unit.

The other kind, hypertrophy of the media, that is to say, pure hypertrophy not fibrosis, is prima facie no improbable event. One is tempted, indeed, to presume that, under the lateral pressures of high tension, it would affirm itself. Jores is not indisposed to grant that the assertions to this effect of certain English observers, accepted by Ewald, may be true. But, as our own pathologists have demurred, he points out that we have no standard of calculation for these dimensions. How are we to determine the precise taper of the section from its bifurcation; the true proportion of the coats to the lumen; and above all the degree of contraction of the muscle on fixation? (MacWilliam and others). Before we can decide on any reasonable limits between a physiological and a pathological increase, we must find such standards; and we must ascertain if this simple hypertrophy occurs in states of high pressures other than renal disease. In many cases recorded as hypertrophy of the media, Jores suspects that the thickening was not primarily of the media, but was ordinary subintimal arterio-sclerosis; and he reminds us that, when it occurs, unequivocal arterio-sclerosis will probably be found in other vessels of the body. In any case a media

* In the subsequent discussion at Kensington some speakers seemed not to be clear as to the precise meaning of the name "arterio-sclerosis." Pathologists are now quite precise in applying it to the definite process mentioned in the text, a process in nature identical with the process which in large vessels is called atheroma; so that Marchand's and Aschoff's name "athero-sclerosis," now coming into use, will probably be adopted generally.

thus altered seems to be unstable, more prone than it should be to degeneration, fibrous or fatty.

The affections of the arteries in the kidney are, then:

1. Arterio-sclerosis, as already designated; this is the frequent alteration.

2. Endarteritis obliterans, an incidental and secondary condition.

3. Thick media, perhaps a hypermyotrophy (?).

4. Infective processes, such as the scarlatinal, the syphilitic, etc., attacking the vessels. And to these classes may be added the accidental processes of infarction and of embolism.

The next notable result of the work of Jores and his school is that, although in chronic renal disease arterio-sclerosis is generally found not in the kidney only but also in the splenic arteries, the pancreatic, etc., yet the intimate vascular network of the myocardium and of the skeletal muscles, whatever the state of the larger trunks, is practically always unaffected. The coronary trunks, for instance, may be conspicuously atheromatous; yet on tracking them into their intramuscular network these vessels will generally prove to be free from any trace of disease. If I may judge from current opinion, this very important discovery is not generally known; yet, among other postulates, it helps us to account for that no less remarkable and very salutary maintenance of the nutrition of the walls of the left ventricle in many cases of damaged coronary stems which was demonstrated but not fully explained by Kanthack and myself. I never accepted the notion of Hasenfeld[10] that increase of arterial pressures depended upon implication of the mesenteric vessels, an opinion still surviving here and there; arterio-sclerosis arises first not in the vessels of the alimentary canal, but in those of the spleen and pancreas; and this is so uniformly the case that in order to avoid the toil of searching through the body for evidences of arterio-sclerosis, it is a sufficient test for ordinary purposes to record the state of the vessels of the spleen; next in order after them atheroscelerosis usually attacks not those of the bowels or liver but those of the heart and of the brain.

In the renal vessels, then, arterio-sclerosis is the characteristic change; but is arterio-sclerosis an essential part of all the renal affections of which we are speaking? Apparently not, but it is rarely quite absent; it is commonly to be found if assiduously sought for. Roth, a disciple of Jores, has described[11] six cases of diseased kidney without arterial disease; Löhlein, working at Leipzig, has published* three cases; and Jores himself one case at least (Case III in his 1904 paper). Still these cases are few, and most of them in young persons; also Heineke[12] regrets, as I have done, that for lack of the clinical records such observations as these should have lost much of their value. On the other hand Prym[13] reports—and this is an important caution—that in 66 out of 70 persons past middle life (after 40 years of age) the intima of the fine and medium arteries of the kidneys is thickened, and this without arterio-sclerosis elsewhere in the body. This change, which even in the kidney does not amount to arterio sclerosis, or even trespass beyond physiological limits, may be taken as normal for elderly persons. Crossing these limits, the arterio-sclerosis so rarely absent in diseased kidneys may be obvious as a part of a general arterio-sclerosis, the main renal arteries standing open and stiff, or on the other hand may be so slight and intimate as to be overlooked by the pathologist who does not minutely examine the intravisceral twigs, and especially the vasa afferentia.

However, unable as we may be in the absence of clinical data to sort the heap of obsolete kidneys examined, and to attach the kinds each to the specific morbid series to which it belonged, yet by this character or that we may try to distribute some of them without serious error.

For instance, we may suspect one or two of them to be amyloid, though in some researches these are expressly excluded. More confidently we may assume many, if not all, of the exceptional specimens referred to as without arterio-sclerosis to have been "small whites." Our English dualists are pretty surely right in assuming that the "red granulars" all present arterial lesions—at least, in the interlobular and afferent arteries of affected units. Jores himself states that in practically all his specimens, even in those secured in early stages, arteric-sclerosis, if nowhere else in the organ or outside it, was found in the vasa afferentia of the affected lobules. The presumption is that it begins there, but in these specimens the distinction between the small white and the red granular kidney, whether resting on necropsy, on clinical history, or on both sets of data, was not made. In one specimen the arterio-sclerosis was of the vas afferens only, "sharp at its offshoot" from the interlobulare. Now, although this kidney was apparently not a red granular—for it was pale yellow, smooth, and undiminished in cortex—yet, as it by no means stands alone, and as there is no arterial disease peculiar to the red granular kidney, the site of the initiation of the arterial affection is significant.

We may take it, then, for the present that of the Red Granular Kidney arterio-sclerosis is a primary, invariable, and essential part, and presumably begins in the intimate vascular ramifications; although an arterio-sclerosis of the larger vessels may be an epiphenomenon, due to prolonged high tension, and appear later. But the next question is whether the red granular kidney is or is not an essential part of general arterio sclerosis? In other words, Is it a general arterio-sclerosis invading the renal artery, and penetrating to its inner twigs, which makes the red granular kidney? On this dilemma I will begin by citing again, from our joint paper at Liverpool, the conclusions of Dr. Lorrain Smith. Passing over the fibrosis of the parenchymatous and of the acute interstitial forms of nephritis, he says: The fibrosis of *chronic interstitial nephritis* occurs in limited areas, alternative areas being free from fibrosis. In the fibrous patch the glomerulus is converted gradually into a mass of hyaline fibrous tissue; the tubules are to a large extent destroyed, atrophied rudiments alone remaining. So far, the secreting mechanism disappears; but the unit next to it—artery tube and interstitial tissue—may be normal, unless, indeed, it be hypertrophied. Now from this state, he adds, the "arterio-sclerotic kidney"—the kidney, that is, which partakes in a general arteric-sclerosis—differs considerably. In this disease a unit deprived by the sclerosis of its free supply of blood, is replaced by a small amount of fibrous tissue, and resembles an infarcted area. This, he concludes, is not nephritis in any form. In unaffected areas—that is, in areas in which vessels may be fairly normal, or, if affected, may still be pervious—the glomeruli, tubules, and interstitium are in the same degree normal. We may call the arterio-sclerotic a withering kidney, as contrasted with the granular kind, which consists in a slow irritative process; although both forms present the curious focal distribution to which I have already alluded as a note of the effects of toxins here and elsewhere.

Now I venture to think that even in the reports of necropsies such discernment as I have indicated is not always observed. With these problems in view I have run my eye over a wilderness of *post-mortem* reports which for the most part put us off with such loose phrases as "kidneys granular," "kidneys slightly granular," and so on; much or little "granularity" being reported not with a specific or even a precise meaning, but on superficial appearances, and according to the general notions and personal vocabulary of the reporter. If in superficial aspect such a kidney may be described as "granulated," the adjective may well convey only a subordinate fact. *Post-mortem* clerks often, and, I venture to think, professed morbid anatomists sometimes, forget that as a technical term "granular kidney" does not mean merely a rough and deformed organ, shrunken fibrous or senile, but a certain disease, a fairly uniform series of morbid phenomena. And, as a name in nosology, "Granular kidney" is to be attached not to any kidney the capsule of which is rough, shrivelled, or wrinkled, and the substance fibrous, but is to signify a certain, usually long, series of morbid events, positive and negative, recurring in clinical experience with fairly uniform symptoms, and in morbid anatomy with fairly uniform alterations of form; especially in the kidneys, the arteries, and the heart.

Fibrosis may appear specifically as an active strangling invasion; or in substitution for a "nobler" tissue; or as a phase of atrophy, when the blood supply has been very gradually curtailed by the obsolescence of considerable areas of the vascular tree. Lancereaux was wont deliberately to argue that the arterio-sclerotic and the granular

*In a local laboratory report which I have not seen, but which has been fully quoted in various periodicals.

nephritic kidney were identical; he included both as "an actual nephritis of arthritic origin"; and confusion of arterio-sclerotic renal atrophy with the nephritis of "Granular Kidney" is still too common. The decrescent arterio-sclerotic process, in such patients, Ziegler demonstrated in the other parts of the body also, characteristically in the pancreas. Ewald, in 1881, virtually agreed with Ziegler, and pointed out moreover that in arterio-sclerosis the vascular change and the consequences of this kind may be found in many organs while the kidneys may be but little affected or even unaffected. It was this interpretation that Dr. West, in the Lettsomian Lectures already quoted, accepted, and pursued. He "excluded from the category of granular kidney certain . . . degenerated kidneys . . . in advanced atheromatous disease, and in the chronic gout of elderly persons . . . kidneys often marked by interstitial change, and often not small, but large; and not running the clinical course of granular kidney." Thus Dr. West emphasized the axiom that in the name "Granular Kidney" the adjective is not the mere superficial glance of a morbid anatomist, but is the name of a certain disease regarded in its processes and conditions, clinical and pathological, as a whole. Again, of the fibrous kidneys thus reckoned at random as "granular" Dr. Rolleston says:*

> They are in the great majority of cases the result of atrophy from diminished blood supply, depending upon arterio-sclerosis of the renal arteries . . . where this is most marked there the tubules and glomeruli are most atrophied and the hardier fibrous tissue takes its place.

Recently, again, Dr. Rose Bradford writes[14] emphatically that in spite of occasional transition forms, and of some obscurities of pathogeny, the true granular kidney is to be distinguished from the arterio-sclerotic kidney; and he also relies chiefly on the clinical course. Senator, to whose excellent book there is, unfortunately, no subject index, on pp. 117 and 291 et seq., admits that the contracted kidney of irritative origin is to be discriminated from the arterio-sclerotic (*Nierensklerose*). Adami and Nichols[15] likewise consider the arterio-sclerotic kidney as etiologically and clinically different from the granular, although on the *post-mortem* table the difference may not, so far as the kidneys go, be easy to define. Thus, of shrunken kidneys, these authors distinguish four—the two forms of small white, the granular form, and the arterio-sclerotic. In the arterio sclerotic they agree that an atrophic, scarcely toxic, process is concerned. Eichhorst, in the sixth edition of his textbook, is rather confused among the many shrunken kidneys, but agrees that the distinction of the granular and the arterio-sclerosis forms rests upon the clinical history. Aschoff is of the same opinion;[16] he gives an excellent figure of the arterio-sclerotic form, pointing out that it arises from athero-sclerosis of extrarenal origin, and traces its origin in the advancing alterations of age, in the presence of athero-sclerosis in other areas, and so on. He also describes in granular kidney the primary arterio-sclerosis of its fine inner vessels, and the later appearance of general athero-sclerosis. Fahr of Hamburg[17] says that in the kidney arterio-sclerosis frequently reaches high degrees, even causing much shrinkage of the organ, with little harm to its parenchyma. Jores and his school lack the clinical clues—he cannot get clear himself of anatomical ruins; again and again he betrays some unfamiliarity with those terms of morbid series, motley and long processions which merge ultimately in a common dissolution; as for instance, when he, and some other authors, say that, as general arterio-scleriosis penetrates to the finer vessels of the kidney, the case becomes one of renal disease. We note in another paragraph a like confusion of kind, when albuminuric retinitis is identified with simple arterio-sclerosis of the retinal vessels; the erroneous assumption here also being that when arterio-sclerosis penetrates to the retinal arteries the result is "albuminuric retinitis." And in the lists of cases published by himself, Prym, and Roth, the physician perceives that from a clinical point of view a more discriminating collection might have been made. I trust that I have made so manifest our gratitude to Jores for his accomplished work on arterio-sclerosis, that I may venture to enter a caveat on a side of the subject on which he does not, I believe, profess to be an expert. The difficulty of disentangling these states on necropsy is admitted; especially, for instance, in cases of granular kidney arising in persons of mature age in whom general arterio-sclerosis had made some independent progress.

When, therefore, morbid anatomists have to speak of these rough fibrosed kidneys they must use a less equivocal adjective, one not already earmarked in the sphere of the physician. It would have been more convenient if the physician had provided the disease with some other name—one not seeming to apply only to a certain surface resemblance of many kidneys diverse in nature; however, the name "Granular Kidney"—not "Granular Kidneys" in the plural—will probably persist; and it has at any rate the advantage of not committing us to any frail hypothesis concerning the nature of the disease.†

Nevertheless, it may be reasonably argued that, if many units are obsolete in function, it matters little whether this destruction be due to occlusion or to a chronic inflammation. Yet of this demur I think that certain qualifications are necessary; we have seen that endarteritis obliterans, an irritative process, makes more surely for complete vascular occlusion than does arterio-sclerosis. Furthermore, it is here that we find ourselves faced by the farther question of the nature and incidence of a hypothetical toxin behind Granular Kidney, and whether such toxin confines itself to raiding its vessels, or attacks the connective tissue and the parenchyma also. I have always suspected that in the foci of the red granular organ the parenchyma suffers directly and by some process more corrosive than mere withering. For instance, the plumbous kidney, which smoulders into the granular kidney, if caught in an early stage, presents—so Sir Thomas Oliver informs us—a universal parenchymatous affection, as seen first in cloudy swelling of the epithelium. It seems to me, then, that, although in a state of ultimate wreck, such original differences of nature may be erased, yet that the red granular kidney is the result of some process more virulent than an atrophy. Notwithstanding, as small fractional parts of healthy kidney structure will suffice for life, the focal distribution of its virulence enables the kidneys to keep at work for long periods without serious breakdown, and thus the disease often lies latent for years.

*(To be continued.)*

* In a discussion of a paper of mine at the Medico-Chirurgical Society January, 1903 (vide *Med.-Chir. Trans.*, vol. lxxxvi).

† For differentiation of syphilitic renal fibrosis, see J. Rose Bradford, Croonian Lecture, 1904; and Loomis, *New York Path. Soc. Trans.*, 1889.

# The Oliver-Sharpey Lectures

ON

# HEART FAILURE.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,

BY

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## LECTURE II.—THE ESTIMATION OF HEART FAILURE AND THE SIGNIFICANCE OF SYMPTOMS.

IN this lecture I wish to place before you the method of estimating the degree of heart failure and of determining the significance of symptoms which I have employed for several years.

Before dealing more particularly with the method and its application, I shall first describe, in broad outline, the nature of the heart's force, the manner of its exhaustion, and the way in which symptoms are produced.

*The Essential Factors in Maintaining the Circulation.*

The function of the circulation is the supply to the tissues of a material capable of nourishing them, and the removal of such waste products as can enter the circulation. The heart and blood vessels are constructed specially to favour this object. The heart muscle supplies the force which maintains the circulation, and the blood

vessels are so constructed as to facilitate the work of the heart. Any disturbance in that adjustment must at once entail more work upon the heart muscle, inasmuch as a departure from the normal means the embarrassment of the heart in its work. From this consideration it will be seen that the essential factor in maintaining the circulation is the heart muscle, and any process of disease in the heart or blood vessels impairs the circulation by embarrassing the heart muscle in its work.

*The Nature of the Heart's Functions.*

As the heart possesses the power of varying its activity according to the bodily requirements, the force inherent in the heart muscle may be considered, for practical purposes, to be composed of two parts—namely, a part which is employed to maintain an efficient circulation when the body is at rest, and which, therefore, may be called the "rest force." The rest force is the minimal force which the heart can exert to maintain the circulation at a level consistent with life; an impairment of it leads inevitably to a fatal issue. The second part of the heart's force is that which is called upon when the body makes some effort. While the body is at rest this potential force is not exercised, but its existence enables us to undertake with ease all forms of effort. Inasmuch as this part of the heart's force is only used when exertion is made, it may appropriately be called the "work force" of the heart.

*The Bearing of Disease Processes on the Heart's Work.*

The reason for this division of the heart's power into the rest force and work force is that it unables us to understand better what constitutes heart failure. When we reflect that any disturbance of the circulatory mechanism leads to an embarrassment of the heart muscle in its work, we shall realize that heart failure means inability of the heart muscle to overcome successfully the obstacles opposing it in its work. The disturbances of the circulatory mechanism may be of a very varied character, and may arise from a great number of causes, and it is from the standpoint of possible obstacles to the heart muscle in its work that the bearing of all seeming abnormalities should be considered. Thus valvular defects should be studied, not as specific affections in themselves, but as sources of embarrassment of the heart muscle in its work, or as indications of disease which may have extended to and damaged the walls of the heart or blood vessels, for example, the aorta or coronary arteries. In like manner irregular action of the heart should be considered as to whether the irregular or incoordinate contraction of the chambers embarrasses the heart in its work, or whether its cause impairs the heart's efficient working. Arterial degeneration and high blood pressure, while requiring full consideration, should be viewed, so far as the heart is concerned, as agents tending to upset the normal adjustment of the factors which carry on the circulation, or as evidence of disease, which may affect the heart muscle or its blood vessels. The possibility of inherent defects in the muscle wall itself should be considered in all cases, as they naturally have a most important bearing on the heart's efficiency. In this connexion, insufficient or improper food, overwork, bodily or mental, too little time given for rest and restoration of the heart's strength, worry and sleeplessness, the reaction of the nervous system and other organs upon the heart, should all be taken into account when the factors producing heart failure are being considered.

*How Heart Failure Begins.*

Bearing in mind the division that I have given of the heart's power, it will be found that heart failure invariably starts in the first instance by exhaustion of the work force. The exhaustion is slight at first, but by the persistence of the causal factors it proceeds apace, until after a period, long or short, the exhaustion induces such distress as to compel attention, or the rest force is encroached upon, and with the exhaustion of the rest force a point of danger to the life of the individual is reached.

*The Relationship between Exhaustion and Restoration of the Work Force of the Heart.*

From this conception of the exhaustion of the heart's strength we can perceive the manner in which heart failure arises. The daily routine of a man accustomed to bodily labour shows a period of rest and a period of work, the one balancing the other—the period of exhaustion of the work force requiring a sufficient period of repose for its restoration. The life of man is so marked out that each day's work is roughly estimated by what a healthy man can do. If an individual has to do the work of a healthy man, but is hampered by some inherent defect, his work force is more speedily exhausted, and he needs a longer period for recuperation. If this is not obtained, then in course of time exhaustion increases, and the period of rest becomes less efficient and heart failure sets in. In the first instance, then, heart failure is no more than the inability of the heart to regain sufficient work force during its periods of rest. The rate at which heart failure progresses depends on the unequal relation between the bodily exertion and the amount of rest. The agents embarrassing the heart in its work need not necessarily be of cardiac origin; it may be the blood vessels, or diseases of other systems, or it may be due to some bodily condition, as obesity. When it is a heart lesion which embarrasses the heart in its work, the failure should not necessarily be considered as due to the heart lesion, but due to the individual attempting to do a healthy man's work handicapped by his defect. In the recognition of this fact we get the clue, not only to the cause of the heart failure, but a reasonable suggestion as to its rational treatment.

*The Nature of the Symptoms in Visceral Disease.*

Before dealing with the method by which we recognize heart failure, I will take the opportunity of presenting briefly to you a view of the symptomatology of visceral disease, which enables us to get a clear idea of the nature of symptoms. Visceral disease is made manifest to us by a series of phenomena, which can be separated into three distinct groups:

1. Symptoms due to changes in the organ itself, as alteration in its size, its shape, and, in the case of the circulatory system, in the rate and rhythm of the heart movements, and of the state of the vessels.

2. Symptoms due to impaired function, shown, it may be, in other tissues and organs, as in the case of heart affections, where syncope may arise from deficient supply of blood to the brain.

3. Symptoms due to reflex stimulation of other systems. This last class of symptoms includes, in the main, a series of phenomena which may be considered protective in their functions, and it is more particularly to these that I would desire to draw attention.

All organs of the body are endowed with a protective mechanism, which operates by calling into activity the functions of other systems. The immediate cause of this awakening of the protective mechanism is the exhaustion or disturbance of the function of the organ. The evidence for this view of symptoms may be best studied in affections of the heart. If, for instance, we wish to get an idea of how the heart performs its work, we shall find the best evidence in the study of the class of symptoms included in this group. When exhaustion sets in the first sign is given by some sensation of distress. This sensation arises by calling into play some part of the nervous system. The sensations may be of varied character, as a sense of exhaustion, choking sensation in the throat, tightness across the chest, dyspnoea, or pain. When such sensations arise during effort they act as an imperative call to desist from further exertion. When, then, we seek to estimate the condition of the work force, we find a guide as to its amount by estimating the response of the individual to effort. Exhaustion of a healthy heart will produce symptoms identical with a diseased heart, and the difference is only in the ease with which these symptoms are induced, or, in other words, in the amount of the work force. Hence as the appearance of certain symptoms indicates the exhaustion of the work force, we can gather from these symptoms the amount of work force which the heart possesses. The first evidence of heart failure is invariably a subjective one, although it may be ignored for a time. The patient's attention is drawn first to his condition by some feeling of distress in the performance of some act which he was wont to undertake without discomfort. It is the limitation of the field of cardiac response, with the interposition of the protective

mechanism, which is the first and dominant sign in all forms of heart failure, and it is by the due appreciation of the patient's sensations that the physician obtains the most reliable information about the condition of the heart's strength.

*The Standard for Estimating the Heart's Strength.*

The standard by which the heart's strength is measured is peculiar to the individual. The field of response to effort varies widely in different individuals with healthy hearts. Each one knows the amount of effort he can put forth without distress, and this is the only practical standard. It is the appreciation of this fact, that distress is evoked prematurely, that indicates the beginning of heart failure. The kind of distress called forth varies: breathlessness, palpitation, a sense of exhaustion, suffocation or pain, are the most common sensations experienced. By the time objective signs of heart failure have arisen, such as dropsy, laboured breathing when at rest or after slight exertion, increased rate, dilatation, the heart failure has proceeded a long way. When such objective signs persist when the body is at rest, the work force is practically expended, and the rest force is being exhausted.

*Estimation of the Significance of Symptoms.*

From this conception of heart failure and the manner by which symptoms of heart failure arise, we are able to set a standard by which the significance of symptoms may be estimated. The simple test is to observe how the heart responds to effort. It is manifest that if a heart be handicapped exhaustion will occur prematurely. It is necessary, therefore, that evidences of premature exhaustion should be sought for. As I have said, the standard of response is a personal one, no two healthy men responding exactly alike. It is necessary to be able to discriminate the relative strength of different individuals before applying this method of estimation, and it is in this connexion that great judgement should be exercised. If there be present in the heart some abnormal sign, as an increase in the size, a murmur, or an irregularity, but with no limitation of the field of cardiac response, it may be taken for granted that the cause of the abnormal sign has not impaired the functional efficiency of the heart muscle, and therefore that it is of little significance so far as heart failure is concerned. When there is marked restriction of the field of cardiac response, and the individual presents some abnormality, it does not necessarily follow that the cause of the abnormality is the cause of the heart failure. A careful inquiry has to be made into other circumstances, such as proper food supply, other affections of the body, overwork, worry, sleeplessness, and so forth. Many individuals suffer from extreme heart failure who never show any objective sign, the heart's action and size agreeing in every respect with our conception of what is normal. But if this method of estimating the condition of the work force be followed, symptoms of a characteristic kind will be found that will show the extent of the heart failure, and warn the physician when danger is impending.

*Neglect of the Significance of the Protective Phenomena.*

In putting forth this view that heart failure can be detected and that the significance of symptoms can be estimated by the observance of how the heart responds to effort, I make no pretence to originality. It was Graham Steell who pointed out to me many years ago the great significance of "muscle failure." Practically every one is willing to admit the truth of the proposition that it is the inability of the muscle to maintain an efficient circulation which is the cause of heart failure. But it is necessary to insist upon it here, for, though every one may admit it, few think it worth while to look at heart failure from this point of view. At all events, the testing of the heart's efficiency, by observing how the heart responds to effort, is never taught. If we were to seek in textbooks for a method to estimate the value of a symptom, we should find most writers so vague that one could read a large volume and rise from it with no notion of how the author would estimate the value of the simplest phenomenon. When writers do offer advice as to the estimation of the value of any symptom, they may go so far as to say that an opinion should not be based on the symptom alone, but that a decision should be given after inspection, palpation, percussion, and auscultation. That is to say, every possible means should be taken except the one of real importance. If we look further, we shall find how this very commonplace method is ignored. I have already referred to the methods in the army, where an individual is rejected merely on account of the presence of a murmur or an irregularity. Look at the questions in an insurance paper: "Are the heart sounds free from murmurs?" "Is the heart regular in its action?" Not a word as to the essential symptoms of heart failure. When a murmur or an irregularity is noted, some insurance offices have what they call a "heart form" to fill in, which is so arranged that the essential symptoms that would lead to an intelligent appreciation of the value of the abnormal symptom are practically neglected.

*Inadequacy of Methods Usually Employed to Estimate the Heart's Efficiency.*

There have been many attempts made to find some reliable method which could be applied to the differentiation of the value of symptoms, by estimating the integrity of the heart. Attempts have been made by counting the heart beats after a short period of violent exertion—a method which is of little use, except in rare cases, and which is full of fallacies and liable to mislead. Instrumental methods appeal so strongly to the imagination that we have attempted methods of valuation which are based entirely on a misconception of what it is they should reveal. We have elaborate blood pressure instruments, supposed to show the co-efficiency of the heart's strength in the terms of a mathematical formula. We have graphic records, and even the electrocardiograph. I am the last to decry the use of these methods, for they all have a very important sphere of usefulness, but I have little hesitation in saying that as a means of estimating the heart's integrity and capacity and elucidating the significance of symptoms they can only supply a very limited amount of information. When we reflect as to what are the essential conditions which lead to heart failure we shall at once recognize the great limitations of all methods which depend on the use of mechanical contrivances. Further, seeing that heart failure is first exhibited by a diminution of the work force of the heart, and that this is shown by a restriction of the field of effort, it will be understood how insufficient all methods are which depend on the examination of the body at rest.

*The Importance of Subjective Sensations.*

On the other hand, the due perception of the symptoms which arise in the early stages of heart failure, and their modification as exhaustion of the work force of the heart proceeds, furnishes evidence of such value that we can estimate not only the degree of heart failure, but the significance of any objective sign which may be found. For this purpose it is necessary that we should recognize the symptoms, and, as they are in the main subjective, their appreciation is surrounded with many difficulties. When we reflect on the enormous amount of time that has been spent in the elucidation of many of the signs revealed by physical examination, and the indifference with which subjective symptoms have been treated, we shall realize how it has come about that the estimation of the value of symptoms has been so inadequate. Many of the most significant symptoms are ignored in the examination of patients, and few are properly understood. Such a striking phenomenon as breathlessness, a symptom so prominent that neither physician nor patient can overlook it, is still so obscure that we have little knowledge of its varied forms and the mechanism of their production, and in consequence we lose the significance of each form. In like manner, the most dominant of symptoms—pain, a symptom so instructive and universal in its occurrence—has never been appreciated. Even at this day we know little of its mechanism, and because it is a subjective symptom and one which the physician cannot recognize by mechanical methods, its presence receives but the slightest consideration. The result is that this most instructive symptom is banished as a phantasy or labelled as a pseudo-angina pectoris, or exaggerated into a symptom of the most dreadful kind. I think there is nothing so futile and so misleading in clinical medicine as the usual description of pain in affections of the heart. The same neglect is shown in regard to the sensory phenomena associated with pain—for example, the hyperalgesia of the

external body wall, the sense of compression of the chest, the feeling of suffocation in the throat. These phenomena, when present singly or two or more together, are frequently the only grounds on which a safe opinion can be based. There is another series of sensations caused by the action of the heart, which would be of the greatest help if we understood them. At present the cause of many heart affections cannot be detected because certain changes in the heart's rhythm occur at infrequent times. If we but appreciated the patient's sensations we should often be able to recognize the condition that caused the distress. When opportunity is offered, it will be found that such sensations as "fluttering of the heart," the "sensation of stoppage," and the "thumping sensation" are due to very distinct and definite changes in the heart's action.

*Method of Examination.*

In applying this method of estimating the value of symptoms, I insist upon the patient's describing his own sensations and all attendant circumstances minutely. I carefully inquire into the manner in which an individual presenting any abnormal sign accomplishes his daily work or play. If he is young, how he comports himself during effort, as in playing some game or running a race; if he is middle-aged or elderly, how he carries out his work, and also how he may be able to undertake some effort. I try to ascertain if he can do the work and effort of a healthy man at his time of life, and if the inquiry satisfies me that he can do them, I give him a good prognosis. In doing this, I am testing the amount of work force, and if I find that even with a recognizable defect the individual does lead a healthy, untrammelled life, then I know that I have to do with an efficient heart muscle, and the defect is so slight that it does not perceptibly embarrass the heart in its work. When there is any limitation of this power, then a careful scrutiny is made into all the possible factors, such as overwork, worry, sleeplessness, and other diseases, which may induce exhaustion of the work force. If, in addition, there be any manifest lesion, then its bearing on heart failure is carefully considered to see whether its presence is merely incidental or whether it is a progressive lesion, or again whether it is stationary, but its presence has handicapped the heart in its work.

It may be as well to bring out the value of this method by showing how I have utilized it in actual practice. In the young with the functional murmurs and irregularities which I have already mentioned the individual's account of how he plays his games and reacts to effort is generally easy to ascertain. The consciousness of any distressful feeling too easily induced will be sufficient to place the physician on his guard, lest there be some actual enfeeblement present. The presence of an irregular action, as that due to an extrasystole, may cause a good deal of mental distress to the individual by his consciousness of the heart's abnormal action. Recognition of the kind of irregularity and the knowledge attained from long experience showing that it may not be in itself a sign indicative of heart failure, enables us to reassure the patient with confidence. For instance, I had referred to me a professional football player, a young athletic man of 21, who was greatly distressed by an unpleasant feeling in his heart at times. He had been examined by two doctors, who had recognized an occasional irregularity in the heart's action. He had been forbidden to exert himself, and was given digitalis and strychnine. After three weeks' rest and treatment the occurrence of the distressful feeling continued unabated. When I examined him I found his uneasy sensations were due to the occurrence of extrasystoles. In all other respects he appeared a perfectly healthy man, his response to effort being good, for he played his game vigorously up to the time he had been told to rest. In consequence of being told to cease work because of his heart's abnormal action he had become depressed and apprehensive. I endeavoured to reassure him, and suggested that all treatment should be stopped, and that he should start playing football again, and if at any time he was conscious of his heart stopping he was to pay no attention to it. He at once resumed his engagements, and completed his term with no discomfort. He told me that at the beginning of one match he was painfully conscious of his heart's irregularity, and felt that he must retire; but, reflecting upon what I had told him, he dashed into the game, and in a few minutes forgot all about his trouble, and he said that he never played a better game in his life. I may add that I have seen individuals, young and middle aged, in whom extrasystoles occurred at intervals, and have watched them for years, and have never seen any one who was restricted in his work on their account.

The same line of observation, when applied to what are usually called cases of valvular disease, will reveal features of real significance. The manner in which the individual responds to effort will be found to enable us to recognize those in whom the heart muscle has escaped damage, and those in whom the disease is gradually and surely extending, impairing the functional efficiency of the muscle, and embarrassing it in its work by interference with the flow of blood.

In searching for information in regard to the significance of murmurs, while the appreciation of how the heart responds to effort may give information as to the integrity of the heart muscle, where it has escaped damage, it requires very careful inquiry to realize the extent of the damage when the heart's efficiency is impaired. The degree of limitation of the field of cardiac response to effort must be correlated to the changes revealed in the heart by physical examination, and an estimate formed in regard to the rate of progress when the lesion is not stationary. This entails an inquiry into the history of the patient to find the date of the initial infection, and an estimate of the extent of the changes and the rate at which they have progressed from the evidence afforded by a physical examination. Thus, for instance, in mitral stenosis, the date at which the lesion began may be referred to an attack of rheumatic fever some years previously. Recognizing that mitral stenosis does not arise as an acute condition, except when due to vegetations on the valves, but is the result of a process that proceeds at a varying rate in different individuals, we can get fairly trustworthy evidence by the character of the murmur. As the narrowing of the orifice proceeds, we shall find changes occurring—first it may be a thrill, presystolic in time, then after a period, it may be of years, we find a presystolic murmur, which becomes more and more accentuated and prolonged as the narrowing goes on. The mitral orifice still becoming narrower produces a diastolic murmur, short at first, but gradually becoming lengthened, until the whole diastole is filled by murmurs. In these stages a reference back to the primary infection gives an idea of the rate of progress. Coincident changes, affecting the heart muscle, may be appreciated by noting the response to effort and changes in the size of the heart, and finally in the presence of auricular fibrillation. It will be found that in all these cases there is a distinct relation between the amount of work force and the degree of impairment of the heart's efficiency, due to the lesion in the muscle and valves.

I find this method of valuation of the greatest service also in cases of angina pectoris. If the statement which I have placed before you is accepted—that the only real test of the integrity of the heart muscle is its power to respond to effort, and that the amount of effort that can be undertaken without distress affords a basis for estimating the degree of impairment—we are at once placed in a position to obtain a fair conception of the gravity of any case of angina pectoris. Some men between 50 and 60 years of age, who are actively engaged in business, are seized with all the typical symptoms of angina pectoris. Recognizing how anxiously this condition is viewed, it is necessary to form an opinion as to the gravity of the condition. Putting aside all thoretical considerations as to the manner of the production of angina, let us consider it from a useful and practical point of view. If we look upon the sensations in angina pectoris as being in its nature a part of the protective mechanism, and the evidence of an exhausted heart muscle, however this exhaustion may have been induced, we obtain the grounds for a reasonable prognosis and a sensible line of treatment. In all people, as years advance, changes of a degenerative nature occur. So far as the heart is concerned, these may take place apart from any conspicuous lesion. On inquiry we shall find almost to a certainty that the attack of angina is not the first sign of heart exhaustion. If closely interrogated patients will invariably reveal that some time previously, even five or ten years before, they were conscious at times of sensations of a disagreeable kind on exertion, which they ignored,

continuing their work. These sensations indicated that at that time the periods of rest were not sufficient to restore the exhausted muscle, and that even then some slight changes were going on in the muscle which impaired its efficiency. With this impairment the individual still worked as hard as when in the flush and vigour of manhood. Exhaustion, in the first instance being ignored, finally becomes so extreme that it culminates in an attack of angina pectoris. If this view be acted upon, and if it be recognized that the muscle is exhausted because the periods of rest are not sufficient to restore the work force, we find out the essential cause of the suffering. It is necessary to recognize whether the conditions producing the attack are removable or permanent. A careful investigation may reveal that excessive work, worry, or sleeplessness has prevented recuperation. On the other hand, other factors may have contributed to the heart's embarrassment, such as poisoning from tobacco or alcohol. By the removal of these causes the heart may be restored to such efficiency that the individual leads a useful life at a lower level, with a prospect of attaining the allotted span. If the degenerative changes inducing the attack are more advanced, then it will be found that the recovery is partial and delayed, so that the degree of recovery is often an indication of the actual damage to the heart muscle. In other cases of angina pectoris—such, for instance, as when the attacks are readily provoked by exertion after meals—a due appreciation of the functional activity of the heart will be helpful. In some cases, when the attacks come on after a meal, the individual cannot at first walk fifty or one hundred yards without being distressed. This may be repeated a few times, and then he may be able to walk five or ten miles with no distress. This fact indicates that there is a good deal of healthy heart muscle present, and that the attacks are provoked by the introduction of an additional factor—a full stomach—which embarrasses the heart for the time being.

Auricular fibrillation is a condition that not infrequently induces an extreme amount of heart failure, which may speedily terminate in death. In such cases the exhaustion is so readily induced that no one could overlook the gravity of the condition. On the other hand, we find all degrees of limitation, some patients having little or no limitation of the field of cardiac response. The extreme irregularity in these cases is often viewed with alarm, but there are evidences present in every case which enable a proper estimate to be formed, such as the rate, the presence or absence of objective signs of heart failure. In the absence of such objective signs, the manner in which the individual responds to effort will invariably indicate how far the heart muscle is able to overcome the embarrassment induced by the irregular action, and the extent which the patient can exert himself within the limits which cause distress will afford a valuable indication as to the state of the heart muscle.

### *Limitations of the Method.*

I do not pretend that this view of estimating the degree of heart failure is of universal application, for there are many heart affections to which it is not applicable, as in acute diseases, or when the heart is invaded by some microbe or toxin, or where the individual has been weakened from some other ailment, as the various anaemias. It is mainly applicable to chronic cases with gradual changes impairing the capacity of the organ, and it is useful in differentiating those symptoms which have a serious bearing from those with little or no significance. Further consideration may reveal its unsuitability in other ways, and may lead to its modification. Such a view as this cannot be tried and judged on theoretical grounds or by the testing of a few cases for a brief period, but must be carefully applied to a large number of individuals, and those individuals watched and examined at intervals over periods extending from twenty to thirty years.

Since this view only impressed itself upon me ten or fifteen years ago, it will be seen that I cannot have given it that thorough test which it requires. It has, however, revealed so much to me and has been of so much practical help that I feel justified in putting it forward, for the life and experience of one observer is too limited to settle a matter of this importance.

### *Treatment.*

The conception of heart failure and the method of estimating the value of symptoms which I have attempted to describe has been of the greatest value to me in treating patients with heart affections, and in elucidating the action of remedies in a research which I have been carrying on for some time. Pursuing my work until lately amongst individuals most of whom were actively engaged in manual labour, the subject of treatment was all important, as they would not desist from work unless actually compelled by force of circumstances. I therefore saw many people whom on theoretical grounds I considered unfit for work who continued their work in spite of warnings, and were little the worse. This caused me to look more carefully into the circumstances of each case, to find out why, for instance, hearts damaged by old rheumatic lesions were capable of so much work, and when I came to appreciate the reason there was also placed in my hands a reasonable line to follow in managing such cases during their temporary attacks of heart failure. Recognizing that the exhaustion of the heart was due to an insufficient period of rest, a full inquiry into all the patient's circumstances frequently led to the recognition of many events in the daily life which by modification would save the heart much exertion, while the business or work of the individual could still be continued.

From this arose the first and most important indication—namely, that an individual affected by a heart lesion which diminishes his work force must live within the limits of his powers. This can only be done by the period of rest being sufficient to restore the exhaustion of the work force. In this way alone will heart failure be avoided, and a reasonable prospect of longevity be attained.

Treatment need not be given in the presence of any abnormal conditions unless there is distinct evidence of heart exhaustion. Where there is such evidence, then the treatment in the first place must consider the possibility of diminishing the amount of daily effort.

From the point of view that heart failure arises because the period of work is so great that the period of rest cannot restore a sufficient amount of work force, the essential principle of treatment becomes self evident—namely, rest. Though the beneficial effects of rest are invariably acknowledged they are far from being sufficiently appreciated. When we scrutinize any system of treatment, it will be found that the success of the treatment depends entirely upon the amount of rest the heart has procured. It seems probable that drugs which have such a potent and beneficial effect upon the heart as those of the digitalis group owe their good effect mainly to the amount of rest procured by the slowing of the heart's rate. At all events, in the researches I have been carrying on for some years, the cases which have obtained the greatest benefit from the digitalis were those in which the heart's rate was decreased by the digitalis. I have repeatedly seen relapse of patients coincide with an increase in the pulse-rate when the digitalis was diminished or left off. The vast majority of patients in whom digitalis acts with such marvellous effect in slowing the rate and improving the condition are those affected by auricular fibrillation. The reason that digitalis has acquired such a reputation as a cardiac drug is due to the peculiar susceptibility of patients with auricular fibrillation, and practically all recorded cases illustrating the remarkable effects of digitalis are cases of auricular fibrillation. Hearts with the normal rhythm are seldom so sensitive to the digitalis, and in them there is not the same tendency to slowing of the rate.

While in all successful systems of treatment rest is always prescribed, its good results are not always recognized, because at the same time some special agent is employed, such as a drug, a bath, or an exercise, and the good results are attributed to the special agent. It is for this reason that the therapy of the heart affections is loaded by such an array of therapeutical measures, the vast majority of which have little or no effect on the heart. Many of these agents are not only given when rest has also been prescribed, but they are given when there is no heart failure, and only because the physician has detected some anomalous symptom. It is a matter of everyday experience to find individuals with a murmur or an irregularity, who for years have been subjected to treatment and

made to visit health resorts, for a condition which neither indicates heart failure in the present nor its likelihood in the future. The fact that heart failure did not arise has probably been attributed to the precautionary measures. From this comes the belief in the efficacy of many of the drugs and methods in use to-day. When many of these vaunted remedies are carefully investigated, their uselessness becomes evident. Take, for instance, the present-day belief in the efficacy of strychnine on the heart, a belief held not only by a great many physicians, but which exercises an almost superstitious regard in the mind of many of our surgical brethren, in whom the belief is so deeply rooted that they will not undertake an operation without the preliminary ceremonial rite of a hypodermic injection of strychnine. I have sought in vain for the slightest evidence of the effect of medicinal doses of strychnine upon the heart, and have searched the literature on the subject and have not found one single reliable instance demonstrating the effects of medicinal doses. Pharmacologists have repeatedly examined with the minutest care the effects of medicinal doses of strychnine upon the heart in experiment, and have failed to obtain a result of any kind. So it is with a great many other drugs and methods, with the unfortunate result that the effects of drugs that are really of service are never properly appreciated.

We might not care so much for these erroneous beliefs were it not that they blind the profession to the great want of suitable agents in treating real and serious affections of the heart. There are many conditions in which rest alone fails to benefit the heart, as when the heart is invaded by a toxin, or rendered irritable from some lesion in the heart itself, or when the ventricle in heart-block contracts so seldom as to endanger life. For these and many other conditions we are absolutely without any means of meeting the impending and actual danger, and yet we are kept in ignorance of this fact because writers pour forth a stream of remedies for any and every kind of heart trouble. Were we more alive to our own limitations we should be more industrious in the search for real and valuable remedies.

# THE SURGICAL TREATMENT OF CHRONIC COLITIS.*

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CHRONIC colitis, like many other clinical terms, includes different conditions under a single heading. There is a colitis due to simple irritation of the bowel, a colitis due to protozoal infection, and another form due to bacteria. The surgeon, however, has no need of an elaborate classification, for he is called upon to treat only two classes of cases: those in which a cause can be found, and those where the patient is suffering from toxaemia due to the absorption of septic products from an ulcerating bowel, the cause of the ulceration being unknown.

The two conditions are liable to be mistaken in the early stages, and it is important, therefore, to make a thorough and methodical examination as soon as possible. A correct diagnosis cannot usually be arrived at in the out-patient room of a hospital or in the consulting room of the surgeon. The patient should, therefore, be kept in bed a day or two before any examination is made, and should be placed in charge of a competent nurse. The bowels should be emptied and cleansed by simple enemata and by irrigation with unirritating lotions. When this has been done thoroughly, digital examination, followed by the careful use of a sigmoidoscope, will often reveal a cause if the inflammation is limited to the rectum or the lower part of the sigmoid flexure. Abdominal palpation may give a clue when the cause is situated in the colon at a greater distance from the anus. Such a local examination will show that some cases of chronic inflammation of the bowel are due to gross causes. The colon may be irritated by the long-continued presence of scybala which have become packed away in the sacculi of the intestine, leaving the lumen free. The patient thus has a daily action of the bowels in spite of the impaction of faeces, and the cause is only recognized when the irrigation brings away masses of foul-smelling faeces, and the irritation subsides. Local irritation, too, may be due to the presence of a polypus or of an unsuspected cancer of the rectum; more rarely it may be due to actinomycosis, to glanders, to tubercle, to some strain of pneumococcus, to gonorrhoea, or even to syphilis. I have also seen it in a few cases of pericolitis where an abscess, formed outside the bowel, has afterwards burst into its lumen.

When these causes have been eliminated there remains a large class of cases which are grouped under the comprehensive heading of "ulcerative colitis," although there is no doubt that several subclasses of the disease exist. In these cases the large intestine may be ulcerated locally, or the inflammation may extend throughout its whole extent. The lesion is chronic, destructive and generally extensive. It rarely leads to perforation of the bowel; it is hardly ever associated with abscess of the liver; it kills by toxaemia. It occurs equally in men and in women, and although it occurs in epidemics, it is usually sporadic, as we see it in private and in hospital practice. The number of cases, I think, is increasing, but this may perhaps be due to the fact that I have been interested in the subject, and more cases therefore have been sent to me.

Local examination of a case of ulcerative colitis reveals no gross cause, and the inflammation requires for its investigation all the resources of modern bacteriology, and even then the pathologist may have to confess that he is without any clue to its nature.

During the last three years I have had ten cases of ulcerative colitis under my care, two of whom died. Here in brief is the record of a case, for the notes of which I am indebted to Dr. Ogier Ward, who was fortunate enough to have followed it from beginning to end:

A gentleman aged 30 first came under observation on October 5th, 1904, suffering from constipation. He said that his bowels had always been obstinate, but that they had become worse lately. Diet and the use of glycerine enemata relieved him until June 9th, 1905, when he returned complaining that for the last three weeks his bowels had again become irregular, and that he had seen blood in his stools. Examination showed that he was suffering from a fissure of the anus. The fissure was touched with caustic, and a week later the patient reported that he had not seen any more blood, but he was found to have four ulcers extending radially from the margin of the anus. Simple treatment caused the ulcers to heal, and the patient remained well until August 20th, 1906, when he applied for the relief of a pustular eruption on his hands which he thought he had contracted in the pursuit of his occupation as a buyer of furs. Rectal examination showed that he had a tiny fissure of the skin in the immediate neighbourhood of the anus.

He did not present himself again until March 10th, 1910, when an examination showed that the fissures were still present. There was no pain when the bowels were relieved, but blood spattered the pan of the closet. His bowels were very irregular, and the patient complained that when he had emptied them after breakfast it was often necessary for him to do so again within twenty minutes, the second motion being solid or liquid. He had slept well until the last week, when his sleep had been disturbed by the necessity of getting up to relieve his bowels. For instance, on the previous night he had a good stool at 2 a.m., but at 3 a.m. he was obliged to rise again to pass some watery stuff. He had lost his appetite and so much of his former vigour that he was unable to continue his business. It was noted that his teeth were very foul, and rectal examination showed that he had two small piles. On March 2nd the patient had passed blood and mucus three or four times by the bowel, and there was some spasm of the anus. The pulse was 105 and the temperature 99° F. On April 7th a well-marked fissure of the anus had formed, and there was some eversion of the margin, as though the external sphincter had lost its tone. The gums and mouth were in a much more healthy condition, and the patient was able to use a toothbrush. On April 18th the patient wrote complaining of "rheumatism" on the right side, and when he was seen on April 25th it was obvious that he was extremely ill. His pulse was 120, his temperature was 103.3° F., and he had had a rigor. He passed his motions frequently, the stools being crumbling and containing blood and mucus. The right wrist was swollen and red, and there was pain along the right sartorius muscle.

I saw him on April 28th, and found that he was passing stools containing blood clots and that he had a chronic ulceration extending from the margin of the anus upwards into the bowel. On May 11th he was seen by Dr. Hale White, who recommended that an appendicostomy should be done to ensure a better irrigation of the bowel, as it was clear that he was suffering from ulcerative colitis associated with profound toxaemia. This operation I performed on May 12th, and the bowel was washed out, whilst the patient was still under the anaesthetic, with three pints of hot saline solution. This was repeated daily, and the report states that on May 15th there was no longer any blood, pus, or mucus. The patient remained very ill, however, and he was given a vaccine prepared from his own pus. The

* Remarks introductory to a discussion on chronic colitis at the Harveian Society of London (see p. 874).

quantity varied from 5 to 10 millions, and the injections were made on May 15th, May 18th, May 24th, May 31st, and June 7th.

A little pus and blood appeared from time to time in the discharge from the bowel, which never became so offensive as it was before the appendicostomy. The temperature, which had oscillated widely between 102° F. and 98° F., began to show smaller excursions about the beginning of June, and there was no rigor after the operation. The patient left the nursing home on August 15th, but it was not until September 13th that he was able to be carried out into his garden, nor until the middle of November that he could stand without support. He then began to increase in weight steadily from 6 st. 4 lb. on October 23rd to 8 st. 4½ lb. on December 19th. By this time the swelling of his wrists had subsided. On January 11th, 1911, his weight had increased to 8 st. 9 lb., but he had experienced a slight relapse, as his wrists had again become puffy, and there was a return of the discharge from the bowel. The note adds that the patient had suffered similar relapses on previous occasions, and that they seemed to follow a few days after any extra effort or mental excitement.

The history of this case is singularly complete, because Dr. Ogier Ward was able to follow it from its very beginning to convalescence. It shows several of the features which I have found to be common in ulcerative colitis. A gradual onset, marked by a weakness of the rectal mucous membrane, followed by chronic irritation, leading to increased secretion of mucus, and by a desire to go to stool. The irritation passes on slowly to ulceration, marked by the appearance of blood, pus, and offensive stools. Absorption of these inflammatory products produces a state of profound toxaemia, from which the patient may be unable to recover.

The actual cause of the ulceration is unknown, although in several of my cases it has followed parturition, piles, fistula, and fissure. The diagnosis in the later stages is easy, but I find that the medical practitioner is apt to think more lightly of the condition than is warranted by the severity of the disease. The ulceration begins insidiously and with so little pain that the patient only thinks of it as an attack of diarrhoea lasting longer than usual. The patient feels ill, it is true, but the languor is attributed, naturally enough, to the disturbance of the bowels. Even in advanced cases when the onset has been rapid the facial expression is no guide to the local condition, and the friends, therefore, do not become alarmed. This was well exemplified in one of my hospital cases, when it occurred to some of my dressers to ask whether the patient was not a phenomenally lazy person who was making the most of an attack of diarrhoea lasting longer than usual. I asked whether it was our custom to take cases of diarrhoea into a surgical ward. I showed them the patulous anus from which a foul-smelling mucus issued almost continuously, and a few weeks later they were able to see the ulcerated mucous membrane of the colon at the *post mortem* examination.

As a result of this failure to appreciate the severity of the disease it often happens that milder remedies are employed long after the time when they should have been abandoned. Castor oil and irrigation of the rectum by means of a Higginson's syringe are excellent methods of treatment at first, but more heroic means must be adopted if the conditions do not improve quickly. Foremost amongst these comes vaccine-therapy, the vaccine being made from the particular strain of micro-organism which is causing the inflammation. Death from toxaemia is the great danger of the disease, and if the patient is to be rendered immune the earlier the process is begun the more likely are the results to be satisfactory. It is advisable, therefore, to call in the bacteriologist as soon as possible. The surgeon may have to follow. It is clear to most of us that the large intestine cannot be cleansed in its whole extent by simple irrigation from the anus. It is also known from *post-mortem* examinations in only too many cases of ulcerative colitis that any part or even the whole of the large intestine may be ulcerated. The products of the ulceration are very abundant, and their absorption is one of the most serious dangers of the disease. It is important, therefore, to cleanse the bowel and to keep it free from putrefying products. Drainage through the appendix enables this to be done in the most satisfactory manner. The operation of appendicostomy is not so serious as that required for removal of the appendix during the quiet stage. It is very effective, and the fistula can afterwards be closed without trouble; indeed, in some of my cases the difficulty has been to prevent spontaneous closure. On the other hand, it must be clearly understood that appendicostomy will not cure ulcerative colitis, and the friends of the patient should have this clearly explained to them at the time of the operation, or they will be disappointed. The object of the operation is to keep the bowel clean and to prevent the absorption of toxic products. The ulcerative process continues until the patient becomes immune either by a natural process or by artificial means. Appendicostomy, therefore, prolongs the life of the patient, and thus gives him a better opportunity to be cured. In the cases which have come under my own observation the first effect of appendicostomy has been a material improvement in the condition of the patient, even in the most advanced cases. The temperature falls, the appetite returns, and may remain good permanently. The improvement in the general condition, however, is not maintained in its full extent, and a relapse occurs after a week or two. These relapses are a cause of great anxiety, but, so far as I have seen them, they have only been temporary, and the net result of the operation has been a slow but interrupted progress to recovery after months of illness.

I have tried many different drugs as local applications in these difficult cases of ulcerative colitis. Carbolic acid in all its forms, and however disguised, has caused carboluria so often that I have ceased to use it. Bismuth salicylate, perchloride of mercury, biniodide of mercury, and boric acid caused irritation in the earlier stages and were discontinued. Bismuth carbonate (15 grains to 1 pint), potassium permanganate (1 in 30,000), and allmatein, which is haematoxylon acted on by formaldehyde (40 grains to 1 pint), proved most useful, and were soothing. In the later stages of the disease irrigation with perchloride of mercury (1 in 20,000), zinc sulphate (4 drachms to 3 pints), and silver nitrate in the strength of 5 to 10 grains to the pint of sterilized water gave the best results when they were used alternately. Ionized irrigations were employed on several occasions, but I could not satisfy myself that they were followed by any marked improvement. Chlorodyne was always useful when an anodyne was required, and it never seemed to lose its effect.

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# THE USE OF VACCINES IN ACUTE MASTITIS.

BY

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A CONSIDERABLE amount of work has been carried out on the etiology of acute mastitis, but, with the exception of a few isolated cases, little seems to have been done to apply the knowledge so gained by resorting to specific therapy. The cause of this cannot be that acute mastitis is always of short duration, with rapid recovery. A visit to any large out-patient department will show cases of chronic sinuses of breast which obstinately refuse to close up, and remain discharging for months and even years. By a timely use of vaccines in the more acute stages these chronic cases might be prevented from occurring. It is not suggested that inoculation treatment can replace surgery. For reasons I shall give later, it is seldom this most desirable end can be attained. Knowing, however, the specific nature of the disease, it is only rational that we should attempt to increase the resistance of the patient against the particular organism invading the tissues.

## Bacteriology and Mode of Infection.

The infective nature of this condition being an established fact, it remains to discuss the nature of the organisms and their mode of entrance into the breast. These two matters are of fundamental importance in the question of treatment of vaccines.

From an examination of the pus it has been found that almost any of the common pathogenic bacteria may be present. In a very large proportion of cases, however, *Staphylococcus aureus* is obtained in pure culture. In a much smaller number of cases streptococci have been found, either together with *Staphylococcus aureus* or, more rarely, in pure culture. *Staphylococcus albus* is

occasionally found, generally in conjunction with *Staphylococcus aureus*. These three organisms practically constitute the bacteriology of the ordinary acute mammary abscess.

### Infection by the Blood Stream.

Bacteria may enter the breast from within by the blood stream, or from without. There is evidence to show that bacteria from the blood may be excreted in the milk from an apparently perfectly sound breast.[1] It has, however, been shown that the organisms obtained from the milk are rarely the same as those present in the blood in cases of puerperal fever.[2] Streptococci are rarely to be found in the milk, whereas staphylococci are frequently present in the sound breasts of both feverish and healthy women.[3] Moreover, it is rare to find an acute mastitis occurring in a woman suffering from puerperal fever, although I think this fact may possibly be explained, inasmuch as the secretion of milk in these cases very quickly ceases, and there is then no nidus in which the bacteria can multiply. Thus, although metastatic abscesses may occur they are very rare, and septicaemia as a cause of the ordinary mammary abscess may be practically disregarded.

### External Infection.

By the external route infection is possible in two ways: (*a*) Through cracks and fissures of the nipples; (*b*) through the milk ducts themselves where no nipple lesion exists. Each of these ways is claimed by different authors to be the sole route of infection. Doubtless the truth lies between these two extremes.

It must be generally admitted that lesions of the nipple are not always, or even usually, to be found in cases of mastitis; at any rate, on macroscopical examination H. Ehrlich[4] in a study of 84 cases found nipple cracks only in 24 per cent. In my own cases they were only found twice in 25 consecutive cases of abscess.

Kehrer calculated that mastitis occurs in 25 per cent. of cases of cracked nipple.[5]

Much light is thrown on the occurrence of infection through a lesion of the nipple by a comparison of the bacterial contents of the cracks themselves with those of the associated abscess, and also with the bacteria of those abscesses which apparently are not associated with a nipple lesion. In a recent monograph by Schalk[6] the bacterial content of 22 cases of cracked nipple was examined; 14 of these cases showed the presence of *Staphylococcus aureus* in conjunction with streptococcus, while 8 showed *Staphylococcus aureus* alone. In 3 cases suppuration of the mamma occurred, and the bacteria of the abscess were identical with those found in the cracks—that is, in two cases *Staphylococcus aureus* and streptococcus together, and in the third case a pure culture of staphylococcus. In my own two cases with cracked nipple streptococcus was present in both cases in both cracks and abscess pus; in one case it was associated with *Staphylococcus aureus*. In a third case, in which a well-marked fissure had been present but had healed, a pure culture of streptococcus was obtained from the abscess pus. On the other hand, in 12 consecutive cases of my series in which no nipple lesion was present macroscopically, the abscess pus gave a pure culture of *Staphylococcus aureus*. Although infection may undoubtedly occur through a lesion of the nipple, it has been pointed out that pus pouring from a fissure is very likely to infect the adjacent ducts.

### Anatomical Evidence.

Where infection through fissures occurs the organisms pass by the lymphatics into the substance of the breast. In these cases suppuration commences in the connective tissues, while the glandular element proper at first plays a passive part. On the contrary, inflammation beginning in the ducts and acini spreads outwards from the glandular into the interstitial tissues. Both of these conditions have been described from histological preparations of cases of mastitis. The bulk of the cases from which morbid material is obtainable are in the later stages, and, as a rule, it is impossible to say exactly where the inflammation has commenced.

Billroth[7] described a pure interstitial mastitis with the bacteria lying in the lymphatics of the connective tissues leaving the glandular elements untouched; whilst Bumm,[8] whose work on mastitis is well known, described the conditions present in an early mastitis of glandular origin. He found the smaller ducts and acini choked with milk clot and bacteria; the epithelium had been shed, and leucocytes were migrating through the basement membrane into the focus of infection. The infecting bacteria were likewise passing from the acini into the surrounding connective tissues.

### Clinical Evidence.

Clinically it is usually possible to distinguish in their earlier stages two types of mastitis; their onset bears evidence of a different mode of infection.

There are cases in which the inflammation is obviously of the nature of a diffuse cellulitis—a firm uniform swelling forms, usually limited to one part of the gland, and frequently goes on to suppuration. In these cases there is generally no obstruction of the milk flow (even in the affected area) in the earliest stages.

By far the more common kind of case, however, begins as a lobular mastitis, mostly as a sequel to the sudden cessation of suckling. The milk becomes clotted in the distended breast, and there is some pain and rise of temperature. Resolution usually takes place, and the condition rarely goes on to suppuration. A lesion of the nipple is seldom found to account for this. How far the condition is of bacterial origin is not certain, but if the clots from such an obstructed breast are examined they are usually found to contain numerous bacteria, nearly always staphylococci.

### Process of Infection.

The course of events would appear to be as follows: When suckling ceases the bacteria present, mostly staphylococci, flourish in the stagnant milk, and clotting ensues. The irritation caused by the milk clot and bacterial toxins leads to invasion by leucocytes; these probably digest the milk clot, and, if possible, take up the bacteria also. We know, however, that opsonin is essential for phagocytosis of bacteria to take place. The presence of opsonin in small quantities has been shown in milk, and it has also been demonstrated that, like other bacterial antibodies, it varies in amount in direct proportion to that present in the blood.[9,10] The main point at issue is whether there is sufficient opsonin present to allow the bacteria to be taken up by the leucocytes, or whether they will be able to flourish unhindered and lead to abscess formation.

### Source of the Infecting Organism.

As to the immediate source of the infecting organism, Koestlin[11] found *Staphylococcus albus* on the nipple and areola in 297 consecutive cases.

Cohn and Neumann[3] have shown that *Staphylococcus albus* and *Staphylococcus aureus* are the most frequent bacteria to be found in the milk from normal breasts, but they are few in number. In the intervals between suckling, however, the bacteria multiply to a considerable extent, especially if these periods are prolonged. In the milk from obstructed breasts they found these organisms present in great abundance. These observers also found that most bacteria were to be found in the sample of milk first drawn—that is, that lying nearest the nipple. Schalk[6] has recently shown that organisms similar to those found in the nipple cracks and associated abscesses are also to be found in the child's mouth and in the maternal vagina at birth. He traces infection through these channels.

### Conclusions as to the Etiology and Pathology.

It would be well to state these conclusions before proceeding to the subject of treatment.

There are two organisms which are the cause of almost all the cases of acute mastitis. They are the *Staphylococcus aureus* and the streptococcus of one variety or another.

I. The *Staphylococcus aureus* is by far the more common. It usually enters by the ducts, causing clotting of the milk and obstruction; it then multiplies in the acini. The condition begins as a lobular mastitis, and subsequently the surrounding tissues may be involved with suppuration.

II. The streptococcal form of infection occurs through a lesion of the nipple; it spreads by the lymphatics and involves the interglandular cellular tissues without at first causing obstruction of the milk.

## TREATMENT.

### I.

Taking first that class of case in which direct infection from a nipple lesion has occurred, the course from an inoculation point of view is quite clear.

The infecting organism—probably a streptococcus, or streptococcus and *Staphylococcus aureus* together—can be cultured from the nipple crack and a vaccine prepared.

In the substance of the breast the invading bacteria are lying in the lymphatic vessels and connective tissues of a part which is thoroughly well flushed with the body fluids. They are thus quickly influenced by any alteration in the content of opsonin or other antibodies carried in the blood and lymph streams. These cases, then, will be favourably influenced by judicious vaccine treatment. Suppuration may be prevented, and the whole condition clear up rapidly. I have had two such cases clear up on prompt vaccine treatment when suppuration seemed inevitable.

### II.

The other class of case—that is, that in which no external lesion can be found to account for the infection—comprises the great bulk of all cases. We may consider the possibilities of treatment under three headings and see what data we have to guide us.

*Prophylactic Treatment.*

The data we have here are as follow: Bacteria are able to enter the ducts and acini from outside—probably being derived from the mouth of the sucking child. These bacteria grow readily in the stagnant milk. Leucocytes enter the gland acini in response to the bacterial toxins. The leucocytes cannot act as phagocytes to the bacteria until the latter have been acted on by opsonin. There is only a small amount of opsonin in milk normally, but it increases *pari passu* with that in the blood. The resistance of puerperal women to pyogenic cocci, as measured by the opsonic index, is lowered.[12] Under these circumstances the ideal treatment would be as follows: When suckling is to cease an injection of *Staphylococcus aureus*—the usual organism of duct infections—should be administered. This will cause an increase of resistance to this organism in the body generally, and will likewise increase the amount of opsonin present in the milk. The breast should be aseptically exhausted once or twice and further contamination carefully prevented. Such counsels of perfection are not likely to be widely practised yet awhile, although somewhat similar methods of treatment have been advocated and carried out in Germany; but they none the less remain the logical sequence of the data cited above.

*Treatment of Early Cases of Inflammation.*

Here we are dealing with a condition in which the bacteria have multiplied to a considerable extent, the ducts are obstructed by clotted milk, and large numbers of leucocytes have invaded the infected region. The question at issue is whether the leucocytes will be killed and transformed into pus and the bacteria spread through into the surrounding tissues, or whether there is enough opsonin present for phagocytosis to be carried out and suppuration prevented.

We are at some loss to offer effective assistance with vaccines here. We may be able to obtain a culture of the infecting bacteria from the ducts; or by the use of a stock vaccine of *Staphylococcus aureus* we can materially increase the resistance of the body against this organism. This, however, is not the whole or even the chief part of the difficulty. The anatomical conditions present are to a large extent opposed to the success of vaccine-therapy in the earlier stages of infection in these cases. The bacteria are multiplying inside the ducts and acini, shut off from direct action of the body fluids by a well-marked basement membrane. They are, strictly speaking, outside of the body altogether. I was somewhat chagrined at first to find that attempts at abortive treatment by vaccines in these cases seemed invariably to fail; but, looked at in this light, it would be surprising if they should succeed.

The condition present is precisely analogous to that obtaining in cases of sycosis and acne; here the bacteria are ensconced in hair follicles or sebaceous or sweat glands, in which they multiply. Occasionally they break into the surrounding tissues, causing pustulation. The acute outbreak is easily cleared up by vaccine-therapy, but the cure of the basal infection is quite a different story.

These, then, are the conditions with which we are confronted. What are the indications for treatment? It is an open question among persons of experience whether simple bandaging or fomentations should be used. In other words, whether complete rest of the part is to be aimed at, or whether immigration of leucocytes, and, as far as possible, interchange of body fluids should be encouraged. One thing, however, remains clear—that the resistance of the body to the infecting organism should be raised as much as possible in case suppuration should occur. If this can be effected suppuration is kept within very small limits, and when the pus has been evacuated healing is rapid.

Only three cases of this class in my series came for treatment before suppuration had set in; these received injections of *Staphylococcus aureus* in doses of 400 or 500 million with the good results just mentioned above. The bacteriological diagnosis was confirmed in two of these cases when the pus was evacuated.

It may be mentioned here that the administration of vaccines to suckling women did not appear, in any case, to injuriously affect the child.

*Treatment After Suppuration has Commenced.*

I need not go into the question of operation; pus being present, must be let out as speedily and as thoroughly as possible, and adequate drainage provided. This is as much a canon of inoculation as of surgical treatment.

We are dealing with an area in which the bacteria have gained the upper hand over the leucocytes, and necrosis of the tissues has resulted. The localization of an abscess depends on the resistance of the surrounding tissues to the attacking organism, and this in turn depends mainly on the richness (in bacterial antibodies) of the blood and lymph stream supplying the part. When necrosis has occurred the readiest way to secure a thorough flushing of the parts with these fluids is by providing free drainage. At the same time we must increase the potency of the antibodies in the fluids we are applying to the injured area.

Fifteen cases of my series come under this heading. They were mostly sent for treatment immediately after operation. The routine treatment was as follows: There being no sign or history of a lesion of the nipple, a staphylococcal infection was diagnosed, and an injection of 400 to 800 million of a stock vaccine of *Staphylococcus aureus* was given, usually in the upper arm. Films of pus from the wound were made and the wound cultured, so that the bacteriological diagnosis might be confirmed on the following day. In cases that did well one further injection of a similar amount was given about a week later, and this was usually all that was required. Opsonic indices were not done, but if a case ceased to do well the wound was recultured and usually showed that a secondary infection had occurred. Those cases which had not been sufficiently freely opened at the outset did badly until surgical means were again resorted to, for it appears that where pus is pocketed the condition is only aggravated by the administration of vaccines. Every one of these 15 cases gave a pure culture of *Staphylococcus aureus* in the first instance.

The results of treatment were as follow: Five cases ceased to attend soon after the first injection; 1 case became secondarily infected with streptococcus, and healing was delayed for ten weeks; 9 cases were discharged healed in an average of twenty days each.

*Chronic Suppurating Sinuses of the Breast.*

In addition to these cases of acute mammary abscess, 13 cases of old-standing sinuses were treated; these were the result of past operations or spontaneous bursting of an abscess.

The bacteriological findings were as follow: *Staphylococcus aureus* was present 13 times—8 times in pure culture, once together with diphtheroid bacilli, and 4 times together with streptococci; 1 case gave a pure culture of streptococcus.

In treatment stock vaccines were used in staphylococcal cases, and autogenous vaccines were made where streptococcus was present. The streptococcal cases were more protracted and the vaccines not so well borne;

the difficulty in these chronic cases is frequently largely due to the presence of much scar tissue. This apparently is particularly abundant in streptococcal infections. By its contraction the fibrotic tissue interferes with the local blood and lymph supply, with the result that the contained antibodies, however abundant they may be, cannot come into contact with the infecting bacteria. The local treatment of these chronic sinuses consisted, as a rule, in the use of gauze drains soaked in hypertonic citrated salt solution, as recommended by Sir Almroth Wright.

The value of vaccines in cases of chronic suppuration is too well known to need much comment, and the results of treatment in these cases may be briefly summarized thus:

Taking an average, the time that suppuration had been going on in these 13 cases was fourteen weeks each, and they were discharged cured in an average time of five and a half weeks each from the commencement of vaccine treatment.

In one case there had been recurrent abscesses for fourteen months, and the breast was a mass of fibrotic tissue—a pure culture of streptococcus was present in this case, and cure was only complete after six months' treatment.

In another case sinuses had been present for eight months, and the patient was discharged cured in five and a half weeks.

In two other cases of six months' duration cure was complete, in one case in two and a half weeks and in the other in five weeks.

These numbers are exclusive of one case, in which treatment was discontinued. No improvement whatever was effected by several months' use of autogenous vaccines. This was a case of streptococcal infection, and the breast was riddled with sinuses. Drastic surgical measures were finally resorted to and a cure is now (November, 1910) almost complete.


REFERENCES.

[1] Escherich, *Fortschritte der Medizin*, Bd. iii, 1885. [2] Loc. cit. [3] Cohn and Neumann, *Virchow's Archiv*, 126. [4] H. Ehrlich, *Wien. med. Woch.*, 1894, p 891. [5] Kehrer, *Beiträge zur Geburtskunde*, Bd. ii, 1879; *Der practische Aerzt*, Nr. 3, 1883; Wochenbett's *Krankheiten;* Müller's *Handb d. Geb.*, Bd. iii, 1889. [6] Schalck, Inaugural Dissertation, Kaiser Wilhelms Universität, Strassburg, 1910. [7] Billroth, Krankheiten der Brustdrusen, *Deutsche Chirurgie*, Lf. 41, 1880. [8] Bumm, *Arch. f. Gyn.*, Bd. xxiv, H. 2, and Bd. xxvii. H. 3; *Volkmann's klinische Vorträge*, Nr. 282, 1886; *Grundriss der Geburtshilfe*, 1903. [9] Sims Woodhead and Mitchell, *Journ. Path.*, 1906, p. 408. [10] Turton and Appleton, BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 865. [11] Koestlin, *Arch. f. Gyn.*, Bd. liii. [12] Wells, *Practitioner*, May, 1908.


## ERYTHEMA NODOSUM FOLLOWING MEASLES.


BY

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DURING the epidemic of measles which has been prevalent in Lewes since last November, I found 2 cases of erythema nodosum which occurred during the convalescent period. At the same time Dr. G. Birch found 7 cases, also following measles, as to which he kindly gave me information. Unfortunately no notes were made at the time of six of these, so no detailed account of them can be given. In most of the cases about ten to fourteen days had elapsed since the first onset of measles before the erythema nodosum made its appearance. In half the cases the first symptom was pain in the joints, followed by the erythema in about twenty-four hours. There was no history of rheumatism or contact with rheumatic fever in any of the cases, and no rheumatic or cardiac lesions were found in any of the patients. The question of sore throat before or at the time of the measles rash was carefully gone into, but it was present in one case only.

CASE I.

G. H., aged 8 years. No previous illnesses. On December 2nd a typical measles rash appeared, which was well marked in twenty-four hours; temperature 105°; a sharp barking cough, and bleeding of the gums; no sore throat; temperature normal in three days. On December 9th the patient got up, feeling very well. On the 13th he complained of pains in the shoulders and knees, followed in twenty-four hours by well-marked erythema nodosum on the shins, which disappeared quickly with salicylates and rest in bed. He was quite well two months later.

CASE II.

D. H., aged 6 years. A delicate girl, no rheumatic history. On February 1st a measles rash appeared. The temperature at night was 105°, and was normal in twenty-four hours. The throat was very much injected and painful, accompanied by an irritating cough. There was no bleeding of the gums, and the rash was never well marked. Patient was making a good recovery until the 16th, when pains in the joints were complained of, followed in thirty-six hours by erythema nodosum on both shins, which was very painful. The rash and joint pain yielded readily to salicylates.

CASE III.

J. W., aged 8 years, a weakly boy, often having attacks of tonsillitis or bronchitis. On December 12th the measles rash appeared; temperature 103°; no sore throat but an irritable cough; the rash was never profuse. He was up again in five days, and did well till the 24th, when he complained of pains in the ankles and knees, followed in eighteen hours by the erythema on the shins, outer side of the thighs, and the back of both arms. Salicylates quickly cured the condition.

As far as I know no other cases of erythema nodosum have occurred in the sphere from which these cases have been collected. Seven of the cases occurred among the poorer class attending the hospital, and two were private patients in fairly good circumstances. These 9 cases have been collected from 300 cases of measles, but many other cases of measles have occurred in the town of which no account has been obtained.

## A CASE ILLUSTRATING THE VALUE OF SURGICAL TREATMENT OF PULMONARY CAVITIES.


BY J. DELPRATT HARRIS, M.D., M.R.C.S.,

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ON May 4th, 1889, I reported in the JOURNAL, p. 994, a case of pulmonary cavity treated surgically with success, and, although cases of empyema have occurred by the score in my practice in the interval, I have found but one other case beside this now reported in which opening a pulmonary cavity and treating it surgically seemed indicated.

That it is useful and fairly safe in non-tuberculous cases where the cavities are but few in number seems established, and the following case is an illustration of its application:

P. T., aged 16 years, was brought to the Devon and Exeter Hospital from a cottage hospital in North Devon, where he had been for six months. Beyond that he had been very ill and feverish, no definite history could be obtained. He arrived here on August 6th, 1910, complaining of cough and pain in the right side of chest. He appeared ill—eyes bright, cheeks flushed, temperature 104.2°, pulse 136, respirations 36. He stated that he was getting better until the week prior to his admission, when the cough came on with fever.

The report on the condition of his chest was that there was dullness over the lower two-thirds of the right side of his chest, and posteriorly, with moist gurgling sounds. Whilst being examined the lad complained of wanting to expectorate, and immediately coughed up a large amount of pus.

This expectoration continued daily for several weeks, and was noted as being extremely offensive. At this time he filled the ordinary spittoon twice or three times a day, and he must have got rid of 6 or 8 ounces of muco-purulent material every twenty-four hours. His breath was very objectionable also. His temperature ranged from 101° to 97°, rising to 103° on August 22nd, but falling to normal the same evening. The dullness behind now seemed lower down, whilst rhonchi could be heard over the right apex. Moist sounds could be heard at the right base. He was losing flesh. It was thought that probably the condition was a chronic form of catarrhal pneumonia, and that possibly a local empyema had occurred, and he was transferred to the surgical wards.

On first seeing the case it occurred to me that the symptoms would be accounted for if he were expectorating an empyema through the lung. After waiting a reasonable time I concluded that an operation, consisting of the removal of several of the ribs and opening and draining the pleuron, would give him most relief. I operated on September 18th, and on coming down on the pleuron it was obvious no empyema existed. Introducing the finger I found a few adhesions, but on palpating the lung no hardness betrayed the whereabouts of a bronchiectasis. About an inch of the fourth, fifth, and sixth ribs was excised.

I hoped that one result of this operation might be adhesions between the lung and the parietes, for one great difficulty in treating these cases surgically is the withdrawing of the lung from the wound, from air entering in the pleural cavity. The wound was therefore stitched up, and shortly healed. The effect of this operation was not very marked, although it cleared up the diagnosis. Yet the offensive expectoration occurred regularly, and the lad became blue and strangled

from the thin purulent material becoming sucked down the bronchi of the other lung. This was also a very alarming condition during each of his operations, oxygen being used on two occasions.

On October 29th I reopened his chest, but anteriorly, for his moist sounds and bronchophony were best heard at about the interval between the fourth and fifth ribs on the right side, very near the nipple. On this occasion I succeeded in introducing the aspirating needle into the pulmonary cavity. This opening I enlarged with Lister's long sinus forceps, but, owing to the retraction of the lung, I was unable to drain it as I wished with an india-rubber tube. A tube was kept in the pleuron in the direction of the cavity in the lung, and the air allowed to enter with each inspiration, for it was argued that by causing collapse of the lung the pulmonic cavity would be considerably decreased in size, whilst adhesions would occur between the lung and the anterior parietes. No marked benefit followed this operation, and the amount of expectoration was not materially lessened or otherwise altered, whilst the range of temperature was from 99° to 102°.

On November 19th the wound was opened up, a rib excised anteriorly to the extent of 1 in., and a determined effort made to drain the bronchiectasis; a tube was introduced into it, but the movements of the chest walls in respiration prevented it from staying there. Highly offensive matter flowed from this wound in a day or two, and a corresponding decrease was expectorated, and the boy's condition improved; the temperature became normal, and the drainage tube was left out on the tenth day. Gradually he gained weight and all expectoration ceased.

On December 2nd the right side of the chest was exposed to the action of *x* rays, which was repeated twice a week—four exposures in all. He then left the hospital to spend some weeks at Torquay, air at that time entering both lungs freely, pleural friction sounds being heard at the lower portion of the right lung, both back and front, whilst he had gained 1 st. in weight.

This case presented one or two special points of interest. Thus there were no adhesions found strong enough to prevent the lung from retracting from the wound. Neither was there anything to guide the palpating finger to the dilated bronchus.

Again, the movements of respiration, so much exaggerated anteriorly as compared to the movements of the ribs posteriorly, repeatedly pulled out the tube from the bronchiectasis, for although the latter was carefully mapped out prior to operating, as soon as air entered the pleuron the bronchiectasis was drawn upwards and towards the mediastinum.

The operation was therefore divided into three stages. On the efficient drainage of the bronchiectasis being established, the temperature fell to normal, and remained so with cessation of all sweatings.

Lastly, the collapsed lung and injured pleural cavity were subjected to *x* says for twenty minutes on four occasions.

Probably this case could not have been tuberculous, or the lung and sinus tracks would not have healed so well; but the quick ending of the case and restoration of the lung for breathing purposes was in my estimation materially helped by this procedure.

## THE USE OF SCOPOLAMINE-MORPHINE IN LABOUR.

BY DUDLEY CORBETT, M.A., M.B., B.CH.OXON.,
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IN view of the interest that is now being taken in scopolamine, I have thought that my experience with this drug may be of value. Its power to produce analgesia in labour is now generally known, but unfortunately in many cases this result is only obtained with the risk that the child will be born in a state of apnoea. The following results will, I hope, suggest how this danger may be avoided.

*Dosage.*

The compound tabloids of Messrs. Burroughs Wellcome were employed; these are in two strengths—"A," scopolamine $\frac{1}{100}$ grain, morphine $\frac{1}{6}$ grain, and atropine $\frac{1}{180}$ grain; "B," scopolamine $\frac{1}{100}$ grain, morphine $\frac{1}{4}$ grain, and atropine $\frac{1}{180}$ grain. In all cases the drug was administered subcutaneously.

*Analgesic Effect.*

Of 20 cases, 4 exhibited complete analgesia, none of them remembering anything of the birth of the child. Three of these had one dose of "B" only, and the fourth had one dose of "A" followed two and a half hours later by one of "B"; in this case forceps were employed for delivery without chloroform. The patient was unaware that anything of the kind had been done.

In 13 there was a marked effect, the patients sleeping between the pains which caused little suffering. In 3 the effect was slight or absent.

*Influence on Uterine Contractions.*

In 4 cases in which inertia apparently followed the injection it is probable that primary inertia had been present throughout, masked by the distress of the patient. Where delay occurred during the second stage, it was clear that this was due to the absence of voluntary effort.

*The Effect on the Fetus.*

My cases seem to show that where delivery occurred at four hours or less after the injection the child was invariably affected to a greater or less degree. The only exceptions to this were 2 cases in which the drug was without any effect upon the mother whatever.

Of the 20 cases described above, only 18 can be counted so far as the effect on the child is concerned, because one of them was a case of twins and in another the infant was premature. Of these 18, in 9 the child was born perfectly normal; in these delivery occurred 13½, 9, 7½, 7, 6, 5½ and 4½ hours respectively after the injection. In the 2 cases already mentioned delivery occurred one and three-quarter hours and half an hour after an injection which was without any effect on the mothers.

In 7 cases the child was born sleepy and slightly cyanosed. They all responded to gentle stimulation, and never gave any anxiety as to their rapid recovery. Delivery occurred 3, 2¼, 4, 1¼, 2, 4, and 1¼ hours respectively from the time of the injection. All the mothers received one dose of "B" only, except the last, who had a second injection of "A."

In 2 cases the child was badly asphyxiated. In the first the mother received two injections, the first of "B" and the second of "A," and the child was delivered with forceps three and three-quarter hours from the second injection. It was not breathing, was cyanosed, and the heart was beating very slowly. A hot bath was given and artificial respiration employed, with the result that recovery ensued in twenty minutes.

The second case was one marked by an extremely tedious and distressing first stage, and shows the value as well as the dangers of scopolamine.

The patient was a primipara, aged 23. Labour started on April 22nd, and the pains were so severe as to prevent her sleeping the same night. On April 23rd distressing pains continued, rendering her hysterical. In the evening, when examined, the os barely admitted the finger, and the abdomen was extremely distended, looking like a case of hydramnios. She was admitted the same night. In the morning of April 24th she had an injection of "B," and slept for five hours. Towards evening she again became very hysterical; the os only admitted two fingers, and so, other methods of pacifying her failing, she received another injection of "B" with good result. At midnight the membranes were ruptured artificially, as it seemed likely that there was an excess of liquor; this, however, was not the case. At 2 a.m. on April 25th she again became assailed by violent and distressing pains, and became very noisy. As the os was not yet three parts dilated she received another injection of "B," with the result that she slept until 5.15 a.m., hardly noticing the pains, and was almost unconscious of delivery at 5.45 a.m., three and three-quarter hours from the last injection, and about seventy-two hours from the onset of labour. The child was large, and weighed nearly 10 lb., thus accounting for the size of the abdomen. It was badly asphyxiated, being cyanosed and making no endeavour to breathe. It was put into a hot bath, brandy and ether injections given, and artificial respiration was kept up for forty-five minutes. Fortunately recovery was then rapid, and the child did extremely well later.

Thinking that the morphine was mainly responsible for these cases of asphyxia, I tried combining strychnine with the mixture, $\frac{1}{252}$ grain with the "B" injection and $\frac{1}{80}$ grain with the "A"; these doses for the sake of brevity I will call "BS" and "AS." The strychnine did not seem to mitigate the good results on the mother. In one case there was but little effect, but in the rest the result was good. Three of the patients had complete analgesia; the others were distinctly relieved.

Of 10 cases, 9 were normal children, delivery occurring 30, 13, 12, 8, 4¾, 4, 2¼, 2½ hours respectively after the injections. The first 6 cases are of no value as far as these results are concerned; but the last 3 are suggestive in view of the results in the first series, for in each case the mother received relief, and the child was born within four hours from the injection. In these 3 the dose was "BS" for the first two and "AS" for the last. The remaining case, however, shows that one cannot rely upon similar results in all cases. The child was born three hours after an injection of "BS"; it was drowsy and respiration intermittent, but recovered in twenty minutes after a hot bath.

In a recent paper Drs. Freeland and Solomons showed[1] that in their 100 cases, where morphine was, as a rule, never given in greater doses than ⅛ grain, there was only one case of apnoea, and in this ¼ grain was given. It is probable, then, that the cases of apnoea in my series were to a certain extent due to the larger doses of morphine usually employed. The above authors conclude that the dangers to the fetus have been much exaggerated; whether this is so or not it is clear that, in view of some of the preparations and combinations of scopolamine at present on the market, caution should be employed in their use.

*Conclusions.*

My conclusions are as follows:

1. The scopolamine-morphine combination is of great value where hysteria and distress are manifest during the first stage of labour. If possible it should only be given in the first stage and not repeated.

2. No ill effects to the mother need be expected even with full and repeated doses.

3. No ill effects need be expected for the child, even where the mother has had full and repeated doses, provided that delivery does not take place at four hours or less from the time of the last dose, otherwise apnoea will ensue. On the other hand, where the drug is without effect on the mother it is not likely to affect the child, even if born within four hours.

4. The cause of the apnoea is probably the morphine, and so where it is necessary to give the drug late in the first stage, or early in the second, the morphine should not be given in larger doses than ⅛ grain, or omitted.

5. A hot bath is the best treatment for the apnoea.

6. Strychnine may prove to be a useful addition to the mixture. It does not diminish the analgesic effect of the combined drug, and it may help to prevent the apnoea in the child.

My best thanks are due to Dr. J. S. Fairbairn, physician to the hospital, for his kind suggestions and permission to publish these results.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, January 28th, 1911.

## EVIDENCE OF RECENT SEVERE ILLNESS AFFORDED BY THE NAILS.

BY NORMAN FLOWER, M.A., M.B.OXON.,

*With a Note by*

SIR SAMUEL WILKS, BT., F.R.S.

I BELIEVE that attention was first drawn to this somewhat curious condition of the nails by Sir Samuel Wilks in a communication to the *Lancet* of January 2nd, 1869, since when a number of cases have been reported from time to time. The following case illustrates the condition so clearly that it is perhaps worth recording.

The patient was a lady, aged 61, who was seen for the first time on June 11th, the third day of her illness, due to a localizing appendicitis. Owing to the stoutness of the patient abdominal examination was rendered very difficult.

On June 18th temperature rose to 101.8°, and pulse 106. Examination under an anaesthetic revealed an ill-defined lump rather towards the middle line. Operation was at once proceeded with, and after opening the abscess I inserted a large tube. Drainage was good, and all went apparently well until June 21st, when secondary haemorrhage commenced. All the stitches were removed, and both fat and muscle of the abdominal wall were found to be gangrenous. No large bleeding points were found, but oozing was general.

On the following day, June 22nd, the patient became jaundiced and semi-comatose, so that we feared the onset of suppurative pylephlebitis. There was incontinence of both urine and faeces. Subcutaneous and intravenous infusion was resorted to, with but little improvement. Rectal salines were not retained.

On June 23rd the patient was quite comatose, the pulse imperceptible, conjunctivae shrivelled. Death was hourly expected. Saline infusion, etc., was continued.

On June 25th there was slight improvement, incontinence ceased, and the jaundice commenced to recede.

On July 3rd there was retention of urine, and the catheter was used.

On July 8th there was no attempt at repair in the wound; the lack of vitality and the toxic condition of the patient was well shown by the fact that the minute incision made for the intravenous infusion took five weeks to heal.

On July 13th the patient developed hypostatic pneumonia, from which a good recovery was made.

Although all the usual precautions were taken at the time of the saline infusion, the patient developed a pectoral abscess on the right side, no sign of suppuration appearing until four weeks afterwards (July 31st). A week later the same condition appeared on the left side.

The abdominal wound now commenced to granulate, eventually leaving a very small cicatrix. On August 24th the patient got up for the first time, and it was noticed that upon all the nails of both fingers and toes were transverse white lines, one-third of the way up. In addition to these marks there were transverse ridges, but these were only marked upon the index and third fingers of the right hand. The nail on the proximal

Fig. 1.

side of the lines was of a much softer nature. Allowing six months as an average for the nails to grow out, the position of the lines exactly corresponded to the roots of the nails when the patient was in the apparently moribund state two months before.

On September 10th the patient was walking without aid.

I am indebted to Sir Samuel Wilks, to whom the photograph was submitted, for his kindness in permitting me to quote the following comments and cases:

"I am much obliged to you for your interesting case and the photo of the hands of the patient, which is by far the best representation of the markings on the nails which I have seen, showing, no doubt, the time of the illness which you describe.

"The case is quite in accordance, as regards its history, with all the other cases which I have seen—that is, the condition of the patient at the time when these white marks took place. When I first noticed them, I was under the impression that they were indicative of some previous severe illness, but I subsequently learnt that this was not the case, for, if true, they would be of every-day occurrence, and well known to every medical man, and certainly not requiring the special notice which I believe I was the first to make.

"There may, however, be lesser degrees of these conditions where the lines might be less marked, and so perhaps overlooked.

"My opinion is that the furrow and white line on the nails show the line of death or approaching death which takes place during the patient's illness. In all the cases I have seen or known where these marks have appeared the patient has been at death's door; he has been regarded by the medical man and friends as dangerously ill, and, indeed, in the jaws of death, unless he soon rallied and then recovered. He has always become cold, pulseless, and death written on his face, causing the greatest anxiety to his friends, and in this state he may continue for some hours or several days. If he should fortunately recover, the sign of death is written upon him. During this precarious period all functionizing is

stopped and nutritive processes ceased. Probably a close microscopic examination might show in the viscera and secreting surface some line of withered cells, but the outside of the body alone comes to view, so on the hardened parts of the skin, represented by the nails, the death line can be seen.

"You say your patient was not expected to live, and the same was said of myself. After my operation I had blood poisoning, and at the end of three weeks, having gradually got worse, I was given up by nurses and doctors. Dr. Pye-Smith told my daughter that I should not live through the day. I, however, turned the corner, and showed the event on my nails. Recently, as you know, I have had a far more serious illness as regards pain and the operation, but never at any time did the illness come to a climax, and so I do not present any signs of it at the end of my fingers.

"Two other examples which I remember were cases of autumnal diarrhoea, or English cholera, as it is sometimes called. These both occurred in somewhat aged old gentlemen, who became so collapsed that it was thought they would die. One of these was a clergyman and relative (occurring about fifty years ago), and being the first that I had seen, made a great impression on me.

"Then came a case which I considered the proof of my opinion of what these marks indicate, as they occurred in a gentleman who had had no illness, but was twice nearly dead from sea sickness on his voyage to America, and also on his return.

"He was sent to me by a friend thinking I should like to see him, and he brought with him a photographic picture of his hand with the marking on his nails. These were two white lines or curves with a good space between. I then reckoned the time of his starting, the time he was in America, and the time of his return by the line which was nearest to the root of the nail and the uppermost of the lines. The dates were all accurate. The history of his voyage was written upon him.

Fig. 2.

"I showed this drawing at the Pathological Society[1] about twenty years after my first communication to the *Lancet*."

[NOTE.—Since these notes were written one more case has come under my own observation. A gentleman, aged 48, in whose case I resected a rib for a left-sided empyema and double septic bronchopneumonia.—N. F.]

REFERENCE.

[1] Pathological Society's *Transactions* for 1888.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### THE INFECTIVE GRANULE IN CERTAIN PROTOZOAL INFECTIONS, AS ILLUSTRATED BY THE SPIROCHAETOSIS OF SUDANESE FOWLS.

WITH reference to the paper entitled "The infective granule in certain protozoal infections, as illustrated by the spirochaetosis of Sudanese fowls" (a preliminary note),[1] which I sent you from Khartoum on March 12th, it is of interest to note that I have just received a copy of the *Quarterly Journal of Microscopical Science* for February. In it I find a paper by Dr. Bosanquet on *Sp. anodontae*. He finds that under certain artificial conditions this parasite of the crystalline style of the mussel breaks up into bead-like bodies, and states:

> It seems, then, that *Sp. anodontae* goes through a stage in development in which it breaks up into coccoid bodies, just as, according to Leishman, *Sp. duttoni* breaks up into similar bodies inside the body of the tick.

He might have added—just as the spirochaete of Sudan fowls breaks up into granules in the body of *Argas persicus*.

[1] BRITISH MEDICAL JOURNAL, April 1st, 1911, p. 752.

The analogy is most interesting, and I am now in a position to state that I have found that the fowl spirochaetes, ingested by the tick, behave in the contents of its alimentary diverticula exactly as they do in the liver, spleen, lung, and, under certain conditions, in the peripheral blood of infected chicks either at the natural crisis or at a crisis artificially produced by the administration of salvarsan. In other words, they start shedding granules and continue doing so until their periplastic sheaths are empty or nearly so. May I suggest that Dr. Bosanquet would do well to study *Sp. anodontae* by means of the dark-field method, in order to determine if it undergoes the curious and suggestive changes which I have found to occur in the spirochaete that I have named provisionally *Sp. granulosa penetrans?* It is, I think, possible that the short rod and small spirochaete forms which he shows in his illustrations (*24a* and *24b*) are really developed from the coccoid bodies, and not, as he suggests, a stage prior to the formation of the latter. I have found very similar forms undoubtedly developing from granules in the Malpighian tubes of infected *Argas persicus*.

ANDREW BALFOUR.

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### A CASE OF MELANCHOLIA WITH ATTEMPTED SUICIDE.

A MARRIED woman, aged 56, was admitted to Northumberland County Asylum suffering from melancholia following an attack of hemiplegia. In the reception order she was described as suffering from marked depression with horrifying delusions that animals were consuming her, which occasionally caused her to scream loudly for hours at a time. She had expressed a desire for death as she was not fit to live. She had previously attempted suicide by trying to swallow her false teeth.

On admission, she was found to be frail and feeble, with partial paralysis of left arm and leg; cardiac action irregular and intermittent, with loud mitral systolic and presystolic murmurs; pulse 88, temperature 98.2°. She was at once put to bed in the infirmary ward.

Mentally, she was acutely melancholic, very depressed, and suicidal. She continually moaned and said she wished she was dead. She stated that she would never recover, and that it would be better if she were allowed to die. She also said she would put an end to herself at the earliest opportunity. For three weeks following her admission she remained very dejected and querulous, always complaining of pain, and expressing a wish for release from her sufferings by death. She was kept continuously in bed under supervision. Extra diet considerably improved her general bodily health. About a month after admission the night nurse heard her groaning loudly, evidently in great pain. On inquiry the patient told the nurse that she had thrust four knitting-needles into her abdomen.

On examination, three needles were distinctly palpable under the skin of the abdomen, their positions being clearly indicated by the extravasation of blood into the surrounding tissues in the line of the needle track.

Several small punctured wounds could be made out in the region of the umbilicus, where the needles had entered the abdominal wall. Similar wounds were present in the palm of the right hand, which had been used to force the needles into the belly. Two of the needles lay parallel to each other, about ¼ in. apart, between the umbilicus and ramus of pubes on the left side. The third was situated in the right groin immediately beneath the skin. The fourth needle could neither be seen nor felt, but the patient declared emphatically that they were all four in her abdomen. Her bedding and clothes were searched carefully, but without finding the missing needle.

Mr. Turner of Newcastle examined her under an anaesthetic, but could only locate the positions of three of the needles previously described. After emptying the bladder, Mr. Turner examined the patient per vaginam, but without success.

Two small incisions were then made through the skin of the abdomen, and two of the needles were easily extracted; they had not penetrated any deeper than the sheath of the rectus abdominis. The third needle, in the groin, when withdrawn, was found to be broken about 2 in. from the

distal end, the fracture being evidently recent. The broken fragment could not be felt, and was probably embedded in the muscles of the thigh. The fourth needle was eventually discovered. This had passed through the muscular wall, and had entered the omentum. So far as could be ascertained, the intestines had apparently escaped injury. The knitting needles measured 9½ in. in length.

The incisions were closed in two layers—the peritoneum and muscular portion of the abdominal wall with catgut sutures, the skin with silkworm gut. The wounds were then dressed, and the patient put back to bed.

She bore the operation well. She vomited a little during the afternoon, but slept well at night. On the following day her temperature was normal, pulse quiet, and her condition generally in every way satisfactory.

Since then her bodily condition has steadily improved; the wounds have healed by first intention, but mentally she shows no signs of improvement.

GUY R. EAST, M.B., B,S., D P.H., B.Hy.,
Assistant Medical Officer, Northumberland County Asylum.

# Reports
ON
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### ROYAL INFIRMARY, DUMFRIES.

A CASE OF STRANGULATION OF THE VERMIFORM APPENDIX.

(By A. J. GORDON HUNTER, M.B., Ch.B.Edin, late Senior House-Surgeon.)

THE patient in the following case, a boy aged 15, was admitted on January 14th, complaining of pain over the right inguinal canal. On the preceding day he had had occasion to lift several heavy weights, and in the evening began to feel severe pain of a gnawing character in the region above mentioned. His medical attendant was summoned, and a blister applied over the painful area. His condition not improving, he was removed on the following day to the infirmary.

*State on Admission.*—The temperature was 97.8°, and pulse 78. Inspection showed a distinct fullness over the right inguinal region, and palpation revealed a swelling about the size, in thickness, of an ordinary lead pencil, and very tender to touch, in the line of the canal. The spermatic cord was not thickened, and there was complete descent of the testicle.

*Progress.*—The patient was kept under observation for forty-eight hours, during which time the temperature gradually rose to 101°, and the pulse-rate increased to 90 per minute.

*Operation.*—On January 16th an incision was made over the swelling, and in the inguinal canal was found a sac containing the vermiform appendix. Further dissection showed that the sac contained no caecum. The appendix was tense, congested, and rigid as a finger. On gentle traction it could not be made to descend further into the wound. A second incision was accordingly made over the appendicular region, and entrance gained thus to the abdominal cavity. The caecum was found to be dragged downwards and fixed above the internal abdominal ring, whilst the body of the appendix protruded through the ring. The appendix was ligatured at its base, and a little careful dissection sufficed to free it sufficiently for removal. Examination of it showed a well-defined groove, due to constriction at the internal ring. Distal to the groove the appendix was excessively swollen, the proximal part presenting a normal appearance. Within the appendix was found a pellet of No. 10 sparrow shot, which appeared, however, to have occasioned no disturbance. The usual technique of the radical cure for hernia was followed, and the abdominal wound closed.

The patient made an excellent and uninterrupted recovery.

I have to express my indebtedness to Dr. P. M. Kerr, Senior Surgeon to the infirmary, who performed the operation, for his kind permission to publish the notes of the case.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, March 30th, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*The Chemical Dynamics of Serum Reactions.*

CAPTAIN A. G. MCKENDRICK, I.M.S., contributed a paper on this subject, in which he arrived at the following conclusions: (1) Amboceptor and complement are opposed in their action on the cell, with the proviso that the former acts as a catalyst to the latter. (2) Complement action is lytic; amboceptoral action is primarily polymerizing, or, as the case may be, agglutinative, and secondarily catalytic to complement. (3) The relation of these substances is expressed by the Law of Mass action, in the form—

$$\frac{dz}{dt} = \frac{y}{c}\left(\frac{x}{cz} - z\right) - \left(\frac{y}{c} - z\right)^2.$$

(4) When the substance acted upon is in sufficient quantity, this expression describes all serum reactions—namely, haemolysis, bacteriolysis, opsonin and stimulin reactions, agglutination, precipitation, and toxin action. (5) Toxins are compound, and consist of amboceptor and complement.

*Variation and Adaptation in Bacteria.*

Dr. E. W. AINLEY WALKER read a paper on variation and adaptation in bacteria, illustrated by observations upon streptococci, with special reference to the value of fermentation tests as applied to these organisms. He pointed out that numerous attempts had been made to differentiate and to identify varieties of bacteria by means of chemical reactions produced by them in special culture media. One of the most interesting of these attempts was that made by Gordon to prove the existence of definite varieties among streptococci by the use of certain test media. Gordon and those who followed him believed that they could thus subdivide the streptococci into a number of fixed and independent varieties, and classify them into what Andrewes and Horder had spoken of as "provisional species." Their conclusions, however, could only be accepted were it proved beyond question that the reactions on which they relied were stable and constant. Dr. Walker adduced evidence from an extended examination of particular strains of streptococci that the reactions concerned were by no means constant. Under the conditions of ordinary cultivation in agar jelly, and still more under culture in the environment supplied by special media, particular strains of streptococci exhibited wide variations in their reactions to Gordon's test media. Thus strains which at one time were totally different in their test reactions might at another be found to be identical. Further, it appeared that after suitable manipulation particular strains might be made to assume the characters now of one, now of another of the types supposed to be differentiated by Gordon's tests. Dr. Walker concluded that no evidence existed of any fixed or specific differences among streptococci pathogenetic for man, but that the differences observed were due to merely temporary and casual variations in the metabolism of these micro-organisms which thus readily adapt themselves to changed environment. Accordingly it was quite possible that suitably selected tests might be made to afford some valuable indication as to the probable habitat or recent environment of any given strain of streptococci.

## ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

*Tuesday, March 28th, 1911.*

Sir W. H. ALLCHIN, Vice-President, in the Chair.

*Electro-cardiograms.*

DR. THOMAS LEWIS read a paper on the electro-cardiographic method, and gave a demonstration of electro-cardiograms from actual patients. After describing the instrument employed—a development of the string galvanometer of Einthoven, the reflected light from the galvanometer making a record on a moving photographic plate—he showed and analysed normal cardiograms and those of premature auricular and ventricular contractions respectively; he concentrated

attention on the two conditions—delirium cordis and paroxysmal tachycardia. As a result of such observations, it was possible confidently to assert that delirium cordis was a fibrillation of the auricle. This fibrillation was responsible for at least 50 per cent. of all irregular pulses, and it was in a large number of cases the herald of the final breakdown of the heart in cases of heart disease. Paroxysmal tachycardia could be shown by the method to be of several distinct classes, two of which were of special importance. In one the paroxysm consisted of crises of auricular fibrillation; in the other the paroxysms depended on the awakening of new impulse formation in the heart muscle from a point other than the normal source. He also showed and described the information obtainable from cardiograms in the condition of heart-block. As compared with other methods, the galvonometer had already substantiated the bulk of the facts obtained with the polygraph; it supported the present-day interpretation of the majority of venous pulse records. The galvanometer was, however, a laboratory instrument, the polygraph a clinical. Although more precise, it was less convenient to use. Its records were much easier to read than those of the polygraph, and it had the great merit of showing at what point in the cardiac chamber the contraction waves arose in different cases.

*Suffocative Catarrh in the Adult.*

Dr. Samuel West read a paper describing a case of this condition due to acute pneumococcal bronchitis, and a second case in which the pneumococcal disease was one-sided, and mentioned other cases in some degree resembling them. In the second case, which was not fatal, there was at one stage copious haemoptysis. He referred to a case he had recorded several years previously, in which the apparent cause was a diphtheroid bacillus. It would thus appear that Laënnec's acute suffocative catarrh was ordinarily an acute bacterial infection, and probably more often pneumococcal in origin. It seemed justifiable to hold that pneumococcal infection of the lung might be massive, as in the usual form in the adult, or disseminated, as commonly seen in children, or occur as a general or even unilateral bronchitis.

## Section of Diseases of Children.

At a meeting on March 24th, Dr. E. Cautley, President, in the chair, Dr. D. Forsyth read a paper on the history of *Infant feeding in Elizabethan times and onwards.* Tracing the changes in breast-feeding through nearly 400 years, the speaker showed that in each century the period of suckling had steadily declined. Beginning in the fifteenth century at two to three years—a duration which is still customary among, for example, the Japanese and the Greenlanders—it had become eighteen months to two years under the Stuarts, one year in the Georgian days, and now lasted only about eight months. Step by step the mother had been supplanted, first by the wet-nurse and later by the sucking-bottle. The rise and fall of the wet-nurse, who reached her palmiest days in the eighteenth century, were described, together with the social evils that she brought with her. Artificial feeding was quite unknown until the time of the Hanoverian succession, and even then the choice of food was limited to bread-and-water pap. A little later cow's milk came into use, and the speaker showed that the profound suspicion of all artificial methods was to be accounted for by the sanitary condition of the people in Tudor and Stuart times. Cow's milk, however, for more than a century after its introduction, was held in general disrepute, for the reason, no doubt, that a widespread prejudice against boiled milk existed among all classes. In the nineteenth century three notable developments were witnessed—first, the invention of the sucking-bottle; secondly, the manufacture of proprietary foods; and thirdly, the final acceptance after long struggles of artificial methods. The original feeding-bottle was a cow's horn, to the tapering end of which were tied a couple of pieces of leather, sewn together like the finger of a glove, and the babe sucked its milk between the stitches. The gradual stages by which this horn developed into the modern hygienic feeding-bottle were traced. Finally, the more recent developments in the methods of feeding during the last fifty years were described. In conclusion, the speaker, recalling the striking decline in the duration of breast-feeding and the steady progress of artificial methods, glanced at the future of infant feeding. Did it lie with the method of Nature or with the methods devised by man's ingenuity? His experience had been that medical men, more often than was sometimes thought, supported the bottle against the breast, and he thought that in doing this they were showing no more than a practical appreciation of the modern trend of infant feeding. The numerous cases exhibited during the evening included the following: Dr. H. Morley Fletcher: (1) *Infantilism with chronic nephritis and polyuria* in a boy, aged 6 years, who had not grown since he was 2 years old. His height was 2 ft. 7 in. The administration of thyroid extract had had no effect. (2) *Infantilism with thyroid inadequacy (juvenile myxoedema)* in a girl, aged 8 years. Three months' thyroid treatment had caused considerable improvement but no growth. Dr. J. D. Rolleston: *An instance of "blue sclerotic"* in a male infant, aged 9 months. The child presented a uniform blue coloration of both sclerotics, a characteristic which was present in the mother, and in the grandmother and an aunt on the maternal side. Dr. F. E. Batten: *Simple atrophic type of myopathy* in a boy, aged 6 years. There was general wasting without localized atrophy or hypertrophy, and almost all movements could be performed so long as no strength was required. Mr. P. Maynard Heath: (1) *Syphilitic osteitis of the femur* in a boy, aged 7 years. Twenty-two months ago he was struck on the left thigh by a large stone, but it was not until three months ago that the thigh began to swell. A skiagram showed diffuse osteitis of the whole shaft and neck of the femur. There was a history of syphilis in the father, but the boy showed no other signs of inherited disease. (2) *Multiple exostoses* in a boy, aged 5 years. Dr. F. Langmead: (1) *Myopathy* in a boy. The lower extremities showed definite pseudo-hypertrophy, but other muscles, such as the pectorales, trapezii, and latissimi dorsi, were atrophied. A point of interest was whether the facial muscles were affected. The usual facial movements could be performed, but the boy had a fixed expression, and "never smiled."

## Therapeutical and Pharmacological Section.

At a meeting on March 21st, Dr. J. Gray Duncanson in the chair, Dr. W. Langdon Brown, in a paper on *The value of rectal feeding*, pointed out that the evidence of absorption of proteins and fats chiefly depended on the failure to recover the whole of the administered nourishment by washing out the bowel. It was notoriously difficult to empty the bowel completely in this way, and the fact that the food could not be recovered did not prove that it had been assimilated, since it might have undergone putrefactive changes, which would render it useless. The chief structure for the absorption of food was the highly specialized epithelium of the villi, and unless regurgitation through the ileo-caecal valve occurred—an improbable event—the amount assimilated from rectal feeding must be very slight. He had observed the amount of fat in the tissue of a case of chyluria under Dr. Samuel West's care, first when on a fat-free diet, and then when enemata of pancreatized and emulsified fats were given. Though fat given by the mouth increased the fats in the urine at once, enemata of fat did not. Absorption of dextrose per rectum was proved by the way it raised the respiratory quotient, and abolished or diminished acidosis. Salts and water could certainly be absorbed and were probably the constituents to which nutrient enemata owed their reputation. He had compared the nitrogenous output in the urine on rectal salines and on nutrient enemata, as a safer guide to the assimilation of nitrogenous food by the bowel than the recovery method. In both the fall in the nitrogen excretion followed the same course and was directly comparable to that found in healthy fasting men. On giving the same food by the mouth as that contained in the nutrients, the nitrogen excretion at once rose again. The conclusion was that if any protein were absorbed by the large bowel, the amount was so small that it was not worth while to submit the patient to so unpleasant a procedure. When the efficacy of nutrient enemata was so seriously open to question, their drawbacks assumed greater importance. These were considered in turn, and the speaker expressed the opinion

from his experiments that between the Lenhartz method of immediate feeding by the mouth, and the use of rectal salines with 5 per cent. of dextrose, there was no place in therapeutics for nutrient enemata containing protein and fat. Dr. D. V. Cow, in a paper on the *Reaction of isolated arteries to certain drugs*, dealt with carbon dioxide, alcohol, adrenalin, pituitary extract, the digitalis series, ergot, barium, and the nitrites. The method of observation was that introduced by O. B. Meyer. Adrenalin, he concluded, caused contraction of isolated rings of most arteries; rings from peripheral branches of the pulmonary artery were unaffected by it, while cerebral and coronary arteries were relaxed. Pituitary extract caused contraction of most arteries, but rings from the large arteries of the splanchnic area were relaxed by it, the effect becoming more marked as the periphery was approached. All arteries alike were stimulated to contraction by barium and relaxed by nitrites. Calcium salts diminished the sensitiveness to adrenalin and pituitrin, but left that to barium unaffected.

## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, March 30th, 1911.*

Dr. T. R. Bradshaw, President, in the Chair.

*Oral Administration of Vaccines.*

Drs. Stenhouse Williams and C. Forsyth described a number of experiments undertaken to test the reliability of the oral administration of vaccines. The work of Latham was, they thought, largely vitiated by the fact that in the great majority of his cases he gave the horse-serum along with the vaccine. In their own experiments they administered pneumococcic vaccine to guinea-pigs both by the intraperitoneal inoculation and by oral administration. A dose which was surely fatal when inoculated failed when given by the mouth to produce any apparent result, even when multiplied four or five times. They considered that, even though some fraction of a dose given by the mouth to a human being might be absorbed, it was impossible to know what was the proportion, or whether such proportion was a constant. The administration of each dose must, therefore, be regarded as a matter of pure guesswork, and the method unreliable. Dr. Rundle considered that some effect must result from the oral administration of vaccines, since he had been able to detect the effect of a small overdose, shown by symptoms similar to those resulting from a small overdose given by the subcutaneous method. Dr. Warrington was surprised that so little evidence had been brought forward by the advocates of the oral method of administration.

*Epidemic Anterior Poliomyelitis.*

Dr. N. Percy Marsh drew attention to the wide distribution of anterior poliomyelitis during the last few years in Europe and America, its appearance during the summer and autumn of 1910, and its probable recurrence in 1911. The investigations of Flexner and Lewis demonstrated that the path of infection and also of elimination was probably the naso-pharynx. The establishment of the phenomena of active and passive immunity was also referred to, and the possibility that in the near future a specific serum would be obtained. With regard to treatment, he emphasized the importance of isolation, and disinfection of the discharges of the naso-pharynx, and regarded urotropine as of value in the early stages. Electricity and massage should be employed as soon as the painful symptoms had subsided, and endeavours to prevent deformities by means of suitable appliances should be early undertaken. The President mentioned that anterior poliomyelitis was occasionally met with in the adult. In the summer of 1907 he had under his care two cases in men aged 28 and 53 from the same district, and who were taken ill within ten days of each other. The difficulty of recognizing the disease before irreparable damage had been done to the nerve centres made difficult in its turn the effective use of any specific treatment. Dr. T. R. Glynn said that in a long hospital experience he had met with but few examples of the disease in adults. In one typical case there was paralysis of the muscles of the neck as well as of the extremities. This patient made a good recovery, with the exception of some weakness of the anterior tibio-fibular group of muscles. Dr. Warrington thought that the diagnosis in early cases was more difficult in children than in adults; in the latter some well-defined rules could be formulated for the distinction between anterior poliomyelitis, Landry's paralysis, and polyneuritis of the very acute type. In children he thought lumbar puncture would play an important part in the distinction in early cases between meningitis and poliomyelitis.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Friday, March 17th, 1911.*

Dr. A. Christy Wilson, President, in the Chair.

*Infection of the Kidney in Pregnancy.*

Mr. J. F. Dobson, in a paper relating to infection of the kidney during pregnancy and the puerperium, expressed the opinion that the majority of these cases recovered under treatment, but some became chronic. In one of his cases infection of the kidney during the fifth month of pregnancy gave rise to the formation of multiple abscesses in the cortex, and he performed nephrectomy without interrupting the pregnancy. In another case symptoms of renal calculus occurred during pregnancy, and as a result of puerperal sepsis the kidney became infected, and a pyonephrosis developed. He performed nephrectomy successfully, but the patient was extremely anaemic for some weeks after the operation. On cutting into the specimen it was found that the suprarenal capsule had been removed with the kidney, to which it was firmly adherent. He also described cases where pyelitis, similar in every respect to the disease as observed during pregnancy, occurred in non-pregnant women. Dr. C. Oldfield said he had met with 7 or 8 cases of the severe forms of acute pyelonephritis of pregnancy during the last four years. He had never found it necessary to operate or even to terminate the pregnancy. If medical treatment failed, rupture of the membranes was simple, safe, and efficacious. Lavage through ureteral catheters should be reserved for exceptional cases where the former proceeding was not successful. Nephrotomy and nephrectomy had occasionally been done by surgeons, but obstetricians did not find such severe measures necessary. The chief danger appeared to arise from operations, especially when the condition was wrongly diagnosed as appendicitis.

*Cases and Specimens.*

The following were among the exhibits:—Mr. J. Stewart: A specimen of femoral and popliteal arteries from a case of *Senile gangrene* in a man, aged 79, the subject of diabetes. Three months after the commencement of gangrene in the big toe amputation was performed through the junction of the middle and lower thirds of the femur, the gangrene then having spread to the dorsum and sole of the foot. There was no ligature required at any stage of the operation. Healing took place by first intention. The femoral artery was represented by a fibrous cord, and was impervious though all the branches below were patent. Mr. Alexander D. Sharp: A case of a *Persistent thyro-glossal duct* in a child aged 2½. There was a tiny opening in the middle line of the neck between the hyoid bone and the thyroid cartilage. It was first noticed by the mother when the child was 6 months old. The opening admitted a probe of calibre of a Eustachian bougie for about ⅓ in. Fluid which exuded from time to time in very small quantity was almost colourless. Mr. A. Gough: A child, aged 6 months, recovering from *Basal meningitis*. The cerebro-spinal fluid obtained by lumbar puncture contained large numbers of Gram-negative cocci similar in appearance to those of Weichselbaum. Treatment with autogenous vaccine was followed by rapid improvement. The child was now very well, but showed slight hydrocephalus. Mr. H. Collinson: A child, aged 12, upon whom an arthrectomy for tuberculous kidney had been performed eight weeks previously. A paste consisting of bismuth subnitrate 2 parts, iodoform 1 part, and solution of hydrarg. perchlor. $\frac{1}{100}$ was rubbed into the wound surfaces. For the last six weeks the child had suffered from salivation and black discoloration of the gums, cheeks, and lips. The symptoms were thought to be due to poisoning by bismuth. Mr. A. L. Whitehead: A skiagram of a *Piece of steel in the vitreous*. A flap of

conjunctiva was reflected on the outer side and the piece of steel removed by Haab's magnet through an incision in the sclerotic behind the ciliary processes and between the external and inferior recti.

## HARVEIAN SOCIETY OF LONDON.

*Thursday, March 9th, 1911.*

Mr. ERNEST LANE, President, in the Chair.

*Discussion on Colitis.*

A DISCUSSION on this subject was opened by Dr. SIDNEY PHILLIPS and Mr. D'ARCY POWER. The observations of the latter are recorded on page 863 of this issue. Dr. Phillips said that so-called membranous colitis included inflammatory or true colitis and non-inflammatory cases incorrectly called colitis. The latter was frequently due to spasm of the intestine, and the Plombières treatment was sometimes useful. Simple colitis was sometimes an early stage of ulcerative colitis, and there was no precise distinction between them. Sometimes the whole of the colon was denuded of mucous membrane. Perforation sometimes occurred, and occasionally death was deferred for days after this accident. Among the symptoms were acute paroxysms of abdominal pain and also leucocytosis; neither of these occurred in typhoid fever. Hiccough was a common symptom. Prognosis was doubtful; when so-called "mucous colitis" was excluded the mortality was high. As to etiology, he did not think that lead poisoning was a cause, but was convinced that acute colitis might result from articles of food or from water. Asylum dysentery was true dysentery, but in London colitis rarely gave bacteriological evidence of identity with amoebic dysentery. As to treatment, drugs were of little use, though calomel and opium were of value. The worst cases might recover, and appendicostomy was sometimes useful. Vaccine treatment was of use, but in very acute cases the prospects of success were small. Dr. HALE WHITE thought the main cause of membranous colitis was constipation. The distinction between primary and secondary colitis was important. Primary colitis was of better prognosis. Mr. JOHN MATTHEWS said that he was usually called upon to identify the organism involved in colitis and not to make a clinical diagnosis. Sometimes he had obtained organisms direct from the ulcers through a speculum which were pure *B. pyocyaneus*. Inoculation with this organism led to rapid improvement. Another case met with similar success with Friedländer's bacillus. As a rule, he made a thin emulsion with the faeces and planted this upon neutral red lactose agar plates, from which discrete colonies of different organisms could be isolated. Diagnosis was made by estimation of the patient's opsonic index to the various organisms. He maintained strongly that infected organisms do not appear in the urine; catheter specimens in these cases were almost invariably sterile. As a rule, he used vaccine of coliform bacilli and occasionally a streptococcic vaccine. Mr. C. W. BUCKLEY regarded mucous colitis as a catarrh of the mucous membrane due to retained faeces or bacterial toxins, and thought that neurasthenia or arthritis associated with the condition were due to the same cause. Mr. BIDWELL said that colitis should generally be treated by medical methods, but some cases required operation. When the colitis depended on appendicitis removal of the diseased appendix often led to cure, but not always. There was a form of colitis which gave rise to single deep ulcers producing adhesions. In these cases perforation often followed, and, since the condition showed a tendency to recur, he advocated ileo-sigmoidostomy. This operation was only to be performed when the lower half of the sigmoid was healthy, as determined by the sigmoidoscope. The ileum should be divided between the anastomosis and the caecum. Troublesome diarrhoea did not follow the operation. Dr. WILLCOX referred to the beneficial effects of treatment by an autogenous vaccine in cases of colitis which had not responded to more ordinary medical measures. Vaccine treatment should be tried before the abdomen was opened, except in the very acute cases, where immediate surgical treatment was often necessary. Cases on which appendicostomy had been performed with benefit frequently relapsed after the appendix opening closed. Gastric and duodenal ulcer were frequently associated with colitis. By analysis of the gastric contents in cases of colitis he had found marked hyperchlorhydria often present, especially in the early stages of the disease.

## BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 21st, Dr. MITCHELL in the chair, Dr. HEILBORN, in a paper on *Infantile mortality*, said that in most cases the primary cause of death was neglect or ignorance or both on the part of the parents. Neglect due to circumstances was the most important and difficult problem. A great factor was the increase of woman's labour. As regards ignorance, it could only be described as amazing. It was fostered by the mischievous advertisements of patent foods. Even the medical profession had been led astray, and one heard only too often that the doctor's advice had been, "Try somebody's patent food." In this respect the lady inspectors were doing good work. Among the poor many women had not sufficient milk to nurse their own babies. As regards artificial foods, samples of many very different kinds of which had been obtained, he showed that it was not alone the quality of the food which was important, but also the general management of infants. At present, instead of teaching mothers how they could best prepare themselves to nourish their own children, they were being taught to avoid nourishing them by making it *apparently* so easy to feed their infants artificially, and having been taught this, they were being supplied with dirty milk, which had to be cleaned and prepared at great expense. To remedy all this work should be undertaken somewhat on the following lines: (1) To institute a thorough system of education for those about to become mothers. (2) To pass a law preventing all women about to become mothers from working in a factory or mill. (3) To institute a system of dairies through which the public can be supplied with pure fresh milk. (4) That every physician who delivers a child should look upon that child as his patient, and that it should be under his immediate supervision during the whole of its infancy. (5) That the sale of patent foods *to the public* be made illegal. (6) To obtain an efficient army of competent and trained lady inspectors who shall visit every infant each week and immediately report to to the physician if the infant does not seem to be thriving. (7) To make it illegal to insure an infant's life. Meanwhile, means must be found to deal with the wasting babies which were the result of the present hopelessly inadequate system. Nursling hospitals, such as were to be found in Paris, Berlin, and Vienna, must be built in every large town, and the old system of allowing wasting babies to be casually treated at a general hospital or a children's hospital must be entirely discarded.

## CHELSEA CLINICAL SOCIETY.

UNDER the chairmanship of Mr. PARKINSON, the annual debate was resumed by Mr. LOCKHART MUMMERY, who, dealing with *Colitis* from the surgical point of view, said there were two principal methods of operation: (1) Giving the colon rest by artificial means in the caecum, or by ileo-sigmoidostomy; and (2) making an opening through which the colon could be irrigated. Right caecal colotomy gave the best results as regards recovery from the colitis, but the artificial anus had often to be made permanent. On the other hand, ileo-sigmoidostomy was usually too severe an operation in view of the patient's condition, and the sigmoid flexure was very likely to take on ulceration after it. The second method was far the best, and of all the operations for carrying it out appendicostomy was the most suitable. In cases where the appendix had been removed, or for other reasons was not available, a catheter could be fixed into the wall of the caecum. The operation could be rapidly performed and with very little risk. A tube being placed in the rectum, the colon was thoroughly washed out with water or a saline solution, and the washing repeated every five or six hours. The good effect was usually very rapid and striking, even in cases in which, from the physician's point of view, there seemed to be very little chance of recovery. Dr. EYRE, dealing with the bacteriology of the subject, said that in the chronic forms of muco-membranous colitis a variant of the *Bacillus coli* type was usually found. It

was to these changed or evolved organisms that the continuance of infection was generally due. In acute forms the infecting agent was easily found, but in the chronic forms it was more difficult, successive dilutions having to be made to get rid of the harmless organisms. Out of 32 cases the speaker had found 23 to be due to acute or subacute ulceration. In two others the pneumococcus was found associated with other organisms. In 6 out of 9 chronic cases he found coliform organisms—*Bacillus coli* in 1, and *Bacillus pyocyaneus* in 2. If ordinary medical and surgical measures failed, vaccines were then required, but they should always be autogenous. Stock vaccines in these cases were of very little use.

# Reviews.

## MEDICAL MEN IN THE TIME OF CHRIST.

To the student of medical history anything is of interest that helps to throw light upon the state of the medical profession in the past; therefore a book such as *Medical Men in the Time of Christ*,[1] by Dr. ROBERT N. WILLSON of Philadelphia, which contains many details concerning the social and scientific position of the doctor in the early days of the Roman Empire, will be welcomed by a certain section of the reading public. Commencing with an outline of the history of medicine from its earliest beginnings at the dawn of the world (for we are told that "there are many indications that medical knowledge of a primitive type may be traced to the beginning of human existence"), Dr. Willson gives a graphic description of the immense difference which existed in the status of the doctor at different periods and in different parts of the ancient world. Thus, for example, whilst in such countries as Greece, Egypt, or Palestine the medical profession, possibly on account of its close connexion during many centuries with the priesthood, was always regarded with peculiar veneration, in Rome under the Republic, where "the fact that their services commanded an honorarium had relegated the physician and the surgeon to the unpopular class of artisans that strove for money gain," medicine was looked down upon as an occupation fit only for the *Græculus esuriens*, who, to make matters worse, was usually a slave. It was not until the emancipation of the Greek physicians by Julius Caesar in 49 B.C. that "the medical profession came out of bondage into its own," and for the first time was considered an honourable calling for a free-born citizen of Rome. It is interesting to note that at the time of Our Lord's birth the Jewish physicians, afterwards famous throughout the Middle Ages for their knowledge and skill, were already to be found practising in most of the Roman provinces, and, even at that early date, seem to have been greatly esteemed for their learning. They do not appear to have enjoyed a similar reputation for virtue, at any rate amongst their own countrymen, if we are to accept the evidence of the Talmud, where it is gravely stated that whilst "all ass-drivers are wicked, camel drivers are honest, sailors are pious, physicians are destined for hell." Even the best is doomed to this fate (*Medicorum optimus dignus est Gehenna*). It is possible that at times these amazing sentiments were shared by their Gentile patients, at least if the Hebrew doctors steadfastly adhered to some of the precepts laid down in the Talmud, which taught that an oath sworn to a Gentile was never binding on a Jew, and that it was permissible for one of the Chosen People "to heal Gentiles only for the sake of the fee, or for the practice of medicine, but it was not allowed to save their lives in seasons of danger."

It is the sidelights on history which are afforded by details such as these that make Dr. Willson's book well worth reading. It is a pity, however, that the author, whose work shows evident signs of a careful study of his subject, has not exercised more discrimination in the handling of his materials, and so avoided a certain amount of confusion in his narrative. This, however, is the only drawback to an otherwise very readable account of the medical profession at a critical period of its development, which derives much additional interest from the finely reproduced photographs with which the volume is illustrated.

[1] *Medical Men in the Time of Christ*. By Robert N. Willson, M.D. Published by the Sunday School Times Company, Philadelphia. 1910. Pp. 157. 1 dollar.)

## UROLOGY.

IT is some two years since we reviewed M. ALBARRAN'S[2] book on the operative treatment of the urinary tract. We have now read and re-read it, and the publication of the first two parts of a translation of the work into German gives us the opportunity of saying that we are confirmed in our good opinion of it. The arrangement of the work, the completeness of the anatomical descriptions, the carefully-balanced opinions, and the beautiful illustrations are alike worthy of the highest praise.

M. LEGUEU'S[3] surgical textbook of urology is also a good book. As a rule textbooks seldom attain to the excellence of a monograph. The author is unable to go sufficiently into detail on the points in which he is interested. He is bound, on the other hand, to touch on things that do not interest him, and in this way he may quote a statement without testing its truth. He may lay great stress on an unimportant point, or may miss out much that is quite essential. And yet M. Legueu has given us an interesting book. This is chiefly due to the inherent capacity of the author and his grasp of his subject. It may partly be due to the fact that the textbook is on one branch of surgery only, and in so far it approaches a monograph.

The book by Dr. OTTO RINGLEB[4] on the optical and mechanical apparatus and the history of the cystoscope deals with all the aspects of the physics of the cystoscope with characteristic thoroughness of detail. The optical phenomena are worked out mathematically, and illustrations are given of all the different forms of cystoscope made. The book, no doubt, is written on the principle that the user of an instrument should know all about it. But we hardly think that many will care to follow Dr. Ringleb through all his details. We have said above "characteristic thoroughness of detail" because we feel that the works under consideration typify the characters of the two nations. They further show that this national characteristic becomes grafted on to the subject that an individual works at, instead of the science moulding the individuals and smoothing away differences. On the one hand we have the brilliant interesting work written by a single individual from his own experience, supplemented here and there by reference to other authors, sometimes to agree with them, sometimes merely to point out that they are wrong. The two works are examples of the highest individualism. They each contain evidence of years of careful work, of close observation, and long experience. For every detail the author goes first to his own experience and to anatomy and pathology, to individuals rather than to the writings and opinions of other men. They seem only to turn to these for confirmation or to see what others think, not to learn from them. And it is in these directions that the value and excellence of the French works lie. On the other hand, we have the work of the man who inquires into the minutiae of everything, who will laboriously build up a foundation of facts gathered from the writings of the whole world, without taking us much further on or interesting us very much on the way. This type of author is best summed up in Tristram Shandy's description of the author of the great book on noses, Hafen Slawkenbergius, who "deserves to be *en-nick'd* as a prototype for all writers, of voluminous works at least, to model their books by—for he has taken in, Sir, the whole subject—examined every part of it dialectically—then brought it into full day; delucidating it with all the light which either the collision of his own natural parts could strike—or the profoundest knowledge of the sciences had impowered him to cast upon it—collating, collecting, and compiling—begging, borrowing, and stealing, as he went along, all that had been wrote or wrangled thereupon in the schools and porticos of the learned." And all this about the structure of a cystoscope and the ways the rays of light pass through it! The book is an examp-

[2] *Operative Chirurgie der Harnwege normale Anatomie und Chirurgische Pathologische Anatomie*. Von J. Albarran. Ins Deutsche übertragen von Dr. Emil Grunert. Erste und zweite Lieferung. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo. Part I, pp. 1–320; Part II, pp. 321–720. M. 8 each.)

[3] *Traité chirurgical d'urologie*. Par Félix Legueu. Préface de M. le Professeur Guyon. Paris: Félix Alcan. 1910. (Imp. 8vo, pp. F. 40.)

[4] *Das Kystoskop. Ein Studie seiner optischen und mechanischen Einrichtung und seiner Geschichte*. Von Dr. O. Ringleb. Leipzig: Dr. Werner Klinkhardt. 1910. (Roy. 8vo, pp. 204, 98 plates. M. 7.50.)

of a type which is most useful for reference and occasional consultation, and it must be frankly admitted that this minute attention to the details of structure and use of instruments is the reason why the Germans have taken the lead in teaching greater accuracy of diagnosis. During the past two decades the evolution of the specialist has been even more marked in surgery than in medicine, and one reason is the development of many instruments for the purpose of diagnosis, so complex that the effective use of each can only be obtained after considerable practice, and it has to be used continually before a correct interpretation of what is seen can be made. The interior of the bladder has been found of recent years to differ as much in appearance among normal individuals as the configuration of the face or the fundus of the eye. The surgeon who sees a urinary case but once or twice a week can never see enough normal bladders to be as sure of his diagnosis as the specialist who is looking down a cystoscope every day. We believe that, with the doubtful exception of the sigmoidoscope, every one of such instruments that have been introduced within this period has been originally devised by a German. We need only mention the examination of the bladder, endolaryngeal examination, and the more accurate examination of the auditory and vestibular apparatus to exemplify the point. This aspect of the genius of German surgery corresponds with their methods of organization in other spheres of activity. The definition of genius that it is an infinite capacity for taking pains, was, we believe, made by a German, but when applied to surgery it sometimes leads to the production of a very uninteresting type of book, far removed from that produced by the lighter and more brilliant genius of the French. We may well be grateful, in somewhat different ways, for both.

Mr. FRANK KIDD in the preface to his book, *Urinary Surgery*,[5] states that it is an attempt to review the progress of urinary surgery during the last decade. Although he does not put forward any claim to originality, yet it may fairly be said that he forcibly drives home the deductions he draws from reading, and from the standpoint of the most advanced school. The sources from which he derives much of his material are acknowledged in the preface by references to Kapsammer's work and the *Jahresbericht für Urologie*; with few exceptions authors' names are not mentioned in the text. The book is divided into five sections, dealing respectively with diseases of the kidney, ureters, bladder, prostate, and urethra. Most of the complaints to which these various organs are subject are dealt with, but in such a condensed form that the task of reading is sometimes irksome, and the meaning is involved. Among the omissions may be noted that no mention is made of the various fistulous communications between the urinary system and the intestines; congenital malformations of the bladder and penis; and inflammatory conditions of the urethra with their sequelae. Mr. Kidd throughout the book is obviously desirous of superseding, once and for all, most of the methods of examination which have been used in the past. He is an ardent upholder of the most modern mechanical appliances, not as adjuncts—to be used when more simple means have failed—but as substitutes to be employed in the daily routine. The ureteric catheter, the cystoscope, *x* rays, are all discussed and their free use advised for diagnostic purposes. To quote two instances from the text: "The cystoscope has replaced the sound almost completely"; "The catheter is not an instrument to be used routinely in diagnosis." He points out in glowing terms the advantage of these modern implements, but he says little about the failure of *x* rays—sins both of omission and commission—of the serious mischief arising (fatal cases are not unknown) after cystoscopic examination, and dismisses the argument that infection of a healthy kidney may follow ureteric catheterization in the following words:

> It is found by experience that if the bladder be first thoroughly washed out with oxycyanate of mercury (1 : 2,000) and the catheters passed quickly into the ureters without *touching the bladder-walls*, and if before withdrawal a drachm *of strong silver solution* be injected through the catheters, infection does not occur. [The italics are ours.]

Mr. Kidd is opposed to the use of the catheter in treatment, and condemns it—he is undoubtedly right—as the cause of much urinary trouble, notwithstanding its being passed with the "aseptic ritual" he advocates. Naturally, therefore, he advises the operation of prostatectomy even in the early stages of enlarged prostate. Throughout the book there is a tendency to separate the symptoms indicative of a particular disease from those superadded by secondary sepsis. Some of the dictums laid down as "golden rules" are apparently open to question, but as a book of reference with regard to the most modern ideas and for those studying for the higher examination it is undoubtedly a useful addition to the literature of urinary surgery.

In publishing this manual on lithotrity,[6] M. CATHELIN has made a still further addition to the many works he has from time to time written on urology. The volume consists mainly of dry technical details, relieved by many good and clear illustrations. The author, who has had much experience on lithotrity, and is well acquainted with his subject, is unable, from the nature of the case, to add very much to our present knowledge of an operative method the indications of which have long since been precisely laid down, and the results of which, in expert hands, have attained a very near approach to perfection.

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## SEXUAL PHYSIOLOGY AND PATHOLOGY.

THERE are many intelligent men and women who are coming to see that the attitude of Mr. Podsnap, who put away everything that he thought the "young person" ought not to know, is neither wise nor fair to the "young person." Mrs. MARGARET STEPHENS is among them, and hence this book *Woman and Marriage*,[7] written by a wife and a mother for wives and prospective wives. It is stated in the preface that "ignorance and innocence are not synonymous; instructed innocence is not a contradiction in terms." Mrs. Barnett in her introduction remarks that "these matters have been for generations surrounded with an atmosphere of coarseness or superstition." Mrs. Stephens has quite lifted her subject out of the atmosphere of coarseness. But she has not wholly freed herself from the bondage of ancient doctrines. Thus, in the chapter on "physical hygiene and heredity" the reader is told "the sexual separation of husband and wife during the period of pregnancy is, as a general rule, as highly desirable as it is uncommon." Is the statement that it is "highly desirable" anything more than an *obiter dictum*? Mrs. Stephens tells us "that the child is influenced by the mode of life of the woman during pregnancy is a belief that is becoming more and more deeply rooted and widely spread." In a general sense this is a truism; but our author goes on to expound it, and tells us that the child's mental character is affected by any mental quality which its mother exercises during this period; that as she can "strengthen her own lungs" by proper treatment, and by the same treatment transmit to her unborn child *even stronger lungs than her own*, so can she cultivate any particular quality or virtue of character, and transmit it, *in an increased degree*, to her child. Here we cannot keep step with our author. We know not what "strengthening the lungs" means. That children's characters depend largely on their parents nobody disputes, but we are disposed to regard it as chiefly depending upon the stock, and upon the wisdom with which parents arrange the surroundings of their children while they are growing up, and very little upon what their mother was thinking during her pregnancy. One of the greatest educationalists of our time (we refer to Dr. E. A. Abbott) formulated the principle of sound education in some such words as these: "See that children's surroundings are healthy, and let them alone." We know from many object lessons that parents who by insistent preaching, punishment, bribery, and restraint, try to mould their children's characters to some type that they think better than the ordinary, often find the result to be what they did not

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[5] *Urinary Surgery*. A review by Frank Kidd, B.M., B.C.Cantab., F.R.C.S., Assistant Surgeon to the London Hospital. London: Longmans, Green and Co. 1910. (Demy 8vo, pp. 445. 7s. 6d.)

[6] *Manuel pratique de la lithotritie*. By F. Cathelin, Surgeon-in-chief to the Hôpital d'Urologie. Paris: Vigot Frères. 1910. (Roy. 8vo, pp. 85; 145 illustrations. Fr. 4.)

[7] *Woman and Marriage*. A handbook by Margaret Stephens; with a preface by Dr. Mary Scharlieb, and an introduction by Mrs. S. A. Barnett. London: T. Fisher Unwin. 1910. (Post 8vo, pp. 296. 3s. 6d.)

expect. *Naturam expellas furca, tamen usque recurret.* This book is one excellent in taste and intention. The writer's judgement is not based on clinical experience to such an extent as is desirable, but the influence of the book will be good for Miss Podsnap, and its exaggerations will be corrected by the common sense of humanity.

Professor David Masson, in his erudite biography of John Milton, particularized the extraordinary freedom with which the physical functions of the body were spoken of in ordinary conversation, on the stage, and in literature as one of the features in which the Court of Charles II differed from that of the great soldier and Englishman who ruled England while Charles was amusing himself in Holland, and whose statue now stands in the open air near Westminster Hall. There is a proper mean in these things, between too great freedom on the one hand and too much reserve on the other. Too much reserve tends to provoke curiosity, and this curiosity is the incentive to the production and the sale of pornographic literature. Dr. KISCH describes his book, *The Sexual Life of Woman*,[8] as "a contribution towards the solution of the sexual problem, nowadays recognized as one of supreme importance." There are many sexual problems: the question of education, of marriage and divorce, of the limitation of families, etc., but which of these is the one "of supreme importance" we find it hard to decide. The author alludes to many; but the one which we take to be the justification of this publication is thus expressed (p. 35):

> The growing girl must not, as has hitherto been the case, be kept in a state of ignorance (which is indeed in most cases apparent merely) regarding the sexual processes of her own body.

We agree with Dr. Kisch in thinking it a wrong thing to allow a girl to be married without any information as to the physical function of marriage. The bride-elect should be given by her mother, or by a mother, not veiled hints, but clear, explicit, and full knowledge as to what she is to expect and what her duty is. It is desirable also that medical men should have, when their advice is asked concerning marriage, a clear vision of the fact that not all women are alike in the matter of sexual feeling. Many are devoid of it. Such a woman is happy and healthy as a spinster. If she marries for the sake of a home, or a name, without a deep and strong affection for her husband, her life is liable to be unhappy. On the other hand, some women have strong sexual feelings. If such a woman is early in life thrown among people who think much and talk freely about such things, or if she marries an impotent or exhausted crank, or a man who does not want children; or if after a short but happy married life she is early left a widow—then the constant struggle to repress her feelings and remain continent is likely to make her neurasthenic. But if she marries a young and vigorous man, who is not afraid of the burden of children, but welcomes each as it arrives, and pays no heed to the precepts of Dr. Blackwell and her followers, then the neurasthenia quickly disappears, and the woman will fulfil her functions in life with satisfaction to herself and happiness to those about her. In so far as the object of this work is to impress these things on the mind of the profession, we entirely approve it. There is little that is original in the book. The author heaps up quotations from other people's writings. Some of the persons whose opinions are quoted we know and are prepared to accept what they tell us. Others we know, and do not take the least interest in what they think, or rather, we should put it, in what they say. The book contains much unnecessary detail. The author has brought together a collection of anecdotes about perverse ways of gratifying the sexual instinct—mostly invented by hysterics and lunatics. It seems to us that the sole interest of such eccentricities lies not in the kind of eccentricity itself, but in the inheritance and the training (if these things are known) which produce such perversion; and these things are omitted in heaps of quoted stories such as we have here. The author is not always correct in his use of language. He says (page 347) that "dyspareunia" is the condition in former times known as "anaphrodisia." This is not so. "Dyspareunia" is a word which was coined by Dr. W. H. Stone, at the request of his colleague, Dr. Robert Barnes, who wanted a word to denote difficulty in sexual intercourse. "Dyspareunia" is constructed on the same principles as dyspnoea, dysphagia, dysuria, dysmenorrhoea, etc. Anaphrodisia may be present without dyspareunia. We give the author and translator credit for good intentions. We acknowledge that there is need among the public and medical men for more accurate knowledge as to certain physical functions than is at present generally diffused. But we cannot help feeling that the book is too prolix, and that it might with advantage have been expurgated.

[8] *The Sexual Life of Woman, in its Physiological, Pathological, and Hygienic Aspects.* By E. Heinrich Kisch, M.D., Professor of the German Medical Faculty of the University of Prague, etc. Only authorized translation into the English language from the German by M. Eden Paul, M.D. London: Rebman Limited. 1910. (Roy. 8vo, pp. 697. 21s.)

Vigot Frères of Paris are the publishers of a series of volumes, thirteen in number, 3.50 francs each, which they call the library of sexual perversions. They have published also the work of a Swedish medical man, Dr. ANTON NYSTROM of Stockholm, on the sexual life and its laws.[9] We are told in an accompanying slip that the French translation arrived preceded by the noise of battle—that of Stockholm—and that the ideas of Nystrom excited a blustering coalition of all the traditional forces against his teaching. All honour to the Swedes, say we. Dr. Nystrom's work consists of five parts. First, forty-three pages on sexual desire and its natural and unnatural gratification. Then come chapters on the sexual customs of antiquity and the Middle Ages. The last chapter is on the evils of excessive fertility. The same subjects are again discussed in an appendix. Throughout the subject is illustrated by histories of badly brought up men and women, whose lives have been blighted and spoilt by some kind of sexual vice. There are far too many of these. Marriage laws and customs in different countries and at different times are interesting, but there are books in English—for example, that of Westermarck—which treat of this subject far more exhaustively. In short, Dr. Nystrom has no use for Sir Galahad as an ideal. He thinks the continent young man is the exception. The young woman is continent and healthy so long as she is ignorant and inexperienced; but when she has become accustomed to sexual gratification, continence is unnatural and a cause of ill-health. The economic consequences of these doctrines are to be avoided by the use of precautions against pregnancy. Such is the teaching of this book. We prefer Lord Tennyson's; and we hope this work, with its nasty histories of cases which are morbid and ought to be exceptional, may be left in a foreign language.

[9] *La vie sexuelle et ses lois.* Par le Dr. Anton Nystrom de Stockholm. Préface du Dr. A. Marie. Paris: Vigot Frères. 1910. (Med. 8vo, pp. 368. Fr. 6.)

## THE NIGER AND WEST SUDAN.

CAPTAIN TREMEARNE'S book is really remarkable in its way; the amount of information respecting *The Niger and the West Sudan*[10] that he has contrived to pack into a thin volume of moderate size is quite extraordinary. The external aspect of the book is startling; the print is rather small and close; and one certainly desiderates a map, for the absence of which, however, the author apologizes, and explains it on the ground of expense. The first section is devoted to history and statistics, the former including the somewhat melancholy stories of discoverers and explorers, gallant and ambitious men, mostly of British or German blood, of whom comparatively few survived to return to their native lands or to enjoy the fame or the more substantial rewards which their energetic labours deserved. The second section is mainly anthropological. The most interesting part of it is, perhaps, the account of the Fulahi, Fulbe, or Filani, as the author calls them, but the discussion of their origin and racial relations leads to nothing approaching certainty. Perhaps the most important point brought out is the statement of Lugard that they resemble in features and habits the Wahuma of East Africa. Both of

[10] *The Niger and the West Sudan: or, the West African's Notebook.* A vade mecum containing hints and suggestions as to what is required by Britons in West Africa, together with historical and anthropological notes and easy Hausa phrases used in everyday conversations. By Captain A. J. N. Tremearne, D.Anth.Cant., etc., Lecturer and late Hausa Scholar, Cambridge, etc. London: Hodder and Stoughton and A. H. Wheeler and Co. (Med. 8vo, pp. 151. 6s.)

them are pastoral tribes who lord it over agriculturists, the Hausa for example, though the latter seem to be capable of a wide range of occupations—agriculture, commerce, police or military duty. The Hausa are regarded as being elevated above the pure negro by a cross of Lybian or Egyptian blood, but such infusion is probably not very large. The author's instructions and hints as to health, medicines, and food, seem generally very good. He gives the clearest account of the Harmattan wind that we have seen. It blows from the Sahara in winter, when the sun is far away south, is very hot by day and extremely cold at night; it is refreshing to new comers; but veterans and natives suffer more in its season from fever, chest affections, sore eyes, and throats. The difference of temperature in the Harmattan season in Northern Nigeria may be as much as 45° between mid-day and midnight. The mortality among officials in that province is declining; in 1908–9 it was 25 per 1,000, besides 12.5 in England; and 96.2 were invalided, including we suppose the 12.5 just mentioned. Sleeping sickness occurs on the Benue River, but is apparently confined to small areas; blackwater is common and deadly. For those who, greatly daring, prepare to serve in West Africa, more especially in Nigeria, whether in a medical, civilian, or military capacity, one can hardly conceive of a better "guide, philosopher, and friend," than this little book of Captain Tremearne's.

## NOTES ON BOOKS.

The *Festschrift*[1] or memorial volume in celebration of the fortieth anniversary of the foundation of the German Hospital, New York, is, like its homologues published in Germany and Austria, very well put together, consisting of instructive papers prepared by competent authors. Its best feature as a novelty is the character of its numerous drawings of operations, morbid structures, microscopic sections, and hospital wards. They are printed in a delicate light-brown tone, and look much more natural than similar drawings familiar to us in the pages of many first-rate European and American works where the tint is ashy-grey, so that solid viscera look too much like cinders or clinkers. The monographs, like the title and preface, are bilingual. "Die Aerzte des deutschen Hospitals und Dispensary" dedicate their publication to their well-known institution, and. whilst most of the articles are written in German, some are in English. The hospital does good work; its fight against tuberculous phthisis in New York forms the subject of a special memoir by Dr. Breitenfeld. All the main divisions of medical art and science are represented in the *Festschrift*, including radiotherapy.

The Society of Medical Phonographers is publishing a small library of medical compendiums for the use of its members, printed in shorthand. The fifth volume[2] of the series is divided into two sections, the first dealing with blood diseases, the second with pathological histology. For those in search of this sort of book it is, no doubt, just the volume they require, and may therefore be warmly commended to their attention. Its printed matter and longhand leave little to be desired.

The fact that Penzoldt and Stintzing's handbook of therapeutics has reached a fourth edition[3] is a proof that it has received an exceptionally favourable reception from the readers for whom it is intended. The book is written with true German thoroughness and comprehensiveness. The arrangement is somewhat confusing, though less complicated than some of the encyclopaedic works on medical subjects which come from the press in Germany in such numbers that one wonders where they find purchasers. The ninth, tenth, eleventh, and twelfth *Lieferungen* now before us include the treatment of diseases of the heart and blood vessels, of the kidneys, of the male organs of generation, venereal diseases, diseases of bones and joints, spinal deformities, rheumatism, diseases of the lymphatic system, of the lungs, of nervous diseases, and diseases of the bladder. There are chapters on massage, on diet, on sea bathing, on climatology, etc. The work is a vast storehouse of facts of every kind relating to the treatment of disease.

The *Medical Annual*[4] has now made its twenty-ninth appearance and presents in the edition for 1911 no very new feature. For this fact those with whom the book is a favourite will probably be thankful. They are familiar with the excellent arrangement of previous editions and have learnt how to obtain promptly any information they desire should it be contained in this yearbook and practitioner's index, to use the sub-title of the work. But even the man who consults it for the first time can have no difficulty in making use of its resources. Part I, called the dictionary of remedies, contains a summary of new therapeutic ideas, followed by articles on certain subjects such as radiology and electro-therapeutics, hormones, and the Pharmacy Act. Part II, known as the dictionary of treatment, reviews medical and surgical progress under alphabetic headings relating to various diseases, symptoms, and symptom complexes. Part III consists of short accounts of various medical and surgical appliances brought out during the year under review, information regarding the principal medical publications during the year, and institutions for the care of the sick, including private asylums, sanatoriums, and nursing homes, and other like matters. The volume contains a good many photographs and illustrations in colour, and, as usual, is thoroughly well turned out. The amount of ground which it covers is fairly well indicated by the general index which contains upwards of 4,000 entries.

The *Dentists Register* for 1911[5] has just been issued. It appears that it now contains 4,883 names; of these, 4 are those of persons holding colonial, and 19 of persons holding foreign, qualifications. The number of United Kingdom dentists is 4,860, and of these 3,124 are graduates or licentiates in dental surgery of universities and colleges in the United Kingdom. There are 11 persons registered on their own declaration as in bona-fide practice of dentistry before the appointed day who possess surgical qualifications, and 1,725 who have no qualification. It would thus appear that the percentage of persons without qualifications from a university or college has declined from 38.68 in the *Register* for 1910 to 35.32 in the *Register* for this year.

[1] *Festschrift zur vierzigjährigen Stiftungsfeier des deutschen Hospitals.* Herausgegeben von dem Medical Board im Auftrage der Aerzte des deutschen Hospitals und Dispensary der Stadt New York. New York: Lemcke und Büchner. 1909. (Roy. 8vo, pp. 593.)

[2] *The Microscopical Diagnosis of Diseases of the Blood and of Pathological Tissues.* By O. C. Gruner. Vol. v of the Phonographic Medical Library. London: Geo. Pulman and Sons. Limited. 1910. (Fcap. 8vo, pp. 68; 1 coloured plate. 2s. 6d.)

[3] *Handbuch der gesammten Therapie in Sieben Bänden..* Herausgegeben von Dr. F. Penzoldt, Professor in Erlangen, and Dr. R. Stintzing, Professor in Jena. Verlag von Gustav Fischer in Jena, 1910. (Price of complete work, M. 100.)

[4] *The Medical Annual.* Twenty-ninth year. 1911. Bristol: John Wright and Sons. (Demy 8vo, pp. 828. Price 8s. 6d.)

[5] London: Spottiswoode and Co. (3s. 4d.)

## MEDICAL AND SURGICAL APPLIANCES.

*A Microscopical Lamp.*

Professor E. Emrys-Roberts (Cardiff) writes: I enclose a photographic print of an electric lamp for microscopical purposes. The design has been carried out for me by Messrs. Herb. Lewis and Fletcher, consulting electrical engineers, Cardiff, and I understand that its component parts are all stock fittings, so that the cost of production is reduced to a minimum. The foot is brass, and is heavily weighted, and covered beneath with baize. The upright portion is brass tubing bent to accommodate the lamp itself; at the top is a screw-nut, making it possible to adjust the lamp to any required angle. The lamp shade is made of nickel-plated metal, parabolic in design. The source of light is an Osram lamp, frosted below. This type of lamp-fitting has been adopted in the new Pathological Institute, and is extremely satisfactory in every way. It is compact and efficient, and I can thoroughly recommend it.

*A One-Flash Apparatus for Radiography.*

Instantaneous radiography is now a thing accomplished. The practicability of an *x*-ray exposure of one-tenth of a second has been demonstrated during the last year or two, but even such an exposure is outdone by a "one-flash" apparatus bearing the name of "Dessauer," which is on

view at the show-rooms of Messrs. Newton and Co. (3, Fleet Street, E.C.). With this apparatus the exposure can scarcely be measured by time intervals; it is equivalent to one single discharge through the tube, occupying perhaps one-hundredth of a second. The new apparatus appears to be simply the logical outcome of modern development in induction coils, and the lightning radiography in this instance is made possible by the employment of a very large coil of special construction through which a heavy continuous current is passed. The bursting of a special fuse, which is readily renewable at a trifling cost, causes the break which provides the powerful single flash. In some excellent radiographs taken with this apparatus and an intensifying screen small pathological changes in the lungs were visible, and the heart outline was beautifully rendered. Of a pattern with this arrangement and bearing the same trade-name is a mercury interrupter on the centrifugal principle, with some interesting modifications.

*A Simple Test for the Efficiency of Sterilization.*

Mr. Ernest W. Hey Groves, F.R.C.S. (Bristol), writes: One of the great drawbacks of the modern high-pressure steam sterilizer is that it is necessarily somewhat complex and liable to get out of order without giving any readily noticeable change in the things taken from it. If it should be in the charge of a nurse or porter who does not properly understand it, or who is not very conscientious in working it, the whole mechanism may be at fault without any one being aware of the fact. The dressings and swabs look just the same as ever, and are handed to the surgeon—it may be hot from the machine—and yet only the outer coverings have been warmed, and no penetrating sterilization has taken place. This danger occurs especially at small hospitals or nursing homes, where a small instrument is used and often worked by different nurses. The things are put into the machine, the gas or steam is turned on, and in a certain time they are taken out. The exact fitting of the door of the oven, the attainment of a definite pressure, the proper working of the vacuum apparatus, are matters which do not appeal to the average nurse's mind as being very important. And yet these are the essentials without which we might just as well take our things straight from the laundry, use them for operations, and let the tissues find out for themselves whether they contain any bacteria. The great expense and trouble necessitated by dry sterilization are well worth while if only we can readily make sure that everything has been carried out without a flaw. I have devised a simple contrivance for carrying out an efficient test of proper sterilization which meets this need. A compressed tablet is made containing 10 grains of acetanilide, in the centre of which is a minute quantity of methyl blue. This is enclosed in a small glass capsule about 1 in. long. Acetanilide melts at a temperature of 112° C., and it takes about fifteen minutes' exposure to this temperature to melt the 10 grain tablet sufficiently for the whole mass to become uniformly mixed with the blue colour. Hence the capsule provides both a qualitative and a quantitative test of temperature. If it is placed in the centre of a large mass of dressings, and after sterilization it is found to have its contents completely fused into a homogeneous mass, it is a proof that the very centre of the dressings has been raised to a temperature of at least 112° C., and that this has been maintained for at least a quarter of an hour. For private work it is a great convenience to have a set of dressings, towels and swabs, gowns and gloves ready sterilized for any emergency. Such an outfit can be contained in a single canvas bag lined with cotton-wool; or better still can be arranged in two such bags. These are tied together, having a mass of cotton-wool, containing one of the capsules I have described, in its midst, between the two bags. Done up in this way they are given to the nurse to sterilize, and when they are returned, the bags are separated, the capsule taken out, and the efficiency of the sterilization positively ascertained. Up to the present I have only been able to obtain the capsules at a price of 2½d. each, but if their use should be adopted extensively I feel sure that some reliable druggist will be found who will be able to supply them at much lower price.

1, Original capsule; 2, after raising to 112° C. for five minutes; 3, after raising to 112° C. for fifteen minutes.

## THE SWEDISH SYSTEM OF REMEDIAL EXERCISES AND MASSAGE AS A MEANS OF TREATMENT.

Having determined to test the beneficial results accruing from the Swedish mode of treatment, I spent several months in Stockholm studying medical gymnastics and massage under Professor Wide and Dr. Arvedson, while at the same time I took part in the pedagogical work carried on at the Royal Gymnastic Central Institute. At that place I found that one hour's daily practice with the young army officers improved one's own physique in a very surprising and pleasurable manner. The course planned out there for the students is a very thorough and detailed one, its length being two years for women and three for men. The latter must take military gymnastics in addition, which consist in fencing with the foil and sabre, bayonet exercise, riding, and other military exercises.

Daily instruction in anatomy, practical anatomy, physiology, elementary pathology, and the theory and practice of medical gymnastics is given by the teachers. All students must take the pedagogical or educational gymnastics. There are separate classes for each year. The juniors begin with the easier movements, which gradually increase in severity, strength, and complication. When they become seniors—that is, in their second year—they commence where they left off the previous year, the exercises becoming increasingly difficult and strong, balancing movements being introduced.

To secure that the exercises shall be of a progressive nature and definite order—characteristics of the Swedish system—the programme is changed every week. Thus every Monday the aspirant for the title of Gymnastic Director looks forward to a new set of exercises to be practised for that week.

The order of a table is:

1. Introductory exercises, facings, and class formations.
2. Leg exercises.
3. Span bending, or arch flexions of the trunk.
4. Heaving exercises to increase respiration.
5. Balancing exercises, requiring high powers of co-ordination.
6. Dorsal exercises, giving a good carriage to the shoulders, and at the same time increasing respiration.
7. Abdominal exercises, which strengthen the muscles of the abdomen, thereby correcting any tendency to pot-belly. They assist the digestive organs in their work, preventing constipation, and tone up the natural support of the viscera.
8. Lateral exercises. These give suppleness to the carriage of the body, are powerfully corrective as regards the spine in both lumbar and dorsal regions, ensuring flexibility and assisting to counteract tendencies to lateral curvature. These movements, if persevered in, tend to reduce the waist measurement and any tendency to corpulency. (The Swedish army officers have probably the smallest waists of any class of men in Europe.)
9. Marching, marching on the toes, and running exercises. These educate the body to a free and easy motion in walking, to proper movements of the hips, and the correct manner of lifting and placing down the feet.
10. Jumping and vaulting. All the muscles of the body are brought into play from these exercises. They perfect resource and courage, presence of mind, and quickness of movement.
11. Finishing exercises, which always comprise those of breathing.

Each student must devote at least three hours daily to the patients, of whom he has one or more coming daily for treatment. The patient is first seen by a physician, who writes a gymnastic prescription for one of the students to carry out.

In diseases of the circulatory organs medical gymnastics have proved of marked service in mitral incompetence and stenosis, aortic incompetence, dilatation and hypertrophy of the heart, chronic myocarditis and fatty heart. Ling himself taught and used movements and massage for the circulation. A systematic programme is gone through, consisting of regulated movements and massage, beginning with the lower extremities. In a case of diffused cyanosis, shortness of breath, oedema of the extremities, and even albuminuria disappeared after only a fortnight's gymnastic treatment. Remedial gymnastics are of great use during the time that compensation of the heart is developing.

Medical gymnastics are a powerfully prophylactic agent in some diseases of the lungs, in that they help the expansive power of a badly-shaped chest and increase the interchange of gases in the lungs. Such common

maladies, as chronic bronchitis, asthma, emphysema, adhesions after pleurisy, and croupous pneumonia, are often benefited by a course of exercises.

In disease of the digestive organs medical gymnastics and massage play a very important part. They are a specific in chronic constipation. Medical gymnastics are usually all that is needed to effect a cure, but in some severe cases they should be combined with thorough abdominal massage. To cite only one case of Wide's:

*Intestinal Atony with Resulting Constipation.*

A man aged 73 had suffered from chronic constipation for many years. Laxatives and enemata had but little effect, but kneading and effleurage along the colon easily dislodged the faecal masses. He was treated daily with abdominal massage, sacral beating, and knee up-drawing and down-pressing, etc. The faeces soon became formed and soft, and were passed without trouble after the nervous innervation had been toned up and the intestinal muscles strengthened by abdominal massage. The improvement continued for some years afterwards, the patient having natural daily stools.

Medical gymnastics and massage have proved of service in catarrhal conditions of the digestive organs, dilatation of the stomach, chronic diarrhoea, prolapse of rectum, haemorrhoids, congestion of liver, and pruritus ani; while the effect of this system of reducing obesity has long been known.

In the special infirmary for nervous diseases in Stockholm medical gymnastics and massage are extensively used with good results.

Locomotor ataxia, progressive muscular atrophy, and anterior poliomyelitis have been the diseases chiefly treated with gymnastics and massage. In chorea, tremor, and tabes dorsalis, where there is inco-ordination, remedial movements are of great importance, especially double-sided ones. Gymnastic treatment has been of marked value in diseases of the motor nerves, paresis, cramp, and neuritis, and in neuralgia and anaesthesia (sensory nerves). The following case, related by Wide, may serve as a lesson:

*Right-sided Posterior Interosseous Nerve Paresis.*

A man aged 29 was treated in 1891. The paresis had showed itself in November, 1890, after fracture of the lower end of the humerus involving the nerve in a callus formation, and the nerve itself showed reaction to degeneration. Gymnastic and massage treatment was given twice daily for twenty-eight days, the aim being the absorption of callus in the first place, and mechanical nerve irritation in the second place. This was so far satisfactory that the patient was able to resume his occupation (clerk).

This case is of special interest on account of the rapid improvement which took place, and of the fact that, though the nerve did not respond to electrical stimulus, it did to mechanical excitation.

Sciatica has yielded good results to movements and massage. One clinical case treated by me under Professor Wide:

The patient was a woman aged 35; the treatment given was deep friction massage and strong effleurage for an hour daily for about thirty days, and a Tallbarrsbad (pine-leaves bath) every other day. In addition to this, active and passive movements for the sciatica were also given, such as active nerve-stretching in various ways—for example, at the peg-post, etc. With this treatment the patient rapidly improved, and at the end of the cure she confessed to "feeling very much better," and, as she expressed it, "felt lighter, and as though a lot of stuff had been squeezed out of her."

Movements and massage in cases of recent fracture, distortions, dislocations, acute synovitis, stiff joints, etc., have been advocated chiefly by Sir William Bennett in this country and M. Lucas-Championnière in France. Stockholm surgeons begin massage immediately after the occurrence of the injury, or as soon as the swelling begins to subside. With simple fractures, say of the radius, the bandage is removed, when gentle effleurage and passive movements are given daily for the wrist and finger joints. The gentle stroking movements given over the muscles in the region of a fracture greatly allay the pain or spasm set up by the contracted muscles. In the like manner with sprains—for example, in the ankle-joint—passive movements and massage help the stagnant circulation and prevent the formation of adhesions and consequent stiffness.

Swedish gymnastics have played a prominent part in the treatment of deformities, such as lateral curvatures of the spine, kyphosis, sloping and uneven shoulders, lordosis, or pot-belly, in the different varieties of talipes or club foot, in genu valgum, genu varum, genu recurvatum, and in torticollis. Perhaps more remarkable successes have resulted in lateral curvature than any other complaint. The object is to increase strength and development, and at the same time to shorten the muscles on the convex side. Massage of the back muscles must be given at each treatment. In Sweden three examinations are made yearly of public school children for the detection of incipient scoliosis. In this way early cases are found and the child put under proper gymnastic training without delay. Swedish medical gymnastics aim at increasing the mobility of the spine, the straightening and stretching it, checking of deformities of the chest and spine, and improvement of the general constitution through the development of the muscles, ligaments, bones, and joints.

As an illustration of the beneficial method of the treatment, two examples may be given; the first case was reported by Wide, and the second treated by myself in Dr. Arvedson's clinic.

1. *Right Convex Scoliosis in a Boy 14 Years Old.*—The vertebral column showed a deviation of 16 mm. in the middle dorsal region, the rotation was not inconsiderable, and the spine was freely mobile. The patient was preparing to enter the Naval College, and would have been rejected had not his deformity been cured. He could only sacrifice twenty minutes daily for gymnastics, but industriously practised home movements, and consequently succeeded after only four months' treatment in being accepted as without defect at the above school.

2. *Right Convex Lumbar Scoliosis, Left Convex Dorsal Scoliosis.*—A small, badly developed, thin and knowing child of 8 years, who looked older than her age. The dorsal deviation shown by Schulthess's apparatus was 18 mm. and the lumbar 21 mm., the spine being fairly flexible, but more so in the dorsal than in the lumbar region. For the first two weeks the patient had a general gymnastic treatment to improve the general health and prepare her for the harder and more complex movements to meet her individual case. At the commencement of the third week special movements were given, together with massage of the back muscles at the beginning, and also at the termination of each treatment. In this way she rapidly improved, for at the end of the twelfth week, that is, ten weeks since the special movements had begun, the dorsal deviation measured 7 mm. and the lumbar 11 mm; it will be observed that the dorsal curve improved more than the lumbar in proportion. As the child had to leave Stockholm and the treatment had to be discontinued, this case was lost sight of.

I think that this treatment deserves more attention from the profession than it has hitherto received, and that a special department should be inaugurated in all large general hospitals and certain special ones for the carrying out of this treatment by medical students who have received instruction in the subjects of medical gymnastics and massage. At the present moment there is only one large general hospital I know of in London which has a special department of this nature and presided over by a qualified medical man who has received the necessary training in this work.

Bibliography.

Sir W. H. Bennett: *Movements and Massage in Recent Fractures. Handbook of Physical Training, R.N.* Wide: *Handbook of Medical and Orthopaedic Gymnastics.* Tait McKenzie: *Exercise in Education and Medicine.* Arvedson: *Anteckningar i Sjukdomslära for Sjukgymnaster.* Kleen: *Handbok i Massage och Sjukgymnastik.*

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The Canadian Red Cross Society, which was founded in 1896 and reorganized and incorporated some two years ago, is now fully affiliated to the British Red Cross Society, and will do its work on corresponding lines. The society has its head quarters at Toronto, and its report for 1910 shows that good progress is being made with the formation of branches in the various provinces of Canada. Tribute is paid in the report to the excellent work done for the society by Dr. Charles A. Hodgetts, who acted as its general secretary for many years. He has now been succeeded by Dr. Charles R. Dickson.

The Vigilance Committee of the French Congress of Medical Practitioners has decided to send the following questions to the medical syndicates throughout the country: (1) Number of practitioners in your medical area; increase or diminution during the last twenty years? (2) Population; increase or diminution during the last twenty years? (3) Is there overcrowding of the profession in your medical area? (4) How is limitation to be effected? Competitive examination for admission as students of medicine. Examinations at the beginning of the curriculum. Examinations during the course of study; preliminary examinations; what examinations for the degree of bachelor (arts and science)? Personal observations.

## THE PURITY OF FLOUR AND BREAD.

THE important subject of the purity of flour and some other materials used in baking has been engaging the attention of the medical department of the Local Government Board for some time, and three reports which have just been issued as Parliamentary papers give the results of their investigations of certain parts of the subject. These reports are "On the Bleaching of Flour and the Addition of So-called 'Improvers' to Flour," by Dr. J. M. Hamill; "On the Chemical Changes Produced in Flour by Bleaching," by Dr. G. W. Monier-Williams;[1] and "On the Presence of Calcium Sulphate in Baking Powder and Self-raising Flour," by Dr. J. M. Hamill.[2] The bleaching of flour, with its supposed advantages and probable disadvantages, is dealt with at greatest length, and much important information is made available for the first time.

It is well known that a large part of the wheat supply of the United Kingdom is derived from other countries; according to the figures given in the first of the reports before us, the average yearly quantity of wheat produced in these islands from 1903 to 1907 was about 6½ million quarters, the average yearly imports for the same period being 26½ million quarters. The principal outside sources of supply are Argentina, Russia, the United States, Canada, India, and Australia, but many other countries in both hemispheres contribute a share. At the same time the quantities of wheatmeal and flour that are imported are considerable; in 1909 these imports amounted to 11 million cwt., against 98 million cwt. of wheat brought in.

One result of drawing our supplies from all over the world in this way is that freshly harvested wheat is available all the year round, since the wheat harvest naturally occurs at different times in the year in different countries; another and more important result is that the British miller and baker have a great range of choice in the varieties of wheat flour which they can employ, and by judicious blending in accordance with the results of experience are able to produce and use flour which combines the advantages resulting from growth under different conditions of climate and soil, and which is in many ways superior to the product of any one country or one variety of wheat.

A point of the greatest importance which arises in this connexion—one which must constantly be borne in mind in the consideration of the treatment to which flour is subjected—is that superiority of flour may be judged from two points of view which do not necessarily, or even probably, lead to the same conclusions; to the baker, and therefore usually to the miller, that flour is best which will give the largest yield of the most attractive bread, but to the public that flour is best which will give bread having the greatest dietetic value. It is not necessary to add that the latter point of view is the one that must be taken by a public authority.

Up to a certain point the value of a flour to the baker coincides with its value to the public, but beyond that point there is a serious divergence. The superiority of wheat, from the dietetic point of view, to other starch materials, is due partly to the gluten, partly to the phosphorus compounds. It is the presence of gluten in sufficient quantity which makes wheat superior to barley, maize, rice, etc., for the production of bread, while the phosphorus compounds appear to play a part, though one which is less understood, in this same quality. Gluten, however, consists of two substances, glutenin and gliadin, and the bread-making quality depends chiefly on the presence of a sufficiency of the latter, while there appears to be no evidence that it is superior to glutenin as an article of consumption. There is reason to believe, also, that the value of gluten to the baker in the production of bread may be increased by the judicious addition of certain inorganic phosphorus compounds, which it is safe to say are not of equal value (if indeed of any) to the natural phosphorus compounds of the wheat, when regarded as a source of the phosphorus required in the body.

The bleaching of flour has been recommended for the sake of certain advantages which it is supposed to give the baker, and it is also fairly evident from the report that certain pecuniary advantages that may be reaped by the miller have helped to bring it into use. No serious claim has been made that the flour or bread is in any way improved to the consumer, unless on the very doubtful aesthetic ground of the appearance of the bread, while the careful investigation recorded in these reports gives good reason for believing that it may have a distinctly harmful effect.

### *Bleaching.*

In the very elaborate processes of modern flour milling the final product is separated into various grades, the finest of which is usually the whitest. The degree of whiteness, however, depends also to some extent on the variety of wheat employed. English wheat yields a flour which gives an excellent flavour to the bread into which it enters, and which is also whiter than many other flours. Further, storage of flour for one or two months improves its baking qualities, and at the same time increases its whiteness. For all these reasons white flour and white bread have come to be regarded with greater favour than darker varieties; bleaching is largely a means of conferring this desired whiteness on flours which do not naturally possess it, though it is also employed on high-grade flour to render it even whiter. The practice originated in this country only about ten years ago, and it has now become very general, though it is by no means universally adopted.

The only process for bleaching which has come into much use, and the only one which is discussed in these reports, consists in bringing the flour for a short time into contact with nitrogen peroxide gas ($NO_2$). The gas is produced in various ways, but such variations do not affect the essential part of the bleaching. Excessive exposure to the action of the gas causes obvious deterioration of the flour and increases instead of diminishing the colour; care is accordingly taken that the action shall not proceed to such a point, but within this limit there appears to be room for very great differences in the extent to which the action is allowed to proceed, and it was not found possible to obtain accurate information as to the proportion of nitrogen peroxide generally employed. It is asserted by some that bleaching increases both the "strength" and the water absorbing capacity of the flour—that is, that it enables the baker to make more bread from a given quantity of flour, the bread being also commercially better; the increased quantity of bread is, of course, secured by giving the consumer a larger quantity of water in each loaf. But, after collecting the evidence obtainable on the matter, Dr. Hamill comes to the conclusion that

> it seems probable that bleaching, when carefully carried out, produces no appreciable effect upon the baking qualities of flour.

The advantage to the miller, however, is considerable:

> There can be no doubt that bleaching is capable of improving the colour and therefore the commercial value of the lower grades of flour.
>
> That this improvement represents a pecuniary gain to the miller is evident . . . it is said that a saving of 6d. to 1s. per sack may thus be effected by the miller.

The conclusion of this part of the inquiry is thus that the only advantage resulting from the bleaching of flour is a commercial one, which is secured at the expense of the public by enabling a lower-priced article to simulate the appearance of a higher-priced one.

On the important question of the changes which occur in flour in the bleaching process, and their probable effect on the consumer of bread, it was found necessary to supplement the information obtainable, by direct research. The yellowish colour of flour is due to an oil which exists as a very thin layer surrounding each granule of starch. When this oil is acted on by the nitrogen peroxide its chemical composition is altered, the iodine-absorbing capacity being reduced and some nitrogen becoming combined with the oil. Apart from this change, an almost constant character of bleached flour is the presence of a substance giving the reactions of nitrite, which can be extracted and estimated by suitable treatment. The amount which has been extracted from different samples of bleached flour, calculated as sodium nitrite, has varied from mere traces up to 40 or more parts per million parts of flour. The proportions found in samples of flour sold

[1] Cd. 5613, price 3½d. To be purchased either directly or through any bookseller from Wyman and Sons (London), Oliver and Boyd (Edinburgh), and E. Ponsonby (Dublin).

[2] Cd. 5614, price 1d. To be purchased either directly or through any bookseller from Wyman and Sons (London), Oliver and Boyd (Edinburgh), and E. Ponsonby (Dublin).

in this country, however, did not show such wide variations. Out of 157 samples examined by public analysts and others, 40 were reported to be free from nitrite and the rest contained from 0.5 to 4 parts per million, while out of 70 samples of imported flour examined by Dr. Monier-Williams 13 were free, and the remainder contained from 0.5 to 4 5 parts per million. The presence or absence of nitrite affords the surest evidence as to whether a sample of flour has been bleached. It is stated in the report that

> for practical purposes it may be presumed with some probability that when more than one part of nitrites per million is present the flour has been bleached; with quantities much above this the inference of bleaching amounts to practical certainty. On the other hand, when flour has been submitted to the Griess-Ilosvay test and has been found free from nitrites, there can be little doubt as to its being unbleached.

The amount of nitrite-reacting material present in flour, however, is not necessarily any criterion of the degree of bleaching or of the amount of nitrogen peroxide which may have been absorbed by the flour. And when bleached flour is made into bread, from one-half to two-thirds of the nitrite disappears, while an increase in nitrates is said to occur, as might be expected. Dr. Monier-Williams found that as a result of bleaching the solubility of both the protein and the carbohydrate of the flour was increased, showing that chemical changes had taken place in these.

It is pointed out that great difficulties beset the experimental investigation of the effects of small amounts of nitrogen peroxide, such as are used in bleaching, on the health of the consumer. The most probable effects would appear to be due to interference with digestion. Halliburton has found that traces of nitrites exert a distinct inhibiting effect on both proteolytic and amylolytic enzymes, one part of sodium nitrite in 8,000 inhibiting peptic digestion entirely, while one part in 32,000 decreased the activity of the enzyme to one-seventh of its normal activity; similar results were obtained in the case of the salivary digestion of starch. Hale has found that sodium nitrite in a dilution of one part in 5,000 to 200,000 has a distinct inhibitory action on gastric digestion. Some experiments on this point, carried out at the Lister Institute by Dr. A. Harden, showed a decided, though small, inhibition in the peptic digestion of samples of bleached flour as compared with unbleached. Feeding experiments on cats and rabbits made by the same investigator with an extract from bleached flour did not show any effects attributable to the latter. It is pointed out in the report that other effects of nitrite than interference with digestion are quite likely.

As regards the action of nitrites on the system, it should be remembered that nitrites, when administered as drugs, produce various effects, amongst which disturbance of the heart and vascular system are prominent. The amounts of nitrite introduced by bleached flour would be of a much lower order than those taken when nitrites are given medicinally. Statements have been made, however, by medical practitioners that an appreciable effect may be produced by quite small doses of nitrite. Gustav Mann points out that quantities such as half a grain (32 mg.) of nitrous acid may be harmful to some individuals. What may be the physiological or pathological effect of ingestion of even smaller doses when taken day by day throughout many months or years it is impossible to say; there is no evidence on the matter, and it would be very difficult to obtain any. It cannot, however, be regarded as desirable that minute doses should be ingested day by day of a drug which in larger single doses has a marked action on the vascular system.

It is held that there is no compensating advantage to the consumer, and the conclusion arrived at is thus expressed:

> Looking to the above considerations, it may be concluded that the alterations in, and the additions to, flour which result from a high degree of bleaching by nitrogen peroxide cannot be regarded as free from risk to the consumer, especially when regard is had to the inhibitory effect of the bleaching agent on digestive processes and enzymes.

### "*Improvers.*"

The so-called "improvers" which are in use as additions to flour, usually in the proportion of 1 to 2 lb. to each sack of 280 lb. of flour, were found to consist essentially of phosphoric acid or acid phosphate of calcium, magnesium, potassium, etc. The claim made for these is that more bread can be obtained per sack of flour by their use, which, as pointed out above, means that more water can be supplied to the consumer at the price of bread. It is asserted of one such "improver" that from ten to fourteen extra 2 lb. loaves can be obtained from a sack of flour by its use, and of another that it improves the "strength" of the flour to the extent of at least 1s. 6d. per sack and the colour by 1s. per sack in value.

In addition to such compounds, patents have been taken out recently for treating flour with phosphorus trichloride, pentachloride, or other halogen compounds of phosphorus, or with a mixture of these and sulphur trioxide, nitric acid, nitrous acid, iodic or other halogen acids; also formic, acetic, propionic or benzoic acids, alcohol, aldehydes, or ketones, with the object of "strengthening" the flour and improving its baking qualities; other chemicals which it has been proposed to use include phosphorus pentoxide, phosphorus bisulphide, and phosphorus pentasulphide.

On the subject of "improvers" generally, Dr. Hamill points out that, first, there is no evidence in support of the contention sometimes advanced, that they increase the organic phosphorus compounds present, and, secondly, that the formation of such compounds in this way is contrary to experience. Their effect in increased loaf production, from a given quantity of flour, is one that will appeal only to the miller and baker. The serious risk of actually deleterious substances being introduced into bread in this way is referred to, and it is added:

> It must also be remembered that the addition of foreign substances may not be limited to the miller, but that each person through whose hands the flour passes (for example, the flour factor and the baker) may add to it a different substance or more of what the miller has added. In this way flour, when it reaches the consumer, may have departed considerably from its original state of purity.

The report does not include any specific recommendation for legislation in regard to the bleaching of flour or the addition of foreign substances. It is probable, however, that the present state of the law would permit of successful prosecution for such acts, the onus being on the prosecution to prove that the consumer was being supplied with an article other than and inferior to that demanded. In proving this to be the case the present report would naturally be of the greatest value. The bleaching of flour is already prohibited in Switzerland. In certain of the Australian states bleached flour is excluded by the official definitions of what may properly be described as flour; while in the United States the Board of Food and Drug Inspection has unanimously decided

> that flour bleached by nitrogen peroxide is an adulterated product under the Food and Drugs Act of June 30th, 1906, and that the character of the adulteration is such that no statement upon the label will bring bleached flour within the law.

### *Baking Powder and Self-Raising Flour.*

The question of the presence of calcium sulphate in baking powder and self-raising flour, which is dealt with in a separate report, is a much simpler one. Baking powder consists essentially of sodium bicarbonate together with an acid substance (cream of tartar, tartaric acid, calcium acid phosphate, etc.) which will liberate carbon dioxide from it when water is added, and so cause "rising" of the bread or pastry which is made. "Self-raising flour" is merely flour containing these essential elements of baking powder. The use of calcium acid phosphate in place of cream of tartar or tartaric acid has greatly extended in recent years, chiefly on account of its lower price; and since this substance often contains a large proportion of calcium sulphate, the latter, which is at best valueless and therefore undesirable, may be consumed with food to quite a considerable extent.

Commercial calcium acid phosphate contains from under 5 up to as much as 50 per cent. of sulphate; the higher proportions are caused by the acid phosphate being made by the addition of sulphuric acid to bone-ash (neutral calcium phosphate), whereby a cheaper product is obtained than when the bone-ash is treated with phosphoric acid. Dr. Hamill recommends that a maximum limit of 10 per cent. of calcium sulphate in calcium acid phosphate should be fixed, and that no such material, or baking powder or self-raising flour prepared from it, should be sold under any name which implies that it is a preparation of cream of tartar or tartaric acid; and that local authorities under the Sale of Food and Drugs Acts should cause examinations to be made of the acid phosphates, baking powders, and self-raising flours being sold in their districts, and should institute legal proceedings where necessary to prevent the presence of an undue proportion of sulphate in such materials.

# PREVENTIVE MEDICINE IN THE TROPICS.

## REPORT OF THE GERMAN COLONIES.

THE Medical Report for the German Colonies for the year 1908–9[1] contains a fine record of the clinical and hygienic work carried out by the medical staffs of the different colonies during the year. The voluminous clinical notes, especially those dealing with the treatment of tropical diseases, are well worthy of perusal by anyone interested in the treatment of any particular disease, but the most interesting portions of the report are those dealing with preventive medicine in tropical colonies. Realizing that no colony could be prosperous without a plentiful supply of healthy native labourers, the German Government has spent considerable sums of money on the scientific investigation of the epidemic diseases in each colony, and is now systematically applying the knowledge so gained to stamp out these scourges of the native population. Measures are also being taken to protect the Europeans living in the colonies. The measures adopted in German East Africa, of which we give a summary, show the lines on which the German Government is working.

The following diseases, which in the past have caused most loss of efficiency or lives, were combated as detailed below:

### *Small pox.*

In recent years only isolated cases of small-pox had occurred in the colony, but in the year covered by this report there were a number of small epidemics, in which, however, only natives were attacked. It is worth noting that the natives in many of the districts try to protect themselves against small-pox by inoculation, carried out as follows: they express the contents of a small-pox pustule, mix this with some native "medicine" to diminish the virulence, and then rub it into a small incision in the left arm or forehead. In some cases only a local pustule at the site of inoculation was produced, but in others, especially children, the practice was followed by a mild attack of small-pox.

The preventive measures adopted by the German authorities were the isolation of persons suffering from small-pox, and, as far as possible, vaccination of the whole population. In the year 1903–4 the number of natives vaccinated was 21,453; the yearly number of vaccinations performed has steadily increased, and in 1908–9 amounted to 117,863. The great increase has been rendered possible by the fact that lymph is now prepared in the colony itself, instead of being entirely derived from Germany, as formerly.

### *Plague.*

The endemic foci of plague had been eradicated by 1906, but there still remained the risk of its introduction by trading vessels from India; this actually took place in Zanzibar in 1905, 1907, and 1908. The greatest difficulty was caused by dhows with native crews, as these, instead of making use of the regular harbours, where a trained examination staff exists, were often simply beached at any convenient spot, so that when the tide fell they lay dry on the beach, and infected rats could scamper ashore. Some 20,000 rats were destroyed in the ten principal harbours.

The plague investigation department in Daressalam possesses a fully-equipped laboratory, as well as three mobile plague laboratories, which can be detached to any suspected locality. During the latter part of 1908, 12 cases of plague, 4 of which were of the pneumonic type, occurred in Daressalam; 6 of these were fatal. The last case occurred in January, 1909. Fortunately these cases were detected at an early stage, and, owing to the precautions taken, no epidemic resulted. At the same time rats were found to be infected with plague. Between 600 and 1,000 rats were examined each month from October, 1908, to June, 1909. In October, 1908, the percentage of rats found to be infected was 7.9; this percentage steadily diminished, till February, 1909, when it was only 0.3; after this date no definite infections were detected.

The measures taken to prevent the disease from spreading consisted in the isolation of plague patients, careful burial of the corpses of those dying from plague, disinfection of the dwellings, keeping contacts under observation, destruction of rats. The greatest importance was attached to the last precaution. The work was directed by the medical officer in charge of the laboratory, assisted by a junior medical officer, four medical subordinates, and ten to twenty natives. The town was divided into districts, in each of which in turn rat traps were set and phosphorus rat poison systematically laid out. Once in each two months every surface drain was fumigated with the Clayton apparatus. Two refuse carts were employed for two months to collect and remove all rubbish heaps which could afford a hiding place for the rats. By the end of the year plague had been eliminated from Daressalam.

### *Malaria.*

As in every tropical colony, malaria is the principal cause of inefficiency. In German East Africa it is accountable for one-third of the total sickness and one-quarter of all the deaths. The great majority of Europeans live in the towns of Daressalam and Tanga; hence the anti-malaria campaign was mainly directed to improving the health of those two places.

The antimalaria staff employed in Daressalam consisted of the medical officer in charge of the laboratory, assisted by two sisters, two Goanese assistants, and eight natives. The town was divided into districts and the blood of the native inhabitants in each district was systematically examined once a quarter to detect malaria carriers. In this way over 20,000 blood films were examined during the year. Owing to changes in the population and in the methods employed for examining the blood the results obtained cannot be used as an exact index of the state of malaria in this and in the previous years. It may, however, be stated with some approach to accuracy that, of 100 malaria carriers, 3 have tertian parasites, 10 have quartan, 15 have crescents, and 72 have rings, most of which are probably of the malignant variety. These figures would appear to denote that benign tertian has receded as the result of the general administration of quinine, but that quartan malaria has increased.

All malaria carriers, 4,578 in number, were given a course of quinine. In most of the cases the course lasted three months, and was carried out as follows: On two successive days of each week adults were given 15 grains of quinine in tabloids or solution, and made to swallow it in the presence of a European; children received a proportionately smaller dose in a sweet solution. In only four cases was an attack of blackwater fever induced by this treatment; all recovered, and were afterwards put through an acclimatization course of gradually increasing doses of quinine till complete tolerance of the drug became re-established.

The antimosquito measures were as follows: In May all drainage ditches were treated with saprol, and with a mixture of 2 parts of saprol to 1 of petroleum. In the case of wells for which petroleum was not suitable a species of cicada was introduced; at the beginning of the year a supply of these insects was obtained and placed in a pond in the experimental gardens; they increased so rapidly that a regular supply for use in wells could be relied on. Water tanks were either filled in or covered with wire gauze. Cisterns in dwellings were regularly run off and dried. Unfortunately funds did not permit of these measures being as thoroughly carried out as was the distribution of quinine, nor could mosquito brigades be formed. Mosquito-proof shelters have been put up in the verandahs of a number of houses; they are usually constructed of wire gauze, 10 ft. by 10 ft. by 10 ft. It was not found possible to effect a complete separation of native dwellings from those of Europeans.

The antimalaria campaign report from Tanga lays special stress on the great assistance rendered by the malaria sisters in examining and treating the natives. The blood of 8,239 adults and 2,870 children was examined for malarial parasites; of the adults 1,557 (= 16 per cent.) and of the children 680 (= 24 per cent.) were found to be carriers. Among 1,635 carriers, malignant tertian parasites were found in 954 cases, benign tertian in 242 cases, quartan in 387, and mixed infections in 52.

The report from the Cameroons mentions that the European officials had been exceptionally free from malaria during the year, and attributes this happy condition to the fact that most of them take quinine regularly (15 grains

[1] Berichte über die deutschen Schutzgebiete für das Jahr 1908–9. Herausgegeben vom Reichs-Colonialamt. Berlin: Mittler und Sohn. 1910. (9½ in. by 6½ in., pp. 622; 35 sketches in the text, 2 sketches and 39 illustrations in the Appendix.)

very fourth day) and live in well-built houses at a distance from the native dwellings. The railway employees suffered most from malaria, but even in their case, thanks to the persistent instruction given on hygine, the incidence was not great. The public health generally can never be really satisfactory till the native quarter is completely separated from the European dwellings.

*Ankylostomiasis.*

This disease fortunately has not attacked the Europeans, but among the natives working on the plantations of the coast districts it is the cause of much inefficiency and many deaths. The measures adopted with a view to eradicating the disease were as follows: (1) Instruction as to the nature of the disease, its path of infection, and its consequences, was given to Europeans and natives both by lectures and the distribution of pamphlets printed in German and Swaheli. (2) Proper latrines were constructed for all natives living in the infected districts. The form usually adopted was a large hole 4 or 5 ft. deep with a narrow opening at the top lined with tin to prevent soiling of the ground. (3) Protection of the water supplies from infection. (The last two measures were carried out by the planters.) (4) The detection of all infected persons by microscopic examination of the faeces; this was carried out by the medical staff. (5) The treatment of all persons harbouring the parasite; this was carried out by the medical staff assisted by the overseers of plantations.

In one district 2,433 natives were examined, and 1,502 (66 per cent.) were found to be infected. The treatment carried out in the Tanga district was as follows: First day, in the afternoon, 5 to 7 grains of calomel. Second day, three doses of thymol, each of 30 grains, with an interval of one to two hours between each dose; the drug was crushed and given wrapped in a wafer or cigarette paper. On the third day a purgative was given if required; for this purpose castor oil was preferred as calomel often failed to effect its purpose, and if the dose was increased symptoms of stomatitis were liable to occur. These large doses of thymol sometimes produced an effect similar to alcoholic intoxication, but were never followed by any serious symptoms.

*Leprosy.*

This disease is found in many districts, but fortunately does not show any tendency to spread and is not likely to have any prejudicial effect on the industrial development of the colony. The former system of collecting all lepers into a few asylums and keeping them strictly isolated there has therefore been abandoned in favour of a scheme of leper villages. These villages are located at some distance from the main roads. Each man is given a hut and a small piece of land on which he grows his own food. In most districts the natives, except those in the very early stage of the disease, were quite willing to remove to the leper villages and to remain there. A policeman is placed in charge of each village and has his hut near the entrance so that he can supervise the inhabitants.

*Sleeping Sickness.*

In the middle of 1907 the investigations of Koch's commission revealed the fact that along the German shores of Lake Victoria sleeping sickness was fairly widespread. A special commission consisting of five medical officers, one sister and ten medical subordinates was at once appointed to deal with this district, as also that on the shore of Lake Tanganiyka. The work which the commission was ordered to carry out was, first to get rid of the *Glossinae* by clearing the shores of the lake from all "bush" and trees, and next to endeavour to segregate all infected natives in special camps, where also attempts to cure the malady could be made. Most of the infections appear to have taken place in Uganda or the Congo; strenuous efforts were therefore made to stop all intercourse with these countries. Some of the more intelligent natives were trained to examine suspects for enlarged glands and afforded the commission much assistance, especially in the examination of travellers.

In Duala district (Cameroons) there is a sleeping sickness focus. The disease is said to have been imported from Fernando Po some thirty years ago. It does not show any tendency to become epidemic. Only a few cases occurred during the year, but all of them were very acute in character. The most important part of the report on the colony of Togo is that dealing with sleeping sickness. The disease is supposed to have been first introduced by the Ashantees in 1869. A commission was appointed by the Imperial Government in 1908 to investigate the extent of the disease, and to suggest measures for its control. By the end of 1909, 164 cases had been detected. These occurred in a comparatively small area of the colony bordering the Volta. They were collected into a segregation camp, and placed under the treatment of a special medical officer. *Glossina palpalis* is found in large numbers in the "bush" country, which covers approximately one half of the colony. In view of the existing conditions it seems strange that the disease has not become generally disseminated throughout the colony, and its failure to do so is probably to be explained by the fact that it is only in very recent years that the native has ventured to travel beyond the limits of his own village. With the security now prevailing in the colony, the natives are beginning to move about the country freely, hence the great importance of isolating all infected persons while the number is still small.

Experiments with Citronella grass have shown that it does not possess any power of deterring the *Glossina palpalis*. On one occasion, when a number of them attacked a native assistant, he was told to try the effect of moving into the centre of a plantation of this grass; the flies did not on this account allow themselves to be disturbed in their efforts to obtain a blood meal.

*New Guinea.*

The reports from German New Guinea lay stress on the fact that the population is not increasing, and is, in fact, in some districts actually diminishing. Various reasons are given for this condition of affairs. In one district it is stated that the natives deliberately prevent conception, produce abortion, or even kill newly born children. In the New Mecklenburg district repeated intermarriage of near relatives is stated to have produced a state of physical degeneration; female labour is also largely recruited for plantations; this in turn leads to a deficiency in the supply of marriageable women, and in consequence polyandry is now practised. The deficiency of population is very serious for the colony, as no large commercial undertakings are possible without a good supply of native labour. The question is receiving very serious attention from the authorities, and remedial measures are being considered.

*Conclusion.*

At the end of the volume there are a number of photographs of hospitals for natives recently constructed in the various colonies.

The report contains a mass of information on clinical medicine, sanitation, and public health. It speaks volumes for the very thorough and conscientious way in which the medical staffs of the German colonies are carrying out their duties.

## THE GAS-WORKS PITCH INDUSTRIES AND CANCER.

In former publications[1] [2] we have described researches which have shown that the division of human lymphocytes, leucocytes, and certain epithelial cells can be induced under the microscope by means of certain chemical agents which have been called auxetics.[3] These auxetics appear to consist of certain amidines, primary aliphatic amines, and amino-acids, which can be produced in the body by injury. In addition to this, other substances, which have been called kinetics, have been found which excite marked amoeboid movements in leucocytes and lymphocytes, and which, although they do not cause cell division by themselves, greatly augment the action of

[1] *Induced Cell-reproduction*, London, 1910.
[2] A Report on Cancer Research, British Medical Journal, October 23rd, 1909.
[3] The fact that some of these auxetics cause the division of human lymphocytes was seen by Professor Ronald Ross and confirmed by him in a letter to the British Medical Journal of January 11th, 1911; and we can also state that Dr. Fantham, Parasitologist to the Liverpool School of Tropical Medicine, using our methods, has recently been able not only to induce divisions in *Entamoeba coli* with auxetics, but also to cause them to multiply through three generations entirely by the agencies of those substances.

the auxetics in inducing mitosis. Based on these points we formulated a theory that carcinoma might be due to this augmentation of what are apparently the chemical causes of cell division.

Soon after this was published, we received a letter referring to the incidence of cancer amongst the workmen employed in the manufacture of fuel "briquettes." The letter informed us of the proposed Home Office Regulations to prevent this incidence; that the Regulations only applied to workers with pitch made from gasworks tar, and not from blast furnace tar; and asked if we could indicate which ingredient caused the cancer, as it could no doubt be eliminated during the distillation of the tar.

As this letter was the first information which we had that the high incidence of cancer was caused only by the gasworks pitch and not by the blast furnace pitch, and as this point is obviously of great importance to cancer research, we communicated with the Home Office. Dr. Whitelegge, the Chief Inspector of Factories, kindly gave us full information, and sent us Dr. Legge's original reports on the subject. It seems that while cases of warts and swarthy skins are very common, and epithelioma fairly frequent, among the workers with gasworks tar pitch, Dr. Legge could not find these conditions among the comparatively small numbers of workers examined handling blast furnace tar pitch. Hence in the proposed Home Office Regulations the following clause appears: "I hereby . . . make the following Regulations, and direct that they shall apply to all factories and workshops in which the said manufacture is carried on, *except factories or workshops in which no pitch other than blast furnace pitch is used in the manufacture of briquettes*" (the italics are ours).

We have also made inquiries, and think that there appears to be strong evidence that the warts, epithelioma, etc, are caused only by the gasworks pitch. Blast furnace pitch is made from tar which is distilled at a lower temperature. The pitches are powdered, mixed with small coals, and compressed into briquettes. The proposed Regulations, if enforced, will provide for the establishment of bathing accommodation and overalls to protect the men from pitch dust.

Reverting to the theory that cancer may be due to chemical auxetics and augmentors of cell division, we undertook some experiments to see whether any such substances could be found in the tars and pitches. We procured samples of both. The method employed need not here be described in detail; but we may mention that in the case of the tars 10 c.cm. of each was mixed with 90 c.cm. of a 5 per cent. solution of HCl, shaken up, filtered, and neutralized. In the case of the pitches, each form was finely powdered, and then 10 grams of it was mixed with 100 c.cm. of the 5 per cent. solution of HCl, filtered and neutralized. Certain quantities of the filtrates were added to "coefficient jelly,"[1] which also contained 1 c.cm. of a 5 per cent. solution of sodium bicarbonate; the total was boiled and allowed to set as films on microscope slides. A drop of fresh citrated blood from the finger was then mounted on to each film, which was incubated for ten minutes at 37° C., when the lymphocytes were examined. Briefly, the result may be tabulated thus:

| | Contains Excitors of Cell Division (Auxetics). | Contains Augmentors of Cell Division (Kinetics). |
|---|---|---|
| Gasworks tar ... ... | Yes (0.3 c.cm.)* | Yes (1 c.cm.). |
| Gasworks tar pitch ... | Yes (1 c.cm.) (if augmented by atropine) | Yes (1 c.cm.). |
| Blast furnace tar ... | Yes (2 c.cm.) (if augmented by atropine) | No. |
| Blast furnace tar pitch | Yes (1 c.cm.) (if augmented by atropine) | No. |

*. These numbers refer to the quantities of the filtrates to be added to the jelly.

Hence it appears that gasworks tar contains a powerful excitor of cell division, and also an augmenting substance (kinetic). The same can be said of gasworks tar pitch. Blast furnace tar, and pitch made therewith, however, while containing a weak substance which will induce divisions if its action is increased by atropine, do not contain any augmenting kinetics which, from previous work, appear to be the cause of pathological (unsymmetrical) cell division. We submit, therefore, that this is strong evidence that the chemical agents which cause augmented cell division of lymphocytes under the microscope have something to do with the causation of cancer, because, in addition to other evidence already published, these agents appear to exist only in the one form of tar and pitch which causes the larger incidence of the disease in the industries where it is employed. The gasworks tar and pitch are among the most effective substances we have yet found for inducing mitotic figures in lymphocytes.

The experiments have been repeated with a 20 per cent. solution of ordinary soot, and both auxetics (1 c.cm. with atropine) and kinetics (0.2 c.cm.) can be extracted from it, although it is not so effective as gasworks tar for inducing mitosis. Lastly, it may be mentioned that these auxetics can also be extracted by water instead of hydrochloric acid, but cannot be extracted by alkali. What their exact nature is we do not yet know.

The question now arises: Can these principles be eliminated from the tar without injuring the pitch; and, if so, will the pitch then no longer be dangerous to the workmen other than those who deal with it prior to such treatment? We have tried to answer the first question by experiment on a small scale in the laboratory by washing the pitch, and then again mixing it with water to see if more auxetics and kinetics can be extracted. Extracts of washed pitch so treated no longer induced cell division or excitation.

The question whether pitch from tar so treated is no longer dangerous can only be answered by the use of such pitch (provided it is still suitable for the manufacture of fuel) in briquette works for a period of several months, to see if the incidence of warts, ulceration, and epithelioma is reduced. Unfortunately, the Home Office Regulations, if imposed, would render fallacious such an experiment, because it would be impossible to ascertain whether any amelioration of the incidence of cancer—if such occurs—is due to the use of pitch made from the so-treated tar, or to the bathing accommodation and overalls supplied for the workmen. In our opinion the Regulations, which are based on the obvious principles of hygiene and cleanliness, are very necessary, but it might be of great value to cancer research if this could be definitely ascertained, before the Regulations were imposed. An inquiry is to be held on the subject shortly, to consider some objections to the Regulations raised by the Patent Fuel Companies; and it is possible that this experimental corroborative evidence as to there being cell-division-inducing agents in the tar and pitch may be useful to the parties concerned.

We wish to acknowledge the information and assistance received from Dr. Whitelegge and Dr. Legge of the Factories Department of the Home Office. The expenses connected with the experiments have been defrayed by Sir William Hartley, of Liverpool, and Mr. John McFadden, of Philadelphia.

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## THE BATTLE OF THE CLUBS IN BELGIUM.

[From a Correspondent.]

The great success of the Cercle Médical of Antwerp in organizing the medical profession to resist the exploitation of the clubs has only been achieved against the most determined opposition. The Cercle Médical has been prosecuted on several occasions. On one of these enormous damages were claimed by a practitioner who had been put under ban, but the court allowed merely nominal, almost contemptuous, damages for some slight technical error on the part of the officials, while in other cases the Cercle has been completely victorious and has legally vindicated the right of the profession under the Belgian law to combine for self-protection and for the betterment of fees and general conditions of practice. One of the points insisted on has been payment per attendance according to a fixed scale of fees, details of which were given a few months ago. The clubs and various workmen's organizations and sickness insurance societies have resolutely opposed this, but owing to the solidarity of the profession in Antwerp several of these clubs have been unable to obtain any

medical officer, and they are gradually beginning to see the futility of opposing the profession, which is united to defend its rights. Chief among the means adopted by the Cercle Médical to bind its members together is a form of agreement which every medical man signs on joining the Cercle, and the success of the Antwerp union, which comprises almost the whole of the practitioners of the district, has led the profession in other parts of Belgium to imitate its organization.

The latest instance is at Ghent, where the Ghent Medical Union is adopting a form of agreement on very much the same lines as that of Antwerp. The form of contract or agreement between the Medical Union and its individual members commences by setting forth at length the reasons why so stringent a form of contract is adopted. It states that the present organization of the clubs and the societies that insure against sickness is seriously detrimental to the medical profession, that the tariffs are by their insufficiency an attack on the dignity of the profession, and by no means tend to the interests of the patients, and that there is thus urgent need for union and agreement in the profession to prevent a continuance of this state of things. It is pointed out that the object of the Ghent Medical Union, which is legally a "recognized professional union," is to ameliorate the situation for its members, both individually and collectively, by the adoption of a uniform line of action towards the clubs, and that it is of the first importance to adopt some means of preventing defections on the part of individual practitioners which would render the efforts of the Union sterile. In view of all this, each member of the Union signs an agreement that henceforward he will not accept service with any club or sickness insurance society except on the basis of the rules of the Medical Union, and that he will not accept any vacant post in any club or society, either existing or to be created, without the written permission of the Union. It is set forth that the remuneration for medical services will be fixed by common agreement between the clubs and the Union. The members further agree to communicate to the executive committee of the Union any contract, verbal or written, that they are under with any club or society that assures medical attendance, or in default the members agree to pay a fine of 50 francs, the Union on its part agreeing to enforce an increase of fees up to the tariff adopted. The signatories further agree to pay an indemnity or fine of 500 francs if they accept any vacant post without the written permission of the Union, and if within three months after an injunction by the Union any signatory has not resigned any such post, a further fine of 1,000 francs is agreed to be paid, and if a second period of three months shall have elapsed without resignation of the post a still further sum of 1,500 francs is agreed to be forfeited. The amount of these forfeits is not to be reduced under any pretext, and they are to be enforced again every year if the post is not vacated. The Medical Union on its side binds itself to enforce these fines, and in case any practitioner can show that he has incurred loss through carrying out the rules of the Union, the Union agrees to reimburse him or to pay him compensation up to the amount of 5,000 francs. This contract must be signed by every candidate for membership of the Union, and it is agreed that any dispute as to the interpretation of the contract in particular cases shall be submitted to a committee of three arbitrators, one chosen by the Union, one by the medical practitioner concerned, and a third by these two; if either party fails to appoint its arbitrator, or if the two cannot agree as to the third, the President of the Civil Tribunal will be asked to undertake the duty. No appeal is allowed from the decision of the arbitrators, and the agreement lasts for a period of five years and is renewable. In order to make sure of the legality of this agreement, which might conceivably be regarded as a "restraint of the liberty of commerce or of industry," under the Belgian law, it has been submitted to the highest expert legal authority, who has expressed an opinion that it is perfectly legal and valid. The form of agreement has recently been unanimously adopted by a general meeting of the Ghent Medical Union, which hopes to be as successful in obtaining the signatures of all the practitioners of the district as the Antwerp Cercle Médical has been.

There is at present a movement in the Belgian Parliament in favour of making insurance against sickness and invalidity compulsory for miners; but the Minister of Labour seemed to be expressing the view of the Government when he gave it as his opinion that not only should miners be insured, but that insurance against sickness and invalidity should be made compulsory for all categories of workers. In view of such a possibility the Belgian medical societies are organizing themselves, and endeavouring to obtain not only local union, as at Antwerp and Ghent, but a general confederation of all Belgian medical societies. The experiment in compulsory insurance in England, and especially the action of the British Medical Association in connexion with an insurance medical service, will be watched, we are told, with the greatest interest by the Belgian medical profession. It is evident that trade union methods have been fully and frankly adopted by the Belgian profession, and in certain quarters there would seem to be a feeling that the British Medical Association is only playing with trade union methods, which, sooner or later, from the sheer necessity for self-defence, will have to be fully adopted. At any rate, the Belgian profession is proving that it can achieve far more by adopting trade union methods, even to the extent of fining its members, than it has been able to achieve before by any other methods. The President of the Antwerp Cercle Médical recently said: "La formule du 'laisser faire,' chère aux Manchestériens, fait décidément faillite"; and however true or otherwise this may be in general politics, it is certainly true that in medico-politics the formula of *laisser faire* means bankruptcy. We wish every success to the medical societies of Antwerp and Ghent and other towns of Belgium in their battle with the clubs.

## BRITISH MEDICAL BENEVOLENT FUND.

At the March meeting of the committee 24 cases were considered and grants amounting to £182 made to 20 of the applicants. Appended is an abstract of the cases relieved:

1. Daughter, aged 83, of late M.R.C.S. Has had an income of £13 supplemented by a friend, recently deceased. Voted £5 and recommended to apply for an old age pension.

2. Daughter, aged 53, of late M.R.C.S. Has a few shillings a week derived from a mortgage, and used to let a cottage during the summer. Quite incapacitated by serious illness for the latter half of last year, and now dependent for shelter on friends. Voted £10.

3. M.R.C.S., aged 73. Since an apoplectic fit three years ago has been dependent on children, who can only give slight help. Relieved three times, £24. Voted £12.

4. Widow, aged 62, of L.R.C.P., L.R.C.S.Irel. Has supported herself since her husband's death in 1896 by taking situations as cook, etc., but is becoming unfitted for her work and asks for a little assistance to start canvassing for a pension given by another charity. Voted £5.

5. Daughter, aged 43, of a late army surgeon. Used to be a nurse, but had to undergo a serious abdominal operation and now endeavours to maintain herself by taking lodgers. Voted £10.

6. Widow, aged 70, of M.R.C.S. Has just been elected to a pension from the United Kingdom Beneficent Association, but requires further help in consequence of her age and its infirmities. Voted £5 and recommended to apply for an old age pension.

7. M.R.C.S., aged 74. Used to have a good practice in a London suburb, but had to go abroad on account of ill-health and since his return has been unable to establish himself again. Now dependent on an old age pension of 5s. a week and 2s. a week given by a brother. Voted £12.

8. Widow, aged 40, of M.D., R.U.I. Since husband's death twelve years ago has received a home in exchange for her services as housekeeper, and now proposes to start a registry office. Relieved twelve times, £141. Voted £5.

9. Daughter, aged 56, of late L.R.C.P.Edin. Some years ago endeavoured to start a small business, but lost her savings, and is now dependent on a weekly allowance from a friend and small earnings from needlework. Relieved six times, £52. Voted £6.

10. Widow, aged 78, of M.D., L.S.A. Has rooms and a small weekly allowance at an almshouse, but requires help to provide attendance necessitated by an attack of apoplexy. Children unable to assist her. Relieved once, £12. Voted £5.

11. Daughter, aged 52, of late M.R.C.S. No income; endeavours to support herself by taking boarders and receives a little help towards the rent from a friend. Relieved three times, £42. Voted £10.

12. Widow, aged 53, of L.R.C.P., L.R.C.S.Edin. No income; no children. Health so indifferent that only very light work is possible. Relieved seven times, £70. Voted £12.

13. Daughter, aged 55, of late M.R.C.S. Is a chronic invalid and unable to undertake any regular or continuous work. Receives a small weekly allowance from a sister. Relieved thirteen times, £149. Voted £12.

14. Widow, aged 66, of M.D., C.M.Glas. Has been a confirmed invalid for many years, and is practically dependent on this Fund and a ladies' working guild. Relieved eleven times, £124. Voted £12.

15. L.R.C.P., L.R.C.S.Edin. Has been incapacitated for the last three years, and dependent on the help given by his sons and by two unmarried sisters who keep a small school. Relieved once, £10. Voted £10.

16. Widow, aged 87, of M.R.C.S., L.S.A. Has a pension of £25 a year from the United Kingdom Beneficent Association, but is bedridden, and requires help for quite unavoidable expenses. Children unable to help. Relieved twice, £17. Voted £12.

17. Daughter, aged 60, of late M.R.C.S. Has been subject to epilepsy since childhood, and, being quite unable to support herself, is dependent on a few shillings a week subscribed by friends and on a brother who can ill afford assistance. Relieved three times, £32. Voted £10.

18. Daughter, aged 63, of late M.R.C.S. Was provided for at father's death, but lost part of her capital by failure of a bank and the remainder in the endeavour to establish a boarding house. Relieved once, £12. Voted £12.

19. Widow, aged 53, of L.R.C.P.Edin. No income; lives rent free by acting as caretaker to a surgery, and receives slight help from two children; health indifferent. Relieved five times, £52. Voted £12.

20. L.R.C.P., L.R.C.S.Edin., aged 52. Used to have a fair practice in London, but lost it through ill-health, and is now quite without means. Hopes shortly to obtain a ship's surgeoncy. Relieved twice, £10. Voted £5.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

## STATE INVALIDITY AND SICKNESS INSURANCE.

### A Successful Working Scheme.

The Medical Secretary of the British Medical Association has placed at our disposal a very interesting and informing letter he has recently received from "A Durham Colliery Doctor" (Dr. J Charles of Stanley) describing the scheme of collective medical insurance which is in force in the northern coalfield of England.

The writer begins by stating that he had heard the address delivered by Mr. Smith Whitaker at a meeting of the profession held in the Newcastle Royal Infirmary on March 24th, that the address had greatly enlightened him on the question discussed, and had deeply impressed him with its importance to members of the medical profession who, like himself, practised among the working classes. In subsequent private discussion of the address with friends who had been present it was suggested that a practical solution of the problem under consideration might be found in the adoption of some such scheme of provident medical insurance as has been in force for so many years among the miners of Durham and Northumberland. In this scheme it was felt there existed, ready to hand, an established, well-tried, and satisfactorily-working scheme of collective medical insurance which, with certain modifications and improvements, might well be taken as a model for the wider scheme of State medical insurance by which the Chancellor of the Exchequer purposes to provide in the near future for the medical wants of the working classes of this country.

The writer then continues as follows:

The purpose of this letter is to advance this proposition in some detail and to deal with it from the standpoint of one who has had long experience of the system described and an intimate knowledge of its working. For any faults or defects of presentation I plead the deficiencies of an inexperienced advocate.

In your admirable address you made it clear to us that it is only a matter of time when the Government will step in and exercise its control of the medical treatment of the millions of workpeople for whose insurance premium it will hold itself partly responsible, and the further step—the treatment of the workers' families and dependents and the Government control of the same—will inevitably follow. The profession, therefore, has to prepare itself for some system of State medical insurance being forced upon it in the near future, and it thus behoves it to use its best efforts to devise and promote such a scheme as will best subserve the interests of the workpeople, the profession, and the Government alike.

It would be futile for us to attempt to promote a scheme which will work chiefly to our own advantage. To do so would be to cover ourselves with obloquy. To receive Government approval it must be a scheme which will:

1. Fully cover the wants of those insured.
2. Be simple and easy of application.
3. Be readily estimated approximately as to its entire cost.
4. Be worked without elaborate machinery; and
5. Be acceptable to the general body of the medical profession.

Such a scheme, I admit, will be difficult to find, but it is surely not beyond the wit of man to devise. But it will certainly not be a scheme working on the lines of private practice with the Government to liquidate the national medical bill at the year's end. Such a system "never was on land or sea," and, as you stated, is unknown on the face of the earth at the present time. But a scheme will have a strong claim for consideration if it be exemplified in a system which is already in extensive operation throughout the country, which has stood the test of time, which can be shown to have worked satisfactorily to workpeople, employers, and doctors alike, and which is capable of adaptation and extension to meet the requirements of a State system. The groundwork of such a scheme, I submit, is to be found ready to hand in the system of provident medical insurance which prevails among the working population in our northern coalfield.

I should first like to remind you that the miners of Durham and Northumberland, among whom this provident medical insurance prevails, were perhaps the first to introduce those measures for the social and economic "betterment" of their own class which the Government is now seeking to adopt for the working classes in general. Many years ago they solved the problem of old age pensions as regards the members of their respective associations, and by their "permanent relief fund" and "union sick fund" they have for years made ample provision for their members incapacitated by accident or sickness. And this, be it said to their credit, without ever seeking or receiving a penny from the State exchequer. On similar lines of self-aid and mutual co-operation they, many years ago, solved the problem of medical attendance for themselves and families.

A word as to the economic status of the coal miner in the North. In a mining district the population is almost entirely a working-class one. The average wage of the adult worker is about 30s. weekly. In most cases a free house and coals, or an allowance for same, augment the worker's earnings. The people, when work is regular and steady, are therefore in moderately comfortable circumstances. Extreme poverty is rare, while, on the other hand, many of the more industrious and thrifty, through the medium of the co-operative store or building society, have been able to acquire a house of their own. As a class, therefore, they are economically nearly on a level with the ordinary artisan class in towns, who constitute the bulk of our industrial population. It is important to bear this in mind, for the State insurance system which it is proposed to introduce has as its main objective the supply of the medical wants of this class of the community.

The financial working of the miners' system of medical insurance is simplicity itself. The usual practice, although this varies somewhat in different districts, is for the miner to pay a certain sum fortnightly to a doctor of his own choice practising in the district in which he resides. This sum, which amounts roughly to £1* per annum,† is kept off his wages at the colliery at which he works, and is handed, less a small percentage for collection (usually 5 per cent.) to the doctor each fortnight. Confinement fees, minor operations, vaccination, etc., are extras. Thus, in a colliery district, apart from tradespeople and others not working in the mines, practically every adult workman "pays" to a doctor, and every medical practitioner in the district is in receipt of a steady, regular income from this source.

When a workman wants to change his doctor he gives notice to the clerk at the colliery office, and next fortnight his name and the amount of his subscription is

* 19s. 6d., to be exact. † Single workmen pay 13s.

transferred to the pay sheet of the doctor who now claims him as a patient. And, on the other hand, if the doctor, through some disagreement with his patient, wishes to part company with him, he proceeds in a similar way. But these "breaks of contract," I must admit, are not common, although the elasticity of the system permits them without hindrance, and this liberty of action is zealously guarded on both sides. As a rule, however, the relationship of doctor and patient is a wonderfully lasting and permanent one, and the spirit of loyalty is fostered on both sides. It is not uncommon for old residents to have "paid" to the same doctor for a score of years, and to continue paying to his son who succeeds him. The system tends to promote the closest and friendliest relations between doctor and subscriber, and the term "family doctor" still retains its old significance among the members of this community.

This system of medical insurance obtains almost universally, as I have stated, in the two northern counties where the coal-mining industry prevails. In districts extending over many square miles, and with populations running up to 50,000 and more, the system holds full sway, working without a hitch, and with satisfaction to all concerned.

The benefits and advantages to the workmen of this system are briefly as follows:—For all ordinary medical and surgical treatment (including medicines) for himself and his family he is covered by the premium which he pays to the doctor of his own selection. He can call at the doctor's surgery, or be attended at his own home, without further fee; he can get his club certificates filled up without extra charge; he can, in short, get treatment and advice for all his medical wants without having to worry about fee or account. To the working man with a small margin between income and subsistence requirements this must be a great boon, and, in times of sickness, a comforting satisfaction.

That the miners prefer the system and appreciate its benefits and advantages is proved by the fact of its general adoption throughout the whole northern coalfield, and its continuance for over half a century without an attempt, or even the wish, so far as I can learn, to end or mend it. The system appears to satisfy their provident instincts, and their sense of freedom and independence. The miner feels that he is doing well for himself, and dealing fairly and honestly with his medical adviser. There is nothing in the system that savours of charity or patronage. He will have none of these. He prefers a fair and honest contract, and on his part will do his best to fulfil it. His relations with his doctor, being based on a mutually agreed cash nexus, without intermediaries of any kind, are straightforward and satisfactory, and in consequence, as I have stated, usually of the friendliest description. There is mutual trust, confidence, and respect. The patient knows that it is both to the doctor's interest and reputation to do his utmost for him, and therefore he can rely on his best efforts on his behalf. Should the relations between doctor and patient become strained or broken, as in any style of practice they must at times, then they part company and make other arrangements. There is no compulsion; the system allows perfect liberty of action on either side. Each party knows his rights and does his best to uphold them, and not to abuse them.

From the doctor's standpoint the system has many admirable features, and possesses many advantages. It insures him a steady, regular income, which he can count upon year in and year out, no matter whether sickness be slight or the reverse. He gets his earnings regularly, and at frequent intervals without sending out accounts. He runs no long bills, and makes no bad debts. His income is not dependent on the sickness or misfortune of his patients. If the community is healthy he is not affected in pocket thereby. He has no "lean years" except in case of strikes. If at times he has to work hard, at other times he is comparatively idle, and yet his income continues the same. He enjoys the leisure which the lessened sick list brings in summer, and takes his well-earned holiday knowing that his receipts while he is off duty will cover the steadily increasing cost of his locumtenent's expenses. And at the year's end he can sum up his income with the satisfaction that "all is safely gathered in," that if he has not got paid for every visit, every bottle of medicine, every scrap of advice given during the year, he has earned and received for his year's work an income which will compare favourably with that made by his professional brother in "private practice" in town among a similar class of patients, at an expenditure of perhaps as much physical and mental energy, and a great deal more in worry and anxiety.

As to the annual income made by the doctor under this system of collective medical insurance this, of course, depends on circumstances, and I dare say varies as much as the incomes of town or country doctors in ordinary private practice. It is rare, however, for the humblest practitioner, even the outdoor qualified assistant in mining practice, to receive less than that stated by Dr. Benjamin Moore to be the average income of the profession. The majority make at least double that amount (nett), and many as much as that again.

Now as to the work actually done. Those unacquainted with this system of contract practice imagine that the doctor's time and patience are abused, that he is sent for at all times of the day and night for inconceivable trifles; in a word, that patients are lost to all sense of reasonableness in their demands.

After a long experience of mining practice I am able to say that this idea is perfectly erroneous. The great majority of patients, I have found, do not abuse their privileges, are not unreasonable or inconsiderate, but, on the other hand, are wonderfully observant of surgery rules and regulations, and readily adapt themselves to the doctor's ways and habits if he is at all reasonable and tactful. It is a feature of this class of practice that about 20 per cent. of the *clientèle* monopolize the doctor's services, and the many pay for the few.

Naturally the great bulk of the cases treated are of trivial importance, but then they are all the more readily cured, or the subjects of them the more easily reassured. Patients come early for their own sakes, and treatment is consequently more prompt and effective. Chronic cases are treated frankly and reasonably, and not allowed to become a nuisance. It is wonderful how easily they are satisfied with treatment which is at once honest to themselves and their medical attendants. Besides, as I have said, there is ample liberty of action, so that if a patient thinks he is being neglected or improperly treated he has the remedy in his own hands.

The system, from the point of view of the public health and well being, has much to commend it. Every practitioner is a genuine, whole-hearted worker in the interest of sanitatation and public health. The higher the standard of the general health the less work he has to do, so that it is to his interest to prevent disease if possible, or to lessen as much as he can the sickness of the community in which he labours. Thus the doctor under this system is induced for his own sake to take a direct interest in the physical well-being of his clients. He becomes keen on preventive measures, in stamping out epidemics at their onset, in recognizing diseases early, and treating them promptly. To lessen his work he is free in his admonitions, lavish in his advice, and ready in his interference. In dealing with infectious diseases he outstrips the M.O.H. in zeal and activity, and gives the sanitary authorities no peace till every wheel of their preventive machinery has been set in motion.

In short, under this system of collective medical insurance the doctor exercises to the full his highest functions in the body politic. Not only does he attend and treat the sick, but it is as much his duty and aim to instruct and inform the healthy so that they may keep well; when disease presents itself in any form, he is encouraged to be as active in limiting its spread in the community as to cure it in the individual.

Such, then, is the system of contract practice which has held the field against all others in the mining districts of our two northern counties. From the medical standpoint its salient features are:

1. Its satisfactory financial basis.
2. Its simplicity of working.
3. Its great elasticity and freedom.
4. The absence of all lay control; and
5. The incentive it gives the doctor to do his utmost both to prevent and cure disease.

Of course, it has its shortcomings and disadvantages, as every system of collective practice must have. Most of them, however, are inseparable from any style of practice, private or collective, in a working-class community. It

does not allow much scope for the use of modern diagnostic instruments of precision, such as the haemocytometer, or the sphygmomanometer; nor does it offer a suitable field for the refinements of bacteriological or electro-therapeutics. Its working methods are, perhaps, somewhat rough and ready, but they may be none the less effectual.

Despite its deficiencies, however, it is a system of practice suited to the homely and simple people among whom it finds so many adherents. Its chief defect is that as a public service it is not complete. From the want of properly equipped hospitals it is unable to cope with all the demands placed upon it; most cases requiring a major operation and a great many of the "speciality" cases have to be sent to the nearest infirmary. In this respect, however, it does not differ much from ordinary working-class practice. I should like to see the system made complete and self-sufficing as a public service by the establishment of good, up-to-date cottage hospitals in every large mining centre, with an experienced surgeon on the honorary staff, and a well-equipped operating room at the disposal of the colliery surgeons for all ordinary surgical work. Such hospitals, visited at stated intervals by experts in the various specialities, would make the system perfect and complete, and put it in a position to supply every possible demand that could be made upon it.

To graft a scheme of State medical insurance on such a system as I have described—a scheme on the lines adumbrated by the Chancellor of the Exchequer—would not be a difficult undertaking. Most of the machinery is already available.

First as to the financial basis. To meet the demands of a State system with its increased responsibility, and requirements, extra clerical work, etc., a higher rate of payment would naturally be expected. Assuming this to be fixed at 26s. per annum for each adult married worker (including family), and 13s. per annum for every adult single worker, this would be paid in the following proportions: Half by the workman, a fourth by the employer, and a fourth by the State. This would amount to a deduction of 6d. per fortnight from the workman's wages (in the case of a single adult workman 3d.) and the payment of an equal sum jointly by the employers and the State. The amount of the workmen's contributions, according to the number on each doctor's list, would be paid to the doctor every fortnight by the employers, together with their own proportion. The State would remit its quota at agreed intervals. The system in other ways would go on as at present in the colliery districts, with Government control and supervision—for example, visits of medical inspectors, the writing-out of reports and returns, etc., superadded.

Apart from this supervision, the practitioner under this State system would enjoy as much liberty and freedom as heretofore, would remain in direct touch with his *clientèle* without lay or official intervention; would enjoy a regular, assured income, probably enhanced in amount, without the trouble and worry of issuing and collecting innumerable small accounts; and, lastly, he would retain his dignity and self-respect as a member of a profession performing an indispensable function in the body politic, and yet not directly dependent for existence on the ills and misfortunes of the community.

I have now completed, very imperfectly I admit, the task I set myself to perform, namely, to show that in the system of practice which prevails in our two northern counties there exists an established, satisfactorily working scheme of collective medical insurance which is capable of being adapted to a wider scheme of State medical insurance for the industrial working classes in general, contemplated, it is believed, by our Government in the near future.

I do not contend for it that it is a scheme capable of application to the entire working-class community, whether in town or country, without at least a considerable financial readjustment; nor can I hope for it that it will receive general acceptance among a body of practitioners mostly accustomed to private practice; but I do maintain that it is a system founded not on imagination but on fact, not on expectation but on experience, a system which for many years in a populous industrial community has justified its existence pragmatically—has worked well. Can the same be said of any other scheme at present engaging the attention of the profession?

## SCIENCE NOTES.

The use of secondary $x$ radiation in therapeutics, which was discussed by Sir J. J. Thomson at the last annual meeting of the British Medical Association, was the subject of an address by Professor C. G. Barkla to the Roentgen Society of April 6th. Professor Barkla, who had already provided a pendant to Sir J. J. Thomson's paper,[1] in the shape of a recent article in the British Medical Journal,[2] has now carried further the investigation on which Sir J. J. Thomson's paper was based, and has ascertained the thicknesses of aluminium and of water which have to be traversed by the secondary radiation from various metals before that radiation declines to half value. He reminded the society of the fact that the secondary radiation coming from a substance which has been placed in the path of the primary beam from an $x$-ray tube is of three kinds: (1) The scattered radiation, which proceeds from elements of low atomic weight or compounds containing the lighter elements; (2) the fluorescent radiation, which is by far the most important; (3) the corpuscular radiation, which corresponds to the beta rays from radium. The secondary fluorescent radiation is homogeneous or practically so, and the only condition necessary for its production is that the substance or metal plate should be subjected to a primary $x$-ray beam of more penetrating constituents than the radiation characteristic of the substance itself. The secondary $x$ radiations from calcium, iron, copper, and selenium are half absorbed after passing through thicknesses of aluminium varying from $\frac{1}{1600}$ of a centimetre for the first to $\frac{1}{75}$ of a centimetre for the last. Much more penetrating, however, are the secondary radiations from metals of higher atomic weight, such as molybdenum, silver, antimony, and cerium. The thickness of aluminium necessary to absorb half the radiations from these metals varies from $\frac{1}{10}$ of a centimetre for silver to $\frac{1}{47}$ of a centimetre for antimony. In the case of these last, and probably in many others, yet another radiation exists, and is absorbable to half its extent by $\frac{1}{2800}$ of a centimetre in the case of silver, and $\frac{1}{1700}$ in that of antimony. The thicknesses of water absorbing these radiations to half value are perhaps of greater interest than those of aluminium, since water approximates in this respect to human tissue. Half of the secondary radiation from calcium is absorbed in $\frac{1}{120}$ of a centimetre of water; half of that from copper in $\frac{1}{14}$ while the secondary radiation from silver is only brought down to half value on passing through 1.4 centimetres, and the radiation from cerium can pass through 6 centimetres before declining to this extent. For therapeutic purposes, said Professor Barkla, the choice of a metal to act as "transformer" depends upon the depth at which it is required to get the radiation. In the case of selenium, for example, half the radiation through water or flesh will be cut off at a depth of 2 millimetres, and at 1 centimetre below the surface the effect will be negligible. The corpuscular or third type of radiation is emitted only to a short distance—1 centimetre in air, and probably only $\frac{1}{1000}$ of a centimetre in water or flesh tissue—and it is impossible to use it therapeutically unless a substance in solution containing heavy atoms could be injected into the part, or a plate of any metal of high atomic weight placed within the tumour, and then irradiated with a very hard tube. The outstanding problem is still the measurement of the secondary radiation dose. It will have to be carried out on dummy figures presenting similar thicknesses to the parts to be treated, and electroscopes of larger capacity than those at present in use will be required. It was evident in the discussion that some confusion existed as to secondary radiation and the products of the $x$-ray filter, and Professor Barkla, in his reply, stated that with radiation passing through filters the primary as well as the secondary rays were obtained. In order to get the pure homogeneous secondary radiation one must use the radiation reflected—to revert for a moment to terms of light—from the surface of incidence, that is, the plate of metal or

[1] British Medical Journal, 1910, vol. ii, p. 512.
[2] Ibid, p. 1532.

substance receiving the primary beam. The question as to the order of penetration which is most efficient depends upon the portion of the body subjected to treatment. In the case of the scalp with the bone behind it, the penetrating radiation will be transformed to some extent by the calcium in the bone, and secondary rays will arise in that manner.

Considerable interest attaches to the recent discovery in America of a mummified dinosaur. More or less complete skeletons of these remarkable reptiles have been met with from time to time, and from these remains palaeontologists have conjured up pictures of what the animals looked like when alive. This new find will add concreteness to these fancies, and serve to set some disputed points at rest. The mummy, which it is thought must be well over a million years old, was unearthed in Kansas in the Cretaceous. It is more than 30 ft. long and about 16 ft. in height. Its head is furnished with a broad, flat beak, very much like a duck's, with no teeth in front but with an enormous number behind. The skin is studded with granules and tubercles of various sizes, and it even preserves some trace of coloration, which is more strongly marked in front than behind. The reptile apparently walked erect on its hind feet, and its short forefeet were entirely destitute of claws. The fancied picture does not tally with fact in one or two points, but it is surprising to find the two so close as they are. We owe the account of this interesting discovery to Professor H. F. Osborn, the well-known American palaeontologist.

## LITERARY NOTES.

THE Rev. E. G. O'Donoghue, who for nineteen years has been the chaplain of the Royal Bethlem Hospital, is writing the history of the institution in the quarterly magazine of the hospital, with illustrations. The House of the Blessed Mary of Bethlehem was a dependency of the present Church of the Nativity, Bethlehem. Mr. O'Donoghue not long ago had a communication from one of the Franciscan monks of the convent at Bethlehem, who had recently seen a lunatic chained to the altar in a neighbouring monastery.

A book of historical impressions and tales by Sir A. Conan Doyle, M.D., entitled *The Last Galley* will be published by Messrs. Smith Elder on April 25th.

We have received from Messrs. Lewis a Supplement (1908–10) to the catalogue of their *Medical and Scientific Circulating Library*, including a classified index of subjects, together with the names of authors. It cannot fail to be of the greatest use to the many patrons of this well-known circulating library.

One great secret of success in journalism, and for that matter in every kind of literature, is the power of being able to foresee what is most likely to attract the attention of the public at a particular time. This *flair* has always been possessed to a very high degree by the authorities of *L'Hygiène*, who could hardly have chosen a more propitious moment than the present, when the plague in Manchuria is exciting general interest, to present their readers with Dr. Mosny's excellent article on "La Peste," which appeared in the March number of that delightful magazine. Such as are interested in the historical aspect of this dreadful disease will welcome this account of the various great epidemics which from time to time have ravaged the world, whilst those who entertain fears for its reappearance in Europe cannot fail to be comforted by the author's firm belief in the efficacy of our modern prophylactic measures. Though the origin of the plague is unknown, "lost in the mist of ages," according to Dr. Mosny, it is almost certain that it first made itself felt on Asiatic soil. Dr. Mosny is of opinion that the sickness with which the Philistines were smitten after their capture of the Ark of the Covenant was an early epidemic of plague, and amongst other details, he quotes in support of his theory the fact that the Bible mentions the sudden appearance of large numbers of rats in the stricken city. It was not until the sixth century after Christ that the pestilence gained a footing in Europe, which it has never since entirely lost, though, thanks to the advance of science, the tremendous epidemics of former days are now things of the past. It is interesting, by the way, to note that the costume adopted by doctors and nurses in Manchuria at the present moment is not unlike that worn in France during the outbreaks of plague in the seventeenth and eighteenth centuries. Charles de l'Orme, Physician to Louis XIII, was wont to visit his patients attired in a coat and mask of morocco leather, the latter having attached to it a false nose half a foot long, which was filled with perfumes in order to guard the wearer against infection. Besides Dr. Mosny's history of the plague, the present number of *L'Hygiène* contains several other articles which are worthy of more than passing notice. Amongst these should be mentioned one by M. Edmond Cleray, who has taken for his subject the quack doctors of ancient France, and another by Dr. P. Redard, who lays down some simple but eminently practical rules for the guidance of those who have charge of the health of growing children, whilst Dr. Maurice de Fleury discourses in his usual charming way on the *pros* and *cons* of inoculation against typhoid. It should be added that the illustrations of *L'Hygiène*, as usual, leave nothing to be desired.

Some months ago there appeared in *The Library Association Record* an interesting article by Mr. H. M. Barlow, of the Royal College of Physicians of London, which contained some valuable suggestions as to the most effectual method of providing the medical profession in this country with adequate means for medical research. This article was reprinted in pamphlet form, under the title of *The Medical Library Association: a Few Observations.* The author expresses his conviction that one of the most pressing requirements of the profession at the present moment is some arrangement whereby it would be possible for every doctor in the kingdom to know where and how to find a given book, so that it could no longer be said with truth that "to the profession at large the entire resources of medical bibliography in the various medical institutions of London are closed." That it is possible to remedy this state of affairs is proved by the success which has attended the work undertaken during the last thirteen years by the Association of Medical Librarians in the United States. Founded in 1898 by Dr. Gould of Philadelphia, and at first comprising only eight members, the new enterprise, thanks to "the indomitable zeal of those to whom the inception of the movement is due," advanced by leaps and bounds, so that in 1906, only eight years after its foundation, its annual report recorded a total of 111 members, of whom 64 were library, 44 individual, and the rest were honorary, members. The fact that, as Mr. Barlow tells us, "the custodians of these libraries, scattered over large American States, extending from the Atlantic to the Pacific, should have been imbued with such a spirit of co-operation as to band themselves together and work with one accord to push forward the interests of medical libraries," shows that it is possible for those in charge of English medical libraries to do as much for their readers. Moreover, the resources of professional literature are greater in England than in America; for whilst in 41 English libraries there are some 603,000 volumes, 69 American contain no more than 935,000, figures which, "even as they stand, justify the remark that in proportion to population there are more medical libraries in these islands than in the United States." Nor does this total represent anything like a complete list of either the libraries in this country or their contents, since it includes neither the libraries of medical schools, colleges, nor the medical departments of universities, all of which, on the contrary, are included in the American estimate. As yet, however, this vast store of knowledge has been to a great extent useless, principally owing to the dearth of proper catalogues. Mr. Barlow remarks that "one of the most important features of reference work is knowing not only the book required, but where it is to be found," and declares that "every librarian will agree that printed catalogues of the principal medical libraries of London, if not absolutely necessary, are eminently desirable." There can be no doubt of the justice of this comment; and it seems probable that with a sufficiency of proper catalogues and a practical system of exchange for duplicate books and periodicals, the medical literature of the United Kingdom would no longer continue to be a *mare clausum* to the bulk of the profession.

British Medical Journal.

SATURDAY, APRIL 15th, 1911.

## SECONDARY SCHOOLS AND MEDICAL SCHOOLS.

The Educational supplement to the *Times* of March 7th contained an article upon medical education, criticizing the attitude taken by the General Medical Council towards the study of the preliminary sciences (Chemistry, Physics, and Biology). The article drew from university teachers, head-masters, and science teachers at some public schools, letters which generally endorsed the views of the article, and, in the aggregate, present a strong case.

The cause of complaint is, broadly speaking, that the Council for its purpose of students' registration recognizes only medical schools and certain other specified institutions, excluding from its list all secondary schools, with the result that the time spent in science work at secondary schools cannot be counted towards the five years' curriculum, nor can such courses be accepted in filling up the schedule of studies, unless the candidate intends to seek a diploma from such licensing bodies as have declined to abide by the Council's ruling in this matter.

We do not propose to enter the lists as apologists for the position taken up by the Council, for we have for years past advocated a change in the direction desired, but some side-issues have been raised, somewhat unfortunately in our opinion, which may be briefly dealt with before coming to the main question. The Council is severely criticized for having assumed the position of a judge of the standards of general education, and incidentally for scheduling such examinations as would satisfy its requirements. But the writers did not know, or had forgotten, that the Council was long in consultation with educational experts of high standing called in for the purpose, and that it sought, and abided by, their advice in these matters. It might be contended further that, matters of detail apart, the Council, being very largely composed of past and present medical teachers familiar with the attainments of first year students, is not after all a very bad judge of the educational standard requisite in order to enable would-be medical students to profit by the instruction they are to receive.

The criticism is carried further, for it is contended by one writer that the position assumed by the Council in not recognizing science teaching at schools has a very wide effect, in that it is in fact "deliberately endeavouring to exclude all elementary science from our courses of general education," though another writer more kindly suggests that it is unconsciously doing so. This is a new aspect of the matter to which due weight must be attached; but as in 1909 the names of only 1,143 persons were added to the *Medical Register* (about an average number for recent years), the Council could hardly be expected to suppose that rules affecting this relatively small number would have so marked an effect upon education at large as is now alleged. A further contention is that the exclusion of all secondary schools from the Council's list implies their supposed inferiority to the institutions recognized, and that this, as one writer puts it with unnecessary emphasis, is an insult to the schools. This accusation appears to be founded on a misconception of the grounds on which the Council acted, for it is well aware that a good many secondary schools provide equipment and teaching which leave little to be desired, though it may be doubted whether this is true of the majority.

It should be understood that the normal sequence of events, according to the Council's pronouncements, is that the student passes his preliminary examination in general subjects, then enters either at a medical school or at an institution recognized by the Council for chemistry, physics, and biology, and registers himself as a student. From this date his curriculum of five years commences; with the other requirements of the curriculum we have no present concern. Now the pronouncements of the Council are styled "regulations," and, when read by any one not acquainted with anything more, would seem to point to this being the only way in which a registrable qualification can finally be obtained. But whilst many of the licensing bodies require the Council's certificate of student registration, there are others, and important ones, which do not. Thus neither the Oxford nor Cambridge requires it, nor does the Conjoint Board in England. The last-named, in fact, recognizes its own list of places where chemistry, physics, and biology may be studied, and amongst these are many secondary schools. The Council has no power to enforce its "regulations" in this respect, and their adoption by licensing bodies is voluntary. It is claimed by the Royal Colleges that, so far as the examination test goes, the instruction at secondary schools is equal to or in its results even better than the instruction at medical schools, where, by the way, the teachers of these subjects are very often, indeed generally, not medical men. Mr. W. M. Fletcher, who writes from Trinity College, Cambridge, to endorse the comparative efficiency of the teaching at public schools, bases his opinion upon examination tests.

It is therefore urged that, as already advocated by Sir Henry Morris, the wording of the Council's pronouncements on students' registration should be amended, even though their spirit be left unchanged. If it be asked why the Council has so resolutely adhered to the policy of excluding public schools from its list of recognized institutions, the answer would seem to be that it finds the general educational equipment of the first year student, even though on the average he be 18½ years of age, is not too good; it fears that any relaxation of existing regulations permitting the last year of school life to be spent in preparing for an examination in the preliminary scientific subjects would tend to deterioration. Guided by the educational experts it consulted, the Council formed the opinion that in the present state of secondary education in the country generally, no raising of the standard of entrance examinations would be possible without starving the supply of medical students, and that if at present some are delayed, it is to their own ultimate advantage. As to this conclusion, there is, of course, room for difference of opinion. Many think, though the Council apparently does not, that fuller science training in school life would afford just as good mental training as further pursuit of ordinary school subjects. Some of the masters who have written to the *Times* express the opinion that

the inability to count the science work done at school leads to the premature removal of boys who intend to enter the medical profession.

There is no statutory obligation placed upon the Council to keep a register of students; it was instituted in the general interest of medical education. It has proved of value in various ways, and particularly in the prevention or detection of irregularities; and, as a matter of fact, a large proportion of those who ultimately seek a diploma or degree from bodies which do not insist upon registration have in fact registered at the commencement of their career at the office of the Council. The contention that the Council's pronouncements should be amended so as to bring them into accord with the actual conditions seems unanswerable in face of the fact that, as at present framed, they have no real application to bodies which grant diplomas and degrees in such large numbers as the Conjoint Board in England and the Universities of Oxford and Cambridge. It is to be hoped that when their revision is taken in hand, as it must be, it will not stop short at a mere adjustment of phrases, but that the would-be medical student will be given permission to study preliminary science subjects at such schools as are found to possess the requisite machinery.

Some difficulties will have to be met; it will probably be considered important to secure that, if the time is to be counted as part of the curriculum, an adequate number of hours in every working week shall have been devoted to these subjects. Sir William Whitla, in his address to the British Medical Association in 1909, expressed the opinion that the most hopeful line upon which to lighten the medical curriculum, without the omission of subjects which have become essential, was to direct, from the very beginning, the teaching of subjects to their ultimate applications and to eliminate that which, for want of a better term, might be described as "academic knowledge."

However sound we may believe this policy to be it must be admitted that it will not be easy to apply it to the three preliminary sciences, since even at medical schools the teachers of these subjects are not always medical men. The general grounding in these subjects must be practically the same for all who approach them, and he must indeed be sanguine who supposes that a lad can in a year be taught how to grapple with the difficult and imperfectly understood problems of physiological and pathological chemistry.

## THE ORIGIN OF LIFE.

During the last fifty years the energies of biologists have been in large measure directed to the elucidation by observation, experiment, and speculation, of the development through evolution of the species of living things, estimated to reach the huge total of at least a million, by which the earth is inhabited and clothed. Not content with this problem, certain astronomers have recently indulged in speculations as to the existence of life on at least one other planet. But the problem how and where life originated has received little or no attention, and those few who have attempted to attack it have been met by indifference verging on contempt. It would seem that even the collective human mind, as represented by those who are devoted to any one department of science, can only give attention to one problem at a time, and that the immense fields for observation and speculation opened up by the theory of evolution and the facts of bacteriology have left neither leisure nor inclination for the investigation of the origin of life.

Yet if we accept the doctrine of the continuity of nature, and if, with at least the majority of astronomers, we believe that our planet was once at a very high temperature, probably first gaseous, and later molten, we must admit that at one period at least in the history of the Earth conditions existed which determined the origin of living from not-living matter. It is true that Professor Tyndall once suggested that life was brought to the Earth by meteorites; but apart from the fact that this only puts the problem one remove further off, the best opinion seems to be that meteorites are masses expelled in some tetanic convulsion of the Earth in an early stage of its evolution. This effort of the scientific imagination, then, may safely be dismissed, and we are left with the other alternative. It would seem tacitly to be assumed that the special conditions favouring the origin of life, which the hypothesis requires to have once existed, came to an end after persisting for some undetermined length of time in some remote aeon, and that since then the travail of nature has been confined to the perpetuation of the species which then came into existence, and the production of new species by evolution. This, however, is an assumption insusceptible of proof, and it is open to any philosopher to assert, and to any biologist to prove, that it is not true. This is what Dr. Bastian, with a constancy to the ideas of his early manhood and with a courage and independence worthy of all praise, has again set to work to do.

His new essay, *The Origin of Life*,[1] will, we imagine, make a stronger appeal to most readers than his book *Studies in Heterogenesis*, published a few years ago. Heterogenesis, the transformation of one type or species of organism into another *per saltum*, cannot be postulated as an event which must inevitably have occurred at any time in the Earth's history. Having regard to the enormous number of facts observed and recorded during the process of testing and establishing the theory of evolution, it is, indeed, difficult to believe that evidences of heterogenesis should have been persistently overlooked. The fallacies to which such experiments as Dr. Bastian described in his earlier work are open are, we were going to write, endless; they are at least very numerous and difficult to exclude. The fallacies which attend those to which he has recently recurred, though still numerous, are fewer and may be more easily avoided. We must content ourselves here by stating what Dr. Bastian maintains that he has proved.

The experiments he now records are similar to those recorded in vol. xc of the *Medico-Chirurgical Transactions* (1906), but much more numerous. In both two saline solutions were dealt with—one containing only two or three drops of dilute sodium silicate, together with eight drops of liquor ferri pernitratis to the ounce of distilled water, and the other containing about the same quantity of sodium silicate, together with six drops of dilute phosphoric acid and 6 grains of ammonium phosphate to the same quantity of distilled water. Sealed tubes, sterilized in the course of their preparation, were opened to be charged with these solutions, and were then immediately resealed, and afterwards

[1] *The Origin of Life:* Being an account of experiments with certain superheated saline solutions in hermetically sealed vessels. By H. Charlton Bastian, M.D., F.R.S. London: Watts and Co. 1911. (Crown 8vo, pp. 76. 3s. 6d. net.)

heated either in a bath of colza oil or in an autoclave to temperatures ranging from 125° C. to 145° C. for from five to ten minutes. The tubes were then exposed for periods varying mostly from two to four months, either to diffuse daylight or to sunlight inside a south window. Several series of experiments are recorded; in the earlier trials, as in the experiments made in 1906, a rather larger quantity of sodium silicate was used than in the later trials, with the result that after the process of heating a quantity of silica was deposited in the form of minute flakes. As the organisms that were subsequently found within these tubes were often not very numerous and were always met with in or upon the flakes of silica, never in the supernatant fluid, which invariably remained clear, a long search was at times required to find them. In the later experiments less sodium silicate was used, so as to yield only a very small amount of deposit, and this was examined with the aid of the centrifuge. Some of the deposit was in each case transferred, immediately after the opening of the tube, by a sterilized pipette to a microscope slip, and when organisms were found some of them were at once photographed. The 61 single or composite illustrations now published show that the organisms met with were various kinds of bacteria, torulae, and moulds. Two means were adopted of proving that the organisms were living. Sometimes the cover-glass was at once ringed with paraffin, melting at about 105° F., so as to prevent evaporation, and in the course of three or four days great multiplication of organisms beneath it often took place. In other cases another sterilized saline solution, containing ammonium tartrate and sodium phosphate, was inoculated with some of the deposit from the experimental tubes, and in this solution (containing much more carbon) the organisms multiplied freely. Living organisms, therefore, were taken from these superheated tubes, and it is contended that such organisms as are shown in the photographs could not have been derived from the atmosphere during the passage of the sample of deposit in the sterilized pipette from the tube to the microscope slip or to the solution to be inoculated. Experiments are recorded to show that the experimental solutions are not prone to be contaminated from the atmosphere. Many positive results were obtained from tubes that had been heated to 125° and 130° C., while in the three series of experiments recorded (numbering just 200 in all) positive results were obtained in twenty-one instances in which the tubes had been heated to 135° C., in five in which they had been heated to 141° C., and a similar number in which the heating had been to 145° C. In all the experiments torulae were met with rather more frequently than bacteria, and in the twenty experiments of the last series in which pure colloidal silica was used (instead of sodium silicate) such organisms were met in every case, though all the tubes had been heated to between 125° and 135° C. for five minutes. After calling attention to the fact that all torulae are known to be killed by exposure for a minute or two in fluids to a heat of about 60° C., and that all ordinary bacteria and their germs are similarly killed when exposed for a few minutes to a temperature of 115° C., Dr. Bastian claims to have shown that there is "no further room for doubt upon the much-contested point whether or not living matter is still capable of coming into existence." He attributes the more constant results of his new series of experiments to the fact that he employed saline solutions containing colloidal compounds rather than organic solutions such as he and other experimenters had previously employed; he concludes that the colloidal molecules, which he regards as all-important, of these saline solutions are capable of resisting much higher temperatures than those contained in ordinary organic infusions.

It would be folly for the reader in his study to attempt to appraise the value of Dr. Bastian's observations. All that he is entitled to say is that the precautions Dr. Bastian took to avoid error in manipulation appear to have been very careful, and that *a priori* his conclusion is not unbelievable. The experiments, as we have said, are attended by many sources of fallacy. Whether he has succeeded in avoiding them all is a question which can only be answered by another skilled experimenter in the laboratory. We understand that the necessary experiments have been undertaken.

## MOLIÈRE AND THE DOCTORS.

MOLIÈRE, who was the most unsparing critic of doctors, was effective because, unlike nearly all others who have scoffed at medicine, he thoroughly understood the subject. Hence not a shaft of his raillery misses the mark. He knew all the vulnerable places of the medicine of his day, and hit them with unerring aim. He did not make medicine ridiculous. He found a system which was ridiculous in itself, and by simply holding the mirror up to Nature he showed his contemporaries what a farrago of traditional formulas, empty pedantry, and antiquated superstitions the art of healing had become.

The medicine of the Greeks was founded on the direct observation of Nature; but in its passage through the Romans, the Arabs, and the early mediaeval writers it had been utterly corrupted. Men would not look at facts with their own eyes, but saw everything through the blurred spectacles of a misinterpreted authority. It was this medley of imaginary facts based on fantastic hypotheses to which the satire of Molière helped largely to give the death blow.

How did Molière come by the knowledge necessary for his purpose? In the first place there was his genius, which, like that of Shakespeare, assimilated without an effort whatever suited his purpose. Then he had received an excellent training under the philosopher Gassendi. Moreover, we think there can be no doubt that he was very carefully coached in all the details of the professional thought and life of his day. In his recently published book—*Molière: His Life and Works*—Mr. Brander Matthews says: "The scholars who have investigated the history of medicine in France are united in their admiration for the accuracy with which Molière has dealt with the doctors he was denouncing. They have constant praise for the certainty with which he sees the spirit that animated the French physicians of the seventeenth century and for the skill with which he caught the very accent of their speech. His was no haphazard criticism. It was rooted in knowledge. The consultation in *Monsieur de Pourceaugnac* is declared to be almost phonographic in its verisimilitude. Even when the comic dramatist was moved to frank caricature and overt burlesque, as in the ceremony of the *Malade Imaginaire*, he was only exaggerating what actually took place on similar occasions." It has been held by some that the ceremony of graduation is founded on that customary at Montpellier. There are touches in

the ceremony that recall that of the famous southern university, but there is also much which is obviously modelled on that of Paris.

There is a well-known story of Louis XIV asking Molière how he got on with his physician, and of the dramatist's reply: "Sire, we talk together. He prescribes remedies for me. I do not take them, and I get well." This is well enough for an epigram, but the painful truth is that he did not get well. For many years his life was what Pope says of his own, a long disease, and his death was dramatic in its circumstances. When playing the part of his own "candidate" in the mock graduation ceremony at the end of the *Malade Imaginaire* he became ill immediately after uttering the word *Juro;* he was removed from the stage to die within a few hours. The physician to whom he refers in the story above quoted was doubtless Mauvillain, who was a close friend of his, and who after various quarrels with the Faculty of Paris became its Dean. It is almost impossible to avoid the suspicion that Mauvillain, a man of humour as well as of learning, directed the hand of his friend and patient in his attacks on the Faculty. One has only to compare, to take two notable instances, the voluble but vague abuse levelled at doctors by Petrarch and the random shillelagh-play of Mr. Bernard Shaw with the deadly rapier thrusts of Molière, to recognize that the great comic dramatist of France must have been taught where to strike by some one who knew every weak joint in the armour of medicine. Molière had many friends among the doctors of his day. He had made acquaintance with some of them at Montpellier during his tour in the South of France under the patronage of the Prince de Conti, and in Paris he was on intimate terms with others, such as Liénard and Bernier, who, besides Mauvillain, frequented the salon of Madame de la Sablière. In that salon, according to Maurice Raynaud, the ceremony was composed, the sketch being prepared by Molière and the picture being touched up by the doctors present. Only the hands of experts could have supplied the intimate touches which show a close familiarity with the inner life of the Faculty. Molière had the boldness to put some of the Sun-King's own physicians on the stage. Gui Patin with malicious glee dots the i's. We agree with the witty doctor who writes under the pseudonym of "Pierre Pic," that Patin himself was used as a target by the satirist. Even in his own day he was called a "sanguinary pedant" from his fanatical belief in the virtues of bleeding. He bled a child of 7 thirteen times in a fortnight; he bled an infant of two months, and even a babe three days old. He practised what he preached, for he had himself bled seven times for a simple cold. Those who did not share his belief he consigned to eternal perdition. Of Guy de Labrosse, a physician who in his last illness refused to be bled, he said, "The devil will bleed him in the other world as a rascal, an atheist, deserves."

Molière was one of the great reformers of medicine, but it was not till long after his day that the reign of the lancet came to an end.

## MEDICAL ATTENDANCE UNDER THE GOVERNMENT'S INSURANCE SCHEME.

A DEPUTATION from the British Medical Association had an interview last week with the Chancellor of the Exchequer with reference to the provision of medical attendance in connexion with the State sickness insurance scheme. With Mr. Lloyd George were other members of the Government. The representatives of the British Medical Association were Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. Lauriston Shaw (President of the Metropolitan Counties Branch and one of its representatives on the Council), Dr. J. H. Taylor (Honorary Secretary of the Manchester and Salford combined Divisions and representative of the Branch on the Council), and the Medical Secretary. The deputation laid before the Chancellor the views of the Association on the subject as far as at present ascertained.

## ELECTION OF DIRECT REPRESENTATIVE.

THE formal notice by the President of the General Medical Council, acting as returning officer, that an election for one direct representative for England on the General Medical Council will shortly take place, is published in our advertisement columns. The notice states that every nomination paper, accompanied by a declaration in writing by the person nominated that he consents to be nominated, must be received at the office of the General Medical Council, 299, Oxford Street, London, W., on or before April 29th, 1911. Each nomination paper must be signed by not fewer than twelve registered medical practitioners resident in England, each of whom must append to his signature his registered address and registered qualification or qualifications. England for the purposes of the Act appears to include Wales, although the Principality is not specifically mentioned either in the Act or in the notice. The vacancy to be filled up at this election is that created by the lamented death of Dr. McManus.

## SCHOOL CLINICS.

THE rules drawn up by the Wandsworth School Treatment Centre, which are published in the SUPPLEMENT this week, will be read with interest by medical practitioners who in other parts of London, and possibly in other parts of the country, are being called upon to give attention to the manner in which school children found on medical inspection to be defective may best be treated. It will be seen that the conduct of the Treatment Centre is confided to a House Committee, acting on behalf of the members of the medical profession resident and practising in the area which the centre is to serve. This committee is to consist of five local medical men, not members of the staff, the chairman of the local Division of the British Medical Association, and the chairman of the staff committee. Each year a circular will be issued to all members of the profession resident and practising within the area asking them to apply, if they so desire, to be appointed to the staff. The staff will form a committee. Each member will be expected to devote from two to three hours to his department when on duty, and to see each day, on an average, eight new cases in addition to those he has told to attend for further treatment. Cases considered to be outside the scope of treatment of the Centre will be referred to a suitable hospital. If any case is considered by the medical officer unsuitable, by reason of the circumstances of the parents, for treatment at the Centre, he will report the case to the House Committee. That committee will work in co-operation with the district Care Committee, which will only issue an authorization to a parent to take a child to the Treatment Centre for treatment if the committee is satisfied that the parent cannot afford the fees of private medical practitioners.

## INTERNATIONAL EXHIBITION OF HYGIENE.

THE remarks which we have felt it our duty on several occasions during the past nine months to make on the extraordinary attitude the Government has chosen to take up in regard to the International

Congress of Hygiene shortly to be opened at Dresden have, we are glad to note, been echoed in the lay press. The *Times* of April 5th said: "Surprise is expressed in a good many quarters that the Government are not supporting the British exhibit at the International Exhibition of Hygiene which is to be held at Dresden between May and October in connexion with the International Congress on Hygiene. All the civilized countries of Europe, together with Japan, China, Brazil, Peru, and even the Sudan, are officially interesting themselves in and supporting national exhibits. But Great Britain, which has been regarded as a pioneer in hygiene and medicine, is, officially, holding aloof." It has already been stated in the JOURNAL that strenuous efforts have been made by a committee, of which Sir Thomas Barlow is the President, to collect a fund sufficient to enable this country to make an appearance in an international display in which it should have taken the lead. To this committee the gratitude of the nation should go forth for rescuing it from the position in which it has been placed before Germany and before the whole civilized world by the shortsightedness of its rulers. At a meeting of the committee, held at the house of the British Medical Association on April 3rd, it was decided to proceed forthwith with the equipment of a pavilion for British exhibits at Dresden. The sum collected for the purpose, however, has not yet reached the amount required to ensure that Great Britain shall be adequately represented. A meeting of members of the House of Commons interested in the matter will, we understand, shortly be called with the object of making a last appeal to the Government to abandon its attitude of isolation and to give substantial help to an undertaking of the highest importance for the promotion of public health and the maintenance of good relations with foreign countries. In the meantime, a letter on the subject bearing the signatures of the Lord Mayor of London, Sir Thomas Barlow, and Lord Ilkeston, treasurer of the fund, has appeared in the *Times*. In this it is stated that the secretary of the committee, Mr. H. W. Armit, has conferred with the authorities in Dresden with regard to the possibility of carrying out the work with the funds available up to the present. As a result of the deliberations, a report was drawn up by the administration, in which the following points are set forth: (1) That the administration was gratified to note that the British Committee had made a splendid effort to secure worthy representation of England at the exhibition, notwithstanding the non-participation of the Government and various misunderstandings. (2) That, in recognition of this exceptional activity, the administration had decided to assist the British Committee in successfully carrying out its self-imposed task. (3) The administration considered that a participation on the part of England should be achieved, because all the great States will have their own national pavilions, because it would be a matter of deep regret to the English people and to the British Government if England were the only great State not represented in this humanitarian undertaking, and because the British Committee consists of those who had gained a clearer insight into the conditions, and who had deemed it their duty to make a special effort to save the British nation this feeling of regret. The report contains a tribute to England as the pioneer in hygiene, and in strongly advising the committee to proceed suggests that it would be highly desirable if a further £2,000 or £3,000 could be obtained in order that the committee may not be hampered in its work by want of means. The letter concludes as follows: "We are therefore again appealing to the liberal British public to support us in a work which has already been begun. We are hopeful that the small sum of £3,000 can be secured within a very short time, once it is publicly known how important is the work, for the sake of the reputation of Great Britain as one of the leading countries in hygiene, and in the name of international goodwill." To this appeal we can only add the expression of an earnest hope that it will not be made in vain. There are plenty of men in this country to whom the sum required would be a trifle.

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## QUACKERY A HUNDRED YEARS AGO.

THE *Times* of March 21st reproduced from its own columns of the same date in 1811 an amusing report of an action against a quack at the Kent Assizes held at Maidstone on March 19th, 1811. The quack sought to recover damages for an assault, and his counsel stated that he was a medical gentleman of considerable talents who had settled at Dover. The defendant was a publican in that town who had a servant afflicted with "a certain disease not to be named in delicate society," but so infectious in its nature that, without regard to any society, it communicated itself to all who ventured into the company of the sufferer. The plaintiff was called in and cured the woman of the disease. For this, with the sordid instinct common to fallen mankind, he expected due payment. "Instead of which" he was abused by the defendant's wife, who followed up a "torrent of rattling and indignant eloquence," like that with which the lady in *Don Juan* sought to cow her suspicious husband, by an assault on the person of the "doctor." Some time afterwards the publican met the plaintiff in the street and drove his elbow into his stomach, an offensive tactical manœuvre which he said hurt him very much. Another time when a soldier fell down in a fit in the street, and the plaintiff, who happened to be passing, was about to play the part of the Good Samaritan, the publican, who was present, urged the bystanders not to let him touch the unconscious man, saying that he would certainly kill him, as he had latterly caused the death of two children by his ignorance. This philanthropic interference was, it was alleged, followed up by another assault. Two witnesses proved the first assault, but not the latter. In cross-examination "they said they did not know how Dr. Smyth became a Doctor. He gave physic to the people at Dover, but he might be nothing more than a *surgeon*." The defence is a good example of the Buzfuz style of forensic oratory. We therefore quote the report in full: "Mr. Sergeant Shepherd said he would tell the jury a little about this Doctor Smyth who undertook to administer physic to the good people of Dover. The Lord knows where he came from, but he had not science enough to doctor a hog! True it was his client's servant girl had got the itch, and she gave it to her fellow servant; the poor children did not escape, and *Doctor* Smyth undertook to cure them. Here was his own handwriting (a paper which had been proved by one of the witnesses). 'To *merkurell anintement* for curing the *owld sarvante* of the *hitch*.' The bill was a specimen of the Doctor's literature, and his exhibition of his *merkurell anintement* was a specimen of his medical knowledge, for he fairly *salivated* all the family; and this it was which enraged his client, who he admitted gave him an elbow in his *guts* not half so mischievous as the stuff which he had poured into the *guts* of the defendant's family; and for this he had not only brought the present action, but he had also indicted the defendant at the Dover Sessions. When he himself was examined on his oath, on that

examination a Learned Friend asked the Doctor where he got his *diploma?* When his answer literally was, that he got his *deplorer* of the Mayor of Guernsey. Deplorable it was indeed that such a fellow should go about poisoning His Majesty's subjects; but he trusted the jury would mark their opinion of him and his action by a farthing damages, or if they went further it would be to give 'the knave a groat.'" Verdict for plaintiff, damages one farthing. Sergeant Buzfuz has not yet disappeared from the Law Courts, but his brazen eloquence is subdued to a pitch more suited to the delicacy of the public ear in these days when the manners of men—if not of women—are less ferocious than they were a hundred years ago. Quacks, like the poor, we have always with us, but they are of a more plausible and therefore more dangerous type than Dr. Smyth, with his "merkurell anintement." Perhaps the most interesting feature in the case is that the quack was not allowed to leave the scene of action with the honours of war. This is somewhat surprising, as it might have been expected that a British jury would have been impressed by a "deplorer" from the Mayor of Guernsey. We fear that in this age of light, juries do not always display so much intelligence.

## MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.

PERHAPS the most interesting group of medical terms in the present section of the *New English Dictionary*[1] is that centring in and surrounding *scrofula*. This word, written also *scrophula*, and formerly *skurfula*, was in its early use plural after the late Latin *scrofulae*, swelling of the glands, and in its later employment singular after the mediaeval Latin *scrofula* or *scrophula;* it is a diminutive of *scrofa*, a breeding sow—supposed, adds Dr. Bradley cautiously, to be subject to the disease. Its derivation tempts one into devious paths of surmise as to the bearing of the matter upon the swollen neck of the pregnant woman (hyperthyroidism), and upon the synonymous term *struma* (from *struo*, I pile up). Its other synonym, "king's evil," takes us back in thought to the day when "young Johnson," as Boswell calls him, "was carried to London, where he was actually touched by Queen Anne," having afterwards a "confused but somehow a sort of solemn recollection of a lady in diamonds and a long black hood"; it did him no good, however, and Boswell was of opinion that he had not been carried far enough—"his mother ought to have taken him to Rome." The modern touching for king's evil is to be found in the gentle zephyr's breath, or it may occasionally be the boisterous blow of the east wind, in open-air sanatoriums. The words associated with *scrofula* are *scrofulide* (a strumous skin disease), *scrofulism* (a scrofulous diathesis), *scrofuloderma* or *scrofulodermia* (a skin lesion considered to be of scrofulous origin, and the condition of being affected with it), *scrofulose* (an obsolete term), *scrofulosis* (scrofula without tubercle), and *scrofulous* (caused by or affected with scrofula). An obsolete form is *scroffles*. Another term of somewhat mysterious derivation is *scrat*, meaning a hermaphrodite; it perhaps represents the Old English *scratta*, corresponding to the Old Norse *skratte*, a wizard, goblin, or monster, or to the modern Icelandic *skratti*, a devil; if this be the correct origin, it reminds us of the belief, at one time widespread, in the demoniacal production of teratological states. Other words with medical meanings are *scruff*, *scurf*, and *scurvy*, and it is a curious thing that *scurvy* came to be synonymous with *scorbutus* simply on account of the similarity in sound, more especially to be noticed in the French form *scorbut*. A special word of praise is due to the able editiors of this *Dictionary* for the attention they always pay to the medical meanings of ordinary terms; thus, under *searcher* are found the two meanings of probe or sound, and of low power objective of the microscope, whilst under *seat* are noted the "seat of the skull" (apparently the cheek bone) and the locality of a disease (for example, the seat of the pain). So thoroughly are these meanings given that under *secondary* is found the special significance which attaches to the word (in its plural form) when associated with syphilis. The last word to which space allows a reference is *secundine:* this has three meanings, the well-known obstetrical one of the afterbirth (often in the plural, *secundines*); a botanical one (the second coat of an ovule, the other being the *primine*); and an entomological, the inner coat of a cocoon. Sir Thomas Browne, it may be added, seized upon the obstetrical use of the word and applied it figuratively in his characteristic fashion to death—"not till," he said, "we have once more cast our secondine, that is, this slough of flesh, and are delivered into the last world." It was once said of Johnson's *Dictionary* that a man could read it like a book; when the editors of the *New English Dictionary* are working at their highest level they turn out pages which can almost be enjoyed like a novel.

[1] *A New English Dictionary on Historical Principles.* Edited by Sir James A. H. Murray. Scouring-Sedum (vol. viii), by Henry Bradley, Hon.Ph.D.Heidelberg. Oxford: At the Clarendon Press; London, Edinburgh, Glasgow, New York, Toronto, and Melbourne. Double section. Price 5s. April 1st, 1911.

## OPHTHALMIA IN EGYPT.

THE tent ophthalmic hospital system in Egypt, which used constantly to receive praise in Lord Cromer's reports, and to which attention has frequently been drawn in these columns, continues to increase in importance. It was due originally to the philanthropy of Sir Ernest Cassel, who late in 1902 offered £40,000 in furtherance of the study of ophthalmia in Egypt. In view of the size of that country, this money was used for the equipment and maintenance of travelling hospitals of a type with which experience had already been gained in Russia. From the beginning the work has been under the superintendence of Dr. A. F. MacCallan, who, as progress was made, somewhat modified the original scheme. After three years, when the system had been taken over by the Egyptian Government, he secured the erection of two permanent hospitals, one at Tantah and the other at Mansourah. They were intended to serve as bases for the travelling tent hospitals, and proved of great value. This year a third stationary hospital has been opened at Assiout, and a fourth, which will be built at Sohag, is already projected. Speaking at the opening of the Assiout Hospital, Dr. MacCallan stated that what he and those connected with him had in view was to provide each province with its own permanent hospital and a connected travelling tent hospital, which would visit the various villages scattered about each province. In some provinces more than one permanent hospital might, perhaps, prove to be required, but in any case an excellent beginning had been made. From the description which has reached us, the hospital recently opened appears to be entirely up to date from a scientific point of view and its equipment to be well suited to the needs of those for whom it is intended. Looking at it as a whole, this philanthropic enterprise is one of the most successful in existence, and all those who have been and are still connected with it, are greatly to be congratulated on a work which sooner or later will render meaningless the reproach implied by the term "Egyptian ophthalmia."

## ISOLATION HOSPITALS AND HEALTH RESORTS.

AMONG annual reports to hand we find one relating to an institution which seems to have escaped notice in any of the reference books, probably because in point of constitution it is *sui generis*. This is the Delancey Hospital, Cheltenham. Its exact status is not described in the report, but, judging from internal evidence and the included financial statement, it is an isolation hospital which was established nearly forty years ago by private beneficence, and is now maintained partly by ordinary subscriptions and donations and interest on capital, partly by grants from the corporation of Cheltenham and district councils in that neighbourhood, and payments from certain schools, and partly by receipts for patients' maintenance. Patients in the Cheltenham General Hospital who require isolation because they have developed a zymotic disorder are admitted free, but for all others payments from 2s. a day upwards have to be made. The precise amount depends on the nature of the infectious disease from which the patient is suffering, whether the treatment is in a public or private ward, whether the person responsible for the payment is an annual subscriber of a certain amount, and whether the charge is inclusive or exclusive of medical attendance and medicines. Patients admitted to the public wards of the scarlet-fever block must always be attended by the medical officer of the hospital; but those in the public wards of the small-pox, diphtheria, and enteric blocks may be attended by their own medical man, as may all those who are in private wards. In point of financial prosperity, the institution appears to fall a trifle short of fully paying its way. From the corporation it receives £500 a year, and this fact, added to others deducible from the report, offers strong evidence that the institution is found of much value to the locality. This may well be the case, for a hospital which caters for the reception of cases of infectious disease among all classes can, if well managed, scarcely fail to justify its existence, more especially if the town concerned is one which, like Cheltenham, has claims to be regarded as a health resort. By no means at all health resorts is suitable provision made for the treatment of infectious disease, that is, accommodation likely to prove acceptable to persons sufficiently well off to pay for treatment in their own homes or lodgings. In all matters connected with infectious disorder the virtue of health resorts should be above suspicion. Otherwise lodging-house keepers, if no one else, must one day suffer, since a mere rumour that cases of infectious disease are scattered about a health resort is quite sufficient to ruin its season.

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## CREMATION IN THE HOME.

THE French have the reputation of being a witty people, but although they have shaken off belief in revelation, they are to the last degree credulous in other things. No invention seems to be too silly for a French paper to palm off on its readers when it deals with English matters. Not long ago it was gravely announced by the *Province Médicale*, on the authority of the *Presse Médicale*, that an English company had been formed to work a patent for the installation of cremation ovens in private houses. Our contemporary which professes to quote from a circular issued by the new company states that the apparatus is therein described as "a gas furnace, low but long and wide, covered with a steel case, into which the coffin is introduced." The corpse, it is said, is burnt in a few seconds. The oven must be heated an hour beforehand. For those who do not happen to possess this convenient arrangement among their household furniture, the company offers it on hire. All one has to do is to telephone to the right address and the company will forthwith send the apparatus with skilled operatives to work it. The price of the whole apparatus is given at £90, and the total cost of the operation as £2. But the company hopes that if its affairs prosper it will be able to reduce the price. Here, says our contemporary, is an idea which could only spring from the brain of an Anglo-Saxon. To this we reply that the idea, wherever it sprang from, could only have been published in a French journal. This suggested addition to the comforts of the English home opens up wide possibilities. We are recognized as the pioneers of sanitation. Are not our water closets diffused throughout the civilized globe? The bath room has followed, though to a much more limited extent. A home crematory would certainly have several advantages, alike from the sentimental and the practical points of view. The crematory *à domicile* would sweep away once for all the mourning coaches, undertakers' men, and all the trappings and ceremonies that make death hideous to all but those ghouls who find an unholy joy in the last rites paid to a defunct fellow creature. With the home crematory available, the only funeral-baked meat would be the corpse of the deceased. Now that we are told to lead the simple life, here is a way of getting rid once and for all of one of the most artificial ceremonies of civilized life. A crematory in the home would also supply to unscrupulous persons who wished to get rid of inconvenient relatives an easy way of disposing of the compromising remains. Lest the lively but simple-minded Gaul should misunderstand us, we hasten to add the warning which Artemus Ward found necessary for his readers, that this is a "goak."

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## MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

THE London County Council on April 11th considered the Report of the Education Committee recommending that, in reply to the Board of Education's strictures upon the present arrangements for medical treatment in London, an assurance should be given that a "complete scheme" will have been brought into at least partial operation by October, 1911 (BRITISH MEDICAL JOURNAL, March 25th, p. 716). The Finance Committee's report, published in the last issue of the JOURNAL (p. 836), to the effect that no such assurance should be given, was also submitted. Mr. Hayes Fisher, on behalf of the latter committee, moved that the Board be informed that the Council must reserve its liberty to terminate its arrangements for any medical treatment in the absence of an undertaking at an early date that the main portion of this expenditure will be borne by the national Exchequer. The subsequent speeches consisted of appeals addressed to Mr. Fisher by members of the Education Committee on both sides of the chamber not to persist in such an "ill-advised" amendment, which, it was urged, would be resented by the Board of Education as a veiled threat. Mr. Fisher, however, went to a division, when the voting was equal. The Chairman declined to exercise his casting vote, and the amendment fell to the ground. The exact form of the assurance to the Board of Education was then agreed in the following terms: "The Council will ensure that by October, 1911, the scope of the scheme will be clearly defined, and that substantial progress will have been made towards its efficient working."

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Sight Testing for the Merchant Navy.**—Last week Lord Muskerry called attention in the House of Lords to the subject of vision tests for masters and mates in the merchant navy. He said candidates for Board of Trade certificates as qualified commanding officers must first undergo a test both for colour and vision. The present method of making the test had raised a storm of hostile criticism. A man might fail to pass whose vision for form and colour was quite right, whilst another man who was dangerously colour-blind might obtain his certificate. Cases illustrating this were given. He criticized the composition of the Departmental Committee appointed to consider the question, for there was a suspicion that efforts were being made, not perhaps towards wholesale jobbery, but towards engineering of a most improper character in order to whitewash the present tests. There was a great deal of indignation in shipping circles in regard to the new form vision test which was to come into operation in 1914. He moved for a return showing the accidents which were due to defective form vision, and for a statement of the reasons why the Board of Trade had adopted new tests. Lord Hamilton of Dalzell said he could not enter into a discussion of the merits or demerits of the sight tests. A Departmental Committee was considering them, and when they reported the President of the Board of Trade would deal with the whole matter. This was a highly scientific and technical matter, and the Committee, which was thoroughly representative, would go into it very carefully. He would consult with the President of the Board of Trade upon the question of laying papers on the table. Lord Avebury thought his noble friend might very well be satisfied that the whole matter was in the hands of an excellent committee. After a few words from the Bishop of Bangor on the importance of trustworthy tests, the motion was withdrawn.

**Health Visitors.**—Mr. Charles Bathurst asked the President of the Local Government Board whether there would be overlapping as between the existing county nursing associations and the district councils, under the Health Visitors Bill, in the provision of assistance and advice in maternity cases in the rural villages; and, if so, whether he would amend the above bill to prevent such overlapping and to secure effective co-operation between them. Mr. Burns replied that the adoption of the Notification of Births Act required the consent of the Local Government Board. Before consenting it was the Board's practice to inquire as to the means available for utilizing, to the advantage of the mothers and infants, the information as to births which would be received under its provisions. In some cases it had been found that no existing agencies were available, and that it was desirable that the local authority should be able themselves to appoint health visitors. He did not think there was any danger of serious overlapping. In reply to a further question Mr. Burns said that there were twenty county nursing associations affiliated to the Queen Victoria's Jubilee Institute for Nurses, and several other county nursing associations not so affiliated. Grants were in most of these cases made to the associations by the county councils or the education committees. The work of these voluntary associations was not under his control, but he had no doubt they rendered efficient help to the local authorities in assisting to combat sickness and mortality. He had official cognizance of these nursing associations, and felt that the Health Visitors Bill would assist these ladies in their work. In reply to a further question by Mr. Charles Bathurst, Mr. Burns answered that he was unable to state in how many cases women had been appointed to perform the functions of health visitors by county and district councils, nor was he aware of the authority under which such appointments had been made. In several instances officers, such as inspectors of midwives, school nurses, and assistant inspectors of nuisances had been utilized to give advice as to the nurture and care of infants.

**Sale of Poisons (American Practice).**—Mr. Neville asked the Home Secretary whether he was aware that in the United States of America no poisonous substance could lawfully be sold by retail unless the bottle or other receptacle containing the same bore a label stating the name of the poison, its character, whether alkaloid, narcotic, or otherwise, and the appropriate antidote, remedy, or treatment to be used in case the poison was improperly taken or applied; and, if so, whether he would consider the advisability, by Order in Council or otherwise, under the Poisons and Pharmacy Acts, of making regulations that a label giving similar information should be affixed to every bottle or receptacle containing poison sold by retail in this country. Mr. Churchill replied that he was informed that the Privy Council Office had no knowledge of the American regulations referred to. No evidence had reached that office which would show that there was any pressing need for an amendment of the existing poison regulations in the direction indicated by the question, and it was considered doubtful whether it was desirable to multiply the purely mechanical precautions of the kind suggested.

**Small-pox and Vaccination.**—In reply to Mr. Phillip Foster the President of the Local Government Board has issued the following table, giving particulars respecting the patients removed to the hospitals of the Metropolitan Asylums Board during the four weeks ending April 1st:

| | Ages of Small-pox Patients. | | | | Total Cases. | Deaths Among these Cases. |
|---|---|---|---|---|---|---|
| | 0-10. | 10-20. | 20 35. | 35 and over. | | |
| Vaccinated ... | 0 | 1 | 2 | 2 | 5 | 0 |
| Unvaccinated ... | 4 | 1 | 0 | 0 | 5 | 1 |

None of the cases were stated to have been revaccinated. Mr. Churchill informed Mr. Henderson last week, with reference to certificates of conscientious objection, that a fee authorized by a table of justices' clerks' fees could be demanded only when a clerk had rendered the service in respect of which the fee was authorized. He was advised that when a declaration was made before a justice in the absence of the clerk no fee should be demanded.

**Vaccination of Aliens.**—In reply to a further question by Mr. Astor, Mr. Burns stated that, as far as he was aware, it was not usual to examine aliens for the purpose of ascertaining whether they had been vaccinated. It was the duty of the vaccination officer to see that all children resident in his district were duly accounted for as regards vaccination.

**Medical Officers of Health (Residence).**—In reply to Major Henderson, Mr. Burns has stated that there was no statutory requirement that a medical officer of health should reside in his district, and the Board did not regard it as essential that he should do so. Most medical officers of health, however, did reside in their districts, or, in the case of medical officers of health acting for a combined area, in one of their districts, or within easy reach of them, so that they were able at a short notice to attend to any urgent matter.

**The Protection of Animals Bill**, which passed its Committee stage in Standing Committee A last week and was reported, with amendments, to the House, deals only with general cruelty to animals, and does not refer to vivisection. Mr. Greenwood, who is in charge of the bill, has put the report stage down for April 24th.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## EDINBURGH ROYAL INFIRMARY.

AT a special meeting of the managers of the Royal Infirmary on Thursday, April 6th, Lieutenant-Colonel Sir Joseph Fayrer, Bart., R.A.M.C., was, out of a short list of six, appointed superintendent in succession to Colonel Warburton, who is retiring. The new superintendent is 52 years of age, and has had a distinguished career. He was educated at Rugby and Trinity College, Cambridge. He took the degree of M.A.Camb. in 1885, and received his medical education in Edinburgh and at St. George's Hospital. He took the degree of M.B St. Andrews in 1887, and in the same year became a Fellow of the Royal College of Surgeons of Edinburgh by examination. He proceeded M.D. in 1889. He entered the Royal Army Medical Corps in 1886, taking first place in the competitive examination in March of that year. He has been on duty at Edinburgh twice, in India for fully six years, and in the Royal Horse Guards for three years; in 1903 he was appointed Staff Officer and Secretary to the Principal Medical Officer of the London District; from 1904 to 1909 he was Medical Officer of the Duke of York's Royal Military School at Chelsea, and since 1909 he has been in charge of the Military Hospital at Hong Kong. He succeeded his father, the first baronet, in May, 1907.

## TREATMENT OF EPILEPTICS.

At the monthly meeting of Glasgow Parish Council on April 4th, the Special Committee on Epileptics presented a report recommending that 46½ acres of the lands of East Muckcroft should be leased from the Lunacy District Board as a site for a colony for epileptics, the Council to have the right of purchase at any time. Sketch plans of the proposed colony were fully discussed by the Committee and recommended to the Council for adoption. A report by the master of works was also included, suggesting that four villas of one story in height be erected, with accommodation for fifty patients each, provision to be made for two additional villas when required. In proposing the adoption of the minutes the Chairman of the Council stated that a letter had been received from the Local Government Board approving of the site. Nothing would be done with the buildings until the Council had approved of the final plans and estimates, all that was at present desired being the approval of the general principle and the ground plans. A proposal was made to delay the matter as £50,000 might be involved, but the minutes were ultimately carried with only one dissentient.

## LUNACY AND PUBLIC HEALTH.

On April 5th, at a meeting of the Royal Philosophical Society of Glasgow, Dr. John Carswell read a paper on the relation of lunacy to public health administration. Dr. A. K. Chalmers, M.O.H. for Glasgow, presided. Dr. Carswell stated that there were over 18,000 certified insane persons in Scotland, about 16,000 of whom were maintained at the public expense at an annual cost of over £400,000. Lunacy administration, though costly, was not extravagant. The distribution of responsibility between the General Board of Lunacy, district lunacy boards, and parish councils, while it had advantages, required revision. The General Board lacked statutory powers to enable it to meet present requirements, and district boards and parish councils had no direct interest in the occurrence of insanity as a fact of social, scientific, and medical interest. Lunacy administration stood at present outside the scope of public provision for the prevention of disease, but no adequate view of public provision for securing good national physique could be obtained if the conditions that affected brain growth and the stability of the nervous system were excluded. This whole field of inquiry required investigation—why 8 per 10,000 persons living in one district of the city became insane last year and only 1.6 per 10,000 in another district, and why high death-rate and high lunacy-rate, low death-rate and low lunacy-rate went together. There were also new problems connected with the education of mentally defective children, of whom there were at present over 800 in special Glasgow schools. Nearly 1 per cent. of the children of school age in Glasgow were mentally defective. The administrative machinery required readjustment, and public opinion required education and enlightenment on this very important aspect of the question of insanity.

## THE PREVENTION OF PHTHISIS.

Dr. W. L. Reid, chairman of the medical advisory board of the Consumption Sanatoriums at Bridge of Weir, has addressed, on behalf of the board, a letter to the Lord Provost and Corporation of Glasgow dealing with the prevention of consumption. The letter says:

"After an extensive experience of consumption and its treatment, gained in connexion with the above sanatoriums as well as in private practice, the board has come to the conclusion that if the scourge of consumption is to be controlled and, it would hope, removed from our midst, it can only be effected by the removal of the slum properties in the city, which, besides being bad for the people morally, form a most favourable breeding ground for this disease. In the present condition of things the board considers that, however valuable sanatoriums may be in the treatment of consumption (and they put much value on sanatoriums), the city should aim at prevention rather than cure. The board is also strongly of opinion that the treatment of patients suffering from consumption in a private house is defective in most cases, and in many cases is a serious danger to the community, and it thinks that the time has now come when the Corporation should face the position by declaring consumption an infectious disease and have it dealt with as such, and, among other measures, provide hospital accommodation for treatment."

## THE CONSUMPTION CRUSADE IN SCOTLAND.

Sir William Younger, Bart., is making arrangements for a tuberculosis exhibition in connexion with his advocacy of a scheme for combating consumption as a Scottish national memorial to King Edward. The exhibition, which is being organized by Sir William Younger at his own expense, is intended to travel throughout the county of Dumfries, where he resides, in order to interest and educate the people in the various towns and villages. The exhibition, which will be on lines similar to those held in London and several large towns, is being prepared by Dr. Perkins, Secretary of the National Association for the Prevention of Consumption. It is proposed to open the exhibition at Moffat about Easter.

## THE TRAINING OF DENTISTS.

At the annual distribution of prizes to students of the Incorporated Glasgow Dental Hospital, Dean of Guild Henderson, who presided, said the hospital had been in existence for twenty-six years, and 170,000 cases had been dealt with in it. It would be impossible to have first-class dentists without a training college, and this college had now obtained more commodious premises, and was deserving of every support. Dr. Barlow referred to the interest taken in the institution by the Royal Faculty of Physicians and Surgeons and the importance of some knowledge of medicine and surgery to members of the dental profession. Dr. W. D. Anderson, dean of the hospital, referred to the work done by the institution during the past year, after which Lady Bilsland presented the prizes to the successful students.

## HONORARY DEGREES AT THE UNIVERSITY OF ABERDEEN.

At a graduation ceremonial of Aberdeen University on Wednesday, April 5th, the honorary degree of LL.D. was conferred on Arthur Robertson Cushny, M.A., M.D.Aberd., F.R.S., Professor of Materia Medica and Pharmacology, University of London; and on Arthur Keith, M.D.Aberd., F.R.C.S., Conservator of the Museum and Hunterian Professor, Royal College of Surgeons of England.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### OLD AGE PENSIONS AND POOR LAW RELIEF.

SINCE the removal of the Poor Law relief disqualification for the receipt of an old age pension at the beginning of this year, much doubt has existed as to the law in relation to pensioners who seek the relief of a workhouse infirmary. The attitude of the Local Government Board on the subject is to some extent cleared up by a communication sent to the Gorey Board of Guardians. It is stated that the repayment of the cost of maintenance in a workhouse will not in itself exempt a pensioner from disqualification, but in the case of a person admitted to a workhouse infirmary who wishes to pay, and does actually pay, the full average cost of maintenance therein, no disqualification exists. The cost of maintenance can, however, only be recovered by the guardians if the pensioner voluntarily, after receiving his pension, chooses to use the whole or part thereof to defray expenses.

### EMIGRATION FROM IRELAND.

The report of the Registrar General for Ireland on emigration during the year 1910, which has just been published, states that the total number of emigrants during the year was 32,923 (18,113 males and 14,810 females), an increase of 3,693 as compared with 1909. Analysis showed that over 7,000 of the number had their passage outwards previously paid in America. Of the total number, 86.9 per cent. were between the ages of 15 and 35. Leinster furnished 4,258 of the total; Munster, 8,330; Ulster, 12,271; and Connaught, 7,598. In spite of the increase during last year, the statistics of succeeding decades showed a steady decrease from an average of nearly 90,000 yearly during the period 1880–89, to an average of 35,886 during the period 1900–09. The destination of about three-fourths of the emigrants last year was America.

### RECOGNITION OF DISPENSARY MEDICAL OFFICER.

At a recent meeting of the Rathdown Board of Guardians a letter was read from Dr. Hamilton, medical officer of Arklow, calling attention to the fact that, by reason of the recent severe outbreak of typhus fever in Arklow, he had been, owing to the heavy work entailed, practically deprived of private practice for a period of two months. During the continuance of the epidemic Dr. Hamilton, in addition to rendering medical attention, had been compelled, for want of proper assistance, to carry patients from their beds to the ambulance, from the ambulance to the hospital, and in the case of those who died, to carry the dead bodies to the mortuary. The guardians present spoke most enthusiastically of Dr. Hamilton's services, and unanimously voted him an honorarium of £50.

### HOLIDAYS OF DISPENSARY MEDICAL OFFICERS.

At a recent meeting of the Macroom Board of Guardians, the following resolution was proposed and adopted:

> That this board, viewing with a sense of danger the ever-growing cost to the ratepayers of medical services under the Poor Law, outside the question of standing salaries, hereby order that from January 1st, 1911, the holiday period of medical officers be limited to two weeks instead of four, subject to the approval of the Local Government Board.

The proposer of the resolution stated that he had no wish to curtail the holidays of medical officers provided that the latter would pay for their substitutes for the second fortnight. It is satisfactory to know that resolutions of this sort are not in operation until the sanction of the Local Government Board has been obtained.

### QUEENSTOWN HOSPITAL.

At a meeting of the Queenstown Hospital Committee on March 30th, a communication was read by Dr. R. H. Townsend from a lady residing in England stating that she wished to send in her lifetime £100 to the proper place in Queenstown for the investigation of tropical diseases, and knowing that he (Dr. Townsend) was one of the doctors who attended Queenstown Hospital, requested him to receive the gift and bestow it as she suggested. Dr. Townsend replied to the letter, stating that owing to the great falling off in ships from foreign countries calling at Queenstown Harbour in late years, the opportunities for investigating and treating tropical diseases had much diminished, but the Hospital Committee was directing its energies to the task of combating consumption, a disease unfortunately always rife, and that the committee were anxious to provide isolation wards for incurable cases, as well as detached wards for those who had a prospect of recovery. In reply to that letter, Dr. Townsend received a further communication from the lady requesting him to present a cheque for £200 towards the much-needed fund to carry on the good work referred to, adding that she wished to remain anonymous. The chairman and members unanimously accorded their warm thanks to the lady, and desired their secretary to forward a letter of thanks. Several sites in the grounds of the hospital were subsequently examined by the committee for the wards in connexion with the project.

### NORTH DUBLIN UNION.

As a result of a recent report by the Local Government Board's inspectors on the management of the North Dublin Union, the board of guardians has now drawn up a scheme of improvements which are to be carried out. It includes the allocation of a separate ward for the infirm, so as not to have them mixing with the workers; a more efficient staff of nurses for the sick, and arrangements for training nurse probationers; a better maternity ward is to be made use of, and in future all imbecile children are to be removed to a home at Cabra.

### MOTOR CARS IN DUBLIN.

Some time ago the Dublin Corporation passed a resolution requesting the Local Government Board to fix a rate of speed for motors at the same limit as is prescribed for horse traffic within the Dublin city boundary. In consequence of the serious results that such a by-law would impose upon medical motorists practising in Dublin, a meeting was convened last week with the object of organizing medical resistance to the proposed restriction. The first resolution, which was proposed by Sir Christopher Nixon, was to the effect that, in the opinion of the meeting, further restrictions on motor traffic in the city of Dublin were unnecessary for the protection of the public and would seriously hamper members of the medical profession in the discharge of their duties. In seconding this resolution, which was adopted, Mr. Arthur Benson pointed out that the statistics in London showed that the motor car was the safest vehicle on the streets. A committee was appointed for the purpose of instructing counsel to lay the views of the meeting before the representative of the Local Government Board appointed to make the inquiry and to take such further steps as might be desirable.

### BEQUESTS TO DUBLIN HOSPITALS.

By the will of the late Mr. Charles Sexton, who died on February 15th last, a sum of nearly £12,000 has been left to Dublin charities. Several of the clinical hospitals receive legacies of from £1,000 to £500.

### ULSTER HOSPITAL FOR CHILDREN AND WOMEN.

The annual meeting of this institution was held in the hospital on March 30th; Mr. J. Blakiston-Houston, D.L., occupied the chair. The annual report showed an increase of patients, and also an increase of annual subscriptions, which, however, was not sufficient to prevent a deficit of £180 at the end of the year. The medical and surgical report was read by Dr. V. Fielden. Funds were in hand to start the building of the new hospital, and plans have been submitted and approved of, so that a start will be made in the near future. The board has rented an adjacent large rectory, so that the work may be carried on without intermission, although of course under difficulties.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

### Hope Hospital.

It is now approaching two years since the Salford Division of the British Medical Association began a determined attempt to obtain an improvement in the medical arrangements at the Salford Union Infirmary at Hope. The principal points on which the Division laid special emphasis were that there should be a medical superintendent with full administrative powers, and that such a salary should be offered as would obtain the services of a fully-experienced medical man, instead of the miserable salary paid to the former senior resident medical officer, and, further, that there should be two assistant resident medical officers instead of one. The majority of the guardians strongly opposed these suggestions for a time, and it was found necessary to insert a warning notice in the British Medical Journal and the *Lancet*. The result of this was that the guardians were quite unable to obtain medical officers on the old terms, and for some months the hospital had to be staffed by locumtenents. The Local Government Board then intervened, and after consultation with the guardians a scheme was proposed almost identical with that first suggested by the Salford Division. This received the sanction of the Local Government Board and the warning notice was withdrawn. The guardians' first appointment of a medical superintendent was so far unfortunate that the incumbent's health did not allow him to remain more than a few months. The present medical superintendent, Dr. Austin, only took up his duties about three months ago, but has already shown his ability and fitness for the post, and in spite of the disturbed condition in which the hospital must have been for the previous eighteen months, something like order is now being evolved. This is shown by the remarks of the chairman of the hospital committee, who, in acknowledging last week a vote of thanks on his retirement, said that he was pleased to know that some splendid improvements had taken place during the two years he had been chairman. With regard to the medical staffing of that institution, every one would agree with him that what had been accomplished in that respect was certainly an improvement and certainly for the better. No one would question that to-day. We feel little doubt that the new arrangements offer far greater possibilities for a more successful working of the hospital, and with the loyal support of the guardians the medical superintendent will be enabled to improve the condition of the patients to a much greater extent than was ever possible before.

## LEEDS.

### Annual Meeting of the General Infirmary.

At the annual meeting of the General Infirmary, on March 30th, when the chair was taken by the treasurer, Mr. Charles Lupton, there was a good attendance of the subscribers and friends of the institution, and Mr. Lupton's speech in moving the adoption of the annual report and balance-sheet was of more than usual interest. He had to record that, in spite of the curtailment of the accommodation as a result of the fire on October 7th, which put the whole of one block out of action for the remainder of the year, the number of in-patients was in excess of that in any previous period of twelve months. Including the patients treated at the Robert Arthington and the Ida semi-convalescent hospitals, the patients treated in the wards numbered 7,935. Were it not that there had been a marked increase in the number of emergency cases, and in the number of accidents, and also in the number of those who, having been under treatment in the wards, had been transferred to the out-patient departments, a slight decrease in the number of out-patients would have had to be recorded; as it was the numbers were slightly in excess of last year. Commenting on the reduction of the average time that each patient remained under treatment in the wards of the hospital, which was 17½ days as against 18½ for 1909, Mr. Lupton said he could not view that lessening of the time with satisfaction, because he knew it was due to the great number of patients waiting for admission, and that it indicated an amount of pressure on the resources of the infirmary which was a cause of anxiety to all concerned. Unless the great scheme of reconstruction of the infirmary and the addition to the accommodation which was contemplated could be carried into effect, he did not see how this overpressure could be neutralized. In reference to the out patient department, Mr. Lupton told the meeting that its general working had been under careful discussion, and that it was hoped that a scheme of improvement would shortly be laid before the governors. The association of almoners with the work of the infirmary, tried during the past year, had proved highly beneficial, and it was a striking comment on the efficacy and value of their work that the three institutions which had joined in the experiment had each of them decided to continue the use of almoners. Mr. Lupton expressed the opinion that still greater use would be found for these officials in the future working of the infirmary. Turning to the financial side of the report, the outlook was not so favourable; the expenses had gone up and the income had shrunk. Food had cost £300 more than in the previous year, the instrument and drug bill had gone up considerably, and the amount expended in rates, in ordinary repairs, and in nursing had all increased. In the item of extraordinary expenditure an increase of £2,000 had to be noted—a sum which included that expended on the remodelling of two of the wards. The decrease in the income was due mainly to a diminution in benefactions, and especially in legacies. Referring to the recent endowment of three beds, Mr. Lupton expressed the hope that this manner of benefiting the infirmary and at the same time of honouring the memory of friends would appeal to an increasing number of those interested in the work of the infirmary. He paid a warm tribute to the memory of the late Lord Airedale, who had always been one of the warmest friends of the infirmary. The interest he took in its work he inherited from his father, who, he reminded the meeting, was the chairman of the building committee of the hospital in which they were met, and who was largely responsible for the ambitious lines upon which it was planned. Lord Airedale had the same interest and the same courage as his father. The mallet and trowel presented to his father when he opened the infirmary in the year 1868 he regarded as his greatest treasure. Mr. Lupton gave a very full and interesting account of the aims and aspirations of the board in connexion with the scheme of extension and reconstruction, but these have already been dealt with in this column. The necessity for new operation theatres was emphasized by the statement that in Manchester there was one theatre for every 50 patients, in Newcastle one for every 59, and in Leeds one for every 135. Those interested in research will be pleased to note Mr. Lupton's appreciative remarks on the value to the acting staff and to the patients of the work done in the pathological department and in the clinical laboratory. "Most of you," he said, "will have watched the progress of medicine and of surgery sufficiently to be aware that through pathology it is likely that we shall have the greatest discoveries in medicine that have occurred in centuries. It has already made great changes in surgery. It is essential that this department should be kept fully up to date." In view of the necessary extension of the infirmary it had become necessary to acquire more ground immediately around the present buildings, and progress was being made with a scheme which, by the acquisition of property adjacent to the infirmary, and by the diversion of certain roads, would, if carried out, be of benefit alike to the city and to the infirmary. Finally, Mr. Lupton made a strong appeal to all present to

bring to the notice of the public of Leeds and of the surrounding districts the urgent need of securing that the King Edward memorial fund should shortly be completed by the attainment of the sum originally mentioned—namely, £150,000.

## WEST YORKSHIRE.

### BARNSLEY OPEN-AIR SCHOOL.

AN interesting report on the Queen's Road Open-Air School has recently been issued by the school medical officer (Dr. F. J. Sadler) and the secretary (Mr. W. P. Donald). The proposal for the foundation of such a school in Barnsley arose on a report in 1908 by the school medical examiners that 126 (or 3 per cent.) of the 3,800 children they had examined during the year were suffering from tuberculous disease of the lungs. It was determined to open a school for four months in 1910 for these consumptive children. The Bradford Open-Air School (which has been discussed previously in this column) was taken as the model; and a great deal of the necessary information was obtained from Dr. Crowley's *The Hygiene of School Life* (also founded on Bradford experience). The improvement in the condition of the children is considered under two headings—(1) the medical, (2) the educational. The medical requirements were considered to be the following: (1) The children must be all day in the open air; (2) suitable diet; (3) two hours' rest in the open-air after dinner; (4) shower bath twice a week; (5) skilled supervision. All the children, with one exception, had definite signs of tuberculosis of the lungs; 20 boys and 26 girls attended the school of whom 35 were present during the whole period. The following table shows the improvement that took place in these children:

| | Average Age. | Average Increase in Weight. | Average Increase in Height. | Average Increase in Chest Expansion. |
|---|---|---|---|---|
| 14 boys ... ... | 9 years | 6 lb. 7 oz. | 1.2 in. | $\frac{13}{16}$ in. |
| 21 girls ... ... | $9\frac{3}{4}$ years | 5 lb. 8 oz. | 1.3 in. | 0.7 in. |

In 21 cases it was impossible at the end of treatment to detect any defect of the lungs; in 24 cases there was improvement; in only 1 case was the lung in the same condition, but even here the child had increased $6\frac{3}{4}$ lb. in weight, grown $1\frac{1}{4}$ in., and the chest expansion had increased by 1 in. From an educational point of view it was found that most of the children had gained in general intelligence and power of application. It is evident from this report that the systematic classification and attendance to the physical condition of the child results in both bodily and mental improvement.

### CONSUMPTION IN BRADFORD.

Great interest is being taken in the Tuberculosis Exhibition which is to be held in St. George's Hall, Bradford, from May 25th to June 11th, and committees are to meet at regular intervals to make the necessary arrangements. It is hoped that the campaign may have a great educative influence on the working classes in connexion with the hygiene of phthisis.

### OPENING OF THE WEST RIDING NURSES' HOME.

Some few years ago a movement was started in the West Riding having for its object the provision of trained midwives and nurses in the rural districts where it was impossible for a trained midwife to make a living. It is the intention of the promoters that the midwives, all of whom are, of course, the holders of certificates, shall undertake a certain amount of general nursing. This part of the scheme may be regarded as open to a certain amount of adverse criticism. The midwives may or may not be trained nurses; if they are, then the amount of good they may do in a village or rural centre would be great; if they are not, and take up their duties only with the knowledge and experience implied by their six months' training as midwives, then it may be held that, though the work which a sensible woman of this kind may do in the way of general nursing may be of great value and much better than had been possible in the neighbourhood before, the association may find that it has assumed an unwise responsibility in sending out such women as nurses, even though it is fully understood, as it is doubtless intended it shall be, that they are not supposed to be fully trained nurses. Two years ago the work of the society was begun in one centre and with one nurse, and now there are seven centres and ten nurses. A general home for the work, which was opened on April 3rd, is situated in that part of Hunslet most remote from the centre of the town, where two of the poorer parishes—namely, those of St. Hilda and St. Saviour—are manifestly calling loudly for assistance. It has been matter of arrangement that no work will be undertaken within the area dealt with by the Leeds District Nursing Association.

## LONDON.

### SHADWELL CHILDREN'S HOSPITAL.

ON Tuesday, May 9th, Princess Marie Louise of Schleswig-Holstein has graciously consented to open some additions that have been recently made at the East London Hospital for Children. One of these is a spacious and lofty operating theatre for out-patients. It has been erected on land newly acquired for the purpose by the hospital authorities adjoining the main waiting hall. *En suite* with it are rooms for the preparation and recovery of patients, and another with the requisite sterilizing apparatus. A short distance away are two other large rooms for the senior and junior casualty officers, who have hitherto worked at considerable disadvantage, owing to defective accommodation. All these rooms are lined with white glazed tiles, and so constructed as to admit of ready disinfection at any time. In addition there has been constructed a shelter on the roof of one of the wards for the open-air treatment of patients for whom it may be deemed desirable. It takes the place of a temporary shelter which has been in use in the same place for some years past, and proved of infinite value, in spite of many and obvious shortcomings. Both the temporary and present shelters have been provided directly by the Ladies Association of the hospital.

### THE OUTBREAK OF SMALL-POX.

The medical officers of health for the boroughs of Poplar and Stepney have each issued reports on the recent cases of small-pox in their districts and the measures adopted to check the outbreak. Once on the alert, the various authorities concerned entered upon a vigorous and combined campaign against the spread of the disease. The reports speak of frequent intercommunication between the Local Government Board, the sanitary authorities, and the medical department of the Education Board. An unrecognized case of small-pox was unfortunately admitted to the Mile End Infirmary. The patient was a girl aged 12, vaccinated in infancy, and the symptoms were mistaken for chicken-pox. The true condition was not diagnosed until fifteen days after her admission. A demonstration of the highly infective nature of small-pox was the result. During the following eight days no fewer than 33 cases were removed from the Mile End Infirmary to the small-pox hospital and several others who had visited the infirmary were also infected. The work of dealing with the contacts appears to have presented many difficulties, but was energetically performed. Dr. Thomas (Stepney) in his report says: "The work of tracing contacts has been a very arduous one. A large number of contacts had either given false addresses or moved"; also, "Unfortunately the list of contacts is not a complete one." The risks run by the public at such times are shown by the fact that among the contacts there were instances of persons who travelled daily on the District Railway, hawkers from door to door, workers

at laundries, and a postman. Isolation, vaccination, and revaccination were adopted where possible, and by these means what might have proved to be a serious epidemic was averted. Unprotected children were excluded from school attendance for periods varying from two to three weeks. Children from eighteen schools were excluded from attendance.

The difficulty of diagnosis of modified small-pox in the vaccinated is undoubted. If the same condition as to vaccination obtained in this country as in Germany, such an error would not be a serious matter. Indeed, such a case, when correctly diagnosed, would be removed to a general hospital in Germany, where reliance is placed on the vaccination and revaccination of all persons by whom the case would be surrounded. The fact that modified small-pox is liable to be overlooked or unsuspected, strange though it may seem, has been used as an argument in favour of relaxing or dropping the vaccination laws. The adoption of the German method would certainly be a more rational and sound course.

The difficulty of dealing with the contacts, great as it is at present, would be insuperable in an unvaccinated community. It should not be forgotten that mild cases may occur in the unvaccinated, though much more rarely than in the vaccinated, and these cases are liable to be undetected as small-pox.

According to the official returns of the recent outbreak issued a few weeks ago, the fatality among the vaccinated was 2.7 per cent., as compared with a fatality among the unvaccinated of 38.4 per cent. The President of the Local Government Board has since given some further statistics, which will be found in our Parliamentary columns. Mr. John Burns has also stated recently that the most effective means of preventing the spread of small-pox from the person attacked consisted in removing the patient to a place of isolation and surrounding him by protected persons. This statement implies belief in the efficacy of vaccination as a protection against small-pox, and is difficult to reconcile with a policy that disregards the danger attending the great increase in the number of unprotected persons in the community who are now legally exempted from vaccination.

# Tasmania.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### THE HEALTH OF MINERS.

"THE Cause, Effect, Incidence, and Prevention of the Pneumokoniosis of Quartzminers," by J. S. Purdy, M.D., Chief Health Officer for Tasmania, forms part of an interesting report by the Secretary for Mines for the year 1909. Dr. Purdy reviews briefly the general subject of pneumokoniosis, with special application to the miners of Tasmania. Mining is, comparatively speaking, a young industry in the Colony. With the experience of the Mother Country and of South Africa and India to guide her, Tasmania has commenced mining with distinct advantages from a hygienic point of veiw. In 1880 the number of persons employed in mining was 1,653, and in 1909 the numbers had risen to 6,054. Dr. Purdy points out that miners' lung disease is insidious in its origin, is of gradual development, and that for a period it does not impair health. When a miner has become unfitted for work by pneumokoniosis it is a sign that the disease is already well established. The malady is due to the action of irritating particles of dust upon the lung, but inhalation of the fumes of dynamite, and of oily matters floating in the air as the result of rock-drilling, is also regarded as partly responsible for the pulmonary changes. Commencing as a catarrh of the bronchial tubes and of the pulmonary alveoli, there follow fibrotic changes in the lungs, which extend through the organs and induce thickening of the pleura. The shutting off of tracts of pulmonary tissue for respiratory purposes by fibrosis explains the dyspnoea from which the men suffer. Although excavation had taken place in most of the lungs examined after death, there were no signs of tuberculous disease. The non-tuberculous origin of pneumokoniosis is strongly advocated by Sir Thomas Oliver, of Newcastle, in Allbutt and Rolleston's *System of Medicine*, also in a report by the South African Medical Society, but Haldane found 17 cases tuberculous out of 23 examined in Cornwall. Dr. Purdy accepts the theory that the disease is the result of the inhalation of hard, gritty siliceous particles of dust, since these can be recovered from the lung after death. This circumstance explains, too, the fact that the mining processes which are the most dangerous are the "raising" and "driving"—just those in which the presence of dust in the air is greatest and where ventilation is inadequate owing to the work being carried on in cul-de-sacs. Purdy, like Summons of Bendigo, alludes to the concurrent pleurisy met with in the early stages of pulmonary fibrosis, and regards the diminished expansion of the chest as a sign of considerable importance, especially when accompanied by dullness on percussion in the axillary region over the base of the lung. Prolonged expiration, bronchial breathing, and creaking sounds heard during inspiration and expiration, with cardio respiratory murmurs, are the physical signs upon which stress is laid. The irritation of the lung by particles of quartz is said to prepare the way for invasion by pneumococci. The comparative freedom of New Zealand miners from pulmonary disease is attributed to the more frequent use of water-spraying. To prevent pneumokoniosis, abolition of dry methods of mining is recommended. By means of atomizers not only is dry dust laid, but by the air of the mine being kept cool and refreshing labour is less exhausting.

# Western Australia.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### LUNACY IN 1909.

THE annual report for the year 1909 of Dr. S. H. R. Montgomery, Inspector-General of the Insane for Western Australia, shows that on December 31st, 1908, there were 707 certified insane in this State, and on December 31st, 1909, 748, giving an increase for the year of 77, which is the same as that for the previous year. The ratio of the insane to the general population at the end of 1909 was 2.8 per 1,000, or 1 in 354. The ratio to population has increased steadily from the 1 in 598 of the year 1902 to the present figure. Western Australia has still the lowest ratio of insanity in Australasia, except South Australia (1 in 395 in the year 1909) though Dr. Montgomery anticipates a steady increase to the average proportions as the population grows older. As pointed out in previous reports, Dr. Montgomery attributes Western Australia's comparative freedom from insanity to the sudden influx of mostly young and healthy adults at the time of the gold boom. At the end of 1909 the certified insane were distributed as follows: 730 were in the Government hospital for the insane at Claremont, 49 in the Whitby Hospital for the Insane, 2 were in the North Perth Private Hospital, and 3 were out on trial.

*Admissions.*

During the year 225 were admitted to the Government hospital, of whom 210 were first admissions. The proportion of admissions to population was 1 to 1,227 or 8.11 per 10,000, which is considerably larger than that of 1908 or of any previous year. The total admissions were classified according to the forms of mental disorder into: Mania of all kinds, 56; melancholia of all kinds, 29; dementia, 24; delusional insanity, 54; epileptic insanity, 7; acute and subacute delirious insanity, 15; general paralysis, 18; less common forms, 11; and congenital defect, 8. As to causation, alcohol was assigned in 26 or 11.1 per cent., and venereal disease in 33; the climacteric in 7; lactation in 2; various nervous diseases in 20; senility and arterial sclerosis in 32; bodily trauma in 3; and mental stress in 14. An insane heredity was ascertained in 28, and in 34 no cause could be assigned.

No table is furnished showing the nationalities of the admissions, but from a table of the places of birth of the 782 patients in the hospitals for the insane on the last day of the year 1909 we see that 120 were natives of Victoria, 108 of Western Australia, and 100 of other parts of Australasia, including 10 aborigines; 162 were natives of England and Wales, 107 of Ireland,

and only 20 of Scotland; 23 of Italy, 17 of Germany, and the remainder were natives of other parts of Europe and of Asia, Africa, and America.

*Discharges and Deaths.*

During the year 61 were discharged as recovered, giving a recovery-rate, calculated on the admissions, of 27.11 per cent; also 13 as relieved, 2 as not improved, and 2 as not insane. During the year 67 died, giving a death-rate on the average numbers resident of 8.89 per cent. The average recovery-rates and death-rates for the years 1902–9 inclusive were 34.36 and 8.83 respectively.

The deaths were due in 21 to cerebro-spinal diseases, including 14 from general paralysis; in 7 to diseases of the heart and blood vessels; in 3 to congestion of the lungs; in 4 to diseases of the digestive and genito-urinary systems, and in the remainder to general diseases, including 4 from tuberculosis, 13 from pneumonia, and 12 from senile decay. All deaths were from natural causes.

*Cost.*

The average weekly cost per patient, after deducting revenue, was 12s. 8d., or without deducting revenue 14s. 7d.

# Correspondence.

## THE HONOUR OF THE MEDICAL PROFESSION.

SIR,—As a member of the legal profession, who numbers amongst his friends several members of the medical profession, I have taken more than a passing interest in the subject under discussion.

I have read the letter of Mr. Lewis Morgan which appeared in your issue of April 1st. I do not think Mr. Morgan wishes practically to abolish the present system of trial by jury, but that would be the logical effect of his suggestions. At present, if we admit that in a case where a technical point of surgery is at issue it is desirable to appoint a jury of medical men to decide that point, where shall we end? The appointment of such a jury would be the rule, and a jury as now composed would be the exception. In any case that involved a purely technical point of whatsoever kind, to be consistent we should have to ask for a jury of men specially qualified to deal with that particular technical point. No one can say that the ordinary jury is more competent to decide a practical point of engineering or architecture than one of surgery.

I assume from Mr. Morgan's letter that he is in favour of the appointment of a jury of medical men in appropriate cases. He says, "Men who by their education, training, and experience are rendered capable of forming just and unbiassed estimates." Do not let it be thought that I wish to make any reflection upon an honourable body of men, but can such a jury be unbiassed?

I do not know that doctors differ so very much from ordinary men that they are able to detach themselves from the natural feelings of human beings. I do not suggest that there would be any wilful leaning in any particular direction, but when the reputation of a fellow medical man is at stake it would be remarkable if there were not the natural feeling of sympathy for him which would probably induce an unconscious bias in his favour, possibly by reflex action. In any case it would be unfair to the other side to have a jury composed only of medical men. A jury consisting of six medical men and six laymen should certainly satisfy the most exacting.

Happily the cases where the doctor is the defendant in an action for negligence are so rare that there seems to be no necessity for departing from the practice now obtaining. The system at present in use has its advantages and disadvantages, but, whatever they may be, they affect both parties in the action equally.

Mr. Morgan must not forget that under the fifty-sixth section of the Judicature Act, 1873, the High Court or the Court of Appeal may, when it may think it expedient, call in the aid of one or more assessors specially qualified and try and hear the matter in question wholly or partially with the assistance of such assessors.

That Act is now thirty-eight years old, but, as a matter of fact, I believe the powers of the section referred to have not been exercised, except in Admiralty cases.—I am, etc.,

Bridgend, April 4th. C. J. H. KAPPEL.

## "THE EYE IN SPORT."

SIR,—I have noticed with interest, not unfinged with amusement, that a slight article written by myself about four or five years ago appears to have, after this lapse of time, occasioned a certain amount of interest, as shown by various publications on the subject, foremost among which is Mr. Robert Doyne's lecture (JOURNAL, December 24th, 1910, p. 1960). I cite this lecture because the author of it has based a great deal of this said lecture on observations and mild theories to which I gave birth in an original contribution to *Fry's Magazine*, and was, if I remember right, entitled "The Eye in Sport."

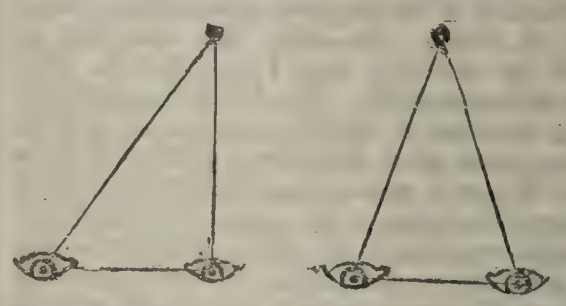
I cannot here enter into a discussion on Mr. Doyne's criticisms of my article, which was written in a popular manner for a layman's magazine, but the outstanding feature of the article was that it was popular and not scientific in character, and it is for that reason not quite as able to bear the brunt of hard scientific criticism as it might have been if I had written it, which I am and was quite prepared to do, for the scientific and not the general public.

I have read Mr. Doyne's lecture, and, in spite of consideration, I am still in doubt as to whether he realized my poor little points. It was really because I hardly thought it worthy of extended publication that the article was only reprinted once in the *Journal of the Royal Army Medical Corps* for June, 1908.

As, however, I am thoroughly in sympathy with Mr. Charles F. Green and other practical men in their treatment of the subject, I should just like to make plain to any one who should chance to be interested in the subject what my article was really meant to convey. The fundamental principle of it was concisely expressed in a phrase which was repeatedly used in the article, the "master-eye vertical plane," a plane which, I contended, humanity habitually made use of because it happened to possess two sight organs acting, at any rate for the reception of light rays, like a couple of small cameras situated with the centre of their lenses about a couple of inches apart in the horizontal plane just below the frontal bones.

I then set forth the theory, supported, perhaps, by a few observations, that mankind had found it most expedient when "aiming" (as in throwing a stone or spear) to align the hand in the vertical plane of one eye, and one only, so that, if the projected missile remain in this plane and its relation in the horizontal plane be correct, it will hit the object thrown at, extrinsic causes, such as wind, etc., being ignored. I need not dilate on the fact that I am induced to think that the vertical action of gravity has been the determining cause of this expedient of man.

I then went on to apply this principle to many of our sports and pastimes where aiming is involved, and discussed its relation in these—I doubt not, somewhat inadequately. Still it was a popular article, in which it is possibly justifiable to lead the reader on with not too strict accuracies in order that the underlying theories of the contention may be made clear. Following this master-eye vertical plane business out, I in the course of the article put forward the following assertion—that for practical purposes the eyes, when concentrated on an object as they are in aiming, may be represented diagrammatically as points at the bases of a right angle triangle,



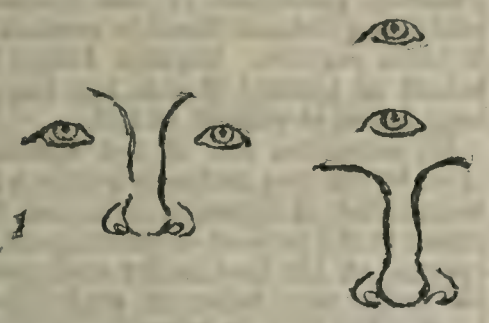
and not at the base of an isosceles triangle as usually represented.

The base line being a line joining up the centre point (in every sense) of each lens.

Now how far I was justified in making this assumption I am still in grave doubt, but there it was to my mind the most questionable point in the paper, but as far as I know has entirely escaped criticism. I am, and was at the time I wrote, more or less familiar with the elementary physiology of muscle and nerve, and such terms as muscle-sense, reflex action, subconscious brain judgement were familiar to me, and I hope, partially at least, understood.

I can now, I think, by a simple expedient, make clearer what I was talking about, what trying to throw light on; and will do so in such a way that the influence of the physiological functions of the extrinsic and intrinsic muscles and nerves of the eye may be excluded, or shall we say, taken for granted, and allow the eyes and eyes alone be the subject of our inquiry. It will explain, it may be, why in the original article "subconscious brain judgement, etc.," was at times sedulously ignored.

Let us suppose for my purposes that the eyes of man, instead of being placed 2 inches apart in the horizontal plane be situated in the frontal bone the same distance apart in the vertical plane without a ridge of bone such as the bridge of the nose between them. I trust this is not too fantastic an effort of the imagination. These optical organs, the eyes, would then in the actual and imaginary positions have the same faculties of convergence and divergence, etc.; the whole mechanism of conveyance of light impressions to the brain, judgement, and the dozen and one things one can give physiological names to would be the same. My article was simply a modest endeavour to offer some explanation for the phenomena arising from the main instruments of sight for man, being, as I said, practically two little cameras with their centres about $2\frac{1}{2}$ in. apart in the horizontal plane, with, as I mentioned later, a ridge of bone between them—the nose—which at times, from the relative positions of the gazer and the object, cuts off the light rays from one eye and not the other.



If the facts and functions at present known with regard to the sight be applied to a pair of eyes in the imagined position, then I think many of the essentials and difficulties which govern aiming will be rendered more apparent—certainly as I treated them in the original article. To enter into them myself would be laborious for me and tedious for the reader.

On the actual objective position of the eyes was based my explanation—or shall I say suggestion?—that the phenomena of the "master eye," so called, rested. I did not, in the original article, put a supposition case of two eyes in the vertical plane with an appended explanation, as I did not anticipate that what I wrote would have been so misread. I have, I must confess, been disappointed—doubtless due to my want of clearness—that the padding of the article was mistaken for the gist; as to whether my explanations were all or in part fallacious, I am, I trust, in what is called the scientific spirit, merely interested.

In so many words, it is the relative position of the two eyes and the attendant effects, not the power of sight and all sorts of other things, that many people—gun-makers, others and I—consider to be a very important, perhaps the important feature, to be legislated for in helping people to aim.

The original article can, I believe, be obtained from the offices of *Fry's Magazine*, but if any one be interested in the subject, I am sure my brother Mr. C. B. Fry, at whose instigation the article was written, and who has a complete grasp of the subject, would be only glad to throw light upon the matter.

Being somewhat far removed at present from the centres of civilization, it is tedious for me to indulge in explanations on the subject; but one is loth to be, though inadvertently, consistently misinterpreted.—I am, etc.,

WALTER B. FRY,
Captain, R.A.M.C.

Wellcome Research Laboratories, Gordon College, Khartoum, Feb. 16th.

## POST-ANAESTHETIC ACID INTOXICATION.

SIR,—I was much interested in Mr. Gilbert Brown's article in the JOURNAL of February 25th, especially with regard to his practice of a routine exhibition of glucose to children before operation as a prophylactic against acid intoxication—a practice which seems to have much to commend it. Death, occurring apparently as a result of exhaustion after a prolonged or severe operation, is probably often due to a very large extent to the effects of the anaesthetic, but to be able to assign the cause of death directly to the anaesthetic, as in Mr. Gilbert Brown's cases, is, I imagine, decidedly rare. When this does occur a good prognosis has usually been given, and the result is tragic.

Last December, I was unfortunate enough to have such a case myself. I performed a radical operation for hernia on a boy 16 months old. Circumcision was done at the same time. Chloroform was given, the duration of anaesthesia being forty minutes. All appeared to go well for twelve hours, when the child had a convulsion, vomited "coffee ground" fluid, and became unconscious, remaining so for twenty-four hours, when death occurred. Stomach lavage, intravenous infusion (into external jugular vein), and administration of sodium bicarbonate by the rectum were tried without effect. I had not then read the excellent article by Wallace and Gillespie (*Practitioner*, February, 1910), or I should certainly have given glucose a trial. Acetone was found in the urine, and at the autopsy the liver was found to be pale, and showed microscopically marked fatty changes. The urine was not tested for acetone before the operation. I should be interested to know how frequently the urine of apparently healthy children contains an appreciable amount of acetone. In this case there was no obvious indication in the general condition of the child to suggest that chloroform would have had such a disastrous effect on his metabolism.—I am, etc.,

A. J. BLAXLAND, M.S.Lond., F.R.C.S.Eng.

Norwich.

## ACUTE EMERGENCIES OF ABDOMINAL DISEASE.

SIR,—While fully acknowledging the truth of Dr. Hamilton's contention that cases of appendicitis in children may recover without operation, I should like to know on what signs and symptoms he relies when he decides to hold his hand, and advises against immediate surgical interference. Personally, I know of none that would make me feel justified in adopting such a course, for I have seen more than one case, in which operation was postponed because all the symptoms were favourable, develop signs of gangrene or of general peritonitis with startling rapidity. It is just because it seems to me impossible to foresee what the cause of any case of appendicitis in a child will be that I welcome Mr. Moynihan's authoritative pronouncement in favour of immediate operation in all cases.—I am, etc.,

London, W., April 8th. R. A. CHISHOLM.

## AMBIDEXTERITY AND THE EDUCATION OF THE FEEBLE-MINDED.

SIR,—Dr. Hinshelwood's two interesting cases of hereditary congenital word-blindness (BRITISH MEDICAL JOURNAL, March 18th, 1911) exemplify the difficulty such patients experience in learning to read. The mental obtuseness implies probably some congenital defect in or about the left angular gyrus. In a previous paper (BRITISH MEDICAL JOURNAL, November 2nd, 1907) the same writer, after detailing notes of four congenital cases of word blindness in a family, draws attention to the fact that we possess two angular gyri, and in the event of incapacity of the left gyrus—the one usually at work—the right gyrus, by the "steady application" of the little student, may possibly be induced to functionize and take the place of the defective left gyrus. As far as I understand his system, Dr. Hinshelwood wishes to bring about this transference of function by steady plodding work with books. I believe that better results would eventually be attained in all such cases of backwardness in children if books were entirely set aside for a time and the children were meanwhile taught to use their left hands and arms in the many mechanical exercises the teachers now delegate to their right limbs. When a child became ambidextrous, then and not till then it might be taught to read afresh. The practical training of the right hemisphere in a backward child can at all events do no harm, and in some cases it might be productive of much future advantage to the child.—I am, etc.,

Hove, March 21st. W. AINSLIE HOLLIS.

## DYSPEPSIA AND ITS CLASSIFICATIONS.

SIR,—The lecture of Dr. Guthrie Rankin in the JOURNAL of March 25th, p. 665, again raises the question of the classifications of dyspepsia, and advises the use of Professor Robins's classification. He says "it has the superlative merit of simplicity." Undoubtedly simplicity is a merit, but may it not be so simple as to tell us nothing? "*Sthenic*" and "*asthenic*" were terms in daily use in the Early Victorian era, but the advance of bacteriology has put these words into the shade. According to Dr. Rankin, the former means—in connexion with indigestion—Mayor; the latter mill-worker. The third class he calls *fermentative*.

This division does not cover the ground. Dr. Robert Hutchison (BRITISH MEDICAL JOURNAL, April 11th, 1908) suggests a very much better classification. His main divisions are three, but his subdivisions are six:

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| 1. Secretory | Excess = Hyperchlorhydria.<br>Defect = Hypochlorhydria. |
| 2. Motor | Excess = Pyloric spasm.<br>Defect = Atony, and motor insufficiency. |
| 3. Sensory | Excess = Hyperaesthesia.<br>Defect = ? Anorexia. |

This classification has the advantage of conveying a theory which is probably correct. The old division into acid dyspepsia, atonic dyspepsia, nervous dyspepsia—or, to use a more fashionable word, neurasthenic—is simple and conveys something of a theory, and suggests appropriate treatment. But this classification could be improved on. The first division is good enough, the second requires to be explained, as does also the nervous, and a case like the following might be placed in the atonic or nervous division:

A patient with a good digestion, after a hard day's work or the worry of business has not much appetite for his evening meal, and takes a bland meal—say of bread and milk. The result of this is pain and discomfort. But put the same patient having the same feelings before a good city dinner, let him partake of it freely and he feels no ill effect afterwards. Is this a case of atonic dyspepsia or is it nervous? I think it is *mental*. The mouth waters, so does the stomach—in other words, throws out an abundance of gastric juice, which will dispose of any amount of well-cooked and savoury food.

Or take another case, that of a young woman in business. (I have such a case at the present moment.) She suffers great pain two or three hours after food, be the meal light or heavy. It looked like atonic dyspepsia, but acid and nux vomica increased the pain, bismuth and hydrocyanic acid takes it away. This case would come under the sensory group; there is nothing asthenic about it. Yet another case now under treatment—an old lady who is suffering from paralysis agitans and glycosuria. Her stomach is peculiarly susceptible to most drugs, and several simple articles of diet cause nausea and sometimes vomiting. She suffers from constipation. Almost the only medicine on which she can get along is an effervescing bismuth and hydrocyanic mixture. But things she fancies she takes without harm, such as ham or a meat pie. On a supper of this she sleeps soundly and wakes up in the morning without any symptoms of indigestion. It is difficult to classify such cases, but, if anywhere, it would be under the mental or sensory.

The division called "fermentative"—that is, cases in which flatulence is the predominant symptom—would be better called "intestinal" dyspepsia, as the colon is the centre of the trouble. This would cover toxaemia, as well as the less toxic cases of fermentation from decomposing articles of food. Under this heading would come another class of cases: Air swallowers. Recently I had an interesting case of this kind of flatulence. The gentleman suffered many things for two years, and was on the point of resigning a lucrative position in India because of the evil-smelling flatus. It was only by accidentally noticing that he swallowed air that the mystery was solved and relief given.

I fear we have not greatly improved in knowledge either in the diagnosis or in the treatment of indigestion since the days of Dr. Beaumont and Alexis St. Martin, the Canadian soldier, though recently, owing to the experiments of Dr. Charles Bolton and other workers in connexion with gastric and duodenal ulcers, many sidelights have been thrown on functional indigestion, and cases that were formerly regarded as functional are now recognized as serious organic disease.—I am, etc.,

London, N.W., March 27th. J. DEWAR.

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## EXTRACTION OF CATARACT IN THE CAPSULE.

WE have received a communication from Captain A. E. J. Lister, I.M.S., regarding a letter from Major Fink, I.M.S. (retired), published in the JOURNAL of December last, criticizing Colonel Smith's method of extracting cataracts in their capsule. Captain Lister takes up the cudgels on behalf of Colonel Smith, but his letter is altogether too long for us to publish in full.

He considers the idea of sending cases to be operated upon by the two methods before a tribunal as suggested by Major Fink is impracticable, and that it would not be fair either to the patient or the surgeon, who could not possibly operate at his best under such conditions; and supposing 100 cases were taken on each side, as suggested, it would be far too few to compare with the 24,000 which have formed the experience of Colonel Smith, who by his skill and reputation has transformed the little place of Jullundur into a veritable Mecca for the blind of that part of India.

He points out that the real cause of the trouble is the fact that Colonel Smith's cases are really too good to be credited by the majority of surgeons, and this spirit of disbelief leads some European surgeons to discredit the wonderful results which he claims, but which are plainly visible to anyone who will take the trouble to go and see the operations performed. Many surgeons in India have operated upon a large number of cases by Smith's method and have found it quite satisfactory.

It has been stated over and over again that there must be something specially tolerant in the eyes of the natives of India to stand the removal of the lens in its capsule. To show that this idea is fallacious, Captain Lister refers to a paper in the *Journal of the American Medical Association* for 1909, in which Dr. Greene, of Dayton, Ohio, publishes a series of 68 cases in which he extracted cataracts in the capsule, side by side with the same number in which the ordinary operation was performed. The results were better in the former than in the latter, in spite of the fact that he had not at that time been to Jullundur, which place he visited later; 68 is a large number to be done in this way by anyone out of India, but one must remember that Colonel Smith has operated upon a greater number of cases in a single day!

Colonel Smith does not consider the intracapsular method the operation of election for the ordinary operator; he claims that it is the ideal way of dealing with cataracts, and it has moreover the great advantage that it is equally applicable for immature cataracts, and thus the long period of waiting until the cataract becomes ripe is done away with.

The question as to the importance of loss of vitreous is dealt with at large by Captain Lister, both in his letter and also in the appendix to Colonel Smith's book, which was reviewed in our issue of April 1st, to which reference might be made. All those who have seen Smith's results are quite ready to agree with his dictum that "provided the eye recovers from the result of the operation the loss of vitreous has no bad results," and of 98 cases in which this accident happened, Captain Lister found the average vision was $\frac{6}{6}$, and in some was as good as $\frac{6}{5}$.

Although Smith's results are so astonishing, yet after a year's work with him, and with his own experience of 700 cases, Captain Lister is convinced that Smith's claims are by no means exaggerated, and this is now vouched for by a sufficient number of people who have visited and studied in Jullundur. "The time has now arrived when the medical profession should recognize this and give full credit for the magnificent work he has done in the face of universal opposition and discouragement." "The number of well-known ophthalmologists who have thought it worth while to come from America and the colonies to study under Smith speaks for itself, and shows the attitude of mind which is in striking contrast to that of European ophthalmologists with regard to the subject." "To my mind it is a more conclusive proof of the need for, and the

value of, the operation than could be adduced by any tribunal appointed by Major Fink or any one else."

*** We have endeavoured to give an impartial *précis* of Captain Lister's letter. The only criticism we would venture is to call attention to the point made by Colonel Herbert, I.M.S (ret.), in the *Ophthalmoscope* in 1909. He pointed out the great difficulty which existed in getting patients in whom the results were bad to come up for re-examination, and suggested that it was only possible to trace and see again those in whom the results were good. So far as we know, this criticism has not hitherto been met.

# Universities and Colleges.

## UNIVERSITY OF EDINBURGH.

THE following candidates have been approved in all subjects of the examinations indicated:

FIRST M.B., CH.B.—F. A. Anderson, T. Bahadur, M. Barseghian, I. Block, F. J. Cahir, J. E. Chow, J. C. B. Crozier, M. W. Danzig, H. A. Hewat, Jean E. Larché, G. Lilico, A. J. E. Ging Lim, P. M. Little, Helen M'Dougall, R. J. S. M'Dougall, R. J. S. M'Dowall, M. M'Kerrow, A. Mariy, A. P. Meiring, M. F. Meiring, E. S. Mellor, R. W. H. Miller, Isabel Mitchell (B.Sc.), J. S. Munro, R. N. Phease, W. B. Postlethwaite, A. J. Desmond Rowan, H. P. Rudolf, A. H. Shaik, B.A., A. H. Shennan, *J. M. Smith, R. B. Stewart, C. W. Stump, A. J. Taylor, *H. D. Wright.

SECOND M.B., CH.B.—E. W. Adcock, S. Arnott. E. G. von B. Bergh, J. V. Buchanan, A. Cameron, W. S. H. Campbell, J. W. Cannon, J. B. Cunningham, K. D. Falconer, A. C. Giles, D. Gilmour, D. A. R. Haddon, Julia V. Henslow, J. H. Hood, J. H. G. Hunter, J. L. C. Lagois, J. I. Lawson, J. M'Caig, Margaret N. MacCallum, *W. Mackenzie, Celia M. C. MacNeil, G. MacNeill, Jean Gabriel Marie, S. L. Mitra, S. R. Moll, R. M. Muir, W. H. Pallett, D. Pottinger, C. D. Rogers, C. Sand, A. F. Sinclair, J. Sircar, B.Sc., J. H. Smith, S. W. H. Stuart, G. T. van der Vijer, J. H. D. Watson, W. G. Weston, E. L. White, A. Wotherspoon, G. D. Yates.

THIRD M.B., CH.B.—H. F. W. Adams, J. W. E. Adkins, W. A. Alexander, T. M. Anderson, J. A. Andrews, S. H. Arthur, A. J. Ballantine, B.A., P. Baillie, Ed. B. Barton, F. J. H. Begg, R. C. Begg, M.A., B.Sc., J. H. Boag, G. V. Bogle, B.A., J. C. Booth, J. W. Bruce, A. D. Campbell, S. B. B. Campbell, W. J. Candlish, *J. F. Chalmers, H. T. Chiang, A. Cohen O. Cook, D. S. Cooper, A. F. Cowan, Lucy D. Cripps, J. H. Cuthbert, A. M. Davidson, F. C. Davidson, J. P. Davidson, A. E. Delgado, Janet S. Doak, G. A. C. Douglas, F. B. Dreyer, H. Evans, R. Fawcitt, A. K. Forbes, J. Geoghegan, J. Gifford, B.A., J. G. Gill, H. Gilliland, W. L. Glegg, R. A. Greenwood, J. M. C. Gunn, M.A., J. F. C. Haslam, R. Hay, W. J. G. Henderson, T. H. Horrax, H. D. M. Imrie, T. W. Jackson, I. W. Jones, K. L. Kapur, W. N. W. Kennedy, S. G. Kriegler, Janet S. Laird, J. H. Lamb, Christine Larsen, M. B. Lawrie, W. E. Lewis, D. P. Lindsay, *W. S. Lindsay, B.A., G. J. Linklater, Isabella M. Little, M. R. Macaulay, P. M'Cowan, *W. Macdonald, A. M. MacKay, M. R. MacKay, F. W. Mackenzie, J. C. M'Kerrow, W. F. M'Lean, F. de S. M'Menamin, *G. G. Marshall, A. W. Mather, J. Maxwell, W. Mercer, R. W. Miller, J. S. Monro, J. G. O. Moses, B. P. B. Naidu, G. F. B. Page, H. S. Palmer, C. R. Patton, H. F. Penman, E. D. Pullon, B.Sc., G. C. Ramsay, R. K. Robertson, M.A., A. Romanes, M.A., J. N. M. Ross, *A. Rutherford, E. R. Ryner, J. M. D. Scott, M.A., E. Sharpe, W. M. W. Shepherd, *A. W. S. Sichel, B.A., J. T. Smeall, D. M. Smith, *S. A. Smith, J. E. Snodgrass, W. R. Stewart, R. Thomson, Ruby Thomson, C. V. Thornton, R. Thorp, W. G. Thwaytes, C. J. Tisdall, *A. T. Todd, J. S. du Toit, J. S. Tomb, G. D. E. Tullis, G. Walker, Mary B. Walker, R. W. W. Walsh, B. Weinbren, A. R. Wightman, A. Wright, M.B. Yin, H. T. Young. Old Regulations: C. M. Austin, E. O. Beckley, J. P. Blockley, J. R. Bullman, G. Harrison, F. G. Power, T. V. Smart.

* Passed with distinction.

## UNIVERSITY OF GLASGOW.

THE following candidates have been approved in the subjects indicated:

FIRST M.B., CH.B. (B., Botany; Z., Zoology; P., Physics; C., Chemistry).—*I. Abdurahman (B., Z., P., C.), R. Aitken (Z., C.), J. M. Anderson (Z.), J. Anderson (B.), A. D. Blakely (B.), *J. Buchanan (B., Z.), J. Cameron (P.), J. M. Campbell (Z., C.), W. Campbell (Z., C.), M. W. Cantor (Z., C.), A. M. Clark (Z., C.), W. Combe (Z., C.), J. Connal (Z., P.), W. G. Cook (Z., C.), *W. Cunningham (Z., C.) *G. del Pino (Z., C.), J. J. de Waal (Z.), R. S. Dickie (C.), *A. H. Donaldson (Z., C.), *H. T. Findlay (Z., C.), H. Forbes (Z., C.), *A. D. Fraser, M.A. (Z.), G. J. Fraser (B., Z., P.), I. M. Frazer (B., P.), *R. Frew, B.Sc. (Z.), T. R. Fulton (B., C.), W. W. Galbraith (B., P.), *D. G. Gardiner (Z., C.), L. W. Gemmell (B.), J. A. F. Gibson (P.), J. Gilchrist (B., Z., P., C.), N. W. Gilchrist (B., Z., C.). *C. C. B. Gilmour (Z., C.), J. Glaister (Z., C.), W. Gordon (Z., C.), *R. T. Grant (Z., C.), D. C. Hanson (P.), A. C. Hepburn (C.), T. J. Honeyman (Z., C.), T. P. Hutchison (B., C.), *G. Kirkhope (Z., C.), W. F. Kivlichan, M.A. (B., P.), *J. C. Knox (Z., P.), R. Kyle (C.), *R. M. Lang (Z., C.), H. B. Lawrie (Z.), *A. T. Logan (Z., C.), H. L. M'Cormick (C.), *J. M'Culloch (Z., P.), D. F. Macdonald (B., P.), R. W. MacDonald (C.), D. J. Macdougall (P.), D. K. MacDougall (Z., C.), *D. M'Farlane (B., Z., P., C.). *J. M. Macfie (Z., C.), J. P. M'Grechin (B., P.), A. F. M'Intosh (Z., C.), J. M. Mackay (B., P.), D. Mackie (C.), J. A. MacLean (Z., P.), M. B. Macleod (Z., C.), D. M. Macmillan (C.), D. M'Neill (C.), E. J. Macphail (B., Z., P., C.), *W. L. Marshall (Z., C.), W. Martin (C.), J. C. M'I. Matheson (Z., C.), J. S. Meighan (Z.), T. D. Miller (Z., C.), *J. D. Milligan (Z., C.), P. O. Moffat (B., Z., P.), P. J. Moir (P.), N. Morris (Z., C.), H. A. Munro (B., Z., C.), J. H. Murray (C.), J. A. O'Connor (Z.), *A. W. Paulton (Z., C.), J. R. Pate (C.), J. A. Paterson (C.), W. J. Poole (Z., C.), W. B. Primrose (Z., P.), J. Richardson (Z., C.), K. M'A. Ross (C.), W. J. Scade (Z., C.), S. C. Shanks (Z., C.), J. T. Smith, M.A. (Z.), A. Stenhouse (C.), D. S. Stevenson (C.), C. H. Stewart (B.), R. S. Strachan (Z., C.), R. Taylor (Z., C.), C. R. T. Thompson (Z.), D. F. S. Thomson (Z., P.), R. M. Thomson (C.), R. T. Todd (Z., C.), *A. J. van der Spuy (Z., C.), *W. S. Wallace (C.), R. R. Waters (Z., C.) J. D. Watson (C.), W. J. C. Watt (C.), J. G. Wilson (C.), *R. J. Wilson (Z., C.), T. M'S. Wilson (P., C.), G. Young (B., P.), *T. Young (B., Z., P., C.). Women: *A. E. Cooke (B., Z.), J. B. Davidson (C.), L. F. Goetz (Z., C.), D. M'Cubbin (Z., C.), M. J. Maclachlan (Z., C.), E. C. M'Vie (Z.), G. Montgomery (B., P.), S. Naismith (Z.), M. A. Noble (Z., C.), I. M. Sinclair (B., P.), M. A. H. Stewart (C.), I. S. Thomson (Z.), M. F. Wood, M.A. (B., P.).

SECOND M.B., CH.B. (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics).—*D. K. Adams, M.A. (A., P.), J. Angus (P.), H. S. Banks, M.A. (A., P.) R. A. Barlow, B.Sc. (M.), A. Blashky (M.), *J. S. K. Boyd (A., P.), W. A. Brechin (A., P., M.), D. P. Brown (A., P., M.), R. A. Brown (A.), J. L. Brownlie (P., M.), E. T. Burke (M.), J. W. Burton (P., M.), J. A. Chrystie (M.), B. Cohen (A., P.), W. MacC. Conley, M.A. (A., P., M.), J. Connell (A., P., M.), G. G. Cooper (A., P.), N. Crichlow (A., P., M.), L. Crombie (A., M.), W. T. Currie (M.), G. Dalziel (M.), W. C. Davidson (M.), G. D. de Kock (M.), A. Dick (A.), W. C. Fleischmann (A.), J. B. Fotheringham (M.), W. Fotheringham (A., P.), J. Fraser (P., M.), W. Fraser (A.), G. Gordon (A.), I. Grant (A., M.), J. L. Gregory (A., P., M.), J. M'F. Grier, M.A. (A.), P. Henderson (M.), *W. J. Henry (A., P., M.), G. Hislop (A., P., M.), W. Hornsby (A., P., M.), *W. M. Howells (A., P., M.), D. M. Hunter (A., P., M.), J. F. Hutton, M.A. (P., M.), T. P. Inglis (P.), W. J. B. Lavery (M.), A. Lindsay (M.), G. S. Livingston (A., P.), C. Lundie (M.), D. M'Alpine (A., P., M.), J. L. M'Bean (A., P., M.), P. A. M'Callum (A., P., M.), J. A. M'Connachie (A., P.), J. W. M'Donald (A.), J. M'Ghie (P.), J. MacInnes (A., P., M.), D. Mackinnon (A., P., M.), J. R. C. Mackintosh (A., P.), K. N. MacLean (A., P.), *R. M'Lean (A., P., M.), N. Macleod (M.), R. M. M'Minn (A., P.), E. S. Macphee (P.), *W. E. Maitland (A., P., M.), O. H. Mavor (A.), T. S. Meighan (P.), K. D. Murchison (P.), M. Murphy (A.), *T. M. Newton (A., P., M.), R. Parker (A., P.), *J. Purdie (P.), A. M. Ramsay (A., P., M.), R. Ray (M.), D. R. E. Roberts (A., P.), E. Robertson (A., P., M.), F. M. Robertson (A., P., M.), G. W. Ronaldson (M.), A. W. Russell (M.), N. I. Sinclair (P., M.), D. Smith (A., P., M.). *W. R. Snodgrass, M.A. (P.), R. Stewart (A., P.), W. P. A. Stewart (A.), I. D. Suttie (A., P., M.), G. Taylor, M.A. (M.), E. G. Y. Thom, M.A. (M.), R. B. Wallace (A., P., M.), H. C. Watson (P.), J. C. Watt (A., P., M.), M. White, M.A. (M.), W. H. N. White (A., M.), F. J. Whitelaw (A.), J. Whiteside (M.), A. M. Young (A., P.). Women: *N. M. A. Allan (A., P., M.), C. S. T. Anderson (A.), J. R. Anderson (A.) M. P. Hislop (A., P.), J. K. M. Hunter (A., P.), M. A. Kirk (A., M.), S. A. J. Rankine (A., P.), M. Thompson (A., P.), J. A. Woods (A., P.).

THIRD M.B., CH.B. (P., Pathology; M., Medical Jurisprudence and Public Health).—W. L. Anderson (P., M.), J. G. Becker (P. M.), S. Blumenfeld (P.), A. Brown (P., M.), W. Brown (P., M.), J. S. Buchanan (P., M.), N. Cameron (P.), J. H. J. V. Coats (P., M.), G. Cochrane, M.A. (M.), R. Craig, M.A. (P.), D. A. Cush (P., M.), A. H. Davidson (P., M.), W. T. G. Davidson (P., M.), J. H. Dible (P.), J. Dickie (P., M.), *W. B. Drummond (P., M.), A. M. Dunlop (P.), J. M. Forsyth (P., M.), W. Forsyth (P., M.), J. E. Fyfe (P., M.), J. J. Gibb (P.), A. M. Gibson (P., M.), A. Glen (P., M.), L. Glushak (P.), J. A. Harper, M.A. (P., M.), A. G. Henderson (P.), A. J. Joubert (P.) *C. J. Kirk (M.), R. P. A. Kirkland (P., M.), J. F. Lang, M.A. (P., M.), F. W. K. Lawrie (P., M.), R. A. Lennie (M.), N. V. Lothian, B.Sc. (P., M.), C. Lundie (P., M.), J. R. M'Curdie (P., M.), C. A. M'Guire (P., M.), G. D. M'Lean (P., M.), M. H. M'Leod (P.), J. M. Macpherson (P., M.), J. H. Magoveny (P.), *T. Martin (P., M.), W. Montgomery (P.), A. Neilson (P.), J. B. Orr, M.A., B.Sc. (P., M.), J. C. Pyper (P., M.), D. W. Reid (P.), J. R. R. Ritchie (P.), A. L. Robertson (P.), J. H. Robertson (P., M.), J. I. Robertson (P.), A. W. Russell (P.), S. Rutherford (P., M.), F. Shearar (P., M.), J. F. M. Sloan (M.), H. C. van der Wat Smit (P.), J. A. Smith (M.), M. Sommerville (M.), R. A. Steven (M.), G. Stevenson (P., M.), J. A. Stewart (P.), R. Stewart (P., M.), W. Taylor (P., M.), J. C. T. Teggart (P., M.), C. J. van Lingen (P., M.), A. Walker (P.), T. Walmsley (P.), T. Waterhouse (P.), G. M. Whish (P., M.), E. C. White (P., M.), T. Whitelaw (M.), W. Whitelaw (P., M.), A. Wilson (P., M.), W. B. Wilson (P.), W. F. Wood (P., M.), W. P. Yates (M.). Women: J. M. Davidson, (P., M.), I. Inglis (P.), M. L. Kirkwood (P., M.), J. M. Walker (P.).

FINAL.—J. B. Alexander, *J. W. Anderson, D. Arbuckle, Agnes B. Auchencloss, C. Averill, Christina Barrowman, Marie A. A. Beard, A. H. Brown, *J. T. Brown, J. Buchanan, D. Downie, R. Findlay, T. L. Fleming, T. S. Fleming, H. Forrest, T. L. Fraser, D. T. C. Frew, A. Garvie, *J. Gibson, M.A., A. S. Hannay, W. Johnstone, J. D. Mackinnon, *W. MacMurray, S. A. MacPhee, G. H. M'Robert, J. P. M'Vey, M. Manson, M.A., F. W. Martin, R. S. Miller, J. Mowat, H. L. Neil, A. Poole, A. S. Richmond, *Barbara G. Rutherfurd, J. L. Scott, *J. F. Smith, M.A., W. Sneddon, *J. Stewart, J. T. W. Stewart, T. L. G. Stewart, Barbara Sutherland, M.A., A. G. Waddell, J. D. Walker, A. G. S. Wallace, G. Wallace, J. Williamson, A. S. Wilson, G. J. Wilson, F. H. Young, M.A., J. Young.

* Passed with distinction in one or more subjects of the examination.

## UNIVERSITY OF ABERDEEN.

THE following were among the degrees conferred at a meeting of the Senate on April 5th:

LL.D. (*Honoris Causa*).—A. R. Cushny, M.A., M.D.Aberd., F.R.S., Professor of Materia Medica and Pharmacology, University of London; A. Keith, M.D.Aberd., F.R.C.S., Conservator of Museum and Hunterian Professor, Royal College of Surgeons of England.

M.D.—D. Buchanan, J. MacFarlane, J. H. Moir, *R. W. A. Salmond, †D. Wood.

M.B., CH.B.—‡J. Davidson, ‡H. J. Rae, M.A., E. P. Duncan, R. M. Easton, M.A., J. Fettes, J. R. G. Garbutt, Mabel Hector, J. L. Hunter, G. Leggatt, D. Miller, J. M. Mitchell, E. H. Moore, A. Smith, W. G. Thomson, M.A., J. W. Tocher, W. M. Will.

* Honours for thesis. † Commended for thesis.
‡ Second-class honours.

On the same occasion Diplomas in Public Health were handed to Messrs. F. W. Falconer, W. I. Gerrard, R. W. Macpherson, and R. Sinclair.

## UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examination indicated:

*D.T.M.*—B. Blacklock, M.D., C. C. Iles, M.B., Ch.B., A. Ingram, M.D., T. Kirkwood, M.B., C.M., B. Knowles, M.B., Ch.B., G. M. B. Liddle, M.B., B.Ch., W. W. Mackarell, M.D., R. R. Murray, M.B., Ch.B., K. A. Rao, M.B., Ch.B., J. A. Sinton, M.B., B.Ch., B.A.O., B. S. Tarapurvalla, L.R.C.P. and S., L.F.P. and S., W. M. Woods, L.R.C.P. and S.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Monday, April 10th, the President, Sir Thomas Barlow, in the chair.

*Presidential Address.*

The President gave an address on the chief events that had occurred during the past collegiate year. He gave sympathetic biographical notices of the five Fellows—Drs. Cheadle, Anderson, Ringer, Payne, and J. E. Pollock—who had died during the same period.

On the motion of the Treasurer, Sir Dyce Duckworth, a vote of thanks was passed to the President for his address. A unanimous request was also passed that he would allow it to be printed and circulated, to which he gave his consent.

Sir Thomas Barlow then vacated the chair.

*Election of President.*

Voting then took place for the election of President for the ensuing year. Out of 93 votes cast, 90 were in favour of Sir Thomas Barlow, who was accordingly re-elected. Having assumed the insignia of office, he gave his faith to the College, and briefly thanked the Fellows for the renewed expression of their confidence.

*Communication.*

A communication was received from the Secretaries of the National Conference on the Prevention of Destitution, to be held in London at Whitsuntide, requesting the College to appoint delegates to attend the conference. It was resolved to point out in reply that so many Fellows and Members were officially engaged in the various sections that a formal nomination of delegates was superfluous, and to express the hope that the conference would be successful.

*Seats to View the Coronation Procession.*

A small committee was appointed to make arrangements for providing seats for viewing the procession during the Coronation festivities.

*Reports.*

The following reports were received:

I. From the Committee of Management, recommending:

(*a*) That a report, dated October 4th, 1910, of a committee appointed by the Royal College of Physicians to consider and report upon the teaching, regulations, and examinations in pathology for the Conjoint Diploma be adopted with one modification—that is, that eighteen classes of practical instruction in pathological histology be required, instead of twenty-five classes, and, further, that these alterations take effect from January 1st, 1912, and do apply to all candidates who pass the examination in anatomy and physiology on or after that date.

(*b*) That the University of Bristol be added to the list of universities whose examinations are accepted under the conditions of Paragraph II, Section III, of the Regulations, in lieu of the first and second examinations of this board.

(*c*) That the Western University, London, Ontario, be no longer recognized under the conditions of Paragraph IV, Section III, of the Regulations.

These recommendations were adopted.

II. From the same, dated March 7th, 1911:

(*a*) Reporting that, having considered the information submitted by Dr. Frederick Taylor, the visitor to the examinations of the Egyptian Medical School for the year 1910, the committee found that the examinations of the school are entirely satisfactory.

(*b*) Recommending that Malvern College be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics.

(*c*) Reporting that having considered, in accordance with the request of the Royal Colleges, the following resolution adopted by the British Medical Association, namely:

> That it is desirable that diagnosis and treatment of diseases of the eye, including the estimation of refractive errors and retinoscopy, should be compulsory subjects in every medical curriculum, and that every student should undergo a practical examination therein.

The committee recommended as follows: That, as the diagnosis and treatment of diseases of the eye, including the estimation of refractive errors and retinoscopy, are included in the curriculum of professional study, and that questions in these subjects are asked from time to time in the examination, the committee are of opinion that it is not necessary to make any change in the present arrangements of the examination.

These resolutions were adopted.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE quarterly council meeting was held on April 6th, Mr. H. T. Butlin, President, in the chair.

*Jacksonian Prize.*

The prize for the year 1910 was awarded to Mr. K. Macfarlane Walker, M.B., B.C., F.R.C.S., for his essay on "Tuberculous Disease of the Urinary Bladder and Male Genital Organs."

The subject chosen for the year 1912 is the "Embryology and Treatment of Cleft Palate."

*The Walker Prize.*

The Walker prize of £100, awarded quinquennially to the author of the best work done, in the United Kingdom or elsewhere, upon the "Pathology and Therapeutics of Cancer," was given to Dr. E. F. Bashford, General Superintendent and Director of the Laboratory of the Imperial Cancer Research Fund, London.

In making this award attention was drawn (1) to the actual amount of the work carried out during the past five years under Dr. Bashford's direction, (2) to its systematic character, and (3) to its far-reaching extent, in that it had critically tested all the questions relating to the pathogenesis of cancer as they have arisen during this period. Many important results had also been obtained confirming or materially extending the work of other observers, especially in connexion with mouse cancer.

*Cartwright Prize.*

This was awarded to Mr H. Percy Pickerill, M.B., Professor of Dentistry at Otago, New Zealand.

The subject selected for the next prize is "Oral Sepsis as a Factor in the Causation of General and Local Diseases." The prize will be awarded in 1916.

*Senate of the University of London.*

Sir Alfred Pearce Gould was re-elected a member of the Senate for the four years ending May, 1915.

## CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE, PARTS I AND II (*Chemistry and Physics*).—†W. G. E. Allen, *J. Andrew, †G. T. Baker, †R. N. Bates, *A. A. Brown, *W. B. Buer, †P. H. Burton †A. S. Carter, J. W. Clayton, *E. S. Cuthbert, R. G. Dani, *G. Dayal, *F. P. G. de Smidt, G. A. N. Dod, *H. M. Drake, *C. H. Fischel, *J. Fox-Russell, *L. H. Garcés, *C. C. G. Gibson, †C. Gould, *K. J. M. Graham, *J. A. Gregory, *C. G. W. Hahr, *M. St C. Hamilton, *W. N. Harrison, A. G. Harsant, †J. A. Hart, †E. L. Hopkins, A. M. Hutchinson, †H. B. Hyde, F. B. Jago, †J. R. John, T. P. W. John, E. G. Jones, C. H. Laver, C. G. Learoyd, *A. G. Lennon-Brown, †S. D. Lodge, †W. D. McRae, *J. M. Madariaga, R. P. S. Mason, *E. C. de M. Morgan, *W. H. A. Pratt, A. Rose-Innes, †N. A. Scott, *H. H. Silly, †D. P. Thomas, †R. H. Williams, *I. Zaki.

* Passed in Part I only. † Passed in Part II only.

FIRST COLLEGE (*Elementary Biology*).—A. A. Adams, G. T. Baker, C. L. Balkwill, J. Behesnilian, H. S. Bryan, W. B. Buer, A. S. Carter, R. G. Charlesworth, S. W. Coffin, B. Crossley-Meates, C. L. Curle, A. T. Dally, R. G. Dani, A. K. Day-Lewis, C. L. Donne, G. G. Drummond, C. H. Fischel, C. C. G. Gibson, F. J. Good, A. B. Hacking, M. Hafez, C. G. W. Hahr, B. J. Hallowes, E. A. Hardy, A. G. Harsant, L. Horsley, C. H. Housden, H. R. W. Husbands, H. B. Hyde, F. B. Jago, W. Kilroe, N. S. Koch, R. D. Langdale-Kelham, C. G. Learoyd, T. W. Le Mesurier, S. J. L. Lindeman, V. E. Lloyd, S. D. Lodge, G. S. B. Long, W. U. D. Longford, G. Lynden-Bell, E. McArd, J. E. C. Maguire, R. H. Maingot, A. D. Marston, R. P. S. Mason, F. B. Matthews, E. C. de M. Morgan, J. F. M. Payne, R. W. Payne, E. A. Prichard-Evans, D. R. Reynolds, C. Y. Roberts, G. C. Robinson, A. F. Rook, A. Rose-Innes, J. Rowland, W. H. Sarra, G. R. Sharp, W. W. S. Sharpe, J. B. G. Skelton, D. M. Smith, F. P. Smith, A. Sunderland, P. W. Symons, D. P. Thomas, J. Victory, A. A. Watkinson, A. S. Westmorland, N. J. Wigram, R. H. Williams, J. Wiseman, H. E. P. Yorke, I. Zaki.

## LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the thirty-fifth session:

*H. M. Hänschell, *†G. G. Butler, *‡H. Crossle, *C. J. Wilson, *†A. J. R. O'Brien (Colonial Service), *†J. B. Alexander, *†M. B. Hay, *‡C. C. Shaw, *†G. R. H. Chell, E. J. Wyler, ‡S. Hunt, F. Standish, †A. F. Kennedy, E. E. Witt, W. H. Scott, J. Martinez, †A. J. M. Crichton.

* Passed with distinction. † Colonial Medical Service.
‡ Indian Medical Service.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

PRIMARY, PART I (*Materia Medica and Pharmacy*).—R. Fowle, C. G. Jones, J. E. Kitchen, J. E. Taylor.

PRIMARY, PART II (*Anatomy*).—H. S. C. Cooper, J. E. Kitchen, L. C. Smith. (*Physiology*) H. S. C. Hooper, L. C. Smith, A. H. Taymour, A. S. Womersley.

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THE third Congress of French-speaking Doctors on Physio-therapeutics will be held in Paris on April 18th, 19th, and 20th, under the presidency of Dr. Béclère, physician to the Saint Antoine Hospital, Paris.

A SOCIETY OF PSYCHIATRY AND NEUROLOGY was founded at Madrid in January, 1911. It has forty-three original members. The President is Dr. Galceran Granes. The Society is said to be the first of its kind established in Spain, and the second in any Spanish-speaking country. A Psychological Society was founded at Buenos Aires in 1909.

DOWN BROS., LIMITED (London, S.E.) have been awarded the Gold Medal (highest award) for surgical instruments and aseptic hospital furniture at the United Provinces Exhibition at Allahabad, 1910.

# The Services.

## THE ROYAL NAVY MEDICAL SERVICE.

The course of instruction of the newly entered acting surgeons at Haslar was brought to a close on April 4th by the distribution of the prizes by Inspector-General Thomas D. Gimlette, C.B.

The gold medal was gained by Acting Surgeon S. W. Grimwade, M.B., of St. Thomas's Hospital. The silver medal was awarded to Acting Surgeon H. E. Perkins of Guy's Hospital. The two above-named officers took the first and second places in the combined London and Haslar examinations.

Three navy regulation pocket cases—prizes for subjects in which instruction is given at Haslar—were awarded to Acting Surgeons S. W. Grimwade, M.B., Alexander Scott, M.B., and Basil Taylor, M.B.

The following list shows the places gained by the combined marks of the London and Haslar examinations:

| | Marks. |
|---|---|
| Acting Surgeon S. W. Grimwade ... | 3,715 |
| Acting Surgeon H. E. Perkins ... ... | 3 692 |
| Acting Surgeon A. Scott ... ... | 3.643 |
| Acting Surgeon B. Taylor ... ... | 3 479 |
| Acting Surgeon E. C. Holtom ... ... | 3,347 |
| Acting Surgeon C. F. Willes ... ... | 3,310 |
| Acting Surgeon J. G. Danson ... ... | 3.205 |
| Acting Surgeon G. J. Carr ... ... | 3.177 |
| Acting Surgeon H. H. Ormsby ... ... | 3,146 |
| Acting Surgeon E. M. Browne ... ... | 3,088 |
| Acting Surgeon A. E. P. Cheesman ... | 2,885 |

## QUARTERS FOR GLASGOW R.A.M.C. TERRITORIAL UNITS.

Another hitch has arisen in connexion with the proposed quarters and drill hall for the five medical territorial units in Glasgow. After considerable discussion and lengthy correspondence, the Glasgow Territorial Force Association declined to proceed with buildings which were considered wholly inadequate for the requirements of the medical corps, but eventually plans were approved and a site obtained for the new quarters. The Chief Engineer of the Scottish Command has now taken up the consideration of the subject, and new plans have been suggested. The whole question is one which is likely to strike in the near future at the efficiency of the medical units and their popularity in the city. The medical units in Glasgow have hitherto been kept always at full establishment and in a very high state of efficiency, and since the institution of the Territorial Force these units have not only kept up to their full establishment with a waiting list of recruits, but are the only units in the city which have done so. Despite this, the medical corps is the only one which is not provided with head quarters and drill hall, officers' and sergeants' mess and recreation rooms, gymnasiums, etc., for the men. Drills have had to be abandoned for want of accommodation, and the officers are working under very great difficulties. The question is becoming very acute, and there is very free discussion as to whether, in all the circumstances, time and energy should be expended by officers and men with such inadequate facilities and encouragement.

# Medico-Legal.

## RIGHT TO OPERATE ON AN INFANT.

While the question of "consent" is one which frequently troubles the operating surgeon, it becomes, if anything, more difficult when the patient is an infant in the eye of the law. If a surgeon desires to operate on a person under the age of 21, must he obtain the consent of the parents? It is easy to imagine cases in hospital or elsewhere—cases of emergency, where immediate operation may be necessary or desirable. To delay in order to obtain the parents' consent may mean the death of the patient. What, then, is the duty of the practitioner? There is no English decision on the subject, but a case recently decided in Toronto sheds a certain amount of light on it. It appeared that a young man, aged 19, was referred by a country physician to a Toronto physician for a polypus of the nose. The Toronto physician referred him to the rhinologist of the Toronto Hospital, who removed the polypus, after which he saw no more of the case, leaving the after-observation to one of his assistants. The house officer, however, who also served as senior interne in surgery, observed that the young man had a marked goitre, and advised the removal of one lobe of the thyroid. The young man seemed willing enough to have this done, although there was no evidence that he gave instructions. However, he allowed himself to be transferred to a surgical ward, and quietly submitted to the preparation by nurses, and went to the anaesthetic room without demur. Half the gland was removed, and he made a good recovery in about a week and went home. His parents then instituted a suit against the hospital; first, for operation without consent of the young man or that of his parents, and, second, for damages to the young man's health.

The case was tried in the High Court at Toronto by Falconbridge, J., who, after finding that the young man did, in fact, assent to the operation, and that no harm was done to him, said:

"The question of law as to which I desired the assistance of counsel was whether, in the case of a young man within three months of 19 years of age, well grown, it was possible that the law was that a surgeon should not venture to operate upon him without getting the consent of his parents. No such law has been found for me, and I shall not be the first judge to declare that there is such a law. Of course, if it was the case of an infant of tender years, or the case of a person manifestly of weak intellect, it might be another matter; but this young man, while manifestly not of the brightest intelligence, is apparently well enough able to take care of himself; and I hold, as far as this case is concerned, that it was no part of the duty of the hospital authorities nor of the operating surgeon to make an inquiry or obtain the leave or licence of the parent or guardian. The result is the defendants are entirely exonerated and vindicated, and the action must be dismissed with costs, if costs are asked for."

It will be noticed that this case rather "went off," because there was no damage proved to have resulted from the operation. Further, the patient was a child "in the eyes of the law," but not in the ordinary sense of the word. The general question cannot therefore be said to have been decided by this case. Indeed, one might say, as Lord Lindley once said in answer to the query, "Can a lunatic be made a bankrupt?": "This question has been open for several hundred years. Suppose we leave it open a little longer." But when it does come up in the course of time it is probable that the English courts will adopt the sound reasoning of Mr. Justice Falconbridge. Brushing aside the legal fiction that a person under 21 is an infant for all purposes, it is practically certain that the question of consent would be decided according to the age and intelligence of the child.

## WORKMEN'S COMPENSATION.

*Alleged Frostbite.*

In a case heard at Liverpool (March 20th) the owners of the Allan liner *Corsican* were sued for compensation by a seaman whose hands had been frostbitten at Halifax, Nova Scotia. Claimant put socks on his hands in order to handle the ice-covered ropes, but the socks slipped off, and both hands were frostbitten to such an extent that hospital treatment was necessary. The Judge said that the case came very near the border line, but he felt bound to give judgement for the respondents.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## OBLIGATIONS OF AN ASSISTANT.

Aggrieved.—If there was an agreement between B. and C. under which C. contracted not to practise within a certain area for a definite time after the termination of his engagement with B., and if B. waived his rights temporarily in order that C. should act as locumtenent for A. during his illness, and A. and C. have taken advantage of this to take B.'s patients, B. has ground of complaint.

## MESSAGES TO BE CALLED FOR.

W.F.L.D.—The affixing of notices giving the name of a practitioner, and stating that messages can be left for him in or upon premises where he has no bona fide tenancy, is a practice which can only be approved in scattered rural districts where there are few resident medical practitioners, and the arrangement is for the public convenience.

The Fourteenth Congress of the German Gynaecological Society will be held at Munich in June (7th to 10th) under the presidency of Professor Doederlein. The principal subject proposed for discussion is the relation of tuberculosis to the female genito-urinary organs. Reports on this question will be presented by Drs. Jung, Veit, and Kroenig.

The third meeting of the International Congress of Infant Hygiene will be held at Berlin next September on the 11th and the two following days. The congress is under the patronage of the German Empress, and the Imperial Chancellor is honorary president. Among the excursions arranged is one to the International Exhibition of Hygiene at Dresden, one department of which will be devoted to puericulture.

# Public Health
AND
# POOR LAW MEDICAL SERVICES.

## SALARIES OF MEDICAL OFFICERS.

THE Penzance Board of Guardians at its last meeting received and adopted a recommendation from its Finance Committee made after a conference with the medical officers and Dr. Bramwell, advising that certain small increases should be made in the salaries paid to four medical officers. The increases amounted together to £45 per annum. Speaking on this question, Mr. Court (Local Government Board) said it was satisfactory that the Board had adopted the committee's recommendation of increases of salaries. The remuneration they proposed giving was distinctly lower than the fee given per case in the country generally. The Royal Commission found fault generally with the remuneration to medical men as not being enough to secure all the attention that was necessary with a conscientious man. The rough conclusions were that the medical men were underpaid, and that in many cases a medical man only did the work he was paid for. If guardians stood out too stiffly in meeting changes of circumstances, and the greater calls which were made upon medical officers than had obtained in the past, then public opinion was influenced against the guardians—certainly an undesirable thing just at present. He hoped the terms would be accepted by the medical men. It certainly was a considerable step forward. Personally, he should have been inclined to go a little further, and settle the matter at once. He thought that perhaps the doctors would recognize that the Board had made a great step forward.

## RETURN CASES OF DIPHTHERIA.

SÖRENSEN, in a paper on return cases of diphtheria,[1] states that he has never seen a fatal return case of true diphtheria, and adds that of 7,037 cases of diphtheria observed in 1898–1909, only 82, or 1.16 per cent., were return cases. The greatest number of these occurred from four to twelve days after discharge of the patients (source of infection). Of the 82 cases, 8 showed diphtheria bacilli on discharge, 73 none (1 was not examined), that is, 90 per cent. were free from bacilli. Sörensen accounts for these results by assuming that the "supposed" cases may not be the true sources of infection, and that many of the cases in which the bacilli were not discovered might still be sources of infection, as, owing to the inaccessibility of parts of the naso-pharyngeal cavity, the bacilli might have escaped detection. An examination of the figures, therefore, shows that the bacilli were present in 10 per cent., that is, 700 out of 7,037, of the discharged patients, but only 8, or 1.14 per cent., infected their families or were return cases. Sörensen concluded that the presence of the bacilli in the discharges is a very apparent source of infection, nor is their absence a guarantee against infection.

## GREENOCK HOSPITAL FOR PHTHISIS.

AT a meeting of the Greenock Combination Hospital Board there was submitted a report by Drs. A. Campbell Munro, Renfrewshire; W. S. Cook, Greenock; W. Stewart, Gourock; and Andrew Love, medical superintendent of the hospital, with reference to the site for the proposed phthisis hospital within the Board's grounds at Gateside. The report advised that it would be a shortsighted policy to endeavour to squeeze in accommodation for phthisis cases upon the present site, as the ground within the boundary walls was not more than sufficient to provide for the prospective requirements of the hospital, and there was no sufficient clear area within the walls on which to place a phthisis ward block with the necessary adjuncts of chalets and shelters. At the same time the medical officers asked to be authorized to inquire and report as to the practicability of obtaining a site in close proximity to the hospital upon which to erect buildings of an economical type for the isolation and treatment of cases of phthisis which could not be properly treated at home, and which constituted a source of risk to their families and to the community at large. The first part of the report only was adopted by the Board. The second part will probably receive further consideration at a future date.

## RESPONSIBILITY FOR INFECTED PERSONS.

A SOMEWHAT interesting point was discussed at the annual meeting of the Convention of Royal Burghs of Scotland on April 5th, when there was submitted by a Hamilton representative a report of a committee on the allocation of cost of hospital treatment of an infected person under the Public Health Act. The question arose in a case in which a patient from a neighbouring burgh came to the burgh of A. to consult a doctor. The doctor diagnosed the case as scarlet fever, and with the consent of the medical officer of the burgh in which the patient then resided, and from which she came direct for the consultation, he sent her to the infectious diseases hospital. The two burghs referred the question of the patient's maintenance while in hospital to the Local Government Board, and the Board decided that the burgh liable was that in which the case was diagnosed, and not the burgh in which she resided when she took ill, although she was only in the burgh of A. for the short time she was under examination by the doctor. The committee was asked to inquire whether this decision was sound, and, if so, what should be done to remedy the injustice. The answer of the committee was that the decision was according to law, and that there was no hope of getting any satisfactory amendment, because a contrary decision might also be regarded as inequitable. After a good deal of discussion the Convention accepted the report, and approved of the committee's decision.

[1] *Muench. med. Woch.*, 1911, No. 13.

## THE NOTIFICATION OF MEASLES.

F. W. T.—Measles has been notifiable in Aberdeen, Birkenhead, Burton-on-Trent, Coatbridge, Paisley, and Wigan, but in all these places notification of the disease has been abandoned. In Wigan there is voluntary notification of the first case in a family. In St. Helens, under the provisions of a local Act, notification is compulsory by the "person in charge of an elementary school." The receipt of notifications has been followed by advice to the persons concerned as to the measures to be carried out for the prevention of the spread of the disease, but hospital isolation has rarely been carried out. The abandonment of compulsory notification by authorities who have adopted it would seem to be evidence that it has not been effectual in preventing the spread of the disease or in reducing the mortality.

# Obituary.

## JAMES RORIE, M.D,

CONSULTING PHYSICIAN, DUNDEE ROYAL ASYLUM.

ON April 3rd, when his life was already threatened by a painful disease, Dr. Rorie passed away painlessly by cerebral haemorrhage. He was born in Arbroath on April 4th, 1838, and after a brilliant career at Edinburgh University, where he gained a Gold Medal for the Thesis with which he graduated M.D., he was appointed Assistant Superintendent of Dundee Royal Asylum. On Dr. Wingett's death a year later Dr. Rorie was, at the early age of 22, appointed Superintendent, and continued in that office for forty-three years. He entered at once into the group of Scottish superintendents, still represented by Dr. Yellowlees and Dr. Clouston, who were at that time seriously tackling the scientific study of insanity. Dr. Rorie was a contributor to and for a time one of the editorial committee of the *Journal of Mental Science*. He was a man of considerable philosophical attainment, and his interest in the scientific study of mental disease never flagged. As Lecturer on Mental Disease in the University of St. Andrews he was to the last engaged in laboratory work and keenly alive to the modern advances of its technique.

His great work was, however, the development of the asylum which, when he started, stood on a narrowly circumscribed area within the town. In 1882 he saw his plans for its development brought to fruition by its transfer to a large estate in the country. For many years the new institution was hampered by the debt involved in this transfer, but before Dr. Rorie's resignation in 1903 the gradual realization of the value of the town site which it had left, relieved the *res angusta*, and when the building was sold to the Dundee District Lunacy Board he had the satisfaction of knowing that it was a flourishing institution. After his retirement he was appointed Consulting Physician, and viewed with approval the measure by which, through the co-operation of the Royal Asylum and the Royal Infirmary Boards, the system of treating incipient cases of mental disease in the general hospital was established.

Dr. Rorie took his part in the general work of the professional societies, and had been President both of the Forfarshire Medical Association and of the Dundee Branch of the British Medical Association.

## JOHN HENRY FARBSTEIN, M.B., B.S., F.R.C.S,

RESIDENT MEDICAL OFFICER, HULL WORKHOUSE.

WE regret to have to record the death at the early age of 26 of Mr. John Henry Farbstein, Resident Medical Officer of the Hull Workhouse.

Mr. Farbstein, who was the son of Dr. Henry Farbstein, of Hull, had a very distinguished career at University College, London, graduating M.B., B.S. (with honours in Surgery) in 1907, a few months after having taken the diplomas of M.R.C.S. and L.R.C.P.Lond. During his

career at University College he obtained several distinctions, including the Liston Gold Medal for Surgery, the Gold Medal for Midwifery, and a medal for Clinical Medicine.

Immediately after qualifying he was appointed House-Physician, and then followed as House-Surgeon at his old hospital. Subsequently he became Assistant Demonstrator of Anatomy at University College, and was at the same time appointed Clinical Assistant in the Ear and Throat Department; on the termination of these appointments he was Clinical Assistant at the Great Ormond Street Hospital for Children.

In 1910 he was admitted a Fellow of the Royal College of Surgeons of England, having passed the examination some months before the age for qualification. About eighteen months ago he was appointed Resident Medical Officer to the Hull Workhouse.

Up to December 17th he was apparently in good health; he was taken ill on that date and died on March 24th. The deepest regret and grief will be felt by all who knew him at the untimely death of so talented a member of the profession. He was a man of the greatest strength of character. He was keen and energetic, and took a sincere and profound interest in his work. His manner was genial, he was considerate to a degree, and he made a true and genuine friend. His sterling qualities earned him the respect of and endeared him to all with whom he came in contact.

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DR. JAMES KEITH ANDERSON died on March 29th at Arbroath, where he was born sixty-four years ago. Dr. Anderson studied at Edinburgh University, where he graduated M.D. He spent most of his professional life in his native town, where he was Medical Officer of Health and Police Surgeon, and also in private practice. He was a kindly, genial man and a friend of the poor, and his death will be regretted by the community.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. O. Drasch, Professor of Histology and Embryology in the Medical Faculty of Graz; Dr. L. Russ, Professor of Clinical Medicine in the Medical Faculty of Jassy; Dr. William W. Mayo, the father of the two well-known American surgeons of that name, himself a native of England, in his 92nd year; Dr. Ferdinand Lohmeyer, sometime Extraordinary Professor of Surgery in the University of Goettingen, and author of a textbook of general surgery, and of monographs on various surgical subjects, aged 85; Dr. William Warren Porter, editor of the *Buffalo Medical Journal* since 1888, in his 73rd year; Dr. Arloing, Professor of Experimental and Comparative Medicine in the University of Lyons; Professor V. Cozzolino, Professor of Otology at Naples, in his 58th year; and Dr. Henry Pickering Bowditch, sometime professor at Harvard, aged 71.

# Medical News.

IT is announced that a school of tropical medicine is about to be established in association with the New York Post-Graduate Medical School and Hospital.

UNDER the will of the late Miss Ellen Taunton Little of Bath, the United Hospital, the Mineral Water Hospital, and the Eastern Dispensary, all in Bath, each receive a sum of £300.

THE late Mr. William Young of Salisbury, whose will has now been proved, bequeathed £1,500 to the Brompton Cancer Hospital, £500 to St. Bartholomew's Hospital, and £250 each to the Southampton Free Eye Hospital and the Royal Hospital for Incurables.

AT the meeting of the Royal Sanitary Institute at the Town Hall, Colchester, on Friday, April 21st, at 7.30 p.m., a discussion on the control of pulmonary tuberculosis will be opened by Dr. W. F. Corfield, M.O H., Colchester. On the afternoon of the following day a visit will will be paid to the waterworks.

A COURSE of six lectures on "Conduct and Its Disorders, an Introduction to the Study of Life," will be delivered by Dr. Charles Mercier at University College, London, at 5 p.m., on Fridays, beginning on May 12th. The lectures are open without fee, but persons desiring to attend them should apply for a card of admission stating their qualifications to Mr. Walter W. Seton, Secretary, University College, London, W.C.

IN the wide field covered by the British contribution to the International Exhibition at Turin applied chemistry and bacteriology are well represented. The arrangements include two completely equipped laboratories in real action and illustrations of the experimental work in agricultural bacteriology done in various parts of Great Britain.

A MEETING of the Glamorgan Branch of the British Red Cross Society will be held at the City Hall, Cardiff, on Tuesday next, when the Countess of Plymouth will preside. The uniform for Voluntary Aid Detachments and a special stretcher will be exhibited, and also a stretcher used by the Swiss Red Cross Society, procured for the purpose by the Honorary Secretary, Mr. J. Lynn Thomas, C.B.

THE spring meeting of the South-Eastern Division of the Medico-Psychological Association will be held at the Bethlem Royal Hospital, S.E., on Tuesday, April 25th. The Rev. E. G. O'Donoghue, chaplain to the hospital, will give a lantern lecture on the story of Bedlam (1247–1911), and papers will be read by Dr. H. J. Norman on witchcraft and demoniacal possession in their relation to insanity, and Dr. J. Francis Dixon on *post-mortem* appearances in some instances of sudden death.

THE eleventh tour of the organization called Voyage d'Etudes Médicales (V.E.M.) will start from Lyons on August 28th next, and will reach Toulouse on September 11th, after visiting the chief health resorts in the south-east of France. The charge from Lyons to Toulouse, including railway, carriages, and board and lodging, is 350 francs. For particulars as to the reductions allowed by the railway companies for the journey to Lyons and from Toulouse application should be made to Dr. Carron de la Carrière, 2, Rue Lincoln, Paris.

AN evening concert in aid of the British Medical Benevolent Fund Guild will be given on Saturday, April 29th, at the Bechstein Hall, London, at 8.15 p.m. The concert is under the patronage of Princess Christian of Schleswig-Holstein, the Duke and Duchess of Teck, and many other distinguished persons. Mrs. Kendal will give a recitation. Among the artistes who have promised to sing are Madame Donalda, Miss Aimée Parkerson, Mr. Lawrence Kellie, and Mr. E. Gordon Cleather. Tickets for reserved seats—price £1 1s., 10s. 6d., and 7s. 6d.—can be obtained at the Hall or at the usual ticket agencies.

THE accounts submitted at the thirty-seventh annual meeting of the Metropolitan Hospital Sunday Fund on April 8th showed that the collection for the year—namely, £34,604—exceeded that of the previous year by some £4,000. It was suggested, however, by Sir Savile Crossley, the chairman of the fund, that the contribution of the working classes towards the upkeep of hospitals and kindred institutions during the year should be regarded as having been some £10,000 higher, for the part payments made for benefits awarded by the various committees of the fund amounted to about that sum.

THE African Entomological Research Committee, established in June, 1909, by Lord Crewe, then Secretary of State for the Colonies, with the object of promoting the study of the insects which play so prominent a part in the spread of disease among men, animals, and plants in Africa, has received a promise from Mr. Andrew Carnegie to place at its disposal a sum of £1,000 a year for three years to defray the cost of sending specially selected Carnegie scholars to the United States to study the practical applications of entomology—a subject which has received much attention in that country. Two of the scholars are already at work in the United States, and Dr. L. O. Howard, chief of the Bureau of Entomology at Washington, is personally interesting himself in the matter. It is confidently expected that the scheme will be of great value to British administration in Africa and elsewhere by providing a body of well-trained entomologists available for employment in the services of the different colonial governments. The chairman of the committee is Lord Cromer, and the secretary Mr. Guy Marshall, from whom at the British Museum (Natural History), South Kensington, further particulars can be obtained. The African colonies and protectorates have already sent large quantities of material to the Museum. The collection of insects, after being identified and recorded, are dispatched to the schools of tropical medicine, universities, and museums throughout the country. Two skilled entomologists are now employed under the direction of the committee in East and West Africa respectively for the purpose of carrying out special investigations and of interesting and instructing local officials in the work.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

### LAVATORIES FOR WOMEN.

A CORRESPONDENT writes stating that about a year ago he received a circular letter asking him to take part in a movement to secure the abolition of a charge for the use of urinals in lavatories for women, and that since then he has heard nothing more about it. We have made inquiries of certain people who at one time were actively interested in this question, but have been unable to ascertain whence the circular in question emanated or what is now being done in the matter. Should any reader possess any information it would be welcome.

## ANSWERS.

### WRITER'S CRAMP.

DR. FREDK. F. MIDDLEWEEK (London) writes: In reply to "Q.," I should like to point out that writer's cramp, whether it be of the tremulous variety, with pronation and supination tremors, or of the spastic kind with tonic spasms of the thenar muscles, and flexion or extension cramp of the flexor and extensor carpi radialis respectively, would be greatly relieved by properly applied massage and passive movements. Tenderness and infiltration of the shoulder and neck muscles should also be looked for.

### TREATMENT OF PAINFUL FEET.

DR. H. J. THORP (Ipswich) writes to recommend "D." to try the following:

| | | |
|---|---|---|
| ℞. | Sodii salicyl. ... ... ... ... | gr. xv |
| | Lithii salicyl. ... ... ... ... | gr. v |
| | Potass. cit. ... ... ... ... | gr. xx |
| | Tinct. zingib. ... ... ... ... | ♏ xx |
| | Aq. cinnam. ... ... ... ... | ℥j |

T. d. s. in water.

| | | |
|---|---|---|
| ℞. | Ex. colch. acet. ... ... ... | gr. j |
| | Podoph. res. ... ... ... ... | gr. ½ |
| | Pil. colc. byoscy. ... ... ... | gr. iv |

Ft. pil. One at night.

## LETTERS, NOTES, ETC.

### RESEARCH DEFENCE SOCIETY.

WE are asked to make the following corrections in the address entitled "Antivivisectionists and the Research Defence Society," delivered at the recent annual meeting of the Dublin Branch of the Society, and published in the BRITISH MEDICAL JOURNAL of April 8th, p. 797 et seq. On p. 797, line 39 from the beginning of the address, "of a sparrow, etc.," should read "*to* a sparrow." On p. 798, left hand column, line 17 from top, for "a hundred animals," read "*even hundreds of animals.*" On the same page, right hand column, line 8 from bottom, after "Mr. Herbert Gladstone," read "now Lord Gladstone." On p. 799, right hand column, line 14 from top, for "The *Act* orders," read "The *Home Secretary* orders."

### A CASE OF METASTATIC GONORRHOEAL CONJUNCTIVITIS.

DR. ANDREW S. M. NEIL (Liverpool) writes: In a memorandum with the above heading in the JOURNAL of March 25th, 1911, by an American writer, there occur the words "half billion doses." In view of the fact that the hypodermic administration of bacterial vaccines is being increasingly made use of in the treatment of various diseases, and as dosage of these vaccines is quite in its infancy, it behoves all users of these vaccines who may wish to publish their results to be strictly accurate in numeration. The word "billion" in such a connexion would be probably best left alone. A billion is a million millions, which is an almost unthinkable number, but I believe in America and some other countries a billion is reckoned as a thousand millions.

### THE POSSIBILITY OF OBTAINING A VACCINE FOR YELLOW FEVER.

DR. HENRY ALSTON (Trinidad) writes: It was demonstrated by experiments in Cuba and elsewhere that the blood of yellow fever patients during the first three or four days was infective even if the blood was filtered through a Berkefeld filter, and the filtered serum injected into healthy persons. This fact has cause me to theorize that if a blister were applied early to a yellow fever case and allowed to "rise," the serum in the bulla would be crowded with millions of the ultra-microscopic germs. If this serum were heated to 60° C. to kill the germs and injected into the patient, it is possible that it would act as a vaccine. Professor Ehrlich holds that spirochaetes killed in the fluids of the body by salvarsan act as a vaccine. A similar experiment could be tried on animals in diseases communicable by filtered blood, such as rinderpest and foot-and-mouth disease. The diseased animals could be bled to get the serum. It is not within my power to try these experiments, but I throw out the suggestions.

### THE CAUSE OF APPENDICITIS.

DR. D. J. DRAKE (Pahiatua, New Zealand) writes: With reference to the letters of Dr. Rainsbury and of Dr. Paira-Mall in the JOURNAL of December 3rd, 1910, p. 1824, and December 24th, 1910, p. 2003, I should like to record that during ten years of practice in Assam, when I was in medical charge of fully 25 000 souls, and where a daily sick list was anything between 5 to 10 per cent., I never was called upon to treat a single case of appendicitis in a native, though I have had cases in Europeans. The coolies came from many parts of India, and were almost vegetarians. Cancer in all its forms was exceedingly rare.

### "KISSING THE SHUTTLE."

OUR attention has been drawn by Messrs. Whipp and Co., of Manchester Road, Preston, to a shuttle devised by them with a view to abolishing among weavers the insanitary and sometimes dangerous manœuvre known as "kissing the shuttle"—that is, threading shuttles by sucking the weft through the eyehole. In the new shuttle, which in all other respects is identical with that ordinarily used in manufactories, the threading process is reversed, the thread being blown instead of sucked through the eyehole. Threading in this way requires no application of the lips to the shuttle, and is both easier and quicker than the old method. Should the weavers use the shuttle as it is intended to be used, all risk of infection would be obviated. Since, however, some of them would possibly continue to apply their lips to the shuttle in blowing just as in sucking, the firm supplies a small wooden tube to pass into the eyehole, intending that each worker shall keep his own tube. This latter device is an important addition, and completes an excellent idea.

### DROSERA (SUNDEW).

DR. PERCY NEWELL (Cliftonville, Margate) writes: There are, I fancy, a good number of practitioners who use this plant in Great Britain. Personally, I can say I have used it for fifteen years or more in all my cases of pertussis during the spasmodic stage, and from my experience of it I consider it to be as nearly a specific as possible in this disease. If given in 5-minim doses of a 10 per cent. tincture, the remark that it has "probably no medicinal value in these conditions" may be justified. To get satisfactory clinical and therapeutical results it must be prescribed in much smaller doses.

### OSTEO-ARTHRITIS AND ITS RELATION TO CHRONIC RHEUMATISM.

DR. G. L. KERR PRINGLE (Harrogate) writes with regard to Dr. Buckley's letter in the JOURNAL of March 25th: I think he is rather premature in wishing to get rid of the term osteo-arthritis, which we must retain until we are able to select a name which will more aptly suit the condition. My contention is that there is a definite form of arthritis characterized by "bony proliferations" which is apart from all other forms of arthritis. Moreover, this special form of arthritis is probably a local manifestation of a general affection, which at present we are unable to recognize. It may occur after trauma in youth, or immediately subsequent to trauma in late life, infective, rheumatoid, and gouty arthritis, or it may occur *de novo*, as, for example, in the knee joint of women at or about the climacteric. That these knee-joint changes are produced by "wear and tear" appears to be improbable, considering the frequency with which this condition is found among women of the upper classes leading indolent lives, and one would expect if "wear and tear" were the cause to find the condition common among miners, cyclists, etc. The same remarks apply to those cases in which Heberden's nodes are the chief manifestation. It is much more probable that these nodes, owing to their position at the terminal phalangeal joints, have some causal connexion with disturbance of nutrition, than with an excessive "wear and tear." One other point. Dr. Buckley, in referring to the relationship of gout and osteo-arthritis, makes the statement that the use of the *x* rays have "*revealed* the existence of uratic deposits." Now urates are not opaque to the *x* rays, and, as Strangeway and Burt have shown, this is one of the reasons why it is almost impossible to distinguish between skiagrams of rheumatoid and gouty arthritis where there are bony additions—namely, in those cases where I believe osteo-arthritis has followed on gouty or rheumatoid arthritis.


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# A Clinical Lecture

ON

# THE KINKS WHICH DEVELOP IN OUR DRAINAGE SYSTEM IN CHRONIC INTESTINAL STASIS.

DELIVERED AT GUY'S HOSPITAL, MARCH 22ND,

BY

W. ARBUTHNOT LANE, M.S., F.R.C.S.,

SURGEON TO GUY'S HOSPITAL, AND SENIOR SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, W.C.

GENTLEMEN,—I would call attention to our drainage apparatus in the present condition of civilization, and would point out to you how difficult it is in the circumstances to render it efficient for the purpose in hand—namely, to transmit its contents at such a rate that they shall not have time to undergo such a degree of decomposition as will produce harm to the individual by the absorption of the products.

Let us regard the gastro-intestinal tract as it exists when the erect position of the trunk is assumed, which is the case from the time one gets up till one goes to bed. In other words, except for an average of about seven hours in the twenty-four, there exists a constant tendency to the falling of the viscera in the abdomen.

Consider the stomach, which is held immovably in position by the oesophagus, which forms its chief ligament. The drag of the contents of the stomach, augmented by that of the loaded transverse colon, transmitted to the stomach through the great omentum, tends to displace the stomach downwards. This displacement is opposed by the oesophagus and by the lesser omentum, which is a comparatively feeble structure, and ill fitted to oppose this displacement.

A new ligament representing the crystallization of lines of resistance forms between the pylorus and the under surface of the liver in front of the transverse fissure extending along the cystic duct and gall bladder. This ligament, though not very thick, offers a very definite resistance to the downward displacement of the pylorus, and when the stomach is distended it tends to kink and occlude the pylorus.

The chief tearing strain upon the stomach when it is distended, and especially when its weight is increased by that of the loaded transverse colon, is experienced along the lesser curvature. If a stomach be made in rubber and be fixed in position by ties representing the oesophagus and the newly developed ligament, which for all practical purpose is a local hypertrophy of the lesser omentum, and if the stomach be filled with fluid, it will tear along its lesser curvature, and especially so in the vicinity of the pyloric ligament, which gets a very limited grip of the stomach. If the pyloric end be dropped, as occurs when the liver becomes displaced downwards, the point at which the tear is likely to take place approaches the oesophageal attachment, and separates from the pyloric attachment in a degree proportionate to the downward displacement of the liver.

The result of defective drainage of the stomach is an alteration in the chemical character of its contents. This alteration has attracted the attention of the physician, who regards it as the primary factor in the development of an ulcer of the stomach rather than the effect of intestinal stasis as affecting the stomach.

Now look at the duodenum, through which the contents of the stomach are carried after they have escaped from that organ. Note that the first part alone is mobile and covered by peritoneum, while the remainder is fixed securely in position.

Continuing the direction of the end of the duodenum is the commencement of that portion of the drain-pipe to which the term "jejunum" has been given. You notice that the end of the duodenum is fixed in a peritoneal grip, which is so arranged as to present a sharp margin. This after a time becomes thickened by new bands that develop in the under surface of the great omentum in consequence of the strain thrown upon it by a loaded transverse colon. You see at once that if the individual is exhausted for any reason whatever the jejunum passes directly downwards from this band and kinks the drainage tube abruptly at this point. This is, perhaps, the most unsatisfactory point in the drainage scheme.

The block, which results from what we might call the duodeno-jejunal kink, produces in the duodenum a distension which is naturally experienced most in that portion of the duodenum which alone is capable of distension—namely, the first portion which is free and covered by peritoneum. The distension may not be sufficient to produce any change in this portion of the bowel appreciable to the eye or finger, or it may produce engorgement, abrasion, or ulceration of the mucous membrane of this segment of the drainage scheme.

In any case, when the obstruction exists it produces pain and tenderness in the duodenum, coming on when the food has passed from the stomach into it. This condition is relieved by assuming the supine posture, when the loop of jejunum drops back into the left loin and the kink is relieved. This obstruction may occasionally be overcome by taking food into the stomach, which would appear to set up such a forcible reflex contraction of the duodenum as is able to overcome the obstruction, and so relieve the tension in the duodenal segment. Practically all severe pain in any portion of the drainage apparatus is set up by obstruction in one form or another. Physicians seem to have grasped this vaguely, since they apply the term "colic" to many of these pains, indicating the recognition in their minds of mechanics common to them all.

Can I afford you more evidence of this kinking of the drain-pipe at the junction of the absolutely immobile termination of the duodenum with the completely mobile commencement of the jejunum?

You know that physicians treat duodenal ulcer as they do gastric ulcers—by rest in the supine position, differing among themselves as to the varying advantages resulting from mouth and rectal feeding. Apparently the mode of feeding makes very little difference to the treatment of the ulcer, while the rectal variety has the disadvantage of being very unpleasant, and at the same time unsatisfactory to the cravings of the patient.

The duodenal ulcer gets well very rapidly indeed in this position, since the cause of its production, namely, the kinking of the pipe, ceases to exist while the patient is in this posture. The gastric ulcer, on the other hand, gets well very slowly, since the strain upon it is only partially relieved.

The surgeon cures duodenal ulcer by performing what is called gastro-enterostomy, In other words, he secures the commencement of the jejunum to the stomach in such a manner that it can no longer fall vertically downwards and kink at its junction with the duodenum. In a certain proportion of cases where the stomach is very dilated he fails to secure the jejunum satisfactorily, and it may still kink. This is due to the fact that the part of this operation which has impressed itself on his mind as being the most important is the formation of a hole between the stomach and jejunum which is very effectual should the duodenal ulcer contract in healing sufficiently to occlude the lumen of the duodenum, but in the usual case of engorgement, abrasion, or ulceration of the duodenum, it affords the patient no advantage, while it occasionally exposes him to what is called a vicious circle if the operation is done by a surgeon who is not too competent at the job.

Still whether the jejunum is attached to the posterior wall of the stomach in a very variable direction, as is usual nowadays, or whether it is connected with the anterior wall, as it is in so-called anterior gastro-enterostomy, does not matter so long as the mobile segment of jejunum is so fixed that it cannot kink upon the fixed duodenum.

The next weak spot in the drainage system occurs at the end of the small intestine—the ileum. The caecum, which is the blind extremity of the cesspool, tends to become displaced into the true pelvis, which it occupies to the inconvenience of other important structures. This tendency to fall is met as before by the crystallization of lines of strain. These form bands external to the caecum and ascending colon, and fix these structures to the abdominal wall. The lowest secures the appendix, and frequently kinks it, with the result that the portion beyond the kink distends and produces symptoms of

varying severity which are comprised under the term "appendicitis."

The strain internal to the caecum comes upon the termination of the ileum and the posterior layer of its mesentery. In the latter region a layer of peritoneum is formed which kinks the ileum in two planes, one being vertical and angular, and the other being due to torsion, the new ligament gradually extending over the peritoneal aspect of the affected loop of intestine. These conditions have been illustrated in a previous paper published in the *Lancet*, and entitled "The Kink of the Ileum in Intestinal Stasis." By this means the end of the ileum and the additional thickening and contraction of the posterior layer of the mesentery form an internal ligament which tends to keep the caecum out of the pelvis, while the acquired external ligament of the caecum is represented by the planes of peritoneum which extend inwards from the abdominal wall on to this portion of the cesspool, and by the proximal part of the appendix should this structure become involved in these acquired adhesions, as it so often does.

Nothing appears so absurd as the attempts of surgeons to make out that the inflammation of the appendix is a primary condition, and that it is productive of several of the other effects of intestinal stasis. The fallacy of regarding one effect as the cause of another is so general in medicine that it is really hardly worth while calling attention to it in this particular sequence, except that in this condition one is appalled at the correspondence on the subject, which lingers and then breaks out at intervals in the medical press.

The next kinks to which I would call your attention are those that develop abruptly at the hepatic and splenic flexures of the colon. To meet the drag upon the transverse colon with the pull exerted by the loaded caecum and ascending colon lines of strain are crystallized as peritoneal bands, which drag these flexures upwards and convert the passage from a round turn into a sharp kink. This is exaggerated still further by the formation of bands which connect the adjacent surfaces of the transverse, ascending, and descending colon, and which serve to transmit some of the weight of the loaded transverse colon through the ascending and descending colon to the abdominal wall, so taking some strain off the convexity of the stomach. They also are crystallizations of lines of strain in peritoneum. These, like all the other bands I have described, are obviously evolutionary, and are not inflammatory in origin, and exist in the first instance for the advantage of the individual. Yet, like all variations from the normal which develop in the bodies of labourers to enable them to perform their functions more economically, they tend to shorten the life of the individual. This is illustrated more clearly in the evolutionary bands in the abdomen than in any other part of the body, the result being more disastrous to life here than elsewhere.

Both the splenic and hepatic flexures, ceasing to perform the functions of round turns and becoming angular in character, are exposed to much more irritation, and at these points the results of such irritation are liable to develop and to terminate as malignant disease.

The kink of the hepatic flexure occasionally becomes partly or completely occluded, and the conditions develop to which the terms acute and chronic volvulus of the caecum are applied.

A kink may develop at the level of the iliac crest on the right side, where a firm, strong band of adhesions may attach and control the lumen of the ascending colon sufficiently to cause some obstruction at this point.

Again, the acquired ligament that develops between the pylorus and the under surface of the liver and gall bladder frequently extends over the pylorus to the transverse colon, helping to secure it indirectly to the under surface of the liver. In a number of cases it gets a sufficiently firm grip of this portion of the transverse colon as to obstruct its lumen very definitely and to produce sufficient irritation in this situation as to make it a favourite locality for the development of cancerous or other infection.

The descending colon rarely becomes much damaged by the fixation it undergoes in transmitting a portion of the weight of the transverse colon through acquired adhesions to the abdominal wall external to it.

The bowel beyond it is, however, a source of great trouble in the erect posture, and the modifications it undergoes because of the efforts of Nature to effect a useful compromise are very various, and are associated frequently with more or less disastrous consequences.

The original function of the sigmoid loop is to exert strain on the bowel beyond it under the influence of the impacting left thigh, which forces its loop upwards and inwards in defaecation, and so facilitates the passage of hard faeces along a tube which by this means is rendered as straight as possible. It is quite obvious that while the extension of the rectum permits of the more ready passage through it of solid matter under the influence of an increased intra-abdominal pressure, an abnormal elongation of the rectum and a puddling of its loose loops in the floor of the true pelvis afford the most complete obstacle imaginable, short of the presence of a stricture, to the passage of solid matter through it under the influence of the same intra-abdominal pressure.

How to deal with the so-called sigmoid loop in the erect position affords a very difficult problem for the ingenuity of the organism. The presence of this loop loaded up with solid faeces in the true pelvis struggling with the caecum and transverse colon to occupy a portion of this space, to the great discomfort and disadvantage to the functioning of the viscera which reside there normally, has to be met in some way. As elsewhere, this is effected by the crystallization of lines of strain which are laid down as peritoneal bands or adhesions, which extend from the peritoneum external to the meso-sigmoid to the outer surface of the meso-sigmoid, shortening it up till, in a typical case, the mobile loop of bowel is replaced by a short straight tube, which crosses the iliac fossa obliquely and has only a partial peritoneal covering. This is the best manner in which the disability of the loop can be met. Still it presents certain distinct disadvantages. The tube is narrower than normal, and, being fixed, it affords a greater obstacle to the passage of solid material through it. The resistance offered to the passage of material is evidenced by the formation of diverticula, and foci of infection by inflammatory and cancerous organisms in this anchored bowel. In a considerable proportion of cases the formation of the peritoneal bands fails to secure the mesentery of the sigmoid loop uniformly. They may only secure the ends of the loop which are approximated by their contraction when both limbs are partly obstructed, the distal much more than the proximal. This results in a gradual increase in the size of the loop owing to the progressive exaggeration of the distal kink, and any aggravation of the kink results in complete obstruction to the passage of faeces through it when the condition is described as one of volvulus.

Or the fixation of the loop may be in such a manner that it forms two loops, the distal ends of which are chronically partly, and occasionally completely, kinked. A somewhat frequent condition is that the upper portion of the sigmoid loop is pinned down to the fossa, while the remainder becomes free and joins the rectum, to form a very long loose pipe, which occupies the true pelvis. Since this mechanism affords a very marked obstacle to the passage of solid faeces through it, it acts in the same manner as a kink or other obstruction, with the result that there is a tendency to the progressive increase in the length of this part of the bowel, and to the accumulation of a large quantity of solid material in it, without the individual being aware of the fact in any way. There is also no reason either why there should not be a daily evacuation of a portion of the contents, which stagnate in the gradually elongating terminal segment of the gastro-intestinal drain-pipe.

It is a peculiar thing that this type of alteration is the one that exists apparently without exception in tuberculous patients. On the supposition that a patient cannot become tuberculous unless the resisting power to the entry of organisms into the tissues has been reduced by intestinal auto-intoxication, I have disconnected the large bowel in cases so advanced as not to yield to rest and tuberculin, with the greatest advantage to the patient, whose local and general conditions have improved in a marvellous manner. In some of these children the portion of mobile gut intervening between the upper fixed portion of the sigmoid loop and the portion of rectum which has no peritoneal covering was excessively long, in one case measuring at least 3 ft. This fact renders it possible for the surgeon to effect the entry of the divided ileum low

down into the mobile loop, quite close to its termination. The operation produces no shock whatever, and is followed by an obvious and increasing improvement in the child's general condition within two or three days after the operation.

# CHRONIC INTESTINAL STASIS TREATED BY SHORT-CIRCUITING OR COLECTOMY.

## *A BRIEF STUDY OF THE LIFE-HISTORIES OF FIFTY CASES.*

By HAROLD CHAPPLE, F.R.C.S.

Recognizing the importance of the ill effects on the individual produced by defective drainage of the bowel, and realizing the necessity of a radical treatment in many of these cases, in 1901 Mr. Arbuthnot Lane performed the first of a series of operations for a condition which he has fully described under the title of "Chronic Intestinal Stasis." Since then this work has progressed and developed and thrown a new light on the consideration of problems of such vast importance that it seemed to me that it would serve a very useful purpose if the accessible cases so treated were subjected to a careful analysis, and fancies replaced by facts. If it be true that a real condition has been observed and subjected to a satisfactory treatment, then progress has indeed been made; but if, on the other hand, the results of these operations have proved to be a series of monotonous failures—as, apparently, some would have us believe—then by all means let us follow their advice, and relegate such operations into oblivion.

I shall only describe such things as I have myself seen. I have endeavoured to take nothing for granted, but as I have been fortunate enough to see a large number of these cases beforehand and have assisted at many of the operations, I feel that I am in a position to put forward evidence derived from personal observation, and I have gone into the cases as fully as possible from all points of view.

The statement that colectomy has been recommended for constipation rivals in its completeness one made to the effect that amputation of a carcinomatous breast was advised for the removal of the lump. The constipation in itself cannot be a pathological entity, but is merely the outward and visible sign, patent even to the lay mind, of a defective intestinal drainage, which, it is submitted, is productive of very grave harm. None of the patients whose histories are recorded below would have permitted themselves to be subjected to operative treatment for the mere fact that his or her bowels were not opened regularly, nor would such a treatment have been suggested. It was the observation that this intestinal stagnation was accompanied by and resulted in such a grave condition that led to the adoption of radical surgical measures. In no case was any operative treatment suggested before all simpler remedies had been given a prolonged trial and failed. It will be well to keep this fact in mind when judging of the results.

I have divided the cases into two groups, the former of which, Group A, includes those whom I have been able to observe and question personally, and it is on their evidence that I have based most of what follows. The information contained in Group B was obtained by correspondence with the patient and the medical attendant, and reference to the Surgical Reports of Guy's Hospital. My list does not pretend to include all the cases that have been subjected to operative treatment. It includes fifty of those that were reasonably accessible to me, and the object of this paper is to submit the facts observed and to try and suggest what can be learnt from a detailed study of the life-histories of these patients.

A careful analysis of these histories shows a remarkably constant set of symptoms, and examination of the patients reveals a very constant set of signs, and it is submitted that that these are due to a condition of chronic delay in the passage of the intestinal contents, which delay is mainly in the colon; secondly, that this delay is due to a mechanical obstruction caused by evolutionary lesions, and results in an absorption of an amount of toxic material greater than can be efficiently dealt with by the individual. Based on this hypothesis, and having found that the mere breaking down of such adhesions was futile owing to their rapid re-formation, the lower end of the ileum was divided and an end-to-side anastomosis made between this divided end and the upper part of the rectum. Should pain have been a sufficiently prominent feature the colon is removed to the site of anastomosis, at the same operation if the condition of the patient is sufficiently satisfactory, or if not, at a subsequent operation if necessary.

### Symptoms.

First of all let us observe what features these patients presented, and note their conditions both before and after their operations. A comparison drawn between these will place us in a position to be able to judge of the results obtained, and to see how far we are justified in assuming that the hypothesis on which this work is based is a correct one.

It will be seen that in the majority of the cases the constipation was not regarded as of any importance by the patient, but the *abdominal pain* was the symptom which brought them to seek advice, and it was for this pain that the operation was first performed. The degree of this pain varied considerably in the different patients, but in almost every case was sufficient to make the sufferer lead the life of a chronic invalid, and in a large number of the cases had brought about a condition of total inability to perform the duties of life. The site of the pain varied, too, and its position was usually indicated by a hand placed on either side of the abdomen, and in those patients whom I subsequently saw operated on this was a very fair guide to the main site of obstruction.

Associated with this abdominal pain was a set of signs and symptoms which are grouped under the title of those due to "autointoxication." These symptoms were found so constantly associated with a condition of intestinal stasis, and were so constantly and definitely removed by exclusion of the large bowel or its actual removal and the consequent relief of the stasis, that there can be little doubt as to their causation. The symptoms complained of by these patients were:

1. *Headaches*, which were severe and frequent.
2. *Attacks of nausea*, often followed by retching or actual vomiting. In some cases the vomiting was very frequent indeed and of a severe nature. It was very interesting to note that in several of the cases blood was frequently present in the vomit, and had led very able men to the diagnosis of gastric ulcer, although none such was found at the operation.
3. *Loss of appetite* was almost constantly present.
4. *Loss of weight* was present in all cases.
5. *Markedly cold hands and feet*, which gave an indication of a defective circulation.
6. *Mental apathy.* This was very definite in most cases. It was most marked in Case xxx, who was in a state that was well described by her medical attendant as one of torpor. Many felt that death would be a welcome relief from their physical and mental misery, and two had actually attempted to bring about that end.
7. *Constipation*, which in all was persistent and its previous treatment had failed. One case had gone on several occasions for twenty-eight days without an action of her bowels in spite of treatment.
8. A *constant foul taste in the mouth*, which was often accompanied by foul breath and carious teeth. The tongue was constantly furred.
9. *Attacks of abdominal distension*, which were accompanied by discomfort and relieved by eructation or the passage of flatus or an action of the bowels.
10. *General muscular pain* and a loss of freedom in the movements of the joints.

A physical examination showed:

*Skin-staining*, as a rule of a general sallow or brownish nature, associated with more definite localized patches under the eyes, in the axillae, groins, etc., or in any region where pressure was made by the clothes. This was often definitely appreciated by the patient and had become more noticeable recently. The degree of staining varied directly with the distance of the site of obstruction from the stomach.

*The breasts* showed changes, which in the early stages are similar to those usually described as chronic mastitis and later as cystic degeneration. The degree of these breast changes seems to bear a direct relation to the

degree of autointoxication and affords a definite index to the extent of the latter. That these degenerated breasts are exceedingly liable to malignant change has impressed itself most forcibly on my mind, and in the cases given below there is definite proof that this cystic degeneration slowly but surely disappears after an ileo-colostomy, and the breast becomes quite clear and supple again.

*The abdomen.*—Palpation was attended with tenderness over the abnormally fixed areas of the bowel. The main site of obstruction varied in the different patients, and consequently the position of maximum tenderness varied. The caecum, as a rule, was a pelvic organ and much dilated. In some cases it was found fixed in the right iliac fossa. The ilio-pelvic colon presented two main varieties, in one of which a straight, thickened tube was palpable in the left iliac fossa; in the other it was not so easily felt, but at the operation was found as a large distended loop, with its ends approximated and fixed by adhesions to the left iliac fossa.

The transverse colon was usually palpable and hung below the level of the umbilicus, and its middle portion was found to be in the true pelvis. The ileum was usually entirely in the pelvis.

The accompanying diagrams are presented as typical. The radiograms were taken at the intervals stated after a bismuth meal was given. They were taken by Dr. A. C. Jordan, Medical Radiographer to Guy's Hospital, who has made a very special study of Mr. Lane's cases, and has been able to obtain an excellent series of *x*-ray photographs of intestinal stasis affecting the several portions of the gastro-intestinal tract.

DIAGRAMS SHOWING COURSE OF A BISMUTH MEAL TAKEN AT 4 P.M. ON JUNE 28TH.

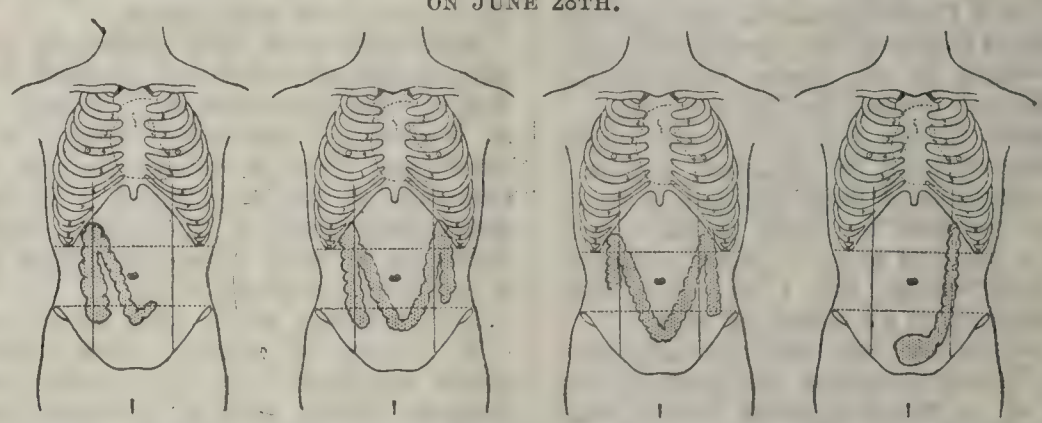

Fig. 1.—June 29th, 12 noon. After 20 hours.

Fig. 2.—June 30th, 12 noon. After 44 hours.

Fig. 3.—July 1st, 12 noon. After 68 hours.

Fig. 4.—July 2nd, 12 noon. After 92 hours.*

* A small motion was passed at 9 a.m. containing a trace of bismuth.

As regards the previous treatment, it had been long and varied; it had been largely medical, and carried out in the ablest hands and failed. Towards the abdominal pain surgical treatment had been directed in several cases, and such operations as appendicectomy, nephrorrhaphy, ventrifixation of the uterus, removal of the coccyx, had been performed.

### NATURE OF OPERATION.

The operative procedure adopted by Mr. Arbuthnot Lane in these cases was briefly this:

Half an hour previous to the operation 4 pints of sterilized normal saline are introduced into the axillae. A hypodermic injection of $\frac{1}{6}$ grain of morphine and $\frac{1}{100}$ grain of atropine is given, and ether is administered by the open method.

The abdomen is opened by an incision through the left rectus, and the viscera are examined. The lowest point of obstruction is found, and the ileum is divided and its distal end invaginated by a purse-string suture, and then the proximal end of the ileum is implanted laterally into the lowest accessible portion of the ilio-pelvic colon. It may be mentioned that quite frequently the iliac colon is so tightly adherent and the wall of the intestine so thin that this end-to-side anastomosis is a difficult procedure. A full-sized oesophageal tube is introduced through the anus up through the anastomosis, and is fixed in position by a suture through the perineum, and is retained for four or five days.

Should the pain have been a sufficiently prominent feature, it is considered wise to remove the colon up to the seat of anastomosis by ligaturing the mesocolon in portions, and then dividing it beyond the ligatures.

One of the most remarkable features is the slight degree of shock that follows this operation. It is no rare thing to see the patient reading a newspaper within thirty-six hours of the operation, and expressing herself as feeling already much improved. One patient who was operated on under tropacocaine related her experience to me on her return to the ward with much enthusiasm.

As regards the pathology of this condition, it has been so carefully described as to need no further details. I fancy that no one who has carefully observed the operative findings in these cases can have any doubt that the cause of the delay of the passage of the intestinal contents has been placed on a firm anatomical basis. It is due in the majority of instances to the presence of adhesions which fasten the bowel to the posterior abdominal wall in such a way that the bowel is kinked upon itself at an acute angle, and often in addition is rotated on its longitudinal axis. Thus a very definite cause of partial obstruction is produced. One is impressed by the fact that these retaining bands are evolutionary and useful, and only produce obstruction when they are formed irregularly, and, having failed to secure the bowel uniformly, a kink or obstruction has resulted.

In the other smaller groups of cases the obstruction is due to static causes; for example, an ileal obstruction may be produced by the bending of the lower end of the ileum over the pelvic brim as it passes upwards to a caecum fixed in the right iliac fossa in a feeble subject.

The difficulty in realizing that the conditions described exist seems to arise from the fact that the picture presented on opening the abdomen naturally varies, as the site of the main adhesions and the consequent effects on the bowel are not constant, but vary in the different cases. These adhesions develop in the mesentery or mesocolon, but are quite distinct from it and can be dissected off and the mesentery left intact.

The question is sometimes raised as to the possibility of these adhesions and the resultant kink being able to obstruct the lumen of the bowel, so that an intestinal stasis may result. In this connexion let me refer to Case XXXII, who was given an enema previous to her operation, and its introduction was attended with very marked pain. It was retained, and when the abdomen was opened it was found that the enema was contained in a much-distended pelvic colon and rectum, but that none of it had succeeded in getting past the lower attachment of the loop of which the iliac colon consisted.

### CONDITION SUBSEQUENT TO OPERATION.

The first thing noticed by the patients is usually that they move their limbs more easily, and they tell you that they feel as if a cloud had been lifted from them. The headaches, the nausea, the vomiting, the depressed circulation, the mental lassitude and apathy, are gone. The foul taste goes from the mouth, and the skin staining clears up at a remarkable rate. The constipation is in many cases cured, and is in all now easily under control. A bismuth meal now reaches the rectum in eight hours. The sister of the ward tells me that she has not yet seen a case that has required more than a saline draught to secure a daily easy action whilst in the ward. There has not yet been, to my knowledge, a case of diarrhoea following the operation. Thus we see that the evidences and results of the intestinal autointoxication commence to disappear from the operation, and after periods varying in length up to eight years we find that the early improvement has been maintained, there has been a steady increase of weight, the cystic degeneration of the breast has slowly but surely disappeared, and in nearly all the cases the improvement has been such that the patients have been returned from a state of chronic invalidism and a condition of mental and physical wretchedness, to the enjoyment of their lives and work again. Of course this has been a more marked feature in the private

patient who has been able to enjoy a period of rest during convalescence.

I have purposely left the question of pain to the end. In a large number it is quite gone. In some of the cases it has had to be dealt with subsequently, and it will be instructive to consider it in more detail. Among those cases which I have seen there have been only two in which there has not been a very marked improvement. In those patients who experienced pain after the operation, as far as I could determine, it was due to one of three causes:

1. In the majority of them it was due to occasional attacks of flatulent distension, which were accompanied by pain of a colicky nature. It was relieved by the passage of flatus or an action of the bowels. These attacks can be controlled by the habitual use of pure liquid paraffin, and the wearing of a suitable abdominal support. An occasional small dose of ol. ric. was sufficient in most cases to disperse it.

2. Then there was another group in which the cause of pain was found in the distension of the blind ends of the lateral anastomosis, which was originally the method adopted. It has only been necessary to obliterate these ends to cause a complete disappearance of the pain. To meet this cause an end-to-side anastomosis is now adopted.

3. The most serious cause of pain was found in the formation of inflammatory adhesions between a loop of small intestine and the area in the right iliac fossa, which has been denuded of peritoneum by the removal of the caecum. The freeing of this adherent loop is followed by a relief of pain.

The two failures with which I am acquainted have been due to very general adhesions, which have re-formed in spite of persistent efforts to relieve them.

It need scarcely be added that this subsequent formation of adhesions is not peculiar to the particular operation under discussion.

It seems fairly well established, then, that the symptoms described under the head of autointoxication are without doubt cleared up by an ileo-colostomy, and as far as I was able to ascertain from these patients there was no other cause for any complaint than the pain referred to above. It was negligible in most of the cases; in a few of the cases it had subsequently to be dealt with, and in only two was there not a very marked improvement. It will in future be met by an end-to-side anastomosis, by the wearing of a suitable abdominal support, and the habitual use of paraffin.

I do not wish to convey the impression that all these patients have been restored to a condition of perfect health. In a large number this has been done. This list includes many of the earliest cases, and this brilliant piece of work has been carried out on material that might well be described as wreckage. Even a casual glance at the patients and their stories shows the nature of the conditions that had to be dealt with, and we must not forget that all other treatment had hopelessly failed. Speaking generally, I take it that the object of any surgical procedure is to render the individual more efficient, and to what extent success has been attained in these cases must be obvious to all. One has only to see these patients to realize how good the results really are.

On the question of the nature of the substances absorbed from the bowel much interesting light has been thrown by a series of papers by Metchnikoff entitled, "Etudes sur la flore intestinale," which appeared in the *Annales de l'Institut Pasteur* in 1910. His distinguished assistant, Dr. Distaso, has been over from Paris on various occasions for the express purpose of assisting in the investigation of this matter. There is probably no greater living authority on the anaërobic organisms, and I have been fortunate enough to have had several opportunities of discussing this subject with him.

From the papers referred to above I have taken the following statements:

1. That in the myriad population of the intestinal tract there are at least three anaërobic organisms which can produce very virulent poisons.

2. That these poisons are of the aromatic series, and are produced by certain of the intestinal organisms.

3. According to the data we have collected in this communication it is no longer a hypothesis but an established fact that certain micro-organisms of a normal intestinal flora produce poisons—phenols and indols—which are readily absorbed by the normal intestinal wall, and are capable of producing grave lesions in our vital organs—vessels, liver, kidneys, etc.

This throws quite a new light on the pathology of many of the conditions of the heart, liver, and kidneys, and the subject of intestinal autointoxication becomes one of the greatest possible interest.

As regards the mortality of this operation at the present time, Mr. Mullins and I collected the cases done at Guy's Hospital from June, 1909, to June, 1910; 16 operations were performed with 1 death, and that was due to the bursting of an abscess from the abdominal wall into the peritoneum seven days after the operation.

It is quite clear, then, that the colon is by no means an essential part of the human anatomy. These patients put on weight very definitely and maintain it, and whatever part this viscus may play in the absorptive process appears to be easily compensated for by the lower end of the ileum.

The fear that this operation would be followed by a fatal diarrhoea has proved groundless. This is also the case with the supposition that these patients would suffer from thirst. In no case that I have seen has the patient after operation evinced any abnormal desire for fluids. I mention this as I have seen it stated to the contrary.

The deductions that can be drawn from this work are of the greatest possible interest. The first question that arises naturally is: What is the effect of this continual absorption on the resistance of the individual to bacterial infection? Interest at first centred on those patients with advanced tuberculous affections. A careful observation shows that a large number of them show all the physical signs which we have learnt are due to intestinal autointoxication, and it seemed fair to regard this depreciating influence as a very large factor in their lowered resisting power to the tubercle bacillus. The present-day treatment of tuberculous disease does not appear to me to be so perfect that this suggestion is not worthy of the most thoughtful consideration, and in this connexion let me draw attention to Case XLVIII and the great success which attended the operation. Already Mr. Arbuthnot Lane has dealt with several cases of hopeless tuberculous hip in this way, and the results have up to date been most encouraging.

A similar deduction may be drawn as regards the lowered resistance in an intestinal stasis to the entrance of any other pathogenic organism, and if the future will but produce verification of the statements made by such an eminent authority as to the effect of the continual absorption of intestinal products in the causation of arterio-sclerosis and the various affections of the heart, liver, and kidneys, it seems reasonable to suppose that until we learn to control this absorption by other means the operation of ileo-colostomy will become one of the commonest of the surgery of the day.

GROUP A.—*Evidence Obtained from Personal Observation.*

CASE I.—A female, aged 27, single, a hospital nurse, had suffered for many years from marked constipation, which was associated with marked and frequent abdominal pain, frequent severe headaches, attacks of vomiting, and a constant feeling of nausea, and a foul taste in her mouth. She could maintain no interest in anything. Her appetite was very poor, and her weight had gone steadily down to 119 lb.

*On Admission.*—Her abdomen was distended; palpation of the colon was tender. Her lips were anaemic; her skin waxy, with much staining. Cystic changes were especially marked in the left breast.

Her condition had progressed, in spite of the ablest medical treatment, and in the end she was an invalid and quite unable to perform her duties as a nurse, because of a marked feeling of lassitude and the abdominal pain and vomiting.

In June, 1904, right nephrorrhaphy was performed, but only temporary relief obtained.

In October, 1904, an ileo-sigmoidostomy was performed.

I saw her on February 16th, 1911, and she was a full-faced woman, with a perfectly clear, pink skin. Her weight is now 147 lb. The bowels act easily, requiring merely an occasional purge. The headaches, vomiting, nausea, and feeling of lassitude are gone. She has a good appetite. The cystic changes in the breast have quite gone.

She returned to the full duties of a nurse in July, 1905, and since then has followed the usual hospital routine, and says she feels perfectly well in every way.

CASE II.—A female, aged 28, single. Had suffered from constipation for many years; this had become worse during the last three years, and had been absolutely dependent on purgatives and enemata during that time. An action of the bowels was always attended with pain, and an enema caused almost

unbearable pain. This condition was associated with attacks of left-sided abdominal pain, frequent attacks of dizziness, distressing cold hands and feet, frequent headaches, loss of appetite, frequent attacks of nausea, but vomiting only on two occasions. The attacks of abdominal pain and marked lassitude and mental inability had rendered her quite unable to do any work for three and a half years.

For two years previous to admission she had been under the care of one of the ablest London physicians, and been treated medically, but she had, nevertheless, become steadily worse.

*On Admission.*—Her skin was definitely stained; she was a thin, wasted, sallow-faced woman, and was suffering from an attack of acute abdominal pain, with a distended abdomen. The colon was palpable and tender. An enema given confirmed her story as to the pain produced. The cystic degeneration of the breasts was most marked. Her weight was 92 lb.

In August, 1909, colectomy was performed and a lateral anastomosis made. The convalescence was interrupted by the development of the *Bacillus coli* in the abdominal wound and urine. These were successfully treated by vaccines.

I saw her again on January 24th, 1911, and the difference in her condition was very real. Instead of the sallow, thin, miserable woman, one met a full-faced woman with clear skin. Her weight had gone up to 115 lb. Her abdominal pain had gone; her bowels acted regularly with paraffin. The headaches, dizziness, cystic breasts have gone. She is now quite able to do her work, takes a renewed interest in life, and cannot adequately express her gratitude.

CASE III.—A married woman, aged 42, with four children, was admitted because she had suffered from attacks of acute abdominal pain of irregular incidence and not apparently connected with the taking of food. During the last four years these attacks had increased in frequency, and were described as "simply dreadful."

She had frequent bad headaches, loss of appetite, many years' history of constipation, which alternated at times with diarrhoea, a constant feeling of lassitude, and she felt she was "dragging along anyhow." She had been treated medically for years.

Her skin was stained; her cold hands and feet were a source of much discomfort. The sigmoid was palpable as a fixed, straight tube which was tender. The caecum was in the pelvis, kidneys were palpable, and there was a general enteroptosis. She was in a very low condition indeed.

On opening the abdomen in July, 1909, the ascending colon, caecum, and the lower end of the small intestine were found tied down in dense adhesions, due to a tuberculous peritonitis.

The colon was removed as far as the ileo-pelvic colon, together with the lower 2 feet of the ileum, and a lateral anastomosis was made. She was in such a low condition that during the convalescence she developed a bedsore, which was resistant to treatment, but was eventually healed.

I saw her again on January 24th, 1911, and she looked quite a different woman, with a clear, healthy skin. She had put on over 28 lb. Her appetite she describes as tremendous, her headaches have gone, the bowels act easily with an occasional purgative. She is quite able to do all her household duties. She says she feels "miles better," and is delighted with herself.

CASE IV.—A female aged 29, single, was admitted for many years' severe constipation which had defied all varieties of treatment, and she was quite dependent on increasing doses of purgatives, which produced an occasional action. This was accompanied by abdominal pain, which was aggravated by taking food, and was at first felt in the right side of the abdomen. It was associated with distension when she stood up. The pain had become very bad, but not unbearable. She had had frequent distressing headaches, frequent vomiting, a chronically furred tongue, and a constant foul taste in her mouth. For twelve months previously she had passed mucus per rectum. She was tired out by midday, and had been compelled to give up her work for eight months. A meal containing meat or fruit was followed by nausea and a definite epigastric pain in fifteen minutes. Skin staining was marked. Both breasts showed chronic mastitis. She had lost a lot of weight.

On November 25th, 1909, an ileo-colostomy was performed.

I saw her again on January 19th, 1911, and she was most definitely improved. She looked fatter, and now weighed 132 lb. Her skin staining was gone. Her bowels act easily with an occasional purge. The cystic changes in the breasts have disappeared. Her only complaint is that of an occasional attack of flatulence and distension. She has passed no mucus for five months. She has been back at work for five months, and says she feels very much better in every way.

CASE V.—A female, aged 27, married, was sent up for persistent and long-continued haematemesis of six months' duration.

She gave a seven years' history of constipation, which was such that, despite purgatives and enemata, which caused great pain, she had on occasions had no action for twenty-eight days. She had had marked abdominal pain, was rapidly losing weight. She had taken no solid food for two years, and had been treated medically as an in-patient in two London hospitals for gastric ulcer. She had been unable to work for about six years, and said she felt as if she just wanted to lie down and never get up again. On admission, her skin was almost the colour of an Indian's, the staining being most marked. She was sick after every meal. In August, 1908, she weighed 119 lb. She weighed 86 lb. on admission. She was weak and depressed.

In August, 1909, colectomy was performed. There was no gastric ulcer present.

She was discharged with her bowels acting easily, able to take solid food, the vomiting ceased, and the skin staining having rapidly disappeared.

Until July, 1909, she got on splendidly. She married in May, 1909, and her husband thought she had done marvellously. Her weight had gone up to 117 lb.

In August, 1910, she had a bad miscarriage, and this has thrown her back somewhat, as she has since then had some abdominal pain. Apart from this, she says she would still be quite well, and she certainly looked very well.

I saw her in March, 1911, and she was almost free from pain again, and was quite pleased with her condition.

CASE VI.—A female nurse, aged 43, single, in April, 1892, had acute appendicitis. Until 1900 from that date she had had repeated attacks of severe abdominal pain with sickness and constipation.

In November, 1900, the appendix was removed, but the attacks of pain and sickness soon recurred and constipation was still obstinate. This state continued till 1905, and she then began to pass mucus. In June, 1905, the right kidney was fixed, but the symptoms were only temporarily relieved.

She steadily lost weight, and it fell to 89½ lb. At the end of September, 1906, she became very ill and was forced to keep to her bed, and wasting and loss of strength became pronounced. The constipation was uncontrollable with any purgatives, and she had as many as four enemata a day. Despite these, she had gone sixteen days without any action. Her skin became very dirty, and her mental and physical wretchedness was marked.

In May, 1907, she had been in bed for eight months, and during that time would lie for two or three days at a time in a sort of semiconscious state, and was so ill that it was feared removal to hospital was impossible. She was admitted in May, 1907, and colectomy was performed.

She was readmitted in January, 1908, and an adherent loop of bowel freed. I saw her on January 31st, 1911, and she said that she had greatly improved in every way. Her weight was now 105 lb. The vomiting had ceased; the bowels acted easily with an occasional aperient. Her appetite had returned, and she was now able to do her work as a nurse.

CASE VII.—A married woman, aged 55, had been constipated for years. It had progressed in spite of all treatment, and often she had gone a fortnight without an action. Purgatives were followed by vomiting, and enemata were very painful. Before admission there had been no action for four weeks, and she was constantly vomiting a very foul material.

She had had severe headaches, abdominal pain for years. Her skin was almost mahogany in colour, and this was associated with defective circulation and a constant foul taste in the mouth. Her weight fell to 84 lb.

On admission she was considered too feeble for any surgical treatment, but she begged for something to be done, and on June 24th, 1907, an ileo-colostomy was performed.

I saw her on January 30th, 1911, and was struck with the clear, peach-coloured skin. Her bowels acted regularly. There was absolutely no pain, no headaches, no vomiting; her appetite is splendid, and she weighs 112 lb.

She feels better than she has done for many years, and does all her housework and works in her husband's parish just as any other normal person might do.

CASE VIII.—A female, aged 24, single, had suffered for years from extreme constipation with severe abdominal pains. She vomited very frequently, and was never without a headache. Twelve months' medical treatment had quite failed to improve her in any way. Her weight fell to 84 lb., and she was going downhill fast. She had done no work for two years, and had been a complete invalid.

In September, 1906, an ileo-colostomy was performed.

In February, 1907, the colon was removed to the splenic flexure.

She improved in every way, and put on 24 lb., but her pain returned in July, 1907, and a loop of adherent intestine was freed. This gave complete relief, and she improved greatly in every way.

In February, 1909, another coil became adherent, and this was freed. During her convalescence the intestine opened on to the abdominal wound, and a faecal fistula formed.

In February, 1911, she looks clear skinned and well. She has put on a great deal of flesh, and feels splendid in herself. The fistula has not yet closed, and it has not been possible to devise any apparatus to control it, so that she is thus still a cripple in that respect.

CASE IX.—A married woman, aged 44, with four children, had been constipated for many years, which had progressed in spite of all treatment. She had frequent headaches, which latterly became almost constant. Her skin had become sallow, and she had frequent attacks of abdominal pain, distension, and vomiting. Her appetite went, and she had a constant foul taste. For nine months previous to operation the abdominal pain was almost continuous, and she was worn out by it and the frequent vomiting, and she was dying. She had had every conceivable form of medical treatment in the ablest hands.

In December, 1905, colectomy was performed.

I saw her in February, 1911, and she felt "wonderfully well." the headaches, vomiting and pain having quite gone. Her skin is clear and she is well nourished, and has put on 14 lb. since operation.

CASE X.—A single woman, aged 32, had suffered since childhood from constipation which had progressed in spite of treatment of every kind. The introduction of enemata was very painful. She had been compelled to lead the life of an invalid because of the frequent attacks of abdominal pain, severe

headache, abdominal distension, and vomiting. She wasted markedly, and felt "just dreadful," and was quite disinclined to go on as she was.

In 1900 appendicectomy was followed by temporary relief for a few months.

In 1902 for acute pain in the right iliac fossa and frequent vomiting.

In 1903 readmitted with extreme constipation, and an extensive operation was performed to free the colon from adhesions. Again only temporary relief.

In 1904 right nephrorrhaphy was performed, and in 1905 colectomy to the splenic flexure was performed.

In May, 1907, she was vastly improved, and had earned her living without a rest for twenty months. In November, 1907, an adherent loop had to be freed.

I saw her in February, 1911, and she was now very well indeed. She had put on 32 lb. since 1905, her condition being perfect in every way. About a year ago she began to get occasional attacks of discomfort two hours after a meal, and this is the only cause of complaint; otherwise she looks and is splendid.

CASE XI.—A single woman, aged 40, gave a history of constipation since childhood. This had progressed and been accompanied by severe abdominal pain, which had got worse since 1901, and in the last two years became unbearable, and she felt life impossible. She had frequent severe headaches, which eventually recurred every three or four days. She had lost a good deal of flesh, her appetite was gone, and she was thoroughly miserable. In attempts to deal with the pain ventral fixation of the uterus, removal of the coccyx, right and left nephrorrhaphy had been performed. In March, 1909, she first noticed she was passing mucus.

She was very sallow and pigmented on admission, and her pain referred chiefly to the right iliac fossa. The sigmoid region was very tender on palpation. Cystic changes were marked in both breasts, and on the left side had suggested a diagnosis of malignancy. Sigmoidoscope showed only flakes of mucus. In November, 1909, the colon was removed to the sigmoid flexure.

I saw her again on January 26th, 1911, and the difference was most striking, as she was now absolutely well and had put on flesh. Her doctor quite agrees with me in this view, and writes that "Mr. Lane may well feel pleased with the result of his operation."

CASE XII.—A single woman, aged 47, a nurse, had suffered for many years from chronic constipation, marked abdominal pain, frequent bad headaches, and vomiting. Many operations by various surgeons for the relief of this pain had been performed, but had failed. All hope of relieving her had been abandoned and she was admitted to a home for the dying. For about four months previous to admission she had been vomiting faecal material; her pain was such that she had been having hypodermic morphine daily. Her weight was down to 105 lb., and she was dying.

In July, 1904, an ileo-colostomy was performed, and in November, 1904, the colon was removed. In February, 1905, a very mobile right kidney was stitched up. In December, 1908, a diverticulum from the lateral anastomosis was laced up.

I saw her on February 3rd, 1911, and she is now a big, plump woman of 156 lb. Her bowels act easily with paraffin. She is very pleased with herself. A friend of hers writes: "I have known her for many years, and never saw her looking so well. She certainly is a living wonder."

CASE XIII.—A single woman, aged 29, gave a history of progressive constipation since 16, associated with severe abdominal pain, distension. To deal with this pain her appendix and right ovary were removed when 22. The relief was only temporary, and she gradually got worse. Constant "dyspepsia," abdominal pain, headaches, and a feeling of lassitude, which progressed to bitter misery, had brought her for advice to many eminent men. Having the means, she had been in various nursing homes, and been treated in all the recognized methods, and at the end took 2 oz. of ol. ric. every evening and enemas *ad nauseam*, with the result that an occasional painful action followed. Her skin became absolutely yellow, and although she felt "dreadfully ill and miserable," she was diagnosed as "nerves." In spite of treatment her weight fell to 112 lb.

On September, 1905, colectomy was performed, and in five months she felt quite well, and her weight went up to 128 lb.

In December, 1906, it became necessary to free adhesions round the pylorus, but the relief was temporary, and in March, 1907, a posterior gastro-enterostomy was performed. In October, 1907, an adherent loop had to be freed.

Since then everything has gone well. I saw her in February, 1911, and she was in excellent health in every way. Her weight now 140½ lb. She won a tennis tournament last summer, playing forty-four games in one match. She rinks; walked nine miles one day last summer. She feels "miles better," and is just delighted with herself.

CASE XIV.—A medical man, aged 43, had suffered from constipation since a youth, and for ten years it had defied all treatment. With this had come on a progressive feeling of lassitude, mental disability, loss of appetite, constant headaches, and sleeplessness. He had a chronically furred tongue. He had no pain. He had been treated for two years by Westend specialists, but had got progressively worse. Thinking he might be hypochondriacal, as had been suggested, he fought on until life became unbearable. Weight 116 lb.

In July, 1907, a lateral anastomosis was performed.

I saw him in March, 1911. His bowels act easily, no pain, appetite returned, weight 132 lb. He has since worked very hard in his practice, and has been absolutely well in every way for the last three years.

CASE XV.—A female, single, aged 27, had for many years suffered from marked abdominal pain, constipation, frequent vomiting, and severe headaches. For nineteen months previously she had been under the ablest medical treatment, but had got progressively worse. This was the worst case of pain in the series, and this, combined with frequent vomiting and a constant feeling of weariness, had made life unendurable. For two years she had done nothing, but had spent most of the time in bed.

After removing the appendix and two operations to relieve the adhesions by simply breaking them down had failed, in October, 1903, colectomy was performed. Since then the abdomen has been opened on several occasions to break down extensive inflammatory adhesions that form, but the relief afforded is only temporary, and this condition cannot be met.

CASE XVI.—A man, aged 44, with many years' history of uncontrollable constipation, which during the last three years had been accompanied by attacks of abdominal pain, which latterly had become very frequent and severe. Vomiting had been a feature for six years, and during the last twelve months he had vomited nearly every day, and often several times a day. No haematemesis. His appetite was gone; his weight fell to 118 lb., and he felt thoroughly miserable.

In December, 1904, an ileo-colostomy was performed.

In November, 1906, colectomy was necessary, and at this operation adhesions around the pylorus were divided and the stomach found dilated.

In April, 1907, a gastro-enterostomy was performed.

I saw him in February, 1911, and he was a strong well-nourished man weighing 161 lb., and absolutely well in every way and was delighted with himself. His ability to deal with a dinner at Simpson's left no doubt in my mind that the pleasures of his life were not curtailed in any way.

CASE XVII.—A single woman, aged 38, gave a five years' history of constipation, which had defied all treatment. In addition she had almost constant headaches, was always tired, constant foul taste, and carious teeth. Latterly had vomited after nearly every meal and abdominal pain had become very marked. Mentally she seemed dull and confused. She had a large cystic goitre, which raised the question of the advisability of giving a general anaesthetic.

In July, 1910, an ileo-colostomy was performed.

The bowels now act easily and regularly, headaches are gone, and she is mentally quite bright. The cystic thyroid is less by more than a half, and the patient says she feels better than she can ever remember doing.

CASE XVIII.—A single woman, aged 22, who had been constipated since childhood; it had become much worse since 14, and it was accompanied by frequent abdominal pain, which was worst when the bowels acted. These attacks became so frequent as to render life unbearable. With them were associated frequent bilious attacks and severe headaches, with loss of appetite. Her skin was stained and her breasts cystic.

In 1908 the ilio-pelvic colon was freed from adhesions, but only temporary improvement resulted.

In August, 1909, an ileo-colostomy was performed, and in February, 1910, colectomy was performed. She improved in every way, put on weight, bowels acted easily, and she felt "splendid."

In February, 1911, it was necessary to free an adherent loop.

The girl is now quite a different person; no headaches, no nausea, no pain, cystic changes in the breast have gone, and she feels perfectly well in every way.

CASE XIX.—A man, aged 22, who had suffered from intractable constipation, abdominal pain, nausea, frequent vomiting, bad headaches, all of which had progressed in spite of treatment.

In December, 1905, the appendix was removed, and the right-sided pain disappeared, but he was still much the same, and left-sided pain became very marked. His weight fell to 122 lb. He had a constant offensive smell which did not disappear after hot baths and change of linen; this with the abdominal pain and headaches made him come up for radical treatment, and quite prevented him working at all.

In November, 1906, the colon was removed to the splenic flexure.

I saw him on February 13th, 1911, and he was now a perfectly clean, healthy, well-nourished man weighing 150 lb. There is no pain, bowels regular without any medicine. The offensive odour and pigmentation have gone. He plays football, runs, cycles, and works as hard and as normally as any other man.

CASE XX.—A single woman, aged 26, had been constipated since 14, with frequent pain in the left iliac region, severe frequent headaches, described as "fearful." Had been medically treated since 1905; had done no work for months; weight down to 100 lb. Cystic changes in both breasts marked. Skin dirty. Bismuth meal markedly delayed in the colon.

In August, 1907, ileo-colostomy performed.

I saw her on February 6th, and she looked very well, and says "it was so lovely to feel well." No headaches; bowels act easily, no pain. Cystic breasts have cleared up. Her only trouble, she says, are occasional attacks of flatulence and distension. These she describes as trivial, and says she feels "wonderfully better."

CASE XXI.—A single woman, aged 32. A long history of obstinate constipation, and during the last few years had passed a lot of mucus. Had severe attacks of abdominal pain for last five years. In treatment of this pain the appendix had been removed and gall bladder explored later for stones, which were not found. The caecum had been opened and colon irrigated to get rid of the mucus, but had failed. She had almost

constant headaches, and attacks of retching, and was very hopeless about it all. She had markedly wasted.

In February, 1909, colectomy was performed, and was very difficult. She had a long, tedious convalescence as a faecal fistula opened on to the abdominal wall.

I saw her again on February 14th, 1911, and she said she felt "awfully well," and she certainly looked a very different person. Mucus gone, and she can walk several miles a day. Her one trouble is her fistula, and that will be closed by operation.

CASE XXII.—A single woman, aged 37, had suffered for years from marked constipation, headaches, abdominal pain, frequent vomiting, loss of flesh and lifelessness. She had a defective circulation, and was markedly stained. She had been compelled to give up her occupation because of the constant headache, vomiting, and pain.

In August, 1908, an ileo-colostomy was performed.

I saw her on February 6th, 1911, and she says she is very greatly improved in every way. Headaches gone, pain is now negligible, bowels act easily with occasional aperient; her weight has gone up and she has returned to work.

CASE XXIII.—A single girl, aged 19; had a history of many years' constipation, which had become much worse in the last year. Abdominal pain of six years' duration especially associated with defaecation. Frequent distressing headaches, frequent attacks of nausea, only occasional vomiting. Very dirty complexion; lost much flesh. The abdominal pain with nausea and complete lassitude made her feel "she did not care much what happened," and she had done no work for six months. Cystic changes marked in both breasts. Sigmoid palpable as fixed, tender, straight tube.

January, 1910, colectomy. From that time onwards she progressed. No pain, bowels act regularly, great increase in weight. Skin cleared up. Cystic changes in breast are quite gone. She has returned to work and interest in life again.

CASE XXIV.—A single woman, aged 27, with a history of constipation since childhood, said she had been treated at various hospitals for constipation and abdominal pain. Since 1903 she had been compelled to leave various situations. The pain and constipation progressed in spite of treatment, and became associated with acute headaches and faintness, and a constant feeling of lassitude and nausea.

In 1905 she did only five weeks' work.

In 1906 she began to pass mucus, and from then onwards was in hospital for seventeen months. An appendicostomy was performed, and the bowel washed out regularly for six weeks. This did not relieve the condition. Her constipation increased, and she took 7 minims of croton oil twice a week for some months; its chief effect at first was to produce acute pain and vomiting. On admission she was coarsely pigmented, had lost flesh, and cystic changes in her breast were marked.

In July, 1910, an ileo-colostomy was performed.

I saw her in February, 1911, and she says she is "infinitely better." Her skin is much clearer; her bowels act regularly without any aperient. She has put on weight; her appetite is much improved; headaches gone; no pain, but occasional flatulence. The difference in her mental condition is remarkable.

CASE XXV.—A single girl, aged 18, gave a history of severe constipation for four years. Marked frequent abdominal pain; three years' history of acute pain on defaecation. Loss of weight; appetite gone; almost constant headaches; sallow-stained skin; a state of advanced mental lethargy. Bismuth meal was markedly delayed in its course through the colon. Ileo-colostomy in July, 1908.

I saw her on February 7th, 1911, and she was markedly improved. Headaches gone; bowels act easily; gain of weight. Appetite—"eats wonderful now." Yellow colour gone. Went straight back to service, and her only trouble is an occasional attack of flatulence and distension.

CASE XXVI.—A single woman, aged 45, gave a long history of obstinate constipation, abdominal pain, pain on defaecation, very severe headaches, frequent nausea and vomiting, no haematemesis. Loss of weight down to 96 lb. Marked skin staining, and described her condition as one of general misery. Left breast showed marked cystic changes, which the patient thought was a "cancer."

In 1902 right nephrorrhaphy; in 1904 left nephrorrhaphy gave only temporary relief.

In 1904 ileo-colostomy, and in 1905 colectomy to the splenic flexure.

I saw her in February, 1911, and she looked well nourished, clear skin. She said that until Christmas, 1910, she was most markedly improved in every way. No pain. Bowels acted with occasional aperient. No headaches, nausea, vomiting. Put on weight, to 112 lb., and she was delighted with her condition. At that time she discarded her abdominal corset, and since then distension has returned. Cystic changes in left breast have quite gone. She will be given another abdominal support. She is now able to do all her home duties, and thoroughly enjoys her life.

CASE XXVII.—A single woman, aged 27, with a history of intractable constipation since childhood. In addition she had frequent abdominal pain, vomiting two hours after food. On seven occasions haematemesis. Severe frontal headaches, latterly almost constant. Had been compelled to give up situations for these reasons for the last two years. Weight fell to 100 lb. General muscular pain; almost chronic cough, with no sputum. Skin yellowish, constant foul taste. "She cares nothing if she lives or dies." Marked cystic changes in her breasts.

In 1902 appendicectomy with temporary improvement.

In December, 1902, pain returned and delay found at hepatic flexure, and so abdomen opened and adhesions broken down; again only temporary relief.

In January, 1911, ileo-colostomy.

March, 1911. She is now as happy as possible, and feels as if a cloud had been removed. Skin already much clearer. Bowels acting regularly. Improvement is remarkable.

CASE XXVIII.—A married woman, aged 38, gave a life-history of progressive constipation, which had defied medical treatment. Accompanying were very severe headaches, right-sided abdominal pain for six years, with frequent vomiting after meals. No haematemesis; constant foul taste; defective circulation. She had been unable to do her housework for six years because of pain and vomiting, and had been under treatment constantly.

Two months previous to admission had attacks of sickly pain under right costal margin, with attacks of vomiting, and was sent in as a case of gall stones.

On February 20th, 1911, an ileo-colostomy was performed; there were no gall stones. Since her operation she has most markedly improved; not a single headache; bowels act regularly; no vomiting, and she is delighted with herself.

CASE XXIX.—A married woman, aged 43, had been entirely dependent on purgatives and enemata for many years. Eventually these were only occasionally efficient, and were painful. Daily nausea, no actual vomiting. Frequent bad headaches; abdominal distension and much pain; defective circulation; constant foul taste in mouth; loss of appetite; stained skin; cystic breasts; constant feeling of weariness and depression. Was often laid up for six weeks at a time, and was quite unable to work.

In July, 1907, colectomy and pylorus liberated from adhesions. I saw her in February, 1911. Bowels now act regularly, headaches much improved; clean skin. Gain in weight, and she feels "so very much better." Cystic breasts cleared up. Absolutely enjoys life in every way, only complaint occasional flatulence and distension.

CASE XXX.—A single girl, aged 18, gave a long history of constipation, which had become much worse during the last nine months. Had been twenty-eight days without an action in spite of treatment. Had taken as much as a pint of ol. ric. in week without effect. Frequent headaches, much abdominal pain, defective circulation. Constant feeling of weariness and lethargy. Had been treated in every possible way at home and at hospital, and was sent up as a *dernier ressort*. A bismuth meal took four days to reach the rectum, and was then removed by an enema.

March, 1910. Colectomy.

On February 18th, 1911, her doctor writes: "The change in the patient is extraordinary. She has a clear fresh colour, she is bright and active mentally and physically, and her mental torpor and hysteria have almost entirely gone. Her bowels act easily. I saw her walking in one of the lanes the other day, and you would not know her for the heavy, uninteresting creature of eighteen months ago. I am delighted and surprised with the result." The patient herself is no less enthusiastic.

CASE XXXI.—A single woman, aged 53, was admitted in August, 1908, for left-sided abdominal pain, with constipation since girlhood and "indigestion," frequent attacks of abdominal distension with regurgitation into the mouth of a sour material, and in the bad attacks she vomited. Frequent bad headaches and marked periods of mental depression. Skin staining. Loss of flesh was marked. Mucus passed per rectum since 1904. When 40 a fibroid had become prominent, and in 1895 both ovaries were removed. She had done no work of any sort for six months previous to admission.

In August, 1908, an ileo-colostomy was performed.

I saw her in February, 1911. Her bowels act regularly. Good appetite. Headaches gone. No sickness. No colitis for months. Her only trouble consists in occasional attacks of flatulence, which cause abdominal discomfort. She is now able to do all her household duties.

CASE XXXII.—A single woman, aged 51, was admitted for very severe left-sided abdominal pain and constipation, which had become much worse in the last three years. Breasts markedly cystic. Deep pigmentation. Very tender in left iliac fossa. An enema was unable to pass the adherent loop in this fossa.

Ileo-colostomy in December, 1909. She writes to say she is very much improved in general health but still has some abdominal pain.

CASE XXXIII.—A single woman, aged 34, who had always been constipated, and suffered for years from attacks of marked abdominal pain and vomiting. She was a miserable-looking woman, and had done no regular work because of the pain and the constant vomiting for eleven years.

Appendicectomy in 1902 produced only temporary relief, and the constipation and vomiting persisted.

In November, 1903, an extensive operation was performed to break down adhesions binding down the large bowel, and again the relief was only temporary.

In July, 1904, ileo-colostomy was performed; and in November, 1905, the colon was removed to the splenic flexure.

Her doctor now writes to say that "Since then she has gradually and definitely improved. She has put on flesh, the bowels act regularly with a slight aperient, and the vomiting has ceased. Altogether she is very markedly improved."

I saw her on March 6th, 1911, and she said she kept very well indeed. She was well nourished, having gained 28 lb.; her bowels acted easily, the vomiting had quite stopped, and she

felt delighted with her condition. Her only trouble was occasional flatulence. Her abdomen was perfectly supple and there was no tenderness.

GROUP B.—*Evidence Obtained from the Guy's Hospital Surgical Reports, and by Correspondence.*

CASE XXXIV.—A male, aged 23, was admitted with a six years' history of obstinate constipation, for which he had been treated by various eminent German physicians; he had been to Carlsbad, and been treated with daily enemata, and in spite of these obtained an action every twenty-one to twenty-three days. Then he went to Berlin, and was treated with medicines, exercises, enemata, baths, diets, etc., but no relief was obtained.

In addition he had suffered from severe abdominal pain, worse after food; almost constant headache, steady loss of weight, poor appetite, and was quite unable to carry on his business.

In July, 1910, an ileo-colostomy was performed, and he has steadily improved. His bowels act regularly, and he is delighted with his condition.

CASE XXXV.—A married woman, aged 35, had complained of right-sided abdominal pain for the last fifteen years, with frequent attacks of nausea and offensive vomiting. Constipated since childhood, and quite dependent on purgatives, enemata, etc. Lost a lot of flesh. This in spite of all treatment.

Appendicectomy in 1908 gave only temporary relief from the pain.

In February, 1910, an ileo-colostomy was performed. She was discharged very much better in every way; the pain had gone, bowels acted regularly.

In March, 1911, she is maintaining the improvement, and her only trouble is attacks of flatulence, abdominal distension, and discomfort.

CASE XXXVI.—A married woman, aged 45, gave a history of severe constipation for many years, and this had defied treatment for the last six years. During the last twelve months headaches were constant, and with severe abdominal pain, which increased after taking food, had made her quite unable to do the lightest of her household duties. She was markedly pigmented, constant cold hands and feet. Had lost much weight, and was very thin.

In July, 1910, an ileo-colostomy was performed, and she was discharged very markedly improved, no pain, no headaches, bowels acting easily. She writes to say that this improvement is maintained.

CASE XXXVII.—A married woman, aged 39, who said that she had been constipated since girlhood, and this had of recent years become much worse. Defaecation had lately become very painful, and blood and mucus were found in the motions. Poor appetite. Suffered constantly from "dyspepsia."

She awoke with a headache, and was quite done up by teatime, and had to go and lie down every day. Frequent nausea, no actual vomiting; deeply stained; rapid loss of flesh. After many years' unsuccessful treatment, in February, 1906, colectomy was performed. Since then her bowels have acted regularly and comfortably. She has felt quite well, and able to do her housework. She has just given birth to her second son since her operation, and so far all has gone well.

CASE XXXVIII.—A single woman, aged 35, had suffered for years from increasing constipation, which had been treated by the most able physicians without improvement. She had associated with this constant attacks of nausea, headaches, and marked abdominal pain. Her weight fell to 78 lb., and she was very wretched and miserable.

In October, 1904, ileo-colostomy was performed, and in September, 1905, the colon was removed to the splenic flexure. Her recovery was splendid, and her doctor writes that she is now in very good health; her bowels act with an aperient. She has only an occasional headache and at times some abdominal distension and flatulence.

The patient herself writes to say "she is fully alive to the great improvement that has been made in her. Her weight is now 91 lb. I do not complain of the need of an aperient, as it now acts, and I feel a sound, healthy young woman."

CASE XXXIX.—A single woman, aged 43, who had suffered from marked constipation for seven years, and pain on the right side of the abdomen became marked. She rapidly lost flesh, and the right kidney became mobile and was stitched up in 1902. In 1904 appendicectomy was performed. After this constipation became most obstinate and mucus appeared in the stools, and she was in a continual state of discomfort and pain, and in July, 1907, colectomy was performed.

In January, 1911, her doctor writes: "She has lost her sallow appearance, the mucus has disappeared from her motions, the bowels are easily controlled, but she has some attacks of distension and abdominal pain. The abdomen is perfectly soft and supple, and there are no physical signs in it."

CASE XL.—A man, aged 29, had suffered all his life from chronic constipation. He was admitted in December, 1904, dying with acute ulcerative colitis. He was so ill that it was only possible to expose the lower end of the ileum and drain it. The very acute symptoms subsided, but frequent discharges of blood-stained foul mucus ran involuntarily from the anus.

In January, 1905, the ileum was introduced with great difficulty into the rectum. He was discharged much improved, but the fistulous aperture in the right groin had not closed. In September, 1905, the large bowel was removed.

In February, 1911, his doctor writes that "He is still alive, and there is no blood or pus in his motions. He is still very weak and suffers from myalgia. As at the operation his life was despaired of there is no doubt it was a success."

CASE XLI.—A married woman, aged 32, had been "going off" for years. When 16 she was in bed for seven weeks with a diagnosis of "gastric ulcer." Since then her bowels had been a constant trouble, pain under the right costal margin became marked, and attacks of vomiting occurred.

In 1906 a London surgeon performed gastro-enterostomy; but this gave little relief, and the vomiting continued.

In May, 1907, she was much worse, attacks of vomiting every fortnight. Her complexion was earthy, her tongue brown and constantly coated. A constant pain in the right iliac fossa pressed down and made the bladder irritable. Severe attacks under right costal margin accompanied this, and mucus was passed. Her condition at this time was described as desperate.

In May, 1907, colectomy was performed. From then she improved, gradually discarding her invalid habits and taking healthy walking exercise, and her general condition improved in every way. It was necessary to lace up the blind ends of the anastomosis in 1908. Her doctor writes that, "in looking back at this case, it seems almost incredible that this happy and contented young lady should be the same individual as the miserable cachectic creature of four years ago." She herself is unshakably of the opinion that, but for the removal of her "cesspool," she would not now be alive.

In January, 1911, she writes that she is still quite well.

CASE XLII.—A single woman, aged 48, had an attack of peritonitis with a discharge of pus per rectum when 9. Since 12 she had suffered from constipation. Had trained as a nurse in 1881, but had never been able to go on with her duties for any length of time. Since 1894 her bowels had never acted without drugs. Since December, 1897, she had led the life of an invalid. She was observed in 1899 to be very thin, of a muddy complexion with abdominal pain after all food. No appetite, constantly furred tongue. She never left her bedroom, and always required purgatives, etc., for bowel action. In 1904 these symptoms became more marked, more aperients were required. Persistent nausea was present, with occasional vomiting and increasing emaciation. Her doctor sent her up, believing that her constipation was the chief factor in her condition.

In July, 1904, her carious teeth were removed. No improvement.

In November, 1904, colectomy was performed.

In 1905, she developed tubercle at the right apex, and tubercle bacilli were found in the urine.

In February, 1911, her doctor writes that she has developed into a case of chronic phthisis. Her bowels act daily, but require a glycerine enema occasionally, so that the operation has certainly put the old constipation under control. She still has tubercle bacilli in her sputum. It is worthy of note that she was not emaciated in the last year or two.

CASE XLIII.—A single woman, who since 1894 had been the victim of most obstinate constipation. Defaecation was attended with pain. For seven years this had been associated with abdominal pain, sickness, severe headaches, debility, loss of appetite, and depression. Her weight went down to 99 lb. She had done no work since 1903.

In March, 1905, ileo-colostomy was performed, and she now writes to say, "My weight is 128 lb. I have a good appetite, and can eat anything without being sick. I have taken no medicine since 1907. Every one tells me how much better I look, and I feel so pleased to be so well again. I feel quite able to do my work without feeling overdone."

CASE XLIV.—A single woman, aged 41, who trained as a nurse. She had suffered for years from progressive constipation, with marked right-sided abdominal pain and frequent attacks of nausea and vomiting after food. She was losing flesh and had frequent headaches. Her skin was "yellow," and she suffered from marked mental and physical lethargy. She was so exhausted after a little work that, coupled with her abdominal pain, it was quite impossible to go on as a nurse.

In April, 1907, colectomy was performed.

In February, 1911, she writes that she has only twice had any pain since her operation. Otherwise her health is splendid. No constipation; no headaches or sickness, and she has put on flesh and maintained it, and is now in charge of a nursing home, and is most grateful for what has been done.

CASE XLV.—A single woman, who had suffered for years from abdominal pain and marked constipation. She had been treated medically since 1900 and been seen by various consultants and their suggestions adopted. In 1906 an attempt was made to deal with the pain by nephrorrhaphy. She was then kept in bed for three months, but her pain and constipation were not relieved, and the wasting became marked, so that malignant disease was suspected, but none found.

In 1909 again a consultant diagnosed dilated stomach. The pain, constipation, and vomiting continued, and her weight fell to 87 lb. She was found to show marked symptoms of auto-intoxication, and an ileo-colostomy was performed.

Her doctor writes in February, 1911, that she has almost entirely lost the old abdominal pain, her bowels act easily with an occasional aperient, she has regained her former weight, and takes an eight-mile walk almost daily.

CASE XLVI.—A single woman, aged 35, has been in indifferent health for some years. Constipation was severe, with loss of appetite, vomiting after food, sallow complexion, loss of weight, marked abdominal pain, mental depression, so that "life was a misery to her."

To deal with the pain appendectomy was performed in 1900. No relief.

In November, 1904, ileo-colostomy was performed.

After this she put on 28 lb., and became quite a different

looking woman, with a clean skin, bowels regular, appetite returned, and felt markedly better.

In March, 1907, a sharp attack of abdominal pain followed by vomiting caused the diagnosis of perforated gastric ulcer, and a surgeon opened the abdomen; none was found. Recovery uninterrupted.

Since then she has been in excellent health and spirits, and now writes that she is quite well and thoroughly interested in and pleased with life.

CASE XLVII.—A single woman, who had suffered for years from severe constipation, and since 1905 had also passed mucus. This had been accompanied by great abdominal pain; her appetite had gone, and she had lost much weight. She showed marked signs of autointoxication.

In April, 1907, ileo-colostomy.

In January, 1911, her doctor writes that she is well nourished and looks well. Her colitis and constipation are quite cured. She has some abdominal pain still, and during an attack was seen by a consultant, who advised me to explore for gastric ulcer, which, however, I did not find.

She has been passing small uric acid stones from the right kidney, and this is associated with pain.

CASE XLVIII.—A single woman, who had suffered for years from extreme constipation, which had progressed, in spite of all treatment, up to an action once a fortnight. The act was accompanied by extreme pain, and was associated with left-sided abdominal pain, constant nausea, and attacks of vomiting.

In 1903 the abdomen was opened and a cystic ovary removed. Her condition became desperate; she was a yellow, sallow colour, markedly wasted, and at the end of her tether. For seven years she had been a complete invalid, and had scarcely been outside her house. At the time of the operation her condition was desperate.

In September, 1909, colectomy was performed, and the bowel was found firmly adherent, and a large mass of tuberculous glands was present, which involved nearly the whole of the mesentery of the small intestine.

In February, 1911, her doctor writes that "the improvement is really extraordinary. She has made a steady progress back to health. She is now quite plump again, and has put on a lot of flesh. She goes out and calls on her friends. She walks miles, and does all her housework. She is an entirely different person."

CASE XLIX.—A single woman, aged 40, had marked constipation for nine years, so that now by the aid of purgatives and enemata she averages one action a week. Frequent headaches. Constant cold hands and feet. Frequent abdominal pain. Is sallow and pigmented. Marked cystic changes in her breasts. She suffers from marked mental depression and inability. She cannot do any housework.

In August, 1910, an ileo-colostomy was performed, and she was discharged very markedly improved, much brighter mentally, her skin cleaner, vomiting and headaches gone. She is quite comfortable and feels much improved.

In February, 1911, she writes that she is still very pleased with her condition.

CASE L.—A man, aged 43, had always been inclined to be constipated. In 1898 he went abroad and had several attacks of dysentery with marked abdominal pain. He was treated by the greatest authorities, with only temporary benefit, and in August, 1906, soon after his return home was seized with haemorrhage and pain.

In January, 1907, an ileo-colostomy was performed with much difficulty owing to the anchored contracted condition of the rectum.

In March, 1911, his doctor writes: "The result of his operation has been excellent. Before it he was incapacitated by the frequent recurrent attacks of chronic dysentery. Since the operation he has had no trouble of this kind and has been able to return to work. I shall certainly recommend an operation if I have a similar case to deal with."

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THE death of the life tenant having occurred, the Royal Victoria Hospital, Dover, has now come into possession of a large property known as The Shrubbery at Crabble Hill, near Dover. It was left to the hospital by the late Mr. Richard Coleman, together with a sum of money for its maintenance as a convalescent home.

DR. H. C. GROVES, who is about to leave the town of Monmouth after some twenty-four years of practice there, was the recipient on March 31st of a silver salver, a purse of 110 guineas, and an album containing an address and the names of over 600 subscribers. The presentation was made in the Rolls Hall by the mayor, who said that every man who did public work was submitted by the public to constant tests, which in the case of a medical man were of a particularly trying kind. He had to be genial, to be possessed of even temper; to be prepared to be called upon at any hour of the day or night; and to be ready to sacrifice the joys of life to a large extent in order to serve the public. Through all these tests, and many more, Dr. Groves year after year had passed unscathed, and thus had won the general esteem and admiration of the population amid which he had dwelt so long. Wherever he might go, he carried with him their very best wishes.

# An Address

ON

# ARTERIO-SCLEROSIS AND THE KIDNEYS.

DELIVERED BEFORE THE KENSINGTON DIVISION OF THE METROPOLITAN COUNTIES BRANCH.

BY

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*(Continued from page 858.)*

*Bright's Disease and High Pressures.*

Of the amyloid disease high arterial pressure is not a feature; but in acute parenchymatous nephritis and in acute interstitial nephritis, although in these maladies, and even in cases ending in recovery, the arterial pressures may rise suddenly to no inconsiderable heights and burden the heart severely, yet in them high pressures are of irregular and inconstant occurrence. Generally speaking, in England and in America, physicians from the time of Johnson and Wilks have divided chronic Bright's disease into Chronic Parenchymatous Nephritis and Granular Kidney, and the distinction is still recognized by Tyson * and Rose Bradford.[18] All biological classifications are of course arbitrary, and divided by no hard and fast lines; but broadly speaking this distinction corresponds with clinical experience. In most cases the contrast of symptoms suffices to determine a diagnosis between the two kinds; and even in cases of doubt the difficulty of differential diagnosis probably lies more often in the data or opportunities of exact observation than in a blend of these morbid processes. Whether in particular cases the differential features may be conspicuous or not, Granular Kidney and Chronic Parenchymatous Nephritis are, each of them, a fairly consistent series throughout.

In the "Chronic Parenchymatous" clinical series, then, high pressures are by no means invariable. In this disease the heart, whether by dilatation or hypertrophy may be enlarged on both sides, if not to the same degrees; and in many necropsies no very great enlargement is notable. But in the granular disease the arterial stress, rising early and enormously, tells primarily and in the main on the left ventricle; dilatation of the right side being a late and secondary event, a condition of heart failure. Dropsy in granular kidney is rather cardiac than renal in nature. In respect of high arterial tension, then, in these diseases we have to do with variables as yet unappreciated.

Once more. As we may have chronic parenchymatous nephritis with high arterial pressure, or with comparatively little excess, or even with none, so conversely we may have high arterial pressures without any manifestation of renal disease. But in this important part of my argument I must tread warily, as I am entering into contested positions. Still, keeping as close as possible to accepted hypotheses, it is now generally admitted, I think, that Mahomed, v. Basch, Potain, Huchard, and myself were justified in declaring that high arterial pressures may and often do arise without renal disease in any accepted clinical sense—that is, without Bright's disease. Mahomed did suppose this increment to be a warning of Bright's disease, to be indeed a signal of its initiation; v. Basch and Potain took it to be a sign, and indeed a manifestation, not of Bright's disease, but of arterio-sclerosis. We have seen that Huchard, regarding arterio-sclerosis not as an anatomical result of several diseases but as itself constituting a disease, interpreted high arterial pressure as the first stage of it, and accordingly named this stage Presclerosis; as Mahomed, interpreting it as the first stage of Bright's disease, named it Pre-albuminuria. My position, however, was this: that in the first place arterio-sclerosis was no unity, was not a "disease" in the clinical sense; and in the second place that although it was often associated with high pressures these were no necessary condition of it—a doctrine in which for some ten years I stood unsupported. Then

* In his valuable work on Bright's Disease and Diabetes.

Groedel contributed evidence of arterio-sclerosis without high pressures, an independence which now seems to be generally if rather tacitly admitted. Had Dieulafoy discerned the different relations of arterio-sclerosis in granular kidney, in hyperpiesis, and in vascular involution without high pressures, he would have been less puzzled by the inconstancy of parallel between the arterial and the renal changes. For even under the exorbitant pressures of Granular Kidney the distal arteries may long resist deterioration; a degree of immunity which I have attributed in part to the protection afforded by peripheral spasm—an opinion with which Dr. Harry Campbell agrees. Moreover, in persons under middle age at any rate, the arteries seem able to resist excessive tension, say for four or five years, without much injury; whatever minor spots and streaks may be visible in those of the larger magnitudes.* For so long, if there may be some general fibrous increase of the intima, there is no splitting of the elastica, no subintimal hyperplasia. Indeed, as the cerebral arteries are among the first to suffer, the victim of granular kidney may die of an apoplexy while his large arterial trunks, whatever their loss of elasticity, are still in fair preservation.

In my Harveian paper of 1894, and again in the Lane Lectures of 1896, I stated accordingly that on eighteen years' experience of one case watched from first to last, and on a large experience of portions of many cases, a certain disease—that is to say, a fairly uniform series and correlation of symptoms positive and negative—is to be recognized and to be delineated, which, although marked from the outset by a rise of arterial pressures, does not follow the clinical course of Bright's disease in any of its modes, but manifests itself by other symptoms not here to be described. Furthermore, that it is not an expression of arterio-sclerosis, but generally speaking, if recognized in time, is curable; and even if recurrent, as frequently it is, yet after two or three recurrences, by diet and other vigilant precautions, may usually be banished for good. If however, as too often is the case, it defies treatment, or is neglected, the arteries undergo such strain as to issue in arterio-sclerosis. I stated, further, that arterio-sclerosis is not itself a disease, but an event or result of several diseases; and that of itself it is not a cause of excessive arterial pressures, but on the contrary, from beginning to end, is quite consistent with ordinary pressures. It was to this disease, in origin independent of arterio-sclerosis, that I gave the name of Senile Plethora, or Hyperpiesis, meaning by Hyperpiesis not simply a character of pressure, but a certain morbid series taken as a whole—a series of which this rise is but one of the principal characters.

Of this malady I have never offered an explanation, or nothing more than conjecture; I have been content to distinguish it as a clinical series from the recognized forms of Bright's disease. I am far, then, from denying that in this disease of Hyperpiesis the kidneys may have some concern. Passing over the "renal inadequacy" of Clark as either renal disease or a vague speculation, I may mention here the argument of Dr. Batty Shaw, in his Goulstonian Lectures of 1906, an argument which I will discuss more fully later. He says—putting aside problematical instances in which changes usually tending to high arterial pressures are subdued by intercurrent conditions, such as cardiac insufficiency or competing toxins—it is agreed that the cases which Huchard and Allbutt, and before them Mahomed more or less, have separated from frank Bright's disease under such names as Prealbuminuria, Presclerosis, or Hyperpiesis, do not follow the common course of disease of the kidney; yet dependent upon renal disorder of an insidious kind they are nevertheless; furthermore, on a fatal issue, some defect in the kidney will be found. The pressor element in particular is of renal origin, and is probably due to an escape of renal substance, or products of renal dissolution—of nephrolysis, to use a current word—into the blood. Now this explanation may or may not be true; my concern is to point out again that the distinction lies between Bright's disease and a malady which, if caught in time, is, if not always, yet usually curable, and when incurable abuts upon cardiac defeat or apoplexy, and does not at any stage even of a fatal career present uraemic symptoms; not, that is to say, anaemia, headache, nausea, lethargy, retinitis, convulsion, or coma. Hensen of Quincke's clinic (whose premature death is to be regretted) says: "I have convinced myself of this, that a blood pressure over 200 mm. may occur in cases of simple (*einfacher*) arterio-sclerosis in which clinical observation gives no support whatsoever (*keinerlei Anhalt*) to a diagnosis of renal disease." But Hensen had still to learn that in such cases even arterio-sclerosis is not a necessary factor. Whether in essence renal or not, the respective diseases—the fairly uniform series of symptoms, negative and positive—are widely different in course. And in the *post-mortem* room I demur that Dr. Shaw again does not draw a distinction between the atrophic or arterio-sclerotic kidney and the Granular Kidney technically so called, as do Professor Lorrain Smith and many other authors besides myself who believe the arterio-sclerotic kidney to be within limits still fairly capable, but who regard the Granular Kidney as corrupt, if not actively vicious from the beginning.

The slight and variable degrees or the absence of high pressures and cardiac enlargement in many cases of disease of the kidneys, even when their structure may have been impaired even to extremes, have for a long time been a puzzle to clinical observers. Some physicians have assumed that, if the heart is to be enlarged to any notable extent, besides the renal disease some correlated disorder of a systemic kind, vaguely indicated as a "cachexia" (Pässler,[19] Senator), must be associated with the renal disease, a condition scarcely favourable to cardiac growth. Others, with doubtful success, have looked for the determining factor of the high arterial pressures in the differences of the renal elements concerned—as of the glomeruli, for example; or in epithelial decay; or in the quantity of renal substance abolished; or, again, in absorption of disintegrating renal substance. On one clinical distinction, at any rate, we are all agreed: namely, that the form of renal disease in which we find the arterial pressures constantly and regularly exorbitant, and the heart notably hypertrophied, is the "Red Granular," which form in this respect also is to be distinguished from other diseases ending in shrunken kidneys, such as the "small white,"† terminal or original. In these other processes, it is true, some arterial tension and cardiac enlargement are often found, but not so early, so constantly, nor so enormously as in the "red granular" form. As regards the amount of renal structure, that the cardio-arterial stress is not directly at any rate as the sum of its detrition is apparent on comparison of red granular cases with cases of shrunken or damaged kidneys of other kinds in which the obsolescence of renal substance may in the sum be no less. In certain kinds of renal disease, such as the amyloid, in which the proper renal elements must be universally impaired if not obliterated, the heart may not be—in the amyloid is not—enlarged at all; nor the arterial pressures raised. And, when we look more closely at the red granular kidney itself, we find no definite relation between the destruction of the kidney and the rise of arterial pressures; the heart in these cases had often grown very large and the blood pressures very high before the disease had become manifest or importunate, or the urine much attenuated.

That Hasenfeld's hypothesis, which attributed the high pressures and enlarged heart to the geographical distribution of the arterio-sclerosis, namely, in the mesenteric area, had it been valid even for ordinary cardio-arterial hypertrophies and degenerations, is quite inadequate to explain the enormous cardio-arterial changes of granular kidney, has been proved by many observers; for instance, by the well-known researches of Marchand. I have said that Jores also in many cases of granular kidney with large heart and high arterial pressures had demonstrated that in the mesenteric area arterio-sclerosis was ill marked or virtually absent; and, indeed, that, speaking generally, the pancreatic, splenic, and cerebral arteries were, as a rule, more diseased than those of the bowels.

In thus turning our little lantern upon the correlations between high pressures, arterio-sclerosis, and renal affec-

* Recent transplantation experiments in animals to prove that high blood pressures do not injure the vessels seem to me to be very fallacious.

† Professor Bradford accepts the primarily contracting white kidney, indicating its often latent course in young adults. One or two of Jores, Prym, and Roth's cases under the bundle name of *Schrumpfniere* may have been of this kind.

tions, we see a crucial point, although we find no *instantia crucis;* we meet many another baffled inquirer, each perhaps with his own guess, or scrap of information, but no signpost. What are the scraps? Well, as we have seen, that in many cases of Bright's disease, or of tuberculous, or calculous, or surgical kidney, pressures do not rise at all; that in others the rise is not predominant, and does not affect mainly the left ventricle but both ventricles, and in the usual proportions, after the way of, and often because of, failing heart; inconsistencies in strong contrast with the definite class in which from the first high pressures are predominant, and, consequently, the left ventricle, in the manner of the so-called "concentric hypertrophy," is affected chiefly, enormously, and until the stage of cardiac failure, perhaps alone. Another scrap is that this constant and conspicuous cardio-arterial enormity is the mark not of any kind of Bright's disease, but of the disease to which we give the name of Granular Kidney.*

If not eminently characteristic of the rest, yet it is true that in other chronic renal diseases, even in "surgical kidney," a tendency to augmentation of arterial pressures is to be noted; so we presume that in the affections of the kidney there is a something which provokes this excess; something which in the granular kidney is a constant, in the others a variable. Is this something engendered in or of the kidney itself? In the view of Aufrecht, which a while ago found no inconsiderable favour, the granular kidney—the conspicuous example of this pressure-provoking agency—is but a local expression of arterio-sclerosis, the renal implications of which colour the whole malady. But, like Huchard, Aufrecht also regarded arterio-sclerosis as necessarily associated with high pressures, although in 1894–5 I had proved that very frequently it is not; and in particular that even an arterio-sclerotic kidney may be and often is associated from life to death with arterial pressures normal for the age of the patient. In 222 cases of arterio-sclerosis Dr. Mott found the heart and kidneys affected in 141 (82 male and 59 female), but in 30 male cases and 55 female neither heart nor kidney was altered. A short time ago Dr. Mott kindly discussed with me 300 necropsies in his Department, in which he had noted that if, as it commonly happened, in cases of atheroma, including the cerebral arteries themselves, the renal fibrosis was not that of granular kidney, cerebral haemorrhage was relatively infrequent. This result of a large comparison agrees with the impressions which on this subject I received when I was a Commissioner in Lunacy. Now, as Dr. Mott himself observed, in pauper asylums, there is some selection of cases; among the insane a very large proportion of the cases of arterial disease are not those associated with explosive arterial pressures and large cardiac hypertrophy, whether of renal or non-renal origin; but are of a degenerative nature, with cerebral softening in the atheromatous areas. On the other hand, it is now ascertained that in the specific disease named, well or ill, Granular Kidney, the arterial lesion begins in the kidney, and that a more extensive arterio-sclerosis does not manifest itself until in one area after another it comes about, especially in the splenic, pancreatic, cardiac, and cerebral vascular areas. Yet it seems improbable that, as under the renal disorder pressures begin to increase, the strain would tell first on these smaller visceral twigs. In the renal area, indeed, where the vasa afferentia branch off from the interlobular, the pressure gradient is falling, and in the tufts which are affected early and severely, must, both by friction and by extension of bed, fall very quickly. High tension would, and does, make itself manifest sooner or later in the aorta and great vessels; but if the finer visceral twigs are among the first to be damaged, there must be some insidious humour playing on the periphery to initiate it? In one of Roth's cases, one of true "granular kidney" in a man aged 30, with blood pressures of 185–215 (death comparatively early, presumably from intercurrent causes), although the kidneys were typical, there was but little alteration of the larger vessels. Traube's notion that constriction in the renal area would suffice to enhance general pressures was erroneous; even sudden ligation of both renal arteries does not do it. If a peripheral arterio-sclerosis became almost universal, it is possible that pressures might rise; but in Granular Kidney such extensions come about later; while, conversely, at the outset of granular kidney, even in thirty to forty days, arterial stresses may have reached very high degrees. Certainly the high pressure is not engendered, as some have supposed, of mere chronicity.

Weigert[20] adopts the opinion, and it is one to which my own had independently inclined, that the secret of pressure increase lies in destruction of the renal parenchyma; Dr. Batty Shaw's conjecture also, to which I have alluded, may not be widely different. But Ziegler[21] regards glomerular lesion as the essential factor of pressure, and thinks that, if the vessels were clear, the impaired epithelium should recover itself. Ziegler's views command attention, but to me are inconclusive because he does not always discriminate between the granular, the arterio-sclerotic, and—what is not quite the same thing—the senile atrophic kidney, two forms in which the glomeruli seem to suffer passively; a remarkable inconsistency, as he was, so far as I know, the first pathologist to recognize the arterio-sclerotic kidney: a "renal arterio-sclerotic atrophy" . . . "a special form of contraction of the organ" due primarily to sclerosis of the renal arteries with, usually but not necessarily, participation of the intimate renal ramifications also. In granular kidney, although it is true that lesion of the finer arteries of the organs is an obligate condition, as if these vessels might be the gate of entry of some histolytic substance or be peculiarly susceptible to it, we seem to have to do with some pernicious agent corroding unit by unit the whole gland.

After what has been said, we shall not wonder that lesion of the glomeruli has loomed large in this inquiry. As angry spots these structures have caught the eye of all observers, both as centres of arterial disease with quasi-infarctive effects, and of fibrous hyperplasia; lesions which, however, do not, as Jores admits, by any means always run parallel. In the arterio-sclerotic kidney also, by which I mean the state in which this organ, in association with many or most of the other parts of the body, shrinks under a general vascular fibrosis or starvation, the glomeruli seem to fail in numbers so considerable that it is not easy to say that the sum of their defect is behind that in Red Granular kidney, in which their suppression is far from being universal. Differential counts would be so troublesome that the personal equation would enter for too much; but most recent observers—Jores, for example—find no parallel between heart enlargement and suppression of glomeruli. As, however, Loeb[22] assumes the rise of pressures and the growth of the left ventricle to be in direct proportion to the destruction of the glomeruli, to test this statement Jores injected a number of shrunken kidneys, but in many of those unattended with cardiac hypertrophy found the glomerular destruction to be no less; and many damaged glomeruli, whatever their remnant of functional value, were still permeable. It is a notable point in Rautenberg's experiments, to be mentioned presently, that although rise of pressure and cardiac hypertrophy supervened, the glomeruli were intact. Loeb is of course well aware that in many cases of high pressure mere obliterations in the renal area are far too limited to influence general blood pressure, while in other cases of cardio-arterial pressure strain no evidence of renal disease can be demonstrated on necropsy; wherefore he postulated some wider reflexes, operating especially through the brain—an argument in which he became speculative, if not vague. However, the point which I now desire to emphasize is that this distinguished pathologist admits the not infrequent occurrence of high-pressure cases without renal disease. Pässler is of the opinion, already mentioned, that the correspondence with the cardiac enlargement lies not merely in the glomerular but in the total renal defect, and Professor Rose Bradford seems to take a similar view. Charcot, however, argued that glomerular defect entails defect of the whole secretory unit. From Rautenberg's experiments, as in some cases of "surgical kidney," it would seem that a mere annulling of renal substance without active glomerular disease may, if large enough, provoke a rise of arterial pressures. Histologically, were the glomeruli in Bright's disease the seat not of arterio-sclerosis but of endarteritis obliterans, we might have a criterion of an irritative against an atrophic

*I take this as accepted; but I may add that Jores in his last (*D. Arch.*, 1909) paper carefully recorded the cardiac condition on Müller's method in unsorted cases of shrunken kidney and found definite hypertrophy by no means constant.

lesion of these elements. But we must take it for the present from Jores that the arterial change is arterio-sclerotic, as recognized in subintimal hyperplasia with split elastica, and in its disposition to fatty degeneration, a kind of decay to which endarteritis obliterans is less prone.

Dr. Batty Shaw[23] attributes the rise of pressure to suppression of kidney substance, but not in a negative sense. He looks to a positive effect of absorption of the gland into the system as a hypertensive poison; a curious construing of Johnson's presumption that the "stopcock action" of the peripheral vessels served to protect the periphery from a previously tainted blood. Dr. Shaw's conjecture is that kidney stuff of its own nature acts hypertensively; and that not in Bright's disease only but also in the hyperpietic disease of Huchard and myself the kidneys are undergoing some kind of solution and diffusion into the blood current, with the effect of general arterial constriction and consecutively of arterio-sclerosis. He supposes the only differences of Hyperpiesis to be that this solution and diffusion is not so concentrated, or so virulent, or perhaps not so specific, as to issue in the symptoms we recognize clinically as Bright's disease with its more familiar train of symptoms. Dr. Shaw alleges that injection of extract of renal cortex, prepared by the method of Tigerstedt and Bergman, drives up blood pressures to degrees unapproached by any other such organic extracts except the pituitary. However, later experiments on the point fail to support this allegation; they are doubtful or contradictory. Maragliano[24] made two series of experiments in this way; he injected kidney pulp of dogs into rabbits, producing—so I gather from the extracts—little rise of pressures, but a general cytolysis, in which the kidney was implicated. But these injections from one species into another seem open to the objection of violation of the idiosyncrasies of animal species (Nuttall and others). Pearce[25] injected extract of kidney—both from healthy and nephritic organs—into animals, with indecisive results; but, on the whole, so far as any effect on arterial pressures was perceptible, it was slight and transient, and followed by a fall. Also he injected serum from dogs in which large portions of the kidneys had been excised, and from others in which an artificial nephritis had been induced; but the evidence of a pressor substance, if any, was very slight. In our laboratories the researches of Professor Dixon and his colleagues and pupils have led us to similar conclusions.

However, if with Dr. Shaw we might assume a latent renal distemper sufficient to taint the blood but not gross enough to amount to Bright's disease, we might find a solution of the problem of Hyperpiesis. Dr. Shaw does not forget that renal cortex is not inexhaustible, and that under the morbid conditions postulated its reproduction could scarcely be very ready; indeed, with organs thus labile, it would presumably at no great interval of time be expended, and before that period rather reduced than multiplied. Now, the course of Hyperpiesis, as described by Huchard and myself—a disease which Dr. Shaw would draw into the net of primary renal causation—may, and frequently does, continue for years upon years—from ten to fifteen years—before its final events, not of uraemia, but of cardiac defeat or of cerebral haemorrhage, appear. And I think Dr. Shaw does not give weight enough to the experience that our cases of hyperpiesis, if detected in good time, are curable, and curable repeatedly; unless perchance he supposes that our remedies act favourably by virtue of some influence on the kidneys not directly intended or recognized by us. Again, ought we not to find that other kinds of disturbance of a kidney—as by a calculus or by a mass of tubercle, for instance—by vexing the renal tissue and by promoting the assumed disintegration of the cortex and diffusing it into the blood, should run up arterial pressures? Yet, as a rule, such incidental lesions, however solvent they may be of renal tissue around them, do not raise pressure nor deform the arteries or heart. And after all, were Dr. Batty Shaw's hypothesis to prove true, it would not set aside the practical distinctions between the series of clinical events long familiar to physicians under the name of "Granular Kidney" and the different series distinguished by Huchard and by myself as Presclerosis or Hyperpiesis.

But before dismissing mere obliteration of renal substance as a direct cause of rise of arterial pressure, certain experiments of Rautenberg must be mentioned.[26] Rautenberg works in Lichtheim's laboratory at Königsberg, and his report of two long series of experiments indicates that he is an expert investigator. At first he lost many animals (rabbits), but as he became more dexterous and more successful, about half of them survived. The improved operation consisted in tying the left ureter for three weeks, a period determined by experience. Then connexion was made anew with the bladder, and the right kidney was extirpated. Some lived for nine months, two for a year and a quarter, one for a year and a half, one for a year and three-quarters, one for two years and a half. The blood pressures were found to have risen distinctly in about nine months, and were then systematically measured in them and in controls. The rise proved to be proportionate to the duration; in the longer survivors it would rise (from 110–122) to 160–170. On necropsy arterial disease was found in all these cases. The heart was in like degrees enlarged up to 2 or 3 grams; but as in these animals the organs are inconstant in size, well-marked enlargements only were accepted. As in Dr. Harvey's experiments in our own laboratories,[27] the arterial disease could not be called arterio-sclerosis, but a calcifying necrosis rather. Indeed, the intima of a rabbit's aorta is so thin, consisting of scarcely more than an epithelial layer, that a reactive arterio-sclerosis could scarcely be developed in it. That the rise of pressures could not have been due to the arterial disease was evident in those animals which died in the earlier stages of high pressure, when the lesions of the vessels had not advanced beyond pinpoint and pinhead spots, a stage at which they could not have had any effect on the blood pressure. Rautenberg admits that if the arterial damage be a direct consequence of rising pressures, yet some forerunning toxic condition may make the arteries more susceptible to this abnormal stress.* Harvey's researches, however, by experiments in which compression only was used, demonstrated that mechanical stress was amply sufficient to establish this arterial lesion; and Rautenberg thinks that, in the animals under his operation, mechanical stress was, at any rate, the chief cause. But in Granular Kidney, so far as the peripheral visceral arterioles are concerned, we have seen that excessive stresses could not account for their primary arterio-sclerosis. Another remarkable result of Rautenberg's experiments was that even before the lapse of nine months—before, that is, any static effects of high pressures could be determined—the serum of these animals, even to dilutions of 1 in 20, dilated the pupil of the enucleated frog's eye (Ehrmann's reaction), thus indicating that this serum contained a pressor substance.† It is possible that by Rautenberg's method the kidneys were not merely suppressed but were irritated, and so made to discharge a hypothetical "renin" into the blood; still, on the whole they point to renal negation rather than to renal poison as the cause of accumulation of pressor influences in the blood. It is to be hoped that steps will be taken to verify Rautenberg's experiments.

Now, if there be but one pressor substance concerned, either this must accumulate always by fault of the kidney or there must be alternative conditions to give rise to its formation or excess. The kidney is supposed to be not an elaborating, but an eliminating organ. Unless it is, as according to Dr. Batty Shaw, by sacrifice of its own body, it may fail to remove, but it cannot manufacture a pressor or any other poison. A failure to eliminate may, it is true, depend sometimes on transitory disorder, sometimes on incurable disease; or possibly the strain of excreting such a poison might drive the kidney into disease, though, at any rate at first, or in milder cases, one would look rather for a hypertrophy, a state, however, of which, in these circumstances, we have no experience. In the light of recent researches—on gout, for instance—the fault seems to lie not in a failure of the kidney to excrete normal waste, but of the antecedent reductive processes to render the waste into substances attractive to it. For while

* It is remarkable that even in this process of experimental abolition of renal structure by a uniformly acting cause, after death a focal distribution of the lesions was noted.

† In this connexion I would refer the reader to various interesting researches on "Sympathomimetic Amines"—for example, to Barger and Dale, Wellcome Physiological Research Laboratories [recent, but no date on reprint (1910 ?)]. It is said, however, that normal blood gives more or less of Ehrmann's reaction.

refusing the gouty ingredient, they are often doing active work with other materials.

The opinion of observers who have worked at this subject is on the whole strongly in favour of some poison, whether a crude katabolic or an alien ingredient, at the back of both granular kidney and of the correlated peripheral arterio-sclerosis; these being concurrent effects of the hypothetical agent, as in the case of the similar and perhaps identical plumbous kidney. But the general arterio-sclerosis, after a while established in the large vessels, is probably less the result of poison than of consequential strain. As I have argued in respect of the kidney, so the arteries likewise by their peculiar limitations are disabled from expressing variously the various influences falling upon them; arterio-sclerosis may be their monotonous response to sundry kinds of bane. Dixon and Harvey are disposed to identify this toxic agent with a certain product of putrid meat, allied to, or even identical with, ergot; this putrid matter, formed in certain circumstances in the intestines, may be absorbed into the system to raise pressures by vaso-constriction, and perhaps also to injure the kidney directly. Abelous and Bain have reported in the urine of normal adults pressor substances which, when retained in the system, incite rises of pressure; and, moreover, may damage the kidneys. Crofton[28] found that certain xanthine bodies, if pressed in full doses, caused at first granular and fatty deterioration of the renal epithelium; and in animals which survived six months the blood pressures rose and intertubular proliferation of the connective elements ensued. Professor Walker Hall has made experiments of a similar kind and with similar results (see his *Purin Bodies*, 1903). But these problems are as yet very obscure and difficult. For instance, Dixon and Harvey have to evaporate a litre of urine to obtain their putrescent toxin in appreciable quantity. Meanwhile, we shall not forget Professor Schäfer's caution that in any animal dying slowly the blood may be toxic.

*Renal Infections.*

Let us now turn to note the effects of toxins of other and more familiar kinds; in particular, those of the infective diseases—of scarlet fever, of diphtheria, and so forth. The focal distribution of lesion might lead us to postulate that these distempers affected the renal meshes rather by bacteria than by toxins, were it not that we have seen how the simplest lesions in the kidneys may be thus partial. And, as Ribbert observes, the general trend of evidence is that in the various renal diseases toxins seem to play a much larger part than the bacteria. However this may be, the lesions of the infective diseases do tend to attack the renal epithelium, as if directly by an acute degenerative process; but—as in the puerperal kidney—this corroding necrobiosis associates itself with irritative overgrowth of the connective elements, so that an interstitial nephritis arises not distinctively glomerular in distribution. Grancher and Sargent,[29] in cases of toxic nephritis, noted the epithelial (and glomerular) seat of the disease and the secondary nature of the interstitial changes. The original lesion, they observed, was in the secreting epithelium, the cells of which, if not destroyed, were swollen and fattily degenerated. Many tubules had vanished; others were shrunken or moniliform; others, again, thickened and abraded. Such lesions Welsh and Flexner demonstrated in diphtheria also, and opined that they might be due to bacilli *plus* their soluble products, or to the toxic principle alone; or, again, that a mixed infection might occur, the diphtheria bacillus or toxin combining, for example, with a streptococcus, for multiple mischief. To add to our perplexity, the putrescent toxin of Dixon and Harvey, although a hypertensive poison, is correlated, not with granular kidney, but with a tubular nephritis and dropsy of the tissues, strikingly manifested in dropsical distension of the glomerular cavities. Toxins apart, if the renal artery be tied (in animals), the epithelium begins at once to degenerate—a degradation due, it would seem, simply to deprivation of oxygen; if the animal survives for at least six months, an atrophic fibrous, but not a "granular kidney" proper, is established. In practice we are well aware that we cannot keep too vigilant a guard over the integrity of the renal epithelium, as evidenced by integrity of its own and the cardio-arterial functions. For many months after apparent convalescence this vigilance, if less incessant, should at due intervals be no less searching. Now in these infective renal diseases, as may be well discerned in young subjects, the arteries are not necessarily affected (see Jores's first paper, Cases XV, XVI, XVII, XVIII, both chronic and acute); not even in the scarlet fever kidney, as demonstrated in his case of the child aged 5, in which, nevertheless, the heart was somewhat hypertrophied and dilated. Riegel[30] has demonstrated the same rise of arterial pressure without any renal arterio-sclerosis in the scarlatinal kidney; and so has Kalb[31] likewise. This is very puzzling. Such cases as these mark off the toxin of infective nephritis, without intimate renal arterio-sclerosis although making for cardio-arterial strain, from the poison—if such there be—lying behind granular kidney, in which the intimate renal arterio-sclerosis and the enormous cardio-arterial strain are essential, and in some way correlated, events. Heineke published a case of acute dropsical nephritis in a man aged 29, without visceral arterio-sclerosis—for example, normal spleen, pancreas, etc., as determined after death—in which, on the lapse of ten or twelve months, arterio-sclerosis appeared in the arteries of the extremities; tempting us to guess that the dropsical fluid itself might have contained an arterial poison.

*Nervous Factors.*

Hitherto I have said little of any nervous factor in these problems; they are baffling enough as it is, and one is unwilling to seek the obscure by way of the obscurer. Briefly, Professor Rose Bradford[32] has pointed out how stimulation of many afferent nerves produces general constriction of visceral blood vessels, including those of the kidney, with consequent rise of arterial pressure; and that other great fluctuations in the renal circulation are produced by excitation of the central ends of the depressors, or, again, of the central ends of the posterior roots of certain lower dorsal and upper lumbar segments, whereby the often assumed association of renal engorgement with general vaso-constriction is manifestly obtained. But as yet from this side of the problem we receive little light, although we may speculate whether our hypothetical toxin or toxins raise arterial pressures directly by acting on the peripheral neuro-muscular machinery, or indirectly by the middle term of some renal product having such an operation? Of this at least we may be sure, that the intimate renal arterio-sclerosis of granular kidney is no incidental effect of vasomotor tides; that this primary and essential effect is brought about by some virus, whether, renally speaking, autogenous or exotic.

*The Adrenals.*

I must not omit to allude to Wiesel and Schur's hypothesis, favoured by Josué, that the rise of pressures in renal diseases is not attributable to the kidney at all, but is an accidental event due to a variable implication of the contiguous adrenals (the chromaffin system). The constancy of pressure excess in Granular Kidney might be explained by a special proclivity of this mode of nephritis to propagate itself in their direction; or again by some community of miscarriage in the organs as pairs. This hypothesis has called forth a multitude of papers beyond quotation; fortunately the matter is provisionally summed up for us by Erwin Thomas, of Marchand's laboratory.[33] After a close survey of a large number of specimens, Thomas concludes that in renal disease the adrenal cortex is much oftener affected than the medulla; for instance, he found in forty cases of shrunken kidney an enlarged cortex. But he often found the same enlargement where the kidneys were intact; or with simple non-renal athero-sclerosis. The medulla he found no more affected in chronic renal diseases than in relatively normal controls. In a word, he was unable to discover that either cortex or medulla behaved in ways consistent with any known morbid series, renal, cardio-arterial or other.

CONCLUSION.

In conclusion, what issues out of this discussion to elucidate the relations between arterio-sclerosis and the kidney?

May we not go this far?—That arterio-sclerosis being almost the only terms in which an artery, apart from implication in surrounding tissues, can respond to irritation, we should expect it to give this peculiar response to

various untoward influences. In granular kidney it responds first by athero-sclerosis of its intimate inter-visceral twigs; secondly, at a later period, when not these vessels but the systemic trunks suffer under another influence, under the stress, that is, of excessive pressures, the vessels again make the only response of which they are capable; they express their reaction to a different injury also in similar terms of arterio-sclerosis. Leaving now kidney disease and turning to the series which Huchard called "Presclerosis"—my Hyperpiesis—a series in which as yet the kidneys have not been convicted of complicity, we may find again arterio-sclerosis; but only after the mode which in Granular Kidney affects the arteries of large and middle magnitudes under tensile strain, a secondary, and often preventable result. To the arterio-sclerosis of Hyperpiesis the kidneys, so far as yet known, stand in no correlative relation.

But there is yet another arterio-sclerosis, or, at any rate, an arterio-sclerosis found in quite another category—namely, the arterio-sclerosis which in 1894 I separated as the senile or decrescent form. Whether it is histologically identical or not with the kind of which we have been speaking is as yet an open question; but clinically it is distinguishable, as it arises independently of high arterial pressures, or, at any rate, under pressures not excessive for the time of life. Now in this mode of arterio-sclerosis the kidney is often altered, perhaps always, more or less. This alteration, which, again, usually puts on the shape of a shrunken or deformed kidney, has little pathological affinity with the granular kidney which it may simulate. Besides the granular kidney which goes wrong with an intimate arterio-sclerosis of its own, there is a kidney deformed in the course of a general arterio-sclerosis not its own, and if more or less decaying in consequence of decay of its nutrient arteries, yet without any original perversion. A starved but not a corrupt kidney. This form some of us have long tried to differentiate, being disposed to see in it rather a negative state, a state more or less inadequate in regard of margin of safety, but sufficient for the smaller life of an elderly man. Dr. Sainsbury has emphasized "the marvellous residual vitalities of damaged organs." This kidney contains islands of fairly normal renal tissue sufficient for the humbler sphere of life, by which I was disposed to contrast it with the true granular kidney, which I had regarded as necrobiotic all through. But so sharp a contrast cannot quite be maintained; in the granular kidney, also, there are islands of fairly normal tissue, and the essential difference seems as yet to lie, not within the compass of the kidney, but—as we have surmised—in some poison at the back of the kidney and the arterial disorder alike. However this may be, the two kinds of kidney, often similar in aspect, at any rate superficially, are radically different in nature—a difference which, if hardly to be recognized in an effete organ, yet in the clinical series to which it belongs is, in uncomplicated cases, unmistakable. And in this distinction, as my citations have proved, I am far from standing alone.

Professor Lorrain Smith's conclusion in our joint paper was accordingly, that the arterio-sclerotic kidney is a local phase of general arterial disease, producing in the kidney just the alterations which it produces in other organs of the body—alterations which need not amount to anything very grievous, as they are compatible with many, if sere and yellow, years of life; but that granular kidney, on the other hand, is some form of progressive inflammation of the gland as such, the structures essential to its function being attacked. In this fatal disease arterio-sclerosis appears in two ways—primarily and essentially in the fine arterioles of the organ itself; secondarily and later in the systemic arteries, as the effect of strain under the excessive arterial pressures in which granular kidney is always and regularly involved. The arterio-sclerotic kidney, on the other hand, if it may arise in the later stage of strained arterial systems in Hyperpiesis, is most common in the decrescent form of arterio-sclerosis.

If I may formulate these provisional conclusions, they would be as follows:

CLASS A.—*Chronic Bright's Disease.*

A (i). Primary intrinsic intrarenal arterio-sclerosis not due to high pressures; in granular kidney constant; in other kinds inconstant.

A (ii). Secondary extrinsic arterio-sclerosis; later; due to high pressures.

A (iii). A few mixed cases; renal disease supervening on a general arterio-sclerosis, whether of "Hyperpiesis" or "Decrescence"; not originally Bright's disease.

CLASS B.—*Not Bright's Disease.*

B (i). The "arterio-sclerotic kidney"; kidney alteration secondary to general arterio-sclerosis, more frequently of the decrescent kind without high pressures

B (ii). Less frequently, entailed by the consecutive arterio-sclerosis of "Hyperpiesis."

High pressures may be considered as (i) obligate with Granular Kidney; (ii) irregularly associated with other kinds of Bright's disease; (iii) independent of Bright's disease ("Hyperpiesis").

REFERENCES.

[1] Researches in the Period 1875–1881. vide *Trans. Intern. Med. Cong.*, 1881. [2] *Med.-Chir. Trans.*, 1872. [3] Paper read before the Royal Medical and Chirurgical Society, January 15th, 1897. [4] *Deut. med. Woch.*, 1905, p. 1872. [5] *Practitioner*, March, 1906. [6] BRITISH MEDICAL JOURNAL, March 31st, 1907. [7] *Clin. Journ.*, 1907. [8] *Lancet*, March 16th, 1907. [9] *Virchow's Archiv*, 1909. [10] *Deut. Arch. f. klin. Med.*, lix. [11] *Virchow's Archiv*, 1907, vol. clxxxviii. [12] *Virchow's Archiv*, Bd. 196. [13] *Virchow's Archiv*, 1909. [14] Allbutt and Rolleston's *System of Medicine*, second edition. [15] *Systemic Pathology*, 1910, p. 721, etc. [16] *Pathol. Anat.*, 1909. [17] *Virchow's Archiv*, Bd. 195, Heft 2. [18] Loc. cit. [19] Verhl. d. path. Gesellsch. Méran, 1905 (reported in German journals of the date). [20] *Die brightsche Nierenkrankheit*, Berlin, 1906, and *Volkmann's Sammlung*, Nos. 162, 163. [21] Ziegler, *Deut. Arch. f. klin. Med.*, Bd. xxv. [22] Quoted by Dr. Theodore Janeway. [23] Goulstonian Lectures, 1906. [24] Two references: (1) *Virchow's Jahrb.*, 1903, vol. ii, p. 244; and (2) *Gaz. d. Osped.*, October 7th, 1909 (EPITOME, BRITISH MEDICAL JOURNAL, 1909); I have not seen the original papers. [25] *Journ. of Exper. Med.*, 1909. [26] *Deut. med. Woch.*, March 24th, 1910. [27] *Virchow's Archiv*, 1909, Bd. cxcvi. [28] *Amer. Journ. Med. Sci.*, vol. cxx, p. 592, 1900. [29] *Rev. d. méd.*, 1901. [30] Riegel, *Zeit. f. klin. Med.*, Bd. vii. [31] Kalb, *Muench. med. Woch.*, 1903. [32] Goulstonian Lecture, 1898, and later papers. [33] *Ziegler's Beitr. p. Anat.*, vol. xlix, December, 1910.

# ON THE INTERDEPENDENCE OF THE CIRCULATORY AND RESPIRATORY SYSTEMS.

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THE factors which contribute to a fatal issue in acute lobar pneumonia are very difficult to estimate. The infected patient is subjected to the adverse influences of a complicated series of abnormal processes, which, for the sake of convenience, may be termed chemical and mechanical. The chemical agencies probably include the disintegrating bacteria, the local products of the reaction between the micro-organisms and the host, and various other substances of abnormal quantity or quality which originate as a result of the interference of toxins with the normal metabolism in parenchymatous organs. These processes manifest themselves in well-recognized anatomical changes in the liver, the kidneys, and the cardiac muscle, and the clinical manifestations of the disease indicate a reaction on the part of the nervous system also. The degree to which the parenchymatous organs are affected depends on the amount of abnormal chemical substances present, and the affinity of these for the affected organs. The progress of the disease will be determined largely by the reaction of the bone marrow and other tissues which supply the antisubstances necessary to hold the noxious chemical processes in check. The issue of pneumonia, however, may be influenced by the variation in mechanical conditions incident to the disease. The pain of the pleurisy interferes with free movement of the chest wall, and an extensive consolidation, too, limits the expansion of the thoracic cavity and creates an obstruction to the pulmonary circulation. The work of the right ventricle is thus increased, and if the cardiac muscle be affected the efficiency of the organ may be seriously prejudiced.

In the case of those conditions which are classed collectively as bronchopneumonia in children, the mechanical difficulties are often very pronounced. Rapid respiration and cyanosis are common features of bronchitic affections, accompanied by rickets and atelectasis. In many of the cases the toxic effects of the pneumonia are much less serious than the physical disability under which the heart suffers in maintaining the circulation. An extensive clinical and correlated *post-mortem* experience has established this fact beyond all doubt.

Within very narrow limits the healthy heart preserves a definite shape and size, varying only with the age and weight of the individual. There occur, however, in

certain pathological conditions well-recognized modifications of shape and size. In chronic Bright's disease the left ventricle becomes greatly enlarged. The nature of this enlargement and change of shape is fairly constant and gives a definite abnormal shape to the pathological heart. Aortic and mitral disease are also responsible for enlargement and change of shape more or less characteristic of these diseases—the heart of aortic regurgitation, for instance, is known as the "cor bovis." Where there is tuberculous adhesive pleurisy or chronic fibrotic phthisis the right side of the heart is often enlarged; and a similar variation is not infrequent with chronic bronchitis and emphysema. Now, with the exception of the latter cases, the cardiac change is associated with an interference with the normal dynamical conditions inside the vascular system itself. On the one hand, the peripheral blood pressure is increased by the vaso-constriction of chronic Bright's disease, or by changes in structure of the smaller vessels in arterio-sclerosis; or, on the other hand, the mechanical efficiency of the pumping apparatus is compromised by the valvular defects in the cardiac apparatus itself, and the enlargement is the result of an attempt to compensate for this defect. When, however, a change in the size and shape of the heart is observed in an otherwise normal vascular system, associated with advanced disease of the lung or chest wall, one has then to deal with the result of extraneous influences—with the effect on the vascular apparatus of forces from without, and the extent to which an interference with normal pulmonary expansion or deficient thoracic movement can be correlated with a change in the size and shape of the heart may be taken as indirect evidence of the part played by the normal respiratory movements as factors which make for an efficient circulation.

The cases in which evidence in support of this contention was present were of two kinds: (1) Cases in which there was present an extensive collapse of the pulmonary tissue; and (2) cases in which there was an advanced degree of rickety deformity of the chest wall. In the great majority of cases of severe rickets collapse is present in addition to deformity.

*Cases illustrative of Atelectasis and Cardiac Failure.*

CASE I.

A girl of 7½ years, fairly well developed, had a severe diphtheria followed by paralysis of the muscles of deglutition. An aspiration pneumonia was supposed to have followed, and after eight weeks' illness she died. For a fortnight previous to her death she was very pale and suffered from breathlessness, and for some days before death there was oedema of the lower limbs. *Post-mortem* examination showed very extensive atelectasis in both lungs, the right upper lobe and the left lower lobe being completely collapsed; while the remaining lobes were greatly distended. The child weighed 3 st., and the heart weighed 7½ oz. The form of the heart was abnormal. It was broad proportionately at the base of the ventricles and rounded or almost flattened at the apex, and both ventricular walls were hypertrophied. The venous system was engorged, and the parenchymatous organs showed signs of passive venous congestion. The cardiac muscle showed no signs of fatty or fibrotic degeneration.

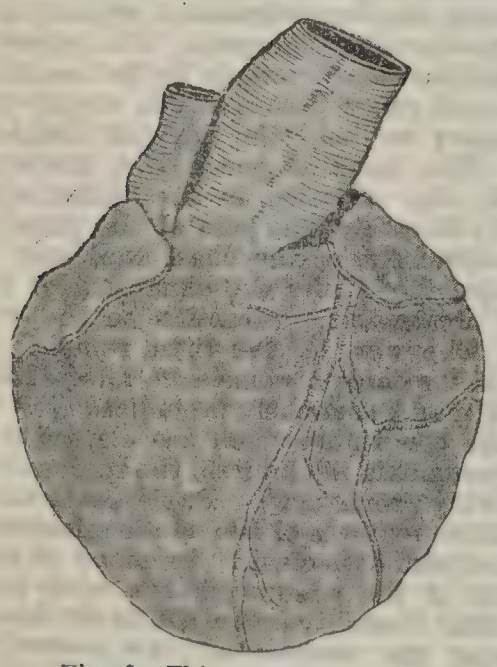

Fig. 1.—This diagram shows the abnormal shape of the heart, with s broad base and rounded apex.

CASE II.

A boy of 2 years admitted to hospital suffering from bronchopneumonia. He died after an illness prolonged over ten weeks. He was fairly well developed, and the chest was of normal shape. During the last two months of illness he was pale, and his respirations were rarely under 50 per minute, and sometimes were 80 per minute. The pulse ranged between 140 and 160 per minute. While at the beginning of his disease the temperature varied between 101° and 103.6°, for a period of a fortnight during the last six weeks there was no febrile disturbance beyond an occasional rise of temperature to 101° and 102°. For a few days before death there was oedema of the lower limbs. *Post-mortem* examination in this case showed the heart to be enlarged and relatively broad over the whole extent of the ventricles. The interventricular septum, as demarcated by the descending coronary artery, occupied a relatively normal position. The heart weighed 4 oz. and the body weighed 22 lb. On opening the heart, both the ventricles were found to be hypertrophied. Fig. 1 shows the abnormal shape of the heart, and Fig. 2 shows a transverse section of the ventricles with great hypertrophy of the walls, more especially of the right ventricles and the septum. On microscopic examination the cardiac muscle showed no signs of fatty or fibrotic degeneration. The lungs were collapsed along their posterior portions and at places along the anterior margins. Microscopical examination showed that the pathological lesion was one of collapse. While the evidence of old bronchopneumonia was still present, the process was no longer an acute one, and there was no sign of recent inflammation. There was great engorgement of the whole venous system, and passive congestion of the parenchymatous organs.

Fig. 2.—This diagram shows the great thickening of the wall of the septum and of the right ventricle.

*Cases illustrative of Chest Deformity and Cardiac Failure.*

CASE I.

A girl, 8 years of age, with very extensive rickety deformity of the chest and lower limbs, was admitted to hospital on account of breathlessness. While under observation, extending over five weeks, she had no abnormal rise of temperature. The chest movements were described as being restricted in the upper part of the thorax. The respirations numbered 30 to 50 per minute, and the pulse from 150 to 130 per minute. *Post-mortem* examination showed that the heart weighed 7½ oz., while the body weighed 30 lb. The heart was of firm consistence, relatively broad, and with a somewhat rounded broad apex and short in length from the apex to the base of the ventricles. On opening, it was seen that both ventricles had participated in the hypertrophy, although the most marked hypertrophy was that of the interventricular septum. The right auricle was dilated. The cardiac muscle showed no signs of fibrotic or fatty degeneration. The lungs were greatly distorted in shape. The anterior margins were collapsed, and a line of depression was present on the anterior surfaces corresponding to the site of junction of the ribs with the costal cartilages. The distortion of the lungs at this line of depression was so great as to give the anterior borders the appearance of being tilted forward about 45 degrees from their normal position. The anterior borders were airless, and there was considerable collapse on the posterior aspects of the upper lobes of both lungs. There was no evidence of acute inflammation in the lungs. Examination of the thoracic cavity showed a striking deviation from the normal. It was greatly contracted in its upper half, and this contraction was due to an in-sinking of the ribs along the line of their articulation with the costal cartilages. It was as if pressure had been exercised along this line on either side, in a direction downwards and inwards so as to produce an approximation towards the middle line, and an obliteration of the upper and anterior part of the thoracic cavity. Towards the diaphragm the cavity widened, and the line of depression gradually disappeared. The ribs were firm and well ossified. There was general venous engorgement and passive congestion of the parenchymatous organs.

CASE II.

A boy of 1½ years with extreme rickety deformity of the chest. The chest was of the fiddle-shaped type, very much contracted at the level of the axilla, and expanded at the insertion of the diaphragm. Respirations were rapid and shallow, varying from 50 to 80 per minute, and the pulse-rate was from 150 to 180 per minute. The respiratory movements were confined almost entirely to the abdomen and lower part of the thorax. For a week before death there was oedema of the lower limbs. *Post-mortem* examination of this case showed an abnormal shape and size of the heart. The organ was of firm consistence. It was broad at the base and relatively short from the apex to the base of the ventricles. The apex was rounded off in the arc of a very large circle. The anterior interventricular groove was not displaced relatively. The right auricle was greatly distended. A transverse section through the ventricles showed marked hypertrophy of the walls of both chambers, more especially, perhaps, of the right ventricular wall and the interventricular septum. The shape and degree of the hypertrophy of the heart resembles almost exactly the condition seen in Case II, where there was extensive collapse following a bronchopneumonia, but no deformity of the chest wall. In this case the heart weighed 3¾ oz., and the body weight of the child was 21 lb. There was no fatty degeneration or fibrosis of the cardiac musculature. The lungs were distorted, the anterior being marked off by a deep furrow which corresponded in site with the line of junction of ribs with costal cartilages. There was a considerable degree of collapse along the anterior margins in front of the furrows, and there was also extensive atelectasis in the posterior portions of both lungs, more especially in the upper lobes. There was no evidence of recent

inflammation. The thoracic cavity was very much diminished in extent. The only portions which retained their normal contour were the recesses on each side of the vertebral column posteriorly. The anterior mediastinum was almost obliterated by the in-sinking of the ribs along the line of the rosary. The thoracic cavity was enlarged on the plane of the diaphragmatic attachment. The ribs were soft and pliable, and could be bent like green wands. They contained practically no true bone substance. It was possible to cut microscopical sections of some parts of the ribs without subjecting them to a process of decalcification. The venous system was congested, and there was passive congestion of the parenchymatous organs.

On reviewing the results of these observations, one common characteristic emerges—in each case the heart is about double the normal weight relative to the weight of the body, and in each case the enlargement is unassociated with any other abnormality of an anatomical nature in the vascular system. As regards the hypertrophy itself, it is to be noted that while the right side and interventricular septum participate in a greater degree there is also in every case a hypertrophy of the left ventricle. The associated anatomical abnormality is in every case that of a part of the respiratory mechanism—the lungs, the chest wall, or both. The facts, then, which present themselves for correlation are these:

1. General hypertrophy of the heart in an otherwise normal vascular system, with relatively greater increase in size of the right side, ending in cardiac failure.
2. Collapse of the pulmonary tissue and deformity of the chest wall.

The heart of the healthy subject maintains a size which bears a definite relation to the size and weight of the individual, and which is independent of the amount of bodily exertion within very wide limits. The heart of a man who pursues a sedentary occupation is no smaller than that of a man whose occupation involves a moderate amount of physical exertion; and the amount of work performed by the organ may be greatly increased without in any way prejudicing its efficiency or increasing its size relative to the weight of the body. This property of adaptability is inherent in the heart, and is aided by compensatory variations in pressure throughout the vascular system regulated by the vasomotor apparatus. The increase in size of skeletal musculature, resulting from physical exercise, develops *pari passu* with an increase in the weight of the heart; and the extra work entailed on the left ventricle is balanced, as Leonard Hill has pointed out, by the aid afforded by the more active muscles in returning the blood through the venous system; the increased thoracic movements in additional muscular activity contribute also to meet the extra demand which is put upon the circulatory apparatus. Moreover, the cardiac muscle itself would seem to possess the capacity of immediately adapting itself to an emergency; for example, Stolnikow has shown that when a ventricle in diastole is artificially filled so as to contain even six times the normal amount of fluid it is able with the next systole to drive out several times the normal amount; and in the same way an increased arterial resistance is immediately overcome by the succeeding ventricular contraction. The heart thus possesses an enormous power of adaptation, and when it shows signs of great hypertrophy and consequent inefficiency such a condition may be regarded as being due to one or more of the following causes:

1. Increased work, determined either by an increase in the number of beats per minute, as in exophthalmic goître, or by increased force demanded against abnormal peripheral resistance, as in renal disease or arterio-sclerosis.
2. Some defect in the pumping apparatus itself, such as stenosis of the valvular orifice, or valvular defect causing regurgitation.
3. Failure of accessory powers of circulation, which include the variations in intrathoracic pressure, the expanding and collapsing lungs, and the movements of the skeletal muscles.

When the cases described are viewed in the light of these considerations, it is obvious that the causes referred to under the third heading constitute the main factors in the production of the cardiac enlargement; at the same time it must be recognized that in each case the pulse-rate was abnormally high, although even here the increased pulse-rate was probably secondary to the increased respiratory-rate or associated with the cyanosis incident to the deficient respiration. In any case, the factors that are anatomically associated with the hypertrophy are: (1) Atelectasis; (2) rachitic softening and distortion of the thoracic wall.



### Atelectasis and Cardiac Failure.

In the present state of knowledge it is impossible to determine exactly the modification of physiological respiration which is determined by collapse of a considerable portion of the lung. Possibly a vasomotor reaction plays a part, accommodating the organism to the new conditions, or, as Keith suggests, reflex contractions of the muscular rings of the bronchioles may exercise a regulating influence on the disturbed balance of pressure. The physical changes are those, however, which are most easily estimated. When a portion of lung collapses, there occurs with inspiration distension of the alveoli of the expanding parts; at the same time the relatively diminished pressure in the atelectatic portions determines a flow of blood to these parts, whereas the compensatory emphysema gives rise to a resistance to the blood flow through the distended portions of the lungs. In this way there occurs circulation of a considerable portion of blood through portions of lungs where oxygenation cannot take place, whereas the air circulates through portions where the emphysematous distension of the alveoli hinders the passage of the blood through the capillaries. The results of such a condition are:

1. Deficient oxygenation of blood, with dyspnoea and increased cardiac action.
2. Increased resistance to the flow of blood through the emphysematous portions of the lungs, and the consequent embargo on the right ventricle.
3. Stagnation of blood in the collapsed portions of lung, with the result that the work of the right ventricle is further increased, and in addition the heart is deprived of the assistance of the expanding and collapsing lung in furthering the blood flow.

### Disease of the Chest Wall in Cardiac Failure.

The diseases of the chest wall which are here concerned are:

1. Softening of the ribs due to rickets.
2. Deformities due to rickets, tuberculous caries, etc.

It is obvious that where rachitic decalcification has produced softening of the bones, deformity is also certain to supervene. Such processes are most severe between the ages of 9 months and 2 years. As a result of loss of elasticity and subsequent deformity, collapse of the lung tissue is not infrequent, so that the rachitic chest is further embarrassed by the conditions which have been considered in the preceding paragraph.

The nature of rachitic deformity and the extent and distribution of a concomitant atelectasis are worthy of notice because they afford a strong confirmation of the conclusions to which Keith has come regarding the mechanism of respiration in man. In emphasizing the necessity of recognizing surfaces of direct and of indirect expansion on the lung, Keith has rendered a great service to the study of pulmonary diseases in children. He has pointed out that the mammalian lung is not equally distensible in all its parts, and that it does not expand equally in all directions during inspiration. Of the five areas, he says, which one may distinguish on the surface of the human lung, three are in contact with stationary parts of the thoracic wall, and therefore cannot be directly expanded. These three pulmonary surfaces are:

1. The *mediastinal* in contact with the pericardium and mediastinal structures.
2. The *dorsal surface* lying between the spinal column and the spinal segments of the ribs—those parts of the ribs to which the erector spinae is attached.
3. The *apical surface*, the pulmonary area lying in contact with Sibson's fascia at the root of the neck.

These three surfaces, so far as movements of the chest wall are concerned, are relatively stationary. The two surfaces of the lung which are directly expanded are the diaphragmatic and ventro-lateral or sterno-costal; these surfaces are the first to expand on inspiration, and it is only a residue of the expanding force which is left at the disposal of the more stationary surfaces. When one further considers that the lungs of young children are still lobulated and contain a considerable amount of connective tissue between the expanding areas, it will be seen, as I pointed out some years ago, that the expanding force of inspiration is spent to a considerable extent on tissue of little extensibility. There is thus in children an additional claim on the residual expanding force at the disposal of

the stationary surfaces of the lungs after expansion of ventro-lateral and diaphragmatic surfaces.

If these are the conditions in normal respiration, how are they modified if the ribs are soft? It is a well-recognized fact that the rickety deformity manifests itself most in those parts exposed to mechanical strain. The mechanical strain produces a deformity in the first place, and in the second place excites further rachitic softening by its irritation, thus producing for a time a vicious cycle of events. The thoracic distortion is characterized by an in-sinking of the chest wall in the upper part of the ventro-lateral region. Owing to the softening of the ribs, the intrathoracic negative pressure has been able to prevent the expansion of the chest wall over the area of direct expansion. The consequence is that the only area of direct expansion is diaphragmatic, and clinical examinations show that this is really so. In cases of severe rickets the respiratory movements in the upper part of the thorax are scarcely visible, whereas the diaphragmatic contractions are relatively increased, with the result that the abdominal contents are depressed further than in the normal subject.

It must also be obvious that with the depression of the chest wall and the narrowing of the thoracic cavity, the surfaces of indirect expansion become atelectatic. In such cases one finds that the anterior borders of the lungs, as well as the posterior parts lying in the hollow between the vertebral column and the ribs, are collapsed; the centres of the diaphragmatic surfaces of the lower lobes are usually emphysematous, only the narrow margin embedded between the diaphragm and the chest wall being airless.

Thus the pathological variation produced by softening of the ribs bears out Keith's contention as to the mechanism of normal respiration. But in what way does this variation affect the vascular system? The contractions of the diaphragm, which are increased in power and rhythm, exercise such pressure on the abdominal contents as to secure the flow of blood from the venous cistern to the heart. The pressure of collapse of the lung will mean that the negative force, which would otherwise be spent in dilating the infundibuli and alveoli, will be exerted on the vessels, so that the blood can reach the lungs with comparative ease, and it is in the lungs that the serious obstacle presents itself. The pulmonary circulation is secured by three great forces:

1. The driving power of the right ventricle.
2. The suction action of the left auricle.
3. The pumping action of the expanding and collapsing healthy lung.

In the rickety condition under consideration the latter two forces are thrown out of action, so that the whole work of propulsion falls on the right side of the heart.

It cannot be pretended, however, that these considerations of purely mechanical variations by themselves afford a satisfactory explanation of the appearances in the cases detailed above. T. Lewis in his physiological experiments has shown how extremely complicated the relation of respiration to circulation is, and how difficult it is to analyse the factors which come into play under varying circumstances. Mackenzie in his clinical observations shows how in disease the close relationship between cardiac and respiratory rhythm manifests itself; moreover, the fact that both ventricles participate in the hypertrophy in the cases described suggests that part of the strain may be referred to the increased rate of rhythm, and it is not impossible that the increased cardiac rhythm is secondary to the increased respiratory rhythm.

I have recently made two observations which suggest the deeply seated relationship between circulation and respiratory movements. Observing the contraction of the hearts of very young fish with a stereoscopic microscope it was seen that the cardiac beat had a rhythm co-ordinated with the gill movements. In examinations of the lungs of rats and mice it was found that the ordinary striped cardiac muscle is continued on the pulmonary veins as far as the branches of the second and third order. Such muscle is indicative of a direct functional relationship between cardiac contraction and pulmonary function; a relationship which may possibly be maintained in other mammals by nerves. It must be further recognized that the respiratory and circulatory apparatus is dominated by a demand on the part of the tissues for sufficient oxygen to maintain a normal degree of metabolic activity. Haldane, in view of the extremely high respiratory exchange per unit body weight in the mouse, concluded that the pulse-frequency in that animal must be over 500 per minute. Investigating this point by means of the electrocardiogram Dr. F. Buchanan found that the pulse-rate of the mouse varied between 520 and 780 beats per minute, while the respiratory rate varied between 140 and 160 per minute. The ratio of pulse-rate to respiratory rate is thus about the same in the mouse as in man. Now, Pembrey has found that the respiratory exchange in grams $CO_2$ per kilogram body weight per hour is 8.4 in the mouse, that is, about fourteen times as great as in man, while the heart-rate is about ten times more rapid than in man. Thus, as Dr. Buchanan points out, while in the mouse the respiratory exchange is fourteen times greater than in man, and the pulse only ten times more rapid, it must be remembered that the relative weight of the heart to the body weight is greater in the mouse than in man; that is, the relatively larger heart of the mouse suffices to maintain a relatively greater respiratory exchange, while the ratio of the pulse-rate to the respiratory rate is the same. Dr. Buchanan and Dr. C. G. Douglas have found that in birds there is the same interrelation between respiratory exchange, relative weight of the heart to body weight and pulse-rate. It is likely, then, that in cases of respiratory embarrassment due to atelectasis and distortion of the thoracic wall a dominating influence on the respiratory and pulse rate is the demand for sufficient oxygen to maintain metabolic activity. This demand is met by increased pulse-rate followed by an increase in the size of the heart. Such a consideration explains why the left ventricle is enlarged to some extent as well as the right.

The problem, however, which these cases present is not speculation as to the nature of complicated processes; it is rather to formulate what may be termed a "correlation of end results," and to answer the question, "Does the circulation suffer from diseased lungs or deficient thoracic movement?" Mackenzie emphasizes the importance of examining thoroughly the posterior aspects of the lungs as a guide to prognosis in cardiac disease. Extremely suggestive in this connexion is his statement that "when the right ventricle is enfeebled, the assistance of the respiratory movements becomes necessary. When the patient lies in bed on one side, the pressure of the mattress on the ribs restrains their movement, so that the flow of blood through this part of the lung is retarded, and oedema results. This can be shown in the early stages, for, when the patient breathes deeply, the whole of the crepitations may soon disappear." A correlation of the evidence in these four cases which have been described leads definitely to the conclusion that the hypertrophied heart, with its broad squat and globular shape, is the manifestation of an effort to compensate for loss of accessory forces of circulation normally present in a healthy expanding lung and thoracic wall. Nor are these cases to be regarded as pathological curiosities. The variations present are only exaggerated examples of a condition which is probably the determining factor in the issue of a large proportion of the fatal cases of so-called bronchopneumonia in underfed children who are brought up in the overcrowded districts of industrial centres. In any case, the observation of over 1,000 cases of measles, whooping-cough, and diphtheria has led me to the conclusion that where an intercurrent bronchopneumonia extends over a period of a fortnight, the progress of the case has, as a rule, been complicated by the occurrence of collapse; in the case of non-recovery the patient has succumbed not to the toxic products of the infecting organism, nor to the noxious products of inflammatory decomposition, but to the severe mechanical strain which has been put on the heart. This strain is due to failure of the accessory pumping assistance of normally expanding lungs, and the almost constant occurrence of varying degrees of cardiac hypertrophy in such cases is very strong evidence in support of that contention. Similarly in acute rickets and in subsequent chest deformity there is great liability to collapse of lung tissue, more especially in the event of the occurrence of an intercurrent bronchitis. Such collapse enhances the disability to which the respiratory mechanism is exposed by the presence of soft rachitic ribs or a distorted and narrow thoracic cavity; the double embargo

thus placed on the heart leads to a hypertrophy which can maintain compensation only over a limited period except under the most favourable conditions. The period of childhood and even of adolescence may in cases of chest deformity be occasionally survived without any considerable degree of inconvenience, and the result of excessive cardiac strain may manifest itself first in adult life. Professor Muir has recently shown me the heart of an adult who had a very marked thoracic distortion, and who died with the signs and symptoms of cardiac failure. In this case there was a greatly hypertrophied heart, which exhibited the broad quadrilateral shape described above. Hence, from the examination of cases of pulmonary disease and of distortion of the thoracic wall, there is considerable evidence for the view that healthy lungs and a healthy chest wall are indispensable for the maintenance of an efficient circulation.

# HEPATIC DISTOMIASIS (SHEEP ROT) IN MAN.

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TRENTLER, in 1793, recorded a case in which he found a parasite protruding from a ruptured vein in a man's leg. Although he gave it the name of *Hexathyridium venarum*, it was in all probability a specimen of *Fasciola (distoma) hepatica*, the liver fluke, and his case the first reported of its occurrence in man. Since that time twenty-three other cases have been described, but some of them are almost certainly not authentic, and have been subjected to very damaging criticism; thirteen or fourteen survive as true examples of what must therefore be regarded as a very rare disease; of these at least four were noted in Great Britain.

Four other species of the *Fasciolidae* are found in man, of which the *Distoma sinense* is the most important, occurring extensively in Japan, China, and India. All these affect the liver primarily. A nearly allied pulmonary parasite (*Distoma westermanii*), responsible for a disorder characterized by cough and haemoptysis, is found in the Far East, cases being sometimes imported into the United States of America. Other forms of distomiasis are due to certain intestinal parasites, and occur mostly in India, while in Egypt especially the *Bilharzia haematobia* is responsible for much chronic ill health.

## LIFE-CYCLE OF PARASITE.

The *Fasciola hepatica* is found in the gall bladder and bile ducts of sheep. More rarely it is parasitic in cattle, but in them the disease does not run so acute or fatal a course. The eggs of the adult fluke are conveyed by the bile into the intestine, and so eventually reach the water or damp grass which is essential to their further development. After a time, varying from three or four weeks to as many months, according to the time of year, a ciliated embryo emerges from each egg by pushing of the lid. These embryos are known as miricidia, and soon enter a small snail—*Limnaeus minutus*—there to form sporocysts. Although sporocysts may be formed in closely-allied species, no further development takes place. In the *Limnaeus minutus* each sporocyst produces a large number of rediae, and from these again are formed cercariae, which leave the snail and lead an independent existence. When living in water, they appear to the naked eye as small whitish bodies. They may then encyst themselves on the stems of grasses, and in that condition are capable of surviving extremes of heat or cold, and even desiccation.

The cercaria is that stage in the life-cycle at which the fluke becomes parasitic in mammals, and may be ingested while actually in the snail, in drinking water, or on vegetable foodstuffs. It is probable that drinking water chosen at the dictates rather of necessity than desire, and watercress, sorrel, etc., are responsible for the transmission of the parasite to man.

The cercariae, having reached the digestive tract of man, obtain access to the bile ducts, where they attain adult size—about 30 mm.—deriving the necessary nourishment from the blood of the host, which they imbibe after attaching themselves to the mucous membrane. The ova are then deposited in very large numbers; the fluke dies and becomes encysted, or is excreted.

The discovery of this life cycle dates from the observation that the parasite was never found in sheep whose pastures were contiguous to the sea or to salt marshes. Salt has been found an efficient prophylactic, and is used as such in veterinary practice.

## INFECTION IN MAN.

It is obvious that there must be many occasions on which this parasite in the cercaria stage reaches the human alimentary canal, for in many parts of the country much of the drinking water is derived from ponds to which sheep have free access. Yet the disease is rare. This points to the fact that man is by no means an ideal host. It is not unreasonable to suppose that the habit of taking salt with vegetable food has something to do with this, or it may be that his digestive secretions either in their nature or concentration are inimical to the parasite.

The presence of only one or two flukes has been frequently recorded. Murchison's case was that of a man who died after attention in hospital for other reasons. A solitary fluke was found in his liver *post mortem*. On the contrary we find records of more than a thousand parasites in one sheep, and of considerable numbers in man. Perhaps those instances of the finding of only one or two are cases in which a more than usually adaptable fluke has survived in an essentially inimical host: those of the finding of large numbers must, then, be held to signify the loss of resistance on the part of the host towards flukes of no especial virulence.

It is by no means improbable that some instances of this disease have been treated as cirrhosis of the liver or cancer; the means of diagnosis are least available in the remoter country practices where the disorder is most likely to occur.

## COURSE OF DISEASE IN MAN.

The *Fasciola hepatica* has been so seldom observed in man that it is not easy to judge of the symptomatology from the recorded cases. A consideration of the disease as it affects sheep, and of the effects of the allied parasite *Distoma sinense* will, however, allow one to arrive at a fair idea of the disease process.

The period of invasion may pass unnoticed clinically, and in the early part the host may gain weight and enjoy a good appetite. There may, however, be slight jaundice and moderate enlargement of the liver. In sheep the minimum duration of this stage is six weeks; in man it is probably longer. Secondly, the stage of anaemia is recognized, and this is supposed to coincide with the maturity of the flukes. Anaemia of the mucous membranes is the most obvious sign, but the symptoms are rather those of toxaemia; in the case about to be considered they were certainly quite disproportionate to the anaemia. Appetite fails or may become depraved, the temperature is irregularly elevated, and the frequency of the pulse increased. Gastric pain and intestinal disorders become evident, diarrhoea and vomiting are not unusual, constipation may be present. The eyes are lustreless and the skin dry; experienced veterinary surgeons have been known to base a diagnosis on the condition of the skin alone.

Slight exertion aggravates the dyspnoea which is present, and the third stage soon appears. This is the stage of emaciation and ascites, and is accompanied by increased anaemia and progressive hepatic derangement. Oedema of the eyelids, conjunctivitis, hydrothorax, bronchitis, ascites, and jaundice are among the common symptoms.

The fourth stage seems to correspond in time with the emigration or excretion of the parasites, and in those who have survived the third is one of slow recovery from toxic symptoms. Fibrosis and other changes in the liver remain, and may cause permanent ill health.

An infinite variety of catastrophes may ensue from the presence of flukes in parts of the body other than the liver. These migrations are by no means uncommon; 10 per cent. of all cattle affected are found to have flukes in the lungs, and in the human being they have been seen even in the eye. One case was that of a child, 2 months old, who had an abscess of the scalp, which contained liver flukes; in another they were found in the sole of the

foot. There seems no reason why any intermediate region of the body should not be affected. Abscess of the lung and general peritonitis are among the possible causes of death in this disease.

### MORBID ANATOMY OF DISTOMIASIS.

The chief changes are those in the liver, which will therefore be described first. The calibre of the ducts is increased considerably, and the walls show a proliferation of the epithelium, forming small papillomata. Outside the ducts is an area of inflammation and an accumulation of eosinophile cells, generally very marked, according to Brumpt. In later stages fibrosis is extreme, and calcification may occur. A case is on record of a calcified cyst the size of a hen's egg containing about half a dozen flukes. The inflammation spreads to the surrounding hepatic substance, and in the presence of pyogenic organisms pus formation naturally results. The liver as a whole may show extensive perihepatitis, and cysts may be seen protruding on the surface. Where these have leaked adhesions will be found. The cirrhosis may reach a very marked degree.

In the same way the presence of flukes in other parts of the body is followed by inflammation, eosinophile infiltration, and either fibrosis or abscess formation. The other morbid appearances are those found in cases of severe anaemia, and those proper to wasting diseases. They call for no particular mention; the digestive system may show little abnormal or may be the site of extreme catarrh or even ulceration.

### REPORT OF A CASE.

E. D., male, aged 31, was admitted to the Tunbridge Wells General Hospital on November 10th, 1910, under the care of Dr. L. Adeney, by whose kind permission I made the investigations detailed below, and now record the case.

Dr. Adeney had seen the patient before admission in consultation with Dr. Bayfield, of Southborough. A provisional diagnosis of tuberculous peritonitis had been made, but he was admitted for the further investigation. He gave a somewhat indefinite history of about three months' failing health with intermittent "indigestion." There had been no outstanding or striking symptoms of any sort, but an increasing inability to do his work—that of a barber—had caused him to seek medical advice.

At the time of admission the following points were noted. He was a small, slight man of delicate appearance; eyes a little prominent; thyroid normal; skin dry, slight yellow tinge; conjunctivae anaemic, slight but distinct; subcutaneous fat ill developed; heart sounds distant; pulse small volume, increased frequency, tension poor; abdomen slightly distended; some epigastric tenderness; no pain at time of examination; liver not enlarged; spleen not enlarged; no "doughiness"; no signs of tuberculous foci in lungs or elsewhere. Complains of weakness, occasional headache, and abdominal pain mostly after meals. Is "very glad to get to bed." Previous illnesses *nil*. Family history good.

It may be mentioned that he weighed only 6 st. 8 lb. a month later.

A few days' observation showed that his pulse-rate and temperature were persistently and synchronously elevated towards evening. The temperature fell to normal during the day, but the pulse remained above 100. The respiration averaged 24; this number fell to 20 during convalescence. These variations and the return to normal under treatment are well shown by the accompanying chart.

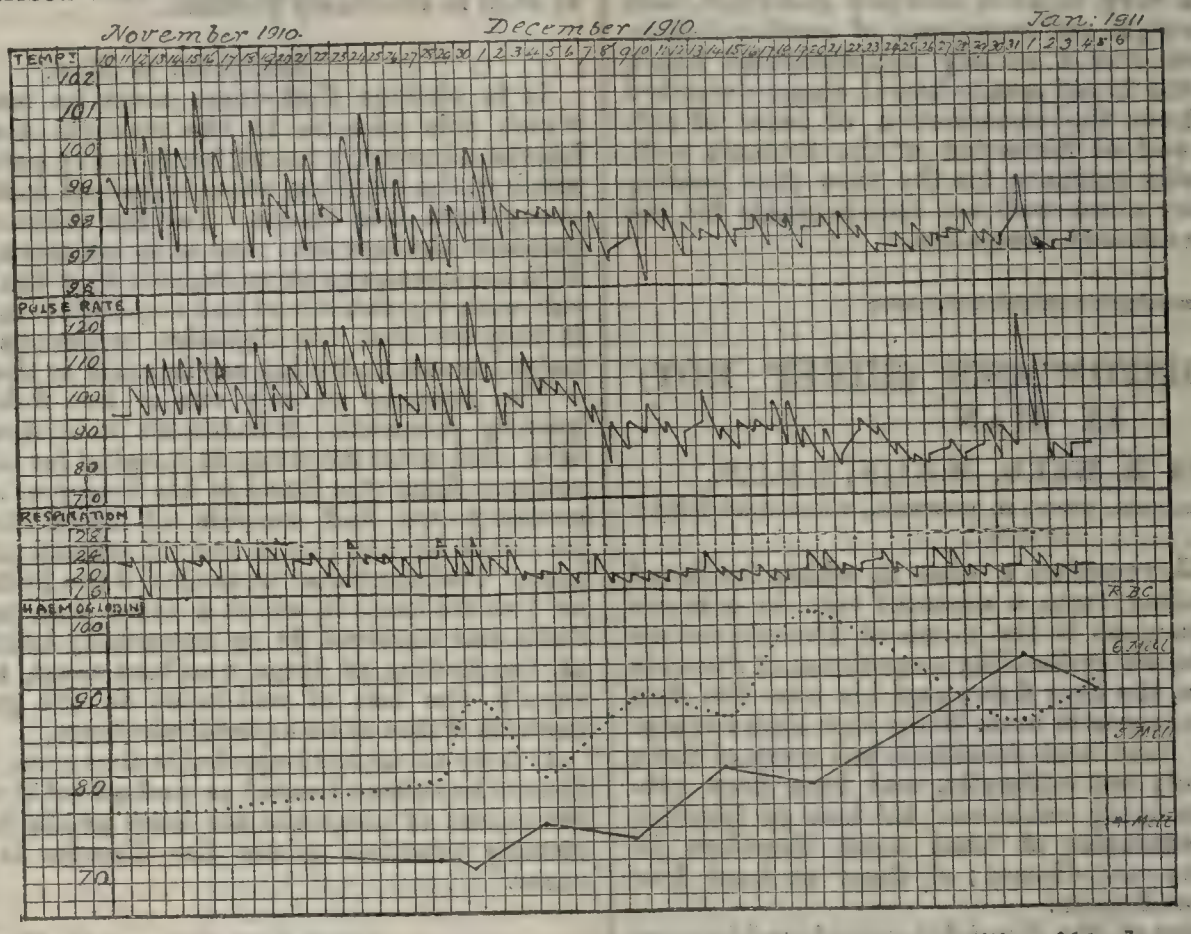


Chart showing variations in pulse-rate, temperature, and respiration, and condition of blood.

A blood examination was made in the hope that it might throw some light on the condition. It did—in an unexpected fashion. On November 14th there were 37.2 per cent. of eosinophile leucocytes and 3,757 per cubic centimetre, as against a normal of 1 to 2 per cent. in adults, with a total of 150 to 250 per cubic millimetre. This increase was so marked that an explanation was immediately sought for. Two frequent causes—namely, asthma and skin diseases—were readily excluded, but it was elicited that the patient had suffered from threadworms. The resulting pruritus ani had, however, been absent for more than nine months; nevertheless it was thought advisable to give him anthelmintics for a time. Santonin and calomel, of each 2 grains, were therefore administered nightly. After fourteen days his blood was again examined, and showed 41.6 per cent. of eosinophiles, with a total of 6,157 per cubic centimetre. The faeces were therefore examined, and the ova of *Distoma hepaticum* found in considerable numbers—four or five in each preparation.

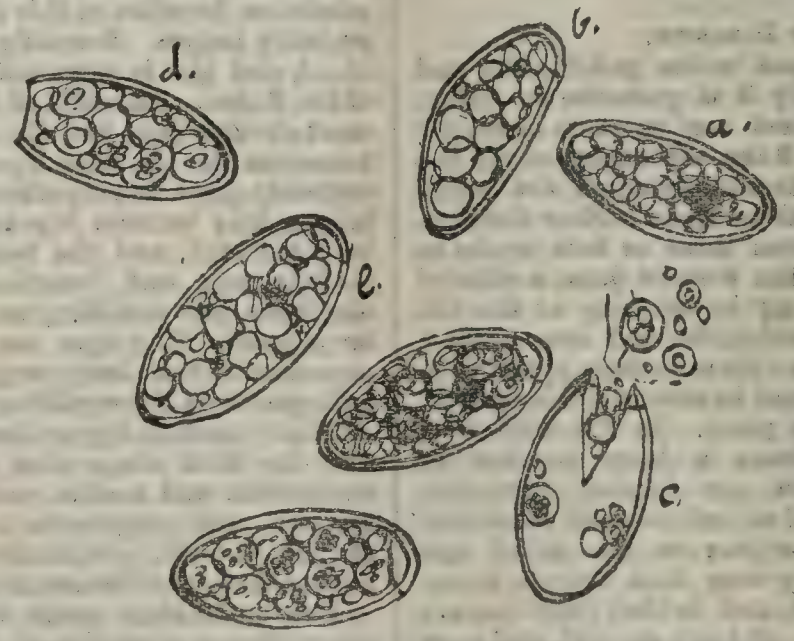


Fig. 1.—Ova of *Distoma hepaticum*. *a*, Showing position of germ area; *b*, showing asymmetrical form; *c*, artificially broken, with yolk granules pressed out; *d*, with lid missing but yolk present; *e*, typical form. (Drawn by Author from the preparation.)

Although the general condition of the patient was improving the haemoglobin was still little above 70 per cent., that is, had not altered since admission. The red blood corpuscles, on the contrary, were above the generally accepted normal of 5,000,000 per c.mm. There can, however, be no doubt that this figure is too low, at least in country districts.

The possibility that tuberculosis might be present as a complication of the distomiasis was considered, but the cutireaction was negative and an injection of $\frac{1}{10000}$ tuberculin K.R. gave rise to no general reaction. There was a little soreness locally. It did give rise, however, to a remarkable increase in circulating eosinophile leucocytes, which rose to 9,003 per c.mm., a figure not previously nor thereafter recorded in this case. A reference to the table will show the actual differential count. This eosinophile leucocytosis following tuberculin injections has been noted by several authors. Grawitz found as many as 41,000 per c.mm. in one case.

By the second week in December the patient's condition had much improved, and except for some flatulence he appeared to be in normal health. On December 18th and 19th he had sharp pain on the right side at about the level of the ninth rib in the mid-axillary line. It disappeared on December 20th and did

*Table showing Absolute Number of Cells per Cubic Millimetre.*

| Date. | Red Blood Corpuscles, per c.mm. | Haemoglobin, per Cent. | White Blood Corpuscles, per c.mm. | Polymorphonuclears. | Eosinophiles. | Mast Cells. | Transitional Leucocytes. | Lymphocytes. | Large mononuclears. |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 14 ... | 4,430,000 | 73 | 10,100 | 3,373 | 3,757 | 20 | 606 | 1,879 | 465 |
| Nov. 28 ... | 4,700,000 | 72 | 14,800 | 5,150 | 6,157 | 118 | 296 | 2,871 | 207 |
| Nov. 28* ... | | | | | | | | | |
| Nov. 29 ... | 5,350,000 | 72 | 16,930 | 3,826 | 9,007 | 106 | 339 | 3,251 | 406 |
| Nov. 30 ... | 5,650,000 | 71 | 11,160 | 2,902 | 5,826 | 112 | 223 | 1,964 | 134 |
| Dec. 4 ... | 4,750,000 | 76 | 15,000 | 4,710 | 6,660 | 120 | 600 | 2,580 | 330 |
| Dec. 9 ... | 5,650,000 | 74 | 10,400 | 3,120 | 3,575 | 125 | 437 | 2,766 | 374 |
| Dec. 9† ... | | | | | | | | | |
| Dec. 14 ... | 5,400,000 | 82 | 12,300 | 3,567 | 6,199 | 221 | 541 | 1,378 | 394 |
| Dec. 19 ... | 6,512,000 | 80 | 12,400 | 3,745 | 5,010 | 149 | 422 | 2,579 | 496 |
| Dec. 31 ... | 5,340,000 | 94 | 10,900 | 6,380 | 2,310 | 43 | 286 | 1,760 | 110 |
| Jan. 4 ... | 5,640,000 | 90 | 11,450 | 2,830 | 4,876 | 114 | 368 | 3,165 | 207 |
| Normal ... | 5,000,000 | 90—100 | 8—10,000 | 6—8,000 | 150—250 | 50 | 3—500 | 1,500—2,500 | 2—400 |

* Injection of tuberculin.
† Arsenic and iron discontinued. Administration of euonymin commenced.

not recur while he was in hospital, but was present again about fourteen days after his discharge. This may have been due to some localized perihepatitis, but there was no direct proof.

In spite of the improved health the number of ova in the faeces did not diminish, so that we cannot suppose that the flukes were affected. This was hardly to be expected, and it was on the whole gratifying that his health had improved so much.

There are several points of interest about this disease, which is commonly known as distomiasis. This term, however, will include any disease caused by flukes, even that due to bilharzia. Hepatic distomiasis is more accurate, and includes only disorders which much resemble each other, although caused by different species of fluke. The veterinary colloquialism, namely, "sheep rot," is a graphic description of the disease in sheep, but lacks elegance, and can hardly be adapted to meet the case in medical nomenclature.

### Etiology.

This has been in part discussed already. Briefly, there must first be the ingestion of cercariae, and it appears that the encysted form on vegetables is most often eaten. There must, then, be a sufficient concentration of alimentary secretions to dissolve the cyst. Evidence points to the gastric juice as the most important secretion from this point of view. The cyst wall being digested, there must further be an absence of any substance—for example, salt—which is fatal to the parasites. If these conditions are fulfilled the cercariae are probably able to reach the blood vessels and even the bile ducts. Their continued development depends on an adequate food supply of a proper nature. The normal food is the blood of the host. Weinberg has shown that this produces antibodies, presumably toxic to the parasite, but perhaps only of a nature to neutralize its toxin. Previous debilitating conditions or —as in the case recorded—general under development might impair the production of these antibodies, and so favour the growth of the cercariae, or, on the contrary, the parasite may become habituated to them. Probably both processes occur, and decide together the growth or death of the parasites.

### Diagnosis.

The diagnosis rests on five points—namely, the discovery of the ova in the faeces, or of the parasites in any situation, the clinical signs, the eosinophile leucocytosis, and the precipitin reaction. The eggs are invariably present in all but the mildest cases and the earliest stages. The discovery of actual flukes is unusual, but has called attention to some of the recorded cases. The clinical signs and symptoms are not likely to lead to a diagnosis in this country owing to the infrequent occurrence of the disease, but are of the first importance in veterinary surgery. The presence of eosinophile leucocytosis has not been recorded in any other case, but the local eosinophile infiltration noted by Brumpt is presumptive evidence of its general appearance. The precipitin reaction, as acknowledged by Weinberg himself, is of theoretical rather than practical importance. The modern extension of facilities for investigations in clinical pathology may be expected to make the discovery of the ova the most important diagnostic point, as it is now almost the only absolute one.

### Prognosis.

The prognosis can hardly be regarded as favourable in view of the migrations in the body of the parasite and the changes produced in the liver. The onset, too, is insidious and much harm may be done before medical advice is sought. Moreover, it is at least possible that only weakly persons are the subject of the disease except in its mildest form. On the other hand, if the infection is not extensive, and if the patient is in a position to procure good food and good hygienic conditions, it should be possible to prevent reinfection and compensate for any damage already done. The subject of this paper had two symptoms which made one particularly cautious in the prognosis, namely, a large number of ova and pain over the liver; the persistence of the latter, even when his general condition was excellent, was considered distinctly unfavourable as probably pointing to some hepatic derangement, of which the ultimate consequences might easily prove fatal.

### Treatment.

Treatment with anthelmintics is of no value, since they are not excreted in the bile and so cannot reach the parasites; moreover, any drug that was excreted in the bile in sufficient quantities to kill the fluke would probably kill the host as well. As a matter of fact, we do not know of any drug which is secreted in the bile or circulates in the blood in sufficient concentration to act as a vermicide. Quinine is certainly a protoplasmic poison, and exists in the blood as such, and the same is true of arsenic; but these do not seem to have any effect on blood-sucking parasites. It was therefore resolved in this case to endeavour to stimulate the secretion of bile, with the idea that toxic substances should be washed out and their absorption perhaps prevented. For this purpose euonymin was given three times a day in pills containing 1 grain. A marked rise in haemoglobin certainly took place under this treatment, but it cannot be asserted that this was due to the comparatively small doses of euonymin and not to rest and improved hygiene.

Symptomatic treatment follows the usual lines, and even surgical treatment may have to be invoked.

Prophylactic treatment is hardly called for in man, but consists of the administration of common salt with any food likely to be affected.

### The Migration of the Flukes in the Body of the Host.

Adult flukes have been found encysted in the lungs, and even in the subcutaneous tissues. It seems hardly credible that an adult fluke could pass in that state through the heart and large vessels. It must therefore be assumed

that the cercariae reach the blood stream, in which case this parasite has almost as much right to the appellation "haemato-bia" as has the bilharzia, its near relative. If the presence of flukes in unusual situations be due to migrations of their immature forms (the cercaria), it follows that such migrations will take place at a fairly definite period of the disease, at or shortly after the time of invasion. This is important from the prognostic point of view, for in the absence of reinfection we ought to be able to say that after a month or so the damage will be confined to those positions which the flukes then inhabit. It will also appear that the tendency of the organism is to encyst the parasite and thus limit its activities. Virtually sepsis is then the only danger to be feared except in rare instances, and apart from structural changes in the liver. There is the further question as to the way in which the cercariae obtain entry into the vessels. Since they can, it seems, survive in the stomach and duodenum, there is no obvious reason why they should not penetrate the mucosa, and reach the vessels in those organs. They would thus obtain access to the liver. Further, it requires some degree of imagination to suppose that as many as a thousand cercariae may unanimously choose the bile duct as a suitable path in life. It is true that larger worms are not very infrequently found in the duct. Sick collected 64 cases of *Ascaris lumbricoides* in that situation, but the invasion of some hundreds of parasites by this route is a very different matter. On the other hand, we have the undoubted fact that the flukes are found in the bile ducts; this may be explained by supposing that they reach the ultimate ramifications of the canaliculi directly from the smallest portal capillaries—a supposition which appears by no means improbable. It may be mentioned, in support of the view that the gastric mucosa is primarily affected, that there is a case on record of a French army officer who ate some meat infected with an allied parasite (*Distomatose bucco-pharyngée*). The parasites immediately fixed on the walls of the pharynx and mouth in such numbers that he was in danger of suffocation. In the same way, it may be, the *Distoma hepaticum* fixes on the mucosa of stomach and duodenum—probably, indeed, on that of other parts of intestine.

The alternative view has never been proved experimentally, and rests on pure conjecture. It is somewhat difficult to explain, except on the first hypothesis, why the pancreas is not also invaded, since its secretion does not appear to be lethal to the parasites and the road is open. If they do, indeed, traverse the common duct, why should they all take one turning? The presence of larger worms in the gall bladder and not in the pancreas is explained by the lack of space in the latter situation, but surely there is room for a few cercariae.

### THE ANAEMIA.

In the case under consideration the anaemia had not reached any great degree, and there are no available records of other cases. It is obvious that it depends on the presence of the parasites in some way, and therefore comes into the great clinical group of parasitic anaemias. It further resembles some of these in the fact that slight loss of blood is an aggravating factor. It is further very probable that sepsis may be a further intensifying agent, but neither this nor the haemorrhage are likely to be sufficient in degree to cause any great disturbance.

The eosinophile leucocytosis, the elevation of temperature, and the increased pulse-rate suggest the presence of some toxic substance absorbed into the general circulation. The fact that antibodies can be demonstrated in the blood is further evidence. The question then arises whether this toxic material is derived from the living or dead fluke, from its secretions or excretions.

It would be convenient to suppose that it arose from dead or decomposing parasites, for this will explain its absence in some cases (which one may suggest from analogy with the case of *Distoma sinense*) and in the early stages. A similar suggestion has been put forward to account for the varying occurrence of anaemia in *Bothriocephalus* infection, but although there is some direct evidence in that case there is none with regard to distomiasis. This view is also negatived by the presence of eosinophilia around living parasites.

In favour of the origin of the toxin from the secretions of the parasites is the isolation of such substances from various intestinal parasites. The latter, however, were not only certainly dead, but desiccated when the extracts were made, and, moreover, the results of these experiments have not always been verified by subsequent observers. Another suggestion, made in the case of ankylostoma, is that the excreta collect in large masses in the intestine and give rise to the toxaemia. There is a certain amount of inherent probability about this view, and it would apply with more force when the excretions are deposited in the bile capillaries where there is little pressure to remove them.

Whatever the precise source of the toxin there can be little doubt, though its nature is quite unknown, that it is the most important agent in the causation of the anaemia.

The type of anaemia etiologically comes under Hunter's heading of "Septic Anaemias," which presumably includes all anaemias due to the products of organisms foreign to the body. In the absence of a promised volume by the author mentioned, Part II of his "Severest Anaemias," as yet unpublished, the above classification is made with all reserve. Haematologically the anaemia is distinctly of a "chlorotic" type. The following data are derived from ten blood examinations carried out in this case:

1. The number of red blood corpuscles was never below 4,430,000 per c.mm., and under treatment with iron and arsenic rapidly rose to normal. Within fourteen days it had reached 5,350,000, and later a maximum of 6,512,000 was recorded. A fairly constant average of 5,500,000 was established after a fortnight.
2. The haemoglobin remained practically constant at 70 to 75 per cent. for a month, and then rose but slowly, never reaching above 94 per cent. during the period of observation. It did not commence to rise until iron and arsenic had been replaced by euonymin.
3. The size of individual corpuscles was at first below normal—namely, 6.93$\mu$; at the last examination it was 7.23$\mu$. At first 62 per cent. were between 7$\mu$ and 8$\mu$; finally as many as 89 per cent. fell between these limits. There was thus a distinct improvement in both respects.
4. Poikilocytosis was never well marked, and varied but little.
5. Polychromasia was present throughout, but was slight.
6. Basophile granulation was also present throughout and was very considerable in degree, even at the last examination.
7. The viscosity of the blood was very obviously diminished at first, and even when the corpuscles were 6,512,000 per c.mm. did not seem to be increased.
8. The leucocytosis, which reached 16,930 per c.mm. on one occasion, was due to an increase of eosinophiles; the other cells were present in normal numbers. The mast cells, however, reached 1.8 per cent. on one occasion—absolute number 221 per c.mm.

The absence of pigmentation, urobilinuria, or of any of those forms of red blood corpuscles which appear after extensive blood destruction, sufficiently attests that this is not a "haemolytic" anaemia. The increased fluidity of the blood, the quick rise of red blood corpuscles and its variable extent, the increase of total blood volume known to occur in ankylostoma anaemia, and the close resemblance to chlorosis shown in the size, etc., of the corpuscles, lead one to suggest that there may be some degree of hydraemia in these cases. This is not, however, a certainly trustworthy deduction; indeed, all deductions drawn from one case only are to be accepted with caution. Moreover, if the anaemia depended solely on dilution of the blood, the haemoglobin percentage ought to rise at the same rate as the percentage of red blood corpuscles. This was not the case, and we may therefore feel certain that there is in this anaemia some perversion of the normal process of forming red cells. Apparently this is shown first by a deficiency of haemoglobin, and in the size and contour of the cells. Later there would be an actual diminution in output of cells, and the qualitative changes would become more marked. It is hard to avoid the conclusion that this is due to some poison circulating in the blood and so reaching the marrow. The polychromasia and stippling may both be due to the same influence, but it is more probable that they have different significances.

Polychromasia is too vexed a subject to discuss here; but if it be regarded as an infallible sign of the extension of blood formation, it is difficult to understand why it persisted in this case long after the blood was normal, and in the absence of any drug which is known to affect the marrow. As regards the basophile granulation, bearing in mind its immediate appearance after small doses of metallic toxins, the author inclines

very much to the view that it represents some adverse effect produced on the red corpuscles while they are actually in the circulation. It will be noted that this granulation showed no signs of diminishing at any time, which accords with the probability that the formation of toxin by the parasites was equally undiminished.

To summarize, the anaemia resembled very closely that ordinarily accompanying chlorosis and showed no signs of being due to haemorrhage. It may be classed as a septic or, better, toxic anaemia, the essential haemolytic lesion being probably aplasia of the marrow.

The eosinophile leucocytosis is interesting and certainly depends on the need for such cells in the immediate vicinity of the parasites. Their presence in such situations has been noted in this and many other allied parasitic diseases, notably trichiniasis.

It has been observed also that when the parasite is well encysted or calcified the eosinophilia disappears. Eosinophile cells have never been regarded as phagocytic in the same way as polymorphs. Is it not very probable that they are chemical phagocytes—that is, neutralize or destroy adverse chemical substances—among which the toxins of parasites may well have a place? It is also at least credible that this power resides in the granules. It has been observed that in the exudate from tick bites in the horse, in which animal the eosinophile granules are particularly large, cells are found in which only one or two granules remain. This may well point to the fact that the rest have been used up and have ceased to be demonstrable by ordinary staining methods.

Now if the output of eosinophile cells was adequate, the toxin would presumably be neutralized before it could do harm, and the anaemia would not occur, and such cases would not seek medical treatment. If at the same time the parasites were speedily so surrounded by impermeable tissue that the toxin did not reach the circulation, there would be no further stimulus to eosinophile leucocytosis. On this hypothesis may be explained the absence of this sign in many cases of infection by parasites which usually give rise to it. On the other hand, the toxaemia might be so intense that eosinophile production was paralysed or exhausted. Eosinophile leucocytosis is, in fact, on a par with polymorphonuclear leucocytosis, which is absent in cases of walled-off abscess and in pneumonias without reaction. The one is excited by the toxins of bacteria, drugs, etc, the other by those of parasites in many cases. The apparent anomalies in the occurrence of eosinophilia are due not to erratic natural laws, but to a lack of information as to the formation and absorption of the toxins which call it into existence.

### THE OVA.

The eggs are oval in shape, as a rule; not infrequently the greatest diameter is midway between the two poles, but is, as a rule, towards one end. They are sometimes asymmetrical, as seen under the microscope, and this, perhaps, is due to their lying on one side. The proportion of length to breadth varies very considerably. Measurements of a large number gave an average length of 137 $\mu$, with an average breadth of 71.7 $\mu$. This is twice as large as the egg of *Bothriocephalus latus*, which in some ways resembles that of *Distoma hepaticum*. The maximum length was 156 $\mu$, the minimum 118 $\mu$, the maximum breadth 91 $\mu$, the minimum 62 $\mu$.

The colour of the egg varies from a light yellow to dark brown, they stain very deeply with iodine, but hardly at all with aniline dyes.

At one end of the egg is a cap or lid from 30–40 $\mu$ in diameter. This is not always very obvious; it may sometimes be demonstrated by tapping the cover-glass, but this usually cracks the egg in some other place. Within the egg are a number of spherical bodies known as the yolk granules. Some of these are 20–30 $\mu$ in diameter, and possess smaller granules in their interior, the latter arranged in a rosette. The smallest yolk granules measure 4–6 $\mu$, and appear to consist of two concentric spheres. Both varieties stain slightly with methylene blue, and appear to rest in a nearly homogeneous material, which fills the egg. Towards one end is an area known as the germ area; by the division of its cells the miricidium is formed. The yolk granules disappear, and are said to provide nourishment for the growing embryo. Their comparatively elaborate structure is worthy of note. No stage beyond that of the faint appearance of a germ area is seen in the faeces except after incubation, which may be carried out in an incubator in winter, or without in summer. It may be months before the miricidia develop. The writer has not been able to see it, although the ova have changed a good deal in colour and even lost their lids.

A résumé of bibliography is given in the following:

R. Leuckart: *Die menschl. Parasit.*, vol. ii. R. Blanchard, *Traité de zoolog méd.*, vol. i. E. Brumpt, *Précis de parasitologie*, 1910. T. S. Cobbold, *Parasites*, 1879.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### AN EPIDEMIC OF INFECTIOUS JAUNDICE.

AN epidemic of jaundice has been under my observation for over three months in a village of 300 inhabitants. A brook running through the place receives some sewage from kitchens, but there are no closets emptying into it. The soil is a mixture of clay and gravel. The first case that came under my notice was in the middle of November last year, and there have been some 25 cases since, and fresh cases still crop up. The ages of patients vary from 2 years to—in one case—60 years, and when one member of a family is affected almost invariably the other children in the house contract the disease in a week. The schoolmistress, aged 18 years, was ill in January. The symptoms were much the same in all, though the temperature varied a little; there was yellow staining all over the skin and conjunctiva, the urine was dark with bile, the stools of the usual clay-like appearance, and there was constipation, sickness and general malaise, inability to take food, particularly fatty substances, rise of temperature, constant pain over the liver, headache, and loss of flesh and muscular strength. The treatment consisted in keeping the patients warm in bed, light food, and magnesia and cascara as medicine. So far they have all recovered.

The cases are not entirely limited to the village described, for recently in my own village, which is three miles distant, there has been an outbreak in a family. The first patient was a girl aged 8, who had consorted with children from the village first infected, and subsequently two small children in the same family fell ill. Can all these cases be an instance of an outbreak of the febrile and infective jaundice recorded by Weil of Heidelberg in 1886, and described under the title of Weil's disease in Allbutt and Rolleston's *System of Medicine*?

T. F. VAISEY,
Medical Officer of Health, Winslow.
Winslow.

### CONTINUOUS ANTISEPTIC INHALATION IN PULMONARY CONSUMPTION.

DR. PEREIRA has spoken of giving a patient a respirator saturated with an antiseptic. If 4 or 6 drops are put in the respirator every hour or two, it is not saturated. A woman, 30 years old, has been under my care since February, 1908. From that time till December, 1909, she suffered from cough, profuse expectoration, night sweats, diarrhoea, and three attacks of haemoptysis, one of which nearly proved fatal. The emaciation was extreme. We expected an early termination; as the friends said, "It would be a happy release." During this time (almost two years) I had relieved her symptoms as they occurred with medicine. In December, 1909, I saw a paper by Dr. David Lees in the JOURNAL. I applied the treatment as he recommends it; the effect has been remarkable. She has not required a dose of medicine in 1910. Cough was relieved, sputum diminished, there has been no attack of haemoptysis. General condition so much improved that she can bear to be taken out considerable distances in a chair without fatigue. She has taken sufficient antiseptic solution during these fifteen months to have either poisoned or bled her to death, that is, if the treatment properly used can have such deleterious effects. I have treated several cases in the slums of the town, and they have invariably been much relieved. Sufficient time has not elapsed to pronounce them cured, but they are all in a fair way of recovery.

W. J. HODGSON, M.D.
Rochdale.

# Reports
ON
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL.

#### A CASE OF RETENTION OF URINE.

(By GEORGE W. BURY, M.B., Ch.B.Vict., Resident Surgical Officer.)

THE following case is reported on account (*a*) of the extremely large quantity of urine retained in the bladder without rupture; (*b*) of the rapid recovery of vesical tonus after such an enormous distension.

The patient, a woman aged 37, was admitted with a history of having been apparently quite well until fourteen days previously. She then complained of severe dragging pains in the lower part of the abdomen, accompanied by nausea and vomiting. She also had some difficulty of micturition, but passed a normal quantity. She recovered in twenty-four hours, and was able to do housework. Eleven days later the pain recurred and was very severe, and she had great difficulty in passing urine, and only passed a very small quantity. She also noticed that the abdomen was getting larger, and on this account called in a medical man, who ordered her to hospital.

*State on Admission.*—She was in a comatose condition; pupils contracted, equal, and react to light. She moved slightly on being spoken to loudly, but did not understand, and was very irritable on being moved. Breath very offensive, skin cold and clammy, pulse feeble and thready, rate 138, temperature subnormal, respirations shallow and sighing. A large tumour was seen completely filling the hypogastric and umbilical areas, but rather more prominent on the right side. Its limits were well defined, and arose from the pelvis. It was hard on palpation. The upper level lay midway between umbilicus and sternum, 1½ in. to right of the middle line. It was slightly movable, but no fluid thrill was obtained. It was dull to percussion, but the flanks of the abdomen and side of the pelvis were quite resonant. The vagina was lax owing to an old unrepaired ruptured perineum. The arch of the pubis was distinctly felt, no bladder seeming to intervene. First within reach of the finger was a mass pressing anteriorly which felt like a soft cervix. The vaginal vault was capacious, and occupying the pouch of Douglas was a hard mass with definite limits and probably connected with the uterus. On examination *per rectum* a large tumour, hard but resilient and slightly movable, was found lying about 2 in. from the sphincter in the hollow of the sacrum. It was possible to feel the sacral promontory above the tumour, which was completely incarcerated in the pelvis and was regarded as probably a retroflexed gravid uterus. This tumour was quite distinct from the abdominal tumour.

*Progress.*—A catheter was passed with difficulty through a lengthened urethra, and a stream of urine began to flow under very high pressure, and 166 oz. were withdrawn. It was quite clear and not offensive; specific gravity 1030, acid, no albumen, sugar, or pus. On examining the abdomen again the original tumour was found to have quite disappeared. An attempt was then made to reduce the pelvic tumour, but it was found impossible. An anaesthetic was then administered, and with two fingers in the rectum the uterus was replaced above the promontory, so that it lay at the level of the umbilicus. A Smith-Hodge pessary was inserted.

The uraemia was now treated by saline infusion, injection of digitalin, calomel, and warmth applied to the skin. A catheter was passed four-hourly, and at the first passage 56 oz. of urine were withdrawn. The general condition gradually improved, the bowels acted, the patient perspiring freely, and consciousness returning though some delirium was present.

*Result.*—Forty-eight hours after admission she passed urine normally and became quite conscious. On examination of the abdomen a small pregnant uterus was palpable at the level of the umbilicus. Nothing else abnormal. Seven days after admission the patient was out of bed, feeling quite well, and wearing the Hodge pessary, which kept the uterus in normal position. She had no trouble or difficulty with micturition, and the urine was normal in quantity and in every other way. She was discharged quite cured fourteen days after admission, and advised to wear the pessary for at least two months.

I beg to thank Dr. Hatton for supervising the notes of this interesting case and allowing me to publish the same.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.

#### *Arterio sclerosis.*

A MEETING of the Kensington Division was held at the Kensington Town Hall on Friday, March 10th, at 4.30 p.m., Dr. BUTTAR in the chair.

Sir CLIFFORD ALLBUTT, M.D., read a paper on arterio-sclerosis, the first part of which was published in the JOURNAL of April 15th (p. 853), and which is continued on p 922 of this issue.

The CHAIRMAN very briefly expressed his gratitude to Sir Clifford Allbutt for his illuminating address, remarking that he felt his own position to be a peculiar one, inasmuch as some years ago he had read a thesis before Sir Clifford on the same subject, his knowledge at that time being almost entirely derived from a study of Huchard's work. To-day he had added much to his knowledge of the subject.

Dr. BATTY SHAW said Sir Clifford Allbutt's knowledge of this subject was so thorough that he had some feeling of diffidence in offering any criticism. However, he felt that it might be helpful if the younger generation were to offer suggestions and criticisms from which some solutions of still unsolved problems might be discerned. He wished to speak of his own ideas in this connexion, ideas which appeared to be new, but which were in part not so, since they had been formulated in a different shape many years ago, and had been forgotten. Sir Clifford Allbutt had pointed out the necessity of an association between the clinician and the pathologist. He had followed up the clinical work closely during some years, and had attempted to control his pathological and experimental studies in this manner. In all he had been able to study very close on 1,000 *post-mortem* cases. Of these 1,000 cases, there were 29 in which hypertension had been recorded during life by the sphygmomanometer. He raised the question, what was the meaning of this hypertension? In the 29 cases it was permanent—that was to say, it persisted in all the cases save in the period immediately prior to death. After referring to the associated changes found *post mortem*, such as pontine haemorrhage and capsular haemorrhage, he stated that when examined carefully by the microscope, changes were found in all cases in the kidneys. These changes were partly glomerular and were partly those which Sir Clifford Allbutt had referred to as the "Granular Kidney." Some of the clinicians suggested that if the other organs were examined with as minute care as the kidneys were examined under the microscope, similar changes would be found. This was not the case. The damage was limited in a very large proportion of the cases to the kidneys. His explanation of this occurrence was that the kidneys did not initiate the disease. The glomeruli became altered as a result of the action of a circulating poison. This poison loosened the renal cells, thereby liberating a pressor body. He believed that the poison belonged to the group of hypothetical bodies spoken of as nephrolysins. He admitted that kidney cells had never been recognized in the blood, but there was no reason to doubt the possibility of a nephrolytic poison on this account. Chemical elements derived from disintegrated cells were fixed very quickly by other tissues of the body. He compared this action to the well-known action of the tissues on haemolytic amboceptors. The cells, notably those of the brain, were known to exert a power of abstracting these haemolytic substances with great rapidity. He therefore concluded that the kidney-cell derivatives were rapidly and completely attached to other cells of the body. Dr. Batty Shaw then turned his attention to the clinical manifestations of these cases. He stated that there were always some changes in the kidneys. There was, he pointed out, great difficulty in differentiating between the various classes of clinical albuminuria, and the most extreme sclerosis of the kidney might exist without albuminuria. He firmly held that in cases of hypertension, with or without arterio-sclerosis, some renal

changes were always present. More than this, he believed that when once arterio-sclerosis was well established, it might be accepted that if hypertension was not then present it had been at some anterior date. With regard to what is spoken of as arterio-sclerosis, however, a real difficulty occurred. He acknowledged the great authority of Sir Clifford Allbutt, and readily accepted his views on the clinical varieties of these conditions, but what did he mean by arterio-sclerosis? On the reply to this question everything depended. Even Dr. Mott and Professor Jores found difficulty in defining what was implied. He himself would include under the term "arterio-sclerosis" several conditions of damage to the arterioles and arteries. But the clinical use of the term could only help to confuse matters, and he therefore suggested that it should be got rid of altogether, and that other terms should be substituted which would describe the actual clinical manifestation. For instance, it would be far better to record a tortuosity of the radial artery or some other abnormality, than to speak of arterio-sclerosis, when all the physician had made out was tortuosity or hardness of the vessel.

Dr. C. O. HAWTHORNE, after expressing appreciation of Sir Clifford Allbutt's address, remarked that much confusion existed in connexion with the subject of arterio-sclerosis because of the want of a clear and unvarying definition of the term. Some pathologists, for example, defined arterio-sclerosis as identical with a special series of histological changes, while there were physicians who limited the word to structural alterations in the arterioles, and who excluded from it abnormal conditions of the large and medium-sized vessels. According to either of these views, therefore, there might be manifest hardening of such arteries as the brachials or radials, and yet no arterio-sclerosis; on the other hand, by many, the use of this term was general for all cases of arterial hardening. Hence discussions on the subject were apt to be confused and unfruitful. Dr. Batty Shaw had anticipated him in the suggestion that as a clinical phrase the term "arterio-sclerosis" should be altogether abandoned. There was another reason in favour of such a course—namely, that whether rightly or wrongly, sclerosis had come to mean fibrosis. But surely an artery might be hard and resistant to the finger not from fibrosis but from contraction or hypertrophy of its muscular coat; and this possibility was likely to be overlooked when arterio-sclerosis was used as synonymous with such a phrase as undue arterial resistance or hardening. To him it seemed sufficient to state the facts—to say that the wall of the brachial or radial artery was unduly firm, while at the same time an attempt might be made to indicate the degree of this by such terms as +1, +2, etc., in the same way as these signs were used to express the degree of hardening of an unduly tense eyeball. If, in addition, the arteries displayed visible pulsation, had a tortuous course, or showed nodules as of mineral deposit in their walls, let these facts be stated by the clinician, and let the term "arterio-sclerosis," if it had any value, be left to the pathologist. He ventured to think that, in existing circumstances, the phrase "blood pressure" might be treated in much the same manner. As used nowadays, all that it meant was a figure or record of the amount of pressure necessary to apply by means of the sphygmomanometer in order to overcome the pulsations of the brachial artery. But to effect this end it was necessary not only to overcome the pressure of the blood but also the resistance of the arterial wall, and while this resistance might be negligible in the case of a normal artery it was by no means certain that the same was true of a thickened or hardened artery. Therefore it was not proved that the sphygmomanometer figure, in a case of arterial thickening, was a true index of the blood pressure; and at the best this figure gave no information in reference to the maintenance of the pressure or to the manner of the pressure decline. The clinical fact was a certain sphygmomanometric reading; whether this indicated the height or level of the blood pressure was a matter of inference or opinion. It was the statement of the fact, not of the opinion, which was necessary to secure accuracy. If, therefore, he was permitted to speak of arterial resistance or hardening instead of arterio-sclerosis, and of sphygmomanometric levels instead of blood pressure, he should say that Sir Clifford Allbutt's teaching in reference to arterial and renal changes offered itself as welcome and helpful guidance in a very complicated question. Personally, he was satisfied that there were cases of arterial disease with relatively low sphygmomanometric readings, the explanation being, presumably, that such disease did not narrow the arterial bed, and consequently did not call for increased cardiac energy. The difficulty was, at times, to distinguish between granular kidney and the condition which Sir Clifford Allbutt named "hyperpiesis." It might be on the safe side as a matter of treatment to regard all cases with high sphygmomanometer readings as cases of kidney disease, but such a course could not, he thought, be justified as clinically accurate.

Professor SCHOTT of Nauheim agreed with Sir Clifford Allbutt that arterio-sclerosis was not a disease, and referred to the results of his experiments with adrenalin. Riva-Rocci's sphygmomanometer did not record the blood pressure alone; it also included the capability of the artery to expand and its elasticity. On the other hand, the tonometer did record actual blood pressures. Sir Clifford had referred to what is termed *Schrumpfniere*, and he would say that this form of atrophied kidney was always associated with high pressure. When high pressures were found the physician always looked to the kidneys. On the other hand, there were cases of parenchymatous disease of the kidney associated with low blood pressures. Such patients, as pointed out by Sir Lauder Brunton, died very suddenly.

Sir CLIFFORD ALLBUTT briefly replied. It was, he said, impossible at that late hour to enter upon the questions raised by the three distinguished speakers. He thought that much of what Dr. Hawthorne had spoken was capable of explanation, but the methods of recording blood pressure and the like were outside the subject on which he undertook to speak. He could not agree with Dr. Schott that high arterial pressures were constant in the heterogeneous collection of *Schrumpfniere* as they were in the homogeneous class of Granular Kidney. The low pressures ending in sudden death were often the closing scenes of a long period of high pressures ending in cardiac defeat.

Dr. BUTTAR proposed a vote of thanks from the chair, not only to Sir Clifford Allbutt but also to Drs. Batty Shaw, Hawthorne, and Schott for their interesting speeches. This was carried by acclamation, and the meeting terminated.

# Reports of Societies.

## MEDICAL SOCIETY OF LONDON.

*Monday, April 10th, 1911.*

CHARTERS J. SYMONDS, F.R.C.S., President, in the Chair.

### *Hodgkin's Disease.*

Dr. F. PARKES WEBER read a paper on a case of late Hodgkin's disease. He pointed out that in true instances of this disease the lymphatic glands of some one region of the body were much more enlarged at first than the others, as if they constituted the primary focus or centre of the disease. Not rarely those on one side of the neck were chiefly affected at first; sometimes a group of retro-peritoneal glands seemed to be primarily involved. In a case which was under his care in 1908 the disease commenced in the mediastinum. When localized in the latter situation, it might give rise to a regular tumour mass. In one case the superficial glands, which at first formed a prominent tumour on one side of the neck, shrivelled up during the course of the disease so as to become hardly noticeable. The disease superficially appeared to be in process of cure, but in reality the lymphatic glands in the thoracic and abdominal cavities and the lymphatic tissue of the spleen were becoming gravely affected. Such cases were doubtless not rare. With regard to diagnosis, Hodgkin's disease might perhaps be simulated by malignant disease of the abdominal viscera (suprarenals), with secondary infiltration of lymphatic glands in the neck, and Rolleston and others had drawn attention to the possibility of cases with splenic enlargement and pyrexia suggesting a diagnosis of malaria or enteric fever. In only a few cases was the patient's temperature chart helpful in diagnosis. When there was any fever it was mostly of an irregular kind with a moderate evening rise, but occasionally

a long, regularly recurrent periodic type of fever was met with, the "chronic relapsing pyrexia" of Hodgkin's disease, which had been called the "Pel-Ebstein symptom," owing to the writings of Pel and Ebstein in 1887. Of that perhaps the most remarkable example in existence was an eight months' chart recently recorded by C. H. Melland. Such cases had even been labelled "Ebstein's disease." Less regular recurrent "pyrexial crises" were of rather commoner occurrence. During the pyrexial periods the superficial lymphatic glands were sometimes observed to swell. But if they became softer when they swelled they might fit together better, and so (with the fever) they might occasionally seem to diminish rather than increase in size. Wherever possible the diagnosis of Hodgkin's disease should be confirmed at an early stage by the excision and microscopical examination ("biopsy") of one of the enlarged lymph glands. Without the help of a "biopsy" it was by no means always so easy as some probably supposed to distinguish Hodgkin's disease from chronic tuberculous or syphilitic enlargement of lymph glands. Many persons were doubtless alive and well to-day who would have been long since dead had the diagnosis of Hodgkin's disease pronounced on them been correct. But doubtless arsenical therapy and Roentgen rays could be of real use in many genuine cases of Hodgkin's disease, even if a permanent cure could not be effected; that consideration made it very important that the diagnosis should be made as certain as possible by the help of a "biopsy." The great difference in the character of the progress of the tuberculous lymph glands and the lymph glands of Hodgkin's disease furnished another argument against the view that Hodgkin's disease was caused by any variety of the *Bacillus tuberculosis*.

*Traumatic Neuroses.*

Dr. F. S. PALMER read a paper on traumatic neuroses and psychoses and their medico-legal consideration.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF LARYNGOLOGY.

AT a meeting on April 7th, Dr. WATSON WILLIAMS, the President, in the chair, the following were among the exhibits:—Dr. HERBERT TILLEY: A *Pedunculated growth on an elongated uvula*, removed from a male aged 30. It had been present as long as the patient could remember, and had produced no symptoms whatever. It was thought to be a small fibroma. Mr. WALTER HOWARTH: A case of *Chronic laryngitis*. The patient suffered from profuse nasal discharge with crusts and also active necrosis of the nasal septum, which gradually cleared under potassium iodide. A year later the larynx became affected. The cords were seen to be red and thickened, and later on again the cords improved, while swelling appeared in the interarytenoid space. Dr. WILLIAM HILL: (1) A case of *Tracheo-laryngostomy* in a girl, aged 8, on whom a so-called high tracheotomy had been performed five years previously for diphtheria. Intubation tubes had been worn for three months, but stenosis quickly recurred on removal. (2) A case of *Carcinoma of oesophagus* in a man aged 45, previously shown at the meeting last December. At that time apparent cure had taken place after six prolonged applications of radium. There had been no application for four months, and there was now a well-marked malignant ulcer lower down in the gullet. Dr. HEMINGTON PEGLER: A case of *Functional aphonia* of three months' duration in a boy aged 14, who worked in an atmosphere containing irritating fumes. There was no dyspnoea, cough, or stridor. The cords, which were deeply injected, failed to approximate on attempts at phonation. The voice had returned under the application of liquor ferri perchloridi. Dr. W. JOBSON HORNE: A simple *Insufflator for application of powders* to the larynx, fauces, nose, and ear. It could be used equally well by the surgeon or the patient. Dr. W. H. KELSON: A microscopic section of a *Cyst of the tonsil*. The patient was a man aged 43, sent up from the country with a diagnosis of sarcoma of the tonsil. He had suffered from repeated attacks of sore throat, and the left tonsil had been slowly increasing in size for some months. He had slight pain and some difficulty in swallowing. The left tonsil was found to be very much enlarged, but no enlarged glands could be felt. The tonsil was partially enucleated, and then the cold wire snare applied. Dr. STCLAIR THOMSON: A case of complete *Stenosis of the larynx from epithelioma* in a man aged 23. Hoarseness had come on suddenly while the patient was in India. In May, 1910, laryngo-fissure was performed, and a tumour removed, together with the left cord. In October the same year he was admitted to King's College Hospital wearing a small tracheotomy tube in the region of the crico-thyroid membrane. There was stridor, the larynx was swollen and tender, and its entrance was occluded by the fixation of the arytenoids against the posterior surface of the epiglottis; later on an abscess developed in the neck, and necrosed cartilage was removed. A section of the growth removed had been examined by pathologists, but opinions differed as to the presence or not of malignant disease. Dr. FITZGERALD POWELL and Mr. BADGEROW: A woman aged 24 exhibiting what was considered to be *Vincent's angina*. Dr. DUNDAS GRANT: (1) A case of *Hypertrophy of the lingual tonsil* in a singer, which had been partially removed by linguo-tonsil guillotine; (2) a case of *Ulceration and infiltration of hard palate* in a woman subject to tuberculosis of the larynx. Dr. IRWIN MOORE: A case of *Lupus* of the nose, pharynx, and larynx in a man aged 25, who came to hospital complaining of a stoppage of the nose which had lasted three or four years; no laryngeal symptoms. Von Pirquet's reaction was positive. Dr. G. C. CATHCART: A baby aged 11 months, which shortly after a fall exhibited a swelling at the root of the nose. It became blue and swelled when the baby cried.

## LIVERPOOL MEDICAL INSTITUTION.

AT a pathological meeting held on April 6th, Dr. BRADSHAW, President, in the chair, the President asked whether the administration of aperients augmented the bacterial virulence throughout the intestinal canal. They had lately been taught what was described as "the gospel of dirt," and it seemed as if they would before long be asked to accept a gospel of constipation. The following were among the specimens exhibited: Drs. STOPFORD TAYLOR and MACKENNA: Skin from a case of *Darier's disease*. Mr. NEWBOLT and Dr. MOORE ALEXANDER: A *Carcinoma* from the head of the pancreas of a woman aged 58. During life the tumour simulated a growth of the right kidney; there was no jaundice. Mr. DOUGLAS CRAWFORD: (1) Specimens of *Haemangioma* of the upper jaw from two girls, which clinically resembled ordinary epulis; one had recurred. (2) The spinal cord from a man, aged 23, who died thirty hours after a severe blow on the back of the neck, with complete loss of sensation in all the limbs and a temperature of 105°. There was no fracture of the vertebrae, but *Subdural haemorrhage* and complete severance of the cord. Mr. LARKIN and Dr. HICK: A *Gumma of the gall bladder*. Dr. WARRINGTON: Sections of the cord from a man with symptoms of tabes due to extensive *Syphilitic meningitis* of the cervical and lumbar regions. Dr. WIGLESWORTH: (1) A brain from a microcephalic epileptic imbecile, weighing only 600 grams, and simply convoluted. Microscopically the nerve cells were abnormal. (2) A brain from a macrocephalic idiot, weighing 1,775 grams, highly but abnormally convoluted. Microscopically the neuroglia was hyperplasic. (3) A brain from a macrocephalic epileptic, weighing 2,130 grams, highly and normally convoluted. Microscopically it was almost normal. Mr. G. E. SIMPSON read a note on a case of *Nephrolithiasis* in a boy aged 8, from whose kidneys numerous stones were removed; recovery was complete. Practically all the calculi had previously been demonstrated by $x$ rays. Dr. ERNEST GLYNN compared the microscopical appearances of a case of suprarenal tumour with those of an ordinary renal hypernephroma, and showed that they were quite different. He believed that renal hypernephromata were not derived from suprarenal rests. Dr. O. T. WILLIAMS, in a paper on *Intestinal toxaemia*, stated that the vagueness of the term led to its being used loosely.

## CLINICAL SOCIETY OF MANCHESTER.

AT a meeting on April 14th, the PRESIDENT (Mr. J. Howson Ray) in the chair, the following were among the exhibitors: Dr. J. STAVELEY DICK: A series of cases of *Tuberculous affection* undergoing treatment under

opsonic control with tuberculin (T.R.). Two were cases of pulmonary tuberculosis under treatment for three and five months respectively. In both patients the inoculations had definitely controlled the temperature, and both expressed themselves as feeling much better. Two others were subjects of tubercle of bone. In one of these—a boy of 2—some difficulty was experienced in arriving at a satisfactory dose. The initial dose given was $\frac{1}{30000}$ mg., and at present he was having $\frac{1}{25000}$ mg. In this case the improvement so far had been very small. He came under observation in November, 1910. The other bone case—one of tuberculosis of the hip—was a man aged 44. When the inoculations were started he had three discharging sinuses, and was confined to bed with considerable oedema of both legs. The inoculations had been carried out for eleven months, the present dose being $\frac{1}{3000}$ mg. His condition was much improved. Another case was tuberculous adenitis in a woman whose index had risen, under treatment, from 0.8 to 1.3. In this case there was marked improvement in the anaemia. No iron had been administered. The commencing dose was $\frac{1}{20000}$ mg., the present one $\frac{1}{1000}$ mg. One of the glands had broken down, and, though the aspirated pus had proved sterile, she had been given doses of 100 to 500 millions of the staphylococcal vaccine. Another case in which it was difficult to estimate the amount of good done by the inoculation was one of tuberculous peritonitis on whom laparotomy had been done in January, 1911. Another case was a boy of 5 years of age who was very easily fatigued, fretful, anaemic, and occasionally had febrile attacks. No localizing signs could be found. His brother had died of tuberculous meningitis, and had suffered from a tuberculous hip. Previous to the treatment his opsonic index was 0.74. On March 18th he was given $\frac{1}{10000}$ mg., and on March 25th his index had risen to 1.56. Dr. C. C. HETWOOD: A case of *Disseminated sclerosis* of three years' standing, in which slow improvement was following the administration of "lymphoid" capsules. Dr. G. H. LANCASHIRE: Two cases of *Lupus* treated, with very good results, with "Morrow's" ointment, and one of very extensive *Staphylococcic dermatitis* involving the whole of the head and neck, where most rapid improvement had followed the injection of staphylococcic vaccine. Dr. R. W. MARSDEN: A man in whom all the signs and symptoms of chronic and long-standing nephritis were present, but who had had no symptoms of any kind for longer than three weeks.

## BATH CLINICAL SOCIETY.

AT a meeting on April 7th, Mr. F. LACE, President, in the chair, Dr. G. H.-H. ALMOND, in a paper on *Cerebral oedema and epileptiform convulsions*, related the case of a woman aged 35 with a family diathesis towards functional instability. She herself had suffered from fainting attacks and hysterical manifestations; later her fits more closely resembled true epilepsy. Following a fall she had recurring epileptiform convulsions, bilateral at first, but after a time confined to the left side of the body, and finally to the left side of the face only. Her pupils became pin-point, her pulse thin and rapid, and breathing of the Cheyne-Stokes variety. She died eighteen hours after the fall, having had over 100 fits. *Post mortem*, the coverings of the brain, which was opened first, were found to be intensely oedematous, and from 3 oz. to 5 oz. of free fluid were computed to have escaped. The sinuses were bloodless. No macroscopic lesion was found. There was old tuberculous disease of the right apex and pleura. The author said that sudden failure of the cerebral circulation frequently produced epileptiform convulsions, these being probably due to the increased excitability of the cerebral cortex resulting from accumulation of metabolic products. Drugs often proved futile, and lumbar puncture should not be delayed. This might also fail, especially if the base of the brain were firmly wedged into the os magnum. Trephining, or, better still, fenestration, should then be performed. The following were among the cases and specimens exhibited during the evening:—Dr. C. J. WHITBY: A boy, aged 9, suffering from a *Cerebral tumour*, characterized by paroxysmal attacks of headache followed by vomiting, marked double papilloedema and a tendency to walk to the right. The tongue when protruded deviated slightly to the right side. The knee jerks were increased, especially the right, which showed a tendency to clonus. Concentric diminution of the colour field of vision for blue was present on both sides, but was more marked on the left. Von Pirquet's tuberculin cutireaction had proved negative. Dr. RUPERT WATERHOUSE: A girl, aged 26, with congenital anonychia of the fingers. The thumbs were not affected. Mr. A. DE V. BLATHWAYT: A *Sarcomatous tumour* of the gastro-hepatic omentum, removed from a woman aged 37; it had invaded the stomach wall and weighed 70 oz. There were secondary deposits in the liver which weighed 116 oz. Mr. PAGAN LOWE: An *x*-ray photograph of progressive unilateral osteitis deformans of the right tibia in a patient aged 60.

## ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting on April 4th, Mrs. DICKINSON BERRY, the President, in the chair, Miss MURDOCH, M.D., read a paper on 30 cases treated by vaccines—3 of acne, 3 of gonorrhoea, 4 phthisis, 2 phthisis complicated by pneumonia, 15 tuberculous peritonitis, 1 tuberculous enteritis, 2 tuberculous adenitis. She also reported on 2 cases of tetanus treated with serum. The cases of acne were treated with a mixed vaccine of acne bacilli and staphylococci. All showed marked improvement, and so far—after from six to eighteen months—showed no relapse. One of the gonorrhoeal cases was treated, in addition to the vaccine, with vaginal swabs of lactic acid bacilli. The two other gonorrhoeal cases were in children still under treatment. They all showed marked improvement. With regard to tuberculin, the author was convinced of the value of the treatment in selected cases. She strongly deprecated its use in advanced cases with a mixed infection. As a general rule she gave a mixture of Tuberculin R., bacillary emulsion, and bovine tuberculin. In cases of tuberculous peritonitis great improvement had followed the use both of tuberculin and of this mixture. The abdominal masses in many cases had disappeared, and the patients had put on weight and improved in general health. Of the cases of phthisis complicated by pneumonia one died and one recovered after treatment with pneumococcal vaccine. The tetanus cases included one of tetanus neonatorum, which proved fatal after three days' illness. Several present joined in the discussion. Some favourable results were reported, but many had experienced great disappointment from relapses, especially in cases of acne.

# Reviews.

## MILITARY HYGIENE.

THIS work on military hygiene[1] has been compiled by Professors BISCHOFF, HOFFMANN, and SCHWIENING with the assistance of Doctors FINDEL, HETSCH, and KUTSCHER, who may well be regarded as the leading experts in hygiene of the German army medical service. In the preface the authors state that the want of a thoroughly comprehensive work on military hygiene has long been felt, and it is with the object of supplying this need that the present work has been undertaken. The compilers have tried to collect from every source all information having any practical bearing on military hygiene; a certain amount of theory has necessarily been introduced in order to make the subject complete, and a great deal of the contents apply as much to civil as to military problems.

The work will be published in five volumes, as follows—only the first three volumes have as yet been published:

I. Historical introduction by Schwiening; air, climate, and clothing in relation to the maintenance of the body's temperature by Findel; food by Bischoff.

II. Lighting, warming, ventilation, and construction of buildings by Hoffmann; water supplies by Hetsch; disposal of sewage by Kutscher.

III. Barracks by Hoffmann; recruiting and the hygienics of military service by Schwiening.

IV. Infectious diseases by Hoffmann, Hetsch, and Kutscher; diseases of armies by Schwiening.

V. Military medical statistics by Schwiening.

The work has been very fully illustrated, as the authors believe that technical details of apparatus or construction

[1] *Lehrbuch der Militärhygiene.* Bischoff, Hoffmann und Schwiening. Bibliothek von Coler-Schjerning. In 5 volumes. Berlin: A. Hirschwald. 1910. Vols. I, II, III. (Sup. roy. 8vo. M. 7 each vol.)

can be much more easily and quickly grasped by studying a diagram than by laboriously reading pages of description. They have written in the hope that the work will assist the student who is engaged in the study of hygiene, will prove a reliable guide for medical and other officers who are responsible for maintaining the health of the army, and will be found a handy work of reference for any one wishing to look up some point in hygiene.

The introductory chapter by Schwiening, in Volume I, gives a most interesting historical review of the origin and gradual development of the science of hygiene. Beginning with the orders for camp sanitation issued by Moses, he passes on to the Greek custom of burning corpses, as mentioned by Homer, the epidemic of plague which caused such heavy losses in Xerxes's army, and the plague which destroyed thousands of Athenians in 430 B.C. With the fall of the Roman Empire all mention of hygiene ceases for several centuries. In the later Middle Ages the terrible epidemics of plague began to arouse public opinion to the necessity for taking some kind of action to safeguard the general public health. As there were at that time no standing armies there was no military hygiene. The earliest mention is contained in *Kriegsbuch über die Landsknechtsheere*, Georg von Frundsberg, published at Frankfurt in 1578. This work directs the senior surgeon to investigate all diseases likely to spread among the troops; it also orders that the latrine is to be placed away from the camp, that the butchers are to slaughter at a specially appointed place, and that all blood and offal is to be cast into a flowing stream, or, failing this, it is to be burned; careful directions are given as to the source from which drinking water is to be taken, and a rough filter is described to render brackish water sweet. Schwiening recalls the speculations published by Fracastori of Verona in 1546 in which he sought to explain the spread of infectious diseases by a germ theory. Fabriz von Hilden gave directions for the destruction or disinfection with lime of dysenteric stools, and uttered a warning as to the danger of allowing men suffering from dysentery to use the same latrine as healthy men. Raymond Minderer, in his notes on military hygiene (1620), gave advice on the prevention of disease, the choice of camping grounds, and the necessity of having pure drinking water. For the purification of drinking water he advises that a heated stone should be quenched in it or a few drops of oil of vitriol added to it; if time permit, it should, he said, be boiled, then cooled, and a slice of toast thrown in. After these enlightened directions, it comes somewhat as a shock to find that he recommended as a sovereign remedy against all diseases a draught of one's own urine to be taken in the early morning and to inhale the odour of a used night commode. The question of house disinfection seems to have been taken up seriously by Purmann in 1738; he insisted on infected articles of no value being burnt, together with systematic fumigation of the dwelling with sulphur preparations and lime washing of the walls. Graf Moritz of Saxony, one of the earliest advocates of universal service, took a deep interest in the welfare of the soldier and effected many improvements in clothing and equipment.

Pringle, Physician-General to the English army in the Netherlands, was the first to point out that the hospital which was supposed to care for the sick, and by removing them from the healthy men to benefit the general health of the army, often acted in the reverse way and became a focus from which diseases spread to the troops. Pringle's views were corroborated by the leading surgeons in all the Continental armies, and, in consequence, Austria, Prussia, and France issued army medical regulations giving definite instructions on the formation and management of field hospitals.

Goerke's experiences of the shortcomings of the army medical service in the Rhine campaign led to the establishment of the Pepinière, as the Prussian army medical school was called, in 1795. Deficiency of funds, however, prevented any real progress being made. In Prussia the troops were billeted on the inhabitants up till 1816, and the general erection of barracks was only begun during the long period of rest following the Napoleonic wars. The only ration issued to the Prussian soldier at that time was bread; anything else he had to provide out of his pay. The cholera epidemics of 1831 and 1832 in England first directed public opinion to the necessity for adopting some measures to remove and prevent the recurrence of the insanitary conditions under which the inhabitants of the large towns were then existing. This led to a serious study of the problems connected with public health. With the general advance of knowledge in chemistry, physics, and allied subjects sanitation soon began to be an exact science.

In Section I Findel describes the composition of the air, methods of examining it, and its impurities. Flügge's experiments, if confirmed by other observers, should prove of great interest to medical officers serving in the tropics. He has adduced evidence that the headache and other unpleasant symptoms produced by an overcrowded stuffy room are not due to poisonous exhalations from the lungs, but to interference with the loss of heat from the body caused by the rise in temperature and humidity resulting from the overcrowding; these symptoms disappear at once without renewal of the air in the room if it be set in rapid motion by means of fans. In the next section, which is also by Findel, the generation of heat and the regulation of temperature in the human body are very fully discussed. From a military medical point of view the chapter on clothing and equipment is of great importance. Many interesting experiments undertaken to determine the properties of different materials and their suitability for military clothing are fully described, together with the results obtained. For instance, a table on page 125 shows, among other details, that each ounce of material used for the German greatcoat will, when saturated, take up 3 oz. of water, and when thoroughly wetted, as it would be after exposure to heavy rain, the coat absorbs so much water that the wearer would have to carry more than twice the original weight of the garment. The articles in a soldier's equipment are fully described and their suitability criticized. Thus, the German soldier does not receive a free issue of stockings, and he must either purchase these for himself or use *Fusslappen*, a kind of bandage prepared by folding a square piece of cloth round the foot; when carefully put on they are an excellent substitute for stockings, and in some respects superior to them. The equipment of other armies is also described and illustrated mainly by reproductions from the French work *Sac au dos*.

The remaining three sections of the first volume are concerned with food and feeding. The subject is very fully treated by Bischoff, who first gives the chemical composition of the constituents of food, and describes the investigation of their calorimetric value. He then proceeds to discuss the changes which take place in the body, showing how these vary according to climate, age, work performed, etc. The calorimetric and food values of different articles of diet are given in a table on page 246. The table on page 251 is of interest as showing how much of any of the commoner articles of diet can be purchased for 1 mark (1s.); potatoes, sugar, and wheaten flour appear to yield the best value for the money expended.

The next chapter deals with the trade aspects of food supply, more especially with the preservation and adulteration of food. The article on the changes which may take place in milk is most instructive. Here Bischoff points out that by raising milk, placed in closed vessels, to boiling point the lactic acid bacilli and many others are destroyed, but the butyric acid bacillus and some belonging to the hay bacillus group are not killed; on the contrary, owing to the absence of free oxygen and living lactic acid bacilli, they are enabled to multiply and produce deleterious changes in the milk. Of special interest to military medical officers are the chapters on rations and hospital dieting.

Volume II begins with a section on the hygiene of buildings by Hoffmann. In the first chapter he gives a general review of the subject of soil in relation to the construction of dwellings. Chapter 2 deals with the actual construction of a dwelling and contains much interesting information of a practical character, as, for instance, the different ways in which floors may be rendered sound-proof, and the table giving the results of experiments carried out in Berlin to determine the relative durability of different materials used for flooring. In Chapter 3 he discusses the question of how soon after completion a new building may be occupied with safety; the conclusion being that in summer four months and in winter six months should be allowed to elapse between the com-

pletion and occupation of any dwelling house. The next section is devoted to the natural and artificial lighting of houses. The subject is fully considered and an immense amount of information is given as to cost, effect on the air of rooms, nature of the light rays produced, etc, by different methods of artificial illumination; each being fully described and illustrated. In the discussion of the different methods of warming houses, which follows next in order, all the ordinary plans are fully described and well illustrated. An account of the system of "distant heating" employed in Dresden and some other cities is of particular interest; a central heating installation is set up at some convenient spot and steam or hot water is conveyed in specially laid pipes to a number of different buildings, within a radius of—in the case of Dresden—over half a mile from the generating station. The advantages claimed are economy in superintendence and the absence of danger from fire.

Water supplies are discussed by Hetsch in Section V. The diagrams of geological formations responsible for the different kinds of springs are good. On page 204 there is a useful table showing how much water is required for various purposes (*a*) in private houses, (*b*) in public institutions, (*c*) for municipal needs. The chapters on the examination of water and the interpretation of the results should prove of assistance to any one having to undertake this duty. The electrical resistance of any water is mentioned as a rough index of the occurrence of any contamination; the resistance of any particular water remains nearly constant, but in the event of any serious contamination the increase in the salts produces a rapid fall in the resistance. The diverse opinions on the importance attaching to the discovery of *B. coli communis* in a drinking water are concisely summarized on page 227. Eijkmann's differential culture test for *B. coli* is described, but it is expressly stated that no opinion on a water should be given without first carefully inspecting the source from which it is obtained. The purification of water by filtration, chemicals, etc., both for settled communities and armies in the field, receives a full share of attention.

The last section of the volume deals with the disposal of sewage, slop water and garbage. The oil siphon urinal shown on page 352 would seem to afford a solution of the difficulty experienced in preventing objectionable smells in urinals when the supply of flushing water is limited.

Volume III is the most interesting to an army medical officer, as it describes the practical application to the soldier's life of the subjects which have been discussed in the first two volumes. The first section is by Professor Hoffmann; it deals very thoroughly with the hygienic aspects of all kinds of buildings and tents which are used for the accommodation of officers and men during any portion of their service in the army.

The systematic construction of barracks dates from 1685, when Vauban designed barracks for Louis XIV. The main consideration at that time was to house the men as cheaply as possible, and the building, therefore, took the form of a quadrangle, probably in imitation of the Roman *castellum*. This type was unfortunately adopted by all the other countries, and remained the standard design for barracks for some 200 years. Although it was recognized that the type did not afford satisfactory accommodation, it was not till the experiences of the Crimean war had awakened public opinion to the necessity of improving the hygienic conditions of the soldier's life that serious efforts were made to improve his accommodation in barracks. The first departure from Vauban's standard consisted in building four separate blocks, one on each side of a square, so that a space was left at each corner for the admission of fresh air. The next step was to omit one side of the square altogether, and this (the French pattern of 1874), combined with proper siting, provided a fairly satisfactory barracks.

In the matter of barrack construction Prussia was somewhat backward compared to other States, as up till 1820 Prussian soldiers were billeted on the inhabitants. In that year the construction of barracks was begun. Owing to the high cost of building sites the earliest barracks were built on the lines of Vauban's designs. Improvements were gradually introduced in all the later ones; the barrack regulations of 1889 definitely accepted the principle of providing a separate building for each double company, each block having its own class rooms, ablution rooms, etc. Plans are given of a large number of barracks to show the arrangements in different types; the standard plans drawn up by the Barrack Department of the Prussian War Office are well worth studying.

The German shelter tent, which is carried by every man on manœuvres or active service, is illustrated and described. It consists of a piece of waterproofed cloth 5 ft. 6 in. square, one cord, one jointed pole, and three pegs; on each side of the square there are eight aluminium buttons, and close to them eight button-holes, so that several pieces of the fabric can be joined together to form a large tent.

The German hospital tent M. 99 has a double wall; the outer one is composed of strong cotton treated with ammoniated cupric oxide. It can accommodate 16 to 20 beds, and has no projecting pegs or ropes. This tent proved very satisfactory during the campaign in German South-west Africa. The hospital tent M. 03 is an improved pattern very similar to M. 99; it weighs just over a ton, and can accommodate 24 beds.

In garrisons having a strength of 600 or over there is a military hospital; in smaller garrisons the sick are sent to a civil hospital. Although the average constantly sick in hospital during the decennium ending 1906 was only 1.77 per cent. of the strength, the hospital accommodation is calculated at 3.5 to 4 per cent. in order to have a margin in case of any outbreak of disease. In calculating the area required for a hospital site the minimum space laid down is 132 square yards per head of the sick population to be accommodated, although in practice the area is seldom below 180 square yards per head. The advantages and disadvantages of different types of hospital are very fully discussed, and many site plans and illustrations of operating rooms, kitchens, etc., are reproduced.

The description of the recently opened officers' convalescent home in the Taunus is most interesting, especially in regard to its heating and internal arrangements.

Borsig's apparatus for removing dust is ingenious. The nozzle has a double set of openings, one of which emits fine jets of compressed air, which, penetrating the fabric, loosen the contained dust, while the other set is connected with a vacuum by which the dust is sucked up and carried to a filter.

The second section of the volume deals with the hygienics of military service, and is written by Professor Schwiening, who remarks that practically all the cultured States have now adopted universal military service, although in some the so-called conscription, by which substitutes are allowed, still obtains, and that only a very few nations still cling to the ancient practice of voluntary enlistment for military service. The value of universal service in improving the health of the nation is insisted on, and the author promises to examine this question more fully in Volume V, under the subject of military medical statistics. Schwiening contends that voluntary enlistment has many disadvantages, among which he notes the difference in age of the recruits, so that the men are not physically fit to stand the same amount of strain, and that the social standing of voluntarily enlisted soldiers is not as a rule very good, so that the choice of material is often extremely limited, and hence many of the recruits are morally and physically below the average of the civil population.

The procedure of recruitment, as also the terms of service in the German army, are given in full, and two interesting tables are provided showing the periods of liability for service, and also the actual period of service in the armies of most of the countries of the world. The average age at which recruits are enrolled in most of the European countries is 20 to 21; Hoffmann points out that this is the ideal age for military training, as then the bones and muscles are well developed and able to stand the strain of military service, while if the enrolment were postponed till a later age it would seriously prejudice the man's career in civil life. When dealing with the examination of recruits Schwiening presents us with a great deal of statistical information on the relations between height, chest measurement, and weight. He discusses the different formulae which have been propounded in the attempt to fix a standard by which a recruit's fitness for military service might be accurately estimated, independently of the medical officer's personal bias towards any one determining factor. Schwiening shows that all

these formulae have only a limited application, but can be used to estimate the average fitness of a body of men. Zuntz and Schumburg's experimental work has been freely drawn on when discussing the consumption of energy in marching, and to show how this is affected by increasing the pace, carrying a load, or any circumstance which interferes with the man's comfort in marching. Numerous observations show that roughly half the men enlisted increase in height during their service, and that this gain is most marked among the smaller men. An interesting observation made by G. Schmidt shows that men quartered in the ground floor of barracks put on more weight during their service than those who are quartered in the third story. Several cephalograms are reproduced to show the effect of fatigue and the difference between a fully-trained man and a recruit. The mental and physical strain entailed by service in each of the special branches of the army, including the balloon and aëroplane companies, receives due consideration.

The three volumes published up to the present contain so much information on every condition which has any bearing on military hygiene that it has only been possible here to refer to a few of the more interesting matters dealt with. The authors deserve our heartiest congratulations for the thoroughness with which they have carried out their undertaking. Considering the number of illustrations and the excellence of the paper and print, we may safely say that it is one of the cheapest scientific works published, and one likely to remain a standard work for many years to come.

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## DERMATOLOGY.

THE magnificent Hamburg atlas of pathology[2] supplies illustrations of carefully selected types of the most important changes in the structure of the human body caused by disease. It may be called an art gallery of morbid anatomy. Accompanying each plate is the clinical history of the case; this adds immensely to its value. It is impossible to review a work of this kind in detail. We can only echo the statement of Professor LORRAIN SMITH, in his preface to the English edition, that "the plates are so clear that the impression produced by a study of them approaches that derived from actual observation of the morbid organs." They cannot fail to be of the greatest help to the student of pathology. We heartily congratulate the authors on the successful accomplishment of a task of such magnitude. The work should be in every medical library and in the pathological department of every hospital and asylum.

Dr. J. J. PRINGLE, in his preface to the third English edition of Professor JACOBI'S *Portfolio of Dermochromes*,[3] states that it contains practically all the old plates and text embodied in the two former editions and in the Supplement, published in 1906. They have, however, been rearranged, and ten entirely new plates with short articles describing the essential features of the diseases illustrated have been added. Twelve photomicrographs of the commoner parasitic fungi causing diseases of the skin have also been added with a brief explanatory text. As Dr. Pringle points out, for English-speaking nations such illustrations are necessary, inasmuch as microscopic examination is requisite for the diagnosis of these affections, many of which occur with especial frequency in Great Britain and its colonies. For the use of these photomicrographs he expresses his indebtedness to Dr. Arthur Whitfield and Dr. H. G. Adamson. It is superfluous to say anything in praise of a work which, besides having reached a third edition in English, has been translated into French, Italian, Spanish, and Russian. The plates are beautifully executed; there is none of the blotchiness or over-colouring which so often make representations of skin diseases unnatural. So true to life are these "dermochromes," that in the case of affections which the student has few opportunities of seeing they may be taken as fairly satisfactory substitutes for actual patients. The work may be confidently recommended to students and practitioners as a most useful complement to any treatise on diseases of the skin.

Professor GAUCHER'S well-known work on *Diseases of the Skin*[4] has been done into English by Dr. C. F. MARSHALL, and published in a handy volume of some 500 pages. The text covers the whole ground of dermatology, and includes also an excellent review of the cutaneous syphilides. It is almost superfluous to say that, coming from the pen of so experienced a physician as Professor Gaucher, the subject of cutaneous maladies is dealt with in a broad-minded manner, the point of view of general medicine and pathological processes being kept well to the fore. In the preparation of his book Professor Gaucher, too, has had the advantage of the collaboration in special departments of Drs. Wickham, Degrais, and Dominici for the chapter on radium-therapy containing details as to methods, which should prove of great value to those working with radium. Drs. Gastou and Zimmern have contributed interesting chapters on radio-therapy. There are also special articles on sporotrichosis by Dr. Monier-Vinard; on blastomycosis by Dr. Rubens-Duval; and on the histology of mycosis fungoides by Dr. Dominici; whilst the subject of yaws has been briefly outlined by the translator. The book can be strongly recommended as a very readable account of skin diseases and cutaneous syphilides, the value of the work being greatly enhanced by the numerous illustrations and plates, mainly from the well-known beautiful models in the St. Louis Hospital and from others in Professor Gaucher's private collection. Readers desirous of acquainting themselves with the views of the French school of dermatology cannot do better than consult this clearly written work, especially as the English version is well done.

A review of a fifth edition of Professor STELWAGON'S *Treatise on Diseases of the Skin* appeared in the JOURNAL of February 6th, 1909, p. 343. The fact that a sixth edition[5] has been called for at so short an interval is the best testimony to the value of the work and to the appreciation which it meets with from those for whose help it is intended. A book in its sixth edition may justly be held to have passed beyond the sphere of the reviewer. We need only say that in the new edition the article on pellagra—a disease which has in recent years been prevalent in certain parts of America to an extent which is causing some uneasiness—has been completely rewritten. Sporotrichosis, which the author says is "a malady of growing importance," is now included in the book for the first time. Various parasitic diseases of which little is yet known are described. Some tropical affections which find a place bear witness to the recent tendency to colonial expansion shown by the United States. Twenty-five new illustrations have been introduced. Professor Stelwagon's work is one of the fullest, clearest, and most trustworthy of modern treatises on diseases of the skin.

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[2] *Aus den Hamburger Staatskrankenhäusern: Pathologisch-anatomische Tafeln nach Präparaten.* Mit erläuternden anatomisch-klinischem Text unter Mitwirkung. Von weiland Prof. Dr. Alfred Kast, Professor der klinischen Medizin in Breslau, früherem Direktor der Hamburgischen Staatskrankenhäuser weiterherausgegeben von Prof. Dr. Eugen Fraenkel und Dr. Theodor Rumpel. [From the State Hospitals, Hamburg: Atlas of Pathological Anatomy (reproduced from recent specimens). With explanatory text, anatomical and clinical. By the late Prof. Dr. Alfred Kast, Professor of Clinical Medicine in Breslau, and formerly Director of the State Hospitals, Hamburg, and Prof. Dr. Eugen Fraenkel, Prosector at the General Hospital, Hamburg-Eppendorf, and Dr. Theodor Rumpel, Senior Physician, the General Hospital, Hamburg-Eppendorf. With a Preface to the English Edition by J. Lorrain Smith, M.D., Professor of Pathology, University of Manchester. Translation by Francis C. Purser, M.D., Assistant Physician, Richmond, Whitworth, and Hardwicke Hospitals, Dublin. Complete in 26 parts. Leipzig: Verlag von Dr. Werner Klinkhardt; London: Baillière, Tindall and Cox. (Single parts, 5s. net; single plates, 1s. 6d. net.)]

[3] *Portfolio of Dermochromes.* By Professor Jacobi, of Freiburg im Breisgau. English Adaptation of Text, by J. J. Pringle, M.B., F.R.C.P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. With 243 coloured, 2 black and white, illustrations on 132 plates, and 12 photomicrographs of parasitic fungi. Third Revised and Enlarged Edition. Volumes I, II, and III. London: Rebman Limited. 1910. (Demy 4to. 86s.)

[4] *Diseases of the Skin, including Radio-therapy and Radium-therapy.* By Ernest Gaucher, Professor of Cutaneous Diseases at the Faculty of Medicine, Paris. Translated by C. F. Marshall, M.Sc., M.D., F.R.C.S. With numerous illustrations. London: John Murray. 1910. (Med. 8vo, pp. 460, 196 Figs. 15s.)

[5] *Treatise on Diseases of the Skin*, for the use of Advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D. Sixth edition, thoroughly revised. With 289 illustrations in the text, and 34 full-page coloured and half-tone plates. Philadelphia and London: W. B. Saunders Company. 1910. (Roy. 8vo, pp. 1195. 25s.)

## MEDICAL DIAGNOSIS.

THE task of describing and discussing the problems of medical diagnosis as applied to the whole field of internal medicine is no light one, and Drs. SCHMIDT of Halle and LÜTHJE of Kiel[6] are to be congratulated on the courage they have displayed in the preparation of a book on the subject in which the omissions are few and the information, for the most part, fully up to the present standard of knowledge. Originally founded on the successful work by the late Professor Vierordt, the book is divided into sections dealing with each system in turn; the authors have contributed in about equal shares, and their articles are signed. Although intended as a general treatise on the subject rather than as a work of reference, it serves the double purpose in that it is written in readable if somewhat prolix style, while its systematic arrangement enables the reader to find at once the information that he may be seeking. The necessity for a sound knowledge of physiology in the study of morbid conditions is rightly dwelt upon, and although adding largely to the bulk of the volume, the introduction of physiological descriptions renders many subjects more comprehensible, and may be welcomed by middle-aged readers who find it difficult to keep pace with the rapid advances of recent years. The introductory chapter on diagnosis in general is followed by an important section descriptive of the chief pathogenic microbes, with illustrations and minute directions as to the best methods of staining and identifying them. To this succeeds a chapter on sero-diagnosis, of which a clear account is given of the present state of scientific thought on the subject. The diagnosis of pulmonary disease is discussed at greater length than necessary, owing to the introduction of much elementary matter, and from the home point of view the study would seem to be elaborated beyond the limits of practical usefulness. Of cardiac and circulatory disorder a very full account is given, although some of the more elaborate methods of recording cardiac and vascular movements simultaneously do not find illustration. Pathological chemistry is constantly called to the aid of diagnosis in the investigation of disorders of secretion and excretion, and the authors have successfully indicated, in special sections, the lines upon which it can best be utilized; the final chapter on the diseases of the nervous system contains a very full account of all that is recognized as valuable in diagnosis. Of prognosis there is by no means so full a mention in any of the sections, but taken as a whole the book is a compendium of valuable information, well arranged and well written.

The small volume recently published by Dr. CHARLES B. SLADE on *Physical Examination and Diagnostic Anatomy*[7] is obviously intended for the use of students. It deals with the elementary facts only of physical diagnosis, and leaves wider information to be sought in more comprehensive treatises, when the student shall have reached that stage of his education at which he is able to appreciate and make himself master of diagnostic refinements. The book is one of many published on the subject with which it deals. The information it conveys is reliable; the subject matter is arranged in careful sequence to make reference easy; and the various landmarks of the human body are described and illustrated in such clear outline as to render their recognition on the living subject simple and sure. Dr. Slade succeeds in infusing interest into a somewhat dry subject by the facility of his writing and the aptness of his illustration. His book will prove a valuable guide to those who are commencing the study of physical diagnosis, and will be helpful also to practitioners who wish to refresh their memories on broad questions of medical anatomy about one or more of which, in the multiplicity of facts stored up in hospital days, they may have become hazy. There is a comprehensive and excellent index. The publishers are to be congratulated on the clear and legible type they have chosen, and on the success of the illustrations with which the book is embellished.

[6] *Klinische Diagnostik und Propädeutik innerer Krankheiten.* By Adolf Schmidt of Halle and Dr. H. Lüthje of Kiel. Leipzig: F. C. W. Vogel. 1910. (Roy. 8vo, pp. 587; illustrations. M.14.)

[7] *Physical Examination and Diagnostic Anatomy.* By Charles B. Slade, M.D., Chief of Clinic in General Medicine, and Instructor in Physical Diagnosis in the University and Bellevue Hospital Medical College, New York. 1910. Philadelphia and London: W. B. Saunders Company. 1910. (Demy 8vo, pp. 146; illustrated. 6s.)

The bulky volume which Dr. ALBERT ABRAMS calls *Diagnostic Therapeutics*[8] is a miscellaneous compilation which appears to testify to enormous literary industry. According to the preface, it is neither a work on therapeutics nor on diagnosis, but an attempt to conciliate both subjects with a "special object" in view. It is not easy to gather, either from the preface or from an examination of the book, what this special object is. No doubt light is often thrown upon diagnosis by the results of treatment, but Dr. Abrams's plan involves infinitely more than this, for his book includes not only all methods of treatment but every means of examination, and ranges widely over all departments of medicine, gynaecology, and surgery. This great mass is collected but not digested. Here and there occur a few remarks expressing the author's own views or personal experience, but they are not full enough to afford an adequate reason for the book. The illustrations are mostly second-hand, and where they are not, are, as a rule, rough and poor. We have noted a fair number of slips of various kinds, but in a compilation of this size they are perhaps unavoidable; there are also omissions under certain headings, but, on the whole, the work, such as it is, has been brought very well up to date.

## BACTERIOLOGY.

PROFESSORS MUIR AND RITCHIE have brought out a fifth edition of their deservedly popular *Manual of Bacteriology*.[9] We have compared it with the previous edition issued three years ago, and can assure our readers that the task of revision has been carried out with the care and thoroughness which is characteristic of the work of these authors. The incorporation of new work on blood and immunity is particularly important, and we are glad to find that the technicalities and intricacies of these subjects are explained in a manner which is not beyond the comprehension of medical students. A new feature of the book is the introduction of six coloured plates, amongst which the one illustrating malarial parasites may be particularly commended.

Dr. STITT'S *Practical Bacteriology, Blood Work, and Animal Parasitology*,[10] which has now reached a second edition, aims at giving the maximum of instruction in laboratory technique in the shortest possible space. In some of the sections on the pathogenic bacteria abbreviation is carried too far; such important organisms as the typhoid and the tubercle bacillus ought to have been treated more fully. The chapter on normal and pathological blood is also too brief for so extensive a subject. The author appears to be specially interested in animal parasitology, and gives us, in Part III, a useful and very interesting account of the parasites which are of pathological importance. Other writers would do well to follow his example by familiarizing medical students with the anatomy of fleas, biting flies, and mosquitos.

In the preface to their *Textbook of General Bacteriology*[11] Professors FROST and MCCAMPBELL state that "a brief but comprehensive text on this subject is a desideratum." Their book is "general" in two senses. It is a light and popular account of elementary bacteriology, and it discusses the biological characteristics of all sorts of bacteria, without limitation to those known to be of medical importance. The volume incorporates much which is of interest concerning bacteriological chemistry and agricultural bacteriology, but the treatment of the bacteria pathogenic to man is very brief and inadequate. On page 29 the authors, quoting from Fischer, make a remarkable statement about the anthrax bacillus. They say that of these bacilli "8,000,000 at least would be required to equal a mass the size of an ordinary cigarette." If this be even approximately true, the "ordinary" cigarette must be

[8] *Diagnostic Therapeutics.* By Albert Abrams, A.M., M.D. London: Rebman, Limited. 1910. (Roy. 8vo, pp. 1057; 198 illustrations. 21s.)

[9] *Manual of Bacteriology.* By Robert Muir, M.A., M.D., F.R.C.P.Edin., and James Ritchie, M.A., M.D., F.R.C.P.Edin. Fifth edition. London: Henry Frowde, and Hodder and Stoughton. 1910. (Crown 8vo, pp. 721, 174 illustrations in the text and 6 coloured plates. 10s 6d.)

[10] *Practical Bacteriology, Blood Work, and Animal Parasitology.* By E. R. Stitt, A.B., Ph.G., M.D. Second edition, revised and enlarged. London: H. K. Lewis. 1911. (Post 8vo, pp. 358; 91 illustrations. 6s 6d.)

[11] *A Textbook of General Bacteriology.* By William Dodge Frost and Eugene Franklin McCampbell. New York: The Macmillan Company. 1910. (Crown 8vo, pp. 357; with illustrations. 7s.)

extraordinarily small. Bacilli are not particularly light in proportion to their bulk, and, as the authors say in their next sentence, it takes 10,000,000,000 average bacteria to weigh a milligram.

The fourth edition of the translation, by Mr. DAVIES, of Professor JÖRGENSEN'S *Micro-organisms and Fermentation*[12] is based on the fifth German edition. It embodies the results of the ten years of research work which has been conducted since the last English edition appeared, and, in consequence, has been so much expanded and modified as to be practically a new work. The second half of the book, which is concerned with the yeasts, will prove invaluable to those interested in the sciences of brewing and wine fermentation. It is a model of scientific thoroughness and precision, and must be recognized as the standard work on these subjects. Of the earlier chapters, those on the moulds and the ferments produced by bacteria are also of great industrial importance, and may be particularly recommended to persons in this country who are interested in the manufacture of dairy products. Apart from its commercial importance, Professor Jörgensen's work will be appreciated by medical pathologists who resort to fermentation tests for the differentiation of pathogenic bacteria. The bacteriologists' "sugar tests" are of proved utility, though they may seem empirical and difficult to interpret in the exact formulae of organic chemistry. But the accumulated evidence pointing to the wonderful diversity and marvellous selective action of the ferments produced throughout the whole range of micro-organic life supports the view that the attacking powers of bacteria upon carbohydrates are due to intrinsic biological properties which will ultimately be explained in conformity with the precise laws of chemical interaction.

## MEDICAL EVIDENCE.

IN the introduction to his book on *Bodily Injuries*[13] Mr. DARKER, of the Middle Temple, briefly reviews the principles which underlie but did not give rise to the laws relating to bodily injuries, and notes that when security from bodily harm is the outcome of a balance of legal duties, then the party upsetting such equilibrium is the person who, in law, is primarily responsible for the injury and damage done. He also shows how easily even the most truthful person may fail to be a faithful witness as to facts. The stumbling block lies in the difficulty of dissociating mental conceptions from visual, auditory, and other sense impressions. The reasons why medical evidence of a kind which prima facie should be admirable often fails to have the right effect on the progress of a case are considered on the same lines. The right questions are put to the wrong people, either intentionally or from ignorance. Unless the position of the witness has been placed before the court in true perspective, the value of his whole evidence may be discounted by his failure to deal satisfactorily with a question which the court, if aware of his real position, would recognize was outside the scope of his work. Instances in point will occur to most medical men who have been present at trials. They must have heard the effect of excellent evidence from general practitioners damaged by their being asked questions relating to, say, advanced bacteriology, and the effect of similar testimony from surgeons weakened by their ignorance on matters ostensibly but not actually within their expert knowledge. These considerations should be borne in mind when selecting witnesses. If experience and knowledge of the consultant may be deep, that of the general practitioner is wide. For severe complicated and rare complaints and injuries, it is the consultant who should be called, but for pains and hurts of a general nature or mere ordinary occurrence it is the general practitioner who is likely to make the more useful witness. The length of time an ordinary sprained ankle compels a person to keep away from work is probably best known to a general practitioner, but an opinion on the cause of an obscure pain in the loins might best be formed by a consultant. The body of the book is an alphabetic list of many hundreds of cases in which questions of injury arose and in which decisions on forming more or less permanent precedents were reached. The special point which arose in each of them is briefly noted. This list is intended to be used as the foundation of a card index system of keeping a record of such cases, and to facilitate reference to the list a good index is supplied. The primary object of the book, no doubt, is to assist solicitors and others in bringing or defending actions on behalf of their clients, but it should also be found useful to medical men when consulted by patients in respect of compensation. The compilation of the book must have been a most laborious undertaking; it has been thoroughly well done.

[12] *Micro-organisms and Fermentation.* By Alfred Jörgensen. Translated by S. H. Davies, M.Sc. Fourth edition, completely revised. London: Charles Griffin and Co. 1911. (Demy 8vo, pp. 489. 15s. net.)

[13] *Bodily Injuries.* By G. F. Darker, M.R.C.S., L.R.C.P., D.P.H.Durh., Barrister-at-Law. London: Winkley and Son, The St. Saviour's Press. 1911. (Fcap. 8vo, pp. 259. Price 2s. 6d.; in card index form, £2 2s.)

## NOTES ON BOOKS.

THE sixty-fourth volume of *Guy's Hospital Reports*[14] includes an important article by Mr. NATHAN MUTCH, of equal interest to the physician and surgeon. It is entitled "The Treatment of Appendicitis, Based on 545 Cases Admitted to Guy's Hospital, 1906–1909 Inclusive." It is a careful analysis of all the factors which must be taken into account in relation to treatment. Mr. Mutch concludes that these cases demonstrate the advisability of operation within the first thirty-six hours in all cases of appendicitis with a definite onset of severe symptoms not subsiding in twenty four hours. Peritoneal drainage should be reduced to a minimum. Another good bit of work, eminently suited for archives of this type, is Mr. R. H. Jocelyn Swan's "Primary Unilateral Renal Tuberculosis: A Report on 13 Cases, with a Collection of 79 Cases from the Records of Guy's and St. Peter's Hospitals." Professor Starling's article on the "Physiology of Digestion" is of the highest importance. The alimentary canal is indeed the chief feature in this volume, for besides the above-mentioned writings of Mr. Mutch and Professor Starling, there is a remarkable medico-chirurgical paper on "A Case of Phlegmonous Gastritis from Hydrochloric Acid Poisoning: Vomiting of the Complete Mucous Membrane of the Pyloric Half of the Stomach," by Mr. S. A. Clarke, Dr. A. F. Hertz, and Mr. Rowlands, also Drs. Cameron and Rippmann's "*Post-Mortem* Statistics of Ulcerative Colitis at Guy's Hospital from 1888 to 1907," also a note by the same authors on "Five Cases in which Acquired Diverticula of the Sigmoid led to Death," and, lastly, a communication of general interest on "The Sensibility of the Alimentary Canal," by Dr. Hertz and Mr. Cook, Mr. Marshall, and Mr. Schlesinger. Anaesthesia is well represented by Dr. C. D. Edwards' "Influence of Anaesthetics on the Blood Pressure," Dr. Gordon Goodhart's "Notes on Chloroform Necrosis of the Liver," and, turning to a subject more indirectly, but still intimately, allied to anaesthesia, Dr. Hildred Carlyll's "Thymus Gland and the Status Lymphaticus." According to Dr. Carlyll, death has occurred in cases of status lymphaticus in a great many ways independent of anaesthesia; the author's brief abstract of 61 cases, including all complications, will prove of high value. Dr. Herbert French reports "A Case of Acute Fatal Staphylococcal Septicaemia," and Drs. Cameron and Rippmann publish "A Case of Primary Sarcoma of the Lung." Mr. Mollison's "Report of the Arthur Durham Travelling Student" is worth reading for the sake of his remarks, not always laudatory, on Continental hospitals.

Among the communications of special interest in the thirty-fifth volume of the *Transactions of the American Gynaecological Society*[15] we may note that which stands last, namely, the Report of the Committee of the American Gynaecological Society on the Present Status of Obstetrical Education in Europe and America, and on Recommendations for the Improvement of Obstetrical Teaching in America. A short synopsis of the curriculum required by the legally recognized qualifying bodies in the United Kingdom, Germany, Austria, Switzerland, France, and Italy, is included in the report. Professor Herbert Spencer has prepared the British synopsis. In contrast a report is selected from seven representative medical schools in the United States which the committee considered among the best in that country. The seven which receive the honour of this selection are the schools of Columbia, Cornell, Harvard, Johns Hopkins, Chicago, and Pennsylvania Universities, and the Jefferson Medical College, Philadelphia. As far as these bare reports can show us, it would seem

[14] *Guy's Hospital Reports.* Edited by F. J. Steward, M.S., and Herbert French, M.D. Vol. lxiv, being Vol. xlix of the Third Series. London: J. and A. Churchill. 1910. (Demy 8vo, pp. 476.)

[15] *Transactions of the American Gynaecological Society.* Vol. xxxv. For the year 1910. Philadelphia: Dornan. 1910. (8vo, pp. 566.)

that education in obstetrics is far better conducted on both sides of the Atlantic now than it was in the last generation, and as a report cannot take into consideration the splendid results of aseptic technique, improved hygiene, and other developments of science facilitating illumination, communication between members of the visiting and resident staff, etc., the reader cannot do justice to such a report without bearing in mind what good all this progress has wrought. The lying in ward, for instance, being no longer a death-trap, is now added to medical school hospitals, to the great advantage of the teacher and student, as well as the patient. The President, Dr. Edward P. Davis, in his annual address, speaks of "the crude obstetric practice of fifty years ago." Obstetric teaching was yet rawer. Proudly yet justly does Dr. Davis boast that his countrymen have played a prominent part in advancing midwifery during the past five decades, keeping step with the equally rapid advances in surgery and bacteriology which have thrown so much lustre on medical art and science. The volume includes a large number of monographs and papers of interest, some of which will be noted in the EPITOME.

## THE SALE OF QUACK MEDICINES.

### DEMAND FOR LEGISLATION.

AT the annual meeting of the Association of County Councils in Scotland, which was held in the County Rooms, Edinburgh, last week, the Executive Committee recommended the Association to adopt a resolution to the effect that the Sale of Food and Drugs Acts should be amended and extended so as to provide:

1. That for medicines which are supplied otherwise than upon medical, dental, or veterinarian prescriptions, no condition of sale short of the publication on each packet of medicine of the name and quantity of each of its constituents should be permitted.

2. That the label should be made to constitute a warranty, and that false description, whether on the label or main advertisement, should be made an offence.

3. That the provisions of the Sale of Food and Drugs Acts should be applied to proprietary medicines. It was further recommended that a copy of the resolution should be sent to the Prime Minister, the Secretary for Scotland, the Board of Agriculture and Fisheries, and the Local Government Board for Scotland.

Mr. ALEXANDER WYLLIE, of Cordale, Renton, moved the adoption of the recommendation, with the addition that the report be sent to the Local Government Board for England, the Association of County Councils in England, and the Society of Medical Officers of Health in England. The administration of these Acts (we quote from the report in the *Scotsman*), he supposed, cost the country over £10 000, but it was well spent money, for it prevented a considerable amount of adulteration; but there was a gigantic trade done in secret remedies, commonly known as quack medicines, which the Act did not touch. He found that the stamp duty on packets of medicine in 1889 was £266,000, and in 1908 £334,000, and the cost to the public over three and a quarter millions. The most exorbitant prices were charged. The British Medical Association had had exhaustive analyses made of these medicines, as the result of which it was revealed what was charged to the public at 1s. 1½d. cost the thirtieth part of a farthing. Not only were the public being swindled, but many of the component parts of these medicines were deleterious, and often diseases which could easily have been tackled by medical science in their earlier stages became chronic and incurable owing to the use of quack remedies. Great Britain was very far behind other countries. There was complete prohibition in some countries on the Continent, and restriction in others, and our own colonies were following that example. Farmers were prosecuted for having a little additional water in their milk, yet under the present legislation the swindling patent medicine vendor, who was living in luxurious style upon his ill-gotten thousands, was allowed to go free. A county council had to prosecute the grocer who had a little margarine in his butter, but could not touch the medicine vendor who used margarine as a component of the most deleterious compounds sometimes. It was high time the Legislature were taking action in the matter, but it was evident the Government would not do so without considerable pressure.

Mr. WM. SMITH, Balzeordie, Brechin, seconded, and the resolution was unanimously agreed to.

## MOTOR CARS FOR MEDICAL MEN.

### A NEW SPRING TYRE.

A NEW tyre invented by Dr. Calantarients, of Scarborough, aims at securing all the desirable qualities of the pneumatic tyre without its drawbacks, and at offering some special advantages of its own. Its construction is as follows:

(1) A number of curved plates or springs are mounted round the rim of the wheel about ½ in. apart; each has a clear resilient length of about 5 in., and bears at its end (which is about 2½ in. away from the rim) a rubber block to make contact with the surface of the road. (2) Two circular springs of the same diameter as the entire wheel and tyre are placed parallel to one another within the grasp of the before-mentioned small springs in such fashion that these rest their ends upon them and are supported by them.

There are thus two sets of springs, one circular and the other radial, and it is the relation between them which forms the essence of the invention. The pressure which is exerted by the weight of the car on such of the small springs as are for the moment in contact with the ground is distributed by the circular springs over the whole of the rest of the small springs, these latter being pressed outwards by the circular springs when their fellows in contact with the ground are pressed inwards by the weight upon them. Any undue depression of the lowermost springs is thus prevented.

It is stated that when such a tyre is fitted to a car weighing one ton in addition to the weight of a full load of passengers, the total depression of such of the springs as are in contact with the ground is only about ⅛ in. when the car is running on a smooth road. There is thus about 2 in. of possible depression still available for any unevenness of road surface which may be encountered. It is claimed that, as the ordinary working range of the springs is only a fraction of their possible resiliency, they will not be liable to deterioration or damage. The weight of this type is stated to be about the same as that of an ordinary pneumatic tyre of the same resistance.

## SCIENCE NOTES.

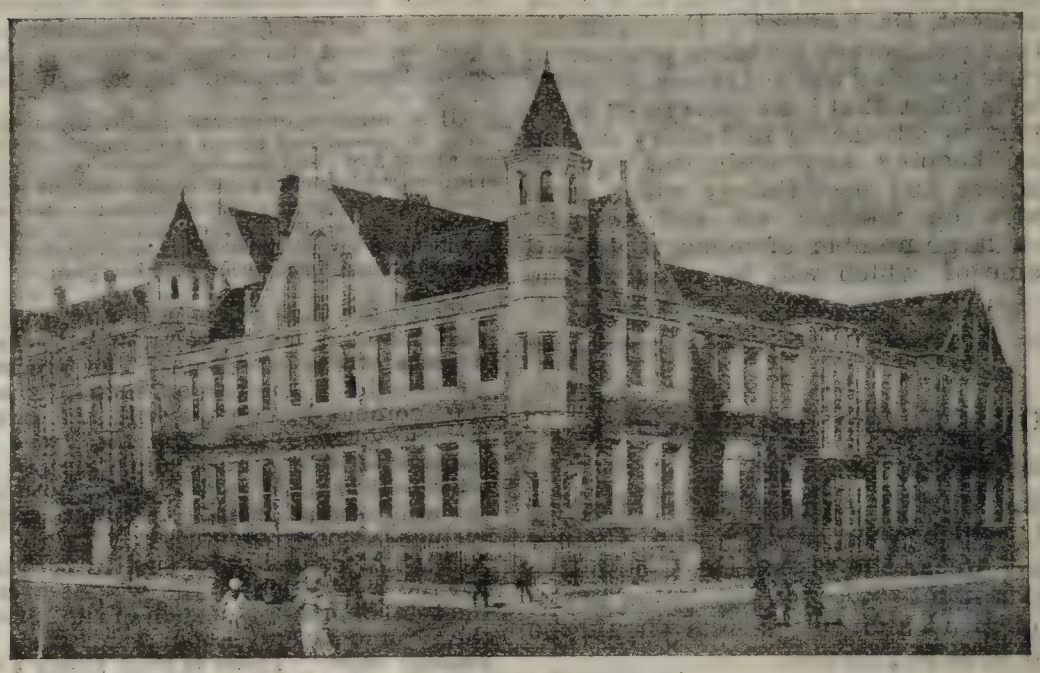
AT Trent, in the Austrian Tirol, there exists an institution, unique in its way, which has been doing remarkably good work during the past few years. Its object is the scientific culture of the silkworm, and it has attained a very fair measure of success. The decline in the silk industry in France was for many years lamentable; it was due to a very large extent to the ravages of parasites affecting both the plants and the moths. Local attempts to eradicate these scourges were in numerous cases unavailing, owing to the imperfect nature of the preventive measures. It is more than twenty years since the idea originated of having some place where a thoroughly healthy stock of silkworms could be reared under continuous supervision, and where the introduction of any diseased condition could be detected and promptly dealt with. It was with this purpose that the Bacological Institute of Trent was founded in 1882, and how well it has succeeded may be gathered from an article by H. Rousset in *La Nature* (February 11th). Since its foundation the institute has greatly increased in size, and it now employs a staff of over 300 workers. Supplies of silkworm moths are obtained from various quarters, and when the moths have deposited their eggs they are examined microscopically. In suspicious cases the progeny is rejected, and only the most healthy eggs are retained. The eggs are carefully preserved throughout the winter, and in the spring they are allowed to develop. Each ounce of eggs produces nearly 150 pounds of cocoons. The institute further conducts researches on the selection of the silkworm moth, and on the best methods of rearing it, with the object of procuring hardy strains and particular varieties. It also gives instruction in the technique to those interested. We have undoubtedly here another striking instance of the advantages to be derived from the application of scientific knowledge and methods to an industrial process.

UNDER the will of the late Mrs. Fanny Maria Kemp, of Pangbourne, Westminster Hospital receives a bequest of £2,000 for the maintenance of a bed to be known as the "Sir Benjamin Baker Bed," and the Royal Berkshire Hospital £1,000.

# LIVERPOOL ROYAL INFIRMARY.

## NEW OUT-PATIENT DEPARTMENT.

AN important development in the work of the Royal Infirmary took place on March 29th, when the new out-patient department was formally opened by the Earl of Sefton, who was accompanied by the Countess. A large and influential gathering of leading citizens assembled by invitation to witness the ceremony. Sir ARCHIBALD WILLIAMSON, Bart., M.P. (the new President of the Royal Infirmary), occupied the chair. The medical profession generally, as well as the medical and nursing staff of the infirmary, was well represented, and the balcony was lined by students.



New Out-patient Department.

The RECTOR having opened the proceedings with prayer,

MR. RALPH BROCKLEBANK said that this was a red-letter day, when the fulfilment of ideas, wishes, and schemes so long cherished was celebrated. He considered the work most creditable to all who had been concerned in it. Nothing had been spared to make the new out-patient department efficient, to secure economical working, and to fulfil its primary essential object—the relief of the sick and suffering. It was a handsome and artistic building, and had this redeeming feature—it was practically paid for, certainly if the ratepayers sanctioned the gift the Corporation sought to make. All interested in the undertaking—committee, medical staff, architect, and contractors — had worked together in perfect harmony.

Mr. HOLFORD HARRISON, the honorary treasurer, stated that when the foundation stone was laid in July, 1909, by the Earl of Derby, the cost of the building had been provided, but a maintenance fund would be necessary; to this end £18,500 had been provided towards the sum of £25,000 which was required.

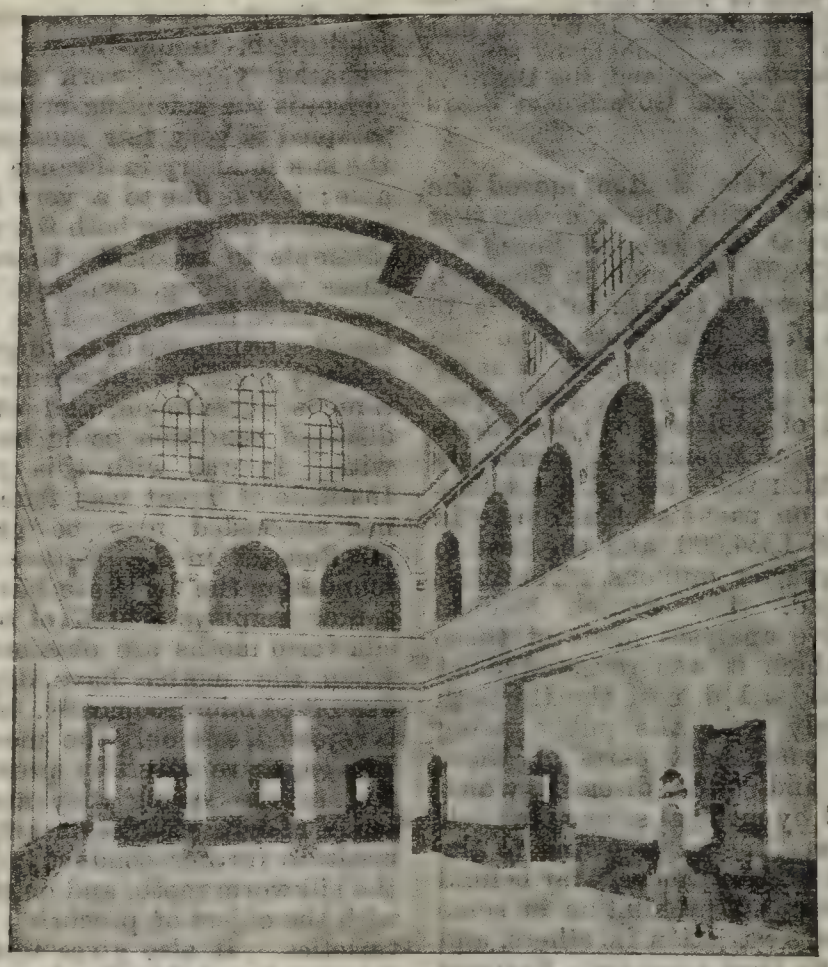
The EARL OF SEFTON then declared the building open, after unlocking one of the doors, and was afterwards presented by the Chairman with a gold key as a memento of the ceremony. Lady Sefton was presented by Miss Williamson with a beautiful bouquet. Lord Sefton, in declaring the building open, expressed his pleasure that he should have been asked to perform the ceremony during his year of presidency, and asked for generous and constant help towards the maintenance of the department.

Mr. EDMUND OWEN referred to the interest which he had in the Royal Infirmary, engendered by his friendship with the late Sir William Banks, of whose memory he spoke in kindly and well chosen words. When he was first shown over the infirmary by Sir William Banks many years ago, he thought that it was the acme of hospital construction. He considered that, after seeing the new building, the last word had been spoken in connexion with out-patient departments. He touched upon the necessity of thrift amongst the artisan classes. He also spoke of the necessity of an almoner's department in such institutions as a check to hospital abuse, and was pleased to see that special arrangements existed to this end at the Royal Infirmary. He objected to any system of "subscribers' letters." He considered an out-patient department essential to any great scheme of teaching, and that it should also constitute a consultation department, to which outside medical gentlemen could bring cases for discussion. He spoke pleasantly to the students, and also of the Royal sympathy with hospital work.

The LORD MAYOR proposed, and Sir WILLIAM H. TATE seconded, a vote of thanks to Lord and Lady Sefton, which was graciously acknowledged.

Mr. PAUL moved a vote of thanks to the Chairman, and paid a high tribute to the nursing staff of the institution. Dr. BRADSHAW seconded the motion, observing that their President would always have the interests of Liverpool at heart.

Sir HENRY BURDETT supported the motion. He was convinced that this hospital was distinctly the best in the North of England, and presented an example to all voluntary hospitals. In short, the Liverpool Royal Infirmary was a noble example of the voluntary charity of which all were proud. He considered the new building worthy of all praise.



Interior of Central Hall, New Out-patient Department.

The CHAIRMAN, in responding, acknowledged the aid given Mr. Brocklebank and Mr. Bickersteth in the development of the new department.

Before leaving, the company partook of refreshments and inspected the building. Mr. Clayton's band played selections of music.

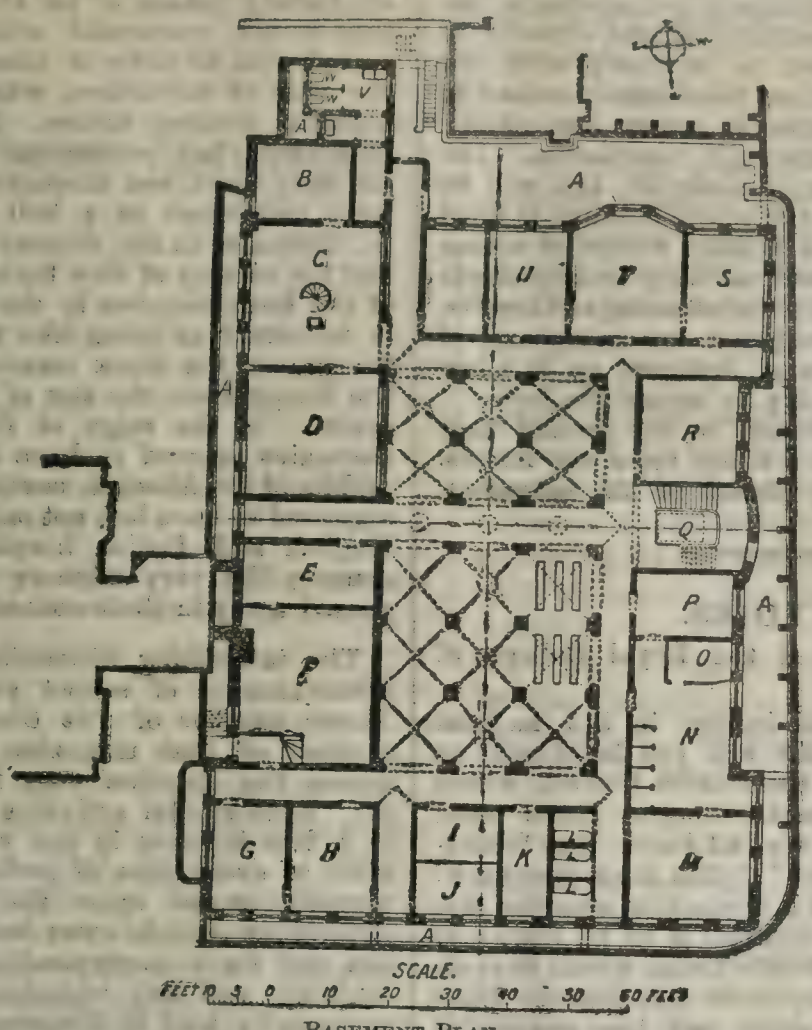
The average number of out-patients for the ten years ending 1890 was 8,064; 1900, 12,527; 1910, 20,741; while the total attendances given now exceed 80,000 a year. Under the methods of investigation which are carried out it may fairly be asserted that only deserving cases are treated and that little abuse exists.

It had been apparent for some time both to the committee and the medical staff, that improved accommodation was essential. How best to carry this out had been long under consideration, but at last the financial and other difficulties have been overcome. With the aid of the William Mitchell Banks memorial fund the site was acquired, and the gift in memory of the late E. R. Bickersteth and other generous contributions

justified the committee in proceeding with the building and its equipment at a cost of about £30,000.

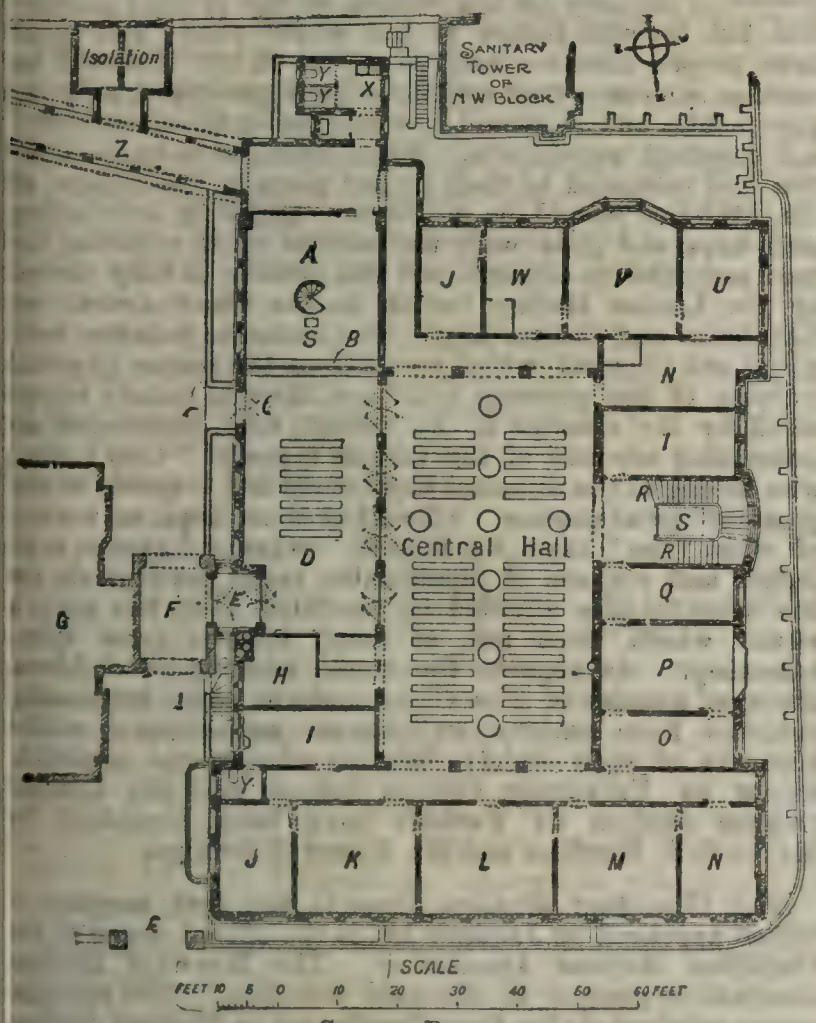
*Description of the New Out-patient Department.*

The building has been placed at the north west corner of the site of the hospital, at the junction of Pembroke Place and Brownlow Street, being approached from Pembroke Place through the existing gateway for out-patients to an archway under the end of the administration block, which forms a *porte cochere* from which there is a doorway into the entrance hall for unsorted patients. At the north end of this entrance hall, on the right hand side, is the registration office, a door from which leads into the central hall, a spacious apartment, lighted from above, where there is accommodation for 200 persons, and there patients will wait until admitted to the medical and surgical examination rooms. At the south end of the central hall is the medical department, away from traffic noises. The surgeons' rooms occupy the north end. On the west side of the central hall is an operating room with accessory apartments, and a retiring room for nurses. At the south end of the entrance hall is the "dispensary," with a serving counter, which the patients will pass on leaving the hall. This dispensary is large, and will serve the dual purpose of supplying not only out-patients but the whole hospital with medicines. An electric lift from the basement to the first floor is provided in the "staircase." There is a "covered way" to the main building from a passage behind the dispensary, which will act as an entrance to a casualty department, to which use part of the former out-patient department will be devoted. On the south side of the covered way are two small rooms for the temporary isolation of infectious cases which may be detected in the examination of patients. On the first floor are accommodated the "throat department," on the east side; the "ophthalmic department" on the north and west sides; and the "gynaecological department" on the south side. In the basement are the departments for skin, lock, and massage cases; also the dispensary, laboratory, wine and drug stores, with a stairway to the dispensary above. There is an excellent clinical laboratory on this floor. There is a chamber for the boilers warming the building and supplying hot water, and another for sterilizing patients' clothes.



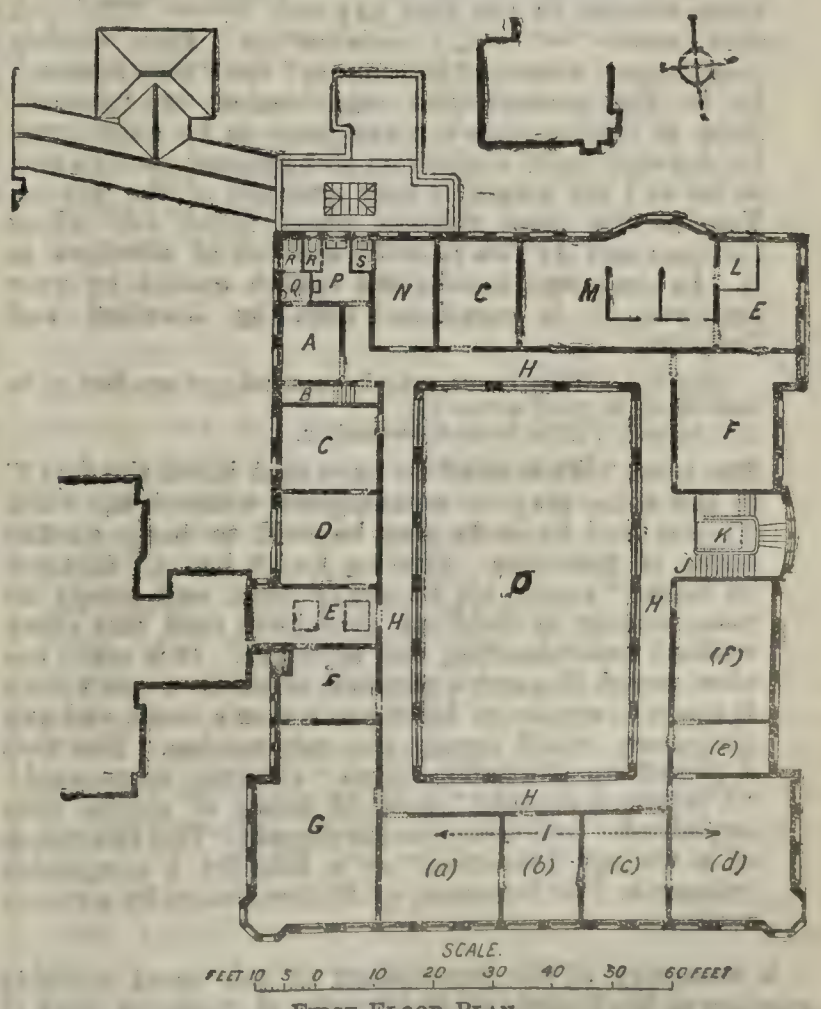

BASEMENT PLAN.

A, Area. B, Wine and spirit store. C, Dispensary laboratory. D, Drug store. E, Sterilizing. F, Heating chamber. G, Masseur (men). H, Masseuse (women). I, Men's waiting room (masseur). J, Women's waiting room (masseuse). K, Masseuse retiring room. L, Bath. M, Skin examination room. N, Skin consulting room. O, Private examining room. P, Skin preparation room. Q Lift. R, Clinical room. S, Women's waiting room. T, Lock consulting room. U, Men's waiting room. V, Toilet. W, W.C.




GROUND PLAN.

A, Dispensary. B, Dispensing counter. C, Exit. D, Entrance hall. E, Entrance. F, Porte cochere. G, Administration block. H, Registration. I, Doctor's retiring room. J, Women's preparation room. K, Women's dressing room. L, Surgeon's room. M, Men's dressing room. N, Men's preparation room. O, Anaesthetic room. P, Operating room. Q, Recovery room. R, Staircase. S, Lift. T, Clinical room. U, Men's examination room. V, Physician's room. W, Women's examination room. X, Toilet. Y, W.C.—Z, Covered way to hospital.




FIRST FLOOR PLAN.

A, Nurses' retiring room. B, Store. C, Recovery room. D, Throat operating room. E, Preparation room. F, Waiting room. G, Throat examination room. H. Gallery. I, Eye department. (*a*) Operation room; (*b*) Special case room; (*c*) General consulting room; (*d*) Eyesight testing room; ; (*e*) Mydriatic room; (*f*) Dark room J, Staircase. K, Lift. L, Sterilizing room. M, Gynaecological examination room. N, Photographic room. O, Upper part of Central Hall. P, Toilet. Q, Lavatory. R, W.C. S, Dark room.

The central portion of the basement, which is arched and groined and lighted from above, is available for waiting and other purposes. Sanitary arrangements are provided on each floor. The treatment of the exterior of the building has been designed in harmony with the existing infirmary buildings Care has been exercised to secure as much light as possible in every part of the building, and effective and thorough ventilation. The building is constructed of fire-proof materials, and will be lighted by electricity. The interior of the building is lined with glazed tiles in a simple but artistic design of cream and green. All the plumbing and sanitary arrangements are so fixed as to be easy of access for cleaning and repairs. The floors and passages throughout are composed of terrazzo, and in the rooms are so designed as to allow thorough cleansing when necessary by means of a hose.

The room marked "Clinical Room" on the ground floor plan has been changed to a retiring room for nurses, the clinical laboratory being placed in the basement, marked (*).

## LITERARY NOTES.

MR. VICTOR PLARR (Librarian of the Royal College of Surgeons of England) writes:

> Your notice of my little lecture to the medical librarians was very kind; but will you be so good as to refer to the original in the *Dublin Journal*, where you will see that I referred to the *Latin* word "*cornutus*"? Of course we all know the Shakespearian allusions to "horns" ("The horn, the horn! It is no scorn," etc.), but it is a question whether this *Latin* use of *cornutus* (=cuckold) is at all known to ordinary scholars. It is Middle Latin, which boys do not learn at school, and my point was that the great librarian was trying to catch out his classifying clerks with a Latin usage they could not possibly be familiar with. However, this is a small matter.

Dr. J. Foster Palmer (London) writes:

> Mr. Plarr's statement in relation to this subject, quoted in your interesting review of his paper on the College Catalogue, seems astounding. It is simply inconceivable to me that any one, unless blind and deaf, could travel any distance on "their earthly pilgrimage" without "picking up" the "information" as to the metaphorical signification of "horns." Most of Shakespeare's plays have to be expurgated for drawing room reading on this account, but no one, as far as I am aware, is ever ignorant of the reason. Two of the most popular plays, *Much Ado About Nothing* and *As You Like It*, are full of allusions to it. In the latter, besides the speech quoted by your reviewer, it is mentioned both by Rosalind and Orlando:
>
> *Rosalind:* Why, *horns*, which such as you are fain to be beholding to your wives for.
> *Orlando: Virtue* is no *horn*-maker.
>
> The song, "What shall he have that killed the deer?" in the same play is meaningless without it, while *Troilus and Cressida* may be said to hang on the horns of Menelaus. Charles Lamb has a "Chapter on Horns" among his *Essays of Elia*, and surely no man, woman, or child can ever have read this essay without understanding the allusions. It is made use of in one of Hogarth's pictures, in which a cow's horn is made to appear to belong to a man's head, and any dictionary would supply the information. The first I picked up (Nuttall's) gives "Cornute, to cuckold," "Cornuto, a cuckold," cuckold being, of course, duly explained. One is tempted to suggest "The Innocence of a College Librarian" as a title for a companion volume to *The Innocence of Father Brown* by a recent writer.

A summary of the proceedings at the usual monthly meeting of the Society of Antiquaries of Scotland, held in Edinburgh on April 10th, is given in the *Glasgow Herald*. From this we take the following abstract of a paper read by Mr. Egerton Beck. He dealt with the history of the Hospital of St. Germains, near Seton, in East Lothian, in which the historians of Scottish monasticism had been able to throw little more light than that it was in existence in the thirteenth century. There were, however, some fifteenth century documents in the Vatican which gave interesting details of its history at that period, showing that it was connected with the See of Bethlehem and served with an order of canons regular of St. Mary or of the Star of Bethlehem, whose presence in Scotland had hitherto escaped notice. The Bishop and Chapter of Bethlehem had possessions, chiefly hospitals, not only in the Holy Land, but throughout Europe, and among these were mentioned in a bull of A.D. 1266 the church of St. Germains in the diocese of St. Andrews in Scotland, and the oratory of New Bethlehem in London. The dress of the Bethlehemites in the case of the London hospital is indicated as being like that of the Dominicans, but bearing on the black mantle, in addition to the cross of the Hospitallers, the star of Bethlehem in red with a blue centre. In the reign of David II the Hospital of St. Germains seemed to have fallen into decay, and by the middle of the fifteenth century the Bishops of Bethlehem appeared to have lost not only St. Germains, but also their English and Italian hospitals, and by the seventeenth century the very memory of the order had completely passed away in these countries.

The interesting discussion upon the advantages and disadvantages of school athletics, which began in the March number of *The Child*, is continued in the April number of that magazine. Mrs. Scharlieb, who discusses the question very fully in her excellent article on "Recreational activities of girls during adolescence," is a firm believer in the value of physical exercise for girls in every class of society, but she lays the greatest possible stress upon the fact that the fundamental differences which exist between the children of either sex call for a corresponding difference in their physical training, and any violation of this law of Nature must necessarily lead to disastrous results. "The idea which *still* exists in the minds of many young people," she writes, "and even in some of their elders, who ought to know better, is that girls should be trained into being somewhat inferior boys, rather than into what is, perhaps, the most admirable work of God, 'the perfect woman, nobly planned,'" and such a belief is infinitely dangerous not only for the women of the present generation but for the future of the whole race. Let girls have proper exercise, and plenty of it, but it should be exercise such as is best suited for their peculiar bodily requirements, and it should be taken under the most careful and constant supervision. When indulged in in moderation and relegated to their proper place in the scheme of life, athletics should be a powerful factor in inculcating both boys and girls with the virtues most requisite for good and efficient citizens, and this opinion is fully shared by Dr. Luther Halsey Gulick in his short article on "Athletics and Citizenship." The immense benefits, both moral and physical, which result from the proper physical training of the growing child are likewise clearly recognized by Mr. Charles E. B. Russell, who contributes an interesting account of the various types of "City Lads" who belong to the different boys' clubs and brigades of our great industrial centres. "To all of these boys, no matter of what type," says Mr. Russell, "organized games, both indoor and out, are of incalculable value, particularly for the opportunities afforded for teaching them fair play, a virtue which does not, as many believe, grow spontaneously." As regards the moral training of children, the April number of *The Child* contains some interesting opinions from various well-known authorities; whilst accounts of such widely differing educational establishments as University College School and the London Orphan Asylum at Watford have been furnished by Mr. C. B. S. Monfries and Mr. Henry S. Armiger.

The *Canadian Medical Journal*, the first number of which appeared on January 1st, is the official organ of the Canadian Medical Association. The *Montreal Medical Journal* is merged in the new pericdical. The editorial announcement states that the *Canadian Medical Journal* is intended to be "a medium for the expression of all that is best in Canadian medicine." The editor is Dr. Andrew Macphail, of Montreal. Our new contemporary is well printed, and presents an attractive appearance which is not belied by the quality of the contents. It has our best wishes for its success.

British Medical Journal.

SATURDAY, APRIL 22ND, 1911.

## INTESTINAL KINKS AND INTESTINAL STASIS.

THE increasing importance attached to the general effects produced, as is believed, by the continuous absorption of poisons produced within the body, more especially in the intestinal canal, is one of the most striking features of practical pathology as applied to clinical practice in the present day. Metchnikoff, as is well known, regards the colon with grave suspicion, accusing it of being the chief cause why a man does not die a natural death from old age; recently he has endeavoured to establish that the poisonous substances his hypothesis assumes are produced by certain anaërobic organisms which flourish in the colon.

He has found a powerful ally in Mr. Arbuthnot Lane, who, approaching the matter from the clinical side, has distinguished a set of symptoms and physical signs which he believes to be due to the absorption of poisons produced in the contents of the intestine when unduly retained, especially in the colon. The symptom which brings the patient to seek medical advice is abdominal pain, varying in intensity, but usually sufficient to make the sufferer a chronic invalid. Other symptoms are constipation, attacks of abdominal distension, loss of appetite, attacks of nausea often followed by retching or vomiting, and a foul taste in the mouth. Attending on these symptoms are certain others of a more general nature—loss of weight, mental apathy, headaches, defective circulation causing cold hands and feet, and general muscular pain attended by loss of freedom in the movements of the limbs. The physical signs enumerated are abdominal tenderness in certain areas, the site of maximum tenderness varying in different cases, a sallow or brownish tint of the skin, and cystic degeneration of the mamma. In such cases the transverse colon is usually found below the level of the umbilicus, and frequently the whole of the ileum in the pelvis. This particular condition he attributes to adhesions which fasten the gut to the posterior abdominal wall in such a way that it kinks upon itself at an acute angle, and is also often rotated on its longitudinal axis. For the relief of this condition he has devised an operation which consists in implanting the end of the ileum in the most accessible portion of the ileo-pelvic colon—that is to say, if we understand the matter right, into that part of the large gut commonly called the sigmoid flexure. The operation, it has been found, is best performed by making an end-to-side anastomosis. Should pain have been a prominent feature, and should the condition of the patient permit, the colon is removed up to the site of the anastomosis. The operation, it is stated, is attended by very little shock, and the paper by Mr. Chapple published elsewhere, in which he has followed up 50 cases, appears to show that the final results are, in the large majority of cases, satisfactory. In the clinical lecture by Mr. Lane, also published in this issue, he indicates other parts also of the intestine at which adhesions occur, producing kinks in the canal which lead to stasis. Displacement of the caecum, which he irreverently calls "the blind extremity of the cesspool"—the cesspool being the colon—leads to the formation of bands external to the caecum and ascending colon, fixing them, and it may be the appendix also, to the abdominal wall. If the appendix is kinked in this way, the part beyond becomes distended, and symptoms of appendicitis arise. The internal strain in the caecum affects the termination of the ileum and the posterior layer of its mesentery, with the result that the ileum is bent and twisted on itself.

Dr. A. C. Jordan has contributed to the April number of the *Practitioner* a paper dealing with the radiographic demonstration of this obstruction of the lower end of the small intestines, to which American surgeons have given the name of "Lane's ileal kink." He used 5 oz. to 6 oz. doses of pure bismuth carbonate, and, after an experience of over a hundred cases, affirms that this amount, which offers a far better opportunity of detecting abnormalities in the region of the ileum than could be obtained with the customary 2-oz. doses, may be given to adult patients without hesitation. The form of the meal is not important, but it should be so timed that the patient can be kept under observation from the sixth to the twelfth hour. He states that in normal cases the end coils of the ileum either lie in a compact mass in the right side of the pelvis, just below and to the left of the caecum, producing the appearance of a black mass with irregular rounded margins which may be in contact with the caecum, or the last two inches of the ileum rise from the mass, with the result that the ileo-caecal entrance is shown. In cases presenting an ileal kink, he finds that the appearances vary, and explains this by assuming that the kink is formed by adhesions whose position, length, and strength vary in different persons. He also points out that the appearances in any one subject will not be the same on all occasions unless the lower end of the ileum is immovably fixed. The degree of fixation can be ascertained by deep pressure. The patient should be examined in the recumbent position, for in the erect the caecum falls into the pelvis and comes in contact with the ileal coils and so obscures the picture. The radiograms by which the paper is illustrated show the presence of an obstructing kink in the last few inches of the ileum. Brief histories of each case and accounts of the conditions found at operation accompany the radiograms and appear to prove that although the ileal kink may be the predominating condition, it is frequently accompanied by similar obstructions at other points along the alimentary tract. These changes, then, would seem to be manifestations of a condition that affects the whole of the contents of the abdominal cavity. This subject is also dealt with in a beautifully illustrated paper by Dr. C. H. Mayo, of Rochester, Minn., entitled "Intestinal Obstruction due to Kinks and Adhesions of the Terminal Ileum."[1]

[1] *Surgery, Gynaecology, and Obstetrics*, March, 1911.

Mr. Lane also describes a similar strong band of adhesions which may develop at the level of the iliac crest on the right side, binding down the ascending colon and constricting its lumen sufficiently to cause some obstruction at this point. Similar adhesions may, he says, produce kinks at the hepatic and splenic flexures of the colon. He describes also a duodeno-jejunal kink at the point where the lower fixed portion of the duodenum opens into the mobile jejunum and a constriction of the pylorus produced by what he calls the pyloric ligament, practically a band of adhesion formed to resist the displacement of the pylorus produced by the traction of the distended stomach augmented by that of the loaded transverse colon. He looks upon these adhesions as primarily conservative, being formed to resist the displacement downwards of the various parts of the gastro-intestinal tract due to the traction in almost constant operation while the erect or sitting posture is maintained.

Dr. Jordan has also supplied the radiograms illustrating a paper published by Mr. Arbuthnot Lane in the same periodical as Dr. Mayo's article, entitled, "Distension Changes in the Duodenum in Chronic Intestinal Stasis."[2] In this paper he advances radiographic and other evidence in support of his view as to the causation of distension and ulceration of the duodenum. It is, he contends, consequent on the obstruction produced at the end of the third part of the duodenum in the manner indicated in his clinical lecture published this week. The importance of this point in the treatment of duodenal ulcer is obvious. Should it be confirmed, the proper treatment would seem to be to anchor the first part of the jejunum to the posterior wall of the stomach or transverse mesocolon in such a way as to prevent the production of a kink; no communication between the stomach and jejunum would be necessary, and the operation mortality would probably be reduced.

The whole subject is of great pathological interest and of not less clinical importance. It opens up a field of inquiry which for the present it will be for the surgeon to investigate; but though as yet only those cases in which the conditions described have reached an extreme stage may be diagnosed, we may look forward to a time, as experience accumulates, when it will be possible to recognize early stages when symptoms may be alleviated by medical and dietetic treatment and their progress arrested. The prophetic eye may descry a still more distant future: the progress of the medical and surgical study of disorders of digestion may make so much progress that a rational dietetic system may altogether eliminate the causes of the disorders which to-day medicine uncertainly, and surgery in a more drastic manner, seek to alleviate or cure.

## THE CONTROL OF MEASLES.

IN a memorandum issued by the Local Government Board[3] Dr. Newsholme, the medical officer of the Board, seeks to indicate some of the more promising methods of controlling measles which are at present available. Dr. Newsholme points out that experience having shown that compulsory notification of other infectious diseases is only effective when a doctor is in attendance on the patient, although a like duty is imposed on the parent, it does not appear likely that attempts to enforce the notification of measles by parents would be more successful than in the case of other acute infectious diseases. Notification to medical officers of health by school teachers and school attendance officers of cases occurring among school children may, however, be of the greatest service if the most prompt use possible is made of the information. Notification by itself has a mere statistical value. Its value apart from this must be judged by the extent and promptitude with which notifications can be followed up by administrative action. Among the more important measures which are rendered possible by notification of cases are improvement in domestic management and treatment of patients, removal to hospital of patients who cannot be efficiently treated at home, arrangements as to exclusion from school, and as to cleansing and disinfection of rooms when required. The difficulties attending the efficient following up of cases which come to the knowledge of the medical officer of health are clearly stated in the memorandum. Foremost among them is the fact that outbreaks of measles are explosive in character and a considerably increased staff may be required during a few weeks. This will necessarily mean an increased expenditure, but if wisely directed, such expenditure will be more than justified.

"A tactful inspector, health visitor, or nurse will be able to secure increased and more intelligent care and an improved prospect of recovery for the patient, as well as a diminution in the occasions for spread of infection. Gradually it will become realized that measles for children under 5 years of age is a deadly disease; and the co-operation of all concerned in the work of prevention and treatment will ensure that in connexion with each patient adequate precautions are taken to prevent the spread of infection, and to obtain for each patient the best possible treatment."

On the question of exclusion from school attendance Dr. Newsholme points out that if by any means at present available the amount of measles occurring in large towns among children who attend infant schools were to be reduced, a somewhat corresponding increase would be likely subsequently to occur in the number of cases in the higher departments. He admits, however, that this consideration does not justify the failure to adopt means for reducing the incidence of measles among young children, for by the postponement of the age of attack there would, at any rate, be a saving of many lives.

In connexion with this memorandum it is of interest to recall the comments made by Sir Richard Thorne in 1896 upon Dr. Theodore Thomson's report to the Local Government Board on measles in England and Wales.[4] In those comments it was stated that where compulsory notification of measles was followed by prompt and systematic visitation this served to give a clue to the existence of unreported cases. It was pointed out that where knowledge thus acquired was supplemented by information derived from school authorities and properly utilized; where, in inter-epidemic periods or during stages before epidemics had passed beyond control, measures were adopted with a view to isolation and disinfection; and where judicious restrictions were imposed on attendances at elementary schools, much more was to be looked for in the control of measles than had hitherto been attained.

[2] *Surgery, Gynaecology, and Obstetrics*, March, 1911.

[3] To be obtained directly or through any bookseller from Wyman and Sons (London), Oliver and Boyd (Edinburgh), and E. Ponsonby (Dublin). Price 1d.

[4] Annual Report of the Medical Officer of the Local Government Board for 1894-95.

## ELECTION OF DIRECT REPRESENTATIVE.

As will be seen from a letter published elsewhere in this issue, Dr. J. A. Macdonald, of Taunton, who succeeded Sir Victor Horsley as Chairman of the Representative Body, and is now Chairman of the Council of the British Medical Association, has accepted an invitation to come forward as a candidate at the approaching election of a Direct Representative of England and Wales on the General Medical Council. The election of Dr. Macdonald to the important offices in the Association above mentioned was entirely due to the aptitude for public business which he showed during the reorganization of the Association, as a member of the Representative Body, and as a member of various committees. He has been chairman of the Medico-Political Committee, and is now chairman of the Special Poor Law Committee. He has therefore a wide and intimate knowledge of the needs of the profession, and is well acquainted with the nature and limitations of the powers of the General Medical Council. The other candidate is Mr. George Jackson, of Plymouth, who has already served one term (1902–7) as a Direct Representative. He has represented the Plymouth Division on the Representative Body continuously since it came into existence. His address will be found in our advertisement columns; and a letter from Mr. George Brown, formerly his colleague on the General Medical Council, commending his candidature, is published elsewhere.

## THE MEDICAL ASPECTS OF LIFE ASSURANCE.

In an address given recently to the Faculty of Actuaries on the expectation of life in circulatory disease,[1] Dr. G. A. Gibson of Edinburgh, after carefully considering the various points to be remembered in estimating the importance, from the standpoint of a medical examiner, which attaches to each type of cardiac lesion, said: "The conclusion of the whole matter seems to me to lie in the conception that, for the present at least, we have no better guide in the selection for assurance of proposers suspected of some circulatory disorder than the ordinary methods of diagnosis and prognosis employed in practical medicine. After all, the decision in each case must be a matter of trained common sense." Dr. Gibson's paper does not, perhaps, contain anything which would be altogether new to a medical reader; none the less, it is worthy of high commendation, and its form and style might well serve as a model for those members of the profession who have to address an educated lay audience upon medical topics. Anyone who has examined a number of such writings cannot but realize the difficulty of avoiding the Scylla of extreme technicality without being engulfed in the Charybdis of dogmatic affirmation, the Sir Oracle style which is offensive to most cultivated persons. One or two matters raised in the discussion seem to call for comment. Two non-medical speakers made use of language with regard to medical examiners for life assurance which stands in need of considerable qualification. One gentleman, for instance, gave utterance to the following remark: "Nor are we officials always too well served by the medical officers we are obliged to employ throughout different parts of the country. On the one hand we have men of the eminence of Dr. Gibson, from whom nothing but satisfaction is to be expected; but on the other hand we have such men as a Hibernian medical officer in a remote part of the country, who evidently possessed sufficient second sight, and certainly astuteness, to be able to fill up and complete a medical report form—signature and all—on the life of a man that he had not examined!" Even assuming the "Hibernian medical officer" not to be a near relative of Mrs. Harrie, it appears to us that the words quoted convey an implication at once uncalled for and untrue. A far more valuable contribution to the debate was the suggestion that a central bureau should be established with the object of utilizing the collective experience of the different life offices. We sincerely trust that some such plan may be adopted, for too little use has so far been made of the valuable medical statistics which have accumulated. With comparatively little expenditure of money and effort, these records could, in a form not leading to any breach of confidence, be placed at the service of the medico-statistical inquirer.

[1] Printed, together with the ensuing discussion, in the *Transactions of the Faculty of Actuaries*. Vol. v, Part vi. London: C. and E. Layton. 1911.

## THE SURGICAL TREATMENT OF GASTRIC HAEMORRHAGE.

Owing to the difficulty experienced in finding the bleeding point, many surgeons have renounced interference in ordinary cases of haemorrhage from gastric or duodenal ulcers or restrict themselves to the performance of gastro-enterostomy, yet, where bleeding is persistent or recurrent and grave, surgical intervention is imperative, and excision of the ulcer or ligature of the bleeding vessel, if it can be found, is the practice of most surgeons who have had experience in this work. Professor Armstrong of Montreal has recently[1] reviewed the cases he has treated since he reported a successful instance at the meeting of the British Medical Association in 1899. He teaches, as the outcome of his experience, that when the bleeding is small and repeated at short intervals the surgeon should operate, but he does not agree that it is sufficient to perform gastro-enterostomy, as the bleeding may continue and the patient die. He quotes, in support of this statement, the published experience of Schluessler, Quenu, Kroenlein, Porges, Potherat, Delbet, Tuffier, Kocher, Dollinger, and Hartmann, and Quenu's estimate of 25 per cent. mortality of the cases so treated. He believes it to be advisable only where the bleeding point is near the pylorus or in the duodenum, when, by lessening peristalsis, it may "give rest to the stomach and allow time for clotting in the bleeding vessel." But even when the pylorus is narrowed gastro-enterostomy is not always successful (Schluessler Eiselsberg), and the natural surgical proceeding is to try to close the bleeding point, either by the cautery if there is merely capillary oozing or by ligature, which may be applied directly to the vessel by passing a curved needle under it, not necessarily drawing it so tight as to rupture the coats of the vessels on account of the friability of the tissues, or by tying on both sides of the bleeding point (Roux). Excision of the ulcer should be reserved for exceptional cases on account of the loss of time and blood. Where the bleeding point cannot be found, he recognizes the difficult position in which the surgeon is placed, but so far he has not met such cases; if he did he would be inclined to do a pyloroplasty in order to lessen peristalsis and prevent any considerable degree of stomach distension. He mentions the use of the gastroscope through an incision in the wall of the exposed stomach, as suggested by Rovsing of Copenhagen. But he has had no experience with it, although he thinks it deserving of trial as likely to prove useful. He quotes the statistics published by Borszecky, Finsherer, and Kraft, which distinguish the results of gastrotomy, gastro-enterostomy,

[1] *The Canadian Medical Association Journal*, February, 1911, p. 103.

cauterization, excision, and ligature when employed for the arrest of haemorrhage. These show a diminished mortality in the order given, but the conditions for which the operations were performed are not distinguished, and as Professor Armstrong suggests, it is probable that operations for small repeated bleedings would show better results than emergency operations on patients vomiting large quantities of blood. He gives brief notes out of his own nine cases, with one death from "pulmonary thrombosis," in which case he had ligatured a bleeding vessel, cauterized two other ulcers, and performed pyloroplasty. The number of cases he has been called upon to deal with is not large, and this may account for his not having met with instances in which he failed to find the source of bleeding, but he may be congratulated on his excellent results.

## MOSQUITOS AND MALARIA.

THE JOURNAL of February 18th last contained a notice of a memoir by Mr. H Waite published in *Biometrika*, dealing with the factors which determine the prevalence of malaria. As was stated at the time, attention was mainly devoted to the method employed by Mr. Waite, and the validity of the biological assumptions did not come within the scope of our remarks. The second number of *Paludism*,[1] a publication issued by the Central Committee for the Study of Malaria in India, contains a review of Mr. Waite's essay, in which the reviewer, while according high praise to the method adopted, and stating that in his opinion it should be mastered by all who make malaria their special study, questions the biological postulates. It is objected that certain values assumed in determining the number of infecting *Anopheles*—values which were used by Mr. Waite on the authority of Major Ross—are too small. It is also argued that to assume that on the average each infecting mosquito will bite one, and only one, person is inconsistent with well-established facts. We think it right to mention these criticisms, which will no doubt be discussed by those whose first-hand knowledge of the biological facts renders their judgement of importance. In the meanwhile we may point out that the value of Mr. Waite's research must not be estimated by the opinion formed as to the validity of the assumptions he used. It is no doubt frequently argued that the tentative character of the assumptions upon which much medico-mathematical work is based deprives this line of inquiry of its claim upon attention, but mathematical inquiries are often the most potent instruments for the testing of assumptions, since in this way the real consequences of the postulates are made apparent. Indeed we might almost venture on the paradox that quantitative work based on false postulates may, by stimulating biologists and field workers to a closer scrutiny of the facts, sometimes lead more certainly to the discovery of truth, than non-quantitative investigations resting on impeccable foundations. Needless to say, we do not by these remarks commit ourselves to any expression of opinion as to the matter in dispute, which can only be decided by special expert inquiry.

## RAT FLEAS.

IN December last,[2] in view of the plague outbreak in Suffolk, we drew attention to the desirability of a more thorough knowledge of the animal parasites of rats, and in particular their flea parasites. Since then three contributions have been made to the subject by well-known authorities. The first of these is from Mr. A. E. Shipley.[3] He gives a short summary of the life and structure of a typical flea, and draws attention to the fact that it is much easier to destroy fleas as larvae than as adults. The larvae are much less tolerant of adverse circumstances than the full-grown fleas, but when left undisturbed they flourish exceedingly; they may frequently be found in enormous numbers in uninhabited houses. About two dozen different species of fleas have been found on rats at one time or another, but many of these are only occasional or accidental parasites of that animal. They belong to the two families, *Pulicidae* or true fleas, and *Sanopsyllidae* or jiggers; the latter live only in warm climates, and none have been discovered in this country. Of the true fleas by far the commonest rat parasites are *Xenopsylla cheopis* and *Ceratophyllus fasciatus*, the former of which is met with only in warmer countries, although its discovery has been twice recorded from this country. *Ceratophyllus fasciatus* flourishes in temperate climates. The question whether *Ceratophyllus*, like *Xenopsylla*, may bite human beings and so be an agent in the transmission of plague has been thoroughly investigated by Miss Chick and Dr. C. J. Martin,[4] and their extensive series of experimental observations have amply confirmed the previous work of Gauthier and Raybaud. The fleas were removed from rats and starved for periods varying from one to fourteen days. They were placed singly in test tubes which were inverted on the arm of the observer and allowed to remain for a space of two minutes. During this time the fleas were closely watched and their readiness to bite was noted. In a series of over 500 such experiments the fleas bit in more than 300 cases, so that a positive result was observed in 60 per cent. A series of 100 similar experiments with a rat gave an almost identical percentage of positive results. The further experiment was tried of removing a rat from a flea cage, and after the lapse of four days placing the hand and bared arm into the cage for two minutes. In practically every case the fleas attacked the arm, and in one as many as eighteen fleas did so. It was found, moreover, that they would do so even when a rat was present not more than 6 in. away. From their scope and thoroughness these experiments may be regarded as effectually settling what has hitherto been a matter of some dispute. The bite of the rat flea is not usually followed by irritation or swelling, but in some cases the effects are very marked, and last for several days. To complete the inquiry, similar experiments were performed with *Ctenopsylla musculi*, the mouse flea, and *Ctenophthalmus agyrtes*, a flea common on field mice. It was found that the former would bite man, but only with great reluctance. The positive results formed less than 4 per cent. In the case of *Ctenophthalmus*, the results were entirely negative. From these observations the authors come to the conclusion that *Xenopsylla cheopis* and *Ceratophyllus fasciatus* are the rat fleas which, when hungry, will bite man readily, and there is no reason to suppose that *Ceratophyllus fasciatus* would not be as efficient an agent in the transmission of plague from rat to man as *Xenopsylla cheopis* has been shown to be in India. In another contribution,[5] Martin and Rowland have shown that on rats living in the open in Suffolk and in rats' nests in Suffolk and Herts the species of fleas found are exclusively *Ceratophyllus fasciatus* and *Ctenophthalmus agyrtes* in about equal proportions. The common occurrence of the latter flea on rats must be regarded as due to their close association with field mice.

[1] *Paludism.* Being the Transactions of the Committee for the Study of Malaria in India No. 2. January, 1911, pp. 113–117. Simla, 1911.
[2] BRITISH MEDICAL JOURNAL, December, 1910, p. 1873.
[3] *Journal of Economic Biology*, February, 1911, p. 12.
[4] *Journal of Hygiene*, March, 1911. p 122.
[5] Appendix to Report of Medical Officer to Local Government Board, 1911.

## THE "SLIMNESS" OF A MEDIUM.

HYPNOTISTS sometimes fail and mediums are sometimes found out. In the case of the latter much ingenuity worthy of a better cause is often displayed in explaining away the exposure. One of the neatest examples we have come across is related by Dr. J. Raimond in a long-way-back number of the *Gazette des Hôpitaux*. A sceptical friend, he says, was present at a "magnetic" performance. Pressed by the lady of the house to ask the medium some questions, he requested him to direct his attention to a small house in the Pyrenees; this he invited him to describe. The medium after going through some of the mystical sawings of the air thought necessary for these purposes, described a house. The description was fairly correct, a fact not marvellous in itself inasmuch as one small house in the Pyrenees is very like another. The sceptic proceeded to question the operator further, asking him to inform him what his father had been about that day. The seer answered: "I see your father at a great distance from here," and he went on to narrate from hour to hour what the old gentleman had been doing during the day, entering into the most minute particulars, and ending: "And now he is laid comfortably in a bed of such and such a fashion." The whole party listened with rapt attention to the narrative, and at the end of it looked to the sceptic to see whether the medium was correct. He said quietly to the medium: "There is only one slight error in the description. My father has been dead these twenty years." The medium, taking him by the arm, said significantly, "Sir, I cannot admit this objection as valid. *It is a wise child that knows its own father.*" The sceptic thus hopelessly routed had to beat an ignominious retreat pursued by the Homeric laughter of the company.

## DENTAL PROPHYLAXIS.

WE have received from the trustees of the Forsyth Dental Infirmary for Children, Boston, U.S.A., a pamphlet setting forth their tentative plans. The infirmary is to be erected and endowed by Messrs. John and Thomas Forsyth, in memory of their two brothers. A site of 51,000 square feet has been bought in one of the best parts of Boston, and about a million dollars have been set aside to endow the institution. Prophylaxis is the great object, and the criticism and co-operation of the profession are invited. The institution is to be devoted to the care of the teeth of all deserving children under the age of 16. It is not to be looked on as a charity, since the right of children to develop physically at the public expense is becoming equally recognized with the right to mental development. No artificial work is to be done. There is to be a consulting staff, a visiting staff, and a permanent whole-time staff, and students of authorized dental schools are to assist in the work. There will be a museum and a research laboratory, and already a Research Fellow has been elected. In the lecture-room, capable of seating 250, popular lectures on dental hygiene are to be given. By this means, and by the teaching of the children, it is hoped that the importance of early dental treatment and prevention will be taught. The building is to accommodate over 100 chairs on the top floor, and the trustees aim at making the surroundings as attractive, and the period of waiting as little irksome as possible. To this end the building is to be almost palatial, and is to stand in a well laid-out park. Details of plans are difficult to criticize, but the general conception is sound, although it might be suggested that the anaesthesia rooms are inconveniently remote from recovery rooms, and that the space given to the plaster-room is too small.

## FAME.

THOUGH fame, like truth, is difficult to define, no one, perhaps, would be disposed to quarrel with the words "A Roll of Fame" as a heading for a list of those on whom the City of London has conferred the status of honorary freeman or to whom it has presented complimentary addresses. Such a list is to be found in the *City of London Year Book* for the current year, and indicates that the earliest year in which the honorary freedom was conferred was 1757. The first few recipients were more or less well-known statesmen, beginning with the first Pitt. Then the names of soldiers and sailors vastly outnumber all others for some eighty years, hold their own for another thirty, and in the past fifty years fall decidedly into a minority. The tendency, in short, has been towards greater recognition of civil merit. This is shown not merely by the preponderance of civilian names in the later years, but by the absence from the list of sundry naval and military men whose services have been quite as conspicuous as those of some of the officers who figure in the early part of the list. Apart from the fighting class, the list as a whole is mainly representative of statesmanship, philanthropy, and the legists. Indeed, other roads to fame are so sparsely represented that the medical profession must consider itself fortunate in finding among the total of 178 names two which are entirely its own—those of Edward Jenner, which appears under date 1803, and Lord Lister, 1907. But there are some four other entries possessed of a certain medical interest—Sir Jamsetjee Jeejeebhoy, 1855, whose name is familiar to most medical men as the founder of the great hospital in Bombay; David Livingstone, 1857; Dr. Jameson, of South Africa, 1907; and last, but not least, Florence Nightingale, 1908. Science other than medical science seems represented only by the names of Sir George Biddell Airy and Sir Henry Bessemer. The list as a whole contains very few names with which most persons of ordinarily good education would not be familiar, and this would seem to connote wisdom in selection on the part of the City Fathers.

## MALARIAL WORK IN JAMAICA.

ATTACHED to the official *Jamaica Gazette* is a bulky supplement setting forth the work done up to the end of 1910 by the Malarial Commission appointed in the previous year. The greater part of the report is occupied by reprints of letters which have passed between the Commission and various persons, the real report being confined mainly to a description of the programme which the Commission set before itself. One outcome of the appointment of the Commission would appear to be that the Government is overhauling the whole of the sanitary organization of the island, has obtained the passage of a Health Act, and is recommending all parochial councils to appoint a medical officer of health in the person of the medical officer of the district, and to increase his salary accordingly. For the rest, the energies of the Commission have been devoted to making and giving effect to arrangements for educating the public on the subject of malarial infection and how it may be avoided, in giving specific courses of instruction to sanitary inspectors in methods of destroying the breeding places of mosquitos, and in urging on local authorities the propriety of preventing the accumulation of waste water, and of taking other like measures. In addition, quinine has been placed on sale at all post-offices in farthing packets, containing a dose sufficient for a grown person, and notices are exhibited recommending that all persons living in malarial

districts should take each week not less than three doses on alternate days. A description of the benefits obtained in other countries by a like course is included. It also appears that Dr. Prout after analysing the hospital reports of the colony estimated that the actual pecuniary cost of malaria to the island was £6 400 for hospital treatment alone, quite irrespective of the economic loss resulting from sickness at home and the diminished efficiency of workers. Spot maps have also been prepared showing the principal breeding places of mosquitos in different malarial centres, and many have been dealt with. Malarial fever does not appear to be universally prevalent throughout the island, but that it must have a very serious effect on the public health is abundantly evidenced by an endemic index obtained by examining all the school children in certain parishes. As judged by the existence of enlarged spleen and parasites in the blood the percentage of children suffering from chronic malaria ranges from 13.1 in Falmouth and 16.7 in Spanish Town, to 37.9 in St. Ann's Bay, and 45.5 in Annotto Bay and Black River.

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## THE RANGOON DUFFERIN HOSPITAL.

IN the issue of the BRITISH MEDICAL JOURNAL for November 14th, 1903, attention was drawn to the inexpediency and danger of admitting cases of general diseases, many of them of an infective character, into an institution originally intended, and largely employed, as a lying-in hospital and training school for midwives. This objectionable practice has now been discontinued. Under the advice of a committee of local medical men the Lieutenant-Governor of Burmah, Sir Harvey Adamson, and the managing committee of the hospital prohibited from the beginning of 1910 the further admission of general cases, a step which has now been approved by a general meeting of the subscribers of the Burma Branch of the Countess of Dufferin's Fund. Apart from the reasons mentioned above, which rendered this measure wise, the opening of a large new general hospital in Rangoon, in which special arrangements exist for the treatment of females, has rendered the use of the Dufferin Hospital for the treatment of general cases unnecessary, and has enabled the managing authorities of the institution to allow it to revert to the purpose for which it was originally established—a purpose which the Countess of Dufferin declared, after visiting Burma, to be peculiarly desirable, owing to the barbarous customs connected with childbirth prevailing in that province.

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## A FORGOTTEN NATURALIST.

IN volume xvi of the *Essex Naturalist*, the organ of the Essex Field Club, Mr. Miller Christy publishes an interesting biography of Dr. Benjamin Allen, of Braintree, a forgotten Essex naturalist and physician. Dr. Allen was one of three friends deeply concerned in all matters connected with natural history—indeed one might say with all branches of knowledge. The second was Samuel Dale, another physician and apothecary of Braintree. These two men were, however, quite eclipsed by the third member of the trio, who was none other than the distinguished John Ray, "the father of modern natural science." The published and unpublished works of Allen, and the fact that he was on terms of great intimacy with Ray, prove that he was a man of considerable scientific attainments and wide sympathy, and Mr. Christy has placed all naturalists under a debt of gratitude in thus rescuing the name of Allen from oblivion, for, as the writer points out, his name does not appear in the *Dictionary of National Biography*. The son of a London physician, Allen was born in Somersetshire, probably in 1663. That he was connected with the old Essex family of Allens or Alleyns seems likely, otherwise his subsequent connexion with Braintree is unexplained. After attending St. Paul's School he proceeded in 1681 to Queens' College, Cambridge, where in due course (1688) he graduated Bachelor of Medicine. There is some doubt as to how the next year or two of his life was passed, but it is clear that he had established himself in practice in Braintree some little time before 1692. It is possible that he may have been apprenticed to Dr. Joshua Draper of that town, whose daughter he married in 1695 (?); by her he had six children, two sons (both of whom died young) and four daughters. Allen died in 1737, and was buried close to his old and intimate friend, John Ray, in the churchyard of Black Notley, Essex. Of his published works the first, entitled *The Chalybeat and Purging Waters of England*, was largely written while an undergraduate. It appeared in 1699, and is possibly the earliest systematic treatise of the kind. It was a "very muddled effort," of which Allen himself seems not to have been proud. A second and much superior edition was published in 1711. Allen's intimacy with Ray arose out of the discovery by the former of some winged glow-worms, and of his prolonged and careful observations on their habits, the results of which were published at the end of the second edition of the volume referred to above. He also made numerous communications to the *Philosophical Transactions* of the Royal Society on natural history subjects. One of these, "On the Manner of Generation of Eels," published in 1698, is of interest, as it is a subject which has been discussed since the days of Aristotle, and has only been elucidated within recent years by the researches of Professor Grassi. Allen's most noteworthy production is a commonplace book of 362 pages. It still remains in manuscript, and Mr. Christy gives two pages of it in facsimile. The title page is inscribed: "Conclusions in several subjects (as Anatomy, Medicine, Nature, Problems of the State, and Accidents of the World) containing the Discoverys in summ upon the Prosecutions and Inquirys made. By Benjamin Allen, Batchellour of Physick or Medicin, formerly of Queens' College, in Cambridge. Anno 1723." In this volume all manner of subjects are dealt with, and it is enriched with many careful and accurate drawings of natural history objects. We learn, too, from it that influenza was "universal in London" in 1712, and that our present much maligned weather appears to have been as much open to execration even in those days. Mr. Christy concludes by stating that Dr. Allen was the original of Ben Allen of *Pickwick*.

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FLEET SURGEON WILLIAM BETT, Surgeon to the Royal Naval College, Dartmouth, has been made a member of the Fourth Class of the Royal Victorian Order.

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IT seems to be generally understood that the Chancellor of the Exchequer will introduce legislation providing for State sickness and invalidity insurance within the next fortnight, and that provision will be made for medical attendance including the encouragement of sanatoriums. It is also understood that the bill or bills will be referred to a Grand Committee of the House of Commons.

# Medical Notes in Parliament.

[From our Lobby Correspondent.]

### Debate on Vaccination.

When the motion for adjournment for the Easter holidays was before the House last week, Dr. Hillier raised an interesting discussion on the administration of the Vaccination Acts. He said:

I desire to take this opportunity, more particularly as the President of the Local Government Board is present, to invite the attention of the House to the public health administration of the Board over which the right hon. gentleman so ably presides. I may say at the outset that I have every admiration for the public health administration of that department as a whole, and I know that there is no branch of his work in which the right hon. gentleman takes a keener interest than that of public health. I regret, however, to feel it my duty to call attention to what I venture to regard as the very unfortunate prejudice which appears to influence a certain branch of his public health administration. The subject to which I refer is that of vaccination, and to the fact that exemptions from vaccination are growing at an alarming rate throughout the country. I have during the past few weeks addressed several somewhat searching questions to the right hon. gentleman, and I take this opportunity of thanking him for the courtesy and completeness with which he has replied to these questions on this subject. Among them I received a reply with regard to the present number of exemptions from vaccination in the country. He told us that during the first half of last year there were 456,533 births, and of those 110,851 had received exemption certificates. That amounts to nearly 25 per cent. of the newly born. I am aware that there are still those who believe that the world is flat, and it is possible, such is the variety of views held by members of this House, that there are members who entertain the opinion that vaccination is of no value as a preventive or protection against small pox. Indications have been manifested during the last few weeks which lea me to the conclusion that there are certainly some members who hold that view. I do not propose to take up the time of the House by labouring that point, but I should like to call attention briefly to the small epidemic we have recently had in London. According to a written reply given me on March 14th, published in the Official Report of that date, there had then been 54 cases; 41 were vaccinated, of whom 2 died, and 13 unvaccinated, of whom 6 died. That is, there were nearly 50 per cent. of fatal cases among the unvaccinated. To show that that is not a singular occurrence or a mere accident, I will quote a few lines with regard to the 10 403 cases treated in the Metropolitan Asylums Board Hospital at Homerton from 1873 to 1884. The deaths among the vaccinated were 10 5 per cent., and amo g the unvaccinated 43.4 per cent. In the epidemics investigated by the Royal Commission on Vaccination in the three towns of Dewsbury, Leicester, and Gloucester, where vaccination had been neglected, we find that, under 10 years of age, among 72 vaccinated children attacked 2 died, or 2.7 per cent., whereas among 961 unvaccinated children attacked, 350 died, or 37.3 per cent. When I remind hon. members that during the eighteenth century it was estimated that in every twenty-five years there were 15,000,000 deaths from small-pox, and when I point out the tremendous difference in the mortality among vaccinated and unvaccinated cases respectively, I think the House will admit that the question is one of profound national importance. It has been my lot to see small-pox come upon an unvaccinated community. I spent many of the earlier years of my life in South Africa, and one of my first experiences was an epidemic of small-pox among the native races, before vaccination had been introduced. I have also seen yearly in that country hundreds of natives come down from the interior pitted with small pox, disfigured until there was scarcely a spot the size of a thumb-nail on their face which was not marked by the ravages of this disease. I cannot help recalling what occurred with this epidemic of which I was a witness. We had every facility for isolation, and we adopted methods of isolation. No doubt that was instrumental to a very large extent in checking the course of this disease. But the disease was never stopped or stamped out in any quarter until we had got the whole of the native population of that particular locality vaccinated. There was one particularly interesting case, and that was the case of the Mohammedan races dwelling on the Cape Peninsula. The small-pox epidemic spread amongst them, and they died in great numbers. On religious grounds—they were conscientious objectors—they were not vaccinated. They believed it was an insult to the Deity to resort to such very human and artificial a device as vaccination. On this ground they refused to be vaccinated. But before that epidemic had run its course, when they saw the protective value of vaccination amongst the natives who were vaccinated, and among the few Mohammedans who were gradually persuaded into being vaccinated, Mohammedans came to the public vaccinators and prayed that they also might be afforded this protection, and so were vaccinated. I will give now one more experience later when I was on a scientific errand to Berlin. I had one or two interviews with Count von Porsodowski, who was then Minister in the German Empire, holding a position corresponding to the office of our Home Secretary. He was very interested in the public health legislation and practice of this country. He remarked to me: "You have very weak laws with regard to vaccination in your country." I replied: "Yes, I fear we have." He responded: "To us Germans it is a matter of great surprise that you gave the world vaccination and yet you keep small-pox." (An Hon Member: How much?) How much? 2,500 deaths in 1902. But I will come to that presently. What are the German statutes and what has been the German practice in the matter of this disease? Germany has a law which enjoins vaccination and revaccination, and they have practically stamped out small-pox in their country. I should like, however, briefly to refer to figures taken over a period of ten years—and I might quite well extend the comparison further—as to the deaths from small-pox in the German Empire and in the United Kingdom. I have here the total deaths from small-pox in the German Empire for the years 1898–1908 inclusive; that is a period of ten years. The population of the German Empire in 1908 was over 62,000,000. During the whole of those ten years—and I might go back another five or ten years—deaths from small pox out of that enormous population never in any one of those years reached the number of 100. Actually the highest number was 65 in the year 1908. What was our experience during the same decade? We had during the same decade, in different years, 600, 700, and 800 deaths out of a population of 44,000,000. In 1902 there were 2,545 deaths from small-pox in this country. I confess that until I came to study the figures I was not aware of our national disgrace in this matter. (An Hon. Member: That was before the exemptions took place) I am dealing with the broader question first of all, although, as a matter of fact, the hon. member is not quite accurate; the exemptions began in 1898, under the Conscientious Objectors Act, so he is not quite accurate. I will give one more final piece of evidence with regard to the position of affairs in Germany, because it was obtained by the Local Government Board for their own information and by one of their own officials, Dr. Bruce Low. In his report he says in Germany practically no steps are taken for providing hospitals such as we have here for the accommodation of small-pox patients. In London there are hospitals with sufficient bed accommodation for 2,000 or 3,000 patients. In the whole of Berlin they rely upon a dozen beds in a pavilion off one of the general hospitals, because they rely with absolute confidence

upon their measures of vaccination and revaccination. I do not think I need labour this point any further—the effect of vaccination and revaccination as a prevention of small-pox is that it reduces small-pox almost to a negligible quantity. I think that is sufficiently demonstrated by what I have adduced to the satisfaction of any ordinary rational being. Why is it, then, that such a prejudice has arisen, as I admit has risen in this country against it? There was a period when arm-to-arm vaccination was in vogue, a certain number of cases of septic arms arose, which did cause disease and even a few deaths, and which in certain quarters gave rise to a certain amount of prejudice against the whole practice; but that period has gone by. We have learnt our lesson in these things, and to day the application of calf lymph supplied by the Local Government Board is accompanied with a minimum of risk, which is infinitesimal when compared with the risk of small-pox which an unvaccinated person runs in this country, and still more if he goes abroad, along the Mediterranean or to any places on the African coast. This is a national question in which we are all deeply interested, and I am not endeavouring to make any party capital out of it. It is a national question in which we are all interested, and I cannot help looking forward to the national welfare in this country with some anxiety. It may be argued that, with all our modern appliances for the isolation of infectious diseases, and all our public health and sanitary developments, we can afford to run the risk of allowing the population to go unvaccinated. I have thought about this question a great deal, and I have had much experience in vaccinated and unvaccinated communities, and I recognize that this is a risk which we cannot afford to run. Even supposing we succeed for a time in practically having no small-pox at all, it is always liable to be imported. Cases may arise among adolescents or adults, and if you could ensure the cases being taken forthwith to some place and isolated, then there would be a strong prima facie case for the other view which is held upon this question. But you cannot rely upon your present system. Mistakes in diagnosis have arisen, and they always will arise. I can assure hon. members that it is not such a simple thing at the first blush to determine whether a case is small-pox or chicken-pox. Many of our doctors have had very few opportunities of ever seeing small-pox, and, therefore, they are not too familiar with it. You cannot rely upon the fact that no mistakes will be made, and you cannot rely upon this disease being brought to the notice of the health authorities the moment it arises. The danger is very much increased in this way, because you now have 25 per cent. of your children unvaccinated, and that is an under-estimate rather than an over-estimate. You have an increasing number of unvaccinated children in this country. The time will come when these infants will become adolescents and adults, and the danger of an epidemic amongst the community will be greater in that case than when it occurs in the case of children taken ill at home. When an adolescent or an adult going to his daily work contracts this disease there is a good chance of his continuing at his work and infecting, perhaps, another twelve or twenty people before the disease is noticed. What is the remedy which we can, as reasonable and moderate politicians and members of this House, with some sense of public responsibility, urge upon the Local Government Board? I am not going to propose the re-enactment of compulsory vaccination. That may or may not be expedient, and the time may come when, through a national disaster, we may be compelled to resort to it again. I sincerely hope that time will not come. As a matter of practical politics I do not suggest the re-enactment of compulsory vaccination. What I ask is, Are we, under the existing conditions and under the existing law, doing our best in the matter? Compulsory vaccination is practically gone, but it should be borne in mind that the State still interferes in this matter, and still keeps up a staff of vaccination officers and public vaccinators, supplies lymph, and sends certain forms notifying parents that their children, if not vaccinated, may be vaccinated. It amounts to little more than that, and that is the point on which I desire to criticize this portion of our public health administration at the present time. After the registration of a child, the parent is furnished with what is known as Certificate A, calling his attention to the fact that the child must either be vaccinated and a certificate furnished to that effect, or a certificate of conscientious objection furnished. It is with regard to these forms I desire to enter a respectful protest. Take the last form which is sent to the child's parent. It is not long, and I will read it:

> I hereby give you notice that on a certain day your child will be 4 months old, and that, unless within seven days from that date I shall have received from you or from the public vaccinator a certificate of the successful vaccination of the said child, or a statutory declaration made under Section 1 of the Vaccination Act, 1907, within four months of the birth of the said child or some other legal excuse for the non-vaccination of the child, it will be my duty to notify the case to the public vaccinator, who will then in due course visit the child's home and offer to vaccinate the child.

And so on. This is going too far. We have had the conscientious objector going before a magistrate and explaining he has a conscientious objection to vaccination, and with some difficulty obtaining a certificate of exemption; now exemption is made not only extremely simple, but is so brought before the notice of the average working-class householder as to lead him to suppose vaccination is really a perfectly superfluous operation, and that it is merely a choice between one bit of paper and another. What happens? The mother of the child turns to her neighbour and says, "What did you do?" She says, "Oh, I got the other certificate, the certificate of exemption." "How is the baby?" "He is going strong; he has not had small-pox." "Then I shall follow the same plan." I can quite understand that appealing to the lady householder with several children, but it does not meet the case. There is a danger which is concealed from these people. Hon. members who are candid cannot deny that this danger still lurks and exists, and will become an increasing danger as you get an increasingly unvaccinated community, because it is the vaccinated community which confers a certain degree of protection on the unvaccinated community by making the spread of small-pox less liable to occur than it otherwise would be. It is the policy of the State to interfere in this matter. Let our interference be a rational and intelligent one, and to make it that I venture to think—and the opinion is held by a large number of medical officers of health—we should, with the first certificate sent to the parents, also send a circular pointing out in moderate terms the value of vaccination as a means of protection against small-pox, and the fact that, after many years of apparent quiescence, small-pox has once more appeared in this country, and already cost several lives, advising parents to take advantage of the facilities afforded them, and reassuring them further about the dangers with regard to lymph in so far as it is most carefully obtained and provided by the Local Government Board. Some circular in these terms would be converting an irrational into a rational procedure.

Mr. Guinness supported the contentions of Dr. Hillier, and urged that more should be done by the Local Government Board to incline people to have their children vaccinated. He referred to the experience of Prussia, and when interrupted by Mr. Chancellor as to the good results being due to sanitation, pointed out that other infectious diseases, such as measles and chicken-pox, chiefly found in children, ought to have decreased in the same degree as small-pox if the improvement in the case of that disease was due to improved sanitation.

Mr. Burns followed, and said: The hon. member (Dr. Hillier) paid the Local Government Board a well-deserved compliment for the administration of several branches of public health. I think he might have gone further, and said that in no country in the world had there been such a reduction in the general death rate, in the diminution of infant mortality, and in the abatement of the scourge of tuberculosis,

typhus, typhoid, and many other diseases. I am very much obliged to a medical man paying a compliment to our department which could be confirmed by facts and figures. But he descended from the general, which was complimentary, to the invidious and particular, which was not quite so complimentary, and he tried to prove that the eulogy which was due to the Local Government Board in the combating of other diseases was not equally due in the combating of small-pox, and I failed to catch any statistical justification for that difference in the treatment of small-pox and the other diseases to which he might properly have referred in his previous remarks. My hon. friend, with the ingenuity of his distinguished profession, took us to India, South Africa, and the Malay Peninsula.

Dr. Hillier: I am sorry if I did not make myself clear. I was referring to Indian subjects in South Africa and not in India, and to the Hindu population of the Malay Peninsula, who are Mohammedans.

Mr. Burns: The hon. gentleman was giving English application to his observations. He was trying to make our flesh creep by illustrations and by facts and figures which did not and could not apply to sanitary conditions and the social circumstances that prevail in this country at present. I propose very briefly to inform the hon. member and the House that I decline to allow my flesh to creep in presence of the statement made by the hon. member. The epidemic which the hon. gentleman referred to as justifying his criticism of the administration of the Vaccination Acts in this country is after all not the serious thing which one would judge from the general tone of his speech. The facts are these: We have had in the East End of London 58 cases of small-pox; of these, 42 were vaccinated and 2 died; there were 16 unvaccinated and 7 died. I decline to deduce anything from these figures either for or against vaccination from a small epidemic of this kind. I decline to deduce anything like the panic suggestion underlying but not brought to the surface of the hon. member's speech to the extent which I would have expected. I am going to leave the facts in simple proportion as I have stated them. Until we get complete and final figures in regard to ages, the incidence of the disease, revaccinations, and so forth, I think it would be premature and unfair to either side in this controversy to do other than state the simple facts. But if I were not a Minister I would retort on these simple facts that I doubt if we would have had a single death, vaccinated or unvaccinated, had it not been that there was a misdiagnosis of a case of small-pox as chicken-pox. Those who run may read, and they may deduce from that whatever they like. I am not at all alarmed by the comparison made with Germany. My hon. friend made a very fair point, if he will allow me to say so, when he referred to the statement of the German who said to him: "Britain has given the world vaccination and kept small-pox." That is a statement of a broad and sweeping kind that has got to be qualified by existing facts. What are the facts? The hon. member must not go back into history and select the purple patches to support his line of argument. I entertain the respect for figures tempered by fact which every responsible man ought to have. Just in proportion as in recent years exemptions have gone up from 4 per cent. to 30 per cent. so deaths from small-pox have declined. I am not going to make the mistake which was made twenty years ago. Twenty years ago a gentleman in a public place pointed grandiloquently to a series of diagrams, which were all wrong, and said to me: "I ask the hon. member to remember that figures never lie." My retort, and it was effective for the moment, was, "No, but liars sometimes figure."

Dr. Hillier: I do not know whether the right hon. gentleman means that reply for me.

Mr. Burns: No. The occasion referred to was at a meeting of the Statistical Society, and the person in question was a member of the other House, and my view of his remarks on that particular occasion would be shared by the hon. member had he been there. There is no member in this House to whom I would be less willing to apply such a remark than to the hon. member who has spoken this afternoon. The facts are these—I am right in giving these figures with regard to London: During the time that I have had the honour of being at the Local Government Board the following have been the deaths from small-pox in a city of 4,500,000 inhabitants: 1906 no death; 1907 no death; 1908 no death; 1909 two deaths; 1910 no death; so that in five years there have only been two deaths from small-pox in a city of 4,500,000 of people. Not even Germany or Berlin can transcend those figures by the increasing cleanliness, increasing sobriety, and greater attention paid both by the community and individuals to removing all causes of small-pox, and nearly every other disease.

Dr. Hillier: Measles?

Mr. Burns: The hon. member is trying to get me off the rails of small-pox by talking about measles. Even there I decline to be moved, because in the last six months, when lots of people have been panic-stricken about rat plague, Asiatic plague, small-pox, and measles in London, the Local Government Board stuck to its job. We have hunted measles like sleuth-hounds. The result is a general decrease. My hon. friend suggests that we should in some respects alter Form Q.

Dr. Hillier: Certificate A.

Mr. Burns: But my hon. friend said he would not propose any re-enactment of compulsory vaccination. If he is consistent and logical he ought to do so. He said it would not be practical politics. Then he asked under the existing law were we doing our best to combat small-pox? The figures I have adduced with regard to London—and similar figures can be adduced with regard to England and Wales—have proved that we are. The other suggestion is that we have given a definite indication to parents to exempt themselves by our circular of January 28th, 1910. I would like to meet my hon. friend the member from one of the Suffolk divisions (Mr. Walter Guinness) during the Easter holidays, and we would not want a very large microscope to see how far we have altered the form.

Mr. Guinness: I meant to make it clear that you have altered the form that was covered by the circular.

Mr. Burns: These things are never made clear when a Government Department is being attacked. The clearness comes from interpolation, but it does not improve matters so far as the actual facts are concerned. The only thing we have done is this: The law was altered because a certain misapprehension had to be removed, and the circular of January 28th, 1910, was simply to point out that the exemption declaration must be made within four months of the birth of the child under the law as it now is, as against the old instruction and old form that it was to be made within four months and seven days, to obtain the certificate of exemption. That is the only thing the Government has done, and it is the only justification for the criticism to which we have been subjected. We have practically adhered, with the exception of providing for four months as against four months and seven days, to the prescribed forms that were left to us as a heritage of vaccination legislation by the protagonist of prophylactics, the right hon. member for Wimbledon (Mr. Henry Chaplin), who was my predecessor some years ago in this office. Beyond adopting the circular and form—a simple change under the law—nothing has been done, and it is a fact that exemptions have not increased through an alteration of the law or through exemptions. Mortality has diminished. I draw no inference from that fact, but for the first time in the four years since the Act was altered, and not until now, have we heard the policy of the Local Government Board adversely criticized in regard to the administration of this particular code of sanitary laws. After the simple explanation I have given as to the reason why the instruction was altered in January, 1910, and the new Form Q was adapted to the change of the law in 1907, it seems to me that I have nothing further to add except that I cannot accept the hon. member's suggestion that we should supply on Form Q or any other form a few

simple and elementary statistics on the subject of vaccination. I have been twenty years a member of this House, and if there is one subject on which I shall be disinclined to quote statistics from any source or any section, it is on the thorny subject of vaccination. Instead of listening to the suggestion of the hon. gentleman, with all respect, it seems to me that what we have to do, as the Public Health Department, is to hunt disease of all kinds and descriptions, in every shape and form, and with all the means at our disposal. We have achieved such success as to warrant the compliment, generous and full, which my hon. friend paid to me and my department. Instead of directing my energies in the direction suggested, I may perhaps be allowed to go on with the work, devoting to it my brains; and if it be continued, I believe that it will well deserve at the end of two or three years hence even greater credit than has been given this afternoon. I believe that all this fear and panic, all this talk about plague and small-pox, is due to misconception and misapprehension of social facts. These diseases are in a very different position from what they were in ten, twenty, thirty, or forty years ago, and it is a creditable and happy circumstance that I, as Minister of Health for England and Wales, am enabled to state that in regard to the administration of public health, no other country is comparable to ours, and I am pleased to have heard such hearty recognition of our efforts from the different speakers this afternoon.

Mr. H. W. Forster supported the position taken up by Dr. Hillier, and said that the steps about exemption orders had been taken so recently by the Local Government Board that there had been no time to procure statistical evidence as to their effect. It was the growth of the exemptions that was alarming. As to the Prussian case he was able to quote figures. The year before 1874 there were 95 deaths per million, the year before that 357, the year before that 2,624, the year before that 2,432, and so on. After 1874 there were 36 deaths per million, then year by year 31, 3, 7, 13, 26, 36, 20, 14, 14, 5, 5, 3, 5, 1, 1, 3, 4, 3, 8. He thought those figures were not unfavourable for comparison with the figures quoted as regards London. They bore out the contention that a vast improvement occurred after the passage of the Prussian law. He would also quote the report of the Metropolitan Asylums Board on the epidemic of 1870–72, which showed that out of nearly 15,000 cases there were only 4 cases of small-pox among the revaccinated. He thought it was idle to deny the value of vaccination, and he strongly urged the value of issuing with Certificate A some notice directing the attention of parents to the true value of vaccination.

Dr. Chapple, who spoke next, said: I should like to congratulate the hon. gentleman who introduced this question upon the wisdom, moderation, and scientific precision with which he analysed the facts. Small-pox is bound to die out, and it may die earlier by improved sanitation, which sweeps away germs on the one hand and protects the individual on the other, or it may die out by acquired immunity in the individual or by acquired immunity in the race. But there can be no doubt whatever of the efficacy of vaccination as a preventive. The facts are proved up to the hilt that if there was a distribution of germs in this Chamber, or a prospect of such, there is not a member who examined the facts but would hurry off to be vaccinated. There are some people who are foolhardy enough to run that risk, but it is impossible to go into the facts, which have been accumulated for generations, and to deny the efficiency of vaccination as a preventive against small-pox. The only question is: Have we arrived at such a degree of sanitation that we can afford to dispense with that preventive? If it is possible to have your slums so clarified, and your drainage so well done, and the general well-being of your community so efficient as to provide a fighting force sufficient to enable you to run the risk of dispensing with an effective remedy such as vaccination, well and good. The problem to-day is not whether vaccination is effective. That matter is removed beyond the region of disputation, and those who examine the facts cannot possibly come to any other conclusion than that vaccination is so effective that it would be the moral duty of every father of a child to see it protected from the danger of small-pox, if that danger was in its vicinity, and that it would be the duty of the State to ignore the claim of the conscientious objector and to say it could not allow an individual to be a centre of infection and of danger and of epidemic to the whole community. The facts are so clear that the only conclusion we can come to is that if the sanitary conditions are such as to reduce the danger and to ensure the absence of germs, the time will come when we can dispense with vaccination altogether. The question is, has that time arrived? No one can go through the slums of this great city and conclude that that time has arrived. The danger exists to-day in great centres like London and Glasgow, and conditions prevail which would make an epidemic of small-pox an alarming affair. The right hon. gentleman trusts to sanitary provisions to keep the germs of small-pox out. This is a very difficult task when we have such an enormous congestion of population in our slums, which must become infected centres if the germs of small-pox gain access. We are resting in a fool's paradise in this matter, because by isolation and other favourable conditions there has been no introduction of the germs. If infection started in London it would be the duty of the Local Government Board to insist upon vaccination as a preventive to small-pox. I am prepared for the time to arrive when vaccination can be dispensed with, but the time has not yet arrived when we can allow this important weapon in our attack upon zymotic diseases to be laid aside. The subject then dropped.

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### The Teaching of Hygiene in Elementary Schools.

Dr. Addison introduced under the ten minutes rule his bill "to require that in public elementary schools instruction shall be given in hygiene, and to girls in the care and feeding of infants." He said that it was in no sense a party measure. More than 200 members of the House on all sides had signified their approval of it. The bill provided that simple instruction should be given in all public elementary schools in hygiene, and to girls as to the feeding of infants. Since the introduction of this bill last year two very important official publications had appeared upon this subject. One was from the principal medical officer of the Local Government Board on child mortality, and showed that the provision of this instruction in a proper manner would greatly prevent the waste which provides so much material for the Poor Law in this country, and the result of which they were endeavouring vainly to mitigate by various schemes brought before the House. The report of the chief medical officer of the Board of Education showed, he thought, some glimpses of the firstfruits of this natural tragedy. Of late years there had been a very considerable quickening of the public conscience in this matter, and, owing to the efforts of various associations and the voluntary work of school teachers and public authorities, there had been a remarkable diminution in infant mortality in this country. Nevertheless two years ago we found one child in every three in this country died under the age of 5 years, and one died out of every five of children less than twelve months. In this country 150,000 children under the age of 5 died every year. There were many causes which were closely interwoven. There was overcrowded rooms, bad sanitation, mercantile employment, and many others, but he did not hesitate to say at least 50,000 children died in this country yearly as a direct or indirect consequence of parental ignorance. He would give the House one illustration. In the fifteen large Lancashire towns, with a population of 3,000,000, he found in the record of the Registrar-General that for the summer quarter of last year the death-rate was 30 per cent. higher than in London, mainly due to infant mortality. Infant death-rate was three times higher than in London, particularly owing to infantile diarrhoea, presumably due to

causes attributable to parental ignorance. In Burnley, which had an unenviable reputation, 201 deaths per thousand, according to the medical officer's report, were attributable to the fact that the mothers working in factories left their children in charge of ignorant persons. There were numerous quotations which he could make from the report presented by the Local Government Board, which stated in explicit terms that we should make no real progress in this matter until we began our education at an early period of life. It was not the fault of the persons and young people in whose charge children and infants were left that they knew no better than to give them improper food as a substitute for milk; they inherited the ignorance and prejudice of those older than themselves, and until we made an organized endeavour to remove this ignorance at that period of life when it could be removed this state of affairs would continue. It was not simply a question of the elimination of the unfit. Increased mortality prevailed at the age of about 20 in the same districts that presented a high infant death-rate. In the report of the Board of Education, it was recorded that in this country among 6 million school children, nearly 3 millions were at present suffering from bad teeth. There were 2 millions with unclean heads, and there were half a million suffering from disease of the throat, mainly preventable, which could be done away with if their parents had been instructed in early life. It was proved that hygienic instruction could be given with success, and if it could be incorporated in the code there would be no need for this bill. He urged the value of the instruction as a means of improving the health of the children and giving a better start in life to the next generation, and so lessening the suffering and misery which caused so heavy a burden on the Poor Law.

The bill is backed by Mr. Arthur Allen, Mr. Charles Bathurst, Mr. Butcher, Mr. Fenwick, Mr. Munro Ferguson, Mr. James Hope, Mr. Arthur Henderson, Sir Joseph Larmor, Mr. Chiozza Money, Mr. F. E. Smith, and Mr. Eugene Wason. The second reading was put down for April 20th.

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**Trachoma.**—On the motion for the Easter adjournment, Mr. Rowland Hunt called attention to the prevalence of trachoma, which he said was due to the alien immigrants who came to this country affected with the disease. He urged a more strict administration of the Aliens Act, with a special view to prevent the admission of persons suffering with trachoma.

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**Plague in India.**—Mr. Keir Hardie asked the Under Secretary last week to state the sum budgeted for by the Government of India for dealing with the plague. Mr. Montagu replied that provision for plague expenditure and for other sanitary and medical charges was made in the Indian Estimates under the head "Medical," for which a sum of £1,301,600 had been allotted. He was unable to give the estimate for plague expenditure separately. In addition to the provision made in the public accounts, considerable sums were expended on account of plague by district boards and municipalities. In 1908–9 recurring grants aggregating £200,000 a year were made to the provincial Governments by the Government of India for expenditure on sanitary improvements, with special reference to the prevention of plague. And in 1910–11 non-recurring grants aggregating £380,000 were made for the same purpose. Asked further whether sanitary houses could not be erected to replace plague-infected huts, Mr. Montagu said that the increased prevalence of plague in certain parts of India at the present time of the year was believed to be due to the fact that this was the season of greatest prevalence of rats and rat fleas. It was a well-recognized measure of precaution that on the first sign of the presence of plague the residents should evacuate their dwellings. The Government and the local authorities encouraged and assisted them to do this by the supply of tents and hutting materials, by erecting temporary dwellings, by providing guards for the vacated houses, and by money rewards. Expenditure on this account was included in the grants mentioned in the answer to the previous question. Special grants had also been made to local Governments by the Government of India for the purpose of improving general sanitary conditions, including the housing accommodation of the population.

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**Plague Infection (India).**—Mr. Keir Hardie last week asked a question as to the spread of plague from infected soil, and what steps were being taken to remove people from infected spots. Mr. Montagu replied that exhaustive inquiry had shown that the plague bacillus did not live in the soil. It speedily died outside the bodies of men or other animals. It was not, therefore, thought necessary to invite the people to submit themselves to the inconvenience of evacuating their houses unless the disease was present or was imminent in a locality. Asked whether it was not a fact that the authorities did remove people on account of infected soil, he replied, No. As he understood—it was a very difficult and complicated matter—the theory of soil infection had been abandoned as a result of scientific investigation. People were removed from infected localities when rats which were likely to carry infection were present in the localities.

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**Bleaching Flour and Local Government Board Reports.**—In answer to several questions, Mr. Burns has stated that the subject of flour adulteration was receiving his attention, but as the inspectors' reports had only just been issued some time must be allowed for their consideration. He thought the alarm created by the reports had been exaggerated; the Board had in preparation a third report on the nutritive value of various kinds of flour.

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**Appendicitis and Impure Bread.**—In reply to Mr. Charles Bathurst, who asked a question referring to Dr. Hamill's report on the constitution of baking powders and self-raising flour, Mr. Burns replied that present knowledge did not, as he was advised, enable a statement to be made as to whether food containing insoluble mineral matters, such as calcium sulphate, might be responsible for the production of appendicitis or of other intestinal disorders.

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**Royal Naval Colleges and Infectious Disease.**—Mr. Arnold Ward asked the First Lord of the Admiralty how many cadets at Dartmouth had suffered from infectious illnesses during the past term; how many cadets had suffered from more than one illness; and how many cadets had contracted a second illness in the sick quarters. Dr. Macnamara: The reply to the first part of the question is 242; to the second part, 30; and to the third part, 6. In answer to a further question as to the provision made for isolating cases of infectious illness, Dr. Macnamara said that at Dartmouth there were two separate blocks in the hospital containing four entirely isolated floors, each floor capable of accommodating 16 to 20 cases. Suspected cases and cases awaiting diagnosis were isolated in small, separate rooms. At Osborne, as soon as any possibility of an infectious case came under observation it was at once placed in one of the isolation rooms attached to the college sick quarters. If the case proved to be infectious, it was transferred by ambulance at once to the infectious hospital. The isolation room was at once disinfected. At the infectious hospital there were four separate ward blocks, each taking about 20 patients, in which different infectious diseases could be separated. Attached to each block there was also a single isolation room which was used for observation of separate cases. He understood that these precautions were in excess of the practice which obtained in the public schools of this country.

**Tuberculosis Commission Report.**—In reply to Mr. Charles Bathurst, Mr. Burns said that he understood that the final report of this Commission would be issued early in May, and that the appendices would follow soon afterwards. All experimental work finished over six months ago, and the Commission had been occupied since in drafting the report.

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**Withington Workhouse Infirmary.**—In reply to Dr. Addison, the President of the Local Government Board said that he was aware of the conditions existing at the Withington Workhouse Infirmary, and he had seen a newspaper report giving particulars respecting overcrowding, and a high rate of mortality among the children. The statements contained in this report were, he was informed by the inspector, in several respects not quite accurate. The number of children in the infirmary had increased more rapidly than could have been anticipated, but he understood that efforts were being made by the guardians to cope with the difficulty. Two new blocks for the infirm were almost ready to be opened, and an arrangement had been made with the Prestwich guardians to utilize some of the accommodation which that body could spare in their new infirmary. It was anticipated that these arrangements would provide a small margin, but the matter would continue to have his attention.

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**Vaccination of an Exempted Child.**—Mr. Lansbury questioned Mr. Burns last week as to the vaccination of the child of a conscientious objector who had obtained a certificate of exemption. Mr. Burns stated that the child was supposed to be suffering from small-pox, and was sent to South Wharf on March 9th. The medical officer there, having some doubt whether the diagnosis was correct, but realizing that the boy had been exposed to the infection of small-pox, took the responsibility of vaccinating him. The nurse who removed the case to the South Wharf informed the doctor that the father did not want the boy to be vaccinated, bnt no other protest was, as he understood, made. While there was a doubt as to the diagnosis the patient could not be safely returned home, and he was, therefore, sent to Joyce Green, where he remained till March 25th, when he was discharged.

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**Conscientious Objectors in Sheffield.**—Mr. J. H. Lewis has stated, in answer to Mr. Samuel Roberts, that he was unable to give the numbers of statutory declarations of conscientious objection to vaccination made in the city of Sheffield, but the figures for the two Poor Law unions of Ecclesall Bierlow and Sheffield, which included the city, and to which the city contributed about 96 per cent. of the population, were as follows:

| | Declarations. | Percentage of Declarations to Births. |
|---|---|---|
| 1908 ... ... | 1,047 | 7.1 |
| 1909 ... ... | 1,537 | 11.1 |
| 1910 ... ... | 2,026 | 15.3 |

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**Vaccination.**—In reply to Mr. Ramsay Macdonald Mr. Burns said that he found that the vaccination officer for the Croydon Union had stamped some forms with the words, "Small-pox in London: many deaths." This was not done with the cognizance or approval of the Local Government Board. He was informing the officer that his procedure was improper, and that the prescribed forms must not be tampered with in future.

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**Lead Poisoning.**—Mr. Hills asked the Home Secretary whether he was aware that 15 cases of lead poisoning occurred in the china and earthenware trade in the first two months of 1911, against 8 in the same period of 1910; whether the report of the principal chemist of the Government Laboratory for 1910 called attention to the fact that samples of glaze taken from works where lead poisoning occurred contained lead oxide in proportions varying from 12.6 to 47.5 per cent.; and what action he intended to take. Mr. Churchill said that the increase in the number of reported cases coincided with increased activity in the trade; the results of the analyses referred to (which were undertaken by the Government Laboratory for the Home Office), and the whole question had been the subject of an exhaustive inquiry by a representative committee, and he was proposing to take steps to give effect to their recommendations.

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**The Port Sanitary Authorities Expenses Bill,** presented by Mr. Ferens, proposes "to legalize the payment of a subscription to the funds of the Association of Port Sanitary Authorities or the Council thereof." The Bill is supported by Mr. Byles, Sir William Howell Davies, Sir George Doughty, Mr. Fell, Mr. Fenwick, Mr. Hudson, Mr. Shortt, Sir Luke White, Mr. Guy Wilson, Mr. John Wilson, and Mr. Stanley Wilson. It was put down to be read a second time upon Wednesday, April 19th.

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**Shuttle-Kissing in Cotton Mills.**—In answer to Major Stanley, Mr. Churchill stated that inquiry was now being made by the Factory Department, in conjunction with a medical officer of the Local Government Board, into the practice of shuttle-kissing, its effects on the health of the workers, and the possibility of adopting some arrangement which would render the practice unnecessary. He could not say at present when the inquiry, which had only just commenced, would be concluded.

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**Tinned Meats.**—Mr. Crumley asked whether tinned or preserved meats coming from foreign countries for the supply of the British army, navy, and the general public were subject to inspection to test their qualities as human food; and whether there was any guarantee given by the contractors that horseflesh was not used in the production of such meats coming from abroad. Mr. Burns replied that full power to inspect meat coming from abroad was contained in the regulations which had been made under the Public Health (Regulations as to Food) Act, 1907. He had no information as to the terms of contracts made by importers, and contracts for the supply of provisions to the army and navy were not dealt with by the Local Government Board.

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**Meat Extracts.**—In reply to a question by Mr. Crumley, Mr. Burns said that he was unable to give the names of the firms in Great Britain engaged in making meat extracts. So far as he was aware, these meat extracts were not prepared from meat in this country. Inspectors from his department did not inspect the factories. Under the Public Health Acts, the duty of inspecting articles of food intended for sale for human consumption rested on the local authority. He was not aware whether any register was kept of the number of animals slaughtered for the production of meat extracts and of the number of carcases used in their manufacture.

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**Chinese Pork.**—On Monday Mr. Fell made inquiries as to the districts from which Chinese pork came with reference to the existence of plague in those districts. Mr. Burns said, according to the information which he had received, the pigs were obtained from that part of the Yangtse Valley from which most of the pigs had hitherto been derived. No plague had been reported from this part of China during the present epidemic. The most recent Consular report was that which was presented in August last. He added that he was hopeful of being able to send one of the Local Government Board doctors, who is at present in China, to the place where the pigs were bred, and where this pork was prepared. To his knowledge there was no foot and mouth disease in the district of origin of the pork, and it was only fair to state that there was no plague nearer than 800 to 1,200 miles.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## APPOINTMENT OF INSPECTOR OF LUNATICS.

THE Lord Lieutenant has appointed Dr. W. R. Dawson, M.D.Dubl., F.R.C.P.Irel., to be an inspector of lunatics in Ireland "to fill an impending vacancy." Dr. Dawson, who received his M.D. degree in 1891 and has served a term of office as Censor of the College of Physicians, was awarded the Stewart Scholarship in Mental Diseases in 1895 and also the Medical Travelling Prize. He is at present medical superintendent of the Farnham House and Maryville Private Hospital for Mental Diseases and an Examiner in Mental Diseases in the University of Dublin. Under the Royal Commission on the Feeble-minded he held the position of medical investigator, and he was at one time assistant physician of the Royal Edinburgh Asylum. He has also contributed extensively, mostly on the subject of mental diseases, to the medical journals. As there are only two inspectors of lunatics for the whole of Ireland, the Government has shown wisdom in continuing the custom of appointing a medical man, in spite of the agitation started in Cork and Blackrock with a view to securing that in the one case the inspector should be a layman and in the other a woman. If there were a board of half a dozen or more there would be good reason for having one or two lay members, and also perhaps a woman among the number, as inspectors of lunatics, like superintendents of asylums, have many other than purely medical functions to perform; still, these are all subordinate and auxiliary to the personal care of the insane, and it cannot be said that two medical men are too many to inspect all the lunatics in Ireland. In certain quarters, however, the selection made is resented, as is evidenced by a letter from the secretary of the Poor Law Association of Ireland to the *Irish Times*, which runs as follows:

It strikes me as significant that two recent appointments made by the Lord Lieutenant—this one now chronicled and that of the present Registrar-General (Sir William Thompson)—are appointments which flavour of a prominent connexion with promotion of the Women's National Health Association crusade. The significance is more striking when we know how much the success of the efforts of the same association are dependent on the help and co-operation of the Poor Law medical gentlemen throughout the dispensary districts of Ireland. Apart altogether from the official injustice to the Poor Law service of which I have written, there are larger interests at stake, when one considers what a knowledge of practical administration means in a gentleman promoted to such a position as Inspector of Lunatics as compared with a gentleman who has had no such training. The former brings experience to bear in his inspectorial capacity; the latter must only experiment in order to become efficient, and experiments are oftentimes the opposite of pleasant to those who have to feel them or their cost. The gentleman who has been appointed may have a practical knowledge of local administration, etc.; but so far as I have followed up the working of the various Acts, I have never before heard of his name in connexion with either the Poor Law or the asylum boards, and I contend it is a practical knowledge of the working of these Acts, and proved efficiency, which should have been the recommendations to such an appointment.

## DUBLIN HOSPITALS TUBERCULOSIS COMMITTEE.

The reports submitted at the third annual meeting of the above committee on April 12th, Sir John Moore in the chair, showed that the Samaritan Committee had spent during the year £93 15s. as follows: 186 families received nourishment (eggs, milk, meat, meal, etc); 176 patients received shoes, clothes, bedding, etc.; 14 families had rent paid for them while the bread winner was at Newcastle or in one of the Dublin Union hospitals; 91 children of parents suffering from tuberculosis were sent to the country through the Fresh Air Fund; 1 child was boarded out while the mother was in hospital; 6 children were sent to schools or institutions after parents' death; 1 patient was sent to Newcastle, and the sum of £3 17s. paid in advance for ten weeks. The reports of the work done by the three tuberculosis nurses in Dublin showed that 394 patients were attended by them during the year (as contrasted with 362 during the previous year) and a total of 6,845 visits paid. The report on the inspection of their work by the Queen Victoria's Jubilee Institute for Nurses reads as follows:

The preventive and humane work of the tuberculosis nurses working under the Women's National Health Association in Dublin is being successfully carried on. It is quiet and far-reaching, and the new development of the tuberculosis classes, which were started in December of last year, will be a decided factor in helping to reduce the death-rate from this disease in the future.

## IRISH FREEMASONS.

The Duke of Abercorn, K.G., Grand Master of the Ancient Order of Free and Accepted Masons of Ireland, has appointed Sir Charles A. Cameron, C.B., M.D., as his Deputy in the place of Sir James Creed Meredith, who has resigned owing to ill-health. Sir Charles is a Past Grand Senior Deacon of the Grand Lodge of Ireland, a Past High Priest of the Grand Chapter of Ireland, and for some years past has held office of Deputy to the Duke of Connaught, Grand Master of the Order of the Temple, Ireland. He is also Grand Chancellor of the Supreme Council, 33rd Degree for Ireland, and a Representative of a Foreign Grand Lodge.

## ANTIVACCINATION TROUBLES.

For the past two years the Enniscorthy Board of Guardians has persistently declined to issue notices or institute any proceedings under the Vaccination Acts, with the result that there are now 1,400 defaulters in the union, of whom almost 600 are in the town of Enniscorthy. Dr. McCormack, the newly-appointed medical inspector of the Local Government Board, recently visited the district in connexion with the matter, and informed the clerk of the union that unless the guardians enforced the law the Local Government Board would either dissolve the board or apply for a *mandamus*, the cost of which would be borne by the guardians individually, as it could not be defrayed out of the rates. It was further pointed out that this would be the last chance that the guardians would be given to enforce the law. Notwithstanding these threats the guardians, by 27 votes to 6, have again declined to enforce vaccination. The next move of the Local Government Board is awaited with interest. The action of the guardians seems to be popular.

At the Carrickmacross Board of Guardians meeting last week over seventy vaccination defaulters were reported by the three medical officers in their respective districts, but the case on which most interest hinged was that of Mr. J. Burke, Excise officer, Carrickmacross, who had previously been excused by the guardians on the grounds of conscientious objection to vaccination; this decision was subsequently nullified by the Local Government Board, which expressed the opinion that the guardians had no option in the matter but to prosecute. A long letter was read from Mr. Burke, and another from Mr. Thomas Cleary, a prominent antivaccinator in co. Wexford. It was suggested that if it was a poor man's child the guardians would have prosecuted long ago. After a noisy scene and amidst some stormy exchanges a poll was taken, and it was agreed by 11 votes to 5 to consider the whole matter on that day fortnight.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## GIFT TO ELGIN HOSPITAL.

LORD MOUNT STEPHEN has decided to make Gray's Hospital, Elgin, a gift of 250 shares of the Northern Pacific Railway Company of the par value of £5,000, and paying a 7 per cent. dividend or £350 per annum, on condition that the people of Elgin contribute £5,000. This offer is in response to an appeal which has just been issued by the trustees and managers for more funds.

## THE PROPOSED ZOOLOGICAL GARDEN FOR EDINBURGH.

Dr. R. F. Scharff, of Dublin, Secretary of the Royal Zoological Society of Ireland, has visited Edinburgh, on behalf of the Zoological Society of Scotland, to

inspect the various pieces of ground suggested as sites for the Scottish Zoological Garden at Edinburgh. Dr. Scharff, who is well acquainted with the Edinburgh climate, has expressed a strong opinion that it is in no way worse, from the point of view of keeping animals in the open, than the climate of Dublin, where lions, for example, not only live in the open all the year round, but thrive and breed well.

### SANITARY AFFAIRS IN LEWIS.

The annual report of Dr. Murray, of Stornoway, as medical officer of health for Lewis, contains some interesting facts. He emphasizes the necessity for the education of the people in sanitary methods, applicable to their conditions as an essential preliminary to the carrying out of reforms on a large scale. In this connexion he states that since he was appointed to the combined offices of district medical officer of health and school medical officer, he has, in the majority of schools visited, given a Gaelic lecture to the parents and others on the "Prevention of Consumption and the Care of School Children." A hopeful feature of these lectures was that in all the districts visited the women attended in large numbers, and in the case of the senior pupils, who were also encouraged to attend, the salient points were further impressed on the memory by setting the subject of the lecture afterwards as a composition exercise in school. The object in view is to create a "divine discontent" with the present condition of things. Reforms will then follow. Reference is made to the almost phenomenal growth of the tweed-making industry in recent years. In some districts nearly every woman is employed. This necessitates almost constant work inside the houses, often until the small hours of the morning, and there is reason to fear, Dr. Murray remarks, that the health of the women will by and by show deterioration owing to the curtailment of work in the open air. It is pointed out that the closing of schools in most cases fails to prevent the spread of measles or whooping-cough, as the children meet and play at each others' houses, and under conditions more likely to spread infection than at school. The "railiach" (marriage contract) is a fruitful source of infection, as it is a favourite resort for young people. But the church services, Sunday schools, and especially religious meetings in private houses, are potent factors in the spread of infectious diseases.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## LONDON.

### THE TREATMENT OF INEBRIATES.

BEFORE adjourning for the Easter recess on April 11th, the London County Council decided to appoint a deputation to urge upon the Home Secretary the need for legislation with regard to the reformatory treatment of inebriates. The Public Control Committee expressed the view that the indeterminate sentence to a reformatory was the only method of treatment suitable for the confirmed inebriate. As early as the year 1900, however, the Council had urged the unsuitability for treatment at certified reformatories of the weak-minded or "borderland" cases. Experience had proved conclusively that inebriates of the recidivist and feeble-minded type could never be fit for sustained self-dependence. Whilst under treatment at a reformatory they were well conducted, happy, and often touchingly grateful for what was being done for them; it was but a mistaken kindness if, after being restored to health and given some taste of a decent life, they were permitted to return to the misery and degradation from which they had come. The following particulars related to the first 600 cases committed to Farmfield: 19·1 per cent. doing well, 2·7 per cent. did well for a considerable period, 45.5 per cent. relapsed, 15 per cent. could not be traced, 7.7 per cent. transferred or unmanageable, 3.2 per cent. insane, 1.1 per cent. leading an immoral life, 2.7 per cent. dead, 1.5 per cent. still at the reformatory. Although these results were unsatisfactory, it should not be assumed that the Council's efforts had been entirely wasted, as the treatment of the women had been very valuable in many respects. This was shown by the improvement in the general character even of those who had been committed for more than one term of detention in a reformatory. Whilst the law remained as at present it was clearly the duty of the Council to continue to do what was possible for these people, but it would be wrong to acquiesce permanently in such a state of affairs. Although speedy legislation on the whole question dealt with by the Royal Commission seemed unlikely, the Government might be induced to deal with the comparatively small matter of the feeble-minded inebriate. It was, however, quite clear that drastic amendment of the present law was necessary if success was to attend the reformatory treatment of the inebriate. If might be argued that the experiment having been tried for a number of years and having so far failed, the public should not be put to further expense in the matter, but expenditure upon inebriate persons of the criminal and recidivist type was by no means a new or avoidable charge. When allowed the comparative freedom which enabled them to commit repeated offences inebriates were already a serious financial burden upon the community. Their conviction and incarceration cost from £20 to £30 per annum for each case. Provision should be made for the permanent retention of feeble-minded inebriates as suggested by the Royal Commission on the Care and Control of the Feeble-Minded, and the State should bear the whole cost of providing the accommodation and maintenance of all inebriates committed by the courts. The law should be amended to provide—

(*a*) For persons who appeared to be developing into habitual drunkards to be submitted to reformatory treatment at the earliest possible moment after they began drinking to excess; (*b*) for the prolonged detention of inebriates of the criminal and recidivist type who, after ample opportunity of reform, had proved to be insusceptible to reformatory influences; and (*c*) for the institution of a system of reformatory treatment for short periods of three months and upwards of inebriates when they first came within the scope of the law.

The Council approved these recommendations without debate.

### MENTALLY DEFECTIVE CHILDREN.

The Education Committee submitted proposals with regard to the report of the Royal Commission on the Care and Control of the Feeble-minded in so far as it dealt with mentally defective children. Experience gained of the working of special schools for the mentally defective was convincing as to the undesirability of withdrawing such children from public control on their attaining the age of 16 years. Legislation was urgently needed to enable the Council to make provision for children lacking in moral sense, especially elder girls, who were considered unfit for ordinary or special schools. If provision were made only for the latter, accommodation would be required immediately for at least thirty, and might have to be found eventually for 100. The cost for building would be about £150 a child, and for maintenance 10s. a week, an average contribution of 1s. being obtained from parents. The Council had permissive powers to provide institutions for mentally defective children up to the age of 16, but it had no powers to send the children to, or retain them in, such institutions against the will of their parents. Until there was legislation to enable the Council to make provision for such children at least up to the age of 21 years the Committee could not recommend any steps in that direction. It was desirable to send a deputation to the Home Secretary offering to place at his disposal the experience gained by the Council in dealing with mentally defective children in its special schools, and urging that action should be taken, provided it was made quite clear that the Council adhered to the views stated in its resolutions of December 13th last

(BRITISH MEDICAL JOURNAL, vol. ii, 1910, p. 1880), that any further duties placed on the Council in this connexion should be accompanied by an appropriate grant from the Imperial Exchequer.

On this report, the Finance Committee expressed considerable doubt whether the Education Committee had not under-estimated the number of children for whom provision would have to be made, and strongly deprecated any proposal which would have the effect of placing upon the Council, as local education authority, any further responsibility in respect of feeble-minded children, or of placing upon the Council, in any capacity, such enhanced responsibilities, except under the conditions contemplated by the Council's resolutions of December 13th, 1910—namely, the substantial provision of Exchequer contributions. The General Purposes Committee, reporting concurrently, thought that legislation with regard to persons lacking in moral sense should not be restricted, as the Education Committee suggested, to those under 21 years of age, but should cover all such persons irrespective of age. The Committee submitted the following resolution, which the Council unanimously adopted:

> That it is desirable that legislation should be promoted on the whole question of the care and control of the feeble-minded, and particularly to confer on the Council authority to make provision for persons lacking in moral sense, in accordance with the recommendations of the Royal Commission; and that the Home Secretary be asked to receive a deputation on the subject.

## MANCHESTER AND DISTRICT.

### STATE AID FOR MATERNITY.

FOR some time past there has been a strong feeling in Manchester that sooner or later there will have to be some national provision for sickness in relation to maternity. The movement received a great stimulus several years ago when Dr. T. Arthur Helme, in his presidential address to the Lancashire and Cheshire Branch of the British Medical Association, advocated a more systematic provision for maternity, pointing out how largely the health of the coming generation depended on antenatal conditions, and how impossible it was for a large proportion of the working women to make proper provision for times of childbirth, the result being an enfeebled motherhood, a high rate of morbidity among both mothers and children, and a high infant mortality. Something has been done by the Health Committees of the Manchester and Salford Corporations by their health visitors, who have as far as was practicable visited pregnant women and given advice as to food and proper care of health during pregnancy, and more particularly as to the care of the infants. This work has been supplemented by voluntary efforts, among which may be specially mentioned what is now called the School for Mothers; it is a place to which expectant mothers are invited, and where some systematic instruction in motherhood is given. An attempt has been made to extend this by appointing medical practitioners to attend the meetings, and it has even been proposed to appoint specialists to make physical examinations of the women and give advice as to their fitness or otherwise for child-bearing. It has generally been assumed that all such work by medical men should be done gratuitously, though it is strictly professional work, the excuse being that no funds are available to pay medical men. Other proposals have been made for the nationalization of the whole medical service, which it is held would be specially beneficial in the case of parturient women.

In view of the intention of the Government to introduce a scheme for sickness and invalidity insurance, the Lancashire and Yorkshire sections of the Women's Co-operative Guild recently held a meeting in the hall of the Co-operative Wholesale Society, Manchester, to discuss the needs of working women in these respects. Miss Llewelyn Davis, the general secretary, opened the discussion by urging the need for a national provision for maternity and for sickness among women. She said that the ordinary wage of from 18s. to 30s. a week was insufficient to allow an adequate sum to be saved to meet such needs, and from the want of proper provision an immense amount of privation and suffering resulted both to mothers and infants. For lack of proper attention women often suffered all their lives, and society suffered great losses by enfeebled motherhood, weakly children, and heavy infant mortality. The expenses incidental to childbirth, she said, averaged from £3 to £5, and there was need for outside assistance. The difficulties in the way of a compulsory contributive scheme included those of securing payments from husbands out of work or ill and men engaged in seasonal trades or only casually employed. Perhaps the simplest and most effective way would be by a grant in aid from the State, to be paid to the municipalities to enable them to provide doctoring and nursing in all instances in which the income was below a certain level. So far from such a scheme being demoralizing, she thought it would tend to create a feeling of greater responsibility, as the condition of public feeling would make parents more anxious to see, when there was no need to pay doctor and nurse, that proper food and clothing were provided. She concluded by moving a resolution calling the Government's attention to "the urgent necessity for making public provision for maternity and for married women's sickness and invalidity." Several speakers expressed the fear that many women would regard such outside help, whether from the State or the municipality, as a charity to be avoided, while others urged the nationalization of the entire medical service. "If it be true," one speaker said, "that every child born is worth £200 to the State, surely the State can afford to provide a mere £5." The resolution was carried unanimously, and it was directed that a copy of it be sent to the Chancellor of the Exchequer.

There can be little doubt that more provision is needed than at present exists in Manchester for this special class of cases. A very large proportion of the working women either engage the cheapest midwife they can obtain or depend on incompetent neighbours to give assistance at the time of their confinements, and an immense amount of suffering results from the want of proper medical attention. Very few of the sick clubs of the district admit women to their benefits, or if they do, it is only for other illnesses, anything connected with pregnancy or confinements being excluded except for special extra fees. The arguments used at the meeting of the Women's Co-operative Guild may be held to show the necessity for further provision for medical attendance during pregnancy and at confinements and for some time afterwards, but no satisfactory reasons were given which would justify a non-contributory scheme for these cases, nor was it shown that State sickness and invalidity insurance would be insufficient to meet all the requirements.

## BIRMINGHAM.

### HOSPITAL AMALGAMATION.

THE financial position of the Birmingham Maternity Hospital has been a continuing anxiety to the Board of Management since the opening of the institution three years ago. The hospital was opened free from debt, and although great efforts have been made to increase the ordinary annual income by subscriptions, yet in this short time the annual deficiencies have accumulated to about £2,000. The Board did not feel justified in allowing this debt to increase, and therefore approached the authorities of the Birmingham and Midland Hospital for Women to see if an amalgamation could be arranged whereby the latter hospital would take over the entire work of the lying-in charity. The Women's Hospital has consented to do this rather than that the work of the Maternity Hospital should come to an end. In 1910, 1,721 cases of confinement were attended from the Maternity Hospital in the district, and 322 cases were admitted to the hospital, while 45 pupils were trained. In order that the

Women's Hospital may be able to accomplish this additional work another £2,000 a year will have to be added to its income.

### BIRMINGHAM MEDICAL INSTITUTE.

The annual report of the Birmingham Medical Institute shows that there are 187 members. The total number of volumes in the library is 14,706, and of these 118 were added during the past year. Of the new books 47 were gifts, 17 purchases, and 54 periodicals bound. Sixty-eight periodicals are supplied to the reading room. Of these 43 are foreign and 25 British; 46 are presented and 22 purchased; 30 are regularly bound and added to the library. Portraits of Lord Ilkeston, M.D., and Dr. Wilson Fox have been presented by Mrs. Rickards. The expenditure for 1910 amounted to £496 and exceeeded the income by £12. In the library fund account there was an excess of expenditure over receipts of £18, and in the new book fund account there was a similar adverse balance of £25. By an arrangement with the Birmingham Branch of the British Medical Association the exclusive use of a room in the basement and the general use of the institute has been granted for the conduct of business in connexion with the annual meeting of the British Medical Association to be held in Birmingham in July.

## India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### THE BENGAL VETERINARY DEPARTMENT.

THE commencement of veterinary enterprise in the province of Bengal was the foundation in 1892 of the Bengal Veterinary School, which was mainly due to the persistent advocacy and effort of Dr. Kenneth Macleod. The educational arrangements then established have resulted in the provision of a skilled staff, through the agency of which information is obtained regarding the diseases—more especially the infectious diseases—of stock, measures are carried out for the prevention and limitation of epizootics, and the systematic and scientific study of the maladies of horses, cattle, and other animals has been rendered possible. The Bengal Veterinary School has now attained the status of a college, and, under the able management of Colonel Raymond, continues to increase in efficiency and utility. In addition to the duties connected with the college and associated hospital, Colonel Raymond has the charge of the research laboratory, called after him, in which work of high and useful quality is done, has the control of epizootic disease in Calcutta and its vicinity, and the general control over promotion and posting of the staff of the civil veterinary department in Bengal. The report for the year 1909–10, recently published, indicates growing success as regards the number and work of the students, for whose comfort in health and sickness additional arrangements have been made. A football and cricket ground and a gymnasium have been provided. The number of patients treated in the hospital has been larger, and would have been still greater but for the satisfactory circumstance that private veterinary practitioners have settled in the city. The administration of the Glanders and Farcy Act has been conducted smoothly and efficiently, and has resulted in the saving of a large amount of useful animal life. The Civil Veterinary Department, under the charge of Mr. D. Quinlan, is concerned with the investigation of disease throughout the province, the prevention of epizootics, and the treatment of sick and lame animals. Assisted by five inspectors and sixty-two veterinary assistants, forty of whom are itinerary, the superintendent is able to collect valuable information and supply preventive and relief measures throughout the province. There are twenty-six veterinary dispensaries at district head quarters, in most of which good work is being done. Efforts are also being made to improve the quality of stock by systematic breeding, and fairs and shows are inspected with a view to the prevention of epizootics. The shoeing of horses is taught in the college, and forges under competent operatives are at work in many parts of the province, fees being charged for the work done. Post-graduate classes have been arranged in the college, and instruction in dressing, etc., is given to army transport drivers.

### LADY MINTO'S INDIAN NURSING ASSOCIATION.

The object of this excellent association is "to provide and maintain a regular service of fully trained and experienced nurses throughout Northern India and Burma." The association has sustained a great loss in the departure from India of its lady president, the Countess of Minto, C.I., and of its honorary secretary, Surgeon-Lieutenant-Colonel Sir W. R. Crooke-Lawless, C.I.E., who have laboured with success to promote its valuable purposes. Their places have been filled by Lady Hardinge and Major F. O'Kinealy, I.M.S. The report for 1910 indicates satisfactory progress. A new branch has been added to the eight branches already in existence for Bengal, with head quarters in Calcutta. The nursing staff, which now numbers 53, has been increased by 5 new members. The number of cases attended to amounted to 447, against 353 in 1909. This total includes 299 medical, 42 surgical, 28 infectious, 3 mental, and 75 maternity cases; 99 applications had to be refused owing to no nurse being available. A new feature in the operations of the association was the despatch of two nurses to prevalence of cholera the number of visitors was Srinagar, Cashmir, during the season; owing to the small, and work limited. The financial position of the association is satisfactory. Government contributes a subsidy of Rs.35,000; the interest of invested money amounted to Rs.16,115; subscriptions to Rs.27,263; fees earned by nursing sisters to Rs.37,570. There is a home committee whose Lady President is Lady Helen Munro Ferguson, which renders material help to the Indian organization in selecting nurses and other ways. Well wishers to this valuable and beneficent agency for supplying skilled nursing to Europeans—official and otherwise—serving and located in India possess, by contributing to the funds of the home committee, a means of practically assisting a most praiseworthy enterprise.

## Correspondence.

### THE VACANCY ON THE GENERAL MEDICAL COUNCIL.

SIR,—Will you permit us to make use of your columns for the purpose of announcing to the profession, as we are glad to be able to do, that Dr. J. A. Macdonald of Taunton, the present Chairman of Council of the Asssociation, has consented to be a candidate for the seat on the General Medical Council rendered vacant through the much regretted death of Dr. L. S. McManus?

Dr. Macdonald is widely known to the profession as a general practitioner who, owing to his devotion to the advancement of the interests of the medical profession and conspicuous aptitude for public work, has been called upon to fill many important offices in the British Medical Association. As a member, and afterwards Chairman, of the Medico-Political Committee of the Association, as Chairman of the Representative Body, and now Chairman of Council, he has become thoroughly familiar with the needs of the medical profession as affected by the administration of the Medical Acts by the General Medical Council. As himself a general practitioner, he is personally familiar with the disabilities from which the profession at present suffers and the reforms that are needed in various directions, including those which affect the work of the General Medical Council.

We have the utmost confidence in commending Dr. Macdonald to our fellow practitioners in England and Wales as one whose experience and abilities are eminently calculated to further the interests of the profession if

elected to be a member of the General Medical Council.—We are, etc.,

EWEN J. MACLEAN,
Chairman, Representative Body, British Medical Association.
LAURISTON E. SHAW,
President, Metropolitan Counties Branch, British Medical Association.

April 19th.

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SIR,—Referring in the *Lancet* of the 8th instant to the vacancy in the General Medical Council caused by the lamented death of Dr. McManus, Dr. A. G. Bateman says that "we must all unite to send to the Council one worthy to follow in the footsteps of Dr. McManus as a *persona grata* both to his colleagues and the Council."

I am pleased to learn that Mr. George Jackson, J.P., a former direct representative, has consented to offer himself as a candidate, and I feel sure that he will, by universal consent, be held to meet in every respect the requirements regarded by Dr. Bateman as essential. Having most efficiently served his professional brethren at the Council for five years, he is thoroughly acquainted with the work; and that his services were highly appreciated by the profession is shown by the fact that at the last election he polled within about seventeen votes of the number recorded for the lowest *successful* candidate.

As I had the honour of occupying a seat at the Council during the five years that Mr. Jackson held office I can bear testimony to the admirable services he rendered to his constituents, and I am satisfied that it would be extremely difficult to find any one better qualified to succeed the late Dr. McManus as a representative of the rank and file of the profession than my former colleague Mr. George Jackson, and I trust that he will be permitted to take the seat he formerly held without the worry and cost of a contested election.—I am, etc.,

GEORGE BROWN,
Late Direct Representative for England and Wales.

Callington, Cormodel, April 18th.

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## HEART FAILURE.

SIR,—The lectures lately delivered on the above subject by Dr. James Mackenzie, before the Royal College of Physicians, will doubtless receive from the medical profession the appreciation and endorsement they deserve. There are, however, two or three points concerning which I do not feel capable of complacently following the lecturer.

His strictures on "the popular conception of heart failure" as being mechanically produced do not seem to me to shake the value of the popular conception; and the conclusion to which he leads up—namely, that "the back pressure is never the essential cause of the heart failure"—appears as incomplete a doctrine as the old view. It is as though the profession had argued that the reason the horse could not get the load up the hill was because the load was too much for it, whereas Dr. Mackenzie would have us recognize that the real reason was that the horse was not equal to the load. With him the fault is with the horse; with us it has been with the load. The truth, surely, lies in the recognition and combination of both views.

A damaged valve, with resultant back pressure, makes a greater demand on the heart. By hypertrophy the heart may meet it; and if the lesion be not progressive each unit of muscle (there being more muscle) may have no more work than before, and the lesion need not shorten or limit life. But progressive back pressure uses up the heart's capital, unless that be unlimited; and to attribute the cardiac breakdown to the oncoming of "cardiac irregularity," "embarrassment," and "auricular fibrillation," as though these were the primary causes, seems to me inexact and illogical for such cases. There are doubtless many cases in which cardiac breakdown leads to back pressure, but there are also many where progressive back pressure leads to cardiac breakdown. The heart is exhausted prematurely by its effort to adequately maintain the circulation, driving the blood backwards as well as forwards through its own mechanical defects. Its overfilled chambers require a stronger contraction than before to raise the same pressure within them, till the increasing load breaks down the horse.

The two new terms, "rest force" and "work force," are both unfortunate. Dr. Mackenzie says: "The rest force is the minimal force which the heart can exert to maintain the circulation at a level consistent with life." Why call a force which the heart exerts a "rest force"? A force in action may be small, but it is not a *rest* force. Moreover, "rest force" and "work force" are mutually confusing, since they are both working forces. If Dr. Mackenzie had followed the analogy of an army and called these the peace force and the reserve force, his meaning would have been clearer and more accurately expressed. And why use the term "force" where force is not meant? It is not "the minimal force which the heart can exert," but the minimal *energy* which the heart can expend "to maintain the circulation at a level consistent with life" with which Dr. Mackenzie is dealing. Better terms, therefore, would, I think, be minimal (or normal or standard) energy and reserve energy.

Dr. Mackenzie concludes by endeavouring to indicate the uselessness of the "majority of drugs and methods" employed in heart disease. He says:

> When many of these vaunted remedies are carefully investigated their uselessness becomes evident. . . . Pharmacologists have repeatedly examined, with the minutest care, the effects of medicinal doses of strychnine upon the heart in experiment, and have failed to obtain a result of any kind. So it is with a great many other drugs and methods.

Yet, like other people, one can scarcely imagine that Dr. Mackenzie has not put his finger on the pulse of a patient and said, "You are smoking too much; you have been taking alcohol, coffee, or other stimulant." In my experience the effect of a tonic containing strychnine is generally tonic. Whether the heart is unfortunate in alone gaining nothing I cannot say, but will try to find out. In any case the stimulant effect on the heart of an injection of strychnine is easily recognized, and I doubt if our surgical brethren would be wise in hastily ceasing "the preliminary ceremonial rite of a hypodermic injection of strychnine" because of the failures of pharmacologists. Often, too, when I practised at Brides-les-Bains, I observed the beat of the heart decrease by 15 to 20 strokes a minute and keep slow for hours after a patient's immersion in a warm saline bath. To belittle the use of "drugs and methods" for an organ as susceptible as the heart constantly shows itself is, I think, too great an offering to make, even at the shrine of so important a goddess as "Rest."

My high appreciation of Dr. Mackenzie's paper is my chief excuse for having ventured to criticize it.—I am, etc.,

Mentone, April 17th. D. W. SAMWAYS.

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## FATALISM AND ANTHRAX.

SIR,—The JOURNAL of April 1st contains a short paper on "Fatalism and Anthrax" from the pen of my friend and colleague Dr. William Mitchell. He combats therein the view that the death of a case of internal anthrax is a foregone conclusion, and, conversely, that recovery of a suspected case is a proof of its not having been one of anthrax. How widely this opinion is held I am not in a position to say; Dr. Mitchell says it is the commonly accepted view—and he is probably correct. But he is quite in the wrong when he classes me among those who reason in that way. His only ground for doing so is a very brief newspaper summary of an inquest held last autumn, at which it is alleged I stated that "there was not a single case of lung anthrax known to have been cured by injections of any kind." What I did say was that to the best of my knowledge not a single case of pulmonary anthrax, proved to be such, has been cured by injections of any kind; for I held then, and still hold, that a clinical opinion, especially when based upon conditions permitting of various interpretations, is not the equivalent of scientific proof.

The very extract from the last annual report of the Bradford Anthrax Investigation Board, on an apparent relative immunity among the older "hands," which Dr. Mitchell quoted in support of his own contention, should have given him pause to reflect whether the writer of that extract would be likely to have made the statement attributed to him in a daily paper. That they are incompatible is as clear as noonday. Commenting upon that extract, Dr. Mitchell goes on to say that he knows "of only one way in which immunity against, or diminished susceptibility to, a specific contagion can be

accidentally acquired, namely, by contracting the specific disease in question." He will, I am sure, be among the first to acknowledge that here he has not expressed himself quite happily—that it would have been more correct to have used the term "infection" in place of the word "disease." The introduction of a minimum number of virulent germs is required to produce disease; smaller quantities may affect susceptibility without giving rise to clinical symptoms; and similar effects may result from the introduction of germs of diminished virulence. All this is common knowledge. I have been greatly interested to find occasionally, in my examination of infected wool and hair, strains of anthrax bacilli of markedly diminished virulence towards mice. It may, I think, be permitted to conclude that these weakened strains, when introduced into the human body, will tend to produce milder and non-fatal forms of the disease—as described many years ago by Eppinger—or that, acting purely as vaccines, they will reduce the already moderate susceptibility of man to anthrax.—I am, etc.,

F. W. EURICH.

Bradford, April 10th.

## SPA TREATMENT IN BRITAIN.

SIR,—In connexion with your note on spa treatment in the BRITISH MEDICAL JOURNAL of April 8th, page 832, I should like to say that a special diet chart such as you indicate was drawn up by the Buxton Medical Society several years ago and issued to all the hotels and boarding-houses.—I am, etc.,

GEO. H. THOMPSON.

Buxton, April 17th.

SIR,—If the article under the above heading which appeared in the JOURNAL of April 15th should lead to a discussion in detail on the merits and defects of our health resorts it will not have been written in vain. I take it, indeed, that its strictures on spa management and their limitation to a few points only are intended to elicit apology as well as to provoke further criticism.

Personally I hold that so fundamental are the differences between British and foreign spas that they better lend themselves to contrast than to comparison, and hence I doubt the wisdom of too close an imitation of exotic methods. The climate of our country, while immeasurably superior to that of Central Europe for some categories of invalids, is equally inferior for other categories. With us only in exceptional summers can patients count upon being able to sit in the open air day after day, from early morning till after sundown. On the other hand, our cooler weather practically compels active outdoor exercise while rendering it both beneficial and pleasurable. But there are days on which sitting and sauntering in a public garden is agreeable, and as there are some visitors whose chief demand is for that form of diversion we cannot entirely neglect its chief adjunct—music.

In view, then, of a less demand and of the absence of sources of revenue available abroad, I venture to affirm that British spas are, on the whole, deserving of praise rather than blame. Certainly at four of our health resorts, some dozen in number, commonly ranking as spas, excellent music is provided, while of the hundreds of spas in the wide expanse of Europe how many can be cited where music of ambitious character is rendered by orchestras of metropolitan calibre? Be it remembered, too, in fairness, that at each of the two foreign spas surpassing all others in this respect the number of visitors exceeds that of any two British spas taken together, while funds are provided by a *Kurtax* and the profits of gaming tables.

Though no doubt there are visitors to our spas who would welcome the introduction of aesthetic effects, I suggest that a reform of more capital importance would be the erection of adequate outdoor rain shelters, which would enable invalids to enjoy fresh air on rainy but moderately warm days.

A defect, shared however by our nearest Continental neighbour, is the want of large tracts of land belonging to the spa administration; but this disadvantage arises not from parsimony but from the state of our laws. Until there are facilities for the acquisition of land in advance of present requirements and at normal prices, with provision for recoupment by resale of properly selected sites when values have become enhanced as the outcome of urban improvement, critics from the outside may well be chary in urging municipalities to incur lavish expenditure for the creation of a many-sided health resort.

A reason for lethargy at some of the smaller spas is the unsettled controversy between persons who lay chief stress on immediate gain from trippers, and counsellors who recognize the greater advantage of the deferred but more substantial revenues accruing to a well-equipped health resort. The issue of this conflict depends largely upon the attitude of the medical profession as a whole.

While strengthening the hands of the local practitioners in every effort for reform, let us not only recognize but also proclaim to our colleagues, at home and abroad, that our health resorts, whether spas, seaside, or inland climatic stations, already offer to numerous invalids, British and foreign, specific advantages which cannot be equally well obtained elsewhere.—I am, etc.,

NEVILLE WOOD.

London, S.W., April 18th.

## RENAL CALCULI AND CALCIUM METABOLISM.

SIR,—We must be very grateful to Dr. Benjamin Moore for his valuable contribution to the analysis of renal calculi. I doubt, however, whether the ratio of oxalate of lime calculi to those of uric acid is such as he describes. It certainly does not agree with my own experience or with that of my colleagues at Vittel, where a very large number of calculi are passed each season. This is all the more so as unquestionably a certain number of the uric calculi are redissolved by the more dilute and improved urine during the cure. Some calculi that my patients have passed were stratified on an oxalic nucleus enclosed in a calyx or shell-like envelope of uric acid. If some chemical enthusiast will analyse a continuous series of calculi or their fragments removed, say, at St. Peter's Hospital, we may then gain some reliable statistics of the proportion of the two dominant constituents of renal concretions. Even then we shall only obtain the statistical values of calculosis when this goes on to require operative measures of some kind.

When, however, we study the second part of Dr. Moore's paper I have no hesitation in saying that his conclusions are misleading. At the present time we practitioners are racked by the teaching of two schools of chemical pathologists. One group is urging us to give calcium in a number of different ailments, whilst the other tries to persuade us that calcium is one of the most pernicious substances that can be introduced into the human economy.

Because calcic carbonate is the usual substance of most rock concretions which show some resemblance to renal calculi in pre-chemical days, limy waters were supposed to be bad for people with a tendency to stone. Strangely, this superstition still prevails amongst the public, and with many medical practitioners.

The thesis that Dr. Moore holds is that lime should be withheld in oxalurics. That is "a consummation devoutly to be wished" by the chemist, but is impossible of achievement by the practitioner. No dietary can be planned that shall reduce the calcium element so low as to be insufficient to combine with the few centigrams of oxalic acid excreted daily, even by an advanced oxaluric. Surely if these few milligrams of oxalic acid that are daily excreted are neutralized by the lime salts of our food, any amount of additional lime cannot do further harm.

One of the problems that practitioners have to solve is not to prevent the introduction of calcium salts, but the absorption of exogenous oxalic acid in foodstuffs, or the perverted metabolism of carbohydrates from which the endogenous oxalates are derived. The other problem is to prevent the accretion of the calcic oxalates as a stone in the urinary passages, which will not be done by calcium starvation of our patients. It has been tried and failed.

Few hold in higher esteem than I the teachings of the laboratory, nor am I too recalcitrant to armchair deductions, but these must harmonize with clinical experience. This is not the case. There are two dominant facts that are clearly demonstrated at Vittel, where we use a non-chloride calcareous water. There large numbers of oxalurics resort yearly, and almost without exception the diurnal amount of oxalates is markedly diminished or very frequently disappears. I have patients now under observation who were marked oxalurics, but in whom no return

of that condition has shown itself, notwithstanding frequent urine analyses. These people are constantly drinking Vittel water, and living on a dietary in which lime-bearing food is not excluded. What really did happen was that their cure removed their stock of oxalates and improved their metabolism of carbohydrates so that they form no more oxalic acid.

Will Dr. Moore explain how his hypothesis will fit in with diminution of tophi in people who do the cure? Lastly, are we to abandon mineral water treatment almost altogether? For really very few waters exist that do not contain lime salts.

Before we accept Dr. Moore's ideas, physicians in general will require support by much more substantial evidence.—I am, etc.,

Beaulieu, France. H. J. JOHNSTON-LAVIS, M.D.

## PHYSICIAN OR SURGEON?

SIR,—The introduction of salvarsan in the treatment of various diseases has apparently opened up a new field of dispute as to whether "intravenous injection" is a medical or surgical proceeding. Physicians of the present day are in the habit of performing sundry small operations, such as venesection, saline transfusion, serum and intraspinal injections, passing of catheter or bougies (as a diagnostic agent).

It seems that now is a convenient time to ask the question, Is a physician exceeding his powers, or over-stepping the line that is drawn between medical and surgical practice, when he cuts down on a vein and injects a dose of a drug?—I am, etc.,

Hull, April 15th. E. H. HOWLETT.

## POOR LAW INFIRMARIES AND HOSPITALS.

SIR,—Dr. Johnstone Jervis calls me over the coals (BRITISH MEDICAL JOURNAL, April 8th, p. 846) for saying that the whole spirit of the Poor Law is to do as little as possible for the poor, and that what was missing in the management of the Poor Law infirmaries was "a big heart." I did not say that this was missing in the infirmaries themselves. I did not say a word against the doctors or nurses in those infirmaries, and I never mentioned "London" at all, so that a lot of Dr. Jervis's indignation he might with advantage have kept to himself. He has set up an imaginary windmill to knock his head against. He quotes what I am alleged to have said, and then proceeds to attack me for having said something quite different. At the Poplar Hospital meeting I was speaking upon the suggestion of turning the voluntary hospitals over to the guardians, and I said, "God forbid," and for the reason that the one idea of the Poor Law is to do as little as possible for the poor, and so to save the rates.

I do not speak in ignorance of the subject, as Dr. Jervis is kind enough to suggest. For many years I was an active guardian, first of St. George's and then of St. Marylebone unions. Both of these had most excellent infirmaries, the latter especially, under that good woman, Miss Vincent, one of the pioneers in the work of improving nursing in Poor Law infirmaries. But in those years I learnt the spirit of the Poor Law, and I have seen much of it since. Does Dr. Jervis at all know the attitude of the ordinary relieving officer towards a poor person asking for medical relief? He takes his cue from his masters, the guardians, and the more he can save the rates—in other words, the less he can do for the poor—the better officer he is considered. Is Dr. Jervis utterly ignorant of what any hospital secretary could tell him—the stolid opposition put in the way of transferring an obviously pauper patient from a hospital to the authority in law bound to care for him? An unwillingness to help which is deplorable, and different in every sense from the eagerness of a voluntary hospital to give its help as widely as possible, its only restriction being its accommodation.

Let me, however, accept Dr. Jervis's challenge and deal with the management of infirmaries. I must speak generally, of course, and I hope some indignant guardian of the parish of Slocombe will not write and tell us how splendidly his parish infirmary is run.

Is Dr. Jervis ignorant of the great difficulty there has been in the past to get guardians to employ trained nurses? Is he ignorant of the fact that even to-day (I have an instance before me as I write) many guardians think pauper inmates quite good enough as nurses? Is Dr. Jervis ignorant of the death-rate of babies born in the Poor Law infirmaries? Has he ever read the report of the Poor Law Commission, both Majority and Minority, and can he defend the guardians of the poor as hospital managers after doing so?

He invites me "to visit any one of our Poor Law infirmaries," and he is then "sure my mind will be unburdened." As it happens, moved by indignation with what I had read in the Minority Report of the condition of things at the huge Poor Law infirmary in the very town where Dr. Jervis got his M.B.—Edinburgh—I got an order from Mr. John Burns and the Local Government Board at Edinburgh to visit the Craiglockhart Poorhouse, and I found a state of things there which could not be found in the worst managed voluntary hospital in the United Kingdom. I found 800 inmates, all certified by the medical officer to be in need of medical relief. Of these the majority were "owners" of very trifling ailments, some of really nothing at all except a desire to retire from the turmoil of the labour world. But, of these 800, 280 were really ill and on the hospital side, there were 90 patients with phthisis. To 42 of such patients there was one nurse by day and one nurse by night, though they were in wards a considerable distance apart! In the other part of the hospital there was only one night nurse between four wards with eighteen beds in each! There were a lot of children tended by pauper inmates. The operating room, in which very serious operations were done, had one gas jet in it for lighting, and no arrangements for sterilizing dressings! Over this huge place, with its 800 inmates certified to be ill, and its numerous inmates really ill, there was but one resident medical officer, and she was a young lady of 26, holding her first appointment. Her duties were to examine every inmate on arrival, to report as to his or her disease, and whether fit or not to work; to settle diets, treatment; to supervise the arrangements for the children and infants; to attend the confinements—about 30 a year; to make the *post-mortem* examinations; to help the one visiting surgeon in the operations; and to extract teeth. And, lastly, it will hardly be believed, this young woman had under her sole charge the most filthy ward I have ever seen in my life, full of men with bad syphilis!

When I exposed all this, up rose the city fathers and said (as Dr. Jervis says) that everything was perfect, and that they were proud of the care given to the sick, and so on, and they abused me and got abused themselves by the leading articles in the *Scotsman*.

But here were guardians of the poor in the capital of Scotland in the year of grace 1909 defending such management, and similar instances of pride in incompetence prevail all over the country, and are worse in Scotland than in England.

I repeat again, I have never said that the doctors and nurses at Poor Law infirmaries do not do their best, or are not kindness and gentleness itself to the patients. I know to the contrary, but as to the management of these infirmaries, again speaking generally, I want no better witness than Dr. Jervis himself. I convict him out of his own pen, because, writing of these doctors and nurses in Poor Law infirmaries he writes, "They are working often under very hard and trying circumstances, of the nature of which no general hospital staff can have any conception." Exactly so; and who is responsible, may I ask, for these conditions but the guardians of the poor? And this being so, I say again God forbid that the management of the voluntary hospitals should be handed over to the Poor Law guardians, and so to a management which Dr. Jervis spends half his letter in defending and the rest in condemning. If Dr. Jervis wants any further information as to the management of Poor Law infirmaries let him read a most striking chapter in Professor Benjamin Moore's book, *The Dawn of the Health Age*. Chapter IV contains the most damning evidence possible as to the management of a huge Poor Law infirmary with 900 beds in "Cottonport." I wish I had written anything half as strong. Page 79 simply makes one's blood boil, but it is too long to quote. Hoping to hear from Dr. Jervis, M.B.Edin., again,—I am, etc.,

Royston, Herts, April 16th. SYDNEY HOLLAND.

## LADY HEALTH VISITORS OR WOMEN SANITARY INSPECTORS?

SIR,—I do not wish to prolong this controversy, but I should like to correct Dr. Lawrence's impression that the health visitors at Croydon do any visiting of women in factories and workshops; that is precisely what they do not do, and what I believe no health visitors ever should do. The health visitor's position is that of a friendly visitor, not that of an inquisitorial official, and if the women of the town have an idea that she is the latter sort of person they will not be nearly so ready to listen to her.

I do not see how the Sanitary Institute can hold any adequate examination for a health visitor. Her hospital career and the testimonials she receives from the matrons under whom she has worked are a far better recommendation than any examination, because they not only speak of her work but of her character, which is of quite as much importance as her knowledge.

I believe in absolute specialization between sanitary inspector and health visitor. The one should be an inspector and the other a qualified nurse. There is usually more than enough work to employ one woman under the Notification of Births Act in even a small town if the work is done well. There is a limit to the visiting a woman can do with profit. I should fix that limit between 2,000 and 3,000. If she exceeds that number it means that the visits are hurried over and the maximum amount of good is not done at each one, consequently her visits make little or no impression. Each baby requires at least two visits—some ailing or dirty ones many more—so that one health visitor should not attempt to cope with more than 1,000 in a year.

Visiting takes up far more time than health authorities have any idea of, and much parsimony is found among most of them. The sooner they realize that good work cannot be done without adequate money spent upon it the better for the health of England. Health visiting thoroughly well done by properly qualified nurses is, I believe, one of the most effectual means we have of improving the national health and physique, and money spent in this way may be looked upon as an investment yielding interest twenty years hence in a stronger, healthier, cleaner, and more self-respecting community.—I am, etc.,

London, W., April 7th. WINIFRED WARNER.

# Obituary.

## JOHN DUNCAN GREGORSON, M.B., C.M.EDIN.,

UPPER ASSAM.

THERE seems no longer any room to hope that Dr. J. D. Gregorson escaped with his life from the massacre of the party under Mr. Williamson by the Abor tribes on the Assam frontier. The official report states that the expedition started from Jonakmukh on March 15th and reached Sishin on March 23rd; on March 30th Mr. Williamson started for Komsing, leaving Gregorson and the sick coolies behind him. Five survivors from the massacre reached Sishin, where they found no signs of Dr. Gregorson; his "tent had disappeared; only ominous gathering of crows hung over deserted encampment. It is stated that Gregorson heard firing and started up hill to help Williamson, being shown path by Sishin Abors. Somewhere on the path, with treacherous Sishin Abors behind him and Komsing Riu Abors in front, he met his end."

John Duncan Gregorson, who was the second son of Angus Gregorson of Ardrishaig, Argyllshire, was born in July, 1871. He received his education at the Edinburgh Academy, Sedbergh School, Yorkshire, and the Edinburgh University, where he took the degree of M.B., C.M. in 1894. After serving as an assistant to the late Dr. Aymer of Bervie, Kincardineshire, in 1895, and to Dr. Haines of Highgate in 1896, he commenced practice for himself in Leytonstone, Essex, where he remained till 1900. Having always had a desire to travel and a great interest in tropical research and bacteriology, when a favourable opportunity of getting work in Upper Assam occurred he readily availed himself of it. First at Dibrugarh and latterly at Tonsukia, where he resided till recently, he had a large practice, and was medical adviser to a number of tea estates. He took an intense interest in the ethnology of the district, and of the frontier country, and also in the Imperial and geographical questions affecting the frontier. Natural history and the scenery of the Himalayas had also great attractions for him. He was a member of the British Medical Association, and a Fellow of the Society of Tropical Medicine and Hygiene, and on the only visit he paid to this country since going to Assam he spent a considerable amount of his time in study at the London School of Tropical Medicine. Whenever he had time to do so, he travelled in India or to the Sikkim Highlands, and in the winter of 1909–10 he attended the Medical Congress at Bombay. When he left India for Europe, in 1907, he went first to the Federated Malay States, where he had been asked to advise on matters of hygiene and sanitation on certain rubber plantations, and then travelled home by way of China, Japan, and Manchuria, and the Trans-Siberian Railway. He was a man who loved his profession, and his devotion to his patients and his generous and amiable disposition made him a very popular member of the community in his district.

The Dihong River, the valley of which the expedition was exploring, was believed by him and others to be the connecting link between the Sanpo River of Tibet and the Brahmaputra of Assam, though the difference between the levels on the north and south side of the Himalayas is thought to make it probable that there is a great waterfall in the unexplored portion.

Dr. Gregorson appeared to be fully aware of the dangerous nature of the expedition, as he wrote on March 14th, the eve of his departure, to his brother, that he was going into a country from which the few Europeans who had gone had never returned, and that he was making preparations for the worst.

Dr. H. M. STRATFORD (London) writes: As a former assistant in Upper Assam of Dr. Gregorson's, and knowing him very well, I desire to express my sorrow at the sad fate which has befallen him and Mr. Williamson. Although there is no definite news of Dr. Gregorson's death, there can, I fear, be no possible hope that he has escaped. According to the narrative of a Nepalese survivor, who got away only by keeping to the cover of the jungle and avoiding the paths picketed by the Abors, his chance of escape would be very small, even if he had been warned of the fate of Mr. Williamson's party; in an unknown country, without a guide, and with a vast river between him and safety. Unfortunately, also, clothed in white as he would be, there would be little chance of him escaping notice. The Dihong River at this time of the year would be much swollen from the rains, and would be bringing water down from the hills in a vast torrent to empty into the Brahmaputra. The only means of crossing would be in a dug-out—that is, a scooped out tree stem, the native boat; even when the river is quiet, a dug-out is a very treacherous vessel, and requires two natives skilled in managing it to bring it across. Dr. Gregorson was well known and very highly respected in Dibrugarh, and for a very great distance all round. His fine presence—he was a very big man—and cheerful, kindly disposition, endeared him to all who knew him, and made him very popular and welcome wherever he went. He worked exceedingly hard, travelling great distances in all weathers through the jungles and over rivers to the hospitals on the various tea estates, sometimes not returning to his house at Tinsukia for several days. These journeys were accomplished partly by road, relays of horses being sent on ahead to distant gardens; partly on trolleys, running on lines and worked by coolies, and sometimes on elephants. Dr. Gregorson was always very kind to the natives, and took a great interest in their customs and habits, about which he knew a great deal; they have lost in him a good friend. Very careful and particular in his work, with original ideas on many points, there is no doubt he had acquired an extensive knowledge of tropical medicine, and his death will be a serious loss to Dibrugarh and the neighbourhood. Always ready at a moment's notice to start on a long, trying journey if his services were required, he gave his energies and knowledge ungrudgingly to all who sought them, and many planters on lonely gardens will sadly miss "Greggy," as he was affectionately called.

## MAJOR GEORGE LAMB, M.D.GLAS., ETC., I.M.S., BENGAL.

MAJOR GEORGE LAMB, Indian Medical Service, Director of the Pasteur Institute at Kasauli, died in Edinburgh on April 13th, at the early age of 42. He was buried in the Dean Cemetery of Edinburgh on Good Friday. He had been living in Edinburgh for some time, and meant soon to return to India, but some months ago it became manifest that he was stricken with a mortal malady, and a brilliant career was thus prematurely cut short.

Major Lamb was educated at the University of Glasgow, where in 1890 he took the degrees of M.B., C.M. with high commendation, and the degree of M.D. (with honours) and the Bellahouston gold medal in 1902. Soon after entering the Indian Medical Service he became a member of the band of workers associated with Sir Almroth Wright in the researches which have done so much to elucidate the pathology and further the scientific treatment of various infective processes. After going to India he early made his mark by researches on Mediterranean fever as it occurs in the East, and on relapsing fever. Thus it came about that during most of his period of service he was successively appointed to important posts in connexion with scientific inquiries suggested by the Government of India. He was at the head of the laboratory for the investigation of snake poison, and became one of the chief living authorities on the subject. The greatest work of his life, however, was as a member of the Commission for the Investigation of Plague in India. When the labours of the committee were approaching a close, Major Lamb was placed in charge of the Pasteur Institute at Kasauli, where he initiated important modifications in the treatment of hydrophobia. His contributions to scientific literature were numerous. There may be noted, "On the Actions of Snake Venoms" in the *Scientific Memoirs by Officers of the Medical and Sanitation Departments of the Government of India*, 1902–3, and "Observations on Spirillum Fever as Seen in the Monkey" in the same series of publications.

To great originality of mind and indefatigable industry there was joined in Major Lamb a charming personality, whose frankness and cheeriness made friends for him wherever he went, and many in all parts of the world will mourn the premature termination of a career which, even as it stands, was rich in attainment as very few careers are.

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WITH reference to the obituary notice of Lieutenant-Colonel SIMPSON POWELL, published on April 8th, p. 849, a correspondent writes: He was of a most retiring disposition, reserved, and slow of speech; but courteous to everyone, and warm-hearted. As a military doctor he was in the front rank. Moreover, at the Louise Margaret Hospital at Aldershot he did a great deal of excellent gynaecological surgery; in this, as in everything he did, he was painstaking and careful to the last degree. Besides his professional work he had a good deal of knowledge of the peoples he had mixed with in the East, their religious customs and arts, and his knowlege of natural history generally, and of botany in particular, was very considerable. I think it may be said that in him were united the finest qualities of two professions—of the doctor and the soldier. His death in his prime will be sorely felt.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

DR. ERNEST MALLAM, Litchfield Lecturer in Medicine, has been elected a member of the Committee for the Nomination of Examiners in Medicine, vice Dr. Collier, resigned.

Dr. Reginald Wall and Dr. Theodore Acland have been co-opted as members of the Board of the Faculty of Medicine for the further statutable period of two years.

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## UNIVERSITY OF LONDON.

### LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

*Prize Distribution.*—Lady Minto has consented to present the prizes and certificates on Wednesday, June 14th, at 4 p.m. Mrs. Garrett Anderson, M.D., will preside.

*Council and Committee.*—Mr. F. D. Acland, M.P., has joined the council of the school, and Mrs. Bryant, D.Sc., Miss A. C. Freeman, and Mr. G. P. Mudge have become members of the school committee.

*Scholarship.*—The Bostock Scholarship, given by the Reid Trustees, of the value of £60 a year, tenable for two or four years at the London (Royal Free Hospital) School of Medicine for Women, will be awarded on the result of an examination to be held by the University of London, beginning June 5th, 1911. All particulars can be obtained on application to the secretary of the school, 8, Hunter Street, W.C.

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## ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

A BALLOT for admission to the Fellowship held on April 7th resulted in Dr. G. E. Nesbitt being declared duly elected.

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## CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE, PART IV (*Practical Pharmacy*).—F. Balkwill, R. S. de C. Bennett, A. V. Boyall, A. Bulleid, T. C. Butler, H. G. Crawford, R. Curle, A. C. L. d'Arifat, J. Dotto, S. E. Y. Elliott, J. C. Ellis, A. G. Evans, H. H. Fairfax, M. A. Farr, C. M. Forster, R. Fowle, A. J. Frädersdorff, E. M. Grace, A. Green, S. M. Hattersley, W. G. Helsby, R. A. Holmes, W. S. Hyde, H. G. G. Jeffreys, W. B. Jepson, C. Kennedy, G. S. Marshall, R. H. Miller, G. W. Mitchell, C. J. Nicholson, J. Owen, R. C. Parry, M. G. Pettigrew, R. C. Poyser, G. L. Preston, S. O. Rashbrook, N. A. Scott, R. Sherman, J. G. Smith, G. Stanger, W. H. A. D. Sutton, D. P. Thomas, P. J. Watkin, W. C. Whitworth, J. H. Wilkinson, R. W. Willcocks, J. E. S. Wilson, M. A. K. Wood, H. E. P. Yorke.

SECOND COLLEGE (*Anatomy and Physiology*).—W. H. Alderton, C. P. S. Allingham, A. D. Anderson, C. V. Aserappa, O. Baier, M. E. Bakry, M. H. Barton, A. C. O. Brown, S. Caplan, T. H. Cresswell, D. L. Davies, R. M. de Mowbray, C. K. G. Dick, A. J. Drew, S. E. Elphick, M. D. Evans, S. S. Greaves, E. R. G. Greville, F. H. Guppy, T. W. Hancock, W. R. H. Heddy, C. L. Herklots, H. G. Hockridge, W. E. Ison, F. E. Johnson, T. C. Kidner, F. W. Lawson, H. Mather, R. C. Matson, C. H. Medlock, N. M. Mehta, A. L. Miller, A. V. Moberly, H. N. Morgan, L. E. Napier, H. F. Overend, C. F. Pedley, G. S. Phillips, S. V. P. Pill, J. Precopoulos, D. Ram, H. Rimington, A. R. Sami, E. H. S. Scarr, F. Sykes, T. R. Trounce, J. B. Vaidya, V. C. W. Vickers, G. W. Watson, G. H. D. Webb, R. Williams, S. Wilson, A. K. S. Wyborn.

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## CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—W. H. Wray, F. A. V. Denning, S. N. Toulmin, P. Milnes, Q. Stewart, A. F. Readdie, C. E. S. Runciman, T. S. Nair, and B. Singh.

SECOND COLLEGE.—B. S. Raj, R. Kaushosh, C. M. G. Elliott, A. I. Clark, *G. Hardie, R. Dorset, A. C. Fleming, C. Cosgrove, C. Dolan, and K. R. Mehta.

THIRD COLLEGE.—W. Ainsley, W. C. Davis, R. C. Mitter, R. S. Agrawal, A. B. Bull, C. H. N. Baker, E. M. Marcar, Mary Lyon-Mercado, A. F. D'Souza, H. C. Sutton, B. L. Shome, G. R. Vohra, J. N. Clark, C. C. Bose, W. P. Over, J. P. Carroll, L. C. Mascarenhas, J. G. Lessey, Kathleen Wall, and R. Trotter.

FINAL.—C. A. O'Driscoll, J. J. Dykes, N. K. Wilson, R. G. Walker, W. Ashworth, R. S. Agrawal, D. A. Macpherson, C. Mallikarjunarao, W. F. G. Scott, and R. Parry.

* With distinction.

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## CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—G. A. Campbell, J. V. Coghlan, W. J. Dunlop, B. Glasson, S. E. Gordon, D. Kelly, W. G. McConnell, G. M. Moffat, J. O'Brien, D. V. O'Connor, R. O'C. Redmond, J. Ryan, H. R. Wright.

SECOND COLLEGE.—*R. A. Austin, *M. Shipsey, *R. P. Weldon, J. Cohen, B. J. Cusack, J. D. Hamilton, F. J. S. Kennedy, M. P. Lee, A. C. McQuaide, F. P. B. McTavish, W. Morrow, D. Mullin, W. S. Sullivan.

* With honours.

# The Services.

## INDEPENDENT MEDICAL PRACTITIONERS IN INDIA.

AT the meeting of the Imperial Legislative Council at Calcutta on March 17th the Honourable Surgeon-General Lukis, C.S.I., Director-General of the Indian Medical Service, delivered the following speech:

"Mr. President, with your permission I wish to say a few words on the subject of the encouragement of independent medical practitioners in India. What I propose to do to-day is to point out to the Council the various steps which the Government has already taken to improve the position of those gentlemen, and also to indicate the lines on which they might, if they chose to do so, help themselves. I wish it to be clearly understood that I am not to be regarded in this respect either as the mouthpiece of Government or as holding a brief for the Indian Medical Service. I speak merely as one who has been a teacher of medicine in this country for twelve years, and whose interest in the progress of medical science in India and

in the improvement of the status of Indian practitioners is as keen as that of Mr. Gokhale on the equally important subject of primary education. Now if we study the position of independent practitioners in India, we observe that they labour under three disabilities which are not shared by their professional brethren in western countries. In the first place, private medical students, after obtaining their degrees or diplomas, are practically debarred from filling the posts of house-surgeons and house-physicians in the large Government hospitals, these appointments being in most cases reserved for civil assistant surgeons, and they are thus prevented from gaining much clinical experience before going out into the world to practise on their own account. This is a very severe handicap, and to remedy it the Government of India has proposed, and the Government of India has agreed, that in future the appointments of house-surgeon and house-physician in the large Presidency Government hospitals shall be thrown open to the best students of each year, whether or not they propose to enter the Government service. This is a very great boon, and it will, I hope, be taken full advantage of by the coming generation of Indian medical men. The second disability is that there are at present no facilities for post-graduate study such as exist in connexion with all the large medical schools in England and continental Europe. The result of this is that a young man going to practise in a remote mofussil station, where he is probably overworked and underpaid and where he has neither the leisure nor the facilities for study, fails to keep abreast of the advance of medical science and very quickly lags behind the race. The Government of India recognizing what a drawback this is, and how it militates against a successful career, is now formulating a scheme for starting in Calcutta a school of tropical medicine affiliated to the Calcutta Medical College and for the introduction of a diploma in tropical medicine in connexion with the Calcutta University. This school of tropical medicine will afford facilities both for post-graduate study and for research work and it will be open to all properly qualified medical practitioners. The young doctor from the mofussil will thus have a chance of coming back to hospital and furbishing up his knowledge, while those who wish to carry out original work will have every opportunity of doing so in the research laboratories attached to the school. The third disability—and this is one that we hear most about—is that medical practitioners are unable to obtain professorial and hospital appointments in the large Government medical colleges. This is, I admit, a very grave disability, and one which has the serious consideration of the Government, but in this connexion, I should like to invite the attention of the hon. members to some very sensible advice which was given to Bombay medical men by Dr. Temulji Nariman when he was entertained at dinner by over one hundred Indian medical men on August 13th, 1909. In the course of his speech Dr. Nariman said, 'If Indians wish to bring into existence a profession of native doctors they should not hanker after one or two minor professorships in the Grant Medical College, but should all unite and set to work to found a medical college of their own. It is only when we have a large number of teachers with hospital experience that we shall be in position of an independent medical profession, and by perseverance, industry, and self-sacrifice we are bound to produce men who will adorn our profession and leave their names to posterity as those of Jenner, or Harvey, or Lister or Simpson. Founding hospitals alone will not elevate our status. We must have our own college, with laboratories where some of our best men can carry on original research work. It may take years for its completion, but let us make a beginning.' This was a most wise and statesmanlike speech, and I beg of my Indian colleagues to give it the careful consideration it deserves. Let them not be content merely with obtaining a proportion of the professorships in the Government medical colleges; let them all unite and found well-equipped medical colleges of their own. This is a subject that is worthy of the consideration of the wealthy and charitable public, and I can assure them that by encouraging the establishment of unofficial medical colleges and schools, but conducted by independent medical practitioners, they will be conferring a boon not only on the medical profession but also upon the country at large. It is well known that the Government colleges and schools cannot provide for more than a fraction of those who apply for admission. In Calcutta alone about two hundred candidates are rejected every year. There is, therefore, ample room for well-equipped and adequately staffed unofficial medical colleges and schools, professorships at which would afford the experience which can only be derived from work done in institutions of this class. In an admirable speech which we all listened to with such interest yesterday, Mr. Gokhale, when pleading the cause of primary education said, 'This is a case in which it is necessary that there should be cordial co-operation of the Government with the public.' May I be allowed to reverse the term, and to say that this is a case in which it is necessary that there should be the cordial co-operation of the public with the Government. Personally I look forward to the day when in every important town of the Indian Empire we shall have a well-equipped non-official medical college staffed entirely by Indians working in friendly rivalry with the Government medical colleges, each institution striving its hardest to show the best results at the university examinations. As Dr. Nariman said, this may take years to accomplish, but I earnestly hope that before my time comes to leave India I may see that an accomplished fact, at any rate in Calcutta and Bombay. If anything I have said to-day should induce the leaders of the people to take an active interest in this scheme I shall feel that I have been justified for having trespassed so long upon the patience of the Council."

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## ROYAL ARMY MEDICAL CORPS.

### EXAMINATION FOR PROMOTION.

*India.*

THE following were the successful candidates at the November examination for promotion of Majors of the Royal Army Medical Corps in "Technical Subjects," Part I, Appendix XIV, King's Regulations:

Majors G. ST. C. THOM, M.B., and E. B. STEEL, M.B., Part I, Subject 2, Appendix XIV, King's Regulations. Already passed in (*d*) ii. Exempt Part II, Appendix XIV, King's Regulations.

Majors F. E. GUNTER, M.B., E. W. BLISS, H. G. MARTIN, and G. B. CRISP, (*d*) ii. Have yet to pass in Part I, Appendix XIV, King's Regulations.

Capt. W. DAVIS, (*d*) ii. Already passed in (*h*).

Capts. T. C. LUCAS, M.B., and H. T. WILSON, (*d*) ii. Have yet to pass in (*h*).

Lieut. G. PETIT, (*d*) ii and (*h*). Has yet to pass in (*b*).

Lieut. J. B. HANAFIN, F.R.C.S.I., (*d*) ii and (*h*); .8 in (*h*). Already passed in (*b*).

Lieut. R. F. O'T. DICKINSON, (*h*) i and ii. Already passed in (*b*), (*d*) ii, and (*h*) iii.

Lieut. C. P. O'BRIEN-BUTLER, (*d*) ii. Already passed in (*b*) and (*h*).

Lieut. J. E. ELLCOME, (*d*) ii and (*h*). Already passed in (*b*).

Lieut. F. H. BRADLEY, (*d*) ii and (*h*). .8 in (*h*). Already passed in (*b*).

Lieut. B. VARVILL, (*d*) ii and (*h*). Already passed in (*b*).

Lieut. J. W. HOUSTON, M.B., (*h*); .8. Already passed in (*b*) and (*d*) ii.

Lieut. A. SHEPHERD, M.B., (*h*). Has yet to pass in (*d*) ii. Already passed in (*b*).

Lieut. F. B. DALGLIESH, (*h*) i and iii. Already passed in (*b*), (*d*) ii and (*h*) ii.

Lieut. C. E. L. HARDING, M.B., (*d*) ii and (*h*). Already passed in (*b*).

Lieut. T. S. EVES, M.B., (*h*) i and ii. Already passed in (*b*), (*d*) ii, and (*h*) iii.

Lieut. A. H. T. DAVIS, (*h*). Has yet to pass in (*d*) ii. Already passed in (*b*).

Lieut. J. S. MCCOMBE, M.B., (*h*). Has yet to pass in (*b*) and (*d*) ii.

Lieut. W. J. TOBIN, (*h*). Has yet to pass in (*d*) ii. Already passed in (*b*).

Lieut. R. O'KELLY, (*d*) ii and (*h*). Has yet to pass in (*b*).

Lieut. J. B. JONES, M.B., (*h*); .8. Has yet to pass in (*b*) and (*d*) ii.

[All the above-mentioned have yet to pass in a "Medical Staff Tour," Part II, Appendix XIV, King's Regulations.]

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# Medico-Legal.

## WORKMEN'S COMPENSATION ACT.

*Damage to a Blind Eye.*

THIS case, Ball *v.* Hunt and Sons (Court of Appeal, March 19th), raised a very interesting question as to whether mere disfigurement amounts to incapacity. It appeared that Ball about fifteen or sixteen years ago was struck in the left eye by a piece of steel, and three years later the sight of the eye was altogether lost; he had, however, been able to follow his occupation at full wage. Ball entered Messrs. Hunt's employment on September 1st, 1910, and seven days later, while he was chipping some brickwork, he was struck in the left eye by a piece of brick. Inflammation supervened, and the left eye had to be removed. Compensation was paid for a time, and then arbitration proceedings followed, and the county court judge gave his decision in favour of the employers, holding that the incapacity from which Ball suffered was really due to the first accident to his left eye some sixteen years previously, although he said that the removal of the eye might have stopped Ball's chance of employment. The Master of the Rolls thought that the appeal should be dismissed. Speaking generally, when the accident had caused only disfigurement as distinct from incapacity, the claim for compensation did not come within the Act. In the present case incapacity to work was in no sense due to the accident in September. Lord Justice Fletcher Moulton held a different opinion, and thought that the accident of September came within the Act, and that the appeal, therefore, should be allowed and compensation granted. Lord Justice Buckley agreed with the Master of the Rolls, and the appeal therefore, by a majority of the court, was dismissed.

# Medical News.

AT the meeting of the Medico-Legal Society on Tuesday next at 11, Chandos Street, W., Dr. F. J. Waldo, Coroner for the City of London and the Borough of Southwark, will read a paper on the ancient office of coroner, at 8.30 p.m.

THE Royal College of Physicians of Edinburgh has appealed to the Court of Session from the decision of the Lord Lyon King of Arms that he has jurisdiction to adjudicate on the plea of precedence made by the Royal College of Surgeons of Edinburgh.

AT the meeting of the Illuminating Engineering Society at the Society of Arts, Adelphi, on Monday next, at 8 p.m., papers on the ratio of light to illumination will be read by Mr. Haydn T. Harrison, and on the effect of wall papers upon illumination by Mr. P. J. Waldram.

MR. FREDERICK J. FLOWER, M.R.C.S.E., L.S.A., has, after forty-five years' service as Poor Law Medical Officer, resigned his post of Medical Officer and Public Vaccinator of the Warminster Workhouse and Warminster and Cowley districts of the Warminster Union, which appointment he has held since October, 1881.

THE Medical Section of the Royal Society of Medicine will hold a discussion on "The After-History of Cases of Albuminuria occurring in Adolescence," to be opened by Dr. J. F. Goodhart, on Tuesday next, at 5.30 p.m., at 15, Cavendish Square, W. Among those who intend to take part in the discussion are Dr. West, Dr. Tirard, Dr. Saundby, Dr. Clement Dukes, Dr. Herringham, Dr. Collier, Dr. Hale White, Dr. Armstrong, Dr. Garrod.

A SERIES of demonstrations of specimens in the museum will be given in the theatre of the Royal College of Surgeons of England during April and May by Professor Keith and Mr. Shattock. Professor Keith will deal with: (1) Spina bifida; (2) meningocele and other congenital deformities of the brain and membranes; (3) hydrocephaly, microcephaly, and oxycephaly. Mr. Shattock will demonstrate: (1) Actinomycosis, leprosy, etc.; (2) the biology of malignant growths; (3) diseases of voluntary muscle, cartilage, bursae. Professor Keith's three demonstrations will be given on Fridays at 5 p.m., beginning April 21st. Mr. Shattock's three demonstrations will be given on Mondays at 5 p.m., beginning on April 24th.

THE seventh South African Civil Surgeons' dinner will take place on Thursday, June 1st, at the Imperial Restaurant, Regent Street, W., when Mr. G. L. Cheatle, C.B., will take the chair at 7.45 p.m. Field-Marshal Lord Kitchener will be the principal guest, and the Honorary Secretaries, Mr. C. Gordon Watson and Mr. F. E. Fremantle, express the hope that all those who served as civil surgeons or dressers in the South African war will make a special effort to attend this dinner and give a warm welcome to their former Commander-in-Chief. Notices will be issued to all on the honorary secretaries' list by the end of April. Those who do not receive such intimation are asked to communicate with one of the honorary secretaries at 123, Harley Street, W.

THE second biennial congress of the Far Eastern Association of Tropical Medicine will be held in Hong Kong next year from January 20th to January 27th. The association, formed to promote the science and art of tropical medicine in the Far East, is international. Its president is Dr. J. Mitford Atkinson, principal civil medical officer of Hong Kong. Its vice-presidents are Dr. W. G. Ellis (Straits Settlements), Dr. J. de Haan (Java), Dr. Victor G. Heiser (Philippine Islands), Dr. H. Campbell Highet (Siam), Dr. Neil Macleod (Shanghai), Sir Allan Perry (Ceylon), Professor G. Shibiyama (Japan), Dr. J. Staby (Tsingtau), and Professor Yersin (French Indo-China). It is proposed to classify the papers so as to give, as far as possible, a day to each of the following: (1) Protozoology, helminthology; (2) cholera, plague, leprosy, tuberculosis; (3) tropical fevers, including malaria, beri-beri, dysentery; (4) surgery, obstetrics, infantile diseases; (5) climate, hygiene, sanitation. The circular issued by Dr. Francis Clark of Hong Kong, Secretary-Treasurer-General, states that the average temperature in Hong Kong during the month of January is about 62° F., while its range may extend from 80° F. on a warm day to 40° F. during a cold night, so that visitors from more tropical regions should provide themselves with warm clothing. He adds that a suitable social programme will be arranged for the entertainment of visitors, and that the subscription to the association, 10s. 6d. (6 dollars Hong Kong currency), is now due, and that no further subscription will be required until 1913.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

J. D. asks advice as to the treatment of a perineal hernia in an old woman. It bulges the perineum on the right side, and causes considerable discomfort, especially at stool.

### TEACHING OF VOLUNTARY AID DETACHMENTS.

D. B. asks for a small book on (1) military surgery and (2) military nursing or hospitals, in connexion with the teaching of a voluntary aid organization.

*** "D. B." will probably find all that he wants to know for voluntary aid instruction in *Royal Army Medical Corps Training*, a new edition of which is, we understand, in the press (Wyman and Sons; approximate cost, 1s.); *First Aid to Injured and Sick*, by Warwick and Tunstall (J. Wright and Sons, Limited, 1903; 2s. 6d., paper covers 1s.); and *Military Nursing*, by Major and Mrs. Hassard (H. Frowde, Hodder and Stoughton, 1910; 3s. 6d.) might also be consulted. If "D.B." wished to go more deeply into military surgery he might look at *Gunshot Wounds* by Major Spencer (H. Frowde, Hodder and Stoughton, 1908; 5s.). There is also an advanced manual on military surgery, *Wounds in War*, by Colonel Stevenson (Longmans, Green, and Co., 1910; 16s. net.). The management and control of military hospital establishments will be found in *Regulations for the Army Medical Service* (Wyman and Sons, 1906; price 6d.); and the duties of each appointment are detailed in *Standing Orders, Royal Army Medical Corps* (Wyman and Sons, 1907; price 1s.).

### MATERNAL SYPHILIS.

R. C. writes: A woman married at the age of 21, and subsequently had three abortions at the third, fourth and eighth month respectively; the cause presumably specific. The husband then died. She developed no other symptoms, and received no treatment. Now, after five years' widowhood, she proposes to marry again. She is 31 and apparently in perfect health. Does the second husband run any risk—that is, if syphilis was the cause of the abortions?

*** Syphilis is by no means the only cause of repeated abortion. When our correspondent, then, writes of the abortions as being "presumably specific," we infer that he has other sources of information at command, such as the state of health of the first husband, which he has not communicated to us. Such information might have materially assisted in forming an opinion on the point submitted. Assuming a syphilitic origin for the abortions, there are three views currently held as to the relations existing between a mother and her tainted offspring. One, which has attracted renewed attention of late in certain quarters, is that no mother can conceive with such offspring without the previous incurrence of syphilis by herself. Another is that a previously healthy woman may conceive with a tainted fetus from a syphilitic partner, but in such a case she becomes herself affected from the fetus, by "return shock" through the placenta (syphilis by conception). A third view, and one more widely held, perhaps, than any of the others, is that a mother may bear a succession of syphilitic infants without becoming affected herself, and, indeed, may gain immunity to the disease from the absorption of products generated by the fetus in utero. Of course, those who hold either of the first two of these views would regard the incurrence of syphilis by the second husband in our correspondent's case as a more probable, or rather possible, event than those who uphold the third. But we would place ordinary experience before any other considerations, either theoretical or proven, and are of opinion that the contraction of syphilis from an apparently healthy woman, with no evidence of syphilis against her beyond the fact of the three successive abortions, must be so extremely exceptional an event that any risk thereof might fairly be discounted.

## ANSWERS.

DR. BLAIKIE (Edinburgh) thinks "Haemorrhage" will find *Practical Nursing for Male Nurses in the Royal Army Medical Corps and Other Forces*, by Major E. M. and A. R. Hassard (Oxford Medical Publications, 3s. 6d.), a most suitable book for the purpose for which he requires it.

### Nocturnal Enuresis.

Dr. Herbert C. Major (Jersey) writes: "J. J." might try the method of treatment described by Professor Stumpf some time since (*Bulletin de thérapeutique*). Stumpf recommends that the patients should sleep with the head lower than the pelvis, thus creating a mechanical obstacle to the passage of urine, which then no longer irritates the urethral sphincter, He reported several cases—children, also one adult—successfully treated in this way. The duration of the treatment was about three weeks, after which the normal position in bed could be resumed.

Dr. Sanderson Mellor (London) writes to recommend "J. J." to try tinct. lycopodii, commencing with 20 minims, and gradually increasing the dose to 45 or 50 minims morning and night for a week or ten days. He has met with several cases that have been very considerably benefited by the above treatment.

Dr. H. J. Thorp (Ipswich) writes: In reply to "J. J.," the first importance to correct any manifest deviation from the ordinary standard of health; secondly, administer belladonna persistently—small doses suffice at first—6 to 12 minims of the tincture every afternoon and evening. In the second and third weeks of treatment the dose to be increased one-fourth; in the fourth and fifth week the original dose is raised a third or half.

### Removal of Superfluous Hair.

Dr. A. Howard Pirie (London) writes in answer to "J. F.": If electrolysis cannot be carried out at the rate of 70 to 100 hairs at each sitting, and there are more than about 1,000 hairs present, he should try *x* rays according to the method described in the British Medical Journal, August 27th, 1910, for the destruction of sweat glands, a method which has now been confirmed by many observers and is well established. In the writer's hands the same method carried out for superfluous hairs has been successful. One girl treated thus had a beard like a man. In her case one dose was given to make all the hair fall out. After a month, when the hair had fallen out, and all reaction had subsided (for it is usually necessary to get a little reaction for epilation on the face) another epilation dose was given on the now hairless skin of the face, and this was repeated each month for six treatments. The part was then left untreated. It is seven months since the last treatment, and the hair has not begun to grow. She was warned that telangiectasis might follow, but up to the present it has not developed.

### Lavatories for Women.

Dr. Jno. Brown (M.O.H. Borough of Bacup) writes: In reply to your correspondent on the above, if he will write to the Secretary of the Women's National Health Association, 3, Princes Street, Hanover Square, London, W., he will get further information. There are very few towns that provide free lavatories for women. The injustice to women is freely admitted. From inquiries which I have made I am glad to find that some of the more progressive towns are taking steps to remove this injustice. I brought this matter before my health committee last year as a sanitary question and one of justice to women. One free watercloset was granted. No doubt if other medical officers of health were to press the question something would be speedily done.

### Tuberculin for Early Phthisis.

Dr. E. W. Diver (London) writes: In reply to "L.," one ten-thousandth of a milligram of T.R. is a safe dose to begin with. If practicable the patient should remain in bed for fully twenty-four hours after the injection, and the temperature taken (in recto) every four hours. If this dose produces only a slight reaction it may be repeated in seven or eight days. If no reaction then occurs one eight-thousandth of a milligram may be given after a similar interval, and, generally speaking, the strength may be *gradually* increased and the intervals extended to about ten days or a fortnight. The information afforded by estimation of the opsonic index will be found useful, and a record of the patient's temperature during a day in bed before the injection will prove useful when estimating the importance of a subsequent rise. The patient should be under the best hygienic conditions during the period of treatment, preferably in a sanatorium; and it should be remembered that patients vary in susceptibility to tuberculosis, also that the same patient's susceptibility may vary at different times.

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## LETTERS, NOTES, ETC.

Dr. Robert Wise (London, N.) writes: Probably many medical men have had a case where a child swallowed an india-rubber teat from a feeding bottle. For the sake of those who have not had such a case I would like to state that a child 5 years old swallowed a teat (1¾ in. long), and exactly fifty-five hours later the teat was passed per anum with a little blood and faeces. Whether this always occurs I do not know.

### Control of Venereal Diseases.

Dr. H. M. Wilson (London) writes: Those of your correspondents who advocate the Contagious Diseases Acts, or any similar measures, seem to have shared Rip Van Winkle's cave for the last twenty years. Mr. Stritch bases his letter on the report of the Select Committee of 1882, but since then much water has run under London Bridge. May I, in particular, direct attention to three facts:

1. The Contagious Diseases Acts were definitely repealed in 1886, and since then the statistics of venereal disease in the army—the only reliable statistics available—show a steady and continuous decrease. In 1909 the admission-rate was 66 per thousand, only about a quarter of what it was in 1882 under the Acts. That is a fact which should be borne in mind when estimating the value of the 1882 report.

2. The semi-official International Conferences held at Brussels in 1899 and 1902, which had before them a vastly greater mass of evidence than was available to any purely English committee, were unable to report in favour of State regulation, or of any other compulsory measure. Many foreign experts confessed the failure of the system, and the almost unanimous tendency was to rely on education and on better facilities for free and voluntary treatment.

3. A French Extra-parliamentary Commission (equivalent to a Royal Commission in this country), appointed in 1903, reported three years later, after a most exhaustive inquiry, condemning absolutely the existing system of Réglementation and all other compulsory methods, and advising that the whole subject should be dealt with by the common law. Political considerations have hitherto prevented action being taken on this report.

Two of your correspondents advocate notification, and state as one of its advantages that medical men could be compelled to warn each patient of the danger of infecting others. It does not clearly appear why medical men should wait for notification before they can do this. I understand that at the London Lock Hospital all out-patients receive a printed slip pointing out the precautions to be taken for their own sake and for the protection of others. This would seem to be a plan which might with advantage be adopted for out-patients in other hospitals and dispensaries.

### The Expression of the Colour Blind.

Last year we had occasion to publish three communications on the subject of colour blindness from Dr. G. H. Taylor, Medical Officer of the Government Railways in New South Wales, and one of them was the subject of criticism by Dr. Edridge-Green. We have now received a further communication from Dr. Taylor in which he reviews again the whole subject. As, however, his arguments cannot satisfactorily be followed by any one not having the original documents before him, we content ourselves with summarizing the contents of this further letter. In point of accuracy of results, Dr. G. H. Taylor finds a modified Williams's lamp and an Edridge-Green lamp to be practically equal, but considers it more satisfactory to work with the former. For railway employees, however, a daylight test is also necessary, and he knows of none which is an improvement of Holmgren's method. He has detected by this method and confirmed by the Nagel method cases of colour blindness of a dangerous kind which passed without mistake both the lantern tests mentioned. He believes that his view that colour blindness can be predicated from a peculiar facial expression will eventually be generally accepted, for he has demonstrated the existence of such an expression to the satisfaction of many intelligent and trained minds in Sydney.

### A Thigh Reflex (?)

Dr. A. J. Manasseh (Brumana, Beyrout, Syria) writes: I was interested to notice this morning in our out-patient department a reflex phenomenon in a patient, and I thought it would interest some of the readers of the British Medical Journal to hear of it. The patient was a man of about 45, who came to consult me for pain in his right thigh and leg due to sciatica of a mild type. He told me he had noticed that in rubbing the right leg with turpentine oil he experienced a most unpleasant feeling in his stomach, and he had a good deal of flatulence at the same time. I was interested to hear of this and tried rubbing his right thigh and leg with my hand over his clothes, and very soon after he began to have flatulence which was not pleasant to the patient. I rubbed the other leg, but without any similar result. It will be interesting to hear whether others have met with similar experiences.

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# Clinical Illustrations

OF THE

# PERSISTENCE OF DISEASE GERMS IN THE HUMAN BODY.

BEING AN ADDRESS TO THE CLINICAL AND PATHOLOGICAL SOCIETY OF PAISLEY.

BY

**SIR HECTOR C. CAMERON,**

EMERITUS PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF GLASGOW.

AMONG the many important services which bacteriological science has rendered to surgical practice not the least interesting is the evidence which it has afforded of the persistent power of living in the human body which is exhibited by most, if not by all, of the micro-organisms known to be the causes of disease. Some of these, having once obtained possession, seem to be immortal within the limit of the life of their host. They may go asleep for a time, but they do not perish. Recovery from the particular disease caused takes place, and the patient enjoys what appears to be, and really is, most excellent health for months or years, when recrudescence occurs to show that the enemy had only called a truce and had not in reality retired permanently from the conflict.

Until recently the only diseases which were regarded as undoubtedly recidival were syphilis and cancer. Both were known—indeed, were expected—to reassert themselves after, it might be, long periods of apparently unimpaired health, and in both a fatal issue might be arrived at after frequent and fallacious assurance of fully re-established physical well-being. Syphilis, it is now recognized, is the product of a *contagium vivum* in the shape of a micro-organism—the *Spirochaeta pallida*—the presence of which has been demonstrated even in the latest tertiary manifestations of the disease; while, if analogy may be trusted, it is not too much to expect that something similar may, in the future, be discovered as having a causative relation to cancer.

But I wish to suggest, and to illustrate my contention from clinical experience, that this liability to recurrence, so long obvious and recognized in the cases of syphilis and cancer, may be observed, in varying degrees, in almost all diseases in which micro-organisms play an important part. The germs rest and remain either near the place where they first made their presence felt by the production of a definite lesion or in some place, more or less distant from it, to which they were transferred, during the currency and progress of that lesion, usually along one or other of the great high-roads of the body, the sanguineous and lymphatic vascular systems. In either situation they may lie dormant for longer or shorter periods of time, until aroused and awakened by some disturbance in the conditions attaching to themselves or their host or the relations existing between the two. This behaviour of disease germs, whether bacterial or protozoal, probably has its analogy in facts connected with the vegetable world. White of Selborne seems to have been impressed with the truth that it was possible for seeds to remain long dormant in the soil and yet to germinate when favourable conditions arose. Thus, under the heading of "Seed Lying Dormant," we find this paragraph in the *Natural History of Selborne:* "The naked part of the Hanger is now covered with thistles of various kinds. The seeds of these thistles have lain probably under the thick shade of the beeches for many years, but could not vegetate till the sun and air were admitted. When old beech trees are cleared away the naked ground in a year or two becomes covered with strawberry plants, the seeds of which must have lain in the ground for an age at least. One of the slidders or trenches down the middle of the Hanger, close covered over with lofty beeches near a century old, is still called 'strawberry slidder,' though no strawberries have grown there in the memory of man. That sort of fruit did once no doubt abound there and will again when the obstruction is removed."

In a conversation which I lately had with a well-known botanist regarding this matter, I gathered that he entertains no doubt of the fact that seeds may lie dormant in the ground for shorter or longer periods, although he does not think White's particular illustrations of it quite convincing in the light of our present knowledge regarding the free distribution of the seeds of such plants as the thistle and wild strawberry by the winds and the birds of the air. He suggests, as a more convincing instance of the fact, the circumstance that when old pasture is turned over by spade or plough a large number of plants may appear whose presence can only be accounted for by their seeds having lain inactive in the soil so long as it was undisturbed.

I shall now proceed to offer you some clinical illustrations of the facts on which I have based these remarks.

The following case demonstrates what is not an altogether unfamiliar experience in regard to erysipelas, and shows how a fresh traumatism will rearouse sometimes the virulence of germs lying quiescent in a part in which they have on a former occasion caused widespread and dangerous disease.

CASE I.—*Recurrent Erysipelas.*

In August, 1886, the captain of a ship trading between Glasgow and Calcutta met with a carriage accident in the latter city, in consequence of which he sustained a fracture of the lower end of the fibula, with a compound dislocation of the lower extremity of the tibia, of his right leg. From his account of the progress of his injury it was evident that sepsis early invaded the wound and the ankle-joint, and serious illness followed. Suppuration was abundant and much swelling and inflammation occurred around the injury. But in May, 1887, he left Calcutta and arrived in London. There were several sinuses open, from which pus was discharging, and much thickening existed around the lower part of the leg and ankle. He was admitted to a hospital, where an operation was performed and some dead bone extracted. This interference was followed at once by a severe attack of erysipelas, which ultimately spread as high as the armpit, and evidently placed his life in great danger. After this was entirely recovered from, he came to his home in the west of Scotland and soon felt remarkably well, walking about a good deal with the aid of crutches. But as matters did not improve so far as the condition or usefulness of the limb were concerned, he determined, upon medical advice, to have the leg amputated in its lower third. He was admitted for this purpose under my care in the Western Infirmary, and in December, 1887, I operated on him. I found the ankle-joint firmly ankylosed and sequestra lying loose in the tibia, fibula, and astragalus. I did not, therefore, amputate, but, having freely opened up the soft parts, extracted the sequestra, curetted the cavities and their sinuses, irrigated thoroughly and stuffed the recesses of the wound lightly with iodoform gauze. For a day or two the patient was remarkably well, but on visiting the hospital one morning, a few days after the operation, I was informed that he had been seized with a severe rigor the previous evening and had vomited several times during the night. His temperature was very high and he complained of great pain in the wound. Already I found, on inspection, a red blush of the skin of the leg above the highest turns of the bandage, and it was evident that erysipelas was present. This continued to spread upwards until it involved the thigh as well as the leg. He was treated in isolation and ultimately made a good recovery, the wound healing soundly and permanently, so that he was able once more to take command of his ship.

It is highly improbable that both the surgeon who operated in London and myself had, on occasions separated from one another by about seven months, introduced some virulent strain of streptococcus into the wound and so given rise to the erysipelas. All that we did was to disturb the soil, break down barriers which walled off the streptococci existing in the part itself, and opened the lymphatic spaces in the skin for their entrance. A fact like this does something probably towards the explanation of those cases of recurrent, or, as they have been called, habitual, erysipelas of the face and head which are occasionally observed in certain individuals. An attack is aroused by the slightest traumatism, by exposure of the face to a cold wind, or even occasionally by violent sneezing or blowing of the nose. No immunity whatever seems to be conferred by previous attacks.

Staphylococcic ostitis, or osteo-myelitis, one of the most formidable diseases of childhood, has for many years been recognized as one apt to be characterized by relapses of inflammation in the part, sometimes without, sometimes with a renewal of suppuration, and especially, perhaps, since Paget published in 1869 his well-known paper on Residual Abscess, mainly in reference to instances of this disease and of tuberculous disease of bone. Few patients pass through a serious illness of this kind, especially with

necrosis and the formation of sinuses in such important bones as the femur, tibia, or humerus, without having relapses, sometimes numerous, and often very serious in character.

CASE II.—*Recurrence of Staphylococcic Osteomyelitis.*

Not long ago I had under my care a young man who, eleven years previously, had been in my wards with sequestra in the upper and lower ends of one humerus, the result of recent severe osteomyelitis. I then removed the sequestra and, after a time, his wounds securely healed. Still, during the eleven years which have since passed he has been laid up on four occasions owing to the occurrence of inflammatory attacks in that bone, with fever and other signs of constitutional disturbance, and on three of those occasions abscess formed. His last illness was in October, 1909, when I evacuated a large abscess which existed in front of the upper end of the humerus, extending into the armpit and under the pectoral muscle. There was no sequestrum, but the pus yielded a pure culture of the *Staphylococcus aureus*.

He remains well since that time, but I greatly fear that his troubles may not be at an end, for he has several times enjoyed excellent health for longer periods of time than that which has elapsed since this last abscess was opened. Indeed, I do not think that it is fully appreciated what a lifelong trouble this infantile infective disease of bone often proves itself, laying a man aside from business time after time during his life. Twice I have seen men over 70 years of age laid up by most painful and serious abscesses, occurring, in each case, in connexion with a tibia from which in early life numerous and large sequestra had separated and been removed after long-continued suppuration. In each the tibia was greatly deformed, and showed the depressed scars of many old sinuses, and more than one relapse had occurred during the long life of both men. But recurrence is not always confined to the part in which the primary infection happens to take place. It may occur years afterwards in another part of the body.

CASE III.—*Recurrent Staphylococcic Abscess in Right Tibia Nine Years after Amputation of the Left Leg on account of Acute Osteomyelitis of the Left Tibia.*

On January 26th, 1909, there was admitted to my male ward in the Western Infirmary a shoemaker, aged 25. More than eight years previously he had been treated in the Royal Infirmary by the late Mr. Henry E. Clark on account of osteomyelitis of great severity beginning in the neighbourhood of the lower epiphysis of the left tibia. Nearly the entire shaft of the tibia necrosed and lay exposed in a wound which extended almost from ankle to knee. He was extremely ill and early developed a right pleurisy, while shortly afterwards the knee-joint seems to have become involved. Mr. Clark amputated in the middle of the thigh, and thereby, I have no doubt, saved the patient's life. After complete recovery he learned shoemaking, and has since worked at that trade, enjoying good health and getting about fairly well with a crutch. Twelve weeks before coming under my care, however, he began to suffer from severe aching pain, aggravated at night, in the front of the shaft of the tibia of his remaining leg (right) a little above the junction of its middle and upper thirds. After a time a strictly defined swelling of the bone occurred, like a large node; and when I saw him there was over the most prominent part of this swelling a reddened and very tender spot of skin where fluctuation was distinct. There was no constitutional disturbance or fever present. Under chloroform the abscess was incised, and a small opening was found in the bone beneath, which led into a cavity of some size. On enlarging this opening, I was able to scrape out of the cavity with a spoon one or two small sequestra and much coarse granulation material. When the skin was incised, some of the pus as it flowed was received into a sterile tube, and, on cultivation, yielded an abundant growth of *Staphylococcus pyogenes aureus*. He made a good recovery, sound healing ultimately occurred, and he once more works at his trade.

It will be observed that there are some unusual and aberrant features presented by this instance of staphylococcic ostitis. The age of the patient (25 years), the fact that the disease occurred in the shaft of the bone and not near either extremity, the epiphyses being united, the further fact of the absence of all fever or other general disturbance of health, are none of them in accord with the facts to be observed in a primary attack of the disease. All the circumstances point strongly, in my opinion, to the conclusion that the pyogenic organisms were carried to the patient's right tibia at the time when they were working such havoc with the left one. There they lay quiescent for between eight and nine years, but at last produced mischief characteristic in kind, though much mitigated in intensity. It is an occurrence analogous to that of the woman who has a breast amputated on account of a cancerous tumour, who, after enjoying excellent health for some years, begins to suffer from rheumatoid achings and pains in one thigh, and one day breaks that thigh-bone by putting her weight on it when stepping out of bed. A residual fragment, or perhaps germ of cancer, has rested without material change in her thigh-bone for years, and then by a sudden renewal of growth and activity has led to spontaneous fracture.

But a secondary infection of bone by staphylococcus may occur even when the primary disease caused by it was not an ostitis.

CASE IV.—*Ostitis of Femur occurring in a Man, 54 Years of Age, Four or Five Months after Recovery from Large Carbuncle on Neck.*

An iron turner, aged 54, was admitted into hospital under my care on May 5th, 1908, on account of pain in the left thigh and lameness of three months' duration. The pain, when first felt in the limb, was referred to the neighbourhood of the shin and ankle. This was not very severe, and lasted only for a week. It caused him to limp but he continued at work. He stated that "the pain then shifted to the knee and thigh, and has remained there since." During three or four weeks before I saw him it had been intolerably severe, interfering with his ability to walk and therefore to work, while it frequently robbed him of a whole night's rest. On examination a distinct enlargement of the middle of the femur, which tapered off above and below, was observed. There was no fever whatever, the temperature always being found normal night and morning. Four or five months previously the patient had suffered from a large carbuncle on the back of the neck, which had caused him great pain, and kept him from work for five or six weeks. The scar left by it was a large and irregular one. It was immediately after his return to work that he began to experience painful sensations in his left lower limb. This tumour of the thigh did not suggest to my mind the characters of a neoplasm. Nor did I, at first, quite see why a man, aged 54, who had always been very healthy and had no history of syphilis, should suffer from this painful enlargement of the middle part of his femur. He was far removed beyond the age when one expects to meet with staphylococcic ostitis, nor is the middle of the thigh-bone one of the *élite* situations of such an ailment. Moreover, though pain was great, fever was entirely absent. On May 7th I cut down on the thickened bone through the front of the thigh, making an incision through skin and muscles of about 8in. in length. The periosteum, which was greatly thickened, was reflected to each side, when it was seen that the surface of the bone was very rough and irregular, owing to new formation. A wedge-shaped piece of the femur was removed by chisel and mallet. In the cavity thus opened there was a certain quantity of greyish fluid. I regret to say that, by some mistake on my part, no culture was made from this fluid, but the following is a report sent to me by Dr. J. H. Teacher on the portions of tissue which I removed at the operation:

"I picked off from the bone all the soft tissues I could get, and have to report on them and on one small piece of bone accidentally included. They all show a septic condition, apparently subacute, there being present many polymorphonuclear leucocytes and also granulation tissue. There is nothing like sarcoma. The osteophytes are not yet ready for cutting, but I should be greatly surprised, in view of the above and their characters, if they prove to contain tumour."

A later note from the pathologist stated that further examination had convinced him that there was nothing to suggest sarcoma. The wound suppurated a good deal, and, although the patient's strength was well maintained, healing was somewhat slow in its progress, principally because some bare bone, which was early observed after my operation, was slow to separate. It was extracted in August by the assistant surgeon who had charge of my patients during my absence on holiday. Sound healing occurred ultimately, and the man returned to his work towards the end of the year.

Although, unfortunately, no bacteriological examination of the fluid from the central part of the thickened femur of this man was made, I have no doubt now in my own mind, from the characters which I noted in the part both before and during operation, as well as from Dr. Teacher's subsequent pathological report, that the ostitis was due to staphylococci furnished by the carbuncle from which he suffered immediately prior to the first symptoms of the mischief in his femur.

The following case is an interesting example of the limited recurrence of an empyema owing to the persistence in the part of the *Staphylococcus pyogenes albus*:

CASE V.—*Case of Empyema due to Staphylococcus pyogenes albus: Recurrence of Suppuration nearly three Years afterwards, the same Organism being present.*

On January 29th, 1907, A. R., a young woman aged 17, suffering from an empyema of the right side, was transferred for operation to my female ward from that of my colleague, Professor Gemmell, to which she had been admitted on December 20th, 1906. The following facts are extracted from the journal of that ward: On December 8th the patient began to

suffer from severe headache, which confined her to bed. Next day her headache was even more severe; she suffered also much pain in the back, and was highly feverish. On the evening of December 10th she became delirious. From that time up to December 20th the pain and delirium continued, and the patient was said not to have had any sleep. There had been no vomiting, convulsions, or rigors. The Widal reaction proved negative. On admission the patient lay in bed obviously suffering great pain. There was no retraction of the head or rigidity of the limbs, but she screamed aloud whenever she was touched. The pupils were normal, but there was an internal squint of the left eye. Respirations 40, pulse 120, temperature 104.4° F. No abnormality in thorax or abdomen was made out, and there was no rash. On December 21st she was conscious when roused, and answered coherently when spoken to. On December 24th it is noted that there has been marked dyspnoea, the respirations averaging 60, and the pulse ranging from 124 to 162 per minute. Her highest temperature on that day was 103.4° F. Consolidation was noted at both bases, and on the right side the dullness extended up to the interscapular region. Along with the dullness there were crepitus and tubular breathing. She has been less noisy and has not cried out so much as before, lying semi-comatose. On January 1st it is noted that no improvement had occurred, that the patient had lost much flesh, and that numerous furuncular sores had formed on her body and upper limbs. Diarrhoea had been present for about a week. The temperature had oscillated considerably, but the pulse remained rapid. The patient was semi-comatose, motions and urine being passed in bed. On January 7th considerable improvement in her condition was recorded, the diarrhoea had ceased, and she was much stronger and more intelligent. Widal's test with *Bacillus typhosus* and *Bacillus paratyphosus* gave a negative result. On January 29th it is noted that Dr. Gemmell suspected the presence of fluid in the right pleural sac, and, on the introduction of an exploring needle, it was found to be purulent, and the patient was transferred to my ward for operation.

On January 30th I excised a portion of the eighth rib and evacuated 2½ pints of pus. The patient, although extremely weak, stood the operation well, and showed no signs of shock or collapse. She made rapid progress, and on February 10th it is noted that her condition was very satisfactory, the temperature being practically afebrile, and she was eating and sleeping well. The discharge was almost entirely serous under strict antiseptic dressing, and rapidly diminishing in amount. She was now much stronger and could sit up in bed. She continued steadily to improve and to gain strength, but it was not until June 8th that she was dismissed. By that time her wound was satisfactorily sound, and her weight and strength well restored.

On February 21st, 1907, Dr. Teacher reported as follows: "The organism from the case of A. R. (empyema) proves on subculture to be *Staphylococcus pyogenes albus*."

Nearly three years after her dismissal she was again admitted to hospital, being placed this time under Dr. Edington's care, in a ward reserved for the treatment of septic cases; and he has kindly furnished me with a short note of her case as observed by him.

She was admitted on December 9th, 1910. She had remained well since her previous illness till a fortnight before her present admission, when the region of the scar became swollen. She had pain in the swelling one week later, when she was seen in the outdoor department and recommended for indoor treatment. The swelling burst on the day of admission and a small quantity of discharge oozed away. On December 10th the condition noted was a fluctuant swelling about the size of a walnut, situated in the middle of the old scar. Incision allowed a few drops of turbid fluid to escape. The main bulk of the swelling was composed of infiltrated connective tissue. This was incised, after which a probe was passed through a sinus into the pleural cavity. This sinus was situated in the middle of the eighth rib, that is, in the interval from which a piece of the rib had been formerly removed. The periosteum having been elevated the rib was divided in front of and behind the sinus and the intervening parts removed. On then enlarging the opening into the pleura, the finger found a limited cavity, bounded above and behind by the lung, and in front by the ribs. The cavity contained turbid watery fluid. A drainage tube was inserted and the wound partially closed. The bacteriological report, dated December 12th, 1910, is as follows: "No organism seen in film. A very scanty growth of *Staphylococcus albus* obtained on culture."

If we now turn from pyogenic to pathogenic organisms we shall, perhaps, be still more struck by the viability of many of them.

It is almost unnecessary to refer in this connexion to tubercle, so well recognized by all practitioners is its tendency to recurrence even after long cessation of active symptoms. Indeed, it is often hard to be sure whether a tuberculous lesion is a primary infection or not. It may be only the awakening of some latent, perhaps unknown, infection of many years' standing, and von Behring has expressed the belief, probably with every justification, that pulmonary tuberculosis in the adult results not seldom from the tardy evolution of an intestinal infection contracted in early life. Recrudescence of the tuberculous process in joints, bones, glands, and skin is too well known to every practitioner to require illustration, occurring as it often does repeatedly in a patient's lifetime, sometimes with prolonged intervals of suspense between the attacks. Again, the injury which is followed by active tuberculosis in a hip or knee is probably only the quickener of a latent deposit which already existed there; and when a consumption supervenes upon a typhoid fever or an influenza, or a tuberculous meningitis on an attack of measles, it is not improbable that in each case the fever has only awakened into activity germs which settled in those parts months or years before.

Writing lately on "Syphilis: Recent Methods of Diagnosis and Treatment," Dr. Ivy McKenzie makes the following remarks:

> A second infection of syphilis is extremely rare, and no case of a hard chancre occurring in a tabetic or general paralytic has ever been reported. Krafft-Ebing failed to inoculate with the virus of a typical hard chancre nine cases of general paralysis, which gave no history and showed no sign of syphilis. Such observations have naturally led to the conclusion that one attack of syphilis confers a permanent immunity. It is more likely, however, that the patient still harbours the virus, because Neisser has shown that as long as spirochaetes are present reinoculation is impossible, whereas, after thorough treatment of experimental syphilis and trypanosomiasis, it is possible to reinfect the animal almost immediately. The term "acquired immunity" as applied to syphilis, signifies, therefore, a condition of equilibrium between the host and the spirochaetes of the original infection, whereby an inoculation with fresh material does not produce the usual manifestations. The existence of latent periods in disease is not peculiar to syphilis. Thus, trauma, an attack of measles, or of influenza are not the causes of tuberculous infection; they are the conditions which give rise to disturbed relations between the patient and the organism which may already have been present for some time.

In syphilis and tubercle, therefore, we may be satisfied that their respective specific organisms, once admitted into the body, have their potentiality for mischief terminated only by the death of their host. And the same latent persistency may be observed in cancer, although as yet we know of no causative germ related to it.

Let me now direct your attention to the extraordinary viability of the *Bacillus typhosus*. The fact of its power of survival in the body has of recent years, as you know, become a matter of grave concern, on account of the danger which often follows to the public health from the prolonged persistence of the bacilli in the urine or alvine evacuations of certain patients who have recovered from typhoid fever, and who may from these sources continue to spread disease and disaster amongst those with whom they live or work.

Surgeons are familiar with many sequelae of typhoid fever, due to the presence of the bacillus, in which relapses are of very frequent occurrence. They are too numerous to mention here, but there are at least two which are comparatively common—namely, inflammation of certain bones with or without abscess and necrosis, and inflammation of the gall bladder with or without gall stones. In bone abscess a pure culture of the typhoid bacillus has been obtained at least six years after recovery from the fever, and in the case of an abscess about the gall bladder fourteen years and a half after (Kean on *Surgical Complications and Sequels of Typhoid Fever*).

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CASE VI.—*Repeated Attacks of Severe Pain in a Tibia for Twenty-seven Years subsequent to the occurrence of Typhoid Ostitis with Abscess in that Bone.*

I know a lady, now 65 years of age, who passed through a severe attack of typhoid fever in 1884, which confined her to the house for five months. During convalescence a painful swelling of the lower part of the left tibia occurred. Her brother, who is a medical man, informs me that this was operated on in March, 1885, on account of abscess. Her progress was slow, and she was lame for two or three years thereafter. She then became subject to attacks of agonizing pain in the part at shorter or longer intervals of time, although her health was well maintained. This liability to sudden onset of pain still continues, several attacks having occurred during last year. No swelling is observed during an attack, but sometimes a limited spot of great tenderness can be made out. There has never been any recurrence of suppuration.

The following are shortly the facts of an interesting case of cholecystitis, consequent upon typhoid fever, which I have quite recently had under observation:

CASE VII.—*Case illustrating the Persistence of the Typhoid Bacillus in the Gall Bladder.*

Mrs. H., aged 39, was admitted under my care in the Western Infirmary on October 8th, 1907. In May, 1907, she suffered from an attack of typhoid fever. When convalescent, but

before she had left her bed, severe pain occurred in the right hypochondrium. She herself soon afterwards felt a "lump" in that region which was tender to pressure, and she drew her doctor's attention to it. During August and September she had repeated attacks of most severe pain in this swelling. They were accompanied by vomiting and profuse perspirations, but there were no rigors. She did not suffer from jaundice or notice any alteration in the colour of the stools. She stated that during each attack of pain the tumour in the abdomen increased markedly in size.

On examination, it was easy to make out a tense pyriform tumour in the situation of the gall bladder, which extended down almost to the level of the umbilicus, and was very tender on pressure. She was kept in bed for several weeks, and, by rest, great improvement occurred, so that all her pain subsided and the tumour diminished so as to be only doubtfully perceptible on palpation. When she was allowed again to be up and to walk about relapse quickly occurred. On December 10th I operated, opening the inflamed and somewhat thickened gall bladder, stitching it to the abdominal wall and inserting a drainage tube. It contained a quantity of muco-pus and inspissated bile, but no gall stones. Then and on several subsequent occasions cultures of the fluid were made, and yielded a pure growth of *Bacillus typhosus*. In January, 1908, the typhoid bacillus was no longer found in the discharge, but a very short Gram-negative bacillus was present. On February 3rd the drainage tube was removed, and on March 10th the patient went home. She was then in good health and free from all pain, but the sinus still furnished some glairy discharge. She continued well, except on occasions when the discharge was retained by a temporary closure of the fistula; and in November, 1908 (seven months after leaving hospital) the fistula healed securely. About the same time she became pregnant. She enjoyed excellent health throughout her pregnancy, having no trouble whatever with the gall bladder. The child, which was her twelfth, was born on August 20th, 1909, after an easy labour. She remained well until the middle of October, when pain and the former tense swelling were once more felt in the right hypochondrium; and after several recurring attacks of the pain and vomiting she came back under my care. I reopened the sinus without much difficulty and reintroduced a small drainage tube. A pure culture of *Bacillus typhosus* was again obtained from the discharge on four different occasions. In December bile began to flow freely from the tube and the typhoid bacillus was still in pure culture. Dr. Carl Browning, who conducted the bacteriological investigations, has referred to the case in a lately published paper entitled "Latent and Chronic Infections with Typhoid Bacillus" (*Glasgow Medical Journal*, August, 1910), and from that paper I may quote what is to be said further regarding the bacteriology of the case.

"Subsequently there was found," he writes, "in addition to *Bacillus typhosus*, *Bacillus proteus* and a very short Gram-negative bacillus. On the last examination, in January, 1910, typhoid bacilli were still present. *Bacillus coli* was not found in the discharge from the gall bladder at any time. The typhoid bacillus from this case gave all the typical reactions and was agglutinated to the limit (1 in 8,000) by an antityphoid immune serum from a rabbit. The urine was examined on three occasions during November to December, 1909, but *Bacillus typhosus* was never found. Thus, in this case, typhoid bacilli are still present in the bile passages two and three-quarter years after the acute illness. The patient's serum was tested on several occasions from October to December, 1909, with her own strain of *Bacillus typhosus* as well as with the laboratory culture. The Widal reaction was positive, but not markedly so (agglutination in forty minutes with a dilution of 1 in 40) at room temperature."

She was dismissed on February 12th, 1910, in good health, but with discharge still escaping from the sinus. Within the last few days her doctor kindly sent a reply to a note of inquiry regarding her present condition which I had addressed to him, and in that reply he writes as follows, under date February 10th, 1911:

"I saw Mrs. H. yesterday. After leaving the hospital a year ago the sinus continued open till August, when it closed and remained so until January of this year. Then there occurred once more a great swelling of the gall bladder. With hot fomentations constantly applied the sinus opened up again, and the swelling subsided. She is now once more going about as usual, there being a little discharge daily from the wound."

Probably the bacilli still persist. The question of treatment in such a case is one of some difficulty. If the organisms were altogether confined to the gall bladder its entire removal might be contemplated. But no doubt they are present throughout the biliary passages generally, and in these circumstances removal of the gall bladder would prove futile.

I shall conclude my clinical illustration of this subject by detailing shortly the main facts of a case of amoebic abscess of the liver, the only example of the disease which I have ever had occasion to treat.

CASE VIII.—*Amoebic Abscess of the Liver occurring more than Six Years after Recovery from an attack of Dysentery.*

On April 30th, 1910, N. M., aged 27, a soldier, was admitted into the Western Infirmary under my care. He had served in the army for four years, and two of those years were spent in South Africa (1902–1904). While there he suffered from a severe attack of dysentery, and was in hospital for some months. His recovery, however, was complete and satisfactory, and in the summer of 1904, as his own battalion had been recalled to this country while he was ill in hospital, he was attached to another, and found himself able for all his work. He was, after a time, sent to this country, and rejoined his old battalion at Maryhill Barracks, Glasgow, where it was then quartered. After serving there for another year, his time of service expired, and he went back to work as a baker, the trade which he had learnt before joining the army. He continued to enjoy excellent health and worked uninterruptedly as a baker until his present illness began. Ten weeks before his admission into hospital he one day felt ill, and was seized with shivering. He was laid up, and a week later began to suffer pain in the right hypochondrium. This continued for a week, and then seemed to alter its position, becoming localized about the level of the fourth interspace on the right side and being only felt on deep inspiration. Soon, however, the pain became generalized over the side and gradually increased, but varied in intensity from time to time. About a fortnight before admission swelling became obvious, bulging the lower ribs on the right side outwards; and it was said that for a week the pain had been very severe, almost entirely preventing sleep. The patient looked extremely ill and exhausted, complained of great weakness, and frequently moaned on account of pain. All over the right chest, front, side and back, about as high as the fifth intercostal space, and also over a considerable area in the right hypochondrium there was dullness on percussion. Over the bulging part of his side distinct fluctuation could be made out in the intercostal spaces, in spite of the fact that the slightest pressure elicited loud complaints of pain. There seemed to be no doubt that the abscess was there adherent to the chest wall.

The operation proved a very simple one. I made an incision in the sixth interspace at a point where fluctuation was very distinct, and before cutting through the whole thickness of muscle the contents of the abscess began to flow. Having extended the opening, I introduced a large and long drainage tube, drawing off nearly a pint of reddish-brown fluid. Some of this was received in a sterile tube and sent to the laboratory for examination. On the following day the patient was very well although weak; he was free from pain and had enjoyed some sleep. He progressed most satisfactorily. On May 13th it is noted: "The drainage tube has been removed and a smaller and shorter one inserted. The discharge is decreasing and becoming serous in character." It was soon trifling in amount and entirely serous, while the patient rapidly gained flesh and strength. On June 3rd, the wound having been absolutely healed for some days, he was allowed out of bed, and on June 10th was sent to the convalescent home. Dr. Carl Browning reported as follows regarding the discharge:

"Amoebae, containing red corpuscles, were seen in the pus. Cultures yielded no growth of any kind."

This tropical abscess of the liver, therefore, was solely due to the protozoal organism, being sterile so far as *Bacillus coli* and cocci were concerned. This is, I believe, in accordance with what is usual. It seems marvellous that the amoebae of a dysentery contracted and satisfactorily recovered from in South Africa should remain in this soldier's liver and put his life once more in danger in Glasgow six years afterwards by the sudden development of hepatic abscess, that well-known sequel of dysenteric disease. But the fact is one beyond any possibility of dispute.

## SALVARSAN ("606") AND ARSENIC CANCER.

BY

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IT is now known that the active agent in the so-called "606" is arsenic, and as it has gained wide popularity, it becomes a duty to examine and record the facts which concern its possible drawbacks.

I have been myself through a long professional life a zealous, not to say enthusiastic, advocate for the two minerals—arsenic and mercury. They have been, indeed, my sheet anchors in practice, compared with which all the rest of the *Pharmacopoeia* has seemed almost useless. They are remedies concerning which definite assertions may be made, and from which definite results may be always expected. They are tools concerning which all that has seemed necessary was that we should know how to use them.

My faith in their efficiency remains, after more than sixty years' experience, unshaken, but, as I very much regret to say, regarding one of them, I have been obliged of late years to feel that there are drawbacks which almost forbid its use. In former years I regarded arsenic

when employed in medicinal doses, as curative in a large proportion of the chronic diseases of the skin and of benefit in many of those of the nervous system and the blood. I knew of no important drawbacks and believed that it might be used with impunity and usually with great benefit to the general health.

I had learnt the use of arsenic from the writings of Dr. Hunt and from the practice of the late Mr. James Startin, whose junior colleague I was for many years at the Blackfriars Hospital for Skin Diseases.

In the year 1850 a collective investigation was instituted by the British Medical Association (then the Provincial Medical and Surgical Association) to determine whether the practice of prescribing arsenic for various affections, which was then becoming common, was really safe. The conclusions reached after the collection and consideration of much valuable evidence were affirmative.*

During the middle period of the last century probably there were few practitioners who used arsenic more freely than I did, for I was a pluralist with a very large field of observation, as I held appointments at several large institutions, and I had no serious misgivings as to the drug.

About 1880 it occurred to me to observe that common herpes zoster frequently followed arsenic, and I soon became convinced that they were cause and effect, and ventured to state this conclusion repeatedly in my clinical lectures. My friends at first assured me that I was attaching undue importance to what were mere coincidences. This, however, did not last long, for arsenical zoster was tolerably common and came within the experience of many, and it is, I suppose, now accepted as one of the best established facts in reference to the use of drugs. It was, indeed, the frequency with which zoster occurred which led to the identification of arsenic as the cause of the epidemic in connexion with poisoned beer a few years ago.

Not very long after the observation of the association between the use of arsenic and herpes zoster another and much more serious revelation took place. A succession of facts convinced me that the use of arsenic might be not only responsible for a comparatively unimportant eruption on the skin—the transitory neurosis known as "herpes zoster"—but could give proclivity to cancer. The importance of this fact—first made public, I believe, about the year 1887—is, I am assured, now widely acknowledged. I cannot claim that it is universally so. Facts have, however, accumulated both at home and abroad, and so long ago as 1902 a distinguished French authority—M. Darier—whose opinion, I believe, records the experience of many others, expressed himself as follows (*Semaine médicale*, December 10th, 1902):

> I now show you a man, aged 47, whom I first saw in 1890. At that time his face and neck showed confluent patches of pigmented lenticular spots and vascular maculae, while his hands and feet were the seat of diffuse hyperkeratosis associated with numbers of warty outgrowths. I lost sight of him for some twelve years, but in the spring of the present year, 1902, he came to see me again. The pigmentary and telangiectatic conditions had diminished, but the warty condition remained. Four of the growths, one on the neck and three on the hands, had become transformed into true epitheliomata, a fact which was confirmed by histological examination after their removal by the curette. At the present time a new epithelioma can be seen in process of development at the angle of one of his eyes. The origin of these cutaneous lesions is explained by the fact that this patient (by way of treatment of a chronic bronchitis accompanied by induration of the pulmonary apices) took for ten years (between 1886 and 1896) a daily dose of 12 drops of Fowler's solution on twelve days of each month and 7 drops for seven days of each month during the following five years (1896 to 1901).
>
> We are aware that in 1887 J. Hutchinson put forward a view that there was an arsenical form of cancer; it was received with some scepticism, but has since been confirmed by a certain number of observations. The case now before you appears to afford his belief very material support.

Since then M. Dubreuilh, the distinguished surgeon of Bordeaux, has published an excellent summary of the whole subject, and has drawn up a table of 19 cases of arsenical cancer (see *Annales de Dermatoses*, February, 1910).

I must not trouble the reader with my own narratives of cases; many are given in some detail, and with several pictorial illustrations, in one of the more recent fasciculi of the New Sydenham Society's Atlas

* A summary of these conclusions was given by myself in one of the early volumes of my *Archives of Surgery*.

I may, however, just mention briefly one of the most recent facts which has been brought under my notice in this connexion, since there are social reasons for its delayed publication in detail. I am informed of a young married lady who has become the subject of multiple epithelial cancer concerning which her surgeon writes to me:

> It is a typical example of what you have described as "arsenic cancer." The case will, I believe, soon be published.

The patient took arsenic for long periods for the cure of psoriasis in girlhood, and is now, after her first confinement, the subject of epithelial cancer in several different situations.

I think, therefore, that I am justified in stating that it is proved that the use of arsenic may create a proclivity towards malignant forms of growth. These are not by any means always the same; most conspicuous and frequent are epitheliomata, but they are by no means the only ones, for various forms of sarcomata and probably endotheliomata occur in the same connexion, and possibly in the same individual.

It would appear that this most powerful drug can give tendency to aberrant forms of nutrition in various directions. I must confess that I have felt somewhat astonished that the facts which appear to justify this conclusion have claimed so little attention from recent writers on cancer. They appear to me to be of the very first importance in reference to our creed as to the possible causation of these neoplasms. The term "arsenic cancer" is somewhat misleading, since it is apt to concentrate attention upon certain cases, unquestionably rare, in which the evidence appears to show that the direct and efficient cause of a peculiar form of cancer is arsenic. These are probably only very exaggerated forms of what in minor degrees is very common.

What we ought to understand is that arsenic originates, or intensifies if already present, a general proclivity to this mode of growth; nor ought it to be hastily assumed that prolonged use of the drug is necessary to this effect. Many of the well-known results of the medicinal use of arsenic occur not after very prolonged courses, but after comparatively short ones, and it is well known that an almost indefinite length of interval may occur between the use of the drug and its manifestation. It is to these facts that it is due that so much has been overlooked in the past and is probably still overlooked in reference to this most potent drug.

I must not, however, write a dissertation upon them. My object in the present paper is simply to invite the attention of those who may be inclined to prescribe this newly vaunted remedy for syphilis without due recognition of its possible danger. For myself, since I became aware that arsenic gives proclivity to cancer I have almost abstained from its employment, and would now advocate its use only in cases which very specially demand it.

Another part of my subject must be left for the present; if I ever enter upon it on another occasion it will be to show that but little has been alleged respecting the new remedy which is not equally true of mercury and the iodides when properly and boldly used.

If it be asked how arsenic acts in giving proclivity to cancer, it may be suggested that it is as a depressant of growth power rather than as stimulating it. By diminishing the vigour of the forces which favour normal animal organization it permits remotely and after an interval of degraded types of growth more nearly allied to those of vegetation.

I wish, however, to advance no theories, but to confine myself to showing evidence of the clinical fact.

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At the recent annual meeting of the International Medical Association for the Suppression of War (Rue des Mathurins 25, Paris) Dr. J. A. Rivière was unanimously re-elected President, and it was decided that the congress in Paris this year should be held at the end of October instead of in September. The subjects for discussion thereat were also selected. Only one is of a distinctly medical character—namely, international hygiene. The rest deal with differences in language, weights and measures, and monetary systems, and other analogous matters deemed by the society to obstruct the road towards universal and enduring peace.

# Remarks
ON
# THE PLACE OF THE HOSPITAL IN A CIVILIZED COMMUNITY.

Made in Opening a Discussion at a Meeting of the Sunderland Division of the British Medical Association, March 30th, 1911.

BY

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All around us we see the clearest indications that great dissatisfaction exists with regard to the means at present available in this country to meet the requirements of considerable sections of the community who are in need of medical assistance. This dissatisfaction is expressed with almost equal strength on behalf of the public, large numbers of whom are said to fail to obtain the help they ought to have, and on behalf of the medical profession, many of whom are stated to be overworked and underpaid. The two-sided nature of the complaint may perhaps be regarded as a hopeful sign by those who have faith in the possibility of ultimate improvement. The wrongs of a small class, such as a section of the medical profession, would be difficult to right if the community as a whole was unable to recognize that wider interests were involved, nor would the public easily secure the reforms which it regarded as desirable in its own behalf if it were faced with the apathy or resistance of an entirely satisfied profession. Whether the prospects are hopeful or not for a speedy and thorough removal of these unsatisfactory conditions, there are sure signs of impending changes in many directions. The great interest aroused all over the country by the reports of the Poor Law Commission and by the attempts of the authors of its two main sections to secure public sympathy with their particular views, is already compelling many changes such as can be effected by departmental regulation, and must shortly result in extensive legislative action. The present Government's promised scheme for insurance against sickness and invalidity will profoundly alter the conditions under which vast numbers of the working classes will find themselves when in need of medical aid. If one may judge from previous experience, the probability is that in accordance with the spirit of our people, such changes as are made will be effected in this or that direction as urgent necessity demands, or as some point of little resistance allows, with no very clear idea of fitting the various items into an effective and harmonious whole. This prospect makes it all the more desirable that sections of the community who have special knowledge and experience of various departments of work connected with health questions should lose no time in evolving for themselves a clear conception both of the general problem before the nation and of the relation of this general problem to its component parts, and of these several parts to each other. The medical profession must not only make up its mind as to the direction in which it desires reform to be guided in order that its own independence and power for good work shall be maintained, but it must take steps to make clear to the public the practicability and sanity of its proposals.

Many sides of this broad question are now under the consideration of the British Medical Association and are dealt with in the exhaustive report recently issued to Divisions on the organization of medical attendance on the provident or insurance principle. To-day I propose to consider the small part only of the question indicated by the title of our discussion—"The Place of the Hospital in a Civilized Community." If we desire to reach an agreement on this question we must clearly not differ very widely as to our general views of the aims of our civilization and the functions of a hospital. I do not think I shall have much difficulty in securing your acquiescence in four propositions with regard to the hopes and duties of a modern civilized community which are relevant to our present inquiry.

Proposition I. *That no community can regard itself as civilized which does not recognize a common duty to render medical assistance to those of its members whose condition of health makes such assistance necessary and whose economic position does not enable them to secure it.*

To agree with this proposition we need not be prompted by identical motives. To some the chief motive will be sympathy with suffering, to others the prevention of race degeneracy, and to others again the maintenance of the economic fitness of the present workers of the nation. With such a variety of motives impelling us there is little fear that this proposition will be unacceptable save to an insignificant number of quite peculiar individuals.

Proposition II. *That it is undesirable for any civilized community, as at present organized, to provide without cost medical assistance for all its members regardless of their economic position.*

The words "as at present organized" are introduced in order to enable this proposition to be acceptable to any of our friends with advanced collectivist views. I would ask such to recognize that we are dealing with things as they are, and not as they may be in the distant future.

Proposition III. *That every civilized community should encourage its members to make provision by some method of mutual insurance against those insurable risks which without such assistance they are unable to meet.*

As a general principle this is not likely to be denied to-day. There are few, if any, who agree with the view of the considerable number of our forefathers who regarded life insurance as an immoral means of cheating Providence. To accept this principle does not commit us to approval of Pluvius policies for holiday makers or other extravagances of insurance not far removed from gambling, nor does it indicate sympathy with the proposal that the State should actively take part in the business of insurance. I ask your acquiescence merely in this general principle, and shall of course later apply it to the concrete and reasonable example of the provision by methods of mutual insurance against the costs of medical assistance.

Proposition IV. *That in every civilized community specialization of effort is essential to effective performance.*

This proposition will be recognized as having a strict relation to my subject. Please note that this does not say the greater the specialization the more effective the performance. The great principle that one can have too much of a good thing applies in civilized communities as well as in those not yet weaned from cannibalism. We in the medical profession are not likely to fail to recognize the possible evils of excessive specialism. For the purposes of my argument I find it necessary to emphasize the fact that specialization means not only that certain individuals or institutions are recognized by the community as being set apart to do certain things, but that they are also recognized as being set apart not to do other things. To use a dentist to shoe horses is as great a neglect of our principle as to use a blacksmith to pull out teeth. The dentist may be able to shoe a horse and shoe it well. From the point of view of the community, however, it is an extravagant disregard of an important principle. It is a principle which must be considered in defining the proper work of an institution as well as of an individual. Later I shall hope to show that this principle is disregarded in our modern method of using hospitals, and to indicate the necessity of paying strict attention to it if we are to succeed in assigning a proper place to these institutions.

I must now ask you to allow me to leave these four propositions for a time and to submit to you certain considerations with regard to the fundamental ideas underlying the true functions of a hospital. It must at the outset be recognized that there are several distinct aspects of hospital work, none of which can be neglected if we are properly to understand how best to use and develop these institutions. These various aspects may be briefly defined as the charitable, the economic, and the scientific. So closely intertwined have these different functions become that it is difficult to isolate them from each other. But I wish to emphasize what I believe to be the fact—that even if we could imagine a civilized community from which all poverty and need of charity were eliminated, so that every one could obtain by adequate payment all that he required in the way of medical assistance, a hospital would still be as necessary an institution as a road or a train or a school. No intelligent community would be

willing to forego the common advantage that accrues from the growth and dissemination of medical knowledge in a place where men of science meet to assist each other in the observation and treatment of disease; no community, even if composed entirely of millionaires, would disregard the convenience, the economy, and efficiency secured by bringing together under one roof the complicated accommodation and appliances for investigating, nursing, and treating patients suffering from certain diseases. Whether we have regard to the economical and efficient treatment of the individual patient or to the advancement of medical science the hospital appears to be an essential factor in the accoutrement of the profession in its fight in the cause of health, apart altogether from any consideration of the poverty of patients. On the other hand, it must be acknowledged that the original development of the hospital was entirely from the point of view of its function as a charitable institution. Poverty of a very dire character could alone induce a patient to risk the discomfort and dangers of the hospital, even as late as the middle of the last century. The hospital as the most efficient instrument of professional treatment for certain diseases is a comparatively modern institution. It is to a large extent the product of that scientific progress in medicine of which it is now so efficient a handmaid. Without the invention of the microscope and our resulting knowledge of diseases of bacillary origin and the aseptic methods of surgery the hospital might still have remained the resort only of those who lacked a bed to be ill or to die in. But for the extraordinary advances that have been made in medicine and surgery in the last generation the hospital problem of to-day might have been the solution of the simple question of the Charity Organization Society—"What evidence has this man shown of thrift?" The more clearly we adopt the conception of a hospital as a place where certain special professional services can best be rendered to certain patients specially needing these services the more difficult does it become to consider it as merely a charitable institution strictly reserved for those below a certain level in the social or economic scale. The question has gradually become not "Is this patient poor enough to be admitted to the hospital?" but "Is he ill enough, or is his illness of the kind to require the special services which the hospital is organized to render?" The charitable function of the hospital remains, but it must needs become a very carefully discriminating charity, a charity which must consider not only the economic condition of the patient but the exact nature of the medical services he requires.

We have now reached the point when I think we may ask ourselves, Do we intend that the hospital whose place in a civilized community we are trying to define shall continue to develop along its three parallel lines of charitable, economic, and scientific effort?

For my part I hope that you will so decide. This is the direction of least resistance; it is an evolutionary and not a revolutionary movement, and it keeps our institutions in harmony with traditions of the past of which, as a nation, we are justly proud. But we must move on, and move on quickly. The pressing need of forward movement on the scientific line has, in my opinion, never been better stated than by Professor Osler in a recent address, which some of you probably heard him deliver, before the Northumberland and Durham Medical Society under the title of "The Hospital Unit in University Work." I had the pleasure of reading the address in the *Lancet* for January 28th last, and would cordially recommend it to the notice of all interested in hospital administration. I will merely quote a few lines. "Speaking from a comparatively wide experience of hospitals," says Professor Osler—and no living man I fancy has a wider—"I say unhesitatingly that the average level of comfort and care is nowhere so high as in this country, and in no small measure is this a tribute to the character and training of the women connected with them. But there are very glaring defects, foremost among which is the absence of proper laboratory accommodation in pathology, bacteriology, clinical chemistry, and microscopy." The first sentence gives us just that sense of pride and satisfaction with ourselves which it is hoped will encourage us to take to heart the scathing criticisms to which the speaker later on submits our obvious failure to make the hospital the perfect weapon it ought to be in the hands of the profession in their combat against disease. With what Professor Osler says in this address about certain of the present arrangements being "antiquated and in every way ill adapted to modern conditions," I thoroughly agree. I sympathize, too, with nearly all of the suggestions that he makes for improvement, and with his final conclusion, as to the feasibility and necessity of reform, I concur. "It can be done: in fact, it has to be done if British medicine is to adjust itself to the new conditions, and so maintain its splendid traditions." Professor Osler believes an important step in enabling the hospital to develop itself along the scientific line is to secure more intimate economic relation between the hospital and the university. This may be so, but it could of course have an effect on only a very limited number of hospitals, and would entail much interference with vested interests. I look more hopefully to the effects of altered relations on the part of the hospital with the whole community—changes which are entirely within the power of the hospitals themselves to make, and which involve no complicated financial or administrative negotiations with other institutions. The highest development of the hospital along the charitable, the economic, and the scientific line will only be possible when the hospital recognizes, and takes, its proper place in the civilized community. The modern hospital has indeed almost entirely failed not only to recognize that it has a proper place in a civilized community, but even that there is any civilized community for it to have a place in. I hardly think I can justly be accused of exaggeration when I say that many of our hospitals take as little regard of the existence of surrounding agencies for the treatment of disease as a medical mission in Central Africa would take of the native medicine man. They would seem to be entirely oblivious of the fact that in this country there is one of the most extensive systems of Poor Law medical relief in the world; that millions of workmen have contracted for medical attendance through the friendly societies; that for other moderately poor people similar help is given by means of provident dispensaries, whilst private medical practitioners are prepared to sell their services to needy people at fees which are beyond the reach of comparatively few.

Something may possibly be said for the point of view of the medical missionary, who regards the competing medicine man as a negligible quantity. But surely it is the first duty of the governors and medical staff of a hospital in a civilized community to consider in what way their institution can best supplement and not replace the efforts of the many legally qualified medical men working in various capacities amongst the surrounding population. If it is recognized that it is a proper and reasonable thing for the community to set up a Poor Law medical service, if we believe that poor people ought to be encouraged to join clubs and friendly societies and other provident agencies, if we do not believe that everybody who wants to get treated for nothing should be allowed to, and if, finally, we agree that to find one's right work and stick to it is the proper policy for institutions as for men, can it be doubted that the duty of the hospital is to co-operate with and not to compete against all these other agencies? And at this point I fancy I can hear some hospital administrators protesting: "We do try to co-operate, but it is so very difficult. If we see a man who is obviously a pauper we tell him he ought to go to the relieving officer, or a wealthy man we advise to consult his own doctor, but it takes longer to get these people to go away than to treat them, and it might offend our subscribers; and, after all, they probably only go to another hospital. Indeed, we have tried to co-operate with provident dispensaries, and have even posted notices about them in our out-patient departments, but the provident dispensary doctors do not seem very anxious to send us their cases. We are always prepared to take any patients sent by private doctors if they are not too well dressed, but we find that these are generally the cases which our almoner reports as unsuitable. Some of us have, indeed, instituted a charge of 3d. for a week's supply of medicine so as to avoid all competition with the general practitioner. But we can never forget that the hospital doctors we have chosen are so very clever, while all other doctors are so terribly ignorant that we cannot bear to think of any poor people being allowed to choose their doctors for themselves" Hospital adminis-

trators who are thinking and working on these lines may be trying to find the place of the hospital, but they have not found it yet. Co-operation and competition will not run in double harness. The private doctor and the provident dispensary cannot afford to send their more difficult cases for further help to the hospital, where the patient and his friends soon learn that they might as well have gone in the first instance and saved their fees or their subscriptions to the dispensary. Co-operation between institutions to be successful must be complete. You must not run with the hare and hunt with the hounds. The wholesale merchant who opens a retail shop soon finds he loses the custom of retail dealers. The barrister who consented to receive clients directly would soon find himself neglected by solicitors.

May not the place of the hospital which we are seeking to define be stated in the following terms? The hospital should undertake to see and treat those patients only who, having already sought the assistance of a medical man—be he private practitioner, club doctor, officer of the Poor Law or of a provident medical institution—are found to require some additional special advice or treatment such as they are unable to pay for and such as is within the capacity of the hospital to supply. In other words, the hospital should be a second line of defence or reserve—a purely consultative institution. Hospitals should provide for the poorer classes of the community just that additional assistance which a member of the wealthier classes already under the care of a general practitioner is in the habit of obtaining from a consulting physician or a consulting surgeon whenever special advice or treatment becomes necessary. To be successful in providing these special services for these poor patients the hospitals must restrict themselves to this work. They must not also provide simple medical and surgical treatment for all comers who like in this way to save themselves the cost or trouble or indignity of securing treatment through other channels. They must, in fact, recognize the principle of specialization which lays down not only that a special institution should be entrusted with special duties, but also that it should relinquish other duties which can be as well, or better, done by some other organization. I hope that I have established the point—at any rate theoretically—that the ideal position of the hospital in a civilized community is to do necessary work which it is best fitted to do and to leave undone work for which others are equally well or better fitted.

I must now approach the question more from the practical side, pointing out some of the immediate benefits that would accrue from the development of hospitals on these lines, and answering some objections that have been, or are likely to be, raised. With regard to the feasibility of the arrangement I need say little. It would only be necessary for any hospital, preferably in agreement with its neighbours, but, if not, then independently, to give notice that on and after a certain date patients only would be seen or admitted who were brought or sent by a medical practitioner who had already investigated the case and was in medical charge of the patient. In the past most hospitals used to, and at the present day many still continue to, restrict their patients to those bringing recommendations from subscribers. In many cases, therefore, this reform would only entail the adoption of a different kind of restriction. Already a hospital in London is working on these lines, and finds the result satisfactory, though at present it has not persuaded others to adopt the same plan, and is therefore competing against the open-door system of many powerful neighbours.

What immediate advantages may be expected when this plan is more widely adopted? Advantages would be apparent both at the hospital and away from the hospital.

The hospital and all connected with it would be stimulated to the highest class of work. Every case would be entrusted to it because it had been recognized that some special skill in diagnosis or treatment was required. The general standard of scientific work must be of the best. It would be submitted to the criticism of, and make its appeal to, members of a profession well qualified to judge, and not to the public, who are incapable of estimating the true value of scientific medicine and surgery. The drudgery of long hours of out-patient and casualty work and of hastily examining and prescribing for large numbers of patients suffering from trivial ailments would be removed, and the officers, now thus employed, would be set free to assist the visiting staff in unravelling the problems submitted to them by their colleagues outside the hospital. Investigations begun in the hospital could be continued by the outside practitioner in charge of the case, and ultimate results duly reported and recorded. The orderly regulation of the admission and discharge of cases could be more easily secured when each case was under professional care until the moment of admission, and would naturally on discharge return to the same care for the continuance of any necessary after-treatment or for persistent observation. The cordial co-operation of the neighbouring practitioners would replace the thinly-veiled hostility with which it is but natural that the hospital is now regarded by many of them. In fact, doing its own work, and only its own work, the hospital would constantly become a more proficient instrument, and would secure the approbation and help of those engaged in similar but not competitive occupation. Away from the hospital the advantages should be equally apparent. Freed from the competition of their most powerful rival, agencies for the primary treatment of the ordinary diseases and injuries of the sick poor might be trusted at once to improve their organization. Those defects in the Poor Law Medical Service which are at present largely hidden from public view by the promiscuous charity of the hospitals would be brought to light, and would be remedied. All forms of provident provision for medical attendance would be placed upon a better footing. The possibility of practitioners securing second opinions and operations by specialists on their poorer patients, while still remaining their patients, would add enormously to the interest of private and provident professional work amongst the labouring classes. No longer fearing the risk of losing their patients and their patients' friends by the proceeding, the reference of cases for further advice to the hospital would become extremely popular amongst doctors practising in the neighbourhood. Every interesting case thus dealt with at the hospital would provide valuable experience to the private practitioner to the obvious advantage of all his other patients. In this connexion I cannot do better than quote Professor Osler again. This time he is dealing with Organization in the Profession, and his remarks made at Nottingham are published in the British Medical Journal for February 4th last. Speaking of county hospitals as centres for the diffusion of medical knowledge he says:

> The members of the staff of the hospital have the matter in their own hands, and what I wish to urge is the responsibility that each of you should feel to make his department a centre of information for the profession of the district. You who do the work would get the greatest good, as you will grow in wisdom and increase in value as sane advisers; the hospital would be benefited as its influence would be helped, as working in the open with keen eyes upon you is a great stimulus in diagnosis, and even in treatment; the general practitioner frequenting the wards and special departments will be able to maintain a circulation in his "grey cortex" active enough to counteract the benumbing influence of routine, in which way alone he may avoid the fate of the purely practical man, who, as so well characterized by Disraeli, practises the blunders of his ancestors. And, lastly, the public will be the gainers, as men keenly appreciative of the rapid progress in medicine will render a better and more intelligent service. The public in this will find a return for the ungrudging support which they give to the hospitals.

Please note that Professor Osler is speaking of a condition that ought to exist and does not. It does not concern us particularly to inquire by what means he hopes to secure it. By no possible means could it be secured to its fullest extent while the hospital maintains its present disregard of the work of others, whereas, on the other hand this splendid ideal will inevitably and almost insensibly be achieved so soon as the hospital recognizes and takes its proper place amongst other medical agencies. Truly the picture seems so alluring that one wonders that this change has been so long delayed. Perhaps we can best understand the reason for this if we consider in detail objections that will almost certainly be raised in some quarters to the general adoption of this proposal, even at this late hour. We shall certainly hear that the diminution in the number of attendances of patients at the hospital will lessen the support of subscribers. I cannot believe that subscribers,

whether wealthy philanthropists or associations of working men, are so foolish as to be unable to distinguish between quantity and quality of work, or that hospital administrators are so lacking in persuasiveness as to be unable to turn a reform of this truly beneficent character to excellent account at their annual meetings and periodic applications for subscriptions. Working men's committees will at least understand that one cannot expect to get the best work out of a chisel if one uses it also to drive screws. A much more serious danger is ahead of the hospital treasurer if he neglects to watch the trend of public opinion and move his institution with the times. The public is determined that so far as that class of person is concerned who lacks a comfortable bed to be ill in, his need shall be met by public funds if not by private philanthropic effort. Adequate accommodation of this sort will be provided by the State before very long by extension of, and removal of the pauper taint from, workhouse infirmaries. Public support will indeed be difficult to obtain for voluntary hospitals when this is carried out, unless the philanthropist can be assured that his protégés will in the charity obtain something different from and better than anything he can obtain in the municipal infirmary. A hospital placed in such relation to other institutions as we have just been considering will clearly be able to offer something from a medical point of view absolutely necessary in certain cases, and altogether different from, and superior to, the State provision. Such a hospital can confidently be recommended to the philanthropist or the working man subscriber as an institution in the support of which he will not be merely relieving the rates. Those who are proud of our voluntary hospital system, and desire to see its splendid service to the sick, as well as to medical education and research, maintained and developed, may certainly be urged to support this particular movement for hospital reform.

A second objection that may be raised is that certain cases that now come direct on their own initiative to the hospital and receive there treatment of vital necessity might under the new scheme fail to reach the hospital until too late for effective aid. This is one of those arguments that cut across organization in all human affairs, and which, although specious, are entirely fallacious so far as the common good is concerned. I suppose it will be true of some cases. A patient, not feeling very well and being of an adventurous spirit, applies to the hospital, and, being thoroughly examined, is discovered to have a very early internal cancer, which is immediately removed. It is, of course, possible that this patient, under the new régime, coming first under the care of her private doctor, or the doctor of her friendly society or provident institution, might not secure such immediate and thorough examination, and might not be sent to the hospital till the disease was further advanced and had produced definite symptoms. Similar good luck may befall individual cases in all sorts of human arrangements which are nevertheless entirely against public policy when their total effect on the community is considered. The most promiscuous distribution of coins in a crowd may occasionally afford opportune relief to a thoroughly deserving and unfortunate individual. Against this accidental individual gain we have to set to the credit of the present system a mass of preventable misery, pain, and disappointment, which would be almost unbearable by those who have daily to witness it had not long custom led them to regard it as an inevitable accompaniment of poverty and illness. The hopeless chronic cases painfully trudging week after week to the out-patient departments; the feverish babies brought up time after time through the streets to the casualty department until their bronchopneumonia is sufficiently advanced to warrant admission and defy relief; the unselected crowds of patients waiting investigation and handing on to each other their unrecognized infectious diseases; mothers waiting whole days with their sick children, whilst the babies are left untended at home; the delicately nurtured but poor woman on whose account the doctor wants further advice, but who cannot face the waiting and the crowd. Under the consultative system much of this misery and unnecessary hardship could be eliminated. The agencies for primary assistance would provide domiciliary treatment for those too ill to go to and fro, and would arrange for the direct transference from the home to the ward in all cases of critical illness. Definite appointments could be made for out-patient consultations, and at least the child with obvious whooping-cough or ringworm would not be sent to mix with others in the totally indefensible unclassified casualty department.

For the one case, of which we hear so much, which might escape the necessary hospital treatment under the new arrangement, dozens equally suitable would get it who do not get it now. The argument of those who fear that some early cancers or glaucomas may escape detection would seem to be based on the view that a patient is a better judge of when he needs specialist advice than is a medical man. Surely all the evidence is against this. Hundreds of people now seek no advice of any sort until it is far too late, and one of the greatest advantages of putting the hospital into its proper place will be that far more patients will be induced to enter into contracts with general practitioners, and will thus be encouraged to call for medical help in the early stages of illness.

The last objection with which I can deal concerns only the small number of hospitals which are also medical schools. On behalf of these institutions it is stated that the lessening of the numbers in the casualty and out-patient departments will be bad for medical education. On this point I think I can speak with authority, as I have taught in out-patient departments for nearly twenty years. I unhesitatingly affirm that in an overcrowded out-patient department nearly all the methods a student learns he would be better for not knowing. Leisurely and complete observation is essential for scientific work. The hasty and brilliant diagnosis by old hands in the out-patient department provides the worst possible example for students and young practitioners. I am confident that a little reflection will show that selected cases such as will be provided by the proposed arrangement will form much better material for teaching, whilst the lessening of the crowds of trivial and unsuitable cases will enable the teaching to be organized on a much more satisfactory basis. It may be necessary, and I am sure it would be advisable, to arrange for every student to gain systematic experience in the treatment of minor disorders by attendance at a provident dispensary. The general practitioner seeing cases at these institutions will be a better teacher of the management of chronic ulcers of the leg and other common ailments than is the operating surgeon who spends most of his working life performing laparotomies. The association of the general practitioner with the education in the medical school would form another link in binding together the hospital staff and medical men working around the hospital, which Professor Osler regards as such a desirable proceeding.

I have not chosen these three objections because I felt that I could most easily deal with them, though I hope you will agree that I have been able to answer them to a considerable extent. They have seemed to me objections which have been most frequently and stoutly advanced by champions of the existing conditions. There may be others advanced to-day. I hope, however, I have established that on the balance the advantages of the proposed change will outweigh any possible temporary disadvantages. Whether we look at the question from a practical or a theoretical point of view, the first essential step in promoting the efficient treatment of sickness amongst the poorer classes is the fixing of the proper sphere of activity of the various agencies. The hospital is one of the agencies of such supreme importance that when its place is once fixed, the task of adjusting other agencies around it should be materially lessened.

With this object in view I confidently bring this proposal before you, not as a startling and brand-new project which you may think over now and adopt in the millennium. It is the inevitable and necessary next step in the evolution of our great medical charities. Every hospital administrator would recognize this for himself if he were not so busy scraping together money and dealing with the problem of overwork that he has no time to look about him and see that in co-operation with the willing agencies outside and around his hospital lies ready to his hand the means, and the only means, of enabling him to find for his institution its proper place in the community.

# THE SYPHILITIC FACTOR IN THE HEMIPLEGIAS AND DIPLEGIAS OF INFANCY AND CHILDHOOD.*

BY

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AMONG the children who attend the out-patient departments of hospitals there are none whose condition is more pitiable than those who suffer from the physical and often also the mental disabilities consequent upon hemiplegia or diplegia.

Our knowledge as to the actual causes of these types of paralysis is, unfortunately, much less precise than it is with regard to similar cerebral paralyses occurring in the adult. Many efforts have been made by able observers in the fields of neurology, of general medicine, and also of surgery, to refer infantile cerebral palsies to their ultimate causes, and it is only by an accurate knowledge of the latter that anything like success in dealing with these conditions can be attained.

## CLASSIFICATION.

At present the most useful classification of these early upper neurone paralyses is that which divides them into three classes according to the supposed time of onset—that is, antenatal, natal, and post-natal. It is obvious that such a subdivision as this, depending as it does on no pathological basis, although at first sight satisfying, is really far from final. The one useful feature about it is that it clearly defines the position of the cerebral palsies due to natal accidents—that is to say, to haemorrhages. In order to clear the ground, I will state briefly the characters of this class, and then, since syphilis has no part in its production, refer to it no more.

### *Natal Paralysis.*

In birth palsies due to haemorrhage the lesions are more often on the surface of the brain than in its substance. As pointed out by Harvey Cushing, the veins which ascend from the middle part of the convexity of the hemisphere to the superior longitudinal sinus are the vessels most liable to rupture. So long as they follow the cerebral sulci these veins are protected, but at the vertex where they cross the subdural space to enter the sinus or its para-sinoidal recesses, they are unsupported. Undue overlap from cranial moulding may tear one or more of the veins away from the sinus walls. As a result of the laceration, free intradural haemorrhage occurs, the bulk of the clot being near the vertex, and on one or other side of the falx cerebri. Consequently the damage to the motor centres for the legs is more extensive than that to the motor centres of the arms.

The clinical characters of the natal paralysis are as follows: Firstborn children more often suffer than the subsequent offspring, and male children, having larger heads, are more likely to be injured than females. The children of elderly primiparae run especial risks.

The occurrence of *post-partum* asphyxia is common. The fontanelles bulge, and may be so tense that they cease to pulsate. Convulsions are frequent, but may not appear until several days after birth. The fits are often unilateral. Vomiting is sometimes a marked feature.

There is great exaggeration of the deep reflexes, and may be, even at this stage, evidence of paralysis of the limbs. Ocular palsies are common, especially a difference in the size of the pupils. In severe cases signs of pressure on the medulla may occur in the form of alterations in the respirations and disturbance of the cardiac rhythm. Epilepsy results in two-thirds of the cases, the convulsions often being Jacksonian in character.

Immediate craniotomy, the whole parietal bone being raised as an osteoplastic flap, for removal of the clot, has given excellent results. Little or no good can be expected from cranial operations performed months or years after the incidence of the lesion.

## SYPHILIS AND UPPER NEURONE PARALYSES.

Having eliminated the natal or traumatic paralyses, we may now proceed to the proper subject of this paper, which is the consideration of the relation of syphilis to the upper neurone paralyses of infancy and childhood.

The knowledge that syphilis is such a potent factor in the production of paralyses in the adult has led to much critical inquiry into the part it may play in producing the paralyses of the early years of life.

The late Dr. Hadden conducted one of the most interesting investigations of this nature amongst his out-patients at Great Ormond Street. He embodied his results in a paper entitled Infantile Hemiplegia with Acute Onset.[1] To his conclusions I shall refer later.

The general consensus of opinion is that syphilis is *not* a common factor in the upper neurone paralysis of childhood, and this opinion appears to be based on very good grounds. Nevertheless, a reconsideration of the part syphilis plays may be instructive and appears to be desirable for two reasons: First, because, in some cases at least, a permanent and crippling disability of both body and mind may be prevented by an intelligent anticipation of events; and, secondly, because, thanks to the methods of diagnosis perfected of late years, it may yet turn out that syphilis is a more important factor in the production of these paralyses than many have suspected.

### *Characters of the Lesions Found.*

We are not concerned with cases of juvenile general paralysis and cases of juvenile general paralysis with tabes. These are not at all common; but we have it on the authority of Dr. Mott, based on his experience in the London county asylums, that, even in comparison with degenerative syphilitic lesions, cases of infantile syphilitic hemiplegia and diplegia are rare. Many other writers who have had occasion to search for the records of such cases agree as to their fewness. A plausible suggestion is that their scarcity may be explained, not by immunity of the cerebro-spinal structures in infants and children, but by the death of those severely infected with syphilis, either before birth, or at all events shortly afterwards, from such causes as convulsions, meningitis, or hydrocephalus.

Accounts have been published by Sir Thomas Barlow, Judson Bury, Angel Money, and George Carpenter, amongst others, which permit the formation of a definite conception of the morbid anatomy of the disease, and warrant the general conclusion that the changes likely to be found in the brains of paralysed syphilitic children bear a close resemblance to those which may occur in the syphilitic adult. The multiplicity and combination of the lesions are striking characteristics—that is to say, leptomeningitis pachymeningitis, endarteritis, and even gummata, are associated in varying degrees.

The cases recorded by Sir Thomas Barlow are as follows:

1. A full-term child suffered shortly after birth from snuffles, thrush, and persistent soreness of the nates. The succeeding child was healthy, but there had been one miscarriage at ten weeks. The patient was emaciated, suffered from diarrhoea, and had small shotty glands in the neck. At the age of 15 months there was general weakness of both sides of the face, with frequent laryngeal spasm, and inconstant, rather coarse, nystagmus. No antisyphilitic treatment was attempted, the case being regarded as one of tuberculosis. The child soon died. A gummatous infiltration of the cranial nerve trunks was found; it involved the fourth, fifth, sixth, seventh, and eighth pairs. The basilar artery and all the component vessels of the circle of Willis presented opaque white thickenings which narrowed their lumina. By use of the microscope typical syphilitic endarteritis was revealed.

2. A girl baby, who died at 10 months, but was first seen four weeks after birth. The father had suffered from syphilis, and the child had snuffles. Between the ages of 1 and 4 months she had eleven fits. She was wasted, and serpiginous ulcers appeared on the nates. Treatment with mercurial inunction and cod-liver oil was instituted. At eight months she was worse again with tetany and laryngismus. Early disseminated choroiditis was discovered in each eye. At 10 months a *post-mortem* examination was obtained. The surface of the pia mater was thickened in many places, and a small patch of calcification lay on the convex aspect of the left parietal lobe. The basal arteries were normal, but some of their cortical branches were extensively diseased. There were a few spots of superficial cortical softening. Endarteritis was proved by microscopical examination.

The following, a very striking case, was recorded by Dr. Henry Ashby.

3. A male infant was seen at 3 months of age, suffering from coryza and a well-marked rash. A month later multiple syphilitic epiphysitis occurred. When 7 months old he began

* A paper read at St. Thomas's Hospital before the Lambeth Division of the British Medical Association.

to suffer from convulsions. At first these were mostly confined to the left side, but later they became general. In the course of a few months the left arm and leg, which were more or less paralysed, began to draw up and become rigid. Later the right arm became affected in a similar manner. The child gradually became idiotic and finally died. It was under mercurial treatment from 3 months of age. The arachnoid was of a milky colour and there was an excess of subarachnoid fluid. The superficial layer of the grey matter on the convex surface of both hemispheres, especially the right, was softened and could readily be scraped away. The superficial layers of the caudate nucleus and of the optic thalamus were in the same condition of softening. Microscopically the grey matter showed widespread fatty degeneration; the minute arteries were extensively blocked with old thrombi, their inner coats being thickened and their nuclei increased in numbers. The large arteries were normal as far as could be made out. There seemed to have been extensive syphilitic arteritis of the meningo-encephalic arterioles leading to thrombosis and secondary softening of the grey matter.

4. In an infant of 15 months Chiari records the discovery of chronic meningitis, endarteritis, and small foci of cerebral softening.

5. Multiple grey gummata, the size of cherries, were found by Henoch in a child aged 2 years. These lay under the pia mater and also in different parts of the cerebrum and cerebellum.

*Can Syphilis Produce Diffuse Cerebral Sclerosis?*

It is necessary to inquire whether there is any evidence that syphilis can produce diffuse cerebral sclerosis, since it is a matter of common knowledge that more or less induration is often found in old cases of hemiplegia or diplegia of childhood.

The available evidence goes to show that the inference that this sclerosis is always due to syphilis is quite unwarranted. Those who have investigated the condition have been unable to agree that syphilis plays more than an unimportant part in its production; in other words, the sclerotic condition must, as a general rule, be attributed to other and at present obscure factors.

On the other hand, if we assert that syphilitic infection never produces diffuse sclerosis, we shall be going too far, for there is evidence that such sclerosis may result from syphilis. The induration must be induced either by a diffuse specific encephalitis or be dependent upon diffuse endarteritis of the minute cortical arterioles. In some instances the sclerosis is associated with diffuse leptomeningitis and pachymeningitis, leading to adhesion of these membranes.

Dr. Angel Money recorded the following case:

6. A child was found at 11 months to be suffering from hydrocephalus and a disseminate ocular choroiditis. The father admitted syphilitic infection and presented an extensive abdominal syphilide. Under antisyphilitic treatment the fontanelles duly closed. Sight began to fail at 3½ years. Within six weeks a left hemiplegia with spasticity developed; this was followed, after an interval, by right hemiplegia and loss of speech. The boy died shortly afterwards. The dura mater was adherent and chronically inflamed. The leptomeninges were greatly thickened. Dilatation of the cerebral ventricles and a granular appearance of the ependyma testified to the old hydrocephalus. The right cerebral hemisphere, which was the site of the first paralysing lesion, was shrunken and indurated. Its arteries were grossly diseased. The left hemisphere was hyperaemic and some blood was extravasated on its surface.

Another case was recorded by the late Dr. George Carpenter:

7. The child concerned was the second of the family, the first having been born dead. Snuffles occurred at 1 month, and were soon followed by convulsions, which started in the left arm. At 2½ months the patient was supposed to be blind. When she was examined at 5½ months the head was retracted, the arms rigidly extended, and the knees flexed. A macular syphilide was present, and disseminate choroiditis was detected in the fundi of the eyes. The child was then suffering from bronchopneumonia, and death soon ensued. Sclerosis was found in both cerebral hemispheres, involving the central and frontal convolutions as well as part of the right temporo-sphenoidal lobe. The induration implicated the white as well as the grey matter, and the affected areas were in parts cystic. The cysts contained opalescent fluid, but presented no indications of past haemorrhage, either in the presence of blood or of blood crystals. The arteries at the base of the brain were healthy.

The following instructive case was published by Dr. Abercrombie:

8. At the age of 6, a girl suddenly fell down with a right hemiplegia. She came under observation four years later. No conclusive evidence of syphilis could be obtained, but, the child dying, a *post-mortem* examination was performed. The middle cerebral arteries were diseased. The left cerebral hemisphere was atrophied and its convolutions sclerosed. The ascending frontal and parietal convolutions were most affected. The meninges were thickened and adherent to the brain, more so on the left than on the right. A small adherent thrombus of old standing was found in the superior longitudinal sinus.

The brain is not the only part of the central nervous system which may be damaged by the infection of congenital syphilis. The spinal cord is not immune from the disease. In addition to the system degeneration of juvenile tabes, focal lesions may occur. Specific endarteritis of the spinal arterioles may lead to localized sclerosis or the spinal cord may be compressed by gummata of the meninges or of the periosteum of the spinal canal.

The following case was recorded by Dr. H. D. Singer:[2]

9. A boy of 12 years, who was the subject of congenital syphilis, rapidly developed a paraplegia, the paralysis reaching its acme in two or three days. He died about seven weeks later. The *post-mortem* examination revealed the presence of gummatous meningitis, but, in addition to this, a limited transverse lesion was found in the sixth dorsal segment of the spinal cord. The vessels of the damaged area showed typical syphilitic endarteritis with small-celled infiltration of their perivascular sheaths. The larger vessels, however, were not completely occluded, although some of the capillaries appeared to be. In place of softened patches there was an overgrowth of the perivascular connective tissue; this was especially evident in the posterior columns close to the commissure, the posterior median vessels being surrounded by a greatly thickened coat. The vessels in other regions of the cord were practically healthy. In his remarks on the condition Dr. Singer draws attention to the fact that the cord was sclerosed and not softened. He points out that in cerebral thrombosis the result in the adult is as a rule brain softening, but the effect produced in infants and children is very often sclerosis.

In addition to the lesions already mentioned, an arrest of development of the brain and ganglion cells has been ascribed to the action of the virus of syphilis. On this point I am not in a position to offer any evidence.

## CLINICAL ASPECTS OF THE DISEASE.

For the purpose of inquiry into the clinical aspects assumed by the syphilitic varieties of upper neurone paralysis it will be convenient to consider first the general characters of the antenatal and the post-natal forms.

### *The Antenatal Form.*

Antenatal paralyses, whatever their causation, possess as a group the following characteristics:

The palsy is bilateral and spastic. It is frequently accompanied by athetosis.

Mental weakness and a tendency to convulsive seizures often accompany the disease. Although present at birth the paralysis may escape detection for a few weeks, sometimes even until the period when the child should normally walk and talk.

In addition to spasticity of the limbs, which as a rule is best marked in the legs, there may be some difficulty in swallowing, and squint or nystagmus may be present. The early presence of symptoms such as these may be of material assistance in tracing the lesion right back to the earliest days of life.

The family history of these cases, too, has important characteristics. Contrary to what occurs in the haemorrhagic form of birth palsy, the youngest children of large families are most prone to suffer. When one child of a family is born diplegic the mortality among the other children is considerable, and miscarriages are common.

The birth of a child suffering from antenatal diplegia is apt to be premature, and the labour may be precipitate. If the labour in such a case is difficult the delay is rarely due to mechanical obstruction, but is caused by uterine inertia, the consequence of some abnormal state of the mother. Even where labour is precipitate there may be an asphyxial condition of the child, and considerable difficulty in establishing respiration.

Antenatal diplegia is usually, and no doubt properly, attributed to some condition of ill-health of the pregnant mother. The actual nature of the maternal disease is obscure. Various acute diseases which may have occurred during the period of fetal development, and among these certain of the acute specific fevers, have been looked upon as possible causes. Intrauterine injury may also be a factor.

The possibility that syphilitic infection may be concerned has not been overlooked. In fact, according to Risien Russell syphilis is by far the most important and mos

common maternal disease standing as a causal antecedent. Oppenheim expresses a similar opinion, and quotes several other observers agreeing with it.

This view is borne out by the report that, in France, Delbet obtained a positive Wassermann reaction in 13 cases of this disease. On the other hand, H. R. Dean examined, among other cases, at Potsdam, 15 patients with congenital spastic diplegia, and only obtained one positive result. But on inquiry he informed me that the histories were insufficient for the purpose of determining how many of these paralyses were antenatal and how many due to traumatism at birth.

The following two cases of my own are examples of antenatal diplegia in which syphilis appeared to be the cause:

10. K. A., a female child of 3 years, was brought to the hospital by her mother. There had been fourteen pregnancies. Four children were living, the mother had five times miscarried, and five children had died. A perforation, due to the rapid development of a large gumma, had partly destroyed the mother's hard palate. The child was premature, being born at seven months. The labour was easy. For two years she had snuffles, but no rash was noticed. Although three years old she had never learnt to walk, and had only spoken during the last twelve months. Lately she had begun to use her hands for grasping purposes. She was mentally deficient and diplegic. The legs were quite stiff, the knee-jerks exaggerated, and an extensor plantar response present on each side. The pupils were active, and there was no optic neuritis. The sight of the right eye appeared to be defective. Constipation was a great trouble. The child was treated with grey powder and attended for fourteen weeks, after which she was lost sight of. After several years had elapsed the mother came to the hospital with another infant and, in response to inquiries, said that she had been persuaded to take the child to another hospital. A series of convulsions had occurred, and the child died.

11. R. A., a male aged 3½ years, was sent up from the country for advice as to his condition. He was the firstborn and the birth was natural. There was a history of thrush in infancy, with soreness of the nates and eczema in the groins, armpits, and behind the ears. He was a backward child with spastic diplegia, most marked in the legs, but also present in the arms. The deep reflexes were exaggerated and ankle clonus was present. His head was small, the forehead being narrow; he possessed very little power of speech and was dirty in his habits. In each eye there was evidence of old iritis, which the ophthalmic surgeon who examined him considered very suggestive of syphilis. No gross changes were discovered in the fundi.

In 4 other cases of diplegia which were judged to be examples of antenatal paralysis the cerebro-spinal fluid was examined for me by Dr. L. S Dudgeon: the Wassermann reaction was negative, and the fluid free from globulin; no lymphocytes could be detected in it. In two of these patients the blood was also examined for the Wassermann reaction with negative result.

*The Post-Natal Form.*

The post-natal form of infantile hemiplegia or diplegia is, as a rule, acquired early in life. The first three years are those in which the liability to this type of paralysis is greatest, but the onset has been known to occur later.

Briefly summarized, the clinical characteristics of this group are as follows:

With very few exceptions the onset is sudden and definite, not gradual; this is so constant that it is important to bear in mind that cases of infantile cerebral paralysis in which there is no history of definite onset are likely to be of antenatal origin.

The paralysis is hemiplegic or, much less commonly, diplegic in distribution. It may at first be quite flaccid in type, but soon becomes spastic. Hemianaesthesia, if present, is transient. It is sometimes possible to demonstrate astereognosis in older children. The tendon reflexes are exaggerated on the paralysed side. Often the opposite knee-jerk is unduly brisk at the same time. Ankle clonus is rare, but not unknown; an extensor plantar reflex is the rule. The power of speech may be lost. This occurs, according to Hadden's computation, in about one-fourth of the cases. The loss, as might be expected, is more often associated with right hemiplegia than with left, but this is not invariable. Articulation usually reappears in a few weeks or months. It is remarkable that these patients never show true aphasia in after-life.

There is but little permanent paralysis of the face. The laugh or cry may begin later on the paralysed side, and this side of the mouth open less widely.

The tongue will rarely be found to deviate towards the hemiplegic side in cases of some standing, although it may do so in the earliest stages of the disease.

Convergent squint may occur.

In old cases the arm is found to be affected more than the leg, and the shoulder makes better recovery than the hand. As a sequel to the paralysis, flexor-adductor contracture of the arm and extensor-adductor spasm of the legs are common, but spasticity is not invariable.

Post-hemiplegic perverse movements occur. These mainly affect the upper extremity, and either are deliberate, of the nature of athetosis, or more abrupt, when they are known as post-hemiplegic chorea. The paralysis rarely improves in limbs affected by these movements. The growth of the paralysed side of the body is retarded, and any degree of mental defect may accompany the motor palsy. Nearly all the patients show some mental weakness by the time puberty is reached. Epilepsy supervenes sooner or later in at least one-third of the cases.

The causal factors of this group are diverse. Cerebral haemorrhage and cerebral embolism undoubtedly account for a few cases. The idea is steadily gaining ground that an acute encephalitis (owning as its excitant the same infection as that which causes acute anterior poliomyelitis) is responsible for many more. Cortical venous thrombosis also has its advocates.

But, as with the former group, it is profitable to inquire how far syphilitic brain lesions lie at the bottom of the condition. By most clinical observers the syphilitic variety of the disease is held to be rare. This was the opinion of Henoch, Sir Jonathan Hutchinson, Marie, and Fournier. Professor Osler found but 1 case in 120. Abercrombie described 4, or perhaps 6, in 50 cases. Isolated instances have now and again been reported by other writers. Hadden, in 1891, suggested, on clinical grounds, that the syphilitic variety was more common than was at that time believed. In a series of 40 odd cases, he quotes 2 which were undoubtedly syphilitic, and 12 others in which there was a suspicion of the taint. Of 5 cases of my own, examined by Dr. Dudgeon, only 1 gave a positive reaction. In this case (quoted later) the Wassermann reaction was obtained from the cerebro-spinal fluid, which also contained much globulin and an excess of lymphocytes.

For the recognition of the syphilitic cases which occur in the group of post-natal paralyses attention should in the first place be directed to the family history and previous history of the patient. Next the mode of onset of the paralysis should be investigated carefully, and, in the last place recourse should be had to the various clinical tests of the blood and cerebro-spinal fluid which are now available. It may be possible, as in some of the cases I have already narrated, to recognize in the parents lesions which are unmistakably syphilitic. Too much weight should not be attached to the occurrence of a miscarriage.

In the infant snuffling, soreness of the nates, and unexplained wasting may give rise to suspicion as to the nature of the infection, whilst the detection of syphilitic epiphysitis, iritis, disseminated choroiditis, or interstitial keratitis is of the greatest diagnostic value.

Sometimes a peculiar mode of onset of the paralysis gives the clue to the nature of the case. These suggestive onsets are of several types: One is the development of *a hemiplegia which is preceded for some time by premonitory and recurrent convulsions.* The fact that convulsions are frequent in syphilitic infants and may be succeeded after a longer or shorter time by hemiplegia was pointed out by Sir Thomas Barlow and Dr. Bury. The primary convulsions are epileptiform in nature and may appear simultaneously with or shortly after the development of rash and snuffles. The succeeding hemiplegic attack may occur after an interval of months or even of years. This mode of onset is well illustrated by the following case which was recorded by Hadden:

12. A female child was seen at the age of 9 years. The soft palate was ulcerated and cicatricial; nasal discharge was present and also caries of the nasal bones. A miscarriage had preceded her birth but there was no history of snuffles or rash. She was treated with grey powder. Shortly after the first examination she had several convulsive fits. These occurred at intervals but left no paralysis. Iritis and keratitis developed in the left eye. After further interval of six months she began to complain of headache and suddenly became hemiplegic on the left side. The hemiplegia was spastic with exaggeration of the reflexes. There was no affection of sensation. Memory and intellect slowly failed.

A second characteristic development of symptoms, and one which, according to Rotch, is extremely characteristic of intracranial syphilis, consists of *separate attacks of paralysis which succeed each other at intervals of days or months*, and are not associated with any such obvious cause as a slowly-growing tumour or recurrent embolisms or intracranial tuberculosis.

13. A child of 18 months was brought to my out-patient department with a flaccid paralysis of the right arm. The paralysis had been discovered accidentally, and the arm was blue and cold. The patient had been treated with mercurials for sore bottom, and her birth was preceded by that of a premature infant. The true nature of the paralysis was overlooked, the condition being attributed to acute anterior poliomyelitis. Steady improvement occurred with simple massage and cod-liver oil. Eleven months later she had a series of six fits in the out-patient room. These fits were stronger on the right side, the eyes deviating also in this direction. The true nature of the case was at once suggested by the second attack, and energetic treatment by mercurial inunction and grey powder was instituted. Notwithstanding this a spastic right hemiplegia rapidly developed. The child became unable to walk, and only acquired a vocabulary of a few words. She is now left-handed. Both legs and the right arm are spastic. The knee-jerks are both exaggerated, and an extensor plantar response can be obtained on each side. Well-marked choroiditis has been found. The blood gives a positive Wassermann reaction, as also does the cerebro-spinal fluid. In addition, the latter contains much globulin and an excess of lymphocytes.

Yet a third method of onset is that in which *prodromal headaches and vomiting* occur, just as they do in many cases of syphilitic cerebral thrombosis of the adult. Even here the actual installation of the paralysis is sudden and definite. (An onset of this character may also occur with tuberculous meningitis.)

I should also be inclined to suspect cases in which the *silent development of acute hemiplegia* is the first sign, although fits may occur later.

Hadden recorded the following case:

14. A boy suffered with thrush and snuffles in infancy, but had no rash. There was no history of miscarriages in the mother. At the age of 1 year and 9 months, with no premonitory or accompanying convulsion, a complete right-sided hemiplegia suddenly declared itself. Convulsions followed the paralysis for one or two days. Improvement was gradual. The boy became left-handed, and speech was delayed until he was 2 years old. The fits did not recur. When seen at the age of 10 he was suffering from interstitial keratitis, and showed extensive choroidal atrophy.

But the family and previous history, and also the mode of onset, will often leave us in doubt as to the cause of the paralysis. The hemiplegia in syphilitic cases may arise out of a first convulsive seizure with or without coma, just as occurs in other forms of the post-natal group. Under such circumstances as this the final, and indeed the only means of arriving at an accurate diagnosis is by examination of the blood and of the cerebro-spinal fluid—the blood for the Wassermann reaction, and the cerebro-spinal fluid not only for that reaction, but also for the possible presence of globulin and an excess of lymphocytes.

REFERENCES.
[1] *St. Thomas's Hospital Reports*, 1891. [2] *Brain*, 1902.

# THE "X" RAYS IN TREATMENT.*

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WITHIN the last few years the question of "dosage" in the administration of *x* rays for therapeutic purposes has received much consideration. In the appendix to the late Dr. Kassabian's excellent work on electro-therapeutics, published as recently as 1907, the technique of many eminent radiologists is described. In the majority of the descriptions the details give no indications as to the quality of the rays produced or the quantity absorbed by the patient; indeed, the dosage is largely a matter of guesswork based on experience. The following quotation illustrates this point:

[1] Dosage is determined by a light or dark green fluorescence of the tube. The best time to discontinue treatment is at the appearance of any erythema, taking into consideration the number and duration of exposures.

* Read before the Glasgow Medico-Chirurgical Society, March 3rd, 1911.

Now it is true that a certain skill in this guesswork may be gained in time. But I contend that a course of minute doses can be administered in this manner only by one of great experience; even then it is risky; it is unscientific, and happily it is quite unnecessary. To administer the rays in definite measured doses is more troublesome and more expensive; but, when one realizes the extreme potency of the agent and the havoc its injudicious use has already wrought, one must welcome these means of measurement, and use them regardless of either expense or trouble. Already many valuable lives of both medical practitioners and patients have been lost through exposure to the *x* rays; and Dr. Kassabian himself, one of the latest victims, says in his book (ibid., page 407): "The number of operators who have been disfigured, maimed, and injured would form a deplorable list of tremendous proportions."

I do not think that it can be too much insisted on that the administration of the *x* rays, except in carefully measured doses, is absolutely inexcusable.

It is not my intention to discuss minutely the question of "dosage." The problem is very complicated and difficult, and I admit that no one of the methods of measurement at present in use is completely satisfactory. I intend rather to give in detail the application of measurement I have found most simple in the daily routine. Regarding the rays themselves, there are two factors to be considered: (1) The quality of those falling on the part treated, and (2) the quantity absorbed by the tissues. Any system of measurement must necessarily take cognizance of both.

## *"Hard" and "Soft" Rays.*

A beam of *x* rays is composed of radiations of different penetrating powers, just as a beam of ordinary light is composed of rays of different wave length. Rays are described according to their powers of penetration; those of low penetrating power are called "soft," those of high penetrating power are called "hard," while an intermediate degree is spoken of as "medium." The proportion in which "soft," "medium," and "hard" rays are mixed depends on the degree of vacuum of the tube from which they emanate. When the vacuum is low the "soft" rays abound; when the vacuum is high the "hard" are proportionately increased. When it is desired to affect any deep-seated tissue a tube emitting "hard" rays in abundance is selected, while for superficial effects a tube of low vacuum, giving off chiefly soft rays, is used.

Our means of controlling the penetration are: (1) The regulation of the vacuum, and (2) the use of screens.

1. For the first we use a tube having a self-regulating vacuum (such as Müller's heavy anode automatic vacuum regulating tube). It is so set that the vacuum shall not rise above a certain degree, and as the vacuum tends to rise while a tube is in use (provided it is not over-heated) this device keeps it fairly constant.

2. Screens are used to absorb the softer rays—that is, those whose chief effects are on the skin—when the object is to affect deep structures. They may be made of various substances, such as wash-leather and gelatine. I use sheets of aluminium, 1 mm. in thickness, superimposed on one another, the number used depending on the effect desired. Belot, in a recent number of *Archives of the Roentgen Ray*, states that aluminium is the most satisfactory material for screening purposes.

## *Action on the Tissues.*

The administration of a dose of *x* rays is followed by a period of time during which no change is observed in the tissues irradiated. This is known as the *latent period*. The latent period is shorter after large doses than it is after smaller ones.

1. *A small dose* stimulates all epithelial structures; there is increased secretion from the sweat and sebaceous glands, and the hair grows more vigorously. In the course of a few days or longer, these effects gradually pass off, and the part returns to its normal condition.

2. *A full dose* may be followed by a slight erythema after a latent period of ten days or a fortnight; the hair will become pale in colour, and in about three weeks it will drop out, the bulb being temporarily atrophied. The erythema passes off in a few days, the hair roots gradually recover, and in from six to twelve weeks a vigorous growth

of new hair takes place, and normal conditions again prevail.

3. *A very large dose* is followed in about one week by erythema, which steadily increases in severity. Soon marked inflammatory reaction sets in, and vesication takes place. This is followed by necrosis, which will be deep or superficial according to the quantity of rays absorbed. The ulceration thus produced is very indolent, and in bad cases may last for years. Ultimately it may become epitheliomatous. When healing does at last occur, the resulting scar is white, dense, and unyielding; it is poorly supplied with blood vessels, and is prone to ulcerate again.

4. *Repeated doses* produce results according to whether another dose is or is not administered before the effects of the previous one have passed off. If the doses be such that no distinct inflammatory reaction is produced, and the interval is sufficiently prolonged, a very large number may be administered without producing any very definite organic change. Some increase in fibrous tissue and lessening of epithelial tissues always result. It is probably on this account that the practice of giving a course of *x*-raying after excision of malignant disease is to be recommended.[1]

If the doses are repeated so often that the tissues have not entirely recovered from one when the next is given, a time comes when an inflammatory reaction, more or less violent, results, and thus the rays are said to have a cumulative action.

*Chronic radio-dermatitis* of operators is the result of small, oft-repeated doses. It occurs chiefly on the backs of the hands. As already mentioned, epithelial growth is thereby stimulated. The result of frequent small stimulations is that the skin becomes hard and dry and warts form. Changes in the blood vessels and capillaries also take place, their walls becoming apparently much thinned. The hands become red and mottled. The only reasonable treatment is absolute protection from the causal agent, and, indeed, from irritation of any kind. Even then the condition improves very slowly. When skin has been rayed to such an extent that it is largely replaced by fibrous tissue, and appears as a dense white scar with telangiectatic vessels over its surface, it should not be rayed again under any circumstances whatever. This is a condition which should not occur. Unfortunately in the earlier days of radio-therapy, when accurate dosage was unknown, excessive raying was common, and this state of the skin was sometimes seen; but with the means of dosage and control now available the risk is very materially lessened.

To Holzknecht is due the credit of first elaborating a system of *x*-ray dosage. Taking advantage of the property which the ray possesses of producing change of colour in certain substances, he has prepared a pastille—the composition of it is unfortunately kept secret—which under the influence of the rays changes from a canary-yellow colour to brown. He has also prepared a graduated scale showing various tints. These shades are numbered from 3 to 24, and this scale is now generally recognized as the standard of *x*-ray dosage. The unit is that amount of raying necessary to change the colour of a pastille from one shade to the next. It is symbolized by Holzknecht's initial H.

Sabouraud, taking advantage of the same property, has invented a somewhat similar method. Instead, however, of employing a scale of colours, a pastille of one colour only is used. This represents the same dose as No. 5 on Holzknecht's scale. The method has these advantages—that it is cheap, and that the composition of the pastille is not kept secret. It has the disadvantage of indicating one dose only, namely, 5 H.

A third method, the one which I employ and recommend for routine work, is the use of a milliampèremeter on the tube circuit, and a meter to count the number of *x*-ray impulses administered at one sitting An impulse is originated each time the current in the primary circuit is interrupted; one has therefore only to count the number of revolutions the interrupter makes during the sitting. This is done by attaching to the spindle of the revolving interrupter a revolution-indicator, such as is commonly used on the wheel of a bicycle to record the distance travelled.

In using this system, the following are the points to which attention must be paid—to secure accuracy all are essential:

1. The *distance* between the anticathode (the point from which the *x* rays emanate) and the part treated.
2. The *penetration* of the rays.
3. The *amount of current* passing through the tube.

1. The distance is determined by the applicators. I find the best working distances are 6 in. and 9 in.; accordingly most of our applicators are made so that the part treated shall be at one or other of these distances from the anticathode. The diameter of the area treated should always be something less than half the "distance" in order that the dose may be evenly distributed over the entire irradiated surface.

2. I have already described how to determine the penetration of the rays and keep it constant. If by any chance the penetration should alter while the dose is being given, this is at once observed by an alteration in the rate at which the current is flowing through the tube; if the penetration increases, the meter shows that less current is passing, if the penetration lessens, the meter indicates an increase in the current.

3. The current passing is indicated on a meter and it is essential that the readings should be correct. Unfortunately there is always a certain amount of the current generated which flows in the wrong direction, with the result that the meter indicates something less than the actual current. To correct this a valve is inserted in the tube circuit which permits the forward current to pass easily but offers a high resistance to the inverse current.

An installation with this method of dose measurement must first be standardized. We must determine how many impulses (under set conditions) are equivalent to 1H. We do so by inserting one of Sabouraud's pastilles and finding out how many impulses are required to reduce it, this number we know is equivalent to 5H, and from that data other doses can be calculated.

For example, if a tube having a penetration represented by 4½ in. spark gap has half a milliampère passing through it, and Sabouraud's pastille (placed at 3 in. distance) is reduced in 5,000 impulses, we know that under these conditions, with an applicator to fix the part at 6 in. distance, 1H. = 1,000, while with an applicator fixing the part at 12 in. distance 1H. = 4,000. In order to calculate the number for any other distance, one has but to remember the law that light diminishes inversely to the square of the distance.

By this method of measurement one is able to vary the dose within wide limits and the personal equation is eliminated. With the other methods one must be able to appreciate very fine shades of difference in colour, and while it is usually easy to do so in good, diffused daylight, in dull weather or sunshine it is very difficult, and in artificial light it is almost impossible to be accurate.

I shall now very briefly name some of the diseases that are more or less amenable to *x*-ray treatment, and I shall suggest what I regard as suitable doses.

1. *Rodent Ulcer.*—A very large percentage of such cases heal under the influence of the *x* rays. It is very important that treatment be continued, not only till all ulceration has healed over, but until all raised edges, however small, have entirely disappeared. Otherwise recurrence will take place almost immediately. The dose should be 6 H. once in three or four weeks, or 2 H. once weekly. Rays of medium penetration should be used and no screen interposed.

2. *Keloid* is another disease which is very amenable to the influence of *x* rays. The dosage is much the same as for rodent ulcer—namely, 6 H. once in five or six weeks. Perhaps my most successful case was one in which a keloid practically disappeared with one dose of 5 H. followed after a month's interval with a second of 3 H. The keloid was raised and red. It was situated on the neck, in the scar left after removal of glands. It was narrow and straight, measuring about 3 in. in length.

3. *Psoriasis.*—When the disease occurs in large, chronic, solitary patches it is usually very favourably influenced by the *x* rays. I have seen a patch on the back of the neck, measuring about 4 in. in diameter, disappear after two doses of 6 H., with an interval of four weeks between them. The rays were of medium penetration (the equivalent spark in air being about 4 in.), and no screens were used.

4. *Lupus Vulgaris.*—This disease is, as a rule, best treated by *x* rays in conjunction with other agents—for example, cauterization, as described by Dr. J. Goodwin

Tomkinson of Glasgow.[2] It may also be used along with Finsen's light treatment or curettage. Great improvement usually follows the first few doses, but spots are left on which the rays seem to have less influence, and continued raying is apt to produce dense scar tissue with telangiectasis. It is difficult to lay down rules as to dosage, but in no case should a single dose exceed 6 H. or 7 H., and if so large, the interval should be three to five weeks. A screen of aluminium 2 mm. in thickness should be used, and the rays should be of medium penetration. Possibly 2 H. once a week for six or eight doses, followed by a rest of some weeks, is suitable in many cases.

5. *Tuberculous glands* at any stage, but particularly in the early stages, usually respond well. The rays should be of high penetration, an aluminium screen of 5 mm. interposed, and a dose of 7 H. to 9 H. administered once in from two to four weeks. As a rule progress is slow.

6. *Exophthalmic Goitre.*—A large percentage of cases improve. It is possible that too small doses aggravate the symptoms, and when we remember the stimulating effect of small doses it is reasonable to suppose that some of the failures which we have had are to be attributed to this cause. The object of the treatment is to cause partial atrophy, and not stimulation of the gland. Rays of medium penetration should be employed, 0.3 mm. aluminium screen inserted, and a dose of 6 H. to 8 H. once in two to four weeks should be given.

7. *Alopecia Areata.*—Excellent results often follow the administration of small doses repeated at long intervals. I use rays of low or medium penetration without screening, and give 1 H. or 2 H. once in two or three weeks.

A child 8 years old lost the hair from the entire head. Occasionally some downy hair would appear only to be again shed. After two years, during which various forms of treatment were used, the head still remained bald. She then began *x*-ray treatment. She received 2 H. once a month for four doses with rays of medium penetration, and by this time—that is, in three months—strong dark hair was growing all over the head. Thereafter, as the child lives a distance from town, and the hair looked healthy, the *x*-ray treatment was stopped, and the mother applied faradic brushing daily. The hair continues to grow healthily, and has been well for a year.

8. *Leukaemia.*—Patients suffering from leukaemia usually benefit. Especially is this so in the more chronic cases, in which the symptomatic improvement, the reduction in size of the spleen, and the change in the blood count, are occasionally very striking. Unfortunately the improvement is not permanent. The rays should be of fairly high penetration, an aluminium screen of 0.5 to 0.8 mm. thickness interposed, and a dose of 6 H. to 8 H. given once every two or three weeks, or a smaller dose may be given more often. Treatment should be applied to the long bones and to the spleen. I usually treat the spleen over three separate areas, and as the above dose may be given to each area a large quantity of rays can be administered in a comparatively short time.

A man, aged 32, came into the Royal Infirmary under the care of Dr. Cowan (to whom I am much indebted for kindly supplying me with these details for publication). He was suffering from great enlargement of spleen and liver. On February 26th the blood count was, white cells 471,000, reds 2,850,000; the haemoglobin was 62 per cent. On June 2nd the journal note is to the effect that there is great improvement in every way. The spleen and liver are much diminished in size. White cells number 34,000, reds 5,200,000, haemoglobin 96 per cent. A few days later, however, there was unfortunately a sudden rise in leucocytes almost as high as on admission (410,000) and some increase in the size of the spleen. He was now dismissed feeling quite well. Some months later the patient reported himself and it was found that he had maintained the symptomatic improvement but the leucocyte count was still high.

Another case was that of a young man, aged 28, who was admitted to the Royal Infirmary in 1907. On October 4th the leucocyte count was 200,000, and by April 17th, the date on which he was dismissed, the leucocyte count was 11,000. This patient was shown before this society some years ago by Dr. W. K. Hunter, under whose care he was, and to whom I am indebted for these details for publication.

9. *Hyperhydrosis.*—This disagreeable trouble can usually be relieved or improved. Rays of medium penetration are used without screening; 5 H. once in four or five weeks for several doses is usually sufficient.

10. *Hairy and pigmented moles*, such as are sometimes seen on the face and neck, can be greatly improved; the hair removed, and the pigmentation lessened. Fairly large doses should be given with rays of medium penetration, and no screen used; 5 H. or 6 H. should be administered once in three to five weeks. Many doses may be required, and care must be taken not to produce a violent reaction. One is, therefore, inclined after the first few applications to reduce the dose.

11. *Naevi.*—Both the flat port-wine stains and the raised cavernous varieties can be vastly improved by raying. It has been stated that marked inflammatory reaction must be produced, but with this I do not agree. I use rays of medium penetration without a screen (perhaps the use of an aluminium screen 0.1 mm. in thickness might be an advantage), and I give 3 H. or 4 H. about once a fortnight. A large number of sittings are required, and as radium gives more excellent results, and is much more easy of application, especially when the patient is a young child, I have largely replaced the use of the *x* rays in cases of naevus by radium.

12. *Deep-seated Malignant Disease.*—Some relief of pain and checking of the rate of growth are all that can be expected. In saying this I do not deny that a number of cases of undoubted cancer (other than rodent ulcer) have disappeared under *x*-ray treatment. One such case—a round-celled sarcoma in the naso-pharynx—I showed before this society some years ago. The percentage of cases, however, in which this happy result is obtained is so very small that I think one cannot say more at present than I have said. In operable cases I am strongly of opinion that a short course of *x* rays should be administered; perhaps before, but certainly always after excision. The risk of recurrence, it is believed, is thereby lessened.

13. *The epilatory property* of the rays is made use of in the treatment of such diseases as ringworm and favus. The object is to give such a dose as shall produce complete temporary epilation, and the greatest care must be taken not to exceed the dose, otherwise permanent baldness may result. The dose is 5 H. with rays of medium penetration (4 to 5-inch equivalent spark gap). No screen is used, and *one dose only* should be required. It cannot be denied that there is a small risk of occasionally producing permanent partial baldness. I therefore think that *x*-ray epilation should only be had recourse to in those cases which resist all other forms of treatment; and I believe there are very few indeed that will not yield to ionic medication with iodine or mercury.

I have by no means exhausted the list of the diseases in which *x*-ray treatment has been found of service. It was not my intention so to do. Perhaps, however, I have said enough to show that the *x* rays have a large field of usefulness in the treatment of disease, and that definite dosage is not only obtainable but absolutely essential to the practice of radio-therapy. The time is past when such phrases as "ten minutes three times a week" or "mild doses daily" are permissible. Like strychnine and arsenic, the *x* rays are safe and useful when properly prescribed and administered; but like them, too, they are capable of doing terrible damage.

REFERENCES.

[1] Sampson Handley, The Prophylaxis of Breast Cancer, *Practitioner*, April, 1910, p. 463. [2] *Proceedings of the Royal Society of Medicine*, April, 1908.

THE arrangements this year for the E.M.I. (Enseignement Médico-mutuel International) include a tour in Scandinavia, starting from Paris on August 12th and returning via Berlin on August 30th. Detailed information can be obtained on application at the offices of the association, 12, Rue François-Millet, Paris. The association has recently been reorganized, its full title now being Association Internationale de Perfectionnement Scientifiqe et d'Enseignement Médical Complémentaire. Its honorary president and general secretary are Professor Roux and Dr. C. Legendre respectively. A German body of a corresponding kind (the German Central Committee for medical study tours) has also chosen part of Scandinavia for its principal tour this year. The party starts on August 26th, and visiting Christiania, Bergen, and other places in Norway, and several of the German islands, including Borkum, of which so much has recently been heard, remains away three weeks. A party is also to visit the various watering places in the east of Germany in connexion with the International Congress of Thalassotherapy. The general secretary of this committee is Dr. A. Oliven, 134B, Potsdamerstrasse, Berlin.

## EXTENSIVE VENOUS INFECTION COMPLICATING MIDDLE-EAR DISEASE: THORACIC EMPYEMA: RECOVERY.

BY

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I THINK the following case of recovery after widespread involvement of the venous channels is worth recording. The internal jugular contained infected clot down to a point a short distance from its termination, and the lateral sinus was thrombosed in nearly its whole extent. The condition of the patient for close on three weeks after the operation, with recurring rigors, looked hopeless. The occurrence of a thoracic empyema on the opposite side of the body is of interest. It is worthy of note that the organism responsible for this condition was the *Bacillus coli*, whereas that obtained from the jugular vein was the *Staphylococcus aureus*. It is difficult to judge the effect of the injections of vaccine; their administration was followed by no very definite signs of improvement. This seems, however, a line of treatment that ought not to be lost sight of.

The patient, a boy aged 13, was admitted to the Croydon General Hospital on May 31st, 1910.

*Previous History.*

For the last two and a half years the patient had suffered from a very offensive discharge recurring at intervals from the right ear. The parents ascribed the onset of the otorrhoea to a blow on the side of the head, which was followed by some haemorrhage from the ear. As long as there was discharge no pain was complained of, but during the periods of freedom from discharge the patient suffered from pain on the right side of the head. He had been treated from time to time by syringing.

On May 10th (three weeks prior to admission) the ear ceased to discharge. On May 24th, the patient vomited in school and came home complaining of pain on the right side of the head and in the back. These symptoms continued and were succeeded by shivering fits, which commenced on the 26th and recurred at intervals. There was no vomiting on the 28th and 29th. On the 30th a swelling was first noticed on the right side of the neck, and the patient vomited again. The bowels had been opened three times during the last six days. Before admission the case had been regarded as possibly one of typhoid fever. The Widal reaction was negative.

*State on Examination.*

On admission (May 31st), temperature 100.6°, pulse 120, respirations 32. The patient looked gravely ill. In a short time the temperature had risen to 105, and there was a definite rigor. Tenderness but no swelling was present over the right mastoid process, and there was an indurated tender swelling over the upper part of the course of the internal jugular vein. There were no signs pointing to meningitis or cerebral abscess. The spleen was just palpable. The heart and lungs were healthy.

Mr. Charles Wray kindly examined the eyes and reported as follows:

Ophthalmoscopic examination of the eyes showed the left fundus to be quite normal, but the disc in the right eye was distinctly swollen and the outline very obscure, especially upwards and inwards. No haemorrhages could be seen, and though the veins were distinctly full, the distension in no way suggested an impediment to the flow of venous blood such as one would have expected from the presence of the large clots found on opening the lateral sinus.

*Operation.*

The case being regarded as one of lateral sinus thrombosis with extension downwards of the infection into the internal jugular vein, that structure was exposed in the usual manner. Owing to the induration, the enlarged glands, and the discoloured condition of the vein, some difficulty was experienced in finding it. When exposed it was seen to be thrombosed. An attempt was made to get below the clot by extending the incision downwards. At a point a short distance above its union with the subclavian the vein looked more healthy, although still thrombosed, and a ligature was applied as low down as possible. About 2½ in. of the lower part of the vein was resected; it contained stinking degenerated clot, but no pus. A swab for bacteriological examination was taken. The incision in the neck was covered with gauze, and the mastoid antrum was laid open. The cortical bone was dense and of more than average thickness. The antrum was of moderate size, and contained foul débris, together with a small quantity of pus. Free exposure of the lateral sinus brought into view a discoloured sloughy-looking wall, and, on this being incised, disintegrated clot was found. There was no fluid pus present. More bone had to be removed in a backward direction, and the incision in the sinus was lengthened. Blood clot was removed nearly as far inwards as the torcular, the last portions appearing healthy. Very free haemorrhage took place at this point, but it was quickly controlled by packing a strip of gauze between the vein and the skull wall. As the patient was showing signs of severe collapse it was necessary to leave the posterior meatal wall and tympanum untouched. The wound was packed with gauze. The incision in the neck was now closed except at the top end, where the internal jugular vein was brought out, and its walls anchored to the skin, and at its lower limit, where a drainage tube was inserted.

After the operation there was great restlessness, pulse 110, temperature 103° F. A pint of normal saline was run into the axilla. This was repeated as necessity arose.

*Subsequent History.*

For several weeks the patient remained in a very critical condition. The wound in the neck soon showed signs of extensive suppuration accompanied by sloughing; accordingly all the stitches were removed, an open gutter resulting. This, together with the wound in the skull, was frequently flushed out with hydrogen peroxide, and the upper part of the vein was syringed through with the same lotion. The temperature during the first three weeks was of an irregular pyaemic type, ranging from 97° to 104.8° F. There were frequent rigors.

On June 6th a vaccine of the organism (*Staphylococcus aureus*), which was cultivated from the specimen obtained at the operation, was injected. Injections were repeated on the 8th, 10th, and 11th.

On the 7th the patient began to develop a cough, with frothy expectoration, and on the 11th there was a severe fit of coughing, followed by acute pain in the cardiac region, rapid breathing, and collapse. There was no cyanosis. On examination of the chest friction sounds were heard, and were best marked in the region of the apex beat. These distressing symptoms did not last more than a few minutes. On the 12th there was a rigor, and on the 13th and 14th the expectoration, which still continued, was tinged with blood. The chest was again carefully examined, and signs of effusion were discovered on the left side. Clear fluid mixed with flakes of lymph was drawn off with an exploratory needle. The condition of the patient grew worse, and on the 18th a portion of rib below the lower angle of the left scapula was resected under local anaesthesia. About two pints of purulent fluid were slowly allowed to escape, and a large drainage tube was inserted. The patient was given a pint of saline in the axilla. The temperature shortly after the operation dropped from 104.8° to 101.4° F. From the fluid a culture of the *Bacillus coli* was obtained, and the patient was subsequently treated with a vaccine prepared from the organism. The boy from now onwards began slowly to improve, the temperature gradually subsided, and there were no more rigors. At one time the patient complained of pain in the right shoulder, and it was feared that trouble might arise here, but the condition passed off.

By July 6th the temperature was normal, and remained so. The wounds behind the ear and in the neck, which for a long time showed few signs of healing, had now begun to granulate. By August 20th the sinus in the chest was completely closed, the patient had put on weight and felt well. There was still a small granulating area behind the right ear. The ear was dry, and whispered speech was heard at 18 in. The patient has rather a large pad of adenoids, which will be removed subsequently.

My thanks are due to Mr. J. F. Robinson for his valuable help at the operation, and to Mr. R. G. Davidson, the senior house-surgeon, for the great pains and skill which he showed in the after-treatment of the case.

## THREE CASES OF MALIGNANT DISEASE OF THE SPINE.

BY THOMAS D. LUKE, M.D., F.R.C.S.,

PEEBLES.

PRIMARY malignant disease of the spinal column is, I believe, by no means a common affection. Of the three cases under consideration, only one was primary. The other two, however, were of interest from the vague character of the symptoms in the first place, and the difficulty in diagnosis until a radiograph was taken in one of the cases.

All were sent for treatment during the past year for a comparatively minor affection which was really a symptom of this grave disease, as the course of the cases proved.

CASE I.

Miss J., a teacher, aged 58, in a good state of nutrition, was sent to me in January, 1910, suffering from supposed sciatica. She hobbled into my consulting room with the aid of two sticks; she could not sit down in the ordinary way, but rather fell or collapsed into a chair when she could no longer support herself by means of the sticks. She had enjoyed good health until about a year and a half previously, when the left breast was removed for malignant disease. She complained of increasing difficulty in walking, of inability to go upstairs or

mount steps, and of the left leg "giving way" underneath her. The pain in the leg was not very considerable, but at night there was a great deal of pain around the waist about the level of the lower dorsal vertebrae, accompanied by a feeling of tightness and absolute inability to turn over in bed without assistance. The patellar reflexes were much exaggerated, especially on the left side, and the Babinski phenomenon was present. There was considerable confusion as regards sense of heat and cold.

The case struck me as pretty plainly one of organic disease—probably a recurrence of the new growth in the spine. A little massage and electrical treatment was tried to satisfy the patient that something was being done, but at the end of the week she was markedly worse, and I suggested the desirability of getting a neurologist's opinion. On the following day I took her to Dr. Edwin Bramwell, who at once confirmed my diagnosis. The patient left for her sister's home in the country at once, and I am indebted to Dr. Bryson of Colinsburgh for the following notes of her case while she was in his hands from early March until May:

"The patient complained chiefly of loss of power in the lumbar and gluteal region. She was unable to raise herself without using her arms when in bed. The pain in the back increased on movement. There was no anaesthesia, and the wasting of leg muscles was limited. But for the history of previous malignant disease the symptoms would have been considered very ambiguous. Later on I detected a tumour in the left lower quadrant of the abdomen, with involvement of the bowel and leading to vomiting, oedema of the legs, ascites and general wasting coming on rapidly."

At this stage the patient was so ill that for the sake of more adequate nursing she was removed to a home in Glasgow, where she died some three weeks later.

Case II.

Miss H., aged 50, sent to me by Dr. James Wilson, of Edinburgh, in January, 1911, had had the left breast removed some two and a half years previously. She had a very large fibroid of the uterus for some years, which led to extensive bleeding, and was so bad that it was pronounced inoperable by a well-known gynaecologist; but she got over the menopause, and had since suffered no inconvenience from the uterine growth.

She could only walk with the aid of a stick, was very neurasthenic and anaemic, constantly complained of being tired, and often took several days' rest in bed. She was quite unable to walk any distance, but just able to get around the establishment by the aid of a stick, and sometimes her friend's arm. The patellar reflex was very markedly exaggerated, and the plantar reflex was of the Babinski type. A very striking resemblance to the former case was shown in the way in which the patient complained of inability to turn in bed, and also of the severe pain at night. This was relieved, as in Case III, by acetanilid and caffeine, until sleep was permitted. Under treatment the patient's general condition improved considerably, and she was also able to walk latterly without a stick, but the night pain, etc., continued unless palliatives were employed. The patellar reflex remained as brisk as ever, and on her return home a lump was discovered under the clavicle. A spinal radiogram was taken at once, and showed extensive disease of the lower cervical and upper dorsal vertebrae. She died on April 24th.

This case was a good example of the difficulty in diagnosis caused by coexisting neurasthenia and organic nervous disease. One sees the same marked neurasthenia in cases of locomotor ataxia, but in this disease the usual presence of more or less classical symptoms, the history of syphilis, and sex of the patient, renders diagnosis not difficult. But in a patient with a history of almost lifelong ill-health, with uterine trouble, anaemia, and neurasthenia in a very marked degree, with no definite new growth, one could not say with confidence that the spine was involved until a radiogram had shed some light on the matter.

Case III.

Mrs. D., aged 61, was advised to come for treatment by an Edinburgh surgeon about the middle of October, 1910. She had been in his hands for some bladder inflammation, but was also in a run down condition, with slight neuritis in the left hand and some stiffness in the neck. There was no known previous malignant disease. She had enjoyed fair health until two years back, when she had undergone a series of minor operations for uterine and bladder trouble. The bladder affection was believed to be tuberculous. I first saw her in bed, and her symptoms seemed in no way severe. The thumb and two fingers of the left hand were painful from "neuritis," and she had a stoop when sitting in bed from the stiff neck. I ordered her some treatment suitable to the condition, and almost at once left on holiday. When I returned three weeks later I found the patient absolutely confined to her room, and unable to stand without difficulty, or to sit up in bed more than to a very slight degree. My colleague, Dr. Marshall, had examined the back of the neck, and found a good deal of thickening around the seventh cervical vertebra, and though the thought of a new growth occurred to him, we were disposed to regard it as rheumatoid in nature. The stiffness increased and the pain became more severe, so bad at times as to make the patient cry out with pain. Aspirin relieved her as a rule, and latterly, when that lost its effect, I found acetanilid and caffeine always soothed her and produced sleep. Sitting up caused so much pain and discomfort that I only examined the spine three weeks later, when I found the thickening was rather more diffuse. There was no cachexia or general wasting. The patient was quite unable to turn in bed, and invariably had to lie on her back, as any side movement caused great pain.

The pain was so marked on any attempt to sit up and ran down the arms in such a characteristic fashion that I felt sure there was some rheumatoid disease of the spine causing pressure on the spinal nerves at the point of exit from the canal. Weeks went by, however, and no improvement took place. There was no anaesthesia, but much wasting of the arms and hands, and I felt so concerned as to the poor outlook for the patient that Dr. William Russell saw her with me on January 2nd, and expressed a strong opinion that the condition was malignant. A radiogram, taken by Dr. Edmund Price on January 7th, demonstrated very clearly extensive disease of several of the cervical and two of the upper dorsal vertebrae. The patient grew steadily worse, sinking pretty rapidly at the last and refusing food, owing to severe nausea. Complete paraplegia ensued on the morning of January 17th, and she died at 11.30 a.m. There were no bladder symptoms almost up to the end, excepting the slight frequency from which the patient had long suffered. Dr. Brewis, in whose hands the patient was for gynaecological treatment, informed me there was no question of uterine malignancy.

As in none of the above cases was a *post-mortem* examination possible, the actual nature of the growth cannot be decided. They were all extra-medullary growths, however, involving the bodies of the vertebrae in two cases at any rate, and the symptoms arising were due to pressure on the cord and to disease of the vertebrae not allowing sufficient "grip" for the muscles rotating and bending the back. This must be the explanation of the symptom common to all of them. Neurologists seem agreed that mere exaggeration of the patellar reflex cannot be held to signify any spinal organic disease, but when we get marked exaggeration accompanied by ankle clonus and the Babinski phenomenon attention seems legitimately directed to some grave spinal lesion. If we have severe pain at night running around the intercostal nerves to the front with the inability to turn and a giving way of one or other leg on standing, one would be inclined to suspect spinal new growth. The previous existence of a breast tumour of a malignant character is a great help; where this is absent, as in Case III, then the difficulty of making an accurate diagnosis is undoubtedly very much greater.

## SOME CASES UNDER THE WORKMEN'S COMPENSATION ACT, AND OTHERS OF MEDICO-LEGAL INTEREST.

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I have recently been consulted in a considerable number of cases of accidents and alleged accidents, by various insurance companies, and as many of these present points of medico-legal interest, I have collected brief notes of a series of them. The companies are always willing to pay for any genuine accident, and, on the whole, treat the claimants liberally; I do not remember a single instance in which compensation has been refused when I have advised the company that the claim was a just and fair one; but there are certain claims which are obviously unfair, and which they are compelled to contest. In these instances as a rule it is easy to give a perfectly fair and decided opinion, and the reasons for that opinion. But there are some cases, especially those in which there are no objective symptoms, examples of which I quote later, and in which the only complaint is of pain or of inability to use a joint or a muscle without pain, in which the greatest difficulty is experienced in coming to a just conclusion.

In a large number of claims the accident is so patent and clear that no medical opinion is sought at all, and the matter is settled between agent and claimant. But there are others in which differences arise, and in these the company seek the advice of their medical referee. The following examples have all occurred in a series, and are therefore a fair and average sample of the cases on which the companies require a medical opinion.

In many of the cases which come into court such contrary views are expressed by the medical men engaged

that I do not wonder that the judge has great difficulty sometimes in giving his decision. I suppose that as medicine and surgery are not, and cannot be, exact sciences, there will always be this difficulty, but it is a pity that we as a profession cannot get a little nearer in agreement sometimes than we do.

*Alleged Sprain of Side Producing very Severe Illness.*—A woman employed at a hotel was carrying a pail of water downstairs when in simply turning round without slipping or falling, she suddenly felt a pain in her side. She went on with her work all that day, and for some days after, when she went to bed and saw a doctor. She complained to him of sickness and did not mention any accident. She went home in a few days, and when I saw her five months later she said she was still unable to work on account of the sprain. I found her very ill indeed with abdominal symptoms which I thought were due to serious internal disease, probably malignant. It was proved in evidence that she went about her work for several days after the onset of the pain in her side, that she asked for no medical attendance for about a week, and then only for an attack of sickness, and that she had complained to a fellow worker one week before the accident that she was not well and felt sick. She was so ill in court that she had to give her evidence lying down. Two medical men testified that they considered her symptoms, serious as they were, were due to the strain. On the other hand another medical man and myself were of the opinion that the symptoms complained of had nothing whatever to do with any supposed sprain, and I gave it as my belief that she was suffering from a malignant abdominal growth.

The points against the possibility of any strain accounting for her condition were these: The alleged accident, which was very slight, could not have produced such severe symptoms. In Germany, where accident laws have been much longer in force than in this country, and affect about twenty million people, as compared with about seven million in England, the courts hold that there must be some relation between the severity of the accident and the consequences produced. Another point against strain was that the first symptoms were those of an acute gastric attack, and no complaint of any accident was made. There had been also signs of the onset of her illness a week at least before the strain. Finally, the symptoms of a strain come on suddenly and immediately after the accident, which was not the case here. The judge gave the case against the appellant, remarking that the evidence of her medical witnesses had strained his reasoning powers to the breaking point.

*Suppurating Glands following an Injury.*—A man employed in a laundry complained that a basket had slipped and struck him in the groin. No wound or abrasion was caused, but a few days later a swelling formed in the groin which subsequently suppurated. I gave it as my opinion (which was supported by another medical man) that this was not a possible occurrence. I do not think that a blow on a gland, without any breach of surface, can cause suppuration. There was probably in this case some focus of infection in the area drained by the glands. The man lost his case.

Claims of enlargement of glands due to accident are not uncommon, but it is very doubtful if this ever happens unless the tissues from which the lymph is derived have been infected at the time of the accident or subsequently. Enlarged glands already existing may, of course, be made worse by a blow or other injury.

*Traumatic Lumbago.*—A stockbroker slipped and sprained his back. He was very nearly well, on his own statement, when I saw him a few weeks after the accident, and there was no difficulty in arranging for his return to his usual occupation.

I mention this example only to point out that as pain in the back is such a common complaint after an accident, it is well to know what is the duration of pain and disability in such a case. Mr. Tubby, in Knocker's *Accidents in their Medico-Legal Aspect*, says:

> The strain, sprain, or rupture of a muscle is one of the easiest things to allege and one of the hardest things to disprove. Pain in the back has become a byword among workmen, who are fully aware that "if you say you have got a pain in your back, nobody can't say you haven't got it."

The duration of cure in a sprained muscle should not exceed fourteen to twenty-eight days. An extra week for complete recovery is all the further period of rest that need be allowed. If four or five weeks after a sprain a man still complains of pain in his back you should be very suspicious of malingering. I may mention that in many cases—for example, Wells *v.* Cardiff Steam Coal Collieries, Holt *v.* Yates and Thom—very much longer periods than I have given have been allowed for disablement from strain of the muscles of the back.

*Injury to Leg in a Pregnant Woman: Alleged Death of Fetus.*—A young woman slipped through a hole in a faulty stair, and cut her leg. After a short time this healed, but she declared she was still unable to work. When I examined her I found that the pain complained of was quite away from the recently healed wound, and was due to old varicose veins She was pregnant at the time of the accident. After two months she still asserted she was unable to perform her duties as a waitress, and that the accident had killed the fetus. On examination, the uterus was of the right size for a three months pregnancy, and there were no other signs whatever of anything wrong with the normal course. It was suggested that the embryo had been killed at the time of the accident, when the woman was one month pregnant, and that the size of the uterus was due to blood clot. But against this was (1) the improbability of the retention in the uterus of a dead fetus, (2) the unlikelihood of the size of the womb just corresponding with the proper size according to the date of the pregnancy at my examination, (3) the absence of the other signs of a dead fetus, such as diminution of the size of the breast.

*Slight Bruising of the Leg followed by Asserted Prolonged Inability to Work.*—A woman was struck on the thigh by a long pole when passing a draper's shop. The accident was quite trifling, but nearly six months later she still claimed that she was unable to work. When I made my visit, which was quite unexpected, I saw the woman actively working about the house; but evidently she did not suspect that I had seen her, for, after keeping me waiting some little while, she came in with apologies: "She had only just got up; had been trying to rest her leg." She showed me the "bruise" remaining after five months. There were simply a few cutaneous varicose veins, which were equally marked on the other thigh.

*Fracture into Elbow-joint.*—A man fell from a ladder and fractured his elbow-joint. I saw him a few weeks after, and there was then an open wound at the back of the joint, the result of an operation. Here there was no question that the man was and would be for some time unfit for work.

The only point worth remembering in connexion with a case of this nature is that with a perfectly stiff elbow a man is able to perform a number of complicated movements and carry on many occupations. There is no large joint in the body which can be so well spared as the elbow.

*Injury to Shoulder.*—An adult male, whilst cleaning out a kennel, injured his shoulder. Five months after he stated he was incapable of doing any work. All that I could find was that he complained of a good deal of pain on any attempt to move his shoulder. When his attention was distracted from his arm movements were much more readily allowed. I could see no reason why after all this time he should not return to work; but a strong point in the man's favour was that he was undergoing treatment at the hospital, which included such painful procedures as the use of the actual cautery. There was an element of doubt in this case, and I advised the company to settle with him, and they gave him £30.

This is one of the cases in which the detection of a malingerer is difficult. The usual time of incapacity from a sprained shoulder is only three weeks, and if this man could have been put under an anaesthetic and no stiffness of the joint then detected, I should not, in the absence of all physical signs—such as swelling, wasting, etc.—have hesitated to advise the company to refuse to pay any longer. But this course could not be insisted upon.

*Injury to Thumb: Alleged Prolonged Incapacity.*—A domestic servant cut her thumb with a knife; this was followed by suppuration and necrosis of the bone, ending in the loss of the top half of the terminal portion of the thumb. This entailed practically no disability, certainly as regards domestic service; she asserted that she had severe pain in the arm, and that she was unable to use it. I could find no evidence of neuritis, and was able to prove that she had free and full use of the arm, by getting her to move it in all directions, by making her write her name, etc., and the judge held that she had been properly compensated by the payment of half wages for some time and then a lump sum of £25.

This woman had in court a certificate from a medical man which stated that the left arm was disabled and would remain so for life. In a German case, where, after the loss of the last phalanx of the thumb there appeared hysterical disturbance of the arm and shoulder, the following passage appeared in the judgement:

> It was not the influence of the accident which essentially caused the trouble, but the brooding of the plaintiff over the presence of its results, and his endeavours to make them a reason for indemnity which would pay him.

In the *Practitioner*, 1909, Dr. Mackenzie published a very excellent paper which puts the percentage of loss of various parts of the hand in the form of a table; it is a useful guide in estimating disability.

*Crushed Hand: Question of Unreasonable Refusal to have Operation Performed.*—A man crushed his left hand severely, with the result that some time later he was left with a per-

fectly useless ring finger and a good deal of scar tissue limiting the movements of the third and fifth fingers. It was held by the employer that if the useless finger were amputated he would have a much more useful hand, and would be able to resume his old occupation of driving. In my evidence I said that undoubtedly the removal of the stiff and useless finger would give him a better hand, though of course it would not make it a normal one. Evidence was given for the appellant by two medical men to the effect that the result of an operation for the removal of the finger and the breaking down of adhesions was very problematical, and it was shown that his own doctor had never very forcibly urged him to submit to operation. The judge on a point like this has not to decide on the balance of medical evidence brought before him, but simply whether the man's refusal was reasonable or the contrary.

**His Honour took the view that if a man's own medical attendant had not pressed the operation on him, he was not bound to listen to any opinions that might be expressed by other doctors. The Master of the Rolls in Tutton *v.* Owners of ss. *Majestic* made this point quite clear:**

I think the the test is, not whether on the balance of medical opinion the operation might reasonably be performed, but whether the man in refusing to undergo the operation acted unreasonably. I altogether decline to say that in a case of an operation of this kind a man can be said to act unreasonably in following the advice of a competent doctor, even though on the balance of medical evidence given at a subsequent date the county court judge might come to the conclusion that the operation was in its nature one which might reasonably and properly be performed.

*Crushed Hand: Question of Return to Work.*—A young girl crushed her hand at a laundry, and many months after was still away from work. I saw the girl apart from her mother, and found she was quite able to work again. I also discovered that the agent was paying her by mistake sixpence a week more than she was earning in full wages. There was no difficulty in getting this girl back to work.

**It is very useful to examine young claimants apart from their parents, as they are much more likely to be natural and not to exaggerate their symptoms.**

*Serious Injury to Head followed by Prolonged Incapacity.*—A road sweeper was struck down by a runaway horse, and sustained a severe injury to his head. He became paralysed on the same side as the scalp wound, and there was almost complete inability to talk or reason about things. Two years later, when I first saw him, this condition had greatly improved. Paralysis was almost gone, and reasoning powers were good. I thought that probably the man would get quite well, although it might be some considerable time before he was fit for work. I based this opinion on the fact that he had improved so much in the few months before I saw him. I had to decide if he was perfectly capable of making an agreement with the company for compensation, and I had no hesitation in saying that he could do so. I asked him if he would sign a document. "Not till I know its contents," he replied. I thought this was a good evidence of his ability to discuss the details of a settlement.

*Alleged Traumatic Hernia.*—A middle-aged man was engaged in unloading coal from a railway truck, when the side of the truck was said to have suddenly fallen outwards. In order to avoid being struck, the man sprang to one side, and he asserted that from that moment the rupture made its appearance. I examined him some months afterwards, and all that I was able to detect was the scar of an operation wound in the inguinal region. He had been operated on for an inguinal hernia, but the scar gave no guidance as to whether it was recent and traumatic or an old chronic inguinal rupture. But strongly against the traumatic view was the fact that the man had continued work for some time after the alleged accident. I do not think any one who had had such a severe strain as to produce a rupture could have continued his work; the pain would have been so great that he would have been compelled to stop at once. However, his account of the supposed accident was so unsatisfactory that the judge, without hearing any medical evidence, at once decided that there had been no accident at all.

**If a case of rupture can be seen at once or soon after the alleged accident, there are certain guiding points to help one in forming an opinion as to whether it has been caused by this accident or no. It should always be remembered that, though a hernia is very rarely caused by a strain, the accident does occasionally occur, and the following points will help in coming to a decision: In an old rupture the skin may be discoloured by the friction of a truss, or the hair worn away where it has pressed. If the rupture is large, it is probably, but not certainly, old. If the sac is a thick-walled one, it is old, not recent. If there is adherent omentum in the sac, it indicates a hernia of long standing. A recent hernia resulting from injury is accompanied by pain, usually severe, from laceration of the structures of the abdominal wall. In an old inguinal hernia the ring is larger, its edges thickened, and the two rings, internal and external, brought closer together. If the rupture is either in whole or part irreducible, it is certainly old. Strangulation may occur at the moment of protrusion; therefore, though more common in old than in recent ruptures, its presence does not prove it to be old.**

**The late Mr. Barnard, in Knocker's work already referred to, made the following very pertinent remarks:**

Rupture is exceedingly common. The layman has no idea how common or how much daily laborious work is performed by working men with ruptures. . . . There is probably more fraud connected with claims for rupture produced by an accident than can be found in all the other cases of fraud for the rest of the body. Of the cases that claim compensation for damages for hernia as being caused by a *sudden* strain probably not one in ten is genuine.

**In the final report of the Departmental Committee on Compensation for Industrial Diseases in connexion with the Workmen's Compensation Act, 1906, the following passage occurs:**

The evidence which we have received from authorities of eminence is definitely to the effect that hernia may, though very rarely, be due to a sudden strain, in which case it would be the subject of compensation, if caused by the employment, as an accident. But what usually happens is that some cough or particular strain brings down a little further a hernia which has been slowly developing, so as first to make it prominent and attract attention.

*Alleged Traumatic Hernia.*—A young man slipped whilst carrying a sack of corn, and stated that this immediately caused a rupture of which there had been no sign previously. He continued his work, wearing a truss, and three months afterwards was operated on. Two months later, when I first saw him, there was present a recent scar of the radical cure of inguinal hernia. It was, of course, impossible for me to say whether this rupture was a traumatic one or no, for there was so little to guide me. But the fact that he was able to go straight on with his work after the accident was a strong point against it being due to an accident. The point I was asked to determine in this man was when he could return to his full work. The ordinary period at which, after a radical cure, it is quite safe for a man to return to full laborious work is three months, but as this man's occupation entailed very heavy lifting, including sacks weighing up to 2 cwt., I advised an extra six weeks, making four and a half months in all.

**An interesting point arose in this case. Both workman and employer had signed an agreement as to the amount of compensation to be paid; but under a section of the Workmen's Compensation Act all agreements between employer and employed have to be submitted to the registrar of the court for approval. He refused to register this case on the ground that the amount agreed upon was not a fair one. This action has still to come before the judge for his opinion.**

*Alleged Food Poisoning.*—This case, though not under the Workmen's Compensation Act, has points of medico-legal interest, and I have therefore added it to the series. A man, 51 years of age, was examined by me some ten weeks after the alleged poisoning. The account of the event he gave me was as follows: He purchased a small tin of potted ham and chicken at a grocer's, which was opened for him in the shop and eaten by himself and four members of his family almost immediately after, at 5 p.m. on a Thursday. A dog also partook of the potted meat, but two other people who had tea with them did not. The meat presented nothing wrong to the senses. About two hours after the meal his wife felt sick, and in the night came out in a thick, irritating rash. Next morning he himself came out in a similar rash, but he had no other symptoms, no diarrhoea or vomiting or abdominal pain. Two children showed nothing wrong till two days later, when they had a similar eruption; and a few days later still the fifth victim, an adult, came out in the same rash. The dog also showed similar symptoms. (It was shown in evidence that the two visitors who did not touch the meat had no symptoms.) The man did not seek treatment till the morning of the second day after the meal, when he saw a chemist, and in the evening of that day a doctor. It was shown that on the Saturday, the second day after eating the potted meat, he had purchased some eels which were not fresh, and it was suggested that this was the cause of the attacks, the man purposely altering the time of the appearance of the rash in order to get damages from the vendor of the tinned meat. After hearing the evidence at the trial, I think that there can be no doubt that the symptoms appeared before the purchase of the eels, and that these had nothing whatever to do with the case.

**I came to the conclusion, however, that the family were not suffering from tinned meat poisoning, and for these reasons: The essential and characteristic symptoms of potted meat poisoning were all absent—namely, vomiting, diarrhoea, severe abdominal pain, and collapse. In this form of poisoning a rash is not often present, and if it is it does not dominate the attack as it did here. Even if the man himself were an unusual example, it is almost impossible to imagine that all the five victims**

should be anomalous cases presenting none of the symptoms characteristic of the condition. Five improbabilities are equivalent to an impossibility. The symptoms were very much more like fish poisoning, in which a sudden urticarial eruption is the predominant feature. Secondly, if tinned meat does set up poisoning it is a toxaemia and not a bacterial poisoning; the bacteria are destroyed by the steam, etc., used in the process of potting. The latent period, therefore, is a very short one reckoned in hours. The evidence showed that some of the cases at least did not show any signs for thirty-six hours, possibly longer. The long time at first mentioned by the man before the symptoms appeared in the fifth case was, as the evidence showed, a mistake. The judge, after giving a most careful summary of the evidence, clearly leaned to the view that neither the eels nor the potted meat had anything to do with the attacks, but that probably something eaten by the five victims either earlier or later in the day was the cause. These five, with no visitors, had their other meals together. The jury took this view and found for the defendant. What I heard afterwards confirmed my view of fish poisoning. The family were in the habit, I was informed, of frequently partaking of fried fish, and it is probable, or at least possible, that this was the *fons et origo* of the whole affair.

## RADIUM WATER THERAPY.

BY

WILLIAM ARMSTRONG, M.R.C.S.ENG.,

BUXTON.

IT is generally agreed that the effects of those natural mineral waters which from the small amount of contained mineral matter have been classed as "Indifferent-thermal" are due to their radio-activity—that is, the amount of radium emanation contained in them. The degree of radio-activity is, however, so small as to be difficult of estimation. Professor Maché of Vienna, however, has devised a unit, called by his name, which is the one-thousandth part of an ordinary electro-static unit; this has much facilitated the accurate estimation of radio-activity in waters of low strength. The amount of radio-activity present in the various natural waters varies from 2 maché units to 150 maché units per litre, the highest reading being given by the Gastein water.

In 1903 Saubermann of Berlin, a practising physician and one of the earliest radium investigators, suggested the use of water containing a much larger quantity of radium emanation as an adjunct to the various natural waters.

In 1905 Gottlieb of Jacomsthal, where the great Austrian radium mine is situated, found marked medical results amongst the miners who merely worked in and about the water from the pitchblende, and still more remarkable ones when in addition the water was drank. Dautwitz, working in Neussen's clinic, added pitchblende to existing indifferent thermal waters, with much enhanced results. Since then continuous success has been reported by Deutelmoser, Newburg, Bergel, Beckel, Gudzent, and many others. The results were as follows:

1. Greatly increased diuresis and excretion of uric acid.
2. Largely increased carbonic acid exhalation (Silbergleit and others).
3. Lowered blood pressure (Deutelmoser).
4. Decreased blood viscosity (Deutelmoser).
5. Increased activity peptonizing and diastatic ferments (Bergel and Bickel).
6. Enhanced autolysis (Newburg).
7. Prevention of the transformation of the easily soluble lactam urate (mono-natrium-urate) into the less soluble lactim-urate (Gudzent).
8. Marked solvent action on gouty deposits.
9. Excretion of uric acid took place as promptly in gouty patients as in healthy individuals, overcoming the special difficulties of the gouty, namely:
   (*a*) Retardation of purin body metabolism.
   (*b*) The slowing of the formation and of the breaking down of uric acid.
   (*c*) The alteration in the mutual relation of the two processes (His).
10. The dissociation of uric acid and its salts into carbon dioxide and ammonia.
11. Inhibition of inflammation and relief of pains in rheumatism His).
12. Increase of sexual vitality (Gastein has always had this reputation).
13. Considerable influence over sympathetic nerve affections, such as neurasthenia and allied conditions (Saubermann).
14. Marked results in diabetes, albuminuria, and glycosuria (Saubermann and others).

The investigation, covering 10,000 observations, of Dr. Harburn and myself, published in the *Lancet* some eight years ago, showed that the action of the Buxton Thermal waters was almost entirely due to contained gases; and finding that good and definite results were obtained from so low a percentage of radium emanation as it contains, I thought it would be interesting to give a trial to a much stronger radio-active water.

In June 1910, I began to use a strong radio active water in the class of cases successfully dealt with in Germany. The maximum strength provided was 8,000 maché units per litre, and I am now able to offer an analysis of the results in 400 cases. For drinking purposes, the water was prescribed in daily quantities of from ½ litre to 1 litre, divided into two or three doses. The strength given was from 1,000 to 8,000 units, according to the class of case treated. For bathing, the strength of the water was from 5 to 15 units per litre, and for inhalation 1,000 to 8,000 units. Packs of radio-active earth to inflamed and thickened joints were also used.

The general physical results observed were as follows:

1. Greatly increased diuresis.
   (*a*) Average increase of volume 25 per cent.
   (*b*) Average increase of excretion of uric acid 15 per cent.
2. Increase of exhalation of carbonic acid gas from 20 to 60 per cent.
3. Marked lowering of blood pressure, especially in arterio-sclerosis.
4. Improvement of digestion, both gastric and duodenal.
5. Disappearance of gouty deposits.
6. Considerable increase in vitality, both general and sexual.
7. Regulation of action of bowels, probably due to increased peristaltic action, but no actual purgative effect.
8. Great improvement in appearance, clearness of skin, brightness of eyes, etc.

The cases treated comprised the following diseases: Diabetes, glycosuria, albuminuria, arterio-sclerosis, gout, rheumatism, arthritis, neuritis, neurasthenia and general loss of vitality, autointoxication; sympathetic nerve and vasomotor troubles, such as angio-neurosis.

The special results observed were:

In *Diabetes:* Decrease of sugar. Increase of body weight, oxidation, carbonic acid exhalation, and great improvement in general health.

In *Glycosuria:* Rapid decrease and eventually almost always the complete disappearance of sugar.

In *Albuminuria:* Decrease of albumen and blood pressure. Increased excretion of body toxins by kidney and lungs. Decided improvement in general health.

In *Arterio-sclerosis:* Marked decrease of blood pressure from 20 to 80 mm.

In *Gout:* Increase of volume of urine and of uric acid excretion. Disappearance of uric acid crystals in urine, rapid decrease of pain, stiffness, and swelling of affected parts.

In *Rheumatism:* Decrease of pain and stiffness.

In *Neuritis:* Diminution of pain. Great improvement in nerve health generally.

In *Arthritis:* Improvement in nearly all forms; in recent non-acute cases very rapid changes were observed.

In *Neurasthenia* with autointoxication and loss of vitality: These cases improved with extraordinary rapidity and completeness. Marked change in appearance and vitality. Considerable increase in carbonic acid exhaled. The cases in this group were most satisfactory of all.

*Diminution of Sexual Vitality.*—Some dozen cases treated especially for this, all with good results; in a number of other cases information regarding this improvement was volunteered.

*Sympathetic Nerve Affections*, especially vasomotor troubles, such as angio-neurosis, made very satisfactory progress.

I quote briefly two representative cases:

CASE I.

E. J., aged 60 years. Sugar in urine continuously for three years, failing heart, much oedema of legs, great loss of flesh, want of mental clearness, drowsiness, marked autointoxication. Face very dusky, almost blue. So ill had to be brought in invalid carriage. Urine twenty-four hours, 80 oz.; specific gravity 1042, sugar 8 per cent., much acetone. June 14th, 1910. Drank radio-active water, 2,000 maché units, ¼ litre twice daily, increased to 4,000 maché units on 21st, and to 8,000 maché units on 30th. July 4th. Radium water increased to ½ litre twice daily. Steady and continuous improvement. Left August 10th; oedema disappeared; urine 56 oz., specific gravity 1025, sugar 2 per cent., lost blue colour, able to walk two miles daily.

Returned October 2nd; gained 11 lb. in weight since August 9th. Urine 58 oz., sugar 2.8 per cent. Much better in every

way. Drank radio-active water as before. Left November 5th. Urine 54 oz, sugar under 1 per cent., specific gravity 1023. Examination, night and morning specimens, showed morning specimen free from sugar.

December 3rd Returned very well; could walk five or six miles daily, weight increasing, colour quite healthy. Urine 48 oz., specific gravity 1023, sugar mere trace in evening specimen only; drank radium water till end of January, and left free from sugar.

CASE II.

T. W., aged 54 years; seen October 20th, 1910. Bright's disease for at least five years. Urine 64 oz., specific gravity 1006, albumen $\frac{1}{12}$, hyaline casts. Looks very thin and wretchedly ill, frequent vomiting, tension 230 mm. Radium water $\frac{1}{4}$ litre twice daily, 1 000 maché units, increased every two days by 1,000 till 8,000 was reached. After two weeks the dose was increased to $\frac{1}{2}$ litre twice daily. Steady improvement took place, appearance and colour improved, vomiting ceased; the patient expressed himself as feeling much better. Considerable increase in carbonic acid exhalation, and in total nitrogen in urine. Albumen went down to one-half. Tension gradually fell to 160 mm. at the end of six weeks' treatment.

Returned January 24th, 1911. Improvement not quite maintained, but much better than in October. Slight increase in albumen; carbonic acid exhalation decreased. Increase in blood tension to 180 mm. Occasional vomiting. Radium water as before. Now (February 27th) tension 155 mm. Much better in every way.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### A SALIVARY REACTION IN DIABETES MELLITUS.

ON adding a dilute solution of ferric chloride to the saliva of a healthy person one finds a blood-red coloration produced, due to the presence of potassium sulpho-cyanate (KCNS).

When examining persons suffering from lead poisoning in whom the reaction is wanting, I found on using my own saliva as control that if I had been eating anything sweet, such as jam, the reaction was negative in my case also.

Experimentation in the laboratory has confirmed the fact that both lead salts and sugar interfere with the red reaction, the most probable explanation being that the ferric chloride is reduced to a ferrous salt.

If the temporary presence of sugar interfered with the reaction, one naturally thought it possible that the permanent presence of sugar in the system might also prevent the formation of the blood-red colour. With that object I determined to test the salivas of diabetic patients, and in every case I have found the reaction negative provided the test was carefully carried out.

The solution of ferric chloride must be very weak (about 6 to 8 drops of liq. ferri perchlor. to 4 oz. of water), otherwise there is present a certain amount of ferric chloride unreduced which is sufficient to produce the reaction.

Swansea. G. ARBOUR STEPHENS, M D.Lond.

### GASTRO-INTESTINAL HAEMORRHAGE IN A NEWBORN INFANT.

ON consulting the recent edition of Allbutt's *System of Medicine* I find that "the haemorrhagic disease of newborn children" is spoken of as being "a very rare one." I believe, therefore, that the following short report of a case which I met with recently in private practice will be of some interest.

The child's parents are healthy, and there is no family history of haemophilia. The mother, aged 40, has four healthy children. She had one miscarriage—the pregnancy immediately preceding this one, but apart from this, there is no evidence whatever of syphilis. Her previous labours were normal and easy. On this occasion rupture of the membranes took place at the commencement of labour, and there was also considerable uterine inertia, so that the os was not fully dilated till twenty-four hours afterwards when the child was born without interference. It was an apparently healthy, well-nourished, female child of 7½ lb. weight. Twenty-four hours after birth the child vomited bright red blood, and passed by the bowel considerable quantities of dark red clots. There was no jaundice, neither was there evidence of colicky pain or pain of any kind. There was no abnormal crying, and the abdominal wall was quite soft and relaxed. The abdomen, in fact, appeared to be exceptionally flaccid, for an examination of the bowels with one finger in the rectum was easily made without an anaesthetic. No tumour or abnormality could be detected. The child took the breast once or twice after these symptoms had started and had occasional intervals of normal sleep, waking up to repeatedly vomit small quantities of bright red blood. The passage by the bowel of very dark red, though not absolutely black, blood also took place every two or three hours, and the child became gradually colder, more pallid, feeble, and pulseless. It died thirty-six hours after the onset of symptoms, death being evidently due to nothing but the severe haemorrhage.

The vomiting of blood in these cases is, I understand, extremely rare. The symptoms, too, would point to two sites of bleeding, one in the stomach and one in the lower part of the bowel. It was impossible to obtain a *post-mortem* examination.

Kingskettle, Fife. ARTHUR MILLS, M.B., Ch.B.

### DIPHTHERIA ANTITOXIN BY THE MOUTH.

MY partner (Dr. Annie Jackson) and I have been giving antitoxin by the mouth, exclusively, for two years and a half. And in that time we have only lost two cases.

We find that the improvement sets in within six hours. The child suffers no shock. We give the serum after taking the first swab.

Derby. HELEN M. GREENE, M.D., L.S.A.

### NASTIN IN LEPROSY.

I HAVE great pleasure in reporting a case of anaesthetic leprosy which has improved a great deal under nastin treatment. The patient had noticed patches on the cheek, lips, and back thirteen years ago without suspecting it to be leprosy. The hands had lost sensation, and were wasted, having assumed the peculiar leprous character. The patient's fingers constantly got hurt, and it was to get one of these hurts dressed that the patient came under observation. The patches when noticed were distinctly anaesthetic, with raised and red margins.

The patient was given twelve injections of nastin B0 and twelve of B1, one every week. The margins of the patches after this treatment have altogether disappeared, and the sensation has returned. The patches have faded away; the general health of the patient has greatly improved.

S. G. RANADAY, L.M.and S.Bombay, L.R.C.P.S., D.P.H.Edin., D.T.M.Lond.

Thakurdwar, Girgaon.

### NUTMEG POISONING.

ON Thursday, March 9th, at 2 p.m. a woman, aged 23, was brought into hospital complaining of severe occipital headache, vertigo, and abdominal pain. She was admitted under Dr. Saundby, to whom I am indebted for permission to publish the case.

*State on Admission.*—She was restless and excited, complaining constantly of her head. She also had abdominal pain and vertigo. She could not answer any questions then. Her face was slightly flushed, pupils normal, pulse 120. Her abdomen was rather tender, especially over the descending colon, but there was no rigidity. The abdominal pain and headache finally disappeared on the next (Friday) afternoon, but she was very giddy on getting up then.

Her story as then given was as follows: On Thursday morning at seven o'clock she drank one nutmeg ground up in a glass of stout. About four hours later she became so giddy that she went to bed.

About the time she first became giddy an intense headache came on, and abdominal pain, as she said, "Like the wind." Her eyes then became dim, and she remembered nothing more, except the headache, until she found herself in hospital.

The nutmeg was taken as an abortifacient, but had no effect as such.

In the 6 most recently reported cases that I can find the symptoms were much the same as in the above case. In none of them did the drug act as an abortifacient.

K. DOUGLAS WILKINSON, M.B.Birm.

The General Hospital, Birmingham.

BIBLIOGRAPHY.

Bentlif: BRITISH MEDICAL JOURNAL, 1889, vol ii, page 1389.
Carvell: BRITISH MEDICAL JOURNAL, 1887, vol. i, page 1317.
Hamilton: *Medical Press and Circular*, London, 1905; N.S. lxxx, 608.
Pitter: *Lancet*, 1902, vol. i, page 1035.
Simpson, *Lancet*, 1895, vol. i, page 150.
Smith, *Lancet*, 1902, vol. i, page 1798.

## SALVARSAN IN SYPHILIS.

FINDING that various opinions are expressed about the efficacy of "606" in syphilis, I would like to note two cases that I have treated with "606."

1. N. N., Portuguese, aged 34, acquired a primary lesion in 1906. He had no secondary eruptions, and enjoyed fairly good health till the beginning of December, 1910, when he was covered with ulcers with raised, thick, greenish-black, and adherent crusts; the lymphatic glands, such as the epitrochlear, the post-cervical regions, and the one lying in front of the internal condyle of the humerus, were enlarged. Smears taken from these sores have demonstrated the existence of *Spirochaeta pallida*. I at once gave him an injection of 0.5 gram of "606." All the symptoms disappeared in ten days, and the man is actually at work.

2. N. N., a Britisher, aged 38, contracted the primary sore about sixteen years ago; a few weeks elapsed, and a slight syphilitic roseola appeared. He consulted a medical man, and, having been placed under mercurial treatment, the eruptions soon disappeared He was under treatment for about twelve months. In 1908 he contracted choroiditis, characterized by yellowish-white plaques and dissemination of numerous round and oval spots in the fundus oculi; but after having consulted an oculist and submitted to mercurial treatment he felt well. He was enjoying very good health till December 15th, when he consulted me complaining of oliguria. The specific gravity of the urine was 1032, the amount 29 oz., reaction acid, and sugar (CuO). I examined the blood, and found a diminution in the haemoglobin percentage and red corpuscles, with slight leucocytosis. I placed the patient on a diabetic diet and treatment with no result. I then suspected him to be suffering from syphilitic glycosuria, and I asked him whether he had ever contracted a chancre, and after some pressing he admitted as above. I at once gave him 0.5 gram of "606," and in forty-eight hours the glycosuria disappeared. No *Spirochaeta pallida* could be found in the blood taken from enlarged glands, whereas before the infection they were easily found in the blood from the glands. The man is well and complains of nothing.

I sincerely believe that "606" has a curative power over *Plasmodium* malaria, as Case 1 used to be laid up with malaria twice a week, but since the infection he admits feeling perfectly well.

Naples. CIARAMELLI ANTHONY, M.D.

## ANALGESIA IN LABOUR.

THE results attending the use of a combination of heroin and atropin in the ordinary pains of labour have in my hands been very satisfactory. I have tried scopolamine-morphine without anything like the same result. The treatment is simple, and, so far as my experience goes, absolutely safe. It is suitable for any stage of labour. The effect is immediate and yet durable. It does not interfere with the use of chloroform in delivery, and does not hinder the action of the voluntary muscles. I have not found it diminish the contractile pains, and it does certainly greatly diminish the painfulness of labour.

Heroin hydrochlorate $\frac{1}{6}$ grain with atropin sulphate $\frac{1}{100}$ grain may be given hypodermically in one dose, or, according to the stage of labour, in divided doses.

Those patients on whom this treatment has been used have testified strongly and without solicitation to the relief which it affords.

Palmerston North, New Zealand. W. C. GREIG, M.D.

## TRAUMATIC ANEURYSM OF RADIAL ARTERY IN THE HAND.

MRS. W., aged 33, was cleaning her windows on the morning of May 21st, 1910, when her right hand slipped and a piece of glass at least 3 in. long entered the ulnar border of the hand and made its way deep into the palm. She at once withdrew it and came to see me the same afternoon, when I noticed there was a great amount of swelling in the first dorsal interosseous space, attributed to the glass ploughing its way among the muscle fibres and the extravasation of blood resulting therefrom. As there still might be some pieces of glass remaining in the hand an *x*-ray photograph was taken, but with a negative result. I sewed up the cut and applied fomentations to the swelling. In the course of a week the swelling had lessened considerably, so that by June 6th her visits ceased.

On June 17th she came to see me again, as in the interval a large pulsating swelling had developed in the first dorsal interosseous space which on auscultation had a well-marked bruit. Traumatic aneurysm was diagnosed, and the case sent to the Nottingham General Hospital, and operated on by Mr. Morley Willis, Senior Assistant Surgeon, to whom I am much indebted for the following remarks:

> The piece of glass which entered the ulnar border of the palmar surface of the hand just distal to the pisiform bone traversed the palm and wounded the radial artery.
>
> Two things are curious: (*a*) That it should not have damaged the deep palmar arch in its course through the palm. (*b*) That, entering as it did on the palmar aspect, the injury to the artery and consequent aneurysmal swelling was evident on the dorsal aspect of the first interosseous space. That the arch itself was not wounded appears highly probable, as ligating the radial artery at the wrist (at the pulse) has quite cured the condition.

When last seen, on August 27th—that is, two months after the operation—she was quite well again.

D. MONTAGUE B. SNELL, M.R.C.S., L.R.C.P.

Stapleford, Notts.

## PROSTATECTOMY DURING ACUTE RETENTION.[1]

MR. C., aged 59, had suffered from prostatic symptoms for four to five years. When only 56 years old he had to be catheterized by Dr. McCandless, of Rathfriland, for relief of acute retention of prostatic origin.

On December 27th, 1909, he again had an attack of complete retention. Dr. McCandless, being unable to pass a catheter, aspirated the bladder. On December 28th the patient came to town, and entered a nursing home. When I saw him at 4 p.m., I succeeded with some difficulty, but without using any force, in passing a large gum elastic catheter, and emptied the bladder. At 10 p.m. I again endeavoured to pass the catheter, but failed. I therefore decided to allow the bladder to become distended, when I could open it suprapubically without difficulty. This was done the following morning (December 29th). The prostate, which weighed $3\frac{3}{4}$ oz., was easily removed. Recovery was uneventful. He returned home at the end of three weeks, passing all urine naturally.

Prostate, weighing $3\frac{3}{4}$ oz. Inferior surface. *a*, Tube in urethra; *b*, tube in false passage; *b'* commencement of false passage; *c*, "middle lobe." (Actual size.)

[1] Read before the Ulster Branch of the British Medical Association, December 18th, 1910.

The following points are of interest:

1. The early age at which prostatic enlargement was present (56).

2. A complete false passage existed traversing the right lobe. This may have been made by myself. In any case it shows how easily this can be done in a soft prostate.

3. The success attending operation during retention—a time at which a patient will welcome any procedure which promises relief.

I would therefore recommend, when any serious difficulty is experienced in catheterizing these patients, that the operation of prostatectomy should be undertaken without delay.

Belfast. A. B. MITCHELL, M.B., F.R.C.S.I.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### THE EMERY HOSPITAL, ANAND, GUJERAT, INDIA.

FOREIGN BODIES IN THE LARGE INTESTINES.

(By N. JOSEPH RODRIGUES, L.R.C.P and S.Edin., L.F.P. and S.Glas., L.M.Dub.)

P. L., a coolie woman, aged 30, married, was admitted on December 26th, 1910, suffering from severe pains in the abdomen and back, which she said were caused by "two sticks which had been in her abdomen for the last two months." She stated that the sticks had been introduced per vaginam. Her general condition was satisfactory; she had had only occasional attacks of "ague," to which the natives in these parts attach very little importance. The menstrual history showed irregularity but nothing else of importance.

Shortly after admission an abdominal and uterine examination was made under anaesthesia, but no information was obtained to corroborate the patient's history of her ailments. Two days later I put the patient under anaesthesia again, and made an abdominal examination followed by an examination of the vagina and uterus. As there was some enlargement of the uterus and an offensive sanious discharge, I douched out the vagina and lightly packed it, in the hope that "something" would come away. As the patient was being removed from the table she began to be sick, and during the violent efforts to vomit my attention was called to a prominent point in the region of the left hypochondrium. I came to the conclusion that she most certainly had a foreign body in the abdomen and opened the abdomen by an incision in the middle line about 2 in. long immediately above the umbilicus. On introducing the finger I felt the foreign body, well under the ribs, and brought it up through the incision with the loop of bowel in which it was contained. A small incision through the bowel was all that was necessary, and with gentle manipulation the stick glided through quite easily. The incision in the bowel being treated, the loop was returned to its place. I made a search for the second stick and soon came upon it a little higher up lying in the transverse colon. I removed this stick, and did the same as in the first instance. The abdominal wound was next attended to, and the patient sent back to the wards.

The sticks, which are in my possession, are two pieces of bamboo rounded off and quite smooth. The one I removed first is 6 in. in length and cut short at both ends. The second stick is $5\frac{1}{2}$ in. in length and pointed at one end. They are each $\frac{1}{8}$ in. in diameter. The patient remained at the hospital twenty-one days, when she was discharged, the abdominal wound having healed by primary union. The patient during her stay had an attack of malarial fever which lasted two days. She was soon put right with quinine.

UNDER the will of the late Miss Sarah Hampson, of Radcliffe, Lancashire, the Manchester Royal Infirmary, Bury Infirmary, Stockport Infirmary, The Children's Hospital, Pendlebury, and the Radcliffe and Whitefield Consumption Fund each receives a bequest of £1,000.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.

*Friday, April 7th, 1911.*

Dr. FORD ANDERSON, in the Chair.

*After-Effects of Appendicitis in the Female.*

MR. CHARLES RYALL read a paper on this subject. He said curettage of the uterus could scarcely be described as an eminently scientific method of treating appendicitis in the female. Nevertheless, a very large number of cases were treated in this way, the treatment being directed toward the relief of odd pains, dysmenorrhoea, and other uterine symptoms. What he would describe as tinkering was very frequently resorted to as a means of dealing with symptoms which were due to inflammatory affections of the appendix. Before turning his attention to the mistakes which were perpetrated in this direction, he asked his audience to consider the anatomy of the female pelvis and lower portion of the abdomen. The organs included in the true pelvis were highly sensitive and more or less complex organs. The genital organs were prone to all sorts of pathological conditions. The caecum was supposed to be situated well away from the true pelvis in the right iliac fossa. He had found on the operating table, however, that the position of the caecum varied very greatly. It occupied a much lower position in the female than in the male. He could not say why this was so, but suggested that it might be due to constipation, which was more common in the female than in the male, or to pregnancy, or to corsets and bands holding up heavy skirts. He had seen it lying over the brim of the pelvis, and even situated in the true pelvis. In a number of cases he would therefore describe the caecum as a pelvic organ. With regard to the appendix, this organ was supposed to lie at McBurney's point. Its length varied from 3 in. to 6 in., and its mobility also varied considerably. The mobility did not depend entirely on its length; it depended partly on the length of the mesentery. It was nominally regarded as lying in the right iliac fossa, but his own observations at operations had taught him that it should be regarded as a pelvic organ. In about 50 per cent. of cases, he had found it lying over the pelvic brim, or even peacefully reclining in Douglas's pouch. Mr. Ryall pointed out that when this organ became inflamed, it was capable of communicating its inflammation to the contiguous organs. The organs most frequently affected in this manner were the right Fallopian tube and the right ovary. The effects of a communicated inflammation to the contiguous organs might be various. In the first place, he dealt with catarrhal affections of the appendix. The attack might subside without leaving any evidence behind, or it might give rise to ulceration and subsequent constriction. When the inflammation extended through the various coats and attacked the peritoneal covering of the appendix, Nature usually succeeded in shutting off the spread of the inflammation. A plastic peritonitis resulted, plastic exudation was thrown out and the adjoining coils of intestine, omentum or other organs became adherent to one another and closed in the appendix. If the attack subsided without complication, adhesions might be formed between the various organs, and in the event of the appendix being in contact with the pelvic organs, it became matted together with the tubes, ovaries, or other genital organs. Even when the appendix lay in the right iliac fossa, adhesions implicating the pelvic organs might be formed. In the second place, he dealt with suppurative appendicitis. In this condition the adhesions were more serious. They were denser and produced marked symptoms. The spread of the inflammation might be extensive and might even involve the left uterine appendages. Douglas's pouch was often involved. When the appendix was a true pelvic organ, the uterine appendages on both sides were always implicated. The adhesions might bind down the right ovary, or they might render the ovary adherent to the tube, or they might close up the ostium of the

tube. Similar complications might involve the organs on the left side. The results of this inflammation and suppuration and the subsequent binding down of the various organs were ovarian pain and dysmenorrhoea. The closure of the ostium was followed by sterility, and the ultimate result of the attacks was a condition of chronic and distressing suffering, and even chronic invalidism. If the condition was not recognized and properly dealt with, the prognosis as to the future well-being of the subject would be very bad. The confusion in regard to the diagnosis and treatment was largely due to want of knowledge of the anatomy and physiology of the pelvic organs and of the organs in the lower part of the abdomen. In order to illustrate these points Mr. Ryall gave details of a case which came to his notice many years ago. A woman approaching middle age had suffered from abdominal pains for some years, as well as dysmenorrhoea. She had been operated on, and both ovaries, which were found to be cystic, had been removed. The pain was relieved after the operation as long as the patient was in bed, but when she got up it returned and rapidly got worse than before. This relief from pain was the rule when a patient was kept at rest in bed and when hygienic treatment was applied. At the time of the operation adhesions had been seen involving the pelvic organs. It was, therefore, thought that the recurrent pains were due to these adhesions, and a second operation was undertaken at which the adhesions were dealt with. The same results followed the second operation—first relief and then return and increase of the symptoms. In the course of time at least four laparotomies were performed on this unfortunate woman without any lasting benefit. At last some one thought that the appendix might have been the cause of all the trouble. This organ was removed and permanent relief was obtained. Mr. Ryall then turned his attention to a series of cases in which, while the appendicitis caused symptoms of disturbance of the pelvic organs, no gross pelvic disease resulted which could account for the symptoms. He illustrated his views by giving details of 3 cases. The first patient was a girl of 18 years, who had suffered from dysmenorrhoea, increasing in severity from year to year. The attacks caused her to writhe in agony and the pain was of a colicky nature. All sorts of remedies had been resorted to without any result. The practitioner in charge of the case diagnosed ovaritis and advised dilatation of the os uteri as a preliminary treatment before resorting to the removal of the ovary. Before she was operated on Mr. Ryall was consulted. On inquiry he learnt that she had had an acute attack of "inflammation of the bowels" at the age of 12, and had been confined to bed for some weeks at the time. Later she experienced discomfort and disinclination to move the right leg. This disinclination to move the right leg appeared to be suggestive of an affection of the appendix. Mr. Ryall explained the connexion by presuming that the inflamed appendix lay on the psoas muscle in these cases. Movements of this muscle resulted in transferred pain, localized in the right iliac fossa. He recommended laparotomy. On opening the abdomen he found the appendix bound down by adhesions. The pelvic organs were to all appearances quite healthy. The appendix was removed, and the patient made a complete recovery, the symptoms clearing up entirely. In discussing why the inflamed appendix produced dysmenorrhoea in this case, he pointed out that the appendix was found to have a constricted scar. The vessels running together with the ligament connecting the right ovary with the meso-appendix would cause a suffusion of the parts during the period when the uterus and appendages were engorged. The mucous membrane of the appendix would then swell, and the constricted band, being dense, would not allow of any dilatation. Pain would follow such a condition of things. With regard to the ligament, he stated that it was well defined in about 10 per cent. of all females, and would be present in a less well-defined condition in the remaining 90 per cent. This case showed how necessary it was to go back to the early history of the case. The second patient was a young married woman, aged 26 years. She had suffered from dysmenorrhoea and increased loss for two and a half years. A displacement of the uterus had been treated by curetting and various pessaries, etc. The history of the case revealed that the patient had been laid up for eight weeks two and a half years previously with an acute abdominal attack. He operated on her, and found signs of old inflammation. The appendix was lying in the true pelvis behind the right ovary, but not in absolute contact with it. The fundus of the uterus was bound down by strong adhesions to the posterior wall of Douglas's pouch. He removed the appendix, freed the adhesions, and performed ventro-suspension of the uterus. Complete recovery followed. It was obvious that no pessary could benefit the patient in the very least, since the uterus was firmly fixed in a retroverted position. The third patient was a married woman aged 25 years. She had suffered from leucorrhoea and dysmenorrhoea. Curettage had been performed by an eminent gynaecologist, and had been followed by an acute abdominal attack. There was no tumour on examination at first, but distinct tenderness in the right fornix. On the following day, a swelling in the fornix had appeared. The temperature had risen, the pulse rate was rapid, and there was rigidity of the muscles of the right half of the abdomen. At the operation, the appendix was found adherent to the right ovary. There was a large abscess in the surrounding tissues, and the tip of the appendix was gangrenous. She had had previous attacks of abdominal inflammation. He explained the case by presuming that the appendix had been a pelvic organ at the first abdominal attack. The curettage had given rise to an acute flaring up of the inflammatory trouble, which resulted in the formation of an abscess. These cases, he urged, demonstrated that symptoms of pelvic disease might occur without any signs of pelvic disease. In the second series of cases the condition was more serious. Pelvic disease was present, and the cases illustrated the fact that, in spite of the existence of changes in the ovaries and other organs, cure could only be effected by the removal of the inflamed appendix, which gave rise to the trouble. The first patient was a married woman, aged 32 years, who had suffered from dysmenorrhoea and pain in the right iliac fossa for years. She had been treated by douches, spas, and other measures. No benefit had followed. A provincial surgeon had diagnosed disease of the right ovary and had removed that organ. Improvement took place at first, but the symptoms soon returned and even got worse. When seen by Mr. Ryall, she was reduced to a condition approaching chronic invalidism. The history showed that she had had previous attacks of an abdominal nature. An exploratory operation revealed massive adhesions, matting the tissue in the right side of the pelvic and burying the appendix. Recovery followed, which was almost complete. Some symptoms of a metritis persisted. It was evident that the disease of the ovary was not the cause of the symptoms. Another patient, a woman aged 40 years, was suffering from pain, dysmenorrhoea, and the like. She was a complete invalid. She had had several attacks of abdominal pain. Curettage had brought no relief. Cystic disease of the left ovary had been discovered at a previous operation, and the organ had been removed. The pain persisted. The diagnosis of hysteria was rather favoured, and Mr. Ryall at first hesitated whether he should operate. Later, being urged to do something, he opened the abdomen and found extensive adhesions implicating the right ovary and both sides of the pelvis. The appendix was much affected. The ovary and appendix were removed, and absolute recovery ensued. In this case he believed that the apparent disease had not caused the symptoms. Mr. Ryall then demonstrated with the assistance of diagrams the manner of the spread of the inflammation in these cases, and how adhesions formed and gave rise to symptoms. In conclusion, he stated that on the previous night he had had a tragic experience. He had been called to the country to attend to a lady aged 27 years. At the age of 19 years the patient had had an acute attack of appendicitis, after she had had several slight attacks. An operation had been performed, and an abscess had been evacuated. The symptoms on the previous night were those of obstruction of the bowels. He was given a free hand to do what was necessary to remove the symptoms, but was not allowed to interfere with the generative organs. A band was causing the obstruction. The uterus was retroverted and tied down in Douglas's pouch by adhesions. Both tubes were the seat of chronic inflammation, as were both ovaries. The fimbriae were sealed up on both sides. He regarded it as a real tragedy that this

woman should be doomed to hopeless suffering and intolerable pain in the vain hope that she might some day enjoy the bliss of maternity, a hope which would never be fulfilled. The moral of his remarks was that when symptoms of pelvic disease were present always inquire into the history, so as to ascertain what condition the appendix was in. Symptoms of pelvic disease could be present without signs of the same; the symptoms might be due to inflammation arising from an inflamed appendix. After recovery from appendicitis women were exposed to great risks to life, and still greater risks to irreparable damage to their pelvic organs, which might lead to chronic invalidism.

Dr. MAY THORNE expressed her thanks to Mr. Ryall for his admirable paper. Mr. Ryall had not spoken of the now happily passing fashion of operating on cases of pelvic inflammation per vaginam. In all cases of pelvic inflammation she strongly advocated the abdominal route, since the appendix was so often affected and required surgical treatment. She spoke of ectopic gestation in connexion with appendicitis, and raised the question whether an attack of appendicitis preceded some of these ectopic cases. The gestation frequently occurred on the right side; there was always some definite change in the mucous membrane of the right tube, and the appendix was at times bound down to the right Fallopian tube. Passing from that point, she called attention to the generally accepted view that appendicitis was more common in men than in women. She suggested that the appendiculo ovarian ligament might be the saving of women in this respect. The better blood supply of the appendix derived by the twig from the ovarian artery, as well as from the ileo-colic artery, would lead to an increased power of resistance of the organ in females. She drew attention to appendicitis complicating miscarriage. She had never seen a case of appendicitis as a complication of full-time labour, but had had the opportunity of following out the details of two cases. From the knowledge which she possessed of these two classes of cases, she urged that every woman who had had an attack of appendicitis and became pregnant should have her appendix removed. The operation could be performed during the early stages of pregnancy without any risk; and even at a later stage it could be performed with security by competent surgeons. She agreed with Mr. Ryall that dysmenorrhoea was a frequent sequel of appendicitis in the female. It also complicated uterine myomata, ovarian cysts, and other gynaecological affections.

Mr. ERNEST WARE regarded the caecum as a pelvic organ in the vast majority of cases. When the surgeon opened the abdomen, the textbook anatomical data were found to be far from correct. The transverse colon was supposed, for example, to be situated above the level of the umbilicus, but he had found that it was nearly always well below it. He disagreed with Mr. Ryall in his statement that the appendix became a pelvic organ on account of the length of the meso-appendix. He believed that it became a pelvic organ owing to the dislocation of the caecum. He mentioned a case in which he removed the appendix and examined everything that he could reach. He found that the left ovary was adherent to the left side of the pelvis, well down in Douglas's pouch. He found himself forced to open the abdomen in the middle line in order to remove the ovary. He added that the right ovary and appendages were healthy. With regard to adhesions, he was of opinion that they did clear up spontaneously at times. He instanced a case of volvulus and intussusception, in which three severe operations had to be carried out. Attacks of acute abdominal pain occurred after the second operation, but not a trace of an adhesion was found at the third. He believed that the adhesions might clear up if all sources of infection were excluded.

Dr. MACKINTOSH spoke of a case under his care in which pain, fullness, and other symptoms were found on the *left* side. Mr. Lockwood operated for him, and the appendix, surrounded by a small abscess, was found adherent to the right Fallopian tube, and involving the right infundibulo-pelvic ligament. A huge pyosalpinx was found distending the right tube, bulging upwards and to the left. The abscess burst during the operation, but the pus did not infect the peritoneum, and the patient made a good recovery.

Dr. OPPENHEIMER asked Mr. Ryall if he could offer an explanation of the following case: A little girl underwent an ordinary operation for appendicitis. Nothing unusual was found at the operation, and there was no suppuration. Eight or ten days later fresh symptoms developed. An abscess had formed in the left side, and discharged into the bowel. The connexion between the inflammation of the appendix and the formation of the abscess on the left side had not been found, nor could he suggest any explanation for the occurrence.

Dr. FORD ANDERSON noted that Dr. May Thorne had mentioned the frequency with which appendicitis was associated with miscarriage. He recalled some cases where the operation had been performed later with satisfactory results. His memory carried him back to the days before appendicitis had been popularized by Sir Frederick Treves. It was known in those days as perityphlitis. The patients used to be kept in bed, opium was given, and the majority of them got well for a time. Some of those old cases of appendicitis or perityphlitis were characterized by the formation of abscesses in almost any part of the body. There were psoas abscesses, cold abscesses in the thigh, empyemas, abscesses in the brain, matter appearing in the neck, and so forth. These cases were now recognized as being instances of secondary suppuration caused by appendicitis, but, happily, they were very rare now. He was disappointed that Mr. Ryall had not dealt with some of the difficulties in the diagnosis. In this respect he had recently seen a boy whose viscera were transposed. If this boy were suddenly attacked with appendicitis, the diagnosis might be extremely difficult on account of the fact that the appendix was on the left side. He then spoke of two manifestations of appendicitis. The first of these was solely a congestion at the base of the right lung. This was the only indication that the case was one of appendicitis. He suggested that this might be due to the restriction of the movements of the muscles of the right side of the chest, and the restricted movements would be due to the inflammation of the appendix. Recently there had been some correspondence about cases of appendicitis with prominent dyspeptic symptoms. Disturbances of the stomach had clearly been shown in these cases to be due to appendicitis.

In his reply, Mr. RYALL regretted that he could not enter into the question of differential diagnosis. He had only been able to touch briefly on some aspects of his subject proper without wandering into side channels. He expressed himself as sceptical with regard to the assumption that the cases of congestion at the base of the right lung were appendicitis. He recognized that appendicitis was at times manifested by dyspeptic symptoms. Referring to the old-fashioned treatment of appendicitis by opium, he found it very useful at times. Many hospital surgeons objected to opium on the ground that it cloaked symptoms, but he was convinced of its utility. With regard to operation in cases of pelvic inflammation, he agreed with Dr. May Thorne that the abdominal route was essential. He also agreed that appendicitis might precede ectopic gestation, and give rise to it. It could also be caused by a ruptured ectopic gestation. With regard to the frequency of appendicitis in the two sexes, he recognized that it was said to be more common in males than in females, but he doubted whether this was true. At the Bolingbroke Hospital, during the years 1909–1910, 37 males had been dealt with for this condition as against 57 females. His experience told him that it was more common in females. Cystic disease of the ovaries no doubt was often due to inflammatory trouble, and therefore would be due to inflammation of the appendix in a certain number of cases. He had seen appendicitis complicating pregnancy. In reply to Mr. WARE, he dealt severely with the habit practised by some surgeons of operating through small incisions. He regarded this as juggling, but not surgery. It was always necessary to see as well as to feel. He spoke of the value of the Trendelenburg position for these cases. He realized that surgeons did not like having to close a wound on the right side and begin again in the middle line. With regard to adhesions clearing up, why should they not? He recognized that even cancer at times cleared up spontaneously, although this was very rare. Dr. Mackintosh's case was interesting, and demonstrated that the localization of the pain must not be trusted in

making the diagnosis. Acute appendicitis had been known to cause a pyosalpinx, but the appendicitis was more often secondary. Dr. Oppenheimer's case was another of those conundrums which his acute observation and active brain were constantly evolving. He could only suggest that the abscess was a secondary infection, but a satisfactory explanation was difficult to offer.

# Reports of Societies.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

*Friday, March 24th, 1911.*

Dr. H. JELLETT, President, in the Chair.

*Natural Delivery after Caesarean Section.*

DR. SOLOMONS, in a note on a case of natural delivery following Caesarean section, combated the dread which beset most obstetricians of allowing a woman with a cicatrix in her uterus to deliver herself. The baby born by Caesarean section weighed 7 lb., the one born naturally 6½ lb. The true conjugate after measuring at the birth of the first two babies was 7 cm., transverse diameter of inlet 10 cm.; at the birth of the third the conjugata vera was 8 cm., transverse 12.5 cm. Dr. HOLMES said there must have been some disparity in the measurements, considering there seemed to have been an increase of 1 cm. in the conjugata vera and 2 cm. in the transverse diameter. With regard to the weight of the children, the child born by Caesarean section weighed 7 lb., while the other weighed 6½ lb. He thought the size of the child's head must be taken into consideration. Dr. TWEEDY did not think the pelvis had enlarged between the two births. The pelvis must have been wrongly measured the first time, as it was easy for those without much practice to go wrong in the use of Skutch's pelvimeter. He considered it an extremely rash thing to have allowed the woman to deliver herself, considering that the uterus was adherent to the scar, and the woman gave a history of a sinus for three years after the Caesarean section. Dr. GIBBON FITZGIBBON thought that when a woman had to undergo a second Caesarean section the question of sterilization should be decided by the wishes of the patient, particularly when the children were living. The PRESIDENT said he did not see why the uterus should rupture during labour if it was adherent to the back of the abdominal scar. An attempt was made to encourage the formation of such adhesions with the object of guarding against a possible peritoneal infection, and a considerable number of patients with adherent scars must have come into labour, because the practice of performing Caesarean section before the patient had been some time in labour was quite modern. If the uterine scar ruptured during labour it would be immediately diagnosed, and would not be a serious matter. In regard to sterilization, one must take into consideration the number of children the patient had. He would be inclined to carry out her wishes if she had children before. Dr. SOLOMONS did not think the pelvis was wrongly measured, considering that the measurements carried out in the Rotunda and at Holles Street were found to correspond. As regards the maturity of the child, both its appearance and the history showed that it was full term. He did not see why a uterine scar should prevent a patient continuing her labour. As regards sterilization of the patient, he quoted Karl Hartmann's statistics, which showed that there was less danger in performing subsequent Caesarean sections than in doing it the first time. This seemed to be a strong argument against sterilizing the patient.

SECTION OF PATHOLOGY.

AT a meeting on Friday, March 31st, 1911, Dr. A. H. BENSON, President, in the chair, Professor A. H. WHITE showed some of the organs and some stained specimens of the blood from a typical case of *Pernicious anaemia*. The organs showed the characteristic fatty degeneration. The spleen was a little enlarged, and somewhat indurated. In slices from the liver and the kidney the presence of haemosiderin in exceptional amount was demonstrated by both the ferrocyanide and ammonium hydrosulphide methods. A point of interest was clear evidence of healed tuberculosis, found in the apex of one lung and in the liver. Dr. WM BOXWELL said that this patient had been twice "cured" of her ailment by the administration of cacodylate of sodium. When first admitted to hospital, exactly a year before, she was almost *in extremis*. The red cells had fallen to 17 per cent., the haemoglobin to 20 per cent. The blood was full of nucleated red cells, and occasional myelocytes could be found. Her teeth were carious, and the lower incisors entirely stripped of their enamel. Cultures had been made from the dentine, and compared with many taken from the teeth of various other patients, but nothing exceptional was found. After a three months' course of arsenic she made an apparent and wonderful recovery. Professor J. A. SCOTT demonstrated the organ of a man who before death was known to have a large spleen and disease of the kidneys. The *post mortem* examination showed a large spleen, which weighed 4½ lb., and was covered with whitish patches about ¼ in. in diameter. The liver was slightly pale and showed small light-coloured spots, which were rather hard to see. The lungs were slightly pneumonic. The case subsequently proved to be a case of tuberculosis. The heart showed patches of fibrous tissue in the wall of the left ventricle. The aorta had a fibrous mass growing from the edge of a patch of atheroma. The microscopical examination of the liver proved the nature of the disease. The small spots were minute miliary tubercles, showing granuloma and giant cells. The spleen showed granuloma and giant cells, but much more fibrous tissue and caseation. The lungs showed tuberculous patches and catarrhal pneumonia. The kidneys contained similar miliary tubercles. The disease appeared to have commenced in the spleen, from which it was diffused through the whole body. Dr. GONN said the man was ill three weeks before he came into hospital, when he had extreme tenderness over the spleen and high fever. It was thought he had a subphrenic abscess, but after he had been a few days in hospital they were satisfied it was an enlarged spleen. Dr. MOORHEAD said that chronic tuberculosis of the spleen was not so rare as was commonly thought. There was a form of chronic tuberculosis associated with enlarged tuberculous spleen, and resembling Hodgkin's disease, that was far from rare. Often the only clue to diagnosis in such a case, apart from excising a gland, lay in enumerating the white cells of the blood. In the tuberculous condition to which he referred the lymphocytes were usually much diminished.

## ROYAL SOCIETY OF MEDICINE.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting on April 5th, Dr. T. FRED. GARDNER President, in the chair, Dr. DAVID BROWN (Harrogate), in the second of a series of papers on the pharmacological effects of the *Strong sulphur water of Harrogate*, offered further grounds for believing that these were as follows: (1) A positive diuresis; (2) an increase in the body (or endogenous) uric acid; (3) an additional excretion of food (or exogenous) uric acid, amounting in all to 80 per cent. of the amount ingested; (4) an increase of 6 per cent. in the total nitrogenous output; (5) an increase of 18 per cent. in total phosphates on a fixed non-purin diet; (6) an increase of nearly 100 per cent. in the excretion of indoxylsulphuric acid (indican); (7) no noteworthy alteration in the arterial blood pressure; (8) no marked alteration in the amount of potassium sulphocyanate of the saliva. Results numbered 2, 3, 4, and 5 were thought to show a distinct increase in general metabolic processes of the body, No. 3 pointing especially to stimulation of the fermenting processes of the liver. Dr. MANTLE (Harrogate) said he had found in some cases an increase in the arterial pressure when the strong sulphur water was first administered, but it was usually soon followed by a steady fall. Diastolic pressure he considered too indefinite to be of clinical use. Dr. PHINEAS ABRAHAM hoped that Dr. Brown would continue his observations, and that other medical men in the various watering places would follow his example. Most of existing knowledge of the therapeutical effects of the spa waters was purely empirical, and exact scientific work of this description was greatly wanted. He had learnt one thing at least from the paper, namely, that

sulphur water had an oxidizing instead of reducing effect on the tissues, as was generally believed and thought to be the case.

## SOCIETY OF MEDICAL OFFICERS OF HEALTH.

*Friday, April 7th, 1911.*

Dr. W. G. WILLOUGHBY, President, in the Chair.

*Cubicle Isolation.*

DR. F. FOORD CAIGER opened a discussion upon the value and limitations of cubicle isolation. He differentiated between cubicle isolation where the patients were merely separated by partitions of moderate height, the air in the ward being common to all, and the system in vogue at the Institut Pasteur in Paris, in the Walthamstow and other isolation hospitals, where the ward is divided into a number of self-contained chambers, each separately ventilated. At the South-Western Hospital, Stockwell, two wards had been divided into cubicles by glass partitions reaching to a height of 7 ft. from the floor level. The floor space of each cubicle was 120 sq. ft, and the air space 2,450 cubic ft. A central passage divided the cubicles. The doors, which were only 3 ft. 6 in. high, opened into this passage, and no two doors were exactly opposite to one another. A lavatory basin, over which was fixed a tepid spray worked by pedal action, was placed in each cubicle. There was also in each cubicle a separate overall for nurse and medical officer, and a distinct set of articles and appliances for each patient. The principle of administration was aseptic in its conception, and very rigid rules were laid down for the guidance of the attendants in order to minimize the possibility of what Dr. Caiger called "mediate infection." He gave the results of his experience during the four years since the establishment of the cubicles in connexion with nearly 1,000 patients, 33 of whom it might be assumed derived their infection either directly or indirectly from other patients occupying cubicles in the same ward. The patients in the cubicles were suffering from scarlet fever, rubella, diphtheria, measles, whooping-cough, chicken-pox, influenza, typhoid fever, or mumps. In 16 instances other patients contracted scarlet fever, in 6 chicken pox, in 2 rubella, and in 1 diphtheria. As a result of his observations, and from inference based on general experience, he considered that cubicles, as opposed to self-contained rooms, were unsuited for the treatment of small-pox, chicken-pox, and measles during the acute stage of the illness, and that there was apparently some risk in the case of septic scarlet fever. On the other hand, scarlet fever, if not of a septic type, diphtheria, measles in the post-eruptive stage, rubella, whooping-cough, mumps, influenza, typhoid, and probably typhus fever, could be treated without much fear of accident. The use of cubicles, if restricted to appropriate cases, possessed advantages over separate isolation wards in point of economy in construction and in staff, greater convenience in nursing, greater happiness to the patients, and in educational value in the training of nurses. Dr. H. E. ARMSTRONG referred to the possibility of infection being spread by flies in the cubicle system. He did not approve of patients suffering from different diseases being placed in the same ward. At Newcastle the erection of additional observation wards had been attended with excellent results. Dr. A. H. BYGOTT said that, although the question of more distinct isolation was a most important one in connexion with those hospitals where there was no resident medical officer, he did not consider that Dr. Caiger had made out a case for the adoption of cubicles in such institutions. Dr. MEREDITH RICHARDS considered that, although the cubicle system was useful under certain limited conditions, there was still a need for a large number of separate rooms. Dr. C. SANDERS, referring to the barrier system as adopted at the West Ham isolation hospital, admitted that its value was most evident in a ward devoted to cases of the same disease, and it prevented a simple case becoming serious. A separate room for each patient was the ideal method to adopt. Dr. FRANKLIN PARSONS considered that the Stockwell cubicles seemed to have advantages in nursing, and were useful in diseases of short striking distance. Some forty years ago Mr. Henry Greenway of Plymouth had suggested the keeping of patients in glass rooms for the prevention of surgical complications, but with the advent of Listerism the need for this had passed away. Dr. S. C. LAWRENCE referred to the absence of cross infections at the Walthamstow isolation hospital. Mr. F. E. FREMANTLE suggested that a modification of the cubicle system might be adopted by surrounding the beds with glass screens, and arranging them so that the patients faced the light. Dr. W. BUTLER was of opinion that isolation hospitals should confer complete isolation, and that the patients should not breathe a common atmosphere. Dr. H. E. SANDILANDS pointed out that the cubicle system could not be adopted in rural districts where nurses were often employed only temporarily. Dr. T. STRAIN said that the experience of the Barnes isolation hospital had proved that the aseptic treatment of infectious cases was not necessarily more costly than the non-aseptic.

## MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

*Friday, April 7th, 1911.*

Professor MUIR, President, in the Chair.

*Lacrymal Disease.*

MR. FREELAND FERGUS, in a paper on the treatment of lacrymal suppurative disease, said this was due not to organic stricture but to a septic condition of the lacrymal sac. In the early stages the passing of probes, not for removal of stricture but for the establishment of drainage and irrigation, was a legitimate method of treatment, but such treatment was sometimes continued for months, or even years, without effecting a cure. When a cure did not follow within a reasonable time the sac should be removed in order to safeguard the cornea, in the event of its being injured, from an obvious source of septic infection.

*Salvarsan Treatment of Congenital Syphilis.*

Mr. EDINGTON showed a boy, aged 16, who between the ages of 6 and 8 years had been operated on several times for tuberculous epiphysitis of the lower end of the left femur, and in October, 1909, had abscesses about the right ankle-joint. These were looked on as being also tuberculous, and opened and scraped, but did not heal. On the boy's admission to the Western Infirmary the exhibitor regarded the case as syphilitic—a view confirmed by a positive Wassermann reaction. On November 2nd, 0.45 gram of "606" was injected into the interscapular region; on December 22nd 0.2 gram was injected into the median basilic vein; on February 15th the skin lesion had healed, but the Wassermann reaction being still positive on January 24th 0.27 gram of "606" was given intravenously. On March 6th the Wassermann reaction was negative, and the condition of the ankle has since remained quite satisfactory. Dr. BROWNING, who carried out the treatment, pointed out that the neutral emulsion of this drug is very irritating to the subcutaneous tissues of certain individuals, the drug not being well absorbed, its therapeutic effect poor, and extensive skin necrosis sometimes resulting. He recommended the intravenous injection, and had, along with Dr. Ivy Mackenzie, treated upwards of 50 cases by this method without untoward side-effects. The Wassermann reaction should be taken as a guide to treatment. Treatment sufficient only to cause the disappearance of a lesion did not convert a positively reacting serum into a negative one, especially in tertiary and congenital cases. A positively reacting serum should be regarded as the most delicate sign of infection and as an indication that there was danger of a recrudescence. Treatment, therefore, should aim not merely at causing disappearance of lesions, but also at the conversion of a positively reacting serum into one which remained permanently negative.

## GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

*Wednesday, March 29th, 1911.*

Dr. A. W. RUSSELL, President, in the Chair.

*The Technique of Caesarean Section.*

DR. J. M. MUNRO KERR, in a paper on the operative technique in Caesarean section, said the real questions of importance were—(1) dealing with infective or suspect cases; (2) the suturing of the uterine wound; (3) the position of the uterine incision. In view of the great mortality resulting, conservative Caesarean section was

not justifiable in cases which had been handled previous to the proposed operation. The difficulty was to find a substitute. He suggested craniotomy, Caesarean panhysterectomy, and the extraperitoneal variety of Caesarean section. He was inclined to favour craniotomy, as he had a great dislike to remove the uterus from a young healthy woman who would possibly become pregnant again. Even when one performed Caesarean section in such cases, the fetal mortality was high. When section was performed in a suspect case he advocated the complete removal of the uterus as the cervix—the infected area—was removed. He would not hesitate to perform a Caesarean panhysterectomy in a woman coming near the menopause, who, in consequence, would not have another chance of becoming pregnant. The extraperitoneal operation performed by Döderlein did not, even when accompanied by Sellheim's fistula for drainage, give any better results than other procedures in suspected cases. In order to reduce the possibility of sepsis as much as possible, he suggested the removal of the placenta *per vias naturales*, and not through the uterine wound as formerly. The uterine wound, he said, was peculiar and unlike the wound in any other abdominal viscus, in that it was thick, it was always in a state of unrest—contracting and retracting—and there was also a certain amount of haemorrhage that could not be controlled. In the suturing of the wound one left the mucous membrane alone, with the result that a little gutter was left, which healed by granulation and which was liable to become septic. The ligature in the uterine wound had to be drawn tighter than in other wounds, as it had not only to bring the edges accurately together, but it had also to stop the haemorrhage. The lower uterine segment was the better part to incise in performing Caesarean section, because it was always at rest and the haemorrhage was never so great as in the upper segment. Dr. DAVID SHANNON favoured craniotomy in cases that were suspicious. He always performed it on a patient admitted to hospital with a history of having been in the second stage of labour for many hours, where forceps had failed, and where numerous vaginal examinations had been made. In such cases the cervix was the infected area, and it was safer for the mother, in his opinion, to do a craniotomy than Caesarean section followed by a subtotal hysterectomy. Regarding suture material for the uterine wound, he had in his own cases used both silk and catgut, but he thought that it was of no consequence which was used. The strength of the wound depended not on the ligature, but on the fact whether the wound became septic or not. Douching of the uterus before operation he considered an unwise procedure. Dr. DICKIE said the uterine wound was identical in its healing with all other wounds. The fault was not in the uterus, but in the imperfect technique employed. Uterine sutures were too tightly tied. No surgeon would have rupture of the uterus in his aseptic cases. Dr. JAMES CRAIG was doubtful whether it was possible to get a perfect healing wound in the uterus. Dr. DUFF thought intrauterine irrigation was distinctly unsurgical. In douching such a case infection would be carried from the infected cervix and child's head into the uterus. No difficulty should be experienced in stitching the uterine wound in layers, and he was strongly of the opinion that the sutures should not be tied too tight, as necrosis was liable to take place. Dr. LOUISE MCILROY said the practice of douching the amniotic cavity for the prevention of subsequent sepsis was a dangerous proceeding, as the fluid was a means of disseminating sepsis through the cavity. Antiseptic fluid, she said, unless strong enough to kill the tissues, was useless as a douching agent. The PRESIDENT had repeatedly performed the operation for the second time on the same patient, but on no occasion had he seen any sign of weakening of the wound. He was still satisfied with chromicized catgut, and had never used silk or silkworm gut. He thought the security of the wound depended not so much on its situation or on the nature of the material used as upon the thoroughness of the asepsis. Irrigation of the uterine cavity was not always possible, but it was a suggestion that should be kept in mind. Dr. RUSSELL concluded by briefly relating his technique in extraperitoneal Caesarean section; he was of the opinion that the operation had its place alongside the classical Caesarean section. Dr. KERR replied.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a clinical meeting on April 7th, Dr. PHINEAS S. ABRAHAM, President, in the chair, the following were among the exhibits: Dr. ABRAHAM: A case of *Mycosis fungoides* in a man. A positive Wassermann reaction had been obtained, and some improvement had taken place under potassium iodide and *x* rays. The exhibitor intended to try the effect of salvarsan. Dr. SEYMOUR TAYLOR: (1) A case of unresolved *Pneumonia* in a man, aged 45, who for three weeks after the crisis presented the physical signs of consolidation. It was shown as emphasizing the teaching that during early convalescence from pneumonia the evidence given by the temperature and pulse charts was of greater value than that afforded by the stethoscope. (2) A case of *Tumour of the loin* in a man who had suffered with empyema of the same side, and whose pleural cavity had been drained. The tumour, which occupied the site of Petit's triangle, was of the size of a hen's egg and reducible. It gave the sensation of a hernial protrusion of bowel. Mr. MCADAM ECCLES thought it a lumbar abscess finding its way from within the thorax through Petit's triangle. Dr. FREDERICK S. PALMER: A case of *Bulbar paralysis* in a woman aged 51. Lumbar puncture was performed, but owing to the presence of blood in the cerebro-spinal fluid the examination for lymphocytosis was not satisfactory. A positive Wassermann reaction was obtained; under mercurial inunction and 20-grain doses of potassium iodide three times daily she had distinctly improved. Mr. LAMING EVANS: A case of *Osteitis deformans* in a woman, aged 43, who, eight years ago, after her last confinement, noticed that her right shin bone was painful and thickened. She now presented great thickening of the right tibia, which was markedly curved forwards and outwards. A skiagram showed the normal condition of the fibula and the thickening of the tibia. The cranium, spine, and other long bones were normal; the disease had remained localized for eight years. Dr. ARTHUR SAUNDERS: A case of *Tabes dorsalis* of recent onset in a woman, aged 40. A positive Wassermann reaction was obtained. On the injection of "606" marked improvement occurred, and at a subsequent examination the reaction was almost completely negative. Dr. ASLETT BALDWIN: A woman with great *Enlargement of the left lower limb;* marked improvement had followed the operation of lymphangioplasty. Mr. BISHOP HARMAN: (1) A case of *Dislocated lens* and absolute glaucoma in a man of 54. Examination of this case made it probable that he was the subject of a congenital partial dislocation of both lenses, and that the right lens was further dislocated as the result of a fall. (2) A case of *Congenital aniridia and lenticonus* in an infant, aged 7 months. He remarked that absence of the iris was not a common congenital defect and the lenticonus was still more rare; in respect to prognosis it would be unwise to promise more sight than the capability of getting about. Mr. DONALD ARMOUR: A case of operation for *Spinal cord tumour*. The patient was a man who had suffered from compression paraplegia which extended as high as the seventh cervical segment. Laminectomy was performed in December last, when a tumour growing from the seventh cervical posterior root within the dura mater was found and removed with the root. The patient made a complete recovery, and all signs of the paraplegia disappeared.

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## UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on April 12th, Lieutenant-Colonel C. H. MELVILLE in the chair, Lieutenant A. J. MARTIN, M.I.C.E., 2nd London Sanitary Company, in a paper on *Camp sanitation*, discussed methods of overcoming the difficulties created by a stiff clay soil. Soakage pits should be shallow, and when intended for sullage water should be in the form of a trench filled in with old tins, and the whole covered with the excavated soil. Difficulties in getting rid of urine could be sometimes got over by running the urine into filled-up latrine trenches. The trenches leading to pits or soakage trenches should have permeable sides so as to absorb the greater quantity of urine before it reached the pit. The plan introduced by

Major Caldwell Smith of cutting away the sides of a latrine trench for a few inches downwards so as to give a firmer purchase for the men's feet when standing straddle across the trench was an improvement. The most generally useful pattern of incinerator was one constructed out of sods. Major E. B. WAGGETT, R.A.M.C.(T), in a paper on questions concerning *The medical strategy of London*, pointed out that an enemy would not be likely to assault London directly, but would try to bring about its capitulation by cutting its railway communications with the north and west, and thus bring it to the verge of starvation in a few days. As a consequence the fighting would take place in an area at least twenty miles from London. It was upon this area that the Territorial forces would have their place, and they would be much better occupied in studying it than in fighting imaginary battles at Aldershot or on Salisbury Plain. He then described, from the point of view of the establishment of camps and hospitals, the geology of the districts in which the Territorial Force was likely to be engaged, and drew the conclusion that on all grounds—sanitary, strategical, and moral—it would be undesirable to bring the wounded to London; they would have to be distributed in hospitals situated somewhere in the outskirts, and in a good many cases it would be better to distribute them in houses near where they fell, under the care of Voluntary Aid Detachments.

# Reviews.

## EPIDEMIC POLIOMYELITIS.

NEW YORK was visited by an epidemic of infantile paralysis in 1907, and a committee of medical men was appointed by the New York Neurological Society to report on it. Their report appeared in due course, and has been translated into German by Dr. KÄRCHER.[1] It is estimated that there were 2,500 cases in all at and around New York, with a mortality of about 100. The epidemic began in June, reached its maximum in September, and died away in November. Out of 756 cases, 62 were under 1 year old, 221 were 1 to 2, 180 were 2 to 3, 106 were 3 to 4, 65 were 4 to 5, 75 were 5 to 10, and only 2 were over 20; the youngest patient was two weeks old. Full details of the prodromes, symptoms, and paralyses observed are given; some sort of paralysis was left in 645 out of 752 cases, but it is not stated that the paralysis was permanent. Numerous pathological examinations of cerebro-spinal fluid obtained by lumbar puncture during life and of tissues removed *post mortem* were made. In most cases the results were negative; but in several instances it was found possible to give monkeys an acute disease, similar in its effects and pathological lesions to anterior poliomyelitis, by the injection of matter from the spinal cords of children who had died from acute infantile paralysis. No clear conclusions as to the nature of the virus were reached; the translator adds a number of references to the more recent literature of the subject. The pathology and pathogeny of the disease are very fully considered; the disease is undoubtedly infectious, and it is suggested that the infecting agent is probably protozoan rather than bacterial. The report ends with an excellent summary of the treatments found most serviceable. From many points of view this report is the best account of infantile paralysis that has yet appeared, and no neurologist can afford to do without it.

A smaller epidemic of this disorder occurred in Hesse and Westphalia in 1909, and a thoroughly painstaking account of this is given by Dr. E. MÜLLER[2] in a book that also contains a general discussion of the disease. Professor Müller's observations are based on 100 carefully-observed cases out of some 130 that came under his notice. There were 16 deaths, and 7 obductions were obtained; full details of these are set out, and Müller describes the pathological changes as those of an infiltrating, disseminated myelo-encephalitis involving the pia mater. Of the cases seen, 44 per cent. occurred in October, 34 per cent. in November; 75 per cent. were 3 years old or under, only 2 per cent. were 21 or more years of age. Most of the patients were well developed, healthy children. In 6 carefully observed cases the incubation period was five to ten days, and the average a week. The author thinks that Wickman's estimate of one to four days is too small. Fever is almost always observed during the first few days, and nine temperature charts are reproduced showing its character and duration. The severity of the paralysis bears no constant relation to the height of the fever, and the pulse was often accelerated out of all proportion to the temperature. In many of the patients an initial upset of the respiratory tract was noted—coryza, sore throat, bronchitis; in others the gastro-intestinal tract was disordered, with the occurrence of thirst, salivation, loss of appetite, vomiting, diarrhoea, abdominal pain, constipation. Marked hyperaesthesia on touching or moving the child was a very common early symptom, as were spontaneous pains; sweating, often profuse, occurred in three-fourths of the cases. During the febrile stage leucopenia was the rule. A full account of the paralyses observed is given; lumbar puncture was done in 11 cases; copious cerebro-spinal fluid was withdrawn, but was always sterile on cultivation, and showed no bacteria in fresh or stained specimens. Professor Müller's account of this epidemic contains many interesting details, and his quotations from the records of other epidemics enable him to compare and contrast the outstanding features of these different visitations as observed in different countries.

[1] *Epidemische Kinderlähmung.* Bericht des Komitees für die Sammelforschung bei der New Yorker Epidemie von 1907. Autorisierte deutsche Ausgabe von Dr. Max Kärcher. Jena: G. Fischer. 1910. (Roy. 8vo, pp. 129, 3 plates, 4 maps, 3 curves. M.4.)

[2] *Die spinale Kinderlähmung, ein klinische und epidemiologische Studie.* Von Professor Dr. Eduard Müller. 6½ in. by 9½ in.; pp. 170, with 21 figures and 2 tables. Berlin: J. Springer. 1910. (Price M.6.)

## GYNAECOLOGICAL TEXTBOOKS.

A TEXTBOOK for students on any department of medicine, written by a man who has grasped the subject as a whole and treats of it in its relation to pathological processes generally, forming his own judgement on every disputed question, is a rare and good thing. Dr. FOTHERGILL'S *Manual of Diseases of Women*[3] is such a work, and therefore we welcome and applaud it. The work is divided into three parts: Part I, the diagnosis of gynaecological cases, occupying 37 pages; Part II, the diseases of women, to which 340 pages are devoted; and Part III, the management of gynaecological cases, described in about 40 pages. It may be inferred from the comparatively small sections devoted to diagnosis and treatment that diagnostic and therapeutic detail is not the object of the author; indeed, the section on gynaecological diagnosis hardly adequately fulfils what may be supposed to be his object. It is rather an enumeration of the possible causes of each symptom and a description of the methods of physical examination than instruction as to the differentiation between different causes of symptoms. The author has thought for himself, and has partly emerged from the old bad pathology. Thus he says (p. 14): "The difference between a healthy woman who has spasmodic dysmenorrhoea and one who has none is not in the pelvis, but in the head." "Cerebro-spinal nervous system" would have been more accurate than the colloquialism "head." But it is much to have the student plainly taught that pelvic pain does not necessarily mean pelvic disease. We say that he has only "partly" emerged, for on p. 15 he tells us:

> Spasmodic pain is common in women with congenital peculiarities, like extreme anteflexion, conical cervix, infantilism in various forms, the rare anteflexion with retroversion, retroversion, and retroflexion. *Many women with these peculiarities are free from menstrual pain.* Still, it is probable that irregularities in form and position favour irregular and extreme uterine contraction of a painful nature.

The sentence we have italicized is one which the student and practitioner should bear constantly in mind. The sentence which follows it repeats a theory which has been copied from book to book for more than half a century; and yet the author can refer to no evidence; he can only say that "it is *probable*." May it not be that the conditions he refers to are not commonly seen in healthy women simply because healthy women are not examined? In the treatment of dysmenorrhoea he recommends, we

[3] *Manual of Diseases of Women.* By W. E. Fothergill, M.A., B.Sc., M.D., Assistant Gynaecological Surgeon, Royal Infirmary, and St. Mary's Hospital, Manchester; Clinical Lecturer on Obstetrics and Gynaecology in the Victoria University of Manchester. Edinburgh and London: William Green and Sons. 1910. (Demy 8vo, pp. 452. 9s.)

think, a good deal more than is required—dilatation up to No. 18 English catheter, scraping, washing out, and plugging with gauze. Dilatation up to No. 12, without scraping or plugging, is, as a rule, effective. Mackintosh, who introduced the treatment by dilatation, did not use a larger bougie than No. 14. The greater part of the book, that on "The diseases of women," is divided into sections. (1) Errors of development. (2) Circulatory changes. (3) Mechanical conditions and injuries. (4) Results of infections. (5) Progressive conditions. (6) Retrogressive conditions. This is a sound classification. At p. 11 heart disease is stated to be a cause of menorrhagia. The author has presumably not read Dr. Gow's paper (*Obstetrical Society's Transactions*, vol. xxxvi), in which he showed that the effect of heart disease was in the direction of producing amenorrhoea, or otherwise he would have referred to it. In describing errors of development the author does not indicate the broad division drawn by Veit and others between retention of menses behind a transverse septum low down in the vagina, which produces haematocolpos but not haematometra or haematosalpinx, and in which the making of an opening by the cautery knife is efficient and satisfactory treatment; and the occlusion of the vagina by a broad atresia high up, due, according to Veit, to a symptomless vaginitis in childhood which produces haematometra and haematosalpinx; in which no way of letting the fluid out by the vagina will make the parts capable of healthy functional activity, and in which, therefore, as Dr. Fothergill says, removal of the uterus and tubes is the best treatment. The section on circulatory disturbances contains some sound remarks on so-called "ovaritis" and "endometritis," and on the influences of some sexual malpractices on health. Speaking of uterine fibroids the author says:

> A question which frequently arises is that of the removal of fibroids which are not causing any symptoms. It was formerly the custom to let these tumours well alone; but their removal has, of late years, become so safe that many authorities now recommend that fibroids should be removed as soon as they are discovered, like ovarian and other tumours. The operation is safer before symptoms have appeared and interfered with the patient's general health.

We do not know if the truism expressed in the last sentence is to be taken as indicating Dr. Fothergill's approval of the prophylactic removal of every fibroid. The principle pushed a little further would justify the removal of the uterus, ovaries, and breasts of every woman who has survived the child-bearing age. We are told at p. 239 that "subinvolution is notoriously commoner in women who do not give their children the breast." Sir John Williams, in a paper published in this JOURNAL in 1882, thoroughly investigated the effect of lactation on the involution of the uterus, and was unable to find that lactation or non-lactation had any effect upon involution. The adverb "notoriously" rather begs the question. In the case of pregnancy and labour with ovarian tumour, Dr. Fothergill advises ovariotomy *plus* Caesarean section. Why add the risk of Caesarean section? Why not let natural delivery take place? Although we have ventured to find fault with some statements, yet we think the book an excellent one. It does credit to its author. It is worth study by every one who practises gynaecology, and its effect will be not only to clarify their conceptions of disease, but to check unnecessary treatment.

Dr. EDEN states in the preface to his *Manual of Gynaecology*[4] that he has designed it for the use of the student and general practitioner, but it may be read with interest by the gynaecologist also. The chapters on the anatomy and histology of the female genito-urinary tract are well suited for purposes of instruction, especially as regards minute anatomy. The author takes great pains to demonstrate clearly the nature of the endometrium, the mucosa of the Fallopian tube, and the complicated elements of the ovary. Some of the more familiar features in the anatomy of the internal organs are not so clear. Thus the description of the broad ligaments is inadequate, and the important distinction between the mesometrium and mesosalpinx insisted on by Waldeyer and others should have been dwelt upon. A knowledge of the distinction is a great aid to the operator who has to deal with cysts burrowing in the mesosalpinx, and to an understanding of the relations of ectopic gestation sacs which displace the layers of the mesometrium. The nature of this displacement is, however, briefly described at p. 466 in a short paragraph on intraligamentary pregnancy. A sketch showing the distinction between the anterior and posterior type, as demonstrated by Freund and others, especially Taylor of Birmingham, would have been instructive, like Dr. Giles's drawings of the rupture of the tubal sac into the intraligamentary connective tissues, which are introduced. The descriptions of the embryological elements in the genital tract which have so large a share in tumours and malformations are fairly up to date. More importance might have been given to the ovarian fimbria of the tube, which is not represented at all in Figs. 17, 33, and 45, though quite prominent in Richard's old but accurate drawing (Fig. 21). Dr. Eden very rightly notices Dr. A. Keith's recent researches which threw doubt on current theories about the normal and morbid structures developed from Müller's and Gaertner's ducts, but wisely refrains from discussing questions on which authorities remain divided, such as the alleged origin of the common "parovarian" cyst from homologues of the rete testis at the junction of the ovarian fimbria with the ovary. There are some very good diagrammatic and semidiagrammatic drawings indicating the relations of normally placed and abnormally displaced pelvic viscera. Fig. 18 is to be commended; it is a diagram representing a section through the broad ligament about one inch outside the uterine border, the womb itself being drawn; the sketch is clearer and of more practical utility than most drawings of this type in gynaecological manuals. In the clinical part of the *Manual* the reader must feel that he is given the benefit of the author's personal experience. Dr. Eden has wisely refrained from allotting too much space to major operations. His synopses, as they may best be termed, of hysterectomy, ovariotomy, and radical operations for the extirpation of the cancerous uterus are brief and clear. Above all, he speaks prudently about "this comparatively modern operation, which is at present on its trial"—the method of Wertheim—although he himself has devised a modification, and a very good modification, too, of the great Austrian's special clamp. The book is well printed, and we have already referred to the excellence of some of the illustrations; a large proportion of them are original, being taken from the author's own clinical work, and the remainder borrowed from current standard treatises. We observe that Dr. Eden prefers microscopical drawings to photomicrographs for teaching purposes, and in this he is probably correct.

In his book on *Gynaecological Diagnosis*[5] Dr. BURRAGE of Harvard tells us that "the consultant frequently hears it said by the attending physician, 'Doctor, I know how to do this operation, but what puzzles me is to know when it is indicated.'" A doctor who will do an operation without knowing what benefit the operation will confer upon the patient seems to us distinctly a dangerous person. Dr. Burrage's work is divided into two parts: I. General Considerations; II. Special Diagnosis. In the first part, which comprises 161 pages, the methods of investigating gynaecological cases and examining the different pelvic organs are very fully and well described. The instruments, the use of which he teaches in an admirable manner, are practically the same as those used here, though most of them differ in some trifling detail. As an example of his careful detail we may take the subject of the curette. He advises what used to be known as Thomas's flexible curette (Thomas being now dead, his name drops out). Before scraping, the vagina, vulva, and adjacent parts are to be repeatedly washed with different fluids, but the surgeon is told to examine before any of the scrubbing has been done, so that he may appreciate what is the usual condition unaltered by chemicals. The scraping is always incomplete. Dr. Burrage has given special attention to this point, having used the curette just before hysterectomy and then examined the state of the endometrium after removal. He has found that after what seemed to be a most thorough scraping islands of endometrium

[4] *A Manual of Gynaecology.* By Thomas Watts Eden, M.D., C.M.Edin., F.R.C.P.Lond., F.R.C.S.Edin. With 272 illustrations in the text. London: J. and A. Churchill, 1911. (8vo, pp. 632. 18s.)

[5] *Gynaecological Diagnosis.* By Walter L. Burrage, A.M., M.D.Harv. Clinical Instructor in Gynaecology, Harvard University, etc. New York and London: D. Appleton and Co. 1910. (Roy. 8vo, pp. 672 illustrations 207. 25s.)

remained untouched. Therefore, after scraping, he further explores the uterine cavity with Emmett's "curette forceps," which is a forceps so made that the blades fit accurately together, and therefore will hold what comes within their grasp. He inserts this into the uterine cavity, and then repeatedly opens and closes the blades. He recommends for dilatation of the cervix a steel branched dilator, but with the caution that—

> The blades are to be separated by approximating the handles by manual pressure, not by turning the set screws, as is so often done. . . . When using the screw the operator cannot judge of the force he employs, whereas by manual pressure he can estimate it accurately.

The pages on dysmenorrhoea are a curious mixture of the old and the new. He divides cases of this disease, or rather—using the word as he uses it—symptom, into two classes: (1) Dysmenorrhoea associated with pelvic lesions; and (2) dysmenorrhoea where no pelvic lesion can be found. Among the pelvic lesions anteflexion is mentioned; he adds, however, that in this sort of uterus obstructive dysmenorrhoea was supposed by Marion Sims and his followers to occur; but that "at the present time the best authorities are agreed that actual obstruction seldom exists." In the second group, where no pelvic lesion can be found, the reader is told that "neurotic dysmenorrhoea appears to be due to excessive sensitiveness of the endometrium," and that "the physician is often left in doubt which is cause and which effect in the investigation of neurasthenia and dysmenorrhoea." The etiology of membranous dysmenorrhoea he tells us is "shrouded in mystery," but he does not mention the frequency with which Scanzoni and Sir J. Williams found that membranes were passed during menstruation by healthy women. The second part of the work would be inadequately described if it were said to be limited to diagnosis. It contains a good deal about pathology. It does not go into treatment. Throughout the whole book we every now and then come upon brief pregnant sentences, which show that the author is capable of thinking for himself. But he is so much imbued with respect for his teachers and contemporaries that he cannot throw them overboard, even when he more than half suspects that they are making assertions for which there is no sure ground. His illustrations are borrowed. Dr. Burrage quotes from Dr. E. C. Dudley and modifies a table of the diagnosis between different kinds of pelvic inflammation. At one place this table professes to teach the diagnosis between pyosalpinx and pelvic cellulitis. The reader is told that a pyosalpinx is a "mass of sharp outline and sausage shaped." This is a description of a pyosalpinx as seen in museum bottles. While in the living the pyosalpinx is usually adherent to the structures around it; it forms part of a tender swelling, which is substantial, but not of sharp outline. In the chapter on endometritis we find the author's diligent reading lit up with occasional bursts of independence. Thus, he tells us of a writer who finds eleven forms of endometritis, and another who describes ten different sorts of chronic endometritis. He quotes the usual stuff about the symptoms. Clinical experience, however, dictates the sentence: "Leucorrhoea is the only constant symptom." And further on: "Symptoms of general ill health usually accompany chronic endometritis, though it is not always easy to determine whether the ill health is due to the endometritis or the endometritis to the ill health." Among the causes of endometritis he specifies scarlet fever. We believe we are correct in saying that endometritis with scarlet fever is unknown at fever hospitals. Döderlein, in his thorough bibliography of the subject, finds no writer whom he can quote as evidence of the dependence of endometritis on scarlatina (Veit's *Handbuch der Gynäkologie*). If Dr. Burrage will ask himself the question, In some of the cases of ill health with leucorrhoea as the only symptom, what reason is there for supposing the uterus to be diseased? he may further help us. Dr. Burrage gives a page and a half of causes of sterility. Many of them are conditions which are often seen with pregnancy; but he rightly puts age as the chief factor. We hope that by the time his students press Dr. Burrage, as they probably will, to write for them a work dealing with treatment, he will use his own judgement, and discard what he is not convinced by his own experience is necessary and beneficial treatment.

## THE TOYNBEES.

MISS GERTUDE TOYNBEE in her *Reminiscences and Letters of Joseph and Arnold Toynbee*[6] gives us a charming insight into the lives and characters of her father and her brother. The book is divided into two parts, the first dealing with Joseph Toynbee, the father; the second with his son Arnold. To each part a short chapter of reminiscences by the daughter, simply but touchingly told, is prefixed; the remainder of the book is composed entirely of correspondence, so that both father and son speak, as it were, directly to us.

The letters, in each case, are arranged in three series: those written to others, chiefly to members of their own family; those written by others to the Toynbees; and, lastly, letters written to the family on the death of father or son. This is an admirable arrangement. No better insight can be obtained into the character of a person than by the perusal of letters, especially those addressed to members of their own family or to intimate friends; such letters, written without any thought of publicity, reveal the "real self." In the second series of letters we learn with whom the Toynbees were on terms of friendship and in what subjects they were mutually interested; and by the letters of condolence, letters obviously of real sorrow, we are able to form an estimate of the opinions and feelings of others to whom they were more or less intimately known.

By whichever standpoint we endeavour to form a judgement of the characters of the two men, the same conclusion is forced upon us. By their letters they stand revealed as men of beautiful characters, full of the love of home life, keenly interested in nature, in literature, and in art; and above all full of sympathy for all mankind, especially those less fortunately situated than themselves. Underlying all is a simple but sincere religious conviction. The medical profession may indeed be proud to have numbered Joseph Toynbee as one of her distinguished sons.

A sympathetic reminiscence of Arnold has already appeared, written by his friend Viscount Milner, and is known to many; but we are indebted to Miss Toynbee for giving us further glimpses of his character. Arnold's influence for good on the Oxford undergraduates and even on his seniors are still remembered in the university. As pioneers of social reforms the name of Toynbee is a household word. It is such lives as these that leave permanent "footprints on the sands of time."

Many interesting sidelights are thrown incidentally on the difficulties and unpleasantnesses of Continental travel in the late Fifties and early Sixties of last century.

In conclusion, we would add that the contact with such men, even if only by their letters, cannot but leave an impression for good, and we realize in part what a severe loss their deaths must have been to those privileged to be on terms of intimacy. Miss Toynbee is to be congratulated on the completion of what must have been a labour of love. She has let the dead tell their own tale, and has exercised great forbearance in not giving expression to the feelings with which she must be deeply imbued.

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## THE POETRY OF SCIENCE.

PROFESSOR RONALD ROSS's slender volume of verse, which appeared some time ago under the title of *Philosophies*,[7] was, we learn from his preface, written in India between the years 1881 and 1899, mostly while he was carrying on his researches on malaria. Further on the distinguished author refers to the contents of his book as "notes of the wayside," jotted down at intervals during the course of his long years of study. This explanation throws a light on the inner meaning of many of his poems. This is particularly the case with regard to the series of poems entitled "In Exile," which, it may be remarked in passing, includes some of the finest examples of Professor Ronald Ross's poetic art. A considerable amount of interest attaching to these latter may be due to the circumstances in which they were conceived and written, but their own intrinsic merits should by no means be overlooked. Professor Ross possesses in a very marked degree the faculty for creating the necessary atmosphere, and every

[6] *Reminiscences and Letters of Joseph and Arnold Toynbee.* Edited by Gertrude Toynbee. London: Henry J. Glaisher. (2s. 6d net.)

[7] *Philosophies.* By Ronald Ross, F.R.C.S., D.Sc., LL.D., F.R.S., C.B. Published by John Murray, London. 1910. (Pp. 56. 1s.)

line of the exile's weary musings gives a vivid impression of the heat and dust and glare of India, the burning days and breathless nights, "the restless, unsatisfied longing" of a man doomed to labour during the best years of his life in this "hateful desert land," all conveyed in a succession of short but striking word-pictures. It must be confessed, however, that Professor Ross's verse is rather unequal; if at times it rises to flights of real beauty (as, for instance, in the pathetic lines on "The Indian Mother"), at others it sinks almost to the level of the commonplace. His writing, nevertheless, shows that he has the true poetic feeling, together with a considerable facility and power of expression, though, perhaps, it is unfortunate that his metre is occasionally curiously reminiscent of Tennyson. This, however, is a small matter. Professor Ross is to be congratulated upon a very charming collection of poems, which are especially interesting as the musings of a man who has done memorable work in a different sphere. They are a proof, if such were needed, that there is no incompatibility between poetry and science.

## NOTES ON BOOKS.

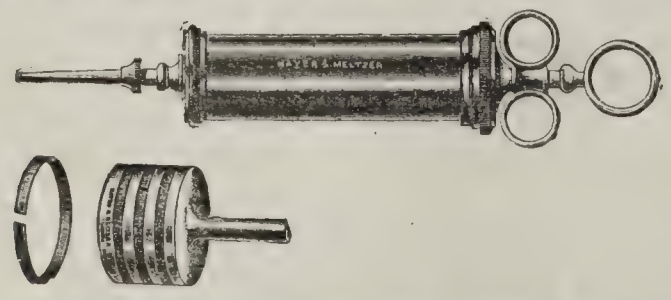
UNDER the title *Maternity Primer*,[8] Dr. BARBOUR, Physician to the Edinburgh Royal Maternity Hospital, publishes by request a series of introductory talks for nurses commencing their midwifery training, in which he endeavours to put in simpler language than usual the essential facts of midwifery and the midwifery nurse's duties. The attempt is on the whole successful, though probably less so in type than in talk, but there are one or two points where one would draw the line short of Dr. Barbour's, as, for example, the use of corrosive sublimate for uterine douching or the administration of alcohol in puerperal infection, which might well be left to a later period for discussion. The principles underlying the treatment of haemorrhage are capable of still simpler statement than Dr. Barbour gives, and the dangers of plugging the vagina as a method seem hardly sufficiently emphasized. As a whole, however, the book is a welcome attempt to get the junior nurse into the way of putting into her work the imagination by which alone the patient can become for her transparent.

[8] *Maternity Primer*. By A. H. F. Barbour, M.D., LL.D. Edinburgh. 1911. (Pp. 165, 1s.)

## MEDICAL AND SURGICAL APPLIANCES.

*An Improved Syringe.*

MR. GRAHAM SIMPSON, F.R.C.S. (Sheffield), writes: In the ordinary metal syringe, such as is used for washing out the bladder, the piston after a time becomes worn, and no longer accurately fits the barrel of the syringe; the syringe is, therefore, no longer air-tight and has to be discarded. To overcome this I have had a syringe made with a piston on the principle of that used in the motor car. The piston fits the barrel of the syringe only loosely, and is made air-tight by the addition of three split metal rings, which are sprung on the piston and fit into three



corresponding grooves. When these rings become worn they can be replaced at a small cost (3s. 6d.), and the syringe is then once more air-tight. I have used a syringe of this kind for washing out the bladder in cases of cystoscopy during the last twelve months, and have found it very satisfactory. Messrs. Meyer and Meltzer have made the syringe for me, and are now placing it on the market in three sizes—2 oz., 3 oz., and 4 oz. They would be suitable also for washing out the external meatus of the ear, as they are strongly made, and give a powerful stream. The two diagrams show: (1) The syringe; (2) the piston with its piston rings seen in section.

## ELECTION OF DIRECT REPRESENTATIVE.

THE last day for the receipt of nomination papers for the election of a Direct Representative of England and Wales on the General Medical Council in the vacancy caused by the regretted death of Dr. McManus is this day, Saturday, April 29th. It would appear that there are to be four candidates: Dr. J. A. Macdonald, Chairman of Council of the British Medical Association; Mr. George Jackson, F.R.C.S., who served on the General Medical Council for the term 1902–7; Dr. Lawrence, M.O.H. Edmonton; and Dr. Hawkyard, President of the Leeds and District Medical Practitioners' Association.

We have received the following information with regard to the candidates:

### DR. J. A. MACDONALD.

The address of Dr. Macdonald is published in the advertisement columns of this week (p. 10), and a letter commending his candidature, signed by the Chairman of the Representative Meetings (Dr. E. J. Maclean), and the President of the Metropolitan Counties Branch (Dr. Lauriston E. Shaw), was published last week (p 964). Dr. Macdonald has held many offices in the British Medical Association: he was a member and afterwards the Chairman of the Medico-Political Committee, and Chairman of the Representative Body; he is now Chairman of the Council. The letter to which we refer points out that he has during his tenure of these offices added to his knowledge of the disabilities from which the profession at present suffers, and the reforms needed in various directions which he had gained during his career as a general practitioner.

### DR. HAWKYARD.

The address issued by Dr. Hawkyard, of Leeds, will be found in our advertisement columns. We have also received the following letter with regard to Dr. Hawkyard's candidature:

Sir,—May we, through the medium of your columns, commend to our fellow practitioners the candidature of Dr. Hawkyard for the vacant seat on the General Medical Council?

Dr. Hawkyard has been President of the Leeds and District Medical Practitioners' Association since its foundation, and has done a very considerable amount of useful work for the medical profession of Leeds through this body.

His experience as a general practitioner has brought him into contact with all kinds of practice, including clubs, Poor Law, and other contract work, and so renders him capable of appreciating the needs and difficulties of all classes of medical men. He is also a man of wide experience, with a comprehensive knowledge of public life, having served on the Leeds City Council and Board of Guardians for many years. He is at present a magistrate of the city, and has been called to the Bar. His practical common sense, decided grasp of the requirements of the general practitioner, sound judgement, and firm convictions would render him a great acquisition on the Council to all practising medical men.—We are, Sir, yours faithfully,

E. ALLAN WILSON,
H. DE C. WOODCOCK,
Honorary Secretaries, Leeds and District Medical Practitioners' Association.

April 25th.

### DR. S. C. LAWRENCE.

The address issued by Dr. Lawrence, Medical Officer of Health for Edmonton, is published in our advertisement columns. As will be seen, those who have invited Dr. Lawrence to come forward lay stress upon the work he has done as Honorary Secretary and member of the executive of the Society of Members of the Royal College of Surgeons of England, and as Honorary Secretary of the Home Counties Branch, and member of the council of the Society of Medical Officers of Health. As a part-time medical officer of health living in a suburb of London, Dr. Lawrence states that he is in a position to give the necessary time for regular attendance at meetings of the Council and its committees.

### MR. GEORGE JACKSON.

Mr. Jackson's address was published in the advertisement pages of the BRITISH MEDICAL JOURNAL of April 22nd, and in the same issue a letter commending his candidature from Mr. George Brown, who was at one time his colleague on the General Medical Council, will be found.

## COLONIAL AND FOREIGN SYSTEMS OF POOR LAW RELIEF.

[FIRST ARTICLE.]

AT an early stage in its proceedings the Royal Commission on the Poor Laws decided to obtain information as to the methods of public relief in foreign countries and the colonies, and a large folio Blue Book of 474 pages has recently been published as one of the numerous appendices to the general report of the Commission.

The systems in use in France, Belgium, Germany, Holland, Denmark, Norway, and Sweden, United States, and the colonies of Australia, New Zealand, and Canada, are fully described, and special chapters are devoted to the systems in Paris, Berlin, and Brussels.

In the first place a series of seventeen questions were addressed through the Foreign and Colonial Offices to the various countries referring to the principal features that must characterize any system of public relief such as the right to relief, the existence of civil disabilities attaching to the receipt of relief, the treatment of children, the relief of the able-bodied, and so on. The replies to the questions were so far incomplete that they have been supplemented by an account of the general principles and organization of public relief in the countries named gathered from the legislative enactments and regulations in force in each country, each case being considered from the point of view of (1) the constitution of the relief authority, (2) the principles of relief and the administration of the ordinary indoor and outdoor relief, (3) medical relief, and (4) the relief of children, with statistics to show as far as possible the results of each system.

The last occasion on which official cognizance was taken in this country of foreign systems was in 1872; it was then found that in most countries at that time poor relief was a neglected element, the Poor Laws being indefinite and relief being practically a matter of local charitable concern, with which public policy and government had little to do. Since then social and economic conditions have undergone radical change owing to the growth of trade and the increase of urban populations, and all the countries have totally remodelled their systems. But in spite of great legislative activity there is much that is still unsatisfactory. In Europe, for instance, the commune is still the area for relief purposes, with the result that in country districts relief, especially institutional and medical, is almost everywhere deficient. Again, a central authority with adequate power of inspection and control does not exist in most European countries, with the result that there is little uniformity of administration, and the only motive to efficiency is local opinion and local initiative. There is, however, a marked tendency to spread the burden of relief over wider areas, a tendency taking the form of grants in aid from the county or the State; as a consequence the county or State now possesses more or less influence over local bodies, while in many cases certain branches of assistance, such as the care of the insane, the deaf, and the blind, and in some cases the provision of medical relief and institutional relief for the aged and infirm, are taken over entirely by the central authorities. Parallel with schemes of reform of public assistance there is evidence of a widespread feeling in favour of better organization of charity and the co-ordination of charity with public relief. Specially to be noticed is the great attention that is being paid in most countries to the preventive side of public assistance, which aims at assisting those who are within the range of poor relief to secure immunity by insurance.

### *Classification of Systems.*

An attempt is made to classify the systems of poor relief in various countries under two main heads:

1. Those in which a public obligation to provide relief is legally recognized, involving a territorial organization with definite public authorities for the purpose; and
2. Those in which poor relief is essentially optional and occasional, not obligatory or universal.

Applying this principle of division, it is shown that in the first-named group Germany, Denmark, Norway, Sweden, part of Australia, part of Switzerland, the United States, New Zealand, and parts of Canada, such as Nova Scotia and New Brunswick, are to be classed with the United Kingdom as States that recognize a public obligation to provide poor relief at the cost of the State. On the other hand, France, Belgium, Italy, Holland, Australia (with perhaps the exception of Western Australia) and the older parts of Canada, such as Quebec, recognize no general obligation to provide public poor relief, but have a system of optional or quasi-charitable relief. It is very noticeable that in France and Australia especially, there are signs of a gradual breakdown of the system of charity, and that the principle of public obligation is now recognized as regards particular classes of the poor, such as the children and the aged. There is a growing tendency to obliteration of the distinction between the two groups of States.

In France, until within recent years, poor relief has been a matter of semi-officialized charity; before the year 1893 indoor relief was administered by a local committee in any commune that was fortunate to possess a hospital or almshouse, and outdoor relief by a similar committee in communes which chose to form such a committee. The committees depended mostly on charitable gifts or endowments with the proceeds of some small local dues, and perhaps some subsidies from the communes. But since 1893 France has set itself to create a system of official instead of semi-charitable relief, and has superimposed on the old system a new organization in which civil authorities of the commune and department bear the chief part, while the State provides from one-third to one-fifth of the cost, the object being to guarantee relief to persons who are physically or mentally incapable of providing for themselves. Effect has been given to this by enactments providing relief to (1) the sick poor, (2) the aged poor over 70, (3) the physically incapacitated of any age, and (4) orphan or deserted children. The old and the new systems, however, still remain side by side. In 1910 the French Government passed through the Senate a law providing for State-aided insurance against old age and invalidity as a sort of supplement to the law of 1905 for free relief on these grounds.

In some respects Italy has closely followed the lead of France as far as circumstances allow, but in Belgium public opinion has so far been unable to effect any material change.

In the States of Australia for the most part indigent persons, apart from particular forms of indigence such as old age, have no claim to relief, as there is no body in a position to administer it, and dependence is placed on charity and on benevolent societies, which are, however, liberally assisted by subsidies from the State; in return the State exercises a certain amount of inspection. In despair of adequate relief from charity the States generally undertake one or more forms of direct State relief, such as old age pensions, provision for the insane poor, for children of the destitute or criminal, and for the unemployed. The greatest advance has been made in Western Australia, where charity has become a subsidiary agent and the State is the relief authority for the whole State.

In Canada the provision of poor relief is in the hands of the several provinces, and thus we find that, while in Quebec the old French system of charitable relief is continued, mainly under ecclesiastical control and subsidized by the province, on the other hand Nova Scotia and New Brunswick have recognized a public obligation of relief, and have provided a local organization for the purpose.

In New Zealand since 1885 poor relief has been a matter of public local responsibility, the country being divided into suitable districts, each with its own district board. The State contributes liberally to the cost, and further provides a generous system of old age pensions.

Turning to the other countries where public obligation is more fully recognized, Germany has established "relief associations" throughout the empire, the cost being defrayed from local taxation with some assistance from charitable endowments, but without State grant. It appears that outdoor relief considerably preponderates over indoor relief, and that in the country districts the administration is somewhat perfunctory. In the towns poor relief has received more attention, and the Elberfeld system is being increasingly adopted.

In Denmark the councils of communes and towns are formally the authorities for poor relief, but they delegate their duties to officials or committees of their body and receive some monetary grants from the counties, the latter assuming a large part of the burden for medical relief and for the care of the insane, and also providing penal workhouses for the able-bodied and vagrants. The State does not concern itself directly with ordinary relief, but has provided certain means of public assistance which are technically not poor relief—such as old age pensions and certain funds which are designed to assist the worthy poor and prevent them coming on the Poor Law. The State also contributes to the cost of medical relief, and has set up a form of sickness insurance which is carried out by local sick clubs. Membership of these clubs, which is purely voluntary, carries with it a right to medical attendance; the State adds a proportionate amount to the members' contributions, to which the local authorities also contribute.

In Norway poor relief is organized on a communal basis, the relief committee being dependent for supplies on the local council, and acting in accordance with rules laid down or approved by the council. The parish bears the cost of ordinary relief, but the capital cost for the care of the insane and for medical relief is borne by the county, the parish being charged only with the cost of maintenance of its own cases. Sweden generally resembles Norway, but lays especial emphasis on institutional relief, each commune being encouraged, singly or in combination, to provide relief in this form.

In Switzerland the Federal Government leaves relief to the several cantons, the only Federal laws that affect the matter being one that provides for freedom of intercantonal migration and settlement, and another requiring medical relief to be provided for non-settled poor by the canton of residence. Most cantons accept the obligation to provide relief, though some limit it to natives by birth or adoption. Poorhouses are provided by the larger communes, but outdoor relief is the usual form, and in some places the system of billeting paupers on the well-to-do inhabitants is still retained.

The United States recognizes the principle of local obligation, and makes either (*a*) the parish (town or city) or (*b*) the county responsible for the relief of its own poor; the latter is the more general plan, the objective being to provide more adequately for institutional relief than is possible under the parish system. In the more advanced states, such as New York and Massachusetts, institutional relief is the principal form, outdoor relief being restricted, though in other states outdoor relief is predominant. A considerable amount of classification of institutions is aimed at. In many of the states local relief is very badly organized, the local authority being responsible to no central authority, but the more advanced states have within the past few years formed central departments of State known as State Boards of Charities, with power to inspect and enforce reform of local institutions and promote Poor Law legislation; these boards have effected much improvement in Poor Law relief.

*The Right to Relief.*

It is characteristic of modern Poor Law legislation that the necessitous should have a statutory claim for public relief. This is theoretically the case even in some of the countries where relief is based on charity, though in the absence of proper machinery it may sometimes be illusory. The right to relief is conditional on a certain qualifying degree of poverty which is often not clearly defined. In Germany and Scandinavia the relief authority is legally entitled to afford only what is necessary to maintain life, but in France the laws providing for obligatory relief to the aged, infirm, and sick have deliberately given up the old word "indigent" for the milder words *necessiteux* or *privé de resources*. The official circular on the Free Medical Relief Law of 1893 pointed out that the latter term implies not general destitution, but a sufficient degree of poverty to need help in a particular emergency or under particular conditions, and the French law of relief to the aged and infirm poor requires each commune to fix a standard minimum of the cost of living, and provides that relief to this extent only is to be allowed. This minimum varies in different places, but in Paris it is fixed at 24s. a month. Many German towns, too, have established an *Existenz-minimum* as a standard scale of outdoor relief. Only in rare cases does the right to relief approximate to a legal right, and an appeal such as is allowed under the Scottish Poor Law to the Sheriff's court is exceptional. The German and Swedish Poor Laws allow appeal by an applicant for relief to the superior civil authority in the scheme of local government, and the latter may require the relief authority to grant relief, but this is rather in the nature of a complaint to a superior officer against the administration of an inferior officer. The reformed French Poor Law has in the case of relief to the aged and infirm allowed appeal to a cantonal committee, and again from this committee to a specially constituted State committee; the same right exists under the law of free medical relief. The justification for this lies in the fact that the relief authority of first instance does not bear the whole cost, since more than half of it is borne by the State and the department. The indirect sanction which is given to the right of relief under the English law, in so far as the responsibility for fatal consequences occurring after refusal of relief falls on the relieving officer, does not appear to be found in the foreign systems.

*Conditions Attaching to Relief.*

The various conditions precedent or consequent to the grant of relief as they occur in the various countries are next described, such as

(*a*) Settlement;
(*b*) Liability of relatives to contribute;
(*c*) Liability of the person to repay the cost;
(*d*) Imposition of civil disabilities.

(*a*) As regards settlement, there is a distinct tendency to shorten the period necessary for the acquisition of a settlement, and in practice it has been very largely reduced. For instance, all the systems now recognize the obligation on the part of a relief authority in whose area a case of destitution occurs to grant relief in the first instance, even if the fact of non-settlement is known, and there is a tendency to restrict the right to recover the cost from the district of settlement. In Germany relief to servants and persons in employment cannot be recovered from their place of settlement for the first twenty-six weeks of relief, and in Denmark the cost of medical attendance is not recoverable from the place of settlement. In other cases, such as New York, the local relief authority can throw the burden of paupers whose settlement cannot be ascertained on an authority of a wider area, such as the county or State.

(*b*) The liability of relatives within a specified degree of relationship to contribute to the cost of relief is practically universal in Europe, except in certain of the Swiss cantons, while in some parts of Australia there is no provision as regards enforcing the liability of relatives, except in the matter of State relief—for instance, in the State-aided asylums for the aged and infirm.

(*c*) In the same way the right of recovery from the person relieved is also fairly general, though it does not obtain in Belgium and Australia, and is of doubtful legality in Germany.

(*d*) Of the civil disabilities attaching to relief the commonest are disfranchisement and incapacity for election on public bodies. Such disabilities exist in many of the States where poor relief is mainly charitable. In Italy the penalties only attach to paupers in institutions and to persons "habitually in receipt of relief," and in Germany, since 1909, disfranchisement has been abolished in the case of medical relief, of relief given to assist in the upbringing of children, and in cases where relief has been refunded. On the other hand, neither France nor Belgium thus penalize the recipient of relief, nor do the States of the American Union, except in a few instances; the Australian States disfranchise as regards local elections, but allow the power to retain a vote for the Federal Parliament. Penalties other than disfranchisement are rare, but in certain states of Germany a person in receipt of relief cannot be empanelled on a jury, and in Denmark a man cannot marry for five years after receiving relief, unless the cost of it has been refunded, without the consent of the communal council.

In a further article it is proposed to deal with questions relating to the Poor Law areas, co-operation of the Poor Law with various voluntary agencies, and especially the systems of medical relief in foreign countries and the colonies.

## REPORT OF THE REGISTRAR-GENERAL FOR SCOTLAND.

THE fifty-sixth report regarding the births, deaths, and marriages registered in Scotland and the forty-sixth annual report on vaccination have just been issued. The former relates to 1910; the latter to 1909.

*Introduction.*

The birth-rate of Scotland for the year is the lowest recorded in these reports—that is, since 1855; the marriage-rate is lower than that of all previous years since 1855, that of 1909 excepted; the death-rate is the lowest on record—that also is since 1855, and this is the first year in which the death-rate of Scotland has fallen below 15 per 1,000. For the first time the death rate in the principal town registration districts is less than that in the mainland rural registration districts. In the early years of registration that of the former was as much as 50 per cent. greater than that of the latter. The year has been without serious epidemic, an outbreak of measles excepted. The epidemic of cerebro-spinal meningitis which began in 1906 has now practically subsided. The annual death-rate from phthisis in the eight principal towns shows a decrease, in Edinburgh and Leith this decrease during the last ten years has amounted to over 45 per cent. The vaccination returns show that the use of the power of exemption from vaccination by reason of the conscientious objection of the parents has been largely taken advantage of, with the result that the proportion of children remaining vaccinated is largely increased. It is estimated that the passing of the Vaccination (Scotland) Act, 1907, has resulted in adding 45,000 unvaccinated children to the population.

*Population.*

The estimated population in the middle of 1910 is 4,929,251 (2,411 857 males and 2,517,394 females), which, if near the truth, gives an increase of 51,603 (26,950 males and 24 653 females). The natural increase of the population, the excess of births over deaths, between the middle of 1909 and the middle of 1910 amounted to 51,927, but that figure is almost certainly in excess of the true increase of population, it being almost a certainty that there has been more emigration from the country than immigration into the country during the period. Of the estimated population, 46 5 per cent. live in the principal town registration districts; 12.6 per cent. in the large town districts, and 20.0 per cent. in the small town districts. The principal town districts are those towns which at the 1901 census had populations of over 30,000; the large town districts are registration districts containing towns with populations in 1901 of between 10,000 and 30,000; the small town districts have populations of 2,000 to 10,000. As illustrating the necessity for great reserve in accepting estimates of population, it may be noted that the estimate for Edinburgh in the middle of 1910 was 360,276. The census of April 1st, 1911, shows the population to be 320,239, an increase of only 2 780 in ten years, as against the estimated increase of 40,037 to the middle of 1910.

*Births.*

These numbered 123 000 (63,090 males and 60,190 females). The maximum number of births registered in Scotland in any one year was in 1903, when the number was 133,525. Since that year the diminution has been a decided one, especially during the last two years. Comparing 1903 and 1910, the births are 7.1 per cent. fewer in the latter year. The birth-rate of the year was 25.16 per 1,000, the lowest since 1855. The previous lowest was that of 1909, which was 26 36. In the principal towns the lowest birth-rate, 19.6, was in Edinburgh. In Scotland 6.85 per cent. of the children born were illegitimate.

*Deaths.*

The total number of deaths during 1910 was 72,245 (36,070 male and 36,175 female), 5,178 less than the average number registered during the preceding ten years, and the smallest for any year since 1896. Of them 46.1 per cent. were in the principal town districts. The death-rate of the year was 14.66 per 1,000 of the estimated population, 2.0 less than the mean of the death-rates of the preceding ten years. It is the lowest annual death-rate yet recorded, the previous lowest being that of 1909, which was 15.29. From 1855 to 1880, with the exception of 1856, the national death-rate was constantly over 20 per 1,000; in 1881 it was for the first time below 20, in 1886 for the first time below 19, in 1894 for the first time below 18, in 1896 for the first time below 17, in 1905 for the first time below 16, and in 1910 for the first time below 15. The death-rates of Glasgow, Edinburgh, Aberdeen, Paisley, Leith, Govan, Partick, Kirkcaldy, and Hamilton are the lowest yet recorded for those towns.

*Marriages.*

These were 30 866 in 1910, and were 1,111 fewer than the average number during the preceding ten years. Of them 52.7 per cent. were registered in the principal town districts. The marriage-rate of the year is 6 26, and is 0 62 less than the mean of the rates of the preceding ten years.

*Causes of Death in Eight of the Principal Towns.*

As fully 38 per cent. of the population of Scotland live in either Glasgow, Edinburgh, Dundee, Aberdeen, Paisley, Leith, Greenock, or Perth, it is reasonable to assume that the causes of death found to be prevalent in them during the year are a fairly good indication of the causes of death generally prevalent in the country during the period. The aggregate birth rate of the eight towns for the year was 24.0 per 1,000, the marriage-rate 7 4 per 1,000, and the death-rate 15.1 per 1,000. The birth and death rates are the lowest yet recorded. Deaths in the eight towns of children of less than 1 year old numbered 5 559, births in the towns numbered 45,482, and thus the infantile mortality-rate amounted to 122 per 1,000 births. Deaths of children of less than 5 years old numbered 9,317, and constituted 32 7 per cent. of the total, or 0.5 less than in the previous year. Deaths from the principal infectious diseases were equal to a death-rate of 129 per 100,000, by far the greatest number being from measles (60 per 100 000), diphtheria and whooping-cough taking the second and third place with 23 per 100,000 and 22 per 100,000 respectively. The death-rate from the principal infectious diseases ranged from 263 per 100,000 in Dundee to 79 in Edinburgh. No deaths from small-pox were registered in the eight towns during the year. The death-rate from influenza was 3 per 100,000, from enteric fever 5 per 100,000, from diarrhœa 62 per 100,000, from tuberculous disease 184 per 100,000, and from phthisis 116 per 100,000 (lowest in Edinburgh). In 1901 the aggregate death rate from tuberculosis was 264 per 100 000, and from phthisis 179 per 100 000; compared with those figures the death-rate from all tuberculous disease in 1910 shows a decline of 30.3 per cent., and that from phthisis one of 35.2 per cent. The death-rate from all forms of tuberculous disease in each of the towns, with the exception of Dundee, shows a marked decline, varying from 43.7 per cent. in Edinburgh and 37.1 in Leith to 9.2 in Greenock. In Dundee the death rate from tubercle is the same in 1910 as in 1901. The Edinburgh death-rate from phthisis in 1910 is found to be 46.4 per cent. less than in 1901, in Leith 45.3 per cent. less, in Glasgow 34.1 per cent. less, in Paisley 33.7 per cent. less, in Aberdeen 32.4 per cent. less, in Perth 21.1 per cent. less, in Greenock 19.6 per cent. less, and in Dundee 11.6 per cent. less. In 1906 there were 156 deaths from cerebro-spinal meningitis, and in 1910 there were 39.

The annual death-rate from malignant disease was 107 per 100,000, from pneumonia 145, from bronchitis 104, from puerperal septic conditions and from diseases and accidents of pregnancy and childbirth 5.9 per 1,000 births (ranging from 7.5 in Edinburgh to 3.2 in Greenock), the death-rate from violence was 56 per 100 000, the greater part from accident. In each 10,000 deaths from specified causes registered in the eight towns during the year there were 989 from heart disease, 859 from infective diseases, 757 from diseases of the respiratory organs (excluding those from pneumonia), 716 from diseases of the digestive system (exclusive of those certified as due to diarrhœa), 703 from diseases of the blood vessels (including apoplexies), 478 from diseases of the nervous system (apoplexies excluded), 435 from diseases of the urinary organs, and deaths from tuberculosis amounted to 1,221 per 10,000 specified causes, from phthisis to 768, from pneumonia to 964, from bronchitis to 688, from malignant disease to 712, from apoplexy to 574, and from diarrhœas (including those from enteritis and gastro-enteritis), to 412. Among those whose deaths were registered in the eight towns during the

year there were 41 males and 110 females aged 90 years and upwards. The oldest of the men was a commercial traveller, whose age was registered as 100, and the oldest of the women were three widows aged 100, 103, and 105.

*Weather and its Influence on Mortality.*

The mean temperature of the year in Scotland, as based on observations made at over seventy stations, was 46.2° F., which is 0.8° above that of the previous year, the same as the mean for the preceding ten years. The average rainfall, or, more strictly, the mean of the rainfalls observed at these seventy stations was 41.36 in., which is 2.27 in. more than in the previous year, and 1.20 more than the mean of the rainfalls of the preceding ten years. These weather conditions—a normal mean temperature and a somewhat high average rainfall—have been accompanied by the lowest national death rate on record, a rate which is 0.6 less than that of the previous year, 2.0 less than the mean of the death-rates of the preceding ten years, and 3.0 less than that of the preceding twenty years. The mean temperature in the eight principal towns was 47.2°, which is 0.9° more than that of the previous year, and 0.1° more than the mean for the preceding ten years, but 0.1° below the mean for the preceding twenty years. The average rainfall in these towns during the year was 37.31 in., which is 0.96 more than in the previous year, 1.48 more than the mean of the preceding ten years, and 1.83 more than the mean of the preceding twenty years. These weather conditions in the eight towns have been accompanied by the lowest aggregate death-rate on record, it being 1.4 less than that of the previous year, 3.0 less than the mean of the death-rates of the preceding ten years and 3.4 less than those of the preceding twenty years. Among the causes of death in the eight towns which show an increase as compared with the previous year, when the weather was colder and drier, are measles and diarrhoeas, and among those that show a decrease are whooping-cough, pneumonia, bronchitis, and phthisis. Deaths of children under 5 years show a decrease of 893, and those of persons of over 60 a decrease of 579.

*Vaccination.*

The births of 128,720 living children were recorded in the registers during the year 1909. Of these, 84,035 are reported to have been successfully vaccinated, 11,594 are reported to have died before the time of compulsory vaccination, leaving 33,091 as the number of children for whom certificates of successful vaccination were not produced. Compared with the corresponding numbers of the previous year, children successfully vaccinated are 7,159 fewer, those dying before the time of compulsory vaccination are 1,095 fewer, but those for whom no certificates of successful vaccination were received are 5,568 more. Comparison with the corresponding numbers of the year 1905, the last year before the Vaccination (Scotland) Act, 1907, was effective, shows the number successfully vaccinated to be 27,893 fewer, those dying before the time of compulsory vaccination to be 574 fewer, but those not reported to have been successfully vaccinated to be 25,734 more. In 1905 the percentage of the total children successfully vaccinated was 85.15, in 1909 it was 65.29. The amount of certified constitutional insusceptibility varies widely. In two counties no such children were reported, and whereas in Peebles 1 child in 62 was certified to be insusceptible, in Greenock 1 in 344 was so certified. In the registration district of Auchterhouse, 1 in 5 was certified. The working of the Vaccination (Scotland) Act, 1907, is thus responsible for adding fully 25,000 unvaccinated children to the population during 1909, and for adding no less than 45,000 in the course of two years. The district examiners of registers of Scotland all comment on this serious state of affairs. Two notes may be quoted: "The growing number of unvaccinated children cannot well be regarded with anything but the gravest concern." "Too large a proportion of those who take advantage of the provisions of the Act belong to a class who are not generally in other respects too solicitous regarding the health of their children, and who, on account of the indifferent housing and sanitary conditions under which many of them live, would be liable to suffer the most severely in the event of an epidemic."

## CANCER RESEARCH.

THE official report of Dr. Bashford, delegate of the British Government, of the Conference on Cancer held in Paris last October has recently been issued as a White Paper. An account of the proceedings was published in the BRITISH MEDICAL JOURNAL of October 22nd, 1910. That account may be supplemented by reference to a few points set forth in the report. In the opening discussion on histology and the histological diagnosis of cancer, stress was laid upon the inconvenience caused by the employment in different countries of dissimilar names for identical cancerous lesions, and by the frequent employment of the same terms in different senses. In the present state of knowledge, therefore, it was impossible to find a complete classification of cancers which would meet with international acceptance. As a result of the discussion the conference adopted a resolution appointing a commission representing the different countries for the purpose of drawing up an international nomenclature to be submitted to the next meeting of the conference in 1913. This was the only resolution adopted by the conference. A proposal to empower a similar commission to compile comparable international statistics of cancer by means of the issue of inquiry forms to members of the medical profession met with much adverse criticism and was negatived.

A discussion on the duration of cancer of the digestive tract brought out the great frequency with which the first symptoms appear and the diagnosis is made only after a prolonged latent period, when no definite signs of the disease are presented. Several opinions were expressed as to the best means of educating the public, and also the profession, in the early symptomatology of cancer.

Referring to discussions on the value of adjuvants to surgical treatment, such as fulguration, *x* rays, and radium, Dr. Bashford says the consensus of opinion was against the employment of fulguration, while no definite conclusion was arrived at as to the therapeutic value of radium. The general outcome of the debate seems to have been that treatment by serums and vaccines is not to be relied upon.

Another subject discussed was the resistance which can be induced to the implantation and progressive growth of cancer in animals. The phenomena were interpreted to mean that fresh animals react against the implantation of cancer and set up an active resistance to its growth in them. In regard to the causation of cancer, a mass of evidence was presented supporting the view that cancerous tissue is really a biological alteration of the tissue proper to the individual attacked by the disease, and that its peculiar properties may be explained without assuming the intervention of extraneous agencies, such as a hypothetical cancer virus. Dr. Bashford sums up the results of the conference as follows:

"Reviewed as a whole, the conference must be pronounced to have been of value. In my opinion, should another international conference take place, it will be held under much more favourable auspices both as regards working arrangements and the selection of subjects for discussion and action, notwithstanding the fact that knowledge of cancer is still so vague or ambiguous as to have prevented unanimity, or even a basis for discussion, from being obtained on many points at the conference in Paris. In particular the delegates were divided upon such fundamental matters as the etiology of cancer, and on what is and what is not a legitimate application of statistical methods to the investigation of the frequency of cancer. Whilst some delegates of high standing advocated its parasitic or infectious nature, others of equal authority strongly opposed such a view. No progress was made towards compiling comparable international statistics of the incidence of cancer; nevertheless, in my opinion, the discussion of the plan proposed was a pressing need, of which the importance is but emphasized by the failure of the project to secure the approval of the delegates. Only good can result from discarding those fallacious methods by which attempts have been made to arrive at a speedy elucidation of the significance attaching to variations in the numbers of the deaths recorded from cancer in different countries at the same time, and in the same geographical area, large or small, at different times. These methods have been widely

adopted in various European countries, and consist in taking a 'cancer census' or enumeration of persons ill of cancer on a particular date, by means of inquiry forms filled up voluntarily by members of the medical profession. The decision was arrived at in 1902–3 to recommend that such a method of investigation should not be adopted in this country. The wisdom of that decision would appear to have been endorsed by the attitude of the conference towards the project laid before the delegates for the compilation of international data of a similar kind, more particularly because many of the delegates also recognized, what has often been urged in vain in the past—namely, that the statistics of cancer cannot be treated apart. They are inseparably bound up with vital and mortality statistics as a whole, and an improvement in the value of the statistics of cancer, for the purposes of comparisons between different countries, can follow only from raising the general level of all the vital and mortality statistics of different countries. Such considerations and others—for example, that a 'cancer census,' far from avoiding the fallacies inherent in all statistics of mortality from cancer, but exaggerates them—apparently influenced the delegates. The attitude of the conference towards the statistical investigation of cancer marks a distinct advance towards what accurate statisticians have long recognized as the only sound lines of investigation; but it must also be pointed out that under exceptional conditions a 'cancer census' may possess advantages for special purposes. So long as so much divergence of opinion, due to continued ignorance, prevails, it is obviously hopeless to attempt to devise rational measures, and futile to promote an international crusade for the prevention or reduction of the ravages of cancer, along the lines which are meeting with worldwide acceptance in the case of tuberculosis and leprosy."

## STATE INVALIDITY AND SICKNESS INSURANCE.

### The Northern Collieries' Scheme.

Dr. Henry E. Gough (Northwich) sends a letter in which he questions the general applicability of the scheme of provident insurance in force among the miners of Durham and Northumberland described by Dr. J. Charles of Stanley in the Journal of April 15th, page 887. Dr. Gough directs his criticism particularly to the following points:

1. *Finance.*—Dr. Gough points out that the scheme takes no account of those who are out of employment and therefore contribute nothing, of strikes, and of chronic invalids incapable of employment. He considers that the arrangements are such that an unlimited and indefinite amount of work is exacted from the doctor for a definite and apparently strictly limited amount of pay.

2. *Simplicity of Working.*—Dr. Gough considers that the simplicity disappears when the direct relations between the two contractors is complicated by two other parties in the undertaking, the employers and the State, who will demand the right to inspect and to have a share in the control of the funds: He contends also that the extras will all have to be checked and supervised, and that in these extras must be included the cost of travelling. He concludes under this head that all the machinery necessary to scrutinize all the work done will be needed, and that nothing more would be needed, even if the payment were made per attendance.

3. *Elasticity and Freedom.*—Dr. Gough says that the essence of the scheme seems to be absolute inelasticity of payment, whereas the work done may extend indefinitely. As to freedom, he says that whoever pays will rightly demand control. While acknowledging that the incentive given to prevention is a good point, he thinks that the sick will prefer a man who concentrates on a cure, and the scheme is for the sick. In reply to the contention that colliery doctors are superior to the medical officer of health in zeal for sanitation, he says that it seems that the county medical officer for Durham does not endorse this claim in his annual report, in which he specially mentions colliery villages for their bad sanitation.

In conclusion, he asks general practitioners to consider whether in the article he criticizes a too rosy and enthusiastic outlook has not been taken by an exceptionally fortunate colliery doctor judging from a *clientèle* far superior to the average.

Dr. Herbert P. Taylor (Bradford-on-Avon) asks for further detailed information on the following points:

1. The payments to the doctor are stopped from the workman's wages. What happens, when there is a strike, or the workman is ill, and there are no wages? Apparently, when there is a prolonged strike (with possible poverty and extra sickness among the workmen and their dependents), or a severe epidemic of disease, the extra worked doctors' income would diminish almost to vanishing point.

2. The married men pay 19s. 6d. (less 5 per cent. collection fee) to their doctor. Does this amount cover the attendance on the wife and children, and the provision of medicine and dressings? Taking a family of father, mother, and three children, this gives a fee of 3s. 8½d. (nearly) per annum each.

3. Among miners there are men who do special work, whose wages average much more than 30s. per week; are these included in the scheme at the same rate? If not, how are these men's contributions arranged?

4. Dr. Charles tells us that this system has been working for years. Is it fair, taking into consideration the increased cost of medical education and the increased time, skill, and labour needed for accurate diagnosis, that medical men should be now receiving the same fees for contract work that their grandfathers did? Dr. Charles also tells us that in this sort of practice there is not much scope for the use of modern diagnostic instruments of precision or for bacteriological or electro-therapeutics. Is it satisfactory to the Durham miner to know that he is not getting the best possible treatment for his ailments? If cases are sent to the nearest infirmary, who pays the men who do treat them, and who pays the cost of the miners travelling back and fore?

## SCIENCE NOTES.

The Board of Agriculture and Fisheries has instructed its scientific advisers to investigate the causes and characteristics of the disease among bees which has now broken out in many counties, and which originally made its appearance in the Isle of Wight. The board would be glad to receive communications from beekeepers whose bees have been affected by the disease, and who would be willing to supply information likely to be of service in connexion with the investigations. A statement of the points upon which it is desired to obtain particulars will be sent on application. Information as to new outbreaks in districts only recently infected is especially desired. In certain cases specimens of diseased bees will be required, and correspondents are therefore requested to say whether they could send bees for examination. Bees should not be sent to the board until asked for. Communications should be addressed to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W.

The third annual report of the governing body of the Imperial College of Science and Technology contains a short account of the work done and the changes which have occurred up to the end of July, 1910. Considerable extensions have been made during the year, especially in the department of mining and metallurgy. Several buildings, including a students' union, commenced in the course of the year, are now completed. In addition, adequate accommodation for the administrative work of the college has now been provided. Reference must also be made to the generosity of the Bessemer Memorial Committee in providing £10,000 towards the equipment of the mining and metallurgical laboratories of the college. It is proposed to erect a statue of the late Sir Henry Bessemer in the laboratory. Advance is reported in all the departments of the college, and we note with particular interest the provisions made for the biological sciences and for aeronautics. To the report are attached eight appendices, setting forth the names of the governors, members of committee, and staff, together with the courses provided, the research work done, and the number of students enrolled.

The forty-fourth annual meeting of the Canadian Medical Association will be held at Montreal in the first week of June of the present year, immediately after the official opening of the new McGill medical buildings.

## LITERARY NOTES.

THE *Indian Ambulance Gazette*, the first number of which appeared in January, is the official organ of the Indian Branch of the St. John Ambulance Association, of which the Viceroy is President. The Chairman of the Indian Branch Committee is the Commander-in-Chief; the Honorary Secretary is Major R. J. Blackham, R.A.M.C., Knight of Grace, and Barrister-at-Law. Major Blackham is one of the editors, the other being Mr. Vivian Gabriel, C.V.O. The *Gazette* is to be issued quarterly. In a "Foreword" it is stated that "for years the great bar to the extension of the courses of instruction carried out under the auspices of the association was a lack of information on the subject, as the admirable publications of the London head quarters were not altogether suited to Indian requirements. This difficulty has been removed by the publication of the White Book of the Indian Branch, which is rapidly approaching its third edition in a period of eighteen months, but to supplement the information the committee felt that something more was required." This feeling has found expression in the foundation of the *Indian Ambulance Gazette*, which seems to us likely to be a most useful supplement to the White Book, an account of the second edition of which was given in the BRITISH MEDICAL JOURNAL of October 1st, 1910.

We are accustomed to look upon preventive medicine as almost wholly of modern growth. Yet the ancients fully appreciated the value of the precept *Principiis obsta*, and the care of the health as distinct from the care of disease held a prominent place in the teaching of the old physicians. Nor was the importance of baths, dietetics, and other means of preventing disease so much forgotten even in what are called the Dark Ages as is often supposed. Public hygiene was indeed little thought of, but personal hygiene was by no means neglected. An interesting proof of this has recently been afforded by Professor Landouzy, who, at a meeting of the Paris Academy of Medicine held on April 4th, presented a book printed from a medical manuscript of the thirteenth century produced under the direction of Dr. Roger Pépin and himself from the "Manuscrits à Miniature" of the Bibliothèque Nationale and the Bibliothèque de l'Arsenal. The work, he said, is entitled *Le Régime du Corps*, and was written in French by Master Aldebrandin about 1256—that is, more than half a century before the famous *Chirurgie* of Henri de Mondeville. It is, therefore, the oldest French medical work extant. Certain rare documents have enabled MM. Landouzy and Pépin to establish some points in the biography of the author. Master Aldebrandin, a native of Siena, left Tuscany for the Court of Provence, which was a flourishing centre of civilization in the thirteenth century. He was attached as physician to the person of the Countess Beatrix, famous as the most successful match-making dowager in history. All of her four daughters became queens. The eldest married St. Louis; the others married respectively Henry the Third of England, Richard of Cornwall, who was crowned Emperor of Germany in 1257, and Charles of Anjou, King of Sicily. From Provence, Aldebrandin went to the Court of France. Towards the end of his life he is found living in retirement at Troyes in Champagne, where he died in 1287. Professor Landouzy thinks it probable that it was during his stay at Aix in the suite of the Countess of Provence that Aldebrandin composed his book, which he dedicated to his patroness. In addition to its importance for the study of scientific language, the work has a genuine historical and doctrinal interest. Unlike the vast compilations of the Middle Ages, which embraced the whole range of medical science, Aldebrandin's book is entirely devoted to hygiene. In several places the author insists that it is not his purpose to deal with curative medicine (*le maladie delivrer n'est pas son entencions*); his aim is to show how health is to be maintained (*garder le corps en santé et les maladies eskiwer*). He passes in review the daily acts of life—eating, drinking, work, rest, and sleep. Among the hygienic measures which he prescribes are bathing, keeping the bowels open, bleeding, leeches, and cupping. He gives minute directions regarding the hygiene to be observed according to season and climate, and as to clothing, sexual life, the care of infancy, and old age. He gives excellent advice as to puericulture, both from the point of view of the mother and the care of the newborn child. He devotes long chapters to the special hygiene of the principal organs and systems—skin, hair, teeth, stomach, liver, and heart. He has much to say on diet, setting forth the nutritive value of the foodstuffs in common use, and discussing the special properties of cereals, fruits, vegetables, eggs, milk, and condiments. In his book, according to Professor Landouzy, are found in an empiric form the germs of some of the notions which still form the basis of our modern systems of diet. The work is, like all productions of the Middle Ages, a compilation, but for that very reason it is very instructive, as it may be taken to reflect the doctrines of the Arabian School, and the hygienic teachings of Avicenna and Isaac the Israelite. Although resembling the *Regimen Sanitatis* of the School of Salerno, Aldebrandin's book differs from that celebrated work in the manner in which the subject is dealt with. Instead of the dogmatic aphorisms of Salerno he gives minutely explanatory descriptions, and enters into the smallest details. In producing the book, MM Landouzy and Pépin had the advantage of the co-operation of M Antoine Thomas, Professor of Romance Philology at the Sorbonne, who has contributed a preface. Necessary help is supplied to the student in the form of a very full glossary, which explains obscure and rare terms, and a list of the names of plants and drugs. Aldebrandin may be looked upon as one of the pioneers of preventive medicine, and his book is therefore of special interest.

Another proof of the importance attached to hygiene by enlightened physicians of the Middle Ages is afforded by an announcement made in the *Progrès médical* of April 8th. Dr. Limon, of Besançon, is said to have discovered in the library of that town the manuscript of a work by Guy Paré, a Milanese physician of the fifteenth century. It is entitled the *Régime de Santé*, and treats of the means of preserving health. As a specimen of his teaching some passages are given from a chapter devoted to the hygiene of the mouth, a subject which has come to be regarded as of such vital importance in quite modern times. He says: "To keep the mouth in a healthy state it is well to wash it out before and after a meal with warm water, as this cleanses the mouth and purges the humours of the gums which come down from the head. This prevents foul breath. It is very advisable every day to rub one's teeth in the morning when fasting with a powder composed of cloves, nutmeg, and a spice called spikenard in hypocras." Hypocras, or hippocras, it may be mentioned, was an infusion of spices such as cinnamon or sweet almonds, with a little musk and amber, sweetened with sugar and honey. It was a cordial in great repute in the olden time. Then follows a list of things which make the breath fresh and sweet. Among them are citrons, a confection of musk, aloes bark, cloves, and a number of other things with strange names, which it is difficult to identify. He enumerates a number of things that make the breath foul. Among these is mercury, which he says corrupts the mouth and the saliva; fragments of meat left between the teeth, milky substances, and everything that putrefies even slightly. After eating such things one should carefully wash the mouth and clean the teeth, rubbing them gently with some bark or fruit peel which has bitter and astringent properties. Care should be taken, he says, not to break hard things with the teeth, nor to chew viscous substances, such a dates, confection of honey, and the like. Here Guy Paré condemns in anticipation the eating of sweets, which is too common everywhere, and the chewing of gum, which, as far as we know, is a habit peculiar to America. A too free use of emetics also, we are told, tends to rot the teeth. Cold things should not be eaten, for they freeze and chill the teeth; other things which are harmful to the teeth are milk, pomegranate, leeks, and radishes. The skin of citrons and sage leaves are useful as dentifrices. A prescription of special efficacy contains burnt hartshorn, roses, and other things, of which unhappily we are unable to give the modern equivalents. Before the teeth are rubbed with this powder they should be carefully cleared of all remains of food and foreign substances of every kind. Those, says our author, who are very particular, such as princes and great lords, may rub their teeth with a powder made of pearls, mixed with a very small quantity of fine sugar. This powder, he assures us, is very good, but he is careful to add that it is very dear.

British Medical Journal.

SATURDAY, APRIL 29TH, 1911.

## REPORT ON THE REFERENDUM PROPOSALS.

ONE of the objects for which the British Medical Association exists is to bring to bear on political and social problems the influence of the medical profession, and to this end to present to the Legislature or to local municipal bodies the considered opinion of the profession. The Association being in its conception a democracy and not an oligarchy, it becomes the first duty of the Council and Representative Body, and the committees by which they are advised, to ascertain what the opinion of the profession may be on any question involving medical interests which emerges in politics or administration, whether State or municipal. In the discharge of this duty several stages must be observed. In the first the facts are ascertained by the Council or committees, standing or special, and placed before the members in their Divisions in a form and order convenient for their consideration and for the expression of their opinions. In the next stage these opinions must be collated, and the opinion of the profession deduced from them. At this stage there is obviously room for setting out differences of opinion, and mayhap of finding some compromise, for though a theoretical politician may condemn compromise, yet the same man, when called upon to legislate or administer, is soon compelled to realize that by this road only can opposition be conciliated and unanimity reached. Then comes the final stage when the Association through its Representative Body declares its opinion, which must be that of the majority, although the Association has shown itself rightly averse to overriding a considerable minority, and has sometimes disappointed the more eager spirits by refraining for this reason from registering a decision which constitutionally it would have been fully justified in making.

It has been urged that the vote of the Representative Body may not always accurately represent the opinion of the Association. The grounds for this contention are mainly two: first, that owing to the failure of many members for various reasons to attend meetings at which they are elected and instructed, Representatives are not made fully acquainted with the views of their constituents, and secondly, that resolutions or amendments may be adopted by the Representative Body on points which have not been fully considered by the Divisions. That these difficulties might arise was foreseen, and the Constitution of 1902 contained a provision designed to protect the Association against the risk that a decision of the Representative Body might not correctly reflect the opinion of the whole body. The machinery provided was the simple expedient of empowering the Council to make a reference to general meetings of the Divisions, while subsequent amendments enacted that the Council should only make such a reference on the vote of a two-thirds majority, and that at least half its members must be present to form a quorum. It has been objected that this is not an effective Referendum, because the reference is not to the whole body of members, but to meetings of Divisions, which, like the original meetings when the Representatives were appointed and instructed, might not be attended by many members kept away by professional engagements, by difficulties of access, or mere indifference. A certain body of opinion within the Association desired that the reference should be by way of a postal vote, but to this many who have taken an active part in the work of the Association vehemently objected, mainly on the ground that only those who have shown an active interest in the administration and in the political activities of the Association have made themselves competent to express an opinion on such matters.

In consequence of the existence of these conflicting views the Representative Body at its last meeting instructed the Council to prepare a report on the questions of the Referendum by postal vote and on the arrangements generally for securing that the decisions of the Representative Meetings shall, as far as possible, accurately express the opinion of the Association. This duty the Council has discharged by the presentation to the Divisions of the report published in the SUPPLEMENT this week. This report contains definite expressions of opinion on three points. First the Council advises that the proper remedy for any defect in existing regulations operating to prevent a Referendum being taken when desirable, is not to reduce the proportion of the Council authorized to initiate a Referendum, but to provide an alternative—namely, by the action of a minority of the constituencies. It is therefore recommended that one-fifth of the total number of constituencies in the Association, including in their membership one-fifth of the aggregate membership of the Association, should have power to obtain a Referendum on a decision of the Representative Body. Secondly, on the question of how this Referendum should be taken, the Council advises that a postal vote is not expedient, since it is not advisable to facilitate a decision by the votes of members who have habitually exhibited no interest in the work of the Association. It is on the other hand recognized that circumstances may arise to prevent members who take an active interest in the work of the Association from attending meetings of the Divisions to which they belong. A member, for instance, who is in the habit of attending such meetings may be prevented by the claims of professional duty from being present at a special meeting at which a vote on a Referendum is being taken. Again, in sparsely populated districts, a member may find it impracticable to be absent from home long enough to attend a meeting except on rare occasions. To meet such cases the Council recommends that any member should have the right to inform the Central Office, on or before a certain date in the year, that in the event of a Referendum being taken during the ensuing twelve months, he desires to be empowered to record his vote, if necessary, by post.

The third point on which the Council makes a recommendation in this report has reference to the adoption by the Representative Body of amendments to motions which have been circulated to Divisions or of motions arising out of consideration of reports of the Council or Committees on which the Divisions have not had an opportunity of recording an opinion. This difficulty, it is recommended, would be met by giving to the Council a discretionary power to refer any such decision of the Representative Body to the

Divisions, and by giving to a minority of the Divisions —one-tenth is suggested—the power to require such a reference to be made.

These recommendations are now before the Divisions for their consideration, and to facilitate business the report concludes with a series of specific questions which can be answered by a simple "Yes" or "No."

## THE DEBATE ON VACCINATION.

DR. HILLIER has performed a signal service to the people of this country by raising the question of the increasing number of exemptions from vaccination granted to so-called conscientious objectors. His speech[1] in the debate on vaccination, which was fully reported in the last issue of the BRITISH MEDICAL JOURNAL, is in itself a proof of the need, in the interest of the public, of adequate representation of the medical profession in Parliament. Dr. Hillier may fairly be congratulated on his presentation of the case for vaccination, and the fact that his speech on so well-worn a subject was received with every sign of interest by a jaded House is a testimony to his success.

The bulk of the medical profession is so thoroughly convinced of the value of vaccination that it is perhaps somewhat too much disposed to look upon the whole question as a *chose jugée*. In a scientific sense this is true, but there are still unhappily not a few among the general public whom long security has made indifferent, and whose ignorance makes them liable to be led astray by the misstatements of a small body of disciplined agitators. We need not recapitulate Dr. Hillier's striking array of statistics showing the protection afforded by vaccination. We earnestly recommend our readers to study them for themselves, and we wish the speech itself could be, as is done in France in the case of utterances considered of particular importance, posted up throughout the country in public places where it might be read by every member of the public.

One of the most effective of Dr. Hillier's points was his reference to the experience of Germany. It may well, as Count von Porsodowski put it, be a matter of surprise, not only to Germans but to all civilized peoples, that we who gave the world vaccination should still keep small-pox. How utterly extinguished in their country the Germans believe small-pox to be is shown by the fact that in the preface to Henoch's classical treatise on diseases of children it is stated that a description of small-pox is superfluous, as "the disease is very rarely met with nowadays." The conclusion to be drawn from this receives strong confirmation from Dr. Bruce Low's statement that in Germany the provision made for the accommodation for possible small-pox patients is so scanty as to prove that the disease is regarded as almost a negligible quantity. This result is held to be wholly due to vaccination reinforced by a repetition of the procedure so as to ensure permanency of the protective effect.

Dr. Hillier pointed out that already 25 per cent. of the children of this country are unvaccinated. Each of these may be said to bear in itself the germs of a possible epidemic. Yet, in the face of this danger, exemption is being made easier, and the amount of fuel which an accidental spark may light into a terrible conflagration is steadily being heaped up. The position of the Local Government Board, which, in view of such a situation, folds its hands and declares that all is well, is indefensible. Dr Hillier does not ask for the re-enactment of compulsory vaccination. Its abolition will probably in time bring about its own punishment. But it is the plain duty of the Department which is the guardian of the public health to do all that is possible to delay the day of reckoning. Mr. Burns declines to be moved, "because in the last six months when lots of people have been panic-stricken about rat plague, Asiatic plague, small-pox, and measles in London the Local Government Board stuck to its job." The members of its staff have, he says, hunted measles like sleuth-hounds, with the result that there is a general decrease. All praise to the President of the Local Government Board. We venture to think, however, that the decrease of measles is to be accounted for by the gradual exhaustion of the combustible material. Such epidemics tend to burn themselves out. So, it may be said, does small-pox. But small-pox in an unvaccinated community, in its process of self-extinction, works such havoc as to make the price of protection too heavy. Antivaccinists refuse to accept the teachings of experience in the days before Edward Jenner. They say such things could not happen among us nowadays, because the whole conditions of life have been changed by "sanitation." Sanitation has, of course, done much; it has practically stamped out certain diseases and greatly reduced the prevalence of others. But there are yet others—and among them may be mentioned diphtheria and small-pox—which sanitation by itself cannot prevent, and which it can do little, except with the help of other measures, to control. The very success of vaccination as a prophylactic has, as is the case with all great reforms, tended to obliterate the proofs of its efficiency.

He jests at scars that never felt a wound.

As bearing on this subject we may quote a passage from Professor Osler's booklet *Man's Redemption of Man*:[2] "I do not see how any one who has gone through epidemics as I have, or who is familiar with the history of the subject, and who has any capacity left for clear judgement, can doubt its value. Some months ago I was twitted by the Editor of the Journal of the Antivaccination League for maintaining a curious silence on the subject. I would like to issue a Mount Carmel-like challenge to any ten unvaccinated priests of Baal. I will take ten selected vaccinated persons, and help in the next severe epidemic with ten selected unvaccinated persons (if available!). I should choose three members of Parliament, three antivaccination doctors, if they could be found, and four antivaccination propagandists. And I will make this promise—neither to jeer nor to jibe when they catch the disease, but to look after them as brothers; and for the three or four who are certain to die I will try to arrange the funerals with all the pomp and ceremony of an antivaccination demonstration."

Professor Osler may, perhaps, be supposed to know as much about disease in general and small-pox in particular as Mr. Burns, and we venture respectfully to direct the attention of the right honourable gentleman to this challenge. While giving it consideration, the President of the Local Government Board would do well to act on the suggestion of Dr. Hillier, ably supported by

[1] BRITISH MEDICAL JOURNAL, April 22nd, p. 955.

[2] London: Constable and Co., 1910, p. 43.

Mr. Forster, one of the Unionist whips, and by Dr. Chapple, who sits on Mr. Burns's own side of the House, not to be content with sending out a form which is capable of being construed as a virtual invitation to seek exemption, but—without any attempt to do violence to "conscience"—to affix the seal of an official approval to vaccination which shall encourage parents to have their children protected against the most certainly preventable of all diseases.

## THE FRIENDLY SOCIETIES' MEDICAL ALLIANCE.

THE Friendly Societies' Medical Alliance is evidently feeling what it regards as the antagonism on the part of the medical profession to medical aid associations rather acutely, and at its annual conference held last week at Bradford, which was said to represent half a million members, some strong remarks were made as to the action of the British Medical Association and especially as to the attitude of practitioners in certain districts.

The President of the conference referred to the trouble between the medical officers of the alliance and the practitioners of Sheffield, and said that considerable attention had been given to the matter by their solicitor. He also said that at Chesterfield local practitioners had declined to attend patients recommended to the hospital by the doctors of the alliance. The annual report referred to the fears of a year ago of a desperate struggle with the "British Medical Council," by which apparently was meant the Council of the British Medical Association. The honorary solicitor reported on the Sheffield dispute, and stated that a medical man belonging to the British Medical Association had suggested that the class of medical men who would accept work from medical aid associations consisted of doctors who had failed elsewhere and young beginners who wished to make a start in life by experimenting on the members of the associations, statements which were received with some laughter by the meeting. He said that the alliance would have to stand by its doctors, who were chosen with great caution and were men of good qualifications. He added that the point had been referred to the General Medical Council, which replied that before a complaint could be considered it must be embodied in a statutory declaration; the matter had not been carried further. A resolution was passed empowering the Council to bring any future case before the General Medical Council and to pay all expenses out of the defence fund. A further resolution was proposed that the Council should prepare a list of consulting physicians and surgeons who were willing to render services to any associations unable to obtain consultations with such specialists in their respective districts; it was stated that the majority of places suffered from the ostracism by consulting surgeons of members of medical associations. The proposal was defeated, as it seemed to be thought that the publication of such a list of consulting physicians and surgeons would not be in the interests of the medical aid associations. In the course of discussion reference was made to the establishment in some districts by ordinary medical practitioners of a competitive system of medical service, said to be "on the lines of that provided by the medical aid assurance." The latter part of this statement is, of course, altogether mistaken, as the medical profession is wholly opposed to the "lines of the medical aid assurance," but it was suggested that the way to meet this movement was for the alliance to improve its own service of medical aid. It was also said that if it could only be ascertained definitely what the medical men required from the alliance, a round table conference of a dozen people could actually settle the matter once for all, and the alliance would be permitted to continue to work in perfect harmony with the medical faculty.

It is perfectly easy to say what the medical profession requires in this matter; its attitude has been explained repeatedly, and the assumption of ignorance as to what is desired is somewhat amusing. To put it shortly, the profession demands that it should be allowed to manage its own business, and it resents the interposition between patients and medical attendants of middle men like the Medical Alliance. The exploitation of the profession by these associations is intolerable. The salaries offered are miserably low—barely a living wage—and the number of patients assigned to the medical officers is often far more than can be properly attended to. The lay committees are often ready to lend sympathy to every trivial complaint of patients, so much so that to be at all strict in opposing malingering is often as much as a doctor's position is worth. Further, although touting for members may be and often is disowned and forbidden by the associations as such, in actual practice touting for members is extensively carried on by collectors and officials in numerous subtle and insidious ways that cannot be controlled, but which the associations seem to find necessary if they are to be what they regard as successful. This being the case, every medical officer is practically at the mercy of the collectors and officials, who do not understand that there can be anything wrong in obtaining as large a membership as possible by methods which may be perfectly correct in other societies, but in which the medical profession is forbidden to participate, and from which it must not derive profit. Moreover, a considerable number of members of the associations are well able to pay ordinary medical fees. Any theoretical wage limits or other so-called limitations of membership are often little more than a farce, and it is the almost universal feeling in the profession that where a medical aid association is at work, the local practitioners are being deprived of patients, whom they might legitimately expect to attend at fees customary in private practice in the neighbourhood. So long as this is the fact there cannot be any wonder that any medical man who gives his services to such an association is not regarded with friendly feelings by the profession in general. We say nothing about any particular instances referred to in the conference, as there are proper tribunals before which any case may be inquired into and dealt with according to its merits.

As a general rule medical aid associations illustrate in an aggravated form every abuse which is connected with contract practice, especially the underselling of other practitioners; as was stated in evidence before the Royal Commission on the Poor Laws about the friendly society medical club system in general, "it means a sweating of the medical profession on the one hand and a perfunctory and inefficient performance of duties on the other hand." From the public point of view we would lay the utmost stress on the fact, insisted on by the Minority Report of the Royal Commission, that the contract medical practice of the friendly societies as a rule has a distinctly

adverse influence on the public health, and this applies in an aggravated way to the great majority of the medical aid associations.

## ELECTION OF DIRECT REPRESENTATIVE.

AT the time we go to press four candidates have been nominated for the seat on the General Medical Council rendered vacant by the lamented death of Dr. McManus, who was elected a Direct Representative in 1907, and as the last day for the receipt of nomination papers is this day—Saturday, April 29th—it seems improbable that any other candidates will come forward. As already announced, Dr. J A. Macdonald has responded to a widely-expressed wish by consenting to become a candidate on this occasion. Dr. Macdonald, in his address to the registered medical practitioners of England and Wales, published in our advertisement columns this week, lays special stress on the educational aspects of the work of the General Medical Council, on the need for reform of the Medical Acts, and on the importance of the General Medical Council being in a position to ascertain the views of the medical profession and adequately express them to the Privy Council and the Legislature. Dr. Macdonald is well known to members of the British Medical Association, for he has been chairman of the Representative Body, and chairman of the Medico-Political Committee, and is now chairman of the Central Council and of the Special Poor Law Committee. Dr. Macdonald is himself a general practitioner, who has been in practice at Taunton, Somersetshire, for many years, and during his long and varied services to the British Medical Association he has had unrivalled opportunities of making himself acquainted with the needs and aspirations of the profession in all parts of the country. Mr. George Jackson, F.R.C.S., who served one term on the Council from 1902–7, is again a candidate. His views are expressed in the address which was published in our advertisement columns of April 22nd. The candidature of Dr. Hawkyard, the President of the Leeds and District Medical Practitioners' Association, is commended in a letter from the Honorary Secretaries of that association published elsewhere (p. 1004), and his address is published in our advertisement columns of this week. Dr. S. C. Lawrence, who also publishes his address in our advertisement columns of this week, is Medical Officer of Health for Edmonton, one of the northern suburbs of London, and is an active member of the Society of Medical Officers of Health and of the Society of Members of the Royal College of Surgeons of England. Another election must take place at the end of this year when the terms of office of Dr. Langley Browne of West Bromwich, and Dr. Latimer of Swansea, will expire, and when the Order in Council issued in August, 1909, conferring on the registered practitioners of England and Wales the power of returning an additional member to the Council, will come into operation.

## METRIC PRESCRIPTIONS.

AMONG the reports by the Council to the Divisions published in the SUPPLEMENT this week is one relating to the use of the metric system in the prescription of drugs, drawn up in response to a request made at the Annual Representative Meeting in 1908. After setting forth briefly the advantages to be expected if the medical profession in these islands conformed in this matter to the practice of the Continent, and after stating that complete uniformity is hardly to be expected until the present generation of practitioner has been succeeded by men taught dosage on the metric system in the schools, the report puts forward a transitional procedure which would at once introduce many of the advantages of the metric system of prescribing and also render completion of the change, if deemed desirable, exceedingly easy at a later date. Fully to appreciate this procedure, which has been worked out by Dr. Buist, the report itself must be studied, but the main principles which seemingly underlie it may here be stated. A mathematically precise translation of British weights and measures into their metric equivalents is not necessary, for however carefully the dose of any drug to be taken by the mouth may be prescribed, the precise amount the patient takes will always vary when the drug in question forms part of a mixture administered in tablespoonfuls or the like; for such quantities when poured out are never precisely the same. Hence, translation is sufficiently accurate if the factor of multiplication both for grains and minims be taken as 16 instead of 15.4324 in the case of grains into grams and 16 906 in the case of minims into cubic centimetres. The second principle is that the amount to be given shall, as now, be thought out by volume in the case of fluids, by weight in the case of solids, and shall be the amount for a single dose, and not, as in France, the quantity for twenty-four hours. The third is that when a mixture is prescribed the quantity ordered to be taken on each occasion shall, when multiplied by 16, make up either 2 oz., 4 oz., or 8 oz. The fourth is that in writing a prescription no symbols of any kind shall be used, the amount of each constituent desired to be contained in a single dose, including the water or other solvent, being indicated merely by a figure (which in the prescriber's mind indicates minims or grains), and that the dispenser, when faced by such a symbol-free prescription, shall understand that he is to dispense it on the metric system. In this case the result of his work will be either a 2 oz, a 4 oz., or a 16 oz. mixture, which, though dispensed on the metric system, will nevertheless contain in each dose the amounts that the prescriber has thought out in grains and minims. With regard to pills and powders, the procedure is somewhat different. In this case the prescriber takes 0.06 as the equivalent of a grain, and when writing the dose for a single pill or powder writes, when he would otherwise write 1 grain, simply .06 without any symbols whatever, or, if he wishes to prescribe less than a grain, divides .06 accordingly (for example, ½ grain would be .06 divided by 2, or .03; while ¼ grain would be .06 divided by 4, or .015), again using no symbols. He also takes care that the total number of pills he orders is a multiple of 10. The dispenser then makes up the number of pills required on the metric system by moving the decimal point one place to the right. The transitional procedure thus indicated is by far the most ingenious and yet simple and practical method of introducing the metric system that we have yet seen suggested, and it is to be hoped that the medical profession will give it the attention it thoroughly deserves.

## WALL-PAPER AND ILLUMINATION.

THE modern eye specialist and illuminating engineer would think slightingly of Cowper's preference for faint illumination:

> Not undelightful is an hour to me
> So spent in parlour twilight; such a gloom
> Suits well the thoughtful or unthinking mind.

Nevertheless, there is a considerable difference of opinion among experts as to the key at which interior illumination should be pitched and the modifications it is desirable to introduce by means of wall-paper, ceiling and floor covering of particular tints. In the

United States white wall-paper is used very largely, and undoubtedly effects an economy in lighting, but Mr. Haydn Harrison, M.I.E.E., in a paper read before the Illuminating Engineering Society on April 24th, expressed the opinion that white wall-paper as a complement to white light had a peculiar and unfortunate effect, which was rather psychological than physiological. A room with dark-coloured surroundings might be more satisfactory than a room with surroundings of a high luminosity which tended to cause continuous contraction of the pupil, and ultimately to produce a trying effect upon the retina. But in this respect the position of the illuminating engineer was, he said, like that of the physician who had to study the idiosyncrasies of patients. Different effects suited different people. Few men cared to study or dine in a room where the light emanated from all sides, and where the iris was kept constantly contracted by the high luminosity of the surroundings. On the other hand, many of the opposite sex preferred this wholesale illumination, owing, he fancied, to a desire to exhibit themselves and their costumes. In the discussion, however, another lighting engineer said that in his experience ladies preferred dim illumination in boudoir and drawing-room, on the same principle as they wore veils—namely, to leave something to the imagination. It was men rather than women who insisted on over-brilliant lighting. The discussion on the wall-paper point resulted in little that was definite. Some tests carried out in a small room hung with differently coloured papers and having a white ceiling and lamp without reflector were described by Mr. V. H. Mackinney, and proved that with a dark green paper more than double the illuminating energy was required in order to obtain the same flux of light on the working plane—that is, the table plane—as in the case of a white-walled room. With red paper the demand for compensatory lighting was scarcely less than in the case of dark green, but with light green the necessary increase was only about 40 per cent. In some similar experiments conducted by Mr. Haydn Harrison, dark green was found to have the lowest reflecting value of the colours chosen, while light green was at the other end of the scale, and intermediately, in the order given, were dull cardinal red, medium blue, bright red, and light blue, this last, however, being considerably behind light green. Mr. P. J. Waldram, who also read a paper on the subject, pointed out the foolishness of buying light in order to feed the rapacious appetite of dark-red and olive-green papers; he contended that it was not wise to consider the working-plane illumination as a criterion of the illumination of the whole room. Every one unconsciously judged a room by its walls, and the light reflected by the walls and ceilings had a psychological effect upon those who used it, which neither the lighting expert nor the architect could afford to disregard. The increase of flux of illumination on walls by reflection tended to vary from between 50 and 70 per cent. with white wall paper, down to between 20 and 30 per cent. with very dark papers. So far as any general opinion could be gathered from the discussion, it appeared to favour a light green wall paper for most purposes.

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## NERVOUS DYSPEPSIA AND THE STOMACH TUBE.

IN the *English Review* for April is an article, entitled The Stomach Pump, by E. U. Pepsia, which illustrates the extraordinary fancy people have for discussing their digestive difficulties in print. Like the ancient Romans, the writer has discovered that it is easy to get rid of his gastric embarrassment by the simple method of emptying the stomach, but he prefers doing so by means of the stomach tube instead of the more primitive emetic. He says that, like most Englishmen, he used to take a good deal of exercise and implies that he lived generously. At 40 he weighed 13 st. and began to suffer from indigestion; his sleep became fitful, and he was told that his symptoms pointed to gout; he was advised to leave off tobacco, port, and champagne; he stopped smoking and became a total abstainer, but, instead of getting better, he grew worse. He changed his medical adviser and gave up game and pastry; another physician stopped soup and fed him on fish and "vegetables," but forbade potatoes, salads, and pastry. In spite of all this, his indigestion grew worse; he now weighed 14 st. He tried "everything from London to Berlin," and all kinds of diet from vegetarianism to beefsteaks and hot water. One day his doctor told him of the stomach pump, and is credited with the recommendation that "it will wash all the uric acid out of the stomach"; he explained the method of emptying the stomach by means of the stomach tube. The author was more frightened than impressed, but promised to try it some day. One day he found salvation, and he tells us how it happened: "I had a good walk before lunch, I remember, and did myself rather well at lunch; just as I was finishing the sweet, bad news came to me; *I am a highly-strung man, and it brought about a fit of nervous indigestion;* at 5 o'clock I was really ill; I wired to the doctor that I would come to him at 6 o'clock and use the stomach pump." He went and his stomach was duly washed out. For the result he fails to find words; he says, "The stomach pump is a beneficent magician; I felt quick and vigorous as I had not felt for years." He thereupon started to wash out his own stomach daily, and he claims by this means to have established a scientific dietary for himself. We understand him to mean that when he washed out his stomach he saw what food had become little or not at all changed, and regulated his diet accordingly. The final result was that he was reduced to 11 st. in weight. He could walk well, needed no medicine, and suffered from none of his old symptoms. It is eleven years since he began the use of the tube—at first daily, but now once or twice a week. It is hardly credible that eleven years ago the author could have consulted so many physicians, especially in Germany, without having his stomach washed out; but it is not uncommon to meet with persons who attach an exaggerated value to the use of the tube, and, having learnt to use it for themselves, employ it for the slightest discomfort. The key to the case is to be found in the words we have italicized.

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## FELT MANUFACTURE AND ANTHRAX.

THREE reports recently issued by H.M. Chief Inspector of Factories are of considerable interest. Two of them, by Mr. H. Verney, one of H.M. Inspectors of Factories, describe the preliminary processes in the manufacture of felt, and the possibility of eliminating blood-stained material in its preparation. The third, by Dr. Eurich of Bradford, compares the felt trade of Rochdale and district with the worsted industry of Bradford, so far as the danger from anthrax is concerned. Mr. Verney's description of the manufacture of felt is very interesting. The raw materials used are chiefly East Indian wool and some Cape wool, jute, noils, and wool waste. A "mixing" is made of the various ingredients by placing them in superimposed layers on the floor. Low grades of East Indian wool are used, and as this material is tightly compressed, it has to be pulled apart with considerable force. In doing this some of the dust escapes, and as this may contain the spores of anthrax there is

some danger in the process. The "mixing" having been built up to the required height is pulled off from top to bottom, so that each skipful contains the due proportion of every layer. The "willow" then tears the fibres apart, and in this process a cloud of dust is driven into the face of the attendant. What is required is a willow with an automatic feed and delivery. The material goes through further teasing in a machine called a "devil," and it is then carded, a process which straightens out and cleans the fibres. Even in carrying out the latter processes dust and short dusty fibres are produced. To make the processes safer for the workers an improved type of willow and the provision of overalls and respirators are necessary. Mr. Verney draws attention to the fact that (1) there is no sorting in the felt trade; (2) the wool has been washed or scoured previously to manipulation; (3) much of it is of a dark colour. It appears to be almost impossible to eliminate blood-stained material from East Indian and Cape wool when used for the manufacture of felt. The fellmonger appears to be in a much better position to eliminate infected material than the felt manufacturer. Fallen skins are those most frequently infected. Dr. Eurich, in his report, compares the felt trade and the worsted industry of Bradford, so far as the danger from anthrax is concerned. He thinks it highly improbable that a material risk attaches to the fleeces of slaughtered sheep. But the case is different with the fallen fleece, for here there is a risk of conveying anthrax, although it is impossible to gauge its degree. He discusses methods of combating the danger. The first would be the rejection of all fallen fleeces by the fellmonger. This would mean a loss of 10 to 15 per cent. of imported fleeces, and an enhanced price for Cape skin wool, which might make the manufacture of the felt commercially impossible. In the second place, with regard to trimming, it is pointed out that these fallen fleeces are not blood-stained at the neck portion only. An inspection of all parts of the fleece would be necessary, and faecal masses would also have to be removed. This process would lessen but not completely remove the danger. In the third place, disinfection of the fallen fleeces would be easier than in the woollen trade, as time is not of such moment. It should be possible, without impeding the fellmonger's work, to prelude the usual series of processes by a bath in some disinfectant for twenty-four hours. Sorting, as carried on in the Bradford trade, is much more difficult and less useful when applied to the felt trade. A systematic search for tainted material could be effected only by carefully looking over the contents of each bale before, and not while, being distributed on the pile; but it is doubtful whether the felt industry would bear the increased price of manufacture which would result from carrying out this process.

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## A DAINTY DEVICE OF TERMINOLOGY.

JULIET must be excused on the ground of her youth and inexperience for her famous question, "What's in a name?" Had she lived in these days and taken a degree in medicine, she would have learnt the important part that names play in the science and art of healing. Doctors are somewhat apt to think that when they have given a name to what may be nothing more than a fortuitous concourse of symptoms, they understand the disease. Names are too often cloaks for ignorance, but such cloaks are sometimes very convenient. How often has a name pacified an anxious patient or his relatives The classical example is that of an erstwhile celebrated physician called—very unwillingly, it should be said—into counsel by the doctors of a wealthy patient whose wife was importunate in her wish to know what her husband was suffering from. He had Bright's disease, but the doctors did not wish the ugly name to be mentioned. The lady, however, like Arthur Clennam at the Circumlocution Office, "wanted to know." To her cross-questioning, the oracle solemnly replied, "Madam, your husband has a cachexia." "There," she said, turning in triumph to the other doctors, "I knew Sir Thomas [that was not his name but 'twill serve] would tell me!" The medical profession at least cannot afford to give up compulsory Greek. This is the moral of a story told of a great French surgeon—said by the *Chronique Médicale* to have been Péan, but that is an unessential detail. At the beginning of his career the surgeon was one day summoned to attend as doctor at a duel. One of the combatants—whose courage, like that of Bob Acres, leaked out at his fingers' ends when he found himself on the field of honour—began to tremble in all his limbs. His seconds tried to screw him to the sticking point; but at the first encounter, acting on the principle that

> He who fights and runs away
> May live to fight another day,

he threw away his weapon, and fled from the field. The four seconds, his opponent, and the young doctor were half amused, half embarrassed at the unexpected situation. Suddenly a solution was found by the surgeon, who said: "I know the complaint that has suddenly seized that poor young man." Taking out a pocket-book he, with perfect gravity, forthwith drew up the following report: "At the first encounter M. X———, being seized with a paroxysm of irrepressible *tachypodia*, the seconds, after consulting with the doctor, stopped the duel." This doughty champion might have comforted himself by reversing the famous message attributed to Francis I, after his defeat at Pavia, and saying *Rien n'est perdu fors l'honneur*. But, by a dainty device of Greek-born terminology, the ingenious surgeon saved even his honour.

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## PATHOLOGICAL MUSEUM OF THE ANNUAL MEETING.

FROM the announcement made in the SUPPLEMENT of this week it will be seen that a committee has been appointed, with Dr. R. F. C. Leith, Professor of Pathology and Bacteriology in the University of Birmingham, as chairman, to organize a pathological museum in connexion with the Annual Meeting in Birmingham next July. It is proposed to arrange the material under four heads: (1) Exhibits bearing on discussions and papers in the sections, (2) specimens and illustrations relating to recent research work, (3) instruments relating to clinical diagnosis and pathological investigation, and (4) individual specimens and series of special interest. The museum will occupy a central position in the same building as that in which the sectional work will be carried on, and will therefore be easy of access. Further information can be obtained from the Honorary Secretary, Mr. A. W. Nuthall, F.R.C.S., 89, Cornwall Street, Birmingham.

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## MEASURES AGAINST MALARIA.

THE measures by which malarious districts may be rendered practically innocuous to their inhabitants are now so well known that it might have been supposed that the proprietors of secret remedies would regretfully conclude that this field of enterprise was unhappily closed to them. It appears, however, that

this is not the case. From a number of documents which have reached us it is obvious that mine managers and other like persons in South Africa are being ardently invited to employ "Maningo" for the protection of their workers and live-stock against insect-borne diseases and for the cure of such diseases, or alternatively as a marvellous healing agent in rheumatism, eczema, asthma, bronchitis, etc. Some of the statements made about it are as quaint as any of those included in *Secret Remedies*, which is saying a good deal. The method of its action is, of course, set forth, and the fact that this is somewhat reminiscent of the House that Jack Built does not make it less attractive. Maningo, when taken into the body, creates an acid, and the acid destroys the parasites inoculated by insects, and these killed parasites are excreted through the pores of the skin. Meantime, the industrious acid is likewise making its way to the surface of the body. From this it is given off as a gas of such kind that no self-respecting mosquito or other insect will remain in its vicinity. Hence people who take maningo are not only cured of their existing infection, but are protected from reinfection. Of course, too, there are plenty of testimonials. The writer of one, indeed, admits that while taking maningo he suffered from malarial fever, but with the customary enthusiasm of secret remedy takers writes this down as clear evidence that the remedy was engaged in driving out the virus from his system. The true humour of the situation only becomes evident when on qualitative analysis maningo is found to consist not of sugar and spice, and all things nice, as are some of its congeners, but of sugar and starch, together with a good deal of sulphur and some iron and quinine. This being the case, it would constitute a laxative tonic of a common everyday type, and as such might be expected to do some good in certain cases of debility or of simple anaemia. On the other hand, to learn that it is not only curative of malarial fever, but that a person who takes it regularly becomes after a fortnight totally immune to malaria, sleeping sickness and elephantiasis, is indeed surprising. On the whole, therefore, one would be disposed to believe that mine managers and others in South Africa would find it much cheaper and far more effective to combat malaria by contributing in reasonable proportion to the expenses of crusades having as their object the abolition of mosquito breeding centres and preventing mosquitos biting human beings, and by imposing on their employees, when so counselled by their medical advisers, the duty of taking 5 or 6 grains of quinine regularly two or three times a week. Measures of this double kind have been found effective wherever thoroughly tried, and should prove not less satisfactory in South Africa than elsewhere. Indeed, in a certain number of Transvaal mining areas there is already experience of the benefits of a mosquito crusade. The cost of a 5-grain dose of quinine is nowadays, it may be mentioned, less than half a farthing.

## A MEDICO-LEGAL INSTITUTE.

THE foundation of a medico-legal institution in Paris was announced in the JOURNAL some years ago. Owing to various causes, however, the scheme has never been fully realized. Now the State and the city of Paris have come to an agreement on the crucial question which has been the chief stumbling-block, and the problem of the adjustment of financial responsibility has been solved. The new institute will be erected in the Place Mazas (Pont d'Austerlitz), and will comprise three distinct departments: (1) An administrative service, for the reception and identification of bodies, which will be housed in much more suitable quarters than those of the existing Morgue. (2) A service of autopsies and investigations ordered by judicial authorities; for these three *post mortem* rooms and one medico-legal laboratory will be provided. (3) A department for the teaching of medical jurisprudence; this will comprise a lecture room accommodating 200 students, a toxicological laboratory, an installation for animals used for experiments, a museum and a library. The institute will also comprise laboratories in which scientific investigators may, with the permission of the Vice-Rector of the University, make researches.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

### The Asylums Officers (Employment, Pensions, and Superannuation) Bill.

On April 21st Viscount Wolmer moved the second reading of this bill, which he described as non-contentious. It applied to a limited class of people —30,000 in all—who had to perform arduous, responsible, and extremely distasteful duties. All the clauses except one were intended to remedy minor defects which experience had shown existed in the Asylum Officers' Superannuation Act of 1909. The most important clause was the first, which limited the hours of work of asylum officers to sixty per week. He could only compare the strain upon an asylum attendant to that upon a man driving a swift motor car. It was a moral wrong that a man or woman should be called upon to work thirteen hours a day under such arduous conditions. Provision was made in the bill that no attendant should be permanently dismissed without having had an opportunity of bringing his case before the visiting committee. The arrangements as to pensions would secure that in future every man would receive his pension according to the position to which he had succeeded in working up. The question naturally arose whether the bill would have the effect of increasing the rates. The pension part of it would not have this effect, but the limitation of hours would involve some slight increase in the rates. He did not think, however, that they should practise economy at the expense of the flesh and blood of their employees.

Sir Frederick Banbury moved the rejection of the bill, on the ground that it was undesirable to limit the hours of adult labour, but he found no seconder.

Mr. Masterman (Under Secretary, Home Office) said a case had at least been made out for investigation. There was no doubt that asylum officers had a particularly trying duty to perform, and they had continual responsibility. They had, of course, many opportunities for recreation and fresh air during the hours of labour which were not given, for instance, to miners and shop assistants. But when every allowance had been made for those partial stretches of recreation or relaxation, their hours were really too long, and if they could be reduced without undue expense to the local authorities they certainly ought to be reduced. When, however, the House went beyond those general considerations they were dealing with points on which they had no data which would enable them to make up their minds. The promoters of the bill were unable to give them any estimate of its cost. The House was asked to impose upon the local authorities an indefinite amount of increased expenditure without giving the local authorities an opportunity of supporting or rejecting the scheme. That being so, he would strongly urge that the bill should be sent to a Select Committee, so that evidence could be taken and the attitude of the local authorities could be ascertained. If Viscount Wolmer would accept that suggestion, the Government would support the second reading of the bill.

Mr. Swift accepted the proposal to refer the bill to a Select Committee. Mr. Rawlinson criticized the

drafting of the bill, and Dr. Addison supported this criticism, and urged that licensed houses were in much more need of attention than large public asylums. He controverted the views expressed as to hours of labour, and supported the proposal of the bill to limit the hours to sixty per week. He supported the bill generally, and especially its reference to a Select Committee. After several others had spoken the closure was moved at 2 minutes to 5 and carried by 105 to 3, and the bill was read a second time and referred to a Select Committee. The progress of the bill will depend largely on the extent of the inquiry made by the Select Committee, but in all probability there will be no legislation this session.

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**Control of the Feeble-minded.**—Mr. James Parker asked the Home Secretary what action it was proposed to take on the report of the Royal Commission on the Care and Control of the Feeble-minded; and whether he would consider the possibility of introducing a bill embodying at any rate some of the recommendations contained in the report. Mr. Churchill replied that he was most anxious for action in this field; and work preparatory to legislation was proceeding. He was not wholly without hope of being able to introduce a bill this session, but only universal goodwill could carry it forward into law.

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**Vaccination Fees for Parents.**—Mr. Lansbury asked on Tuesday if a public vaccinator in Bermondsey paid 2s. to the parent of every child taken to him for vaccination; and if Mr. Burns would recommend the Bermondsey Board of Guardians to reduce the fees paid to public vaccinators in that union. Mr. Burns replied that one of the public vaccinators in Bermondsey was also a teacher of vaccination authorized to give certificates of proficiency in vaccination to persons who might afterwards become public vaccinators. He understood that he made some payments to the mothers of children who brought them for vaccination to the classes which he held for the instruction of students. He did not see any sufficient reason for recommending a reduction of the fees paid by the guardians to the public vaccinator.

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**Vaccination in India.**—Mr. Chancellor asked the Under Secretary for India a long question tending to show that the badly vaccinated provinces suffered less from small-pox than the well vaccinated provinces, and that the mortality among Indian children from small-pox was less in the badly vaccinated provinces than in the well vaccinated districts, ending up with a request for a Commission to investigate the value of vaccination in India. Mr. Montagu answered that he had seen the articles in the *Vaccination Inquirer* to which apparently his hon. friend referred, but he could not accept their representation of the facts, and did not consider that a case had been made out for appointment of a Commission or alteration of the law. Vaccination was optional over by far the greater part of British India, including 93 per cent. of the population.

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**Education (Provision of Meals) Act Amendment Bill.**—On Wednesday in last week Mr. Jowett introduced this bill to remedy a defect in the Act of 1906 and to make meals to be provided during holidays. He said that in Bradford there was a remarkable deterioration in the condition of the children during the school holidays, and he exhibited a chart showing how a decrease of weight occurred at each successive holiday period, which the children rapidly regained when the holidays were over and the meals were provided. He calculated that in many families there was only a sum of 1s. 9¾d. per head per week for all household requirements when rent was paid. Taking the figures of Bradford, it appeared that there were some 250,000 children in the urban population of the kingdom for whom free meals continuously were a necessity for healthy growth. The bill is backed by Mr. Ramsay Macdonald, Mr. Arthur Henderson, Mr. Barnes, Mr. Clynes, Mr. Keir Hardie, Mr. Lansbury, Mr. Crooks, Mr. Enoch Edwards, Mr. George Roberts, and Mr. Parker.

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**Milk Standard.**—Mr. Orde-Powlett called attention to recent decisions in the North-Eastern Counties whereby the presumptive standard of the Sale of Milk Regulations had the effect of making it an absolute standard, to the great hardship of the farmers in a district in which scientific experiments and general experience showed that milk tended from time to time to fall below such standard. Sir E. Strachey said that his attention had been called to the case, but so far as could be gathered from the newspaper reports, the decision of the Recorder did not put any new interpretation upon the law. The Board was making inquiry as to the administration of the Food and Drugs Acts in relation to milk generally, but until further information was available it did not see its way to adopt the suggestion of suspending the Sale of Milk Regulations, 1901, pending a full inquiry.

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**Army Meat Supply.**—Mr. Charles Bathurst again called attention to the supposed extraction of meat juice from meat previous to chilling, and asked on what authority it was stated that the nutritive value of chilled beef and home-killed meat was the same. Colonel Seely replied that the view entertained at the War Office was based on a report of a scientific investigation by Samuel Rideal, D.Sc., London, published in 1907. The extraction of juices from the meat previous to refrigeration was a process of which there was no knowledge in the War Office, and he was informed that if such process did take place the carcass would bear such signs of it as to render detection certain on ordinary inspection. In answer to further questioning, he said that he did not think it was necessary to inquire from our Ambassador at Washington on a technical point on which the experts probably were better informed.

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**Gun Deafness (Royal Navy).**—Mr. Fitzroy asked the First Lord of the Admiralty whether he was aware that gun deafness was prevalent among both officers and men of the navy; and if he would issue an order from the Admiralty making it compulsory on both officers and men to wear some form of ear protection when gun-firing is taking place on board ship. Dr. Macnamara said that cases of gun deafness undoubtedly occurred, but there were no grounds for attributing any considerable number of invalidings for disease of the ear to the effects of gun fire. Protective material was already provided and could be drawn by ships. The use of cotton wool, a supply of which was always to hand, as a protective material was now so general that it would appear to be unnecessary to issue the order suggested.

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**Plague in India.**—In answer to Mr. Morrell, who asked as to the deaths from plague in the provinces of Oudh and Agra in February and March, Mr. Montagu said that the number returned for February was 43,508, and for March 95,884. The measures that were being taken were described in a statement recently made in the Legislative Council of the United Provinces, copy of which he should be happy to show the hon. member. Reliance was mainly placed upon evacuation of dwellings and inoculation, together with rat destruction and disinfection of houses. Asked further if the disease was not preventable and unknown before 1900, Mr. Montagu replied that it was recrudescent and it was viewed very seriously by all those scientific and other authorities who were hopeful of a permanent diminution in cases of plague. Every effort was being made to stamp out the disease, and he did not think it would be necessary to postpone the Durbar celebrations.

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**Phosphorus Matches in India.**—Mr. Montagu informed Viscount Wolmer last week that he did not expect that a bill to prohibit the manufacture, sale, and importation of matches made from yellow phosphorus, could be introduced until the Legislative Council assembled at the end of the year.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## POST-GRADUATE CLASSES AT THE GLASGOW ROYAL INFIRMARY.

THE programme of these classes which appeared in our advertisement columns on April 8th, page 56, was very full, and all the more practical developments of general and special medicine and surgery are receiving due attention. During the last seven years these classes have proved very popular, and have attracted graduates both from home and abroad, the annual attendance being on several occasions close upon 100. At the Royal Infirmary the facilities for teaching and learning are exceptionally good on account of the large number of patients attending both the indoor and outdoor departments, and year by year the increase has been on a vast scale. The staff of the hospital have taken great interest in these classes, and have made it a special object that the instruction be as practical as possible. The following course has been arranged to begin at once, and another has been fixed for September.

*Clinical Medicine.*—Walter K. Hunter, M.D.
*Clinical Surgery.*—John Barlow, M.D., and Henry Rutherfurd, M.B., C.M.
*Diseases of the Urinary Organs.*—David Newman, M.D.
*Diseases of the Bladder.*—A. G. Faulds, M.B., C.M.
*Clinical Examination of the Urine.*—John Henderson, M.D.
*Gynaecology.*—(*a*) G. Balfour Marshall, M.D., and (*b*) A. G. Banks, M.D.
*Diseases of Throat, Nose, and Oesophagus.*—John Macintyre, M.B., C.M.
*Diseases of the Ear.*—J. Kerr Love, M.D.
*Diseases of the Eye.*—John Rowan, M.B.
*Diseases of the Skin.*—Alex. Morton, M.A., M.D.
*Diseases of the Throat and Nose.*—Robert Fullerton, M.D.
*Asthma and Related Nasal and Pulmonary Conditions.*—James Adam, M.A., M.D.
*Venereal Diseases.*—A. N. Macgregor.
*Electro-Therapeutics.*—James R. Riddell, F.R.F.P.S.G.
*Vaccine-Therapy and Opsonic Technique.*—J. A. Campbell, L.R.C.P., etc.
*Immunity.*—E. T. Fraser, M.D.
*Anaesthetics.*—John Donald, M.D.
*Bacteriology.*—David McCrorie, L.R.C.P.

It will facilitate arrangements if those desirous of joining any of the classes will communicate with Dr. Maxtone Thom, Superintendent, who will supply any information desired.

## THE KING EDWARD MEMORIAL.

At the meeting of Glasgow Town Council held on April 13th a report was submitted by the Council representatives to the meeting in Edinburgh; at this they found themselves in a minority, the majority of those present being in favour of the Holyrood improvement scheme, as against a crusade against consumption. The report submitted by the representatives suggested that the Lord Provost of Glasgow should convene a meeting of town and county councils to consider the subject. The representatives stated that the Edinburgh meeting consisted largely of private citizens who represented no public body, and that on analysis of the list of actual delegates they were equally divided on the merits of the respective schemes. No opportunity for discussing these merits was permitted, and they practically recommended that the question should be discussed by representatives all over again. After a very full discussion, during which it was evident that the consumption crusade had the support of the majority of the members, the report was adopted, suggesting that the Lord Provost take the initiative in calling a new and representative meeting to discuss the whole question. Sir Thomas Glen Coats, Bart., the Lord Lieutenant of Renfrewshire, convened a meeting last week for the purpose of forming a committee to give effect to the resolution of the county meeting that a fund should be raised to be applied towards the prevention and treatment of tuberculosis and the establishment of a central research laboratory. A representative committee was appointed, to include representatives from the County Council and districts, the Town Councils of Greenock and Paisley, and various other bodies. The county medical officer and medical officers from districts and towns were also included.

## ASSOCIATION OF SCHOOL MEDICAL OFFICERS FOR SCOTLAND.

The first meeting of this Association was held in the offices of the Govan Parish School Board, Glasgow, on April 8th. Dr. Ernest T. Roberts was in the chair, and there was a fairly large and thoroughly representative attendance of school medical officers. The constitution of the Association was finally approved, and it was decided in the meantime to proceed as a separate and distinct association and not to seek affiliation with any existing society. The following officers were appointed for the ensuing session: President, Ernest T. Roberts, M.D. (Glasgow); Vice-Presidents, George Rose, M.B., D.P.H. (Aberdeen); Geo. Arbuckle Brown, M.B., B.Sc., D.P.H. (Govan Parish); General Secretary and Treasurer, J. King Patrick, M.B., D.P.H., County Buildings, Ayr; Reporting Secretary, A. E. Kidd, M.B., D.P.H. (Dundee); Members of Council, Miss Kate Fraser, M.B., B.Sc. (Govan Parish), J. Halley Meikle, M.A., B.Sc., M.D., D.P.H. (Edinburgh), A. F. MacBean, M.A., M.B., D.P.H. (Fifeshire), John MacIntyre, M.B., D.P.H. (Lanarkshire), and A. A. MacWhan, M.B., B.Sc., D.P.H. (Berwickshire).

## EDINBURGH SCHOOL CHILDREN.

The report of the medical officer to the Edinburgh School Board for the year 1909–10 states that the medical staff under the Board consists of a chief medical officer, two qualified assistants (male and female), and three nurses. There are fifty-eight schools under supervision in respect of school buildings, infectious diseases, disinfection and cleansing of schools, special classes for physically and mentally defective children, cases brought under notice by attendance officer, day industrial school, medical examination of pupils at four stages of their career, report on height and weight, physical exercises—such as swimming and games—cases reported by head masters, examination of teachers and junior students, feeding and clothing of children, blind and deaf-mute children, epileptic children, and accidents at school with first-aid arrangements. The larger schools are visited every fortnight, and the smaller every three weeks. The Board has decided to examine, first, all entrants; secondly, all 9-year-old pupils; thirdly, all leavers; and fourthly, in a less detailed manner, all pupils on leaving the infant department. This involves the examination of about 4,000 children for each of these age-groups. The nurses assist the school doctor at his examinations, supervise the personal hygiene and cleanliness of the children, visit homes, and keep records. The number of pupils absent during the year owing to infectious disease was 7,086, or about one-sixth of the school population. In all matters relating to infectious diseases there is hearty co-operation between the public health department of the city and the school board's medical staff. Over 600 children were seen who were suffering from skin diseases, and these cases entailed repeated visits. Ringworm headed the list, followed by scabies, "broken out" head, and favus. Treatment forms no part of the duty of the medical staff. Parents are notified of defects found, and recommended to get medical advice. In this way 1,165 notices were issued in connexion with 3,354 pupils examined; of these notices 232 related to dirty heads, 127 to defective vision, 99 to squint, 155 to diseases of the nose and throat, 25 to ear diseases, while 527 related to other conditions, such as defective teeth, skin disease, and dirty clothing. Through the help of the Charity Organization Society necessitous school children, for whom spectacles are prescribed, are assisted. Many children visit the Victoria Dispensary for Consumption, and notice is sent to the board offices each week of children who are considered unfit to attend school either totally or for fixed periods. The number of pupils thus reported during the year was 255. As regards infectious disease, the case-incidence per 1,000 of school

board population was 96.63; of the infants, 109 had no vaccination marks. A large percentage of children examined had bad teeth, and there was a considerable percentage in which there was greater or less enlargement of gland; senior boys had bad vision in 4.5 per cent., and senior girls in 10.39 per cent. of the cases examined. At all ages except 5 years the height of the boys was below the Anthropometric Committee's standard, while at only one age—5 years—was the weight of the boys above it; the difference amounts to 6.22 lb. at 10 years. At ages of 5, 6, 7, 8, and 9 years the average height of girls was very slightly above the standard, whilst at only one age—6 years—was the weight above the standard. The average number supplied with free meals between January 10th and April 1st was 2,095.

### Convalescent Home for Glasgow Poor.

The Glasgow Parish Council is about to make an interesting experiment in the treatment of infirm patients. A modern mansion near Kirn, on the Firth of Clyde, has been purchased and converted into a convalescent home, providing accommodation for 200 persons. The mansion house stands in its own richly wooded grounds of twenty acres. The enterprise will be conducted on the lines suggested by the report of the Poor Law Commission, the object being to place patients in an environment which will lend itself to more favourable treatment than is possible in the poorhouse at Stobhill, with its large and mixed population. The experiment will be watched with much interest. The mansion, known as Dunclutha, was purchased for £3,500.

### Treatment of Phthisis.

The Public Health Committee of Ayr Town Council has proposed to provide accommodation in Ayr for the treatment of patients in place of transferring them, as formerly, to Bridge of Weir sanatorium at a cost of £1 a week each. The town surveyor has prepared plans to utilize three acres of ground on the south of Heathfield Hospital by the erection of a pavilion with four wards to deal with twelve advanced cases, and three open air shelters for the accommodation of six early cases. The estimated cost would be £1,359, and £100 per annum for additional staff. The Town Council has delayed the scheme pending further information on the financial aspect of the question.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### Irish Workhouse Association.

The work of the Irish Workhouse Association has, since the date of its foundation, been mainly directed towards the creation of public opinion in favour of workhouse administration reform. The Earl of Mayo, who presided at the general meeting held last week in Dublin, said that, owing to the present political situation, the introduction of a Poor Law Reform Bill during the present session was quite out of the question, and suggested that for the present the association should concentrate its efforts on bringing about an extension of the boarding-out system to children now in workhouses. This could be carried out without fresh legislation, and was a matter of urgent necessity, as 5,298 healthy children were still inmates of the Irish workhouses, while not more than 2,000 children were at present boarded out. At the conclusion of the chairman's speech the association unanimously agreed to send a deputation to the Local Government Board asking the Board to issue a circular to the boards of guardians throughout the country suggesting that they should exercise the power they possess of boarding out children.

### Presentation to Dr. Francis McKee.

The many friends and patients of Dr. McKee of Dromore, co. Down, learnt with deep regret a few months ago of his sudden and severe illness, and with correspondingly sincere joy of his complete recovery. They joined together to put their feelings into active form, and made him a most handsome presentation of an antique Sheraton secretaire, a Sheraton sideboard, a George III silver tea and coffee service, and an old-fashioned Sheffield-plated tray. The presentation was made at a dinner at which Dr. McKee entertained his friends in Belfast on the evening of April 21st, when the Chairman of the Presentation Committee gave the doctor an album with the address, illustrated with local views of Dromore, and congratulatory speeches were made by many of the subscribers to the presentation and by Dr. McKee's numerous medical friends.

### South Charitable Infirmary, Cork.

At the monthly meeting of the Committee of Management of the South Charitable Infirmary, Cork, Dr. G. T. Hegarty was elected house-physician, and the Right. Hon. the Lord Mayor congratulated him on his appointment, at the same time expressing on his own and the committee's behalf the regret felt that the infirmary was losing the services of Dr. Barry, the retiring house-physician. The Lord Mayor called Dr. Barry before the committee, and thanked him sincerely for the services he had rendered whilst in the institution. Each and every one of them were of opinion that his worth and his merits could not be excelled whilst in the hospital; he carried with him their best wishes for success.

### Londonderry Infirmary.

At the monthly meeting of the Committee of Management of Londonderry City and County Infirmary, held on April 18th, vacancies in the staff were filled up by the appointment of Dr. H. W. Cunningham to be honorary physician, and J. M. McLaughlin to be honorary surgeon. It was resolved to ask the Secretary of the local Branch of the British Medical Association to call a meeting of the medical men to consider the desirability of augmenting the staff, and to report to the committee.

# South Australia.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### The Medical Defence Association.

The Council of the Medical Defence Association has had a busy half-year. For a considerable time negotiations have been going on between the United Friendly Societies and the Defence Association, and lately matters have been brought to a head by the proposal to establish dispensaries in connexion with the benefit societies. No one would deny the right of the clubs (or "lodges," as they are always termed out here) to amalgamate for the purpose of establishing central dispensaries, but when they proposed to deduct some 30 per cent. of the fees paid to the medical officers, the latter strenuously resisted the proposal. The lodge doctors estimated that drugs and dispensing, nearly always contracted for by neighbouring chemists, amount to only 11½ per cent. of the fees paid to them and they were prepared to forego this amount. After many conferences and much writing, the friendly societies finally submitted an ultimatum of 20 per cent., but this the doctors have agreed to refuse. The lodges are considering what their next step will be, and probably they will endeavour to import young men from the adjacent States. In these days when the wages of the meanest labourer is 8s. a day, it is surely inconsistent to endeavour to sweat the medical profession. The only alternative seems to be for the medical profession to affiliate itself with the Trades and Labour Council which practically now governs the State through the medium of the Labour majority in Parliament.

### The Medical Board.

The state of tension induced by this logomachia (no pun intended) perhaps accounts for the tendency of the profession to resent the action of the Medical Board in registering a certain Dr. H. Basedow. Both the Defence Association and the South Australian

Branch of the British Medical Association have entered serious protests. The practice has been to refuse to register German practitioners unless in addition to the degree (in this instance the M.D.Göttingen) they produced evidence of having passed the Staats Examen, which is said to be the only examination entitling a person to practise his profession in the German Empire. This Dr. Basedow had not passed. But there were special circumstances in his case. He was not an alien or an anarchist, but a native of South Australia. He had been admitted to the B.Sc. degree in the University of Adelaide, and his only reason for not taking the Staats Examen was that he was unable to do so, not being a German subject. He could have become naturalized in Germany, it is true, but then he would have had to serve in the army and to forfeit his Australian nationality. It was also argued that he had obtained his degree in too short a time, but this was accounted for by his scientific studies in Adelaide gaining for him exemption in similar subjects in Göttingen. The board registered him under a special clause which gives it discretionary power in any doubtful case.

### THE NEAL INSTITUTE FOR INEBRIATES.

The profession has not taken kindly to the establishment of a branch of this institute in its midst. Hitherto the attempts to deal with the question have been very amateurish. Patients who could afford it were generally sent to Caulfield's establishment in Victoria. The "cure" took a month at least, and cost about £50. Some seem to have been in reality permanently cured by this treatment. The Inebriate Retreat at Belair in South Australia was for a time under the charge of a Presbyterian minister, who also conducted a missionary college for young men and women. He disdained any methods of restraint, and trusted to moral suasion. The inmates could resort to the village hotel, and the only complaint I heard of was from a patient of mine who said that he was reduced to the necessity of playing chess with second-class inebriates.

Recently the Rev. A. C. Rankine, who was attending a congress of the Church of Christ in Chicago, was commissioned to investigate the methods of dealing with habitual drunkards employed in the United States of America. He found that there were many such institutions, but the one which impressed him most favourably was the Neal Institute. Briefly, its history is as follows: A physician of Des Moines either invented or improved a method of cure, and used to treat his cases in a private hospital. His success attracted the attention of a millionaire philanthropist, Senator Bruce. The senator came, he saw, and was convinced. He offered to finance the undertaking, so that the Neal method might be introduced *in partibus infidelium*, reserving a small royalty for himself as interest on the outlay. The method adopted was to break in a young physician to the scheme of treatment, then send him to establish a branch hospital, treating all who could afford it for pay, and rejecting none who were unable to pay. At the present moment I am told that there are fifty-seven such branch institutes in the United States. Mr. Rankine asked could a delegate be sent to treat the South Australian ebriosi. The answer consisted in the arrival six months ago of Dr. Soper as first missionary from the Neal Institute to Australia.

The method is simplicity itself. The patient goes into a private hospital overnight. Next morning early he takes a purge and begins to take doses of the drug. This is a liquid in two strengths, X and XX. Alternately with the hourly doses of medicine he takes his favourite "poison." If soon after this he vomits, all is well till next time. If he fails to vomit, he takes beer in addition, and perhaps tops up with a pint of saline. After a time, whilst food will be kept down, drink will come up, the medicine exercising a selective action on the stomach. On the second day the average customer begins to dislike whisky or beer, or both, and finally nothing will induce him to take either. Then he has a few more doses of the X strength, and is pronounced cured. Now, what is the famous medicine? It is asserted that it is a mixture of tr. lobelia, tr. cinchonae, tr. gentianae, and nothing else; that it has been analysed and found to contain nothing else. If so, it is a very simple and very harmless method of cure. But does Dr. Soper, does any one, except Dr. Neal himself, know the contents? And assuming the statement to be correct, what is the *modus operandi?* Is it faith healing, or is it some subtle, though permanent, impression made upon the vomiting centres?

Now as to results. I have seen cases in which the cure has certainly lasted six months, and the patients are themselves quite satisfied as to its permanency. Dr. Soper estimated the cures at 95 per cent., but there have been already more than this number of relapses. The immediate effects are certainly very remarkable, and I have myself seen men and women looking very fit and fresh when leaving the hospital after the three days' sojourn. The moral influence seems to be great; they seem to realize that they are once more decent members of society, and no longer swinish drunkards.

The profession has two chief objections to this method of treatment. In the first place, they say that this is a secret remedy—probably it is—and in the second place they argue that any one that uses it is a quack. They do not make any allowance for the difference in ethics which obtains in America. On the other hand, they cheerfully consign their patients to Caulfields, where the treatment is also by means of a secret remedy. It is contended that the medical profession has signally failed to cure inebriety by legitimate means, and ought not to resent the introduction by a Government of a method which may result in half emptying our gaols.

The Australian rights are in the hands of a Mr. Holliday, who employs Dr. Soper as his physician. It is intended that the method shall be introduced into the other States, and ultimately that its beneficent prospects shall be offered to the United Kingdom.

# Transvaal.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### MINING REGULATIONS.

THE report of the Mining Regulation Commission of the Transvaal Colony[1] has just been issued in two parts, the first containing the report itself, and the second the minutes of evidence. In the report there is a list of the laws and ordinances relating to mining and the Consolidation Act of 1909. With regard to phthisis (including miners' phthisis) amongst white mining males aged 20 and over, it is stated that the deaths from this cause during the three years 1905–07 were 43.1 per cent. of all deaths. "Other respiratory diseases" account for a further 17.9 per cent., making a total of 61 per cent. from "all lung diseases"; the comparative figures for non-mining males at the same age were 10.2, 15.8, 26 0. The death-rate from phthisis (including miners' phthisis) at ages of 20 and over was more than six times greater amongst white mining males than amongst white non-mining males, the death-rate per 1,000 being 6 0, 5.3, 6.4 for the triennium. With regard to miners' phthisis, figures show that between October, 1899, and January, 1902, the war being in progress and mining operations suspended, the death-rate amongst men who had been employed in the Transvaal as rock drillers before the war was no less than 73 per 1,000, and this during a period when the great majority were not actually engaged in rock-drill work. The average age of rock drillers dying from silicosis in the Transvaal was 35 years, and the average period of rock-drill employment was 7 to 9 years.

[1] Transvaal Colony: Final Report of the Mining Regulations Commission, appointed under Government Notice No. 537 of 1907. By F. E. T. Krause, LL.D., M.L.A., Chairman; Charles Porter M.D., Medical Officer of Health, Johannesburg; and Alexander Peymann, M.A., Consulting Analytical Chemist and Metallurgist. Pretoria: The Government Printing and Stationery Office. 1910.

As to preventive measures, attention is directed to (1) prevention of dust inhalation, (2) prevention or removal of noxious fumes resulting from explosives, (3) prevention of tuberculosis. The Commission is strongly of opinion that all persons, white or coloured, suffering from tuberculosis should be excluded from underground mine work. The death-rate amongst natives was high in 1902–3, but it differs from that of white miners in being due more to climate than to occupational causes. Improvements have been effected since that date in respect to methods and seasons of recruiting, medical inspection and supervision, housing, diet, working conditions and hospital accommodation, and there has been a steady decline in the native death-rate, but it is still high compared with European standards. Natives from temperate regions excepting Basutoland have a low mortality. Those from subtropical and malarial areas show a slightly higher death-rate, but those from purely tropical districts show very high death-rates, pneumonia being the most important direct cause of this excessive mortality.

Ankylostomiasis appears to be present in a considerable proportion of the freshly recruited native labourers, but it is stated that the disease has not caused trouble amongst European miners (except on one property), nor have the natives reinfected themselves to such an extent that any large numbers of them have been incapacitated for work. Having regard to the amount of infection, it would appear that the eggs of this worm when passed by natives do not develop into larvae in the mine workings. There is some reason for believing that this is due to the fact that in mines having water with an acid reaction a natural process of disinfection is continuously going on. Further, the great depth of the mine and the consequent low temperature are against the development of ova, which require moisture and a temperature of 77° F. for development.

There is no statutory obligation on employers to provide hospital accommodation for white employees. These workmen usually form benefit societies, and have as their medical officer the medical man who is retained by the employer for the purpose of looking after the natives. Under the Coloured Labourers Health Regulations, 1906, every mine owner is required to provide sufficient and suitable hospital accommodation for the labourers.

There were 81 fatal gassing accidents resulting in 279 deaths in 1904–7, the dangerous gases being $CO_2$, CO, NO.

On the matter of housing accommodation the report does not favour State aid in providing houses for employees.

The report adopts the view that Kaffir beer properly made and consumed in moderation is a wholesome and permissible beverage for natives who are accustomed to it. Its manufacture should be under supervision. The committee approves of an eight-hour working day, and weekly pay days for underground workers.

Attention is called to the great importance of the provision of first aid and the use of appliances for the injured.

It is recommended that a medical inspector of mines should be appointed. There is also a recommendation that the operation of the Workmen's Compensation Act should be extended to coloured employees in the mines, and that the cases should be adjudicated on by a magistrate, with the assistance of one or two medical assessors. The report is a most valuable document, and worthy of careful study. We heartily congratulate the Commission on a splendid piece of work.

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IT is proposed to establish a library for doctors at Lyons. It is intended that the library shall be a centre of meeting for medical practitioners. In connexion with the library there are to be lecture rooms and laboratories. The social side of medical life will not be overlooked, for a refreshment room, a billiard room, and other elements of a club will be provided. The entrance fee is to be £2, the annual subscription between 16s. and 17s.

# Special Correspondence.

## BUDAPEST.

*Tuberculosis Exhibition in Budapest.—The Action of Baths on the Heart.—Increase of Insanity in Budapest.—The Inspection of Public Schools.*

THE present widespread interest in consumption, manifested by the great number of antituberculosis dispensaries and associations which are being formed all over the country and by the increasing desire on the part of the public to better the condition of phthisical patients, has inspired the National Association for the Study and Prevention of Tuberculosis (a branch of the Charity Organization Society) with the idea of organizing a tuberculosis exhibition, which will be held at Budapest in 1912. The main object of this exhibition is to show by means of photographs, diagrams, and models exactly how far science has progressed in its struggle with the great white plague and how much still remains to be accomplished.

At a recent meeting of the Balneological Society, Dr. Bossányi read a paper on the action of baths on the heart, in which he laid stress upon a fact first observed by T. Strassburger—namely, that baths of all kinds have the same effect upon the systolic blood pressure, which first rises, then falls, and then rises once more. It is the depression that is usually most marked and constant, and after the bath there is generally a second depression. In the case of cold baths the initial rise is more pronounced, and with hot baths the secondary. A temperature of 90° or 95° F. causes the least noticeable fluctuations; below this temperature the pulse is slowed, and above it accelerated. The diastolic blood pressure, whilst subject to the same laws as the systolic, does not act in identically the same way in other respects. For instance, the cardiac action, which is greatly stimulated by a bath of 107° F., is only slightly stimulated by a temperature ranging from 90° to 104° F. In the case of carbonated baths the systolic pressure presents the same peculiarities; the pulse is slowed less during and more after the bath, and the volume of each cardiac contraction is considerably increased. In concluding his address, Dr. Bossányi remarked that hot baths demand more work from the heart in every way, whilst cold baths should be regarded as conducive of cardiac exercise, together with the preservation of cardiac energy. Carbonated baths have precisely the same effect as digitalis, without, however, causing contractions of the vessels.

According to the report of the Statistical Bureau, insanity has greatly increased in Budapest during the last ten years. This report shows an average increase of 190 cases for each year; and last year it rose to 214, the total number of patients accommodated during the twelve months (including such as were sent in from the Province of Pest) amounting to 4,500. The result is that there are some 1,500 patients more than the city hospitals can hold, which has led to great overcrowding and inconvenience. An explanation of the present state of affairs is given in the report of the City Charities Aid Association, in which it is said that "much of the present overcrowding in lunatic asylums is due to the modern treatment, which arrests the progress of the disease, improves the general health of the patient and thus lengthens his life; the public esteem and confidence enjoyed by these institutions, and also the advance of medical science which, in safeguarding mankind from the ravages of disease, gradually lowers the death-rate and thus keeps alive many who, in former years, would have died in childhood."

Judging from the reports presented to the Board of Health, the medical inspection of public schools has already been of great value, not only to the school children, but to the public at large. During this, the first, year the medical inspectors have paid nearly 5,000 visits and examined some 30,000 children, of whom 2,500 had already been set aside by the school authorities as possible transmuters of disease. Two hundred and nineteen cases of unvaccinated children were discovered (vaccination being enforced in every instance), and it was found that, owing to disease, 715 children were excluded from the schools. The most common disease amongst school children has been found to be defective vision;

and many children who, because they were unable to see words and figures on the blackboard, were looked upon as stupid and backward have proved as intelligent as most children of their class when provided with proper glasses. This work of school inspection was started a year ago through the efforts, and under the supervision, of the late Dr. Chyzer, the State Secretary for Public Health.

# Correspondence.

## THE MATHEMATICS OF MALARIA.

SIR,—With regard to your reference in the current number of the JOURNAL to this subject, may I point out that it was opened in my Report of the Prevention of Malaria in Mauritius in 1908, and further developed in my book on the *Prevention of Malaria*, of which, indeed, it forms the basis? You say that a writer in the Indian publication *Paludism* "questions the biological postulates" furnished by me. I have stated repeatedly that my postulates were, in the absence of exact knowledge, merely conjectural; but the writer in question gives no evidence whatever in support of his statements, which appear to be scarcely worthy of so much attention. The reason why repeated bitings of mosquitos are omitted from my equations is already given on page 164 of my book. I am much obliged to Professor Karl Pearson and Mr. H. Waite, M.A., B.Sc., for having taken so much interest in the subject, but have only just recently found the time to study the latter gentleman's very interesting contribution, which was written independently of my book, though not of my report. He admits that "there is complete agreement between us on the essential and fundamental points," and that my simpler methods "give results which are sufficiently accurate for practical purposes." In fact, my equation for "static malaria" (eq. 7, p. 161 of my book) is the same as the first term of his (eq. 111, p. 430 of his article in *Biometrika*, vol. vii, No. 4). The greater complexity of his formulae is, as he perceives, due to his having given a more continuous variation to the recovery and malaria rates among the human beings, while I adopted a fixed time unit of one month for my difference equation. There seems to me to be, however, some fallacy here, because he continues to accept my month unit for the number of infecting bites ($n$)—that is, for the malaria rate among the mosquitos. This has the effect which he describes, namely, that it makes both the increase and the decrease too slow. I purposely adopted a fixed time unit for all the variables together, and purposely made it one month in order to allow time (so to speak) for the parasites to mature in the mosquitos, and to develop a sufficient number of sexual forms in the men. But, as Mr. Waite says, our results are at present only tentative and suggestive, and I have reached a much fuller analysis since last year. Perhaps the most important point elicited is that a very small rise in the number of *Anophelines* above the no-malaria limit—a rise which would never be appreciable by the public—would produce a severe epidemic (my book, page 200).

Allow me to endorse very heartily your remarks regarding the utility of mathematics in medicine. Epidemiology is in fact a mathematical subject, and fewer absurd mistakes would be made regarding it (for example, those regarding malaria) if more attention were given to the mathematical study of it.—I am, etc.,

University of Liverpool, April 22nd. RONALD ROSS.

## HEART FAILURE.

SIR,—The opinions of Dr. James Mackenzie deservedly command general attention. It is therefore important that they should be carefully weighed; and, while there is much in his recently delivered Oliver-Sharpey lectures that will be received with assent, there remain some statements which cannot be accepted without question or qualification.

For example, one would gather from Dr. Mackenzie's first lecture (April 4th) that functional murmurs and irregularities of heart frequency, especially in the young, should not only not be regarded seriously but looked on as positive evidence of a healthy heart. That contention appears to be largely based on the fact that in medical literature there is no record of any one so affected suffering from heart failure. I agree with Dr. Mackenzie that medical literature betrays signs of weakness from the clinical point of view, but five and twenty years of general practice, and more than fifteen in which attention has been mainly devoted to cardiac affections, have led me to conclusions differing from his. There are degrees of heart failure, and among boys and adolescents such symptoms not infrequently lead to abstinence from the more active pursuits and games enforced not by a doctor's academic opinion, but by positive distress and disability. In less pronounced instances they are the prelude and accompaniment of undue fatigue on exertion, of a general slackness, and of loss of power of mental concentration. In fact, they convey a note of warning, and, in a large proportion of instances, may be traced to a chronic autotoxis of the rheumatic or of the gastro-intestinal order, which is amenable to treatment to the great advantage of the patient.

Another matter to which I desire to call attention is Dr. Mackenzie's exclusive reliance on treatment by rest and his curt dismissal of baths and exercises as therapeutic agents. The daily experiences of those who have given the best years of their life to the study and practice of such methods afford proof of their pre-eminent value. Allow me to cite one example. A lady past middle age had been confined to her bed for several weeks by an enfeebling malady and heart weakness, with steadily increasing pulse-frequency, which had recently culminated in accesses of heart failure occurring during sleep or at the moment of waking, so severe as to suggest impending death. Four gently resisted exercises of the hands and arms, administered in the recumbent position, induced a fall in pulse-frequency from 120 to 92, doubled the volume of the pulse as judged by the finger, the sphygmograph, and the manometer, and brought a sense of precordial relief. Such results, which might be indefinitely multiplied, are not to be accounted for on psychic grounds.

I, for one, cannot admit that the teaching of Stokes, systematized by Oertel, and brought to a science by Schott, to which thousands owe their relief from suffering and return to health, may be lightly cast aside.—I am, etc.,

London, W., April 24th. W. BEZLY THORNE.

## APPENDICITIS AND APERIENTS.

SIR,—Whilst I read with considerable interest Mr. Moynihan's address on abdominal emergencies in the JOURNAL of April 1st, I hardly expected to meet, a few days later, with the following case, which illustrates well certain points to which he has drawn attention:

I was called on April 5th to see a boy of 14 who had been ill since April 3rd. On the forenoon of that day he partook of some raw cabbage plants and then of a dinner of pork. Shortly afterwards, walking in a field, he was seized with a sudden acute pain in the abdomen, and vomited once. He was put to bed with a poultice applied to the painful area. On April 4th he was altogether better, but his mother deemed it advisable to give him a large dose of castor oil, following it up in the evening with a seidlitz powder. Next morning his pain was worse, and as the greatly desired catharsis had not yet taken place some cascara was administered. The bowels then moved several times, but no improvement resulted. Summoned at noon, I diagnosed appendicitis, and recommended immediate operation. There was pain all over the lower part of the abdomen and the usual localized tenderness and rigidity. Temperature, 99°; pulse, 80. At 1 p.m. he was suddenly taken with an agonizing pain, and on my return shortly afterwards prepared to operate, I found the tenderness and rigidity becoming generalized, the temperature 100·5°, the pulse 100. I cut down at once, to find a gangrenous appendix adherent to the ileum and caecum, and having a pinhole perforation in its side. Thanks to free drainage and continuous proctoclysis the boy is making a good recovery.

The case is an isolated one, but I think it shows how perforation may be brought about by the use of purgatives. It is surprising to find that there are still practitioners who pin their faith to saline aperients and the like when they ought to be boiling their instruments or summoning a surgeon. The necessity for a correct diagnosis, however, can scarcely be too strongly urged. What is wanted at the present time is not so much a fierce contest between physicians and surgeons over methods of treatment as a clearer conception of those conditions which are diagnosed as "a threatening of appendicitis." Some of these may

be amenable to medicinal measures, but if the appendix is diseased the treatment is surgical. Not only does my experience extend over a considerable number of cases personally attended, but I have been myself a victim, and in my case the operation put an end to persistent "indigestion," for which no other treatment had been of any service, so that my point of view can hardly be termed one-sided.

Mr. Moynihan has sounded a timely note of warning, and the rational treatment of appendicitis may now be summed up briefly in the words—Diagnose accurately, avoid aperients, withhold food, and operate early.—I am, etc.,

Lanark, April 12th. DOUGLAS J. GUTHRIE.

## THE PSYCHOLOGY OF HUMOUR.

SIR,—In an article on humour in the JOURNAL of March 25th you seem to accept Herbert Spencer's interpretation of the physiology of laughter—namely, pent-up nervous energy diverted into an irregular motor channel. Now this is a curt and rather contemptuous way of dismissing it. If we follow up the matter a little more closely we find that many, if not all, conscious states, whether of knowing or doing, are accompanied by a feeling of either pleasure or pain; that these two great fundamental feelings underlie all the more complex ones, such as joy, sorrow, fear, hope, happiness, and misery; that we seek those things that give pleasure and avoid those that give pain; and that we do certain things for the pleasure alone, without any other motive. This is called amusement, recreation, fun; and of this nature is making jokes or jests, the product of wit and humour.

Now, impressions of pleasure or pain tend to produce certain specific reflexes. Pain causes, in addition to more occult effects on the vessels, etc, the muscles to get taut, the respiration to become slow, sighing and spasmodic, with a tendency to cry out, and, if the stimulus be very severe, the whole body to twist or writhe in agony. Tears are also a very common accompaniment, and as this is also the response to eye irritation, they may be due to our sorrow being fed by visual imaginations. On the other hand, certain non-painful impressions, such as tickling the skin, may cause the respiration to assume the spasmodic rhythm, with its vocal sound we call laughter, and perhaps cause other acts indicative of the feeling. The more complicated emotions tend to reproduce these reflexes, in a manner analogous to the psychic secretion of gastric juice, but modified more or less by the character of the emotion.

Both laughing or smiling and crying indicate to others our feelings in a way with which words cannot compare, and at the same time appeal to have them reciprocated.

Purring in the cat, and wagging the tail and barking in the dog, seem to some extent to be analogous to laughter. On the psychological side wit and humour is the faculty of seeing and pointing out jests or jokes—that is, things said or done to amuse, and not to be taken as meant seriously or literally. And this quality of having a meaning at variance with that at first said or suggested, or of showing up a relationship at variance with what we expect or are led to believe, is the essential of the jest or joke. The incongruity is not so much in the things themselves as in what we expect about them, and so has always more or less an element of surprise. At the same time the more subtly, and as it were by accident, the incompatibility is brought out, the greater is the effect.

Thus it may be a joke if we banter a person with having qualities the opposite to those that he has, and so suggest the real ones.

By the way, if these qualities happen to be bad ones, so that the laugh is at or against the person, this is called sarcasm. And in all cases this faculty of turning the laugh against some one seems to be the distinction between wit and humour.

Again, to the question if A. is a brother to B., is B. a brother to A.? the answer is B. may be a sister. Now here is a cold fact, but the suggestion in the question that B. is a brother is so strong, that we look upon it as a jest. Lastly, as you say in your article, most philosophers are not at all humorous. But perhaps for that very reason they all render themselves the more liable to be made a source of innocent merriment; from the most extravagant guesses or intuitions of Herbert Spencer, to Kant or Hegel playing elaborate matches, with fitless finger stalls, on a cloth untrue, with a twisted cue, and elliptical billiard balls.—I am, etc.,

Castlewellan, March 31st. HUGH JOHN MCNABB.

## THE INFECTION OF CHICKEN-POX.

SIR,—The following case of chicken-pox is of interest from the length of incubation and the complication of measles.

L. D, a healthy girl of 6 years, was visited by an aunt, accompanied by her two children who were in the scabbing stage of chicken-pox, on February 5th. My patient was at that time in fair health, but suffering from what her mother thought was a slight cold. On February 11th the rash of measles appeared on her, and she had a severe but uncomplicated attack. On March 12th the rash of chicken-pox appeared. The child had not been out of doors, had not been visited again by any one from the chicken-pox-infected family, nor by any one else who could convey the infection, but two letters had come from the aunt—one on February 12th and another on February 20th, but the mother is certain they were not handled by the child, so that if infection came from the contact, we have contact February 5th, measles February 11th, and chicken-pox March 12th—that is, thirty-five days for the incubation of the chicken-pox. Authorities differ very much in their statements as to the length of duration of incubation of chicken-pox, but I do not think any give it longer than twenty days.

What is the explanation? Is it possible the infection was conveyed by letter? I think it very improbable, as the infection would have almost ceased at the date of receiving either letter. Was it an example of the old law that two infectious fevers never appear at the same time in any individual, and that the germs of the chicken-pox remained dormant but active in the child's system until the measles had quite left her? I think the latter explanation is the more feasible, but I would be glad of the opinion of others.—I am, etc.,

Chelsea, S.W., April 17th. JAMES HAMILTON, M.D.

## THE HONOUR OF THE MEDICAL PROFESSION.

SIR,—I am glad to see a letter from Mr. Lewis Morgan, of Cardiff, a distinguished member of the legal profession, making suggestions regarding changes in the law to remedy the grievous and anomalous position in which medical men find themselves as defendants accused of negligence; changes which not only would not prejudice but safeguard the interest of the public. The fundamental principle referred to in Mr. Morgan's letter is based on the maxim that a person should be tried by his compeers—that is, by men who have intimate knowledge of the subject in dispute. In nautical and Admiralty affairs men are selected as assessors from their special knowledge of the matter in respect of which the inquiry is being instituted. The same principle applies, and is being observed in military, and to some extent ecclesiastical, matters. Why, therefore, exclude the medical profession from being similarly treated to the professions mentioned? It seems to me from an experience of a varied public life, apart from my profession, that it would be quite as ridiculous to expect a jury of laymen to arrive at a just conclusion, and give a correct verdict on intricate medical and surgical technicalities, as to expect them to do so on questions appertaining to the above professions. Why, therefore, should not the serious charge of negligence against medical men be submitted to a jury of medical experts, or, if not to such a jury, to a court where independent medical assessors sit and advise?

I was specially interested in the leading article of February 18th last under the above heading, inasmuch as it was the outcome of a correspondence started by Mr. J. Lynn Thomas, an old pupil of mine, who served his apprenticeship under me as far back as 1879. I followed carefully the now celebrated Cardiff case, in which he was put in the humiliating position of having to defend himself against a charge of negligence. Had he allowed Dr. Skyrme to use splints according to the orthodox teaching of English textbooks, there would, in all probability, have been no lawsuit, and the result to the patient would not

have been so satisfactory according to the teaching and practice of eminent medical men such as Dr. Lucas-Championnière, President of the International Society o Surgery, and Sir William Bennett. I venture to think that the law respecting charges of negligence as it stands at present is not only a sprag on the wheel of progress in medical science, but is also detrimental to the benefit of the public generally.

To illustrate my meaning, I may indicate the risks that the great Lord Lister ran in his experiments upon patients in the early days of antiseptic surgery. The rare but occasional occurrence of gangrene following the application of carbolic acid lotion would have been a plausible case for charge of negligence *before his system became orthodox.* Another pointed illustration which at the moment strikes me, is that of the case of paralysis, and even gangrene, resulting from Esmarch's elastic tourniquet. This method of treatment is now orthodox.

What the public are now given to understand is that departures from, and the application of, recent scientific discoveries in surgical treatment are actionable at law, and equivalent to negligence, as long as it does not conform to, and is not on all-fours with, English textbooks. The law as thus laid down would logically deter and involve in litigation such men as Lord Lister, whose great discovery and new methods of treatment have been the means of saving millions of lives.

Another right I claim in the exercise of my profession is freedom of action to use my judgement in giving my opinion in cases where "Sir Oracle" and "Mr. Too-fond-of-the-Knife" happen to disagree. As an illustration of this personal right, which Locke has so well indicated, I would give the case of the sigmoidoscope referred to in the previous correspondence in the JOURNAL, under "Swabs in the Intestines." Whether I would follow the views expressed by my old pupil, Mr. J. Lynn Thomas, in the above case or those of Mr. Swinford Edwards, of whom I have no personal knowledge, would be entirely a matter for my own judgement.

In conclusion, I would revert to the soundness of the remarks in Mr. Lewis Morgan's letter—namely, "Questions of this nature . . . should not be settled by a jury of laymen." I therefore feel sure that every member of the profession appreciates your advocacy of a change in the law which is so sadly needed in the interests of justice, not only to ourselves, but also to the public generally.—I am, etc.,

J. POWELL, J.P., M.R.C.S., etc.,
Chairman of the Cardiganshire Joint Standing Committee, etc.
Newcastle Emlyn, April 24th.

## THE DR. COOKE FUND.

SIR,—Will you allow me through your columns to express on behalf of the Committee my warmest thanks to the medical profession for the magnificent response which they have made to our appeal, and my real regret that, by reason of the overwhelming number of sympathetic letters, it has been impossible at present to reply individually in each case as was wished and is intended. To all donors I believe a banker's formal acknowledgement has been sent, but this shall be supplemented at the earliest moment; meanwhile I would ask the indulgence of the many most generous contributors, to whom I and those associated with me are more grateful than we can express.—I am, etc.,

JOHN R. HARPER,
Barnstaple, April 21st. Treasurer.

THE following have been elected Honorary Fellows of the Royal Sanitary Institute; Dr. F. Bumm, President of the Kaiserliches Gesundheitsamt, Berlin; M. Albert Calmette, Professor of Hygiene and Bacteriology, University of Lille, France; Dr. Chantemesse, Professor of Hygiene, University of Paris; Dr. James A. Egan, Executive Officer, Illinois State Board of Health; Dr. Dittmar Finkler, Professor of Hygiene, University of Bonn; Dr. C. Flügge, Professor of Hygiene, University of Berlin; Dr. Joseph König, Professor of Hygiene, University of Münster; M. C. L. A. Laveran, Professor of Microbiology, Pasteur Institute, Paris; M. Louis Martin, Director of the Laboratory of Sero-therapy, Pasteur Institute, Paris; Professor Elie Metchnikoff, Assistant Director of the Pasteur Institute, Paris; Professor E. Roux, Director of the Pasteur Institute, Paris.

# Medico-Legal.

## MEDICAL EXAMINATIONS UNDER THE COMPENSATION ACT.

AMONG the practical questions arising under the Workmen's Compensation Act is that which concerns the place where the examination of an injured workman is to be held. For the busy practitioner, of course, the most convenient place is his own consulting-room; but it is obvious that in some cases—as, for instance, where the patient is seriously injured—he must be examined in hospital or in his own home. The question is whether, if the applicant for compensation is able to leave home and attend at the doctor's house, he can be compelled to do so. This is one of several interesting points in relation to this subject which have recently been decided in the courts, and an examination and summary of the relevant cases may be useful.

The Act provides that, after the workman has given notice of an accident, he must submit to examination or be held not entitled to compensation. The actual words are that "he shall, if so required by the employer, submit himself for examination by a duly-qualified medical practitioner, provided and paid by the employer, and, if he obstructs the same, his right to compensation and to take or prosecute any proceeding under this Act in relation to compensation, shall be suspended until such examination has taken place" (Schedule 1 (4)). This section makes no provision as to the place where the examination is to be held. By virtue of Schedule 1 (15) a workman who is receiving weekly compensation must also submit to examination from time to time.

The regulations drawn up by the Secretary of State provide that the examination shall be "at reasonable hours," and that after the first month he shall not be required to submit himself for examination by a medical practitioner provided by the employer except during the second month, once a week; from the third to the sixth month, once a month; afterwards every two months. A further examination may be held if any application has been made for a review. It appears that there is no need for the workman to have any notice of the intention to examine; at least that is the opinion of His Honour Judge Mulligan. A complaint was made at Swaffham County Court, during the hearing of a workman's compensation arbitration, that the doctor for the respondent had made a surprise visit. His Honour said that the doctor acted quite properly, and that such visits might be necessary when malingering was suspected.[1]

The Legislature having failed to specify where the examination is to take place, the courts are left to ascertain for themselves whether the refusal of a workman to be examined at any particular place constitutes an "obstruction" of his examination. Two cases which were heard in the Court of Appeal last November have an important bearing on the matter. In one of these, payments having been made to a man for some time, his employers considered him fit for light work, but before stopping payments they wished to have him further examined. They asked him to attend for this purpose at the house in another part of London of the medical man (Dr. Collie) selected by them, offering to pay his fare. The workman's solicitor replied that the examination must either take place at his office or at the surgery of the doctor who had attended the workman. The county court judge held that the man was not unreasonable in refusing to go to Dr. Collie's house, and the Court of Appeal refused to disturb his finding. Lord Justice Farwell interjected the remark: "The solicitor's letter claiming the right to have the man examined at his office is simply preposterous." With reference to this decision it will, of course, be competent for any county court judge to come to a directly contrary finding in another case. We have little doubt, for instance, that if both doctors lived in the same part of London a visit to the employer's surgeon would be made compulsory.

The remark made by Lord Justice Farwell about the solicitor's office was followed up in another case. There a workman in receipt of compensation was required by his employers to submit himself for examination. The workman refused unless the examination was at his solicitor's office or in his solicitor's presence. The employers repeated their request, stating that the workman's medical adviser might attend at the examination. The workman again refused unless his conditions were complied with, and it was held that his refusal was unreasonable. From the full report of this case it appears that the reason why

[1] Purves v. Hayward: Swaffham C.C., Judge Mulligan, 125 L.T.J. 10.

examination at the house of the employer's doctor was objected to was that he was alleged to have behaved with brutality to applicants whom he examined and to have "treated them like dogs." His Honour Judge Bray, who tried the case, said that there was no foundation for the charge of brutality. It was also alleged that the doctor had improperly examined a workman behind his solicitor's back. This allegation was also found to be untrue. The Court of Appeal affirmed the county court judge. A further point incidentally decided in this case was that the workman cannot insist upon being examined in the presence of his solicitor or his representative. Judge Bray pointed out that what the solicitor could do to protect the applicant during the examination could be equally well done by his medical adviser.

To sum up the result of these cases: The employer's doctor cannot always insist on conducting an examination at his own surgery, but he is justified in refusing to examine a workman in a solicitor's office or in the presence of a solicitor. For the part which he has taken in obtaining definite pronouncements on these points, the profession would appear to be under considerable obligation to Dr. Collie.

## VISION TESTING.

THE Royal Navy demands normal vision in each eye tested separately VR and VL = $\frac{6}{6}$. In the United States navy gun layers must have V = $\frac{6}{6}$ in the sighting eye. The army regulations are not so severe, but even here good vision in one eye is essential. The usual test is Snellen's card at a distance of 20 ft. in a good illumination. This latter is very important, for the ability to read a test line decreases proportionally to the cube root of a diminishing light intensity. It is, therefore, essential to avoid unfairness that a standard artificial illumination be used in testing candidates for the navy. The best results are obtained with a light of between 30 and 50-metre candles. There are two grave objections to the test types in general use. One is that the letters in charts obtained from different firms vary greatly in size. Grow (*Ophthalmology*, January, 1911) collected thirty charts and found that the size of the letters, which should be seen at a given distance, was different in every one. Thus the $\frac{6}{6}$ line, the letters varied from 7.4 mm. square as a minimum to 10.6 mm. square as a maximum. On our own chart they measure 9.5 mm. square. Snellen found that a letter which subtended an angle vertically and horizontally of five minutes (the component lines of the same subtending an angle of one minute) was a fair test of normal visual acuity. This is known as Snellen's principle, and is generally accepted as a standard in all countries. Snellen expressly stated that many people have a greater acuity than this. With good electric illumination nearly every ordinary individual can easily read $\frac{6}{4.5}$, and a few—very few—$\frac{6}{3}$, or double Snellen's normal. But the question may be at once asked, Should the length of the letters be measured along the chord or tangent of the angle? In America it is usual to strike a mean and use twice the tangent of half the angle of five minutes. For 20 ft. this gives 8.86 mm. as the correct size of the letters. A candidate, then, should be required to read letters of this size at a distance of 20 ft., the letters being Gothic, not block, and clearly printed in black on a white card. The letters should be illuminated by a light of the intensity of 40-metre candles. The second even greater objection to the generally used test types is that the letters can be, and frequently are, memorized. Grow has overcome this fault by printing a square chart of letters, mostly of 8.86 mm. square (for naval purposes the larger letters are of no use), with two or three lines of still smaller print. These are placed behind a board, which has in it a horizontal and a vertical slot. The letters can be slid behind the slots in two directions; thus any possible combination can be shown, and it is impossible for fraud to succeed.

## MIDWIFERY FEES.

DR. A. H. HEADLEY HUCKLE (Middle Temple) writes: In the BRITISH MEDICAL JOURNAL for March 11th, 1911, p. 602, is an editorial reply to "J. B. W." asking if a medical practitioner is legally entitled to claim a fee for a confinement for which he had been engaged but for which he was not summoned. With all due deference to the editorial reply, may I make a further reply which may possibly be of interest to the profession generally? Your reply is perfectly correct in that a contract properly entered into, if of a lawful character, cannot be voided, except by the mutual consent of the parties. An action will also lie for breach of such contract. You say that you know of no specific cases recorded, and that generally speaking, it is not the habit of the profession to sue for fees in such cases. As a matter of fact, in an ordinary midwifery booking or agreement no legal contract exists, but merely an informal agreement or promise, or what is termed in law a "naked pact." The rule is, and has been ever since the time of ancient Rome, that a simple contract, that is, word of mouth, or even a written word not under seal, must have a valuable consideration, as opposed to a good consideration to support it. The maxim always having been, "*Ex nudo pacto, non oritur actio.*" A contract to be a legal contract, then, must be either a document under seal, or, if a verbal contract, valuable consideration must have passed. This is seen in the deposit required on a contract to buy a house, or the money demanded when ordering a new motor car, which deposit makes the agreement a legal contract. If the medical practitioner drew, say one shilling, as a "booking fee," the promise to attend would become a legal contract and not a mere pact, and an action would lie if either party broke the contract.

## FEE OF LOCUMTENENT.

T. L. W. writes that he was engaged as a locumtenent for the junior partner of a firm of doctors, and at the request of the other partner went down to see him; the engagement was then confirmed, and he was told it would be for three weeks. When subsequently he went to commence his duties he was told he would not be required, as it was found that the senior partner would be able to carry out all the necessary work. He was paid half a week's fee as a compensation, and would like to know if this was equitable or legal.

*** Assuming that the circumstances are fully and correctly stated, our correspondent would seem to have been entitled to a week's notice, or one week's fees in lieu of notice.

## A CORONER AND *POST-MORTEM* EXAMINATIONS.

T. writes: I am a house-surgeon to a general hospital. An old man with a fractured femur died after many weeks in hospital, and it was impossible to assign a cause of death. At the inquest I stated this and was censured by the coroner for not communicating with him previously and asking for a *post-mortem* examination. Was I legally bound so to do? I referred the case to him but without comment.

*** There is no obligation on the part of a medical practitioner when reporting a death to the coroner to inform him that he is unable to assign the cause of death, although it is common practice to do so. On a coroner receiving notice of a death he usually sends his officer to make preliminary inquiries, and if the officer sees the medical practitioner in attendance on the deceased during life or called at or after the death, he ascertains whether the cause of death is or is not known. The medical witness summoned to give evidence at the inquest may be asked as to how, in his opinion, the deceased came to his death, and the coroner may, either in his summons for the attendance of such medical witness, or at any time between the issuing of that summons and the end of the inquest, direct the medical witness to make a *post-mortem* examination of the body. If, as it appears to us, the coroner's preliminary inquiries were incomplete, he should, on holding the inquest and finding the evidence insufficient to assign a cause of death, have directed an examination to be made as provided for by statutory law, instead of censuring our correspondent.

# Universities and Colleges.

## UNIVERSITY OF LONDON.

### MEETING OF SENATE.

A MEETING of the Senate was held on March 29th.

*Recognition of Teachers.*

The following were recognized as teachers in the subjects and at the institutions indicated:

*Physiological Laboratory, University of London.*—Mr. William Legge Symes (Physiology).

*King's College.*—Dr. F. S. Locke and Dr. A. W. Sikes (Physiology).

*London Hospital Medical College.*—Mr. R. J. Howard, Dr. R. Warren, Dr. R. Milne (Clinical Surgery), Dr. O. F. F. Grünbaum (Pharmacology).

*London School of Tropical Medicine.*—Mr. H. B. G. Newham (Tropical Medicine).

*Honours in Psychology for Internal Students.*—It was resolved that the examination in psychology for the B.A. Honours Degree in Psychology for internal students (Red Book, September, 1910, pp. 84–86) consist of six papers as follows: Two in general psychology, two in experimental psychology, one in comparative and abnormal psychology, one in essays, and two practical examinations, and that the examination in the subsidiary subject consist of two papers, or one paper and a practical examination if the subject chosen is one wherein a practical examination is desirable.

*Emeritus Professor at University College.*

The title of Emeritus Professor of Clinical Medicine at University College was conferred on Sir Thomas Barlow, Bart., K.C.V.O., M.D., F.R.S.

### BROWN ANIMAL SANATORY INSTITUTION.

The annual report of the Superintendent of the Brown Animal Sanatory Institution stated that 5,485 animals had been treated as out-patients and 688 as in-patients during 1910. The five lectures required under the will of the late

Mr. Brown were delivered by the Superintendent, Mr. F. W. Twort, in the Physiological Laboratory of the University. The first three were on the lepra bacillus and the bacillus of Jöhne's disease, the fourth was on tubercle bacilli isolated from man, and the fifth was on some experiments on creatin, etc. The number of bacteriological and pathological examinations carried out in the laboratory on material obtained from the hospital had been greater in 1910 than in the previous year. Various malignant growths, inflammatory products, and other materials had been investigated. Particulars were also given of experiments which had been carried out.

*External Examiner in Sociology.*

Dr. W. H. R. Rivers, F.R.C.P., F.R.S., was appointed External Examiner in Sociology for the year 1911–12.

*Dean of the Faculty of Medicine.*

Professor S. H. C. Martin, M.D., F.R.S., has been elected Dean of the Faculty of Medicine for the remainder of the period 1910–12.

*Appointment of Representatives.*

The following appointments have been made:

Mr. L. V. Cargill, F.R.C.S., Governor of King's College School, Wimbledon.

Mr. F. T. Travers, M.B., B.S., Governor of Maidstone Grammar Schools.

Dr. E. Graham Little, F.R.C.P., Representative of the University at the celebration of the Royal University at Breslau in August, 1911.

Mr. H. B. Wilmot, M.R.C.S., L.R.C.P., has been re-elected a Governor of the Latymer Foundation, Edmonton.

*Advanced Lectures in Physiology.*

The following advanced lectures in physiology are announced to be given during the third term:

1. Eight lectures on the gases of the blood, by Professor G. A. Buckmaster, M.D., and J. A. Gardner, M.A., F.I.C., in the Physiological Laboratory of the University, on Tuesday, at 5 p.m., beginning on May 9th.

2. Eight lectures on the mechanism of oxidation, by W. M. Bayliss, D.Sc., F.R.S., at University College, on Fridays, at 4.30 p.m., beginning on May 5th.

3. Eight lectures on the secretion of urine, by Professor T. G. Brodie, M.D., F.R.S., at King's College, on Wednesdays, at 4.30 p.m., beginning on May 10th.

4. Four lectures on the secretion of urine, by Dr. J. S. Haldane, F.R.S., at Guy's Hospital, on Thursdays, at 4 p.m.

5. Four lectures on the importance of organic chemistry in relation to physiology, by F. G. Hopkins, M.B., D.Sc., F.R.S., at Guy's Hospital, on Thursdays, at 4 p.m.

6. Four lectures on autolysis, by E. L. Kennaway, M.B., B.Ch., at Guy's Hospital, on Thursdays, at 4 p.m., beginning on June 8th.

Courses (1), (2), and (3) have been recognized by the Senate as courses of advanced lectures which a candidate at the B.Sc. (Honours) Examination in Physiology may name for part of his examination.

Students requiring further information regarding the lectures should address their inquiries to the heads of the laboratories at which they will be delivered. The names are as follows: Professor Waller, F.R.S. (the University), Professor Starling, F.R.S. (University College), Professor Halliburton, F.R.S. (King's College), Dr. M. S. Pembrey (Guy's Hospital).

*University Studentship in Physiology.*

A university studentship in physiology of the value of £50 for one year will be awarded to a student qualified to undertake research in physiology, and will be tenable in the Physiological Laboratory of the University, or of a school of the University. Applications must be received by the Principal on or before May 31st, 1911.

KING'S COLLEGE.

*Post-Graduate Course of Applied Anatomy.*

A post-graduate course of applied anatomy will be given twice in the year during the summer and winter terms in the Anatomy Department of King's College. The class will commence on May 8th at 4.30 p.m., and will meet on Mondays, Tuesdays, and Fridays until the middle of July. The fee for the course is £4 4s.

UNIVERSITY COLLEGE.

Dr. Thomas Lewis will deliver a course of six lectures on the graphic methods of investigating heart disease, on Fridays at 4 p.m., commencing May 5th. The lectures are free to all students and members of the profession on presentation of visiting card.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*†G. J. F. Elphick, *†J. B. Holmes, *†T. T. O'Callaghan, *†H. L. Tidy, *†G. H. Varley.
MEDICINE.—*†H. H. Budd, †J. B. Holmes, *J. E. S. Sheppard-Jones, *†H. L. Tidy.
FORENSIC MEDICINE.—R. E. Laurent, P. McGinnis, H. L. Tidy.
MIDWIFERY.—N. S. Adler, R. E. Laurent, P. McGinnis, H. L. Tidy, G. H. Varley.

* Section I. †Section II.

The diploma of the Society has been granted to Messrs. G. J. F. Elphick, J. B. Holmes, T. T. O'Callaghan, and H. L. Tidy.

# The Services.

## EXAMINATIONS FOR VOLUNTARY AID DETACHMENTS.

AT a recent meeting of the Worcester Division of the British Medical Association, the Chairman, Mr. J. Lionel Stretton, brought to notice a communication he had received from the secretary of the Midland Counties Union of Educational Unions. The communication was to the following effect:

Dear Sir,

Your name has been suggested as that of a gentleman who might be prepared to help the work of this Union by undertaking the work of examination in Ambulance Work and in First Aid and in Home Nursing for Voluntary Aid Detachment classes. The fees we are able to offer are small, as we have to meet the cases of small evening classes, and many of them in rural districts. For an examination of a small number of candidates the fee is 10s. 6d.; but where the number of candidates necessitates a longer stay it is 15s. 9d., and for a good-sized class it is 21s.; and we, of course, pay all necessary travelling expenses.

I hope you will be able to render us this service, and shall be glad to hear from you at your earliest convenience.

Yours truly,
(Signed) W. J. HARRIS.

Dr. L. Stretton,
Kidderminster.

Mr. Stretton's reply was as follows:

Dear Sir,

The fee for Ambulance examination is one guinea and travelling expenses.

I do not think any respectable member of the profession will accept less.

Yours truly,
(Signed) J. LIONEL STRETTON.

The Division expressed its full concurrence with the course Mr. Stretton had taken.

It is indeed extraordinary how organizations established for charitable purposes or for the advancement of the public welfare imagine that they are justified in calling upon members of the medical profession to discharge duties of a technical nature for a remuneration which is really an insult. It is easier to understand an appeal to the generosity of the profession to do such work for nothing, though such an appeal would, we think, be unjustified, because, if the work is required for the good of the State, the State should provide reasonable remuneration. It is very well that the profession should have so high a reputation for doing charitable deeds, but when it comes to the organization of the defence of the country against possible invasion it is asked to do a public duty to which a suitable fee should attach.

## INDIAN MEDICAL SERVICE.

STUDY LEAVE.

IT is notified that an officer of the Indian Medical Service who cannot, on grounds of public convenience, be granted study leave in time to qualify himself while in the rank of Captain for accelerated promotion, shall have the concession of accelerated promotion open to him for a period of four years after his promotion to the rank of Major in the ordinary course. If at any time within these four years he qualifies for accelerated promotion by producing satisfactory evidence of progress in knowledge of Urdu in the terms of the notification above referred to, his promotion will be antecedent and his position in the Army List adjusted accordingly, but he will have no claim to any arrears of pay at the advanced rate.

THE Bulgarian Chamber of Deputies has passed a bill providing for the formation of a new Ministry which is to deal with sanitary affairs and with labour. In addition to the administration of the public health service this Ministry is to have under its jurisdiction school doctors, civil hospitals and scientific institutions, veterinary surgeons, pharmacists, Poor Law doctors, those appointed for special service during epidemics, and medical officers to railways.

THE third International Congress for the Care of Nurslings will be held in Berlin in September next (11th to 13th). The congress is under the patronage of the German Empress, and the Imperial Chancellor is the President of the Honorary Committee. The General Secretary is Professor Keller, Kaiserin Augusta-Victoria-Haus, Charlottenburg, Berlin. An excursion for members who wish to visit the Hygiene Exhibition at Dresden has been arranged for September 15th.

# Medical News.

The Czar has contributed the sum of £1,000 to the funds of the All-Russian League against Tuberculosis.

An international homoeopathic congress—the eighth of the quinquennial series—will be held in London this year (July 17th to 22nd).

The Canadian Association for the Prevention of Tuberculosis will hold its eleventh annual meeting at London, Ontario, on May 18th and 19th.

Dr. William H. Fretz (Senior Medical Officer) has been appointed an unofficial member of the Legislative Council of the Presidency of St. Christopher and Nevis.

The Duke of Northumberland, President, will take the chair at the annual dinner of the Royal Sanitary Institute at the Langham Hotel, London, on Thursday, May 18th.

Dr. M. S. Pembrey will give a lecture at the Royal Sanitary Institute, Buckingham Palace Road, S.W., on the Physiological Principles of Physical Training, on Wednesday, May 3rd, at 5 p.m.

The annual general meeting of the Medical Defence Union will be held at the Grand Hotel, Brighton, on Thursday, May 18th, at 4.30 p.m., when the annual report of the council for 1910 will be duly presented to members.

Dr. Louis Gabriel Barbeau (Acting Director of the Medical and Health Department) and Hassan Sakir, M.B., have been appointed Nominated Members of the Council of Government of the Colony of Mauritius.

The annual conversazione of the Medical Society of London will be held on Monday evening, May 15th. The President will receive the visitors at 8.30 p.m. and at 9 p.m. Dr. William Pasteur will deliver the oration; he has chosen for his subject Post-operative Lung Complications.

The Ingleby Lectures before the University of Birmingham will be delivered this year on Thursdays, May 18th and 25th, at 4 p.m., by Dr. E. F. Bashford, in the Medical Lecture Theatre. The subject selected is Advances in Knowledge of Cancer; the lectures will be illustrated by lantern demonstration.

The total number of students in the University of Vienna in the last winter semester was 9,922. Of these, 2,106, of whom 96 were women, belonged to the medical faculty. This number does not include 379 students attending special courses; of these, 8 were women.

Mr. Henry Boutflower, who recently resigned the office of Honorary Surgeon to the Royal Salford Hospital, has been elected an Honorary Consulting Surgeon to that institution. The Board of Management, in recording its sense of the valuable services rendered to the hospital by Mr. Boutflower, stated that it was as long ago as 1870 that he succeeded his father, who had been surgeon to the institution since its foundation in 1827.

At an exhibition, to be open all day at the Holborn Town Hall on May 9th, the Nurses Missionary League will illustrate various forms of nursing work in the Far East. The proceedings include "A Chinese feast" and "A Japanese reception," and short addresses at intervals by various medical men and women and nurses who have practical experience of work in the East. Tickets can be obtained from Miss H. Y. Richardson, 52, Lower Sloane Street, London, S.W.

The Metropolitan Public Gardens Association ended last year with a not very satisfactory balance on the right side. Its work is to guard all open spaces from threatened encroachments and to endeavour to secure and lay out suitably for the public benefit any fresh spaces which become available. To its energies Londoners owe directly or indirectly a very large proportion of all the open spaces which do so much to relieve the monotony of endless pavements and streets. It should receive more support. Its head quarters are at 83, Lancaster Gate, W.

On the eve of his departure from Dartford, where he was medical officer of the union infirmary for some seventeen years, Dr. Richmond Allen was the recipient of a silver salver and an address from a large number of officials of the union and other friends. In making the presentation, the Chairman of the Board of Guardians said that he desired to express the general appreciation both of Dr. Allen's services and of the courtesy and kindness with which they were accompanied. Whenever Dr. Allen had not been in agreement with the guardians the latter had always recognized that he felt it his duty to differ from them in the interests of the efficiency of the institution in his charge. A corresponding presentation was made to Mrs. Allen.

The presentation of new graduates of the University of London will take place at the university at 3 p.m. on Wednesday, May 10th. At 6 p.m. a service will be held at St. Paul's Cathedral, open to all persons connected with the University of London as recognized teachers or in other ways, to all graduates and undergraduates, and to all regular students of schools of the University. The Chancellor, the Earl of Rosebery, will be present, and seats will be reserved for graduates and undergraduates, who are requested to wear academic dress. Applications for seats, accompanied by a stamped addressed envelope, should be received by Mr. S. Hoyte, 88, Gower Street, W.C., not later than May 3rd. On three previous occasions a service has been held on Presentation Day in Westminster Abbey, but the Abbey will be closed this year for the coronation preparations. The sermon will be preached in St. Paul's Cathedral by the Rev. J. G. Simpson, Canon of St. Paul's.

A quarterly court of the directors of the Society for the Relief of Orphans and Widows of Medical Men was held on April 12th, Dr. Blandford, President, in the chair. Sixteen directors were present. Two gentlemen were elected members of the society. The report and balance-sheet for the year 1910, to be submitted at the annual general meeting, were approved. The invested funds of the society now amount to £100,900. Relief is only granted to the widows and orphans of deceased members. Membership is open to any registered medical practitioner who, at the time of his election, is residing within a twenty-mile radius of Charing Cross. The annual subscription is two guineas; special terms for life membership according to the age of the candidate. Full particulars may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W. The annual general meeting will take place on May 17th at 5 p.m.

It was announced in the British Medical Journal of November 5th, 1910, that the International Congress of Dermatology and Syphiligraphy will hold its seventh meeting in Rome next September (25th to 29th). The President is Professor Tommaso de Amicis, of Naples, Senator of Italy; the Secretary-General, Dr. Gaetano Ciarrocchi, 5, Piazza Grazioli, Rome. The following subjects have been selected for discussion: (1) The influence of the new etiological, diagnostic, and experimental researches on the treatment of syphilis, and the possibility of immunization or of a radical or abortive treatment of the infection. (2) The results of physio-therapy in diseases of the skin. (3) Blastomycosis, sporotrichosis, and their relation to analogous processes. Members who intend to take part in the discussions or to read papers are requested to send a short typewritten abstract of their communications to the Secretary-General before the end of April. A final programme will be published in May. The fee for membership is £1. The Secretary for Great Britain and Ireland, Dr. H. G. Adamson, 9, Weymouth Street, London, W., will be glad to give any further information to members or to those desirous of becoming members.

At the meeting of the Royal Meteorological Society on April 19th, Mr. W. Marriott read a paper on variations in the English climate during the thirty years 1881–1910. In 1874 the society commenced the organization of a series of "Second Order Stations" at which observations of pressure, temperature, humidity, rainfall, and wind, are made twice a day (at 9 a.m. and 9 p.m.). In addition to these another class of stations termed "Climatological" at which observations are made once a day (at 9 a.m.) was organized in 1880. From an examination of the records for the thirty years he found that the warmest months were August 1889, July 1900, and July 1901; while the coldest months were February 1895, January 1881, and December 1890. During the last fourteen years the temperature in October was above the average except in 1905. The years with the highest mean temperature were 1898, 1893, and 1899, and the years with the lowest temperature were 1892, 1888, and 1887. The month with the highest mean pressure was February 1891, and that with the lowest pressure was March 1909. On the average April was the month with the least rainfall, and October the month with the heaviest rainfall; while June had the least number of days of rain. The wettest months during the thirty years were October 1903 and October 1891, and the driest months were February 1891 and April 1893. The years with the heaviest rainfall were 1903 and 1891, and the years with the least rainfall were 1887 and 1893. The wind diagrams showed that the prevailing winds were from south-west and west, but that in April, May, and June, north-easterly winds were more pronounced than in the other months of the year.

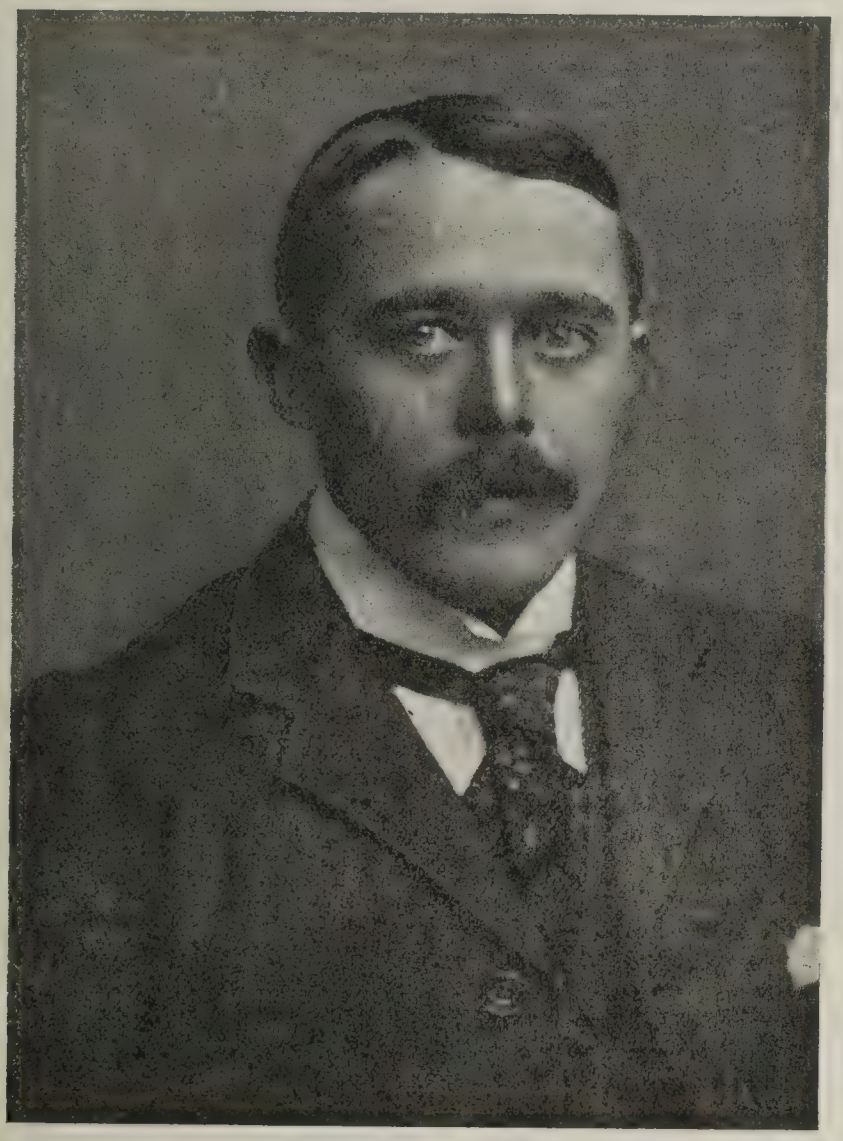
# Obituary.

## MAJOR LAMB, M.D.GLASG., I.M.S.

BY the death of Major Lamb, a brief notice of whom appeared in the JOURNAL of April 22nd, the Indian Medical Service has lost one of its ablest and most esteemed members, and science has been robbed of one of her most ardent devotees. A correspondent who knew him well has sent us the following more detailed account:

Dr. Lamb was a man of great scientific attainments, and although but 41 years of age, had already achieved a reputation which is by no means confined to India. His contributions to science are as well known and as highly appreciated by scientific men throughout the world as by his colleagues in the service.

His early death, at a period when his judgement had matured but his imagination and enthusiasm remained unimpaired, is a serious loss to the small band of earnest scientific investigators in India, and one which will not easily be made good.



MAJOR LAMB, I.M.S.
*(Photograph by T. and R. Annan and Sons, Glasgow.)*

Lamb was educated at the Glasgow High School, whence he proceeded to the University of Glasgow in 1886. He had a brilliant university career, and on graduating in 1890 received the Bruton Memorial Prize as the most distinguished graduate of his year. On taking the degree of M D a few years later, he was awarded the Bellahouston Gold Medal.

After a year spent in filling resident appointments at the Western Infirmary under Sir Hector Cameron and Sir William Gairdner, he became Demonstrator of Anatomy under Professor Cleland. This position he relinquished in 1893 when he entered the Indian Medical Service, obtaining the first place in the competitive entrance examination. At Netley he obtained most of the prizes available, and at the conclusion of the course again took the first place.

At Netley Lamb encountered Sir Almroth Wright, who was then Professor of Pathology at the Army Medical School. The direction of his interests towards Pathology was due in large measure to Professor Wright's influence. Lamb owed much to the inspiration gained from this teacher, and was always pleased to express his indebtedness and to insist with charming enthusiasm on the great stimulus Wright's teaching had been to him.

In April 1894 Lamb proceeded to India, and for the next three years was employed in military service, mostly on the North-West Frontier, where he took part in the Waziri expedition. He could hardly have conformed to all the conventional ideas of a military surgeon, but he was very popular with his brother officers, and greatly esteemed by the troops under his medical care. These consisted for the most part of men recruited from the Hill tribes—wild creatures whose morals and ideals differed no doubt from average European standards, but for whom, nevertheless, he entertained a considerable measure of respect. On the Frontier, especially under active service conditions, Lamb experienced life stripped of most of its affectations, a thing which is always educative and salutary, and especially so to one who has just spent seven years of academic existence. Although often at the time chafing to be again at scientific work, he was wont to look back upon his three years spent as a military surgeon on the Frontier without regret and with evident enjoyment.

In 1897 he returned to Europe on six months' leave, which he spent in study at the Pasteur Institute in Paris. On the termination of his leave, he was delighted to find that he had been selected by the Government of India to proceed to the Royal Army Medical School at Netley for further training in pathology and bacteriology, and to assist his former teacher, Professor Wright, in the teaching work of the Department of Pathology. This happy arrangement lasted for eighteen months, and Lamb always regarded it as the most joyful time of his life. The admiration he had conceived for Wright when a student at the Army Medical School rapidly developed into the warmest affection with the closer intimacy which he now enjoyed with his chief. The teaching duties were neither arduous nor continuous, and the major portion of his time and energy was available for research. The conditions in the laboratory were most congenial. The other assistants were Major Semple (now Sir David Semple) and Captain Birt (now Colonel Birt), with both of whom he collaborated in researches and formed close friendships, which lasted throughout life. Whilst at Netley, Lamb published three valuable papers dealing with various aspects of immunity, which showed that the brilliant student had become a capable investigator.

Returning to India in 1899, he became Assistant to Professor Haffkine, at that time Director of the Bombay Bacteriological Laboratory at Parel. In addition to numerous duties connected with his post, Lamb now commenced a series of investigations into the action of Indian snake venoms, for which he is justly renowned. These researches, which at first dealt with the nature and physiological action of the poisons produced by the different serpents of India, were later concerned with the production, properties, and standardization of antivenomous serums, and brought to light many facts of fundamental importance to the doctrine of immunity. The results appeared in twenty papers published between 1899 and 1907, partly in the *Scientific Memoirs* of the Government of India and partly in the *Lancet*. These researches, which involved the analysis of the action of the different poisons upon the various mechanisms of the animal body, necessitated the employment of very various physiological and pathological techniques. They were carried out in laboratories in India which were by no means sumptuously equipped for such inquiries. Nevertheless, they are models of insight and accuracy, and form a monument which will endure in the annals of scientific achievement. At the commencement of these inquiries Lamb was himself bitten by a cobra whilst manipulating the reptile in the laboratory, and narrowly escaped with his life.

It was about this time that the writer first met Dr. Lamb. He goes on:

Lamb's earlier researches on snake poisons had led to a correspondence between us, and in 1901 it was arranged that we should meet in Bombay. I recall w

vivid distinctness our first meeting. It was in one of the quaint laboratories transformed out of old Government House, Parel, which had previously been a Portuguese Jesuit seminary. It smelt strongly of teak, of which the fittings were constructed. I was enchanted by the simple frankness and geniality which contributed so greatly to the charm of his personality, and within a few minutes we seemed to be old friends. It was, however, his extraordinary keenness which impressed me most. Making every allowance for the intensification of the impression by the background—the climate of Bombay does not conduce to the manifestation of acute mental alertness and enthusiasm—Lamb struck me as the keenest man I had ever met. I remember we spent most of the night in a half naked condition discussing snake poisons, and that it was one of the most entertaining conversations I have ever enjoyed.

Dr. Lamb left Bombay in 1903, and spent the next few years at Kasauli, where he was assistant to Colonel Semple at the Pasteur Institute of India. Shortly before leaving Parel he married Patricia Liston, the sister of his old friend and colleague, Major Glen Liston.

The effect of strenuous work in Bombay had been very trying, and he left that picturesque city regretting only its glorious harbour, for he was an enthusiastic sailor-man, and his only recreation was sailing his *Tom-Tit*. Kasauli, being situated on the summit of one of the foot-hills of the Himalayas, enjoys a delightful climate, excellent for children, and, in addition, laboratory work may be indulged in with as little injury to health as in this country. The isolation, too, was congenial both to Mrs. Lamb and himself, and he looked forward to much quiet happiness and increasing opportunities for scientific work. Although at Kasauli the work of the Pasteur Institute, where about 1,000 patients were annually treated for rabies, made greater demands upon his time than had the duties of the post at Parel, this was more than compensated for by the improved climatic conditions. The snake-poison work was continued and experiments on the standardization of antityphoid vaccines and other researches incidental to work of the institute were also carried out.

Before leaving Bombay Lamb had discovered the existence of Mediterranean or Malta fever in India, and was inclined to believe that many of the obscure cases of fever amongst native troops, hitherto indiscriminately ascribed to malaria, were really cases of this disease. This view was warmly combated in many quarters. At Kasauli, however, he had the opportunity of studying some suspicious outbreaks amongst troops in the Punjab, and succeeded not only in justifying his contention, but showed that the disease was brought about by the consumption of infected goat's milk, as had recently been ascertained to be the case in Malta by the Mediterranean Fever Commission.

In 1905, Colonel Semple having been transferred to the new Central Institute for Research recently built at Kasauli, Dr. Lamb succeeded to the position of Director of the Pasteur Institute. At the same time he gained his majority by accelerated promotion on the ground of his distinguished services.

He had not long held this responsible position, however, when the Advisory Committee for the Investigation of Plague in India, which had been constituted to promote investigation into the means of spread of plague in India, asked the Government of India to place the services of Major Lamb at its disposal. The Government of India could not at first see its way to comply with this request, as difficulty was experienced in finding a suitable substitute to take up the responsible work of antirabic inoculation at the Pasteur Institute. The committee was so convinced, however, that Lamb was essentially the man to be the senior member of the Commission, that it did not accept the reply of the Indian authorities as final, and after much importunity on the part of the committee its request was acceded to.

Its confident expectations were more than justified. Under the leadership of Major Lamb the Commission has carried out an extensive series of researches, both epidemiological and experimental, the conception and thoroughness of execution of which has commanded the respect and admiration of epidemiologists and bacteriologists throughout the world. Its researches have shown in the clearest manner the more important conditions governing the spread of human plague in India and the mechanism by which the disease is transferred from rat to rat and from rat to man. To Major Lamb a very large part of the credit for the success obtained is justly due.

The subject of plague has not of late years attracted much interest in this country. We have become accustomed to the news of the holocaust annually occasioned by the disease in India. It is pleasing therefore to remember that the Council of the British Medical Association, recognizing the importance of the results of the work of the Commission and Major Lamb's share therein, last summer awarded him the Stewart Prize for the most important contribution made within the last few years to our knowledge of the spread of a disease.

In this appreciation of Major Lamb the scientific side of his career has been more particularly represented. His death will also be a serious grief to a large number of friends and acquaintances, who came to love and admire him as a man, and among those who will mourn his loss most acutely will be his old bearer, who had faithfully served him since he came to India, and whom I last saw tending with the same pride and care the little sahibs of the next generation.

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## J. GORDON ASHER FORSYTH, M.B., C.M.,

INVERNESS.

IT is with sincere regret that we have to announce the death on April 22nd of Dr. Asher Forsyth from cardiac failure, following an attack of acute pneumonia; he had passed the critical period of the disease and was progressing very satisfactorily when a sudden attack of cardiac weakness set in from which he never rallied.

A son of the manse, Dr. Asher Forsyth was born at Abernethy, in the shadow of the Cairngorms, forty-six years ago, his father, the late Rev. Wm. Forsyth, D.D., being the minister of that parish for many years. Educated at the parish school and subsequently at Aberdeen, he attended the arts classes in the university for two years and then proceeded to study medicine at Marischal College, graduating M.B., C.M. in 1888. After leaving the university he was for a short time surgeon on board a steamer trading between India and China; returning to this country, he held an assistantship in England for a year or two, ultimately settling down in Inverness a little over twenty years ago.

During his sojourn in Inverness Dr. Forsyth acquired a large practice. He was a good type of the family physician, and was most conscientious in the performance of his professional duties. He was one of the medical attendants to the Northern Infirmary, and both in this capacity and as one of the directors of that institution he devoted much time and trouble to its welfare. Of a genial, kindly, and likeable disposition, Dr. Forsyth endeared himself to his many friends and patients in Inverness, and his death at a comparatively early age has caused deep feelings of regret not only in that town, but in the neighbourhood where he was well and favourably known. He was an active member of the British Medical Association, and as President-elect of the Northern Counties of Scotland Branch he was looking forward with much pleasure to presiding at the annual meeting, which out of courtesy to him was to be held at Grantown-on-Spey, which is within a few miles of his birthplace. He was a keen Freemason and a strong Conservative in politics, but was by no means an aggressive one.

Dr. Forsyth leaves a widow and a son and daughter, to whom, as well as to his aged mother, the sympathy of his professional and other friends not only in Inverness but throughout the country will be extended.

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## HENRY EDWIN SCOTT, L.R.C.P. AND S.E.,

KIKUYU, BRITISH EAST AFRICA.

NEWS has been received in Edinburgh of the death, at Kikuyu, British East Africa, of the Rev. H. E. Scott, L.R.C.P. and S.E., medical missionary there.

Dr. Scott, who was in his forty-eighth year, was educated at the Royal High School and the University of Edinburgh. He was a distinguished football player and a good all-round athlete. When he was last in Edinburgh his friends noticed that his fine physique

had suffered severely from his sojourn in Africa. Dr. Scott had been a missionary of the Church of Scotland since 1890. He was first stationed at Nyasaland, and in December, 1907, he was transferred to Kikuyu, British East Africa, to act as the head of the Church of Scotland Mission there. He took a prominent place in the public life of the community. He was a member of the Government Board of Education, and in other directions he was applied to by the Government for advice in connexion with native affairs.

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DR. LOURENÇO PEREIRA MARQUES, who died recently at Macao, in China, was born at that place in the famous "Garden of Camoens" in 1852. He received his early education from the Jesuits, studied medicine at Lisbon, and afterwards at Dublin, where he obtained the diplomas of the Colleges of Physicians and Surgeons in 1877. In 1881 he was admitted a Member of the Royal College of Physicians in Ireland. He returned to China in 1878 and practised at Hong Kong till 1896. He was appointed Medical Superintendent of the civil hospital there in 1880, and held several other appointments in the hospitals of the colony. He received the thanks of the Government for his services during the cholera epidemic in 1883. He was a Commander of the Order of Christ and a Knight of that of the Torre e Espada, distinctions conferred upon him for his services during epidemics of plague and cholera. In 1895 he retired from the public service and settled in his native place. Dr. Pereira Marques had a high ideal of his profession, and throughout his life showed the most self-sacrificing devotion to duty.

# Public Health AND POOR LAW MEDICAL SERVICES.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Bromsgrove Urban District.*—The birth-rate was 24.8 of the population of 8,740, the death-rate from all causes 13.2 per 1,000, and the infantile mortality-rate equal to 92 per 1,000 births. Dr. Cameron Kidd, the medical officer of health, states that he proposes to make the experiment of discharging scarlet fever patients from the isolation hospital at the end of five or six weeks without waiting for the completion of desquamation, provided there are no signs of catarrhal complications or discharges from the ear or nose. He refers to the increasing number of duties which are placed upon medical officers of health, without any additional remuneration being made them. His salary of £30 per annum has been unaltered since he was first appointed twenty-three years ago. He expresses the opinion that a medical officer of health who is in private practice should be paid a salary which would compensate him for the inevitable losses which must fall upon him in his practice if he carries out his public duties honestly and conscientiously.

*Chesterfield Borough.*—The population of the borough of Chesterfield as extended on November 9th, 1910, was estimated at 39,592, but Dr. Herbert Peck's report deals with the old borough with an estimated population of 31,845 persons. The birth-rate was 27.4 per 1,000, the death-rate from all causes 13.2 per 1,000, and the infantile mortality-rate was equal to 158 per 1,000 births. One-third of the total number of deaths was among children under one year of age. High as this rate of infantile mortality is when compared with that which prevailed in the whole country (106), it is 15 per 1,000 below the average Chesterfield rate of the preceding ten years. Dr. Peck considers that the efforts of Dr. Bethia Alexander, who has acted as health visitor for three years, have done a great deal towards lowering the rate. The number of deaths from convulsions, which are principally due to improper feeding, has been reduced to one-half that which formerly prevailed. The death-rate from diarrhoea, which was double that of the country generally, may be attributed to the existence of privy-middens in the town. The corporation would be well advised to act upon the advice of their medical officer of health and hasten on the conversion of these structures to water-closets.

*Stretford Urban District.*—Based upon an estimated population of 44,680 persons, the birth-rate in 1910 was 18.2 per 1,000, the death-rate from all causes 10.6 per 1,000, and the infantile mortality-rate was equal to 100 per 1,000 births. Measles was compulsorily notified in Stretford from 1894 until 1902, since which date the number of deaths from the disease has averaged 6 annually. In 1910 there were no deaths from measles. Whenever a case comes to the knowledge of the medical officer of health a pamphlet is left at the house concerned pointing out the precautions to be taken to prevent complications and the spread of the disease. Four cases of ophthalmia neonatorum were notified during the year; all the patients recovered without injury to their eyes. The deaths from phthisis numbered 41, but only 11 notifications were received under the Public Health (Tuberculosis) Regulations, 1908. There have now been erected by the corporation sixty-six houses as part of a scheme providing for the erection of 112 houses sanctioned by the Local Government Board in 1904. The report indicates that a great deal of good work is being quietly carried on by Dr. W. J. Heslop, the medical officer of health.

*Renfrew Burgh.*—The estimated population at the middle of 1910 was 12,888. The birth-rate was 27.9 per 1,000, the death-rate from all causes 13.6 per 1,000, and the infantile mortality-rate was equal to 119 per 1,000 births. Among the matters which Dr. W. G. Stevens considers still require to be attended to are the unseemly handling of bread; the unsatisfactory milk supply and distribution; the existence of many old-fashioned ash-pits; the existence of many closed-in beds; dirty houses; the defective state of many back courts; dirty and verminous children; the sale and use of baby comforters; and expectorating in public places. Many of these, he maintains, would be removed if the dormant sanitary conscience of the inhabitants could be awakened.

*Paisley Burgh.*—The estimated population of Paisley at the middle of 1910 was 93,584. The birth-rate was 23.9 per 1,000, the death-rate from all causes 13.7 per 1,000, and the infantile mortality-rate 113 per 1,000 births. Dr. Clark Trotter points out that among town dwellers in Scotland the good nourishing food and the oatmeal of their forefathers is seldom used, and he expresses the opinion that the badly-nourished children now seen are the result of tea and white bread, a diet which has been extensively used for at least two generations. The Paisley Town Council has decided to have one of the smaller wards of the infectious diseases hospital altered for the reception of cases of phthisis. The home visitation of consumptive patients is producing good results in Paisley. During 1910 among those visited 17 had removed to better houses, 17 others were provided with a room to themselves, and 12 others who previously slept with other members of the family with a bed of their own.

*Croydon Rural District.*—The population was estimated at 63,600. The birth-rate was 23.0 per 1,000, and the very low death-rate of 8.9 per 1,000 was recorded. The infantile mortality-rate was 67 per 1,000 births. Dr. Fegen refers to the great nuisance which is caused in some parishes by the importation of offensive London refuse. Steps have been taken to minimize the nuisance as much as possible, but difficulties arise because the railway companies, being "common carriers," are bound to carry this material. A conference has been called with adjoining districts to discuss the advisability of taking joint action in the matter. In the section on milk supplies Dr. Fegen points out that if milk is obtained solely from healthy cows, and handled with proper observation with regard to the admission of dirt or other filth and if the milk is properly cooled immediately after milking, there is no need for pasteurization, sterilization, or the addition of any of the so-called preservatives which do not in themselves tend to preserve the milk, but merely mask the putrefactive changes which may have already commenced in the milk.

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## ACTIONS AGAINST ISOLATION HOSPITAL AUTHORITIES.

MEDICAL SUPERINTENDENT writes: I have charge of an infectious disease hospital nominally for 81 beds, but actually possessing 163 beds. Patients consist of scarlatina, diphtheria, and enteric cases. In the board's year from April 1st, 1910, to March 31st, 1911, 1,248 patients have passed through the hospital; of these 944 were scarlatina cases, and 98 beds were used for the scarlatina patients. A small-pox hospital (63 beds), situated three miles distant from the infection hospital, was used to take scarlatina cases at the end of three and a half weeks; it was used as a convalescent hospital; 644 patients were sent there; they lived quite an outdoor life. A child which had a simple attack of scarlatina was in hospital eight weeks, being kept in two weeks longer than usual owing to slight rhinitis; when dismissed the nose had been dry for four days and the child appeared free from infection; there was a slight desquamation on the heels. The day the child left the hospital was bitterly cold, and a taxicab was brought for it, in which, on the way home (six miles), were the father, mother, and aunt. The windows of the taxicab were kept closed, but on arrival home the child again had a running nose. Three days after arriving home the father developed scarlatina and was removed to hospital, and is now up and going on well. He has a shop in which business is at a standstill during his absence, and the wife is now taking legal proceedings for compensation, stating that the child was "not cured" when discharged from hospital. Our correspondent asks for information as to what has happened in former cases of this nature.

*** Quite recently the Torquay Corporation had to pay damages in a similar case. A somewhat similar case occurred at Hereford in 1903, and is recorded in the report of the medical officer of health for that year; damages were awarded in the county court, the judge laying great emphasis on the absence of a discharging block at the hospital, a defect which has since been remedied. Cases of the kind which have not, we believe, been published have, we understand, occurred in Bradford and in Birmingham.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

RUSTICUS wishes to know whether there is any chance of combining the practice of medicine and fruit growing in British Columbia.

A MEDICAL MAN, not in practice, desires to be recommended a locality, not a large town, which climate and soil render suitable as a residence for one subject to rheumatism.

MIDLANDS, who has found out for himself that a washable collar purchased at a rubber shop for 7½d., and made no doubt of celluloid, burst into flame if kept for less than a minute at a distance of 3 inches from a gas stove, asks whether there is any safe form of collar which does not need to be sent to the laundry; such a collar is required for a boys' orphanage.

## ANSWERS.

### PERINEAL HERNIA.

DR. H. J. THORP (Ipswich) writes, in reply to "J. D.": If the perineal hernia is reducible, it may be supported by a special truss adapted to the requirements of the case or by a pessary; if irreducible, an operation for the removal of the sac is advisable in some cases.

### GENERAL PSORIASIS.

MR. L. B. DHARGALKER, L.M.S. (Bombay) writes to suggest that "Senex," who inquired in the JOURNAL of February 11th as to the treatment of an obstinate case of psoriasis, should try the application of the fresh expressed juice of the black nightshade (*Solanum nigrum*) to the affected parts. The drug was used with success in two obstinate cases of general psoriasis of some twelve years' duration, when other drugs had failed. The applications were continued for a month each day after a bath.

### BOOKS ON GENERAL PSYCHOLOGY.

G. M. C. cannot do better than begin with Professor G. F. Stout's little book, *The Groundwork of Psychology* (London: W. B. Clive, 1903, 4s. 6d.). Professor Wundt's *Outlines of Psychology* is now obtainable in a good English edition (London: Williams and Norgate, 1902, 8s.). If "G. M. C." wishes to proceed to experimental psychology, he should order Professor Myers's *Textbook of Experimental Psychology* (London: E. Arnold, 1909, 8s. 6d.).

### STETHOSCOPES.

AURAL.—Owing to minute but material differences in the sound perception of persons of apparently equally acute or equally diminished hearing power, no one but the individual primarily concerned could possibly say which was the best stethoscope for use by a medical man handicapped by middle-ear catarrh. Some such individuals hear excellently with wooden stethoscopes, and very badly, if at all, with any form of flexible tube, even if supplemented by a phonendoscope, and others vice versa. The only reasonable course is to try on the same chest as many stethoscopes specially devised for the partially deaf as can be found. Messrs. Arnold of West Smithfield used at one time to devote a good deal of attention to this subject, and probably still do so. A special binaural stethoscope devised by Dr. Blackwell and made by Messrs. Allen and Hanbury, and recently mentioned in our columns, might also be tried.

## LETTERS, NOTES, ETC.

### FOURTH ATTACK OF CHICKEN-POX.

DR. SIDNEY MATTHEWS (Crawley, Sussex) writes: I have just attended a man, aged 22, with a fourth attack of chicken-pox. In the light of the remark in the textbooks that second attacks are almost unknown, it seems to me to be sufficiently interesting to record.

### MEAT FOR BABES.

A CORRESPONDENT who signs himself "Baby's Food" writes that in his neighbourhood there is a general opinion that babies of 1 year old, or even less, require mutton or beef-tea as a regular article of diet. He adds that, while recognizing the value of raw meat juice in various conditions, he cannot believe that a healthy baby requires beef-tea, and believes that the idea can only have originated in the recommendation of advertisers who have meat extracts to sell. We have heard of many curious superstitions about the food of babies, but this one is new to us.

### TUBERCULIN IN TUBERCULOSIS.

DR. J. STAVELEY DICK (Manchester) writes: Perhaps you will permit me to correct one rather important error in the report of the proceedings of the Manchester Clinical Society published in the BRITISH MEDICAL JOURNAL, April 22nd, p. 938. It is there stated that in the two pulmonary cases shown "the inoculations (tuberculin) had definitely controlled the temperature." That is not so. On the contrary, tuberculin treatment was not begun in either case until the temperature had been "controlled" by some weeks of rest in bed. Both patients certainly appeared to have benefited by the inoculations. I suggested, however, that "Nature and rest do so much in the majority of pulmonary cases that an accurate estimate of the value of specific treatment is very difficult; but in these two cases, at all events, it was quite clear that tuberculin inoculations had done no harm."

### TUBERCULIN DISPENSARY AT STREET.

DR. HILDA CLARK writes from Levanto to correct a statement in a paragraph published in the JOURNAL of March 18th, p. 663. The paragraph referred to the Tuberculin Dispensary at Street, and, as was stated, was founded upon a report in the *Central Somerset Gazette*. Dr. Clark writes: The note says that patients at this dispensary are given "Fresh-air treatment" as well as tuberculin, and that funds have been raised to enable this part of the scheme to be extended. This suggests that the value and applicability of massive progressive doses of tuberculin has been found limited, and your readers may imagine that the limits have been proved narrower than is the case. The main expense for which funds were asked is that of the tuberculin, the other chief expenses of the scheme, medical and nursing attendance, and the use of a room, having been already provided for.

The question of subsidiary treatment applies to a few cases only. All are advised to keep their windows open, and to obtain suitable food and such rest as is necessary. The majority live under good conditions of housing and employment, and a large number remain at work throughout treatment.

The only patients who have been given what is known as fresh air treatment are nine who have occupied the two maintained beds at the County Sanatorium (Winsley) which are at the disposal of the dispensary. Two of these nine, as also two others, have been lent shelters in which they sleep in their yards. A few necessitous cases have been either referred to charitable agencies or helped from the dispensary funds with milk, blankets, etc.

It is obvious that a careful analysis of the cases must be made to show what part subsidiary treatment may have played in the success of the scheme, but it is worthy of attention that of the cases showing the most marked improvement some are those who have had nothing besides tuberculin. A striking illustration is the case of a man who had been obliged to give up work on account of extreme emaciation and weakness, and whose home conditions were bad. The disease, though in an early stage, appeared rapid, and as he lived beyond the area where we could provide supervision or help it was decided to send him to the sanatorium. While waiting, tuberculin was begun, and was given at his home as he could not walk any distance. In spite of severe reactions he improved so steadily that it was soon seen to be unnecessary to send him away. He returned to work in three months, having gained 16 lb. in weight, and continues perfectly well and strong after three months' factory work, to which he has two miles to walk. The physical signs in the lung, which had been diagnosed by his own doctor, have cleared up. He has not quite finished his course of tuberculin, of which the total cost will probably be about £1.

### ABNORMALLY LARGE FIRST CHILD.

DR. C. LEGG (Tooting) writes: It will be of interest to put it on record that I delivered a primipara on Good Friday of a male child subsequently found to weigh 13 lb. in its clothes, or probably 12½ lb. without. Putting on the forceps before the head had begun to engage the perineum, as far as I can judge it took me from ten to fifteen minutes to get the head out, pulling with all my strength, then about five minutes more before I could get the body out, pulling an arm out first being impossible, and then another ten minutes to coax the child by artificial respiration, etc., back to life, the cord having been so long compressed. Both mother and child are doing favourably. By contrast I may add that a patient had her thirteenth child three days later; all were living. The last child was also a male, that only weighed 10 lb. but still exceptional. This was born before my arrival, but to attend two successive confinements with an average of 11½ lb. babies must be a record.


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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# An Address
ON
# HAEMORRHOIDS.

DELIVERED TO THE ROCHDALE MEDICAL SOCIETY.

BY

E. STANMORE BISHOP, F.R.C.S.,

HONORARY SURGEON TO ANCOATS AND JEWISH MEMORIAL HOSPITALS, MANCHESTER; PRESIDENT, MANCHESTER MEDICAL SOCIETY.

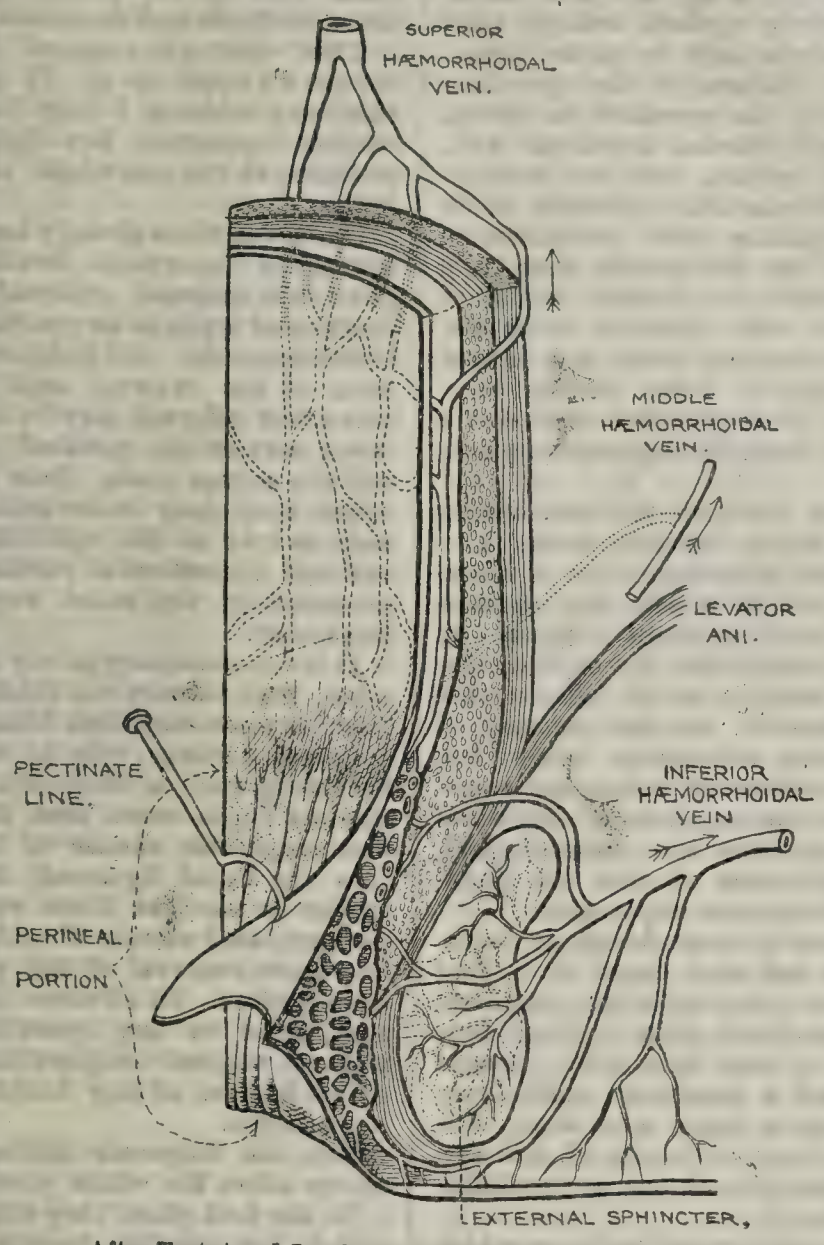
DURING last year the subject of haemorrhoids excited some controversy in the columns of the BRITISH MEDICAL JOURNAL, and was left, as I have always felt, in a very unsatisfactory state. Whilst we, the contributors to that discussion, each expressed our own views in a very decided manner, we gave little or no reason for the faith that was in us, and the divergence of opinion was very great — quite sufficient to puzzle those who, perhaps, had not paid special attention to the subject. It might very well confuse younger operators, and lead to a vague impression that the choice of methods was a matter of no importance and depended chiefly upon personal fancy or the accident of the particular school in which the operator was educated, whereas I hope to be able to show that the final decision should be based upon important and easily demonstrated factors.

In that discussion were to be found men of high surgical attainments and of undoubted authority in operative work, not merely expressing a preference for the ligature or clamp and cautery methods in the treatment of haemorrhoids—methods which must depend for their freedom from relapse upon the personality of the operator and his own personal judgement, but declaring that the Whitehead operation—the only one which entirely removes the dilated and dilatable structures, thus ensuring future immunity — was the worst possible operation, associated at the time with great and unnecessary loss of blood and very liable to be followed by incurable organic stricture of the anus, a condition which, if incurable, is, without doubt, a miserable result.

I wish to examine especially this latter statement, for upon its truth or error will probably depend essentially the course which operators are likely to take in the future. Is the Whitehead operation one which, if properly performed, should leave the patient exposed to such a result, and, if such a result should unfortunately occur as a consequence of imperfect technique, is it incurable?

I presume it may be taken for granted that all are agreed that, other things being equal and the dangers of unpleasant after-effects being eliminated, the method which is most certain to ensure complete return to health without danger of relapse is the method of choice.

When men differ, it is frequently possible to show that the difference has arisen either through some misconception of the meaning of a word or some difference in the point of view of the constituent factors of the condition upon which dispute has arisen; when once this has been made clear the difficulty disappears.




After Testut and Jacob, modified to show pectinate line.

Some such explanation, I believe, may be found in a possibly different conception of the anatomical factors present in this condition.

To begin with, we may at once exclude from consideration the (so-called) arterial pile, which is really a naevus, and which differs entirely in causation, almost entirely in symptoms, and greatly in treatment. This condition is entirely outside the scope of our subject.

Venous haemorrhoids (common piles) are varicose dilatations of the veins composing the internal haemorrhoidal plexus, a network of intercommunicating veins which lies beneath the membrane lining the anal canal and the rectum; this plexus occupies a potential space bounded by the white line at the anal margin below, this membrane within, the muscular wall without, and a line above at which efferent veins pass through the rectal wall to join the superior haemorrhoidal veins. This level is nowhere clearly defined, some authorities placing it higher, some lower. Fortunately this is of no importance, since though such a description may be anatomically correct, surgically it does not accurately define the position.

This internal haemorrhoidal plexus is very clearly divisible into two distinct parts, the lower extending from the anal margin to the level of Morgagni's valves; this is the *portion périneale* of Testut and Jacob. The veins entering into its formation communicate much more freely with each other than in the segment above, forming a closely-meshed network, and emptying themselves almost completely into the inferior haemorrhoidal vein through branches which pass below, through, and immediately above the external sphincter, those at its upper extremity perforating the internal sphincter directly between the external sphincter and the attachment of the levator ani (see schema).

The upper part of this plexus, widely meshed, and with but few intercommunications, lies above the level of Morgagni's valves and ends above in more or less straight veins, the "terminal" veins which empty, as I have said, into the superior haemorrhoidal veins and so into the portal system; with this upper portion, although it is of great importance when the question of causation is under consideration, the surgeon has but little to do when discussing methods of treatment.

It is the lower segment, the *portion périneale*, upon which it is necessary to concentrate our attention.

The lining membrane of this lower segment is not formed from the hypoblastic layer which develops into the primitive gut; it is primarily an epiblastic structure, and formed out of tissues which elsewhere develop into skin and subcutaneous tissue; these two originally distinct formations, the proctodeum and primitive gut, come into contact and fuse together about the end of the fifth week, when the anal plate, which is gut on one side and skin on the other, becomes absorbed and disappears. The level of this plate in after-life is marked by the pectinate line, the line of Morgagni's valves, the line of the upper border of the *portion perineale* of the haemorrhoidal plexus.

We are all, if we think about it at all, apt to consider the lining membrane above the white line at the edge of the anal opening as mucous membrane—to look upon it as the same in structure as the mucosa above the pectinate line;

little, if any, stress is laid upon the difference in anatomical books, still less upon the possible effect that this may have upon surgical work in this region, whilst in most writings dealing with operations the authors distinctly speak of it as "mucous membrane," yet it is evident that there must be an essential difference, a difference not only in the internal membrane itself, but in that immediately underlying it, the layer in which this perineal portion of the internal plexus lies, in which it dilates, and from which it has to be removed. Are these two layers extending through two-thirds of the anal canal, from the white line below to the pectinate line above, mucosa and submucosa or modified skin and subcutaneous tissue?

At first sight this inquiry may seem unimportant, but the characters of the two sets of tissues differ widely; throughout the whole intestine down to the pectinate line the submucosal coat is the most resistant of all; it is from this in animals that the tough resistant catgut is made; it is through this coat that all sutures must pass upon which the surgeon may rely for anything like firm union between divided gut or for security against leakage after such operations as lateral anastomosis or gastro-enterostomy; or perhaps with most likeness to the operation under discussion, as gastrostomy, an operation in which union is sought between skin and internal intestinal wall. Sutures carried merely through mucosa will cut through at once, sutures carried through muscular or serous coats will tear out as soon as or quickly after peristalsis is started; it is only if they grip the submucosa that they can be depended upon to maintain the divided intestinal wall in firm apposition either with itself or with the skin. The characters of subcutaneous tissue are almost the very reverse. This tissue is loose, easily torn, easily distensible; in its loose meshes vessels can easily dilate, whilst it cannot in the least be depended upon to hold sutures.

But it may be said that union between the two occurs so early in development that fusion between them is so complete as to result in a perfect transformation of these tissues down to the white line which marks the junction of what has now become skin and (apparent) mucosa. Is that so? Can we obtain any justification for such a view from any other pathological change which affects this region? I believe that we cannot; on the contrary, if carcinoma starts in the lining membrane below the pectinate line it has all the characters of cutaneous carcinoma with squamous cells; if above, those of intestinal with columnar cells. So that from the embryological, developmental, and pathological points of view the pectinate line would appear to be of supreme importance.

Fortunately we can appeal also to more direct evidence. Vertical sections of the rectum and anal canal show that the lining membrane of the anal canal up to the pectinate line is an atrophied and modified skin without hair follicles or glands, but still a true skin with stunted papillae, thin fibrous layer, and a squamous epithelium, essentially different to the mucous layer seen above this line. But it is extremely thin, very undeveloped, and as a tissue capable of holding sutures it is almost as unreliable as the subcutaneous tissue below it.

There are one or two other anatomical features which are worth a moment's consideration:

First, it will be noticed that the veins lying below the pectinate line empty through efferent veins, which are peculiarly liable to pressure; thus the lower efferent veins pass between the skin and the lower edge of the external sphincter. In the sitting position, the one in which many men and women pass a great deal of their time, this pressure may easily become important, especially when the normal amount of fat about the part becomes absorbed, and we know in fact that piles are more common in those who pursue a sedentary occupation, in cyclists, horsemen, and clerks, and in these more often after than before middle life. The middle efferent veins pass directly through the external sphincter muscle, any extreme contraction of which must have some effect in delaying the venous flow, and this contraction, if persistently repeated, will prove a very efficient factor. The upper efferent veins pass through the internal sphincter, and then are liable to be compressed between the external sphincter lying below and the levator ani fibres lying above them. Both these must be especially effective in that form of chronic constipation associated with a loaded and distended rectum, and, as a matter of fact, we find piles most frequent under such conditions.

At the level of the pectinate line, moreover, the venules which lie along the upper edge of the perineal portion are normally distended into small pouches—"ampoules," as Testut calls them; "glomeruli," as they are termed by Bergmann—which form, says Testut, a sort of irregular crown around this part of the inner wall of the intestine, and it has been suggested that they are frequently the starting points for haemorrhoids. But it may be said that all this is well known and that if in operative works it is not mentioned it is because it is so well known as to be taken for granted. Possibly that may be so, but is full weight given to that knowledge in the directions of the author or in the action of the operator? If so, how is it that authors still advise the ligature method or the clamp and cautery, the principles underlying which simply ignore or contravene these facts? Or is it that there has been, as Maeterlinck says, a failure to connect, a sort of blind spot in the mental retina of those who advocate these methods and denounce the more radical one?

This "failure to connect" is a very curious phenomenon; we are all liable to it. It is very probable that even in this very address I may have overlooked some equally obvious connexion, but that does not invalidate the importance of the one which it has been my object here to render clear.

From what has already been said, it will be evident that not much importance is attached to the classification of piles into internal, external, and mixed, since the actual position of a pile at any particular time is merely a question of development. All haemorrhoids lie originally above the level of the external anal edge, though in one case the veins first affected may be in the upper, in another in the lower part of the perineal portion; if in the lower, they will the sooner make their appearance outside; if in the upper, they may cause much discomfort before they are seen so long as the sphincter is closed, but they are all varicose dilatations at various points of the same network, produced in the same way, and amenable to the same treatment.

It is not necessary to say anything as to the diagnosis of piles; that is only too fatally easy—so easy, indeed, that every layman considers himself able to make it—but it is even yet, perhaps, wise to repeat the old warning against accepting such a diagnosis. It is a curious fact that in the last dozen cases sent to me for operation, in 2 there was inoperable cancer of the cervix, which had spread into the broad ligament; in 1 there was rectal cancer, whilst in another there was an impacted subperitoneal pedunculated uterine fibroid, without the removal of which any mere removal of the piles so produced would have been useless. In all cases one must repeat the old advice that, prior to any operation, careful rectal—and, in a woman, vaginal—exploration by a finger should be made, aided, in case of any doubt, by the dilating speculum or proctoscope.

But, the diagnosis made, how do the previous statements affect the whole question of haemorrhoids?

In the first place, they explain the great readiness with which the dilating vessels expand—the layer in which they lie being connective tissue, which supports them but feebly, and yields far more easily to their distensile force than would have been the case were it true submucosa.

Secondly, they emphasize the necessity for the removal of the whole perineal portion of the internal haemorrhoidal plexus up to and beyond the level of the pectinate line; the removal or obliteration of individual members of this network by ligature or cautery cannot be considered likely to prevent recurrence, as all the other portions of this segment of the plexus remain under the same conditions as those which permitted the original dilatations; it is otherwise with the upper segment of the plexus, because that is supported by the tough true submucosal layer.

Thirdly, they emphasize the necessity for freely loosening and bringing down the submucosa above the pectinate line.

Those who object to the entire removal of this segment of the venous plexus do so because in the cases they have seen the sutures uniting the inner membrane, this membrane which we have seen is atrophied skin and subcutaneous tissue, with the more developed and therefore more resistant skin outside, have torn through the former;

the remains of the inner membrane have retracted and exposed a ring more or less broad of raw subcutaneous connective tissue. This ring has necessarily healed by granulation and the formation of a wide area of scar tissue which has naturally contracted during the later stages; and so the—so-called—incurable anal stenosis has been produced.

The whole later process is due to the tearing through of the sutures applied; such tearing through depends on the material through which the sutures pass; if that material is atrophied or non-developed skin or subcutaneous tissue, nothing else can be expected, but if the true submucosal coat above the pectinate line is loosened and brought down, a structure is obtained which may be depended upon to hold sutures for a sufficient time and with sufficient firmness to obtain direct union and to eliminate any possibility of a raw area.

Incidentally it may be interesting to note that the "sentinel" pile which marks the lower point of a "fissure" is the torn-down end of one of these Morgagni's valves, and that the reason of the acute pain felt in this condition is also to be found in the conformation of the anal canal, which has been described; the torn-down valve exposes not submucous tissue supplied by the sympathetic system of nerves, but subcutaneous tissue in which are systemic nerves of sensation, the ends of which will be exposed by the dragging down of the valve, and in consequence the rational treatment is not simple division with a knife as is usually advised, which opens up fresh planes of raw, absorbent connective tissue, but division with a small electric cautery knife, which seals all lymph spaces as it divides them and at the same time kills any nerve end which may be exposed.

I shall not discuss the details of the operation, but there are one or two points on which it may be worth while to spend a few moments.

First, it is doubtful if sufficient stress is laid upon the preliminary dilatation of the sphincter, which is necessary in order to secure free evacuation afterwards. For this purpose I find a modification of Allingham's instrument the most convenient. The long levers which I have added permit the actual dilatation to be made by the muscles of the surgeon's own hand, which can thus accurately gauge the amount of force under which the sphincter will yield but not tear. The ratchet and screw which I have also added permits of the retention of any given amount of dilatation whilst the surgeon's hand is resting. This part of the appliance must, however, never be used to produce dilatation, but only to maintain it.

Secondly, as the dilated venous loops cling most closely to the inner lining membrane they are easily cleared away from the loose subcutaneous tissue around the sphincter. All loops which have insinuated themselves between the outer skin and sphincter muscle must be removed, and the entire sphincter should be clearly defined before any attempt at transverse section of the collar so isolated is made.

Thirdly, there must be no attempt to lock up the bowels after these operations. Faeces will have to be passed sooner or later. Which is the wisest, to secure the regular passage of small quantities which are soft and easily moulded, or to wait until these amounts have accumulated into large, hard, irregularly shaped masses, certain when they once come within the sphincteric grip to be forced through with all the reckless force which one knows will then be exerted? Which is the most likely to tear through the soft uniting line and to leave the raw surface which must cicatrize?

It is true that such an authority as Sir Charles Ball, in his recent work on *The Rectum*, still advises that "the bowels should be confined unti the fourth day," and that Bergmann, in his *System of Surgery*, one of the latest published, directs that "nc action of the bowels should take place for eight to ten days, in order to prevent infection." Surely anyone who gives such advice can feel no sense of security as to his mode of union, no certainty that his uniting tissues cover and may be trusted to continue to cover the whole area of possible raw absorbing surface. Looking back over what has already been said, it is easy to see how this may be; if the sutures are passed through this unreliable tissue they are almost certain to tear through and raw patches become exposed, but the true Whitehead operation properly carried out ensures that all round the anus tough submucosa will be united to skin, opposing an impervious barrier to any infective particles which are likely to come in contact with it. It is not infection, but injury, against which we have to guard in the post-operative treatment.

It is easy to keep this uniting line clean by warm mildly antiseptic douches after any passage of faeces; much easier than to protect the line of union of an enterorrhaphy or gastro-jejunostomy from the equally infective material which must pass over them, and remain in contact with them immediately after those operations, yet to the surgeon, secure in his knowledge that the submucosa on all sides is firmly gripped by his sutures, no anxiety on this score seems ever to have occurred.

The action of the bowels should therefore be ensured from the first by the giving of some mild laxative such as confection of senna, liquorice powder, or a saline.

Of simple haemorrhoids operated upon by Whitehead's method, I have had 127 cases—78 males and 49 females; the first of which I have any notes occurred fifteen years ago, though there must have been earlier ones. There has, of course, been no mortality; one can hardly conceive of death following such an operation at the present time in any suitable case. With one exception I have never seen any organic stricture following one of my own cases. I have, however, noticed in some seven cases about the third week a thin contraction like a fine thread at the line of union. This is dilatable with great ease if detected at once, and once dilated does not return. It appears to be due to some idiosyncrasy on the part of the individual, since in 120 cases it never occurred. It is a matter of no moment, since it is so easily remedied.

The case in which organic stricture did follow was one simply due to faulty technique on my part. The patient was a man with old endocardial mischief; the anaesthetist was not very experienced, and during the operation it became evident that he was in difficulty and extremely anxious; the latter part of the work was consequently hurried; the skin and submucosa were not well united; a month later the patient returned with a tight anus; the mucosa had evidently retracted and there was a well-marked ring of scar tissue around the lower end of the anal canal, a very typical example of the so-called "incurable organic stricture." Fortunately my patient believed in me in spite of my bad work, and this time my anaesthetist was one who had had a large experience; the necessary time being thus secured, the scar tissue was dissected out, leaving the sphincter and skin intact, after which the mucosa, of which there is always plenty, was freely loosened, brought down, and firmly fixed by sutures, which, passing through the tough submucosa, held it securely until healing was complete. This time the result was all that could be wished, and no sign of relapse has since been seen; the anus has functionated perfectly. The last operation was eight months since. Since this case I have operated upon another, the primary operation having been done by another surgeon, in the same way with the same result.

This, then, is the reply to the "incurable stricture" indictment. It is, of course, possible that, in consequence of some incredibly bad technique, a condition might be produced which might be beyond remedy, but such a result could not fairly be attributed to the Whitehead operation, whilst in most cases the removal of scar tissue, the free loosening of mucosa, and especially of submucosa, and its careful union with the skin below will ensure success.

As to results, I have never, with this one exception, been asked to repeat the operation on the same patient, though frequently to perform the same upon some friend or relation; I cannot recall a case in which any further relapse has occurred, except one in which I had not entirely removed the whole perineal portion, and therefore had not carried out the principles now advocated; it was one of my earlier performances, and I did not then realize their importance. But every one knows that an operator sees the bad results of other men, and that other men see his, so I requested Mr. Braham, my house-surgeon, to ascertain, if possible, the present condition of some half-dozen hospital patients, taken indifferently, who had undergone this operation more than three years ago; whilst, at the same time, I wrote myself to a similar number of private patients; this length of time was chosen on the one hand in order to allow sufficient time for any bad effects to show them-

solves, and on the other to get at hospital inmates who change their addresses with wonderful frequency. Unfortunately, the only one of this class from whom any response has come is from a relative of the patient, who appears to have died about a year ago, two years after operation, from some not mentioned disease. With private patients one is, of course, more fortunate.

1. Male, aged 45, who had suffered for six years. Operated February, 1907. Writes: "Never better in my life; no difficulty with the bowels since; only wish it had been done years before."

2. Female, aged 30. Operated May, 1906. Had piles for two years; commenced after second pregnancy. "Am perfectly well."

3. Male, aged 50. Operated June, 1907. Son writes: "Father died last month of pneumonia. So far as I know, he had no further trouble in that way after you operated."

4. Male, aged 63. Operated June, 1896. Had suffered for nine years and was greatly enfeebled by loss of blood. Daughter writes: "Father died in 1904, from apoplexy" (that is, eight years after operation); "but was very well and hearty until six months before death; he never had any more trouble with piles after his operation."

5. Female, aged 25. Operated June, 1905; three weeks after complained of some difficulty in defaecation; thin constriction mentioned above found and dilated. Writes: "Have had no further trouble with the bowel; have had three children, and am quite well."

6. Male, aged 22. Suffered with much pain but little haemorrhage for two years. Operated November, 1903. Father writes: "My son has gone out to Venezuela, and on last advices was doing well; so far as I know he has had no return of piles."

And so I might go on; but these are probably sufficient to show that Whitehead's operation, if properly performed, yields perfectly satisfactory results.

To sum up, the points which it is wished to emphasize are:

1. The radical method of obliterating the perineal portion of the internal haemorrhoidal plexus (Whitehead's operation) is the one method which can be relied upon to prevent any return of the condition.

2. In order to carry this out effectually the whole perineal portion of this plexus up to the pectinate line should be removed, and the submucosa beyond brought down and firmly fixed to the skin.

3. Failure to do this is at the root of organic stricture of the anus following an operation.

4. In many, at least, of the cases of organic stricture following operation, dissection out of the resulting scar tissue, freeing of the external sphincter, and bringing down of the submucosal layer to the skin will result in a cure.

## THE OPERATIVE TREATMENT OF CARCINOMA RECTI.

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Some reference must first be made to the pathological anatomy of carcinoma recti in its relation to the nature of the operation necessary for removal of the growth.

Rectal cancer, except in young subjects, does not possess a high rate of malignancy. It is much less than that of the tongue, breast, or stomach, largely because the rectum is a "self-contained" viscus. Its mucous membrane is enclosed by muscular walls of some thickness, and it is further isolated by the strong fascia propria, one of the visceral layers of the pelvic fascia. Very extensive cancerous ulceration of the rectum frequently exists without this fascia being invaded or transgressed. At its lower end where it joins the anal canal this isolation ceases, owing to the insertion of the levators, and lymphatic communication is here much freer along the intersecting muscular fibres. Hence cancer at the lower end of the rectum infiltrates the surrounding tissues more quickly, and is more likely to recur after removal, however freely this may be done. The prognosis is better in high growths than in low ones. It follows, therefore, that in low growths no attempt must be made to save the anal canal or sphincters. To save the anus may be desirable enough from the point of view of the subsequent comfort of the patient, but it must not be allowed to endanger his safety, and should not be done if the lower edge of the growth is within 3 in. of the anus.

The arrangement of the lymphatics also helps to prevent or to delay widespread lymphatic invasion. After a very short course the primary lymph vessels end in a compact group of pre-sacral glands, and from these a definite narrow track leads upwards to the abdomen. Compare this with the tongue, where glandular metastasis occurs so very early, where there are numerous lymph vessels, anastomosing freely, leading to three groups of primary glands, which in their turn communicate freely with the glandular chains in the triangles of the neck.

Rectal cancer spreads chiefly by local infiltration of the muscular and fatty tissues immediately subjacent to the growth. Close as they are, invasion of the sacral glands is not an early occurrence, and even when enlarged glands, that look malignant, are found in an excised rectum, their infection must not be taken for granted. I have frequently found that such glands on microscopic section prove to be only irritative.

There is need of further investigation on this subject, but I think sections of all the glands from a series of rectal growths would prove that glandular invasion is not widespread in the stage early enough to be operable.

Further evidence of the spread of the growth by local infiltration is afforded by the mode of recurrence. Patients die either from local recurrence in the tissues around the scar or from metastasis in the liver. Out of six cases dying of metastasis in the present series, five recurred locally, one had both local recurrence and in the liver, and one metastasis in the liver only. I do not know of any case where the lumbar glands have been extensively infected. Emboli of cancer cells escaping from the primary growth pass much more readily into the venous blood stream than by the lymph path.

The advocates of the abdomino-perineal operation maintain that the radical scientific operation for rectal cancer demands not only the removal of the rectum and the pre-sacral fat and glands, but also the pelvic colon with its mesocolon and the secondary glands about its line of attachment. I do not think this is warranted by the evidence of the mode of spread and of recurrence in so far as they have been yet demonstrated. It rather tends to show that removal of the rectum, anatomically complete, together with the lowest portion of the mesocolon, is as likely to prove satisfactory as when the more extensive dissection is carried out. I am not satisfied that removal of the whole pelvic mesocolon is necessary. This structure has a V-shaped attachment, the upper limb of which passes horizontally along the left lateral wall of the pelvic brim, over the iliac vessels inwards to the middle line to the sacral promontory. The attachment then turns vertically downwards along the front of the sacrum as far as its third segment, constituting the lower limb of the V. It is this portion which contains the emissary lymphatics of the rectum, and these, at the apex of the V, continue upwards into the retro-peritoneal tissue of the posterior abdominal wall around the bifurcation of the aorta, where complete removal is impracticable. The upper portion of the mesocolon does not contain the rectal lymphatics, and the good results following its complete removal would appear to be due rather to the absence of invasion than to more radical extirpation attained thereby.

The rectal growth tends to spread round the circumference of the gut, rather than upwards or downwards to any great extent. In low cases the anal canal and skin of the anus occasionally become involved, and I have seen a secondary growth in the skin of the perineum 1½ in. from the anal margin. Unlike rectum proper, ulceration of the anal canal is likely to be quickly followed by glandular infection—in this case, of course, the inguinal glands.

Of greater importance is the zone above the upper edge of the growth, and it is essential that a wide margin of apparently healthy tissue above the growth should be removed. This means that never less than 8 in., and in many cases 12 or 14 in., of bowel must be excised. Most operators would, I think, consider this sufficient in the case of the ordinary ampullary cancer, but some of them doubt whether this can be done and the pelvic colon brought freely down except by the combined method of

operation. A photograph (taken during the operation on Case No. 20) shows to what extent the colon can be brought down by the perineal route, and that it does not appear to be necessary on this particular ground to have resort to the combined operation. It is different in the case of growths in the higher rectum almost out of reach of the finger or in the lower pelvic colon.

Secondary nodules or ulcers in the submucous area above the primary growth are rare. This is noteworthy in view of certain investigations published by Mr. Sampson Handley[1] in his Hunterian Lectures last year. A continuous microscopic section of bowel wall for 5 in. above a rectal cancer, normal in appearance to the naked eye, showed in the submucous lymph plexus small collections of cells, taking on a muci-carmine stain, distributed at fairly regular intervals along the whole of the 5-in. section. Mr. Handley pronounces these to be cancer cells, but thinks they have undergone mucoid degeneration, and that "permeation of the mucous plexus as a factor in dissemination is probably limited in effectiveness by the habitual early degeneration of the cancer cells in this situation." Further investigation on this point is needed; meanwhile Mr. Handley concludes:

(1) That in the muscular and peritoneal coats (where the active non-degenerated cancer cells are found) cancer invasion does not extend far from the primary growth, and (2) that effective dissemination probably as a rule occurs through the meso-rectum or peri-rectal tissue opposite the primary growth, and this is the tissue which requires most careful removal.

W. J. Mayo,[2] in a review of 120 operations for rectal cancer last year, says:

In our experience inoperable conditions as a rule have been due to local extension rather than to lymphatic metastasis . . . Hartwell collected records of 50 patients operated on by seventeen New York surgeons, and found that local return was the rule in all cases that were not cured.

The whole of the evidence obtainable from the study of the natural history of rectal cancer demonstrates that in operating upon it the freest possible local removal is essential, and that the local removal of a small growth or partial resection of the rectum with end-to-end suture is mischievous, and ought not to be undertaken. I have only done it once, and Nemesis was not slow, for the patient died in less than eleven months of local return. (Case 8.)

### Diagnosis.

Excluding ulcers and stricture of the rectum due to syphilis or gonorrhoea, I have met with two ulcerative conditions of the upper rectum or lower colon which have been mistaken for carcinoma. One is a chronic simple ulcer, with thickened base and enlarged glands, very similar to the ulcer of the pylorus, which is so difficult to distinguish from cancer.

Case No. 33 was an example of this. I saw the patient with Dr. Watts of Hyde. He was a not very healthy man of 63, who had had nephritis at 59, and subsequently temporary glycosuria. He had all the symptoms of rectal cancer, almost constant desire to defaecate, with great tenesmus and passage of blood-stained mucus, which had been growing worse for nine months. The rectum was somewhat ballooned, and the finger distinguished muffled thickening high up, as though of a growth just beyond reach. I did not examine with a sigmoidoscope, as I should now, but I hardly think I should, even with it, have correctly diagnosed the condition. I explored the pelvis from an abdominal incision, found the pelvic colon and its junction with the rectum thickened and hard for an area of 2 to 3 in. The thickening was not so sharply defined or bulky as a carcinoma generally is, but I found several enlarged, hard glands in the mesocolon, and these led me to decide on excision of the pelvic colon and rectum.

The patient recovered, had no further trouble with the rectum, and died in 1910 of Bright's disease. Professor Lorrain Smith examined the specimen, and found it to be a non-malignant chronic ulcer surrounding the lumen, and the glands inflammatory.

In spite of the innocence of the ulcer I think the excision was necessary, as the patient's condition was most miserable, and death from exhaustion was imminent. I have seen since a very similar ulcer, discovered *post mortem* in a man dying directly after admission to hospital, but no history could be obtained.

In the other variety of ulcer the edges project to such an extent that they may be described as polypoidal or hypertrophic. The ulcers are irregular in shape, generally multiple, and are situated in the higher rectum and lower colon.

In Case 34 (seen with Dr. Gardner, of Burnley) the edges of a large irregular rectal ulcer, though softer than usually found in cancer, were sufficiently thick and infiltrated to lead to the diagnosis of a rapidly extending carcinoma. The rectum was therefore excised. There proved to be several smaller ulcers above the large one felt by the finger, and in the pelvic colon, above the line of section, there were several polypoid excrescences projecting like papillomata from the mucous membrane, about the size of peas, but not ulcerated.

I saw a second very similar case some months ago with Dr. J. J. Cox.

These cases of hypertrophic ulceration in the upper rectum and lower colon are probably only a localized variety of the condition found throughout the large intestine in some severe cases of colitis. In a case of this nature in the infirmary last year the patient, a young man, died of exhaustion after four months' intractable haemorrhage and mucous diarrhoea. The condition was complicated by a gastric ulcer. Appendicostomy gave no relief, and was probably done too late. The whole of the large intestine was covered by polypoidal masses of varying size, many of them ulcerated.

The sigmoidoscope is the best help in the diagnosis of cases of obscure haemorrhage from or too frequent action of the bowels with increased mucous secretion, where nothing can be felt per rectum by the finger. Unfortunately it only too often happens that medical treatment is employed ineffectually for some months before sigmoidoscopic examination is suggested, and thus the invaluable opportunity of detecting an early carcinoma of the colon is allowed to slip away.

The importance of a prompt digital examination of the rectum cannot be too strongly insisted on. My experience is that well over 50 per cent. of cases of rectal cancer that come for examination are beyond removal. This lamentable state of affairs is due partly to the insidiousness of the onset and the absence of symptoms in the early stages, partly to lack of observation on the patient's part and his failure to seek advice, but also, in part, to failure of diagnosis because no digital examination has been made. This is particularly likely to occur if haemorrhoids have existed previously, or if the rectal tenesmus has set up a secondary prolapse of the anal mucous membrane, the minor anal condition diverting attention from the graver concealed rectal mischief.

### Selection of Cases for Operation.

As regards the extent of the growth Jacobson[3] sums up the position admirably thus:

A growth that is limited to the rectum, at whatever part it may be situated and however high it may extend along the course of the bowel, may be removed by one of the various methods of operation. Extension beyond the rectum to surrounding parts, as shown by fixity of the growth to the sacrum on the one hand or to the bladder, vagina, or uterus on the other, constitutes a contraindication to any attempt at a radical operation as a rule, but the degree of adhesion may be most difficult to estimate, and in doubtful cases the patient may himself choose to undergo an operation which may perhaps be attended by unusual risk as long as there remains a fair chance of obtaining relief of symptoms and prolongation of life, although the chances of a permanent cure may seem to be poor.

In doubtful cases an examination of the rectum under an anaesthetic is always necessary, as some cases which without it appear to be quite fixed (and therefore inoperable) will be found to be much less so when the tissues are relaxed and the growth can be freely manipulated and the true amount of mobility determined.

In many doubtful cases also, especially high growths, much is to be gained by an abdominal incision with the patient in the Trendelenburg position. The state of the pelvis and the upper limits of the growth can be definitely ascertained, also the condition of the lumbar glands, and, above all, the presence or absence of metastasis in the liver. This is the strongest argument in favour of the abdomino-perineal operation, and it should be carried out in very extensive and long-standing rectal growths where the possibility of excision is doubtful. Conditions forbidding the radical operation may thus be discovered, and, if necessary, iliac colostomy may then at once be proceeded with.

A growth, the base of which is firmly adherent to the sacrum, ought not to be removed, but partial or very limited adhesion need not contraindicate operation. Growths on the anterior wall which have become

LIST OF CASES.

| No. | Sex. | Age. | Date of Operation. | Situation of Growth. | Chief Symptoms and Duration. | Method of Excision. | Result. | Present Condition, January, 1911. |
|---|---|---|---|---|---|---|---|---|
| 1 | F. | 43 | Nov. 8, 1904 | Lower pelvic colon, prolapsing into rectum | Tenesmus, constipation, haemorrhage | Sacral (with removal of coccyx and part of sacrum), end-to-end suture, anus preserved | Recovery | Well. |
| 2 | M. | 58 | Aug. 12, 1905 | Involving whole circumference of rectal ampulla | Feeling of weight, frequent action, loss of weight, anaemia. 6 months | Sacral with section of sacrum, anus excised | Recovery | Well. |
| 3 | F. | 60 | Feb. 20, 1906 | Lateral, high in rectum | Frequent action, haemorrhage, 12 months | Sacral, coccyx alone removed | Died 19th day after operation* | —— |
| 4 | M. | 53 | May 9, 1906 | Annular, pelvic colon, prolapsing into rectum | Tenesmus 9 months, haemorrhage, mucus | Sacral incision (May 9), abdominal resection (June 20), end-to-end suture, anus preserved | Recovery | Well. |
| 5 | M. | 63 | May 18, 1906 | Rectal ampulla, posterior and lateral walls | Haemorrhage, loss of weight, weakness, 4 months | Sacral | Recovery | Recurred locally, died March, 1910 |
| 6 | M. | 64 | Feb. 1, 1907 | Extensive posterior, adherent to sacrum | Diarrhoea, haemorrhage, wasting, cachexia, 6 months | Abdomino-perineal excision of rectum and pelvic colon with iliac anus | Death 3rd day (collapse) | —— |
| 7 | M. | 64 | Aug. 6, 1907 | Anterior and left wall, adherent to left vesicula seminalis | Pain, later haemorrhage, 6 months | Sacral | Recovery | Well. |
| 8 | M. | 54 | Sept. 11, 1907 | Tuberous; high | Haemorrhage, rapid emaciation, 4 months | Sacral (end-to-end suture, leaving anal canal) | Recovery | Recurred rapidly, died Aug. 2, 1903 (iliac colotomy, May, 1908). |
| 9 | F. | 38 | Oct. 14, 1907 | Posterior 1½ in. diameter, low | Haemorrhage, later tenesmus, frequent micturition | Abdomino-perineal excision of rectum and pelvic colon with iliac anus | Recovery | Well. |
| 10 | M. | 34 | Nov. 28, 1907 | Posterior and right wall, low | Tenesmus 6 months, haemorrhage 3 months | Sacral | Recovery | Recurred locally, died March, 1909 |
| 11 | M. | 66 | April 16, 1908 | Anterior and lateral wall, 2½ in. diameter, in ampulla | Discomfort, frequent action, mucus | Sacral | Recovery | Recurrence locally and in liver. |
| 12 | M. | 51 | July 7, 1908 | Anterior and left wall adherent to recto-vesical pouch | Tenesmus, slight haemorrhage, no wasting, 8 months | Abdomino-perineal pelvic colon and rectum (one operation) | Death, 60 hours (collapse) | —— |
| 13 | F. | 53 | Dec. 23, 1908, and Jan. 1, 1909 | Involving three-quarters of circumference, partly fixed | Weakness, frequent action, haemorrhage, 12 months | Abdomino-perineal in two stages. Pelvic colon Dec. 23; rectum Jan. 1 | Recovery | Well. |
| 14 | F. | 49 | Feb. 15, 1909 | Right wall, circular, 2 in. diameter | Pain after food, frequent action, 8 months | Sacral, anus gluteal | Recovery | Well, anus not satisfactory |
| 15 | M. | 43 | April 22, 1909 | Lateral and posterior walls, high | Chronic constipation, slight feeling of weight, 1 month | Perineal, preserving sphincter ani | Recovery | Died Aug., 1910. Kinking of small intestine, one small recurrent nodule in front of sacrum |
| 16 | M. | 45 | Oct. 26, 1909 | Low, growing rapidly, involving anal canal | Frequent action 4 months, pain 2 months | Perineal | Died, 3 days (sepsis) | —— |
| 17 | M. | 59 | Nov. 8, 1909 | Low, lateral, involving levator ani, infiltrating presacral tissue and glands | Piles 30 years, loss of weight and appetite, 3 months | Abdomino-perineal (complete in one stage) | Died, 4th day | —— |
| 18 | M. | 52 | Jan. 3, 1910 | Low, anterior, adherent to perineal body | Frequent action 5 months, haemorrhage | Perineal, anus removed, sigmoid sutured to skin | Recovery | Well. |
| 19 | M. | 63 | Feb. 22, 1910 | Low, almost surrounding ampulla | Sciatic pain 8 months, tenesmus 2 months | Perineal, ditto | Recovery | Died July, 1910, metastasis in liver |
| 20 | F. | 53 | March 21, 1910 | Low, anterior, involving vaginal septum | Feeling of weight, 6 months, frequent action | Perineal, anus removed, sigmoid sutured to skin | Recovery | Recurrent nodule removed Dec., 1910, from posterior end left labium. |
| 21 | M. | 53 | April 11, 1910 | Low, anterior, adherent to prostate, ulceration spreading down anal canal and beyond margin of anus | Duration not noted, great pain | Perineal, extensive removal of peri-anal tissue | Recovery | —— |
| 22 | M. | 41 | April 14, 1910 | Posterior and lateral walls, high | Never constipation, frequent action 18 months, no pain throughout | Perineal, preserving sphincter | Recovery | —— |
| 23 | F. | 57 | May 23, 1910 | Posterior, large, not adherent | Pain, tenesmus, 15 months | Perineal, removing anus | Recovery | —— |
| 24 | F. | 41 | May 31, 1910 | Anterior, low | 6 months' discomfort, 3 months' bleeding | Perineal, removing anus | Recovery | —— |
| 25 | F. | 44 | June 15, 1910 | Anterior, high | 18 months' pain, occasional haemorrhage | Perineal, preserving sphincter | Recovery | Convalescence delayed by presacral suppuration. |
| 26 | M. | 38 | Aug. 24, 1910 | Posterior, low | 4 months' pain, haemorrhage | Perineal, incomplete removal, lymphatic vessels and glands being infiltrated above sacral promontory | Died 17th day (suppuration and exhaustion) | —— |
| 27 | F. | 45 | Aug. 31, 1910 | Circular, high | 12 months | Perineal | Died 27 hours (shock) | —— |
| 28 | M. | 35 | Oct. 12, 1910 | Posterior and lateral, high | 2–3 months' pain, feeling of weight | Perineal, preserving sphincter | Recovery | —— |
| 29 | F. | 40 | Oct. 15, 1910 | Anterior, low | 18 months' alternating looseness | Perineal, anus removed | Recovery | —— |
| 30 | M. | 47 | Oct. 22, 1910 | Circular, junction of rectum and pelvic colon. Extensive, partially adherent to sacrum | Duration not noted, great emaciation | Perineal | Died 11th day, exhaustion† | —— |
| 31 | M. | 58 | Nov. 21, 1910 | Left lateral, low | Piles 18 months, haemorrhage 4 hours | Perineal | Recovery | Had thrombosis of both saphena veins during convalescence. |

* Pneumonia following cellulitis round sacrum. † Had copious renal haemorrhage from third day after operation.

LIST OF CASES (CONTINUED).

*Cases operated on for Non-malignant Conditions.*

| No. | Sex. | Age. | Date of Operation. | Situation of Growth. | Chief Symptoms and Duration. | Method of Excision. | Result. | Present Condition, January, 1911. |
|---|---|---|---|---|---|---|---|---|
| 32 | F. | 64 | Nov. 8, 1905 | Adenomata, covering lower rectum and anal canal | Prolapse, tenesmus, haemorrhage, 2 years | Sacral | Recovery | Well. |
| 33 | M. | 63 | Dec. 13 and 20, 1907 | Chronic, infiltrated ulceration of lower pelvic colon, with enlarged hard glands | Frequent action, pain, haemorrhage | Abdomino-perineal in 2 stages. Colon Dec. 13, Rectum Dec. 20 | Recovery | Died May, 1910, of Bright's disease. No recurrence |
| 34 | M. | 48 | April 25 1910 | Multiple "hypertrophic" ulcers in higher rectum and pelvic colon | Frequent slight haemorrhage, 6 months | Perineal. small polypoid scattered papillomata in colon, above line of section | Recovery | — |

*Summary.*

*Sex.*—Males 22; females 12.

*Age.*—30 to 40 years, 5; 40 to 50 years, 9; 50 to 60 years, 11; 60 to 66 years, 6.

*Mortality.*—Operations 34. Deaths 8. Percentage 23½.

*Cause of Death after Operation.*—Five died within three days, of shock or sepsis; 1 on the eleventh day, of exhaustion (renal haemorrhage); 1 on the seventeenth day, of exhaustion (suppuration); and 1 on the nineteenth day, of exhaustion (suppuration and pneumonia).

*Method of Excision.*—Sacral, 11 operations, with 1 death. Perineal, 17 operations, with 4 deaths. Abdomino-perineal with excision of pelvic colon and permanent colostomy—(*a*) At one sitting, 4 operations, with 3 deaths; (*b*) in two stages, 2 operations, with no deaths.

*Results of Operations for Cancer performed over Two Years.*—Number of operations, 14. Died from operation, 3. Died from recurrence, 4 Alive and well (January, 1911), 7.

*Duration of 7 Cases well after Two Years.*—1 after 6¾ years; 1 after 5½ years; 1 after 4¼ years; 2 after 3½ years; and 2 between 2 and 3 years.

*Recurrence—Site and Duration (6 Cases).*—Local: 1 (No. 5) lived 3¾ years after operation; 1 (No. 8) lived 11 months—partial excision and rapid growth; 1 (No. 10) lived 16 months—aged only 34; 1 (No. 15) lived 16 months—death from acute obstruction, one small recurrent nodule in pre-sacral tissue. Local and Liver: 1 (No. 11) still living—2¾ years. Liver: 1 (No. 19) 5 months.

adherent to the prostate ought to be left alone. This is the most unfavourable position for a growth, and quite small ones may for this reason prove beyond removal. A growth above the prostate on the anterior wall is more favourable, where it is a question of implication of the recto-vesical pouch of peritoneum.

Case No. 12 had been pronounced inoperable on account of the amount of fixation, but, after ascertaining the precise extent of the growth through an abdominal incision, it was removed with comparative ease by making a transverse incision through the peritoneum on the posterior wall of the bladder—in front of the recto vesical pouch.

In Case No. 7 the left vesicula seminalis, to which the growth was adherent, was cut away. The patient, 64 years old at the date of the operation, three and a half years ago, wrote recently that he is well and "quite wonderful."

The general condition of the patient must obviously weigh largely where such a grave operation is concerned in persons at or beyond middle age. But at such an age patients are not apt to be altogether healthy, and too much stress ought not to be laid on factors apparently unfavourable to operation.

Thus the patient in No. 11 was in many respects most unsuitable for operation—66 years old, a man who had weighed 18 st., who was of convivial disposition and had had glycosuria. Yet none of the cases did better after operation, and he enjoyed life for two years afterwards, though now, unfortunately, he has recurrence locally and a huge metastatic liver.

No. 33 also had had acute nephritis four years previously.

Operation should be advised if there is any possibility of removing the growth, however bad it may appear. I have in this way done several cases pronounced inoperable by other surgeons, because in some of the worst and apparently hopeless cases the result has been excellent. I think surgeons who have had a wide experience of the operation would bear me out in this. Of course it means sacrificing statistics, for most of the fatalities have been after operations in such bad cases, but there is no greater hindrance to progress than a too careful eye on statistics.

### PROGNOSIS AFTER OPERATION, IMMEDIATE AND REMOTE.

A substantial death-rate is inevitable in an operation of such magnitude as excision of the rectum, undertaken in patients no longer young, who are often weak and wasted, in a part which cannot be kept absolutely aseptic and where therefore there is a "facility for shock, haemorrhage, cellulitis, and peritonitis." Tuttle[4] found the mortality to be 20 per cent. in a collection of 1,578 excisions performed by various methods. Kraske's later and more favourable statistics show 5 deaths in 51 operations performed by the sacral route which goes by his name. The brothers Mayo[2] had 20 deaths in 120 operations performed between 1897 and the end of 1909—a mortality of 16 per cent.—but in 44 operations in the last two years of this period there were only 4 deaths (9 per cent.).

In the present series of 34 cases there were 8 deaths—a mortality of 23½ per cent. I make no apologies for this, for I have operated whenever it was in any way possible to remove the growth and the patient chose to run the very serious risk.

Eleven cases were operated on by the Kraske method with 1 death, and 17 by the perineal route with 4 deaths. The latter have been done during the last two years, and the greater death-rate should not be attributed to the method of operation, but rather to the fact that more advanced cases have been operated on, and that the bowel and glands have been removed at a considerably higher level than in former years. Three of the deaths were in cases where, by the combined abdomino-perineal method, the whole rectum and pelvic colon were removed. They were all in men, where the extent of the growth necessitated the more extensive operation done at one sitting, and undoubtedly the extent of the operation proved too much for them. They, along with two of the perineal cases, died within three days of shock, or one, at least, from acute sepsis. The other three deaths were from exhaustion—two from continued local suppuration on the seventeenth and nineteenth days. The third (No. 30) was a very extensive growth in a weak, emaciated man. Much blood was lost at the operation from a branch of the internal pudic vessels, divided close to the main trunk, which retracted within the pelvic fascia. On the third day the bladder became suddenly distended with almost pure blood, originating in the kidneys, and this haemorrhage persisted more or less till death on the eleventh day.

As regards statistics of recurrence, if the German standard that cases well at the end of three years after an operation for cancer are to be regarded as cured be adopted, the present list shows, in ten operations performed longer than three years, 2 patients died after operation and 3 of recurrence; 5, half the number, are now alive and well, 1 after six and a quarter years, 1 five and a half years, 1 four and three-quarter years, and 2 three and a half years.

The series is too small to do more than indicate the efficiency of the operation, but the results are better than those obtained in cancer in other parts of the body, and justify us in assuring a patient with rectal cancer that, if he submits to operation, he has four chances out of five of recovering from it, and, if he is caught fairly early, quite a good chance of surviving some years without recurrence.

### METHOD OF OPERATION.

The combined abdomino-perineal operation was first introduced some years ago as the ideal radical operation for rectal cancer as fulfilling all the requirements of modern cancer surgery—that is, the widest possible removal of the organ containing the growth, together with the complete lymphatic track leading therefrom and the

primary and secondary groups of lymph glands. My present experience leads me to conclude that:

1. Extension of the growth is chiefly by local infiltration, not by lymphatic metastasis.

2. Lymphatic invasion once spread above the sacrum would not be likely to be eradicated by removal of the pelvic mesocolon.

3. The operation involves a greater risk, especially in men, where the narrow pelvis, often along with much fatty tissue, makes its performance more difficult. Men do not stand the shock so well as women.

4. In ampullary rectal cancer the operation by the perineal route gives complete removal of the rectum and perirectal tissue. Also by it 12 inches of bowel at least can be removed, and it therefore satisfies all reasonable requirements.

I do not think that the combined operation as the routine method in cases of rectal cancer is justifiable. It is indispensable in some cases and advisable in others, and doubtless will be more frequently done and with less risk, more especially in women, as it becomes more extensively known and its technique improved by experience. It ought to be done in growths situated in the lower pelvic colon and at the junction with the rectum, and, as an exploratory measure in the first place, in growths lower down where long duration renders it probable that metastasis in liver or in retroperitoneal tissues has occurred, or where from the great extent of the growth its removal is doubtful. Then if removal is found practicable it can be effected more easily and satisfactorily by this method.

Six operations in the present series were abdomino-perineal; the first was done just four years ago. Three of them were males in whom the growth was unsuitable from its extent for the low operation. These all died within three days. The fourth was a female with a smaller growth, who had little shock and made a rapid recovery. In the other two cases—No. 13, a woman with very extensive growth, and No. 33, an unhealthy man of 63, where the lower pelvic colon was involved and where the diagnosis had to be completed by examination through an abdominal incision—fearing the complete operation at one sitting would prove fatal, I did it in two stages, a proceeding suggested to me by Mr. Butlin's method in tongue cases. At the first sitting the pelvic colon and its mesocolon were excised, the upper divided end of the bowel was brought out to form a colostomy, and the lower end, having been securely stitched up, was tucked down in the pelvis. A week later, when the bowels were acting satisfactorily and the patient had recovered from the previous stage, the rectum was excised from below. Both these patients made a good recovery.

This proceeding has also suggested itself to others. Mr. Edward Deanesly[5] has lately discussed it, and Mr. C. H. Fagge[6] mentions one case of his own and one of another surgeon's in which the divided lower end of the colon had sloughed in the pelvis, causing fatal peritonitis. Probably a portion of the colon must have been left at the first stage, as for the rectum only its blood supply from the middle haemorrhoidal arteries would probably have sufficed.

It may be objected to this method that the end of the lymph track is removed first, leaving the primary growth with cut lymphatics for a week, during which embolic cells may be poured out into the surrounding tissue. In tongue or breast operations this would be a most serious objection; here, where lymphatic invasion beyond the sacral glands is slow and infrequent, it does not appear to have great weight.

The two-stage method will, I think, be found useful in some cases where the patient's general state or the local conditions would make the complete operation at one sitting too dangerous.

*The Operation from Below.*

All the earlier operations in the series were done by the sacral route—essentially the Kraske operation. Two years ago, influenced by the writing of Sir Charles Ball and some of the American surgeons, I tried the perineal method and have since continued to use it. The sacral incision, opening up the left sacro-sciatic foramen, gives an excellent view of the back of the rectum up to a certain point, but I find with the patient in the exaggerated lithotomy position and a mesial incision in the perineum that—

1. A better view of the upper part of the pelvis, as far as the sacral promontory, can be got. This facilitates a higher division of the fat and tissues in the mesocolon, and though the Kraske operations resulted in 50 per cent. of so-called cures, I am sure that the operations of the last two years have been more complete, and ought to show even better results as regards recurrence when the time comes for them to be collected.

2. The freeing of the pelvic colon is rendered easier. Thus the new anus can be kept in the normal position, and experience shows this to be better than the sacral or gluteal anus. The sacral anus, situated directly below the prominent ridge of the lower border of the sacrum, which stands out more after the coccyx has been removed, is on a depressed and uneven surface, and is difficult to manage afterwards. Being in a rigid position, where it cannot retract between the folds of the buttock, it is also more liable to accidental leakage if the faeces are soft or fluid.

3. Separation from the prostate is easier by the perineal route, and the early opening of the peritoneal cavity through the recto-vesical pouch in front rather than higher up on the lateral walls makes the later stages easier.

4. The lateral sacral incision takes longer to heal than the perineal one. After the latter, healing practically by first intention occurs not unfrequently. I reckon three weeks as the average time before the patient can get about after the perineal operation, whereas by the sacral method it used to require five.

5. The perineal position is preferable for the administration of the anaesthetic and the prevention of shock.

Some points in the operation may be briefly noted. The exaggerated lithotomy position means elevation of the pelvis until the perineum is horizontal. This is done partly by tilting the table, partly by a large sand pillow under the lumbar spine. To prevent the patient slipping down the sloping table, padded straps are passed over each shoulder and fastened to the leg supports at the foot of the table.

The rectum is finally washed out before the pelvis is elevated. A long sausage-shaped gauze pad soaked in 1 in 500 biniodide spirit is introduced into the rectum, its end projecting some inches from the anus. A circular incision round the anus is deepened beyond the external sphincter, and the anus, thus separated, is firmly secured to the pad by a double cruciform suture of thick silk, taking a good hold on the sphincter, so that it will not tear away even if some traction is made on the pad. This is, of course, where the anus is to be sacrificed. In some cases I have preserved the sphincter, splitting it by a mesial incision fore and aft of the anus, and then dividing the upper end of the anal canal, as advocated by Ball. In one female patient I divided the sphincter once only, posteriorly, but in men there is not sufficient room unless the incision is carried forward in front of the anus to the centre of the perineum.

In cases in which the anus is thus saved the reunited sphincter regains some power, but not sufficient to make the anus quite efficient. Its voluntary grip grasps quite perceptibly the examining finger, but will not close the anus completely. In these cases, also, a projecting sharp-edged septum is apt to form above the anus at the line of suture of the pelvic colon with the anal canal, which rather tends to contract the orifice. The patient can, however, easily keep it in order by the occasional introduction of the finger. My experience is that the anus with the sphincter preserved is not greatly better than the perineal anus where it has been removed, and, as I have said before, I regard the saving of the anus as dangerous except in high growths.

The mesial incision is carried back to the lower part of the sacrum and the coccyx is removed. The mesial raphe formed by the junction of the levatores ani between the anus and the coccyx is divided, and the finger is passed round the rectum on each side above the levators, which are divided by scissors well outside their insertion into the rectal wall. In growths impinging on the anal canal the levators should be divided further away still, near their origin from the white line of the pelvic fascia, and it is also wise to remove some of the ischio-rectal fat surrounding the sphincters.

The rectal fascia immediately deeper than the levators

is next divided. It has a very definite horizontal attachment to the front of the sacrum at the level of the third or fourth segment, between the origins of the "rectal stalks" of Professor Elliot Smith. My friend, Mr. T. W. Todd, has kindly made dissections showing this attachment, as little notice is taken of it in anatomical textbooks. The fascia holds the rectum in position, and until it is divided the rectum does not begin to come down at all. The fat and tissue can now be cleared from the front of the sacrum, and this should be done rapidly with the fingers as far up as the promontory. A swab is now inserted to check the oozing and the separation of the rectum from the prostate is proceeded with. This is sometimes rather difficult, and here also the finger is the best dissector. A metal staff should be inserted in the urethra as a guide. The peritoneum is opened through the recto-vesical pouch, and its lateral reflections on to the rectum divided with scissors. The lateral connexions of the rectum are then gradually separated with the finger. In doing this the superior haemorrhoidal artery is isolated and clamped, and the large lymphatic vessels passing up over the pelvic brim may be defined. These I usually pull on until they break off, and they thus come away at a higher level than would otherwise be reached. The tissues from the sacral promontory forwards towards the colon are thus teased through—bit by bit. This separation is through the lower part of the mesocolon, and results in the freeing of the long loop of the pelvic colon, which then comes down readily, and the rectum will now be found to hang free, well beyond the skin level. This freeing of the colon is imperative for the success of the operation, for otherwise its cut end cannot be united to the skin around the anus without tension. It has been said that the colon, thus brought down, is liable to slough, but I have never seen this happen.

I wish to lay stress on the use of the finger in dissecting out the rectum and tearing through the mesocolon at the upper limit of the wound. Its use enables one to pass more easily along the fascial planes, which are the true anatomical boundaries of the viscus, and thus ensure its being removed completely, with the perirectal tissue and lymphatics intact. Other advantages are the division of the lymph trunks at a higher level, and the avoidance of bleeding.

After the rectum is cut off and removed the divided peritoneum must be sutured to make a new pelvic floor, and it should be stitched to the front of the colon at the proper level, so as to prevent adhesion of the small intestine, which will subsequently occupy the pelvis.

Silkworm-gut sutures, passing deeply, are introduced along the line of incision but not tied. The cut end of the colon is then sutured to the skin on each side of the former anus by a continuous silk suture, taking a good hold of the bowel wall, but not drawn too tightly. The anal circle of sutures is completed in front and behind after the silkworm-gut sutures have been tied. If the sphincter has been preserved its ends must be carefully sutured, in front and behind the anus, by buried catgut stitches. A large drainage tube is inserted posteriorly, passing to the hollow of the sacrum, and a second smaller tube into the perineum in front of the anus.

The amount of shock after the operation varies greatly, and is sometimes astonishingly small. The elevation of the pelvis and legs in this method certainly helps to diminish the shock, and constitutes one of its greatest advantages.

The disadvantages of the artificial anus, wherever it may be situated, can be very largely mitigated by careful management. The chief care must be not to let the bowels become loose, and this can be done by attention to diet. A tumbler of hot water, alone or with salines, taken on waking ensures emptying of the colon within an hour before the patient dresses. After cleansing, a T-bandage with a pad is put on and worn through the day. Some patients have no further movement of the bowels till next morning; others have a second evacuation after the evening meal, necessitating a second dressing. But, unless the faeces are allowed to become fluid, no inconvenience occurs, and the patient can go on doing his work and enjoying life.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, vol. i, 1910, p. 927. [2] *Annals of Surgery*, 1910, vol. li. [3] Jacobson and Rowlands, *Operations of Surgery*, 1907, vol. ii, p. 777. [4] Quoted by Jacobson, loc. cit. [5] BRITISH MEDICAL JOURNAL, vol. i, 1910, p. 1145. [6] *Lancet*, vol. i, 1911, p. 233.

# SOME PRACTICAL POINTS IN OPERATING ON THE KIDNEYS AND URETERS.*

BY

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A WELL-PLANNED operation on the kidney should satisfy the following requirements: The kidney should be exposed in such a manner that it can be not only palpated and inspected, but completely isolated from its surroundings and drawn outside the body. In the term "kidney" I include for this purpose the pelvis and first two inches of the ureter. Nothing less than such a complete exposure, or the possibility of effecting it if required, will enable the surgeon to deal satisfactorily with all contingencies.

Although the kidney may be approached from the back, the side, or the front, the posterior or lumbar route is not only the most direct, but the only route which is capable of being applied to any and every condition, and which is capable of meeting fully the postulated requirements in every case. Practically all surgeons are now agreed in accepting it as the normal route; and although special circumstances may in a few cases lead to the choice of the anterior or lateral abdominal approach, I shall not discuss this method here.

With regard to the position of the lumbar incision there is still considerable variety of practice. Although the twelfth rib on the left side crosses the kidney almost in its centre and on the right side only slightly above it, and is, therefore, the most natural and conspicuous guide to it, nearly all the incisions described and recommended in the textbooks lie below and outside it. Most of them begin near its tip, and extend outwards and downwards towards the iliac crest. By such incisions only the inferior pole of the kidney is actually exposed in the upper part of the wound, and complete access is only obtained by dislocating the organ downwards—a matter of considerable difficulty when the pedicle is short and the patient big or obese. For this reason, therefore, I think it better to make the normal incision directly over the twelfth rib, and to excise the whole length of the latter from the tip to the angle. By the "normal" incision I mean an incision capable of meeting all contingencies, especially the contingency of nephrectomy. Where the operation is planned merely for the fixation of a movable but otherwise normal kidney, an incision in the costo-vertebral angle without rib resection is, of course, sufficient, because in such cases the kidney is not enlarged, and its mobility makes it easy to dislocate or deliver it from the wound. Removal of a portion of the twelfth rib for the purpose of obtaining better exposure of the kidney is, of course, a well-known method, but it is mentioned in textbooks merely as an addition or afterthought to one of the ordinary lumbar incisions. This procedure is nothing like so efficient as a deliberate resection of the whole rib by an incision in the same line and immediately over it. By this method the kidney is exposed in the centre of the wound and the upper pole is rendered easily accessible both to sight and touch, and however fat the patient or deep the wound, the whole kidney, including the pedicle, can be dealt with in any manner required. The importance of this point will be sufficiently obvious to any surgeon who has encountered the difficulty of securing the pedicle in the course of a nephrectomy where the kidney lies high up under the ribs far above the line of the ordinary incision. The objection which will, of course, be made to the method I advocate is the danger of wounding the pleura. It is true that it is easy to wound the pleura in removing the rib, but it is just as easy not to do so. Even if a small puncture occurs, it is easily repaired, and although this has occurred to me on several occasions, I have found no ill results from it. In this position the two parietal layers of pleura are close together, only an insignificant quantity of air is admitted, and the lung does not collapse. If the rib is detached with ordinary care, the lower edge of the pleura is exposed and the edge of the lung seen moving up and down within it. The deeper part of the incision is made below the edge of the pleura in a position corresponding to the lower edge of the

* Read before the Birmingham Branch of the British Medical Association.

rib, care being taken to leave the twelfth dorsal nerve and vessels uninjured above. Making the incision in this manner, I find it possible fully to isolate and expose the kidney in about five minutes. I have employed the method as the normal routine for the last ten years, and I am convinced of its superiority to the ordinary lumbar incisions.

Another practical point of importance in kidney operations is the posture of the patient. The lumbar operation is usually practised with the patient lying on the sound side with a pillow under the loin and the uppermost leg fully flexed at the knee and hip. Apart from the difficulty of securing the patient in this position and preventing the tendency to slip, it is frequently very difficult in a stout patient to get a sufficient interval between the last rib and the crest to obtain good access to the kidney. In women the great width of the hips adds to this difficulty. When some years ago Edebohls devised the procedure known as decapsulation of the kidneys for albuminuric conditions, he found it necessary to operate rapidly and to apply the procedure to both kidneys. For this purpose he placed the patient in a completely prone position, with the pelvis resting on a large cylindrical air cushion. Pressure being removed from the abdomen by this means, diaphragmatic breathing proceeds easily and thoracic movements are not much impaired. The head is turned to one side and rests on a small sandbag. The arms are folded across the chest, with the elbows flexed to a right angle. In this posture I have found that patients take the anaesthetic well, and the anaesthetist finds little difficulty in administering either chloroform or ether. From the surgeon's point of view I find the prone position a great improvement on the lateral. It is a position of natural equilibrium and stability, and requires no assistants to maintain it, as the lateral position does. The exposure of the loin is, of course, far more perfect, and the whole operation is greatly facilitated by the directness of the exposure. Lastly, the feasibility of bilateral operations in the prone position is a point of great practical importance. Bilateral decapsulation I have had few opportunities of practising, and, though the results in one case appeared surprisingly successful, it does not appear to me to be an operation with a great future. Bilateral fixation of movable kidneys has been extensively practised. Without discussing that highly debatable subject, I may point out that if a surgeon wishes to perform a double nephropexy, the prone posture of Edebohls greatly facilitates the procedure. To place a patient first on one side and then on the other, performing an operation on each, is a very different thing from having both sides easily accessible and completing both operations with hardly any disturbance of the field of operation from start to finish. Time, shock, and risk of failure of asepsis are all reduced to a minimum.

The advantage of being able to expose rapidly and examine both kidneys at one operation in the prone position is a point to which I wish to direct particular attention. It might be thought that the use of radiography and of the ureteral catheter would render a bilateral operation seldom necessary. There is no doubt that these and other resources of modern urinary diagnosis enable us not only to localize and define the majority of pathological conditions affecting one kidney or ureter, but to estimate the quality and amount of the urinary secretion of each kidney. By a skilled radiographic examination the presence or absence of stones can be ascertained with practical certainty as regards the kidneys and with somewhat less certainty as regards the ureters. The existence of renal distension can be demonstrated and measured by the ureteral catheter if necessary. The presence or absence of infection of the renal pelvis can be shown on either side by the same means and the nature of the infection determined by bacteriological examination. The existence of two kidneys (a point of vital importance) and the determination of their separate secreting capacity is equally possible of demonstration without any cutting operation. These facts would seem at first sight to render it quite unnecessary to expose both kidneys when it is proposed to operate on one only, and I believe that the majority of urologists would accept this conclusion. Let me, however, test it by seeing how it applies to the ordinary experiences of urinary surgery. I will begin by assuming as an axiom that no surgeon will remove a kidney without having good evidence, or the strongest possible presumption, of the existence of a competent kidney on the opposite side. I would even go further, and assert that no surgeon should embark on any operation on a kidney which may have to terminate for unforeseen reasons in a nephrectomy without being assured of the competence of the opposite organ. This extension of the aphorism practically includes all operations on the kidney except that of fixation of a movable and otherwise normal organ. All other operations on the kidney—for example, for hydronephrosis, pyonephrosis, stone, tubercle, and new growth—are all liable to require nephrectomy, and the surgeon should be prepared for that contingency. I exclude, of course, traumatic rupture of the kidney, where, in view of the acuteness of the emergency, the surgeon may rely on Providence and probability for the existence of a second kidney.

The point in question is, then, the nature and quality of the evidence by which an operator should satisfy himself as to the condition of supposedly unaffected kidney before undertaking any operation which may conceivably have to terminate in nephrectomy. Obviously in every such case a cystoscopic examination, where possible, will be made, and all possible inferences drawn from the character of the ureteral orifices and of the fluid ejected from them. The proviso "where possible" does not apply to the ability of the surgeon to use the cystoscope, which I take for granted. In the majority of cases of surgical disease of the kidney or ureter cystoscopy presents no difficulty and always gives valuable information, positive or negative, as to both sides. In two classes of cases—both common, however—cystoscopy is often inconclusive, impossible, or inadvisable. One of these is tuberculous kidney with extensive involvement of the bladder. In such a case it is generally not merely difficult to get a clear medium and sufficient distension of the bladder, but the repeated washings of the bladder in the effort to obtain them are positively injurious and even dangerous to life. A similar condition is found in an infected hydronephrosis or septic pyelitis associated with much cystitis, and cystoscopy is subject to the same difficulty and danger. With these exceptions, a cystoscopic examination should precede all renal operations as an ordinary routine part of the clinical examination.

Should catheterization of one or both ureters be equally a matter of routine? And if so, does it render bilateral exploration unnecessary? Take an ordinary case of renal or ureteral calculus. Let us assume that the stone or stones have been definitely located, and that one kidney and its ureter have been shown by radiography to be free from stone. Is there, then, any need to catheterize either ureter? The amount of distension and loss of secretory power of the affected kidney may be generally inferred from the number and position of the calculi and the shadow outline of the kidney. The condition of the unaffected kidney cannot be judged satisfactorily from a radiograph, but if the orifice of its ureter and of its ejections are normal in appearance, its soundness may be assumed with considerable probability. Catheterization of the ureter on the affected side would give assurance of its patency—a point of importance—but as this can be equally done from above at the time of operation it is not indispensable. Catheterization of the opposite side would give positive evidence of secretory ability, a point of prime importance, but subject to certain qualifications. The same arguments apply to the other class of renal cases which, together with stone, form the bulk of renal operations, namely, congenital or obstructive distensions of the kidneys and tuberculous and septic infections. The whole question of catheterization is therefore one of expediency. If the catheterization of one or both kidneys were always possible, painless, free from risk, and certain in its results, its routine application would need no argument. As a matter of fact, none of these conditions can be guaranteed. Properly employed, the catheter can generally but not always be introduced; the risk of infection is real but small, its use is more disagreeable than painful, its findings are generally but not always reliable. But its effective use requires time; and though it can, and usually should, be done without general anaesthesia, it is in fact a surgical operation, to be followed perhaps by another operation for the treatment of the condition disclosed. The application of cystoscopy and catheterization of the ureters immediately before another operation on the kidney, which may

be prolonged and difficult, is a thing which should generally be avoided, as it may add to the danger and shock. It is better as a rule to make the cystoscopy a separate procedure. This, of course, to the patient means two separate "operations," and the multiplication of operations is not a thing he should be required to submit to if it can be reasonably avoided.

For these various reasons, I suggest that in many cases it is better, safer, and simpler, to make a direct exploration of both kidneys at the same operation. In the prone position it is merely necessary to begin by an incision on the opposite side to that on which the principal operation is to be carried out. In five minutes one can expose fully to sight and touch the whole of a normal kidney and upper part of the ureter. In five minutes more the wound can be closed and the surgeon can then proceed to operate on the affected side with full liberty to proceed to nephrectomy if necessary, or to abstain therefrom if the first kidney is found absent or unsound. Without any pain or inconvenience to the patient, without any change of posture to incommode the surgeon, and without any material prolongation of the operation, a possible nephrectomy can be made as free from risk as it can be by the most prolonged and elaborate catheterization. I know that it will be said that only gross changes can be detected by the completest inspection and palpation and that the secretion of an apparently normal kidney may be inadequate. Personally, and until I have met with evidence to the contrary, I believe that a kidney which is unable to carry on the functions of the body alone will always show sufficient anatomical changes to be recognizable by sight and touch, and that a kidney which shows all the outward signs of anatomical health may always be trusted to secrete enough urine for two in case its fellow is removed. At any rate, I have for several years performed all my kidney operations in the prone position, and in the majority of them I have explored both kidneys without the smallest disadvantage to the patient and with the great satisfaction of knowing that the patients I have left with one kidney have that kidney sound. Not a single case of bilateral exploration, with or without nephrectomy, failed to recover; and I have the satisfaction in cases of nephrectomy of having not merely an inferential knowledge of the remaining kidney, but knowledge as complete as sight and touch can make it.

The surgery of the ureter, thanks to cystoscopy and radiography, has now been placed on the same definite basis as the surgery of the kidneys. In dealing with any surgical affection of the kidneys it is essential to know of the presence of any abnormal condition of either ureter; and, conversely, in operating on the ureter one must take account of possible conditions in both kidneys. If, for example, after removing a stone from the kidney, or incising and draining a pyonephrosis, we neglect to ascertain the patency of the ureter, we run the risk of a urinary fistula from the presence of an impacted ureteral stone or ureteral stricture. Or, on the other hand, we may remove a stone from the lower ureter without recognizing the existence of other calculi in the corresponding kidney or even on the opposite side—a condition by no means rare. Such errors can only be avoided by taking a comprehensive view of every case and never forgetting that for purposes both of diagnosis and treatment the various parts of the genito-urinary system are inseparably connected.

Leaving on one side for the moment operations of emergency, I shall assume that before any operation is planned on the ureter the whole of the information which may be derived from cystoscopy and radiography has been obtained and considered, and that this information applies to both sides of the genito-urinary system.

In the actual modes of dealing with abnormal and diseased conditions of the ureter itself, there is, of course, nothing peculiar. They are dealt with on ordinary surgical principles, just like parallel lesions in any other organ. Calculi, obstructive distensions, and septic or tuberculous infections constitute the bulk of ureteral conditions for which operations are required, just as they do in the case of the kidney. For surgical purposes the ureter may be divided into three parts—upper, middle, and lower. The upper part, including the pelvis and first three inches, belongs to the kidney region, and may be exposed and treated by the lumbar incision or a slight extension of it. The middle region can be exposed by an iliac extraperitoneal incision; and the lower—that is, that part which lies below the brim of the true pelvis—may be approached in several ways: above, either outside or through the peritoneum, and below, through the perineum or bladder.

There is no part of the ureter which cannot be exposed surgically by an extraperitoneal incision from above. I have twice removed calculi in this manner which were lying in immediate contact with the bladder. In both cases the ureter was greatly dilated and allowed the passage of forceps or scoop down to the stone. In the iliac region there is no difficulty in exposing the ureter without opening the peritoneum, and this is the route which has been most generally used. In spite of the obvious advantages of the extraperitoneal route in operating on a ureter with possibly septic contents, there are some important drawbacks, and the question of adopting the intraperitoneal route which has been recently advocated by Mr. Sinclair White[1] deserves serious consideration. The objection to the extraperitoneal route lies not so much in the depth of the wound and the relative inaccessibility of the ureter when approached from the outer side as to the great length of the incision through the abdominal muscles and transversalis fascia. However carefully these are sutured there is invariably left a large and troublesome ventral hernia, which may seriously incapacitate for work. On the other hand, a median abdominal section, however long, if properly sutured and not drained, may be guaranteed against hernia. In addition to this very important advantage it is possible through an ordinary median hypogastric incision to palpate the whole course of both ureters, and by placing the patient in the inverted position to inspect and operate on either ureter from a little below the kidney to the entrance into the bladder. By operating with the same precautions as one would adopt with the opening of the gall duct or intestine, there is no more risk of peritoneal sepsis, and if drainage is required, as is usually the case, it can easily be made entirely extraperitoneal by closing the posterior peritoneal incision and bringing out the drain through a posterior or lateral incision not entering the peritoneal cavity.

I will relate briefly a case in which I adopted Mr. Sinclair White's suggestion, partly in order to avoid a ventral hernia, as the patient was a very big and corpulent man, and partly because even the fullest information derived from radiography left some doubt as to the existence of stones on both sides.

The presence of a calculus in the lower part of the left ureter was suspected from the existing symptoms, which were referred entirely to the left side, although there was a history many years previously of renal colic on the right side. Radiographs taken by Dr. J. A. Codd showed a clear shadow in the position of the right ureter below the pelvic brim, and also a less clear shadow corresponding to the left ureter in a similar position. There were no shadows in the kidneys.

Although the operation proved difficult, owing to the size and corpulency of the patient, I succeeded in thoroughly examining the left ureter, and excluding the presence of a calculus in any part of it from the kidney to the bladder. I then found the right kidney somewhat dilated to the feel, and traced its ureter down to the pelvic brim without feeling any stone. Not until the ureter had been isolated from its bed and brought up from the pelvis was I able to find and remove an oval calculus measuring ½ in. in diameter, and about ⅛ in. in thickness. It was firmly embedded in the ureter, and only extracted with difficulty after freely incising it. The incision was closed with catgut, and an extraperitoneal drain inserted.

The result of the operation was less successful than I had hoped, owing to the formation of a stricture at the site of the impaction of the calculus, and a consequent urinary fistula along the course of the drain tube. Accordingly some months later the patient was readmitted, and the right kidney, which was in a state of chronic hydronephrosis, was removed after examining the remaining kidney and finding it sound.

Although not successful in saving the kidney in this case, the operation has convinced me that for many cases of stone in the ureter the abdominal route is quite practicable and offers important advantages. This case illustrates some of the limitations of even perfect radiographic pictures when applied to particular cases. Speaking generally, a positive result in a good radiograph is more reliable than symptoms when the two appear contradictory. If a patient complains of the one kidney and a stone shadow is definitely seen in the other kidney, we may be tolerably sure the radiographer is right as to the latter. But, before concluding that the

case is one of those singular examples of contralateral symptoms, it is well to remember that the symptoms on the side complained of may quite possibly be due to actual disease not necessarily disclosed by radiography. Bilateral disease is common, transference of pain to the opposite side is rare, and those who diagnose rare conditions are more often wrong than right.

The fallibility of radiography is greater in the case of the ureters than in that of the kidney. That a shadow in a given case is that of a stone in the ureter can never be positively asserted, though, taken with other evidence, it is often convincing enough for all practical purposes. That a particular shadow is not in the ureter may, however, be demonstrated by radiographing the ureteral catheter if necessary. Radiography, valuable as it is in urinary surgery, is only one among many other means of collecting evidence; and as it would be foolish to cut a man merely for a shadow, so it is equally or even more foolish to abstain from operating on an aching kidney or an obstructed ureter merely because radiography has nothing to disclose about the cause of it.

The surgeon's business is to cure and to solve practical problems in a practical way. In the pursuit of that object he will not seldom have to cut Gordian knots in the ancient way—with the knife. Many cases are met with in which time or the condition of the patient does not permit of a complete radiographic examination. In obstructive anuria, for example, relief is urgently required. Both kidneys are obstructed, or one kidney is absent or destroyed and the remaining ureter is blocked. History and symptoms may indicate which side, if one only, is in need of relief, but not uncommonly there is nothing to indicate this vital fact, still less in what part of its course the ureter is obstructed. In such cases the advantage of bilateral exploration of both kidneys by lumbar incisions in the prone position is conspicuous, and I have employed it on several occasions, with the certainty of giving the needed relief by nephrectomy, even if the actual obstruction is not accessible.

Again, there are cases in which an attack of acute one-sided renal colic, instead of ceasing with or without the passage of a stone, continues for days with few intermissions. A complete radiographic examination may be impossible, or the means may be inaccessible, and surgical relief is nevertheless required. What is to be done? If the mouth of the ureter seen by cystoscopy shows signs of the presence of a calculus a ureteral catheter may be passed as far as possible, and this is sometimes followed by the passage of the stone. This occurred to me in one case, but in another it failed.

In this second case I exposed the kidney, partly to give relief and partly to ascertain whether it contained other calculi besides that shown by cystoscopy to be in the ureter. No stone was found in the kidney, and a catheter passed from above entered the bladder. The patient was relieved, and a few days later a calculus the size of a hemp seed was passed from the bladder. It is probable, though not certain in this case, that the stone would have been eventually passed without assistance, but the operation not only gave the relief from the agony the patient was suffering, but ascertained definitely the absence of other stones in the kidney.

I will conclude by discussing one other debatable point in operations on the ureter. A patient has symptoms pointing to an impacted calculus in the lower part of the ureter. Radiography confirms the diagnosis and indicates the size and position of the stone. Let us assume further that no calculus shadows are found in either kidney. In such a case the indication is clearly to cut down on the stone and remove it. If the kidney is sound or only moderately distended from the effects of the obstruction, and if the ureter is not irreparably damaged by ulceration at the site of the impacted stone, the latter may be removed, and perfect recovery ensue. That is the ideal course to pursue, but circumstances do not always favour the pursuit of the ideal. The ureter may become strictured after removal of the stone, as occurred in the case I have related, or, as occurred in another case in which I removed three large calculi from the lower end of the ureter, the chronically distended and atrophied kidney may become secondarily infected; and although this patient recovered and is still living, the preservation of an infected kidney is a doubtful advantage to him.

For these reasons, when the impaction of the stone is an affair of long standing, I am in favour of exploring the kidney before cutting down on the ureter.

In a case of this kind which recently came under my care I explored both kidneys, and found the one on the affected side much distended and atrophied, but not infected, and the opposite kidney sound. The patient was a working man in whom it was important to avoid if possible a ventral hernia. He was also known to be unwilling to consent to a second operation. Under the circumstances I decided to remove the affected kidney and to leave the calculus in the lower end of the ureter, where it was clearly shown in the radiograph. Visible spurts seen by cystoscopy and also the presence of pus in the urine showed that the lumen of the ureter was not completely obstructed, so that I had no hesitation in ligaturing the divided end with catgut and dropping it back in the lumbar wound, which healed by primary union. So far the man has been completely relieved and has lost his symptoms though retaining the stone. If the latter should eventually give trouble it can be removed, but there is no reason why it should do so now that there is no urine to obstruct and no signs of infection in the ureter itself.

I am aware that the procedure adopted in this case is open to criticism and is not to be recommended in an uncomplicated case, but the case illustrates the necessity of taking into account the state of all the urinary organs even when the disease affects primarily and mainly only a single part.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 1.

## REMARKS ON "APPENDICULAR DYSPEPSIA" AND ON THE TREATMENT OF DIFFUSED PERITONITIS.*

BY

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THE credit of drawing attention to the group of symptoms now known as "appendicular dyspepsia" is largely due to Mr. Moynihan of Leeds, although many surgeons recognized the condition previously without insisting upon its great importance. But I do not intend to quote from the work of others, and propose merely to state my own conception of the meaning of the term and to record briefly the history of a few cases, from among many, which arise to my mind when looking back upon appendix operations. The condition presents itself in two forms, one with gastric symptoms, the other with symptoms mainly intestinal. The latter I do not intend to elaborate in this communication, but may mention that I have seen chronic diarrhoea, chronic constipation, and symptoms akin to those of mucous colitis cured or greatly mitigated by the removal of a chronically diseased appendix.

If I were asked for a definition of the gastric form of "appendicular dyspepsia" I would reply: "It is a group of symptoms, and perhaps signs, which point so strongly to organic, gastric, or duodenal disease that it is only by most careful examination or by the supervention of definite appendicular symptoms that a correct diagnosis is probable."

The first case I will mention was seen in consultation with my colleague, Dr. Lumsden.

CASE I.

Miss T. L., aged about 30, first consulted Dr. Lumsden on June 1st, 1908. She had been suffering for three years from epigastric pain and vomiting. She was unable to eat solid food, and had existed upon "slops." Dr. Lumsden could not elicit any definite history of haematemesis. Upon examination the only obvious sign was tenderness upon pressure in the epigastrium slightly to the right of the middle line.

On June 10th the patient reported that she suffered from attacks of diarrhoea. The epigastric pain was less, but there was severe pain in the back and much depression mentally.

For the following fourteen months, in spite of various forms of treatment, her condition remained the same. In August, 1909, whilst in England, she suffered from a severe attack of abdominal pain accompanied by tenderness in the right iliac fossa. During the next month Dr. Lumsden saw her twice on account of severe abdominal pain with marked tenderness in the right iliac fossa. The patient now entered hospital, and I saw her with my colleague.

Upon our first examination nothing definite was found, but subsequently when examining the pelvis it was obvious that there was distinct tenderness on pressure over the brim of the pelvis on the right side. We then determined to explore in the region of the appendix, and I removed a diseased appendix which lay inwards towards the pelvic brim.

* A paper read before the Surgical Section of the Royal Academy of Medicine in Ireland, March 3rd, 1911.

This patient has never been troubled with the old symptoms since the operation, and is a healthy, happy young woman. From this history we see that over four years of suffering was endured before it was possible to determine the true seat of disease.

The second case is one with more purely gastric symptoms.

CASE II.

Mrs. D., aged 36, came to me on October 13th, 1910, giving a history of epigastric pain and discomfort, and constant vomiting after meals for the past two years. She had not been able to eat any solid food, and subsisted upon milk and broths. She has had eight children, the youngest of whom is 3 years old. She had not menstruated for the past two years. She has suffered from obstinate constipation.

There was considerable epigastric tenderness, also some tenderness on deep pressure over the right iliac fossa. There was a slight amount of gastroptosis, and splashing could be elicited. There was no pelvic trouble of any consequence. Upon repeated careful questioning, I found that for the first eighteen months of her illness the attacks of vomiting and pain were often ushered in by pain and discomfort in the right iliac fossa, but that this had not been the case during the past six months.

I explored the abdominal cavity, and removed a diseased appendix with immediate and so far permanent relief of the symptoms.

The histories of these cases are all much alike, so I will only trouble you by relating one more.

CASE III.

Miss S., aged 40, came to me March 24th, 1910, complaining of epigastric pain and vomiting, which usually occurred about two hours after taking food. She had been troubled in this manner for many years, and had lost flesh and was sallow and old-looking. In this case, also, I could elicit tenderness on pressure over the right iliac fossa. By careful questioning I found that two years previously she had to remain in bed for a few days on account of severe abdominal pain accompanied by tenderness over the right iliac fossa.

Upon opening this abdomen I found a diseased and adherent appendix, together with numerous adhesions between the caecum and ascending colon and neighbouring parts. The symptoms from which this patient suffered have completely disappeared.

When making a diagnosis one must eliminate other causes of reflex pain and vomiting, especially causes arising from the pelvic organs, kidneys, or gall bladder, etc. The gall bladder and bile ducts are the most difficult pitfalls to guard against as far as my experience has taught me.

We must remember that the fact of proving the presence of a diseased appendix does not exclude the presence of organic gastric or duodenal disease. Last year I removed a diseased appendix from a young man just convalescent from a typical attack of acute appendicitis. During the previous few years he had been treated on two occasions by another surgeon for gastric ulcer. I was rather inclined to think that this might have been a mistake in diagnosis, but two months after my operation I was called to see the patient as he was suffering from severe haematemesis and melaena. I opened the abdomen and found a large chronic ulcer of the first stage of the duodenum.

Some well-known surgeons go so far as to say that even copious haematemesis may be caused by chronic disease of the appendix, apart from any organic lesion of the stomach or duodenum, but personally I have not yet met with a such case and I am rather inclined to be sceptical.

Amongst the many signs of improvement in a patient after the removal of a chronically diseased appendix none are more marked than the disappearance of melancholy thoughts and the alteration in the colour and texture of the skin.

There is a second subject which I wish to mention, not because I have any original form of treatment to advocate, but chiefly to recant some statements made by me several years ago.

At that time I used to advocate thorough flushing of the peritoneal cavity with saline solution in all forms of perforative peritonitis. In that advocacy I was not alone, some surgeons at that period even advising "evisceration" of the abdomen in order to cleanse it thoroughly. To explain the attitude of surgeons at that time it is necessary to mention a few items in the history of the treatment of perforative peritonitis in this country. I have no fear of contradiction when I say that about twelve years ago the mortality following perforation of an abdominal viscus was appalling. Then, chiefly owing to the work of Mayo Robson and Moynihan, perforations of the stomach were successfully treated. In carrying out this treatment many surgeons used flushing of the abdominal cavity, with subsequent closure of the abdominal incision without drainage. This method gave excellent results and is still the best method in many cases of gastric perforation.

It was a natural mistake to apply this treatment to peritonitis following perforation of the appendix, but few went so far as to advocate closure of the abdomen without drainage. The results were extremely bad.

I think that the credit of giving the death-blow to this heroic and mistaken treatment is chiefly due to Murphy in America, whilst the scientific work of Dudgeon and Sargent in England firmly nailed the lid on its coffin. Before I had read the work of these and other opponents of flushing I was much impressed by the fact that some very advanced cases which I had to operate upon in the country, reluctantly dispensing with flushing, recovered, whilst less advanced cases treated in hospital showed a heavy mortality.

For several years now my practice has been to open the abdomen by the ordinary oblique incision, remove the gangrenous or perforated appendix, and pass large "cigarette" drains from the wound to the bottom of the pelvis and to one or both kidney pouches, according to the diffusion of the purulent exudate. Silkworm-gut stitches are then placed in position, but not all tied, and the patient is nursed in the "Fowler" position, whilst plenty of saline solution is administered by the rectum. I do not find it necessary, even in the most diffused cases, to make counter openings in the loin or elsewhere. The drains are removed in from thirty-six to forty-eight hours and more of the sutures are tied, but the wound is not completely closed.

The uniformly good results which all surgeons who use this simple form of operation obtain is, to my mind, one of the greatest surgical triumphs of recent years.

NOTE.—After the above remarks had been put into type, it was pointed out to me that a paper entitled "Chronic Appendicitis" was read by Dr. Blair Bell in the Section of Surgery at the Annual Meeting of the British Medical Association at Oxford in 1904, in which cases identical with those here given were described. The paper was published in the JOURNAL of October 29th, 1904, p. 1145.

## DEATHS FOLLOWING GASTRO-JEJUNOSTOMY NOT DUE TO THE ANASTOMOSIS.*

BY C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.

THE following cases are unfortunately instances of what the lay press terms "a successful operation," but which is followed by the appearance of the patient's name in the obituary column, though the difference between this and an unsuccessful operation is extremely slight.

CASE I.—*Ulcer of Pylorus causing Obstruction.*

A woman, aged 28, had suffered for one year from epigastric pain soon after food, with frequent attacks of vomiting. During the six weeks prior to consultation drugs and rectal feeding had been employed without relief. Ingestion of any kind of food at once produced pain and vomiting. The vomit was sometimes brown in colour. The epigastrium was tender and the stomach resonance increased. Neither tumour nor peristalsis was demonstrable. The patient stated that "at times a lump rose in the pit of the stomach and went away with gurgling." The odour of the mouth was offensive, and during the two days which the patient took to decide on operation efforts were made to clean the mouth, but with only partial success.

*Operation.*

The anaesthetic used was ether. The posterior wall of the pylorus was thickened and indurated. The stomach contained a little blood. Posterior gastro-jejunostomy was performed.

*After-History.*

During the first twenty-four hours some bile was vomited. At the end of twenty-four hours liquid food (2 oz. an hour) was swallowed and retained, causing neither pain nor sickness. The bowels acted after saline enemata. Death occurred forty hours after operation from pneumonia.

CASE II.—*Carcinoma of Pylorus causing Obstruction and Tetany.*

A man, aged 52, had for one year experienced pain immediately after food. For five weeks there had been frequent cramps in legs, arms, and hands. One week ago, several quarts of brown

* A paper read before the South-Western Branch of the British Medical Association on April 8th, 1911.

fluid were vomited, and subsequently everything taken by mouth was vomited. Saline solution, given per rectum, caused the tetany to disappear, and reduced the pulse from 120 to 90, and the temperature from 102° to 98°.

*Operation.*

Ether was administered by the open method. The stomach, dilated to double its usual size, with walls of double the normal thickness was firmly adherent to the diaphragm and ribs. In the pylorus was a hard mass the size of a walnut. In the gastro-colic omentum was a globular, mobile tumour, the size of two golf balls. Posterior gastro-jejunostomy was performed.

*After-History.*

On recovery from the anaesthetic, right hemiplegia, with partial aphasia, was present. Coma supervened and death occurred thirty-six hours after operation. During these thirty-six hours liquids were swallowed and retained and left the stomach, which was found empty on passing a tube.

CASE III.—*Carcinoma of Pylorus causing Obstruction.*

A woman, aged 64, for fifteen years had passed much flatus by mouth and rectum. At no time had there been any pain. For four months there had been intermittent vomiting, latterly as much as a quart at a time. There was a mass the size of a Tangerine orange 1 in. above and to the right of the umbilicus. In the forty-eight hours preceding operation 8 pints of saline solution were absorbed per rectum, producing a good volumed pulse of 80. The stomach, which contained foul liquid, was washed out two days before, and half an hour before operation.

*Operation.*

The anaesthetic used was almost entirely ether by the open method. Occupying the pylorus was a growth 3 in. by 2 in.; it extended 3 in. along the lesser curvature. In both omenta were large masses of growth. Posterior gastro-jejunostomy was performed.

*After-History.*

The patient, who had stood the operation well, became drowsy, with breath smelling strongly of acetone, and died comatose forty hours after operation.

These cases, which occurred within a period of three years, illustrate deaths from (1) septic pneumonia, (2) cerebral haemorrhage (or thrombosis), (3) acetonaemia.

The features common to all three cases were:

1. Operation was performed with the object of preventing death from starvation the result of pyloric obstruction.
2. The anaesthetic was ether.
3. On being returned to bed after operation the patient was at once placed, and nursed throughout, in the Fowler position, saline solution being administered per rectum.
4. The gastro-jejunostomy was that of the Mayo clinic, that is, posterior, no loop, antiperistaltic, with an opening of 2½ to 3 in.
5. During the time which elapsed between operation and death, the anastomosis acted perfectly.

In Case I the cause of the pneumonia was inhalation of septic material from the stinking mouth. Possibly the anaesthetic was an accessory cause. The patient was so emaciated, and so rapidly losing ground in spite of rectal feeding, that it was obvious that her only chance lay in operation.

In Case II, when first seen, the gastric tetany was marked and accompanied by pyrexia and a rapid pulse. As soon as these symptoms had been relieved by saline solution, given per rectum, it was felt that operation was the only rational treatment. In the absence of a necropsy it is impossible to be certain that the cerebral lesion was not a thrombosis, but haemorrhage appears the more probable. To some the fact that ether was the anaesthetic may account for the cerebral catastrophe, but that cerebral haemorrhage may take place during chloroform anaesthesia is proved by the following case, reported by Fairlie:[1]

> The patient, a labouring man aged 23, had been anaesthetized with chloroform three weeks previously, and artificial respiration for one minute had been necessary. On the next occasion, skin-grafting being the operation contemplated, chloroform was again administered; there was some struggling during the first stage, and death took place prior to operation. The *post-mortem* report read as follows: "Heart, normal; lungs, some engorgement at base, no oedema; brain, fresh haemorrhage extending over both cerebral hemispheres downwards towards the base, more extensive on the left side. There was no hypertrophy of lymphatic tissues."

The tendency of starved patients to develop acetonaemia is well known. Post-anaesthetic acetonaemia is far more common with chloroform than with ether. In Case III it was hoped that the gallon of saline solution absorbed per rectum in the forty-eight hours preceding operation might have obviated this risk. The acetonaemia was treated with sodium bicarbonate, both by mouth and rectum, and by inhalation of oxygen, but without effect. The urine prior to operation contained neither sugar nor albumen. A specimen taken from the bladder immediately after death was examined by the Clinical Research Association, which reported:

> This urine reduces Fehling's solution to the equivalent of 5 parts per 1,000, or 2.2 grains per ounce of glucose, but the reducing substance is not glucose, since it does not yield the characteristic glucosazone crystals. Acetone, aceto-acetic acid, and beta-oxybutyric acid are not detected.

The reducing substance was probably one of the acetone series. The acetone odour of the breath was marked and unmistakable. In a future case sodium bicarbonate and glucose might be administered per rectum prior to operation; it could do no harm, and might be of service.

Disappointing as such results must always be, it is hardly to be expected that operations for obstruction of the pylorus can escape the mortality which attends operations for obstruction in other portions of the intestinal tract, the mortality being highest in those cases in which the obstruction is complete and has existed for some time. As pointed out by the late Greig Smith, operations performed on desperate cases spoil statistics but save lives. In failing to save such a case the surgeon is in the position of a man who, seeing a runaway trap carrying its occupants towards a precipice, has made an effort to divert its course. The effort fails and the runaway dashes over the cliff. The fact that, in the event of the attempt at rescue failing, the horse moves a little faster, or the patient goes downhill a little more quickly, is not a valid excuse for shirking an obvious duty.

REFERENCE.

[1] Fairlie, *Lancet*, November 12th, 1910, p. 1415.

## REMARKS ON THE PATHOLOGY AND TREATMENT OF FISTULAE.

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FISTULAE come under a branch of surgery which in a general hospital is apt to be neglected. Such cases are not, as a rule, of striking interest, and are frequently relegated to the end of the operation list, with the result that the operative treatment is not always efficient, whilst the patient is only too frequently sent out of the hospital to make room for more urgent cases before the cure is complete. Thus the post-operative treatment is not fully carried out, and the patient once more becomes the subject of chronic suppuration; for if there is one thing more than another that is essential to the healing of fistulae, it is the careful dressing and attendance after the operation.

These few notes on the pathology and treatment of fistulae are based upon observations made at St. Mark's Hospital, where the opportunity of watching the results of treatment is unique. I wish first to draw attention to a type of fistula that is commonly met with in the out-patient department of the hospital. I refer to the class known as "horseshoe fistulae." These cases present themselves with the history of having suffered from chronic discharge and attacks of pain on and off for a long period, in some instances of ten years, and have, as a rule, undergone many operations. Wearied with long attendance at hospitals, they finally meet with some one who, disappointed with the results of treatment, informs them that their case is tuberculous and incurable—an opinion that is in both directions nearly always erroneous.

The truth is that these cases have become chronic and intractable because their exact pathological conditions have not been recognized. The late Mr. Goodsall pointed out that in fistulae the internal and the external openings usually bear a definite relation to one another, and I may briefly refer to his observations, with figures to illustrate the condition of matters. His statement is that all fistulae with their external openings behind a line drawn transversely through the centre of the anus have their internal

openings in the middle line behind (see Fig. 1); and that in cases in which the external aperture is anterior to this line, the inner opening is directly opposite the external one (see Fig. 2).

It must, of course, be recognized that in both cases there are frequently outlying tracks which must be dealt with;

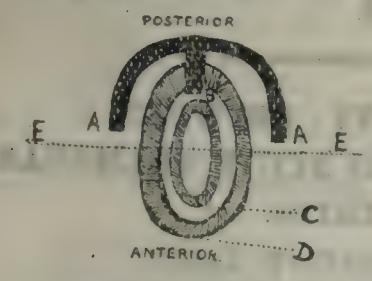


Fig. 1.

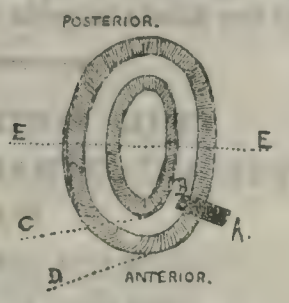


Fig. 2.

A, External openings. B, Internal openings. C, Internal sphincter. D, External sphincter. E, Line through centre of anus.

but it is all-important to find and trace the chief fistulous tracks, for complete fistula can only be treated with success when the internal opening has been found and laid open, and attention to Goodsall's rule will be found most helpful. I had this point well impressed upon my mind by two chronic cases of apparently complete fistulae with multiple external openings that were operated upon in which no internal opening was found. After many careful dressings they left the hospital nearly healed, but only to return several weeks later with discharging sinuses. and on further investigation the internal openings were found at the usual sites and were laid open with very satisfactory results.

On going into St. Mark's Hospital records over the last two years I found that complete posterior horseshoe fistulae occurred much more frequently than the anterior variety, the proportion being six to one.

It is common in old-standing cases to meet with as many as five or six external openings, which may be scattered far and wide; but the internal opening is usually single, though I have found two, one above the other, both in the anal canal (see Fig. 3). Double fistulae hardly ever occur, and where there are two openings, one on each side of the anus, the case is nearly always one of the horseshoe variety. Thus during the last two years, for example, only one such case was operated upon in the hospital.

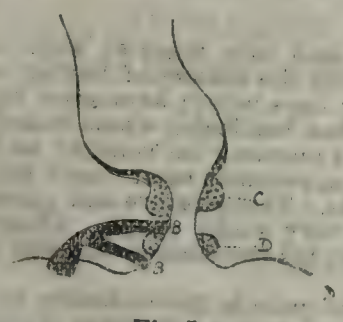


Fig. 3.

As in the more simple, so also in the case of the horseshoe form of fistula, the internal opening is never above the anal canal. The common situation is between the two sphincters, and it seldom involves the upper or internal one; but owing to the great amount of chronic induration the position of the aperture gives one the impression that the anal canal is lengthened, and that the track cannot be laid open without damaging the whole of its musculature. This apparent lengthening of the canal is due to thickened and oedematous skin from chronic inflammation.

It must also be borne in mind that the internal openings of some fistulae, and even when extensive and with multiple external openings, may be found to be below the external sphincter, in which case the latter muscle will escape injury when the track is laid open (see Fig. 4). On laying open the external tracks sinuses may be found to run up the side of the bowel, and unless there happens to be a stricture of the rectum these are blind passages, and may be cured by free drainage from below with careful attention to the after-dressing (Fig. 5). Not infrequently tracks run up to the coccyx, and on the passage of a probe with a little force it is easy to imagine that the coccyx is the seat of disease, a mistake that may lead to its removal. Although involvement of the bone is a rare complication, the following case is an example where there was, in addition to definite destruction of the coccyx, extensive disease in the lower portions of the sacrum:

The patient, a labourer who suffered from almost continual discharge for twelve years, was admitted under the care of Mr. Swinford Edwards. On examination the skin on both sides of the anus was extremely oedematous, and showed five external openings scattered around, in addition to multiple scars, the results of four previous operations. The anal canal showed marked stenosis, but he had good sphincter power. At the operation the subcutaneous tissue was so completely riddled

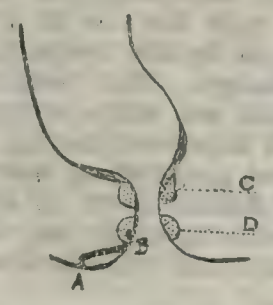


Fig. 4.

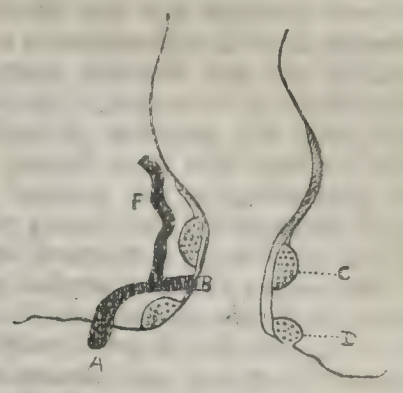


Fig. 5.

with tracks that the diseased skin had to be freely removed. The internal opening was found in the middle line posteriorly, but not without some difficulty, and a track running up to the coccyx was discovered. This was well drained after being thoroughly scraped, and the patient was sent back to bed without interference with the internal opening.

Three weeks later, as the posterior sinus was still discharging pus, a second operation was undertaken, when it was found on incising the tissues down to the coccyx that it was a mere sequestrum, which was removed along with the lower two pieces of the sacrum, as they were found to be extensively diseased.

Three weeks later the internal opening was laid open, and he made a slow but steady recovery, though, needless to say, the stay in hospital was prolonged on account of the large area that had to heal by granulation.

Fistulae, whether complete or incomplete, nearly always have their origin in abrasion of the bowel, which leads to infection of the tissues by absorption of septic matter. Complete fistulae are much more common than the internal and external varieties, which may be said to be comparatively rare, especially the latter. These (the so-called external) are nearly always cases of complete fistulae, in which the internal opening proves to be peculiarly elusive, and they resist treatment until it has been found and dealt with.

I mention in illustration three cases that were considered to be blind external fistulae, in which foreign bodies (in all small particles of fish bone) were removed under local anaesthetic from the ischio-rectal fossae. The wounds soon closed up to the original small sinuses, but made no attempt to heal, and after several weeks a probe passed into the track could easily be felt up to the mucous membrane between the two sphincter muscles. One, indeed, entered the bowel, but in the other cases when subjected to operation several weeks later the internal apertures were found quite easily, though no internal opening could be palpated with the finger at any time after removal of the foreign body. In one case the fistula had been in existence for a year. It follows, therefore, that all cases of supposed external blind fistulae that have existed for any length of time must be regarded with suspicion.

The majority of patients suffering from the most common form of internal fistulae come complaining of pain, like that of a fissure, with itching. They are invariably submucous shallow tracks (extending upwards or downwards from Morgagni's crypts) from which pus can be squeezed out, and are only, as a rule, found by careful examination of the anal canal with a speculum and a hooked probe. This is a common cause of pruritus ani, and it may be necessary to make a thorough search under a general anaesthetic with the sphincters dilated, as the openings of internal fistulae are by no means easy to find, and there are few cases of pruritus ani in which a rectal lesion cannot be found.

### TREATMENT.

It is important, before operating upon any case of fistula, even the most simple, to examine the rectum for stricture or ulceration, and to inquire for a history of any present or previous urinary trouble.

In dealing with the horseshoe fistulae of long duration and multiple external openings the first step is to expose the outlying tracks, and, when these are laid bare, islets of necrotic skin are often left. These must be removed and

the edges of the wound trimmed down until fairly healthy skin remains, without any undermining of the skin edges, for if particles or tags of skin be left in chronic cases, they become undermined, and nearly always have to be removed at a later date. The area should now be scraped thoroughly with a sharp spoon, and the internal opening into the bowel located, but not divided, for where there is an extensive area of subcutaneous tissue left to granulate the operation on the internal opening is best postponed for three weeks or a month, depending upon the size of the fistula and the progress of healing, as by this means the wound is kept free from faecal discharge. After dealing with haemorrhage, the exposed tracks and entire wound should be carefully and firmly packed to prevent oozing.

When the wound is covered by clean granulating tissue and the edges show a tendency to flatten down in the formation of new epithelium, the internal opening may be laid open, and this, if previously located, can often be done successfully with a local anaesthetic.

It is surprising how much diseased skin can be removed without any difficulty arising in the process of healing, and I am sure, from what I have seen, that free removal of infected skin is the best and quickest method of getting these large and old-standing fistulae to heal.

The coccyx should never be removed unless it is extensively diseased, and in doubtful cases it is better to scrape the bone and wait, as removal means a large wound which can only granulate slowly.

Much has been written about the damaging results of injury to the sphincter muscles in operating upon fistulae. In this connexion it must be recognized that the internal is the important sphincter muscle, which will explain the fact that the external sphincter may be destroyed without any loss of control. In one case, for example, a patient admitted under the care of Mr. Gordon Watson, it was found impossible to lay open all the tracks without division of the external sphincter in three places, and yet the patient made a good recovery without any loss of control. On the other hand, an operation involving serious injury to the internal sphincter would in all probability be followed by permanent weakness.

I have had little experience in the method of treating fistulae by scraping and suturing in the manner advocated by Sir Charles Ball of Dublin, but I may say I was not impressed by the results in the few cases I have seen treated in this way.

For the dressing of fistulae I think the best material is ordinary white wool soaked in hydrarg. perchlor. 1 in 2,000, and prepared in the following manner: The wool is cut into ¼-yard lengths, and after sterilization is soaked in a solution of perchloride of mercury for half an hour. It is then wrung out, dried, and cut into 4-in. squares and kept in sterilized glass jars ready for use, and these can easily be separated into layers and pulled into any form suitable for the track to be dressed.

Unless the wound is soiled by faecal matter, no further dressing is required during the first three days after operation, and during this period very light diet should be insisted upon. The patient should be allowed two baths a day and directed to soak the parts thoroughly in warm water, for half an hour at a time, until the process of healing is practically complete.

It is well after the first dressing to pack the tracks lightly, as pressure may interfere with healing, which, indeed, may make very slow progress at first. By the end of the second week, if the granulations are not healthy, the addition of *lotio rubra* might be of service; and in the early stages iodoform oil (grains xx to 1 oz. of olive oil) is also useful, especially for tracks leading into the bowel, as facilitating the packing, for the first few dressings in these cases are usually painful.

No bowel track can be satisfactorily dressed without a finger in the rectum, and the same method should be employed when it is found necessary to examine the wound. The probe generally employed is too thin. It should be a solid, round probe, about half the thickness of an ordinary lead pencil, for with such an instrument the dressing is more readily inserted, and there is no danger of tearing the mucous membrane.

Hydrogen peroxide is invaluable for cleaning up unhealthy granulating areas and blind pockets, which latter should on no account, as Mr. Wallis points out in his book on *The Surgery of the Rectum*, be treated by injections of silver nitrate, as the caustic acts as an irritant to the tissue, and if the external opening should become blocked, extensive and sloughing new tracks may form.

After the healing process has advanced well beyond the stage of uncertainty the patient may be allowed up for a little while each day, but he must not be lost sight of until the fistula is quite healed.

## THE SIMILARITY BETWEEN ACUTE ABDOMINAL AND ACUTE PULMONARY CONDITIONS.

*WITH ILLUSTRATIVE CASES.*

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ACUTE pulmonary conditions in certain stages simulate very closely indeed the signs and symptoms of acute abdominal lesions and vice versa. Nor is it generally recognized that the two are frequently combined. It is not uncommon, for instance, to find acute pneumonia combined with a pneumococcal infection of the appendix going on to suppuration. It is, perhaps, better known how frequently chest conditions supervene on acute abdominal lesions. Cases of abdominal lesions seen not quite at their inception sometimes show marked signs of bronchitis, and this bronchitis clears up when the abdominal condition is relieved. This is especially seen in children, and occurs fairly frequently in those who have some chronic obstruction of the bowels. In making a diagnosis of acute abdominal mischief, examination of the chest should never be neglected, and the converse is also true.

It is absolutely essential that any possibility of pulmonary lesions should be excluded before performing laparotomy for what is evidently an acute abdominal lesion, because laparotomy in the former condition has nearly always a fatal ending.

These points are illustrated in the following cases:

CASE I.

A boy, J. W., aged 9 years, was sent into hospital with a diagnosis of appendix abscess and with the history of having a typical attack of appendicitis. Four days before admission he had come home from school with a bad headache, which lasted till he went to bed at night; the next morning he vomited and complained of pain in the abdomen, apparently most round the umbilicus, especially on the right side. Temperature and pulse began to rise and he developed a very slight cough. These symptoms continued up to admission, his pain increasing every day.

On admission the boy complained of pain in the abdomen on the right side above the umbilicus, and said it felt worse when he coughed or breathed deeply. He was not sick, but felt thirsty. He was flushed and the face was pinched. Respiration was shallow, and, although chiefly thoracic, the upper part of his abdomen moved. He was unable to take a deep breath, but in his efforts to do so his whole abdomen moved, though with pain. The temperature was 104.4°, pulse 140, and respirations 40. The skin felt dry and pungent. The abdomen was tender, most so between the umbilicus and right costal margin. There was slight resistance in the right rectus muscle. There was no dullness of the abdomen, nor was any lump felt nor thickening round the appendix, nor was there any tenderness per rectum. There were no physical signs in the lungs. A diagnosis of diaphragmatic pneumonia was made, in spite of the history and the general signs, on the facts that the respirations were hurried and painful, his face flushed, the character of his pulse, and the pungency of the skin—a very valuable diagnostic sign of pneumonia. He was treated as a case of pneumonia. Next day the abdominal signs were less and the respiratory more marked. Physical signs were absent, except at one point in the seventh interspace, right side, mid-axillary line, where a small patch of dullness was localized, accompanied by bronchial breathing and very fine crepitations. These physical signs were more marked next day and the patch enlarged. On the eighth day of his illness the temperature fell by crisis, and he made an uninterrupted recovery.

The interesting points about this case were that his early symptoms were entirely those of acute appendicitis with absolutely no lung signs, while on admission he had signs of both, and later he had only lung signs.

CASE II.

A man, H. H., after breakfast went for a walk and suddenly felt a pain in his right side and had to go home. He had had some indigestion for a week or two and also had been troubled

with a cold and cough for a fortnight. When admitted he was evidently very ill, and his face was pinched. Respiration was hurried, and evidently gave him pain, as did a slight hacking cough. Temperature 100° F., pulse 108, respirations 44. The abdomen did not move well on respiration, and respiration was mainly thoracic in type and shallow. The upper abdomen was resistant and very tender to pressure, but no definite spot of tenderness was localized. No lump could be felt, and he was not tender per rectum. The abdomen was tympanitic all over, except slight dullness over the stomach, and there was very slight reduction of liver dullness, almost imperceptible. On the right side of the chest, about the fourth and fifth ribs, there was marked bronchial breathing with crepitations and dullness. A diagnosis of perforated gastric ulcer was made and the abdomen opened. A perforation was found in the stomach at its junction with the oesophagus; this was closed by an omental flap.

The interesting points about this case were that he had definite lung signs and that the abdominal signs were not very marked; the diagnosis of perforated gastric ulcer was made owing to the history of indigestion, sudden pain, resistant abdomen, and reduction of liver dullness. The lung signs were due to an old-standing phthisical cavity which had recently become active.

CASE III.

A boy, J. M., aged 18, was admitted to hospital with a diagnosis of appendix abscess, and operated on after this diagnosis had been confirmed. The abscess was opened and a considerable quantity of pus was evacuated and free drainage introduced. Some days after operation the patient had a sudden pain in the right side of the chest. This was attributed to burrowing of the abscess into the pleural cavity, but no definite signs could be elicited except a few crepitations. Temperature, pulse, and respirations rose, and his face became flushed. Commencing pneumonia was diagnosed. The attack seemed to abort, but the patient died, and a *post-mortem* examination was made. Pus was found between the liver and diaphragm, but not in the pleural cavity. In the lower lobe of the right lung were three recent infarcts.

This case was particularly interesting in its after course, and it was very puzzling to localize correctly the signs.

I am indebted to the surgeons of Bury Infirmary for permission to publish these cases.

# THE MECHANISM OF TRANSMISSION OF TRYPANOSOMA LEWISI FROM RAT TO RAT BY THE RAT FLEA.

BY

C. STRICKLAND, M.A.,

ASSISTANT TO THE QUICK PROFESSOR OF BIOLOGY IN THE UNIVERSITY OF CAMBRIDGE.

(From the Quick Laboratory, Cambridge.)

ANY study of the common rat trypanosome, *T. lewisi*, is important in that it is akin to the trypanosome of sleeping sickness. It was demonstrated by Nuttall (1908) and others that this trypanosome is carried from rat to rat by fleas. Nuttall transferred fleas (*Ceratophyllus fasciatus*) from infected to healthy rats, and found that the latter generally became infected.

Minchin and Thomson (1910) proved that the rat flea does not *immediately* carry the trypanosome from the infected to the healthy animal unless about a fortnight has elapsed from the time the flea first fed on infected blood—that is to say, the trypanosome must live or develop in the flea for about a fortnight before the flea which carries it can infect a healthy rat.

It has been the general idea that the mechanism of this infection is by the flea biting the healthy animal, and inoculating trypanosomes through its mouth-parts. My object was to discover, if possible, if this were so; or in what other manner the fleas infected the rats.

The following procedure was adopted. The infective fleas were always used in batches of ten for each rat. They were first starved for about three days, so as to ensure their feeding on the rats on which they were to be placed. They were then put on the rats and taken off in about half an hour, by which time they had fed. It was intended by this method to see if the fleas infected the rats either by biting them or, possibly, by contaminating them. In the next place, either these or other fleas were squeezed between fine forceps and then put in a bolus of bread-sop which was given to hungry rats to eat. In this way it was intended to imitate the rats' natural habit of chawing up and eating the fleas which infest them, and to ascertain if infection was caused thereby.

*Result of the Experiment.*

A. Fleas placed on rats for half an hour, and then picked off. Of 9 rats none became infected.

B. Crushed fleas fed to rats with bread. Of 9 rats 6 became infected.

C. Fleas placed on rats and allowed to stay thereon, as in Nature. Of 7 rats 2 became infected.

It will be seen (A) that none of those rats on which fleas had been left for a limited time became infected, whereas (B) six out of nine became infected after they had fed on the infective fleas. We can thus say, contrary to previous preconceived ideas, that rats become infected with *T. lewisi* by the process of eating the infective fleas, and not by being bitten, or contaminated by them in a short time.

The result of putting fleas on rats and leaving them as in Nature (C) was that two out of seven became infected, which shows, when compared with the results under (B) that in Nature many infective fleas do not cause infection, probably because the rat only catches a limited number of them.

It has usually been assumed that the trypanosomes, after undergoing a "development" in the flea, are inoculated into the blood of the rat by the mouth-parts of the flea. We see, however, that they must pass through the wall of the alimentary tract of the rat, and thus reach the blood. The forms which do this are probably the "small trypanosomes" described by Swellengrebel and Strickland (1910).

It is interesting to find blood parasites behaving thus, and it is possible that other trypanosomiases are transmitted by more devious means than by the simple bite of blood-sucking insects. It may be found that non-blood-sucking creatures are the intermediate hosts in some cases.

SUMMARY AND CONCLUSIONS.

1. Infection of rats with *T. lewisi* is caused by the rats' act of eating infective fleas.
2. It is not caused by contamination of the rats during a short time, nor by their being bitten by the fleas.
3. Many more fleas are infective than cause infection in Nature.
4. The infective form of the trypanosome, which is probably the "small trypanosome" of Swellengrebel and Strickland, must reach the blood through the gut wall.
5. It is possible that other trypanosomiases may be transmitted by perhaps even non-blood-sucking creatures.

I would like here to take the opportunity of thanking Professor Nuttall for his kind advice in this work.

BIBLIOGRAPHY.

Minchin and Thomson (1910): The Transmission of *Trypanosoma lewisi* by the Rat Flea (*Ceratophyllus fasciatus*) (Preliminary Communication.) *Proc. of Royal Society*, B. vol. lxxxii.

Nuttall (1908): The Transmission of *Trypanosoma lewisi* by Fleas and Lice. *Parasitology*, vol. i, pp. 296-301.

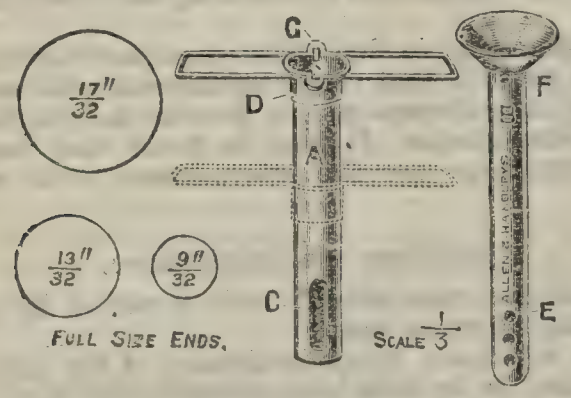
Swellengrebel and Strickland (1910): The Development of *Trypanosoma lewisi* outside the Vertebrate Host. *Parasitology*, vol. iii. No. 3.

THE Town Council of Macclesfield has adopted recently a proposal put forward by Dr. Hedley Marsh, M.O.H., through the Health Committee, for making provision for the treatment of cases of phthisis selected from among the dwellers in the more crowded and poorer parts of the town. The treatment in view is primarily educational but also curative. From six to eight patients are to be kept in the at present disused small-pox hospital for periods of about six weeks each; it is believed that during this time it will be possible materially to improve their condition as well as educate them in the care of their own health, imbue them with a sense of the value of fresh air, and drill them thoroughly in methods of preventing the spread of infection to others. It is considered that in this way it will be possible to pass through the hospital about 50 cases a year at an annual cost of not more than £337. The food allowance included in the estimate is on a liberal scale as compared with the outlay on the same item at the fever hospital of the town. At the latter the cost is 8½d. a day per head, while 1s. a day is allowed for each phthisis patient.

## A DRAINAGE TUBE FOR SUPRAPUBIC CYSTOTOMY, LIVER ABSCESS, AND ABDOMINAL CYSTS.

BY LAWRIE McGAVIN, F.R.C.S.ENG.,
SURGEON TO THE SEAMEN'S HOSPITAL.

CERTAIN recent cases of prostatectomy and the drainage of cystic cavities have suggested to me that an improvement might be effected in the pattern of drainage tube commonly in use, more especially for the former operation. The points in which this tube appears to me to be defective are the following; (*a*) There is no arrangement by which the length of the tube can be accommodated to the depth of the cavity; thus, in small contracted bladders its deep end frequently rests upon the trigone, or upon the wound made in removal of the prostate; it thus gives rise to continued oozing, discomfort, and delayed healing, while the upper end tends to sink into the dressings and allows of their becoming soaked if for any reason the Sprengel's pump becomes blocked or ceases momentarily to act. (*b*) The holes in the deep end are, as a rule, made much too small, and so are easily blocked by muco-pus or clot. (*c*) The deep end of the tube being closed, it is impossible to wash out the bladder without removing the tube; if removed early in the case it is often difficult to replace, especially in patients who are markedly obese. The tube depicted in the diagram has been made for me by Messrs. Allen and Hanbury, and will, I believe, be found a great improvement on the usual pattern. It consists of an outer tube (A) and an inner (B). The former is open at its deep end, and this




end has a vertical gap (C) on either side for the last inch of its length. The upper end is provided with a flat flange carrying two lugs by which it can be gripped by the finger and thumb, and in each of these lugs is a slot (G). Round the outer tube is fitted an automatic spring collar (D), carrying wire arms on either side; these arms rest on the abdominal wall, where they can be fixed by a narrow piece of strapping. The outer tube can thus be drawn out or pushed in through the collar, which grips it sufficiently tightly to permit of any desired length of tube being used in the bladder.

The inner tube (B), which fits the outer loosely, has three holes (E) on either side of its deep end, which correspond, when in position, to the vertical gaps (C) in the outer tube already mentioned; accuracy of position is ensured by the presence of two small studs (F) which fit into the slots in the flange of the outer tube. The inner tube is provided with the usual wine-filler mouth, and its deep extremity is closed by a smoothly rounded end. It is thus possible to remove the inner tube without disturbing the wound, and through the outer to wash out shreds, clots, and muco-pus, which frequently remain in the bladder for some time when the ordinary tube is used. The apparatus is made in three sizes, so as to allow of the narrowing down of the wound to a comparatively small diameter before the application of an Irving's drain, which, although excellent in its way, yet causes considerable maceration of the skin if used throughout the case. In association with Sprengel's pump I believe and hope that these tubes will prove of much assistance to surgeons and conduce to the greater comfort of patients.

They may also be utilized for draining liver abscesses; for this purpose the tube of the largest diameter may be made of any desired length and a trocar of suitable size may be fitted to it. The two being driven into the abscess cavity, the drainage tube is left *in situ*, and will be found to overcome the common difficulty of kinking where rubber tube is used.

In cases of pancreatic and hydatid cyst they are also useful; in the former case they may be employed through a purse-string suture, the cyst wall being then attached to the abdominal wall, while in the latter they may be introduced after evacuation of the contents and removal of the membrane.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### MANIPULATIVE TREATMENT OF LOOSE CARTILAGE OF THE KNEE-JOINT.

IN the course of conversation with a friend it transpired that some years before he had been troubled with loose cartilage in one knee-joint, and from his description of how he was afflicted there could be no doubt of the diagnosis. At the time he had the usual medical treatment, with no benefit. Finally, influenced by advertisement and recommendation of a then prominent Rugby football player, who had been similarly affected and cured by a bonesetter, my friend went to consult the same individual. The knee was subjected to severe and painful manipulation, and for some time afterwards was much swollen. But the ultimate result was so far satisfactory in that he had no more attacks of the severe pain, etc., which previously used to occur when "locking" took place in the knee-joint.

The remarkable and noteworthy feature about that knee now is that it can be hyper-extended. This was another result of the manipulation, so that when "locking" disappeared hyper-extension stepped in. Thinking this over, the only conclusion I could arrive at was that the hyper-extension and the cure were both the result of the posterior crucial ligament having been ruptured by the forcible manipulation, leaving only one crucial ligament intact, and at the same time doing away with the possibility of the loose body "locking" at any time between the two crucial ligaments. I have not had the opportunity of verifying this theory on the cadaver, but, if it be correct, the treatment may be useful where operative measures are objected to.

I must also state that the knee I have been describing is, in spite of this liability to hyper-extension, in all respects as good as the other, whether for walking, running, jumping, kicking, or kneeling.

Bradford. EDGAR WM. SHARP, M.B.Glasg.

### TETANUS OCCURRING AFTER SURGICAL OPERATIONS.

MR. W. G. RICHARDSON published in the JOURNAL of April 17th, 1909, a paper on Tetanus occurring after Surgical Operations. I regret to have another case to add to those recounted in that paper and in subsequent letters from other surgeons. The case, however, differs in one important respect—namely, no catgut was used, the ligatures employed being silk and silkworm gut.

L. S., aged 60, Hindu, male, farmer, was admitted to the Civil Hospital, Belgaum, on June 22nd, 1909, suffering from digestive troubles associated with a ventral hernia half-way between the navel and the infrasternal notch. This hernia was easily reduced by the hospital assistant on duty. On June 26th the Mayo operation for radical cure was performed. At the operation boiled rubber gloves were used by my assistant and myself. Silk was used for the deeper parts of the wound, and silkworm gut for the skin.

After the operation there was some trouble with his lungs. On June 29th he complained of "burning pain" in the abdomen, and this lasted throughout. On July 8th, as abdominal pain was worse, the site of operation was examined. The wound was united, but under the union fluctuation was felt. On pushing in a probe a little thin fluid exuded. No complication being suspected, tetanus least of all, this was not particularly examined. On July 9th the abdominal pain was very severe—"like labour pains," the patient said. The wound was opened up and one of the deep silk sutures removed. On

July 10th it was noticed that he could not open his mouth freely, and that his abdominal walls were rigid. The symptoms rapidly increased, and he died at 10 p.m. on July 11th.

When the diagnosis of tetanus was made some of the fluid from the reopened wound was sent to the Bombay Bacteriological Laboratory, but the tetanus bacillus was not found in it.

Poona. J. B. SMITH, M.B., M.Ch., Lieutenant-Colonel, I.M.S.

## SIX CONSECUTIVE CASES OF PNEUMONIA SUGGESTING INFECTION.

THE following notes of six cases of pneumonia seem to me to have certain points sufficiently interesting to deserve record. They all occurred within a radius of one mile in an isolated district of the Shetland mainland. In a scattered district like this a radius of one mile represents a very limited population. Three of the cases occurred in neighbouring houses and two in the same house. No case of pneumonia had occurred anywhere in the neighbourhood for two years previously, and the sudden appearance of six cases in rapid sequence, and at no great distance from each other, certainly suggests the idea of infection. In only one case, namely C., was there any history of exposure.

A., aged 27, took ill November 20th, 1910.
B., aged 46, took ill December 6th; distant one mile from and probable, but not definite, communication with A.
C., aged 39, took ill December 18th; distant one mile from and had regular intercourse with B.
D., aged 72, took ill January 3rd; distant fifty yards from and had regular intercourse with C.
E., aged 4, took ill January 12th; same house as D.
F., aged 42, took ill February 4th; distant one mile from and in regular communication with A.

In all six cases the onset was sudden, the physical signs were those of acute lobar pneumonia, and the sputum was distinctly bloody.

With the exception of B., who died on the seventh day, and E., who recovered by crisis on the fifth day, all the others recovered by crisis on the eighth or ninth day.

Shetland. T. LOVETT, M.B.

## RHEUMATOID ARTHRITIS.

THE article by Dr. J. Charlton Briscoe in the JOURNAL of March 11th, p. 544, on rheumatoid arthritis and its treatment by phosphoric acid or phosphates, is very suggestive. At present it is held by many that acute rheumatism, toxic arthritis, and rheumatoid arthritis are three distinct diseases, and their treatment respectively sodium salicylate, removal of the cause, and tonics. If a case of arthritis responds to sodium salicylate, the diagnosis of acute rheumatism is said to be confirmed, especially if there are evidences of endocarditis; but if it does not, and especially if the smaller joints are affected, the heart apparently normal, and the onset has been less acute, then a diagnosis of rheumatoid arthritis is frequently made.

Many cases of so-called rheumatoid arthritis have recovered completely after removal of some septic process, and then perhaps the diagnosis has been altered to that of toxic arthritis; but is not the difference between these three conditions one rather of degree than of kind? It is now practically admitted that the symptoms of each condition are probably all due to infection by micro-organisms, and in some cases the micro-organism has been isolated; but there must also be some other factor at work, as Dr. Briscoe points out, and this may be either the variety or virulence of the micro-organisms or their toxins or the duration of the infection. It is also conceivable that these infections may cause bio-chemical changes in the blood.

Sir James Barr has stated that in acute rheumatism there is an excess of lime salts in the blood, and now Dr. Briscoe is formulating a similar theory with regard to rheumatoid arthritis. In certain cases of both diseases a decalcifying agent such as phosphoric acid has been used with success. Sir James Barr also advocates the use of red meat in acute rheumatism, and withholds milk because of its lime contents, and a similar diet might be equally useful in rheumatoid arthritis. Red meat is usually allowed in this condition and milk also, but it might be better to withhold the milk as in the case of acute rheumatism. Certainly in the few cases of acute rheumatism which I have been able to treat by this method, the results have been very satisfactory.

It is significant that the administration of thyroid has been followed by success in some cases, and may it not be by its known influence on calcium metabolism and the consequent alteration in the constituents of the blood?

Buxton. FLORENCE THEOBALDS.

## MEASLES: PNEUMONIA: SURGICAL EMPHYSEMA.

A BOY, N. C., aged 10, contracted a severe form of measles, and quickly developed pneumonia. He was intensely ill for a fortnight, with dusky hue, temperature 102° to 104°, pulse 130 to 150, respirations 60. Sleep and appetite were poor and cough troublesome. His tongue was a little moist nearly all the time, and was beginning to clean. On the morning of the fourteenth day the boy's temperature was normal for the first time, and his colour was a little brighter. That afternoon surgical emphysema suddenly began to appear, first in the neck, spreading to the chest, face, abdomen, and scrotum. It began on the left side, but presently extended to the right, where finally it was worse, as the boy habitually lay on his right side (which was the more affected by the pneumonia). There was some tenderness above the left clavicle. Improvement in the general condition and in the lungs, however, appeared to continue, the temperature remained about normal, and pulse and respiration began to slow down. Forty-eight hours after the first appearance of the emphysema the boy fell asleep, lying on his left side. About two hours later "there was a noise in his throat," and he suddenly became pallid and died. No necropsy was allowed, so that I can only guess that the cause of the unusual emphysema was an ulcer of the larynx or trachea, perhaps in the nature of a bedsore, which ruptured into the cervical cellular tissue. The sudden death may have been due to syncope or possibly to another ulcer perforating within the chest and leading to compression. There was no sign of pneumothorax a few hours previously.

Hampstead. E. CLAUDE TAYLOR, M.S., M.D.Lond.

## THE ADMINISTRATION OF ETHYL CHLORIDE BY AN OPEN METHOD.

IT must, I think, be conceded that if a safe and efficient "open" method is available for the administration of an anaesthetic, such a method is far preferable to one which involves the breathing and rebreathing from a closed bag of vitiated air with, to a greater or less extent, its attendant cyanosis and respiratory embarrassment.

For some five years I have administered ethyl chloride by a Rendle's inhaler made of celluloid. This inhaler, without any flannel lining, but of course perforated for the free admission of air at the end, I have fitted with a rubber facepiece for closer apposition. Ethyl chloride is sprayed on to a sponge (freshly wrung out of hot water) and the mask applied at once. The quantity of ethyl chloride used is, of course, rather more than in the usual closed method. Thus, while 5 c.cm. is an average dose (according to Burton and Boyle) for an adult, where the anaesthetic is given by the closed method, I usually give 7 or 8 c.cm. with the Rendle's mask to an adult. For children of 7 to 12 years I give 5 c.cm.

I have given ethyl chloride by the above method to between 300 and 400 cases, and by the closed method (by Luke's or similar inhaler) to about 300 cases. Of course, these numbers are far too small to warrant any dogmatic conclusions, but the cyanosis and subsequent discomfort is certainly much less in administration by the open method. Children are not so readily frightened by the apparatus and there is less struggling. I believe the open method to be much the safer of the two, and in my limited experience I have never met with a dangerous symptom in using it. The same cannot be said for the closed method.

My cases have been mostly children and young adults. The anaesthesia required has been of short duration (for example, removal of enlarged tonsils and adenoids, and other minor operations requiring only a short anaesthesia), but for such a type of operations the dose mentioned has been sufficient. The anaesthesia may safely and easily be

prolonged by removing the mask and spraying a further amount of anaesthetic on the sponge.

JAMES A. MILNE, M.D.Lond., D.P.H.,
London, E. Assistant Medical Officer of Dr. Barnardo's Homes.

## POISONING BY SALTPETRE.

CASES of poisoning by saltpetre are rare and are usually accidental owing to the large dose which is necessary to cause toxic effects.

In the following case the patient sent her child for a pennyworth of salts (that is, magnesium sulphate) to a grocer's shop. The shopman misapprehended the child's order and gave saltpetre, part of which the patient took that night, and almost fainted afterwards. The remainder—the greater portion of the powder—she took the next forenoon, and shortly afterwards was seized with pain in the stomach and back, and vomited more than two pints of bright red-coloured fluid. When I visited her, shortly after 2 p.m., she was in a state of collapse; the pulse was feeble and irregular—about 56 per minute—and the skin was cold. There was no sign of inflammation or corrosion of the tongue and mucous membrane of the mouth and throat. I prescribed brandy and ice, and to relieve the thirst barley water in small quantities. To arrest the haemorrhage from the stomach, 15 grains of gallic acid with 5 grains of Dover's powder was administered. She was visited again between 4 and 5 p.m., when I learnt that she had vomited during my absence. The white of two eggs was rejected, and as there was a return of the collapse, the white of one egg with brandy was prescribed. She was also prescribed some olive oil as a demulcent, and I requested that the vomited matter should be kept for my inspection.

On calling again at 6 p.m. I was informed that she had vomited several times, and the washhand basin was half-filled with dark-coloured fluid like coffee grounds, but in larger clots. Though weak, the skin was warm, and she had no pain. She was still thirsty, and had not passed urine. The tongue was dry and the pupils dilated. The fluid subsequently vomited became darker but evidently contained blood, and oil floated on the surface. A dose of castor oil was administered, which was at once rejected, and I gave liq. ergotae ℥j in water as an astringent.

On my next visit, between 9 and 10 p.m., I was pleased to learn that no further vomiting had occurred, and she had rallied and felt better. Though weak for some days afterwards, she was able to leave her bed in about a week, and made a satisfactory recovery.

Glasgow. WILLIAM A. CASKIE, M.D.

# Reports
ON
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## LONDON TEMPERANCE HOSPITAL.

### DOUBLE EMPYEMA IN A CHILD: OPERATION: RECOVERY.

(Under the care of Dr. PORTER PARKINSON.)

[Reported by WILLIAM EDMOND, L.R.C.P.Lond., F.R.C.S.Eng., Resident Medical Officer.]

G. L., aged 5 years, was admitted on January 31st suffering from whooping-cough and bronchopneumonia. The mother stated that the child, who had been under treatment for whooping-cough, had become much worse during the last two days, had been feverish, and complained of pains in the chest.

On admission the child looked extremely ill. The face and lips were cyanosed, the pupils dilated, tongue dry and furred; temperature 103°, pulse 110, respirations 58; there were patches of consolidation with bronchial breathing and crepitation at the base of both lungs.

On February 6th the pneumonic condition at the base of the lungs still persisted, and there were moist râles over the upper lobes. The child was taking nourishment well, but the pulse-rate was as high as 176 and the respirations 70; the temperature had not risen beyond 102.°

On February 10th the percussion note at the right base was quite dull, and the vocal resonance over this area markedly diminished. The pulse-rate had reached 188 and the temperature 102.4°. An exploratory puncture showed the presence of a collection of pus at the right base. Since the child's condition was so grave a general anaesthetic was contraindicated, and it was decided to use a local anaesthetic of eucain 2½ per cent. solution with adrenalin. The child was allowed to sit up on the operating table, and inhalations of oxygen were given throughout the operation. The subcutaneous tissue over the eighth rib was infiltrated, and the needle was then pushed deeper until the rib was reached. Another injection was then made into the intercostal spaces above and below. In four minutes' time the anaesthesia was complete and the operation proceeded. An incision 3 in. long was made down to the rib. The periosteum, which was found to be partly stripped by the infiltration, was easily elevated, and 1½ in. of bone removed by forceps. On incising the pleura about 6 oz. of pus escaped. No attempt was made to swab out the cavity. Two large tubes were introduced, and the patient, who did not appear to have been much inconvenienced by the operation, was put back to bed. The temperature during the next twenty-four hours came down to 99.8°, respirations 42, pulse 160. There was free drainage through the tube.

The child's general condition improved during the next three days, but then the temperature gradually rose. The consolidation at the left base, which had persisted throughout, increased, and on February 17th, seven days after the operation, an exploratory puncture at the left base showed the presence of pus on that side. The opening in the right pleura was sealed up with rubber before the second resection was performed. No oxygen was given on this occasion. As before, the operation was done under local anaesthesia, and 4 oz. of pus were evacuated. On the night after the operation the temperature rose to 105°, but was reduced to 103° by hot sponging. On the third day the child was taken out in his cot into the open, and from that time had an uneventful convalescence.

It is interesting to note that no urgent dyspnoea followed the opening of the second abscess. After the airtight rubber compress was removed from the opening on the right side, the respirations rose from 54 to 60, and the pulse, which had been 164, rose to 168. The absence of dyspnoea may be accounted for by the fact that both collections of pus appeared to be shut off from the pleural cavity, and no adhesions were broken down.

The percentage mortality in cases of bronchopneumonia after whooping cough in children of this age is extremely high, and when the pneumonia is complicated by the presence of pus in both pleurae, the prognosis must necessarily be extremely grave. Fortunately, throughout his illness the child took nourishment well, which is always a favourable sign.

Apart from the administration of oxygen on a few occasions when the child showed a tendency to become more cyanosed, the drug which appeared to do most good was caffeine salicylate, which was given in 2 grain doses every four hours. The use of this drug is warmly advocated by Dr. Porter Parkinson, who in his large experience of the treatment of pneumonia in children has found it to be the most efficacious of all cardiac tonics.

Except in infants whose ribs are soft and yielding, it is, I think, advisable to resect a portion of rib in order to give exit to the large flakes of lymph which line the walls of the abscess cavity. Though it may be possible to force a fairly large drainage tube through an intercostal space, the after-treatment is more difficult, and the necessary changing of the tube more painful. In this case a general anaesthetic was not permissible on account of the patient's condition, nor do I think it wise to use a general anaesthetic for a resection. With a proper knowledge of the methods of inducing local anaesthesia, it is quite possible to resect a piece of rib and incise the pleura without the patient experiencing any acute pain. Apart from the actual dangers during the administration of a general anaesthetic, the after-effects may seriously handicap the patient's chances of recovery. Sluss, in his book *Emergency Surgery*, says:

> It is a grave error to give chloroform, for it is more than likely to hasten the patient's death. It is rare in such a case that any form of general anaesthesia is safe, still it may be necessary with the excessively timorous.

# Reports of Societies.

## MEDICAL SOCIETY OF LONDON.

*Monday, April 24th, 1911.*

CHARTERS J. SYMONDS, F.R.C.S., President, in the Chair.

### *Colonic Tetany.*

DR. F. LANGMEAD, in a paper on colonic tetany, called attention to a symptom-complex not hitherto described and consisting of three symptoms: (1) Relapsing tetany, (2) dilatation of the colon, (3) abnormal and offensive motions. In the majority of the patients there was also want of bodily development and backwardness, recalling the cases described by Hester by the title of "intestinal infantilism." The tetany was unusual by virtue of its great chronicity and its tendency to frequent relapses, and was related to the condition of the motions and independent of rickets occurring in children past the age period of active rickets. The dilatation of the colon was not always associated with hypertrophy, and probably was not always persistent. He regarded the dilatation of the colon as analogous to the dilatation of the stomach in gastric tetany, the colon acting as a reservoir where intestinal contents collected and underwent putrefaction, tetany resulting either from autointoxication or from a specific infection. It was difficult to understand why tetany so rarely accompanied dilatation of the colon if it were produced simply by decomposition of its stagnant contents, and therefore there must be either an added infection or an inefficient protective mechanism, probably due to thyroid or parathyroid inadequacy.

### *Laparotomy for Intussusception.*

Mr. E. W. ROUGHTON gave an account of 14 successful laparotomies for acute intussusception in infants, and contended that if the cases were diagnosed early and treated by laparotomy, without waste of precious time over injection or inflation, recovery would almost always follow.

### *Syphilis and Heart Disease.*

Dr. C. W. CHAPMAN read a paper on the case of a young woman aged 22 who complained of precordial pain, dyspnoea, and oedema of the ankles. Her heart was dilated, and there was a blowing systolic murmur, musical in character, at the apex, a rasping systolic murmur over the aortic valve carried upwards, and a loud blowing diastolic murmur carried downwards; there was a systolic thrill in the aortic area, and the second pulmonary sound was accentuated. The liver was down to the level of the umbilicus, and the spleen was felt 3¼ in. below the costal margin. There was visible carotid pulsation. The patient was emaciated, and presented brown mottling over the neck and both front and back of the chest. The Wassermann reaction was positive. The temperature, which was 98° on admission to hospital, went steadily up to 101.8° on the sixth day, when there was a profuse perspiration. The temperature chart for the following two and a half weeks showed great oscillation of temperature. It was concluded that inflammation of the spleen consequent on the presence of an infarct was the most probable explanation of the fever, and the theory proved to be correct at the autopsy. The patient died forty-five days after admission to hospital. Dr. F. PARKES WEBER said that he regarded the case as one of tertiary syphilitic fever.

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## ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

*Tuesday, April 25th, 1911.*

Dr. MITCHELL BRUCE, President, in the Chair.

### *The After-History of the Albuminuria of Adolescence.*

DR. J. F. GOODHART, in opening a discussion on this subject, basing his remarks on 202 cases, said that in his opinion albuminuria was merely an evidence of disordered function which might be due to transient causes. Overgrowth and food bolting he considered the more frequent of these. He considered it had no sinister effect on health or had evil significance as regards life. Of the 202 he had followed up 38 cases. He had never seen one passing on to Bright's disease. In 7 there was a history of many years of albuminuria, and 28 had more than a five years' history.

Dr. SAUNDBY said he thought that in many of the cases the albumen did not disappear during the day. The postural cases were the most successful. He had seen haematuria after violent exertion. The prognosis in all cases was good. He had traced 24 cases extending over thirty years, and, excluding all within the later five years, of these 1 died and that from acute myelitis, another became epileptic and the albuminuria was occasionally present, but 20 of the cases were now quite well.

Dr. ARMSTRONG referred to a group of cases he had met with at Wellington College. He thought that if a census were taken any day in a large school of, say, 500 boys, 15 per cent. would be found to be passing albumen. The athletic cases were, he thought, always associated with evidence of temporary heart failure and lowering of blood pressure. Extreme emotion, especially fear, was a frequent cause. Other cases were due to a neurosis, and in them it was excited by assuming the erect position. A neurotic heredity was an important factor in many cases. He thought food had no influence. The functional cases recovered, but cases associated with marked lordosis were not intermittent and were not transitory. In all cases there was retardation of the venous flow; in the last group it was a mechanical retardation. He referred to the depraved psychology of these cases.

Dr. W. COLLIER said his experience was that if the patient were in good health he was better without any treatment. He referred especially to the athletic albuminuria, particularly to 156 cases of rowing men of whom 130 had traces of albumen, and also to some of the 'Varsity crews, all of whom had albuminuria; moreover, in every case examined from among running men was albumen found, and of 40 racing men all were passing albumen, oxalate crystals and casts. He thought the important factor was acute passive congestion of the kidneys.

Dr. CLEMENT DUKES said of 1,000 boys entering the school at Rugby 157 had albuminuria, and in no single instance of these, when examined after growth to man's estate, was albuminuria present.

Dr. W. J. TYSON referred to cases beginning at 20, and going on for twenty or thirty years. In these cases he had never found albumen absent, and had generally found hyaline casts.

Mr. CLEMENT LUCAS thought the condition was often associated with sexual excitement. Of bank clerks he had examined, 10 per cent. had albuminuria. He mentioned one case that thirty years after was in good health. As a rule the condition was of no importance as regards the future.

The discussion was adjourned.

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SECTION OF DISEASES OF CHILDREN.

AT a meeting held on Friday, April 28th, Dr. E. CAUTLEY, President, in the chair, the following were among the exhibits:—Mr. SHEFFIELD NEAVE: *Von Jaksch Anaemia* in a girl, aged 1 year and 10 months, who presented an enlarged spleen and liver, and slightly enlarged glands in the inguinal and maxillary regions. The erythrocytes, among which were poikilocytes, normoblasts, and megaloblasts, numbered 2⅕ millions per c.mm., and the leucocytes 19,300, of which 66.6 per cent. were lymphocytes. The haemoglobin value was 40 per cent. The child showed signs of rickets, and the Wassermann reaction was present. Improvement had occurred under arsenic and iron. Dr. J. L. BUNCH: *Congenital syphilis treated by "606."* The patient was a boy, aged 7½ months, who when 3 weeks old presented typical signs of inherited syphilis. In January the *Spirochaeta pallida* was found, and an intramuscular injection of 0.04 gram of salvarsan was administered. In seventeen days the signs disappeared, but the Wassermann reaction was still positive. Dr. F. PARKES WEBER: (1) *Congenital heart disease without murmur* in a girl, aged 2½, who had a family history of congenital cyanosis, and who herself had been cyanosed from birth. The heart was slightly enlarged, but there was no murmur audible. The lesion present was probably an aperture in either the interventricular or the interauricular septum, or in both. Two out of the other four

children in the family had been cyanotic from birth, and had died at an early age. (2) *Congenital heart disease, with malformation of the external ear*, in a boy aged 4 years. Over the cardiac area there was a systolic murmur, heard best just to the left of the sternum, indicating possibly a patent foramen ovale. In conjunction with the heart lesion was a congenital malformation of the right external ear. Mr. D. Drew: *Pyaemia of five years' duration* following suppurative epiphysitis of the upper end of the humerus in a boy. Five years ago, following an abrasion of the right knee, an abscess formed on the left shoulder, and was opened. This was rapidly followed by suppuration of the right elbow and knee joints, and abscesses in connexion with the bones of both forearms. Altogether thirty-eight abscesses had been opened. Three years ago a course of autogenous vaccine had no appreciable effect. During the past year a similar course had been carried out, but two more abscesses had lately developed, from which, however, no micro-organisms could be grown, thus suggesting that the infection was becoming less virulent. The organism previously cultivated was the *Staphylococcus pyogenes citreus*. Mr. A. H. Tubby: (1) *Asymmetry of the pelvis* (*Nacgele*) in a girl aged 12 years who exhibited partial suppression of the left lateral wing of the sacrum. (2) *Double congenital club-hand* of the radio-palmar variety with absence of the radius on both sides in an infant. The case was unusual, inasmuch as the development of the metacarpal bones and phalanges appeared to be perfect. Mr. O. L. Addison: (1) *Malformation of the femur* in a child aged 2½ years. The right leg was the smaller, and showed about 2 in. shortening. The femur was much curved, and there was a marked degree of coxa vara. No history of injury had been elicited. (2) *Tumour on the back, probably dermoid*, in an infant. The tumour was in the middle line over the lower cervical vertebrae, and contained a small nodule like cartilage or bone. The following paper was also read: Dr. E. Bellingham Smith and Dr. A. W. G. Woodforde: *A preliminary communication on syphilis and mental deficiency*, in which the authors came to the conclusions that: (1) Mental deficiency may be the only evidence of syphilitic taint in a family, and consequently syphilis is possibly a more frequent cause of mental deficiency than is usually suspected. (2) In the Wassermann reaction we possess a means of determining more accurately than by any other previous method the part that syphilis actually does play in the production of mental deficiency. (3) It is the offspring of people who have been the subjects of mild unrecognized or untreated syphilis who are liable to show evidence of nervous instability or deficiency. (4) While it is highly improbable that antisyphilitic treatment will cure mental deficiency, when once it is sufficiently pronounced to call for attention, yet it is important to recognize the underlying cause, and to initiate such treatment in the parents as may prevent the birth of other infected children. (5) There exists no obvious explanation as to why the mothers in these cases afford a negative reaction. Perhaps previous infection of the mothers is not always necessary for the transmission of the virus to the child, or more probably the reaction itself is not infallible, and its presence or absence under certain conditions is governed by factors as yet unknown.

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## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, April 20th, 1911.*

Dr. T. R. Bradshaw, President, in the Chair.

### *Word Deafness.*

Dr. H. Drinkwater demonstrated a case of word deafness in a girl aged 14½. Until four years previously the child had been able to hear normally, but then became deaf as the result of a catarrh, and at the end of six months could not hear spoken words. When seen by Dr. Drinkwater air conduction was absent, but some bone conduction was present. Adenoids were removed, and the Politzer bag used, and some fourteen days later she could hear a watch at 12 in. But she was word-deaf, and could only repeat a few words, such as "one," "two," "three." She could speak, write, and read with comprehension. The exhibitor considered that the functions of the auditory word centre were in abeyance, and that re-education was required. The President considered that during the period of deafness the child had come to rely entirely upon the visual word centre.

### *Sodium Salicylate and Iron.*

Dr. Drinkwater demonstrated a method of dispensing sodium salicylate with the tincture of the perchloride of iron. He dissolved 1 drachm of the soda salt in 2 oz. of water, and added 30 or 40 minims of the tincture of iron and 1½ oz. of a solution of potassium bicarbonate of the strength of 1 drachm to 1 oz, and added chloroform water to 8 oz. The result was a clear, palatable, claret-coloured mixture, which he had found useful in rheumatic sore throats combined with anaemia.

### *The Gaertner Group of Bacilli.*

Drs. Rundle and Harries called attention to the important place held by certain bacilli of the Gaertner group in the causation of subacute and chronic forms of epidemic diarrhoea in children, and stated some clinical observations in support of this view. Dr. Hope called attention to the number of occasions on which this extremely important subject had occupied the attention of this institution. His own observations during the years 1884–5–6 showed that the mortality from infantile diarrhoea amongst artificially fed infants under 3 months of age was at that time fifteen times as great as amongst those who were breast-fed. During periods of prolonged absence of rain and of high temperature the results of improper feeding were very pronounced. The difficulty of providing suitable food led the Corporation to establish its milk dépôts, which had been very successful. Dr. Percy Marsh said that the only bacillus constantly found was of the type of the dysentery bacillus described by Shiga and Flexner. This bacillus was constantly found in that form of diarrhoea in which the stools consisted of blood and mucus, and in which pathological changes were found in the lower bowel and colon. Until a more exact knowledge of the effect of the toxins of these and other bacteria upon the infantile organism had been ascertained we could not hope satisfactorily to solve the problem of the pathogenesis of infantile diarrhoea. Sterilization of milk had not been followed by the satisfactory results anticipated, and given favourable climatic conditions the disease would still continue to be prevalent.

### *Trephining for Glaucoma.*

Mr. A. Nimmo Walker read a short paper on the results of 8 cases of sclero-corneal trephining for glaucoma, and described a modified operation. In all cases the tension had been permanently lowered, and pain when present immediately and permanently relieved. Vision in all before operation had fallen to finger counting or less. In four there had been no improvement; in the remainder it had risen to recognition of large objects, $\frac{4}{60}$, $\frac{5}{12}$, and $\frac{6}{6}$ respectively, though of course with retracted fields. He thought that these results were encouraging, and that the operation as modified, whilst entailing the least possible risk to the eye, held out good prospects of success. Six of the cases were shown at the conclusion of the paper.

### *Eugenics.*

Dr. Macalister, in a paper on eugenics, classified the cases with which eugenics would deal. In the first class he put cases in which the inheritance of gross anatomical defects was present. Of these the deaf-mute was a type, and illustrated well the way in which these conditions tend to recur in families after the lapse of several apparently healthy generations. The second class included patients in whom inherited errors of metabolism caused disease; he pointed out that the consequent ill health might in many cases be avoided by meeting these idiosyncrasies by suitable diet and treatment. The third class referred to was one in which a tendency to some disease, such as tuberculosis, was inherited. In these environment was a protective measure. The preservation of the strong and the education of all concerning the influences of certain acquirable diseases which were factors in ruining health and shortening life would, he thought, lead to more important results than any possible system of eugenics.

## MEDICO-LEGAL SOCIETY.

*Tuesday, April 25th, 1911.*

### THE ANCIENT OFFICE OF CORONER.

DR. F. J. WALDO, in a paper on this subject, said the office of coroner probably arose by a process of evolution from earlier and more elementary courts of law. Some writers, including Sir John Jervis, had gone considerably astray in their historical utterances. They asserted, for instance, that coroners were in existence at the time of the Anglo-Saxon Kings Alfred and Æthelstan. In support of that statement they referred to Nathaniel Bacon, a former Town Clerk and Recorder of Ipswich, who wrote a "Historical and Political Discourse of the Laws and Governments of England," collected in 1688 from manuscript notes of John Selden (1584–1654), and also to Dugdale's *Monasticon Anglicanum*. Lord Coke and other writers averred that the office of coroner was coeval with that of the sheriff, and that both offices were ordained by King Alfred to keep the peace when the earls gave up the wardship of the county. Coke was doubtless misled by Andrew Horn's *Mirror of Justices*, a plausible but untrustworthy treatise of Anglo-Saxon law, written during the reign of Edward I. In Dugdale's *Monasticon* it was said that Æthelstan in return for a victory over the Scots gave a charter (A.D. 925) to the monastery of Beverley, granting certain privileges. In a poetical version of this charter given by Dugdale, and described by him as probably by a hand of later date, were the following lines:

> If man be founden slan idrukend
> Sterved on sain John rike his aghen men
> Withouten swike his aghen bailiffs make ye fight.
> Nan other coroner have ye might
> Swa mikel fredom give i ye
> Swa hert may think or eghe see.

Critical examination showed these lines were of doubtful authenticity, and Professor Skeat on philological grounds was of opinion that Dugdale was imposed upon by a palpable forgery.

The first undoubted reference to the coroner was in a record setting forth a form of proceedings used at an "iter" or eyre or circuit of the King's justices in September, 1194. It provided for the election by the county of three knights and one "clericus" or clerk as custodians of the pleas of the Crown in the following words:

> Praeterea in quolibet comitatu eligantur tres milites et unus clericus custodes placitorum coronae.

On the whole it seemed safe to assume with Professor Gros that Chapter 20 of the Articles of 1194 was merely declaratory, that the growth of the coroners was contemporary with that of the itinerary justices, and that both officers were tentatively employed under Henry I.

The coroner, or *Custos Placitorum Coronae* (keeper of the king's pleas), was so called because his special duty was to keep pleas, suits, or causes which more particularly affected the king's crown and dignity. His function was not so much to hear and determine causes as to keep a record of all that went on in the county in any way connected with the administration of criminal justice, and above all to guard the chance revenues falling to the king, such as the forfeited chattels of felons, deodands, wrecks, royal fish, and treasure-trove.

Bracton, in describing the office of coroners concerning homicides, says:

> It is therefore their office that as soon as they have received a mandate from the bailiff of the Lord the King, or from his prudhommes of the neighbourhood they ought to visit the slain, or the wounded, or the drowned, or those who have died suddenly, and the breakages into houses, and the places where treasure was said to have been found; and this they ought to do forthwith and without any delay, and at their coming to those parts they ought to order four, five, or six neighbouring townships that they come immediately before them, and by their oath make an inquest concerning the man slain, when they shall have been required by the Coroner.

He also states that another duty belonging to the office of coroner was the holding of inquests in cases of rape and of arson.

According to the *Mirror of Justices:*

> Coroners were wont also to hold their views in cases of sodomy, and on infant monsters who had nothing of humanity, or who had more of the beast than the man in them, and these the coroner caused to be buried; but the holy faith grows stronger every day, whereby folk do not burden their souls with such horrible sins so commonly as they used.

According also to Britton, whose manual on law was published in 1291, the coroner was

> A principal guardian of the King's peace, bearing record of the pleas of the Crown, of his own views on inquests, and of abjurations and outlawries. The primary object of his office appears to have been to keep watch over the profits of the Crown. He was bound to inquire concerning treasure-trove, wreck, whales, and sturgeons, and to secure them for the King's use. The inquest in cases of sudden death had a similar purpose, to see that the Crown was not deprived of its emoluments arising from the forfeiture of the chattels of felons and outlaws. The coroner alone bore record of outlawries in the county court; his presence was required whenever judgement of death was passed in a court of private jurisdiction; appeals of felony were commenced before him; and his inquests extended to cases of rape, which was from ancient time a matter of royal jurisdiction, and consequently of profit to the Crown; and in cases of wounding which might possibly lead to death, and upon which, if the wound was serious, an appeal of felony might be founded.

The authority of the mediaeval coroner, therefore, was of a judicial character in respect to the cause of death, the forfeiture of lands and goods, the disposal of treasure-trove, wrecks of the sea, and deodands, the escape of murderers, and the declaration of outlawries. It was administrative in a few special cases where the coroner executed the king's writs in place of the sheriff, or summoned a jury to assess compensation in cases where the sheriff's land was compulsorily taken for public purposes. Four of his various functions survived to the present day. The basis of modern practice was to be found in the famous statute, now repealed, of *De Officio Coronatoris*, 1276. This enacted that the coroner should go to the place where any person was slain or suddenly dead or wounded, and by his warrant to the bailiffs or constables summon a jury out of the four, five, or six neighbouring towns to make inquiry upon oath upon view of the body. With his jury he was to inquire into the manner of killing and all circumstances that occasioned the party's death; who were present; whether the dead person was known; where he lay the night before. They should examine the body to see if there were any signs of strangling about the neck, or of cords about the members, or of burns. If any appeared guilty of the murder the coroner should inquire what goods, corn, and lands he had, and then the dead body should be buried. Then followed regulations as to deodands—that is to say, the things or chattels that caused death by misadventure, and were forfeited to the king to be applied to pious uses as a gift to God. The chattel itself was not given up, but only its value as appraised by the jury and paid for by the owner, and the sheriffs were answerable for the amount. The words in the statute "suddenly dead" apparently were not meant to include sudden deaths from fever, apoplexy, or other such visitations of God, but applied only to deaths from violence or unnatural causes.

As regards the qualifications of a coroner, by the Statute of Merton (20 Henry III, 3) it was assumed, apparently as a matter of definition, that all coroners were knights on a basis of land ownership. The Statute of Westminster, passed nearly forty years later—in 1275—provided that "none but lawful, most wise and discreet knights should be chosen for the office." Later, in the statute *De Militibus* of Edward II, it was considered sufficient if a coroner had lands enough to be made a knight—that is, a sum of money arising out of land, and amounting to £20. These statutes were replaced by the 14 Ed. III, St. 1, Ch. 8, which enacted "that no coroner be chosen unless he have land in fee sufficient in the same county whereof he may answer to all manner of people"—a qualification which was still required by statute at the present day from the coroner for a county.

The coroner's duties at the present day were much more limited than in ancient times. Outlawry in civil proceedings was abolished in 1879, and was now very rare in criminal cases. Its chief object was to gain possession for the Crown of the outlaw's property in cases where he had left the country and gone where he could not be extradited. By Section 44 of the Coroners Act, 1887, a coroner might not now try and pass judgement in Crown cases, nor hold inquests of royal fish, nor of wrecks, nor of felonies, except felonies on inquisitions of death, nor might he inquire of the goods of such as by inquest were found guilty of murder or manslaughter, nor cause them to be valued

and delivered to the township. The forfeiture of the goods of convicted felons, and of persons who had committed *felo de se*, was done away with in 1870 The practice of claiming deodands was abolished in 1846 as "unreasonable and inconvenient."

The coroner was a direct officer of the Crown chosen for life or during good behaviour, and his office did not come to an end with the death of the Sovereign. He was responsible only to the Lord Chancellor, as representing the King. Down to 1888 county coroners, as in the earliest days, continued to be elected by the freeholders of the county much in the same way as in the election of members of Parliament. They are now elected in a less direct and popular way by the county council on the old writ *de coronatore eligendo*, still issued by the Lord Chancellor, and directed to the county council instead of to the sheriff. The old method of direct popular election entailed great cost upon candidates. For instance, three elections for Central Middlesex before 1888 were said on good authority to have cost the successful candidates £12,000, £6,000, and £3 000 respectively.

The Departmental Committee appointed by the Home Office to inquire into the law relating to coroners and coroners' inquests issued a report in 1909 suggesting a number of alterations in the law. They advised, among other things, that in future no one should be eligible for the office who was not a barrister, solicitor, or medical man. They also suggested that a coroner should be given the power to order and pay for *post mortem* examinations without an inquest necessarily following. On this point, the speaker's view was that if the cause of death was so doubtful after preliminary inquiry that a *post-mortem* examination was needed, that was a sufficient reason for holding an inquest.

The office of coroner undoubtedly contained the germ of vast public utility, and, should the Legislature find time to consider the matter, it would be well for the public if they made the office as attractive as possible to competent men. Having secured efficient officers, it was, the speaker thought, of paramount importance that everything possible should be done to place the coroner, like the judges, in an independent position, and that every encouragement be given him to live up to the oath he took on entering office —namely:

To use his best powers for the doing of right, and for the good of the inhabitants within his jurisdiction.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

At a clinical meeting on April 7th, the President (Dr. A. Christy Wilson) in the chair, the following were among the exhibits:—Mr. Littlewood: (1) A patient who had been operated on for *Adeno-sarcoma of the common bile duct* involving the cystic duct. He was 65 years of age and had had intense jaundice for six weeks previous to the operation, with great loss of weight. After an operation on March 25th, 1910, the patient made a good recovery; the jaundice rapidly cleared up. He was now apparently quite well and had gained 3 st. in weight. (2) A patient, aged 33 years, with *Malignant disease of the sigmoid flexure* involving the small intestine and bladder, with a fistulous opening between the bladder and colon. The illness commenced in February, 1909, and he was treated for a long time as a case of mucous colitis. After an operation in 1910, which included removal of a portion of the colon and small intestine with end-to-end union, he made a good recovery and was now apparently quite well; he had gained 2 st. in weight. Dr. T. Wardrop Griffith showed a case of *Raynaud's disease* which had been under his continuous observation for twenty-two years. The ordinary local phenomena had come on twenty-seven years ago at about the age of puberty, the patient being now 41. At an early stage the sclerodermic changes found in many cases of Raynaud's disease became very marked, and to these were added a shortening of the tendons of the forearm and of the palmar fascia. For many years the fingers had been seen to be getting shorter, and on radiographic examination it was seen in the case of several of the fingers that the distal phalanx had completely disappeared, and in the case of some that even the second phalanx was reduced to very small proportions. Dr. A. G. Barrs and Mr. J. F. Dobson: A woman, aged 37, in whose case eighteen months previously a diagnosis of *Inoperable carcinoma ventriculi* was made. She was then treated with morphine suppositories, and as she did not lose weight was readmitted on February 3rd, 1911. Chronic ulcer was now diagnosed and partial gastrectomy performed. Two days after the operation there was a discharge of pancreatic fluid. A slight discharge was still present, but the patient's general condition was greatly improved. Mr. R. G. M. Ladell: A case of advanced rheumatoid arthritis treated by ninety *Injections of fibrolysin* and by massage. For fourteen years the patient had been a helpless cripple, but could now move about the house and walk up and down stairs unaided. Dr. W. H. Maxwell Telling: A case of extensive chronic *Gummatous dermatitis* of nine years' duration successfully treated by an intramuscular injection of salvarsan. Mr. R. Lawford Knaggs and Mr. H. Bailey: A woman, aged 37, in whom a tuberculous caecum had been excised four years previously, and who still remained in good health and presented no intestinal symptoms. Mr. J. F. Dobson and Mr. S. W. Daw: A case in which a woman first attended the infirmary eighteen months ago, presenting large and very hard masses of glands in the neck, accompanied by much pain and loss of weight and strength. She had been under treatment with *Coley's fluid* for eighteen months. Many of the glands had broken down and discharged for a little time. She complained of pain in the neck when the injections were discontinued. The enlargement was regarded as malignant, but had not been examined histologically. Mr. H. Collinson: A woman, aged 26, in whom he had removed a *Calculous cast of the ureter*. It measured 8 inches long and from ½ to 1 inch thick; its lower end hooked over the brim of the pelvis. Mr. Michael A. Teale: A case in which an *Artificial pupil* had been produced in an occluding mass of iris and inflammatory material by punch forceps. Mr. J. A. Coupland, discussing *Salvarsan*, described local pain, painful induration, and abscess formation as real disadvantages in intramuscular injection, and mentioned a case in which a woman, aged 26, and six months pregnant, became, after intravenous injection of 0·6 gram of a neutral emulsion of salvarsan, profoundly collapsed before the injection was completed. Vomiting and diarrhoea followed, with a rapid, irregular, weak cardiac action, and the patient aborted five hours later. For twelve hours after the injection her condition was critical.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

At a meeting on April 19th, Mr. W. Morley Willis, President, in the chair, Dr. J. S. Bolton, in a paper on the causes and treatment of *Stiff joints*, said that the keynote of local treatment consisted in flushing the joint with pure blood. Sodium salicylate, potassium iodide, and iodide of iron were the principal drugs to be tried. For the joint itself the following methods should be tried: Elevated position, Bier's method, radiant heat by means of an electric lamp, massage, the use of an electric vibrator, the faradic coil, high-frequency current, and the continuous battery. Mr. R. G. Hogarth thought the value of electricity in stiff joints was greatly overrated. The only real success he had obtained was by means of radiant heat up to 400° F.; here the great difficulty was to avoid blistering. Dr. J. Watson doubted whether in high frequency the current passed at all deep to the subcutaneous tissue. Dr. F. Hall in a paper on some of the *Lesser known uses of arsenic*, said he had found arsenic to have a distinct effect in cases of cancer as an anodyne, in retarding the growth in inoperable cases, and in preventing recurrence after operation. The drug, in the form of arsenic iodide, was of great use in most diseases of the alimentary canal, in phthisis, and neuritis. In epilepsy he found that by gradually adding arsenic to the bromide mixture he was able to lessen the dose of the bromide, and finally was able to keep the fits under by the use of arsenic alone. Very useful, too, was its effect in helping to clear up a pneumonic lung and in promoting absorption of pleuritic effusion.

## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting in Manchester on April 21st, Dr. HELLIER, President, in the chair, the following were among the exhibits:—Dr. BRIGGS (Liverpool): (1) A left-sided *Hydrosalpinx* with complete torsion of the pedicle in the direction of a right-handed screw. The patient was a robust but sterile woman, four years married, aged 32, who was known to have in her pelvis bilateral thin-walled cystic swellings mobile and painless. Treatment for them was not advised as sterilization was dreaded by the patient, and there were no symptoms until a heavy day's shopping, without any unusual or excessive physical test or strain, was followed the same night with a "peritoneal crisis," vomiting, abdominal pain and rigidity, and slight fever (temperature 101°). From Thursday to Sunday the distress was acute and frequently required morphine; on the following Tuesday the uterine appendages were removed; bilateral hydrosalpinges; the left tube was twisted close to the uterus—its size 4 in. by 3½ in., its shape a folded retort. (2) A large circumscribed *Fibroma of the left ovary*, an enlarged fibromatous uterus, and a small solitary fibroid of the uterus, removed from a woman, aged 50. She was the mother of two children, the younger aged 17 years; soon after the birth of the younger child an abortion had occurred. Her natural climacteric at the age of 49, in September, 1910, remained undisturbed until January, 1911, when a solitary profuse period was reported. The conditions then discovered led to the performance of the abdominal radical operation. It proved difficult owing to the unusual adhesions of the tumour and the intimate organic contact with intestine. The pathological report showed a solid fibromatous tumour within its thin capsule of ovary, and no ascites. Its structure was mainly that of a spindle-celled fibroma. The rapid rate of growth, its site within a complete envelope of ovary, its large size and its unusual adhesions, the absence of ascites and the presence of one finger-nail patch of superficial calcification, were collectively features of an ovarian fibroma which complicated the diagnosis when an enlarged uterus was raised, itself fibrosed, and the seat of a small fibroid. Dr. ENGLISH (Manchester): (1) a very large *Fibroid uterus* removed from a young single woman of 28, who complained that for two years her abdomen had been increasing in size, of increasing constipation, and of trouble with micturition. The abdomen was the size of an eight months pregnancy, and contained a large irregular hard mass, about the shape of a seven months fetus. She was very anaemic, and in poor general condition. She was fed up and treated with tonics until the operation on December 1st, 1909. The uterus, along with the left ovary, which was cystic, was removed, and she made an uneventful recovery. The left ovary contained a bilocular dermoid cyst, one division containing hair and sebaceous material, and the other teeth and cartilage. (2) *Pedunculated fibroid* of the uterus, showing red degeneration, removed at the end of the fifth month of pregnancy. The patient complained most of pain, especially on movement, and was prevented from following her employment on this account. She was aged 29, and married nine years; this was her first pregnancy. She had previously suffered from gonorrhoea. Clinically, in addition to the usual signs of pregnancy, there was a tumour the size of an orange in the right inguinal region attached to the uterus, but separable from it, leaving a deep groove. The patient progressed well until the fifth day, when labour pains came on and she was delivered of a living five months fetus. Otherwise recovery was uneventful. Dr. GORDON FITZGERALD (Manchester): A specimen consisting of cervix and uterus which he had removed by the abdominal route from a patient of 60. As the specimen appeared to be one of very great rarity, a special subcommittee was appointed to investigate its nature. Dr. BLAIR BELL (Liverpool) described his *Buttress operation* for cystocele and rectocele. It consists in excising the redundant vaginal mucosa, and freeing the remaining side flaps from the bladder or rectum. The flaps are then sutured with mattress sutures, so that a broad raw undersurface of each flap is apposed. The free edges are joined by an overhand suture. In this way a strong central column or buttress is formed, and this it is claimed is much stronger than the ordinary linear scar which almost invariably stretches. Dr. ARNOLD LEA showed lantern slides of an *Early ovum*, which he had recently obtained.

# Reviews.

## AN ANTHROPO-SOCIOLOGICAL ESSAY.

A SHORT title is almost necessary for a book; but in many cases, of which Dr. WOODRUFF'S *Expansion of Races*[1] is an instance, it is very difficult to fix on one which shall give an approximate idea of the nature of the contents. This book is not historical, as might naturally be supposed; it would be better described as anthropo-sociological; though, unlike the works of Ammon and De Lapouge, it is the sociological element which preponderates. The author is well equipped for his work by extensive and various reading, and specially, it seems, by an intimate knowledge of the Philippine Islands, where the Americans are carrying on a difficult and doubtful experiment in the government of a race which is neither civilized nor savage.

The leading idea of the book is much the same as that of Malthus. The author regards over-population as the greatest of evils, welcomes, unlike most of us, the decline in the birth-rate which seems to have set in among all civilized peoples, but acknowledges at the same time the necessity of a surplus of labour as a condition of industrial progress. Herein he agrees with Charles Booth. In matters anthropological he relies a good deal on Sergi, and in historical pathology on Archdall Reid; but he differs from the former in regarding the northern dolicho-blonds, not the Alpine broad-heads, as the true Aryans. Indeed he thinks, with De Lapouge, that the dolicho-blonds are the true salt of the earth, and that the history of civilizations has in general been the history of dolicho-blond tribes who have pushed down from the north, overrun and subjected inferior breeds of men, forced their development by their own greater energy and brain-power, and then faded away under the influence of warm and sunny climates for which they were not adapted. Thus he agrees with Woltmann that the Italian Renaissance owed a great deal to the yet unexhausted strains of Goth, Lombard, and other German blood, whose features we recognize in some of the leading spirits of mediaeval and post-mediaeval Italy.

Dr. Woodruff holds strong views as to the non-permanence of hybrids, mulattos for example, who, he thinks, will disappear from the States. It is of some interest to contrast this opinion with that of a naturalist of fifty years ago, who thought there was not a really pure negro in Virginia.

When Dr. Woodruff speaks of insufficiency of food as the great limiter of population, he has scarcity of nitrogenous food especially in view. "Nitrogen," he says, "is like money—we never have enough unless we have a little more than needed." Of course he discusses Chittenden's experiments, but disbelieves his conclusions.

In the latter part of the book he lapses into American politics; and very interesting he is on this subject. But we have only space to say that, like most highly cultivated Americans, he has a horror of real democracy.

JOHN BEDDOE.

## NATURE AND NURTURE.

THE Jewish people being dispersed among the nations and living under very various conditions in every part of the world, it becomes a matter of great interest to ascertain how far they exhibit characteristics which may be considered peculiar to themselves and differing from those of the peoples in the midst of whom they dwell. The subject is very thoroughly treated in a recent work by MAURICE FISHBERG, of New York, entitled, *The Jews: A Study of Race and Environment*[2]

In the author's opinion the generally accepted idea that Jews are an example of an absolutely pure race is

[1] *Expansion of Races.* By C. E. Woodruff, A.M., M.D. New York and London: Rebman. No date. (Roy. 8vo. pp. xi and 495. 17s.)

[2] *The Jews: A Study of Race and Environment.* By Maurice Fishberg. London, New York, and Melbourne: Walter Scott Publishing Company. 1911. (Cr. 8vo, pp. 597. 6s.)

altogether erroneous. This view is likely to find little favour among his co-religionists, who have always been assured and proud of the purity of their race. It may, however, be said that the author is not alone in his opinion, which is held by many of the more thoughtful followers of the creed. The probability that, during the time polygamy was customary, there was a constant admixture of foreign blood cannot be ignored, and the author is undoubtedly correct in the assertion that at times large groups of strangers or even whole peoples have adopted the Jewish faith and have been absorbed into the race. At the same time it must be remembered that for many centuries the rule of monogamous marriage has been generally adopted, and that since the Middle Ages at least, there has been little intermarriage with other races until within quite recent times. The author calls attention to the absence of a cranial type common to all Jews, and asserts that every variety of cranium has been found among them, from an extremely round head in Caucasian Jews to heads of an equally marked dolichocephalic character in those of Africa and Arabia, the prevailing type in every case resembling that of the people among whom they dwelt. This would seem to go far in support of the contention that there has been a mixture of race, but the author is on less sure ground when he cites the variety of stature and complexion in support of his view. It cannot be held to be by any means certain that changes in habit and conditions of life may not have their influence in producing the varieties mentioned. Marked increase of stature, for instance, has been observed in the course of only two or three generations in Jews whose parentage was known when there had been no mixed marriages.

As might have been expected, the author, holding the view stated, finds few, if any, characters which he considers could be described as Jewish. The chief pathological characteristics are held to be a somewhat undue liability to suffer from diabetes and insanity. This Mr. Fishberg puts down to a general nervous instability, and he is no doubt quite correct in assuming that the hardships and persecutions to which the bulk of the people have been exposed for centuries, have produced an hereditary tendency in this direction. It is also noted that, these diseases being more common in urban populations and among those engaged in exciting or hazardous business pursuits, Jews, who belong largely to these categories, might be expected to show a larger proportional morbidity, and that it is not necessary to assume any racial tendency. The comparative immunity from tuberculosis which has been remarked in English Jews is shown to obtain in every country for which statistics are obtainable. This the author ascribes to a process of natural selection by which the Jewish race, accustomed for centuries to live in crowded and insanitary quarters of large cities, has acquired a special capacity for resisting the adverse conditions resulting from such a life. It is, however, probable that the freedom from a tendency to alcoholic excess plays a considerable part in giving an increased power of resistance, and it is noteworthy that consumption has of late become more frequent among Jews in New York as well as in London, while many observers are of opinion that they are more prone than formerly to adopt the habits of their neighbours in respect to alcoholic indulgence.

As regards cancer, Mr. Fishberg seems to incline to the opinion that there is neither immunity from, nor excessive tendency to, this disease. He states, however, that several gynaecologists in New York have given him information as to the rarity of cancer among Jewesses. This is certainly not the case in London, where, allowing for the difference of age distribution, cancer appears to occur as often in Jewesses as in women of other sections of the population. As to other diseases, the author finds no difference in the morbidity or mortality among Jews from that obtaining generally in the locality where they reside. Their special tendency to suffer from diseases of the gastro-intestinal system is considered to be confined to functional disorders. This again somewhat differs from the conclusion to which the English recent statistics would seem to point. In addition to the subjects referred to, there are interesting chapters on Jewish criminality, and on their social and economic conditions. Altogether the book is a careful and almost exhaustive account of Jewish characteristics; the bibliography and index at the end are remarkably full and complete.

## OXYPATHY AND URIC ACID CRYSTALS.

THE condition which has been recognized for so long in France under the name of "herpetisme" or "arthritisme," and in England more recently has been called "uricaemia" or "lithaemia," has, according to Professor STOELTZNER, attracted comparatively little attention in Germany. He prefers for it the name *Oxypathie*[3] as indicating an acid intoxication, and he believes that it plays an important part in the diseases of infancy and childhood. This acid poisoning is the result of the formation of unoxidizable acids. Oxidizable organic acids introduced with food such as lactic, citric, and malic acids, do not count, so that all that tastes sour must not be regarded as harmful. Organic acids formed in the body, such as diacetic and oxybutyric acids—which are not oxidizable to carbonic acid gas and water, but fix alkalis and combine with ammonia—are injurious. A constitutional or individual intolerance for acids which may be constitutional or acquired must also be taken into account. There are, therefore, three factors in the production of acid intoxication. Normal growth is not possible when the needs of the body are not supplied with a sufficiency of fixed alkali, so that in the suckling child an excess of acid is highly prejudicial, but chronic acid poisoning at all times of life leads to a multitude of disorders, and modifies the course of infectious diseases. As chronic acid poisoning arises in consequence of excess of acid in the food, it is complicated by the results of excessive alimentation—obesity, gout. Meat diet causes oxypathy, not by containing too much acid but providing too little alkali. Bad results of feeding infants on cow's milk he attributes to the excess of fatty acids, which decompose the phosphates, set free phosphoric acid, and cause oxytosis; and he believes that the thorough sterilization of cow's milk by which the excess of phosphates is precipitated causes it to suit better. He thinks the same true of Gaertner's fat milk. Buttermilk, he points out, though poor in fat is rich in phosphates; and asses' milk probably owes its good repute to its poorness in fat. He concludes that ill results are prevented by the addition of citrate of soda. Soapy stools do not cause harm by the loss of fat, but by the phosphoric acid which is set free when the calcium bases combine with the fatty acids, and acid intoxication results. Rickets is not due to the loss of lime but to defective lime metabolism, so that rickets, instead of being due to soapy stools, is a powerful cause of their production. On the other hand, the general symptoms of rickets—for example, sweating, pallor, and restlessness—are due to oxypathy, as they are removed by the use of citrated milk, which by itself will not cure or prevent rickets. The atrophy or wasting of infants fed on cow's milk is a chronic alimentary phosphoric acid poisoning, as cow's milk is rich in phosphates and fat, forms soaps, and sets free phosphoric acid. But those children who are free from rickets and have no hereditary intolerance of acids may do as well on cow's milk as on mother's milk. So long as the body only parts with surplus alkali, the setting free of phosphoric acid in the bowel does no harm, and acid poisoning begins only when the reserve of alkali is exhausted. Breast-fed children may suffer from acid intoxication in consequence of the high percentage of fat in mother's milk if rickets be present, or there is an excessive intolerance for acids. Eczema in children he attributes to acid intoxication, and gives several illustrations of the value of citrated milk in its cure. Scrofula also is referred to the same cause, that is to say, the lymphatic tissues are predisposed to inflammation by the acid intoxication before they become infected by the tubercle bacillus; this early stage may be cured by appropriate treatment. For older persons with a tendency to acid intolerance vegetarian diet is the best treatment, but caution is needed in the quantity of fat ingested, and cereals, pulses, nuts and almonds should not be reckoned amongst the antioxypathic foods, while pure carbohydrates, such as sugar and starch, contain no alkali. The vegetable foods which are of value for antagonizing the tendency to acidity are green vegetables, salads, turnips, cucumbers, melons, tomatoes, potatoes, and all kinds of fruit. With respect to drugs, he prefers the citrates to the carbonates, and sodium citrate to potassium citrate. It has seemed well to give an abstract of Dr. Stoeltzner's

[3] *Oxypathie.* Von Professor Dr. Wilhelm Stoeltzner. Berlin: S. Karger. 1911. (Roy. 8vo, pp. 91. M. 3.)

theories and conclusions, but we must not be understood as in any way endorsing them.

A pamphlet of over a hundred pages,[4] purporting to be written by a patient who has been under the care of Dr. M. J. Kittel of Franzensbad, is designed to draw the attention of the public to the method of treatment pursued by that physician. The writer complains that the system is ignored by the medical profession, although described by Dr. Kittel in the *Berliner klinische Wochenschrift* in 1897 (No. 17). He finds fault with the medical profession for its ignorance and neglect of the study of rheumatic gout; he says that in spite of the progress made in other directions, nothing more is known of these diseases than was known in antiquity, and that the methods employed are either useless or worse, and he quotes a good deal from the book published not long ago by Dr. Falkenstein (see BRITISH MEDICAL JOURNAL, April 9th, 1910, p. 875), in which the orthodox remedies for gout are criticized from the personal standpoint of the author as a gouty sufferer, and a method of treatment by hydrochloric acid is strongly advocated. Passing over the criticisms of the medical profession, we may turn to see what the writer has to tell us about Dr. Kittel's theory and method. We learn that the health of the tissues depends upon the adequate supply of blood; if it is cut off they die; if insufficient they are ill-nourished and decay slowly. Such disturbance of the circulation is most commonly caused by cold or damp, and the longer it lasts the greater is the contraction of the blood vessels and the disturbance of the circulation. In any case the effect is to give rise to the death of cells. This is the fundamental cause, but he assumes the existence of a feeble resistance possibly due to the condition of the nervous system. Tissues so damaged are favourable seats for the deposit of urates; these at first are in the colloid form, but afterwards become crystalloid. The dead portion of the tissues is "encircled by a ring of urate crystals, whose sharp needles pierce the neighbouring parts, and are the cause of the severest pain and inflammation," hence an attack of gout! This somewhat crude statement is Mr. KLEINE'S account, for he gives only short extracts in inverted commas which purport to be from the words of Dr. Kittel. In his pathology he mixes up gout and rheumatism, holding them to be identical in their causation. The method of treatment is described even less satisfactorily. As it is impossible to dissolve out the deposit of urates by chemical means Dr. Kittel has discovered a painless mechanical method of removing them. No violence must be used, and an accurate knowledge of the anatomy of the joints is needed. If the crystals "have their points broken off they are much less painful to remove." How this is done or how the urates are removed is not explained, but some histories of patients who have been cured by Dr. Kittel are appended. The final chapter does not make the matter clearer by informing us that the method is not massage; "it has nothing in common with massage" (p. 123). "Owing to the complicated structure of the joints, an accurate knowledge of which is not possessed by masseurs and masseuses, or even by all qualified physicians, the method can only be applied by those who possess special knowledge and training"; and again, "the method calls for the complete knowledge of an experienced physician, which must be combined with the special training of a specialist in Kittel's method of treatment." This is all we have been able to learn from reading the book; it leaves us just as wise as before, the only practical deduction from it being that those who wish to try the treatment must go to Franzensbad and place themselves under Dr. Kittel's care. It is to be regretted that this book has been written, but we hope that Dr. Kittel will promptly repudiate it, and in the interests of his professional reputation take steps to prevent its farther circulation.

[4] *Die Heilung der gichtisch-rheumatischen Erkrankungen, gemass der erfolgreichst bewahrten Methode des Dr. med. M. J. Kittel.* Von J. F. Kleine. 1911. Berlin: Kleine and Stapf. (Demy 8vo, pp. 127.)

## THERAPEUTICS.

IN the preface to his *Practical Guide to the Newer Remedies*,[5] Dr. FORTESCUE-BRICKDALE tells his readers that the book does not concern itself with patent medicines or secret remedies, but is only intended to pass in review the newer drugs whose pharmacology has been more or less accurately ascertained. In an introductory chapter he points out that the majority of medical men are called upon to devote the greater part of their time and attention to the cure or alleviation of disease, and in the light of such a truism he emphasizes the anomaly in our present system of medical education "that the average medical student should be required to devote such a small portion of the curriculum to acquiring a knowledge of therapeutics and pharmacology." This fact has long been recognized as a serious blot upon the technical instruction of prospective medical practitioners, but the blot remains despite the most energetic protests of practical men whose opportunities have enabled them to gauge the inefficiency of the large majority of those who are newly qualified to prescribe adequately during the early years of their professional careers. Dr. Fortescue-Brickdale expresses the opinion, with which many will agree, that in the education of the student "too much time is now spent on detailed preliminaries to the exclusion of those all-important practical subjects upon a thorough knowledge of which his future success in his profession will to a great extent depend." It may be safely affirmed that many of the newer remedies mentioned in this volume are practically unknown to the majority of the profession. Some of them, though rarely used, are of proved value, others have not yet emerged from the experimental stage, while not a few have passed into the currency of everyday practice, and in regard to them much useful information is afforded. Of the newer preparations of arsenic we are told that the cacodylates have proved disappointing and unreliable; but this opinion must be accepted with a certain amount of reserve, because in the experience of some clinical observers they have afforded results which justify, to some extent, the claims in their favour first set forth by the French school. Of the arylarsonates, which the author believes are destined to attain a larger measure of usefulness, a note of warning is sounded on account of the possibility of temporary or permanent blindness which experience has shown may be a consequence of their exhibition. In dealing with uric acid solvents, attention is directed to the fallacies that may arise in connexion with the administration of drugs believed to possess the power of rendering the uric acid circulating in the body fluids more soluble or less likely to be deposited as sodium biurate in the tissues. It is right to insist that the true relationship of uric acid to disease is not even now thoroughly understood; that many so-called "cures" for that bogey of the public imagination, uric acid, are unreliable, and some quite worthless; and that "experiments *in vitro* are not conclusive evidence as to the efficacy of the so-called uric acid solvents, as the conditions in the body cannot be even remotely reproduced in a test tube." In discussing the more recent derivatives of digitalis, some of which are now in extensive use, the author, though admitting their value, is disposed to think that the most reliable results are still to be obtained from the older fashioned tincture or infusion. The more important hypnotics, which, thanks to the enterprise of chemists, are becoming bewildering in their multiplicity, are passed in review, and their comparative virtues considered. He favours a combination of hypnotics in suitable cases, and confirms what many observers have found, that the admixture of two such drugs is often more efficacious than the exhibition of one alone. To all who are engaged in the treatment of disease, this volume may be cordially recommended as a readable and comprehensive summary of the newer remedies, of what may be expected from them, and also of what may be feared from their unwise or haphazard administration.

[5] *A Practical Guide to the Newer Remedies.* By J. M. Fortescue-Brickdale, M.A., M D Oxon, Physician to Clifton College, Assistant Physician to the Bristol Royal Infirmary, etc. Bristol: John Wright and Sons, Limited. London: Simpkin, Marshall, Hamilton, Kent and Co., Limited. 1910. (Post 8vo, pp. 281. 5s.)

We commend to those of our readers who have sufficient German Dr. MARTIN JACOBY'S book on experimental therapeutics,[6] as giving in a short space a clear description of the modern methods by which in Germany a number of workers are seeking to advance the treatment of disease. It is true it deals with laboratory work and not with bedside treatment, but although the information gained by the experimental method must always be brought to the

[6] *Einführung in die Experimentelle Therapie.* Von Dr. Martin Jacoby. Berlin: Julius Springer. 1910. (Demy 8vo, pp. 186. M.5.)

ultimate test of clinical experience, yet the purely empirical method followed for some thousands of years has given uncertain results, and it is only recently that it has become possible to apply the experimental method to therapeutics, that is, since knowledge of the microbial origin of diseases has rendered it possible to study in animals the effects of various methods of treatment upon the growth and development of the microbes or upon particular morbid symptoms—for example, fever, glycosuria. The principle of chemical antagonism has received many illustrations from recent investigations, thus rabbits and dogs, in which the symptoms of acidosis are produced by the injecting of acids and the animals brought to the very point of death, may be restored by the injection of alkalis; cats poisoned by carbonic oxide may be restored by transfusion and inhalations of oxygen. Hydrocyanic acid poisoning may be treated by sulphur compounds or rhodium salts; Reid Hunt's experiments on acetonitrile show that the hydrocyanic acid set free from this substance may be antagonized by sodium thio-sulphate. Dr. Jacoby gives many other instances, but we may only mention the antagonism of physostigmin and curare, of atropine and muscarin and of calcium and magnesium. The next principle is that of substitution therapeutics where the organism suffers from the defect of some substance that can be supplied, or some substitute found for it. Of this the best example is thyroid feeding for myxoedema. The principle of antiparasitic therapeutics may be illustrated by Behring's antidiphtherial serum. This branch is classified under three headings: (1) Immunizing therapeutics (Pasteur's treatment for rabies is a good example, Koch's tuberculin being another attempt on the same lines, while more recently Ruppel and Rickmann have produced a tuberculo sero-vaccine by which they have been able to render guinea-pigs immune to tuberculous inoculation). (2) Serum therapeutics, of which the antitoxins for diphtheria and tetanus are brilliant examples of what this line of research can produce. (3) Chemical therapeutics, a term which might include the whole range of pharmacy, but is restricted here to those chemical agents which attack the causes of disease. The infection may be cured by killing or expelling the pathogenic microbe or by so changing the poison that it no longer injures its host, or by preventing multiplication and growth of the microbe, or by so altering the body of the host that it can be no longer injured by the parasites, that is to say it becomes immune, or finally the drug may stimulate the organism to produce antiparasitic substances capable of antagonizing or destroying the microbe. This line of research has been specially followed by Ehrlich and his collaborators. He set himself to find a specific poison for each micro-organism and has formulated the following conditions as essential: Small doses of the remedy must suffice either to kill the microbe or to interfere seriously with its development. The doses must do no harm to the animal, and the remedy must be able to kill the microbe not only in a test tube, but in the living organism. Working on these lines he has made many useful discoveries of which one of the most important is that the halogen phenol compounds are infinitely more poisonous to micro-organisms than is phenol itself; thus pentabromphenol is 500 times more poisonous to microbes than phenol, while it is less poisonous to the host. As is well known Ehrlich has produced atoxyl for the treatment of sleeping sickness and the remedy salvarsan for syphilis. In subsequent chapters Dr. Jacoby gives brief accounts of what has been done in the treatment of various diseases, explaining the principles upon which the attempts are made and although all have not been productive of good results, the record is instructive as foreshadowing the line along which no doubt the progress of therapeutics will be made. No teacher of this subject can afford to be content with the old materia medica or to ignore the results of experimental research.

In the volume entitled *Popular Drugs: Their Use and Abuse*,[7] by Dr. SYDNEY HILLIER, we have a restatement of well-known arguments in favour of the proper use of certain valuable remedies and stimulants which, from their popularity, may be said to have entered into the daily habit of a large section of the public; and also a recapitulation of the generally accepted dictum that disaster dogs the footsteps of those who allow discretion to be swamped by undue surrender to their tempting allurements. Dr. Hillier is no advocate of a rigorous asceticism, as may be at once inferred from the general conclusion at which he arrives in regard to the value of alcohol, the most popular and most potent of drugs. Of alcoholic beverages in general he says that in moderation and at meal times they are beneficial, provided they are of good quality. He argues that if alcohol be expurgated from the daily regimen, excess in some other direction is invited; but it is difficult to understand upon what grounds he comes to the conclusion that, in the case of the working man, his renunciation of alcohol should beget the "chewing of strong tobacco in large quantities," or in that of the professional or business man it should mean the compulsion to "smoke more and smoke stronger." Surely tobacco is not the only alternative to alcohol; and if it were, is it in accordance with fact that chewing and smoking the stronger and coarser varieties of tobacco is really the trend of excess in tobacco indulgence? Observation would rather encourage us to fear that danger lay much more in the direction of indulgence in the milder and more readily adulterated tobacco—or apology therefor—which in the shape of the ubiquitous cigarette is rapidly becoming the favourite of every class of the community. The fashion of the present day is undoubtedly, as the author says, in the direction of a more widely spread addiction to soothing and pain-killing drugs, and for this we must blame the insidious ingenuity of the manufacturing chemist as well as the advertising enterprise of the mendacious quack. Both pander to the demands of highly strung and badly balanced nervous systems, which crave for relief from the pain, sleeplessness, and instability that belong to an age in which the demands on mental and physical energy are greater than their reserve of endurance. Though the indulgence in popular drugs may be more common, it is less than formerly a mere gratification of a vicious appetite; fashion has become, and is every day becoming, more opposed to the gratification of the mere animal propensities to excessive use of intoxicants. Books such as this are not of much service as offering any method whereby the frailties of humanity may be immediately eradicated, but they point the way by which, in course of time and with an increase in self-submission, salvation may be achieved. Dr. Hillier has succeeded in writing a volume that is readable and inspired by a philosophy which must encourage the hope of better things in all who are interested in sociological development.

[7] *Popular Drugs: Their Use and Abuse.* By Sydney Hillier, M.D. London: T. Werner Laurie. 1910. (Post 8vo, pp. 192. 3s. 6d.)

## NOTES ON BOOKS.

PROFESSOR T. K. MONRO'S *Manual of Medicine*,[8] the third edition of which is before us, remains substantially as it was in the second edition, a review of which was published in the BRITISH MEDICAL JOURNAL of June 13th, 1908. Extensive alterations have been made and some additions in such subjects as dysentery, syphilis, cardiac arrhythmia, the cerebro-spinal fluid, epidemic anterior poliomyelitis, enteroptosis, and food poisoning have increased the size of the book. The section on cardiac arrhythmia gives a short account of the work justly associated in this country with the name of Dr. James Mackenzie. The book is now rather large for what it purports to be—an introduction to the study of systematic medicine—and to some it would seem that it might be improved by omitting the section on diseases of the skin. It is a trustworthy book which might safely and well be placed in the hands of the medical student commencing the study of the subject.

*Hints on Outfit for Travellers in Tropical Countries*[9] is the title of a useful little textbook by Dr. HARFORD, Principal of Livingstone College. The book has now reached a second edition, and this indicates that it has been popular. For laymen and others proceeding to the tropics an enormous amount of useful and really essential information is contained within its pages. Clothing,

[8] *Manual of Medicine.* By T. K. Monro, M.A., M.D. Third edition. London: Baillière, Tindall and Cox. 1911. (Demy 8vo, pp. 1045. 15s.)

[9] *Hints on Outfit for Travellers in Tropical Countries.* By Charles Forbes Harford, M.A., M.D., Principal of Livingstone College; Physician to the Church Missionary Society, etc. Second edition. London: The Royal Geographical Society, 1, Savile Row, W.; and at all booksellers. 1911. (Fcap. 8vo, pp. 65. 1s.)

climate, provisions, mosquito prophylaxis, medicines and medical requisites, and sanitary matters are all suitably dealt with. It is absolutely essential that people going to hot countries should know these things.

In a book for nurses entitled, *Care of the Patient*,[10] Dr. A. T. HAWES endeavours to cover in some 170 pages of large print the whole of medical, surgical, and maternity nursing. Most of the space is devoted to describing the mechanical details involved in nursing patients and aiding their medical and surgical attendants. There is thus little in the book which fulfils the expectations created by its title, nor anything that is likely to prove very informing to nurses trained in this country. In one or two instances the practices suggested involve the acceptance of views not universally adopted. Still, the information supplied is very clearly worded, so the book may be useful to those who have either forgotten much of what they were taught at their schools, or who were never thoroughly trained.

In a pamphlet recently published by Mr. HENRY HAMILL, under the title of *The Truth we owe to Youth*,[11] an attempt—neither very satisfactory nor conspicuously novel—is made to discuss afresh a problem which has offered serious difficulties and excited much diversity of opinion throughout many generations of men. The author deals with his subject in a philosophic spirit, which is admirable enough so far as it goes, but he fails to effect a practical coalition of fact and theory after a manner whereby they may be made available for the requirements of a workaday world. How much or how little of the great sex question should be communicated to or discussed with young people is a point difficult to decide. To many it seems that no hard and fast law universally applicable can be laid down, but that every parent or guardian must, out of the fullness of knowledge of the young people for whom he or she is responsible, determine how much or how little should be revealed, and when or how such information should be imparted. Mr. Hamill's pamphlet is interesting reading for adults, though, in our judgement, unsuitable for perusal by the young. The author's personal views and reflections occupy the first half of his monograph, the remainder being devoted to a recapitulation of the opinions of others with whom he is more or less in accord. He writes pleasantly, and no fault can be found with the manner in which he handles a difficult and delicate subject.

[10] *Care of the Patient*. By Alfred T. Hawes, A.M., M.D. With six illustrations. 1911. Philadelphia: P. Blakiston's Sons, and Co. (Crown 8vo. pp. 173. 4s.)

[11] *The Truth we owe to Youth*. A Vision of Sex. By Henry Hamill. Freiburg (Baden): J. Bielefelds Verlag. 1910. (Demy 8vo, pp. 91.)

## MEDICAL AND SURGICAL APPLIANCES.

### *Urethral Ointment Applicator.*

MR. ANDREW CHARLES, F.R.C.S. (Dublin), writes: In treating chronic urethritis I have found the instrument depicted in Fig. 1 a most efficient means of applying ointments. It has been made for me by Messrs. Down Bros. of St. Thomas's Street, London. It consists of a metal tube with lateral slits, and a solid conical screw-off end with a metal obturator fitting inside it, and a metal nozzle with universal screw to fit any ordinary collapsible tube. The technique is as follows: The anterior urethra is first washed out with a pint of antiseptic solution, using a 4 oz. syringe with a rubber nozzle. The instrument, previously sterilized and lubricated with glycerine, is then passed without its obturator as far as the bulb (sometimes into the posterior urethra). The nozzle, having been screwed to a collapsible tube containing the ointment, is inserted into the opening of the urethral tube and the ointment tube squeezed. (The ointment may be liquefied, if necessary, by heating the nozzle in a Bunsen flame). The obturator is then slowly passed, driving the ointment through the slits in the tube, which is rotated two or three times to spread it over the urethral surface. Massage on the instrument, forwards from the perineal scrotal junction to the fossa navicularis, is kept up for two or three minutes. The instrument is then removed and the glans covered with cotton-wool, which is retained until the next urination. The following advantages are claimed for the instrument: (1) Simplicity; (2) the conical end screws off, and it can be easily cleaned and sterilized; (3) a large quantity of sterile ointment can be thoroughly distributed on the urethral surfaces; (4) the urethra can be massaged on the instrument, forcing the ointment into the urethral folds and the ducts of the glands; (5) it acts as a dilator. The same firm has made me a rectal ointment applicator in which the same principles are applied. It is shown in Fig. 2.

Fig. 1.

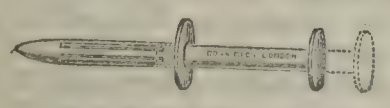


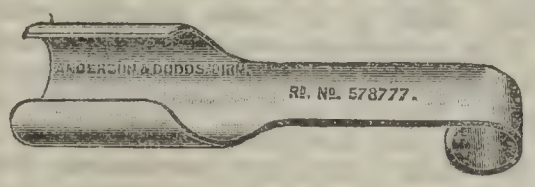
Fig 2.

### *A Fumes-absorbing Gas Heating Appliance.*

An ingenious apparatus for obviating the nuisance and danger of fumes from a gas stove has been devised by Dr. Percy Wilde, of Bath. The appliance, which is decorative in appearance, consists of an ordinary gas fire with an enclosed flat, oblong tank above it, and a similar one at its base, the two tanks being connected by four upright columns. In the lower tank the fumes are condensed and deposited, and as there is no outlet, such as a flue-pipe up the chimney, it is claimed that there can be no waste of heat or emission of noxious vapours. The process of condensation is interesting. The fumes from the stove rise into the upper tank, are then circulated within the four columns by means of an artificial draught, and finally pass into the lower tank, which contains slaked lime and water. By this means they are cooled to 70° F., although their original temperature may have been 300°. The cooled fumes, again ascending, meet the new hot fumes in the flue behind the burners, and these together form rapid condensation, producing a vacuum which gives rise to sufficient draught to draw air into the fire. The carbonic acid gas is then absorbed by the water of condensation, which trickles down into the tank, and, meeting the slaked lime and water, becomes precipitated as carbonate of lime. As this action proceeds and the water becomes saturated with the gas, the insoluble carbonate of lime, combining with the carbonic acid, is changed into soluble bicarbonate, and can be drawn off when necessary by means of a tap; slaked lime is added from time to time, about 8 lb. being required every six months. Dr. Wilde's representative, who has a rough model for demonstration purposes at 5, Duke Street, Adelphi, W.C., tells us that the fire has been tested in a closed room continuously for many days, and has proved efficient. He states that the full amount of radiant heat is emitted through the talc front, while the convected heat from the surfaces of the tank and column arrangement never rises above 100° F. Doubtless an attempt will be made to apply the same principle to coal fires, so as to abate the smoke nuisance, but here one foresees obvious difficulties.

### *A Pessary Introducer.*

Dr. N. I. Spriggs (Leicester) writes: This little instrument has been designed to minimize the inconvenience to the patient from the introduction of a flexible ring pessary (either the ordinary watch-spring or the "combination fluid" pessary). Its mode of action will be sufficiently explained by the illustration. On the introduction of the ring by means of this appliance the vaginal orifice undergoes only the minimal necessary distension—that is, that required for the passage of the ring in its flexed condition, as the room occupied by the metal of the instrument is so small as to be negligible. In the ordinary method of introduction without any appliance some finger room must necessarily be required, thus aggravating the discomfort of the proceeding in a sensitive patient. Both ring and instrument should be thoroughly lubricated, and then by thumb pressure the former can be easily disengaged from its holder and slips into the vagina with hardly any distension of its orifice. The instrument has been made for the writer by Messrs. Anderson and Dodds of Birmingham.




### *Safety Parabolic Reflector Lamp.*

Messrs. F. and J. Bruce, 232, Borough High Street, S.E., make a safety parabolic reflector lamp of a form which is very well known, although many qualities are sold in the shops. The lamp made by this firm appears to be carefully and intelligently constructed of good material; the oil vessel is made of English brass, is fitted with a safety tube, and the reservoir can be filled from the side. The parabolic reflector is made of hardened metal, and will not, it is said, go black with heat, as happens to some cheaper

types. When fitted with the reflector a very bright concentrated light is obtained, suitable for use in hospitals and consulting rooms. The lamp, we are told, has been in use at Guy's Hospital and other institutions for a good many years. It is made in various forms, the cheapest being a hand lamp which can be hung on the wall; price, in brass, 4s. 6d.

## MEDICINAL AND DIETETIC ARTICLES.

*Suprarenalin Solution.*

WE have received from Messrs. Armour and Co. (Atlantic House, Holborn Viaduct, E.C.) samples of a suprarenalin solution prepared by them and sent out in 1-oz. bottles. The strength of the solution is 1 in 1,000, and we are informed that it is made from an ash free crystalline active principle of the suprarenalin substance, that it contains nothing but this active principle, distilled water, and sufficient sodium chloride to make it of normal saline strength, and that it is free from chloral and its derivatives. We have reason to believe it to be a good and reliable solution, which may be used with confidence if the directions issued with the bottle as to the preparation of solutions and the care of the stock bottle are observed.

*Kolynos Dental Cream and Liquid.*

We have received samples of an antiseptic mouth wash called Liquid Kolynos, and of Kolynos Dental Cream, from the makers, Kolynos Incorporated (Newhaven, Conn., U.S.A., and 4, Farringdon Avenue, London, E.C.). The dental cream, or tooth paste, which is supplied in collapsible tubes, is stated to have the following composition: Soap, 33.0; precipitated chalk, 25.0; absolute alcohol, 20.0; glycerine, 15.0; benzoic acid, 3.0; eucalyptus oil, 2 0; oil of peppermint, 2 0; saccharin, 0.50; thymol, 0.25; and the results of our analysis are in conformity with this. It is distinguished from many preparations of this class by the extreme fineness of the chalk; it is quite free from grittiness and as smooth as an ointment. Liquid Kolynos is generally similar in composition, but without the chalk; it is intended to be used as a mouth wash. According to the reports of experts which are supplied, the results of bacteriological tests made in this and other countries with organisms of the mouth and throat show that the combination of antiseptics used in Kolynos give it a high germicidal power. It is a very pleasant and refreshing preparation in use.

## SCIENCE NOTES.

IN addition to what may be considered as the natural means of transmission of sleeping sickness through the agency of *Glossina palpalis*, Koch brought forward evidence in 1907 which seemed to show that the disease might be transmitted by sexual intercourse. In a part of Uganda where the tsetse fly does not occur fifteen women were found infected, and investigation disclosed the fact that they were all married, and that their husbands had either died of or were affected with sleeping sickness. This curious observation, the accuracy of which has been doubted, received no confirmation at the time, but since then a considerable amount of experimental work bearing on the matter has been done. The results have not been altogether harmonious, but evidence has undoubtedly accumulated to show that various trypanosomes under certain conditions may pass through unbroken skin or mucous membranes, and so cause infection. The recent work of Dr. Hindle[1] adds valuable confirmation. Working with *Trypanosoma gambiense*, he tried feeding experiments by the mouth. Rats were fed on the organs of animals which had died of sleeping sickness, but no infection ensued. When the rats, however, were fed on fresh infected blood infection invariably followed. The contradictory results are ascribed to the fact that feeding with pieces of solid organs caused a much greater flow of gastric juice than the feeding with blood, and that the gastric secretion is inimical to the trypanosomes. Infection by the vagina was next attempted. The introduction of infective blood into the vagina always gave rise to infection, but experiments in which infected males were confined with uninfected females and vice versa were uniformly negative. It was further shown that the trypanosomes from infective blood could pass through the uninjured skin. These experiments, if not conclusive, certainly emphasize the danger of working with infective blood. The unsuccessful results of the experiments under approximately natural conditions are not surprising when consideration is given to the small number of observations and the chances against their being made at the critical time. In this connexion attention may be directed to the paper by Mr. Strickland which we publish to-day (p. 1049). He affords apparently unequivocal proof that infection with the rat trypanosome may take place by ingestion through the alimentary canal, and that this, as opposed to inoculation by bites, is probably the natural method in this particular instance.

[1] *Parasitology*, March, 1911, p. 24.

The nature of the processes involved in the utilization of carbohydrates by the animal organism has always been obscure, and, in spite of much work on the subject, our position at present goes little further than a recognition of the obvious fact that sugar is largely destroyed in the healthy body. The question has been raised of the presence of a glycolytic enzyme causing true alcoholic fermentation of the sugar, and a series of researches carried out by Stoklasa and others within the last half-dozen years has appeared to yield confirmation of this supposition. Further support has been drawn from the well-known phenomenon of the formation of lactic acid in the tissues after death, which has been interpreted as an intermediate stage in the process of alcoholic fermentation. Such a theory could not fail to have considerable influence on our ideas of physiological metabolism, but a careful piece of work by Harden and Maclean[2] has recently shown that it is probably founded on altogether erroneous observations. Experiments of this kind involve the examination and manipulation of various animal organs and tissues. It is only with great difficulty that these can be kept free from contamination with bacteria during the course of the experiments, and in most cases hitherto no attempt has been made to do so. Harden and Maclean point out the difficulty of performing such experiments under absolutely sterile conditions, but with careful precautions they succeeded in doing so on a few occasions. In these cases no trace of alcoholic fermentation could be detected. The presence of an efficient antiseptic leads to a similar negative result. The fermentation occurring under natural conditions must, therefore, be due to the action of bacteria, a large number of which are known to cause rapid fermentation of various sugars. The unavoidable conclusion, therefore, is that there is no satisfactory evidence that alcoholic fermentation occurs in animal tissues after removal from the body, apart from the presence of sugar-fermenting bacteria.

Contrasted with the bacteria, the higher fungi have hitherto occupied a very insignificant place in pathology. The diseases which they are known to originate are neither very numerous nor widespread, but at the same time their importance to medicine, especially in tropical countries, is by no means negligible. On that account a recent note[3] by Professor Castellani, of Colombo, on fungi of the genus *Endomyces* affecting man may be of more than passing interest. The most familiar species of this genus is the well-known *Endomyces*, or *Oïdium albicans*, the causal agent of thrush. Castellani has obtained a number of strains from cases of broncho-mycosis in Ceylon, and they all differ from *E. albicans* and *E. lactis*. There are nine different types, the commonest of which was described a year ago as *E. tropicalis*. The remaining eight appear to be all separate and distinct species, divisible into two groups, *pseudotropicalis* and *paratropicalis*, according as they do or do not produce change when grown in litmus milk. Along with *E. tropicalis*, the *paratropicalis* group is almost certainly pathogenic to man, while the pathogenicity of the *pseudotropicalis* group is still in doubt.

[2] *Journal of Physiology*, January, 1911.
[3] *Centralblatt f. Bakteriologie*, etc., I Orig., 58, p. 236.

M. BUSSAT, a member of the French Chamber of Deputies has brought forward a proposal for the creation of a Ministry of Hygiene.

# THE INTERNATIONAL PLAGUE CONFERENCE IN MANCHURIA.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE International Plague Conference in Manchuria commenced work at Mukden on April 3rd, the proceedings being opened by the Viceroy. It is being attended by some forty-four delegates, representative of eleven countries, including China. The English delegates are Drs. R. Farrar, Douglas Gray, and G. F. Petrie. Well-known delegates from other countries are Professor Kitasato (Japan), Professor Zabolotny (Russia), Dr. Martini (Germany), and Dr. R. P. Strong (America). The Chinese delegates include several of European birth, among them Drs. R. A. P. Hill, W. H. Graham Aspland (who is also medical secretary to the conference), D. Christie, A. Stanley, and Paul Haffkine. The chairman is Dr. Wu Lien-teh, M.A., M.D.Camb., who returned to China some two years ago after a distinguished career at St. Mary's Hospital, London, and the School of Tropical Medicine, Liverpool. He also worked at Halle in Germany, and at the Pasteur Institute in Paris, where he was present as the holder of a research studentship of the University of Cambridge.

In the course of a speech of welcome to the delegates, the Viceroy said that the Chinese Government would not easily forget the ready response that its invitation to assist in the conference received. He hoped that the work to be done would result in the saving of life not only within the Chinese empire, but in all other places where plague might break out. He and his fellow-countrymen had for long believed in a system of medicine which the experience of centuries had taught them to be of service in many forms of illness, but the lessons of the epidemic compelled them to revise their former ideas. They felt that the practice of medical science must move hand in hand with the advancement of other learning, and that use must be made of the wonderful resources of Western medicine. In future modern medicine, and especially sanitary science, would, he hoped, receive more attention in China than hitherto.

The delegates were also addressed by the Hon. Soa-ke A. Sze, the High Commissioner dispatched to the conference by the Prince Regent of China, who said that the epidemic which had raged in Northern China and Manchuria during the past months had been, he believed, the most fatal outbreak of plague which had ever occurred. The death-rate had been almost 100 per cent. They would receive information from different doctors who had been employed on plague duty as to how they had dealt with the segregation of contacts and suspects, and how they had managed the isolation hospitals, and on other points. Criticism by the delegates of what had been done would be welcomed, for his Government felt that it must adopt in future measures such as might be expected to prevent a like disaster. The Chinese were not subject to caste prejudices, as were some other Oriental races, but nevertheless were apt to resent anything which they considered undue interference with family life, so the work of the plague officers had been one of difficulty. The High Commissioner then detailed a number of points upon which the Chinese Government would like to receive information, and stated that any recommendations made would be most thoroughly considered by it and, if possible, put into practice. He hoped that meantime the delegates would find the arrangements made for their comfort satisfactory, and concluded by introducing Dr. Wu Lien-teh as the chairman, and mentioning that the Chinese Government had appointed Dr. Graham Aspland to act as medical secretary. The latter had been at Fuchiatien during the worst of the epidemic, and had rendered most valuable service.

The speeches of welcome were acknowledged on behalf of the delegates by the principal Russian delegate, who said that they all met on common ground, inasmuch as none had had previous experience of such a great epidemic of plague in its pneumonic and septicaemic form. He paid warm testimony to the courage and ability shown by the members of the plague staff, including both its Chinese and foreign members.

The actual work of the conference was commenced on the following day, Dr. Wu Lien-teh giving an address, in the course of which he said that the epidemic up to the present had claimed some 46,000 victims. The pneumonic form of plague was not entirely new to Manchuria, as sporadic outbreaks had occurred for many years. An epidemic of corresponding severity and character was said to have occurred in the seventeenth century, but there was no well authenticated instance of an epidemic of plague both of so grave a character and of purely pneumonic form. When he first went to Harbin, the second town attacked, he was told by many of the inhabitants that the outbreak was quite an ordinary visitation, to which they were accustomed, and that it never killed many, and would stop of itself without any attention being paid to it. Why on this occasion it had assumed such a virulent form as to kill within the space of three months over 5 000 out of a population of 35,000 the conference might possibly be able to explain.

### *The Marmot.*

Continuing, the speaker said: That a certain rodent, the *Arctomys bobac*, known in English as the marmot, in Russian as the tarabagan, and in Chinese as the han ta, is chiefly associated with this form of plague, has for some time been fully believed by the inhabitants of Mongolia and North-Western Manchuria. According to some valuable information gathered by Dr. Ch'uan, of the Chinese Medical Staff, who was sent up to the station of Manchourie to report on the subject, it appears that the local people have long been familiar with this disease, both in men and in animals. From the actual marmot hunters themselves he found out some items which, I venture to believe, will exercise an important bearing on our knowledge of the plague.

Nature is very rich in coincidences, and perhaps as scientists, more than any other class of men, you are prepared for such, but who would have dreamed that the healthy marmot basking, as it loves to do, in the warm sunshine, utters a cry resembling the sound of "pu p'a, pu p'a," which in the Chinese language, at any rate, means "don't be afraid," or "no harm." Sickness renders it mute, so that in the light of present knowledge it would seem that when the marmot is not crying "No harm, no harm," there is very real harm indeed. The sickness in the tarabagan which we presume is the forerunner of the plague, in this case is characterized by an unsteady gait, inability to run or to cry when chased, and, when caught, the physical signs are seen to consist principally of enlargement of the glands. When noticing the above signs, the experienced hunter leaves his quarry severely alone and betakes himself to more distant spheres. During the past few years, however, there has been an exceptional demand for the marmot skins in the European and American markets, and numbers of wandering Shantung coolies have, in consequence, found their way to the marmot resorts, hunting it indiscriminately, and, food being scarce, they have often cooked and eaten the flesh of the marmot. A number of these Shantung men have died in previous years but not in sufficient numbers to attract attention. The season for killing marmots is from August to the middle of October. About the third week in October of last year there were said to be fully ten thousand of these hunters gathered in Manchuria and Khailar, with their skins, waiting to sell them and then to return south for the winter. Dr. Ch'uan found out that the symptoms of sickness suffered by these hunters were headaches, fever, and spitting of blood-coloured sputum, followed by rapid death.

The tarabagan, or marmot, has a wide range over the plains and sandy wastes of Mongolia and Central Asia, and now that such attention has been called to its power of infecting human beings with plague, we shall learn more about its habits. We know that it hibernates through the winter, and awakes fat and strong in the spring, when the younger ones seek new homes in which to breed. The new burrows often run into old "earths" in which it may happen that there may be dead left from a previous season which may infect the new arrivals. The animals that die in the open are probably all devoured by birds, etc., but it seems that the marmot creeps into its home as a rule to die. The inexperienced hunters nearly always dig out the marmots from their holes, and thus run more risks than the ordinary Mongol, who generally

hunts the marmot in the open or traps it near its abode, thus coming into contact with and catching only healthy animals. Despite the apparent risk, however, there are no statistics which show that many hunters die on the plains, but when they are gathered together in the late autumn at the market places, where they crowd into very poor hovels or inns, where, with piles of raw pelts, they may often be found sleeping and eating, from twenty to forty in the smallest of most badly-ventilated rooms, wherein the conditions are ideal for the encouragement of any epidemic disease.

*Course of the Epidemic.*

The speaker then traced the course of the epidemic. It began in Manchourie, a small town in the province of Manchuria, on October 12th, and lasted there two months and a half. Meantime cases were reported in Harbin on November 7th, the first two patients being marmot hunters from the town of Manchourie. They infected the four with whom they lived, and soon afterwards Harbin acquired its unenviable reputation as a plague-distributing centre. Examination of the progress of the epidemic showed that it followed the quickest lines of travel, and corresponded exactly with the routes taken by coolies on their return home for the Chinese new year. Certain towns in this way escaped altogether.

A point of interest was that though Shuang-cheng-pu was on the railway only thirty miles from Harbin, no case occurred there until two months after the beginning of the outbreak in the latter town. Nevertheless, when it did appear it was exceptionally virulent. A further point of interest was that while Fuchiatien, the Chinese part of the town at Harbin, was on a low lying swampy plain, and inhabited by a closely packed population chiefly of coolies, Shuang-cheng-pu was a finely planned city with wide streets at right angles to each other, some streets being as much as from 80 ft. to 100 ft. broad. There could be no greater contrast than between these two towns, Shuang cheng-pu being famed for its spacious compounds and large well-constructed houses. Among its inhabitants there is very little poverty, at least half of them being well-to-do persons, instead of a hand-to-mouth living multitude such as that which dwelt at Fuchiatien. Moreover, about half of all the families at Shuang-cheng-pu were Manchus, who, with the leading Chinese merchants, were very clean in their habits and homes; yet in this city of about 60,000 inhabitants there were some 1,500 deaths within the space of seven weeks. The speaker cited this fact to show that there must be some other reason than dirt and poverty to account for the fierce mortality.

*Experiences during its Course.*

At the beginning of the epidemic the authorities relied on many of the data of bubonic plague in respect to prevention and treatment, but the results of their experience at Fuchiatien had modified their early expectations as to the efficacy of the vaccines and serums they procured. A fact of interest was that despite the large number of rats examined, none had shown any signs of plague. Nevertheless in Harbin the unusually large number of deaths among domestic animals, as also the deaths of about 400 horses and 300 sheep, suggested the possibility of a similar epidemic among animals. He deeply regretted that the amount of work in hand at the time the epidemic was raging, and the limited number of assistants, made it impossible to collect scientific information on this point.

The question of natural immunity had forced itself upon their consideration. In several instances attendants in hospitals, where scores were dying daily, escaped unattacked right through the epidemic, despite the fact that the precautions they took were of the slightest character, and for long periods non-existent.

Railway wagons had proved very useful as temporary isolation quarters, and at a time when severe frost made burial impossible, burning commended itself to every one. It was performed in the following way: A pit 20 feet square and 10 feet deep, which had been blasted by dynamite, was capable of holding five hundred bodies at a time. When bodies were in coffins the wood of the coffins was sufficient for complete burning; but bodies without coffins required four pieces of wood, 2 feet long by about 4 inches in diameter, for each body, and upon the whole mass in the pit kerosene oil was pumped from a fire engine at the rate of 10 gallons for every hundred bodies. This when lighted burnt so rapidly and fiercely that little or nothing remained but ashes. The example of Fuchiatien in this respect was afterwards followed by neighbouring towns. Burning of the dead, though not unheard of in Chinese annals, still conjured up all that was repulsive and contrary to the natural feelings of the people; yet, once decided on by the Government, it was accepted by them without complaint or hindrance. The action of the Government in respect of adopting burning and other measures and its accordance of permission to conduct *post-mortem* examinations of unclaimed bodies, which had been granted for the first time in the history of China, proved that it was moved by the highest motives of humanity and was ready to lay aside age-long prejudices and possess itself of all that science could impart for the saving of life and the elimination of national perils.

Dr. Wu Lien-teh concluded his address in the following words: In closing may I remind you that this is the first International Medical Conference held in China, and it is impossible to estimate its widespread effects. Besides the beneficial results of your observations and resolutions on the subject of plague, the impulses you will set in motion by the fact of this conference will react not only upon the national life, but more particularly upon the future progress of medical science in China, and I feel deeply the burden of the honour placed upon me in being chairman of this Medical Conference, which is unique in our history, powerful in its representation, and which gives China a strong position amongst nations seeking the welfare of their people.

*Communications of General Interest.*

The conference then set to work to determine the precise questions to which it should devote itself, and the lines to be followed in dealing with them. This done, a number of views based upon experimental bacteriological work during the progress of the epidemic by various delegates and others were considered. Reference to these is better deferred until the conference has formulated its final conclusions. Meantime note may be made of some communications of general interest. Dr. Broquet, in a paper dealing with methods of conserving plague organs for diagnostic purposes, drew the conclusion that a 20 per cent. solution of glycerine with the addition of 2 per cent. calcium carbonate was an admirable medium, since no putrefaction of the material immersed therein occurred, and any laboratory could diagnose plague material which had been preserved for as many as thirteen days; in addition, diagnosis was more quickly established than by the Albrecht and Ghon method, and nothing in the solution would interfere with any medico-legal questions which might arise in connexion with the specimens. Drs. Strong and Teague, in a paper on the infectivity of the breath in primary pneumonic plague, stated that during normal and dyspnoeic respiration plague bacilli were not present in the expired air. On the other hand, they might be, and often were, widely and profusely disseminated into the air surrounding the patient during coughing, even though visible sputa were not expelled. The authors were thanked for the valuable results furnished by their dangerous experiments. Professor Zabolotny, in a paper dealing with the infectivity of corpses, stated that the method of their disposal was exceedingly important, inasmuch as living plague bacilli had been found in corpses exhumed after interment for as long as three months. They had also been found alive in the putrefied bodies of guinea-pigs which had died a month previously. In the discussion which followed, Dr. S. N. Wong mentioned that he had found live plague bacilli on the surface of a piece of liver which he had previously soaked for three days in a solution of formalin.

The proceedings of the conference are expected to last not less than a month. (See page 1077.)

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THE Alliance of Honour is arranging for a fourth demonstration of men on behalf of its laudable objects—namely, the promotion of purity and manhood—on May 25th at the Great Assembly Hall, Mile End Road, E. It is now issuing a quarterly journal, the current number of which contains contributions from Dr. Grenfell of Labrador, Dr. Habershon and Dr. Harry Grattan Guinness, its President. The address of the society is 10, Levsian Buildings, City Road, E.C.

## COLONIAL AND FOREIGN SYSTEMS OF POOR LAW RELIEF.

[SECOND ARTICLE.]*

### *The Poor Law Area.*

THE question of the area to be adopted for the purposes of relief is a difficulty at the root of every system in existence, and is fully discussed in the report from which most of the details given below are taken. In most European countries the area is the commune, which is essentially an urban form of local administration having no necessary relation to the ecclesiastical parish. In the more populous urban districts the commune is identical with the town, and may include several ecclesiastical parishes, the crux of the Poor Law being the rural area. In favour of the commune is the fact that it alone is sufficiently near to the individuals concerned to judge them properly, and there is a risk in leaving the decision as to destitution to more remote authorities which can only know applicants at second hand. The commune, too, has a pecuniary interest in limiting the number of paupers, but at the same time there may be a temptation to undue economy, so that appeal to an authority outside the commune may be advisable. Moreover, in nearly every system it has been found necessary to transcend the limits of this primary area, as rural parishes or communes often cannot provide adequate institutional relief. The demand for better classification, too, often leads indirectly to a necessity for larger areas.

In England this first took the form of a compulsory combination of parishes into unions, and a similar tendency is seen in parts of Germany. In other countries there are voluntary combinations of communes for providing institutional medical relief, and France has tried to create *syndicats des communes* for purposes of Poor Law relief as well as for other purposes. Voluntary combinations, however, mostly fail because of the instinctive particularism of the parishes or communes and the inevitable jealousy of the richer and poorer areas.

Three methods have been adopted for securing efficient relief while still preserving the commune basis. The first consists in making the commune part of a county. For instance, in France the commune is the administrative authority but the county or department is the organizing authority. For medical relief the department divides its area into *circonscriptions hospitalières* in order to utilize existing hospitals for the service of wider areas than the particular commune to which they belong, while any deficiency of hospital accommodation is supplemented out of department funds. The department also contributes towards the communal expenses according to the wealth or poverty of the commune, and the State in turn assists the department on a similar method. In practice the department bears about 30 per cent. and the State about 16 per cent. of the cost of medical relief.

A second method to overcome the difficulties of the communal system consists of relieving the commune of one or other branches of Poor Law relief, and transferring the obligation to the county or the State. As regards one branch of public relief—the relief of the insane poor—this transfer is said to have been effected in nearly every system, and in many cases vagrants and the able-bodied "work-shy" are dealt with by wider authorities. Thus, in Denmark and Norway, and in some of the American States, as Massachusetts, the county provides compulsory labour institutions or houses of correction for vagrants and the able-bodied, while in Holland and Belgium the State maintains several labour colonies to which persons of this class may be committed by a magistrate. In Victoria and New South Wales the State not only provides labour colonies, but undertakes relief of this class through the police. The treatment of orphan or deserted children is also often made the concern of the county or State, not the commune. This is the case in France, in many of the American States, and in New South Wales and Victoria. In Ontario not only are there county committees for neglected children, but the failure of the parishes and townships to provide adequate indoor relief has led to the establishment of county houses of refuge to which all classes of the poor may be sent. In a few instances in connexion with medical relief the county has been made the authority for providing hospitals. This is the case in Denmark, though some of the larger towns have also hospitals of their own. In Prussia the district or *Kreis*, an area between the province and commune, is similarly empowered to provide public hospitals to which patients may be sent at the expense of the commune. In all the above cases the object has been to transfer one or other branch of relief which needs better equipment, institutional or otherwise, to the county or State, while leaving the parish or commune still the authority for ordinary relief. America supplies the only instance where the entire administration of relief has been transferred to the county, but outside the six New England States poor relief is most generally administered by bodies analogous to our English county councils.

A third method is to provide assistance to the commune in the shape of subsidies derived from departmental, provincial, or State funds. This obtains in most States of Europe, in all British colonies, and in many states of the American Union. It is said to be successful only in combination with some measure of administrative control.

### *The Relief Authority.*

The constitution of the relief authority in England and Ireland is practically unique among the countries dealt with—that is to say, boards of guardians directly elected *ad hoc*, with power to obtain from the rates what funds they need, only subject in administration to a central State control. The district aid boards of New Zealand are the nearest approach to this, and with this possible exception, and the exception of certain American States where elective overseers still administer relief, outside the United Kingdom direct popular election is not applied to the relief authority as such, nor is that authority empowered at its own discretion to raise funds by taxation. There are two main forms of local relief authority:

(*a*) A local body composed of persons nominated by the local civil authority, with certain *ex-officio* members, which enjoys independence of administration, but is dependent for funds on charitable endowments with the aid of subsidies voted by the rating authorities. This is the case in France and Belgium, where there is a local committee thus appointed for indoor relief, and a similar committee for outdoor relief (*bureau de bienfaisance*). To this there has been added in France a somewhat similar committee (*bureau d'assistance*) for the administration of the new obligatory relief of the sick, and the aged and infirm. Italy has local bodies (*congregazione di charita*) similar in composition to the *bureau d'assistance*, which, though practically independent for administration, are dependent for funds on endowments and donations and voluntary grants in aid from the communal councils.

(*b*) Under the second heading the local civil council is itself the authority for Poor Law purposes. In Norway and Sweden there are still semi-independent committees appointed by the communal councils, but in Denmark relief has been entirely municipalized, while in Germany it is altogether a function of the local civil authority, the budget for poor relief being as much part of the ordinary municipal budget as that for sanitary administration, and the acts of any special committee formed are regarded as the acts of the civil council.

Further examination of these two forms of relief authority shows that the two types are tending to merge into a form under which, while the civil authority acquires a controlling interest in relief administration, especially on the financial side, the detail is left to responsible committees or expert officers.

### *Co-operation of Official Relief and Voluntary Agencies.*

In this country the official Poor Law makes but little use of voluntary and charitable agencies and even the co-option of non-elected members by boards of guardians which is allowed by the law is but little utilized. The Charity Organization Societies and Guilds of Help are utilized to some extent in the larger urban unions, but there is no active encouragement of co-operation. Charitable institutions for certain classes, such as homes for the blind, the deaf and dumb, training ships, and industrial training classes, are more generally used, though here again, owing to the difficulty of inspection, their use is not much encouraged.

Outside this country, where there is a less complete official Poor Law organization, voluntary and charitable societies have been used to a far greater extent than in

* The first article was published on April 29th, p. 1005.

England. Thus the French and Belgian Poor Law largely relies on the services of voluntary *dames visiteuses* as inquiry officers, though the larger towns in France have often their own paid *enquêteurs*. In Belgium voluntary assistance is most commonly used in connexion with child relief, and there are something like twenty-nine voluntary societies throughout Belgium (*comités de patronage*) which take charge of and find homes for children committed to their care by the magistrates, the committees being officially recognized by the Minister of Justice. In Ontario the State Department of Neglected and Dependent Children works mostly through voluntary local children's aid societies, and very similar methods are used in parts of Australia.

Of much wider importance is the provision in both the German and the Norwegian Poor Law, which imposes the obligation to render unpaid service in Poor Law administration on all citizens, under a penalty of fine for neglect. This principle of obligatory service forms the basis of the Elberfeld system. This is concerned essentially with outdoor relief, and is based on two principles: (1) Individualized treatment, and (2) the principle that a person who has a vote in the grant or refusal of relief should have first-hand knowledge of the circumstances of the applicant, that is, should act also as inquiry and relieving officer. The towns are divided into districts, in each of which a committee of unpaid citizens, appointed by the central relief authority of the town, is charged with the administration of outdoor relief, each member having the supervision or four or five pauper families. This is now recognized throughout Germany as the standard form of urban poor relief, and within late years it has been largely adopted, with some modifications, in Holland, Denmark, and parts of France.

It has already been shown that in countries such as France and Belgium charitable organizations have an officially recognized status as semipublic authorities, and as such are entitled to grants of public money. In these cases all relief is in theory primarily charitable. But in countries where a public obligation of relief is recognized and which have an official machinery for the purpose there is a great difference in the extent to which charitable agencies are utilized. A primary object must be to prevent overlapping between charity and official relief, and, with a view to this, in Prussia the charitable societies are compelled under a fine to furnish the communal authorities on demand with information as to the amount of relief granted to the poor. This is particularly effective in the large towns such as Berlin. The Dutch law is even more stringent, compelling all charitable societies to be registered and to render full annual returns to the communes. In this country and the United States the Charity Organization Societies are primarily designed not to give relief themselves, but to co-ordinate and prevent overlapping of the several agencies, and in these countries there are about 400 branches of these societies. The opinion is expressed that the Charity Organization Societies have not succeeded in convincing public opinion that their method is the best for the purpose. A newer movement has taken the form of a direct association of charitable bodies in a given area. Thus in Berlin there is a Central Committee of Charitable Institutions, with district subcommittees, each of which acts as a medium for the centralization and exchange of information regarding persons applying for relief, and official relief has been brought into connexion with this society. In some towns the official relief authority has taken the initiative, and formed central information bureaux at which registers are kept of the names and history of all persons who have received relief, and as far as can be ascertained of the beneficiaries of charitable societies or persons. These bureaux have not been particularly successful, owing to the difficulty of inducing charitable bodies to furnish information. In Holland Poor Law reformers are actively aiming at securing in each commune a committee of charitable societies under the presidency of the public relief authority.

The simple utilization of charitable institutions by the public authority is not uncommon in all the countries, and needs no further mention, but it is to be noticed that, where public official organization is deficient, as in the United States, there is tendency to lean on charitable enterprise to an extent exceeding any to be found in other countries where the public obligation of relief is recognized.

*Medical Relief.*

Some interesting details are next given as to the methods of dealing with special sections of the poor, as the aged and the children. Medical relief is recognized to be probably the best test of the success of any Poor Law system. It is pointed out that medical relief can hardly be organized on a purely communal basis nor as officialized charity, and the need for medical assistance appeals with less force to the parochial sense of economy than the claim for bare subsistence, while charity cannot be relied on for home medical treatment. Hence in nearly all the countries named the local relief system has had to be supplemented for medical assistance by authorities of a wider area such as the county or the State. Moreover an adequate scheme for medical assistance involves the provision of a technical organization which tends to develop on its own lines, and even to be at variance with the ordinary Poor Law machinery.

For example, it is impossible to work a system of medical relief on the strict principle of ascertaining destitution as a qualification for relief, and the more complete the organization for medical relief becomes the greater is the tendency towards a free medical service independent of ordinary methods of public relief. The different countries disclose a wide variety of forms on which public medical assistance is organized, but they may be grouped under three primary classes:

(*a*) Those leaving the provision of medical relief wholly to the local relief authority.
(*b*) Those which bring in an authority of a superior status to assist such as the county, or the State, or both.
(*c*) Those which supplement one of these two methods by a scheme of mutual benefit associations or insurance aided by public funds.

The English system may stand as an instance of the first class, notwithstanding the fact that the State through the county authorities contributes to the cost of the relief, and the further fact that the county and the sanitary authorities have power to provide hospitals for the treatment of infectious diseases and for certain other cases. Formally the Poor Law is charged with the duty of providing medical relief, both institutional and domiciliary, for the sick poor, and the treatment of infectious cases by sanitary authorities may properly be regarded as a preventive measure rather than a measure of relief. Broadly speaking there are three classes of cases for whom medical relief is needed: (1) Persons, mainly the aged or permanently infirm, who need medical attendance permanently, though perhaps intermittently; (2) the casual cases of accident or sudden urgent illness; and (3) the largest class, cases of ordinary illness, including childbirth, belonging to neither of the two former classes. For the first class many systems allow of a permanent list, and all allow of treatment of sudden and urgent cases without formality. The normal method for the third class is to grant medical relief like ordinary relief on the application of the patient, subject to consideration of individual circumstances. This is the method under the English Poor Law, and is the method generally adopted under all systems, except those which follow the French example.

*Medical Relief in France.*

In describing medical relief in France it is necessary to draw a distinction between the system in force in the departments generally under the law of 1893, and that in force in Paris and other large towns which have obtained exemption from the law of 1893. The law of 1893 made the grant of medical relief obligatory, and provides that "every French citizen who is sick and without resources of his own shall receive without payment medical relief at his own house, or, if home treatment cannot be advantageously given, in a hospital, and women in confinement shall be on the same footing as the sick." Thus poverty is a necessary qualification, and the cost of treatment is recoverable.

The grant of medical relief is, however, not the same for all cases—for instance, some will only be entitled to the services of a physician, while others will be entitled to both medical attendance and free supply of medicines. To the *bureau d'assistance* is assigned the duty of preparing annually a list of all persons who ought in the

event of illness to be admitted to free medical relief. This list comprises not only those who are already on the ordinary relief list but all whose earnings are so small that, in the event of their own illness or the illness of their children, free medical relief would become necessary. In the preparation of the list the authority is assisted by the medical officer of the district. The list is published, and any resident in the commune may appeal against it, and may either claim to be put on it or object to any that are on it, the list being subject to revision every three months. Inscription on the list merely establishes a prima facie claim, but the committee has a discretion as to the extent of the medical assistance which it will accord without payment. Practically, however, as far as possible the grant of relief is a matter between the patient and the medical officer, as the relief officer does not intervene except in case of hospital relief. The mayor or prefect may grant medical relief to persons not on the list in cases of sudden and urgent need.

For outdoor medical relief two main systems are in operation. The department may adopt the system of medical relief districts (*circonscriptions médicales*), for each of which a single medical officer is appointed by the prefect, or, alternatively, the council may prefer the Système Vosgien, under which a tariff of fees for various classes of medical service is fixed by the department and the private practitioners of the district are invited to give in their names as being willing to take cases at the tariff rate. In the latter case the patients have the right to call in any practitioner who has accepted the tariff rates. By far the larger number of the departments—59 out of 87 in the year 1902—have adopted the Système Vosgien, Hospital treatment is similarly organized by the departments, and every endeavour is made to limit hospital treatment as far as possible, the grant of hospital treatment being restricted by the requirement not only of a medical certificate, but of certificates countersigned by the prefects. Every person whose name is on the free list receives a book of medical attendance tickets with counterfoils and a sickness card, the former having to be produced by the patient whenever he seeks medical aid. The medical attendant retains one of the tickets for each visit, and has to produce them when he sends in his bill at the end of the year. The fact of each visit has also to be recorded on the sickness card. An examining committee (*commission de vérification*) is appointed by the prefect, consisting of four doctors and four chemists, who are selected by him from a list of eight names each prepared by the whole body of the doctors and the chemists belonging to the medical relief service of the department, and this committee is required to examine and certify the correctness of the doctors', chemists', and midwives' accounts. The committee also arranges the tariff of fees for visits, mileage, operations, medicines, etc.

The departmental system in 1905 applied to a population of over 28,500,000, and in that year 1,406,000 persons, or 4.9 of the population, were on the free medical list, and nearly half of this number, or 2.3 per cent. of the population, actually received medical attendance in the course of the year. The large majority received attendance outside a hospital, only 42,000 being admitted to hospitals. In the year 1904 there were 36,231 in-patients, costing £132,970, that is £3 13s. 5d. per head, and 551,506 home patients, costing £339,490, that is 12s. 4d. per head. In 1895 the cost per home patient was 8s. 2½d., in 1900 11s. 1d., in 1902 10s. 9½d., and in 1904 12s. 4d., the increase being largely due to the rise in expenditure on medicines, etc., and it is said that the average cost is capable of being much reduced by more careful administration. It is specially noticed that though the cost of the medical service in the departmental system has increased at a much greater rate than the population, and though some of the prefects of departments say that the system of payment per visit has led to some abuses; on the other hand, the cost of the medical service in the towns which have obtained exemption from the departmental system has increased at a far greater rate. In these towns no less than 26 per cent. of the patients received hospital treatment, while under the departmental system less than 5 per cent. get hospital treatment, and largely owing to this the cost for medical relief in the independent towns is three times the cost under the general system. It is plain that in those towns where the doctors are paid by fixed salaries the temptation is to send as many patients as possible to the hospitals, where the cost is enormously greater.

*Medical Relief in Paris.*

The departmental system was designed by the law of 1893 to be of general application, but seeing that many towns had already some system in force, exemptions have been allowed, and there are no less than 520 towns, with a population of 6,000,000, which enjoy this exemption, Paris and the Department of the Seine being the most important example. Before the Revolution, Paris had several well-endowed hospitals, and, though much of their property was confiscated by the State, the measure by which all the charitable hospitals were placed under the single control of the central poor relief authority is said to have been an immense advance, as it prevented for ever the dual system of charitable and Poor Law hospitals, which has been a source of such difficulty in London.

Paris is divided into fourteen hospital districts, each of which has one general hospital, with some special hospitals and hospices. Admission is restricted as far as possible to poor patients, and if they are not already on the free medical list, inquiry as to their circumstances or those of their relatives who are liable for their support is supposed to be made, and, if necessary, the cost of treatment is recovered at law, the charge for treatment being from 3½ fr. to 5 fr. a day. In the hospitals there are available 13,831 beds, while the hospices for the aged and infirm, the children, and the insane, provide another 14,579 beds. The average stay per inmate in the general hospitals is 24.6 days, and in the hospices 259 days.

The outdoor medical service of Paris has three departments—for home treatment, dispensary treatment, and midwifery. For home treatment each arrondissement is divided into medical relief districts, to each of which medical officers are appointed, the responsibility resting with the central authority, which is assisted by local out-relief committees which supervise the service. Home treatment is provided by a staff of 217 medical officers, who are attached to the several arrondissements. They receive a fixed salary, with an additional payment according to the number of visits they make at the people's homes, and they must reside in their own district. They are appointed by the Minister of the Interior on the results of a competitive examination, and they can only be dismissed by the same authority. Prior to 1895 each medical officer had a fixed district, but the Council of Supervision and the Municipal Council both expressed opinions strongly in favour of giving free choice of doctor to the patients and this was ultimately agreed to. The sick are thus entitled to choose the doctor they prefer from among the medical officers appointed to their district, and if they have no choice the nearest medical officer has to attend. Medicines are supplied from drug stores in each district, which draw their supplies from the central pharmacy belonging to the Administration Générale. The patient or his deputy has simply to present the medical officer's signed prescription, but a fresh prescription must be handed in for each supply. One or more dispensaries are provided in each arrondissement, which are generally installed in a hospital, though they are in no way connected with the hospital system, and to each dispensary is attached a medical officer and staff. For the first visit at a dispensary no evidence of poverty is required, but the case is inquired into immediately afterwards, and if not necessitous, no further consultation or treatment is given. Otherwise paupers may apply for treatment either at a dispensary or at the out-relief office, and they receive a book of prescription forms (*carnet d'ordonnances*) and an order on a medical officer of the district in which they are domiciled, who signs an acknowledgement of the receipt of the order. He must then visit the patient within a few hours and continue his visits as long as necessary. He must report to the out-relief committee on each case, and when he considers further visits unnecessary he must sign a statement to this effect in the prescription book.

A certain number of midwives are also attached to each district, and patients may on receiving an order from the out-relief office choose their own midwife from among those appointed to their district. There is also a system of free medical advice to mothers and those in charge of children. About a dozen institutions have been opened

where mothers may take their infants and have them examined and treated, and, if it is considered necessary by the medical officer, they may be supplied daily with sterilized milk from these institutions. By way of supplement to the free medical relief, the relief committee has the power to make allowances of from 10 to 20 francs a month to women during confinement and for a period of twelve months afterwards.

No satisfactory statistics can be given for Paris alone as to the number of patients or the cost of medical treatment, as so many of the neighbouring communes take advantage of the Paris hospitals and the child relief service, but in the year 1900 it is calculated that medical relief proper cost £732,431, which included £680,549 for the cost of hospital treatment and £51 862 for home medical relief. It is thus evident that under this system there is the greatest tendency to draft patients as far as possible into hospitals.

In a future article the systems of Poor Law medical relief in other countries will be described.

## A PRELIMINARY NOTE ON THE NUTRITIVE VALUE OF WHITE AND OF STANDARD BREAD.

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CONSIDERING the public interest excited in this matter, and the paucity of exact experimental evidence, Mr. Martin Flack and I have carried out a research on rats. We chose rats because they are carnivorous animals and like man in this respect. We obtained as many young tame rats as we could and fed them for three weeks, some on white and some on Standard bread, and for a second three weeks on white or Standard flour. Both the bread and flour were obtained in a country town, from shops that supplied most of the inhabitants. The flours used for the bread were not the same as the flours we obtained from the corn merchant. The rats were divided into two lots of 25 each, and were kept under exactly the same conditions. The total weights of each lot were almost exactly the same at the start.

The rats were given bread or flour and water and no other food. At the end of three weeks we changed from bread to flour to see if the baking had anything to do with the result we were obtaining, but found this made no difference.

The result is astonishing. From first to last the rats fed on white bread or flour have done far the worse. Ten of them have died, and five of these were eaten by the others before we could remove their bodies. In the last fortnight we have prevented any further cannibalism. Five of those fed on Standard bread or flour have died, and two have been eaten. The weather was very cold at first, and this partly explains the heavy mortality. The white lot stood the cold worse.

The tables show the great difference in the putting on of weight in 15 rats of each lot. The Standard have increased 27½ per cent., against 12 per cent. for the white in the last three weeks. At the end of the period the white 15 are nearly all losing weight. The white-fed rats are far less lively and less sleek in appearance.

It seems clear that either our Standard flours contained something essential to growth which was not in our white flours, or that the white flours contained something detrimental—for example, improvers.

We have tried another lot on white flour *plus* an amount of wheat germ about equal to that in Standard flour, and have found the results every bit as good as for Standard flour. It is highly probable that the germ, the growing part of the wheat grain, would contain amino-acid groupings essential for growth, and possibly bodies which activate the enzymes engaged in the digestion of the proteins of wheat. Treatment of the white flour may have destroyed these bodies.

Testing the pancreatic digestion of our Standard and white flours we find the Standard in every case gives us earlier the Adamkiewicz reaction for tryptophane, showing that this essential amino acid is split off earlier, and therefore is probably better absorbed in the intestine and utilized in the body.

Finally, we have tested on 15 individuals the acidity of a weighed quantity of Standard and white bread chewed in the mouth for two minutes. We have found no difference in this respect. It has been stated that the acidity of white flour is greater and leads to decay of the teeth. We cannot confirm this, at any rate, for the breads tested by us.

We are now doing controls on further groups of rats—three groups of 25 each, (1) whole meal, (2) standard, (3) white flour. The first week's weighings, just completed, show white flour markedly inferior, and whole

*Fed on White Flour.*
Weights of rats in grams.

| Number. | End of Third Week. | End of Fourth Week. | Increase. | End of Fifth Week. | Increase. | End of Sixth Week. | Increase. | Total Increase. |
|---|---|---|---|---|---|---|---|---|
| 1 | 91 | 108 | 17 | 120 | 12 | 120 | 0 | 29* |
| 2 | 86 | 92 | 6 | 98 | 6 | 93 | −5 | 7 |
| 3 | 84 | 87 | 3 | 93 | 6 | 93 | 0 | 9 |
| 4 | 81 | 82 | 1 | 88 | 6 | 90 | 2 | 9 |
| 5 | 76 | 81 | 5 | 82 | 1 | 80 | −2 | 4 |
| 6 | 75 | 80 | 5 | 82 | 2 | 80 | −2 | 4 |
| 7 | 74 | 76 | 2 | 78 | 2 | 74 | −4 | 0 |
| 8 | 58 | 65 | 7 | 73 | 8 | 64 | −7 | 8 |
| 9 | 57 | 64 | 7 | 65 | 1 | 63 | −2 | 6 |
| 10 | 57 | 63 | 6 | 62 | −1 | 63 | +1 | 6 |
| 11 | 52 | 62 | 10 | 60 | −2 | 60 | 0 | 8 |
| 12 | 50 | 54 | 4 | 60 | 6 | 59 | −1 | 9 |
| 13 | 48 | 52 | 4 | 55 | 3 | 52 | −3 | 4 |
| 14 | 46 | 50 | 4 | 52 | 2 | 50 | −2 | 4 |
| 15 | 24 | 31 | 7 | 37 | 6 | 30 | −7 | 6 |
| | 959 | | | | | | | 114 |

Percentage increase in fourth, fifth, and sixth weeks = 12.
* Probably the chief cannibal.

*Fed on Standard Flour.*
Weights of rats in grams.

| Number. | End of Third Week. | End of Fourth Week. | Increase. | End of Fifth Week. | Increase. | End of Sixth Week. | Increase. | Total Increase. |
|---|---|---|---|---|---|---|---|---|
| 1 | 96 | 105 | 9 | 119 | 14 | 127 | 8 | 31 |
| 2 | 90 | 95 | 5 | 109 | 14 | 118 | 9 | 28 |
| 3 | 87 | 89 | 2 | 108 | 19 | 113 | 5 | 26 |
| 4 | 83 | 87 | 4 | 98 | 11 | 104 | 6 | 21 |
| 5 | 80 | 86 | 6 | 93 | 7 | 93 | 0 | 13 |
| 6 | 77 | 86 | 9 | 90 | 4 | 93 | 3 | 16 |
| 7 | 76 | 84 | 8 | 88 | 4 | 92 | 4 | 16 |
| 8 | 72 | 75 | 3 | 80 | 5 | 90 | 10 | 18 |
| 9 | 57 | 68 | 11 | 76 | 8 | 82 | 6 | 25 |
| 10 | 52 | 66 | 14 | 68 | 2 | 76 | 8 | 24 |
| 11 | 52 | 57 | 5 | 62 | 5 | 68 | 6 | 16 |
| 12 | 50 | 57 | 7 | 61 | 4 | 67 | 6 | 17 |
| 13 | 49 | 54 | 5 | 57 | 3 | 65 | 8 | 16 |
| 14 | 48 | 51 | 3 | 55 | 4 | 56 | 1 | 8 |
| 15 | 45 | 51 | 6 | 47 | −4 | 48 | 1 | 3 |
| | 1,014 | | | | | | | 278 |

Percentage increase in fourth, fifth, and sixth weeks = 27½.

meal the best. The results given appear so striking that we feel justified in publishing this preliminary note.

It seems clear that children of the poor, who are largely fed on bread and margarine or bread and jam, ought to have the Standard and not the white bread tested by us. How far the results are due to treatment of our white flours by "bleaching," etc., we are not able to say, and we cannot therefore generalize that all white flours are worse than Standard.

## SEVENTIETH ANNIVERSARY OF THE PHARMACEUTICAL SOCIETY.

THE seventieth anniversary of the foundation of the Pharmaceutical Society is a matter of interest to medical practitioners, if only for the reason that much of the progress that has been made in pharmacy during the past seventy years has been due to its influence. Two generations ago the practitioner of medicine was handicapped in two ways—he could not depend absolutely upon the drugs which he prescribed or on the skill of the compounder. These two obstacles have been removed, and there has been brought into existence a large class of pharmacists, trained and educated to compound and dispense medicines, whose business it is to ensure the purity and, as far as is at present possible, the uniformity of the preparations dispensed.

At the beginning of last century the sale of drugs was subject to little or no control, and the business was carried on by a variety of traders, of whom the better class were mainly the descendants of those assistants who had been employed at the dispensaries founded by the physicians of an earlier generation as an outcome of the quarrel between themselves and the apothecaries. Included in the same class was a certain number of apothecaries who confined their attention to pharmacy rather than to medical practice. No organization existed, at that period, either for the protection of the trading interests of chemists and druggists or for the advancement of the art which they practised. An attribute which they possessed in common was objection to medical control, and this eventually constituted one of the chief bonds of union among them. One of the first attempts at organization was made in 1802, but met with little success. Eleven years later the chemists and druggists met for the purpose of considering what steps they should take to oppose a bill which had been promoted by the physicians; as an outcome of their opposition everything relating to the compounding of medicines by chemists and druggists was expunged from it. In 1841 they again had occasion to defend what they considered to be their rights, for a bill was introduced in the House of Commons which purposed to prohibit chemists and druggists from recommending anything for the cure of any disorder. A meeting was held at the Crown and Anchor Tavern, in the Strand, and so influential was the opposition made to the measure that the promoter eventually withdrew it. Some months later—on April 15th of the same year—another meeting was convened at the same place to consider the question of establishing a permanent organization. It was attended by about a hundred chemists and druggists, and the meeting unanimously resolved "for the purpose of protecting the permanent interests, and increasing the respectability, of chemists and druggists, an association be now formed under the title of the Pharmaceutical Society of Great Britain." On June 1st of the same year, another meeting was held at which William Allen, F.R.S., who carried on business as a chemist and druggist in Plough Court, was elected President. Allen was a man of considerable scientific attainments, and, what is more to the point, he was a very influential person. He was confidential adviser of Edward Duke of Kent, the father of Queen Victoria, a personal friend of Alexander I, Emperor of all the Russias, and was held in very high esteem by people who were in a position to help the newly-formed society. It was no doubt very largely due to the fact that he was president that the society made such rapid progress in the first few years of its existence. Before the society had been established two years it obtained a royal charter; this had a very important effect on the status of the society, for, by virtue of that charter, it possessed the power of regulating the education and admission of members, and thus providing the public with qualified practitioners in pharmacy, at the same time establishing an ostensible distinction between the members of the society and unqualified persons. In September, 1841, the number of members and associates was 450 and when the first annual meeting was held in May, 1842, the number had grown to 1,958.

It is set forth in the Charter of Incorporation that the society was founded for the purpose "of advancing chemistry and pharmacy and promoting a uniform system of education of those who should practise the same, and also for the protection of those who carry on the business of chemists and druggists." Before attempting to pursue the first object it was necessary to furnish the means of accomplishing the second, and accordingly the School of Pharmacy was established early in 1842. Men of standing in the world of science were appointed lecturers, and the nucleus of the present system of education and examination was formed. Three years later a chemical laboratory was equipped, this being the first of the kind in our own country, and the equal of any which then existed in Germany or France. A library was also founded which has now grown to about 15,000 volumes, relating to pharmacy, chemistry, botany and allied subjects, and a museum was established, which has been gradually added to until it has become of great usefulness to students. By thus providing means for educating those engaged in the practice of pharmacy, the society laid the foundation on which have been built many of the most important advances in the pharmaceutical art that have been made since its practice was placed on a regular basis. The exchange of ideas was encouraged by periodical meetings of the members at which papers dealing with the preparation of drugs and their analysis and like subjects were, and still are, discussed, and an official journal was established in 1841, by Jacob Bell, for the purpose of recording the society's transactions and facilitating the interchange of views of a nature likely to promote the advancement of chemistry and pharmacy.

The third object of the society, as set forth in the charter—namely, the protection of those who carry on the business of chemists and druggists, was more difficult of achievement; unlike the other objects, its accomplishment did not depend solely upon the efforts of the members of the Society, but upon the legislature. At the time of the foundation there was nothing to prevent any person from selling poisons, from using the title of pharmaceutical chemist, or from dispensing medicines, and the earliest efforts of the society, after arrangements had been made for educational purposes, were directed to obtaining powers from Parliament to remedy this irregular state of affairs. It was not, however, until 1852 that the first Pharmacy Act was passed, and this merely afforded protection, in the matter of titles, to those who had passed the Pharmaceutical Society's examinations. In the previous year, owing to the large number of deaths occurring annually from poisoning, of which more than one-third were due to arsenic, it had been enacted that this poison should not be sold by retail unless specified precautions were observed by the seller. The bill, as introduced in the House of Commons, at the instigation of the Provincial Medical and Surgical Association, the forerunner of the British Medical Association, with the concurrence of the Pharmaceutical Society, proposed to restrict the sale of arsenic to chemists and druggists and medical men, but this provision was deleted because the term chemist and druggist was not defined by law. Similarly when the bill, which in its amended form became the Pharmacy Act of 1852, was introduced, it embodied the principle of restricting the practice of pharmacy to pharmaceutical chemists, but, like all subsequent attempts to restrict the practice, it was not wholly successful.

Sixteen years later, after many abortive efforts, the society was at last successful in obtaining from Parliament an endorsement of the principle that the best method of protecting the public from the danger due to the indiscriminate sale of poison was by educating the vendors. Thus the Pharmacy Act of 1868 prohibited the sale by retail of scheduled poisons except by registered persons, and it also protected the title of "chemist and druggist." Since that time the weaknesses of that Act has been demonstrated, and contrary to the intentions of the promoters, the practice of pharmacy has been largely

exploited by unqualified companies. The society has been powerless to prevent this, although it is now able to regulate the sale of poisons by these companies by virtue of the Poisons and Pharmacy Act, 1908. The meagre protection afforded by these enactments was grudgingly allowed, and the main object in allowing them at all was to protect the public. Just as the Arsenic Act was the outcome of a high rate of mortality due to poisons, so the Pharmacy Act of 1868 was a tardy measure designed to prevent the recurrence of accidents similar to one which had occurred at Bradford some nine or ten years earlier. A lozenge manufacturer of that town was supplied with arsenic instead of sulphate of lime by a druggist's assistant, and, as a result of this mistake, 20 people died and 200 became more or less seriously ill.

The work of the society in connexion with the preparation of the various editions of the *British Pharmacopoeia* was begun early in its history, and is familiar to medical men. In conducting the qualified examinations and administering the penal clauses of the Pharmacy Acts the council of the society performs an important duty, and some idea of the work entailed in the latter connexion can be obtained from the fact that last year nearly 2,000 cases of alleged infringement were investigated, and proceedings instituted in nearly 300 cases.

A further object of the society, as indicated in its Charter of Incorporation, is "to provide a fund for the relief of the distressed members and associates of the society and of their widows and orphans." In 1868 the council obtained the power to grant aid not only to members, but to all persons who had been registered whether connected with the society or not. Last year relief was granted to the extent of £2,592; the income from subscriptions was over £1,500, and the balance sheet showed that the fund had assets amounting to over £40,000. The philanthropic side of the society's work is worthy of all praise. Fortunately it is not with societies as with men. After seventy years of vigorous usefulness an ordinary man has reached the season of the sere and yellow leaf. Societies, however, are recruited from generation to generation, and the better the society the more likely it is to attract the more vigorous and capable of each succeeding age. And so the seventieth birthday of the Pharmaceutical Society finds it holding a stronger position than ever, and better equipped than in any period of its existence to be the handmaid of the healing art.

## REGULATIONS AS TO TUBERCULOSIS IN HOSPITALS AND DISPENSARIES.

THE new Order of the Local Government Board imposing upon the medical officers of hospitals the duty of notifying cases of pulmonary tuberculosis which they may be attending at the hospital came into force on May 1st.

The Order applies to in-patients or out-patients at "any hospital, dispensary, or similar institution for the treatment of the sick which is partially or wholly supported otherwise than by the contributions of the persons treated thereat, or of their relatives or guardians, and otherwise than from rates and taxes." The notification must be sent within forty-eight hours after the first recognition of the disease to the medical officer of health for the area in which the hospital is situated, and that officer, if the patient does not reside within his area, is required at once to transmit the notification to the medical officer of health for the area in which the patient resides, at the same time informing the medical officer of the hospital that he has done so. If the public health service is unable to trace the residence, information to this effect is to be given to the medical officer of the hospital, and it therefore becomes very necessary for hospital officials to ascertain as accurately as possible the full address of a patient notified. The remuneration of medical officers of hospitals is fixed at the rate of 1s. for each notification, the fee payable to the medical officer of a public body or institution for a notification under the Infectious Disease (Notification) Act, 1889. The local authorities are instructed to make the necessary arrangements for the transmission to the medical officers of hospitals at the end of every quarter, or at such other times as may be convenient, of the remuneration payable to them in pursuance of these regulations, a provision which might with advantage be made a part of the general administration of the Notification Act.

It is provided under the Order that:

> Nothing in these regulations shall have effect so as to apply, or so as to authorize or require, a medical officer of health or a council, or any other person or authority, directly or indirectly, to put in force with respect to any patient in relation to whom a notification in pursuance of these regulations has been transmitted to a medical officer of health, any enactment which renders the patient, or a person in charge of the patient, or any other person, liable to a penalty, or subjects the patient to any restriction, prohibition, or disability affecting himself, or his employment, occupation, or means of livelihood on the ground of his suffering from pulmonary tuberculosis.

The circular, which accompanies the Order, expresses the expectation that medical officers of health, and those acting under their direction, will respect strictly the privacy of the information received by them, so that it may not be used to the detriment of any notified patient.

The Order confers certain special powers upon local authorities for the prevention of the spread of infection in cases of pulmonary tuberculosis. They are empowered to take the necessary measures to secure the disinfection of infected premises and of infected articles, and to secure the destruction of infectious discharges. They are also empowered to supply all such reasonable assistance as will tend to diminish the risk of infection arising from the conditions affecting the use or occupation by the patient of a room as a sleeping apartment, and to supply for the use of the patient any appliance, utensils, or article (such, for instance, as sputum boxes or bottles, paper handkerchiefs, and disinfectants) which may be of assistance in preventing the spread of infection. It is pointed out that an important object of notification is to afford the local authority an opportunity of investigating the conditions under which the patient has been living, and of ascertaining whether there are any other members of the household who should be encouraged to obtain medical advice. When investigating the conditions of living, special attention should be paid to the abatement of overcrowding, the provision of ample through ventilation, the removal of conditions causing dampness of the dwelling, the avoidance of dust, and to any other conditions tending to injure the health of the occupants of the dwelling.

Councils are already empowered to provide hospitals for the treatment of pulmonary tuberculosis, and the Board holds that this power extends to the provision of dispensaries or hospitals for the treatment of out-patients. It will be for each council to consider whether its district has sufficient hospital provision for cases of tuberculosis. It is pointed out that many councils have provided hospitals for acute infectious diseases, and it has sometimes been found that these buildings, or some part of them, may (subject to proper safeguards) be economically used as sanatoriums for patients suffering from tuberculosis where they are not required for the purposes for which they were provided.

The Order will allow of the provision of appliances or apparatus such as temporary shelters, with the necessary furniture and utensils for the use of the patient; and by these means patients may sometimes be treated at their homes under suitable sanitary conditions, or continue treatment at home after a short stay in a sanatorium.

The Order is in some sense an extension of the regulations of 1908, which provided for the notification of pulmonary tuberculosis occurring among the inmates of Poor Law institutions or persons under the care of district medical officers; and it will be noted that Mr. Burns, in his speech during the Poor Law debate last week, a report of which is published elsewhere, stated that he had been encouraged to issue this new Order by the beneficial results which have followed that of 1908.

In the concluding paragraphs of the circular accompanying the new Order the Board points out that the movement which is carried a stage further by the present regulations depends for its success upon the active co-operation of medical practitioners and of councils and their officers. Recognizing that medical practitioners have already done much disinterested work in the cause of public health, the Board expresses confidence that they will render every assistance in the carrying out of this Order.

## ELECTION OF DIRECT REPRESENTATIVE.

*To the Editor of the "British Medical Journal."*

DEAR SIR,

Will you allow us in the columns of the JOURNAL to make an earnest appeal to all those who desire to support the candidature of Dr. J. A. Macdonald for the vacancy on the General Medical Council to fill up and return their voting papers immediately they receive them. The number of practitioners who vote at these elections is notoriously small—a fact which is partly due, no doubt, to the strenuous character of our occupation. A duty of this sort once postponed is always in danger of being altogether overlooked. We think it would be of interest to many of your readers if you would print the following list of members of the profession who have joined the Committee in support of Dr. Macdonald's election.

We are, dear Sir,

Yours faithfully,

THE HONORARY SECRETARIES OF
DR. MACDONALD'S COMMITTEE.

May 3rd.

P.S.—Dr. Macdonald's supporters will be glad to hear that we have his assurance that, if elected, his duties at the General Medical Council will not necessitate giving up any of his present work for the British Medical Association, which he intends in every way to continue.

Anderson, J. Ford, M.D. and C.M.Aberd., L.R.C.S.Edin., London, N.W.
Armour, Donald J., F.R.C.S.Eng., M.R.C.P.Lond., London.
Ballance, Hamilton Ashley, M.D., M.S.Lond., F.R.C.S.Eng., Norwich.
Barendt, Frank Hugh, M.D.Lond., L.R.C.P.Lond, F.R.C.S. Eng., Liverpool.
Barnes, Edgar George, M.D.Lond., M.R.C.S., Eye, Suffolk.
Bassett, Frank Pickering, L.R.C.P.E., L.R.C.S.E., L.F.P.S.G., St. Helens.
Bateman, Alfred George, M.B., M.S.Aberd., London.
Baxter, Stephen Edward, M.R.C.S., L.R.C.P.Lond., Wellingborough.
Beckett-Overy, Harry, M.D., Ch.B.Edin., F.R.C.S.Eng., London.
Bentham, Robert, Inspector-General, R.N. (ret)., London.
Beverley, Michael, M.D.Edin., M.R.C.S.Eng., Norwich.
Blagden, John James, M.R.C.S., L.R.C.P.Lond., Chester.
Blomfield, James E., M.D., B.Ch., L.R.C.P.Lond., M.R.C.S. Eng., Sevenoaks, Kent.
Boyd, Campbell, L.R.C.P.I., L.R.C.S.I., London.
Browne, William Richard, Surgeon-General I.M.S., C.I.E. London.
Brydon, John, F.R.C.S., L.R.C.P.Edin., L.F.P.S., Stockton-on-Tees.
Bulger, Michael J., M.D.Dub., B.Ch., B.A.O., London
Bushby, Thomas, M.B., C.M., M.R.C.P Edin., Liverpool.
Butlin, Henry T., D.C.L.Durh., LL.D.Birm., Pres.R.C.S.Eng., London.
Capes, Robert, M.R.C.S., L.R.C.P.Lond., London.
Carline, William Arthur, M.D.Aberd., M.S., M.R.C.S., Lincoln.
Claridge, George Percival Charles, M.B., B.S.Lond., Norwich.
Clark, Andrew, K.H.S., F.R.C.S.Eng., Uxbridge.
Cole, T. E. C., M.D., B.Ch., M.R.C.P., M.R.C.S.Lond., Leamington.
Coombe, Russell, F.R.C.S.Eng., Exeter.
Cooper, H. G., M.B., B.C.Camb., M.R.C.S., L.R.C.P.Lond., Altrincham.
Coulter, Robert James, M.B., B.Ch., B.A.O., F.R.C.S.I, Newport, Mon.
Crampton, Thomas Hobbs, L.R.C.P.I., L.R.C.S.I., London.
Crosse, Reginald Edward, M.R.C.S., L.R.C.P.Lond., London.
Cuffe, Sir Charles, Surgeon-General, K.C.B., A.M.S. (ret.), London.
Curme, Decimus, M.R.C.S. and L.S.A Eng., Blandford.
Davies, John Edward Henry, M.R.C.S., L.R.C.P.Lond., L.S.A., Wrexham.
Davy, Henry, D.Sc.Shef., M.D., F.R.C.P.Lond., Exeter.
Dick, John Staveley, M.B., B.Ch., B.A.O.R.U.I., Manchester.
Dixon, Walter Ernest, M.D.Camb., M.R.C.S., L.R.C.P.Lond., D.P.H.Camb., F.R.S., Cambridge.
Dodd, Percy Vernon, M.D., M.R.C.S., L.R.C.P.Lond., Folkestone.
Domville, Edward James, M.R.C.S., L.R.C.P., Exeter.
Douglas, W., M.D.R.U.I., M.R.C.S.Eng., Goudhurst, Kent.
Drage, Lovell, M.D.Oxon., M.R.C.S., Hatfield, Hertfordshire.
Draper, J. W., L.R.C.P. and S.Lond., M.R.C.S.Eng., Huddersfield.
Eddison, John Edwin, M.D.Edin., M.R.C.S., Leeds.
Esler, Robert, M.D., M.Ch.R.U.I., London.
Evans, E. D., L.R.C.P.Edin., M.R.C.S.Eng., Wrexham.
Ewart, David, M.D., Ch.B., F.R.C.S.Edin., Chichester.
Ewart, John Henry, L.R.C.P.Lond., M.R.C.S.Eng., Eastbourne.
Felce, Stamford, M.R.C.S., L.R.C.P.Edin., Newbury.
Ferguson, J. M., L.R.C.P. and S.Edin., D.P.H.Durh., Burnley.
Ferris, John Spencer, M.B.Lond., M.R.C.S., L.R.C.P.Lond., Uxbridge.
Flemming, Charles E. S., M.R.C.S., L.R.C.P.Lond., Bradford-on-Avon.
Forbes, Alexander, M.B., C.M.Aberd., Sheffield.
Forsdike, Herbert Sidney, M.B.Lond., M.R.C.S., L.R.C.P. Lond., Chatham.
Fothergill, Ernest Rowland M.B., B.S.Durh., Brighton.
Fowler, Oliver Humphrey, M.R.C.S., Cirencester.
Finlay, Douglas Edward, M.B., B.S.Lond., M.R.C.S., L.R.C.P.Lond., Gloucester.
Fraser, Alexander, M.D., C.M.Aberd., Manchester.
Fuller, J. R., M.D., B.S.Durh., M.R.C.S., L.R.C.P.Lond., London.
Fulton, A., M.B., B.Ch., B.A.O. R.U.I., Nottingham.
Gardner, Thomas Frederick, M.D.Durh., M.R.C.S.Eng., M.R.C.P.Lond., Bournemouth.
Garner, John Edward, M.D., C.M.Aberd., Preston.
Garstang, Thomas Walter Harropp, M.R.C.S., L.S.A., D.P.H., Altrincham.
Giles, P. Broome, F.R.C.S., L.R.C.P.Edin., M.R.C.S.Eng., Bletchley, Bucks.
Given, John Cecil, M., M.D.Lond., M.R.C.P.Lond., L.S.A., Liverpool.
Glendinning, J., M.D.Glasg., L.R.C.S.Edin., Abergavenny.
Goodall, Edward Wilberforce, M.D., B.S.Lond., London.
Gordon, Robert, M.D., C.M.Edin., Sheffield.
Gosse, William, M.D.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Sittingbourne.
Goudie, Henry, M.B., C.M.Edin., South Shields.
Greany, J. P., Surgeon-General, M.D., M.Ch.R.U.I., London.
Greenlees, Thos. Duncan, M.D., C.M Edin., F.R.S.E., London.
Greenwood, Edward Climson, M.R.C.S., L.R.C.P., London.
Greer, William Jones, F.R.C.S.I., Newport, Mon.
Grierson, Arthur George, M.B., C.M.Edin., Grimsby.
Grossmann, Karl August, M.D.Freiburg, F.R.C.S.Edin., Liverpool.
Hamilton, Samuel, M.D., B.Ch., B.A.O. R.U.I., L.M., Newport, Mon.
Harrington, S. H. Nazeby, L.R.C.P.I., M.R.C.S.Eng., Birkenhead.
Harris, Robert, M.B., M.R.C.S., L.R.C.P., Southport.
Henderson, Thomson, M.D., Ch.B.Edin., Nottingham.
Hilliard, Harvey, M.R.C.S., L.R.C.P.Lond., London.
Hinds, Frank, M.D., B.S.Lond., M.R.C.S.Eng., Worthing.
Hodgson, John Frederick, M.D.Vict., Ch.B., D.P.H., Halifax.
Hopkinson, Albert, M.B., B.C.Camb., Manchester.
Horsley, Sir Victor Alexander Haden, M.B., B.S.Lond., F.R.C.S., F.R.S., London.
Howell, Robert Edward, M.B., C.M.Edin., L.R.C.P.Lond., M.R.C.S.Eng., Middlesbrough.
Hoyle, George, M.D., C.M.Edin., Elland.
Hughes, John Brierley, M.B., B.C., M.R.C.S., L.R.C.P.Lond., Macclesfield.
Jalland, William Hamerton, F.R.C.S.Eng., York.
Jones, Herbert, L.S.A.Lond., D.P.H.Camb., Hereford.
Jones, H. Macnaughton, M.D. R.U.I., F.R.C.S.I., F.R.C.S. Edin., London.
Jones, Robert, M.D., B.S., F.R.C.P.Lond., F.R.C.S.Eng., L.S.A., Woodford Bridge.
Joubert de la Ferté, Charles Henry, Col. I.M.S.ret., M.D.Lond., F.R.C.S.Eng., Weybridge.
Ker, Hugh, F.R.C.S., L.R.C.P.Edin., London.
Kinsey, Robert H., M.R.C.S.Eng., L.S.A., J.P., Bedford.
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Larkin, Frederic Charles, F.R.C.S.Eng., Liverpool.
Lawrence, A. G., M.D.St. And., M.R.C.S.Eng., Chepstow.
Lewis, C. E. M., M.D., M.R.C.S., L.R.C.P.Lond., Bickley Kent.
Lucas, Albert, F.R.C.S.Eng., Birmingham.
Lynch, Jordan Roche, M.R.C.S.Eng., L.R.C.P.Lond., London.
Lyster, Robert Arthur, M.D., B.Ch.Birm., D.P.H., Winchester.
Macdonald, John, M.B., C.M.Edin., South Shields.
Macfie, Charles, M.D., L.R.C.S.Edin., Bolton.
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Williams, David James, F.R.C.S.Eng., Llanelly.
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Worswick, Frederic Henry, M.D.Brux., L.R.C.P., L.R.C.S. Edin., Manchester.

## LITERARY NOTES.

In the *Classical Review* for March, Sir Clifford Allbutt reviews an important essay by Professor Johannes Ilberg on the gynaecological work of Soranus of Ephesus. Soranus received his medical training in the famous school of Alexandria, and his work was regarded as of the greatest authority in antiquity. But little of it has survived, and it is only by piecing together fragments scattered through later writers that a partial reconstruction has been possible. After wanderings recalling those of Isis seeking for the torn limbs of Osiris, enough of the remains of the old writer has been found to enable us to form some judgement as to the value of his work. We cannot follow Sir Clifford Allbutt in his learned account of the search through mediaeval manuscripts for the *disjecta membra* of Soranus; we can only give a rapid survey of what has been accomplished. In the Bibliothèque Nationale, Sir Clifford Allbutt tells us, there is a manuscript of the fifteenth century (*Parisinus graecus* 2153) described as a kind of handbook on Articella, the middle part of which is a document of sixty-seven leaves. This is a gynaecological compilation without author's name; on it, however, is written in a rough hand Σωρανός ἐστιν. The first critical edition of the *Parisinus* by Dietz was published in 1838 after that scholar's death, without the advantage of his own supervision. It was put forth as being the whole of Soranus's treatise on diseases of women, but less than half of it was the work of that author. The next important step in the reconstruction of Soranus was, says Sir Clifford Allbutt, taken by Valentine Rose. There was a Latin book well known to obstetricians of the fifteenth and sixteenth centuries as the *Gynaecia Moschionis*. Rose proved the "Moschion" to be Muscio, and the pedigree of the book extends no further back than the fifteenth century. Ilberg says there is no evidence of the original date of the Parisinus compilation; it may have been written in the decadence of the seventh or in the awakening of the ninth century. "Muscio" had before him two works of Soranus, a short catechetical, and a fuller treatise. These, with the sixteenth book of Ætius, he undertook to blend into a new work. Of the links which bound Soranus to the earlier Alexandria, one of the chief was the work of Demetrius of Apamea, a disciple of Herophilus, who flourished about 250 B.C. Soranus cites the teaching of Herophilus, especially as to causes, with admiration. He belonged to the school of the later Methodists, for whom anatomy was nothing and physiology only a matter of molecules and pores, pathology consisting in a theoretical constriction or relaxation of the tissues affected. They concentrated their attention on clinical observation, and in this Soranus excelled. In the words of Sir Clifford Allbutt, "he stands on the heights of ancient medicine, both in learning and practice, and in loyal regard to tradition. His disciples were taught not only *claudere librum ut cogitent*, but also and more *claudere librum ut videant et curent*." In a word, they were taught to look at the phenomena of disease with their own eyes, and to act in accordance with what they saw.

Some curious details concerning the origin of an old-world charm for the healing of sprains are to be found in the April number of the *Old-Lore Miscellany of Orkney, Shetland, Caithness, and Sutherland*, Part II, vol. iv. This charm, which can be traced back to the tenth century and seems to be founded upon a legend which at that period was current in Thuringia, has been in use in Scotland, Germany, and Scandinavia for nearly a thousand years, and, but for the name of Wodan being replaced by that of Christ, remains to-day practically unchanged since the far-off times when Balder and Wodan rode together in a German forest, and the former's foal having wrenched its foot was healed by a spell chanted over it by the latter, the greatest magician in Valhalla. In the course of time the repetition of the words which had cured Balder's horse, and which at first were considered applicable only for the cure of lamed horses, came to be looked upon as equally efficacious for human beings. In Scotland at least, as late as the middle of last century sprains were still treated not by the doctor, but by "an individual practised in casting the wresting thread." This is a thread spun from black wool, on which are cast nine knots, and tied round a sprained leg or arm. During the time the operator is putting the thread round the affected limb he says, but in such a tone of voice as not to be heard by the bystanders, nor even by the persons operated upon:

The Lord rade,
And the foal slade;
He lighted,
And he righted.
Set joint to joint,
Bone to bone,
And sinew to sinew,
Heal in the Holy Ghost's name.

"Those who cannot believe in the faithful preservation of what is entrusted to popular memory," says the author of *Chambers's Fireside Stories*, from whom this account is taken, "have here an example extending from the tenth century to the nineteenth over Germany, Scotland, and Scandinavia. It is certain that the same or similar words have been superstitiously repeated countless times in all the countries of Teutonic tongue." The history of this ancient superstition is not the only item of interest in the present number of the *Old-Lore Miscellany*, which, as usual, contains a store of valuable historical and antiquarian information. An additional interest is given to it by the fact that it includes amongst its other articles a most interesting obituary notice of the late Mr. Marcus Gunn.

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## VARIATION AND MUTATION OF BACTERIA.

IN a paper on the viability and possible variation of the *Bacillus typhosus*, which appeared in the March number of the *Journal of the Royal Army Medical Corps*, Major Horrocks arrives at conclusions which, if confirmed, seriously challenge the view commonly entertained that the *B. typhosus* is a specific organism and undermine its claims to be regarded as the sole etiological factor of typhoid fever.

Before proceeding to examine the facts which have led Major Horrocks to the conclusions put forward in his paper we will briefly summarize what is known regarding mutation and variation in bacteria.

In the early days of bacteriology a certain number of investigators, including Pasteur, believed in the fixity of bacterial characters, while others maintained that many apparently different forms represented merely different phases under which one and the same organism presented itself.

It might be anticipated that variations and mutations would be comparatively readily observed in bacteria for two reasons: first, the generation time being of the order of half an hour only, very large numbers of generations can be readily observed; and, secondly, being unicellular organisms, change of environment can operate directly upon the germ plasm. The fact that bacteria retain their principal characteristics with great tenacity shows, however, that they possess considerable *vis inertiae*, and the fact that when spontaneous variations do occur the offspring rarely breed true, but a goodly proportion revert to the original mean, indicates a high degree of racial stability.

Notwithstanding the operation of this general tendency towards stability of the species, variations in virulence for animals, in pigment-forming power, in capacity to produce certain fermentations, and in other characters, are sufficiently common to have been frequently observed. Moreover, a few cases of definite mutation, when by a sudden leap a strain of organism has attained or lost a definite characteristic, its offspring continuing to possess the same quality or falling short with regard to it, have been recorded by Massini, Reiner Müller, and Penfold.

In recent years research upon the variability of micro-organisms has proceeded along three lines. In the first an organism, identified by many tests, has had one property modified at a time by artificial selection, and has been afterwards recognized by the remaining properties. The conditions enabling the investigator to select the new strain being known, it has been possible to repeat the experiment with similar results.

This has been the case, for example, with *B. typhosus* in respect of the fermentation of certain sugars. Twort succeeded after two years in training one particular strain of *B. typhosus* to ferment lactose. This observation has been confirmed by Penfold, who has, however, been quite unsuccessful in his attempts to induce the same variation in fifteen other strains. Further, it has been shown by Twort and Penfold that growing *B. typhosus* on a medium containing dulcite, the hexatomic alcohol corresponding to galactose, which the usual variety of bacillus can only utilize to an insignificant extent, gives rise to a pure strain capable of fermenting dulcite. This new strain retains qualitatively all the other properties of *B. typhosus* unchanged.

The second line of research has had for its object the study of what may be called secondary variations. It occasionally happens that a new character arises, not singly but concomitantly, with some other. An organism may, for example, acquire the power to ferment a new sugar, but in so doing lose the power to ferment one which it formerly attacked; or, as Penfold has shown, gas-producing organisms such as *B. coli*, *B. paratyphosus*, etc., may, whilst becoming accustomed to grow in the presence of monochloracetic acid, lose their power to form gas from glucose and other sugars whilst retaining the capacity to ferment the corresponding alcohols. Similar selective processes no doubt occur in Nature.

Up to this stage we may feel fairly sure of our ground, for the new organisms are easily recognized by numerous unaltered characters; and the conclusion that the change is really due to variation can be controlled by starting the culture from a single bacillus by the ingenious method of Burri.

A third series of observations has been concerned with the simultaneous transmutation of a number of the characteristics of an organism amounting often to all of those which differentiate it from related species. Major Horrocks's observations fall into this third category. Needless to say, experiments of this kind necessitate the greatest care in their interpretation. The ground is sown with pitfalls, of which, however, the author shows himself cognizant. Nevertheless, Major Horrocks is apparently forced to the conclusion that three strains of *B. typhosus* have by subjection to different environmental conditions—for details of which the paper must be consulted—become so modified as to assume the characteristics of *B. alcaligenes*, which has in turn been further modified so as to assume the characters, first, of *B. coli*, and ultimately those of a Gram-positive coccus. Further, he is of opinion that an organism presenting peculiarities intermediate between *B. coli* and *B. typhosus* obtained from the urine of a typhoid convalescent had arisen from *B. typhosus* by variation.

The difficulty in these experiments is that all the differentiating characters have been removed at once, so that no definite one is left by which to connect the old and new strains. It is purely a question of historic accuracy.

Major Horrocks's experiments may be divided into two classes—those carried out in the test tube and in the animal body respectively. In his recorded test-tube experiments he obtained by different methods removal of all fermenting properties of *B. typhosus* on five occasions, and their partial removal on one. In the first group of these experiments *B. coli* and *B. typhosus* were grown symbiotically. From these symbiotic cultures of *B. typhosus* and *B. coli* Major Horrocks obtained *B. alcaligenes* on one occasion. On a second occasion an organism was recovered from a similar symbiotic culture which at first fermented mannite but not glucose, but on sub-culture showed all the characters of *B. typhosus*.

This may quite well be accounted for by temporary impairment of the growing power of the organism.

Twenty-three experiments were made to discover the effect of a mixture of urine and water on *B. typhosus*, and in four of them *B. alcaligenes* emerged. Since in these experiments we are dealing with sterile mixtures, and no other organism than *B. typhosus* was added, the conditions were more completely under control. Of the four successes, three consisted in the conversion of the same strain of *B. typhosus*, Strain R—a strain which we must assume to be above suspicion.

This is not the first time we have heard of the conversion of *B. typhosus* into *B. alcaligenes*. It has been alleged that this bacillus may arise in old cultures of *B. typhosus*, but this was explained on the ground that the culture really contained both organisms.

To sum up, Major Horrocks believes that in these experiments organisms of the *B. alcaligenes* type were derived from two different strains of *B. typhosus*, three times from one strain and once from another. It seems difficult to believe that both cultures employed by Major Horrocks contained *B. alcaligenes* as an unrecognized admixture, and we think, therefore, a good case for further research on this particular question has been made out.

The account of the author's experiments on animals in which the artificially produced *B. alcaligenes* is alleged to have become coliform in character, each time, however, of a different type, makes most unconvincing reading. It is a not uncommon experience of bacteriologists to put one organism into the peritoneum and get another out. The unexpected organism is usually looked upon as an invader from the intestine, and Major Horrocks, although fully aware of this source of fallacy, seems to dismiss it too lightly. Major Horrocks is more impressed than we are inclined to be with the results he obtained in a particular series of experiments in which on the eighteenth passage of the *B. alcaligenes*, which he regards as having originated from *B. typhosus*, he recovered from the peritoneal cavity an organism of the *coli* type. This coliform organism was again subcultured into the peritoneal cavity (the nineteenth passage) and *B. alcaligenes* recovered. He concludes from these experiments that the original *B. alcaligenes* had undergone mutation to a coliform organism, and that it subsequently reverted. Two other possibilities must, however, be considered here: first, the coliform culture obtained from the eighteenth peritoneal subculture may have contained some of the *B. alcaligenes*, which might be expected to be more resistant to the natural defences of the animal after the previous eighteen passages, and consequently to have outgrown the coliform organisms in the nineteenth peritoneal subculture. If the nineteenth peritoneal subculture had been derived from a single bacillus or after two or three platings, this objection would not be valid, but Major Horrocks gives no evidence here of such precautions. In the second place, the *B. alcaligenes* of the nineteenth subculture may have been an invader from the gut. Both these possibilities must be definitely excluded before we are prepared to accept the conclusion of Major Horrocks.

These criticisms apply equally strongly to Major Horrocks's conclusion that a Gram-negative motile bacillus became under the same circumstances transmuted into a Gram-positive coccus.

## THE STUDY OF INFLAMMATION.

No branch of microscopical pathology has been more thoroughly studied than that which deals with the whole process of inflammation; yet new questions and new views as to the significance of this or that one of the many minute phenomena seen in it are constantly arising and give occasion for unending discussion. Professor Schridde of Freiburg has recently published an essay,[1] in which he discusses the share taken by the various forms of leucocytes in the processes of inflammation, and comes to conclusions that cannot be regarded as entirely orthodox. The polymorphonuclear leucocytes, he holds, remain within the blood vessels under physiological conditions; they are very commonly found in the tissues, but only under pathological circumstances, when they are drawn out of the vessels by the positive chemiotaxis of some bacterial toxin in the tissues on the one hand, and on the other driven out by the intravascular blood pressure so long as it remains higher than the pressure of the tissue juices around the vessel. A combination of these two influences is necessary before any emigration of these leucocytes can take place. He sees no reason for believing, with Cohnheim, Klemensiewics, and others, that the emigration and the exudation of fluid are secondary to some change in the vascular endothelium. This change in the vessel wall comes later on in the process, and results from the hyperaemia and the action of the bacterial toxins that are causing the inflammation. Dealing next with the eosinophile leucocytes, Professor Schridde notes that aggregations of these are often met with in the tissues in certain disorders. Such eosinophile cells are always derived from the blood vessels, he argues, devoting some trouble to disproving the suggestion that they are autochthonous, and represent a "local eosinophilia." Eosinophile cells are rarely seen in acute inflammations, but are often met with when the process has become subacute or chronic. Practically no share is taken in inflammation by the few basophile leucocytes of the blood, by myelocytes and myeloblasts, or by the red corpuscles.

The status of the lymphocytes in the body is quite different from that of the polymorphonuclear and eosinophile leucocytes. As has been stated already, Professor Schridde believes that the polymorphonuclear cells are not found in the tissues normally. But in the normal Fallopian tube at any rate, though apparently not in the other organs of the body, lymphocytes do emigrate from the capillaries and pass for a time into the surrounding tissues; Professor Schridde has searched in vain to find lymphocytes emigrating from the lymphatic vessels. Plasma cells he regards as pathological developments from lymphocytes, both having identical granulations; and he is a strenuous opponent of the view that small-celled infiltration can arise autochthonously, as has been stated by Ribbert and others. The occasional development of typical lymphatic nodules at the sites of chronic small-celled infiltrations has been observed; Professor Schridde believes that such nodules are produced from the endothelial cells of their lymphatics, not from their lymphocytes. He attributes an important function to the circumvascular connective-tissue corpuscles in inflammation—namely, that they are the chief site for the collection and accumulation of the bacterial

[1] *Studien und Fragen zur Entzündungslehre.* Von Dr. Herm. Schridde. Jena: H. Fischer. 1910. (Roy. 8vo, pp. 50. M. 1.40.)

toxins that cause it. In fact, these toxin-loaded cells may keep a chronic inflammatory process going long after the bacteria that first set it on foot have disappeared. The passage of an acute into a chronic bacterial inflammation he explains as the result of a change in the nature of the bacterial toxins: at first they are positively chemiotactic to the polymorphonuclear leucocytes, later on to the lymphocytes. Here again Professor Schridde finds himself at variance with the common view, which may be given in Lubarsch's words as follows: "An inflammation may become chronic if, during its acute stage, the tissues become altered in such a way as to react pathologically to the normal processes of metabolism."

## MUSSELS AND COCKLES IN RELATION TO DISEASE.

THE researches of epidemiologists have disclosed in recent years a close relationship between the consumption of shellfish and certain diseases, notably typhoid fever. The evidence which has been brought forward in support of the contention that this relation does exist is necessarily of a circumstantial character, but it is none the less convincing. The question was discussed in an exhaustive manner in a report by Dr. H. Timbrell Bulstrode to the Local Government Board published in 1896, and since that date attention has frequently been drawn to it in the reports of the medical inspectors of the Board and by medical officers of health. An outbreak of typhoid fever which occurred in 1902 among the guests at two mayoral banquets held on the same day in Winchester and Southampton was the cause of renewed interest being taken in the subject. Oysters derived from the same source were served at both banquets, and approximately all those guests who partook of them were attacked with typhoid fever or were indisposed in one way or another, over 100 persons being involved in the outbreak. Dr. Bulstrode's report in 1896 was concerned exclusively with oysters and their storage, and he showed that at certain places the pollution to which these molluscs were exposed was gross, obvious, and indisputable. He has latterly continued his observations in the same direction with regard to other shellfish, more especially mussels and cockles, and has embodied his findings in a further report to the Board.[1] The facts disclosed in this document, though not so startling as those recorded in the earlier report, are sufficiently disquieting to warrant the hope that adequate measures will be taken, legislative or otherwise, to improve the existing unsatisfactory conditions.

The fact that mussels and cockles are found very largely at or near the mouths of estuaries increases their liability to become polluted from many sources both near and distant. In view of the magnitude of an undertaking which would include an inquiry into distant sources, Dr. Bulstrode confined his investigations to what he termed proximate sources of pollution, that is to say, the presence of sewers in the vicinity of the shellfish beds.

Apart from the labour involved in the more extended inquiry, this course receives justification if only from the fact that the history of past outbreaks of typhoid fever and gastro-enteritis, associated with the consumption of shellfish, has shown that the implicated shellfish has been quite obviously exposed to pollution, so that if all the proximate sources of pollution could be removed there is every likelihood that there would be a considerable decrease in the amount of typhoid fever attributable to shellfish. The condemnation of localities in which shellfish are to be found is affected by two considerations—bacteriological and topographical. Dr. Bulstrode decided in his latest investigations not to include bacteriological examination either of water, mud, or shellfish. He arrived at this decision partly because during the inquiry relative to oysters it was found that bacteriological investigation yielded somewhat conflicting results, and partly because there are as yet no tests which will serve to differentiate between micro-organisms of human origin and those of animal origin. Moreover, bacteriologists are not yet in agreement as to what standard of purity should be adopted, and the standard adopted by some would not improbably serve to condemn every shellfish bed on our shores. It is admitted that the topographical test is not without its drawbacks, for in some estuaries the course of channels and the position of sandbanks are liable to change, so that shellfish which are now exposed to pollution may at some future time, more less remote, be removed from it, or the reverse may happen. By means of more than thirty small maps relating to various districts on the English and Welsh coasts the relative positions of mussel and cockle beds and of sewer outfalls is shown in the report.

It must not be supposed that the possibility of pollution of shellfish is confined to the actual gathering ground. Even when taken from localities quite free from suspicion, there are several opportunities of contamination on the way to the consumer. The most important is that involved in the cleansing of the shellfish. Sometimes this washing is carried out at the beds, but occasionally mussels are brought to harbour and may there be washed in close proximity to sewer outfalls. It would seem, says Dr. Bulstrode, as if some of the mussel gatherers had supreme contempt for the sewage of towns, since they might be seen over and over again either raking for, hand-picking, or washing mussels actually at the very mouth of sewers or drains. The same procedure, though to a less extent, is adopted with regard to cockles. In the North of England these are invariably sent away in their shells, but in South Wales and on the East Coast of England the soft parts are separated by boiling either in a large cauldron or in specially constructed coppers. Where the latter are used, the cockles are placed in a large net, which is lowered into the boiling water in the copper. The immersion of the cold cockles lowers the temperature of the water, which has to be brought again to the boiling point. This process, while probably sterilizing the cockles at the bottom of the copper, may not have the same effect upon those at the top. A more satisfactory plan has been adopted at Leigh-on-Sea in Essex, where, owing to the occurrence of typhoid fever, attributed to the consumption of cockles laid down in Leigh Creek, or procured from polluted sources, the cockle merchants have brought into use a form of autoclave or sterilizer in which the cockles are exposed for five minutes to steam under pressure. But even after these precautions further opportunities for pollution are afforded by repeated washing of the soft part of the cockles in water which may have come from a

[1] Thirty-ninth annual report of the Local Government Board, 1909-1910. Supplement in continuation of the report of the Medical Officer of the Board for 1909-1910, containing a report on shellfish other than oysters in relation to disease. By H. Timbrell Bulstrode, M.D., with an introduction by the Medical Officer of the Board. (Cd. 5313). London: Wyman and Sons. Price, 8s.

contaminated source, and the outbreak of typhoid fever in Merthyr Tydvil in 1903, when 123 persons were attacked, of whom 84 were known to have partaken of cockles or mussels purchased from premises occupied by a typhoid fever patient, demonstrates the possibility of contamination, even though the greatest care is taken at the source of origin of the shellfish.

Dr. Bulstrode discusses at some length the question of the influence of polluted shellfish in maintaining typhoid fever prevalence. After referring to the incidence of the disease in Brighton, Manchester, Birmingham, Belfast, and elsewhere, and its association with the consumption of shellfish, he expresses the opinion that oysters, mussels, and cockles are at times responsible for isolated cases and groups of cases, as well as of extensive outbreaks of typhoid fever and of gastro-enteritis, and that these shellfish have played, and are still playing, an important part in the maintenance of typhoid fever in certain towns. He considers that specific contamination takes place for the most part in the beds or layings, in the storage ponds, or in the process of washing, but that occasionally, as was the case at Merthyr, the shellfish may become contaminated by the retailer.

In view of the many sources of contamination to which cockles and mussels are exposed in their journey from the beds to the consumer it is apparent that comparative safety is only to be found in cooking them just prior to consumption. Several instances are given by Dr. Bulstrode, drawn from the reports of medical officers of health, of typhoid fever having followed the consumption of raw mussels or cockles, while those who have eaten them cooked have experienced no ill results, although the shellfish had been obtained from the same source.

It cannot be considered otherwise than unsatisfactory to find from Dr. Bulstrode's report that at the present time there is practically no control, in a sanitary sense, exercised over places from which shellfish are collected, or where they are laid down, washed, or stored. His former report was perhaps the means of arousing the public to some sense of the dangers associated with the consumption of raw shellfish, and now that further attention has been directed to the question it is to be hoped that some definite steps will be taken to remedy the conditions discussed in his report.

## THE GENERAL MEDICAL COUNCIL ELECTION.

THE voting papers in the election for a direct representative of England and Wales on the General Medical Council are to be issued on Friday, May 5th—that is to say, they are to be posted on the previous evening. All the papers must be returned by May 13th, the votes will be counted on May 15th and 16th, and a meeting of the Branch Council, at which the result of the poll will be declared, will take place on Thursday, May 18th. The candidates are Dr. J. A. Macdonald of Taunton, formerly chairman of the Representative Body and now of the Central Council of the British Medical Association; Dr. Hawkyard, President of the Leeds and District Medical Practitioners' Association; Mr. George Jackson, F.R.C.S., of Plymouth; and Mr. Michael Arthur Curry, registered as L.R.C.P. and S.Irel., 1901, who at present resides in South London. We publish elsewhere a communication with reference to the candidature of Dr. Macdonald, whose experience in public affairs and wide knowledge of medical needs are well known to members of the British Medical Association. To this letter is appended a list of the committee formed to promote his candidature. It will be noticed that the honorary secretaries of Dr. Macdonald's committee state that they have his assurance that, if elected, his duties at the General Medical Council will not necessitate giving up any of his present work for the British Medical Association, which he intends in every way to continue. We have received from Dr. Sidney C. Lawrence, who had intended to be a candidate, a notification to the effect that, while thanking the friends who nominated him, he has decided to withdraw from the contest.

## CAN A MEDICAL PRACTITIONER CLAIM UNDER THE WORKMEN'S COMPENSATION ACT?

WHILE the practitioner is usually interested in the Workmen's Compensation Act either as a witness or as a medical referee, it is not difficult to imagine a case in which he might himself desire to figure as applicant for compensation. But is he a workman within the meaning of the Act? Assuming that he is a workman, in what circumstances can an accident be said to arise out of and in the course of the employment? It is somewhat strange that the first of these questions has never been decided definitely in an English Court. In one Irish case (Murphy *v.* Enniscorthy Guardians) which was decided in 1908, it was held that, there being no contract of service between a dispensary doctor and the guardians of his district, he is not entitled to compensation if injured in the course of his duties. But, supposing there is a contract of service, and the emoluments of the employment do not exceed £250 a year, it is difficult to see why a medical practitioner should be excluded from the benefit of the Act. It may be that when the question comes up for actual decision the English courts will follow the reasoning which the Court of Appeal applied to the case of a music teacher. The Master of the Rolls, in holding that there was no contract of service between the teacher and her pupil, said: "In such a case there may be a contract for services, but there is not a contract of service. In any particular case it will be for the arbitrator, after considering all the circumstances, to decide whether the injured professional person is or is not a 'workman.' This is not a question of law but a question of fact." The point was again raised, but not discussed or decided, in a case which was heard at the Kidderminster County Court on April 11th. There a medical man who had been house-surgeon at the Kidderminster Infirmary claimed compensation for injuries alleged to have been sustained in an accident arising out of and in the course of his employment. As the case "went off" on another point (to which we shall presently refer) the facts relating to the contract of service were not gone into, and the judge refused to commit himself on the point. The facts upon which the claim was based may be briefly stated. The applicant was house-surgeon at the Kidderminster Infirmary, his salary being £100 with board and lodging. When he first went to the infirmary it had no *x*-ray apparatus, but in May, 1910, apparatus having been installed, it was decided to use it on some patients suffering from ringworm. The applicant saw one of the honorary surgeons, and a conversation followed as to what should be done. The *x*-ray machine was tried on the applicant's arm to test the effect of the pastille. The application lasted fifteen minutes. The results were so serious that he was away from work for a considerable time, and had to submit to an operation on his arm, which

took six weeks to heal. The applicant stated that it was an experiment carried out for the benefit of the patients, and he admitted that he was a willing subject. He said that he was under the control of the committee of the infirmary, and frequently consulted the honorary surgeons about the work he had to do. Medical witnesses expressed the view that it was the applicant's duty to submit to the experiment, although it was conceded that his duties were practically prescribed by the rules of the institution, which had not been altered since the apparatus was introduced. The judge, in giving judgement, said it did not follow that because a new knife was introduced a house-surgeon should allow the knife to be used on his body. He was quite prepared to decide whether the doctor was acting in accordance with his agreement. He had the terms of the contract before him, and it was clear that the question of a dangerous experiment did not arise on his appointment. He accordingly dismissed the application, but gave leave to appeal. The point is one of considerable difficulty. Judge Ruegg, in his work on the Compensation Act, points out that an accident "does not arise out of and in the course of his employment where the workman does something which is no part of his duty towards his employer, and which he has no reasonable grounds for thinking it was his duty to do." But had not the applicant reasonable grounds in this instance? The same learned author points out that "the accident may arise out of and in the course of the employment, if the act which occasioned it, although not strictly in the scope of the workman's employment, is done upon an emergency." Where, for instance, a workman was suffocated by carbonic acid gas whilst attempting to rescue a fellow workman from the fumes of the gas, it was held that this was acting in an emergency for the employer's interest as well as in the interests of humanity. On the other hand, if a workman steps out of the sphere of his duties to oblige a fellow workman, when no circumstances of emergency exist, he generally loses the protection of the Act. This is shown by the case of McAllan *v.* Perthshire County Council, Western District. In that case it was the duty of an engine man in charge of a steam roller to fire his engine for the purpose of getting up steam by 7 a.m. Temporary sleeping accommodation was provided for him near his work, but on one occasion, expecting to be late, he arranged with a surface man, whose duties had no reference to the engine and boiler, to undertake the firing up of the engine for him. Whilst doing so the surface man was injured. It was held that the accident did not arise out of and in the course of the employment. We trust that the Kidderminster case may reach the Court of Appeal, because the discussion of the point at issue will doubtless throw considerable light upon the legal position of a house-surgeon.

## THE PLAGUE CONFERENCE IN MANCHURIA.

ELSEWHERE in this issue will be found an account of the earlier proceedings of the International Plague Conference in Manchuria. It will be seen that it made a most excellent start, so it is the more to be regretted that its labours should have come to an untimely end, as must be concluded from a Reuter's telegram this week. Differences of opinion appear to have arisen comparatively early as to the agenda, with the result that the conference split up into various opposing sections. From the beginning the Chinese authorities made it clear that their desire was that the conference should endeavour to answer a number of questions on which the need of information was felt, and that its members should bear in mind that the topic before them was not plague in general, but its septicaemic or pneumonic form and the devising of measures calculated to prevent another epidemic of this type of plague either in China or elsewhere. In this attitude the Chinese delegates had the support of those of Great Britain and the United States, but other parties in the conference endeavoured to extend the work in various directions, with the result stated. We have not yet received information from our own correspondent, but the division of parties suggests that the rock on which the barque foundered was political rather than scientific. Despite, however, this unfortunate result, this conference may justly be regarded as one of historic interest at least. It was the outcome of an epidemic exceedingly fatal in respect of case mortality, but otherwise dissimilar to any of which there is authentic record. The aggregate mortality, about 46,000 deaths in five months, was trifling as compared with the experience of India, where as many deaths have frequently occurred in a single week; but in India cases of the pneumonic type have been exceptional, while in Manchuria they seem to have constituted the vast majority. Though sporadic cases of plague have been common in Manchuria for many years past, there is as yet nothing to explain why the disease should suddenly have become virulently epidemic; moreover, although plague among certain rodents exists in the same country, this outbreak was neither accompanied nor preceded by mortality among rats. Even more interesting than the circumstances of the outbreak itself are the actions on the part of the Government to which they gave rise. China, that land of ancient, but for many centuries dormant civilization, and of admittedly immense possibilities, has definitely placed itself on the side of scientific progress, and of the principle represented by the words "If preventable, why not prevented?" The Viceroy, in opening the proceedings, actually quoted that phrase, and stated that it precisely represented the view of the Chinese Government, which intended to secure its people from another outbreak of plague of the same kind, if the adoption of Western medicine and hygiene would have that end. It is easy for Orientals to make speeches of a kind likely to be acceptable to a European audience, but it is obvious that in this case the various Chinese speakers were not using empty forms of words, despite the fact that the summoning of a scientific conference, though such course has never been adopted before, need not in itself be taken as clear evidence to the contrary. But there is also the fact that the Government has for the first time permitted the performance of *post-mortem* examinations, and has itself carried out the burning of the dead. Furthermore, the people themselves, seriously as their lifelong prejudices have been offended by these and other measures adopted, have recognized their desirability and offered no obstruction. The great Mongolian empire, therefore, is most assuredly awakening.

## THE INTERNATIONAL HYGIENE EXHIBITION.

THE International Hygiene Exhibition at Dresden is to be opened by the King of Saxony on Saturday, May 6th. His Majesty will formally open the pavilions of the Foreign States on Monday, May 8th. The British Section will not be completed until the beginning of June, and will therefore not participate in this official opening ceremony. We have on numerous occasions called attention to the importance of this great exhibition from an educational point of view. The organization has been planned with that minute care which characterizes the work of German administrators, and in every detail this exhibition promises to eclipse everything which has been under-

taken in the past. We propose to publish an account of the exhibition in a future issue, and it is therefore only necessary before the opening to recall the fact that the Scientific Section of the exhibition comprises forty-four groups, dealing with every branch of hygiene. The Popular Section will depict the human and animal body from the antenatal to the disintegration stage. The Historical Section, thanks to the energies of Professor Sudhoff and Dr. Neustätter, will display the history of hygiene from the very earliest times. The Industrial Sections will be devoted to the illustration of the practical side of the preservation and the restoration of health. Lastly, the Sports Section will show, in various ways, the value of reasonable exercise to health. and the damaging effect of improperly regulated muscular effort. The whole will be diversified by conferences, congresses, and sports, all relating more or less directly to the objects of the Exhibition. Each national pavilion will house exhibits characteristic of the various achievements in hygiene of the nation. The British Committee, with the Lord Mayor of London as President and Sir Thomas Barlow as Chairman, has succeeded in overcoming difficulties which at one time appeared to be almost insurmountable. The Section will be somewhat smaller than was originally intended, but the contents will be selected with all the greater care. Commercial articles will be excluded, and the subjects will be dealt with in a scientific and we might almost say in academic manner. The scheme followed in each instance in which this was practicable starts with a defect in our social arrangement, or a danger arising out of human or animal life on this planet. The next point illustrated is the organization which aims at the removal of this defect or danger; then comes the scientific basis for the remedy, to be followed by the machinery employed; and lastly the result, both direct and indirect, of the employment of the remedy. The subjects to be dealt with may be classed under the following general headings: The control of the infant, the control of the child, the control of food, the control of disease, the control of poisoning, the control of the home, the control of hospitals, and the control of occupations. It is gratifying to be able to state that Major Pollock, R.A.M.C., will officially represent the War Office at the opening ceremony, while it is hoped that the other Governmental Departments which have received official invitations will send delegates. The British Committee will be represented by the secretary, Mr. H. W. Armit.

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## THE BATTLE OF THE WINES.

THE riots which have recently led to so much disturbance of the public peace and destruction of private property at Epernay and elsewhere in France, have doubtless been watched by many people in this country with an uncomfortable feeling of anxiety as to the future supply of champagne. M. Esmonet opportunely reminds us in a recent issue of the *Progrès Médical* that a furious battle raged in France for some seventy years as to the relative merits of champagne and burgundy. To us the interesting point about the war is that it seems to have been kindled by a thesis for the degree of doctor of medicine presented to the University of Paris in 1652. The name of the author is lost to posterity, but it is known that he maintained the superiority of beaune over all other wines. This not unnaturally gave offence to the owners of the Champagne vineyards. The quarrel smouldered for some forty years, when it was stirred into flame by the fact that Fagon, physician to Louis XIV forbade the Sun King to drink champagne. In this prohibition some Burgundian saw an opportunity of extolling the virtues of beaune and denouncing champagne as an irritant of the nervous system and a cause of various diseases, including gout. The Faculty of Rheims was up in arms at once in defence of the wine of which it considered itself as a tutelary deity. In 1700 a thesis was presented to that university in which beaune was very roughly handled. In 1704 Salins, the chief physician of the Beaune district, took the field and declared bluntly that champagne owed its reputation solely to the fact that two Ministers of State, Colbert and Le Tellier, were owners of large vineyards in the neighbourhood of Rheims. He went on to compare champagne, greatly to its disadvantage, with beaune. The Rheims people retorted that neither Le Tellier nor Colbert had ever owned vineyards in their country, and that the renown of their wine had been established at the time of the King's coronation. It was further urged that if the King, in obedience to his doctor, did not drink champagne, his courtiers did; or if they had given it up, they had come to regret having done so. It was urged in favour of champagne that when Wenceslaus, King of Bohemia, came to Rheims in 1397 to negotiate with Charles VI. he had got drunk on the local product of the grape with the result that he yielded every point rather than cease drinking. The war was carried on by means of pamphlets, odes, and other literary weapons, the writers being rewarded by the rival vine-growers with samples of their best products. The controversy did not die out till the early part of the eighteenth century, when the crushing burden of taxation, famine, and war turned men's minds to more serious matters. We may here recall the well-known epigram by John Home, the author of *Douglas*, inspired by a tax placed upon claret by the Government of the day, which had long connived at its introduction into Scotland under very mitigated duties:

> Firm and erect the Caledonian stood,
> Old was his mutton, and his claret good;
> "Let him drink port," an English statesman cried—
> He drank the poison, and his spirit died.

Home liked claret and hated port; *fecit indignatio versus*. Dean Ramsay says that Sir Walter Scott delighted in repeating the epigram.

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## PHTHISIS AMONG JEWS.

IT is now about ten years since the growing increase of tuberculosis among the Jewish poor aroused the attention of the leaders of that community, who, with the interest that they have always manifested in their poorer co-religionists, took immediate steps with a view to alleviating the suffering caused by the disease, and as far as possible preventing its spread. The report of the sanitary committee of the Jewish Board of Guardians deals almost entirely with the action which this body has taken with the above mentioned aim. The fact that pulmonary phthisis is an important item in Jewish bills of mortality will come as somewhat of a surprise to many, as it has often been imagined that Jews were exempt from this plague. Undoubtedly they suffer less from it than the surrounding populations. This has been established by Rosenfeld and Auerbach for Vienna and Budapest, and by Fishberg for the large Semitic population of New York. The same condition obtains in London, where the proportion of Jewish deaths due to tuberculosis is far below the normal. On the other hand, the increase above referred to has become very noticeable in recent years, a change no doubt due to the changed conditions in the Jewish quarter, where the native-born are becoming lost in the crowd of

immigrants. These last, coming not infrequently from rural, or at least from more open surroundings, find themselves in a different climate, living in overcrowded and unhygienic quarters, and often doing new forms of work on an insufficient and unaccustomed diet. It is not surprising that they readily fall a prey to tuberculous infection. From the report before us, it appears that as soon as a case of phthisis has been verified by the Sanitary Committee it is visited by a health visitor, who gives instructions as to hygienic precautions, especially as to the disposal of the sputum, for which purpose vessels and disinfectants are supplied. At the same time care is taken to secure isolation as far as possible, the committee paying the rent of an extra room when necessary. Whenever possible, advanced cases are directed to a hospital or infirmary, while for the more hopeful the committee has the advantage of being in close touch with the sanatorium at Daneswood. Some interesting figures are given as to the present condition of former inmates of that institution. Taking those for 1907, it appears that of 80 persons discharged from Daneswood in that year as many as 45 are now more or less self-supporting, while only 7 are known to be dead; the remaining 28 had been lost to view, probably in most cases through emigration. A very important point, which has not been lost sight of by the committee, is the close observation of other members of the family who, although apparently healthy, might be expected to have incurred the infection. This observation is systematically carried out, and thus the earliest symptoms of the disease can be noted and traced. It would appear at first sight to be rather unsatisfactory that, in spite of all this care, the cases on the register have steadily increased, that it has been found necessary to increase the number of health visitors from two to four in the course of a few years, and that in the present report it is suggested that another should be engaged. Increase in the Jewish population may, however, account for this, and it is not unlikely that cases are more readily notified to the committee as its work becomes better understood. From a table of occupations, it would appear that tailors, bootmakers, and hawkers were the greatest sufferers from phthisis, but this was only to be expected, as these are the trades mostly followed by recent Jewish immigrants. The report shows that the Jewish Board of Guardians is doing useful work, which should tend to check the spread of phthisis, and the local authorities generally might with advantage adopt some of their methods, especially in regard to the observation of those who have been living in close contact with sufferers from the disease.

## CHINA AND INDIAN OPIUM.

THE question of the opium trade between China and India has entered a curious phase. When the Chinese authorities first made application to the Indian Government to forbid the export of opium to the treaty ports in China, many people regarded this merely as a political move, and doubted both the ability of the Chinese Government to suppress poppy cultivation in its own provinces and the sincerity of its desire to abolish the use of opium in the country. However, the Indian Government consented to make a treaty on the subject. It was accordingly arranged that for three years from January 1st, 1908, the amount of opium exported to China from India should be reduced by 5,100 chests a year (the annual export to China at the beginning of this period being 51,000 chests), and that China should suppress opium production within its own territory in like proportion within the same period. At the end of last year the agreement was renewed for a further five years, the calculation then being made that by the end of 1917 both opium production in China and opium importation from India would have come to an end. Now, however, the Chinese Government is pressing for a fresh agreement, the reason put forward being that it has made such great strides in limiting the cultivation of the poppy in China itself that it expects to have completed its task of suppressing the use of native-grown opium much earlier than was anticipated, and consequently wishes to hasten correspondingly the suppression of importation. It is therefore proposed that the Indian Government shall consent to allow treble the present opium duty to be imposed, to forbid exportation to China altogether so soon as China can prove that opium-growing in China has been totally abolished, and meanwhile to issue no transit certificate for the export of opium to any individual province which has succeeded in suppressing poppy cultivation and desires to avoid opium importation. Proposals are also put forward for getting over one serious difficulty—namely, the disposal of the opium at present accumulated in bonded warehouses. It represents some 20,000 chests and a value of over £4,000,000, and on payment of duty the Chinese Government cannot refuse to allow it to be withdrawn and distributed for sale in the country. This accumulation is due to the fact that as poppy cultivation began to lessen and the number of chests exported direct to China from India began to fall, the opium importers began to buy up the chests exported from India to the Malay Peninsula and other localities where opium smoking and eating is in vogue. No new treaty has yet actually been signed, but there seems reason to believe that the Indian Government, despite the loss of revenue and dislocation of trade and labour which must ensue, will contrive to meet the Chinese authorities in the matter. If it does so, and the Chinese Government continues to be successful in suppressing poppy cultivation, the trade with India and the legal use of opium in China will, in the opinion of the Peking correspondent of the *Times*, come to an end within two years or less. Should this prove to be the case, it would be a remarkable, almost amazing, outcome of a movement which as an active crusade will at the date in question be hardly ten years old, and which had to overcome such formidable opponents as an industry of great financial importance to two countries, and a national habit of a kind peculiarly difficult to abandon. Even the present results are sufficiently noteworthy, for there seems to be no doubt whatever that not only has the import trade fallen, but that the number of opium users in China has immensely decreased. Furthermore, public opinion in China now seems to be on the side of the crusade, for in making its fresh application to the Indian Government the Chinese authorities are admittedly acting less of their own free will than in obedience to pressure brought to bear upon them by the Chinese Anti-opium Organization. The next international conference on the subject is to take place at The Hague on July 1st, and before that date the decision of the Indian Government may be expected to have been made known.

## THE "BUSK" MEMORIAL AT THE DREADNOUGHT HOSPITAL.

ON April 27th Mr. Perceval Alleyn Nairne, chairman of the Seamen's Hospital Society, unveiled at the Dreadnought Hospital a memorial tablet to the late Mr. George Busk, F.R.S., F.R.C.S., one of the most distinguished surgeons of his day. This tablet is erected over the bed which has been endowed by the Misses

Elinor and Frances Busk in memory of their father. The ceremony took place in the presence of a small gathering of men and women most of whom had had association with Mr. Busk and some of whom had been closely connected with him in his working life. Among them were the two daughters of Mr. Busk, Professor Arthur Keith, Conservator of the Museum of the College of Surgeons, and the following members of the committee of management of the Seamen's Hospital Society: Rev. S. Martyn Bardsley, Captain A. W. Clarke, Commander G. Hodgkinson, R.N., Sir Francis Lovell, C.M.G., Mr. C. T. Orford, Mr. F. Swanzy, and General the Hon. Sir Reginald Talbot, K.C.B. After the chairman had unveiled the tablet and expressed the thanks of the Seamen's Hospital Society for the gift, Mr. G. H. Makins, C.B., Surgeon of St. Thomas's Hospital, spoke of his association with Mr. Busk, and laid stress upon the deep indebtedness of the medical profession of to-day to his great ability and skill. Mr. Lawrie McGavin, the surgeon in charge of the ward in which the tablet is situated, expressed the appreciation of the honorary medical staff. Mr. Busk served for no less than fifty-six years on the staff of the Seamen's Hospital Society, having been appointed "Apothecary" in 1830, when the work of the society was carried on on board the *Grampus*, a 50-gun vessel lying in the Thames. In 1832 he was appointed Assistant Surgeon, and in 1839 Surgeon. In 1854 he became Visiting Surgeon, and in 1861 Consulting Surgeon. He died in 1886. Mr. Busk was Hunterian Professor to the Royal College of Surgeons from 1856 to 1859. In 1863 he was elected to the Council of the College, and retained his seat until 1880, when he retired. He served on the Board of Examiners in 1868, was elected Vice-President for 1869 and 1870, and President in 1871. The museum of the College owes to him many valuable specimens, including a skull which represents one of the earliest known forms of man. In addition, Mr. Busk laid the foundations of a very fine collection of skulls now in the museum of the Hospital at Greenwich. This collection contains many objects absolutely unique. The tablet, which is of white marble, bears the following inscription:

In Memory of
GEORGE BUSK, F.R.S.,
President of the Royal College of Surgeons, 1871,
whose skill and unwearying devotion
were ever at the service of the Seamen's Hospital Society
from 1830 to 1886.
This Bed is endowed by his daughters
In fulfilment of the wish of their Mother, Ellen Busk.

## THE LUNACY BILL.

The Lord Chancellor's long-promised Lunacy Bill was issued on Wednesday last, and is called "an Act to Amalgamate the Lunacy Departments and to transfer the power of making Vesting Orders from the Judge in Lunacy to the High Court." The bill is proposed in pursuance of the recommendation of the Royal Commission on the Feeble-Minded, and leaves wholly unprejudiced the large settlement of the care of the insane and feeble-minded. In the first place, the bill asks statutory sanction to a scheme set forth in the schedule for amalgamating the Masters in Lunacy, the Lord Chancellor's Visitors, and the Commissioners of Lunacy into one body. This proposal is in accordance with the temporary recommendation of the Commission to amalgamate the offices and appoint two additional Medical Commissioners. The Royal Commission suggested that this should be done by an order of the Lord Chancellor under Section 337 of the Lunacy Act, 1890; but as the validity of such an order might be questioned, the bill has been introduced in the House of Lords. The scheme of amalgamation is contained in the schedule, and provides that there shall be 18 members of the Lunacy Commission, namely, 13 paid (including the Chairman) 7 of whom must be medical men and 6 barristers, and 5 unpaid Commissioners. The first Commissioners are to be the existing Masters in Lunacy, the existing Chancery Visitors, and the existing paid and unpaid Commissioners, and two paid Commissioners, to be forthwith appointed by the Lord Chancellor. The salary of the Chairman is to be £2,000, and that of each of the other Commissioners £1,500 a year. The Royal Commission made an emphatic demand for the two additional Commissioners in order to meet the increase in the work. The unpaid Commissioners may include women. The bill consists of only three clauses, of which the first relates to the amalgamation of the three lunacy departments according to the scheme in the schedule, the second clause deals with the technical matter of vesting orders—a detail in the administration of lunatics' estates—and the third gives the title of the Act, and fixes its commmencement for January 1st, 1912.

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Dr. N. H. Alcock, Lecturer on Physiology in St. Mary's Hospital Medical School, London, and Examiner in Physiology to the Royal College of Physicians and to the National University of Ireland, has been appointed to the Chair of Physiology in McGill University, Montreal, Canada. He has published numerous papers on physiological subjects, and is the joint author of a textbook of *Experimental Physiology* and one of the original editors of *Science Progress*. Dr. Alcock graduated in Arts at Trinity College, Dublin, and was senior moderator in Natural Science. He obtained the degree of D.Sc. from the University of London by research in physiology. He was Recorder of the Section of Physiology at the British Association on their visit to Winnipeg in 1909.

# Medical Notes in Parliament.

[From our Lobby Correspondent.]

### Poor Law Administration.

When the House went into Committee of Supply on the Civil Service Estimates last week Mr. Goldstone, the Labour member for Sunderland, raised an interesting debate on the Poor Law. He moved:

> That this House endorses the unanimous condemnation of the administration of the Poor Law contained in the Majority and Minority Reports of the recent Royal Commission, and is of opinion that the present administration of the Poor Law does not meet modern requirements and demands the immediate attention of His Majesty's Government.

He said that the very great sum involved in the administration of the Poor Law and expenditure on Poor Law relief was applied in the assistance of some 700,000 people. Its amount raised many questions, but the three to which he desired especially to draw attention were the position of the children, public health, and mixed workhouses. Fifteen thousand infants were born in workhouses every year, and a child born in a workhouse stood one-third less chance of living than even a child born in the slums. He thought the President of the Local Government Board might well issue an order that no child of school age should be detained in a workhouse for more than one week without the special permission of the Board's inspectors. There was great overlapping in the treatment of children, involving a conflict of jurisdiction and authority, and this overlapping was equally rampant in the case of public health, with the result that diseases passed unnoticed and were spread about among the population. The evils of the mixed workhouse required attention, and much could be done by administration. Persons of unsound mind should not be kept in a general workhouse for longer than a

week. He hoped the President of the Local Government Board would crown his career by terminating during the lifetime of the present Government the causes of the reproaches levelled at the administration of the Poor Law. The object to be attained was the prevention of destitution, and that could best be secured by dealing in an adequate manner with the children.

Mr. A. Smith seconded the resolution, and urged that steps should be taken to prevent able-bodied men becoming destitute when they lost their employment. It was a tragedy that 60,000 able-bodied women should be in receipt of Poor Law relief in England and Wales who were unable to work owing to the care of children. To drive them to work at the expense of the children would be a national crime.

Mr. J. S. Fletcher advocated the transference of Poor Law work to borough and county councils, and Mr. Spear argued in favour of extending the powers and improving the system of the present boards of guardians.

Mr. Lansbury followed, and said that the many millions expended annually in the administration of the Poor Laws were to a great extent wasted, because no attempt was made to apply the remedy till the point of destitution had been reached. A very strong case had been made out for better treatment of the children. From 15,000 to 20,000 children in receipt of outdoor relief in England and Wales were living under vicious and immoral conditions. As to the workhouse system, he had visited most of the big workhouses, and he had no hesitation in saying that of all the horrible places in creation the workhouse was the most horrible, and for this reason in particular that it was so infernally clean. There was no decent dirt about it. You got your breakfast by bell, your dinner by bell, your supper by bell—you might even go to the "other place" by bell. It was bell all the time, and your life was ruled by dismal rota. In Scotland the principle of keeping the old people in small homes had been developed, and he hoped the time was not far distant when the old people of England would be able to reside in their own homes. He deplored that the Government had done nothing to give effect to the recommendations of the Royal Commission, and hoped that hon. members on both sides of the House would say to their leaders that they would not tolerate any further postponement of this important question.

Mr. Hills regretted that nothing had been done to carry out the recommendations of the Royal Commission, and specially urged the removal of children from the scope of the Poor Law. After Lord H. Cavendish Bentinck had spoken,

Dr. Addison contended that, in view of the medical inspection of school children and other measures, the statement that nothing had been done upon this question was decidedly inaccurate. A large amount of pauperism was due to the fact that persons mentally deficient from infancy were free to multiply, and it was very necessary that steps should be taken to deal with the feeble-minded as early as possible. With reference to consumption, something had been said to the effect that we could not do much in the way of preventing that disease. He must absolutely and completely disagree with that. There was no condition which was a burden on our people which we could more easily prevent than consumption. At present the Poor Laws spent something like £1,500,000 in dealing with this disease, and the amount of national loss which was occasioned in the families throughout the length and breadth of the land must be incalculable. He recognized that the scheme shortly to be produced would afford a magnificent opportunity for eradicating this disease in this country, and thus more would be done in respect of sickness to do away with poverty than by any other measure which had hitherto been before this Parliament. He referred, of course, to insurance against sickness.

Dr. Esmonde followed, and made some very forcible remarks on the inadequate payment given to parochial medical officers. Medical relief required great improvement; in many cases the Poor Law medical officer had to supply medicines at his own cost, in addition to being paid insufficiently for the work he did. He also advocated increased facilities for getting medical assistance in cases of sudden illness. After some other speeches,

Mr. Burns replied. He said the Local Government Board could not be expected to remove causes of misery and destitution which were economic in their origin and social in their operation. Many evils which had been mentioned sprang rather from a failure in our industrial system than from any lack of sympathy on the part of Governments or administrative bodies. It had been asserted that circulars and orders were no good. He could only say that he had never done anything so fruitful in good results as the circular he issued over a year ago to the Poor Law authorities calling their attention to the treatment of children; and the issue of orders would certainly be useful until the subject of the Poor Law was legislatively treated anew in all its aspects. The Local Government Board had made consumption a notifiable disease. Eighteen months ago, against strong pressure from many quarters, he thought that the 35 per cent. of the total cases of consumption which were dealt with in Poor Law institutions should be made notifiable. The effect had been reflected in the considerable diminution of cases in these institutions. So satisfied were they with the success of the experiment that they had recently secured notification of another 35 per cent.—consumptives who went to general hospitals and institutions other than those under the control of the Poor Law authorities. That left them with 30 per cent. still to be dealt with. These cases were more difficult to locate because they existed among a class of people who did not appeal to the Poor Law authorities or attend general hospitals. It had been suggested that the Government should transfer the control of paupers from the guardians to the county councils. He could not go into that matter now, because such a transfer would involve legislation, but he must point out that it was a moot point whether the county councils were in a position to take over the duties now discharged by the Poor Law authorities. He was a man of fact, and, as his namesake Robert Burns said, "Facts are chiels that winna ding." In 1850 they had 62 per 1,000 of their total population paupers, but in 1909 that 62 per 1,000 had been reduced to 26. Since he had been in office it had diminished to 18.7. In 1850 54 per 1,000 of the population received outdoor relief, but in 1909 the number was 15 per 1,000. At the present time it was 11 per 1,000. Pauper children, of whom they had heard so much, had been reduced from 26 to 7 per 1,000. Able-bodied outdoor relief had been reduced from 12 to 2 per 1,000, which was almost a negligible figure, while the number of indoor paupers remained practically stationary. Since 1834 they had spent £600,000,000 upon solving this and cognate problems, and he was surprised that so relatively small an amount of money had done so much good. The cost per head had risen from £7 18s. to £13 for indoor paupers, and from £3 11s. to £6 2s. for outdoor relief. The cost of maintaining paupers had increased from 6s. 8d. to 8s. 4d. per head of the population, while the expenditure per rateable value, which showed how wealthy the country was becoming, had dropped from 1s. 8d. to 1s. 6d. He mentioned these facts to show how pauperism in many aspects yielded to progressive, scientific, and more humanized treatment under the much-abused boards of guardians. As to the general suggestion that, notwithstanding what the Local Government Board had been doing by administrative circulars and orders pauperism showed no sign of abatement, he would point out that since 1905 the total pauperism of the country had diminished by 22 per cent. and outdoor pauperism by 33 per cent. London's total decrease in that period was 14 per cent. and 37 per cent. respectively, while in the East End district of Poplar it was 36 per cent. and 56 per cent. Between 80 and 90 per cent. of the pauperism of this country was due not to industrial causes, but rather

to physical and mental disabilities. To listen to some of the speakers who had engaged in that debate one would almost think that children were still herded in workhouses the same as when Oliver Twist was flogged and Little Dorrit was punished. Under the Poor Law system in London were some 22,700 children. Only 229 over 3 years of age were in the workhouses proper, and of that 229 as many as 140 were claimed by the three Unions of Islington, Wandsworth, and Lewisham. The reduction of the number of children housed in workhouses which had taken place in the metropolis in recent years would, he hoped, speedily extend to the country. There were under the Poor Law, roughly, 70,000 children, and it was satisfactory to note that not more than 400 were being educated in workhouse schools proper. Those figures, he thought, amply refuted the suggestion that the Local Government Board had not been efficiently discharging its duty towards the juvenile poor. As regarded the general conduct of these children he would like to remind the House that of the 12,700 who had passed through London Poor Law schools during the last ten years only 62 had been sent back to the guardians by their employers on account either of bad character or unfitness for their particular work. Neither Eton nor Harrow nor Rugby nor Winchester could show anything like so good a record of conduct as that. Were he to recommend the adoption of any of the schemes of reform that had been proposed he must preface the recommendation with the warning to the House that any change would prove costly if not extravagant. Lord George Hamilton had said of one of the schemes that it would mean annihilation of the family system, administrative chaos, and end in universal local bankruptcy. When the Chairman of the Royal Commission told him that one scheme of Poor Law reform would cost over 18 millions sterling he would ask those who were continually pitching into the Government for extravagance to remember that it could not possibly be economical and at the same time carry out the recommendations of the Royal Commission. The Majority Report was somewhat archaic, whilst the Minority Report was, in view of recent events, somewhat obsolete. By bolder action the Government were trying to solve the prevention of pauperism by removing the causes of destitution. Since 1909 a million of people who were either potential or actual paupers had been given a State bounty amounting to £13,000,000 instead of being asked to accept a Poor Law dole. That was considerable progress in a short time, representing a diminution of 22 per cent. of the total pauperism and 33 per cent. of outdoor pauperism. After five years, in which a million of money had been spent on relief works, both the Majority and Minority Reports came to the conclusion, which he arrived at long ago, that relief works were worse than no remedy at all. Having condemned relief works, what were the Government doing in regard to unemployment? The labour exchanges had been subjected to a great deal of unfair and unreasonable criticism, but he believed that five years hence those who now abused them would be as much converted to their wisdom as they now were to the folly of relief works. The Government contended that what they had done by granting old age pensions *plus* labour exchanges, together with the scheme of compulsory insurance against unemployment to be shortly disclosed, constituted a solid advance upon the schemes of either the Majority or Minority Reports. He believed that if the public authorities of the country regularized their work more—and he was bringing every pressure he could upon them in that respect—it would also bring undoubted benefit to the general and casual labourer who was frequently out of work. The Board of Agriculture had also done something to stop the downward trend by placing nine or ten thousand small holders upon the land. He believed in the development of that policy, and not by any form of improved Poor Law would they find a better and sounder remedy than half the nostrums advanced by visionaries. If in the next five years the Government did for England what the Irish land policy had done for Ireland, and if they were able to grapple with the housing difficulties as the Irish Local Government had done in building 30,000 cottagers for labourers, much would be accomplished. People talked of pauperism as if it were a matter of wages, or moral or physical disability. It was not. Pauperism in its main element was a matter of sickness and ill-health. Thirty per cent. of the total pauperism and 50 per cent. of the cost of pauperism, on which the country spent fifteen and a half millions a year, were due to sickness alone. Unless they grappled with sickness and invalidity the bedrock cause of pauperism would remain. The Government hoped to deal with that in an infinitely more statesmanlike and generous way than was to be found in the proposals of either the Majority or the Minority Reports.

After Mr. H. W. Forster had spoken,

Dr. Chapple said that the basic cause of destitution was not to be found in our social system, in landlaws, nor in the wages system. The basic primary cause of destitution was physical, mental, and moral defects in the individual. The figures quoted showed that sickness was largely responsible, and that nearly 90 per cent. of those who were inhabitants of Poor Law institutions were there because of some physical defect. Of physical, mental, and moral defects nearly 80 per cent. were hereditary. We were breeding very defective stock. There had been a remarkable decline in the birth-rate in all civilized nations. This had not taken place uniformly amongst all classes of the community, but amongst our best people. It had not taken place at all amongst the worst people, because the birth-rate went on undisturbed amongst defectives, mental and physical. Since not all defects were hereditary, to-day the remarkable phenomenon existed that the increase amongst the defectives was greater than ever it was in proportion. If those who were a burden upon the State were classified into those who had acquired their defects and those born with them, it would be found that quite 80 per cent. of those who were defective suffered from those defects because of the law of heredity. Because of the causes instanced, and because of the utmost freedom accorded to all those defective classes to propagate their kind, the number of defectives was still increasing at a remarkable rate, whilst the normal and fit were decreasing. It was the duty of the State to get right down at the base and not to be content with any tinkering or constant readjustment, which was no remedy at all, and to say that those who were defective must be isolated. Those who were weak-minded, those who suffered from lunacy and the mentally defective, should not be allowed to propagate their kind. That was not only so in the State's interest, but it was also in the interests of the individual. Nothing could be more cruel than to allow defective parents to bring into the world those who were condemned to suffer either because of hereditary disease or of those hereditary mental and moral defects which unfitted them to grapple with their circumstances.

After speeches by Mr. Booth, Mr. John Ward, Mr. Clynes, Mr. C. Roberts, Mr. Ellis Davies, and Mr. George Thorne and others, the resolution was rejected by 107 to 48.

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**Royal Army Medical Corps.**—Mr. Sandys asked whether the strength of the Royal Army Medical Corps had been reduced since 1906 by 488. Mr. Acland said that the establishment of the Royal Army Medical Corps, warrant officers, non-commissioned officers and men, in 1906 was 4,189, and the present establishment was 3,947, showing a decrease of 242. Of these 190 were men specially enlisted for one year in 1906 to augment the reserve, and 38 were reduced from South Africa in 1907, leaving a balance of 14 for reduction in various stations since 1906.

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**Royal Military Hospital at Parkhurst.**—Some half-dozen questions were asked last week concerning a suicide of a R.A.M.C. dispenser at Parkhurst Barracks, all suggesting that through the paucity of the staff there was overwork among the medical officers and their assistants. Mr. Acland replied to all the questions at

once, and said that orders had been issued to the general officer commanding-in chief for a searching inquiry. There was a suicide at Parkhurst on August 29th last, which was clearly a case of insanity, and was not apparently due in any way to overwork. The hospital was equipped for twenty-five beds, with a personnel of one officer and eight non-commissioned officers and men. The average constantly sick for the last six months was from nine to ten, and during March was fifteen; but in the latter month the ailments were mostly slight. No complaint had reached the War Office as to the inadequacy of the staff.

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**Hospital Accommodation for Rosyth Workmen.**—Mr. John Ward raised this matter by questions last week, and Mr. McKenna said that cases of accident had been sent to the Dunfermline Poorhouse Hospital by the Parish Council of Inverkeithing since the commencement of the works. Any obligation there might be for the provision of hospital accommodation for the workmen at Rosyth fell upon the contractors and not upon the Admiralty. There were two medical officers in attendance, one appointed by the contractors, and an assistant appointed by the contractors. There was an Admiralty officer, but he did not think he was appointed specially in regard to these works.

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**Vaccination.**—Mr. Pointer asked the President of the Board of Education whether he was aware that the Chiswick Education Committee had resolved that the head teachers of the council schools should make an inquiry with a view of ascertaining which children attending such schools had not been vaccinated, for the purpose of advising the parents on the matter; whether this was part of the duty assigned to teachers under the code of the Board; and, if not, what steps would be taken to put a stop to the proposal. Mr. Trevelyan replied that the Board had no information on the point, but if particulars were furnished would make inquiries. The only Article in the code which appeared to be relevant was Article 15, which required teachers to be employed under written agreements or minutes, which must contain these words: "The teacher shall not be required to perform any duties except such as are connected with the work of a public elementary school."

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**Instruction in Vaccination.**—In reply to Mr. Lansbury, the President of the Local Government Board said that he was aware that all the three public vaccinators of the Bermondsey Union received a fee of 6s. for each vaccination they successfully performed, although only one of that number was a teacher of vaccination. It was true that the minimum fee under the Board's Order was 2s. 6d., but the actual fee to be paid was ordinarily a matter of arrangement between the guardians and the public vaccinator. Vaccinations when done by medical students were done under the direct personal supervision of the public vaccinator, and in exactly the same way as other vaccinations were done. He was not aware whether the parents of children were informed that the vaccination might be performed by medical students, but he had no doubt that the practice at the instructional classes was well known in the district; moreover, no parents were required to bring the children to the classes; they could, if they wished, have the vaccination performed in their own homes. The ratepayers of Bermondsey incurred no charges in respect of the students. The latter paid for their own instruction.

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**Vaccination Pads.**—In reply to Sir Harry Samuel, the President of the Local Government Board said that public vaccinators were required to take precautions for the protection of the vaccinated surface, and protective coverings of various kinds were in use. He had no information as to whether any of these coverings were made in Germany. No special type of covering was prescribed.

**Detention of Suspected Cases of Small-pox and Vaccination.**—In reply to Mr. Lansbury, Mr. Burns said that he understood that it was the practice of the medical officer on duty at South Wharf to detain there cases certified to be suffering from small-pox but in which there was doubt as to the correctness of the diagnosis. In the case of the Camberwell boy, William James Kent, the medical officer at the Wharf was of opinion that there was every probability that he had small-pox, and consequently he sent him to Joyce Green Hospital. As, however, he considered there was a possible element of doubt, he vaccinated the boy to eliminate the risk of his contracting small-pox if it should turn out that he was not already suffering from it. He did not suggest that the father was, in the circumstances, able to make any other form of protest than that which he made to the nurse in charge of the patient.

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**Feeble-minded Women and Degeneracy.**—Mr. Houston asked on Monday whether the Home Secretary was aware that a medical man had stated in a lecture at Liverpool that he knew of sixteen feeble-minded women who had become collectively the mothers of over one hundred illegitimate children, and whether with the object of preventing degeneracy from the propagation of imbecile weakly and diseased children he would introduce legislation to segregate imbecile males and females and those suffering from incurable transmittible and hereditary diseases. Mr. Churchill answered that he had no knowledge of the lecture referred to; but the considerations mentioned in the question had frequently been brought before him, and he was deeply impressed with their importance. As he had previously stated, he was not wholly without hope of being able to introduce a bill on the subject of the feeble-minded this session. The scope of the bill in preparation would not extend beyond mental deficiency and possibly epilepsy.

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**Longevity.**—In answer to Mr. Vincent Kennedy, last week, Mr. Burns stated that the results of the recent Census being as yet unknown, the latest information respecting the number of persons living at different ages in England and Wales was that furnished by the Census of 1901. Assuming the proportional number of persons living over seventy years of age to have remained unchanged since that date, 2·73 per cent. of the total population in England and Wales was aged seventy years or upwards; in Ireland the proportion was 4.20 per cent.; in the German Empire, 2.75 per cent.; and in France about 4.88 per cent.

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**Slum Dwellings (Doncaster).**—In reply to Mr. Jowett, the President of the Local Government Board said that under the powers given by Local Acts of 1904 and 1908 the Doncaster Corporation acquired and demolished numerous houses for the purpose of effecting street and other improvements, thereby displacing a considerable number of persons of the working classes. It was the duty of the Corporation under the Housing of the Working Classes Act, 1903, before entering on those houses, to submit proposals to the Board in regard to the provision of accommodation for the persons displaced, and he had required a housing scheme to be submitted. The Corporation had erected a number of wooden dwellings to house temporarily persons displaced under the Act of 1908, and he had received a very unsatisfactory report of these dwellings, and had written to the Corporation on the subject. The Corporation had submitted a scheme for the erection of houses on a site which appeared to be unsuitable, and he had refused to sanction the proposals. It was now reconsidering the matter with a view to the submission of amended proposals without delay. As regards housing conditions generally in Doncaster, he found that the medical officer of health, in his report for 1910, gave some indication of overcrowding, but he understood that the general question of housing was prominently before the Corporation at the present time.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## PROFESSOR CLELAND.

THE high personal esteem in which Professor Cleland is held by his colleagues and friends was fittingly demonstrated at the large gathering which assembled in the Bute Hall on April 26th, on the occasion of the presentation of his portrait to the university. The first part of the formal proceedings consisted in the Senate of the University, which he had so long and so faithfully served, conferring upon Professor Cleland the honorary degree of Doctor of Laws.

Professor Glaister, in presenting Professor Cleland for the degree, said that Professor Cleland had spent a long life in the scientific teaching and exposition of anatomy, extending nigh unto half a century, first as Professor of Anatomy and Physiology in Queen's College, Galway, and latterly as Professor of Anatomy in Glasgow University, to which he devoted thirty-two years' service in that capacity. Following that most accomplished anatomist, Allen Thomson, he had fulfilled the duties of his office in the highest sense, and his work would be held in esteem by the long line of students whom he had taught. While Professor Cleland's pen had been chiefly occupied in the exposition of the subjects with which his name would mainly be associated, it had also been devoted to philosophical essays of a scientific character, and upon occasion had strayed into the lighter fields of literature. His work as editor of the seventh edition of *Quain's Anatomy* was held in high esteem by all anatomists, and his work jointly with Principal Mackay on human anatomy had for many years held a foremost place as a textbook. Professor Cleland already possessed many academic honours. Although a Doctor of Laws of the Universities of St. Andrews and Edinburgh, he would perhaps not less esteem the honour which Glasgow University now desired to confer upon him, since it was offered to him as an expression of his great worth as a professor and a scientific anatomist.

After Dr. Cleland had been capped and had signed the rôle of honorary graduates, Principal Yule Mackay presented to the university the portrait painted by Sir George Reid, which was accepted by Principal Sir Donald MacAlister. The university, he said, owed the gift to the grateful esteem of a multitude of Dr. Cleland's pupils, colleagues, and friends in many parts of the world. In thanking these donors the Principal said that by enrolling Dr. Cleland among its honorary graduates the university indicated that it was of one mind with the subscribers in desiring that fit expression should be given to their appreciation of Dr. Cleland's services to education, to science, and to the life and reputation of the University of Glasgow. On behalf of the subscribers Mr. Henry Barr presented to Mrs. Cleland a second portrait of Professor Cleland, also painted by Sir George Reid.

In thanking the subscribers Dr. Cleland, in a most interesting speech, told how he nearly became a minister on leaving school, but at a critical moment he discovered the secret hope in his mother's heart, that he should follow his father's profession and study medicine. After tracing his early student life and medical training, Dr. Cleland alluded to his service as a demonstrator under Professor Goodsir for four years before he first went to Glasgow as demonstrator to Professor Allen Thomson in 1861. Of the professors who then occupied chairs, only one—Lord Lister—survived. In 1863 he had become Professor of Anatomy in Queen's College, Galway, and returned to Glasgow fourteen years later as successor to Professor Allen Thomson. Afterwards Dr. Cleland spoke of the relationship of art and anatomy, and referred to the efforts he had made for the teaching of artistic anatomy in a scientific way. Though he had failed—as Principal Storey had, too—in persuading the public that this was a suitable object to spend money on, he hoped still that the day might come when Glasgow would take the lead in such an advance.

## THE CENSUS.

In reply to a question by Mr. E. Wason, the Lord Advocate stated on Wednesday that the preliminary examination of the returns of the recent census showed the population of Scotland to be 4,759,521, an actual increase of 287,418, or 6.4 per cent., during the ten intercensal years. He stated that the preliminary totals for the various counties had been ascertained and would shortly be issued, but added that all the figures were to be regarded as approximate and subject to corrections after the census returns had been thoroughly examined. It is reported that the increase in Edinburgh since 1901 has been only 2,780, and in Glasgow 22,933, but in the latter case there has been an extension of boundaries, so that the net increase is probably only a little over 7,000. Some communities in the neighbourhood of Glasgow have increased at a much greater rate, and it is not clear how much of the apparent diminution is due to a mere transference of population to industrial centres within Glasgow's sphere of influence. In some of the rural districts the population would seem to have remained stationary, or nearly so, while in others, in some parts of Argyllshire, for example, there has been a distinct decline.

## NOTIFICATION OF PHTHISIS IN RENFREWSHIRE.

The District Committee of Upper Renfrewshire has agreed to make permanent the resolution regarding notification of phthisis. Dr. A. Campbell Munro, the County Medical Officer, in a memorandum on the subject, said that the system of compulsory notification came into operation on April 1st, 1910, for an experimental period of twelve months. There had been a system of voluntary notification previously in the district, but it had failed to bring to light more than a fraction of the cases, and these generally in the last stage. Medical men felt that in reporting cases otherwise than under compulsion they were open to a charge of violating professional confidence. Since the compulsory notification the system had worked with perfect smoothness, and without hardship to any one.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## PRESENTATION TO DR. W. R. DAWSON.

ON April 27th, at a largely-attended meeting of the Irish Division of the Medico-Psychological Association, held at the Richmond Asylum, Dublin, Dr. W. R. Dawson was the recipient of a handsome presentation from the members of the Division on his resignation, owing to his recent appointment as Inspector of Lunatics, of the Divisional Honorary Secretaryship, which he had held for the past nine years. The presentation, which was made in suitable terms by Dr. Drapes, President-elect of the Association, consisted of a silver salver and a large silver-mounted ivory paper-knife, the former bearing the following inscription: "Presented to W. R Dawson, Esq., M.D., F.R C.P.I., by the members of the Irish Division of the Medico-Psychological Association of Great Britain and Ireland, in recognition of his valuable services as Divisional Honorary Secretary, 1902–11." Around the inscription were engraved over forty autograph signatures. In the evening many of the members were entertained by Dr. Dawson at a farewell dinner at the Shelbourne Hotel.

## THE BOYLE MEDAL.

On Wednesday, April 26th, Professor John Joly, F.R.S., was presented with the Boyle Medal of the Royal Dublin Society. The medal was established some years ago in memory of Boyle, Ireland's greatest physical chemist, and has only twice previously been awarded, Dr. Johnstone Stoney, F.R.S., and Thomas Preston, F.R S., being the two previous recipients of the honour.

PREVENTION OF INFANTILE MORTALITY IN DUBLIN.

Under the auspices of the committee formed last January with the object of promoting measures calculated to diminish the infantile mortality in Dublin, a number of ladies have attended a course of lectures given by medical men, and it is now proposed that they should begin practical work as visitors in the city. The committee is of opinion that the care and feeding of the mother during the nursing period has a very important bearing on the problem of infantile mortality, and, in consequence, steps are to be taken for the purpose of feeding nursing mothers who may be in want. Further classes for the instruction of additional workers are to begin at once, and the co operation of other charitable organizations in Dublin is invited.

HOUSING IN DUBLIN.

The problem of providing decent dwellings at moderate rent for the working-class population of Dublin seems about to be tackled seriously by the corporation. Of late years many improvements have been made, but in some quarters the absence of a comprehensive scheme for the abolition of slums throughout the entire city area has been severely criticized. It is now proposed to appoint a small committee, to be known as the Housing Committee, whose duty it will be to devote its attention to the entire question.

SANITARY OFFICERS AS PROSECUTORS.

Complaints on behalf of the solicitors' profession have lately been made in Ireland owing to the custom of sanitary officers conducting prosecutions under the Public Health Act. The custom is an old-established one, and in the case of the Dublin Corporation is stated to have been followed for the last thirty years. The objection is now made that such a custom is an infringement of the privileges of the solicitor's profession, and it is sought to insist that in future the complainants in such cases should always be represented by solicitors. Up to the present no definite ruling has been made on the subject, but it appears that sanitary authorities are within their rights.

IRISH ANTIVACCINATION LEAGUE.

The sixth annual conference of the Irish Antivaccination League, at Waterford on April 28th, passed a resolution condemning the Irish vaccination law, and calling on boards of guardians to refuse to enforce it. It was also decided to take legal proceedings in the High Courts if the Local Government Board attempted to dissolve antivaccinationist boards of guardians. The meeting was rendered notable by the receipt of a characteristically temperate letter from Mr. George Bernard Shaw, in which he says that for years past the strain of countenancing such a proceeding so gross, reckless, dirty, and dangerous as vaccination from the calf has been growing unbearable to all genuine bacteriological experts. Vaccination, he adds, is really nothing short of attempted murder. Other letters were also received at the conference, including one from Dr. Edward Haughton, who urges his fellow countrymen to "resist the odious law which demands that you should have an animal disease injected into the pure blood of your children."

MEATH HOSPITAL ANNUAL MEETING.

At the recent annual meeting of the supporters of the Meath Hospital and County Dublin Infirmary, special attention was drawn by one of the speakers to the fact that this hospital, like all the other clinical hospitals in Dublin, serves not only the city of Dublin but also the county at large. It is stated that more than 20 per cent. of all admissions are of patients who do not reside in the Dublin area. The deduction naturally drawn by the speaker was that the hospital had a right to expect that contributions should be forthcoming from the country districts in proportion to the benefits gained. Several of the Dublin hospitals have of late years got heavily into debt, and there is therefore special reason now for calling attention to the point.

MONAGHAN AND CAVAN ASYLUM.

The report of the Medical Superintendent of the Monaghan and Cavan Asylum states that on January 1st, 1910, there were 505 male and 410 female patients in residence. There were admitted 82 men and 84 women during the year; of these, 81 were suffering from mania, 73 from melancholia, 11 from epileptic insanity, and 1 from dementia. The discharges numbered 111, of whom 99 were recovered, 10 relieved, and 2 unimproved. The deaths numbered 54, giving a death-rate calculated on the average number resident of 5.9 per cent. The overcrowding of the asylum is referred to, the daily average number of inmates being 125 in excess of the legitimate accommodation. The net cost of maintenance per head per annum was £22 2s. 4d.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## MANCHESTER AND DISTRICT.

THE INCREASE OF INDUSTRIAL ACCIDENTS.

At the annual meeting of the London and Lancashire Insurance Company, the Chairman made allusion to the great anxiety caused to the insurance companies from the operation of the Workmen's Compensation Acts. Ever since the passing of the first Act the number and incidence of industrial accidents had been steadily increasing, and the views expressed by the Government in 1897 as to the approximate rates which should be charged for the risks then to be undertaken by employers had proved almost startling in their optimism. Of course the liability had been greatly increased by the Act of 1906, but even then it was difficult to understand how it could have been suggested that in the case of mines a rate of 1 per cent. on the wages would probably be sufficient. Experience had shown that at least five times that amount was necessary. In the case of the textile and engineering risks, for which a rate of 1s. to 2s. per cent. on the wages was thought to be sufficient, experience had shown that, allowing only for the merest margin of profit, the rate should properly be at least ten to twenty times greater. In a disputed case the companies were rarely able to recover their costs, which usually amounted to about £15, while, if they lost, the costs often amounted to £30. Generally the claimants refused to produce medical evidence in the first instance, and it was necessary for the company to send a doctor to see them, which cost a fee ranging from 10s. 6d. to 21s., or even two or three guineas for a specialist. It often happened, too, that even when a workman was willing to accept a lump sum the judges refused to allow the matter to be thus settled, and left the claim open indefinitely. The result was that legal and medical fees were increasing at an alarming rate. Employers must, therefore, be prepared for a considerable increase in the insurance rates; it might even prove that the companies could not possibly make the business pay, in which case the Government would have to take over the work itself. There seemed to be a tendency to trace every illness that occurred to an accident at work, and the amount of malingering was causing the greatest alarm.

SMALL-POX AT STALYBRIDGE.

It had been thought that the outbreak of small-pox at Stalybridge was over altogether, but, after a period of some weeks without any fresh cases, the disquieting news comes of 5 fresh cases in one day last week. There are now 9 cases under treatment in the hospital, the total number of cases notified since the commencement being 13. In addition to other measures a day school in the centre of the affected district has been closed until further notice, and all contacts are taken to the disinfecting station, where their clothing is disinfected. The latest cases have all been rightly diagnosed as small-pox, but some of the earlier

cases were for a time regarded as chicken-pox, and at a special meeting of the town council it was unanimously decided to include chicken-pox among the notifiable diseases, the order to come into force on May 4th, and to remain in force for six months.

CAMBRIDGE GRADUATES' MEDICAL SOCIETY.

The second annual meeting and dinner of the Cambridge Graduates' Medical Society was held at the Queen's Hotel, Manchester, on April 27th. Thirty members, three associates, and fifteen guests were present. The last included Professor Horace Lamb as the guest of the society; Mr. A. E. Shipley, the new Master of Christ's, who came as the guest of the Christ's members of the society, and Dr. Strangeways. A pleasant evening was passed; speeches were made by Professor Lamb, Mr. Shipley, Drs. A. H. Godson, Hulton, Strangeways, A. Hopkinson, Professor Toller, and the President, Dr. G. R. Murray. The society, which was formed last year to give Cambridge medical men in the district an opportunity of meeting each other, has forty-three members and seven associates. The associates are Cambridge students who are doing their hospital work at the Manchester School.

## LONDON AND DISTRICT.

TUBERCULOSIS IN MIDDLESEX.

A CONFERENCE between representatives of the Borough, Urban, and Rural district councils in Middlesex and the County Council was held on April 28th, and resulted in the adoption of three resolutions. The first was to the effect that each local authority, either independently or in combination, should establish and work an antituberculosis dispensary, and that in connexion with the treatment thereat provided provision should be made for the loan of open-air shelters for patients to use in their own homes. Dr. Macdonald of South Norwood, who seconded this resolution, pointed out the importance of getting cases under control in their early stages, and that dispensaries were a step in the right direction. Dr. Brackenbury of Hornsey was of opinion that the dispensary system apart from the use of sanatoriums would be of comparatively little use. This observation led to the second resolution (which recommended the provision of sanatorium accommodation for the treatment of cases of phthisis in Middlesex) being amalgamated with the first for the purpose of discussion, and finally both were carried. The third resolution was that the Local Government Board should be requested to take steps to impose compulsory notification of phthisis and other forms of tuberculosis on all Middlesex areas.

In respect to the need of special steps being taken, the Chairman of the Conference, Mr. W. W. Kelland, quoting from a report recently made by Dr. C. W. F. Young, County M.O.H., showing that the average annual number of deaths from phthisis in Middlesex during the past nine years had been 864, and that if it could be correctly assumed that every death represented five cases of recognizable phthisis, there must at present be about 4,500 such cases in the county.

## New South Wales.

THE INTER-STATE CONFERENCE ON TUBERCULOSIS.

THE Inter-State Conference on Tuberculosis concluded its labours at the end of February; its members were the principal medical officers of each of the States of Australia. Their joint report was not in the hands of the various Governments when our advices left, but Dr. Ashburton Thompson, President of the Board of Health of New South Wales, made a communication to the Sydney *Daily Telegraph* of March 11th, which may be taken to embody its main points. The terms of reference to the conference were "to devise systematic and uniform means" for combating tuberculosis in the States of Australia. The first decision of the conference was that as the members of the conference were the responsible medical advisers of their respective Governments any recommendations made must be in accordance with ascertained knowledge and practicable. Secondly, it decided that while the communicable character of tuberculosis points it out as a disease requiring the interference of Governments to restrain it, there is nothing to distinguish it from other diseases as a special responsibility of Governments in respect of cure. Hence the conference refrained from all reference to curative sanatoriums and acted on the assumption that the duty of the various Governments was confined to prevention. In regard to this, the first recommendation is that notification shall be made compulsory and universal throughout the Commonwealth. At the same time it is pointed out that compulsory notification is justifiable only when Governments are prepared to act on the information thus acquired, but that this is comparatively simple. A law should be passed conferring power to remove into segregation (on the order of a police magistrate made on the application of the Central Health Authority) any consumptives who are a danger to their housemates and others, or who either persistently neglect to take the simple precautions necessary, or who are manifestly unable to take them owing to advanced illness combined with poverty and like circumstances. The conference does not expect that it will be necessary to apply this law otherwise than in a very small number of cases, for its mere existence will probably exercise a very useful influence. In addition every State should provide accommodation for cases of advanced tuberculosis in persons unable to obtain it for themselves. Such provision the conference regards as an essential factor in the control of consumption.

The report also lays stress on the fact that the epidemiology of tuberculosis is in many respects unsettled, and that it is only on an accurate epidemiology that preventive measures can safely be based. During the past twenty-five years the medical profession, dazzled by the brilliant results of bacteriological research, has, it is pointed out, been unable for the most part to see beyond them. Such results are no doubt of great value, and show that phthisis can be communicated from man to man, but inquiry of quite a different order is necessary before it can be concluded that it not only can be, but actually is, so communicated. Hence the conference recommends that in each State, and by State officers, a uniform form of inquiry should be made into each individual case of phthisis. Such inquiry form, having been utilized for its own purposes by the State concerned, should ultimately be transmitted to the Commonwealth statistician, in order that its contents may be collated with similar information derived from the whole of Australia. In a few years a great body of valuable information would accumulate, and if analysed by the statistician in consultation with epidemiologists it would point the way to much more simple and less costly plans than any that could be devised in the present state of knowledge.

In regard to detection of early cases, the conference recommends that the State should provide free bacteriological examination of the expectoration of consumptives of every class of society. Though children do not suffer from pulmonary phthisis they frequently suffer from other forms of tuberculosis, so the conference regards systematic examination of school children as especially desirable, and recommends that to secure effect for the findings of such examinations, the Education departments should establish boarding-school sanatoriums, at which the usual course of school instruction can be carried out in the open air, and in conditions of life favourable to the tuberculous. At such open-air schools school teachers who have become consumptive might continue to be employed. As for any dangers arising from tuberculous meat and milk, these should be controlled by the Departments of Agriculture and of Health by the operation of food laws. It is only phthisis, including both pulmonary and laryngeal forms, of which it is necessary for the Governments of the various States to take direct cognizance for preventive purposes.

# Special Correspondence.

## FRANCE.

*A Patients' Lock-out.—Medical Inspection of Conscripts.*

DURING the early part of this year things were very flat in the medical world. There were no exciting novelties, no new cure for tuberculosis, no new disease; at the most we have seen a new name not calculated to excite geographical susceptibilities given to Malta fever. At the Faculty of Medicine the students have been conducting themselves with the gravity of members of the Academy of Medicine. One no longer hears even the noise of the conflict between the public and the doctors, which broke out some time ago, owing to a general raising of fees. This the doctors considered to be justified, partly by the increased cost of living and partly by the rise in the price of rubber. The doctors' clients seem to have failed to comprehend that by putting at their disposal a motoring zeal which took no account of tyres or horse-power, doctors had established a right to make their patients contribute to this improvement in medical practice. The same difficulty of comprehension will no doubt be shown to-morrow when the doctor literally flies to the relief of his patient. It is true that in one of the towns of the west of France there has been a kind of strike of patients actual and possible; they formed a league in which every member bound himself by horrid oaths not to consult a doctor until the old scale of fees was restored. This new kind of lock-out, however, ended very soon in fiasco. It was brought to an end by influenza at about the same time that M. Briand terminated the strike among the railway men, and very much in the same way—that is to say, by a kind of sudden mobilization. If it had not been influenza it would have been something else, and this demonstration of our power ought to teach us wisdom, since superiority so obvious imposes on us corresponding duties. On the other hand, it may well be asked whether the duties are not amply fulfilled by the efforts which scientific medicine is making to abolish the very springs of our professional resources. We ought to make a compact with the public upon the principle that every time we suppress a disease we should have a right to raise our fees for the treatment of those which remain. May we not look forward to the thrice happy day when mankind, riddled with vaccines as an old piece of furniture with worm-holes, when there remain only a few slight disorders justifying the other sex in exciting the interest and sympathy of ours, we shall be well paid for doing almost nothing? May we not look forward to the time when our consultations and visits will be replaced by that beautiful leisure of which Horace speaks:

> Seu te in remoto gramine per dies
> Festos reclinatum bearis
> Interiore nota Falerni.

But perhaps the old Falernian of which the poet speaks with so much affection will prove our last pathological snare. Indeed, modern existence does not seem to be leading us to those safe retreats and country joys for which some of us long.

At this moment as I write troops of young men are passing under my windows, dancing, singing, and shouting. They are conscripts returning from the *conseil de révision*, the physical examination held before they join their regiments. This same *conseil de révision* causes us often inwardly to rage. There is not a malingerer or a coward who does not go to his doctor to beg a certificate of incapacity. At the town of each canton a *médecin-major* of one of the regional battalions examines some forty young men in some sixty minutes, and decides as well as he can whether they should be sent to their regiments, rejected altogether, or a decision in their cases postponed for a time; the military doctor has to guide him nothing but certain certificates given by civil doctors, and presented by the interested parties themselves, certificates which must often seem to the military doctor nothing less than a reflection upon his perspicacity or as no more than evidence of the complacency of the civil doctor. It will be difficult for your readers to understand how great is the difficulty we encounter, even though every kind of influence is brought to play, in obtaining the rejection of a patient declared to be in the premonitory stage of tuberculosis, the stage in which lesions are latent. The result is that we prefer to run the risk of having a man sent back to us after some months with the colours. It is true that there is another medical inspection when the conscript reaches his regiment, and that this examination is much more close and careful, but it would be very much better to secure the co-operation of the family doctor, and to authorize him under proper regulations to send a note direct to the military administration. If the excellent plan introduced at Nice of providing every school child with a medical history book were generally adopted, it would be possible for the family doctor, before the conscript goes to the regiment, to insert in this book a final note for the edification of his military brethren. If this were done, not only would it prevent certain young men being forced to begin their military training who are unfit for it, but it would prevent the invaliding of some who under present conditions cannot be made into soldiers, but who might be useful if the family doctor's advice, as to the selection of climate and the adjustment of other conditions in a manner appropriate to their physical aptitudes, were accepted. No doubt there are many difficulties in the way of carrying out such a scheme, more especially so long as the family doctor is in respect to the conscripts entirely dependent upon private fees. But the question is one which will have to be considered by our Government. Year by year problems of this kind are being more carefully considered by Parliament, and eventually no doubt they will be solved. When that good time comes we shall no longer note among the young men who pass singing, dancing and shouting under our windows, some who sing false, who dance without spirit, and who only shout to still their well-grounded fears.

# Correspondence.

## THE PLACE OF THE HOSPITAL IN A CIVILIZED COMMUNITY.

SIR,—May I, through your columns, ask Dr. Lauriston E. Shaw if his excellent address published in your issue of April 29th could be printed in pamphlet form for sale? The subject is of course extremely important at the present time, and is set forth in a way that even country laymen could understand.

Personally, I should like to send a copy to every member of our local hospital committee, and no doubt many other practitioners would do the same. We have recently had much argument here on the points of hospital abuse, competition with practitioners, waste of hospital funds and energy on trivial cases, and admission of patients by practitioner's recommendation only, but failed to convince the lay element on any of them. The matter is really more important in some respects, in connexion with the small country hospital officered by practitioners, not only from the doctor's point of view, but from that of the patient's.

There is no fear that the dwellers in large towns will ever lack the highest technical skill or apparatus, but unless the country hospital definitely aims at providing only treatment which cannot be carried out at home, it becomes, both in general estimation and in fact, merely a means of gratuitous treatment for a class just above the Poor Law patient.

A further point not touched in the article referred to which would assist in developing the value of the hospital as a place for special treatment, is that the staff, although general practitioners outside, should specialize as far as the institution is concerned; this is so obvious that it hardly needs elaboration; it is absurd for half a dozen men on a small hospital each to do work in connexion with medicine, surgery, gynaecology, throats, eyes, *x* rays, skin, etc., and if we wish the general public to adopt the view that the country hospitals should drop ordinary dispensary work, and aim at providing special treatment for special cases, on the recommendation of the profession, it is essential that the local profession should agree to take up special branches of work.

It is no answer to this to say that there is no room or employment for specialists in country districts. There is no need to assume that title, but a man can perfectly well

be in general practice and yet, by devotion to special work at the local institution, become more efficient in that particular branch, to the advantage both of the patients and himself.

This would have the further advantage of including many more, and, in some cases, probably all, of the local practitioners on the staff, and incidentally remove a frequent cause of friction between fellow practitioners.—I am, etc.,

Bridgwater, April 30th. PENROSE WILLIAMS, F.R.C.S.Edin.

## POOR LAW INFIRMARIES AND HOSPITALS.

SIR,—In his reply (BRITISH MEDICAL JOURNAL, April 22nd) to my letter of April 8th, the Hon. Sydney Holland has shifted the ground of the whole controversy. He complains that I have misinterpreted the words of his Poplar speech, but at the same time he finds it necessary to devote three-quarters of a page to an endeavour to explain them away. Surely if, to point out my error was all that was required, much less than this might have served his purpose. Notwithstanding, however, all that he has written—four-fifths of which is entirely irrelevant—I still contend that the construction I put upon his words was the obvious one, and the one most likely to occur in the minds of those who heard or read his speech. If he feels aggrieved at my contentions, the blame must rest upon his own shoulders for having, by his choice of expression, obscured his true meaning.

Let me remind him that he drew a contrast between the hospital and the Poor Law infirmary with conclusions unfavourable to the latter. I am not concerned with what the Guardians of the Poor do or fail to do, nor with the merits and demerits of the present Poor Law system, and I do not intend to be drawn into a controversy in defence of either. My whole concern is with the above-mentioned conclusions to protest against their unfairness and to remove from the public mind the false impression which they convey.

Mr. Sydney Holland disclaims having made or having desire to make any suggestion of incompetence or lack of sympathy on the part of the staffs of Poor Law infirmaries, but what, may I ask, would he have your readers infer from his reference to the death-rate of babies in these institutions?

Again he finds fault with me for having represented him as referring to London Poor Law infirmaries. He says he never said "London." Granted, but may I again remind him that he was speaking in a London hospital to an audience of Londoners whose acquaintance with hospitals and infirmaries did not probably extend beyond London, and I put it to him that this audience would be more likely to infer from his remarks that he was speaking of London institutions rather than of any situated at the other end of the kingdom. And in any case his statement was a general and unqualified one, which must have included London, seeing that, of the total number of Poor Law infirmaries in England, London possesses thirty. But, why this eagerness to except London and carry the controversy so far afield? His reason is made patent a little further on in his letter, where he informs us that he was himself for several years an active guardian of two London unions. At that time, he goes on to say, both these unions had (he uses the past tense) excellent infirmaries. Unfortunately, both of these seem to have fallen from their high estate, and are now numbered with the "condemned."

I am taunted with having set up an imaginary windmill to knock my head against, and then straightway Mr. Sydney Holland proceeds to accept a challenge which I never issued. My challenge to him was to prove that the Poor Law infirmaries are perfunctory and unsympathetic in their treatment of the sick poor. I did not challenge him to prove anything either about the Poor Law system or the guardians of the poor. His purpose is obvious He sought opportunity to attack the whole Poor Law organization, and at its expense to further his pet scheme of "State aid for the hospitals," and as my letter did not supply this he formulated a new challenge to suit his own ends.

Then I come to what Mr. Sydney Holland evidently considers to be the chief point of his reply—namely, his conviction of me out of my own pen. Unfortunately for himself, his choice of weapon has been a bad one, for far from convicting myself or the Poor Law infirmaries, he himself and the hospitals stand convicted, for let me inform him that much of the hardness and harass of Poor Law infirmary work is directly due to the inconsiderateness and open hostility of the hospitals. Is Mr. Sydney Holland ignorant of the type of case daily disgorged from the general hospital and sent on to the Poor Law infirmary? If so, let me inform him that it is the case whose detention in hospital is calculated neither to add lustre to its reputation nor—what is more important—to inflate statistics.

I think now that I have dealt with all the chief points in the letter relevant to the issue. The remainder does not call for comment, as it does not arise out of the controversy.

I have remarked with pleasure the kindly tribute which Mr. Holland pays to the medical and nursing staffs of our Poor Law infirmaries, and I accept it as a withdrawal of the imputation cast upon them and their work in his Poplar speech.

May I, in conclusion, express my own personal opinion that such random assertions as the one complained of are much to be deprecated, as they tend to create a totally false impression on the lay mind, and thus may work untold mischief?—I am, etc.,

London, N., April 30th. J. JOHNSTONE JERVIS, M.B.Edin.

## CHRONIC INTESTINAL STASIS.

SIR,—I have read with interest the paper on chronic intestinal stasis treated by short-circuiting or colectomy in the BRITISH MEDICAL JOURNAL of April 22nd, in which Mr. Harold Chapple gives an account of 50 cases successfully operated on by Mr. Arbuthnot Lane. A reader of this article cannot help being struck with the apparent simplicity of the treatment, the uniformity of success, and the complete absence of mortality. Mr. Chapple says, "My list does not pretend to include all the cases that have been subject to operative treatment," but he does not tell us if these 50 cases are consecutive or not, or whether any unsuccessful cases occurred during the period covered by these cases.

To surgeons anxious to benefit by Mr. Lane's large experience in this class of surgery, it would be of considerable interest to know if any failures have followed the operations of colectomy or ileo-colostomy for this complaint in Mr. Lane's practice.—I am, etc.,

London, W., May 2nd. C. GORDON WATSON.

## HEART FAILURE.

SIR,—Dr. James Mackenzie, in the Oliver-Sharpey Lectures, relies chiefly for the treatment of heart failure on rest, stating that he believes all the advantages claimed for baths and exercises as therapeutic agents are really due to the physical rest their adoption entails. As this statement has called forth some comment in your pages, may I be allowed to suggest that Nauheim baths and exercises are the means by which comparative rest can be most effectually attained in cases of heart failure? There are only two ways of giving an overworked heart comparative rest. First, by diminishing its work by resting the body; and, secondly, by increasing the size of the peripheral vessels, and hence reducing the amount of work the heart has to perform in pumping the blood through the vascular system. The latter method is exactly what the Nauheim baths and exercises are claimed to do, and in practical experience are found to do.

If the pump at the waterworks is not sufficiently strong to pump the water to the town two courses are open—either to fit a stronger pump, or to increase the diameter of the water pipes. This latter is what the Nauheim baths and exercises do, as can be proved by the sphygmomanometer and the sphygmograph. As one who has been in general practice for some years, and who has therefore been able to follow up his cases, I can affirm that many cases of heart failure which have passed through my hands, and who tried rest in bed for months or longer, would still be condemned to a life of inactivity had it not been for the Nauheim baths and exercises. I have proved this in practice again and again, and I have no hesitation in saying, from practical experience, that I consider the

Nauheim baths the most effective method of giving an overworked heart comparative rest. I have patients leading active, useful lives to-day who spent years of invalidity until they had a course of Nauheim baths. I should, in conclusion, like to point out that, apart from one hour's rest a day, I do not confine my Nauheim cases to bed while they are under the treatment, and hence the good results cannot be due to the rest in bed.—I am, etc.,

Woking, April 29th. R. THORNE THORNE.

## CHRONIC TRAUMATIC MASTITIS.

SIR,—I have just been reading Mr. Cheatle's paper in the JOURNAL of March 4th on Chronic Traumatic Mastitis, and note with interest the connexion Mr. Cheatle shows to exist, in some cases at least, between the wearing of badly-made corsets and cancer of the breast. I would just like to say that in the course of fourteen years' practice among African natives, both here and in Nyasaland, I do not remember to have seen a single case of cancer of the breast in a native. I have seen cancer in other regions, but never in the breast. As hardly any native women wear corsets, I have often wondered whether any connexion would eventually be proved between corsets and cancer.—I am, etc.,

Lovedale, South Africa, April 8th. NEIL MACVICAR, M.D.

## ORIGIN OF THE VERTEBRATES.

SIR,—During the period of nearly three months which has elapsed since the appearance of your leader on the origin of the vertebrates, I have been engaged, in conformity with the general advice conveyed by that article, in a careful perusal, in the first place, of Dr. Gaskell's remarkable book, and subsequently in following up the train of thought and speculation his work necessarily excites.

Here a preliminary thought presents itself. Is it not surprising that none of your readers, with ample leisure at their disposal, should have anticipated me in some reference to the subject of this letter? Are we to blame for this silence the specialization Dr. Gaskell speaks of in his introduction, the fact that every investigator in our time is confined more and more to one department of science?

This seems to be the great defect of our modern medicine; what else but some such want of sympathy with general conceptions could account for the fact that Dr. Gaskell's theory has already gone over fourteen years without professional recognition? For medical men should have been the first to perceive its value. Is not the participation of the nervous system—it is to the nervous system that Dr. Gaskell, who here receives the weighty support of Professor Starling, turns for his chief argument—more and more evident to-day in every general disturbance of health? Have not the diseases of the central nervous system undergone a markedly, almost an alarming, increase within the last two decades? And is not this branch of medicine the most abstruse, the least understood, and the most defectively expounded?

Dr. Gaskell's theory throws a welcome ray of light over this and its neighbouring sections of pathology. It suggests explanations of many anomalies of growth and development, shows how much more than what has already been achieved may be expected from the study of the vestigial organs and the ductless glands, and admits of a rational description of the structure and functions of the cerebro-spinal tract and its secretion.*

One of the chief objections urged against Dr. Gaskell's position is that his theory entails the necessity of creating a new digestive tube in an already highly-organized animal. But Dr. Gaskell justly holds that the difficulty in this case is no greater than that lightly overcome by his opponents in forming a new air-absorbing respiratory organ from one previously aquatic in its functions. He thinks, to convey his own expression, that the evidence is stronger in favour of the vertebrate alimentary canal being formed from a pre-existing respiratory chamber than that an alimentary canal should have taken on a respiratory function in its anterior end (see discussion at the Linnean Society).

From the letter quoted at the head of the opening pages of the *Origin of Vertebrates*, Professor Huxley's interest seems to have been aroused in the fortunes of the new hypothesis. This fact alone should commend Dr. Gaskell's book to every student of biology, and especially, as I have implied, to that student of the science medical men know as the pathologist.—I am, etc.,

Nice, April 17th. A. W. GILCHRIST, M.D.

* At the recent discussion, referred to in your article, at the Linnean Society on this theory of the origin of the vertebrates, Professor Dendy expressed the opinion that the choroid plexuses possessed a gill-like character and probably formed a respiratory organ for the brain. Dr. Gaskell was apparently justified in regarding this view as somewhat novel and fanciful. He and Professor Starling could have added that most modern physiologists, at least in France (see Milian, *Le liquide cephalo-rachidien*), look upon the choroid plexuses as a ductless gland principally concerned with the ependyma in secreting the cerebro-spinal fluid.

## PHYSICIAN OR SURGEON?

SIR,—As a general practitioner I have been interested by Mr. Howlett's letter in your issue of April 22nd (p. 967). I cannot see any reason why a physician should not inject salvarsan; by no stretch of imagination can one call it a surgical operation, any more so than tapping the chest or lumbar puncture. I have always failed to see the justice of the restrictions which have been placed on the practice of the physicians in Hull, whilst the surgeons have been allowed to indulge in medical practice, and even in pharmacy. If any distinction is to be made in practice, surely it should be applied to the surgeons as well as the physicians.—I am, etc.,

Beverley, April 25th. H. L. MUNRO, M.D.Edin.

# Universities and Colleges.

## UNIVERSITY OF CAMBRIDGE.

*Degrees.*

THE following degrees have been conferred:

M.D.—P. Hall-Smith, N. Wilson, B. Halley-Stewart.
M.B., B.C.—F. G. Caley.

*Examinations.*

The following candidates have been approved at the examination indicated:

SECOND M.B., B.C. (*Part II*).—H. A. Bell, B. K. T. Collins, H. P. Dawson, H. V. Deakin, H. Hartridge, T. J. H. Hoskin, H. A. Lucas, R. K. Merson, H. A. Richards, C. J. Scholtz, J. E. Sharp, A. G. G. Thompson, H. A. Williams, H. G. Wiltshire.

## UNIVERSITY OF GLASGOW.

THE following were among the degrees conferred at a meeting of the Senate on April 24th:

M.D.—J. M'Clure, J. M'Kay, G. W. Milne.
CH.M.—J. R. Kerr.
M.B., CH.B.—*D. T. C. Frew, *W. MacMurray, †J. Gibson, †J. F. Smith, †A. S. Wilson, †J. W. Anderson, †J. T. Brown, J. B. Alexander, D. Arbuckle, Agnes B. Auchencloss, C. Averill, Christina Barrowman, Marie A. A. Beard, A. H. Brown, J. Buchanan, D. Downie, R. Findlay, T. L. Fleming, T. S. Fleming, H. Forrest, T. L. Fraser, A. Garvie, A. S. Hannay, W. Johnstone, J. D. Mackinnon, S. A. MacPhee, G. H. M'Robert, J. P. M'Vey, M. Manson, F. W. Martin, R. S. Miller, J. Mowat, H. L. Neil, A. Poole, A. S. Richmond, Barbara G. Rutherfurd, J. L. Scott, W. Sneddon, J. Stewart, J. T. W. Stewart, T. L. G. Stewart, Barbara Sutherland, A. G. Waddell, J. D. Walker, A. G. S. Wallace, J. Williamson, G. J. Wilson, F. H. Young, J. Young.
* With honours. † With commendation.
B.Sc. (*in Public Health*).—J. C. Middleton.

On the same occasion the Bellahouston Gold Medal for eminent merit in a thesis for the M.D. was handed to Dr. W. B. M. Martin, and the Asher Asher Gold Medal in Laryngology and Rhinology to Mr. W. C. Davidson.

## UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at a meeting of the Senate on Tuesday, April 21st:

M.D.—W. Hutcheson, C. W. Laird, R. E. Lee, A. A. Louw, D. M. Moffatt.
M.B., CH.B., B.A.O.—W. E. Adam, J. Beckett, R. E. Dunn, W. L. English, J. Gardiner, J. H. C. Grene, H. H. James, E. F. Lawson, M. M'Knight, C. O'Brien, J. G. Ronaldson, W. A. Taylor.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly Comitia was held at the College on Thursday, April 27th, the President, Sir Thomas Barlow, in the chair.

*Membership.*

The following were admitted Members of the College:

Laurence Ball, M.B.Lond. (London); George Denne Franklin, M.B.Camb., L.R.C.P., Capt. I.M.S.; George Alexander Gibson, M.D.Edin., F.R.C.P.Edin. (Edinburgh); Thomas Wm. James

Johnson, M.B.New Zealand, L.R.C.P. (London); Frederic Percival Mackie, F.R.C.S., L.R.C.P., Capt. I.M.S. (London); Albert Ernest Naish, M.B.Camb., L.R.C.P. (Sheffield); Miss Dossibai Rustomji Cowasji Patell, L.R.C.P. (London); Alfred Ellington Stansfeld, M.B.Camb. (London); William Whiteman Carlton Topley, M.B.Camb., L.R.C.P. (London).

*Licences.*

The Licence of the College was granted to eighty-three gentlemen.

*Fellowship.*

The following Members, on the nomination of the Council, were elected Fellows of the College:

Peverell Smythe Hichens, M.D.Oxf. (Northampton); Frederick Stephen Palmer, M.D.Durh. (London); Charles Gabriel Seligmann, M.D.Lond. (London); Herbert Williamson, M.B.Camb. (London); John Alexander Nixon, M.B.Camb. (Bristol); Horatio George Adamson, M.D.Lond. (London); Eric Danvers Macnamara, M.D.Camb. (London); Harold Theodore Thompson, M.D.Camb. (London).

The following registered medical practitioners, not Members of the College, nominated by the Council as especially eligible, were also elected:

Edward Granville Browne, M.B.Camb., F.B.A. (Cambridge); Sir David Bruce, C.B., M.B.Edin., F.R.S., R.A.M.C.

*Communications.*

The following communications were received:

1. From the Secretary of the Royal College of Surgeons, reporting proceedings of the Council of that College on February 9th, March 9th, and April 6th.

2. From the Home Office (dated March 2nd), *re* the labelling of patent medicines. The question was referred to the Censors Board to consider and report on at a future Comitia.

3. From the Clerk of the Privy Council (dated March 23rd), as to an International Congress on Thalasso-Therapeutics. No steps were taken in the matter.

4. From the Secretary of the National Association for the Prevention of Consumption as to the International Tuberculosis Congress at Rome in September next. It was left to the President to nominate delegates to represent the College.

5. From the Master of the Apothecaries Society (dated March 30th), intimating that the Society would apply for power to issue diplomas in Public Health and in Tropical Medicine, and expressing the hope that the College will not oppose this application. A reply was sent to the effect that the College, understanding that such diplomas would be restricted to the diplomates of the Society, did not at present propose to take any steps to oppose the application.

6. From the Royal Statistical Society (dated March 29th), as to a "definition of still-births." It was left to the Board of Management to nominate a small subcommittee to deal with the question.

*General Medical Council.*

Dr. Norman Moore, whose term of office had expired, was re elected as the representative of the College on the General Council of Medical Education and Registration.

*University of London.*

On the nomination of the Council, Dr. Frederick Taylor, whose period of office had expired, was re-elected as the representative of the College upon the Senate of the University of London.

*Lister Institute.*

Dr. F. W. Andrewes, who retired by rotation, was re-elected as the representative of the College upon the Council of the Lister Institute of Preventive Medicine.

*Acute Poliomyelitis and Polioencephalitis.*

Dr. F. E. Batten moved: "That in view of the infectivity of acute poliomyelitis and polioencephalitis, its annual occurrence in London, and the crippling effect of the disease upon children and others, the College do recommend to the London County Council that poliomyelitis and polioencephalitis be included among the notifiable diseases, in order to diminish and, if possible, eliminate its incidence on the population. This was seconded by Dr. Farquhar Buzzard and carried.

*Reports.*

The quarterly report of the College Finance Committee, and the quarterly report of the examiners for the licence on the results of the January examinations were received.

*Library.*

Books and other publications presented to the library during the past quarter were received, and thanks returned to the donors.

## CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved in the examinations indicated:

FIRST COLLEGE.—F. Halden, R. M'Gregor, J. Walker.
SECOND COLLEGE.—J. F. Bourke, R. J. Croxford, J. V. Duffy, W. C. Holburn, Violet M. Tracey, W. N. P. Williams.
THIRD COLLEGE.—Chuni Lal Bhatia, Diwan Jai Chand, J. M. Coplans, G. A. Hodges, Rona Lockhart, F. R. Lucas, Tonur Sekharan Nair, J. Scott, Balwant Singh, Kul Want.
FINAL.—A. B. Bateman, Framroze Limji Bhajiwalla, Bhalchandra Shivram Bhandarkar, Dhunjibhoy Bomanji Cama, Rastamji Ratanji Dadina, D. L. Hutton, J. M'Cusker, J. M'Manus, G. da Silva, J. A. Smith, H. F. Williams.

# Obituary.

## SAMUEL KNAGGS, M.R.C.S., L.S.A.,

CONSULTING SURGEON, HUDDERSFIELD INFIRMARY.

THERE passed away on April 23rd, at the age of 82, Mr. Samuel Knaggs, who, during a long professional life in Huddersfield, had earned the respect and esteem of all men.

He was born at Clapham Common, was apprenticed to a practitioner in Huntingdonshire, became a medical student at Guy's Hospital, and took the diplomas of M.R.C.S.Eng. and L.S.A.Lond. in 1850. He began practice in Huddersfield shortly afterwards, and was appointed Surgeon to the Huddersfield Infirmary in 1864. This office he retained until 1899, when he was appointed Consulting Surgeon. He was for a time one of the District Medical Officer of the union and for many years surgeon to the police. He took an active part in the establishment of the Victoria Sick Poor Nurses' Association in Huddersfield in 1897, was for several years Vice-Chairman of its committee and always took a deep interest in its work.

He was President of the Yorkshire Branch of the British Medical Association in 1884, and in that capacity delivered an address on Evidences of and Indications for Progress in Medicine in Surgery.[1] In it he dealt, among other subjects, with the antiseptic system of surgery, and when the date is remembered we may find in it good grounds for the opinion that he was a surgeon of sound judgement who thought for himself, ready to study new doctrines, but to accept them only when he had fully considered the facts and arguments on which they rested. Soon after settling at Huddersfield he wrote a book on *Unsoundness of Mind considered in relation to the Question of Responsibility for Criminal Acts*, and later a short work, entitled *Common Sense versus Homoeopathy*. Quite recently he published a pamphlet on socialism, to which he was strongly opposed, and he was the author also of essays on religious subjects. He was a man of deep religious convictions, a member of the Church of England who took a deep interest in its work, and in the days of his activity himself an active worker.

Mr. Knaggs retired from practice only a few years ago, and though he never, we believe, served any municipal office, took an active share in all good works in Huddersfield. He was fond of music and a supporter of the local choral society, and was known also as a chess player. Mr. Knaggs celebrated his golden wedding some seven years ago, but the death of his wife two years afterwards saddened his later years, though he was able to take pride in his sons, of whom two are members of his own profession —Mr. Lawford Knaggs, Surgeon to the Leeds General Infirmary and Professor of Surgery to the University of Leeds, and Mr. F. H. Knaggs, Ophthalmic and Aural Surgeon to the Huddersfield Infirmary.

Mr. Knaggs was justly held in high esteem by his colleagues in Huddersfield. He had been twice President of the Huddersfield Medical Society, and on completion of his fiftieth year of membership was elected an honorary member. Last year, on the occasion of the memorial service held on the death of King Edward VII, he headed the procession of medical men who walked from the Infirmary to the Town Hall, and afterwards to the Parish Church.

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DR. C. A. OLIVER, of Philadelphia, died on April 8th. He was a voluminous writer on ophthalmic subjects, but he is best known in England as one of the editors of a *System of Ophthalmology*, in four volumes, usually known as *Norris and Oliver's System*. He was for some years associated as co-editor (with Mr. Sydney Stephenson) of *The Ophthalmoscope*, one of the best known journals of ophthalmology published in England. The cause of death was uraemia.

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THE death at Eastbourne is announced of Surgeon-General WILLIAM BURNS BEATSON, M.D., late of the Indian Medical Service, at the age of 86 He entered the Bengal Medical Department in June, 1852, and became Surgeon-General in December, 1883, in which year he retired from the service. He served in the Burmese war in 1853,

[1] BRITISH MEDICAL JOURNAL, 1884, vol. ii, p. 56.

receiving a medal with clasp. He entered Guy's Hospital as a student, and after qualifying in 1846 had medical charge of an East India passenger ship, in which he made three voyages round the Cape of Good Hope. He served in India, chiefly in civil employ, for about twenty-five years, and obtained promotion in the administrative grade. He held several appointments at Nagpore, including those of Superintendent of the Lunatic Asylum, Medical Officer of the Central Gaol, and Principal of the School of Medicine. He was the author of *The Indian Medical Service, Past and Present*, and contributed various papers on medical and surgical subjects in the Indian journals. He was a M.R.C.S Eng., F.R.C.S.Eng., M.R.C.P.Lond., and M.D. of St. Andrews University.

# Public Health

## AUSTRALIAN MEAT.

IN the Report of the Medical Officer of Health, City of London, issued on March 28th, there is a note on the importation of Australian meat, in which an abstract is given of the recommendations of the Commonwealth Government in regard to the uniformity of standard of carcass meat for export. The conditions also are detailed under which briskets excised from carcasses affected with parasitic nodules may be allowed to be exported. The recommendations are, briefly, as follows: In the case of a carcass otherwise free from disease, such briskets as are shown by searching examination to be free from nodules shall be approved for canning for export. Where, however, three or four nodules only have been found, although the brisket might reasonably be approved after removal of the affected part, "we consider that, as a matter of policy, it may be advisable, in view of the present ferment of opinion in Great Britain, that none of these briskets should be allowed to be treated for export. The position in this regard should, however, be reviewed in twelve months." All briskets shall be "boned and sliced under the control and supervision of the inspecting officer." The opinion is further expressed that there is no difficulty, with proper inspection, in removing all nodules from the finely-sliced briskets; that although the nodules might be confused with tuberculous lesions by inexperienced inspectors, they are of much less importance, as they are mainly objectionable owing to their unsightliness; and that, finally, there would be no danger to man from their presence in meat. These recommendations uphold the view which we advocated in our earlier references[1] to this subject, but they display a slight tendency to ignore the economic point of view that canned *Onchocerca*, howsoever little dangerous, is not the equivalent of canned meat.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Hunslet Rural District.*—Based on an estimated population of 7,294 persons, the birth-rate was 27.0 per 1,000, the death-rate from all causes 12.9 per 1,000, and the infantile mortality rate was equal to 69 per 1,000 births. Measles was present in epidemic form during four months of the year, and was chiefly confined to the children attending the infant departments of certain schools, some of which were closed. Dr. Buck considers that the benefit to be derived from closing schools for measles is exceedingly doubtful except as a means of saving the grant. When discussing the question of tuberculosis he asserts that compulsory notification of the disease is urgently necessary. He advises that all efforts should be concentrated on prevention rather than on curative methods, inasmuch as in the latter many years of constant treatment are necessary to obtain a small percentage of successes, whilst in the former advanced cases should be isolated and cease to be a source of infection, and the others should be so educated by a short stay in a sanatorium that they would cease to be a danger either to themselves or to those around them.

[1] BRITISH MEDICAL JOURNAL, December 3rd, 1910, p. 1796; February 18th, 1911, p. 385.

THE summer course of lectures at the Hospital for Sick Children, Great Ormond Street, will begin on Thursday next, when Mr. H. Stansfield Collier will give a lecture on the diagnosis of surgical abdominal diseases of childhood. On May 18th Dr. Batten will give a demonstration on selected medical cases. The lectures, which are given each Thursday at 4 p.m., are open free to medical practitioners.

THE report to be submitted at the annual meeting of the Factory Girls' Country Holiday Fund next Wednesday shows that the number of girls annually assisted to take a week's or a fortnight's holiday in the country has risen from 38 in the year 1888 to 4,865 last year. A week's holiday costs 15s., and about a third of the total sum required each year is now being contributed by the girls themselves. Last year's work left but a very small balance in hand, so any donations will be especially welcomed by the Honorary Treasurer, H. Rendell, Esq., 51, Gordon Square, W.C.

# Medical News.

WE are informed that the exhibition illustrative of nursing work in the Far East, which is being organized by the Nurses' Missionary League, is to take place at the Holborn Town Hall on Wednesday, May 10th, and not on Tuesday, May 9th, as previously stated in these columns.

THE Glasgow University Club, London, will dine at the Trocadero Restaurant, Piccadilly Circus, on Friday, May 26th, at 7.30 p.m., under the chairmanship of Professor John M. Thomson, LL.D., F.R.S., of King's College, London. Further particulars can be obtained from Mr. W. Craig Henderson, 2, Paper Buildings, Temple, E.C.

THE Gresham Professor of Physic, Dr. F. M. Sandwith, will give four lectures at the City of London School, Victoria Embankment, on May 16th, 17th, 18th, and 19th, at 6 p.m. on each day. The first two lectures will deal with measles, the third with the black death, and the fourth with the plague of to-day. The lectures are free to the public.

THE annual meeting of the Invalid Children's Aid Association will be held, by kind permission of Sir Edwin Durning-Lawrence, M P., at 13, Carlton House Terrace, S.W., on Friday, May 19th, at 3 p.m. Sir Edwin Durning-Lawrence will preside, and the Archdeacon of St. Albans, Mrs. Kendal, Miss Broadbent, Mr. Edmund Owen, and Mr. Silas Hocking will be among the speakers.

THE Surgical Section of the Royal Society of Medicine will hold a meeting in the rooms of the Medical Society of London, 11, Chandos Street, W., on Tuesday next, at 5 p.m., at which there will be a demonstration of cases of cleft palate operated on by various methods. A debate on the subject will be opened by Mr. Arbuthnot Lane, and among those who intend to demonstrate cases or take part in the debate are Dr. Ulrich (Copenhagen), Mr. A. W. Murray (Liverpool), Mr. Harold J. Stiles (Edinburgh), Mr. Edmund Owen, Mr. Douglas Drew, Mr. F. F. Burghard, Mr. G. E. Waugh, Mr. Barrington Ward, and Mr. T. H. Kellock.

AT the annual meeting of the members of the Royal Institute, held on May 1st, the Duke of Northumberland, president, in the chair, the annual report of the committee of visitors for the year 1910, testifying to the continued prosperity and efficient management of the institution, was read and adopted, and the report of the Davy Faraday Research Laboratory of the Royal Institute, which accompanied it, was also read. Thirty-nine new members were elected, and 61 lectures and 17 evening discourses were delivered in 1910. The books and pamphlets presented amounted to about 239 volumes, making, with 604 volumes (including periodicals bound) purchased by the managers, a total of 843 volumes added to the library in the year. The Duke of Northumberland was re-elected president, Sir James Crichton-Browne treasurer, and Sir William Crookes secretary. Among the managers elected were Dr. J. Mitchell Bruce, Dr. Donald Hood, and Sir Francis Laking.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on April 21st, 1911. The accounts presented showed that the exceptionally favourable experience of January and February had extended into March, and the records of the society for the first quarter of the present year showed more new entrants than had ever before been obtained in the same period; at the same time the sickness claims received have been fewer and of shorter duration than usual. The most important matter considered by the committee was the report and balance sheet for the year 1910, to be presented to the members at the annual general meeting to be held at the rooms of the Medical Society of London on May 18th at 4.30. The business of the year was very good and added considerably to the financial strength of the society. The number of members on December 31st last was 2,923, and during the year the funds rose from £233,376 to £241,532, although no less than £14,631 has been paid to the members as sickness benefits, and cash bonus amounting to £766 have been received by those members who reached the age of 65. A few verbal alterations in the rules are suggested by the committee, but it is satisfactory to note that, although the growth of the society's business has been rapid and continuous, yet during the whole twenty-eight years it has been in operation very few real alterations in the rules have been found necessary. An occasional slight adjustment has been sufficient to remove any difficulties that have arisen. Prospectuses and all further particulars on application to Mr. F. Addiscott, secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

### INCOME TAX.

S. C. inquires as to the admissibility of certain deductions in making his return of professional profits for income tax purposes.

*** Of the expenses in question the following are allowable: Repairs and new parts for a motor car, car insurance, local taxation licence for the car, wages and board of chauffeur. With regard to the depreciation of the value of a car, the Revenue authorities will not as a rule admit any deduction, but if this deduction is refused the cost of replacing the car should be claimed when incurred.

JUSTITIA took over the practice—or so much as was transferable—of another doctor in the town a year ago. The surveyor has charged him with income tax on the basis of his predecessor's profit, but offers to reduce the charge to the actual profit made from the practice taken over, if that portion of the profits of the year be distinguished—a process not difficult for the present year, but increasingly so in the future.

*** "Justitia" is entitled to claim (1) that he is not carrying on two practices, but one practice; (2) that he did not succeed to the practice carried on by another person at another address, but only to such patients as would come to him; (3) that he is liable to be charged either solely on his own profits for the previous three years (on the ground that the practice has merely been extended), or alternatively on the amount of his own profits for the first year (on the ground that the practice in its present state is a new one set up at the beginning of the year).

1134 writes that he has been refused allowance of two-thirds his rent in arriving at his professional profits.

*** The law is that a sum may be deducted as rent of professional premises to an extent not exceeding two-thirds of the whole rent where the property is occupied residentially. The title to the two-thirds depends upon whether two-thirds of the rent is in fact properly attributable to professional purposes. It is a fairly general practice for one-half to be allowed to professional men where the circumstances are not unusual.

MIDLAND PRACTITIONER inquires whether in claiming abatement he can deduct the statutory one-sixth and one-eighth from gross rentals in calculating his total income.

*** Yes. Income from property is taken at the net sum at which it is assessed for Schedule A, after allowance of the deductions.

### PAPER EATING.

J. S. F. asks for suggestions in the treatment of a patient aged 41, who during her previous pregnancies only (she has had six children) used to eat paper; her last child was born fourteen months ago, and she has continued the practice since that confinement. She eats note paper and the *Strand Magazine*, but not newspapers; she eats a great deal every day, and the paper is passed per rectum without much change. Our correspondent considers her to be in good mental and bodily health.

### DIGESTED VACCINES.

COLONIAL asks for information as to the experiments being made with "digested" vaccines, and whether a plague digested vaccine would produce less constitutional disturbance than Haffkine's. I must, he adds, have done nearly ten thousand injections of Haffkine's prophylactic, and while recognizing its marvellous efficacy, know that it can cause much personal depression extending in some cases to months.

*** We are not quite sure to what experiments with "digested vaccines" our correspondent is referring. In 1908 Ruffer and Willmore in a paper on the production of immunity against dysentery toxin (BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 1176) published experiments on animals with dysentery bacilli digested with pepsin, and subsequently used bacilli so treated to immunize horses in the preparation of antidysentery serum. According to these authors digestion for two or three days nearly abolishes the toxicity whilst leaving the protective and immunizing powers unaltered. Gottstein in a paper entitled, "Ueber die giftige und immunisierende Wirkung Pepsin verdauter Typhus bacillen" (*D. Arch. f. klin. Med.*, 1908, Bd. 94, p. 255), stated that he successfully employed bacillary emulsions digested with pepsin. In this case the product was fairly toxic, and the advantage claimed was thought to be due to the production of a soluble "fermo-toxin" capable of accurate standardization. Experiments on plague-vaccines prepared by the hydrolysis of the proteins of this bacillus have, we believe, been carried out at the Lister Institute, but the results have not yet been published.

## ANSWERS.

IN answer to a "Medical Man not in Practice," Dr. H. L. Pringle, J.P., also not in practice and who resides at Ferndown, Wimborne, writes to recommend that district as suitable for patients suffering from rheumatism, phthisis, or asthma. It is dry, sunny, and bracing, and mostly on sandy or gravelly subsoils. It is between Wimborne and the New Forest, and, by a road in course of construction, will in a few months be within three miles of the Bournemouth tram service.

DR. E. CARNALL (London) writes to suggest Newton Abbot, Devon, as a suitable locality.

### SEA WATER INJECTIONS.

C. D. B.—A long and fully illustrated paper by Dr. Robert Simon concerning the therapeutic use of sea water injections in various diseases and its technique will be found in the *Medical Annual* for 1910.

### WRITER'S CRAMP.

DR. H. J. THORP (Ipswich) writes: In reply to "Q.," the chief remedy is rest; without it nothing can be done. Remove tenderness by rest and blistering and the administration of small doses of potassium iodide 1 grain, liq. arsenicalis 3 minims, t.d.s. When the tenderness has disappeared, systematic rubbing of the muscles, especially the muscles of the hand, is most valuable.

## LETTERS, NOTES, ETC.

### MIDWIVES AND THE THIRD STAGE.

DR. H. VALLANCE (Pontisbright, Lewis) has sent a letter with regard to a case of death in childbirth to which he was recently summoned to find the patient already dead. It appears that the woman, aged 28, was delivered of a live child after a labour lasting nineteen hours. The certified midwife in attendance endeavoured to express the placenta for about three-quarters of an hour, but without result, and then introduced her hand and removed the placenta. A little over an hour later, after washing the patient and the baby the midwife left the house; on returning half an hour later she found that the patient had died. A *post-mortem* examination showed inversion of the uterus, the fundus being about level with the external os. A piece of membrane measuring about 6 in. by 4 in. was found adherent to the uterus. The placental site was at the fundus, and did not show signs that the placenta had been adherent. At the inquest no evidence of infringement of the rules of the Central Midwives Board was elicited, and the midwife was absolved from any blame in her conduct of the case. Dr. Vallance continues: This case is of interest, first, on account of its rarity, as it is said only to occur once in 200,000 times; and, secondly, because in Section 17 (*b*), Rule 4, of the Central Midwives Board, a midwife is allowed to make efforts at expression of the placenta for an hour before calling a doctor. This appears to me to be too long a time, especially in view of the above unfortunate result. It is with the view of eliciting expressions from your readers as to the desirability or not of this rule being altered that I have ventured to report this case.

### HYDROTHERAPY.

DR. SIMON BARUCH of New York writes to inform us that not only is there a chair of hydrotherapy in the medical department of the Columbia University, and regular examinations in this subject for the final degree of M.D., but that there is a hydrotherapeutic department in the Vanderbilt clinic where the technique of all procedures is taught. The bath department of the Riverside Association affords opportunities for the treatment of poor patients sent by the hospitals and dispensaries of New York. An extract from a report of this department for 1903-4 shows that in that year 576 patients were received from hospitals and dispensaries.

ERRATUM.—In a review of Dr. Eden's *Manual of Gynaecology* which appeared in the BRITISH MEDICAL JOURNAL of April 29th, the name printed as "Gaertner" (p. 1002, line 21 from the top of the right hand column) should be "Gartner."


**SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.**

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| Eight lines and under | 0 | 4 | 0 |
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All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

# An Address

ON

# SOME ASPECTS OF FUNCTIONAL DERANGEMENTS OF THE NERVOUS SYSTEM.

DELIVERED BEFORE THE UNIVERSITY OF SYDNEY MEDICAL SOCIETY,

BY GEORGE E. RENNIE, B.A.SYD., M.D.,
F.R.C.P.LOND.,
PHYSICIAN TO THE ROYAL PRINCE ALFRED HOSPITAL, SYDNEY.

WHILE organic diseases of the nervous system are comparatively rarely met with in general practice, you will constantly meet with cases in which some functional derangement of the nervous system plays an important part, either in the etiology or in the maintenance of the symptoms of various morbid conditions. In fact, in almost every disease one has to bear in mind that the patient is not a mere machine, but a human being endowed with various mental faculties; and we constantly find these mental faculties more or less disturbed in cases of physical disease. In my address at the last meeting of the Australasian Medical Congress on The Mental Factor in Medical Practice I have dealt with this question; but to-night I propose to deal more especially with some morbid conditions of the nervous system which are commonly spoken of as functional. What, then, do we mean by the expression, "functional nerve disease"?

The functions of the nervous system may be considered as motor, sensory, reflex, inhibitory, and, last but not least, mental. Analysis of cases of functional nerve disease will reveal a disturbance of one or more of these functions; and by functional disease we mean a state of the nervous system in which the functioning of the nerve elements—nerve cells, nerve fibres, and neuroglia—is abnormal, but in which no gross changes to account for the symptoms present can be detected with our present methods of investigation. But this does not, of course, imply that there is not present in a patient suffering from functional nerve disease some very marked change in the body metabolism. On the contrary, we generally find, in complete examination of the various systems, some derangement of the digestive, urinary, sexual organs, or of the ductless glands, which may lead either to the formation of, or the deficient excretion of, certain complex organic bodies, which may produce a very important effect upon the functional activity of the nervous system.

There are many difficult questions involved in discussing this subject, so I propose to direct your attention more especially to some practical points in dealing with two common functional nerve diseases—namely, hysteria and neurasthenia. To define hysteria is not an easy matter. Ziehen of Berlin gives the following description: "Hysteria is characterized by an abnormal accentuation of emotional activity. These accentuated emotional conceptions are, in themselves, primarily normal; but while in the healthy individual such increased emotional conceptions are restricted to a relatively limited field in consciousness, sensation, thought, and action, in hysteria these bounds are exceeded; an accentuated conception of fear of paralysis of the arm actually produces the paralysis, the accentuated emotional impression severs the play of motive, and is discharged in impulsive actions or in spasmodically exaggerated expressions of movements. Favoured by this increased activity it is transformed into hallucinations and illusions, or it perverts the normal recollection into illusions of memory; for the time being it dominates the disposition and the emotions to an extent such as never exists in the normal person."

Neurasthenia, on the other hand, may be described as a condition of nervous exhaustion—a condition of irritable weakness of the nervous system marked by a host of subjective symptoms and a few objective phenomena; all more or less variable and most of them inconstant. As a rule all forms of nervous energy—psychic, motor or organic—are reduced so that fatigue is more easily occasioned than in health. There is less endurance, and therefore greater irritability, which shows itself most in mental operations. In hysteria, then, we have a derangement of the mental functions—in other words, a disturbance of consciousness—while in neurasthenia we have a condition of what may be called functional degradation of the nerve elements, in which the mental functions are also frequently disturbed. Although these morbid conditions of the nervous system have no gross pathological anatomy, it is extremely important to grasp the fact that these patients are really suffering often more acutely than patients with gross organic nerve disease; and the neglect to realize this sometimes leads to harsh treatment by doctor and nurse. It is essential here to realize the distinction between malingering and functional nerve disease, because, in the eyes of the public, hysteria (though to us a very real morbid condition) is synonymous with shamming, so that it is advisable never to use the word "hysteria" in discussing the ailments of a patient afflicted in this way, with his or her friends.

Unfortunately, in patients suffering from hysteria or neurasthenia, there is such a limitation of the field of consciousness that they become obsessed with their symptoms, and this concentration of the attention inevitably leads them to magnify their sufferings. Then again, in the hysterical patient, who is so often a young woman, the emotional disturbance induces an intense craving for sympathy, and this again leads the patient to exaggerate her symptoms. Moreover, these nervous derangements are not infrequently met with as a sequel to accidents, especially railway or tramway accidents, and when the question of compensation for injuries received arises, the repeated examination of the patient by medical experts on both sides invariably leads to an intensification of the patient's subjective sensations, and this—what might be called—pathological exaggeration of symptoms is no doubt in some cases still further intensified as a result of a suggestion on the part of the patient's friends and lawyer that the injuries received demand a large monetary compensation. It is the exaggeration of symptoms induced in these ways that so often leads to the idea that these patients are only shamming.

But for various reasons persons do sometimes deliberately feign certain diseases. This is more commonly met with in countries where conscription for military service is in force. Epilepsy, which is a bar to military service, is a disease frequently feigned, and sometimes so successfully that even experts are deceived.

While, then, we have to bear in mind this distinction between malingering and functional nervous disease, it is equally important to remember that what on careful examination may appear to be merely functional derangement may really be either the harbinger or the concomitant of organic nerve trouble. For example, a patient with a tumour in one of the silent areas of the brain may present, for a time at any rate, only some indefinite symptoms, which no one could assert indicated organic disease. In the disease known as "disseminated sclerosis," which not infrequently attacks young women, the symptoms due to the organic disease may be so obscured by other symptoms of an hysterical character that it is often extremely difficult to decide whether the patient is suffering from organic or merely functional disease; and when, as frequently happens, the hysterical symptoms disappear, the manifestations of the organic trouble remaining may be so slight and indefinite that a diagnosis of hysteria is made to the exclusion of that of organic disease. It is very important also to remember that neurasthenia may be a premonitory symptom of such organic diseases as general paralysis of the insane, paralysis agitans, etc.

When we come to consider the causes of these derangements, we find that there is a distinct difference in the course of events which lead to the development of hysteria and neurasthenia. First, as regards hysteria, we find that there is an hereditary predisposition in one-half of the cases. One or both parents may be themselves either highly nervous or the subjects of a definite disease, such as epilepsy or some form of insanity, or may be the victims of alcoholism. In such cases we find that hysterical symptoms may manifest themselves in childhood, and though undoubtedly hysteria is more frequently met with in females, we may yet find some definite hysterical symptoms developing in both sexes, especially at the age of puberty. Apart from the actual inherited

predisposition to hysteria, unhealthy environment and faulty education and training leads to a loss of emotional control which still further intensifies the tendency to the evolution of hysterical manifestations. Then various emotional disturbances—such as prolonged anxiety, shocks, and frights—are a potent cause of hysteria. This is specially noteworthy in cases of railway and tramway accidents. The profound changes which take place in the nervous system at the onset of puberty, especially in the female sex, also play an important part in the development of hysteria. The influence of suggestion as a cause of hysteria is well illustrated by the following case:

A woman, aged 39, was admitted to the hospital under my care some two or three years ago complaining of inability to walk, and I ascertained the following facts about her history. Having begun to experience some unsteadiness in gait, she went to a hospital some eighteen months before I saw her first. She was able to walk into the hospital. I do not know what diagnosis was made at that time, but she told me that she was informed by the physician who saw her that her case was practically hopeless, that she would never be able to walk again, and that under these circumstances there was no good to be gained by staying at the hospital, and she might as well go home. As a result of this statement a profound impression was made on her mind, and she had to be carried home.

As a consequence of some exacerbation of her symptoms, she was again brought to hospital and admitted under my care. From her past history it was extremely probable that she had suffered at some time from syphilis, and examination revealed the presence of Argyll Robertson pupils, absent knee-jerks, some shooting pains in the legs, and slight incontinence of urine. The leg muscles were not specially weak, and there was no marked degree of ataxy. Under these circumstances I felt quite sure that, though she was obviously suffering from tabes, she would be able to walk, although, perhaps, with some difficulty. After two or three weeks' treatment she was got out of bed, and very soon was able to walk about, and for the last two years has come to see me periodically at the hospital, being able to walk about with practically no difficulty.

How far her statements as to what was said to her in hospital on the first occasion are correct I am not prepared to say, but it is quite obvious that from what was said she drew the inference that she would not be able to walk again, and this inference produced the effect on her mind that I have already described.

The principal causes of hysteria, therefore, are such conditions as chiefly affect what we may call the mental functions of the nervous system.

As regards the causation of neurasthenia, we find that hereditary influence plays a less important part, although the occurrence of such constitutional diseases as tuberculosis, syphilis, and alcoholism in the parents must interfere with the stamina of the offspring, and favour an early limitation of mental and physical endurance and vigour. Overwork associated with anxiety and worry and sleeplessness leads to a condition of strain and tension under which the patient frequently breaks down. Excesses of various kinds—such as alcoholism, excessive smoking, and venery—likewise lead to a condition of nervous depression and exhaustion.

The diagnosis of these morbid conditions not infrequently involves us in difficulties, for we have to remember what I have already mentioned, that functional symptoms may obscure those of grave organic disease, and we should therefore be most careful before expressing a definite opinion, for it is a much more serious error to overlook slight symptoms which may indicate organic disease than to diagnose organic disease from the existence of functional symptoms and signs. We must, then, carefully investigate the family history of the patient. The existence of neuroses in the parents or collateral branches of the family, or the existence of chronic constitutional disease in the parents will lead us to realize that we have conditions favourable for the development of some functional derangement of the nervous system in the offspring. Considering hysteria first of all, the age and sex of the patient will to some extent assist us in the diagnosis. The fact of the patient being a female would be distinctly in favour of the diagnosis of hysteria. The existence of severe emotional strain or stress immediately preceding the development of the nervous symptoms would also be in favour of hysteria, but here it is important to remember that such strain may lead to the rupture of diseased arteries in the brain, as happened in the case of a comparatively young woman whom I saw some years ago.

Sometimes we find, on investigating fully the past history and environment of the patient, that more than one of the antecedent causes have been at work in inducing the nervous state. For example, a short time ago I saw a young man of 23 whose father had suffered financial loss, who was anxious to do his best to assist the family in their misfortunes. While interested in the work that he was engaged in he felt that he was not being taught as much as he would like, and that he had to pick up his information as best he could—in fact, he was not making such progress in his work as he desired. He was induced by a friend out of mere curiosity to consult a clairvoyant, who told him that he would soon leave his billet for a better one, and that he would go later on to New Zealand. This seemed to have preyed on his mind, but still he could do his work, took his food well, and slept well. But one day he was working in an hotel, and was induced, contrary to his wishes, to take a little wine. This went to his head, gave him a headache, made him giddy, and he was afraid that he had been poisoned. This made him nervous and unfitted him for his work. He then began to suffer from shooting pains in the left arm. Two or three days later he went out for a walk, and began to feel cold down the left side of his body. He stopped to listen to some street discussion on spiritualism, which did not, of course, tend to improve his nervous state. The coldness and numbness of the left side increased, and then fears of paralysis and insanity arose in his mind. When I saw him, two or three days later, he was in a very nervous state, with rapid pulse and dirty tongue. A detailed examination of all his symptoms, and specially the nervous system, failed to reveal the existence of any symptoms suggestive of organic disease.

This leads us now to consider some physical signs which may be considered to be characteristic of hysteria. These are motor, sensory, or reflex. The motor symptoms presented may be either a monoplegia, hemiplegia, or paraplegia. A paraplegia is commoner and a monoplegia much more common than a hemiplegia. A hemiplegia, we may say, is practically never accompanied by facial paralysis. The paralysis may be of a flaccid type, but more often is accompanied by a contracture to a degree not seen in organic paralysis, except as a late accompaniment of degeneration of the pyramidal tract; and functional contracture always relaxes under deep sleep or chloroform narcosis. Tremors and spasms are also frequent motor manifestations of hysteria, but the tremors are quite unlike the fine rhythmical tremor of paralysis agitans and the inco-ordination tremor of disseminated sclerosis. Irregular clonic spasms, especially of the trunk muscles, are also not infrequent—such as are never met with in organic disease. The sensory disturbances are also peculiar in character and distribution. There may be a complete hemianaesthesia, involving the special senses, which can be transferred to the opposite side of the body as the result of suggestion. Obviously such a sensory disturbance could have no organic basis. Then we may find at the periphery of the arm or leg a sensory disturbance which is described as the stocking or glove type, in which the upper border of the anaesthesia is a well-defined line extending around the limb—a distribution of anaesthesia corresponding neither to the area of distribution of a peripheral sensory nerve, nor to a cutaneous nerve root area, nor corresponding to a spinal sensory segmentation. This area of anaesthesia can also be extended up the limbs as the result of suggestion, as shown by Charcot many years ago. Moreover, in hysteria the sensory loss may be profound, involving tactile, painful, thermal, and deep sensation—a loss so profound as could only be produced in organic disease by a complete transverse lesion of the spinal cord or a complete severance of all the sensory nerves distributed to the limb.

As regards the reflex actions, we find generally a slight exaggeration of the deep reflexes, and sometimes a tendency to ankle clonus, but the contractions are never so regular and persistent as we find in the true clonus of organic disease. An entire absence of the plantar reflex is common, and we never get in pure hysteria the extensor response in the big toe which is known as the Babinski reflex. This is one of the most important points in the differentiation of functional derangement from organic disease in the nervous system. But of course the presence of the Babinski reflex does not exclude the possibility of

the existence of functional disease together with some organic lesion. As regards the sphincters of the rectum and bladder, we may lay it down as an almost invariable rule that no disturbance of these is met with in hysteria, and the presence of such a condition as precipitate micturition, incontinence or retention of urine, will strongly suggest the existence of something more than merely functional disease.

As regards the diagnosis of neurasthenia, we not infrequently find the existence of some constitutional disease or neurosis in one or other of the parents; or, if the family history be good, we get a history of some vicious excesses in the patient himself or some prolonged strain on his physical or mental powers, or both, during the period preceding the nervous breakdown. Then attention to the patient's manner during his interview with his medical adviser will often suggest a diagnosis of neurasthenia, for we find that the neurasthenic is always self-centred; he takes particular note of his symptoms and sensations, and you may be quite sure that a patient who comes to you with a written record of all sorts of trifling symptoms and sensations is a neurasthenic, although you must be on your guard against assuming that he cannot have some organic disease as well. Obviously it is only after repeated exhaustive examinations of the nervous system that one would be justified in coming to the conclusion that the patient was suffering from nothing else but neurasthenia. Owing to the frequency with which neurasthenic symptoms precede the development of general paralysis of the insane, and specially in view of the fact that syphilis is a frequent precursor of both conditions, one would pay special attention to such physical signs as the condition of the pupils and their reaction to light and convergence, the existence of any defect in articulation, the presence of tremors in the lips and tongue, the presence of inco-ordination in the muscular movements of the arms and legs, a pathological alteration in the deep reflexes, either exaggeration or abolition, or the existence of some slight disturbance in the action of the sphincters, and the discovery of one or more of these conditions would lead one to diagnose the existence of some organic change in the nervous system.

One who is not familiar with the appearance of a patient suffering from myxoedema might very easily confound this condition with neurasthenia; but here the marked changes in the skin, the anaemia, the loss of hair, the dryness of the skin, together with a condition of apparent oedema, the slow cerebration, and the slowness of articulation, are so characteristic that one cannot fail to make the diagnosis. There are, however, one or two other conditions, such as myasthenia gravis and Addison's disease —especially if there be an absence of pigmentation of the skin—which must be borne in mind in this connexion. In the diagnosis of myasthenia gravis the chief points to be relied upon are a varying degree of weakness in the ocular and facial muscles without actual paralysis, the rapid exhaustion of the muscles of mastication in eating and of the muscles of phonation in speaking, and the rapid exhaustion of the knee-jerks, which after a brief period of rest is succeeded by a condition of increased irritability and a similar reaction of the muscles to the faradic current. In Addison's disease there is a condition of profound asthenia with marked weakness of the heart and frequent vomiting. Having excluded these definite diseases we may ask, "Are there any special symptoms upon which we may rely to diagnose neurasthenia?" First of all we must note the absence of any paralysis or of any objective disturbance of sensation, although there may be subjective sensations of weakness and numbness. An examination of the deep reflexes reveals a condition of apparent exaggeration; for example, on testing the knee-jerk one finds that the jerk itself may not be much more than normal, but that the whole body may be thrown into a state of agitation. This is very characteristic, and is spoken of as the neurasthenic type of knee-jerk. A similar condition may be met with on testing the ankle-jerk. The superficial reflexes, the plantar, the abdominal, are sluggish. Vasomotor disturbances are also prominent. We find cold moist hands and feet and frequently a condition of dermographia.

When we turn to investigate the mental functions, we find a loss of power of attention, inability to read, defective memory, loss of interest in anything outside himself together with an intense concentration of the attention upon his own symptoms and sensations, and a consequent inability to form any correct judgements upon other matters. These nervous symptoms all indicate a condition of depression of the nervous system due either to the action of some toxins upon the brain or spinal cord, or the loss of some secretion which is necessary to the proper functioning of the elements of the nervous system. Consequently on further examination of a neurasthenic patient we not infrequently find a disturbance of other systems of the body—the digestive, the urinary, or generative. We find a condition of dilatation of the stomach and atony of the intestinal tract and its associated glands. Digestion consequently is delayed, constipation is general, and there is a condition of gastro-intestinal disturbance eminently favourable for the manufacture of, and absorption into the system of various abnormal metabolic products. This is further shown by the frequent presence of indican in the urine, as well as excess of phosphates in that excretion. How far a condition of weakness in the sexual system may be a cause or a consequence of the nervous disturbance is a matter of doubt. The frequent co-existence of anaemia and irritability of the heart also points to a condition of abnormal body metabolism.

When we come to the question of treatment of functional nerve disease, we have to consider first of all the indications for treatment which are presented by a consideration of their etiology. I have already referred to the influence of suggestion either from outsiders or from the patients themselves in the production of functional symptoms. This shows us how necessary it is to avoid saying anything before the patient which could be interpreted by him as an unfavourable suggestion, and to remember the extremely important part played by suggestive therapeutics in the treatment of functional nerve disease. Bearing in mind, further, the part which is played by heredity in the production of these maladies, we must use our influence as far as possible in preventing the marriage of hysterical or neurasthenic patients. For not only is there great risk of the offspring inheriting some form of nervous weakness, but the effect upon the patients themselves is often extremely unfavourable. It is important to emphasize this point, because one frequently hears that marriage has been advised as a means of cure in hysterical patients. We can also do a great deal of good in warning patients who are given to various excesses or who are overworking themselves mentally without taking sufficient rest and physical exercise, of the danger they are running of inducing a condition of neurasthenia from which recovery may only be secured after prolonged rest and treatment. We must also remove our patients from the care of sympathizing relatives and friends, because we know that such an environment only tends to aggravate the symptoms, and we must guard our neurasthenic patients as far as possible from business worries and anxieties, and secure for them rest and quiet in hygienic surroundings.

Bearing in mind that the pathological condition underlying hysteria is a disturbance of the mental functions of the nervous system, our attention must be directed specially towards this aspect of nervous activity. We endeavour to improve the physical condition of the nervous system by physical measures and the mental state by what we might call mental measures. To this end we put the patient to bed with plenty of fresh pure air and give abundance of nourishment—specially large quantities of milk—and we employ massage to improve the circulation, to aid the digestion, to secure the removal of effete products, and favour healthy muscular metabolism. The mental measures we adopt include the removal of the patient from surroundings which tend to intensify her symptoms. We do not allow the patient to see her friends, to write or receive letters, or to read books calculated to arouse the emotions, and by constant suggestion and kindly reasoning we endeavour to lead the patient on to a condition of emotional control and to a healthier conception of what she owes to herself and to her relatives. It is often a powerful aid to the patient reaching this state if we can offer some reward in the form of a visit from a friend or the receipt of a letter if she succeeds in causing some special symptom to disappear. To carry out this treatment demands often great

patience and perseverance on the part of both doctor and nurse, as well as great firmness to resist the entreaties of the patient and her friends. But fortunately the efforts thus made are often crowned with success, the patient is relieved of her various symptoms, and is restored to a healthy state of mind.

The indications for treatment from a review of the pathology of neurasthenia are somewhat different from those we have just considered in hysteria. While the mental symptoms are still prominent we do not find it necessary to adopt the isolation treatment. A mistake is very often made in advising neurasthenic patients to start off on a sea voyage before any attempt has been made to improve their physical condition. It is quite true that a change of scene and surroundings, combined with relief from work, is very beneficial in diverting the patient's thoughts from himself and restoring him to a healthier frame of mind. But we have to remember that a neurasthenic is not only jaded in mind and body, and unable to stand the strain of travelling or to take an interest in sightseeing, but he is also suffering from digestive derangements and sleeplessness, and these latter conditions are often aggravated by travelling. I have seen this so often that I am satisfied that we do best for our patients if we first of all put them to bed in the fresh air with quiet and rest, relieve their digestive disturbance by appropriate dieting, secure the free action of the bowels, favour elimination by the skin by warm baths and massaging. We can also improve the state of nutrition of the nervous system by securing oral asepsis, by the use of intestinal antiseptics, and by the use of tonics—especially the glycero-phosphates and the hypophosphites. After a month or so of this treatment you will find that the patient will be much improved physically, and will then be able to profit very considerably by a voyage or by a stay in some health resort.

Special symptoms may require special treatment as they arise, and I would only warn you in conclusion to be most guarded in prescribing sedative drugs—for example, opium, morphine, or heroin—without very careful consideration, owing to the great tendency there is for patients to contract drug habits. In fact, the less we depend on drugs, the more we adopt general hygienic treatment, the greater the amount of good we shall do for patients suffering from the various forms of functional derangement of the nervous system.

# A Lecture

ON

# LEAD POISONING AND THE RACE.

DELIVERED TO THE EUGENICS EDUCATION SOCIETY, LONDON, MAY 4TH, 1911.

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FROM the purely physical point of view a nation's strength is measured by its reproductive power and the high percentage of the fitness of its children. In future wars numbers will still count for much, especially if accompanied by good physique, and for more if accompanied by brain power as well. While civilization in one sense multiplies the opportunities of reproduction, human checks are interposed, or there arise conditions which interrupt the normal course of events and prevent pregnancy reaching term. The nation has therefore been asking, not too soon, for some explanation of its declining birth-rate. The employment in factories of women when pregnant, and at a time when they ought to be sparing themselves, is one explanation of a large number of immature births, just as the return of mothers to the factory at too early a date after their confinement is one of the causes of the high death-rate of infants. It is estimated that, on an average among the general population, one of every six pregnancies ends in abortion. Where the conditions of labour make heavy demands upon female workers and tend to exhaustion, the number of immature births in a community rises, for by this means is partly explained the fact of 87 per cent. of such births in one Lancashire town among the female cotton operatives compared with 44 per cent. of immature births among the general population of the same town, but not employed in factories; and in another Lancashire town, 63 per cent. of stillbirths in textile workers compared with the 40 per cent. in women of other towns not engaged in the cotton industry. Hard and exhausting work followed till towards the end of pregnancy is not only a cause of infantile immaturity, but of a reduction of the resistance of the expectant mother to the fatigues incidental to the stages of child-bearing, as well as of the ill-nourished condition of the infant when born. Beyond mentioning the fact, I shall do no more than allude to the havoc which is being wrought by the modern craze for pleasure and which among all classes of society is undermining the best instincts of womanhood. But it is less upon these social weaknesses of our times and upon the physical conditions of industrial labour in general that I am invited by you to speak as upon the influence on offspring of a particular kind of poison inhaled or swallowed by men and women when at work.

To the injurious effects of alcohol upon progeny other lecturers have drawn the attention of this society, as also to the far-reaching consequences of the effects of syphilis. My task to-day, if of a humbler character, since the subject concerns a more restricted number of people, is yet none the less important, for with lead and its compounds we are dealing with poisons whose action, although subtle, is yet unerring, the sadness of it all being that in the largest number of instances the sufferers have done nothing to bring the trouble upon themselves. Their daily occupation, the means by which men and women have sought to earn their living, becomes the cause of illness and possibly of death, of individual physical degeneracy and of inability on the part of women to rise to the dignity of the completed act of motherhood. Nearly two decades have passed since I strove for and succeeded in securing the emancipation of female labour from the dangerous processes of lead-making, and, although for years I was the target of abuse of manufacturers and of some of the Labour societies, events have more than justified the recommendations I made, since the manufacture of white lead has become less the object of public reproach, the financial claims upon the industry have been lightened, and the health of the workers has generally improved. It is difficult to estimate directly and indirectly the gain to mankind by the abolition of female labour in white lead factories, and in all processes wherein lead is used.

A few years ago, in one of the Yorkshire towns, there was an endemic of stillbirths which called for an unofficial inquiry. The cause was found to be contamination by lead of the drinking water supplied to the town. With the removal of the cause, the effect ceased. In this endemic it was the women and children of the population who suffered most severely. There is a sexual idiosyncrasy in lead poisoning which cannot be ignored. Quite apart from its effects upon emunctories such as the kidneys, also upon the blood-making organs and the nervous system, lead hits hard the reproductive powers of man and woman, but especially of woman. Lead destroys developing life by directly poisoning it, or it checks the growth of the fetus in the womb by cutting off its channels of nutrition. If fowls' eggs be incubated after painting the shell of some of them with a strong solution of lime and the shell of others with a solution of lead nitrate, I found that, while all those which had been painted with lime came to maturity, from not one of those painted with lead nitrate solution did there come forth a live chick. On opening the egg, the embryo was always found to have reached a fair stage of development; it had died in all probability as the result of poisoning. Similarly in the case of pregnant rabbits, to whom lead was administered in food, miscarriage took place, and in the internal organs of the fetuses lead was found on chemical examination. By these experiments is not only confirmed the statement I have made of the frequency of stillbirths among female lead workers, but of the direct transmission of lead as a poison through affected mothers to the offspring.

Whether we deal with life as seen in the lower animals or with woman, this influence of lead in bringing pregnancy to a premature close is generally admitted—a circumstance which of itself is one of the strongest reasons for the exclusion of females from the dangerous processes of

the manufacture and manipulation of lead and its products.

Dr. George Reid, in vol. ii of the Report of the Departmental Committee on the Dangers attendant on the Use of Lead, etc., supplies the following figures which bear upon this point:

> Taking 100 mothers, he found that in those engaged in housework the number of miscarriages and of stillbirths was 43.2; mill workers, but not engaged in lead, 47.6; mothers who worked in lead previous to their marriage, 86; mothers who became lead workers after marriage, 133.5; and where the father was a lead worker, 48.
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> In addition, he found that while the deaths under 1 year per 1,000 births were for mothers engaged in housework 150, mill-workers 214, where the father alone worked in lead 189, mothers working in lead before marriage 157, and when mothers worked in lead after marriage the numbers rose to 271.

That is to say, females who worked in lead before marriage miscarried twice more frequently and females working in lead after their marriage miscarried three times more frequently than those engaged in ordinary housework. Taking the manufacture of pottery as an industry in which lead compounds are used, Reid found that the incidence of poisoning is most marked in females engaged in the dipping department, and next to these plumbism prevails most among the majolica paintresses. It is difficult to obtain accurate figures in an inquiry like that which Dr. Reid carried out, for many women are unwilling to divulge such personal matters as concern their possible motherhood, especially when the influence of their occupation is being called in question.

The facts which I have just related are of interest from a national point of view, since they deal with an enormous loss of infantile life from immaturity and still births. A high percentage of the children born to lead workers die shortly after birth and during the first few months of life. In a footnote of the Departmental Report to which I have referred it is stated:

> It does not appear from the Tables that working in lead has any injurious influence in lowering the birth-rate, nor is there any evidence to show that the children of lead workers are any less healthy than those born of non-lead workers.

The fact that female lead workers miscarry more frequently than pregnant women following other occupations, shows that the birth-rate is adversely affected. It is to the question whether the children of lead workers are any less healthy than those born of non-lead workers that I am desirous of drawing your attention. In previous addresses I have shown that, where a pregnant female lead worker who has miscarried time after time, frequently six times in succession, leaves the factory, succeeding pregnancies are brought to a successful close and the children born alive, live and grow up. What becomes of these children, and what, too, is the fate of those children born alive to lead workers who do not die within the first few months after birth? It is contrary to expectation, although not to our experience, that the children who survive should be quite healthy, for in the bodies of the stillborn children of lead workers and in those of children dying shortly after birth, lead has been found in the tissues, to the presence of which death must be attributed. In most instances, if not in all, it must be simply a question of dosage of the poison, so that where children born under these circumstances survive their birth, the amount of lead in their system is too small to kill, or there has been no poison absorbed at all. Analogous cases are seen in syphilis where a syphilitic mother has a succession of stillborn children, and then one or two children are born who survive, or where a father who has been infected is yet the parent of apparently healthy children. Some of the children, although healthy looking and well nourished when born, develop symptoms of congenital syphilis a few weeks after birth, while others grow up and appear to be healthy children—but are they quite healthy? Does not the something which has been inherited influence them in the ordinary infantile illnesses they may perchance suffer from, or in later years show itself in some of those obscure forms of nervous disease which are often inexplicable? Many asylum physicians to-day believe that such a malady, for example, as general paralysis in middle-aged men is in many instances the result of congenital syphilis, even although the patients have never presented the ordinary physical signs met with in the inherited forms of that illness. Infants of an alcoholic mother frequently die of malnutrition weeks after birth, while others survive, but only to exhibit in later years an instability of the nervous system, and a liability to become not only more readily intoxicated by alcohol, but to be affected by it in a manner different to other people.

It is with lead as with alcohol and syphilis, children may not only be born apparently healthy but really so, and remain as healthy and develop as well as the children of parents who have never been brought into contact with lead, but there are others who must retain some impress of the transmitted maternal toxaemia, although it is impossible to state the peculiar direction along which that impression will show itself. The subject of plumbism bristles with biological problems of extreme difficulty, as shown by the following circumstances. Female lead workers give a higher percentage of stillbirths (Dr. Prendergast of Hanley states that one potter's wife miscarried twelve times in succession) than women employed in other occupations, and in the body of the children lead is found, which probably caused their death, while the mothers have not and do not exhibit any signs of lead poisoning. It is interesting to remember that latent paternal and maternal plumbism is fatal to offspring, while the parents remain to all appearance in good health, and yet experience shows that Nemesis may still overtake these parents years after they have ceased working in lead. Acute poisoning from any cause is peculiar in this respect, that death can occur without any structural alteration of the tissues being observed, although on chemical examination the poison can be detected. In the liver of the stillborn infants of lead workers lead has been found. Acute lead poisoning in the adult can be recovered from. A person may take a large dose of lead acetate and suffer in consequence, but provided no more of the poison is taken it will be eliminated from the body and the individual will recover. It is quite another thing when small quantities, each harmless in itself, are taken regularly into the system, over an extended period, as at work, or in drinking water.

Lead poisoning develops insidiously; the metal acts upon the cells of particular organs of the body, deranging their function and structure, so that life is gradually brought to a close by the intervention of disease of organs, such as the kidney or nervous system, years after it may be the person has been near lead. It is not to be expected that actual disease of organs is transmitted by lead-poisoned parents to their offspring, although, as we have seen, lead itself can pass from the maternal organism to the fetus, but from the poisoned blood of the mother there cannot be added to the stream which nourishes the child in her womb those healthy materials which make for normal development. Something is given or withheld which cannot but influence in later years the behaviour of the tissues to the ordinary demands which life imposes upon them. Dr. Prendergast of Hanley, Staffordshire, who has spent many years of his professional career in the Potteries, tells me that in his experience the children of lead workers who survive the first year of life are of an inferior physique to other children. They suffer from marasmus, and have not the average vital stamina. He knows of nothing which tends to deteriorate the physical well-being of children so much as the fact of a father or mother having been brought into contact with lead, especially if the lead had been absorbed in fairly toxic quantities. Dr. Prendergast is of the opinion that the children of lead-poisoned potters do not grow up into capable men and women like other children, but that they are handicapped in their start in life, and that subsequently many of them exhibit signs of mental as well as physical deterioration.

> Twenty years ago an unmarried female lead worker was under my care in the Newcastle Royal Infirmary on account of convulsions and blindness caused by lead. Four months afterwards she had pretty well regained her sight, and the other symptoms of plumbism had disappeared. Acting on my advice she did not return to the lead works. A few years afterwards she married; her husband was an outdoor labourer. In 1905 this patient was readmitted into the Infirmary on account of paralysis of the eyeballs. She had had three miscarriages and six living children; one of the children has since died. Although it was seventeen years since she had worked in the factory, Professor Bedson found lead in this patient's urine. Her children, whom I have seen, are healthy and compare favourably with the children of healthy parents, although the patient herself has recently become almost blind.

Mrs. M., aged 42, an old lead-worker, has had twelve children, six of whom are alive. Two of the daughters, aged 22 and 23, although of slim build and short stature, seem quite healthy.

Mrs. J., aged 46, formerly a white-lead worker, has had fourteen pregnancies. Of these seven ended in stillbirths; four of the children born alive died, one suddenly at the age of 4 months and another 3 days after its birth; there was one miscarriage; two sons have been spared to her and are grown up; one of the sons, aged 22, is in the asylum, the other is said to be quite well, and is following his occupation as a mechanic.

Mrs. A., aged 36, whose husband is a labourer, was a white-lead worker for six years before her marriage and for three years after it. She gave up the work fourteen years ago. She has had four children, three of them stillborn; her only child, a boy of 11 years of age, is healthy. When I asked this woman to give me the names of some of the women who as girls used to work in the white-lead factory with her, she at once exclaimed, "They are nearly all dead," and that her own mother, Mrs. N., who had also been a lead worker, had died at the age of 58 from the effects of lead.

To see the worst effects of lead upon a people who are following an occupation for a living one must go to Hungary. Struck by the harrowing details of the suffering experienced by the small pottery manufacturers of Hungary and the unusually severe types of plumbism which prevailed among the women and children, I visited that country eighteen months ago, to study the problem on the spot. I have seen a considerable amount of lead poisoning both at home, in France, and elsewhere, but I have seen nothing to equal the sad sights I witnessed in Hungary. Through the kindness of Mr. Csterenyi, then Home Secretary, who placed at my disposal one of the Royal Inspectors of Factories, I had the opportunity of visiting several of the out-of-the-way villages where the making of cheap pottery is a home industry. As the work is often carried on in the living and sleeping rooms, the whole family is living constantly in a poisoned atmosphere, hence the readiness with which plumbism occurs in husband, wife, and children. But setting aside these cases where the children suffer from plumbism the result of inhaling lead dust in the atmosphere of the living room of the house, there are scores of lead-impregnated potters and their wives, who are not necessarily ill or laid off work, and, as Dr. Adalbert Chyzer showed, the children of these persons are frequently the subject of rickets; the outline of their skull is angular, the ends of their long bones are swollen and club-shaped, while owing to the rickety condition of their jaw the teeth are irregular. Owing to their wives so frequently miscarrying, potters in Hungary have few children, seldom more than one or two, and the children who are spared to them grow slowly, are of short stature, and are frequently almost dwarfs. In some of the villages the majority of the potters have no children at all—not one of the infants born alive had survived. In these villages the children die from hydrocephalus, from acute meningitis, or in convulsions. Dr. Chyzer found "fits" to be much more frequent in the children of potters than in those of other people. At Temerin, in one potter's family seven children had died in convulsions; in another potter's family six children had thus died. Where death does not take place in early infancy from convulsions, epilepsy is found later on to be more frequent in the children of potters than in those of non-potters. In fact, apart from the transmission of the worst effects of such poisons as syphilis, plumbism is one of the most serious destroyers of infantile life.

The manufacture of pottery in Hungary as a home industry is, when the circumstances permit of it, frequently an hereditary occupation. In Varpaloto Dr. Chyzer found a potter and his family whose respective heights were as follows:

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| Father ... ... ... ... | 5 ft. 3¼ in. |
| Mother ... ... ... ... | 4 ft. 9 in. |
| Elder daughter, 28 years of age ... | 3 ft. 10½ in. |
| Son, 27 years of age ... ... | 4 ft. 9 in. |
| Younger daughter, 9 years of age ... | 2 ft. 5½ in. |

In some of the villages I was struck by the short stature of the potters as a class. Men of 21 and 22 years of age looked like boys of 14. Infantilism is therefore one of the effects of inherited plumbism. In families where the mother has miscarried on several occasions the children who survive are frequently idiotic, or they are feeble mentally and physically, and always ailing.

It is characteristic of most infectious diseases that one attack renders a person immune to subsequent attacks. As a result of the action of toxin developed by micro-organisms, there occurs a reaction on the part of the white corpuscles of the blood and the cells of the tissues, whereby antitoxins are formed. These, by overwhelming the toxins, not only bring about cure of the disease, but they leave behind a protective influence in the body which lasts for years. There is, however, not always this immunity conferred. One attack of pneumonia, for example, rather renders the individual liable to a second attack than protects him against it. This increased susceptibility to a return of the same disease is called anaphylaxia. It is characteristic of recovery from plumbism that fresh contact with lead is followed by a ready recurrence of the malady, hence the serious consequences to lead workers who trifle with the dangers to which they are exposed in their occupation. Familiarity with danger frequently causes workmen to become careless, but the risks remain none the less, and too frequently they trip up the unwary. Anaphylaxia, or increased susceptibility, is characteristic of many metallic poisons, but not in all, as witness the arsenic-eating capabilities of the mountain peasantry of the Austrian Tyrol, who, commencing with small doses of arsenic to increase the staying power of the individual and improve his breathing capacity, finally end by taking larger and larger doses with immunity. Opium eating is another illustration of the same fact. Occasionally a degree of immunity is met with in plumbism also, but it is so rare that it in no way diminishes the need for constant care on the part of lead workers in their occupation; for, as already stated, it is the repeated entrance of minute quantities of lead into the body, and not of one or two large doses, which give rise to the worst types of plumbism.

Improvement of the industrial conditions of the potteries and abolition of female labour in white-lead factories have removed so many of the evils of plumbism as they affect potential motherhood, that in Great Britain it is difficult to say to what extent plumbism is injuriously influencing the future of the race. It is probably necessary that unhealthy conditions should operate through three or four generations before any permanent effect can be seen in a people; but already in Hungary, and less in Staffordshire, there are signs that the development of child life is to some extent being interfered with. The influence upon offspring of paternal and maternal lead intoxication is still a subject for careful inquiry. The fact that the wives of men working in lead miscarry more frequently than the wives of men following other occupations, and that the tendency is greater when the women themselves work in lead, shows that the embryo is unhealthy. Where life is brought into existence under these circumstances and the infant survives its birth, well might we ask whether it can ever throw off the influence of lead.

Industrial legislation has accomplished much, but although it is known to have benefited both the workers and the trade generally, there are yet many of the workers who raise objections to it. They claim the right to work even in unhealthy occupations without State restrictions. There are others, too, who do all they possibly can to shirk the medical examinations, and who are indifferent to the regulations for the prevention of plumbism. Fortunately these persons are few. Rules may be irksome, and compliance with them may entail considerable personal inconvenience, but if employers will do all they can to make them as little irksome as possible, then, since the objects which it is wishful to be secured are health, fitness for work, and longevity, the workers in the long run are sure to realize that the end justifies the means that have been recommended.

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UNDER the will of the late Mr. Holmes Wright of Bingley, Yorkshire, Bingley Cottage Hospital receives a donation of £1,000.

AT the tuberculosis hospital for the children of Paris, at Berck-sur-Mer, near Calais, a short post-graduate course is to be held in August. The fee is 50 francs. Other information can be obtained on application to Dr. Calvé, Berck-Plage, Pas de Calais, France.

THE Hospitals Committee of the City of Berlin has decided that the nature of the diseases from which a patient is suffering shall not be indicated on the board at his bedside. In surgical wards the disease will be denoted by the first syllable of its Latin name.

# A Clinical Lecture

ON

# GRANULAR KIDNEY AND ITS SURPRISES.

BEING AN ADDRESS DELIVERED BEFORE THE EAST SUSSEX MEDICO-CHIRURGICAL SOCIETY.

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THE signs of granular kidney are usually obvious enough, yet there is no disease that is more often overlooked, even at the present time. The diagnosis is missed chiefly because the condition is not thought of. For this there are two special reasons:

1. That granular kidney is for a long time compatible with apparent health—that is, is associated with no striking loss of energy or strength.

2. That the symptoms when present may be most misleading, and point almost anywhere else rather than to the kidney.

Yet the pulse usually gives the indication if properly examined—not the pulse beats, for they may be unaltered; nor the pulse wave, for it may not be characteristic; nor the arterial tension, for this is not at all times high—but the artery itself, which is almost always markedly thickened.

Arterial thickening in early middle life is almost always due to granular kidney, and in the elderly to atheroma or to both conditions combined.

There is still another form of arterial thickening met with in young athletes. This is a physiological hypertrophy accompanying the hypertrophy which takes place in the heart, but, with this exception, arterial thickening in persons below 50 should always raise the suspicion of granular kidney, and the suspicion once raised is confirmed on further examination by the discovery of the characteristic changes in the urine, in the heart, and it may be in the eye.

If granular kidney, then, be so often overlooked, the diagnosis of it frequently comes as a shock and surprise to patient and doctor alike.

There are enormous reserves in the kidney as in every other important organ in the body. It has been shown that as much as two-thirds of each kidney may be removed in animals before life becomes impossible. So in granular kidney the wasting may go on to a very considerable degree before grave symptoms arise, but all this time, as the wasting of the kidney progresses, its reserves become less and less, until at last on some very slight extra demand, or even without any apparent cause at all, the limit may be reached, and the symptoms of renal inadequacy manifest themselves in more or less serious form. So it happens that no suspicion whatever may have been aroused until some grave condition arises which makes the diagnosis only too obvious.

It is with these surprises or unexpected first symptoms that I purpose to deal in this paper.

The morbid lesions of granular kidney are found in the kidney, blood vessels, heart and eye, and it is in connexion with these organs that the first group of surprises come.

The second group is probably toxic, and is composed of conditions which are often described under the heading of acute or chronic uraemia, or, as it would be better styled, acute or chronic renal toxaemia—for example, general cachexia, skin eruptions, violent vomiting or diarrhoea, cramp, gout, headache, epilepsy, and uraemia. This is a long list, but there is something of interest as well as of importance to be said about each item of it.

1. *Acute nephritis* may be the first serious condition to arise in what has obviously been granular kidney of long standing, for accompanying the ordinary signs of acute nephritis there may be found present arterial thickening, hypertrophy of the heart, and even eye changes of a degree or kind impossible in acute nephritis of short duration.

Just as in a child acute nephritis would suggest some recent specific disease like scarlet fever or diphtheria, so in the adult it should suggest antecedent chronic kidney mischief, in all probability granular kidney, the evidence of which is obvious when looked for.

This relation of acute nephritis to granular kidney is both of theoretical and practical importance.

Acute parenchymatous nephritis, if it become chronic, may, of course, lead to interstitial changes, but even then not necessarily to granular kidney.

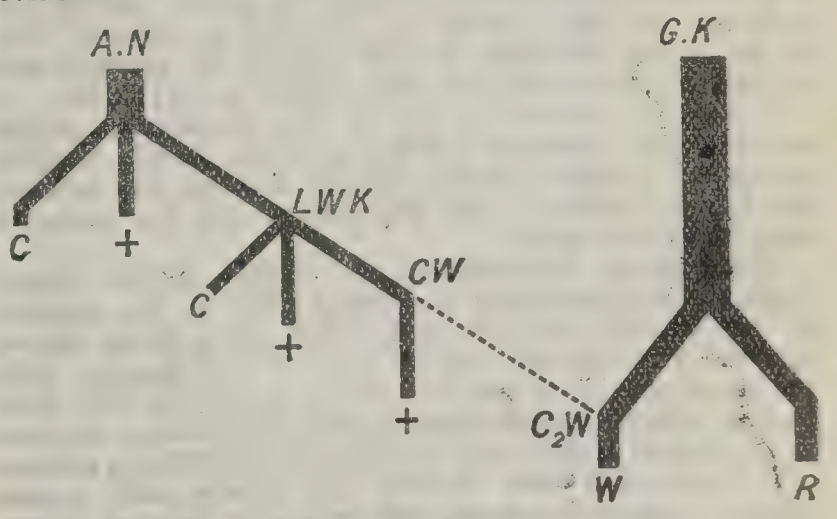
It is the common teaching of the day that granular kidneys are of two kinds—the white contracted kidney and the red; that the white is the end stage of chronic parenchymatous nephritis—that is, of the large white—but that the red is due to other causes. The two forms of contracted kidney exist, it is true—namely, the small white and the small red—but the difference is simply one of colour.

Anyway, the theory that the contracted or small white kidney is the terminal stage of the large white is a mere assertion, and is not supported by clinical evidence.

With two such common diseases, if acute nephritis often ended in granular kidney there ought to be abundance of clinical proof of it; but this is not so. *Per contra*, it is well known that cases of granular kidney rarely give any definite history of antecedent acute nephritis. Lastly, acute nephritis is, as I have stated, often found associated with the lesions of antecedent granular kidney. It follows, therefore, that the true reaction between acute nephritis and granular kidney is the exact opposite of what is commonly stated, and that granular kidney is far more often the cause of acute nephritis than the result of it.

This relation is also of practical importance, for in such cases of association of the two conditions there can be no question of the acute nephritis recovering to such an extent that the albuminuria will completely disappear. At the best the patient can only be restored to the condition he was in before the acute nephritis developed. In this way the persistence of albuminuria and the recurrence of haematuria must be referred, not to incomplete recovery from the acute attack, but to the antecedent granular kidney. It follows, therefore, that long-continued treatment of these symptoms by rest in bed, rigid dieting, and drugs is as unnecessary as it often is injurious.

The relation between acute nephritis and granular kidney is best set out in the accompanying diagram, the dotted line showing the weak link in the chain of evidence.




A N, Acute nephritis; L W K, large white kidney; G K, granular kidney; C W, contracting white; W, white; R, red; C, cure; +, death; $C_2W$, contracted white.

2. *Haematuria.*—A patient may be seized with an attack of haematuria for which no explanation seems forthcoming, and this may prove to be associated with nothing but granular kidney. The amount of blood may vary from a very little, just enough to suggest its presence to the eye, up to what is sufficient to give the urine a very bright red colour, almost as bright as arterial blood, and these attacks may be frequently repeated. In these cases a growth in the bladder or a calculus in the bladder or pelvis of the kidney may be suspected and even operations performed. If clots in the urine occur, the case cannot, I believe, be one of granular kidney only, for, however considerable the bleeding may be, the blood in the urine in granular kidney never seems to clot.

I used to hold that the blood in these cases came from the bladder, and I still think this is so usually, but with the cystoscope the blood has been seen passing from one

ureter, so that it may sometimes come from some source higher up.

Recurrent haematuria in small amounts of indefinite cause is in itself very suggestive of granular kidney.

3. *Epistaxis* in young people is common enough, and has little or no significance, but in middle life copious epistaxis is suggestive of serious disease, for example, aortic disease and degenerate arteries, cirrhosis of the liver, and very frequently of granular kidney.

Profuse epistaxis, requiring plugging of the nares, may be the first serious sign of granular kidney. The anaemia following is often extreme, and from it dates the rapid deterioration of health which may put an end to life from asthenia within, it may be, a few weeks of the initial epistaxis.

4. *Cerebral haemorrhage* is one of the great surprises which granular kidney provides, for it may occur without any warning in the midst of apparent health.

Granular kidney is the commonest cause of apoplexy in early adult life, and even up to the age of 60 divides the honours pretty equally with atheroma.

The diagnosis between apoplexy and some forms of uraemia is notoriously difficult, and this receives some explanation in the fact that though there may be no large haemorrhage ploughing up the brain, numerous small discrete haemorrhages are found scattered widely through the centrum ovale.

These little haemorrhages are of that peculiar kind to which the name of miliary aneurysms has been given, that is, small haemorrhages the size of a barley corn or less, not free, but situated in the sheath of the vessels. They are sometimes so numerous that if the brain substance be washed away by a forcible stream of water, the vessel may look like a string of small currants. The fact that they are so numerous makes it unlikely that they are spontaneous, for vessels rarely burst spontaneously in more than one place at a time. Still less are many different vessels likely to give way at the same time and to the same extent. It is therefore probable that these multiple ruptures are the result of the uraemic fits rather than the cause of them, though they may in part explain the coma by the increased intracranial pressure they would produce.

5. *Thoracic aneurysm* is not usually connected with granular kidney, yet the association is common enough to suggest a relation between them. Granular kidney, it is true, affects primarily the muscular or middle coat of the arteries, but the intima is ultimately involved too. In this stage the aorta is very likely to be affected and to give way, just as it does with atheroma or syphilis.

6. *Cardiac failure* is one of the commonest guises under which granular kidney presents itself. Cardiac symptoms develop without valvular disease; the arteries are found thickened and degenerate, and the cause is traced to the kidneys.

The arterial degeneration has caused cardiac hypertrophy; the hypertrophy has taken place at the expense of the cardiac reserves, and slight extra strain causes failure. This failure may be more or less gradual with the usual signs, or it may be sudden, sometimes with fatal cardiac collapse, but more commonly with attacks of more or less severe cardiac pain, which may culminate in angina.

7. *Pericarditis* may develop, but usually only in the course of manifest granular kidney and in its latest stages. It may in any case be latent or insidious and be detected only on physical examination, and come then as a complete surprise. It is always a very grave complication and may, by leading to rapid cardiac failure, be the cause of death.

8. *The Eye.*—It is in connexion with the eye that some of the most startling surprises come.

Some years ago I was called to see a gentleman who had been out hunting three weeks previously, and was then, as he thought, in vigorous health. The first thing he noticed was that he could not see the wire fencing, and in consequence had a fall, though he did not injure himself. From this time his eyesight failed rapidly, and he became very ill in himself. When I saw him he was in bed, with a very uraemic aspect, foul breath, and a coated tongue. He was almost blind, though he could still see a strong light. The most extreme double optic neuritis was found of the typical albuminuric type, with considerable exudation, numerous haemorrhages, and many white patches. He had also developed acute pericarditis a few days before I saw him. He died uraemic about a week later, and within about a month of the day when he was out hunting.

I saw another very similar case to this a year or so ago. A gentleman was driving his motor from his house in Sussex to Oxford. As he came near London he found his sight becoming suddenly defective, so that he could not trust himself to steer through the traffic, and did not proceed beyond London. I saw him a day or two later. It was a typical case of granular kidney, with extreme and characteristic albuminuric retinitis. His sight failed very rapidly until, in a few days, he was quite unable to read. He returned home and died uraemic about a month or six weeks later.

Both of these cases were remarkable because until the sight failed both patients regarded themselves as in perfect health. Neither patients nor friends could understand or believed the grave prognosis which was given, and which the rapid ending justified.

The arterial changes in the eye are often very obvious in quite an early stage of granular kidney. The *silver wire* arteries, first described by Marcus Gunn, are quite characteristic, and occur in no other form of disease, for even the thickening of atheromatous vessels does not give it. They are a purely ophthalmoscopic sign, and associated with no eye symptoms.

The *bright glistening* white patches of degeneration too are pathognomonic, and therefore of the greatest diagnostic value.

The *exudative form of albuminuric retinitis* has little to distinguish it in itself from other forms of acute optic neuritis. In all cases alike the most extreme changes may be compatible with perfect vision for some time, but when once sight begins to fail it is rapidly lost, as in the two cases referred to above.

Haemorrhages, too, whether flame-shaped or irregular, may be numerous, and yet sight be little if at all impaired, unless they be of large size or in special parts of the retina, as in the yellow spot.

In all these cases alike, whether there be white patches, patches of exudation or haemorrhages, patchy defects in the field of vision may be complained of, as might be anticipated. In some cases coloured vision may be present—that is, a patient may in certain parts of the field or in certain portions of the eye see things green. This is, as it happens, the only colour I have myself known patients to mention. It is natural to suggest that this is due to the light passing through a haemorrhage, but this, simple as it seems, is in my experience not a sufficient or correct explanation. Large haemorrhages would of course make the patient blind in the affected eye. I have once seen the vitreous almost filled with blood, so that the haemorrhage was visible to the unassisted eye through the pupil. Such large haemorrhages are rare, but they would of course be accompanied with very sudden symptoms, pain, and loss of sight. Uraemic amblyopia or transient loss of sight without obvious cause in the retina is probably toxic in origin. It is similar in character to that which occurs with an attack of migraine.

Most of the remaining conditions to which I shall refer are of toxic origin.

9. *Cachexia and Asthenia.*—Many cases of granular kidney become so cachectic and asthenic as to suggest, if granular kidney has not been recognized, the diagnosis of malignant disease, as a rule, the anaemia is not so profound. The complexion is muddy or earthy rather than pale and white, and, though the asthenia may be extreme, there is usually not the expected degree of emaciation.

10. *Gastro-intestinal symptoms* are of common occurrence in any form of nephritis, and in granular kidney may be very intractable.

A young man, about 30 years of age, had been under treatment for some time with recurrent attacks of severe vomiting. He was thought to have gastric or duodenal ulceration, and an operation was suggested. The surgeon, however, was doubtful of the diagnosis, and asked my opinion. There were no signs of locomotor ataxy, so that the gastric crises of that disease could be excluded, and the signs of granular kidney were obvious. I advised against operation, suggesting that the attacks were connected with his kidney affection. This view was confirmed subsequently by the course of the case.

These attacks may be intermittent or recurrent; may last several days each time, and are obviously not of a simple gastric origin.

When vomiting is associated with optic neuritis, it may easily suggest a cerebral tumour, or, if it be morning vomiting, it may, in women of child-bearing age, suggest pregnancy. Instances of both these difficulties in diagnosis have come under my personal observation.

*Diarrhoea* may in the same way be paroxysmal and recurrent, and equally difficult to treat.

I saw some years ago what I now believe to have been a case of this kind, though I did not at first think so. The patient suffered with diarrhoea of a very obstinate kind, which was, for want of a better diagnosis, referred to colitis. The arterial thickening and the presence of albuminuria suggested the existence of granular kidney, but hardly, I thought, in sufficient degree to explain completely the intractable diarrhoea. In time the diarrhoea ceased, but the patient never recovered his health. About two or three years later I saw him again, when he presented all the signs of granular kidney in the advanced stage. The urine contained albumen in unusually large amount—sometimes more than one half. The heart was weak, and there was well-marked albuminuric retinitis of the mixed degenerate or exudative form. Extreme asthenia was the characteristic feature of the case, and of this he ultimately died, without any other definite symptoms. He had no diarrhoea after the first attack, but, on looking back, I think this was but the first of the long chain of granular kidney symptoms which followed.

With these gastro-intestinal attacks may be connected *attacks of cramp*, in the legs especially, often, it is true, associated with dyspepsia, but both alike the result of granular kidney. These are often diagnosed as gouty.

11. *Gout* is often stated to lead to granular kidney. Acute gout may be associated with very copious transient albuminuria, and gout when frequently repeated, or chronic as it is styled, may lead to renal degeneration and interstitial change. But the gouty kidney so called, and figuring as such in museums, is often not granular. The association of gout, and, it may be added, of chronic lead poisoning, with granular kidney is well established; but it does not follow that either gout or lead has necessarily produced the granular kidney, as is often assumed. It is at least quite as likely, and there is much clinical evidence to support this view, that the patients are so susceptible to gout, as they are to lead poisoning if exposed to it, because their kidneys are already granular, and therefore unable to eliminate as they ought.

12. *Skin Eruptions.*—Rashes form a very important group. I do not refer to small patches, for they are of little significance, but to generalized eruptions. They may be of various forms—eczematous, urticarial, erythematous, or polymorphic. The association of any of these general eruptions with albuminuria is important, but if the albuminuria be due to granular kidney the prognosis is very grave, for most of the cases are ere long fatal. The rashes are terminal eruptions, but may occur in cases which have not been previously recognized as granular kidney. One point deserves notice, namely, that in spite of the general tendency to haemorrhage in granular kidney, these rashes are rarely haemorrhagic.

13. *Headache* is perhaps the commonest complaint which brings the patient under observation; sometimes frontal, more often vertical, occasionally, but rarely, unilateral. The attacks occurring in violent paroxysms are often diagnosed as migraine, which they may closely resemble in many points, except that they are not as a rule hemicranial. When associated with vomiting and optic neuritis, the diagnosis of cerebral tumour naturally arises. I can recall so many cases of granular kidney in which the first and for a long time the only symptom was paroxysmal headache, that I now in such cases almost unconsciously look for signs of granular kidney, and very frequently find them.

14. *Fits.*—It is not generally known that epilepsy may be the first symptom in granular kidney, but it is so. By fits I do not mean uraemic fits, but ordinary epileptic attacks. Epilepsy commencing in adult life suggests a local lesion, or degenerative change in the brain, or some general disease, of which granular kidney is the most likely. In this relation the frequency with which granular kidney is found among the patients in asylums is important. I suppose in many cases the fits are of toxic origin, but the transient attacks of paralysis or aphasia that are sometimes associated with them suggest a vascular cause.

15. *Uraemia.*—I have reserved to the last what I might have been expected to take first. By uraemia I mean acute uraemia, acute renal toxaemia—that is, uraemic coma and fits. Many of the other conditions already discussed are due to chronic renal toxaemia or chronic uraemia—such as the cachexia, vomiting, and rashes. Acute uraemia is, like apoplexy, one of the most startling surprises, and often occurs quite unexpectedly in the midst of apparent health. A surveyor about 50 years of age walked to his office one morning and opened his letters. Then suddenly, without any apparent reason, he fell down upon the floor unconscious. The doctor was summoned, who bled him to 15 oz. or more at once, and sent him on to St. Bartholomew's Hospital. On his arrival he was semi-conscious, and had a little twitching of the limbs and face. Gradually he rallied, recovered consciousness, and was able to leave the hospital a few days later, feeling feeble but otherwise well; the signs of granular kidney were obvious. I have little doubt the free immediate venesection was largely instrumental in his recovery. A similar case occurred in a gentleman after attending an exciting political meeting. The diagnosis of granular kidney was obvious, but the uraemic attack was the first indication of illness. He, too, recovered quickly from the attack. In another case a gentleman was out shooting in apparently perfect health. He was shot in the eye. He suffered much from shock, and a day or so later developed uraemic fits, in which he very nearly died. The signs of granular kidney were definite, and to make the diagnosis certain the most marked condition of albuminuric retinitis was present. He slowly rallied, and after the removal of the eye became as well as he was before the accident. It is often stated, and quite truly, that acute uraemia may be recovered from in acute nephritis but not in granular kidney. These cases are interesting as rare exceptions to what is certainly true as a general rule.

Granular kidney is one of the most interesting of all the chronic degenerative diseases, not only because we have so much still to learn of its causes and real nature, but because, as I have endeavoured to show, of the many surprises it has in store. These surprises come for the most part in the late stages of the disease, when treatment can be little more than symptomatic. If anything is to be done to check or modify the course of the disease, the diagnosis must be made early, and it certainly could be made much earlier than it often is if it were carefully looked for. Many of the symptoms suggest from analogy defective internal secretion, and it seems fair to infer such a function in the kidney, though, so far, physiological proof is wanting. My own experience of the administration of renal extracts, I must say, has been distinctly encouraging, but the difficulty lies in the fact that the extracts must be made fresh as they are wanted. They will not keep, and no stable and effective extract has yet been prepared.

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ON Wednesday, April 26th, the Senate of New York State refused to pass the Bayne Bill to investigate vivisection methods by 34 votes to 11.

THE Clapham Maternity Hospital's Dispensary for General Diseases has added to its work at its Battersea centre a branch for carrying out the tuberculin treatment of phthisis on Dr. Camac Wilkinson's method.

BURY Infirmary receives under the will of the late Mr. James Edward Renshaw of Poulton-le-Fylde a bequest of £1,000. The same will also sets aside a sum of £500 towards the provision and maintenance of a seaside convalescent home for the use of Bury children.

THE report for 1910 of the Blencathra Sanatorium under the auspices of the Cumberland Branch of the National Association for the Prevention of Consumption states that at the commencement of 1910, 20 patients were under treatment, while during the year 91 were admitted; of these, 84 were discharged, leaving 27 patients under treatment at the end of the year. We can find no mention in the Medical Superintendent's report as to the mortality-rate of those admitted; this may be accounted for by the fact that only incipient cases are dealt with. He has been able to trace as alive at the end of the fifth year 193 out of 394 patients discharged, and of the 67 entered as not traced, several were found after the figures were compilted to be alive and able to work.

# A FATAL CASE OF SECONDARY SYPHILITIC NEPHRITIS: WITH REMARKS.*

BY

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THE case which forms the subject of this paper was admitted to the Sheffield Royal Hospital on May 12th, 1910. The history of his illness may be divided into two parts. For the first of these, relating to the beginning of his illness, our thanks are due to Dr. A. McPhedran, Physician to the Toronto Hospital, for the very complete record so promptly and courteously sent in reply to our inquiry.

P., a chauffeur, aged 23, whilst on a visit to Canada in September, 1909, acquired a primary venereal infection. He was told that these were "soft sores." They healed completely, but he continued to feel ill. What treatment, if any, he then had is unknown.

On December 1st, 1909, his throat began to be sore. On January 4th, 1910, the legs began to swell, followed by swelling of the scrotum, and on January 16th his hair began to fall out. The same day he was admitted to the Toronto Hospital, under Dr. McPhedran. His condition then was, briefly, as follows: Temperature, 101° F.; enlargement of all the superficial lymph glands; general oedema of the whole surface; deep serpiginous ulcers on the fauces; a discrete macular rash; (?) mucous tubercle on the lower lip; urine 1014, albumen 0.2 per cent., no sugar, hyaline and granular casts abundant.

Treatment consisted of: (1) Free purgation; (2) intramuscular injections of mercury salicylate (1 grain) once a week: (3) potassium iodide, 5 grains thrice daily, increased by 5 grains per dose per week. On January 25th the oedema had almost disappeared, likewise the rash. He continued to improve, and on February 21st—that is to say, five weeks after admission—he left hospital against the advice of his physician. At that date the urine still contained 0.17 per cent. of albumen with a few hyaline and granular casts.

He returned to England in March, 1910. Soon after his arrival the dropsy returned, and he suffered from time to time from headache and vomiting.

On May 12th, 1910, he was admitted to the Sheffield Royal Hospital, suffering from general oedema, anaemia, oliguria, vomiting, and headache. Urine, specific gravity 1012, much albumen and considerable blood, many casts. He stayed in hospital until his death, twelve weeks later, and though the severity of individual symptoms varied from time to time, he steadily got worse.

*Necropsy.*

A *post-mortem* examination was made by one of us (J. M. B.) on August 10th, 1910.

*Naked-eye Appearances.*—The kidneys enlarged, the capsules strip easily, leaving a smooth surface, colour pale, stellate veins marked. The superficial cortex increased, being in the proportion to medulla of 1 to 1. On section a uniform yellowish colour, vascular markings obliterated; no amyloid change, no pelvic dilatation; no cysts; tissue firm and oedematous. Vessels slightly thickened at places. The lungs: Slight pleurisy at left base. Heart: Recent pericarditis; left ventricle hypertrophied; pale and fatty. Liver friable; slight atheroma of aorta; no gummata anywhere.

*Microscopical Examination.*

*Kidney.*—There are very extensive fibrotic changes both in the glomeruli and between the tubules.

*Glomeruli.*—The tuft in some of these appears to be hypertrophied, shows marked lobulation, and the space between it and Bowman's capsule is more evident than usual. The majority of the glomeruli, however, show various degrees of fibrosis, the fibrous overgrowth affecting particularly the glomerulous tuft and converting it eventually into a homogeneous fibrous nodule. Various stages in this process can be made out, the earliest forms showing an affection of the part of the tuft adjacent to the afferent arteriole. In a few of the glomeruli there is definite fibrous thickening of Bowman's capsule, this thickening gradually encroaching on and obliterating the capsular space and then extending to the tuft. This process, however, is not the common change, Bowman's capsule in most of the glomeruli showing little or no evidence of proliferation. The capsular space is usually well-marked, though irregular in shape, and often not completely surrounding the fibroid tuft.

*Interstitial Tissue.*—The fibrous tissue between the tubules, etc., is widely spread, irregular in its distribution, and specially marked in the periglomerular tissues. At some parts fairly cellular it is, however, on the whole well and fully developed fibrous tissue. Accumulations of small round (lymphoid) cells are found at places in the interstitial fibrous tissue, but this is not a marked feature of the condition.

*Tubules.*—These show very marked and irregular dilatation. The cells lining the tubules have assumed a cubical shape and show well-marked degenerative changes, mostly of the nature of cloudy swelling. A few tubules exhibit catarrhal changes, and in some casts are present.

*Vessels.*—Apart from the fibrosis in the glomerular capillaries, there are no marked changes in the vessels.

No amyloid degeneration could be detected. No spirochaetes were found in the liver or kidneys.

The following is a brief summary of his symptoms:

(*a*) *Vomiting.*—This was almost constant, and a troublesome feature of the case. Nothing seemed to give any relief. He thought at first it was due to the milk diet, and eventually solid food was tried, but it made little or no difference.

(*b*) *Headache.*—Was chiefly frontal and almost constant.

(*c*) *Dropsy.*—This remained considerable at all times, and increased towards the latter part of his life. The pitting over the thorax and abdomen was always great.

(*d*) *Urine.*—Specific gravity varied from 1010 to 1019. The quantity was always considerably below normal, but he sweated very profusely, not only in the hot-air baths but often at other times also.

(*e*) Blood pressure usually about 160 (max. systolic).

(*f*) Temperature normal throughout.

(*g*) Fundi oculorum normal.

It will be seen from the accompanying table that for the first seven weeks the daily quantity of urine remained much about the same—never quite regaining the height during the first week. During these weeks the pulse did not alter very much, and yet the rate was steadily and almost regularly rising by one beat per minute each week. This point comes out very clearly when an average for the week is taken in this way, and a slight quickening of the pulse, which can hardly be detected on looking at an oscillating chart, becomes by this means at once evident. About the eighth week the quantity of urine began to fall and the pulse to rise considerably. These were associated with the appearance of various local inflammations of the skin. In the ninth week the urine reached its lowest quantity and the pulse its highest rate. From then onwards the level of each, though slightly improving, never got back to its previous position. During the last week of life urine was passed unconsciously, and could not be examined or estimated quantitatively. The percentage of albumen shows no evident relationship to his quantity of urine or general condition. Blood was almost always present in the urine in variable small amounts. Hyaline and granular casts were always found, but there is no statement as to their quantity.

* Read before the Yorkshire Branch, British Medical Association, at Huddersfield, March, 1911.

*Table showing the Daily Average (a) Quantity of Urine in c.cm., (b) Percentage of Albumen (Esbach's Albuminometer), (c) Total Albumen, (d) Pulse-rate, during the Patient's stay in Hospital.*

| Weeks: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Daily Average.* | | | | | | | | | | | | | |
| Urine, c.cm. ... ... ... ... ... | 700 | 650 | 485 | 510 | 510 | 650 | 610 | 478 | 275 | 425 | 364 | 385 | (?) |
| Albumen, per cent. ... ... ... ... | (?) | 0.58 | 0.72 | 0.75 | 0.52 | 0.53 | 0.75 | 0.74 | 0.71 | 0.82 | 0.65 | 0.50 | (?) |
| Albumen, grams ... ... ... ... | (?) | 3.75 | 3.55 | 3.79 | 3.18 | 3.46 | 4.75 | 3.51 | 1.89 | 3.53 | 2.41 | 1.56 | (?) |
| Pulse-rate ... ... ... ... ... ... | 78 | 79 | 80 | 81 | 83 | 82 | 88 | 107 | 110 | 108 | 101 | 101 | 107 |

The urine quantities were carefully measured daily and the daily estimation of albumen made from a sample of the mixed twenty-four hours' urine. The pulse-rate is from an average of four-hourly readings night and day.

*General Progress.*—Early in June a papulo-erythematous rash appeared in the axillae, elbow hollows, and groins, the sites of mercurial inunction. This spread over the trunk and limbs, was very irritable and peeled freely. A month later he became much worse, the dropsy increased, the tongue and lips became sore. The hands became tremulous, later the ears were sore and painful, conjunctivitis and inflammation of the nail-beds followed. On August 6th he became noisy and delirious, with insomnia, and he died comatose on August 9th, 1910.

### TREATMENT.

Reference has been made in the history to the course of treatment adopted at the Toronto Hospital, which included five weekly injections of mercury salicylate and the daily administration of potassium iodide to the extent of 15 grains the first week and increasing by 15 grains daily in successive weeks. Between that date—namely, February, 1910, and his admission to the Sheffield Hospital in May, 1910—there is no information as to what, if any, treatment he had. Whilst in hospital he had (1) free purgation, (2) hot-air baths which produced free sweating and gave him considerable relief, (3) diuretics of various kinds, (4) medicines to allay vomiting, (5) mercury for considerable periods in the form of liquor hydrargyri perchloridi, inunctions, and intramuscular injections of sozoidal mercury.

Potassium iodide was tried but it increased the vomiting. This latter symptom was exceedingly troublesome throughout.

As regards diet, he was at first put on milk alone, but after a few days declined to tolerate this, and gradually various solids had to be added.

Amongst the renal complications which arise in connexion with syphilis one is the so-called nephritis syphilitica praecox. This is a severe nephritis of the early secondary stage, accompanying other secondary manifestations of a more common kind. Karvonen,[1] in an exhaustive study of renal syphilis, was only able to collect records of 20 cases of acute syphilitic nephritis in the secondary stage up to the time of his paper in 1900, and we have been able to find references to between 20 and 30 other cases published since that time. Of the 20 cases recorded by Karvonen 17 recovered completely, whilst 3 died. In those which recovered the beneficial effect of mercurial treatment was usually very quickly and strikingly apparent. Of the 3 fatal cases tabulated by Karvonen was one recorded by Engel-Reimers:[2]

A female, aged 23, who had been infected nine months before. She had oedema of the legs and albuminuria, and under antisyphilitic treatment these diminished very rapidly. Uraemia set in four weeks after the beginning of treatment, of which she died. The kidneys were pale and large, with many punctate haemorrhages; cloudy swelling and fatty degeneration of the cortical epithelium; glomerulitis; thickening of capsule epithelium; round cells about capsules; in a few places complete destruction of glomeruli.

The second fatal case, recorded by Döderlein,[3] was

A male, aged 19. Infected in spring, 1895; secondary symptoms six months later. Treated by calomel injections and mercurial pills. On December 4th, 1895: Pyrexia, papulo-pustulo-squamous syphilide, adenitis, ulcers of cheek and palate. Nine days later universal scarlet rash over whole body, jaundice; three weeks after, exfoliation and albuminuria; four weeks later, gastric pain, vomiting, anuria, drowsiness. Death six weeks after. *Autopsy:* Lungs interstitial pneumonia, liver hard, granular, with thickened capsule; spleen enlarged, indurated lymph glands, kidneys swollen with a subacute interstitial nephritis.

The third case, recorded by Dieulafoy and Sireday[4]:

A male, aged 26. Infection six months before. Treatment had been intermittent. Headache, nausea, albumen (30 per cent.). He was put on a milk diet, but this was followed by rapid development of oedema, ascites, oedema of lungs, and diarrhoea. With mercury inunction there was improvement for two weeks. The uraemic symptoms disappeared. Urine increased to 3,000 to 4,000 c.cm. daily; albumen reduced to 3 per cent. Then the uraemic and other symptoms recurred, and proved fatal. *Post mortem*, large white kidneys with degeneration of epithelium and small-celled infiltration of tubules and glomeruli.

Of the cases which have been published since 1900, we have, unfortunately, been unable to refer to many of the original papers, but in the cases recorded by Courmont and Cade,[5] Bonnamour,[6] and Nordmann and Wies[7], it is stated that they were rapidly cured by mercury—in one of them (Courmont and Cade's case) "in spite of a period of intoxication." In another case, published by Chauffard and Gouvaud,[8] the title is "hyperacute secondary syphilitic nephritis, with fatal outcome in spite of mercurial treatment." Of the other cases, the title gives no clue as to details of treatment or result.

The term "nephritis syphilitica praecox" has been given to these cases. They may arise at any time from two months to two years or more after infection. In our case the interval was about three months. Osler and Gibson[9] refer to cold as a possible exciting factor in some cases, and our patient himself attributed his attack to cold, for it began during the height of winter in Canada, where he had never wintered before, and he stated that he felt the extreme cold very severely.

The same authors[10] give the following points as distinguishing an acute syphilitic nephritis, namely: "(1) The amount of urine is not diminished to the same extent as in other forms with the same amount of albumen; (2) that, in proportion to the amount of albumen, casts are rare; (3) that the general type of the disease affects the patient as a rule less than the other types."

We have given above a table showing the respective quantities of urine and albumen (by Esbach's method), and it certainly appeared that in this patient the quantity of urine was greater than one would have expected in an ordinary case with the same amount of dropsy.

As regards the relative quantity of casts there is no reliable information in this case, except that when in Toronto Hospital they were stated to be abundant.

The striking feature about this case seemed to be its obstinacy and the persistence of dropsy in spite of rest, diet, and active treatment.

As regards the question of specific treatment, the possibility of using salvarsan* did not arise, as the drug was not at that time on the market. Mercury and iodide of potassium were therefore alone available. Of these the latter could not be tolerated, as it produced troublesome vomiting, and the former, though administered by intramuscular injection, inunction, and by the mouth, failed to produce any evident improvement. It is possible that larger doses might have succeeded, as in Chauffard and Gouvaud's case, where it was given to intoxication; but, seeing that such a heroic therapeusis is not usually beneficial or desirable, but rather the reverse, in ordinary cases of syphilis, it seemed of even more doubtful value where the kidneys were already in a state of advanced disease.

It is probable that the fatal result was contributed to by the patient's own action in leaving the Toronto Hospital and travelling to England whilst still incompletely cured. The exposure which such a journey at such time of year must have entailed upon one in his condition no doubt made his prospect of recovery more remote. So clearly was this danger foreseen by Dr. McPhedran at Toronto, that the patient was required to sign a paper before leaving that institution, to say that he did so at his own request and against the strongly expressed advice of his physician.

In conclusion it may be asked: Was this a case of syphilitic nephritis at all? or, Was it merely a case of nephritis in a person suffering from secondary syphilis?

It is not possible to make any dogmatic statement from the data before us. There is no reason why a person suffering from secondary syphilis should not, just as much as any one else, suffer from a nephritis of non-syphilitic origin. The two conditions occurring together may be a coincidence. On the other hand, as we can see from the number of recorded cases, this coincidence is of by no means infrequent occurrence; moreover, such cases frequently recover completely on antisyphilitic treatment when ordinary methods have failed. It is possible that a person suffering from syphilitic poisoning is more susceptible than a normal person to those unknown factors which determine a nephritis from "cold," and that therefore the syphilis does not act directly but only indirectly. A further possibility is to suppose that there was previously existing kidney disease, and that this was merely aggravated by the syphilitic infection. One can only say, in answer to this, that the patient was quite unaware of any previous kidney trouble of any kind, and that he was a young man. Moreover, in the records of Karvonen's cases this point is particularly inquired into, with negative results.

* A case has since then been referred to by Treupel, *Deutsch. med. Woch.*, No. 39, 1910, p. 1787, in which uraemia in a case of syphilitic nephritis was improved by salvarsan.

On the whole, therefore, we may fairly conclude that whatever its cause the kidney disease in our case began at or about the time the symptoms showed themselves, that is, within a few weeks of becoming infected. Whether syphilis was the actual or only the predisposing cause cannot be with certainty decided, but the fact that similar cases have from time to time been recorded, and have completely recovered under antisyphilitic treatment, suggests that the relationship between the two conditions is a close one.

*List of Cases Reported since 1903.*

1903. Colmayer: *Giorn. internaz. d. sc. med.*, Napoli, 1903, N.S. xxv, 22–24.
Mühlig: *Muench. med. Woch.*, 1903, 505.
Lauterbach: *Med. Bl.*, Wien, 1903, xxvi, 499.
Mautoux: *Bull. et mém. Soc. Anat. de Paris*, 1903, lxxviii, 500.
1904. Pousson: *Ann. méd.-chir. du centre*, Tours, 1904, iv, 203.
Cléroux: *Union méd. de Canada*, Montreal, 1904, xxxiii, 251.
1905. Malherbe: *Journ. des mal. cutan. et syph.*, Paris, 1905, xvii, 321.
Thiemann, *Muench. med. Woch.*, 1905, lii, 214.
de Rezende: *Brazil. med.*, Rio de Janeiro, 1905, xix, 486.
1906. Smith, H. J.: Two cases, *Med. Bull.*, Philadelphia, 1906, xxviii, 248.
Verrotti: Case with Hydropericardium, *Giorn. internaz. d. sc. med.*, Napoli, 1906, N.S. xxviii, 49.
1907. Verger and Lautier: *Journ. de méd. de Bordeaux*, 1907, xxxvii, 185.
1908. Ballagi: *New York Med. Journ.*, 1908, lxxxvii, 1240.
Bourgignon: *Limousin méd.*, Limoges, 1908, xxxii, 4.
1909. Signorini: Cesalpino Arrezo, 1909, v, 152.

REFERENCES.

[1] Karvonen: Die Nierensyphilis, *Dermatolog. Zeitschrift*, Band VII, 1900, p. 37, et seq. [2] Engel-Reimers: *Monatsschr. f. prakt. Dermat.*, 1892, vol. xv, p. 485. [3] Döderlein: *Münch. med. Woch.*, 1896, p. 976. [4] Dieulafoy and Siredey: *Manuel de pathol interne*, vol. ii, 1897, p. 139. [5] Courmont and Cade: Nephritis Syphilitica Praecox Grave; Cured by Mercurial Treatment in Spite of a Period of Intoxication. *Bulletin Soc. Méd. des Hôpit. de Lyon*, 1904, vol. iii, p. 289. [6] Bonnamour: Néphrite syphilitique guérie par le traitement spécifique. *Lyon méd.*, 1904, vol. ciii, p. 830. [7] Nordmann et Wies: Néphrite syphilitique secondaire guérison rapide par traitement mercurielle intensif. *Loire Médicale*, St. Étienne, 1908, vol. xxvii, pp. 273–278. (Discussion.) [8] Chauffard and Gouvaud: Hyperacute Secondary Syphilitic Nephritis with Fatal Outcome in Spite of Mercurial Treatment. *Internat. Clinic*, Philadelphia, 1904, 14, S, iii, pp. 53–61. [9] Power and Keogh Murphy: *System of Syphilis*, vol. iii. Visceral Syphilis, Osler and Gibson. [10] Loc. cit.

# THE VASOMOTOR SYSTEM IN TABES.

BY

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IT is commonly recognized that the cerebro-spinal reflexes in tabes are always considerably impaired, but it is less generally known that similar perversions of functions are frequently present in the sympathetic system.

In investigating the functions of the sympathetic system it will be found convenient, if not physiologically accurate, to view this system as tripartite. (I) The pontine, which may be regarded as equivalent to the cerebral; (II) the spinal sympathetic chain equivalent to the spinal cord; and (III) the visceral terminations corresponding to the peripheral endings of the cerebro-spinal system.

## I. *The Pontine.*

An interesting case is recorded[1] in which a condition of generalized capillary extravasation of blood in a tabetic was present, while it is worthy of mention that Professor Pal claims that the gastric crises of tabes are, as a rule, pontine vasomotor phenomena. He says the crises are invariably associated with a rise of arterial tension due to spasm of the peripheral vessels of the viscera. The heart also beats rapidly.[2]

## II. *Spinal Sympathetic.*

As would be expected, the areas of the body involved in pathological changes in these regions are extensive. The following are the chief:

(*a*) *Oedema.*—The extremities are chiefly affected, either symmetrically or otherwise. It sometimes strongly suggests renal or cardiac disease; it may recur in the morning after disappearing at night, and is of variable duration, often only a week or two. R. Birnbaum records a case in which enormous oedema of the lower limbs and vulva, with extreme distension of the bladder (175 oz.), complicated a four months pregnancy without obvious reason, until tabes was discovered.

(*b*) *Extravasations of Blood.*—Spontaneous bruise-like marks are not uncommonly observed, usually of a greenish-yellow colour and about the size of a shilling-piece. Straus describes them as "beginning with a bright red colour, passing through the various shades of brown, green, and yellow, until they finally fade altogether."[3] But one would only expect this classical sequence of events with a superficial bruise.

(*c*) *Vaso-constriction*, as evidenced by anaemia, or blanching of the part, may affect merely the extremity of the limb, as in the case of "dead fingers," or actually the whole limb, sometimes producing a most alarming deadly white appearance, lasting several minutes, to perhaps hours. Also the feeling of coldness in a part, and the "shiverings down the back" indicate the presence of vasomotor constriction, inasmuch as heat and cold sense disturbances are not present. Pembrey writes:

> Shivering appears to be a response to the cooling of the sensory nerve endings produced by the marked constriction of the cutaneous arterioles, for external heat will abolish it.[4]

Coldness of the extremities is a common feature of tabes, even in warm climates. Capillary stasis, resembling senile peripheral endarteritis, or the condition termed erythromelalgia, precedes the occurrence of lightning pains in the vicinity at times. Indeed M. M. G. Guillan and J. Troisier record a case in which practically the whole surface of the body was involved in a manner typical of cadaveric lividity. Compression of the affected cutaneous areas induced a zone of "white asphyxia," gravity exerted a marked influence. The patient suffered constantly from cold extremities.[5]

## III. *Peripheral Vasomotor Disturbances.*

(*a*) The application of cutaneous warmth. Merely enveloping the limbs in the bedclothes is often sufficient to produce a high degree of vaso-dilatation; a feeling of heat and distension is hence especially complained of after first getting into bed. In others immersion in a warm bath would produce a red suffusion of the whole skin.

(*b*) The application of cold produces the reverse effect. Merely exposing the chest will frequently induce an extensive cutis anserina.

(*c*) Since the vascular reactions consequent on stroking the skin with the finger-nail, which in certain instances produce the familiar *tache cérébrale*, are somewhat indefinite even normally, it would be unsafe to attribute any but the most striking results to a pathological condition. Persistent, intensely anaemic streaks result in tabes at times; while, on the contrary, in some instances hyperaemia is rapidly induced with the slightest stimulation. Indeed, numerous differences are presented; sometimes alternating hyperaemic and anaemic areas bound the streak, at other times dermatographia, and sometimes, but rarely, oscillatory vascularization. At the meeting of the Société Médicale des Hôpitaux de Paris, February 8th, 1909, M. C. Tinel called attention to the phenomenon known to French clinicians as the "white line" in the diagnosis of pathological conditions of the suprarenal bodies. M. Sergent, who first described it in 1903, found it also in septicaemia, the septic fevers, influenza, etc. At that time it was thought to be of important clinical significance in Addison's disease. Its presence in tabes and other conditions must undoubtedly modify these conclusions.

(*d*) The effect of trauma also on the peripheral vasomotor system is well illustrated in those numerous cases of spontaneous fracture or fragmentation in a joint which are so often associated with an otherwise alarming and bewildering state of oedema. A case is quoted by M. Touche in which an unguarded diagnosis led to a deep and extensive incision for pus.[6] Such violent oedematous reactions also arise from toxic conditions, and should not be allowed too much scope in the prognosis, inasmuch as considerable subsidence follows immediately on rest.

*Cases.*

The following are notes of two cases out of an extensive series of cases from which the above conclusions are drawn:

A. K., seaman, aged 41, was subject habitually to cold feet and general coldness at night, and often could not keep warm

even when in the tropics and covered with blankets. For the past year he had had "cold shivering sensations" down the back and legs. On one occasion, six years after the onset of the disease, his legs underwent most alarming vasomotor and sensory disturbances. While sitting at the breakfast table he noticed a "numb feeling" in the toes, which slowly spread up the legs to midway between the pubes and umbilicus. The lower limbs were absolutely paralysed and, he fancied, anaesthetic. When undressed and placed in bed his legs were seen to be of a diffuse pale bluish colour, "as if mortification had set in," to use his words. The discoloration lasted two days, and on the first day he could not move the legs at all. On several occasions the legs, one or both, had been very swollen, even up as far as the thighs, leaving "pitting" on digital compression. The oedema more or less subsided during the night, but recurred daily for weeks. It was most marked when the perforating ulcers were most active. In fact, he came for treatment on the present occasion on account of inability to walk unaided, with extensive oedema and hyperaemia around a deep ulcer on the sole of the right foot. The presence of deep pus was confidently diagnosed, but in response to fomentations and rest the condition rapidly subsided without any discharge.

A. P., aged 58 years. One of the earliest symptoms was a sudden, extensive, painless, and unaccountable swelling of the whole of the right arm from the wrist to the root of the neck. It was variously diagnosed (phlebitis, acute inflammatory changes, etc.), but gradually subsided under rest. Within a few months thereafter the condition recurred. In half an hour the limb became enormously swollen, and this time of a lemon colour of varying intensity and darker on the outside of the arm. This condition lasted several weeks and then left the shoulder-joint disorganized and dislocated. At times his feet burned and he was obliged to cool them outside the bedclothes. His feet were habitually inclined to swell.

REFERENCES.

[1] *Bull. et mém. Soc. Méd. d'Hôp. de Paris*, 1909, iii, S. xxvi, 747. [2] *Muench. med. Woch.*, December 8th, 1903, p. 2135. [3] *Arch. de neurol.*, Tome I, 1880. [4] Allbutt's *System of Medicine*. [5] *Bull. et mém. Soc. Méd. d'Hôp. de Paris*, 1909, iii, S. xxvi, 747. [6] Soc. Méd. des Hôp., Paris, December 15th, 1899.

## TWO CASES OF CONGENITAL APHASIA IN CHILDREN.

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THE following cases, illustrating the forms of mental defect known as word-blindness and word-deafness, were met with during the course of medical inspection of the elementary school children. As they seem to be fairly typical examples of these conditions they appear to be worth recording.

CASE I.—*Word-blindness.*

V. C. (male), aged 12 years, was presented on account of his inability to learn to read. His teacher, who had had the boy under observation during the whole of his school career, believed that, except for the above-mentioned defect, he was of quite average intelligence. Most painstaking efforts had been made to teach him to read; for many years he had had extra tuition at school for this purpose, but with practically no result.

The family and previous history were unimportant and his general appearance presented nothing abnormal. Nutrition was fair. The expression was intelligent, muscular movements co-ordinated and active, and response normal. No obvious stigmata of degeneration were observed. Hearing and vision were normal. He answered questions readily, recognized by name all objects presented to him, but failed to spell the noun denoting a given object. He recognized single letters, but was unable to interpret the written word. Words of one syllable in an infant's reading book baffled him completely. If such a word was spelled aloud, for example, p o t, he said "top"; c a t, he interpreted as "fox." He wrote well from a copy, and had a good eye for form; he drew well from still life. One of his drawings represented an onion in section; below was written "Onion, cut across." When shown the word "onion," he named it correctly, doubtless from association of ideas; the two following words "cut across" he was unable to recognize. He could not write a single word from dictation, but could write his own name correctly, this being obviously mechanical, due to frequent repetition. He was a well-behaved lad, and, in short, except for the condition of word-blindness, was a normal individual. It was proposed that he should join the wood-carving class at the school, and he might possibly develop into a very fair carpenter, as he had an eye for form and considerable manual dexterity.

CASE II.—*Word-deafness.*

X. Y. (male), aged 8 years, Oriental by birth. The family was English speaking, and had been in this country for about a year. Family and personal history, so far as can be ascertained, had no bearing on the case.

*Present Condition.*—Fairly well nourished; muscular control was poor; the child jerked and twisted his arms and head continually. When spoken to he took no notice, and might easily be mistaken for a deaf child. A noise at once attracted his attention, and his teacher, who was an observant woman, was quite sure he was not deaf, as he responded by head movements to sounds made by the other children in the class. He attempted to reproduce the spoken word by lip reading, and succeeded to some extent. His brother, a very intelligent lad, communicated with him largely by signs. When shown an object and told its name he would repeat the word, watching the speaker's lips, but did not retain the memory of the word, even when again shown the object. The palate was very high and narrow; he was a mouth-breather, and post-nasal adenoids were present. His speech was markedly defective and the intonation resembled, in a slight degree, that peculiar to cleft palate (this might be due to the very high palatal arch). As words, however, meant nothing to such a child, he did not attempt to imitate them unless directly made to do so; he therefore did not learn to talk.

This child was doubtless less intelligent than the lad Case I, but possibly more so than the ordinary mental defective. He could probably be trained by lip-reading to understand the spoken word, and some such method would require to be adopted if he were to be taught to hold communication with his fellows.

## THE TREATMENT OF RHEUMATIC DISEASES BY VACCINES.

BY

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THE extremely interesting article on the treatment of rheumatoid arthritis in the BRITISH MEDICAL JOURNAL by Drs. Bannatyne and Lindsay tempts me to place on record a few cases which have yielded to the same line of treatment with extremely satisfactory results.

While Resident Medical Officer to the Royal Hospital for Incurables, Dublin, some years ago, where there are always a very large number of chronic rheumatic cases, I was first struck with the peculiar sapraemic appearance of most of these patients, and in some of them it was possible to trace in the history the onset of the disease following upon some distinct infection, or subsequent to a chronic suppuration.

From experience with a large number of cases I believe the focus of infection can at times be ascertained, and although a few are probably due to a specific micro-organism, many cases are due to a general sapraemia following from a localized seat of infection.

Many cases have come under my notice where the focus of infection has been found microscopically to contain chiefly streptococci. In some cases even where no seat of infection—such as bad teeth, leucorrhoea, intestinal putrefaction, and colitis—could be found, I have used the anti-streptococcic vaccines with success. So many of these cases responded with such remarkable results that I think their use is justified in all doubtful cases.

Even in a case of acute articular rheumatism following on an attack of gonorrhoea with subsequent gleet, I have had success by the employment of antistreptococcic vaccines, where the injection of gonorrhoeal vaccines had failed. Examination of the discharge in many cases of gleet, indeed, will reveal the presence of streptococci when gonococci are absent.

Appended are notes on a few of these cases; they are not chosen only because the results of treatment have been to effect a complete cure, but because these patients have given me permission to publish their cases, and are willing to show themselves, and to state their own histories to any medical men who care to see them.

CASE I.

T. O., male, aged 38, hotel porter, consulted me in 1906, with a view to my using my influence on his behalf in the Royal Hospital for Incurables, where he was seeking election. At this time he was practically a cripple, being only able to walk a short way at a time on crutches. He was suffering considerable pain in almost every joint. The knees and ankles were greatly swollen, stiff, and extremely painful. His wrists were swollen and distorted; the neck was also stiff, and he was unable to raise his arms.

The case was a typical one of rheumatoid arthritis. He had had from three to four months' treatment in two of our city hospitals, and was eventually discharged, as he states himself, as incurable.

The evening temperature averaged 99.4°. He was thin and had some sweating at night, and there was considerable wasting of the limb muscles. There was no albuminuria or heart disease.

He was inoculated with antistreptococcic serum every fourth day for three weeks, and every sixth day for a further six weeks. After the third inoculation he improved; the pain began to leave him, and he could walk with sticks instead of crutches, and after the ninth inoculation he was able to walk with one stick, had no pain except in the feet, but was stiff in the legs and neck. He continued to make a rapid recovery, and since then he has been quite well. I saw him only a few weeks ago carrying a large sack of potatoes.

There was no history of any hereditary rheumatic trouble.

CASE II.

F.L., aged 34, female, unmarried, consulted me in October, 1909.

She stated that eight years previously she had an attack of acute rheumatism affecting chiefly her joints. She attributed the attack to cold resulting from her having to sleep in a room heated by hot pipes, where she was at business in a millinery establishment in Edinburgh. She apparently recovered, and after six months she returned to Dublin, where her home is, and for almost twelve months she was able to work, although she still had what she describes as twinges of rheumatism, especially in the left arm. After this time, however, she was seized with a very bad attack of acute rheumatism especially affecting her knee-joints, which were extremely painful. She then went to Harrogate for three weeks' treatment, but without any success. From this time on she was a constant sufferer, and her joints became swollen, stiff, and painful, and she became helpless. She had electrical and medical treatment on and off for two years, which relieved her, but only for a time.

In October, 1909, she came to me, and was inoculated twice a week for six weeks, and afterwards once a week for a further six weeks with antistreptococcic vaccines.

Almost immediately she began to improve, and after thirteen inoculations practically all pain and swelling in the joints had gone. The left ankle-joint, however, was still very much swollen and deformed, and after an interval of two months the vaccines were again continued. Eventually the ankle resumed its normal proportions, all pain disappeared, and in July, 1910, the treatment was discontinued as she was quite well. Since July last she has had no trace whatever of the disease, and she can now walk and run as well as ever she did.

I have seen her during the last few weeks, and she states that she is in better health now than she has been for many years. There was no history of any hereditary rheumatism.

CASE III.

M. A. H., female, aged 42, had suffered from rheumatoid arthritis for nearly eight years. It began quite suddenly with acute pain, heat, and swelling in the left wrist, which spread within a few weeks to her knees, ankle-joints, and shoulders.

She had medicinal treatment for two or three years without receiving any permanent relief. She then got considerable relief from electric light baths and high-frequency currents, and for six months after a prolonged course of this treatment she was much better.

In November, 1909, however, she consulted me. At that time she was in an extremely weak and wretched condition, almost cachectic in appearance. She could walk a little only with the aid of sticks, and had to be lifted in and out of a cab.

I found all the joints were more or less swollen and painful, the muscles were thin and weak, and the knee-joints were distorted and stiff. The temperature in the evening was between 99° and 101° at that time, and the heart sounds were extremely feeble. There was no albuminuria. Her teeth were in a very bad state, and the gums were soft, with pus exuding from them. This pus, on examination, proved to contain chiefly streptococci, and a vaccine was prepared. She was too weak at that time to have her teeth extracted, but after ten inoculations she improved a great deal in health, and the joints became less painful, and she could move them a little.

The teeth and carious stumps were then removed, and after a further ten inoculations she lost all pain and could walk with only one stick. She continued to improve, and I saw her in October last, when she reported herself quite well, and able to walk perfectly freely without pain.

In this case the disease appears to have followed upon an infection from the teeth, which had been in an extremely bad condition for upwards of ten years. I have had other cases almost identical with the above in which the pus from the teeth was apparently the focus of infection, causing rheumatism in many forms, but especially rheumatoid arthritis.

CASE IV.

Mrs. O'B., aged 37, came to me in 1908, suffering from what appeared to be the typical symptoms of a progressive rheumatoid arthritis. Her general health was bad. She was yellow and sapraemic looking; almost all her joints were more or less affected, especially the knees, which were very large, and contained a lot of fluid. Her teeth were very bad, and she was swallowing a considerable amount of pus from the gums. She also had a purulent leucorrhoeal discharge from a chronic endometritis.

This case I consider probably the most remarkable as, almost as soon as the teeth were extracted and a curetting of the uterus had taken place, the patient improved, and within a comparatively short time, without any further treatment except tonics, the rheumatoid condition disappeared and she became quite well. No vaccines were used, but it seems that the sources of infection were removed in time. I have seen this patient lately, and she is perfectly well and extremely active.

CASE V.

H. G. H., male, aged 34, consulted me in August, 1909. He was suffering from severe pains in the small of his back and along the left sciatic nerve; also in the knees, which were swollen, painful, and hot. He had been treated in the country with medicine, but although he apparently improved, still he never got quite well. He was walking with great difficulty when I first saw him, but he looked fairly healthy and strong, although his temperature in the evening rose a little and the pains had prevented him from sleeping. His history elicited the fact that he had had gonorrhea six months previously, and was at this time suffering from chronic gleet.

An examination of the discharge failed to find any gonococci, and I inoculated him with antistreptococcic vaccines—in all, ten injections—when he made a complete recovery; and I hear this winter he has been hunting continuously and is quite free from all traces of rheumatism. I should mention that at the same time I treated the gleet by the passing of cold silver sounds and gradually dilating the urethra thereby.

## SOME OBSERVATIONS UPON THE DEEP TEMPERATURE OF THE HUMAN BODY AT REST AND AFTER MUSCULAR EXERTION.

BY

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THE following observations are perhaps of interest inasmuch as, while records of the determination of the body temperature of persons suffering from some diseased conditions are very numerous, careful determinations of the temperature of the normal individual throughout the 24 hours are few in number. Pembrey, for example, writing on the subject of the body temperature in the present edition of Schäfer's *Textbook of Physiology*, states that "the observations upon the normal temperature between midnight and morning are so few that it is impossible to give the mean temperature of a day of 24 hours." Systematic observations as to the effect of muscular exertion upon the normal body temperature are even more scanty. In the sanatorium treatment of pulmonary tuberculosis exact information with regard to the variations of the body temperature is most necessary, and for the regulation of the exercise of consumptive patients the effect on the temperature of prescribed amounts of exercise is one of the chief guides. It was the absence of normal standards or controls with which to compare temperature observations made upon tuberculous patients that prompted our inquiry.

*Method of Observation.*

We first made some preliminary observations as to the relative value of determinations made in the axilla, mouth, urine, and rectum, as representing the deep temperature of the body. We concluded from these observations that determinations made in the rectum give the most accurate records, and that, after the rectum, determinations made respectively in the urine, mouth, and axilla, are the most reliable in the order named. We found that when the body is at rest the temperature of the rectum is a little higher than the temperature of other parts of the body. Our observations showed that—

The average excess of the rectal temperature over the urine temperature is 0.23° F.
The average excess of the rectal temperature over the mouth temperature is 0.9° F.
The average excess of the rectal temperature over the axilla temperature is 1° F.

Immediately after exercise the difference between the temperature record taken in the various ways is much more marked. For example, after a sharp walk we found—

The average excess of the rectal temperature over the urine temperature to be 0.66 F.
The average excess of the rectal temperature over the mouth temperature to be 1.8° F.
The average excess of the rectal temperature over the axilla temperature to be 2° F.

These results agree very closely indeed with those obtained by Pembrey and Nicol in a similar inquiry.[1]

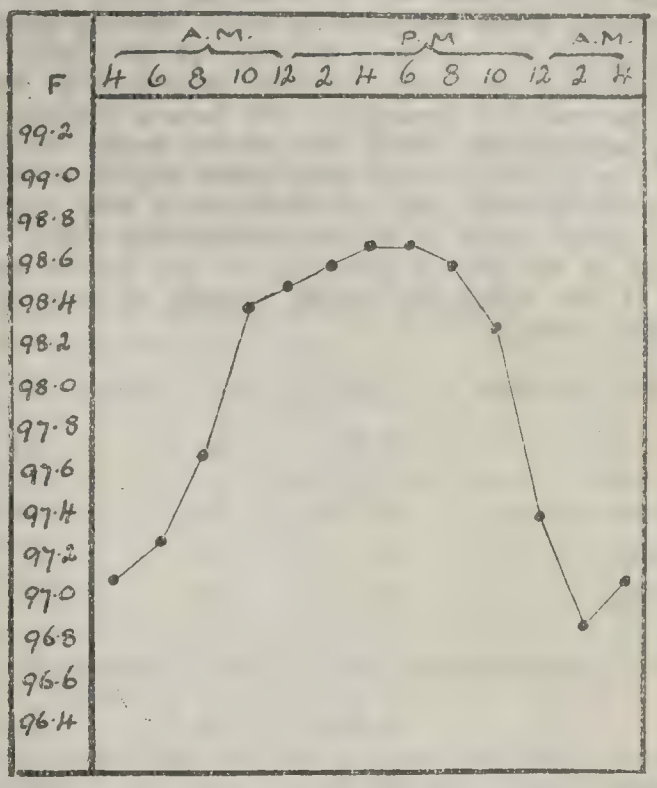
We agree with Pembrey's conclusion that the rectal temperature alone represents the internal temperature of the body. For this reason, temperature examinations made in the rectum are the most satisfactory, when accurate data are required, and when it is important to ascertain the existence or absence of slight degrees of fever. The internal temperature of the body, and in consequence the rectal temperature, is very readily raised by any form of muscular exertion. A short walk is sufficient to raise it 2° or more. In sanatorium practice the fallacy of attributing to fever a physiological rise due to exercise is avoided by the temperature observations being taken on waking, or only after a patient has been at rest for one hour. The method of taking the temperature in the mouth is approximately accurate, so long as the individual observed is not in a very cold atmosphere, and provided that the thermometer is kept in the mouth for some fifteen minutes. For recording the temperature immediately after exercise, observations taken in the mouth are valueless. When an individual is febrile and is kept in bed, temperature observations made in the different ways agree very closely, and the higher the fever the closer is the agreement.

All the subsequent observations upon temperature recorded in this paper were determined by placing the thermometer some 4 cm. into the rectum and retaining it there for one or two minutes.

### THE NORMAL BODY TEMPERATURE AT COMPLETE REST.

To eliminate any fallacy due to muscular exercise the nine normal individuals observed were kept in bed throughout the period of observation—a period which varied from twenty-four to forty-eight consecutive hours. Food was given in the ordinary meals at 8.30 a.m., 1 and 7 p.m. During the night the individuals were aroused from sleep sufficiently to allow of the temperature being taken, and sleep was very little interfered with. In the case of No. 4, No. 8, and No. 6 the observations both for day and night were checked and confirmed by a very large number of subsequent determinations. The nine individuals comprised seven men and two women, all between 20 and 35 years of age, and all enjoying normal health in every respect.

The following curve, which is prepared from the foregoing records, shows the average daily variation in the temperature of these nine individuals. It will be seen that the general feature of the curve is a rise during the hours of activity and a fall during the usual hours of rest and sleep. The minimal temperature occurs between midnight and 4 a.m., the average for the nine individuals was 3 a.m. The average minimal temperature observed was 96.8° F., the lowest being 96.4° F. and the highest 97.4° F.




Curve showing the daily variation in temperature of nine normal individuals at complete rest.

From the minimal level, the temperature rises gradually until the period of sleep is completed (the average waking temperature being about 97.6° F.), and thereafter it rises rapidly until at 10 a.m. the temperature is 98.4° F. From 11 a.m. till 6 p.m. the temperature remains practically steady between 98.4° F. and 98.8° F., the highest point usually being reached between 4 and 6 p.m. After 6 p.m. the temperature begins to fall again, but only gradually. When the period of sleep is reached, the fall continues rapidly until at about 2 a.m. the temperature curve is again at its minimal level.

The average temperature of the nine individuals during the hours they were awake was 98.5° F., and for the hours when they were asleep 97.2° F., the average temperature for the twenty-four hours being 98.1° F. The average maximum daily range of these nine persons was 2° F. The so-called normal temperature of 98.4° F. actually represents, then, the normal temperature of the average healthy person, of ordinary habits as to sleep, for some sixteen hours only out of the twenty-four. During the night the temperature is normally at a lower level.

Sleep seems to be the most important factor in determining the daily fluctuation of temperature occurring in individuals when at complete rest. We found that if a condition of wakefulness be maintained during the hours usually devoted to sleep the customary fall in temperature is delayed and reduced in amount. Conversely, we found that sleep, during the usual active periods of the day, resulted in the temperature failing to rise again to its usual level.

### FOUR-HOURLY TEMPERATURE OBSERVATIONS.

*(1) Of Seven Males.*

| No. of Case. | A.M. 4 | 6 | 8 | 10 | 12 | P.M. 2 | 4 | 6 | 8 | 10 | 12 | A.M. 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 96.6 | — | 97.2 | — | 98.2 | 98.4 | 98.4 | 98.8 | 99.0 | 98.8 | 96.4 | — |
| 2 | 96.9 | 97.2 | 97.8 | 98.0 | 98.3 | 98.5 | 98.5 | 98.6 | 98.5 | 98.5 | 98.1 | 97.1 |
| 3 | 97.4 | — | 97.7 | — | 98.4 | 98.6 | 98.6 | — | 98.1 | — | 97.6 | 97.2 |
| 4 | 97.2 | 97.4 | 97.7 | 98.2 | 98.4 | 98.6 | 98.6 | 98.6 | 98.6 | 98.6 | 98.1 | 96.8 |
| 5 | 97.6 | — | 97.6 | 98.6 | 98.8 | 99.0 | 99.2 | 99.2 | 99.2 | 98.6 | — | 96.6 |
| 6 | 96.6 | 96.8 | 97.4 | 98.6 | 98.8 | — | 99.0 | 99.0 | 98.8 | 98.2 | 97.4 | 96.8 |
| 7 | 96.8 | 97.4 | 97.8 | 98.4 | 98.6 | 98.6 | 98.8 | 98.8 | 98.6 | 98.2 | 97.6 | 97.0 |
| Average | 97.0 | 97.2 | 97.6 | 98.3 | 98.5 | 98.6 | 98.7 | 98.8 | 98.6 | 98.4 | 97.5 | 96.9 |

*(2) Of Two Females.*

| No. of Case. | A.M. 4 | 6 | 8 | 10 | 12 | P.M. 2 | 4 | 6 | 8 | 10 | 12 | A.M. 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 97.4 | 97.6 | 98.0 | 98.5 | 98.8 | 99.0 | 98.9 | 99.0 | 99.0 | 98.2 | 97.4 | 97.4 |
| 9 | 97.7 | 97.7 | 98.5 | 98.7 | 98.5 | 98.4 | 98.4 | 98.2 | 98.1 | 97.6 | 97.0 | 96.5 |
| Average | 97.5 | 97.6 | 98.2 | 98.6 | 98.6 | 98.7 | 98.7 | 98.6 | 98.5 | 97.9 | 97.2 | 96.9 |

*Average of Seven Males and Two Females.*

| | A.M. 4 | 6 | 8 | 10 | 12 | P.M. 2 | 4 | 6 | 8 | 10 | 12 | A.M. 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average | 97.1 | 97.3 | 97.7 | 98.4 | 98.5 | 98.6 | 98.7 | 98.7 | 98.6 | 98.3 | 97.4 | 96.9 |

### THE EFFECT OF MUSCULAR EXERCISE UPON THE NORMAL TEMPERATURE.

To obtain information as to the effect of exercise of various degree upon the normal body temperature we carried out an extended series of careful observations, in the first place chiefly upon ourselves. The records thus obtained we subsequently confirmed by further observations both upon ourselves and upon other normal individuals. We found the rise of temperature produced by definite amounts of exercise to be so consistent and constant that we were able at will to raise our temperatures from normal to any point up to 103° F. simply by pre-

scribing to ourselves varying degrees of muscular effort. By dint, too, of constant observation we were able to guess to within a point or two what our temperatures would be at any time of the day and after any kind of exercise.

*Method of Observation.*

In the first place, we ascertained the degree to which the temperature is raised as the result of walking for one hour at various rates on an accurately measured route of 3 miles of level road. The various individuals observed rested before the commencement of any prescribed walk until the temperature was at a normal level. The temperature was taken immediately before starting the walk, and subsequently on the completion of each mile. The prescribed pace was very carefully regulated, so that it should be uniform throughout the hour's exercise. To a very considerable extent the various walks were performed on the same route and under similar conditions as to road, weather, etc. It would be a long matter to give a detailed record of all the observations made. It is sufficient if we give a summary of the results, and, as typical of the detail, the actual records of some of the prescribed walks.

*Walk of One Hour at a Uniform Pace of 2 Miles an Hour.*

| | Dr. B. | Mr. C. | Mr. P. |
|---|---|---|---|
| Temperature at rest ... | 98 6° F. | 98.9° F. | 98.6° F. |
| After 1 mile ... ... | 99° | 99.6° | 99.4° |
| After 2 miles ... ... | 99.2° | 100.4° | 99.6° |

*Walk of One Hour at a Uniform Pace of 3 Miles an Hour.*

| | Dr. B. | Mr. C. | Mr. P. |
|---|---|---|---|
| Temperature at rest ... | 98.6° F. | 98.8° F. | 98.8° F. |
| After 1 mile ... ... | 99.2° | 99.8° | 99.4° |
| After 2 miles ... ... | 99.6° | 100.5° | 100° |
| After 3 miles ... ... | 100° | 100.5° | 100.2° |

*Walk of One Hour at a Uniform Pace of 4 Miles an Hour.*

| | Dr. B. | Mr. C. | Mr. W. |
|---|---|---|---|
| Temperature at rest ... | 98.6° F. | 98.7° F. | 98.6° F. |
| After 1 mile ... ... | 99.3° | 100.2° | 99.1° |
| After 2 miles ... ... | 100° | 100.7° | 100° |
| After 3 miles ... ... | 100.4° | 101.1° | 100.2° |
| After 4 miles ... ... | 100.7° | 101.1° | 100.5° |

*Walk of One Hour at a Uniform Pace of 5 Miles an Hour.*

| | Dr. B. | Mr. A. H. B. |
|---|---|---|
| Temperature at rest ... ... | 98.7° F. | 99.3° F. |
| After 1 mile ... ... ... ... | 99.6° | 99.6° |
| After 2 miles ... ... ... ... | 101.1° | 101.4° |
| After 3 miles ... ... ... ... | 102.2° | 102.2° |
| After 4 miles ... ... ... ... | 102.2° | 102.4° |
| After 5 miles ... ... ... ... | 102.5° | 103° |

*Walk of One Hour at a Uniform Pace of 6 Miles an Hour.*

| | Dr. B. | Mr. C. |
|---|---|---|
| Temperature at rest ... ... | 98.5° F. | 99.3° F. |
| After 1 mile ... ... ... ... | 99.8° | 101.1° |
| After 2 miles ... ... ... ... | 101.1° | 101.8° |
| After 3 miles ... ... ... ... | 102.2° | 102.6° |
| After 4 miles ... ... ... ... | 102.5° | 103° |
| After 5 miles ... ... ... ... | 102.7° | 103.4° |
| After 6 miles ... ... ... ... | 103.1° | 103.4° |

*Easy Running for One Hour at a Uniform Pace of 5 Miles an Hour.*

| | Mr. C. |
|---|---|
| Temperature at rest ... ... ... ... | 98.6° F. |
| After 1 mile ... ... ... ... ... | 100° |
| After 2 miles ... ... ... ... ... | 101.2° |
| After 3 miles ... ... ... ... ... | 101.5° |
| After 4 miles ... ... ... ... ... | 101.5° |
| After 5 miles ... ... ... ... ... | 101.5° |

*Easy Running for One Hour at a Uniform Pace of 6 Miles an Hour.*

| | Dr. B. | Mr. P. |
|---|---|---|
| Temperature at rest ... ... | 98.8° F. | 98.8° F. |
| After 1 mile ... ... ... ... | 100° | 100.2° |
| After 2 miles ... ... ... ... | 101.4° | 101.1° |
| After 3 miles ... ... ... ... | 102.3° | 101.8° |
| After 4 miles ... ... ... ... | 102.3° | 102° |
| After 5 miles ... ... ... ... | 102.4° | 102.2° |
| After 6 miles ... ... ... ... | 102.4° | 102.2° |

Of these records, those of Dr. B. and Mr. A. H. B., Mr. P. and Mr. W. are rather more typical of the average normal person than those of Mr. C., whose temperature is somewhat more readily raised by exercise than is usually the case.

*Summary.*

The deep temperature of the body is raised to a very definite extent by various degrees of exertion as represented by walking at various rates per hour, the greater the exertion the more marked being the rise of temperature. For example:

Walking for one hour at the rate of 2 miles per hour raises the temperature about 1° F.
Walking for one hour at the rate of 3 miles per hour raises the temperature about 1.5° F.
Walking for one hour at the rate of 4 miles per hour raises the temperature about 2.1° F.
Walking for one hour at the rate of 5 miles per hour raises the temperature about 3.7° F.
Walking for one hour at the rate of 6 miles per hour raises the temperature about 4.3° F.
Running for one hour at the rate of 5 miles per hour raises the temperature about 2.8° F.
Running for one hour at the rate of 6 miles per hour raises the temperature about 3.4° F.

This means that a normal individual starting at rest with a temperature of 98.6° F., if he walks for one hour—

At the rate of 2 miles per hour, will raise his temperature to about 99.6° F.
At the rate of 3 miles per hour, will raise his temperature to about 100° F.
At the rate of 4 miles per hour, will raise his temperature to about 100.6° F.
At the rate of 5 miles per hour, will raise his temperature to about 102.3° F.
At the rate of 6 miles per hour, will raise his temperature to about 103° F.
If he runs at the rate of 5 miles an hour he will raise his temperature to about 101.4° F., and if at the rate of 6 miles an hour to about 102° F.

In our experience the above records hold good if the weather conditions are reasonably favourable, the roads in a fair condition, and a reasonable amount of clothing is worn. Under converse conditions the records will be higher. The following records, for example, show the effect of bad roads. The walk was over the same ground on both occasions.

*Mr. C., a Walk of 4 Miles in One Hour.*

| | Good Road. | Heavy Road. |
|---|---|---|
| Temperature at rest ... ... ... | 98.7° F. | 99° F. |
| After 1 mile ... ... ... ... | 100.2° | 100.7° |
| After 2 miles ... ... ... ... | 100.7° | 101.6° |
| After 3 miles ... ... ... ... | 101.1° | 101.6° |
| After 4 miles ... ... ... ... | 101.1° | 102.2° |

It is to be noted that, whereas walking for 5 miles and 6 miles in the hour raises the temperature to 102° F. and 103° F. respectively, easy running for an hour at the same rates only raises the temperature to 101.2° F. and 101.8° F. This is what one would expect. It is certainly less effort to run than to walk when the pace exceeds 4 miles an hour.

*The Rate at which the Temperature Rises during Exercise.*

The records given show that the temperature is raised quite gradually by the exercise at whatever pace it is being done. The question suggests itself, Does the temperature recorded at the end of the hour of walking or running represent the highest point to which the temperature is raised by walking or running at any particular rate? or will continued exercise of the same character result in the temperature being still further raised? We find that the former is the case. It requires some forty-five or sixty minutes' exercise to raise the temperature to its maximum, but after that it remains constant, even if the exercise is continued for a very long period, so long as the conditions remain unaltered.

The following record illustrates this fact:

*Walk of 17 Miles at a Uniform Pace of 3 Miles an Hour.*

This walk was taken by one of us (Dr. B.), between 12 noon and 6 p.m., along a fairly level turnpike road. The roads were in good condition and the weather cool. The following is the record:

| | Temperature. | Pulse. | Notes. |
|---|---|---|---|
| At rest ... ... | 98.9° F. | 68 | |
| After 1 mile ... | 99.3° F. | 108 | Road level. |
| After 2 miles ... | 99.6° F. | 106 | Level. |
| After 3 miles ... | 100.0° F. | 106 | Undulating. |
| After 4 miles ... | 99.8° F. | 108 | Level. |
| After 5 miles ... | 99.8° F. | 100 | Undulating. |
| After 6 miles ... | 100.0° F. | 104 | Undulating. |
| After 7 miles ... | 100.0° F. | 100 | Slightly downhill. |
| After 8 miles ... | 100.0° F. | 102 | Undulating. |
| After 9 miles ... | 100.0° F. | 102 | Slightly downhill. |
| After 10 miles ... | 100.0° F. | 100 | Slightly downhill. |
| After 11 miles ... | 100.0° F. | 100 | Slightly downhill. |
| After 12 miles ... | 100.3° F. | 118 | Uphill for last quarter. |
| After 13 miles ... | 100.3° F. | 100 | Three-quarters up, a quarter down hill. |
| After 14 miles ... | 100.0° F. | 96 | Downhill. |
| After 15 miles ... | 100.0° F. | 100 | Level. |
| After 16 miles ... | 100.0° F. | 102 | Level. |
| After 17 miles ... | 100.2° F. | 116 | Last half uphill. |

It will be seen from this record that on the completion of the third mile, after one hour's walking, the temperature had risen to 100° F. and the pulse-rate to 106, and that the temperature and pulse-rate remained constant throughout the remainder of the walk—namely, a further 14 miles. The slight variations in temperature and pulse which occurred were obviously due to slight variations in the condition of the road. For example, the rise in temperature and pulse-rate to 100.3° F. and 118 respectively after the twelfth mile was due to the effort required to walk uphill during this mile. The road continued uphill through three-quarters of the next mile, hence the continued slight rise in temperature at the end of the thirteenth mile, although the downhill of the last quarter brought down the pulse-rate to 100. The uphill nature of the last half of the seventeenth mile in a similar way slightly increased the pulse-rate, although it only raised the temperature by 0.2° F.

*Rapid Fall of Temperature Raised by Exercise during Subsequent Rest.*

It is characteristic of the normal person that the temperature raised by exercise rapidly falls to a normal level on the cessation of the exercise if it is followed by absolute rest. Our experience is that temperatures raised in this way fall to normal within 60 minutes if the subsequent rest is complete, and that this is the rule, however high the temperature may have been raised. The pulse-rate falls in a similar way. The following are characteristic examples:

| | Dr. B. | | | | Mr. P. |
|---|---|---|---|---|---|
| 12.40 p.m. | Temp. raised to 102.4° F., pulse to 150... ... | | | | 102.2° F. |
| 12.45 p.m. | Absolute rest | 102.0° | ,, | 134... ... | 101.5° |
| 12.50 p.m. | ,, ,, | 101.8° | ,, | 98... ... | 101.0° |
| 12.55 p.m. | ,, ,, | 100.8° | ,, | 94... ... | 100.2° |
| 1.00 p.m. | ,, ,, | 100.5° | ,, | 90... ... | 99.3° |
| 1.5 p.m. | ,, ,, | 99.8° | ,, | 84... ... | 99.1° |
| 1.10 p.m. | ,, ,, | 99.5° | ,, | 76... ... | 98.9° |
| 1.15 p.m. | ,, ,, | 99.3° | ,, | 80... ... | 98.8° |
| 1.20 p.m. | ,, ,, | 98.9° | ,, | 80... ... | 98.8° |
| 1.25 p.m. | ,, ,, | 98.7° | ,, | 76... ... | 98.6° |
| 1.30 p.m. | ,, ,, | 98.6° | ,, | 75... ... | 98.6° |

*The Degree to which Exercise will Raise the Temperature.*

It would seem that in the normal individual muscular exercise must be of a severe character to raise the body temperature much above 102° F. The highest after exercise temperatures that we have observed in the normal are 103.4° F. (Mr. C.), 103.1° F. (Dr. B.), and 103.1° F. (Mr. A. B.). These high temperatures were in each case the result of very fast walking—namely, at the rate of 5 or 6 miles an hour. Amongst other records of somewhat high temperatures resulting from different kinds of exercise, the following, perhaps, is of interest:

Dr. B., 40 minutes' fast bicycle ride against a strong head wind. Temperature at rest before start 98.6° F.; immediately after ride 102.7° F. The temperature taken simultaneously in the mouth registered 100° F., and rose in the course of 10 minutes to 100.5° F.

Higher temperatures as the result of muscular exercise have been recorded by Leonard Hill and Martin Flack.[2] For example, temperatures of 103.6° F., 103.8° F., and 105° F. were noted by these observers in athletes on the completion of a 3 mile running race.

CONCLUSIONS.

These records, which show the rise of temperature which occurs in normal individuals as the result of exercise, are of interest apropos of pulmonary tuberculosis in several respects.

It has frequently been stated that a rise of temperature following exercise is a characteristic sign of pulmonary tuberculosis, and, in fact, that the disease can be recognized by such a rise. This obviously is not the case. Again, a rise of temperature occurring in a consumptive patient after exercise is by many considered to be evidence that the patient has inoculated himself. What is termed auto-inoculation may have taken place, but the fact of the temperature being raised, even to a considerable extent, is in itself no evidence of such autoinoculation.

It is a fact of some interest in this respect that the consumptive in good general condition, but with well-marked physical signs and with bacilli still in his sputum, will often be found to have a lower temperature after a given amount of exercise than a healthy person who has done exactly the same work. The rise of temperature in the consumptive in such a case is not due to an auto-inoculation, it is a physiological rise as a result of the exercise.

Finally, since it is the practice to regulate the exercise of consumptives in no small measure by noting the effects

of given amounts of exercise upon the temperature, it is clearly of great assistance to have a knowledge of the effect of such exercise upon the temperature of the normal person.

REFERENCES.

[1] *Guy's Hosp. Rep.*, vol. lvii, and *Journ. of Physiol.*, vol. xxiii.
[2] *Journ. of Physiol.*, vol. xxxvi.

## THE PRESCRIPTION OF GLASSES.*

BY

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PATIENTS who seek the aid of a refractionist may be divided into two groups: (1) Those whose vision is not sufficiently acute for the requirements of their daily life; (2) those who seek relief from eye-strain resulting from abuse of their ocular muscles.

I propose to deal shortly with this latter group. Duty to the patient does not necessitate restoring normal visual acuity; this may be the result, but should never be the aim.

The indications are: That causes as well as symptoms require treatment. Such causes often lie in a breakdown of the patient's general health. The eye-strain from which relief is sought is but a group of symptoms. Both causes and symptoms require treatment, not the latter alone. Apart from questions of general health, organs that have broken down under stress, with muscles that are fatigued, and structures inflamed and painful, will have to be dealt with. The treatment proper to such conditions in the case of any other organ in the body should be pursued in the case of the eyes.

We should endeavour (1) to remove the cause by improving the general health, and (2) to keep the inflamed parts at rest. The second requirement may have to be enforced by the use of cycloplegics, but most usually it will be sufficient to prescribe such glasses as will relieve the ciliary muscles of the greater portion of their task, and afterwards to substitute graduated exercises for the ocular muscles. This ideal can be obtained by gradually decreasing the strength of the prescription, and so allowing more and more work to be done by the muscles themselves.

Here, then, we have two indications: First, that we should not in all cases rush into prescribing glasses, since rest may sometimes be better enforced by temporary paralysis of the ciliary muscles with cycloplegics. Secondly, the prescription should not supplant but supplement Nature's efforts, and eventually, by altering their strength, the muscles themselves should be left to do as much of the work as possible.

The first prescription should not be looked upon as permanent unless the underlying cause is to be considered as unvarying and incurable. An example of the effect of bad health on the ciliary muscle may be of interest.

A woman, aged 40, suffered from periodical attacks of traumatic neurasthenia, and when first she consulted me was given—

$$\frac{-2.5 \text{ Ds.}}{-1.0 \text{ D. cyl.}}$$

for both eyes, and with these obtained vision $\frac{6}{6}$.

Six weeks after the first visit she came again to say that the glasses which had suited her admirably were now of little use. In this brief interval she had had another attack of neurasthenia, and was not yet convalescent. It was found that her vision was restored by reducing the spherical part of the combination from —2.5 Ds. to —1.5 Ds. In other words, her apparent myopia had been reduced by one dioptre. She was, therefore, given new glasses of this strength. As her health and strength improved the apparent myopia once more increased and, the new glasses becoming unsuitable, she reverted to her former prescription.

In September, 1910, she had another attack, and exactly the same phenomena were repeated.

There is a perfectly simple explanation for this case. When the patient was in good health the tone of her ciliary muscle caused the lens to be slightly convex, and, since the effect of a convex lens in front of a myopic eye is to increase the myopia, her apparent myopia was more than her real myopia; but when her general health was below par the ciliary muscle shared in the general weakness and lost its tone. The result was that the lens lost its convexity, and so the apparent myopia became less, and the real or static refraction of the eye, which is a myopia of one dioptre less than the apparent myopia, remained.

The oculist must be cautious in prescribing glasses which are correct in the sense that they restore the normal visual activity to *each* eye. It must be remembered that the two eyes are required by Nature to work together in harmony.

The oculist must not only be painstaking and capable in what may be called the mechanical part of his work, but he must cultivate the art of judging with accuracy the patient's character. He should endeavour to picture to himself the pathology of the patient's condition and trace effects to their causes. Cases of refraction should not be classified and pigeon-holed with their definite treatment appended, but each case should be regarded as unlike any other and treated on its own merits. Two important questions must be answered: (1) Is the prescription to be considered as permanent? (2) Under what conditions are the glasses to be worn? If the patient can be restored to normal health and vigour, glasses may eventually be dispensed with or reduced in strength. Such is the logical conclusion. The practical result is often very different, for it must be remembered that it is much easier to become accustomed to the use of glasses than to discontinue their use. This fact should make us chary of prescribing glasses for constant use on every occasion. Unfortunately in many cases the existing cause—for example, neurasthenia—does not surrender to treatment, and here glasses in some form or another must be considered as permanent.

The answer to the second question may be decided on the patient's symptoms. For example, if a patient complains of headaches which are definitely brought on by near work, the indication is to assist Nature by prescribing glasses for near work.

It is impossible in a short paper to attempt more than to indicate a line of thought. It has been my aim to point out that, although in some cases it is sufficient to regard the eye as an imperfect optical instrument and one that can be improved by mechanical means, in others it must be regarded as an organ which has as great a claim to be treated on rational lines as any other.

* Abstract of a paper read before the Croydon Division of the British Medical Association.

## THE ETIOLOGY OF IRITIS.

BY

REGINALD A. YELD, M.D.,

HAMPSTEAD.

WITH reference to the interesting article on the etiology of iritis by Mr. T. Harrison Butler in the JOURNAL of April 8th (p. 804), some details of an analysis of 159 cases from the ophthalmic wards of St. Bartholomew's Hospital may interest your readers.

The cases were all those of primary iritis occurring between 1883 and 1900. I found that it was extremely difficult in many cases to determine the cause from the notes, but it was possible to divide the cases up into rough groups as follows:

| | | | | Per Cent. |
|---|---|---|---|---|
| Group I: | Syphilitic—(i) Certain 46, (ii) Probable 26 | 72 | ... | 45.28 |
| Group II: | "Rheumatic" ... ... | 26 | ... | 16.35 |
| Group III: | Gonorrhoeal—(i) Certain 13, (ii) Probable 11 | 24 | ... | 15.09 |
| Group IV: | Toxaemic ... ... ... | 16 | ... | 10.06 |
| Group V: | Gouty ... ... ... | 2 | ... | 1.25 |
| Group VI: | Osteo-arthritic ... ... | 2 | ... | 1.25 |
| Group VII: | Obscure ... ... ... | 17 | ... | 10.6 |
| | Total ... ... ... ... | 159 | | |

### I. *Syphilis.*

Syphilis accounts for from 45.2 to 28.9 per cent. of all cases, according as we include the less certain cases or not. One of the certain cases and five of the probable

syphilitic cases were congenital, without interstitial keratitis.

Investigation showed that an iritis may be undoubtedly syphilitic and yet present a local appearance resembling the so-called "rheumatic" type.

Syphilitic iritis may also be associated with severe pain.

II. "*Rheumatic.*"

Careful analysis of the so-called "rheumatic" cases failed to show positive evidence of true rheumatism. In one case there was, however, some erythema nodosum combined with a very chronic synovitis of the knees, and in another a past history of chorea, and synovitis of the knees with the iritis. There was no evidence of morbus cordis. No case occurred *in the course of* rheumatic fever, and where iritis does so occur gonorrhoea or osteo-arthritis should be suspected.

I am convinced that there is undoubtedly a very striking connexion between diseases of the iris and diseases of the joints, and that the etiology of iritis is much the same as that of joint disease.

It would, therefore, seem possible that an iritis of rheumatic origin *may* occur, but examination usually shows that in cases so diagnosed the synovitis is of a chronic type, especially in the knees, and most probably of the nature of osteo-arthritis.

III. *Gonorrhoea.*

The great importance of gonorrhea as a cause of iritis has only been emphasized of late years. I found in this analysis, which was made in 1901, that there was evidence that from 15 to 8.1 per cent. of all cases were due to this cause according as we include the less certain cases or not.

This type is especially prone to relapse. Relapse may occur soon after or long after the original attack, and may also occur after dilatation of a stricture.

All the patients were men.

IV. *Toxaemic.*

This group includes cases occurring in association with various diseases—for example, influenza (iritis a sequel in two instances), pyaemia, chronic nephritis, mumps, diphtheria, diabetes, bronchitis, tubercle, etc.

V. *Gout.*

Iritis certainly occurs in gouty subjects, and possibly 1 per cent. of cases may be due to gout.

VI. *Osteo-arthritis.*

Iritis certainly occurs with typical osteo-arthritis, and it is very probable that this group is really much more important than the so-called "rheumatic" group. From the notes, however, I could not find definite evidence that it accounted for more than 1 per cent. of all cases.

VII. *Obscure.*

The obscure cases were most common in women, and constitute 10.6 per cent. of all cases. Setting aside the possibility of syphilis and gonorrhoea, of which no trace of evidence was present, the ascertainable factors in this group could only be regarded as of secondary importance—namely, exposure to cold, starvation, exhaustion from hyperlactation, alcoholism, and errors of refraction.

*Addendum.*

Exposure to cold seems to be of some importance, the majority of admissions in non-venereal cases being in February. Some of the obscure cases may have been due to sepsis or tubercle.

The dentist was called in nine times in all the cases, and in three of these removal of carious teeth from the upper jaw on the same side as the iritis was of decided benefit. One of these was a syphilitic case, and the other two "rheumatic." It is interesting to note that Mr. Butler regards tubercle as a common cause of iritis. In the St. Bartholomew's cases only one was noted, and that was of a dubious kind.

Diagnosis of tuberculous disease generally has, of course, been much improved since 1900.



# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### FURTHER NOTE ON A CASE OF ACROMEGALY.

DURING the last ten years the man whose case was reported in the BRITISH MEDICAL JOURNAL of February 2nd, 1901, p. 270, has had fairly good health, although very gradually becoming weaker, so that he can now only crawl about with the aid of two sticks. He has become bent, with marked cervico-dorsal kyphosis. He eats well, and sleeps too well. He is losing weight, and has sunk from 5 ft. 10 in. high to 5 ft. 7¾ in. The head measurements are now: Circumference, 25½ in.; from forehead to chin, 11 in.; from nape of neck to chin, over nose, 25 in.; the nose measures 2¾ in., the right ear 3½ in., and the left 3 in.; the lips when in a state of repose are ¾ in. apart; the lower jaw protrudes 1½ in. in front of the upper. The teeth are mostly loose and are fast falling out. The upper portion of each ear tends to get flattened, hard, and board-like, especially on the right side. He keeps his mouth open owing to difficulty in breathing through the nose. The eyelids are normal, but under each lower lid is a semilunar fold of tissue. The two hands measure the same, and each is 6 in. across the root of the thumb and 5 in. across the root of the fingers. When closed the hand measures 15½ in. round. The length of the middle (the longest) finger is only 3½ in. The pomum Adami is absent. Tongue not much affected. The lower lip is much enlarged and pendulous. There is no thirst and no polyuria. He is decidedly anaemic-looking, but without any yellow tinge. The protruding abdomen is tending to recede. He suffers from haemorrhoids.

The photograph was kindly taken for me by Mr. Kirby, of the West Ham Asylum.

Chadwell Heath. T. REUELL ATKINSON.

### ANTILYTIC SERUM IN THE TREATMENT OF CHRONIC GASTRIC AND DUODENAL ULCERATION.

THOUGH attention was drawn to the use of antilytic serum in the treatment of chronic gastric and duodenal ulceration by articles in the JOURNAL in 1908 and 1910, it does not seem to have become widely recognized. I therefore think that it may be of interest to quote a case recently under my care, in which, as far as it is possible to tell in an individual case, the serum was the direct means of saving life.

A man, aged 63, suffered some eight years ago from symptoms of duodenal ulcer; they passed away under treatment. He remained well until five months ago, when he had an attack of gastric influenza, accompanied by acute vomiting, which lasted twenty-seven hours. At the end of this time he vomited a considerable quantity of blood. Haemorrhage continued at intervals for three weeks, when he was seen by both Dr. Goodhart and Sir Thomas Barlow, who confirmed the diagnosis of haemorrhage from an old duodenal ulcer. The haemorrhage then became constant, and continued so for another three weeks. Every drug and other treatment was tried, but with no effect. When the patient was apparently moribund, I started the antilytic serum (prepared by Allen and Hanburys), giving it by the mouth in full doses. Within a few hours the haemorrhage completely ceased, and has

not recurred, and the patient made an uninterrupted recovery.

Of course it may be argued that little can be drawn from the result in a single case, but in the minds of those who were watching this one, there is no doubt that the cessation of the haemorrhage and the subsequent recovery were due to the serum. I think that this preparation is well worth an extended trial in these cases. The only drawback is the price, which is high, and therefore puts it out of the reach of the poor.

Woking. R. THORNE THORNE.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### BIRMINGHAM CITY INFIRMARY.

CASE OF IDIOPATHIC DILATATION OF THE COLON (HIRSCHSPRUNG'S DISEASE).

(Under the care of Dr. T. SYDNEY SHORT.)

[Reported by GAVIN S. BROWN, M.B., Ch.B.Edin., Resident Medical Officer.]

THE patient in the following case, a well-nourished and intelligent child, aged 3 years, was admitted on November 9th, 1910, with an enormously distended abdomen and wasting of the left leg.

*State on Examination.*—The abdomen was seen to be distended uniformly, and moved freely with respiration. A few dilated veins were seen on the surface, principally around the region of the umbilicus. Visible peristalsis was present, especially centrally, and the "ladder pattern" was well seen. The circumference at a point 3 in. above the umbilicus=24½ in. and at the umbilicus=21 in., the navel being markedly protruded. The surface of the belly felt doughy, and somewhat hard generally. It was tympanitic all over, and showed no sign of fluid in the peritoneal cavity or of enlargement of any organ. The left leg was wasted, with marked general muscular atrophy, and flail-like movement of the thigh on the hip. The lungs seemed hampered by the abdominal distension, and the respirations = 28. Beyond slight general bronchitis the lungs and heart appeared normal. The urine showed a haze of albumen and specific gravity of 1024; from 10 to 20 oz. were passed daily.

*Progress and Result.*—Repeated injections given by a long tube, high up, and aperients failed to give more than temporary relief; the motions thus produced were hard, lumpy, and extremely foul. On the 25th she passed much loose stool, smelling badly, and vomited once. The temperature rose to 100°, and she died somewhat suddenly the same evening.

The mother stated that the child was healthy up to 4 months old, though always constipated and requiring aperients. The belly was full from birth. At 4 months convulsions occurred, and continued at intervals up to 7 months. At this time she noticed the loss of power in the left leg, and was told it was infantile paralysis. The distension and the constipation both increased. There seemed to be loss of power to evacuate, and often seven days would pass without relief. This continued to the time of admission.

*Autopsy.*—On opening the abdomen the whole of the large intestine was seen to be greatly distended. Although the caecum and ascending colon shared in this, the principal increase in size was due to an enlargement between the hepatic and sigmoid flexures. There was slight comparative narrowing at the end of the descending colon. Below this again the distension was enormous, and the gut measured 7 in. in circumference. The muscular coats of the whole of the large gut were greatly thickened; the mucous coat looked smooth and attenuated, showing no sign of past or present ulceration; and the lumen of the tube was blocked with horribly offensive faecal matter. The rectum contained faeces of the same character, and the small intestine was relaxed and empty. The kidneys were congested with slightly adherent capsules, but the other organs showed no special abnormal condition.

*Remarks by Dr. Short.*—The diagnosis in this case at first seemed to lie between tuberculous peritonitis, enlargement of some abdominal organ, and congenital enlargement of the colon. But no enlargement of any organ was found, and the marked peristaltic action associated with such enormous distension and constipation, with good general nutrition, without rise of temperature, seemed to point to congenital enlargement of the colon, or Hirschsprung's disease.

The autopsy justified this opinion.

# Reports of Societies.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, May 3rd, 1911.*

Dr. BYROM BRAMWELL, President, in the Chair.

*Enucleation of the Faucial Tonsils.*

DR. J. S. FRASER, after describing the anatomy of the tonsils, said their removal was indicated in chronic hypertrophy. The procedure depended on whether the enlarged tonsils were submerged or pedunculated. If the latter the guillotine was as efficient and simpler, and therefore superior. But in submerged or sessile tonsils, enucleation alone enabled a thorough removal. After applying ½ per cent. cocaine solution, with a little adrenalin added, the tonsil was fixed and pulled inwards by vulsellum forceps, with curved scissors the mucous membrane was snipped through, beginning below and continuing up to the upper pole, keeping close to the anterior pillar. It was then possible to remove the tonsil with capsule entire from its bed. Some difficulties were: Friability of the tonsil; peritonsillar adhesions; primary haemorrhage, best treated by local application of hydrogen peroxide or turpentine, or, these failing, by use of artery forceps; reactionary haemorrhage had occurred in 2 out of his 80 cases. He had also 2 cases of cocaine poisoning, in which there was temporary faintness, gasping dyspnoea, and pallor. The after-treatment was the use for several days of an antiseptic gargle (phenyl-sodic), or of formalin lozenges, with soft foods. There was usually pain in swallowing for four or five days, but no subsequent interference with talking or swallowing. Lantern slides were shown illustrating the structure of the enlarged tonsils and the successive steps of the enucleation operation. Dr. LOGAN TURNER said it was not easy to say when a tonsil was deficient in function. In his opinion, the larger the tonsil the less harmful it was. Statistics as to the percentage of tuberculous tonsils varied, but the highest authoritative figure, about 5 per cent., was not a large one. For children he preferred the guillotine, but in adults, in recurrent quinsy and septic condition of the crypts, the more thorough removal by enucleation was superior. He did not use cocaine, but a 2–5 per cent. solution of novocain with adrenalin. If the enucleation was thorough, bleeding seldom occurred. In his experience there was often much pain after the operation, and for this he used insufflations of orthoform and hot fomentations on the neck. Dr. ELLIOT (U.S.A.) said that in America the snare was used by the majority of operators in enucleation, and in his own experience was decidedly superior. Dr. PORTER had not found enucleation an easy operation, the difficulty being to hit the proper depth of the scissor incisions, which must not go through the capsule. He agreed that for children the guillotine was superior. Mr. STRUTHERS considered enucleation a severe operation, often attended with bleeding. As to local anaesthetics, from his experience in other operations, he would recommend weaker solutions, novocain ½ per cent., or 1 in 500 solution of cocaine. Dr. LITHGOW and Mr. DOWDEN also spoke, and Dr. FRASER replied.

*Diagnosis of Urinary Calculi by X Rays.*

Dr. EDMUND PRICE summarized the results of 143 examinations for urinary calculi; 103 were negative, while of the positive results operation was performed in 23 cases, no stone being found in two of these. The presence or absence of stone in the urinary tract by this method of examination was certain, if the following conditions were fulfilled. These were—a good technique, a complete examination on both sides from bladder to kidney on the morning of operation; and actual incision of the kidney, if it were indicated, mere palpation being not sufficient to exclude calculus. Confusion in diagnosis might be caused by phleboliths, calcareous glands, and the stumps of excised appendices

which had been treated with bismuth and iodoform paste. A large number of *x*-ray lantern photographs were shown in illustration of the various points.

*Salvarsan.*

Mr. J. W. DOWDEN gave some personal experiences in the use of this drug in 40 cases. They were mostly severe cases, and in all but 2 the intravenous method was used. The full dose of 9 grains (0.6 gram) was nearly always given. After a description of the technique of the operation, he detailed the symptoms of the reaction—squeamishness and sometimes vomiting and slight pyraexia, which appeared in about two hours and then rapidly subsided. He had met with no bad general effects, though there might be severe local reaction if there was any leakage of the solution into the tissues. The effects of the injection were rapidly apparent, the primary sore showing a healthier surface and healing in ten to fourteen days. Mucous patches quickly disappeared and the hair ceased to fall out. Some pigmentation usually remained after the papular rash had gone. Destructive lesions of the tonsils and soft palate reacted well, though in condylomata there was not much improvement over local treatment, and in one case of severe rupia the condition of the skin was not benefited. In early tertiary lesions—multiple gummata—there was marked improvement, but in the late tertiary condition of leucoplakia the cicatricial condition of the tongue was unaffected. He still used mercury treatment in combination with salvarsan, until the latter should be proved in itself a sufficient and permanent cure. Dr. THYNE had used the drug in a very severe case of pernicious anaemia, with remarkable improvement in the blood condition, this confirming the result in the cases reported by Dr. Byrom Bramwell. Dr. WADE related a brilliant result in a severe case, where the patient was not admitted to hospital, but continued to live in conditions of dirt and poverty. Dr. LOGAN TURNER had tried the remedy in four cases of lupus of the pharynx, larynx, and nose, without any benefit. Mr. WILKIE described its use in a case of doubtful ulcer of the mouth, when subsequent examination proved the condition to be malignant. In this case it was interesting that there was an absence of reaction. Dr. CHALMERS WATSON had used it in a case of pernicious anaemia without benefit. Mr. SCOT SKIRVING asked how many cases of blindness following injection had been reported. The PRESIDENT said it might be too much to expect benefit from its use in the parasyphilitic lesions, but it should certainly be tried. Mr. DOWDEN briefly replied.

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## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Thursday, May 4th, 1911.*

Mr. GUSTAVUS HARTRIDGE, Vice-President, in the Chair.

*Hereditary Nystagmus.*

MR. NETTLESHIP, in a paper on hereditary nystagmus, presented two extensive new pedigrees of hereditary nystagmus, one containing 27 cases, by Dr. Auden of Birmingham. Two other small new pedigrees and nine published ones were brought in for purposes of comparison and classification. Examination of the whole thirteen pedigrees showed that in some of them the nystagmus was associated with movements of the head, whilst in other pedigrees no head movements had occurred. Further analysis disclosed the possibly important fact that in the pedigrees showing both eye and head movements the abnormality affected both sexes, and could be transmitted by either male or female parent. But in the genealogies containing nystagmus alone, with no head movements, the abnormality was strictly limited to males and transmitted only by mothers (themselves unaffected), the inheritance being of the same limited form that was seen in colour blindness, haemophilia, etc. Two isolated exceptions to these findings were recorded, but the testimony for both of them was remote, indirect, and regarded as inconclusive. The rapidity and amplitude of the nystagmic movements varied greatly in the different members of both the subgroups, but the direction was horizontal in all. There was evidence that in some cases both nystagmus and head movements had diminished with age. In almost all cases in both subgroups the nystagmists had defective sight and marked ametropia, usually hypermetropic astigmatism, and in many of them the blue irides and relatively light choroids pointed, in the author's opinion, to some degree of ocular albinism. There was no evidence of disease of the nervous system in the affected stocks. Parental consanguinity was noted as absent in the majority and not noted as present in any.

*Small Flap Sclerotomy.*

Mr. HERBERT, in an interim report on small flap sclerotomy, reported a series of 54 such operations for glaucoma, primary or secondary, including 14 mentioned a year ago. Thirteen of these had been performed with Bishop Harman's twin scissors. There had been some failures, partial or complete, in blind or nearly blind eyes only. One was due to firm adhesion of iris to the wound. An iridectomy should have been made, as it was a case of acute glaucoma with congested and swollen iris. Two other failures occurred in advanced glaucoma, secondary to uveitis, and it was thought that some such cases might prove unsuited to the operation. The wound showed a tendency to heal up firmly, possibly owing to an excess of albumen in the aqueous. A suggestion was made of partial sclerectomy after failure in any such case. In three other eyes the infiltration, for a time at least, was insufficient to relieve the tension fully, though enough to relieve pain. In one of these cases the deficiency in filtration was probably due to a too shelving incision, entering the anterior chamber at some distance from the angle. The primary incision at the surface of the sclerotic need never be more than 2½ mm. from the corneal margin, provided the incision were not made too shelving. In some of the Nottingham cases the distance was decidedly under 2 mm. In 15 cases openings had been made unintentionally at the base of the iris, mostly small irido-dialyses. In operating with Bishop Harman's twin scissors, the necessary reflection of the conjunctival flap might influence the result. There was not the same persistent conjunctival oedema in these cases, and the primary keratome incision was no longer visible in most of them. But these operations were all performed within the last six months, and so did not warrant positive statements.

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## ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

*Tuesday, May 2nd, 1911.*

Dr. J. MITCHELL BRUCE, President, in the Chair.

*After-History of Cases of Albuminuria occurring in Adolescence.*

DR. SAMUEL WEST, in resuming the adjourned discussion, said albuminuria was always pathological but not necessarily renal. Albuminuria after 25, even in the absence of evidence of renal disease, was much more serious as regards prognosis. He would exclude the albuminuria after exertion from the group under consideration. A clear case of functional albuminuria should carry no disabilities. The diagnosis was the great difficulty; it required great care for its establishment. Dr. N. TIRARD would also exclude the albuminuria of athleticism from the group as seen in insurance offices, and he would be very cautious in accepting a diagnosis of functional albuminuria in any case. Dr. F. PARKES WEBER confined his remarks to orthostatic albuminuria, which he thought was the most frequent variety. He had never heard of any bad result following orthostatic albuminuria, neither had he found any definite instance in the literature. The prognosis he held to be good, and he would not attach any disability to the condition. Lordotic albuminuria he considered a variety of orthostatic albuminuria. Athletic albuminuria he would exclude from the whole group. Dr. A. M. GOSSAGE said he had noticed a frequent occurrence of albuminuria in persons having taken long railway journeys for the purpose of life assurance. He thought a rather large proportion showed dilatation and functional derangement of the heart. The PRESIDENT discussed the question of the outcome of the cases. Of 13 typical cases occurring in his experience, 10 were alive and perfectly well after an interval of eleven to thirty-one years, and had no albuminuria. One of the 13 died from chronic Bright's disease, and this he held was a case of erroneous diagnosis

from the first. He thus looked upon the condition as innocent. The real difficulty was that of diagnosis; thus early tuberculosis of the kidney, *coli* infections of the urinary tract were instances of conditions that might mislead. The size of the heart or accentuation of the second sound were not infallible guides. Many cases had varicocele suggesting venous stasis in the kidney as a likely cause. Dr. GOODHART, in reply, said he looked upon the cases as due to exhausted nerve energy, linking the affection with abnormal blushing and flushing, angio-neuroses, and other evidences of defective vasomotor control.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

*Friday, April 21st, 1911.*

Mr. R. H. WOODS, President, in the Chair.

*Acute Pancreatitis followed by Formation of Cyst.*

MR. R. A. STONEY recorded a case in which a young married woman showed symptoms of biliary colic with slight jaundice, and a moderate rise of temperature. On operation the gall bladder and bile ducts appeared normal, but numerous spots of fat necrosis were found, and the pancreas was generally enlarged and hard. A cholecystostomy was done, and the condition of the patient improved. At the end of a week several very small stones, irregular in shape, escaped. After this improvement was rapid, except for a severe attack of vomiting followed by tetany. About six weeks after the operation a swelling was first noticed in the upper left quadrant of the abdomen, and this steadily increased until it reached the size of a football. The patient was apparently in good health; the cholecystostomy opening was almost closed; the urine and faeces were both normal, and there was no elevation of the temperature. A diagnosis of pancreatic cyst was made, and at the operation a large, tense fluid tumour was found presenting above the lesser curvature of the stomach. The anterior wall of the cyst was formed wholly or in part by the lesser omentum. About two quarts of thin, brown fluid were evacuated, the edges of the incision in the cyst wall were stitched to the abdominal wall, and the cyst drained. The discharge rapidly lessened, and the patient left hospital, cured, in less than a month. The fluid when examined was found to contain trypsin, amylopsin, and steapsine, and caused some erosion of the skin around the drainage opening. The patient had remained in perfect health since the last operation, now more than a year ago.

*Early Operation in Sacro-iliac Disease.*

Mr. W. I. DE C. WHEELER, in a paper on sacro-iliac disease, emphasized the fact that the textbook signs and symptoms did not exist in the disease until there was advanced destruction of the joint. At this time surgery could not be expected to accomplish much. Early diagnosis could be made if sacro-iliac disease was more often looked for in patients suffering from vague pains in the sacro-gluteal region, especially when the pain was transmitted down the sciatic nerve as far as the knee. There was always discomfort about the joint in early disease, which manifested itself, *inter alia*, by the unwillingness of the patient to change his position when lying in bed. An *x*-ray photograph gave most valuable information, and showed a focus in the sacrum or ilium at a very early stage. Occasionally the symptoms of sciatica and lumbago come on very acutely, with a sharp rise of temperature in commencing disease of the joint. In operating for the condition he recommended an incision carried below the crest of the ilium and having its centre at a point corresponding to the junction of the posterior third with the anterior two-thirds of the crest. Mr. BLAYNEY said, as regards diagnosis by *x* rays, it would be very difficult where the disease was confined to the synovial membrane, or where there was only a very small focus of disease present. He said that he knew many cases of sacro-iliac disease where sciatica was not a marked symptom. It depended upon what part of the joint the disease started. If it began at the posterior aspect of the joint the sciatic nerves would not be affected. The method of exposing the joint seemed to be a very good one. It exposed the joint only at its anterior part, but the operator would probably be able to follow the disease if extensive. Mr. PEARSON said that Mr. Wheeler's method of exposure was not to be recommended in primary synovial forms of the disease. Unfortunately, these were the forms which could not be diagnosed by *x* rays. Instead of making a transverse curved incision, an oblique incision downwards and forwards parallel to the upper border of the gluteus maximus, just the same as Kocher's incision for excision of the hip, but placed at a higher level, might do less anatomical damage, and one could split the fibres of the gluteus medius through this incision. If the focus appeared at a lower level one should place the drill somewhat lower, as it seemed to be quite easy to get into the joint at a lower level, and by that oblique incision one could get higher or lower as one wished. Mr. WHEELER, in reply, said the synovial membrane in this joint was a very primitive structure, and there was only a very small synovial cavity, so in a large percentage of cases the disease would be found in the bone. But if the disease were confined to the synovial cavity there would be very few symptoms till the bone was attacked.

*Acute Unilateral Pyelonephritis.*

Mr. PRINGLE dealt at some length with the etiology of this condition, and expressed the belief that the infection reached the kidney sometimes by the blood stream and sometimes up along the ureter. He illustrated his remarks by the notes of two cases, in one of which the infection was haematogenous and in the other urogenous. Both the cases recovered. He laid stress on the similarity of the symptoms in this condition with those seen in acute intra-abdominal disease.

## SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 27th, Mr. A. CUFF, President, in the chair, Mr. G. E. MOULD, in a paper on *Heredity in insanity*, said that the inheritance of insanity could not be likened to that of haemophilia or Friedreich's ataxia, for, broadly speaking, an individual did not inherit any particular form of insanity. What he did inherit was a particular constitution of the nervous system which rendered him subject to the most diverse complaints, such as asthma, tuberculosis, epilepsy, alcoholism, organic nervous disease, hysteria, and various forms of insanity which differed from one another as much as do the before-mentioned disorders. Some forms seemed to be inheritable in themselves, for example, puerperal mania, melancholia with the capacity to carry out the suicidal impulse, and the tendency to break down at the same critical periods of life. Less markedly hereditary were periodic and delusional insanity, and perhaps dementia praecox. While hysteria ran in families, this was probably due to imitation. General paralysis could not be considered hereditary as such, but probably a particular nervous constitution was necessary, and this was heritable. Another indirect means for the inheritance of insanity was furnished by the fact that a man inherited his circulatory system as well as his nervous system. Arterio-sclerosis ran in families, and the proper working of the brain depended on its blood supply. The mother had the greater tendency to hand on insanity to both sexes, but especially to her daughter. Marked eccentricity in the mother was frequently followed by insanity in the daughter. The father seemed to hand on outward resemblance; the mother, character, that is, nervous system. There was a panicky feeling abroad to-day concerning insanity and heredity. Some of the measures advocated would produce more insanity than they would prevent. If the insane King George III had been sterilized, we should have had no Queen Victoria or Edward VII. In a family liable to insanity, the insane form but a small proportion. Such families were often rich in the most talented individuals. The question of marriage must be judged on its merits in each case. To allow the marriage of a person who had recovered from an attack of insanity was serious, but it must be remembered that many adolescent attacks were not repeated. The three forms of insanity prone to be inherited—alternating insanity, delusional insanity, and dementia praecox—were incurable, and therefore no question of their marriage was likely to arise. In a paper on the theory and practice of *Ionic medication*, Dr. HARWOOD NUTT expressed the belief that ionic medica-

tion would become a recognized form of treatment both in hospital and general practice, owing to its excellent results, its simplicity of technique, and its general application. After sketching the history of its development and describing its technique, he said the question of dosage depended chiefly on the following factors: The extent and depth of the lesion, the nature of the disease, and the age, sex, and tolerance of the patient. He then demonstrated several cases. One of these, a case of a knee with fibrous ankylosis of thirty years' duration, gave way to one application of sodium chloride ions. The patient, a woman, could only bear 40 mm. for fifteen minutes, but it was sufficient for complete movement of the joint. Four cases of rheumatoid arthritis, treated by potassium iodide and salicylate ions, were shown, all of which exhibited marked improvement in movements. In these cases the treatment varied from four to eight weeks, and included a preparatory dosage of high-frequency and electric light bath. Six cases of rodent ulcer, treated by 2 per cent. zinc chloride, and lupus vulgaris, treated by 2 per cent. copper sulphate, were also shown, and were apparently cured. Three to nine months had elapsed since the treatment. Reference was made to the ionizing influence of the *x* rays in cases of malignant disease and its bearing on post-operative cases.

## BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 25th, Dr. MITCHELL in the chair, Mr. F. W. GOYDER, in a paper on the relative value of the different *Signs and symptoms of gastric perforation*, said that in abdominal conditions accurate diagnosis was more the result of a careful weighing of probabilities than an exact science. Most of the symptoms of gastric perforation were not limited to this condition alone, but were common to all acute intraperitoneal catastrophes. The history, if accurate, might increase the probability of the gastric origin of an emergency, but an accurate history was difficult to obtain from a patient extremely ill from shock, and that obtained from relatives and friends was often untrustworthy. The conditions for accurate "anamnesis" were unfavourable. An important localizing sign, diminution of liver dullness, valuable only if present soon after the onset, he had found in a case where there was no perforation, and the absence of this sign did not exclude the condition. The diagnosis of an acute peritoneal catastrophe was, however, nearly always possible, and for that immediate operation was the proper treatment. The danger of operating on a patient suffering from shock was a very real one, and the choice of the proper course required great judgement. Where the initial shock was profound, he suggested that it was safer to wait until there was some recovery; personally he would give morphine, but would not allow the subsequent improvement to prevent operation at the earliest favourable moment. He believed that a conscientious surgeon, having arrived at a diagnosis in an obscure abdominal condition, to the best of his knowledge and ability, sometimes operated because he felt he might be mistaken as to the cause (which operation might show to be easily remediable), rather than because he felt certain of it. The paper was discussed by Drs. MITCHELL, PHILLIPS, and T. J. WOOD, and Mr. GOYDER replied.

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THE use of drugs in all regular hospitals in the United States has steadily diminished during the past fifty years. Statistics recently published from the Boston Dispensary show (says the *Boston Medical and Surgical Journal*) that between 1854 and 1868 the apothecary of that institution filled an average of 2.1 prescriptions for each patient. In 1870, this figure had fallen to 1.32; in 1880, to 1.06; in 1900, to 0.89. In 1910 it was 0.81. During this time there has of course been a great increase in the use of massage, electricity, and other mechanical methods of treatment.

AN American hospital recently offered £5 to a suitable person willing to yield a quart of blood for a transfusion operation. More than 100 applicants presented themselves. Although only men were asked for, one woman presented herself, who said she was in such fine condition that her system would stand the drain as well as that of any mere male person.

# Reviews.

## THE PREVENTION OF MALARIA.

PROFESSOR ROSS, in his book *The Prevention of Malaria*,[1] gives an admirable summary of what has been done in the way of preventing malaria by destroying mosquitos and by other measures up to the present time. There would seem—at least as far as India is concerned—to be another school arising which, though not openly hostile to Professor Ross's ideas, yet distinctly throws doubts on the efficacy of some of the experiments which have been so largely quoted of late as demonstrating the practical utility of mosquito extermination. There will, apparently, always be two sides to a question, and perhaps that is just as well, because criticism, if it is fair, is the best way of directing unbiassed attention to any new scheme, especially when that scheme may involve large sums of money. With an opposition on foot, it is opportune that Professor Ross's book should appear now, and the names of the eminent men who contribute articles to it must necessarily strengthen the author's hands considerably when he contends for the value of measures largely proposed by himself. It is only right to say here that the majority of people who are in a position to be able to judge of the value of measures taken to exterminate mosquitos are all on the side of Professor Ross, and if careful inquiry be made, good reasons can generally be found to account for some of the failures which have been thrown up against the many equally striking successes reported in recent years. After all, we must judge by results, and it is difficult—nay, even impossible—for any one to explain away the brilliant results of the work of the Americans in Havana and Panama, where the difficulties to be contended with were enormous—so enormous, in fact, that most Governments would never even have attempted to overcome them.

For such reasons alone Professor Ross has done well in getting so many foreign contributors to write articles on what has been done for the prevention of malaria in their own countries, because such examples must necessarily cut the ground from under the feet of the sceptic. The first six chapters of the book, which is a large one, deal with the history of malaria; a summary of facts regarding malaria; fundamental observations and experiments; the parasitic invasion in man; malaria in the community and prevention, and are by Professor Ross, while Chapter 7 is broken up into twenty-one sections or parts consisting of special contributions by many well-known authorities on the subject. Professor Howard, Colonel Gorgas, and Mr. Prince, write for America, including the Panama Canal; Sir Rubert Boyce and Dr. Prout on the British West Indies; Dr. Cruz and Dr. Thomas on Brazil; Professor Savas on Greece; Professor Schilling on the German Colonies; Dr. Sergent on the French territories in Algiers and other parts of the world; Professor Celli on Italy; Dr. Balfour on the Sudan; Dr. Watson on the Federated Malay States, with Dr. Takaki on Formosa, and others for other parts of the world. Professor Ross's part of the work is closely reasoned out and well written. Perhaps—at least for those with non-mathematical brains—there is too much mathematical reasoning in some of the chapters, and such reasoning is often of little practical value, but the author's summing up of the whole question of prevention on page 312 is excellent and cannot be improved on. He says:

> Up to the present we have considered each measure separately (protection, prevention by treatment, mosquito destruction, etc.), but in many cases, probably in nearly all, it may be better to adopt a combination of several measures partially carried out. In fact, practically it nearly always comes to this. As previously stated, the complete adoption of any one measure is generally impossible; we cannot remove every mosquito, nor can we treat every case. Possibly a partial mosquito reduction combined with a partial case reduction will produce the same amount of malaria reduction at much less cost. In other words, we remove what breeding waters we can remove without great expense, and we treat as many of the infected persons as possible. At the same time, we urge protection upon the populace, and adopt various methods under different local conditions.

[1] *The Prevention of Malaria.* By Ronald Ross, D.P.H., F.R.C.S., D.Sc., LL.D., F.R.S., C.B., Nobel Laureate. With Contributions by Professor Howard, Colonel Gorgas, Dr. Prout, Dr. Balfour, and many others. London: John Murray. 1910. (Med. 8vo, pp. 682; illustrated. 21s. net.)

The proper policy is not the protection policy, nor the mosquito reduction policy, nor the quinine policy, but an opportunist policy which uses any weapon it can. Ultimately we have to frame our measures according to local feasibility.

Again, Colonel Gorgas says:

"I think that the mosquito work already done at Ismailia, Havana, Panama, and other places has demonstrated that malaria can be controlled and eventually banished from even the worst places in the tropics, and this at no very great expense. I think that the individual farmer can go anywhere into tropical countries and be free from malaria if he will drain the land and clear brush within a hundred yards about his house; and in addition screen his house so carefully that mosquitos cannot gain access. This will not cost him anything like so much as he expends in protecting himself against the cold of Dakota or Manitoba.

There is not the slightest doubt that the destruction of mosquitos is not only feasible, but can be carried out by intelligent individuals in many instances at a comparatively low cost. Professor Ross's book should do good by focussing the attention of the public and the profession on the success that has followed the measures taken up to the present time to stamp out malaria.

English possessions might, perhaps, have done more than they have, but it is evident from the large number of contributions by the writers already mentioned that the progress of the fight, though slow, is nevertheless a sure one, and that there is bound to be in the future an enormous reduction of malaria throughout the world generally.

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## THE FEEBLE-MINDED.

THE interest taken in matters relating to the mentally defective class is evidenced by the recent appearance of two new books upon the subject, closely following on the heels of the revised edition of Dr. Shuttleworth's work, reviewed in the BRITISH MEDICAL JOURNAL (vol. ii, October 29th, 1910, p. 1347). Whilst Dr. LAPAGE[2] approaches the subject mainly from the practical standpoint of the discriminative treatment of children who need training in special schools, or permanent care (as the majority do) in industrial colonies or other institutions, and aims at such a modicum of scientific information as may befit a manual intended not only for school medical officers, but for teachers and social workers, Dr. SHERLOCK[3] lays a foundation of psychological philosophy, more or less original, on which he proceeds to base his observations relating to the feeble mind and how to deal with it. Consequently the two books to some extent complement each other, and, read consecutively, give a fairly comprehensive view of the whole subject. In reviewing them it will be convenient to take each separately.

In *Feeble-mindedness in Children of School Age*, which is very appropriately dedicated "to the memory of Henry Ashby," the opening chapters are devoted to the history of the ameliorative measures undertaken in this country on behalf of mentally defective children during the sixty years (and more) which have elapsed since the foundation of the pioneer institution at Earlswood. The author traces the gradual extension of public interest in the subject culminating in the extended investigations of the Royal Commission on the Feeble-minded, quoting extensively from its Report and Recommendations, which still unfortunately cry aloud for legislative embodiment. Classification is then considered, and physical abnormalities associated with feeble-mindedness, and the significance of so-called stigmata of degeneration is discussed. Mental abnormalities are traced, as far as may be, to their physiological correlations, the general conclusion being that "the brain of the feeble-minded child is deficient in association paths and in receptive powers, so that the mind can neither make full use of stimuli received nor develop to the normal extent." A special chapter is devoted to defects of speech, Professor Wyllie's book being extensively requisitioned in this connexion. "Special types" are considered in Chapter V, and succeeding chapters deal with diagnosis, prognosis, and treatment. "The Cell, Reproduction and Heredity" is the heading of Chapter IX, which consists only of six pages, and is unavoidably very sketchy. Inherited causes are, however, again referred to in Chapters X and XI; and acquired causes are set forth in the following chapter. The closing chapter is mainly devoted to the thesis that "Efficient lifelong care and supervision is absolutely essential." In an appendix of over fifty pages Miss Dendy discusses the training and management of feeble-minded children, and supplies many useful hints from her practical experience at Sandlebridge.

In other appendices detailed schemes are given for the examination of the head and of the speech respectively, which may be useful to school medical examiners. There is, indeed, much of practical interest in the book, which is well printed at the Manchester University Press, and is admirably illustrated and got up. The methods of examination for admission to special shools are serviceably dealt with in the chapter on diagnosis. There are a few blemishes in the way of misprints here and there—for example, "ateliosis" for ateleiosis on pp. 122 and 323, and an unfortunate variant (on p. 84) of Cowper's aphorism that "absence of occupation is not rest" (here printed *best*). Does Dr. Lapage really hold that the incubation period of measles is *three* weeks as stated on p. 171? Miss Dendy's views on training and management are for the most part ideal, but we are surprised to find her dissenting from the doctrine of "one child, one comb and brush and one towel," which has become the rule in most boarding institutions for the feeble-minded.

Turning now to Dr. SHERLOCK'S book entitled *The Feeble-minded*, we find a more ambitious attempt to lay down new lines of study of the subject. In the preface he criticizes the nomenclature at present current, suggesting "psychical hypotrophy," or the utilization (as a designation) of the Greek *μωρία*, as more appropriate to the mental condition of the class. He may like to know that the term "moron" and its correlative "moronity" have for some time past figured on the schedules of the New Jersey (U.S.A.) Institutions for Defectives and Epileptics as indicating a mentality somewhat superior to imbecility. Professing, however, "to follow the lead of a recent Royal Commission," he determines to employ the term "feeble-minded," but after all uses it in the comprehensive (American) sense and not in the restricted application to a particular class of mentally defective defined under that designation by the Royal Commissioners. The first two chapters are devoted to a philosophical dissertation on the nature of mind in general, which the author piously hopes may at least prove intelligible, though he anticipates that it may give "cause for dissatisfaction to many worthy people." Chapters III and IV treat of the characteristics of the feeble mind and of the physical basis thereof; and we are pleased to find in a work warring in the main with current opinion the following paragraph, not much at variance with the quotation cited above from Dr. Lapage's book. Referring to the psychical elements of the feeble mind as differing from those of the normal mind, not in kind but only in degree and distribution, Dr. Sherlock summarizes the characteristics of the former in the terms following:

> A paucity of presentations, an imperfect memory, anomalies of the affective process, and limitation of the faculty of attention are the groundwork of mental incompetence (p. 71).

The chapter on the causation of feeble-mindedness discusses very judiciously the conflicting theories which have been advanced as to the respective influences of innate tendencies and of environment, though Dr. Sherlock commits himself to little beyond a general acquiescence in the view formulated by the Royal Commission,

> that feeble-mindedness is usually spontaneous in origin—that is, not due to influences acting on the parent—and tends strongly to be inherited.

Will science never penetrate the veil that hangs about spontaneity, or must it confess itself conquered by a "sport"? Our author, however, gives full consideration to the views held by some as to contributory factors, and incidentally refers to the controversy as to the influence of parental alcoholism. In considering the varieties of feeble-minded persons he falls foul of existing classifications based upon physical or pathological conditions, and appears to prefer psychological differentiae, though finally he puts forward a scheme of his own in which he divides all cases of "idiocy," "imbecility," and "weak-mindedness" into

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[2] *Feeble-mindedness in Children of School Age.* By C. Paget Lapage, M.D. With Appendix by Mary Dendy, M.A. Manchester and London: Sherratt and Hughes. 1911. (Cr. 8vo, pp. 359; 12 illustrations and 2 diagrams in text. 5s. net.)

[3] *The Feeble-minded: A Guide to Study and Practice.* By E. B. Sherlock, M.D. With Introductory Note by Sir H. B. Donkin, M.D. London: Macmillan and Co., Limited. 1911. (8vo, pp. 315; 27 illustrations and figures in text. 8s. 6d.)

nine groups as follows: "Ateleiotic, Mongolian, Microcephalic, Macrocephalic, Cretinous, Epiloiac, Plegic, Progressive, and Residual." Of this scheme we can but observe that it is not free from the objections he notes in the classifications of other writers, while his newly-coined "epiloia" (applied to cases of tuberose sclerosis) is an innovation which hardly merits the encomium claimed for the term that it is "short and distinctive," though it would seem to be etymologically "unmeaning." The book closes with a practical chapter on the handling of the feeble-minded, and is illustrated by an ingenious scheme and block plan for an industrial colony for 2,000 persons. The illustrations generally are excellent.

## SURGERY.

THE *Livre Jubilaire*,[4] dedicated to Professor TEISSIER, is a good representative of the *Festschrift* class of publication so well known to those of us who study European medical literature. Professor Teissier is to be congratulated; his long term of office has gained him honour, love, obedience, troops of friends, and a fine harvest of good monographs. Besides eminent teachers in his own university, we find among the contributors Parisians and also foreigners—Professor Bossi, of Genoa, for example. In place of a preface, the work is adorned by a fac-simile of a holograph letter, written by Professor Teissier, appreciating in graceful terms the honour which the contributors have conferred upon him. The one disadvantage of books of this class to the general medical public is that those who have not the honour of knowing its hero, and are not acquainted with his colleagues, and therefore not aware of what they have contributed, may entirely overlook the contributions which make up the memorial volume. Notice of some of the monographs will appear in the EPITOME, but as they number over threescore and ten it is clear that a thorough review is beyond our power. Professor Widal writes on the serum diagnosis of actinomycosis; Trouillet of Kairouan on meningo-encephalitis associated with influenza; Lanartic on Teissier's diplo-strepto-bacillus and its relation to influenza in man and typhoid affections in the horse. There are other interesting papers on bacteriology pure and applied to clinical work; Hallopeau and Spillmann contribute important communications on syphilis; and there is much worth studying on diseases of the heart and circulatory system, rheumatism, etc. Illustrations are scanty, but the typography of the *Livre Jubilaire* is excellent, reflecting high credit on the University Press at Lyons.

The question of the treatment of fractures has in recent years been attracting an increasing amount of attention. There can be little doubt that the Employers' Liability and Workmen's Compensation Acts have had much to do with this renewal of interest. We must, therefore, welcome a book which deals in a thorough and careful manner with such a difficult subject as fractures of the elbow. The trustees of the Samuel Gross Prize of the Philadelphia Academy of Surgery have already marked their estimation of Dr. Ashhurst's essay on *Fractures of the Lower End of the Humerus*[5] by awarding him the Samuel Gross Prize of 1,500 dols., which, according to the instructions of the testator, is to be given every five years for the best original essay illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations. The author has set himself to investigate his subject from every point of view. He has made dissections to examine the precise attachments of ligaments about the elbow, has made experimental fractures on the cadaver to study the influence of tension on ligaments in producing fractures by "distraction" of the end of the bone, and finds that many of the fractures at the lower end of the humerus are produced in this way. All his statements are illustrated by good photographs. The relations of the bones at the elbow are further illustrated by a series of radiographs at different ages, which furnish interesting information on the development of the epiphyses. In the early pages of his essay the author quotes textbook after textbook and one eminent authority after another, all of whom advise a very guarded prognosis in fractures about the elbow, with respect to complete recovery of movement and function. In textbooks, methods such as fixation on internal or anterior rectangular splints, or in plaster with the elbow at a right angle, are still described as orthodox modes of treatment. The imperfect results obtained by these methods are ascribed to the impossibility of properly controlling the lower fragment in a right-angled position. With the forearm at a right angle to the humerus, it acts as a lever to twist, rotate, or otherwise displace the lower fragment, and a slight error in the position of the forearm may make a big error, say, in the carrying angle. Ten years ago the author's attention was drawn to what he calls the "Jones's position" for treating these fractures—that is, the position of complete flexion ("hyperflexion") recommended some twenty years ago by Robert Jones of Liverpool. The author says: "At the time I was sceptical of its value. Further experience, and especially an application of increasing anatomical knowledge to the injuries observed, has demonstrated to my satisfaction its superiority over any other position." In his 56 cases he has 81 per cent. of "perfect" results. His anatomical demonstrations of the modes in which faulty results are produced are probably the most important part of the author's contribution to our knowledge of these fractures, for they are explained in a clear and convincing manner. The book is one which no teacher of surgery can afford to overlook.

[4] *Livre Jubilaire: mémoires originaux dédiés à M. J. Teissier, Professeur de Clinique Médicale à l'Université de Lyon, à l'occasion der XXVe anniversaire de son professorat. Pathologie interne—Clinique médicale. 1884-1909.* Lyon: A Rey. 1910. (Med. 4to, pp. 664.)

[5] *An Anatomical and Surgical Study of Fractures of the Lower End of the Humerus.* By Ashley Paston Cooper Ashhurst. A.B., M.D. 1910. London: H. Kimpton; Glasgow: A. Stenhouse. 1911. (Imp. 8vo, pp. 163, illustrations 150. 14s.)

## RADIUM.

ALTHOUGH radium itself remains at famine prices, its literature is increasingly abundant. We extend vain hands of supplication for milligrams, and we are given—a library. This is not the fault of Dr. DAWSON TURNER, however, who has brought within the compass of his *Radium: Its Physics and Therapeutics*[6] most of the facts which it is useful for the medical man to know. He has taken from the journals the details of some of the cures reported from France, and he adds many instances of amelioration which have come under his observation in Edinburgh during the last five years. The recital of how radium "acts like a charm"—to use his own words—in rodent ulcer, and clears up port wine stains without difficulty even in adults, is tantalizing to a radium-starved generation. Ten years ago an experimenter and pioneer in radium-therapy thought himself ill used because he had to pay 8s. per milligram for the precious salt. To-day he realizes that he was one of fortune's favourites. It would be indecorous to inquire how the market price of half a milligram of pure bromide of radium of 2-million activity came to be fixed at a figure almost equal to the salary of the Lord Chancellor. One can only hope that some rival therapeutic agent may presently arise so that, under the stimulus of competition, radium may be delivered from the spell. When that time arrives we shall return with new interest and quickened hope to Dr. Dawson Turner's little manual. It is an original and practical study of the subject, and, simple as radium technique already is as compared with that of the $x$ rays, it would probably become simpler still with the general acceptance of the author's suggested term "milligram hour" to denote the strength of the preparation in dosage *plus* the length of the exposure.

[6] *Radium: Its Physics and Therapeutics.* By Dawson Turner, B.A. M.D. London: Baillière, Tindall and Cox. 1911. (Fcap. 8vo, pp. 96, 27 illustrations. 5s. net.

## THE CENTENARY THACKERAY.

THERE are two editions of Thackeray the possession of which a man may covet and be forgiven. One would be a collection of the volumes of the original issues, but they are not uniform; they lack, of course, any biographical details such as the reader of a classic may reasonably desire, and they are not always easily come by at prices legitimately within the capacity of the professional purse. The other is the "Centenary Biographical Edition" now in course of publication by Messrs. Smith, Elder, and Co. It is uniform, printed in good type on good paper, it contains all the original illustrations, and in the introductions many more, while every one of the twenty-six volumes is to have

a photogravure portrait of the author as a frontispiece. For each book Lady Ritchie has written an introduction giving just those details about her father's life at the time the book was written, or about the circumstances which from childhood onwards inspired him, that the reader wants.

Books may be classified in many ways, but there is one system of classification which is of practical use—a classification by the age not of the book, but of the reader. In such a classification Thackeray's would, undoubtedly, fall to middle age, inasmuch as to savour them fully some familiarity with the ups and downs of life, with the infinite variability of character and motive and incident is necessary. Yet the saying that no man can learn from another's experience is only a half-truth. Were it true mankind must stand still. We do in fact build on the experience of our fathers and mothers, and though it may seem a utilitarian way of regarding a work of art, it can without derogation to the artist be affirmed that from Thackeray a young man may learn much about the springs of conduct which it will cost him many years and many bitter failures to discover by experience. Therefore let every young man read Thackeray; he will come back to him in middle life with added zest, and he will learn many a lesson the truth of which he will confirm and illustrate from his middle-aged experience.

From Lady Ritchie's introduction to *The Newcomes* may be quoted a bit of one of his mother's letters: "My Billyman," meaning thereby her to-be illustrious son, then (1821) some 10 years old, "is quite well. You would laugh to hear what a grammarian he is. We were talking about odd characters; some one was mentioned. Billy said, 'Undoubtedly he is a noun-substantive.' 'Why, my dear?' 'Because he stands by himself.'" It would be no bad description of Thackeray himself; not that he was an odd character, but that most certainly he "stood by himself." A man of fine courage, subject, indeed, to passing moods of self-depreciation, but always with a high ideal, and always trusting to his own efforts to win his way. On one reading the introductions and the stories after them, there is borne in the conviction that Thackeray's outlook on life was constantly widening, that he grew more tolerant, and more ready to see the good which lies somewhere in every man and woman who is not a "mentally defective"—not mentally, and therefore morally, a minus quantity.

This is one reason, perhaps the chief reason, why Thackeray has always appealed to members of the medical profession. We see a great deal of the seamy side of human nature, and Thackeray saw it too; but, like him, as we grow older we grow to see more clearly the good that is in the worst, the sympathy and self-sacrifice which is at first a surprise, but which we later come to expect even in characters not usually suspected to possess these virtues. Some old physician told a young follower, who asked what books he should study, to read Cervantes; it was good advice, but perhaps to-day and here we might substitute *Pendennis* and *The Newcomes* for *Don Quixote*. Thackeray had the same sort of theory of life, but he is nearer to us. He will teach the young doctor nothing about toxins or antitoxins, or vaccines or anaphylaxis, but he has a good deal to teach about men and women, more about men perhaps, and human nature is always the same save in externals.

The volumes are being issued at the rate of about two a month. The books which have already appeared are *Vanity Fair*, *Pendennis*, *The Yellowplush Papers*, *The Hoggarty Diamond*, *Barry Lyndon* and *The Fatal Boots*, *Contributions to Punch*, *Esmond*, *The English Humorists* and *The Four Georges*, and *The Newcomes*. The edition will be complete in October—a fine and fitting monument to a great man.

## NOTES ON BOOKS.

MANY excellent treatises on forensic medicine have been compiled by Indian authors. Mr. RAMES CHANDRA RAY, L.M.S., a Calcutta practitioner, has added another,[1] but of a different character and object. It is rather a syllabus or epitome than a detailed exposition, and is intended for the use of students, lecturers, and practitioners—medical and lay—in criminal courts, to fulfil the humble office of a guide and reminder as regards essential points, rather than to serve as a volume of reference for consultation in the critical study of special questions and cases. The author humorously describes his book as a "tabloid of jurisprudence," compressed and complete. He has certainly succeeded in providing in small compass a compact, admirably arranged, well-balanced, and wonderfully exhaustive synopsis of all the knowledge which a medical jurist ought to possess or is likely to require in practice. The work displays extensive and well-digested reading, great power of logical tabulation and concise description, and is distinguished by accuracy and lucidity. The section relating to poisons is particularly good and calculated to be readily available for emergencies. An appendix presents questions set at university examinations during the last six years, with answers, and will be found useful by students.

[1] *Outlines of Medical Jurisprudence and Treatment of Poisoning, for Students and Practitioners.* By Rames Chandra Ray. Calcutta: The Hare Pharmacy. 1910. (Cr. 8vo, pp. 246. Rs. 2.)

## BRITISH MEDICAL BENEVOLENT FUND.

AT the April meeting of the committee 22 cases were considered and grants amounting to £165 made to 17 of the applicants. Appended is an abstract of the cases relieved:

1. Daughters, aged 19, 17, 16, and 13, of late M.R.C.S., L.S.A. Left practically penniless at the recent death of their father, and only brother is quite unable to help. Voted £20.

2. Widow, aged 68, of L.R.C.P.Edin. Lost her husband from cancer six months ago, and was unable to sell the death vacancy as the practice had been neglected during his illness. Only income a few shillings a week allowed by her eldest son and a son-in-law. Voted £10.

3. Widow, aged 39, of L.R.C.P., L.R.C.S.Edin. No income; endeavours to support herself by nursing, but earnings are insufficient for her own maintenance and unavoidable expenses of her two children during their holidays. Relieved five times, £40. Voted £10.

4. Daughter, aged 61, of late L.S.A. Has been recently elected to a pension of £21 per annum from the United Kingdom Beneficent Association, and earns about 2s. 6d. a week by giving music lessons. Relieved four times, £40. Voted £10.

5. Daughter, aged 64, of late M.R.C.S. Receives a yearly grant from the Kent Medical Benevolent Society and has a small annuity, but income is insufficient for unavoidable expenses, because, being mentally deficient, some oversight is required, although not suitable for an asylum. Relieved twelve times, £120. Voted £12.

6. Daughter, aged 53, of late M.D.Aberdeen. Has a small annuity from a Governesses' Benevolent Society and gives music lessons when able to obtain pupils. Relieved once, £6. Voted £12.

7. Daughter, aged 64, of late M.R.C.P.Lond. Was well provided for, but mortgaged her property to assist her father after unexpected financial losses, and is now dependent on a small annuity and slight help from friends. Relieved four times, £32. Voted £5.

8. Widow, aged 62, of M.R.C.S. Endeavours to support herself by letting lodgings, but her rooms have been vacant for some months. Children only able to give slight help. Relieved five times, £70. Voted £2, and case to be reconsidered in May.

9. Widow, aged 50, of M.R.C.S. No income, and entirely dependent on this Fund and small earnings by needlework. Relieved nine times, £95. Voted £2, and case to be reconsidered in May.

10. Widow, aged 48, of L.R.C.P., L.R.C.S.Edin. No income, and health very indifferent. Slight help from a sailor son. Relieved seven times, £75. Voted £12.

11. Widow, aged 66, of M.R.C.S. Since husband's death a few years ago has taken boarders, but finds them increasingly difficult to obtain owing to changes in the neighbourhood. Children unable to help. Voted £12.

12. Daughter, aged 62, of late M.R.C.S. Acts as housekeeper to her brothers, but, as they can only give a home in return for services, is obliged to apply to this Fund. Relieved nine times, £132. Voted £12.

13. Daughter, aged 39, of late M.R.C.S. Is a chronic invalid, and being unable to earn her living is dependent on a mother who is an Epsom pensioner. Relieved twice, £20. Voted £10.

14. Daughter, aged 59, of late L.S.A. Endeavours to support herself by letting lodgings, but is unavoidably in arrears with her rent. Relieved three times, £34. Voted £12.

15. Widow, aged 61, of L.S.A. Supplements slight help from children by letting lodgings, but has had two rooms unlet for several months. Relieved nine times, £100. Voted £10.

16. Widow, aged 47, of M.D.Aberd. No income, and dependent on small weekly allowance made by her eldest son and a sister. Has been ill all the winter, and has only just recovered from a severe attack of acute bronchitis. Relieved three times, £25. Voted £12.

17. Widow, aged 61, of L.F.P.S.Glasg. No income; endeavours to maintain herself and an invalid daughter by selling sweets on commission. Relieved three times, £48. Voted £2, and case to be reconsidered in May.

**Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.**

# NATIONAL INSURANCE.

## MEMORANDUM ON THE BILL BY THE CHANCELLOR OF THE EXCHEQUER.

### HEALTH INSURANCE SCHEME.

#### 1. OBJECTS.

THE Bill is intended to effect as wide an insurance as possible of the working population against *sickness and breakdown*. It is also intended to make the Bill as far as possible a preventive measure operating to reduce the amount of sickness. Both the Majority and Minority Reports of the Poor Law Commission call special attention to the utter inadequacy of our methods for preventing and curing sickness amongst the industrial classes. This Bill contains several provisions designed to amend this unsatisfactory state of things. In other words, it is, as described in the title, a Bill for "National Health Insurance and the Prevention of Sickness," the title "Invalidity Insurance" being by no means a suitable one for English purposes.

The plan differs from the German Scheme of Sickness and Invalidity Insurances in the following respects:

1. It is proposed that under proper safeguards the administration of the Fund should be handed over to the great Friendly Societies either already established in this country or hereafter to be founded under the Act. As all deficits due to malingering will have to be borne either in levies or loss of benefits by the members of a defaulting Society, and not by the State or the employer, there is every inducement to economy. Bad management will be promptly and effectively penalized. Good management will be rewarded.

In Germany the system is much more bureaucratic in its management, and does not nearly to the same extent adopt the principle of self-government.

2. In starting a universal scheme there must necessarily be a very heavy burden during the earlier years of its operation, owing to a large number of persons entering it at an age when their contributions are actually inadequate to ensure the benefits guaranteed by the Bill. Unless financial arrangements are made to liquidate the loss so arising it will fall on future generations of insurers.

The finance of the present scheme will be so arranged that the deficiency inevitable in starting a scheme which includes all ages shall in fifteen to sixteen years be completely wiped out. At the end of that period the administrators of the funds will be in a position to declare increased benefits—for example, the reduction of the pension age.

3. The fact that the superannuation of all persons over 70 is undertaken by the Government in this country, whereas in Germany it is a burden on the contributory scheme, makes an enormous difference in the rates of weekly payments, which suffice under the proposed scheme to produce higher benefits than those conferred by the German scheme. Moreover, the German Government makes no contribution to the cost of sickness as distinguished from invalidity, whereas the present scheme proposes to pay one-quarter of such cost in the case of women and two-ninths in the case of men.

4. There are several other points of difference between this Scheme and the German system, *e.g.*, it is not proposed to adopt the German plan of dividing the industrial population into four classes according to the rate of wages earned—and not, as in Germany, to set up separate machinery for sickness and invalidity. By taking this course, and by the machinery which has been adopted for the collection of contributions, the inconvenience and trouble likely to be caused to employers will be greatly diminished.

There are other points of variation, notably in the measure of control given to the workmen, which will appear later on. Another paper is being circulated to give particulars of the German Insurance.

#### 2. SCOPE OF SCHEME.

The Bill will extend to the whole of the United Kingdom.

The Bill will partly rest upon compulsion. It is proposed that the insurance moneys should in part be collected at the source by deductions from wages. It is therefore necessary to decide how far this compulsion should go, that is, what classes of persons should be compulsorily included and what should be the position of persons who choose to join the Scheme voluntarily. The following proposals are made:

The compulsory deduction from wages will extend to all persons of whatever nationality under contract of service, whether paid by the hour, day, week, month, or year, to include artisans, mechanics, miners, clerks, shop assistants, servants, sailors in the mercantile marine, unpensionable employees of local authorities, railway employees, golf caddies, etc.

The compulsory deduction will also extend to Outworkers in such classes of work as may be covered by Order of the Home Office under the Factory and Workshop Act, 1901. It will also include cases of joint employment, *e.g.*, employment in a mine through gangers, the mine-owner being made responsible.

It will not extend to—

(1) Agents paid by commission or fees, and employed by more than one employer.

(2) Such persons as washerwomen, sempstresses, etc., executing small orders on their own account.

(3) Wives employed by husbands.

(4) Extremely precarious personal employments—for example, luggage carriers, not connected with a trade or business.

(5) Casual domestic employment.

(6) Jobbing occupations, *e.g.*, gardeners, if working on their own account.

(7) Persons receiving more than £160 a year from their employers by way of salary.

(8) Soldiers and sailors, who will be dealt with separately. A reduced deduction from wages will be made in these cases (the soldier, sailor, etc., being cared for while in the service of the Crown) to provide the necessary reserve against the time when the service ceases, with further assistance from public funds to make special provision for invalid soldiers and sailors.

(9) Pensionable employees of the Crown or of local authorities.

The Treasury will have power by regulations to extend the compulsory deduction from wages to other classes of employees not included in the definition.

In the case of persons employed for no money wage, or appointed by one person and paid by others, the employer will be made responsible for seeing that the person employed is insured.

The class of persons such as cab-drivers or boatmen, who live by "working" a cab or boat for which they pay the employer, will also be included.

There is a large class of persons who only go into employment occasionally (say, for a period of less than thirty-nine weeks in the year), and it may be considered that there is no reason why the State should require such persons to insure themselves, as it is unfair to enforce contributions which might never materialize into benefits. Exemption from deductions from wages will, therefore, be allowed on request in such cases to (1) persons who prove that they have a pension or income of £26 a year; (2) married women and persons dependent on the labour of other persons who do not habitually go to work in one of the employments which fall within the initial definitions. The employer will be liable to contribute in such cases.

So far as the Bill does not rest upon compulsion as above defined, it is proposed to allow all other persons to join the Scheme or not as they may choose, provided that they are engaged in some occupation by which they seek their livelihood. It has been necessary to exclude married women (non-workers) from insurance, because it is impossible to devise any scheme to control claims for sick pay in such cases.

#### 3. CONTRIBUTIONS.

Contributions will cease at 70. Persons over 65 years of age at the commencement will not be taken into insurance.

The rates for unemployed persons will be uniform—

For men, 4d. a week, deductible from wages.
For women, 3d. a week, deductible from wages.
For the employer, 3d. a week for both sexes.

The State's contribution will be the payment of two-ninths of the benefits in the case of men, and one-fourth in the case of women. It will not be paid in the case of persons of foreign nationality who have not become naturalized.

These contributions will be subject to a variation in the apportionment as between employer and employee in the case of persons over the age of 21 where the person employed does not receive "board and lodging," as under:—

If the wages do not exceed 1s. 6d. a day, the employer is to pay 6d. for men, 5d. for women; the employee is to pay 1d.

If the wages do not exceed 2s. a day, the employer is to pay 5d. for men, 4d. for women; the employee is to pay 2d.

If the wages do not exceed 2s. 6d. a day, the employer is to pay 4d. for men, 3d. for women; the employee 3d.

If the wages exceed 2s. 6d. a day, the employer is to pay 3d.; the man 4d., the woman 3d.

Persons who are entitled to insure voluntarily, and who are under the age of 45 at the commencement of the scheme, will be given six months to join the insurance on paying 7d. (if men), 6d. (if women). Such persons if over 45 and persons under 45 joining subsequently to the six months will be required to pay rates increasing according to their ages, in no case less than 7d. (or 6d.).

### 4. BENEFITS.

The contributions have been calculated to enable the Approved Societies who administer them (see heading 5 below) to grant certain minimum benefits, and if the Societies manage their business prudently they will also be able to grant some one or more of certain additional benefits.

The minimum benefits will comprise—

(*a*) Medical attendance throughout life for the person insured. The Societies will be responsible for making arrangements with doctors for attending upon sick members, but prohibited from making any arrangement under which the doctor would be required to provide medicine for any insured person. The Societies will have to provide these expenses themselves, except in special circumstances in rural districts.

(*b*) 1s. 3d. a head annually for a Sanatorium Fund throughout life. It is further proposed to pay a capital sum of £1,500,000 into a special fund to be used in making grants for building sanatoria, on condition that funds are also raised locally, and to make an additional yearly grant of 1d. per member to the Sanatorium Fund, as explained later. The total income available for preventive work is thus 1s. 4d. a head annually, and it should be added that power is taken to use the additional grant of 1d. for Research purposes.

(*c*) 10s. a week in sickness for men and 7s. 6d. a week for women for 13 weeks from the fourth day of sickness in each case, and 5s. for the next 13 weeks. Members over 50 and under 60, who have not made 500 contributions, will receive 7s. a week only for the first 13 weeks if men, and 6s. only if women; and if over 60 such members will receive 5s. in both cases.

(*d*) 5s. for the remainder of sickness.

(*e*) A maternity benefit of 30s. payable from the father's insurance unless the mother is an insured person, when it will be paid from her insurance.

Benefits (*c*) and (*d*) cease at 70 for both sexes.

Young (unmarried) persons under the age of 21 will receive smaller benefits under (*c*) and (*d*) at the rate of 5s. for the boys and 4s. for the girls.

Boys and girls under the age of 16 will only be entitled to medical attendance and sanatorium treatment, the balance of their contributions being accumulated in order to enable the whole scheme to be extended at an earlier date than would otherwise be possible.

According to the actuarial calculations which have been made the proposed contributions will provide a margin of approximately 10 per cent. in addition to the amounts required for the payment of the minimum benefits, the Societies' costs of administration, and the liquidation of the original deficit in fifteen to sixteen years.

This margin will, if the actuarial anticipations are realized, be made available for the grant of "additional" benefits, as provided for in the Bill, as soon as experience shows that it can safely be devoted to that purpose.

Well-managed Societies will thus almost from the outset be able to make a very substantial addition to the standard schedule of benefits, while in all cases the existence of the margin will operate to prevent deficiencies arising from casual and accidental variations from the assumed rates of sickness, and so as a rule to obviate the necessity for bringing into operation the special machinery necessary for dealing with such deficiencies, viz, levies upon members or reduction of benefits below the standard schedule.

The additional benefits will include such benefits as the following:

(1) Free medical attendance for dependants.

(2) Benevolent fund for distressed members.

(3) Extension of period of full sick pay to 28 weeks; granting sick pay from first or second day of sickness; increasing sick pay either in all cases or in the case of married men with large families.

(4) Convalescent allowances in selected or necessary cases. Building and maintaining convalescent homes.

(5) "Pocket money" for men in hospital or convalescent homes, who are being paid for.

(6) Additional invalidity or superannuation benefit, or addition to Old Age Pension. For instance, the Societies might (when their funds permit) begin to grant a pension before 70, with an option to the recipient of taking an increase to his Old Age Pension if he prefers to wait till 70.

(7) An extension of the maternity benefit.

The Bill will require the Societies to grant a reduced benefit under (*c*) and (*d*) in cases where those benefits are more than two-thirds of the wages earned by the insured person—compensation for the reduction being made by the grant of one or more additional benefits of a value equivalent to the reduction. The Insurance Office's consent would be necessary to any such adjustment of benefits. The power so granted may also be used in other cases with the consent of the Insurance Office.

The Bill will specify some of the conditions under which the benefits will be payable, the remainder of the conditions for the minimum benefits and all conditions for the grant of additional benefits being left to regulations to be drawn up with the help of the Committee to be appointed under the Bill (see later under the heading "Miscellaneous," p. 19).

All Societies in administering the benefits will be required to conform to those conditions which are embodied in the Bill or regulations. Those of them which are not so prescribed will be left to the Rules of the Societies:—

(*a*) Medical attendance.—This will commence on entry into insurance (except for the first six months of the operation of the Act), and run throughout life.

(*b*) The rules as to Sanatoria will be made by the "Local Health Committee," as to which see later.

(*c*) and (*d*) Temporary and permanent sickness.—The following rules or regulations will apply:—

(i) That notice of sickness must be given to the Society.

(ii) That sick pay will only commence as from the fourth day after such notice has been delivered; no payment being in fact made for the first three days.

(iii) That the member must prove that he has been rendered unfit to provide his maintenance by some specified sickness or physical or mental disablement.

(iv) Rules will be sanctioned to prescribe the periods for which a doctor's certificate will be required, *i.e.*, whether a certificate must be produced once a week, or once a fortnight; and to deal with the case of members resident at some distance from the offices of their Society.

(v) Rules will be sanctioned for the behaviour of members during sickness, but strict compliance with the directions of the doctor will be required. Societies will have to arrange for women visitors to visit women.

(vi) A waiting period of six months has been laid down for the temporary sickness benefit, and of two years for the permanent invalidity benefit.

(vii) Societies will be allowed to follow their own rules for refusing sick pay in the case of sickness brought on by

the member's own misconduct. They will, however, be required to give medical attendance in such cases, even if sick pay is refused.

(viii) If a member has received temporary sick pay and recovered from his sickness and falls sick a second time, such second sickness will be reckoned as continuous with the first, unless a period of 12 months has elapsed and the member has followed his usual occupation and paid his contributions.

(ix) The Societies will be given power to impose fines not exceeding 20 shillings for repeated offences and to suspend payment of benefit for a period of not more than one year for any violation of the above conditions, or for imposing on the funds or for refusing to obey the Rules of the Society. They will also be given power of expulsion as indicated later.

(x) Sick pay (temporary and permanent) will not be paid except by way of advance to persons entitled to compensation under Act of Parliament or the Common Law, unless the amount of such compensation is less than the benefit to which the member is entitled, when the difference will be made up. Advances will be recoverable by legal process or deducted from future benefits.

Alternatives have been inserted giving the Societies power (1) to take legal action in support of a member's claim, and (2) to refuse payment of benefit if the person injured does not take action. The Societies will of course be liable to costs if they take action and lose the case. If they win the case they will be made trustees of any sum awarded. Also, the consent of the Society has been made necessary for the acceptance of any lump sum in voluntary commutation of a weekly payment, and it has been left to the Societies, subject to appeal, to determine the amount of the set-off from benefits under this Act when a lump sum is paid. Where a lump sum is awarded by the Court, the award will be communicated to the approved Society concerned.

(*e*) *Maternity Benefit.*—Societies will not be allowed to pay this benefit in cash to the insured person or her husband, but will be required to pay expenses incurred up to the sum of 30*s.* under prescribed conditions.

*Non-assignment of Benefits.*

A Clause has been inserted prohibiting the sale, transfer, pledging, or assignment of benefits.

A Clause is also inserted to the effect that when a member becomes an inmate of Hospital, Asylum, Infirmary, or Workhouse under the charge of any Public Authority, or of any Charity, no money benefit shall be allowed unless he has a wife or children or other relatives dependent upon him for support, when the amount due shall be paid for their relief and maintenance.

Societies will be given power to make agreements to pay the money benefit towards the maintenance of members who are taken into Convalescent Homes whose rules require the payment of at least one-half of the cost of maintenance; and also, they will be authorized to grant subscriptions, at their discretion, to Hospitals and other Charities, and to District Nurses.

*As regards Women.*

Women marrying and ceasing to be employed within the meaning of the Act will not be insured. If they become widows, and go into employment, they will be entitled at once to rejoin the insurance. So, too, women now married who become widows after the Act has come into operation, if they then go into employment, will be entitled to be insured at the rate applicable to employed people (with the full waiting periods). The right so given to women to insure late in life is a very valuable one. Married women who go to work will be insured under the same conditions as other persons as regards arrears; but, as already indicated, they will be entitled to claim exemption if their employment is irregular. Arrears accruing during marriage will be wiped out on widowhood. The effect of these provisions is that, if an insured woman is left an invalid at her husband's death, she at once gets the benefit of her own insurance.

*Transfers from the Class of Employed Persons to the Class of Voluntary Members, and* vice versâ.

A difficulty arises for which it is necessary to make rules, owing to the fact that there will be a number of voluntary members liable to pay a higher rate of subscription than the employed rate. Such persons will therefore desire to pose as employed members in order to obtain the benefit of the lower rate; and it is necessary to protect the Societies and the Insurance Funds against such imposition.

The following Rules are necessary:—

(1) Persons who enter the scheme as employed members will be charged the employed rate and will be allowed to remain at that rate if they remain in employment for a period of five years. When they enter a Society they will be required to furnish evidence that they are regularly employed.

(2) Persons who go into employment, having been previously insured as voluntary members at a higher rate than the employed rate, will not be treated as having become employed members. If, however, they become regularly employed persons, they will be insured as such for what the contributions which they pay, or have paid, are worth.

(3) Non-payment of contributions by employed persons will be dealt with as follows:

Non-payment due to sickness will be disregarded.

Non-payment due to unemployment not amounting to four weeks a year on average will be disregarded. Beyond this sickness benefit will be reduced or postponed, but if the non-payment exceeds thirteen weeks a year on average the member will be suspended from benefits.

Voluntary members who fall into arrear will be dealt with specially.

Members in arrear will be given the right to pay arrears of contribution which have occurred in the current and previous calendar year with interest at 3 per cent. The Societies will be protected against such payments being made when sickness has commenced, or just before it, with a view to obtaining full benefit, and a period of one month has been proposed as a protection against abuse of the insurance in such cases.

Immigrants coming on to the Scheme late in life will be compulsorily insured for the proportion of the benefits only which their own and their employers' contributions are worth. It has seemed necessary to provide that other persons who are driven into employment late in life, or who re-enter after exclusion, should be insured for reduced benefits; they will, however, be given a minimum insurance of not less than 5*s.* a week, corresponding with the insurance granted to a person who is in the maximum amount of arrears, even if the employed rate is not sufficient to grant this minimum insurance, and the Society accepting such a member will be given credit by the Government at the expense of the whole insurance for the deficit caused by so accepting him according to the Tables which will be prepared. It may be pointed out that, if such persons were given the full insurance, they would be treated as well as people who had previously insured themselves voluntarily, and better than employed persons of the same age who were to any extent in arrear with their contributions. The amounts previously paid by way of voluntary insurance by any person coming on to the Scheme late in life as an employed person will be credited to his insurance.

An exception will be made in favour of persons whose education is continued beyond 16.

5. MACHINERY FOR DISTRIBUTION OF BENEFITS.

The machinery will consist of—

(A) Approved Societies.

(B) A Post Office system, set up by the Government for the benefit of those persons who fail or neglect to join a Society, or are rejected.

A.—APPROVED SOCIETIES.

The conditions of approval comprise:—

(1) Absolute self-government.

(2) Not working for a profit.

(3) Election of all Committees, representatives, etc., by the members in accordance with rules approved by the Insurance Office or regulations drawn up under the Act.

(4) A minimum number of 10,000 insured persons under the Act.

(5) Local as well as central control of arrangements for medical attendance and payment of sickness benefit and appeals. For all questions arising under the Act Societies will be required to provide for a final appeal to Arbitrators appointed by the Insurance Office.

(6) Giving security by the deposit of sufficient Stock or in some other way to compensate the Government for any malversation by officers.

(7) Keeping separate accounts for the State Scheme.

(8) Complying with the provisions and requirements of the Act.

It will be open to any Society which satisfies the conditions to become an Approved Society, and it will not be asked to apply any of its existing funds for the purposes of the new Scheme, even though they have been contributed in respect of benefits now included in that Scheme.

All the great Friendly Societies and Trades Unions will be able to comply with these conditions. By doing so they will not sacrifice their independence or their right to select members. The Government inspection and supervision to which they will be liable is only devised in the interest of the members themselves to secure the proper administration of the funds, and should strengthen the position of the Managing Committees in well managed Societies.

Under the heading (4), the minimum of 10,000 has been adopted for Great Britain, 5,000 for Ireland; but this number will not apply to Superannuation Funds established by Employers. It may be explained that a fairly high number is necessary to prevent an unreasonable number of cases occurring in which further levies from members might prove necessary, putting employers and employed to considerable inconvenience. As only one employer is concerned in the case of a Superannuation Fund, it makes less difference in such a case if a levy is necessary.

It should be added that Societies which do not contain the prescribed number, 10,000, will be able to join or form an Association or Society of Societies containing that number. The terms of such Association must be that the Societies forming it agree to conform to the conditions subsequently laid down for dealing with surpluses and deficits. Societies which are members of such Associations (whether existing or to be formed) will apply for approval and give security through the Central Body of the Association. Such Associations must make provision in their rules for settling disputes and for the government of the Association, and it is clear that Societies forming such Associations will be able to maintain a stronger independence through their Associations than they could maintain separately.

Under the heading (5) Societies which are managed by Delegates, or where voting by proxy or by post is permitted, and which carry on business at a distance from their Head Offices, will be required to set up Local Committees elected by all the members of the Society residing in the District, for determining claims and supervising the administration of benefits in the District. A District has been defined as "a locality in which there are 1,000 members in the State Insurance" and Societies are required to set up a Committee for every 1,000 members as a maximum, and further required upon a request of 50 members to set up a Committee for every Group of 250 members as a minimum not more than 3 miles distant from the nearest Branch Office.

Power has also been taken to prescribe the place of meeting of Societies.

Under heading (6) the Government will be given power to require security by the deposit of sufficient Stock out of the Funds of Societies and to refuse approval to a Society that is not prepared to make a deposit of Stock up to the amount of half the annual contributions of the members of the Society in the Scheme.

Security will also be accepted in other forms at the discretion of the Insurance Office.

*Requirements of the Act with which Approved Societies must Comply.*

(1) To keep their books and accounts, so far as relates to the State Scheme, in the form to be prescribed by the Committee with the approval of the Treasury.

(2) To submit all such books and accounts to Government Audit when required. It is proposed that the Government should undertake the work of auditing the State Funds.

(3) To submit to a Government Valuation at intervals of three years or at such other intervals as may be appointed.

(4) To conform to the requirements of the Act in the event of any surplus or deficiency being shown on a Valuation.

(5) In the case of Societies which are members of an Association, to remain members of the Association to which they belong, unless secession or dissolution is sanctioned as specified later.

(6) To provide for an appeal to Arbitrators appointed by the Insurance Office in the event of any dispute between Societies or between members arising out of the operation of the Act.

(7) To conform in other respects with the provisions of the Act.

*Special Provisions* re *Superannuation Funds Established by Employers.*

All the requirements of the Act, except those regarding the minimum number of 10,000 members, will apply to such funds, if they are to be given the privileges of Approved Societies.

A special provision has been inserted authorizing employers, subject to the qualification mentioned below, to deduct an amount equivalent to the contribution to be made by them under the Act from any future contribution which, by existing Act or deed, they have bound themselves to make to benefits similar in kind to those provided by the Bill. Such alteration of the effect of any existing Act or deed will only take effect as from the date when the present Act comes into operation, and all rights, titles and benefits to which members have in any way become entitled under the present constitution of such funds before that date will be preserved. The deduction will be required to be limited accordingly to such an amount as can be made consistently with the maintenance of such rights, titles and benefits.

Members of such funds will be given the right of voting on any modification of existing rules proposed under the preceding paragraph, and all modifications of existing Schemes will be submitted for approval. Any member of such a fund will be given the right at any time to transfer his subscription and his employer's share with it to another Society, if he prefers to be insured in that way, and the Fund will carry out the transfer as a transfer between Societies in the manner specified below.

It has been necessary to deal with the question of the employer's representation in the management of such funds, and a Clause has been inserted allowing the employer one-fourth representation if he makes himself responsible for the solvency of the fund, and excluding him from representation in other cases, except to the extent to which he contributes more than the proportion represented by the amount payable by him under this Act.

*Membership of Societies.*

Subject to the provisions of the Bill, membership will be governed by the existing rules of Friendly Societies. Transfers from one Society to another will be carried out by the transfer of the amount appropriate to the member's age, according to a Table which will be prepared, subject to appropriate deductions in the event of the member being in arrear or the Society being in deficiency. A Clause has been inserted, requiring a Society which expels a member, who is unable to find another Society to take him, to pay over to the Insurance Society the money appropriate to the member's age.

Expelled members will be given a right to appeal to the Insurance Office Arbitrators.

*Management Expenses.*

The contributions are calculated to cover management expenses. A separate account must be kept for management expenses, and the Government will contribute its proportion of such expenses.

*Emigrants.*

Members will be entitled to a transfer to a Colonial Society at the usual Transfer Rates. The Insurance Office will compile a list of Colonial Societies approved

for the purpose, who grant reciprocal treatment to their own members migrating to this country. A Clause will provide for reciprocity with Colonies and Foreign Countries having State Schemes of Insurance. Persons in receipt of permanent sick allowances going abroad without the consent of their Societies will forfeit benefits.

*Investments.*

Any sums standing to the credit of a Society will be invested by the Government through the National Debt Commissioners. These funds will be available for making loans under the Housing Acts.

*Equalizing Clause as between Societies accepting Members of Different Ages.*

Inasmuch as societies will be allowed to retain their own independence and carry on business in the method to which they are accustomed, some arrangements must be made to equalize the position as between Societies consisting of old or of young members. If there were only one fund and one Society no difficulty would arise. The age-distribution of such a Society would be normal at the commencement, and as it would get its full and proper proportion of new entrants it would remain normal throughout. But as it is, there are over 20,000 Societies and branches with the greatest possible variety in age-distribution. It is not proposed to break up and reconstitute these Societies, nor is it desirable or necessary to do so. But it is necessary to put every Society on exactly the same footing:

(1) For the purpose of the State Valuation.

(2) As regards its financial position if it takes the older lives into insurance.

This has been effected in the following way:

Inasmuch as the State is covenanting to pay two-ninths of the benefits for men (one-fourth for women), every Society will necessarily be in a solvent condition if it has seven-ninths for men (three-fourths for women) of the contribution necessary as regards members joining it at the age of 16—the age when the insurance commences, and as from which all calculations for the purpose of the insurance have been made. For members joining at any age over 16, Societies in order to be solvent should also hold seven-ninths for men, and three-fourths for women, of the reserves appropriate to the members' ages. These reserves they will not, of course, hold at the commencement of the scheme, and it is therefore necessary to create them in the form of a paper debt, at the cost of the whole insurance. This debt will be credited to the various Societies, and will carry interest in the accounts at 3 per cent. Debt and interest will be redeemed by the investment of two-ninths for men (one-fourth for women) of the contributions paid by insured persons. In this way every Society is put upon an equal footing of solvency as regards the acceptance of members. If a Society has an age distribution of members which is exactly normal in accordance with the calculation of the Government's actuaries, the reserves credited to it in the form of the paper debt would be paid off by the investment of the two-ninths (and one-fourth) of the contributions. If a Society admits younger members, the excess of their contributions is available to pay the debt credited to a neighbouring Society which admits older members. No one Society, therefore, can get an advantage over another Society by admitting members at the younger or older ages.

The proportion of the contribution which Societies have to surrender is the proportion represented by the Government grant of two-ninths (or one-fourth) of the benefits. It is true, therefore, at the commencement that young persons of 16 years of age in fact get no value from the Government grant—for the Government pays two-ninths (or one-fourth) of the benefits and takes two-ninths (or one-fourth) of the contribution. But for every age over 16 the Society to which every insured person belongs from the commencement receives in the insurance a credit appropriate to his age-risk carrying interest at 3 per cent., and this credit represents the value to him and his employer of the Government insurance. The credit is of course greater at the higher ages, and it is for this reason that a somewhat reduced insurance is given to persons over 50 years of age and that persons over 65 are excluded.

It is impossible without great complications under a universal scheme of insurance with a uniform rate of premium to devise a scheme under which every insured person from the commencement would receive exactly equal treatment. Equality of treatment can only be reached when the original deficit due to the inclusion of the older lives has been wiped off. Meanwhile, under the provisions of the Bill the younger generation will receive the full value of their own and the employers' contribution, and it is proposed in the Bill that when the deficit has been wiped off, and it becomes possible to extend the benefits conferred by the insurance, regard in the extension should be had to their ages when they joined the insurance. The value of the promise thus made to the younger generation is shown in the Financial Statement which will be circulated.

It should be added here that the Bill proposes that the Insurance Fund should be rolled up by the operation of the provisions above explained until it is sufficient to provide interest at 3 per cent. on all amounts then standing to the credit of Societies. The advantages of this proposal are that it enables all valuations meanwhile to be conducted on a 3 per cent. basis, and that it makes a capital valuation of the Fund unnecessary. When the Scheme is extended, Parliament will be able to make such arrangements as may be reasonable for dealing with the capital account or changing the rate of interest adopted for valuation purposes.

*Valuation of Societies.*

(A) *Surpluses.*

If a surplus is found upon a valuation of a Society, which is not a member of an Association of Societies, the Society will be entitled to prepare a scheme for granting one or more of the additional benefits specified in the Act. The consent of the Insurance Office will be necessary before such a scheme can be brought into operation.

If a Society showing a surplus is a member of an Association of Societies it will be required to transfer one-half of any surplus to the Central Fund of the Association, and with the approval of the Association and of the Insurance Office it will be entitled to introduce one or more of the additional benefits. An Association of Societies will be entitled to introduce additional benefits for all its branches, when its Central Fund is sufficient for the purpose, subject to the consent of the Insurance Office.

(B) *Deficits.*

If a deficiency is found, the Society will be required to prepare a scheme for extinguishing the deficiency. Such a scheme may provide for—

(*a*) A levy upon all members of the Society.

(*b*) A reduction of the temporary sickness benefit.

(*c*) A postponement of sickness benefit, or an extension of the period of twelve months mentioned above between payment of full sickness benefit.

All such schemes must receive the approval of the Insurance Office.

If a Society with a deficit is a member of an Association, the deficiency must in the first instance be made good from any surplus in the hands of the Association; but the Governing Body of the Association, if it alleges maladministration on the part of the Branch Society, will be entitled, subject to an appeal to the Insurance Office, to refuse to make any grant from surpluses.

If within six months after the declaration of a deficit no such action should be taken as may be reasonably expected to make good the deficiency in the affairs of the Society within a period of three years, the Insurance Office is empowered and required to take over the administration of the statutory powers and funds of the Society and to take steps to recover as quickly as possible the amount of the deficiency by any or all of the methods above indicated. For the purpose of these Clauses further contributions will be enforced if necessary by a deduction from wages as indicated below. Members joining a Society in which a deficiency has been declared after the declaration of the deficit will not be required in any way to make good such deficit. Members leaving a Society in similar circumstances will be charged with their proper proportion of the deficit. Any dispute as to the amount of the deficit or as to the adequacy of the provision proposed for extinguishing it will be decided by an independent referee to be

appointed by the Lord Chief Justice in England and Ireland, and the Lord President in Scotland. If a Society is found to be in deficiency at any time after the approval of a scheme for granting additional benefits, payment of such additional benefits will be suspended.

*Excessive Sickness in Certain Trades, etc.*

If one or more Societies allege that excessive sickness has been caused among their members by the conditions or nature of employment in some trade or trades, or in certain shops or factories in which their members are employed, they will be entitled to demand an inquiry into the conditions of the trade, shop, or factory. If it is found on such inquiry that there has been among members of the Societies engaged in the particular trade, shop, or factory concerned during the period of not less than three years an amount of sickness exceeding by 10 per cent. the average expectation of sickness, as shown by the Table which the Treasury will publish for the use of persons making valuations under the Act, the employer will be required to make good the extra expense incurred by the Societies through such excessive sickness.

This provision will, of course, exclude any sickness or disease which is a subject of compensation under the Workmen's Compensation Act.

*Excessive Sickness in any Locality.*

The powers of Societies as regards such sickness will be defined later under the heading "Local Health Committee."

*New Societies, Secessions, etc.*

The Orders and Associations will have the power now given to them by the Friendly Societies Acts of opening new Branches. Such Branches will give security through their Order or Association.

New Societies which are not Branches of existing Societies may only be opened upon the Insurance Office being satisfied with the security offered, and upon the necessary minimum number of members being enrolled.

*Dissolution* of an approved Society will only be allowed with the consent of the Insurance Office, proper provision being made for the State Members.

*Secessions from Orders and Associations.*

The present law will apply. Affiliated Societies may only secede after complying with the terms of their agreement with the Order or Association to which they belong. The further condition will be imposed that the consent of the Insurance Office will be necessary.

*Withdrawal of Approval.*

The Insurance Office will be given the right to withdraw approval from any Society failing to comply with the provisions of the Act, or of any Act regulating its constitution. The funds of any such Society will be used to provide, so far as they will go, for the transfer of the members to other Societies or to the Post Office Insurance.

B.—THE POST OFFICE DEPOSIT INSURANCE.

Persons liable to the compulsory deduction from wages, who fail to join a Society or who are rejected or expelled by a Society and who cannot get another Society to take them, will be dealt with through the Post Office. Their names and addresses will be ascertained and the insurance will be conducted as follows:—

The cards first issued for the collection of contributions (see later) will be made current for a period of four or five months only. After that period new cards will be issued free to members through the Societies and to other compulsorily insured persons through the Post Office upon the name and address being furnished. A membership book, upon which credit will be given for contributions, will be issued with the card to persons joining the Post Office Insurance, and the contributions will be charged annually with seven-ninths for men and three-quarters for women of the calculated cost for management, medical attendance, and sanatorium. A waiting period of fifty-two payments will be required before any contribution can be withdrawn, but the member will be entitled after six months to medical attendance. If, after the waiting period has expired, a member falls ill, he (or she) will be entitled to withdraw his (or her) contributions including the employer's share with the addition of two-ninths (or one-quarter) from the State's contribution, at the rate of 10*s.*, 7*s.* 6*d.*, or 5*s.*, etc., a week, as the case may be. After the expiration of three years, if the funds admit, a further addition from lapsed and forfeited contributions will be made to the amounts withdrawable by members in sickness.

Lapses or forfeits will occur by the member dying.

The Post Office Insurance will include foreigners, no State Grant being given in such cases.

Medical attendance for persons in the Post Office Insurance will be provided by a Local Health Committee to be set up as follows:—

LOCAL HEALTH COMMITTEE.

In connexion with the proposals for the Local Health Committee, it should be stated that the areas of these Committees will not be quite the same in Scotland as in England, and that most of the provisions relating to these Committees will not apply to Ireland.

A Committee will be formed for Counties and County Boroughs, with power to create Local Sub-Committees as far as necessary. It will consist—

(1) Of persons nominated by the County Councils or County Boroughs, some of whom must be members of the Sanitary Authorities.

(2) Of persons nominated by the Approved Societies.

(3) Of persons nominated by an Association, if any such is formed, of persons who insure through the Post Office, or in default of such nomination by co-option of such persons.

(4) Of persons appointed by the Insurance Office, two of whom will be doctors.

The Insurance Office nominees will join in the co-option of persons appointed under heading (3).

The County or Borough Medical Officer will be entitled to attend the meetings of the Committee.

The Insurance Office is given power to vary the proportions of the representatives upon the Committee, and this power might prove of considerable importance in the event of Agreements for the Transfer of Medical Attendance being entered into as explained later.

In Ireland, the duties of these Committees will be given to the County Councils (outside the large towns) and the Councils will also have power themselves to undertake to establish societies.

In Counties where there are many Post Office contributors arrangements are permitted for creating a separate Post Office account.

*Duties.*

1. To make medical arrangements for persons who have been rejected by or failed to join a Society.

2. To control the whole of the expenditure of insurance money for sanatoria in the district. Patients will be required to be sent to sanatoria approved by the Local Government Board, either existing or to be built with the help of the Government grant of £1,500,000.

3. To consider the needs of the district from the point of view of public health, to demand inquiries as to the enforcement of the Public Health Acts, the Factory Acts, and the Mines Acts, and to make recommendations. If, as the result of an inquiry, any excessive sickness is found to be due to bad housing, insanitary conditions, etc., the cost of such sickness is to be paid to the Approved Societies and the Health Committee by the Local Authorities.

Where an inquiry is ordered into insanitary housing conditions in a neighbourhood, power will be given to the Local Authority to summon owners of insanitary property before the Commissioner holding the inquiry—as third parties—with a view to passing on to them the whole or a part of any levy due to excessive sickness.

The inquiry will be held before a Commissioner or Commissioners appointed by the Government Department concerned in each case.

The power given to Health Committees to protect their members in cases of the kind mentioned is a necessary counterpoise to the liability imposed on members to make good the cost of excessive sickness, for it is not fair to call on them to make good the cost of sickness caused by the negligence of other persons.

Power will also be given to the Societies separately to demand inquiries into the above matters.

4. To provide for lectures and the publication of information upon questions relating to Health.

Local Health Committees will be given power to combine for common purposes, and the Insurance Office will be empowered to form Joint Committees for neighbouring counties in special circumstances.

*Transfer of Medical Attendance to Health Committee.*

The present system of medical relief as organized by the Friendly Societies cannot be regarded as entirely satisfactory. Doctors employed by these Societies are paid an inclusive fee of about 4s. per member on an average. This fee covers drugs and the cheaper medical appliances, but is insufficient to provide the more costly drugs, the cost of which has to be borne by the doctors themselves.

To correct this it is proposed to insert a Clause forbidding the Societies to enter into any contract which provides for the payment of drugs by an inclusive fee. This will involve a substantial increase in the cost of medical relief, but the funds at the disposal of the Societies under the Bill will enable them to meet the additional expense without trenching upon the minimum benefits.

Further, the Societies will be given the option of handing over this part of their duties to the Health Committee, on such terms as may be arranged in each case. If the terms arranged or proposed involve a deficit the Health Committee will be authorized to apply to the Government and the Local Authority for the payment of the deficit in equal shares; the latter can well afford it, for the scheme must effect a considerable saving in the medical charges now falling on the rates. It must be remembered in this connexion that the compulsory character of the scheme secures a contribution towards medical attendance from that class of the population who now, having no Society to fall back upon in case of sickness, resort to the Poor Law both for medicine and maintenance.

The medical treatment given by Societies will be made subject to inspection.

*Income.*

This will consist of—

(1) The proportion charged to Post Office members in the district to cover medical attendance, management, and sanatorium, with the addition of the State grant.

(2) The whole of the sanatorium money from Approved Societies.

(3) The Societies will also be required to subscribe 1d. or 2d. per member per annum towards the administrative expenses of the Committee.

(4) The State will make an additional grant of 1d. for every 1s. 3d. of the sanatorium money, and it is proposed to take power to use the whole or part of this additional grant for research purposes.

Power will be given to Local Authorities to subscribe to the general purposes of the Committee.

6. COLLECTION OF CONTRIBUTIONS.

The system to be provided for is as follows:—

The employer of any person liable to deduction from wages is to be responsible for paying that person's contribution as well as the employer's contribution in respect of him, and may recoup himself the amount of the former contribution (but not of the latter) by deductions from the insured person's wages. Such a deduction will only be allowed at the time when the wages are paid for the period for which they are paid. If the employed person is not paid by the person employing him but by other persons, the employer will be responsible for seeing that he is insured. If the employed person gets no wages from anybody, then the employer must himself pay the whole amount. Deductions not made at the proper time cannot be made from any later payment. When an employed person is out of employment or ill, the contributions are not required to be paid.

The payment of contributions is to be effected by means of adhesive stamps which the employer will be able to obtain at any Post Office and affix to a card belonging to the employed person. The stamps must be cancelled by writing the date across them. The insured person will be responsible for obtaining the card and producing it to the employer to be stamped. On entering employment he may hand over his card to be kept by his employer, but if that course is followed, the employer must deliver the card back to him after a prescribed interval stamped up to date. When the card is in this manner left with the employer, the employer will be saved the trouble of stamping the card every week.

To secure the due payment of contributions in the case of casual trades and employments, it is laid down as a general rule that the first employer in the week should be responsible for the payment of the contributions. The employee will be freed from further deductions from wages in the same week by producing his stamped and dated card to any subsequent employer. The inclusion of casual labour in insurance is of great importance. If it were excluded, it would tend still further to increase.

The following penalties will be provided for:

(1) The employer to be liable to civil proceedings for damages caused by failing to insure an employee.

(2) The employer also to be liable on summary conviction to a penalty for every omission to stamp a card, or for holding a card which he has not stamped at the prescribed intervals, and the card will be stamped at the employer's expense.

The workman is to be required to produce his card to his employer at the time when wages are paid, and, if he omits to do so, then the employer will be empowered and required to obtain a card for him.

The whole of the above provisions will not appear in the Bill, some being left to regulations. A general explanation of the method to be adopted has been inserted here so as to make clearer the intention of the provisions of the Bill.

A Clause has been inserted to provide that any covenant between employers and employed, under which the employed agrees to the employer's deducting from wages the employer's share of the contribution, shall be void and of no effect.

The card will be made the property of the workman, the employer having no right to retain it without his consent, or to write any comment whatever upon it.

Subject to the general rules laid down above, power will be taken to make Regulations dealing with the contributions of casual labourers, including persons who are habitually employed by the hour or day, or for periods less than a complete week, and persons who are employed by several employers in one week. It will be permissible under these Regulations for a group of employers who between them employ a group of casual labourers, or for a group of casual labourers themselves, to deposit the casual labourers' cards with an Insurance Officer or at a Labour Exchange or some other suitable agency, to which the money for the contributions would then be paid.

The cards will be made current for a fixed period, and will be handed over at the end of the period by the insured person to his Society or to the Post Office, and he will receive a new card in exchange. The stamped card becomes a voucher furnishing evidence that the contributions have been duly paid as it passes first from the employer to the insured person, then from him to his Society, and finally from the Society to the Post Office or the Department having custody of the Insurance Funds.

7. MISCELLANEOUS QUESTIONS.

(*a*) *The Committee.*—The Bill will contain provisions for the setting up of a Committee of employers and insured persons whose duty it will be to advise the Insurance Office.

(*b*) *Double Insurance.*—A Clause has been inserted preventing, under a penalty, double insurance in the State Scheme, and the same person will not be able to draw both unemployed and sick benefit. Members will, of course, be entitled to make what further insurance they may desire voluntarily through their Societies, or in any other way.

(*c*) *Inspection, Insurance Office, etc.*—A Clause will be inserted giving the Government the right to appoint Inspectors for the purpose of the Act, and to establish an Office for the purpose of dealing with all matters arising under the Act, the Audit and Valuation of Accounts of Societies, Investments, etc.

Inspectors and Officers of the Insurance Office so constituted will be given wide powers as regards all matters relating to the collection of contributions, and as regards conducting inquiries into the affairs of the Societies.

(*d*) *A Penalty Clause* will be inserted to protect the Government against false claims by officials of Societies,

frauds in the Post Office Insurance, and misuse of stamps or cards; and to protect Societies against frauds by officials or members. Existing Acts will be applied as far as possible to this purpose.

Offences in connexion with the payment of contributions have been already dealt with.

(*e*) *Out-door Relief.*—The existing Act with regard to benefits payable by Friendly Societies and Out-door Relief granted by Guardians will be made applicable.

(*f*) A Clause will be drafted suspending the execution of all process for ejectment or for rent or debt against an insured person during the period he or she is in receipt of sick pay under benefit (*c*) and for 14 days after the expiration of such period.

Power will be given to the Judge or Registrar of the County Court to extend the period of protection in case of sickness, in no case beyond 12 months without a guarantee for the rent, if he is satisfied that life would be imperilled.

*Malingering.*

The greatest evil which has to be guarded against in all benefit schemes of this character comes from the danger of malingering. The Friendly Societies have never been able to suppress it altogether, and no plan which human ingenuity can devise will succeed in stamping it out. The best that can be achieved is the compression of it within limits that will not substantially disarrange or affect the funds available for honest men. The most effective check—in fact, the only really effective check—upon malingering is to be found in engaging the self-interest of the workmen themselves in opposition to it. That is why a purely State Scheme, where the Exchequer could be drawn upon to an unlimited extent, would inevitably lead to unlimited shamming and deception. This Scheme is so worked that the burden of mismanagement and maladministration would fall on the workmen themselves. If, through any such cause, there is any deficiency the workmen must make it up either in diminished benefits or increased levies. Once they realize that, then malingering will become an unpopular vice amongst them, and they will take the surest and shortest way to discourage it.

FINANCE.

An estimate of the cost of the Scheme has been prepared by actuaries and will be circulated as a separate paper.

D. LL. G.

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An abstract of the bill embodying the text of the clauses most directly affecting the medical profession is published in the SUPPLEMENT.

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## OUTLINE OF MR. LLOYD GEORGE'S SPEECH.

A REPORT of the speech in which the Chancellor of the Exchequer introduced the State Insurance Bill on Thursday, May 4th, will be found in our parliamentary columns, p. 1142. The report, in so far as the speech refers to medical matters, is verbatim.

It has been thought that it would be convenient to give the following analysis of the scheme as explained in the speech:

*Title of Bill.*

A Bill "to provide for insurance against loss of health, and for the prevention and cure of sickness, and for insurance against unemployment, and for purposes incidental thereto."

The bill is divided into two parts—I, Sickness; II, Unemployment.

Death insurance is not included.

### I.—SICKNESS.

At present between 6,000,000 and 7,000,000 persons have made some provision against sickness, including, in the case of about 6,000,000, medical aid through friendly societies and stoppages at works, and in the case of trade unions sick benefits but not medical aid.

Two branches of this part of the bill:

Compulsory.
Voluntary.

COMPULSORY BRANCH.

This branch applies to all the employed classes who earn weekly wages, or whose earnings are under the income tax limit.

The scheme to include as many casual labourers as possible, the following being specifically mentioned: Dock and warehouse labourers, waiters, and cab-drivers. Others may come in under the voluntary branch if they fulfil the definitions.

The following are specifically excepted from the Compulsory Branch:

(1) Army and navy (special provisions to be made).
(2) Teachers (special provisions to be made).
(3) Crown or municipal employees when full wages are paid during sickness and there is superannuation.

*Payments.*

One scale for all classes of workpeople, with a special provision for persons earning low wages. A uniform rate and uniform benefits for all ages from 16 to 50, provided application to join the scheme be made within twelve months of the passing of the Act.

Men over 50 years to receive reduced benefits. Men over 65 not to join the scheme at all.

Persons over 16 applying more than twelve months after the passing of the Act "will come in on the terms either of paying a rate appropriate to their age or of taking reduced benefits."

SCALE OF PAYMENTS TO THE INSURANCE FUND.

*Persons Earning over 15s. a Week.*

| | By Workpeople. | By Employer. | By State. | Total. |
|---|---|---|---|---|
| | Pence. | Pence. | Pence. | Pence. |
| Male ... ... ... ... | 4 | 3 | 2 | 9 |
| Female ... ... ... | 3 | 3 | 2 | 8 |

*Persons Earning 15s. a Week or less.*

| | Per Week. |
|---|---|
| A man or woman earning 1s. 6d. a day or less to pay ... ... ... ... ... | 1d. |
| Persons earning 2s. a day or less ... ... | 2d. |
| Persons earning 2s. 6d. a day or less ... ... | 3d. |

The difference to be made up by the employer.

These rates are not to apply to cases in which there is board and lodging in addition to the wage.

During sickness the insured person's payments to the insurance fund will cease.

If, owing to unemployment, an insured person fails to pay to the insurance fund, a 6 per cent. time margin is allowed—that is, a margin of three weeks a year, or twelve weeks in a cycle of four years (on the assumption that bad times come once every four years). For three weeks the unemployed insured person who does not pay to the insurance fund suffers no reduction in benefit; after three weeks, up to thirteen weeks a year, his policy does not lapse, but benefits are reduced.

After that the distress fund to be raised under the unemployment part of the bill may help him to pay.

VOLUNTARY BRANCH.

The following classes to be allowed to be voluntary members of the insurance scheme (no income limit mentioned):

1. Persons engaged in a regular occupation and mainly dependent on their earnings for their livelihood but not working for an employer, that is, small tradesmen (for example, rural publicans, blacksmiths, jobbing carpenters), schoolmasters.
2. Persons who have worked for an employer but are working on their own account may join if they have been contributors as employees for five years, or if they join within the first six months after the passing of the Act.

Voluntary contributors, if aged 45 years and under, will pay:

| | |
|---|---|
| Men ... ... ... ... ... | 7d. |
| Women ... ... ... ... ... | 6d. |

making with State contributions:

| | |
|---|---|
| Men ... ... ... ... ... | 9d. |
| Women ... ... ... ... ... | 8d. |

If over 45 years they will pay rates proportionate to age at joining.

Married women who are not workers not to be allowed to join.

ESTIMATE OF NUMBER OF PERSONS TO BE INCLUDED IN THE SCHEME.

| | Males. | Females. | Totals. |
|---|---|---|---|
| Compulsory— | | | |
| Employed adults ... | 9,200,000 | 3,900,000 | 13,100,000 |
| Under 16 years ... | 500,000 | 300,000 | 800,000 |
| Voluntary ... ... ... | 600,000 | 200,000 | 800,000 |
| | 10,300,000 | 4,400,000 | 14,700,000 |

### MEDICAL BENEFIT.

"Free doctoring for everybody who is a contributor to the scheme."

"If one of the 14,700,000 persons who practically include all the industrial population of this country falls ill, he can command the service of a competent doctor . . . the doctor whose service he commands will know also that he will be paid."

In some rural districts "the doctor is paid 2s. 3d. per head per annum for members of friendly societies. In other districts the amount runs up to 6s. per head per annum, but on the average the doctoring for members of friendly societies is done at 4s. per head per annum."

"The doctors say 'We cannot do it,' and I am inclined to agree with them. . . . I am on the whole inclined to agree that the doctors have got a case for increased payment, not as much as they ask, something far short of that, but at the same time something very substantial, and the first thing . . . is to separate the drugs from the doctors."

Financial provision is made for "raising the level" of the capitation payment to doctors to 4s.; drugs to be dispensed by chemists in districts where a chemist is accessible.

Maternity benefit 30s., to "cover the doctoring and the nursing, but only conditional on those who are women workers not returning to work for four weeks."

*Special Provision for Consumptives.*

Contribution towards erection of sanatoriums of a capital sum (£1,500,000). For maintenance of sanatoriums 1s. 4d. per member per annum to be provided, 1s. per annum from the contribution of each person insured, whether compulsorily or voluntarily, and 4d. from the State, the two together yielding £1,500,000 per annum.

*Sick Allowance for Families of Insured Sick Persons.*

Sick allowance as follows will be paid to maintain the family of a sick insured person, but such allowance will not be paid until the insured person has paid to the insurance fund for six months:

For men 10s. and for women 7s. 6d. a week for thirteen weeks, the society having power to extend to twenty-six weeks; 5s. for the next thirteen weeks.

Persons over 50 years at the date of insuring receive a sick allowance of—men 7s., women 6s., unless they have paid 500 contributions.

Persons over 60 to receive 5s.

Persons under 21, unmarried—males, 5s.; females, 4s.

Persons under 16 no sick allowance, but entitled to medical attendance and sanatorium treatment.

A permanent disablement allowance of 5s. a week to be paid after six months as long as a man is unable to earn his living, but no one to be entitled to this allowance "unless he has paid for two years."

A man whose illness is due to his own misconduct to receive no sick allowance, but to be entitled to medical attendance.

All allowances are to be conditional on the patient complying with the medical man's orders.

*Alternative, Optional, and Additional Benefits.*

It is estimated that after providing the above benefits there will be a surplus of £1,750,000 immediately the scheme begins to work, and that at the end of fifteen years and a half, when the loss on older persons has been wiped out, there will be a surplus of £5,500,000, involving a further contribution from the State of £1,500,000, making a total of £7,000,000. This will be used to provide additional benefits, those which the Chancellor said he had in his mind being: (1) Medical treatment for the workman's family; (2) increase of sickness and disablement benefit, and convalescent homes; eventually a pension at 65, or, if the worker continues working after this age, an increased pension at a later age.

### MACHINERY.

The fund will be collected by stamps attached to a card by the workman and the employer, the cards to be transmitted to the central insurance office by the Post Office.

### BENEFITS TO BE DISPENSED THROUGH

I. "*Approved Societies.*"

As far as possible an "Approved Society"—

Must have a membership of at least 10,000.
Must distribute its funds only by way of benefits.
Must provide for sickness and old age.
Must be mutual, allowing no person to make a profit out of this branch of its business.
Must be self-governed; its committees, representatives, and officers being elected by the members.
Must provide security that the funds will be properly administered.
Must have branches or local committees.

The societies are to be allowed "to have the most absolute right to admit members or to refuse them."

II. "*Post-Office Contributors.*"

Persons either rejected by the societies or who will not join a society.

They will be mainly lives uninsurable owing to ill health or drunkenness.

Their own contributions, those of the employers, and that of the State will form a fund from which deductions will be made for medical relief and sanatoriums, the balance being distributable on deposit principles.

Insurer to become entitled to benefits after contributions have been paid for fifty-two weeks.

This department is to be administered by "County Health Committees."

### CONSTITUTION OF COUNTY HEALTH COMMITTEE.

The committee is to consist of persons representing the County Council, the approved societies in the districts, the Post-Office insurers, and the State.

*Functions of County Health Committees.*

1. To administer the Sanatorium Fund, with power to combine with other counties in erecting and maintaining sanatoriums.

2. To administer the Post Office Insurance Fund and to provide medical relief for the contributors.

3. To undertake the provision of medical relief for the members of "approved societies" if requested by the societies so to do.

4. For the purpose of sanatoriums or medical relief the County Council may (subject to the approval of the Treasury) agree to further expenditure in excess of the sum at the disposal of the committee, one-half to come out of the rates and one-half to be provided by the Treasury.

5. To consider and report on public health questions and to apply to the Local Government Board for special inquiry whenever there is excessive sickness coming on the funds of the societies. Where the Commissioners of the Local Government Board find that the excessive sickness is due to neglect by the authority to discharge its statutory functions for housing or improved sanitation, they shall have power to impose the excess on the defaulting local authority.

6. To provide lectures and to publish information on matters relating to public health.

FINANCIAL ESTIMATE.

| | Receipts. | | | Expenditure: Benefits and Administration. |
|---|---|---|---|---|
| | Workmen. | Employer. | State. | |
| | £ | £ | £ | |
| 1912-13 .. | 11,000,000 | 9 000,000 | 1,742,000 | £7,000,000 |
| 1913-14 .. | ,, | ,, | 3,359,000 | rising |
| 1914-15 ... | ,, | ,, | — | to |
| 1915-16 .. | ,, | ,, | 4,563,000* | £20,000,000 |

* A full year.

## II.—UNEMPLOYMENT.

The scheme applies compulsorily only to the precarious trades, involving one-sixth of the industrial population. The trades included are building, construction of works, shipbuilding, mechanical engineering, and construction of vehicles, to be organized in two groups—engineering and building.

A Distress Fund to be formed to pay an unemployment distress allowance.

To this fund the workman and employer will each pay 2½d. a week, and the State will add one-fourth of the total income.

An employer who undertakes to insure a workman for the whole of a year will be allowed a discount of a little over 30 per cent.

The benefit insured is 7s. a week in the engineering and 6s. a week in the building trades for fifteen weeks during unemployment.

There will be no payment for unemployment due to strikes or lock-outs.

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## CORRESPONDENCE AND NOTES.

WE have received a number of letters commenting, generally in a critical spirit, on the scheme as outlined in the speech of the Chancellor of the Exchequer; from them we make the following extracts:

Colonel P. BROOME GILES, V.D. (Bletchley) writes to express the opinion that it is vitally important that the medical profession should take up a positive position, and clearly define what it considers fair and just treatment by the State upon the question of national insurance. Let us, he writes, as a profession in this instance be practical, and in dealing, as the Chancellor of the Exchequer states, with trades unionists let us realize their ideal, "a proper living wage for our fellows." Each year the purchasing power of a sovereign decreases, while generally wages (the doctor excepted) tend to increase. The appointment of medical officers to elementary schools has called into existence a corps of bureaucratic officials generally antagonistic to the struggling general practitioner, and increasing taxation is gradually depleting the general practitioner to a state of anaemia. Such, at least, is my experience from the appeals (as a Commissioner of Income Tax) I hear; their general lamentable sadness induces me to write this letter.

Dr. GEO. KENNETH PEARSON (Devonport) writes: Mr. Lloyd George has left the medical man worse off than before. He has, in fact, delivered him bound hand and foot over to the tender mercies of the friendly societies; and they (as he admits) are to be trusted to drive a very good bargain with the profession. There is, therefore, no other way to regain our liberty than by forming a universal union amongst ourselves. The trades unions have proved that no employer can withstand the working men when united. Let us unite and prove ourselves as strong.

From the mass of correspondence in your JOURNAL, and after discussion with friends in the profession, I have gathered what I believe to be points on which the body of the profession are agreed. The points of common agreement are:

1. The friendly societies should have no control over us whatever.
2. The contributions for medical attendance (without any deductions) from (*a*) employees, (*b*) employers, and (*c*) the State, should be paid into post-office banks, and all payments to medical practitioners should be paid by local post offices.
3. Payment should be for work done. The fees should at least be those of the National Deposit Friendly Society without including medicines, excepting such as every doctor would be obliged to use on emergency, for example, hypodermic injections, etc. As the poor rates will be lightened by the improved health of the community, the State can afford to raise any necessary amount to cover the cost of efficient medical attention without imposing extra expense on either workman or employer.
4. Every patient to be left free to choose his doctor, who must be resident within, say, two miles of him. Should the patient prefer a doctor out of his radius, he shall pay extra out of his own pocket according to mileage. Such payments to be made to the doctor through the post office; and the doctor shall bind himself not to refund the excess to the patient, nor fail to charge it in his account.
5. The midwifery fee to be not less than one guinea for an ordinary case.
6. Chemists to be suspended for substitution of drugs other than those prescribed; also for commenting on or criticizing any prescription; for inducing the patient to purchase other preparations in addition, or for recommending any particular doctor.

The Government should appoint referees to deal with all disputed points.

In conclusion, I again urge that it is now time to act. Your Association might start by asking every practitioner to signify at once his willingness to join a union, the first object of which shall be to ensure to every member the support of the whole body against against any attempt on the part of the Government to impose unjust restrictions on his freedom, or otherwise endanger his practice.

Dr. T. M. ALLISON (Newcastle-on-Tyne) writes: Mr. Lloyd George's scheme has many admirable features, but its wage limit and its remuneration deserve careful scrutiny. In my opinion the wage limit should not have exceeded 30s. a family per week, a limit that should also exclude patients from the benefits of hospital treatment. And the remuneration of 4s. per annum for all patients with incomes up to £3 5s. a week (nearly) is utterly inadequate. It is, of course, to be remembered that contributions are paid by the sound as well as by the unsound; but many if not most of the sound (if such a class exists) will become patients on the most trifling of pretexts. In the old days fractures got better in six weeks, under the Compensation Act they require three months. And the same tendency will appear to the full under Mr. Lloyd George's scheme of national insurance. The work will be vastly increased; all may come, and most will come.

It seems grossly unfair to take away from practitioners the present private patients who earn from 30s. to £3 5s. a week, and to offer, instead of the present fees, 4s. a year; and it is to be hoped that the profession will offer to this suggestion the most strenuous opposition. For this class of patients the remuneration ought to be at least 20s. per annum.

On unity depends our chance of success; if divided, the profession of medicine will be submerged. United we shall get that which is just and right.

PROMETHEUS, L.R.C.P. and S.Edin., L.F.P.S.Glas., writes: Mr. Lloyd George appears to intend everybody in the British Isles to join, no matter what their income is, only that those whose income is over £160 pay the 3d. extra which the employers of those under £160 would have to pay. Is Mr. Lloyd George (for he can) going to join, so that he can obtain "free medical advice and medicine" for something far short of 7s. 6d. per annum? In an interview he was asked, "Can a man's wife and children join?" and is reported to have answered: "Yes. If they are workers, certainly. I intend my children to join. I should like to feel that if they became ill they would be sure of, at any rate, 10s. a week for the first three months; the younger they join the better." Now, from this are we to infer that the children of Mr. Lloyd George are "workers," and that the children of men with his income require to work and receive "State aid" and free medical advice and medicine? Then what of the position of the children of the poor and artisan classes?

Is the 30s. grants for motherhood anything special? If the woman did not get the 30s. "special benefit," would she not be entitled to her 7s. 6d. per week for "invalidity"? and this in four weeks would amount to 30s. Why not call a spade a spade? and do not say you are giving a woman a "special benefit" when she is only getting what she is entitled to. What fee is the doctor to get, and what

fee the nurse? Is the woman to divide the 30s. between the doctor and the nurse, or is it for the woman herself? If the latter, are the doctors to attend midwifery cases free and as part of their other duties—more philanthropy?

As to night work, are the doctors to go out at any hour, night or day, for this remuneration, or is there to be a day and a night staff of doctors, and are we to get one day in seven off? Even if the patients leave their messages by 10 a.m. it is hard enough to manage to arrange visits, bu if they are allowed to come with their messages at an hour of the day, what man is there who can stand the strain? What check will there be on useless night calls, for when they know they do not require to pay extra for night visits, people will not scruple to call the doctor out during the night; and if the doctor has to go, what about the medicine—has the chemist also to get out of bed? Will the chemists or central dispensaries stock every medicine, including homœopathic, or are we to be limted as the Irish dispensary doctors are?

Nothing is said about accidents and minor surgery in the papers: Are the doctors to buy instruments, or is the State to supply them? If accidents and minor sugery are included, who is to draw the narrow line between "minor" and "major" surgery, and are splints and dressings to be supplied by the doctors or by the chemists or central dispensaries? Will tooth extraction be included? Are chronic invalids who have started paying to be treated till the end, whether they continue to pay or not; or if not, how are they to be sorted out, and who is to treat them? Will it then fall on the parish doctors? As people over 65 years are not included in the scheme, who is to attend to them—will they also fall to the lot of the parish doctor? As they are not paying into the scheme, the doctors of the scheme will not attend them.

The goodwill of practices is affected by this scheme. So far as I can see, the goodwill goes. A doctor pays £1,000 or £2 000 for the goodwill of a practice, and this does not include book debts. He expects to realize this when he sells now; under this scheme he will not be abe to sell, and if not, who is going to compensate him for his loss?

As to country districts I will take the case of one I know (there are many worse). The population is 5,000, with five doctors; the district is 7 miles to north, 7 to east, and 15 to south; to the west the sea. If children do not pay, and every man and woman does, the paying population may be put down at 3,000. Can those doctors live, let alone keep horse and trap (to say nothing of motor) and do their 10 to 40 miles a day? I myself used to do three times a week 30 to 40 miles, the other days 10 miles. The young men may try cycling, but they cannot keep it up.

### DISEASES DUE TO MISCONDUCT.

Dr. PERCY W. SPAULL (London) writes: I see that free doctors and free drugs are to be provided to the insured, but that if illness is due to the man's own misconduct, he will receive no sick pay but will have free medical attendance and drugs. This sentence, to my mind, shows very plainly what sort of treatment we medical men may expect if we do not make a very bold and united stand in this matter.

*** The point is a good one, and it is well that it should be put forward. It comes to this—that, under the State Insurance Scheme, it is proposed to give one form of medical benefit, namely, medical treatment to persons suffering from diseases which will not entitle them to other forms of medical benefit, and that this provision is not now made by friendly societies, at any rate the majority of them. It will, therefore, lay a special burden on medical men acting under the scheme. Looking at the matter in this way, it is at once seen that it resolves itself into an actuarial question. What is the extra rate the insurance fund must pay to the doctors to cover this liability which does not apply to the other benefits? If the managers of the insurance fund object to paying out of the general fund it will be for them to mulct the individual. As Mr. Lloyd George said, it is desirable that the individual should be treated for his own sake and for the sake of the community. Therefore, either he or the community must pay for his treatment.

### EFFECTS ON GENERAL PRACTICE.

A correspondent who signs himself "State Charity" writes: What does this scheme mean, in a few words, to every general practitioner of medicine? It means that contract practice, which has been abhorred for all time, is to be multiplied many-fold, and to add to the indignity it is to be in the hands of the very societies which have treated us with contumely and contempt from the beginning; we are told at the same time by Mr. Lloyd George that these self-same bodies consider 4s. per head per annum sufficient for the doctor, and that they will fight for it.

Let every medical man carefully consider for the next few weeks, as he goes his daily round, what this scheme means to him and to his family; let him take a note of the patients who are cheerfully paying him 2s. 6d. and 3s. 6d. per visit now, and let him remember that in twelve months' time these same patients will be paying him 4s. per annum. It will not be necessary for him to be an actuary to enable him to see at a glance that his income must of a necessity be largely reduced; it will not be necessary for him to see many patients before he recognizes that some of those who now only send when they really do require medical attendance will not hesitate to send for him when they think they require it, and consider that they are entitled to it, so that by this wonderful scheme the doctor is the only person in the world who will have the honour of being paid less the more he does. Let him again consider at this stage how much he (the doctor) is giving per week to the so-called worker, and what proportion it bears to the State's paltry contribution; let him remember the past despotism of the benefit societies, and he will, I think, agree that this scheme as at present proposed is State aid or charity at the expense of the medical profession. Can we afford it? is a question I should like to ask and to have answered.

One of the reasons Mr. Lloyd George gives for his scheme is that he wishes the "workers" to be enabled to have the best medical treatment. What inducement has he offered? Is it human nature (at any rate, as at present constituted) for any medical man to do as much for a person who pays him 4s. per annum as he does for one who pays him £4?

What compensation are we offered by this scheme? That the dispensing of medicine is to be separated from the prescribing of it, except in remote districts—another serious loss to many practitioners. Let it be remembered and forcibly pointed out that without the goodwill of the medical profession this scheme cannot be a success, and let us unite to resist it to the utmost, for it means the State's impress upon lower medical fees all round.

A leading article in one of the daily papers says: "Vigorous opposition from any important interest will seriously prejudice its chances." Surely the medical interest is all-important.

It is a sordid idea, according to some people, that we only live by the misfortunes of others, and it is a sordid subject altogether—this one of remuneration for services rendered to the sick, services which in many cases cannot be adequately remunerated; but we have to live in order to carry out our duties, and apparently no one is likely to stand up for our rights unless we do it ourselves. If it were desired to abolish the medical profession, it is hardly possible to conceive a scheme better calculated to attain this end than the present bill for State Insurance.

If a more hopeful aspect of the case can be presented with justice, I for one shall only be too glad to hear it; but I believe the only hope lies in ourselves and our absolute unity and unanimity in resisting the scheme, aided by the public—for I think the public has welcomed the scheme, but that they would not welcome it or agree to it if they understood how fully it was to be worked at the expense of the medical profession.

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## THE NECESSITY OF INDEPENDENT MEDICAL INSPECTION.

WE are indebted to Dr. David Owen of Irlams-o'-th'-Height, Manchester, for the following notes, the preparation of which had been undertaken before the State Insurance Bill was introduced last week. They are based on the writer's experience as medical inspector to a large colliery firm employing over 3,000 men.

During the last eighteen months I have had to inspect and carefully report upon nearly 1,100 cases of accident.

What applies to accidents will apply with equal, if not even greater, force to invalidity, as it is easier to complain of being ill than to simulate an accident. So far as the question of abuse comes in, the obvious danger of insurance against invalidity is that it may bring about fraudulent misuse, and although such an insurance scheme, if properly directed and controlled, will confer incalculable benefits upon deserving men incapacitated through illness, there is the clear possibility that it may encourage idleness and wrong-doing. The moral stamina of the British workpeople may even be risked.

The foundation of success in medical work is that doctor and patient trust one another. A medical attendant necessarily believes in the truth of what his patient tells him, for subjective sensations are so clearly a guide to diagnosis when the patient is speaking the truth. It is not the business of the medical attendant to question the veracity of his patient.

His business is to get the patient better. It does not matter, therefore, in any system of State provision for medical attendance, whether the medical attendant is a whole-time or part-time official, for he cannot honourably, or in accordance with the Hippocratic oath, turn against his patient and betray him, even if he is shamming, consciously or unconsciously. The medical attendant is necessarily the confidant of his patient. But, seeing the far-reaching consequences of insurance against invalidity, there must be a check against the various forms of malingering, not simply against gross and even criminal forms, but against the milder forms, leading not only to a fanciful exaggeration on the part of the patient of the seriousness of his illness, but to an indefinite protraction of his incapacity. The ordinary medical attendant is always confronted with the awkwardness of dealing with such cases, for he is a failure in his work unless he is sympathetic with his patient, and he cannot be distrustful towards him. The loyalty of doctor to patient is one of the most honourable assets the medical profession possesses, but in dealing with a great national question, insurance against invalidity, it is clear that the medical attendant, whether a whole-time official, or chosen by the patient, cannot be the final arbiter. There must be some independent system of medical inspection. It is possible that, as in the case of public vaccination, the inspection might not necessarily apply to every case, but that there should be medical inspection to safeguard the State against imposition is obvious enough. There may be medical men so sensitive that the very idea of another doctor seeing their cases would create a form of professional jealousy, but my experience has been, after inspecting the cases of about fifty practitioners, during the last eighteen months, and despite having been engaged in general private practice at the same time, that no friction has resulted except perhaps in the case of one medical man.

The results of my medical inspection can be briefly told. The colliery company for whom I act has several collieries, and in two of them in which the greatest number of accidents occur I have to inspect every case as soon as possible. Only doubtful cases are inspected in the other collieries, and a considerable interval of time has usually elapsed before they are seen. The advantages of inspection are very strikingly proved by comparing the number of weeks of incapacity in the case of pits where there is regular inspection with those in which inspection is not regular. The system of inspection was begun December 1st, 1909, and the following figures show the result:

| Regular Inspection. | | | Inspection only in Doubtful Cases. | | |
|---|---|---|---|---|---|
| | Cases. | Weeks of Incapacity. | | Cases. | Weeks of Incapacity. |
| 1. Pit— | | | 3. Pit— | | |
| 1909 ... ... | 250 | 1,151 | 1909 ... ... | 197 | 717 |
| 1910 ... ... | 191 | 815 | 1910 ... ... | 186 | 763 |
| 2. Pit— | | | 4. Pit— | | |
| 1909 ... ... | 268 | 1,189 | 1909 ... ... | 107 | 450 |
| 1910 ... ... | 305 | 1,099 | 1910 ... ... | 109 | 495 |

It will be seen that in the case of the inspected pits although the number of accidents only went down from 518 to 496, the weeks of incapacity were reduced from 2,340 to 1,914 weeks, representing, it will be seen, a reduction amounting to 20 per cent. On the other hand, in the two pits where only doubtful cases were inspected, the number of accidents reported went down from 304 to 295, but the number of weeks of incapacity were increased from 1,167 to 1,268, representing an increase of 9 per cent.

An important point to note is that in the inspected pits the number of accidents was reduced by 22, possibly the result in some degree of reducing primary malingering, but the number of weeks of incapacity was reduced by 426 weeks. The figures show that the number of weeks of incapacity were reduced altogether out of proportion to the reduction in the number of the accidents, as the 22 accidents would not of themselves account on the average for the 426 weeks less, as this would give an average duration of incapacity of 19.8 weeks each, whereas the figures from 1904 to 1910 show that the average duration of accidents in all the pits has varied from 3.82 in 1907 to 5.16 in 1909. It is also noteworthy that the duration of incapacity has been steadily on the increase since the Workmen's Compensation Act (1906) came into force, as shown by the following figures:

| | | |
|---|---|---|
| 1907. | Average number of weeks of incapacity | 3.82 |
| 1908. | ,, ,, ,, | 4.96 |
| 1909. | ,, ,, ,, | 5.16 |
| 1910. | ,, ,, ,, | 4.38 |

(Inspection of part of the pits in 1910.)

These figures do not represent fully the importance of medical inspection. I have never had any difficulty with accidents that have happened since my inspection began. The difficulty has been with long-standing cases, some of them having been receiving compensation for years. So-called neurasthenia, often merely a euphemistic term covering malingering and sheltering both doctor and patient, is mainly, I believe, the result of unnecessary prolongation of discontinuance of work. I have scarcely now a single case of the kind on my list, except those which resulted from accidents prior to the period of medical inspection. An account of many of these so-called neurasthenics would provide amusing material with which only a Charles Dickens could deal.

We may note as an addendum to Dr. David Owen's interesting communication that Mr. Lloyd George, in dealing with the administration by a friendly society of the funds in its hands, and incidentally with the prevention of malingering, stated that there would be a valuation of the assets of each society, and that if there were a surplus the society would have power to declare additional benefits; this would afford an inducement to economical and careful management. The branches would be valued separately; but, as it was not deemed right to allow a branch with a surplus to take the whole of it, it was proposed, as an inducement for the branch to be administered economically, that it should get half of its surplus, paying the other half to the centre. If a deficiency occurred the central insurance office would have power to compel benefits to be reduced, the levy to be increased or a special levy to be made. This, he said, would be the real check on malingering. If a society were to have so large a number of malingerers that it became insolvent, the additional levy or the depreciation of benefits involved thereby would lead the workmen to bring pressure to bear on their fellow-members to stop it. Mr. George believed that the workmen themselves would not stand it, and would begin to report on those they considered malingerers.

## POST OFFICE CONTRIBUTORS.

It is an essential part of the Government scheme that the whole of the responsibility for spending the aggregate premiums paid by and on behalf of the various insurers shall be left to the friendly societies, and that these shall not be trammelled by Government regulations as to whom they must accept or refuse. Hence it is anticipated that there will be a considerable number of persons who for one reason or another cannot obtain admission to societies; these

it is proposed to form into a class to be known as "Post Office Contributors." It will be made up mainly, it is considered, of "bad lives," of drunkards, and other persons of like character. For this reason, and also because it is desired to make it an advantage to join a friendly society if possible, the post office contributor is offered less advantageous terms. He will be in the hands of one of the county health committees, which, after arranging for his free doctoring and free drugs, and passing 1s. 4d. of the total amount to be paid by him or on his behalf to the sanatorium fund, will bank the rest for his personal benefit. In other words, the post office contributor will be able to draw out in the form of sick pay whatever amount is left after payment of the doctor and the chemist and the claim of the sanatorium fund. Should he, however, not withdraw the whole sum before his death, the balance will go to the general fund. To this extent it is a kind of tontine system, the tontine winner being the person who succeeds in being ill for the greatest number of weeks before his actual demise. He must not, however, aggregate more than three weeks for each year that he has been insured, or otherwise his fund must inevitably be exhausted. A further precaution is that the Post Office contributor will be unable to draw anything at all in the way of sick pay until he has been a contributor for a complete year. On the other hand, he will apparently be entitled to free medical attendance and free drugs from the very beginning, so his lot if not enviable will be magnificent compared with that of the medical man who attends him. It does no seem probable that any of the medical men who will take part in the insurance scheme, even as medical offices of friendly societies, will be the subjects of warm congratulations on the part of their friends, but it seems practcally certain that he who becomes medical officer to a band of post office contributors will be deeply commiserated should the class be formed, as anticipated by Mr. Lloyd George, of people rejected by the friendly societies, either because actually ill, or "uninsurable," or drunkards Indeed, the only ray of possible light lies in the fact that the county health committees are not necessarily restricted in their disbursements to the amount of the premium fund at their disposition. With the consent of the county council and the Treasury they may spend further moneys in the performance of the duties entrusted to them in connexion either with medical attendance or sanatorium support, half the additional expenditure being provided by the rates, the other half by the Treasury.

## THE VOLUNTARY HOSPITALS.

IF there is any one feature of Mr. Lloyd George's scheme which more than any other has helped to secure it a welcome, it is his proposal to assist the building and maintenance of sanatoriums for the treatment of pulmonary tuberculosis. It is a point on which much could be written, but for the moment the importance we attach to it is that its introduction is clear evidence of a recognition of the fact that the full needs of the situation will not be met merely by providing every worker with a free doctor and free medicines. Mr. Lloyd George obviously very rightly remembers that to do his work efficiently the medical man placed in charge of a consumptive worker must have something more put at his disposal than the contents of an ordinary medicine shelf. It is safe to assume, too, that if he recognizes this need in connexion with tuberculosis he recognizes it not less in relation to other diseases and conditions of ill health. Sanatoriums in adequate number he knows do not exist; therefore he proposes to provide them. But hospitals with their nursing arrangements and specialists of all kinds do exist, and presumably he is reckoning on their continued existence. But is he in this particular, as in some matters, reckoning without his host? It is true, no doubt, that these hospitals will continue to exist, but will they do so in Mr. Lloyd George's sense of the term—namely, as places which fill a gap in the scheme, but in no wise add to its expense? During the last few years there has been growing discontent among hospital authorities at the fact that they are expected to afford free treatment to workmen who are in receipt of compensation from their employers for injuries and their consequences, and are therefore nominally, at any rate, in a position to pay the institution which treats them. It is true that few hospitals have hitherto taken steps to make this discontent felt, and this policy is comprehensible since they commonly assert that patients receiving free treatment, although in a position to pay, form a very small proportion to the whole. But will this continue when a very large proportion of the patients admitted are persons who are beneficiaries under the sick insurance scheme of the Government, and who, therefore, are nominally in a position to pay for their medical attendance and are actually in the receipt of sick pay? What attitude the hospital authorities would take up of their own accord it is impossible to predict, but it seems very likely that they may be forced into the position of being active claimants for a share of the funds furnished jointly by the worker, the employer, and the State, owing to a falling off in their subscriptions. Some such diminution seems almost inevitable. The householder, for instance, one of whose reasons for subscribing to a hospital is that he sends his servants there when sick, will be disposed to ask himself why he should subscribe any longer, since he will be paying for the illnesses of his employees in two other ways also, in a direct weekly tax of 3d. a head, and through the general increase in taxation necessitated by the Government contributions to the cost of the scheme. Should the same kind of argument be used by large employers of labour the end is inevitable; the hospitals will sooner or later become rate or State-supported institutions—almost one and the same thing. This result, besides increasing the true outlay entailed by the whole scheme, would bring other consequences in its train. Regarding these, it is sufficient to note that the majority of those who with practical experience of hospital administration have considered the respective advantages of rate and voluntarily supported hospitals are agreed that in respect of professional efficiency and moral influence the arguments are all in favour of the latter. It is true that the bill proposes to confer specific power on friendly societies to make contributions to hospitals; but this hardly improves the outlook. One would anticipate that if the authorities of a hospital had to choose between living on the rates or depending on the chance subscriptions of a friendly society, coupled, as they certainly would be, with the demand for a share in the management, they would prefer the former alternative. Moreover, even if the subscriptions of friendly societies were generous and untrammelled by conditions, there would always be a set-off against them in the shape of lost workmen's donations, which in some towns amount to an important sum.

### *Out-patient Departments.*

In respect of the effect of the new insurance proposals on the out-patient departments of voluntary hospitals there would appear to be ground for difference of opinion. Mr. Sydney Holland, for instance, seems to believe that if the Act makes any difference at all, it will be in the direction of diminishing the amount of work thrown on these departments. The secretaries of some other hospitals, whose opinions have been published, do not hold the same view. They point out that a very large proportion of those who seek relief in the out-patient departments do so not because they are unable to obtain any treatment elsewhere, but because for one reason or another they prefer to receive their treatment at the hands of the hospital. Many of the male out-patients, it is represented, belong to sick clubs, who go to the hospitals because, rightly or wrongly, they do not consider they are receiving satisfactory attention from the medical officers of their clubs. Others, again, are persons whose attendance at a hospital has been suggested or approved by their club surgeon, the latter considering that the case is one with which the hospital has better means of dealing efficiently than he himself possesses. Another point to be remembered is that if the Act really results, as we are told it will, in more people seeking medical advice than heretofore, the number of cases in which medical men will feel bound to send on their patients to the out-patient departments in order that they may receive the benefits of the specialist treatment thereat provided, is likely greatly to increase. The whole question is of considerable interest, and one on which it is at present difficult to form any satisfactory opinion. Should the insurance scheme develop on satisfactory lines, the net outcome might possibly be a great diminution of the abuse of the out-patient departments.

## THE SUPPLY OF DRUGS.

WE are indebted to the Editor of the *Pharmaceutical Journal* for an advance proof of an article on the national insurance scheme which is to appear in the issue of that periodical for this week. After giving a brief outline of the main provisions of the bill, our contemporary continues: "On coming to that part of the scheme the administration of which will affect chemists and druggists as a special class, a difficulty at once arises owing to the paucity of details afforded by the text of the bill or by the Chancellor's preliminary elaboration of it. It is clear, however, that the dispensing of medicines ordered by insurance practitioners for insured persons is not to be done by medical practitioners except in districts where other facilities are not available. Beyond that nothing is definite." After quoting from the official report the passage in which Mr. Lloyd George dealt with this subject in his speech, the *Pharmaceutical Journal* continues as follows: "But the *Times* report contains the following passage, which is not in the official report: 'I have no doubt that friendly societies will make as good a bargain with the chemist as they did with the doctors.' It is apparent that Mr. Lloyd George intends that the dispensing should be done by 'chemists,' and from the passage quoted from the *Times* it may be assumed that it is the original intention to leave the arrangements for the dispensing wholly in the hands of the friendly societies or health committees, without any guidance as to terms. . . . The manner in which it is proposed to arrange for the dispensing of medicine and the supply of drugs, however, is open to grave objection. Chemists and druggists do not want to bargain with friendly societies; if there is any bargaining to be done it should be done with the Government, and the result of the bargaining should be inserted in the bill. The satisfactory way of dealing with the matter—and it is a very simple way—is to establish a schedule of prices on similar lines to the German schedule, and leave it open for any registered chemist and druggist to supply medicines at prices based on the schedule. Failing some such arrangement as this, it is difficult to foresee the future of pharmacy. If something like twelve million people and their dependents are to obtain their medicine from dépôts chosen by friendly societies as a result of a 'bargain,' and if large numbers avail themselves of the voluntary part of the scheme, what is to become of the pharmacist who is not chosen by a friendly society? It is also proposed to leave it to friendly societies and health committees to make arrangements with medical practitioners. The question arises whether medical practitioners and pharmacists should not unite in an endeavour to obtain equitable terms from the Government, such terms to be inserted in the bill."

## THE SECOND READING.

DR. JOHN ESMONDE, M.P., writes: It is my intention, if I am fortunate enough to catch the Speaker's eye, to speak on the second reading of the National Insurance Bill. I believe I am the only medical M.P. who has been a quarter of century in active practice in England and held friendly society appointments all the time. I shall be much obliged if any of your readers will give me their views and any facts bearing on the subject. I would be glad if they would address letters to House of Commons, Westminster. I have every confidence that the Chancellor will do us justice if our case is properly laid before him.

## INTERNATIONAL HYGIENE EXHIBITION, DRESDEN, 1911.

### THE OPENING CEREMONIES.

THE International Hygiene Exhibition was opened with the usual formal ceremony by the King of Saxony on Saturday, May 6th. At an early hour the spacious Reception Hall was crowded with ladies and gentlemen of all nationalities. Punctually at 11 o'clock the band of the Body Guard announced the arrival of the King, who was accompanied by Prince Johann Georg and Princess Mathilde, as well as by the Minister of State, Count Vitztheim von Eckstadt. Mr. Grant Duff, His Majesty's British Minister in Dresden, was not present, owing to the fact that the Court was still in mourning up to the 6th. He took part, however, on the 8th in the ceremony of the formal opening of the Pavilion of the Foreign States. Geheimer Kommerzienrat K. A. Lingner delivered an address, in which, after reviewing the history of the organizatioon of the exhibition, he proceeded to comment on the various departments, and what they contained. After the usual compliments had been exchanged, Count Vitztheim von Eckstadt, in the name of the King, declared the exhibition open. The royal party, followed by a large crowd, then made a tour of inspection. Among the official delegates of the Powers, Colonel Sir William Leishman, R.A.M.C., and Major Pollok, R.A.M.C., represented the British War Office, and Dr. Cowdy the Board of Education.

A banquet was given by the King at one o'clock, and at seven the exhibition banquet took place in the chief concert hall in the exhibition. Some 550 guests were present. The speeches were delivered by Graf Vitztheim von Ekstadt, Geheimrat Lingner (President of the Exhibition), Excellenz Bumm (President of the Imperial Board of Health, Berlin), Geheimrat Rumpelt (Governmental Commissioner), Professor Renk (Vice-President of the Exhibition), the Lord Mayor of Dresden (Dr. Beutler), Geheimer Obermedizinalrat Professor Dr. Kirchner (Berlin), and His Excellency Professor von Podwysozki (Russian Governmental Commissioner).

On Sunday, May 7th, a special gala concert was given at the Opera House in honour of the guests. The orchestra—one of the finest in the world—was conducted by Herr Schuck, and a magnificent rendering of Beethoven's Ninth Symphony with full choir delighted the audience. Later in the evening the Lord Mayor and Lady Mayoress of Dresden held a reception in the new Town Hall, an imposing structure, in which many strikingly beautiful architectural effects have been achieved. Over 700 persons were present, and a very pleasant evening was spent.

### *The National Pavilions.*

On Monday morning, May 8th, a large assembly again witnessed the official opening of such national pavilions as were ready for inspection. The King of Saxony, again accompanied by the Prince and Princess, started by entering the Hungarian Pavilion, where he was received by the Governmental Commissioner and his colleague. The Hungarian Pavilion is the only national pavilion, save the British, which is situated on the north or exhibition side of the Herculesallée. It is a spacious, well-decorated, and magnificently appointed building, and contains a great deal of highly interesting material. Having been organized by the Hungarian Government, the divisions are arranged according to the departments concerned; then come the exhibits dealing with provincial and municipal institutions, including the universities. Much of the material set up has been specially constructed for the occasion, and shows great forethought and attention to detail. The part dealing with Budapest contains a valuable and instructive exhibit depicting the hygienic arrangements of the schools, some pictorial representations of various hospitals, disinfection station, sewage works, and water supply, apparatus and tables dealing with the chemical analysis of foodstuffs, etc.; illustrations and other exhibits showing the construction and working of the slaughterhouses, among many other things. The rest of the Hungarian exhibit also excited great admiration. The university exhibits and some of the models are particularly fine.

The King next entered the small Chinese Pavilion, which is chiefly characterized by some exquisite decorations, and by a highly interesting collection in glass cases of fruit foods, of low price and very high nutritive value.

The Austrian Pavilion, which was the third visited, has also been organized, built, and equipped by a Government Commission. The preparation has been carried out with a lavish hand, and the exhibits from the Ministry of the Interior, from the Ministry of Agriculture, from the Board of Trade, and from the municipalities and institutions are extremely fine. Special mention must be made of a department of much educational value dealing with electrohygiene which the Vienna exhibit contains.

At the Russian Pavilion the King was met by the Commissioner, Professor Podwysozki, who offered His Majesty bread and salt before he entered. The building is a striking one, perhaps not beautiful to the ordinary European taste, but highly characteristic. In the middle

of the building a huge, most artistically designed figure, allegorical of "Russia," carved in stone by the woman sculptor Z. Swirski, lends an aesthetic aspect to the large and valuable collection. Every department of the exhibition has its counterpart here, and for this reason much which is found elsewhere occupies a space in this pavilion. The King was highly interested in a stuffed dog, illustrating Pawloff's famous experiment.

His Majesty passed on to the Japanese Pavilion, which is the third of the three large pavilions in the centre of the Allée. As compared with the other pavilions, that of Japan is characterized by large lifelike representations of the most modern improvements in field hygiene, laboratory work, and dwellings.

Switzerland came next. Here again the divisions of the exhibition have been closely followed, perhaps at the cost of originality, but certainly not to the detriment of the section as such.

The Brazil section is not yet ready, nor is the Spanish one, but sufficient was set up to admit of inspection in the latter instance. The French pavilion, which is a large building at the end of the Allée, will be opened later, as will be the British section.

*General Impressions.*

The extraordinary magnificence of the exhibition as a whole, the wonderful educational value of the exhibits, and the lavish display of every minute detail in each department called forth the remark on all sides that it was incomprehensible that the British Government had held aloof from this undertaking. There can be no doubt that the world has never before witnessed an organized humanitarian and educational effort of such extraordinary perfection before. The exhibition has been planned to improve the health conditions of the world, and the eight years of planning have obviously been utilized to the full by the most capable experts to make it an unqualified success. Many of the sections are largely industrial, but in every case the educational value of the scientific department is greatly enhanced by this judicious combination of industry and science. The economic value is utilized to the fullest extent. Some of the sections are far from complete; some are even not yet open to inspection, but all those which receive visitors have commanded to a very great extent the unstinted praise of the organizing capabilities of the President, Geheimer Kommerzeinrat K. A. Lingner. In no section does his ability show to better advantage than in the Popular Section—a section which he has personally called into being, with the assistance of a small army of extremely capable medical men, chemists, scientists, artists, and technicians. In this section, the public is taught all about the human body, its derivation, its functions, its defects, the damaging influences of various environments, poisons and ills, and so forth. It starts with a popular pictorial representation of unicellular life, and gradually the visitor learns those lessons which should form a rational and practical basis of a healthy, useful life. Of all the materials employed for pictorial representation, none is better or more truly representative than the wax models and casts, which are works of art in themselves. It is to be hoped that after the exhibition is closed this collection, at all events, will find some permanent home in its present arrangement and form and thus serve as a permanent illustration of practical hygiene.

Tropical medicine, school hygiene, infectious diseases, and many other subjects demand careful study from every one who is interested in the progress of hygiene and preventive medicine. The Section of the History of Hygiene, too, is full of the most valuable material which the world possesses.

We have pleaded on numerous occasions in these columns for support of the British Committee which is organizing a British Section at this great exhibition, and did so in the firm belief that what our German colleagues had undertaken to do would be well done. But we could not guess how great was the work which was gradually evolving during the eight years of preparation. Assistance is still needed to enable the committee to carry out its programme in a manner that will do credit to our country and guarantee that the British Section will be as scientific and satisfactory as the larger and more costly sections of the other States.

We can very earnestly recommend medical men, scientists of all branches, and the public generally to visit this wonderful exhibition at Dresden. The chance of a similar character may not occur again for generations.

## LITERARY NOTES.

THE story of the first administration of ether as an anaesthetic in this country has been told by several narrators, notably in the BRITISH MEDICAL JOURNAL of October 17th, 1896, by the late Dr. William Squire, who administered the gas, and by the late Mr. William Cadge, of Norwich, who was present on the occasion. The tale is told again in the *University College Hospital Magazine* for February in fuller detail by Dr. F. William Cock, who has taken great trouble to procure all available information on the subject. The original notes of the case are quoted. The article is illustrated with portraits of Robert Liston, who operated; Mr. Cadge, who was then his assistant; Dr. Edward Squire; his uncle, Mr. Peter Squire, who made the first ether inhaler; a facsimile of a page from Liston's case-book containing a report of the operation by Mr. E. Palmer, the dresser; Peter Squire's first ether inhaler; Liston's operating table, etc.

In the *Journal* of Barbier, an advocate of Paris who took notes of what passed before his eyes in the eighteenth century—interesting extracts from which have been published within the last two or three years by "Pierre Pic" in his *Heures Libres*—there is an account of the execution of Damiens who in 1757 made an attempt on the life of Louis XV. The wretched man was condemned to be torn limb from limb by horses; so powerful was he in build that two horses had to be added to the four generally found sufficient for the ghastly purpose. Even then the executioners asked leave to have the dismemberment facilitated by cutting the joints, but this was refused. It was only after an hour and a quarter's hard pulling, stimulated by the whip, that the horses succeeded in quartering the man. The scene was witnessed by a vast crowd, among whom were many ladies of the highest rank. Doubtless these gentle creatures would nowadays be prominent members of antivivisection societies, for it is recorded that their hearts were wrung with pity for the sufferings of the—horses!

Unfounded complaints about hospitals are by no means new. In the seventeenth century women seem to have traded on the charity of the public in Paris by complaints of the treatment they had received in the lying-in department of the Hôtel-Dieu to such an extent that the authorities thought it necessary to issue a warning on the subject. The following is taken from a general regulation which was posted up in the office of the department on March 20th, 1658:

> And inasmuch as the office has been informed that several poor women whose confinement had taken place in the Hôtel Dieu, although they have been quite satisfactorily delivered, in order to excite the compassion of charitable persons and get alms from them by this means, complain and say they have been unskilfully delivered, and even injured at the time of their confinement, and have thus been made invalids for life, a thing which casts serious discredit on the hospital, it has been decided that in future all women who believe that they have suffered any hurt or disability during their confinement shall be compelled before leaving the ward to declare the fact to the administrators, who shall have them examined by the physician on duty in the ward and by the surgeon attached to the house, or by such other competent person as the authorities shall think fit. The physician and the surgeon shall present a written report, so that the truth being known by this means the hospital may be safeguarded.

Some such method might be useful, both in hospital and in private practice, at the present day as a protection against unfounded complaints.

*Habent sua fata libelli.* The same thing may be said of drawings. Sir Francis Galton, in his *Memoirs of My Life*, tells the following story. Speaking of Sir William Bowman, whom he knew in early life, Galton says:

> He was a most accurate and gifted draughtsman of pathological subjects. One of his earliest discoveries related to the liver, and I was familiar with a drawing in colours that he had made in illustration, which was preserved with great respect at the Birmingham Hospital. In later years he told me that, having no further use for his collection of drawings, he gave them to Dr. B. In time Dr. B. died, and Bowman then became desirous to get back his old drawings as mementoes of early work, but could hear nothing of them. By an extraordinary chance he was one day looking at prints in a second-hand and second-rate shop, when his eye caught sight of a corner of these very drawings. They were all there, and he bought them all back. He could not learn their intermediate history.

# British Medical Journal.

SATURDAY, MAY 13TH, 1911.


## THE NATIONAL INSURANCE SCHEME.

THE National Insurance Bill is in its conception one of the greatest attempts at social legislation which the present generation has known, and seems destined to have a profound influence on social welfare and the health of the community. It is a contributory scheme and proposes that the employers and the employed, with the assistance of the State, shall insure the employed against sickness and against unemployment. The scheme for insurance against sickness and invalidity is of almost universal application. Two classes of insured persons are constituted—compulsory and voluntary; the first includes all persons employed in manual labour and all other employed persons whose incomes are below the income tax level (£160 a year), including those uninsurable in the ordinary commercial sense of the word, with the exception of persons serving in the navy and army for whom special provision is made, persons employed under the Crown and municipal authorities (when provision is made for sickness and disablement), elementary school teachers, and those engaged in the most casual forms of casual labour, who are only not included because nobody has been able to devise any way in which their own contributions and those of their casual employers could be collected. The voluntary class theoretically includes every other employed person, every person who receives a weekly wage or a yearly salary whatever its amount. There is therefore no wage limit.

The members of the medical profession, as good citizens, will approve the objects of the scheme as they would any other well-considered scheme for the benefit of the community, but as its provisions must affect their pecuniary interests, as well as the future development and status of their calling, more seriously than those of any other profession, they are bound to examine it with care and even in a critical spirit. It will be to the advantage of the public that they should do so, for if there be any features in the scheme which, as it affects medical men, are defective or economically unsound, the success of the whole must be jeopardized.*

There is one feature of the scheme which, we believe, will be noted with general satisfaction by the medical profession, and that is that it is not proposed to create a special class of whole-time medical officers. The intention clearly is to enlist the services of private practitioners willing to act. This plan is in the best interests of the profession and of the public. It is in the interests of the profession because it leaves it free to follow its natural development, giving men of capacity the chance to advance the science and art of medicine and to reap those honours and rewards the hope of which is not the least of the stimulants which make men scorn delights and live laborious days. It is in the interests of the public not only because it benefits by these discoveries, but because medical practitioners engaged in private practice gain a wider experience, which is an advantage both to their private and to their State patients; because private practice encourages a healthy spirit of emulation, and because the confidence which a patient feels in the doctor of his own choice is an element in quick recovery the importance of which will be recognized by any one who looks back on his or her own personal experience.

It is unfortunate that Mr. Lloyd George's references to the payments to be made to the doctors have, owing, possibly, to an error in reporting, produced an unfavourable impression, deepened by the laughter with which some of his remarks under this head are reported to have been received by the House of Commons. Mr. Lloyd George, after saying that he was inclined to agree that the doctors had a case for substantial increase of payment, and that special provision had been made for the supply of drugs, is stated in the official report and most of the newspapers to have said: "Sometimes, no doubt, they [the doctors] are quite adequately paid, but sometimes they certainly are not, and I think financial provision ought to be made in the scheme for raising the level to 4s." We are informed this is not an accurate reflex of the impression conveyed to some at least of those who listened to Mr. Lloyd George; we gather that their impression was that the 4s. was meant as a minimum, and we observe that in some newspaper reports the words are "of 4s.," in place of "to 4s."—a difference which, of course, very materially affects the meaning.

All we can say on this is that if a "flat rate" of 4s. is intended, the proposal will, we are confident, be most strenuously resisted by the medical profession. Mr. Lloyd George went on to say that he had made provision accordingly, but in the Bill itself the only reference to the matter is in the first part of Clause 14, which reads as follows: Every approved society and local health committee shall for the purpose of administering medical benefit make arrangements with duly qualified medical practitioners for insured persons to receive attendance and treatment to the satisfaction of the Insurance Commissioners from such practitioners.

The very wide scope of the Government scheme will be obvious to the profession. It will be wide from the beginning, and when the insurance fund has been relieved of certain liabilities which must be accepted at the start, but which, it is hoped, will gradually dwindle until they disappear, its scope will enlarge. The estimate is that there will be some 13,100,000 persons insured compulsorily at once, together with 800,000 in the voluntary class and 800,000 under 16 years of age, a total of 14,700,000 insured under the scheme as soon as it comes into force. But this vast number will presently be increased, for Mr. Lloyd George foreshadowed that after the first few years the balances saved by the fund would enable alternative, optional, and additional benefits to be given; among

* Ample opportunity is provided in this issue for studying in detail all that at present is known authoritatively as to the Bill itself and the intentions it represents; at page 221 of the SUPPLEMENT will be found an abstract or the full text of each clause of the Bill; at page 1142 is a full report of the speech by which Mr. Lloyd George introduced his Bill, and the remarks made by various members on its conclusion. At page 1126 is an analysis of this speech, and on page 1119 the long memorandum which Mr. Lloyd George has since published in further explanation of his Bill is reproduced verbatim. Beginning at page 1128 will be found extracts from a series of letters which have reached us from various correspondents, and some notes on certain points, such as Post Office contributors, the probable effect of the Bill on voluntary hospitals and out-patient departments, and the views which have been expressed on behalf of the pharmacists.

these he mentioned free medical treatment, not merely for the working man himself, but for his family. There cannot be the least doubt that advantage would almost universally be taken of such an option, so that the scheme may readily, before many years are over, come to cover 25,000,000 to 30,000,000 persons, including all the children of the working classes.

Judging from paragraph (*f*) of the second part of the first schedule every person employed by way of manual labour, however high the wages he receives, will come under the provision with regard to compulsory insurance, and therefore be entitled to free medical treatment. As the scheme includes all persons employed otherwise than by way of manual labour whose fixed remuneration does not exceed £160 a year it is seen that the scheme goes far beyond what is ordinarily understood by "workman"; it will, therefore, inevitably produce a serious effect upon that part of private practice which is at present concerned with employed persons in the receipt of good wages. It is no doubt true that a large proportion of such persons are already members of provident friendly societies, but all will at once be swept into the State insurance scheme, and, as we have said, their wives and families will follow in the course of a few years. But the friendly societies have dealt with selected lives, or at least have excluded persons obviously uninsurable. The friendly societies in the future are to be allowed "the most absolute right to accept members or to refuse them," but whereas at the present time such excluded persons are attended by private practitioners as private patients, in future they are to be collected into a body called "post office contributors," and the health committees to be set up in every county are to be responsible for them.

With regard to the friendly societies, we are still in the dark as to how far they may be put under compulsion to improve the conditions under which their present medical officers serve as a condition of receiving the Government grant of twopence a head; the only provision, so far as we have observed, is that in Clause 14 (1), quoted above, which may be interpreted to mean that the terms of the agreement with medical practitioners will be subject to the approval of the Insurance Commissioners, a central body which will have the assistance of an advisory committee. The bill contains no reference to the rate of remuneration, so that when Mr. Lloyd George spoke of provision for an increased rate having been made, he must have been referring to the actuarial calculations which have not yet been made public. We do not believe that the medical profession will accept the present average terms of payment and conditions of service. It is possible that the machinery of the proposed county health committees, if the Association's proposal for medical committees for certain purposes were accepted, might solve part of this difficulty, but there is no hiding the fact that the profession has been driven, owing to the treatment it has received from the friendly societies, to the last extremity of dissatisfaction with the whole system of friendly society medical clubs. Judging by the terms of Clause 14 (1) and by Mr. Lloyd George's reference to the matter in his speech, it would appear that the intention of the Government is to leave the terms to be settled by negotiation between the friendly societies and the medical profession. Before the profession consents to work with the friendly societies it will, we believe, demand that certain fundamental conditions should be laid down with which a friendly society must comply as a minimum before the medical profession could enter into negotiations with it, and we note that the *Pharmaceutical Journal* is of opinion that the chemists and druggists will make a similar demand. These conditions would, in the case of the medical profession, include a minimum rate of remuneration, provision for extras, such as mileage, night visits, etc., and also such provision as to tenure of office as shall ensure efficiency, including reasonable security of tenure and the right of the member to choose his own doctor, but not capriciously to change without due notice. It must, we think, be recognized that the general tendency of the bill is to put the friendly societies in such a position that they will be tempted to save money at the expense of the doctors in order to apply such savings to other purposes for the benefit of their members.

Since every worker must be insured, and since the advantages of insuring by becoming a member of an approved friendly society as compared with those given to the "post office contributors" are substantial —the deliberate policy of the Government being to induce all workers to join a friendly society at the beginning of his or her working life—it is certain that the scheme will lead to a large increase in the membership of existing societies, and probably, as Mr. Lloyd George thinks, to the foundation of new societies. With regard to the societies already established, the questions will arise whether a new member entering in consequence of the compulsion to insure should have the right of choosing his own doctor, or to put it in another way, to bring his own doctor with him so to say, provided, of course, the doctor is willing to accept the terms offered by the society. It would seem that if this right be not reserved, cases of hardship will arise. It might be well that, before the Act comes into force, a decision on this point should be reached.

Whatever the remuneration the doctor receives, that in respect of medical attendance is to be separate from that for the provision of drugs. A similar principle must be brought into force with regard to dressings and appliances. It is left open for the medical practitioner to contract, if he and the approved society or local health committee think proper, for the supply of drugs, but the Government contemplate, as indicated by the Chancellor of the Exchequer, that drugs shall usually be supplied by pharmacists, and this will doubtless be the ultimate effect of the provisions of the Bill. In districts where no chemist is available within a reasonable distance —and this will apply not only to the Highlands of Scotland and the mountains of Wales, but to many rural districts in England—the Insurance Commissioners may sanction arrangements under which doctors will supply medicine at an inclusive fee. It is important that the provision for drugs, dressings, and appliances should be adequate, and that its allocation to the several purposes should be controlled by some central body, so far, at any rate, as the general principles of remuneration are concerned.

A short reference may here properly be made to the case of insured persons suffering from diseases "due to misconduct." Under this head is included not only venereal diseases, but the effects of alcoholism and drug habits. Needless to say, medical opinion will strongly support Mr. Lloyd George's statement that infected persons ought to be efficiently

treated, both in their own interests and in those of the community. The medical profession has long been declaring that general public opinion has not sufficiently appreciated the serious and far-reaching consequences of enthetic diseases to the health of the individual, and of his wife and children, actual or prospective. But if the case of persons suffering from such diseases calls for special provision in one respect under the insurance scheme it calls for it in all. If the duty of treating these diseases as well as the effects of inebriety and drug habits is to be imposed on the insurance doctors, it must involve increased remuneration, the amount being settled actuarially after due inquiry, which will establish the fact that the treatment is not only distasteful to the doctor, but troublesome, tedious, and costly. It will be for those responsible for establishing and administering the Insurance Fund to consider how this extra expense should be met. It might not be inequitable to require such person to make special payments, or lose corresponding benefits.

The nature of the difficulties the Government has had to face in the drafting of the portion of the Bill relating to medical benefits has been fully recognized by the special committee of the Association that has had the question under consideration for the last eighteen months, as is well shown in the long report on the "Organization of Medical Attendance on the Insurance Principle" which the committee has laid before the Divisions. We draw special attention to this report as it, in a remarkable way, has discussed by anticipation all the essential points affecting the medical service with which the Insurance Bill deals; a full understanding of the complex bearings of the medical aspects of the Government scheme may perhaps best be attained by reading the report in conjunction with the Bill.

It will be a source of gratification to the profession to find that the answers of the Divisions to the questions propounded in the report mentioned show remarkable unanimity on nearly every essential point, so much so that it is safe to assert that the profession has the matter very largely in its own hands if it choose to exert its power. It is necessary to lay emphasis on this at the present crisis, not in the least as conveying any threat, for we most gladly and fully recognize the conciliatory and sympathetic spirit in which the speech of the Chancellor of the Exchequer was conceived, but because this unanimity shows that any representations the British Medical Association may make to the Government are based on the well-considered resolutions of the profession, and especially of that part of the profession, the general practitioners, whose well-being is so vitally affected by the Government scheme, and on whose goodwill its making or marring must to a very large extent depend.

The decision of the special meeting of the Representative Body to be held on May 31st and June 1st will therefore have the full weight of the considered opinions of the profession on matters upon which it is not only entitled to speak in its own interests, but with regard to which it is under an obligation to express its views for the information of the Government and Parliament.

Apart from sanatoriums for consumption, Mr. Lloyd George said nothing about general hospital treatment for the insured. Is it intended that all the insured who need hospital treatment, whatever be their position in life, shall, so long as they are insured, go to the voluntary hospitals? And is it expected that the medical and surgical staffs shall do what will practically be State work without remuneration? Or, on the other hand, will the Insurance Fund repudiate all responsibility for the medical and surgical treatment of those insured who cannot be treated at home and leave them to their own resources? We are not unmindful of the fact that in Germany for the insured, and in France for those who come under the *Assistance Obligatoire*, the cost of hospital treatment has been found to be a most serious burden on the funds. But if there is no provision for the payment for hospital treatment, it is certain that great dissatisfaction will be aroused. With the sentiments of the Chancellor of the Exchequer when he spoke of the provision of sanatoriums for consumption every medical man will most heartily sympathize, but the question will certainly be asked, Is not the provision of general hospital treatment, which directly affects millions of persons, of even more pressing importance?

In considering the position with which the profession now finds itself confronted, it is, perhaps, unfortunate, but certainly inevitable, that the question of remuneration must bulk large. To put this matter in a clear light, it must be pointed out that heretofore the fund out of which the doctor has been paid was formed solely by the contributions of the insured. The medical profession has, perhaps weakly, permitted the perpetuation of a system and rates of pay instituted partly on an eleemosynary basis at a period antecedent to the great social uplifting of the workmen which has been accomplished in modern times, a period when the workers' wages were often wretchedly low. In future this fund is to be more than doubled by the contributions of the employer and the State. The more enthusiastic supporters of the scheme declare that it opens a new social era. We hope it may; but, if it does, the medical profession is justified in claiming that this new era shall be beneficent for it as for other callings, and that it shall start afresh, not from the level of the old bad system, but with a new and equitable scheme embodying a just if not a generous recognition of its claims.

The success of the scheme, including its solvency, must depend on the efficiency of the medical service, and it is important to recognize that to ensure this the medical officers should be satisfied with the conditions. Even if the friendly societies and the local health committees were to succeed in beating down the remuneration and other conditions of employment of the medical practitioners to the lowest that the least fortunate members of the profession might be prepared to accept, the chronic dissatisfaction which must result among medical men could not conduce to the hearty discharge of the great responsibilities which the scheme places on their shoulders.

With the general intentions of the Bill the medical profession will be in full accord, and it is satisfactory that, so far, there is no evidence of a desire to introduce any party political feeling into the discussion of this great piece of social legislation. The Bill is a call to a great social duty, and we are confident that the medical profession will not be slow to respond, and to lend every assistance that lies in its power to accomplish the desire of the nation "to conquer the pestilence that walketh in darkness and the destruction that wasteth at noonday."

## THE PAST RESULTS AND FUTURE PROSPECTS OF SANATORIUM TREATMENT.

NATIONAL Associations and International Congresses have spread a knowledge of tuberculosis over the whole civilized world, and there are probably few educated persons who have not learnt the chief facts as to the cause and prevention of consumption. The practical application of this knowledge is, however, by no means so universal. In the ordinary affairs of life the prudent person is more influenced by experience, and by the record of results actually achieved, than by any amount of assertion as to the probable effect of any given line of action. Everyone knows that sanatorium treatment has often proved beneficial in early cases of consumption, but it has, nevertheless, been made the object of a great deal of adverse criticism from those who expect too much of it. Hence it is only by an appeal to incontestable facts that any sound opinion can be formed as to the proportion of success or failure which has actually been experienced in several such institutions in different parts of the country. The only trustworthy means of estimating such success or failure is by the laborious and difficult method of following out the subsequent history of patients who have been treated in sanatoriums for longer or shorter periods. To carry this out successfully requires more than ordinary organization, and it has fallen to the lot of the Charity Organization Society to pursue the necessary investigations and to present the results arrived at, by the aid of their Medical Advisory Committee, in a report recently issued.

This report deals with the after-history of 479 patients, sent from time to time to different sanatoriums and treated therein for various periods, from a few weeks to six months. All these patients were kept in view and visited during the eight years from 1902 to 1910 inclusive at regular intervals after leaving their sanatoriums, in order to ascertain their capability for work; and although in some instances the patients could no longer be traced, still in the vast majority the society was able to obtain trustworthy evidence. Down to the end of 1910 it was found that no fewer than 53 per cent. of these patients were either at work or were fit for work. Of the rest, many were quite capable of light work, while the residue had either succumbed to further spread of the disease, or had become unfit for any kind of work, or had been lost sight of. These statistics were derived from the patients dealt with in eight sanatoriums, some of them showing better results than others, but the general outcome of the inquiry may probably be taken to represent a fair average of any group of sanatorium results. Much must, of course, depend upon the stage of the disease at which the treatment is begun, and the economic value of early recognition and prompt seclusion is becoming every day more obvious to the public mind now that it has been well impressed upon it by medical teaching.

A useful step in this direction has been taken within recent years in the districts of Paddington, North Kensington, and Marylebone by the establishment of antituberculosis dispensaries—institutions which make it their business to detect early cases of tuberculosis in their respective districts, to visit such cases in their own homes, and to advise as to precautions, in the interest of the patient and his surroundings, facilitating the removal of the more or less infective cases to hospital, sanatorium, or infirmary, while keeping an eye upon those members of his family or others who may have been living in close contact with him. This system, in the words of the report, "is doing more for the prevention of the disease than any scheme hitherto initiated in London." The Charity Organization Society gives it assistance by means of hospital letters, extra comforts, introduction to suitable occupation, etc., in addition to the work which it undertakes at all times of investigating the genuineness or otherwise of the cases referred to it.

These two agencies, working together for good in this direction, might well be supplemented by the assistance of a third. The dispensaries which have been, and no doubt will be, established for the direct treatment of consumption by tuberculin, supply a further means whereby the earliest attacks of tuberculosis may be successfully combated. But there still remains in many quarters a wall of prejudice to be battered down before such co-operative campaigns can be carried out over a large area. Even in neighbouring districts, such as Kensington and Hammersmith, the demonstrable success of the antituberculosis dispensary in the one area appears to have no influence upon the authorities in the other, and the best efforts of the would-be organizers have hitherto failed to overcome the vague objections which have been raised against the proposition.

The achievement of a 50 per cent. amount of success is a great victory gained, but a much higher proportion ought to be obtained when a free hand has been given to the beneficent organizations to which we have referred.

The possibility of Government support as foreshadowed in the recent statement of the Chancellor of the Exchequer, holds out a prospect of advance in the right direction, but the prime factor in the great ideal of the final extinction of the disease consists in recognition by the public and by the sufferers themselves of the truth that it is only by early diagnosis and immediate treatment that the spread of the disease can be checked. The means for doing these things are at hand, the results of doing them are known, and only prejudice and unreasoning opposition prevent them from becoming universally practised.

## AN INDIAN PANACEA.

MUCH is told of the marvels of the East, and we have heard an ex-Colonial Governor who had passed a large part of his life in the tropics state that he was cured of a fever by a native remedy when Western medicine had entirely failed. Holding that the medical profession should keep an open mind for new things, we make no apology for introducing to the notice of our readers "Amritdhara," which is said—in a full-page advertisement of the *Times of India Illustrated Weekly* of March 8th—to cure nearly all diseases that attack the young, the mature, and the aged (male or female), and also to be beneficial to domestic animals. It was discovered by Pandit Thakur Datta Sharma Vaidya, who describes himself as the editor of "*Deshopkarak*, the only weekly medical paper in India," and the author of more than two dozen medical works. Need it be added that he is a specialist in venereal diseases? We need not enumerate the diseases cured by Amritdhara, but we note with some surprise that the list does not include cancer or consumption. These omissions are remarkable. When Clive was reproached with the loot he

had gathered, he replied that when he thought of his opportunities he stood astonished at his own moderation. The discoverer of Amritdhara might say the same thing if he compared his own comparatively modest claims with those of his Western congeners. Nevertheless, the discovery, if we may judge from the testimonials which he has published—they are, it seems, only a few specimens from among fifteen thousand—has excited the greatest enthusiasm among native doctors. One says: "There are medicines found in this wide world which only cure the diseases which they are meant for, and that within two or three days, but this is a medicine which acts instantaneously, even without the aid of any other medicine, nearly on all the diseases." "Sometimes," he adds, "the rush of the patients suffering from different diseases is so much that I am confused." His confusion shows itself in his testimony. One disease in which he finds the remedy efficacious is the "coming out of puss from the ear." French singers, when their voice goes wrong speak of having *un chat dans le gosier*. Does the "puss" in the ear explain the extraordinary sounds that patients try to describe? A remarkable case is reported by Hakim Mahomed Abdul Hafiz. "There was a woman," he says, "who had the right side of her head inflamed. The swollen part was not less than 2 ft. when pressed from above. It felt soft like the flakes of cotton." Two phials of Amritdhara at once "effected complete recovery." This case is of special interest as swelled head is not an uncommon disease even in this country, and the knowledge of a successful method of treating it may be useful to many. One testifier with what looks like unnecessary candour says "no one can ever praise your medicine." This, we imagine, is one of those things that might have been expressed otherwise. Hakim Muhammed Firoz Din, Munshi Fazal, Editor Hikmat, describes Amritdhara as really an elixir of life. He proceeds, however, to dash the hopes excited by this announcement by saying: "Though it does not render a patient's life eternal, but there can be no doubt that it gives new life to hopeless and forsaken patients lying for days and months together on sickbeds courting death to get rid of their physical ailments. Nothing short of immortality can cure such cases in minutes, but the Amritdhara possesses this virtue." This testimony of Editor Hikmat is obscure, and to the unassisted light of nature somewhat contradictory. Another testimony, though also somewhat mysterious, is none the less striking. Doctor Gulzari Lal, Baramula (Kashmir), writes: "One day I went over to Pandit Thakur Datta Sharma Vaidya. I was then suffering from the 'Pitti' on my feet. I was scratching and rubbing the part with my hands, when Panditji noticing this asked me to see how a medicine prepared Ayurvedically acts like a magic. The part was rubbed with Amritdhara. All my itching sensation was gone in half a minute. No Doctor's medicine can compete with this medicine." We have never, to our knowledge, suffered from the "Pitti" on our feet, and as Mr. Micawber said of the gowans, we are not exactly aware what it is, though we have a lively remembrance of a peculiar feeling in the feet which afflicted us after perambulating the endless galleries of the Pitti Palace in Florence. If Amritdhara or any other medicine prepared Ayurvedically cured that complaint "like a magic" it might be recommended to conscientious sightseers. The discoverer recommends that his remedy should be kept in every pocket, every home, at all times and places. In view of the wonderful virtues claimed for it, this recommendation can scarcely be called excessive.

## ART IN COTTAGE PLANNING.

A LARGE number of ladies and gentlemen interested in national housing and the garden city movement recently attended a private view of the Modern House and Cottage Exhibition, which is to remain open in the garden suburb on the outskirts of Romford during the summer months. Here, as the result of the competitive work of a large number of architects, stimulated by a handsome offer on the part of Sir H. Raphael, M.P., and of rigorous selection by distinguished judges, there have arisen one hundred and forty detached houses and cottages, carefully grouped in relation to the entire plan. These dwellings furnish an indication of the remarkable variety of taste in domestic architecture which prevails at the present day, and although the suburb on the occasion of the visit was littered with builder's remnants, and the leafy lanes which are to intersect its generous area were still in the making, it was possible to appreciate the excellence of the general effect, aided as it is by a natural environment comprising some of the most lovely woodland and water scenery in Essex. Many of these £500 houses and £375 cottages make the word "modern" on the exhibition prospectus seem a trifle surprising, unless "modern" means the revival of the antique. The low raftered ceilings, the deeply sloping roofs, the tiny lattices, and the wide hearths with the red brick left bare might have been spirited out of a previous century, although that century can scarcely have enjoyed the up-to-date bathroom or the conveniences of the scullery. The smallness of the windows in many instances is surely to be regretted. Some of them suggested the leper's squints in parish churches. Certainly, this was to some extent atoned for by a good scheme of interior decoration, and the abundance of cream and light green colouring would probably satisfy the illuminating engineer. But for the admission of light, and especially of air, we prefer the more spacious, if uglier, windows of the ordinary town dwelling. After all, as Lord Bacon said, "houses are built to live in." Artistic effect outside has entailed certain inconveniences within, and the deep slope of the roofs which is so greatly in favour in these garden cottages means curious internal arrangements, with odd slants in the upper rooms, and cupboard doors opening into three (or more) cornered recesses. The housewife may know what could possibly be put in these last; we do not. But when the devil's advocate has had his say, the fact remains that the garden suburb, as a beautiful development of the modern revival of arts and crafts, and an instance of social foresight and philanthropy, deserves success and will probably command it.

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## RADIUM IN MALIGNANT DISEASE.

THE claim of radium to be in any sense a panacea in malignant disease did not emerge very successfully out of the discussion on this subject at the Roentgen Society on May 4th. Mr. C. W. Mansell Moullin, in an opening paper, spoke of it in the most reserved terms. He denied that radium had a cumulative action. A second exposure was more destructive than the first, not because the influence of the radiation was cumulative, but because the resistance of the tissues had been lowered, and they had not had time to recover. Nor would he admit a selective action on the part of radium. As to the indications for radium-therapy, he thought there was no inconsiderable degree of danger in treating any but small and superficial growths with the small quantities of radium at present at their disposal. Excepting rodent ulcer, radium should be reserved for cases either inoperable or inaccessible to ordinary methods; and even in rodent

ulcer he had known radium to fail complete Leaving on one side all questions as to size and dep of tumours, the facts that seemed to weigh most determining the clinical value of radium were sl ness of growth and mildness of malignancy. . Mackenzie Davidson was even more emphati in expressing his distrust of radium in malignant dis e. He had never seen a malignant growth of any conr able extent which had been cured by radium. he immediate effect was often remarkable, but ther as recurrence. He agreed with Mr. Mansell Moul in deprecating the desire on the part of the igrant public to "try radium." By "trying radium "ome patients had ended their existence a little soone han they would otherwise have done. In ophthalm surgery radium had the greatest value. In every se of the hitherto incurable "spring catarrh" that had treated he had found the most satisfactory esult. Although most cases of rodent ulcer got well e had known some in which radium had failed, sn one at least in which it had "fanned the flame." Dr Horace Manders found that the use of adrenalin fore an application of radium was a great advante; the success of the treatment coincided to a gre extent with its use, and he thought it worth wh taking into account in connexion with the possibly nfavourable effect of hyperaemia in radiumtherapy Radium had a defender in Dr. N. S. Finzi, who sa that he had been working with more than 20 ntigrams, although he did not consider even this amount to be large enough, and looked forward to vo king with grams instead of centigrams—as his stoc of radium had increased so had the success of his treatment. The second 50 of his 120 cases had ided better results than the first, and the last 10 better still. These 120 cases were cases of inopers b malignant disease, and out of 90 in which treatment was finished he had 10 in which the growth complete disappeared, but in 3 of these 10, there had bee recurrence. In 1 of the remaining 7 the cure had las ed for more than two years.

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## IS WASHING A LUXURY?

WITH regard to an article entitled "A Gospel of Dirt" which appeared in the BRITISH MEDICAL JOURNAL of March 25th, 1911, p. 713, Dr. Theodore Martin, of Bristol, writes as follows: "The following facts may be interesting: Some years ago a farmlabourer came to me to be examined for a club. The odour of perspiration was so great that I asked him when he washed last. He failed to understand my question, so I asked him if he had ever washed his body since his mother washed him as a baby. He said 'No.' He is over 40 now, and I do not think he has ever attempted to cleanse his body at any time. He is in good health and has never had any serious illness. One may well ask, Is washing a luxury?" In connexion with this question we may recall the fact that Thomas Walker in *The Original*, which first saw the light in 1835, gives the results of a number of experiments to improve his health Besides limiting his diet and increasing his exercise, he ceased to wash, as he found that the procedure was superfluous. He says: "It seems that from the surface of an animal in perfect health there is an active exhalation going on which repels impurity; for when I walked on the dustiest road not only my feet but even my stockings remained free from dust. By way of experiment I did not wash my face for a week, nor did any one see, nor I feel, any difference." He enjoyed "an absolutely glowing existence." Walker was somewhat disconcerted to find, as he thought, that in regard to his discovery of the self-cleansing power of the skin he had been anticipated by the famous Gregory of Edinburgh, author of the *Conspectus Medicinae Theoreticae*, formerly a familiar manual to students. Gregory says of a person in high health that "The exhalation from the skin is free and constant, but without amounting to perspiration," which Walker thinks answers with remarkable precision to the "active exhalation" which he thinks repels impurity. He goes on: "In fact, it is perspiration so active as to fly from the skin instead of remaining upon it, or suffering anything else to remain; just as we see an animal in high health roll in the mire and directly after appear as clean as if it had been washed." It may be doubted whether Gregory would have agreed with the interpretation placed by Walker upon his *exhalatio per cutem libera et constans, citra vero sudorem*. That washing is considered a luxury in several countries may perhaps be gathered from the following statistics as to the consumption of soap. We do not vouch for their accuracy, but give them as we find them in a recent issue of *Paris Médical*. In England the consumption is said to be 20 lb. a head yearly. France comes next with 15 lb., next Germany with 10 lb.; then Russia with 2 lb. The French writer adds that notwithstanding the place they hold in this list, his countrymen are dirty. French working men, clerks, small tradesmen, and so forth, look upon the washing of the body not so much as a luxury as an eccentricity. Yet these very people, when dressed in their "Sunday best," are fond of presenting an outward appearance of gorgeous splendour, affecting scarves of flaring colours, velvet waistcoats, and patent leather shoes. A famous surgeon is quoted as saying in effect that clean knees are an index of moral frailty, and from the number of grimy knees seen in private as well as in hospital practice, it is inferred that the number of women of stainless character in France must be very large. The old dislike of bathing which became traditional in the Middle Ages has descended to modern times. In French *lycées*, we are told, the custom is for the boys to be allowed a foot-bath once a month, and dispensations from this observance are easy to obtain. If this be the case among the well-to-do, the state of things in the lower quarters of Paris can be imagined. Father, mother, and children live higgledy-piggledy in an apartment which serves as bedroom, dining room, kitchen, and often as workshop for the breadwinner. There is often only one bed in the room. How are people to wash in such circumstances? They do not seem, like the unwashed Walker, to enjoy an absolutely glowing existence, for the writer suggests that instead of vast sums of money being spent to no purpose in the attempt to better the lot of the poor in their squalid homes, cheap spacious dwellings should be erected where people could live in clean and decent conditions. He thinks, however, that this practical reform would not appeal to the good ladies who seek spiritual good in the personal sacrifice which they find in seeing the poor in their own homes. He maliciously adds that these good ladies themselves, even those among them of the most authentic nobility, do not fully appreciate the virtues of a clean skin, and he illustrates this statement by the following story. A surgeon was called to see a *grande dame de par le monde* who had sprained her foot in getting out of her carriage. In making his examination of the injured member he asked in the ordinary way to be allowed to see the other foot for the purpose of comparison. The lady was very unwilling to submit to the proposed inspection. Finally, as the surgeon insisted, she said crossly, "You ought to have warned me." To which

he replied, "But I am not asking any great thing." She said, "But you are. It is very annoying. I had washed the wounded foot, but not the other!"

## THE PENZANCE BOARD OF GUARDIANS.

WE reported a short time ago (April 15th, page 910) that the Penzance Board of Guardians had resolved that certain small increases should be made in the salaries paid to its district medical officers. We quoted the remarks of Mr. Court, one of the inspectors of the Local Government Board, who pointed out that even the increased remuneration was distinctly lower than the fees given in the country generally, though he at the same time expressed the hope that the doctors would recognize that the board of guardians had made a step forward. It was not then stated that the question had been raised by the action of Dr. Branwell, the medical officer of one of the districts with a population of 18,000, who had represented that the salary of £30 then paid was wholly inadequate. The guardians refused to entertain this proposal, and at their meetings there was talk of "medical boycott" and "ring," as advertisements in the press brought no candidate for the position. We should say that the action of Dr. Branwell and his colleagues had the support of the local Division of the British Medical Association, and a warning notice was published in the JOURNAL. Ultimately, as already stated, the Finance Committee of the guardians had a conference with the medical men, and the board resolved to make certain increases; the increase in the case of the district formerly held by Dr. Branwell was from £30 to £50. The vacancy was then advertised at this increased sum, and at the next meeting of the board of guardians a letter was received, written on behalf of the medical men, approving of the higher salaries proposed. The clerk reported the receipt of two applications for the district formerly held by Dr. Branwell—namely, from Dr. Branwell himself and from Dr. J. H. Wilson of Scorrier, who had been medical officer at Plympton. The appointment of Dr. Wilson was moved by the Rev. D. R. Vaughan (Zennor), and seconded by Mr. J. N. Thomas (St. Just); Mr. N. J. Hall (Penzance) proposed, and the Hon. Piers St. Aubyn seconded, the election of Dr. Branwell. Dr. Wilson received 24 votes against 19 for Dr. Branwell, and the former was declared elected. We are informed that the Dr. Wilson now elected is to be identified as the person who some weeks ago appeared before the Truro magistrates under circumstances which were reported in the *West Briton and Cornwall Advertiser*. The case having been reported at length in a local paper, it is to be assumed that the Penzance guardians were fully cognizant of the facts when they elected Dr. Wilson to the post of district medical officer to a large district. As we have shown, the Local Government Board is acquainted with the nature of the course taken earlier by the Penzance guardians, and it now remains to be seen whether the appointment of Dr. Wilson will be officially confirmed by it.

## PUBLIC MEDICAL SERVICE IN THE ISLE OF WIGHT.

IN our issue of March 25th, in referring to the appointment which had been made of a medical officer of health and school medical officer for the Isle of Wight County Council, we commented upon the injustice which had been done to Dr. Gibson, the former school medical officer for the county. We expressed our sympathy with him in the pecuniary loss which he had suffered and for which we recognized that sympathy alone could not compensate him. It is gratifying to learn that some public authorities of the island have a better conception than, apparently, has the county council of what is due to faithful service. The rural district council of the island, for which Dr. Gibson has acted for some years as medical officer of health, has recently increased his salary by £50 per annum, and he has also been appointed medical officer to the Isolation Hospital at a salary of £100. This action will be appreciated not only by Dr. Gibson and his local colleagues, but by all those members of the profession who are conversant with the circumstances. Such recognition of the value of his work must appreciably lighten the burden of actual monetary loss falling upon him personally, although, of course, leaving unaffected the merits of his case and that of the profession against the county council and the very few members of the profession who have aided and abetted that council.

## A VAIN THING ON VACCINATION.

AT the sixth conference of the Irish Antivaccination League, held recently at Waterford, a letter from Mr. Bernard Shaw was read which we think will entertain, if it does not instruct, our readers. We therefore give it as we find it reported in an Irish newspaper, for it is too perfect a work of art to be curtailed.

> I cannot help thinking that the time is not far off when the work of your League will be lightened by the co-operation of the leaders of bacteriological therapeutics. For years past the strain of countenancing such a proceeding so grossless (*sic*), reckless, dirty, and dangerous as vaccination from the calf, has been growing unbearable to all genuine bacteriological experts. The utmost that professional pressure has been able to extort from them of late is silence; but their disgust will soon become too intense for silence. Mrs. Squeers's method of opening abscesses with an inky penknife is far less repugnant to modern surgeons than the Local Government Board's method of inoculating children with casual dirt moistened with an undefined pathogenic substance obtained from calves, is to modern bacteriologists. Nothing but the natural ignorance of the public, countenanced by the inculcated erroneousness of the ordinary general medical practitioners, makes such a barbarism as vaccination possible. The question whether it is practicable to fortify the blood against disease by inoculation is still an open and very interesting one. Its recent developments have shown that an inoculation made in the usual general practitioner's light-hearted way, without a previous highly-skilled examination of the state of the patient's blood, is just as likely to be a simple manslaughter as a cure or preventive. But vaccination is really nothing short of attempted murder. A skilled bacteriologist would as soon think of cutting his child's arm and rubbing the contents of the dustbin into it as he would of vaccinating it in the official way. The results would be exactly the same.

We fancy this product of "inculcated erroneousness," or something very like it, has done duty before, but Mr. Shaw doubtless thinks that a good thing cannot be repeated too often. His letter prompts us to ask, Why does he imagine a vain thing such as his description of vaccination according to the Local Government Board's methods? Why does he not go to any vaccination station and see for himself how things are done? It is comic to find Mr. Shaw, the antivivisector, appealing to bacteriology. We know from himself the source of his inspiration, but he has learnt his lesson imperfectly. Had he kept himself abreast of the "recent developments" of which he speaks, he would have known that dirt, casual or other, so far from being a cause of manslaughter, is a barrier against the invasion of

bacteria. If the organism finds a joint in the armour of an unwashed skin there may, of course, be trouble, but this, we are taught, can be effectually remedied by appropriate vaccines, with, or even, we believe, without, "a previous highly skilled examination of the state of the patient's blood." Cure by inoculation, when carried out by your "genuine bacteriological expert," comes in fact to be in literal truth a procedure such as Mr. Shaw professes to believe vaccination to be. He should sit once more for a time at the feet of his Gamaliel; at present he is hopelessly out of date in his notion of the latest teaching of the Higher Bacteriology. It would surely be better that the disgust of the Supermen to whom he refers should at once become "too intense for silence," than that they should allow Mr. Shaw to stand on an intellectual tripod that has become rickety, and prophesy in their cast-off garments.

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## SUPERANNUATION OF MEDICAL OFFICERS OF HEALTH.

IN view of the early introduction into the House of Commons of the Medical Officers of Health Superannuation Bill by Dr. Hillier, M.P., the Association is anxious to collect information as to those local authorities which have already made provision, by local Act or otherwise, for the superannuation of their officers, including the medical officer of health. Members who are in a position to do so will greatly oblige by sending this information *as soon as possible* to the Medical Secretary. Where a local Act has been passed, a copy of such Act would be very useful.

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## INSURANCE COMPANIES AND PUBLIC HOSPITALS.

AN interesting question is raised by a dispute now in progress between the Cumberland Iron Ore Miners' Association and one of the largest insurance companies in the country which insures against risks connected with the Workmen's Compensation Act. Briefly, the facts are: Nearly two years ago a miner met with an accident resulting in compound fracture of the knee, and he has been, and still is, in receipt of compensation. Recently the insurance company informed the injured man that it had instructed one of its medical officers to examine the injured knee under the *x* rays, and that the man must proceed to the Whitehaven Infirmary for that purpose. Acting under the instructions of the union secretary, the man refused to comply with this demand, and the union secretary has now sent a protest to the Management Committee of the Whitehaven Infirmary against any such examination, his main contention being that no hospital or institution dependent mainly upon voluntary contributions ought to be used by any private commercial company in pursuance of its own private business. The pith of the complaint lies in the fact that the members of the Cumberland Iron Ore Miners' Association, to the number of 2,600, make a regular monthly contribution towards the upkeep of the Whitehaven Infirmary, and the miners' secretary warns the authorities that if this practice is allowed, the miners will seriously consider whether they are to continue to contribute towards the upkeep of the institution. The Infirmary Management Committee will meet to consider the matter on May 16th.

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## THE MOTOR AND THE POPULATION QUESTION.

THE motor is extolled as a preservative of health and as a cure for a number of diseases, the most recent addition to which is whooping-cough. On the other hand, it has sundry evils to answer for. The speed madness to which some of its votaries fall victims has been a fertile cause of accidents. To those whom it has driven from erstwhile quiet country roads it may be some compensation to learn that a serious indictment has recently been brought against the motor. In a recent number of the *Zeitschrift für Urologie* Professor Notthafft, Freiherr von Weissenstein, records five cases of total impotence which he attributes to furious motoring. The age of the patients varied from 35 to 56. In only one of the cases to which he refers was there a history of hereditary neurosis. All had taken to motoring within a comparatively recent period—from one to six years. One was a bachelor; the other four were married men who had previously been sexually normal. Impotence was established after a variable period—four months to three years—of motoring. The treatment consisted in the application of a light continuous current along the spine; faradization, douches, and preparations of arsenic, but no cure was effected till motoring was completely given up. One patient, a chauffeur by profession, having been cured, again became impotent within three months of returning to his occupation. The prognosis is in general favourable, but cure is maintained only if excessive speed is not indulged in. According to both Notthafft and Hillenschmidt, a neurologist who has made several observations, it is excessive speed that does the mischief. At first the motor often causes an increase of sexual power, not only as a result of the long exposure to fresh air and the better oxygenization of their blood, but especially, it is suggested, in consequence of a beginning of cerebral asthenia, which places the spinal marrow less under the dependence of the brain. In fact, those who become impotent are the subjects of a transient loss of nervous equilibrium, and the condition is due to the great tension to which the superior nerve centres are subjected. Even for one who has never been in a motor, it is easy to realize how much a devotee of speed must have his attention fixed not only on the route which he is to follow, but on all the obstacles that may unexpectedly arise. After a fast run, the chauffeur is not infrequently depressed and fatigued to an extent disproportionate to the effort made. We think such cases must be extremely rare. As far as we are aware, nothing has been heard of this particular misdeed of the motor in this country. Now that we hear so much of infertility among the upper classes, it might be well to bear the possibility in mind. When such a condition occurs it must, in our opinion, be looked upon as a form of nervous disturbance induced by the strain imposed on a motorist running at great speed. If the observations to which we have referred are confirmed, however, swift motoring might be recommended as a method of sterilizing the unfit *tuto et jucunde*, without degrading surgeons to the level of executioners. The nervous system of the unfit being generally of the most unstable character, they would offer the best subjects for such an experiment.

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THE next session of the General Medical Council will open on Tuesday, May 23rd, when the President, Sir Donald MacAlister, K.C.B., will take the chair at 2 p.m. Sir Francis H. Champneys, Bart., M.D., has been appointed one of the Crown representatives for a term of five years, dating from May 23rd, in the place of Sir John Williams, whose term of office expires on that day.

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THE amount subscribed to the Robert Koch Fund for the Prevention of Tuberculosis now amounts to £60,000.

# Medical Notes in Parliament.

[From our Lobby Correspondent.]

## National Insurance Bill.

There was a very full attendance in the House of Commons on Thursday afternoon, May 4th, when the Chancellor of the Exchequer asked leave to introduce a Bill "to provide for insurance against loss of health and for the prevention and cure of sickness, and for insurance against unemployment, and for purposes incidental thereto." Mr. Lloyd George spoke for over two hours and a quarter, and described his scheme with great clearness. Insurance against death formed no part of the scheme, which dealt with only sickness and unemployment.

### The Sickness Side of the Bill.

There would be a compulsory deduction from the wages of all the employed class earning less than the income tax limit of £160 a year, and there would be a contribution from the employer and also from the State. The general deduction from wages would be 4d. a week per man and 3d. a week per woman, but the man who only earned 2s. 6d. a day would pay 3d., and if only 2s. a day 2d., and if only 1s. 6d. a day 1d. a week. The difference would be made up by the employer who profited by cheap labour. The age for admission for insurance would be up to 65 up to twelve months from the passing of the Act, and afterwards at rates appropriate to ages or reduced benefits. The general rule would be for every one to come in at 16 years of age. The State contribution would be 2d. per week per head. It was estimated that there would be 9,200,000 men and 3,900,000 women in the compulsory scheme, while those who did not work for an employer and came in under the voluntary scheme would, it was calculated, raise the total to 14,700,000. The benefits would comprise the power to command the services of a competent doctor. In maternity cases there would be 30s. benefit. For the maintenance of families and sick persons there would be an allowance of 10s. a week for the first three months and for the next three months 5s. a week, and the same (5s.) for permanent disablement. Women would have 7s. 6d. for first three months and then 5s.

### *Medical Benefits: General.*

In describing the benefits of the scheme, the Chancellor went at some length into the medical details, and said: "The benefits will be distributed under three or four different heads. There will be medical relief. There will be the curing side of the benefit, and there will also be allowance for the maintenance of a man and his family during the time of his sickness. I will deal first of all with the medical side of relief. There is no doubt that there is great reluctance on the part of workmen to resort to the Poor Law medical officer. That is admitted on all hands. It was stated both in the Majority and the Minority Reports of the Commission. He has to prove destitution, and although there is a liberal interpretation placed on that by boards of guardians, still it is a humiliation which a man does not care to bear among his neighbours. What generally happens is this. When a workman falls ill, if he has no provision made for him, he hangs on as long as he can and until he gets very much worse. Then he goes to another doctor and runs up a bill, and when he gets well he does his very best to pay that and the other bills. He very often fails to do so. I have met many doctors who have told me that they have hundreds of pounds of bad debts of this kind which they could not think of pressing for payment of, and what really is done now is that hundreds of thousands—I am not sure that I am not right in saying that millions—of men, women, and children get the services of such doctors. The heads of families get those services at the expense of the food of their children, or at the expense of good-natured doctors. Doctors are very great sufferers indeed. One of them said to me: 'A man fell ill and wanted my attendance. Well, I asked myself, What am I to do in this case? Here is this poor fellow, who owes me already £9 or £10, which he can never pay, but how can I refuse to go?' He could not refuse, and he went. I do not think it right that we should do our charity at the expense of the medical profession. What we propose to do is this. If one of the 14,700,000 persons, who practically include all the industrial population of this country, falls ill, he can command the service of a competent doctor, and command it with the knowledge that he can pay. But not only that, the doctor whose service he commands will know also that he will be paid. That is going to make a very great difference in the doctoring of these people.

"I come now to a rather delicate task, because the doctors and the friendly societies are at variance on the subject. The doctors say that they are underpaid. Well, we all say we are underpaid. On the other hand, the friendly societies say, 'No, it is just your greed.' That is really the quarrel that is going on at the present time, and it has become very acute. In some districts—they are rural districts—the doctor is paid half a crown per head per annum for members of friendly societies. In other districts the amount runs up to 6s. per head per annum, but on the average the doctoring for members of friendly societies is done at 4s. per head per annum. The doctors say, 'We cannot do it,' and I am inclined to agree with them. This is not the opinion of the friendly societies that I am putting before the House. I have information from independent inquiries I have made of men who have really no interest in the matter—men who have passed through the stage of doing friendly societies' work, and who are very good judges. They say that no doctor can possibly afford to give expensive drugs, and some of these are essential to the cure of certain diseases. These drugs cannot be purchased at the price paid to the doctor if he is to get anything for his professional services. I am on the whole inclined to agree that the doctors have got a case for increased payment, not as much as they ask, something far short of that, but at the same time something very substantial, and the first thing which I think should be done is to separate the drugs from the doctors, because a patient, so long as he gets something discoloured and really nasty, is perfectly convinced that it must be a very good medicine. Therefore there ought to be no inducement for underpaid doctors to take it out in drugs. I am not sure but that the Majority Report of the Commission recommended that change.

"I suggest that there should be a separation of drugs from the doctor, whose business should be confined to prescribing. It should be for the chemist to dispense. At any rate, there should be a compulsory separation of the two. I believe in Scotland that is the practice at the present moment. There are only a few exceptions on the West Coast, where there are no chemists available, and where the doctor has to do the whole thing. There may be cases of that kind now, for you cannot expect a man to start a chemist's shop in a Highland glen. There the doctor would have to do both the doctoring and the supplying of the drugs he prescribes. Therefore we propose to make provision that, if there is no chemist available, the doctor should be allowed to go on as at the present moment, but wherever there is a chemist available there should be separation. In addition to that, I think there ought to be provision for an improvement in the standard of payment to the doctors. Sometimes, no doubt, they are quite adequately paid, but sometimes they certainly are not, and I think financial provision ought to be made in the scheme for raising the level to* 4s. I have done so, and I hope that will meet the views of the House. So much for doctoring. There will be free doctoring for everybody who is a contributor to the scheme.

### *Maternity.*

"The second branch of medical attention will be in cases of maternity. There are only one or two friendly societies at the present moment which allow any maternity benefit, but they are all alive to the necessity for it, and they are gradually going on to establish branches for maternity benefit. Undoubtedly there is no more urgent need. Women of the working classes in critical cases are neglected sadly, sometimes through carelessness, but oftener through poverty, and that is an injury not only to the woman herself, but to the children who are born. A good deal of infant mortality and a good deal of anaemic and rickety disease among the poorer class of children is very often due to the neglect in motherhood. We propose to take the maternity benefit of the Hearts of Oak Society, which, I think, has established a most successful

* The word "to" which occurs in the Official Report is, we are assured, a misprint for "of."

benefit scheme in this respect. We propose that there should be a 30s. benefit in those cases which would cover the doctoring and the nursing, but only conditional upon those who are women workers not returning to work for four weeks, for I am told that in the mills you have very often cases where the women work up to the last moment and the maternity is over in a comparatively few days. I believe we ought to make some provision, in the interests of humanity, to prevent that from taking place.

*Consumption.*

"I have now to refer to another branch of medical benefit. We propose to do something to deal with the terrible scourge of consumption. There are, I believe, in this country about 400,000 or 500,000 persons who are suffering from tuberculous disease. From the friendly societies' point of view that is a very serious item, because of the dragging length of the illness. The average illness of patients of the Foresters, I think, was fifty-eight weeks. They received fifty-eight weeks' allowance on an average. Out of the total sick pay of the Foresters about 25 per cent. was due to tuberculosis. There are 75,000 deaths every year in Great Britain and Ireland from tuberculosis, and, a much more serious matter, if you take the ages between 14 and 55 among males, one out of three dies of tuberculosis between those ages in what should be the very period of greatest strength and vigour and service. It is a very sinister fact that at the very period which is responsible for the continued life of the race one out of three between those ages is stricken down by tuberculosis. It kills as many in this kingdom in a single year as all the zymotic diseases put together, and a very terrible fact in connexion with it is that the moment a man is attacked and compromised he becomes a recruit in the destructive army, and proceeds to injure mortally even those to whom he is most attached, and to scatter infection and death in his own household.

"There are forty-three counties and towns in Great Britain with a population of 75,000, and there are 75,000 deaths each year from this disease. If a single one of those counties or towns were devastated by plague so that everybody, man, woman, and child, were destroyed there and the place were left desolate, and the same thing happened a second year, I do not think we would wait a single session to take action. All the resources of this country would be placed at the disposal of science to crush out this disease. I do not say that they can cure it, but doctors think they can cure it. They are confident they can. Men who have devoted a great deal of attention to the subject, and are the most confident of all those who have engaged in experiments, are full of bright hopes that they can stamp it out. But they can only do it if they have the means, and I propose to ask the House to give them. In Germany they have done great things in this respect. They have established a chain of sanatoriums all over the country, and the results are amazing. The number of cures that are effected is very large. In this country there are practically only 2,000 beds in sanatoriums for tuberculous patients. There are only 4,000 beds in sanatoriums altogether, and half of these are occupied by other patients, so that there are only about 2,000 beds when there are four or five hundred thousand people suffering from this disease. I really think that it is about time that the nation as a whole—that the State—should take the matter in hand, because the State has suffered. The proposal of the Government is that we should first of all assist local charities and local authorities to build sanatoriums throughout the country. We propose to set aside £1,500,000 of a capital sum for the purpose of aiding local people in building sanatoriums throughout the country.

"We have already, through the munificence and zeal of my hon. friend the member for Montgomery (Mr. David Davies), raised a very considerable sum of money, which enabled us to build a succession of them right across Wales. If the same thing were done throughout England and Wales, Scotland and Ireland, I believe we would soon stamp out the most heart-rending and painful disease that ever afflicted the human race. We have got to provide maintenance for that. This is our proposal: That we should take a contribution of 1s. per member per annum for the whole of those who are insured compulsorily and voluntarily, and that in addition to that the State should find 4d., so that there would be 1s. 4d. per member for the purpose of raising a fund for the maintenance of these institutions. This is not an additional contribution. I am done with contributions. There are no more contributions—not for management or anything. This is purely a benefit. What we propose is that out of that fund 1s. a year should be taken from each member, and that the State should add 4d. That would mean a fund of a million a year for the purpose of maintaining these institutions, and I am assured by those who have taken the matter carefully into consideration—including the President of the Local Government Board and his very able staff—that that sum will enable us at any rate to do something for the purpose of stamping out this terrible scourge.

*Sick Allowance.*

"I come next to the sick allowance for the purpose of maintaining the families of the sick persons who are insured. In the friendly societies I think the allowance is six months, then it is dropped again to half. In some societies it is still further dropped, generally at twelve months. I propose that the first stage should be a three months' grant, because the real reason why six months' allowance is given is because of tuberculous patients. They are the people who take over three months on the fund. Outside of them a man is generally either cured or off the fund before that period. I propose that in the first three months there should be an allowance of 10s. per week. Power will be given to the society to extend that to twenty-six weeks if they think it necessary. I point out later on that there are funds for that purpose, but perhaps, at any rate, a start should be made with three months at 10s. Afterwards the allowance will be reduced to 5s. for another three months. After that, at the end of the six months, if a man is broken down altogether, there is a permanent disablement allowance of 5s. as long as he is unable to earn his living in any way. That is for men. For women the contribution is lower; and, as we are keeping the accounts separate, the actuaries say we would not be justified in giving more than 7s. 6d. per week for the first three months, and then 5s. We do not propose to make the allowance less in that case.

"There will be a waiting period of six months in the case of sickness. No man will be allowed to get his sickness allowance within six months after he has joined the society. No man is entitled to claim for a disablement allowance unless he has paid for two years. In Germany that has been extended to five years. The allowance is conditional in every case on the patient obeying the doctor's orders—a very difficult thing to do. But at any rate you cannot allow a man artificially to perpetuate his sickness at the expense of the community by defying every rule that is laid down for his cure by the professional gentleman who is in charge of him. In Germany they have this power. They give instructions as to what a man is to do, and if he does not obey them his allowance is docked, and I think it is a very salutary rule. I have no doubt it will be very liberally interpreted, but still it is a very necessary rule. There is another rule. The friendly societies do not admit sick allowance to any man whose illness is due to his own misconduct. What we have done in that case is this. If a man's illness is due to his own misconduct we do not allow him sick pay, but he is entitled to a doctor, not merely for his own sake, but for the sake of the community, and because eventually he will come back again, and he will fall on the sick fund and the burden will be much heavier. Now I come to the exceptions. In the case of persons over 50 years of age at the date of insurance the men will only be entitled to 7s. a week and the women to 6s. a week, unless they have paid 500 contributions. Men and women over 60 years of age will only be entitled to 5s. Persons under 21 years of age if unmarried, males will be entitled to 5s., and, if females, to 4s.

"There is another very important exception from the point of view of checking malingering. When you come to the lower rate of wages you must not give a sick allowance which would make it more profitable for a man to be sick than to be working. Therefore, we propose that where the sick benefit is more than two-thirds of the wages the amount shall be reduced. But seeing that with the low wages the insured person is either, through himself or through the employer, paying exactly the same contribution, we propose that in that case there should be an alternative scheme of benefit which would be the exact

equivalent in actuarial value. For instance, you might give a pension at 65 or 66, as the case may be, but they must submit our scheme, which will be the actuarial equivalent of the amount by which their benefits are reduced.

*Persons under 16.*

"Now I come to the person under 16, and with regard to him we propose that he should get no sick pay allowances, but that he should get medical attendance and the benefit of the sanatorium, and that the rest of the money should be invested, in order to accelerate the period of his getting increased benefits. That is to pay off the loss which is due to your taking on men of older ages, and the money will be applied for the purpose of wiping off that loss. The sooner you do that the sooner will the young person come to increased benefit, so that you are really investing it for his or her own future advantage.

*Alternative, Optional, and Additional Benefits.*

"After paying for the doctor, after paying for the sanatorium, after paying maternity benefit, after paying 10s. a week and 5s. sick allowance, and 7s. 6d. for women, there will be left a balance of £1,750,000 in the hands of those who administer the funds. That is the actuarial calculation. We do not propose now to distribute those benefits, because we want to give an interest to those who are administering the funds, to administer them economically, and to declare alternative benefits, if they save the amounts which we anticipate they can save. We propose, therefore, to have a list of alternative benefits, optional benefits, and additional benefits. The first benefits, as I have indicated, will be the compulsory minimum benefits. They will be in every scheme. I now come to the additional benefits from which the society may choose, with this surplus at their disposal. This surplus will be £1,750,000 immediately the scheme begins to work, but at the end of fifteen years and a half, when the loss on the older persons has been wiped out, you will then have an addition of something like £5,500,000 to the fund, and, of course, that will involve a further contribution from the State of £1,500,000 per annum. That means £7,000,000, which will be added to the income of the scheme after this initial deficit has been wiped out—a surplus now of nearly £2,000,000 for additional benefits; a further surplus of £7,000,000 after declaring those benefits which I have mentioned, and which will be available for the declaration of additional benefits. What is the kind of additional benefit we have in mind? The first is medical treatment, not merely for the working man himself, but for his family. If the societies who administer the funds like to pay for that, they have the money at their disposal. An increase of the sickness and disablement benefit and convalescent homes are other additional benefits. I have a long list of additional benefits of that kind from which they can choose, but I think the most interesting of all would be that, when the fifteen years and a half have elapsed, when the loss has been paid off, and when you have released a fund of £7,000,000 between the State and the contributors, we shall then be within sight of declaring either a pension at 65, or, what I think would be better still—and I propose this as an alternative—if a man does not choose to take his pension at 65, but prefers to go on working, he shall increase his pension at a later stage in proportion to each additional year he goes on working. So much for the benefits.

*Machinery.*

"Collection is the first thing. We shall collect our funds by means of stamps. That is purely the German system. A card is given to a workman; he takes it to his employer at the end of the week, the employer puts on the workman's 4d. stamp and his own 3d. stamp; he deducts the 4d. out of the wages of the man, and he pays the 3d. himself; the card is in the possession of the man, who takes it to the post office, whence it is transmitted to the central office. The employer does not necessarily know—there is nothing on the face of the card to say—what society the man belongs to. It is entirely a matter for himself. The card is sent along to the central office, and the whole of the money is paid to the central office. Then comes the question, who is to dispense the benefits. In this country we have fortunately a number of very well organized, well managed, well conducted benefit societies who have a great tradition behind them, and an accumulation of experience which is very valuable when you come to deal with questions like malingering.

*"Approved Societies."*

"We propose, as far as we possibly can, to work through those societies. We propose that all the benefits shall be dispensed through what the bill would call 'approved societies.' What are the conditions attaching to an approved society? It must be a society with at least 10,000 members, otherwise it becomes a matter of very great complication which is much more difficult to manage from the actuarial and financial point of view. It must be precluded by its constitution from distributing any of its funds otherwise than by way of benefits, whether benefits under this Act or not, amongst its members. It must not be a dividing society; it must be a benefit society which provides for sickness and for old age. Therefore it cannot be a society that divides its profits at the end of each year. It cannot be a society that allows anybody to make a profit out of this branch of its business, and it must be mutual so far as this branch of its business is concerned. Its affairs must be subject to the absolute control of its own members; it must be self-governing, and its constitution must provide for the election of its committees and representatives and officers. There are other conditions. It must provide a reasonable security that the funds will be dispensed in the way the Act provides. It must have local committees. There are several societies, as hon. members know very well, which have branches. There are other societies which are purely central. Both are very excellent societies in their way. The Hearts of Oak, I believe, is a centralized society. The Foresters, I believe, is a society with branches, and the Oddfellows the same. But the societies which have central control and no branches must have some sort of local committees and management; otherwise it will be quite impossible to distribute the benefits, and it will be very difficult to arrange about doctoring and other matters.

"There are other things about keeping books and so forth, and there must be a valuation. We do not propose to interfere in the slightest degree with the funds of these friendly societies, funds which they have voluntarily collected, except to this extent: The moment you have a scheme which brings in 3d. from an employer and 3d. from the State for purposes which are identical with the purposes for which these other funds have been accumulated, you release enormous funds for other purposes. You cannot allow those sums to be distributed in cash amongst the members; they must be used for kindred purposes; and we propose that the friendly societies should submit schemes for the purpose, with additional benefits, but of a kindred character. That is the only interference we propose with the present funds of the friendly societies. We propose to allow them to have the most absolute right to admit members or to refuse them. It is a matter I considered for a very long time, whether you should compel them to take members, and I came to the conclusion that it is far better to leave it to ordinary free competition amongst them.

"A good many more societies, I have no doubt, will spring up the moment we have a scheme of this character, and it is far better to leave it to competition amongst them."

*Varying Age at Entrance.*

After some remarks on the classes of friendly societies and their rules and on trade unions, Mr. Lloyd George referred to age of entrance as a difficult matter, which required a complicated system of adjustment, which would be discussed with the bill. He proposed a valuation of the assets of each society, and whenever there was a surplus they would have power to declare additional benefits, so that there would be an inducement to manage economically.

*Malingering.*

The real check to malingering resided in the interests of the society to manage economically. You could not check malingering by doctors' certificates. There was no doctor but would tell you that there were certain diseases in which it was quite impossible to say whether a man was shamming or not. Therefore you must depend really upon each member being almost a detective to spy on his associates. That was really the only way to do it. If a

society had such a number of malingerers that it became insolvent or bankrupt, what happened was that there was an additional levy, or the benefits were depressed. Then the members would say: "Why is this? It is because 'So-and-so' is always sick. He is no more sick than I am." There was no more effective method for suppressing vice than to make it unpopular amongst the man's associates, and the same thing applied to malingering. In a very short time you would soon get a real stop put to the malingerer, because the workmen themselves would not stand it, and would begin to report on those they considered malingerers.

*Post Office Contributors.*

Next the residue was considered—men who were unwilling or unable to join a society. These would be collected together in each county as Post Office contributors. A fund would be formed for them. They would be the worst class of lives as a rule, and consequently could not receive the full benefits. The funds would consist of their own contributions and that of the State. The first claim would be for medical needs, next the contribution for sanatoriums, and the balance would be distributed on deposit principles.

*County Health Committees.*

To administer this fund it was proposed to set up county health committees. They would administer the whole of the sanatorium fund, which should be entirely in their hands. Instead of a sanatorium for each county, it was proposed that there should be grouping for the purpose of sanatoriums. The whole of the funds of the Post Office insurers, including medical relief, should also be administered by the county committee. If any approved society chose to come to terms with the county health committee to do its medical work for it, it was proposed that they should have power to do so, and to make arrangements for that purpose. If they agreed, the county health committees could take over the medical part of the work of approved societies. It was purely a matter of arrangement on both sides. There was a further power. If a county health committee required to spend more money than they had at their disposal for their work, the county councils could sanction such expenditure with the consent of the Treasury.

The Chancellor then continued: "There are one or two other functions, to which I attach great importance, which the county health committees will have to discharge. They will have to consider generally the needs of the county and borough with regard to all questions of public health, and to make such reports and recommendations in regard thereto as they may deem fit. I shall point out later on that they have power beyond that of merely making reports and recommendations: otherwise those reports and recommendations would be thrown into the wastepaper basket. There is already a plethora of reports and recommendations, and there must be some power of that kind. They will have power also to make provision for the giving of lectures and the publication of information on questions relating to health. This has been a very important power in Germany, because there is appalling ignorance of the most elementary conditions of health—diet, air, and fresh air especially, light, and the danger of the excessive use of alcohol and narcotics. All these questions affect the health of the community. It has been of enormous advantage in Germany to have lectures of this kind and other means of disseminating information upon these points. We also hope that the doctors will assist by imposing conditions which will improve the health of the community.

"What are the further powers of the county health committees? The societies, as I have pointed out, are responsible for their own sickness. It is not fair to make them responsible for the cost of sickness that is due to somebody else's fault. Sometimes there is excessive sickness in a district, due to bad sanitation, to bad housing conditions, and generally to the neglect on the part of the local authorities to enforce such powers as they have got, either through ignorance, through incapacity, or very often through a combination of interests. What we propose is that the county health committee shall have power to go to the Local Government Board wherever there is excessive sickness coming on the funds of the society, and apply for an inquiry into the cause of that sickness. Wherever the Commissioners of the Local Government Board find that it is due to neglect by the authority to discharge functions imposed by an Act of Parliament for the housing of the people, or for improved sanitation, they shall have the power of imposing that excess, not on the societies who are not at fault, but upon the local authorities who are at fault. That will be a much more effective check than the old obsolete form of mandamus."

*Financial Estimate.*

After stating that the Act would not come into force till May 1st next year, Mr. Lloyd George said that, as regards finance, in the first year the sums paid by all classes of contributors would amount to nearly £20,000,000, to which the employers would contribute nearly £9,000,000 and the employees £11,000,000. The expense in benefits and administration would be only £7,000,000 in 1912-13, and would rise to £20,000,000 in 1915-16. In 1912-13 the charge on the State would be £1,742,000, in the next year £3,359,000, and in 1915-16 £4,563,000.

THE UNEMPLOYMENT SIDE OF THE SCHEME.

With the part of the bill dealing with unemployment he dealt comparatively briefly, because the principles upon which the Government had proceeded were explained last year by the Home Secretary. Precarious employments were alone dealt with, and the scheme would be worked through the Labour Exchanges. A start was made with two groups of trades, the engineering group and the building group, for these were the trades subject to the most serious fluctuations. After explaining how the compulsory fund was to be raised between the workmen, the employers, and the State, he said it was proposed in the engineering trade to give 7s. a week unemployed pay. There would be no payment when a workman was dismissed for misconduct, and none during strikes or lock-outs. Trade unions that insured against unemployment would get the benefit. Care had been taken to discourage the loafer. The scheme for the present would apply to 2,400,000 men; their contributions would amount to £1,100,000: the employers would contribute £900,000, and the cost to the State would be £750,000. The total sum to be raised in the first year for the two schemes would be £24,500,000, to which the State would contribute £2,500,000. By the fourth year the State contribution would have risen to nearly £5,500,000. Under the two schemes 15,000,000 persons would be insured against the acute distress that darkened the homes of the poor whenever there was sickness or unemployment.

DEBATE.

In the debate which followed, Mr. Austen Chamberlain, Mr. John Redmond, Mr. Ramsay Macdonald, and Mr. Worthington Evans all complimented the Chancellor on his scheme, but refrained from any criticism.

Mr. Booth was chief critic, and he argued that many of the facts adduced by the Chancellor were untrustworthy, and that the machinery of the bill was unsuitable. The measure ought to be divided into two bills, as there was no necessary connexion between unemployment and sickness and invalidity. One was universal and the other partial; the one had to be administered in one way and the other in an entirely different way. Again, there was not sufficient distinction made between town and country. Malingering was one of the greatest problems to be faced, and he was by no means convinced that the provisions of the bill were equal to the difficulties to be met. The friendly societies, moreover, would of necessity be affected, and if once interfered with he thought it was only a question of time when their work would be taken over by the State. As to the county health committees, they would be a new authority in local government, and he felt great doubt as to how they would work. As to finance, he ventured to doubt the adequacy of the amount set aside under the bill; both with reference to sickness and unemployment it must be remembered that the statistics given were largely conjectural. He wanted to know whence the statistics placed before actuaries had been obtained. He submitted that trustworthy figures did not really exist.

Lord Alexander Thynne quoted figures from the Manchester Unity of Oddfellows, the Foresters, and the Hearts of Oak, showing that they paid out more in sickness benefits during years of trade prosperity than during two years of trade depression, and argued from this that there was

no practical connexion between sickness and unemployment; he then continued as follows:

"I observe that a qualifying period of six months is imposed, during which a workman is compelled to contribute, but during which he will receive no benefit at all in sickness. If you have compulsion with regard to contribution you cannot, even in the interests of your actuarial basis, have a qualifying period of six months. If this system of sick insurance is to be a success it is essential that it should enjoy the approval and goodwill of the medical profession, and if it is to enjoy that goodwill it is essential that you should from the outset, in the interests of the medical service which you are asking it to render, consider the interests of the medical profession. The one thing they do not wish to see established in this country—and I agree with them in this—is a class of official doctors; and I think from all quarters of the House there would be general agreement that it is highly inexpedient from every point of view that you should divide your medical profession into official and unofficial doctors. If you agree to that proposition you have to rule out at once any proposal for an official doctor either for the societies or for the committees which you are setting up under this bill, and you must adopt one of two alternatives. You must either give a free choice to the patient to choose any doctor he likes in the district, or you must give him a choice of what I may term 'a panel of doctors.' Then there is the question of the remuneration of the medical profession, on which the right hon. gentleman did not touch. Is it proposed that they should be paid by salary or by fixed rates per visit, or, as in the case of most friendly societies at present, at a fixed rate per head of membership, irrespective of the amount of sickness which they are called upon to treat?"

Mr. Booth: I think the information was given that it would be 4s. per head.

Lord A. Thynne: "I understood that with regard to the rate of pay the right hon. gentleman informed the House that it was to be materially increased, but I do not think he mentioned any definite figure. I understand that the right hon. gentleman pointed out that it was now 4s. on the average, and that under this bill it would be more than that—that it would be materially increased. There is a third point in connexion with the medical profession which is of great importance. Those of us who have studied the subject with great care realize that the difficulties which arose in Liepzig are such as might conceivably be repeated in certain portions of the United Kingdom. We recognize the great value of the medical committee which was set up in Leipzig, and we should be glad so see some similar committee set up in England. In this connexion I venture to make a passing criticism of the public health committee which the right hon. gentleman proposes to set up in each county. I notice that there are to be nominations from approved societies in the district, nominations from the local authority, and nominations from the Post Office. But surely it would be reasonable that as this question affects the medical profession so closely the local medical profession should also be represented on those committees." In conclusion, he expressed the hope that in respect to the county health committee special consideration would be given to the larger municipalities.

Mr. Buxton defended the bill, and said the fullest possible information would be given in due course. As regards malingering, he believed the regulations would meet this difficulty.

Dr. J. Esmonde, after expressing regret that the time at his disposal was too short to allow him to say all that he desired, spoke as follows: "I think the debate ought not to close without some medical man who has had some experience of the working of friendly societies saying a word or two. The right hon. gentleman who introduced this bill, I think, realizes the fact that, if it is going to be a success and a real measure of benefit to the mass of the people of this country, it can only be so if he has the whole-hearted sympathy of the medical profession. Up to this the medical profession has been in a very different position than that it will occupy in the future. Doctors who live in rural districts have accepted positions as medical officers to the benefit societies, such as the Oddfellows and Foresters, simply and solely because they recognized they were philanthropic societies, and it was the duty of a profession with high ideals and noble aspirations to help them in their object. Every one must realize—if they do not they ought—that when this Act passes the duties which are at present being exercised by these societies are being taken over by the State. We have no strict trade union principles in connexion with our profession, but I think the House will realize if you are going to have the best medical attendance and the best medicine for the people whom this bill is going to bring under its wing, the profession must be studied and paid a fair trade union rate of wages. The right hon. gentleman who introduced the bill said the amount of fees varied from 2s. 6d. up to as much as 6s. I was not aware it went so low as 2s. 6d., but I quite admit the average is 4s. That 4s., however, never paid any medical man for doing his duty to the society which he attended. I notice he intends to divide the question of medical advice and medicine. I hope that will not be carried out. There is a great deal to be said in favour of allowing the doctors to prescribe and the chemist to make up the medicine. That is all right in London and in large towns, but in numbers of villages and small towns throughout the country there is no chemist. What is the distance to be recognized as the correct one for a person who gets a prescription from the doctor to have to go to get it made up by a chemist? In nine cases out of ten a patient who is seen by a doctor is at work; he gets his advice and medicine in the evening, and goes to work again the next day. But if he is to be given a prescription and has to travel two miles to get it made up, I doubt very much if he will think it fair to have to do that. Then there is the question whether the doctor who is called in to a case is to be paid for the hypodermic medicine he uses, although there may be a chemist in the village or town. The serum treatment is the treatment of the future. It is an expensive treatment, and diphtheric serum is especially so. Who is to be paid for that? If the doctor is called in in such a case, is he to wait until the serum can be fetched from the nearest chemist? After an experience of twenty-five years with two or three friendly societies, I have the greatest doubt if this is going to lead to better management. I am certain it is not going to be more economical, and, inasmuch as the chemist may be a friend of the patient, it may lead to considerably additional expense. I think this is a matter which should be carefully thought out before you divide up this question of prescribing by one person and having the prescription made up by another. Then the question of Ireland comes in. This Act, like all other Acts, though suitable for England, is totally unsuitable for Ireland. In the majority of villages and small towns in Ireland there are no chemist shops, and if this Act is going to be a success it must be worked in conjunction with the medical profession, and they cannot be expected to work under it unless they get reasonable remuneration. A suggestion was made by the right hon. gentleman—it was not a definite statement—to the effect that he was going to take into consideration the present societies, and consult with them as to what the medical men should be paid. I am absolutely certain the Act will be a failure if the medical men are put in such a position as that they will be bound in self-defence to refuse to have anything to do with it unless they are paid a fair and reasonable sum for their duties."

Other members also spoke, and the bill was introduced amid cheers from all parts of the House, and read a first time.

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**Medical Referees under the Compensation Acts.**—In answer to Mr. Gill, the Under Secretary of State for the Home Department stated last week that the number of cases in which referees were employed in 1910 was 1,667; the number of referees was 349; and the total amount of fees paid to them was £4,177 1s. 6d. The corresponding figures for Lancashire were 319 cases, 29 referees, and amount of fees £726 17s. None of the referees were whole-time officers. It was one of the conditions of appointment of a referee that he should not hold any regular employment by or on behalf of an insurance company in connexion with cases under the Act, and they were also instructed that, apart from quite exceptional circumstances, they should not act on behalf of the employer or insurance company or workman in any case in which weekly payments were being made to a workman under the Act.

**Royal Navy Medical Service.**—Lord Charles Beresford asked as to a deficiency of sixty-six surgeons on the establishment, and Mr. McKenna said that the number of surgeons was at present fifty-four below the authorized establishment. It was hoped that the recommendations of the Committee on the Naval Medical Service, when carried into effect, would enable the deficiency to be made good. Asked to explain why the service was unpopular, Mr. McKenna said that the Committee investigated the subject and made various proposals to get over the difficulties which they had at present in recruiting. He hoped that as soon as those difficulties were got over they would be able to get the necessary numbers.

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**Medical Inspection of School Children.**—In answer to Mr. F. Meehan, Mr. Runciman stated last week that medical officers for the inspection of children in public elementary schools in England and Wales were not paid by the Government, but by the local education authorities who appointed them. Some of these officers were employed in the work of inspecting school children for the whole of their time, and others for part of their time only. There was no uniform rate of payment, and he was afraid he could not furnish a satisfactory estimate of the total expenditure. Some information as to the school medical service as at present organized in England and Wales would be found in Section I of the Report of the Chief Medical Officer of the Board, issued in November last (Cd. 5426).

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**Asylum Officers' Superannuation.**—In answer to Mr. Goulding, who inquired as to the difficulties caused by doubts as to the interpretation of some sections of the Asylum Officers' Superannuation Act, 1909, Mr. Churchill stated last week that the opinion of the law officers of the Crown was being taken as regards the extent of his jurisdiction to determine disputes under Section 15 of the Act, and as regards a number of other questions which had arisen under the Act, including those raised in the memorial from officers of the Powick Asylum referred to. These questions were still under the consideration of the law officers. As soon as their opinion was received, the effect of it would be made known to all who might be concerned, and steps would be taken to exercise whatever jurisdiction he was advised was conferred by the Act. The Lunacy Act, 1890, gave authority to a justice to order the payment by the guardians of a fee to a medical practitioner called in to examine a lunatic or an alleged lunatic. It was understood that in some cases arrangements had been made by which the examination of alleged lunatics was made by one of the Poor Law medical officers, who was paid a salary inclusive of remuneration for examining lunatics, or a fixed sum in lieu of fees. This might account for the small amount paid in fees in certain cases. On a later day, asked as to the cost of certificates varying in cost from £3 13s. 6d. in St. George-in-the-East to £36 14s. in St. Pancras per annum, Mr. Burns replied that the payments were made under statutory authority, but he was considering whether it was possible to take any action in the direction of greater economy.

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**Public Vaccinators' Fees.**—Mr. Lansbury raised again by questions last week the case of the Public Vaccinator in Bermondsey and his custom of paying the parent of each child vaccinated 2s., and asked the President of the Local Government Board whether he would recommend the guardians to reduce their scale to 2s. 6d. and advise the officer not to pay parents. Mr. Burns replied that the fees paid to public vaccinators were subject to the approval of the Local Government Board. The fact that a public vaccinator acted also as an instructor in vaccination, and in that capacity received fees from students and incurred certain charges in respect of the instruction he gave, did not, in his opinion, affect the question of the fee which should be paid to him as public vaccinator, and he was not prepared to take the action suggested by the hon. member. Mr. Lansbury then urged that the 2s. paid induced parents to bring children to this particular officer in preference to others. Mr. Burns said that what was done was this: Whenever a parent definitely decided to have a child vaccinated the public vaccinator gave 1s. or 2s., as the case might be, for out-of-pocket expenses. The fee was not given to the parent to induce her to have the child vaccinated, and the facts did not bear the suggestion of preference.

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**The Cost of Certifying Inebriates and Lunatics in the Metropolis.**—In answer to Mr. Lansbury, Mr. Burns gave the following table as regards lunatics. He had no figures as regards inebriates:

*Fees paid by Metropolitan Guardians under Section 285 of the Lunacy Act, 1890, during the Year 1910, to Medical Practitioners for the Examination of Lunatics or Alleged Lunatics.*

| Union. | Total paid in fees during the year. | Union. | Total paid in fees during the year. |
|---|---|---|---|
| | £ s. d. | | £ s. d. |
| Bermondsey ... ... | 230 9 6 | Lewisham ... ... | 245 14 0 |
| Bethnal Green ... ... | 43 1 0 | London, City of ... | 144 18 0 |
| Camberwell ... ... | 184 3 2 | Marylebone ... ... | 180 12 0 |
| Chelsea ... ... ... | 87 3 0 | Mile End Old Town | 83 5 0 |
| Fulham ... ... ... | 190 11 6 | Paddington ... ... | 85 11 6 |
| St. George-in-the-East | 3 13 6 | St. Pancras ... ... | 361 4 0 |
| St. George's ... .. | 101 6 6 | Poplar Borough ... | 6 6 0 |
| St. Giles and St. George, Bloomsbury | 77 14 0 | Shoreditch ... ... | 142 16 0 |
| | | Southwark ... ... | 280 7 0 |
| Greenwich ... .. | 150 3 0 | Stepney ... ... | 50 18 6 |
| Hackney ... ... ... | 235 4 0 | Strand ... ... ... | 80 17 0 |
| Hammersmith... .. | 148 1 0 | Wandsworth... ... | 230 2 0 |
| Hampstead ... ... | 81 13 0 | Westminster... ... | 40 19 0 |
| Holborn ... ... ... | 20 18 6 | Whitechapel... ... | 14 14 0 |
| Islington... ... ... | 15 15 0 | Woolwich ... ... | 128 2 0 |
| Kensington ... ... | 168 0 0 | | |
| Lambeth... ... ... | 310 5 6 | Total ... ... | £4,124 13 2 |

The Lunacy Act, 1890, gave authority to a justice to order the payment by the guardians of a fee to a medical practitioner called in to examine a lunatic or an alleged lunatic. It was understood that in some cases arrangements had been made by which the examination of alleged lunatics was made by one of the Poor Law medical officers, who was paid a salary inclusive of remuneration for examining lunatics, or a fixed sum in lieu of fees. This might account for the small amount paid in fees in certain cases.

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**Housing Conditions in Swansea Valley.**—In reply to Mr. John Williams, Mr. John Burns said that he was aware from the report of the medical officer of health of the Pontardawe rural district for the year 1910 that there were about fifty basements in use for human habitation in Ystalyfera, in the district. Having been in communication with the rural district council in regard to housing conditions in their area, he had been informed by them that they had practically agreed to acquire land in the portion of the district named sufficient for the erection of about one hundred and twenty houses, and that at the present time they were considering plans for the erection of fifty houses. Until the provision of further houses was accomplished the council felt unable to deal effectively with some of the existing insanitary houses. He had impressed upon the council the necessity for prompt and energetic action on their part, and he should not lose sight of the matter. He was not in a position to express an opinion on the desirability of a town-planning scheme for the rural district, but he would bring the matter to the notice of the council, and would bear it in mind when dealing with any proposal from them for the erection of houses.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### EDINBURGH POST-GRADUATE COURSES.

THE opportunities for post-graduate instruction in Edinburgh are increasing every year. The first of the present series of courses organized by a committee consisting of representatives appointed by the Faculty of Medicine of the University and by the Royal Colleges was held in the autumn of 1906. The course, which was of three weeks' duration, was extended to four weeks in September, 1907. In September, 1908, in addition to the general course, a four weeks' course on surgery, consisting of six to seven hours' daily instruction, was held, the entries being limited to twenty-five, while a co-ordinated series of classes on methods of diagnosis was arranged for during the latter half of August. The September course of 1909 was conducted on similar lines, while the classes on methods of diagnosis were extended throughout the whole of August. In 1910 the four weeks' general course and the surgical course were held in September, as in the previous year, while a four weeks' course on internal medicine was held in August. The executive committee has been so well pleased with the success of the special courses on surgery and internal medicine that it has arranged this year for special courses on diseases of children and of the ear, nose, and throat. The arrangements for the coming autumn are as follows:

*July.*—During the last fortnight of this month the Staff of the Royal Hospital for Sick Children have arranged to give a Clinical Course on the *Diseases of Children* (thirty hours). In addition a series of short courses of lectures upon a variety of subjects—for example, Recent Advances in the Physiology of Digestive Metabolism and Nutrition, Antenatal Pathology, Modern Obstetric Methods, etc., will be given.

*August.*—A four weeks' course on *Internal Medicine*, the entries for which will be limited to twenty-five, will be held (140 hours). This course will consist of: (1) A co-ordinated series of forty Clinical Demonstrations by the Assistant Physicians to the Royal Infirmary, illustrating recent advances in various Departments of Internal Medicine. (2) Classes upon Applied Anatomy, Examination of the Heart with special reference to recent methods, Examination of the Nervous System, Examination of the Urine and Digestive Products, Haematology and Clinical Bacteriology.

*September.*—First, a four weeks' *General Course* divisible into two quite independent fortnights, which will include: (1) Medical, Surgical, Paediatric, and Ophthalmological Clinics; series of Clinics upon Neurology, Dermatology and Infectious Diseases; series of Demonstrations upon Morbid Anatomy, Pathological Histology, etc. (2) Classes, the entries for which will be limited, upon Bacteriology, Haematology, Diseases of the Ear, Nose, and Throat; Ophthalmoscopy, Errors of Refraction, Clinical Gynaecology, Gynaecological Pathology, *X*-Ray and Electrical work, Histological Methods employed in Diagnosis.

Secondly, a four weeks' *Surgical Course* (140 hours), the entries for which will be limited to twenty-five. This course will include, in addition to special clinical instruction, classes on Surgical Applied Anatomy, Surgical Pathology, and Operative Surgery.

Thirdly, a course on Diseases of the *Ear, Nose, and Throat* (about fifty hours).

**A syllabus containing full information regarding all these courses may be obtained on application from the Secretary, the Post-Graduate Courses, University New Buildings, Edinburgh.**

### EDINBURGH HARVEIAN FESTIVAL.

**The 129th Harveian Festival will be held in the Hall of the Royal College of Physicians on Friday, May 19th, when the President, Sir Alexander R. Simpson, will give the Harveian Oration on "Life and its Epiphanies." A dinner will follow. Every Harveian is expected to intimate whether or not he intends to be present, not later than two days before the festival.**

### THE CENSUS RETURNS.

**The Registrar-General has issued a preliminary statement of the results of the Census of April 2nd, 1911, in respect of the counties of Scotland and of certain towns. The Registrar-General has estimated the population of Scotland in the middle of 1910 as 4,929,251. At the date of the Census it was actually only 4,759,521. The Registrar-General in giving his estimate said: "That figure is almost certainly in excess of the true increase of population, it being almost a certainty that there has been more emigration from the country than immigration into the country during the period." Of the thirty-three counties of Scotland, no fewer than thirteen show a diminished population. This decrease is greatest in Argyll and Orkney, but is very marked in many of the others. While most of the towns do not show marked decrease, nearly all of them fail to come up to the estimates. Thus, Glasgow was estimated at 884,520, while it is 784,455; Edinburgh at 360,276, and it is 320,315; Dundee at 170,206, and it is 165,002; Aberdeen at 185,703, and it is 163,084; Paisley at 93,584, and it is 84,477; Leith at 86,767, and it is 80,489; Greenock at 73,605, and it is 75,160; Perth at 37,275, and it is 35,851. Thus, in only one case of these eight principal towns is the estimate attained or exceeded—namely, in Greenock. That is probably connected with increased shipbuilding in the Clyde area.**

### THE PROPOSED NEW NURSING HOME IN EDINBURGH.

**The promoters of this proposed home have received subscriptions to the amount of £5,676, and hope that they may soon reach £10,000, the sum they set themselves to raise.**

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### ADDRESS BY SIR JAMES BARR.

**AT the request of the Medical Section of the Royal Academy of Medicine in Ireland, Sir James Barr delivered an address, entitled "Prevention is Better than Cure," at the meeting of the Section on May 5th. He dealt in a general way with many medical problems. Some of the remarks made in connexion with tuberculosis, its prevention and cure, were of special application to Ireland, where the problem is now being tackled vigorously and perhaps with too little forethought. At the conclusion of the address a vote of thanks to the lecturer was proposed by Professor James Little and seconded by Professor Finny, and was passed unanimously.**

### MEDICAL SUPERINTENDENT OF HEALTH, KINGSTOWN.

**Some months ago the post of medical superintendent officer of health in the urban district of Kingstown became vacant, and, as already reported in these columns, the urban council, in spite of protests from many quarters, decided not to fill the vacancy. The attention of the Local Government Board has now been called to the matter, and it has expressed the opinion that the appointment is a necessary one, and the hope that the district council will proceed to fill the vacancy. The matter has been referred to the sanitary committee of the council for further consideration.**

### FIRE AT UNIVERSITY COLLEGE, DUBLIN.

**An outbreak of fire, which at first threatened to become serious, occurred last week in the University College of the National University. The fire started in the biological laboratory, which was almost completely destroyed. The adjacent library was in great danger for some time, but the fire was got under before any serious damage to it was done.**

### BRIBERY AT A PARLIAMENTARY ELECTION.

**At a recent trial of an election petition for the North Louth Division of the County Louth, Dr. Joseph O'Brien, medical officer for the Barronstown Dispensary District, was found guilty of bribery, and in consequence the Local Government Board has informed the Dundalk Board of Guardians that Dr. O'Brien's post is *ipso facto* vacated. Sympathy is felt in many quarters for Dr. O'Brien, whose bribery appears to have been limited to the bestowal of a sum of two shillings. The medical practitioners of the county of Louth, representative of all shades**

of political opinion, have signed a petition in his favour, and the Dundalk guardians have deferred considering the order of the Local Government Board for a month with a view to determining whether the infliction of the penalty cannot be stayed. The Irish Medical Association proposes to send a memorial in his favour to the House of Commons and to the General Medical Council.

### UI BREASAIL.

Arrangements are now far advanced for the holding of this great health and industries exhibition at Ballsbridge, Dublin, from May 24th to June 7th. It is likely that the City and Town Planning Exhibition, which has aroused such interest in Great Britain, will be brought over, and will be supplemented by local exhibits. A general request for the loan of plans, pictures, or models referring to Irish districts has been made to the urban and rural councils of Ireland, and will, it is hoped, meet with a satisfactory response.

### HEALTH OF BELFAST.

At the monthly meeting of the City Council on May 1st, the medical superintendent officer of health reported that the death-rate for the past month had been 20.2 (the comparative rate 17.8). The number of notifications of zymotic disease was falling; those relating to pulmonary tuberculosis were about half the number in the corresponding period of last year. The death-rate in the twenty-two principal town districts of Ireland was 21.1.

### ROYAL MEDICAL BENEVOLENT SOCIETY.

*Belfast and District Branch.*

The annual meeting in connexion with this fund was held in the Medical Institute, Belfast, on May 5th. The President, Professor Symington, M.D., F.R.S., occupied the chair. The Honorary Secretary, Dr. Fielder, read the annual report, which showed that the total amount collected was £167 13s. 11d.; 144 Belfast practitioners gave £100 7s., and 48 country practitioners gave £30 18s.; the balance was contributed by lay sympathisers and medical students or collected at the dinner. The total expenses were £4 5s. 7d.; there was a reduction of fourteen in the number of subscribers. Seven widows and one surgeon received benefits to the amount of £120. Reference was made to the loss the society sustained in the deaths of Dr. Joseph Nelson, Dr. McQuitty, Surgeon-General Sinclair, Dr. M. B. Mackenzie (Lisburn), and Dr. David Mark. The Chairman proposed the adoption of the report, which was seconded by Dr. J. Walton Browne and passed. Dr. R. J. Purdon proposed, and Sir William Whitla seconded, the re-election of the President. The next year's committee was elected, and a proposal to consider the advisability of organizing an entertainment in aid of the fund was adopted.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

### THE MANCHESTER AMBULANCE SERVICE.

AT a meeting of the City Council a report was presented dealing with the ambulance arrangements for Manchester, which are under the control of the Watch Committee. The chairman said that the committee was entirely opposed to the establishment of a free service, and it had been decided that in the future the ambulance service should be at the prompt disposal of all persons who were able to pay for it on terms to be arranged, and that the poor who were quite unable to pay anything should have a free service. In cases in which the ambulance was urgently required and the people were unable to pay for it at the moment the use of it should be granted at once, but inquiries should afterwards be made by the officers of the Watch Committee and payment collected afterwards from those found able to afford it, the officers having instructions to deal considerately with these cases. This last instruction evidently arose from the fact that some time ago an officer of the Watch Committee went to the place of business of a man whose wife had required the ambulance and insisted on the man borrowing from his employer the money to pay for the ambulance. Dr. Chapman said the difficulty arose mostly in cases of sudden emergency in the homes of the people where the medical attendant found it necessary to send a patient as quickly as possible to the infirmary. It was provided that the ambulance should be available free of charge for cases of accident or sudden illness occurring in "any street, public place, mill, warehouse, workshop, etcetera," and he asked whether "etcetera" might include a house. The chairman said this could not be done, as it would tend to make the service entirely free, and to that the committee was opposed.

### MEASLES EPIDEMIC IN LANCASHIRE.

At a recent meeting of the Lancashire County Council attention was drawn, during a discussion on the proceedings of the Public Health Committee, to the fact that in the last quarter no fewer than 179 deaths had occurred from measles in the administrative county. This is about twice as many deaths as were caused by any other epidemic. No fewer than 30 schools had been closed owing to the epidemic. Of the 179 deaths, 169 occurred in urban districts, and it appeared that great difficulties were experienced in obtaining any reliable information as to the cause of such an extensive epidemic. Mr. Alderman Snape said the loss of life from measles was appalling, and he thought that the Health Committee should communicate with the Local Government Board. He suggested that some systematic research should be undertaken, and that for this purpose a grant should be made to the Manchester or Liverpool Universities or to both of them.

It may be noted that the high mortality from measles is by no means confined to the administrative county. The statistics for Manchester for the year 1909 show that measles was accountable for almost twice as many deaths as any other single one of the ordinary infectious diseases, not including phthisis. This is shown from the following figures, which are the deaths for all ages for each disease in 1909:

| | | | |
|---|---|---|---|
| Measles ... ... | 396 | Ordinary diarrhoea and dysentery ... | 66 |
| Epidemic diarrhoea | 202 | Erysipelas ... ... | 16 |
| Scarlatina ... ... | 164 | Typhus ... ... | 2 |
| Influenza ... ... | 135 | Chicken-pox ... ... | 2 |
| Whooping-cough ... | 129 | Small-pox ... ... | 0 |
| Diphtheria ... ... | 113 | | |
| Enteric fever ... | 86 | | |

Tuberculous phthisis is, of course, in a different category, being accountable for about 900 deaths, while phthisis not proved to be tuberculous is put down for 215 deaths.

# Special Correspondence.

## VIENNA.

*New Professors for the Vienna Clinics.—Medical Men as Parliamentary Candidates.—The Work of the Austrian Medical Organization.*

THE authorities of the Board of Education have finally settled the vexed question of succession to the vacant chairs in the medical clinics. Of these there have latterly been no less than three, a circumstance which has proved a serious drawback to medical students. The death of Escherich and the sudden resignation of von Strümpell left the senate of the Vienna Medical Faculty short of its usual number of members; but von Strümpell has been succeeded by Professor Ortner, whilst Professor Chvostek, who for some time acted as temporary director of the clinic, has likewise been appointed professor-in-ordinary, and thus becomes the head of a new clinic, which will be the fourth possessed by the city of Vienna. Professor Chvostek will devote himself chiefly to lecturing on diseases of the nervous system. This foundation of a new clinical institute is more than

justified by the constant increase in the number of students of medicine in Vienna, as well as by the growth of the profession itself. The publication of this news, which for some unknown reason was kept a close secret for a considerable time, has caused great satisfaction in medical circles, both on account of the increased educational facilities and because it seems to prove that the Government is at last beginning to realize the needs of modern science. It is an interesting coincidence that out of the four clinical teachers of medicine in Vienna three belong to the school of Bamberger.

Amongst those bills which, owing to the dissolution of Parliament, must be brought in again next summer, are several important ones in connexion with the welfare of the medical profession in Austria. So far, the *Social-versicherungsgesetz* (social insurance against sickness Act) has been violently opposed by the profession, though without much effect. If this bill were passed, a large percentage of the population would become members of the compulsory *Krankencassa*, and in case of sickness would be treated by the club doctors. It is obvious that, since under these conditions medical assistance could be obtained by the payment of a very small yearly premium, private practice would speedily be deprived of many of its possibilities. No consideration has been taken either of the income or of the social position of persons entitled to the services of the club doctor, but wage-earners in every rank and all such as do not happen to possess an independent income are to be enrolled as members of the *Krankencassa*. The protests of the profession have been of no avail, though they have been supported by the very persons who were supposed to benefit by the new regulations, which are strongly disapproved of by the public. Fortunately, the machinations of the reactionary majority in Parliament, which drew up the bill regardless of the interests both of doctors and patients, have come to nothing, and the profession itself has once more entered the political arena. A large number of medical men will be candidates at the coming election, and many of them, it is hoped, will be returned as members of Parliament. In any case, however, their taking part in the electioneering contest cannot fail to have a salutary result, for, as parliamentary candidates, they will have to answer numerous questions on the subject, and the public will thus be warned of the dangers of the proposed legislation, whilst, thanks to a united action on the part of all the medical societies and corporations in the country, the need for reform for the sake of doctors and patients alike will be held constantly before their eyes.

For some years past there has existed in Austria a society of medical men which affords a striking proof of the value of energetic co-operation. The "Organization," as it is called, is formed on the same lines as the German *Leipziger Verband* and its principal object is the economic welfare of the profession. Thanks to the influence it exercises over a large part of German-speaking Austria and the friendly relations it enjoys with the profession in Germany, the Organization has been able to support many of its members in their conflicts with the clubs and *Krankencassa*. During the last year in particular the Organization has been the means of settling the dispute between the doctors and the clubs about fees for dressings and minor operations, and it is owing to its efforts that these have now been raised some 25 per cent. At the present moment it is proposed to put all contracts between doctors and the clubs under the control of this society, so as to ensure a more uniform, and consequently more profitable, scheme for this kind of work. A similar society has been formed amongst the Slavonic physicians, and Germans and Slavs will henceforward assist each other in all their contests and difficulties. It seems, therefore, that we are justified in the hope that the near future will see the whole profession in this country banded together in a compact and powerful body capable of turning the scale in all questions concerning the interests of medical men.

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THE will of the late Mr. Henry Kirk, a lace manufacturer of Nottingham, which has now been proved, directs the payment of £5,000 to Nottingham General Hospital, and of £1,000 to the Nottingham General Dispensary. The Blind Institution, the Children's Hospital, and the Hospital for Women, in the same town, also benefit to the extent of £300 each, while the Eye Infirmary receives £200.

# Correspondence.

## THE WATER SUPPLY IN MADEIRA.

SIR,—You ask me upon what grounds I based my assertion in the JOURNAL of March 25th to the effect that the recent cholera epidemic here was spread by food and direct contact, and not by the water supply.

The reasons for this assertion are as follows:

1. After the most careful and repeated investigations it proved impossible to isolate the comma bacillus from any of the aqueducts or springs supplying Funchal and the district. The only water which was found contaminated was from certain irrigation tanks in connexion with infected houses, and quite separate from any general water supply.

2. The cases were scattered in a haphazard manner, one case here, a group of houses there, and in no instance did the case incidence follow the route supplied by any given aqueduct.

3. In almost every case in which the sources of possible infection were carefully investigated it was found easy to prove importation from some other focus of infection by human agency, and in many instances a localized outbreak was definitely traced to a carrier.

4. In the only other cholera outbreak in the history of Madeira—I refer to the great outbreak of 1856—the epidemiological picture was quite different. A levada or aqueduct would become infected and immediately the whole of its area of supply would be smitten with the disease. In this great historical epidemic there were over 16,000 cases in two months.

That the water supply did not become infected was a triumph of organization. Guards were stationed at points where the levadas were exposed to contamination, as by the washing of infected linen, and a fresh drinking-water supply was made to many parts of the town usually supplied by levadas which had to come through infected areas.

The principal hotel of the island has its own water supply, coming in enclosed pipes from a spring in the mountains above the line of human habitations. This water was very kindly put at the disposal of the inhabitants of the neighbourhood for drinking purposes, and one might see any morning a queue of twenty or more peasants with pitchers on their shoulder awaiting their turns at the standpipe.

Dr. Carlos França, the eminent Portuguese bacteriologist who conducted the anticholera campaign, considers that the immediate success with which his efforts were attended was due to the rigorous isolation of all "contacts," and the fact that this measure almost alone sufficed to stamp out the disease negatives any serious contamination of the water supply. No "contacts" were allowed out of quarantine until their stools had been proved free from comma bacilli on two occasions, and it is hard to realize the colossal labour entailed in the detailed examination of some thousands of specimens.

With reference to the statement that many cases of typhoid have occurred in the island, it is true that this disease is endemic in some of the outlying villages; but Funchal has been free of typhoid for the last year, and the outbreak which occurred among the English visitors fourteen months ago was confined to one hotel and was almost certainly due to a carrier among the cooks. Samples of the water from this hotel which were sent to Lisbon and England for analysis were pronounced free of typhoid bacilli, but nevertheless this hotel has now an entirely new water supply and drainage system, both of which are above suspicion.

By far the greater part of the water supply to the native quarters of the town comes down from the hills by means of masonry aqueducts or levadas. These have a very steep fall and are exposed to direct sunlight, so that stagnation and darkness—two agencies favourable to pathogenic organisms—are absent. There are one or two fountains in connexion with deep springs which supply their immediate environment; and lastly, some of the large business firms have their own water supply run from springs and wells in iron pipes.

Most of the English residents boil all their drinking water when this is not obtained from an absolutely reliable source, and many of them make assurance

doubly sure by passing it through filters of the Pasteur type.

It is comforting to know that the cholera carrier only remains so for a very short time, and that in a few weeks the germ has become non-pathogenic and a harmless saprophyte.

The last case of cholera occurred during the first week of February, and the harbour of Funchal is now once more crowded with shipping. Indirectly this outbreak has had a salutary effect, since the town has never been so clean as it is at present.—I am, etc.,

Funchal, Madeira, April 28th. HENRY STEVENS.

## COMPARATIVE NUTRITIVE VALUE OF WHITE AND STANDARD BREAD.

SIR,—We have been for some time engaged in chemical researches in the Liverpool School of Tropical Medicine on the influence that removal by milling of parts of grain has on the adequacy of various diets, and particularly upon a consideration of the well-known connexion of polished rice with beri-beri, one of the scourges of the tropics and of the crews of sailing ships. Eijkman (1896) showed that the milling of rice rendered it an inadequate diet for fowls; Braddon, Fraser, Ellis, and other English observers in the East proved the close connexion between beri-beri and the use of polished rice as a staple food. Many other workers have enlarged the knowledge so obtained and extended it to other diets and other animals; Schaumann in December, 1910, published fresh researches of importance, and gave a complete account of the literature of the subject.

When the controversy on the merits of standard and white bread commenced in the lay press we resolved to test them by experiment, and kept some full-grown pigeons on a diet consisting wholly of white bread, others on whole-meal, and others on standard bread. The birds had previously been on a full and ample mixed diet. Those on standard or whole-meal bread maintained their weight, and indeed in some instances paired and laid eggs. On white bread, guaranteed unadulterated and unbleached, they almost immediately commenced to lose weight and manifested symptoms of illness, as might be expected from Schaumann's results.

In our birds the weight fell in two or three weeks in some instances by as much as 25 per cent. Some of the birds died in from fifteen to twenty days, and examination of the nerves showed widespread disease (peripheral neuritis). All the birds, though weak, were not allowed to die; administration of yeast by the mouth restored them in twenty-four to forty-eight hours, and on a diet of yeast and bread, or of whole grain, their weight and fitness rapidly regained its maximum.

These results confirm and extend Dr. Hill's results on growing animals published in the JOURNAL of May 6th (p. 1068), and also the claims which have been put forward for the superior dietetic value of standard bread, especially for those classes in whose diet bread largely preponderates.

From our results, and from those already published by Schaumann, we consider it is conclusively shown that standard bread is superior to white bread as a diet for adults as for young people. The parts of the grain removed in milling white flour contain some substance which is a necessity for the maintenance of the nutrition of the nervous system and of life itself. The substance or substances in question are probably of the nature of organic phosphorus compounds—lecithins or nucleo-proteins—and are equally important for adult and young animals.—We are, etc.,

E. S. EDIE.
The University, Liverpool, May 6th. G. C. E. SIMPSON.

SIR,—I have read with interest the note on the nutritive value of white and standard bread by Dr. Leonard Hill. He regards the results as astonishing, and this, coupled with the difference in weights recorded, will probably lead the reader, both medical and lay, to assume that the results furnish important experimental data in favour of standard bread. This is hardly the case.

As one who has made experimental observations on diet with many hundreds of animals along the lines of Dr. Hill's observations, it appears to me that his results warrant the following conclusions only: (1) That white flour and standard flour, and white bread and standard bread, are entirely unsuitable diets for young rats; and (2) the slight difference in weight recorded in his results in favour of the standard flour-fed animals indicates that the standard flour has a slightly greater nutritive value than the white flour.

Some months ago, before the boom in standard bread was at its height, I carried out a series of experiments in the Physiological Laboratory of the University, using diets which I think enable us to compare in a practical way the relative values of white and standard bread. I fed a number of young mice on standard bread and milk in known proportions, and a like number of controls on white bread and milk in the same proportion, the latter diet being the one in ordinary use in the laboratory. The feeding was continued for a considerably longer period than in Dr. Hill's experiments. I found no appreciable difference in the rate of growth or general appearances in the two sets of animals. This result does not invalidate the opinion expressed by Dr. Hill that when bread is largely used by poor children, it is preferable to use standard bread; it, however, suggests that a quite exaggerated importance has been given by many recent medical writers to the value of standard bread in ordinary dietetics.—I am, etc.,

Edinburgh, May 6th. CHALMERS WATSON.

## THE REPORT ON THE REFERENDUM.

SIR,—Whilst gladly recognizing the conciliatory spirit evidenced in the Report of the Council of the Association to the Divisions on the subject of the Referendum, we feel it imperative to point out certain modifications in the proposals made in the report which appear to us essential.

1. *Mode of taking the Referendum.*

Inasmuch as the Referendum of the Association constitutes the sole check on its single-chamber government, which, with all the goodwill and ability possible, must sometimes be hampered by the extreme shortness of its session, in which it has to determine a very large number of questions, some of them of great national as well as of professional importance; and inasmuch as the democratic character of the Referendum must be incontestable, no qualification for its franchise is permissible save that of simple membership of the Association. It is not permissible, we would submit, deliberately to try to disfranchise any member of the Association on account of any supposed inertia as regards the Association's affairs. The proposal of the Council on this head would unquestionably have the effect of disfranchising a very large proportion of the members.

It is absolutely essential, in order that every member shall have the vote in the Referendum to which he is entitled by his membership, that the Referendum be taken by post to every member of the Association, and this essential condition entirely overrides any reasons to the contrary advanced in the Report.

2. *Mode of obtaining it.*

The Referendum, which has proved so valuable an adjunct to government in Switzerland, can be obtained in that country by rather less than 4 per cent. of the voters; yet it is proposed that 20 per cent. of our members shall be requisite.

The excessive stringency of this proposal becomes even more clear when it is observed that, whereas only three constituencies are now necessary to obtain a special meeting of the Representative Body costing nearly £800, about twelve times as many constituencies will be necessary to obtain a Referendum which should not cost much over a quarter of that amount.

Ten per cent. of the Association should be a fair requirement for the purpose of preventing unduly frequent recourse to the Referendum. Twenty per cent. is undoubtedly too high a proportion.

It must not be forgotten, in considering this point, that the Council of the Association do not propose to change the existing requirements for their own obtainment of a Referendum, requirements which are so stringent that they render such an obtainment almost impracticable.

Whilst recognizing, therefore, the real desire evinced in the report to arrive at a fair agreement on this most important subject, we would strongly urge that the Referendum should be a postal referendum to every

member of the Association without any restriction except simple membership, and would suggest that it should be obtainable on the demand of 10 per cent. of the constituencies having a collective membership of not less than 10 per cent. of the Association.

We are assuming that a reasonable period, within which a Referendum may be obtainable, will be decided upon subsequently.—We are, etc.,

S. NOY SCOTT, Plymstock.
A. BERTRAM SOLTAU, Plymouth.
R. V. SOLLY, Exeter.
C. W. VICKERS, Paignton.
W. GORDON, Exeter.

## THE HEARING AFTER OTECTOMY.

SIR,—Hearing that Mr. Faulder White takes serious exception to my letter published in the BRITISH MEDICAL JOURNAL for October 15th, 1910, both as to its tone and to certain statements made therein, I recognize that he is entitled to an expression of regret on my part.

Although one is ready to give and, indeed, receive hard knocks in the heat of controversy in a scientific journal, yet on reading my letter again in a calm after-spirit I frankly admit that to some its tone may pass the bounds of temperate criticism and courteous debate.

It contains, moreover, a quotation from another journal which I regret having employed, as its phraseology does not fully or accurately describe what I had in my mind, is liable to misinterpretation, and may well have caused Mr. Faulder White great offence and pain. Had I stayed to examine the various meanings of the term "ruthless" and the construction which might be placed upon the phrase, "a method condemned by all modern otologists as contrary to the elementary canons of surgery," I would certainly not have employed the quotation as being applicable to the operative procedures which Mr. Faulder White advocates.

It is unnecessary to refer to my general criticism of Mr. White's advocacy of otectomy (more especially ossiculectomy) as this matter is in a great degree one upon which there is a diversity of professional opinion, but I wish unreservedly to withdraw any expressions which may have wounded Mr. Faulder White or which could be interpreted as impugning his honour or professional skill.—I am, etc.,

London, W., May 9th. MACLEOD YEARSLEY.

## THE REDUCTION OF DOMESTIC MOSQUITOS AT DEMERARA.

SIR,—In a lecture delivered before the Royal Agricultural and Commercial Society of British Guiana, at Georgetown, Demerara, on April 6th last, Dr. Minett, Assistant Government Bacteriologist to the Colony, described the dangers of mosquitos and mosquito-borne diseases. His lecture was clear, concise, convincing; but when he appealed to his hearers to assist the Government of the colony in undertaking practical measures against these insects some adverse criticism appears to have broken out in the lay press of the town.

To one who has witnessed the beneficial results accruing from measures against domestic mosquitos at Ismailia and Port Said it seems almost criminal to delay similar measures elsewhere. Yet now we find the *Demerara Daily Chronicle* trying to belittle the good intentions of the authorities of British Guiana in their endeavours to succour a malarious town. The reason for this adverse criticism lies, apparently, in the dislike to a mosquito ordinance recently issued by the Government of the colony. Yet similar laws have been enforced at New Orleans, Rio, Panama, and at many other places without much hardship or disfavour, and that such laws have proved most conducive to health is well known. It seems a great pity that all the journals of Demerara do not support the health authorities of the colony in their attempts to lessen suffering, instead of producing petty objections to the proposed measures. The reduction of domestic mosquitos is not costly. At Port Said, which has a population of 50,000, the annual cost of the mosquito campaign is £900. Surely British Guiana can afford and will not grudge 6d. per head of population per year if improved health in its chief city is to be the result. That it will have this result there can be no doubt.—I am, etc.,

E. H. ROSS, M.R.C.S.Eng., L.R.C.P.Lond.,
Lately Health Officer, Port Said and the Suez Canal District.

Liverpool, May 4th.

## THE INFECTION OF CHICKEN-POX.

SIR,—With reference to Dr. Hamilton's letter and case of chicken-pox, may I suggest that it would be impossible to say that the incubation period was prolonged at all, on the evidence. Dr. Hamilton appears to assume that the second case incubated the disease on the day of contact with the original case. He wonders if two letters sent through the post could possibly have carried the infection, yet no consideration has been given to the articles left infected after the first child's visit; these, of course, may not infect immediately, perhaps for want of opportunity, but it is quite feasible that they might infect his patient at a later date, thus allowing the disease to commence in the infected child well within the ordinary limits of the incubation period, instead of thirty-five days after supposed infection.

In my opinion, many of the so-called "return cases" of scarlet fever are not genuine, but are caused by the favourite hat or other article which has been hidden from the disinfectors, and placed carefully away, being brought out again on the return of the patient from hospital six weeks afterwards; from this a second child is infected, and not from the patient. The chance of the letters being infected in Dr. Hamilton's cases is infinitesimal compared with that of all the other articles directly infected at the house.

The old law Dr. Hamilton quotes "that two infectious fevers never appear at the same time" is a fallacy—they very frequently do.—I am, etc.,

County Sanitary Office, Truro, April 30th. ROBERT BURNET.

## POOR LAW INFIRMARIES AND HOSPITALS.

SIR,—If Dr. Jervis is satisfied with the result of this correspondence I am sure I am. I repeat for what it is worth that in my opinion the Poor Law fails to really help people because there is a want of willingness to help and a want of kindliness shown to poor people who have the misfortune to need their help. This is shown by the arrangements made for attending to and nursing the sick in their infirmaries; I do not say everywhere, but speak generally. One example, which is typical of many, has come to my knowledge last week. The guardians of the Blean Union recently advertised for a trained nurse, and have appointed a Metropolitan Asylums Board ward or dormitory maid! At night she will be left in charge, I understand, of sixty patients, old and young.

And so I say again, God forbid that the voluntary hospitals should be handed over to the Poor Law authorities to manage.

It is not worth while answering that part of Dr. Jervis's letter which simply misquotes what I said and wrote.—I am, etc.,

Royston, May 6th. SYDNEY HOLLAND.

## THE PLACE OF THE HOSPITAL IN A CIVILIZED COMMUNITY.

SIR,—In response to the request made by Mr. Penrose Williams in the JOURNAL last week and to other requests privately received, I have arranged for my address on the above subject to be published in pamphlet form. Copies can be obtained on application to the Manager of the BRITISH MEDICAL JOURNAL, the charge being for a single copy 1½d, for 12 copies 1s., and for 100 copies 7s. 6d. Correspondents who have asked that this should be done have intimated that they wished to forward copies to the governors of local hospitals where some reforms of the kind suggested in the address were desired by the medical profession of the district.—I am, etc.,

London, W., May 9th. LAURISTON E. SHAW.

# THE PLAGUE.

## PREVALENCE OF THE DISEASE.

### INDIA.

DURING January, February, and March, 1911, the deaths from plague in India numbered respectively 77,921, 88,498, and 166,135, a grand total of 332,554.

During the three months the deaths from plague were distributed in the various provinces of India as follows:

Bombay Presidency (6,364 January, 6,703 February, 5,995 March), 19,062; Bengal (8,446, 11,863, and 21,807), 42,116; United Provinces (39,794, 43,508, and 95,884), 179,186; Rajputana (2,647, 3,326, and 5,012), 10,985; Punjab (8,028, 13,064, and 27,166), 48,258; North-West Frontier Province (19, 8, and 31), 58; Kashmir (43, 27, and 73), 143; Central Provinces (5,067, 5,541, and 5,245), 15,853; Central India (2,404, 924, and 2,115), 5,443; Hyderabad State (1,032, 784, and 699), 2,515; Mysore State (1,386, 656, and 158), 2,200; Madras Presidency (1,594, 1,050, and 784), 3,428; Burma (1,096, 1,044, and 866), 3,006.

It will be seen that, as in past years, the United Provinces head the list in the mortality returns for plague; in the month of March the Provinces returned more deaths from plague than all the rest of India—namely, 95,884 to 70,251 to the whole of the rest of India. In every month also the United Provinces lead. Some of the peculiar features of this continued epidemic are: First, that Eastern Bengal and Assam have had merely isolated cases of plague from time to time, and that the cases in the city of Madras have also been mostly sporadic or imported; secondly, the disease recurs with the maximum of virility in the same districts year after year. It is also noticeable that the disease reappears about the same time and decreases in virulence about the same period each year, the months of March and April being the periods of maximum recrudescence.

### CHINA.

In Manchuria the epidemic of pneumonic plague is reported to be wholly at an end. The epidemic seems to have expended itself in a northerly direction, and to have reached Blagovestchensk and the Amur river about March 1st. The Chinese settled on the right bank of the Amur river entertained a hostile attitude towards the Russian authorities, and objected to the quarantine regulations imposed by the Russians. It is reported that of 500 soldiers sent by the Chinese Government against the Chunchuses all died. The troops started from Kwangchengtsze, and appear to have carried the disease with them. The belief that the marmot—the tarbagan, as it is called locally—is the animal by which plague is kept alive in Mongolia and its immediate borders is gaining strength, and has been supported in recent years by Clemow and Cantlie. Although plague has subsided for the present in Northern China, there seems, unfortunately, every probability that it will reappear in October of this year, as it has done for the past sixty years, but never with the virulence shown in the winter of 1910–11.

### HONG KONG.

After a six months' immunity from plague 1 case of plague was reported in Hong Kong on April 24th, 1911. The last week in April was the period during which plague has recurred yearly ever since 1894, when plague appeared in the colony for the first time.

### EGYPT.

Plague prevailed in Assiout, Assouan, Gizeh, Kana, Minieh, and Menouf during January. During the month 59 cases were reported and 26 deaths from the disease.

# Universities and Colleges.

## UNIVERSITY OF EDINBURGH.

### GENERAL COUNCIL.

*Report on Clinical Teaching.*

AT the statutory half-yearly meeting of the General Council of the University of Edinburgh, held on May 3rd, the most interesting business was the report of the subcommittee on the mutual relations between the bodies concerned in medical education in Edinburgh. The committee had restricted its inquiries to clinical teaching which most required attention.

Dr. Norman Walker, in submitting the report, stated that in the opinion of the committee the most pressing reform was a better-ordered arrangement of clinical classes, and believed that this could only be effected by the complete fusion of the intramural and extramural sections of the hospital staff. A beginning had been made by the appointment of all the surgeons, save one, as university lecturers and examiners in clinical surgery, but the next step of restricting the numbers attending one clinic had still to be taken. The report contained the following passages:

"Next would come the formation of a Board of Studies in each subject, which would agree upon broad lines of teaching, the fullest liberty inside these being allowed to each individual teacher. It would, however, be necessary for the teachers to agree on the conditions under which certificates of attendance should be granted to students, and to suggest to the Senatus the maximum number who would be permitted to attend one clinique.

"So much more attention is now given to individual teaching that the committee think the fees ought to be increased, and the perpetual ticket abolished in clinical medicine, as it has been in clinical surgery. They think the fee for each of these classes ought to be three guineas per term.

"There are two other hospitals which might well be brought into more intimate connexion with university teaching. The Royal Hospital for Sick Children is utilized in connexion with the class of diseases of children, and it is understood that the university contemplates making attendance on that class compulsory. The other hospital referred to is that of Leith. It seems unfortunate that a modern hospital adequately equipped and so capably staffed as is that institution, should not be similarly utilized for teaching purposes. Its distance from the school is, of course, a drawback; but if the physicians and surgeons of that institution were university lecturers and examiners, it might be of use in relieving the congestion from which the Royal Infirmary sometimes suffers.

"The department of pathology in the Edinburgh Infirmary has very little connexion with the university. One of the assistants to the chair usually happens to be one of the assistant pathologists; but so long as the professor of pathology is a professor of clinical medicine it is useless to suggest any further connexion between the chair and the *post-mortem* department. When a new professor is appointed, he certainly ought to be connected officially with the *post-mortem* department of the infirmary.

"Of obstetrics one can only say that, so long as there is no residency attached to the Maternity Hospital, so long will the Edinburgh students continue to go elsewhere for their instruction, and the committee are glad to learn that there is a prospect of a residency being established. Co-operation among all the obstetric charities in Edinburgh will provide sufficient material. Cliniques given at a definite hour in the afternoon are no doubt useful, but they cannot take the place of the practical instruction which is given to resident students.

"The dispensaries of Edinburgh are a characteristic and unique feature of the school. They perpetuate the useful side of the old apprenticeship system, and a capable dispensary physician has an opportunity of a closer intimacy with his students than almost any other teacher. It is not easy to see how the university could bring about any closer relationship with these institutions, except that it might enforce upon them the restriction in point of numbers which it is to be hoped it will shortly enforce in the Infirmary, and might perhaps require evidence that something in the way of reporting on cases had been insisted upon.

"As Professor Woodhead in his report[1] says, it is evident that no scheme can be carried out without the co-operation of the managers of the various institutions concerned, and with his suggestion of a conference of representatives of these various bodies the committee cordially agree."

Dr. James Ritchie seconded, and the resolution was adopted.

[1] Note on Clinical Teaching, appended to the Report of the Treasury Committee on Scottish Universities.

# Medical News.

DR. BYROM BRAMWELL will occupy the chair at the dinner to be given on the occasion of the joint visit to Harrogate of the Edinburgh University Clubs on May 20th, in place of Sir William Turner, who is unavoidably prevented from being present.

THE South African Civil Surgeons' dinner will take place at the Criterion Restaurant on Thursday, June 1st, and not at the Imperial Restaurant, as previously announced. Further particulars can be obtained from Mr. C. Gordon Watson, 123, Harley Street, W.

A GENERAL meeting of the Metropolitan Police Surgeons' Association took place in the Council Room of the British Medical Association, 429, Strand, on May 4th, when sixty members were present. Dr. Frederick J. Smith gave a demonstration on poisons and their *post-mortem* appearances, and also opened a discussion on police surgeons' difficulties and the way out of them. Many of the members took part in the discussion and related their experiences of police work.

THE Samuel Hyde Memorial Lectures to the Section of Balneology and Climatology of the Royal Society of Medicine will be delivered by Dr. R. Fortescue Fox on May 15th, 17th, and 19th, at 5 p.m. on each day; the subject selected is medical hydrology, the science of water and of waters, with a special plea for its practice and teaching in Britain. The chair will be taken by Sir Hermann Weber, Sir Dyce Duckworth, and Dr. Theodore Williams on the three days respectively. The lectures are in memory of Dr. Samuel Hyde, the founder of the British Balneological and Climatological Society.

# Obituary.

## JOHN TATHAM THOMPSON, M.B., C.M.EDIN.,

CONSULTING OPHTHALMIC SURGEON, CARDIFF INFIRMARY.

NOT only has the death of Mr. Tatham Thompson at the early age of 52 caused great regret in South Wales, but many old Edinburgh graduates will hear of his decease with sorrow, for they will remember the initials "J. T. T." the signature of clever work by his skilful fingers on the cartoons of the rectorial election of 1883, on microscopical drawings in illustration of scientific work, and on programmes of hospital entertainments.

John Tatham Thompson was born at York in 1858; he was a member of a Quaker family, his father, Silvanus Thompson, was senior master in the Bootham School for boys, under the management of the Society of Friends, his mother was a daughter of John Tatham, of Settle, a man well known in the botanical world.

After his school life at Bootham Mr. Tatham Thompson went to University College, Bristol, where he acted as voluntary demonstrator to his elder brother, Professor Silvanus P. Thompson, who was Lecturer in Physics, at the same time studying pharmacy under the late Mr. G. F. Schacht, of Clifton, for whom he worked for a time in his private laboratory at the preparation of liquor bismuthi. On leaving Clifton he continued his studies in pharmacy under Mr. Luff, in Paddington, but after passing his pharmaceutical examinations, he decided to go to Edinburgh to study medicine, and entered the University in 1880, taking the degree of M.B. C.M. in 1885. Professor Sims Woodhead was a very kind friend to him, and gave him work in the illustration of his book on *Practical Pathology*.

After taking his degree, he made up his mind to specialize, and stayed on in Edinburgh for eighteen months, maintaining himself by work for the professors with pencil and brush, at the same time acting as ophthalmic house-surgeon to the late Dr. Argyll Robertson, whose kindness was never forgotten by his devoted pupil. Dr. Robertson appreciated the work of an exceptionally slender and skilful hand, and gave him unusual opportunities of perfecting himself in delicate surgery, so that in eighteen months Mr. Tatham Thompson became ambidextrous, and was able to inspire confidence in his patients notwithstanding his youthful appearance.

In 1887 the post of ophthalmic surgeon was created at the Cardiff Infirmary, Mr. Tatham Thompson was elected to fill the post; he and the late Mr. Ensor, who started practice in the same year, were the first two specialists in Cardiff, in fact in South Wales.

From first to last Mr. Tatham Thompson threw himself heart and soul into the work of the Cardiff Infirmary, and after completing his twenty years of active service there, he was appointed consultant. He was Chairman of the Medical Board for the last three years. He was President for the year of the Cardiff Division of the British Medical Association. He was the author of a useful treatise on *The Influence of Early School Life on Eyesight*, and contributed many papers to the meetings of the Ophthalmological Society, of which he was recently vice-president. He was one of those who early used the electro-magnet for the extraction of fragments of steel from the eye, and published a paper upon the subject in the *Lancet* twenty years ago.

His was a many-sided character, and he had many interests outside his profession: he was an ardent volunteer, and last November he received the Territorial decoration from the King. He was also an enthusiastic Freemason; he was initiated in the Glamorgan Lodge; he afterwards became a Founder and Past-Master of the Prince Llewellyn Lodge, and was a Provincial Grand Standard Bearer for the Eastern Division of South Wales. He was a Past Principal of the Royal Arch Chapter of St. John, and Grand Registrar of the Province. At the time of his illness he was Worshipful Master of the Langley Lodge of Mark Master Masons, and the Provincial Treasurer; he had also held high office in the Knight Templars, and the Rose Croix Order of Masonry.

For the last few years his failing health had been a cause of great anxiety to his friends; in the early part of last summer he was found to be suffering from inoperable malignant disease of the stomach and intestines, and after ten months of most acute suffering he died on April 28th, leaving a widow and four children. After a military service at Cardiff his body was cremated at Golder's Green.

The funeral in Cardiff was very largely attended by his medical colleagues in the district, the Cardiff Medical Society, of which he was a past-president, and the Cardiff Division of the Association being officially represented. The crowded streets testified to the deep respect in which he was held by the whole community as a distinguised citizen and medical practitioner.

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## BERNARD RAMSAY CRAIG CHRISTIE, M.D.EDIN.,

EDINBURGH.

DR. BERNARD RAMSAY CRAIG CHRISTIE died suddenly on April 20th at his mother's home in Bedlay, Chryston, Lanarkshire, where he had gone to spend a few days. He had all the appearance of being in his usual state of health when, on April 15th, he called at the writer's house in Edinburgh on the way to spend the week-end with a few boy scouts at The Out-Post, Newlands, Gorebridge, and he returned on April 17th much delighted and benefited by the change. On April 18th he went to Bedlay, and on the morning of April 20th he was found dead in bed. Occasionally he complained of his heart, but as he looked so healthy and strong no one thought it could be weak.

Dr. Christie was the younger son of the late Thomas Craig Christie, of Bedlay and Petershill. He was only 41 years of age. He was educated at Trinity College, Glenalmond, Perthshire, and was a distinguished graduate of Edinburgh University and the Royal Colleges of Surgeons, Edinburgh and Glasgow. He also studied for a short time in Dublin. He gained the M.B., C.M. in 1897, and the M.D. in 1901, Edinburgh University. After graduation he acted as assistant in different parts of England and Scotland. He held also the posts of Medical Assistant in Gartloch Asylum and Hospital, Resident House-Physician and Resident House-Surgeon in the Royal Infirmary, Glasgow, and House-Surgeon at the throat and nose department of the same institution, and non-resident clinical clerk at the Sick Children's Hospital, Edinburgh. He then settled in Comrie, Perthshire, where he had a large practice extending over a wide area. After spending four years in Comrie, he removed to Edinburgh. Having practised in so many parts of the country, he had a large circle of friends and patients, who deeply regret his loss and who will extend their sincerest sympathy to his relatives in their sad bereavement.

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## GEORGE HENRY CASE, M.R.C.S.,

FAREHAM, HANTS.

WE much regret to announce the death of Mr. George Case of Fareham, Hants, on April 25th, at the age of 72. He passed away after a long illness, although his devotion to his professional work prevented his relinquishing practice altogether until the last few weeks of his strenuous life.

Mr. Case received his medical education at University College, and took the diplomas of M.R.C.S. and L.S.A. in 1860. He then obtained the appointment of House-Surgeon to the Royal Isle of Wight Infirmary, and after that held for some time the post of Assistant Medical Officer, under the late Dr. Manley, at the Hants County Asylum. Subsequently he commenced practice at Fareham, and joined his father, Dr. Case, who long held a leading position in the southern part of Hampshire. For many years he ably discharged the duties of Medical Officer of Health to the rural and urban districts, and he was also long associated with the British Medical Association as one of the original members of the Southern Branch.

Mr. Case was a man of great practical ability and sound judgement, and his attainments, associated with a very kindly disposition, gained for him the confidence and esteem of all his professional friends. He long enjoyed a very influential position, and his success in life was greatly assisted by a charming personality and very courteous manner, which underwent no variation. His death has excited widespread regret and sympathy.

The funeral took place at Fareham on April 29th, and his popularity was manifested by a great assembly of old friends of every rank, who crowded the parish church and followed to his last resting place.

Mr. George Case was twice married, and leaves a widow, four sons, and one daughter, and now in their great sorrow they possess the consolation of a sincere and universal sympathy. Mr. Hugh Case, the eldest son, who has been associated in practice with his father, will enter at once on new responsibilities.

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### ERNEST RICHARD EVANS, L.R.C.P., M.R.C.S.,

CONSULTING MEDICAL OFFICER, HERTFORD GENERAL INFIRMARY.

THIS popular and deeply-respected practitioner died on Thursday, May 4th, at his residence in Hertford, where he had been in practice from the early Seventies until the end of 1909, when he underwent amputation of one leg. He made a good recovery, and was able to go about in an armchair until a week before his death. He was the son of Dr. R. D. J. Evans of Hertford, and studied at St. Bartholomew's Hospital. In 1868–9 he filled the office of House-Surgeon to Mr. Luther Holden with great distinction. He had already acquired practical experience of his science and art in assisting his father, and hence was a most satisfactory under officer to his chief, and an excellent superintendent of his dressers. Several of them afterwards became medical officers of hospitals, and duly recognized how much they owed to him, none more so than Mr. W. J. Walsham, late surgeon to St. Bartholomew's, who was fated to die before him. After serving as House-Physician, Mr. Evans quitted Bartholomew's, and, wishing to gain more experience of hospital work, he applied for the appointment of Resident Medical Officer to the Evelina Hospital for Sick Children, then just opened, and was elected, being the first to hold that post. He became a Life Governor of St. Bartholomew's Hospital, which he frequently visited.

As a citizen of Hertford he was very public-spirited, taking an active part in the management of several charitable institutions. After a long tenure of office he retired in 1904 from his appointment as Honorary Medical Officer to the Hertford County Hospital. On this occasion he was presented with a valuable gold watch, Mrs. Evans, his wife, receiving a handsome silver rose bowl. That lady, whom Mr. Evans married in 1874, is the daughter of Mr. Benjamin Young of Mangrove Hall, Hertford, and survives him. They had two sons and a daughter. The eldest son, the Rev. Harry Evans, was one of his father's constant attendants from the time his illness began in 1909.

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It is with much regret that we record the death of Mr. E. W. PARRY, which took place at Brisbane on January 27th at the early age of 29. He was the eldest son of the late Mr. Robert Parry of Earl's Court. He was educated at University College, Bangor, where he obtained an entrance scholarship, and at St. Thomas's Hospital, London, where he gained various distinctions and obtained the diplomas of M.R.C.S. and L.R.C.P. in 1904. Soon afterwards he was appointed Obstetric House Physician, and, later, Casualty Assistant at St. Thomas's, and it was whilst holding this appointment that the first symptoms of the disease which eventually carried him away made its first appearance. Under suitable treatment he improved a good deal, and in 1907 he felt strong enough to resume work and became House-Surgeon to the Bridgwater Hospital, where he remained for twelve months. At the end of this time he took the degrees of M.B., B.S.Lond., and soon entered into partnership with Dr. Brockway at Brisbane, where he made a large number of friends and was very successful in practice. He was of a modest and retiring disposition and was essentially devoted to his profession. Only those who knew him intimately could appreciate the nobility of his character and the deep sense of duty which actuated all his doings. He has died on the threshold of a life full of promise, much to the regret of all his friends, and the greatest sympathy is felt for his widowed mother in her bereavement.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. L. Russ, Professor of Clinical Medicine at Jassy; Dr. W. N. Gagarin, a well-known ophthalmologist, of St. Petersburg; Dr. Beniamino Sadun, sometime Professor of Forensic Medicine and Psychiatry in the University of Pisa, aged 93; Dr. Oliver, Associate Clinical Professor of Ophthalmology in the Women's Medical College, Philadelphia, aged 57; Dr. W. F. Sprimon, of Moscow, founder and for many years editor of the Russian medical journal *Medizinskoe Obozrenie*; Professor Manz, Emeritus Director of the Eye Clinic of the University of Freiburg, aged 78; Dr. C. Stedman Bull, the well-known ophthalmologist of New York, aged 76; Dr. Leartus Connor, Professor of Physiology and Ophthalmology in the Detroit Medical College, aged 68; Dr. Botscharoff, Lecturer on Surgery in the Army Medical Academy of St. Petersburg; and Dr. Maegeli-Akerblom, of Geneva, well known by his writings on subjects of medical history.

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# Public Health
AND
# POOR LAW MEDICAL SERVICES.

## APPOINTMENT OF MEMBERS OF BOROUGH AND OTHER COUNCILS TO PAID OFFICES.

THE Local Government Board in England has issued the following circular to the councils of boroughs, urban districts, and rural districts:

"I am directed by the Local Government Board to state that they have had under consideration the question of the appointment to paid offices under town councils and urban and rural district councils of persons who are or have been members of those councils.

"Representations on this subject have been addressed to the Board from time to time, and they have been reminded of the rule made by the Registrar-General with regard to the office of registrar. The Royal Commission on the Poor Laws and Relief of Distress referred to that rule with approval, and have recommended that 'a local authority should not be allowed to appoint an ex-member as a paid officer unless he or she has ceased to be a member of the local authority for a period of, say, twelve months before appointment.'

"The Board are in agreement with this view, and they feel assured that councils generally recognize the impropriety of appointing to paid offices persons who are or have recently been members of their own body.

"The Board, therefore, think it necessary to intimate generally that in future, unless very special grounds are shown, they will not be prepared to sanction the appointment to any office, in respect of which their sanction may be requested, of any person who is or has been within twelve months a member of the council making the appointment."

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## FEES FOR POOR LAW MIDWIFERY.

J. J. H. says he attended a case of pauper midwifery which was difficult, necessitating his attention from 10 p.m. to 4.30 a.m., and subsequent attendance for twenty days, with occasionally two visits a day. For this he has claimed £2 as a special fee, which the guardians decline to pay, but offer 10s. 6d. Our correspondent asks whether he ought to accept the latter sum or refer the case to the Local Government Board.

*** Under Article 183 of the Consolidated Order of July, 1847, our correspondent has a strong claim for the special fee of £2, as the labour was really a difficult one, since it required six hours' close attention, and was, moreover, followed by three weeks' subsequent attendance, which could only have been rendered necessary by conditions other than those of natural labour.

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## ACTIONS AGAINST ISOLATION HOSPITAL AUTHORITIES.

IN reply to "J. H.," we may state as follows: (1) A discharging block is a separate building, usually containing a bathroom separating two dressing-rooms. The patient undresses in one dressing-room, leaves his infected clothing behind, and proceeds to the bathroom. After bathing he enters the second dressing-room and clothes in non-infected clothing. He straightway leaves the institution without again entering an infected portion of it. (2) In the Hereford case the patient had a final bath in the hospital proper, and passed from the bathroom out of the hospital through the matron's sitting-room. It was contended at the county court trial that re-infection took place during the patient's passage through that room. (3) Whether any case of scarlet fever should be discharged from hospital until all discharge from the nose, ear, etc., have ceased, is a question of opinion for each medical superintendent to decide.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

S. B. asks for information as to the baths (sulphur and mud) at Lago d'Agnano, Naples.

### A CASE FOR DIAGNOSIS.

MR. J. MACNAUGHT SCOTT, M.A., M.B. (Carlisle), writes: The parents of a girl aged 7 years have observed her limping during the last six months. On examination the left leg is found to be 1¼ in. shorter than the right, measuring from the anterior superior spine of the ilium to the tip of the internal malleolus. The left femur is ⅞ in. shorter than the right, measuring from the tip of the great trochanter to the lowest edge of the external condyle. All the bones of the leg (which is muscular and well developed) are smooth and straight, and evince no tenderness on pressure. There is no pain, and all the movements of the hip and knee joints are perfect. Scoliosis is present, but slight. The girl has always been healthy, and there is no tuberculous taint in the family history. Her elder sister, however, aged 17 years, has had the same defect since the age of 6 years. Her defective leg is 3 in. shorter than the normal limb, of which deficiency the femur accounts for 2½ in. In this case the scoliosis is very marked. The girl, however, has always enjoyed good health. No other members of the family, present or past, have had any similar defect. I have been unable to read of any similar case, and shall be grateful for any information on the subject and any indications for treatment of the case.

### HAEMATOSPERMIA.

C. G. F. wishes to know the significance of haematospermia. He has been recently consulted with reference to such a case. The patient has had gonorrhoea, but there has been no discharge for over twelve months. Is there any treatment likely to be useful? Does such a condition preclude marriage? Is there any reference in the literature to such cases?

## ANSWERS.

G. K.—We believe that the general view is that a maternity nurse is entitled to full fees from the date of her actual attendance upon the patient. If the patient wants her to stay for a longer period than the month, the rate of remuneration is a matter for mutual agreement between patient and nurse.

### THE ESTIMATION OF SUGAR.

J. F. C.—Pure sulphate of copper in crystals (preferably prepared by recrystallization a few days previously) is roughly powdered, pressed between folds of dry filter paper, and 34.639 grams weighed off. This quantity is then dissolved in moderately warm distilled water, and the solution diluted to 500 c.cm. at the usual temperature, the solution being then kept in a well-stoppered flask; 173 grams of Rochelle salt—sodium potassium tartrate—in pure crystals, are dissolved in 100 c.cm. of a solution of caustic soda of specific gravity 1.34, and diluted to 500 c.cm. with distilled water. This is preserved in a stoppered bottle, the stopper being smeared with paraffin so as exclude air. For using the solutions exactly equal volumes of both are mixed, and measured off with a pipette. On agitating, a deep-blue liquid is obtained, of which 10 c.cm.=0.05 gram of grape sugar. This amount (10 c.cm.) of the solution should be placed in a capsule and diluted with water—the amount does not matter—and set to boil; the urine should be diluted ten times and run in from a burette graduated in c.cm. until the blue colour of the solution disappears. The quantity of urine used contains 0.05 gram of grape sugar. To obtain the result quickly, divide 50 by the number of c.cm. used, the result being the percentage of sugar. To obtain this in grains per ounce multiply by 4.4, and to obtain the total quantity passed by the patient multiply this again by the total number of ounces passed in twenty-four hours.

## LETTERS, NOTES, ETC.

### A WARNING.

A CORRESPONDENT has been led by recent experience to ask us to point out to our readers that it is unwise to trust motor cars to garages unless the depositor has some guarantee of the position of the proprietors.

### ACUTE EPIDEMIC POLIOMYELITIS.

DR. H. HERNAMAN-JOHNSON (Bishop Auckland), in the course of a communication on this subject, after referring to the articles recently published in the JOURNAL on the present epidemic of acute poliomyelitis, goes on to exhort private practitioners to devote no less attention to the sequelae of poliomyelitis than to its etiology and mode of onset. The prognosis in the chronic stage is, he says, by no means so hopeless as is commonly supposed. In a few instances we can bring about what may be termed a "clinical cure," and in most something can be done to better the condition. The private practitioner has a wider field open to him, where cases are seen within a few months of onset, in the prevention of deformity. No case which is under continuous observation should ever require the aid of surgery, unless for arthrodesis or the more doubtful procedures of tendon-grafting and nerve anastomosis. . . . The spinal lesion affects not only the muscles of a limb, but its general growth and nutrition. In children below 12 remarkable results on development can often be obtained by the use of faradism to the affected members; and in skilled hands *x* rays to the spine and to the epiphyses produce even greater benefit. Neither massage, nor exercises, nor surgical transplantations can take the place of electricity in this particular, and the interrupted current is easy of application. As regards supporting apparatus, it would be well if less reliance were placed on the instrument maker and more pains taken to devise special boots of sightly appearance. To this subject I have previously referred in the BRITISH MEDICAL JOURNAL and elsewhere.

### KANGRI-BURN EPITHELIOMA.

DR. ERNEST F. NEVE (Kashmir) writes: In the JOURNAL of February 4th, p. 288, Dr. Carrington Purvis mentions some interesting specimens in which he has been able to demonstrate the presence of spores and mycelium in epithelioma and human scirrhus, and he expresses the opinion that "irritation and consequent enfeeblement of the epithelial cells render them particularly liable to the invasion of certain organisms or parasites." Undoubtedly ulcerated epitheliomata and scirrhus do show a very rich flora; but, in the case of the kangri-burn epithelioma previous to ulceration, the epithelial cells, while manifesting evident signs of irritation, show none whatever of enfeeblement. On the contrary, they demonstrate their vitality by vigorous growth; and it is not till a much later period, when the scaffolding of stroma fails to carry an adequate blood supply, that the cell masses die of starvation and afford fertile soil to organisms. The fact that such varying agents as heat, *x* rays, arsenic, soot, lime, and mechanical irritants bring about this peculiar stimulation of the tissues tends to the conclusion that the irritation is the potent factor. That some of the irritants are antiseptics and antiparasitics strengthens this conclusion; such, for instance, is the familiar nitrate of silver, the application of which to warty growths may be so disastrous.

In the case of mariner's cancer, the result of exposure to wind, sun, and brine, we have the same factor of irritation at work and under conditions in which the existence of a specific parasite is most improbable. Experience with *x* rays points in the same direction. The special interest of the Kashmir kangri-burn cancer is that here we have an experiment carried on on a large scale year after year. Here, too, we have epithelioma often before there is ulceration, and sometimes with a smooth surface unbroken by scales or fissures. The subjects of such growths often show signs at other parts of the body of a tendency to epithelial overgrowth, such as macules and raised patches, which are specially apt to react to irritation and increase rapidly in size.

We are all familiar with the stimulant action of sepsis in promoting cell growth. This, of course, comes into play in most ulcerated epitheliomata. And it is doubtless especially marked in the case of the mouth and other septic cavities of the body.

The search for special cancer parasites is being pushed by many skilled and ardent workers like Dr. Carrington Purvis. Is it not most important that parallel research should be directed to the elucidation of "cancer as a trophic phenomenon," a research which shall embrace the chemistry of fluids, the distribution and morbid anatomy of nerve filaments, and a detailed study of the process of growth and reproduction in malignant disease?


## SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

# Observations ON THE NATURE OF THE IMMUNITY REACTION.

BY C. J. BOND, F.R.C.S.,
SENIOR SURGEON, LEICESTER INFIRMARY.

PERHAPS one of the most striking examples of cell adaptation to changed conditions is afforded by the response made by the cells of the organism to the attacks of disease. Somatic cells and body fluids acquire new characters in response to external influences, and the characters so obtained are transmitted to the cell descendants of the cells which acquire them, and the condition known as "acquired immunity" is the result.

It becomes important, therefore, to inquire whether the conditions under which the response against disease is made throw any light on the essential nature of the process by which all "use acquirements" are made by cells exposed to altered conditions of life. Whether, in fact, the examination of the conditions of the immunity reaction suggests the occurrence of any variational or selectional process among the cells, or the component parts of the cells, exposed to the changed conditions, or whether it suggests a more direct relationship between the change in the environment and the change in the cell, a readjustment of the internal relations of the cell to the changed environmental relations, brought about in some way by a direct action of the environmental stimulus on the cell structure, wholly independent of any preliminary experimentation in adaptation, or any testing of adaptational steps by any standard of fitness afforded by the welfare of the cell as a whole, or the welfare of the organism of which it forms a part.

Although, as will be shown later, the distinction involved in the terms used is probably an artificial one; although, as we shall be able to show, the origin of new characters by "variation and selection" on the one hand, and by "use acquirement" on the other, is fundamentally one and the same process, yet, for our present purpose, the question to be considered is: Whether the new characters which arise in certain body cells as the outcome of a response to attacks by disease organisms owe their origin to "variation" *among* the cells or to a "use acquirement" *on the part of* the cells exposed to the change.

Since the appearance of these new characters represents an adaptive change on the part of the cells concerned, this involves the further question, whether all cell adaptation to altered conditions of life is a "use acquirement" or a "variational and selectional" process, or a "mixture of both."

Although there is no complete agreement among pathologists as to the number and kind of body cells that should be included in this group of what I propose to call "defensive cells," yet all agree that those cells which are to be found at some stage or other of their life-history in the blood or lymph streams should certainly be included in such a category.

It matters little, from our present point of view, whether the struggle between the defensive cells and the disease organisms takes place at close quarters, and depends on a contact reaction between phagocytes and bacilli, or whether it occurs at longer range between "the fixative and digestive secretions of the defensive cells" on the one hand, and "the toxins of the disease organisms," after these have been shed into the blood stream, on the other.

It makes no real difference to the special problem of the origin of new cell activities and new cell capacities, whether we discuss the immunity problem in terms of amboreceptors and haptophore and toxophore groups, or whether we describe it simply in terms of toxins and antitoxins. The essential point is that the immunity reaction itself consists in the exercise of certain capacities of *defence* on the part of the body cells in response to the exercise of certain capacities of *offence* on the part of the bacilli or cocci or protozoa which cause the disease. The question, therefore, is whether the new characters which arise on both sides are "use acquirements" on the part of the individual cells concerned, whether they arise as favourable "variations" among some of the cells during the cell proliferation which accompanies the struggle, or whether they arise as favourable "variations" among the living units, the physiologically differentiated parts which compose the individual cells. Partly by a process of chemo-therapy and partly by growing the organisms in partially immunized hosts, Ehrlich established a strain of trypanosomes immune to certain substances, and capable of transmitting the immune character to their cell descendants for many generations. He states, in reference to this new strain, that it is of little consequence whether it arose as a "mutation" or as a fluctuating "variation." However this may be, it certainly is important to know whether this new character, this immunity against arsenic and fuchsin, was acquired by the individual trypanosomes during growth under the new conditions, or whether it arose as a favourable variation among some of the trypanosomes during the increased struggle for existence and the destruction of trypanosomes brought about by the change in the environment.

Ehrlich[3] himself not only brought forward evidence to show that there is an increased struggle for existence among the organisms during the process of chemo-immunization, but he also suggested that it was brought about by a partial starvation of individual trypanosomes by the blocking of their nutri-receptors by antibodies derived from the cells of the host.

We know that when a struggle for existence occurs, together with a multiplication of the contending organisms, the conditions are present which favour the origin and selection of favourable varieties of new characters, rather than the establishment of use acquirements.

Thus, then, in regard to the disease organisms there is presumptive evidence that they adapt themselves to new conditions, and acquire new characters by a process of "variation and selection" during the process of struggle for nourishment between themselves and the body cells of their host.

Another important fact has been established concerning the immunity response. Largely through the labours of Ehrlich and his co-workers it is becoming increasingly clear that the process by which the body cells respond to disease organisms and their toxins is the same kind of process, slightly modified, as that by which they respond to nutrient material.

In order that it may assimilate nourishment the cell must sooner or later get into intimate cell contact with the material it is to assimilate. The same thing is true in the disease response. The cell treats the disease organism and its secretions as so much proteid material, suitable or unsuitable for assimilation. It is attracted to or repelled from it, and if the circumstances of the reaction allow of such a process, it ingests and assimilates the bacillus by a process of phagocytosis. The cell endeavours to treat the toxin in the same fashion. It fixes and neutralizes it by a complex machinery of amboceptors and digestive complementary molecular groups shed into the blood stream.

The essential point is that the "defensive" cells, when occupied in resisting disease organisms and their secretions, are engaged in a response in which they, or their ancestors, have had some experience in an allied nutritional form, and of which the immunity reaction is a "variant."

After these preliminary remarks we may now examine more closely the conditions under which the disease response takes place.

We know that in the case of all adaptive responses made by higher organisms to changes in their environment (provided that the change be not too sudden or too violent) the essential elements in the conditions of response are a certain rate (generally a considerable rate) of increase in numbers, and a certain rate (generally a considerable rate) of mortality among the individuals exposed to the change. We shall find a corresponding high birth-rate and high death-rate among the "defensive cells" exposed to the attacks of disease organisms.

In every disease, due to microbic infection, there is an incubation period intervening between the entrance of the disease organisms into the body and the commencement of the invasion phase of the disease. During this variable period there are reasons for thinking that the disease organisms are engaged in cell multiplication, and in the

elaboration of toxins, haptophore and toxophore groups, to fit the nutri-receptors of the defensive cells.

The invasion stage itself is marked by severe symptoms which indicate a more or less profound change in the environment of the body cells, due, in Ehrlich's language, to the anchoring of the disease organisms or their receptors to the side chains of the body cells.

The succeeding stage of illness, with its periods of remission and intermission, is associated with recurring sheddings of saturated, and the reanchoring of regenerated receptors on both sides, with a mutual neutralization of the toxophore and antibody groups on either side. This process may end in recovery by crisis, in which a sudden fixation and neutralization of toxin occurs, together with a more or less wholesale destruction of the disease organisms, or it may end in lysis, a more gradual but essentially similar process, in which the disease organisms and their toxins are neutralized and destroyed in successive stages.

Under certain conditions some of the organisms worsted in the struggle may retire to tissues or situations in which they are less exposed to attack, or they may succeed in surrounding themselves with protective capsules, or they may remain quiescent in the more resistant spore form, and under favourable conditions of lessened resistance on the part of the host may again become active and bring about a relapse, or, in "variational terms," screened from immediate attack, they undergo cell multiplication, and vary in the direction of, or acquire greater virulence, as they become armed with more virulent toxophore and more efficient haptophore receptors and renew their attack on the defensive cells.

Such are the phases of the disease response; the very step-like interrupted character and the varying intensity of the process suggest the operation of "variation and selection" among the contending cells and disease organisms. If recovery were wholly synonymous with the increasing development by exercise of a capacity of "*defence*" by the body cells, and the decreasing exercise of a capacity of "*offence*" by the disease organisms, no adequate explanation seems forthcoming of these sudden changes in the intensity of the process, or of these rises and falls in activity on both sides.

If, on the other hand, recovery denotes the origin of additional adaptations arising as variations, in or among the defensive cells, and relapse, recurrence, and death indicate further variation in offensive capacity in the disease organisms, then the alternation between the inactive and the active phases in disease coincides with the transitional stages between increased variation on both sides.

In the course of every disease, at some stage or other, there are some traces of death and injury amongst the body cells. We need only recall the high rate of mortality among the polymorph leucocytes which occurs in suppuration. Such a high rate of mortality may itself be evidence of a powerful positive chemiotaxis on the part of the cells, and it may indicate a successful reaction.

There is also the desquamation and the exfoliation of the older epithelial cells of skin or mucous membrane in the exanthematous fevers. The muco-purulent secretion thrown off by the mucous membranes when invaded by micro-organisms of many kinds; the loss of staining reaction denoting death in the aggregations of phagocytes and giant cells, which surround imprisoned colonies of tuberculous and other bacilli, both are associated with the defensive reaction and the recovery process.

The phenomenon of phagolysis, especially of macrophages, described by Metchnikoff, and regarded by him as a necessary preliminary to the liberation of cytases into the blood stream by phagocytes, affords direct evidence of cell mortality whatever may be its intimate relation to the bactericidal property of immunized serum.

All these phenomena provide examples of the high cell death-rate which accompanies the disease process. But there are important indications that what is true of the defensive cells as a whole in the disease response, is true also of their physiologically differentiated cell parts.

There is every reason to think, judging from the analogy of the division of nuclear material in germinal reproduction, that such a physiological differentiation of molecular cytoplasmic and nuclear structure exists in every cell, even though we may not be able to recognize it in any structural modification under the microscope. The very fundamental facts of immunity, as interpreted by the most sound and far-reaching of all the theories hitherto propounded (that is, Ehrlich's), strongly suggest the occurrence of differentiation.

Ehrlich has shown that there must be a shedding into the blood stream of some such physiologically differentiated portions of defensive or body cells, that there must be a throwing off of molecular groups of a highly complex and specific stereo-chemical composition—for example, amboceptors, since bodies of this kind can be recovered from the blood stream in combination with the toxin groups, which they have "fixed," and from which, by appropriate means, they can again be split off. Further, these same bodies, in the shape of receptors, while still in organic union with the body cells, serve to anchor the toxophore groups to these cells in the same way that, under normal conditions, as nutri-receptors they anchor nutrient material to the same cells.

The fundamental facts concerning disease as a whole point in the same direction. The bodily wasting which means cell destruction, or destructive changes in cell parts, the haemolysis, the cytolysis, all these processes are closely associated with the disease response.

Cell regeneration and cell proliferation are both also constant characteristics. We need only recall the regeneration of red blood corpuscles, of leucocytes, of lymphocytes, of microphages, of macrophages, and of tissue cells.

But besides the regeneration of individual cells destroyed by the toxins of the disease organisms, there is also an abundant regeneration; in fact, an over-reproduction of physiologically differentiated cell parts. The enormous volume of antibodies and antitoxins found in the blood stream, in proportion to the dose of toxin administered during the process of immunization, affords abundant evidence of the regeneration and reshedding of such molecular groups by the body cells exposed to the activities of the disease organisms.

This conception of the process of cell destruction which occurs during disease, as representing a mortality-rate among imperfectly adapted cells, and as the discarding of so much unfit material, and the process of cell regeneration as a process which is useful in favouring the origin by variation of more fit and more fully adapted cells, is, I think, in harmony with general biological conceptions.

If, on the other hand, we conceive of the adaptive changes arising in cells, exposed to the attacks of disease organisms, as so many direct reactions made by the cells to an environmental change of a chemical kind, and as so many "use acquirements," then it is not easy to account for the cell destruction which undoubtedly figures so largely in the disease response; for if the cell as a whole, when exposed to such a chemical change as that brought about in the nutrient medium by the toxin of a disease organism, readjusts its molecular constitution, and brings it into harmony with the change in the environment, there is no necessity for the destruction of the cell. If, on the other hand, the fully-formed cell exposed to such changes cannot so adjust itself, while some of the younger and less highly differentiated cells can so adjust themselves, or are already so adjusted, then the principle of "variation and selection" is at once introduced into the adaptive response.

It is admitted by all, even by those who uphold the "*direct adaptational*" view of the immunity response, that the process of adaptation by "use acquirement" is a gradual change, and that it occurs in stages in which the more perfectly adapted succeed the less perfectly adapted.

The crucial difference between "direct adaptation or use acquirement" and "indirect adaptation by variation and selection" depends on the conditions under which the response is made, and these in the case of the disease response are as follows:

In the "direct" or "use acquirement" form the adaptation is made by the individual cell or the physiologically differentiated parts which compose the individual cell exposed to the environmental change, whereas in the "indirect" or "variational form" the adaptive change is not made by the individual cells exposed to the new conditions; these, being unable to undergo the required molecular readjustment, perish, while the new characters arise, as adaptive variations, in the younger cells or

"mother cells" stimulated to active cell division by the destruction and removal of the older cells.

Look at the facts, however, as we may, we are always coming across struggle for existence, cell destruction, and cell regeneration in recovery from disease. They occur not only among individual phagocytes, but also among the physiologically differentiated cell groups, the amboceptors and receptors which compose the phagocytes.

Moreover, there is a quantitative side to this relationship, between struggle and recovery in the disease response. A high cell birth-rate and a moderate cell death-rate are characteristic of a successful response and of recovery, whereas a low cell birth-rate and a wholesale cell death-rate or injury-rate are characteristic of the unsuccessful response in which there is no time for the readjustment of cell parts, or for the origin of new and more fully adapted cell varieties.

It is very necessary to bear in mind this cell destruction when deciding between "use acquirement" and "innate variation" as possible causes of the origin of new characters in somatic cells in response to disease.

Conditions involving injury and death of numbers of individual cells are really incompatible with the origination of new characters by "use acquirement." The nerve cells, which are capable of making use acquirements in the highest perfection, do not undergo injury as cells or perish in the process of acquiring new modes of response to changes in nerve stimuli. On the other hand, a high rate of multiplication among organisms, together with a high rate of mortality among those which are less perfectly adapted, strongly suggests that a process of adaptation by selection is going on in consequence of some change in the conditions of life.

Consequently we are led to believe that both the "direct" and "indirect" forms of adaptive response are present during the response to disease—the immunity reaction.

Moreover, we are not without direct evidence of the fact that the body cells, and especially those of them which form the defensive group, are as a whole (like the highly variable disease organism to which they are exposed) very variable as regards these defensive capacities.

There seems to be no hard and fast line of demarcation between "natural immunity" on the one hand and "acquired immunity" on the other. Among naturally immune races, some individuals exhibit this natural refractoriness to certain disease organisms in a higher degree than others. In acquired immunity the artificially-acquired immune state persists longer in some individuals than in others in reference to the same disease.

There are, indeed, indications that, through the operation of natural selection, this variability in capacity of response to disease organisms and their secretions on the part of the defensive cells has assumed a selection value among the body cells, just as a corresponding variability in capacity of offence and defence against the attacks of body cells has assumed selection value in the case of the disease organisms.

### ACQUIRED IMMUNITY.

The foregoing statements must now be submitted to the test of experience, and the various kinds of immunity must be considered, especially that state of resistance to subsequent invasion which results from recovery from any one of the zymotic diseases, and is known as "acquired immunity."

The individuals of certain races which have had a sufficiently long experience of certain non-lethal diseases such as scarlet fever and measles, possess an innate capacity, not to resist invasion, but to recover from the disease if exposed to infection, in a greater degree than individuals belonging to races which have not had experience of such diseases.[4] This means that the body cells of such individuals are enabled by the exercise of the innate capacity of recovery to transmit to their cell descendants another kind of capacity, or the same capacity in a more perfect form, namely, a power to resist invasion—that is to say, a capacity to become adapted after experience to any given environmental change, is transmitted to cell descendants (not to offspring) as a capacity of preadaptation to a subsequent occurrence of the same change, independently of preceding experience by such cell descendants.

Further, it is well known that the degree of persistence of the immunity so acquired stands in direct relation to the specific nature and activity of the disease organism causing the disease, in so far as that specific character is associated with a capacity to establish widespread and intimate relations with the body cells of the host—in so far, in fact, as specific character goes with capacity to bring about generalized systemic infection.

Thus while reaction to the small-pox organism (which, as shown by the generalized rash, causes widespread infection) results generally in a lifelong immunity, reaction to the organism of vaccinia results in a more transient immunity.

Moreover, in vaccination the degree of persistence stands in direct relation to the number and size of the vaccine pustules, that is to say, to the volume and intensity of the reaction made. In this way vaccination reduces the persistence of acquired immunity because in vaccination use is made of an organism which has undergone varietal change and reduction in virulence.

Vaccine-therapy, on the other hand, increases the persistence of "acquired immunity" by inducing a wider and more complete response on the part of the defensive cells to the disease organisms or their toxins.

Again, the persistence of "acquired immunity" in any given case is reduced by any kind of treatment which tends to destroy the disease organism or to reduce its virulence soon after it has gained an entrance into the body. Such chemo-therapeutic treatment acts by qualitatively and quantitatively reducing the reaction made by the organism to the disease. Thus after treatment by salvarsan in early stages the Wassermann reaction in the syphilitic patient becomes negative, and the immunity to subsequent reinoculation by the *Spirochaeta pallida* is less persistent than in cases in which the disease has pursued a longer course.

Antitoxin treatment probably acts in the same manner. The toxins formed by certain organisms which grow on the surface of the mucous membranes are fixed in the blood stream at an early stage of the infective process. Thus the reaction made against the disease organisms is limited to the blood stream, and its volume and intensity is thereby reduced.

Thus in the treatment of diphtheria by antitoxin, the saturation and fixation of the toxophore groups in the blood stream of the patient, by the foreign amboceptors furnished by the immunized animal, restrict the reaction to the body fluids, and prevent that intimate cell contact between toxophore groups and defensive cells, through the medium of sessile receptors, which would have occurred if unsatisfied amboceptor groups had not been injected in the shape of antitoxin. Consequently under such circumstances the body cells do not experience the same intense stimulation, and so do not respond so effectively, or suffer the same starvation, and so respond by cell regeneration and cell variation and selection, according to whichever view we adopt of the origin of new adaptive characters in somatic cells, when exposed to new stimuli.

This association between persistence of acquired immunity and intimacy of cell contact between toxins and defensive cells is also illustrated in an interesting manner by the suppurative diseases.

As a rule, and speaking generally, the pyogenic infections (that is, diseases associated with suppuration) do not confer an acquired immunity of long duration. The recurrence of localized staphylococcal and streptococcal infection foci is common in the same individual. This coincidence, which appears at first sight contradictory, is probably due to the fact that the reaction under such circumstances is a more or less localized response, limited, as far as cell contact goes, to the body cells and defensive cells in the neighbourhood of the foci of infection. This interpretation is rendered probable by the fact that in these diseases those attacks confer the longest immunity in which the infection is most generalized. Thus, septicaemia is more protective than localized abscess.

We may summarize the foregoing facts by saying that in "acquired immunity," when the capacity of recovery is exercised under normal conditions of response—that is to say, when a complete reaction has been made to a disease organism of a degree of virulence normal to its species—then the resulting immune state is usually lifelong, whereas, when the capacity of recovery has been exercised

under abnormal conditions of response—that is, where the reaction has been incomplete, or made towards a disease organism of reduced virulence, or where the reaction has been cut short by the early destruction of the disease organism or its toxins in the body of the host—then the resulting immunity may be transient.

In certain chronic or subacute diseases in which the offensive powers of the disease organism and the defensive capacities of the body cells are more evenly balanced, the slight immunity acquired may be so transient as to permit of frequently renewed infection. Thus, in tuberculosis the disease response is made up of a series of invasions or recrudescences, alternating with a series of partial or local recoveries; and the object of vaccine-therapy in such diseases is to stimulate the body cells to a larger and fuller reaction, with the hope that a more persistent and more complete state of immunity will so result.

So far we have been considering instances of what may be termed a normal relationship between the conditions under which the recovery from the disease has taken place and the persistence of the immune state which follows the recovery so made.

It is, however, necessary to mention certain exceptional cases in which this normal relationship is interfered with, or, at any rate, has the appearance of having been disturbed.

In certain individuals belonging to races which have had experience of, and therefore have undergone evolution in regard to certain diseases, an attack of any of the zymotic diseases such as scarlet fever or measles (generally a mild attack in childhood) may be succeeded by a second, third, or even a fourth attack, generally more severe, in adult life. Although more observations are needed on this point, there is some evidence which tends to show that this peculiar tendency to reinfection sometimes occurs in several members of the same family. In these exceptional cases the capacity to recover persists, while the acquired capacity to remain immune against subsequent infection is diminished or lost.

This leads us to consider the whole question of the persistence of "acquired immunity," and to inquire what it is that occurs, when susceptibility to infection by any disease returns after a period of insusceptibility following recovery.

One point about this loss of "acquired immunity" seems well established—it has no necessary connexion with, and therefore is not caused by, any relaxation of the stringency of selection of resistant varieties of defensive cells. Thus the infection of small-pox may be entirely absent from the environment for long periods of time, and yet the immunity acquired against subsequent infection by one attack of the disease may be lifelong, whereas the infection associated with vaccination may be repeatedly introduced into the body, and the "acquired immunity" which results from vaccination, and revaccination, may be transient.

At the same time we are ignorant of the way in which the immunity of short duration conferred by vaccination differs from the immunity of longer duration conferred by an attack of small-pox. The difference cannot be wholly and entirely one of completeness or intensity of reaction, for the immunity to revaccination while it lasts is as complete as the immunity to reinfection by small-pox while it lasts. Moreover, the loss of "acquired immunity" seems to take place gradually and not suddenly. Individuals gradually become more susceptible to revaccination as time elapses since the last vaccination was practised.

It is interesting to compare this continuous fall in resistance in "acquired immunity" with the irregular and apparently sharply differentiated phases of susceptibility and insusceptibility to disease which occur during the lives of non-immunized individuals, who, although susceptible, and although exposed to infection on frequent occasions, only contract certain diseases under special conditions as yet imperfectly understood.

Apparently these irregular alternations of susceptible and insusceptible phases only occur in individuals who, through racial experience of disease, have inherited some innate capacity of recovery. For if a number of individuals belonging to a race which has not undergone any adaptation to a disease are exposed simultaneously to infection, all, or the great majority of the individuals so exposed, at once contract the disease, that is, they are found to be all susceptible at the same time. This curious fact again points to the intimate connexion between capacity of recovery and the immune state which results from its exercise.

When we compare these exceptional cases with the constant association which undoubtedly exists between the completeness and intensity of the recovery reaction, and the duration of the immune state which results from it, we are led to perceive some relationship, not only between the persistence of acquired immunity and the exercise of the capacity of recovery from which it results, but also in a somewhat ill-defined manner between this varying state of susceptibility to infection during the individual life and the possession of an innate, racially derived, capacity of recovery, even although that capacity has not been exercised by the individual possessing it.

It will be interesting to know whether, in a reciprocal manner, the capacity of recovery undergoes any corresponding increase or decrease during these positive and negative phases of higher resistance and increased susceptibility, whether, in fact, such an individual recovers more easily if he contracts a disease during a period when he is only slightly susceptible, than he does if he contracts the same disease during a period of greater susceptibility.

Though it is difficult to explain all the cases in this way, it is of course possible that some of these irregular cases, in which infection occurs at one time and not at another in susceptible individuals, depend on the dose of infection received, and the route by which it gains entrance into the body. That is to say, an inherited capacity of recovery may be equal to successfully resisting a small dose of infection, but may be unable to deal with a larger dose rapidly introduced, until the capacity has been strengthened by exercise during actual experience of the disease.

But if we explain the facts in this way we are compelled to regard "acquired immunity" as a more complete form of the capacity of recovery, by the increased exercise of which the immune state itself has been brought about. We must, in fact, regard "acquired immunity" resulting from recovery from disease after individual experience, as the same thing as the "natural immunity" which results from the recoveries made by favoured individuals during racial experience of the same disease. This would mean that a capacity exercised in response to the stimulus of "use" has been converted into a capacity exercised in response to the stimulus of "nutrition." Or, in other words, that a pre-experiential character, a preadapted capacity to resist invasion, arises as the result of the exercise of a post-experiential character, a capacity to recover after invasion. This, as we know, is a reversal of the order in which these two capacities have been evolved.

In reference to this difficulty, the question arises whether we are not still under some misconception as to the fundamental nature of the process by which "use acquirements" are brought about, and, as we shall see later, there are many strong reasons for concluding that the process of direct adaptation by "use acquirement" is itself the result of "variation and selection" among the physiologically differentiated parts of which the individual cell is composed, the result, in fact, of variation and selection on the intracellular scale.

However this may be, we must also remember that the recovery capacity, from the exercise of which immunity of the acquired kind results, is itself an innate, inherited character, which has arisen, like other congenital characters, during racial experience of disease.

There are some other isolated clinical facts bearing on the question of the duration of "acquired immunity," but they are not sufficiently understood or sufficiently co-ordinated to be of much service from our present point of view.

In conclusion, it is desirable to analyse critically our conception of "acquired immunity."

Do we regard the artificially-acquired immune state as a *progressive* change, a gain in some quality, a more perfect form of the capacity of successful resistance, or do we regard it as a *retrogressive* change, a loss of some quality or character which previously rendered the body cells susceptible to invasion by disease?

In terms of the side-chain theory, does "acquired

immunity" depend on an increased formation by the body cells of ambo-receptors which in the shed form fix, and neutralize the toxophore groups as soon as formed by the disease organisms in the blood stream, and so prevent infection on any considerable scale?

Or does "acquired immunity" depend on the loss of the already formed amboceptors, and the absence of any regeneration on the part of the body cells of those amboceptors which originally served as nutri-receptors, but which have been made use of by the haptophore group of the disease organism to anchor the toxins to the body cells, and which, therefore, only serve under the altered conditions to render the body cells vulnerable or susceptible to the disease organisms?

Or does "acquired immunity" depend on both these conditions? That is to say, does the exercise of the capacity of recovery result in the increased formation of amboceptors, which, when shed, are capable of directly neutralizing the toxins immediately they are formed, together with the cessation of any further regeneration of the same susceptible kind in the persistently sessile form?

There are still some facts which suggest that even this conception of "acquired immunity" as a double adaptation, the result of both "progressive" and "retrogressive" changes, is still imperfect, if it is limited to one group of cells—the defensive cell group.

In the first place it seems very probable that all the cells in the individual organism are concerned in the immunity response.

Though certain types of cells or cell groups have become, through evolution, more fully adapted than other cells to respond to the attacks of disease organisms and their secretions, and though it is upon these cells that the brunt of the attack falls, yet all the other cells, even the highly specialized nerve cells, are drawn into the struggle in certain circumstances, owing to their affinities for nutrient material of complex proteid composition analogous to that which form the secretions of disease organisms.

Thus we are led to regard "acquired immunity" as that adaptive change in the body cells and body fluids of any organisms which results from the exercise by some or all of the cells of the organism of a capacity of successful response to the activities of certain disease organisms.

The completeness and the persistence of the immune state so acquired bears a direct relationship to the number and kind of the body cells which have exercised this capacity of successful response, and the completeness with which the response has been made by those cells, and the fullness with which the characters so acquired have been transmitted to the cell descendants of the same cells.

Absolute and persistent immunity, therefore, means the possession on the part of all the body cells of efficient means of defence or the absence of susceptibilities permitting attack, or of a combination of both these characters. In many, probably in most, individual organisms in relation to many, probably to most, kinds of disease organisms, this state of complete adaptation does not exist in all the body cells at one and the same time in one and the same individual organism.

Finally, we conclude that the condition of "acquired immunity" so brought about is in some cases and in some diseases the result of direct adaptation on the part of the body cells exposed to changed conditions. It is the result of a process of "variation and selection" of an *intra*cellular kind. In other cases it is represented by adaptation of an indirect kind on the part of the body cells exposed to environmental change, the result of a process of "variation and selection" of an *inter*cellular kind.

Or it may be due to a combination of both these factors.

It is, indeed, possible to differentiate somewhat more closely diseases against which it is possible to acquire immunity on the one hand and diseases to which adaptation can only be brought about by natural immunity during racial experience on the other.

Reid [4] has shown that, speaking generally, the diseases to which adaptation is brought about by acquired immunity after individual experience are diseases like small-pox or measles, which are characterized by acute infection, due to extracellular toxins (exotoxins) secreted by the disease organisms into the blood stream. While the diseases in regard to which acquired immunity is impossible or difficult, and to which adaptation is brought about by natural immunity evolved during racial experience, are the more chronic infections, like tuberculosis and leprosy, in which the disease organisms do not secrete exotoxins in any quantity, while between these two extreme groups there are numerous diseases of an intermediate type in regard to which adaptation is brought about by both kinds of immunity, natural and acquired.

It is interesting, therefore, to find that, approaching the subject of acquired immunity from another side, we have already reached the conclusion that the artificially acquired immune state which follows individual recovery from disease is partly the result of direct adaptation by use acquirement, and partly the result of indirect adaptation by innate variation among body cells.

Moreover, we found that it was in the chronic infections, like tuberculosis, characterized by destruction and regeneration amongst the body cells, that intercellular variation and selection occurred, and that adaptation was largely indirect.

While it was chiefly in the acute infections, like small-pox and scarlet fever, in which exotoxins were secreted by the disease organisms and antitoxins and antibodies were elaborated by the defensive body cells, and in which the evidence of cell destruction was less marked, that adaptation was chiefly direct and variation and selection of the intracellular kind.

This means, speaking broadly, that the antitoxin side of the immunity reaction represents the individual use acquirement, or *direct* form of adaptation, and the intracellular phase of variation and selection, while the phagocytic side of the immunity response represents the racial or innate and *indirect* form of adaptation and the intercellular phase of variation and selection.

It means, further, that, as we have already seen, the immune state is the result of one kind of adaptation in one group of diseases, and of another kind of adaptation in another group, and of both kinds of adaptation combined in a third group.

### NATURAL IMMUNITY.

We must now consider that form of resistance to disease known as natural immunity, and compare, from the adaptational point of view, the conditions under which it occurs with those under which "acquired immunity" exists.

In the first place, "natural immunity," unlike the "acquired" form, does not depend on the previous exercise of any capacity of recovery by the immune individual. It is an innate character, and arises through the selection of more resistant individuals during racial experience of disease, and, like all *innate* as opposed to *acquired* characters, it is transmitted from parent to offspring.

But while these are the conditions under which "natural immunity" occurs in the ordinary way, there are certain further facts which are of interest from our present point of view.

It is well recognized that the line which separates the "naturally immune" species or variety of animals from the "non-immune" species or variety is a very narrow and apparently an arbitrary one.

For instance, albino rats are said to be immune to anthrax; whether this be entirely so or not, it is probably true that albino rats present a greater immunity against anthrax infection than wild rats. Now the essential difference between albino rats and wild rats is one of pigment. The whole question of pigmentation in reference to immunity requires further investigation. It is, however, difficult to understand how the absence of pigment in the body cells of any animal can be associated with an increased capacity of resistance to disease, or how the presence of pigment can assist the anthrax bacilli, or hamper the defensive cells in the disease response in such animals. Moreover, in the cancer reaction we find, on the other hand, the absence of pigment in the rat associated with increased susceptibility to cancer implantation. Thus Loeb found that he could grow sarcoma of a certain strain in albino rats, but not in ordinary rats (quoted by Gould in the Bradshaw Lecture),

If we regard "natural immunity," like "acquired immunity," as a state of adaptation brought about in different cases by a progressive variation, or a retrogressive variation, or by a combination of progressive characters of increased resistance with retrogressive characters of

diminished susceptibility of all body cells or of some kinds of them, then this peculiar association becomes more intelligible. Immunity to anthrax would then in the albino rat be a recessive variation, and would be associated with other characters of a recessive kind in the same animal.

In order to conceive of "natural immunity" as entirely due in any individual organism to entire absence of susceptibility to invasion, we must regard the body cells of such immune individuals as destitute of all receptors, all molecular cell groups of a kind susceptible to attack on the part of disease organisms and their toxins, both toxophore and haptophore groups. We must, in fact, regard the cells as destitute of all characters by means of which disease organisms are enabled to establish relations with them. Their nutri-receptors must be incapable of affording anchorage to the toxins of such organisms.

Having no vulnerable points, if disease organisms do gain entrance into the body, they can excite no reaction, and are treated as inert material or as food.

Such an example of "natural immunity" of the negative kind is afforded by the marsh turtle in regard to anthrax. This animal is naturally quite immune to the anthrax bacilli and its toxins, and seems to be quite unaffected by the injection of large doses of the poison into the body. Moreover, as the result of such treatment no antibodies and no antitoxins are found in the blood or body fluids.[1]

The alligator, on the other hand, affords an example of "natural immunity" of the positive kind, in which the artificial introduction of anthrax bacilli is followed by the plentiful production of antibodies in the blood serum.

Such a negative form of "natural immunity" as that afforded by the marsh turtle would be paralleled in "acquired immunity" by those typhoid carriers, of which apparently a few are recorded, in which the typhoid bacillus can be demonstrated, but who give no Widal reaction.[2]

A "natural immunity," an insusceptibility of this kind really means an absence of established relationship, or rather the impossibility of establishing relationships between the body cells and the disease organisms to which the cells are insusceptible. In such circumstances there is no evidence of any reaction or defensive response by the body cells as the result of the introduction into the body of the disease organisms by natural or artificial means. It is either an immunity which precedes racial experience of disease, or it is the final stage of perfected natural immunity of the positive kind.

This conception of "natural immunity" under certain limited conditions as a negative state, a loss of susceptibility, derives some support from certain facts known about the responses made by organisms to food material and non-protein chemical substances.

Certain individuals and some species of animals are naturally immune to, that is, insusceptible to, the poisonous action of articles of food, alkaloids, and other substances. Thus the rabbit is insusceptible to belladonna, a chemical substance poisonous to other species of rodents. The entrance of this material into the body of the insusceptible animal is not followed by any symptoms of reaction. It is simply dissociated, and assimilated, or excreted by the body cells in the same way that ordinary food material is dealt with.

The presumption is, therefore, that if "natural immunity" under certain circumstances may be represented as a negative state, "acquired immunity" may be so represented also. But however large and important, or however small and unimportant, the part played by "natural immunity" of this negative kind in the disease response either in man or the lower animals, there can be no doubt as to the importance of the part played by "natural immunity" of the opposite or "*positive kind.*"

This kind of natural immunity succeeds racial experience of disease out of which it arises, just as acquired immunity results from individual experience of disease.

It consists, as before outlined, in a perfected form of the recovery response, established during racial experience of disease, in which the body cells or the special defensive cells, or body fluids, or both, immediately respond in an adequate manner, and without the necessity for any preliminary training or reinforcement, to any attempt on the part of the disease organisms to invade the tissues. Unlike the negative form of "natural immunity" the positive form is an adaptation of a progressive kind. It is due to the increased perfection of an old or the acquisition of a new character. Moreover it *succeeds* and does not *precede* racial experience of disease.

The greater number of examples (both in the human and other species of animals) of natural immunity to disease organisms and their toxins appear to be of this positive kind.

For instance, individuals belonging to immune races, and themselves naturally more or less immune to the tubercle bacillus, show a high opsonic index, that is to say, a high defensive capacity on the part of their defensive cells in relation to the tuberculous organism when inoculated with its toxins.

In many cases of natural immunity to different species of disease organisms in the lower animals the formation of antibodies and antitoxins in the blood in response to inoculation by the disease organisms or their toxins to which such animals are naturally immune, strongly suggests that the immune state is the outcome of an adequately adapted defensive machinery existing in the body cells of such animals. Interesting facts confirmatory of the view that "natural immunity" of this kind is a progressive adaptation, a state of more perfect defence, are derived from a study of the allied haemolytic and cytolytic reactions observed in such naturally immune animals.

Lastly, it is quite possible that "natural immunity" in some cases and under certain conditions may be due to a combination of the negative and positive forms. It may arise during the process of adaptive evolution against disease as a *progressive* change in one way, and a *retrogressive* change in another way; as a *gain* of a character in one direction and the *loss* of a character in another direction; as an *increase in defensive* capacity in some cells and a *diminution in susceptibility* in other cells.

Nor is this division of "natural immunity" into two kinds merely a matter of superficial interest. It assumes additional interest when regarded from the hereditary and evolutional point of view. Thus regarded it becomes evident that the *positive* must have succeeded the *negative* form in the history of any species.

If, finally, we regard the "naturally immune" state as a whole, irrespective of any artificial division into kinds or varieties, and irrespective, also, of the different ways in which the different varieties may have originated, we find certain features for the most part the opposite of those found in the "acquired form."

Unlike "acquired immunity," *natural immunity* is transmitted from parent to offspring. It is almost invariably, under normal conditions at any rate, lifelong in duration, and so does not exhibit that variability in persistence which is characteristic of the acquired form.

From our present point of view the most important point about natural immunity is that it represents an *innate congenital* character or capacity. It arises during the growth of the individual, like other congenital characters, in response to the stimulus of nutrition, and independently of any individual experience of disease.

About this there can be no doubt, with the exception perhaps of the extreme negative variety which represents an entire absence of both individual and racial experience of disease, the naturally immune state is an adaptive state, the outcome of the selection of more resistant individuals during racial experience of disease.

### RECAPITULATION.

Having considered "natural" and "acquired" immunity, and having examined and compared the conditions under which they respectively occur, we are now in a position to ask the final questions which it is the object of this inquiry to attempt to answer:

1. Is "acquired immunity" the outcome of *use acquirement* or of *innate variation?*
2. What is the fundamental nature of a "use acquirement"?
3. Does it originate in a biological process essentially different from that by which innate characters arise, and, if so, in what essentials do the two processes differ?

It will be convenient, in the first place, to consider the resemblance in the conditions under which "use acquirements" and "innate characters" originate.

In both cases the new characters arise during the gradual process of cell growth away from, rather than in

the direction of, the hereditary cell tendency. In both cases they arise from the interaction of two factors—*environmental change* on the one hand, and *cell potentiality* on the other.

All cellular variation must ultimately be explained in terms of interaction between outer and inner forces. But while in use acquirement the new character, the new variation is a reaction to the *use* factor in the environmental stimuli, and has the appearance of being a "direct" response, in spontaneous or innate variation the new character so arising is a reaction to the *nutritional* factor in the environmental stimuli, and has the appearance of being an "indirect" response.

Further, the study of the immunity and disease response has shown us that when the use and nutritional factors are combined in one and the same environmental stimulus, as in the case of the response made by the defensive cells to disease organisms and their toxins, then the new acquirements, or the new variations, whichever way we describe them, tend to arise as "direct" adaptations to the environmental change.

This fact suggests that, after all, although they differ as to the conditions under which they occur, the processes of adaptation by "use acquirement" on the one hand, and by "innate or spontaneous variation" on the other, are not two essentially different processes, but one and the same, taking place among cell parts in the one case and among individual cells in the other.

Thus, in the response made by the neuron to any change in the stimuli of sound, light, heat, contact, or any of those vibrations which constitute the various kinds of nerve stimuli, we encounter the process of "use acquirement" in the most highly developed form. Not only are the two factors, use and nutritional stimuli, widely differentiated in the environmental influence to which the nerve cell is exposed, but the response made by the nerve cell to the stimulus is widely and definitely differentiated in regard to these same two component factors also. For the neuron responds to the most delicate alterations in the use stimulus, while the nutritional stimuli, which reach it at the same time, remain constant or may vary in a contrary direction. Moreover, as a consequence of this differentiation and highly organized condition, the nerve cell has lost the power, at any rate, in adult life, in the fully developed form, to undergo cell division and therefore to transmit to cell descendants the acquirements which it has made.

Unlike the process by which adaptational change is brought about among other kinds of cells, and unicellular organisms, and to a certain extent also among the defensive cells, a process characterized by intercellular struggle for existence, cell destruction, and cell regeneration, and cell variation; the process of "use acquirement" by which a nerve cell becomes adapted to changes in the nerve cell environment is characterized by an absence of any struggle for existence, or of any injury or destruction to nerve cells, or of any regeneration of nerve cells, but it is characterized by changes of an intracellular kind, by new combinations in molecular groups, and by the discarding of less fit molecular groupings, and by the waning and waxing of Nissl bodies.

Both processes are alike in this, that they are due to variation and selection among units exposed to change, but in innate variation the "variation and selection" concern individual cells, while in "use acquirement" they are intracellular, and concern cell parts.

In the intercellular form the possibility of variation among cells as individual units is closely dependent on the degree of organization of the cells concerned. The more highly specialized and differentiated nerve cells are incapable of varying among themselves, since they are incapable of cell division, while the less highly organized phagocytes or disease organisms would seem to be capable during cell proliferation of innate variation.

In the intracellular form of adaptive response and variation we find the same conditions, for while the nerve cell as a whole is a highly specialized cell, the cytoplasmic substance of which the young and adaptable nerve cell is composed is highly labile and capable of much molecular change and rearrangement.

In both cases alike the modified capacities and the altered activities are due to the influence of environmental stimuli acting on hereditary potentiality, in one case of the cell regarded as a unit, in the other case of the physiologically differentiated molecular biophores of which the cell is composed.

If we are right in thus regarding a "use acquirement" as a process of variation and selection in an intracellular form we should expect that any character so originating would be transmitted to cell descendants, just as the new characters which arise as the outcome of intercellular variation are so transmitted, and such, indeed, we find to be the case.

Whenever a new character arises in any cell as a "use acquirement"—that is, as a variation of a qualitative or quantitative kind during growth of physiologically differentiated cell parts—it is transmitted in cell division to the cell descendants of that cell. The facts concerning "acquired immunity" illustrate this point very fully. The acquirements made by the defensive cells during the exercise of the capacity of recovery are transmitted to the cell descendants of the defensive cells.

We also see the reason why acquirements made by the body cells of the individual are not transmitted to offspring, for only those variations which occur in or (since the process of origin is the same) only those acquirements which are made by the germ cells themselves are transmitted to germ cell descendants—that is, to new individuals. Acquirements made by body cells are only transmitted to the cell descendants of those body cells, and then only under definite conditions.

In fact, the transmission of new characters to cell descendants is so bound up with adaptation, and is of such vital importance to the welfare of the individual organism that it has itself come under the influence of natural selection and has come to possess selection value.

For instance, it has not apparently been to the interest of the individual that automatic and fixed modes of response acquired by nerve cells and the nervous system as a whole should persist indefinitely or be transmitted to nerve cell descendants. Hence the nerve cells have lost the power to multiply, and so do not transmit acquired characters.

It is not in the interest of the organism that muscular hypertrophies, the result of "use acquirements" should persist in the absence of the special stimulus which called them forth, hence "use acquirements" in the muscular system depend on a graduated exercise of a capacity of muscle cell division, in response to the use stimulus, and when the stimulus ceases to operate the muscle cells cease to divide.

In the response made by the defensive cells to disease organisms, on the other hand, it is to the interest of the organism that the capacity to resist disease should persist, hence the defensive cells transmit to their numerous cell descendants the new capacities which they themselves have acquired during the reaction to disease. And if in addition (as I think the evidence clearly shows) it is to the interest of the organism that the capacity to resist disease should persist in an economic form, that is in a form in which it can be immediately exercised without any necessity for a renewed exercise of the capacity of recovery, as it can be in the "acquired immunity" form, then we can understand how it has come about that this capacity to recover from infection has been converted into a capacity to resist invasion.

As to the change in character or form undergone by the capacity so converted, it may be due to changes in the defensive cells of a *progressive* kind, to a more perfect form of the recovery response in which a permanent machinery of defence is always ready, or it may be the outcome of a *retrogressive* change, a negative variation, a loss of susceptibility on the part of the body cells or some of them. In terms of the side-chain theory it may be due to a failure on the part of the defensive cells to reproduce susceptible receptors capable of affording anchorage to the haptophore and toxophore groups of the disease organisms.

It is very necessary to remember that the immune state and the capacity to recover are both adaptations, and that the whole disease response is an attempt at mutual adaptation on the part of two highly variable and extremely prolific kinds of organisms, the defensive cells and the disease organisms. In fact, the very life and death character of the struggle and the stringency of the selective process has placed a high selection value on both these capacities—Variability and Fertility.

But the different species—that is, the different morphological forms of the disease organisms—far outnumber the different kinds of the defensive cells; hence the same defensive cell must be adapted to and must be able to resist the attacks of many kinds of disease organisms. Hence it becomes necessary that the individual cell should obtain new defensive powers by "use acquirement"—that is, by varying "intracellularly" in response to environmental changes as well as by "intercellular" variation. Further, in view of the changing capacities and changing activities of the disease organisms, a moving equilibrium or equality of adaptation can only be maintained by losing vulnerability in some directions and gaining increased resisting powers in other directions on the part of the defensive cells and the disease organisms. We know that in the struggle between individual organisms adaptation has been brought about by retrogressive as well as progressive variations; in fact, in some cases the former have outnumbered the latter. It is probable, therefore, that retrogressive as well as progressive variation has occurred on both sides during the struggle between individual cells and cell parts.

It is probable, in fact, that the advantages—the increased adaptive capacities which have arisen as the result of variation amongst the disease organisms, and the increased adaptive capacities which have arisen in defensive cells as "use acquirements"—both equally owe their origin to progressive and retrogressive variations, in the one case largely in the intercellular, in the other case largely in the intracellular as well as the intercellular field.

As before indicated, the crucial difference between "innate variation" and "use acquirement," between "inter-" and "intra-" cellular selection is this: in the former the new characters do not arise in the individual cells exposed to the change, for, these being unable to make the adaptive response, perish, but in related cells which possess the more suitable capacities, and which therefore survive.

In the latter case, although the new characters arise in more fit physiologically differentiated cell parts the discarding of the older cell parts exposed to the environmental change does not necessitate the death of the cell as a whole.

But while they differ crucially in the kind of units which vary and which are selected, both processes are essentially alike, inasmuch as both depend on variation and selection.

The old question which Lamarck and Darwin set themselves to solve in the world of species still confronts us in the world of the individual organism. They were struck by the sharply accentuated discontinuity between species on the one hand, and they were troubled by transitional forms on the other. They asked the question, How does one specific character arise out of, merge into, and give rise to another specific character? Lamarck answered the question in one way, Darwin in another.

Modern bacteriological attitude to the evolutionary process as it affects the different varieties and different capacities of defensive cells is still in the Lamarckian stage, and the problem, moreover, is rendered even more obscure and more difficult by reason of the very fact that in the case of the body cell and the disease organism we are dealing with component parts of the individual organism, which are themselves unicellular organisms, and in such organisms the continuity between cytoplasm and nucleus is much more perfect than the continuity between body cells and germ cells in the multicellular organism.

Hence in unicellular organisms, such as the defensive cells, environmental change exercises through the cytoplasm a much more direct influence on nuclear activity. Hence variation assumes a more directly adaptive character. Hence, also, the greater difficulty in distinguishing between "innate variation" and variation due to "use acquirement." Hence the great probability that they are both a process of variation and selection—one *intercellular*, one *intracellular*—and the further probability that the one process has arisen out of the other.

But the analogy between the progress of evolutionary thought in the ontogenetic and phylogenetic field goes deeper still.

Confronted by the difficulties to be surmounted in accounting for "spontaneous" variation—that is, in associating germ-cell variation directly with somatic-cell variation, the result of environmental change—Weismann fell back on variation and selection among the different ids and determinants which he had already assumed in the germ cells, as forming the material basis of variation and hereditary transmission—that is, he fell back on variation and selection of an intracellular kind.

In like manner Ehrlich, confronted with the difficulty of accounting for direct adaptational response in defensive cells, has assumed the existence of a complex machinery of "receptors" in the defensive cells to explain the manner in which the immunity response to disease organisms is brought about.

There is therefore some precedent for going a step further and assuming, as we have now done, as a working hypothesis, a process of variation among the physiologically differentiated parts which compose the cell itself, together with a selection of the more favourable of the variations so occurring.

The result of the foregoing examination into the conditions under which acquired immunity occurs tends to show that the process by which the defensive cells acquire new characters and new capacities of offence and defence is a process of variation and selection, partly of an intercellular and partly of an intracellular kind.

It tends to suggest, in fact, that "use acquirement" is a form of adaptation to environmental change brought about by variation and selection among intracellular units instead of among individual cells.

REFERENCES.

[1] Metchnikoff, *Immunity*. [2] Ledingham, Report to Local Government Board, 1910, p. 118. [3] Ehrlich, *Studies in Immunity*. [4] Reid, *Principles of Heredity*.

## THE HULTON COLLIERY EXPLOSION.

BY

W. A. HATTON, M.D.DURH.,

SURGEON TO THE COLLIERY.

### HISTORY OF EVENTS.

THE explosion, lasting about a couple of seconds, produced a dull, heavy roar, distinctly heard four miles away, occurred on December 21st about 7.50 a.m., when the men had been working about an hour. I arrived about 8.20 a.m., and found the manager, Mr. A. Tonge, and the mechanical engineer and officials busily engaged in rescue work. Some colliery proprietors and Sir William Hulton, on whose land the pits are situated, were already on the scene, endeavouring to find out what was the matter, and anxious to give every assistance possible.

Drs. Blakemore and Russell, Leigh and Racker, were soon upon the scene, and we remained throughout the day attending to casualties. Medical men from all the surrounding districts were soon present and ready to render assistance.

The engine-house was prepared as an emergency station, while the Miners' Union room, lent by Mr. Roughley, was used as a temporary hospital under the charge of Dr. Mallett of Bolton Infirmary. Stretchers, splints, and surgical materials and blankets were supplied by the colliery officials. The Westhoughton district nurses, Nurses Gallimore, Jones, and Green, several nursing sisters of our ambulance division under Lady Superintendent Caldwell, together with ambulance carriages, were in attendance, so that the medical arrangements left nothing to be desired, and we were fully prepared to deal with any emergency. There were, in addition, a good number of well-trained ambulance men soon on the scene, who did good work on that and the succeeding days.

Hour after hour of anxiety was passed by the enormous crowd, uncertain as to the extent and consequences of the explosion, and doubts as to whether any would be found living became the current feeling, especially when the condition of the first casualty, brought up between 10 and 11, was seen—a youth, Gibson, aged 15. He was entirely nude, not a shred of clothing left on him. He was badly burnt all over, and thickly coated with coal dust. He was just alive, unconscious, and breathing spasmodically. There were no fractures or wounds; the hair was completely burnt off. He lived but a short time, death being due to the shock of the explosion.

He was soon followed by Fountain Byers, aged 33 who was about fifty yards from the Yard shaft (with several dead around him). He was badly burnt about the head, chest, back, body, arms, and legs, unconscious, covered with coal dust, and with a severe scalp wound on the back of the head. After attention he was removed to the Bolton Infirmary, where he died the following morning from shock due to his injuries. He was suffering from asphyxia, but with no definite symptoms of after-damp.

Following him were some dozen cases of men, more or less badly gassed, and presenting the usual symptoms—staggering gait, difficulty of breathing, dizziness, and maziness. They had all come from the Arley Mine. Most of the cases were treated in the engine-room, where they all recovered, artificial respiration in some cases having to be performed for some time.

Richard Clayton, a head fireman, was the next important case. He had gone to an air crossing in the Arley Mine to see that the ventilation was all right; he tumbled down and was found insensible, though there were no traces of any violent disturbance due to the explosion near him. Artificial respiration and every means of recovery were resorted to, without avail. On being brought to the surface a plug of tobacco was found lodged in his throat. It would be difficult to say whether it was the cause or the effect of death. He was certainly asphyxiated, which might very likely be caused by foul and impure air, of which a good deal had penetrated the Arley workings. Another unfortunate casualty was the death of William Turton, who was bravely engaged in rescue work in the Yard Mine (where the disaster occurred). A slight fire had broken out, and he and a companion, Stott, were sent to put it out; he dropped his lamp, and getting hold of Stott's he dropped that, saying "I am done for." Rescue men went down, and did what they could for him, but he never recovered. Death was due to asphyxia.

Both of these cases might have stood a better chance had they been hurried at once to fresh air. These were the only two unfortunate incidents occurring from beginning to end, apart from the effects of the explosion. Turton's death, sad as it was, may have been the means of saving several lives, as it showed the dangers lurking round and the need for caution.

One badly gassed case from the Arley—that of G. Partington—is interesting; in his own words:

> I was getting coal, when my light went out. I thought I would go and get it lit, but changed my mind, and waited for a few minutes, when I heard a great clap, and the air currents veered to and fro, and the air was thick with fog and mist and dust. Several of us went to G. Byers, a brother to Fountain (who lost his life), who was dazed and prostrate himself, and also gassed, and, as he wouldn't answer, lost their tempers with him. However, he rallied a bit, and told them to go round another way, as the fog was so thick you could cut it. Then I went mazy—my head swam—and I fell down; when I woke up I saw the doctors round me bringing me round.

Pneumonia commenced the next day; it ran the ordinary course, and terminated on the tenth day. For three days previously he was violently delirious—a condition noticed in several cases recorded by Dr. Shaw Lyttle in the Albion Colliery explosion as a result of after-damp. He made an uninterrupted recovery, except that he suffered from shock for a long time.

Another badly gassed case was that of Sharples, who was in the Arley Mine. He heard the roar, his lamp went out, and he was knocked down and remembers nothing more until he found himself in the Bolton Infirmary. There were no injuries, but symptoms of shock and asphyxia and unconsciousness. He recovered so well in the evening that he was on the point of being sent home, when he developed a severe attack of pneumonia, which ran the usual course. Davenport, the only injured man from the Yard Mine now living, had no recollection of anything—heard no roar, saw no flash. He was found partly in or near a manhole unconscious, severely burnt about the head and body, arms and left leg, his appearance as regards parts burnt exactly resembling that found on those who had lost their lives. The hair was all burnt off. He is making a good recovery, and undoubtedly owes his life to being near the manhole, where there was sufficient air to keep him going till he was found.

In addition to Clayton, Turton, and Gibson, three bodies were brought up the first day; death in each case resulted from explosion.

Gangs of rescue men, with latest rescue apparatus and electric lamps, in batches of six, worked heroically on that day, when required, and subsequently for four to six hours, in parts reeking with after-damp and other poisonous fumes and impeded by tremendous falls of roof, and it says much for good management and carefulness that subsequently there was not a single casualty or case of injury. This reflects the greatest credit on the leadership of Mr. Alfred Tonge, who worked heroically from the going down of the first cage till all the roadways were made safe, and till nearly every body was recovered. In addition to being partly gassed once or twice, he himself had an alarming experience on December 23rd, when, after sending a rescue party up—and he was all alone in that dreadful mortuary of nearly 350 bodies—his lamp went out, and he had to stumble about in the absolute dark through blocked up and confused passages, when twenty minutes seemed like twenty years. Fortunately, he eventually reached the shaft. I may mention, to show Mr. Tonge's interest in his men, that I showed him a few weeks back Dr. Elworthy's article in the JOURNAL on miners' nystagmus,[1] and he intended following out some of the suggestions. He was ably assisted by Mr. John Bullough, Mr. Llewellyn Williams, under-managers, firemen, workmen, and by a host of neighbouring colliery owners and experts, prominent among them being Messrs. Gerrard and Harrison and Roscamp, H.M. Inspectors of Mines, who, in addition to their official duties, ably assisted in the actual work of rescue.

I was asked to organize the many willing ambulance helpers, and had no difficulty, getting teams of twenty for day and twenty for night duty for over a week, about 500 in all. Their services were not needed for the living, so they cheerfully aided in the grim and, later on, unpleasant task of bearing the bodies to the mortuary and assisting in many other ways. They all did their duty well and cheerfully, and showed the great advantage of having skilled and trained ambulance men attached to every colliery district. Our nursing members assisted day and night in the mortuary in getting bandages and disinfectants ready, and made themselves useful in several ways. The ambulance men and nurses should be sent for in any great disaster at once; they should work under the orders of a recognized and authorized medical man, and he would be responsible for the entire charge of that department, their comfort and feeding, the drawing up of a time table, and the prevention of overlapping. We had a few boy scouts, who were exceedingly useful, carrying messages to and fro. They served a very necessary part.

A good photographer should be at hand to assist in the work of identification. After the first four days or a week the features become indistinct, and later on absolutely unrecognizable, and identification is only possible by bits of clothing, clogs, and other property and articles.

Two mortuaries were available, the first for washing and laying out bodies, and the other where they awaited identification. There was a good supply of buckets of hot and cold water, sawdust, carbolic soap and disinfectants, and cloths and linen, and india-rubber gloves for all touching the bodies. Though nearly 350 bodies were carried, undressed, and washed up to the end of six weeks after the explosion, not a single case of blood poisoning or other illness occurred, notwithstanding the advanced state of decomposition in which a good many of them were.

And, lastly, I would like to add a word for the numerous bands of medical men from all the surrounding districts, leaving their own private work day after day, anxious to help their fellow-men, and placing their talents and knowledge just where they might be useful, and emulating the quiet and modest heroism of medical men in every previous colliery disaster, among whom Dr. Morris of Tylorstown, Dr. Turner of Darran, and Dr. Harris at Whitehaven are shining examples, often risking their lives in rescue work. Four among us went down into the dangerous workings on the call of duty on this occasion, and relays of medical men every twelve hours for three weeks put their names down for duty till the work was done.

A suggestion occurs to me: where so many human lives are at stake, and so many medical considerations, respecting expert treatment, pathology, and medical assistance

in tracing the cause and other considerations of the explosion, as shown by the causes of death in various groups of men, in various districts, and the position in which they are found, a medical expert from some neighbouring university would be of good assistance to H.M. Inspector of Mines and the local medical men, and should be appointed.

*Statistical Summary.*

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|---|---|
| Number of bodies recovered to February 16th | 343 |
| Causes of Death: | |
| Carbon monoxide | 224 |
| Explosion | 53 |
| Explosion and CO | 63 |
| Asphyxia | 2 |
| Unstated (probably explosion and CO) | 3 |
| Died in infirmary (shock and burns) | 1 |
| Bodies charred and scorched by flame | 92 |
| Bodies uninjured | 312 |
| Bodies injured by violence (including those under falls) | 31 |
| Bodies unidentified | 19 |

### Deaths by Violence.

Of the 343 cases, this was the cause of death in 53, or 15 per cent.; violence with evidences of carbon monoxide poisoning in 116, or 34 per cent. To those exposed to the full blast of the explosion death must have been instantaneous; they would be immediately stunned and rendered unconscious, and found where they fell. One man had died in the act of eating a meal of bread; several with hands raised as if getting coal. The blast on haulage roads was very severe, but at some of the faces the men had had a little warning and were able to proceed a short distance.

In 312 of the 343 cases there was no disfigurement. The features were peaceful and placid as if sleeping peacefully, and the limbs in repose; in no body examined was there any expression of agony or pain. In all these cases the bodies were thickly and uniformly coated all over with coal dust from head to foot, which was easily washed off, and which had probably fallen on them at the time of, and after, death, and had also penetrated the air passages, nostrils, etc. Examined in some few cases under a lens, no evidence was seen of it being coked or fused, as was noticed on the pit props and timber. From the uniform layer there was no evidence of the track of the explosion or flame. In some bodies there was a thick covering of grit and flakes of coal between the clothing and the skin. In no single instance was there any coal driven into the body. I examined a few cases to see if the drum of the ears had been damaged, but failed to find any instance.

Thirty-one bodies showed evidences of injuries, more or less extensive. There were fractures of face and jaw in 4, of the skull in 10, of the ribs and sternum in 12, of the thigh and leg in 8, of the upper limbs in 6. Limbs were torn off bodily at the joints in about 20 cases. There were several dislocations, chiefly shoulder and ankle. I did not see any sign of extensive haemorrhage in any of these cases. One man was hit by a violently hurled missile which had severed the blood vessels of the neck, from which he had bled profusely, though probably he did not survive the force and sudden shock of the explosion. In some 10 cases the injuries were extremely severe; in 4 nearly every limb was fractured, the skull torn off, brain absent, and chest and abdomen laid open; in 1 case the liver and heart were laid upon the ribs; 1 man was blown bodily about forty yards, and then fell another 135; 3 found blown down the sump hole were youths engaged in haulage work within fifteen yards of the pit shaft.

It may be of interest to inquire how sudden shock causes death. Cases of sudden death without any mark on the body are numerous in works on forensic medicine, and are sometimes difficult to explain even on the hypothesis of violence without mark; of such we had in this instance about 22 cases. Death may occur naturally suddenly as well as slowly (F. J. Smith). Many instances are recorded of sudden death by fear alone, lightning, fear of operation, fancied snakebite (Neale), great mental emotion, or fright;[2] in diseases, instances are common in angina, heart and other organic disease, status lymphaticus; in poisons, as in prussic acid and cyanide poisoning, the cause probably being sudden paralysis of the nerve centres controlling brain or heart primarily. Savory suggests that "death from shock is nothing more than temporary exhaustion of nerve force, the result of a violent sudden excessive expenditure of it."

The sudden impact of a huge volume of air travelling at a rapid rate would knock a man down senseless (Haldane), and when we consider the evidences of the tremendous explosive force in every direction in this disaster, the huge falls resembling hills some 200 yards in length and weighing thousands of tons, the smashing up into fragments of a huge fan weighing some four tons, and also the heavy haulage wheels, the smashed tubs, together with the extensive injuries seen in some of the bodies, it is not difficult to understand that the explosion itself, without considering the great onrush of preceding air and subsequent developing by after-damp, would kill instantly all where they stood; human beings would be like a leaf or a straw in a violent hurricane. The suddenness and completeness of this explosion in practically every part of the workings—the longest diameters of which were $1{,}920 \times 1{,}750$ yards, separated in the centre by the pit shaft—and its apparent simultaneousness are appalling.

### Burning.

Of the 343 bodies, 92 were burnt or scorched. This must have occurred either at the time of the explosion or immediately after it. It was very extensive and marked, but in all cases save two superficial; the flame must have been intense and of not long duration, leaving huge volumes of carbon monoxide in its wake, which, with the temporary absence of oxygen, would probably put out fire and stop any further burning. The hair was burnt to within half an inch of the scalp in all cases except two, where it was completely burnt away, and there was charring of the skull; the eyebrows, eyelashes, and the hair on backs of forearms and chest were burnt away and scorched, and in many places on the upper part of the body and upper limbs the skin was hanging off like scorched rags; the hair and skin of the lower limbs was untouched even where bare, showing unmistakably that the course of the flame was along the upper and not the lower part of the galleries. In many cases clothing round the chest and mufflers round the neck were burnt; straps round the neck, used by drawers to hang their lamps on, so as to leave their hands free for pushing their tubs, were in two cases burnt, but very rarely was the clothing on the lower limbs, trousers, drawers, stockings, or clogs burnt at all. In three cases not a stitch of clothing was left on the bodies, as in the first body brought up; this can only be accounted for as due to the extreme violence. In deaths by lightning the body is sometimes stripped of its clothing. That the clothes were not burnt away is proved by the fact that the bodies were not more charred. In one case only was the body badly and deeply burnt, one leg being burnt to a cinder. In one case only was there any evidence of burning before death—a large blister round the neck, together with some surrounding congestion, which might have been caused by a piece of burning coal or wood; neither the clothing nor moustache was burnt; there was marked evidence of CO poisoning, which must have been the cause of death.

In no instance was death due to burning, and only in one case was there any evidence that it caused suffering; in this the clothing had caught alight; the man had taken off his clogs so as to take off his trousers, which were found in a heap of ashes; his body was found about fifty yards further on.

Whether the body was burnt or not seemed to have no influence on the rate of subsequent decomposition.

### Cases of Carbon Monoxide Poisoning.

Carbon monoxide poisoning accounted for 287 deaths, or 81 per cent. In 224 cases CO alone had caused death; those with signs of explosive force also numbered 63; this tallies with the latest estimates that CO accounts for 80 to 90 per cent. of all deaths in the majority of colliery explosions. Probably to the 287 cases may be added a few more, for CO was probably the cause of death in those unstated, and several of the bodies brought up early showing signs of violence.

After Dr. Haldane's complete and classical report on the Tylorstown explosion, 1896, unfortunately now out of print, containing an exhaustive analysis repeatedly confirmed by all subsequent observers, there is nothing to be added to the description of CO poisoning. We had here

343 deaths, a larger number than in any previous colliery explosion since that at Barnsley in 1866, yet nothing can be added to the description of the *post-mortem* signs. The dark carmine-red tinge could be found everywhere when looked for; at the first glance it was most noticeable on the cheeks and down the lower limbs; on more careful examination it was seen on the tongue, lips, and mucous membranes everywhere, owing to the thinness of the skin; where the epidermis had peeled off, as in the palms, or the nails of hands or feet had got loosened from heat or decomposition, the bright redness was very marked. It was just as noticeable in bodies brought up at the end of eight weeks as in the first week; it would be interesting to know how long it would be evident—probably till the blood cells became absolutely disintegrated.

The dry and yellow parchment-like skin on legs and arms was very noticeable, and in most cases decomposition was markedly delayed. The last body brought up on February 14th—just eight weeks after the explosion—was in a good state of preservation, not at all decomposed, and the evidence of CO poisoning perfectly plain.

All bodies were of the same uniform tint and were evidently saturated with CO; in many cases the dull red colour could be discerned beneath the coating of grime and before the bodies were washed. We had no opportunity of testing any treatment for CO poisoning, as not one man lived, but in his paper on the Darran explosion, 1909, Dr. Llewellyn has ably summed up the treatment for this condition.[3] To one point that he and other observers emphasize our experience also directs attention, and that is, all "gassed" cases must be brought to fresh air at once; no attempt at artificial respiration is of any use in vitiated or poisoned air, or any air not absolutely fresh, even if non-poisonous. It is just possible that Clayton and Turton might have been brought round had they been brought out to fresh air at once. Another essential point is to keep the patient as warm as possible. "Several cases collapsed more than once after coming round, and were quickly revived by warmth."

Poisoning by CO is a very merciful death; there is no pain or distress; the person simply feels tired and sits down. Dr. Turner, the medical hero of the Darran disaster, who was decorated by the late King for his noble rescue work, "had no symptoms until he exerted himself in trying to rouse his companions, he then felt tired, wanted to lie down, falling down several times, and finally losing consciousness."

An interesting point is that though it forms so stable a combination with haemoglobin, blood may be freed of its CO both by oxygen and also by fresh air; artificial respiration should therefore always be well and persistently tried whenever there is any chance of success. Of the various methods, Schäfer's is probably the best. I noticed that in four cases that died from carbon monoxide poisoning, and in which the intestines were exposed, they did not present the usual and easily discerned carmine-red, probably for the reason just mentioned.

In none of our cases was there evidence of carbon dioxide or other asphyxiating gases producing cyanosis and congestion.

It is interesting to note that though of the 343 victims a great many probably died instantly by the tremendous explosive force, immediately followed by huge volumes of after-damp, there are evidences that a great many were not killed instantly, though probably none of them lived more than ten to twenty minutes. In their cases there were no signs of suffering beyond the mental anxiety, no marks of abrasions or injury by hurry or panic, no handkerchiefs over mouths. For some cause or other the explosion did not kill them, but they would certainly hear the report, their lights would be put out, and they would proceed in the darkness with great difficulty towards the pit shaft, when the oncoming after-damp overtook them. They were all found to have been killed by carbon monoxide, few were injured, though one of them was badly scorched. Roberts was found killed by CO, with his clothes in his hand, endeavouring to escape. One other case also had walked a short distance—the man already recorded, who had shed his burning clothing. Of all who had gone down the Yard Mine that ill-fated morning only Staveley and Davenport are alive.

## THE RESCUE WORK.

Several members of the Committee of the Howe Bridge Rescue Station were quickly on the spot, and Mr. Arthur Ellis, the secretary, at once took over the organization of the rescue work, and arranged the sequence of the descent of the teams. Everything went off without a hitch. There were no casualties among the many hundreds of rescue men, although they were continually plunging into danger, and their work was most arduous owing to the numerous falls and tremendous damage everywhere.

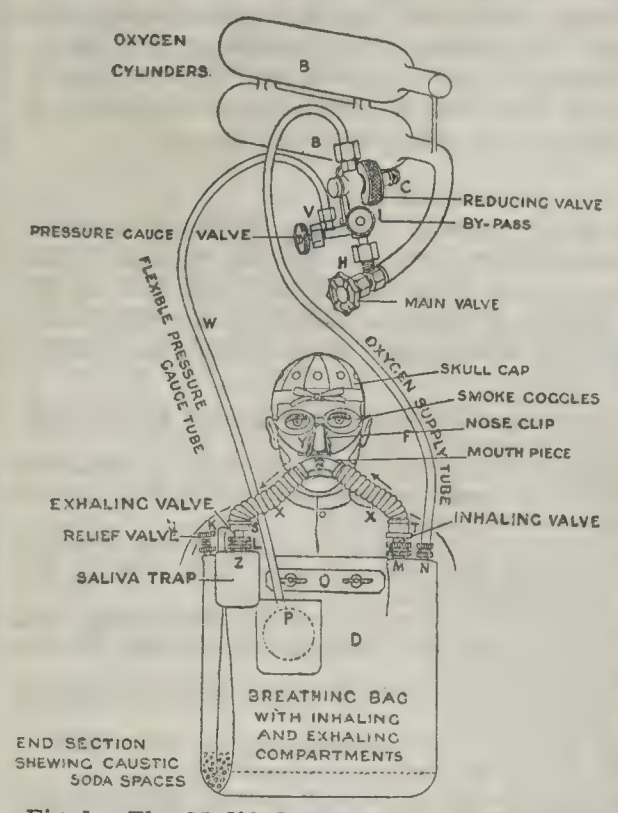


Fig. 1.—The Modified Fleuss, as used. (By courtesy of Sergeant-Major Hill.)

The apparatus used was the Fleuss, the design of which has been much improved by the Howe Bridge Committee, with the assistance of Sergeant-Major Hill and the makers. Dr. Arnold Greene, Medical Officer of the Rescue Station, writes to me as follows:

Every man trained has to pass through my hands as being medically sound. I pay special attention to certain points which in my opinion are essential to oxygen breathing and the apparatus.

As regards the accident itself, we had some 150 local rescue men at work, and during the whole time I was there I never had an accident of any sort brought to my notice as regards the rescue men. All the men I examined, both at the time of the disaster and subsequently, showed no signs of the hard work they had undergone, not only as regards the oxygen breathing, but as regards their physical condition. It was a severe test for oxygen breathing, but everything came out all right, and only proves that oxygen breathing in the way we use it does no harm to the men.

Mr. Gerrard, in his evidence, said that he desired to remark how well owners, managers, and officials of the mines, and workmen came forward and offered and gave their services night after night, and day after day, without hope of reward. He could not call to mind such a rapid recovery of a mine. In one day 123 bodies were brought out, and in five days 270. The men worked splendidly. They had to carry rapidly decomposing bodies under their noses, pushing them and hauling them over falls, "and sometimes they were their brothers." He continued as follows:

Fig. 2.

Next I must allude to the work done by rescue teams—the men with the breathing apparatus. We have one of the finest stations in the country established at Howe Bridge by the coal-owners of Lancashire and Cheshire, and we have got one of the finest men that could possibly be obtained as instructor in charge of that station, and he, Sergeant-Major Hill, arrived at this mine at 9.10 a.m. Immediately he was followed by Mr. C. Fletcher, one of the owners of Fletcher and Burrows, himself a trained and qualified user of the apparatus, and by others. By 11 a.m. there were forty men on the spot ready to do anything in the way of rescue work with their apparatus, and during the day eighty altogether arrived. It should be noted that they came from Burnley, Accrington, Rishton, St. Helens, Leigh, and Bickershaw, and distant places, and they were here day after

day and night after night, with an established rota, waiting their turn to go into the mine.

Mr. Gerrard gave instances of their admirable and courageous work. On one occasion they went 100 yards in foul air, and they recovered a body 40 yards in the deadly fumes. Poor Eccleston's body lay day after day, 36 yards in gas, and it was fetched out of the place by the men with the breathing apparatus.

To recover the bodies lying in after-damp a small apparatus called the "Salvator" (on the same lines as the Fleuss) was used. It consists of a breathing bag and a small cylinder of oxygen; it weighs about 7 lb., and lasts a man travelling at a moderate speed about two hours; it is also extremely useful in reviving anybody gassed.

### CONCLUSION.

After thirteen days' patient hearing of about a dozen expert witnesses, the jury brought in the verdict "that the explosion was caused by an accidental ignition of gas and coal dust, probably from a defective or overheated lamp." The views of the experts were varied, and hardly any two agreed.

Professor Galloway suggested that it originated at No. 1 jig, North Plodder, from an electric sparking.

Mr. Alfred Henshaw: That it started above the jig wheel in No. 1 jig from a defective lamp, one being found with a broken ring, leaving a space below the glass.

Mr. A. H. Lush: At the top of No. 2 jig, North Plodder district, where there were evidences of great force, and all the men were found dead at their places and burnt.

Mr. Jesse Wallwork: No. 2 jig, North Plodder, owing to a damaged lamp igniting gas, the explosion traversing all the workings by means of coal dust.

Dr. Thornton (Newcastle) thought it highly probable that it started at the conveyor switch.

Sir Henry Hall, after a very careful examination: That it originated from gas in the Three-quarter Seam.

Mr. Gerrard (H.M. Inspector) and Dr. Cadman expressed the opinion that it originated from the burnt lamp found in the North Plodder, No. 1 jig (86). It showed signs of overheating, and the meshes of the gauge had very fine coal dust; it was near the conveyor face, where there would be a good deal of inflammable coal dust, together with some gas. Evidently the jury accepted this as the most probable explanation.

It is of importance, in an endeavour to trace the cause of the disaster, to know which bodies had been subjected to flame and, if possible, the cause of it. The mine (see plan) is divided into five districts—the North Plodder, South Plodder, Three-quarters, Top Yard, Downbrow Yard; the last had a subdivision—the East Jig. Of the 345 persons who descended the mine on December 21st only two now survive; one (Davenport) was found in a recess or manhole by the side of the Downbrow, leading to the Downbrow Yard, near body 190. The other (Staveley) was found in a pump-room place near No. 4 Shaft, but, strange to relate, his companion lost his life by CO, owing to his being slightly in advance of Staveley, the CO clearing off quickly, by proximity to the shaft.

Those in the Three-quarters, the Top Yard, the Downbrow Yard, and the subsidiary district, the East Jig, were in great part subject to CO; those in the South Plodder were largely killed by CO, a few having received burns and violence. In the North Plodder the greater number had received burns and were subjected to violence, although a number died from CO. Around the shafts all had died from violence, and were burnt. In the North Plodder at the No. 1 conveyor face near the conveyor, three bodies (87, 88, 89) were found, where they had been working, on the east side; whilst on the west side bodies were found apparently fleeing from the conveyor. These facts led to the supposition advanced by some that the origin of the disaster was at or near the mechanical conveyor on the No. 1 North Plodder face.

It was in the Downbrow Yard district that the men were found to have walked the greatest distances from their working places. From the northern side of this district thirty persons (192 to 221) had travelled 260 yards, and to within 300 yards of the shaft; these were found in a group, some in a sitting, some in a lying position, some had got inside wagons which had been blown on to their side or upended. In appearance all these were as if they had fallen asleep; they had travelled without light to this point, where the foul after-damp prevented their going further; possibly they were waiting for the atmosphere to clear when they succumbed to CO. Other groups were found in similar poses, not having been able to travel so far (222 to 239). At two or three other places in this district—notably in Nos. 2 and 3 jigs—were similar groups, having travelled some distance from their working places. Also in the Top Yard district were found several groups, having travelled some distance.

In the East Jig subdistrict—to a less extent, perhaps—the men had warning, and were able to leave their working places. In these districts it was unanimously agreed that the explosive force and the burning coal-dust had travelled inbye along the haulage roads. In the Three-quarters district also almost all the men had left their working places and were found in the roadways.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, November 19th, 1910, p. 1577. [2] BRITISH MEDICAL JOURNAL, 1896, vol. i, p. 1312. [3] BRITISH MEDICAL JOURNAL, June 11th, 1910.

## TWO CASES OF SEVERE INJURY NEAR THE KNEE.

BY RUSHTON PARKER, M.B., B.S., F.R.C.S.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF LIVERPOOL.

I.—*Hospital Gangrene: Condition Twenty Years After.*

A MAN, aged 33, was injured on April 17th, 1890, by the fall of a large iron plate, extensively wounding his left thigh above the front of the knee. He was brought to the Liverpool Royal Infirmary, and was attended to by the house-surgeon, who put in stitches and dressed the wound.

The temperature rose on the second and third days to nearly 102°, and on the fourth to close upon 104°; by this time the skin around the wound had become deep red, and the region swollen and painful. Under an anaesthetic the stitches were removed by Mr. Parker, the wound explored, found largely to involve the knee-joint and extensor muscle, and to be bathed with foul dark-brown purulent discharge. After hot antiseptic washing and removal of pieces of lacerated muscle, the wound was lightly packed with cyanide gauze. The patient felt better after this, but the temperature reached 102° in the afternoon, falling at night and early morning to 100° or less; the pulse was about 90 for some days, during which chloroform was inhaled at each change of dressings.

On May 7th, the twenty-first day, the wound was found covered with a greyish-yellow exudation, and its margins much raised and thickened. This was judged to be the almost obsolete condition known as "hospital gangrene." Nitric acid was then freely applied, under chloroform, to these morbid surfaces. Three days later, the tissues having in the main become more healthy, but still showing patches of the greyish exudation, Mr. E. R. Bickersteth was consulted as to the diagnosis of hospital gangrene, which he fully confirmed, from experience dating from the days when this scourge was rife. At his suggestion the thermo-cautery was freely applied to the exudation that had re-formed. Obvious improvement followed the cautery, and each application of the nitric acid, which was preferred on all other occasions; the wound in most parts assumed a healthier look; but as the knee obviously needed a good fixing apparatus, the anaesthetic was again given, and the whole limb thoroughly steadied in a Thomas's knee splint. About the twenty-eighth day nitric acid was again applied, under chloroform, to recurrent patches, and some four days later all signs of hospital gangrene were gone, and the temperature had become normal.

About the thirty-fifth day great pain was felt below the knee on the outer side, attended with loss of sleep. On the fortieth day an incision was made and 1½ oz. of sweet green pus evacuated. The bleeding in the skin was stopped by acupressure with common pins. After this the patient became more comfortable and slept, but a few days later he had a return of pain, with burning, in the knee, this time on the inner side, followed by increased discharge from the incision on the outer side, with consequent relief.

Although great local improvement had occurred, these drawbacks were a great tax upon him, as he was greatly emaciated and short of resisting power. The outlook became so serious that, to save his life, amputation appeared inevitable, and with the consent of himself and parents it was arranged for a couple of days later. On the intervening day, however, things looked better, and this procedure was abandoned.

Three months and a week after the accident, two and a half months after the gangrene was thought to have been past, the temperature rose to 102°, with headache; and a patch of the grey exudation again appeared. This was rubbed with silver nitrate, and he was better next day, but still had pain. The caustic was again applied four days later, and a third time after three more days. The dressings were then changed every other day, and he got up on the intervening days, and steadily recovered.

Four months after admisssion, the knee being ankylosed in the straight position, he was, for security in getting about, fitted with the shorter ("calliper") splint (as in Fig. 2), attached to a cloth boot, and kept on day and night. He was discharged on August 24th, 1890, but some three or four weeks later discarded the splint, as he found the stiff straight knee unyielding, and comfortably fit for use without it.

*Remarks.*—This man accosted the writer in the street on February 7th, 1910, nearly twenty years after the accident, in which interval nothing had been seen or heard of him. A few days later he was photographed (Fig. 1). He is a tax collector and has walked many miles a day for years, with very little halt in spite of his stiff knee, on which the scars of his injury and operations are manifest. This is the only case of hospital gangrene ever seen by the writer, whose previous notions were chiefly gained from Lister's account and treatment given in the *Lancet* of March 23rd, 1867, and pictorially from the chromolithographs in the Surgeon-General's report of the American War, which he had copied and enlarged many years ago, and has used ever since to illustrate his annual lectures.

Fig. 1.—Twenty years after injury.

II.—*Compound Fracture of Femur: Recovery without Defect.*

On November 4th, 1898, the writer was called by Dr. Alexander Fisher of Liverpool to the case of a youth, aged 16, who had met with compound fracture of the right thigh near the knee. In the course of his duty as apprentice engineer, while sitting on the slide-rest of a large machine lathe at a foundry, his limb was jammed between the tool and the work. There was a wound on the outer and another on the inner side, both leading to a jagged fracture of the bone.

The dressing and setting of the fracture were carried out on his mother's dining-table, which served afterwards as his bed during recovery. A large tea-tray was placed under the limb to catch the copious washings of the skin, while the wounds were protected and tied up with cyanide gauze. The surfaces were begrimed with dirt and machine oil. Warm carbolic lotion 1 in 40 was alone used for this purpose, vigorously rubbed in with added soap, after which the wounds were dressed with carbolized cyanide gauze, firmly bandaged on with the limb held at full length. A Thomas's knee splint, projecting some distance below the foot, was slipped on, and the limb kept in it at full length by tails of wide, strong bandage firmly stuck to the leg by plasters, doubled with the sticky sides out, fixed by rolls of bandage over all, and the loose tails tied to the lower end of the iron splint; counter pressure was provided by the padded ring at the upper end against the perineum.

Plenty of dressing was packed around the wounds and fractured region, covered with hollow splints of sheet iron surrounding the thigh, encircled by strips of bandage and tied firmly to the iron bars of the longer splint. Perfect stillness was attained from the first, and all along the patient could control his own attitudes on the improvised bed, and could very shortly sit up occasionally when he chose.

The dressings were changed on loosening one or two at a time the sheet-iron splints, of which that placed behind the limb reached a few inches beyond the knee, and was independently slung to the iron bars, keeping level the fractured region, and seldom needing adjustment. No suppuration occurred in the wounds, which soon closed very kindly in their depths, and at the surface cleanly granulated.

The severe pinching of the injured part in the irresistible machinery, during the few seconds before stoppage by the turner, led to superficial necrosis of the skin in patches near the wound, on the outer side of the limb. This was at first dressed like all the rest with carbolized cyanide gauze; but, when these necrosed layers gave place to ulceration, the great tenderness was relieved by smearing boric acid ointment on the gauze, and avoiding the irritating carbolic lotion. A shortened "calliper" knee-splint (Fig. 2) attached below to a boot, with bandage round the knee (supported on a leather band pinned across) was now used. and worn night and day after six or seven weeks, by which time the bone was firmly united and the sores healed. This enabled him to be up and about the house, and by its full length took most of his weight off the limb, for fear of bending the unhardened united bone. In less than three months he was allowed to remove the splint at night, and to dispense with the bandage round the knee, thus permitting slight use of the thigh muscles and a trifling movement of the knee-joint.

Fig. 2.—Three and a half months after injury.

*Remarks.*—The leather band, pinned behind as a support to the knee, is shown here pinned in front of the thigh, to be out of the way and permit a view of the inner scar during the photographic process. It will be noticed that the knee-joint is thickened, an almost necessary part of the injury, due to the violence that fractured the bone. The maintenance of the limb in the straight position, for the time required to secure due hardness of the bony union, is always followed by gradual return of the knee to suppleness and to the proper shape shown in the other limb. Any attempt to hurry this restoration of the knee, by forced movements, is apt to result on the contrary in fresh injury and swelling, with delay or even prevention of suppleness.

## VAGINAL HYSTERECTOMY FOR ENDOMETRITIS.

BY F. P. STURM, CH.B.ABERD.,
LEIGH, LANCS.

THE following case is recorded because an unusual, not to say heroic, method of treatment for a fairly common and very troublesome condition has resulted in a measure of success which is not often attained by the less drastic procedures usually carried out in cases of equal severity.

CASE.

Early in 1910 I was consulted by a married woman, 39 years of age, who had been a hard worker all her life, and was the mother of a large and healthy family. She complained of constant dragging pains in the groins and back, dysuria, menorrhagia, and a profuse semipurulent discharge which was occasionally offensive. For several years she had been practically a chronic invalid, and so profoundly was her general health undermined by the constant pain and discomfort that both she and her relatives were convinced of the presence of malignant disease. She said that she had undergone several operations, by which I understood her to mean that she had been curetted. Examination, in the course of which a very fetid pessary was removed, revealed a large "boggy" uterus, extremely painful upon pressure, freely movable in every direction, with the fundus well above the pelvic brim. The sound passed four inches. The cervix, which was the size of a Tangerine orange, was studded with innumerable small semi-transparent nodules and was very friable to the touch. The nodules were soft, there was no ulceration, and the general appearance was not that of malignancy. Pressure upon the uterus caused quantities of muco-pus to pour through the cervical canal. The possibility of specific infection was excluded by repeated microscopic examinations for the gonococcus, which was never found.

The chronic course of the disease and the very gradual deterioration of health from the long-continued pain and discharge were also points which were against the probability of malignant disease. Upon the other hand, the uselessness of any mere scraping operation was so evident and the danger of ultimate malignant degeneration so real that I had no hesitation in suggesting hysterectomy. Dr. M. J. Halton was called in to consultation, and agreed that no curetting, however thoroughly carried out, could cure the condition as it existed. It is due to him that the patient and her relatives finally agreed to operation, which I performed a week subsequent to the consultation.

*Operation.*

The uterus was removed by the vaginal route. The cervical mucosa having been incised all round, a sound was passed into the bladder, which was then easily peeled off the anterior wall of the uterus and thrust upwards. The rectum was dissected from the vaginal wall, the peritoneum opened anteriorly and posteriorly, and each broad ligament clamped with a single 11-in. pressure forceps. A few snips with blunt-pointed scissors freed the uterus from all attachments and permitted its removal. There was no bleeding. Not a single ligature or suture was used. The vagina was lightly packed with iodoform gauze and the patient put back to bed. The clamps were removed under chloroform in forty-eight hours. The gauze packing was not replaced, a simple antiseptic pad upon the vulva being all that was considered necessary.

*Result.*

The temperature never rose above normal, and the discharge, which ceased entirely within ten days, was so scanty that the dressings were scarcely soiled after the first two days. During the forty-eight hours following operation—that is, before the clamps were removed—the catheter had to be passed several times. Within ten weeks of the operation the patient was serving customers in her shop.

**I saw this patient again only a few days ago—that is, about ten months after the operation. She told me that she was enjoying perfect health for the first time during many years. She is able to perform all the onerous household duties which fall to the lot of women of her class, even including the weekly washing. It may be claimed that she is cured therefore in the fullest sense of the term.**

**Though I have been unable to find in the literature at my disposal that hysterectomy has been advocated as a routine treatment for chronic corporeal endometritis, this case has convinced me that it is a justifiable treatment under certain circumstances. Every practitioner knows how hopeless is the condition of many of these women. The minor procedure of curetting, while it may relieve some cases in which the disease is not of long standing and the tissues are still comparatively healthy, is at best but a palliative measure, more likely to determine the onset of malignant degeneration than to eradicate precancerous conditions. There seems to be no reason why any woman, within sight of the menopause, who is suffering from such a distressing complaint, should retain an organ which is not only useless but is even a constant menace to her health and existence, especially when that organ has already satisfactorily performed all the functions for which it was created. Vaginal hysterectomy by the double clamp method is so safe, so simple, and can be so rapidly performed, that I see no reason why it should not be the operation of election in cases of chronic endometritis which have failed to respond to more conservative and less effectual procedures.**

## A CASE OF TRAUMATIC PNEUMOTHORAX AND PLEURAL EFFUSION SUCCESSFULLY TREATED BY RESECTION.

BY

F. S. RHODES, M.R.C.S., L.R.C.P.,

SURGEON, FLEETWOOD COTTAGE HOSPITAL.

THE following case of traumatic injury to lung, followed by pneumothorax and then pleural effusion, which recovered after resection of rib and drainage, may be of sufficient interest to publish, as several authorities advise against drainage of the pleural cavity in effusion. Mr. Godlee, with Dr. Fowler, are emphatic on this point. They say, at page 596 of their book entitled *Diseases of the Chest:*

> The surgeon is often asked to open these, especially if the fluid has become slightly turbid. My experience is that if this be done the fatal conclusion is hastened. Such patients get along well with large accumulation of fluid in the chest, but when free opening is made they become short of breath, and as the discharge is copious for a long time, it is very likely that septic organisms will be allowed to enter. This is the beginning of the end.

**Another interesting point is that while the remittent, and then intermittent, temperature, together with the general condition of the patient, strongly pointed to an empyema, a bacteriological investigation of the fluid showed it to be sterile.**

*History of the Injury.*

On January 26th, 1909, G. B., aged 17, a farm labourer, left his horse and cart at the door of a shop. A passing lorry caused the horse to bolt. He immediately gave chase, and managed to gain a hold on the back part of the right shaft. After running like this for about a hundred yards, and finding he could no longer keep pace with the galloping horse, he threw himself sideways from the cart, but was caught by the wheel, and the cart, containing a load of five hundredweight, passed over his left leg about 3 inches above the ankle.

*State on Examination.*

I found the patient lying on the ground suffering from a compound fracture of the left leg, and complaining of great pain in the region of the right scapula. After seeing to his injuries he was placed on a stretcher and conveyed by train to Fleetwood Cottage Hospital. The leg was placed in splints and gave no further trouble. On the right side of the chest ill-defined crepitus could be elicited in the region of the scapula, but it was difficult to say whether it was due to injury of the scapula or to the ribs beneath it.

*Progress.*

In the course of a few days the patient's breathing became embarrassed, the right side of the chest was distended, the heart pushed over to the opposite side, the percussion note tympanitic, and all the signs of pneumothorax were present.

The temperature was 99° F. on admission, but rose steadily to 102° at the end of eight days, there being a morning remission to 100°. This remittent temperature lasted for two weeks, when the patient became suddenly very ill, and the temperature rose abruptly to 104° for twenty-four hours. A sudden drop to 99° was charted next morning, and for the next four and a half weeks the temperature was intermittent, averaging 98° in the morning and 100° or 101° in the evening.

*Aspiration.*—With the rise in temperature the signs of pneumothorax were replaced by dullness, etc. The question now arose as to whether the condition was pneumonia, traumatic pneumonia, or pleural effusion. As slight improvement followed, it was decided to watch the case and see if the condition would clear up. The improvement was not maintained, and on March 22nd I aspirated and withdrew nearly four pints of viscid brown fluid so thick that it flowed but slowly through the cannula. Improvement at once took place; the temperature fell to normal and remained there, and the general condition became more satisfactory.

*Second Aspiration.*—He left hospital on April 21st, 1909, but three days later became very ill; he felt too weak to stand, had rigors and dyspnoea, and on the following day was readmitted to hospital. The right side of the chest then gave the same physical signs as were present before aspiration. Aspiration was again performed, and about two pints of fluid similar to that removed on the previous occasion were withdrawn.

*Resection.*—Two days later, Dr. McKinnon of Fleetwood giving the anaesthetic, I resected a portion of rib in the posterior axillary line on a level with the nipple and drained the pleural cavity.

RESULT.

**The sinus closed in about three weeks, and the patient has remained quite well since.**

**Some of the fluid was sent to Professor Delépine at Manchester for bacteriological examination. No organisms were found in cover-glass preparations, and no growth was obtained on inoculating tubes of various culture media.**

**At the present time—January, 1911—the patient remains in good health, and is able to follow his employment. The right side of the chest shows flattening, with droop of the shoulder and prominence of the scapula. The chest expands fairly well on inspiration, although the breath sounds are weak on the right side. Measurement shows the circumference of the right side of the chest to be $1\frac{3}{4}$ in. less than that of the left side taken on level of nipple.**

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THE report submitted at the thirty-seventh annual meeting of the Central London Throat and Ear Hospital on May 9th showed that during the year 728 patients and 11,404 new out-patients had received treatment. Of the former, 58 per cent., and of the latter 37 per cent., were sent to the hospital by medical men. This fact, it was pointed out, not only indicated the esteem in which the institution was held, but disarmed any criticism as to abuse of its wards and out-patient department.

THE

# THERAPEUTIC COMMITTEE

OF THE

# British Medical Association.

## REPORT ON THE STANDARDIZATION OF PREPARATIONS OF INDIAN HEMP.

PART I.—*THE VALUE OF THE "IODINE NUMBER."*

BY

C. R. MARSHALL and J. H. WIGNER.

THE method of standardizing preparations of cannabis indica at present employed is a physiological one, and consists in the administration to dogs of sufficient doses to produce distinct cerebral depression. The chief symptoms are sleepiness and muscular weakness and incoordination, the ataxia being usually the most obvious, and for purposes of standardization the most important, symptom. The muscular weakness, which is of central origin, affects mainly the hinder parts, and frequently causes the assumption of a curious crouching position. But none of the symptoms produced by Indian hemp in animals are peculiar to this substance; they are obtained with other drugs causing depression of the higher cerebral centres.

The physiological method possesses some disadvantages. Even when carried out under apparently similar conditions, the percentage of experimental error is considerable. Different dogs appear to be differently susceptible to the action of the drug, and the variations are not explainable by differences in the rate of absorption. In animals showing marked variation from the average, however, subsequent administrations appear to produce a more constant effect. Nevertheless, it is advisable to test a preparation on more than one animal. A greater degree of accuracy can be obtained by experimenting on oneself, and this method we have adopted in the present investigation.

The greatest disadvantage of physiological standardization is its inadaptability to general use. It can only be adequately employed by persons possessing some knowledge of experimental pharmacology, and consequently cannot be employed by retail pharmacists, even where the law allows it. A preparation cannot therefore be conveniently standardized from time to time, and, owing to its liability to deteriorate by keeping, it may not possess the same activity when dispensed as when bought. The physician has therefore not a sufficient guarantee of the uniformity of any preparation of cannabis indica he may have prescribed. The evil is minimized, we believe, by pharmacists purchasing small quantities only of these preparations, but it would be a great advantage if a method of standardization dependent on some physical or chemical character, and one adapted to the ability of the average pharmacist, could be devised. Comparatively recently a method of evaluating Indian hemp products has been suggested by Mr. D. Hooper[1] of the Indian Museum, and we have latterly examined this method to determine its applicability for purposes of standardization. The investigation forms the subject of the present report.

Mr. Hooper's method is based upon the observations of Wood, Spivey, and Easterfield that cannabinol reacts with bromine at ordinary temperatures, and is unacted on by boiling alcoholic potash. In his first experiments he endeavoured to purify the extracts by saponification with alcoholic potash "in order to remove organic acids, resin, wax, fixed oil, and the lighter terpenes," and afterwards he determined the iodine values of the unsaponified residue. In some later experiments unsaponified extracts appear to have been used. The iodine determinations were made on various samples of different ages and from different sources, and his figures seem to show that the iodine numbers of cannabis preparations of the same original quality decrease with age (as the pharmacological activity is known to do), and that in comparing fresh samples of different origin the most valuable, and presumably the most active pharmacologically, show the highest iodine numbers.

It is necessary to state that Hooper suggested the method only as a means of determining the commercial value of a crude cannabis preparation, but we should expect this to vary, at least roughly, with the physiological activity. As Hooper's results were not controlled by physiological experiment, it seemed desirable to reinvestigate his method, keeping this point in view.

The method, it seems to us, would be of value for purposes of standardization only if the active principle (or some inert substance which always accompanies it in a fixed ratio and is not easily separated from it) gives a relatively high, and other substances not easily removable and pharmacologically inert a relatively low iodine value, or vice versa. If physiologically inert or almost inert substances possessing an iodine number approximating to that of the active principle occur in variable proportions in preparations of Indian hemp, the method is obviously of no value as a means of standardization. Unfortunately this appears to be the case.

In order to reduce the sources of error we decided to work with pure or approximately pure principles. We examined: (1) A sample of original cannabinol prepared by Wood, Spivey, and Easterfield in 1897, which had been kept in a sealed tube for eleven years, and which when tested appeared to have lost little, if any, of its pharmacological activity; (2) the same cannabinol after oxidation by a current of dry air, a process which has been shown by one of us to diminish its pharmacological activity; (3) various fractions obtained by the distillation of an extract of the same charas from which the above cannabinol was prepared.

The charas, which had been kept in a store for twelve years, was extracted with alcohol or ligroin, and after removal of the solvent by distillation the extract was fractionally distilled, the lower fractions under ordinary, the higher under diminished, pressure. Lower boiling and higher boiling terpenes and various higher boiling fractions were isolated. Of the last-named fractions, the three which were of approximately the same boiling point as the original cannabinol were almost identical with it in general physical properties, but were much less active pharmacologically.

The following iodine values as determined by Hubl's method are typical of those obtained:

| | | Iodine Number. |
|---|---|---|
| | Original cannabinol (strongly active) | 189 |
| | Ditto (after oxidation) | 184 |
| Fractions obtained from 12 year-old charas. | Lower terpene fraction ... ... | 67 |
| | Higher terpene fraction ... ... | 180 |
| | Residue after distilling off terpene (very slightly active) ... ... ... | 196 |
| | Fraction boiling at 280° to 300° C. at 15 mm. Hg pressure (very slightly active) ... ... ... ... ... | 247 |
| | Ditto (after oxidation) ... ... ... | 229 |

Some of the higher boiling fractions were dissolved in ether and the mixture washed with caustic soda solution, and afterwards redistilled. No noteworthy alteration in the iodine values of the products was obtained.

The figures show that the very active sample of cannabinol gives a lower iodine number than similar and almost inert samples prepared from old charas; that the oxidation of cannabinol, although diminishing considerably the physiological activity, does not greatly lower the iodine value; and that the iodine number of the higher boiling terpenes, which possess no characteristic cannabis effect approximates closely to that of active cannabinol. The determination of the iodine number seems, therefore, to be of no certain value as a means of estimating the pharmacological activity of cannabis preparations, and, consequently, it cannot be used as a substitute for physiological standardization.

REFERENCE.

1 *Pharmaceutical Journal*, July 25th, 1908, p. 80; cf. also ibid., September 19th, 1908, p. 347.

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THE late Mr. George Harding, a shipowner of Liverpool, whose will has now been proved, bequeathed £1,000 each to the Royal Infirmary, the Royal Southern Hsopital, and the David Lewis Northern Hospital, and sums of £500 and £100 to the Stanley Hospital and Hospital for Women respectively.

# DUODENAL OBSTRUCTION AS SHOWN BY RADIOGRAPHY.

BY ALFRED C. JORDAN, M.D.,

MEDICAL RADIOGRAPHER TO GUY'S HOSPITAL, AND TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

*(With Special Plate.)*

IN a paper published recently on Distension Changes in the Duodenum in Chronic Intestinal Stasis,[1] to which I furnished the radiographic evidence, Mr. W. Arbuthnot Lane described a condition of kinking at the duodeno-jejunal junction, and the changes resulting from it. The matter is dealt with further by him in a clinical lecture on the Kinks which Develop in our Drainage System in Chronic Intestinal Stasis.[2] I am now in a position to give definite radiographic proof of the actual existence of the changes he describes.

The duodenal obstruction clearly is of an intermittent nature. This should be carefully noted at the outset, for it is not to be expected that positive evidence will be obtained in every case and at every examination. In many cases with the typical signs of duodenal inflammation, and in some in which the fact of the presence of

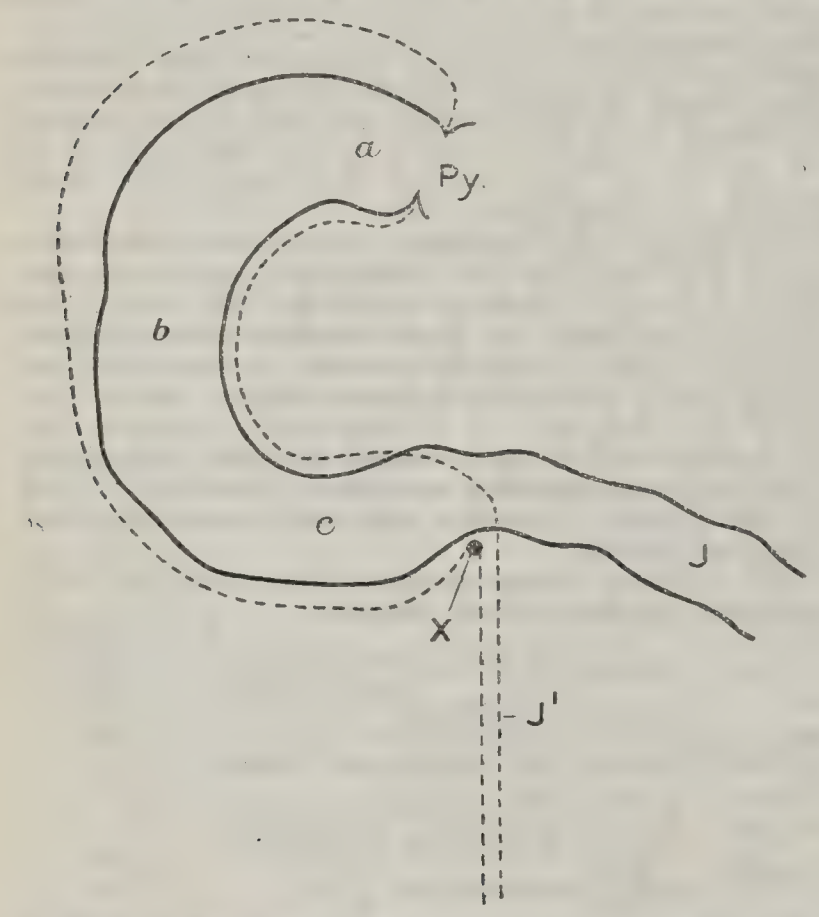


Fig. 2.—Diagram to illustrate the normal duodenum and jejunum (firm line), and the dilated duodenum and pendulous jejunum (dotted line) due to kinking, at the duodeno-jejunal junction, by the sharp lower margin of a peritoneal fold, indicated by the point ×. The distension of the duodenum is most marked in its first part, where it is least supported, and has a fairly complete peritoneal covering. It is in this part that inflammatory changes are set up in consequence of the abnormal distension. Py, Pylorus. *a*, *b*, *c*, First, second, and third parts of the duodenum. J, $J^1$, Jejunum in its normal and in its pendulous position.

a duodenal ulcer was subsequently proved by operation, the bismuth meal was seen to pass out of the stomach at a rapid rate as the result of the peristaltic contractions of that organ, and to course through the duodenum without showing any deviation from the normal. Now and then, however, while the gastric contents are passing through the pylorus rapidly, there is some delay in the passage from the duodenum to the jejunum, as in Fig. 1, which represents the stomach and duodenum of a woman of 56 suffering from nausea and vomiting with haematemesis. There had been melaena before admission. I found an hour-glass constriction of the stomach due to spasm, possibly set up by a gastric ulcer. The presence of a duodenal ulcer was not proved in this case, as the patient was discharged relieved a fortnight later.

This case gave me a hint: it was clear that I should only succeed in demonstrating abnormalities of the duodenum while there was obstruction to the passage of food through it. Fortunately Mr. Arbuthnot Lane was able to show me, in the course of several operations, the actual occurrence of obstruction due to kinking at the duodeno-jejunal junction. The diagram (Fig. 2) explains the condition. The end of the duodenum is normally fixed by a peritoneal band, while the jejunum is perfectly mobile at its commencement. The jejunum, instead of continuing in the line of the duodenum, as in normal cases, passes directly downward from this band, and kinks the tube abruptly. This is specially apt to occur in persons in an exhausted or enfeebled state.[3] The block which results from this kink produces distension in the duodenum; the dilatation is greatest in the first part of the duodenum because this part alone is movable and unsupported. The distension may not be sufficient to produce any change in the duodenum; it may, however, lead to engorgement, or in more severe cases ulceration of the mucous membrane. When the patient assumes the supine posture, the loop of jejunum no longer hangs down vertically, and the kink is relieved. The curative effect of rest in bed is thus explained; with the obstruction relieved, the duodenum

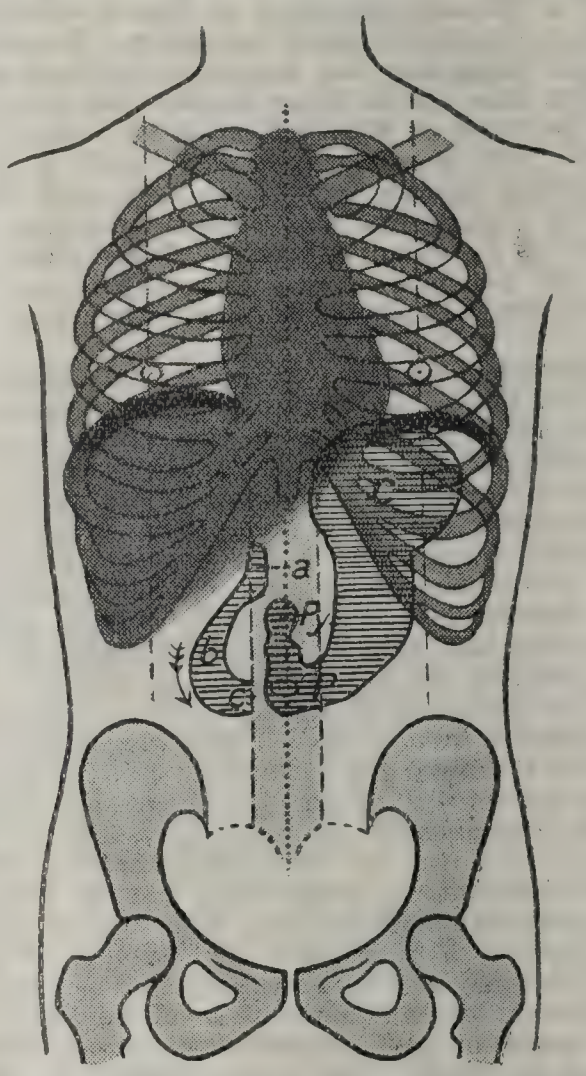


Fig. 4.—Tracing of the stomach and duodenum, taken immediately after Fig. 3, to show duodenal obstruction. C, P, Cardiac and pyloric portions of the stomach. Py, Pylorus. *a*, *b*, *c*, First, second, and third parts of the duodenum. The arrow shows the direction of the duodenal peristaltic contractions, which, though very powerful, were quite unable to overcome the obstruction, due to kinking, at the duodeno-jejunal junction. (See Fig. 5.)

is freed from the distension which persisted while the patient was upright, the dilatation of the duodenum passes off, and its mucous membrane soon returns to a healthy state.

The reality of this explanation was brought home to me very forcibly by the case of a patient sent to me for examination by Mr. W. Arbuthnot Lane—a very emaciated girl of 19, who had been healthy up to the age of 14, although she had suffered from obstinate constipation since childhood. At the age of 14 she began to suffer from pain after eating, and therefore to refuse food. The pain came on within a few minutes after food, and was obviously very severe. She had wasted gradually, but there was no vomiting. Her stomach was washed out frequently; large quantities of fluid and air were apt to accumulate in the stomach.

The Roentgen-ray examination was commenced with the patient in the upright posture. An emulsion containing 3 oz. of bismuth carbonate was introduced through a stomach tube, and showed the stomach to be dropped, so that the great curvature was in

## TO ILLUSTRATE DR. A. C. JORDAN'S PAPER ON DUODENAL OBSTRUCTION.

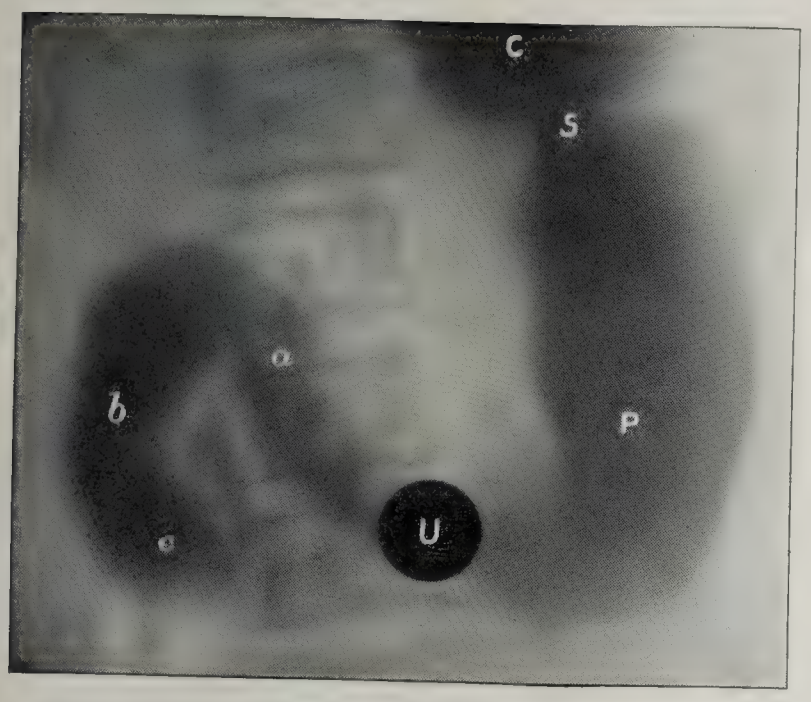


Fig. 1. — Stomach and duodenum after a bismuth meal, showing a spasmodic hour-glass constriction of the stomach, and delayed passage through the duodenum. C, P, Cardiac and pyloric portions of the stomach separated by a spasmodic constriction at S. *a*, *b*, *c*, First, second, and third parts of the duodenum. U, Umbilicus, marked by a penny.

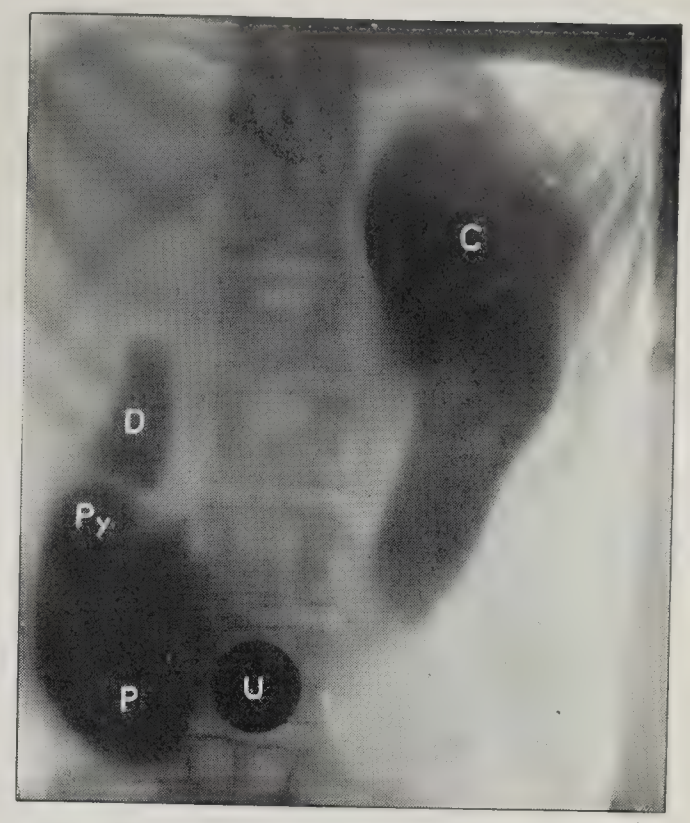


Fig. 3.—Large, dropped stomach, containing bismuth, as seen on the couch. The cardiac portion, C, and the pyloric portion, P, are filled with the emulsion which is passing freely through the pylorus, Py, into the duodenum, D. The intermediate portion is raised upon the vertebral bodies, and hence contains no emulsion. U, The umbilicus, marked by a penny.

Fig. 5.—Duodenum, in the subject of Figs. 3 and 4, showing two phases of the powerful peristaltic contractions by which it sought (in vain) to overcome the effect of kinking at the duodeno-jejunal junction. (Confirmed by operation.) The duodenum appeared to be writhing. *a*, *b*, *c*, First, second, and third parts of the duodenum. Cr, Crest of ilium. U, Umbilicus, marked by a penny.

## TO ILLUSTRATE DR. A. C. JORDAN'S PAPER ON DUODENAL OBSTRUCTION.

Fig. 6.—The long dropped stomach and the duodenum in a case of suspected duodenal ulcer, examined on the couch after a bismuth meal. The behaviour of the duodenum was similar to that in Figs. 4 and 5, though less extreme. C, P, Cardiac and pyloric portions of the stomach. Py, Pylorus. *a*, *b*, *c*, First, second, and third parts of the duodenum. Cr, Crest of ilium.

Fig. 8.—Stomach and duodenum in the same subject as Fig. 7, taken two hours later. The cardiac portion no longer contained any bismuth emulsion. The isolated pouch, H, and the pyloric portion, P, still contained bismuth, and the duodenum was seen to be contracting actively against an obstruction, due to kinking, at the duodeno-jejunal junction. (Confirmed by operation.) *a*, *b*, *c*, First, second, and third parts of the duodenum. U, Umbilicus, marked by a penny.

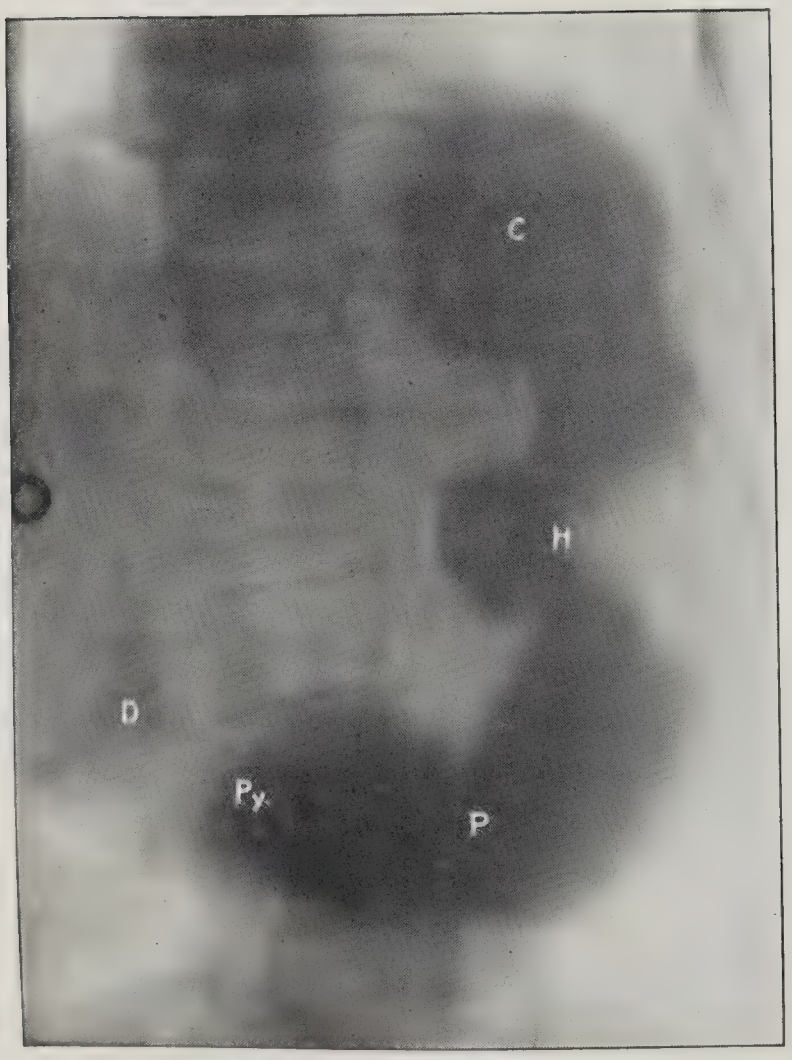


Fig. 7.—Stomach and duodenum examined on the couch after a bismuth meal, showing, at H, a cicatricial hour-glass constriction and a small isolated pouch. C, P. Cardiac and pyloric portions of the stomach. Py, Pylorus. D, Duodenum.

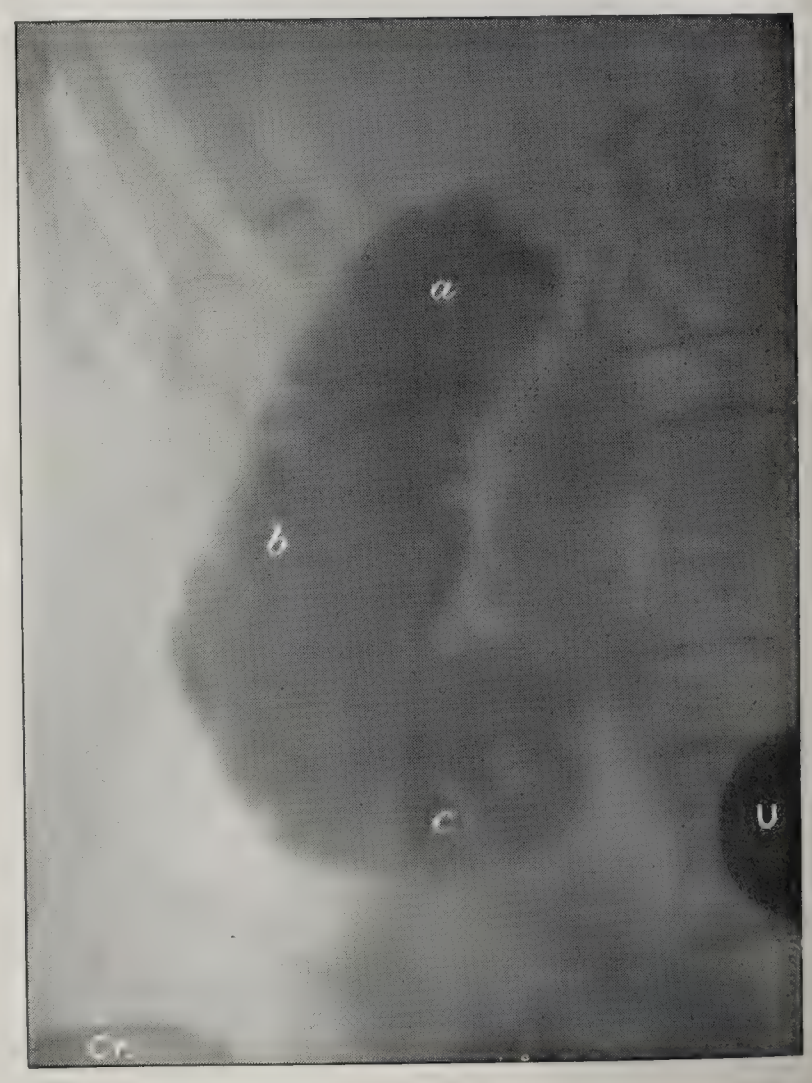


Fig. 9.—Dilated duodenum with partial obstruction, due to kinking at the duodeno-jejunal junction. *a*, *b*, *c*, First, second, and third parts of the duodenum. U, Umbilicus, marked by a penny. Cr, Crest of ilium.

the pelvis. Active gastric peristalsis was observed. Examining the patient on the couch (Fig. 3), the bismuth emulsion was seen to be passing through the pylorus freely and entering the duodenum. On reaching the third part of the duodenum, the bismuth advanced no further, and repeated powerful contractions of the duodenum took place in the endeavour to forward the contents into the jejunum (Fig. 4). The attempts were seen to be ineffectual, and were accompanied by great pain. Fig. 5 shows the duodenum in two phases of its violent contractions. One hour later some of the bismuth was scattered through the ileum, but by far the greater part was still in the stomach. The pylorus was again seen to be normal, while the duodenum was contracting violently but uselessly to expel its contents. After four hours a similar condition still obtained, though a good deal of bismuth was now scattered through the ileum, and a fair amount had reached the lower end of the ileum. At the end of nine hours there was still some bismuth in the stomach, and the appearances of the stomach and duodenum were as before. The duodenum appeared to be writhing in an unsuccessful effort to expel its contents. There was a mass of bismuth in the lower end of the ileum; none in the caecum or beyond.

During the examinations the duodenal obstruction was seen to relax occasionally and allow part of the contents to proceed. After twenty-seven hours the stomach and duodenum were empty. There was some bismuth in the caecum and ascending colon, but the greater part was dried up in the end of the ileum. At the end of fifty hours there was some bismuth (about one-third of the original amount) in the rectum. There were traces in the caecum. Powerful contractions of the duodenum were seen to be taking place, although it contained nothing more opaque than Benger's food. Clearly the third part of the duodenum was the seat of an acute obstruction which yielded partially from time to time.

Mr. Lane operated, and the actual state of affairs was revealed. The duodenum was dilated, especially in its first part, while the duodeno-jejunal junction was kinked over a sharp peritoneal fold or band, and the jejunum hung down vertically over this band as shown in Fig. 2. Mr. Lane performed a posterior gastro-jejunostomy, and the patient made a very good recovery.

This was an extreme case, and as usual the duodenal trouble was not the only abnormality. For not only was the stomach greatly dropped, but there was very great delay at the lower end of the ileum. The case is of great importance; it shows that the condition of duodeno-jejunal kinking over a band (Fig. 2), described by Mr. Lane, may occur in an extreme degree, and may lead to distension of the duodenum with most severe symptoms.

I next proceeded to ascertain the conditions in less extreme cases, and my investigation presently led to positive results. I find it necessary to give a full-sized meal, containing as a rule 4 oz. of pure bismuth carbonate in the form of a thick emulsion. This may be made up with sugar of milk and water; a little corn-flour or other ingredient may be added to thicken the emulsion, which should contain no lumps, lest they set up pyloric spasm, and prevent the rapid filling of the duodenum. Hence bread and milk is not appropriate unless it be thoroughly broken up.

The stomach is examined in the usual way after taking this meal—first in the vertical posture, then upon the couch. It is usually necessary for the patient to lie on the right side for two or three minutes to enable a large proportion of the meal to enter the pyloric part of the stomach, and to pass through the pylorus into the duodenum. The patient now lies on the back once more, when the duodenum may be examined. If it contains little or no bismuth, the patient is asked to sit in a chair for from ten to fifteen minutes, and is then examined upon the couch once more. If there is still no appreciable quantity of bismuth in the duodenum, the patient sits up for a further period of from ten to fifteen minutes; after this time—half an hour from the time of taking the bismuth meal—I have never yet succeeded in obtaining any information regarding the duodenum except in one case, to be described presently (Figs. 7 and 8), in which an hour-glass constriction prevented the emulsion from entering the pyloric portion of the stomach in sufficient quantity to give the desired result in the first half-hour.

When duodenal obstruction is present it may persist for several hours, and I have little doubt further experience will show that the first evidence of duodenal obstruction sometimes appears later than I have observed hitherto. This would seem especially likely in the case of patients whose pain commences two or three hours after meals, for the pain is due to distension of the duodenum resulting from obstruction.

In searching for a reason why positive information was obtained in certain cases and at certain times only, and absolutely withheld in many others, two or three facts soon appeared. It was found that patients who were up, and perhaps continuing their ordinary vocation, were more apt to show definite results than those who were resting. Hence I was most successful with ambulatory patients, and with these only when they were in pain, showing that their pain was due to obstruction. I have shown that rest in bed usually abolishes the *x*-ray signs of duodenal obstruction which existed prior to treatment by recumbency, and it is well known clinically that rest in the supine posture usually relieves all symptoms of duodenal ulcer.

A point to note is that the successful discovery of duodenal obstruction depends almost necessarily upon an unobstructed pylorus. When the pylorus is obstructed or the stomach is not contracting actively the duodenum never becomes properly filled and the characteristic appearances are not obtained.

Fig. 6 illustrates the case of a woman of 30 who had suffered from dyspeptic pain for six months. In her case the appearances greatly resembled those shown in Fig. 5, though they were not nearly so extreme. The stomach was dropped and very long; the duodenum was seen to be in active peristaltic contraction, but its contents, instead of passing on into the jejunum, were returned time after time, and the duodenum contracted over and over again in the endeavour to forward its contents into the jejunum. Three weeks' rest in bed under the care of Dr. Lauriston E. Shaw led to the relief of all her symptoms, and to the abolition of the duodenal obstruction, as shown by the *x*-ray examination. Several weeks later this patient came to report progress, and stated that she had been free from pain for four or five weeks, but that the pain was beginning to come on again. This is a frequent occurrence in the medical treatment of duodenal ulcer.

Another most instructive case was under the care of Mr. L. A. Dunn. A provisional diagnosis had been made of pyloric obstruction due to the cicatrization of an old gastric ulcer. The *x*-ray examination with a bismuth meal showed that there was, in fact, cicatricial contraction of the stomach, but that its position was not at the pylorus as anticipated, but in the middle of the stomach, where it gave rise to a form of hour-glass contraction (H, Fig. 7), with a small portion of stomach in this region forming an isolated pouch. There was no obstruction at the pylorus; in fact, the bismuth emulsion which entered the pyloric portion of the stomach passed through the pylorus at the normal rate as the result of active peristaltic contractions. Had the examination ended here, the information gained would have been but partial; for, observing the patient again two hours later on the couch, it was seen that the duodenum showed obstruction at the duodeno-jejunal junction of much the same kind as in the cases already described (Figs. 5 and 6); repeated peristaltic contractions of the duodenum failed to forward its contents into the jejunum (see Fig. 8). This was an important point when it came to treatment, for there was obstruction at two distinct parts, at the cicatricial hour-glass constriction and at the duodeno-jejunal junction. Thus a cure could not have been expected from either of the ordinary operations—that of connecting the two parts of the stomach above and below the hour-glass constriction by a new opening, or the ordinary operation of posterior gastro-jejunostomy. Mr. Dunn solved the problem in a very practical way by making his anastomosis between the upper portion of the stomach (C, Fig. 7) and the jejunum, thus cutting both obstructed portions out of the circuit, and supporting the jejunum. The patient made an excellent recovery.

Quite recently a patient was brought to me by Dr. A. P. Beddard and Mr. D. J. Armour for an examination of the alimentary canal. She was 48 years of age, and had

suffered from attacks of pain and nausea for seven years, with vomiting when the pain was severe. Her digestion had always been weak; there was great headache, and she had been getting thinner for the last year; there was tenderness to pressure in the caecal region.

I found the stomach dropped, much as in the case of Fig. 6. Gastric peristalsis was very active, the bismuth emulsion passing through the pylorus rapidly and entering the duodenum; there was considerable dilatation of the duodenum, and a good deal of obstruction to the passage from the duodenum to the jejunum (see Fig. 9). I have no doubt the obstruction becomes absolute whenever the patient is at her worst.

The subsequent course of the bismuth meal showed no delay or obstruction at any other point, but the large intestine was dropped so that the caecum, the sigmoid flexure, and the rectum were all in the pelvis together with the great curvature of the stomach and a dropped loop of the transverse colon.

Duodenal obstruction is frequently associated with obstruction at the lower end of the ileum or in the large intestine. Many of the patients exhibit dropping, not only of the stomach, but also of the large intestine. There is frequently great delay in the passage of faeces through the large intestine, and in some cases there is considerable delay in the last portion of the ileum. However, the duodenal obstruction is often the most marked abnormality, and may be the only one which calls for active treatment. In such cases the operation of gastro-jejunostomy relieves all symptoms, and this operation may be expected to do more than place the duodenum at rest by cutting it out of the circuit. As Mr. Lane has pointed out, the jejunum, when attached artificially to the stomach, is supported in such a way that it cannot drop and cause kinking at the duodeno-jejunal junction.

Much controversy still rages round the diagnosis and treatment of inflammatory diseases of the duodenum. I hope that the observations I have described, based as they are on fact, will be of real value.

REFERENCES.

[1] *Surgery, Gynaecology, and Obstetrics*, March, 1911. [2] BRITISH MEDICAL JOURNAL, April 22nd, 1911. [3] W. Arbuthnot Lane, Kinks in Chronic Intestinal Stasis, Ibid.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### THE EFFECT OF SALVARSAN ON TREPONEMA PALLIDUM.

WITH reference to my two notes on the infective granule in certain protozoal infections, which you were good enough to publish in the JOURNAL for April 1st and April 15th respectively, I think it is of interest to record that I have now, thanks to the courtesy of Major F. F. Carroll and Captain McK. Saunders, of the Egyptian Medical Service, had an opportunity of examining by the dark-field method a preparation put up by Captain R. G. Archibald from a case of syphilis. It consisted of serous fluid obtained by scraping the surface of a buccal mucous tubercle which had previously shown the presence of *T. pallidum* in fair numbers. The hanging-drop was prepared without any addition of salt or citrate solution four hours after the patient had received a dose of 0·3 gram of salvarsan subcutaneously.

Captain Archibald and I found at first many motile, highly refractile granules, recalling very strongly those found in fowl spirochaetosis. There were also motionless and empty "periplasts" or cell membranes. After some search a *T. pallidum* was discovered actively engaged in granule-shedding, apparently in a manner identical with that displayed by *Sp. granulosa penetrans*.

Doubtless this phenomenon is evidence of a protective action on the part of the spirochaete. It is endeavouring to preserve itself from total extinction by expelling bodies which are undoubtedly resistant and which may possibly be of the nature of spores. It is evident that such action on the part of the spirochaete must have a distinct bearing on the treatment of the disease it produces. I notice that the Yakimoffs,[1] who have been testing the value of salvarsan in the case of rats and mice infected with *Sp. duttoni*, find that it is advisable rapidly to follow the first dose by a second. Now, as Leishman has found granule formation in the case of the spirochaetes of African tick fever ingested by *O. moubata*, it is almost certain that these are granule-shedders at the natural crises, and also under the influence of such a drug as salvarsan. It seems to me, then, not only possible, but probable, that this second dose recommended by the Yakimoffs acts by killing the granules which are being shed as a result of an inefficient first administration. In this way there is no storing up of resistant forms in the internal organs, and relapses are thereby prevented. If this is true of African tick fever, why not also of syphilis in the light of what I have stated? It should be easy to put the matter to the test, and if the observation is confirmed we should be a step forward in the use of the valuable drug which the genius of Ehrlich has added to our therapeutic armament.

[1] W. L. and N. K. Yakimoff, Nouvelle communication relative au traitement de la maladie du Sommeil et de la tick-fever par le "606" (*Bull. Soc. Path. Exot.*, March 8th, 1911).

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### SUPPRESSION OF URINE.

I HAVE been attending for the last ten weeks a patient, aged 72, suffering from senile dementia. During that time, on at least five occasions, she passed no urine for periods of five, six, or seven days. When the urine was passed it was highly concentrated, very dark brown in colour, but contained no albumen. She ultimately died in a condition of coma, but, beyond some twitching of muscles, had no distinct convulsions. I have always understood that suppression of urine was fatal in a much shorter time.

Hastings. E. R. MANSELL.

### GUNSHOT INJURY INVOLVING RIGHT ELBOW JOINT.

AT sea, in H.M.S. *Cornwall*, on October 25th, 1910, a gunnery instructor, while taking a class in aiming practice, got his right arm in front of the gun, and was struck by a Morris tube bullet. He ran to the sick bay, where I was at the time.

There was profuse arterial haemorrhage from the wound, which was situated in the fold of the elbow, just internal to the border of the bicipital fascia. The edges of the wound were scorched. There was no wound of exit. The haemorrhage, though considerable, was easily controlled by pressure. On probing, the bullet track was found to pass backwards and inwards towards the point of juncture of the internal condyle and the humeral shaft. Sensation and movement in the hand and forearm were perfect. The pulse at the wrist was found absent, and the hand cold.

The forearm was covered with wool and bandaged to the elbow. The wound was dressed with gauze and a large pad of wool, and the elbow well flexed by a figure-of-eight bandage, and the patient put to bed.

In an *x*-ray plate the bullet could be seen broken up on the internal condyle, but further detail could not be made out owing to the position of the arm.

The wound was dressed on November 1st and found quite healed, excepting a small pustule of suppuration at the surface. There was a great deal of swelling about the elbow and surface discoloration. The bullet track led down to a large hard swelling to the inner side and slightly above the joint, apparently a haematoma. The pulse at the wrist could only just be felt. Treatment was now very gentle massage twice daily; a carbolic fomentation 1 in 40 was put on for fear the superficial suppuration might infect the haematoma below. The forearm could not be straightened at the elbow by about 15 degrees.

By November 7th all fear of suppuration had gone and the swelling had so much subsided that it was possible to make a more minute examination; with the *x*-ray screen it could be clearly seen that the bullet had struck and broken up upon the internal condyle. The lower end of the right humerus was considerably broader than the left and crepitus was obtained, there being evidently a fracture of the internal condyle. The forearm was at once put up in the fully flexed position with figure-of-eight bandage and strapping. This caused extreme pain, but after a few

hours in this position of extreme flexion and supination the arm was quite comfortable, more so than it had been any time since the accident. After five days the arm was taken down, massaged and passive movement employed, the site of fracture being steadied by grasping with the other hand.

A good *x*-ray plate was obtained in which the line of fracture was clearly seen running from the olecranon depression through the shaft above the internal condyle and down into the joint. There seemed to be no tendency now to displacement, and the arm was put up at right angles with pad figure-of-eight bandage and a sling.

From this date the patient went on excellently. The arm was taken down and massaged and moved each day, and extension rapidly improved. On November 16th the patient was discharged to light duty with arm in sling. On November 20th the sling was discontinued, extension then being almost perfect. On December 20th there was full extension, the arm was functionally perfect, and there was no deformity. The radial pulse was still a great deal smaller than on the other side.

The case is of some interest—first, as showing the great benefit of the fully flexed position in correcting deformity, even although the arm was not fully flexed until thirteen days after the injury. Secondly, the loss of pulse at the wrist. I do not think the brachial artery was directly injured, but that probably it was occluded by pressure from the haematoma due to a wound of some branch of the anastomotica magna artery.

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H.M.S. *Cornwall*, Devonport. Staff Surgeon, R.N.

## ERYTHEMA NODOSUM.

I WAS much interested to see in a recent issue of the BRITISH MEDICAL JOURNAL[1] an account by Dr. Joynt of a number of cases of erythema nodosum following measles.

In our practice at Aylesbury Dr. Horace Rose and myself have had four cases of erythema nodosum, three of which occurred in one week. Strangely enough, we have also had an epidemic of measles; but none of our patients, to our knowledge, had had an attack of or were recovering from measles before developing the erythema. One, however, was peeling as if from scarlet fever, of which we have also had several cases, and he had a history of a rash with sickness and sore throat previously.

The first case was a boy of 15 employed at a printing works, the second a schoolgirl aged 11, the third a boy of 14 also employed at the printing works, and the fourth a schoolgirl aged 9.

All the cases were severe and the patches were very large, in one case appearing on the arms also. In each case the fastigium of temperature was 101°. All were put on large doses of salicylates and made good recoveries.

If erythema nodosum is one of the manifestations of acute rheumatism in children, there seems also a good deal of evidence of its infectious nature.

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# Reports
ON
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## PRETORIA HOSPITAL.

### POSTERIOR BASIC MENINGITIS, WITH TRISMUS AS A PROMINENT SYMPTOM: RECOVERY.

(By J. F. JEFFERIES, L.R.C.P., L.R.C.S.Edin., L.F.P. and S. Glasg., Resident Physician.)

THE patient in the following case, a child aged 1 year 7 months, was admitted to the hospital on December 12th, 1910, with a history to the effect that about a fortnight previously she had fallen on the head. This produced no symptom calling for attention, but about a week after she had an attack of vomiting and diarrhoea. The former only lasted a day, the latter persisted for a week.

[1] April 15th, 1911, page 867.

*Condition on Admission.*—The jaws were firmly locked, and could not be opened—not even under moderate anaesthesia by chloroform. The angles of the mouth were drawn down, producing a typical "risus sardonicus."

*Progress.*—The child was fed by teaspoonfuls of fluid, which she sucked in between her teeth. She was extremely irritable and restless, and could not tolerate being touched. Well-marked facial paralysis was present on the left side. These symptoms remained unabated until December 18th, when convulsions began, the number and frequency of which can be seen in the following list:

| | | | |
|---|---|---|---|
| On December | 18th | ... ... | One convulsion. |
| ,, ,, | 19th | ... ... | One ,, |
| ,, ,, | 20th | ... ... | Two convulsions. |
| ,, ,, | 21st | ... ... | Three ,, |
| ,, ,, | 22nd | ... ... | Two ,, |
| ,, ,, | 23rd | ... ... | Two ,, |
| ,, ,, | 24th | ... ... | Three ,, |
| ,, ,, | 25th | ... ... | Five ,, |
| ,, ,, | 26th | ... ... | Four ,, |
| ,, ,, | 27th | ... ... | Three ,, |
| ,, ,, | 28th | ... ... | Two ,, |
| ,, ,, | 29th | ... ... | One ,, |
| ,, ,, | 31st | ... ... | Two ,, |

From December 18th onwards the head became more and more retracted. The trismus was very marked for about three weeks, and gave rise to great difficulty in feeding. The muscles of the jaw then gradually relaxed, and the jaws could eventually be separated. With the disappearance of the convulsions and improvement in the general condition of the child the head retraction gradually passed off. Throughout the illness Kernig's sign was present on both sides. The pupils were unaffected, equal in size, and reacted well to light. At no time was there any definite paralytic squint. The hearing was very acute.

*Result.*—The little patient was much emaciated by her prolonged and serious illness, but rapidly put on flesh as time progressed, and left hospital on February 4th quite well in body and mind. Her temperature on admission was 99° F. in the morning and 100° F. in the evening. This lasted only three days, when it became subnormal, and remained so during the remaining period of the illness. The pulse was accelerated during the stage of activity of the symptoms.

### REMARKS.

The previous and family histories were unimportant. The special interests in this case were: (1) The presence of trismus as the first and persistent symptom; (2) recovery.

On admission, as I have said, the jaws could not possibly be separated, and facial paralysis was present on the left side. Six days after, convulsions commenced, so we thought we were dealing with a case of "cephal-tetanus" or head tetanus of Rose, in which trismus is associated with facial paralysis and spasms of the muscles of the body. There was, however, no injury in the region of distribution of the fifth cranial nerve.

Trismus from dental irritation was also out of question, as there was no evidence of such—moreover, the subsequent course of the case proved otherwise.

Trismus as a symptom of posterior basic meningitis is exceedingly rare. On looking up works on medicine I cannot find a single reference to it as a distinct symptom lasting throughout the course of the disease.

Osler says, "There may be trismus or grating of the teeth"; while Batten, in Allbutt and Rolleston's *System of Medicine* (page 178), speaking of tonic spasms occurring in the disease, says, "Exacerbations of this spasm are not uncommon, the jaw and thorax muscles sharing in the contractions," but no mention is made of early and persistent trismus.

Regarding recovery from posterior basic meningitis, Batten says 50 per cent. survive; of this about 15 per cent. recover completely, and the rest are left with hydrocephalus, blindness, or mental defect, varying in degree from increased irritability to absolute idiocy.

The treatment consisted of inunctions of ung. hydrarg. into the groins, axilla, and neck throughout the illness. While the convulsions were on potassium bromide and chloral were given internally, and hypodermic injections of nitro-glycerine and ice to the head and spine. When these ceased, potassium iodide gr. iij was administered every three hours. Warm baths were also given every three hours, and under these marked relaxation of the muscles of the back of the neck occurred.

I have to thank Dr. Savage, Honorary Visiting Physician to the hospital, under whose care this case was, for his kindness in permitting me to publish it.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### BIRMINGHAM BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

*Friday, April 28th, 1911.*

Dr. MELSON in the Chair.

*A Case of Orbital Aneurysm.*

DR. STANLEY BARNES showed a girl, aged 22, who was a lacquerer. About five months ago she noticed one day a somewhat severe frontal headache which lasted two days during which she vomited frequently. Thereafter the eyes began to bulge and the right one became bloodshot and very soon projected much more than the left. At the same time ptosis of the left eye came on so that she had to use the more prominent right eye for vision. As far as could be gathered there was at this stage considerable limitation of movement of both eyes. After three weeks the ptosis of the left eye disappeared, and since then the patient had noticed no difficulty in using this eye, but the proptosis in the right eye increased, and the headache subsided; since then the headache had still been occasionally felt, but only slightly. For the last four months there had been considerable buzzing in both ears, specially the right. There had been some occasional vomiting at odd times ever since the onset. Her previous history was good excepting that three years ago she had her appendix removed, and the drainage tube had to be left in for some weeks. She was now a somewhat anaemic girl of fragile build, and the right eye was greatly proptosed. Its movements were strictly limited in all directions, the pupil was enlarged, but not fixed to light, and the vision in the right eye was deficient. There was also almost complete left external rectus palsy, but no other sign of interference with this eye. When last examined by the ophthalmoscope, three weeks ago, there was a partial atrophy but no neuritis present. The left eye was normal. Over the right side of the head was a loud bruit synchronous with the heart beat which was heard over the malar and temporal bones best, but which could also be heard in the right mastoid region and over the left side of the scalp.

*A Case of Orbital Tumour.*

Dr. STANLEY BARNES showed a woman, aged 30, who came up to the hospital first on December 9th, 1910, on account of trouble with her right eye. This had come on gradually for three years with no headache or vomiting. On examination then there was a slight degree of proptosis, and almost complete external ophthalmoplegia. The pupil was of normal size and reacted well, and the optic disc appeared to be quite normal. No other sign of disease could be found, nor did the previous history give any clue to the condition. Since then she had been taking large doses of potassium iodide, but the condition had gradually become slightly worse. In addition to the external ophthalmoplegia, vision had partly failed, the optic disc was paler, and the pupil was now much larger than on the other side, and did not react so well.

*Specimen of Vesicular Mole.*

Mr. CHRISTOPHER MARTIN showed a specimen of vesicular mole from a woman aged 25, who had been married two years. She had one miscarriage four months after marriage. Her last period occurred in the first week of July, 1910. There was entire amenorrhoea from that date until February 6th, 1911. On that date she began to have small vaginal haemorrhages accompanied by slight abdominal pain. She was sent into hospital under Mr. Jordan as a case of placenta praevia on February 13th, 1911. The uterus reached to the ensiform; there was no fetus palpable and no fetal heart was audible. On February 19th she began to have severe vaginal haemorrhage, and grape-like vesicles could be felt projecting through the external os. The uterus was emptied upon this date of a large vesicular mole, and a fetus somewhat flattened and of pale colour. The fetus appeared to be that of a ten weeks embryo. The specimen showed the usual proliferation of syncytial and Langhans's cells and a very marked oedematous distension of the mesoblastic portion of the chorion. The patient made a good recovery, and when heard of two months later had suffered from no further uterine haemorrhage.

*Ovarian Cyst.*

Dr. PURSLOW showed a specimen of ovarian cyst which had obstructed labour, and was removed during the puerperium. The patient was admitted to hospital in labour at the seventh month of her third pregnancy. On examination the pelvis was found to be occupied by a cystic swelling, and the os could not be reached. Under anaesthesia the tumour was displaced out of the brim and delivery of a stillborn child effected. The ovarian cyst was removed successfully during the puerperium. The specimen shows a multilocular ovarian cyst the size of a six months gravid uterus, and it was this size which makes the case unusual. It is clear that only part of the cyst could have been in the pelvic cavity. Dr. Purslow said that in his previous experience of similar cases the tumour had been not larger than a fetal head, and had completely descended below the pelvic brim.

*Uterus with Large Fibroid Tumour.*

Dr. PURSLOW showed a uterus with large fibroid tumour removed by abdominal hysterectomy, rapid recovery ensuing. The specimen, which weighs 12 lb., shows a large fibroid growing from the anterior wall of the uterus; the latter is not enlarged. The tumour deeply invaded the broad ligaments.

*Congenital Dilatation of the Colon.*

Dr. GAVIN S. BROWN showed (for Dr. SHORT) a specimen of congenital dilatation of the colon from a child 3 years of age.

*Excised Perforated Gastric Ulcer.*

Mr. BILLINGTON showed a specimen of excised perforated gastric ulcer. The patient was a girl, aged 21, who had suffered from acute dyspepsia for several weeks prior to the perforation of the ulcer. Operation was carried out nineteen hours after the onset of acute symptoms. The ulcer, which was situated on the anterior surface of the stomach near the lesser curvature, was excised widely; the peritoneum was irrigated with normal salt solution and drained. Convalescence was uneventful, the patient leaving the hospital on the nineteenth day with the abdominal wounds firmly healed.

*Excised Perforated Duodenal Ulcer.*

Mr. NUTHALL showed the specimen of a perforated duodenal ulcer excised from a man, aged 42, about twenty-four hours after the probable time of occurrence of perforation. The ulcer—a small one—was situated on the anterior wall of the duodenum, less than 2 in. from the pylorus. After excision, the wound was closed in the line of axis of the bowel, and a flap of omentum sutured over it. Recovery ensued. The patient suffered with severe epigastric post-prandial pains for three months before perforation occurred, vomiting at times, but with no haematemesis or melaena.

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THE eleventh annual report of the Westmorland Consumption Sanatorium and Home has just been issued. The sanatorium comprises two distinct branches—the sanatorium proper, set apart for milder cases, who sleep in open shelters and are able to work, and the home, used for severer cases not fit for work, who sleep in single or double wards. The average number of beds occupied throughout the year was 66, as against 54 in 1909. The average weekly cost per bed was 29s.; it is slightly higher than in the four preceding years, but is a very moderate rate. Since the opening of the sanatorium eleven years ago, 1,100 patients have been admitted, and there are elaborate tables appended, following up the histories of those admitted from Westmorland. Of the advanced cases only 15 out of 90 admitted remained alive; of the moderately severe cases about 60 per cent. are in good health, 20 per cent. frail, and 20 per cent. dead; of the slight cases, about 90 per cent. are in excellent health, very few are doing badly, and only one has died in eleven years.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, May 4th, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*Motor Localization.*

A PAPER by Dr. F. W. MOTT, F.R.S., Mr. EDGAR SCHUSTER, and Professor C. S. SHERRINGTON, F.R.S., on the motor localization in the brain of the gibbon correlated with histological examination, was read. A comparative study of the convolutional pattern of the brains of lemurs and apes led to the expectation that the remarkable use the gibbon makes of its arms and hands would be found by experiment and histological investigation to be correlated with the remarkable expansion of the cortex cerebri in the precentral region, as shown by the development of a broad gyrus extending from the middle of the precentral region to form the second frontal convolution. This development, it was inferred, would push downwards and forwards that portion of the cortex which on stimulation gives rise to eye movements in macacus. Stimulation experiments by unipolar excitation, showing the correctness of this deduction, were described in detail, and for the first time the excitable motor cortex was precisely mapped out in this animal. The experimental observations had been correlated with a histological survey of the cortex cerebri in front of the central fissure. Figures were shown illustrating the distribution of two quite distinct types of cortex in the lateral surface of the gibbon's brain in front of the central fissure corresponding to Campbell's precentral and intermediate precentral types, or to Brodmann's types 4 and 6. The great forward extension of the intermediate precentral area (especially that which may be described as the middle frontal convolutions) forms a most characteristic feature of the gibbon's brain, and distinguishes it in a very striking way from the orang and chimpanzee on the one hand, and cercopithecus and the baboon on the other.

*Cancerous Heredity.*

Dr. J. A. MURRAY, M.D. (Imperial Cancer Research Fund) made a communication on cancerous ancestry and the incidence of cancer in mice, in continuation of a previous communication. The analysis of the ancestry of 1,600 mice bred in the laboratory permitted their classification in two groups differing considerably in the incidence of cancer. Out of a total of 562 female mice which lived for six months or more, cancer had occurred in the mother, one or other grandmother, or all three in 340, and in them 62 developed cancer of the mamma (18.2 per cent.). In the remaining 222 mice, in which cancer was absent from the maternal and grandmaternal ancestors, only 19 developed cancer of the mamma (8.6 per cent.). The group with recent cancerous ancestry was found on analysis to be more severely attacked at all age-periods than the non-cancerous group (cancerous ancestors remote). Detailed analysis of the ancestors enhanced the importance of the differences. The differences exceeded their standard errors sufficiently to render them significant. The predisposition was apparently not constitutional, but local, and was regarded as only one of the factors in the development of cancer.

*Immunization by Endotoxins.*

Dr. R. TANNER HEWLETT read a paper giving the results of an investigation of the action of bacterial endotoxins in immunizing against the corresponding living organisms. Guinea-pigs were the animals employed. (1) A series of guinea-pigs were given single injections of typhoid endotoxin, ranging from 0.01 mg. to 1.0 mg. Five to eleven weeks later the animals were injected with living typhoid culture; considerable protection was obtained, particularly with doses of 0.1 mg. and 1.0 mg. The protection afforded by the endotoxin was better and lasted longer than that conferred by a bacillary typhoid vaccine. (2) Six guinea-pigs each received 0.25 mg. of the cholera endotoxin, and all survived an injection of living cholera culture given eleven weeks later. (3) Diphtheria and (4) plague endotoxins similarly conferred some protection against the living organisms. (5) No immunizing substance was obtained from the *Trypanosoma brucei*. The results suggested that bacterial endotoxins might be of considerable value as protective vaccines. The endotoxin solutions maintained their activity for some weeks at least, probably for a much longer period. A few inoculations of typhoid and diphtheria endotoxins had been performed in the human subject. The inoculations caused some local reaction at the site of inoculation, but little general reaction.

*Artificial Disintegration of Bacteria.*

Mr. J. E. BARNARD and Dr. R. T. HEWLETT, in a paper on a method of disintegrating bacterial and other organic cells, pointed out that bacterial toxins were of two kinds, extracellular and intracellular. The former were excreted into the medium, for example beef broth, on which the organism was cultivated, so that by a process of filtration the organisms could be removed, and the toxin obtained in the filtrate; but the majority of pathogenic micro-organisms did not excrete their toxins, at least to any extent, and the toxins were retained within and formed integral parts of the cells of the organisms. One method of obtaining these toxins was to disintegrate the bacterial cell mechanically, so that the cell contents were expressed, and an apparatus to accomplish this was described. It consisted essentially of a containing vessel, in which, by a suitable rotation of steel balls, the organisms were crushed. The principal conditions to be fulfilled in such an appliance were: (1) Approximately every cell should be brought under the grinding action. (2) Little or no rise of temperature should take place. (3) The disintegration must be carried out in a vessel which was sealed, so that, when dealing with pathogenic organisms, none could escape at any stage of the process. These conditions were, in the main, complied with in the apparatus described. Experiments indicated that by this method the cell-juices were obtained unaltered, and suitable for investigations on the chemical composition and properties of the bacterial proteins and other cell constituents. Also that, after the grinding process had been carried on for a sufficient time, practically no cells remained which could be properly stained by any recognized bacteriological method, and which therefore could be regarded as whole cells containing a normal quantity of cell-juice.

## MEDICAL SOCIETY OF LONDON.

*Monday, May 8th, 1911.*

Mr. CHARTERS J. SYMONDS, President, in the Chair.

*Salicylates in Rheumatic Affections.*

DR. A. F. VOELCKER, in a paper on the limitations to the successful employment of salicylates in rheumatic affections, said that it had become a habit to treat all rheumatic affections with the salicylates. Certain of them responded admirably, but there were also quite a number of undoubtedly rheumatic manifestations in which the salicylates proved useless. The most striking benefit of the salicylates was shown in their influence on joint pains, and persistence of pain after adequate administration should always suggest the possibility of the arthritis being gonococcal or septic in nature, or to the pain being due to an anterior poliomyelitis. The pain of acute rheumatic arthritis ought to yield within twenty-four hours to the administration of 10 grains of sodium salicylate with 20 grains of sodium bicarbonate, given every two hours for three doses and then every four hours. Pains about fibrous structures after an acute arthritis were often intractable to salicylates, but yielded to local applications of oil of wintergreen or to potassium iodide internally. The pain of pleurisy and of pericarditis was uninfluenced. Joint effusions when aggravated by movements proved intractable, even when they contained the *Diplococcus rheumaticus*. The pyrexia of acute polyarticular rheumatism was generally controlled within three days, but in the rheumatic state there was often a pyrexia ranging through two degrees, which continued even for weeks, and was unaccompanied by any obvious manifestation of rheumatism. Such pyrexia was often uninfluenced by the salicylates, though it might yield to salol or aspirin. The employment of the salicylates in rheumatic hyperpyrexia was waste of valuable time. The cutaneous manifestations of rheumatism were uninfluenced. Neither

the various forms of erythema, purpura, nor erythema nodosum appeared to be influenced, and these manifestations had occurred while patients were actually taking the drug. The subcutaneous nodules described by Barlow and Warner were undoubtedly rheumatic in nature, but they were quite uninfluenced by the administration of the salicylates. He had failed to find any successful treatment for them. The similarity of their structure to that of the inflamed valves of the heart in rheumatism, as pointed out by Cheadle, was a powerful argument against the utility of the employment of salicylates in endocarditis or pericarditis. The danger of upsetting the stomach with the irritant salicylates must be borne in mind in the treatment of all heart affections, as also must the risk of acidosis. In the treatment of chorea the salicylates had proved of no use in his experience. The object of his paper was not to belittle their good effects, but to point out that salicylates were not specifics for any and every affection termed rheumatic.

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## ROYAL SOCIETY OF MEDICINE.

### Section of Surgery.

*Tuesday, May 9th.*

Mr. Rickman J. Godlee, President, in the Chair.

### *Cleft Palate.*

An exhibit of a large number of cases of cleft palate, operated upon by different methods, was followed by a debate opened by Mr. Arbuthnot Lane, who developed his well-known views as to the necessity for operating upon the palate in earliest infancy; his youngest patient was seven hours old. Severe deformity was, in his opinion, an indication of urgency, and closure of the cleft a life-saving measure. He held that the flap method was the only one adequate for closure of the worst cases, and to obtain adequate flaps operation must be performed before the teeth erupted. Dr. Ulrich, of Copenhagen, described his technique, and showed his instruments, including a screw compressor for approximation of the maxillae in his modification of Brophy's operation. He alluded to the conditions obtaining in Denmark, which resulted in many cases being treated by prosthesis and tuition, rather than by operation. The great majority of his cases were operated on by Langenbeck's method, and his results were very satisfactory. He communicated a series of 10 consecutive cases operated upon in infancy by the Brophy method. There were two deaths, and only two entirely successful cases in the series. Whilst it was theoretically desirable, for the best functional results, to operate as early as possible, the operation was much easier at two years, and healing much more readily attained. Whilst there were cases suited for approximation of bones, it was not a justifiable routine measure. The President intimated the opinions of Mr. Murray (Liverpool) and Mr. Edmund Owen. The former practised exclusively Langenbeck's operation, whilst the latter advocated Brophy's. Mr. Drew admitted that Mr. Lane's work had influenced him in the direction of earlier operation, but he very rarely operated in the first year of life. His objections to the flap method were that it was a dangerous operation, and one involving so much cicatrization as to impede movement of the palate. Examination of the cases shown convinced him that the Langenbeck method was superior from every point of view. His only experience of the Brophy method taught him that the approximation of the maxillae was accompanied by so much tilting upwards of the palatal process as to increase considerably the difficulty of closing the cleft. If the lip were operated upon first, the cleft was much reduced by the time operation was indicated. He drew attention to the superiority of Berry's double-shouldered needle, and showed a special gag. Mr. Fagge had operated upon 38 cases under 3 months old. There were three deaths. The flap method was the only one for very difficult wide-cleft complete cases, and should be undertaken before the end of the first month. The harelip should be repaired at the same time as the palate. Mr. Berry had operated on 144 cases. He had had no death. He had never come across a case with a cleft too wide for cure by Langenbeck's method, nor any condition referable to the deformity for which that operation was inadequate. The youngest patient he had operated upon was 4 months, the oldest 26 years. He considered 2 years the best age, and 16 years as the latest period at which good results could be expected, though he had done some 6 cases above that age. He doubted the claim that the operation in infancy was "life-saving," and had never seen any data to support it. He found that the cleft was enormously reduced by operating on the lip first. Brophy's operation was good in theory, but too dangerous in practice. He wished to learn whether the atrophy of the flaps that he had seen several times after operation by Lane's method was a frequent occurrence. After-training and regulation of the teeth were important points if good functional results were to be obtained. Mr. Waugh pointed out that there was no close relation between the degree of the original cleft or the mechanical perfection of the result and the perfection of speech. The vast majority of cases, by whatever method treated, retained through life a nasal intonation—a point which ought to be placed clearly before parents when operation was proposed. The hereditary considerations brought cleft palate into the category of eugenic problems. Mr. Burghard agreed that functional results were unsatisfactory at the best. The cases present demonstrated the superiority of Langenbeck's method. His experience with the Brophy and flap operations was disappointing; on the other hand, he had never met with insurmountable difficulty in any case by the older method. He had not observed any excessive mortality amongst cleft palate cases not operated upon, and did not believe the early operation was rightly described as "life-saving." Mr. Kellock thought slight cases might be tackled early, but complete clefts were better left till later. His objection to the flap method was the resulting obliquity of the palate and its tension. He had observed that in cases left alone the width of cleft was diminished with development of the bones. It was important to train the child before the operation, as well as after. Mr. Barrington Ward read a paper based on 369 operations performed by Mr. Lane on 172 cases, with 5.9 per cent. of deaths. Mr. Spencer spoke of 14 cases operated on by flap and approximation measures with 1 death. He had found some very bad cases do well. Mr. Pollard's experience, intimated by the President, was in favour of Langenbeck's operation, which had never failed him. Mr. Lane replied, leaving his case in the hands of those who had seen the patients exhibited.

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### Laryngological Section.

At a meeting on May 5th, Dr. Watson Williams, President, in the chair, a discussion was held on the present position of the treatment of purulent discharge from the frontal sinuses. Cases and skiagrams illustrating the frontal sinuses and frontal sinus operations were shown by Dr. StClair Thomson, Mr. Herbert Tilley, Dr. Moore, Mr. Stuart-Low, and photographs and diagrams illustrating the same subject were thrown on the screen by Dr. Watson Williams. The discussion was opened by the President, who submitted an abstract to the meeting, pointing out that the subject of discussion fell under two main headings—namely, the treatment of acute and chronic cases of frontal sinusitis. In acute frontal sinusitis reliance was largely placed on treatment by diaphoretics, counter-irritation, Bruning's light head bath, and intranasal lavage and local sedatives; but in certain cases operative measures were necessary, either intranasally or externally. As regards chronic frontal sinus suppuration, intranasal treatment by lavage should be tried, combined with the dealing with coexisting pathological conditions in the nose. Nitrate of silver and protargol as local applications were useful in some cases. Vaccines rarely effected a cure. Intranasal operations, with a view to enlarging the fronto-nasal passage, were practised and advocated by some. The Roentgen-ray screen was of use in diagnosis in some cases. In a large proportion of cases the fronto-nasal duct was abnormally patent, and free drainage was not always sufficient to effect a cure. If maxillary antral empyema or purulent discharge of the posterior ethmoidal cells or sphenoidal sinus coexisted, these, as a rule, should be opened up and treated before resorting to any external operation. The particular type of operation must be determined by the nature and conditions of the individual

case, but one should adopt a method which allowed free access to the whole of the involved territory and ultimate obliteration of the suppurating cavities with the least deformity. In the discussion which followed, the opinion generally expressed was that there was now a distinct tendency to avoid external operations on the frontal sinus as much as possible, and that the number of cases operated upon by the external route was decidedly smaller than formerly, one reason being that the osteomyelitis which sometimes ensued as the result apparently of these operations had proved almost invariably fatal.

## EDINBURGH OBSTETRICAL SOCIETY.

*Wednesday, May 10th, 1911.*

Dr. HAULTAIN, President, in the Chair.

*Diffuse Adenoma of the Vagina.*

THE PRESIDENT read a communication on a case of diffuse adenoma of the vagina which had first come under his notice fifteen years ago, and showed microscopic sections of the growths.

The patient, at that time 35 years of age, complained of a watery vaginal discharge. A hard tumour of the size of a walnut protruded from the vulva, and the vaginal walls were pink and freely secreting. The tumour was removed, and found to be a fibro-adenoma. Part of the vaginal wall, which was covered with adenomatous structures resembling cervical erosions, was scraped and swabbed with tincture of iodine. Some months later the curettage was repeated and pure carbolic acid applied, and the same measures were carried out a third time. The relief in each case was only temporary, and douching with astringents had little or no effect. Fifteen years later, in June, 1910, she returned complaining of severe heat in the vagina. The walls were now greatly thickened, pink, and studded with warty processes. These were still adenomatous, but they had now undergone a malignant change—adenoma malignum. The watery discharge had been profuse for the preceding eight years. The patient gradually weakened and died.

From his experience in this case the exhibitor said he would in future recommend radical treatment by removal of the uterus and vagina. A similar case had been recorded last year by Dr. Bonney. Dr. BERRY HART gave an explanation of the etiology of the condition just described by the President, and illustrated his remarks by lantern slides. In a transverse section of the genital cord at the seventh week, two Müllerian ducts were present. Later the septum between them disappeared, and the duct, now single, ended blindly in a projection, the eminence of Müller. At this stage no hymen nor any lower opening was present. At the fourteenth week a central mesial section showed the lower end of the cervical canal blocked with epithelium, the vagina solid with epithelial cells, and at its lower end two bulbs, of squamous epithelium, the Wolffian bulbs, which led up to the Wolffian ducts. It was these bulbs that proliferated and projected their stratified squamous epithelium along the Müllerian vagina, replacing the original cylindrical epithelium. According to the speaker the fused Müllerian duct gave rise to the upper two-thirds of the vagina, the lower third belonged to the uro-genital sinus, while the hymen was the thinned-out lower ends of the vaginal walls. The epithelium of the whole vagina and the lower third of the cervix was formed from the epithelium of the Wolffian bulb. When the Wolffian epithelium was not projected along the Müllerian duct, and the columnar epithelium persisted, then adenoma of the vagina arose.

*Superfetation.*

A note of a case of superfetation by Dr. A. E. TURNBULL was communicated by the SECRETARY. The patient was a primipara, 24 years old, and her pregnancy was supposed to have reached six and a half months when labour set in. She was delivered of twins, there being one placenta and hydramnios of the second sac. Then a third ovum, apparently 3 months old, was expelled. Dr. HART said this was not proved to be a case of superfetation. In multiple pregnancy the difference in the size of the embryos might be great, according to the placental area that each obtained. Dr. RITCHIE described a case of which he had recently read. Dr. B. P. WATSON thought that in this instance two ova had been fertilized, one giving rise to twins and the other to a single embryo which had died at the third month, and had retained its freshness while it lay in the uterus.

*Exhibits.*

The PRESIDENT showed photographs of an oedematous fetus, of which the mother was also oedematous; extra-uterine pregnancy with perforation of the uterus by a curette.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

*Friday, May 5th, 1911.*

Dr. PHINEAS S. ABRAHAM, President, in the Chair.

*X-Ray and Radium Treatment of Malignant Disease.*

Dr. REGINALD MORTON, in a paper on the present position of the *x*-ray and radium treatment of malignant disease, said that it was impossible to predict with even a small degree of accuracy how any given case was going to respond to *x*-ray or radium treatment, and quoted cases of an identical nature that gave opposite results though treated in exactly the same way and with the same apparatus. Looking back over a period of ten years, he found that some of his most successful cases had been treated in the earlier days before measurement and the use of filters came into use and when the production of a more or less mild degree of *x*-ray dermatitis was comparatively common during the progress of the treatment of cases of this kind. The most strikingly successful case in his experience had been treated with a series of massive doses which were followed by a very intense dermatitis. Summing up the present position of matters, he said that the *x* rays had a definite inhibitory action on all cellular growths when applied strongly and for a sufficient time, and under favourable conditions would bring about their destruction and removal. This, however, did not take place to any appreciable extent after the rays had traversed a certain thickness of tissue—namely, about 1 cm. Cancerous and other diseased cells, being of lower vitality than normal cells, were more easily destroyed than the latter, and for this reason they could be affected at a greater depth. The prospects of bringing about a definitely favourable influence upon any case were directly dependent upon the thickness of the growth; if more than half an inch thick and advancing, *x*-ray treatment was not likely to do very much good. Pain when present was relieved in nearly all cases. He was a strong believer in post-operative *x*-ray treatment as a routine measure, but would go even further than was usual. With modern apparatus it was now possible to administer a full therapeutic dose in less than five minutes. This made it feasible to treat the operation area in the theatre before the surgeon closed the wound, and such an application would have more far-reaching results than a number of applications given some time after the operation. Prophylactic *x*-ray treatment should be carried out at intervals of three months during the first year and at longer intervals during the second and third years. The principles involved in radium treatment were the same as in *x*-ray treatment, but the advantage of radium was that it could be applied to parts inaccessible to the *x*-ray tube, and that the radiation from any given specimen was constant and definite. Owing to the limited supply it was not so good as the *x*-ray tube for treating severe cases of an extensive character. Neither method afforded control over metastasis, and recurrence was not influenced whatever the method of treatment employed. If operation was feasible it should be done in all cases and without delay, but post-operative *x*-ray or radium treatment should also be commenced immediately afterwards. If this were done in all cases the percentage of recurrences would fall off. If it was decided that a case was inoperable, then *x*-ray or radium treatment should be tried at once and carried on for at least one month, by which time there ought to be some definite indications as to any good resulting therefrom. Even at the worst the patient was made more comfortable both physically and mentally. Dr. ABRAHAM remarked that he had seen a specimen from a case of malignant disease of the breast cured by *x* rays; on section nothing but fibrous tissue was left. Dr. C. E. IREDELL said it was impossible to tell from a microscope examination if a given section had been *x* rayed or not. In discussing radium the quantity used was of great importance. He had better results with 22½ mg. than with smaller amounts. He believed radium was more

likely to cure cancerous masses than *x* rays. Dr. C. J. MORTON had seen a recurrent carcinoma grow to the size of half a Tangerine orange in three weeks and disappear under radium in a fortnight. The only guide as to which cases would benefit with radium was to give a trial. Mr. MCADAM ECCLES was sure that immediate post-operative administration of *x* rays was a sound procedure.

## MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

AT a meeting on May 5th, Professor MUIR, President, in the chair, the following were among the exhibits: Dr. T. K. MONRO: A man who had recovered from an attack of *Landry's paralysis*. The illness began on October 14th, 1910, with weakness at the right knee, twitchings in both legs, numbness and prickling up to the knees. On October 17th the upper limbs were similarly affected; by October 20th he was unable to stand or walk, and had severe pain in the legs. On admission to the Royal Infirmary, on October 21st, there was noted, in addition to weakness and flaccidity of muscles, absence of plantar and deep reflexes, impaired sensation, and normal electrical reactions. During the first week of November he had incontinence of faeces, retention of urine, and delirium. By November 10th there was some return of power in the arms, and by 16th slight return in the legs. Improvement continued, till by December 24th the patient could stand without assistance and left the infirmary. Examined on May 5th, 1911, the patient was found to have both knee-jerks present, though reduced, and, but for occasional slight numbness in the toes, was in perfect health. Dr. J. H. TEACHER (for himself and Dr. MADGE E. ROBERTSON): Sections of the spinal cord and posterior root ganglia from a case of fatal *Anaemia* in a man aged 54. Those from the lower dorsal region showed a peculiar degeneration, the myelin sheaths being swollen and staining black by Marchi's method. On one side this change affected the crossed and direct pyramidal and prepyramidal tracts, and anterior and lateral basis bundles; on the other side, parts of basis bundles and direct pyramidal tract had escaped. The posterior columns were affected in a small area in front of one column of Goll. The ascending cerebellar tracts were clear on both sides. There were distinct degenerative changes in the ganglion cells generally, specially in lower dorsal region. The upper limits of the degeneration were not ascertained. It was absent from lowermost dorsal and lumbar segments. Mr. ARCH. YOUNG: A specimen of *Intussusception of the appendix* from a child aged 4½ years. The boy had suffered for about two weeks from severe abdominal pain, referred to the umbilicus, recurring at intervals of half an hour. No sickness, vomiting, or passing of mucus or blood. No swelling or tenderness anywhere in the abdomen. The patient's doctor, regarding the pain as probably due to colic caused by chronic constipation, had prescribed aperient medicine and enemata of olive oil, but without relieving the pains. Subsequently the child was admitted to Broadstone Jubilee Hospital, Port Glasgow, and after operation made an excellent recovery. The same exhibitor described an instance of the same condition in a woman aged 24. She was admitted with symptoms of appendicitis of forty-eight hours' duration, sickness, vomiting, pain; temperature 102° F., pulse 116, rigidity of abdominal wall in right iliac region, local tenderness, and a palpable mass in the appendix region.

## MEDICO-PSYCHOLOGICAL ASSOCIATION.

### NORTHERN AND MIDLAND DIVISION.

AT a meeting on April 27th, at the City Asylum, Nottingham, Dr. POWELL in the chair, Dr. ERSKINE, in a paper on *Asylum dysentery*, discussed the various factors which favoured it. In addition to overcrowding, constipation, the dirty habits of the insane, and the possibility of there being dysentery carriers, he called attention to three others: (1) The presence of kidney disease rendered a patient more liable. He had noticed a peculiar slimy condition of the peritoneal surfaces of the intestines in kidney disease. Probably the extra work of excretion thrown upon the bowels in these cases had something to do with their liability to dysentery. (2) Tuberculous cases were liable to dysentery and became more dangerous as sources of infection of dysentery than of tuberculosis. (3) He had been struck by the fact that influenza and colitis had been epidemic in the asylum at the same time, and that three annual epidemics of colitis had followed three annual influenza epidemics. He therefore submitted that some cases of so-called asylum dysentery were really influenza, and, further, that influenza was a cause of asylum dysentery. He then gave a history of the cases of dysentery occurring in the Nottingham Asylum for several years past, and showed their relation to outbreaks of influenza. In the discussion which followed some doubt was raised as to the relationship between influenza and colitis. A query was put forward as to whether the turning up of new soil, in digging foundations, had any connexion with outbreaks of colitis. Dr. DEVINE, in a paper on the *Pathogenesis of a delusion*, described a case in which a young lady had developed the delusion that she was suffering from an infectious disease, and that those around her were in danger of becoming affected. A psycho-analysis was undertaken to trace the source of this delusion. By means of Jung's association experiment it became manifest that underlying the delusion was a concealed complex giving rise to feelings of shame and self-reproach. This was found to depend on an experience with her lover a short while before. She accused herself of having acted wickedly. Since, however, her behaviour had not been open to criticism it became obvious that her self-accusation was itself a delusion covering a deeper complex. Further analysis revealed the fact that the patient had determined to avoid marriage on the ground that she had an insane heredity. The psychosis had therefore arisen out of two conflicting wishes: (1) Natural sex instincts, and (2) a wish to remain single. The delusion was the symbolic representation of her original determination and enabled the patient to gratify her ideals and solve the conflict in a manner impossible in contact with reality. The analysis was also a method of treatment, a form of re-education. As the mechanism became obvious to the investigator it was possible to lead the patient back to reality once again. Dr. ALLEN recorded a case of *Gangrenous emphysema of the thigh*, occurring in a general paralytic.

## ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting on May 2nd, Mrs. DICKENSON BERRY, President, in the chair, Dr. MILDRED BURGESS read a paper on *Some functional conditions of the circulation*, basing her remarks on cases met with in private practice. They fell into three groups: (1) Those with raised blood pressure; (2) those with lowered blood pressure; and (3) those with definite physical signs in the heart or blood vessels, imitating valvular or arterial lesions. (1) Patients in the first group—often young women—complained of headache, fatigue, wakefulness, and restlessness. They had a high tension pulse (blood pressure 150 to 160 mm.), and the urine was of low specific gravity. The cause of the condition appeared to be tea drinking or constipation. (2) In Group 2 there were attacks of fatigue almost amounting to powerlessness, in which the patients became prostrate, grey, with shallow respirations and a slow pulse. They were conscious, but unwilling to talk or move, and had a sensation of impending death. The attacks lasted from one to five minutes, and ended suddenly. The possible explanations of these cases were either that after excessive fatigue the heart refused to work at the normal rate, or that the blood collected in the splanchnic area and the heart was unable to drive the blood through the dilated vessels. The change was probably vagal in origin. (3) A patient in Group 3 complained of chestache. The heart sounds were irregular, with reduplication of the first, and sometimes of the second, sound. A rough systolic murmur was heard at intervals. The heart was not enlarged. The pulse was slow, the blood pressure 150 mm. The condition was probably a later stage of that described under Group 1, and was obviously functional, as it cleared up with treatment. In all groups trinitrin was the best drug to give. In Class 2 it could be combined with digitalis and strychnine. Cases in Class 1 benefited by a mixture of potassium iodide, potassium bromide, and tincture of nux vomica. Tea and red meat should be prohibited.

For the constipation oil injections combined with massage were the most efficacious. DR. CONSTANCE LONG read the *Notes of a case of paroxysmal tachycardia.* The patient was a married woman, aged 38, who had suffered from attacks of tachycardia since the age of 14. The speaker described one of the severe attacks. It was preceded by diarrhoea and vomiting, and then the pulse-rate rose rapidly to 160, and later to 200, per minute. The breath was sweet and heavy, and the bowels became constipated. From the second day there was cyanosis; the area of cardiac dullness increased in size, and the patient complained of aching in the precordial region. There was some oedema of the lungs. On the tenth day the heart's action slowed to 160, and then, with a jerk, to 88 per minute. A few hours later it rose again to 160, then dropped to and remained at 88. The patient was weak and tremulous for a week or two. Some attacks were much shorter, and then recovery was more rapid. Numerous remedies had been tried without effect. Of drugs, only digalen and heart tonics appeared to be of any use. Two recent attacks seemed to have been shortened by the application of a tight abdominal binder over a pad.

## THE NEW LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on May 11th, Dr. P. S. ABRAHAM, President, in the chair, the following were among the exhibits: Dr. G. NORMAN MEACHEN: (1) A man with *Lichenoid pigmentation* beneath both axillae; (2) a married woman with *Acne varioliformis* upon the forehead and chest. Dr. KNOWSLEY SIBLEY: A woman with severe pitting of the face after small-pox, which had been successfully treated by hyperaemia with suction cups, hypodermic injections of fibrolysin, cataphoresis with a 2 per cent. sodium chloride solution, and a 10 per cent. thiosinamin solution, and small repeated doses of *x* rays. A photograph of the original condition was shown. The PRESIDENT: (1) A man, aged 39, with *Mycosis fungoides*, in which there was extensive eczematous inflammation of the shoulder, ulceration of the arm, and a nodular mass in the left groin, which latter had practically disappeared as a result of *x*-ray treatment. He had recently received an injection of "606"; (2) a woman with *Epithelioma of the cheek* developing upon lupus of the face; (3) A little girl with ringed nodular lesions upon the left forearm suggesting the diagnosis of granuloma annulare. Dr. AGNES SAVILL: A married woman with *Lichen plano-pilaris* of the "white papule" type (Crocker), occurring upon the upper part of the chest and the back of the scalp. The condition had been verified microscopically. Dr. DAVID WALSH read notes of a case of osmium vapour rash occurring in a platinum worker, the face having been severely affected with small, reddened, circumscribed patches a week after being exposed to the fumes of osmium. The case was in all probability a unique one. He also showed a man with a psoriasiform patch upon the forearm presenting a dentated, almost keloidal, margin.

UNDER the will of the late Mr. John Spencer of Wednesbury, the University of Birmingham receives a bequest of £5,000, which is to be applied for the advance of science and in the working out of scientific problems in any department of science. Under the same will the West Bromwich District Nursing Association receives £1,000.

THE sixth annual report of the British Institute of Social Service relates to the year 1910. It shows that financially the undertaking is holding its own, and that the number of applications for information addressed to it are steadily increasing, as also is the income obtained from the sale of the society's publication, *Progress*. The object of the society, it should be noted, is to collect, register, and disseminate information relating to all forms of social service, in order: (1) To make such information available to all concerned in the improvement and elevation of our national life; (2) to promote the initiation and development in this country of the most beneficial and successful forms of social service; (3) to give assistance to all organizations that have social aims, and to facilitate co-operation between them, and, as far as possible, to prevent overlapping. The home of the society is 4, Tavistock Square. The President is the Earl of Meath, and its Honorary Secretary Mr. A. K. Maynard.

# Rebiews.

## THE SURGERY OF CHILDREN.

MR. J. KEOGH MURPHY has done the English-speaking portion of the medical profession a distinct service by publishing an excellent translation of Professor KIRMISSON'S *Précis de chirurgie infantile.*[1] In his preface the distinguished French clinician says that he has no inclination to present a book "whose aim is to include in the smallest bulk the greatest possible amount of material that can be crammed into it." Such a work suits neither "his taste nor his years." But he wishes "to present to the medical public something that will be really useful, to insist on knowledge of those things which are essential in practice—symptoms, diagnosis, and treatment." He regards the surgery of children as specially practical in character, in so far as the practitioner may at any moment be called upon to deal with hip-joint disease, fractures about the elbow, retropharyngeal abscess—and he does not here concern himself with the great operative procedures of abdominal surgery. He further points out that two main subjects dominate infantile surgery—the study of malformations and diseases connected with the apparatus of locomotion. So, naturally, a large portion of the book deals with these two subjects.

The section dealing with malformations is exceedingly well written, and is at the same time very fully illustrated, forming therefore an excellent account of this important department of the surgery of childhood. In some of the subjects dealt with the treatment recommended is not quite up to date. And it is here that we acknowledge the work of the translator, for he has added numerous notes to supply the deficiency in the original text. For example, in the chapter on cleft palate Professor Kirmisson makes no mention of the recent work of Arbuthnot Lane and Brophy, but Mr. Keogh Murphy amply makes up for the omissions, both in letterpress and in illustration. Professor Kirmisson adheres to the opinion that cleft palate should not be operated on before the fourth year, although he quotes Julius Wolff of Berlin, who has done the operation repeatedly between the first and sixth month in two stages—cutting and dissection of the flaps first, and then five or six days later suturing. Other chapters in this section on malformations will well repay perusal. It is not easy to particularize, but we think that those dealing with congenital cysts of the head and neck and with congenital dislocations of the hip are quite the most informing and the most thorough presentations of these subjects we have met with.

In the British Isles tuberculosis bulks largely, indeed predominantly, in the causation of surgical diseases of children. In France the same experience seems to prevail, if we may judge by the large amount of space Professor Kirmisson gives to tuberculous disease of bones and joints. The chapters devoted to this all-important department are full; but they are never tedious and uninteresting. The reader feels that he is reaping the benefit of a rich experience, and that the author is setting forth that experience, adopting for his method what some of our politicians are fond of calling the process of thinking aloud. There are many points which might be criticized, but the value of the work lies in its personal character. The chapter on Pott's disease (we are interested to note that this designation is used throughout, an acknowledgement of a great English surgeon's name) is most instructive. But we are surprised to find the statement that "the actual cause is infection by the tubercle bacillus, hereditary or acquired"—the direct transmission of the tubercle bacillus from parent to offspring is not sufficiently frequent (if it ever occurs) to warrant this statement being taken literally. The author directs that a plaster of Paris jacket for Pott's disease should be applied with the patient lying on his back in bed, and that the pelvis and thighs should be included so that he may not walk about. The object is to ensure absolute immobility. Before

[1] *A Handbook of the Surgery of Children.* By E. Kirmisson, Professor of the University of Paris; Surgeon to the Hospital for Sick Children, etc. Translated by J. Keogh Murphy, M.C.Cantab., F.R.C.S., Surgeon, Miller General Hospital for South-East London; Senior Assistant Surgeon, Paddington Green Children's Hospital. London: Henry Frowde, Oxford University Press, and Hodder and Stoughton. 1910. (Med. 8vo, pp. 834; illustrated. 20s.)

permitting the patient to assume the upright position we should go carefully through the different symptoms—sensibility of trunk, presence of pain, presence or absence of tracking abscesses, and so on. Then, after these have been excluded, radiography may show the presence of a shadow round the spine. He is most strongly opposed to the method of forcible straightening a deformity of the spine. "The results have appeared to me deplorable, more particularly those cases in which, after having forcibly reduced the deformity, division of the spinal transverse processes and laminae has been performed; for not only have these unfortunate patients had considerable deformities, but they became cyanosed and suffered from intense dyspnoea." The treatment of tracking abscesses (psoas, lumbar, etc.) recommended is by puncture, aspiration, and injection of ether and iodoform (10 per cent.), performed with strictest asepticity, and before the abscess has reached the skin while it still is deep.

In the chapter on tuberculosis of the bones and joints of the limbs we find the author to be a strong advocate of the conservative methods now so much in vogue. His methods differ in some degree from those practised in this country, and we have some difficulty in apprehending the pathological reasoning on which some of them are founded. "The first and by far the most important of all methods to be used in the treatment of tuberculous joints is absolute rest, not only of the limb, but of the whole patient." He gives Bonnet of Lyons credit for pointing out the necessity for keeping the joint at rest in the "normal position of the joint in repose." No exception can be taken to this principle, but it is otherwise with the following:

> Next comes the application of pressure. This is to be done by elastic pressure over the joint itself. A layer of wool 5 in. in thickness is applied to the anterior surface of the joint, posteriorly is applied a gutter-shaped plaster cast, and a fair amount of compression is made by bandaging. In the later stage elastic pressure with a rubber band round the joint is used.

As the author points out, this has nothing in common with Bier's method, which produces venous stasis in the tissues, while his method is to bring about "anaemia of the joint." "When the tuberculous tissue has assumed considerable growth" cauterization by fine points of the thermo-cautery, used with the strictest aseptic precautions, is recommended:

> By means of these fine points I penetrate into the joints and into the softened ends of the bones, and make in this way 50, 60, or even 100 points of cauterization in different cases in a single joint. It is necessary to heat the points to a white heat so as to penetrate the tissues as rapidly as possible, thus avoiding the troublesome results of local extension and suppuration.

For the treatment of tuberculous abscesses he prefers the method of puncture followed by injection of ether and iodoform, 10 per cent. He holds that iodoform is better than all other agents, and that the ether, as it passes rapidly into a state of vapour (permitted ultimately to escape through the cannula), expands the abscess cavity, carrying the iodoform with it, so that the iodoform is precipitated as a fine powder within even the furthest pockets of the cavity.

The last point we shall deal with is Professor Kirmisson's treatment of tuberculous adenitis of the neck. Here we find him to be at variance with the practice in this country. "When a gland has begun to soften and to suppurate all general treatment is useless and we have recourse to surgical treatment. Two means are at our disposal: injections of iodoform or the use of a filiform seton." The former have been already described. The latter is passed through the substance of the gland to be treated. A moist dressing is applied, and "as a general rule in three to four weeks suppuration ceases; the thread can be removed, and thus we obtain a cure with only very small punctiform cicatrices." He is also opposed generally to the operation for removal of glands, and gives several reasons for his conclusion that "extirpation of glandular tumours of the neck is an operation which should not always be undertaken." The translator fortunately introduces two paragraphs in which he plainly disagrees with Professor Kirmisson's practice and opinion as to the use of the seton and as to the operative treatment of cervical tuberculous adenitis, quoting in the latter connexion Dowd and Stiles to show that the operation is one of the most satisfactory of modern operations if efficiently done.

We have every confidence in commending this work to the medical practitioners of this country, for it is to them especially that it appeals. And we have nothing but praise for the highly skilful way in which the translator has performed his task. He has succeeded in preserving the easy grace of the original, so that to read the book is a pleasure; while his editorial emendations and notes are models of conciseness, restraint, and good taste.

The volume is one of the Oxford Medical Publications, and that fact alone is a sufficient guarantee that the printing and general appearance of the book are all that one can desire. The illustrations form an important feature; they are numerous, and most of them are original.

We confess to some difficulty in comprehending the plan on which Dr. de Forest Willard's book on *The Surgery of Childhood*[2] is built. The introductory chapter is on general surgical considerations; then follow chapters on regional surgery: head and face, neck and chest, abdomen, genito-urinary organs. Then we are switched off into a short dissertation on burns, frost bites, and boils in one chapter. Next comes the portion dealing with orthopaedic surgery and diseases and injuries of the bones and joints—this portion forming five-sevenths of the whole book. As a result of this arrangement—or want of it—there is much unnecessary repetition. But the book bears evidence of an immense amount of work; there is hardly any possible disease or surgical condition, not of childhood only but of almost any period of life, omitted. There is too much in the book of what any practitioner may find in any good textbook on surgery and far too little of the author's wide and varied experience in his children's clinics in Philadelphia. As an instance we may note that Dr. Willard devotes three pages to haemorrhoids, giving a moderately elaborate description of the condition and all the various palliative and operative measures in everyday use. We feel quite sure that every practitioner will turn to a textbook on general surgery for information on haemorrhoids rather than to one on the surgery of childhood; and we may ask whether the disease ever occurs in children at all. On the other hand, it is quite a common occurrence to find in children otorrhoea, mastoid abscess, infection of the mastoid cells, not to mention the grave intracranial complications resulting from middle-ear infection. Yet Dr. Willard devotes only eight lines to the whole question, with the statement that "otitis media and interna and mastoiditis are so serious in their results that the services of a skilled otologist are desirable." Amongst the causes of intussusception Dr. Willard gives "trauma"; can trauma ever directly be regarded as a cause of intussusception? Dr. Willard gives no specific cases, nor does he suggest how trauma may act. Then we find no reference to that important sign associated with the name of Dance—the sense of emptiness of the right iliac fossa—nor mention made of the necessity of rectal examination of cases suspected to be suffering from intussusception where, so far, no bloody mucus has been passed and where a small quantity of bloody mucus may follow the examining finger on its withdrawal. The description of Maunsell's operation for intussusception is far from clear, and no mention is made of the possibilities of short-circuiting by lateral anastomosis in cases which are irreducible. As to cleft palate, Dr. Willard's sympathies are apparently divided between operation about the third or fourth year and operation in the early predentition months; if the child is healthy, the operation should be done in the first six months. In the description of the ordinary operation, whereby the muco-periosteal flap is separated, no warnings are given of danger to the palatine arteries, and one of the diagrams shows the incisions so placed that there can be no escape for either the anterior or posterior vessels. Here our adverse criticism ceases. When we turn to that part of the volume dealing with orthopaedic surgery we feel that the author is dealing with his own subject. The chapters on deformities and their correction by operative treatment and by long-continued

[2] *The Surgery of Childhood, including Orthopaedic Surgery.* By De Forest Willard, A.M., M.D. (Univ. of Pa.), Ph.D., Professor of Orthopaedic Surgery, University of Pennsylvania, Surgeon to the Presbyterian Hospital. Philadelphia and London: J. B. Lippincott Company. 1910. (Roy. 8vo, pp. 831; 712 illustrations, including 17 in colours. 28s.)

muscular exercises are fully written and elaborately illustrated.

The author describes with great wealth of detail the multifarious exercises necessary for the correction of deformities both after operation and also in those cases where the question of operation does not arise. The main difficulty in the treatment of such a condition as scoliosis of adolescents, or, as Dr. Willard calls it, rotary lateral curvature, is to obtain perseverance on the part of the patient and persistence on the part of the doctor. Now the practitioner ought to make himself conversant with orthopaedic methods not requiring special apparatus, methods of treatment which he can and ought himself to carry out or at least superintend frequently. In Dr. Willard's book not only the family practitioner but the recognized orthopaedic surgeon will find an immense quantity of information on all possible kinds of deformities and their treatment, and we most heartily commend this work to their notice.

The pictures of orthopaedic wards are in a way a revelation to us in this country, where we have difficulty in obtaining even the most modest equipment for treatment of the deformities arising in infantile paralysis, scoliosis, rickets. The apparatus in the Orthopaedic Gymnasium, University Hospital, Philadelphia, includes overhead moving trolley suspending track for support of leather jacket used for paralytics, neck-pulls, stationary bicycle driven by electric motor for paralytic legs, forcible correction apparatus for lateral curvature, and many other apparatus for similar purposes. It is hardly necessary to add that Dr. Willard insists most strongly on the arrangement of the wards being such that they enjoy the maximum of sunshine, and all have porches into which patients can be wheeled in bed. As for educational schools for cripples, this is what he says:

> [The author is fortunate in having at the Widener Memorial School for Crippled Children in Philadelphia a place where these handicapped children under 10 years of age can be received *and retained until 21*. [The italics are ours.] After needed surgical operations are performed, mechanical supports manufactured at the school are applied, and gymnastic muscular development is given. Each boy and girl, according to mental or physical ability, is educated and trained. At the age of 21 it is expected that each one will have acquired a mental or manual occupation that will render him or her in after-life a self-supporting and self-respecting member of society instead of remaining a dependent upon the community.

It is plain that Dr. de Forest Willard has exceptional opportunities for the study of crippled children, and we know from the volume before us that he has made most ample use of his opportunities. The book may be regarded as essentially an American book. The references to other writers, whether in textbooks or in society transactions, are to Americans with very few exceptions. Of course, we find in the text the names of a few surgeons on this side of the Atlantic, but wherever Dr. Willard wishes to suggest that further information may be obtained it is in the works of his own countrymen that he asks us to look.

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## ULCER OF THE STOMACH.

DR. FRIEDRICH CRAEMER continues his lectures on diseases of the stomach and intestines,[3] of which we have already noticed the previous portions (see JOURNAL, December 28th, 1907, p. 1831, and October 24th, 1908, p. 1275), by a monograph on ulcer of the stomach. In the preface he mentions that he gives in the appendix statistics relating to 150 patients who were treated as "ambulatory cases." This strikes us as singular, for we should have thought there could be no rule so generally accepted as that first laid down categorically by Leube, that cases of gastric ulcer must be treated by absolute rest in bed; we cannot help feeling that if Dr. Craemer is in the habit of disregarding this fundamental rule it vitiates many of his conclusions, for we believe that the great obstacle to the successful treatment of ulcer of the stomach is the fact that the cases are not diagnosed early and come so late under proper treatment. He divides his cases into six categories. The first includes those that are latent throughout and never give rise to any symptoms, but are only recognizable by finding healed scars in the *post-mortem* room. The second group comprises cases that remain latent until sudden perforation or fatal haemorrhage takes place. The third he calls subacute; the fourth dyspeptic; the fifth chronic; and the sixth complicated in some way—for example, by stenosis or abscess. He believes the commonest type among hospital patients to be the subacute, and that the complicated type is commoner in private patients, and is that most often seen by surgeons. He insists upon the difficulty of diagnosis, thinking that at best we can attain only to probability. He is equally doubtful about treatment, and he hesitates to admit that the ulcer is healed when the symptoms disappear, as it is possible that the ulcer has merely passed into a latent stage. He examines the evidence that has been put forward in favour of vegetarian diet as conferring an immunity to this disease, but he does not find it hold good, as in parts of Bavaria, where the people live mainly on vegetable food, the disease is frequent; nor does he think it bears any close relation to chlorosis, as in Munich ulcer is common, but chlorosis is rare. With respect to the alleged frequency with which ulcers become cancerous, he thinks it is possible that this happens more frequently than was formerly supposed, but that Moynihan's estimate is "much too high." He draws attention to the thickened and hyperaemic state of the mucous membrane in all cases of stenosis from simple obstruction, but asks whether it is caused by the ulcer or the stenosis. He thinks there is some relation between it and the altered state of the secretion. In the causation of ulcer he attaches primary importance to disease of the blood vessels and formulates the law, *ohne Circulationstorungen kein Ulcus* (no ulcer without circulatory disturbance). He thinks mechanical injuries and the abuse of tobacco, tea, and coffee are factors in its production, but says nothing about imperfect mastication from defective teeth or the habit of bolting food, and he rather scoffs at the antipepsin theory, as "if it were true the ulcer ought to extend over the whole stomach." He also denies the influence of hyperacidity in preventing healing. He points out that Payr has produced typical callous ulcers by injecting hot normal saline solution, diluted formalin, and diluted alcohol into the blood vessels. But his final conclusion is that we know very little about the etiology of these ulcers. He is sceptical regarding the cause of the pain, as the stomach is not sensitive to touch, and artificially caused wounds of the stomach are not painful. Nor does he believe it to be associated with excess of hydrochloric acid, as this is not always associated with pain, and he thinks the good effects of alkalis, often quoted in support of this view, may be due to their causing the pylorus to relax, thus permitting the stomach to empty itself. At the same time he is disposed to believe that local congestion and inflammation and perhaps pressure by clothing or by muscular movements may set up pain. He agrees with most physicians in disputing the doctrine that hunger pain can be regarded as proof of the existence of a duodenal ulcer, yet he appears to quote Gerhardt with approval for the saying that patients "who do not eat for fear of pain are probably suffering from ulcer or cancer"; but patients with nervous anorexia refuse to eat on account of pain, although there is no lesion in the stomach! On the whole the book is more interesting as a criticism than helpful by suggesting solutions of the problems discussed. The treatment recommended follows well-known lines, but the author agrees with many in abstaining from giving iron on the ground that it is not well borne, although we cannot confirm this statement. He rejects operation for simple ulcer unless all other means have been tried and have failed, but accepts it when dangerous complications arise such as perforation, or for cases that will not heal and where the pain persists so that life is worthless, or working capacity destroyed. He does not seem sure that pyloric stenosis is an absolute indication for operation, and he does not admit that all cases of duodenal ulcer call for operation.

Dr. HERSCHELL'S pamphlet on the *Non-surgical Treatment of Duodenal Ulcer*[4] is a reprint of an article published in the *Clinical Journal*. He emphasizes the importance of pyorrhoea alveolaris, bacteria from other sources, and anaemia in the causation of ulcer of the

[3] *Vorlesungen ueber Magen und Darmkrankheiten.* Von Hofrat Dr. Friedrich Craemer. 5 Heft. Das runde Magengeschwuer von Hofrat Dr. Friedrich Craemer. München: J. F. Lehmann. 1910. (Med. 8vo, pp. 243. M. 4.50.)

[4] *The Non-surgical Treatment of Duodenal Ulcer.* By George Herschell, M.D Lond. London: Henry J. Glaisher. 1910. (Cr. 8vo, pp. 39. 1s.)

stomach, but so long as the gastric juice is secreted the stomach is sterile. In his treatment he begins by attention to the teeth, which is sound advice, but we cannot follow him in considering that "the Wassermann test should be performed in all cases in which there is the slightest possibility of there being a specific infection." Thirdly, he recommends the administration of sour milk to disinfect the intestine, and he treats anaemia by the hypodermic injection of iron. He gives horse serum by the mouth "in order to remedy the deficiency of antitryptic and antilytic substances in the blood," and he employs alkalis, chiefly magnesia usta, with belladonna and atropine, to decrease the acidity of the gastric juice. In order to diminish the physiological excitors of the gastric juice he recommends that the food should be finely divided and rather insipid; alcohol he forbids, but advises the use of various fats, especially pancreatic emulsion. He treats the presence of adhesions—although he does not say how these are to be diagnosed—by thiosinamine (fibrolysin) injections. He thinks two weeks in bed absolutely essential, and three weeks better, and that after getting up the patient should wear a proper belt, take a daily dose of olive oil fasting every morning, and a daily dose of normal horse serum after the principal meal for a month, and twice a week for another month. He believes that after the treatment has come to an end there is still need for the dietetic precautions, and for occasionally examining the stools for occult blood for some time.

## A HANDBOOK FOR SHIP SURGEONS.

THE second edition of the *Ship Surgeon's Handbook*, by Dr. A. V. ELDER,[5] affords an essentially practical and useful guide to every ship surgeon, whether old stager or new hand. It will be especially useful to the latter, often a "passage worker" or "single-tripper" who has blindly entered upon his duties immediately after obtaining his diploma or after completing hospital appointments; to such a man, bewildered by the unaccustomed surroundings, the advice given in this book is invaluable. Dr. Elder has rightly assumed complete ignorance of ship conditions on the part of his reader and imparts very sound instruction on such widely diverse subjects as provision of outfit, the ethics of fees at sea, the relationships of the surgeons to other officers, and the examination of crews and emigrants, in addition to the special modifications of treatment necessitated by shipboard conditions, and the maintenance of health on the high seas and in the tropics. Some note on the treatment of retention of urine might with advantage have been added to the chapter on outlines of treatment, for nothing causes greater anxiety to young ship surgeons than this condition.

Every young surgeon, before his first voyage, should read with care the opening chapters, in which he will find detailed advice as to the choice of ship, of outfit, and of additional apparatus and drugs. The information in these chapters, as indeed throughout the book, is accurate and reliable. Careful perusal of the chapters on status on board and fees at sea will save the neophyte much trouble and heartburning; if he orders his doings as advised, he will hold a dignified and consistent position on board, not always attained by the "doc."

The book admirably serves its purposes. If any faults are to be found they are minor ones; thus, to the list of books that the surgeon should take we would suggest the addition of one on dispensing, for both passengers and crew are apt to have a poor opinion of the inartistic and often repellent medicines so often dispensed by the inexperienced ship's doctor.

The "ironbound" headache so distressing to some passengers in the "roaring forties" and other cold latitudes, might with advantage have been mentioned and its treatment suggested.

We note with regret that carron oil is recommended for burns, and that insufficient stress is laid on constipation as a cause of diarrhoea, especially at sea; again the author would have been well advised if he had given a warning on the dangers of causing cellulitis by breaking off a guinea worm in extracting it, and also if he had insisted upon the necessity for the presence of moisture in the air if formalin vapour be used for disinfection. Dr. Elder's suggestion that the usual temperature of Lascars is above that of Europeans is not borne out by their temperature charts when admitted to hospital.

With regard to syphilis, Dr. Elder might have gone further, and recommended that in the business of signing on crews, all candidates showing signs of active primary or secondary stages of the disease should be rejected. The conditions of the forecastle and the "glory hole" are essentially insanitary and overcrowded, so that a syphilitic in the contagious stage is even more dangerous to his mates at sea than ashore. Dr. Elder says that he has obtained better results in the treatment of syphilis from the use of the soluble preparations of mercury for intramuscular injection than from the insoluble; this, we believe, is at variance with general experience; moreover, the method involves more frequent attendance at the surgery than if the insoluble preparations be employed.

With these exceptions the author's teaching is sound and valuable, and the book admirably suited to the special needs of the ship surgeon. It is clearly and succinctly written, though we would protest against the unnecessary use of such freshly coined or extremely ugly words as "unoriginality," "inuncting himself," and "astringing." We would recommend all intending ship surgeons to read this book before signing articles.

[5] *The Ship Surgeon's Handbook.* By A. Vavasour Elder, M.R.C.S., L.R.C.P. Second edition. London: Baillière, Tindall, and Cox. 1911. (Cr. 8vo, pp. 387. 5s.)

## NOTABLE ENGLISH TRIALS.

THIS is the first volume of a series of English trials, to be published uniformly with the "notable Scottish trials," which were received by the public with some favour. To review *The Trial of the Stauntons*,[6] the first of the series, is by no means an easy task, for ordinarily the reviewer of a book should be in sympathy with the mental attitude of the author. Now there is no author of the volume, in the ordinary meaning of that word, with whom or with whose mental attitude we can be in sympathy, but we can congratulate the editor or compiler of the facts of the trial most sincerely on the extremely clear manner in which he has presented a somewhat involved tale. The volume opens with a prefatory note on the sources of information; then follows a very excellently arranged summary of contents with appendices and list of illustrations; next a sort of sketch of the case as a novelist might present it, followed in turn by an almost verbatim account of the evidence and the judge's summing-up and the verdict. The editor's work and that of the publishers has been most excellently done.

It is when we come to consider the value of the book from an educational or social point of view that we feel difficulty in writing this review. The publisher's advertisement quotes a sentence from Burke: "Such a collection (of cases) would exhibit man as he is in action and in principle, and not as he is usually drawn by poets and speculative philosophers." We cannot help feeling that though the exhibition may be there, it cannot be appreciated as it would be by listening to the trial, and no doubt it is Burke's idea that draws so many of the public to the Old Bailey in modern times just as it used to do; but the question may fairly be asked, Is it a desirable thing that an attempt should be made to render the exhibition reproducible from a printed record? The answer will no doubt vary according to the tastes of the individual; our own answer would be, No. While we do not, then, altogether approve of this motive for the publication of the work—let each take his choice on this matter all the same—we certainly must approve of the lesson which any lawyer, barrister, or medical jurist may gather from the pages of evidence, and especially from the judge's summing-up, and from the editor's introduction. Any professional man can there find an excellent example of how around a suspicious death there arises a growing circle of evidence, how this evidence has to be collected, sorted, and sifted, and its final value ascertained in the witness box.

To medical men the medical evidence in the case is extremely interesting. The late Dr. J. F. Payne was examined and cross-examined as to the differences between tuberculous meningitis and starvation. He was not apparently present at the autopsy. If he had been, one

[6] *Notable English Trials: Trial of the Stauntons.* Edited by J. B. Atlay. Edinburgh and London: William Hodge and Co. (Demy 8vo, pp. 332. 5[illegible]

feels that much more satisfactory conclusions would have been arrived at as to the cause of death, and evidently he thought so himself. Nowadays, no doubt, in a case of such importance (vital to the prisoners) an exhumation would be ordered, and all doubts thereby be set at rest. Curiously, Dr. Payne described tuberculous meningitis as a rare disease, an opinion we cannot subscribe to. The late Dr. J. S. Bristowe seems to have volunteered his evidence. Mr. Justice Hawkins, very rightly, in our opinion, condemned most strongly the manner in which medical evidence for the defence was obtained from eminent men who had only read the medical evidence on the other side but had not heard it given, and certainly had no first-hand knowledge of the case; in fact, one medical witness was asked to leave the box on these grounds.

The Attorney-General appears to have curiously misunderstood the medical evidence, or to have been misled by it, for he said: "I also asked Dr. Payne, if food came in connexion with the anterior coating of the stomach, might that cause redness, *which is all that is meant by inflammation of the peritoneum*." Holker, as a pathologist, would hardly have taken a first class if this represents his knowledge. But a dictum on a previous page rather makes one stare. Speaking of meningitis, he says: "These words are mostly derived from the Greek, and puzzle most people, and they are apt to say the doctors must settle the matter among themselves, but when they cannot we must do it for ourselves." If this is the way the leading barristers used to settle medical evidence, we can only hope that times have altered.

A general remark of Mr. Justice Hawkins on the medical evidence is well worth reproduction. He said: "I think it most desirable in all cases where original notes are made, be they long or short, be they in pencil or in ink—that which is taken at the time ought always to be preserved because it stops a great deal of cross-examination."

We have quoted enough to show the great interest of the book in question, but whether it and its successors in the series will be of permanent value time alone can show.

## NOTES ON BOOKS.

AMONG the youngest of its congeners is the *Public Health Service Directory and Year Book*.[7] To perfect such a work the active co-operation of all those who should figure therein is essential, and in early days is often very difficult to obtain. Much credit, therefore, is due to the editor of the *Medical Officer* for the satisfactory degree of development which this publication has reached so early in its career. It is the more notable since the ground covered is very wide. The book supplies a directory, not only of medical officers of health, of public analysts, of school dental officers, and of sanitary inspectors, both male and female, but also of veterinary surgeons, inspectors of midwives, of school nurses and health visitors, and of hospital matrons. Nearly every section is preceded by a short article setting forth the duties of the officers concerned, and other articles deal succinctly with special points, such as the position of women in public health work. A good deal of miscellaneous information is also supplied. To those not directly engaged in the public health service the hundred pages occupied in setting forth the arrangements and officership of all areas in England, Scotland, and Wales will prove valuable for reference. To publications of this order the 0 to 5 age period is especially fatal, but we fully expect that on its termination the *Public Health Service Directory* will be found thoroughly healthy and strong.

[7] *The Public Health Service Directory and Year Book*. 1911. Compiled by the editor of the *Medical Officer*. London: Hodgetts, Limited. Medium 8vo, pp. 374. 7s. 6d. net.)

A RECENT copy of the *Madras Mail* contains an account of a ceremony at Ooregum in April, when Dr. Thomas Joseph O'Donnell, on the eve of his departure homewards, was the recipient of a testimonial from the employees on the Kolar Gold Field. Dr. O'Donnell, who was for some twenty-six years medical superintendent of the part of Mysore known by this name, was asked to use a cheque for upwards of 3,000 rupees in purchasing something which would serve to remind him and Mrs. O'Donnell of the many years spent among the subscribers. They had, said their leader, to thank him not only for the admirable way in which he had arranged for the sanitation of the gold fields, but there was probably none amongst them who had not when laid low by sickness felt cheered and comforted merely by his presence.

## SCIENCE NOTES.

As evidence of the advance which the subject of parasitology is making in this country, it is interesting to remark that at the last two scientific meetings of the Zoological Society no fewer than five papers dealing with parasitic worms were read. Some mammalian tapeworms were described by Mr. Beddard, the Prosector, whose zoological activities have now covered nearly the whole of the animal kingdom. Dr. Leiper had some interesting words to say on parasitism as it affects the animals in the Gardens, and he expressed the belief that the change of food and environment caused a great diminution in the number of parasites. He also had to record a number of new and interesting forms of nematodes collected at the Gardens during 1910, and, further, some new genera and species from tropical Africa. In this latter contribution he expressed the opinion that in the bursate nematodes the characters of the mouth capsule are of greater generic importance than those of the genital bursa. Dr. Nicoll described a small collection of trematode worms obtained from the mouth and lungs of snakes. He also gave an interesting account of a unique liver lesion in a hare, caused by a nematode worm. The hare was a "suspect" from the plague district of Suffolk. The liver was studded with calcareous nodules due to a parasitic nematode of the family *Trichotrachelidae*. The worms were so coiled up that they could not be extricated entire, but the ova, which were present in enormous numbers, showed that they must belong to a peculiar genus. No similar condition has been hitherto recorded from the hare or rabbit, but an analogous condition has been met with fairly frequently in rats. Experiments are in progress to determine whether the conditions in the two animals are caused by the same species of parasite. The hare further showed a large infection with *Trichostrongylus retortaeformis*, and a slight, purely intestinal, infection with *Coccidium cuniculi*. There were also signs of recent parturition and of an inflammatory condition of the uterus. Whether this or the liver disease was the cause of death was doubtful. The increased helminthological activity shown by the Zoological Society is partly due to an organized scheme whereby the parasitic worms met with in animals dying at the Gardens are submitted to the above-mentioned authorities for examination. The ectoparasites also are being systematically reported upon by Mr. A. F. Coventry. The scheme has been in operation now for over six months, and it is expected that much valuable material and information will be collected.

At a recent meeting of the Royal Irish Academy Professor Macalister reported on the excavation of some early Bronze Age burial mounds at Carrowkeel, co. Sligo. He stated that thirteen cairns, two dolmens, and fifty foundations of circular structures existed in the district. One of the dolmens consisted of a limestone table supported by selected blocks of sandstone, showing that the dolmen builders were alive to the difference between the stones. Of the cairns, one was found to have a large chamber fallen in, and was abandoned on that account. A second was a remarkable structure, consisting of a long hog-backed pile of stones, about 120 ft. in length and 35 ft. in breadth, with an entrance at one end and some ruined cists at the other. A third proved to be a cenotaph; a fourth contained a small pentagonal cist with burnt and unburnt bones and a food vessel. Two others contained large cruciform chambers resembling those at New Grange. The cairns dated from the time when the rites of cremation and inhumation overlapped.

Heïman, a Swedish physiologist, has been making some researches upon the peculiar taste which generally accompanies an application of electricity to the head or face.[1] If two zinc plates, wrapped in a cloth moistened with water, be applied, the one to the forehead and the other to the chin, and if a current of from 2 to 3 milliampères be made to pass from forehead to chin, an acid taste will be produced on the front part of the palate when the tongue is brought against its surface. If the direction of the current be reversed, a more feeble taste is experienced at the base of the mouth under the tongue. If a plate be placed on each jaw the acid taste is distinctly pronounced on the inner side of the molar teeth and the corresponding gums; and if one plate be placed on the

[1] *Arch. d'électr. méd.*, April 10th, 1911.

nape and the other on the closed mouth, the current being directed from front to back, the inside of the lips and the inner surface of the incisors and corresponding gums have a strongly acidulated taste, which, when the current is reversed, appears feebly in the pharynx. All the surfaces near the positive pole which are perpendicular to the direction of the current have an acid taste when the tongue is brought against them. As to the explanation of these phenomena, the author points out that the acidulated taste of an acid without the electrical current is proportional to the concentration of the ions of hydrogen. The intensity of the taste appears to depend upon the number of hydrogen ions per second which meet the papillae of the upper surface of the tongue. It is well known that the ions of hydrogen move with a greater swiftness than the other ions, and that they move in the same direction as the current. The ions of hydrogen are also found in the saliva, though in small concentration, and move in the direction of the current against the tongue, and it is for this reason that the anode surfaces have an acid savour.

## THE LISTER INSTITUTE.

The annual meeting of the members of the Lister Institute of Preventive Medicine, Chelsea Gardens, was held on May 10th. The President of the Institute is Lord Lister, and it is administered by a Governing Body, the Chairman of which is at the present time the Right Hon. Sir Henry Roscoe, F.R.S.; the other members are Viscount Iveagh, K.P., F.R.S., to whose munificence is due the fact that the Institute is the owner of the fine laboratories in Chelsea Gardens and the buildings of the Serum Department at Elstree, and is in a position to provide a larger scientific staff for carrying on the great amount of scientific work for which its numerous laboratories provide every facility; Dr. Rose Bradford, F.R.S.; Colonel Sir David Bruce, F.R.S.; Professor W. Osler, F.R.S.; Professor Ernest H. Starling, F.R.S.; and the Treasurer, Mr. J. Luard Pattisson, C.B.

At a meeting of the council held previous to the general meeting of members Sir Henry Roscoe, Dr. Rose Bradford, and Professor Osler, the retiring representatives of the Council on the Governing Body, were re-elected, and at the annual meeting Dr. Andrewes and Mr. Shattock were re-elected to the council, and Dr. Ledingham, chief bacteriologist to the Institute, was elected a member of the council.

The adoption of the report and balance sheet was moved by the Chairman, who stated that Lord Justice Fletcher Moulton had been appointed by the Senate of the University of London its representative on the Council of the Institute in the room of Dr. Pye-Smith, who had resigned owing to failing health. In commenting briefly on the report, Sir Henry Roscoe said that Mr. Sydney Rowland, whose services were placed at the disposal of the Advisory Committee for the Investigation of Plague in India two years ago, continued to work under that Committee, and that the Governing Body had been pleased to comply with the request of the same Committee that the services of Dr. Petrie, a former member of the Commission, should be placed at its disposal to proceed to Manchuria to study the recent epidemic of pneumonic plague in that province. Appended to the report was a long list of 67 individual researches carried on in the various laboratories, giving their titles and place of publication. The chairman pointed out that, in addition, certain organized inquiries had been carried out during the year under the direction of the Commission for the Investigation of Plague in India, experimental work had been conducted at the Bombay Bacteriological Laboratory at Parel, and epidemiological investigations at Poona, Belgaum, and Assam, investigations which were now being extended to Madras and the United Provinces. In addition, researches in immunization by various products of the plague bacillus, with a view to improving the standardization of plague vaccines, had been continued during the year at the Institute's special laboratories at Elstree. The fifth report of the Advisory Committee on the work of the Commission was published in a special number of the *Journal of Hygiene* last November.[1] The Institute had continued to examine, on behalf of the London County Council, milk intended for consumption in the metropolis, and the number of samples had steadily increased, until in 1910 it reached 2,950. An inquiry into the presence of other organisms, possibly deleterious to health, in the milk supply of London had been undertaken for the London County Council. Dr. Theodore Thompson, of the Local Government Board, and Dr. Ledingham, chief bacteriologist to the Institute, had concluded their systematic inquiry, carried on for two years, into the prevalence of typhoid carriers in this country, and arrangements had been made by which the Institute would continue the bacteriological examination of samples in the case of typhoid outbreaks throughout the country, where infection was suspected by medical officers of the Board to be due to a typhoid carrier. Further, the Institute had taken part in a concerted inquiry into the intestinal bacterial flora of children, organized last summer by the medical department of the Local Government Board, since the London portion is being carried out at the Institute by Dr. O'Brien. An investigation into certain aspects of the epizootic of plague recently discovered in East Anglia had been undertaken, at the request of the Principal Medical Officer of the Local Government Board, by the Director of the Institute, Dr. C. J. Martin, and Mr. Sydney Rowland. Their observations were directed to the species, habits, and distribution of the rats in the area affected, the amount of plague infection existing among the rodents, and the nature and prevalence of the parasites carried by rats and rabbits. In December a scheme for a systematic examination into the existence of plague infection of rats, captured in areas abutting on those parts of East Suffolk in which plague had already been discovered amongst the rodents, was submitted by request to the Local Government Board, the object being to ascertain the present limits of the epizootic. The scheme was approved by the Board, and carried out by Drs. Petrie and Macalister with the help of a subsidiary staff during January and February, 1911. The chairman also drew attention to the fact that the internal fittings of the new wing of the Institute had been completed during the year, and that most o the new laboratories were already in use. He added that additional stables and cottages for the employees had been built at Queensberry Lodge, Elstree, to meet the increasing requirements of the Serum Department.

The adoption of the report was seconded by Dr. Sidney Turner, and after the Treasurer had given a brief explanation of the balance sheet showing that the financial position of the Institute was satisfactory, the motion was passed unanimously.

It may be added, as even the medical profession seem generally to have a very inadequate idea of the amount of work in progress at the Lister Institute, that the scientific staff comprises nineteen people. The director is Dr. C. J. Martin, F.R.S., who has for his assistants in his own laboratory Dr. Harriette Chick and Mr. Sydney Rowland; in the department of bacteriology Dr. J. C. G. Ledingham is bacteriologist-in-chief at Chelsea, and there are six assistants; in the department of biochemistry Dr. A. Harden, F.R.S., is chemist-in-chief, with two assistants; at the head of the department of protozoology is Mr. E. A. Minchin, F.R.S., professor of this subject in the University of London, who has two assistants, while in the antitoxin and vaccine department there is a bacteriologist in charge of serum laboratories, Dr. A. T. MacConkey, and a bacteriologist in charge of calf vaccine laboratories, Dr. A. B. Green. The Institute also has a statistician, Mr. Major Greenwood, M.R.C.S., L.R.C.P., and a librarian, Miss Florence Wilson. In addition a large number of voluntary workers have carried on researches in the Institute during the past year; among these are included Dr. W. Nicoll (Ernest Hart Memorial Scholar, British Medical Association), Dr. W. J. Penfold, one of the research scholars of the British Medical Association, and Drs. Priestley and Ida Smedley, Beit Scholars. The library, which is already extensive, is arranged in a spacious and well-lighted apartment, which, from its position in the upper part of the buildings, is removed from the noises of London, though these, since the Institute looks out on one side on to the Thames and on another on to the gardens of Chelsea Hospital, are less obtrusive than in most parts of London.

[1] British Medical Journal, November 26th, 1910, p. 1726.

## THE VOICE IN SPEECH AND SONG.

MUCH has been written about the human voice, the mechanism of its production and methods of training it for the purpose of song. These matters have been debated with no little heat by teachers of singing ignorant of physiology, and sometimes by physiologists who knew little or nothing about singing. The question of the different registers was for many years a cause of controversies as bitter as those about the iota which in Gibbon's phrase divided Christendom. While one school of trainers took anatomy as the basis of their teaching, the more artistic contented themselves with trying to develop the vocal power on empirical lines. We believe that Manuel Garcia, the discoverer of the laryngoscope, himself made little or no use of it in his teaching. To us it seems as unreasonable to insist that a singer should know the anatomy of the vocal organs as that a football player should be acquainted with the internal arrangements of the knee. In each case too minute a knowledge of the construction of the parts could scarcely fail to lead to a self consciousness which would necessarily tend to inefficiency.

There can be little doubt that the various vocal effects are produced by different singers in different ways. The experienced *maestro* is in any case a safer guide than the so-called "scientific" person armed with his laryngoscope and a knowledge of the anatomy of the parts which must necessarily be superficial. Absurd as may be the instructions given by the former to produce the note from the back of the nose or from the pit of the stomach, they represent the sensations which are in fact felt by most people in the delivery of the notes. One of the most successful teachers of singing of a past generation asked whether the vocal cords were not placed crossways to the long axis of the body. On the other hand, the instructions of the "scientific" teacher, conveyed in the vocabulary of the dissecting room, are not only futile in themselves, because the singer cannot control the infinite number of fibres that go to the making of different notes, but bewilder the pupil. If the "scientific" method were to be carried to its logical conclusions it would be necessary that a singer should know not only the structure of the larynx and the names of the muscles that move its various parts, but also the nerves, the channels of the will by which they are put into action. Further, he ought to know the centres from which proceed the impulses that supply the motor stimulus to these muscles. In short, to be a singer it would on this view be necessary to know the anatomy and physiology of the brain and nervous system as well as all the intricacies of the complex machinery called into play for the production of voice. It would be easy, therefore, to draw up a list of requirements for a singer as formidable as that by which Imlac convinced Rasselas that it was impossible to be a poet.

But although we have expressed the opinion that such knowledge as has been indicated is not necessary for the training of a singer, the subject of voice production is one of the most interesting questions in physiology. The voice is a marvellous instrument, which plays an incalculable part not only in ordinary human intercourse but in the expression of feeling and passion and in the influencing of men's minds in every sphere of intellectual and practical activity, from the guidance of a committee to the ruling of a nation, from the making of a bargain to the propagation of a creed. To the speaker a voice with the peculiar quality that can thrill an audience is a far more effective endowment than knowledge or insight. How many politicians owe everything to their voice! When one hears them one is carried away, but if the speeches are read in cold blood it is realized that they are but sound and fury signifying nothing. Burke bored the House of Commons when he spoke. As Goldsmith said, he "thought of convincing while they thought of dining." But it is recorded that a member who left in disgust while he was speaking afterwards read the speech and was amazed by the power of the argument and the felicity of the illustrations. It was all a matter of voice.

The voice, therefore, deserves to be studied as one of the most important agents in human progress. The subject has been made needlessly complicated by many writers, and we therefore welcome a presentation of it, at once popular in the best sense and strictly scientific, by Dr. Mott in his little book entitled *The Brain and the Voice in Speech and Song*.[1]

He has a gift of lucid exposition which makes the results of scientific research on the relation of speech and song to the brain easy to understand by a reader of ordinary intelligence. In his first chapter he briefly discusses the origin of speech, showing how originally man had at his disposal two languages, gesture and articulate speech, which he used simultaneously or interchangeably. Speech triumphed over gesture, which is an imperfect medium for the conveyance of ideas. How expressive it can be, however, is well known by those who have watched people in the south of Europe discuss their affairs, quarrel and make love by gesture. Spanish ladies can make their fans speak almost as plainly as the voice. Gesture, however, can only be a medium for the communication of ideas based upon concrete images. On the other hand, as pointed out by Dr. Mott, the images of auditory and visual symbols in the growth of speech replace in the mind concrete images and permit of abstract thought, which without the aid of language could not be carried on at all. It is speech that by its development has given man his place of superiority among animals. In the words of Huxley quoted by Dr. Mott, "Man has slowly accumulated and organized the experience which is almost wholly lost with the cessation of every individual life in other animals; so that now he stands raised as upon a mountain top far above the level of his humble fellows, and transfigured from his grosser nature by reflecting here and there a ray from the infinite source of truth."

As regards the vexed question of the nature of the vocal instrument Dr. Mott says it most nearly approaches a reed instrument. He lays proper stress on the art of breathing, and points out—what is often forgotten by speakers and singers alike—that mere loudness of sound does not necessarily imply carrying power of the voice, which depends as much on the right use of the resonator as upon the force of expulsion of the air by the lungs. The guiding sense which informs the singer of the amount of air at his disposal and when and how it should be replenished and voluntarily used is of fundamental importance to good vocalization. In speaking of "collarbone breathing," which is disapproved of by some authorities, he says he sees no reason why the apices of the lungs should not be expanded, and he suggests that in view of the frequency with which tubercle occurs in that region, it might be beneficial by improving the circulation and nutrition. We are glad to see that Dr. Mott points out a fact which we believe is still imperfectly appreciated by many singers: that it is not possible to determine by laryngoscopic examination the natural register of the voice. All that can be said is in general terms that the longer the cords the greater will be the range of the voice. This explains how Lablache, one of the deepest basses known, sang a whole scene in an opera in falsetto.

Dr. Mott's book is of special interest and value in the parts which treat of the cerebral mechanism of speech and song, the localization of the various centres of movement, and the influence of these in the production of defects. Incidentally he acknowledges the debt that science owes to Gall, the founder of phrenology. Although he wrecked his fame as a scientist by associating mental faculties with conditions of the skull instead of conditions of the brain beneath, nevertheless, says Dr. Mott, "he deserves the highest credit for his discoveries and deductions, for he was the first to point out that that part of the

[1] *The Brain and the Voice in Speech and Song.* By F. W. Mott, F.R.S., M.D., F.R.C.P., Fullerian Professor of Physiology, Royal Institution, Pathologist to the London County Asylums, Physician to Charing Cross Hospital. London and New York: Harper Brothers, 45, Albemarle Street, W. 1910.

brain with which psychic processes are connected must be the cerebral hemispheres." He was, in fact, the pioneer of cerebral localization, and the fate that overtook him, owing it must be admitted partly to scientific prejudice, but largely to his own flights into speculative regions, is one of the tragedies of the history of science. The whole question of localization of speech centres in the brain is discussed by Dr. Mott with an exceptional fullness of knowledge of neurology, supplemented by clinical experience. He reports a case in his own practice as probably the most complete instance on record of deafness arising from destruction of the auditory centres in the brain causing loss of speech.

A particularly valuable part of Dr. Mott's book is that in which he treats of the psychic mechanism of the voice. This cannot fail to be of interest to all intelligent artists, as he discusses not only the mechanism of the voice, but what may be called the mechanism of impression. Dr. Mott says: "A clever actor or orator can, if he possess a high degree of intelligence and a fairly artistic temperament, so modulate his voice as to convey to his audience the passions and emotions while feeling none of them himself." This opens up the question which has been so much debated by dramatic and musical critics, and which is generally known as the paradox of Diderot. The editor of the *Encyclopédie*, as is well known, maintained that if a passion was to be rendered with the most consummate art the artist must not himself be moved; he held that real feeling disordered the perfect control of the physical means of expression, and thus tended to spoil the art. This is of course directly contrary to the Horatian precept, *Si vis me flere, dolendum est primum ipsi tibi.* To this it may be replied that Horace was not thinking of acting or speaking, but of writing, of which the fundamental note must undoubtedly be sincerity. The opinion of modern critics has, we believe, been against Diderot's contention. For our own part, we think that he was very largely right. This does not mean, however, that the physical equivalents of the passion should not be as far as possible called into play. It is related of Macready that in the scene in the *Merchant of Venice* when Shylock comes in divided between grief for the flight of his daughter and rage at the loss of his ducats he used to take strong hold of a ladder in the wings and, so to speak, curse himself up to the concert-pitch of anger. There was philosophy as well as fun in Du Maurier's picture of the children wagging the dog's tail to put him in a good temper. By imitating the expression of face characteristic of anger, love, pride, or other passion, a corresponding feeling is gradually brought about in the mind. This is due, no doubt, to some influence that is brought into operation on the vascular, and especially the vasomotor, system. But the respiratory system also plays a large part. Dr. Mott points out that "the *mind* of the orator, actor, and dramatic singer exercises a profound influence upon the respiratory system of nerves, and therefore produces the necessary variations in the force, continuance, and volume of air required for vocal expression." He quotes Bell's statement that "when the voice suffers interruption and falters, and the face, neck, and chest are animated by strong passion working within the breast, language exerts its most commanding influence."

Dr. Mott well says that a perfect psychic mechanism is as necessary as the physiological mechanism for the production of perfect vocalization, especially for dramatic singing. A singer may have a magnificent organ, yet, for want of the mind which should speak through it to the soul of the hearer, it may be nothing but sounding brass. On the other hand, a person of comparatively poor vocal endowment may move the heart by the beauty of the rendering. Handel, who had what the Italians derisively call the *voce di compositore*, was once induced to sing in company, and so great was the effect produced that the most famous prima-donna of the day refused to sing after him.

It would be hard to define the qualities that make one voice excite a sympathetic thrill among hearers while others of like character leave them cold and unmoved. As Dr. Mott says, the effects produced upon the mind by dramatic song largely depend upon circumstances and surroundings, as well as upon the association of ideas. The following passage supplies a remarkable illustration of this: "I was never more stirred emotionally by the human voice than upon hearing a mad Frenchman sing at my request the Marseillaise. Previously, when talking to him, his eyes had lacked lustre and his physiognomy was expressionless; but when this broad-chested, six-foot, black-bearded maniac rolled out in a magnificent full-chested baritone voice the song that has stirred the emotions and passions of millions to their deepest depth, and aroused in some hope, in others despair, as he made the building ring with 'Aux armes, citoyens, formez vos bataillons,' I felt an emotional thrill down the spine and a gulp in the throat, while the heart and respirations for an instant stayed their rhythmical course. Not only was I stirred by the effect of the sounds heard, but by the change in the personality of the singer. It awakened in my mind the scenes in the French Revolution so vividly described by Carlyle. The man's facial expression and whole personality suddenly appeared changed; he planted his foot firmly forward on the ground, striking the attitude of a man carrying a musket, a flag, or a pike; his eyes gleamed with fire and the lack-lustre expression had changed to one of delirious excitement. A pike in his hand and a red cap on his head would have completed the picture of a *sans-culotte*. Dramatic song, therefore, that does not evoke an emotional response is *vox et praeterea nihil*."

Dr. Mott writes not only as a man of the highest scientific authority, but as one having a cultivated taste for music and a general feeling for artistic effect with art. This gives his book a special value. We commend it to all interested in the subject as containing more information as to the mechanism of the voice, its relation to the brain, and the artistic use of it, in less compass than any monograph of which we have knowledge.

## INTERNATIONAL ASSOCIATION OF MEDICAL MUSEUMS.

A MEETING of pathologists resident in London and the provinces interested in medical museum work was held on May 13th, at 2.30 p m, for the purpose of receiving information upon the organization known as the International Association of Medical Museums, and with a view to extending the membership and general usefulness of this body in Great Britain. The meeting was called by Dr. Osler, Regius Professor of Medicine at Oxford University, and was held at the Royal College of Surgeons, London, by the courtesy and invitation of the President and Council of the College. Sir JONATHAN HUTCHINSON, F.R.S., occupied the chair. Dr. Maude Abbott of Montreal, Canada, Secretary and Treasurer of the Association, presented a report upon the origin, aims, and activities of the association. There were present also Dr. Arthur Keith, Curator of the Museum of the Royal College of Surgeons of England; Drs. Andrewes, Hugo Thursfield, and A. S. Woodwark, of St. Bartholomew's Hospital; Drs. E. A. Bashford, Imperial Cancer Research; Braxton Hicks, Westminster Hospital; R. I. Trevor, St. George's Hospital; Hubert Turnbull, London Hospital; Bernard H. Spilsbury, St. Mary's Hospital; M. Paine and E. M. Kettle, Cancer Hospital Research Institute; Kenneth Goadby, National Dental Hospital; I. Walker Hall, of Bristol; J. M. Beattie, of the University of Sheffield, and others.

Dr. OSLER said that the object of the meeting was to receive information from the secretary and to arrange for a meeting to be held in London in conjunction with the International Congress of Medicine in 1913. Dr. Abbott was known to most of those present as one who had developed the Medical Museum of McGill University to a high degree of usefulness in medical teaching by working along the strictly Anglican lines of systematic classification and

museum demonstration methods. In this country, where the work of John and William Hunter had laid the foundation of so many great museums, such work was bound to meet with much sympathy. As Secretary-Treasurer of the Association, Dr. Abbott had been intimately connected with this body from its earliest organization, and was therefore competent to give full information on the subject.

Dr. ABBOTT said that the International Association of Medical Museums had its origin in 1899 in a suggestion of the late Professor Wyatt Johnston, of McGill University, that an Association of Medical Museum Curators should be formed. This proposal was made by the McGill Museum to the Army Medical Museum, Washington, D.C., but action was not taken until 1906, when the matter was again brought forward at the suggestion of Dr. D. S. Lamb. With the co-operation of the late Major James Carroll, Curator of the Army Medical Museum, it was decided to organize an association which should be international in scope, and which should have as its object the development of an active department for the interchange of museum specimens and material for research, the elevation of the medical museum as a teaching medium, and the improvement of methods of museum technique by the discussion of methods. A constitution was drawn up, an organizing committee formed, consisting of Dr. Carroll (chairman), Professors W. G. MacCallum of Baltimore, A. S. Wartkin of Ann Arbor, F. F. Wesbrook of Minnesota, and the Secretary, and an invitation to membership was extended to leading pathologists throughout the world. So active and warm was the response elicited that it was evident a real need for such an association existed. Since then four meetings had been held, an active exchange department and an experience department for the interchange of information on points of museum interest had been established, and a yearly bulletin containing full reports of proceedings had been published. The membership had rapidly increased and now numbered 98, including representatives in Africa, Australia, and South America, as well as in the principal countries of Europe and North America. The latest step had been the organization of local European centres under the control of a corresponding member in France, Germany, Holland, and Belgium, through which exchanges were to be transacted locally, and the election of suitable members proposed. It was desirable that this step should also be taken in England, especially in view of the proposed meeting in 1913.

Sir JONATHAN HUTCHINSON said that the organization had his entire sympathy, as providing a link between museum workers that was much needed, especially for purposes of exchange. He thought it important that local centres should be established where duplicate material could, if necessary, be stored, and an adequate journal should be published. For this purpose funds would be needed in order that the work might be carried out on a scale larger than the membership fees would allow. He strongly recommended that an appeal should at once be made to a suitable quarter.

Dr. KEITH dwelt upon the importance of this association to workers in medical museums, and expressed his sympathy with it, and his willingness to assist it forward in every possible way. It was to be remembered, however, that a new association, however needed, must be made to bear lightly upon its members, there being already several societies to which medical men in England must belong. The provisions of the constitution, that the annual membership fee should be small (8s.), that the meetings should take place once annually only, and be held if possible in conjunction with the meetings of some other international medical body, were therefore wisely ordained.

After some general discussion the following resolutions were passed:

1. That after the arrangements for the meeting of the International Congress of Medicine at London in 1913 are completed, steps shall be taken to arrange for a meeting of the International Association of Medical Museums in conjunction with this Congress.
2. That the three great English medical societies, namely, the Pathological Society of Great Britain and Ireland, the Anatomical Society, and the Royal Society of Medicine, be made cognisant of the actions of the International Association of Medical Museums, and that co-operation with these societies be attempted, with special reference to the publication in their journals of the Department of Exchanges, as well as announcements and short reports of meetings.
3. That one or more correspondents in London be appointed to act as local secretaries.

Drs. Thursfield and Woodwark of St. Bartholomew's Hospital and Dr. Kettle of the Cancer Research Hospital were named.

All those present who were not already members joined the association.

# NATIONAL INSURANCE.

## A CRITICISM OF THE SCHEME AS IT AFFECTS THE MEDICAL PROFESSION.

By ALFRED H. WILLIAMS, M.D.Edin.,
Harrow.

THIS Bill is a difficult and, to the general practitioner, a very painful study. I have *read* it carefully; I have *marked* those portions of it which affect the medical man; I have tried to *learn* from it and from the Chancellor of the Exchequer's Memorandum and speeches what is really intended; but the *inward digestion* of it I find thoroughly unpleasant. I have searched in vain for evidences that Mr. Lloyd George's promises to guard the interests of the doctors had been fulfilled. I would like to call attention to a few of the sections that affect ourselves.

### *Workpeople and Compulsory Insurance.*

*Section 1*, as explained in the Memorandum, states that the Bill is to effect as wide an insurance as possible of *the working population*. There is no satisfactory definition given as to what is meant by *the working population*. Certainly there is to be compulsion as to the insurance of certain persons described in the First Schedule; and in Part II of the same Schedule certain persons are excluded from this compulsion. But Clause (2) of Section 1 gives powers to the Insurance Commissioners to include any of these persons, so excepted, within the working of the Act. Whilst Clause (3) provides that any persons excluded from the compulsion to insure "who are engaged in some regular employment and are wholely or mainly dependent for their livelihood on the earnings derived from that occupation" may avail themselves of the benefits of the Act.

The only mention of any wage limit is in paragraph (*f*) of Part II of the First Schedule. This merely states that there is no compulsion to insure in the case of those employed otherwise than by way of manual labour and at a salary exceeding £160 per annum. From this it would appear that a person regularly employed, with a salary of £160, would be compelled to insure even if he had an additional £150 a year of private income, for which he did not work. I cannot find anything to prevent any one who works with his hands (take, for instance, an artist) from being compelled to insure, whatever his salary.

There should certainly be amendments introduced to fix a wage limit—I would rather call it a "total income" limit—to those who shall be entitled to avail themselves of the benefits of this Act. This income limit might be graduated with a correspondingly graduated scale of payment for the benefit of medical treatment.

### *Medical Treatment and Attendance.*

*Section 8* provides medical treatment and attendance for the insured. This should be more clearly defined in the Act itself. It should not be left to the absolute discretion of the Insurance Commissioners to define what is to be provided in the way of medical treatment and attendance. Nowhere in the Bill is any mention made of what is to be paid to the doctors for their work. The 30s. mentioned in paragraph (*e*) as the maternity benefit is not the confinement fee, as some seem to think. Mr. Lloyd George himself explained that this is to cover the provision of the doctor and the nurse. He admitted in his speech that the doctors had got a case for increased payment, but the only relief he proposes is to remove the obligation to provide drugs, and he talks in an airy way of raising the capitation fee to 4s. per annum. To speak of raising the capitation fee to 4s. is nothing but an insult, particu-

larly when provision is made neither for extra payment for what Mr. George himself describes as the uninsurable persons who will compose the majority of the "Post Office Contributors," nor for the exclusion of those who can afford to pay ordinary fees.

*Diseases Due to Misconduct.*

*Section 13*, Subsection (4) appears to provide that an insured person shall not be paid any sickness or disablement benefit for such sickness or disablement as may be caused by his own misconduct, but at the same time he shall continue to be entitled to medical benefit. The first part of this is sound enough; but, surely, if it is right to protect the fund against this obligation, it is also right similarly to protect the medical man. Provision ought to be made for extra payment of the doctor in these cases, as is now the rule in most "clubs." The extra cost of this might be defrayed out of the money saved to the fund by withholding the payment of sickness or disablement benefit.

*The Agreements with Medical Practitioners.*

*Section 14*, Subsection (1) provides that every approved (friendly) society and local health committee shall make arrangements with duly qualified medical practitioners for the insured persons to receive attendance and treatment. No provision at all is made for the free choice of doctor by the patients. All the insured will have to go to the doctor selected by the friendly society.

*The Constitution and Powers of the Insurance Commission.*

*Section 41* provides for the appointment of Insurance Commissioners, who appear to have unlimited powers to fill in all the details so remarkably omitted from the Bill. The number and qualifications of these commissioners are not mentioned, nor is there any provision for the medical profession being represented amongst them.

*Section 42* directs the Insurance Commissioners to appoint an advisory committee consisting of representatives of employers and approved societies and others; but again no mention of the medical profession, whose interests are more seriously affected by this bill than those of any other section of the community. Amendments should certainly here be introduced to make definite provision for the representation of the medical profession both amongst the Insurance Commissioners and on the advisory committee. The medical members of the advisory committee, at any rate, should be nominated by their medical brethren, perhaps through the medium of such societies of medical men as the British Medical Association. These medical members should be men who are engaged in general practice, and they should have had experience of the working of contract practice. The medical officers of State departments, such as the Local Government Board or Education Department, will not do for this work.

*The Health Committees.*

In *Section 43* provision is certainly made for some sort of medical representation on the local health committees. But of what use will this be when the somewhat unintelligible Subsection (3) seems to point out that there shall be 2 medical men on a committee of 24?

The above do not by any means include all the features of the Bill to which medical men are likely to object.

*The Policy of the Medical Profession.*

The bill as a whole seems to have been very carefully drafted so as to include many uncontroversial details, but to leave out as many as possible of the details to which the medical profession might object. By giving plenary powers to the Insurance Commissioners, these objectionable details will be filled in in secret, when they cannot be subjected to searching criticism in the country and amendment in the Houses of Parliament.

The results of this bill, if it becomes law as it stands, will be that contract practice, in its very worst form, will be enormously increased. Practically any one in the kingdom who works will be able to obtain medical attendance at the rate of 4s. per annum, and this without some of the limitations at present in force. The control of the medical arrangements will be in the hands of the friendly societies. Our position with regard to them has been bad enough in the past, but what is it likely to be in the future when these same friendly societies are backed by powerful State commissioners and supported by an Act of Parliament which seems to ignore our right to have any say in the management of our own affairs?

If this is to be prevented, we must now fight with our backs to the wall. And we must take care that it is the same wall that we have all got behind us. This is no time for us to quarrel amongst ourselves over such questions as to whether we prefer to be paid per visit or per annum per head. The question before us now is much more serious than that. It is how we can prevent its being made impossible for us to earn a living at all. In this we can surely find community of interest enough to enable us to present a united front in demanding that the objectionable features to which I have alluded shall be removed from the bill.

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## CORRESPONDENCE.

> Let your reason with your choler question
> What 'tis you go about.
>
> *Henry V*, iii, 1.
>
> Join we together for the public good
> In what we can.
>
> *2 Henry VI*, i, 1.

WE have received a large number of communications on the scheme; we take the following points from letters from various correspondents:

METHOD OF REMUNERATION: CHOICE OF DOCTOR.

Dr. P. R. COOPER (Bowdon):

Though nothing definite is stated as to the remuneration of medical attendants employed under the scheme, yet, reading between the lines, it is clear the Government intend to establish cheap contract practice on an almost universal scale, and this despite the facts, which must be well known to them:

1. That, with few exceptions, the whole medical profession is strongly opposed to the system, especially when it places it under the heel of the friendly societies.
2. That the report of the Poor Law Commission emphatically condemns the system.

Only, therefore, a desire to obtain medical services "on the cheap," and a cynical disbelief in the ability of medical men to agree together and to combine for any specific end could have made such a proposal possible. Evidently the Government thought it most important to conciliate the friendly societies; *they* are keen business men, with over £40,000,000 of funds behind them, but the wishes or just claims of the medical profession were not worth considering; *they* are soft-hearted fellows (and apparently also, it is thought, soft-headed), who do not bother their heads about money matters, or are mostly too proud to admit it if they do.

However, I believe on this occasion the Government has reckoned without its host, for I cannot believe that at this epoch the medical profession is going to submit to the thraldom of the friendly societies, or to agree to a paltry capitation fee per annum from patients who can and are paying decent fees, and I imagine without the co-operation of the medical profession no scheme of national sickness insurance can prosper.

The medical profession is prepared to co-operate, and most heartily and earnestly to forward a truly efficient and national scheme for the insurance of the workers against sickness and the cost of medical attendance, but the present scheme of the Government will need considerable modification before it will come under this head.

No scheme which permits the sweating of medical men or establishes conditions of practice which are irksome or unfair in the extreme both to doctors and patients can be a permanent success even if it be ever adopted.

The medical profession is practically unanimous on the question of the free choice of doctor on the part of the insured, at least from those doctors willing to attend, and equal freedom of choice on the part of the doctor with regard to his patients must also be secured.

Also we insist upon *adequate* remuneration for services actually rendered, and do not desire to gamble for our

living. For it is nothing short of gambling to accept so many individuals, more or less healthy, at a limited fee per annum, and undertake the incalculable amount of labour which may arise during the period contracted for in medically attending them, and in giving such attention as an honest and conscientious practitioner would feel bound to give.

The medical profession has found by bitter experience the principle of a capitation fee to be in the interests of neither patients nor medical men. The principle of payment according to work done is the *only* just and fair method that can be devised short of the system of properly salaried medical officers. It is surely obvious now that neither the *amount* nor the *method* of remuneration will ever be satisfactory on any capitation basis that will ever be allowed by Government. What infinitesimal fraction of 1d. *per visit* will it make whether the capitation fee be fixed at 4s. or 5s. per annum? In neither case is it *adequate*, nor, in my opinion, would it be if the amounts were *doubled*, or even trebled; but the Government consider itself most generous in giving an extra 1s. or so per head per annum, and in handing over the provision of medicines to chemists. I have all along held the principle of the capitation fee is a bad one, and even granting that it has worked well in a few instances—for example, in the northern colliery districts (where the capitation fee is 13s. per annum)—I am satisfied it will not answer universally as a national scheme should.

What are the objections to payment according to work done? (1) That it will be *too costly*. Now, if only a minimum adequate fee per visit be paid, this is surely tantamount to saying that the country cannot afford to pay for its National Scheme of Sickness Insurance, and so is calling upon the medical profession to help it out in the name of charity. (2) That the medical profession cannot be trusted to deal honestly with the nation, and will forthwith begin to run up huge bills for unnecessary attendance. This indictment, if it were true to any serious extent, would indeed be a grave one against any honourable profession; but, whilst admitting that there are a few black sheep in ours as well as in other professions, we can confidently refute it in the mass. At all events, we have no objection to having our good faith put to the test or to submit to any reasonable safeguards or restrictions against abuse. If some of the ingenuity which has been devoted to drawing up the bill in its present form had been directed to establishing a proper tariff of fees for work actually done, with such safeguards as, for example, developing a proper system of medical inspection, imposing penalties or remission of fees for unnecessary attendance, collusion, or malingering, a measure which would have met with the general approval of the medical profession would have resulted, and there would have been nothing to stand in the way of its rapid and practical success.

Why does the Government wish to act through the friendly societies? The main reason, as far as I can gather, is to check malingering. Surely it would have sufficiently answered this purpose to have retained the disposal of the funds for sick pay in the hands of the friendly societies. But what need is there to place the control of medical attendance in the hands of these bodies, and in what way have they shown that they are qualified or fitting to have such control? On the contrary, it has surely been proved to demonstration that they are unfitted for such a trust by the general dissatisfaction which now exists through their short-sighted methods, both amongst the insured members and the medical men employed. The first thing for the Government to do, therefore, is to separate "medical benefits" from "sick pay," and whilst retaining the latter in the hands of the friendly societies, to put the former under the control of proper committees, with all the various interests adequately represented thereon—namely, State, employers, insured, and medical men.

The next amendment necessary in the bill is to allow for the substitution of payment according to work done for capitation payment, or, at least, it should be left to the local option of the medical profession and the health or insurance committees to agree as to the terms of remuneration, in any case allowing for the free choice of doctor and patient, and to avoid any undercutting and sweating of the medical attendant.

Dr. A. W. HARRISON (Merton, London, S.W.):

1. As the friendly societies have hitherto paid 4s. a year for healthy young men who have passed a medical examination, and who have a small wage, and as under the proposed scheme many older, less healthy, and better paid men will come into them, the old 4s. rate must go absolutely, especially as venereal diseases are to come under the free treatment.

2. Insured persons, whether in friendly societies or not, must be at liberty to choose their own doctors. For instance, take a district where the population consists mainly of clerks and artisans getting from 30s. to £3 a week, and who have hitherto paid ordinary fees. If, after insurance, they have to go to the "club doctor," the other doctors, who up to now have made a modest livelihood, will be absolutely, and not comparatively, ruined. This would be intolerably unjust.

3. The Government now pay 8s. 6d. a year for their postal employees, and as they can hardly assert that this is needless extravagance on their part, any capitation payment must be not less than this. Further, the postal employees are mostly young and healthy, and among the insured there will be many thoroughly bad lives; therefore, any capitation payment must be more than 8s. 6d.

4. But a capitation payment is thoroughly distasteful to the whole of the profession, and also will not secure the "best medical attendance," for in times of epidemic, etc., when the doctor is run off his legs and can hardly get his round done in the day, if any must be neglected or left to an assistant, will it be the patient who is paying a fee per visit or the "capitation" patient? I believe the vast majority of the profession would be satisfied with the modest fees now paid by the National Deposit Friendly Society, and this is a system by which the State would take the risk of the insurance; the capitation system throws the whole risk of the insurance on to the profession.

5. Modern methods of diagnosis and treatment are much more costly than the older methods. I need only instance such things as the examination of sputum, the ophthalmo-reaction, the Widal test for typhoid, the serum treatment of diphtheria, the serum or vaccine treatment for erysipelas or furunculosis, Bier's congestive treatment, the use of *x* rays and radium, etc. Such things are out of the question unless the doctor gets adequate payment.

6. A schedule should be appended to the Act itself stating the minimum conditions which will be sanctioned by the Government, and such sanction should be necessary before any scheme for payment can come into force.

Dr. WILLIAM ESCOMBE (Grimsby):

1. Supposing one man is lucky enough to obtain 3,000 State members at 5s. a head per annum, making £750 per annum, what is he to do when an epidemic occurs and perhaps 30 or 40 per cent. are ill? He certainly could not attend to them satisfactorily, if he could ever finish his daily round, and he will always have about 90 or 100 on his books even in times of peace. Any remuneration under 10s. a head per annum will be simply sweating, and I doubt not that numerous members of the profession will turn their attention to something else to obtain a living.

2. Certain members of the profession have for years declined to be sweated by friendly societies; others, less scrupulous, have accepted terms from 2s. 6d. per head per annum upwards. Are these latter now to reap the benefit and be rewarded with an increased payment per annum and still retain their number of members, with probably an addition, to the exclusion of those who have upheld the dignity of the profession?

3. What about special diseases—eye, ear, throat, nose, surgical operations of greater or less magnitude, and numerous others—are we to be general practitioners, or are we all to be general specialists? What about *x* rays, radium, serum treatment, etc.? Are we all to fit our surgeries up as special hospital departments?

4. Are we to be at the beck and call of all our clients at all hours of the day and night? Surely there must be extra remuneration for night calls and calls after starting on the usual morning round.

5. Maternity disbursement, 30s. What about extra fees for chloroform, forceps, versions, cephalotripsy, Caesarean sections, etc.? These are unprovided for.

6. Will the Government compensate us for the loss of value of practices which we have taken years to build up from nothing and of which the value will now be *nil?*

7. Obviously all hospital out-patients become obsolete; hence the material for instruction of students is taken away, and he cannot receive what is the most important part of his after success, namely, instruction in the out-patient department.

"FAIR WAGES" writes: Dr. George Kenneth Pearson (p. 1128) hits the vital points in the interests of the medical profession:

1. A fair standard of fees payable to the profession must be insisted on.

2. There ought to be no monopoly, as there would be were special doctors appointed in each district. There are hundreds of doctors whose practices are carried on almost entirely among the classes of individuals who will come into the scheme, and who would be left without any patients at all in the event of special "society doctors" being appointed. Besides, it would be most unfair to the public to force them to have doctors for whom they have no liking.

Our correspondent concludes by suggesting a poll of the profession.

A correspondent who signs himself "Fair Play" writes to suggest a second perusal of the letter by Dr. George Kenneth Pearson in the issue of the JOURNAL of May 13th, p. 1128. This letter, he says, will, with few alterations, be found to voice the opinions and desires of the vast majority of private practitioners, especially in industrial centres.

There are, he adds, one or two points which could be modified without much objection on our part. For instance, the friendly societies should have no control over us whatever. No objection could be taken to their having the power to investigate and rectify any complaint of lack of attention by any individual member, or number of members, but they should not have any financial control.

Two points stand out above all others, as those with which an overwhelming majority will be found to be in favour:

1. Every insured person to have the right to choose his own doctor, whether he be a member of a friendly society or a Post Office insurer.
2. If payment be per head, the State to fix the minimum, such sum not to include surgical dressings, splints, etc.; and if for work done, the State to draw up a scale of fees.

Most important is the final paragraph of his letter, and if it be not feasible to form a union, the Association might have printed a circular embodying the above points and send a copy to every medical practitioner, asking him to say whether he will give his entire support to any steps the Association might take to enforce them. I am certain that those who are not members of your Association will willingly contribute their quota to the expense of the circular, which they can enclose with their reply.

### EFFECTS ON GENERAL PRACTICE.

Dr. H. F. DEVIS (Bristol):

It is easy for those engaged in general practice among the middle and working classes to sum up the result if the bill passes in its present form. Fifteen million workers divided among, say, 30,000 doctors, gives 500 to each doctor. Five hundred workers at 5s. a head (the sum hinted by the Chancellor), and we arrive at the average wage of £125. The scheme is, however, to be worked by friendly societies and local authorities, both of which bodies are in deadly opposition to the principle of free choice of doctor. This means that one doctor will be employed at the comparatively large salary of £500, and three other doctors will be cut off from the scheme, and have to live on pickings of private practice among the dependents, and those few persons above income-tax limit who prefer not to come into the scheme. But the wage earners will be heavily handicapped by paying not only their own contributions but, in the majority of cases, the employers' share as well. Therefore they will have little money to spend on their old family doctor, but will seek, through health committee or friendly society, to make special terms for their dependents. Also, where there are two or three wage earners in a family, it will not be considered worth while to employ another doctor privately.

Even if free choice of doctors is allowed, a huge slice of income is cut off by our private patients being placed on club practice terms.

In either case the result must inevitably be absolute ruin to a great number, probably the majority, of the general practitioners throughout the country. Nothing but a pure and simple trades union can save us from financial ruin and moral degradation. On p. 1132 the editor of the *Pharmaceutical Journal* sees that a like danger stares chemists in the face, and he strikes the right note in saying "any bargaining should be done with the Government, and the result inscribed in the bill." He goes on to say:

> The satisfactory way of dealing with the matter—and it is a very simple way—is to establish a schedule of prices . . . and leave it open to any chemist and druggist to supply medicines at prices based on the schedule.

Here we have the great principles that many of us have long been working for—direct dealing with the Government, no insurance risk, free choice of doctor, and payment per item and not by contract. Surely, if these principles are good for chemists and druggists, they are also good for doctors.

M.D.CANTAB. writes: Much as we welcome the general intentions of Mr. Lloyd George's National Insurance Scheme as a great measure designed to promote the social welfare and the better health of large numbers of the community, we must feel, I think, that, so far as we understand it at present, the bill looks likely to hit doctors very hard indeed, and the medical benefits proposed amount in reality to something very like State aid at the expense of the medical profession.

You will no doubt have stacks of letters from doctors stating various points of view. I venture to write from my own, that of a private member of the profession whose practice appears bound to suffer materially if and when this bill becomes law. There must be many other general practitioners in positions like mine, so my case is typical of the rest.

I have a practice in this North of England town of, say, eight hundred a year (£800), for which I paid over a thousand pounds (£1,000) in hard cash some twelve years ago when I came here from London. Nearly all my patients belong to the class affected by the bill, people "below the income tax limit"; they are "private patients," and I have no "medical clubs." My patients gladly pay me now 2s. 6d. for ordinary visits, more for night calls, and occasionally small fees of a guinea or two for an operation.

What will be the effect of the bill on a private practice like mine? It seems to me the prospect is appalling. These people will then be swept into the insurance scheme; we do not know yet even that they will be allowed to choose their own doctor, and whoever be the State doctor employed they will get their doctoring free for, say, 4s. a year. If I should have the fortune to get appointed as State doctor, or one of the State doctors in this place, my income from my present patients would be cut down by 75 per cent. or more, and if I did not have that piece of (?) good fortune it would be taken away altogether. Is this just and fair?

There must be many other doctors placed as I am, and I hope they will write to you, for unity is strength; we simply *must* combine, and if we do not stand up for our own rights nobody else will stand up for us.

The British medical profession is probably the most truly philanthropic body of men in the world, and would welcome any reasonable scheme for promoting the general good, provided the scheme were fair to doctors who already do so much unpaid work for the good of others; but this State Insurance Scheme, as it stands, appears so very unfair to many of us that it should be resisted by the medical profession, whose good will is essential for its real success, unless considerably modified in our favour.

Another correspondent, who signs himself "A POOR DOCTOR," writes: The State Insurance Scheme seems the most serious thing that has happened to the profession for many a day. In the town in which I live there are about 25,000 inhabitants, and only about 3,000 of these pay

income tax, including the children, whom, we are told, will shortly be admitted to its benefits. Thus about 20,000, or 4 out of 5 of the whole population will be entitled to "club" attendance. I have been in practice for over thirty years, and, in addition to managing a free charity, for which I get a house and salary, I have a private practice, chiefly among the industrial classes. Under this scheme it seems there will no longer be any charities required, and I shall lose not only my house and salary, but also three-quarters at least of my income from private practice. Two of my sons are studying in London for professions at the present time, and are in the middle of the course. If my income is taken away I fail to see how I am to keep them on to the end. We are told that this scheme has been received with universal approval; of course, it has among all those—that is, the large proportion of the population—who will no longer be called upon to pay for illness; but it is a very different matter and a very serious one for the poor doctor, who will have to attend them all the year round for 4s. a year. The Chancellor of the Exchequer tells us that even those who do pay income tax can contribute also, so there seems no reason why Mr. Lloyd George or, say, Lord Rothschild, should not themselves be attended at the same rate.

THE STATE AND THE MEDICAL PROFESSION.

X. Y. Z.: I cannot see why a State Insurance Scheme could not be set afoot without meddling with the medical profession. Why should we be dragged into it? Cannot we be allowed to go on as we are, and benefit somewhat from the increased ability of the working classes to pay their debts to us? Is there not plenty of poverty in the profession which would be lessened thereby?

Is it that the much-talked-of scheme of socialism is to begin along the line of the least resistance—that is, the medical profession—and then spread over the other callings? The general practitioner has stood enough from the State. Up to the present we have tamely submitted to the following:

1. Death certification without pay.
2. Vaccination without pay.
3. Being turned into common informers on our patients for niggardly, and in Poor Law cases ridiculous, pay.
4. Being made imperceptibly to assume positions of subordination to medical officers of health, who harass us in our dealings with our patients.
5. Being deprived of the treatment of all infectious cases without obtaining any compensation.
6. Midwifery ditto ditto
7. Vaccination ditto ditto
8. Being compelled to inform on parturient women without pay.
9. Being gratuitously and grossly insulted at the foot of lunacy certificates.
10. We have to pay in spirit duty one-third more for most tinctures than we did before the last Budget without any chance of recovering it from the patients; and we have narrowly escaped, through the vagaries of a general election, being compelled to make special visits without pay to verify deaths.
11. The Midwives Act, passed ostensibly in the interests of parturient women, is in reality, as many of us know, to their great disadvantage and danger.

And now it is proposed:

(*a*) To take away from us the last remaining thing left to nine-tenths of us—that is, such little practice as remains to us amongst those with less income than £160 a year, and those with more, who choose to pay their few pence to the State.
(*b*) To debar us from compounding our own prescriptions on the insulting grounds that we cannot be trusted to use expensive drugs where needed, whereas the chemist's boy, as compared with us, is the soul of honour and honesty, and may be implicitly relied upon.
(*c*) To debar us from attempting to get paid for our services under a penalty of £50.
(*d*) To sweat us as we have never before been sweated.

The last inch of ground held by the general practitioner is now to be taken from him. Will he stand up and fight for it? Trades unionism is wielded with effect by every other calling; if we continue to neglect that weapon ready to our hand, we deserve to be looked upon as the greatest fools alive.

Dr. B. W. GOWRING (Dorchester):

By all means let us have national insurance, if it is thought desirable, but why should free medical attendance be included at all? Why should not the bill be baited with free legal attendance? If I insure against sickness or accident, I get, when such occurs, a sum out of which I pay my medical and other expenses.

Mr. Lloyd George has insulted our profession, but let it be hoped he has for once united us by his extraordinary disclosures. Does he really imagine that we shall consent that *any one* who chooses to find 7d. a week can claim free medical attendance, or that the profession can be adequately paid out of the same?

A CLUB DOCTOR writes:

The letters published in your last issue on this question appear to me to be unduly pessimistic. I can see no reason why the present crisis, if properly and judiciously handled, should not lead to an immense improvement of contract practice.

To begin with, the first step is taken to do away with dispensing, which is surely a great gain. Then as to remuneration, it is not so much a question of what is offered as what we are prepared to accept. The medical profession has now a golden opportunity, which may never occur again, of settling the question of contract practice once and for all on just and reasonable terms.

The old battles with the clubs too often had an unsatisfactory ending because the struggles were small and local; now if the whole profession unites and insists upon its rights it must win. There will not be enough blacklegs to serve the purpose of the friendly societies.

There are certain points which appear to me to be of paramount importance. There must be a uniform rate of payment; we must not tolerate any undercutting of individual practitioners.

There must be free choice of doctors for the insured.

There should be some extra charge for night calls—say, between 8 p.m. and 8 a.m—or our lives will be a burden.

Voluntary contributors should not be accepted at contract rates at all. This class will contain the most flagrant club abusers, and if any one, from Cabinet Ministers downwards, can join, it is obvious that they should be treated as private patients.

It would be far preferable if all the medical arrangements were in the hands of the local health committee, so that medical men should in no way be in subjection to the clubs or their officials.

UNA VOCE writes: The National Insurance Bill will make or mar the general practitioner in this country. If we are united to a man we will get fair play; if not, we are practically doomed, and we may as well at once withdraw our sons from hospital and send them out to farm in Canada. If an immediate arrangement can be made whereby the British Medical Association, by means of its Branches and Secretaries, can ensure every practitioner in the British Isles being canvassed, and his signature obtained to a document binding him to act in this matter with the whole profession as represented by the British Medical Association or other approved body, then the day is ours. If this canvass cannot be effected without cost to the Association, I am willing to subscribe £5 towards it, and I have no doubt others will do the same. In this way only can we hope to secure anything approaching adequate remuneration for our services.

H. D. writes: If Mr. Lloyd George sincerely wishes to put the work of the friendly societies and their medical officers on a proper footing, he now has the chance of a generation. If his plan fails to be just to us, then would our living be taken away from us, and the supply of medical men would seriously fail. To day no man will readily let his son begin his medical studies feeling that perhaps the scheme may end in reducing doctors to so many machines for attending the democracy at so much a head. Not only will this affect the very useful tribe of general practitioners, but the higher branches of the profession, and as a money-earning business medicine will fail more than it has yet done. Without appearing to be defiant let all medical men unite as one body and make one common demand for better treatment and better pay from the club members. I think the only one lasting settlement is paying medical men per visit. If a medical man is found paying too many visits there must be ways of putting a stop to it, and, after all, the club member gets the benefit, however doubtful, of more attention. I do not think this over-attendance will commonly occur, because the system

of paying per visit will attract the better class of medical men, and they can be trusted to work the system honourably. Each club could easily be asked to make a special levy on their members to make up any deficiency in the amount laid aside for doctors' bills, and the prospect of an extra levy will put the club member on his guard.

### The Wage Limit and Friendly Societies.

Lux e Tenebris writes: The proposed National Insurance Bill is so full of injustices to the medical profession that one can only point out the most glaring of them.

The wage limit for compulsory insurance is ridiculously high, and the proposed figure of £3 per week should be reduced to 30s. Those who go in for the voluntary part of the scheme, and who are earning over 30s. per week, are able to pay in the ordinary way for medical advice, and should on no account be attended as State patients. This is in my opinion the most objectionable feature of the bill, as it stands at present, and we should strenuously resist it.

On no account should we condescend to bargain with the friendly societies. We know how they have treated the profession in the past, and can imagine how they will in the future. Let the Government fix the remuneration with the approval of the Association, and let it be included in the bill.

Above all, we must unite and be prepared to fight for our liberties, if the Government refuses to offer terms which will be acceptable to the profession. Dr. G. K. Pearson's suggestion that the Association should form a union of all the practitioners in the country is excellent, and the Association has now a splendid opportunity of showing what it can and will do for the practitioner. But there is no time for delay. We must act now, and act determinedly, lest we waken to find that, like Nero, we have slept while Rome was burning.

Dr. J. A. B. Hammond (Shanklin):

In the *Daily Telegraph* of May 10th Mr. Lloyd George is reported to have said, in speaking of his new scheme: "This is not a doctors' endowment bill, and doctors must not be too greedy, otherwise they will lose all." The tone of this threat ought to be a solemn warning to all of us that if ever there were a time when it was necessary for the profession to show a united front, that time is the present.

It must have come as a startling surprise to many that in his new scheme Mr. George proposes to have *no* wage limit to those who may join in the benefits. If the rich are to be allowed to rank with the poorest, it will mean the ruin of many a mediocre man, and the refusal of the better man—who is more sure of his position, and who knows the rich value his advice sufficiently to continue paying at the old rate for it—to have anything to do with the scheme.

Some may have sufficient faith to believe that the rich will hold it beneath their dignity to avail themselves of any doctor's services (however good) for such inadequate fees; but that the Chancellor intends otherwise is obvious from his statement, when interviewed, that he intends his own children to join.

Although Mr. George is apparently using the payment made by the friendly societies as his standard, two important differences between his scheme and that of the societies appear to have been overlooked. In the State Insurance Bill there is no preliminary examination by which the unfit may be rejected, and those suffering from diseases contracted through their own vices are still eligible for free medical advice. These points alone ought to mean a very considerable increase in the rate of payment under the Government Bill.

### An Algebraical Formula.

Dr. Arch. M. Laurie (Houston, Renfrewshire):

In view of the uncertainty as to the amount per head that should be paid to the medical practitioner, it would be well if the same could be arrived at by a mathematical formula such as the following:

Let $x$ = amount per head per annum to be paid to doctor in shillings;
A = average income of practitioners in the British isles;
B = average population per doctor;
then—

$$x = \frac{A \times 20}{B}$$

Supposing A to be equal to £350;
B to be equal to 1,000;
then—

$$x = \frac{350 \times 20}{1000} = 7s.$$

In recent discussions on the average income a very low average of £200 per annum was put forward, and it will be seen by using the above formula that this average has been taken by Mr. Lloyd George in arriving at the sum of 4s.:

$$x = \frac{200 \times 20}{1000} = 4s.$$

The average should not include the income of assistants, or, if so, due allowance should be made.

### The Generality of its Effect.

Dr. Basil Jackson, L.R.C.P., M.R.C.S. (Brighton): If ever there were an occasion on which the profession ought to unite, surely it is the present one. This bill is going to affect every one of us. The club doctor, because every club doctor has private patients and hopes for more, and naturally his private patients will become club ones; the doctor with the surgery, because servants, clerks, etc., will visit him no more. The middle-class practice will lose the shopkeeper and the middle-class patient; and the higher class practice will also lose, as scores of rich people will join, either out of meanness or from a feeling of getting something back from the Government for all the taxes they have paid. As for the poor consultant, he will soon have nobody to consult over (as of course the State will soon appoint consultants to the clubs), and so will be free to give all his time and energies to his post at the hospital. Finally, the bill is the first step to the Irish dispensary system over here, and the death-blow to every man in practice.

And surely the class for whom this bill is primarily intended have taught us the remedy for this. If the medical profession throughout England unite against the bill, the bill, as far as we are concerned, is dead. What right has any man to take the bread out of our mouths?

Let all the medical men unite and refuse to have anything to do with this new club work in any way at all, forming a league of medical defence, every member of which shall agree, under oath, not to accept any work under this bill unless terms acceptable to the profession are forthcoming; and not to attend any person insured under the Act, under any circumstances, unless they should be his own patients employing him regularly, and only insured on account of the other benefits of the Act.

We stand at the parting of the ways: independence and self-respect on the one hand, and—servitude on the other. And we are choosing, not for ourselves alone, but for our sons and for those who shall come after us.

A Leading Practitioner in a manufacturing district, who has himself reached a stage in which the matter can hardly affect him directly, writes:

As usual, the profession will be left to fend for itself and be satisfied with so much or less per head per year as a pettifogging little lawyer will charge for writing a short letter from behind his desk. It is a good profession to be out of, and rather than accept service under the scheme foreshadowed I would, were I a young man, take to some decent manual labour to eke out an existence.

I have been trying to get something tangible out of the bill, and to compare what the relative position of the medical man will be under it with the present conditions prevailing in this district under contract practice arrangements. As far as I can see, the present conditions are infinitely better. If every man earning less than £160 a year is to benefit under the bill, what is to become of the majority of medical men in private practice in such districts as this, where nine-tenths of his patients will be entitled to professional attendance and other benefits for 4d. per week?

What will become of the profession if the rewards under this bill will be the attraction for entering it? No prudent parent will spend a thousand or two in educating his son for it, and no man of decent breeding will dream of entering it. The scheme even as it stands will not matter to me in the slightest degree.

SOUTH OF IRELAND writes: My practice is largely composed of small farmers and the upper working classes. From what I read, Mr. Lloyd George proposes to hand over my patients to the medical officer of health or the dispensary doctor. Can this possibly be true?

*** Not necessarily, for our correspondent may find that he will have an opportunity of attending them at insurance rates; if so, he would have to attend not only small farmers, but also the bank manager and his clerks, the solicitor and his clerks, and the tradesmen, including the publicans. Insurance would be compulsory on the clerks provided their salary was not over £160 a year, and they would pay only 4d., their employer paying 3d.; the others could join as voluntary insurers, and would have to pay 7d. a week. The Government would add 2d. in all cases.

## NOTES.

### ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

THE following letter has been addressed to the Prime Minister and the Chancellor of the Exchequer:

Royal College of Surgeons of Edinburgh,
Edinburgh, May 16th, 1911.

Sir,

At a meeting of the Royal College of Surgeons of Edinburgh, held this day, the following resolution was unanimously carried, and was ordered to be communicated to you:

> That while sympathizing with the objects of the National Insurance Bill now before Parliament, this College most earnestly prays His Majesty's Government to allow ample time for the thorough consideration of the details of this complicated and far-reaching measure, and in view of the important part which the medical profession must play in making any such bill a success, and of the very serious consequences which may result to the whole profession, this College desires respectfully to express its strong feeling that this bill ought not to be pressed forward in the present session, in order that the public, and very specially the medical profession, may have time to thoroughly consider the provisions contained in it, and if thought necessary, to make suitable representations to Parliament.

We desire to point out that this resolution has been approved of by representatives of every shade of politics, and that it is forwarded in the interests not only of a large number of our Fellows, whom we represent, but also of a large number of our Licentiates residing all over Scotland, as well as England and Ireland, who are doing good work in every part of the United Kingdom for His Majesty's lieges.

We earnestly ask your careful consideration of the above resolution.

We are,
Your obedient servants,
Signed in name and by authority of the Royal College of Surgeons of Edinburgh,
GEO. A. BERRY, President,
Seal. R. MCKENZIE JOHNSTON, Secretary.

### MEETINGS OF THE PROFESSION.

A MEETING of all the practitioners in Newark-on-Trent and district, together with several members of the Nottingham Division of the British Medical Association, was held at Newark on Friday, May 12th, to discuss the State Sickness Insurance Scheme. The following resolutions were carried:

1. That the medical benefits under the State scheme should only apply to persons earning £2 per week and under.
2. That the principle of throwing the work open to all medical men, and allowing the patient a reasonable freedom of choice of doctor should be adhered to.
3. That in the event of the payment of medical men being per capita, the capitation fee should be fixed by the State and paid through the Post Office.
4. That a copy of these resolutions should be forwarded to the Member of Parliament for the district.

In addition to this meeting and to others recorded in the SUPPLEMENT, meetings of the medical profession to discuss the medical aspects of the Insurance Bill are being held in many other localities. Among those of which notice has been received are the following:

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| Dulwich ... ... ... ... | May 17th. |
| Cardiff District (Colliery Surgeons) ... | May 18th. |
| Fife ... ... ... ... ... | May 18th. |
| Cambridge ... ... ... ... | May 19th. |
| Edinburgh Branch ... ... | (date to be fixed). |

The resolutions adopted by the Bury Division, the Furness Division, and the Croydon Division of the British Medical Association will be found in the SUPPLEMENT, pages 244 and 246.

### INSURANCE COMMISSIONERS.

The medical profession is accustomed to receiving scanty consideration in Acts of Parliament, and from this point of view the National Insurance Bill varies in no wise from the average. On the one hand, throughout the whole of its 82 pages, 87 clauses, and 9 schedules, the most scrupulous care is exercised to avoid trenching on the rights of friendly societies and to conciliate their members, while on the other it seems taken for granted that the medical profession will fall into line with whatever may be demanded of it. Nowhere is this cavalier note more obvious than in the clauses relating to the appointment of the Insurance Commissioners. It is they who will interpret and adminster the Act, and on almost every page appears a reference to their multiple powers and duties. These include matters of such importance as extension of the compulsory operation of the Act to those who initially stand outside it, the control of Health Committees, and the drawing up of tables which will be used for the purpose of determining what is the natural sickness-rate of any given locality. In addition, the Commissioners will be the judges of what constitutes satisfactory medical attendance and treatment; for every approved society and local health committee must make arrangements "for insured persons to receive attendance and treatment *to the satisfaction of* the Insurance Commissioners." These Commissioners are to be appointed by the Treasury; nothing is said as to their number, but the scheme provides that in addition to appointing and paying "officers, inspectors, and referees," the Insurance Commissioners must also appoint an Advisory Committee to assist it, such committee to consist of "representatives of associations of employers and approved societies and of such other persons as the Commission may appoint." Seeing that the duties of employers and approved societies respectively are clearly laid down in the Act itself, it might have been expected that the Advisory Committee would consist not of such persons but of actuaries and medical men, these being the persons whose expert advice and assistance will clearly be most required. Possibly the authors of the Bill have taken it for granted that the Commissioners will include medical men among the "other persons" whom they are instructed to appoint. The medical profession, however, is not likely to be satisfied with a vague inference of this character; hence, to whatever arrangements it may assent in the matter of payment for medical benefits supplied through its members, it may be expected to stand out for adequate representation on the Insurance Commission and the Advisory Committee. Often when the interests of medical men are lightly treated by Acts of Parliament the number affected is small, but this particular bill is clearly so far-reaching in its effects that the medical profession will certainly be united in stipulating that it shall secure them representation on the managing body in specific terms.

### HEALTH COMMITTEES.

It is not only in regard to the appointment of the Insurance Commissisioners and their advisers that the National Insurance Bill is unsatisfactory; it is only a degree less open to objection in respect of the Health Committees. These are to be constituted in every county and every county borough, and will be bodies numbering between eleven and twenty-two persons. Their duties are to make arrangements for the provision of medical benefits to Post Office contributors (that is to say, to make contracts with medical men for attendance on these persons), to arrange for the establishment and maintenance of sanatoriums, and to consider the needs of the locality in respect of all questions of public health, making such reports and recommendations on the latter subject as they may think fit. Their members are to be appointed by four sets of persons, as follows: One-fourth of the total number, whatever that may be, by the Insurance Commissioners themselves, and of the remainder, one-third by the council of the county or county borough, one-third by any approved societies having insured members resident in the locality, and one-third by any association of Post Office contributors that may be formed. It is quite clear that on such bodies the medical profession should be represented; and in some

degree the authors of the Act have appreciated this fact unprompted, for the bill lays down that of the members to be appointed by the Commissioners at least two must be medical men. This is satisfactory so far as it goes, but it commonly happens that when an Act or Government order lays down the minimum of medical men to be appointed to any committee brought into existence, it is only this minimum of representation which is eventually secured. In this case the minimum of representation might be anything between a ratio of 2 medical men to 9 laymen, and a ratio of 2 medical men to 20 laymen—a highly unsatisfactory position of affairs. On such bodies as those in question the proportion of medical members should be high enough to insure that the views of medical men are not only put forward, but are backed up by a considerable weight of votes. If such a condition in this instance be not secured by the Act, it is certain that, apart from other drawbacks, the Health Committees, in making arrangements for the provision of medical benefits, will tend to fail to pay a proper degree of attention to the views of the profession in their locality. In that case there will be a continuous risk of conflicts arising between the Health Committees and Divisions of the British Medical Association, and any other organized bodies of medical men that may exist or be formed, and there may be times when the Post Office contributors will be left without any medical attendance at all so far as the Health Committees are concerned.

### The Friendly Societies and the Scheme.

At a meeting of the Committee of the National Conference of Friendly Societies held on the day after the bill was introduced into the House of Commons by the Chancellor of the Exchequer, a resolution was adopted recommending the scheme to the favourable consideration of the friendly societies, subject to a careful examination of the details of the bill. It was arranged to summon a special meeting of the Conference on June 28th.

A special delegate meeting of the Ancient Order of Foresters will be held at Burton-on-Trent on May 30th and subsequent days to consider the scheme.

At the annual meeting of the Yorkshire Union of Friendly Society Councils, held in Bradford on May 6th, the bill came in for some unfriendly criticism on the ground that it would destroy or damage the friendly society system. One speaker argued that the friendly societies had been working for a century or more voluntarily, had accumulated funds of £60,000,000, had a membership of over 6 millions, and paid annually in sick pay £6,000,000, and that they might have been left to carry on their good work.

At the annual meeting of the Nottingham and Eastern Counties Conference of the Manchester Unity of Oddfellows, held on the same day, it was stated that the officials of the friendly societies had assurance from Mr. Lloyd George that the societies would not be in any way injured.

At a meeting in London on May 8th of the Association of Industrial Assurance Companies and Collecting Friendly Societies, the secretary stated that the association had received assurances from a large majority of the House of Commons to support no measure which would interfere with the existing rights or give preferential treatment to any institution over other legally constituted existing institutions.

At the forty-second annual general meeting of the National Deposit Friendly Society held at Gloucester on May 13th the chairman expressed the opinion that the financial questions involved in the bill were serious. It was arranged to hold a special conference in London shortly to consider the question whether the society should go on as at present or seek to adapt its constitution so as to become an approved society.

At the Southern Conference of the Manchester Unity of Oddfellows, held at Salisbury on May 13th, the president said that no effort should be spared in defending the full and free independence of the Order so far as the management of its lodges and funds were concerned. The bill involved the possibility of State interference, which, if allowed in any form, might mean the undoing of a century's work; if, however, the interests of the great friendly societies were properly safeguarded, he thought the Manchester Unity could support the measure.

### A Wages Limit.

Some correspondents appear to be under the impression that the National Insurance Bill establishes a wages limit, even if it be too high a one. It is worth while, therefore, to point out that when the clauses of the bill are read as a whole they do not suggest that it is the intention of the bill to exclude any employed person from the benefits which it establishes merely because his earned income is above a certain sum. Furthermore, Mr. Lloyd George has made it clear that he would regard the imposition of a wage limit as incompatible with the principles underlying the bill. It is true that a wage limit is mentioned in the bill, but it does not figure therein as a protection for medical men. It applies solely to persons who are engaged in some other than a manual occupation, and exempts from compulsory insurance such persons, provided their annual wages or salary amounts to more than £160 a year. But included in compulsory insurance are all persons engaged in manual occupations and working for an employer, whatever the wages or salary they receive, and whatever the extent of the private means they possess. In a good many manual trades the weekly wages paid amount to more than £160 a year, and in some trades persons manually employed draw wages as high as £9 or £10 a week, and may be in possesson of other private means. All these persons, whatever they have done hitherto, and however they have provided medical attendance for themselves in the past, will in future compulsorily contribute 4d. a week to the insurance fund, their employers 3d., and the State 2d., and for the aggregate 9d. medical attendance, in addition to other benefits, will be secured to them. But this is by no means the full effect of the bill. All persons may become voluntary contributors, and thus become entitled to have paid on their behalf 2d. a week a head by the State and to receive medical attendance and medicines free, provided that they each pay 7d. a week and can show that they are "engaged in some regular occupation and are wholly or mainly dependent for their livelihood on the earnings derived by them from their occupation." The effect of this very loosely drawn proviso is rendered all the more sweeping because the bill neither establishes nor arranges for the establishment of any method of determining when a given individual comes or does not come within the terms of this proviso. Mr. Lloyd George has himself volunteered the statement that the bill will permit the Governor of the Bank of England to secure all the benefits of the bill, including free medical attendance, for 7d. a week, and there are many other persons possessed of large incomes who could become voluntary contributors. To take only one or two examples, it would seem that a man making two or three thousand a year at the Bar, who possessed no private fortune and spent his income to the full, would be an eligible candidate as a voluntary contributor, since his livelihood depends entirely on his occupation; so, too, would a similar man occupied as the manager of a company and in receipt of a salary of, say, £1,500 a year. Indeed, even if in addition both were drawing say £100 a year from stocks and shares or other resources, it would be impossible to block them out, for they would still be "mainly dependent" on the earnings derived by them from their occupations. But apart from these possibly extreme instances, there is a clause of much importance which must not be overlooked. A person who has been a voluntary contributor for five years or upwards remains entitled to be insured, even though he has ceased to possess the ordinary qualifications of a voluntary contributor. The class to which this clause would apply must be large—persons who, working on an independent footing, improve their position little by little until they become possessed of considerable private resources, and give up work altogether. Indeed, when all the stipulations with regard to the qualifications for insurance, whether compulsorily or as a voluntary contributor, are considered, it it obvious that, apart from the families of insured persons, the number of persons who are necessarily excluded from the benefits of the bill as it at present stands is relatively quite small. It is, in short, quite impossible to predict the effect of the bill, if it passes unaltered, on medical work as at present conducted, and still less its effect on the present capital value of existing practices.

British Medical Journal.

SATURDAY, MAY 20TH, 1911.

## THE NATIONAL INSURANCE SCHEME.

LAST week we called the earnest attention of the profession to certain provisions in the National Insurance Bill which seem seriously to threaten the interests of the medical profession, and reports from all over the country show that general practitioners are, to an extent never witnessed before, thoroughly roused and more than discontented that the measure, intended for the good of the working classes in the first place, should have been framed in a way which must inevitably inflict irreparable damage on the medical profession if the provisions affecting its interests do not undergo drastic amendment.

We are not at all disposed in this connexion to make any appeal *ad misericordiam*, even if experience did not show the futility of such appeals. It is an economic matter—an economic question to be settled on business lines. In the past medical men have been given to differing among themselves even on matters affecting their own interests; but, with regard to the fundamental objections felt to the medical aspects of the insurance scheme as it stands to-day, there is, we believe, almost complete unanimity among practitioners engaged in all varieties of practice, and we do not doubt that the Royal Colleges in the three kingdoms and the other licensing corporations will be prepared to support with all the authority and influence they enjoy any well-considered representations which may be made for the amendment of the scheme in the direction desired by the general practitioners to whom they have granted licences.

The replies of the Divisions of the British Medical Association to the questions submitted to them touching matters which, as was anticipated, are directly dealt with in the Insurance Bill are, on fundamental points, unanimous, and this fact is the more significant when it is remembered that in a large number of instances the Divisions, before arriving at a decision, took care to consult medical men resident in their districts who do not happen to be members of the Association. This justifies the statement that failure so to alter the scheme as to provide terms and conditions satisfying the principles which the profession considers of fundamental importance in regard to the administration of medical benefits, will involve a corresponding failure of the scheme as a whole, since medical benefits are an essential part of it. What alterations will be deemed necessary cannot be stated before the matter has been discussed by the Representative Meeting which is to meet on May 31st and June 1st; but, as has already been said, judging from the replies of the Divisions to the questions issued last year, from the resolutions which are now being adopted by meetings of medical men, and from the voluminous correspondence which reaches us, there are some points upon which the profession as a whole feels very strongly. It will, we believe, resist to the bitter end a scheme which will place it under the control of the friendly societies and at their mercy. It may be pointed out that the provision of medical attendance is not among the benefits which form a necessary part of the work of a friendly society, and that the way in which this part of their work has been carried on in the past has aroused a sense of dissatisfaction so strong that compromise on the point presents difficulties which appear at present to be insurmountable. It is felt that when a fresh start is being made under a new national scheme it is undesirable, in the interests of the public and the profession alike, to attempt to perpetuate the present club system. Another point upon which we judge the profession to be practically unanimous is that by whatever way medical attendance is eventually provided under the National Insurance Scheme, there should be reserved to the patient the free right to choose his doctor from among such medical men as may express their willingness to serve under the scheme.

We have already drawn attention to the discrimination in the bill to the disadvantage of the medical profession between medical benefits and sickness benefits in the case of persons who need medical attendance owing to their own misconduct. But this is only one instance of the distinctions that the bill, as drawn, makes to the detriment of medical men. Thus, though sickness and disablement pay cease at the age of 70, an insured person nevertheless remains entitled to medical attendance throughout his life. Again, when it is shown that the reserve funds of an approved society have fallen below the authorized sum, all members of that society are subjected to a penalty, until the missing sum is made up, by having their sickness benefits decreased; but their medical benefits, that is to say their right to receive medical attendance and medicines free, remain unaffected. Another instance is afforded by the clauses relating to leakage of an approved society's funds owing to the existence among its members of an excessive amount of sickness. When the society can prove that this excessive sickness is due to the default of an employer or of some public authority, it can recover from him or from it the increased outlay which is considered to have been caused by its having on its lists an undue number of persons drawing sick benefit. If this provision be just, it would be still more right to make provision for extra payment to medical men in respect of extra work thrown upon them by such excessive sickness. The case of persons who are drawing compensation from their employers in respect of accidents affords yet another instance of a distinction in the way in which the interest of the insurance funds and of medical men are treated in the bill as it stands. Persons in receipt of compensation allowances are debarred from drawing sickness benefit from the insurance funds, but are still entitled to claim attendance from their insurance doctor. Another difference is in respect of the date at which those admitted to membership of approved societies become entitled to sickness and medical benefits respectively. They are debarred from drawing sick pay until they have been members of the society for not less than 26 weeks and have paid not less than twenty-six weekly contributions, and even after the lapse of this time they can draw no sick pay for an illness which commenced during the period in question. Regarding maternity and disablement benefits equal caution is shown. But there are no like stipulations in respect to medical benefits, insured members of approved societies being entitled to medical attendance so soon as they are admitted. It is true that this would not be the case during the first six months after the date at which the Act comes into operation, but after that period

has elapsed the right to medical benefits will commence on the very day of entry into an approved society. The distinction is even more marked in the case of post-office contributors, for these, while debarred from withdrawing in the shape of sick pay any part of the sum standing to their credit until they have made at least fifty-two weekly contributions, are left free to claim medical benefits forthwith, despite the fact that a large proportion of them will admittedly be infirm persons. All these facts must be taken into consideration when it comes to fixing the terms of the contract for medical services.

It is stated that the second reading debate will be taken on Monday, May 29th, and the two following days, that the bill will then be taken in Committee of the whole House (probably in July), and that, if necessary, Parliament will sit well into August in order to pass it.

The personal assurances which, as we go to press, we have received from the Chancellor of the Exchequer as to his intentions with regard to the capitation payment to medical men under the insurance scheme are printed at p. 1202. The profession will not, we feel confident, be disposed to accept as adequate a capitation grant of 6s. a year to include medical attendance and the cost of providing the drugs, dressings, and appliances needed for domiciliary treatment. It will be noted that he recognizes the desirability of allowing choice of doctors to new entrants and favours the institution for this purpose of a wide panel of medical men willing to serve. He recognizes also that in giving its approval to arrangements proposed to be made by any Approved Society or Health Committee with medical men, the Central Insurance Commissioners shall act under the advice of the Advisory Committee, upon which the representation of the medical profession shall be adequate, or, as an alternative, that a special Medical Advisory Committee should be constituted.

## MALINGERING AND THE FREE CHOICE OF DOCTOR.

IN his speech in the House of Commons on May 4th, the Chancellor of the Exchequer said that he was, "on the whole, inclined to agree that the doctors have got a case for increased payment, not as much as they ask, something far short of that, but, at the same time, something very substantial." In an interview he is reported to have summed up his attitude in the phrase, "This is not a doctors' endowment bill," a phrase not likely to be forgotten.

The profession wants no "doctors' endowment bill"; it makes no appeal even for generosity; it simply demands just recognition of its position as one of the chief working factors on which the success of the sickness insurance depends. It is the failure to recognize this in Germany, and the consequent intolerable sweating of the profession by the *Krankenkassen*, which is responsible for a great part of the public discontent with the German system, a discontent which has been so marked in some places as almost to lead to the breakdown of the system.

In his speech on the first reading of the bill, the Chancellor of the Exchequer said that a curious position had arisen in Germany in that the largest employers had asked to be allowed to increase their share of the insurance premiums, though they now pay more than it is proposed to ask British employers to pay. If Mr. Lloyd George had given some of the reasons for this, it would have been seen that there was really nothing curious about it. Many of the *Krankenkassen* in Germany are managed by joint committees of representatives of the employers and the workpeople. The workpeople are almost universally fighting for "free choice of doctor," as there is little doubt they will in England, but the German employers prefer to appoint a salaried whole-time medical officer of their own, who they imagine will be more under their own immediate control. There is thus a constant struggle for a preponderating voting power in the management committees, and the reason why the employers in many cases desire to increase their contributions is the fact that a larger contribution will entitle them to a larger representation on the committees. If they obtain it the workpeople will be at their mercy as regards the appointment of medical officers as well as in many other matters, seeing that the clubs are practically quite independent of the State in their administration. We mention this not in the least as conveying any criticism of the provisions in Mr. Lloyd George's bill laying down the proportion of the premiums to be paid by British employers, as that is a point which savours of politics on which we do not express any opinion, but simply to show that one of the most important financial details of the German system is being affected by considerations arising out of the question of free choice of doctor by the insured.

Of course, it will be at once retorted that the British bill gives the administration of the medical benefits to the friendly societies, and that the managing committees of these societies must be elected by the members—that is, by the insured themselves—who will thus be able to obtain free choice of doctor, if they so desire, without interference by employers. This is correct as far as it goes, but it is only a statement of half the facts. In the first place the bill, in addition to promising a long list of additional optional benefits as soon as sufficient money can be saved on the working, offers every inducement to the friendly societies to increase the other benefits of the insured at the expense of the medical profession. Perhaps the easiest way of obtaining at present a cheap medical service, utterly regardless of its efficiency, is through a "medical aid association," under which as a rule a young and inexperienced medical man, or one who has failed in other directions or who is banned by his fellow-practitioners, is paid a miserable salary for which he has to devote his whole time to the associated clubs. The members are deluded into believing that they are getting something cheap and saving towards other benefits, and no doubt they are often quite content if they are supplied with a bottle of medicine and a certificate whenever they ask for it. Perhaps the worst feature of such a system is that the whole-time medical officer so employed can put no effective check on the malingerers of the society. It is as much as his position is worth to refuse a certificate of unfitness for work, for if he does a small caucus of discontented members may pack a meeting, and, perhaps without even giving him a chance of defending himself, the doctor is asked to resign on an indefinite charge of neglect. It is not practical to rely, as Mr. Lloyd George seems to do, on the better class of members calling the malingerers to book. They rarely know, or have any opportunity of knowing, of the malingering that goes on, and even if they did, it would have to be of the most open and public kind, instead of the most ingenious and secret, as it generally is, before any member would incur the

odium of complaining of his fellow members. They rarely do so now, and there will be even less inducement to them to do so under the scheme when five-ninths of the fund will be furnished from other sources—the employer and the State.

The position, then, to which we are driven is this: On the one hand, complete control over the medical attendants by employers, such as some of the German employers are aiming at in asking for their share of the contributions to be increased, is strenuously opposed by the workpeople, who perhaps naturally suspect the whole-time medical officers of acting always in the interests of the employers. Though under the British bill it is not proposed to give such power to employers, yet the same feeling of dissatisfaction and suspicion would arise under any system of whole-time appointments for medical treatment by the insurance department. Such whole-time insurance medical officers would always be suspected of making it the chief part of their business to keep down the sickness rates by a harsh hand, in order to please the officials who appointed them, and the temptation to perfunctory and unsympathetic treatment would certainly have most serious results, not the least serious being that, though the apparent sickness rates might for the time be lowered, the true rates would not be touched.

On the other hand, it is equally true that complete control of the medical attendants by the committees of the friendly societies appointing whole-time medical officers would be not less evil in its results than it is in the "medical aid associations" at present. It would be nothing more or less than a perpetuation and vast extension of the most pernicious form of club practice. There need be no hesitation in asserting that in both systems alike—that is, whether the appointments are made by the insurance department itself or by committees of the insured in the friendly societies—the plan of whole-time appointments of medical officers for domiciliary treatment is radically bad.

It has been asserted that the unrestricted free choice of doctor by the insured would tend to encourage malingering, since the people who are inclined to malinger would choose that doctor who was the most lenient in giving certificates. It is maintained also that the case of the man who, without being a deliberate malingerer, is disposed to take too gloomy a view of his physical condition, and to form too generous an estimate of the length of the period of repose necessary before he can return to work, must also be taken into account. It is not of course, suggested that there should be no restrictions and no supervision, but the profession demands that it should be protected in carrying out the most odious part of its duties—that of fearlessly exposing malingering, a protection not given under the present system of management of the friendly societies. In addition, common justice demands that malingerers, when detected, should be severely punished. It is curious to note that, under the present system, men detected in the very act of malingering are, as a rule, only punished by the refusal of the sick pay which they have attempted to obtain by cunning and fraud. Such a punishment does nothing to deter them from trying again. The difficulty of detecting malingering is often infinitely greater than certain public speakers imagine. It is frequently not merely a question of applying medical or surgical methods, but those of the police. The chief practical measures may be summed up in the words supervision, medical inspection, protection of the medical attendant, and severe punishment of the malingerer whenever detected. One of the most efficient remedies has been found to be the institution, as a part of the administrative machinery of any sickness insurance scheme, of a medical committee representative of the profession in the locality. To this committee is assigned the duty of exercising disciplinary functions in respect of members of the medical profession found to be habitually too complacent in putting men on the sick list. It is noteworthy that the United States Commissioner recently reported to his Government that the existence of such a committee was the most effectual remedy against abuse.

We almost feel bound to apologize to the profession for saying so much about this abominable fraud of malingering, and so little about the efficiency of a medical service from a health standpoint, but it is impossible to refuse to deal with those numerous political speakers who seem to think that they will have done their duty if they simply throw a doctor at the people's heads, utterly regardless of whether the people trust the particular doctor thrown at them or not. The profession feels most strongly that there can be nothing approaching satisfactory medical treatment unless there be full and complete confidence between doctor and patient. It is impossible to guarantee this unless free choice of doctor is made a statutory right of the insured. If in any district the insurance doctors were specially appointed medical men in whom for reasons which seemed to him sufficient he felt no confidence, many a member of the working class would not be in a position to forego his right and pay the fees of the private doctor of his own choice, or in other words to pay twice over to obtain his choice of doctor. The bulk of the working classes cannot afford to do this, and to compel them to pay towards a doctor whom they distrust, as would often be the case if only specially appointed medical officers were available for the insured, would be unjust. It would be to punish the poor for their poverty, for it would be a cruel mockery to tell them that they must pay for the club doctor, but that they may at their own further expense engage the doctor of their choice if they wish. The effect on the profession itself of allowing all the insured to exercise their choice of doctor, would be to make it the immediate interest of every practitioner to do the best he could for his patients, undue pandering to the foibles of patients being prevented in the ways mentioned above.

## COMPLIMENTARY DINNER TO MR. BUTLIN.

ON the initiative of the Metropolitan Counties Branch of the British Medical Association, a complimentary dinner to Mr. Butlin, the President of the Association, has been arranged to take place on June 13th next. A Dinner Committee has been formed with Dr. Lauriston Shaw, the President of the Metropolitan Counties Branch, as Chairman, with Dr. Hugh Ker as Treasurer, and Mr. D'Arcy Power and Dr. William Griffith as Honorary Secretaries. The dinner will take place at the Connaught Room at 7.30 p.m., and the price of the dinner ticket, exclusive of wine, has been fixed at half a guinea. It is hoped that every one who desires to be present will make immediate application to the Honorary Secretaries, Butlin Dinner Committee, 429, Strand, W.C.

## ELECTION OF DIRECT REPRESENTATIVE.

DR. J. A. MACDONALD has been elected a Direct Representative of the medical practitioners of

England and Wales on the General Medical Council. The figures, as reported to the meeting of the English Branch Council on May 18th, were as follows: Macdonald, 4,250; Jackson, 4,049; Hawkyard, 1,310; Curry, 497. The total number of votes cast was, therefore, 10,106.

## THE MEDICAL ETHICS OF THE DUEL.

AN ethical question which is at present exciting attention in some parts of the Continent relates to the presence of doctors at duels. No one denies in Germany or France or other country where the duel is recognized as a means of repairing outraged honour the right of a doctor to fight a duel. The question to which we refer concerns his presence on the "field of honour" in his professional capacity. A case was submitted not long ago to the Medical Chamber of Galicia in Austria. A widow whose son had been killed in a duel lodged a complaint against the doctor who had been in professional attendance, urging that he had been wanting in his duty not only by his presence, bnt also by failing to give information beforehand to the police authorities and the parents of the combatants. The medical chamber expressed the opinion that, while on the one hand it would be dangerous to leave duellists without provision for immediate treatment in case of a serious wound, on the other the doctor who is informed in confidence that a duel is to take place is bound not to reveal the secret with which he has been entrusted in his professional capacity. Apparently, however, the chamber felt some doubt as to its own judgement, or its decision was not accepted by the profession in Austria. It has therefore been thought necessary to institute an international inquiry on the subject, and the following schedule of questions has, it is said, been sent round: (1) Does not a doctor fail in his duty in accepting an invitation to be present at a duel? (2) Assuming that the doctor may accept such an invitation, is he bound to do so in all cases or only in special circumstances? (3) On the other hand, must he always refuse or only in certain cases? (4) Must the doctor who is informed that a duel is to be fought interfere to prevent it? (5) Is it desirable that the law should be modified and should grant impunity to doctors who are present at a duel? (According to the existing law doctors are liable to the same penalties as the seconds.) (6) If there are cases in which the propriety of the presence of a doctor is open to question, should it not be a rule that he should consult with a professional brother? (7) Is not the presence of two doctors at every duel always desirable, as it is possible that both combatants may be seriously injured? (8) Ought not our professional associations to discuss these various questions? (9) Have you any remark to make based on your personal experience? Replies should be sent to M. Mikolajski, Sniadeckichstrasse 6, Lwow, Austria. We do not know whether these questions have reached this country, but they may interest some of our readers as opening up problems which are unlikely to be submitted for adjudication by any ethical authority in this country. Where duels are fought, however, we certainly think that the presence of a doctor is desirable, even in France, where honour is generally satisfied by the slightest incision of the skin, for an awkward duellist may accidentally inflict an ugly wound. One point of great importance which has often been debated has somehow been omitted from the schedule we have quoted—that is, if a doctor is present at a duel, should he not be bound to sterilize the weapons? A further question may arise. Is he bound, in view of possible contingencies, to sterilize the patient's skin? If so, some definite ritual of disinfection should be framed and made compulsory. There have been doctors in Germany, and to a less extent in France, who have specialized in the surgery of the duello. It is not many years since we announced the death of a highly esteemed practitioner in a German University town who had officiated as surgeon at the students' duels during a period of thirty or forty years. The question whether there should be two doctors in attendance is new to us. We hope it will not be used by any Austrian legislator as confirming the delicate insinuation made by a former medical M.P., that the "profession is out for fees."

## THE SENSIBILITY OF THE ALIMENTARY CANAL.

THE histological investigations of Gaskell, Langley, and others have proved that all the viscera are supplied with afferent as well as efferent sympathetic nerves, and that under normal conditions the afferent nerves of most organs convey impulses without sensation of any kind being experienced. Common experience, however, has led to the belief that the alimentary canal, though not endowed with the sensation of touch, can yet be the seat of painful and thermal sensations. A feeling of cold or heat in the epigastrium is experienced after swallowing cold or hot food, and under numerous abnormal conditions pain which feels as if situated in the stomach or intestines is experienced. The observations of Lennander and James Mackenzie have thrown doubt upon these common beliefs, and the opinion is now generally accepted that the true seat of abdominal pain is in one or other of the structures of the abdominal wall, which receive their sensory nerve supply from the ordinary cerebrospinal nerves. In order to test the validity of this doctrine, Dr. Arthur F. Hertz, with the assistance of Messrs. F. Cook, B.Sc., G. Marshall, and E. G. Schlesinger, B.Sc., undertook an inquiry which was carried out in the physiological department and wards of Guy's Hospital. A preliminary account of the results was published in the *Journal of Physiology*, and a more detailed report is contained in the last volume of *Guy's Hospital Reports* recently issued. They find that the stomach, oesophagus, and intestines do not possess tactile sensibility. The oesophagus, but neither the stomach nor the intestines, is sensitive to thermal stimulation. The sensation of heat and cold felt in the epigastrium on swallowing hot or cold fluids respectively is produced in the lower end of the oesophagus. Hydrochloric acid in a strength greater than the maximum ever secreted by the gastric mucous membrane produces no sensation in the oesophagus or stomach, whether normal or ulcerated. Lactic and acetic acids also give rise to no sensation. Alcohol produces a burning sensation both in the oesophagus and in the stomach, but not in the colon. Carminatives produce no sensation in the oesophagus or stomach. Conclusions of clinical importance are that the pain associated with functional and organic diseases of the stomach and duodenum is not directly due to hydrochloric or organic acids, and that it is probable that heartburn is caused by the excessive production of alcohol by fermentation in the stomach.

## THE ADVANCE OF PHOTOGRAPHY.

THE days are gone by when the amateur photographer was content to present his friends and relatives with a blurred and faded-looking libel of their own countenances, or return home in triumph from his summer holidays with a portfolio full of imperfectly developed snapshots of Continental scenery. The last decade has witnessed countless inventions and improvements in photographic apparatus, and the up-to-date camera fiend has now every possible facility for producing excellent and artistic work. The development of

photography is of importance to medical science, as the camera furnishes records of appearances which not only are accurate and permanent, but enable students, who have not seen a case, to form opinions for themselves without having to trust wholly to the verbal description of the observer. Hence every improvement in photography is directly interesting to all workers in the domain of medical science. A striking proof of the advance made during recent years in every branch of photography is afforded by the Photographic Arts and Crafts Exhibition, organized by Mr. Arthur C. Brookes, which is being held at the Horticultural Hall, Vincent Square, Westminster, from May 12th to the 20th, and in which almost every well-known firm of British photographers is taking part. This exhibition should prove of inestimable value to amateurs and professionals alike, for it offers to them an unrivalled opportunity for studying *le dernier cri* in cameras and their fittings, together with a chance of profiting by the practical demonstrations which are given twice daily at the various stalls. These stalls, artistically arranged and beautifully decorated with a charming collection of photographs, present a bewildering assortment of novelties. Of these it suffices to mention an invisible backing exhibited by the Paget Prize Plate Company, of Watford. which renders negatives free from halation and permits examination during development, a tiny camera which fits comfortably in a waistcoat pocket, and another and larger one capable of automatically developing and fixing the plate after exposure. Many of the most modern inventions are models of ingenuity in the matter of saving both time and labour, and should enable even the busiest of us to indulge more freely in one of the most interesting of hobbies. It should be added that the Congress of Professional Photographers is being held in conjunction with the Arts and Crafts Exhibition from May 15th to the 19th, and various interesting excursions have been arranged for the entertainment of its members. The exhibition is open daily from 10 a.m. to 10 p.m.

## MEDICAL MISSIONARY WORK.

Two meetings in support of medical missionary work were held in London last week. On May 12th Sir Alfred Pearce Gould presided over the annual meeting of the Medical Mission Auxiliary of the Church Missionary Society, which was largely attended. The report read by Dr. Herbert Lankester, lay secretary of the society, showed that a sum of £42,620 had been raised and expended on medical missions during the past year, and that the society had now a staff of eighty-eight medical men and women and fifty-four fully trained nurses, besides a large staff of native doctors and hospital assistants and nurses. The society maintains fifty hospitals in various parts of the world, and a notable feature of the year's progress has been the consolidation of work by rebuilding enlarging, and more fully equipping several of these. The work of medical missionaries has been officially recognized by the bestowal of the Kaisar-i-Hind gold medal upon Dr. T. L. Pennell of Bannu and the silver medal of the same Order upon Dr. H. T. Holland of Quetta. Referring to the influence of medical missions in maintaining friendly relations with the tribes of the North-West Frontier in India, Dr. Neve of Kashmir quoted the dictum of a highly-placed Indian official, to the effect that Dr. Pennell was worth two regiments of soldiers to the Indian Government. The other meeting was held on May 10th, when the Bishop of Shantung took the chair at a public meeting of the Medical Missions Department of the Society for the Propagation of the Gospel. Bishop Montgomery, Father Russell, and Mrs. Scharlieb pressed upon the meeting the value of medical work in connexion with missions, showing how large a door was thus opened. What is true of medical missions as a whole is, we have reason to know, more particularly true of the work of women medical missionaries. They are very specially needed, in such countries as India, where, owing to religious and social prejudices, women are unable to avail themselves of the medical skill of men doctors. It was pointed out that the present serious deficiency of medical women available for mission work led directly to the understaffing of hospitals for women, with its evil effects on the patients, and indirectly on the health of the medical missionary women themselves, causing premature invaliding or death. It is common knowledge that anxiety and worry caused by inability to do adequate work are far more fatal than overwork itself. The Medical Missions Committee of the Society for the Propagation of the Gospel, therefore, appeals to the public, and especially to the young women of the country, to help them. It asks that at least five young women should come forward annually to commence training as doctors, and bases this appeal not only on religious and philanthropic grounds, but also on the ground that medical mission work offers a great field for the observation of disease, and is an excellent training for a young practitioner. Communications may be addressed to the Secretary, Medical Missions Department, 15, Tufton Street, Westminster, S.W.

## GOLF AT THE ANNUAL MEETING.

GOLF has now become so popular a recreation at the Annual Meetings that it is almost the only sport which can be arranged for. It is confidently expected that members attending the Meeting at Birmingham will find that the local committee have not been behindhand in catering for the devotees of the royal and ancient game. Practically all the clubs in the neighbourhood have generously placed their courses at the disposal of the local executive, but in one or two cases Saturday afternoons have been excluded. On presentation of their card of membership visitors to the Meeting will be considered members of the club for the day and freed of all green fees. Although there is no first-class course in the district, there are a number which fall little short of that exalted standard, such as Sandwell Park, Olton, Handsworth, Sutton Coldfield, King's Norton, Harborne, and Little Aston. Further afield are Malvern and Leamington. The links at Malvern is one of the oldest in England, charmingly situated at the foot of the beautiful Malvern Hills, and known by name or repute to most golfers. On Wednesday, July 26th, a match, twenty-five a side, is being arranged at Little Aston between the visitors to the Meeting and the Birmingham Medical Golfing Society. The Little Aston course is situated about 9 miles from Birmingham, and about ten minutes' walk from Streetly Station on the Midland Railway; it is, however, hoped that sufficient motor cars will be available to convey players in the match from the Grand Hotel to the club house. The course is rather a new one, but will be found a good test of golf. It is formed out of a deer park once belonging to the well-known Staffordshire family of Parker-Jervis. Mr. J. B. Clarke, of Little Aston Hall, which adjoins the course, has kindly undertaken to provide tea at his house for the players. Members wishing to play in the match should send their names, together with their handicaps, to Dr. Thomas Sansome, Sandwell House, West Bromwich. The Ulster Cup, presented by the Ulster members in 1909, will be played for as usual on the Friday of the Annual Meeting. The play is against bogie. The play will take place on the course of the Handsworth Club, about 3½ miles from

the Birmingham Town Hall, and about 1 mile from Handsworth Wood Station; it can also be reached by tram to the Roebuck Inn, eked out by a cab for about a quarter of a hour at a fare of 1s. 6d. It is hoped to arrange for a motor bus to run at intervals of about one hour from the Grand Hotel to the club house. A special prize has been offered by Mr. Saunders, the captain of the club, in connexion with this competition. Mr. C. A. Palmer, well-known as the runner-up for the amateur championship a few years ago, has kindly offered to entertain the competitors to tea at his house which adjoins the course. The Handsworth course is about 5650 yards in length, the soil is light and springy, the greens are excellent, but a little fast in dry weather; there is an abundance of bunkers most artfully placed to catch a bad shot; but the player who keeps straight and hits a fair ball will be sure of finding a good lie, and get the reward of accurate play. Further details of the match, and of the Ulster Cup Competition will be posted in the reception room at the town hall, and information will be given as to the means of reaching the various links. Sunday play is allowed, without caddies, at nearly all the clubs. There is no play at Malvern on Sundays, and at Leamington only after mid-day.

### "FOUR HUNDRED A YEAR."

THE Chancellor of the Exchequer, in his handling of the matter of the remuneration which medical men who act under the National Insurance scheme ought to receive, reminds us a little of the Irishman who, when the lady asked him what he thought her age was, said, "Indeed I don't know, but whatever it is you don't look it." He wants to know what remuneration we expect, but tells us that whatever sum we say we shan't have it. It is, however, the fate of the Treasury to deal with money matters, including the question of remuneration for services rendered, and consequently the Chancellor of the Exchequer as its Parliamentary spokesman has had this week to announce to an expectant assembly the salaries to which it is considered they are individually entitled. He had, of course, to make a "flat rate," otherwise it might have fared ill with those members of the House of Commons who sit on that side of the Chamber which is always more sparsely peopled *de jure* if not *de facto* than the other. Every M.P. is to be paid £400 a year for his services to his country. That is the salary to which Mr. Lloyd George considers honourable gentlemen are entitled for working five half days a week for six or seven months a year. If he is in search of a sound basis for estimating the income which medical men should be in a position to earn from the State in return for their services under the insurance scheme, why should he not ground it on this? We will waive the fact that the House only begins to sit at about 3 p.m., because members may have to serve on Committees, and the further fact that the House of Commons does not profess to do any night work, and that nowadays only very occasionally does it break through its rule; and we will take note of the provision that there are to be no travelling expenses—no mileage; and we will ask how our rule-of-three sum comes out. Seven months or thirty weeks, counting five days a week, gives us 150 days, and we get:

$$150 : 400 :: 365 : x,$$

when $x$ = the number of sovereigns to which a medical man working for the Insurance Scheme would annually be entitled, and we find, if we have calculated rightly, that $x$ = £973 6s. 8d., or say, in round numbers, £1,000 a year.

Ridentem dicere verum
Quid vetat?

THE newly-erected Cancer Research Institute at the Cancer Hospital, Brompton, will be opened by the Duke of Connaught on Tuesday next at 3 p.m.

THE FitzPatrick historical lectures before the Royal College of Physicians of London will be delivered this year on May 30th and June 1st by Dr. Raymond Crawfurd at 5 p.m. each day. The subject of the lectures is The King's Evil. The first lecture will discuss the origin of the belief and the practice under Plantagenets and Tudors, the second lecture will deal with the practice under the House of Stuart.

THE Croonian lectures before the Royal College of Physicians of London will be delivered by Dr. Henry Head, F.R.S., at the College, on Tuesdays and Thursday, June 13th, 15th, 20th, and 27th, at 5 p.m. The subject of the lectures will be Sensory Changes from Lesions of the Brain, and Dr. Henry Head desires it to be understood that the whole of the work upon which the lectures will be based has been carried out in conjunction with Dr. Gordon Holmes.

# NATIONAL INSURANCE SCHEME.

## MR. LLOYD GEORGE'S VIEWS ON CERTAIN OF THE MEDICAL ASPECTS.

AS we are going to press we have received personal assurances from the Chancellor of the Exchequer as to his intention with regard to the capitation payment to medical men under the insurance scheme. Mr. Lloyd George has provided a sum of £4,200,000 for the provision of medical attendance, including drugs, dressings, and appliances used in domiciliary treatment The calculation is that this will permit the average payment of a capitation fee estimated at 6s. per head for each person insured for medical attendance and the drugs, dressings, and appliances used in domiciliary treatment. The amount will be increased on the advice of the Central Insurance Office in districts where the Insurance Commissioners are advised that sickness is excessive. In addition he has made arrangements to provide a sum of £1,000,000 annually for the maintenance of sanatoriums, in that way removing from the scope of domiciliary treatment a considerable proportion of phthisical patients who would otherwise make serious calls upon the sum available for domiciliary medical attendance and provision of drugs. He has also provided an annual sum of £1,500,000 for maternity benefit, and out of this it is roughly estimated that one-third will be probably paid to members of the medical profession.

The Chancellor of the Exchequer recognizes the desirability of allowing some system of choice of medical men in the case of new participants in the scheme, and looks favourably upon the institution of a wide panel of local medical men willing to serve.

The Central Insurance Office, in giving its approval to arrangements proposed to be made by any Approved Society or Health Committee with medical men, and in other matters will act on the advice of the Advisory Committee to be set up under the Bill, and the Chancellor of the Exchequer recognizes that on the Advisory Committee the representation of the medical profession must be adequate, or, as an alternative, that a Special Medical Advisory Committee should be constituted.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

## National Insurance.

*Prospective Appointments.*

IN answer to Mr. Douglas Hall, who asked if all appointments made in connexion with the bill for National Insurance against sickness and unemployment would be given to persons who had passed a Civil Service examination, Mr. Lloyd George replied that it would be premature to make any arrangements at the present time. But he would be very sorry to give any pledge which would preclude him from utilizing, if need be, the experience and special aptitudes of medical men or of persons outside the Government service who had been engaged upon friendly society and insurance work. It would be a very great mistake in appointing these officers not to consider those who had had a lifelong experience of insurance work.

*Inadequacy of the Rates for Voluntary Insurers.*

Mr. C. Bathurst asked the Chancellor of the Exchequer whether, under the National Insurance Bill, any person, however wealthy, would be able under Clause 5 to obtain all the health insurance benefits conferred by the Act, provided that he depended partly for his livelihood upon some regular occupation, while paying as premium only seven-ninths of the amount which he would have to pay to an insurance company; if so, upon what principle was the remaining two-ninths payable by the State; and whether he had considered the effect upon insurance companies of such competition in these cases. Mr. Lloyd George replied that the answer to the first part of the question was in the affirmative, provided the person referred to joined an approved society. A wealthy man who became insured would probably contribute in taxation far more than the amount he received from the State. He did not think the facilities offered to the wealthy were such as to give rise to any competition with insurance companies.

*Constitution of County Health Committees.*

Mr. Robert Harcourt asked the Chancellor of the Exchequer whether his attention had been called to criticisms of county councillors upon the composite character of the local health committees proposed to be established under the National Insurance Bill, on the ground that there were already too many overlapping authorities of this kind, and suggesting that the work could be well performed by the existing public health committees; whether he had also had regard to similar views expressed in the Minority Report of the Poor Law Commission; and whether he would give favourable consideration to these arguments. Mr. Lloyd George replied that the functions and the funds of the local health committees were such that it was important that the persons insured under the National Insurance Bill should be represented on them.

*Home Workers.*

Mr. Goulding asked the Chancellor of the Exchequer whether it was intended to include women home-workers, to whom material to be worked in their own homes was given out by employers, in the national insurance scheme; and, if so, upon whom and in what manner would the responsibility for the employers' contribution be fixed. Mr. Lloyd George replied that outworkers in trades specified in any special order made under Part VI of the Factory and Workshop Act, 1901, would be included, and they would be regarded as employed by the person who gave the work out.

*Employees Paid Partly by Commission.*

Mr. Lloyd George informed Mr. Campion that it was the intention of the bill to exclude the employer from liability in the case of an employee paid partly by regular salary and partly by commission where the salary was less than £160 per annum but the combined income in excess of that amount.

*Sick and Disablement Benefits for Aged Persons.*

Mr. Barnes asked if it was intended under the Insurance Bill that the sick person over 60 years of age who had contributed for 104 weeks, and who was to be paid 5s. per week as per schedule for twenty-six weeks, would still be paid another 5s. per week thereafter as disablement benefit as long as he remained ill, up to the age of 70 Mr. Lloyd George replied in the affirmative. Clause 9 (3) of the bill only had the effect of reducing sickness benefit, and did not modify the right of persons in the circumstances described to disablement benefit.

*Mr. Lloyd George and the Medical Profession.*

In reply to a question by Mr. Ormsby-Gore asking the Chancellor of the Exchequer whether he had consulted any representatives of the medical profession with regard to the provisions in the National Insurance Bill affecting doctors, and if so whether he would lay upon the table any correspondence or information given by the medical profession with regard to the medical part of the scheme, Mr. Lloyd George said that he had consulted several members of the profession and had received a deputation from the British Medical Association; he did not propose to lay any of the correspondence on the table. Mr. Lynch asked whether the fact that a loss of something like 30 per cent. on their income would fall on many hardworking practitioners as a result of the scheme. Mr. Lloyd George replied that he could not see how there could be a loss of 30 per cent., since he proposed to divide an increased payment of nearly 50 per cent. among them. He added, in reply to Mr. Brady, that he would be happy to receive a deputation from the Irish Medical Association if they desired to talk matters over.

*The Budget.*

On Tuesday questions to the Chancellor of the Exchequer were postponed in consequence of his having to introduce the Budget. In his speech on the financial proposals of the year, the only matter of medical interest on which he touched was the provision out of the surplus of last year of £1,500,000 for sanatoriums. No remission of taxation of any importance was made, except slight remissions in connexion with the cocoa duty and licensing duties. The speech concluded with a strong appeal to the House of Commons not to propose any increase of expenditure in connexion with the National Insurance scheme. The Chancellor expressed a definite view that the finances of that measure could be kept within the limits indicated in his speech when introducing it, but proposals of any kind involving increased expenditure he deprecated in emphatic terms. While for this year provision is made to pay members of the House of Commons a salary of £400 a year.

## Royal Army Medical Corps.

*The Parkhurst Inquiry.*

Mr. Douglas Hall asked if Lieutenant-Colonel Donegan had been relieved of the command of the Royal Army Medical Corps at Parkhurst, Isle of Wight; and, if so, for what cause. Mr. Acland said that this officer had been relieved of his charge by the General Officer Commanding-in-Chief pending investigation by the Court of Inquiry ordered on the recent case of suicide. Asked if it was not invidious to remove an officer before a Court of Inquiry came to a decision, Mr. Acland said it depended on what reason there had been for it. In this case he thought it was perfectly justified. Mr. Ward then asked if the reason was that he had called attention to the overwork, and Mr. Acland said that had nothing whatever to do with it. It was considered desirable that during the Court of Inquiry he should not continue to hold his former position. He would undertake that officers and non-commissioned officers giving evidence should not have their future prejudiced.

*Pension Rules.*

Major Archer-Shee asked whether Lieutenant-Colonel Swabey, late R.A.M.C., was retired on a pension on attaining the age of 55 years, on February 4th, 1911; whether this officer had served for twenty-nine years and three hundred and sixty-four days; whether he had only been awarded a pension on the twenty-five years' service scale, and not on the thirty years' service scale, a difference of about £45 per annum. Mr. Acland replied that the facts were as stated in the question. It was not possible to retain this officer in the service beyond the age of 55 fixed for his

retirement by the Royal Warrant of Pay, the terms of which were absolute. It was therefore impossible to make a concession. Asked further whether, including his probationary service, this officer had not really served over thirty years, Mr. Acland said that this officer undoubtedly had had very bad luck, but it was impossible to make exceptions under the terms of the Royal Warrant. It was the practice to adhere absolutely to the terms of the Royal Warrant. The case had been very fully considered by the Selection Board. It was impossible to do anything more.

**Medical Officers of Health.**—Sir Charles Henry asked the President of the Local Government Board if he would give instructions that, in the readjustment of districts in counties for sanitary supervision, those whole-time medical officers of health, who previously to the rearrangements held appointments in these districts, should receive consideration in the selection for medical officers for the newly formed district. Mr. Burns said that the selection of the medical officer of health rested with the local authority making the appointment, and the function of the Local Government Board was limited to approval of the appointment. It was shown by experience that local authorities, when making fresh appointments upon the formation of new combinations, did give consideration to the claims of officers who had previously given whole-time service, and he doubted whether any general recommendation from the Local Government Board was necessary. He of course entirely agreed with the view that, in making fresh appointments, the claims of any efficient officers who might be displaced in consequence of the new arrangements should receive full consideration.

**Glasgow Medical Inspector of Factories.**—In reply to Mr. Watt Mr. Churchill said that Dr. Alexander Scott had been appointed certifying surgeon for the Bridgeton district of Glasgow by promotion from the corresponding appointment in the Central district, which he previously held, and which was now vacant. He had wide experience of industrial accidents and diseases, and had rendered service of exceptional value for many years, both as certifying surgeon and by his voluntary efforts to combat the dangers of industrial employment. Certifying surgeons were appointed without regard to their political views.

**Imported Milk.**—Asked by Captain Faber as to the testing of imported milk for tubercle, Mr. Burns said that he understood that no milk was being imported into this country at the present time. In the past, samples had been taken with a view to examination for tubercle. As these examinations took some time to complete, it was not practicable to detain the milk pending a report, but the samples which had been examined in this way had given negative results.

**Housing in South Northants.**—In answer to Mr. Kellaway, who called attention to the report of the Medical Officer of Health for Brackley, Northants, Mr. Burns said that he had addressed a communication to the town council at Brackley pressing on it the necessity of further considering the question of providing houses under Part III of the Housing of the Working Classes Act, 1890. The Housing, Town Planning, etc., Act, 1909, effected important amendments designed to facilitate the compulsory acquisition of land by local authorities for the purpose of the erection by them of houses for the working classes, and it had not been shown that the existing powers under that Act were not sufficient to meet all the ordinary circumstances.

**Small-pox Epidemic (Madras).**—Mr. Pickersgill asked a question on this subject, pointing out that the deaths had been 40 in January, 60 in February, and 82 up to March 18th—a fatality-rate of 360 per million—while the annual number of public vaccinations had been more than three times greater than in London. Mr. Montagu replied that the Secretary of State regretted that the city of Madras was suffering from an epidemic of small-pox. He understood that the corporation had opened isolation hospitals, and that a special staff was employed under the health officer to carry out measures of disinfection and to bring cases to light. Owing to the form in which the Madras vaccination returns were kept, exact comparison with those of London was not possible. As an example, he might state that revaccinations were not included in the London statistics.

**Deaths from Plague in India.**—Last week, in answer to Mr. Morrell, Mr. Montagu submitted the following figures:

| Year. | Plague Deaths. | Percentage of the Population. | Number of Inoculations. | *Expenditure. |
|---|---|---|---|---|
| | | | | £ |
| 1903 | 84,499 | 0.177 | 964 | 13,117 |
| 1904 | 179 082 | 0.375 | 3,258 | 5,283 |
| 1905 | 383,802 | 0.805 | 6,411 | 7,787 |
| 1906 | 69,660 | 0 146 | 1,846 | 5,245 |
| 1907 | 328,862 | 0.690 | 34,169 | 22,533 |
| 1908 | 22 878 | 0 048 | 133,666 | 32,163 |
| 1909 | 38,394 | 0 080 | 97,893 | 8,216 |
| 1910 | 158,057 | 0.335 | 71,033 | 7,000 (approximate) |

*Includes expenditure from general revenues, but does not include expenditure incurred by local and municipal bodies from local and municipal funds. The figures given in this column are for the financial year ending 31st March of the year following that to which the corresponding figures in the other columns relate.

**Vaccination.**—Mr. Weir asked a question on Monday with reference to the arrest of Staff Quartermaster-Sergeant Stickney for declining to have his children vaccinated, and Colonel Seely replied that the facts of the case were as follows:

Prior to proceeding to South Africa the army medical officer at Leeds, acting under paragraph 1,502 King's Regulations, examined Mrs. Stickney and the four children, and on her assertion that they had all been successfully vaccinated, duly certified them fit. Before embarkation it was discovered that Mrs. Stickney's statement was untrue, and that the family had never been vaccinated. Staff Quartermaster-Sergeant Stickney was duly informed that under the Regulations he could not take his family unless they were vaccinated, and he then signed a certificate to the effect that he quite understood that he was permitted to embark his children only on condition of his allowing them to be vaccinated on board. This permission was a special concession to Staff Quartermaster-Sergeant Stickney, and was contrary to the Regulations which enjoin vaccination prior to embarkation. On board the transport, when the medical officer directed the children to attend for vaccination, Staff Quartermaster-Sergeant Stickney refused to carry out his undertaking. He was accordingly arrested on arriving at Capetown by the general officer commanding there for his conduct in regard to the certificate, but on the case being reported to the general officer commanding-in-chief he was released without prejudice to rearrest under the King's Regulations. On reaching Tempe he deliberately, in defiance of orders, took his family into public quarters. For this he was tried by court-martial and sentenced to loss of seniority. As, however, the proceedings of the court-martial had been subsequently quashed, owing to technical irregularities, he was now relieved from all consequences of his trial.

**The Lunacy Bill.**—The Lunacy Bill came on for second reading last week in the House of Lords, and Lord Courtney of Penwith moved an amendment to the first schedule with the object of giving a discretion to the Lord Chancellor to appoint a woman as a paid as well as an unpaid Commissioner. The Lord Chancellor agreed that it would not be easy to overstate the importance of having women associated with the care of the insane, and he unreservedly assented to the principle of the amendment; but he could not accept the amendment at the present time, this being a bill of a temporary character. The amendment was by leave withdrawn. The bill then passed through Committee.

**The University of Wales Bill (No. 2).**—This bill was presented and read a first time on May 10th. It seeks "to extend the provisions of the Medical Acts to the University of Wales and graduates in medicine and surgery thereof." It is promoted by Sir D. Brynmor Jones, Lord Ninian Crichton-Stuart, Sir Francis Edwards, Sir Herbert Roberts, Colonel Pryce Jones, and Mr. Ormsby Gore.

**Vaccination Acts (Repeal) Bill.**—A bill to repeal the Vaccination Acts was presented last week by Mr. Black.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### LONDON COUNTY COUNCIL.

*Medical Matters and the Education Estimates.*

THE London County Council on May 16th considered the education estimates for 1911–12, involving expenditure amounting to £4,999,385, an increase of £232,205 upon the figures for 1910–11. The following were the principal items of medical interest: Meals for necessitous children, £89,545; medical inspection and treatment, £39,960; cleansing verminous children, £2,205; maintenance of open-air schools, £3,270; special schools for blind children, £9,915; deaf, £17,415; mentally defective, £56,950; physically defective, £42,480; epileptic, £2,440. It was explained that an increase of £26,400 under the head of "provision of school meals" was due to the higher cost of administration and the larger number of children fed during the summer. An increase of £20,885 in respect of medical inspection and treatment was accounted for chiefly by the employment of additional school medical officers, and to the treatment of children for eye, ear, and skin ailments. From January to December, 1910, a sum of £185 was recovered from parents in respect of the cost of medical treatment, but the work of assessment of charges was considerably in arrear. With regard to provision still to be made for medical treatment it was estimated that some 92,000 children would require treatment for eye, ear, nose, and throat ailments, and some 6,000 for skin ailments, of whom 3,500 would be suffering from ringworm. On the assumption that one-third of the general cases and two-thirds of the ringworm cases would be treated apart from the Council's scheme, the Council should make provision for treatment of 62,000 eye, ear, nose, and throat cases, and 1,200 ringworm cases. The cost at the existing hospitals and treatment centres worked out at 4s. 6d. a case in respect of eye, ear, nose and throat cases, and 17s. 10d. for ringworm cases. The cost of 62,000 cases at 4s. 6d, amounted to £13,950, and of 1,325 ringworm cases at 17s. 10d. to £1,180, or a total of, say, £15,000. As to dental treatment, provision amounting to £1,170 was made for existing schemes at Poplar and Deptford, and £5,000 was also included provisionally for further experimental dental surgeries. This sum would also allow of general provision being made for a small portion of the year for all cases of London children requiring treatment.

In the course of a general debate an amendment was moved that a supplemental estimate of £5,000 be approved in respect of dental treatment. Mr. Hayes Fisher replied that until the Government gave the Council larger subventions towards the cost of this new work any increase must be steadily opposed.

Mr. A. A. Allen, M.P., Mr. H. E. A. Cotton, and others rejoined that so important a matter should not be delayed pending the settlement of the intricate question of the relations of local and central authorities, but on a division the amendment was defeated by 54 votes to 50.

The estimates were ultimately approved.

*Medical Inspection and Treatment.*

In accordance with the arrangements recently approved by the Board of Education, the Council renewed the agreements with the several hospitals for medical treatment until the "appointed day," December 31st next. In the case of the Royal Free Hospital, the Education Committee advised that this hospital was not conveniently situated, and the agreement for the treatment of 50 ringworm cases was only renewed until September 11th next. The Committee also considered that, having regard to the facilities available in Hampstead for medical treatment of children at dispensaries and sick benefit clubs, the arrangements with the Hampstead Public Medical Service respecting 400 children should not be continued beyond the term of the present agreement. Offers by the governing bodies of the Kensington and Fulham General Hospital, the Metropolitan Hospital, Kingsland Road, and University College Hospital, to enter into medical treatment agreements with the Council, were refused on the ground that the hospitals were not conveniently placed for the purpose.

*Board of Education and Dental Treatment.*

The Board of Education has approved till December 31st arrangements for providing dental treatment at St. George's Dispensary, Blackfriars Road, S.E., subject to a report on the working of the scheme being submitted sufficiently early to allow of full consideration before the agreement comes up for renewal. The Board expressed some doubt whether, for the same expenditure as was contemplated, the Council could not have provided a scheme of dental treatment, worked entirely under its own control, which would have been more efficient and comprehensive. The Board, however, recognized that the dispensary scheme was experimental, and the experience gained by its means would undoubtedly be valuable to the Council.

*London Milk Supply.*

The Public Health Committee reported that of 760 samples of milk taken at London railway termini during the quarter ended March 31st, 106, or 13.9 per cent., had been found to be tuberculous. The total number of samples taken since the General Powers Act, 1907, came into force was 6,523; the examination of 5,698 of these samples had been completed, with the result that 640, or 11.2 per cent., proved to be tuberculous. The committee had considered once more the steps the Council should take in order to secure a pure milk supply for London. Several attempts had been made to insert in the annual General Powers Bill authority to deal with milk which at the time of entry into London was contaminated with dirt. These clauses had been struck out from time to time, on the ground that the powers sought should not be the subject of piecemeal legislation, but should be dealt with in a bill for the whole of the country. Such a bill was introduced by Mr. Burns in 1909, but was not proceeded with, although the question was one which should be settled without delay. The Council's present powers were inadequate because of the difficulty of tracing contaminated milk to its source in the absence of laws applicable to the whole country.

The Council passed a resolution urging the President of the Local Government Board to introduce a Pure Milk Bill in the present session of Parliament.

### THE SHADWELL CHILDREN'S HOSPITAL.

On Tuesday, May 9th, the Princess Marie Louise of Schleswig-Holstein opened an extension of the out-patient department and an open-air shelter at the East London Hospital for Children, Shadwell. Her Royal Highness was received by Colonel Charles Needham, the Chairman of the Board of Management, Dr. Eustace Smith, Senior Physician, and Mr. R. Lucas, of the Reception Committee. Viscountess Falkland and Miss Fraser, of the Ladies' Association of the Hospital, the Bishop of Stepney, the Mayor of Stepney, Miss Row, the Lady Superintendent, Mr. Wilcox, the Secretary, and many past and present members of the medical and nursing staffs, and others interested in the hospital were present. After the additional premises had been inspected, Colonel Needham gave a brief address, in which he warmly thanked Her Royal Highness for her continued interest in the hospital, she having performed a similar function at the opening of the new infectious block a few years back. After prayers for the success of the undertaking had been offered by the Bishop of Stepney, the Princess was presented with a key, and she pronounced the recent extensions to be open. On the motion of the Mayor of Stepney, seconded by the Earl of Errol, a vote of thanks was passed to Her Royal Highness by acclamation. Afterwards she visited each ward of the hospital, displaying a warm interest in the little patients.

The extension of the out-patient department includes a spacious operating theatre, with preparation, sterilization, and recovery rooms, and two consulting-

rooms of ample size for the senior and junior casualty officers. The total cost of the new buildings has amounted to £5,000, the more moderate proposals of the board of management not having met with the sanction of the authorities of King Edward's Hospital Fund, whose requirements involved the purchase of additional land and the removal of the mortuary to a more distant site. The chairman stated that the out-patients last year numbered more than 31,000, with a total attendance of considerably over 90,000. Such numbers involved the performance of very numerous minor operations in the out-patient department itself. Formerly these had to be performed in the ordinary consulting or adjoining dressing rooms, and in many instances a child might have to undergo an operation in the presence of another who had not fully recovered from an anaesthetic. The additions will obviate this undesirable condition of affairs. The new rooms for the casualty officers, too, will be welcome, as they have hitherto worked under conditions that conduced neither to efficiency nor comfort. The new permanent open-air shelter is adjacent to the topmost ward, and will accommodate six beds with ease, and perhaps an additional couple on emergency. It replaces a temporary one, which, with its many imperfections, had proved of pronounced and unmistakable benefit in numerous complaints, besides those arising from tuberculosis. For both the permanent and temporary shelters the hospital is indebted to the generosity of the Ladies' Association.

### ROYAL PHOTOGRAPHIC SOCIETY'S EXHIBITION.

Examples of radiography occupy a considerable space in the scientific section of the Royal Photographic Society's Exhibition, which is open during May at Prince's Skating Club, Knightsbridge. Dr. C. Thurstan Holland, of Liverpool, has obtained a medal for two radiographs, one of them showing bismuth food in an elongated transverse colon, and the other the bismuth meal in a stomach with hour-glass constriction. The same worker shows several radiographs of renal calculi, and one example of the result of injecting 15 per cent. collargol solution into a cystic kidney. Each cyst and the ureter are shown filled with the solution, which is opaque to the *x* rays. There are several examples of instantaneous radiography. One of these, illustrating tuberculous disease of the lung, had an exposure of one-hundredth of a second. It is exhibited by Dr. Robert Knox, who has several other radiographs in the section. Dr. G. H. Rodman contributes a series of three radiographs illustrating the advantage of an intensifying screen, while Dr. G. T. Haenisch, of Hamburg, has two radiographs proving the diagnostic value of rectal injections of bismuth enemata. The same worker, apparently (although bearing a different initial in the catalogue), is responsible for a number of lantern slides in another section, the result of some work with a Roentgen-cinematographic apparatus of his own design, showing the peristaltic wave moving down the great curvature of the normal stomach. Ten plates were taken in eighteen seconds. There are several exhibits of dental and bacteriological interest in the exhibition, of which, of course, the scientific section only forms a comparatively small part.

## MANCHESTER AND DISTRICT.

### THE NATIONAL INSURANCE BILL.

THE National Insurance Bill has caused something like a feeling of consternation in medical circles of Manchester, Salford, and the district. It is not only the scope of the bill that has produced this feeling, but what is felt to be the absolute and total disregard of the interests of the medical profession displayed in it. So far as can be gathered there is a practical unanimity on at least three points which are regarded as fundamental, though numerous other suggestions for the amendment of the bill are made. The three points on which all seem to be agreed are, first, to support the principle of free choice of doctor by the insured; secondly, to oppose the administration of the medical benefits by the friendly societies; and thirdly, to demand as remuneration something considerably better than a capitation fee of 5s. a year. As regards the first point, it appears that many present club members have for some time been clamouring for free choice among the doctors of their neighbourhood, and there is little doubt that in its determined opposition to whole-time appointments the profession will be assisted by the great bulk of the working class.

With regard to the opposition to the friendly society management of medical benefits, it seems more than probable that a very serious position for the public will arise if the Government in any way relies on working arrangements being possible between the friendly societies and the profession of the district. There are several large towns in Lancashire with a population of considerably over 100,000 where no medical clubs of any sort, friendly society or not, can obtain a footing. Not a single doctor can be obtained in spite of attempts by various friendly societies to import doctors and to engage them as whole-timers. On the question of fees there is a very decided preference for the system of payment per visit. The statement which members of the Government are understood to have made, that payment per visit is impracticable, is by no means accepted as final, and full warning is given that the utmost efforts will be made to compel the adoption of that system. The sum of 5s. which has been mentioned as a capitation fee for medical attendance is regarded with disgust. Even though it only covered attendance for healthy adult males, it would not be regarded as adequate, but if "bad lives," chronic cases, and persons whose illness arises from their own misconduct are to be included, it is freely stated that more than double that sum would be insufficient. The very suggestion of a doctor having to attend Saturday night "drunks" and Monday "headaches," together with tedious cases of gonorrhoea or syphilis for 5s. a year is regarded as an insult to the profession.

It has been arranged to hold a special meeting of the whole of the members of the Lancashire and Cheshire Branch in the Memorial Hall, Manchester, on Wednesday, May 24th, at 4.30, to consider the Insurance Bill as it affects the medical profession, and it is hoped that every possible endeavour will be made by every practitioner to be present. The profession knows its own unanimity on some of the essential points of the bill, but it is necessary to demonstrate to the Government that medical men are in earnest on these points.

### THE CARE OF THE FEEBLE-MINDED.

A conference arranged by the Manchester and Salford Sanitary Association was held last week to consider the question of the feeble-minded. The subject was introduced in two papers, the first by Dr. Tredgold, who dealt in a comprehensive way with the whole problem, and the other by Miss Dendy, who dealt more particularly with the methods of training and care for the feeble-minded in colonies. Dr. Tredgold specially urged first that the Defective and Epileptic Children's Education Act of 1899, or some other system of training, should be made compulsory; secondly, that county councils should be compelled to provide suitable homes, institutions, or colonies, for the reception of mental defectives after training; and, thirdly, that power should be obtained for the detention of mental defectives in these institutions. The conference passed the following resolution:

> That there is urgent need for legislation on the lines of the recommendations of the Royal Commission, for the purpose of obtaining the maintenance and segregation of the feeble-minded at the cost not of the localities which erect schools and homes for them, but at the cost of the State.

## LIVERPOOL.

### MEETING OF THE IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE Irish Medical Schools' and Graduates' Association, which holds its annual meeting and dinner in London on St. Patrick's Day, has during the last two

years adopted the practice of holding an additional meeting in some provincial centre. This year the association has accepted the invitation of certain Irish graduates resident in Liverpool to pay a visit to that city, and a strong local committee has been formed to make arrangements for the meeting, and to collect funds for the entertainment of members coming from a distance. Of this committee Dr. T. R. Bradshaw, president of the Liverpool Medical Institution, who is a graduate of the University of Dublin, was chosen chairman, Dr. Heaney (University of Dublin) was chosen secretary, and Dr. W. T. D. Allen, (Royal University of Ireland) assistant secretary. The meeting will take place on Saturday, May 27th, the London contingent being timed to arrive at 2 20 p.m., a special saloon carriage being provided on the 10.30 a.m. train from Euston. The business meeting, which will be brief and purely formal, will take place at the Exchange Station Hotel at 2.45 p.m., and about 3 p.m. the members and the ladies who accompany them will be taken for a short cruise on the river as the guests of the local committee, and will be supplied with tea on one of the Atlantic liners by the courtesy of the directors of the company. At 7.15 p.m. the members and others attending the banquet will be received at the Exchange Station Hotel by Sir Charles Cameron, M.D., C.B., Medical Officer of Health for the City of Dublin, who is President of the association this year; and by Dr. and Mrs. Bradshaw. At 7 30 the banquet will take place in the hotel, Sir Charles Cameron being in the chair, and a number of invited guests are expected, including Lord and Lady Macdonald, Sir Thomas and Lady Myles, Professor Kuno Meyer, the newly appointed Professor of Celtic in the University of Berlin, and Miss Meyer, Dr. and Mrs. Glynn, and others. On Sunday morning there will be a special short service in the new beautiful Lady Chapel of the cathedral, the only part of the building so far completed, and, if possible, the members will be offered an opportunity to view the building in progress of construction, and there will be a celebration of High Mass in the Pro-cathedral. In the afternoon an excursion has been arranged to enable the members and their friends to visit Chester, a special saloon being attached to the 1.50 p.m. train. A personally conducted tour of the antiquities, the walls, and other historical relics of the ancient city has been organized, with the kind co-operation of the municipal authorities of Chester, and there will be an opportunity of attending the afternoon service in the cathedral. The return to Liverpool will be at 7 p.m., and a special late dinner will be served at the Exchange Station Hotel. Special favourable terms are granted to members and their friends spending the week-end at the hotel, and a large and enjoyable gathering is anticipated. The banquet is open to all medical practitioners who hold an Irish qualification or who have been attached to an Irish school or hospital. The credit of inaugurating the meeting rests mainly with Dr. J. J. O'Hagan, who has been for some years a member of the Association, and has taken great interest in its proceedings.

## LEEDS.

### DEATH OF SIR NATHAN BODINGTON,
Vice-Chancellor of the University of Leeds.

IT is with much regret that we have to record the death of Sir Nathan Bodington, Vice-Chancellor of the University of Leeds. Born sixty-two years ago at Aston, near Birmingham, he was educated at the Birmingham Grammar School and at Wadham College, Oxford. He became a Fellow of Lincoln College in 1875, and retained his Fellowship till 1885, when, as he was not in Holy Orders, it expired. He was appointed one of the Assistant Masters at the Manchester Grammar School in 1873; from there he passed to Westminster School, which he left in 1875 to become Classical Tutor at Lincoln College and Lecturer at Lincoln and Oriel Colleges, a position which he retained till 1881, when he was appointed Professor of Classics at Mason College, Birmingham. The following year he was selected to fill the position of Professor of Greek and Principal of the Yorkshire College. When the disruption of the Victoria University took place, and when as one of the results the University of Leeds was inaugurated, Dr. Bodington, as he then was, was appointed by the Crown to be the first Vice-Chancellor. For the long period, therefore, of thirty years his work was identified with the growth and development of this institution. He saw it almost at its beginning, for the existence of "Yorkshire College of Science" dated from only a few years prior to his appointment; in all the changes and in all the wonderful developments which have come about he took an active part, and devoted himself with single-minded intensity of purpose to the furtherance of the best interests of the university. The position of Vice-Chancellor of a modern university calls for the possession on the part of the holder of the office of many diverse talents and gifts. He should be a man of broad and catholic views and tastes, who can hold the balance between the academic and utilitarian aims of the university, or it would be better to say, convince every one that there is no real or necessary antagonism between these two perfectly appropriate aspirations; he should have a general knowledge of the work of the different faculties; he should represent the university with dignity on all public occasions, both in its own city and elsewhere; in many respects he should be a bond of union between the university and the public, and above all he should be a leader of men. These are hard conditions to impose before admitting that a man can have been a success, but it is to the undying credit of the late Vice-Chancellor that, with an apparently purely classical education, and with tastes in the first instance largely literary, without, it may be said, precedents to guide him, and working under condition of constant change, he was able to show himself possessed of so many of the natural and acquired gifts which have been indicated. Sir Nathan, who received his title in 1908, was the recipient of many honours; he was an Honorary Fellow of Lincoln College, and held the honorary degrees of Litt.D.Vict. and LL.D.Aberd. By all the members of the staff of the university the Vice-Chancellor will always be held in affectionate remembrance as a man of the highest integrity, of great charm of manner, an admirable Chairman of the Senate, and a wise guide in the many difficulties which have had from time to time to be dealt with. The sympathy of all who are connected with the university, of an unusually large circle of private friends and of the public of Leeds generally, will be accorded in a very great measure to Lady Bodington, who during her brief married life has done so much to endear herself to all with whom her university connexion has brought her in relation, and whose entry into university circles on her marriage was doubly welcome from the fact that she was the daughter of the late Sir John Barran, for many years the treasurer of the college and of the university.

## WARWICKSHIRE.

### COVENTRY SCHOOL CLINIC.

A SCHEME for a limited school clinic which has been adopted by the Corporation of Coventry, and has now received the sanction of the Board of Education for twelve months, possesses points of interest. Its essential features are: (1) That it is only proposed to deal with certain defects of school children which do not appear to be adequately dealt with by existing agencies; (2) it avoids the obnoxious system of training children early in their life to resort to charities; and (3) it is, it is thought, so arranged that it will not be carried on in opposition to the practice of the local medical profession.

The three classes of defects proposed to be dealt with are (1) eye defects, (2) ringworm, (3) teeth defects.

As regards eye defects, it is proposed to appoint an oculist; a properly equipped room will be provided, and he will attend on specified days, not more than

once a week, the number of days to be determined by the number of cases requiring attention. Children with eyesight defects are referred to their medical attendant; a counterfoil certificate will be provided for the medical attendant to sign if he desires the case to be referred to the clinic. This counterfoil certificate will be sent to the school medical officer, who will make the appointment for the oculist. To meet the requirements of the Education (Medical Treatment) Act of 1909 a statement is intended to be submitted to the parent, somewhat on the lines of the scale adopted by the London County Council in regard to the recovery of expenses; the recovery of these charges will be in the hands of the secretary of the local Education Committee. The appointed oculist is to be paid at the rate of 5s. per case referred. It is estimated that a maximum of 200 cases will be referred per annum.

For ringworm an *x*-ray specialist is to be appointed at a remuneration of 3 guineas per half day; the appropriate room and apparatus is to be provided by the local education authority. As with eyesight defects, ringworm cases are to be referred to their medical attendants with a notification to the effect that chronic or appropriate cases may by them be referred for *x*-ray treatment. Appointments for this treatment will be made by the school medical officer; the maximum expenditure sanctioned for this work is £228 8s. per year.

For teeth defects a whole-time dentist at £300 a year is to be appointed. It is fully appreciated locally that this single appointment will be inadequate to deal with the 16,000 children attending the schools. It is regarded as experimental and educative. A room equipped with the necessary apparatus will be provided by the authority. The cases to be dealt with—mainly in the region of conservative dentistry—will be selected partly by the results of the systematic medical inspection of children and partly by the advice of the dentist appointed.

The supervision of the clinic is in the hands of the school medical officer, who is here the medical officer of health.

Ear and throat defects were considered, but owing to the difficulties existing in providing facilities for operation this matter has been postponed for future consideration.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### Poisoning by Arsenic in Arran.

It has been established beyond doubt that the mysterious malady which broke out in Lamlash and other parts of Arran about three weeks ago, and from the effects of which some of those attacked are still suffering, was due to arsenical poisoning. It has been ascertained by analysis that the bread issued from a local bakery on a certain date contained a considerable quantity of that poison. How it came to find its way into the bread is now the subject of searching investigations by the authorities.

The history of the outbreak covers a period extending over a few days at the end of April. At first there were only a small number of cases, but gradually the number increased, and on April 27th the outbreak developed with startling rapidity, assuming the proportions of an epidemic. At least fifty persons were affected, the greatest number of them living in Lamlash. In all cases the symptoms were similar, there being sickness and vomiting, with acute abdominal pains of the nature of colic. In most of the serious cases there was oedema of the extremities, and puffiness under the eyes. Persons of all ages were affected. There has been one fatal case, that of a young child; the body has been exhumed, and certain organs forwarded to Edinburgh for examination by Dr. Harvey Littlejohn.

The reports on the samples of the suspected bread, analysed on behalf of the authorities by Dr. Hunter, Public Analyst for Midlothian, have not been made public, but it is not concealed that they reveal the presence of a considerable quantity of arsenic. No report has yet been forthcoming as to the result of the examination of the internal organs of the child whose body was exhumed, so that whether the child's death, the only fatality attributed to the malady, is due to eating the affected bread or to some other ailment, remains, as yet, a matter of uncertainty.

### Unqualified Medical Practitioners.

Dr. Norman Walker, the direct representative for Scotland on the General Medical Council, in an address delivered at a meeting of his constituents in the Glasgow district, dealt with the duties of the Council and the limitations of its powers. Speaking of the most important thing, from the point of view of the general practitioner, which the Council had done since he had been a member had been the appointment of a committee of inquiry into unqualified practice in the Colonies and dependencies of the empire. The Council had as a result of its inquiries resolved that, as it was of opinion that the present Medical Acts did not sufficiently enable persons requiring medical aid to distinguish qualified from unqualified practitioners, and that it was contrary to the interests of the public that medical and surgical practice should be carried on with impunity by persons holding no recognized qualifications, the Government should be requested to take steps for the appointment of a Royal Commission to inquire into the evil effects produced by the unrestricted practice of medicine and surgery by unqualified persons. That resolution had been communicated to the Privy Council, which had transmitted it to the Local Government Board; the Board had sent out circulars of inquiry, and had issued a Blue Book containing the replies. The next step to be taken would be considered at the approaching session of the Council.

### The Infectious Hospital, Inverness.

Some confusion has been caused by a notice in the lay press in which it was stated that the Local Government Board was holding an inquiry into the management of the Northern Infirmary. The object of the Board's inquiry was the Infectious Diseases Hospital, where a case of cross infection had occurred, and the parent of the child (who happened to be a solicitor) formulated a complaint and the Local Government Board instituted an inquiry. During the past year there was a serious outbreak of diphtheria, and there being at the same time cases of infectious fevers of different kinds in the wards, there was some difficulty in isolating the different classes of cases, owing to the limited accommodation, with the result that three complaints were lodged with the Local Government Board reflecting on the management of these wards. The directors, on receiving the complaints, made a thorough investigation, and found that there was no substantial ground for them, and that the staff, nurses, and attendants had all done their best to cope with the somewhat trying circumstances which had unexpectedly arisen. The Local Government Board also instructed their officer, Dr. Dewar, to make an investigation into the administration of the wards. In his report Dr. Dewar states, with reference to the adequacy of the nursing staff, that while it would have been better had more nurses been engaged, he is not satisfied that it has been proved that the patients suffered in consequence. In summing up the results of his inquiry he states that the general effect of it was to show that, apart from its defects in structure and accommodation, there was nothing seriously wrong with the general administration of the fever wards of the infirmary. The medical officer of health of the burgh of Inverness, in commenting on the Local Government Board inspector's report, states:

> I would say that I very much regret that the complaints were not forwarded, in the first instance, to the local authority for their inquiry and observations. I am informed that the Local Government Board usually adopt this procedure. Why it was departed from in this instance I am unable to say. Such a course would have obviated an inquiry which, with all respect to the Board, does not appear to me to have been necessary, and which gave an importance and a publicity to the complaints as

to administration which were not warranted. Apart from the complaints regarding structural alterations, concerning which no report was required, the complaints were trivial and unjustified. They show the blackest ingratitude towards an institution which, instead of being censured, deserves the best thanks of the community for undertaking the charge of infectious cases in the interests of the burgh. The complainers in particular should be grateful for all the care and attention which I personally know was bestowed on their children. I have nothing but the highest praise to offer to the directors and to the medical and nursing staffs for so admirably administering the isolation wards during a very trying period.

### EDINBURGH AND GLASGOW MEDICAL CLUB.

An unusually large number of members met together in the Central Station Hotel, Glasgow, on May 12th, at the twentieth annual dinner of the club. Dr. J. Crawford Renton was in the chair, and to celebrate the coming of age of the club, presented a silver mallet to be used by his successors in the chair. During the evening a number of new members were elected.

# Ireland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

### DUBLIN CITY BACTERIOLOGIST.

SOME months ago the Corporation of Dublin determined to appoint a city bacteriologist, and later from amongst a large number of applicants elected Dr. Matthew Russell. The Local Government Board when called on to sanction the appointment refused to do so on the grounds that the post was of such great importance that it should not be held by an individual who had already many duties to perform in connexion with other appointments. Correspondence has passed between the Local Government Board and the Corporation on the subject, and at the last meeting of the Corporation a letter from the Board was read requesting the Corporation to proceed to a new appointment. The Corporation has, however, refused to take further steps for the present, and now requests the Local Government Board "to indicate in what manner the power conferred by the Act to approve of the qualifications of a bacteriologist authorizes the Board to withhold its approval on grounds which do not relate to qualifications."

### ABUSE OF COUNTY INFIRMARIES.

The abuse of hospitals by patients who are well able to pay for their maintenance is not apparently limited to the large towns, but is also met with in connexion with the small county infirmaries of Ireland. At a recent meeting of the Cookstown Board of Guardians it was found that out of nine patients recently treated in the Omagh Infirmary three were in a position to pay. This state of affairs, however, does not appear to trouble the minds of those responsible for the management of the infirmary, as further discussion showed that some of those patients who wished to pay had trouble in getting their accounts and had almost to press the payment on the hospital. This method of dealing with patients accounts probably for the difficulty stated to exist in making ends meet.

### QUEEN'S COUNTY SANATORIUM.

The new Queen's County Sanatorium for Consumptives at Maryborough was opened by Lady Aberdeen on May 10th in the presence of a large assemblage. The building is situated in the grounds of the Queen's County Infirmary, and has been constructed of timber framing, with galvanized iron roofing and walls. Large verandahs have been provided, and the entire building is raised above the ground. Lady Aberdeen, in announcing the opening of the sanatorium, referred to the further decrease of tuberculosis in Ireland, as shown by the advance figures for 1910 published by the Registrar-General. It will be remembered that the years 1908 and 1909 showed a decline in the tuberculosis death-rate as compared with 1907, and it is now satisfactory to learn that there was a further decrease of 578 deaths during 1910, making a total decrease of 1,663 deaths from tuberculosis in 1910 as compared with 1907. The death-rate from tuberculosis in 1910 was 2.3 per 1,000, and was, in fact, the lowest recorded since 1864, the year in which registration of deaths was introduced.

### ROTUNDA HOSPITAL.

At a recent meeting of the Board of Governors of the Rotunda Hospital a report was received from a special committee appointed some months ago to consider and report upon a proposal and scheme of the Master for the construction of two modern labour wards. The committee reported that a change was necessary, inasmuch as the large increase of maternity cases received in the hospital of late years had resulted in overcrowding, and that the proposed scheme was satisfactory and should be adopted. The scheme which was approved by the board will not necessitate any addition to the existing hospital buildings.

### A SPORTING DOCTOR'S INJURIES.

An acute difference of opinion prevails between the Athlone guardians and the Local Government Board in reference to the payment of a medical substitute for Dr. Moorhead, J.P., dispensary doctor at Moate. Dr. Moorhead recently met with a severe injury while riding in a hunt race at Athlone, and the relieving officer of the district, acting within his authority, appointed a substitute. The guardians refuse now to pay the substitute, as the injuries were not received in the discharge of professional duties, and in reply to the Local Government Board—which has expressed the opinion that Dr. Moorhead is legally entitled to have a substitute appointed and paid by the guardians—the guardians have resolved that in no circumstances will they consent to the payment being made. The point raised is of much interest to dispensary medical officers, as obviously injuries may be met with under many circumstances unconnected with professional work, and, unless the Local Government Board now insists on its interpretation of the law, much difficulty will be met with in future in arranging for the payment of substitutes during the incapacitation of a medical man from injury or even illness.

# Correspondence.

### COMPLIMENTARY DINNER TO MR. BUTLIN.

SIR,—We desire to draw attention to a notice with regard to the above dinner which appears in another part of the current issue of your JOURNAL.

It will be a great convenience to the Dinner Committee if those who desire to be present will make early application for tickets. No special form is necessary, but a note, with a remittance of half a guinea, should be sent to the Honorary Secretaries of the Butlin Dinner Committee, 429, Strand, W.C.

The company will be arranged at separate tables, and a special table will be reserved for every ten diners who may signify their wish to sit together. A notice to this effect must reach the honorary secretaries on or before Thursday, June 8th. To facilitate the formation of special table parties the names of those who have taken tickets will be announced in the JOURNAL in due course. Those who organize such parties are requested to assure themselves that each member of the party has obtained a dinner ticket, and that no member's name is included in another similar list.—We are, etc.,

D'ARCY POWER,
W. GRIFFITH,
Honorary Secretaries, Butlin Dinner Committee.

### CHRONIC INTESTINAL STASIS.

SIR,—In the BRITISH MEDICAL JOURNAL of May 6th, Mr. C. Gordon Watson draws attention to the fact that in a paper on chronic intestinal stasis[1] in which I gave the results of fifty cases of that condition treated by ileo-colostomy or colectomy, I did not make it clear whether

[1] BRITISH MEDICAL JOURNAL April 22nd, p. 915.

the cases published were consecutive or not, and if not, whether the cases omitted were failures.

I am much indebted for the kindness that pointed out this apparent omission, and I am taking the first opportunity to state that in following the results of this operation I had written to a very large number of cases and presented the first fifty I could arrange to interview during the last three months, or from whom I could obtain adequate information by correspondence with the patient or medical attendant. The cases were not selected in any other way, and I might have made my list much longer had space permitted.

Acting on the suggestion that the question of mortality was not adequately dealt with, I have since worked out all the cases that have been operated on by Mr. Arbuthnot Lane at Guy's Hospital since June, 1908, to the time of writing, that is, during the last three years. There have been in that time 42 cases of chronic intestinal stasis submitted to ileo-colostomy or colectomy. This number does not include the operations that have been performed for tuberculous infections or any condition other than the one under consideration. In spite of the desperate nature of the conditions to be dealt with, there have been only four deaths in this number. One died under the anaesthetic, one succumbed from shock, and two died from infection of the peritoneum from the abdominal wound.

This mortality of 9 5 per cent. is in marked contrast to that which holds in private practice, as there the patient is not allowed to advance so far as the hospital patient without treatment. I am assured by Mr. Arbuthnot Lane that in all those patients on whom he has performed short-circuiting or colectomy in private practice he has lost only one. This fatality resulted from the bursting of a small unsuspected abscess in the incision into the peritoneal cavity about eight days after colectomy had been performed. As far as I have been able to ascertain, 26 private patients have been submitted to operation, in 12 of whom the large bowel has been removed. This shows a mortality of under 4 per cent. in private work. From this list is excluded a case of very advanced ulcerative colitis in which caecostomy had previously been performed by another surgeon, and from whom he removed the large bowel.

The mortality will in future be reduced almost to the vanishing point, as the troublesome suppuration that occurred at one time in some of the abdominal wounds, and was the cause of death in 3 out of the 5 fatal cases, has been successfully met by the application of frequent extensive fomentations to the entire abdomen. Not only do these fomentations appear to safeguard the patient from the formation of foci of infection in the wound and the risks consequent on their presence, but add materially to the comfort and well-being of the patient, and definitely affect the length of the period of convalescence. They also appear to reduce the possibility of the formation of adhesions, which form the only source of anxiety or risk in cases of colectomy.—I am, etc.,

London, W., May 7th. HAROLD CHAPPLE.

## THE POSITION IN OPERATIONS ON THE KIDNEYS.

SIR,—In reference to that portion of Mr. Deanesly's article[1] which relates to the above, may I point out that slipping in the lateral position is to a great extent prevented, and the breathing assisted, by raising the uppermost arm on Mr. Carter Braine's arm-rest,[2] or on an improvised support?

In the prone position, it is better for the head, instead of being turned on its side, to project beyond the table, with the forehead supported, the face (looking downwards) being left free. The anaesthetic can be very easily given, with the advantages that the tongue and lower jaw tend to fall and leave a clear airway, and that there is no straining of the neck with subsequent stiffness. It also favours respiration to support each shoulder by a firm cushion or sandbag, instead of crossing the arms under the chest. If the arms would be in the operator's way when lying by the patient's sides, they can be extended on each side of the head and (with the forehead) supported on a table.—I am, etc.,

J. D. MORTIMER, F.R.C.S.,
Anaesthetist, St. Peter's Hospital for Stone, etc.

London, May 6th.

[1] BRITISH MEDICAL JOURNAL, May 6th, 1911.
[2] Ibid., December 15th, 1900.

## RENAL CALCULI AND CALCIUM METABOLISM.

SIR,—I have just noticed the letter of Dr. H. J. Johnston-Lavis in the JOURNAL of April 22nd criticizing the results recorded in my Hunterian Lecture and the lessons I attempted to draw, quite tentatively, from those results. I have made no claim to have settled definitely the ratio of preponderance of constituents in renal calculi, and my results are so different from the usual statements as to the composition of such calculi that I felt called upon to state in my lecture that they applied to my own analyses only, and should not, without more work, be applied to renal calculi in general. The question is not one which can be settled by argument but by accurate quantitative analyses of many renal concretions. I am doing my utmost to obtain material now, both renal calculi and gouty tophi, for such work, and would be most grateful for assistance from physicians at wells where patients drink calcareous waters, or elsewhere, for such materials.

Meanwhile I should like to protest against such statements as that of Dr. Johnston-Lavis that "some calculi that my patients have passed were stratified on an oxalic nucleus enclosed in a calyx or shell-like envelope of uric acid." The finest collection of calculi in this country, and probably in the world, is that built up around Hunter's original collection in the Museum of the Royal College of Surgeons, England. Many hundreds of these are catalogued as consisting wholly or partially of uric acid or urates, with most detailed descriptions of the composition of various layers of the stone; yet a naked-eye examination of the two halves of the sawn stone clearly demonstrates that the only material used for analysis must have been that obtained from the saw-cut, in which the contents of all layers would be inevitably mixed up.

In selecting illustrative material for my lecture, I could find only one stone in which, from the presence of artificial pits in the various layers, it was obvious that adequate material had been taken away for possible use in chemical analysis. This particular stone presented almost identical naked-eye appearances with half a dozen similar large stones labelled as uric acid. I thought I might here obtain a clue, and specially looked up the stone in the descriptive catalogue, when I discovered that it had been subjected to careful analysis where removed from the surface of the stone, *and that the stone consisted almost wholly of calcium oxalate.* Such large stones as this are rarely found nowadays, and it is my opinion, so far as I have been able to go, that those in older collections have often been falsely put down as uric acid and urates when consisting in reality of calcium oxalate. In any case, as the subject is one of great practical importance, careful and quantitative analyses of renal calculi are urgently required.

Turning to Dr. Johnston-Lavis's criticism of my cautiously expressed hints as to possible applications, I think he might have done me the justice of stating that I point out that the primary failure is that of oxidation, which produces alike calcium oxalate and calcium urate, and these both form calculi, because they are exceedingly insoluble salts. I mentioned the difficulty of reducing calcium intake so far as to prevent formation of these salts, and only suggested that it would be judicious not to pile on foods rich in calcium if the calcium salts are those chiefly present in calculi. But, surely, precisely the same argument applies to the proposal to prevent "absorption of exogenous oxalic acid in foodstuffs" so warmly advocated by Dr. Johnston-Lavis, as also the introduction of uric acid and nucleins so universal to other gout specialists.

Again, Dr. Johnston-Lavis practises at a well at Vittel, France, "where we use a non-chloride, calcareous water." This calcareous water produces marked results upon large numbers of patients. Now, although it may be quite impossible, as Dr. Johnston-Lavis contends, to reduce the input of calcium so as to affect patients advantageously, no method of thought which I can apply to the problem casts any light upon how the actual administration of calcareous waters can effect a cure.

I would humbly suggest an experiment to Dr. Johnston-Lavis: That, without interfering with any other circumstances of the cure, he should quietly substitute distilled water in the case of some of the suppliants at the holy well of St. Vittel, when he may obtain quite marvellous results, surpassing even those of the calcareous water. At any rate, we shall then know more clearly where we stand. It is the régime and the regimen at these baths

which make the cures, and also, perhaps, in part the psychological element, which induces the patient to take exercise and live as he would not live at home. Faith is a mighty healer when that faith leads to good works, and this, to my mind, is sufficient explanation of the efficacy both of holy wells and of wells which are—only medicinal.

Lastly, Dr. Johnston-Lavis poses me with the question of, Why tophi disappear from people who do the cure? In the first place, before answering I should like to know the composition of tophi, as I suspect we know as little about this subject as we do about the composition of renal calculi; and, secondly, I suggest that the tophi disappear because of the increased oxidation and decreased piling on of fuel involved in the "cure," and I am of opinion that the tophi would disappear at home with the use of distilled water substituted for Vittel water, and the patients carrying out the same "cure" in all other respects. But the latter process is precisely what no power will induce the patient to submit to when surrounded by home temptations, home cooking, home luxuries, and home occupations of working or idling.—I am, etc.,

Birkenhead, April 29th. BENJAMIN MOORE.

## THE INFECTION OF CHICKEN-POX.

SIR,—The following case serves to confirm Dr. Hamilton's letter (April 29th) on the delayed incubation of chicken-pox by the concurrence of another infectious disease.

A boy visited an entertainment in London on May 4th where he was probably exposed to infection. He returned to school on May 6th. The rash of scarlet fever appeared on May 9th, after which he was completely isolated.

On May 31st the rash of chicken-pox appeared, and he had a very severe attack.

Here we have a *certain* incubation of twenty-two days, and a probable one of twenty-seven days. There was no possibility of infection by imported fomites after his isolation.—I am, etc.,

Wellington College, Berks, May 14th. H. G. ARMSTRONG.

## SALVARSAN AND ARSENIC CANCER.

SIR,—I have read with the greatest interest the article by Sir Jonathan Hutchinson in the JOURNAL of April 29th. I have long wished that the secondary effects of arsenic and other metals should be investigated, because in my own researches I have found points which awakened interest on lines parallel to those opened by Sir Jonathan Hutchinson. I have proved that many of these metals hinder elimination of metabolic products, and those retained in the system undoubtedly increase tissue irritation throughout the body, thus causing endocarditis, arthritis, skin irritation, etc.; the irritation thus produced and repeated may, like that of soot, pipes, jagged teeth, paraffin, *x* rays, and heat, lead to the production of cancer, the irritation of all these substances being increased in the urate-laden.

The metals which have also fallen under suspicion in my mind are mercury, lead, iron, and silver.[1] It would be interesting to hear whether cancer is common among arsenic eaters, who, by the way, take it as a tonic and not for its "depressant" effects? Also whether diet factors appear to have any influence on the ultimate effects of arsenic in these people? In the same way the effects of arsenical waters might be of much interest in this connexion.

But, be this as it may, there is no doubt in my mind that in regarding only the immediate effects of these powerful drugs and forgetting their remote effects we are playing with edge tools.

I have elsewhere suggested that arsenic may cause endocarditis. I have also observed, as Sir Jonathan Hutchinson has, that it causes herpes zoster.—I am, etc.,

London, W., May 3rd. ALEXANDER HAIG.

## THE HONOUR OF THE MEDICAL PROFESSION.

SIR,—The correspondence under this heading which has raised the question whether a jury of laymen is a proper tribunal to decide questions of the correctness of treatment of surgical cases, has in my opinion, not yet reached the core of the matter.

A patient calling in a surgeon has a right to expect, first, that the diagnosis shall be made with a reasonable amount of knowledge and care, and secondly, that the treatment applied shall be such as is generally approved for like conditions, allowing, of course, for the fact that no two cases are exactly alike, and that the medical attendant must use his own discretion, within limits, as to what deviation is required from ordinary accepted methods for the particular case. I say within limits with intention, as if any great deviation is made from accepted practice, the patient, or the patient's friends, should at the outset have the matter frankly explained to them, so that a complete understanding may be come to immediately and further advice taken if desired.

These cases of patients bringing actions for damages against surgeons involve the two points already stated—first, that of diagnosis, which concerns the science of surgery; secondly, that of treatment, which concerns the art or craft of surgery. Each case should be examined from these two points of view, and when so examined I venture to think that a lay jury is as good a tribunal as any of the suggested substitutes.

Let us assume that a case arose in which it was alleged by a patient that the sigmoidoscope was improperly used after an operation for suturing the lower end of the colon, and let us assume that a jury of medical men was assembled, strengthened by the inclusion of Mr. Lynn Thomas and Mr. Swinford Edwards. Is it not probable that we should read in the report of the case that "the learned judge discharged the jury as they were unable to agree"? Or is it suggested that counsel should challenge all those jurors who by their writings, or at medical societies, had previously expressed opinions as to the proper treatment of the condition under consideration, on the plea that they had already made up their minds and judged the case? If so, medical juries would at once be deprived of the assistance of all the best of the medical talent in the kingdom.

Mr. Lewis Morgan, in advocating a tribunal of medical men to deal with cases of this kind, instances as an analogy the assistance given by the Trinity Brethren to the Admiralty Court in collision cases. With submission, the two cases are not on a par; the Trinity Brethren merely inform the court which was the proper seamanship in certain circumstances, and whether the commanders of the two vessels followed the rule laid down as proper in the circumstances antecedent to the collision. These rules are as unvarying as the rule of the road, and any captain not conforming strictly to the letter of the law is at once in the wrong. Mr. Lewis Morgan's instance of the medical referees in county court cases under the Workmen's Compensation Act is most unfortunate. As Mr. Morgan knows so well, in these cases you have the spectacle of surgeons of equal eminence on each side in sharp conflict as to the nature and extent of the injuries under discussion.—I am, etc.,

Bridgend, April 30th. ROBERT J. SIMONS.

SIR,—I have read Dr. Powell's letter with care, but I cannot see that it helps Mr. Lewis Morgan's case. I am afraid I cannot claim to be distinguished, and this may perhaps serve as my apology for my inability to follow what, I am sure, are very subtle arguments.

It is humiliating to confess that, although I have been connected with the practice of the law for over twelve years, I was unaware until I had read this letter that the interpretation of the maxim that a man shall be tried by his peers meant "that he shall be tried by men who have an intimate knowledge of the subject in dispute." I am slowly realizing, thanks to this timely revelation, what a gross injustice litigants have been labouring under for years past. Think how obviously unfair it is to members of my own profession when an action is brought against one of them for negligence to have the case tried by a common jury instead of a jury of twelve fellow-lawyers.

Dr. Powell suggests that the appointment of a jury composed of medical men would be a change which would safeguard the interests of the public. From a moral standpoint I maintain such a jury would be a dismal failure. In spite of their natural integrity, such a jury would have an involuntary bias towards those of their own calling. It is not to be expected from human nature that the few should be always attentive to the interests and good of the many.

[1] BRITISH MEDICAL JOURNAL, November, 1909.

But apart from the ethical aspect of the case, the arguments betray a complete innocence on the part of your correspondent of the relative functions of a judge and jury in a case of negligence, or in any other case for that matter. In an action it is the duty of the Court to determine whether, assuming all the facts to be proved by the party on whom lies the burden of proof to be true, there is any evidence on which the jury could properly decide in his favour. And if there be not then the judge ought to withdraw the case from the jury. Whether there be *any* evidence is a question for the judge. Whether *sufficient* evidence, is for the jury. On the other hand, it is for the jury to hear the evidence and the comments made on it, to determine the credit due to the testimony of the witnesses, and to draw all requisite inferences of fact from the evidence. The division of the function of the judge and the jury is expressed by the maxim *Ad quaestionem facti non respondent judices; ad quaestionem juris non respondent juratores.* Thus, where the defendant in, say an action for negligence, gives evidence to prove that what he did was right and proper, it is for the jury to find the facts; and it is for the judge to decide, as a matter of law, whether the facts proved amount to negligence.

The facts being proved or admitted, then I agree it might seem desirable for the judge to have at hand experts whom he might consult in deciding any question of surgical skill. What use an expert jury would be, however, I fail to see.

Later, Dr. Powell claims for himself the right to use his own judgement in his profession, and he states that the public are given to understand that any departure from the orthodox methods of treatment is actionable at law, and equivalent to negligence. A remarkable statement from any one, surely; but from a justice of the peace—who would, of course, have more than a passing acquaintance with law—it is indeed amazing.

Far be it from me to suggest that a doctor should not exercise his own judgement. Indeed, it would be a sorry day for the profession if every doctor practised by rule of thumb, and were unable or unwilling to use his discretion as to how far he would conform to or depart from any accepted mode of treatment in any particular case. But between an honest endeavour to do his best for a patient and a gross and reckless experimenting there is a great difference.

To render a medical man liable for negligence it is not necessary that there should have been a less degree of skill than some other medical man might have shown or a less degree of care than even he himself might have bestowed. Nor is it enough that he himself has acknowledged some degree of want of care. There must have been a want of competent and ordinary care and skill to such an extent as to have a bad result.—I am, etc.,

Bridgend, May 4th. C. J. H. KAPPEL.

## "SIGNS AND SYMBOLS OF PRIMORDIAL MAN."

SIR,—Allow me to correct some of the conclusions my friendly critic has expressed in your issue of April 8th. He states:

> In several instances recognized authorities, whose opinions are at variance with those of the author, are simply dismissed without further argument as being inaccurate or erroneous. For example, in discussing the meaning and import of the "cable-tow," we are told that Father Burgo and Juan de Cordova are wrong in their translations, and that the ceremonies which they observed and described "show how ignorant they were of the true meaning of the ceremony." It is not made clear why they are wrong. Again, on page 15, Dr. Churchward writes that Dr. Edward Seler "has not succeeded in giving the true decipherment of any of his translations of the various codices of the Mayas, Mexican, and Central American nations that he has attempted to" . . . "It is to be regretted that the author is so prone to attribute 'lamentable ignorance' to those who do not agree with him."

As regards the cable-tow, if my friend had been initiated into Freemasonry he would not have written the above, where the cable-tow is used, and the reason given at the present day. But even if he is not a Freemason he could not have read the paragraph above the one he refers to (p. 205), because there I distinctly state the use of the cable-tow and its symbology as used by the high priests of the Druids, priests of Egypt, and therefore the priests in America, their religious rites, signs, symbols, and ceremonies being identical.

As regards Dr. Edward Seler and other German translators of the Codices (E. Förestemann, Carl Supper, Paul Schallhas, and E. P. Dieraldorff), the greater part of Chapter VI is devoted to positive proofs why these gentlemen are absolutely wrong in their decipherment. I have given photographs (and my decipherments of the same) taken from Mexican Central American antiquities, Calendar Systems and History, published in Bulletin 28 of the Smithsonian Institute Bureau of American Ethnology, which contains the papers by these gentlemen translated by Charles P. Bowditch, and any one who will read their decipherments of these photographs and codices and mine cannot be left in doubt. Take, for example, the 20 day sign of Dr. E. Seler, p. 86; design for a vase from Chama, p. 93; Dr. E. Seler's dancer, p. 101, Fig. 47, p. 109; and his goddess of Maze, p. 104, Fig. 49, p. 115; Fig. 54, p. 122. I do not think that any one would require further evidence for conviction than the facts I have here mentioned, a conclusion amply borne out by a critical study of these and the Ritual of Egypt.

If polygenism is not yet dead, few, I believe, are there to keep the dying embers alive, and these few could not have any knowledge of the comparative anatomy and physiology of the lower human races, such as the pigmy, bushman, and nilotic negro, and other aboriginal natives in various parts of the world allied to them; or they do not believe in the evolution of the human race. To these men no arguments or facts found and brought forward would convince; such as the long forearm, the width between the radius and ulna, the very large caecum and colon containing a great number of bacteria producing a cellulose-digesting ferment associated with glands therein to excrete fluid to digest the outer part of the vegetable cells, and absorption of food from the result, in the colon, as found in the lower animals which feed on a "vegetable diet," which we find in the pygmy, bushman, and to a lesser extent in the nilotic negro, and its final disappearance in the white race, and the development of the brain and skull, as well as many other parts. Professor Keane may believe the human race to have originated somewhere in the Indo-Malayan region, as a good many people believed in what Professor Max Muller taught about the origin of language and Aryan races; but few believe any of this now, since research has proved these beliefs to be false. What facts has Professor Keane to prove his belief? I distinctly and advisedly say none against those which I have brought forward.

Zoologists may think that they are finding evidence of "convergence," and may think and believe that morphological similarities do not of necessity mean phylogenetic kinship, and that similarity of natural surroundings have given birth to similar elemental ideas in the primitive mind leading to comparable rites and ceremonies in different parts of the world. Professor Frazer in his recent large work has come to this conclusion, which critically in my opinion is opposed to all facts. Totemism and Totemic rites all over the world and amongst all tribes, past and present, are fundamentally the same, have the same meaning, *are sacred ceremonies*, have the same signs and symbols and pass-words or sacred words, all identically the same; he could give no explanation that could be satisfactory why in New Guinea you find one tribe, with certain characteristic anatomical conditions, with a Totem of a sow or pig, and in Africa and South America you find tribes identically the same in every way, with the same mother Totem, and another tribe in New Guinea, with different anatomical conditions, has the crocodile for a Totem, and you find tribes in Africa and South America identically the same on every point. Dr. Lorentz and his companions, who met some of these people in New Guinea, did not understand their sacred rites as admitting them as members of their Totemic tribe by the sacrifice of a pig and sprinkling the blood of the same upon them. The sow or pig amongst these people, as a zootype of the "Great Mother," is quite understood by those who have learnt totemic ceremonies and Stellar-Myths. The form of zootype would prove at what date these people left Egypt, like the bear of the Ainu, the lizard of the Australians, the beetle amongst the tribes around Panama, and the tortoise in North America. I can go, and have gone, amongst many savage tribes without the least fear of danger, because I know the Ritual of Ancient Egypt, and only here lies the key that will unlock the past, and from

whence all came, and here only can the meaning and origin of the human race, the Totemic rites and ceremonies be found; all can be traced from here, and nowhere else in the world is this possible. It is the same with "language."

The primary forms of language can only be found amongst the pygmies and bushmen in Africa; the inner African language proves that words had earlier forms than those which have become the "roots" of the Aryanist. Gesture-sign and idiographic symbols preserve the earliest language in visible figures, which have never been taken into the range of discussion by the Aryan school.

I contend that what is written in *Signs and Symbols of Primordial Man* are all facts which I have proved by a great many years of research, and is critically conclusive.—I am, etc.,

South Norwood, May 6th. ALBERT CHURCHWARD.

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## THE ANNUAL MEETING, BIRMINGHAM, 1911.

SIR,—May I ask your indulgence in making known to the members of the British Medical Association attending the annual meetings in Birmingham this July that Leamington has ample accommodation in hotels and lodgings, and an excellent service of trains, many of them not taking more than twenty-six minutes. If more than 150 members were assured, I have obtained a concession from the railway company to run a special train, timed to suit the convenience of members, to whom the company will issue weekly season tickets.

Those members who think of making this their annual outing with their wives may be glad to know of this arrangement, and if they will communicate with me I will see that a list of apartments and hotels is sent them, and also, if the number warrants it, that the before-mentioned arrangements are completed with the railway company.—I am, etc.,

HAROLD MASON, M.B.,
Mayor.

The Mayor's Parlour,
Town Hall, Leamington Spa,
May 9th.

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## HEARTS OF OAK SOCIETY.

SIR,—May I ask the medical men of Kingston to refrain from accepting either of the following appointments until the members of the Kingston and District Medical Society and the local Division of the British Medical Association have expressed their opinions of them:

1. Medical Examiner of Candidates for the Hearts of Oak Society for this district.
2. Medical Officer to a Hearts of Oak Medical Club recently formed here.

I have held the appointment of local medical examiner for eighteen years, and am also the medical officer of the local Hearts of Oak Men's Club, which has existed since 1874. But now a disagreement has arisen with the Hearts of Oak Society, because, with the aid of the Medical Defence Union, I have opposed their agent, who though living in Richmond, has canvassed Kingston, for members to form a new medical club here.—I am, etc.,

Kingston Hill, May 15th. W. E. ST. L. FINNY.

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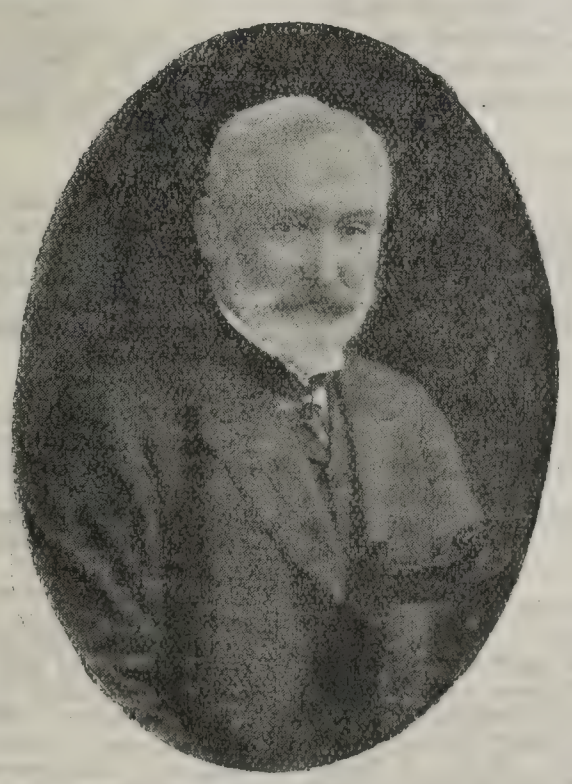
# Obituary.

## CLAUDE C. CLAREMONT, M.D.LOND.,

PHYSICIAN TO THE ROYAL PORTSMOUTH HOSPITAL.

ON April 30th Dr. Claude C. Claremont passed away, after a short illness, at his residence in Southsea. His much-lamented death occurred just at the time when, after a long period of earnest work, he was advancing to a position of increased distinction and success.

Dr. Claremont was the eldest son of the late Dr. Claude Claremont of London; he was born in 1855, and received his early education at the North London Collegiate School, and his medical training at University College. He was a very diligent student, and in 1877 he obtained the diploma of M.R.C.S.; in 1879 the degrees of B.S. and M.B. of the University of London; and a few years later the degree of M.D. He was appointed in 1878 House-Surgeon to the Sheffield Public Hospital and Dispensary, and then House-Physician at the Seamen's Hospital, Greenwich. Subsequently he acted as Assistant Medical Officer at the Charing Cross Hospital. In the year 1881 he was appointed House-Surgeon at the Royal Hospital, and afterwards occupied for some time the post of Senior Officer of the Out-patient Department. During the last twelve years he has been Honorary Physician on the senior staff of the institution. He was also Consulting Physician to the South Hants Eye and Ear Infirmary, and to the Maternity Charity of Portsmouth. Dr. Claremont was an enthusiastic worker, and his valuable services will not be forgotten, for it can be truly recorded that through his professional life he laboured to advance the usefulness and reputation of all the medical charities of the locality.



DR. CLAUDE C. CLAREMONT.

*Photograph by*] [*A. Debenham, Southsea.*

The British Medical Association has lost a very active and devoted member. In 1892 Dr. Claremont was appointed to the office of Honorary Secretary of the South East Hants Division of the Southern Branch, and in 1899, when the annual meeting of the Association was held in Portsmouth, he filled the post of Local Secretary, and by his practical ability and courteous manner helped much to secure the successful result.

By his painstaking and careful discharge of every duty, Dr. Claremont gained the confidence of all his professional friends. He was a wise physician, and exhibited persistent energy in the performance of his professional work. Often after spending many long hours in the wards of the hospital he would not rest until he had visited urgent cases at their own homes, and personally carried out the treatment for their relief. He was at all times an eager student, and took a deep interest in the progress of the science of medicine, and especially in the intricate questions which surround the pathology of infective diseases and their treatment by bacterial vaccines.

But in addition to all his professional attainments Dr. Claremont had a very considerable acquaintance with many other branches of science. He firmly believed in the growing expansion of human knowledge, and confidently anticipated the advance of science in every field. For some years he found recreation and pleasure in carrying on the work as Honorary Secretary of the Portsmouth Literary and Scientific Society, and in 1905 he held the position of President of the institution.

In manner he was naturally calm and reserved, but there was another bright side to his estimable character—he was under the guidance of the highest and best convictions which regulated his daily life and brought out, without any ostentation, his genuine goodness. To-day there are many sorrowing who have experienced his kind help and sympathy in the hour of difficulty and distress. He is survived by his wife, two sons, and two daughters.

The funeral took place at Southsea on May 4th, and around the grave all his colleagues and many friends assembled, deeply regretting the early termination of his devoted and faithful life.

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AFTER a somewhat prolonged period of ill health, Dr. GEORGE MACKAY of Edinburgh died on May 4th, at Latour,

Vevey, Switzerland. He was educated at the High School of Edinburgh, and afterwards at the University of Edinburgh, where he graduated M.B., C.M. in 1874. Afterwards he studied in Paris and London. He was a Resident Physician in the Royal Maternity Hospital in Edinburgh, and House-Surgeon in the Dumfries and Galloway Infirmary. Later he was private assistant to Sir Halliday Croom. He settled in Edinburgh, and soon built up a considerable family practice, and was held in high esteem and even affection by a large clientèle. Four years ago he lost his elder son, a young man of great promise, of endearing personality, who had taken the highest honours in his medical course and was just about to graduate, and to whose future career Dr. Mackay was looking forward with great hope. This blow may be said to have taken the spring of life from him, and he was never the same man again. He left Edinburgh in October of last year for Arcachon, in search of health. Later he went to Pau and to Vevey. For a number of years he was Physician to the Fountainbridge Dispensary in Edinburgh, and he also held several other appointments in the same city. His recreation was golf, to which he was devoted. He is survived by his wife and one son.

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YET another Crimean veteran has passed away in the person of Surgeon THOMAS LIGERTWOOD, C.B., M.D., Royal Army Medical Corps, late Physician and Surgeon to the Royal Hospital, Chelsea, who died at Chelsea at the age of 81. He was educated at Aberdeen, and took the degree of M.B. in 1851. Entering the Army Medical Service in the same year as an Assistant Surgeon, he was made Surgeon, October 20th, 1856; was placed on half pay, January 13th, 1869; and retired from the service, June 3rd, 1904. He was appointed Deputy Surgeon to Chelsea Hospital, January 13th, 1869, and Surgeon with the rank of Colonel, June 3rd, 1896. He served in the Crimea in 1854–6, and was present at the affair at Bulganac, the battles of the Alma (for which he was mentioned in dispatches) and Inkerman (where he was slightly wounded), the capture of Balaklava, the sortie of October 26th, 1854, and the assault on the Redan in June, 1855. He was granted a medal with three clasps, and the Turkish medal, and appointed a Knight of the Legion of Honour. Dr. Ligertwood was for many years medical officer in charge of the infirmary of the Royal Hospital, Chelsea, and showed a keen interest in the work of that institution.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

THE following degree has been conferred:

D.M.—F. J. Sadler.

## UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—Christopher Tylor.
M.B.—A. Abrahams, H. L. Attwater, H. Chapple.
B.C.—A. Abrahams, H. L. Attwater.

## UNIVERSITY OF LONDON.

*Appointment of Examiners.*

THE following are among those appomted staff examiners for the academic year 1911–1912:—*Forensic Medicine and Hygiene:* William A. Brend, M.B., B.Sc., and Henry Franklin Parsons, M.D., D.P.H. *Medicine:* Professor Alfred Henry Carter, M.D., M.Sc., F.R.C.P., Sidney Philip Phillips, M.D., F.R.C.P., G. Newton Pitt, M.D., M.A., F.R.C.P., and Humphry Davy Rolleston, M.A., M.D., B.C., F.R.C.P. *Mental Diseases and Psychology:* Robert Jones, M.D., B.S., and William McDougall, M.B., B.Ch., M.A., M.Sc. *Obstetric Medicine:* Henry Russell Andrews, M.D., B.S., M.R.C.P., and George H. Drummond Robinson, M.D., F.R.C.P., M.R.C.S., D.P.H. *Pathology:* Professor Albert S. Grünbaum, M.D., M.A., F.R.C.P., D.P.H., and Professor Richard Tanner Hewlett, M.D., F.R.C.P., M.R.C.S., D.P.H. *Pharmacology:* James Calvert, M.D., B.A., B.Sc., F.R.C P., M.R.C S., and Professor Ralph Stockman, M.D. *Physiology:* Joseph Barcroft, B.Sc., M.A., F.R.S., and John Sydney Edkins, M.A., Sc.D., M.B. *State Medicine:* John William Henry Eyre, M.D., M.S., D.P.H., and Henry Franklin Parsons, M D., D.P.H. *Surgery:* Albert Carless, M.S., M.B., F.R.C S.. Raymond Johnson, M.B., B.S., F.R.C.S., Henry Betham Robinson, M.D., M.S., F.R.C.S., and William Thorburn, M.D., B.S., B.Sc., F.R.C.S. *Tropical Medicine:* Charles Wilberforce Daniels, M.B., M.R.C.P., M.R.C.S., and Andrew Duncan, M.D., B.S., B.Sc., F.R.C.S.

Also appointed in respect of the First and Second (Part I) examinations for the M.B. are:—*Chemistry:* John Addyman Gardner, M.A., F.I.C., and James Ernest Marsh. M.A., F.R.S. *Physics:* George William Clarkson Kaye, D.Sc., B.A., and Professor Frederick Womack, M.B., B.Sc. *General Biology:* Frank E. Beddard, M.A., F.R.S., and Malins A. Smith, M.A.

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## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Thursday, May 11th, the President, Sir Thomas Barlow, in the chair.

*Fellowship.*

The ten gentlemen elected at the Comitia on April 27th were admitted Fellows of the College.

*Communications.*

The following communications were received:

1. From the Editor of the *Journal of the Royal Army Medical Corps*, asking permission to photograph a portrait of Dr. Richard Brocklesby, in the possession of the College. Permission was granted.

2. From the Registrar-General, inviting criticism upon a revised copy of his *Suggestions to Medical Practitioners Respecting Certificates of Causes of Death.* This was referred to a subcommittee, consisting of the Registrar and Dr. Rolleston, for consideration and report to the College.

*Representative on the Senate of the University of London.*

The resignation of Sir William Allchin, Representative of the College upon the Senate of the University of London, was accepted with regret, and a cordial vote of thanks was passed to him for his disinterested labours during his tenure of the office.

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## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary council was held on May 11th, 1911, Mr. H. T. Butlin, President, in the chair.

*The Walker Prize.*

Dr. E. F. Bashford, Superintendent of the London Imperial Cancer Research Fund, to whom was awarded the Walker Prize of £100 for the best work done during the past five years in advancing the knowledge of the pathology and therapeutics of cancer, was introduced to the council, and the President handed to him the prize, together with a document declaratory of the award.

*Diploma of Membership.*

Diplomas were issued to eighty-four candidates found qualified at the recent examination.

*Vacancies on the Court of Examiners.*

Two vacancies, occasioned by the resignation of Mr. C. T. Dent and Sir Frederic Eve, will be filled up at the meeting of the council on June 8th. Fellows wishing to become candidates should apply in writing to the secretary on or before Monday, May 29th.

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## ROYAL COLLEGE OF PHYSICIANS IN IRELAND.

THE Fellows of the Royal College of Physicians in Ireland have just passed, after prolonged discussion, a revised scheme for the examination for membership of the college. The most important feature in the new scheme is the facility now extended to candidates for specialization in various branches of medicine.

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## ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE two examining boards of the college became constituted as follows on the conclusion of the election on May 2nd.

Court "A" (for the preliminary examination, conjoint diplomas, and licence in Surgery). *Anatomy:* D. P. Fitzgerald, A. Campbell Geddes, and G. Jameson Johnston. *Surgery:* C. Arthur K. Ball, Robert J. Harvey, J. B. Moore, and Seton Pringle. *Physiology and Histology:* J. A. Scott. *Pathology and Bacteriology:* Arthur Hamilton White. *Midwifery and Gynaecology:* Frederic W. Kidd. *Biology:* John J. Burgess. *Ophthalmology:* Arthur H. Benson and Herbert H. B. Cunningham. *Chemistry:* Robert J. Montgomery. *Sanitary Law and Vital Statistics:* Edward F. Stephenson. *Engineering and Architecture:* James H. Fergusson. *Languages:* William Kennedy. *Mathematics, Physics, Dictation, and English Essay:* J. R. Colter.

Court "B" (for the Fellowship and the licences in Midwifery and Dental Surgery).—*Anatomy:* A. Campbell Geddes and G. Jameson Johnston. *Surgery:* C. Arthur K. Ball, Leveson G. Gunn, J. B. Moore, and S. Pringle. *Physiology and Histology:* E. L'Estrange Ledwich and J. Alfred Scott. *Pathology and Bacteriology:* Robert J. Rowlette and Arthur Hamilton White. *Midwifery and Gynaecology:* Frederic W. Kidd. *Chemistry and Physics:* Edwin Lapper and Robert J. Montgomery. *Dental Surgery and Pathology:* George M. P. Murray and William G. Story. *Mechanical Dentistry:* Daniel L. Rogers and Edward Sheridan.

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## APOTHECARIES' HALL OF IRELAND.

THE following candidates have been approved at the examination indicated:

FINAL L.A.H.—Le G. M. Denslow, H. Hutchinson, R. O'Connor, J. B. O'Donoghue, H. B. Rosair.

### CONJOINT BOARD IN ENGLAND.

AT a meeting of Comitia of the Royal College of Physicians on April 27th, and of the Council of the Royal College of Surgeons on May 11th, diplomas of L.R.C.P. and M.R.C.S. were respectively conferred by the colleges upon the undermentioned candidates:

H. G. Alexander, C. V. Anderson, F. J. Anderson, H. P. Ashe, C. C. Beatty, E. C. Beddows, I. B. Bernstein, J. C. Barucha, J. L. Birley, A. M. Bodkin, G. N. Brandon, W. Broughton-Alcock, C. J. Butler, N. S. Carruthers, A. H. Crawford, K. J. A. Davis, J. A. Dalmege, H. T. Depree, H. de Silva, G. J. F. Elphick, J. C. Ellis, H. A. Evans, H. J. B. Fry, J. Gavronsky, E. L. P. Gould, W. G. Grant, H. S. G. Haji, E. W. Hall, B. Hannah, C. I. Harmar, C. H. Hart, A. W. Havard, R. G. Hill, J. F. Hoare, I. R. Hudleston, G. R. Hughes, L. C. D. Irvine, A. H. James, H. L. James, N. C. Kapur, W. E. Latham, W. E. Levinson, J. C. R. Lind, M. Lindsey, N. F. Lock, A. J. McNair, W. G. Marsden, W. G. Masefield, M. M. Melrose, H. A. Moody, C. G. H. Morse, J. G. Moseley, J. B. Patel, H. F. Percival, H. Platts, J. Pryce-Davis, I. A. Razzak, T. S. Rippon, S. Ritson, W. D. Ross, R. A. Rowlands, F. Sanders, H. E. Skargill, T. S. Sharpley, R. H. Sheard, W. Smith, E. N. Snowden, H. L. H. Steele, C. H. Steinbach, J. F. Taylor, F. S. Tinker, J. W. Trevan, D. O. Twining, R. T. Vivian, M. E. T. D. Vlasto, *J. O. D. Wade, W. W. Wagstaffe, C. B. Wainwright, H. B. Walker, H. P. Warner, A. F. Waterhouse, E. P. W. Wedd, H. White, A. T. Williams.

* M.R.C.S. diploma only granted.

# The Services.

### RED CROSS CITY OF LONDON BRANCH.

ON May 13th four complete female voluntary aid detachments raised from the women staff of the Prudential Assurance Company had a field day at Bromley, where they were most hospitably entertained to lunch and tea by the chairman, Mr. Dewey, who placed his large grounds at their disposal.

The morning was occupied in forming up and posting the officers and nurses to their respective detachments and by drill and instruction under their commandant. After lunch a comprehensive scheme of practical work drawn up by the A.M.O., Colonel Broome Giles, V.D., and the County Director, Colonel Harrison, C.V.O., was most intelligently carried out, namely: Two large buildings were cleared and converted into hospital wards, with bedsteads, linen, etc.; wounded were collected, treated, and conveyed to this temporary clearing house and appropriately treated.

As these detachments have been taught from the commencement from the R.A.M.C. Manual by R.A.M.C. officers and nurses of the City of London Territorial Association they were familiar with military equipment. All hold the first aid certificate granted by St. John's, and have recently passed the examination of the Red Cross Branch of the City of London after a course of instruction in nursing, sanitation, and cooking, and will receive the City of London certificate.

The managers of the Prudential Assurance Company, we are informed, give four special holidays to these detachments for the purpose of practical field training.

### INDIAN MEDICAL SERVICE.

AN examination for not fewer than twelve commissions in the Indian Medical Service will be held in London on July 24th next and the five following days. Particulars as to pay, promotion, etc., in the service and the necessary forms for application to compete can be obtained from the Military Secretary, India Office, London, S.W.

# Medical News.

AT the West Ham and Eastern General Hospital on May 10th Miss Ough, who has recently resigned her appointment as Matron of the hospital, was presented with a purse containing a cheque for over fifty guineas, subscribed for by the staff, the committee, and other friends, as a memento of her fifteen years' work thereat.

THE annual general meeting of members of the Edinburgh Royal Infirmary Residents' Club will take place in the Caledonian Station Hotel, Edinburgh, on Friday, June 16th, at 7 p.m. The seventeenth annual dinner will follow at 7.30, when Sir Watson Cheyne, Bart., C.B., president of the club, will occupy the chair. A memento of his term of office will be presented at the dinner to Colonel Warburton from residents who have served under him. Members intending to be present must send their names to the Secretary, at 10, Alva Street, on or before June 13th.

A COUNCIL meeting of the Association of Medical Officers of Health was held at the Holborn Restaurant on May 12th, Dr. Rashell Davison, President, in the chair. The treasurer reported a balance in hand of £28, excluding outstanding subscriptions. It was decided to remind members that since an arrangement had been arrived at with the editor of *The Medical Officer*, whereby members were afforded the privilege of obtaining this journal at a reduced subscription, together with a quarterly supplement devoted to the interests of part-time medical officers of health, it became necessary that the small annual subscription of 5s. a year should be paid as promptly as possible. Dr. A. Butler Harris was appointed editor of the quarterly supplement. The secretary reported that the membership stood at 253. The consideration of the letter from the Council of the British Medical Association with reference to Minute 234, Annual Representative Meeting, Belfast, 1909, was postponed until the next monthly meeting of the council on June 2nd.

THE tournament of the Medical Golfing Society will be held this year on Thursday, June 15th, at Canons Park, Edgware, by kind invitation of the Edgware Golf Club. Play will be as follows: Eighteen holes match play *v.* Bogey under handicap. Class I. Handicaps 12 and under. Class II. Handicaps over 12. The "Henry Morris" Challenge cup and the Medical Golfing Society's gold medal will be awarded for the best return under handicap. A first and second prize and a prize for the best last nine holes will be given in each class. In addition, the medical members of Edgware Golf Club are kindly presenting a prize for the best first nine holes. There will also be a cup presented by Mr. Canny Ryall for the best gross score. Any one on the *Medical* or the *Dental Register* can join by payment of the annual subscription, 5s., which includes entrance to the tournament. Entries should be sent on or before Monday, June 12th, to L. Eliot Creasy, Honorary Secretary and Treasurer, the Medical Golfing Society, 36, Weymouth Street, London, W.

AN exhibition and sale of work made by the scholars in the Heritage Craft Schools for Crippled Boys and Girls at Chailey was held this week at South Lodge, Rutland Gate, by permission of Lord and Lady Llangattock. It was announced that the special appeal issued by H.R.H. Princess Louise Duchess of Argyll on behalf of funds for the new buildings had met with a generous response. The honorary secretary also stated that the next development at Chailey would be a residential trade school for the girls, where those unfit for ordinary workroom life in London would remain under the excellent conditions at the Heritage, and lead an independent life without risk to their health. In connexion with the special appeal, a meeting in aid of the medical side of the work will be held in the Jehangier Hall, University of London, South Kensington, S.W., on Friday, May 26th, at 3.30 p.m. Sir Thomas Barlow will be in the chair, and will be supported by Sir Frederick Treves, Sir Lauder Brunton, Sir Alfred Pearce Gould, Mr. Jonathan Hutchinson, Mr. Openshaw, Mr. Mayo Robson, Mr. A. H. Tubby, and many other eminent members of the medical profession. Academic or official costume will be worn.

AT a meeting in support of the Ealing College for Training Teachers of the Deaf, which comprehends both a training college for teachers and school for deaf children, recently held at Grosvenor House by kind permission of the Duke and Duchess of Westminster, the Earl of Bessborough was in the chair, and amongst the speakers were the Right Hon. Henry Chaplin, Sir Frederick Milner, M.P., Mr. Macleod Yearsley, Mr. B. St. John Ackers, the Rev. A. S. Thompson (honorary secretary) and Dr. G. E. Shuttleworth. Mr. Chaplin commented on the useful work done by this society in training teachers for the education of the large number of children who were deaf but not defective, and who were capable, by the oral method, of learning to speak to their fellows, and take part in the ordinary business of the world. He thought that the excessive parsimony of the Board of Education as regards grants made for the training of such teachers was most discreditable, especially when it was considered how much was squandered in the equipment of teachers for the ordinary elementary school. There was actually a superfluity of the latter class of teachers, while for the deaf there was an insufficient number to meet the demands for instruction. He thought the Ealing Institution had a good case for a grant, and he should be only too glad if he could help them to obtain it. Mr. Macleod Yearsley followed with an interesting account of the modes of education which had been found effectual with the deaf, deprecating the attempts recently made to depreciate the value of oral teaching. He laid stress on the need of physiological as well as pedagogical education in the successful training of the deaf, and advocated the necessity of beginning such training during infancy. The report submitted showed much useful work done in the school at Ealing as well as in the training college, but the balance sheet presented a regrettable excess of expenditure over receipts, partly due to the expense of sanitary improvements undertaken at the Ealing establishment.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

H. A. F. asks for information with regard to the case of a young man in whom, on eating Brazil nuts, blebs appear immediately on the parts where the nuts touch, that is, the tongue and mouth; if he touches his lips or eyelids with the fingers which have held the nuts the blebs appear there also.

### BACILLURIA.

SALOL asks: What is the precise significance of the presence of *Bacillus coli* in the urine, and the appropriate treatment?

### GENERAL PSORIASIS.

SENEX writes: I am much obliged to the various correspondents who have assisted me with advice in a case of the above. Of the various remedies tried, I have found the ol. cadini recommended of considerable use. Applied to one forearm, including the elbow, the psoriasis has quite disappeared, but I cannot apply it to face, owing to the dark discoloration it causes. Is there any way of getting the ol. cadini of the *Pharmacopoeia* bleached so as to avoid the staining?

### THE PRESCRIPTION OF GLASSES.

DR. KENNETH CAMPBELL (London) writes: In reference to his article on this subject, may I be allowed to inquire of Mr. Reginald A. Morrell what he means by the following: "The result was that the lens lost its convexity, and so the apparent myopia became less, and the real or static refraction of the eye, which is a myopia of one dioptre less than the apparent, myopia remained" (BRITISH MEDICAL JOURNAL, p. 1110). It is usually taught that in the condition of static refraction of the eye, the radius of curvature of the anterior surface of the crystalline lens is 10 mm. Does Mr. Morrell wish us to understand that in the particular case he alludes to, the front of the lens, during the attacks of neurasthenia, becomes a plane surface? Accepting the ordinary definition of static refraction as "the refraction of the eye at rest" (the maintenance of the "tone" of the ciliary being implied), is it Mr. Morrell's usual practice to over-correct the myopia of his patients, or does he confine this method of treatment to his neurasthenic patients?

## ANSWERS.

### PYRETHRUM AGAINST MOSQUITOS.

F. J. W. P.—*Pyrethrum cinerariaefolium* furnishes most of the insect powder of commerce, which consists of the ground unexpanded flower heads; a tincture of the powder is applied to the skin to protect from insect bites. The *British Pharmacopoeia Codex* gives a formula for this tincture, prepared with 60 per cent. alcohol by the method of percolation, one part of the powdered flowers yielding four of tincture; this is stated to be diluted with ten times its volume of water for use as a lotion to keep away insects. We do not know of any secret remedy called "Pyrethrum"; probably the preparation referred to is a tincture of the kind described.

### PAPER EATING.

DR. R. H. BOTHAM (Darlington) writes to suggest that the case related by "J. S. F." could be cured by hypnotic suggestion. Previously the patient should be asked while under hypnosis, for the reason of her habit. The answer might shed some light on the workings of the subconscious mental processes.

### HAEMOSPERMIA.

DR. C. F. MARSHALL writes in answer to "C. G. F.": Haemospermia generally signifies spermato-cystitis, or inflammation of the seminal vesicles, which may or may not be associated with epididymitis. It is usually of gonorrhoeal origin. The condition does not preclude marriage altogether, but it is advisable to postpone marriage till the symptoms have subsided, and examine the secretion for gonococci from time to time. "C. G. F." will find the treatment described in my book on *Syphilology and Venereal Disease*.

## LETTERS, NOTES, ETC.

### MEAT FOR BABES.

DR. STANLEY HODGSON (Salford) writes: The "curious superstition" to which you refer in your note to "Baby's Food's" letter is one which is shared by no less an authority than Dr. Galabin. In his *Midwifery* (4th edition) he states that children at the seventh month should be put on some whole meal food, and also should have gravy or beef-tea with bread crumbs. Personally, I carry out the first part of his advice whenever I can, and always advise the second part from 1 year. The results have been excellent, especially with my own children. In common with a large number of general practitioners, it is dawning on me that the scientific feeding of infants fails as hopelessly, in many cases, as the prescientific efforts of the old midwives. One gets rudely shocked when, after an elaborate discourse on the right and wrong dietetic elements, one is shown a splendidly healthy child who has been brought up on everything he ought not to have.

### EVIDENCE OF SEVERE ILLNESS AFFORDED BY THE NAILS.

MR. SEYMOUR W. DAVIES, M.B., Ch.B.Vict. (Liscard, Ches.), writes: With reference to Dr. Norman Flower's note on the above, in the JOURNAL of April 15th, p. 869, with note by Sir Samuel Wilks, I note that the latter says that in all the cases he has seen or known where transverse marks and furrows appeared in the nails during illness, the patients have been at death's door at the time when the furrows were formed. I have just had a boy under my care with scarlet fever, who had an attack of nephritis with haematuria, but who was never seriously or dangerously ill, either subjectively or objectively. On recovery a deep transverse furrow, like a seam, was found on every nail on hands and feet. These grooves have grown from root to edge of nail much more rapidly than is usually the case, as they are now ⅝ of the way down at twelve weeks from onset of illness. In fact, one or two have reached the edge. I should like to know if this is a common feature in scarlet fever.

### THE EXPRESSION OF THE COLOUR-BLIND.

DR. F. W. EDRIDGE-GREEN (London) writes with reference to a note on a communication from Dr. G. H. Taylor, Medical Officer of the Government Railways in New South Wales, published in the JOURNAL of April 22nd, p. 972: I have not examined a single case of dangerous colour blindness which has not been readily and easily detected by my lantern, though I have often examined as many as 5 cases in one week who could pass the Holmgren test with the greatest ease and yet failed with the lantern. I have demonstrated these cases and shown that a man may be able to pass the Holmgren test and yet be made to say that the red light of the lantern is green and the green light red at will by the proper selection of the colours and using them in the correct order. In using my lantern, it is absolutely necessary that the examiner knows the real facts of colour-blindness and is not dependent only on the hypothetical statements given in the textbooks. The most difficult procedure in testing for colour-blindness is the method of arriving at a decision that a man who has been rejected by the Holmgren test is still an efficient person for railway and marine service. Every case of this kind, if not normal-sighted, can be detected with the lantern, but those I should pass I have found by the use of the spectrometer and other methods to have been rejected wrongly. A man, for instance, may have shortening of the violet end of the spectrum, which will lead him to put certain confusion colours with the test green. This, however, is a defect of no practical importance.

### EXTRACTION OF CATARACT IN THE CAPSULE.

WE have received two further communications from Major G. H. Fink, I.M.S. (ret.), relative to his criticism of Smith's method of dealing with cataract. In the first he emphasizes the difficulty of settling such a controversy by letter and articles, especially when the correspondents live in widely separate parts of the world, and claims that if the test suggested by him is not practicable the verdict must fall on his own side. In the second he states that the possibility of learning the after-results of operations in India depends largely on the province in which they are performed. In the united provinces of Agra and Oudh, in which he himself served, the civil surgeon, if he took note of the addresses of his patients, could trace them when making tours of his district for vaccination and other purposes. He also found that patients were quite willing to report themselves at any time if their condition allowed them to travel, and provided that arrangements were made for their travelling expenses, and for their keep during the time they were at head quarters. But natives in different parts of India cannot, he admits, all be treated alike in this matter, so the difficulties of ascertaining late results may in some districts be much greater than he himself found them to be.


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# Observations

ON

# RATIONAL EMPIRICISM AND SCIENTIFIC MEDICINE: THE BOUNDARIES DIVIDING THEM.

BY

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CONSULTING PHYSICIAN TO ST. BARTHOLOMEW'S AND THE ITALIAN HOSPITALS; SENIOR PHYSICIAN TO THE SEAMEN'S HOSPITAL, GREENWICH.

THOSE who can recall the practice of medicine as carried on by the best physicians forty years ago and contrast it with that of the present time must be forcibly impressed with the fact that many alterations, both in method and detail, have been made.

Despite the opinion of Hooker that "alteration hath in it inconveniences," such changes, for the most part, may be safely regarded as evidence of progress both in the science and art of medicine.

I am not concerned here to refer to the remarkable advance which has been made in surgery during the same period, and in all that I may state with regard to medicine I shall endeavour to keep an open mind and in no degree to pose as a praiser of past days, for that standpoint is sometimes apt to signalize approaching or accomplished senility.

It cannot be disputed that it has been difficult, and sometimes impossible, for those fully engaged in practice to keep pace with the progress of medical knowledge in the last twenty-five years. Discoveries and new methods for diagnosis and treatment have been laid before us with unceasing rapidity, some of the greatest value, others of little or none; and amongst the latter are the novelties which are almost daily pressed on our attention after the manner of a Parisian *modiste* with the gentler sex. To acquire any practical knowledge of these would make a heavy claim on the attention of those who ventured to adopt them, and the result would be almost inevitably to displace some well-acquired and certified methods of practice and to upset principles which have been well established by long clinical experience.

Such novelties as I refer to have sometimes been presented to the general public and exploited by an over-active and not always disinterested lay press. Much harm has ensued in consequence of this, one result being to promote a widespread and unwholesome credulity amongst the public, and to render patients more difficult to treat and manage. Another outcome has been to encourage a vast amount of self-drugging on the part of the public, closely akin to dram-drinking, with mischievous and not seldom fatal results. Drug habits have thus been induced which were practically—save, perhaps, in the case of opium—unknown in civilized communities thirty or forty years ago. The full extent of this practice, and of the demoralization and danger entailed by it, in both sexes, is probably only known to the medical profession, and this matter is so grave as to demand vigorous and authoritative reprobation.

We must note that many of the novelties alluded to are alleged to be the results of scientific research and skill, largely conducted in foreign laboratories, and each one is introduced with an array of confident assertion as to its proved value. In about three years, or less time, we find that most of them disappear from notice, having been disregarded or found to be unworthy of confidence; yet some of them are in repute for a time, although urged on our attention with the flimsiest of recommendations. There would thus appear to be a fascination for novelty-hunting on the part of some members of our profession in respect of remedies. Where this exists I may at least give my experience that in such instances as I have met with there has been a lack of accurate knowledge of the materia medica, and no less of the clinical art of prescribing appropriate and well-certified remedies. Novelty-hunting is therefore chargeable with promoting an unwise scepticism as to the value of drugs and a veritable decay of faith in rational therapeutics. To employ newly-introduced remedies with too great frequency is to be engaged in frivolous experimentation, and such a practice is as little creditable to the intelligence of the prescriber as it is little beneficial to his patients.

This may appear a rather severe indictment to prefer, but I am strongly of opinion that it is justified by proceedings which are too prevalent at the present time. Such practice is no part of scientific medicine, nor does it indicate true progress, and it cannot be reckoned for rational empiricism.

It is needless to add that these remarks have no bearing on the employment of such modern and approved remedies as have been certified by careful and prolonged research. It must be noted, however, that progress of this kind is made but slowly, and that novelties hurried out of the laboratory cannot promptly be pronounced as safe and effective for use until they have been brought to the touchstone of clinical experiment and repeated observation. A due recognition of this fact would render negligible many of the hasty and unwarrantable opinions on new remedies which are laid before us so frequently.

Such considerations bring us to realize the great fact that a large part of our best practice of medicine is still, and probably will be for a long period, an *art*, although founded on many branches of *science*. If we are disposed to wait until all our therapeutic efforts are founded on principles of exact science, I much fear that our patients will not wait, and that they will have recourse to the medical *artist* in preference to the medical *scientist*. Human nature is very human, especially when it is diseased, and it knows what it wants.

We have therefore to affirm boldly, and without any misgiving, that much of the best medical practice is still empirical, and that a great physician is a great artist. It has always been so, and is likely to remain so for many a day. One result of this has been to deter some men of great mental ability from entering the profession, finding themselves dissatisfied with any methods of treatment which may not be placed on a mathematical or scientific basis. Such sceptics have not the faculty for acquiring an *art*, and could never become useful practitioners. The field for their capacities lies elsewhere. They have certainly no *mens medica*, and could make no progress in medicine.

It is necessary in discussing the question before us to have a right conception of the term "empirical." It is sometimes applied in a wrong sense as signifying a pretender to knowledge, or one who stands outside the ranks of an educated profession. Yet in its essence it is the product of "experience founded on observation alone," and in these terms we have the definition of no less an authority than Sir William Hamilton. As applied to a legitimate practice of medicine in these days, it cannot be said that "empiricism is experiment or experience without science," for the phenomena of disease are now carefully studied by many men well trained in scientific methods, and the results of treatment are no less rigidly noted as a scientist would note them.

We may fairly conclude that rational empiricism has never held a higher place in the history of medicine than it does to-day, and further, ask if it would be prudent or justifiable to throw aside forthwith all that it has secured for fruitful knowledge, and our guidance, in deference to the modern claims of scientific medicine.

We take note of dogmatic opinions issuing from the laboratories in regard to the action of drugs and articles of diet, which in some cases completely contradict the experience of clinical experts. For example, we find a condemnation of alcohol both as food and remedy at the hands of physiologists who have no clinical practice or experience of the treatment of morbid conditions in their fellow creatures. To such researches, the physician replies that he is sadly aware of the ill effects of alcohol when improperly used by man, and perfectly conceives that large doses of it are toxic and deadly for small animals, but that in clinical practice he finds it extremely useful in appropriate quantities for his patients in certain conditions.

In like manner we are told that strychnine has no action whatever on the heart, and that aconite is of no avail in reducing the frequency of the pulse, but in clinical practice we are familiar with good results resulting somehow from

the use of these agents, and we cannot afford to discard them until the precise *modus medendi* is revealed to us. We have to save life and to relieve suffering as we best can in the meantime, and if such practice is empirical it is certainly rational and beneficial; and we may at least be thankful for the advantages which are distinctly obtained by it. We may not forget that empiricism has often anticipated science in medicine. Clinical experience has certified the value of some drugs whose action the scientist has long subsequently learnt to explain, and there are still many remedies of which the efficacy is well assured whose exact action remains to be explained on a scientific basis. Empiricism thus aids scientific medicine by affording suggestions and indications for research.

At this point we appear to reach the boundary line which divides rational empiricism from scientific medicine. There is no room for the former in pathology. Minute study in pathogeny, histology, and in etiology have largely illumined the field here, and are extending our knowledge daily. So much so is this the case that increasing exactness in diagnosis has actually been one of the causes of a diminished faith in the efficacy of many remedies which have been in repute for morbid conditions whose nature and progress are now well ascertained, and therefore afford more precise indications for treatment by other measures. It may be noted in this respect that there has been some tendency to neglect the older means for affording relief to many symptoms during the progress of specific treatment in combating the original malady. Hygienic measures and varied environment have replaced much of the drugging which was the only resource in former days, but these by themselves have by no means covered the whole field of treatment of disease, as is sometimes fondly imagined, nor do they justify us in withholding other therapeutic agents, already well approved by experience in conjunction with them. A good deal of the present loss of faith in drugs is therefore unjustifiable, and no small part of it is due to modern inexpertness in the use of them.

In respect of scientific progress relating to diagnosis and therapy, it must be conceded that we are absolutely in the hands of the expert, and must demand from the laboratory nothing less than exactness and precision. Imperfect research can only be misleading.

In so far as modern medicine is scientific, it stands by itself with problems before it which no other science has to face and unravel. We have often to act, sometimes promptly, on probabilities, with no scientific indications to guide us. The personal factor in the individual, not always easy to recognize, has to be reckoned with, and each patient is a new and special problem for us at the bedside.

Empiricism gives way gradually to the clearly ascertained results of to-day which illumine for us so many parts of the body by radiation and other exact measures, and yields to the disclosure of biological conditions of the blood, serum, spinal fluid, urine, and other secretions. As we employ these methods, our work becomes more and more scientific, and the therapeutical indications more precise.

Amidst all this, and looking forward to continued progress and fresh revelations, we shall do well to hold on by our past experiences and to beware that we, as practitioners, do not permit ourselves to be over-engrossed with any particular pursuits in these directions. It has now become difficult to keep a level head, and to see all the developments of modern times in the field of medicine in due proportion.*

Rational empiricism, together with slowly progressive scientific medicine, are now being carried on by the best practitioners. In the immediate interests of the sick this must be so, and there can be no antagonism between them so long as the whole field of medicine is not covered by science. The boundaries which divide them are sufficiently clear to all well-educated members of our profession. It is as possible to be too empirical as it is to be too scientific in daily practice. We have seen that some therapeutic methods urged on an alleged scientific basis have ultimately proved to be unscientific, and of little or no value. In the meantime, I venture to think that we need to be both more prudently empirical, and more on the alert to avail ourselves of such knowledge as comes to us with the imprimatur of honesty and exact laboratory research. Such research must, however, be carried on with close and prolonged clinical co-operation. In that way only true progress lies.† The task is, indeed, a difficult one, and the outlook for all engaged in it appears likely to become more burdensome for each generation. Such seekers after truth must not expect much sympathy or support from the public, which looks for results quickly wrested from Nature, and is apt to be impatient with slow and persevering research. They know, however, that the true philosopher, who makes his mark for all time, reserves his results till he has covered the whole field of his research, and that he is the last man to seek untimely and sensational publicity for them.

* I desire to recommend the study of an admirable address lately delivered by Professor Chauffard, of Paris, "Du degré de Certitude de la Médecine" (*Conférence faite à la Société des Amis de l'Université.*) It deals largely with the matters touched upon in this paper. *Revue Scientifique*, 4bis, Rue de Châteaudun, Paris.

† Il ne faut pas oublier qu'en matière de traitement, c'est l'observation clinique qui reste le souverain juge, c'est le médecin au lit du malade qui a le dernier mot, et contrôle toutes ces méthodes, c'est lui qui décide de la valeur des progrès réalisés; c'est par lui, c'est par l'observation clinique, que les acquisitions sont jugées durable ou fécondes, ou au contraire tombent rapidement dans l'oubli.—A. Chauffard, loc. cit., p. 30.

‡ See letter from Director of Hovis Bread Flour Company, Limited, *Truth*, April 12th, 1911, p. 907.

# Remarks
ON
# FOOD AND FEEDING.

BY

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MANY medical and lay writers have contributed to popularize the subject of dietetics, and, as a consequence, a great change has taken place in the attitude of the public. In former times people ate what custom or their appetite suggested; now opinions are as diverse and views are as obstinately held as a couple of generations ago would have sufficed to heat a dispute about politics or religion. The result has not been in all respects bad, for many prejudices have disappeared, and simplicity and temperance in both eating and drinking are now more common. The difference may be noticed at any large club, especially at luncheon, at which meal many take no alcohol, not a few little or no meat, while fruit and vegetables are more in demand than they were a few years ago. It is recognized that obesity is in most cases the result of over-feeding, and it is no longer thought necessary to indulge the appetite to its utmost limits. It is to be regretted that some carry their principles to a ridiculous extreme, which may be a source of danger to health. On the other hand, there are conservatives in dietetics who in these wholesome changes see a risk of national degeneration, and express the fear that when we give up beef and beer we shall lose those qualities which have made the British nation what it is.

The campaign in favour of "standard bread" which has been carried on by a widely-circulated newspaper is a case in point. The view which the public has been asked to adopt and which has received the support of a much-advertised manifesto, signed by certain medical men, is that "white bread" is deficient in nitrogen and inferior to bread made from flour containing the whole of the constituents of the kernel of wheat except the bran. Flour of the latter kind is called wholemeal or Graham flour, while white flour of the best kind is called patent flour. No objection can be alleged against white bread, provided its whiteness be not due to any chemical treatment (bleaching) and that the bread contains weight for weight as good proportions of the nutritive elements, protein, carbohydrates, mineral matter, and fat as "standard" bread. The difficulty of proving this is that there is no such thing as "standard" bread apart from what certain bakers and biscuit makers are now advertising in response to the demand created by this journalistic agitation, a possibly unexpected and certainly undesirable effect of which seems to have been to facilitate the clearing out of large stocks of inferior flour.‡

I know of no attempt to define what is implied by the name in terms of the components of flour or bread. It is said to be made of the flour formed of all the constituents of the kernel of wheat except the bran—that is to say, of what goes by various names, for example, Graham or entire wheat or wholemeal flour. But the fact that flour is made from the entire kernel of wheat by no means implies that it is uniform in its composition, certain wheats known as "strong" containing a higher percentage of gluten than the softer starchy wheats which are called "weak," but it is the business of the much abused dealers in flour, who are represented as being in a conspiracy to supply the public with an inferior kind of food, to blend the various kinds of flour so as to produce an average which shall make palatable bread and contain those bread-making qualities which are appreciated by the public as well as by the baker. A good proportion of gluten makes a loaf that rises well, but excess interferes with this property, and the resulting loaf looks small as compared with one made from an equal quantity of flour containing more starch. It is, perhaps, of more importance that excess of gluten makes bread which holds a larger proportion of moisture. This last consideration is of the greatest importance to the poor, in whose interests this movement has ostensibly been started, because it is admitted that the well-to-do get plenty of nitrogenous food from other sources than bread. The moisture in bread varies from 30 to 40 per cent. of the whole weight, or to put it in other words, a 4 lb. loaf may contain from 19.2 to 25.6 oz. of water, for which the purchaser pays the price of bread. In the District of Columbia, U.S.A., the amount of water in bread is restricted by law to 31 per cent., but here we have no legal limit. The principal way in which the amount of moisture in the bread is affected is by the heat of the oven; a quick oven consolidates rapidly the outer part of the loaf and so prevents the escape of moisture. This point is one which so far seems to have escaped the attention of our bread reformers, who have devoted their care chiefly, if not exclusively, to the supposed deficiency of white flour in protein and mineral matter. What truth there is in this charge is shown by the following figures taken from Atwater and Benedict's table:

| | Protein. | Starch. | Fat. | Salts. |
|---|---|---|---|---|
| White bread ... ... | 9.2 | 53.1 | 1.3 | 1.1 |
| Graham bread ... ... | 8.9 | 52.1 | 1.8 | 1.5 |

The advantage in the proportion of protein lies therefore with the white bread, but chemical composition is not everything. Some years ago specimens were exhibited in London of a famine bread, which had been used for the food of human beings in Russia; it had the appearance of cattle cake, yet its chemical composition showed a high percentage of nitrogen, though its digestibility was doubtless low. Attempts have been made to determine the digestibility of various articles of food by administering a known quantity, collecting all the resulting faeces, and subtracting the weight of the latter from the weight of the food, moisture in both cases being excluded; so tested we get the following results, showing the proportion of protein and starch digested with each kind of flour:

| | Protein. | Starch. |
|---|---|---|
| | Per Cent. | Per Cent. |
| White bread ... ... ... ... ... | 88 | 98 |
| Graham bread ... ... ... ... ... | 76 | 90 |

These results are not strictly accurate, as the faeces contain a proportion of matter derived from the intestine, but the error may be neglected in comparing two kinds of nearly similar food. Tested in either way the superiority of white bread in protein digested is manifest and there is little basis left in this respect for the criticisms which have been so widely made. White flour is said to be relatively deficient in mineral matter, and so it is, but the difference is small, amounting to decimal point four per cent., and there is no evidence that this is of any importance.

It may be worth remembering that a distinct connexion has been proved to exist between the occurrence of beriberi and the eating of completely shelled rice, so that there is evidently something which is removed in the "polishings" which is of great physiological importance to the rice-eater.[1] It is possible that there may be some equally valuable substance which is removed in the preparation of fine white flour, and Dr. Gowland Hopkins seems to have had something of this sort in his mind when he gave his support to the "standard" bread campaign.

This suggestion derives confirmation from the experiments of Dr. Leonard Hill,[2] extended as they are by the results of the experiments of Drs. Edie and Simpson of Liverpool, which are not invalidated by those of Dr. Chalmers Watson, whose letter[3] comes opportunely to remind us that after all white bread is not a poison, although it may be deficient in certain valuable constituents of importance to men or animals who are fed exclusively on it.

The prevalent decay of teeth is said to be due to eating soft starchy food, and "standard" bread is claimed to be tougher, and therefore better for the teeth, but the "standard" bread I have eaten seems to be just as soft as ordinary white bread, and the difference must be slight. The theory that decay of the teeth is caused by eating soft starchy food is open to doubt. South African blacks live on porridge made from mealies (maize), and the natives of India and Japan subsist chiefly upon boiled rice, which is almost pure starch and very soft, yet they have good teeth. Dental caries is more likely to be caused by the excessive consumption of sugar, which has risen from 551,105 tons in 1864, or 30 lb. per head, to 1,604,022 tons, or 89 lb. per head, in 1910. My friend Mr. Mountford attributes the early decay of children's teeth to the practice of giving them biscuits to eat between meals. Neglect of the teeth is an important factor; tooth-cleaning is only a perfunctory performance with many who possess toothbrushes, but by the great majority of the population it is not even thought of, and washing out the mouth after a meal, as the French do, is thought by us to be an indecent habit. The use of a simple and effective toothbrush made by bruising the end of a piece of stick, and the careful rinsing of the mouth after eating, habits practised by every coolie in India, would perhaps do more for the preservation of our teeth than any change in the quality of our food.

I have already referred to the neglect of our bread reformers to deal with the question of moisture in the loaf, but an even more important subject upon which in the interests of public health a change is desirable is the general introduction of machinery for bread-making, which I would gladly see made compulsory. The present conditions of many bakehouses, which are over-heated cellars filled with half-naked men from whose bodies sweat pours to mingle with the dough, is not pleasant to think of. Arpin and Ammon assert that a baker loses from 200 to 340 grams in weight while kneading a batch of bread, mainly in perspiration, part of which must certainly go into the dough. A percentage of bakers are phthisical, and although, according to M. Laveran, living tubercle bacilli cannot survive the heat of baking, such persons must cough and scatter their purulent sputum over their work. It is said that there is a prejudice among the people against machine made bread, a French baker stating that he had introduced a machine at night so that no one in the nighbourhood might know about it, or he would lose his custom; but in London the Aerated Bread Company has shops in all districts, and appears to do a large business. I suspect the main obstruction is from the operative bakers, who, like other hand workers, are opposed to the introduction of machinery.

I hope that before long bread will be made in large factories, and that all mixing and kneading will be done by machinery. The whole supply of bread for a large town might be made at a single centre, where efficient inspection could secure its purity and uniformity. Bread is made by machinery in Hamburg by the Workmen's Co-operative Society, and supplied to a large proportion of the industrial population. I am told that it is better and cheaper than the bread that can be obtained at the ordinary bakers' shops. It is astonishing how insensitive we are to the well-known evils of the baking trade as it exists in this country.

Mr. Upton Sinclair, the American writer, and author of *The Jungle*, a novel which drew attention to the evils of the Chicago canned meat trade, and thereby did the State good service, contributed two articles to the *Contemporary Review*[4] during the past year on the virtues of fasting. His enthusiasm makes him speak of it as "the key to eternal youth," the "secret of perfect and permanent health," and "Nature's safety valve." He is a total abstainer from alcohol, tea, coffee, and tobacco, and a vegetarian, but by irregular eating, overwork, and carelessness as to how and what he ate, he brought on dyspepsia, which became so bad that at last he could not digest even cornflour mush. He began by fasting for eleven days, but at the end of that time he felt tired and weak on his legs; on the twelfth day he took the juice of twelve oranges, and repeated it on the thirteenth; on the fourteenth he took a glassful (½ pint) of warm milk every hour; on the fifteenth every forty-five minutes; on the sixteenth and subsequent days every half-hour, taking, he says, 8 quarts a day—an almost impossible quantity. On this diet he gained 32 lb. in twenty-four days, which is not surprising, if he could take it, as its heat value is 6,400 calories. He was not satisfied with this experiment, as he had given in too soon, so he fasted a second time, and on this occasion felt neither weakness nor hunger. He walked four miles every morning, had a cold bath and rub down twice a day, and lost 9 lb. in eight days; he went another week on a diet of oranges and figs. Since his fasts he claims to have lost his liability to headaches and colds, but he praises the method chiefly for conferring upon him "a marvellous and abounding energy"; yet he has to abandon his vegetarianism and adopt a Salisbury diet of beef and hot water "when he has much work to do," which suggests the want of a sound basis for the "energy." In his second article he complains that he cannot get doctors to be interested in the question, as they believe that no one can go many days without food of some sort, yet he asserts that in American sanatoriums there are thousands of people fasting, and a twenty or thirty days' fast is no more remarkable than a good score at golf. The record case is that of a fat man who fasted for ninety days; he originally weighed 385 lb. (27½ st.), but reduced himself by fasting for forty days to 130 lb. (9 st. 4 lb.); on returning to his business as a hotel keeper he became fatter than ever; he then fasted for ninety days, but Mr. Sinclair omits to mention the result. He admits that an individual here and there may have died, but he does not seem to think that of much importance. The danger is not during the fasting but when the fast is broken, as the hunger aroused is ravenous and there is a strong temptation to overload the stomach. He goes so far as to say that it is "absolutely certain that no one ever died of starvation while fasting," his view being that when appetite returns they eat, and "that any one could die of lack of food without feeling a desire for food is absurd"; but we know that there is such a thing as nervous anorexia, in which people lose the normal healthy desire for food and die in consequence if they are not fed. As Mr. Sinclair's writings appeal especially to the neurotic, there can be no doubt that his teaching is dangerous. That this is no imaginary danger is proved by three fatal cases which have come under my notice. The first, a motherless girl, the daughter of a busy doctor, was treated in Dr. Playfair's home, returned home, was not supervised, and died. The second was a woman under the care of an old practitioner who refused to believe in the risk; she also died. The third was a young man whose nurse neglected her duty, and after his death food supposed to have been eaten was found concealed everywhere in his bedroom.

The therapeutic value of fasting is certain, and it is true that it has been neglected. Baglivi noticed the disappearance or amelioration of many of the chronic ailments of his patients in Rome after Lent, and a similar satisfactory result of prison diet was pointed out to me by the medical officer to the Birmingham Prison many years ago. Von Noorden recommends the interposition of a fasting day from time to time in the regimen of diabetes, and Guelpa advocates fasting combined with purging for three days in the treatment of diabetes and gout. Oscar Jennings, writing to draw attention to the good results of Guelpa's practice, says that he noticed a chronic lacrymal ulcer became soundly healed during Succi's forty days' fast.

That the application of the method presents difficulties cannot be doubted, as even the modest restrictions universally recognized as needful in diabetes and gout are too often disregarded, or at least imperfectly obeyed. Those most willing to control their appetites are the temperate or ascetic people, whose nervous ailments are often amenable to dietetic treatment.

The Salisbury diet, in the form used by me, is almost a starvation regimen. I allow 12 oz. of minced mutton, served as collops, divided into three or four meals, followed two hours later by half a pint of hot water. The calorific value of this diet is only 420 heat units, and as the body during repose consumes 32 heat units for each kilo of body weight, a patient weighing 8 st. (56 kilos) requires 1,742 heat units. But, whereas Mr. Upton Sinclair says that during his fasts his tongue is coated and his breath foul, I find that a coated tongue becomes clean and gastric trouble rapidly disappears on the above-described regimen, which I maintain only for two or three days, during which my patients are kept at rest.

A variant of the fasting method is the no-breakfast plan, started in America, but which has its advocates and followers in this country. According to the account published by a disciple[5] in this country the patient is recommended to take a glass of hot water on rising, and no food until 1.30 p.m., when the meal should consist of vegetables, fruit fresh and dried, wholemeal biscuits, nuts, and brown bread, with nothing to drink; at 6.30 or 7.30 a similar meal with butter, and a drink of good soft water or oatmeal drink made by pouring boiling water on a teaspoonful of oatmeal. As this dietary contains no oil, olives, milk, or cheese, and only a little butter at the evening meal, it would appear to be insufficient, but he gives no quantities, so that this cannot be demonstrated. He claims, however, to find it enough for him, and he has taken long bicycle rides on fruit, nuts, and biscuits. He never eats unless he is hungry; he masticates thoroughly every mouthful of food, and he drinks nothing at meals. So far as the diet is concerned, it is a variety of vegetarianism, and the abstention from breakfast is a feature which is only of importance because it is at variance with our habits. Many, perhaps most, people would say that they would rather go without the mid-day meal than start their daily work without a good store of food, and in these busy times many have little opportunity in the middle of the day for more than a snack, so that there is force in the objection. On the other hand, breakfast shrinks to minute proportions in hot countries, and is a modern practice in England. It originated with the use of chocolate by ladies, who had a dish of chocolate before rising. In the minute account of his daily doings which Mr. Pepys gives, breakfast does not figure at all, but he mentions going to a tavern to get his morning draught. Some food was taken occasionally before setting out on a journey, but there was no recognized meal until dinner, which was in Mr. Pepys's time taken at noon. Our feedings depend mainly upon habit, but Marcel Labbé[6] holds that in cold climates—he is speaking of France—abstinence from food until mid-day involves burning up the reserves. As these are in most cases abundant, I do not know that it matters if we do burn them, but the times at which food is taken must be regulated mainly by social habits and convenience. Two good meals a day are sufficient for most people, and the modern interposition of two in addition is a luxury which can be dispensed with. There are many people, especially women, who say that they feel faint if they do not get food often, but this is the result of habit, and probably depends upon the secretion of gastric juice at the accustomed time, which is attended by some nausea and faintness if there is no food for it to attack.

Another of Mr. Upton Sinclair's dietetic projects is the abolition of cooking, which he says[7] destroys the health-giving properties of food, excites to gluttony, and is the cause of 95 per cent. of the diseases of the human frame. To convert mankind to this doctrine he has founded a co-operative community whose diet consists entirely of food in the state in which it is found in Nature, with no preparation whatever save washing. These conditions place great limitations on the available sources of food, as all cereals and most vegetables are indigestible until they have been boiled, but they allow nuts, ripe olives, salad vegetables, and a variety of fruits, both fresh and dried.

He claims that his wife and he have been cured of many ailments since they adopted this dietary. Whether it is as harmless as he supposes is doubtful; at any rate, Metchnikoff[8] points out the danger of acquiring harmful intestinal parasites from raw fruits and vegetables, and urges that they should be at least scalded before being eaten. The frequency of bowel complaints in countries where fruit is abundant tends to support this view.

How far it is possible to supply the needs of the body on such a dietary can be answered with some precision. Professor M. E. Jaffa, of the California Agricultural Experiment Station, has studied the dietaries of the fruitarians of that State. He gives the following as a sample of the day's rations: Apples, 475 grams (1 lb.); bananas, 110 grams (3⅞ oz.); oranges, 850 grams (28⅓ oz); dates, 5 grams (⅙ oz.); olive oil, 10 grams (⅓ oz.); almonds, 55 grams (1⅝ oz.); pine nuts, 70 grams (2⅓ oz.); and walnuts, 50 grams (1⅔ oz.). I have added the approximate equivalents in avoirdupois weights. The average amount of protein was 62 grams, and the heat value 2,493 calories. The average coefficients of digestibility were high, "no more effort being required to digest the fruit and nuts than is required for milk and bread." Jaffa's observations were made at first on two women and four children, but a second series was made on one of the women, two of the children, two elderly men who had been vegetarians for years and had limited their diet almost exclusively to fruit and nuts, and two young men, university students, accustomed to ordinary diet. Our English "fruitarians" are by no means so exclusive in their diet. In the *Penny Guide to Fruitarian Diet and Cookery* the following is a sample of a day's ration:

*Breakfast.*—Porridge and honey or bread and milk, toast and butter with a little vytalle or olive oil, a dozen stewed raisins, an apple and a few nuts, a small cup of cocoa.
*Dinner.*—Potatoes and greens and butter with an occasional fried egg, a milk pudding or a little cheese and salad and oil, half a glass of water.
*Tea.*—A cup of cocoa, a slice of bread-and-butter, and a piece of currant cake or jam or fruit salad.
*Supper.*—Bread and milk or cold rice pudding with raisins, or bread and cheese with a glass of hot milk or oatenade (rolled oats simmered in milk and strained).

This is much modified "fruitarianism," but our climate is not favourable to the cult. While it is possible to construct a strict fruitarian dietary which fulfils all theoretical requirements, I know of no actual experience to show that it can be followed here without injury to health.

An advocate of another form of vegetarianism is Dr. H. Tissier, who was led to his present views by his study of the causes of infantile diarrhoea. He believes the cause of at least one form of this disease to be a specific organism, the *B. perfringens*, which gives characteristic frothy green stools. Its growth is inhibited by substituting vegetable for animal albumen in the food, so he replaces milk by solutions of sugar or starch. The effect is enhanced by administering at the same time one or two teaspoonfuls of a living culture of the *B. paralactici* of Kosaï. He holds that animal proteins favour the occurrence of intestinal putrefaction, with consequent formation of toxins. Therefore he abstains from meats of all kinds, milk, eggs, and cheese, but takes butter, bouillon, and meat extracts, with, in certain circumstances, a little grated cheese. He and another adult member of his family have lived on this diet for two years, and during this time have followed their usual occupations, and have taken regular daily exercise by walking and cycling, including, on one occasion, a cycle ride of 120 miles.

The amount of scientific support which vegetarianism has recently received is remarkable. There is scarcely a modern standard work on dietetics or metabolism which does not yield some part of the old ground, and such writers as Marcel Labbé in France, Umber and Otto Cohnheim in Germany, Chalmers Watson in England, and Chittenden in America, express more or less definitely opinions in favour of the need for restricting the consumption of animal food, and encouraging a greater use of vegetables, fruit, milk, and cheese.

In spite of the cheapness of imported meat, it is doubtful whether the food actually eaten by our workers is as good as it was two generations ago. Tea, bread, tinned meat, and jam form the chief elements of the diet of the unskilled labourer and his family. Ignorance and neglect of the art of cooking render the women unable to take advantage of the abundance of cheap food, an exaggerated belief in the strengthening and sustaining properties of meat leads to a proportional want of appreciation of other kinds of food; the teapot is looked upon by the most temperate as a harmless source of stimulation; the craving for sweet things so natural to children is indulged too freely, while fats are overlooked; good dripping is relished by children, but there is no market for it among the poorest class, in spite of its cheapness—but this probably accounts for its unpopularity, for among the classes to which I refer food is appreciated very much in proportion to its supposed costliness, and despised if it is cheap. Hence the objection we often hear made by domestic servants, hospital patients, and soldiers in barracks to American beef or Australian mutton. Cods' heads, which contain so much nourishment, are not saleable in Birmingham, and are destroyed as offal!

For these reasons the labours of the National Food Enquiry Bureau to popularize oat-foods seem doomed to failure. The report shows that at present they are largely used in better-class homes (84 per cent.), but in the congested areas, where on economical grounds their introduction is so desirable, they are seldom seen (2·6 per cent.). The quicker cooking of rolled oats should facilitate their use, as the old-fashioned oatmeal required more time and care than the present-day labourer's wife would give to it, but it must be thoroughly boiled. There can be no doubt of the high nutritive value of oatmeal, and porridge should be the universal form of free breakfast which an unwise philanthropy provides for elementary school children at the cost of the ratepayer. It is tabooed by the supporters of the "soft starchy food" theory of dental caries,[9] and I fear this argument may be used by those who object to it because it is cheap.

REFERENCES.
[1] See BRITISH MEDICAL JOURNAL, June 4th, 1910, p. 1371. [2] Ibid., May 6th, 1911, p. 1068. [3] Ibid., May 13th, 1911, p. 1151. [4] See Perfect Health and the Humours of Fasting, *Contemporary Review*, April and November, 1910. [5] *The No-breakfast Plan*, by T. Owen. [6] *Régimes alimentaires*. [7] *British Health Review*, December, 1909, and January, 1910. [8] *The New Hygiene*. [9] J. Sim Wallace, *The Child*, April, 1911.

# CANCER, CREDULITY, AND QUACKERY.

BY E. F. BASHFORD, M.D.,
GENERAL SUPERINTENDENT OF RESEARCH AND DIRECTOR OF THE LABORATORY, IMPERIAL CANCER RESEARCH FUND.

IN the course of the past eight or nine years a very large number of communications have been addressed to the Imperial Cancer Research Fund by persons claiming to possess a "cure," a "certain cure," "an infallible remedy," "an absolute cure," a "never fail cure," or "the only cure" for cancer. The first step towards investigating the value of these communications has invariably been to ask the senders to furnish a written statement divulging the exact nature or composition of the alleged remedy. When required, a guarantee that the information asked for would be regarded as confidential has been given. Further, a statement has also been demanded of the nature of the evidence on which the claims of cure were based, and of the reasons which led to the diagnosis of cancer being made. Many correspondents flatly refused to comply with these conditions, alleging in extenuation that they were unjust. In all such cases no exact conclusion as to the value of the alleged remedies is possible; but it can be inferred with considerable probability, from the nature of the information vouchsafed, that the claims made would not have been substantiated had opportunity been afforded for submitting them to adequate examination. It is surprising how many people are unconvinced that the scientific examination of such claims presupposes exact knowledge of the ingredients of the remedy. In the absence of this knowledge negative conclusions could always be ascribed to error, such as failure to recognize the presence, or to give due value to the potency of an alleged efficacious ingredient, in the event of an analysis having been made and particular ingredients investigated. Where claims have been made with a view to obtaining pecuniary reward—specific

sums as high as £10,000 and £80,000 have been mentioned by correspondents—there is all the greater need for the foregoing precautions in order to ensure the nature of a remedy becoming public property, in the event of a claim being substantiated.

In a large number of instances the claimants have complied with the preliminary conditions. The melancholy result of the experience gained by correspondence, interviews, and investigation is that, without exception, the claims so confidently made have been without any scientific justification, and a survey of the information vouchsafed reveals an astounding amount of credulity on the part of the public and of those engaged in the irregular practice of medicine as "cancer curers." What is much more serious is the evidence obtained that a few members of the medical profession screen, or countenance, the rankest forms of quackery. I have good reason for believing that to-day in London, and elsewhere throughout the country, members of the medical profession practising as "cancer curers" knowingly and deliberately trade upon the anxieties and credulity of the public in all that pertains to the etiology and the treatment of cancer. The number of quacks outside the profession also engaged as "cancer curers" cannot be estimated, but must be very much greater than the several hundred correspondents who were either sufficiently honest, impertinent, or naïve as to bring their proceedings to my notice.


# MR. PORT,

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## CANCERS, POLYPUS, & FISTULA,

CURED WITHOUT CUTTING.

## Port's Celebrated Vegetable Pills,

ALSO

**Specific Remedies for Diseases of the Spine, Chronic, and Acute Rheumatism, White Swellings and Scatica, Corns and Bunions, Scrofula, and all cutaneous disorders of the system.**

### TESTIMONIALS.

I hereby certify, that Dr. PORT has extracted two Cancers one from each of my breasts, within the last two years, and I am quite well and free from pain.

WITNESSES { MARTHA EDWARDS, MARGARET JONES, ANDREW HALL, MARY HALL. } ELIZABETH DOYLE, Bridge End, Birkenhead.

*Aug. 23rd*, 1855.

The above named person is now living in the same place hearty and well. E. J. PORT.

Nov. 5th, 1867.

Miss HUBBERSTEY, of Clayton Green, near Chorley, was cured of a Cancer in the breast, in June, 1848, and remains free from pain or any other ill effect.

Miss RADLEY, of Bidston Mill, near Birkenhead, was cured of a Cancer in the upper part of the left arm, in February, 1849, she having been cut three years previously.


Experience of the credulity of the public has also been acquired in various other ways—for example, through the nature of the many suggestions offered in all honesty as to the nature of the disease, and often more emphatically when patients or their friends and relatives have, against my wish, sought, and on occasion obtained, interviews. Sometimes I have been approached under the influence of the idea that I had something up my sleeve, something which, though still in the experimental stage, might be tried if only in the way of a forlorn hope. Time and time again the story told has run on the familiar lines—a history of early neglect of the advice of the surgeon, inoperable cancer, resort to quacks, and, finally, appeal to myself. To be obliged to listen to the history of such cases is most distressing to all physicians and surgeons, and not less so to the laboratory worker whose duty it becomes to point out that it would be criminal to apply to man any of the methods hitherto found efficacious in preventing or modifying the growth of *transplanted* cancer in animals.

The following two narratives are quoted from a lecture delivered by Sir Spencer Wells in 1857. They depict a state of affairs still obtaining after sixty-five years. Sir Spencer Wells said:

> I may as well, therefore, give you one or two instances of the sort of cases you may meet with in private. In the year 1853 I was sent for to see a gentleman well known in the higher ranks of London society. He had a malignant tumour beneath the angle of the left jaw, and his case is so excellent an example of the way in which people with cancer run about, first among the surgeons and then to the cancer curers, that I will relate it at some length. This gentleman first complained of a sore in the inside of the left cheek. He fancied he had bitten it. Then it was thought that a decayed tooth had caused it, and the tooth was extracted. Then caustic was used. Still it did not get well, and Mr. Fergusson was consulted. He excised the diseased part; a good deal of bleeding followed, and styptics were used freely. Some time after swelling came on beneath the jaw, and Mr. Lawrence was consulted. He said the disease was malignant, advised attention to the general health, and a course of sarsaparilla. Then I was called in. The skin at that time was on the point of giving way. I employed congelation by Dr. Arnott's process. This did some temporary good. It gave relief to pain, and I felt pretty sure that it retarded the growth of the tumour. However, the patient was not content with that, and Dr. Marsden was sent for. He advised a very generous diet. Soon after this the skin gave way, and carrot poultices were used. Then came the turn of the cancer curers. Dr. Pattison was sent for, and had sense enough to see that he could do nothing, but made the most of the case, of course, by saying that if he had been called in at first he should certainly have effected a cure. Then a German empiric was heard of who was doing wonders somewhere on the Rhine, and he was written to. He offered to come over for five hundred pounds, and ultimately an arrangement was made to give him three hundred. He came, saw, and conquered—not the disease, but the patient. He applied a very strong caustic one Monday; on the Tuesday it had destroye dhe coats of a large artery, whi ch gave way, and the patient bled to death in a very few minutes.
>
> Every one who has seen much practice in town could tell such stories as these, but one I have heard Dr. Jenner relate is most striking. He was called one morning, seven or eight years ago, to see a lady who was said to have fainted. He found a lady dead in bed, and a cancer curer just about to reapply a dressing upon the breast of the dead woman. This person was so ignorant of medicine that he did not know she was dead; he was horror-struck when Dr. Jenner told him so, and had just before assured the husband that his wife was going on well, and would soon be cured. The quack was not punished. The husband and friends were ashamed of having been duped, and they kept quiet.

I have found it interesting to consider what may be the grounds of the frequency with which quacks are relied upon by the public to treat cancer. A survey of the different aspects of this most important subject reveals quite a number of probable reasons in addition to the natural dread of the knife, and the quite unwarranted belief that cancer is a loathsome disease to be ashamed of. I shall pass some of these reasons in review.

### EXPLOITATION OF THE UNIVERSAL FAMILIARITY WITH "CANCER."

The first opportunity for the quack is found in the familiarity of all classes of people with the terms "cancer" and "canker." "Cancer," as a scare headline possesses more power to arrest attention than any other in the vocabulary of medicine. In its two syllables it spells something dreadful, and with an alliterative emphasis in its variant "canker." Although it is merely a vague term, whether objectively used of human ailments or metaphorically applied to human actions, yet it is very definitely damnatory. ". . . And is't not to be damn'd, To let this canker of our nature come in farther evil? . . ." In sharp contrast with the uncertainties inseparable from the use of the term "cancer" in vernacular language is the hard and fast rule for its treatment—namely, early and complete surgical removal. The public are as familiar with this rule as they are with "cancer," and the absence

of an alternative treatment of any proved value leaves the door open to every form of quackery.

Cancer was at one time a term used as vaguely in the language of science as in popular parlance. To-day a vagueness remains, but it is of a different kind, after some fifty and more years of endeavour to impose strict limitations to the employment of the word in scientific language. Nevertheless, and indeed in spite of the progress of exact knowledge, familiar usage has held its own; in the vocabulary of everyday life no substitute has been found for it. In French and in English "cancer," as "Krebs" in German, is used by the public at large with reference to disease, and is understood by it to cover all sorts of malignant new growths, and much else besides, far too frequently to permit of the pathologist ever assigning to "cancer" the part of a mere technical term designating one group of malignant new growths. How little progress the medical profession even has made towards discarding it in favour of newer and unambiguous terms is shown by the reports of the Registrar-General.

The deaths ascribed to malignant new growths during 1909 numbered 34,053, of which 19,513 were referred to carcinoma, 1,974 to sarcoma, and 12,566 less definitely to "cancer," not otherwise defined. The latter number remains about stationary year by year, but the deaths ascribed to carcinoma are rapidly increasing.

If yet another demonstration is wanted of the futility of attempting to rob ordinary language of "cancer," it is to be found in the titles chosen by universal consent of the lay and scientific public of all countries, for those individuals, institutions, laboratories, and organizations engaged in "cancer research," "étude du cancer," or "Krebsforschung"; whatever the equivalent terms may be in other languages they are equally popular, far-reaching and equivocal. It is generally recognized that the investigation of cancer cannot be restricted to carcinoma, and in studying the disease it is not thus restricted.

Just as all the world over a two-syllable euphonious title is preferred for an hotel, since a name of more syllables places a hostelry at a disadvantage, so such phrases as "malignant new growths" have been at a disadvantage in competing with "cancer" and unable to oust it. Even in scientific language many substitutes for it have been suggested—neoplasm, autochthonous blastoma—without success. The substitutes suggested for use in scientific language have been too often coloured through being formulated in terms of some explanatory hypothesis, and for this reason alone could not count on general acceptance. I believe it is better to resign oneself to the tenacity with which the layman adheres to his right to the word instead of trying to dispense with "cancer" altogether, acknowledging at the same time that the progress of knowledge has greatly altered its scientific connotation in the course of ages, and is still doing so, and conceding also that the disadvantages of employing it at all attach equally to every substitute suggested in the present imperfect state of knowledge. The opportunities for the quack are great for this reason alone, that all are familiar with the term, all dread the disease, no man comprehends it, and the quack seizes every opportunity to exploit uncertainty, ignorance, fear, and credulity, when honest men offer no alternative to the knife.

### EXPLOITATION OF ABSENCE OF RELATION BETWEEN STRUCTURE AND MALIGNANCY.

"Cancer" till late in the last century had a clinical significance only. Its use implied no knowledge of the histology and accurate pathological anatomy of malignant new growths. Cancer covered a multitude of signs of disease to which it is no longer applied either by the medical profession or by educated laymen. Among uneducated people "cancer" still is used to cover many syphilitic sores as well as others of an entirely different nature. To-day, notwithstanding its reputed indefiniteness, it conveys to all educated people who use or hear it a sufficiently clear conception of a group or groups of insidious diseases of the nature of swellings and ulcers which all fear, and which many are ashamed even to acknowledge have occurred in relatives.

The introduction and advances resulting from the study of the microscopical structure of healthy and diseased tissues first permitted of the term "cancer" being applied on the basis of exact anatomical knowledge both as to the structure and the relationships of the primary tumour and its off-shoots or metastases. Synchronously with this great increase in knowledge, cancer became a synonym for carcinoma; among scientists it denoted a malignant new growth of epithelial origin as contrasted with sarcoma—that is, a new growth of connective tissue origin. The progress of anatomical, histological, and embryological knowledge led to the recognition of a large number of other tissue formations, and the number of "omas" became as numerous as the tumours of different organs or tissues. So goodly a number of them more or less accurately distinguish one form or type of malignant new growths from others, that, as Adami remarks in another connexion, to classify them would be to construct a Chinese alphabet. Thus, in the course of the last thirty-five years of the nineteenth century a large number of new terms were coined to give exact expression to what the microscope revealed to the pathologist; but both the patient and the clinician still wanted only a straight answer to the question, Is the growth or ulcer benign or is it malignant?

Thus the second opportunity of the quacks is provided by the fact that, great as were the advances mirrored in exactly naming new growths according to their tissue of origin and minute structure, those advances were unaccompanied by a corresponding preciseness in clinical conceptions of what constituted the symptomatology of cancers, and of what were the criteria of the degrees of malignancy. Attempts were made to deduce the clinical course from the histological structure, and to make the huge list of subdivisions the histologist had introduced conform to, or at least incline in favour of, one or other of the two simple categories—benign and malignant. Both the surgeon and the pathologist soon became aware that the relation between structure and clinical course was not always so straightforward. Therefore, in putting this simple clinical classification into practice, it was modified


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according to the site of the primary growth, cognizance being also taken of the degree of vascularity, amount of movement, and other conditions which were early recognized as influencing the local spread of new growths and the early or late appearance of metastases, as illustrated. for example, by the contrast in the advance and dissemina, tion of squamous-cell carcinoma of the tongue and larynx. But even under such limitations surgeons and pathologists became familiar with the contradictory behaviour of malignant new growths which were reasonably supposed to be identical, more especially when they occurred in similar sites. With all their apparent identity in structure and sites, it was only too evident that malignant new growths presented variations in malignancy, and that with uniform care in operation uniform results could not always be ensured. To modify the surgical procedure, in the sense of restricting its extent or delaying it, in accordance with histological indications, was frequently to court disaster, except in the case of certain growths of very well-defined nature, and then only of particular organs. All these difficulties in the way of adapting surgical treatment to diagnosis are present at the time most favourable for operation. They remain, sometimes even in enhanced degree, after the earlier stages of hopelessly inoperable cancer, or of a condition simulating it, is reached. At this advanced stage, weighing the possible advantages against the certain risks of surgical interference, should the disease be cancer, leads more often than not to the patient or the surgeon refusing to take a step apparently so unavailing either to relieve suffering or to prolong life. In early and operable cases the only rational treatment is to treat as if for the worst. The absence of any alternative of itself, in spite of the uncertainties of diagnosis and prognosis, gives the opportunity for the reasonable anxieties of the patient being exploited by quacks whose procedure is exactly the reverse, and who treat as if it were for the best, and chance it. In all the statements, pamphlets, and books I have read by persons claiming to treat cancer by other than surgical methods, much capital is made out of the opinions of surgeons as to the diagnosis of the growths treated and "cured." The inoperable cases "cured" by the quack would not be so frequent if surgeons were not honest.

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MIRACLES WILL NEVER CEASE.

This Wonderful Ointment will cure all kinds of Diseases of the Skin, Old Wounds of long standing and deemed incurable. (Ladies suffering from Bad Breasts,) Old Ulcers. Abscesses. Cancers of all descriptions. Tumours. Polypus. Piles (blind or bleeding), Fistulas, Scrofula. (Gun-shot Wounds.) Bad Legs. Arms. Whitlows. Boils. Burns. Scalds. (King's Evil.) Scurvy. all kinds of Poisoned Wounds. (will draw out Splinters, Needles, or Broken and Diseased Bones.) Erysipelas. Stings. Venomous Bites. Scurf. Itch. Ringworms. Chilblains. Chapped Hands. Cracked Lips. Cuts. Gathering in the Ears. Deafness. Inflamed Eyes. &c., Sore Throats. Exema. Mumps. Bruises. Neuralgia. Rheumatism. Rheumatic Gout. Stiffness and Swelling of the Joints. Paralysis. (Limbs drawn up. Crippled.) Sprains. Lumbago. Pains in the Legs. Back. &c.. (Hip Diseases.) Salt Rheum. Corns. &c.

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It is entirely free from all poisonous ingredients.
It is always safe and reliable. It stops the pain.
It has never been known to fail. It has cured thousands.
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It goes directly to the diseased parts.
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*This Ointment can be applied with perfect confidence to the most tender skin. JUST TRY ONE BOX, and you will never forget its value and truth.*

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### EXPLOITATION OF THE VIEW THAT CANCER IS OF CONSTITUTIONAL ORIGIN.

The handicap under which surgery labours in applying the only rational treatment is already great under each of the foregoing heads; but it is small in comparison with that imposed by the unscrupulous exploitation of the part that bodily constitution can be alleged to play in the development and progress of cancer. It is an old question whether cancer is constitutional or strictly circumscribed and local in its origin, and although from the standpoint of surgical treatment the adequacy of the demonstration of the circumscribed origin of cancer, as described below, can no longer be disputed on reasonable grounds, nevertheless charlatanism and credulity find more common ground on which to combat common sense, and to undermine the just claims of surgery by opposing this conclusion, and by describing cancer as a constitutional disease, than they do in any other fallacy. Even the most ignorant conceive that they have got a "constitution" which they can be brought to understand they have abused by some form of self-indulgence; and is not many an ailment quite satisfactorily explained without reflecting on the patient's own mode of living by saying it is constitutional, or in the blood?

Consider the various effects of a contaminated blood stream upon the epithelial cell, the culminating point of the pollution resulting in cancer.

It is of no more avail to excise the local manifestation of blood contamination—which cancer undoubtedly is—and thus expect to eradicate the constitutional affection, than to cut out a piece of dry rot in a beam without adopting means to remove the cause of the mischief.

Back up this assertion by bringing in "furuncles or boils," "carbuncles," "eczema," "certain squamous diseases of the skin," "psoriasis," "scurvy," and is not the mystery of cancer at once comprehensible to the credulous? Will not the timid dread the knife sufficiently without melodramatic assertions of the details of ruthless mutilation, and of woman's chaste desire not to sacrifice her breast? It might be supposed that the quotations were made from a printed slip like those reproduced in the figures: but this is not the case. I have selected them as being written, I assume in all seriousness, by a member of the medical profession. They are taken from a chapter entitled "The Evolution of the Cancer Cell" in a booklet by Dr. Robert Bell, and are avowedly intended to divert the cancer sufferer from the assistance of surgery as "interfering fatally with the therapeutic measures which otherwise might have proved efficacious." I am not at present concerned with Dr. Bell's "therapeutic, dietetic, and hygienic measures," which "have a much larger proportion of cures to their credit than surgery has ever been able to obtain," but only with the kind of physiology and pathology that is to-day employed to create a make-believe in the constitutional nature of cancer. The pages from which I quote contain a jumble of words—irrelevant chatter, as it seems to me—in which milk, nuclein, the thyroid gland, pork, butcher's meat, constipation, menstruation, cell metabolism, platform experience, and contaminated blood, jostle one another without order or reason; with the throwing-in of a biblical quotation and repeated dwelling upon the natural dread of the knife, an appeal to all human frailties is completed. In this way old fallacies about cancer being a "blood disease" are kept alive among many members of the public, as is also the nonsense of its having anything to do "with certain squamous diseases of the skin"—to quote Dr. Bell again—except rodent ulcer and squamous-cell carcinoma. Such books as that of Dr. Robert Bell appeal especially to those fearing lest they be victims of cancer, and can hardly be expected to serve for the enlightenment of the medical profession.

However unreasonable and foolish it is to-day to describe cancer in general terms as a "constitutional disease," a "blood disease," or a "skin disease," it was not always so, and, if such views are no longer entertained by those familiar with the scientific details, they still slumber on in the minds of the world at large, and account for the ready response accorded to appeals to ignorance and

THE QUACK DOCTOR.

*After Gerhard Douw.*

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prejudice in the matter of treating cancer, all the more so because there are certain features in the origin, growth, and dissemination of cancer, to explain which even to-day we have to assume a certain kind of predisposition of the individual or of organs. Indeed, the existence of predisposition of a sharply defined nature has been demonstrated to play a part in determining certain features in the natural history of the disease. This predisposition has, however, no kind of semblance to the older views of cancer as a constitutional disease nor to the rhodomontade about cancer as a blood disease. Black bile, humours, expulsion of explosive stuffs, exudation of diseased products, sterility, suppression of menses, over-nourishment, adiposity, age, lime, consumption of pork, of meat, of vegetables, of fruit, or of salt, and temperament, worry, suppression of perspiration, heredity in the vaguest senses, rheumatism, acidity of the blood, etc., have all played a part in the serious discussion of cancer as a constitutional disease. That the advance of knowledge has led to some of them being discarded altogether and has given to others a different and precise significance does not imply that the older erroneous conceptions have been banished from popular memory also, nor that the quack does not have much latent credulity to work upon. Some of the suggestions made to me as to the etiology of cancer demonstrate the survival of much ancient lore about the disease. These views, even if they appear quite absurd to-day, were not therefore of necessity brought to my notice by uneducated people, nor does it follow that they would be disavowed by all educated persons were I to recount them here.

### EXPLOITATION OF THE DIFFICULTIES OF DIAGNOSIS.

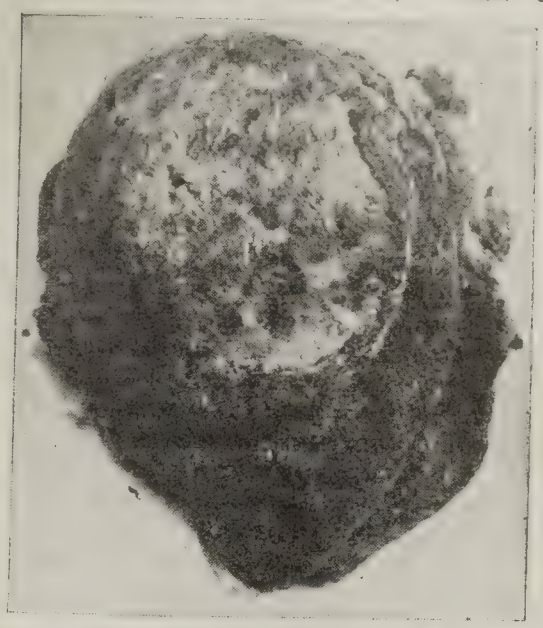
From what has been said above it may be apparent how great are the difficulties in the way of the surgical treatment of cancer, even after its rational nature and its success have been established to the point of absolute demonstration by experiments conducted on animals. It may also be equally plain how correspondingly great are the advantages under which the cancer curer urges his counter-claims on the credulous public, and how often he profits by the opportunities sent his way whenever surgeons refuse to advise any treatment of a suspicious growth short of that which would have been necessary in the case of cancer. Data collected from hospitals show, as was to be expected, a considerable amount of over-diagnosis, represented by 757 cases wrongly diagnosed and treated as cancer during 1904–9, even under the most favourable conditions for clinical examination. Of cases easily accessible to complete physical examination, 7 per cent. were thus wrongly diagnosed, in intermediate sites the percentage was 9.3, and in sites inaccessible to complete physical examination 10.8. There is not the least doubt that these diagnoses were made and surgical treatment adopted in the best interests of the patients, nor is there any doubt, since the cases passed under the observation of many competent men, both before and after entering hospital, that they very closely simulated the clinical picture of cancer. In other circumstances the difficulty of distinguishing will not be less, but probably greater. Not by any means are all such cases operated upon and the truth ascertained by subsequent pathological examination; thus is provided an annual crop of cases of *reputed cancer* more than adequate to account for all the "cures" claimed by all the quacks and cancer curers on the basis of the diagnoses of "inoperable cancer" by eminent surgeons or by hospital authorities. Examples of the exploitation of the uncertainty of diagnosis might easily be instanced to illustrate that there is this further important point to be noted—namely, the cases of over-diagnosis quoted above have been ascertained from the surgeons and hospital authorities themselves, who candidly admit them and recognize that they are at present unavoidable in the absence of unequivocal diagnostic methods.* I have yet to learn of a single error in the diagnosis of cancer admitted on the part of a "quack" or "cancer curer." They claim an infallibility equal to that claimed for their nostrums, and compatible with the ignorance and assurance they proclaim in their accounts of the histogenesis and pathogenesis of cancer.

*The search for these has given rise to a crop of unreliable criteria, "tryptic" and "antitryptic indices," "anaphylactic" and other reactions.



### THE QUACK'S ARMAMENTARY.

Judging from the evidence before me, the means employed to treat by other than surgical methods everything that is understood as "cancer" in the vernacular, differ in principle to-day very little from those employed by the cancer curers of old. Caustics, herbs, ointments, plasters, pills, poultices, vegetable remedies, Chian turpentine,



Cancer plaster. After removal (!) of the cancer the so-called roots are on the other side.

friar's balsam, magnetism, and mesmerism still figure in the list, to which additions have been made by way of turning to account and travestying the importance of dietetics, and whatever may still be or have been reasonable in the legitimate employment of electricity, ferments, high frequency currents, electric light, sunlight, coloured light, radio-active baths, radio-active drinking water, and organotherapy.

#### A. *Part Played by Religion and Superstition.*

Cures on a religious or quack-religious basis are put forward to-day as of old. The address of a Roman Catholic priest who possesses a cure was communicated in all seriousness, no details being given, scriptural analogies alone supplying the evidence in substantiation. Another correspondent writes:

> I say now as an incentive that I believe the Almighty has revealed to me a cure; the only stipulation I make is that the medicine shall be given a fair trial in a case of cirrhosis of the liver.

Yet another writes:

> Jews never suffer from cancer; therefore bleed a cancer patient to the limit of safety and pump into him the blood of three or more healthy young Jews fed according to their law. The blood would repel and kill the cancer germ.

These are but illustrations. There is a Scotch minister who was much before the public a few years ago with marvellous tales of his curative powers, possessed, perhaps, on a similar basis to those of another quack, who writes, "Possibly I may have more heat or electricity in my system than most men." In other communications the religious or superstitious element takes the form of a survival of the belief that somewhere in the world a plant has been hidden which it is our duty to seek.

> "The merciful Creator provided in non-poisonous herbs a remedy for every disease the flesh is heir to," is the appeal a herbalist quack makes to those of this way of thinking, and to those who uphold the doctrine that "no herb is poisonous, but many weeds are."

Superstitious beliefs also manifest themselves in faith in old prescriptions that have been handed down as family heirlooms.

> The treatment was medicine from an old prescription handed down in my family from as far back as 1700—and was given me by my father. He told me that no one had been treated by the prescription for sixty years or more.

Such old prescriptions are apt to be employed in the present generation in a way not originally intended—for example:

> I have a receipt which has been in my husband's family for three generations for curing cancer in horses, and I have been offered £100 for it by Veterinary Surgeons. My treatment is very similar to vaccination. My husband died 5 years ago, leaving me the receipt, and I thought myself, if it was good for horses it would be good for human beings.

Thus are invented the tales relied upon by hereditary families of medical botanists, herbalists, and dentists, or such legends as that of a "gifted family of blacksmiths" with natural powers of healing, to whom my attention was seriously directed by a clergyman in the hope that the secret which died with the last member of the race might be ascertained. Other correspondents, in the course of the perusal of old volumes, unearth and revive old prescriptions, for example, one from the *Scots Magazine* of 1751; or again they are kept alive, as in the case of burdock root, by means of printed slips such as the following one, supplied by the Prioress of a Nunnery.

> Remedy for Cancer & other diseases, arising from a bad state of the blood.
>
> ———o———
>
> The root of the Burdock (Arctium Lappa) with large leaves. The flowers resemble those of Thistles.
>
> Take a middle sized root, boil it in a pint & three quarters of water until reduced one 3d. add a little Aloes about the size of a small nut.
>
> Dose. A wine-glassful before each meal.
>
> N.B. If the invalid is not able to take plenty of nourishment, the remedy must be discontinued.
>
> The same decoction may be used for diseases of the blood of a less dangerous nature than Cancer, but then the aloes is not added.
>
> The plant should be gathered in Autumn, when the sap has descended to the root.
>
> The leaves and stalks pounded to pulp, and applied to cancerous or other sores, will heal them, as also the juice used as a wash.
>
> Exact weight of ingredients for each infusion. Burdock 1 dram 15 grains. Aloes 7 grains.
>
> Time it usually takes to effect a cure.
>
> Cancer in the Tongue. 6 months.
> do. — in the Stomach. 18 months.
> do. — in the Breast. 2 years.
> do. — in the Bowels. 3 years.
>
> N B —
> The Patient must take plenty of nourishment while using this Remedy —

### B. *Herbal Remedies.*

Belief in the virtue of a plant is frequently shown. It may arise in an assertion that it cured the claimant who possesses a "cure," *plus* a hint at cures in other persons; or it may be more grotesque, so "that there might possibly be a cure for this disease in the American aloe plant, it being similar in appearance to an inverted cancer." What an "inverted cancer" may be like is not stated. More frequently the origin of the belief cannot be traced—for example, a decoction of red clover tops has been recommended from New Zealand; from Ireland, where it is stated they are included in an old Irish prescription; and from Wales. Red clover tops also appear in the statements of herbalist quacks. Decoction of mistletoe is recommended by one who applies locally potato poultices because "I claim that the cancer has life and feeds on the flesh, and given an opportunity it will feed on the potato until it dies." Violet leaf plasters still do duty, sarsaparilla, sorrel, hemlock, charred dandelion root, *Rumex alpinus*, etc., occur. Of plantain leaf it is written, "The drawing power of that leaf is simply marvellous." "I have used it myself for irritation and redness of the nose. It has the same colour as the plasters used twenty-five years ago for cancer." Condurango is suggested because "used by the Indians of Ecuador for curing cancer." Similar stories are told of the natives of Australia and South Africa in regard to other plants. Of vegetable caustics, ipecacuanha, croton oil, pokeweed are recommended, and the juice of *Euphorbia drummondi* is stated to be "used by the blacks of Queensland to cure venereal disease and to cure cancer in cattle"; for when "injected three times a day at intervals of four weeks, it is efficacious among blacks as a cure for cancer." Bottles of juice and packages of vegetable ointments of unascertainable composition have often been offered for pecuniary reward—"The remedy is Nature's own, and the herb is fairly plentiful. I will send a bottle of the juice and a tin of ointment for external application. A medical man wants to buy it; says it is worth £1,000"—is a sample application. A miscellaneous collection of records of the virtues of fruit and vegetable juices, including capsicum, turpentine, friar's balsam, Chian turpentine, onions, and molasses completes the extracts from the list of plant remedies not re-enforced by the addition of other ingredients—for example, mineral caustics.

The history of how molasses came to be a cure for cancer is instructive. Some years ago there was a great to-do in the newspapers about the virtue of molasses as a cure for cancer, and the claims made were inquired into in London and elsewhere. All the pother arose in the following manner: The manager at a sugar refinery in McKay, Queensland, heard in 1902 a tale, from a man who dropped into his office, about the wonderful effect molasses had upon a supposed case of cancer. After the *raconteur* had gone "I began to circulate what I had heard, and one of our men being very bad with large corns on the sole of his feet, got relief on the second application." Molasses thereupon blossomed forth not only as a cancer cure, but as a "cure also for many other complaints, such as shortness of breathing, corns, constipation," etc. Its virtues had increased so greatly in a few years that the newspapers were full of the marvellous properties of the "McKay Cure for Cancer," and rival claimants put in applications for the high reward expected by whomsoever could establish his claim to be the true proprietor.

### C. *Mineral Caustics.*

Vegetable products are, however, most frequently employed to conceal more active ingredients. Many so-called pure herbal remedies employed as plasters, poultices, and ointments, contain other active ingredients—for example, "sorrel *plus* chloride of potash or lye" gives a strongly alkaline caustic solution, owing none of its action to the sorrel, although the result is described thus: "The sorrel will cook the cancer, but does not eat it as it does the flesh, hence it eats all the flesh away and lets the cancer loose." The same remark applies to the "bark of red oak burnt to ashes, and applied to the cancer till it is eaten out."

Arsenic, the chloride and the sulphate of zinc, tartar emetic, corrosive sublimate, and other dangerous caustics apparently form the chief standbys of the cancer curer of to-day in his claims to cure cancer without the knife.

> I have in my possession a process for making an ointment which has cured cancers for many years and has never failed, causing the largest spider cancers to be taken out with all their tentacles, killing and curing the cancer germs and healing the parts not only without injury, but to the great relief of and health of the patient.

So runs the statement of one of these gentry, while that of another reads:

> I own a tried and sure cure in the form of an external application. . . . The most malignant spreading cancers are immediately arrested and killed root and branch by this cure, its power reaching out to the hair-like tentacles in a most wonderful manner, leaving nothing of cancerous life in the flesh.

In these cases, although offered for sale, the nature of the remedy was not disclosed, and it is by inference that arsenic is suspected to have been the only active ingredient.

In many instances, however, correspondents have been perfectly frank and honest, and the nature of the remedy has been revealed—for example, by a correspondent who, after disclosing in confidence the nature of the plaster employed, describes his procedure thus:

> I spread the ingredients on a piece of skin the size required by the plaster, a fresh plaster being applied every 8 days. It generally occupies two months before the skin and flesh crack around the growth, the ingredients all the time killing it. I generally find the cancer hangs loosely for about one month—during which time I have to apply sticking plaster supports to prevent the roots of cancer breaking instead of being gradually withdrawn. When the growth has been extracted I heal the wound with ointment and lotion.

The employment of arsenic is often frankly acknowledged, as in the following: "I use arsenic just as a tiny speck." Even to-day the use of arsenic is cloaked with mystery. A man who claimed to have cured himself by means of arsenic stated that "the cure was supposed to

be derived from an old Welsh woman"; another writes: "It has been a profound secret in my family for two generations, of which I am the sole proprietor, so far as I know." It is the chief ingredient in a "recipe found by an old lady":

1. Powdered dried liverwort.
   White arsenic.
   Common turpentine.
   White wine vinegar.
   Plaster.
2. Dietary regulations.

Arsenic is also a "traditional Irish remedy," and the urgency with which my attention was called to it required in one case the emphasis conveyed by the accompaniment of a solicitor's letter. In the information collected by the Imperial Cancer Research Fund arsenic occurs more frequently than any other caustic.

Lead occurs as ordinary plaster or in such a combination as:

1. Myrrh.
2. Armenian bole.
3. Red lead.

Mercury occurs thus:

*Internal.*

| | |
|---|---|
| Sulphur | 2 oz. |
| Quicksilver | ½ oz. |
| Cream of tartar | 1 oz. |
| Saltpetre | ½ oz. |

Put in a pint of treacle. One tablespoonful before going to bed.

*External.*

| | |
|---|---|
| British oil | 1 bottle. |
| Red precipitate | 1 oz. |

Sulphate of zinc occurs thus:

Mix equal parts of white vitriol and charcoal into a paste and apply to the cancer, and when the cancer turns the colour of a mouse it will become shaky and can easily be pulled out by the roots.

And thus:

This remedy is used by a noted physician with great success, but as he charges each patient several hundred dollars, the worthy poor are prevented from availing themselves of his assistance. Procure a thin piece of soft leather (chamois skin will do), larger than the surface of the cancer. From the centre of it cut a piece as large as the surface of the cancer and spread on to it a plaster composed as follows: Sulphate of zinc, two ounces; pulverized blood root, two ounces; powdered sulphur, two ounces. Thoroughly mix these ingredients with two or three ounces of dry wheat flour, then add water and make all into a thick paste. Spread this on the piece of leather you cut out. Next fasten the large piece of leather around the cancer so that only the sore is exposed. Then bind on to the sore the smaller piece, with the paste next to the flesh, and leave it there for 24 hours. Then remove it, and apply a warm poultice of flax-seed, keeping it on for sixteen hours. After removing the poultice use forceps and gently move the cancer about until it can be extracted with ease. Be sure to take out all the roots. Then poultice again every twelve hours until it has healed. The ingredients may be obtained from any drug store. The drawing of the poultice is sometimes quite painful, therefore the patient should be watched to see that the poultice is not taken off. Before using this treatment the patient must fast for two days, and then diet very carefully, eating no meat, but plenty of fruit for two weeks to get the blood in good condition. Cancer is due to a morbid condition of the blood. Therefore, to prevent its return, the patient must in future live according to the hygienic laws of health. Remember that extracting the cancer does not remove the cause, and that a permanent cure depends upon the way hygienic methods of living are employed by the patient after the cancer had been extracted.

Zinc chloride is also a common ingredient, and together with antimony and arsenic forms the bases of the "Dutch Cure" of which there are a great many varieties in use in South Africa. Needless to add, those who practise the old familiar treatment of cancer by arsenic or other caustics also accompany this procedure by the old tricks in the way of a warning, "Before saying anything further I must tell you that this cure will have no effect on cancer which has already been operated on"; or dietary regulations are enjoined—for example, whilst a plaster is being applied every twenty-four hours "patients must on no account eat pork, bacon, jam, puddings, pumpkin, beef, or new bread." Another sample of dietary regimen is cited above with reference to zinc sulphate.

Egg and salt are employed mixed to form a plaster to be applied where pain is seated.

It is a terribly stringent method, and causes great agony. For the patient to stand it he must be well nourished, for it must be applied for 23 days, when at the end the cancer bursts through the skin in its entirety.

Egg and salt are also "used in Brandy," notwithstanding that Falstaff swore "I'll have no pullet's sperm in my drink," and in spite of the notion expressed by a correspondent who suggests that the frequency of cancer is due to the consumption of uncooked eggs. Kelling in Germany seriously endeavours to show that cancer is derived from uncooked animal cells surviving digestion, but he would appear to have been anticipated long since.

Other means of obtaining ulceration are the employment of strong permanganate of potash, iodine, brimstone in various combinations, and iron filings, of which a "Bush Doctor" in Tasmania writes: "Iron filings give hard cancer Hell." This same person cures cancer of the tongue by soaking it with a strong solution of copper sulphate for ten hours!

The treatment of cancer by the external application, through ignorant quacks, of arsenic and the other caustics above-mentioned is a survival of methods in vogue among the medical profession in days gone by, when knowledge of cancer was limited to mediaeval dogma. This method was not quite abandoned till the era of anaesthetics and antiseptics revolutionized surgery, and till the advance of anatomical and histological knowledge laid clear both the histogenesis of malignant new growths and their origin in a circumscribed area. Of the modern aspects of resort to the treatment of cancer by other caustics I shall have something to add later.

D. *Proprietary Patent Medicines.*

A large business is apparently done in the sale of proprietary patent cures for cancer, such as "Purifico," stated to be a "positive remedy for Cancer, tumor, scrofula, erysipelas and all Humors," and such as "Bramarsandt," and "Mannina Ointment," and "Aniska"; the latter is stated to be a remedy for "skin disease." The "Magalia Remedy Company" wrote claiming "the King Edward £10,000 bonus" for the cure of cancer, this remedy being an "improved germ destroyer." The "Radixia Cure" and the "Rockonian System of Treatment," the "Guelph Sterilization Cure," and, among others, "Vitadatio" have also come to my notice. "Vitadatio" is stated to be a vegetable tonic; a person, presumably the proprietor of "Vitadatio," wishing to establish its claims to cure cancer, called one day with a black bag containing what he stated were the proofs that he had cured cancer. He produced some bottles containing what he declared were cancers expelled from the body—the first was a portion of placenta, the second some ecchinococcus cysts, the third a hard scybalous mass, the fourth a portion of a fetus. Our interest being now greatly aroused, my colleague (Dr. J. A. Murray) and myself were unfortunate in not being allowed to examine the remainder of this instructive collection. Its possessor suddenly departed, and nothing more was heard of him till lately, when a gentleman called upon me to inquire whether he would be justified in allowing his mother, who was dying from cancer of the uterus, to place herself in his hands. The poor woman had learnt of "Vitadatio" from reading an advertisement in a weekly journal.

America would appear to be the home of a large number of cancer quacks, many of whom claim to be members of the medical profession. They are able to sell their nostrums in this country, and they must have some means

DR. E. E. BURNSIDE'S

Purifico

Numbers 1, 2 and 3.

THE GREATEST KNOWN REMEDY FOR CANCERS. TUMORS SCROFULA, ULCERS, ERYSIPELAS, SALT RHEUM AND ALL HUMORS.

PREPARED BY

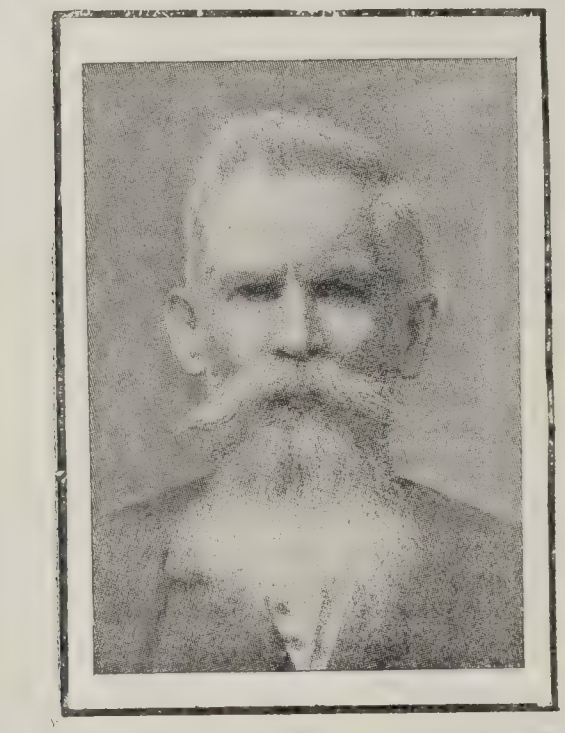
The Purifico Mfg. Co., - -

This hails from America.

of bringing their alleged remedies and sanatoriums to the notice of the public in England, in addition to the printed documents they send out in reply to inquiry. If I may judge from the statements made to me by their prospective patients, or the friends of such patients, these American quacks obtain access to sufferers in this country through the agency of advertisements in various newspapers and journals. The character of the claims these quacks make is sufficiently characterized by the accompanying photographs of leaflets.

E. *Nonsense, Faith-healing, Radio-activity.*

The material collected is not exhausted by what has been written above, because much of it is not worthy of the serious consideration I have attempted to give to the subject. Many of the communications are ignorant drivel or mere begging letters, and yet the same correspondents will crop up again, after a lapse of time, with an improved restatement of their case—that is, with the same old story, only better put together and composed, this being attained either through the agency of the professional




hails from America.)

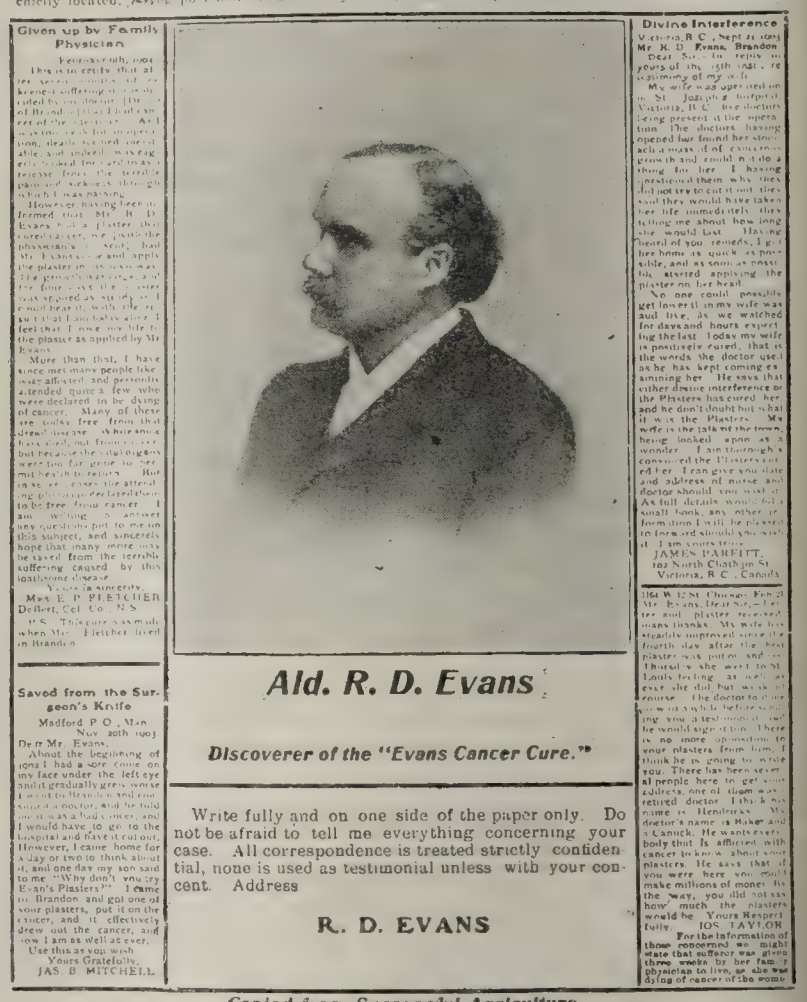
letter-writer or through some small lawyer whose services they have been able to employ because of the money earned.

The restrictions imposed on the irregular practice of medicine in South Africa have told hard against some of the quacks, and appeal has been made to the Imperial Cancer Research Fund to justify claims made for permission to practise as a "cancer doctor." Commissions have considered such claims in Cape Colony and in Natal. One such correspondent stipulated that if he divulged the nature of his remedy he should be authorized in return to add to his name "the letters D.C.S. (Doctor of Cancer Science)." Homœopathists have written from India, Holland, and Germany. A German charlatan offered, if the Imperial Cancer Research Fund recognized the value of his remedy, to hand over to "his patron" three-fifths of the Nobel Prize in the event of his receiving it. A walk through the fields in the early morning while the dew is still on the grass, and the eating of all the snails found, is another suggestion thrown out. The advocacy of charcoal rusk tea made from a bermaline loaf led a woman to write me a series of postcards in red ink, of which the following is a sample:

Sir,—*Re* Hopeless Inoperable Cancer. I beg to call your attention to my simple "cancer cure," Charcoal rusk tea. Dr. ——'s cancer patient is dead, and her life might have been saved had you advised him to prescribe it for her now two months ago.

"A lay worker in therapeutics" suggests "colour vibrations." Mr. Arthur Lovell, President of the "Vril-ya Club," and having a large following in the cult of "Vril," appears to believe in the efficacy of "magnetic and mesmeric passes" and "nerve energy." "The term 'Vril,' therefore, naturally signifies the height of dominion attained by cultivation of man's latent power." Members of the Vril-ya Club have got a creed. They are exhorted as follows:

Do you not see how it would serve to have such a Body and Soul, that when you enter a crowd, an atmosphere of desire and command enters with you, and every one is impressed with




*Copied from Successful Agriculture*

your personality? Go, Dear Friend, if need be, give up all else to inure yourself to Pluck, Reality, Self-esteem, Deffniteness, Elevatedness.

The transactions of the club are more illuminating than Mr. Lovell's frequent letters to the newspapers on the "Ars Vivendi" principles. Here are some quotations:

Magic, Sorcery, the Black Art, Witchcraft, Mesmerism, Electro-Biology, Animal Magnetism, etc., are all edifices erected on the fundamental principle—that the human organism is a powerful radio-active body, emitting rays which can be felt of about one-third of mankind. The curative property of this radio-activity has been demonstrated over and over again in a manner which leaves no doubt in the mind of the impartial investigator that this is the scientific method of curing disease. Dr. Ashburner wrote in 1851, in the preface to his translation of *Reichenbach's Researches*, it has conquered malignant cancer. It has removed enormous growths known as polypus as I can testify. I know that it has chased away large ovarian tumours and dropsies that defied all medical skill, etc. . . . When the nature of nerve energy as a force

akin to Electricity is understood, the explanation is very simple. An exalted state of feeling or belief acts upon the nerve energy in the organism by raising the Potential and increasing the Density. . . . The rise of the Potential in Nerve Energy is the Scientific explanation of the wonderful cures wrought through Faith-healing in all lands and ages. The Vril-ya Club will thoroughly explain, as the manifestation of "Vril," all the cures that have been and will be performed.

No wonder Mr. Lovell is "much interested in the question of cancer research," and convinced that, "in dealing with this method the chief difficulty has always been to secure sufficiently powerful operators," and therefore that Mr. Lovell "inured himself to pluck, reality, self-esteem, definiteness, elevatedness," before he vouchsafed to offer to cure cancer. Thus even the latest ideas due to advances in physical science are demonstrated to be perverted by credulity and quackery for the deliberate exploitation of human suffering. This is done more concretely when an attempt is made to impose upon the public by proclaiming the radio-active and cancer-curing properties of "Isham Water." From personal experience I hazard the opinion that various alleged radio-active patent preparations will be found on careful examination to be innocent alike of radium or of having ever been exposed to the influence of its rays.

### Resort to Caustics and Empiricism by Medical Men and Hospitals.

A much more difficult matter is to define exactly what position should be assigned to persons holding medical qualifications who assert that cancer is curable by therapeutic measures, and that surgery is not a rational treatment for the disease, but, on the contrary, the actual means of inducing or aggravating it. Still these persons come into this survey because they have thrust their views and their methods under my observation. When they have published statements on the nature and pathology of cancer, such as those I have already quoted from Dr. Robert Bell, it is possible to appraise the level of their scientific attainments. Dr. Robert Bell writes:

It is of no more avail to excise the local manifestation of blood contamination—which cancer undoubtedly is—and thus expect to eradicate the constitution, than to cut out a piece of dry rot in a beam without adopting means to remove the cause of mischief;

and elsewhere:

Consider the various effects of a contaminated blood stream upon the epithelial cell, the culminating point of the pollution resulting in cancer.

It might be inferred from these quotations that Dr. Bell is merely opposed, and it might not necessarily be erroneously so, to accumulated pathological experience and current surgical teaching and practice, were it not for the overwhelming evidence that Dr. Bell, formerly of Glasgow, is the modern representative in London of some of the practitioners referred to in the extracts I quoted from Sir Spencer Wells at the beginning of this article. Of formic acid Dr. Bell writes:

Did not Solomon say, "Go to the ant, thou sluggard; consider her ways and be wise"? He might have added with advantage: "Go to the beasts of the field, the fowls of the air, the fish of the sea, and even crawling things, for a lesson in common sense, and take an example from them in sanitary matters, and not harbour in your insides offensive and disease-generating material which you would not tolerate for a moment within range of your vision or olfactory nerves."

Dr. Bell uses not a mineral caustic but an organic one—formic acid—and he does not commit himself to its use alone, relying on quite an up-to-date armamentary of therapeutic, dietetic, hygienic, injection and organo-therapeutic measures. Nevertheless, I see in his descriptions of the use of formic acid only a reproduction of what was written more than half a century ago of arsenic and zinc sulphate. Here are some quotations from Dr. Bell:

I am convinced that the injection of formic acid into the tumour will prove of immense service in destroying the cancer cells which have accumulated there. This fact it has been my privilege to demonstrate on many occasions, and the following instance of its beneficial effect will, I trust, place its efficacy beyond dispute. This was a case of sarcoma of the right testicle, which, when it came under my observation, had attained the size of a football. Moreover, there was a considerable involvement of the inguinal glands. It certainly was not a promising one for treatment, and I submitted the case to several medical men, who were unanimous in this opinion. In the presence of some of these I injected into the tumour drams of 50 per cent. solution of formic acid, and repeated this at intervals of a few days on two other occasions. This had the immediate effect of destroying the morbid cells, and within five weeks the tumour was reduced to the size of a tennis ball. In another month there was no trace of the disease remaining, and the patient has now resumed his usual occupation.

I should add that I do not invariably employ such a strong solution, but, as a rule, especially in cancer of the breast, inject a solution of from 12½ to 15 per cent. strength. During treatment it is my custom to supplement this by the intermuscular injection of atoxyl, which is described upon page 94. I also deem it imperative that a strict dietetic regimen be adhered to; also that the bowels be completely emptied every day, and that thorough ventilation of the dwelling be insisted upon. Of course, it goes without saying that if the disease has proceeded beyond a certain point, and metastases have taken place, neither the injection of formic acid nor any other local treatment will prove successful; that is to say, if the secondary deposits are beyond reach or numerous. On the other hand, I have known of many instances where the dietetic and hygienic measures referred to, in conjunction with intermuscular injections of atoxyl, have been sufficient to effect a complete cure, and I have also on record many instances where recurrence after operation has also been overcome by the same means.

Two other quotations will give a more precise idea of Dr. Bell's caustic treatment:

I therefore determined to inject formic acid of 15 per cent. strength, which within two weeks resulted in complete enucleation of the morbid growth, also softening and absorption of the axillary glands which were injected at the same time.

Formic acid of a suitable strength, varying from 50 per cent. to 15 per cent., when injected into a malignant growth, is possessed of a selective power upon the morbid cells, destroying these, while the normal cells are left intact, and this is all that is claimed for radium.

By employing atoxyl Dr. Bell reverts to the centuries-old use of arsenic, Dr. Bell's "aquatoxyl," the form in which he employs for injection, being merely a solution in water of an organic compound of arsenic. By asserting that formic acid has a selective action upon cancer cells, sparing normal cells, Dr. Bell seems to argue with the practitioners of olden times and with their more outspoken colleagues of to day in the cancer-curing business, who assert or imply that their cancer plasters "not only destroy the tumour itself, but penetrate by a sort of intelligent power or elective affinity in certain directions, corresponding exactly with these supposed roots of the cancer, eating away or drawing out these roots without affecting the sound flesh in which they are ingrafted."

I have quoted what Sir Spencer Wells said in 1857, but I might have used the language of the arrant quacks whose references to the "roots" of cancer I have already reproduced when describing the employment of mineral caustics.

In the North, at Accrington, Dr. Fenwick practises the cure of cancer by injecting potassium bichromate, and the JOURNAL has published some of his cases. His methods and his results differ from those of the cancer curers of old in the employment of a caustic not known to them. A visitor to this country who has also been in communication with Dr. Fenwick is Professor Laurent of Brussels, but although impressed with the virtues of bichromate, he advocates the injection of formalin as his speciality.

In the South there is a Dr. Lane who had, or had attempted to obtain, a home for the cure of cancer by a secret remedy. I have not been able to trace I. R. Guelph-Norman, M.D., Dr. J. L. Bohannon, Dr. E. P. Vines, Dr. J. N. Tucker, but I suspect them of being of American extraction, even if they practise in this country personally and not merely by correspondence.

In Glasgow there is Dr. Hugh Murray, consulting surgeon to the "Glasgow Cancer and Skin Institution," Newton Terrace, Charing Cross, Glasgow. Of this institution an Edinburgh solicitor is, or was, chairman. It issues a prospectus from which the following is taken.

In most cases there had been one, two, or more surgical operations before they (the patients) went to that institution, where the cancer was eliminated by medical treatment. These facts were beyond cavil, and should convince any one that medical treatment was the treatment, which ought to be applied for the elimination of cancer. Many of the cases consisted of cancer of the lip, caused by the tobacco pipe, and a number of these patients had also undergone surgical operations before appealing to the institution, where they were restored to health by medical treatment.

It seems, therefore, to preach a crusade against surgical treatment and to advocate drugs. The institution here referred to must not be confounded with the highly reputable Glasgow Cancer Hospital.

Humbug is rife indeed when even the managers of the Royal Infirmary of Manchester accept money for the promotion of cancer research, but forbid experiments on animals to advance this end while condescending to accept the contributions of the Manchester Branch of the Theosophical Order of Service for the Abolition of Vivisection, Vaccination, and all Inoculations. I am truly sorry for my native town, to know that its hard-headed inhabitants put up with such arrant nonsense. Under such limitations is not cancer research open and unabashed quackery, pretence at research, a making of promises to advance knowledge that cannot be fulfilled?

### PANICS AMONG THE MEDICAL PROFESSION.

It has fallen to my lot in the brief space of less than ten years to witness what I cannot designate otherwise than the medical and surgical professions "panicking" under the notion that the cure for cancer had been discovered, but was being deliberately ignored or suppressed by authority. It hardly requires to be pointed out that no amount of authority would suffice to rob the discoverer of a certain cure for cancer of his just reward. The panics have been about *x* rays, high-frequency currents, trypsin, "papaw" and other ferments, and radium. I need say nothing about these flutterings in the minds of the credulous members of the profession, except in relation to radium. The Imperial Cancer Research Fund has been in possession of a very active sample of "pure" radium bromide since early in 1904. Valuable as the therapeutic action of radium no doubt is in many directions, and even though it has not yet had a fair chance as a therapeutic agent in the treatment of cancer, this much is evident, it is not the long-sought-for "cure" acting specifically upon the cancer cell, hindering its spread and preventing its establishment in remote parts of the body. Radium is the latest and perhaps the best caustic, and, like all caustics used in the treatment of cancer, its action is not limited to cancer, for which it has not been shown to have an elective affinity. The therapeutic value of radium rests at present upon its successful employment to treat other than cancerous conditions.

### THE MORAL.

The moral of all the familiarity with cancer and all the quackery associated with the exploitation of those sufferers who would fain find an alternative to the knife is simply this. A secret remedy for cancer is possessed by no man nor woman. If it existed, its success would speedily cause all human endeavour to concentrate upon its divulgence, and no quack could retain it for himself alone. That form of treatment which is public property—namely, removal by surgery—has nothing to fear, but, on the contrary, much to gain by comparison with its only competitor, removal by caustics. In this one word, "caustics," can be summed up the direct application of all the suggested substitutes for the knife, from trypsin and radium to potassium bichromate, formic acid, formalin, and arsenic. Thus Dr. Robert Bell, Dr. John Shaw, and others in London, Dr. Fenwick in Accrington, Dr. Hugh Murray in Glasgow, have not taught the medical profession or the public anything new. The removal of the cancer by caustics is not of their invention, but one of the oldest procedures in medicine, the only new thing about this treatment being its application to a new generation of the suffering. Notwithstanding the clear demonstration that cancer is circumscribed and not constitutional in origin, the credulous are still deluded into a belief that this method has the advantage of extracting something which the knife simply cuts off and leaves behind. Such people accept a false pathology and—to give one last quotation from one of the most advertised cancer curers of our time—also a misrepresentation of surgical treatment:

> If one desires to clear a piece of ground of weeds, will one succeed, think you, if he contents himself by merely lopping the heads off the obnoxious plants?

### THE EXPERIMENTAL REFUTATION OF THE ASSERTIONS QUACKS MAKE ON THE CONSTITUTIONAL NATURE OF CANCER.

This is not the place to enter into the advances in knowledge effected by experiments on cancer in animals. Their bearing upon the circumscribed nature of cancer, and the demonstration they afford that early surgical removal is the only rational treatment at the present time, may be stated. The transference of cancer is effected by inoculating a piece of tumour tissue as big as a pin's head under the skin of another animal of the same species. Under given conditions all the phenomena characteristic of the natural disease follow—infiltration of neighbouring structures and widely disseminated secondary growths. If removed surgically, at a sufficiently early stage, the phenomena of dissemination do not take place. No ambiguity exists, under experimental conditions, as to the ultimate value of surgery, since a complete life-history is obtainable for every animal. Pathological examination of all tumours and a complete *post-mortem* examination of every animal is made, whether suffering naturally from cancer or inoculated with it. In a similar way the value of surgery has been tested in animals suffering *naturally* from cancer, and its great value as a curative method, and in prolonging life while at the same time freeing from distress, has also been demonstrated. Thus there was obtained a demonstration (1) of the rational basis upon which rests the early surgical removal of cancer in men, and (2) of the minuteness of the focus from which all the trouble is spread throughout the system; in short, experiment settled, once and for all, whether those who have postulated the origin of cancer in a circumscribed area were right, and those who postulated a diffuse or constitutional origin were wrong. Emboldened by the far-reaching consequences of the demonstration obtained for the miniature lesions of cancer as seen in the mouse, its lesson was applied seven years ago, with the collaboration of Mr. Butlin, now the President of the Royal College of Surgeons, to the clinical diagnosis and surgical treatment of cancer in man, with the result that lesions of the tongue which previously would have been regarded as not malignant at all, or, if suspicious, regarded at most as pre-cancerous stages, were demonstrated to be already fully developed malignant new growths in miniature, like those artificially produced in the mouse. Thus experiment led to what has been little less than a revolution in the treatment of cancer of the tongue, and the results of this revolution stigmatize the watching of a doubtful lesion of the tongue—be it a mere pin's head in size—as gross neglect of the opportunities offered by surgery. To await developments in such cases is quite unjustifiable, as I can assert from repeated experience of the disasters it draws after it.

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A PRIMIPARA of Swedish birth, aged 22, was admitted into a New York maternity hospital under Dr. W. M. Hartshorn (*Amer. Journ. Obstet.*, April, 1911, p. 658). Three years previously she had suffered from slight cinchonism after 4 grams of quinine taken for a cold. She was well nourished, and there was no history of any previous malady. Cinchonism occurred on a second occasion, but, as before, the symptoms were trifling. She was delivered in the hospital spontaneously, and slight *post partum* haemorrhage ensued. In order to hasten involution two pills were administered on the eleventh day. Each contained ½ grain of quinine 1½ grain of ergotin, and ½ minim of tincture of digitalis. On the next day the temperature rose to 102.6° F., although there was no subjective symptom beyond a slight burning sensation in the face. The temperature fell, after free purging, to 100° F., and rose again to 101.6° F. The face during this time became greatly swollen, and the entire body was covered with a scarlatiniform eruption attended with severe irritation. The pills were, it appears, continued for several days; a rhubarb and soda mixture, magnesia citrate, and a soothing ointment were also prescribed. A drug toxaemia was suspected, the history of cinchonism being taken into account. On discontinuing the pills the temperature dropped from 103.6° F. to 100° F., but rose again on the next afternoon to 103° F. A few hours later it fell to 99° F., and remained normal afterwards. Extensive desquamation of the entire epidermis occurred during the three days succeeding the final fall of temperature. In the discussion which followed the reading of this report at a society meeting some scepticism about diagnosis was expressed, but Dr. Hartshorn declared that the essential throat and kidney symptoms of scarlatina were quite absent, nor did the rash indicate any other of the exanthemata. The desquamation was in the form of large epithelial scales, and began within two days after the temperature fell to normal. No other similar case developed amongst the patients and nurses in the maternity hospital.

# BONESETTING.

BY

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RECENT events have once again drawn prominent attention to the subject of bonesetting. Mr. Barker, who practises mechano-therapy in Park Lane, states that the very affections which yield most readily to manipulative measures are not known to surgeons, and that, although he has offered to demonstrate his methods to any committee that may be appointed, yet his offer has not been accepted. In the *Strand Magazine* for October, 1910 ("The Hinterland of Surgery," p. 339), Mr. Stead has an article on Mr. Barker's offer and the manner in which it has been dealt with by the medical profession. It is to be regretted that Mr. Stead should have resorted to archaic forms of vulgarity which are now by common consent relegated to the hinterland of journalism. But that is entirely his affair. The relation of bonesetting to surgery is a question in which the public are much interested, and the profession may fairly be asked how they meet the statement that there are whole groups of cases of which surgeons know nothing, but about which they refuse to receive instruction. What are the public to think when Mr. Stead tells them that Mr. Barker has treated 30,000 cases, and has cured about 90 per cent. of them; and when Mr. Barker says that the breaking down of adhesions and the reduction of dislocations are only the beginning of the bonesetter's art—the A B C of advanced mechano-therapy? The onlooker may well ask whether there really is some mystery which surgeons have not been able to fathom, whether they have been so jealous of bonesetters that they have ignored and tried to stamp them out, or whether the whole matter is beneath their notice. It is the purpose of the present article to make some answer to these inquiries.

Mr. Barker has offered to demonstrate his practice to any qualified man or to any committee. What would be the result if this proposal were accepted? As to the movements which are used in bonesetting (or mechano-therapy), what is there in them so occult or difficult to acquire that only bonesetters are familiar with them? The elbow, the ankle, and the finger-joints are simple hinges. They provide movements in the two directions of extension and flexion, just as a door, by virtue of its hinge, can be opened or shut. That is all. The wrist allows of flexion and extension, abduction and adduction, and of supination and pronation. The shoulder admits of movements in every direction in a manner which excites the admiration of every student of anatomy. But when these movements are artificially produced by manipulation they break up into simple forms. The manipulator can move the elbow from or towards the side, or forwards and backwards, or he can rotate the arm in its socket. The hip can be flexed, or extended, or rotated, and the limb can be adducted or abducted. The knee can be flexed or extended, and the tibia can be rotated on the lower end of the femur. The medio-tarsal is a ball-and-socket joint, whose movements, though much more restricted, are similar to those at the hip. These are all the movements which either the bonesetter or the surgeon has at his disposal, and they may all be termed fairly plain sailing. Mr. Hutton, who was probably as good a bonesetter as ever lived—I much doubt whether his superior is now to be found—knew the best way in which the several joints could be moved. He seized them with all the art of a wrestler, or as a master of jujitsu, so that he could, in each case, evade muscular resistance. His simple rule, however, was to ascertain in what direction resistance was encountered, and to move the limb so that it was overcome. Is there, beyond this, much to be said about the manipulations of the bonesetter? Nor, since Mr. Hutton has shown that manipulative treatment is of more general application than was formerly supposed, is it necessary that this well-established fact should be demonstrated anew by Mr. Barker. If surgeons are still remiss in the use of manipulative treatment, they are most certainly to blame. But they cannot be charged with ignorance which it is in Mr. Barker's power to remove. After very carefully considering the matter, I see no prospect of advantage which could accrue from any demonstration he might give of the way in which he moves the different joints.

But, further, Mr. Barker says that the very affections which yield most readily to manipulative measures are not known to the general surgeon, although he has over and over again offered to make them known. As to this, it will be noticed that Mr. Barker's attitude is entirely different from that of Mr. Hutton.

Mr. Hutton treated anatomy with contempt; he neither knew nor wanted to know anything about it. Anatomy was for them who required it. It was useful to surgeons, for it taught them all about the big bones. As a bonesetter, who had only to do with the little bones, and who could tell at sight that a joint or a little bone was out, or that a muscle had slipped, he had no patience with it. And what concern could Mr. Hutton have with pathology—a knowledge of the various diseases to which the joints are liable? All this was quite outside his province. He dealt merely with bones that were out—sometimes, in obstinate cases, to the number of five—or with a deltoid which had slipped round to the front, and left other things to other people. This attitude was assumed without any kind of affectation or arrogance, and was entirely logical. Mr. Barker's position is, as I have said, entirely different. A large number of men, not only in England but on the Continent and in America, spend their lives in an earnest study of pathology. They are frequently dissecting joints, examining their component structures under the microscope, and subjecting clinical cases to *x*-ray inspection. Such men publish the results of their investigations, discuss them in societies, record them in their transactions, and read papers about them in international congresses. Thus every one knows what is going on. Moreover, there is competition in pathology as in everything else, and every one is anxious to find some unexplored corner in which by patient research he may bring new facts to light. When the history of our time comes to be written it can hardly be denied, even by those who are most imperfectly informed, that the advances which have been made in ascertaining the real nature of disease and the distinguishing features of each variety have not been behind what has been done in other departments of original work. In such a period of active research and discovery Mr. Barker assumes a position which must arrest the attention of the most casual observer. It does not appear that he has ever been a student in the science schools, ever dissected, or ever worked in any pathological laboratory. Yet he claims to be familiar with affections which are so numerous that he has met with 30,000 instances, and so simple that he cures about 90 per cent. of them, but of which not only the surgeons of Harley Street but the pathologists in every laboratory and the teachers of surgery in every hospital in England, Europe, and America are entirely ignorant. All this seems to impinge so nearly on the incredible that before appointing a committee it would seem reasonable to ask Mr. Barker to place his discoveries in print and to give a list of the affections which surgeons are not acquainted with. This is the usual procedure on the part of those who have new things to tell, and is one which Dr. Wharton Hood adopted with great advantage to the profession in reference to what he had learnt from Mr. Hutton. The term "mare's nest" has been mentioned in some quarters, but, as I think, without full justification; but such a conception would at once be dispelled if Mr. Barker could see his way to publish the book which he foreshadows in his letter in the *Times*. The obvious difficulty attaching to the appointment of a committee is that surgery and bonesetting, in their methods alike of investigation and of practice, differ so fundamentally that there is no common ground on which a discussion could be conducted. It was always found that discussions between allopaths and homoeopaths came to nothing. What religious question was ever settled on the platform of Exeter Hall? Do Tariff Reformers find they can convert Free Traders, or vice versa, by demonstrations and discussions? And the reason for all such failures is not that opponents are always either blind, prejudiced, mean, or dishonest, but that they are looking at the other side of the shield.

It seems plain that a discussion between two parties thus situated must be futile. But let each side present its case so that there may be something tangible to work upon. This is the course I propose to take in stating what I believe are the facts about bonesetting. They have not all been, by any means, to the credit of surgery in the past, but I hope that past faults on our part are being corrected.

I wish to guard myself against appearing to say that mechano-therapy is the same as bonesetting as practised by Mr. Hutton. Indeed, Mr. Hutton's method of breaking down adhesions and setting fractures and reducing dislocations was, we learn from Mr. Barker, only the A B C of mechano-therapy. I must own, however, that I am at the disadvantage of knowing nothing of Mr. Barker's procedures except what I have been able to gather from the *Times* report of a recent trial in which Mr. Barker was the defendant. In this case it will be remembered that Mr. Barker was consulted by a patient who had far advanced tuberculous disease of the knee attended with suppuration and the formation of a sinus. Mr. Barker was uncertain whether the disease was tuberculous or malignant (sarcoma). No surgeon experienced in such cases would blame Mr. Barker for not being able to feel confident which disease was present. I have myself, after errors into which I have fallen, written two papers on this subject. But certainly, whether the case was one of tuberculous disease or of sarcoma, it was not one in which bonesetting (or mechano-therapy) was suitable, but which demanded immediate recourse to methods of a different kind. It is therefore difficult to understand why Mr. Barker retained the case in his hands, and twice examined the patient under an anaesthetic, instead of at once advising that a surgeon should be consulted. How far his examination extended, in what it consisted, or with what object it was made, was not clearly ascertained at the trial. Let it be noted, however, that I am not referring to this case in order to pass any criticism on the course taken by Mr. Barker. I notice it merely to say that had the proposed committee been present they would not have found anything to learn from Mr. Barker's proceedings. They could, in fact, only have protested and withdrawn.

Mr. Stead says that the profession has disdained to enter the field of manipulative surgery.[1] No doubt he believes that this is a justifiable statement. It is easy to show that it is not. After Case I, given below, had occurred, in which Mr. Hutton had completely succeeded while several surgeons had completely failed, and, having had experiences of a similar kind, Sir James Paget felt it his duty, and found it a matter of interest, to study the subject, and he gave his conclusions in a lecture at St. Bartholomew's Hospital, at which I was present, forty-four years ago—in 1867. The lecture was published in the BRITISH MEDICAL JOURNAL in 1867, and also in the first (1875) and second (1877) editions of his *Clinical Lectures and Essays*, which it was my good fortune to edit. As was the case with everything that Sir James Paget wrote, the lecture was read by every surgeon of the day, and accepted as a new departure.

In 1871 Dr. Wharton Hood, who had attended Mr. Hutton's practice, published his lectures on Bonesetting in the *Lancet*, and shortly afterwards his well-known volume on the subject. This was one of the most widely-read works of the time. Dr. Wharton Hood soon obtained a large practice, and was thus, for several years, an exponent, when opportunity offered, of what he found useful in Mr. Hutton's methods. I had myself, as surgeon to St. Bartholomew's Hospital, and in other ways, opportunities of studying the question and of giving lectures upon it. And I published a paper with case-illustrations on "Manipulation or the Use of Forcible Movement as a Means of Surgical Treatment," in the *St. Bartholomew's Reports* for 1878; and one on "Some Cases of Bonesetting, with Remarks," which was discussed at the Clinical Society, and published in the *Transactions* for 1880. The substance of these communications was embodied in *Diseases of the Joints and Spine* in 1895. In every hospital manipulation is frequently employed, and the subject is brought under the notice of students in the wards and at lectures. In the last twenty years the treatment of fractures and dislocations has been, it is not too much to say, revolutionized. The old plan of keeping limbs, in cases of fracture, rigidly fixed in splints for six weeks has been discarded. Splints are now sparingly used, and passive movements and massage are employed early, and steadily continued all through. In these circumstances superfluous reparative material is prevented from accumulating and undergoing development into provisional callus or adhesions. And the soft parts are maintained in a natural condition, so that when the fracture is united the neighbouring joints are freely movable and the muscles are able to resume their functional activity in a normal way. The old method of treating cases of dislocation—for instance of the shoulder by keeping the arm bandaged to the side for three weeks or a month—has been given up. The limb after reduction is kept in a sling, and massage and passive movements are used from the first, so that coagulable lymph is not allowed to collect and organize into adhesions, and the muscles are kept in good tone. The result is that the patient can move the limb freely in every direction, though he must be cautioned not to raise the arm widely from the side for fear that the dislocation may return. It is also common experience that the pain, which formerly persisted for several weeks, and which was due to the stretching of adhesions which had been allowed to form, is now very rarely met with.

In what follows I propose to examine the whole question from a surgical point of view. For this purpose the facts, as far as I know them, will be presented, and such inferences as the facts appear to warrant will be drawn.

Between 1865 and 1870 I was Sir James Paget's private assistant. In this position I not only saw much of his practice but knew all the prominent surgeons of that day, and heard much of what was going on; and I became aware that all was not well between them and bonesetters, of whom Mr. Hutton was *facile princeps*. I knew a good deal about Mr. Hutton. He was a kind-hearted and perfectly honest man, who fully believed in the craft of bonesetting as a thing entirely distinct from surgery. When he saw that a joint was stiff or painful on movement, he had no doubt that either it, or one of the small bones, was out, or that a muscle had slipped, and he at once felt sure he could put the joint or the small bone in, or put the muscle back into its place, by methods—one for each particular joint—with which he was perfectly familiar, and which he often used with complete success. It is thus apparent that he neither knew nor cared to know what the real condition was with which he was dealing, so that both he and his patient were playing a game of chance. He often said, "I can cure you; what more do you want?" And when any one who had been lame for six months heard the "bone go in with a snap," and found he was cured in half a minute, he, of course, at once accepted Mr. Hutton's account, and was more than satisfied with the result. Of course the surgeon who had been treating the case was much chagrined, but there could be no doubt who was the victor and who had suffered a humiliating defeat. Some would suppose that, as he did not know what was the matter, Mr. Hutton must sometimes have done mischief. He did; but he was very shrewd, and had a good deal of mother wit, and was wise without the schools, and there were many joints about which he had his shrewd suspicions, and which he left severely alone. On the other hand, some of his mistakes were very downright. A child of 9 was lame, and had a discharging sinus at the hip. Mr. Hutton being consulted, repeating his ever-ready formula, said that the hip was out, and added that if a doctor would cure the abscess he would put the hip in. But it was a case in which the joint had already been removed by excision for tuberculous disease. In another case a lady with an enlarged bursa over the tuber ischii was told that the bone of that part of her body was out, and was submitted to the operation for putting it in. With these and similar instances before me I wished to investigate the matter a step further, and I sent three cases to Mr. Hutton. None of the three had anything the matter. The first was informed on showing his elbow that his ulna was out, and, having paid half a guinea for the consultation, was told to come back in a couple of days with two guineas, when the bone would be put in. A second was told that his ankle bone was out, and, having paid his fee of half a guinea, was instructed to come back to have the bone put in. The third received exactly the

same opinion on his case and the same directions for an operation.

The language of bonesetters is often picturesque and impressive. Pain and stiffness of the spine are said to be due to the fact that some of the buttons of the back (the spinous processes of the dorsal vertebrae) are out. In joint cases which are not easily cured several little bones are said to be out. If the shoulder is stiff and painful the symptoms are said to depend on the slipping of the deltoid muscle round to the front. The complaints from which bonesetters find their patients suffering are often sufficiently alarming. A young man suffering from slight lateral curvature of the spine, the result of inequality in the length of his legs, was told that his pelvis had opened and both his hips were out. This was not Mr. Hutton.

These matters are not intended to convey any feeling of disrespect to bonesetters; they are mentioned because they are essential parts of the problem under discussion.

Case 1, a case which is a very epitome of bonesetting, and which every practitioner should carefully reflect upon and constantly bear in mind, is published by Dr. Wharton Hood.[2] It is that of a gentleman aged about 25, who himself wrote an account, of which the following is an extract:

> While running in a garden he felt and heard something crack in the calf of his leg, and he rolled over like a shot rabbit. A doctor, who told him he had snapped a muscle, strapped the leg and advised him to rest for a few days. In two days he could hobble, but he knocked his toe against a tack in the floor and hurt himself worse than ever. From this time (December 2nd) to early in May he was attended by Mr. A. and Mr. B. in consultation, who agreed that the stocking of the calf was split, and "treated him accordingly." The slightest exertion caused pain and weakness. In May Mr. C. agreed as to the injury, but thought him constitutionally out of order and gave him iron. His leg was put in an iron machine to bear his weight, and he was sent to Wilbad. As he did not improve, his leg was put into a gum plaster, and he went yachting for a month, so as to obtain perfect repose. He got no better, and the surgeon on board said, "An old woman may cure you, but no doctor will." Months passed. He used either crutches or two sticks. The leg was no better, and had shrunk to about half its proper size. In the following April Mr. F. put him on a high-heeled boot during the day, and during the night his foot was kept in a pointed position. Not improving, he went to Mr. Hutton, who said, "What do you wear that machine for? Do you want to lame yourself?" "I was proceeding," continues Mr. X., "to tell him the opinions of the various surgeons on my case when he said, 'Don't bother me about anatomy. I know nothing about it; but I tell you your ankle is out and that I can put it in again.'" At a later interview Mr. Hutton, during a most careful examination of the ankle, put his thumb on a place which hurt the patient a good deal, and produced a sensation as of a sharp prick of a pin. He proceeded to operate, and after a time there was a distinct report, and from that moment the pain was gone, the leg got better, and the patient completely recovered. About a week later the patient hurt his leg again by over-exertion and was as lame as ever. But Mr. Hutton repeated his treatment and there was no further relapse.

At the time of its occurrence this case was the talk of the town. The patient was a member of one of the most distinguished English families. Every one in the higher ranks of society heard of his prolonged illness, and had come to think that he was crippled for life, and every one felt great sympathy for him. Then came the startling news that Mr. Hutton had found that his ankle was out—which all the doctors had overlooked—and had forthwith put it in and cured him. How very surprising! what could it all mean? The position of the distinguished surgeons who had treated the case was not enviable. One of the consultants derived some comfort from expressing his wonder that the others could have cut so poor a figure. Sir James Paget took a different view of the matter: he set himself, as I have already mentioned, to study the cases which bonesetters cure, and a few months later gave his lecture on the subject which was published in the BRITISH MEDICAL JOURNAL. It is now easy to speak with certainty as to the conditions on which the symptoms in this case depended and the cure which Mr. Hutton so easily produced. The original injury consisted in a rather extensive rupture of the deep fascia of the calf. The leg was strapped and kept at rest for a few days. During this time the foot would be somewhat pointed on the leg, in the position of greatest ease. Coagulable lymph was poured out for the repair of this subcutaneous injury, and in the course of a week would be—as in the repair of any aseptic wound—far advanced in its development into new fibrous tissue. In other words the edges of the scar would be connected by adhesions. Recent adhesions are very sensitive (*supra*). For instance, suppose a finger is cut transversely on its palmar aspect and is put up for four or five days in a flexed position; suppose, further, that it is then suddenly extended. Every one knows that severe pain would be produced. It was to avoid the pain he felt when he tried to get his heel down in walking that Mr. X. kept his foot pointed, for then the adhesions were not stretched and no pain occurred. Then, when he was hobbling about and when the muscles were off guard, he knocked his toe against a tack in the floor and (sharply wrenching his ankle) hurt himself worse than ever. Here, again, in the usual course of the repair of a subcutaneous laceration, new fibrous tissue was developed—and there were now two groups of "adhesions" formed—one in the calf and the other at the ankle. And the effect of both was exactly the same. For, when the patient tried to bear any weight on the limb, both, being stretched, gave him sudden and sharp pain and warned him off trying to get his heel down. It was all along, and month after month, these trumpery adhesions which prevented his recovery. Till they were ruptured he would never recover. Neither yachting, Wilbad, nor an iron machine could cure him. Then he consulted Mr. Hutton. Mr. Hutton did not concern himself with either anatomy or pathology. He saw that the foot was pointed and fixed in that position. This to him meant that the ankle was out. And when, on carefully examining the foot, he put his thumb, as Mr. X. says, "on to a place which hurt him a good deal and produced a sensation of a sharp prick of a pin," he considered that he had found the exact spot where the mischief lay. To put the ankle in, Mr. Hutton carried the foot in the direction in which he encountered resistance. In doing this he ruptured the adhesions. When he had done this, he found that the foot could be placed in a natural position, so that the heel would come down; and also that the joint was freely movable. But he had done more than this. He had killed two birds with one stone. By bringing the foot from a pointed position into a position in which it formed a right (or an acute) angle with the leg he ruptured the adhesions formed where the deep fascia of the calf was torn on the occasion of the original accident, and of which he knew nothing, for his attention had been entirely confined to the ankle. Some might be mean enough to say that Mr. Hutton cured his case more by luck than by wit. I much prefer to say that it is not only mean but foolish to belittle Mr. Hutton's achievement. He obtained a very notable success, and the patient had every reason to be grateful to him.

There is a further point of interest in this case, and a further lesson to be derived from it. Mr. X. says:

> I omitted to mention that . . . about a week after my first operation I hurt my leg again by over-exertion, and was as lame as ever. But Mr. Hutton repeated his treatment, and I have never had another relapse. His statement to me was that the ankle joint being misplaced the muscles were also misplaced and would not heal.

This was, from Mr. Hutton's point of view, a perfectly reasonable conclusion, and one which would entirely commend itself to the patient. It detracts nothing from Mr. Hutton's credit to say that the lameness depended on some reformation of some of the adhesions which he had separated on the first operation. The further lesson I have to mention is this: One of the common events when adhesions are broken down is that some of them may re-form and lead to a return of the patient's lameness and pain—so that, in Mr. X.'s phrase, he may be as lame as ever. When this is the case the surgeon must repeat the movement, just as Mr. Hutton did. I have often found this necessary. A very instructive illustration is found in Case 1.

Dr. Wharton Hood[3] thinks that the return of lameness and pain in Mr. X.'s case were due to some change in the relation or apposition of the articular surfaces. Very possibly this was so. This question is discussed at p. 1238.

Turning now to the cases in which manipulative treatment is appropriate it appears certain that, however widely they differ from each other, they have one feature in common. They are all cases in which no active morbid process is at work; and in which no serious structural change has occurred. It seems needless to occupy space by stating that when the synovial membrane has been

wholly or in part destroyed by tuberculous or septic inflammation, or in the course of Charcot's disease, no movements by bonesetters or any one else can restore it to a normal condition so that it can resume its normal function. If the articular cartilage has undergone fibrillation and absorption, or if the ends of the bones have become lipped and distorted, how can such structural changes be made good by manipulative movements—unless we are still in the age of miracles? Conversely, when a bonesetter, by moving a joint, there and then both removes pain and restores free movement, it seems obvious that no marked structural changes can have been present.

The cases cured by bonesetting form such a miscellaneous collection that they scarcely admit of any systematic classification: they can only be enumerated. But this will suffice to keep them all in view in the daily round of practice.

### ADHESIONS.

1. The cases in which bonesetters secure their most striking successes, and on which their reputation chiefly and rightly depends, are those of which the following is typical: A young adult in the prime of life and in perfect physical training, as a football, cricket, or tennis player, violently strains or wrenches one of his joints. If it is the knee, he may have displaced a semilunar cartilage, but this accident will be considered later on. In the great majority of cases the injury consists of the laceration of some of the soft parts, either within or outside the joint—the synovial membrane or the capsule; or part of a ligament: or some such structure as the ilio-tibial band of the fascia lata is torn—as to some of its fibres it is—away from the periosteum and bone into which it is inserted. There is severe pain, followed by some swelling, due to extravasated blood and lymph, and the limb is either put in a splint or placed by the patient in as easy a position as he can find, and by which the injured structures are relaxed by flexion. In either case the limb is practically fixed for three or four days while the pain and swelling are subsiding. What is the result? It is that the effused lymph is organized exactly as it would be in the repair of an aseptic surgical wound. In slight cases, in which only a few fibres are torn, new tissue is formed in small quantity, and rapid union takes place (the old primary union), and recovery is quickly complete. When the tearing has been somewhat wider there is more extravasation of blood, and a large amount of reparative material accumulates in the irregular interspaces of the wound, and, undergoing development, forms adhesions which mat the structures together. When this occurs the union does not take place in the orderly manner that is present after tenotomy, say, of the tendo Achillis or the biceps (femoris), which are joined in their normal long axis, so that they still have what the mechanics term a true lead. But the torn structures are joined up irregularly so that the pull upon them is askew. Recent adhesions are so sensitive that when they are stretched by movement of the joint they cause pain, which is often for the moment so sharp that the patient, instead of trying to straighten his knee or other joint, flexes it till the adhesions are relaxed, and studiously maintains the limb in this position.

CASE II.—A boy, aged 10, fell and wrenched his hip. For a fortnight he was in bed at home, lying, for ease, with his knees drawn up. His mother then found that, though the pain had ceased, the boy kept his thigh flexed upon his trunk. Afterwards he was sent to St. Bartholomew's Hospital, with the suspicion that he had developed hip disease. Mr. D'Arcy Power, then house-surgeon, found that though it was freely movable in every other direction, and though the head of the femur rotated freely in the acetabulum, the limb could not be extended beyond a right angle without severe pain. When ether was given, and I proceeded to extend the thigh, the resistance suddenly gave way with an audible tear, which I also distinctly felt, and the limb fell by its own weight into a line with the trunk. A few days later all the movements of the limb were absolutely free and painless. Here, in the accident, some laceration of the capsule or other structure in front of the joint had occurred, and, as the boy lay with the limb flexed, adhesions, preventing extension, had quickly formed. These were readily separated by manipulation, and complete recovery ensued.

CASE III.—A man, aged 45, slipped and sprained his ankle, and was laid up for three weeks. He then began walking with sticks, but was very lame. Some improvement gradually took place, but the ankle remained, month after month, shapeless from chronic swelling, the skin was tense and shining, and the joint was so weak that he could bear no weight upon it. Nine months after the injury he came to the hospital, walking with a stick and leaning on his wife's arm for support. The joint was stiff, shapeless, and "weak"; but it was perfectly free from heat; indeed, it was colder to the touch than the opposite limb. The foot was in a position of slight talipes equinus. When he had inhaled gas I carried the foot through its full normal range of movement. At first I met with elastic resistance, but this yielded to very moderate force, and I felt numerous adhesions giving way, and minute deep-seated snaps and cracks were heard. No pain followed, and the patient the same afternoon walked freely about the ward. A week later he reported himself as being quite well.

CASE IV.—A man, aged 28, whose ankle was stiff eight months after a severe sprain, came to the hospital in 1880. The joint was manipulated, and within an hour he could walk with scarcely a limp. Next morning he walked from Hackney to Smithfield; he reported himself cured, and had already applied for work under his former master. Six months after this he returned to the hospital with his ankle again out of order. He said that since the manipulation he had been at work, and had felt no inconvenience till within the last three weeks, when the joint had become stiff and weak, and so painful under his weight that he was very lame. On examination, neither heat, swelling, nor any appreciable defect of movement could be detected. He was therefore told that manipulation would do him no good, and that he had overworked the joint, and had better have it strapped and give it a week's rest. He looked disappointed, and said that his joint felt just as it did when he was laid up before, and that he believed that if it was moved again he could be all right. This was an appeal to which, as manipulation could do no harm, it seemed unfair not to yield. He took gas, and the ankle was flexed and extended. When flexion was being performed, some adhesions, which, however, were slight, and offered scarcely any appreciable resistance, were felt to give way. He left the hospital an hour afterwards, and the next morning wrote: "I have had enough travelling on my foot to convince me that it is wonderfully better, by my being able to walk without *pain* or *limping*" (he had underlined these words), "which might seem strange, but it is a fact." The adhesions which disabled the joint were so slight that I failed on careful examination to detect any limitation of movement.

CASE V.—A girl, aged 12, came to the out-patient room with reported hip disease, following a fall nine months previously. She walked on her toe, kept the joint habitually a little flexed, abducted, and rotated outwards, and complained of pain when weight was thrown on the limb. On examination I was surprised to find that the movements of the joint were perfectly free in every direction, except that adduction was very slightly restricted, and produced a little uneasiness. Enarthrodial movement was perfect. There was no muscular wasting, a feature incompatible with hip disease of nine months' duration. Not knowing on what the symptoms depended—whether on slight adhesions after the fall, a displaced muscle, or "hysteria"—I had the child put under chloroform, and I moved the limb in all directions. Nothing was felt to give way. Next day every trace of restriction of motion had vanished, and the girl went out of the hospital. The symptoms never returned. I believe the case was one of slight adhesions that had formed after the fall.

**Other cases that bonesetters cure are those in which adhesions have resulted from gouty or rheumatic inflammation in the fibrous structures around joints. Such adhesions, even when they are limited in extent, may, when they are stretched, give rise to pain so sudden and severe that the patient and his friends believe that they must depend on some very serious condition.**

CASE VI.—A man, aged 46, came with what he had been told was rheumatic disease, of four months' duration, of his shoulder-joint, the skin over which was of a rich mahogany colour from prolonged painting with iodine. He could not move his elbow for 2 inches in any direction, and every attempt gave him severe pain. He could not lie on that side, and pain at night was so severe that he could obtain but little sleep. The surrounding muscles were considerably wasted. I found that when the limb rested quietly in my hand, the head of the humerus rotated with perfect smoothness through a slight range, in the glenoid cavity, and that the elbow could be moved forwards and backwards for some 3 or 4 inches. Having thus learnt that the joint itself was healthy (free movement, though limited in its range, conclusively established this), I proposed to manipulate the limb. The mere suggestion of such a step, however, so alarmed the patient that he declined the treatment; but, getting no better, he returned a fortnight later. I then, when he was under gas, first rotated the humerus in the glenoid cavity to its full normal extent, and then carried the limb through its other movements, that is, forwards, backwards, and upwards, performing the upward motion by a series of carefully graduated short jerks. Numerous adhesions readily gave way. The patient suffered a good deal of pain for ten or twelve hours, but within a week he was able to put his coat on. Three weeks later, as some stiffness remained, he inhaled gas, and I again moved the arm in the directions in which I found resistance. In a month from this time, massage having been regularly used in the interval, he reported that he had lost all pain, and that only a slight restriction of movement remained.

CASE VII.—A lady, between 40 and 50, had been suffering, as she was told, from rheumatic disease of her left shoulder joint

for six months. When first seen her arm was fixed to her side; the slightest movement gave her intense pain, and she often suffered with such severe spasm in the muscles of the arm that she was obliged to cling to any firm object near her, in order to avoid falling down. Pain rendered her nights almost sleepless. She could use the limb only from the elbow. Finding by the indications just mentioned that *the joint was sound*, I manipulated the arm under gas. Many adhesions were felt to give way. Pain was severe for some hours, but an anodyne relieved this. Next day she said the former pain and spasm had entirely left her, though the joint felt sore. Within a week she could get her dress on, and sleep on that side, and in a fortnight she considered herself cured.

One of my former colleagues at St. Bartholomew's Hospital had, I found, some gouty adhesions about his shoulder. I was examining the joint with all the gentleness of which I was capable, when on my moving the limb slightly from the side he uttered a piercing cry, and clasping me round the neck nearly dragged me to the ground. No further manipulation was required. It was my turn next. Once upon a time when I was tired and gouty, in playing golf I missed a shot in a bunker. I felt severe pain, and in a week my arm was a fixture at my side. I could not lie on that side nor sleep at night for pain. My old friend, Mr. Alfred Willett, moved the limb while I was under gas, and some adhesions gave way. Pain finally ceased in an hour, and in a week I was perfectly cured. Had I been a member of the Stock Exchange and Mr. Willett a bonesetter, who told me my deltoid had slipped round to the front, and had made a grating sound as he put it back, I should have seen no reason whatever for doubting what he said, and I should have believed he had made a wonderful diagnosis, and performed a wonderful cure.

It may here be mentioned, in passing, that the "snap," which is often both felt and heard when a joint that has long been stiff or at rest is suddenly moved, is a phenomenon to which bonesetters point as a plain demonstration that a bone was out and has been put in. These snaps, however, are not produced by the concussion of two joint surfaces as they come suddenly into contact, but, on the contrary, are due to the sudden separation of two surfaces which have been stuck together by a too viscid and tenacious synovial fluid. Many persons can make all their fingers crack by steadily pulling at them till the joint surfaces suddenly separate.

It may at first sight be a matter for surprise that the cases in which bonesetters effect a cure by breaking down adhesions should be so numerous. But it must be remembered that sprains and contusion of the joints are of very frequent occurrence in all those who, whether for work or pastime, are engaged in active physical exercise. Many thousands of such minor injuries occur every year. And, further, that every wrench or contusion, except those which are very slight, is attended with some tearing of the structures concerned; in other words, that there is a subcutaneous wound. Such a wound, as I have already said, is united—as in the case of a subcutaneous tenotomy—by the development of "adhesions" in the form of new fibrous tissue, and these adhesions are painful if stretched. This may obviously occur in any case unless the measures for preventing it—early passive movement, massage, etc.—are carried out. It, in fact, rests with those who treat these cases in practice to determine how many or how few of them are to be manufactured for bonesetters to cure. The supply has been steadily falling for some years, and it is to be hoped for the credit of surgery that it will soon entirely cease.

The effect of the rupture of adhesions is illustrated by the fact that people are sometimes cured by an accident.

CASE VIII.—A man, whose shoulder was stiff and painful, in climbing to the front seat of an old-fashioned omnibus, slipped and, to save himself, clutched at the handrail. The movement gave his arm a violent wrench. He felt agonizing pain for a few minutes, but he then found he could move the limb, and in a few days was quite well. A schoolboy hurt his elbow by falling on it, and it was much swollen for a few days. Afterwards the forearm could not be extended beyond about 120 degrees. Some months later, in a game of play, another boy seized his hand and pulled him suddenly forwards. Both boys were frightened by feeling something give way; but afterwards the limb could be fully extended and there was free movement at the elbow-joint. Mr. Adrian Hope, who for many years rendered invaluable service to the Hospital for Sick Children as its secretary, wrenched his ankle severely in a fall. He could not use the limb for some weeks, but at length was able to walk with a stick. One night, as he was turning in bed, his foot being anchored by the heavy bedclothes, he twisted his ankle and heard a snap. He was much alarmed and thought he had seriously injured his foot. Next morning, however, greatly to his surprise and relief, he found he could walk on the limb without discomfort; and he quickly and entirely recovered.

CASE IX.—A patient told me the following instructive case. Many years ago, while he was at Harrogate, a gentleman was taking the waters for the relief of pain and stiffness about his shoulder, which was said to be out. While walking in the meadow in which the springs are situated, and which was then surrounded by a hedge and ditch, he was attacked by a cow. In this emergency he endeavoured to escape by taking a running jump at the hedge and ditch. In doing so, he made a spring, and involuntarily carried his arm upwards and forwards, with the happy result of not only escaping from the infuriated (or playful) cow, but of "putting his shoulder in," for from that time he regained full power of movement. Who can doubt that this was a case of slight adhesions, ruptured by the sudden movement of the limb, or that the bonesetter would have cured the patient just as the cow did, and with as little knowledge of the condition to which the pain and stiffness were really due?

Thus far consideration has been limited to cases in which the original structures of the part concerned have undergone no material organic change, but are matted together by adhesions which are easily broken down. There remain for examination those in which, as the result of acute or long-continued irritation, the synovial membrane is invaded by cicatricial tissue, so that fibrous ankylosis, more or less firm and extensive, has occurred. In which cases in this group should forcible movement be resorted to? This is a very important question, which can only be answered in general terms after various considerations have been taken into account. In practice each individual case must be carefully adjudged on its own account.

First, as to the cause. Fibrous ankylosis is often the result of tuberculous disease. When this is the case my own opinion is that forcible movement is very rarely suitable. So far as I have observed, rest is always essential in the management of tuberculous joints, while any mechanical injury invariably tends to aggravate the disease.

What, in the opinion of any one familiar with the surgery of childhood, would be the result—say in a hundred cases of fibrous ankylosis after tuberculous hip disease—of forcible movement for the purpose of restoring motion to the joint? Is it not certain that, although in a very small proportion of the cases no harm might be done, in an overwhelming majority grave results would have to be recorded—return of pain and muscular spasm, the formation of abscess, displacement of the upper end of the femur upon the dorsum ilii, fracture of the femur (which in old hip disease is atrophied and brittle), separation of the epiphysis of the head of the femur if it was still present, or, lastly, rupture of the ilio-psoas muscle? When I was house-surgeon at the Hospital for Sick Children in 1862 the practice of forcibly straightening the limb (under chloroform) in hip disease was in common use, and I myself witnessed instances of every one of the results I have just mentioned. These disasters were of frequent occurrence. They were all eliminated when I had the happy opportunity of introducing weight extension in the long axis of the femur, as taught by Pancoast and other American surgeons. In further evidence of the danger of using mechanical force in these cases I may add that on four occasions I have had, in order to save the lives of the patients, to amputate the limbs of children whose tuberculous knee-joints had been straightened by bonesetters. One case of hip disease, bearing on the result of bonesetting, may be mentioned:

CASE X.—A little girl, aged 7, had been lame for six months as the result of a mild attack of inflammation of the hip-joint. The limb was considerably drawn up, so that the toe did not touch the ground. She walked with a crutch, but had no pain or other symptoms of still-present disease. Her hip was said to be "out," and was "put in" under chloroform by a bonesetter, and she was reported to be cured. The immediate result was satisfactory, for the limb was now very nearly straight, and she could walk without her crutches, though she still limped. The father told me afterwards that at the time he thought it a providential thing that the surgeon he had proposed to consult was away from home, so that his steps had been turned in another direction. In the course, however, of three weeks pain and startings and restless nights came on, and the child could not put her foot to the ground. Three months later, when I saw the case, the limb was considerably flexed, and there was a large abscess in front of the joint.

As to cases of fibrous ankylosis in which forcible straightening should be used, there are:

Those in which acute synovitis has followed a severe wrench:

CASE XI.—A boy, aged 14, racing down a steep grassy slope in Hyde Park, severely wrenched his hip. He was admitted two days later into St. Bartholomew's Hospital, in great pain, with a quick pulse and a temperature of 100°. Weight extension was used. For ten days the pain was severe, especially on movement, but it had ceased in three weeks. It was then found that the joint was quite fixed. Under chloroform, given on three occasions, the limb was carried through all its movements to their free normal range. No material force was required. Numerous adhesions were felt and heard to give way, especially on the first occasion. In the intervals between the manipulations under chloroform, passive movements and massage were used. Within a month full recovery took place.

Or the injury may be in another form.

CASE XII.—An officer, aged 23, during the war in South Africa, was shot transversely through the knee, the bullet passing just above the level of the head of the tibia and behind the middle of the joint. No suppuration followed, and the wounds of entrance and exit healed in a few days. When I saw him in England two months later the joint was quite free from pain and heat, and scarcely at all swollen, but it was firmly fixed at an angle of about 110 degrees. When he was under chloroform the ankylosis between the femur and tibia proved to be so firm that it was evidently either close fibrous or bony in character. But the patella was freely movable on the condyles of the femur. This was very important. As the patella was thus movable, there was no reason why an attempt to break down the ankylosis by flexing the limb should not be made. (If the leg is forcibly flexed when the patella is ankylosed on the condyles of the femur, the grave injury of rupture of the ligamentum patellae is very likely to occur. I have seen two instances). The ankylosis only gave way when very considerable force was used and when the attempt was on the point of being discarded. The impression conveyed was that a strong and extensive fibrous cicatrix was being torn through. The limb was considerably straightened, but not fully, as to do this seemed to incur the risk of injuring the vessels in the popliteal space or of producing dislocation of the head of the tibia backwards. No severe pain and only moderate swelling and heat followed. The forcible movement (now including full extension) was repeated on two occasions at weekly intervals, and after the first straightening massage and passive movements were carried out daily. For six weeks the joint showed an obstinate tendency to become flexed and stiff. The patient was therefore supplied with a weight and pulley, with which, for half an hour twice daily, he exercised the limb by alternate flexion and extension. Movement slowly, but steadily, returned, and at the end of six months he could both extend and flex the limb with complete freedom.

Fig. 1.—Repair of fracture of the femur.

In yet other instances the ankylosis may have resulted from a septic wound of the joint, from gonorrhoea, or from septic infection after parturition. In every case the amount of force which it is advisable to use must be very carefully considered.

Case XII serves to remind us of a process which is often not remembered, but to which recovery may be very largely due—the absorption of adhesions, or, in other words, of scar tissue. He who looks may see in many a museum specimens of the repair of a fracture with deformity that every vestige of provisional callus has been removed, and that what remains as permanent callus has become not an adventitious support but an integral part of the bone itself. Fig. 1 shows with what admirable exactness the reparative material is placed and with what nicety it is structurally adapted to the part it has to play. Where it mends the hard wall of the bone it is compact; where it intervenes between and connects the displaced ends of the fracture its mass has not remained a solid block, but has become cancellous in correspondence with the internal structure of the shaft of the parent bone. What architect or sculptor could surpass such work? Just as provisional callus is removed in the later stages of the repair of fractures, so is provisional scar tissue removed in the repair of the soft parts. A wound of the skin and subjacent structures—for example, after an operation for harelip—is united by a scar which in its early days is vascular and exuberant, but of which in a few weeks, or still more after some months, all the superfluous part disappears and it becomes almost invisible. Perhaps the most obvious instance of the absorption of new tissue which has been produced by some irritant is met with in the case of adhesions following peritonitis, whether tuberculous or septic. Even extensive adhesions gradually yet completely disappear, probably as the result of constant disturbance and traction during peristalsis. A similar result is produced by the disturbance and traction which take place during movement and massage employed in cases of joint injuries followed by the formation of adhesions. It is this tendency to the absorption of adhesions—which is a part of the reparative process—that accounts for the restoration of free movement of a joint which has been the seat of fibrous ankylosis. Not sufficiently allowing for this, surgeons sometimes refrain from forcibly moving a joint on which a bonesetter, to put a bone in, operates with success.

### DISPLACEMENT OF MUSCLES (OR TENDONS).

Many instances of displacement of muscles or—to speak more accurately—of their tendons, have been recorded. The clearest, as well as the most familiar, examples are displacement of the tendon of the peroneus longus to the front of the external, and of the tendon of the tibialis posticus to the front of the internal malleolus, and of the long tendon of the biceps inwards or outwards from the bicipital groove of the humerus. This accident to muscles, however, is rare. Many muscles are not liable to its occurrence. This is the case with all such as act in a straight line, and do not pass over any bony prominence—the coraco-brachialis, brachialis anticus, palmaris longus, crureus, soleus, and many others. The muscles open to this liability may be grouped under the following heads:

(*a*) Those which, at some part of their course, have their tendons suddenly or considerably deflected, or which, as they pass round some bony prominence that serves them for a pulley, lie in a groove, bridged over by a ligamentous expansion. This is well seen in the case of the peroneus longus and the tibialis posticus as they pass behind the malleoli. If, while the foot is either inverted or pointed straightforwards, the peroneus longus contracts, it cannot slip, for its tendon is drawn tightly into the bottom of the groove at the back of the external malleolus; but when the foot is everted (Fig. 2), the tendon

Fig. 2.—Showing the strain on the sheath of the peroneus longus when the foot is strongly everted.

has a tendency to leave its groove, so that its sheath becomes its pulley, and this, if the strain is severe, may give way.

CASE XIII.—One of the sisters of St. Bartholomew's Hospital, on leaving an omnibus, twisted her right foot and fell. It was found that the tendon of the peroneus longus had become displaced, and was lying on the front of the lower end of the fibula. The tendon was easily replaced. Considerable extravasation of blood and swelling followed. The foot was placed nearly at a right angle with the leg, and turned somewhat inwards, so that the tendon lay at the bottom of the groove

behind the malleolus, and a leather splint was applied. The foot was kept in this position for three weeks. The splint was then removed, and passive movements and massage were used for a fortnight. At the end of eight weeks after the injury the patient was allowed to walk. The displacement did not recur.

The case happened some years ago, when in many instances rest, according to present views, was unduly prolonged. Probably the patient might safely have been allowed to walk in a month.

If the foot, instead of being everted, is inverted (Fig. 3), and a strain is thrown upon it, the tibialis posticus will be in danger of displacement, for in this position the tendon escapes from its groove and pulls directly upon its sheath. But I have never seen a case. Some, however, have been recorded.

There is a particular muscle which, from its deflected course, would appear at first sight to be peculiarly liable to displacement. This is the extensor longus digitorum (pedis). When the foot is inverted this muscle takes the direction shown in Fig. 3. Yet, so far as I know, no example of its displacement has ever been recorded. The explanation of its immunity from this accident is clear when the structure of the anterior annular ligament is taken into account. It will be remembered that this ligament is Y-shaped, and that the stem forms a loop through which the tendons of the extensor pass. It is this loop (seen in Fig. 3) which binds down, and serves as a

Fig. 3.—Showing deflection of the extensor longus digitorum when the foot is strongly inverted, and the pulley which prevents its displacement.

pulley for the muscle, and effectually prevents it from "straightening out," no matter how much the foot is inverted or how forcibly the muscle acts. Mr. Waring informs me that the breaking-strain of this loop is about 112 lb.

(*b*) Those which pass over bony prominences that undergo considerable movement to one side or the other under the line of the tendon. This is well illustrated by the long tendon of the biceps cubiti, under which the humerus, with its internal and external tuberosities, is frequently and strongly rotated inwards or outwards.

CASE XIV.—A boy aged 19, while vigorously washing his face, felt a sudden pain in the side of his neck, and found that he could not move his head. When he came to the hospital three hours afterwards he presented the appearance of a person with a wryneck, and any attempt at movement was very painful. He inhaled gas, and his muscles were kneaded where he had previously indicated that he felt the pain, and his head was placed in position. When he regained consciousness all his symptoms had disappeared. In both these instances it seems highly probable that a tendon of one of the deep muscles approaching its insertion had slipped over the apex of the posterior tubercle of the transverse process of one of the cervical vertebrae.

I mentioned this case to a surgical class which Mr. Earle Newton, F.R.C.S., now practising at Perth, Western Australia, was attending. Mr. Newton recently sent me the following note:

CASE XV.—A few days ago a jockey, while riding a race, turned his head to the left to see how far he was leading. He felt a snap in his neck, attended with sharp pain shooting upwards towards his ear and downwards over his shoulder of that side. His head remained turned towards his left shoulder, and when he tried to turn it to the right, pain was severe. My partner gave him an anaesthetic, and I manipulated his head and exerted slight extension. A slight click was felt and his head came into position. When he became conscious he turned his head round and exclaimed, "By Jove, it's all right now!"

CASE XVI.—A man, aged 23, came to the hospital with his head fixed and turned to the left side. He said the condition had suddenly developed when, a few hours before, he had quickly turned his head. The symptoms exactly corresponded with those of the cases just related. When, however, I advised him to take ether and have his head moved he declined treatment and left the hospital.

CASE XVII.—A young cavalry officer, much given to athletics, when he raised his left arm suddenly to a right angle with the trunk—as, for instance, to protect his face when he was taking a fence while hunting—had severe pain at the insertion of the deltoid, and found that the arm was fixed and powerless. On moving and rubbing the part the symptoms disappeared, but the arm over the lower part of the deltoid was tender on pressure for two or three days. Two years later the right arm was affected in an exactly similar way, and the symptoms recurred so frequently that it became likely he would have to leave the service. It was impossible to say on what this condition depended, but it seemed probable that the deltoid ridge had become irregularly hypertrophied, and that there was some outgrowth or projection over which part of the tendon slipped.

CASE XVIII.—Some thirty years ago A.B., a delicate lad of 17, was sent up from the country with a suspicion of hip disease. He was so lame that he walked with a crutch and a stick, and could bear very little weight upon the limb. The thigh was held in a position of slight flexion, abduction, and external rotation. He complained of deep-seated pain at the back of the joint on any movement, and of tenderness on pressure in this situation. No swelling could be detected. On careful examination it was found that the hip-joint was sound, but it was believed, from the situation of the pain and tenderness, and from the position of the limb, that the case was one of tuberculous periostitis of the innominate bone beneath the external rotator muscles. He was advised to rest for three months, to have a succession of blisters, and to take cod-liver oil. At the end of this time he was no better; his condition seemed to be wholly unaltered. His friends now took him to a bonesetter, who, after examining him by passing his hand under the waistband of his trousers, pointed to a spot in the thigh 4 in. directly below the anterior superior spine of the ilium, at which spot he said a bone was out. At the request of the boy's mother he put the bone in by moving the limb, a snap being heard during the manipulation. The patient could now move his limb freely, and walk upon it with only slight pain, which disappeared in the course of two or three days, and left him quite well. Just twelve months later, having in the interval remained quite well, he was asked, while at breakfast, to cut some bread, and while in the act of rising quickly from his seat he was suddenly attacked with his old trouble. He had severe pain in the old spot, and felt sick and faint. The limb was found to be locked in its former position, and he had increased pain if he threw any weight upon it. Getting no better, he was brought to London at the end of a fortnight. The limb was then stiff, slightly flexed, and abducted, and he walked very lamely with his crutch and stick. Movement of the limb at once brought on very painful spasmodic muscular contractions, and he suffered severely at night from startings and twitchings of the thigh. No swelling could be detected, but he had pain on pressure over the neighbourhood of the sciatic notch. Having heard how he was cured before, I put him under the influence of gas, and gently carried the limb through all its natural range of flexion, extension, abduction, adduction, and rotation. I felt nothing give way, and nothing seemed to slip; but when he recovered from the gas all his symptoms had disappeared. He could move his limb freely, and in a few days he lost both his lameness and all his pain. He has had no relapse. This case is a very interesting one. When first seen it was very obscure; yet when all the symptoms had been carefully considered, the diagnosis of periostitis seemed grounded on very strong probability. Looking back on it, and noting what subsequently occurred, I think, however, it must have been an instance in which one of the deeply placed tendons had, on a sudden movement, slipped out of its place.

All these cases, except those of the peroneus longus and the tibialis posticus, would, it is safe to say, have been cured by a bonesetter, and he would have deserved every credit for skill. The case of A. B. shows clearly enough Mr. Hutton's limitation in diagnosis. His "bone" (four inches below the anterior iliac spine) was obviously a myth, but his treatment was a startling success.

### DISPLACEMENT OF ONE OF THE SEMILUNAR CARTILAGES OF THE KNEE-JOINT.

Among the various cases that should be treated by movement none are more obvious than those in which one of the semilunar cartilages of the knee-joint is displaced. Indeed, Hey was an exponent of the best kind of bonesetting when he was dealing with this condition 130 years ago, and which he termed "internal derangement of the knee." Here is one of his cases as he recorded it:

CASE XIX.—A clergyman fell from his horse, and bruised his knee. A violent pain was brought on, which continued for an hour and a half, and the joint became stiff and discoloured. In a week the swelling subsided. At the end of a month his power of walking was not at all increased, yet the injured knee appeared like the other. I could bend and extend the limb without difficulty, and without giving him pain; but when he

walked he could give the joint no motion by the natural effort of the muscles. He walked, to use his own expression, "as if he had no joint in his knee." I extended and bent the joint with rather more force than I had used in the preceding cases; yet on a first trial he could not use the joint as well as I had wished. I repeated the operation after an interval of a few minutes, and he immediately regained the power of walking as well as usual, except that he felt a little weakness for a few days.

The displaced cartilage is often tender, and Hey's successors are accustomed, like bonesetters, to press on the "tender spot" during their manipulation of the joint.

Such cases at the present day are familiar to every surgeon. Yet the unwary may still be caught. In some instances the displacement is slight, movement is slightly or not at all interfered with, and the only complaint on the patient's part is that the joint is always uncomfortable, and that it becomes painful and a little stiff and overwarm after exercise. In other instances after a fall or wrench followed by effusion, the condition may be regarded as a simple traumatic synovitis; and when this has subsided the patient may be dismissed with the offhand assurance that the stiffness will disappear with a few more days' rest combined with gentle exercise. But week after week goes by, and he finds that the stiffness persists and that his knee does not get right. Then he goes to a bonesetter, who sees that the knee cannot be put quite right, and who detects tenderness over the internal cartilage. Saying that a bone is out, and pressing his thumb firmly over the tender spot, he moves the limb, and the patient finds that he can walk freely, and fully straighten his knee. In the following case, the fact that the synovitis was due to a displaced semilunar cartilage was overlooked.

CASE XX.—A gentleman some time since remarked that he wished surgeons would be more careful in the management of their cases. When I asked him to reduce this sweeping complaint to the particular instance he had in view, he said that his gamekeeper had been for a month in a hospital for lameness, and had been discharged no better, and that on leaving the hospital he had gone straight to a bonesetter, who told him his knee was out, and there and then "put it in." When, my censor continued, the man expressed surprise that the doctors did not find that his knee was out, the bonesetter replied, "Oh, doctors understand the big bones, but they know nothing about the little ones"—a remark which seemed to the patient, and also, I found, to his master, a full explanation of what had occurred. From what I subsequently learnt, there seemed no doubt that the case had been one of internal derangement, followed by sharp synovitis. This had led to an oversight of the displacement, which remained to cause lameness after the synovitis had subsided. There was a clear history that the joint had slipped on a previous occasion.

Cases have been met with in which slight displacement of a semilunar cartilage has existed for several months, and after the injury which produced it was forgotten. A surgeon examining such a case may see clearly enough that there is something amiss, as the patient complains of slight stiffness, and some aching after exercise. But he cannot make an exact diagnosis, so he orders douching and prescribes a lotion. Getting no better the patient goes to a bonesetter, who finds the tender spot where the little bone is out, moves the limb, and works a complete cure by slipping the cartilage into place. I have met with several instances in which, from a careful examination of the history of the case, it seemed highly probable that the internal cartilage had been displaced for a long period and in which the symptoms disappeared as soon as movement was employed. These cases are so obscure at first sight that they challenge careful investigation, but when this is expended upon them a strong suspicion as to their real nature should arise, and when this point is reached the chance that manipulative movement would succeed should be laid before the patient who—as the proceeding is entirely free from risk and is painless, for an anaesthetic should be used—will generally wish to have the trial made. Should the patient, however, prefer to go to a bonesetter, and should he cure him, the surgeon will have nothing for which to blame himself.

It is only a way of speaking to say that a cure has been wrought merely by the act of returning a slipped cartilage to its place. Now and again it happens that a cartilage as the result of a twist in the knee is squeezed out of its position without any laceration of its attachments. Here when reduction has once been effected there may be no recurrence. But in the great majority of instances either the cartilage itself is torn, sometimes into two separate portions, or its connexions are torn so that it frequently slips. In such cases the bonesetter's "cure" does not last, and further surgical treatment is required.

### DISPLACEMENT OF THE CARPAL OR TARSAL BONES.

Opinions will probably differ as to the frequency with which the individual bones of the carpus and tarsus undergo displacement as the result of wrenches or contusions. Dr. Wharton Hood has remarked that subluxation of these bones must occur in a considerable number of instances, and he believes that the lameness, which in Mr. X.'s case returned after over-exertion and which was immediately removed when Mr. Hutton manipulated the foot, must have been due to some change in the relations or apposition of the articular surfaces. That displacements may occur is, of course, well known. They are, in fact, mentioned in most of the handbooks of the day. A case or two will be enough in illustration:

CASE XXI.—An officer in a cavalry regiment, while hunting, put his horse at a fence. The ground was on a slope and wet, and the horse slipped and fell on his side, coming down heavily on the rider's foot, which was sticking up vertically like a peg. Thus the foot was violently foreshortened and bent upon itself, with the result that the astragalus was partly displaced forwards and outwards, so that it lay close beneath the skin, which was tightly stretched over it. By manipulation and the use of considerable force the bone was pushed back to its normal position with an audible snap. Recovery followed.

CASE XXII.—Mr. T., while serving with his regiment in South Africa was thrown from his horse, and severely wrenched his hand. I saw him two months later. The wrist was stiff and he was unable to flex his index and middle fingers. A pit could be felt on the dorsum of the carpus as if one of the bones was displaced, and on the palmar aspect a deep-seated hard swelling was detected. An *x*-ray picture showed that one of the carpal bones was lying on the palmar aspect of the radius. This was dissected out, and was found to be the semilunar bone which had been jerked out of its bed and was lying entirely isolated, about an inch away from its normal position. I agree with Dr. Wharton Hood that these displacements are less rare than they have been supposed to be.

### FRACTURE OF THE CARPAL OR TARSAL BONES.

Another condition to be borne in mind is fracture of the carpal or tarsal bones and the formation of adhesions, or perhaps spurs of callus, producing pain and limiting movement. *X*-ray photographs show that these fractures are not rare. They have no doubt formerly been the unrecognized cause of the pain and lameness which are apt to be persistent after a wrench or contusion of these structures, and which bonesetters are likely to cure.

A medical friend jumped off his bicycle, and alighting heavily on one foot had severe pain in the inner part of the sole. The foot remained painful on exercise, and at the end of three weeks an *x*-ray picture showed that there was a V shaped fracture of the scaphoid bone.

Dr. Laurence Humphry allows me to relate that while fishing, as he was moving along the river's bank on uneven ground, he came down heavily on his left foot. He had severe pain, and was still lame three weeks later. I suggested that he should have an *x*-ray picture taken. This showed that he had sustained a fracture of the fifth metatarsal bone. He slowly but perfectly recovered. In all such cases pain and stiffness that remained would very likely be removed by a bonesetter of Mr. Hutton's capacity and who found a tender spot, pressed hard upon it, and then carried the foot in the direction in which movement was restricted.

### FLAT FOOT.

Some five and twenty years ago Mr. Alfred Willett, when he was in charge of the orthopaedic department of St. Bartholomew's Hospital, was in the habit of using manipulation in the treatment of flat-foot. When the patient was under gas or ether, the foot was forcibly "moved" and inverted, and was then retained in this position by a light plaster-of-Paris bandage. This manipulation was often repeated and was combined with massage and exercises. Under this treatment even the more severe cases—characterized by great deformity and rigidity—underwent a very marked degree of improvement Patients regained to some extent the power of rising on tiptoe, and of hopping; they lost their pain and were able to walk long distances without inconvenience. By no great exaggeration of the improvement thus obtained, it would be easy to speak of such cases as "cures." In the more acute cases, in messenger boys and shop girls who are on their feet during long hours every day, it is

well known that, when combined with some rest, manipulation, to turn the foot inwards to a full degree, and massage will afford so much relief that the patient may think that a "cure" has straightway been effected.

"HYSTERIA."

Manipulation, with the strong mental impression it produces, is a very good method by which to treat cases of so-called hysterical contraction of the joints, such as the following:

CASE XXIII.—Annie M., aged 14, was brought to the out-patient room of St. Bartholomew's Hospital, with the left knee so strongly flexed that the heel touched the tuber ischii. Her mother said that, fourteen days before, the child had fallen down upon her knee, and that the limb had contracted two days afterwards. A bruise was still visible over the prominent part of the internal condyle of the femur. On examination of the knee I could find neither swelling, heat, nor tenderness; in fact, the joint looked perfectly normal. Regarding the contraction as of mere nervous origin, I pretended to search for and find a particular spot in the popliteal space, and, pressing my finger strongly in, peremptorily ordered the patient to straighten the limb. She did so at once, and while the finger was still pressed upon the surface she walked round the room. The contraction did not return.

CASE XXIV.—A servant, aged 17, after she had accidentally pricked her third finger, had kept it tightly flexed on the palm for two months, and protested that she could not straighten it. Seeing there was nothing the matter, I pretended to pass electricity through it by pressing two sponges in holders (but not connected with the battery) upon it. She immediately straightened her finger, and was quite cured. Although movement under gas was not the method adopted in these two cases, they belong to a group in which that treatment is highly efficacious.

In conclusion, it remains to state that the part which the profession has to play in reference to bonesetting is obvious. A good motto for each one of us would be, "To thine own self be true." Every surgeon must give his cases full attention in all their stages. He must begin with a thorough examination, and unless he is quite sure as to the condition present he must follow the golden rule so often and so strongly insisted on by Sir James Paget, and "revise his diagnosis." He must clean the slate and go over the case a second time, and check his first impressions, for he has to remember that the same signs and symptoms may be due (in early cases) to diseases which are, both in their nature and in the treatment they require, wholly different from each other. Take, in illustration, affections of the knee. All surgeons know that, in their early stages, such widely diverse conditions as inflammation persisting after a minor injury, tuberculosis, syphilis, some forms of gout and sarcoma—others could easily be mentioned—produce exactly the same symptoms, namely, lameness, impaired movement, pain, swelling, and some degree of muscular wasting. These diseases in short, in their early stages, are so much alike that no surgeon, be he who he may, can be sure of differentiating them at sight, or even after a single examination. Indeed, in some instances the more a surgeon knows and the more carefully he examines a case the more doubtful he will feel, and the more conscious that he must examine the case afresh.

There is a story told of Sir William Gull to the effect that, on hearing that one of his colleagues had given an offhand diagnosis which proved to be right in a case which Sir William Gull himself had found very obscure, remarked: "It takes a fool to be right in such a case as that." It is sometimes necessary to suspend judgement till other symptoms either appear or remain absent—that is, till further evidence can be secured, often including a skiagram. Furthermore, do not let the practitioner use the term "recovery" in too narrow a sense, and say, in a case of fracture, that the patient is all right, merely because the bone is united. In the narrow sense that the bone is firm the patient has recovered. But, as he has pain and cannot get his heel down, to tell him that he is all right sounds to him like mockery. Again, let the surgeon remember that manipulation under gas will often remove these and similar defects, and that if he neglects this part of his plain duty the patient may be cured by a bonesetter with dramatic facility. Let the surgeon go further still, and bear in mind that manipulation will sometimes there and then remove pain and restricted movements, although it may not be possible to say on what precise condition they depended or exactly how manipulation has acted (see Cases IV and V). In obscure cases in which the surgeon can definitely exclude the existence of serious disease the matter should be explained to the patient, and manipulation, if consent is given, should be employed.

[We are indebted to Messrs. J. and A. Churchill for permission to reproduce three illustrations from Professor Howard Marsh's *Clinical Essays*.]

REFERENCES.

[1] *Strand Magazine*, October, 1910, p. 340. [2] *On Bone Setting*, Macmillan and Co., 1871, p. 15. [3] Ibid., p. 37.

# QUACKERY—WITH SPECIAL REFERENCE TO FEMALE COMPLAINTS.

BY

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THERE is nothing more remarkable in life than the fact that, where healing is concerned, human credulity seems to learn nothing from human experience, and so it comes about that at all ages, even though it be true, as Carlyle puts it, "Quackery gives rise to nothing; gives death to all things"—it still prevails, until we have arrived now at "an epoch when puffery and quackery have reached a height unexampled in the annals of mankind."

QUACKERY IN THE PAST.

In the BRITISH MEDICAL JOURNAL of September 24th, 1910, as well as in the recently issued *Glenbervie Journals*, there are interesting accounts of the famous "quack of quacks," Count Alessandro Cagliostro (b. 1743, d. 1795), the assumed name of the Italian impostor, Giuseppe Balsamo—whose adventures supplied Dumas with materials for his novel, the *Memoirs of a Physician*, and who, when he visited London and Paris in 1771, sold love philtres for both sexes, and mixtures for making plain women handsome. It must not, however, be forgotten that the famous, or rather notorious, Earl of Rochester (John Wilmont Rochester, second Earl, b. 1647, d. 1680), a boon companion of Charles II, who appointed him Gentleman of the Bedchamber, and who, among the many satires on his royal master, wrote the witty and oft-quoted epigram:

Here lies our Sovereign Lord the King,
Whose word no man relies on,
Who never said a foolish thing
And never did a wise one;

practised as a quack doctor. During one of those numerous occasions in which he was expelled from Court for lampooning the King or some of his friends it is said he had a stall on Tower Hill, where, with his remedies fully displayed, he appeared under the name of Alexandro Bindo, and that he was specially consulted by women, to whom he gave advice and sold cosmetics. It is recorded that this occurred about 1677, and an old number of *Notes and Queries* represents him as saying to his audience:

I am the famed Paracelsus of the age, by name Segnior Doloso Euprontorio, son of that wonder-working Chymist lately deceased in Alsatia and famed through all Europe, Asia, Africa, and America; from the oriental exaltation of Titan to his occidental declination, who in pity to his own dear self and other mortals has by the prayers and solicitations of divers Kings, Emperors, Princes, Lords, Gentlemen, and other Personages been prevailed with to oblige the world with notice to all persons, young and old, lame and blind, that they may know where to repair for their speedy cure in all Cephalgies, Orantalgies, Paralitical Paroxysms, Rheumatisms, Gout, Fevers, Fractures, Dislocations, and all other Distempers incident to the human Body, external or internal, acute or chronic, curable or incurable. My Medicines are the Quintessence of Pharmaceutical Energy; the Cures I have done are beyond the art of the whole World.

I have an excellent hypontical, captical, odoriferous, carminative, renovative, stiptical, corroboratory Balsam of Balsams, made of dead men's fat, rosin, and goose grease. It is the true Pharmacopoeia of Hermes Tris-megistos, the true Pente-magogon of the triple Kingdom, which works seven several ways, and is seven years preparing, which being exactly completed *secundem artem* by Fermentations, Solutions, Sublimations, Rectifications, and Quidlibelifications in Balneo Mariae in the crucible, becomes Nature's Palladium, Health's

Magazine, one drachm of which is worth a Bushel of March dust. For if any of you chance to have your heads cut off or your brains beat out, ten drops of this seasonably applied will recall the fleeting spirits reigning through the deposed Archeus, and in six minutes will restore the departed Life to its pristine vigour with all its functions, vital, rational and animal.

Just in the same way as the modern quack, but with a bombastic literary finish suitable to the age he lived in, this "patron of wit," as Dryden styles Rochester in the preface in which he dedicates to him his "Marriage à-la-Mode," enumerates some of his cures, such as "Dolor in the Os Sacrum," Cramp in the Tongue, etc., and he even emulates some of the modern impostors who are fond of publishing the names of titled people as being among their *clientèle*, by saying he has cured the Emperor of Morocco, who was actually seven years ill of the plague, and whom he made right in forty-two minutes, "so that he danced the Saraband, Flip-flap, and Somerset."

Finally, he tells the audience he is addressing, after the manner of his modern prototypes, that he has devoted himself wholly to serve the public (who would attribute to him selfish motives!), and that when he is not on Tower Hill he may be found (evidently for paid consultation) at the Golden Ball in Fop Alley.

It is noteworthy, however, that much earlier in the world's history quackery was very rampant, even as far back as the ninth and tenth centuries. At that time there was a famous Arabian School of Medicine at Bagdad, of which Rhazes, who first accurately described measles and small-pox, was one of the most distinguished teachers. Rhazes was born in Persia, and did not settle in Bagdad until he was 30, where he subsequently became what we may call Director of the Hospital in Bagdad. There his remarkable lectures on medicine attracted students from all parts. In Freind's *History of Medicine* (1727) there is a translation of some remarks of Rhazes on the impostors of his days, and an abbreviation of this interesting notice of the quackery of the ninth century appears as follows in Wootton's *Chronicles of Pharmacy*:

> There are so many little arts used by mountebanks and pretenders to physic that an entire treatise, had I mind to write one, would not contain them. Their impudence is equal to their guilt in tormenting persons in their last hours. Some of them profess to cure the falling sickness (epilepsy) by making an issue at the back of the head in the form of a cross, and pretending to take something out of the opening which they held all the time in their hands. Others give out that they will draw snakes out of their patients' noses; this they seem to do by putting an iron probe up the nostril until the blood comes. Then they draw out an artificial worm made of liver. Other tricks are to remove white specks from the eye, to draw water from the ear, worms from the teeth, stones from the bladder, or phlegm from various parts of the body, always having concealed the substance in their hands which they pretend to extract. Another performance is to collect the evil humours of the body into one place by rubbing that part with winter cherries until they cause an inflammation. Then they apply some oil to heal the place. Some assure their patients they have swallowed glass. To prove this they tickle the throat with a feather to induce vomiting, when some particles of glass are ejected which were put there by the feather. No wise man ought to trust his life in their hands, nor take any of their medicines which have proved fatal to many.

### Why is Quackery so Prevalent at Present?

It is indeed a remarkable condition of matters, which surely calls for some explanation, that quackery is so prevalent at present, despite the enormous progress of medicine in modern times (due largely to the experimental method), and notwithstanding the better education of the intelligent classes of the people in the laws of health.

That quackery is so rampant now is due to the combination of a variety of causes:

1. We live in an age in which advertising has been reduced to a fine art. By this method the public have brought before them constantly in newspapers, magazines, almanacks, special pamphlets, as well as by means of posters in cities and along railways and roads, and, indeed, wherever people congregate, cures for every ill that flesh is heir to. Further, the alleged effects of these remedies are often illustrated, and, in order to get at the cupidity and modern betting tendencies of certain classes, a competition is at times advertised with large cash prizes, to be won by those who show in themselves the most marked effects of the vaunted remedies. In former times the quack had to meet and shout down his rivals in the market place—as Rochester did in Tower Hill—but now advertisement gets cheaply and quickly at an immensely larger number of the public. It has become a specialized line of business, and if one wishes to put upon the market a pill, a powder, a liniment, or a hair wash, the success of each depends really upon the sum spent in booming it. In his early years in London, while he was "devilling" unsuccessfully for a musical critic and beginning a passion play in blank verse, George Bernard Shaw (we are told in the *Review of Reviews* for April) received his greatest fee—five pounds—for a patent medicine advertisement.

2. But mere advertisement of a remedy could not succeed were it not that we are living in an epoch in which the vast majority of mankind is extremely gullible; in other words, the advertisement seed falls upon a very receptive soil. The man in the street is really only half educated, or he has that superficiality which is not accompanied either with the critical faculty (that is, the power of seeing things in their due proportion), or with that inestimable but rare gift—common sense. Among the mass of mankind there is now no steady, continuous thinking, based upon reading, observation, reflection, and experience. They have no time, apparently, outside their ordinary work and amusement, for cultivating the judicial quality and the power of analysis. They never dip beneath the surface of things or reflect, but simply accept as gospel the advertisements of the so-called "cures" that are constantly being placed before them, and which are so cleverly worded as to appeal to their vanity and to their conceit and too often to their greed. To such people the continued appearance of such advertisements is in itself convincing, while it only raises doubt among those who have a scientifically trained mind.

3 The extraordinary change that has taken place in the last half-century in the rush of the inhabitants from the country to the towns has had a very disastrous effect on the people. They have not the same robustness of health as formerly, they are more neurotic, querulous, and introspective, and far more liable to resort to any remedy which is advertised for every or for any ailment.

4. The world's history affords many instances of the fact that when people begin to lose faith in the religion in which they were brought up, all sorts of superstitions and beliefs in magic and quackery often follow, as was the case in ancient Rome and in modern France at the period of the Revolution. At the present time, the replacement of some of the ordinary forms of religious belief by such systems as faith healing and Christian Science, is having the same effect; and it is also a curious circumstance that when the better classes become sceptical about medicine they generally take to some of these or other systems (such as psychotherapy), often whichever is at the precise moment the fashion.

5. Finally, there can be no doubt that the development of what has been called the school of "expectant medicine," about 1860 to 1880, of which Sir William Gull was the great leader, and the marked surgical progress in more recent times, as well as the greater belief in the prevention than in the treatment of many diseases, have all tended indirectly to increase the growth of quackery, the exponents of which know well that there are many people suffering from maladies—real or apparent—who will take anything which gives even a chance of cure or recovery, or which merely promises relief.

### Women and Quackery.

It will be generally admitted that, taking them as a whole, women are more imposed upon by quacks than men are, and there are many reasons to account for this fact.

1. Women are by their nature more confiding and less wary than most men. They do not suspect the trickery that is being often practised on them, and they are easily deceived by the specious advertisements of the quack, much in the same way as they too often are by the prospectus of the company promoter, who promises them a high return for their invested money, just as the quack assures them of the certainty of his boasted remedies to cure. They do not reflect that if the quacks could accomplish one half they promise there would soon be no sick people at all in the world.

2. Owing to their highly developed nervous system, many women are specially prone to functional nervous

PERKINS'S METALLIC TRACTORS.

*After Gillray (1801).*

disorders, so well known to the gynaecologist, which are the special prey of the quack, and it is in these conditions that he often seems to score his greatest successes; and such is the influence of the mind over the body in these functional derangements that patients and their friends are prepared to use any remedy or almost any course of treatment that they may see skilfully advertised and to give it the credit of curing ailments which may be entirely neurotic.

3. Women in many cases have a natural desire to keep their ailments secret, and instead of consulting the regular practitioners of medicine they are often content to take, without any personal examination at all in order to ascertain what really is the matter with them, the nostrums of the quacks which they see so constantly advertised in the papers and magazines they read. Further, especially among the uneducated, there is a tendency to expect results far too quickly; hence, if what their doctors prescribe for them does not soon remove their complaints, they quickly resort to other remedies, generally of a quack nature.

4. As is only natural, women are very anxious to preserve a good personal appearance, and, as a result, we have the most wonderful and varied proprietary nostrums advertised and used for obesity, for skin diseases, and for preserving and increasing the luxuriance of the hair, and for improving the complexion of the skin.

5. Finally, it is extraordinary how a certain class of women will rush to quack remedies for the cure of what are called "female irregularities," due often to morbid conditions; while others of a much lower type hope to get rid of what is in truth a physiological amenorrhoea.

### QUACK REMEDIES USED BY WOMEN.

The quack remedies used by women may be divided into two classes:

A. Those that can easily be procured through chemists or special agents; and

B. Those that—according to the advertisements—can be obtained by direct application to certain people who call themselves "specialists," etc, and who promise remedies "speedy," "infallible," and "certain."

#### A. *Quack Remedies or Patent Medicines to be Obtained through Chemists or Special Agents.*

For the purpose of this paper I have had careful inquiries made as to the quack remedies that are most frequently asked for by women, and the following chart gives, in a tabular form in the order of frequency, the nostrums applied for and the conditions for which they are usually asked:

| Complaints. | Quack Remedies. |
|---|---|
| 1. Headache and neuralgias... | Kaputine, Daisy powders, Mack's powder, Fox's powder. |
| 2. Special female complaints (including anaemia) | Pink pills, Welch's female pills, Towle's pennyroyal and steel pills, Blancard's apiol and steel pills, Raspail's female pills, Mayhatine's pills. |
| 3. Cough preparations ... | Veno's, Peps, Owbridge's, Kay's, Powell's, Chlorobalsam, Liqafruta. |
| 4. Piles and itching (pruritic troubles) | Zam-buk, Pazo, Hemotora, Cuticura, Doan's ointment. |
| 5. Eczema and skin eruptions | Zam-buk, Antexema, Cuticura, Eczoline. |
| 6. Indigestion and liver troubles (usually means constipation and flatulence) | Beecham's pills, Bile beans, Seigel's syrup, Holloway's pills, Eno's fruit salt, Guy's tonic, Woodcock's pills, Pink pills. |
| 7. Obesity cases ... ... ... | Antipon, Marmola. |
| 8. Tonics (usually spoken of as "something to build up the system") | Phosferine, Pink pills, Guy's tonic. |

Remedies are often asked for to cure asthma (for which there are many patent medicines), and other nostrums inquired for are hair restorers, catarrh cures, and rheumatism remedies, but not in the same volume as the above groups.

#### A. *Remedies to be Obtained by Direct Application to Certain People.*

It is one of the most scandalous features of modern life to see how many advertisements appear for "Ladies" in the form of "remedies," "mixtures," "methods," "pills," "tablets," etc., to get rid of "irregularities" and "suppressions," and which, from the fact that they are vaunted as being in many of the cases "positive," "reliable," "speedy," "safe," "guaranteed," are certainly often used with criminal intent.

### THE FOLLY OF QUACKERY IN THE CASE OF WOMEN.

In the admirable book, *Secret Remedies: What They Cost and What They Contain*, the British Medical Association has brought before the public a series of facts based on careful analysis, which show how the public is bamboozled as to what they contain and as to the price they pay for these patent remedies. Further, many of them have deleterious materials which may be positively harmful to those using them, while they are taken simply for symptoms without any attempt being made to diagnose the real underlying cause of such symptoms. Two illustrations from female complaints will illustrate these statements. There is nothing for which quack remedies are asked more frequently by women than headache, and yet every careful medical man knows what thorough examination is needed to find out the particular cause of this symptom in any given case; as Howard Kelly puts it in his *Medical Gynecology*, "He who would treat headaches successfully must in every case look deeper than the throbbing, aching head, and search for the underlying cause or causes. Indeed, it is chiefly in this way that the intelligent and trained practitioner differs from the quacks who advertise their nostrums in the daily papers. While the practitioner investigates and removes causes, and so often cures the ailment, the parasite upon the profession treats all cases alike, considers headache a disease *per se*, and for the sake of his ten or twenty cents gain supplies a remedy which he swears will cure the malady, in reality giving temporary relief by benumbing the brain. This he does even at the risk of life itself, without any conscience at all, trusting to the lax administration of our criminal laws if he should be arraigned for murder. The nostrum vendor is thus on a par with those brutal savages who waylay and slay their hapless victim for the purpose of stealing so trifling an article as his penknife or a few pennies in his pocket." Further, in speaking of the coal-tar preparations, he writes: "Valuable when used judiciously, but dangerous in careless hands—that is, in the hands of the patient herself or of the quack advertiser. The cases now and then coming to light before coroners' juries are but a small index of the numerous deaths from this cause to be laid at the door of the quacks."

The other illustration is from the so-called "female irregularities," for which there are so many quack nostrums. Every skilful medical practitioner knows that the abnormalities of menstruation cover a large field of gynaecology, and that to prescribe remedies for such "irregularities" before finding out on what cause they depend is the purest charlatanism, and may do positive harm—putting aside altogether the criminal cases where quack remedies are taken in the hope of procuring abortion.

### THE SUPPRESSION OF QUACKERY.

The suppression of quackery may be brought about in three ways:

1. By doing everything to advance the progress of medical science and to improve the art of healing.

2. By educating the public as to the folly of quack nostrums, particularly in the direction of the exposure of "secret remedies" by scientific analysis as to what they contain and what they cost, as is being so admirably carried out by the British Medical Association; and

3. By demanding that there should be legislation on the subject which might follow the lines indicated by the Executive Committee of the Association of County Councils in Scotland, who have recommended their association to adopt a resolution to the effect that the Sale of Food and Drugs Acts should be amended and extended so as to provide:

(1) That for medicines which are supplied otherwise than upon medical, dental, or veterinarian prescriptions, no condition of sale short of the publication on each packet of medicine of the name and quantity of each of its constituents should be permitted.

(2) That the label should be made to constitute a warranty; and that a false description, whether on the label or main advertisement, should be made an offence; and

(3) That the provisions of the Sale of Food and Drugs Acts should be applied to proprietary medicines.

## SKIN DISEASES AND COSMETICS.

BY

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LONDON.

"SKIN troubles immediately relieved and permanently cured." So ran the advertisement in a bath-room of a health resort. There is the secret *in nuce* of all miracle-mongers—the guarantee of cure in any and every case, a talisman made use of by all Cagliostros, thaumaturgists, prophets, and arch-quacks, to employ a Carlylean phrase. Those who saw the *Doctor's Dilemma* will remember the practitioner who had been wholly successful by adding the simple words "cure guaranteed" to his scale of fees.

All this is as old as the hills, and no doubt the same kind of thing will be found inscribed in cuneiform characters on Babylonian bricks and on the ancient monuments of Crete now being brought to light. Indeed, in the case of the latter it is said that a French archaeologist, when he saw the frescoes discovered by Mr. Arthur Evans, exclaimed, "Mais ce sont des parisiennes." Marcel-waving, a mode of hair dressing, was an everyday affair in Minotaurian palaces, just as the three-decker skirt, another recent re-discovery, is depicted on Egyptian monoliths.

In all this question of quackery it is important to bear in mind that in ancient civilizations, side by side with what might be called the regular practitioners, who had devoted time and trouble to the study of the art of medicine, there was a motley crowd of magicians, sorcerers, thaumaturgists, epileptics, fakirs, and camp-followers of divers kinds, who exercised a great influence over the public, just as they do—less picturesquely, it is true—at the present time. Think, for instance, of the pilgrimages to Thessalian Triccae and to the still more celebrated Peloponnesian shrine of Epidaurus. Again, Cos had its sanctuary. In the native isle of Hippocrates the medical man competed with the priests of Asklepios. In the *Mimes* of Herondas, a papyrus first discovered and translated by Mr. Kenyon, of the British Museum, there is a poem devoted to the offering and sacrifice of the women to Asklepios, for Herondas had lived apparently for some time on the island of Cos.[1]

In North Africa, Morocco, talismans and amulets are part and parcel of the stock-in-trade of santons for curing and warding off evils. In Mohammedan countries precious stones cure diseases, such as the itch and leprosy. Coral and topaz taken internally are remedies for the latter complaint.[2]

We may smile at all this, but it must not be forgotten that the same superstitious attitude of mind is simply rampant in the London of the twentieth century. There is no progress really—merely undulatory oscillations about a line. Whether the line be called a norm, be straight, or a circle, like a snake swallowing its own tail, matters not. The fact is that quackery is part and parcel of humanity. Hence the only way of abolishing quackery is to abolish the human race. The French Revolution went some little way in that direction, but even then the ineradicable belief in the impossible was triumphant in the very process of wholesale decapitation.

Now quackery and thaumaturgisms of all kinds are in a ten times stronger position than they were. They are organized on a strong financial basis, and without the huge sums laid out on their advertisement, the newspaper would be in a parlous condition.

Now when we look at the enormous field, which includes morbid cutaneous conditions and cosmetic treatment, is it to be wondered at that there should be on the market so many preparations offered as panaceas for anything between a pimple and a superfluous hair.

Blood mixtures, all of the same kind—namely, an old and trusty friend, pot. iod.—as well as the "I cure fits" remedies (K Br), do indeed bring grist to the mill of the followers of Hippocrates in the shape of iodide and bromide rashes. And the same may be said of a variety of topical applications for cutaneous ills, which often serve to produce a dermatitis, both extensive and acute.

Hair-washes and hair-dyes are not infrequently productive of similar complications. But what would you, my good sirs? Are not we an educated people? But are we any wiser? I trow not. I think it was Cavour who said to the praters of progress, "Yes, let us admit that humanity progresses," but, he added, "Man remains the same." And whether the individual consult the *palmiste* (whatever palmiste with an "e," means—a good many things I should say) of the West End, or an old woman at an area gate, the mental attitude is the same.

As to the hair, the applications are numerous, at any rate have many names. Here again, hair-dyes are very ancient. The East, Egypt, Greece, Rome, know and knew a good many things on this score. The admired Venetian tint of hair was artificial.

One of the lotions recommended for dyeing the hair a fine gold in the time of Leonardo da Vinci contained the following ingredients: Maize juice, decoction of chestnut, saffron, ox bile, swallow droppings, ambergris, calcined bears' claws, and oil of tortoise. A charming mixture wherewith to bewitch the male. Oh, the eternal feminine!

Henna forms the basis of many harmless preparations. But there are also two-edged swords in the shape of products made from the everlasting refuse of gasworks. The sun seems to have stored up its radiant energies for aeons in the plants of the Carboniferous epoch in order to beautify certain representatives of the order primates.

In Roman times, for instance, epilation was commonly carried out, and the epilator employed beautiful forceps for that purpose. The same thing obtains in North Africa and the East, to some extent to cut the ground from under the feet of parasites, for the same reason that shaving the pubes is practised by the Arabs.

Nowadays, any young person who has failed at most things takes up electrolysis or purveys depilatory powders, the latter chiefly an arsenical preparation, the well-known rusma, but they call the stuff by other names. Then there are complexion preparations, usually known remedies, but always advertised under fancy labels. An old one was made up as follows (Leonardo da Vinci period[3]) for sunburn and pimples of the face: Asses' milk mixed with the milk of a red goat, asparagus ends, and white lily bulbs. This was rubbed into the face with a piece of bread, whilst the lady recited a short prayer three times in succession.

The make-up employed by Caterina Sforza consisted of two and a half ounces of carbonate of lead and an equal quantity of tartrate of potash, with five ounces of a compound of perchloride of mercury and silver, to which was added tragacanth and Sari powder. This was well mixed and placed in the abdominal cavity of a Pisan pigeon after careful evisceration and cleansing with spring water. The next step was to cook the pigeon in a saucepan, into which was poured water that had been used to make an infusion of adder. The liquid ultimately obtained was to be applied to the face at bedtime.

Now this is the sort of preparation that our contemporary complexion beautifiers ought to advertise. It would be a success, especially among the crowd that believes what it reads in the papers—the web-footed population I think a clever American writer, Mr. George Ade, has dubbed them.

As regards electrical applications, *x* rays, light, and so forth, I may say I have seen some instances of curious complications brought about. In one case a lady had had, for her chin and lips, *x* rays, high-frequency currents, various coloured lights, both in the West End area and at health resorts, leading to a kind of condition I had never seen before, and which proved particularly obstinate to rational treatment.

A good many more points could be touched upon. In conclusion, the difficulties in the way of putting an end to quackery are insuperable. Man is not prepared to do without it, and he never will, unless a fresh species of *homo* arises as a sport or on the de Vries principle, and escapes death at the hands of the compact majority.

REFERENCES.

[1] See also Quillard, *Les Mimes d'Herondas*. [2] Raynaud, *Etude sur l'hygiène et la médecine au Maroc*, 1902. [3] Dmitry de Merijkowsky, *Leonardo da Vinci*.

# THE PRACTICE OF MEDICINE AND SURGERY BY UNQUALIFIED PERSONS.

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THERE probably never was a time when the State through the local health authorities made more numerous and more praiseworthy efforts for improving the general health of the community, and yet at the same time showed such a curious neglect of a few plain facts that go a long way towards neutralizing its own efforts. One can hardly be much surprised at this after reading the report recently issued from the Privy Council Office as to the "practice of medicine and surgery by unqualified persons in the United Kingdom." A more incomplete report has rarely been issued from any public department, for, while on the one hand it contains practically but little information as to the extent and effects of unqualified practice on the public health beyond what any man of the street could have put together with little trouble, on the other hand the replies of several of the medical officers of health to the questions addressed to them were evidently written without having made any serious attempt to obtain first-hand information. As explained in the preface to the report, it originated in a resolution passed in November, 1908, by the General Medical Council to the effect 'that the General Medical Council being of opinion that the present Medical Acts do not sufficiently enable persons requiring medical aid to distinguish qualified from unqualified practitioners, and that it is contrary to the interest of the public that medical and surgical practice should be carried on with impunity by persons holding no recognized qualification, request the Government to take steps for the appointment of a Royal Commission to inquire into the evil effects produced by the unrestricted practice of medicine and surgery by unqualified persons." On receipt of this resolution the Privy Council sent copies of it to the Local Government Board, the Scottish Office, and the Irish Government, and asked that medical officers of health should be invited to give their opinions as to whether unqualified practice was assuming larger proportions and as to the effect on the public health. This was done and replies were received from over 1,600 medical officers of health in England and Wales and from a considerable number in Scotland and Ireland. A more unsatisfactory method of obtaining information on such a subject can hardly be imagined unless the object was merely to obtain a prima facie case for further inquiry. It may, perhaps, seem natural that a Government department should apply in the first instance to medical officers of health, but the least reflection ought to show that, at any rate, in the larger towns, where the evil is the greatest, the medical officers of health are not in the best position to give the information desired. They may, perhaps, be in a good position to institute a systematic investigation, but they were not required to do so, and only in comparatively few cases was this done. Proper investigations, such as that carried out in such a thorough manner by Dr. Lyster, the Medical Officer of Health for Hampshire, and a few others, were evidently the exception. No part of the duties of a medical officer of health for a large town brings him into such intimate relations with the personal habits of the people as to enable him to form any idea as to the extent to which the ordinary working classes resort to quacks, and any ordinary general practitioner or even any ordinary clergyman visiting the people in their own homes knows far more about this subject than the medical officer of health of a town, while the part-time medical officers of health who are in general practice are mostly in country districts where quackery is less evident. This is not merely a personal opinion, for the Scottish Office, in summarizing the replies of the Medical Officers of Health for Scotland, says, "Such information as the medical officers of health may normally acquire must be largely in the nature of hearsay." This is certainly a true statement of the position, and in the absence of systematic investigations the opinions expressed by many of the medical officers of health are of no more value that the opinions of any private person who has no special reason for taking note of quackery.

But further than this I feel justified in asserting from personal knowledge that in not a few cases the replies given by certain medical officers of health are altogether wrong and misleading and could have been given only by men whose opportunities of observation are very limited. Before making any specific references, it may be as well to draw attention to the character of the questions addressed to the medical officers of health. They were asked to state whether unqualified practice exists in their district, and if so whether it is assuming larger proportions, and also what effects are produced by it on the health of the district. Surely it ought to have been evident that in the complete absence of anything in the nature of comparative statistics or indeed of statistics of any kind it was impossible to give anything more than a vague and almost useless opinion as to whether unqualified practice was increasing or not in a large town, and for the same reason I shall, of course, avoid criticism of replies on that head. Confining myself, then, to the other part of the questions, I have to assert that in not a few towns with which I am intimately acquainted the replies of the medical officers of health as to the existence and effects of unqualified practice are entirely wide of the mark, and bear evidence of having been hastily and carelessly given without that full inquiry which so important a subject demanded, and it would certainly have been nearer the mark if the replies had been more generally to the effect that "the medical officer of health has no information." It is, of course, assumed that the report gives what it professes to give—a fair summary of the replies received.

The following are a few out of many other instances of towns about which the information given in the report is entirely misleading. The first is a town of over 40,000 population, of which it is stated that, except for prescribing by chemists, unqualified practice is non-existent. The fact is that in that town there is a resident bonesetter who varies his practice by opening whitlows and treating any kind of minor injuries; five, if not more, herbalists, one of whom visits patients at their own homes and sells more cough and diarrhoea mixtures than probably any two of the doctors prescribe; while certainly less than half of the dentists are registered.

In another town of about the same size with which I am well acquainted it is also stated that no unqualified practice exists except prescribing by chemists. Here it is a fact much complained of by the medical practitioners that a large proportion of the so-called slight cases of illness are attended by the district nurses, who go practically wherever they are summoned, the doctors being called in only when a case becomes serious. Here also there is at least one resident bonesetter, and the place is simply infested with itinerant quacks, who are not content with setting up their stands in the market-place, but have been known to visit people at their own homes. There are six or seven herbalists, and one at least visits patients at home, and is commonly known as "Doctor." There are also two or three eyesight testers and spectacle specialists, and, in spite of the Midwives Act, no small number of the confinement cases are attended by Mother Gamps, who are "not paid for the confinement" but for the housework they do while the mother of the family is in bed. In addition to this there is a Christian Scientist who sees quite a large number of cases. Several of the chemists act as unregistered dentists, stitch up wounds, and open abscesses and boils, while one is commonly called "Doctor." The sale of opium pills, especially to the factory girls, is notorious in this place, and several of the chemists openly advertise in their shops drugs which are known to be used simply as abortifacients. It is also a fact that numerous sweetshops and grocers, and even greengrocers, sell considerable quantities of headache powders, which appear to consist mostly of antifebrin.

With regard to another town of considerably over 100,000 population, and not far from Manchester, it is stated that unqualified practice is practically non-existent and the effects "*nil*." The real truth is that nearly every chemist prescribes, and most of them do some minor surgery; there are several bonesetters, and at least a score of herbalists, several of whom are known as "Doctor"; one of them at least professes to be able to cure cancer, while another largely advertises a consumption cure. The herbalists do a roaring trade, especially in selling broom-tops for dropsy where the dropsy is non-

existent but only feared; saffron, which is given in whisky as the common remedy for measles; and comfrey, which is more used for every imaginable ache and pain than any drug in the whole *Pharmacopoeia*. In addition an enormous quantity of pennyroyal and hierapicra is sold for what are sometimes correctly, but perhaps oftener euphemistically, called "irregularities." Here, again, headache powders are commonly sold by sweet-shops and grocers, and some of the chemists do a considerable trade in the sale of opium to the factory hands. It is quite a common thing for young factory girls to go into a chemist's shop, lay a few pence on the counter, and receive three or four opium pills without saying a single word, as they are known and regular customers. And all this happens in a town of which the report says that unqualified practice is non-existent. The only explanation that suggests itself to me is that the medical officer of health may have understood by the term "unqualified practice" the engagement of unqualified assistants by medical practitioners. At any rate, that is the only sense in which the report is correct.

The towns alluded to above are, as I have said, places with which I am well acquainted, and of which I can speak with the greatest confidence. In several other cases where unqualified practice is said to be non-existent, I have sufficient passing knowledge to make me feel fairly sure that the statement would not be borne out if proper inquiry were made from resident general practitioners.

Turning next to some of the largest towns in the North, it is a matter of regret that in so many instances the statements made in the report are not worth recording. In the case of Liverpool we are simply told that "there is no material change in the amount of unqualified practice during the last few years, and that it is impossible to state the effect of such practice where so many factors are in operation." In Blackburn unqualified practice is said to be "not increasing," but the extent of it is not stated, and the effects are said to be "*nil*." At Bury it is said to be "practically non-existent." At Chester there is said to be no evidence of such practice except prescribing by chemists, which is "occasionally detrimental." From Leeds we are told that it is apparently not increasing, but the effects are "dangerous." About Oldham the statement is made that it is "practically non-existent," and the effects are "*nil*." From Preston we are told that such practice does not prevail to any extent, and is not increasing. At Rochdale it is said to be not increasing, but the extent is not stated, and the effect is said to be "very little." Similar statements are made about Stockport, except that as to the effects we are told there is "no evidence available," and something like the same account is given of Wigan. This meagre amount of information given about what are some of the most important centres of population is deplorable, and though I cannot lay claim to have any very intimate personal knowledge of some of these towns, I feel justified in stating with some confidence that the reports are in many cases altogether misleading, and I am confirmed in this opinion by information obtained from medical practitioners in most of these towns. In several cases it is self-evident that not the least attempt has been made to deal with the questions properly, the reason being, as far as I can gather, that altogether insufficient time was allowed before the replies were expected to be sent in. So far as that can be pleaded as the reason for the scantiness of the information given, the blame must be shifted from the shoulders of the medical officers of health to the Local Government Board, but in either case it is little short of a scandal that on a question of such vast importance to the public health such a miserably feeble attempt should have been made to obtain information from the most important centres of population.

As regards London, the report says, "The amount of unqualified practice does not appear to be so great as in the provincial towns." I am not in a position to deny this categorically, but the actual information given is far too scanty to justify the acceptance of such a statement. And when we are told, further, that in seven of the metropolitan boroughs unqualified practice is "non-existent or very small," it is impossible not to think of the ostrich burying its head in the sand.

Of Manchester and Salford I can speak from the most intimate knowledge, as well as from information received from time to time as Honorary Secretary of the Salford Division and of the Joint Committee of the Manchester and Salford Divisions of the British Medical Association. With regard to Manchester, the medical officer of health says there is an increasing practice by bonesetters and Christian Scientists, and the sale of abortifacients by some chemists and others is believed to be increasing. He simply mentions "herbalists, occasionally isolated instances, and chemists prescribing." As to the effects, he says: "Injurious effects cannot be positively ascertained. There may be some effect from the use of diachylon, but it is one that is difficult to gauge." With regard to Salford, it is said that unqualified practice is "not increasing; many unqualified persons, chiefly chemists, practise, but their number is not increasing, and simple ailments only are commonly treated; the effect of such practice cannot be stated, but it is not thought to be important."

The meagre simplicity of these reports from two of the largest towns in the North of England has astounded general practitioners, any one of whom knows from personal experience in the homes of the people—an experience that the medical officers of health cannot possibly have—how inadequate the reports are, and how calculated they are to foster a feeling of false security in a matter of the most serious import to the health of the community. The fact is Manchester is simply the great breeding place for quacks of every description, and thousands of people from the rural districts and the smaller towns of Lancashire, Cheshire, Derbyshire, and Yorkshire flock to Manchester, where they can find a quack specialist for almost every variety of disease. The bonesetters have a most lucrative practice with the football clubs, and not long ago the practitioners of the district had to complain that a large workmen's medical club in connexion with the Great Central Railway Company had a rule—which, as far as I know, has not been rescinded—which provided for the payment to a bonesetter of fees amounting often to a guinea for attending members who were at the same time under the care of a medical officer of the club, who received only 4s. per year per member. The evil effects of the practice of bonesetters has been seen by numerous practitioners in Manchester in the shape of tuberculous joints irretrievably damaged by forcible movements at a time when rest was imperative. Again, there are in Manchester several large advertising firms of quacks trading under the name of companies, keeping a large staff of typists to reply to correspondence, and with extensive ramifications and branches and canvassers, who go round to the mills and factories in the surrounding towns to induce the workpeople to have their treatment or to buy their nostrums. One of these firms professes to make a speciality of the diseases of women, though it is quite ready to treat men or children either personally or by correspondence. On numerous occasions large rooms in Sunday schools or even in town halls have been engaged and lectures given on diseases of women, with limelight illustrations of the female genital organs. I have in my possession a verbatim report of one of these lectures, which by instruction of the Salford Division of the British Medical Association was submitted to the Chief Constable, but the unsatisfactory state of the law made it impossible to proceed further in the matter. One of the firms recently boasted that it treated 600 patients per week, and from what I have seen the figure is probably no exaggeration. The fees charged are double, and even quadruple, those charged by medical practitioners, and few patients escape without buying some form of apparatus for which they pay between 20s. and 30s., though the market value cannot be over 3s. Patients have come under my own care who have attended for years without benefit one or other of the dispensaries of one of these firms. In one case a poor widow had been attending one of the dispensaries for about three years on account of a small uterine polypus hanging down into the vagina by a long thin pedicle. She said "the doctor" had been trying to "sweal it away" by medicines, and she had paid him over £30 during that time. Her earnings had never exceeded a few shillings a week, and the greater part of the money she had paid had been provided either by a married daughter little better off than herself or from the poor-box of a Methodist chapel. She was considerably surprised when I informed her that there

was no qualified medical man in connexion with the firm, as she had shared what is the common idea of the district that the firm consists of eminent qualified medical specialists. This impression was fostered by the fact that the founder of the firm had an American doctorate, not medical, and had always been referred to as "the doctor." There was not the least difficulty in quickly removing the growth, which was innocent, though some ulceration had commenced, and for the last eighteen months she has been in perfect health. It may be added that this firm has on several occasions been prosecuted for mistreatment and mulcted in damages to the extent of several thousand pounds, but with the enormous number of patients all paying good fees it can afford to smile at the damages, and to boast that after all it runs no greater risk of prosecution than fully qualified and registered medical practitioners.

Another large firm, also employing a staff of typists, makes a speciality of certain skin diseases, especially varicose veins and ulcer. Probably the bulk of its treatment is undertaken through the post, so that the patients have practically to diagnose their own complaint, but the advertisements state that every case is considered by a "qualified medical man." It should be noted that it does not say "registered" medical man, and I have been quite unable to find out the name of any registered medical man who is connected with the place. The character of the preparations sold by this firm has already been exposed in the "Secret Remedy" columns of the BRITISH MEDICAL JOURNAL, but it still remains a fact that enormous numbers of people who can ill afford it are induced to pay very considerable fees for its preparations, and on numerous occasions I have had to explain the possible difference between a "qualified" and a "registered" medical man to persons who had been misled by the advertisement.

Again, Manchester is well known as the home of unqualified sight-testers who often call themselves "optologists" or "sight specialists." Taking Manchester and Salford together there are scores of opticians who profess to be eye specialists, and large numbers of small clock and watch repairers or even electricians without any previous training who undertake to test the sight and supply spectacles. It must be a matter for the greatest concern that many school children obtain their spectacles from small opticians or watch repairers. Only recently I found a school child wearing myopic glasses of three dioptres who was really suffering from hypermetropic astigmatism. There was not the least excuse for this as the education authorities would have arranged for proper testing, but the parents thought they could get spectacles more cheaply themselves, and they were misled by the optician's advertisements. One large firm is specially noted for always recommending gold frames for which the ordinary charge is 50s. with an extra charge of 10s. if astigmatic glasses are supplied. Of course in all cases the testing is supposed to be free, only the glasses being charged for. It is not generally the practice to use mydriatics or retinoscopy, and practically the patients, even children, test themselves.

The number of unqualified specialists for venereal diseases is appalling, though most of them hide their real character by only advertising remedies for "loss of manly vigour" or "neurasthenia." The principal and by far the most profitable part of the trade of many so-called herbalists is in the treatment of venereal diseases. Mercury is freely used by some of these herbalists, but, in deference to a popular objection to "minerals," they create confusion by selling the herb *Mercurialis perennis*. By no means a small proportion of the patients of these herbalists or specialists are married men who are afraid to go to their ordinary medical attendant, and it is no rare thing for medical practitioners to have to treat respectable married women for venereal diseases communicated by their husbands, who, when no longer able to pay the high charges of the "specialist," have been assured that they were cured. Another large part of this miserable trade is with men who, after excesses, get an idea that they are becoming impotent, and it is quite astonishing to find working men willing to pay a goodly proportion of their wages to a quack to enable them to resume their excesses as soon as possible. The favourite drug used for this purpose seems to be damiana, which is included in the "special stock" of many herbalists. There is an enormous sale, too, of herbs supposed to be abortifacients. Especially common is a mixture, popularly called "hiccory piccory mixture," which appears to be a decoction of pennyroyal with hiera-picra, the latter being supposed to be a decoction of aloes in drastic doses with canella bark. But all these remedies for "irregularities" are now giving way to diachylon, which is freely sold by many herbalists and chemists, who know perfectly well the purpose for which it is intended. Far more profit, however, is made out of diachylon by selling it in the form of pills. I recently had to attend a woman three months advanced in pregnancy who was suffering from lead colic with obstinate constipation, the distinct "blue line" leaving no possibility of mistake. The case was undoubtedly serious, and under fear of death she told me she had spent £4 in pills, some of which she gave me, though she absolutely refused to say where she had purchased them. Fortunately she recovered without abortion, and had a normal confinement at full term, but the infant was a puny little thing hardly over 5 lb. in weight. The pills were simply bits of emplastrum plumbi roughly rolled into pill shape, worth perhaps 1d. for a score, but sold by "an experienced nurse" as a "certain specific" at 5s. for a box of a dozen.

The "cancer curers" of the Manchester district are of world-wide notoriety, and the "famous Reddish doctor" must have treated many thousands of cases. Most of them strongly advise against anything in the nature of operation, and persuade the patients that the growth can be "swealed away." This generally means the application of the strongest caustics, arsenical paste being perhaps the commonest. The suffering caused by the treatment is incalculable. The most innocent growths are irritated in a quite unnecessary way, while the futile attempts to treat malignant growths by utterly useless medicines and local applications involve delays, the consequences of which it is frightful to contemplate. If there were no other reason whatever for drastic legislation against quackery, the terrible ravages of the "cancer curers" of the Manchester district would afford ample ground for the most stringent repression. The same remarks equally apply to the "consumption curers." Among the other unqualified specialists who freely advertise and apparently drive a large trade in Manchester are the medical electricians and sellers of electric belts, the haemorrhoid curers, the curers of rupture without operation, and others far too numerous to mention, all of whom ply their nefarious trades under the protection of the law.

I have said but little about the habit of self-drugging by patent medicines, tablets, and pills, though there can be no doubt it is more common than ever; but closely connected with this is one matter that deserves the urgent attention of the health authorities, and that is the frequency with which infectious diseases are treated from beginning to end by chemists and herbalists. This is quite common in mild cases of scarlatina, while diphtheria has often been treated as "mumps" or "enlarged glands." With regard to epidemic diarrhoea it is almost the exception for a medical man in certain districts of Manchester and Salford ever to see a case that has not first been treated by a chemist; and what is even more surprising is the fact that in several of the neighbouring towns the sanitary committees directly encourage parents not to call in a doctor by offering to supply diarrhoea medicine free to anyone who applies at the town halls. But the case of measles is by far the worst of all. The authorities are often apparently at a loss to understand the rapid spread of epidemics of measles, and quite recently the Lancashire County Council confessed itself unable to account for the recent epidemic, which had made it necessary to close no less than thirty elementary schools. The explanation is perfectly obvious to general practitioners. It is no exaggeration to state that 50 per cent. of the cases of measles, whooping-cough and mumps are first treated by chemists, generally without being seen. They simply accept the parents' account that the children have a "spring rash" or a "teething rash," or that "their blood is out of order," and isolation is never suggested until the epidemic has spread. The statistics for Manchester show that measles is accountable for nearly twice as many deaths as any other of the infectious diseases, the next on the list being epidemic diarrhoea, and in view of the facts stated above, which are confirmed

by the reports from medical officers of health in several other parts of the country, there is no ground for surprise. The law strains at the gnat and swallows the camel.

Reviewing the subject as a whole, it may perhaps be difficult to prove from statistics anything as to the growth of quackery, but the ominous fact about it is that quackery is undoubtedly becoming more organized and systematic. The itinerant quacks of the market-place still flourish as much as ever, but the characteristic of the day is the phenomenal growth of the large and well-organized schemes and companies carrying on their business on a scale almost incredible, and in most cases succeeding in defrauding the public into the belief that their treatment is in the hands of qualified medical men. The report issued through the Privy Council Office, incomplete though it is, and bearing on the face of it such obvious signs of imperfect inquiry and hasty replies, nevertheless contains sufficient to warrant the statement that the quackery that is proved to exist is a grave danger to the public health, and that further inquiry by a Royal Commission is urgently necessary in the interests of the community. To general practitioners this may appear superfluous, but it is not clear that statesmen and the more intelligent part of the public have yet realized the dangers arising from the imperfect state of the law and the failure to apply even the powers that exist. It may possibly be suggested that if the Government scheme for sickness insurance is carried in anything like its present form, the facilities for obtaining proper medical advice will be so easy that the day of the quacks will be over, as a registered practitioner will be at the beck and call of the working classes without expense. But experience shows that the high fees demanded by quacks are in no way a hindrance to their success, as the speciousness of their advertising seems to be sufficient to overcome all the dictates of common sense and economy.

In short, the public needs protecting against itself, and I see no possibility of this without a radical amendment of the Medical Acts. I would therefore strongly urge that a petition should be prepared pressing on the Government the necessity, in the public interest, of appointing a Royal Commission with the reference, first, to inquire into the whole subject of unqualified medical practice, including the trade in secret remedies; secondly, to ascertain the extent of existing statutory powers, and to show how best they may be made operative; and, thirdly, to suggest such amendments of the Medical Acts, or other Acts, as are necessary to prevent the existing evils of unqualified practice.

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# QUACKERY IN RURAL DISTRICTS.

By CHARLES E. S. FLEMMING,
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THE following notes are founded not only on the personal experience of the writer, but on the answers to inquiries of many medical men practising in villages and small country towns in the south of England, and the examination of the advertisements in forty newspapers circulating in the same district. There is no need in this JOURNAL to define what is meant by quackery, and I do not intend to discuss the question of prescribing by chemists, nor that of the irregular practice of medicine by nurses and midwives, nor the supply of patent foods; they are subjects of importance, but each one requires separate consideration.

In examining the nature and extent of this practice, we have to consider the different sorts of drugs, the various mechanical and other appliances, and the specialist practitioners and treatments. The first group includes the remedies of herbalists and wise women, domestic remedies, cancer cures, and patent medicines. In the second group are appliances for the treatment of hernia, deafness, and rheumatism, rings and electric belts; and in the last group bonesetters, masseurs, unqualified oculists, aurists, and dentists, asthma and phthisis curers, and faith healers and all their genus.

Herbalists at one time no doubt were very numerous, and had extensive practices, but they are fast becoming extinct; in all the newspapers examined only one herbalist's advertisement was found. Of thirty-four medical men who have been good enough to give me the benefit of their experience on this point, all but six write that herbalists do not exist in their neighbourhood; in the six districts where they are reported to exist they only visit the district occasionally, and except for the sale of aperient pills their trade is not large; they are sometimes found in the market-place on a busy day, but the resident herbalist, who had often some local fame, has been ousted by the advertising quack.

Wise women have become rarer than herbalists. In one district only have I any record of them; that is a small colliery district, where there are two or three with "the evil eye"; they are still feared by a few, but their influence is decidedly on the wane. One of them makes and sells elder ointment for all diseases of the eye.

Neither from medical men nor from the newspaper advertisements have I any evidence of the existence of a cancer curer. One occasionally even now hears a whisper about violet leaves; and a doctor in a small town in Somerset told me that some years ago a patient of his, in spite of all advice, insisted on having a cancer of the tibia treated by a herbalist, who guaranteed to cure it with slippery elm sawdust poultices.

Domestic remedies are also being driven out of the home by the army of advertised remedies, and district nurses must have done very much to stop the use and abuse of many of them—certainly of such things as marsh mallow poultices for sprains and cuckoo-pint leaves for boils—though there still are some who use them; but I doubt if even a district nurse could dissuade the old woman who explained the use of rabbits' scybalae as pills by saying: "The rabbits eat the lovely herbs, and they must contain the virtue of the herbs and must be beneficial."

The use of patent medicines has become so enormous that it is difficult to form anything like an accurate estimate of its extent or its exact nature. From every medical man, from every district comes what is practically the same reply—that in every house are to be found patent medicines; that they are sold alike by chemists, grocers, stores, and little shops; that their use has increased enormously of late years. This statement is borne out by the fact that the revenue from labels on patent medicines increased from £266,400 in 1899 to £334,000 in 1908. From the official returns as to stamps it has been calculated that the sale of patent medicines in 1908 amounted in value to about £2,500,000, and the proportion of about 20s. spent for every sixteen of the population is apparently much the same in the country as elsewhere, for in one small town which with its neighbouring villages has a population of about 9,000, the chief chemist and grocer between them sell £600 worth of patent medicine in the year. This seems a large sum for one small district, but it is probably the same in other places. In another small town the chemist said that a quarter of all his sales was patent medicines. A grocer in a town with a population of 10,000 in an agricultural district said that his bill from one firm for patent medicines, enema syringes, etc., amounted to £40 a month, and this did not include certain proprietary articles which he purchased direct from the makers. The leading chemist in this same town said, "Speaking generally, I sell more quack medicines than ever, in spite of grocers selling them." In a large village on Salisbury Plain the amount sold is estimated at £200 a year.

Taking the case of individuals, a doctor in Cornwall writes that a pauper patient of his spent £11 in a stock of a well-known kidney cure, and died the next week. A dispenser, at one time a chemist in a large agricultural village, said that a man earning 12s. a week would regularly buy a patent medicine at 2s. 9d. a bottle. Both chemists and grocers are agreed as to the enormous increase in these sales of late years, both among the well-to do and the poor, more especially the former. Another source of information about this trade is found in the newspaper advertisements. I referred to forty newspapers that had been examined; they were mostly local papers, but some were London papers with large circulation in the country, such as the *Daily Express*, *Lloyd's Weekly News*, the *People*, *Answers*, and the *British Weekly*, and two of the better-class society papers. Omitting advertisements of physical culture, these papers contained 622 advertisements of patent medicines, an average of 15

to each paper, and in extent they amounted to more than 150 columns. One London paper had five advertisements occupying eleven columns, and one small South Devon paper, to its credit be it said, had only three advertisements occupying altogether six inches. I should say that the area of patent medicine advertisements in any paper varied in direct proportion to its circulation.

As to the varieties of these advertised medicines and appliances, the evidence of the medical men is that the most frequently used are in order as placed here. Aperient pills and digestive medicines, cough remedies, ointments, kidney and blood mixtures, teething powders, and headache powders. I learn from several chemists that aperient pills are easily first. The 622 advertisements are divided as follows:

Drugs for digestive tract, including aperients, 128.
Skin, hair, etc., 111.
Tonics and blood mixtures, 52.
Coughs, asthma, and consumption, 48.
Panaceas, 45.
Abortifacients, 44.
Bladder, urinary, dropsy, 39.
Sores and wounds, 35.
Gout and rheumatism, 27.
Hernia, 11.
Tonic wines, 11.
Rings and electric appliances, 8.
Remedies for alcoholism, piles, headache, deafness, diabetes, infants soothing, heart, eyes, fits, obesity, throat, nervous, and one or two others; between them, 52.

These figures probably give some idea of the proportion in which the different remedies are used; those for diseases which are most common or most troublesome head the list. And, as a correspondent writes, "The value of a remedy is assessed by its advertisement. A quite useful application which was at one time much sought after is not now obtainable, because the makers could not afford to continue to advertise sufficiently."

Apparently bonesetters do not exist in rural districts and country towns in the south of England; they are no doubt resorted to by those who can afford to travel to London. I have heard of two brothers who practise in the north of Hereford, but they do not, I believe come further south.

Massage, so-called but really a variety of bonesetting, is practised in the larger towns; and many, especially of the well-to-do, go from the country to these irregular practitioners.

The same may be said of systems of physical culture as a means of curing various diseases; and the sums spent on these cures must be enormous, for the fees charged are by no means small.

The faith healers, under various disguises, are similarly resorted to by the better-off country folk. And the poor man gets his spectacles furnished and fitted by the small chemist or the smaller jeweller; and his teeth extracted and stopped and dentures fitted (*sic*) by the unqualified and advertising dentist or the small chemist. Evidence on all sides shows how prevalent are these customs.

But probably no special treatments are more pernicious than those for the cure of phthisis and asthma. Medical men on all sides tell of them. In one county especially do they appear to flourish, that is in Cornwall, chiefly among the miners returned from abroad.

Guided by advertisements, and the information given by men in practice, I should be led to conclude that of all appliances those for the treatment of rheumatism and of hernia were the most used; and it is extraordinary what some working men will pay for trusses. A gardener grumbled very much because his medical man charged him 10s. 6d. for visiting him at night and reducing a hernia, measuring him for a truss, and advising to go to hospital for a radical cure; within three months he paid 16 guineas for a simple spring truss with brass fittings. Another, a farmer, paid £25 for a truss (worth 10*s*.) and a bottle of lotion (worth 1d.), and pinned all his faith on the lotion. Others buy four strips of adhesive plaster for 28*s*. to cure their ruptures.

Electric appliances for the cure of rheumatism and other diseases, and rings for rheumatism, have a steady sale, the latter being sold by most small chemists and jewellers. But at the present time pride of place must be given to apparatus for mechanical massage. I was told recently of a clergyman making a collection to buy one of those apparatuses for a case of spastic paraplegia. Deaf patients, rich and poor alike, must from all accounts spend large sums in the purchase of various, mostly useless, appliances to make them hear.

From all this it appears that if only man will believe—and he appears very willing—he may find a remedy at his grocer's for any diseases that may afflict any part of his body. And in this country he spends in this way every year probably more than enough to maintain over 40,000 hospital beds.

The agencies for making known, providing and distributing these remedies are varied and numerous. Newspapers come first, and the methods of advertising are ingenious. First it was the ordinary bald advertisement, then the pictures, then came the reading advertisement placed in the midst of the general news, having a literary style not very different to that of the rest of the paper; you read it innocently to the bitter end, which made you feel just as much annoyed as you were when the new patient you welcomed to your consulting-room turned out to be a commercial traveller. But the cleverest, and I am told by a chemist the most efficacious, is the American method, that is, the prescription that is given free to any one that writes for it. When he takes it to the chemist to be dispensed, he finds that one of the ingredients is an expensive proprietary medicine.

Next to newspapers as agents come chemists, stores, grocers, and co-operative societies. The number of "patent medicine" licence holders is considerable in two districts of which I got the figures; there was 1 to every 1,000 of the population.

Other agents are: the post office, the street vendor, and last, and I should say least, the clergyman and the district visitor.

This quackery is distributed pretty equally among all classes of society, and in town and country. Among the wealthy there is a larger demand for those remedies which satisfy comfort and vanity. Among a certain class there is a sort of medical cant, a using of technical terms, and a morbid love of morbidity that makes them a prey to the charlatan. They have a curious mixture of belief and disbelief, like King Saul, of whom Massillon said "Il ne croit plus en Dieu, et il est assez credule pour aller interroger les demons."

The causes of this habit are by no means simple; its prevalence among all classes of society, rich and poor, educated and uneducated, shows that they are not only pecuniary, social, or educational. The primary causes are presumably superstition and ignorance, but with superstition must be bracketed credulity and the illogical mind.

The same superstition that, in the time of Nero, made the crowd believe that the magician, by the touch of his hand, drove the evil spirit from the lunatic, to-day makes it believe that a lotion applied to the groin will close an open inguinal canal. This superstition is nurtured by the credulity that believes all that is said with sufficient fervour and all that is printed because it is printed. When I said to an old man, who had shown me a glowing advertisement of some cure for rheumatism, "Surely you don't believe all that nonsense?" he replied, "You may call it 'nonsense,' but you never will make me believe that any man would dare to put all that in the paper if it wasn't as true as a book"; and this credulity will always flourish in the mind that is untrained to logical thought, that confuses cause with effect as the woman who looks on amenorrhoea as the cause of anaemia, and that confuses coincidence with cause and effect as the mother who attributes all illness in her teething child to the teething or in her vaccinated child to the vaccination.

The ignorance is that ignorance of physiology and anatomy which would not know, and could not understand, the difference between suppression of urine and an impervious stricture of the urethra.

There are, however, other contributory causes for this excessive resort to untrained medical assistance. The patient, in the first place, wants his symptoms treated, and has no idea of the importance of finding out their cause, so that he is quite satisfied if he can help himself from the bottle labelled "Headache," whether he has Bright's disease, eye-strain, or a cerebral tumour.

Again, the patient, not getting from his philosophic doctor the quick relief that he expected, in his despair applies to the plausible charlatan whose assurance is so

comforting. Sometimes it appeals to the sufferer's vanity to be in the fashion, using some much-talked-of remedy; and it appeals to his meanness, which he calls his economy, to save his doctor's fees. At the same time, his innate snobbishness values what he buys according to its price, and he will pay 20 guineas for what he might get in the proper place for half a guinea.

But the most important contributory cause, and the most effectual, is the variety and number of agencies for bringing the claims of these remedies to the knowledge of the public, and for supplying them. There is also the fact that it is to the immediate interest of both producer and agent by every means in their power to maintain and increase the trade.

It may be asked, What matters it if the people do use all these remedies, many of them harmless if useless? The taking of so-called harmless remedies that are useless is indirectly most injurious in that it delays treatment so that the patient has not only remained ill an unnecessarily long time, but has very possibly put off treatment so late that it cannot, when at last adopted, be as efficient as it might have been; or that it fails altogether, as in a case of cancer which had been treated for months with a popular ointment before proper advice was sought and operation was found to be out of the question; and in a case of troublesome vomiting which was treated with a soothing syrup, fortunately without relief, for this meant that a medical man had to be called in; he found that it was a case of cerebral syphilis and was able to save the patient's life, but the delay had caused treatment to be much more difficult and prolonged, and there are records of many other cases that have been left in this way too long practically untreated. Some of the most serious instances are where coughs and consumption have been dosed for months until the patients became incurable. A doctor in Cornwall writes: "A very large percentage of the men here are miners. These men go to South Africa, accumulate what is to them a small fortune, and then come home to die of 'miner's phthisis.' During the dying process the expense to which some of them will go in their desperation is startling. They will spend pound after pound in the various nostrums advertised, sending to America and South Africa for 'certain cures' after they have gone through the whole gamut of our home quack productions. Then the end comes and the widow and children land on 'the parish.' Another case came under my notice a year or two ago. A young man was killed in one of the mines, leaving a widow and two children. Compensation was paid to the extent, I believe, of some £100. The woman suffered from asthma, and after taking all the home 'cures," sent to America for something at a cost of between £4 and £5. Needless to say, she is already 'on the rocks,' and the elder child is not yet ten years old."

These two instances bring to notice another and a very serious result of quackery—that is, the spending of large sums of money that can ill be spared and that should have gone to the proper support of the patient or others of his family. I mentioned above one small town where £600 is spent yearly in patent medicines; in that same town £200 could not be raised for the maintenance of a small cottage hospital.

From the want of proper diagnosis and information there arises the risk—a serious one—of the spread of infection in venereal, zymotic, and various parasitic diseases.

Lastly, there is at times an immediate and positive danger in the use of these so-called cures. A herbalist destroyed a child's eyesight by the use of some drops; a quack masseuse set up an acute inflammation in a quiet tuberculous joint; a lady developed symptoms of poisoning after taking "headache" powders for a week; and in a case of neuralgia a catarrhal nephritis appears to have been caused by tablets containing acetyl salicylic acid.

If we are to cure this vicious habit we must educate the public mind not to desire its indulgence, and at the same time make its indulgence less easy and remove the causes that prompt the desire. The first means the removal of superstition, credulity, and ignorance; something may be done to effect this by general and technical education and the teaching that medical men and district nurses are daily giving. We as a profession, in our endeavour to make clear the mental vision of the superstitious and credulous, will need to take some care to make sure that there is nothing likely to blur our own vision.

To make the indulgence of the habit less easy means interfering with the producers and distributing agents, and the only practical proposal that I know of is to increase the stamp duty on patent medicines and the cost of the vendors' licences, and I would suggest that the revenue from both these be devoted to the maintenance of hospitals, much as whisky money is given for education. It seems almost useless to expect any legislation directly designed to get rid of these men, neither is it likely that if passed it would be effectual. A writer of fifty years ago, quoting Tacitus, "*De mathematicis Italiâ pellendis factum senatus-consultum atrox et irritum*," writes: "There is reason to fear that these vermin, the quacks, will no more be extirpated by any decrees than were astrologers from Italy, or gipsies from Spain, or wizards from Israel, never so long as 'the weakness of patients, the sweetness of life, and the nature of hope' remain what they are."

We may, however, fairly expect the State, which has already endeavoured to protect the people from untrained midwives and untrained chemists, to take some active steps to protect them from untrained medical practitioners. They might at least, as has often been suggested, insist on the exact and actual composition of all patent medicines being stated on the cover of each packet.

The causes that make for the indulgence of the desire are sickness, weariness and worry, and the persuasion of the quack. The first three can be alleviated by preventive medicine, better and more easily obtained medical attendance, better housing and surroundings, and better conditions of employment—towards all of which we are making steady if slow progress. But the persuasive influence of the charlatan is as powerful as ever it was, and nothing can lessen it but the control of his means of persuasion—that is, his advertisements. Why not tax them and give that money, too, to the hospitals?

This only refers to the newspaper and magazine advertisements, but there is another form that, in the country, at any rate, is widely prevalent—that is, the postal pamphlet and the handbill; the former, if the authorities would, might easily be put a stop to, as were betting circulars.

Though these notes refer to quackery in rural districts, it is probable that, except, at any rate, in big cities, there is little difference between town and country. Though dispensaries and hospital out-patient departments give ample facility for medical help in cities, the absence of this checking force is made up for in the country by the greater personal influence of the family doctor. The great facilities for advertising and for obtaining goods, and the frequent and easy intercourse between town and country have, even in the most isolated districts, diminished with any distinctions that there were in the past. The town patient, though quicker in thought than his country cousin, is probably no less superstitious in regard to the treatment of his many ailments.

## UNQUALIFIED PRACTICE IN EAST ANGLIA.

BY

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IT is probable that the evils of "unqualified practice" are not felt so much in East Anglia as in some other parts of England; still, it is unquestionably very prevalent, and in the opinion of the medical profession of Norwich is "year by year assuming larger proportions." On the other hand, the opinion has been expressed that in the Ipswich district "quackery has been on the decline for some years."

The *itinerant quack* who years ago used to attend at country markets and sell his pills and ointments from a cart on the market hill with all the sonorous accompaniments of the travelling showman has disappeared, but his place is taken by the prescribing chemist, the medical botanist, the consulting optician *et hoc genus omne*, whilst the sale of proprietary medicines flourishes more than ever.

So far as East Anglia is concerned, the *bonesetter* does not exist; his home is more especially in manufacturing or mining centres, where accidents are frequent and severe.

The *prescribing chemist* does an extensive business in every town and large village. He prescribes commonly for slight ailments, and is usually alert, when danger threatens, to advise his customer to seek medical advice; but in the large towns many have the sign "Consulting Chemist" outside their shops, and openly advise, prescribe for, and treat all kinds of illness, and even visit customers at their own homes.

The chemist also usually describes himself as a "practical optician," and prescribes and sells glasses for all sorts of optical defects and diseases. The so-called "opticians," who are usually jewellers, not only prescribe glasses, but advertise that they do so "on the same principles as employed by the leading London ophthalmic hospitals and surgeons."

*Proprietary medicines*, such as Mother Seigel's Syrup, Clarke's Blood Mixture, Guy's Tonic, Beecham's Pills, Zambuk, have enormous sales amongst all classes of the community, and especially amongst the working classes, and many a patient who sees his doctor and goes away without thinking of his fee will pay in cash various sums, from 1s. 1½d. to 10s. 6d., for a quack remedy, the vendor of which is too wise to sell it except in exchange for ready money.

The *unqualified veterinary* or village *farrier*, too, usually enjoys a reputation for curing diseases, especially those of the skin, and prescribes and takes fees from farmers and labourers at the same time as he physics their cattle and castrates their pigs.

*Medical botanists* seem to flourish in the bracing Norfolk air, for in *Kelly's Directory* you find eleven persons thus described in that county, six of these being in Norwich and three in Great Yarmouth, whilst by the same authority none exist in Suffolk. One of these Norwich practitioners is probably held in greater repute by his fellow townsmen than the majority of the duly qualified practitioners, and is a J.P. for the city; although in 1898 he was convicted under the Medical Act for using the title "Surgeon," and fined £20 under the Apothecaries Act at about the same time. The notoriety of these prosecutions probably added to his fame, and he was the recipient of a handsome testimonial from his fellow citizens.

In our towns, too, we find branches of well known companies, such as "Viavi," and others, so that take it all in all there is no lack of unqualified practice in East Anglia; and in addition to those who practise for gain, there is the philanthropist, the village nurse, the certificated or perhaps the registered midwife, all confidently recommending some pet nostrum as the infallible cure for each and every "ill that flesh is heir to."

## BONESETTING AND THE TREATMENT OF PAINFUL JOINTS.

BY

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FOR some years past much criticism has been published by the lay papers on the after-treatment of bone and joint injuries by our profession. Owing to our neglect of the so-called art of bonesetting many such cases drift into the hands of the unqualified practitioner. Though, doubtless, all medical men are fully aware of the effect of adhesions on a joint and the methods of dealing with them, nevertheless bonesetters are still enabled to gain "kudos" in cases in which some minor disability follows the orthodox treatment.

It is for this reason that the following considerations are put forward, and, though no claim is made that cure could not be achieved by other means, yet treatment based on the lines here stated gives good results.

Before describing the various movements which will be required for each joint, it may be as well to emphasize some of the more important points to be observed in their performance.

In the first place, an anaesthetic should always be employed even for the apparently trivial cases, as, apart from the chances of meeting with undue muscular resistance, the pain experienced by the patient is sometimes out of all proportion to the amount of disability present.

Secondly, the movements should be executed in a quick, smooth manner, avoiding all jerks and undue violence.

Thirdly, in seizing the limb, a short leverage should be taken for fear of fracture.

Once the adhesions have ruptured, full movement of the joint must not be sought at the risk of overstraining the contracted muscles.

In all cases in which diagnosis is doubtful it is advisable to obtain a radiograph of the joint in order that any morbid condition may be excluded.

### *Shoulder-joint.*

The shoulder, from its great liability to injuries, is perhaps the joint most commonly incapacitated by adhesions. This joint, moreover, being capable of a very wide and varied range of movement, a slight impairment of one of them is liable to follow any injury to that region. It is for this reason that the manipulations necessary for their restoration are first described.

Although complete ankylosis from the effects of trauma is nowadays rare, adhesions in and around this joint often exist causing considerable loss of movement, which to a certain extent may be masked by the apparent freedom allowed by the scapula. Therefore, when examining a shoulder in which adhesions are suspected, the scapula should always be fixed by the hand whilst the movements are tested. When the mobility of the shoulder joint is impaired by adhesions the arm is carried in a stiff unnatural manner, and though antero-posterior movements may be fairly free, any attempt to raise the arm above the level of the joint causes the whole shoulder to go up until the rotation of the scapula has reached its limit. Placing the hand behind the back in such an action as buttoning the braces, or that curious shrug of the shoulder entailed in putting on or taking off a coat are other motions usually found defective.

Provided no movement of the joint is made which pulls on the adhesions, pain is not as a rule a marked symptom. At night, however, this is the reverse, and the patient usually complains of being awakened at intervals by a considerable amount of pain, which is frequently attributed to rheumatism. The explanation is that during the daytime any movement likely to cause pain is prevented by the contraction of the controlling muscles, but as soon as sleep supervenes these muscles gradually relax till the steady drag of the limb on the adhesions sets up a sufficient amount of pain to arouse consciousness.

In all cases in which there is much disability adhesions will be mainly found in the posterior and inferior folds of the capsular ligament, and will account for the loss of the movements mentioned.

In those vague conditions in which a complaint is made of occasional very acute pain in the front of the shoulder, caused through some particular motion, but in which no marked loss of mobility is found, small adhesions frequently exist in the tendon sheath of the long head of the biceps, where it dips into the joint.

Again, where abduction is found to be slightly defective and pain is experienced on the outer side of the joint, the bursa of the deltoid has sometimes become adherent (through inflammation) to the surrounding tissues. In such circumstances as these manipulation will afford a speedy and effective cure.

The patient should lie on a bed or couch, with the affected limb freed of clothing. Anaesthesia having been established, the method of procedure in the case of a right shoulder is as follows: The operator grasps the elbow joint with his right hand, whilst his left steadies the shoulder. He then quickly rotates the head of the humerus till it is felt by the left hand to be moving freely. Sliding his right hand up he seizes the arm close up to the joint and carries the limb across the chest till the elbow reaches the middle line, where he again quickly rotates, and then brings it back to its former position. With the left hand still steadying the shoulder, the arm is made to move in gradually increasing circles till any adhesions are felt to yield. The patient is then half turned over and the arm and hand made to go behind the back, the thumb of the operator being firmly pressed over the bicipital groove, in order to prevent any possible movement of the sheath interfering with rupture of the

adhesions which impede free play of the tendon. The arm must now be abducted firmly, with the external condyle uppermost, whilst the operator's left hand pushes against and resists rotation of the scapula until the adhesions yield with their characteristic tear; the arm should then be quickly rotated outwards and carried upwards and to the front. These movements, if properly carried out, are sufficient to rupture any adhesions that may exist in or around the joint, and provided no undue violence has been used, no inflammation will ensue. Pain, however, will be present to a certain extent, but even when severe no apprehension need be felt. Within an hour or so of the operation the shoulder should be gently rubbed and moved. This, if carefully done, will greatly relieve the pain, and rarely will any local application be necessary. Rubbing and movement must be continued daily, and on no account should the arm be slung or kept immobile. Within a few days exercises, preferably by means of weights and pulleys, should be commenced, to restore the inevitably wasted and contracted muscles.

In addition to the measures detailed above, considerable assistance can be obtained in suitable cases by the use of what has been called intensive irradiation, and the wave current applied from a static machine. Intensive irradiation is obtained by submitting the part to be treated to the rays of a 500 candle-power lamp with two reflectors, one corrugated and the other conical, projecting lines of radiation, some of which are parallel and some crosswise. By this means two parallel fields of great illumination are obtained, and the result of the application of this intensive irradiation is to induce a general relaxation of tissues with consequent relief of pressure and pain. In cases thus treated stasis in the injured parts is promptly dealt with and pain is alleviated.

The wave current is especially valuable in removing passive congestions by restoring the metabolic equilibrium which is disturbed in the class of case alluded to in this article. It is interesting to note that the explanation given of the relief of the pain in this way is that the nutrition of the parts affected by effusion is rectified.

In dealing with painful conditions of the shoulder it is useful to remember that at the point where the circumflex nerve passes from beneath the teres minor muscle there is often a painful area which requires special attention. Another part of the region of the shoulder where a painful area is encountered is over the place where the suprascapular nerve reaches the dorsum of the scapula. In this connexion it must be noted that in an inflammation of a joint there must always be taken into consideration the associated condition of contraction of the muscular structures round the joint. It is this tension of the muscles which causes the patient to complain of the feeling of heaviness of the arm in the affections of the shoulder-joint under discussion.

In the cases of injuries to the shoulder-joint the deltoid muscle is especially liable to damage, and the paralysis which often results is not a difficult matter to recognize because the shoulder becomes flattened and the acromial process of the scapula makes itself more evident. In those cases in which the deltoid has been injured and paralysis has supervened, the practitioner must bear in mind that the deltoid has slight recuperative power, and a guarded prognosis must be given as to the time it will take for satisfactory movement of the arm to occur. It is particularly in the case of the deltoid that the concurrent affection of joint and muscle can be demonstrated, because the circumflex nerve with others supplies both joint and muscle in this case, and, as already described, the adhesions which occur must be broken down before a satisfactory treatment of the condition can be effected. In the case of patients who are no longer young, and in whom wasting of the deltoid has occurred, it is useful to remember also that it may be a matter of months before the muscle can be restored to a condition of activity.

*(To be continued.)*

THE Royal Dental Hospital, Leicester Square, has received a donation of £500 from the trustees of Smith's (Kensington Estate) Charity.

AMONG those recently elected Fellows of the Royal Sanitary Institute are Major William W. Clemesha, I.M.S., Dr. Edward Sergeant, M.O.H., Lancashire, and Dr. R. P. Williams, Assistant M.O.H., Sheffield.

# QUACKERY IN THE PAST.

IN an essay on quackery there is a question that meets one on the threshold. What is a quack? Taking, like the lawyers, Johnson's Dictionary as our authority for the definition of the word, we find a quack there described as "a boastful pretender to arts which he does not understand," or with a more direct application to the art of healing as "a vain boastful pretender to physick; one who proclaims his own medical abilities in publick places." A further definition given by him is "An artful tricking practitioner in physick." From this we see that the great lexicographer made a clear distinction between pretenders to knowledge which they do not possess and those who use knowledge in an artful and tricky manner—in short, between the unqualified and the qualified quack. Sir William Broadbent suggested that this difference should be expressed by applying the word "charlatan" to medical men who use dishonourable methods in their practice. This seems to us a mere artificial distinction. Randle Cotgrave in his *Dictionarie of the French and English Tongues*, which is recognized by French as well as English scholars as authoritative, translated the word *charlatan* as follows: "A mountebanke, a cousening drug-seller, a pratling quack salver, a tatler, babler, foolish prater or commender of trifles." Skeat in his *Etymological Dictionary of the English Language* gives as the meaning of quack "to cry up pretended nostrums," and says it is only a particular use of the original word, which he explains as "to make a noise like a duck." He adds that "quack-salver" is a derivative which means "a quack who puffs up his salves or ointments"; the place of this was later taken by "quack doctor." The word, therefore, originally meant a mountebank who sold salves, eye lotions, and so forth, at fairs, like the quack depicted with such realistic detail by Gerhard Douw in the well-known picture which is reproduced in the plate facing p. 1224; but already in Johnson's day it had acquired a larger connotation.

It is, unfortunately, too true that many who are in a technical sense within the sanctuary profane their own gained knowledge by using it for the decoy of what Iago would call "snipes." The fact that such men exist is not only a disgrace to the profession of which they are members and a danger to the public, who are deluded by their pretensions, but a direct incentive and encouragement to the practice of medicine by people who have no knowledge, and equally little scruple, in trading on the ignorance of their dupes. It must be admitted, further, that there are large numbers of perfectly honest and honourable doctors who countenance, perhaps without fully realizing what they are doing, the use of secret and proprietary remedies. As long as such things are prescribed by orthodox practitioners it is vain to hope that they will be suppressed. Leaving this point for the present, we will confine ourselves to the practitioner who comes within the scope of Johnson's second definition—that is, to the "vain boastful pretender to physick."

### *Causes of Quackery.*

Quackery has its root in the self-conceit which is one of the ingredients that go to the making of "this foolish-compounded clay, man." Hence, though every sort and condition of men, and especially of women, is prone to pay worship to the false gods of quackery, it is more common as a rule in religious sects in which authority is most ignored, and the right of private judgement is pushed to the furthest extreme. It is obvious that a man who professes to understand and expound the Scriptures by the light of nature, will *a fortiori* think that he requires no guide to the perfect comprehension of the mysteries of the human body. Professor Osler says:

> I suppose as a body clergymen are better educated than any other, yet they are notorious supporters of all the nostrums and humbuggery with which the daily and religious papers abound, and I find that the farther away they have wandered from the decrees of the Council of Trent, the more apt they are to be steeped in thaumaturgic and Galenical superstition.*

We have, of course, nothing to do with theological creeds or churches. It is, therefore, only by way of illustrating

* Address on Teaching and Thinking. *Aequanimitas*. Second edition. London. 1906. p. 131.

Dr. Osler's statement that we refer to the fact that quack advertisements flourish in ranker luxuriance in religious papers which are the representatives of Nonconformist sects than in the Anglican or Roman Catholic papers. There is, indeed, what may be called a mystical form of quackery, the origin of which in charms, spells, and amulets goes as far back as the beginning of human history, and which has existed in all ages down to the present day in the form of belief in the healing virtues of sacred springs, relics of holy persons, and shrines. Beginning in simple faith, this form of mysticism always tends, wherever the shrine may be, to become a matter of deliberate trickery and the most odious traffic. The quackery that trades on faith and superstition was fully dealt with in the BRITISH MEDICAL JOURNAL of June 18th, 1910. It is not easy to disentangle such practices from vulgar trade in physical remedies, for the mystic element enters more or less into quackery of all kinds. The Oriental practice of swallowing the prescription instead of the medicine named therein may be regarded as a kind of connecting link between the credulity that frankly looks for cure by a miracle in a bottle of Lourdes water and that which expects healing from a pill or potion the vaunted virtues of which have to be taken on faith. Quackery finds the soil and atmosphere in which it can best flourish in ignorance and superstition.

Apart altogether from theological dogma there is a temper of mind which leads people to disbelieve in science with its honest, cautious, and often unsuccessful gropings after truth, and to accept in preference the professions of those whom their very ignorance makes loud and confident in statement. There is, in fact, what we have before called the *anima naturaliter circulatoria* (*circulator*, a quack) of whom there are conspicuous examples in journalism and in the pulpit, perhaps even in the Mother of Parliaments itself, at the present time. This peculiar twist of mind makes a man love quackery for its own sake. He is what the Americans, who know the breed even better than we do, call a "crank"—one who prefers a dim, though not necessarily religious, light to the lamp of knowledge. Hence we so often see the eccentricity of belief which constitutes quackery pervade a man's whole mind—faith in cancer cures, bonesetting, spiritualism, antivaccination, and, generally, everything that is unscientific, finding there a natural home. The votaries of quackery are, to use a happy expression recently employed by Mr. Butlin, "antibodies." Minds of this type are natural breeding grounds of quackery in other provinces than that of medicine; there are religious, philosophical, political, scientific, literary, artistic, and commercial quacks, but these do not concern us here.

Another thing, it must be confessed, which naturally helps to foster quackery is the uncertainty of medicine. This uncertainty appears much greater than it really is to those who note how in the progress of knowledge not only the theory but the practice of the art of healing is constantly changing. What is called quackery at the present day often represents what was orthodox medicine two or three centuries ago. The superficial observer sees the failures of medicine, but knows nothing of its successes, or wilfully shuts his eyes to them. It has been said with some truth that the average Englishman thinks that he could found a new religion. It is not surprising, therefore, that every one should think that he understands the mysteries of medicine. Sydney Smith said of a celebrated statesman that he would at any time be ready to cut for stone or take command of the Channel Fleet. Though all men have not this sublime confidence in their own powers, many folk believe that a knowledge of medicine comes, as Dogberry said of reading and writing, by nature. If they would hesitate to undertake a laparotomy they are always ready to prescribe for ordinary ailments. It is related that Alfonso D'Este, Duke of Ferrara, one day in conversation wondered what trade or profession was most common. His fool, Gonelle, at once said that the art of medicine had the largest number of professors, and wagered that he would prove his assertion within twenty four hours. The next morning Gonelle came out of his dwelling, his head swathed in wrappings, his hat crushed down upon his head, and his shoulders huddled up under his cloak. The first man he met asked him what was the matter. He answered, "I have a frightful toothache." "Ah, my friend," said the other, "I know the best cure for that," and told him of it. Gonelle wrote his name on his tablets, pretending also to make a note of the recipe. The whole length of the street he met no one who did not tell him some cure or other, all different from the rest, but declared to have been thoroughly tried and to be infallible in its operation. On reaching the courtyard of the palace he found himself surrounded by people who were also eager in offering advice. Their names also went down on his tablets. When he entered the Duke's chamber His Excellency at once called out, "What is the matter, Gonelle?" The fool answered that he had toothache; whereupon the Duke said, "I know something that will stop the pain at once, even if the tooth is decayed. Messer Antonio Mussa Brassavalo, my physician, has never ordered anything better. Do this and that and at once you will be cured." Gonelle then threw off his wrappings and exclaimed, "You too, my lord, are a doctor. I have already on my way hither, although I had to pass along only one street, found more than two hundred others. Here is the list. I am ready to bet that I should find more than ten thousand if I went all about the town. Can you find more people practising any profession?"

Then there is the boundless field of human credulity. This is well illustrated by the following story: A celebrated quack was visited by a former playfellow from his native village, who asked how he had got on so well, adding with the frankness of early friendship, "Thee knowst thee never had no more brains than a pumpkin." The quack took him to the window and bade him count the passers-by. When a hundred had passed the quack asked his visitor, "How many wise men do you suppose were amongst this hundred?" "Mayhap one," was the reply. "Well," returned the quack, "*all the rest are mine.*" To this enormous percentage of mankind quack advertisements make their appeal.

As showing how the people at large are more ready to pin their faith on a quack than on a properly trained man of science, we may recall a story which appeared in the French papers a few years ago. A quack at a fair near Paris was driving a roaring trade selling nostrums, drawing teeth, and beguiling the crowd in the usual ways. The letter of the French law against unqualified practice is very strong, though, owing to the indifference of the magistrates, it is not strictly carried out. This, however, was a particularly flagrant case, and the police felt compelled to intervene. The quack was therefore accosted by the guardians of the law, taken to a tent at the back of his stand, and requested to show his diploma. To the stupefaction of the gendarmes, he exhibited a perfectly authentic degree of Doctor of Medicine of the University of Paris. They were profuse in their apologies, which the doctor cut short with an urgent entreaty that they should say nothing about what they had seen. "For," he said, "if the people know that I am a qualified doctor I shall have no more customers!"

### *Origin of Quackery.*

The history of quackery is in a sense the history of medicine, for before a rational art of healing existed all practitioners were necessarily pretenders to knowledge or to powers which they did not possess. We see what was doubtless the beginning of the treatment of disease in the medicine man of savage tribes. It consisted of exorcisms, incantations, magic, and superstitious observances, mixed as experience grew with fumigations, mechanical applications, and the administration of preparations of herbs and animal substances. The earliest idea of disease seems to have been that it was caused by an evil spirit taking possession of the patient's body. The object of medicine, therefore, was to expel the demon, and this was effected by making his usurped dwelling-place as unpleasant to him as possible. The skull was trephined in remote antiquity, as prehistoric remains clearly indicate. This was no doubt sometimes done as a religious rite, but it was also performed to afford an outlet by which the evil spirits might escape. With the same object the patient was exposed to evil-smelling fumigations and had to drink noxious draughts and submit to drastic purgation. In the case of women substances were introduced into the vagina which had the supposed property of controlling the movements of the womb. Often the patient was trodden on, rolled about and beaten, all these

acts of violence being therapeutic methods directed to the eviction of the baleful tenant. This belief in evil spirits as the causes of disease survived till comparatively modern times, and is by no means extinct even at the present day. A curious survival of it may be seen in the belief of the poorer class in the efficacy of medicines of vivid colour and evil taste. They have no faith in medicines that are not nasty, and in their very nastiness is supposed to lie their healing virtue. How far the medicine men believed in their own magic and spells it is impossible to say, and it would be unprofitable to discuss. As man emerged into the dawn of civilization, there must have been some who recognized the futility of these things. But medical science was till the last century a plant of very slow growth, and it was hindered by the traditional superstitions and fettered by the shackles of authority in which it lay bound till the experimental method got a secure footing. But all through the evolution of medicine quackery has followed it like a black shadow, and will doubtless continue to do so till the diffusion of knowledge produces that mental atmosphere in which credulity and superstition cannot live.

*Medicine and Quackery in Egypt.*

The quack of antiquity was not licensed—for, except possibly in India, there seems to have been no regular licence before the thirteenth century—but an untaught or badly taught practitioner. Many centuries before Christ there were in Egypt, India, and Greece men who had received a regular professional education. The Egyptian physicians were held in great repute. Their position was equal to that of the priests, and they were trained in schools associated with the temples. Their anatomical knowledge was very small, as they did not dissect. They inspected the urine and professed to diagnose pregnancy thereby. Prayers were combined with medical treatment. As the doctors had a priestly character they offered these prayers themselves, and attached at least as much importance to them as to their medical directions. There must have been many quacks, for the whole people took an active interest in medicine, and at one time, as in Babylon, sick people were laid out in front of the houses, in the hope that passers-by would give advice as to treatment.

*Medicine and Quackery in India.*

In India, as far as can be gathered from the Vedas, the date of which is some 600 years before Christ, diseases were looked upon as divine punishments or as the result of magic. Hence prayers, offerings, and charms were used. But even in the *Rig-Veda* mention is made of dietetic and medicinal remedies. The practice of medicine at first was in the hands of the priest; then it extended to members of other castes. Thus in time a medical class was organized. The *Ayur-Veda* composed by Charaka and Susruta, which is the oldest book in Sanscrit literature, gives information as to the study of medicine. The means of acquiring medical knowledge were the study of medical writings, the personal teaching of the instructor, and association with other doctors. Pupils fit for the study of medicine were those who came from a family of doctors or associated with doctors. Susruta says that at the end of the course of studies the candidate had to address a petition to the King asking him to grant authority to practise independently.* This seems to be the first trace of anything resembling a legal qualification. That quackery existed is shown by the testimony of Charaka, who speaks contemptuously of those who, making a great display in the train of a learned doctor, eagerly seek after opportunities for practice. No sooner have these people heard of a patient than they hurry off to him, fill his ears with their own medical ability, and are unceasing in their enumeration of the failures of the attending doctor. In order to conceal their lack of skill they attribute their want of success to the absence of the necessary means and nursing and to the patient's neglect of medical injunctions. If they notice that things are going badly with the patient they at once make off. But even the learned doctor carefully selected his cases with a view to the safeguarding of his reputation. Susruta recommends practitioners to undertake only curable cases; if at the end of a year a cure has not been effected, the case is to be declared incurable.

*Medicine and Quackery in Greece.*

In Greece medicine was in the earliest times taught by a system resembling apprenticeship. The profession was largely hereditary; the father taught his sons, and these in turn bequeathed their art to their offspring. The professional fame of the descendants of Asklepios became so widespread that the public gratitude, by a process akin to the Chinese custom of honouring a man by ennobling his ancestors, gave them a divine origin. Other practitioners doubtless found it to their interest to profess to members of the family and to know their secrets. The Asklepiads formed themselves into a guild. This may, perhaps, be regarded as another form of qualification. The training of the Asklepiads was carried on by personal instruction. There were a number of schools, the teaching of which may be taken to be represented in the Hippocratic writings. The name of Hippocrates (460–377 B C.) has made that of Cos celebrated for all time. He is said to have been the seventeenth in lineal succession to Asklepios. The following passages from a letter written by Lady Mary Wortley Montagu, from Lovere in Italy in 1748, gives an interesting example of the handing down of medical knowledge from father to son through several generations in comparatively modern times. Describing the physician who attended her in a dangerous illness, she says:

> He will not allow his patients to have either surgeon or apothecary. He performs surgical operations with great dexterity and whatever compounds he gives he makes in his own house which are very few the juice of herbs and these waters being commonly his sole prescription. He has very little learning, and professes to draw all his knowledge from experience which he possesses perhaps in a greater degree than any other mortal, being the seventh doctor in his family in a direct line. His forefathers have all left journals and registers solely for the use of their posterity, none of them having ever published anything; and he has recourse on every difficult case to these manuscripts of which the veracity at least is unquestionable.

In the time of Hippocrates there were no specialists, and medicine and surgery were practised alike by all. Any one might practise the healing art who considered that he had the needful knowledge. The Asklepiads must not be confounded with the priests of the temples of Asklepios. In these temples the sick people slept in the hope that the god would come to them in a dream and tell them what was to be done. However honest the whole thing may have been at the beginning, it naturally led to deceit, the priests after a time taking upon themselves the character of the god and arranging appropriate visions for them in the watches of the night. The remedies in the more ancient times were chiefly dietetic or psychical. When the dreams failed the priests had to come to the rescue with such knowledge as they had derived from the experience gained by the constant sight of sickness. The treatment in these temples was believed to be divine, and the priests were not, at any rate for a long time, doctors. The votive inscriptions recording the cures wrought at Epidaurus showed that a ritual which began in faith degenerated into superstition, and ended in imposture. But, as we learn from Hippocrates and from Aristophanes, quackery was by no means confined to the temples or their priests. The Hippocratic Oath proves that there were "specialists" to whom were left operations on the bladder, the eye, and the teeth, as being beneath the dignity of the physicians, who may also have felt doubt as to their capacity. These early surgical quacks were in fact parasites of what corresponded to the regular profession. Their ignorance as well as their self-interest led them to vaunt their methods and manipulations as infallible panaceas. Among the other camp followers of medicine were the gymnasts or Iatraleiptes, who, besides exercises, practised inunction of the body. They were also, it would appear, bonesetters, and were naturally led to give first aid in all accidents and in many diseases, and to advise as to diet and regimen. Max Neuburger in his *History of Medicine* † says:

> In view of the important place that these gymnasia occupied in the public life of Greece, it is not surprising that the

* *A History of Medical Education from the Most Remote to the Most Recent Times.* By Dr. Theodor Puschmann, Public Professor in Ordinary at the University of Vienna. Translated and edited by Evan H. Hare. London. 1891.

† English translation by Ernest Playfair, vol. i. Oxford University Press. Vol. i. 1910, p. 101.

gymnasts who, in cases of injuries, fractures, or dislocations, were called upon to render first aid before the arrival of the physician, and who apparently possessed the greatest experience of the healthy influence of the method of life and of bodily exercises, soon were looked upon as genuine physicians. Consulted upon diet and gymnastics by sound and sick alike, many of them overstepped the bounds of their legitimate sphere, and pretended, by systematic bodily exercises and dietetic rules, to be able to cure diseases, particularly chronic ones. Credit must be given to the gymnasts for the fact that they appreciated earlier than the Asclepiads and the professional physicians the significance of cures by physical exercises and tissue change. Half-educated, however, they employed dietetic means, inunctions, steam baths, massage, and body movements, for all possible conditions, and with ill-judged exaggeration recommended cures to their patients better suited to the training of robust athletes than to the treatment of disease.

In this passage the word "cures" must be understood as meaning "treatment" (*cura*). Treatment even by bonesetting or Christian Science is unfortunately by no means the same thing as cure. We have in the passage just quoted an indication of one of the causes of the success with which quackery has resisted all attempts to put it down. What the patient who is hurt or taken ill requires is immediate relief, not a scientific analysis of his symptoms or a learned discourse on pathology. On Neuburger's own showing, it is somewhat difficult to see what the legitimate sphere of the regular profession in those days could have been. The physicians were philosophers, but philosophy has as little skill in surgery—and in medicine—as honour has according to Falstaff. The Greek gymnasts, like modern "professors of physical culture" and bonesetters, appealed to the results of their experience, and got scribes to write paeans in their praise in which the number of their cures was set forth. It is to be presumed that the failures were left unchronicled. The amateur doctor seems to have been almost as prevalent. The sophists, trained to speak plausibly on any subject, found it profitable to deal with medical matters, and by a cloud of words persuaded the public to give them solid rewards for empty verbiage. Then there were the drug vendors and so-called rhizotomists or root cutters. As Neuburger says:

> The physicians of olden days mostly prepared their medicines themselves, but made use naturally of assistants whose business it was to collect the plants, to separate them into their constituent parts, and to prepare *secundum artem* the leaves, blossoms, roots, or juice. According to their chief occupation, the collection of roots, such persons were called Rhizotomists. Many of these, however, did not confine themselves to their own business, but made use of the scanty pharmaceutical and medical knowledge they had from time to time gleaned in a reprehensible manner, surrounding themselves with a nimbus of mysticism by means of various superstitious procedures most useful for their purposes.

These would seem to have been the first herbalists. The drug vendors did what would nowadays be called counter practice; besides medicines they sold specialities and nostrums, secret remedies, love philtres, beauty medicines, and even poisons. Then there were what we should call uncertificated midwives, who, though excluded from the practice of medicine, yet did a large trade in ministering to their sisters in their hour of travail, and in the sufferings peculiar to their sex. These also dabbled in love philtres and beauty medicines. They seem to have undertaken gynaecological and paediatric operations. They practised abortion, which was expressly forbidden to the physician by the Oath of Hippocrates, and they seem to have added to their functions those of procuresses and go-betweens in love matters.

### *Medicine and Quackery in Rome.*

In Rome, as in Greece, the practice of medicine was unfettered by any regulations. Those who undertook to treat diseases got their knowledge when and where they liked. Pliny—who, however, had a strong bias against the profession—says that people believed in any one who gave himself out for a doctor, and seems to have looked upon them as chartered murderers. There was, he complained, no law by which doctors could be punished for ignorance, and no one took vengeance on a doctor if a patient died through his fault. They were allowed to learn their trade at the risk of the public and to make with impunity experiments which might cause death. According to Pliny, practitioners of medicine arrogated to themselves the privileges granted by the university in Molière's play:

> Virtutem et puissanciam
> Medicandi
> Purgandi
> Seignandi
> Perçandi
> Taillandi
> Coupandi
> Et occidendi
> Impune per totam terram.

Pliny is wrong, however, in saying that the law could not touch a doctor whose want of skill caused the death of a patient. The Lex Cornelia (88 B C) made him liable to arrest if death was brought about by his fault. Under the Empire there were regular courses of instruction, and the future doctor was required to have learnt grammar, the history of literature, rhetoric, and mathematics before entering on the study of medicine. Then they attended lectures by the iatrosophists and received practical training from doctors in the public service, and what we should call general practitioners. By the side of what may be called the regular profession quackery flourished like a foul weed. Thessalus, a physician of the Methodist sect, undertook to fashion cooks, dyers, spinners, cobblers, and weavers into doctors in six months. Like Sangrado, he taught the whole art at once. Pupils of this stamp often could not write or even speak correctly; with the assurance natural to such persons they looked down on earnest students as fools who wasted their time on learning useless things. Why, indeed, should they scorn delights and live laborious days in study when we learn from Galen that it was not the most skilful doctor but the one who could most adroitly flatter who gained the favour of the public? To him, he says, everything is made easy; all doors stand open to him. He gains riches and power, and students crowd to him from all quarters. Galen in one place amiably compares the doctors in Rome to robbers, the only difference between them being that, while the robbers practised their profession among the hills, the doctors practised in the cities. Thessalus, who called himself the "Conqueror of Doctors," walked along the streets escorted by a crowd like that which followed a street performer or a celebrated circus rider. The eagerness to get practice induced many to recommend themselves to the favour of influential persons, to strut along the streets with them, to give banquets, and to make buffoons of themselves, while others, by the splendour of their dress, by costly rings, and other ornaments, sought to attract attention. We fear it must be confessed that men, even in these days, have been known systematically to play the part of Amphytrion to people of influence and to have their attendance on the great announced in the press.

That the great Galen himself was not altogether free from the faults which he condemns in others may be gathered from the fact that he was nicknamed by his professional brethren "The Worker of False Miracles." He was a master of what may be called "clinical diplomacy," and gulled people as cleverly as the subtlest practitioners of the art in later days. He bragged about the purity of his drugs and of the scrupulous care with which he compounded his medicines.

There were specialists for nearly every part of the body, and these had generally received a very slight training, often limited to the particular operation to which they devoted themselves. Some took fistula or rupture for their province; others confined their operative activity to stone, hernia, or cataract. So far was specialism pushed that we hear of men confining themselves to the treatment of the buttocks! It would be interesting to learn how this very restricted field yielded a livelihood to any one, especially as we hear little of boat races in those days.

Although, as already said, medicine was an open profession or rather trade, there were, besides the Lex Cornelia above alluded to, laws which must have acted indirectly in restraint of quackery. There was a regularly organized public sanitary service, for admission to which some guarantees of fitness were required. Then definite privileges, with the right of suing for fees, were conferred on doctors, and this must have made a distinction in practice, if not in law, between the regular doctors and the quacks.

During the decline of the Roman Empire and the period following, medical education also declined, and Christianity

did not favour the progress of science. Pious persons, when sick, pinned their faith on prayers, which tended to become more and more of the nature of charms. The schools of Greek philosophy at Athens and Alexandria were closed by the Emperor Justinian in 529, and priests became the depositories of such knowledge as survived.

The laws of the Visigoths, which were partly committed to writing in the fifth century, doubtless contained much matter of Roman origin. Regulations are there laid down for medical fees, and for the compensation to be paid for failure to cure. The old method of apprenticeship still existed; and the amount to be paid by pupils to their teachers is definitely fixed.

*Medicine and Quackery among the Arabs.*

Among the Arabs the training of doctors was either by apprenticeship or in schools or hospitals. Medical practice was at first free; gradually, however, it became customary that doctors should obtain certificates from the teachers who had instructed them. In 931 a case of malpraxis which caused the death of a patient led to the issue of an order to all the practitioners of Baghdad and the neighbourhood, between 800 and 900 in number, to present themselves for examination before the chief physician to the Caliph. Although there is no record of any successor discharging the like functions, examinations were compulsory in Baghdad in the twelfth century, and in Cordova even at an earlier period. Puschmann,* therefore, thinks it certain that the beginnings of the system of medical examinations are to be sought for among the Arabs. Notwithstanding these signs of progress, quackery prevailed among the Arabs to such an extent that Rhazes, who flourished in the tenth century, wrote a treatise on the conditions and circumstances of the medical art which turn the hearts of the majority away from the most respectable doctors and induce them to resort to the lowest class of practitioner.

The taste of the Arabs for the marvellous naturally bred a tendency in their physicians to use every art to impose on the people. The most important part of their knowledge was astrology and uroscopy, and their ordinary medicines consisted in remedies either wholly inert or mixtures made up of discordant ingredients. One, Isa-Abou-Koreisch, made a great fortune by a lucky prediction founded on inspection of the urine of the Caliph's favourite, Almodhi, that she would bring forth a male child. There were a great number of uroscopists among the Arabian physicians.

*Medicine and Quackery in the Middle Ages.*

In the early Middle Ages medicine in Christendom had fallen almost entirely into the hands of priests and illiterate quacks. Of monastic medicine little is known, but it would seem to have consisted chiefly in the cultivation of medicinal plants and the concoction of simples. In 806 Charlemagne issued an order that boys should be instructed in the healing art. The teaching consisted of reading the old authors; then the pupils were taught to recognize the medicinal plants in the imperial gardens; lastly, they worked in a hospital. This part of their training is described by Alcuin in the following lines:

> Accurent medici mox Hippocratica secta;
> Hic venas fundit, herbas hic miscet in olla;
> Ille coquit pultes, alter sed pocula praefert;
> Et tamen, O medici, cunctis impedite gratis
> Ut manibus vestris adsit benedictio Christi.

Nothing is said as to the observation of disease or as to surgery, except in regard to bleeding. The rest of the work was mixing herbs in a pot, preparing potions, and cooking soft food for invalids. The regular doctors received the scholastic education then universal as a preliminary to the study of medicine. They went through the *trivium*, consisting of grammar, rhetoric, and dialectics, and the *quadrivium*, arithmetic, geometry, astronomy and music. Alongside the learned leeches were many unlearned practitioners, who learnt medicine as a handicraft. At some time between the seventh and the eighth centuries there grew up at Salerno a medical school which by the tenth century had so great a reputation that it was known as the "Hippocratic city." It probably originated in a number of private schools which were gradually amalgamated into a university. There the influence of the Arabs first made itself felt on European medicine. Students and patients betook themselves thither from distant lands. A hospital was founded in 820 and much attention was given to practical medicine. Women taught and practised freely, and the "Mulieres Salernitanae" are often referred to by mediaeval writers. Quackery was taught as well as medicine. An old author, who writes as to how a doctor should conduct himself on visiting a patient, begins with pious sentiments and goes on to teach the "tricks of the trade." He says that, in order to impress the patient, the pulse and the urine should always be examined. He adds the following advice:

> When the doctor quits the patient he should promise him that he will get quite well again, but should inform his friends that he is very ill. In this way, if a cure is effected, the fame of the doctor will be so much the greater, but if the patient dies people will say that the doctor had foreseen the fatal event.†

But Salerno must always be a conspicuous landmark in the history of medicine, as it was there that the first serious attempt was made to organize practitioners of the healing art into a regular profession by the institution of examinations in obedience to the order of the civic authorities. The first ordinance to that effect was promulgated by King Ruggiero (Roger) in 1140. It runs as follows:

> Quisquis admodo mederi voluerit, officialibus nostris et judicibus se presentet, eorum discutiendus judicio; quod si sua temeritate presumpserit, carceri constringatur bonis suis omnibus publicatis. Hoc enim prospectum est, ne in regno nostro subjecti periclitentur ex imperitia medicorum.
>
> (Whosoever from this time forth desires to practise medicine must present himself before our officials and judges and submit himself to their decision. Any one daring to neglect this shall be punished by imprisonment and confiscation of his goods. This decree has for its object the protection of the subjects of our kingdom from the dangers arising from the ignorance of practitioners.)

Frederick the Second confirmed this law, and in 1240 gave to Salerno a curriculum for all who wished to study medicine there. His ordinance shows that he held very enlightened views on the subject. He says:

> Since it is possible for a man to understand medical science only if he has previously learnt something of logic, we ordain that no one shall be permitted to study medicine until he has given his attention to logic for three years. After these three years he may proceed to the study of medicine. In this study he must spend five years, during which period he must also acquire a knowledge of surgery, for this forms a part of medicine. After this, but not before, permission may be given him to practise, provided that he passes the examination prescribed by the authorities, and at the same time produces a certificate showing that he has studied for the period required by the law. . . . The teachers must during this period of five years expound in their lectures the genuine writings of Hippocrates and Galen on the theory and practice of medicine. . . . But even when the prescribed five years of medical studies are past the doctor should not forthwith practise on his own account, but for a full year more he should habitually consult an older experienced practitioner in the exercise of his profession.

Referring to the institution of medical examinations, he says:

> We further the cause of the individual, while caring for the public good. Accordingly, in view of the grievous loss and irremediable injury which may arise from the ignorance of doctors, we decree that in future no one is to assume the title of doctor or to proceed to practise or to take medical charge unless he has previously been found competent in the judgement of teachers at a public meeting in Salerno, has moreover by the testimony in writing of his teachers and of our officials approved himself before us or our representatives in respect of his worthiness and scientific maturity, and in pursuance of this course has received the State licence to practise. Whoever transgresses this law and ventures to practise without a licence is subject to punishment by confiscation of property and imprisonment for a year.

In regard to the education of surgeons it was decreed:

> That no surgeon shall be allowed to practise until he has submitted certificates in writing of the teachers of the Faculty of Medicine, that he has spent at least one year in the study of that part of medical science which gives skill in the practice of surgery, that in the colleges he has diligently and especially studied the anatomy of the human body, and is also thoroughly experienced in the way in which operations are successfully performed and healing is brought about afterwards.

If the doctor had passed the examinations and received

* Op. cit.

† Quoted by Puschmann, op. cit.

the State licence to practise, a diploma was made out for him which ran thus:

Notum facimus fidelitati vestrae, quod fidelis noster N.N. ad curiam nostram accedens, examinatus, inventus fidelis et de genere fidelium ortus et sufficiens ad artem medicinae exercendam, extitit per nostram curiam approbatus. Propter quod de ipsius prudentia et legalitate confisi, recepto ab eo in curia nostra fidelitatis sacramento et de arte ipsa fideliter exercenda juxta consuetudinem juramento, *dedimus ei licentiam exercendi artem medicinae in partibus ipsis;* ut admodo artem ipsam ad honorem et fidelitatem nostram et salutem eorum qui indigent, fideliter ibi debeat exercere. Quocirca fidelitati vestrae praecipiendo mandamus, quotenus nullus sit, qui praedictum N.N. fidelem nostrum super arte ipsa medicinae in terris ipsis, ut dictum est, exercenda impediat de cetero vel perturbet.

In the oath which the young doctor had to take on this occasion he bound himself "to give advice to the poor, gratis, and to inform the magistrates of apothecaries who made up medicines not corresponding to prescriptions." Moreover, the fee for a visit to a patient was prescribed by law. According to this the highest payment for a visit in the daytime within the town amounted to half a gold *tarenus* (a gold *tarenus* was a gold coin weighing 20 grains); if the visit was outside the district, the fee was three or at most four *tareni*, exclusive of travelling expenses. The doctor was forbidden to enter into partnership with apothecaries, or himself to keep an apothecary's shop. The apothecaries were directed to prepare the medicine according to the prescription of the doctors, and to furnish it at a regular price. Before they were permitted to practise their profession they had to bind themselves by oath to provide drugs according to prescribed form, and to be guilty of no fraud in this matter. At the same time, the advance of price they might allow themselves to make on medicines which perhaps had to be kept in stock for a long time before being used was specified, and a prospect was given of a law being made regulating the number of apothecaries' shops in the various towns of the country. Moreover, inspectors were nominated who had to supervise the preparation of medicines, and to attest the satisfactory character of this by their certificates; in Salerno itself the teachers of medicine exercised supervision in this matter. "At the same time we ordain," it is said in the same passage, "that no one shall give lectures on medicine and surgery elsewhere than in Salerno, or assume the title of teacher, unless he has been carefully examined in the presence of our officials, and of the teachers of these arts." The punishment of death was imposed on the officials who violated their duties in giving effect to these laws.* This remarkable document may be called the Great Charter of the medical profession. It contains the privileges and provides the safeguards for which the profession has been asking ever since.

During the Dark Ages there was no line between qualified practitioners and quacks. The decree of Frederick II for the first time made such a distinction. It was doubtless intended to remedy a state of things which is described in the *Regimen* of the School of Salerno in the following couplet:

Fingit se medicum quivis idiota, profanus,
Judaeus, monachus, histrio, rasor, anus.

It may be pointed out that "idiota" here and elsewhere in these mediaeval writings does not mean "idiot," but a person having no special knowledge.

The evil was rampant, and before Frederick's edict attempts had been made to suppress quackery. Previously, in 1220, the University of Paris had, with the sanction of the Church and the civil authorities, issued a statute *contra illicite practicantes*. Another statute, passed in 1271, forbade surgeons, whether men or women (*chirurgiennes*), apothecaries, male and female (*apothicaresses*), and herbalists of either sex, to visit sick people, to practise any operation or administer any medicine, except certain confections in common use, unless in the presence and under the direction of a physician, under pain of excommunication, imprisonment, and fine. These statutes were probably partly intended to keep surgeons in proper subordination to the physicians. It is noteworthy that Frederick insisted that the whole art of healing, surgery as well as medicine, should be included in the curriculum of study. Surgery, however, remained largely in the hands of empirics owing to the fact that medicine was still in the hands of the Church. Salerno was indeed a lay university, but elsewhere all learning was the province of the clergy. Councils and Popes fulminated against the practice of medicine, and especially surgery, by priests and monks. In a famous phrase it was declared that *Ecclesia abhorret a sanguine*, but still the abuse continued. The last decree was evaded by the monks, who, unwilling to lose the profits of the craft, instructed the lay brothers who shaved their heads in minor surgery. In this way they contrived to keep the practice of surgery as well as medicine to a large extent in their own hands. But as the brothers became skilful they more and more used their knowledge for their own profit. Hence, it may be conjectured, the barber-surgeons came into existence. The glory of Salerno began to fade in the twelfth century, and thenceforward it was nothing more than *magni nominis umbra*. That it was still formally alive in the eighteenth century is shown by the fact that in 1748 the Medical Faculty of Paris consulted it as to the everlasting quarrel between the physicians and the surgeons. It underwent an official euthanasia on November 29th, 1811.

It does not appear that Frederick's enlightened decree had much effect in suppressing quackery. Notwithstanding the ordinance against unqualified practice already referred to, quackery continued rife under the nose of the University of Paris. In the fourteenth century we find that august body engaged in a struggle to put it down. In the *Cartulaire* of the University it is recorded that in 1312, on the complaint of the Dean of the Medical Faculty, Maître Jehan de Missicilis, a man and his wife were charged with illegal practice, and being declared contumacious were excommunicated. Excommunications were launched as freely and light-heartedly as writs at the present day. The full force of a major excommunication was equivalent to the most terrible form of boycott; it was not Mr. Gladstone's euphemism "exclusive dealing," but no dealing at all. The excommunicated person was in fact an outcast from society, and in theory outside the protection of the law. He was the victim of a curse the most awful it is possible to conceive. But though effective sometimes for political purposes, it does not seem to have been particularly blighting to ordinary offenders of life. At any rate, in the case in question the unqualified practitioners who had incurred the penalty would appear to have been not one penny the worse, for we find the same man and his wife repeatedly condemned for the same offence, with the same penalties, for many years following. Another case belonging to the same period was that of a "noble lady, Jacoba Felicia de Almania," who in 1322 was charged with practising medicine and surgery *indebite et ilicite*. Witnesses were called to prove that Jacoba had given them medicines, examined their water, felt their pulses, and cured their diseases. Jacoba defended herself very cleverly, pleading that the statutes and ordinances relied on by the prosecution applied only to persons who, knowing nothing of the healing art, usurped the title of practitioners. She argued that she, being an expert in the art, did not fall within the terms of the statutes under which she was prosecuted. She further urged in her defence that these statutes were obsolete, valid, indeed, against old people, but not against her, whose age was only 30, or even less. Another argument she put forward was that, for the treatment of a woman, a woman was better than a man; how many women, she asked, had allowed themselves to die rather than call in doctors? The Faculty held that Jacoba was totally ignorant of the art of medicine, and could not even read. She was therefore judged unfit to administer *potus, cibos, clysteria*, etc. Hence, as she ran the risk of killing her patients, she lived in a state of mortal sin; accordingly, sentence of excommunication was passed upon her. In the same year twenty-six other quacks were sentenced to various other punishments. The penalty did not prevent her carrying on her trade, for she was afterwards excommunicated several times for the same offence; and later her daughter, who, obedient to the call which so many quacks profess to have, "kept on the business still," was excommunicated in her turn. It should be stated that the sex of these ladies had nothing to do with their prosecution. There were recognized women surgeons in France, as may be gathered from the mention of the various royal edicts. But many women were quacks. In

*Quoted from Puschmann, op. cit.

the edict of King John dated 1352, in response to a complaint by the Paris Faculty, it is stated that there were then women practising surgery with a legal title, besides others described as *medicastres*, who practised the healing art without special knowledge. Guy de Chauliac, in his *Grand Chirurgie* (1363) speaks of the women who formed the fifth and last division of the "operators" of his time, *secta mulierum et multorum idiotarum*, who cured diseases of all kinds by the help of the saints. Their principle of practice was based on the professed belief that the Lord had given them the gift of healing at His goodwill, and would take it away when it pleased Him. "Blessed be the name of the Lord. Amen."

Before Guy de Chauliac, Henri de Mondeville, Surgeon to Philip the Fair of France, writing at the beginning of the fourteenth century, had much to say of quacks. In his *Chirurgie*, written between 1306 and 1320, he insists that any one who enters the fold of surgery otherwise than through the right gate is a robber and a thief. He goes on:*

> Two ways lead us to the gates. The first is that of theoretical surgery, and the way to this lies in hearing the theory and applying oneself to it with the greatest care and the greatest interest, as he is not warranted in taking the name of master who has not first been a pupil. The second way consists in reading this theory and discussing it with one's companions. The second gate, which is that of practical surgery, is reached by two ways: One is to see surgeons operating; the second is to operate for a long time with others and afterwards alone.

He describes the quacks of his day as—

> Unlearned persons, such as barbers, fortune-tellers, swindlers, forgers, alchemists, whores, procuresses, midwives, old women, converted Jews, Saracens, and in a word all who have foolishly squandered their possessions. They give themselves out for surgeons in order to gain a living and to cover with the mantle of surgery their needs and their deceits, and to be able to penetrate under the cloak of a man of art into towns and Kingdoms, spying secrets with the object of disclosing them to the enemy.

Mondeville quotes the author of *De Gestis Philosophorum*, who, speaking of Diogenes, says that the philosopher dwelling in a certain town saw there a painter who painted very badly, and whose works were the laughing-stock of all people. Later he met the same man in another city, dressed mighty fine, and regarded as a great and famous physician. Diogenes said to him:

> My friend, this is admirable. It is indeed you who in such a place at such a time were a painter, and here you are all at once become a doctor. It is amazing. I believe you have grasped the truth that a bad painting remains constantly on view on the walls, whilst the patients who die through your fault and that of other fools, are at once buried underground. Thus leaving the art of painting, thou hast become a doctor.

Mondeville further says that not only those of whom he had just spoken practise as quacks:

> Kings, Princes, and Prelates, Canons, Curates, Religious, Dukes, Noblemen, and Burgesses, dabble without knowledge in dangerous surgical treatments and especially in the treatment of diseases of the eye which is dangerous, difficult and fraudulent to that degree that one seldom finds a surgeon who is capable and expert in these matters.

Mondeville here rather gives away his case. It is not surprising that if surgeons, following his own advice, refused difficult cases, and would have nothing to do with desperate cases; unfortunate sufferers in despair tried any treatment at the hands of any one who gave them the slightest prospect of cure or relief. Mondeville points out how diseases at first amenable to treatment become completely incurable when people put their trust in fortune-tellers, hermits, and recluses. In this way a diseased limb is often destroyed, and the patient's life is sacrificed. Here the old French surgeon puts his finger on the worst evil of quackery. An ignorant person who knows nothing of possible developments lets the disease run on till it becomes the mere despair of surgery. We have modern instances of such effects of reliance on "metaphysical aids" in the records of Christian Science. To quote Mondeville again:

> The vulgar say of these religious and their like that such men know surgery without art, and that they have knowledge infused into them by the pure grace of the Creator, and, if one does not completely believe in this, one is reputed a heretic and an infidel or an infamous person.

* This and the following passages from Mondeville are translated from the French version of his *Chirurgie* by the late E. Nicaise. Paris. 1893.

It is noteworthy that when Mondeville speaks of quacks he means ignorant folk who practised surgery. He was evidently not friendly to the physicians. He says that unless the case is one of wound, dislocation, or fracture, if a wily doctor is called in first, a surgeon will never be allowed to come near the patient. The physician will undertake the treatment himself with the professed object of saving his patient expense, and when he fails he declares that he is too busy to carry on the treatment, and tries to pass the case on to a surgeon, taking care to recommend the most illiterate and ignorant one he knows. His choice is guided by the following considerations:

> First, that the surgeon may not know enough to recognize the errors of the physician; secondly, that he may have him under his thumb; thirdly, that he may make him a scapegoat on occasion for his own faults past and future; fourthly, that he may take to himself all the honour and profit and put the faults and disgrace if need, on the back of the surgeon.

Mondeville is honest enough to confess that the surgeons behave just in the same way with regard to the physicians. He is careful to add that in saying this he has no wish to decry men of knowledge and experience; his censures apply only to those who are ignorant and to the glib sophists who contradict honest surgeons in all their attempts, and at every dressing oppose everything that they wish to do with the deliberate intention of putting them out of temper and thus disturbing their judgement. Elsewhere he justly says that quackery is fostered by the wrong notions of people as to the causes of disease. When they see a wound inflicted by a knife or a stick or obviously due to some outward and visible cause, they are willing to allow that this falls within the province of surgery. If it is something that is caused by an internal or antecedent condition they ascribe it to evil chance, or to what the law used to call the "visitation of God." In such cases the vulgar believe that both God and the disease would rise up against a surgeon who interfered; they think that God alone strikes and cures, wounds and heals.

> There are even people whose devotion is so great that they do not wish to be cured by human hand. They say: "It pleases me to be ill because I know that it is the will of God that I should be so," and that if that was not His will they would not be ill. When one says to them, Do you wish to be cured? they reply, Not by a human hand; that is not possible and would not please God, because if He wished it I should at once be cured. Therefore in the treatment of such diseases they thrust aside with indignity excellent and expert surgeons.

There is a curious anticipation of Christian Science in this attitude of mind, and the analogy holds even to the admission of the services of the surgeon in such conditions as fractures and dislocations, which Mrs. Eddy was compelled to admit must be considered for the time being as outside her province. Mondeville proceeds:

> It follows then that quacks not wishing to be thus set aside deny that they are surgeons for wounds whose knowledge is built on teaching and presence at the operations of other surgeons. They pretend that they have from the glorious God an infused science whereby they know how to cure the diseases which come by fate and which are a gift of God and the saints, and that the grace thus given is not drawn from any man's doctrine, but from the pure providence and grace of the Saviour whose mercy fills the earth. In this way we have the false religious such as hermits and recluses, old whores and procuresses and such like of whom we have already spoken, who by means of holy water, divine prayers, and other artifices try to induce patients to believe that they work with the help of God.

Then he tells an odd story:

> This grace a surgeon of my acquaintance neither had nor pretended to have. As he was crushing in a mortar the remedies necessary to cure a fistula which the vulgar call Saint Eloi's disease, he chanced to break his mortar. This caused a great noise against him among the people. It was a divine miracle, and a judgement upon him for wishing to cure the diseases of the saints, the treatment of which must be reserved to the divine surgeons alone.

An edict against unqualified practice, which doubtless was largely inspired by Mondeville, was promulgated by Philip the Fair in November, 1311. Its purpose was to forbid any one to practise surgery in Paris without having been examined by the sworn Master Surgeons of Paris convoked by the first surgeon of the King, who alone is declared to have the right to grant a licence to practise the art. We need only quote the preamble, which runs as follows:

Philip, by the grace of God King of the French. By the testimony of persons worthy of credence it has come to our ears not once but divers and sundry times that a number of foreigners of different professions and conditions, some murderers, others highway robbers, others coiners, others vagabonds and libertines, cheats, alchemists, usurers, take upon themselves to practise in our City and Viscounty of Paris the art and mystery of surgery as if they had been sufficiently examined in the above named science and been sworn. Although they have little knowledge of the subject and are almost inexperienced they dare to practise publicly, hanging their signs from their windows like true-trained surgeons. Moreover, most of them, notwithstanding our prohibition and our ordinances, go into sacred and privileged places to dress more than once wounded persons, all of which things they recklessly take upon themselves to do, some that by means of their unskilled treatment they may fraudulently extort money from the patients, others that they may more easily hide under the cloak of that art the shame of their condition and the vices of their evil work. Whence it often results that in consequence of their bad practice and of the want of knowledge of the proper treatment of these ignorant unsworn persons many wounded who had not been mortally hurt, whose limbs were not lost or mutilated, have either died or have lost their limbs or have been disabled, and of those who have been with them some have been hanged, others banished unjustly, sad to relate! Whilst the trickery and perversity of these reprobates and their detestable work remain and have remained unknown and unpunished.

The edict goes on to say that the King, wishing to prevent dangers of this kind for the security and peace of all his people of the City and Viscounty, decrees that no surgeon, man or woman, shall practise in any way whatever the art or mystery of surgery, or shall publicly or in secret do anything of the kind unless they have been first carefully examined and approved in that art by the sworn Master Surgeons dwelling in Paris convened by Master Jehan Pitart, "our beloved sworn surgeon of our Chatelet of Paris during his lifetime, or by those who succeed him in his office." The next enactment is that those who have been so examined and approved must before practising take oath before the Provost of Paris that they will practise their profession conscientiously, that they will not visit or dress any wounded person whatever in the sacred and privileged places unless it be for the first time, and that immediately after that visit or dressing they shall reveal the wound to the Provost of Paris or other constituted authority.

Further, the "banners" or signs of all surgeons, male and female, not approved and sworn which shall remain hanging from their houses after the publication of this edict shall be burnt publicly in front of these houses and retained as long as may be ordered. They shall be warned not to practise without having passed an examination and taken the oath. If any of them refuse to take the oath he must be forbidden to practise, and if, contrary to this edict, they continue to practise they are to be punished *prima ratione* by the Provost with such severity as their offence may require.

This edict long served as the basis of ordinances against the illegal practice of medicine. The Ordinances and Statutes of the Brotherhood of Saints Cosmas and Damian of the City of Paris had been enacted in 1268 at the instigation of Master Jehan Pitart. Apparently before that Ordinance there were no sworn surgeons. In 1301 a further regulation was made giving the Brotherhood power to expel unworthy members. It is clear that there were surgeons who by general repute were considered honourable practitioners before the date of any legal recognition of their status. The intention of the statute would appear to have been only partly to secure a proper qualification. The first clause reads as follows:

As it may happen that when a murderer or thief are wounded or wounds somebody else, they come privily to the surgeons of Paris and have themselves treated privily, so that the murderers and the fines due to the King are lost and hidden, the Provost of Paris for the profit of the King and that of the City of Paris, on the advice of honest men has provided and ordered that no surgeon qualified to practise surgery shall dress or cause to be dressed by himself, or by anyone else any wounded person whoever he may be, bloodily or otherwise, of which complaint should be made to the authorities, more than once or twice, if there be danger, without making the fact known to the provost of Paris or his subordinates, And this has been sworn and every one worthy to work must so swear and shall do so, And as in Paris there are some men and women who meddle with surgery being unworthy to do so, and danger of death of men and maiming of many may result, the Provost of Paris on the advice of good people and of the honest men of the mystery has chosen six of the best and most loyal surgeons of Paris who have sworn on the Saints before the Provost that they shall well and loyally search and examine those whom they have before them and shall see to it that they are worthy to practise and shall not be remiss in this particular either for love or hatred. And of those who are not worthy they shall send us the names in writing and we will forbid them to practise according as we shall see reason to do so. And they shall also send to us in writing the names of those who are worthy to practise surgery in order that they may take the oath as aforesaid.

By an edict of John the First, dated April, 1352, it was forbidden to any person to practise surgery in Paris without having been examined. The edict is in the same terms as that of 1311. A charter of Charles, elder brother of King John, Regent of France during the imprisonment of his father in England, dated June, 1360, confirms the establishment of the Brotherhood of Saint Cosmas and Saint Damian, and forbids the practice of surgery before a licence has been obtained after examination by the sworn surgeons, etc. The King himself, it may be mentioned, was a member of the brotherhood. An edict of Charles the Fifth, dated October, 1364, is in the same terms as those 1311 and 1352, forbidding the practice of surgery except after examination, and giving to the brotherhood one-half of the fines inflicted for breach of the ordinance. A charter of the same sovereign, dated July 21st, 1370, makes mention of experienced men who practise under the name and direction of masters. Letters patent of Charles the Sixth, dated 1381, confirms the ordinance of October, 1364, as to the practice of surgery and the allocation of one-half the fines to the brotherhood. Letters patent of the same King, dated August 3rd, 1390, forbid the practice of *medicine* and surgery to those who are not competent in the art.*

As medicine is mentioned in the ordinance, something may be said about it here. Although Frederick II. had united it with surgery in his edict, the two branches were soon separated owing partly to the scholastic contempt for handicrafts, partly to the influence of the clergy. In the twelfth century the teaching of medicine at Montpellier enjoyed the highest reputation. At this time there was no faculty, no monopoly; teaching was free, and was given in private and rival schools. Each teacher was paid by his pupils. In 1220 Cardinal Conrad gave statutes to the three medical schools and placed them under the jurisdiction of the Bishop. By these statutes the private schools were not abolished, but they were gathered into a *studium generale* or university, and thenceforward had a common rule. This charter was confirmed in 1239 by a Legate of Gregory IX, and its authority was recognized for a long time. The university granted the diplomas of Bachelor, Licentiate, and Master. The two lower grades sufficed to give the right to practise medicine. Each town at that time had its own special medical organization, and granted a permission or licence to practise after a perfunctory examination. But the doctor who came from a university, even if he was only Bachelor or Licentiate, enjoyed special privileges. The masters in medicine, the number of whom was restricted, became physicians to Popes, Kings, Princes, and dignitaries of the Church, and had the right to practise anywhere. Thus the Faculty of Medicine was founded, and became one of the parts of the new university, called the School of Montpellier. Beside the university, the private schools taught, but could not give degrees. Guy de Chauliac was a Master in Medicine, but he also studied surgery, which was not officially taught, under a private master. When the Popes left Avignon, the University of Montpellier forbade its members to practise surgery. Fifty years before the Paris Faculty had done the same thing.

The beginnings of that Faculty were much the same as that of Montpellier—that is to say, there were free schools consisting of masters and apprentices. Besides the graduated surgeons there were barbers, a corporation of whom, according to Guy de Chauliac, existed in the fourteenth century. In 1252 this corporation had its own statutes, but these only dealt with cutting the hair and shaving sick and wounded people. In a document dated March 23rd, 1268, we find doctors under the name "physici" mentioned as forming a distinct corporation. There was still no Faculty. About 1250 the various schools of Paris became a university. A distinct faculty of medicine came into existence about ten or twenty years later. The faculty was ecclesiastical in character, and

* Copies of these various ordinances, etc., may be found in Nicaise's edition of Mondeville above cited.

remained under the jurisdiction of the head of the Church till 1595 in the reign of Henry IV. In December, 1352 an edict was published by John the First, apparently at the instigation of the Dean and Masters, against persons practising medicine without having the title of Master or Licentiate of Paris, or some other *studium generale*. By this decree it was forbidden to any one of either sex or any condition to administer any alterative, or laxative medicine, syrup, electuary, or to give or cause to be given any laxative pills, clysters, or medicines acting on the womb, or in any way to discharge the function of the physician unless he were a Master or Licentiate of medicine of Paris or any other university. When universities came into existence in the thirteenth century, the right of granting degrees was reserved to them by the Church. The titles are indicated in Papal Bulls as Bachelor, Licentiate, and Master. That of Doctor of Medicine was not at first given by universities, although the word "doctor" is used in certain municipal documents as equivalent to "Master" in Medicine. This was particularly the case in Italy, and the expression is sometimes used by Guy de Chauliac, although he most frequently employs *physicus* or *medicus*.

Hastings Rashdall* points out that the three titles, Master, Doctor, Professor, were in the Middle Ages absolutely synonymous. At Paris and its derivative universities we find *Magister* the prevailing title in the Faculties of Theology, Medicine, and Arts; the title *Professor* is, however, pretty frequently, that of *Doctor* more rarely, employed, after the rise of the university. At an earlier period it had been common. According to Daremberg, the title of Doctor was employed at Salerno in the twelfth century at the same time as that of Master. In the fifteenth century—at least in the English universities—the practice gradually arose of appropriating the title *Doctor* to all the superior faculties. In Italy the term Doctor soon spread from the Faculty of Law to all the other Faculties. The same was eventually the case in Germany.

Before the institution of the universities, towns had taken measures to assure themselves of the fitness of those who wished to practise medicine. Charles II of Anjou, in a letter dated June, 1297, warned the Seneschals of Provence, with special reference to the town of Avignon, that no one should be allowed to practise without previous examination by the council of the town and the Temporal Court of St. Peter. No barber or surgeon was allowed to practise in the town before taking the customary oath before the temporal court. After the foundation of universities, as they did not teach surgery at first, towns continued to constitute special juries to satisfy themselves of the fitness of those who wished to practise. In short, in the Middle Ages, if Avignon is to be taken as an example, the regular organization of medical practice depended on the municipal authorities. Notwithstanding this, irregular practitioners were numerous at Avignon. An ordinance of Pope Gregory XIII, dated November 21st, 1577, informs us as to the titles which they took in the sixteenth century, and which they probably used for a long time. Article 9 of this ordinance is to the following effect:

"Nemo, nisi doctor hujus vel alterius celebris academiae, intra civitatem Avenionis medicam facultatem profiteatur artemve exercito, et proinde pharmacopolae, chirurgi, myropolae, tonsores, aliptes, renunctores, obstetrices, omnesque empirici a medicina facienda prohibentur." The *myropolae* were vendors of perfumes. The *tonsores* were barbers, or shearers of animals, who carried out secret treatment. The *aliptes*, who rubbed bathers with oils, grease, or perfumes, were the attendants in public baths (*étuvistes*). The *renunctores* were bonesetters (*renoueurs, rhabilleurs*).

In the fourteenth century there was no university title for surgeons. A small number, like Guy de Chauliac, were clerks and masters in medicine, but this class of practitioner soon completely disappeared. Many *physici* did not come from the universities. The same statement holds good with regard to all surgeons and the special corporation of surgeons of Saint Côme in Paris and that of barbers. Then there were a number of "specialists"—dentists, aurists (*medicator aurium*), and the perambulant surgeons who cut for stone, operated for hernia, stone, eye diseases, dropsy, and so forth. Some of these practised without a licence; the others were authorized and had passed some kind of examination. Fractures and luxations were left to bonesetters. Guy de Chauliac practised all these operations, except, perhaps, lithotomy. He speaks with contempt of the itinerant surgeons, and does not wish surgeons to abstain even from drawing teeth. The "regular" surgeons were afraid to operate. Such knowledge of anatomy as they had was not sufficient to guide them; then there was the fear of bleeding with very imperfect means of stopping it, and the great mortality after operations — a mortality be it said which continued pretty well till the time of Lister. Hence we can understand the strong recommendation of Guy de Chauliac and so many others to avoid bad cases. To these "periodeutics" and *incisores* we owe much. These men did more for surgical progress in the sixteenth century than any one else. Pierre Franco, author of a *Chirurgie* written in 1561, was a noted operator for stone. He expressly tells us that if the surgeons gave up these operations it was not that they despised either the work or the workmen, but because they thought such things of great importance and of a nature to expose them to obloquy. He speaks with some bitterness on the subject. "Should it happen," he says, "that a patient dies in the hands of a physician the practitioner is always excused to some extent. So it is with the apothecary. The surgeon who practises minor surgery is also excused. But if the irregular surgeon is unlucky in his cases he is called a murderer, an executioner, and is often forced to take to his heels." He adds:

> Not that I am ignorant that the frowardness of several of our art, combined with ignorance, are the cause of the great contempt in which this part of surgery is held. For being ignorant and knowing themselves for such, nevertheless they dare without regard for God or man to undertake to cure all sorts of diseases, curable and incurable, so long as they can get money from the poor simple people whom they seduce and bewitch by their lies and fair words to the grievous damage of the poor patients, who are often brought to death by such pretenders, who commit infinite robberies by advertising their superstitions and charms.

He gives a curious picture of the way in which these men swindled the people who trusted them. Thus for dressing a hernia they get, in addition to lodging, a sheet; for cutting for stone, a tablecloth; for operating on cataract, two napkins or two head coverings. These things they claim as perquisites in addition to their fees, which are sometimes 13 liards, or 13 white pieces, or 13 pence or more, according to the means of the people with whom they have to do. Franco deplores such villainies as degrading a useful and necessary art. It appears that the surgeons, who were themselves afraid to operate, employed the quacks. Franco tells us that in some towns the sworn surgeons have their bonesetters, thinking it degrading to reduce a dislocation or set a fracture, and he preaches the sound doctrine that if the physicians and surgeons themselves knew more there would be fewer quacks. The secrets of some operations were kept in the family; an example of this is rhinoplasty, which was practised by the family of Brancas of Sicily. Then hernia was exploited by a number of quacks. They always removed the testicle. This lasted up to the middle of the seventeenth century and even later. Dionis relates that the hernia quacks, while pretending to leave the testicle, removed it and threw it under the table, where it was devoured by a dog trained for the purpose. Cutting for stone was also long practised by itinerant *incisores*, each of whom professed to use a procedure of his own. The operation in Paris was in the hands of a family called Collot from the time of Louis XI to the middle of the eighteenth century, when a Philip Collot was still operator to the King. Henry IV gave 6,000 crowns to Pineau, who was allied by marriage to the Collots, to induce him to deliver a course on the operation to the corporation of surgeons. And all the time there was an admirable description of it in Franco's book written in 1561.

There were quacks who pretended to operate for stone, making an incision through the skin of the perineum and producing a stone from their sleeve. We have spoken of the "operators" who did what the surgeons did not dare to do. This state of things continued long after the

* *The Universities of Europe in the Middle Ages*, vol. i. Oxford: Clarendon Press, 1895, p. 21.

Middle Ages. At the beginning of the eighteenth century Heister, in his *Institutes of Surgery*, said:

Our surgeons have shamefully left the finest and most difficult operations of their art to the empirics and quacks who then swarmed in Germany, usually contenting themselves with knowing how to treat a slight wound, bleed, open an abscess, or at most reduce a dislocated bone or set a fractured one. There were very few who dared, I do not say to undertake the operations which required more skill, but to whom the thought of such a thing would never have come.

That which this author says of German surgeons applies generally to all others. It must be said that the practice of surgery in the Middle Ages was often dangerous to the operator. Mondeville, discussing the extraction of arrows, says it is a serious thing for the surgeon as well as for the patient. On the one hand, Master Henry would be said by the vulgar to be a man without pity because he did not extract the arrow; had he extracted it, the patient would have got well. But if he had done so and the patient had lived, people would have said Master Henry extracted the arrow, but God cured him. (*Il a extrait et Dieu a guéri.*) If, on the other hand, the patient had died, people would have said that Master Henry killed the man with his new treatment, and that if he had not extracted the arrow he would be still alive. Many surgeons, if they had to intervene in serious cases, took strict precautions. Thus Roland, when he was about to perform a serious operation on a patient whom the most skilful surgeons of Bologna had pronounced to be incurable, asked leave of the bishop to operate and took guarantees from the patient himself, his lord, and his friends, who were present at the operation. We see, therefore, from this that the state of public opinion naturally produced timidity in the surgeons, and it was owing to this that operations for hernia, stone, and so forth, were largely left to quacks.

We have taken France as an example showing the condition of medical practice in the Middle Ages because of the abundance of documentary evidence. The picture may serve for every other country. There is a curious document in the English manuscript of Guy de Chauliac's *Chirurgie* in the *Bibliothèque Nationale* quoted by Nicaise, which shows how things were in this country in the fifteenth century. It is an ordinance of Henry V issued in 1420, and is to the following effect:

Hec est copia extracta de Rotulis domini regis, anno domini millesimo CCCC. XX. Ao. R.H.V. IXc.

Item por outer les meschieves et periles qui longement ont contenuez dedeins le roialme entre les gentz par my ceux qu'ot usez l'arts e le pratik de fisik et surgerie, pretendants soy bien et sufficiaument apris de mesme les arts ou de verite n'ont par este a grande decert a le people, si est ordenez et assentes en cest parlement que les sires du consill du roy pue le temps esteants aient pooir par autorite de mesme le parlement de faire et mettre tielle ordenancie et punissement envers tieulx personnes que desore en avant verront eutremetter et user la practik desdits arts et ne sont ny liables ne approvez en ycelles comme appent a mesmes les artz, c'est assavoir ceulx de Phisik et les universitéz et les surgeons entre les mestrez de cel art, et ceo come semblera as ditz sieurs le plus covenable et necessaire en le cas selonc leur bon advis et discrecions por la surete de le people.

Physical, and especially surgical, pretenders continued to flourish in spite of royal decrees. In the sixteenth century we find John Gale complaining of the state of surgery in his day. In a volume published by him in 1566 there are two tracts, entitled *A Brief Declaration of the Worthy Art of Medicine* and *The Office of a Chirurgion*, in which he denounced the intrusion of illiterate pretenders and empirics into the practice of medicine and surgery. Gale had served with the army in France in 1544. The following is his description of the state of things he found there:

I remember when I was in the wars, at Muttrel (Montreuil) in the time of that most famous prince king Henry VIII there was a great rabblement there, that took upon them to be surgeons. Some were sow-gelders, and some horse-gelders, with tinkers and coblers. This noble sect did such great cures that they got themselves a perpetual name; for like as Thessalus' sect were called Thessalions, so was this noble rabblement, for their notorious cures, called dog-leaches; for in two dressings they did commonly make their cures whole and sound for ever, so that they neither felt heat nor cold, nor no manner of pain after. But when the duke of Norfolk, who was then general, understood how the people did die, and that of small wounds, he sent for me, and certain other surgeons, commanding us to make search how these men came to their death, whether it were by the grievousness of their wounds, or by the lack of knowledge of the surgeons; and we according to our commandment made search through all the camp, and found many of the same good fellows, which took upon them the names of surgeons, not only the names, but the wages also. We asking of them whether they were surgeons, or no, they said they were; we demanded with whom they were brought up, and they, with shameless faces, would answer, either with one cunning man, or another, which was dead. Then we demanded of them what chirurgery stuff they had to cure men withall; and they would show us a pot, or a box, which they had in a budget, wherein was such trumpery as they did use to grease horses' heels withall, and laid upon scabbed horses' backs, with nerval, and such like. And other, that were cobblers and tinkers, they used show-maker's wax, with the rust of old pans, and made therewithall a noble salve, as they did term it. But in the end, this worthy rabblement was committed to the Marshalsea, and threatened by the duke's grace to be hanged for their worthy deeds, except they would declare the truth what they were, and of what occupations, and in the end they did consent, as I have declared to you before.

Yet at this time, Gale tells us, the number of regular bred surgeons was much greater than afterwards. When deploring the state of the profession he says:

I have, myself, in the time of king Henry VIII holpe to furnish out of London in one year which served by sea and land, threescore and twelve surgeons, which were good workmen, and well able to serve, and all Englishmen. At this present day there are not thirty-four of all the whole company of Englishmen, and yet the most part of them be in noblemen's service, so that, if we should have need, I do not know where to find twelve sufficient men. What do I say? sufficient men: nay I would there were ten amongst all the company, worthy to be called surgeons.

More than two centuries before Gale wrote, an attempt had been made to separate the sheep from the goats in the matter of medical practice. There is mention of a Barbers' confraternity in the City of London as early as 1308, and that some kind of control was exercised may be gathered from the fact chronicled in the City Records that in 1354 an official inquiry was held into a charge of malpraxis against a surgeon. The case was one of

a certain enormous and horrible hurt on the right side of the jaw of Thomas de Shene appearing; whether or not such injury was curable at the time when John le Spicer, of Cornhulle took the said Thomas under his care to heal the wound aforesaid. Who say upon their oath that if the aforesaid John le Spicer, at the time when he took the said Thomas under his care, had been an expert in his craft or art, or had called in counsel and assistance to his aid, he might have cured the injury aforesaid; and they further say that through want of skill on the part of the said John le Spicer the said injury under his care became apparently incurable.*

The first distinct reference to surgeons as a body of persons practising a trade for which they required to be licensed by the authorities of the City of London occurs about the middle of the fourteenth century. Master Surgeons had to appear before the Court of Aldermen and take oath to—

Deserve well and truly of the people in doing their cures, to take from them reasonable payment, and truly to practice their craft, and to report as often as need be to the Mayor and Aldermen the faults of those who undertook cures. To take charge of the hurt or wounded, and to give true information to the officers of the City about such persons, whether they be in danger of death or not, etc., and to act uprightly in all other things belonging to their calling.

The Barber-Surgeons' Company made admission easy to quacks, who were chiefly cutters for stone, rupture curers, and couchers for cataract, in those days; but it drew the line at parish clerks and sextons,† perhaps thinking the association of such functionaries with the practice of the healing art too suggestive. An attempt to secure legal control of medical practice was made by the physicians in the early part of the fifteenth century. About 1421 they presented a petition to the King setting forth that—

Many unconnynge and unapproved in the forsayd science practiseth and Specialy in Fisyk, so that in this Roialme is every men be he neuer so lewed, taking upon him practyse, ysuffred to use hit, to grete harm and slaughter of many men.

Wherefore they prayed that a statute might be framed—

Perpetually to be straytly yused and kept, that no man of no manner of estate, degre or condicion practyse in Fisyk from this time forward, but he have long tyme yused the scoles of Fisyk withynne som Universitie, and be graduated in the same . . . undur payne of long emprisonement and payinge xl*li* to the King: and that no woman use the practyse of Fisyk under the same payne.

*Quoted in *Memorials of the Craft of Surgery in England*. From materials compiled by John Flint South. Edited by D'Arcy Power, London, 1886.

† South, op. cit.

A gracious reply was returned to the petition, and the Lords of the Council were directed to see that effect was given to the demands of the physicians. Nothing, however, seems to have come of this. The physicians then united themselves with the surgeons for the formation of a college, with powers to prevent unauthorized practice. To Henry VIII belongs the credit of having been the pioneer of medical reform in this country. In 1511, the third year of his reign, an Act for the regulation of medical and surgical practice was passed. As the Act gives an idea of the state of the healing art in London at the beginning of the sixteenth century, the most important passages may be quoted:

Forasmuch as the science and cunning of physik and surgery (to the perfect knowledge whereof be requisite both great learning and ripe experience) is daily within this realm exercised by a great multitude of ignorant persons, of whom the greater part have no manner of insight in the same, nor in any other kind of learning: some also can see no letters on the book, so far forth, that common artificers, as smiths, weavers, and women, boldly and accustomably take upon them great cures and things of great difficulty: in the which they partly use sorcery and witchcraft, partly apply such medicines unto the disease as be very noious, and nothing meet therefore, to the high displeasure of God, great infamy to the faculty, and the grievous hurt, damage, and destruction of many of the King's liege people, most especially of those that cannot discern the uncunning from the cunning: Be it therefore (to the surety and comfort of all manner people), by the authority of this present Parliament, enacted that no person within the City of London, nor within seven miles of the same, take upon him to exercise and occupy as a physician or surgeon, except he be first examined, approved and admitted by the Bishop of London, or by the Dean of Paul's for the time being, calling to him or them four doctors of physik, and for surgery other expert persons in that faculty, and for the first examination such as they shall think convenient, and afterward alway four of them that have been so approved, upon the pain of forfeiture for every month that they do occupy as physicians or surgeons, not admitted or examined after the tenour of this Act of five pound, etc. And over this, That no person out of the said City, and precinct of seven miles of the same, except he have been (as is aforesaid) approved in the same, take upon him to exercise and occupy as a physician or surgeon, in any diocese within this realm, but if he be first examined and approved by the Bishop of the same diocese, or, he being out of the diocese, by his Vicar-general; either of them calling to them such expert persons in the said faculties, as their discretion shall think convenient, and giving their letters, testimonials under their seal to him that they shall so approve, upon like pain to them that occupy contrary to this Act, etc.

In a memoradum appended to the Act it is provided "that surgeons be comprised in this Act as physicians, for like mischief of ignorant persons presuming to exercise surgery."

This Act excited much indignation against the surgeons, who in a petition presented to Parliament were accused of "minding only their own lucres and nothing the profit or ease of the diseased." The quacks who were disturbed in their practice were described as "honest persons, as well men as women, whom God hath endued with that knowledge of the nature, kind and operation of certain herbs, roots and waters, and the using and ministering of them to such as be pained with customable diseases, etc." It might be a petition of irregular practitioners at the present day! It was successful, for

it was ordained, established, and enacted of this present Parliament that at all times from henceforth it is lawful to any person, being the King's subject, having knowledge or experience of the nature of herbs, etc., to minister in and to any outward sore or wound according to their cunning.*

In 1518 the College of Physicians was founded, its charter giving it large powers for the suppression of unqualified practice. Nevertheless quacks continued to thrive. In the seventeenth century we learn from James Primrose,† that physicians' servants, "Ministers, Mountibanks, Runnagate Quacksalvers and women who are said to meddle in surgery," practised the art of healing. As so much is heard at present of the co-operation of ministers of religion with doctors in the treatment of the sick, it may not be out of place to quote a decree of the Church in which reference is made to this matter. It is pointed out that "they in the Church of God be preferred to the order of Clerkes, let them in no case be diverted from divine administration, nor let them be distracted with cares and Secular affairs." With regard to the practice of medicine in particular, the decree, after alluding to the malice of Satan, goes on:

Namely thence it is, that transforming himselfe after his wonted manner into an Angell of light, under pretence of consulting for the feeble bodies of their brethren, and of managing their Church businesse more faithfully, he perswades some regular persons to read the Lawes, and to weigh out Physicall confections, and so draws them out of their Cloysters. Therefore lest by occasion of their knowledge therein, spirituall men be agane involved in mundane affaires, Wee make a decree that no man after a Vow of Religion, and religious profession made in some place, be permitted to go forth to read Physick, or the humane Lawes: but if they shall goe forth, and returne not to their cloyster within the space of two moneths, that they be avoyded of all men as excommunicate persons, etc.

Primrose also cites the Council of Tours to the same effect:

Against religious persons going out of their cloysters to heare Law or Physick Lectures; Alexander our Predecessour made a Decree formerly in the Councell of Tours, that except they return to their Cloyster within the space of two moneths, they should be avoyded of all men as excommunicate persons, and in no cafe be heard, if they would plead: And being returned, that they be the lowest of all the brethren in the Assemblies, at the Table, and in the Convocation house, and unlesse by the mercy of the Apostolicall chaire, to lose all hope of preferment. But because some of these, through the different opinions of some men, were excused, and found indulgence: We willing that for the future they doe ipso facto incurre the sentence of Excommunication, do straitly charg and command, to the end, that as well by the Diocesants, and in their Confistories, as by the Bishops in whose Diocesses they study, such excommunicate persons be publiquely pronounced lyable to the aforesaid penalties. And because we desire that the study of Divinitie may be enlarged, that the place of its Pavilion being dilated, it may be further propagated, that the Catholick Faith may be environed with an impregnable wall of warriours, which may be able to resist those that oppose it, We will and command, that this be extended to all Archdeacons, Deacons, Provosts, singing men, and others that have Ecclesiasticall livings, moreover Parish-priests (unlesse they desist within the time limited) and that in the name subscribed it be firmly observed.

There are parts at least of this fulmination that might find application at the present day.

Speaking of "mountebanks" he shrewdly remarks:

And it is wonderfull thing that many should be so wary in the choice of Physicians, that if a Physician settle in some place, they dare not of a long time commit themselves unto him, and yet they presently trust themselves to a Mountibank, that comes to stay but a few weeks, and (as I have often observed) men of the meanest rank, that plead poverty to Physicians, can finde money enough to give to these Mountibanks.

He says that not any one of them in Italy, France, and England have more than three sorts of remedies. These are the antidote against poisons, the balsam for wounds, and the ointment for burnings, to which sometimes they add a perfumed ball. They have also the common purging remedies, which they buy at home from apothecaries and sell at a very high rate. It is remarkable that Primrose expressly exempts from the ranks of the quack

those manuall Operatists, that cut for the Stone, whom Hippocrates calls ἐργάτας as also such as couch the Cataract, and those that cut for the Rupture, for they are lawfull Artificers, although also some of the Mountibanks that wander about England, dare likewise to attempt the same.

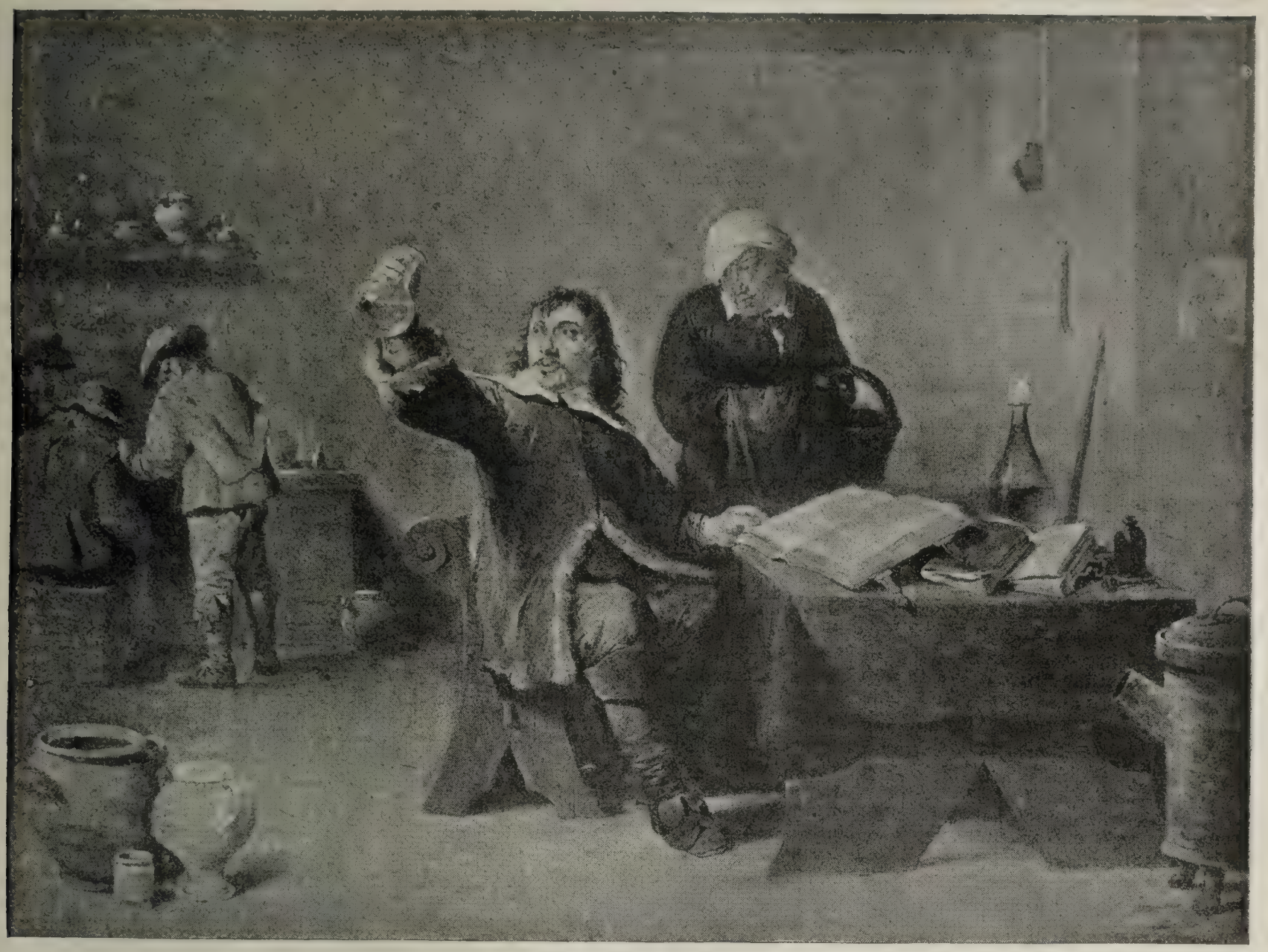
*Water Doctors.*

Uroscopy was very common among the Arabians and also in France in the Middle Ages. Primrose has a good deal to say about people who, as he says, "peepe into urines."

Plantius in the life of Fernel, relates, that that most excellent physician was wont to look into urines that were brought from abroad unto him, which abuse notwithstanding he approves not, but reprehends them, which like Southsayers doe prophesie many things of the absent sick party, by only looking upon the urine. That there was very great fraud therein, the bookes which Gordonius, and others have set forth concerning the cautions of urines doe plainly shew, wherein a Physician is taught how he may deceive the people, as also take heed to himself of their subtilties. Yea to this day among the Germanes this custome is in force, even whether the Physicians will or no, of whom many doe speak sharply against it, Heurnius, Foresius, Sennertus, and others, but most excellently Fuchsius in the beginning of his chapter of urines, he calls Physicians that peep into urines, asses, cheaters, pisse-drinkers, unworthy with whom good men should contend, seeing that they more esteeme of the gain they get by urine, then of truth it selfe. But now a daves in France and Italy, the Physicians have quite abandoned this foolish custome of divining by urine.

* Quoted by South, op. cit.

† *Popular Errours, or the Errours of the People in Physick.* London. 1651.



THE WATER DOCTOR.

(*After David Teniers the Younger.*)

Since the days of Hippocrates physicians have rightly attached the greatest importance to the inspection of the urine. Sir William Gull said that the famous maxim "Know thyself" was to be interpreted as meaning—know the characters of your urine. Of course, in the days before chemical tests were heard of, all sorts of fantastic notions prevailed as to the significance of different appearances of the urine, and a class of quacks grew up who made this their speciality. We find it mentioned in the *Roman du Renart*, in the twelfth century. Again in the *Cent nouvelles nouvelles*, assigned to the time of Louis XI, and by some to that King as author, we find the following narrative:

Quand elle eust ceste urine, fist tant qu'elle eust ung urinal et dedans la bouta, et dit à son beau filz qu'il la portast monstrer à un tel médecin pour savoir qu'on pourra faire à sa fille, et se on luy peut ayder. . . . Notre homme part don avec son urinal chez le médecin. C'est ici la consultation à distance chez l'uromancien qui voit tout dans le précieux liquide, les maux et le remède. Vecy nostre gueux qui arrive devers le médecin à tout l'urine de sa femme. Et quand il y eust fait la révérence, il luy va compter comment sa femme estait deshaitiée et merveilleusement malade : et vecy son urine que vous aporte afin que mieulx vous informes de son cas et que plus seurement ne puissiés conseiller. Le m decin prent l'urinal et contremont le liève, et tourne et retourne l'urine et puis va dire: Vostre femme est fort aggravée de chaulde maladie et en dangier de mort, s'elle n'est prestement secourue, vécy son urine qui le monstre.

Uroscopy has formed the subject of innumerable pictures, particularly by Dutch artists. An illustrated article on the subject by Dr. Paul Richer was published in the *Nouvelle Iconographie de la Salpêtrière*, Mars–Avril, 1902. It forms a chapter of the same physician's magnificent work, *L'Art et la médecine*.

The practice of "divining by waters" continued, however, to be used in medicine well in the nineteenth century. One of Gavarni's caricatures is entitled "His First Diagnosis." It represents a medical student anxiously scanning a bottle of urine with an interested girl looking on. But it is true that the method was generally left to quacks, who were called uroscopists. The Dutch painters have left many pictures of water doctors, one of which is reproduced above. Sir Lauder Brunton, in an address, entitled "The Method of Zadig in Medicine," which was published in the BRITISH MEDICAL JOURNAL of January 2nd, 1892, says that these water doctors doubtless learnt a good deal about the patients owing to their trained powers of observation. Thus, although he knew nothing about albumen, he probably "recognized that the persistence of froth on the urine after shaking it was of somewhat ominous import, and that would lead him to give a guarded prognosis." He may even have learnt, he adds, to associate this frothiness with nervous symptoms, such as restlessness, irritability of temper, and sudden outbursts of passion, quite out of proportion to the amount of offence. He goes on: "The water doctor would be sure to divide his frothy urine into pale and dark, and he would know that these two corresponded to quite different types. The dark urine was probably passed by an individual who was short of breath, disposed to rest, and frequently drowsy. The pale urine would be passed either by an individual who rose in the morning with his eyelids swollen and puffy, and who was probably drooping and languid during the day, or by a person of quite a different stamp—energetic, irritable, restless, sleepless, always on the move, and driving on like a high-pressure engine. Further than that, perhaps, the water doctor might not go." But this is enough to show that if the uroscopist was a man of any power of observation, he must have learnt a good deal from his inspection. Sir Lauder Brunton, in the same address, relates a story told him by Milner Fothergill, which well illustrates the keenness of observation developed by practice in some of these men:

In the town of Leeds there once lived a quack who had received no professional instruction whatever, but was known far and wide for his wonderful cures, and especially for his power of diagnosing the diseases of patients whom he had never seen by simply examining their urine. A celebrated surgeon, Mr. X., wishing to see his method of working, desired to be present one day, and the quack readily acceded to his request, feeling much flattered that so great a man should patronize him. Shortly after Mr. X. had taken his seat a

woman came in with a bottle of urine, which she handed to the quack. He looked at her, then at the bottle, held it up between him and the light, shook it, and said, "Your husband's?" "Yes, sir." "He is a good deal older than you?" "Yes, sir." "He is a tailor?" "Yes, sir." "Here," he said, handing her a box of pills, "tell him to take one of these pills every night for a week and a big drink of cold water every morning and he will soon be all right." No sooner had the woman gone out than Mr. X. turned to the quack, curious to know how he had made out all this. "Well, you see," said the quack, "she was a young woman, and looked well and strong, and I guessed the water was not hers. I saw she had a wedding ring on her finger so I knew she was married, and I thought the chances were it was her husband's water. If he had been about the same age as she it was hardly likely that he was going to be ill either, so I guessed he was older. I knew he was a tailor because the bottle was stopped not with a cork, but with a bit of paper rolled up and tied round with a thread in a way no one but a tailor could have done it. Tailors get no exercise, and consequently they are all very apt to be constipated. I was quite sure that he would be no exception to the rule and so I gave him opening pills." "But how did you know she came from S.?" "Oh, Mr. X., have you lived so long in Leeds and don't know the colour of S. clay? It was the first thing I saw on her boots the moment she came in."

*Removal of Stones from Head.*

A curious form of quackery prevailed in the seventeenth century which was taken as a subject for painting by several Dutch artists; Jan Steen was particularly fond of treating this subject. It consisted in treating headache or supposed brain disease by extracting a stone from the head. An incision was made in the scalp and the quack took out a stone which he had ready for the purpose, when hey presto! the patient was cured. An illustration of this is given at p. 1263.

*Tar Water.*

A striking proof that even the most enlightened men with no special knowledge of medicine is to be found in Bishop Berkeley's belief in the virtues of tar water. In a letter dated July, 1748, Lady Mary Wortley Montagu writes:

> Tar water has succeeded to Ward's drops, and it is possible that some other form of quackery has by this time taken place of that. The English are more than any other nation infatuated by the prospect of universal medicine.

Berkeley expressed the belief that the drinking of tar water

> would mitigate and even prevent the small-pox and erysipelas; that nothing is so useful as this in cases of painful ulcers of the bowels; in consumptive coughs and ulcers of the lungs with expectoration of pus; that it cures asthma, dropsy, and indigestion, the King's Evil, all kinds of sores and the foulest disorders.

Time and experience only confirmed him in these opinions. In a subsequent publication he says:

> I freely own that I suspect tar water to be a panacea . . . and as the old philosopher cried aloud from the the housetop to his fellow citizens, "Educate your children," so if I had a situation high enough and a voice loud enough, I would say to all the valetudinarians upon earth, "Drink tar water."

The reputation of tar water was short-lived.

*Quack Advertisements.*

The quack has always been skilful in advertising himself. He used to be an inevitable figure at village fairs, standing on a platform, glibly repeating his patter and selling his infallible remedies. Facing p. 1224 will be found a reproduction of the famous picture "The Quack Doctor" by Gerhard Douw. Molière, who satirized the doctors, did not spare the quack. In *L'Amour Médecin* an "operator" is introduced selling *orviétan*, an electuary, introduced into France (compounded, as Jaques would say, of many simples) in 1647, by a quack from Orvieto; hence the name. In Molière's play the "operator" sings:

> L'or de tous les climats qu'entoure l'Océan,
> Peut-il jamais payer ce secret d'importance?
> Mon remède guérit, par sa rare excellence,
> Plus de maux qu'on n'en peut nombrer dans tout un an;
> La gale,
> La rogne,
> La teigne,
> La fièvre,
> La peste,
> La goutte,
> Vérole,
> Descente,
> Rougeole,
> O grande puissance
> De l'orvietan!

Daniel Defoe, in his *Journal of the Plague Year*, gives a vivid description of how people ran to conjurers and witches and all sorts of deceivers to know what should become of them. "So that they were as mad upon their running after quacks and mountebanks and every practising old woman for medicines and remedies; storing themselves with such multitudes of pills, potions, and preservatives, as they were called, that they not only spent their money but even poisoned themselves beforeband for fear of the poison of the infection, and prepared their bodies for the plague instead of preserving them against it. On the other hand it is incredible and scarce to be imagined how the posts of houses and corners of streets were plastered over with doctors bills [prescriptions] and papers of ignorant fellows, quacking and tampering in physic, and inviting the people to come to them for remedies, which were generally set off with such flourishes as these, namely, 'Infallible preventive pills against the plague,' 'Never failing preservatives against the infection,' 'Sovereign cordials against the corruption of the air,' 'Exact regulations for the conduct of the body in case of an infection,' 'Anti-pestilential pills,' 'Incomparable drink against the plague, never found out before,' 'An universal remedy for the plague,' 'The only true plague water,' 'The royal antidote against all kinds of infection,' etc." There were also the usual offers on the part of "An eminent high Dutch physician," who had cured multitudes of people; "an Italian gentlewoman" who had a choice secret to prevent infection; "an ancient gentlewoman" who having practised with great success in the late plague in this city, Anno 1636, gives her advice only to the female sex. "An experienced physician who has long studied the doctrine of antidotes against all sorts of poison and infection, has after forty years' practice arrived at such skill as may with God's blessing direct persons how to prevent their being touched by any contagious distemper whatsoever. He directs the poor gratis." This offer of gratuitous advice, which we know so well at the present day, is illustrated by the advertisement of another quack quoted by Defoe, who announced that he gave advice to the poor for nothing.

> Abundance of poor people came to him accordingly, to whom he made a great many fine speeches, examined them of the state of their health, and of the constitution of their bodies, and told them many good things for them to do which were of no great moment. But the issue and conclusion of all was that he had a preparation which if they took such a quantity of every morning he would pawn his life they should never have the plague—no, though they lived in the house with people who were infected. This made the people all resolve to have it; but then the price of that was so much—I think it was half-a-crown. "But, sir," says one poor woman, "I am a poor almswoman and I am kept by the parish, and your bills say you give the poor your help for nothing." "Ay, good woman," says the doctor, "so I do, as I publish there. I give my advice to the poor for nothing, but not my physic." "Alas! sir," says she, "that is a snare laid for the poor, then, for you give them your advice for nothing; that is to say, you advise them gratis to buy your physic for their money. So does every shopkeeper with his wares." Here the woman began to give him ill words, and stood at his door all that day telling her tale to all the people that came, till the doctor finding she turned away his customers was obliged to call her upstairs again and give her his box of physic for nothing, which perhaps too was good for nothing when she had it.

This instructive story shows, as Æsop says, that human nature does not change. Quacks practise the same arts which their congeners have done for centuries, and gulls allow themselves to be caught by the silly bait. The moral is that people who are deceived by them should imitate the pertinacity of the almswoman and expose the cheat of which they have been victims. But this is just what, partly from shame, partly from want of resolution, they do not do. On this the quacks trade and flourish as they did at the time of the Great Plague, when Defoe tells us that the crowds that ran after them were infinitely greater and their doors were more thronged than those of the most famous physician of the time.

An article in the *Spectator* of July 26th, 1714, is devoted to quacks. It is there pointed out that "those who have little or no faith in the abilities of a quack will apply themselves to him, either because he is willing to sell health at a reasonable profit, or because the patient, like a drowning man, catches at every twig and hopes for relief from the most ignorant when the most able physicians give him none. Though impudence and many words are as necessary to these itinerary Galens as a laced hat to a

merry Andrew, yet they would turn very little to the advantage of the owner if there were not some inward disposition in the sick man in favour of the mountebank." In this disposition lies the secret of the prosperity of all quacks. The writer goes on to mention another set of pretenders who send forth notice to the world of their extraordinary parts and abilities by printed bills and advertisements. "I have heard," he says, "of a porter who serves as a knight of the post under one of these operators, and, though he was never sick in his life, has been cured of all the diseases in the dispensary. These are the men whose sagacity has invented elixirs of all sorts, pills, and lozenges, and take it as an affront if you come to them before you are given over by everybody else. Their medicines are infallible and never fail of success—that is," it is slyly added, "of enriching the doctor and setting the patient effectually at rest."

Goldsmith devotes two papers in the *Citizen of the World* to quacks. He says the advertising professors delight in cases of difficulty. Be the disorder never so desperate or radical, there will be found numbers in every street who by levelling a pill at the part affected promise a certain cure without loss of time, knowledge of a bedfellow, or hindrance of business. The benevolence of the quacks is amazing. They not only in general give their medicines for half value, but use the most persuasive remonstrances to induce the sick to come and be cured. He goes on to say:

> Few physicians here go through the ordinary courses of education, but receive all their knowledge of medicine by immediate inspiration from Heaven. Some are thus inspired, even in the womb, and, what is very remarkable, understand their profession as well at three years old as at threescore. Others have spent a great part of their lives unconscious of any latent excellence, until a bankruptcy or a residence in gaol have called their miraculous powers into exertion.
>
> And others still there are indebted to their superlative ignorance alone for success. The more ignorant the practitioner, the less capable he is thought of deceiving. The people here judge as they do in the East, where it is thought absolutely requisite that a man should be an idiot before he pretend to be either a conjurer or a doctor.

This flattering estimate of the amount of intelligence required for the practice of the healing art is largely entertained by people who are in the ordinary sense educated and who are experienced in matters of the world. We have ourselves known a practitioner who has long since gone to a place where there is neither physic nor fees, and who had a very large practice among leading politicians and journalists. One of the latter expressed what was the general feeling among these superior persons when he said to us on one occasion: "Oh, yes, I know; he is a d——d fool, but he is a devilish good doctor!" Of the prevalence of advertisement in the eighteenth century we find proof in another essay by Goldsmith, where he says:

> The learned are not here retired with vicious modesty from public view; for every dead wall is covered with their names, their abilities, the amazing cures and places of abode. Few patients can escape falling into their hands unless blasted by lightning or struck dead with some sudden disorder: it may sometimes happen that a stranger who does not understand English, or a countryman who cannot read, dies without ever hearing of the vivifying drops or restorative electuary. But for my part before I was a week in town I had learnt to bid the whole catalogue of disorders defiance and was perfectly acquainted with the names and medicines of every great man and great woman of them all.

The *Gentleman's Magazine* for 1748 gives a list of the quacks then preying on the people of London and their nostrums. In a reprint of the first number of that highly respectable newspaper, the *Observer*, dated December 4th, 1791, it is seen that its pages swarm with quack advertisements. The virtues of "Dr. Howell's Celebrated Powders, the only effectual Remedy ever yet discovered for curing all kinds of Fits, particularly Epileptic or Falling Fits," are attested by grateful patients who had suffered many things from many physicians without benefit. Mr. Charles Angbaud, surgeon, described as "Grandson to the inventor, who was an eminent Apothecary to King William and Queen Anne," offers for sale "at his house, No. 78, the Angel and Trumpet, the upper end of St. Martin's Lane, Westminster," the Pectoral Lozenges of Blois, "so universally and satisfactorily known for their excellent properties in curing the Usual Diseases of the Lungs, as Colds, Tickling Coughs, Shortness of Breath (which they also contribute to sweeten), Asthmatic, Phthisicky and Consumptive Complaints." Mr. Smith, No. 5 (the corner of Golden Square), Lower John Street, gives the names of a few of his patients who have been cured by his medicine of gout, rheumatism, and scurvy. Mr. Swainson, the sole proprietor of the genuine syrup of De Velnos, warns the public against counterfeits, adding: "If, after repeatedly publishing the affidavits of Mr. and Madame De Velnos, and exhibiting the deeds which secure the secret of Mr. Swainson, weak and silly persons will believe the bare assertions of unprincipled impostors, they must suffer for their credulity."

REMOVAL OF STONE FROM HEAD BY A QUACK.
*After H. Weydmans (seventeenth century).*

This is the merest outline of a vast subject, for the field of quackery is illimitable. It will be sufficient, however, to show that quackery in the past is essentially the same as quackery in the present. The law is, indeed, much stricter than in the good old days, when it was difficult, often impossible, to know an impostor from a qualified doctor. But quackery, so far from having been suppressed, has enlarged the scope of its pretensions and assumed new forms. It has this enormous advantage over science that the love of mystery is deeply implanted in the human breast. As Pliny himself—no friend to doctors—acknowledged, people have less belief in things relating to their health if they understand (*minus credunt quae ad suam salutem pertinent, si intelligunt*). The author of *Hudibras* has expressed the same view in the following lines:

> The world is generally averse
> To all the truths it sees and hears;
> But swallows nonsense and a lie
> With greediness and gluttony.

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THE medical notes in the report of the Kashmir Mission Hospital for 1910 state that in dealing with septic cases iodine skin disinfection has proved a great reinforcement to other precautions. By its means and by using sterilized towels to exclude infected areas, primary aseptic union was obtained in several cases of gangrene in which amputation had been performed within a few inches of the line of demarcation. In dealing with the webbed arms resulting from extensive burns, it has been found better not to apply any stitches after division of the cicatrices, but to fill the gaps with Thiersch grafts, and that if there be no oozing of blood these do best when exposed to air under the protection of a wire cage. The experience of the hospital in regard to the value of saline infusion in cases of collapse from cholera is regarded as disappointing. At the leper asylum, which is under the medical care of the mission, nastin was employed last year on 10 patients; 4 of them were much improved, 4 somewhat benefited, and in 2 there was no obvious result.

# SOME NOTABLE QUACKS.

## SIR WILLIAM READ.

QUEEN ANNE suffered from weak eyes, and as there was no scientific ophthalmology in her day she was the natural prey of quacks.

She passed from one to another, but her favourite was William Read, originally, according to Jeaffreson, a botching tailor, and to the last a very ignorant man. Having failed as a mender of garments he set up as a mender of eyes. In 1694 we find him settled in the Strand and announcing his skill as an oculist to the public. He did not, at least at first, confine himself to his chosen speciality, for he intimates that "hee cureth ye Poor" not only of blindness, but of "Cancers, Wenes, Heair Lips, Wry Neckes, and Dephness for Charity." He hired some one to write a book for him entitled, *A Short and Exact Account of all the Diseases Incident to the Eye*, which he is said to have been unable to read. Although the book itself attests his ignorance of the subject on which he posed as an oracle, the favour of the Queen made him fashionable and brought him a large practice. So infatuated with him was Anne that she made him a knight. Read thereupon got a Grub Street poet to sing his praise in a poem entitled "The Oculist," which was published in 1705. The following is an extract:

Whilst Britain's Sovereign scales such worth has weighed,
And Anne herself her smiling favours paid,
That sacred hand does your fair chaplet twist,
Great Read her own entitled Oculist.
With this fair mark of honour, sir, assume
No common trophies from this shining plume;
Her favours by desert are only shared—
Her smiles are not her gift, but her reward.
Thus in your new fair plumes of Honour drest,
To hail the Royal Foundress of the feast;
When the great Anne's warm smiles this favourite raise,
'Tis not a royal grace she gives, but pays.

SIR WILLIAM READ.

Read had the honour of being mentioned in the *Spectator* (September 1st, 1712). The paper is written by Steele, who says:

> I received some time ago a proposal which had a preface to it wherein the author discoursed at large of the innumerable objects of charity in a nation, and admonished the rich who were afflicted with any distemper of body particularly to regard the poor in the same species of affliction, and confine their tenderness to them, since it is impossible to assist all who are presented to them. The proposer had been relieved from a malady in his eyes by an operation performed by Sir William Read, and, being a man of condition, had taken a resolution to maintain three poor blind men during their lives in gratitude for that great blessing.

Read is mentioned again on November 27th, 1712, as one to whom compliments are often made in the public prints, "where it is usual for the patients to publish the cures which had been made upon them, and the several distempers under which they laboured." When Read was knighted the following lines were written by Mr. Gwinnett:*

The Queen, like Heaven, shines equally on all,
Her favours now without distinction fall;
Great Read, and slender Hannes, both knighted, show
That none their honours shall to merit owe;
That Popish doctrine is exploded quite,
Or Ralph had been no duke, and Read no knight;
That none may *virtue* or their *learning* plead,
This has no *grace*, and that can hardly *read*.

Read, though laughed at by Swift and the other wits as a mountebank, nevertheless entertained them at his table and gave them, as the author of *The Tale of a Tub* testifies, "admirable punch" and "treated them in golden vessels." Read did not lose the favour of the Court with the death of his royal patroness. He was sworn in as an oculist in ordinary to King George in the beginning of 1714. It may be remembered that John Taylor and his grandson were each oculists to the King. A history of Court appointments would furnish some amusing reading.

Read died at Rochester in 1715.

Something should here be said of another oculist who enjoyed the favour of Queen Anne. He, too, is referred to in the *Spectator* of September 1st, 1712, as "that skilful artist Dr. Grant, Her Majesty's oculist extraordinary, whose happy hand had brought and restored to sight several hundreds in less than four years." The correspondent goes on: "Many have received sight by his means who came blind from their mother's womb as in the famous instance of Jones of Newington. I, myself, have been cured by him of weakness in my eyes next to blindness, and am ready to believe anything that is reported of his ability this way; and know that many who could not purchase his assistance with money have enjoyed it from his charity. But a list of particulars would swell my letter beyond its bounds; what I have said being sufficient to comfort those who are in like distress since they may conceive hopes of being no longer miserable in this kind while there is yet alive so able an oculist as Dr. Grant." In spite of this glowing testimonial, the plain truth is that William Jones was not born blind, and was but very little, if at all, benefited by Grant's operation, who appears to have been guilty of gross fraud and forgery in his account and advertisements of this pretended cure. This will surprise no one who has any knowledge of the ways of quacks and the deluded people who believe in them. Grant, whose Christian name was Roger, was originally a cobbler or tinker, and afterwards a preacher in a congregation of Baptists or Anabaptists. His original occupation is alluded to in the following epigram:

Her Majesty sure was in a surprise,
Or else was very shortsighted,
When a tinker was sworn to look after her eyes
And the Mountebank Read was knighted.

Grant had his likeness engraved on copper and distri-

* Quoted by William Wadd in his *Nugae Chirurgicae*, p. 131.

buted impressions of the plate among his friends. One put it up on a wall of his house—apparently an apartment devoted to base uses—with the following lines underneath:

See here a picture of a brazen face,
The fittest lumber of this wretched place.
A tinker first his scene of life began,
That failing, he set up for cunning man;
But wanting luck put on a new diguise
And now pretends that he can mend your eyes;
But this expect that like a tinker true
Where he repairs one eye, he puts out two.

### THE CHEVALIER TAYLOR.

One of the most impudent quacks of whom there is any record was John Taylor, whom Dr. Johnson described as the most ignorant man he ever knew. Taylor was the son of a woman apothecary of Norwich, and was born in 1703. At the age of 19 he became assistant to an apothecary in London. At the same time he worked at St. Thomas's Hospital under Cheselden, from whom he learnt something about the eye. He may therefore be said to have had what in those days was considered a regular medical education. He had, however, a natural bent to quackery, which was doubtless stimulated by his failure as a general practitioner in his native city. He then travelled over the British Islands and a large part of Europe as an itinerant oculist. It may be mentioned that the same thing was done at that period by at least one surgeon, Jacques Daviel of Marseilles, whose name still lives in the annals of ophthalmology. Daviel went from town to town in the South of France, heralding his advent in the local newspapers, and vaunting his cures in a way that would at the present day certainly entail professional ostracism. The difference between Taylor and him was that the former had at once less knowledge and more boastfulness. There is no doubt, however, that he had some skill as an operator, and he invented a cataract needle and other instruments. In 1733 he is said to have obtained the degree of M.D. at Basle, and the same honour was conferred upon him in the following year by the Universities of Liége and Cologne. In 1736 he was appointed oculist to George II. While making London his centre of operation for more than thirty years, he wandered up and down the world seeking for patients. He was one of the best known men of the eighteenth century, but the more enlightened of his contemporaries knew him for what he was. Horace Walpole, writing to his friend Mann in 1755, says:

I need not desire you not to believe the stories of such a mountebank as Taylor; I only wonder that he should think the names of our family a recommendation at Rome; we are not conscious of any such merit; nor have any of our eyes ever wanted to be put out.

In 1758, writing to Lady Hervey, he says:

After all these important histories I will try to make you smile if I was not afraid you would resent a little freedom taken with a great name. May I venture?

Why Taylor the quack calls himself Chevalier
'Tis not easy a reason to render;
Unless blinding eyes as he thinks to make clear
Demonstrates he is but a *pretender*.

Dr. King, in his *Anecdotes of His Own Times*, seems to take Taylor rather more seriously, although he detected the quackish element in him, which indeed bulked so large that only eyes blinded by the Chevalier himself could have failed to see it. He says:

I was at Tunbridge with Chevalier Taylor the oculist. He seems to understand the anatomy of the eye perfectly well; he has a fine hand and good instruments, and performs all his operations with great dexterity; but he undertakes everything (even impossible cases) and promises everything. No charlatan ever appeared with fitter and more excellent talents or to greater advantage, he has a good person, is a natural orator, and has a faculty of learning foreign languages. He has travelled all over Europe and has always with him an equipage suitable to a man of the first quality and has been introduced to most of the sovereign princes from whom he has received many marks of their liberality and esteem.*

King, however, poked fun at the Chevalier in a Latin inscription:

Hic est, hic vir est,
Quem docti, indoctique omnes impense mirantur,
Johannes Taylor;
Coecigenorum coecorum, coecitantium,
Quotquot sunt ubique,
Spes unica—Solamen—Salus.

* Quoted by J. Cordy Jeaffreson in *A Book About Doctors*, 1861.

Taylor in his perambulations delivered lectures in which he introduced himself and vaunted his skill. In Nicoll's *Literary Anecdotes* there is the following description of him as he appeared at Northampton:

The doctor appeared dressed in black with a long light flowing ty'd wig; ascended a scaffold behind a large table raised about three feet from the ground and covered with an old piece of tapestry on which was laid a dark coloured cafoy chariot seat with four black bunches (used upon hearses) tyed to the corners for tassels four large candles on each side of the cushions and a quart decanter of drinking water with a half pint glass to moisten his mouth.

Taylor seems to have given great attention to the form of his lectures. Jeaffreson says:

In his orations when he aimed at sublimity he indulged in short sentences each of which commenced with a genitive case followed by an accusative; after which came the verb succeeded by the nominative. Thus at such crises of grandiloquence instead of saying I will lecture on the wonders of the eye, he would invert the order Of the eye on the wonders lecture will I. By doing this he maintained that he surpassed the finest periods of Tully!

Taylor called this style "the true Ciceronian, prodigiously difficult, and never attempted in our language before."

A specimen of his lectures has been preserved. Addressing the University of Oxford, he is said to have delivered himself of the following bombast:

The eye, most illustrious sons of the muses, most learned Oxonians, whose fame I have heard celebrated in all parts of the globe—the eye, that most amazing, that stupendous, that comprehending, that incomprehensible, that miraculous organ, the eye, is the Proteus of the passions, the herald of the mind, the interpreter of the heart, and the window of the soul. The eye has dominion over all things. The world was made for the eye and the eye for the world. My subject is light, most illustrious sons of literature—most intellectual. Ah! my philosophical, metaphysical, my classical, mathematical, mechanical, my theological, my critical audience, my subject is the eye. You are the eye of England! England has two eyes—Oxford and Cambridge. They are the two eyes of England and two intellectual eyes. You are the right eye of England [Cambridge was the right eye when he lectured there], the elder sister in science, and the first fountain of learning in all Europe. What filial joy must exult in my bosom, in my vast circuit [this from the context might seem to allude to the circumference of his abdomen, but the portrait which we publish shows him to have been a slim man] as copious as that of the sun himself, to shine in my court, upon this my native soil, and give light even at Oxford. . . . The eye is the husband of the soul! The eye is indefatiguable. The eye is an Angelic faculty. The eye in this respect is a female. [It is not easy to understand, if this is the case, how the eye could be the husband of the soul, but the quack does not stick at such trifles.] The eye is never tired of seeing; that is, of taking in, assimilating, and enjoying all natures vigour.

Taylor had many illustrious patients, among them being Gibbon and Handel. He boasted also that he was the author of forty-five works in different languages. Johnson says Taylor once challenged him to talk Latin. The "Great Cham of literature" quoted something from Horace, which the quack took to be a part of his speech. Johnson adds, however, that he said a few words well enough, and admits that he was "sprightly." It would be unprofitable to inquire how many of Taylor's works were written by himself; it is obvious from the titles that they were mere trade circulars. No one has ever known better than Taylor the art of puffing himself. Even the modern American advertising quack pales into insignificance before this mighty master of the art of beating the big drum. The title-page of a biography said to have been written by his son is a specimen of his art:

The Life and Extraordinary History of the Chevalier John Taylor. Member of the most celebrated Academies, Universities and Societies of the Learned. Chevalier in several of the first courts in the world. Illustrious (by patent) in the apartments of many of the greatest princes. Ophthalmiater Pontifical, Imperial and Royal to His late Majesty—to the Person of Her Imperial Majesty—to the Kings of Poland, Denmark, Sweden, etc.—to the several Electors of the Holy Empire—to the Royal Infant Duke of Parma—to the Prince of Saxe-Gotha, serenissme Brother to Her Royal Highness the Princess Dowager of Wales—to the Prince Royal of Poland—to the Late Prince of Orange—to the present Princes of Bavaria, Modena, Lorrain, Brunswick, Anspach, Bareith, Liège, Salzbourg, Middlebourg, Hesse-Cassel, Holstein, Zerbst, Georgia, etc

Joannes Taylor MD.
In Optica Experti ssimus,
Multis in Academiis celeberrimis
Socius, Regi Magnæ Britanniæ Medicus Ocularis &c.
Giovanni Taylor M.D.
Oculista del Re di Gran: Brit: Socio di Diversi Collegij de Medicina.
John Taylor
M.D
Oculist to the King
of Great Britain
Fellow of Several Colleges of Physicians &c.
Jean Taylor M.D.
Oculiste du Roy de la Grande Bretagne Associé de diverses Facultés de Médecine &c.
Joã: Taylor M.D.
Oculista del Rey del Gran: Brit: Assi: de Muchos Fac: ulda des de Med: &c.
Effigiem Taylor, ubi qui demissus ab alto est.
Turba alias cæcos lumine, cernit videt.
Hic Maculas tollit Cataractas deprimit omnes
Ecce Virum! Cujus tempora lauro
Nimmde priori Sublatam Ophthalmia gravem
Artifice dextra gutta Serena videt.
Tanto Splendens exciat ille Tubar
Dignum, cui laudes Secula longa canent.
LECTURES
On the Means of Preserving
Sight and on the Nature &
Method of Removing the
Several defects of it
call'd Weakness of Sight
In a Stile design'd to be under
stood by those Ladies for whom
they were chiefly intended.

> Citizen of Rome, by a Public Act in the name of the Senate and the people—Fellow of that College of Physicians—Professor in Opticks—Doctor in Medicine and Doctor in Chirurgery in several Universities abroad. Who has been on his travels upwards of thirty years, with little or no interruption, during which time he has not only been several Times in every Town in these Kingdoms, but in every Kingdom, Province, State, and City of the least consideration—in every court—presented to every crowned head and Sovereign Prince in all Europe, without exception. Containing the greatest variety of the most entertaining and interesting adventures that 'tis presumed, has ever yet been published in any country—or in any language.

There is some mystery about this work, for the contents are in some ways by no means creditable to the subject of the biography. It was repudiated by the father in a letter to his son, in which he signs himself "The Chevalier Taylor, Ophthalmiater, Pontifical, Imperial, and Royal." The son published the letter with a note appended, in which he says: "All the answer I can make to the bills he sends about the town and country is that I have maintained my mother these eight years, and do this at the present time; and that two years since I was concerned for him, for which I paid nearly two hundred pounds."

It is quite possible that this may have been a pretended quarrel really intended as an advertisement. This view would seem to be confirmed by the fact that the Chevalier dedicates an autobiography, published in 1761, to his son, whom he leaves to defend his cause and support his fame, and to whom he wishes prosperity and happiness. This is entitled, *The History of the Travels and Adventures of the Chevalier John Taylor.* On the title-page it is stated that the book

> Contains all noteworthy the attention of a Traveller—also a dissertation on the Art of Pleasing with the most interesting observations on the Force of Prejudice; numberless Adventures as well amongst Nuns and Friars as with Persons in High Life with a description of a great variety of the most admirable relations which though told in his well-known peculiar manner, each one is strictly true, and within the Chevalier's own observations and knowledge.

Taylor knew the whole art of the preliminary notice as well as popular writers of the present day. By way of exciting public curiosity, he had an announcement inserted in the *Gentleman's Magazine*, of which the following is an extract:

> I am perfectly acquainted with the history of Persia, as well before as since the death of Thamas Kouli Khan; well informed of the adventures of Prince Heraclius; was personnally Known to a Minister he sent to Moscow in a first attempt to conquer that country and am instructed in the cruel manner of putting out the eyes of conquered princes.

We may say here, by the way, that we do not think Taylor showed his usual tact in making this statement; the application of such experience to his own practice was too obvious.

With the evident object of exciting the desire for sensational revelations he goes on to say that he has lived in many convents of Friars of different orders; that he has been in almost every "female nunnery,"—female nunnery is "good" as Polonius would say—in all Europe, and could write many volumes on the adventures of these "religious beauties." He also boasts that he has been present at the putting of criminals to death in various ways, and that he is well instructed in the different ways of applying the torture to extract confession, and is no stranger to other punishments such as impaling and burying alive with the head above ground. He had seen the manner of embalming dead bodies of great personages and knew all the secrets of that art. He also says:

> I have known marvellous effects from the power of faith in the cure of various diseases of the body, and, above all, a vast variety of extraordinary instances in the imagination of women.

This should be interesting to modern faith healers. We have not seen Taylor's *Autobiography*, but we gather that, notwithstanding the promise of spicy revelations dangled before possible purchasers, it was a dull and ill-written book, which seems to have attracted no attention. In 1767 Taylor forsook his native land, having probably exhausted the credulity of his fellow countrymen. By the irony of fate, towards the end of his life he lost his sight. He died in a convent at Prague in 1772. His son John followed in his father's footsteps, but did not succeed him in his post of oculist to George II. The grandson, John Taylor III, was more fortunate, for he was oculist to George III and George IV.

John Taylor, junior, is described by Jeaffreson as an illiterate, vulgar, and licentious scoundrel. Yet, when he died in 1787, he was honoured with a long memoir in the *Gentleman's Magazine* as "One whose philanthropy was exerted so fully as to class him with a Hanway or a Howard"—a striking example of the value to be placed on obituary notices.

There was another family of quacks—the brothers Taylor of Whitworth. They were farriers by trade and physicked human beings as drastically as they treated horses. John Hunter, who had no objection to meet anybody, met one of them, whom the Lord Chancellor Thurlow had got to see his brother Thurlow, Bishop of Durham. Mr. Stephen Paget, in his *Life of John Hunter*, tells the following amusing story:

> Several members of the faculty, Hunter among them, met Taylor to consult over the Bishop's case. Hunter was late, and they asked Taylor to examine the case without delay; but he said he would do nothing till Jack Hunter came, for he had no opinion of anybody but him. When Hunter arrived, he took up a box of ointment that Taylor was using and asked what the ointment was made of. Taylor turned to the Lord Chancellor and said, "That's not a fair question; No, No, Jack, I'll send you as much as you please, but I won't tell you what it's made of."

Hunter could not justly have taken offence with Taylor's refusal to disclose the composition of his ointment, for when Edward Jenner had devised a new method of preparing tartar emetic, his old master wrote him, "Do you mean to advertise it, or do you mean to let it take its chance?" He suggests to Jenner that he should burn the publication in which the method is described, for he says, "You will have all the world making it." Later he writes: "I am puffing off your tartar as the tartar of all tartars. . . . Had you not better let a bookseller have it to sell, as Glass of Oxford did his magnesia? Let it be called Jenner's Tartar Emetic or anybody's else that you please." On second thoughts, Hunter recommended that the method should be published, and accordingly in 1784 Jenner's paper was read before the Society for the Promotion of Medical and Chirurgical Knowledge.

### JOSHUA WARD.

Joshua Ward, known as "Spot Ward" from a claret mark on his face, made his first appearance on this great stage of fools in 1685.

Although he came of good family, his early life is obscure. He entered Parliament as member for Marlborough on January 27th, 1716–17, but on May 13th he was deprived of his seat, as it was found that he had been returned without receiving a single vote—a feat which might well have puzzled even the judges who have recently been so busy trying petitions in which the decision turned on one vote. He appears also to have been for some time in business in the City as a drysalter. William Wadd, in his *Nugae Chirurgicae*, says that "having failed in business he applied himself to Chemistry, and in a propitious moment hit on his famous Drop or Pill." But whether owing to stress of politics, or to the more prosaic adventure of bankruptcy, he had to betake himself to France. He lived at St. Germains, and afterwards at Dunkirk, maintaining himself by the sale of his nostrums. For some reason that does not appear, he again got into trouble, this time with the French Government, and he narrowly escaped the Bastille. From that doom he was saved by the kind intervention of John Page, afterwards M.P. for Chichester and Secretary to the Treasury. In token of gratitude Ward, at the time of his death, bequeathed the secret of his remedies to Mr. Page, who published the recipes in 1763, on the understanding that the profits should be divided between the asylum for female orphans and the Magdalen. At first they brought in a considerable revenue, but the dissipation of the mystery of their composition destroyed their commercial value.

That the offence which caused Ward to seek safety in

JOSHUA WARD.

France was of a political character is suggested by the fact that he did not return till 1733, after having obtained a pardon from George II. He soon had the good luck to ingratiate himself with his Sovereign, whom he treated for an injury to the thumb. Wadd says that "an application recommended by the King's hand established his reputation beyond competition." The King, to show his gratitude, gave Ward an apartment in the Almonry, Whitehall, where he physicked the poor at His Majesty's expense. Ward was now borne on the full tide of fashion, finding a powerful supporter in General Churchill, whom Wadd calls "the primary buffer of Ward's pill at Court." Lord Chief Baron Reynolds soon afterwards published an account of its "miraculous effects" on a maidservant. Of course, Ward was attacked. Some doggerel verses were addressed by Sir William Browne to "*Dr. Ward*, a Quack of merry memory," under the title of "The Pill Plot or the *Daily Courant's* Miraculous Discovery upon the ever memorable twenty-eighth day of November, 1734, for, from the Doctor himself being a Papist and distributing his Pills to the poor *gratis*, by the hands of the Lady Gage, also a Papist, the Pill must be, beyond all doubt, a deep laid Plot to introduce Popery."

Ward was foolish enough to go to law with one of his lampooners. He lost his case, and, what was worse, his ignorance of medicine was thoroughly exposed, and it was shown that his Pill and Drop were quite unsuitable for general use, being strong preparations of antimony which killed as many as they cured. Yet his remedies had an astonishing vogue. Gibbon in his *Autobiography* mentions Ward among those "successively summoned to torture or relieve" him. Lord Chesterfield also took Ward's medicine, as we learn from Matthew Maty's *Memoirs*, the second volume of which begins as follows:

*Fog's Journal, Saturday, January 17th, 1736.*

I very early took Mr. Ward's drop notwithstanding the great discouragement it met with in its infancy from an honourable author eminent for his political sagacity who asserted it to be liquid popery and Jacobinism. I reap great benefit from it and recommended it to so many of my friends that I question whether the author of that great specific is more obliged to any one man in the Kingdom than myself excepting one.

It is not worth while to conjecture who this "one" was, as Ward had so many patrons in the world of fashion.

Another of his famous patients was Henry Fielding, who, in the introduction to his *Voyage to Lisbon*, says that in 1753 he was in "a very weak and deplorable condition with no fewer or less diseases than a jaundice, a dropsy, and an asthma, altogether uniting their forces in the destruction of a body so entirely emaciated that it had lost all its muscular flesh." He was no longer what was called a Bath case, so he became the patient of "Dr. Ward," who, as is usual, expressed a regret that he had not taken his advice earlier. He was tapped and fourteen quarts of water were drawn from his belly. After two months he gained strength a little, but was again full of water.

During this whole time I took Mr. Ward's medicines, which had seldom any perceptible operation, those in particular of the diaphoretic kind, the working of which is thought to require a great strength of constitution to support, had so little effect on me that Mr. Ward declared it was as vain to attempt sweating me as a deal board.

Although Ward's medicines failed, Fielding, who had a very low view of the regular profession, was grateful to the quack. He says:

Obligations to Mr. Ward I shall always confess, for I am convinced that he omitted no care in endeavouring to serve me without any expectation or desire of fee or reward. The powers of Mr. Ward's remedies want, indeed, no unfair puffs of mine to give them credit; and though this distemper of the dropsy stands, I believe, first in the list of those over which he is almost certain of triumphing, yet possibly there might be something particular in my case, capable of eluding that radical force which had healed so many thousands. The same distemper in different constitutions may possibly be attended with such different symptoms, that to find an infallible nostrum for the curing of any one distemper in every patient may be almost as difficult as to find a panacea for the cure of all.

Fielding would not have been so ready to find excuses for failure on the part of orthodox practitioners. His belief in Ward's medicines and in Bishop Berkeley's panacea, tar-water, illustrates the curious attitude of suspicion in regard to medical science so often seen in literary men.

Horace Walpole, writing to Sir Horace Mann in 1760, says:

I don't know what to say about Ward's medicine because the

Cures he does in that complaint are performed by him in person. He rubs his hands with some preparation and holds it upon your fore-head, for which trouble hath found instant relief. If you please, I will consult him whether he will send you any preparation for it; but you must first send me the exact symptoms and circumstances of your disorder and constitution for I would not for the world venture to transmit to you a blind remedy for any unexamined complaint.

This "laying on of hands" seems to show that there was a large element of suggestion in Ward's treatment.

A striking testimony to the favour which Ward enjoyed at Court and with the public is to be found in the fact that in 1748, when an Apothecaries Act was introduced into Parliament to restrain unlicensed persons from compounding medicines, a clause was inserted exempting him by name from its operation. It must be said to his credit that he was always liberal to the poor; he turned three houses in Pimlico into a hospital for them, and he established a dispensary in the City. At one time it was the fashion among the great ladies who consulted him to sit at his doors distributing his nostrums to the crowds who came every day. Ward died at Whitehall in 1761, leaving a considerable fortune.

As already said, his medicines, which must have been very dangerous, soon fell into oblivion. William Wadd, who was an orthodox member of the faculty and Surgeon-Extraordinary to George IV, and therefore not likely to be biassed in favour of a quack, says in his *Nugae Chirurgicae* (London, 1824, p. 271):

The circumstance of medicines once so celebrated being now almost forgotten has induced some to question their being entitled to the reputation attached to them. When we recollect, however, the basis of these preparations and the wonder-working operations of Chemistry upon it, it would be absurd to doubt their active powers; besides which Ward, though his medical education was not conformable to College routine, possessed considerable natural powers with an abundant share of acuteness and common sense.

THE UNDERTAKERS.
*After Hogarth.*

Austin Dobson said that if Ward was a quack, he was a quack of genius. We are indebted for the portrait here reproduced (p. 1263) to the kindness of Dr. Selfe Bennett, who writes:

> The engraving from which this excellent photograph was taken has been in my possession for some years. It had been despitefully used, folded down the centre, cracked, and the margin cut off. Subsequently, however, it had been carefully laid down, pressed, and mounted on toned paper, with a pencil inscription below. This reads: "Nat 1685. Joshua Ward, M.D. Ob. 1761." There is no doubt as to the truth of this statement; it is evidenced by the subject of the painting and the portly presence of the Doctor, who was "a fine figure of a man," as shown in other undoubted portraits. Austin Dobson, who is the latest authority on Hogarth, makes no mention of such a painting, and is somewhat scornful as to "owners of pictures ascribed to Hogarth." The draughtsmanship is, however, "signed all over," and it may almost be said that no one else save Hogarth (who painted Ward more than once) could have been the artist, although history is so far silent as to the engraver. Any further information regarding this picture would be thankfully received and acknowledged.
>
> MRS. MAPP.

Ward at one time found a rival in popular favour in a bonesetter called Mrs. Mapp. She was the daughter of a Wiltshire bonesetter named Wallin, or Wallis, and was a sister of the celebrated "Polly Peachum," who married the Duke of Bolton. Having quarrelled with her father, she wandered about the country. Coming in the course of her peregrinations to Epsom, she settled there. The following extract from the *Gentleman's Magazine* for 1736 shows her making her start in the world of fashion:

> Saturday, 31st. In the *Daily Advertiser*, July 28th, Joshua Ward Esquire, having the King's leave, recites seven extraordinary cases of persons who were cured by him and examined before Her Majesty June 7th, objections to which had been made in the *Grub Street Journal*, June 24th. But the attention of the public has been taken off from the wonderworking of Mr. Ward to a strolling woman now at Epsom who calls herself Crazy Sally; and had performed cures in bonesetting to admiration and occasion so great a resort that the town offered her one hundred guineas to continue there a year.

Sally married at Epsom, but she did not long enjoy the society of Mr. Mapp, who at the end of a fortnight, during which he had thrashed her several times, decamped with a considerable portion of her earnings. Her fame spread abroad, and, like a modern playwright or novelist, she was made the subject of frequent paragraphs in the public prints. In one it is said:

> The cures of the woman bonesetter of Epsom are too many to be enumerated: her bandages are extraordinary neat, and her dexterity in reducing dislocations and setting fractured bones wonderful. She has cured persons who had been twenty years disabled, and has given incredible relief in the most

difficult cases. The lame come daily to her, and she gets a great deal of money, persons of quality who attend her operations making her presents.

Sir Hans Sloane witnessed some of her operations, and is said to have been so favourably impressed by them that he confided to her charge his niece, "whose back had been broke nine years, and stuck out two inches."

Mrs. Mapp continued to live at Epsom, visiting London once a week, making the journey thither in a carriage and four, with servants wearing gorgeous liveries. The praises of "the famous bonesetter of Epsom" are sung by a poet in the *Gentleman's Magazine*, August, 1736:

> Of late, without the least pretence to skill,
> Ward's grown a fam'd physician by a pill;
> Yet he can but a doubtful honour claim,
> While envious Death oft blasts his rising fame.
> Next travell'd Taylor fills us with surprise,
> Who pours new light upon the blindest eyes;
> Each journal tells his circuit through the land,
> Each journal tells the blessings of his hand;
> And lest some hireling scribbler of the town
> Injure his history, he writes his own.*
> We read the long accounts with wonder o'er;
> Had he wrote less we had believed him more.
> Let these, oh Mapp, thou wonder of the age!
> With dubious arts endeavour to engage;
> While you irregularly stick to rules,
> Teach dull collegiate pedants they are fools;
> By merit, the sure path to fame pursue—
> For all who see thy art must own it true.

Her presence at a play called *The Husband's Relief* is said to have drawn a crowd to the theatre. Whether by accident or design she sat there between Taylor and Ward, a conjunction of constellations which gave occasion to the following epigram:

> While Mapp to the actors showed a kind regard,
> On one side *Taylor* sat, on the other *Ward;*
> When the mock persons of the drama came
> Both *Ward* and *Taylor* thought it hurt their fame;
> Wondered how Mapp could in good humour be,
> "*Zoons!*" crys the manly dame, "It hurts not me;
> Quacks without art may either blind or kill,
> But demonstration proves that mine is skill."

A story is related of Mrs. Mapp which reminds us of one told of Nell Gwynne. On one of her journeys, passing through Kent Street, in the Borough, she was taken for one of the King's German mistresses, who was very unpopular. A great mob gathered and used threatening language. Mrs. Mapp thereupon put her head out of the window and cried, "D—— your bloods, don't you know me? I am Mrs. Mapp, the bonesetter!" She drove on amidst the loud applause of the multitude.

Percivall Pott† gives us the truth about this notorious woman. He says:

> We all remember that even the absurdities and impracticability of her own promises and engagement were by no means equal to the expectations and credulity of those who ran after her; that is of all ranks and degrees of people from the lowest labourer or mechanic up to those of the most exalted rank and station; several of whom not only did not hesitate to believe implicitly the most extravagant assertions of an ignorant illiberal drunken female savage, but even solicited her company; at least seemed to enjoy her society.

The plate reproduced from Hogarth (on p. 1269), with the happy though not altogether flattering legend *Plurima mortis imago*, shows at the top Mrs. Mapp between Taylor and Ward. The former is leering at the bonesetter, while Ward's "spot" is shown dividing his face into two distinct sections. No one, we believe, has succeeded in identifying the other portraits, which, though caricatures, are obviously representations of real men.

### JOANNA STEPHENS.

Joanna Stephens deserves a place in our little gallery of quacks on account of the almost unparalleled success which she achieved in getting distinguished persons to testify to her cures. Her remedies were supposed to have solvent action on stone and gravel in the bladder or kidney. Not all the "testimonies" of Christian Science, Dowieism, the Emmanuel Society and Lourdes put together can show anything like such a list. The April number of the *Gentleman's Magazine* for 1738 states:

> Mrs. Stephens had proposed to make her medicine publick, on consideration of five thousand pounds to be raised by contribution and lodged with Mr. Drummond, banker; he has received since the 11th of this month about five hundred pounds on that account.

By the end of the month the sum had swollen to seven hundred and twenty. Before inviting people to pay this handsome sum, she had received large fees from rich people. The boom was helped by writers in the press of the time, who urged that no humane or patriotic person could do otherwise than contribute to the fund. In the list of subscribers we find Bishops, Dukes and Duchesses, Earls, Baronets, all of whom gave substantial sums. Nevertheless only thirteen hundred and thirty-six pounds were collected. Mrs. Stephens, wise in her generation, stood out for the five thousand pounds. An application was then made to Parliament for that sum, and after a Commission had seriously inquired into the cures it was decided that it should be granted.

It is melancholy to read in the list of those who signed the certificate required by the Act of Parliament such names as those of Cheselden, Caesar Hawkins, and Samuel Sharp. It is sadder still to read the testimonies given in a small book entitled *A View of the present Evidence for and Against Mrs. Stephens's Medicines as a Solvent for the Stone, containing a hundred and fifty cases with some experiments and observations*, published in London, 1739, and bearing on its title page the honoured name of David Hartley, physician and philosopher, of whom Coleridge thought so much that he named one of his sons after him. Hartley had already published some cases and experiments which seemed to him to afford sufficient evidence of a dissolving power in the urine of such persons as took Mrs. Stephens's medicine. The last passage of Hartley's preface is as follows:

> If farther EVIDENCE be required, we may hope to have it, when Mrs. *Stephens* shall publish her whole METHOD and MEDICINES, in the Manner She has proposed, as they will then of Course be tried both in private Practice and in the Hospitals, at Home and Abroad, and the Physicians and Surgeons of all NATIONS receive entire Satisfaction, before any REWARD be assigned. I therefore perswade myself, that Mrs. *Stephens* will appear to you in a different Light from common Pretenders to *Nostrums*, and that you will not think the Measures that have been taken for the Publication of her Medicines, any Encouragement to *Impostors*.

And what was her wonderful nostrum when revealed? A powder consisting of egg shells and snails both calcined; a decoction made by boiling some herb (together with a ball consisting of soap, swine's-cresses burnt to a blackness, and honey), in water; and pills made of snails calcined, wild carrot seeds, burdock seeds, ashen keys, hips and haws—all burnt to a blackness—soap, and honey. And for this precious secret the nation, which some half a century later haggled over the expenditure of money on John Hunter's museum, gave five thousand pounds! And as soon as the mystery was disclosed the reputed virtue of the remedy faded into thin air. Hartley himself died of the disease of which he believed himself to have been cured. Poor philosopher!

> Who but must laugh, if such a man there be?
> Who would not weep, if Atticus were he?

### JAMES GRAHAM.

James Graham, one of the most impudent quacks that ever lived, was born at Edinburgh in 1745. He studied medicine in that university, but it is doubtful whether he ever took a degree. In those happy days, however, even many men who might, like Hamlet, describe themselves as "indifferent honest," practised medicine without thinking it necessary to go through any ceremony of initiation.

Graham went to America and practised as an itinerant oculist and aurist at Philadelphia. Franklin's discoveries in electricity revealed to him a power that might be used to his own profit when applied to the treatment of real and fancied disease in ignorant people eager for some new thing. On his return to England he started his career as an advertising quack. After oscillating for some time between Bath and London he went to Paris in 1779, where he again met Franklin. He next appears at Aix-la-Chapelle, where among the many aristocratic patients from whom he won golden opinions was Georgiana, the famous Duchess of Devonshire. The support of fashionable patrons encouraged him to open in London what he called the Temple of Health. There he lectured and applied electricity in various ways, making his appeal especially to the lowest passions.

* The curious circumstance that Taylor wrote an autobiography about the same time that a biography of him was published by his son has already been referred to.

† Quoted in *Physic and Physicians*, London, 1839, p. 324.

A detailed account of this extraordinary establishment is found in a curious publication entitled *Correspondance Secrète*, which appeared a short time before the French Revolution. As the description of the Temple there given is evidently first-hand, we think it may be interesting to quote it. The writer says:

Dr. Graham adorned with this name a vast building situated in Pall Mall, near the King's Palace. The façade is ornamented with three figures, those of Venus, having on one side Minerva and on the other Juno. Underneath are the following inscriptions: "Temple of Health," "The happiness of Monarchs," "The riches of the poor." Lower down is seen a statue dedicated to Aesculapius. Lastly, there is a legend on the door to the following effect: "No guard watches at this gate, so that entrance may be free to the poor as to the rich." In spite of this inscription, two men of lofty stature clad in flowing robes, wearing a cuirass on which is written "Temple of Health," allow no one to enter until an entrance fee of six guineas is made. Scarcely has one set foot on the first step of the staircase than one hears harmonious strains of wind instruments which reach the ear through hidden openings in the staircase, while the sweetest perfumes flatter the sense of smell till the entrance of a magnificent apartment is reached. This is used for the delivery of lectures, in which the doctor professes to abolish barrenness, although he himself has never had any children. He uses the plainest language in dealing with the parts concerned in generation; yet ladies as well as men crowd to hear him without scruple.

As regards the interior of the Temple, the writer says that no fairy palace ever presented a sight more striking or more fantastic.

Garlands, mirrors, crystals, gilt and silver ornaments are scattered about with profusion, so that from all parts they reflect a dazzling light. Music precedes each lecture, from 5 o'clock till 7, when Dr. Graham presents himself vested in Doctor's robes. On the instant there follows a silence which is interrupted only at the end of the lecture by an electric shock given to the whole audience by means of conductors hidden under the cushions with which all the seats are covered. Whilst some jest at the astonishment of the others, a "spirit" is seen to emerge from under the floor of the room; it presents the appearance of a man of gigantic stature, thin and haggard, who, without uttering a word, hands the Doctor a bottle of liquor which, after having been shown to the company, is carried off by the spirit. To this strange apparition succeeds a pretty woman under the form of the Goddess of Music, who, after singing six pieces, vanishes in her turn. Dr. Graham having finished his lecture, the audience breaks up without daring to express regret for the six guineas expended on so extraordinary a spectacle. Before the sittings the Doctor makes a public offer to dissipate melancholy and mitigate extravagant gaiety. In a word, it is electricity communicated by magnetized baths which for some months has made the reputation of Dr. Graham, and it cannot be denied that he has had some success. All these details, however, are only accessories of his establishment. A sumptuous bed in brocaded damask supported by four crystal pillars of spiral shape festooned with garlands of flowers in gilded metal is its essential feature; and for a fee of fifty guineas Dr. Graham offers couples, old and young, the means of getting offspring. On whatever side one gets into this bed, which is called "Celestial," one hears an organ played in unison with three others, which make agreeable music consisting of varied airs which carry the happy couples into the arms of Morpheus. For nearly an hour that the concert lasts one sees in the bed streams of light which play especially over the pillars. When the time for getting up has come, the magician comes to feel the pulse of the faithful, gives them breakfast, and sends them away full of hope, not forgetting to recommend them to send him other clients.

JAMES GRAHAM.

We have an account of Graham from another Frenchman, the Conventional Brissot de Warville, who died on the scaffold during the Revolution. Before 1780 he had often to take refuge from the pursuit of the French Government in London, and in the course of one of these enforced migrations he met Dr. Graham, whom he describes as "so famous by his electric bed, his earth bath, his profession of the doctrines of Pythagoras, his courses on the art of producing handsome children and twenty other systems not less extravagant."

According to Brissot, Graham had a magnificent head, which he carried, as someone afterwards said of Saint Just, like a Host borne by the priest. He was well made, of commanding presence, and with a look like that of an eagle. When he spoke it was in the tone of a pontiff. Brissot, who afterwards saw him again in Paris, says that when walking with him on the Boulevards all the women turned round to look at him.

The description of the electric bed here given does not exactly tally with that of Graham himself in his *Lecture on the Generation, Increase and Improvement of the Human Species (London, 1784)* which is now before us. There he says (p 71):

Should pregnancy at any time not happily ensue I have a most astonishing method to recommend which will infallibly produce a genial and happy issue, I mean my Celestial or Magneto-Electrico bed, which is the first and only that ever was in the world; it is placed in a spacious room to the right of my orchestra, which produces the Celestial fire and vivifying influence; this brilliant Celestial bed is supported by six massive brass pillars with Saxon blue and purple satin, perfumed with Arabian spices in the style of those in the Seraglio of a grand Turk. Any gentleman and his lady desirous of progeny, and wishing to spend an evening in this Celestial apartment, after c——n, may, by a compliment of a fifty pound bank note be permitted to partake of the heavenly joys it affords by causing immediate conception, accompanied by the soft music; superior ecstacy which the parties enjoy in the Celestial bed is really astonishing and never before thought of in this world; the barren certainly must become fruitful when they are powerfully agitated in the delight of love.

Emma Lyon, afterwards Lady Hamilton, whose name is associated with that of Nelson, is said to have been at one time the high priestess of Graham's Temple. The female figure in the print here reproduced is not that of Lady Hamilton. Written under it in pencil is the name "Miss Dunbar," who may possibly have officiated in the Temple as the Goddess of Music.

Graham drove a thriving trade for a time, for the lecture on love—which he offered for sale as a booklet, priced at one guinea—is almost from beginning to end a tissue of obscenities obviously meant to excite the passions of the worshippers at the Temple of Health.

It is only fair to say, however, that mixed with the foul verbiage with which he tickled the ears of the groundlings, there is a good deal of sound advice as to personal hygiene. As far as we know, he was one of the first to preach the gospel of the open window. "The free open cold air," he says, "is a constant full cold bath for the outside of the body, for the lungs, for the mass of blood which passes through them, and consequently for the whole system of the friendliest and most efficacious kind." He taught that "open air day and night," full exercise in the free, open air, "with cleanliness," are "the grand cosmetics, the universal beautifiers, the infallible preservers of health, and the prolongers of human life to the very longest period of human existence." He also preached frugality in diet, and denounced alcoholic excess at a time when gluttony and drunkenness were

all but universal. He declaims against, and expresses execration of

> All strong, intoxicating, fiery liquors, especially unmixed spirituous liquors, and that poisonous composition of sloes, tartar, logwood, watery cyder, and brandy, which is called neat Port wine, and which is certainly one of the greatest bracers or holders together of the incorporated cattle of Great Britain! The great curdler and feast vomit of those too numerous all-devouring herds! and which is, moreover, one of the principal causes of gout, gravel, rheumatism, asthmas, and apoplexies!

He forbids excess even in drinking "the mildest, most genuine, and most generous wines."

The cult whose rites were practised in the Temple of Health did not last long in London. Horace Walpole, who heard Graham in 1780, speaks of him as "The most impudent puppet show of imposition I ever saw, and the mountebank himself the dullest of his profession except that he makes the spectators pay a crown a piece." In 1782 the crash came. The electric bed and other paraphernalia were sold and the Temple of Health was closed. Graham afterwards preached the virtues of mud bathing. He is said to have remained naked in the earth for several hours on nine successive days. Robert Southey, who saw Graham more than once, at this time described him accurately when he called him "half knave, half enthusiast." There was also an element of insanity in his composition, and in the later years of his life he was for some time confined to his own house in Edinburgh as a lunatic. His madness had a tinge of religion in it, and he proposed to establish a new and true Christian Church. His last pamphlet is entitled, *A New and Curious Treatise On The Nature And Effects Of Water And Air When applied To The Human Body, How to live for many weeks months or years, without Eating anything whatever, etc.; with the Extraordinary Histories of many Heroes Male and Female who have so subsisted* (London 1793). Graham was in fact a precursor of the Fasting Cure which is now being preached by Mr. Upton Sinclair and others as a new revelation. But neither fasting, nor mud baths, nor the elixir of life, of which Graham speaks when he says:

> I had the supreme blessedness of discovering many years ago and which I have now brought to a high degree of perfection to live in perfect health till I should be at least a hundred and fifty years old and to be when a hundred years of age as robust, as healthy, fresh, active, and younglike as men in general are in these degenerate days at fifty,

availed to prolong his own life even to the ordinary span.

He died suddenly at Edinburgh in 1794 before he had completed half a century of life—a tragic example to all "cranks" who promise length of days by the use of methods which are follies when they are not frauds.

### ELISHA PERKINS.

At the close of the eighteenth and the beginning of the nineteenth century much was heard of Perkins and his metallic tractors. In a *Narrative of Medicine in America* by James Gregory Mumford,* it is stated that Elisha Perkins was a shrewd son of Connecticut, born about the middle of the eighteenth century and perfunctorily trained in medicine by his father, who was a medical practitioner. The younger Perkins became a "doctor" by courtesy, as were most of his contemporaries on the other side of the Atlantic. He was a very successful practitioner in Connecticut, and owed much to natural advantages, being tall, handsome, and having that personal magnetism which is more than knowledge in commanding success. Mumford says Perkins was greatly impressed during his career by the sense of benefit and well-being which his presence imparted to his patients, especially when he had occasion to lay his hands upon them while making examinations or feeling the pulse. Believing this to be due to some occult magnetic influence, he persuaded himself that by combining together certain metals a more efficient magnetic or electro-therapeutic agent might be obtained than by the touch of the human hand. He experimented for several years in this direction, and finally devised an apparatus consisting of "two instruments, one having the appearance of steel, the other of brass; the ends were brought to a point, and were applied to the patient by drawing the points in a downward direction over the affected parts for twenty minutes. These were the once famous metallic tractors. Although Perkins is described as a man of strict honour and integrity of character, he had the business instinct of the American, and at once took out a patent for his invention. He travelled up and down the country lecturing and using the tractors, but does not seem to have lost the esteem of the profession, being consulted by many physicians of high standing. Among the public naturally he gained a large following. He proclaimed that the remedy was especially suited to local inflammations, rheumatism, and pains in various parts. His fame reached Europe, and in Copenhagen the action of the tractors formed the subject of an investigation by a committee of doctors who published what was on the whole a favourable report. They named the practice Perkinism. The popularity of the system increased, and its inventor became wealthy. In 1804 his son established the Perkinian Institution in London, with Lord Rivers as President and Sir William Barker as Vice-President. After the death of the founder in 1810 the institution fell into decay, and the system ended, as such things do, with the disappearance of the personality that supplies the moving force. That force, which is seen in every system of quackery which produces any result, however meagre, is suggestion. But during his life the tractors had an immense vogue, and as they were patented they brought wealth to their inventor. That the effects were produced, not by the metal points but by the mental condition of those who used them, was shown by Dr. Haygarth, of Bath.† The following is his account of an experiment:

> Robert Thomas, aged 43, who had been for some time under the care of Dr. Lovell in the Bristol Infirmary with a rheumatic affection of the shoulder, which rendered his arm perfectly useless, was pointed out as a proper object of trial by Mr. J. W. Dyer, apothecary to the house. Tuesday, April 19th, having everything in readiness, I passed through the ward and in a way that he might suspect nothing questioned him respecting his complaint. I then told him that I had an instrument in my pocket which had been very serviceable to many in his state; and when I had explained to him how simple it was, he consented to undergo the operation. In six minutes no other effect was produced than a warmth upon the skin, and I feared that this *coup d'essai* had failed. The next day, however, he told me that "he had received so much benefit that it had enabled him to lift his hand from his knee, which he had in vain several times attempted on Monday evening, as the whole ward witnessed." The tractors I used being made of lead, I thought it advisable to lay them aside lest, being metallic points, the proof against the fraud might be less complete. Thus much, however, was proved that the patent tractors possessed no specific power independent of simple metals. Two pieces of wood properly shaped and painted were next made use of; and in order to add solemnity to the farce, Mr. Barton held in his hand a stop watch, whilst Mr. Lax minuted the effects produced. In four minutes the man raised his hand several inches, and he had lost also the pain in his shoulder usually experienced when attempting to lift anything. He continued to undergo the operation daily, and with progressive good effects, for on the 25th he could touch the mantelpiece. On the 27th, in the presence of Dr. Lovell and Mr. J. P. Noble, two common iron nails, disguised with sealing wax, were substituted for the pieces of mahogany before used. In three minutes he felt something moving from his arm to his hand, and soon after he touched the board of rules which hung a foot above the fireplace. This patient at length so far recovered that he could carry coals and use his arm sufficiently to help the nurse; yet previous to the use of the spurious tractors he could no more lift his hand from his knee than if a hundredweight were upon it, or a nail driven through it, as he declared in the presence of several gentlemen whose names I shall have frequent occasion to mention. The fame of this case brought applications in abundance; indeed it must be confessed that it was more than sufficient to act upon weak minds and induce a belief that these pieces of wood and iron were endowed with some peculiar virtues.

Similar experiments with the like results were made by Richard Smith, a Surgeon to the Bristol Infirmary. These experiments read exactly like the account of those made by the Paris Royal Commission which a few years before had exposed the futility of "animal magnetism," and the experiments by which Mr. Wakley at a later period exposed the fraud of which Elliotson was the victim.

The once famous tractors, of which specimens are in the Royal College of Physicians of London, are merely little pointed rods of steel. They are shown in the caricature by Gillray reproduced in the coloured plate facing p. 1240. "The peculiar virtues" which such things have lies wholly in the personality of the operator and the suggestibility of the patient. But any one seeing the little instruments and reflecting on the solid rewards they brought to the operator, will admit that their use had at least the virtue of transmitting steel into gold.

* Philadelphia and London: J. B. Lippincott Company, 1903.

† Quoted by Jeaffreson in his *Book about Doctors*.

JOHN ST. JOHN LONG.

St. John Long, one of the most notorious quacks of modern times, was an Irishman of lowly origin. There is some uncertainty as to the place of his birth, as is the case with Homer. His father was a Jack-of-all-trades, including basket-making, in which the future oracle of Harley Street helped his father during boyhood. He had some artistic talent, however, which induced him to start as a portrait painter and teacher. He became popular with the gentry of Limerick, and being a man of good address he achieved some success in his vocation. Encouraged to try his fortune in a larger sphere, he went to London, where he obtained employment from Sir Thomas Lawrence as colour-grinder and studio assistant. He also coloured drawings for teachers of anatomy, and in this way doubtless gained such knowledge of the structure of the human frame which inspired him with the ambition to be a healer of disease. The chief portion of his therapeutic outfit was a liniment which he declared to have a selective faculty between sound and unsound tissues. According to Sir Benjamin Brodie* the chief ingredients were oil of turpentine and some kind of mineral acid. This when applied to a healthy part produced no effect, but when applied to a surface under which there might be hidden any seeds of disease, it caused a sore. This Long explained as Nature's method of providing an outlet for the poison. He also used a vapour produced from a mixture compounded by himself; this was stored in a machine like an upright piano fitted with holes to which pipes were attached; through these the patients drew in the vapour. With these remedies St. John Long undertook to cure all sorts of diseases, more especially consumption. He soon acquired so large a practice that Harley Street, where he lived, was blocked with carriages. Nine out of ten of his patients were women. A writer in the *Gentleman's Magazine* for 1843, quoted by Jeaffreson, says

JOHN ST. JOHN LONG.

> In England after Sir Astley whose superiority of mind or dexterity of hand stood uncontested, another practitioner in that category of the Faculty of which it has been said, *periculis nostris, et experimenta per mortes agunt medici*, the once famous St. John Long was the most largely requited. I had some previous knowledge of him, and in 1830 he showed me his pass-book with his bankers, Claude Scott and Co., displaying a series of credits from July, 1829, to July, 1830, or a single year's operations, to the extent of £13,400.

Although he had great power over women, the breath of scandal never touched his name. But none the less he preyed most unscrupulously upon their fears and their blind faith in him. He was clever in laying his bait, suggesting suspicions as to the health of people which destroyed their peace of mind and brought them into his net. With hints about latent germs of disease—to use a phrase which a later practitioner found very profitable to him—he would thus lure into his clutches women who had nothing the matter with them. By means of corrosive liniment he then produced sores which he cured by cabbage leaves with the help of Nature. The deluded woman was then told that the shadow of impending death had been dispersed. Naturally, she went about sounding the praises of the man whom she believed to have snatched her from a certain doom. His ignorance led him, however, to carry this practice too far. In the summer of 1830 a young woman named Cashin, who was in delicate health, came to him. She was accompanied to the quack's sanctum by her elder sister. Not satisfied with one victim, he induced the other by means of his usual arts to have the miraculous detective lotion rubbed over her back and shoulders. The result was that violent inflammation followed, and an unhealthy, suppurating wound, the pain of which soon reduced the poor girl to a state of utter exhaustion. Sir Benjamin Brodie, who was called in at the last moment, found a gangrenous wound as large as the palm of his hand; within a few hours death put an end to her sufferings. A coroner's inquest was held, but great pressure was brought to bear by a number of persons of high rank to influence the course of justice. But for Thomas Wakley, who had before denounced Long as a quack in the *Lancet*, a verdict would not have been secured. Owing to his efforts a verdict of manslaughter against the quack was returned. Long was in due course put in the dock at the Old Bailey, and although many members of the highest aristocracy testified to their belief in his treatment and humanity, the jury found him guilty, and a fine of £250 was imposed. Long took the money from his pocket and paid the fine there and then. Soon, however, a second inquest on another victim was held, and again a verdict of manslaughter was brought in against him. He was again placed in the dock at the Old Bailey, and the facts revealed a denser ignorance and a more atrocious insensibility to suffering than had been proved in the former case, but the medical evidence was so shaky that the judge gave the prisoner the benefit of the doubt.†

It seems incredible that these exposures did not suffice to open the eyes of those who believed in him. All the respectable organs of the press combined to show him in his true colours, but the faithful to their idol still came in crowds with offerings. He posed as a martyr suffering

* *The Works of Sir Benjamin Collins Brodie.* Collected and arranged by Caesar Hawkins. London. 1865. Vol. i, p. 625.

† *Life and Times of Thomas Wakley.* S. Squire Sprigge. London. 1897. Page 366.

persecution at the hands of professional pedants. He published a volume in his own defence with a number of testimonials, including, it is sad to relate, some from members of the medical profession. A writer, calling himself a Graduate of Cambridge and a Member of the Middle Temple, said:

> But who can wonder at Mr. Long's persecution? The brightest character that ever stept was persecuted even unto death! His cures were all perverted, but they were not the less complete; they were miraculous, but they were not the less certain!

St. John Long continued, as has been said, to flourish on the folly of dupes, but in no long time, by what seems like a Nemesis, he was himself claimed as the prey of the very disease which he professed to cure. He died in 1834 at the age of 37. It is recorded that he refused to allow himself to be treated by his own remedies. His grateful patients erected a costly monument to him in Kensal Green Cemetery, with the following inscription:

It is the fate of most men
To have many enemies, and few friends.
This monumental pile
Is not intended to mark the career
But to show
How much its inhabitant was respected
By those who knew his worth,
And the benefits
Derived from his remedial discovery.
He is now at rest
And far beyond the praises or censures
Of this world.
Stranger, as you respect the receptacle of the dead
(As one of the many who will rest here),
Read the name of
John Saint John Long
Without comment.

In reading of these imbecilities one is tempted to exclaim with Autolycus: "Ha, ha! What a fool Honesty is! And Trust, his sworn brother, a very simple gentleman!" But far more than the gentlemen, it is the ladies that are simple when they have to do with a plausible humbug like St. John Long. Jeaffreson says that after his death there was a dispute about his property, which led to the revelation of the previously unsuspected fact that he had a deserted wife living. This must have come as a shock to the numerous ladies who had tried to capture his heart, which appeared to be cased in triple brass against the shafts of Cupid.

A curious proof of the truth of that which we have often insisted upon—that the personality of the quack is a chief element of his success—is given by Brodie. He says: A medical practitioner, who had a fair reputation in the district in which he resided in the sister kingdom, was persuaded to occupy the house in which the liniment had worked such wonders, with a view to carrying on the same method of treatment and with the self-same remedies. The charm, however, says Brodie, was no more in his hands than that of "touching for the evil" had been in the hands of Cromwell; the street was empty of carriages and the drawing-room of patients, and the newcomer was glad to take an early opportunity of returning to his former field of activity.

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WHITMORE AND CLEGG, in the *Philippine Journal of Science* for December, 1910, report their experiences with a specific treatment for leprosy. Clegg, in the first place, cultivated an acid-fast bacillus from leprous tissue, getting it to grow in symbrosis with amoebae; from these cultures the authors prepared a vaccine, a glycerine extract, and a soap solution, which were used in the treatment of cases of leprosy for twelve and a half months. Unfortunately, no improvement in the condition of any of the patients was noted; in some cases a reaction was noted after the injections, but the authors do not like to say whether this was specific or not. The glycerine extract did not produce a skin reaction in leprous or tuberculous patients, nor in normal persons. Leprous patients treated with a soap solution of a leprous spleen, rich in leprosy bacilli, or with nastin bacillus, showed no improvement. As regards drugs, injections of atoxyl and a mixture of sodium cinnamate and mercury cinnamate were given, but did not influence the course of the disease in any way, and they doubt whether nastin has any power of acting favourably on leprosy. Some claim good results, but the majority of physicians who have used it are very doubtful of its possessing any real efficacy.

## "HERBALISTS" AND MEDICAL PRACTICE.

WHILE it is no doubt well known to most of our readers that among the many varieties of unqualified persons who profess to treat disease there are some who call themselves herbalists, medical botanists, or by some similar name, it is perhaps less generally known that these herbalists have a definite organization and a monthly organ, and that they aspire to the possession of a right to practise equal to that of the qualified and registered medical practitioner. Some particulars in regard to the matter, culled from their own publications, may therefore be of interest.

It appears that the principal organization is "The National Association of Medical Herbalists of Great Britain, Limited." This is described as "Founded A.D. 1864, for the development and progress of Botanic Medicine. Incorporated (under the Companies' Acts, 1862 to 1890), the 24th day of April, 1895." The form of application for admission as a member sets forth under the heading "The Curriculum of the Association" that:

> All candidates will be examined viva voce and by written questions on the following subjects:
> I.—Anatomy: General and Descriptive.
> II.—Materia Medica and Therapeutics.
> III.—Principles and Practice of Medicine.
> IV.—Diseases of Women and Children.
> V.—Organic Chemistry and Pharmacy.
> VI.—Minor Surgery.
> VII.—Hygiene and Dietetics.
> VIII.—Medical Jurisprudence.

A further circular, however, entitled "Syllabus of Examination," sent with the application form, gives a different account of the requirements. It is here stated that "candidates for membership will be expected to satisfy the examiners upon the following subjects." The subjects mentioned in what follows are: Anatomy and physiology, materia, medica, and pharmacy ("materia" and "medica" being separated by a comma), scientific botany, pathology, minor surgery, chemistry (elementary), medical jurisprudence.

The details showing how far the various subjects must be studied, and the textbooks named for the purpose, are more illuminating. For example, under "Pathology," the entire statement is, "The candidate is required to have a fair knowledge of this subject," and the only textbook named is *Skelton's Science and Practice of Herbal Medicines!* The first requirement under "Scientific Botany" is, "The candidate will be required to recognize any plant in the appended list," the list consisting of twenty common plants, including broom, burdock, coltsfoot, elder, digitalis, and others the recognition of which presents equally little difficulty. Under "Chemistry (Elementary)" the only information is, "This subject is optional." Under "Medical Jurisprudence" it is stated that "the candidate will be required to have a fair knowledge of the various Acts affecting his practice," and no textbook is mentioned; possibly what is contemplated is rather "prudence" than "jurisprudence," for it is significant that one of the questions to be answered by all candidates for admission to membership is, "Have you ever been prosecuted?"

We are not, however, entirely dependent on these details in forming an estimate of the difficulty of the examination, as the examination papers of June 17th, 1909, sent as a specimen to an applicant for information as to membership, are before us. The indifference to orthography or to the necessity for proof correction which is shown by some of these, are scarcely such as one is accustomed to associate with examination papers; unless, indeed, what appear as mistakes are deliberate difficulties placed in the way of the candidate with a view to testing his resourcefulness.

The first question of all, which comes under the head of "Physiology" (anatomy does not appear) is "What do you know about Perspiration?" This must come with some appropriateness to any candidates who may be in that uncomfortable condition often associated with the beginning of an examination. Another question is the conundrum, "How does the urine get from the kidneys to the bladder?" and no less than four questions of this order of difficulty have to be answered. Under "Pharmacy and Materia Medica" the fancy becomes more free. We must confess to inability on our part to tell the examiner "What is

assoefetida?" or to "Name as many (that is, four) plants used in the botanic practice that are endogenous to Great Britain," though perhaps a substitution of "indigenous" for "endogenous" might be hazarded. There is, however, the compensation that whereas in other subjects it is stated that "four [or three] questions must be *answered*," the requirement in this case is only "No. 6 and three other questions must be *attempted*" (italics ours), No. 6 being "Name specimens shown." Under "Pathology" the first item in the following question might be a puzzler if taken too literally: "What diseases are represented by the following technical terms: Cancrum bris, hepatitis, nephritis, cystitis, pneumonia, phrenitis, carditis?"

It does not appear that the National Association of Medical Herbalists has an official organ of its own, but some of its doings are recorded in *The Herb Doctor and British Physio-Medical Record*, which is the organ of "The People's League of Medical Freedom," the purpose of which is thus described

> This League has been established to preserve the freedom of the public in medical matters, to oppose all legislation having a tendency to curtail or take away that freedom, and to lay before the proper authorities, *i.e.*, the Home Secretary, the Registrar-General, and Lord Chancellor, all cases of persecution or prosecution arising where the public have acted within their legal rights.

The principal officers appear to be:

President: Rev. A. M. Mitchell, M.A.
Hon. Treasurer: Mr. W. H. Webb.
Hon. Secretary: Mr. Joseph P. Swan.

That this league takes itself quite seriously is evident from a memorial to the Privy Council signed by these gentlemen on its behalf, dated January 23rd, 1911. A few extracts will show the views expressed therein:

> The medical profession assert that, in seeking the legal suppression of their unregistered competitors, they are acting "in the interests of the public." It is difficult to imagine that the Privy Council will take this claim seriously. . . .
>
> It is alleged by the General Medical Council that evil effects are produced by the unrestricted practice of medicine and surgery by unqualified persons. The League submits in reply that, however true this charge may be, any attempt to remove the evil by granting a monopoly of practice to one school of medicine would merely result in the substitution of a "beam" of fresh evils in place of the "mote" complained of by the seekers after monopoly. It would be bad for the doctors themselves, and worse for their patients. It would deprive the former of any adequate incentive to efficiency, and subject the latter to oppressive prices for indifferent services. The League further submits that many of the alleged "unqualified" persons, notably the members of the National Association of Medical Herbalists, have proved themselves as qualified, both by training and experience, to successfully treat disease as any members of the registered faculty. . . .
>
> The League is satisfied, from its wide experience, that the public patronise unregistered practitioners because they have found that their methods of treatment have been more successful than those adopted by the "duly-registered qualified" doctors. Hence the League considers that the granting of the monopolistic desires of the medical profession, and the legal suppression of any bona fide attempt to alleviate human suffering and cure disease, would be both impolitic and inhuman. It is an insult to the people to suppose that they are not as capable of looking after their medical as any other interests. If the regular doctor really has good remedies to sell, he ought not to need the aid of the police to compel people to buy them. The fact that he cannot succeed without such aid is in itself a reason why it should not be granted. The more doctors denounce the existence of "unqualified practice" the more they expose their own want of ability to cure disease.
>
> The League considers that registered practitioners already enjoy too much State protection, and that what is really needed, in the interests of the public and the doctors themselves, is the appointment of a Royal Commission to inquire into the amendment of the law with a view to providing facilities for the registration, under proper conditions, of persons engaged in the bona fide practice of any school of medicine or healing treatment.

It would have been of interest if further particulars of the league's "wide experience" referred to above had been given. According to evidence given before the Departmental Committee on Coroners and Inquests, in 1909, the membership of the league was then about 120, from one to two dozen of the members probably being herbalists; the circulation of *The Herb Doctor*, however, was given as from 3,000 to 5,000 per month. The issues of this periodical, *The Herb Doctor* (which is a monthly journal of twenty pages), for this year are marked "Vol. VII," which presumably indicates that this is the seventh year of its existence. Inside the back cover is a list of about a hundred names and addresses of people in various parts of the country from whom it can be obtained, and seventy-four of these are distinguished by the letters "S.B." (meaning "Scientific Botanist") or "M.H." (meaning "Medical Herbalist"), the remainder being chiefly newsagents. Presumably those individuals here called "Medical Herbalists" (fifty-three in number) are members of the National Association. No direct indication of the numerical strength of the latter has come under our notice, but some estimate may be formed from the report of one of its examinations held in January, 1911, when nine candidates submitted themselves; it would appear from this that the membership roll is not being rapidly extended at any rate. An estimate by the Treasurer of the People's League of Medical Freedom in 1909 put the total number of herbalists in the country at about 2,000; but it does not appear that the majority of them were claimed to belong to the National Association.

The office of the People's League of Medical Freedom is 11, Scarisbrick Street, Southport, at which various cognate businesses appear to be carried on. Thus, a conspicuous advertisement on the front cover of *The Herb Doctor* is of "Webb's Botanic Sanatorium, 11, Scarisbrick Street, Southport"; nearly four pages of the issue for February are devoted to the prospectus of "The Medical Herbalists' College, 11, Scarisbrick Street, Southport" (this College being described as under the auspices and management of the National Association of Medical Herbalists of Great Britain, Limited); while an announcement of "*Sanative Medicine*, a Magazine devoted to Physio-medical principles and practices," concludes, "Address, Wm. Garner, M.D. (U.S.A.), 11, Scarisbrick Street, Southport." Not only premises, but persons also appear to combine various functions. Mr. W. H. Webb has already been mentioned as the Hon. Treasurer of the League, and he appears to be also the proprietor of "Webb's Botanic Sanatorium"; a small note on *The Herb Doctor* states that it is "printed at the *Visitor* Office, Southport, for the Proprietor and Publisher, W. H. Webb"; various advertisements appear of W. H. Webb, Herbalist and Food Specialist, 41, Eastbank Street, Southport, and W. H. Webb, Herbalist and Dietician, 6, Tulketh Street, Southport; while several paragraphs in the paper are signed "W. H. Webb" or "W. H. W.," and the March number contains an article by W. H. Webb on "Feasting and Fasting," with two photographs of the writer, taken at an interval of twenty years. Some of the interesting doctrines expounded in this article are shown by the following extracts, which may serve as a sample of the knowledge displayed in "*The Herb Doctor*":

> There have been many theories as to disease causation, but the theory of blood poisoning caused by the retention of wastes and mal-nutrition of food whether the food be too poor, too rich, or too much, is the best working one, as in each case obstruction results, and the character the disease assumes is determined largely (when it is not specific from outside causes, such as heredity or acquired by bad habits) by the character of the food partaken of. Now, if food is the general cause of disease universally under the conditions in which we live in this 20th century, it would be well to enquire if there is not a general prevention and cure of disease that could be easily applied universally. I believe fasting to be that preventive and cure. . . .
>
> Atmospheric air is the chief element which enters into the composition of man and keeps the vital spark of life burning. I am not concerned for the moment whether this vital force or that power which is behind our material self is the result of the activities of matter consequent on the action of air on food, or whether, on the other hand, it is an entity of itself; but for present purposes it is sufficient to know that air is the chief agent in keeping life in our bodies. Then it is natural to suppose that in those conditions of obstruction which I have mentioned air is deficient in volume in the body, being displaced by the obstructing material present, which is a result of excesses in the eating of food; but food is not food if it cannot be utilized in the economy of life, and this may result through the food being too poor, too rich, or too much of it being eaten. If therefore it is that more air is required, how can it be obtained and the conditions in the body changed from danger and disease to safety and health? I answer, by fasting in all cases when the organs of elimination are not so diseased and incapacitated that when the obstructing material is loosened out of the tissues by the fast they will bear the extra work of elimination thrown on them.

Mr. Webb is apparently not the only person who combines various functions; in the advertisement of his "Botanic Sanatorium" at 11, Scarisbrick Street it is stated that "This establishment is now in charge of

*Two Fully Qualified American Doctors*, trained in Non-Poisonous Medication. . . . Ladies may consult the Lady Physician on all disorders peculiar to the sex," and in the prospectus of "The Medical Herbalists' College" at 11, Scarisbrick Street we find "Resident Lecturers and Demonstrators: William Garner, M.D., Graduate of the Physio-Medical College of Indiana, U.S.A.; Pearl Sylvia Garner, M.D., Graduate of Indiana University, U.S.A.," and we have already seen Wm. Garner, M.D. (U.S.A.), as agent for *Sanative Medicine*. This publication appears to be of American origin, and principally supplied with material by American writers; it is quoted as giving

The Five Cardinal Principles Taught by the New Medical School. (1) Relax contracted tissues, (2) contract the relaxed ones, (3) stimulate sluggish tissues, (4) tone up debilitated, and (5) soothe irritated conditions. These will ever be applicable in the successful management of all forms of disease.

A considerable proportion of the contents of those numbers of *The Herb Doctor* which are before us consists of cuttings and reprints from other papers. Some of the articles appear to be original communications; how original they are may be judged by a couple of extracts:

The first is from "Smoking, by J. P. Sandlands":

It is just now about thirty years since the registered practitioners invented the modern germ theory of disease. This theory implies that Nature destroys herself. It is good enough for them. Any other man, possessing the power of thought, would otherwise know that Nature does not, and cannot, contradict herself. She goes but one way, unless thwarted, and that way is straight on.

This theory, which in absurdity eclipses the "Philosopher's Stone" and the "Elixir of Life," has filled the land with officials and multiplied our annual expenses by six. And yet these quidnuncs cannot see it. They can see nothing that does not square with their foolish notions. . . .

Now, tobacco is at best a drug. It is this in any shape and in any form. This is an important point. Read it. Mark it. Learn it. Practise it. We should brand it with a mark so plain and clear as to make it unmistakable. Tobacco is a drug, and drugs have no function whatever in the system. . . . this drug, taken as it used to be, in smoke drawn up a long churchwarden's pipe, was not so harmful and mischievous as now. To-day, however, the pipe is a short one. Then the drug is taken in cigarettes. This is by far the worst form of smoking. The drug, too, is further drugged, and drugged, and drugged. Often, it is said, the tobacco—rather, the thing smoked—is not tobacco at all! The consequence is that the vital force is pressed out of the smoker.

From *The New Science of Life, as it applies to the Food Question.* (Author's copyright.)" By H. Valentine Knaggs, we quote the following:

If we place plants or animals in air that has been artificially sterilized, or, in other words, cooked, or even in the bad, stale air of stuffy houses or sheds, they languish and die. They do this because the air has been deprived of something of which they all alike are in need.

What, then, is this something that can be driven out of air that makes it inimical to life? I submit that it is this vital principle, or radio-activity, that is driven off. It cannot possibly be either the nitrogen, or the oxygen, or the other physical constituents, as these remain in air that has been sterilized.

I believe that the atmosphere lives and functions in its own way as we ourselves do, and that one of the functions of its nitrogen is to act as a sponge-like material for the purpose of storing up electricity and radio-active matter useful to sea, earth, plants, and animals alike. To put it in other words, the nitrogen of the atmosphere is the proteid or protoplasm of this section of the mineral kingdom, and it possesses the power of storing up and organizing the solar rays.

It is unnecessary to multiply examples to show not only the extraordinary ignorance displayed in this organ of the herbalists, but also the curious attitude of mind and the superiority to any appeal to facts, "science" being evolved from the imagination, and "I believe" regarded as evidence. We turn to a few examples of the practice of herbalists.

A pamphlet published by "Trimnell, The Herbalist," Cardiff, price 1d., is entitled *Roots of Power and Herbs of Healing*, and described as "a guide to the medicinal properties and uses of 112 different kinds of herbs, roots, barks, flowers, leaves, etc. Gives instructions for their preparation for use as medicine, and contains a copious index to diseases, and most suitable remedy for every complaint. Also extracts of letters received from about 130 people pointing out the benefits they have derived from the treatment herein commended." The "guide" consists of a number of short paragraphs on the properties and uses of the plants named; the heterogeneous nature of the uses in some cases, or the discrepancy between the properties and the complaints supposed to be benefited, are sometimes curious; for example:

"Avens Herb (*Geum urbanum*). Antiseptic, astringent, tonic. Useful in diarrhoea, dysentery, bleeding of stomach or lungs. Makes a wash for spots on the face."

"Boneset Herb (*Eupatorum perfoliatum*). Diaphoretic, tonic, febrifuge, laxative, and expectorant. Splendid medicine in skin disease, catarrh, and all fevers."

"Kidneywort (*Hepatica triloba*). A mild mucilaginous astringent. Used in kidney disorders, fevers, and lung complaints."

"Liverwort (*Anemone hepatica*). Mucilaginous, astringent, pectoral. Used for jaundice, liver, and spleen."

"Rosemary (*Rosmarinus officinalis*). Astringent, stimulant, antispasmodic. Useful in cancer, all nervous disorders, and female complaints. Makes an excellent hair wash."

"Skullcap herb (*Scutelaria laterifolia*). Tonic, nervine, antispasmodic. Most excellent in all cases requiring a nervine. A specific for rickets and St. Vitus dance. Said to cure hydrophobia."

The paragraphs on liverwort and kidneywort just quoted serve to indicate the degree of accuracy and uniformity prevailing in herbal practice. According to Potter's *Cyclopaedia of Botanical Drugs and Preparations* the two are identical. The paragraph runs:

Liverwort, American. Anemone hepatica.
Synonym—Kidneywort, Liverleaf, Hepatica triloba.
Part used—Herb.
Action.—Tonic, astringent, pectoral. A mild remedy in disorders of the liver, indigestion, etc. Possessing pectoral properties, it may be used in coughs, bleeding of the lungs, and chest diseases. The infusion of 1 ounce to the pint of boiling water is taken in doses of ½ teacupful frequently.

Another plant is described as English liverwort.

Liverwort, English. Lichen caninus.
Synonym—Liverwort Moss, Ground Liverwort.
Part used—Lichen.
Action.—Deobstruent, slightly purgative. Held in esteem as a remedy for liver complaints, but is generally combined with other remedies. Was believed to be a specific against rabies, but has fallen into disuse. The infusion of 1 ounce to a pint of boiling water is taken in wineglassful doses, repeated frequently.

In a pamphlet issued by another herbalist, "Professor" O. Phelps Brown, a picture of liverwort is given, in connexion with "Nature's Liver Invigorator," which is said to contain liverwort as an ingredient, and the plant represented is the ordinary liverwort found on wet rocks, *Marchantia polymorpha*.

"Trimnell the Herbalist," to judge from his pamphlet, makes a business of putting up packets of mixed herbs for the various complaints, to be prepared by the purchaser, usually by boiling with water; the lists of names which are given of the herbs constituting the various combinations are sometimes a jumble of English and Latin names, some in full and some abbreviated, with misspellings and misplacements of commas, such as Archillea Millefolium, Gentina Lutea, Cassia Acitifolia, Prunus, Virginiana, Capsicum Annum, Solanaceæ, etc. There are also, however, a number of proprietary preparations, such as Anti-cholera powder, Pile Ointment, Skin Ointment, Digestive Pills, Cough Balsam, Eye Tonic, Female Restorative Powder, Santal Oil Substitute, etc., and Trimnell's Herb Beer. And a sidelight is thrown on the business by the announcement: "Specialities:—India Rubber Appliances, Enemas, etc. Special list on application."

Another pamphlet before us is *Herbert's Guide to Health Recipe Book.* How to cure Yourself with Herbs. Price 1d." This bears in different places the names of "Baldwin and Co., Herbalists and Drug Stores, of Electric Parade, Holloway, London, N.," and of "Herbert's Remedy Co.," at the same address. It contains a number of short paragraphs on the preparation of remedies for various complaints, but many of these contain besides the herbs some ingredient which is apparently only to be obtained from the firm in question. For example:

Consumption. One packet each Comfrey Leaves, Tussilago, Mullein, Hyssop, and Liquorice Root. Boil in two quarts of water for 20 minutes. Strain, and add 1 lb. best Sugar. Dose: A wineglassful four times a day.

Dropsy. Take Broom 1 oz., Pellitory 1 oz., Dandelion Root 1 oz. Infuse in 3 pints of boiling water, clear off, pour the clear hot liquid upon 1 oz. of Diuretic Powder and let it settle. Take a wineglassful four times a day.

Influenza. Bathe the feet in hot water, and put the patient to bed, with hot bricks wrapped in cloths wet with vinegar and water. Give ½ pint of strong Yarrow tea, with a teaspoonful of Compo added, well sweetened. In the morning give a dose of Herb Syrup. If the cough is troublesome at night, take vinegar and water 1 oz., Honey 2 oz., Mint ½ oz., and give one teaspoonful for a dose.

A great part of the pamphlet is taken up with advertisements of the firm's nostrums, which are numerous. Special prominence is given to Gautieur's Marvellous Female Corrective Remedy, and other articles advertised are belts and bandages, Compound Soluble Pessaries of Quinine, etc., and "our great and valuable work, *Advice to Married People*, sent under cover, sealed, seven stamps." Separate leaflets give further particulars of the pessaries and other articles for the same purpose.

"Professor" O. Phelps Brown's pamphlet, referred to above, takes the form of an *Annual Almanack*, with illustrations. We have published more than one analysis of preparations sold by this firm, which, it appears, is now O. Phelps Brown, Limited, London, W.C. The pamphlet is chiefly occupied with advertisements of the firm's various nostrums, which are mostly called "Nature's"—for example, O. Phelps Brown's Nature's Blood Purifier, O. Phelps Brown's Nature's Renovating Pill; there is also a recommendation of *The Complete Herbalist; or, The People their Own Physicians by the Use of Nature's Remedies.* By O. Phelps Brown. Containing 504 pages. Copiously illustrated. Price 5s.," of which it is stated that:

> It teaches how to successfully perform the duties of a Physician, Surgeon, or Midwife; gives an epitome of Botany, enabling one to select the plant desired without failure; and a table of weights and measures. . . .
>
> It takes 2,000 Headlines alone to describe what this book teaches; but space forbids further description. Contents sent free on application.

If the Privy Council and the Legislature should still be unwilling to let loose upon the public, as medical practitioners, a body of individuals possessing the degree of education and enlightenment revealed in the various quotations we have given, it will probably occasion no great surprise.

## UNQUALIFIED PRACTICE IN THE EYE OF THE LAW.

> The right of personal security [includes] the preservation of a man's health from such practices as may prejudice or annoy it.—Bk. I, ch. i.
>
> . . . It is a general and indisputable rule, that where there is a legal right there is also a legal remedy, by suit or action at law, whenever that right is invaded.—Bk. III, ch. iii.
>
> The uncertainty of legal proceedings is a notion so generally adopted, and has so long been the standing theme of wit and good humour, that he who should attempt to refute it would be looked upon as a man who was either incapable of discernment himself, or else meant to impose upon others.—Bk. III, ch. xxii (*Commentaries on the Laws of England*, by Sir William Blackstone, Knt., one of the Justices of his Majesty's Court of Common Pleas).

THE force of Blackstone's boast in the second of these two quotations is not a little diminished by the admission in the third. But it is not alone in the sense which he would seem to have had in mind when he wrote these words a century and a half ago that the rule of law he formulates is subject to exception.

Those who have to deal with criminal and civil actions know only too well that in respect of unqualified medical practice and the legal procedure to be adopted for its suppression failure of justice may be due to the defect of the law itself as well as to the fallibility of its administrators. Members of the medical profession are continually asking why the quackery which exists to such a dangerous extent, and which is injurious alike to the public and the profession, should apparently continue unchecked. In order to answer this question it is necessary to review the various methods which can now be adopted to suppress unqualified practice, and which we venture to assert are insufficient.

That there is something lacking—"something rotten in the state of Denmark"—is apparent when we contrast the postion of registered with that of unqualified practitioners. The registered practitioner is under the supervision, in respect of his practice and conduct, of the General Medical Council, and has, in addition, to conform to the disciplinary regulations of the universities or licensing corporations from which he has obtained his degree or licence entitling him to have his name entered on the *Medical Register*, which in the eye of the State is his authorization to practise; further, he is subject to the ethical laws, written and unwritten, of his profession. If he offend against the customs and usages of the medical profession he can be called upon to explain his conduct before the domestic forum of the General Medical Council, of the senatus of his university, or of the censors of his college; if he be found guilty of infamous conduct in a professional respect the penalty of erasure from the *Register* may fall upon him. He is, in addition, of course, amenable to the law of Great Britain in respect to alleged negligence or malpraxis, and, however innocent, may be called upon to defend himself before a judge and jury more or less ignorant of medical or surgical procedure; he must not advertise; he must not associate himself with any institution which systematically canvasses or advertises for the purpose of procuring patients; and it is a point of honour that should he consider he has discovered any improved method for the treatment of disease he shall disclose it to his brethren. Though there be no legal obligation on him, he is practically compelled by the dictates of humanity and the pressure of public opinion to be at the beck and call of his patients at all times of the day or night without the advantages of an eight-hour limit of work, and in many instances he can expect no fee or reward. He is called upon by the State to perform important work for the public health either gratuitously or for very small remuneration; and if he do not fulfil the obligations imposed upon him by Acts of Parliament he can be mulct in penalties. His duties under many Acts of Parliament are, in addition to being unpaid or very scantily remunerated, exceedingly unpleasant, and, in the case of *post-mortem* examinations, even dangerous to life. His daily work is liable to be criticized adversely by ignorant members of boards, upon whom his very livelihood is dependent; and he often has to carry on crusades in the interests of the public health which are detrimental to his self-interests from a pecuniary point of view, and when carried to a successful issue, as, to the honour of the profession, they generally are, lead to serious financial loss. The theory that "virtue is its own reward" is very charming when viewed at a little distance, but it is poor compensation in the struggle for existence.

Turning to the position of an unqualified practitioner we find that the personal advantages are many, and the disadvantages few.

An unqualified man can, without the smallest medical knowledge or any preliminary training, advertise himself as an "eminent physician" with self-conferred degrees. He can flood the newspapers, even the most important, with blatant testimonials of his assumed qualifications and skill, and can even, it may chance, obtain royal recognition. Many lay proprietors of various society papers are ever ready to bolster up his fraudulent pretensions as long as he can pay handsomely for his whole-page advertisement. He can publish in such newspapers and journals testimonials of cures guaranteed by persons with no knowledge of medicine or surgery, and such guarantees it may be guessed are not always gratuitous. The credulous section of the public—and how large it is!—accepts as gospel anything which it may find in a newspaper, whether it be a question of politics or diet or drugs. The unqualified man is bound by no rules of etiquette; by no professional regulations; and can not only assume medical titles which he does not possess, but can with impunity attach to such the name of a non-existent university, such as M.D., U.S.A. The more blatant the assertions which he makes in the advertisements the more will the public flock to him, and he can sell coloured water at a guinea an ounce if he only calls it pink or yellow electricity, or by some other catching title. He can proclaim to the world that he is in possession of infallible remedies which will cure all disease, and he has only to repeat this assertion sufficiently often in newspapers or on hoardings to accumulate ill-gotten gains to the full possession of which the State will leave him subject only to those attentions of the income-tax collector which fall upon the just and the unjust alike.

It is true that legally he cannot sign death certificates; actually he can do so without much danger to himself, as

under the present system of death registration it is only occasionally that detection and prosecution would follow. Registrars practically accept without question any certificate which is brought to their office, and very few take the trouble to confirm the identity of the certifier, or take steps to discover whether such certificate is actually subscribed to by a registered practitioner; even if proved not to be so signed, there are many technical difficulties which may prevent any legal action being taken. Another disability which attaches to unqualified practice is that fees cannot be recovered in courts of law, the fact that the name of the individual is not on the *Medical Register* being a bar to such proceedings. This, however, does not really affect the quack; he, unlike the regular registered practitioner, takes good care to secure payment beforehand, and no bad debts are incurred by him. He takes no risks, as his rule is "money down—no credit." His illicit gains must be great in spite of the amount he has to pay to the newspapers and magazines for the advertising, which is the breath of his life, and without which death or decay of his business would speedily take place. These facts are common knowledge, but it is not generally realized why the Medical Acts are so powerless to prevent the wholesale mischief which is caused by the non-repression of quackery so rampant in this country. In order to understand the difficulties which are met with by those who seek the protection of the law against unqualified practice, it is necessary first to remember that there are practically only two laws which have any bearing upon it; these are the Medical Act of 1858 and the so-called "Apothecaries Act" of 1815. The Act of Henry VIII, which is often quoted as giving power to the Royal College of Physicians to suppress quacks, need not now be taken into consideration, as there are many technical reasons which would prevent its being put into operation; even if put in force it would not necessarily lead to conviction of the person charged.

### *The Medical Act.*

The Medical Act of 1858 is an Act, to quote its preamble, which was passed to enable persons requiring medical aid, "to distinguish qualified from unqualified practitioners"; and in order to effect this a *Register* was directed to be published by the statutory body, the General Medical Council, set up by the Act. All those so registered were to be entitled to practise medicine and surgery according to their qualifications, and to be deemed by law to be duly qualified medical practitioners. The public, by means of this *Register*, could therefore accept as a fact that all practitioners whose names were not to be found upon the *Register* kept at the offices of the General Medical Council in England, Scotland, and Ireland, and published annually in a volume, were unqualified; that is, unregistered. Certain regulations for such registration were provided for, and it was also enacted that no certificates were to be valid unless the person signing was registered. The composition of the General Medical Council was provided for, and certain fees were ordered to be paid to its members from the moneys paid by the practitioners who became registered. The costs of the proceedings of the Council were also to be defrayed from such fees, there being no State endowment of this statutory authority. By Clause 40 of the Act "any person who shall wilfully and falsely pretend to be, or take, or use, the name or title of Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or Apothecary, or any name, title, addition, or description implying that he is registered under the Act, or that he is recognized by Law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall upon a summary conviction for any such offence pay a sum not exceeding £20."

Any one reading this penal clause for the first time would probably imagine that it gave ample powers to those desiring to set the law in operation against unqualified practitioners, and that it would be easy to prosecute any quack under this clause. Unfortunately, this is not borne out in practice, and the cases in which prosecutions have failed and the number of cases in which no prosecution has been found possible have proved its inefficiency. The crux of the whole clause lies in the words "wilfully and falsely" and "implying that he is registered." This penal enactment can only rarely be used against a quack, and only when he uses the titles mentioned in the Act in such a way as to "imply registration." If, for instance, an unqualified practitioner uses the title "M.D.," or "Physician," or "Surgeon," or "Bachelor of Medicine" alone, he can be prosecuted with success; but if he calls himself "M.D., U.S.A.," or "M.B., Timbuctoo," or "M.D." with any added words giving the *alleged source* of origin of his "degree," a degree incapable of being registered in this country, he can do so practically with impunity. As a matter of fact, he can practise with absolute immunity of prosecution—save and except as an apothecary, which exception we will deal with later—provided he uses no registrable title. Practice is not protected; only registrable titles: and there is therefore free trade in medicine and surgery. The practice of midwifery is only protected as against unqualified women—a "man midwife" can practise without fear of either Medical or Midwives Acts.

As has been shown above, the words "implying that he is registered" make the Act almost of no effect, and cause prosecutions to be few and far between; but in addition the words "wilfully and falsely" have to be taken into consideration by the magistrates or justices of the peace trying a case under this Act. If all magistrates interpreted these words as Martin did in Andrews *v.* Styrap they would not assist an unqualified practitioner in his defence. The decision of the learned judge was that "wilfully" meant "that he did it on purpose," and that by "falsely" was meant "the pretending to be on an equal footing with any regularly bred and registered physician or M.D. in England"; but that interpretation is not always given by those who administer justice "indifferently" in this country. In addition it has been held by one learned counsel that it is necessary, in order to secure a conviction, that the prosecution should prove that the defendant calls himself by a registrable title, or some title that is rather like a registrable title, or seems to imply medical skill and knowledge. Further, it is not enough to prove that he has no right at all to the title; proof must be given that he has no reasonable grounds at all for thinking that he has the right to use the title, so as to leave no other alternative but the inference of a deliberate attempt to impose upon the public.

This was the opinion of a counsel who, at the time he gave it, was the standing legal adviser to the highest statutory authority in the medical profession. It contrasts unfavourably with the decision of a late well-known and highly skilled magistrate who held sway at Bow Street Police Court, to the effect that a proof of medical practice coupled with the use of a medical title was an implying of registration under the Medical Act. He convicted on these grounds in cases brought before him, but had any of these defendants appealed it is to be feared that, taking the decisions of the High Court into consideration, they would have succeeded in quashing the convictions.

It is interesting to note that animals are protected against unqualified practice to a far higher degree than human beings. Even the use of the words "Canine Specialist" has been sufficient to ensure conviction under the Veterinary Act; and in a late instance a person calling himself "M.D., U.S.A." who ran a veterinary establishment was prosecuted successfully and an injunction obtained against him. If he had confined his practice to the human race he might have done so with impunity.

The words of the Lord Chief Justice in deciding the "Canine Specialist" case—"It was perfectly clear that those who treated them (animals) should be persons who had some recognized qualification"—should be illustrative as the law when applied to mankind; in this case, however, the brute creation is afforded the greater protection.

If we had an Act similar in penal effect to that which is possessed by the veterinary surgeons of this country we could rest content; but at present we have it not. It should be possible to prosecute with reasonable prospect of success, if the facts alleged can be proved by the ordinary laws of evidence, any one who holds himself out as specially qualified to treat diseases of humanity and who does not possess a degree or diploma recognized by the General Medical Council; but this unfortunately cannot be done under the existing Medical Act. It is often stated that the medical profession desires to monopolize the treatment of patients for gain, and that

this is a position which will not be tolerated as one against public policy. It is difficult to imagine why such a monopoly can be resisted; the legal profession possesses it in respect of law, and why not skilled medicine in respect of disease? Further, the monopoly could not be contrary to public policy, for the health of the community is of most material importance, not only to the individual, but to the State; and the treatment of ill-health can only safely rest in the hands of the qualified. To argue otherwise is to assume that "ignorance is bliss and that it is folly to be wise;" it is tantamount also to an assertion that the lengthy and expensive curriculum of the medical practitioner is useless, and that a knowledge of anatomy and physiology, medicine and surgery, and all the other items of medical education are unnecessary adjuncts in the treatment of disease, "which," as Euclid would say, "is absurd."

Other methods have been suggested for dealing with unqualified practice, such as the following:

1. Proceedings under the Children's Act.
2. Proceedings under Foods and Drugs Act.
3. Civil actions for damages for malpraxis.
4. Criminal actions for obtaining moneys by false and fraudulent pretences.

*The Children's Act, 1908.*

Under the Children's Act (8 Edward VII, ch. 67), a consolidated Act to amend the law relating to children and young persons, it is enacted under Section 12 that

a parent or other person legally liable to maintain a child or young person shall be deemed to have neglected him in a manner likely to cause injury to his health if he fails to provide adequate food, clothing, medical aid, or lodging for the child or young person, or if, being unable otherwise to provide such food, clothing, medical aid, or lodging, he fails to take steps to procure the same to be provided under the Acts relating to the relief of the poor.

This clause can be effectively put into force against parents and guardians who do not when necessary call in duly qualified medical advice for their children and who place their sick children under the care of medical quacks. A prosecution has been successfully carried out on these lines; the unqualified person was also proceeded against under the Accessories Act for aiding and abetting, and a fine was inflicted by the magistrates.

There is no doubt that this enactment in respect of children, if properly used, would bring within its meshes all forms of unqualified practice, and it is worth the careful attention of medical officers and other persons placed in authority in relation to public health. It is a most useful addition to the laws, and a short summary of it should be exhibited in all public libraries, town halls, and public buildings belonging to municipalities and corporations.

*The Foods and Drugs Act.*

It has been suggested that under the Foods and Drugs Act vendors of proprietary medicines might be prosecuted for exposing for sale something which, by its strength, quality, or purity, falls below, or differs from, the proposed standard under which it is sold or offered for sale. In one instance this Act was put in force by Dr. Hope, the medical officer of health for Liverpool. A vendor of quack medicines sold that which was advertised as a specific cure for diseases of the liver. Upon analysis it was found to be composed of a solution of glycerine slightly acidified, incapable of performing any of its advertised functions, and therefore sold "to the detriment of the purchaser"; a conviction followed.

Apparently no other prosecution has been attempted on these lines; but to be convinced that there are many openings for such, it is only necessary to turn to the advertisement columns of any daily or weekly newspaper. It is true that "Whatever paper is taken, one is sure to get one's harm's worth" in this respect. If county councils could only be induced to direct such prosecutions, the trade of quack medicine vendor would not be one of so much profit as at present.

*Civil Action of Damages for Malpraxis.*

Every person who has sustained, or believes that he has sustained, damage by reason of treatment by an unqualified practitioner, can of course raise an action; but unfortunately the costs are heavy, and very little can be done in this way to check quackery, and it is only occasionally that we read reports of such actions.

*Criminal Actions for Malpraxis.*

A similar report must be given in relation to this procedure. It was hoped that after a successful criminal prosecution, conducted by the Treasury, of one William Henry Hawkins at Lewes Assizes, in 1906, for fraud, further results would follow. The judge, on the conviction of the prisoner, stated that he looked upon it as a test case, and he wished the Treasury every success in taking up cases of this kind. "A great and good work would be done by stopping the sale of quack medicines." The Treasury has, however, since that date rested upon its laurels; possibly the very lenient sentence inflicted upon the prisoner—three months' imprisonment—was considered to be hardly commensurate with the heavy costs of the prosecution incurred by the department. Had the judge made the punishment fit the offence in this instance not only would a serious blow have been inflicted upon quackery, but the Treasury might have seen its way to a wider crusade. Great credit was due in this case to the Chief Constable at Brighton, who initiated the prosecution, and who has made the "Queen of Watering Places" pretty nearly uninhabitable for bogus medicine vendors—a result which might be emulated by other health resorts.

*Amending Act Necessary.*

Nothing but an absolute amendment of the Medical Act prohibiting practice by unqualified persons can, however, have any general effect. The bill drafted by the British Medical Association which has been before the profession for some time would, if passed, effectively decide the question; but in the present circumstances of Parliamentary legislation it is absolutely hopeless to expect to pass a bill brought in as a private measure; unless, therefore, the bill be taken over by the Government, the chances of its being added to the Statute Book are not bright.

Pressure must therefore be directed on the Government of the day from all professional sources, individual and collective, to father the bill. With the force which a united profession could bring to bear a happy issue should be within the bounds of practical politics. We can only express a hope that the end of "free trade in medicine" is within measurable distance.

*The Apothecaries Act.*

This Act only touches the fringe of unqualified practice, referring, as it does, as far as its penal provisions are concerned, to those who infringe the rights of apothecaries in England and Wales. Its history is a matter of some interest. Previous to the reign of Henry VIII, when, to quote *Glen's Manual*, attempts were first made to regulate the practice of physic, and the medical faculty were divided into physicians and surgeons, an apothecary seems to have been the common name in England for a general practitioner. Up to this time also the grocers or "potecaries," who formed one of the Companies of the City of London, united with their ordinary business the sale of such ointments, simples, and medicinal compounds as were then commonly in use; some who had accumulated a store of physicians' prescriptions, which they were bound to file, and had acquired a certain reputation for their knowledge of simples, were resorted to by those who could not afford to pay a regular physician for the cure of minor complaints. Eventually shops were established for the exclusive sale of drugs and medicinal compounds and all kinds of chemical preparations. The persons who kept these shops often took upon themselves to treat their customers, as chemists and druggists not infrequently do at the present time. In 1542 an Act was passed to enable irregular practitioners to administer outward medicines; this Act is often quoted as the "Herbalists' Charter," and is pleaded as a defence to charges of unqualified practice; but it is forgotten by those who raise this defence that it was also decided shortly after the Act was passed that it did not cover those who took any fee or reward from their patients (Le Colledge de Physitians Case, Littleton, 349). In 1606 the apothecaries, to use the term applied to these medical shopkeepers, were again united with the grocers and incorporated by a charter of James I, under the style and title of "The Wardens

and Fellowship of the Grocers of the City of London." Ten years later the apothecaries dissociated themselves from the grocers and were erected into a distinct corporation by the name of "The Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London," and by a charter granted in 1617 were constituted into a separate city company. It was not, however, until the seventeenth century that the company became more than a mere trading society, and its members then began to act as general practitioners.

This encroachment upon its province met with the disapproval of the College of Physicians, but at the beginning of the eighteenth century the right of apothecaries to prescribe was judicially determined (Rose *v.* College of Physicians, 3 Salh. 17, 6 Mod. 44); since that date they have been legally recognized as a branch of the medical profession.

In 1815 what is now known as the Apothecaries Act was passed, for the better regulating the practice of apothecaries throughout England and Wales. The original charter was thereby confirmed, and power was given to the Society to appoint a court of examiners. It was enacted under Section xiv that

> from and after the First Day of August One thousand eight hundred and fifteen, it shall not be lawful for any Person or Persons (except Persons already in Practice as such) to practise as an Apothecary in any Part of England or Wales, unless he or they shall have been examined by the said Court of Examiners, or the major Part of them, and have received a Certificate of his or their being duly qualified to practise.

Other clauses were also enacted, but we shall here confine our attention to the penal section, which provided that any person except such as were then actually practising as such, who should after August 1st, 1815, act or practise as an apothecary in any part of England and Wales without having obtained the necessary certificate, should be liable to a penalty of £20 for any such offence.

From a perusal of this clause it would at first sight appear probable that it would prove very useful in dealing with unqualified practice; but unfortunately, as stated above, it touches only the merest fringe of the evil. In order to establish an offence under this Act it is necessary to prove:

1. That attendance upon the patients was for "internal disease" as contrasted with surgical ailments.
2. That the remedies were compounded by the defendant, and were selected—that is, prescribed—and supplied by him.
3. That the offence has been committed in more than one instance. The penalty is recovered by action before a county court judge as a debt due to the Master and Wardens of the Society of Apothecaries; it is doubtful whether more than one penalty can be sued for at a time.

The Act does not affect the legitimate business of chemists and druggists who sell medicines or dispense prescriptions which are asked for; but if these apply, and administer, medicines as a medical practitioner does and attend patients, the offence of practising as an apothecary can be charged against them, and they are not exempt from the penalties incurred (Apoth. Soc. *v.* Grenhough, 1 Q. B. 799). The trade and business of a chemist and druggist should be confined to the buying and preparing, compounding, dispensing and vending medicines and medicinal compounds, whether wholesale or retail; and the attendance on, and treating of, patients for "internal" diseases is unlawful as a breach of the Apothecaries Act. He is not entitled to recover for medicines so supplied, although he may have made out his bill as a chemist, the question for the jury being, not whether he has charged as an apothecary, but whether he has acted as such. In such a case the plaintiff will not even be entitled to recover for the cost of the phials in which the medicines were contained. (*Glen's Manual*, Steed *v.* Henley, 1 Car. and P. 574.) In view of the decisions of the High Court in respect of what constitutes acts of an apothecary, it is somewhat difficult to appreciate the apparent apathy of the Society of Apothecaries, which permits with impunity wholesale offences being daily committed by persons who are practising as apothecaries without having certificates, and without being upon the *Medical Register*. We trust that the inaction of this statutory authority in this respect does not mean any cordial acquiescence in the breaches of its Act.

It will be noted, however, that the offence of practising as an apothecary without having the certificate of the society is not one into which the ordinary advertising quack falls, and it is therefore useless to proceed against him under this Act. For all the benefit which the registered licentiate receives from this clause it might almost as well be dispensed with; the society apparently makes no attempt now to put it into force itself; and for the purpose for which it was enacted in this respect the Act is a dead letter. Unlike the Medical Act, it cannot be put in force without the consent of the master and wardens, as a prosecution has to be carried out in their name. So far as the checking of unqualified practice is concerned it is an anachronism.

*The General Medical Council.*

This authority is the statutory body upon which the Legislature has thrown the responsibility of carrying out the Act in all its provisions; but, as stated above, the penal section (40) of the Medical Act can be put in force by any one who cares to undertake the thankless and expensive task of prosecution. The penalties, however, which are recovered in successful prosecution are the property of the General Council, and as such are paid over by the court to the treasurer, except in the metropolis, where, under a Police Act, the penalties pass from the court into the hands of the Receiver for the Metropolitan Police.

It is quite open, of course, for the General Council to proceed against offenders under this Act, and it has done so in some—not many—cases, and not for some years past. The credit of the successful prosecutions for many years is due mainly to the Medical Defence Union, which has, whenever possible, instituted proceedings against unqualified practitioners; in fact, there has been no year since the foundation of the union in which one or more such cases have not been brought before the courts. Cases have also been taken to the Court of Appeal, and important decisions, often, alas! adverse to the registered and favourable to the unqualified, have been obtained.

*Conclusion.*

It is quite clear that neither by the Apothecaries Act nor by the Medical Act is duly qualified practice sufficiently protected, and nothing but new legislation can be of real service either to the profession or the public in this respect. In any new Medical Bill which may be brought before the House of Commons there must be a clear understanding that medical practice must be in the hands only of those whose training and education fit them for the task of treating diseased conditions. To permit the treatment of such persons by unskilled and unqualified practitioners is a danger to the community and an insult to medical education. Nothing short of prohibition of such unqualified practice must be aimed at in future legislation. More especially, now that it has been held by Parliament absolutely necessary that no woman should be allowed to practise midwifery without training, should the other branches of medicine and surgery be similarly protected as to their practice by both men and women. The protection of midwifery, even in a somewhat limited degree, is a strong lever in the hands of those who deem further protection all along the line necessary; and we must not be content with any tinkering legislation, but must demand prohibition of unqualified practice.

The Medical Acts have been proved wanting, in that they do not protect the public from heartless, wholesale, and dangerous exploitation by unscrupulous and uneducated charlatans. The evidence laid before the Home Office by medical officers of health in response to the circular letter emanating from the Home Secretary, limited and imperfect as it was, has established a case for parliamentary enquiry and interference. It is useless to spend public moneys in order to attempt to secure the health of the community when the people are largely at the mercy, in respect of treatment for diseased conditions, of unqualified practitioners. The Medical Acts have failed to secure what was intended by the Legislature, and the sooner the matter is dealt with the greater the benefit to the suffering community at large. It is more or less useless to pass sanitary laws as long as quacks can ignore the provisions of these Acts, and infectious and contagious diseases, unrecognized as such, are allowed to be treated by ignorant pretenders to medical knowledge. If preventable diseases are to be prevented, the care of the sick

must be placed solely in the hands of qualified medical practitioners, and nothing short of this should be permitted. The early recognition of diseased conditions can only be effected by skilled persons, and such skill can only be obtained by means of proper medical training; and those who undergo such training must be protected as to their recognized titles and practice.

The penal clause drafted by Messrs. Muir Mackenzie, B. F. C. Costello, and R. W. Turner for the British Medical Association in 1894, would appear to cover the ground entirely, and would, if enacted, puzzle the ingenuity of of the quack to override. It ran as follows:

1. Any person who not being duly qualified takes or uses—
(*a*) The name or title of Physician, Doctor of Medicine, Licentiate or Master in Medicine or Surgery, Bachelor of Medicine, Surgeon, General Practitioner, Medical Practitioner, Medical Specialist, Medical Dispenser, Apothecary, Aurist, Oculist, Ophthalmist, Accoucheur, Medico-Herbalist, Medico-Electrician, or any of these or the like titles with any added words, variations, or designations; or
(*b*) Any title, style, addition, or description directly or indirectly implying that he is the possessor of any degree in or licence to practise medicine or surgery or midwifery, or is in fact possessed of the skill necessary for the practice of medicine or surgery or midwifery, or any branch of medicine or surgery, or the performance of any operation in surgery or midwifery, or the administration of any medical treatment, shall for each offence be liable, on summary conviction under the Summary Jurisdiction Acts, to a penalty not exceeding twenty pounds, and to imprisonment in default of payment for not longer than one calendar month, and on conviction upon indictment to imprisonment for not longer than one year, with or without hard labour, and with or without the option of a fine, provided always that no person shall be liable to imprisonment without the option of a fine unless it shall be proved that he has by the performance of some operation, or the administration of some treatment, or otherwise by or in the practice of medicine, surgery, or midwifery, caused to some person grievous bodily harm.

Some alteration would be required so as to exclude from its penalties registered midwives, but this would present no difficulties to the Parliamentary draftsman.

## UNQUALIFIED PRACTICE THROUGH THE POST.

IT is a notorious fact that large numbers of persons, possessing no qualifications and no medical knowledge, carry on a lucrative business by recommending some secret remedy (or pretended remedy) of their own for the cure of disease, such recommendations taking the form of advertisements in newspapers and magazines, on hoardings, and in various public places. This form of unqualified practice, however, is by no means the only one which is carried on by means of advertising; and a less conspicuous variety, in which the unqualified prescriber professes, at least, to treat each case individually, is of sufficient dimensions to constitute a very serious evil, and to deserve some consideration.

Readers who have followed the series of analytical reports on secret remedies which have been published in the JOURNAL at intervals in recent years will have noticed that some of the groups of nostrums dealt with have included one or more cases where a "symptom form" is supplied to the purchaser, and in other respects the *modus operandi* differs somewhat from that of the nostrum vendor. Various gradations exist between the mere selling of a "patent medicine" and prescribing by post.

The different articles sold may be grouped in four classes; the first would contain the greater number of the ordinary nostrums, recommended for some group or groups of ailments and distributed to the public through the ordinary retail channels, such as chemists, stores, etc.; the next class would include those which are advertised in somewhat the same way, but are not as a rule supplied through retailers, but direct from the proprietor to the consumer; the third class would consist of those which are advertised and distributed like the preceding, but the purchaser is advised or required to send some description of his case, usually by filling up a "symptom form," in order that the proprietor may decide which of certain alternative medicines will be the best, or whether more than one is needed, etc., etc., while cases in which a proprietary medicine is not mentioned or professed to be used, but the advertiser claims to be a "specialist" in some particular kind of disease, and to treat each case individually according to the particulars furnished by post, or sometimes to treat any and every disease on the information supplied in the same way, would constitute a fourth class. We are not here dealing with the first of these groups, to the evils of which we have frequently called attention. As regards the second and third classes, the obvious advantages to the nostrum proprietor of supplying direct are that he saves all intermediate profits, and himself takes the full retail price of the medicine, and—more important still—having the name and address of the person suffering from the complaint which he professes to cure, he can plant his advertising matter where it is most likely to be effective, and can back it up with personal letters. Probably the principal uses made of the details supplied by the purchaser in the third class are in directing such letters to what are shown to be the best points of attack, and in working up an account of the case which shall be of the nature of a testimonial, when the purchaser has been persuaded that he is cured, or has really been cured by or in spite of the medicine.

The nostrums already reported on in our columns have included one or more in which a "symptom form" has figured in each of the following groups: "female medicines," medicines for obesity, sexual weakness, skin affections, "bad legs," alcoholism, rheumatism, and deafness. In most cases the first supply of medicine was followed up by letters insisting on the great importance of taking it uninterruptedly, or asking for particulars of the results attained. In the case of medicines for amenorrhoea, in every instance the article first supplied was accompanied or followed by recommendations of a stronger one said to be certain to succeed if the first failed, and of course sold at a higher price. In many cases where the original communication was not an order for medicine but merely an inquiry, the letter sent in reply was followed at intervals by a number of others, emphasizing in a sensational manner the terrible seriousness of delay in obtaining the "cure," and frequently offering the latter at a gradually diminishing price, as at a cheap-jack's "Dutch auction." This offer of reduced price is sometimes made conditionally on the purchaser supplying six names of other persons known by him to be suffering from the complaint in question; so that if the terms were accepted, the vendor would be kept supplied with a list of names and addresses, ever increasing on the "snowball" principle, of persons likely to be susceptible to his letters. The letters sent usually appear on casual inspection to be type-written communications written to the individual, who is frequently addressed by name as "Dear Mr. (or Mrs.)—," or as "Dear Friend"; but closer examination has almost always shown that they are really circulars produced by one of the multiple copy processes with a typewriter, the individual's name being inserted afterwards. These circulars usually contain expressions of strong or special interest in "your case," even when no case has been mentioned and the "symptom form" has not been filled up. In fact, there is every reason to suppose, in regard to most nostrums sold in this way, that the composition of the medicine sent is in no way modified in consequence of the details supplied.

### THE NATIONAL COLLEGE OF HEALTH, LTD.

Extracts from one or two typical letters may be given as examples. In our issue of April 30th, 1910 (p. 1063), we gave some account of certain medicines supplied by the "National College of Health, Ltd.," Manchester. After an interval the following was received:

Dear Mrs. ——,

We are extremely sorry that you have not allowed us to see your case through to a successful termination. We are taking a special interest in your case, and as you have gone to some expense, and as we want to be of real help to you, it is a pity for you to throw away this opportunity of being permanently cured.

Let us implore you as a friend not to neglect the advice we gave you in our last letter, for if you do we fear you will not get well, or if so will not remain permanently cured. If you neglect the simple precaution of purifying your blood and keeping it pure for a reasonable period, it will be your own fault if you do not get well and remain so, which is what we earnestly desire.

To effect a permanent and lasting cure, it is absolutely necessary that you should take the Blood mixture for a reasonable

period. Neglecting this is not fair either to yourself or to the Tremol Treatment, which has done so much good for those who carry it out conscientiously.

The date, name and address, and the words "Dear Mrs. ——" are seen on careful examination to have been added with a typewriter to a circular letter. From this it would appear that the number of those who purchase the "Tremol Treatment" but do not feel sufficiently encouraged by the results to "carry it out conscientiously" is large enough to make it worth while to have a circular ready to send to them; also that it is a routine matter to assure them that "we are taking a special interest in your case." It appears impossible to doubt that large numbers of people are lured by such assurances into sending their money for such "treatment." But there are two considerations affecting this kind of practice which are so obvious that it might have been supposed that they would occur to any one. The first is that the absentee prescriber is an anonymous and unknown person—for example, the letter quoted above is signed (with a stamp) "J. S. Chatterton, Doctor's Secretary"; the "doctor" does not appear. In other cases it is "our consulting physician," "our specialist," or "our medical staff," etc., never any one whose qualifications and experience can be ascertained. In the second place, it can hardly be supposed that writing down a few answers to questions can supply a prescriber with an adequate knowledge of a given case such as can be obtained by personal consultation and examination. The meagreness of the information which will satisfy these anonymous prescribers is remarkable.

### The Sutton Medical Company.

Another circular in imitation of typewriting which is before us, headed "The Sutton Medical Co.," looks like an attempt to imitate the Kidd Company's methods, though on a more restricted scale. It is dated from Clerkenwell, London, and commences:

> Dear Friend,
> Do you or any of your friends stand in need of medical treatment? We make a speciality of kidney and bladder trouble and rheumatism, in fact all complaints arising from uric acid poisoning. . . .
> To introduce these remedies we are going to give away 10,000 Proof Sample Treatments. They will be sent post-paid and absolutely free. You are one of the ten thousand selected to receive a Proof Sample Treatment because we believe that if they cure you, your influence in your neighbourhood will secure other patients. . . . We will also send you entirely free a copy of "Sutton's Talk on the Kidneys." . . . Answer the questions on the printed form and post it to-day.

The printed form was filled up with the details of an imaginary case; but whether, in the interval that had elapsed between receiving the circular and sending for the medicine, the Sutton Medical Company had concluded that they were mistaken in the belief that "your influence in your neighbourhood will secure other patients," or whether the giving away "10,000 treatments" had caused them to collapse, or from some other reason, no medicine or answer of any sort was received.

### The J. W. Kidd Company.

One of the most extensive businesses of the kind we are considering is that run by the J. W. Kidd Company, of Fort Wayne, U.S.A., some particulars of which have previously been given (*Secret Remedies*. p. 177). Although the letters are ostensibly signed "Dr. James W. Kidd," the remarks made above as to the real anonymity of the prescriber apply no less, as the business is run by a company and, on the evidence submitted, is far too large for any one individual to attend to the cases. The letters contain the usual sort of references, such as "With my staff of skilled specialists, I have successfully treated more serious chronic cases than any other doctor." This company, although established in America, sedulously cultivates business in this country. Besides newspaper advertising, it appears to obtain the names and addresses of persons to whom it seems worth while to write. It has been asserted, and so far as we know without any contradiction, that in America, at least, there is a regular trade in old letters, orders, etc., from purchasers of nostrums, and that a firm desiring to push a preparation for any particular disease can purchase from a broker thousands of letters from people who have bought some other preparation for that ailment, in order to bombard them with letters recommending the new nostrum. Perhaps that is how the Kidd Company gets names and addresses; one of the letters sent by the company states that "I have decided to favour you because I am informed that you need expert medical attention and because I believe you will tell your friends about my successful treatment after I have cured you." Of course, modesty in advancing the company's claims would be absurd, as diffidence in disparaging legitimate practitioners would be out of place. A single extract may serve as a specimen:

> My Treatment: Do not waste your time and money on worthless patent medicines, on incompetent doctors or on One remedy—no one remedy can possibly cure all cases or all diseases. The free treatment I will send you will consist of as many kinds of medicine as I have found advisable in cases like yours—remedies pure, effective, and successful—the kind I have used in curing thousands of others. The fact that my patients receive treatments especially prepared to suit their individual cases is also largely responsible for my great success. Simply mail me the enclosed Symptom Blank soon, and with your free remedies I will send you one of my Books—not an advertising pamphlet, but a valuable medical book entitled "The Ills of Humanity."

The "symptom blank" contains only a few questions, including, "If other doctors have tried to cure you, what did they call your disease or diseases?" and a general invitation to "write me freely, in your own words, about your diseases, symptoms, or pains"; and the following aid to diagnosis is added:

> I am specially successful with the following diseases—simply make a mark (×) side of any one of them you have:

| | | | |
|---|---|---|---|
| Rheumatism | Piles | Lumbago | Lung Trouble |
| Constipation | Dropsy | Neuralgia | Chronic Cough |
| Diarrhoea | Pimples | Headache | Heart Disease |
| Indigestion | Malaria | Dizziness | Female Trouble |
| Nervousness | Eczema | Epilepsy | Kidney Trouble |
| Torpid Liver | Asthma | Scrofula | Bladder Trouble |
| Impure Blood | Catarrh | Prostatitis | Partial Paralysis. |

The "diagnosis" and medicine sent in a given case are described in *Secret Remedies*. In *Truth Cautionary List*, under "Kidd, 'Dr.' James William," appears the following:

> Advertises profusely all over the world, offering to cure all diseases, and to send a sample of his treatment "free." The remedies appear to be absolute humbug, and are supplied in quantities at extravagant prices, as much as £4 having been obtained from victims in some cases.

These exposures, however, have not yet sufficed to drive the company out of the field, as shown by the recent receipt of its circulars.

### An "Eye and Ear Specialist."

An advertisement which is to be found in very many newspapers is that of "Mr. Thomas Ison, oculist and aurist, Ison's Eye and Ear Dispensary, Limited, Leeds," inviting consultations by post for all diseases of eye and ear, which are stated to be cured without operation. From one of the circulars sent it appears that the advertiser also attends at certain times at given hotels in many of the northern towns, twenty of which are named, to be consulted. An application for advice in a case of failing sight brought a printed circular enclosing "printed form of questions to be answered appertaining to your case, which please fill up and return to me by early post, together with cheque or postal order for my fee, when suitable remedies will be at once forwarded to you with full directions for their use." A written postcript stated—

> The charge is 10s. 6d. for special remedies and advice. My treatment is very successful and their is no pain and no inconvenience attending the use of the remedies.

The promise of no pain and no inconvenience, before any information had been sent as to the nature of the trouble, seems to imply an intention not to undertake any very serious treatment, whatever the case might prove to be. The printed form was as follows, the answers that were given being here printed in italics:

> Established 1871.
> Ison's
> Eye and Ear Dispensary, Limited,
> ——, Leeds.
> Mr. Thomas Ison,
> Oculist and Aurist.
> A new method of treatment for the
> Rapid Cure of Diseases of the Eye and Ear
> without Operation.
> Attendance at Leeds every
> Tuesday and alternate Saturdays
> Hours: 10 to 7
> Other days by appointment only.

By this new system of treatment nine cases out of ten can be cured without a personal interview or the patient leaving home or business, thus saving time and expense. The postal arrangements are now such that persons may be treated in the most distant parts without delay.

The special remedies applicable to each case are forwarded in a portable compass to any part of the world, with full directions.

Each patient is requested to fill in, as correctly as possible, answers to the following questions, and return the same by post:—

1. State name, age, and full postal address.— —— ——, *34*, ——.
2. State profession, business, or occupation.—*Clerk.*
3. Is the constitution strong or weak?—*Strong.*
4. How is the general health? Are the functions of the body performed regularly? If not state particulars.—*Good. Yes.*
5. State whether the right or left eye, or both, are affected.—*Right eye only.*
6. How long have the eyes or eye been affected?—*It has been steadily coming on for about 3 months.*
7. Do you feel any pain? If so, where? At the back of the eyes, across the forehead, in the temples, or over the eyebrows?—*Yes, at the back of the eye.*
8. Do the pains occur in the daytime, or in the night?—*All the time, but worse at night.*
9. Are the eyelids affected? If so describe the symptoms.—*No.*
10. What part of the eye is affected? Is the white of the eye bloodshot wholly or in part, greyish, or of any other unnatural colour? Are there any spots on the eye, or discharge? If so, state particulars.—*The white of the eye is greyish. No spots or discharge.*
11. Is the iris (the coloured ring which surrounds the pupil of the eye) light or dark, or has its natural colour otherwise changed? If so, state particulars.—*Light naturally, unchanged.*
12. Has the pupil of either eye increased or diminished in size, and has it changed from its natural round form? If so, state particulars.—*No.*
13. Are you naturally near sighted or far sighted, or do you squint? Do you use spectacles? If so, state whether with flat glasses, and of what colour, and of what number, if you know.—*No.*
14. What treatment (if any) has been employed up to the present time, and with what result? State, as near as possible, what has been done or used. Send any prescription that may have been given or used; it will be returned.—*None.*
15. Is your mother or father subject to any affection of the eyes.—*No.*

Any other observations which may suggest themselves, please write on the other side.

Note: It being our desire to bring each case to a successful issue as early as possible, it is highly important that we should have the co-operation of our patients in every particular, in order to assist us to this end.

**This was sent with the 10s. 6d. required, and the package received in return contained a 2 drachm bottle of "Drops" and a 1-ounce bottle of "Lotion," and a dropping-tube of the kind supplied wholesale at 1s. 9d. per dozen, accompanied by a letter which stated:**

I send herewith remedies to be used according to the printed instructions. Please persevere and you will do well. Write me a day or two before the remedies are finished, and I hope to have a good report.

**A printed sheet of instructions for use was sent, giving directions for "The Drops," "The Lotion," "The Embrocation" (for forehead and temples), and "The Ointment" (for edges of eyelids). The two latter were crossed out; the others were:**

The Drops.—Two Drops to be dropped in the inner corner of the affected eye (the eye to be well open) by the aid of the Drop Tube two or three times a day.

The Lotion.—Linen cloths wet with the Lotion to be applied to the Eyelids for a few minutes night and morning.

Note.—Add the contents of the bottle to a bottle containing a half-pint of cold water before use.

**Analysis showed the drops to consist of:**

| | | | | |
|---|---|---|---|---|
| Boric acid | ... | ... | ... | 2½ grains. |
| Glycerine | ... | ... | ... | 2 ,, |
| Water | ... | ... | ... | to 2 fluid drachms. |

**The lotion was found to consist of the liquor hamamelidis of the *British Pharmacopoeia*. In both cases careful search was made for small quantities of other substances, but nothing else was found. The cost of both together would be about one penny; the bottles, dropper, and postage would amount to a few pence more. It is not necessary to comment on the value of such "treatment"; it is sufficient to contrast it with such statements from the circulars sent as:**

Many hopeless cases, given up by the medical profession as incurable, have been brought under his special treatment, and, to the surprise of their friends, they have recovered their sense of hearing or seeing after having been deaf or blind for many years. . . . This is not accomplished by means of painful operations, poisonous drugs, or compounds, but by means of a special treatment he has introduced, as the result of thirty years' practice and the experience of his fore-elders.

## A "HERBAL SPECIALIST."

**An advertisement which may be met with in many papers is that of a Mr. J. George, medical herbalist, Gateshead, usually beginning with a reference to "Lost strength restored," offering a free book which should be read by all men suffering from loss of nerve power, etc., and concluding: "No Drugs or Minerals used. Nature's Remedies only. 30 years' success. The Treatment that Cures." Application to the address given brought a circular resembling a type-written letter with the name and date typed in, a "consultation form," and two pamphlets. These were both entitled *The Treatment that Cures Lost Health and Strength*, one being marked "18th edition" and the other "26th edition." Both contain a number of testimonials, and the one marked "18th edition" contains several dated 1911, including one of March 2nd, 1911. As the pamphlets were obtained in April, 1911, the interval between the 18th and 26th editions would appear to have been a short one, but it seems to have sufficed for a marvellous extension of the powers of the Herbal Remedy. In the "18th edition" the following appears:**

Special Notice.

In asking you to read carefully the following testimonials (which are taken from some hundreds that I have received during the last five years) I am convinced that no greater proof can be produced of the Wonder-working qualities of the Herbal Remedy in all cases of Lost Manhood and Vitality, Nervous Debility, Spermatorrhoea, Premature Decay, all disorders of the Nervous System, Urinary Organs, etc., etc. It is an undeniable fact that the Herbal Remedy has given health and strength to large numbers of men and women who have become old and debilitated long before their time. If space would permit, I could print such statements from men that have suffered (but whom I have cured), that would convince the greatest doubter. Therefore I ask you to read these testimonials which are from living persons, daily in communication with me, and think, if you are a sufferer from any of the symptoms mentioned give the Herbal Remedy a trial, and avail yourself of a Safe, Sure, and Speedy Cure.

**In the "26th edition" appears a similar paragraph, but the list of disorders following the words "in all cases of" has been changed to**

Asthma, Bronchitis, or any Chest or Lung Disease, Indigestion, Loss of Appetite, Liver Trouble, Kidney or Water Complaint, Backache, Weakness, Lassitude, Piles, Costiveness, Impurities of the Blood, Eruptions, Blotches or Itching of the Skin, Anaemia, Dyspepsia, Female Irregularities, or any complaint incidental to the Human System.

**It then continues: "It is an undeniable," etc., as above.**

**In the "18th edition" it is stated that:**

In placing your case under the treatment of Mr. J. George, the Herbal Expert, you are placing yourself into the care of a Practitioner that has had upwards of 40 years' experience in diseases of the urinary and generative organs.

**In the 26th, however, we read that**

In placing your case under the treatment of Mr. J. George, the Herbal Expert, you are placing yourself into the care of a Practitioner that has had upwards of 40 years' experience in all diseases and ailments incidental to the human system.

**As the advertisement referred to above, which appeared this year, speaks of "30 years' success," it would appear that the first ten out of the forty years were given to failure. But a further inconsistency is supplied by the letter, in which it is said that**

The Remedy is one that I have used with the greatest success during the past 20 years, previous to which it was used by a near relative (a well known Herbalist in the South of England with over 50 years' extensive practice).

**The price of the Herbal Remedy is, one month's treatment, 8s. 6d.; two months', 15s. 6d.; three months, 21s.**

**The "consultation form" was filled up with particulars of an imaginary case of nocturnal emissions, with bad memory, and sent with 8s. 6d. A box of 29 powders was received in return, with an intimation that**

This is the first or preparatory month's treatment. The second or third stronger stops all emissions and wasting of the Vital Fluid which is the cause of your ailment.

**The directions are:**

Take one Powder with half a tumbler of cold water nightly, just before going to bed.

The powders had an average weight of 57 grains, but single powders varied from 47 to 69 grains. The material had a bitter taste; it contained about 25 per cent. of maize flour, and the remainder consisted of vegetable tissue which appeared to be derived from a bark, but did not agree in characters with any drug in ordinary use. It showed no alkaloidal or other principles by which it could be identified, and no other substance was found to be present.

## THE ADVERTISING OF PROPRIETARY MEDICINES.

THE methods of advertising adopted by the proprietors of secret medicines are many and various. Some employ big posters on hoardings, others—an increasing number—have fringed the chief railway lines of the country with great boards bearing the names of their nostrums; almost all agree in making large use of newspapers, magazines, and other periodicals, and of copious distribution, through various agencies, of circulars and pamphlets. It is impossible to read any of the popular newspapers or magazines without seeing that the extent of such advertising is very great. As a particular example, there lies before us a letter recently sent to retailers by the makers of certain proprietary medicines, in which it is stated that

> We have already largely increased our advertising, and over 800 newspapers and magazines, embracing the whole of Gt. Britain, are regularly carrying very effective advts.
>
> Ten million leaflets have been ordered to be insetted in all the principal periodicals and magazines during the next three months.
>
> Booklets will be distributed from house to house throughout the Country during the whole summer.

In the case of another nostrum, a single article, which was before the courts a few years ago, it was proved in evidence that in five years 83 million pamphlets had been issued, and that, in the words of the judge, "they had flooded the English-speaking world with their advertisements."

While the undifferentiated "man (and woman) in the street" represents the millions of potential customers to whom the nostrum maker wishes to appeal, both the number and nature of the advertisements of proprietary medicines in any given periodical do not by any means depend only on its circulation, and the operation of certain general rules may easily be traced. There is an obvious relation between the intelligence and education of the readers on the one hand, and the extent to which they can be appealed to by such advertisements as we are considering on the other, these varying in inverse ratio. A striking illustration of this may be seen by comparing the established reviews and the monthly magazines, or the *Times* and some of the halfpenny dailies. A reference to the current issues of the *Fortnightly Review*, the *Quarterly Review*, and *Blackwood's Magazine* shows one advertisement of a proprietary medicine in each of the first two, and none in the last; while a single one of the illustrated magazines—the *Strand Magazine*—provides twenty-six, and a Christmas number of the same contained sixty-three. Similarly, on an arbitrarily chosen day, the *Times* contained one such advertisement occupying one column, while the *Daily News* contained eight occupying four columns, the *Daily Mail* four occupying three columns, the *Daily Express* eleven occupying three and a quarter columns, the *Evening News* four occupying two-thirds of a column, and the *Star* five occupying two columns. A close connexion may easily be traced, also, between the number of advertisements of patent medicines and the character of the other advertisements, the fact that a large amount of credulity on the part of the readers can be counted on being as evident from the one as the other. For example, advertisements of clairvoyants, palmists, "astrologers" who offer to foretell a person's future from the date and hour of his birth, preparations for removing superfluous hair, preventing blushing, or developing the bust are frequent in those publications most favoured by the proprietary medicine maker.

Some of the Sunday papers which have very large circulations show a very full share of advertisements of nostrums; an unselected copy of one of these which is before us contains no less than forty-one such advertisements, occupying nearly seven columns. Some of these papers have gained a good deal of notoriety for the large amount of space which they devote to reports of divorce suits and sensational crimes, and it is not surprising therefore to find the majority of proprietary nostrums advertised in them belonging to the most undesirable classes. For example, out of the forty-one just referred to, seventeen are of medicines for "female complaints," five for "lost manhood," and two for diseases of the urinary organs. Such advertisements are also abundant in the low-class "comics"; one of these taken at hazard contained eleven of female remedies, along with advertisements of "rubber preventives," "chic female pictures," and the like.

"Religious" papers appear to be a fairly good hunting ground for the advertisers of nostrums. In one of these—a weekly—we find eighteen advertisements of such preparations, along with "galvanic rings for rheumatism," "1s. for £1," "£2 weekly made by selling remnants," "blushing cured," "superfluous hair removed," etc.; and on another page the announcement, "The prayers of the readers of this journal are requested for the blessing of God upon those who conduct it, and also upon the sermons and narratives which are printed in it." The smaller provincial papers are in a good deal of favour for advertisements of secret medicines; as a rule a few local products of this kind are advertised as well as those of wider sale. A feature which is often to be noticed in such papers is that advertisements are accepted which from their headings and general appearance look like news paragraphs, and they are sometimes so worded that an ordinary reader might never suspect their real significance, and no warning "[Advt.]" or other indication appears at the end.

The feelings of disgust and annoyance which are aroused when advertisements of this kind are met with in such abundance in newspapers, are of very little importance in comparison with the far greater evil of the power over the press which thus passes into the hands of the owners of the various quack medicines. Certainly one of the most effective ways of preventing people being imposed on by such articles is to publish as widely as possible authentic information as to their composition and real value; but in this task little assistance is to be obtained from the lay press, on account of the large pecuniary interest which such advertisements give it in supporting the trade. The great concentration of the ownership of newspapers, magazines, etc., in the hands of a comparatively small number of companies, is not without influence in the matter; for a newspaper which does not obtain enough advertisements of medical nostrums to give it an interest in supporting them is effectually prevented from printing anything adverse to their interests if it is the property of a firm or company owning other papers which do receive such advertisements largely. The importance of this consideration can be at once seen in connexion with any proposals for legislation; if there should appear any likelihood of an Act of Parliament being passed which would interfere with the liberty to fleece the public by means of secret remedies, the proprietors of such things can practically order the greater part of the press of the country to misrepresent what is proposed, and in every way to stir up hostility to such a measure. This consideration tells strongly in favour of the holding of a thorough public enquiry—by a Royal Commission or otherwise—into the whole question.

## QUACKERY IN AURAL DISEASE.

IN respect of most of the hunting grounds of the fraternity of quacks it may be said that a large proportion of those who dwell therein do so in a measure of their own accord. Whatever the preserve of quackery in question, no one except they themselves consider that they belong to it, and given the will they could escape from it forthwith. They are ill or unwell mainly, if not entirely, because they believe themselves to be so, and any one who convinces them that they will recover if they take a certain course actually goes a very long way towards curing them.

To this general rule the case of a deaf man is an exception. In his case there is no room for self-deception. His defect may possibly not be irremediable, but there can be no doubt about its existence. Often, indeed, his friends and companions become aware of it even sooner than he does himself and in some degree suffer correspondingly.

In addition to other drawbacks a strain is thrown on their voices in making him understand, and the awkwardness is created of having to converse with him aloud on matters which they might prefer to discuss in a voice inaudible to third parties.

This being the case, it might be anticipated that quacks would regard deafness as a perfectly hopeless *terrain* for their operations and one which in their own interests should be avoided; for deafness being obvious the failure of an attempt to cure it must be equally obvious.

This primary expectation is in a measure justified by the actual facts; for, in proportion to the very large number of deaf people in the civilized world, the number of claimants for their patronage bulks small when compared with the multiplicity of quacks who cater for other classes of infirm or defective persons.

This proportion would probably be smaller still, but for one countervailing factor; this is, that despite the fact that deafness is always real and always obvious—from the beginning to a man's friends, and eventually to himself—nevertheless mental processes play a certain part in every case of this defect, and thus help to bring a deaf man within reach of the snare of the fowler.

*The Psychology of Deafness.*

Metaphysically, most cases of deafness acquired in adult life pursue much the same course. It begins as soon as the individual ceases to be able to hear without listening, and thus realizes, probably for this first time in his life, that muscles play a part in the performance of the functions of the ear. Arrived at this stage, he finds himself constantly missing, much to his annoyance, either the point of a joke or story or the thread of an argument in a speech; and discovers that, so far as he, at any rate, is concerned, taking part in a conversation for any length of time is as tiring as a ten-mile walk and far less salutary. He then recognizes to the full the drawbacks of his condition to himself and its disadvantages to his friends, and anxiously hunts for assistance in every direction.

Not finding it or it proving vain, his deafness slowly or rapidly increases, and sooner or later he acquires the deaf man's look—one which can be detected by the skilled observer at many yards' distance. Arrived at this stage, he begins to be shunned by the average man, and to shun in his turn all oral intercourse with his fellows other than the few friends or acquaintances who he knows gladly submit to the trouble of keeping in touch with him.

The next, but quite avoidable, step may be that he grows deafer in effect than in fact he really is, for not expecting to hear he does not attend, so that his condition is aggravated both for himself and his friends by his becoming that annoying companion—an absent-minded person.

Finally, if not specially fortunate in the matter of friends, he probably becomes either a misanthrope, who vows that modern conversation is not worth hearing, or a philosopher who endeavours to persuade himself that, even though the grapes be truly acid, they are pretty to the eyes. In the one case he turns a recluse, in the other continues to consort with his kind as a silent onlooker, who maybe gets as much amusement out of the game as the players themselves; more probably still, he varies in his attitude from day to day, according to circumstances, including the state of his liver.

But whether philosopher or misanthrope he is never really satisfied with things as they are, and hope of amendment dies as hard in him as in other human beings. In addition, his deafness, though he may not be aware of the fact, differs in slight degree from week to week according to local conditions and his general health, and even at different periods of one and the same day. The first fact makes him prone to grasp at straws and never to dismiss unheeded a chance of possible benefit; the latter renders him liable to swell the charlatan's triumphal train of ostensibly grateful patrons. If he answers an advertisement he is bombarded with letter after letter, and if he yields to the temptation to try the remedy and does so at a time when his hearing is better than usual, he may be led to believe for a time that he has really benefited.

*Exposure of Aural Quacks.*

How often he is likely to be tempted depends a good deal on the kind of literature he reads; if he does not happen to care for cheap Sunday newspapers, cheap magazines, and religious "organs," it may be seldom that an advertisement of an aural quack comes under his eye. In any case, moreover, the chances of a deaf man adding a depleted purse to his other deficiencies would seem to be less in this country than in the United States. In a land where wooden nutmegs are stated to pass muster with housewives, it is perhaps to be expected that deaf people should be more frequently tempted and deceived than in one on whose inhabitants Sir William Gilbert long since impressed the fact that things are not always what they seem, and where, thanks to this or other circumstances, cat's milk can no longer masquerade as cream.

However this may be, it remains true that the trade in aural remedies is seemingly much more active in the United States than in Great Britain, and that a large proportion of the remedies for deafness at present being lauded in this country represent goods which are being "dumped" by energetic manufacturers over the water.

Part of the comparative rarity of the home-grown aural quack may also be due to the fact that his difficulties in obtaining a hearing for himself, if not hearing for his victims, have been of recent years gravely increased by the marked publicity which has attended the exposure of certain of the fraternity.

In this work, as in so many other allied connexions, our contemporary, *Truth*, has played a leading and most valuable part. It was Mr. Labouchere's paper that succeeded in smashing the Drouet Institute, and before and since then the same publication has exposed relentlessly the operations of many individuals carrying on work of the same kind. We have ourselves, too, drawn attention from time to time to the various quack remedies pressed upon the notice of the deaf; and another journal which has been active in the same field is the *Albion Magazine for the Deaf*.

Nevertheless, a good many aural quacks still continue their work unabashed, and certain of them exhibit remarkable vitality. Indeed, of the aural quack, if of any one, it may be truly said that one man in his time plays many parts, for an aural quack as soon as he is exposed under one cognomen and at one address commonly restarts work under some new title at some other place.

*The Methods of Unqualified "Consultants."*

In respect of methods, the irregular practitioner of otology differs in some degree from his fellows in other fields; he commonly puts himself forward not as a mere vendor of a patent medicine or appliance, but as a consultant who has written a book dealing with deafness, noises in the head, and catarrh. To such book attention is drawn by advertisements well calculated to excite interest, or at all events curiosity on the part of any one who is either deaf himself or has a deaf friend. An application for a copy meets with generous response, and with the booklet, or subsequently, comes a letter, in which it is quite correctly pointed out that all cases of deafness are not alike, and therefore each case must be individually considered. With a view to this end a form is enclosed which, when duly filled up, will ostensibly enable the expert to decide whether the method of treatment he has devised is suitable to the case in question. All this is so admirably correct that we regret to have to add that we have not yet come across a case in which the advertiser replied that his remedies were inappropriate, and that usually the outcome is either advice to purchase a remedy, which is either the same for every form of ear trouble, or one of two or three routine prescriptions.

Should the patient fail to respond to the first advances, he receives a series of letters drawing attention to his folly, or probably it is indicated that a special reduction will be made from the ordinary price of treatment in his case, or that he will be allowed to pay about a third in advance and the rest when he is satisfied that he has benefited.

It can hardly be wondered that deaf people often agree to undergo treatment or to purchase what is offered them, for the booklets besides being adorned with impressive anatomical pictures are often very cleverly, if not grammatically, phrased. A bond of sympathy is commonly at once established between the deaf man and the consultant by the statement that the great man's mind has been directed into the channel which it has followed with

such great results by the fact that he himself belongs to a family of deaf people, or was himself at one time a sufferer. Who could refuse the services of such a man when he offers them, not from a desire to grow rich at the expense of the deaf, with whom he deeply sympathizes, but because he thinks it is his duty to give to the world the benefit of a great discovery reached as the outcome of deep and lengthened study and research into the structure and anatomy of the different and complex organs of hearing, as well as of the physiological action of the many intricate attributes of the faculty of hearing?

We have endeavoured in this passage to reproduce something of the impressive if tautological style in which the motives and claims of self-constituted consultants are commonly set forth, and wish we could emulate something of the emphasis and poetry characterizing the descriptions of the horrors of progressive deafness and the joys of the sufferer who has obtained relief. So far as poetry is concerned, the following quotation from the work of one eminent aural eclectic could hardly be bettered even by Mr. Alfred Austin himself:

Have you ever stood on some elevated part of the moors and seen the grey mist softly enfolding the landscape around you, veiling and distorting the familiar outlines and contours? Well, it was just like that with me. It was as though some greyish fluid was slowly mingling with the translucent waters of the crystal spring of Hearing, rendering them opaque, dense, difficult to penetrate. Words became blunted and blurred. Half-heard phrases reached my ears, and my brain was bewildered with partly-comprehended meanings. Sometimes whole sentences of conversation were completely lost to me. And as my deafness increased and wrapped me round in its stifling, choking folds, I began to acquire a straining, anxious, "ear-hungry" look, as if (and it was perfectly true) I was ever on the *qui vive* lest some information of importance should elude my failing hearing.

Indeed, when the amount of eloquence contained in these pamphlets is considered, it is depressing to realize what really are the methods of treatment to which they relate. All the remedies, whether they take the form of a liquid or a salve, or an appliance, which we have ever had an opportunity of examining have proved to be either obviously futile or the bastard offspring of some definite piece of scientific research; that is to say, imitations of methods of treatment which have been tried by qualified specialists in aural disease and abandoned as useless, or appliances having the same object in view as some which have gained a certain amount of esteem in connexion with a limited number of cases, but the use of which the advertisers try to extend to all cases alike.

*The Remedies Supplied.*

They fall into four main classes—ointments and instillations, massage appliances, electrical appliances and artificial drums. The ointments are intended to be rubbed into the back of the ears and ostensibly absorb whatever is giving rise to the deafness or the noises of which complaint is made. They consist for the most part of simple vaseline, so have the merit of being harmless. Much the same remark may be made of the instillations, which when dropped into the ears are claimed to stop catarrh as well as produce all the other valuable effects desired. They consist chiefly of glycerine, so are as harmless and as useless as the ointments.

The electrical appliances are of the same order as the rheumatic rings familiar to our fathers and still to be seen occasionally on the stalls of medicine jacks in country towns. To all intents and purposes the amount of electricity which they afford is *nil;* nevertheless they cannot be written down as harmless, for the metals of which they are made are commonly thrown into the form of tubes, which have to be worn in the ears.

As for the massage instruments, only one of these is at present being pressed upon the notice of the deaf by irregular practitioners. It is an appliance closely resembling the Veedee vibrator, and produces, when applied to the head, very coarse, noisy vibrations, which might be expected to have much the same effect on the hearing power as leaning one's head against the bare wood of the back of a railway carriage.

As for the artificial drums, these predominate over all other remedies. They are variously shaped tubes of india-rubber and practically all alike, despite the differences which their vendors endeavour to draw between them. They possess one common peculiarity—namely, that in addition to fitting all ears "exactly" and yet allowing of "free ventilation" of all its parts, they have the truly remarkable quality of serving equally well as conductors of sound or as excluders of sound, for their use is recommended not only to the deaf, but to those who may be exposed to the risk of becoming deaf owing to sudden noises, such as heavy gun firing.

An artificial drum, of course, can never cure disease, but it may in an appropriate case be of some assistance, but what is an appropriate case only a qualified otologist can determine, and to do so he must actually examine the individual in question. Moreover, even when he says that an artificial drum might be of benefit those of the kind in question should be avoided. Owing to their structure they are liable to produce considerable irritation, and at the best can do no more than would be effected by the drums of cotton-wool and like material which can be obtained from any instrument maker at a twentieth part of the cost.

There is practically no foundation, in short, for the claims of the advertising aural quack, and there is some evidence that the public is beginning to recognize this fact. It does not follow, however, that when a person is pronounced incurably deaf by a qualified otologist all hope of improving his condition is at an end. There are plenty of artificial aids to hearing on the market, and many of these, notably the telephonic sound collectors, are of great utility. No one, however, should deal with a maker who is not prepared to allow his instruments to be freely tried at the patient's own home on a deposit against their cost being made. Trying an instrument at a shop is very unsatisfactory, for those who are frequently in contact with the deaf, and do a good deal of work in the way of selling instruments to them, have more or less trained voices. Indeed, a certain number of them trade on this fact, and thus induce deaf people to purchase instruments which fail to assist them when they are used in the ordinary circumstances of the purchaser's life as much as they seemed likely to do when he was trying them in the shop.

*The Responsibility of Otologists.*

It has at times been said that the medical profession is in a large measure itself to blame for the prevalence of quackery, since in some diseased conditions the methods of irregular practitioners occasionally succeed when those of qualified surgeons have produced very inconspicuous benefit. An identical statement could not be made about otology, for though it is true that otologists are unable to cure a very large proportion of cases of deafness, or even to arrest its progress, no person who has been the subject of ear disease can truthfully state that he has been cured by an irregular method of treatment when a regular method has failed. Indeed, it is exceedingly doubtful whether any patron of an aural quack has ever gained more than the most temporary benefit in return for his money.

Nevertheless, otologists do contribute to the prevalence of quackery, but in a different fashion. With absolute honesty they recognize the limitations of their art, and thus often have to tell patients that they cannot relieve them of their deafness, and that perhaps the deafness will slowly increase. This is, of course, perfectly right, but where the otologist fails is in stopping at this point. It ought to be remembered that a deaf person who seeks the advice of an otologist is comparatively indifferent as to the precise cause of his deafness; what he wants is relief. If he can obtain it by operative or some other like measure, so much the better; but if such treatment is not available, other forms of relief would be welcomed if their possibility and advantages were laid before him.

This is just what as a class otologists do not recognize. They seem to consider that they have fulfilled their duty when they have adopted all measures of a surgical or medical kind which seem to them feasible, and they volunteer no suggestions such, for instance, as would a surgeon who had found it necessary to perform amputation of the leg. Indeed, until quite a recent period it has been common for otologists either to state definitely or leave their patients to infer that artificial aids to hearing are, if not positively harmful, at all events, for one reason or another, hardly worth purchasing.

The chief reason for this state of affairs is perhaps that, with the exception of Politzer, very few if any otologists

have paid much attention to the acoustics of defective hearing, or have attempted to devise methods by which it may be overcome. Writers of textbooks commonly content themselves with at most a short paragraph on the subject, and many otologists even seem unaware that there are not only different degrees of deafness but different qualities thereof.

The net outcome is that deaf persons have been left to fend for themselves and hence the art of producing artificial aids for the deaf is in a far less advanced state than it might have been had the scientific knowledge and clinical experience of otologists been steadily brought to bear on it during the last three or four decades. Their past neglect of the subject is sufficiently evidenced by the history of the telephonic sound collectors to which reference has already been made. The first of these was devised by an English general practitioner, and it was made for him by a London firm of instrument makers. No notice, however, was taken of its production, nor were its possibilities recognized, and it was left for an American to come along, buy a specimen of the original pattern, improve its manufacture but not its principle, and to launch the first of the series of companies which are now making large sums of money, and at the same time affording immense relief to a very large proportion of their patrons. Still they have by no means at present reached perfection, and are unlikely to do so until the otologists themselves commence to study their possibilities.

## QUACKERY IN FRANCE.

(FROM OUR FRENCH CORRESPONDENT.)

QUACKERY consists of the exploitation of credulity by means of imposture; and it follows, therefore, that medical quackery is not only the most ancient of all forms of charlatanism, but also the most frequent and the most flourishing. On the one hand, on the soil where it thrives and of which ignorance forms the substance, there is spread the manure of fear, which leads to a particularly abundant growth. On the other, the science to which quackery sets itself up as a rival, for a long time remained in a very rudimentary condition—hesitating, uncertain; only now is it beginning to be worthy to be called a science. From the possible confusion has arisen the apparent legitimacy of certain of its pretensions, and the vitality of falsehood. There is one feature to be remarked in connexion with this particular form of imposture which is peculiar to it, and that is the fact that instead of, as in all other cases, the impostor being forced to seek for people to dupe, here it is the dupe himself who seeks, nay more, creates the impostor. Human nature is so constructed that it will deceive itself if it can find no one else to do so. A sick man wants either a cure for his disease, or the appearance or the hope of a cure; and such is his need for one or other of them that it drives him to look upon the most unlikely people as instruments for his salvation. If those about him do not happen to possess the necessary gifts he hypnotises himself into believing that they do. Anything will suffice to inspire him with confidence, a friend or a neighbour, transformed into a wonder-worker for the occasion, or the old woman nodding her head by the fireside—nodding because she is old, or perhaps because she does know something after all—or even inanimate objects, such as a charm or fetish, a spring, either still or running, or a statue holding out its arms. This state of things will never cease until medicine has discovered a sovereign remedy against death; and the greatest discovery of the age will have been made when the medical profession has learnt how to keep the monopoly of quackery in its own hands. For we may as well admit at once that we, too, are empirics. Take the case of actual pain or pressing danger, for example. In these circumstances we cannot rely solely upon the resources of a groping, temporizing science; we have to reassure and comfort the patient at once; and for this healing of the mind—an indispensable preliminary to that of the body—there is only one remedy to employ, which for the sake of our self-respect we will call "*charlatanine*," a dangerous alkaloid requiring infinite delicacy in handling, and the dosage of which we have the amplest justification for reserving to ourselves.

In the meantime it is made use of by others, whose right we do not recognize because they do not bring to this complementary therapeusis of the disease taken in itself the integrity and the scientific effort which, in our eyes, excuse the primary deception. With them, as with us, the promise of cure, or at least of relative security, is the same; but with them it constitutes the end and the principle of their treatment, whilst with us it is but the prelude and the basis. That the ultimate victory will be ours is a foregone conclusion. Of this the procedures of modern quackery give us a certain assurance.

In former times, medicine, groping in the dark, and seizing blindly, without even controlling them, the weapons of the wildest and most impulsive empirics, had no other methods than those of its rivals. It could only invoke against them the consecration of laws which were absolutely inadequate for the purpose. To the haphazard remedies proposed by the physicians of the time of Louis XIII or XIV in pointed or square cap could, without shame and without logical inferiority, be opposed the herbs and ointments sold on the Pont-Neuf by patterers in gilt coats, or the obscene preparations sold with the darkest mystery in the dens of sorcerers by the rivals of the woman Beauvoisin, or the forerunners of the poisoner, Madame de Brinvilliers. The essential thing was to strike the imagination, either by disconcerting the mind by absurdity or by taking it captive by bold assertions, or even by shocking the senses by fantastic, complex and disgusting remedies. Of that kind of quackery what is left? Not much. Absurdity and incoherence have lost at least three-fourths of their prestige, which has passed into the domain of science, whose patient and serious efforts in laborious and often successful research has conquered the respect of the people. Surgery has had much to do with this transformation. Having trembled under its knife, having seen it grope ever more deeply into the interior of the body, the public has acquired for it an admiration mixed with fear, by which it has been subjugated and captured. The street dentist who draws teeth on the point of a sword has at last come to seem to it less skilled than the man with the tiny bistoury who opens without haste the abdomen and the chest and exposes the heart. Fifty years ago there was no fair in the most rural part of France where the typical quack—he who is represented on the Shrove Tuesday carriage—did not make his appearance. We see him there still, but only once or twice a year. And how mild, how timid he is, in his prescriptions! His carriage is still gilt and shining with glass. There is always on the box seat a newly-waxed nigger with a grinning monkey pulling at his wig. The master flourishes the same Chinese coins, and still presents in the same bottles of alcohol macerated reptiles which horrify the crowd. But all his pretension does not go beyond the cure of corns or the sale of tooth powder, the whitening effects of which are shown by an opportune grin of the negro. No doctor bothers about this, no pharmacist condescends to notice him. The knowing peasants listen to the patter, and when it is done turn their backs, thinking that he speaks like their representative in the Chamber of Deputies. The drug must indeed be cheap for any one to care about buying it now. Itinerant quackery is at the last gasp.

There remains the other kind — consulting quackery. That also is going down. Towards the end of the Second Empire there might still have been found a quack for every three villages. There were one or two bonesetters or some seller of secrets to prevent erysipelas or burns by means of prayers or signs of the cross, some old woman conjuring away sores—that is to say, cancers—a worthy priest or a good nun combining the care of the soul with that of the body, on the specious principle that one who can do the greater can do the less.

More important and more rare was the water doctor, whose fame extended over a whole district. People went to him with a flask containing the "night water." The patient, first shown into an antechamber, recited his afflictions to another waiting there, who like him had come to consult the famous healer, but who was in reality an accomplice of the quack, whose business it was to carry to him all the information he could extract. When the patient's turn came he presented the urine to the master who, looking at it and smelling it, astounded the poor yokel by his perspicacity, then sent him away laden with herbs and

bottles and full of admiration. It was thus that poor folk, who could not find money to pay their doctor, went with enthusiasm to carry to the quack a few louis which had been carefully saved. Now the number of these quacks has diminished by at least three-fourths, and their favour with the public by nineteen-twentieths. There might possibly be found more in Paris than in the country, as all impostors are sure of finding dupes in the capital. Credulity in Paris is as strong and as foolish as in the depths of the most remote province. On the other hand, it is quite intelligible that simple folk, bewildered at every moment by the miracles of science, by the illusions of the theatre, and the acrobatic feats of the circus, have ceased to distinguish the chimerical from the possible, and are always disposed to look with open mouth at any fakir they see, to place themselves under the magnetic looks of the Zouave Jacob, or to solicit the help of a somnambulist in whom they see a pupil of Charcot.

But here as elsewhere the old type of quack tends to disappear before the march of progress. The diffusion of education, the propagation of Pasteur's teaching in the press, have created a new mentality in the public in regard to medical things. Those who still wish to be deluded can do so only by taking these things into account. These new notions, which may perhaps become the prejudices of to-morrow, have conquered the crowd. They would have finally crushed quackery if by a spontaneous transformation it had not established a new mode of action upon them, and thus recovered at one stroke all the ground that was lost. In view of the contemporary fear of microbes, every quack must first show some sign of education in the new ideas; then he finds himself obliged to make his remedies take their origin in a theory, ostensibly scientific. Hence it comes about that the present-day quack is either an electrician or a pharmacist. The old platform is too narrow for his new patter. He borrows the innumerable and incessant voices of the press. He is up to date. No more carriage, no more nigger, no more monkey, and especially no more Chinese coins. He fills, however, the sixth page of the newspapers with horrible pictures of diseased patients, or with the smiling portraits of those whom he has miraculously cured. He gets his name insinuated at the end of the medical articles of the third page and between two sensational announcements about Chaouia or Bagdad he gets slipped in on the first page an announcement of the therapeutic Messiah who lives in his house. Not only does he invite the client—he creates him. He sets forth under the eyes of the reader the most common symptoms which he connects with the most formidable diseases. Thus he makes him anxious, takes him captive and exacts his ransom. Credulous people lose for ever the certainty of being quite well. Old age has no longer any natural sense. The smallest pathological incident is made to bear the aspect of a cataclysm. And it is in this way that the modern quack—the quack of the newspapers—has suddenly become a social danger. Quackery through him has abandoned its primary mission, which was at all cost to reassure and to bring to the patient the consolation that science was incapable of giving him. At certain moments he has been, with a certain semblance of legitimacy, the last resource of the hopeless. Since he has made himself an *agent provocateur* of disease, since he is no longer of any use except to disturb the minds of the healthy, he has lost his last excuse, that which was so often invoked before the law courts, and which justifies the strictest forms of repression. Nevertheless, against this quackery of the pharmacist there is no legal enactment. The advertisements of midwives, druggists, and abortionists, inviting women to get themselves cured of "menstrual irregularities," have been reduced to a more modest form. Here and there some bonesetter, against whom a doctor without much philosophy has lodged a complaint, is condemned. A slight fine is timidly inflicted on some manufacturer of electric belts, who gets out of the scrape by engaging as assistants two or three doctors whose diploma fails to procure them a livelihood. Nothing is done against the pharmacist, who riddles the crowd with his pills, and fills the country with his syrups, steals more money in a single day than his predecessor of the fair did in ten years' wandering about France. All this disturbs the brain and upsets the nerves of a part of the people.

It may be that this irritates us members of the medical profession. Nevertheless it is our own fault, as I have said at the beginning of this article. Medicine began with the procedures of quackery; it is natural that quackery should end by simulating the procedures of medicine. It is for us to place the public in a position to distinguish between the properly educated doctor and the quack. We have too long proclaimed, as it seemed necessary—and we thought ourselves obliged to do so—that our first medication, on which depends the efficacy of all the others, is confidence. For the lack of sure remedies we invoke moral authority, the psychic influence of the doctor on the patient. If the sufferer puts the same kind of faith in others we have no right to protest. As soon as treatment made itself subjective, was not that equivalent to making the patient the true judge of it? If we implicitly recognize that it is the patient who creates the curative power of the doctor, does not that amount to giving him also the right to make of whomsoever he pleases the agent, however insignificant in himself, of that curative action?

Against contemporary pharmaceutical quackery, masquerading in the guise of false science, we have only one weapon—honesty. Why do we prescribe anodyne remedies, such as there are by the hundred in our formularies? Why do we give our chronic patients assurances to which time must inevitably give the lie? Why at every instant do we do things the sole effect of which is to give us a promise of being able later to place to our own credit the beneficent action of Nature? Why not refuse the credit of cures which are not due to us? And, as a corollary, the responsibility of failures which we cannot prevent? Why? . . . Alas, we know well enough it is because the patient is our master. It is because it is he who pays us; he who imposes upon us these violations of conscience—and of science. It is because we practise in this social absurdity: medicine living by disease and consequently subject to its caprices and its unreasonableness. There is at present only one true medicine—that of the hospital, because there there is no question of money between the doctor and the patient, and because the patient there sees only the man of science, whom nothing compels to use an insignificant therapy. Let medicine no longer drag after it the rags of primitive empiricism. Its conquests are now sufficiently solid to enable it to confess without shame its partial impotence and to nullify by that sincere avowal the pretensions of the neo-charlatanism which has traitorously sheltered itself under its shadow.

# Medical News.

THE sixth annual meeting of the Convalescent Homes Association will be held in the committee room, 32, Sackville Street, London, W., on Wednesday, May 31st, when Sir William S. Church, Bart., K.C.B., will take the chair at 4.30 p.m.

THE annual dinner of the Royal Sanitary Institute was held at the Langham Hotel, London, on May 18th. The President, the Duke of Northumberland, was in the chair. The toast of "The Military Forces of the Crown," given by Mr. Edward White, Chairman of the London County Council, was acknowledged by the Director-General of the Army Medical Service (Surgeon-General Gubbins, C.B.). Mr. Butlin proposed "The Houses of Parliament" in a thoughtful and earnest speech, to which Sir Philip Magnus, M.P. for the University of London, replied. The Duke of Northumberland, in proposing the toast of "The Institute," sketched its growth, and was able to show that its activities had grown very considerably since the early days of its existence, and that it had now spread its limbs into the colonies. The value both of the institute and of its museum was at the present time very considerable, and much of their success had been due to the capability and activity of their excellent officers. The Chairman of the Council, Mr. H. Percy Boulnois, replied. In responding to the toast of "The Visitors," Sir Thomas Barlow designated the institute as the premier society in sanitary science, and applauded its successful career all the more because it had done good without bluster or advertisement, and with a modesty which was very laudable. The last toast was that of "The President," to whom the Royal Sanitary Institute owes not a little.

# British Medical Journal.

SATURDAY, MAY 27TH, 1911.


## QUACKERY AND THE MEDICAL PROFESSION.

AT the present time the subject of health bulks large in the public mind, and matters are freely discussed at the dinner table and in the drawing-room which a few years ago would have been reserved for the privacy of the consulting-room. Consequently there is much imaginary disease, and as a natural result a corresponding number of equally imaginary remedies. It is needless to say that there is also much real disease A great deal of this is preventable or curable by proper means; but, especially among the poorer classes, a large amount of this suffering is not prevented or cured owing to the conditions in which they have perforce to live, and to the want of skilled attention given at the right moment. The evil is intensified by the fact that it is among the poor that quackery is particularly prevalent. A vast scheme of sickness insurance which directly affects the interests of the medical profession as well as of the people, is now before the country. The discussion which this scheme has aroused seems to make it especially opportune that the conditions under which medical practice is carried on should be defined, and the amount and variety of illegitimate competition with which the practitioner has to contend fully set forth. We have therefore thought it would be useful to give in this number of the BRITISH MEDICAL JOURNAL a general survey of quackery. We invite all who are interested in the subject, either as practitioners of medicine, as patients, or as philanthropists, to study the mass of material here collected. We are not so sanguine as to cherish the hope that we can open the eyes of the public to all the lures by which wily impostors strive to get people who are ill, or who fancy they are so, into their toils. We know that if we spoke with the tongues of men and angels we should not banish folly and credulity from the minds of men. Believing, however, as we do, that the best hope of destroying quackery is the creation and diffusion of an intellectual atmosphere in which it cannot live, we have done our utmost to show quackery in its true colours as

> A monster of such horrid mien
> As to be hated needs but to be seen.

This monster can on occasion array itself as an angel of light; it has been our endeavour to strip it of all its disguises.

To clear the ground we may begin by admitting that quackery sometimes achieves success. It is necessary, however, to impress on the public mind that such success is due not so much to the remedy, the miraculous powers of which are vaunted, as to the healing action of Nature. This cannot be too strongly insisted upon. As Sir Benjamin Brodie said in an address delivered at St. George's Hospital in 1838, "The living machine, unlike the works of human invention, has the power of repairing itself; it contains within itself its own engineer, who for the most part requires no more than some very slight assistance at our hands." Oliver Wendell Holmes puts the case even more strongly in his *Medical Essays*, where he says: "Probably all are willing to allow that a large majority—for instance, ninety in a hundred—of such cases as a physician is called to in daily practice would recover, sooner or later, with more or less difficulty, provided nothing were done to interfere seriously with the efforts of Nature. Suppose, then, a physician who has a hundred patients prescribes to each of them pills made of some entirely inert substance, as starch, for instance. Ninety of them get well, or if he chooses to use such language, he cures ninety of them. It is evident, according to the doctrine of chances, that there must be a considerable number of coincidences between the relief of the patient and the administration of the remedy." Rosalind says in *Love's Labour's Lost:*

> A jest's prosperity lies in the ear
> Of him that hears it, never in the tongue
> Of him that makes it.

It may with still greater truth be said that the "prosperity" of a quack medicine lies not in its power to cure but in the success of the effort of Nature to throw off the disease. It need not be denied that "the tongue of him that makes it" may also have something to do with the matter, for faith in the patient is a potent auxiliary to the natural tendency which many ailments have to get well of themselves. But we may well ask with Holmes: "How long will it take mankind to learn that while they listen to 'the speaking hundred and units, who make the world ring,' with the pretended triumphs they have witnessed, the 'dumb millions' of deluded and injured victims are paying the daily forfeit of their misplaced confidence!"

There are, of course, many conditions in which, as Sir William Gull said, Nature is trying to kill the man; and it is in dealing with these that rational medicine finds its proper field of activity. Notwithstanding what has been said about the self-healing powers of the human constitution, that field is a very large one. Medicine tends more and more to become preventive, and in the sphere of hygiene there is no room for quack medicines. Moreover, nowadays drugs play a relatively small part in the rational treatment of disease. Of course, as Sir Dyce Duckworth points out, the habit of self-drugging has been made easy by the ingenuity of manufacturers, and it must be owned that its prevalence is encouraged by the activity of certain chemical laboratories. For this it must be admitted that those among us who, like the Athenians, are always eager to hear some new thing, are partly responsible. Sir Dyce Duckworth makes a powerful plea for the cultivation of the art of healing, which in these days tends, perhaps, too much to be obscured by what we may venture to call the dogmatism of the laboratory. Invaluable as are the results of researches pursued with the help of scientific apparatus, they are not applicable to the treatment of disease till they have been thoroughly tested in actual practice. The doctor must, first of all, be a clinician, if he is efficiently to perform the work of treating the sick. There is a disposition on the part of the votaries of pure science to look with good-humoured contempt on the mere "practical man" whose methods are learnt not in the laboratory, but at the bedside. Yet it is to the practical man that the sufferer must turn for relief. We have heard of an obscure case in which bacteriologists and other scientific oracles were

consulted. The result of their deliberations was delivered in something like the following terms: We have examined the blood, the urine, and all the other secretions of the patient—bacteriologically, chemically, and spectroscopically—and have not found anything wrong. A level-headed practitioner, unlearned in the mysteries of the laboratory, who was present as *amicus curiae*, thereupon asked quietly, Have you examined the *man?* This was just what had not been done. And this is just what, if we understand Sir Dyce Duckworth aright, he would put in the foreground.

Dr. Saundby's article on Food and Feeding embodies the results of a close study of the subject characterized not only by scientific precision but sound sense and largeness of mind. At this time when food fads of all kinds are so fashionable, such a paper comes like a breath of fresh air into a room in which the atmosphere is loaded with artificial scents. Dr. Bashford's paper on cancer is the most damning exposure of the vilest and most cruel form of quackery that has appeared since Spencer Wells's *Cancer and Cancer Curers*. He has had large opportunities of learning the innumerable forms—some of them particularly insidious—which it assumes; these he fully describes. The time has come for plain speaking on this subject, and Dr. Bashford speaks without reserve or ambiguity. The papers on bone-setting by Professor Howard Marsh and by Messrs. Romer and Creasy strip this branch of practice of the cloud of mystery and miracle which has been thrown around it by interested people and well-meaning, but ignorant supporters. They effectually disprove the foolish charge that the medical profession has wilfully ignored the subject, and they have dealt with it in an unprejudiced spirit. Moreover, the papers bear witness to the fact that the profession keeps an open mind as to everything connected with the treatment of disease and the relief of pain and physical disability, and is willing to learn from any source anything that may seem likely to be useful for these purposes.

Sir John Byers speaks with the highest authority on the form of quackery to which women are especially exposed. Dr. Pernet deals with the quackery that takes the skin and its appendages for its province. The papers of Dr. J. H. Taylor, Mr. Charles E. S. Flemming, and Dr. Barnes are of special value as showing from first-hand knowledge the prevalence of quackery in the provinces, a fact which might not be gathered from the somewhat perfunctory report prepared by the Privy Council with the assistance of the Local Government Board, and founded on the statements of medical officers of health, most of whom apparently did not take the trouble, or perhaps had not the opportunity, of collecting full and accurate information. The articles on quackery in aural disease and unqualified practice, on quack advertisements and herbalists, speak for themselves. We need only say that they contain an amount of information on all these subjects invaluable not only to individuals but to all upon whom falls the duty of safeguarding the public health and devising measures for the relief of sufferers and the suppression of disease.

The art of healing requires a longer and more expensive apprenticeship than any other profession. The fundamental difference between medicine and quackery—apart from knowledge—is that while the former exists for the benefit of the public, quackery exists solely for the quacks. Already doctors do more unremunerated, often unacknowledged, work than any other profession. It is to them that the vast diminution of disease during the last half century is due. To them the State owes the preservation of innumerable lives, and the increased efficiency of vast numbers who are among the most valuable assets of the State. May we not, therefore, fairly plead that in its own interest the State should prevent their being hampered in their beneficent work by the rivalry of persons who make a selfish appeal to the ignorance of the people for whose welfare it is proposed to provide? A generous treatment of the medical profession in the matter of sickness insurance would be the truest economy from the purely financial point of view, and would, by encouraging the best and most highly trained class of practitioners to take an active part in promoting the success of the scheme, increase the national welfare to a degree that could not be reckoned in terms of money.

## CAUSES OF QUACKERY.

IT must appear strange that any one with the smallest grain of common sense should allow himself to be the prey of quackery, which is often imposture "gross as a mountain, open, palpable." It must, however, be confessed with sorrow that man has a natural tendency to self-deceit, and that if there were no impostors to cozen him he would delude himself. The ordinary man's attitude to quackery is well expressed in the following lines:

> First man creates and then he fears the elf;
> Thus others cheat him not, but he himself;
> He loathes the substance, and he loves the show;
> You'll ne'er convince a fool himself is so;
> He hates realities and hugs the cheat,
> And still the only pleasure's the deceit.

The primary cause of quackery, therefore, is our own readiness to deceive ourselves. The will to believe, of which we hear so much in the domain of theology, is as powerful a force in that of medicine. It shows itself not only among people of great learning and acuteness in other things, but even among members of the medical profession. Remedies and modes of treatment, like systems of philosophy or fashions in dress, "have their little day and cease to be." "Back numbers" are graveyards of dead theories, of which the various forms of quackery are the ghosts. There was a time when the art of healing was almost entirely quackery—that is to say, there was no real knowledge of the nature and causes of disease, and treatment was therefore mere random striking at an invisible enemy, when it was not downright superstition. Down to comparatively modern times medicine justified the gibe of Voltaire, that it was the art of pouring medicines of which we knew little into bodies of which we knew less.

Quackery was fostered by the early association of the art of healing with priestcraft. It was wrapped in mystery, and all knowledge of it was jealously hidden from the laity. Down to the sixteenth century leaders in medicine held that knowledge should be the monopoly of a few initiated. It is sad to read of a man like Arnold of Villanova giving instructions to the doctor how to play the quack. He shows how the physician should play on the passions of the patient, gain his confidence, and inflame his imagination. This, according to him, was the secret of success. One example of his teaching will suffice. It is taken from his book, *De Cautelis Medicorum*. The seventh

of these *Cautelae*, which is declared to be of very general application, runs as follows:

Tu forte nihil scies (de judicio ex urina ferendo). Dic, quod habet obstructionem in hepate. Dicet: non, Domine, imo doleo in capite. Tu debes dicere, quod hoc venit ab hepate. Et specialiter utere hoc nomine obstructio, quia non intelligunt quid significat, et *multum expedit ut non intelligatur locutio ab illis.*

"Obstruction of the liver" is a term to conjure with even at the present day. Abandoned by scientific doctors, the quacks find in it as potent an invocation as the *Ducdame* of Jaques to call fools in a circle. The Faculty of Paris saw with a lofty displeasure akin to that of Sir Leicester Dedlock the "opening of the floodgates" of knowledge to the profane. Physicians complained that the teaching of science to barbers was taking the bread out of their mouths. The sacerdotalism of medicine, which reached its highest point in the priesthood of ancient Egypt, continued to exist till about the end of the eighteenth century, expiring only with the wig and gold-headed cane. The more the light of science is diffused, the less room there is for imposture, which thrives in darkness and ignorance.

Another thing that has fostered quackery is blind acceptance of the statements of men who are regarded as oracles. The belief in teachers naturally engendered in them a belief in their own infallibility. This acted as a subtle corrupting influence, for credulity in the listener inevitably breeds untruthfulness on the part of the person whose simple faith has placed him on a pinnacle. It need not be deliberate untruthfulness, but the habit of prophesying from a tripod creates a habit of gratuitous assertion. From this to anathematizing all who question the infallibility of the speaker is but a step. We have often said—and we take this opportunity of repeating it with emphasis—that nothing has more retarded the progress of medicine than the influence of the "Superior Person." To him all innovation, and especially every suggestion from the world that lies below the Olympus in the clouds of which he dwells, is heresy or even blasphemy. People unwilling to take things on trust resent this attitude. And when the assumed omniscience is not justified by facts visible to all, as is too often the case, it must become an object of derision. The worst of it is that this derision is, unjustly but perhaps inevitably, reflected on the whole profession.

The history of medicine shows how much mistaken notions of dignity of doctors have had to do with the development of quackery. First we have the separation of medicine from surgery, which was despised as a handicraft. Then came the long struggle between the surgeons and the physicians, who, in their eagerness to crush their rivals, called into their assistance barbers, and later, when these "base mechanicals" had learnt too much, they made an ignoble alliance with bath attendants. And the surgeons who had any kind of official stamp were apt to pose as "learned clerks," and were too often as inefficient in practice as the physicians. As far back as the time of Hippocrates, they were content to leave operations requiring special skill in the hands of itinerant empirics. While the doctors were fighting about their dignity, and surgeons were afraid to operate, the quacks had the field open to them. Traces of this old jealousy of special knowledge remained visible far into modern times. It is scarcely an exaggeration to say that every form of specialism has at first been denounced as quackery. This was due to ignorance. John Hunter classified skin diseases into those that sulphur would cure, those that mercury would cure, and those that the Devil himself could not cure. In the last century an eminent surgeon divided, even more trenchantly, ear diseases into those that could be cured with the syringe and those in which this instrument was of no avail. The early history of scientific obstetrics and gynaecology is another illustration of the fact that specialities were regarded as outside the pale of the higher medicine. The beginning of the reign of the late Queen Victoria was saddened by a tragedy due to gross ignorance of gynaecology on the part of a Court physician. In our own day we have known leaders of medical science denounce adenoid vegetations as imaginary conditions invented for exploitation by unscrupulous practitioners.

It is beyond question that obstinate conservatism within the profession has been largely responsible for the existence of quackery. This is especially true of that vast shadowland which may be comprehensively, though vaguely, described as neurotic disease. Here quackery has the fullest play, because it is here, unfortunately, that rational medicine can show the least result. The Italians have a proverb that the belly is the place of miracles. Whatever may be the original meaning of this old saying, it has in it an element of profound truth. One has only to look at the "Testimonies" to the virtues of all quack remedies or systems, from Bilkem's pills to Christian Science, to see how large a proportion of them relate not to definite diseases, but to symptoms arising from disorders of the digestive and other abdominal organs. The abdomen is the seat of innumerable functional disorders, and, moreover, in neurotic patients the ordinary vital processes of which a healthy person is unconscious reveal themselves by sensations which are taken to be symptoms of disease. The Indian philosophers who try to discover eternal truth by contemplating their navels find their counterparts in innumerable persons among ourselves who are always thinking of their bodily functions.

Every doctor is familiar with the legion of people who fancy they have heart disease; every gynaecologist knows the vast numbers of women whose mind is centred in their wombs; and every surgeon knows the young man who is constantly dwelling on his sexual organs, and worrying himself with doubts as to his virility—doubts which, cunningly exploited by quacks, bring in a rich harvest to the deceiver. Then there is the multitude of people who live in dread of venereal disease; so large is this number that the disease, for such it is, is honoured with a special name—syphiliphobia. Again, there are the people who live in the shadow of the fear of cancer, and who see in every pimple or every little sore the small cloud no bigger than a man's hand which may grow to the blackness of death. If we add to these the numbers who believe that their "liver is out of order," we find that a large proportion of the human race suffers from more or less imaginary ailments. It must be admitted that doctors are, perhaps, not sufficiently patient with these *malades imaginaires*, and, indeed, it is not easy for a strong-minded man to take them seriously. To them, however, the suffering is serious, sometimes to a degree that makes ruin of their life; and among these quackery finds a rich field which, skilfully cultivated, has what Johnson said of Thrale's brewery, "potentialities of wealth beyond the dreams of avarice." It is sad to have to confess that in many cases quackery finds its triumphs in the failures of medicine.

These, then, are two great causes of quackery: The folly of mankind, which is ever ready to deceive itself; and the powerlessness of medicine to give speedy and effective relief in many forms of human suffering.

There remains a third factor, and that is the dishonesty of astute people who trade on the credulity of an ignorant public. We do not mean to say that all quacks are dishonest. Morrison, we believe, died taking his own pills, and there are not a few enthusiasts of the same temper. They are stimulated, as Sir Benjamin Brodie pointed out long ago, by the double motive of doing service to their fellow creatures and gratifying their own vanity. We have conspicuous examples of this kind of enthusiast among us at the present day. There is another class who first invent lies and then persuade themselves of the truth of their own inventions. They are like the politician of whom a cynic said that he did not mind his keeping trumps up his sleeve, but he objected to his believing that the Almighty placed them there. But that there is a very large proportion of downright imposture has been shown in the series of articles on secret remedies which have been published during the last four or five years in this JOURNAL.[1] The facilities for advertisements of this kind, offered by a venal press on a vaster scale than has ever been known before, help to keep quackery alive and to delude incalculable numbers of victims whose faith in the promises of cure so impudently put forward leads to the loss, not only of money, but of health. We believe that if newspapers refused to publish such advertisements quackery would receive its death-blow. England may be made sober by Act of Parliament, but the average Englishman will not tolerate the infringement of his right to use his liberty, as the citizen of a free country, to seek counsel of any oracle of healing he chooses, or to take any pill he "finds good of," as Bacon says, or anoint himself with any salve in whose virtues he believes. But the law should see to it that the people are not misled by fraudulent statements. If such statements are punishable when made in the prospectus of a company, it is surely not less important that they should be penalized when they are made in advertisements which promise relief to hopeless suffering. It is the quack advertisement, with its suggestion of ill-health, reinforced by the enumeration of symptoms which, even when they exist, have not necessarily any sinister significance, that prepares the mind of the reader for the reception of the insinuated falsehood. It is a danger even to the healthy, for it tends to engender self-consciousness, which is the root of innumerable evils. But to sufferers from diseases for which medicine at present can only offer doubtful remedies, it is a subtle poison.

That the refusal of quack advertisements does not in the long run injure a respectable newspaper commercially has been conclusively shown by the experience of *Collier's Weekly* and the *Ladies' Home Journal* in America. The story of "the fight for clean advertising" is told by John Adams Thayer in his recently published book, entitled *Getting On: The Confessions of a Publisher*. He says that the campaign dealt patent medicine advertising the severest blow it ever received. It would be well if a man of like enterprise and energy could be found to play the part of Hercules to the Augean stables of British journalism. If this were done we think there would be no need of further legislation against unqualified practice, which might well be allowed to die of its own futility.

[1] The series up to date was collected in a volume, published in 1909, *Secret Remedies: What they Cost and What they Contain*. London: British Medical Association, 429, Strand. (Price 1s.; post free, 1s. 3d.)

## A SPIRITUALISTIC NEUROSIS.

THE question, What is spiritualism? is one that would be answered by different people in different ways. First, we have what may be called the mere spookists, with their table turnings, rappings, and supposed communications from the dead. Of them we can only say with Huxley that they form a strong argument against suicide. Better far, surely, to live in the lowliest condition on this earth than to die and be made the medium for the conveyance of the foolish and often illiterate messages supplied for the edification of spiritualist circles. Then there is Mr. Stead, with his bureau of communication with the other world. Unlike Goldsmith, who touched nothing which he did not adorn, the Editor of the *Review of Reviews* has the art of vulgarizing whatever he touches. He can call spirits from the vasty deep, and, what is more, he seems to be able to induce himself to believe that they come when he calls for them. A gentleman who can summon the spirit of Mr. Gladstone, and get his views on the famous Budget of Mr. Lloyd George, may justly boast that he stands apart from the common herd of spiritualists. Again, we have the Oriental theory of the astral body. Then we have the Catholic view represented by the late Dr. Lapponi, Mr. Rauppert, and Monsignor Benson, author of the *Necromancers* and other interesting studies. According to this theory, spiritualism is the work of evil spirits, who play on the superstitions of those who, in their longing for some sign of life beyond the veil, are too ready to be deceived. This view was expressed by Hamlet when reasoning about the identity of his father's ghost:

> The spirit that I have seen
> May be a devil; and the devil hath power
> To assume a pleasing shape; yea, and perhaps
> Out of my weakness and my melancholy
> (As he is very potent with such spirits)
> Abuses me to damn me.

There is still another way of regarding spiritualism. This may be called the occulto-scientific, and finds its explanation in mythical manifestations of odic force, *n* rays, "mental balls," and so forth. Dr. Baraduc appears to be the special prophet of the "mental ball." In an article entitled, "On the Trail of the Ghost," by Vance Thompson, which appeared in *Nash's Magazine* some time ago, Dr. Baraduc is described as he was seated in his study one afternoon in a state of mental exaltation. Over his head glowed the luminous *boule mentale*, which is described as a link between other luminous spheres of the same kind. There are in man, we are told, potentialities akin to the magnetic polarization of the physical world, and sleep induced by animal magnetism discloses in him new faculties, and places him *en rapport* with large and natural force. In this way, we are assured, Dr. Baraduc would explain why the "mental ball" appears most clearly when there are abnormal conditions—of trance, of approaching death, of animistic excitement. Ghosts seem to be familiar objects in Dr. Baraduc's laboratory. Chains are formed in the usual spiritualistic fashion, in which men and women alternate, and "the magnetism generated by hand upon alien hand begins to surge around the circle. You feel it, rhythmic force pulsing through the throbbing links of that animal chain." This reminds us of the lady in *David Copperfield* who believed in "blood." "We see," she said, "blood in a nose and we know it. We meet with it in a chin and we say, 'There it is!' That's blood. It's an actual matter of fact." So

apparently Dr. Baraduc's adherents would say of the "mental ball," only they see it not in a chin but over the seer's head. But this is not all. Dr. Baraduc's interpreter tells us that "spiritualism is often merely a prostatorhea (*sic*) of the nervous system." We congratulate Mr. Vance Thompson on having discovered a recondite truth, which he says explains many things. To the plain man the condition itself would seem to stand in some need of explanation. Till further light on the subject is vouchsafed we are content to place it beside the definition of poetry as a disease of the small intestine, which is attributed to Cabanis. But if we accept these inspired utterances with the faith that does not ask for proof, we cannot help feeling that there is still at least one thing in the sphere of spiritualism that is not wholly explained by "prostatorhea of the nervous system." What the Church graciously calls the "devout female sex" would seem by the terms of the definition to be excluded from the sanctuary of this particular form of the cult of spooks. Here is a new field for the energies of the militant suffragists.

## THE NATIONAL ANTIVACCINATION LEAGUE.

ON September 17th, 1910, a comment appeared in these columns under the heading "Antivaccination League Declining." The support from the public had dwindled to a point so low that the operations of the league must soon have been greatly restricted, if not extinguished. The windfall of a legacy from Dr. Bell Taylor, amounting to about £10,000, has revived the league and at the same time greatly increased its baneful activity. The annual report and financial statement for the previous year shows the continued decline in public support by subscriptions and donations. The latter items amounted to £341 for the year (they were £935 in 1906), but the league managed to dispose of £2,031 in ordinary expenditure. Nearly £1,000 of this was paid to officials of the league, to whom the legacy must have come as a boon and a blessing. Mr. J. P. Swan, Mr. Bonner, and Miss Loat (the secretary) are among those who share the bulk of this money for their services to the cause. Very few medical men in the whole kingdom receive such remuneration for vaccinating as these officials get for opposing it. Notwithstanding this, the officials mentioned never tire of twitting medical men about their "pecuniary interest" and the bias which antivaccinators believe to be thereby involved. With the advent of the Bell Taylor thousands the public will be more than ever misguided, and prejudice against the medical profession will run riot through the perverse teaching of these zealots. There is a call for some organized defence on the part of the profession against the specious fallacies of the street corner orators of the league and the mischief created by the numerous leaflets and tracts circulated broadcast throughout the country. The report of the league annual meeting in the May *Vaccination Inquirer* gives evidence that medical sympathy is chiefly derived from American "doctors." There is a remarkable silence about Dr. Hadwen, whose name does not appear in the list of those present. Are more dissensions in the air? Mr. G. Lansbury, M.P., could not resist the temptation afforded to deal a blow at the "most democratic President the Local Government Board ever had." Every year one of the speakers gives a shock to the meeting by attacking one or other of the favourite claims of the antivaccinators. A year or two ago their chief guest, Dr. Leverson of New York, told them isolation was no good. This year the Hon. E. Pomeroy admonished the league for thinking too little about the liberty to be wrong. They talked only about the liberty to be right, but, said Mr. Pomeroy, "the liberty to be wrong was just as great as the liberty to be right." Then came the thunderbolt when he told the assembled antivaccinators not to lay too much stress on sanitation. The usual *conversazione* with musical programme in the evening must have been a welcome relief to those discordant notes.

## OLD AGE AND PHYSIOLOGICAL DEATH.

MUHLMAN has recently published a summary of his theory of senile decay and death,[1] which regards both as natural and unavoidable consequences of growth. The most constant feature of increasing age, he says, is the lipoid granulation or pigmentation of the central nervous system, which has been shown to commence during infancy and increase with a fair degree of constancy till old age. There are many reasons for regarding this pigmentation as degenerative in nature, but Muhlman assumes that the nervous change is the cause of the senile changes in the other organs of the body; thus for him death from senile decay is essentially a cerebral form of death (*Hirntod*). What is the cause of the pigmentary degeneration? Many years ago certain biologists, including Spencer, Leukart, and Bergmann, pointed out that growth must eventually be limited by the physical fact that bulk increases at a much greater rate than the superficies, the surface being ultimately the source of nutrition. Muhlman assumes, first, that the parts most distant from the surface will suffer first, and then that the nervous system is most distant from the absorbing surface. We cannot quite see the force of this argument when applied to an animal with a well-developed vascular system, but there is some evidence that the nervous system is the first part of the body to feel the strain due to increasing growth. Thus, relatively to the other organs, it diminishes from birth, and has attained its absolute maximum before the age of 15. An American poet heard in his heart a muffled drum beating a funeral march to his grave, and now we have a Russian, with a touch of the national pessimism, telling us that the nervous system begins to degenerate while yet the child prattles at its mother's knee. These doctrines are not inspiriting, and mankind will, perhaps, find more practical help in another doctrine which Muhlman presents. It is that learning to talk and walk probably demands more cerebral activity than the abstract reasoning of maturity. It may well be so, and if the ideas this assertion suggests were more constantly present to the minds of teachers of youth and pedagogical theorists it would be the better for the rising generation.

## THE INSOLATION OF FLEAS.

THE recognition of the importance of flea-infested clothing as a means of disseminating plague has led to investigations with the object of discovering cheap and effective method of treating clothing so as to rid it entirely of fleas. The method sought was one more especially suited to the needs and facilities of Indian villagers, and one which could be carried out on an extensive scale simply and as a matter of routine. The observation that heat and sunlight are inimical to fleas led Lieutenant-Colonel Bannerman in 1907 to investigate the action of sunlight as a pulicide. The experiments carried out under his direction went far to show that clothing could be

[1] *Das Altern und der physiologischen Tod: Erganzungen zur physikalischen Wachtumlehre.* By M. Muhlman (M. Millman), Prosector at Balachany, near Baku. Gaup and Nagel's Encyclopaedia of Anatomy and Physiology. No. 11n. 1910. Jena: Gustav Fischer. (Roy. 8vo, pp. 44. M.1.20.)

thoroughly freed from fleas by mere exposure to a hot sun for a period of three hours, but the limits of usefulness of this method were not determined, nor was any effort made to ascertain the fate of the fleas, whether they were killed or whether they escaped under cover of vegetation. A more detailed investigation was called for, and this was undertaken by Captain Cunningham, whose results have just been published.[1] They confirm and amplify Bannerman's observations, and demonstrate the feasibility of the method. The experiments were carried out at Bombay from December to June. The daily variations in light and heat from the sun were noted throughout this period, as were also the effects of clouds and wind, and it was found that during the hot weather there were at least half a dozen hours every day during which the heat of the sun was strong enough actually to kill fleas within a short time. The experiments were conducted in large tin trays, and on a piece of prepared ground, and the behaviour of the fleas was carefully watched. Flea-infested clothes were laid on these trays and exposed to the sun. Care was taken that fleas should be present on both the upper and under surface of the clothes, and the temperature in each case was noted. On exposure the fleas on the surface made frantic efforts to escape from the direct glare of the sun, and they were usually all killed within ten minutes. Those on the under surface remained where they were, and being protected from the direct sunlight they survived for a longer period. In most cases, however, they were entirely killed in forty-five minutes, so that apparently an hour's exposure to the heat of the Indian sun is amply sufficient not only to rid clothing of fleas, but at the same time to destroy the latter. Such a favourable result is only obtained when the clothes are exposed on hard sandy ground, for when they are laid on grass many of the fleas find shelter under the grass and doubtless escape. Captain Cunningham recommends that the ground to be used for such purpose should be covered with a smooth layer of sand about 3 in. deep, that it should be in such a position that a temperature of over 120° F. can be obtained, and that the clothes should be spread out as flatly as possible, and not less than 3 ft. from the edges of the sand.

## TOOTHACHE IN THE TOOTHLESS.

ALTHOUGH this condition is not uncommon the literature about it is most scanty. Melchior[2] points out that the pain is situated in the alveolar process, and is most frequent in the upper jaw. The area affected is usually small. It often extends only a few lines, and the soft tissues are but slightly or not at all involved. He believes the pain to be due to the compression of nerve endings in the alveolar border by dense, ivory-like bone, and states that when this is excised a prompt and radical cure is effected. How troublesome the condition may be is illustrated by the case of a widow, aged 60, who had suffered from toothache since childhood; her last tooth, the right lower canine, which had long given pain, had been found loose and had been easily extracted about a year before she came under treatment. The pain continued at the site of the extracted tooth; it was shooting and intermittent, and was felt throughout the right lower jaw, whence it radiated to the temporal and retromaxillary regions, and down the right side of the neck. Chewing food sometimes excited attacks of pain, which grew in frequency and length till they were almost continuous, and undermined her health. Mouth washes, painting the gums, and other treatment by various dentists were all ineffective. Pressure on a small area the size of a pea at the site of the lower right canine was found to evoke an attack of pain. The gums seemed normal, but a skiagram showed the bone to be thickened at this point. Partial resection of the lower jaw, including the thickened alveolar margin, was followed by complete recovery. Toothache in the toothless may be caused by a variety of other conditions, central or peripheral, the latter being the commonest. Chronic ostitis and periostitis, inflammation of the cavities of the jaw, and old fractures may be causes, and all must be excluded before the surgeon proceeds any further.

[1] *The Destruction of Fleas by Exposure to the Sun.* Calcutta: Superintendent Government Printing, India. 1911.
[2] *Ugeskrift for Laeger*, February 16th, 1911.

## TREATMENT OF DACRYOCYSTITIS.

THE lacrymal sac is the stepchild of ophthalmology, and its diseases receive less attention than they deserve. Years ago Percivall Pott, and before him Anel, pointed out the principles of rational treatment, but alas! Bowman invented his probes, and Weber his knife, and these two instruments held sway for decades. Even now surgeons are found who lightheartedly slit up the canaliculus of a child and force in probes to cure conditions which will yield to milder measures; even to-day patients may be found wearing permanent leaden styles for chronic dacryocystitis. To slit up a canaliculus with Weber's knife is an unnecessary mutilation, and almost invariably causes permanent epiphora, even though the lacrymal canal be more patent than normal. Treatment by probes is only successful in some 5 per cent. of the cases treated; it is painful, and few patients have the endurance and fortitude to follow it up. Parsons, in an article published in this JOURNAL on February 23rd, 1907, pointed out that systematic lavage with Anel's syringe would cure most simple cases which were usually treated by passing probes, and experience has shown the truth of his views, which are now held by most modern surgeons. Goldreth[3] contributes an article which indicates a rational line of treatment, although he allows small probes to be passed through the dilated canal when lavage fails. Chronic cases, especially when complicated by suppuration, can only be permanently cured by excision of the sac, which can be performed under local anaesthesia. The wound is invisible in a fortnight, the cure is complete, and epiphora is rare. Directions for the operation are to be found in Meller's *Ophthalmic Surgery*. No special instruments are necessary, and an incision quite sufficient in size to allow the sac to be removed is too small to admit the many patterns of retractor on the market. The operation correctly performed is practically painless and almost bloodless, and often the sac can be removed entire. It is an operation which can be successfully performed by any general practitioner who will take the trouble to read Meller's directions.

[3] *Ophthalmology*, January, 1911.

IN view of the intention to hold the Annual Meeting of the British Medical Association in Liverpool in 1912, a large and enthusiastic meeting of members was held at the Medical Institution on May 17th. Various Committees were appointed, and the general arrangements were considered.

THE annual dinner of the Indian Medical Service will be held at the Hotel Cecil on Wednesday, June 14th, at 7.45 p.m., Surgeon-General W. R. Browne, C.I.E., in the chair, when the Service will have the honour of entertaining General Sir Beauchamp Duff, K.C.B., K.C.S.I., K.C.V.O., Military Secretary, India Office, as its guest. Officers intending to be present should communicate without delay with the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, 27, Harley Street, W.

# Correspondence.

## PROFESSIONAL UNITY AND GOOD FELLOWSHIP.

SIR,—Numerous letters have recently appeared in the BRITISH MEDICAL JOURNAL on the unity of the profession, sickness, invalidity, etiquette, and similar subjects.

But, Sir, I do not think that the cause of this want of unity has been dwelt upon. I am firmly convinced it is due to the members of our profession not realizing that we should have unity of purpose and unity of ethics. Each member of our profession is one of a great body of educated gentlemen whose education, profession, and interests are identical, and one of the great causes, and, in my humble opinion, the chief cause, of lack of unity of conduct is the want of any lecture (and subsequent examination) on the subject of the rules of the profession at the end of the medical student's curriculum. The legal profession take good care to have their rules defined. The universities and colleges would be doing a good and peace-making act if they decreed that, tacked on to some course of lectures—let us say medical jurisprudence—there should be two or three lectures devoted to medical ethics and the rules of the profession, so that when a young practitioner sets out in the world he will be well up in these subjects, and the whole profession would work on standard lines. Scores of practitioners have told me they hardly know any ethics or rules of our profession, and some only learn a few by bitter experience, when they have been hauled over the coals by a neighbouring practitioner, or one of the Divisions, for a sin that has quite unconsciously been committed, and about which they had never had any warning given. Because a man reads law he cannot know all the rules, written and unwritten, of the Incorporated Law Society, neither can a man who has studied medicine and surgery instinctively know all the written and unwritten rules of our profession. Not one doctor in thirty or forty has read De Styrap's or Saundby's books on ethics! How can doctors work together in harmony when each man makes his own rules according to his own feelings, upbringing, or liking. It may be said that the examining corporations could not entirely agree as to what the correct ethics and rules of the profession are, but surely they could agree on the bulk of the rules and help towards unity and happiness in our profession. The golden rule is, of course, at the bottom of all the matter. Some doctors may say that the golden rule is enough for them—namely, "to do to others as we would they should do to us," but to apply this rightly, when our own interests as well as those of others are at stake, it is a difficult matter to do with justice, without some previous amplification and explanation as to how the above rule acts fairly to all sides in any particular or complicated case of difficulty. Two doctors in one village at loggerheads with each other is a deplorable sight—both good fellows, but both never having been taught or examined upon ethics, make laws unto themselves, and enmity is bound to follow, whereas had both been taught the rules (as they are taught asepsis and blood testing), then peace, good professional work, unity of action, and happiness would result.

Let me very strongly draw the attention of the medical corporations to this subject, for it goes to the root of the whole matter.—I am, etc.,

Bedford, May 10th. ARTHUR CONNING HARTLEY.

## MANIPULATIVE TREATMENT OF LOOSE CARTILAGE OF THE KNEE-JOINT.

SIR,—I have read the article in the JOURNAL of May 6th, p. 1050, by Dr. Sharp, on the manipulative treatment of loose cartilage in the knee-joint. It is interesting, as it illustrates what is an occasional experience with most general practitioners. A patient suffering from loose or displaced cartilage of the knee-joint is treated for some time with more or less unsatisfactory results. He is then recommended to have the knee operated on, but before doing so he consults a bonesetter on his own account. The bonesetter as a rule gives him his stock diagnosis—namely, a dislocation, and then forthwith proceeds to carry out a so-called reduction. This consists of a system of forcible and violent movements of the joint in every direction, without any regard for the condition of the joint or the feelings of the patient.

In the case described by Dr. Sharp some hyperextension resulted without the characteristic "locking" of the joint. This, he concluded, was due to rupture of the posterior crucial ligament by the forcible manipulations. I would point out, however, that when the knee-joint is forcibly extended the strain comes not on the posterior but on the anterior crucial ligament, which then is forced against the front edge of the intercondylar notch, and so "locking" of the joint occurs. At the same time, the posterior and the internal lateral ligaments, and to a lesser degree the external lateral, are also put upon the stretch.

I would conclude, therefore, that in this case, where there was marked hyperextension without "locking" of the joint, resulting from forcible manipulation, the posterior and the internal lateral ligaments must have been severely stretched, and the anterior crucial ligament torn.—I am, etc.,

Glyn-neath, May 9th. S. MCCLURE, M.B.

## PRESSOR BASES IN THE URINE.

SIR,—Sir Clifford Allbutt in his very interesting address on Arterio-Sclerosis and the Kidneys, published in the JOURNAL of April 22nd, refers briefly to some work carried out by me in the physiological laboratory of King's College, London. (See *Lancet*, 1909 and 1910.)

Abelous and Bain, he remarks, have reported in the urine of normal adults pressor substances, which, when retained in the system, incite rises of pressure, and moreover, may damage the kidney.

Abelous has the credit of the discovery that normal urine contains pressor substances, but so far as I am aware neither he nor myself suggested any damage to the kidney. He pointed out that the bases were absent from the urine in cases of arterio-sclerosis, but he does not appear to have worked out the relationship between high blood pressure in general and the retention of the bases in the body.

It was not until I examined the urine of a large number of normal people and those suffering from high blood pressure, and had thus demonstrated the marked decrease or absence of the bases in the urine of the latter, that it became possible to regard their retention as a factor in the production of high blood pressure.

The work of Dixon and Harvey on the same subject, to which Sir Clifford Allbutt also alludes, came later, and is, I understand, still unpublished. Those of your readers to whom the subject is new might consider that Dixon and Harvey were first in the field, as Sir Clifford mentions them first. I feel quite sure that Sir Clifford Allbutt had no intention of conveying this impression, and that the order in which the names are mentioned is a mere accident. Nevertheless it appears to me advisable to draw attention to the point, and to claim priority.—I am, etc.,

Harrogate, May 5th. WILLIAM BAIN.

## ARSENIC AND CANCER.

SIR,—Sir Jonathan Hutchinson's marvellous powers of close clinical observation at least entitle his original article on arsenic cancer in your issue of April 29th to the deepest respect of every member of the profession. It contains an unequivocal statement that arsenic originates a general proclivity to cancer, and suggests as a possible explanation "a diminution in the vigour of the forces which favour normal animal organization." In this connexion I would observe that in the intervening process between chronic inflammation—the usual *cause* of cancer, I believe—and malignant growth perverted or weakened nerve influence and impaired resistance on the part of the tissues are probably the determining factors.

In my view the changed nerve influence brings about a resuscitation of ancestral reproductive faculty. When a bedded-out geranium slip produces roots germ cells are not produced from cells not destined to that purpose, but lost parts are reproduced by what is undoubtedly an *exaggerated process of healing*. The power of regeneration in the highly specialized tissues of the higher animals is not lost on account of the high exaltation of one special function in each cell, but because its retention is no longer very useful.—I am, etc.,

Lightcliffe, May 6th. ASPINALL MARSDEN.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

STATE INSURANCE AND MEDICAL FEES.

AN important mistake appeared in some of the Manchester newspapers with regard to the amount provided under the National Insurance Bill for medical fees. In a short report of a private deputation of medical men which waited on the Chancellor of the Exchequer last week, it was stated that "the payment under the scheme to members of the profession will be 6s. per head of the persons insured, and not 4s." This is an incorrect account of what Mr. Lloyd George actually told the deputation, but it seemed to be supported by a mutilated extract from an official report which appeared in identical terms in the *Lancet* and the BRITISH MEDICAL JOURNAL, giving Mr. Lloyd George's views on certain of the medical aspects.[1] In quoting from this report the statement that the average capitation fee was estimated at 6s. per head, the newspapers omitted the following words, "for medical attendance and the drugs, dressings, and appliances used in domiciliary treatment." The omission of these words made it appear as if the Government were providing 6s. for the medical man, whereas a sum probably amounting to 1s. or 2s. must be deducted from this for drugs, dressings, and appliances which the approved societies are to provide through chemists or possibly at dispensaries. On the errors being pointed out to the *Manchester Guardian*, the editor inserted the following note: "We regret that the paragraphs in question which were supplied to us by the Press Association, conveyed an inaccurate impression as to the payments to be made to doctors under the bill." The *Guardian* thus lays the blame for the mistakes on the Press Association. It is felt in Manchester that it is important to exercise the greatest caution before accepting as correct newspaper reports as to the intentions of the Government with regard to the profession. There is a tendency in certain lay quarters to minimize as much as possible the dangers arising to the profession under the bill, and if any glossing over of the dangers should have the effect of lessening the determination to refuse medical attendance on the conditions at present proposed, the resulting apathy would be serious. With regard however to the present point, from all the information obtainable the offer of 6s. for medical attendance alone on "good lives" and "bad lives" alike is not accepted as adequate. Any threat of checkmating the profession by appointing whole-time medical officers for domiciliary attendance is regarded in Manchester as insusceptible of realization, for inquiries show fairly conclusively that it would be impossible for either the Government or the approved societies to obtain whole-time medical officers to do the work required. The fact is that many medical men who were inclined to accept the capitation system are now so satisfied with the unanimity in the profession that they are seriously thinking of demanding payment per attendance which they always preferred but at one time despaired of being able to obtain.

[1] BRITISH MEDICAL JOURNAL, May 20th, p. 1202.

# Universities and Colleges.

## CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

THIRD COLLEGE.—W. D. Beamish, U. L. Bourke, T. Dillon, F. J. Eagar, J. A Evans, F. E. Fitzmaurice, J. Harvey, T. J. Kelly, P. M. Moriarty, M. Murphy, F. A. O'Donnell, W. R. O'Keeffe, P. J. O'Reilly, A. J. Patterson, A. F. I. Patterson, T. S. Seymour Smith, I. M. Swanepoel.

FINAL.—P. W. Black, A. D. Clanchy, J. A. Evans, R. A. W. Ford, A. N. Lanphier, A. G. H. MacIlwaine, Francis Phelan, W. Rahilly, R. P. Thomson, H. Q. O. Wheeler.

D.P.H. (BOTH PARTS).—*G. Beatty, *J. Cathcart, C. A. Molony, R. J. Smith, J. H. Swan, *T. E. Watson, Major I.M.S., *J. Wishart.

* With honours.

# Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

PROPTOSIS asks for suggestions as to the probable cause of the slight prominence of the right eye in the following case: A middle-aged woman, who has never been very robust, and who has had a good deal of worry recently, noticed about four or five months ago that her right eye was more prominent than her left. When seen for the first time, three months ago, our correspondent noted that there was slight proptosis on the right side; the movements were good in all directions; the pupil of the same size as on the left side and its reactions normal; no tenderness or pain nor increased tension; no pulsation; no diplopia nor so far as the orbit could be palpated was anything abnormal to be felt. The fundus was normal (no optic neuritis nor atrophy); no suspicion of disease of the nose or its sinuses. V.A., $\frac{6}{6}$; upper eyelid followed eyeball in its downward movement. The patient was anaemic; pulse 96 per minute; suffers from palpitation; no enlargement of thyroid. Left eye normal; V.A., $\frac{6}{6}$. Three months later condition of things is exactly as at the first examination, except that vision in right eye is $\frac{6}{9}$ (some of the letters). The patient eats well, but says she does not seem to put on flesh. Weight at present is 8 st. 5¼ lb.

## ANSWERS.

THE PRESCRIPTION OF GLASSES.

DR. REGINALD A. MORRELL (London) writes: With regard to the query addressed to me by Dr. Kenneth Campbell in the JOURNAL of May 20th, p. 1216, I must admit that there is a lack of precision in the words, "The lens lost its convexity." The statement should have been, "The lens became less convex." The remainder of Dr. Campbell's remarks is based upon what he calls the ordinary and accepted definition of static refraction. If I have been guilty of lack of precision, Dr. Campbell must also plead guilty. He defines static refraction as the "refraction of the eye at rest" (the maintenance of *the* tone of the ciliary being implied.) I have underlined "the" in the above quotation to draw attention to a wrong use of the definite article.

There is no definite—that is, fixed—tone to the ciliary muscle. If, however, we use the indefinite article "a" in the above passage, it becomes apparent that there is no ground for Dr. Campbell's sarcasm. It was for the purpose of illustrating this variation in ciliary "tone" that the case was included in the paper, and Dr. Campbell has seemingly missed the whole point. There was no over-correction of the myopia in this case, for ill health produced a similar effect on the "ciliary" tone to that produced by a cycloplegic. It is not unusual in the case of a myope who returns for a post-mydriatic test to find that a dioptre has to be added to the sphere, and this is all that was done in the present case. Two pairs of glasses were given to suit two alternating and perfectly definite conditions. The patient, for pecuniary reasons, had to continue with her work whatever the state of her health, and this work required the greatest possible visual acuity.

## LETTERS, NOTES, ETC.

EVIDENCE OF SEVERE ILLNESS AFFORDED BY THE NAILS.

DR. RICHARD KAY (Nelson, Lancs) writes: With regard to Dr. Davies's query, I had an attack of scarlet fever fifteen years ago when a student. It was of only moderate severity and without any complications; my throat was douched, but the only drug the hospital authorities considered necessary was a dose of calomel. Yet a few weeks later the transverse furrow was well marked on all my fingernails. Probably, since scarlet fever has a marked effect on the skin, the furrows are of less significance in that disease than in other cases.

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# The Harveian Lecture

ON

# FRACTURES OF THE PATELLA AND THEIR SURGICAL TREATMENT.

DELIVERED BEFORE THE HARVEIAN SOCIETY OF LONDON.

BY

C. B. LOCKWOOD, F.R.C.S.,

SURGEON, ST. BARTHOLOMEW'S HOSPITAL.

## INTRODUCTION.

IT is fortunate that the knee-cap is seldom broken.[1] All fractures into joints are especially serious both at the time and afterwards. The joint is sure to become inflamed and cause pain and suffering, and it may in the end be stiff. But a broken knee-cap has a further evil. It is more likely than other fractures to end in bad union and a weak and unreliable limb. In the past this has always been a grave misfortune to the wage-earner, but in the future he will find himself in a sadder plight. Under the Workmen's Compensation Act of 1906 employers are liable to compensate any person under a contract of service—workmen or domestic servants—for personal injury caused by accident arising out of and in course of the employment.[2] It is obvious that a crippled leg must make its possessor more liable to undergo fresh accidents, to fall again, or get run over. But, in addition, after the knee-cap has once been broken it is more likely than other broken bones to break again. Out of the 38 patients upon whom I have operated, 4 broke the same knee-cap twice—2 broke fibrous union obtained without an operation, and 2 pulled the fragments apart after they had been fastened together by an operation. Both of these will be described hereafter. In each there was an avoidable fault in technique. But not only is a broken knee-cap likely to break again, but when one has been broken the other is not unlikely to follow suit. Four out of the 38 patients upon whom I have operated had broken first one patella and then the other. They were broken at intervals of one and a half, three, eleven, and thirteen years. I question whether my own experience of refracture or of double fractures of the patella is at all unusual.

So employers of labour have good reasons to look askance at those who have broken the knee-cap. The chances of refracture or of double fracture are very considerable; moreover, the strength and security of the limb has to be reckoned with. A weak or crippled limb increases the liability to all kinds of accidents.

Clearly it is of paramount importance that the treatment of fractured patella should give a perfect result. Also that it should give a perfect result in the quickest time. In the past I have treated fractures of the patella either with or without an operation. With the willing help of Mr. A. L. Candler, to whom my warmest thanks are due, a good deal of information has been collected about these cases. I propose to give the results and contrast the two methods of treatment. In addition Mr. Candler has collected some of the other cases treated in my wards, and these too will be used.

In contrasting methods of treatment it is necessary to know clearly what ought to be contrasted. Risks come first, and risk to life first of all. Then the risk to the limb, and last of all the risks to the utility of the limb.

Now, so far as I can learn, no one ever died of a simple fracture of the patella. A patient in my wards died with a fractured patella, but he had grave injuries to his thorax. A compound fracture is another thing altogether. Nor has anyone, so far as I know, ever lost a limb because of a simple fracture of the patella.

So that as far as treatment without operation is concerned, both of these dangers may be put aside, but there remains still that important question, namely, the ultimate value of the limb.

The operative treatment has, on the other hand, dangers which the non-operative does not possess. Although not always recorded, deaths after operation are not unknown, nor can risks to the limb be overlooked. Twice I have seen such severe suppuration after attempts to unite fragments which were far apart that amputation had to be considered. Should life and limb be saved then, needless to say, the suppuration ends in a stiff and crippled limb.

Although the risks of the operation to life and limb cannot be ignored, yet my own experience—which will be given hereafter—leads me to think that they must be very remote. But however remote they may be, yet they ought not to be incurred if the alternative safe method of treatment without an operation can be relied upon to give sufficiently good results.

## THE TREATMENT WITHOUT OPERATION.

At St. Bartholomew's Hospital the treatment without an operation has usually been as follows: For three or four weeks the patient has been kept in bed with the limb extended upon a splint or inclined plane. Sometimes the blood and inflammatory effusion has been removed by aspiration. Some surgeons, including my old master, Mr. Willett, tried to pull down the upper fragment with strapping and elastic traction. About a month after the accident the extended limb is encased in plaster-of-Paris bandages or in a poroplastic splint. These are continued for about a year, during which the patient walks about with a stiff leg. In the end bony union did not take place. The most that could be hoped for was strong fibrous union. We now know that in nearly every instance of fractured patella some of the dorsal aponeurosis is torn off and pulled between the broken ends. This intrusion prevents bony union and retards or prevents fibrous, however close the fractured surfaces can be got together.

These remarks do not apply to those extremely rare instances of fracture without any separation.

## CASES ILLUSTRATING THE RESULTS OF TREATMENT WITHOUT OPERATION.

The following are some instances—taken at random—of cases treated by long-continued extension of the limb, and are probably fair examples of its results. Some of them had broken both patellae and had had one treated by operation and the other without. These are especially useful for comparison. For example:

### I.

In 1909 a carman broke his right patella, and had it operated upon at Guy's Hospital. The skiagram shows that this patella has united by bone, and that the wire has been broken and pieces of it scattered amidst the tissues over the outer tuberosity of the tibia. The next year he broke his left patella. The fracture was transversely through the middle of the bone with half an inch of separation. No operation was performed because he had a stricture of the urethra and his urine contained much pus. He was treated in the usual way. The limb was extended on a splint for about three weeks and then put up in plaster-of-Paris for six months. The skiagram, taken two years and two months afterwards, shows that this patella has not united by bone but with about a quarter of an inch of separation.

The patient himself is of opinion that there is nothing to choose between the two results, and that both are equally good. He has perfect movement in both knees, and is able to earn his living as a carman. He says that eight months elapsed before the right leg, which had been operated on, got well. The left, which was not operated upon, took about the same time.

Clearly good results can be got by both methods, but I should have expected the leg which was operated upon to have got well quicker. Clearly the patient took the risks of an operation without reaping one of its great advantages—a speedy recovery.

### II.

At the age of 50 years a man broke his right patella, and had it treated in an infirmary by means of a plaster splint. Eleven years afterwards the fragments are 3 in. apart, and the femur can be felt between them, covered with thin tissues. The knee-joint can only be flexed 15 degrees, and is almost powerless for extension.

When 61 years old he broke the left patella. I treated this by operation. Nine months afterwards he said the leg felt strong. Its muscles were firm and well developed. The knee-joint flexed to a right angle, and extension was perfect. The patella was apparently united by bone with the wire in position. Unfortunately we could not get this man to have it photographed.

The superiority of the operation seems incontestable. Perhaps we ought to know more about the way in

which the splint treatment was carried out upon the defective side.

III.

At the age of 37 a man broke his left knee-cap. The treatment without operation resulted in at least 3 in. of separation; but in spite of this the limb seems to have been a useful one, because three years afterwards he broke the right patella, and after it had been treated, and after this double fracture, he said he could run and catch a tram. His right knee-cap was broken by slipping on a greasy road (February 4th, 1904). The fracture was transverse with the fragments close together. The leg was extended upon a back splint until February 17th, when there was so much swelling and cramp that the splint had to be taken away. On February 24th massage was begun. On March 26th a poroplastic splint was fitted and he began to walk with crutches. The splint was worn for eight months. This man's right patella was not wired because he was a glass fascia writer, and it was considered he would get a sufficiently good result without the risks of operation. Clearly this was so, for in spite of 3 in. of separation on the left side, he was able, as I have said, to run after a tramcar. But on October 6th, 1909, he again slipped crossing a road, and tore through the fibrous tissue by which his right patella had united. On this occasion an operation was performed; the lower fragment was so small that it had to be united to the upper by a horizontal circular loop as well as by the usual vertical wire. He now has a useful but far from perfect limb. The skiagram shows that the wiring has torn out of the upper fragment. Possibly torn a piece of it off, because there is an inch of separation with a shadow between, which may indicate the presence of bone. There is no wasting on this side, and the limb can be flexed to a right angle. His progression is very good, but he cannot run.

**Here we have a case in which massage was employed at an early date, and in which, although the results seemed to be good, the patella broke again, and then after wiring pulled apart again, indicating, one would suppose, some fault in the patella itself. It is noteworthy that the patient says he could run after breaking both patellae, and with 3 in. of separation on one side.**

IV.

A man broke his right patella in May, 1907. The fracture was transverse with an inch of separation. He was kept for a month in bed with limb extended on a splint. Afterwards a leather splint was worn for two years. Three and a half years after the injury there was much wasting of the muscles of the right thigh and leg. The knee-joint can be fully extended, but only flexed 20 degrees. The man walks with a limp, and says the leg occasionally gives way under him. The fragments of the patella, as the skiagram shows, are barely half an inch apart. They are united by strong fibrous tissue. In spite of this excellent repair of the patella the result is most unsatisfactory, because, although the long-continued splinting had united the patella so well, yet it had wasted the muscles. The man was a printer's cutter, and could earn his living although his leg was weak and insecure. Many other occupations would have been closed against him.

V.

In 1897 a woman broke her right patella; it was treated by Sir Thomas Smith, who kept her in bed for a month with strapping on the knee. Afterwards it was in plaster for six months, and when that was taken off a back splint was worn for many months. She says she could not kneel upon it for two years. Thirteen years afterwards the right patella was firmly united by fibrous tissue with the fragments half an inch apart. The muscles of the thigh are strong and well developed; she says she can go quickly upstairs, but cannot run.

In November, 1910, the left patella was broken transversely at the junction of the upper and middle thirds. There was about one inch of separation. This fracture was united by operation. The skiagram shows that bony union is almost completed. The calcification is not yet dense throughout. Clearly the right knee took a long time, although in the end the result was very good. It is rather too soon to say what the left is going to be like, but it promises to give an equally good result in a sixth of the time.

VI.

A porter at a mineral-water works broke his right patella in 1904, and it was treated without an operation. He was in the hospital for three weeks, and wore a splint for eight months. After taking off the splint he began to bend the leg himself, and four months elapsed before he got movement in his knee-joint. In the end the fragments of the patella, which feel of equal size, are slightly movable upon one another; the gap between them is about a quarter of an inch. There is no muscular wasting, and a complete range of movement in the knee joint. He considers that the broken knee is as strong as the other. It never gives way, although he has to carry weights of nearly 2 cwt.

**We have here examples of the results of treatment without an operation. (1) Good fibrous union with a good and useful limb. (2) Good fibrous union, with wasting of muscles and defective limb. (3) Wide separation and a useful limb. (4) Wide separation and a wasted defective limb.**

None of these cases illustrates (5) the formation of intra-articular adhesions during the expectant treatment. But I have seen such an one operated upon.

VII.

A burly policeman broke his patella in the month of March, and again seven months afterwards, in October. In December the knee was quite stiff, and the fragments of the patella 2 in. apart.

An operation failed to bring them together in spite of much cutting of extensors and retinacula. When the joint was opened, very firm and extensive fibrous adhesions were seen inside it. This is one of the cases which had such severe suppuration after the operation. One would suppose that after the first break the limb became of use again, and that the adhesions formed as the result of inflammation following the second. It is not likely that the man would have broken his knee cap a second time had the joint ankylosed after the first breakage.

**These instances of the results of the treatment of fracture of the patella without an operation are unsatisfactory in two respects. In a large proportion the limb was weakened or permanently lame, and in all the treatment took a long time—perhaps a year on the average.**

**Some would say that these cases give a far too gloomy impression of the results of the treatment without operation. Unfortunately we have found it difficult to interview many of those who have been treated without an operation. An increasing number of fractured patellae are now operated upon. Last year (1910) 37 cases of fractured patella were admitted into St. Bartholomew's Hospital, and 25 were treated by operation, so that few remain for purposes of comparison. But my own general impression is that the cases I have given are about average samples of the results of treatment without an operation, and by long continued fixation of the knee. I regret never to have seen any of the results of the treatment of Kraske and Zum Busch,[3] who "give up the idea of bony union from the onset, allow the patients to go about on the second day, walk upstairs after the eighth day, and report good results." Heroic surgery practised upon heroes.**

**The question of time is all-important. Wage earners cannot afford the long course of treatment usually thought necessary. The following gives a vivid idea of what time means to the poor. A man writes: "I feel very grateful for the operation which enabled me to start work again after fifteen weeks and this (*sic*) saved my wife and family from that place we all dread to go—the House." When I place the disadvantages of operative and non-operative treatment before my hospital patients, the saving of time always makes them choose the operative—in spite of a clear statement of the risks.**

VIII.

A messenger, aged 52 broke the left patella. It was operated upon in the German Hospital. After a month in that hospital and a further fortnight's rest he says that he was able to work again. Eighteen months afterwards he had bony union with two wires in position—a complete range of movement and a perfect limb. Then he slipped in the street but did not fall. He said he heard something crack in the right knee, but went on wheeling a barrow, and when his work was done walked to the hospital. The right patella was broken across and he elected to have it operated upon. The expectant treatment was declined by this man on the score of time, and also because he thought that he could not mount stairs whilst the knee was being kept stiff.

TREATMENT BY OPERATION.

**I now come to the alternative treatment by operation. I have always done the open operation which since 1878 we owe to the genius of Lord Lister; although according to Reichel[4] "three hundred years previously Severino, and later Dieffenbach and Rhea Barton, had performed the same operation."**

**About some of the details of this operation there is still some divergence of opinion, and therefore I propose to say what I have done myself and try to point out the methods which have given the best results. In the first place there can be no question as to the propriety of always performing an open operation. We now know that some of the dorsal aponeurosis is nearly always torn off and intruded between the broken ends. This effectually prevents bony union, although good fibrous union can take place in spite of its presence there. It is, I believe, impossible to ensure an accurate coaptation of the fragments except by an open operation.**

**Clinically it is not possible to form a precise opinion of the kind of fracture or of the position of the fragments. To the touch they may feel as if the broken surfaces were**

facing one another, whilst as a matter of fact the lower one may be so much tilted that its cartilage faces the broken surface of the upper one. X-ray photographs, too, give valuable information, but they cannot be relied upon to reveal the additional breaks which are so often met with in the lower fragment. An open operation also enables one to remove all the clotted blood from the inside of the joint. This could not be done through a puncture or small wound. And, in addition, rents in the capsule can be repaired.

Most of my operations have been done about the fourth or fifth day, but nothing is gained by delay, and now they are done as soon as the operation is properly organized.

Thirty-nine operations were done upon 38 patients—30 males and 8 females. The youngest was a woman aged 22, the oldest a man over 63 years of age. The right patella was wired 16 times and the left 21. Twice the side is not stated in the notes.

Various skin incisions are in use. The patient who had been operated upon so successfully at the German Hospital had a transverse scar, showing that the operator made use of Lord Lister's original incision. But many surgeons now prefer to cover the line of union of the fracture with a flap rather than leave it directly beneath the wound. Another patient who had been operated upon in Guy's Hospital, and who also had an excellent result, had a vertical scar situated over the long axis of the patella.

I have always of late adopted a semilunar incision, carried at the distance of an inch round the inner side of both fragments; beginning on a level with the highest point of the upper one, and ending at the outer side of the ligamentum patellae. When this flap has been turned up it gives, of course, full access to the fracture, to the interior of the joint, and to the rents in the capsule. As soon as the joint is explored all the blood clot is removed from within it, and not infrequently some of the badly bruised tissues are also cut away with scissors. The blood is nearly always situated between the fractures and in the front part of the knee joint, a circumstance which makes it much easier to extract it with some sort of a scoop or spoon. At times the blood is under considerable pressure, and spurts out when the joint is opened. One would have thought that under such circumstances the patient would suffer additional pain, but a man upon whom I operated a few days ago seemed to suffer little inconvenience although the blood spurted out of his joint in quite a considerable jet. This was the man who pushed a barrow for half an hour after he had broken his knee-cap, and who walked to the hospital when his work was ended.

When any difficulty is experienced in dislodging the blood, abundant lotion is poured into the joint, usually a solution of mercuric biniodide 1 in 4 000, sometimes saline solution; but I question whether the latter is quite to be relied upon in the dust laden air of the City of London.

And next all the dorsal aponeurosis is cut away from between the ends of the bone. This structure is nearly always inturned, and covers part of the broken surfaces of both upper and lower fragments. As a rule the upper is the largest flap. When the operation has been delayed the broken surfaces are often covered with firm reparative material. This is removed with a knife, scissors, or a Volckmann's spoon. This removal is very thorough, and occasionally I have sawn off a thin layer of bone. At this stage of the operation the torn capsule is trimmed up with scissors.

At an early stage of the operation a drainage tube, about one-third of an inch in diameter, is placed at the outer side of the joint. A pair of curved pressure forceps is pushed down the inside of the joint over the external condyle, and made to project in front of the external lateral ligament; here it is cut down upon until it can be pushed through, so that when it is withdrawn it carries with it the drainage tube. It is advantageous to introduce a drainage tube at this early stage of the operation, for it serves to carry off any of the blood which escapes whilst the fragments are being trimmed, or the lotion used to wash out the blood.

In some of my earlier cases the drainage tube was lodged through some part of the original skin incision, but that did not seem to afford such satisfactory drainage. The question of drainage will be referred to again.

I have already remarked upon the difficulty of diagnosing the kind of fracture except by looking at it through an open wound. The following were met with in 38 cases:—In 29 the fracture was transverse, the fragments being about equal in size, but in 6 of them the lower fragments were smallest, sometimes too small to hold a wire, and in 2 the upper fragment was smallest, but I have never seen the upper fragment as small as I have sometimes seen the lower.

In 2 the fracture was T-shaped, the main fracture crossing the middle of the patella transversely with a vertical fracture through the centre of the lower fragment. In 3 the fracture was transversely through about the centre of the patella, with a small triangular piece broken off the outer angle of the lower fragment. Once the fracture was transverse, with a small triangular piece broken off the inner angle of the lower fragment. Two were Y-shaped, the fractured end of the upper fragment forming an angle which fitted by its apex into a vertical fracture through the centre of the lower fragment. Once the fracture was comminuted, with a transverse fracture through the middle of the patella with the lower fragment broken into three by two vertical fractures, so that there was a large central fragment and a small outer and inner one.

One of the Y-shaped fractures was diagnosed clinically as being a star-shaped fracture. There is a tradition that these fractures unite by bone and therefore do not require an operation.* A woman with what was diagnosed to be a star fracture was treated in the usual way and went to Swanley with a plaster splint on. On her return she broke her knee-cap as she was ascending the surgery steps. On this occasion an operation was performed, and, as I have said, a Y-shaped fracture was found.

I am afraid that I cannot agree with my friend Mr. Burghard that *x*-ray photographs "readily differentiate" the kind of fracture. For the fissures in the lower fragment are hidden by the shadow of the femur.

We have found it hard to learn from the patients how they broke their knee-caps. As a rule those with a transverse break did not hit the knee against the ground, although they may have fallen down. An intelligent man said he was wheeling his barrow in the street when he felt a crack in the knee. He never fell nor touched the ground with his knee, but went on wheeling his barrow, and afterwards walked to the hospital. So his right patella was broken across by muscular action. This case also shows that muscular action may do more than break the bone clean across, because he had a small piece, which was not to be seen in the *x* ray photograph, broken off the outer angle of the lower fragment, leading one to think that the T- and Y-shaped fractures may also be caused by muscular action, and also those in which the fracture is transverse with a piece broken off the outer or inner angle of the lower one.

Another fairly well educated and intelligent man with the patella broken into four fragments was positive that he fell so that the bone came in violent contact with the ground.

Mr. Blakeway has most kindly obtained for me knee-joints divided vertically. These have been photographed at various degrees of flexion. They confirm what we already know about the movements of the patella. When the knee is bent to half a right angle, a very small area at middle of the patella is in contact with the convex condyle and the bone is most advantageously placed for being broken across the condyle, like—as the books say—a stick across the knee. When the knee-joint is bent at a right angle only the upper third of the patella is supported on the condyles, the lower two-thirds being unsupported, and, as can also be felt, projecting in front. Thus the lower end is most favourably placed for being broken off or comminuted by direct violence—or for being pulled off by the leverage of the tibia acting through the ligamentum patellae. The lower end of the patella is thin and pointed, and, we may assume, unable to offer as much resistance as the rest. We have here some reasons to explain why the lower fragment is usually the smallest. I have not yet met with a vertical fracture in the upper fragment; it has invariably been single. As Mr. Blakeway

*In a recent work on surgery it is said: "The stellate or longitudinal fractures, which are readily differentiated by the *x* rays and which are not accompanied by any marked separation of the fragments, are excluded from this category; in them excellent bony union usually results without operation."—*A System o Operative Surgery*, by F. F. Burghard vol. i p. 611.

suggests, the upper fragment is not likely to be broken again by the quadriceps extensor because it is easily pulled up and can offer no further resistance.

But vertical fractures are quite common in the lower fragment, and are usually central. The outer angle of the lower fragment was broken off in three instances, and the inner in one; I should expect the thin outer angle to be more easily broken off than the thick inner angle, which is supported during flexion upon its crescentic facet.

I suspect, moreover, that during violent muscular action the thin outer edge of the patella may be pulled against the external condyle. I have seen a case of genu valgum in which both patellae were pulled outwards over the external condyle of the femur by the contractions of the extensors of the thigh.

### THE OPERATION.

I have always used annealed silver wire to bring fractures of the patella together, and consider it by far the best and most reliable material. One of my patients had previously had his patella united with fishing gut, but it came apart again six months afterwards. When I operated the second time, bony union had not taken place. The fishing gut had come undone at the knot. Every salmon fisherman knows what treacherous material gut is to knot. On these grounds alone it is to be condemned.

Kangaroo tendon was used once last year at St. Bartholomew's Hospital.[5] Once my colleague, Mr. Rawling, tried chromic gut, but found it difficult to pull upon it enough to bring the fragments firmly together. My colleague, Mr. Bruce Clarke, uses catgut to unite the dorsal aponeurosis and rents in the capsule and puts no other retaining sutures in. He is very contented with the results. It is, he considers, harmful to drill the patella.

Although silver has been used for subcutaneous sutures for many years, we do not know much about its behaviour in the tissues. In the year 1900 I used silver wire ten times for the radical cure of hernia, after the method of Bloodgood. At the beginning of this year I had to remove some of the wire which had been buried in the tissues for about ten years. It had turned black, and all the tissues about it were deeply pigmented.

The photograph of the knee of a patient who had had his right patella united by wire at Guy's Hospital in 1899, shows the front half of the wire, including the twisted part, in position. But the hinder part of the loop has been shattered into three pieces. Two of these, each about one-third of an inch long, are close to the outer side of the tubercle of the tibia, whilst one bent piece three-quarters of an inch long lies over the outer tuberosity of the tibia. This state of things was not suspected until the photograph was taken. Another man, whose patella was wired on January 13th, 1906, and who was photographed in January, 1911, had bony union and a perfect result, but the skiagram shows that the wire has come undone at the twisted part, and that its loose end gradually tapers off, as if it had undergone corrosion.

For simple transverse fracture of the patella I have used a single stout wire. This is applied with the intention of keeping the fragments in accurate contact until they have undergone bony union. Nothing short of bony union is able to withstand the enormous strain of the great extensor muscles. I have never seen it stated, but infer that some surgeons do not attach the same importance to bony union, but expect sutures alone to withstand the action of the extensor muscles. I know an instance in which the patient was allowed to work within six weeks of the operation. The surgeon could not have expected bony union in that time and must have relied upon the wire. The photographs lead me to think that about three months is required for good bony union. Two photographs of uncomplicated transverse fractures show that ossification was not quite complete towards the end of the third month, although the position of the fragments was good. One of my cases illustrates the dangers of using a double strand of wire.

IX.

On February 25th, 1910, I wired the transverse fracture of the left knee-cap for a man aged 27. The wire supplied for the operation was so thin that it had to be used double, both strands being threaded through the same drill holes in the patella and then twisted together in front of it. On August 29th, 1910, the man, whilst carrying a weight, broke the bone again. At the second operation I found that the wires had come undone at the knot. There had been no attempt at bony union. I suspect that the wire came apart long before the accident, allowing the fragments to separate with failure of bony union. On the second occasion the wires themselves were not taken out; they seemed in perfect position, and by merely twisting them together separately the surfaces came into accurate apposition. In January, 1911, the photograph shows both knots intact and that bony union has taken place. He was seen at the end of February, 1911. He is a fish porter, and says he can carry 2 cwt. of fish—that his left leg feels as strong as the other, and that he can run upstairs. He has complete flexion and extension, but slight wasting of the muscles of the left leg.

This man's case illustrates another point. I usually drill the fragments obliquely, so that the drill hole emerges through the broken surface exactly in front of the articular cartilage. When the wire is tightened up none of it is exposed within the joint. But in this case, as in some of the others, the cartilage was drilled, and the skiagram shows at least half an inch of the loop within the joint. So far no harm has resulted, and I question whether it matters at all. Indeed, I have not hesitated whenever the lower fragment has been particularly small to encircle it, cartilage and all, by piercing the ligamentum patellae.

The fractures were found to be so variable that they had to be wired in a number of different ways, such as:

A. A single verticle loop at the middle of transverse fractures.

B. Two slanting sutures for Y-shaped fractures. The upper fragments drilled once.

C. Four slanting sutures. The fractures being obliquely across the patella with the lower fragments broken into two unequal parts.

D. A single horizontal loop to enclose a piece broken off the inner or outer angles of the lower fragment. Transverse drill-holes. The same used for T fracture with small lower fragments. Mattress sutures not practicable.

E. A horizontal circular suture the same as D, through the upper and both lower fragments of a Y-shaped fracture, combined with two slanting sutures the same as B, but intertwined with the horizontal loop.

F. A horizontal circular suture through the upper fragments and surrounding a very small lower fragment by passing through the ligamentum patellae. Reinforced by a vertical loop through the upper and lower fragments above and below the circular loop. Sixteen months afterwards the fragments were nearly an inch apart, the wires having torn out of the upper fragment. The man had a useful limb because of the presence of fibrous union, and the skiagram shows some bone in it. This man had broken the left patella once and the right twice, the right being the one operated upon.

G. An attempt was made to fix another small lower fragment by using the wire horizontally through the ligamentum patellae, but it tore out sideways. A horizontal loop was carried through the centre of the lower fragment and through the ligamentum patellae near its tibial attachment. This served to reinforce the ligamentum patellae and support a vertical medium suture which held the upper and lower fragments together; and two thin lateral sutures which closed large rents in the capsule and helped to hold the fragments together. The ultimate result was good; four months afterwards the patient had good union, and could kick hard with the leg. Ten years afterwards he writes to say that he is cured and working in a warehouse.

Whilst inserting the wire I have taken care to keep the twisted ends as high as possible so as to be out of the way in kneeling. But when kneeling is painful, as it was in two instances, the pain is not always due to the wire.

X.

I am indebted to Mr. Cyril Thatcher for a very clear photograph of a wired patella. At the operation the lower fragment was very small and consequently the twisted end of the wire was rather low down. Six years afterwards the result is all that could be desired, except that kneeling is painful. Mr. Thatcher's photograph shows the wire in position, and the patella united by bone. But just below the patella there is a small bony nodule in the ligamentum patellae. There is no reason for thinking that this was part of the lower fragment—which, although small, was single—it seems to be a new formation.

XI.

A butcher whose left patella was wired in 1908 said in 1911 that the leg was as strong as the other and that he "could do anything but kneel, because something seemed to pierce the

skin." Here again the lower fragment was very small. The twist in the wire is high up, but the lower end of the loop projects in front at the attachment of the ligamentum patellae.

**The wire had to be taken out of 2 of the 39 cases.**

XII.

A woman aged 28 had a transverse fracture of the left patella wired on February 10th, 1906, five days after the accident. Large rents in the capsule were closed with silkworm gut. A week later a subacute abscess formed beneath the flap; drains were placed beneath the flap, and one at the outer side of the joint. At this time an offensive vaginal discharge was discovered. The infection was mild and ran a favourable course. Two months after the operation the patella was movable, and nine months later I saw the patient, and she also had a good and movable knee. The wire was removed from a sinus three months after it had been put in; also one of the pieces of fishing gut ultimately came out.

This was before the days of *x* rays, so that I do not know for certain whether bony union took place, but I think it did. It is the only case out of thirty-nine in which there was suppuration. The operation would not have been done had I known about the infection.

XIII.

The second case was also that of a woman, who was admitted intoxicated with a compound fracture of the right patella. The fracture was supposed to be of the star kind, and should therefore according to tradition, have united by bone. After a projecting piece of bone had been removed there was slight suppuration caused by *Staphylococcus albus* infection. The wound healed and the woman went to our convalescent home wearing a plaster splint. On her return she slipped on the hospital steps and broke her right patella again. When this was operated upon the main fracture ran across the middle of the patella obliquely from above downwards and outwards. The middle of the lower fragment was broken in two vertically. The upper fragment had adhered to the femur but the fibrous tissue was easily broken through. The fractured surfaces were covered with fibrous tissue and had to be refreshed with a saw. Four slanting sutures were inserted. The wound healed by first intention, but later a haematoma was found under the flap and with the wire in view through a minute ulcer in the skin. Gas was given and one of the four wires was removed. Healing quickly followed, but three months after the operation the movements of the knee were limited—although she was walking about quite well. We have been unable to see this woman again.

I do not propose to dwell upon the remaining stages of the operation. The wound is closed and the limb adjusted upon a comfortable splint such as Neville's or Mackintyre's. The drainage tube inserted at an early stage at the outside of the joint is left in position and taken out in forty-eight hours or more. The dressings are put on with a many-tailed bandage, so that it is easy to get at the tube without any movement whatever.

The drain always allows much blood and synovial fluid to escape. I have tried to do without the drain, but the patients usually suffered from far more pain than those who were drained. When the tube was removed, on the third day, from the knee of a man who is said to have had no pain, a gush of synovial fluid ensued. The drain was kept in another knee for several days because some synovial fluid continued to run from it. In another instance bright arterial haemorrhage followed the removal of the tube on the second day. This was at once stopped with a strip of gauze. One man had much reactionary haemorrhage from the tube the night of the operation, and the sheets were soaked with blood. It ceased spontaneously, but the tube was left in for five days. His recovery afterwards was uneventful. Another man had a small haematoma under the flap, but it caused no delay in the repair.

The only complication occurred in an aged working man, who before the operation looked ill and anaemic.

XIV.

He gave his age as 63. The operation was undertaken with reluctance, although he was very anxious to have it done. A week afterwards his leg swelled, and it was clear that he had thrombosis of the popliteal and superficial femoral veins. Three and a half years afterwards he had a very good and useful limb, but said the knee ached a good deal at night. He has chronic rheumatic arthritis in both knees. The skiagram shows good bony union.

I declined to operate upon a man with stricture of the urethra and septic urine and upon another with albuminuria.

To learn the ultimate result we have been able to obtain skiagrams of 12 out of the 37 patients. In 11 there is good bony union with a thoroughly good limb. The case in which bony union failed has already been mentioned. It is that of the man whose left patella had been broken, and as a result of treatment by splint the fragments were 3 in. apart, with wasting of the thigh. He afterwards broke the right patella, which was also treated with splints, but the bone broke again and was then wired. The lower fragment was so small that it could only be surrounded by horizontal and vertical wires. The skiagram shows that these have come out of the upper fragment leaving a gap of nearly one inch, but with what appears to be a bony nodule in it. The man is well able to do his work, but says that he cannot run or go quickly upstairs. Although he has not got bony union, the leg which was operated upon is certainly the best.

Another patient whose patella was wired for me by Mr. Jameson also has good bony union, and the limb is as good as the other.

A small proportion of the patients had some slight diminution in the degree of flexion, but as this never prevented kneeling it was scarcely noticed.

In spite of excessive wasting of the left leg, owing to bygone infantile paralysis, a man aged 43 recovered with a leg as good as it was before. Two and a half years after the operation he has good bony union, but cannot flex the knee quite so far as he could before the operation.

Considerable differences of opinion prevail as to the best treatment after the wound is healed. Some begin to bend the joint during the third week—massage it—and by the sixth week allow it to be freely used. But, as I have said, bony union cannot be relied on so soon; and therefore, although making use of gentle movements and of massage, I apply a restraining apparatus until the end of the third month, lest the repair be torn through by a sudden bending of the joint. A plaster-of-Paris or poroplastic splint is usually employed, but those who can afford it have a jointed steel apparatus—made with a ratchet—to allow of gradually increasing flexion.

I only find one note to say that nitrous oxide had to be given six weeks after the wiring to break down "many firm adhesions." The formation of adhesions seems to be exceedingly rare.

It has been found desirable to begin massage and movements early when there has been much bruising of the tissues. This is commonest when the fracture is comminuted.

In conclusion, I venture to say that the facts which I have laid before you are most strongly in favour of treating all fractures of the patella by an open operation. That gives a far better result in a far shorter time. The advantages gained far outweigh the risks.

REFERENCES.

[1] 1.4 per cent. of all bone fractures according to Reichel, quoting v. Bruns and Rossi, *A System of Practical Surgery*, E. von Bergmann, vol. iii, p. 573; translated by Bull and Tolley. [2] See that useful little book, *Workmen's Compensation Act, 1906*, seventh edition, by T. Henry Baylis, 1907. p. 73. [3] Loc. cit., p. 578. [4] Loc. cit., p. 578. [5] Surgical Registrar's Report.

THE Belgian Medical Federation, which has recently been recognized by the Belgian Government, includes twenty-five societies, with a total membership of more than 2,500 members. The federation is organizing a professional congress to be held at Charleroi in September next (16th, 17th, and 18th).

H. SCHMIDT, in an article contributed to the *Zeitschrift für Augenheilkunde* (January, 1911), entitled "Cataract Section in One Movement," bears rather grudging witness to the excellence of the cataract knives made by Messrs. Weiss, of London. We cannot do better than translate the author's exact words: "Unfortunately, the extraordinary superiority of the English manufacture, both in material and in workmanship, is seen at a glance. The cutting edge in places approaches a mathematically straight line, whereas the German article shows an unevenness. That part which lies near the edge, and which I will call the stropping zone, forms on the English blade an even band with parallel borders and relatively shallow furrows, whereas the lower edge on the German knife forms an entirely irregular line with deep furrows." Schmidt took one of Weiss's Graefe knives, and two of the very best German knives, and had them photographed under a high magnification; in the above sentences he expresses his opinion of the two photographs. Schmidt found that a Graefe knife could be placed in cold water containing 1 per cent. of sodium bicarbonate and boiled for fifteen minutes without the slightest alteration of its edge when examined microscopically, but if the cold knife be plunged into boiling water and then examined its edge shows minute serrations. He recommends that every knife be annealed by boiling up from cold before being sterilized for use.

# Remarks
ON
# BURSAL SWELLINGS ABOUT THE KNEE-JOINT.

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Of late years a good deal has been learnt with regard to bursal swellings about the knee which seems not yet to have become current, and which has not, I think, up to the present sufficiently influenced their treatment and our views as to their relations to troubles in the knee-joint.

The swellings which most commonly present themselves in this part of the body are: (1) Those of the prepatellar bursa; (2) those of the bursa upon the expansion of the semimembranosus tendon, between it and the inner head of the gastrocnemius; (3) under the expanded insertion of the sartorius muscle, between it and the tendons of the gracilis and semitendinosus; (4) under the gracilis tendon between it and the internal lateral ligament; (5) under the patellar ligament, between it and the front of the tibia; (6) between the bifid insertion of the biceps cruris and the external lateral ligament of the knee-joint.

Enlargements of the last two bursae are in my experience uncommon, and may, therefore, be puzzling when met with. It must be remembered also that the semimembranosus bursa and that under the ligamentum patellae often, if not invariably, communicate with the knee joint, and may be enlarged in common with it by synovial distension. Those bursae about the inner and outer hamstring tendons rarely, if ever, primarily communicate with the knee cavity, and if enlarged the change is, therefore, due to abnormal conditions in themselves.

It has been held by some (Baker, Koenig, and others) that certain large bursal tumours round the knee are derived from hernial protrusions of the synovial membrane through weak spots in the capsule (so-called Baker's cysts). But we must remember that the views on these structures were put forward at a time when it was considered very imprudent to investigate them by operation, owing to the dangers of sepsis spreading to the knee-joint, and consequently a minute examination of their relations could rarely be made during life, and they were seldom dissected after death. Since then we have learnt how to operate on them without risk, and my own experience of a considerable series of cases leads me to the conclusion that the swellings here alluded to are always enlargements of pre-existing bursae and not hernial protrusions due to overstrain. I have never seen anything to support the hernial hypothesis in the case of the knee.

The first point we have to bear in mind in regard to all synovial bursae is that they may be regarded as rudimentary joints. Their structure is the same except for the absence in some of bony constituents. They have the same fibrous capsule and the same lining of secreting cells as joints proper. As might be expected, then, they show the same morbid changes as the ordinary articulations, and from the same causes.

Simple synovitis of the knee, bursitis of the prepatellar sac, and teno synovitis, or of a bursa underlying a tendon, are essentially the same disease. In all there is distension by hypersecretion, due to subacute inflammation, the result, it may be, of overuse or strain; again, all may also be the seat of septic infection through the blood or from without, and the effect is the same pathologically in all. But it has taken us a little longer to realize that just as we find gouty, tuberculous, gonorrhoeal, and so-called pyaemic affections of joints, so we may meet with the same in separate bursal structures or tendon sheaths, while the joints remain unaffected. This will sometimes explain the presence in certain obscure toxic blood conditions of painful spots or swellings in situations out of the line of the more commonly named bursae and sheaths, but in which we know that smaller or larger bursae do exist which otherwise rarely attract attention. I believe I have seen cases in which some of the deeper bursae among the dorsal spinal muscles have been thus affected, and those in the deeper parts of the foot.

Again, it is most important to remember that just as disease—for example, tuberculous—may spread from a joint to extra-articular bursae and tendon sheaths, so *conversely* extension may take place from the latter to a joint if neglected. This general observation is, perhaps, better illustrated in the case of the wrist than by that of the knee. Here it is not infrequently seen that an apparently simple ganglion (say, on the dorsum) reveals itself on excision to be tuberculous, and, unless thoroughly extirpated, often shows its nature by involving the articulations of the carpus in typical tuberculous caries. And I have known a patient, previously healthy, die of general tuberculosis within a couple of years of the first appearance of a single tuberculous teno-synovitis in one finger. Numerous instances of primary infection of bursae and tendon sheaths with tubercle in various parts of the body might be cited. The same might be said of gonorrhoea and many other less definite blood infections attacking deep-seated and, so to speak, "out of the way" synovial tracts. Why only a certain joint, bursa, or sheath should be singled out for this infection to the exclusion of others is only one of the many difficulties which beset the whole study of the clinical history of tubercle. Blows or strains causing effusion of blood or lowering the vitality of the part may be found to account for some of the determining causes, but we can obtain no evidence of either in other cases.

Turning now to a more particular study of each of the half-dozen bursal swellings round the knee in our list, a few words only need to be said about the prepatellar bursa, for it is certainly the commonest of all bursae to require surgical treatment, and has received most attention. We see it so frequently the seat of enlargement from chronic inflammation due to pressure and from effusion of blood, the result of injuries, that we are perhaps rather inclined to overlook the fact that it may be the seat of tubercle, of gummata, and of septic infection. Indeed, I have seen several cases in which large rounded masses have been removed from the front of the patella on the supposition that they were bursae enlarged and thickened by chronic inflammation, which on examination afterwards proved to be gummata more or less encapsuled. Fortunately, the treatment by operation was not improper. The clean dissection of a hard gumma would give better results than those following internal treatment, which would still leave fibrous material, or possibly adherent scars, over the bone if softening occurred instead of the loose tissue produced after an aseptic operation, so that it may be said that all solid, or semisolid, tumours in or about the prepatellar area, if chronic, should be carefully dissected out, whether simple, tuberculous, or gummatous. But in the case of more acute inflammatory swellings, whether simple or infected, it is better to employ milder measures than excision, inasmuch as extirpation cannot take place in healthy tissue, and painful adherent cicatricial material will be left. In these cases aspiration, or a small lateral incision followed by Bier's cupping glasses or bandages, will usually give a very satisfactory result. If later, when all active inflammation has subsided, a thickened mass is left in place of the bursa this can be removed, and, if done aseptically, the skin will not be long adherent to the patella but will soon slip over it as usual, a new bursa being formed. The best incision for all these operations, in my opinion, is a curved one, above the patella, with the convexity upwards. The scar of this is out of the way in kneeling, and it gives the freest access to the whole of the swelling.

Very acute inflammations of the bursa patellae must always be regarded as serious, and treated very promptly. This is especially the case if the sac has never before been in trouble. In such cases the capsule is usually very thin, and if distended by septic pus is very easily softened and bursts, the result being widespread cellulitis of the leg and thigh, which may even extend into the knee-joint, often with disastrous results. I have seen a neglected case of the kind leading to large abscesses in the popliteal space and high above this in the thigh. No time should in such cases of acute bursitis be lost, but the sac should be freely incised on its lateral aspect, and freely drained after being well flushed out with normal saline solution. When the joint has been unfortunately involved it must

also be freely opened as for other suppurative conditions, and I have seen many cases in which free flushing this way has been followed by recovery of all the movements of the joint.

The next bursa in order on our list is that between the semimembranosus expansion and the inner head of the gastrocnemius muscle. This is subject to the same diseases as all others, but the commonest form is subacute or chronic synovitis which results in distension of the sac to a greater or less extent. The effect of this distension is to produce an aching pain with a sense of weakness in the joint. The swelling can usually be recognized when the limb is fully extended as an ill-defined elastic mass almost directly behind the knee which is soft during flexion and tense during extension. As this bursa usually communicates with the knee-joint its contents in slight flexion can sometimes be squeezed into it when abundant, and can be felt to distend the synovial pouches of the knee. When small this cannot be felt, but in advanced cases is quite demonstrable. In very extreme forms the knee-joint is also much distended with fluid which can be made to fluctuate easily from the joint to the bursal sac and *vice versa*.

In such cases the bursal sac may be enormously distended and reach far down the leg. In a case recently under my care it reached half way down to the ankle, and at the same time the knee-joint was hugely distended in all directions, the fluid passing easily into the bursa on pressure and back again into the knee. In another, operated on recently in private, the same conditions were present, though to a smaller extent. In both of these cases the diseased process appeared from the history to have started in the bursa and furnished fluid to the joint, and not conversely. In most cases when the patients first consult us the swelling behind the knee is very moderate in size, and the symptoms described above are not very marked, but can be easily diagnosed from popliteal aneurysm. But the sense of weakness and dull aching are worrying and disabling. Here the use of discutients and rest will often be enough to remove the fluid and relieve the patient. But when the condition has lasted long and is increasing, it becomes a question whether the morbid process has started in the bursa or the knee-joint. In both the cases referred to the bursa seemed to have been the starting point. This has an important bearing on the treatment of enlargement of semimembranosus sacs. If the conclusion is just—that they may, when neglected, lead to distension and disablement of the knee-joint—early removal is called for. But if their enlargement is only secondary to distension of the articulation, it would be only rational to give our first attention to it. One of the cases just alluded to left little doubt in my mind that the changes in the semimembranosus bursa were the primary cause of very considerable disablement of the knee-joint from secondary distension occurring and recurring for years.

The patient was a gentleman over 50, and very active. Ten or twelve years before I first saw him he began to have discomfort from swelling behind the knee. This yielded to rest and counter-irritants. But of late all exertion was followed by a great enlargement of the sac and a subsequent filling up of the knee, but without pain or heat in the joint. Weakness and uncertainty as to how far he could trust his weight to it were the most marked troubles. The condition of late always yielded to hot-air baths, the fluid disappearing from both situations but returning on very slight overuse. I was requested to remove the semimembranosus swelling, and though it could not be definitely promised that this would certainly relieve the chronic or recurring effusion into the knee, I undertook the operation, hoping that it would do so. The sac was completely dissected out until the posterior surface of the inner condyle was exposed, at which point the communication with the knee-joint was found. The result was an entire disappearance of the periodic filling up of the knee. This seemed to furnish a proof that the fluid in the joint was fed by an excessive secretion in the semimembranosus bursa. The sac removed was thickened and hyperaemic in patches but smooth.

The last case on which I operated for the condition in question gave, I think, further evidence as to the part played by morbid conditions in the semimembranosus bursa in causing distension of the knee-joint.

The patient was a man about 40, recently in our hospital for a distension of the knee-joint which I have never seen equalled. The condition was painless, and there were no signs of inflammation in or around the knee. But not only were all the pouches of the articulation hugely increased in area and very tense with fluid, but the semimembranosus bursa was also enormously enlarged, and reached more than half-way to the ankle. On pressure it was clear that the fluid in it passed into the joint, and pressure on the latter forced it back easily into the bursa. Through a long vertical 8-in. incision a little to the inside of the middle of the popliteal space the whole sac was dissected out unbroken except at one thin spot. It started above behind the inner condyle of the femur, and reached, as stated, for about five or six inches downwards beneath the gastrocnemius. Its walls were thickened generally, in some places very much so, but there were thin patches in it besides. In dissecting it up it narrowed down to a neck as thick as the index finger, and terminated over the posterior curve of the inner condyle of the femur, where it was continuous with the lining of the knee-joint. Here it was cut away. It contained about a pint of thickish yellow synovium, and from the opening over the condyle a large quantity of the same fluid was squeezed out of the knee-joint. When laid open the sac after removal was seen to be covered in large patches with folds and villous processes of synovial membrane of a deep pink colour. These were quite analogous to those folds and fringes frequently found in the knee-joint itself in cases of chronic inflammation. Whether the synovial membrane of the joint was in a similar condition we cannot yet tell, as the man was very anxious to take up his employment, and left the hospital as soon as our wound was soundly healed *per primam*, though the joint still contained a large amount of fluid and I was anxious to operate on it directly if the removal of the large bursal tumour did not relieve it. But the state of the lining of the bursa was quite sufficient to account for the large amount of synovium both in it and in the joint. The thickened synovial membrane was hyperaemic and very largely increased in area. What the nature of the irritant which produced the hyperaemia was we are unable to say. The patient seemed fairly healthy; no organisms were found in the fluid, which also looked normal, and sections of the lining membrane showed no tubercle.

Of course it is conceivable that there may have been undiscovered toxins in the blood, but in the absence of these we are thrown upon the theory of overuse or strain. But the more carefully the studies of joint inflammation are prosecuted the more probable does it appear that many are of bacterial origin even where no organisms can be found in the fluids of the joint. A very careful search in the synovial tissue will sometimes discover them when the fluid is sterile. This and other clinical facts seem to me to suggest the conclusion that synovial tissues possess some powers strongly resistant to bacterial growth, that the hyperaemic reaction to their presence evokes this power and leads to their destruction, but that sufficient of their toxins remain behind to keep up the irritation for a shorter or longer time. What is known now of gonorrhoeal affections of joints, for instance, seems to prove this. We find in a gonorrhoeal joint the specific gonococcus by aspiration. We treat it, say, with a Bier's bandage and aspirate again some days later and find the fluid sterile. But it usually requires considerable time before the joint becomes quite normal again. And yet it does so in many cases so treated. Here there can be no pretence that we have by our aspirations withdrawn every single colony of organisms. There must be some antagonistic process going on in the cavity itself which not only is capable of destroying the organisms themselves, but of ultimately eliminating their toxins. This same clinical experience is seen in the case of synovitis due to other infections than that by the gonococcus—for example, the pneumococcus. But the resistance may be feeble or the organism of more than ordinary virulence, and in either case the process of repair may be prolonged unless we interfere by surgical help. This help may be given to the joint in several ways. The production of increased hyperaemia in it by painting with iodine, by fomentation, or by Bier's bandage, are among these. On opening the cavity, evacuating its contents, and presumably their toxins, and washing out with various fluids, which mildly stimulate without destroying the vitality of the lining cells, may be effectual. But in the case of a bursa such as that over the semimembranosus expansion which is becoming chronically distended and thickened, the best treatment is to dissect it out cleanly provided there are no signs about it of recent acute inflammation. In this way we may ensure that the knee-joint will not be damaged by frequent overflow from the bursa into the joint and gradual distension of its capsule.

Chronic inflammation of the semimembranosus bursa may also give rise to loose bodies within the sac. I have before me now several which were removed some years ago from this sac. They are about as large as small beans. They may probably have several different modes of origin as is the case in other similar cases of loose bodies. They may be cartilaginous and be derived from cartilage cells which are often normally present in synovial fringes. They

may be fibrous and derived from hypertrophied fringes or villous excrescences such as were present in the case just related. They may be fibrinous from inflammatory exudations of the sac which have been rolled up into pellets in the movements of the part. Finally, they may be due to blood clots decolorized and inspissated in the course of time and moulded by movement. Obviously, the removal of the whole sac would be the best treatment in such cases, as not only would the bodies themselves be taken away but also the diseased tissue, which might reproduce similar ones if they were simply evacuated. So far I have not come upon primary acute infective bursitis in this sac. Nor have I met with tuberculous disease of it, though frequently a tuberculous disease of the knee has involved it secondarily. The possibility of such infections with tubercle must, however, be always kept in mind when the semimembranosus sac is enlarged, and if the swelling resist all of the usual remedies, there is an extra reason for its extirpation in this suspicion. This operation calls for very great care and deliberation on account of the anatomical relations of the bursa. A long skin incision a little to the inside of the mid-line of the popliteal space is quite safe. But in the deeper dissection a very close watch must be kept to avoid the internal popliteal nerve and the artery and its branches. But, by keeping close to the wall of the sac after reaching it (which is usually an easy matter, if it be enlarged) on the inner side of the internal head of the gastrocnemius, it can usually be shelled out of the loose tissue in which it lies without much difficulty. It should be preserved unopened to the last moment, as it is easier if this be done to make out its boundaries and deal with the synovial sac, all of which ought to be removed. Behind the inner condyle, where the sac has a communication with the synovial membrane of the knee-joint, it will, of course, require to be eventually opened. But all the dissection should be finished before the narrow neck of communication is severed. The opening into the knee-joint requires no attention in the way of stitching up, and may be left to itself. If carefully carried out there is little or no immediate bleeding or subsequent oozing, and the wound can be completely closed without any drainage, as was done in the two cases referred to. Flawless primary union followed in both cases. There was some difficulty in the last case in dissecting out the large sac from beneath the gastrocnemius. But as it was thickened and tough it was quite distinguishable from the tissues around, and no damage was done to any structure of importance.

Next in order of frequency of occurrence is enlargement of the bursa under the expanded insertion of the sartorius muscle. Of this swelling I have seen several instances. The tumour has been well defined—oblong in shape and elastic. In the cases in which I have excised it it was about the size of an average sausage, and could be extirpated unbroken. The lining was smooth and looked like ordinary healthy synovial membrane. I have never seen it affected with tubercle primarily, but recently there has been a case in our hospital operated on by one of my colleagues, which showed, I am told, a distinctly tuberculous infection. A specimen which can be found in the museum of University College Medical School shows another variety of enlargement of this bursa. It is flattened, and fibrous, like a prepatellar sac. Apparently it was due to chronic inflammation, or possibly to organized blood clot.

I am not sure that an enlargement of the gracilis bursa has ever come in my way nor of that between the biceps near its insertion and the external lateral ligament. But I have seen and operated on a case where the bursa under the ligamentum patellae was enlarged and painful, and required evacuation. This did not in this case communicate with the knee-joint, as is often the case, but was completely shut off. As well as I can recollect, it was a septic infection of the bursa through the blood, and the fact that it did not communicate with the knee-joint was fortunate.

In this brief sketch of the enlargement of bursal cavities about the knee my wish has been to direct attention not only to recognized swellings which have received more or less study, but also to suggest that in some obscure conditions in this region an explanation may be found in enlargements of synovial tracts which are sometimes forgotten. What these may be due to I have also hinted, and how they may ultimately seriously affect the knee joint proper if neglected. In the case of enlargement of some of them I have strong grounds for the belief that they are the origin of those large cystic swellings which have been, I think erroneously, believed to be due to hernial protrusions of the synovial membrane of the knee-joint. As to treatment, we are safest when we regard them as rudimentary joints, and deal with them as such. And as it is now recognized that joints may be dealt with freely by operation with a good prospect of the preservation of their functions, so may these bursal sacs.

## SOME PHARMACOLOGICAL EFFECTS OF THE STRONG SULPHUR WATER (HARROGATE).*

SECOND PAPER.

BY DAVID BROWN, B.Sc., M.D.LOND.,
HARROGATE.

*(Abstract.)*

DR. DAVID BROWN, after giving a brief account of the results detailed in the first paper of the series, which was published in the BRITISH MEDICAL JOURNAL of August 20th, 1910, went on to say that those results important for all interested in Spa treatment generally, and in Harrogate in particular, needed further tests for their complete establishment: first in the way of direct verification by repetition, and secondly, from the point of view of obtaining more complete data, ultimately embracing observations on all the excreted substances so far as at present they are known.

The points taken for confirmation were:

1. The reality of the diuresis and its amount.
2. The rise in the excretion of total nitrogen in the urine.
3. The rise in excretion of body tissue (or endogenous) uric acid during treatment.
4. The rise in excretion of uric acid arising from the food (exogenous) as shown by the ingestion of measured amounts of pure hypoxanthin in regularly repeated doses.
5. The rise in excretion of body tissue (or endogenous) kreatinin as an index of muscle metabolism.

The new points observed were the following:

6. The fate of the sulphur water as regards the urinary and bowel excretions, and the ascertainment of any relationship, direct or inverse, between the amounts of the two excretions.
7. To ascertain if any change occurred in the excretion of phosphates as an index of tissue change.
8. To ascertain whether any change in the amount of indican (indoxyl sulphuric acid) took place as a result of the course of sulphur water.
9. To examine the blood pressure at frequent intervals and to register any variations in the same.
10. To ascertain whether the amount of potassium sulphocyanate in the saliva altered during the course of sulphur water.

The most exact biochemical methods of analysis were used, and the personal equation was eliminated as far as possible by observing the rule of awaiting the termination of the whole of the experiments before attempting to calculate, even in the roughest way, any of the data obtained in the laboratory.

The subject, the same as that of Case 1 of the previous paper, took the following diet on each of twenty-one successive days:

14½ oz. bread (white).
25 oz. milk.
Five eggs.
8 oz. rice pudding.
8 oz. macaroni cheese.
2½ oz. butter.
20 oz. distilled water (aërated).

On the morning of the twelfth day of the experiment, between 8 and 9 a.m., 580 grams (20 oz.) of the strong sulphur water was taken, and this was repeated each day up to the nineteenth day. On the twentieth and twenty-first days 18 oz. were taken, and on the twenty-second, 16 oz.

All the doses of sulphur water were taken fasting.

On the eighteenth, nineteenth, twentieth, and twenty-first days a dose of 0.3 gram of hypoxanthin was taken after 5 o'clock in the afternoon.

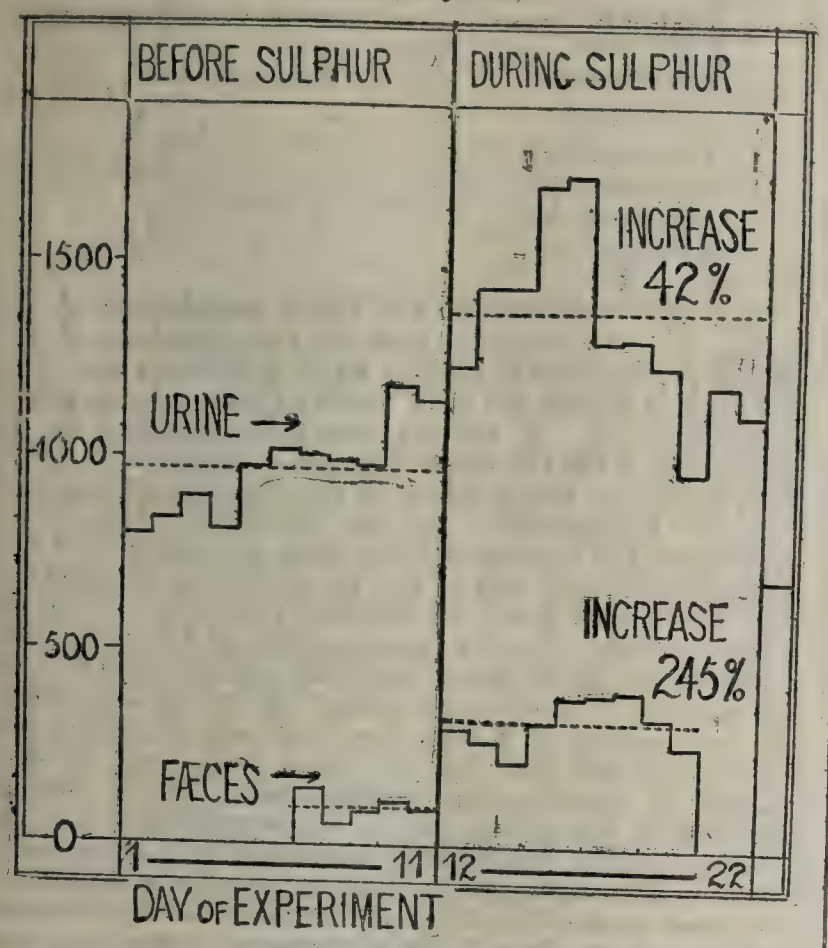
On the twenty-first, 10 oz. extra of distilled (aërated) water were taken to relieve thirst. On the twenty-second and twenty-third days the diet consisted of

Milk, 40 oz.
Bread, 14 oz.
Aërated distilled water (unlimited in quantity).

* The paper was read before the Section of Balneology and Climatology of the Royal Society of Medicine.

The points observed and shown on the accompanying diagrams were then taken.

CHART A.—*Illustrating Points 1 and 6. Urine (in c.cm.) and Faeces (in grams).*




1. The average amount of water passed in the eleven days of the presulphur stage was 970 c.cm. (3½ fluid ounces roughly correspond to 100 c.cm.). During the first nine days of the sulphur period the amount averaged 1,374 c.cm., a daily excess over the first period of 404 c.cm., or 42 per cent. Previous cases showed a diuresis varying from 25 to 110 per cent. The high percentage refers to a case of recurrent gout.

6. *Faeces.*—The weight of faeces from days 7 to 11 averaged 94 grams; from days 12 to 20, 324 grams, a daily excess of 230 grams, or 245 per cent.

The 580 grams of sulphur water taken daily were completely represented in the urinary and faecal excretions thus:

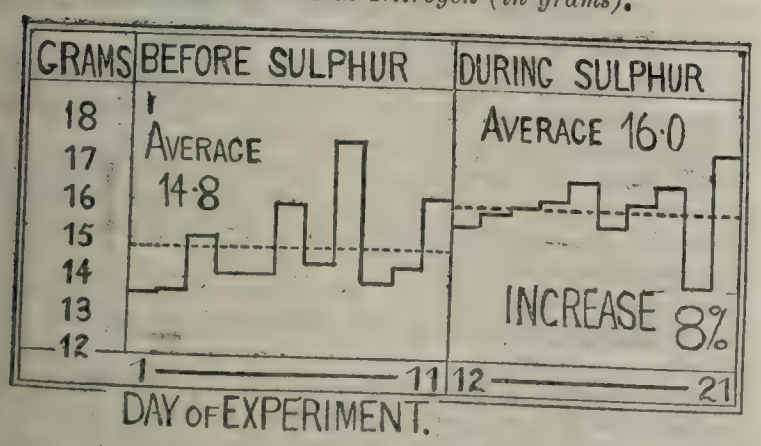
| | | |
|---|---|---|
| Excess urine | ... ... ... | 404 grams. |
| Excess faeces | ... ... ... | 230 ,, |
| | | 634 |
| Sulphur water taken | ... ... | 580 grams. |

This leaves an excess of 56 grams per day, and roughly amounts to 500 grams, or rather more than 1 lb. weight of excess excretion in nine days.

The experiment, then, shows the existence of a definite and positive diuresis, in addition to the increase of bowel action. It is also noteworthy that the amounts of urine and faeces do not vary *inversely*, but that the days of the greatest bowel action were in general those of maximum diuresis.

During the first eleven days the weight of the subject, observed at frequent intervals, was reduced from 10 st. 8¾ lb.

CHART B.—*Total Nitrogen (in grams).*



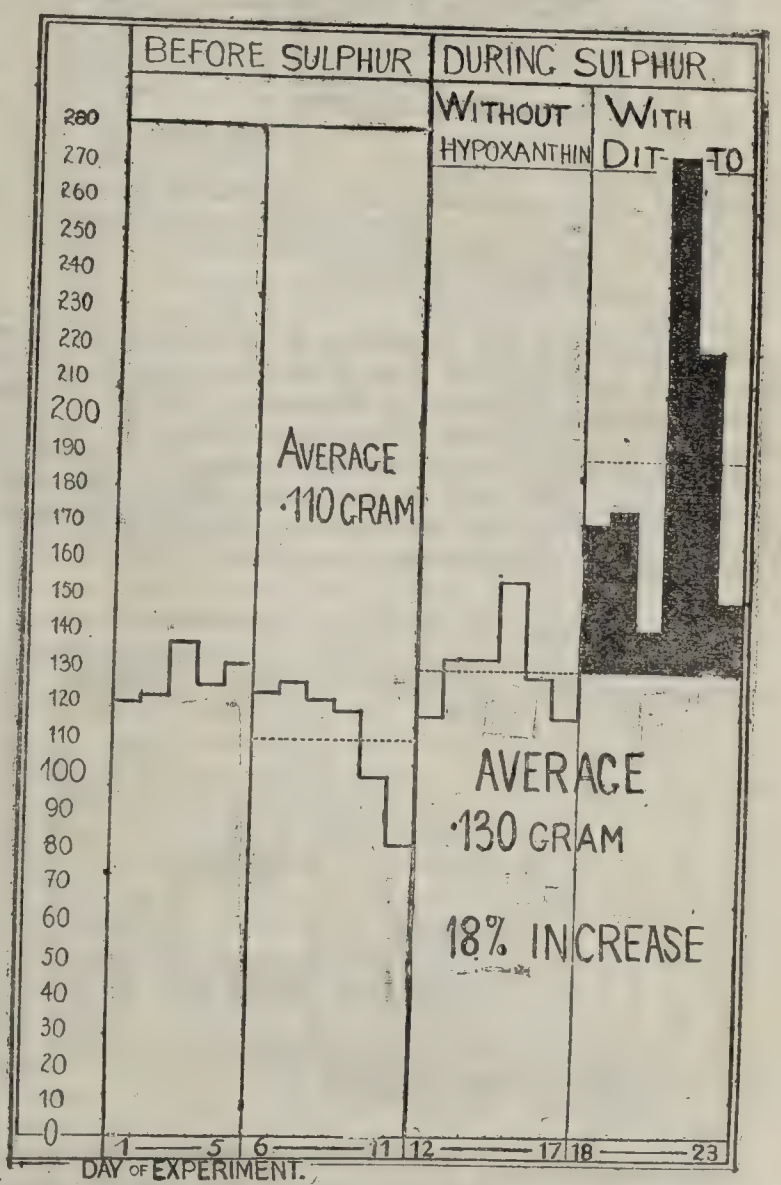

to 10 st. 8¼ lb. During the remaining twelve days the weight was reduced to 10 st. 5 lb. Of this amount of weight (equivalent to 1,500 grams) about 500 grams are accounted for by the excess of urine and faeces excreted during the first nine days of the sulphur water period, and probably the profuse sweating on the nights of the twenty-first and second (twenty-four hour periods) account for at least an equal amount. This leaves something like 500 grams (1 lb.) unaccounted for, a loss covered by the normal day-to-day variations in body weight.

Chart B shows an average rise of 8 per cent. in the total nitrogen during the sulphur-water period—that is, from 14.8 to 16.0 grams per diem (the highest rise in previous experiments was 10 per cent.).

Chart C relates to body tissue (endogenous) uric acid; measured as nitrogen:

| | | Uric Acid. |
|---|---|---|
| Average days, 1 to 11 | ... 0.110 grams, | or 0.330 gram. |
| ,, 12 to 17 | ... 0.130 ,, | or 0.390 ,, |
| Increase, 18 per cent. | | |

CHART C.—*Uric Acid in Milligrams of Nitrogen.*




This chart shows also the excess excretion of uric acid following the ingestion of hypoxanthin as detailed above. It had occurred to me that the exhibition of single doses of pure hypoxanthin (as in the earlier experiments) might have given an exaggerated result as regards the increased excretion (80 per cent.) of uric acid of food origin during the course of sulphur water, seeing that the persons experimented on had previously been for a considerable period on a non-purin diet. It was hoped to check these results by the method of repeated administration of moderate doses of pure purin (hypoxanthin).

The chart shows an average excess excretion of uric acid due to the doses of hypoxanthin during the six days (18 to 23) of 0.058 gram of uric acid nitrogen—equals 0.175 uric acid—a total in the whole period of 1.05 grams of uric acid. This corresponds to about 80 per cent. of the ingested hypoxanthin, a result almost identical with that obtained from the administration of single doses of hypoxanthin during the administration of sulphur water.

*Thus the ordinary oxidation of purin bodies to uric acid is practically doubled during the taking of sulphur water.*

Chart D, relating to the endogenous kreatinin, shows that the average (days one to eleven) was 2.47 grams

a day. There was no noticeable fall as a result of restriction to a non-purin diet. During the first nine days of administration of sulphur water the average excretion rose to a point over 3 grams a day, a total increase of 13 per cent. The proportion of kreatinin to total nitrogen increased from 18 to 19 per cent. in the two periods. A measured amount of walking exercise (3 miles) was taken daily, and the subject of the experiment did from twelve to thirteen hours' laboratory work a day.

CHART D.—*Kreatinin (in grams).*

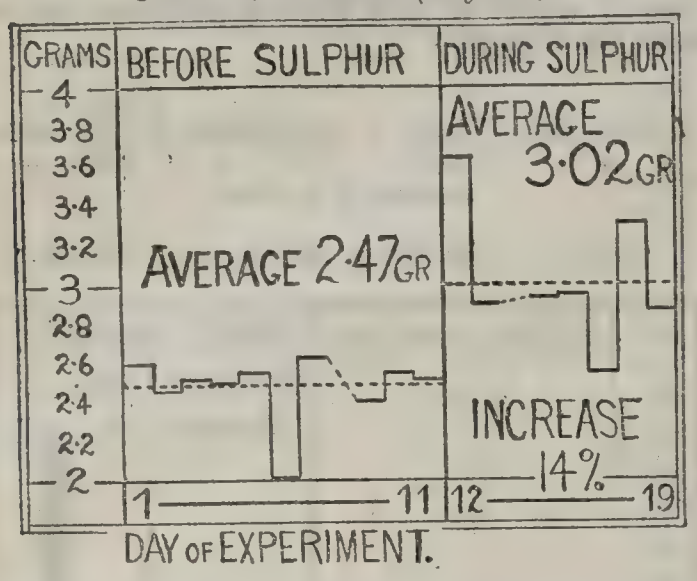
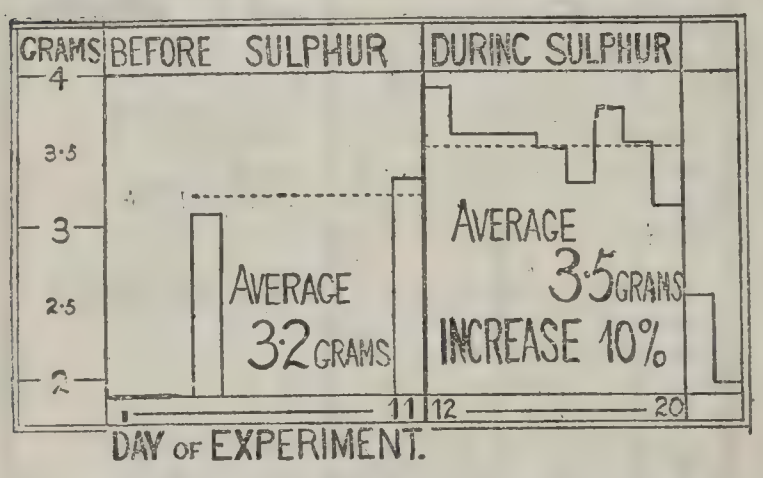



Chart E shows the excretion of phosphates taken on the fourth and eleventh days of the experiment. There was an average excretion of 3.2 grams. During the first nine days of ingestion of sulphur water the average excretion of phosphates was 3.5 grams, an increase of 10 per cent. The fall in phosphates after alteration of the diet is somewhat noteworthy. It nearly coincided with the rise in temperature to be detailed later on.

CHART E.—*Phosphates (in grams).*




The method used for estimating indican (indoxyl sulphuric acid) was the most exact yet devised—that of Dr. Oerum (Copenhagen).[1] The total amount on four of the last five days of the pre-sulphur water period amounted to 5 mg. a day. During the first nine days of treatment by sulphur water the average was nearly 10 mg. a day, an increase of 87 per cent. This result was totally unexpected, and requires confirmation. It seemed probable, from *a priori* reasoning, that the action of sulphur water would decrease the absorption of any of the derivatives of the aromatic nucleus of protein—that is of tryptophane. Experiments in which tryptophane is fed by the mouth to normal subjects do not apparently lead to any increase in the excretion of the aromatic bodies in the urine. Direct injection of this body, however, into the lower portion of the small intestine leads to an immediate increase of the aromatic sulphates of the urine.

Now sulphur water hurries on the contents of the stomach and upper small intestine, and probably brings to the bacteria of the lower intestine a larger proportion of tryptophane containing proteid than would reach this part of the intestine under more normal conditions. The action of calomel in increasing the excretion of bodies of the indoxyl group has probably a similar explanation.

The blood pressure was very kindly taken for me by Dr. Edgecombe of Harrogate, time, place, and conditions being as nearly uniform as possible. The lower part of the fractions refers to systolic pressure, the enumerators to the diastolic pressures. An atmospheric manometer was used.

| | | |
|---|---|---|
| Fifth day | $\frac{100}{132}$ | |
| Sixth day | $\frac{100}{130}$ | Av. $\frac{99}{130}$ |
| Eighth day | $\frac{100}{130}$ | |
| Eleventh day | $\frac{95}{127}$ | |
| Twelfth day | $\frac{95}{130}$ | |
| Thirteenth day | $\frac{90}{126}$ | |
| Fifteenth day | $\frac{90}{130}$ | Av. $\frac{92}{128}$ |
| Eighteenth day | $\frac{93}{128}$ | |
| Twentieth day | $\frac{100}{133}$ | |

Thus whatever may be the exact significance of the slightly lowered diastolic pressure, the alteration of the systolic pressure due to sulphur water is virtually negligible in a healthy person fed on a strictly measured non-purin-containing diet. A solitary exception afforded by an observation of the twentieth day can, I think, be satisfactorily explained as the result of the ingestion of repeated doses of hypoxanthin. On the nineteenth day of the experiment the subject suffered from depression and considerable headache, and on the twentieth his temperature was 100.2° at 2 p.m.; he sweated profusely during the following night. On the following day at 2 p.m. his temperature was 102·6°, rising the same evening to 103°. On the morning of the twenty-second day of the experiment the temperature at 8 a.m. was 99·6°, and at 11 a.m. was subnormal. His skin had an icteric tinge, and he complained of considerable lumbar pain. There was no albumen in the urine, and on the twenty-fifth day the lumbar pain had completely disappeared, to be replaced by a feeling of considerable stiffness in the flexor muscles of the lower parts of the thighs. The urine on the twentieth and twenty-first days of the experiment showed enormous deposits of uric acid crystals, amounting on the twenty-first day to 0·3 gram. The feverish attack was not followed by any marked debility. This, I take it, is the clinical picture of a true uric acid storm, and was the cause of the increased blood pressure of the twentieth day.

The late Dr. Samuel Fenwick many years ago pointed out that in certain conditions in which the function of the liver was abnormally performed there was a lessening amounting in some cases to almost entire absence of sulpho-cyanate in the saliva.[2] As gout was one of the conditions in which this lessening occurred, I instituted a colorimetric method to show the influence, if any, of sulphur water on the excretion of this body in the saliva. A rise was noted during the first eleven days of the experiment, but sulphur water had no obvious effect upon the quantity of sulpho-cyanate excreted in a given time, although the amount of saliva excreted in the test time (five minutes) was rather lessened during the sulphur water period.

## CONCLUSIONS.

The action of sulphur water may at present be best summarized as one of increased oxidation and tissue change. That it influences general metabolism profoundly is shown by

1. The increased total nitrogenous output (8 per cent.).
2. The increase in the excretion of the phosphates (10 per cent.) on a strictly regulated diet identical from day to day in every particular.

Further, the increase in excretion of endogenous kreatinin (13 per cent.) proves its effect on the whole musculature of the body—and on the hepatic functions.

The large increase in the excretion of body tissue (endogenous) uric acid (18 per cent.) proves its powerful influence in increasing the rate of metabolism of the nuclein-containing elements of the body.

Further, the increase in the total solids of the urine also definitely points in the same direction (see Paper No. 1).

Finally, the fact that hypoxanthin is recoverable from the urine as uric acid to a percentage almost double that of the normal and in two-thirds of the normal time, is very plain evidence of the greater extent and increased rate of oxidation going on in the body generally, and in the liver in particular. In the present state of knowledge this action can only be explained as due to the enormous

stimulation of the xanthin oxidase of the liver. Incidentally I may remark that the body becomes capable of dealing with increased quantities of these materials—a point of some interest with regard to diet in gout.

Now, as to whether these points have any direct bearing on the classes of cases most likely to receive benefit at Harrogate, I must leave to the criticism and judgement of others, but I may bring to recollection some of the main points of recent research with regard to gout and arthritic troubles.

Brugsch and Schittenhelm have shown (1) that gouty patients kept on a non-purin diet and dosed with measured amounts of hypoxanthin excrete the hypoxanthin as uric acid both more slowly (five to six days) and in smaller percentages than is normal. (2) They assert that the administration of hypoxanthin in gouty patients may provoke an attack of acute gout.

Dr. Gowland Hopkins some years ago showed that the total uric acid output is lower in gout than is normal, and later Dr. Mallory[3] has shown in a small series of cases that this is true whether the uric acid is of endogenous or exogenous origin. In Mallory's cases only 8 per cent. of hypoxanthin is recoverable as uric acid.

The results of my inquiries into the action of sulphur water in approximately normal subjects tend to show that in all these points sulphur water exerts a profound influence.

A very prominent characteristic in some cases of gout—the diminution in the amount of urine passed (it is often well under 20 oz. in the twenty-four hours)—is very rapidly relieved by treatment with this water, the diuresis amounting to well over 100 per cent. In such cases also the specific gravity of the urine does not vary inversely as the amount passed; on the contrary, the specific gravity is often highest at the height of the diuresis, the increase of the total solids being relatively enormous.

REFERENCES.
[1] *Zeit. f. Physiol. Chem.* (Hoppe-Seyler). [2] *Phil. Trans.* [3] *Journ. of Path. and Bact.*

## BALNEOLOGICAL TREATMENT OF DISEASE.

By W. RINGROSE GORE, M.B.,
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SPEAKING generally, there are two classes of cases that resort to spas for treatment—first, those that are not suffering from any definite disease, but from the results of living at high pressure, either in acquiring or expending wealth, who obtain, through the freedom from worry, regular hours, and plain food which form part of the regular régime of a spa, a restoration to their usual health. The other class are those that come for the relief of some definite disease.

We know that practically all disease is bacterial in origin, that inflammation may be defined as the tissue reaction to bacterial invasion, and that those chronic inflammatory diseases that form the majority of the cases that resort to spas for treatment are microbic; yet it has not been properly appreciated that the methods of treatment in use in the majority of spas are those most suited for the treatment of chronic bacterial disease, especially when it affects the digestive tract.

I will assume as a working hypothesis that such diseases as gout, rheumatism, rheumatoid arthritis, colitis, the various forms of neuritis, glycosuria, arterio-sclerosis, dyspepsias, and most skin diseases, have a toxic basis probably intestinal in origin.

The study of the varying pathogenicity of the intestinal bacteria shows that the bacteria which may be harmless inhabitants of the various secretions of the alimentary canal become at once pathogenic on a change in their environment—that is in this instance a change in the character of the secretion. The virulence of bacteria may depend upon the medium in which they grow. For example, a change in the nasal secretion due to the reflex effects of chill causes an increased growth of those bacteria normally present in the upper air passages, which at once become pathogenic, producing a common cold. A similar sequence of events takes place, I believe, in the upper digestive tract; owing to gastro-duodenal catarrh brought on by errors in diet, a change takes place in the normal gastro-intestinal secretions, and a bacterial growth takes place in the upper intestinal tract which should in health be sterile, leading to the absorption of more virulent toxins. That this increased bacterial growth really does take place is known from the indol reaction in the urine.

The normal secretions of the body cavities inhibit the growth of those bacteria that are usually present in these situations, but if the character of the secretion is altered, this inhibitory power is lost, and a bacterial growth takes place, producing a catarrhal condition which leads to the production and absorption of bacterial toxins, and is the cause of most of the chronic diseases that come to spas for treatment.

Direct antiseptic treatment of this condition is useless; vaccines are occasionally useful, but the scientific treatment is to restore to the secretions that inhibitory power over the growth of bacteria which they have lost. This is what spa treatment really does. The most common form of spa treatment is the early morning drink; the most popular spas are those in which a fairly large quantity of water is drunk before breakfast when the stomach is empty. The most effective of these waters are not highly mineralized, and depend upon the quantity of fluid drunk for their therapeutical effects; at some of the spas, such as Contrexéville, six or eight pints may be consumed during the early morning walk.

That water drunk when the stomach is empty passes directly into the intestine has been well shown in recent *x* ray work; consequently, any water then drunk acts as a gastro-intestinal douche, and by its purely mechanical action limits bacterial growth in the upper intestinal tract and helps to restore a catarrhal mucous membrane to a normal condition. A normal saline douch is the best way of restoring an infected mucous membrane to a normal condition, and this spa treatment is a long continued saline douche to the upper intestinal canal, for patients at these spas spend one or two hours sipping what is practically a normal saline solution.

It is the length of time required that makes this form of treatment difficult in private practice; it is very easy to spend an hour sipping hot water, walking about with genial companions who are all doing the same thing; quite a different matter in the seclusion of one's own home to spend an hour drinking and wait another half-hour for breakfast.

Intestinal catarrh with increased bacterial growth of the upper intestinal tract, which should in health be sterile, is quickly relieved by this saline douche; the contents of the intestine are mechanically washed downward, general peristalsis of the intestine is started by the direct stimulation of the salt in solution, which induces a more healthy secretion from the intestinal glands and removes the catarrhal condition that exists, as the same method of normal saline douching does in the case of other catarrhal mucous membranes. That this is the actual process can be proved by the indol test. The presence of indol in the urine is evidence of abnormal putrefactive changes in the upper intestinal canal associated with intestinal catarrh.

The effect of an intestinal douche on a case of intestinal catarrh showing the indican reaction is almost immediate. The indican is at once reduced in amount and gradually disappears, showing that the catarrhal condition has been cured and that the jejunum has again become sterile.

The study of the intestinal bacteria is still in a backward state, and, while we theoretically ascribe many diseases to increased or altered growth of this group of microbes, we are not yet able to place each disease. Gout, rheumatism, rheumatoid arthritis, colitis, glycosuria, some cases of eczema, different forms of neuritis, arterio-sclerosis, are a group of diseases which have a certain ill-defined connexion with each other, perhaps best shown in their hereditary relationships. They are, it is now generally believed, toxaemias of bacterial origin, they all have some digestive abnormality, they are all relieved by gastro-duodenal lavage.

The other effect of spa treatment is the protection of the body cell from the effect of toxic substances circulating in the blood by their dilution and by increasing the rapidity of their elimination; the water drunk is rapidly absorbed as it passes through the intestines and is eliminated through various secreting organs, increasing their activity, and especially causing a greatly increased action of the kidneys.

Thus spa treatment produces two definite effects upon the bacterial growth that is the cause of most of our diseases: it prevents the growth of a large class of bacteria in the intestinal canal, and it causes the elimination of those toxins already circulating in the blood. All the accessory modes of treatment, the various baths and forms of massage, are designed to the same end; they all in some way help the circulation through the cell spaces and increase elimination through the various organs of the body when applied generally; locally applied they cause an increased flow of serum through the tissues treated, which is again a factor in antibacterial treatment, though the increased resisting power given to the tissues by a flooding out of serum should also be taken into account.

## COTTAGE NURSES FOR RURAL DISTRICTS.*

BY

HENRY HICK, L.R.C.P.ED., M.R.C.S.ENG.,

NEW ROMNEY.

WE have heard a good deal lately of the trouble there is with district nurses thrust on the profession and the community by what I would call the "Lady of Improvidence," who pays the piper and wants to call the tune.

The subject of cottage nursing is one which must be of deep interest to any one practising in rural districts. I should be inclined to say among the poor anywhere, but it is so long since I was engaged in town practice that I prefer to speak only of those conditions of which I have had recent experience.

Nursing of the poor, as of the better classes, is a necessity, but in considering the subject, several matters must be borne in mind. While the nursing is the main need, there are other things little less important.

When the wife and mother is in bed, it is little use having even a first-class nurse to attend to her if she is worrying all the time as to what is happening to her husband and children. What is wanted is a nurse who, in addition to attending the patient, will see to these matters. A cottager cannot afford, out of a wage of some 15s. to 18s. a week, to pay for a nurse and a housekeeper too.

The nurse must be competent within her limit; she must be able to do without waiting on; she must be able to keep house, see to the comfort of the husband and children, get them their food, send the children properly dressed to school, and generally take the mother's place, and so relieve her of all anxiety.

Her attendance must be so constant as to prevent friends and neighbours interfering with the treatment, removing dressings to see how a wound is getting on, or to show it to any interested visitor. Above all, she must be cheap, or she will not be available for the class of persons I have in mind.

The nurse must not be provided by charity, or the poor will be pauperized, to their own and every one's disadvantage. The ordinary trained nurse is quite beyond the means of these people, and the district nurse does not meet other requirements in the case. She will not cook for the family, nor get the children ready for school. A district nurse could not work in a sparsely populated district—the distances are too great for her to attend more than one or two patients a day.

The cottager should be able to pay for the services of the nurse when well, for when ill he has more to do to meet the extra cost of living than he can well manage.

The nurse should be provided by the community, not by any "Lady of Improvidence," under whose guidance she would work—an arrangement which generally appears to lead to trouble with the medical men. In my opinion, it is essential that any nursing association which is to be a success, and work smoothly, should be on provident lines, apart from the unquestionable benefit to the people from this method of working. As soon as charity is introduced the door is opened for the interference of the larger subscribers, who, sooner or later, will want to run the scheme on their own lines, without any regard to the interests of the patients or the doctors.

* Read at a meeting of the Ashford Division.

These needs are met by the Holt Ockley system, which was founded at Ockley by Miss Broadwood in 1883. It is a provident system, each member paying his share of the estimated cost of the nurse. In my experience, the figure at which the subscriptions are fixed will, I am sorry to say, hardly cover this cost. Miss Broadwood says she had at Ockley great difficulty in fighting the idea that the poor should have everything found for them, instead of being encouraged to provide for themselves. We have found that, with encouragement, they are quite willing and able to do this.

The central office told us, in the first instance, that one nurse would nurse the sick of a population of 1,100, but when the maternity nursing is added, we find that the number of nurses needed is much larger. Acting on the figures supplied by the central office, we fixed our subscription at 4s. a year as a minimum for the labouring class, rising gradually to 21s. for gentry; and the hire of the nurse rises proportionally, the labourer paying 2s. a week and the gentry 15s. when the nurse is employed. These fees are doubled after the nurse has been at a case for three weeks, unless a certificate from the doctor saying that a longer attendance is necessary, is shown.

The nurses are taught to make a bed, cook, wash and dress a patient, do ordinary dressings, take temperatures, pass a female catheter, and note symptoms; to nurse a midwifery case, and, most important of all, to do as they are told. Some of them have a midwifery certificate, but most of them hold certificates for monthly nursing. No nurse is allowed to attend without a medical man, and we have not had any trouble with nurses wanting to practise medicine or midwifery.

All the medical men in the district were invited to join the committee, and I and my colleague did. The central office suggested that in some districts at least one of the nurses should be a certified midwife, but we pointed out that there was no demand in the district for midwives, and, further, that if the association employed midwives, we should expect it to make provision of payment of any medical man called to her assistance by a midwife, and that the Poor Law allowance of two guineas would be the smallest fee we should be prepared to accept. (The model rules now provide for the payment of the doctor by the association.) The committee decided not to employ midwives as such.

The nurses are women of the cottager class, and generally are well content with their position and do good work; the trouble is that the younger ones get married, and the elder ones get ambitious and want to train further.

Each nurse receives four to six months' training at a cost to the association of from £14 to £21. This amount is repaid by the nurse by the acceptance of a smaller salary for the first three years. A small sum is also retained by the association to form a bonus, which is given to the nurse at the end of three and a half or four years' service. As showing somewhat the progress of our association, I may say that the first year's subscriptions amounted to £31 12s. 5d., and the fees for actual nursing done, £6 10s. 6d. Last year the subscriptions were £58 9s., and the fees £71 5s. To put it in another way—in the first year 9 cases were nursed out of 105 subscribers; in the second year 26 cases out of 110, the nurses being engaged for seventy-two weeks' nursing. In the third year 28 cases were nursed for ninety-two weeks out of 124 subscribers; the fourth year 48 for 127 weeks out of 127 subscribers, and last year 57 for 156 weeks out of 221 subscribers. These figures will serve to show how the nurses increase in favour as they are known.

Each association covers a number of parishes, and supports one or more nurses, who are not allotted to separate parishes, or districts. Any nurse may be sent to any part of the district where she is required, so that if there is no work in one part of the district, the nurse is not wasting her time, but is working where she is needed. The work of the association is controlled by a committee consisting of president, secretary, treasurer, and one or more committee ladies from each parish. The duties of the committee ladies are to collect subscriptions and fees in their parishes, to forward applications for nurses to the secretary, and to pay occasional visits to the house where a nurse is employed, in order to see that both patient and nurse receive fair treatment. All fees are paid through

the committee lady to the treasurer, and nothing to the nurse herself—she receives a regular wage.

Under the auspices of the central association there have been established a number of lending groups for the interchange of nurses. The more this can be extended in the county, the better for the associations working in the county.

We have borrowed nurses from all over the country, and the travelling expenses become heavy where the borrowed nurse has to be brought from a distance.

There are five associations in the county affiliated to the Holt Ockley Association, and I am satisfied that the more we get established the sooner we shall cease to hear of the necessity of midwives, and of the everlasting difficulty with the "Lady of Improvidence."

## THE TRANSMISSION OF TRYPANOSOMA LEWISI BY THE RAT-FLEA (CERATOPHYLLUS FASCIATUS).

BY

E. A. MINCHIN AND J. D. THOMSON.

(From the Protozoological Laboratory, Lister Institute.)

In a recent number of this JOURNAL[1] Mr. Strickland has communicated the results of some experiments carried out by him on the question of the mechanism of transmission of *Trypanosoma lewisi* from rat to rat by the rat-flea. Mr. Strickland succeeded in infecting clean rats by contaminating their food with infected fleas, and arrives at the following conclusions, amongst others:

1. Infection of rats with *T. lewisi* is caused by the rat's act of eating infective fleas.
2. It is not caused by contamination of the rats during a short time, nor by their being bitten by the fleas.

We have been making experiments on the same subject for over a year, and hope soon to publish a full account of our results with regard to the transmission of the trypanosome by, and its development in, the rat-flea. Since, however, Mr. Strickland has forestalled us with regard to one of our results, and has drawn from it conclusions with which we cannot agree, we wish to state (1) that we have also found that rats can be infected by devouring infected fleas, (2) that we do not consider this to be the sole nor even the usual method by which the transmission of the trypanosome from rat to rat is effected by the flea.

### I.

In the dissection of fleas performed by us with a view to following out the development of the trypanosome we have frequently found cysticercoids in the body-cavity of the flea, and this fact suggested at once that the rat infected itself with the tapeworm by eating infected fleas, a supposition which was confirmed experimentally by our colleague Dr. W. Nicoll.[2] From this it was evident that it must be a common habit of rats to eat their fleas, and it naturally occurred to us that they might infect themselves with the trypanosomes by the same method. We therefore carried out last year several feeding experiments, taking fleas from the infected breeding-cage, that is to say, from a breeding-cage for fleas in which a rat infected with *T. lewisi* is always kept in order to feed the fleas. The fleas were killed by crushing their heads with a forceps, and then they were mixed with sop of bread and milk and given to rats. Some of these experiments gave a positive result, some did not. Dr. Nicoll obtained similar results incidentally in the experiments he carried out on the infection of the rat by the cysticercoids of the flea. He made use of fleas from our infected breeding-cage in his experiments, for the reason that the cysticercoids had been found in fleas from that cage. It will suffice for the present to quote the data kindly supplied to us by Dr. Nicoll.

1.

Five rats born November, 1909.
Two fed with fleas from the infected breeding-cage daily from January 26th to February 14th.

On the latter date both had large infection of trypanosomes. Other three control rats showed no trypanosomes.

2.

Four rats 2 months old.
Two fed daily with fleas from the infected breeding-cage, from April 4th to 22nd. Both showed trypanosomes at the end of a fortnight.
The other two rats showed no trypanosomes.

Dr. Nicoll's experiments thus furnished decisive confirmation of our previous experiments, showing that rats could become infected with *T. lewisi* by eating infected fleas. Other experiments, however, which were carried on by us at the same time led us to the conclusion that in Nature infection of the rat by eating fleas is an exceptional and aberrant method of transmission of the trypanosome. It is known that rats can acquire infection with trypanosomes by eating other infected material, such as the blood or organs of other rats containing living trypanosomes, and Manteufel has shown that rats can even be infected with *T. lewisi* by allowing blood containing trypanosomes to dry on the unbroken skin. Rats in their fights often kill and eat each other, and doubtless may sometimes acquire an infection as a result of cannibalism of this kind, but no one has suggested that this is a normal method of transmitting trypanosomes. We should not, therefore, have thought it worth while to publish separately the experiments cited above, were it not for Mr. Strickland's second conclusion that we have quoted.

### II.

Decisive proof that "the rat's act of eating infective fleas" is not the usual method by which it becomes infected is furnished, in our opinion, by experiments in which, after putting a single flea from the infected breeding-cage on a clean rat for a short time (usually about three days), we have recovered the flea and dissected it, and the rat has become infected in due course; and by other experiments in which we have succeeded in infecting several rats by means of one and the same flea.

For these experiments we used specially constructed rat-cages, each consisting of a tin cylinder, 6 in. in diameter, 10 in. in height; the bottom is closed in with tin, the top by a tightly fitting tin cover, which has an opening sufficiently wide to admit air for the rat, but barred doubly with both wire gauze and finely meshed cloth gauze, the former to prevent the rat forcing its way out, the latter to make it flea-proof. Into such cages were put, first, a small quantity of sawdust at the bottom; secondly, a rat carefully examined to make sure that it had neither trypanosomes in its blood nor fleas on its skin (if necessary chloroformed to rid it of fleas); thirdly, a single flea which had been taken from the infected breeding-cage two or three days previously, and kept isolated before being put on the rat, with the double object of avoiding any possibility of direct transmission of the trypanosomes, and of making the flea hungry. In these cages we never had the slightest difficulty in recovering the flea. Generally, as soon as the rat was lifted up, the flea was seen at once in the sawdust at the bottom; if not there, it was found on the rat, usually on the inner side of the thigh.

In these experiments by no means every flea taken from the infected breeding-cage produced an infection, even though the flea when dissected showed trypanosomes in its digestive tract. We have performed 63 such experiments, which may be divided into two periods: 37 from August 2nd to November 11th, of which 6 gave positive results; 26 from November 12th to December 14th, which were all negative. Of these 26 negative, however, in 6 the flea was left on the rat only for a few hours, and when dissected was not found to contain blood in its stomach and probably had not fed. It is curious, nevertheless, that the experiments in the early winter all had negative results, and this is probably more than a coincidence. In the warmer months the average of positive results is very nearly 1 in 6. In the whole 63 experiments we failed three times to recover the flea, and it may have been eaten by the rat in these cases, but as the result was negative in each case, it makes no difference one way or another. In two experiments the flea was dead when recovered; these also were negative in result.

It will suffice to quote here in tabular form the six experiments that gave positive results:

| | Flea put on Rat. | Flea Recovered. | Trypanosomes first Seen in Blood of Rat. | Multiplication Period Ended. | Condition of Flea when Dissected. |
|---|---|---|---|---|---|
| 1 | Aug. 2, '10 | Aug. 5, '10 | Aug. 11, '10 | Aug. 13, '10 | Trypanosomes scanty in stomach. |
| 2 | Sept. 19, '10 | Sept. 22, '10 | Sept. 28, '10 | Sept 30, '10 | Trypanosomes swarming in stomach. |
| 3 | Oct. 10, '10 | Oct. 14, '10 | Oct. 17, '10 | Oct. 22, '10 | Trypanosomes not found. |
| 4 | Oct. 20, '10 | Oct. 25, '10 | Oct. 28, '10 | Oct. 31, '10 | As last. |
| 5 | Nov. 1, '10 | Nov. 4, '10 | Nov. 14, '10 | Nov. 16, '10 | As last. |
| 6 | Nov. 11, '10 | Nov. 15, '10 | Nov. 23, '10 | Nov. 25, '10 | Trypanosomes swarming in rectum. |

With regard to this table it should be remarked, first, that the multiplication of the trypanosome in the rat occupies the first eleven or twelve days after the actual infection has taken place; secondly, that the fleas which produced these infections showed, when dissected, various conditions, from an infection of the digestive tract so scanty that trypanosomes were not found by microscopic examination in the fresh state, to others in which the stomach or rectum were teeming with them.

*Flea A.*

| No. of Rat. | Flea put on. | Result. | Trypanosomes First Seen in Blood. | Multiplication Ended. |
|---|---|---|---|---|
| 265 | Feb. 14 to 18, '11 | + | Feb. 24, '11 | Feb. 27, '11 |
| 249 | Feb. 24 to March 1, '11 | 0 | — | — |
| 260 | March 1 to 6, '11 | + | March 15, '11 | Rat died March 16, '11 |
| 291 | March 6 to 13, '11 | 0 | — | — |
| 293 | March 13 to 17, '11 | 0 | — | — |
| 295 | March 17 to 22, '11 | + | March 27, '11 | March 31, '11 |
| 249 | March 23 to 27, '11 | 0 | — | — |
| 291 | March 27 to April 1, '11 | + | April 5, '11 | April 9, '11 |
| 293 | April 1 to 5, '11 | 0 | — | — |
| 249 | April 5 to 10, '11 | 0 | — | — |
| 262 | April 10 to 15, '11 | 0 | — | — |
| 296 | April 15 to 20, '11 | + | April 22, '11 | April 25, '11 |
| 263 | April 20 to 25, '11 | + | May 1, '11 | May 5, '11 |
| 292 | April 25 to 29, '11 | + | May 1, '11 | May 6, '11 |
| 293 | April 29 to May 4, '11 | 0 | — | — |
| *294 | May 4 to 9, '11 | ? | | |
| 249 | May 9 to 15, '11 | 0 | — | — |

* Rat died May 9, 1911.

When the flea was searched for on May 15th it could not be found.

*Flea B.*

| No. of Rat. | Flea put on. | Result. | Trypanosomes First Seen in Blood. | Multiplication Ended. |
|---|---|---|---|---|
| 272 | Feb. 14 to 18, '11 | + | Feb. 24, '11 | Feb. 28, '11 |
| 259 | Feb. 24 to March 1, '11 | 0 | — | — |
| 253 | March 1 to 6, '11 | 0 | — | — |
| 292 | March 6 to 13, '11 | 0 | — | — |
| 294 | March 13 to 17, '11 | 0 | — | — |
| 296 | March 17 to 22, '11 | 0 | — | — |
| 259 | March 23 to 27, '11 | + | March 30, '11 | April 4, '11 |
| 253 | March 27 to April 1, '11 | + | April 5, '11 | April 7, '11 |
| 292 | April 1 to 5, '11 | 0 | — | — |
| 294 | April 5 to 10, '11 | 0 | — | — |

When the flea was searched for on April 10th it could not be found.

Still more striking are the results obtained by feeding a single flea on a number of rats successively. In this experiment we took, on February 14th, 10 fleas from the infected breeding cage, and put each flea on a separate rat in a flea-proof cage of the kind already described. On February 18th each of the 10 fleas was recovered and put by itself in a test-tube containing a little damp sand, while the rats on which they had been put were examined daily. On February 24th 2 of the 10 rats were found to be infected; the other 8 never showed infection. The 8 fleas which had produced no infection were returned to the infected breeding-cage, but the 2 that had infected their respective rats, henceforth to be known as Flea A and Flea B, were put on a succession of clean rats, with the results shown in the accompanying table.

The experiments show, in the first place, that Flea A infected seven rats and Flea B three rats, consequently that these infections could not have been brought about by the rats eating the flea. Secondly, they show that an infected flea does not infect at every feed, and consequently they throw light on the small percentage of fleas taken from the infected breeding-cage which produce an infection when placed on a rat *only for a short time*. Thirdly, they show incidentally that a flea lives a considerable time. Flea A, a female of uncertain age on February 18th, was to all appearance healthy and vigorous on May 9th, when last seen. Possibly both A and B were eaten finally by the last rats on which they were put; we cannot say.

In conclusion, we venture to assert that the experimental results cited by us support our belief that the infection of rats with *T. lewisi* is not brought about normally through the rat eating the flea; and from other evidence, which we hope to publish in full detail at a future time, we believe that the normal method of transmission is that the ripe, infective form of the trypanosome—the final form of the developmental cycle which it passes through in the flea—is regurgitated from the stomach of the flea into the wound made by the proboscis of the flea during the act of feeding. Considering the problem of the transmission of trypanosomes as a whole, the conclusion that infection is effected by the bite of the invertebrate host receives abundant support from other known cases of trypanosome transmission. No one can suppose that human beings acquire trypanosomiasis by eating tsetse-flies in Africa or bugs in Brazil; and Miss Robertson's recent researches on fish trypanosomes[3] show conclusively that fishes are infected by the bites of leeches. We consider, therefore, that the infection produced by the vertebrate host devouring the invertebrate is an exceptional occurrence without any bearing on the general problem of the transmission of trypanosomes.

REFERENCES.
[1] BRITISH MEDICAL JOURNAL, May 6th, 1911, p. 1049. [2] Ibid., March 18th, p. 621. [3] *Phil. Trans.*, B., vol. 202, p. 29.

## COMPARATIVE NUTRITIVE VALUE OF WHITE, STANDARD, AND WHOLEMEAL BREAD.

BY

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*(Second Note.)*

DR. CHALMERS WATSON,[1] criticizing our first note,[2] said that we ought to have fed our rats on bread and milk, not on bread and water. Just after reading his letter we passed through a slum in Bethnal Green. The children were out from afternoon school, and had been home for tea. Many were out in the street munching slices of bread. Some of the slices were brown and some white, but all had nothing on them; plain bread and a drink of tea or water was their meal.

The bread question is one that affects particularly the very poor. It matters little to those who can afford milk, meat, bacon, cheese, etc. The point we have to settle is how

the children of the very poor may secure the bread best for growth—for they too often get bread without milk.

It is beside the mark to test the matter by feeding rats on bread *plus* milk. Milk is a food formed for the growth of the young mammal, and contains all the chemical groups necessary for growth. To add white flour to it is to give additional bricks to a body builder.

H. Snyder fed men on bread and milk for four days at a time, and gave us the results of a careful and full metabolic study.[3] His conclusion was that white flour yields more digestible and absorbable protein for the same money than wholemeal. We do not deny that this is so. White bread is suitable enough for those who eat other food which, like milk, contains all the groups necessary for growth and repair.

The wheat berry, just as milk, is a body builder; it, too, contains all the groups necessary for the growth of the sprouting corn. The question of the value of the different parts of the berry cannot be decided merely by estimation of protein and carbohydrate content. Who would separate the casein and lactose from milk and feed our babies on these *plus* water and *minus* the salts and fats? And yet this is comparable to what the miller does to the wheat berry.

The ovum of the wheat grows on the foodstuffs contained in the whole berry. We may be sure there is nothing in it which has not its use in the growth of the sprout.

Of first importance must be the contents of the germ, for in it reside not only the initial elements of growth, but ferments which prepare the contents of the berry for the nutrition of the sprout.

To grind the wheat and take away not only the germ—the very embodiment of growth—but to impoverish the flour in most of the essential organic phosphorus compounds contained in the outer layers, to do this seems a most extraordinary manipulation of the "staff of life."

More extraordinary still is the fact that the State allows this to be done, and does not insist on the miller notifying that the flour is thus impoverished. If such a thing were done to any other article of food, the law surely would step in and hold it to be fraudulent. The question which has to be settled in respect to any flour is this: How far are all the groups necessary for growth present—the ringed amino-acids, phosphorized fats, salts, ferments, or their activators, etc.—bodies the utility of many of which can be detected only by their effect on growth, by biological, and not by chemical tests? In other words, How far is the flour in question a body builder in itself? Our experiments show that white flour is wholly deficient, and we have ascertained that our white flours are unbleached and free from "improvers."

For rats standard flour is very much better, and wholemeal better still. For mice standard is the better so far (one week). We find that wholemeal and water is a diet on which rats can grow, keep in very fair condition, and beget their own kind—the denizens of wheat stacks, mills, and granaries must live almost entirely on wheat. We have a rat bringing up a family quite well, and she herself has grown up and lived for ten weeks, first on standard and then on wholemeal flour and water. The traditional prison diet—bread and water—seems a possible diet so long as wholemeal or standard and not white bread is supplied. The black bread of the old, hard times is better, not worse, for the worker than the white bread of the rich.

The diet of white flour and water hits the younger rats far harder than the older ones. The germ and the bran are needed above all for growth. Two of the youngest rats, as a control, have been fed on white bread and milk, bacon and cheese, and have done much better than those fed on wholemeal and water—a fact which shows that the bread question is of supreme importance only to those who get little else than bread.

In the case of our first set of rats, the 15 fed on white flour, which lost 36 grams in the sixth week, were then put on wholemeal. They gained 31 grams in the seventh and 167 grams in the eighth week.

Drs. Edie and Simpson have obtained results similar to ours on pigeons, and cite others of like nature obtained by Lichaumann. Who can doubt, then, that the children of the poor, who are fed mainly on bread, ought to be given what the rat, the pigeon, and the sprouting wheat require for their growth?

The tables we append of our control experiments show the deficiency of white flour conclusively. In this series cannibalism has been prevented almost entirely, and this has made the ill effect of white flour far more evident. The Bread and Food Reform League urge the use of what is termed "standard" bread because of the prejudice against the brown wholemeal bread. In our opinion the State should use all its powers to make standard and wholemeal bread the food of the children of the poor.

White flour will continue to be eaten by the well to do because of its neutral flavour—it sets off the tastes of other foods, and white flour is necessary for the arts of pastry making. White flour robbed of the germ will keep easily, makes a pretty loaf, and saves trouble to miller and baker. But the whole meal is the real "staff of life," and no saving of trouble or liking of a nice-looking loaf should be the pretext for taking away substances essential for the growth of the children.

It is recognized now that the protein content of a flour does by itself not determine the nutritive value, for the proteins do not all yield on digestion the same kind or proportion of amino acids—the building stones out of which the bioplasm of the different organs are built. The "ringed" amino-acids have been shown to be some of the most important. Thus, Dr. Gowland Hopkins found that mice can live longer on zein (a protein obtained from maize) plus tryptophane than on zein alone.

It occurred to us that the superior nutritive properties of standard flour might in part be due to the fact that the valuable amino-acids, such as tryptophane, were split off

TABLE I.
*Wholemeal Flour.*
Weights of rats in grams.

| Rat. | First Week. | Second Week. | Increase. | Third Week. | Increase. | Fourth Week. | Increase. |
|---|---|---|---|---|---|---|---|
| 1 | 107 | 116 | +9 | 125 | +9 | 147 | +22 |
| 2 | 102 | 114 | +12 | 123 | +9 | 134 | +11 |
| 3 | 101 | 107 | +6 | 117 | +10 | 131 | +14 |
| 4 | 98 | 106 | +8 | 110 | +4 | 124 | +14 |
| 5 | 95 | 106 | +11 | 107 | +1 | 109 | +2 |
| 6 | 87 | 93 | +6 | 100 | +7 | 109 | +9 |
| 7 | 72 | 75 | +3 | 86 | +11 | 97 | +11 |
| 8 | 70 | 73 | +3 | 77 | +4 | 87 | +10 |
| 9 | 68 | 72 | +4 | 77 | +5 | 87 | +10 |
| 10 | 57 | 60 | +3 | 67 | +7 | 82 | +15 |
| 11 | 55 | 59 | +4 | 66 | +7 | 82 | +16 |
| 12 | 51 | 58 | +7 | 63 | +5 | 79 | +16 |
| 13 | 49 | 56 | +7 | 57 | +1 | 75 | +18 |
| 14 | 49 | 55 | +6 | 57 | +2 | 72 | +15 |
| 15 | 47 | 53 | +6 | 55 | +2 | 65 | +10 |
| 16 | 46 | 53 | +6 | 55 | +2 | 63 | +8 |
| 17 | 46 | 51 | +5 | 54 | +3 | 61 | +7 |
| 18 | 45 | 50 | +5 | 52 | +2 | 57 | +5 |
| 19 | 44 | 48 | +4 | 45 | −3 | 57 | +12 |
| 20 | 42 | 46 | +4 | 44 | −2 | 49 | +5 |
| 21 | 42 | 45 | +3 | 44 | −1 | 48 | +4 |
| 22 | 38 | 40 | +2 | 42 | +2 | 42 | +0 |
| 23 | 38 | 40 | +2 | 39 | −1 | 40 | +1 |
| 24 | 37 | 37 | +0 | 35 | −2 | 39 | +4 |
| 25 | 35 | 32 | −3 | 33 | +1 | Dead | — |
| 26 | 27 | 32 | +5 | 31 | −1 | 32 | +1 |
| | 1548 | | +129 | | +84 | | +240 |

Allowing for one death the percentage increase is in four weeks 30 07.

Two control rats fed on white bread and milk, bacon and cheese:

| First Week. | | Fourth Week. |
|---|---|---|
| 32 | ... ... ... ... ... | 52 |
| 32 | ... ... ... ... ... | 55 |
| 64 | | 107 |

Increase in four weeks 43. Percentage increase in four weeks 67.

TABLE II.

*Standard Flour.*

Weights of rats in grams.

| Rat. | First Week. | Second Week. | Increase | Third Week. | Increase. | Fourth Week. | Increase. |
|---|---|---|---|---|---|---|---|
| 1 | 108 | 107 | −1 | 118 | +11 | 118 | +0 |
| 2 | 100 | 101 | +1 | 110 | +9 | 117 | +7 |
| 3 | 91 | 99 | +8 | 104 | +5 | 114 | +12 |
| 4 | 95 | 97 | +2 | 103 | +6 | 104 | +1 |
| 5 | 84 | 89 | +5 | died | — | — | — |
| 6 | 74 | 76 | +2 | 80 | +4 | 87 | +7 |
| 7 | 72 | 67 | −5 | 67 | +0 | 76 | +9 |
| 8 | 72 | 65 | −7 | 68 | +3 | 71 | +3 |
| 9 | 63 | 62 | −1 | 63 | +1 | 67 | +4 |
| 10 | 60 | 59 | −1 | 62 | +3 | 64 | +5 |
| 11 | 57 | 59 | +2 | 63 | +4 | 60 | −3 |
| 12 | 51 | 56 | +5 | 56 | +0 | 61 | +5 |
| 13 | 51 | 53 | +2 | 55 | +2 | 57 | +2 |
| 14 | 49 | 51 | +2 | 53 | +2 | 56 | +3 |
| 15 | 48 | 49 | +1 | 52 | +3 | 56 | +4 |
| 16 | 47 | 48 | +1 | 49 | +1 | 54 | +5 |
| 17 | 46 | 48 | +2 | 48 | +0 | 53 | +5 |
| 18 | 45 | 47 | +2 | 48 | +1 | 52 | +4 |
| 19 | 44 | 46 | +2 | 48 | +2 | 51 | +3 |
| 20 | 44 | 45 | +1 | 47 | +2 | 50 | +3 |
| 21 | 42 | 45 | +3 | 46 | +1 | 50 | +4 |
| 22 | 42 | 43 | +1 | 43 | +0 | 50 | +7 |
| 23 | 41 | 42 | +1 | 42 | +0 | 45 | +3 |
| 24 | 36 | 40 | +4 | 40 | +0 | 45 | +5 |
| 25 | 35 | 37 | +2 | 39 | +2 | 35 | −4 |
| 26 | 33 | 35 | +2 | 38 | +3 | dead | — |
| | 1530 | | +36 | | +65 | | +94 |

Eliminating animals 5 and 26, which died, the percentage *increase* in four weeks is 13.02.

TABLE III.

*White Flour.*

Weights of rats in grams.

| Rat. | First Week. | Second Week. | Increase. | Third Week. | Increase. | Fourth Week. | Increase. |
|---|---|---|---|---|---|---|---|
| 1 | 106 | 108 | +2 | 105 | −3 | 104 | −1 |
| 2 | 104 | 99 | −5 | 99 | +0 | 103 | +4 |
| 3 | 103 | 99 | −4 | 94 | −5 | 92 | −2 |
| 4 | 96 | 95 | −1 | dead | — | — | — |
| 5 | 87 | 83 | −4 | 83 | +0 | dead | — |
| 6 | 82 | 79 | −3 | 73 | −6 | 68 | −5 |
| 7 | 75 | 67 | −8 | 67 | +0 | 67 | +0 |
| 8 | 71 | 66 | −5 | 66 | +0 | 67 | +1 |
| 9 | 65 | 65 | +0 | 64 | −1 | 61 | −3 |
| 10 | 59 | 61 | +2 | 59 | −2 | 59 | +0 |
| 11 | 54 | 55 | +1 | 57 | +2 | dead | — |
| 12 | 53 | 51 | −2 | 53 | +2 | 52 | −1 |
| 13 | 49 | 49 | +0 | 51 | +2 | dead | — |
| 14 | 49 | 49 | +0 | 50 | +1 | 47 | −3 |
| 15 | 48 | 48 | +0 | 49 | +1 | dead | — |
| 16 | 48 | 48 | +0 | 46 | −2 | 42 | −4 |
| 17 | 46 | 47 | +1 | 45 | −2 | 45 | +0 |
| 18 | 46 | 46 | +0 | 43 | −3 | 43 | +0 |
| 19 | 44 | 45 | +1 | 43 | −2 | 38 | −5 |
| 20 | 44 | 45 | +1 | 43 | −2 | 37 | −6 |
| 21 | 43 | 43 | +0 | 40 | −3 | dead | — |
| 22 | 42 | 43 | +1 | 40 | −3 | 33 | −7 |
| 23 | 42 | 41 | −1 | 40 | −1 | 33 | −5 |
| 24 | 40 | 39 | −1 | 38 | −1 | dead | — |
| 25 | 38 | 38 | +0 | 36 | −2 | 32 | −4 |
| 26 | 37 | 38 | +1 | 35 | −3 | dead | — |
| | 1561 | | −24 | | −33 | | −41 |

Eliminating the figures of the 8 animals which died, the percentage *decrease* in four weeks is 8.4.

earlier in the digestion of standard flour than in white flour, and therefore better assimilated and less likely to be lost through bacterial action. To test this the flours were digested with two different pancreatic extracts (P and $P^1$), and the amount of tryptophane liberated estimated by (1) the glyoxylic test, (2) the bromine water test. Bacterial action was prevented by the addition of toluol.

In regard to the latter test we found that digestion *in vitro* was slow, and the test was not marked for several days. However, in five positive cases the test was in favour of the standard flour. In regard to the glyoxylic test, this was performed after acidifying with acetic acid, boiling, and filtering. In all cases the depth of colour was greater in the case of standard flour. In a few cases white flour plus germ and the germ itself were digested in addition. It is worthy of note that the digestion of the germ by itself gave least evidence of liberation of tryptophane, yet when added to the white flour in the proportion of 5 per cent. it increased the colour depth of the test as compared with that for white flour alone. This points to the presence of adjuvant bodies in the germ. Not only is the tryptophane-containing portion of the proteins split off in larger amount, but also more easily in the case of standard flour, as the table shows. Here an equal amount of flour suspension (2 c.cm.) was digested with 1.0 c.cm., 0.8 c.cm., 0.6 c.cm., 0.4 c.cm., 0.2 c.cm. respectively of the pancreatic juice.

TABLE IV.

| Enzyme. | W. | St. | W. | St. | W. | St. | W. | St. | W. | St. |
|---|---|---|---|---|---|---|---|---|---|---|
| C.cm. 1.0 | A | A+ | A | A | A | A+ | A | A+ | A | A+ |
| 0.8 | A | A+ | A | A+ | A | A+ | A | A+ | A | A+ |
| 0.6 | A | A+ | A | A+ | A | A+ | A | A+ | A | A+ |
| 0.4 | 0 | A | A | A+ | A | A+ | A | A+ | A | A+ |
| 0.2 | 0 | 0 | 0 | A | A | A+ | A | A+ | A | A+ |

W. = white; St. = standard flour.

A expresses the depth of glyoxylic test given by white flour.

It has been asserted that the decay of teeth in modern times is due to the fact that a greater acidity is developed in the mouth on chewing white bread than on chewing the old-fashioned household bread. We do not find this to be the case.

To test the amount of acidity developed while chewing in the mouth, 5 grams of bread (standard or white) were taken, and, after preliminary washing out of the mouth with distilled water, were chewed for two minutes. At the end of this time the bread was ejected into a beaker containing 10 c.cm. of distilled water, and thoroughly shaken for one minute. The titration was then made with $\frac{N}{10}$ NaHO. From the figures (Table V) it will be seen that there is little difference in the results obtained with the two breads. It is interesting to note that with two students working together (for example, A. and L.) the results would sometimes be exactly opposite.

After ejection the acidity continues to increase, and therefore a small margin of error must be allowed for the time of titration. In carefully conducted experiments with $\frac{N}{100}$ NaHO, M. F., working to time as near as possible, found that there was no difference in the two breads in his case.

In the table the letters denote the order in which the chewings were made. Both breads were slightly acid to begin with, to an equal extent. The acid developed is,

in part at any rate, lactic acid. Neither bread gave Uffelmann's or Hopkins's tests previous to the chewing. Both gave these tests markedly afterwards.

TABLE V.

*Table showing Amount in C.cm. of N/10 NaHO required to Neutralize 5 Grams of Bread of well-known London Make after Chewing for Two Minutes.*

| Name. | Standard. | White. | White. | Standard | Order of Chewing. |
|---|---|---|---|---|---|
| B. | 1.7 | 1.3 | 0.8 | 1 0 | S. W. W. S. |
| H. | 1.3 | 1.5 | 1.4 | 1.5 | " |
| F. | 0.8 | 0.9 | 1.2 | 1.0 | " |
| M. | 1.1 | 0.9 | — | — | " |
| X. | 1.5 | 1.8 | 1.9 | 1.3 | " |
| A. | 2.0 | 1.5 | 1.5 | 2 2 | W. S. S. W. |
| L. | 1.2 | 1.4 | 1.6 | 1.3 | S. W. W. S. |
| Ba. | 2.2 | 1.8 | 1.3 | 1.9 | W. S. S. W. |
| Bo. | 1.7 | 1.3 | 1 5 | 1 9 | S. W. W. S. |
| L. | 1 6 | 1.4 | — | — | S. W. |
| C. | 0.8 | 0.5 | 1.1 | 1.6 | S. W. W. S. |
| P. | 2.1 | 2.3 | 3.0 | 2.8 | W. S. S. W. |
| S. | 1.6 | 2.0 | 1.2 | 1.4 | S. W. W. S. |
| Y. | 1.5 | 1.9 | 1.1 | 1.0 | W. S. S. W. |
| W. | 1.8 | 1.4 | 1 3 | 1.8 | " |
| V. | 1.7 | 1.4 | — | — | W. S. |
| Pr. | 1.5 | 1.0 | 1.0 | 1.7 | S. W. W. S. |
| M. F. | 2.0 | 1 0 | 1.1 | 1.1 | " |

We draw attention to the fact that Reid Hunt[4] has found mice more susceptible to poisoning by acetonitrile when fed on biscuit powder and water than when fed on oatmeal and water.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, May 13th. [2] Ibid., May 6th. [3] United States Department of Agriculture Bulletin 156. [4] Treasury Department, U.S.A., Hygiene Bulletin No. 69, 1910.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### THE USE OF X RAYS AND THE ADMINISTRATION OF METALLIC SILVER IN THE TREATMENT OF CERTAIN DISEASES OF THE ALIMENTARY TRACT.

*(Preliminary Note.)*

THE undoubted effect which *x* rays have in stimulating the healing of chronic ulcers on the external surface of the body led me, some years ago, to employ them in the treatment of presumed ulceration of the alimentary tract. I used a hard tube with an aluminium filter, and irradiated the skin area over the supposed site of the lesion. Benefit seemed to accrue in some cases, but I was only too conscious of the weak points of the method. The rays used were of a kind not commonly believed to possess any great therapeutic activity, and it is probable that only a small fraction of the total dose was absorbed by the diseased surface. I had had one or two complete failures, and was beginning to lose interest in the subject, when the publication of Sir J. J. Thomson's address describing Professor Barkla's experiments on secondary radiation[1] caused me to take up the matter afresh. The central fact which struck me was that silver emitted a radiation similar in its properties to the beta rays of radium. I obtained some of the metal in a chemically pure precipitated form, and administered it to myself in doses of 30 grains t.d.s. for a fortnight. As no evil results occurred, I concluded that it might be taken with safety. My idea was this: That the irradiation of a hollow viscus containing metallic silver would result in a "reflection" of soft secondary rays; and that, provided the primary stream were directed successively at various angles to the part affected, a number of these must of necessity "strike back" at any diseased area in the walls of the organ.

I have made use of this principle now for a period of six months with considerable success, at least temporary. My cases include ulceration of the caecum, gastric ulcer, and doubtful malignant obstruction of the pylorus. It is, of course, much too early to speak of ultimate results, but I may at least claim for my method that it is a reasonable attempt to make practical use of the newly-discovered facts enunciated in the address referred to.

FRANCIS HERNAMAN-JOHNSON, M.D.ABERD., Ch.B., R.N. (ret.),
Radiographer to the Bishop Auckland District Hospital, Durham; late Surgeon, Royal Naval Hospital, Plymouth.

[1] BRITISH MEDICAL JOURNAL, August 27th, 1910.

### AN OVERDOSE OF PHENACETIN.

A GENTLEMAN of vigorous physique was ordered a cachet containing 9 grains of phenacetin and 1 of caffein during influenzal pyrexia. He took in error eight cachets within the space of one hour, containing 72 grains of phenacetin.

One hour after taking the phenacetin he felt nauseated and much depressed; the headache had gone, and he complained of giddiness. On rising from his bed he could scarcely stand, and had to be helped back. There was profuse perspiration. He vomited after a cup of tea, but no trace of the phenacetin was observed in the vomit.

Two hours after the phenacetin had been taken the temperature was subnormal, surface cold, countenance ashy-grey and drawn. There was marked cyanosis, the breathing was slow and laboured, the pulse irregular, slow, and weak. The patient complained of feeling very weak and of nausea. I gave him 2 oz. of whisky, which he was able to swallow without vomiting, and a hypodermic injection of $\frac{1}{20}$ grain of strychnine. Oxygen was administered freely, with marked effect upon the cyanosis and respirations.

The urgent symptoms passed within three hours. The next day the patient felt depressed, and cyanosis was still in evidence; on the following day he had completely recovered.

Rome. A. G. WELSFORD, M.D., F.R.C.S.

### LIVING CHILD AND DEAD FETUS.

THE following case may prove of interest alongside the one recorded in the BRITISH MEDICAL JOURNAL of February 4th, p. 252: On July 14th, 1900, I attended Mrs. C., 7-para; she informed me that she did not expect her confinement for fully a month, that she had not been in good health for about two or three months, that she felt "queer," being easily tired, unable for her work, very restless and sleepless at nights, and that she had not had similar feelings in her previous pregnancies. She had been in town in the afternoon for two hours and returned so exhausted that she went to bed. An hour later labour commenced. She gave no history of abortion or miscarriage. She was seen about five hours after labour began, the pains being fairly strong; the os uteri was found to be almost fully dilated. There was no protrusion of the membranes during the pains, nor did they get much tenser, but they felt thickened, and lying within them a number of small loose bones were made out. As the patient felt tired an anaesthetic was given, when it was clearly made out to be a dead fetus. The thickened membranes were ruptured and fully 6 oz. of a dark, non-offensive fluid, resembling thickened brown soup, came away. The dead fetus was easily removed. Enclosed in a separate sac, lying well up in the uterus, was a living child; the membranes were ruptured, a foot seized, and delivery was easily effected. There was one placenta of large size, which appeared quite healthy, but two sacs of membranes.

The dead fetus was slightly macerated; it was 4 to 5 in. long, the skull bones lying loose inside the scalp. The epidermis was gone, the cutis of a dark red colour, the umbilical cord shrivelled. The fetus had the appearance of having died about the fifth month of pregnancy.

The living child was a female of small size, fully formed, but evidently three to four weeks premature, judging by the finger-nails. Artificial respiration was required for a few minutes after delivery. On the following day there was lividity of both legs, more pronounced in the left, which disappeared in a week. The child remained rather

weakly for about ten days. The mother made an excellent recovery.

The family removed from the district at the end of 1900, but returned five years later (1905), when the mother consulted me with regard to the child. She informed me that it had never been of robust health, but had not suffered from any serious illness; it was likewise very irritable; it was 3 years old before walking, and then with difficulty. The child was well nourished. The gait was very unsteady, there being a spastic condition of the legs, but no wasting of muscles; no impairment of sensations; the knee-jerks were increased, ankle clonus was absent; there was great difficulty in turning round and in balancing. The condition was evidently one of cerebral diplegia.

The interest attaching to this case is the presence of a living child and dead fetus. Arising from this it may be asked: (1) If the presence of the dead fetus caused the impairment of the mother's health complained of? (2) If the presence of the dead fetus caused labour to take place before full term? (3) If the presence of the dead fetus in any manner affected the after-history of the live child?

Cults, Aberdeen. ROBERT BRUCE, M.A., M.D.

## EXCISION OF SCAPULA IN ADVERSE CIRCUMSTANCES.

I DESIRE to report this case to exemplify the endurance of Persian patients and the success which attends operations done under the most adverse conditions.

In July, 1910, a Bokhari girl aged 8 years was brought to me with the following history: Four weeks before she had fallen from the roof and sustained some injury, probably fracture in the region of the elbow-joint. A native hakim put the arm in splints, and in spite of the incessant cries of the child they were not taken off for about a fortnight, till one morning the whole arm from the shoulder-joint dropped off.

When brought to me the child was in a very weak and exhausted condition. The whole of the left arm was missing; the necrosed and blackened coracoid process could be seen in the midst of a mass of purulent and gangrenous exudation. After using antiseptic dressings and stimulants for two days, I anaesthetized the child (chloroform) and removed the scapula. The body of the bone was unaffected except for the lower angle, which was necrosed. I was rather doubtful as to whether the acromial end of the clavicle was affected or not, but as I was entirely single-handed, both as to giving the anaesthetic and performing the operation, I did not remove any part of it. The large cavity left was packed with iodoform gauze, and gradually granulated up, and new skin formed. It was dressed daily for about a month.

Six days after the operation I had to shift my camp twenty-five miles, and the patient accompanied the caravan, riding on a donkey.

E. N. MACBEAN ROSS, M.B., Ch.B.Glas.,
Charmahal, Persia. L.M.Rotunda.

## POISONING AFTER SMALL DOSES OF ASPIRIN.

DR. CONWY MORGAN'S interesting case of aspirin idiosyncrasy, recorded in the JOURNAL of February 11th, p. 307, recalls to my mind a similar unpleasant experience which happened to myself early in November, 1909.

Some rheumatic pains in the right shoulder had been inconveniencing me in the use of the right arm, and a medical friend strongly advised me to try aspirin. This I did, taking in all 15 grains, over a period of between four and five hours, in three doses of 5 grains each. About 8 p.m., and within twenty minutes of taking the third dose, marked oedema of the eyelids, forehead, and cheeks suddenly developed, and in a few minutes the swelling was so great that my eyeglasses would not remain on my nose, and I was unable to see unless I separated the puffy eyelids with my fingers. There were no symptoms other than the mechanical discomfort from the swelling. My throat was not affected in any way. The oedema was much less next morning, but it did not entirely disappear until the end of the third day. I felt perfectly well in every respect, and the rheumatic pains disappeared within twenty-four hours of taking the drug.

Strange to say, next day a lady patient told me that she was similarly affected by aspirin, and that 5 grains were sufficient to cause puffiness of her eyelids.

London, W. PETER H. ABERCROMBIE.

# Reports
ON
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## ROYAL NAVAL HOSPITAL, PLYMOUTH.

### A CASE OF FRACTURE OF THE SPINE DUE TO MUSCULAR ACTION.

(By VIDAL G. THORPE, M.R.C.S., L.S.A.,
Fleet Surgeon, R.N.)

IN the BRITISH MEDICAL JOURNAL of October 15th, 1910, are reported two cases of fracture of the transverse processes of the vertebrae due to muscular violence. Apparently, this accident is more common than is generally supposed, and may possibly account for some obscure instances of so-called chronic lumbago following injuries. Lange[1] published two cases, both detected during life by skiagraphy; and he gives a short epitome of the literature of the subject, the injury previously having been noted eight times during life and three times *post mortem*.

Fracture of the lamina by muscular action is a much rarer injury; indeed, Rose and Carless (sixth edition) state that, though this accident is not uncommon, it always results from direct violence. The following case, however, seems to be a striking exception to this rule.

A splendidly developed bluejacket, aged 26, was playing in a Rugby football match near Plymouth on September 11th, 1909. The ball was passed out of a scrum, and was seized by this man, who was playing at stand-off half, and he started to run towards the opposing side's goal. At the same moment he was tackled by an opponent around the hips, and held firmly. The seaman threw the ball to a comrade who was slightly behind him, and, in doing so, gave the upper part of his body a sudden sharp twist towards the left, and immediately fell to the ground with a cry, his opponent falling with him.

*State on Admission.*—An hour and a half after the accident he was admitted into the Royal Naval Hospital, Plymouth, and was then found to be completely paralysed, both as regards motion and sensation, below the nipple line, the symptoms pointing to an injury at the level of the third or fourth dorsal vertebra. He was perfectly conscious, and able to give a clear account of the accident. Marked priapism was present, and incontinence of faeces. The patellar reflex was lost; the lower limbs were warm, and there was little or no shock.

*Operation.*—Laminectomy was performed the same evening, after a consultation of the surgical staff of the hospital. The spinous process of the third dorsal vertebra was found to be mobile, and examination showed that the left lamina had been fractured at its junction with the transverse process. The spinous process was nipped through with cutting pliers, and a small trephine applied to its base, the fractured bone, as well as one or two loose sharp spicules, being then removed. No injury to the cord could be detected, and the first effect of the operation was the disappearance of the priapism. The muscles were united with catgut, and the skin with silkworm gut without drainage.

*Result.*—The patient appeared to be doing well till the afternoon of the following day (12th), though there was no return of sensation or movement in the paralysed parts. Then the gravest symptoms supervened, the paralysis extending upwards, with loss of power in the arms; very embarrassed breathing, and difficulty in swallowing; the pulse became small and rapid, and the patient drowsy. The temperature rose to 105.4°, and death took place at 11 p.m., about thirty-two hours after the accident.

*Autopsy.*—The *post-mortem* examination showed the operation wound to be perfectly healthy. Besides the signs of fracture already discovered, extradural haemorrhage was found opposite the fifth dosal vertebra, but the spinal cord itself was not crushed. The lungs were engorged and oedematous, and the left lung bound down to the chest wall by old pleuritic adhesions. The remaining organs of the body were healthy.

I think there can be no doubt that this fracture was caused by the action of the muscles of the spine, particularly the multifidus spinae and rotatores dorsi. These would be highly developed in a splendid specimen of manhood such as this bluejacket, accustomed to boatwork and pulling an oar; and when the origin and insertion of these muscles are taken into consideration, it is conceivable that their leverage would be increased if, as in this case, the lower part of the body be held as in a vice, and they were suddenly put into action, and that a fracture would be the possible result.

The details as to how the accident occurred were confirmed by several players in the game, who gave their evidence at the subsequent coroner's inquest, when a verdict of accidental death was returned.

[1] *Medical Review*, January, 1910, p. 44.

# Reports of Societies.

## MEDICAL SOCIETY OF LONDON.

*Monday, May 15th, 1911.*

Mr. CHARTERS J. SYMONDS, President, in the Chair.

*Post-operative Lung Complications.*

DR W. PASTEUR devoted the Annual Oration to a consideration of the lung complications after operation. Not long ago these were held to be, for the most part, a direct result of the anaesthetic, but that view was no longer tenable. Ether, *per se*, was probably not a direct cause of pulmonary inflammation, but respiratory difficulties during anaesthesia—whether due to faulty administration, unsuitable method, surgical manipulations, or the quality of the anaesthetic itself—favoured the aspiration of saliva, into the lungs. In that way the anaesthetic might become an important contributing cause of lung troubles. These occurred with especial frequency after operations above the umbilicus, and though frequently associated with clean wounds, were more likely to arise in septic cases. They usually developed within two days after operation, and were relatively uncommon after the fourth day. Complications arising after the first week were generally associated with septic processes. Most of the deaths occurred in septic cases. The facts did not support the opinion that after-effects more frequently followed ether than chloroform anaesthesia. A few years ago it had occurred to the speaker that massive collapse from reflex inhibition of the diaphragm might account for some of the perplexing lung conditions occasionally met with after abdominal section. The conclusive sign of such collapse was displacement of the heart's apex beat towards the affected side, and it was the only sign peculiar to the condition. It was always present when collapse was unilateral and sufficient in degree, but was probably absent in the rare cases in which both lower lobes were involved simultaneously. They had no means of estimating the amount of deflation which took place in a given case. It probably varied with the degree and duration of inhibition of the diaphragm, and the term "massive collapse" was only applicable to cases in which it gave rise to definite physical signs. Probably the amount of displacement of the apex beat was a rough index of the amount of deflation. In uncomplicated cases the symptoms tended to subside rapidly. The initial dyspnoea rarely lasted more than a few hours, and by the end of the first twenty-four hours all urgent symptoms had usually cleared up. The displaced heart had already begun to move back towards its normal position, though that might not be fully regained for several days. It must be borne in mind, however, that collapsed lung was very liable to become inflamed, and where infective material was at hand the clinical picture of massive collapse might insensibly become replaced by that of bronchopneumonia. The early occurrence of viscid expectoration in most cases deserved notice. The sputum at first probably consisted of the contents of the collapsing lobe which were pressed back into the large bronchi and coughed up. But if expectoration continued for more than twenty-four hours it probably indicated the supervention of bronchitis or bronchopneumonia in the re-expanding lobe or in some other part of the lungs. Pain was also a very common early symptom. It was apparently not of the same kind as pain of pleural origin, being, as a rule, more deep seated and less acute in character. The great variation in the mode of onset was one of the most interesting features of massive collapse. In one patient it stimulated pulmonary embolism, in another it gave rise to no symptoms at all. The difference could not be explained by the degree of collapse, for in both cases the physical signs indicated a profound alteration in the condition of the lung. It was more likely to be dependent on the rate at which collapse took place, and on the ability of the heart and the sound lung to adapt themselves easily to the altered condition of respiration and circulation. He had endeavoured to prove that deflation of the pulmonary bases, resulting from reflex inhibition of diaphragmatic movement, was an essential, if not the chief, factor in the causation of post-operative complications, and that the rôle of the anaesthetic was only a very secondary one.

## ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

*Friday, May 12th, 1911.*

Sir A. PEARCE GOULD, President, in the Chair.

*Suppression of Urine.*

DR. WILFRED HARRIS and Mr. W. H. CLAYTON GREENE, in a paper on the treatment of acute suppression of urine by incision of the kidneys, described four cases in point. After a lateral incision in the loin and exposure of the kidney, a cut was made through the convex border of the kidney substance deep into its pelvis, the cut being about an inch in length. After controlling the free haemorrhage by plugging, a drainage tube was fastened in the pelvis. The result in each case was almost immediate resumption of the secretion of urine, which was passed both by the drainage tube and also by the bladder. In some cases it appeared that operation upon one kidney might be sufficient. In Case IV, one of corrosive sublimate poisoning, both kidneys were incised, the right kidney on the third day and the left on the fifth day after suppression commenced, or on the fourth and sixth days after the swallowing of the poison. The ultimate result was practical cure of the haemorrhagic nephritis, between 30 and 40 oz. of urine being passed daily. Death, however, took place in this case on the sixteenth day from exhaustion due to the severe colitis resulting from the excretion of the drug by the large bowel.

*Exhibits.*

The following were among the exhibits:—Dr. WILFRED HARRIS: Case of *Spondylitis, with progressive muscular contracture.* Mr. EDRED M. CORNER: Case of *Trophic ulceration* over a large formation of scar tissue. Dr. W. ESSEX WYNTER: A case of *Graves's disease* in a boy, which had commenced at the age of 10. Dr. H. D. ROLLESTON: A case of *Recurrent attacks of post typhoidal osteitis.* Mr. FRANCIS S. KIDD: A case of *Congenital deformity of femur*, the upper femoral epiphysis and half the shaft being absent. Mr. CECIL ROWNTREE: A case of *Carcinomatous degeneration* in a chronic dermatosis.

## OXFORD MEDICAL SOCIETY.

AT a meeting at Littlemore Asylum on May 12th, Mr. DODDS PARKER in the chair, Dr. RAY, in an account of *Hydatid disease*, said the difficulties of diagnosis arose chiefly when the cyst lay in the right hypochondrium. In this region Fowler's sign—accumulation of fluid with pleural friction—was most valuable. The *x* rays were also helpful. A strip of more transparent tissue between cyst and diaphragm often settled the diagnosis. The precipitin test promised to be very valuable, and to be equally good in sterile, fertile, or suppurating cysts. Eosinophilia was only a supporting fact. When the cyst lay in the right hypochondrium, the guiding line in operation should be the upper edge of the liver. If this were raised, the cyst should be attacked from the chest; if not, from the abdomen. The position of the lower edge of the liver should be ignored. The best results were seen when the cyst was emptied, filled with normal saline, and again sewn up. No necrosis occurred; the fluid was gradually absorbed, and the cyst gradually lessened. Suppurating cysts could only be treated by drainage. Dr. GOOD, in an account of *Dementia praecox*, described it as a disease affecting primarily the will and the judgement. The persons affected were between the ages of 13 and 25, and there was almost always a hereditary weakness from insanity or alcohol. The immediate causes were over-pressure at work, or cramming at school. Injury to the head and tuberculosis were often associated with the disease. Treatment, when the disease was established, led to no permanent good. Even if apparent recovery occurred the patient relapsed. Mentally unstable children, children who were often bright at school to an unusual degree, should not be unduly pressed; any form of cramming in such children was certain to bring disaster. Dr. READ then read the notes relating to two patients who had already been shown to the society. One, who was demonstrated, was a *Cretin*, aged 19, who had been treated for a year by thyroid extract. She was very much improved, had grown 2 in. in height, and had put on 8 lb. in weight. Her health was good and she was able and willing to do a

fair amount of work in the ward. Owing to her being deaf and dumb, much mental improvement was hardly to be expected. The second patient had died in the asylum. His condition on entry had been one of locomotor ataxia with optic atrophy; his mental symptoms, which were not marked at first, had become definitely those of general paralysis. The condition of his spinal cord and brain had confirmed the diagnosis that this was a case of *Mixed general paralysis and locomotor ataxia.*

## UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on May 10th the following papers were read:—Fleet Surgeon J. H. WHELAN, R.N. (ret.), in a paper on the *Action of quinine on malarial fever*, maintained that quinine acted by destroying the malarial-affected red blood cells, caused them to break up, and so led to the death of the young parasites in the blood stream before they had time to sporulate—snapped the cycle of Golgi. He thought that the temperature charts, which he showed, bore out his contention that the action of quinine was to free toxin and cause a rise of temperature shortly after its administration. Some experiments with malarial blood outside the body showed that quinine in the strength of 1 in 20,000 was able to liberate the parasites in fair numbers, and as the quinine content could be raised equally high in the body, he considered the same thing took place there. Major R. S. HARRISON, R.A.M.C., said that the action of quinine as a poison of the malarial parasite inside the red blood cell could be demonstrated easily, but one did not find extracorpuscular parasites in the blood of patients taking quinine, and he explained the temperature charts in another way. Fleet Surgeon W. A. WHITELEGGE, R.N., in a paper on *Eye-strain in the Royal Navy*, considered eye-strain (not due to errors of refraction) under the headings of ciliary strain, muscular strain, retinal strain. In two years 4,819 cases were examined, and he had found eighteen instances of accommodative and 15 cases of muscle balance error, of a more or less degree, in which the symptoms had persisted, and which were caused by the strain of using high-power telescopes, binoculars, and range finders, but especially the latter, where the magnification was very great, and the lenses on the two sides were of different power. In these circumstances a very great strain was thrown on the eyes, and minor discomforts were extremely common. Many other causes of eye-strain were mentioned and the symptoms given. In the discussion which followed, Fleet Surgeon GASKELL expressed the opinion that a tendency to squint was a very fertile source of eye-strain, and that squints of a minor degree were commoner than most people supposed. People were too apt to try and cure this condition by means of glasses—in fact, he considered that many people wore glasses unnecessarily.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the concluding meeting of the session on May 5th, Dr. A. CHRISTY WILSON, President, in the chair, the following were among the exhibits: Dr. E. F. TREVELYAN: (1) A man, aged 26, with *Muscular atrophy* limited to the shoulder girdle muscles of seven years' duration. All movements at the shoulder were possible but weakened. There was marked fibrillary twitching and no pseudo-hypertrophy. The patient was practically in the same state as when seen five years ago. (2) A girl, aged 3 years, who had sustained an injury eighteen months previously, from which time the loss of power was dated. There was paralysis and wasting of most of the muscles of the shoulder girdle, but external rotation was still possible. There was dropping of the head of the humerus. The diagnosis lay between injury to the joint and brachial plexus, and an independent infantile paralysis of the upper arm type. Dr. T. CHURTON: A case of *Haemorrhage in the brain*, illustrating the value of differential temperatures in diagnosis. Dr. C. OLDFIELD: A case of *Intestinal obstruction* due to strangulation by a band connected with a degenerated fibroid tumour of the uterus. Mr. A. GOUGH: *Vincent's organisms* from a case of pyorrhoea alveolaris, and from a case of pseudo-membranous tonsillitis. Mr. J. F. DOBSON: A *Meckel's diverticulum* opening at the umbilicus. Enterectomy had been performed. Dr. W. H. MAXWELL TELLING: (1) A *Foreign body from the vagina* of a child of 7; it was a button, which had lain therein for three months. At the commencement of this period there had been a sanguineous discharge, which was taken by the mother for a period. (2) A case of *Anaemia splenica infantum* in a child of eleven months. The child was a Jew and a twin, and showed marked signs of rickets.

## NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting at Leeds on May 19th, Dr. J. B. HELLIER, President, in the chair, the following were among the exhibits: Dr. DONALD (Manchester): A specimen of *Adenoma of the uterus*, showing how curettage for menorrhagia may fail. Dr. FITZGERALD (Manchester): Sections of a *Myxosarcoma* from a patient aged 48. When first seen she had no objectionable symptoms beyond some pain in the left iliac region. Six weeks later the abdomen was found to be acutely distended, the pulse 130, her temperature 100.2°, and she was suffering severe pain. The abdominal cavity when opened was found filled in every possible direction with a semisolid mass, which on microscopical examination proved to be a myxosarcoma. Half a bucketful of the mass was removed, and efforts were then made to discover whence the growth had taken origin. The pelvic organs were found to be normal, as were all the organs in the abdominal cavity, though all were coated over by the growth. The blood supply to the growth was extraordinarily scanty. In ten days the abdomen was as much distended as it had been before the operation, and four weeks after, when the patient died, the distension was even more marked. Dr. OLDFIELD (Leeds): A *Parasitic fibroid* removed from an unmarried woman, aged 35. It formed an abdominal tumour about the size of an eight months pregnancy, but with the exception of a little pain produced no symptoms. The omentum spread over it was thin, contained no fat, but numerous large vessels, the lymphatics being distended to the size of one's little finger. In view of its rapid growth it was removed, together with the uterus and appendages and a large portion of omentum. Dr. LLOYD ROBERTS (Manchester): A uterus weighing only 1½ oz., but affected with *Carcinoma of the cervix*. It was removed by vaginal hysterectomy from a patient aged 52. The exhibitor discussed the different methods of hysterectomy, and considered that the vaginal route still held the field, and that it afforded at least as good a chance of immunity from return as the more severe operation of abdominal section. Dr. STEWART (Leeds) described a case of *Carcinomatous ovarian teratoma*. The patient was first admitted to the Leeds Infirmary in March, 1908, when vaginal hysterectomy for cervical carcinoma was performed. In November, 1910, she returned with a large tumour of the left ovary. This proved to be a teratomatous cyst, the greater part of which consisted of squamous epithelioma, probably secondary to the old cervical cancer. In addition, a great variety of teratomatous structures were found, including representatives of all three fetal layers, squamous epithelium, hair, glandular structures, nervous tissue with ventricular spaces and particles of brain sand, fibrous and adipose tissue, unstriped muscle, bowel wall, and thyroid gland. The patient had general peritonitis at the time of operation, and died soon after. No other evidence of metastatic deposit was found *post mortem*. An inference drawn from the case was that hysterectomy for uterine carcinoma should always be accompanied by removal of the appendages. Dr. CLARA EGLINGTON described a series of 12 malignant and apparently malignant tumours of the ovary and broad ligament, removed in the Leeds General Infirmary during the past twelve months and examined in the pathological laboratory. Ten proved to be malignant, and 2, which appeared macroscopically malignant, were histologically benign. The conclusions drawn from the series were: (1) That in papillary and malignant ovarian tumours, if the second ovary shows no macroscopical evidence of disease, microscopically there is frequently some change. (2) That primary and secondary malignant disease of the ovary seldom occurs in organs not already the seat of an adenomatous change.

# Reviews.

## CEREBRO-SPINAL MENINGITIS.

PROFESSOR BUSSE, in a recent monograph on cerebro-spinal fever,[1] devotes special attention to the pathological aspect, basing his observations upon a series of 58 *post mortem* examinations illustrated by some excellent coloured plates. He gives, however, rather a general survey of the subject than a detailed and statistical description of individual examinations. There are several points upon which more stress is laid than is usual. He has never found foci of suppuration and encephalitis or myelitis in cases of true cerebro-spinal meningitis, and suggests that in describing these the textbooks are merely copying from old accounts written before the bacteriological diagnosis was firmly established. He also describes a layer of cells which he has found on the surface of the cerebellum in the more chronic cases, and suggests that they represent regeneration. The changes in the ventricles and choroid plexus are very minutely described. No new evidence is adduced as to the mechanism of the production of hydrocephalus. It has often been assumed that the primary lesion is situated in the naso-pharynx, but Professor Busse draws attention to the great frequency with which bronchitis and laryngitis are found in early cases, and holds that any part of the respiratory tract may serve as the port of entry of the meningococcus. He does not think that either the presence of adenoid vegetations or the status lymphaticus play any part in inducing a predisposition. Probably the most interesting part of the book is the discussion of the carrier problem. It is claimed that in every epidemic for every sufferer from the disease there are ten to twenty individuals who harbour the infectious organism in their nose and throat. They may have some slight coryza or sore throat, but in many cases are apparently quite normal. They are not immune, for some of them have developed the disease. In one epidemic it was found that over 50 per cent. of the fathers of the patients were infected carriers. The meningococcus is very soon killed by drying, and must therefore be conveyed from person to person by immediate contact or by the spray produced in sneezing, coughing, and talking. Kissing he looks upon as one of the most dangerous means of infection. The factors which predispose an infected individual to an attack of meningitis are unknown, but he thinks it probable that the predominance of children is merely another example of the liability of a local infection to become general in the case of the child. All attempts to free the carriers from the organism have failed, and their number is so large that it is impossible to isolate them. The German authorities have issued a leaflet to the public explaining the danger and suggesting means of minimizing the risk. The author does not refer to the criticism which this theory has received, namely, that it is almost impossible to recognize the meningococcus amongst other common denizens of the nose by smear preparations alone, whilst most of the investigators seem to have relied upon simple microscopical examination. The theory explains so many of the puzzling features of the epidemiology of the disease that further work is urgently required. As regards serum treatment, great importance is placed upon giving large doses by the intradural method. The book gives a good exposition of the prevailing German views upon this important disease.

## NEUROLOGY.

PROFESSOR OPPENHEIM'S great textbook of nervous diseases first appeared in 1894, and its fifth German edition came out in the summer of 1908. This has been translated into English by Dr. ALEXANDER BRUCE,[2] and is issued in the form of two handsome and weighty volumes. The first of these begins with a general introduction to neurology, some ninety pages being given to the modes of examination employed and the general symptomatology of nervous disorders. Then follows the special part of the work, divided into six sections, of which the first two occupy the rest of the first volume. The first section deals with diseases of the spinal cord, systemic and diffuse; the second with affections of the peripheral nerves, the various forms of peripheral paralysis that can be differentiated into distinct types for practical as well as for textbook purposes. In considering the diagnosis of sciatica Professor Oppenheim has an interesting discussion on the rare affection known as intermittent claudication, laying stress on the importance of the neuropathic diathesis in its etiology; he recognizes a benign form of it, due to spastic vascular conditions, and not to an organic disease of the wall of the vessel. In the second volume diseases of the brain occupy 450 pages, the first 65 being given to the anatomy and physiology of the brain, the next 70 to the general symptomatology of its diseases. The next section is devoted to the neuroses, using the term in its widest sense; and the last 90 pages are given to diseases of the sympathetic, angioneuroses and trophoneuroses, alcoholism, morphinomania, and tetanus. The sterling qualities that have made Professor Oppenheim's textbook one of the best known of all the works on the subject of nervous disorders are manifest on every page of these two volumes. He has a most extensive and thorough knowledge of the subject at first hand, and so is able to speak with the authority of experience; and, a matter of no less importance, he succeeds in keeping pace with the vast literature of neurology. One of the most valuable features of his book is the great number of references to the literature it contains—so much so, that one is tempted to exclaim, "English authors, please copy," and to congratulate the translator on having included them in his two volumes. The translation has been well done, although many sentences have been placed within brackets where a pair of commas might advantageously have been used in their place. In many instances the translator has joined together by a hyphen the names of the two authors of jointly written papers, after the German fashion, instead of giving the two names separately with the word "and" between, as is usual in English; thus a paper by "Oppenheim and Sonnenburg" is quoted as by "Oppenheim-Sonnenburg." There are not many misprints, though a single line on p. 1192 contains two ("blutylchloral," "vannadium"), and also the untranslated German word "Bromlithium," that should read "lithium bromide" in English. The first volume would undoubtedly have gained in utility had the 25 page index been included in it as well as in the second volume. The illustrations are excellent; and the book, indispensable to the neurologist, can be most warmly recommended to all medical men in search of a lucid, complete, and authoritative textbook of nervous diseases.

The first edition of Dr. R. T. WILLIAMSON'S excellent monograph on the *Diseases of the Spinal Cord*[3] was favourably reviewed in the JOURNAL of May 8th, 1909, p. 1125. We are glad to take an early opportunity of noticing the second impression. Dr. Williamson has designed his work to be a textbook rather than an exhaustive account of the subject; accordingly, references to the literature are given only in the case of the more recent and important papers, and no complete bibliography has been attempted. The first 116 pages deal with the structure and functions of the cord, the symptoms of spinal disease, the examination of the patient, and the diagnosis and localization of the lesions present. With this introduction over, Dr. Williamson introduces his clinical division of spinal cases into four groups according as the prominent symptoms are those of (1) a transverse lesion, (2) atrophic paralysis, (3) spastic paresis or paralysis, or (4) ataxia. These four groups are next considered seriatim; at the end of the book are sections on spinal meningitis, spinal syphilis, and trauma of the spinal cord. There are two appendices: one on the methods of staining sections of the cord, the other, dated 1910, gives an account of the advances made in the knowledge of spinal diseases since 1908. The book is a thorough and painstaking piece of work, well arranged and well written. It is perhaps strongest on the side of pathological anatomy, being abundantly furnished with pictures and

[1] *Die übertragbare Genickstarre.* By Professor Otto Busse. Jena: Gustav Fischer. 1910. (Royal 8vo, pp. 180; 7 plates, 10 figures. M.12.)

[2] *Textbook of Nervous Diseases for Physicians and Students.* By Professor H. Oppenheim. Fifth Edition, with 432 illustrations and 8 plates. Authorized translation by Alexander Bruce, M.D. In two vols. Edinburgh: Otto Schulze and Co. 1911. (Sup. roy. 8vo, vol. i, pp. xvii + 606; vol. ii, pp. 606 + 1424; 432 illustrations; price £2 2s.)

[3] *Diseases of the Spinal Cord.* By R. T. Williamson. Second Impression. The Oxford Medical Publications. 1911. London: H. Frowde, and Hodder and Stoughton. (Sup. roy. 8vo, pp. 443; illustrations 183; 7 plates. 15s.)

descriptions of the naked eye and microscopical changes that may be met with in the diseased cord. But the symptomatology and diagnosis of the different disorders are in no way neglected, and the practitioner or student, whose interest may be in the patient's complaints and physical signs rather than in the pathogeny of his disease, will find plenty to hold his attention. Thus, ten pages are devoted to the treatment of tabes dorsalis out of 60 pages given to that disorder. The printing and paper of the book are satisfactory; the illustrations, many of them original, are generally good, though they would be more valuable had the scale of their magnification been inserted in the descriptions of the photomicrographs. A good many of the photographic pictures have been somewhat freely and heavily retouched, with the result that they gain in clearness, no doubt, but this diagrammatic clearness is purchased at the price of their truthfulness as photographs. The coloured plates are excellent; Plate IV has considerably less than 1 square inch of "Plate" to more than 50 square inches of margin. We can cordially recommend Dr. Williamson's book to all who want a thorough and up-to-date textbook on diseases of the spinal cord.

Three years ago, when reviewing the second edition of Professor STARR's excellent textbook *Organic and Functional Nervous Disease*,[4] while appraising highly his masterly description of organic diseases, we were compelled to comment upon his somewhat scanty accounts of functional nervous disorders. We noted also the exclusion from his book of a considerable group of trophic disorders and angio-neuroses. Since that time the demand for another edition has given its distinguished author the opportunity not only of thoroughly revising its whole contents but of supplying the omissions we deprecated. The book has grown from 853 to 911 pages; functional nervous diseases are more fully described, and new chapters on vasomotor and trophic neuroses, including symmetrical gangrene, angio-neurotic oedema, and allied conditions, have been added. The result is that this book takes its place among the best general textbooks on neurology for the use of students and practitioners. It is clearly and well written, printed upon good paper, in comfortably large type, and is beautifully illustrated by numerous admirable diagrams, drawings, photographs, and plates, which are triumphs of the reproductive art. Speaking generally, there is throughout the book a minimum of theory and a maximum of ascertained fact; only the broad facts of etiology are discussed, but the greatest pains are taken to make the morbid anatomy, symptomatology, and differential diagnosis as clear and complete as possible. For these very reasons—for what it leaves out as for what it contains—this book admirably fulfils its purpose.

A well written summary of what is known about tumours of the mesencephalon has been published by Dr. VALOBRA of Turin,[5] who has met with two cases—one a vascular glioma of the anterior corpora quadrigemina, the other a neoplasm of the right cerebral peduncle. After giving an account of the anatomy and physiology of the mesencephalon, the author devotes 100 pages to the symptomatology of tumours of the corpora quadrigemina, tabulating the 55 cases recorded between 1861 and 1902. In the great majority of the instances choked disc, paralysis of the third nerve, and changes in the pupillary reflexes were observed. In most of them there were changes in the hearing, ataxia, paralysis of the fourth nerve; in a minority of the patients the sixth nerve was paralysed, hemiparesis with various involuntary movements, and disturbances of speech were recorded. In a few instances glycosuria, priapism, polyphagy, vasomotor and thermal disturbances were seen. The diagnosis is discussed at some length. The last seventy pages are given to the symptomatology of tumours of the cerebral peduncles, and the subject is very thoroughly treated. If the growth is in the tegmentum the paralysis is slight, the ataxia is marked, and the involuntary movements (with hemiasynergy) are prominent; while contractures and Babinski's sign are absent. If the growth is in the crusta or pes, then the hemiplegia is of the ordinary type, and is associated with a crossed paralysis of the third nerve. Dysarthria is very common; white changes in the optic disc are very rare, or appear only in the later stages. Over 350 references to the literature are given. Dr. Valobra's book is well arranged, and is clearly written, and it can be recommended to the attention of specialists in nervous diseases.

[4] *Organic and Functional Nervous Diseases: A Textbook of Neurology.* By M. Allen Starr, M.D., Ph.D., LL.D., Sc.D., Professor of Neurology, Columbia University, New York, etc. Third edition, revised. London: Baillière, Tindall, and Cox. 1910. (Roy. 8vo, pp. 911; 300 engravings and 29 plates. 25s.)

[5] *Tumori del Mesencephalo: Studio Clinico ed Anatomico.* Doct. I. Valobra. Turin: S. Lattes and Co. 1910. (9¾ in. × 6¼ in., pp. 210, with 9 figures in the text.)

## THE INFLUENCE OF *X* RAYS ON THE THYMUS.

DR. RUDBERG'S[6] contribution to the study of the influence of the *x* rays on the thymus is an outcome of the special study devoted to the anatomy and physiology of this organ by Professor Hammer and his school at the anatomical institute at Upsala. The literature on this subject is recent and limited, and the writer's observations will therefore be new to many. In rabbits it was found that both the lymphocytes and the cells of the reticulum undergo rapid involution with direct exposure to the rays. The degeneration of the lymphocytes commences within three hours of exposure, and within twelve to forty-eight hours they have completely disappeared from the gland. With the departure of the lymphocytes, the cells of the reticulum fall close together, their appearance resembling that of epithelial cells. The degenerative changes in the cells of the reticulum are often not evident till the lymphocytes have disappeared, and the former's regeneration occurs much later than the latter's.

As the cells of the reticulum disappear, the parenchyma of the gland becomes subdivided into groups separated from each other by intraparenchymatous spaces, some of which are of considerable extent.

After slight exposure to the rays the lymphocytes and cells of the reticulum are regenerated by mitotic reproduction, but, after prolonged exposure, the new lymphocytes are derived from the lymph stream.

Even when it is protected by a screen, the *x* rays affect the thymus profoundly. Within forty-eight hours of indirect exposure to the rays the gland loses half its weight (comparison with control rabbits). This change is due to the death of some lymphocytes, and to the emigration of others into the general circulation. This emigration is attributed to a call made on the thymus by the blood and other tissues whose direct exposure to the rays has robbed them of lymphocytes. Rudberg concludes that the general loss of lymphocytes in the body is primarily due to the direct action of the rays, and that the leucolytic properties of the blood which have been observed are of secondary importance. Several coloured reproductions of microscopic sections are given.

[6] *Om Thymusinvolutionen Efter Röntgenbestralning.* Jämte nagra Iakttagelser öfver Leukolysen i öfrigt hos Röntgenbestralad Djur. By Hans Rudberg. 1909. Uppsala: Almquist and Wiksells Boktrycken. (Pp. 106.)

## TROPICAL DISEASES.

DR. B. SCHEUBE'S well-known work on the diseases of warm countries,[7] described on the title-page as a handbook for practitioners, has now reached a fourth edition. Knowledge of tropical medicine has been steadily advancing in the last few years, and as the new facts have to be incorporated in any work that pretends to keep up to date, the appearance of this enlarged and revised edition is explained. The type, general plan, and treatment of the different subjects is the same as before, and it will be sufficient to say that the treatment of the new material keeps up to the high standard of the past, but the book can hardly now be called a handbook, as the size has gone on growing and growing. So big and unwieldy has the volume become that it might be better to issue future editions in two or three separate volumes; it would, indeed, have been well had this course been followed with the fourth edition. Fault has been found with the accuracy of some of the maps at the end of the book before, and one still sees some glaring inconsistencies present there. On the whole, however, we have nothing but praise for the work.

Dr. CARNEGIE BROWN gives a very good account of amoebic dysentery in his book entitled *Amoebic or Tropical*

[7] *Die Krankheiten der warmen Länder: ein Handbuch für Aerzte.* Von Dr. B. Scheube, Geh. Medizinal-Rat in Greiz. Vierte ungearbeitete und erweiterte Auflage. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo, pp. 1080, 5 geographischen Karten, 1 Tafel, und 142 Abbildungen. M. 25.)

*Dysentery; its Complications and Treatment.*[8] It is divided into seven parts as follows: (1) General, (2) biological, (3) clinical, (4) pathological, (5) etiological, (6) complications and sequelae, (7) treatment. The history and literature of the disease is taken back to the year 1859, when Lambl found a rhizopod in intestinal mucus from a child suffering from infantile diarrhoea. From that date on to the present time the advances made are reviewed in detail, special stress being laid on the most recent work. The author is evidently a close follower of Schaudinn's work, and attaches much importance to the distinction between the *Entamoeba coli* and the *Entamoeba histolytica*. Whether the distinction is as clear as Schaudinn believed may be doubtful, but one thing these observations did, as Dr. Carnegie Brown points out, was to remove the chief obstacle to the recognition of amoebic dysentery as a distinct disease and to put the pathology of the disease on a much sounder foundation. At the same time, however, due praise must be given to the American school of workers in the Philippines, who by their clinical and pathological studies have also done much to bring this conception into favour. Some of the author's remarks on the symptoms of the disease, especially as to the changes in the blood, are open to criticism. A secondary anaemia does of course occur in chronic dysentery, but what the following sentence (page 98) means is difficult to understand: "When they (the toxaemic symptoms) are pronounced, the polymorphonuclears are especially numerous; but, in ordinary instances, all the varieties of white corpuscles are augmented indifferently. Eosinophiles, too, are relatively and absolutely increased." This is not correct, and the figures which follow "Large mononuclears and transition forms 10 to 17 per cent." are equally incorrect unless the patient be also suffering from malaria, a fact which is not stated. Such an account of the blood in dysentery will certainly mislead the uninitiated, and it would have been better to have left this part out altogether rather than have stated it in so imperfect a manner. The pathological part on the whole is accurate, but here again points occur to which exception might be taken. Treatment is discussed with sufficient detail. One point that will certainly be criticized by the English school is the withholding of ipecacuanha in acute dysentery or in acute exacerbations. The book is well and clearly written, and should prove a useful addition to the literature of this interesting and important subject.

A variety of malarial fever has been described mainly by the French school as the larval form, but the existence of such forms is so doubtful that mention is not even made of them in many standard English textbooks of tropical medicine. Laveran himself admits that the subject is not yet sufficiently elucidated, and Jeanselme and Rist, though admitting the type, believe that its frequency has been much exaggerated. The last-named authorities apply the term *formes larvées* to troubles, subjective or objective, generally without fever, which recur periodically and are curable by quinine. Neuralgias of various kinds—trigeminal, supraorbital, and occipital—sciaticas, and localized pains in various areas, such as the lumbar and splenic regions, are the chief symptoms mentioned, but complaints so widely divergent as cramp, intermittent torticollis, spasm of the glottis, asthma, angina pectoris, herpes, anosmia, and different forms of paralysis are also included. Probably, as Laveran hints, an examination of the blood by modern methods of investigation will clearly show that some of these maladies have nothing whatever to do with malaria. Nevertheless, Dr. Mousséos has written a book of some 150 pages on this subject,[9] which is dismissed in a page or a paragraph in some textbooks, while in others it is not mentioned at all; it is not surprising, therefore, to find a large amount of verbiage and padding introduced in Dr. Mousséos's book. After all that has been said of late concerning zoological nomenclature and the priority of names, it might have been hoped that authors would have been specially careful in coining new ones, but in the very first sentence in Chapter 1 Dr. Mousséos proposes to give the *Plasmodium malariae* the name *Haematobion laveranien*, a term which cannot be accepted. The part of the book which deals with the examination of fresh blood and of fresh blood coloured with methylene blue, is not only not convincing but is manifestly erroneous in many details, while the diagrams, instead of helping to elucidate matters, only make the mystery deeper. The clinical part is better, but by no means perfect. The book, then, though showing signs of much careful work and study, does not advance the subject at all, and cannot, therefore, be recommended.

[8] *Amoebic or Tropical Dysentery; its Complications and Treatment.* By W. Carnegie Brown, M.D., M.R.C.P. London: John Bale, Sons, and Danielsson, Ltd. 1910. (Double fcap. 8vo, pp. 279. 7s. 6d.)

[9] *Les formes larvées du paludisme. Diagnostic et traitement.* Par le Dr. Basile Mousséos. Paris: Vigot Frères. 1910. (Sup. roy. 8vo, pp. 155, 18 figs. Frs. 3.50.)

## WORK AMONG LEPERS.

MR. JOHN JACKSON, the Organizing Secretary and Editor of the Mission to Lepers in India and the East, has recently brought out a second edition of his book, *Lepers; Thirty-six Years' Work Among Them.*[10] This deeply interesting record of a noble work of charity has been brought thoroughly up to date, and as it now stands forms a complete history of the Mission to Lepers, from its modest beginnings in the year 1874 down to the present day. For this purpose two additional chapters have been appended to the original edition, and these may almost be said to constitute the most interesting portion of the whole book, since for the most part they consist of the author's own personal experiences and observations during a recent tour through the leper villages and asylums of India. The descriptions of these places and the happy conditions in which their afflicted inmates live are a striking testimony to the efficiency of the system upon which they are conducted and to the zeal and practical charity of the brave men and women who have dedicated their lives to the service of the scourge which brands its victims as outcasts from human society.

It would be difficult to overestimate the value of the work which had been carried on for the last thirty-six years by the Mission to Lepers. In the East, as in Europe during the Middle Ages, lepers have always been looked upon as pariahs, and there being no organized system of relief before the foundation of the Mission, the vast majority of these unhappy beings (provided they were fortunate enough to escape being buried alive) were homeless outcasts, who wandered from place to place in a state of indescribable filth and wretchedness till they died of starvation or exposure. It was the sight of the appalling misery in which thousands of Indian lepers were living that moved a member of the American Presbyterian Mission at Ambala, Mr. Wellesley Cosby Bailey, to form the nucleus of the society which developed into the Mission to Lepers in India and the East. The original object of the mission was "to raise £30 annually to enable Mr. Bailey . . . to relieve a few lepers at his own station, and in addition to his ordinary work."

By the end of the first year the amount of money collected was large enough to permit the building of the first mission hospital at Chamba, in the Himalayas, and this auspicious opening has not been belied by the subsequent history of the society. From the very first the labours of its members were cheered by "constant tokens of success"; leper houses belonging to the mission are not only scattered throughout the length and breadth of India, but are to be found in Burma, Ceylon, China, Japan, Siam, Korea, Sumatra, and the Philippines. Moreover, the mission not only provides more than 10,000 lepers with proper accommodation, food, clothing, and medical treatment, but in addition supports twenty-five refuges for the untainted children of leprous parents, who are carefully guarded from every possibility of infection, and are thus given a chance to grow up healthy and useful members of society. It should be added that so far the results of this experiment, which has now been continued for some twenty-five years, have surpassed all expectations; and with few exceptions children who have been brought up in the mission homes become healthy adults, capable of producing healthy offspring. Mr. Jackson may well write with loving pride on such a subject. He tells his story

[10] *Lepers; Thirty-six Years' Work Among Them.* Being the history of the Mission to Lepers in India and the East, 1874-1910. By John Jackson, F.R.G.S., author of *Mary Reed, In Leper Land*, etc. With a short introduction by the Dowager Marchioness of Dufferin and Ava. Two maps and many illustrations. New and revised edition. Published by Marshall Brothers, London and Edinburgh. 1910. The Mission to Lepers, 28, North Bridge Street, Edinburgh; Rogaland, Cowper Road, Dublin; and 33, Henrietta Street, Strand, London, W.C. (Pp. 197. Price 3s. 6d.)

very simply, but with an earnest admiration which communicates itself to his readers; and his book will stand as a fitting memorial of a society of whom it may with truth be said that its sole aim is "to render the deeds of mercy."

The volume, which is well printed and bound, is illustrated by numerous photographs, and includes an introductory note by the Dowager Marchioness of Dufferin and Ava.

## LOMBE ATTHILL.

The *Recollections of an Irish Doctor*,[11] by the late Dr. Lombe Atthill of Dublin, was written for, and will appeal to, an audience far wider than the medical profession, though for medical men a special interest must attach to a volume which sets forth, however briefly, the life-history of one who attained to an honoured position in the profession. The appearance of the present volume is due to some extent to the author's high ethical standard. Medical readers will recollect that during 1909 Dr. Atthill communicated to the British Medical Journal a series of articles in the nature of reminiscences of his professional life. These were reprinted for private circulation amongst the author's medical friends, but so popular were they that numerous non-medical friends desired to obtain a copy. Dr. Atthill felt, however, that the memoirs contained too much purely professional matter unsuited for the general reader, and in consequence he undertook the task of writing his recollections in a more general manner. The task of writing was accomplished, and the manuscript in the publishers' hands, at the time of the author's sudden death. To his widow devolved the duty of arranging the papers for publication. In connexion with the writer's sudden death, which occurred while hastening one day to catch a train, it is interesting to note his statement that to him sudden death always seemed the most merciful termination of life, and that he could never join in that sentence of the Litany in which prayer is made to be delivered from such an end.

The simple eloquence of diction, the quiet humour, and the profound faith in the controlling guidance of a Deity combine to illuminate the pages of a charming though somewhat disconnected narrative. The opening chapters contain some random remembrances of Ireland in the earlier years of the last century, when the journey from Holyhead to Howth might last a week or more, and when Ireland supported a population of nearly twice its present numbers. To the Dubliner the contrast between the city of the Forties and the present day, as told byone who had lived through a period of great changes, is vividly interesting. Later chapters deal with the writer's entry into medical practice, his early struggles, and with his success. The changes which he inaugurated as Master at the Rotunda Hospital were the starting-point of a series of advances which are still in progress; for their continuance he accords generous praise to his successors. The final chapters deal with the period of the writer's retirement, and are full of anecdotes of his contemporaries, and of reflections concerning life. It was a privilege to know Dr. Lombe Atthill; it is a privilege to read his book.

## NOTES ON BOOKS.

In his *Military Sanitation and Hygiene*,[12] Captain Blake Knox has sketched out the methods employed in the army to maintain the soldier's health. To an army medical officer the volume is not very interesting, as it consists so largely of excerpts from different official books of regulations with which he is already well acquainted. Some of the sections are good, especially those dealing with the soldier's rations and the physiology of the march, which contain a good deal of up-to-date matter collected from various sources. Any one not having experience of army sanitation, and wishing to obtain some insight into the question, might gain a fair general knowledge of the subject by reading this book. In many parts it is, however, decidedly sketchy, while in others it might be curtailed without loss. Perusal of the book leaves the impression that it has been somewhat rapidly compiled, and that the author has not obtained the thorough grip of the subject which long and intimate practical acquaintance gives.

[11] *Recollections of an Irish Doctor*. By the late Lombe Atthill, M.D., some time President of the Royal College of Physicians in Ireland; President of the Royal Academy of Medicine, Ireland; and Master of the Rotunda Hospital. London: The Religious Tract Society, 4, Bouverie Street. 1911. (Demy 8vo, pp. 238. Price 2s. 6d.)

[12] *Military Sanitation and Hygiene*. By E. Blake Knox, B.A., M.D., D.P.H.(Hons.), Captain, R.A.M.C. London: Baillière, Tindall, and Cox. 1911. (8vo, pp. 346; 21 illustrations. Price 5s.)

## MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

The twenty-eighth annual general meeting of the members of this society was held in the rooms of the Medical Society of London, Chandos Street, W., on May 18th. Dr. de Havilland Hall, chairman of the executive committee, presided.

### Chairman's Address.

The Chairman said the society had had another excellent year. As a proof of the admirable relations which existed between the members and the committee, they had never had to trouble those gentlemen who had been elected arbitrators. Great progress had been made during the year; though the number of new members showed a falling-off as compared with the previous year, since the beginning of the new year they had begun to make up leeway, so that he hoped the falling-off was only temporary. The new proposals numbered 154; of these 11 were declined and 2 were uncompleted, so that after allowing for deaths, lapses, and members going out of benefit there was a net gain of 72 on the year, bringing the total number of members at the end of 1910 up to 2,923, which was far short of the 5,000 he had hoped the society would obtain by this time. Sixty-six members had increased their benefits, and the number of annuitants now amounted to 43, drawing £1,500 a year; this amount would go on increasing for some years, yet the funds had increased from £233,376 to £241,532, showing a net increase of £8,156. A country member had written to suggest that it was undesirable to keep adding to the reserve fund, and that the members should receive increased benefits or pay reduced premiums, but the correspondent had evidently overlooked the fact that the society had to deduct £82,000 for the annuity fund and nearly £18,000 for the life insurance fund. The cash bonuses paid to members during the year had been £776; this amount would gradually increase, and he thought the society could reckon that during the current quinquennium about £4,500 will have been disbursed in bonuses. It had been considered desirable by the committee to write down the securities of the society to the extent of £2,254 owing to the drop in the value of almost all securities throughout the land, but this hardly affected the society, because the interest it received was the same, and there did not appear to be any probability of the society having to realize its securities. The sickness claims amounted to £14,631, and this, he believed, was the very first time in the history of the society that it had experienced a falling-off in sickness claims; hitherto they had steadily mounted up, and in the previous year the rapid increase had caused some anxiety. The amount received in sickness contributions had been £18,529. It was curious to note how very similar the claims were each year. Of the 687 claims received in 1910, those arising from accidents numbered 110; of late years motor accidents were getting more numerous. One of the most important features of the work of the society was that thirty-six members who were suffering from chronic illnesses had been in benefit for the whole of the year; it was a permanent provision made for such members up to the age of 65, and if only they had followed Mr. Ernest Hart's suggestion and had taken out an annuity to commence at 65 they would not feel the loss of sick pay on reaching that age. Altogether the society had paid out £180,000 in sickness pay. He had again to thank the British Medical Journal, the *Lancet*, and the *Medical Press and Circular*, which had been, as in the past, exceedingly kind in inserting notices of the society's meetings and helping them in every possible way. The Chairman concluded his address by presenting the annual report to the meeting.

Dr. Brindley James proposed:

That the report of the committee and the audited accounts for the twelve months ending December 31st be received and adopted.

The motion was seconded by Dr. Palmer.

Dr. CRICHTON expressed the opinion that it was not necessary to keep increasing the reserve funds, and without interfering with the stability of the society, some additional benefits might be given to existing members, either by way of larger bonuses or reduced premiums.

The CHAIRMAN said that he would suggest to the committee the advisability of considering whether existing members should not receive rather more than they had done in the past.

The resolution was then put to the meeting and carried unanimously.

### ALTERATIONS OF RULES.

Certain alterations of rules suggested with a view of assisting the work of the society were agreed to, on the motion of Dr. J. B. BALL, seconded by Dr. F. WALLACE.

### ELECTION OF OFFICERS.

The whole of the officers and committee were re-elected without discussion.

### VOTE OF THANKS TO CHAIRMAN.

On the motion of Dr. BRINDLEY JAMES, seconded by Dr. PALMER, a hearty vote of thanks was accorded to the chairman for presiding. In proposing the motion, Dr. James expressed the hope that when the time came for Dr. Hall to leave the society under the age limit, the society would elect him as their president.

The CHAIRMAN acknowledged the vote of thanks, and the proceedings terminated.

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## COLONIAL AND FOREIGN SYSTEMS OF POOR LAW RELIEF.

### MEDICAL RELIEF.

*(Concluded from page 1068.)*

**It is important to state that the whole of the descriptions of foreign and Colonial systems of relief are extracted from the official Blue Book, and no responsibility for the correctness of the statements there made can be accepted. As the information, however, was all obtained from official Government authorities in the various countries or from actual legislative enactments, there is little probability of any serious errors.**

### BELGIUM.

The laws of Belgium were intended to bring the small communes into line with the towns, and though in the main they follow the French system, they fall far short of the completeness of the French in actual practice. The Belgian commune is given three alternatives: (*a*) It may provide a hospital service of its own; or (*b*) it may contract with a neighbouring hospital, or (*c*) it may organize an outdoor medical service, the last alternative being an amendment of the first Government proposal, which only related to hospital relief. The cost falls primarily on the local relief committees, though the communal council has to make good deficits. In theory one of these plans is compulsory on every commune, and if a commune fails to act the State may step in and organize a medical service. In practice this statutory power is not effective, largely owing to the fact that the cost falls entirely on the individual communes, save for some grants in aid of capital expenditure and the resources of the communes are often inadequate. All the poor who fall sick in any commune have the right to free medical relief regardless of their settlement, but the authorities may require contributions from those who are able to pay anything. The medical officers are appointed solely by the relief committees, but, as stated above, the law is in practice often a dead letter.

In Brussels medical relief is provided by two hospitals and by a staff of medical officers for outdoor relief. The entire medical staff is appointed by the Conseil Général, with the approval of the municipal council; it is responsible solely to the Conseil Général. For the outdoor service Brussels is divided into fourteen districts, to each of which two or more medical officers are assigned, whose duties are to attend daily at the *maisons de secours* to give free consultations to any poor persons who present an order, to visit the sick poor, to give certificates for hospitals, and to report on the sanitary condition of houses in their district. Antwerp has a far better organized outdoor medical service than Brussels. The service is provided by twenty salaried medical officers distributed over the town, poor patients having complete freedom of choice among the entire medical staff. In the town of Hasselt, which has a population of 160,000, there is a similar free choice of doctor, and the eight medical officers who have accepted the tariff of the *bureau de bienfaisance* are paid by the visit, the average rate being 50 cents a visit, but with a fixed maximum of 300 francs a quarter to any one medical officer. A visit by a medical officer or a first consultation at one of the five dispensaries provided must be given on demand of any applicant, but the case is inquired into immediately afterwards, and, unless the bureau is satisfied of the patient's poverty, no further relief is given.

### GERMANY.

State sickness and invalidity insurance in Germany has already been fully described in the JOURNAL, and attention is here confined to Poor Law medical relief. It is important, however, to note that, out of a population of some 40,000,000, about 13,000,000 are insured for sickness, and about 16,000,000 for invalidity. In spite of this, it has been found that the benefits from the insurance are often not sufficient for the maintenance of the sick, and recourse to the Poor Law is necessary; though it is true that the Poor Law has been considerably relieved by the insurance, the relief has not been so great as was expected. The communes are left practically free to determine the methods they will adopt for administering poor relief, and in the country districts relief is seriously deficient, having changed little during the last half-century, mostly owing to the inability of the communes to bear the cost. The provision enabling combinations of communes into "unions" has been of little use, as the spirit of separatism is too strong. The provision of hospitals through the insurance has, of course, greatly assisted the communes, and in Prussia there is one hospital bed to every 284 inhabitants. In strong contrast to the deficient provision for medical relief in the country districts, the large towns have generally a fairly well organized system.

In Berlin Poor Law is part of the general municipal administration, and is in the hands of a special committee —the Armdirection, or Poor Board, one-half the members being members of the municipal authority and the other half being elected by that authority, and among the latter must be included doctors, ministers, and other persons specially fitted for the position. For indoor medical relief Berlin is well provided with hospitals, as in 1904 there were 24 public and 68 private institutions for the sick, the public hospitals having 7,623 beds, or 1 to every 264 persons. In 1905 over 45 per cent. of the hospital inmates were beneficiaries of the sickness insurance. The Charité Hospital, which is well endowed, and has about 1,100 beds, so far as internal management is concerned, is independent of the municipal Poor Law system, except for a provision that it shall grant annually 100,000 days' free medical treatment for pauper inmates, though beyond that payment is made to it by the Poor Board. The large majority of the sick poor are treated at the Charité and at the four municipal hospitals, which have 2,968 beds. The Poor Board has also an arrangement with twelve private hospitals. In the course of 1906 some 50,000 poor patients passed through the hospitals, admission being usually granted by the Poor Law medical officer who has been attending them, the certificate of admission requiring the signature of the president of the relief committee. The medical staff are urged to refrain from sending cases to hospital except in cases of necessity, owing to the great cost of hospital treatment, which amounted in 1906 to £209,459.

For outdoor medical relief Berlin was in 1906 divided into 101 medical districts. The medical officers are appointed by the Poor Board, and have to report quarterly and annually as to the patients treated. They are limited by regulations as to the remedies or surgical appliances they may wish to prescribe, the board's sanction being specially needed for the more expensive appliances. Otherwise the medical officers may prescribe not only the necessary medicines or appliances, but also any

extras in the way of diet, only being required to acquaint the local committee. Tickets for medical relief are valid for a month, and the medical officer may, if necessary, employ a nurse for any case. The Poor Board has also made arrangements with a number of specialists for diseases of the eye and ear and for diseases of women and children, and the district medical officer may at any time transfer a case to one of the specialists, who are paid on a fixed scale of fees for each case. Similar arrangements to those existing in Paris are made for mothers with young children, except that the free milk supply is only for eight days, and beyond that time it is supplied at cost price.

### Holland.

In Holland outdoor medical relief is entirely in the hands of the municipal councils, which in some towns appoint medical officers with fixed districts, while in others payment by the case is made to those general practitioners who accept the scale of fees offered. Amsterdam has developed a system of medical relief similar to the French system, poor persons being registered at the beginning of the year on a free medical relief list. Cases of sudden and urgent need are attended at once without registration, but inquiry follows immediately. The administration is in the hands of a central office with a branch in each of the nine districts of the town, and to each district are attached two doctors, a surgeon, nurses, and midwives; the district office is open daily for consultations and treatment, and medical relief is allowed far more readily than ordinary relief. Of the total cost of relief, ecclesiastical and private charity provides 53 per cent., but the greater part of the medical relief is provided by the municipalities.

### Denmark.

The fact that the population of Denmark, with the exception of a fair number of market towns, is mainly rural has led to the development of some special characters in the system of relief. Ordinary relief is largely left to the local authorities, though the State contributes indirectly by maintaining asylums for the insane and institutions for the blind, deaf, and dumb, and, above all, by paying the salaries of the local medical officers and largely supporting hospitals for fevers and tuberculosis. The Legislature has given special attention to sickness insurance of a voluntary character, and sick clubs exist in large numbers which are subsidized by the State and the local authorities, the clubs in return being under some measure of public supervision. Sick clubs with a membership of fifty may apply for State authorization, which carries with it a State subvention, but the club rules must limit membership, as far as medical benefits are concerned, to persons belonging to the working classes and over 15 years of age. Membership entitles to free medical attendance and hospital for the member and his children under 15 years living with their parents, as well as to daily sick pay. To prevent chronic cases getting more than their fair share of the benefits a rather curious provision is often made that any member who has had sixty weeks' free medical relief in three consecutive years shall cease to be a member of the club unless he can produce a certificate that his complaint is not chronic; otherwise medical relief in the future must be obtained from the Poor Law. The sick pay may be reduced or stopped altogether if a patient refuses to carry out the doctor's orders. The clubs are managed by locally elected committees, and, while largely autonomous, are subject to the supervision of a State official, the Inspector of Sick Clubs. To co-ordinate the regulations and working of the clubs the law requires the formation of county committees composed of deputies elected by the clubs under the chairmanship of the inspector. This system of voluntary sick clubs assisted by the State is rapidly growing in favour, and is evidently designed to save the poor rates.

Copenhagen has a system of its own, being divided into districts, to each of which one medical officer or more than one is appointed if necessary. Orders for medical attendance are given by a district officer, and are valid for a month. The medical officers may freely order extras in the way of food, and several districts provide paid nurses for the home patients.

### Norway.

The scheme of poor relief in Norway is combined with the general local administration, the country being divided into twenty counties, including Christiania and Bergen, which are counties of themselves. The local councils are elected on what is practically a universal franchise, and poor relief is deputed to standing committees with a semi-independence. The Elberfeld system is largely adopted, but few details are given of medical relief. A law passed in 1909, and coming into operation in 1911, provides for compulsory sickness insurance of all persons working for wages except (*a*) casual labourers, (*b*) persons earning over £66 in the country and £77 in towns, and (*c*) persons suffering from chronic disease. The insured are to be classified according to their wages, and both the contributions and the benefit vary accordingly. Towards the premiums, the insured will contribute two-fifths, the State one-fifth, and the remainder will be borne by employers and local authorities equally. The insurance will be managed by district sick funds, and benefits comprise free medical attendance and medicine (including attendance at confinements), and sick pay for twenty-six weeks, the insured being also entitled to free medical treatment for wife and children. At present, for Poor Law medical relief, preference is given to hospital treatment, the hospitals mostly belonging to the civil authorities.

### Italy.

In Italy the provision of medical treatment and medicine is obligatory on the communes, but only so far as it is not provided by charitable institutions. The State assists in the prevention of malaria by selling quinine at a low price, or by distributing it gratis. It also contributes something like £12,000 for the treatment of the poor suffering from pellagra, and about £20,000 towards the expenses of dispensaries and hospitals for venereal diseases.

### Australasia.

Poor Law relief in Australasia generally is largely mixed up with charitable aid, and the use of the term "pauper" is much resented. The States are generally well provided with hospitals, which are in all cases subsidized by the State. The statistics given in the report show that the total yearly cost of all kinds of relief was £1,615,969, of which the very large proportion of £737,784 went for hospital treatment.

#### *New Zealand.*

New Zealand has a very complete provision for medical relief, which is regarded as quite distinct from ordinary relief. There are some fifty-two hospitals in the country which in intention are for the poor, though a great number of paying patients are admitted. Outdoor medical relief administered by the out-patient departments of the hospitals is also open to the same abuse, and, indeed, in some districts the hospital has become a sort of benefit society which insures free outdoor medical treatment for 26s. a year for a whole family. It is stated that the system of State subsidies and rate aid has led to the multiplication of expensive hospitals in places where they are quite unnecessary. The reason for this is that though such hospitals are initiated by voluntary subscriptions, in the end they come to rely mainly on State aid and the rates, and there is no sufficiently strong controlling authority. The cost of medical relief—that is, the cost of the entire hospital service—in 1906 was £167,437, of which £116,539 came from State and rate aid. Thus the burden of free medical relief was equivalent to a tax of 2s. 7d. per head of population. The Inspector-General states that the State subsidy for indiscriminate outdoor relief tends directly to increase pauperism. Voluntary contributions are dwindling away, and the State subsidy is really a premium on extravagant expenditure. It is a serious anomaly that in many districts hospitals are in complete administrative independence of the district relief boards and yet have a right to State and rate aid. The district board has merely to grant what the hospital trustees estimate they will require, and, though the board may, if it regard the estimate to be excessive, appeal to a Government Department for inquiry, this remedy is not regarded with favour. The State system of insurance for sickness

and old age, which came into force on January 1st, and is on a voluntary basis, may considerably modify the present conditions of medical relief in the near future.

*New South Wales.*

The bulk of poor relief in New South Wales and Victoria is primarily charitable, with Government grants. New South Wales has 132 hospitals, of which 124 receive subsidies and they generally provide outdoor relief to the sick. The subsidies are dependent on the State officials having the right to give admission orders, and in 1905 40 per cent. of the income of the hospitals was derived from the grants. Some time ago the Government gave notice of its intention to abandon its custom of giving £1 for each £1 subscribed, as many of the wealthy institutions did not require so much. The State right to inspection seems to be of little practical use. There is also a system of subsidizing friendly societies that provide medical attendance and sick pay, which has already been described in the JOURNAL.

*Victoria.*

In Victoria there is a certain amount of Government control of the hospitals in return for the grants. General medical relief is provided by forty-one general hospitals, with six special hospitals and nine other institutions. Outdoor relief is administered by most of the hospitals and by two free medical dispensaries, all charitable foundations but receiving subsidies. The system of paying wards in vogue in most of the hospitals was put down by making its abolition a condition of the grant, as the hospitals were intended only for the poor.

*Queensland.*

The Queensland Government has undertaken a larger measure of direct relief than the other States, and the State outdoor relief has quite overshadowed the work of charitable relief, though still charity is largely subsidized. The police officer is the local medium for relief, and in many cases both awards the relief and acts as inquiry officer. There are seventy-one hospitals, all charitable institutions receiving grants from the State, and two State hospitals, one for consumption and the other for chronic diseases. Their management varies widely, but admission can be obtained through the local police. There seems to be a very confused relation between charity and State action in regard to outdoor relief. A system of invalidity pensions claimable by persons over 16 years of age, permanently incapacitated from work, came into operation last December, the cost being borne by the Commonwealth.

CANADA.

Poor relief is a comparatively small affair, as the State Secretary says there is but little poverty. In Quebec it is mostly by private charity with some State grants, while Nova Scotia and New Brunswick have a more complete local organization. Medical assistance is mostly given in charitable hospitals receiving State and municipal grants, though in a few instances the local authorities have themselves founded hospitals for infectious cases and for tuberculosis. Ontario has some sixty-one charitable hospitals receiving State and municipal aid, and generally providing outdoor medical relief. The municipal contributions are not compulsory, but depend on the urgency with which the hospitals can press their needs, or the recognition by the local authority of its obligation to pay for its own poor.

THE UNITED STATES.

It is impossible here to give any full account of the United States, as the Poor Law is not a concern of the Central Government and each State is a law for itself. As a rule, however, institutional treatment for the sick poor is provided in the almshouses, when the authorities do not avail themselves of charitable hospitals. For outdoor medical relief some States employ "poor doctors" or "county physicians"; but there is nothing like a uniform organization, and, indeed, in many cases there is no organization at all, medical relief, both indoor and outdoor, being mostly a matter of charity, though the overseers may defray medical expenses.

New York State is in an exceptional position, as it has undertaken to provide relief directly to certain classes of the poor, to subsidize certain institutions, and to exercise supervision over charitable institutions. Institutional relief is the primary mode of relief, out-relief being carefully restricted. There are several special State hospitals, and among them may be mentioned the Craig Colony for Epileptics, with accommodation for 1,050 inmates, a hospital for crippled children, and one for tuberculosis, in addition to the numerous charitable hospitals which are also utilized. Separate accommodation for the sick poor is gradually being provided in connexion with the almshouses, but in many cases the sick are still treated in the ordinary wards and attended by the other inmates. The lack of accommodation for the sick poor is recognized, and is to some extent met by the provision of the law which allows of the sick being sent to charitable hospitals at a rate of payment of not more than 29s. a week. For outdoor medical relief abundant provision is made by charity in the way of dispensary treatment in New York City. An inquiry in 1898 showed that "in many cases dispensaries had been established by private practitioners as a means of promoting their own practice under the guise of charity," and a law was passed in 1899 restricting these institutions, and providing that they must be in all cases licensed by the State Board of Charities, and that in order to confine them to the necessitous each dispensary must have a registrar to investigate the personal circumstances of each applicant for medical relief. The statistics show that in 1896 over a million persons were treated at dispensaries in New York City. Apart from the dispensaries, medical out-relief is to a slight extent given by a few societies formed for the purpose, but mainly it is administered on the orders of the overseers by local practitioners or by salaried medical officers. The system in New York City has been repeatedly changed, but at present the responsibility is vested in a salaried official—the Commissioner of Public Charities.

SCHEMES OF SOCIAL SICKNESS INSURANCE.

Though not strictly germane to the subject of public relief, sickness insurance is regarded as a preventive measure, and with that object has been widely adopted. The report gives some tables showing the systems of sickness and invalidity insurance in force in the different countries, some of them being of universal character, and others applying only to particular industries. The first scheme of universal character was, of course, that in Germany instituted under the Bismarckian plan of State socialism. France took fifteen years to consider the subject, and only recently passed the law for invalidity and old age insurance. In the meantime Belgium, Austria, and the three Scandinavian countries have adopted universal schemes either for old age or sickness. Of the English-speaking countries, New South Wales comes near to a system of State-assisted insurance in its contributions to the funds of friendly societies, the voluntary State sickness insurance of New Zealand being only just at its inception.

It may be of interest at the present time to give some of the latest statistics for the German insurance schemes. In the year 1908 the number of persons in Germany insured for sickness was about 13,130,000; the total contributions were £16,913,000, of which the workpeople contributed two-thirds and the employers one-third, nothing being contributed by the State. The value of the benefits paid during the year was £15,969,000. For invalidity and old age in the same year there were about 16,000,000 insured; the premiums amounted to £9,067,000, paid half by the employers and half by the workpeople, and the value of the pensions paid during the year was £7,961,000, towards which the State contributed £2,484,000. The accumulated funds at the end of the year were—under the sickness insurance £13,746,000, and under the invalidity insurance £73,550,000.

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RECENTLY published statistics show that suicide has been steadily increasing in the United States during the last twenty-one years. In the sixty-five largest cities of the States the annual rate of suicide was 12.3 to every 100,000 of population in 1890. In 1895 the corresponding rate was 15.8; in 1904, 20.7; since 1907 it has remained above 20. The highest actual rate in a single city was 60 in San Francisco; Oakland, California, came second; and Hoboken, New Jersey, third, with a rate of 52.6.

# THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

## MEDICINES FOR INDIGESTION, CONSTIPATION, ETC.

THE proprietary medicines for indigestion, constipation, liver disorders, and allied complaints, particulars relating to which are given below, are, it is scarcely necessary to say, only a small selection out of the very large number of those offered to the public. They are selected as comprising (with certain others previously dealt with, such as Seigel's Syrup and Beecham's Pills) those which appear to be most widely advertised and sold, and as being probably representative of this very large class of nostrums. The medicines examined include several very old-established ones and some of quite recent introduction; and it is instructive to notice that it is the old-established ones for which the least extravagant claims are made, and which contain drugs likely to have many of the results promised, while the one most recently introduced is also the one for which the most extravagant and absurd pretensions are put forward in an aggressive manner, and is also precisely the one in which no medicinal substance whatever could be detected.

In the examination of pills or tablets containing mixtures of such substances as aloes or extract of aloes, extract of colocynth, resins of jalap, scammony, or podophyllin, oils of peppermint, clove, or cinnamon, with powdered drugs like ginger, capsicum, cardamoms, colocynth, rhubarb (all yielding extracts as soon as the pills are treated with solvents), and the whole probably massed with the aid of syrup, glucose, liquorice powder, etc., the difficulties to be encountered by the analyst are far greater than in many of the combinations that have been dealt with in previous articles; and it is not possible as the result of any reasonable and practicable amount of investigation to assign a quantitative formula for any such combination of articles which are themselves variable, and it may easily happen that some constituents will escape detection, or will be impossible of identification. It is, therefore, better to avoid naming any quantities of the different ingredients found, even when the quantitative determinations (which have been made in every case) have left very little doubt as to the amount of some particular substance present in a given combination. And it must be remembered that with several of the pills other ingredients than those named may have been present in small quantity and escaped detection, though it may fairly be said that this does not apply to powerful or very important ingredients.

### MER-SYREN.

This consists of powders which are supplied at 2s. 9d. per box of twenty by Mer-Syren, Ltd., London. There are several indications that the claims made for this article have undergone progressive evolution. The earliest advertisement of it which is before us is a handbill apparently issued three or four years ago, which commences thus:

"They that go down to the sea in ships" and Suffer from the distressing Malady of Sea-sickness will find a Safe and Sure Preventive and Antidote in Mersyren.
Mersyren is a never failing Rapid Remedy.
Mersyren is not a Drug.

And the name and address at the foot are:

The Mersyren Syndicate, 14, America Square, London, E.C. and Singapore Dispensary, 40, Raffles Place, Singapore.

A little later a lengthy advertisement in a weekly paper is headed:

Try this "quick cure" for Biliousness and Indigestion—Free of Cost.

The following extracts are from what follows the heading:

Digestive troubles are the curse of the present generation. And drug remedies for digestive ailments are almost a bigger curse still. . . .
Here is a way (and a free way) by which you can absolutely cure your Digestive trouble by a remedy which is neither a drug nor a purgative.
Here is a way by which you can absolutely cure:—

| | |
|---|---|
| Biliousness, | Indigestion, |
| Sick Headache, | Liver Trouble, |
| Dyspepsia, | and other |
| Gastritis, | Digestive Disorders. |

Free of Charge.

Here is a perfect natural remedy which will be freely sent to every reader who writes for it, and which will quickly, almost instantaneously, cure your trouble and enable you to regain that good health, those unburdened spirits, to which, perhaps, you have been a stranger for so very long.
You have heard of "Mer-Syren," of course!
You have heard of it as a non drug, non-purging remedy for Stomach and Liver Trouble.
But perhaps you have not as yet quite realized what a wonderful remedy it is. . . .
"Mer Syren" is a *tasteless powder*. It is pleasant to take, and swift and sure in action. It is neither a drug nor an aperient. And it *cures in one dose*.

A little later again appears a whole-page advertisement in a London daily; the heading of the first two columns is—

"Remarkable New Book on Health
by Dr. Pearson.
'How the Body Cures Itself.'"

and the remainder is headed—

"The '10 Minute Mer-Syren Health Lessons.'"

The first part is devoted to a description of the book, and a summary of its twenty so-called chapters. The following extracts will suffice as a specimen:

Originally published at 2s. 6d., a popular Second Edition is now being given free to all who will put to the practical test of personal trial the Author's "10 Minute Health Lessons." . . .
The book tells what every good Doctor knows, but is, for many reasons, unable to tell his patients.
The whole book is written in straightforwardly candid appreciation of the fact that the Layman Needs—and Desires—Health Knowledge of this vital kind . . .
"Mer-Syren" is the name of a tasteless powder derived from a herb which powerfully aids the health-reparative power of the body.
It is not a pill—not a purgative—not weakening—not stomach-upsetting—but just a "Mer-Syren 10-Minute Health-Lesson" to that part of your body which needs it. . . .
. . . first of all, get and read Dr. Pearson's book, *How the Body Cures Itself* (by means of the "Mer-Syren 10-Minute Health-Lessons") . . .
The book itself is free.
You have only to get a 2s. 9d. packet of 20 "Mer-Syren 10-Minute Health-Lesson" Powders.

The "book" is unquestionably the *pièce de résistance* of all this advertising. It is a paper-covered pamphlet of 63 pages, each of the "chapters" referred to in the advertisement occupying an average space of less than three pages. It is described as—

By Dr. Pearson, Author of
"The Liver in Health and Disease,"
"What to Eat and What to Avoid,"
"The Abuse of Phosphorus,"
"The Etiology of Cholera,"
etc., etc.,
(Late Principal Medical Officer, North Bhangulpore, India).

Reference to the volume of maps in the *Encyclopaedia Britannica* failed to discover any place named Bhangulpore or North Bhangulpore in India.
The knowledge possessed by this "Late Principal Medical Officer," who curiously omits to give his initials, or his degrees or qualifications justifying the prefix "Dr.," may be judged from the following extracts:

This pamphlet has been compiled for the benefit of the myriads of afflicted in every part of the globe, who, after trying the ordinary means of cure at present obtaining to no purpose, are casting about to discover a method of treatment for disease which shall cure their ailments and restore them to their former healthy condition. . . .
This remedy—Mer-Syren—the direct outcome of many years' careful and painstaking study on the part of a few men who may be said to have devoted their whole lives to investigations as to the Cause and Cure of Disease—is assuredly one of the greatest boons ever conferred upon suffering humanity.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823.

The plain fact is that, as regards the nature of disease, the Medical Profession is pretty much where Harvey left it nearly three centuries ago, whilst the means of cure are little better than those employed by Celsus or Galen; and diseases are arranged in a few haphazard groups, as motley and incongruous in their composition and disposition as the various sections of, say, a political party.

We are, therefore, driven to accept the dictum of Hippocrates: "*All diseases spring from one cause, and the types of all diseases are the same.*" This common origin of all diseases is to be found in that condition, which, for want of a better definition, we shall call "*Debility of the Cells*," either *partial or general*. Systems and theories may follow each other like the waves of the sea, but the trend of medical opinion is setting in this direction, and, to the opinion expressed by the Father of Medicine, all Schools of Medicine must come at last. . . .

The Mineral Acids, Nitric, Hydrochloric and Sulphuric, and Mineral Oils (Petroleum) are in everyday use as remedies, whilst many of the Earths are diverted from the uses for which they were intended by the Creator, and forced into the human stomach. Animal substances, many of the most repulsive nature and origin, are almost universally used by Medical Men the world over . . . beetles, spider's web, crab's eyes, tiger's tongue, rhinoceros' horn, and other repulsive objects form part of the Materia Medica now in vogue with the Medical Profession. . . .

The old Blue Pill and Black Draught of our forefathers has given place to various Salines and the waters of many Spas in the treatment of Bilious affections, but all to no purpose, the discovery of Mer-Syren ushered in a new era in the History of Medicine; not only so far as the Liver was concerned, but also in the case of many other affections regarding the treatment of which medical men of every school confessed themselves to be nonplussed. . . . Under its specific and benign—yet effective—operation the powers of Nature have been reinforced and strengthened so that she has been enabled to quickly relieve herself from the incubus of disease, and, phoenix-like, arise from her ashes renewed, invigorated and endowed with all her pristine vitality.

This is the sober opinion gleaned from an experience of one versed in medicine for a period of nearly forty years. . . .

Mer-Syren is composed of the active principles of certain rare plants which flourish in the valleys situated on the southern slopes of the Himalaya, between the immense gorge separating Nepaul from Bhutan on the East, and Almorah on the North-West—the very names of which are unknown to Western Science, and are therefore not included in any Pharmacopoeia extant. Mer-Syren, therefore, cannot be imitated either in Europe or the two Americas. Nevertheless, purchasers should protect themselves by observing that the name of the Mer-Syren Company appears on every box, and that the place of origin is clearly stated thereon. The alkaloids upon which its extraordinary and startling effects depend cannot be determined by analysis, as *all organic substances defy detection by any means known to chemical science*. . . .

There are in fact no diseased states or conditions in which the use of Mer Syren does not produce beneficial results.

Thus the "powder derived from a herb" of the newspaper advertisement has become the "active principles of certain rare plants" in the book, just as the remedy for sea-sickness has become the cure-all:

for Mer-Syren possesses the wonderful property of permeating every part of the organism with the same good influences. Moreover, although its gentle stimulating and strengthening powers are felt throughout the entire organism, yet its specific healing actions are principally directed to any part labouring under diseased or disordered action. By virtue of its unique and specific properties, Mer-Syren immediately operates upon any organ or tissue whose functions may be in any way deranged, or whose structures may be breaking down in consequence of disease. And all structures in either of the two just named abnormal conditions will instantly respond to the gentle action of Mer-Syren, when every other form of treatment produces no effect whatever.

The directions supplied with the powders were as follows:

For Indigestion and Dyspepsia: Upon rising place two Powders dry upon the tongue and wash down with a draught of hot water. For Bilious Headaches: Take one Powder, or two if the attack be very severe, and wash down with cold water.

In chronic cases it is obvious that in order to effect a complete recovery the Powders should be taken regularly until cured.

The powders had an average weight of 25½ grains. Analysis showed the material to consist principally of starch, with a little broken vegetable tissue. Microscopical examination showed the starch to be that of the potato, while the histological elements of the tissue also agreed exactly with those of the potato. Some raw potato was therefore dried without heat and powdered, and the two powders compared in their behaviour to a large number of tests, qualitative and quantitative, and also by means of the microscope. The potato which was prepared as described became greyish in colour during the drying, whereas the Mer-Syren powder was of a creamy colour; no other difference was found between them, and no other substance but potato could be detected.

### CICFA.

This medicine, which has had four different names, but appears to be called Cicfa at present, is supplied at 1s. 1½d. and 2s. 9d. per package by Capsuloids (1909) Ltd., Borough, London, S.E. A 1s. 1½d. package was found to contain 21 tablets, and a 2s. 9d. package 63.

The original name of these tablets appears to have been "Tablones," but in consequence of legal action taken by another firm, whose trade mark this word was considered to resemble too closely, it was changed to "Cicfa." The derivation of this word is supplied by the phrase which occurs freely in the advertisements, "Cures Indigestion Constipation Flatulence Acidity." Later, however, this word was dropped and the medicine advertised as "Mother's Advice"; more recently still it was advertised as "Tablenes," while now the former name of Cicfa seems to have been readopted.

The preparation is advertised in the following terms:

You may eat what you please when you please if your Indigestion, Flatulence and Constipation are not merely Relieved but permanently cured by "Mother's Advice" (Formerly called "Cicfa"). Purgatives often relieve Indigestion and make you feel better for a few days. "Mother's Advice" cures absolutely and permanently, because while purgatives simply remove the undigested food, "Mother's Advice" completely digests everything you eat.

WHY "CICFA" MUST CURE EVERY CASE.

All the tortures of Indigestion, the Acidity and Heartburn, with Teeth on Edge, the Burning Spot behind the Left Shoulder Blade, with pains shooting through towards the Heart, the Heart Palpitation, with Cold Hands and Feet and General Weakness, the Flatulence and Pressure and Discomfort, the rumbling and often excruciating Bowel pain, are all due to your failure to digest your food, and three-quarters of it is due to Failure To Digest Starchy Food Like Bread, Potatoes, Bananas, etc., but you like to eat those, and you need them, and if you could digest them you would have none of this pain, discomfort, and misery, and you would have all the nourishment which comes from such food when well digested.

You do not digest the food because you have not enough digestive juices in the Stomach and Bowels. "Cicfa" contains just enough digestive material to make sure that the albuminous food like meat, eggs, etc., will be digested in your stomach, and just enough of that wonderful digestive material Which Is Not Found In Any Other Proprietary Medicine which digests all starchy food like bread, potatoes, bananas, etc.

DOSE.—One with the early part of each meal three times daily. Severe cases may take two with each meal for a short time, and then reduce the dose as the cure proceeds.

The tablets had a chocolate-coloured sugar coating; after removal of this they had an average weight of 1.85 grains. Analysis showed the presence of pepsin, diastase, reducing sugar (apparently maltose), a bitter extract agreeing in characters with extract of cascara sagrada, a small quantity of a pungent substance which appeared to be oleo-resin of capsicum, together with talc and a little starch, the last being probably derived from the coating. The digestive power on egg-albumen and on starch was determined; the former corresponded to about ⅔ grain of pepsin of B.P. strength in each tablet; the material digested about 1.4 times its own weight of starch in half an hour at 40°, which corresponds to a very small proportion of diastase, but as commercial diastase varies much in strength, no quantity can be specified as equivalent; from a comparison of the bitterness and pungency of a mixture made up to imitate the tablets the amount of extract of cascara appeared to be about ¼ grain in each, and of oleo-resin of capsicum about $\frac{1}{300}$ grain.

### WHELPTON'S PURIFYING PILLS.

Whelpton's Purifying Pills are supplied by G. Whelpton and Son, London, E.C., at 1s. 1½d. per box containing 60 pills.

They are advertised in the following terms:

Indigestion is the primary cause of most of the ills to which we are subject. Hence a medicine that stimulates the digestive organs will relieve quite a number of complaints. Whelpton's Vegetable Purifying Pills arouse the stomach to action, promote the flow of gastric juice, and give tone to the whole system. Headache flies away. Biliousness, Kidney Disorders, and Skin Complaints disappear, while cheerful spirits and clear complexions follow in due course. . . . The occasional or

regular use of Whelpton's Pills, by assisting Nature to get rid of superfluous matter, relieves the congested condition of skin and kidneys, and speedily restores the natural functions of these important organs. Whelpton's Purifying Pills are thus a direct purifier of the blood. . . . Daily doses of Whelpton's Purifying Pills will arouse the Liver to proper action, and, by removing the cause of obstruction, speedily restore the general health of the body.

These Pills may be taken at any time, but it is generally found most convenient to take them at bed-time. In ordinary cases two will be a sufficient dose, but three or four may sometimes be necessary according to the age and strength of the patient or obstinacy of the complaint.

The pills had an average weight of 2½ grains. Chemical and microscopical examination showed the presence of aloes (apparently Socotrine), powdered colocynth, ginger, and gentian, the last-named ingredient being less positively indicated than the others. No evidence of the presence of mercury or calomel was obtained.

### CHAS. FORDE'S BILE BEANS.

These "beans," which consist of ovoid, coated pills, are supplied by the Bile Bean Manufacturing Co., London, E.C. A box price 1s. 1½d. was found to contain 30 pills, and a 2s. 9d. box 90.

In a circular enclosed in the package they are described as "absolutely unequalled" for biliousness and other complaints, of which thirty-eight are named, including anaemia, piles, influenza, despondency, blackheads, rheumatism, etc. It is further stated that

Chas. Forde's also cure Fatty and Waxy Degeneration of the Liver, "Hob-nailed" or "Gin-Drinker's" Liver (Cirrhosis), and the host of ailments having a common origin in impaired digestion, assimilation, and secretion, and in defective working of the excretory organs. Chas. Forde's are likewise of inestimable service in all the disorders peculiar to women, while as a general aperient and tonic remedy they are unsurpassed.

Chas. Forde's bile beans do not contain a single particle of Mercury, Bismuth, or other poisonous mineral substance, and are also devoid of Aloes. . . .

As a General Aperient.—Two to four beans as occasion may require.

As a Tonic.—One bean after the midday meal, and one upon going to bed.

The pills were coated with gelatine, the coating being coloured black. The average weight after removal of the coating was 2.3 grains.

The statement that they are devoid of aloes appears to be true only if it is taken to refer to aloes itself and not to preparations of aloes, as tests showed very clear evidence of the presence of aloin; other constituents shown by chemical and microscopical examination were powdered cardamoms, oil of peppermint, and wheat flour; some evidence was obtained of extract of colocynth, but not sufficiently conclusive for its presence to be definitely asserted. No evidence of the presence of mercury or calomel was obtained.

### CARTER'S LITTLE LIVER PILLS.

These are supplied by Carter Medicine Co, New York; they are largely advertised and sold in Great Britain, and there is a British dépôt in London. A package price 1s. 1½d. was found to contain 42.

They are described on the package as

Purely Vegetable. For Headache. For Dizziness. For Biliousness. For Torpid Liver. For Constipation. For Sallow Skin. For the Complexion,

and in a circular contained in the package as

designed to act upon the Liver and Bile in such a manner as to secure all the benefits of a prompt and active medicine, without any of the unpleasant effects which usually attend the use of ordinary liver remedies.

The pills were sugar-coated, and after removing the coating had an average weight of ⅓ grain. Chemical and microscopical examination gave evidence of the presence of aloes (Barbados) or a preparation of aloes, podophyllin, powdered liquorice root, and wheat starch, the last probably from the coating. No other ingredient could be detected.

### HOLLOWAY'S PILLS.

These are supplied by Thomas Holloway, London. A box price 1s. 1½d. was found to contain 49 pills.

It is stated in an advertisement that

They have positively no equal for thoroughly cleansing the system and putting the liver and kidneys in functional order, without pain or griping.

A pamphlet which was wrapped round the box is entitled:

A Key to Health ! ! ! The Holloway Ian System of Medicine and its adaptation for the treatment of many Diseases incident to the human frame.

It appears from the pamphlet that "the Holloway Ian System of Medicine" might be summed up in the words: Take Holloway's Pills; apply Holloway's Ointment. Among the complaints for which this "system" is prescribed are gout, rheumatism, sciatica, paralysis, liver complaints, asthma, inflammation of the kidneys, bronchitis, quinsy, bad legs, bad breasts, ulcers, wounds, sores, tumours, piles and fistulas, the turn of life, floodings and the whites, obstruction of the menses, dropsies, jaundice, youthful indiscretion, impotency, palpitation of the heart, debility, indigestion, constipation, gravel, stone, venereal diseases, influenza, erysipelas, lepra blotches, scald heads and ringworms, scrofula, ague, diarrhoea, etc. The dose recommended in different cases varies from two pills a day to seven pills night and morning.

The pills had an average weight of 1.4 grain. Chemical and microscopical examination showed the presence of aloes (Barbados), or a preparation of aloes, powdered ginger, and soap. There was no evidence of the presence of mercury or calomel.

### PAGE WOODCOCK'S WIND PILLS.

These pills are supplied by Page Woodcock, Ltd., London, N. The price of a box containing 32 pills was 1s. 1½d.

They are thus described in a circular enclosed in the package:

The Most Effectual Medicine Yet Discovered for the Prevention and Cure of Disease. . . .

In all cases of Indigestion, Liver Complaints, Biliousness, Constipation, Palpitation, Debility, Anaemia, Irregularities, Bad Assimilation, Wind in the Stomach and Bowels, Spasms, Heartburn, Giddiness, Disturbed Slumbers, Piles, Toothache, Neuralgia, etc.; they will, if taken in accordance with the following directions, effect a positive and permanent cure in the most stubborn and deep-rooted cases.

The directions in various cases are from three to nine pills to be taken daily.

The pills were pearl-coated, and after removal of the coating had an average weight of 1.6 grain. Chemical and microscopical examination showed the presence of aloes (Barbados) or a preparation of aloes, a little ginger, a little soap, a trace of capsicum, and oils of peppermint and cinnamon; some other vegetable tissue was also present, but it did not possess any characters by which it could be identified. No mercury or calomel was present.

### SCOTT'S PILLS.

Scott's pills are supplied by W. Lambert, London, in boxes, price 1s. 1½d, containing 24 pills. A circular sent with the pills is headed:

Bilious and Liver Complaints, Indigestion, Costiveness, Loss of Appetite, Worms, Gout, Inflammations, Rheumatism, Lumbago, etc., effectually removed by the use of Dr. Scott's Bilious and Liver Pills. . . . Prepared from the Recipe of Dr. Scott, of Bromley, Kent.

The recommendations for their employment include the following:

The evil effects arising from intemperance will be prevented if recourse is had to them after excess of eating or drinking. Preparatory to Sea or Cold Bathing they are particularly necessary; by taking a Pill or two for a few nights previous, the bowels will be cleansed from any crudities that may adhere to them, and the body rendered in a proper state for the prevention of many uncomfortable complaints. They are also the most excellent alterative and cleanser of sallow complexions, caused by obstructions of the Liver. To seafaring persons they are particularly recommended, as the use of them will prevent many disorders incident to such a life, which frequently prove fatal. Pregnant women will find them a most efficacious medicine in preventing Bilious Vomitings, Nervous Headaches, and other complaints peculiar to their situation. . . .

Mr. Lambert wishes to impress on parents the necessity of administering these Pills to their children; they will find them a most efficacious Medicine for eradicating Worms, Fevers, Coughs, Inflammations, and all disorders of the Stomach and Bowels; the child will be strengthened, saved from all sickness, and the parents themselves much trouble and uneasiness.

The pills had an average weight of 2 4 grains. Chemical and microscopical examination indicated the presence of aloes (Socotrine) in rather small quantity, ginger, rhubarb, and soap. No mercury or calomel was present.

KER NAK.

Ker-Nak, or Ker-Nak Pills, are supplied by a company in Leeds at 1s. 1½d. per package, containing 41 pills. They are thus described in a circular accompanying the package:

Ker-Nak is a natural and valuable remedy which marks an important step in advance of old-fashioned purges and drastic mineral pills. These latter, with their mercury, bismuth, and other crude ingredients, only irritate, inflame, and, in the end, seriously injure, the delicate linings of the stomach and bowels. All such mineral drugs, doubtful in their physiological action and paralysing and harmful in their eventual effect, do not in any way, directly or indirectly, enter into the composition of Ker-Nak, which, on the contrary, contains certain essences and oils, the valuable constituents of fresh ripe fruit, together with valuable vegetable extracts and internal disinfectants reputed for their purity and medicinal worth. . . . The unapproachable excellence of Ker-Nak from a medicinal or healing standpoint, as well as its greater suitability for sickness contracted under present-day conditions . . . renders this *natural* treatment, so invaluable in cases of: Constipation, Headache, Indigestion . . . Sleeplessness, Neuralgia, Palpitation . . . Anaemia, and most Female Ailments (in youth, motherhood, middle-age, and declining years), Piles . . . Hysterics, Shortness of Breath . . . Rheumatic Affections, Influenza, and its after-effects. . . .

The lengthy circular concludes with a paragraph headed:

FREE ADVICE.

Any reader in need of sound advice upon his or her own ailment can have, Free of Cost, the assistance of our fully qualified Medical Staff.

Describe in detail all the symptoms of your illness, say how long the illness has lasted, and what you have been doing for it in the past; and have no hesitation in stating fully any matter which troubles you. The medical staff will tell you frankly and in confidence what is the best treatment for you to adopt.

The directions on the package are:

Dose—1 to 3, or in severe cases, two doses of 2 each, one dose at night and repeat after the next mid-day meal.

The pills were coated with orange-coloured pearl-coating; after removing it they had an average weight of 1½ grain. Chemical and microscopical examination indicated the presence of aloes (Barbados) or a preparation of aloes, a little soap, a very little oleo-resin of capsicum, and a little vegetable tissue which appeared to be marshmallow root (used as an excipient). There was no evidence of the presence of mercury or calomel.

COCKLE'S PILLS.

The present maker's name of these is not given, but they are described in the circulars which accompany them "As Prepared by the late James Cockle, Surgeon and Apothecary, 4, Great Ormond Street, London." A box, price 1s. 1½d, was found to contain 16 pills. It was also stated that:

These pills consist of a careful and peculiar admixture of the best and mildest vegetable aperients, with the pure extract of the flowers of the camomile. They will be found a most efficacious remedy for derangement of the digestive organs, and for obstructions and torpid action of the liver and bowels, which produce Indigestion and the several varieties of Bilious and Liver Complaints . . . these Pills are not recommended as containing any new or dangerously active ingredients; on the contrary, they are characterized by a remarkable simplicity of combination, and whatever merit they may be found to possess depends as much upon the selection of pure drugs and the unusual labour and attention bestowed upon their subsequent preparation, as upon the acknowledged peculiarity of their composition. They are not recommended as a panacea, nor are they adapted to all complaints; but as a mild and efficacious *aperient* and *tonic* in the various forms of Indigestion, with intestinal irregularity admitting their use, it will not, perhaps, be an exaggeration to state that they have been resorted to under all systems of diet, changes of climate, or atmospheric alternations, with an extraordinary degree of success, for a period extending over more than half a century.

The directions vary from "One Pill to be taken an hour before dinner" to "Two or three at any time."

The pills had an average weight of 4 grains. Chemical and microscopical examination indicated the presence of aloes (Socotrine), a little soap, powdered colocynth, powdered jalap, and another vegetable tissue which did not agree in characters with any drug now in ordinary use, and which could not be identified. No evidence of the presence of mercury or calomel was detected.

BURGESS' LION PILLS.

We published some time ago the results of analysis of Burgess' Lion Ointment, and the Pills are a companion medicine. A box, price 1s. 1½d., was found to contain 24 pills. In a circular enclosed in the package it is stated that

The Pills act beneficially by imparting a healthy action to the Liver and Digestive Organs, removing Obstructions and purifying the Blood, completely renovating the health by expelling and preventing the recurrence of disease. When suffering from Headache, Giddiness, Pains in the Back or Loins, Loss of Appetite, or a feeling of General Debility, these Pills will be found most invaluable.

The directions on the label are "Two to be taken at bedtime."

The pills were pearl-coated; after removal of the coating they had an average weight of 4¼ grains. Chemical and microscopical examination indicated the presence of ipecacuanha, rhubarb, a little jalap, probably aloes (Socotrine), and oil of peppermint, and soap. There was no evidence of the presence of mercury or calomel.

HOOD'S VEGETABLE PILLS.

These are supplied by C. I. Hood and Co, Limited, London, in a bottle, price 1s. 1½d., containing 34 pills.

They are described on the package as

The great Liver Invigorator. A mild, efficient cathartic, purely vegetable, unequalled as a family physic and after dinner pill. A valuable remedy for Liver Complaint, Constipation, Nausea, Biliousness, Headache, Indigestion, Sour Stomach, Distress after Eating, Jaundice.

The directions, given in a circular enclosed in the package, are:

For Biliousness, Jaundice, Sick Headache, Constipation, Flatulence, Dizziness, Nausea, and all Liver Troubles, and to Relieve or Prevent Malaria and Influenza. For laxative effect, the usual dose is one, two or three pills taken at bedtime in a draught of water; for purgative effect, from three to six pills, taken in the same way. . . .

For Indigestion, Heartburn, Distress in the Stomach, Fulness after Eating: The usual dose is one pill taken immediately after eating, in a draught of water.

The pills were sugar-coated, and, after removal of the coating, they had an average weight of ½ grain. Chemical and microscopical examination showed the presence of aloes (Barbados) or a preparation of aloes—probably aloin, ginger, capsicum, colocynth, soap, and probably a little jalap. There was no evidence of the presence of mercury or calomel.

## SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

AT the annual general meeting of this society on May 17th, Dr. Blandford, President, in the chair, it was reported that the society consists of one honorary member and 140 life and 153 ordinary members. The invested funds amounted to £100,900, and the income consisted of the interest on this sum, £3,141, together with £352 received in subscriptions and donations. The sum of £3,131 10s. had been distributed among the annuitants of the charity, 48 widows and 13 orphans. The Copeland Fund enabled the society to grant to any widow or orphan already in receipt of the society's ordinary relief extraordinary assistance in special circumstances of unusual distress, such as blindness or grave permanent disease, and to continue such extra relief in the case of orphans beyond the age of 16 or 18 years, at which ordinary relief ceases. Relief is only granted to the widows and orphans of deceased members who have paid their annual subscription for three years or who are life members.

The directors desire to bring to the notice of the members of the medical profession, especially the younger, the advantages of joining the society. Membership is open to any registered practitioner who at the time of his election is resident within a twenty-mile radius from Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member. The annual subscription is two guineas; every member who has paid this sum for twenty-five years becomes a member for life. Life membership may also be obtained by the payment of one sum, varying with the age of the applicant.

Further particulars and application forms may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

# Nova et Vetera.

## SIR JAMES SIMPSON AND ETHER IN MIDWIFERY PRACTICE.

The name of Sir James Simpson has come to be so closely associated with chloroform that few remember that the famous obstetrician, the centenary of whose birth takes place on June 7th, had anything to do with ether as an anaesthetic. And yet he had much to do with it. When in January, 1847, he introduced the use of anaesthesia into midwifery practice ether was the anaesthetic he employed, and he continued to administer ether until the November of the same year, when he was led, for various reasons, to prefer chloroform, and to substitute it for ether. That these facts have been overlooked is evident from a reference to recent works on midwifery published in this country (where such facts certainly ought to be known) and in other lands. Thus one writer [1] has this sentence:

> Since the introduction by Sir James Y. Simpson of anaesthesia by chloroform in midwifery the pain can always be kept within reasonable limits.

And other authors are evidently unaware that the use of ether in midwifery practice in Great Britain antedated its employment for the same purpose in America. Whitridge Williams, however, gives the facts clearly and consisely in his work on *Obstetrics* [2] in the following words:

> We are indebted to Sir James Y. Simpson, the discoverer of chloroform, for the introduction of anaesthesia into obstetrical practice. He employed ether for this purpose in the year 1847, and replaced it by chloroform after the discovery of the latter drug.

Even Whitridge Williams does not give the exact relationship of Sir James to chloroform, for the Edinburgh obstetrician discovered not chloroform but the anaesthetic power of chloroform; but he is correct in his reference to ether, although the statement he makes is very condensed. Other American obstetricians, however, would seem to be unaware of the facts, for in conversation recently with a distinguished teacher of gynaecology, and a writer of well-known books on the subject, we elicited the admission that the facts above referred to were quite unknown to him. It may, therefore, be not unprofitable to restate these facts with some little fullness.

It was on January 19th, 1847, that Sir James Simpson took the step which has had such far-reaching effects in midwifery practice, and the *Monthly Journal of Medical Science* for February [3] recorded the fact on its last page in a somewhat obscure way, under the not very inviting heading, "Medical News." The paragraph is entitled, "On Etherization as a Means of Procuring Insensibility to Pain," and it commences with the following sentence:

> As we closed our last number we had no more than time to announce in a few words the discovery of a method of rendering patients insensible to the pain of surgical operations and the like. Since then the periodical press, medical and public, has so trumpeted forth this discovery that it is impossible it should have failed to reach the ears of any one of our readers.

Then follow some notes on the use of ether in surgical work in London, Dublin, and Edinburgh, and on its employment in dental practice. The article then proceeds:

> The authors of the discovery are said to be Drs. C. T. Jackson and Morton of Boston. They (or someone else who professes to have to do with the discovery) intend to take out a patent both in America and Europe. . . . The idea of a patent is ridiculous, but the inventor deserves to be rewarded, if he be not content with fame, by means of a public contribution.

Then comes the paragraph regarding Simpson, which most concerns us at present. It is as follows:

> As we go to press we have received the following account of the successful use of this wonderful agent in Professor Simpson's practice. On the 19th of last month Professor Simpson tested the effects of the ether inhalation in a case presenting one of the most painful and difficult forms of parturition. The patient was lame and deformed, from disease of the hip-joint in early life; and the promontory of the sacrum could be felt projecting so far forwards as to diminish the conjugate diameter of the brim of the pelvis to about 2½ in.

After telling of the craniotomy which had to be performed at the first confinement, the account goes on to record:

> On the present occasion (her second labour) the umbilical cord was found presenting, with the head lodged high upon the brim, where it remained without making the slightest progress for several hours or offering at all to pass down into the pelvic cavity. Dr. Simpson had, upon the results of some previous cases of a similar kind, resolved to avoid, if possible, the use of the crotchet or other instruments, and to extract the child by turning. He effected this by grasping easily one knee; but after the body and extremities were born extreme exertion was subsequently necessary to extract the head. . . . The child gasped several times after birth, but respiration could not be established. Some time before the turning was attempted the woman was fully placed under the influence of sulphuric ether. During the whole operation she was (according to her own subsequent reiterated declaration and surprise), quite unaware of feeling any pain, or having any sensation whatever, and awoke just as the delivery was being terminated. . . After she was brought under the influence of the ether the uterine contractions continued regularly, but without knowledge or consciousness of pain on the patient's part. She is making the best possible recovery. Dr. Zeigler, Dr. Keith, and Mr. Figg were present throughout the progress of the case.

The paragraph ends with the editorial remark:

> We are not aware that the ether has ever been previously employed in the practice of midwifery.

In this modest fashion appeared the notice of the introduction of anaesthesia into that branch of medical practice in which it may be said with some assurance it has proved most beneficial and has been least attended with risk. With still less formality or display did it appear in the abstract of the proceedings of the Edinburgh Obstetrical Society:

> On the evening of Wednesday, January 20th, 1847—Dr. Simpson, President, in the Chair. After the Society had agreed that in future regular abstracts of its proceedings should be published in the *Monthly Journal of Medical Science*, Dr. Simpson related a case of turning under the influence of sulphuric ether, and proposed substitution of turning for craniotomy in cases of detention of the child's head at the brim of the pelvis.
>
> Further:
>
> Dr. Simpson showed the child which he had on the preceding evening extracted by turning while the mother was insensible from the use of sulphuric ether.

Then, as if these two advances—anaesthesia in midwifery and turning in place of craniotomy—were not enough for one evening, Dr. Simpson also showed several instruments, such as pessaries, etc., which he had made of gutta-percha, and how easily and speedily they could be fashioned, by dipping them in boiling water, to suit any particular case. It was truly a memorable meeting of the Edinburgh Obstetrical Society.

A few weeks later, in the month of March, Professor Simpson himself published a full account of the case of version above referred to and added notes of several other cases, one of which was a forceps delivery at the Royal Maternity Hospital on February 3rd, and another was a similar labour in private practice on February 12th; in both these cases and in two others of non-instrumental labour on February 13th ether was administered with complete success, the women being quite insensible to the pains of parturition. Professor Simpson's article is dated February 18th. The following extract from the *Monthly Journal of Medical Science*, vol. vii, 1847, p. 721, shows clearly that Simpson was by no means hasty in forming his judgement of the suitability of ether for the purposes for which he had employed it. He wrote:

> A careful collection of cautious and accurate observations will no doubt be required before the inhalation of sulphuric ether is adopted to any great extent in the practice of midwifery. It will be necessary to ascertain its precise effects, both upon the action of the uterus and of the assistant abdominal muscles; its influence, if any, upon the child; whether it gives a tendency to haemorrhage or other complications; the contraindications peculiar to its use; the most certain modes of exhibiting it; the length of time it may be employed, etc. In no case have I observed any harm whatever, to either mother or infant, follow upon its employment. And, on the other hand, I have the strongest assurance and conviction that I have already seen no small amount of maternal suffering and agony saved by its application. The cases I have detailed sufficiently show its value and safety in operative midwifery. . . . Granting that experience will yet be able to prove its safety and efficacy in

[1] Westland, *The Wife and Mother*, p. 62, 1910..
[2] Whitridge Williams, *Obstetrics*, 2nd edit, p. 321, 1908.
[3] *Monthly Journal of Medical Science*, vol. vii, p. 639, 1847.

modifying and annulling the pains of labour, will (I have repeatedly heard the question asked) the state of etherization ever come to be generally employed with the simple object of assuaging the pains of natural parturition? Or (as the problem has not unfrequently been put to me), should we be "justified" in using it for such a purpose?

In a few paragraphs containing much that he was afterwards to expand into more complete propositions, Professor Simpson sketched the argument for affording relief from pain to parturient women, and he ended with the statement:

> Instead of determining . . . whether we shall be "justified" in using this agent under the circumstances named, it will become, on the other hand, necessary to determine whether on any grounds, moral or medical, a professional man could deem himself "justified" in withholding, and not *using* any such safe means, as we at present presuppose this to be.

It is, to say the least, remarkable that Simpson should, within a month of his first use of an anaesthetic in midwifery, have so logically foreseen the possible objections to, and risks in, the administering of ether in labour, and have so clearly estimated the probable extension of its employment to cases of natural labour. As we have said, it was not till November 4th, 1847, that Simpson, with Keith and Matthews Duncan, discovered the anaesthetic properties of chloroform, and began to use it in place of ether as more potent, portable, and pleasant; and during the intervening months he was steadily employing ether himself and recommending it to others, as he himself stated in his paper read before the Medico-Chirurgical Society of Edinburgh in December, 1847.

Professor Simpson's first case of etherization in midwifery seems to have been made known also through the public journals, and on January 26th an unsuccessful attempt was made in St. Bartholomew's Hospital, London, to etherize a patient upon whom Caesarean section was about to be performed. About the same time—that is, about a week after its use in Edinburgh—Fournier Deschamps employed it in a forceps delivery in Paris (January 27th), and Dubois gave it in a similar case on February 8th. On February 13th Dr. Murphy of London stated that he had used ether in a case of turning. In Germany the first case seems to have been that under Professor Martin of Jena on February 24th; it was an instance of adherent placenta. In America Dr. Channing, Professor of Midwifery in Harvard University, employed ether in a forceps case on May 5th; and the first patient delivered under an anaesthetic in Ireland was a woman under the care of Dr. Tyler of Dublin on November 28th, a forceps case. These are the facts regarding priority as published by Simpson in October, 1848.[4]

It must not be forgotten, further, that it was in defence of ether, not in the first place of chloroform, that Sir James Simpson constructed those logical, pungent, and humorous arguments which did so much to place anaesthesia in midwifery practice on a sure and sound basis.

# THE PLAGUE.

## Prevalence of the Disease.

### Mauritius.

From January 1st to March 31st, 1911, there have been reported in Mauritius 121 cases of plague and 82 deaths from the disease. During January the cases numbered 95, deaths 65; during February cases 21, deaths 13; during March cases 5, deaths 4.

During the first three weeks of April there were 7 cases and 4 deaths from plague.

### Indo-China.

A case of plague occurred in Saigon during the first week of January.

### South America.

*Brazil.*—In Bahia between November 27th and December 16th, 1910, the cases of plague numbered 19 and the deaths from the disease 15.

*Ecuador.*—During the first two weeks of January plague was present in Duran, Guayaquil, and Milagro. In these districts the fresh cases numbered 31 and the deaths from the disease 12.

*Peru.*—At Salaverry plague was stated to be epidemic on March 1st, 1911.

### Russia.

*Astrakan.*—Between January 8th and 29th, 1911, 29 cases of plague and 20 deaths from the disease were reported in the Kirghiz Steppe.

[4] *Monthly Journ. Med. Sci.*, p. 209, October, 1848.

# MOTOR CARS FOR MEDICAL MEN.

## Appliances against Puncture.

Two forms of protecting band designed to guard against punctures and to enable much-worn tyres to be used up without the inconveniences usually attendant upon trusting to old tyres have been lately brought prominently before the public. Both are placed between the air tube and the cover, and both are secured to the inner surface of the cover by india-rubber solution, though only partially, the part which underlies the tread being left free.

The one called the Victor shield consists of several layers of strong canvas vulcanized together, and thickest over the tread. The special peculiarity of the Victor shield is that it is continued outwards by a comparatively thin flexible edging which goes completely over the bead and is carried up a short distance outside the cover. It is attached by fixing with solution a small portion inside the cover, and also that portion which covers the bead and goes up on the outside, so that it not only strengthens the inside of the tyre, but also reinforces the bead and its immediate neighbourhood—a matter of some importance, as old tyres are often defective in this region. The makers of this band, the Challenge Mills, 218, Shaftesbury Avenue, have for some time sold a well-made liner of somewhat similar character, but this did not pass over the bead and on to the outside of the tyre, so that the Victor shield is an improvement upon a tried form of reinforcement. The makers claim that the shield can be readily removed with the aid of a little petrol, and will outlast several covers. The price of the Victor shield for an 810 × 90 cover is £1 10s., and the makers do not charge anything for putting it in a cover. They guarantee it for a considerable distance, and repair it free of charge unless the repair needed is such as to require the insertion of a new section.

The other appliance is the Atlas puncture-proof inner case, which attracted some little attention at recent motor shows. It is of novel construction, consisting of rubber in which are imbedded a large number of thin steel discs arranged in three layers in such fashion that they overlap one another to a large extent; outside this are three layers of canvas; as a preventive of puncture it can hardly fail to be efficacious. It intervenes between the air tube and the cover, and in order to prevent creeping is fixed by solution to the latter along each of its edges, the portion corresponding to the tread being left free. It can be easily removed by petrol and placed in another cover. The Atlas case has been lately subjected to a trial by the *Autocar* newspaper in an old Dunlop cover which had already run 10,000 miles; with the aid of the Atlas shield it ran another 500 miles, by which time the inner shield was considerably exposed, and further trial would have damaged it. No exceptional heating of the tyre was observed after a long fast run. The price of the Atlas inner case for 810 × 90 tyres is £3 12s. 6d., and it can be seen at 124, High Street, Kensington. The agents print some testimonials to its efficiency, and it is possible that a competitive trial under independent observation may be arranged between these two forms of tyre strengtheners.

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An Old Subscriber asks for the names of any firms in London from whom he could hire a motor at a reasonable rate. He says he is able to hire a hansom at 3s. 6d. per hour, and finds it impossible to hire a motor for less than 8s. for the same time. There must be, he says, many doctors willing to pay £150 a year for not more than two and a half hours a day, and he considers there is a lucrative opening for the supply of small motor cars to medical practitioners.

*** We are sorry that we cannot supply the name of a firm who would supply a car upon the terms you suggest. Up to the present hiring a car has not been an economical method of commanding the use of one, and when one is let for part of its time only the charges are always high. There are many firms who undertake to run and keep in repair, supply tyres, chauffeur, etc., for a person's own car, and on tolerably reasonable terms, but this arrangement, whilst saving trouble and securing the use of another car should the one be disabled, is not particularly economical.

B.—The prices of Ford motor cars are unquestionably low for their horse power, and some users of them have spoken well of them. They have not the high finish in their visible parts which may be found in more expensive cars, and we have no personal experience of their durability, though they have come through tolerably severe trials with success.

### Motor Cycles.

Cycle asks for particulars as to the suitability and reliability of motor cycles for general practice on fairly bad Irish roads and with regard to the cost of upkeep. He also wishes to know the special points to attend to in selecting a machine.

## LITERARY NOTES.

MR. BLAND-SUTTON'S well-known book, *Gallstones and Diseases of the Bile Ducts*, has been translated into German by Oskar Kraus of Carlsbad. The translation, which has been made from the second edition, appears under the title *Gallensteine und Erkrankungen der Gallengänge*, and is published by Franz Deuticke, of Leipzig and Vienna.

In Dr. Grasset's recently published book entitled *La Médecine Naturiste à travers les siècles* there is an account of Boileau's experiences at Bourbon l'Archambault, a health resort famous in his day. The great critic, then 50 years of age, had suffered for a considerable time from loss of voice and difficulty in breathing. He was assured that as soon as he had drunk the waters of the spring he would be restored to health and his youth would be renewed. Among the oracles of medicine of whom he sought counsel were Daquin and Fagon, physicians to Louis XIV, who while agreeing that the waters of Bourbon would cure him intrigued against each other behind his back. Daquin had recommended one local doctor, Fagon another. This led to unpleasantness. Boileau's letters while he was undergoing his "cure" give an interesting glimpse of the treatment of the day. In a letter addressed to Racine on July 26th, 1667, he says:

> I have been bled, purged, etc.; no part of the ritual said to be necessary before taking the waters has been omitted. The medicine I have taken to-day has, they say, done me all the good in the world; for it has brought me near to fainting four or five times, and has reduced me to such a state that I can hardly stand upright. To-morrow comes the great masterpiece of healing, which means I begin to take the waters.

On the 29th he writes further in an ironical spirit:

> Up to the present the waters have done me much good as I pass them forthwith and they have, so to speak, made everything come out of my body except the disease for which I take them. M. Bourdier, my doctor, nevertheless maintains that my voice is stronger than it was when I arrived, and M. Boudiere, my apothecary, who is a still better judge than he since he is deaf, says the same thing.

On the 31st, writing to his sister, he expresses discouragement, telling her that the waters, which he had then been taking for ten days, had caused great weariness in the legs, had made him drowsy, and produced other effects which had pleased the doctors though they had brought little comfort to the patient, who was still voiceless, had little appetite, and was very weak. He intends, however, to persevere, and if he does not get well at any rate no one will be able to say that he has not done all that he should have done to get cured. On August 13th Racine writes that he had consulted Fagon as to his friend's condition, and that luminary had recommended that he should leave Bourbon l'Archambault at once. Even the King condescended to give his sapient opinion on the case. "He will do better," said the monarch, who believed little in medicine, though—or perhaps because—he was himself always in the hands of the doctors, "to go back to his customary mode of life; his voice will come back to him when he is least thinking about it." In defiance of the opinion of Bourdier, Boileau was persuaded by another doctor to try the effect of bathing. The effect was marvellous. His voice returned, but only for the time. After taking some ten baths, Boileau says that although he is stronger and breathes more easily, he is as voiceless as before. Louis XIV's prognosis proved correct. Six months later Boileau unexpectedly recovered his voice. Of health resorts and the patients who go to them, it might be said with as much truth as of Governments, *Plus ça change plus c'est la même chose.*

Any one who has ever been in France, even for a short time, cannot fail to have been struck by the great demand there is in that country for Englishwomen as children's nurses, and by the complete confidence displayed by French mothers in their knowledge of all matters appertaining to the nursery. But it may not be so generally realized that this flattering belief in the efficiency of Englishwomen is by no means of recent growth, or due to the modern methods of training in nursery colleges and other establishments of the same kind, but appears to have been rooted in the Gallic mind for generations past. An article by Madame Augusta Moll-Weiss on the proper clothing of young children, which appeared in the April number of *L'Hygiène*, proves that during the reign of Louis XIV at least one famous Frenchwoman regarded her sisters across the Channel as more advanced in the science of child-rearing than the women of her own country. A letter from Madame de Maintenon, that most practical of women, is quoted by Madame Moll-Weiss, in which the great court lady wails bitterly against the then universal habit of swaddling babies, and praises the English custom of changing the child's linen immediately it became soiled, instead (as was usual in France) of leaving the poor little creature for an indefinite period tightly swathed in bandages whose cleanliness naturally left much to be desired. It should be added that the wife of Louis XIV was by no means the only one to proclaim aloud the evils of the "*emmaillotement*" which had been denounced over a century before by Montaigne; with very little effect, however, since we find François Mauriceau, in his book *Les maladies des femmes grosses et accouchées*, recommending swaddling as the most effective method of procuring for the child a good figure, and teaching him "to stand upon his two feet; for otherwise he would perhaps walk on all fours, like the majority of animals." Another interesting article in the same number of *L'Hygiène* is by Dr. A. Kermorgant, on the subject of yellow fever; whilst M. Paul Juillerat and Dr. L. H. Debayle have respectively contributed accounts of the unwholesome houses of Paris and the principal intestinal parasites in the tropics. Dr. Maurice de Fleury writes on the causes and prevention of insomnia. The illustrations of this most attractive magazine, as usual, deserve the highest praise.

One is accustomed to imagine that the report of a year's proceedings of any learned society must necessarily be something in the nature of a Blue Book, as uninteresting as it is instructive; but that this is not invariably the case is proved by the annual report of the Viking Club (published every year under the title of *The Saga Book of the Viking Club*), the first part of the seventh volume of which has recently made its appearance. This account of the eighteenth session of the Society for Northern Research is embodied in a most interesting and attractive periodical, beautifully printed and illustrated, which contains a summary of the meetings held by the members of the club during the past year, together with reprints of several papers read on these occasions. Those who are interested in the history of the various Norse invasions, and the extent of the Danish and Norwegian conquests in this country, will do well to study Mr. Robert L. Bremner's "Notes on the Battle of Largs," and Professor Allen Mawer's masterly account of "The Scandinavian Kingdom of Northumbria"; whilst those to whom the human side of these terrible sea kings appeals more strongly than the recital of "old, unhappy far-off things and battles long ago," will find a fund of information in such articles as Dr. Harry Fett's "Miniatures from Icelandic Manuscripts," or Mr. J. Storer Clouston's exposition of social and political conditions in Orkney under Norwegian rule. Nor is the more spiritual side of the Viking's life neglected, for an interesting article by Professor Finnur Jónsson and Captain Daniel Bruun on "Finds and Excavations of Heathen Temples in Iceland" contains a vivid description of the ceremonials connected with the worship of the ancient gods; and some old superstitions are mentioned by Mr. Edward Lowett in his lecture on "The Folklore of the Horse," from which we learn that the brass head ornaments worn by the cart-horses of to-day are the modern equivalents for the charm once carried by every horse as a protection against the Evil Eye. Some striking passages from Mr. Eiríkr Magnússon's translation of "Kung Fialar," an epic poem by Johan Ludvig Runeberg, the great national poet of Finland, are also included in the present number of *The Saga Book*, the interest and variety of whose contents compare very favourably indeed with those of many of its more widely known contemporaries.

Dr. David Rorie, of Cults, near Aberdeen, writes that he found the following lines in looking over a collection of single sheets belonging to the early part of the eighteenth century in St. Mary's College, Blairs. With the kind

permission of the rector, Monsignor McGregor, he got a copy of them, which he has been good enough to send us:

AN ACCOUNT
OF THE
DOCTOR AND HIS PATIENTS.

There was a prudent grave Physician,
Careful of Patients as you'd wish one;
Much Good he did with Purge and Glister,
And well he knew to raise a Blister;
Many he cur'd, and more he wou'd,
By Vomit, Flux, and letting Blood;
But still his Patients came again,
And most of their old Ills complain;
The Drunkards drank, and spoil'd their Liver;
Beaux ply'd the Smock as much as ever,
And got the high Venereal Feaver;
The Glutton cram'd at Noon and Supper,
And doubled both his Paunch and Crupper.
One Day he called them all together,
And one by one, he ask't 'em whether
It were not better by good Diet,
To keep their Blood and Humours quiet;
With Tost and Ale to cool their Brains,
Than nightly fire them with CHAMPAINS;
To sup sometimes on Water grewel,
Than drink themselves into a Duel;
To change their lewd, for sober Life,
And rotten Whore, for sounder Wife?
They all agreed that his advice
Was honest, wholsom, grave and wise;
But not one Man, wou'd quit his Vice;
For after all his vain Attacks,
They rose and din'd at PONTACK'S.

The MORAL.
The wise may preach, and Satyrists rail,
Custom and Nature will prevail.

"Pontack's" was a famous tavern in the days of Queen Anne. It was situated in Abchurch Lane. A writer in *T.P.'s Weekly* says it was erected on the site of the White Bear Tavern, destroyed in the Great Fire of 1666. M. Pontack, the son of the President of Bordeaux, owner of a famous claret district, established his tavern with all the novelties of French cookery, with his father's head as a sign, whence it was popularly called Pontack's Head. The dinners were from four or five shillings a head "to a guinea, or what sum you pleased." Swift frequented the place, and writes to Stella: "Pontack told us, although his wine was so good, he sold it cheaper than others; he took but seven shillings a flask. Are not these pretty rates?" The Fellows of the Royal Society dined at Pontack's until 1746, when they removed to the Devil Tavern in Fleet Street. In a rare tract (1731), called *Metamorphoses of the Town*, we learn of Pontack's "guinea ordinary" including "ragout of fatted snails," and "chickens not two hours from the shell."

On May 1st a lecture was delivered at the Archaeological Museum, under the auspices of the Cambridge Antiquarian Society, by Dr. Palmer on early Cambridge doctors. The following is an abstract of a report of the lecture published in the *Cambridge Weekly News*. Dr. Palmer said it was his object to describe how the physicians and surgeons of Cambridge furnished their houses, what books they read, what drugs they used, what clothes they wore, and what money they saved. Under certain early Acts the regulation of medical practice was in the hands of bishops, so that the records of the Bishopric of Ely seemed to offer him a fine field. In this way he found that John Papworth, of Duxford St. John, was licensed as a surgeon in 1584, he being the second earliest country surgeon of whom he had found a record. Dr. Palmer went on to speak of Bishop Wren, who, amongst other things, issued a set of questions for the clergy and churchwardens of his parish to answer, including a chapter headed "Concerning schoolmasters, physicians, chirurgeons, midwives, parish clerks, and sextons." A search through the Bishop's Court Books resulted in the discovery that in 1640 fifteen medical practitioners were licensed; four in Cambridge, and the others at Brinkley, Chatteris, Chesterton, Coton, Cottenham, Ely, Ickleton, Melbourn, Meldreth, Shudy Camps, and Wisbech. From other sources it was found that March and Whittlesey each had also a doctor at this time. The regulations in Cambridge differed from those in the county. Every physician or surgeon had to be approved by the University. They had the advantage of being under the jurisdiction of the Vice-Chancellor, and had certain privileges. Some of the wills of these doctors being proved in the Vice-Chancellor's Court were available, and revealed some interesting matter. The grades of the practitioners were: physicians, surgeons, barber-surgeons, apothecaries, bonesetters, and midwives. The first four had degrees, were licensed, or had served apprenticeships. There were indications that the status of the surgeon of 1540 was higher than that of his successor a century later. In 1600 the apothecaries of Cambridge were a wealthier class than the surgeons. Most early Cambridge doctors probably had one or more apprentices. Even Dr. Collins, the Regius Professor of Physic, had one, and bequeathed to him a "grey coat and an old shirt and various books." Ten years was the period of apprenticeship. The lowest grade of medical practitioner was the bonesetter, and these men certainly flourished in Cambridgeshire 200 years ago. Although traces of surgeons went back as far as the time of the Roman invasion, practitioners were few and far between in the country, even in the seventeenth century. The poorer classes had to rely upon amateur surgeons, many of whom were people of the higher classes. At the end of the seventeenth century there was a doctor practising at West Wratting who seemed to have gone as far as Linton for his patients. In 1634 the overseers paid him £5 for curing a man of dropsy. In describing this doctor's home, Dr. Palmer said that there was a large quantity of linen. It seemed to be always so and spoke well for the cleanliness of the profession. Cole (whose MSS. are in the British Museum) was on intimate terms with the eccentric Dr. Glyn, of Cambridge, and in 1779 made this note: "Being ill with St. Anthony's fire eruption about my shoulders and gouty humours flying about me, I sent to Dr. Glyn for advice." The medicine ordered was a teaspoonful of cinchona bark in a large tumbler of chamomile tea, twice a day, a very nauseous draught. Dr. Palmer also mentioned a number of other local surgeons, giving lists of their drugs, instruments, and household belongings. An early Cambridge physician who became eminent and fashionable was Walter Lemster, who took his degree of Bachelor of Medicine in 1466. The Bishop of Ely was amongst his patients, and after the Bishop's death he received a life pension. He removed to London and became physician to Henry Tudor. In 1470 Dr. Lemster was induced to house and keep the betrothed of a Doctor of Civil Law for two years while he was away at Padua. On his return the money was to be paid. Dr. Lemster heard no more of him for ten years, when he went to law to recover the money. The cost of keeping the girl and her maid for ten years was £86. The "grievous trouble" the doctor was put to he assessed at £300, but he only estimated the damage done to the girl's broken heart at £13 13s. 4d.! The first doctor practising in Cambridge who seemed to live in almost princely style was John Hatcher. "Probably," said Dr. Palmer, "there is no other town of the size in England, with the exception of Oxford, where so many medical practitioners have been able to amass fortunes. This university town always seems to have attracted doctors with good brains and with good manners, or perhaps with both—we are sure that it is with both at the present time." Hatcher took his degree in 1542. Dr. Palmer described the luxury of Dr. Hatcher's house from a 16-foot inventory! In speaking of fees, he said it was customary for those in a high station to pay their doctors a salary, but others probably paid by bill. The overseers used to defray doctors' expenses in cases of the very poor. In November, 1804, the then Bishop of Ely took twelve bottles of a certain Mr. Muriel's medicine at 4s. 6d. per bottle. In May, 1807, he took twenty-two bottles at 5s. each, and he died early the next year! Dr. Palmer passed on to describe the instruments of early local doctors, which were few and sometimes quaint, and also to detail their libraries. Speaking of how doctors travelled, he said that in the country they could only get round by riding a horse across country.

We have received the remaining fourteen volumes (Ita-Kys to Vet-Zym) of the new edition of the *Encyclopaedia Britannica*. The Index is published in a separate volume on thick paper and in special binding to meet the requirements of a large number of subscribers. The *Index* volume can also be had on India paper. There is no alteration in the price, which includes the entire set of twenty-nine volumes, whatever may be the form of the *Index* selected by the purchaser.

# British Medical Journal.

SATURDAY, JUNE 3RD, 1911.


## THE NATIONAL INSURANCE BILL.

THE Special Meeting of the Representative Body of the British Medical Association, summoned mainly for the consideration of the National Insurance Bill assembled at the Examination Hall on the Victoria Embankment, London, on Wednesday morning. It was attended by the elected Representatives of the Divisions of the Association in all parts of Great Britain and Ireland. The report of the decisions at which it arrives down to the time of going to press on Thursday will be found in the SUPPLEMENT to this issue. A report of the discussions through which the decisions were reached is not at present available.

The SUPPLEMENT contains also a report on the debates on the bill in the General Medical Council, together with the text of the *Report* of that body, a copy of which was sent to the Chancellor of the Exchequer on Monday before he spoke that afternoon in the course of the Second Reading Debate in the House of Commons; and also a report of that debate, containing the official verbatim report of those parts of Mr. Lloyd George's speech in which he dealt with and defended the medical aspects of the scheme embodied in the bill.

In the SUPPLEMENT will be found also reports of numerous meetings of medical men held in various parts of the country to express their opinions on the provisions of the bill affecting medical interests, including the remarkable meetings in Manchester and Edinburgh. A very large number of letters has been received criticizing various provisions of the bill, and expressing the determination of the writers to combine with their fellows to resist the injustice to which the medical profession will be subjected if the bill is passed without drastic amendments of the medical provisions. Selections from these letters are published in the SUPPLEMENT.

## SEASIDE SANATORIUMS FOR CHILDREN.

THE annual migration of children to the seaside during the summer months has become so well-rooted a custom with the great middle class in this country that it is difficult to realize the fact that the benefits of seaside life were little recognized during the childhood of our immediate forbears.

Although recommended by authorities from the earliest days of medical knowledge as beneficial in cases of glandular enlargement, the curative properties of coast climates were never systematically utilized until the suggestion was made by John Coakley Lettsom that a hospital might be founded at Margate to undertake the systematic treatment by sea-bathing of "the scrofulous poor of London and of all England." The hospital was duly built and was opened by Dr. Lettsom himself in the year 1796. The results that have been obtained within its walls have provided an object lesson which has led to the establishment of many such institutions in England and upon the Continent. Doubtless, also, to it may be traced the vogue for the seaside as a holiday health resort for children of all types and the existence of so many large coast towns which have risen up for their accommodation.

The widespread interest aroused by the international crusade against tuberculosis brings into prominence the question of dealing with the disease by preventive measures in early life. In children the disease usually enters by way of the alimentary canal rather than by way of the air passages. The lymphatic system is particularly prone to take up the poison and to retain it in the glands. The joints also are liable to become early affected, but in either case the course of the disease is usually slow, and even when bronchial glands become the seat of tuberculous infection the lungs themselves seem to be inapt at first to harbour the disease. Hence the importance of overcoming the activity of the infection while it is still limited to tissues in which it remains comparatively dormant.

The opinion has often been expressed that this form of tuberculosis must be of the bovine rather than of the human type, but, however this may be, abundant evidence has shown that neglected disease in joints or glands may lead to tuberculosis of the lungs, whereas the early treatment of it may entirely suppress any future activity. The importance, then, of dealing with the earliest manifestations of tubercle in children is now well recognized, and an interesting descriptive account of the existing English and Continental seaside sanatoriums for children has recently been published by Dr. Häberlin,[1] of Wyk, a town in the island of Föhr, off the coast of Schleswig Holstein, in which a large coast sanatorium for children has for some time been open. In this work will be found a reference, with more or less detail in each case, to all the recognized establishments of the same kind in Europe, together with a careful summary, occasionally tabulated, of the results obtained in some of them.

Like some other observers, Häberlin does not find that seaside life has very much influence upon the quality of the blood apart from the general improvement in cellular and haemoglobin-content which would naturally follow upon abundance of good food and fresh air in those not accustomed to them. Upon the lymphatic system, on the other hand, seaside treatment shows very marked effects, especially in cases of superficial gland infection, whether open to surgical interference or not. Tuberculous infiltration of bronchial glands and tuberculous disease of the peritoneum, although demanding much longer duration of treatment, seem to have been dealt with more successfully than in the wards of inland hospitals. A still more serious and crippling class of case—namely, tuberculous disease of joints—has been treated with signal benefit at the seaside, with or without operation, absolute cure being frequently noted.

To check the progress of tubercle at its onset and gradually to convert the weakly, pale, and strumous child into a well-knit and healthy youngster and to set him on the road towards robust manhood, is to do the State some service. To neglect such cases

[1] *Die Kinder Seehospize und die Tuberkulose-Bekämpfung Arzt der Seehospize auf Föhr.* Mit einem Vorwort von Geheimrat Ewald, Berlin. By Dr. Häberlin. Leipzig: Dr. D. Werner Klinkardt. 1911. (Roy. 8vo, pp. 338. M.6.)

and knowingly to permit the seed of consumption to sap the vigour of youth without making any effort to stop it seems almost a national crime. The establishment of sanatoriums for adults has done much to educate the consumptive patient how to treat himself, but in too many cases the knowledge comes too late, and the opportunity offered in earlier years has been lost. It was an English physician, Dr. Richard Russell, who, in the middle of the eighteenth century first noted the absence of scrofulous affections amongst coast dwellers and fisher folk, and his early observation doubtless inspired Dr. Lettsom to utilize sea water and sea air for the relief of scrofulous disease. There are many institutions scattered round the coasts of England where his ideas are put into successful practice, but much more remains to be done. School inspection affords the means whereby the earliest traces of tuberculous infection can be detected, but thus far the efforts of successive tuberculosis congresses have been directed toward the protection of school children from infection rather than toward the treatment of those already infected, or known to have been exposed to infection, by means of national seaside sanatoriums. Much money has been spent upon sanatoriums for adults, but the results, except in very early cases, have not realized early expectations. The success which has been achieved in the seaside sanatoriums, on the other hand, fully warrants the extension of the system in the case of children, with a view to the reduction of the number of consumptives who become a burden to themselves and to the community, owing to the neglect which has failed to stamp out the seeds of the disease in earlier life.

## SECONDARY SCHOOLS AND MEDICAL SCHOOLS.

THE correspondence upon the subject of the recognition of the teaching of physics, chemistry, and biology at secondary schools contained in the educational supplement of the *Times* for March, upon which we commented in a leading article on April 15th, has been followed by some letters presenting the other side of the question, and contending that it is not desirable to relegate the teaching of these subjects to the period of school life, but that the medical schools and the universities should be left in possession of them. Simultaneously with these letters, which emanated from the universities of Glasgow and Liverpool, appears a counterblast from the pen of Sir E. Ray Lankester, who suggests that the medical schools are eager to get hold of the student at an early period of his career in order to secure him for the whole curriculum, and that this is not in the interests of the individual student nor of education in general.

The other letters give various reasons why the General Medical Council should maintain its present attitude, and not give recognition to teaching at secondary schools, but some of the arguments adduced appear to cut both ways. Thus Mr. Monsarrat, the Dean of the Medical Faculty at Liverpool, whilst advocating that the teaching of these subjects should be directed towards their ulterior applications in medical science, admits that at present the university teachers have to spend the greater part of the first year in instilling purely elementary knowledge, owing to the ignorance of the students, and that their whole intention is hampered by the fact that boys come from school to the university in absolute ignorance of chemistry. Hence only a low standard can be expected at the end of the first year and at the first M.B. examination. The remedy which he proposes is that the General Medical Council should insist upon an elementary knowledge of the subjects at their entrance examinations and before registration of students. Surely this is tantamount to admitting that the elementary knowledge can and should be obtained at secondary schools, and further that the special direction cannot be given until this elementary stage is passed. In fact, his proposal would only differ in any material respect from one that the Council should recognize the teaching of the subjects at secondary schools were it feasible to require from candidates at an early stage in their career something much more than an elementary knowledge. It appears to us, however, that the whole present issue is centred round the question of elementary knowledge, and that the more advanced knowledge, so far as it can be expected of the average man, can be taught in association with its application to physiology, pathology, medicine, and surgery.

The other letter, signed by Professors Bower and Graham Kerr, of Glasgow University, takes a somewhat different line, emphasizing a distinction to be drawn between what is appropriate for "universities and certain bodies not universities," or, as we may put it, between those qualifying bodies which teach and those which do not. They appear ready to accept secondary school teaching as adequate for the purposes of a qualification through "certain bodies not universities," but not as adequate for universities. This is not quite complimentary, and we suspect that some at least of the "certain bodies" would not be disposed to admit the implied inferiority of their educational requirements and of the tests which they apply. But in any case, if the views of the professors be adopted, the matter is thereby removed from the purview of the Council, which is only directly concerned with the conditions of the minimal adequate qualification; the higher qualifications, which the Council has every desire to encourage so far as its powers go, being after all in the hands of the licensing bodies themselves. Another issue is raised in the letter of the two professors, who draw a distinction between the subjects of physics and chemistry and that of biology, holding that, whatever may be done with the two former, the latter at least should be taught at a medical school. They point out that a course of elementary biology, such as that laid down by Professor Huxley, does not meet the requirements of the modern medical student, whose concern is chiefly with protozoa and bacteria, a specialization not to be expected in general teaching. The vexed question of the value of a general biological course to the medical student, on which the great biologist Professor Huxley himself expressed a doubt, is too large to be entered upon here. But bacteriology is already separately taught, and we fail to see that a case has been made for dealing with biology in any different manner from the other two preliminary sciences, for whatsoever the elementary training may have been it will obviously have to be supplemented later in connexion with applications to the practical subjects.

With every respect for the opinions of the writers, we fail to see that the arguments which they put forward are at all conclusive upon the practical point which the Council has to consider—namely, whether secondary schools should be recognized as affording adequate facilities for such a grounding in

the preliminary sciences as can be expected from each and every candidate for a medical qualification. It is manifestly impossible that in the space of a year he can become a fully-equipped physicist, chemist, or biologist, far less all three; and though we have consistently advocated the lightening of the curriculum by the elimination of mere academic knowledge, and by the direction of studies towards their ultimate useful applications, yet it cannot be denied that at the outset much of the teaching must be upon lines common to all beginners, and it is hardly possible in the first year to get beyond this. It must also be remembered that the Council does already recognize certain institutions other than medical schools, so that the practical issue is not between medical schools and other institutions which teach science, but is purely whether secondary schools are proper places to be included amongst those outside institutions now recognized as adequate for the purpose.

## COLON BACILLI IN WATER.

The much discussed question of the value of *Bacillus coli* as an indicator of the contamination of drinking water has been raised anew by Gaertner,[1] and his opinions, although opposed to those of most English and American authorities, are worthy of serious consideration. In a lengthy review he has submitted past work and present methods to a critical examination, and his criticism is in the main adverse. Most of the objections which he has to offer, however, are not new; they have already been indicated by bacteriologists in this country. The initial and fundamental difficulty in water examination based upon the presence of *Bacillus coli* is that it is impossible to give a precise definition of this organism. In reality the name does not apply to one particular bacillus but to a whole group, the limits of which are still undefined. With the limited number of diagnostic tests employed by some a very diverse group is included, and even the most exact of modern methods leave a wide range. Such a method is that elaborated by Houston, and extensively practised in this country. To identify *coli* organisms he employs what he terms the "quintuple preferential test." This includes the production of fluorescence on neutral red, the fermentation of lactose with gas production, the formation of indol in peptone water, and the clotting of milk. In addition saccharose is employed as a differentiating agent, such organisms as ferment this sugar being termed "typical *coli*," while those which do not touch it are regarded as "especially typical *coli*."

It has, however, been shown, for instance by MacConkey, that these tests really distinguish groups. By the introduction of a few more differential sugar reactions, these groups can be split into a large number of distinct varieties, which in their turn may be smaller composites. It is extremely difficult to determine where this splitting-up process is to stop and if one reagent is used as a test there is apparently no reason why an almost endless number of reagents should not be used. The introduction of each new test doubles the number of possible varieties. Thus on MacConkey's system the use of seven differential media affords a possibility of 128 varieties; and the introduction of two additional tests would raise the number of possible varieties to 512. It is interesting to note, however, that in his large number of examinations MacConkey isolated only a little more than a quarter of the possible varieties. This fact affords some hope that there is a reasonably small number of actual varieties, and that in the course of time they will be readily and accurately distinguished by the use of suitable media.

Houston's terms, "typical *coli*" and "especially typical *coli*," may be somewhat misleading, for they seem to imply that organisms satisfying the particular tests are peculiarly indicative of contamination from human sources. Such is certainly not the case, and this constitutes Gaertner's second objection to the method. Here we may refer again to MacConkey's results, which show that organisms of Houston's two classes are about equally frequent in human faeces, and that neither is characteristic, for they both occur quite as frequently in the faeces of various other animals. *Bacillus coli*, or its varieties, cannot, therefore, serve to indicate human pollution. Further, it is equally impossible to distinguish *coli* organisms derived from cold-blooded animals, such as fishes. Eijkmann's method of incubating at 46° C. has been shown to be unreliable, for quite a number of colon organisms from fishes grow well at this temperature.

Gaertner's third objection is that colon organisms can remain alive in water for several months, and their presence, therefore, need not indicate recent contamination. This objection, however, is inappropriate, for typhoid and cholera can also remain alive in water for a length of time.

His next criticism has reference to the method of estimating the number of bacteria present in a water sample. The usual procedure is to incubate quantities of the sample from 0.01 c.cm. to 100 c.cm. in suitable media, such as peptone water containing glucose, neutral red, and bile salt. *Bacillus coli* shows its presence by the production of gas and fluorescence. The smallest quantity in which this occurs affords an index to the degree of contamination. According to Gaertner, however, quantities under 1 c.cm. leave too much to chance; there is no guarantee that the bacteria are equally distributed. Again, if quantities such as 0.1 c.cm., 1 c.cm., 10 c.cm., etc., are used, there is no indication whether one organism or nine are present. Thus if the tube containing 0.1 c.cm. is positive while that containing 0 01 c.cm. is negative, there may be any number from one to nine organisms present in the former, and therefore anything from 10,000 to 90,000 in a litre. This objection is reasonable, but Gaertner ignores the fact that it has already been met by the introduction of intermediate quantities, whereby the limit of error is considerably reduced. In calculations based on the larger quantities—that is, over 100 c.cm.—various discrepancies arise, and his view is that the method is only reliable between 1 c.cm. and 10 c.cm. As he himself admits, however, the accurate determination of the number of colon organisms present is not essential; an approximation, on a practical scale, is all that is attempted or desired. A large number of colon bacilli points to a recent direct or indirect contamination with faecal matter, and as amongst those cholera or typhoid may occur, the danger may be regarded as proportional to the number of *coli*, in so far as they are of human origin—a point which cannot be decided without further evidence. In the absence of a knowledge of the local circumstances and the previous condition of the water the examination for colon organisms is of importance only in determining whether the water is for the moment contaminated or not. Gaertner emphasizes the necessity for a thorough investigation of the source and history of the water under

[1] *Zeitschr. f. Hygiene und Infektionskrankh.*, lxxvi (1910), pp. 55–111.

examination, and considers this of greater importance than the laboratory diagnosis. He thus goes back to the doctrine long maintained in this country by practical sanitarians.

In a review of the conditions to which attention should chiefly be directed, he for the most part lays stress on details concerning the origin of the colon bacilli, whether from sewage or other human source or from cattle, cultivated lands, and so forth. He remarks on the much greater expense entailed by such an investigation, but at the same time he considers that the results are more than proportionately valuable.

Whether his criticisms are in every case just or accurate, we cannot but admit that Gaertner has done considerable service in collating an extensive mass of work bearing on a highly important matter. It is in the public interest that the water supply should be of the most unimpeachable character, and it is the duty of the sanitary authorities to ensure the highest attainable standard. To this end a thoroughly reliable method of examination is essential, and we can hardly yet congratulate ourselves that such a method is in use.

## PARATYPHOID FEVER.

IN a letter published elsewhere in this issue Colonel Firth, R.A.M.C., Sanitary Officer on the Head Quarter Staff of the Army in India, calls attention to the existing confusion of ideas as to the meaning of the term "paratyphoid fever," and points out the desirability of having a precise and clean-cut definition which will be generally accepted. The introduction of the term "paratyphoid fever" is due to Schottmüller; in 1900–1 he isolated from the blood of a number of patients, whose clinical symptoms resembled those of enteric fever, two bacilli, which he named *B. paratyphosus* A and B respectively. According to his view, paratyphoid fever is a disease presenting the clinical picture of enteric fever, but associated with the presence of one or other of these two bacilli. This definition rests on both clinical and bacteriological grounds, and has been accepted by British writers. They regard paratyphoid fever as quite different from the condition known as "food poisoning," which is caused by *B. suipestifer* or *B. enteritidis* (Gaertner)—two organisms allied to, but not identical with, *B. paratyphosus* B. During the last few years, however, Schottmüller's description of paratyphoid fever has been completely ignored by many Continental writers. For the most part, they describe as paratyphoid fever all cases of infection, whatever their clinical symptoms and course, in which are found bacilli of the "hog cholera" group, whether they be *B. paratyphosus* B, *B. suipestifer*, or even *B. enteritidis* (Gaertner). Briefly, English writers recognize two diseases—namely, paratyphoid fever and "food poisoning"; most Continental writers draw no such distinction. As a result of these divergent views many conflicting and misleading statements have found their way into the literature of this subject. The general tendency of recent work is to show that paratyphoid fever is a definite entity as distinct from "food poisoning." In the first place, it appears that *B. paratyphosus* A and B, when identified by adequate tests, are almost invariably confined to the human alimentary canal; they do not occur in the lower animals or in food. Secondly, evidence is gradually accumulating that carriers play a considerable part in the causation of infection by these two bacilli. A number of persistent carriers of *B. paratyphosus* B have now been discovered in Europe and America, and in their distribution as regards sex, in the frequent coexistence of biliary disorders, and in the presence of agglutinins in their serum, these carriers present a close analogy with typhoid carriers. Similar evidence of a less complete kind has been obtained in India in the case of *B. paratyphosus* A. Infections by these bacilli thus resemble enteric fever in both their clinical and their epidemiological features. They are clearly marked off from the cases of acute gastro-enteritis known as "food poisoning," which are brief in duration, often epidemic, and usually result from the consumption of infected meat; they are, moreover, almost invariably caused by *B. suipestifer* or *B. enteritidis* (Gaertner), organisms which are frequently found in the alimentary canal of the lower animals, but are very rarely present in healthy men. It is true that anomalous cases of acute infection caused by *B. paratyphosus* B, or of prolonged pyrexia caused by *B. suipestifer* or *B. enteritidis* (Gaertner), occasionally occur, but they are too infrequent to be of any practical importance. The time seems to have come, therefore, for accepting fully Schottmüller's definition of paratyphoid fever—namely, that it is a disease clinically resembling enteric fever, but associated with the presence of *B. paratyphosus* A or B in the blood or excreta of the patients; and it is desirable to place cases of acute gastro-enteritis ("food poisoning") in a different category.

## QUACKERY IN THE "TATLER."

IN one of the best of his *Tatlers*[1] Sir Richard Steele, writing under the pseudonym of "Isaac Bickerstaff," has something to say about the quacks of the early part of the eighteenth century. "I do not remember," he remarks, "that in any of my lucubrations I have touched upon that useful science of Physic, notwithstanding I have declared myself more than once a professor of it." He had also studied astronomy, for he had never known a physician recommend himself to the public who had not a sister art to embellish his knowledge in medicine; and there was the best of warrants for this, for had not Apollo himself been god of Verse as well as of Physic. "Poetry to Physic is indeed like the gilding to a pill; it makes the art shine, and covers the severity of the Doctor with the agreeableness of the companion." The quacks, therefore, will not be behind the regular practitioners of the healing art; they are thoroughly sensible how necessary it is to support themselves by these collateral assistances, and always lay their claims to some supernumerary accomplishments which are wholly foreign to their profession. Some instances are given. "About twenty years ago it was impossible to walk the streets without having an advertisement thrust into your hand, of a Doctor 'who was arrived at the knowledge of the Green and Red Dragon, and had discovered the Female Fern-seed' nobody ever knew what this meant, but the Green and Red Dragon so amused the people that the Doctor lived very comfortably upon them." Then there was that mysterious, if not very comforting, word "Tetrachymagogon," which, pasted upon every corner of the streets, led many who were sick to have recourse to that learned man for their physician. One quack recommended himself to his clients on account of the fact that he "had studied thirty years by candle light for the good of his countrymen." We wonder what he would have said to the Daylight Saving Bill of these times. "There are some," continues the writer, "who have gained themselves great reputation for physic by their birth, as the Seventh son of a seventh

[1] *The Tatler: or, Lucubrations of Isaac Bickerstaff, Esq.* Vol. iv. No. 240, October 21st, 1710.

son; and others by not being born at all, as the Unborn Doctor, who, I hear, is lately gone the way of his patients." It must, of course, be an agreeable thing to have a tooth drawn by one who has exercised the same kindly office for a king or an emperor, and the quacks are not found wanting here. "I believe I have seen twenty Mountebanks that have given Physic to the Czar of Muscovey" is the reflection of the writer. But Steele had himself been practising the arts of the quack, for in his thirty-fourth *Tatler*[2] he had said: "Having taken upon me to cure all the distempers which proceed from affections of the mind, I have laboured, since I first kept this public stage, to do all the good I could, and have perfected many cures at my own lodgings." Specially wonderful had been the effects of a liquor, "which I call Bickerstaff's Circumspection-water," which had cured "fine Mrs. Spy of a great imperfection in her eyes, which made her eternally rolling them from one coxcomb to another in public places, that it at once lessened her own power, and her beholders' vanity . . . she now looks right forward." It is to be recommended for "a Bride in her first month, a Lady soon after her husband's being knighted, or any person of either sex who has lately obtained any new fortune or preferment." A witching water, indeed, worthy Isaac, not unwelcome even in twentieth century days!

## THE PENZANCE BOARD OF GUARDIANS.

THOSE endeavouring to defend boards of guardians against the perils to their existence imported by the Minority Report of the Poor Law Commission are scarcely likely to thank the Penzance Board of Guardians, which is at present busily engaged in providing ammunition for the foe. The fashion in which it exercised its power of selecting a medical man to fill the No. 5 District of the union some weeks ago was well calculated to create surprise, and for certain reasons it seemed to us highly probable that the Local Government Board would refuse to confirm the appointment then made. We expressed this anticipation in a note on the subject in our issue for May 13th, and the proceedings at a meeting of the guardians on May 25th show that we were right. It was then reported that the Local Government Board had reaffirmed a refusal to sanction the appointment, and the guardians had thus to consider, much against their will, what step they should next take. It was moved that they should appoint at their next meeting the original holder of the post, as he and the medical man whose appointment the Local Government Board refused to sanction were the only candidates their advertisement had produced. Further expenditure in advertising, it was pointed out, was useless, for the medical men of the district would prove men of honour in keeping to the terms of the agreement among themselves. Nevertheless, it was decided by a majority to advertise the post again, and meantime to engage the temporary services of a medical man in the town to carry on the work. It will thus be seen that the Penzance Board of Guardians seems disposed to add to the number of like bodies which have indulged in fruitless contests with the medical profession. Usually it is the ratepayers who are the chief sufferers; but in this particular instance the poor may suffer likewise, for there is reason to anticipate that the board will be unable to persuade any medical man to act as locumtenent. But in any case the contest will do boards of guardians no good, since it can only tend to foster the belief that it is personal prejudice rather than public spirit that influences them. Moreover, the prejudice in this particular case may well be deemed of a specially petty kind, for the original holder of the post is a man of proved merit, and the objections to reappointing him raised by certain guardians spring solely from the fact that he vacated the appointment as a protest against the smallness of the salary that was being paid. In this protest he was supported by the medical profession, and there is no doubt that it was well founded. The view that the Penzance guardians were paying inadequate salaries was also held by the Local Government Board, and has since been adopted by the guardians themselves. Hence, those who desire to see present systems of administering Poor Law relief amended, will regard the spirit shown by this board of guardians with much regret. On the other hand, we have to congratulate the local medical profession. It has made no exaggerated claims, has put forward its contentions in a becoming fashion, and shown perfect *esprit de corps*. In the long run its wishes are bound to prevail, for it has long since been proved that when the medical profession in any district is united, the position of any medical man who accepts an appointment in opposition to it soon proves untenable. Indeed, it is rarely now that medical men of a desirable kind allow themselves to be induced to intervene in these contests as opponents of local men.

[2] *The Tatler*, vol. i, No. 34, June 28th, 1709.

## OPEN-AIR SCHOOLS.

SOME years ago an inquiry into the health of the children attending the elementary schools of Berlin showed that 7 per cent. of them were dull and backward, and that of these half showed signs of malnutrition from various causes. The outcome of this inquiry was the establishment of an open-air recovery school in 1904. Since that date similar schools have been opened not only in Germany but in various towns in England. The report of the second year's work of such a school which is maintained by the City of Sheffield Education Committee has lately reached us. In 1910 the number of children recommended by the medical officers of the different Sheffield schools, and by others concerned, was 170, but of these the chief school medical officer, Dr. Ralph P. Williams, was able to admit only 116. Of these 62, suffered from anaemia and malnutrition, 29 from tuberculosis in one form or another, 17 from oral sepsis, a like number from bronchitis, and 12 from lateral curvature. Some other diseases were represented by a very few cases of each. Most of the children improved during the summer months, in which only was the school open; it seems indeed a pity that treatment cannot be continued all the year round, for many of the patients must surely relapse in the winter for want of good food and surroundings. It is worthy of remark that nearly all the children were examined by the dental surgeon, who performed 90 extractions and filled 28 teeth. An important part of the treatment was the two hours' rest in the open air, which was taken lying in deck chairs with the feet raised. In the educational work, prominence was given to personal hygiene and to nature study; special attention was given to physical exercises, to which Dr. Williams attributes a great deal of the improvement which took place. At the end of October, when the school was closed, 44 children were noted as cured, 51 as improved, and 3 as in the same condition as when admitted. Dr. Williams rightly lays more stress on the value of the school as a prophylactic than as a means of cure, for the cases of malnutrition are just those which are likely to become tuberculous. The London County Council has no school similar to this, although, as is well known, it maintains thirty-eight schools for crippled children and three summer open-air schools. It also provides teachers for two hospitals and for an

open-air school for tuberculous children at Kensal Rise, which is carried on by the Paddington Dispensary, largely with a view to training the children to make the best of their home life in a hygienic sense. It seems a pity that more has not been done in London in the direction of open-air recovery schools. Probably the difficulty of transport which has been felt in Sheffield is still greater in this huge county of houses, and too much time would be occupied in taking the patients from the central districts to places where fresh air and, above all, sunshine are plentiful.

## PENETRATING WOUNDS OF THE PREGNANT UTERUS.

A RECENT discussion at a meeting of the Obstetrical Society of Paris, relative to the case of a woman who stabbed herself during pregnancy,[1] turned attention to a fact perhaps not generally recognized. MM. Tissier and Bar noted, as Puech had already demonstrated after careful research, that penetrating wounds of the uterus are relatively not highly dangerous, since the uterus is retractile and its contents aseptic. The general surgeon knows full well that the great danger from penetrating wounds of the abdomen is sepsis from wounded intestine; hence when it is also shown by experience that haemorrhage is not always severe in wounds of the uterus, it is not difficult to understand the significance of Puech's conclusions. The instance on which the discussion was based was reported by MM. Boissard and Chénier. The patient, whose pregnancy had reached term, attempted suicide by stabbing herself in the abdomen. Chénier found that the wound was on the outer border of the right rectus muscle; it was bleeding but little. There was prolapse of the omentum. The latter was resected, the parietal wound enlarged, and the abdominal cavity laid open. There was an incised wound about an inch long on the anterior surface of the uterus; its edges were not everted. Chénier closed it by suture, and then applied a continuous suture to the serous coat. The child was living and was delivered spontaneously five hours after the operation. It bore a wound on the gluteal region. At its birth it was in a state of suspended animation, and it died notwithstanding systematic efforts to revive it. Dr. Chénier justified his course of action on the ground that the patient was suffering from much moral and physical shock, so that Caesarean section appeared dangerous. MM. Bar, Brindeau, and Boissard insisted that in the case of a penetrating wound of the uterus late in pregnancy it is really safer to perform Caesarean section at once, as the surgeon could hardly make sure that the sutures applied to close a uterine wound would not yield during labour, nor could he feel certain that the child might not be badly wounded, endangering the mother as well as itself. In these days when, as Dr. Amand Routh and others have shown, Caesarean section is, thanks to aseptic technique, an operation which on the whole entails less risk than more conservative proceedings, the general surgeon must, we believe, give a verdict in its favour in respect to stabs of the gravid uterus.

## PUBERTY AND THE NEURO-PSYCHIC SYSTEM.

OF all subjects under the sun none is more important, more secret, and looked at more askance as matter for public discussion than that of the sexual life. It is true that of late years the world has grown more tolerant in this respect; but the fact remains, as Dr. Putnam, in his introduction to Dr. Brill's translation of Freud's famous Three Essays[2] points out, that studies of sexual life are unpopular. Probably, also, Dr. Putnam is right in saying that critics fret over the amount of sexuality that the Viennese professor finds in the histories of his patients, and assume that he has put it there. It is, indeed, only natural, when he finds that infantile thumb-sucking or toe-sucking is a manifestation of infantile sexualty, when it is suggested that childish muscular activity has an erotic basis, and that even youthful mental occupation is a source of sexual excitement, that the average man should feel some scepticism. Closer examination shows that the disparity of feeling between Professor Freud and his critics proceeds from a fundamental difference in their points of view. For Professor Freud's critics, as, indeed, for most people, evidences of sexual activity prior to puberty are regarded as unnatural and as in all probability the precursors of perversion; whereas one of the many services rendered by the psycho-analytic method associated with Professor Freud's name is that it has demonstrated that sexual manifestations in infants are normal, and that the proper development of sexuality from birth onwards to puberty is indispensable for the culminating functions of sexual maturity. Once Professor Freud's point of view is adopted, the facts fall into their proper place as matter deserving of careful study. The three essays are entitled "The Sexual Aberrations," "Infantile Sexuality," and "The Transformation of Puberty." Professor Freud's views as to the dependence of the neuroses upon aberrations of the sexual life and the parts which "repression" of the libido and its "conversion" or deflection into other somatic outlets are widely known and have been already stated in our review of his *Selected Papers on Hysteria*[3] and elsewhere, but we may perhaps recall his statement that "with a normal *vita sexualis* no neurosis is possible" and "the symptoms are the sexual activities of the patient." Each of Professor Freud's works is supplementary to the others, and is to that extent indispensable for a just appreciation of his theory. In the first of these three essays the primary step in his argument is that in no normal person at some time in his development does the normal sexual aim lack some "perverse" element. The "perversity" consists on the one hand on the extent of the departure of this element from the mean, and on the other hand in the dwelling upon one of these elements and the arrest of the individual upon what should be a subsidiary stage of his sexual development. In hysteria, Professor Freud maintains that there is an instinctive turning away from intellectual considerations of the sexual problem; there is great desire and exaggerated rejection. It is necessary to emphasize this point because a large part of the opposition Professor Freud's assertions have encountered has been due to the idea that he teaches that the psychoneurotic symptoms are coincident with the normal sexual impulse. This is not the case, and in the present essay he contends that the symptoms are not the result only of the so-called normal impulse, but represent "the converted expression of impulses which in a broader sense might be designated as perverse if they could manifest themselves directly in phantasies and acts without deviating from consciousness." The symptoms are therefore partially formed at the cost of abnormal sexuality and "the neurosis is, so to say, the negative of the perversion." For the

[1] Plaie pénétrante de l'abdomen ayant intéressé l'utérus gravide suture de l'utérus. *Annales de gynéc.*, April 1911, p. 231.

[2] *Three Contributions to the Sexual Theory.* By Professor Sigmund Freud, LL.D., Vienna. Authorized translation by A. A Brill, Ph.B., M.D., of Columbia University, U.S.A.; with introduction by J. J. Putnam, M D. Neuroses and Mental Disease Monograph Series, No. 7. New York: Journal of Nervous and Mental Diseases Publishing Company. 1910. (Pp. 91. $2.00.)

[3] *Selected Papers on Hysteria and other Psychoneuroses.* By Professor Freud. 1909.

manner in which Professor Freud reveals, with much penetration, the interplay of conflicting tendencies in the production of neurotic symptoms, we must refer readers to his works, as also for the arguments advanced to establish the validity of his theory. That the practice of a psycho-analytical method which, to quote Dr. Putnam, urges the patients into "an inexorable scrutiny of the unconscious regions of their memories and thoughts"—and this, be it remembered, with particular reference to their sexual life—should be confined to few, is only natural and fitting. That the method also puts the medical practitioner behind the confessional cannot be doubted. Nevertheless, the results that have so far accrued from its practice in the hands of only a few are considerable. In particular, the work inaugurated by Professor Freud in the obscure field of infantile sexual manifestations, and the great transformation of puberty, and his demonstration of the parts played by repression and "sublimation," through which the powerful excitations from individual sources of sexuality are discharged and utilized in other and higher spheres, seem likely to prove of the highest value to pedagogy and in the earliest training and nurture of the child. Certainly no one can read these essays without an inward acknowledgement of their author's acumen, courage, and endless patience in the pursuit of truth; nor, having read them, fail to realize more clearly the need for fuller knowledge and more careful guidance of the gradual unfolding of the sexual life.

## CRAFT SCHOOLS FOR YOUNG CRIPPLES.

A STRIKING proof of the splendid work done by the Guild of the Brave Poor Things and its widespread and varied charities was afforded by a charming exhibition and sale of needlework and woodwork made by the pupils of the Heritage Craft Schools for Crippled Boys and Girls at Chailey, Sussex, which was held on May 15th and 16 h at South Lodge, Rutland Gate, lent by Lord and Lady Llangattock. These schools were founded for the purpose of providing crippled children with a means of gaining their own livelihood; and the success of the enterprise has been amply proved by the specimens of exquisite needlework, the carvings, toys, and different specimens of the oak furniture for which the boys at Heritage schools are famous, on view at the various stalls. Mrs. C. W. Kimmins, the founder and honorary secretary of the schools, spoke most warmly of the generous response which has been made to the appeal issued by Princess Louise Duchess of Argyll, the chief patroness of the guild, on behalf of funds for new school buildings for the boys, and added that the next development at Chailey would take the form of a residential trade school for the girls, where those who were unfit for life in an ordinary London workroom could remain in an independent position at the Heritage, and earn a living without detriment to their health. The foundation of such an establishment would be a fitting completion of this most excellent charity, whose merits were touchingly displayed by the bright faces of a handful of Heritage children who were to be seen assisting at the sale of their own handiwork. The appearance and bearing of these little sufferers showed, even more plainly than did the results of their toil, the salutary effects of this labour of love. In connexion with the appeal made by the Duchess of Argyll, a special meeting was held on May 26th in the Jehangier Hall of the University of London, for the discussion of the medical side of the work which is being carried on at Chailey. The chairman, Sir Thomas Barlow, described a visit which he had paid to the Heritage schools, and spoke with cordial admiration of the care lavished upon the little inmates, and the atmosphere of freedom and affection which surrounded them, which constituted one of the most pleasing features of the establishment. But much still remained to be done if the children were to derive the full benefit from their training. New workshops for the boys were imperative, and it was also of the utmost importance that proper provision should be made for keeping cases of doubtful illness in quarantine. A considerable sum had already been subscribed for the former purpose. During the meeting Mrs. Kimmins announced that she had just received a telegram from an anonymous subscriber who offered to contribute £1,000 towards the observation and isolation block. She added that a similar sum would enable them to build the much-needed hospital school of recovery, where children of either sex could be kept under medical treatment before entering the Craft Schools, whilst £500 was required for its equipment, and another £500 would suffice for the erection of the combined Cottage Laundry and Country Holiday Home. The meeting, which was largely attended, was also addressed by Sir William Collins, Dr. Russell Wells, and others.

## THE VIRTUES OF ALOES—AND OF POTATO FLOUR.

ELSEWHERE in this issue are published the results of the examination of a number of proprietary medicines for constipation and indigestion, including several old-established so-called "family medicines." It might be supposed that here, if anywhere, the "patent medicine" would justify its existence; that for the treatment of so common a disorder as constipation a few drugs might be found to suit the vast majority of people, and that medicines which have been made in the same way and taken for generations must have genuine merit. It may be at once conceded that there is a certain amount of support for such a view; the analyses show that all the old-established pills dealt with, and some of those recently introduced, contain aloes, usually in combination with one or more of the drugs colocynth, jalap, and rhubarb, and occasionally with a carminative, such as oil of peppermint. Such pills will certainly act on the bowels, and to that extent, at least, they will fulfil the promises held out by the makers; but this is a somewhat slender basis on which to attempt to justify the way in which they are advertised and recommended. Some of the extracts from advertisements given in the report show that excessive claims are made in nearly every case, while in some a pretty high degree of ignorance is shown, as when it is proposed to treat the majority of diseases by a "system of medicine" consisting of one pill and one ointment. But it is possible to suppose that even the worst of these older nostrums was genuinely believed in by its maker, whereas it is more difficult to extend this charitable theory to some of those of recent introduction. The report in question includes one nostrum for which the most absurd claims are made; this precious substance is said to be composed of the active principles of rare herbs growing on the Himalaya mountains, not even the names of which are known to Western science, and it is pretended that it has the magical property, when swallowed, of seeking out any organ or portion of the body which is in an unhealthy state and proceeding to cure it. The cold fact disclosed by analysis is that this powder is simply potato flour, and it is evident therefore that if the persons putting it forward themselves believe what they say about it they must be of a very credulous disposition. No doubt at the price of 2s. 9d. for about an ounce, divided into twenty powders, it is a highly remunerative article of trade to the vendors.

## AIR SICKNESS.

MR. BALFOUR, after his flight with Mr. Grahame White the other day, confessed that a prolongation of the experience might have had unpleasant results. Air sickness is one of the transient disorders which accompany many of the applications of scientific discovery to ordinary life. It has been carefully studied by Drs. René Cruchet and Moulinier, who took advantage of the opportunity offered by the "aviation week" at Bordeaux (September 11th to 18th, 1910) to interrogate the chief airmen who took part in the proceedings and to measure their blood pressure before and after several of their flights. At a meeting of the Paris Académie des Sciences on April 24th they presented a report of the results of their observations, an account of which has recently appeared in *Paris Médical*. During the ascent the symptoms noted are dyspnoea, tachycardia, slight malaise, some difficulty in hearing with buzzing in the ears, headache, and urgent desire to pass water; moreover, the cold soon becomes unbearable. These various phenomena recall those of mountain sickness, but they are observed at a much less altitude, showing themselves at a height of 700 to 800 metres, and in beginners even at 400 to 500 metres. During the descent the tachycardia, palpitations, difficulty of breathing, buzzing and whistling in the ears, and the desire to empty the bladder, increase the nearer the airman approaches the earth; but the principal symptoms are headache, a sensation of burning and smarting all over the face, which is congested, and a tendency to sleep which now and again compels the airman to close his eyes notwithstanding the utmost his efforts to keep awake. On landing, the buzzing and whistling in the ears, the headache and the sleepiness increase still more; in addition there is giddiness, numbness, and muscular slackness with cyanosis of the extremities. The pulse is more rapid than at the start, and the blood pressure is increased. The variations in blood pressure seem to MM. René Cruchet and Moulinier to be explicable by the fact that in a person who has come down to earth in four, five, or seven minutes after reaching a height of 1,000, 2,000, or 3,000 metres in twenty, thirty, or forty minutes, there is no time for the circulatory system to adapt itself to the varying barometric pressures—equivalent to 520 millimetres of mercury at 3,000 metres, 591 at 2,000 metres, and 760 at 0—which the airman passes through so rapidly. MM. Cruchet and Moulinier were struck by the constancy and degree of these variations of blood pressure. These are particularly marked after rapid ascents and descents from high altitudes, whereas flights at moderate heights do not, in trained subjects, cause the phenomena indicated.

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## SANATORIUMS FOR CONSUMPTIVE CHILDREN.

THE results obtained by sanatorium treatment are steadily accumulating, and definite data, culled from many sources, are now available for the formation of an approximately accurate judgement as to the actual facts. The valuable report recently issued by the Charity Organization Society[1] has shown that, at the present time, the proportion of success, as judged by ability to work, stands at a little over 50 per cent. An investigation on similar lines of the results obtained in the case of consumptive children treated in special sanatoriums, would probably show a higher proportion than this, if we may take as a sample the report recently issued by the authorities of the Holt Sanatorium for Consumptive Children in Norfolk. The record of work done during the last two years is most encouraging. In almost every one of the cases of early disease the progress of the malady has been arrested or an apparent cure has been achieved. Amongst cases of more pronounced tuberculosis of the lung the proportion of improvement or arrest was much higher than in the similar class of cases in adult life. The presence of glandular and joint infection among children has always been recognized, but the incidence of actual tuberculous disease in the lungs is much more frequent than is perhaps even yet generally appreciated. The disease may make insidious progress without such marked disturbance of health as in adult patients, and hence the vast importance of recognizing it and applying rational treatment before it has advanced beyond the limits of curability. The early diagnosis and prompt treatment of consumption in children is indeed one of the chief factors in the crusade against tuberculosis, and if a Government grant is to be made for the provision of sanatoriums in general, the claims of the children's sanatoriums should take precedence of all others. The Holt Sanatorium furnishes an object lesson which has recently been emphasized by the special patronage of Queen Alexandra and by a generous donation from Mr. Otto Beit. A wide extension of the system cannot fail to reduce the number of adult consumptives, and is deserving of special consideration in any scheme of State Insurance.

[1] BRITISH MEDICAL JOURNAL, May 13th, p. 1137.

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## THE BUTLIN DINNER

SOME 170 members have intimated their intention of attending the complimentary dinner to Mr. Butlin on Tuesday, June 13th, at the Connaught Rooms, Kingsway, W.C. Applications for dinner tickets should be made to the Honorary Secretaries, 429, Strand, W.C. A special table will be reserved for any ten diners who may, on or before Thursday, June 8th, signify their desire to sit together.

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THE annual meeting of the Fellows of the College of Surgeons of England for the election of members of council will be held on Thursday, July 6th, at 3 p.m. As Mr. Butlin holds the office of president he will not retire, and thus there are but two vacancies, the other members, who have held their seats on the council for eight years, and who are therefore due to retire, being Mr. Clinton Dent and Mr. G. H. Makins, C.B. Both members, we understand, will seek re-election. Friday, June 9th, is the last day on which the usual forms, duly signed by intending candidates, will be received by the Secretary of the College.

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THE Committee responsible for the organization of the Pathological Museum is anxious to secure the co-operation of the officers of the various sections at the forthcoming Annual Meeting. It will be glad to take charge of, and place in the museum for exhibition, any specimens, casts, photographs, diagrams, or microscopic slides brought forward by those who are reading papers or taking part in the discussions. These exhibits will be available for demonstration by the speakers at the Sectional Meetings. If any members of sections who propose to bring any material will communicate direct with Mr. A. W. Nuthall, F.R.C.S., 89, Cornwall Street, Birmingham, the honorary secretary, or with any of the members of the Executive, it will greatly facilitate the necessary arrangements.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

IT was reported to the Education Committee of the London County Council on May 24th that the reply of the Board of Education had been received to the letter from the Council giving the assurance that all practical steps would be taken to insure that by October, 1911, the scope of the London scheme of medical inspection and treatment would be clearly defined and that substantial progress would have been made towards its efficient working.[1] The Board stated that the assurances contained in the letter satisfied it that serious attention was being given to the defects of working to which attention had been called, and that there was a definite prospect that remedies would be found for such defects as were not yet remedied. The Board accordingly sanctioned the extension of the present arrangements until December 31st, 1911, subject to the following qualification: It was observed that certain modifications had been made in existing arrangements, particularly in the direction of increasing the number of cases at the London and other hospitals. The Council had not supplied the Board with draft agreements or other evidence to show that the hospitals concerned were actually prepared to undertake work on the extended scale suggested, and the sanction given must be subject to the Council furnishing the Board with a definite statement in each case that the contracts between the Council and the hospital were, in fact, agreed upon. The Board of Education also asked for a comprehensive statement showing the number of cases of each type to be received at the several hospitals, the number of clinical assistants, anaesthetists, etc., in respect of whom the Council makes contributions, and the rates of those contributions. The Children's Care Subcommittee has arranged to supply this information to the Board.

*Extensions of the Medical Treatment Scheme.*

In declining an offer made by the governing body of the Western Ophthalmic Hospital, Marylebone Road, to enter into an agreement with the Council for the medical treatment of school children, the Children's Care Subcommittee stated that to serve this area properly two medical treatment centres must be established, and these, with the St. Mary's Hospital, where the Council's scheme was already in operation, would include the district served by the Western Ophthalmic Hospital. An offer by the Home and Infirmary for Sick Children, Lower Sydenham, to cooperate with the Council in the establishment of a school clinic was also declined, the subcommittee stating that arrangements already made, or about to be made, for medical treatment in the district would prove equal to the requirements.

*The Health of School Children.*

In a quarterly report upon the health of London elementary school children the Education Committee referred to the recent epidemic of measles; 508 schools had been under observation, and 18 class-rooms and 13 departments had been closed for varying periods. The unprotected children over 5 years of age were excluded from 413 class-rooms, and the unprotected children under 5 from 226 schools. Four schools had been under observation for diphtheria and 82 for scarlet fever. Eleven school children suffered from small-pox during the spring term. In the same period 903 schools were visited by the school doctors who inspected 131,385 children; of these 48,494, not including dental cases, were found to be suffering from various ailments, 28,826 of these being cases included in the Council's scheme. Of this number treatment was actually provided by the Council for 6,920 cases, "but it must be borne in mind that the Council's facilities did not at present exist in all districts of London. A considerable percentage of the remaining cases obtained treatment independently of the Council's arrangements."

[1] BRITISH MEDICAL JOURNAL, April 8th, p. 836; April 15th, p. 897.

## MANCHESTER AND DISTRICT.

### MANCHESTER HOSTEL FOR MEDICAL STUDENTS.

LISTER HOUSE, the new hostel for senior medical students connected with the Manchester University, is close to the Royal Infirmary. Accommodation is provided for about ten students, and the visitors who went over the premises after the opening ceremony were pleased with the homely and comfortable character of the place. The prime movers in carrying out the scheme have been Mr. G. A. Wright, honorary surgeon of the infirmary, and Dr. Tylecote, together with Mr. Joseph Bell. Sir Edward Donner presided over the opening ceremony, and stated that within a month after the scheme was first formulated and an appeal issued, sufficient money had been promised to justify the committee in making a start. The sum of £540 had been spent in alterations and improvements to the building, and there was no deficit to meet, though the committee would especially be glad to receive gifts of books and pictures, and would be especially glad if some friend would give a piano. In declaring the building open, Dean Welldon alluded to the great advantages that would accrue to the students from living in the hostel. Its proximity to the infirmary would enable the students to take every advantage, and especially enable them to keep in close touch with the emergency work. Mr. G. A. Wright said the hostel was in no way in competition with the existing halls of residence, and only catered for students in their last year of medical work. For the present, Dr. Tylecote is performing the duties of honorary warden of the hostel.

### TRADE IN PENNY DRUGS.

A case that was before the Palatine Chancery Court, Manchester, for several days last week gives an insight into the great demand for "penny drugs." The case was a dispute between two brothers as to the use of the name of a large firm of manufacturing chemists; but it was stated that the chief part of the business of the firm was to supply retail dealers with pills, drugs, powders, and similar articles made up for sale in penny packets. The firm had travellers visiting practically every town within a hundred miles of Manchester, and had between 17,000 and 18,000 shopkeepers as customers; it was said that in recent years the annual turnover had been from £22,000 to £27,000. This may perhaps explain some of the facts given in the last issue of the BRITISH MEDICAL JOURNAL, where it was stated that it is quite a common thing in many towns in Lancashire to find grocers, greengrocers, and other small shopkeepers selling headache powders and pills.

### TUBERCULOUS MILK AT WARRINGTON.

In his annual report the medical officer of health for Warrington states that systematic examination of the milk supply of the town has been carried out during the past year, and has disclosed the very serious extent to which the milk is infected with tubercle germs. It was found that eight farms had been supplying tuberculous milk, and it was estimated that from these farms about 2,600 pints of milk were distributed in the borough daily, and as all the milk on a farm was usually mixed, the whole became infected, though only one cow in the herd was tuberculous. The town council passed a resolution calling on the Government to urge forward the promised legislation enjoining on local authorities uniform and efficient action, and allowing reasonable compensation to owners of cattle for the compulsory slaughter of

animals, and to butchers who voluntarily surrendered tuberculous carcasses. It was reported that the death-rate of the town was the lowest on record, and that there had been a great decrease in the rate of infant mortality.

## WEST RIDING.

### WEST RIDING ABERDEEN UNIVERSITY GRADUATES' SOCIETY.

THIS society, which is in a flourishing condition, held its tenth annual dinner at the Midland Hotel, Bradford, on May 16th. This annual dinner, which is the main manifestation of the existence of the society, though it is not the only one, is held in alternate years in Leeds and in Bradford. The gathering on this occasion was anticipated with unusual pleasure when it was learnt that Principal George Adam Smith, D.D., had accepted the invitation of the committee to be the chief guest of the evening. During the few years he has occupied the position of Principal, Dr. George Adam Smith has done excellent work for the university, and has won golden opinions from all with whom he has come in contact. Every one who knows anything of the work of the Principal or Vice-Chancellor of a Scottish university will understand that when this can be said with truth of a man it means that he possesses many varied qualities, among which must be enumerated not only learning and knowledge, but strength, tact, and courtesy.

In responding to the toast of the University, which was proposed in a speech of great eloquence by the Rev. Archibald Duff, D.D., LL.D., the Principal gave a most interesting account of the various activities of the university during the last twelve months, touching on the new medical ordinances and making some reference to the suggestion of the Treasury that in the Scottish universities there should be, as one of the conditions of an augmented grant, the introduction of a new scheme of fees which would secure that in each faculty an inclusive fee should admit to attendance at all the lectures and courses of study in that faculty, and further that the sum decided upon should be uniform for the various Scottish universities. The Principal was particularly careful not to express his own views on the main question, but he made it clear that the advice, or rather, the condition laid down, had emanated not from a body specially appointed to report on the question after full and exhaustive investigation and the examination of witnesses, but from a body of men who might or might not be fully acquainted with the true requirements of the situation, and he assured the meeting that the university would strenuously oppose anything in the way of conditions which would interfere with that freedom in conducting its teaching in its own way which had been so conducive to its success in the past. In that part of the Principal's speech which dealt with less academic and more personal matters he was particularly happy. A later speaker struck a true note when he said that the Principal was not the possession only of the present undergraduates and recent graduates of the university, but of all who had been connected with the university in former years; he was not merely the Principal but our Principal.

The gathering, which was a large one, was again gratified by the presence of Professor Stephenson, who was concerned in the initiation of the society and who has not missed being present on any one of these annual gatherings. There is no doubt that his genial presence and kindly encouragement has done much to secure the success of the association.

The dinner was admirably presided over by Dr. J. Hambley Rowe, who for nine years acted as secretary, and whose strenuous labours all must appreciate.

The number of guests was greater than usual and included Dr. Forsyth of Leeds, who represented the Glasgow kindred association, and many others. Those graduates of the University of Aberdeen who are resident in the West Riding of Yorkshire look with some pride to the success which has attended the formation of their association and with cordial sympathy to the similar success which has waited on the more recent kindred societies of the universities of Glasgow and Edinburgh.

## BIRMINGHAM.

### THE MEDICAL BENEVOLENT SOCIETY.

THE annual report for the year 1910 is the eighty-ninth since the foundation of the society in 1821, and it shows that the good work of granting relief to those who are in need of assistance has been accomplished as usual in a quiet and unostentatious manner. All duly qualified medical practitioners residing within fifty miles of Birmingham may become members, and if afterwards they should reside outside this area they do not forfeit their membership by so doing. The funds of the society now amount to over £16,000, and during last year £100 was invested. The income for 1910 was £845, made up as follows: Interest on investments, £534; subscriptions, £232; and donations, £79. Among the donations was one of £50 from Sir Thomas Chavasse and £10 10s. from the Medical Insurance Committee of the British Medical Association. Twenty five annuitants, who were chiefly the widows and children of medical men, but in three cases medical men themselves, received help from the society during the year, the value of the grants ranging from £36 to £18. The sum expended on grants and donations in 1910 was £706. The total number of benefit members was 386, and during the year 7 members died, 5 left from various causes, and 8 new members were elected.

At the annual meeting, which was held at the Midland Hotel, Birmingham, on May 19th, Sir Robert Simon presided. The officers elected for the forthcoming year were: President, Mr. W. F. Haslam; Ex-President, Sir Robert Simon; President-elect, Dr. Langley Browne; Vice-Presidents, Dr. T. E. Underhill and Mr. H. Eales; Treasurers, Mr. F. Marsh and Mr. W. F. Haslam; Auditor, Dr. Stacey Wilson; and Honorary Secretary, Dr. Sawyer. Four vacancies in the Court of Directors were filled up by the election of Dr. Agar, Sir Thomas Chavasse, Sir James Sawyer, and Dr. A. S. Underhill.

A vote of condolence was passed with the relatives of the late Dr. E. B. Whitcombe, Professor of Mental Diseases in the University of Birmingham and Medical Superintendent of the Birmingham City Asylum at Winson Green. He had been for many years a Director of the society and in 1907–8 its President. He was one of the most loyal and staunchest friends the society ever had, and among his fellow professional men and among the public generally was most highly respected and honoured.

# Ireland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

### UI BREASAIL.

THIS great health and industries exhibition, reference to which has previously been made in these columns, was opened on May 24th by Lady Aberdeen, and has attracted large numbers of the public. The industrial part consists of exhibits of Irish manufactures and products. The health section is divided into three main subsections. The first, under the charge of Professor W. H. Thompson, is designed to exhibit the nutritive value of the various common foodstuffs. It is illustrated by numerous diagrams, and demonstrations of cooking are given. The second subsection, under the superintendence of the Women's National Health Association, contains exhibits illustrating the proper means of caring for the teeth, methods of disinfection, and methods of pasteurizing milk. Many other rules and principles of hygienic living are illustrated in this subsection. The third subsection consists of a series of exhibits collected by the Nurses' Social Union, illustrating in a striking and somewhat sensational manner some of the dangers to which young children are likely to be

exposed through ignorance or negligence on the part of mothers or nurses. On the whole, the health exhibition strikes us as only moderately good, but perhaps its very limitations will render it all the more useful to those for whom it is mainly intended by calling attention to a few important matters without too much detail. Lectures have been given daily during the period of the exhibition on various sanitary and hygienic subjects. Another large section consists of the town planning exhibit, which was arranged some time ago in London by the Royal Institute of British Architects. It contains a large number of engravings, maps, plans, and models of ancient and modern town planning. The exhibition will close on June 7th.

### DUBLIN SANATORIUM FOR CONSUMPTION.

As reported at the time, the Governors of the Royal Hospital for Incurables, Dublin, decided some months ago, at a general meeting, to increase the accommodation of the hospital for advanced tuberculous cases by building a large pavilion in the hospital grounds capable of housing one hundred patients. The appeal for funds has not yet produced the requisite sum, and opposition to the scheme has been growing; some residents in the vicinity of the hospital have appealed to the Royal College of Physicians, which has passed the following resolution:

> That in the opinion of this College any hospital for patients suffering from advanced tuberculosis should be in the open country, well removed from town or village. The President and Fellows, therefore, consider that the proposal to erect a hospital for advanced cases of tuberculosis in the grounds of the Hospital for Incurables, surrounded as these grounds are by terraces and public institutions, would constitute a danger to the health of those dwelling in the neighbourhood, and, furthermore, would be against the best interests of the unfortunate subjects of the disease who would be admitted there.

In view of this strong expression of opinion, the governors of the hospital will no doubt reconsider their position. Their present attitude is that the objections raised against the scheme need not be considered, inasmuch as the scheme only consists of an extension of the work which has been carried on in the hospital for over a century without complaint.

### THE HOUSING QUESTION IN DUBLIN.

The subject of the housing of the poor has lately attracted much attention in Dublin, which, like most other ancient cities, is full of "slums." Recently a special "Housing Committee" of the Dublin Corporation was appointed. Much, however, is to be said in favour of the suggestion that a Viceregal Commission should be appointed to investigate the whole problem. Such a commission would have the advantage of being entirely independent, and the public attention necessarily excited by the holding of such an investigation would, it is thought, probably produce immediate results in the way of betterment of existing conditions.

### RICHMOND NATIONAL INSTITUTION FOR THE BLIND.

The annual report of this institution contains the disappointing news that in consequence of inadequate financial support it has been necessary to make numerous reductions during the past year. In future the brushmaking business can only be carried on on a greatly reduced scale, but fortunately the basket-making and upholstery departments will be maintained as before. The committee has succeeded in obtaining some subscriptions from boards of guardians throughout the country in aid of outdoor workers, but a considerable deficit still exists. The institution is a most deserving one.

### KING EDWARD'S CORONATION FUND FOR NURSES.

The object of this fund is to afford relief to nurses who, owing to ill health, are temporarily compelled to give up their work. It has been in existence now for seven years, and numbers 185 registered members. The capital of the fund is about £4,000, the interest on which, supplemented by members' subscriptions and donations from the public, provides the sum available for distribution. Since its inauguration it has succeeded in helping many nurses who would otherwise have been almost destitute as a result of inability to carry on their work.

# Scotland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

### EDINBURGH HARVEIAN FESTIVAL.

*The Oration.*

THE one hundred and twenty-ninth Harveian Festival was held in the Hall of the Royal College of Physicians of Edinburgh on May 19th, when the President, Sir Alexander R. Simpson, delivered the Harveian Oration on "Life and its Epiphanies." It is not, said the orator, in his greatest and best-known work, *On the Motion of the Heart and Blood*, that we find Harvey's fullest thoughts on life. He was an evolutionist before Darwin. It is in his less-read work on animal generation that we come more closely on his thoughts on the problems of existence. Each Harveian, as he comes on these thoughts of the master, recognizes them as the expressions of one of the sanest of minds. Harvey objects to those who, when they do not comprehend the causes of various effects, refer them to the immediate interposition of the Deity; he also objects to those who teach that "all things may be produced from nothing," and to those who assign a material cause for generation, and deduce the causes of natural things either from the elements concurring spontaneously or accidentally, or from atoms variously arranged. They do not, he says, recognize that efficient cause and divinity of Nature which works at all times with consummate art, and providence, and wisdom, and ever for a certain purpose and to some good end. Life is the cause and not the consequence of organization, as John Hunter pointed out. So also Huxley. The Harveian, then, who puts himself under the guidance of the modern representatives of the magisterial minds whom Dante groups round Aristotle—"the master of them that know"—and it is pleasant to remember that one-fourth of the names he celebrates belonged to the medical profession—the Harveian who finds time to attend a little to the teaching of the modern leaders in astronomy, physics, chemistry, geology, biology, learns that before life has taken on or been taken on by matter there is evidence of the existence and activity of a living one which it would be perversity to ignore. "We cannot," said John Goodsir, "think of a thing but as an existence. We cannot think of a thing except under the condition of time—that is, we are under the necessity of considering it only as a new form of what existed before it. Therefore, we cannot think of it as absolutely commencing *per se*." The first epiphany of life in a protein molecule, the elusiveness of life, the divergent lines of life, the procession of life, instinct and intelligence, progress in a spiral (John Goodsir's idea), the universe a harmony, a new epiphany of life in man (in man the guardian soma attains the dignity of a trustee) in the appearance of his moral sense and in the intimation of his own immortality and dependence, the universal harmony disturbed by man himself, the aim of life missed, the mending of this in the latest and greatest of life's epiphanies (the Son of Man), Harvey's Creed, were in succession discussed.

Dr. Clouston proposed and Dr. Crawford Renton (Glasgow) seconded a vote of thanks to the orator.

*The Dinner.*

Thereafter dinner was served. Covers were laid for fifty-four, including Sir John Batty Tuke, Sir George Beatson, Sir Halliday Croom, and the Rev. James Wells, D.D., Moderator Designate of the United Free Church Assembly. The loyal and imperial toasts were given from the Chair. That of "The Imperial Forces" was replied to by Captain J. M. Cuthbert, R.A.M.C. The President then gave "The

Immortal Memory"; Dr T. R. Ronaldson gave "The Church," and the Rev. Dr. Wells replied; Professor Sir Halliday Croom gave "The President." Drs James and Fordyce sang, and Dr. G. Lovell Gulland gave a humorous "impression." "Floreat Res Medica" closed a happy evening.

### ENTERIC FEVER.

Dr. Thomas F. Dewar, Medical Inspector to the Local Government Board, has issued an elaborate report (it covers thirty-five closely printed folio pages) on the epidemic in Saltcoats and parts of the northern district of Ayrshire which occurred in the last three months of 1910 and the first two months of 1911. There were 200 cases and 25 deaths, a case mortality of 12·5 per cent. The outbreak is attributed to the supply of milk from a dairy within the northern district of Ayrshire, where the farmer took to bed on September 23rd, 1909. On September 29th his blood gave a negative reaction with the Widal test, but Dr. Brown of Dalry, on October 4th, notified the case as enteric fever on clinical grounds, and despite the negative report on the Widal test intimated to him some days previously. The farmer was removed to Kilwinning Joint Hospital on the day of notification. Dr. Dewar asks three questions: (1) Were reasonable preventive measures taken before October 4th? (2) Were proper precautionary measures taken thereafter? (3) Were these precautions successful? He makes the following comments:

Let it be clearly understood that these two latter cases stand apart; the answer to the one depends nowise upon the answer to the other. Right is not made wrong by the supervention of unpleasant consequences; no more than wrong is to be exculpated should no ill effects supervene. Extensive as has been the epidemic, grave as are its effects in loss of life, and hardly as its cost will press upon the ratepayers, it is yet a story of comparative simplicity. The questions above enumerated are practically the only questions at issue. This report is prepared to enable those to whom it is to be submitted to draw their own conclusions and to formulate their answers for themselves.

Writing of the inadequate precautions at the dairy farm, Dr. Dewar says:

There is grave reason to fear that, between September 29th, when Dr. Brown suspected Allan Caldwell's (the farmer) illness to be possibly of the nature of enteric fever, and October 4th, when, that suspicion being confirmed, the patient was removed to hospital, no adequate precautions had been taken at the dairy to safeguard the consumers of the milk from the risk of infection. It is said that persons who nursed Allan Caldwell were employed in handling the milk; they were certainly living in common and sharing meals with those who did. Allan Caldwell took to bed on September 23rd. Thus for ten or eleven days there was the possibility of infection by this channel; as the disease progressed, that risk would daily tend to increase. . . . It is true that methods of common cleanliness, if faithfully and invariably performed, will go a long way towards securing safety to the milk-consuming public, even when the infection of enteric fever is about. Milk cannot acquire the infectious property until there reaches it some disease-bearing excretion from the bowels or bladder of a patient. But apart from or in addition to ordinary measures of care and cleanliness, special precautions should be taken in cases such as this; and should have been taken in this case. A person who is ailing, or suffering from unwonted weakness or weariness, should not only refrain from handling milk or dealing with it in any way, but should be removed from all opportunity of contact or even indirect communication with it. If the malady be characterized by feverish symptoms, persistent headache, or diarrhœa, the requirement becomes urgent in the public interest. Several of those indications were present in this case; but it does not appear that the necessary precautions were taken.

### GLASGOW ROYAL INFIRMARY.

The solicitors for the Glasgow Royal Infirmary have received intimation of the King's approval of the grant of a supplementary charter providing for the reconstitution of the board of management. The present board consists of thirty-five members, and while this number will remain unchanged, the number of working men representatives is increased from two to four. Two representatives are to be nominated by the Senate and Court of the university in lieu of the professor of anatomy and the professor of medicine, and the representative of the "Faculty of the College of Glasgow"; members of Parliament for the city cease to be *ex officio* members, the representative from the Church of Scotland is deleted, and the Town Council send three representatives in place of one. Other alterations are made on the procedure and powers of the board.

### VICTORIA INFIRMARY, GLASGOW.

The Victoria Infirmary has been extended by the addition of six day-rooms to the old wards which face towards Queen's Park. This makes the original ward blocks uniform with the blocks on the other side of the infirmary, which are already equipped with day-rooms. Balconies have also been added on each of the three floors. The additions have involved an expenditure of about £5,000.

### INVERNESS-SHIRE.

Dr. MacDonald, M.O.H. for the County of Inverness, states in his annual report that the death-rate and birth-rate in the county are both decreasing. Notifiable infectious diseases numbered 137 as compared with 153 in the previous year. The total zymotic death rate was 0·415 as compared with 0·354 in the previous year. No cases of small pox were notified, but a slight outbreak of typhus fever occurred. There were 376 marriages in 1910 as against 367 in the previous year; 375 persons died over 70 years of age, 204 between 70 and 80, 134 between 80 and 90, and 37 between 90 and 100. Whilst one or two had nearly reached a century, no death was registered of a person dying of 100 years or upwards.

# India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

### REPORT OF THE SANITARY COMMISSIONER FOR 1909.

THE report for the year 1909 was submitted by the late Lieutenant-Colonel John T. W. Leslie, I.M.S., Sanitary Commissioner with the Government of India, whose recent death has deprived the Government of a most able officer and inflicted a serious loss on medical and sanitary science and administration in India. This report is somewhat shorter than most of its predecessors, but it is none the less valuable on that account, giving evidence, as it does, of progress in the scientific study of Indian diseases, their nature and causation, of increased laboratory work, of careful study and clear exposition of additions to medical and sanitary knowledge, and of endeavour to appraise the value and interpret the meaning of Indian statistics. The figured statements and tables appended to the report have been drawn up by Major S. P. James, M.D., I.M.S., and present no material departures in plan from previous records.

#### *General Character of the Year.*

The year 1909 inherited from its predecessor a bequest of depressed vitality and unfavourable health conditions, due to the excessive and ill-distributed rainfall, which caused in Northern India a serious outbreak of malarious disease, and resulted over a wide area in destruction of crops and in scarcity and dearness of food. The influence of these circumstances, which were fully described in the BRITISH MEDICAL JOURNAL (vol. i, 1910, pp. 1302, 1360), affected adversely the public health in several provinces in a year otherwise exceptionally fortunate in its climatic, political, and social conditions. The rainfall of 1909 was generous, the total precipitation on the plains of India being above normal by 2.1 in., or 5 per cent. The monsoon fall was plentiful and well timed and distributed, but in some provinces the early rains were in defect, and in Madras there was a partial failure of the later N.E. monsoon. In Lower Burma there was an excess, and in Upper Burma a defect. In those provinces where the early rains were defective there was a partial failure of spring crops, and some consequent scarcity and dearness, but the autumn crops were everywhere abundant and prices moderate. Conditions of temperature and humidity

were, with some local variations, normal. Bengal was visited in October by a cyclonic storm, which was, as usual, followed by a severe outbreak of cholera. Peace prevailed throughout the year, and there was no disturbance of civil tranquillity and prosperity.

*Vital Statistics of the General Population.*

No information is given regarding alterations in the agencies for recording births and deaths, or measures adopted for verifying the accuracy of returns, whose value may therefore be presumed to have undergone no material change. The birth-rate was 36.65 per 1,000, against 37.78 in 1908 and a quinquennial mean of 38.64. The decrease in rates was most marked in provinces which had suffered most severely from malaria in the previous year. The death-rate was 30.91—7.30 per mille lower than in 1908, and 4.88 than the quinquennial rate. The birth rate exceeded the death-rate on the whole by 5.74 per 1,000. The excess amounted to 18.84 in the Central Provinces and 11.3 in Madras, but there was a defect of 4.02 in the United Provinces and 13.15 in Ajmere-Merwara. In this latter province the death-rate was 50.94, and in the United Provinces 37.34. As usual, urban rates were mostly higher than rural, and the death-rates of males higher than those of females. The death-rate of male children calculated on births was 260.72, and of female 226.57. The figures of the preceding year were 249.6 and 241.4.

*Prevalent Diseases.*

There was a marked decline in all the registered causes of mortality except plague, but the increase in it only amounted to 0.14 per 1,000. Of the total mortality, 64 per cent. was attributed to "fevers," 2 to plague, 3 to cholera, 3 to bowel complaints, and 1.5 to small-pox, leaving a balance of 26.5 for "other causes." The figures of 1908 were 63, 1, 7, 3, 2, and 24. The term "fevers" is still very vague, and even in gaols *post-mortem* examination does not confirm a diagnosis of malarial fever in more than about 75 per cent. of cases diagnosed as such, Our knowledge of Indian fevers is still very imperfect, and no subject demands more persistent and searching investigation. The mortality ascribed to "fevers" in 1909 was about normal, the rate being 19.5 against 23.96 in the preceding year. It would have been less except for the dregs of 1908, especially in the United Provinces, Punjab, and Ajmere-Merwara. Fevers were in excess in Eastern Bengal and Assam, but a special investigation indicated that only 36 per cent. were malarious. Special inquiries and malarial surveys were conducted in the United Provinces. The Province of Madras returned a fever rate of only 7.3 per 1,000. Quinine was largely distributed, and the sale of the drug underwent increase. Efforts are being made to methodize and promote the latter. The mortality of kala-azar in Assam was slightly less than in 1908.

The number of deaths from plague was 178,808 against 156,480, the death-rate being 0.64 per 1,000 against 0.50. There was a rise in 6 of the 12 provinces, but not to great excess in any; 593,164 doses of antiplague vaccine were issued by the Bombay bacteriological laboratory, being an advance of 59,849 doses. Some evidence of increasing popularity of inoculation is furnished. A disquieting and portentous circumstance was the increase of plague towards the close of the year. The results of recent inquiries by the Advisory Committee for plague investigation in India are detailed, the principal conclusions being: (1) That in nature plague is spread among rats by the agency of rat fleas; and (2) that in the great majority of cases during an epidemic of plague man contracts the disease from plague-infected rats through the agency of plague-infected rat fleas. The preventive measures adopted in the affected provinces were rat destruction, evacuation, inoculation, and disinfection. In the Punjab an auxiliary staff of workers was chosen from among the leaders of the people. In Bombay "inoculation is performed by travelling inoculators and private medical practitioners, as well as at all civil hospitals and dispensaries."

The number of deaths registered as cholera was less than one-half that of 1908, the rates being 1.05 and 2.61 per 1,000. In Bengal, the United Provinces, and Madras there was a remarkable decline. In Upper Burma, Eastern Bengal, and Assam and Bombay the rates were comparatively high. There was a marked decrease in cholera deaths in Assam tea gardens (2.53 against 5.34; provincial rate, 2.40). Evidence is given regarding the spread of the disease in the Punjab, Bombay, and Central Provinces by pilgrims. Permanganating wells is favourably reported on. The mortality caused by small-pox was about the average. The death-rate in towns was higher than in rural areas, and 5.3 per cent. of the victims were children. In Madras, however, rural rates exceeded urban in consequence of compulsory vaccination in municipalities. There was a considerable fall in the mortality caused by bowel complaints in all provinces except Eastern Bengal and Assam, the North-Western Frontier Province, and Upper Burma. In some Assam districts very high rates were recorded.

*The Gaols.*

Notwithstanding the salubrity of 1909, the sickness and mortality of Indian gaols did not undergo so marked a reduction as might be expected or proportionate to the improvement which took place outside. The Sanitary Commissioner points out that while a bad year weeds out the weakly—especially the very young and the very old—among the general population, thus leaving a robuster residue, the gaol weaklings—mostly adults—are kept alive by treatment and contribute to the sickness and mortality of a succeeding year. Prevalence of epidemics outside and the development of mortal diseases, chiefly tubercle, inside further complicate the comparison. Excluding the Andamans Settlement, in which the health of prisoners was exceptionally bad, there was a distinct change for the better in the vital statistics of gaols. The prison population fell from 101,336 to 99,104, the sickness rates from 646 and 29 to 618 and 28, and the death-rate from 24.17 to 22.85. The latter ranged from 29.97 in Eastern Bengal to 15.59 in the Central Provinces. Among convicts, while there was more sickness in district gaols (short term), the mortality was higher in central gaols (long term), owing to excess—mainly due to phthisis—occurring among prisoners of more than one and less than seven years' confinement. Sickness was mainly due to malaria, dysentery, abscess, ulcers and boils, diarrhoea, and chest diseases, and mortality to dysentery, phthisis, and pneumonia. The admissions from malarious disease were fewer, but the deaths rather more numerous, many of them being survivals of the previous year. Prophylactic measures continue to be diligently resorted to. Experiments made in the gaols of Peshawur and Dera Ismael Khan indicated a reduced incidence of malaria in quinine-dosed gangs as compared with other gangs similarly conditioned but not dosed. At Jubblepore inunction with kerosene oil to prevent mosquito bites was tried, but it was found to cause sores and inflamed eyes. There was a decline in admissions and deaths from dysentery, but a rise in diarrhoea, especially in the United Provinces and Bengal. The death-rate from tubercle of the lungs was 3.72 against 3.76; that of the European army being 0.13, and of the native army 0.39. The disparity is very striking, and, making due allowance for the influence among troops of invaliding, suggests more strenuous preventive measures than appear to be taken. The death-rate of pneumonia was 3.60, against 3.24; the rates of the armies being 0.31 and 1.88, an excess in gaols deserving special notice and action. The admission-rates from cholera in the three bodies were 1.8, 0.2, and 0.2; from small-pox 0.4, 0.3, and 0.3, showing an excess in gaols where reasonably a defect might be anticipated. There were 14 cases of plague, against 5 and 18 in the two armies, and 86 cases of enteric fever, with 21 deaths. There were 32 admissions from cerebro-spinal fever, with 18 deaths; 18 from beriberi, with 1 death; 3 from kala-azar, with 1 death; 2 from Malta fever not fatal; 3 from relapsing fever, and 23 from typhus fever, with 7 deaths. There were

4 fatal cases of rabies. The sanitary condition of the Andamans was bad. There was an excess of rain, and all communities suffered. The admission-rate of convicts was 1,761, and death-rate 43.18. Malaria and dysentery were very deadly. The death-rate of phthisis was 7, and of pneumonia 6.24. The excessive sickness and mortality are ascribed to abnormal climatic conditions.

*European Troops.*

The strength of the European army of India was 71,556, of which an average of 12,586 occupied hill stations and 4,186 hill convalescent dépôts and sanatoriums; 2,135 were marching, 601 at the Deolali dépôt awaiting transfer, and 1,120 stationed at Aden. The sickness, death, and invaliding rates were unprecedentedly low. The admission-rate was 716.9; the constantly sick rate 40.3, the death-rate 6.25, and the invaliding rate 9.07, against 839.5, 45.7, 9.78, and 15.64 in 1908 and 879.4, 54.0, 10.51, and 27.91 in the quinquennium 1903–07. The Sanitary Commissioner advances the opinion that the great improvement in the health of the army is largely due to personal or individual hygiene—that is, to the sanitary education of the soldier and more intelligent appreciation thereof and better obedience to the laws of health. The Northern army was more unhealthy than the Southern. There were only 12 cases of cholera with 7 deaths, and 19 of small-pox with 1 death. There was an abatement of malaria, but a large number of admissions in the early part of the year were relapses from 1908. Preventive measures are in full operation, careful "after-treatment" being found to be of great advantage. The detection and segregation of "malaria carriers" is a hopeful practice, and the use of mosquito nets is on the increase. The heading, "Pyrexia of Uncertain Origin," evidently included a variety of pyrexial maladies, among them "phlebotomus or sandfly fever," to which a separate heading is in future to be assigned. There was only 1 admission for Malta fever and 5 for "kala-azar." There was a remarkable fall in the incidence and mortality of enteric fever, which has shown a tendency to abatement in recent years. The case-mortality was also lower. This improvement is considered to be due to a better understanding of modes and channels of infection and the exercise of more careful prevention. The subject being of prime importance is treated at great length, and recent researches are summarized very fully. There were fewer admissions, deaths, and invalidings for phthisis, which has been declining of late years. Pneumonia and dysentery were less fatal, and there were fewer deaths from hepatic abscess. The improvement in venereal diseases continues. The admission and death rates of officers, women, and children were all lower than in the previous year.

*Native Troops.*

The strength of the native army was 131,627, an increase of 4,052. Of this number, 24,735 were located in hill stations and 9,794 marching; 1,099 occupied Aden and Perim and Persian Gulf stations; 716 were stationed at Colombo, 742 at Singapore, 792 at Tientsin, and 1,569 at Hong Kong. The sickness, invaliding, and death rates were lower than in any year of which there is a record. The death-rate was 5.74, or, including absentees, 6 42. Of the total deaths, 33.5 per cent. were caused by pneumonia, 7.7 by enteric fever, and 6 9 by phthisis. The Northern army was much less healthy than the Southern. The statistics of troops serving beyond Indian limits were favourable. Cholera and small-pox were less prevalent. Fewer cases and deaths were attributed to malaria, but changes in nomenclature and practice and prophylactic measures have vitiated comparison with former years. The entries under the heading of "Pyrexia of Uncertain Origin" represent maladies of various type, such as "sandfly fever" and other thermal complaints of anomalous descriptions demanding further study. Eleven cases of "kala-azar" were returned and 9 cases of relapsing fever, only 2 of Malta fever, and 16 of plague. The removal of the heading of "remittent fever" has given rise to an increase of enteric fever, of which 284 cases with 57 deaths were registered. The cases occurred in 106 regiments in 62 stations. There was a slight decrease in scurvy and an abatement in the admission and death rates from phthisis. Fewer deaths were caused by pneumonia, dysentery, and diarrhoea. There were 6 deaths from abscess of the liver, against 34 in the European army. The prevalence of venereal diseases was about one-fourth of that among European troops. There were only 3 admissions from beri-beri.

*Vaccination.*

Although vaccination must, for India as a whole, be pronounced inadequate, it must be remembered that results vary exceedingly in different parts of the empire as regards efficiency and success, and that continued efforts to raise the standard of backward areas to the level of the better protected is the best way of obtaining general improvement. There was a decline of 30,000 vaccinations in 1909, representing a serious falling-off in primary operations but a rise in secondary. The proportion of the population vaccinated is calculated to be 35.55, the extremes being 56.7 in Coorg and 27.45 in the United Provinces. Taking 40 per 1,000 to be the Indian birth-rate, only 44.20 per cent. of infants were successfully vaccinated. The arrangements for the supply and distribution of lymph are undergoing improvement.

*Sanitary Administration and Work.*

The provincial details which constitute this section of the report indicate increased diligence and effort in sanitary reform. The number of large waterwork and drainage schemes referred to is remarkable. Governments are aiding these constructions by grants in aid. The amount of money spent by municipalities and district boards on current sanitary work is very considerable. A commendable step has been taken in the Punjab by adding two Indian gentlemen to the sanitary board. The United Provinces employed Dr. Gilbert Fowler of Manchester to report and advise on the disposal of sewage. The sale of manure is a substantial item in Punjab municipal revenues. Continued attention is being devoted in Madras to the education and training of sanitary inspectors.

*Miscellaneous.*

The Mecca pilgrimage was made under the same orders, and without special disaster. Pilgrim ships were freed of rats by the Clayton process. Only one case of plague, and no case of cholera, occurred in the Hedjaz, but small-pox was epidemic there, and followed the pilgrims on their return voyage, which is much more fatal than the outgoing, bearing evidence of the hardships and privations which pilgrims endure. An interesting summary is given of the transactions of provincial laboratories in which diagnostic and research work is on the increase. The results of special inquiries regarding plague, dysentery, gaol dietaries, malaria, kala-azar and oriental sore, and epidemic dropsy and beri-beri, are also indicated and a list given of scientific publications issued under the authority of the Sanitary Commissioner.

# Canada.

THE ALEXANDRA HOSPITAL, MONTREAL.

THE mixed character of the population of Canada is clearly evidenced in the fifth annual report of the Alexandra Hospital, Montreal, an isolation hospital. Of the 820 patients who passed through the wards last year, 544 were born Canadians, 95 English, 33 Scottish, 21 Americans (U.S.), 20 Irish, 18 Russians, and 10 Newfoundlanders; in 40 cases the birthplace of the patients was unknown, and as many as sixteen countries furnished the balance. The diseases treated were in nearly equal proportions—diphtheria, measles, and

scarlet fever; the death-rates from the three being: Diphtheria, 6.46 per cent.; scarlet fever, 5 36 per cent., and measles 3.09 per cent. There were also 63 cases of erysipelas and a fair number of cases in which two or more infectious disorders were combined. The medical superintendent is Dr. T. A. Lomer.

### Production and Sale of Milk.

An Act has been passed in Ontario empowering any municipality—which term does not include a county—to make by-laws respecting the production and sale of milk, and to restrict sale operations to licensed persons. Each municipality is authorized to create its own milk standard, but in no case must the milk contain less than 12 per cent. of solids, of which 3 per cent. must be butter fat. If the milk has been altered from its original condition by the addition of preservatives or the removal of butter-fat, or by other means, the fact must be clearly and distinctly advertised. The terms "certified" and "pasteurized" can only be applied to milk which conforms to certain stated conditions. In the case of "certified," one of these is that the milk shall be from cows semi-annually submitted to the tuberculin test and found free from tuberculosis, from a farm the herd of which is inspected monthly by a veterinary surgeon, and the employees of which are examined monthly by a physician; in addition, it must contain not more than 10,000 bacteria per c.cm. between June and September, nor more than 5,000 bacteria per c.cm. between October and May.

# Queensland.

*[FROM OUR SPECIAL CORRESPONDENT.]*

### Lunacy.

The annual report for the year 1909 of Dr. H. Byam Ellerton, who was appointed Inspector of Hospitals for the Insane for Queensland in May of that year, shows that on December 31st, 1908, there were 2,185 patients in the hospitals, and on the corresponding day of 1909 there were 2,227, giving an increase for the year of 42 as compared with that of 115 for the previous year. In this State the insane are segregated in the three hospitals of Goodna, Ipswich, and Toowoomba, and three reception-houses. Of the three hospitals or asylums, until 1909 Ipswich was administered from Goodna, of which Dr. Byam Ellerton is the Medical Superintendent, but at the time of Dr. Ellerton's report the appointment of a medical superintendent for Ipswich was imminent. Following the plan adopted by Dr. Ellerton in his report, the medical statistics concerning the three asylums will be given separately hereunder, but the following combined statistics may be noted. During the year 369 in all were admitted to all hospitals, of whom 328 were first admissions. The admissions were greater by only 9 than those of the previous year, but were 29 greater than those of 1907. The total number under care during the year was 2,554 and the average number daily resident 2,173. During the year 141 were discharged as recovered, giving a recovery-rate on the admissions of 38 21 per cent. (average recovery-rate for the half-century ended 1910, 40 55 per cent.), 52 as relieved, 4 as not improved, and 1 as not insane. Also 129 died, giving a death-rate on the average numbers resident of 5.93 per cent. Death-rates in Queensland asylums are low, in only one year since 1883 reaching 9.03 per cent.

#### *Goodna Asylum.*

At this asylum on January 1st, 1909, there were in residence 1,251 patients, and on the last day of the year 1,247. During the year 310 were admitted, of whom 271 were first admissions. Of the total 96 were white natives of Queensland and 4 aborigines, whilst 29 were natives of other Australian States; Great Britain contributed 140, of whom 68 were born in Ireland, 60 in England and Wales, and only 12 in Scotland; and of the remainder 17 were German, and the rest, in small numbers, natives of other parts of many countries. As to the forms of mental disorder, 139 were cases of mania; 52 cases of melancholia; 87 of senile and secondary dementia; 13 of general paralysis; 9 of epileptic insanity; 19 of congenital imbecility; and 1 not insane on admission. The table of etiological factors shows that alcohol was assigned in 49, or 16 per cent.; venereal disease in only 4, and other toxins in 7; critical periods in 38; epilepsy in 10; and gross brain lesion in 1; child-birth in 16; various bodily illnesses in 72; and mental stress in 31. Hereditary influences were ascertained in 22, and congenital defect existed in 21, whilst in 36 no cause could be assigned.

During the year 106 were discharged as recovered, giving the recovery-rate on the admissions of 34.19 per cent.; 38 as relieved, 2 as not improved, 1 as not insane, and 74 were transferred. During the year also 93 died, giving the death-rate on the average numbers resident of 7.69 per cent. The deaths were due in 24 to cerebro spinal diseases, with only 8 from general paralysis; in 8 to diseases of the heart and blood vessels; in 24 to respiratory diseases, including 1 death from asphyxia (choking); in 11 to diseases of the digestive and genito-urinary systems, and in the remainder to general diseases. Altogether, there were only 6 deaths, or 6.3 per cent. of the total deaths, from tuberculosis, notwithstanding the fact, commented upon by Dr. Ellerton, that the wards were overcrowded and some blocks out of date and unsuitable for the treatment of mental cases.

#### *Toowoomba Asylum.*

The annual report of Dr. Jas. R. Nicoll shows that at this asylum on January 1st, 1909, there were 733 patients on the register, and on the last day of the year there were 740. The total cases under care during the year numbered 816, and the average number daily resident 737.

During the year 83 were admitted, of whom 65 were direct admissions and 18 transfers. In 19 the attack was a first attack within three months and in 8 more within twelve months of admission; in 11 not first attacks with twelve months; in 15, whether first attacks or not, the attacks were of more than twelve months' duration, and in the remainder the duration was unknown. As to nationality, 27 were natives of Queensland (no aborigines) and 19 of other Australian States; 13 were born in England and Wales, 12 in Ireland, and only 1 in Scotland, whilst of the remaining 11, 7 were natives of Germany. The direct admissions were classified according to the forms of mental disorder as follows: Mania of all kinds, 30; melancholia of all kinds, 11; senile and organic dementia, 10; delusional insanity, 8; insanity with epilepsy, 3; general paralysis, 1; and imbecility, 1. As to probable causation, alcohol was assigned in 8, critical periods in 7, diseases of the nervous system and other bodily diseases in 8, and mental stress in 5. An insane heredity was ascertained in 8, and an alcoholic or neurotic heredity in 3 more. During the year 33 were discharged as recovered, giving a recovery-rate on the direct admissions of 50 per cent.; 12 as relieved, 2 as not improved, and 1 was transferred. During the year also 28 died, giving a death-rate on the average numbers resident of 3.8 per cent. All deaths were due to natural causes, and only 2 were due to tuberculosis.

#### *Ipswich Asylum.*

In this asylum on January 1st, 1909, there were 201 patients, and on the last day of the year 240. The total cases under care during the year numbered 257, and the average number daily resident 237. During the year 56 patients were transferred to the asylum from Goodna—of which until then it was a branch establishment—and these were composed of 31 cases of mania, 2 of melancholia, 2 of dementia, and 2 of imbecility. As to the causation of the insanities in these cases, alcohol had been assigned in 11, venereal disease in 1, fevers in 2, old age and ill health in 2, mental stress in 2, and in 25 no cause had been assigned. Hereditary influences had been ascertained

in 10. During the year 2 were discharged as recovered, 2 as relieved, 5 were transferred, and 8 died, the deaths all being from natural causes.

*Reception Houses.*

Up to the present the reception houses in Queensland have been merely resting places where patients from outlying districts could be temporarily detained until a sufficient number had been collected to be sent to one of the hospitals for the insane. Now, however, Dr. Ellerton proposes to submit certain amendments of the existing Lunacy Act whereby the reception houses will be done away with and sanctioning the admission of early cases of insanity into mental wards in general hospitals for a limited period on the authority of two medical certificates only, without any magistrates' or justices' orders.

*Cost.*

The net cost per patient per week at Goodna was 8s. 2d., at Toowoomba 8s. 3d., and at Ipswich 6s. 4d., or an average of 7s. 7d. per week.

# Straits Settlements.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE WORK OF THE MEDICAL DEPARTMENT.

THE Principal Civil Medical Officer, Dr. W. Gilmore Ellis—who succeeded Dr. McDowell—has just issued his first annual report. It covers the year 1909.

The mean population, which for 1901, calculated from the census returns, was 572,249, is estimated at 636,691 for 1909. The estimated increase is based entirely on the increase between the census figures of 1891 and 1901, the better means of estimating from the number of births and deaths and immigration and emigration not being practicable as records for the latter are not reliable.

The birth-rate has declined in all the Settlements, being 26.69 per 1,000 as against 28.75 in the previous year. The death-rate is the lowest registered since 1899; in 1908 it was 46.78 per 1,000; in 1909 it was only 38.56. Of the number of deaths registered in 1909, 4,714 were among infants under 1 year of age, which represents a percentage of 19.7 of the total. It was hoped that the Government would bring in a Midwives Bill during the year, but nothing was done in that direction. During the year, however, some native women were being trained in the maternity wards of the General Hospital. These wards are slowly increasing in favour amongst the Chinese, and with more cases it is hoped the work will progress satisfactorily and bear fruit in the future.

There were fewer cases of plague during 1909 in the several Settlements, only 5 cases occurred, all of which were fatal. Cholera also showed a marked decrease—84 cases with 76 deaths, as against 193 with 178 deaths during 1908.

Beri beri still claimed a number of victims, no less than 1,506 persons dying from that disease in 1909 out of a total of 2,118 cases. The results from the use of parboiled rice continue to give satisfaction, and the native patients at the several hospitals are exclusively fed on cured rice. Work on the etiology of this disease has been in progress throughout the year at the Research Institute, Kuala Lumpur, under Dr. Fraser. Dr. Ellis remarks that a dispatch had been sent through the High Commissioner to the Secretary of State transmitting a report recording the results. In the present state of knowledge, however, it has not been found feasible to advise Government as to any legislative measures of a preventive nature, although the results of work at many different laboratories seem to promise that this must soon be possible.

As in other parts of the world, the death-rate from phthisis is high, no less than 2,659 deaths being registered. This serious mortality, the report states, is likely to continue until some practical measures are put in force in the larger towns to lessen overcrowding, improve ventilation, and remove advanced cases.

The number of cases of ankylostomiasis amounted to 335, compared with 192 in 1908, 80 cases being fatal. Over 30,000 cases were treated in the various hospitals throughout the Settlements, with a percentage of 12.01 deaths to the total treated. The total number of vaccinations performed throughout the colony in 1909 was 12,854.

In connexion with the Medical School there are now 72 full-course students, compared with 58 in 1908, studying for the L.M.S. diploma, of whom 17 are in their fifth year.

Much good work is being done in connexion with the pathological department of the colony.

# Correspondence.

## PARATYPHOID FEVER.

SIR,—Permit me, as one familiar with the scientific work being done in India by officers of the Royal Army Medical Corps and also conversant with the statistical facts relating to both the European and Indian armies, to enter a plea for clear thinking as to the use of the term "paratyphoid fever." From recent literature on this subject there appears to be a definite tendency at home to apply the term "paratyphoid fever" to cases of infection by the micro-organism known as *Bacillus paratyphosus* B. Concurrent with this, there is a tendency to overlook the infection by the closely allied micro-organism known as *Bacillus paratyphosus* A. This latter attitude may be due to the apparent infrequency of paratyphoid A infection in England or Europe. Before the nomenclature becomes crystallized and passes into general use by the profession, in the sense suggested by the recent literature published, it would be as well for the profession to realize that, in India and also in South Africa, there is recognizable a definite clinical entity caused by the *Bacillus paratyphosus* A. This clinical entity is a fever or pyrexia of the continued type. This view is worth bearing in mind, that it is to this continued fever, often of comparatively short duration and marked by a low case-mortality rate, caused by the *Bacillus paratyphosus* A, that the term "paratyphoid fever" should be applied, and applied only, at least for the present. Practically all the Indian cases are instances of infection by the A bacillus, and so far no case is diagnosed in the army unless the incriminating micro-organism has been isolated from the case.

Without going into the question of what is meant by a *Bacillus paratyphosus* B, or discussing how confusion has arisen, or the methods by which confusion can be avoided, as to whether a given micro-organism is *Bacillus paratyphosus* B or *Bacillus suipestifer*, it appears desirable to recognize that infections by these micro-organisms are really not "fevers" as ordinarily understood, but rather explosive infections of the nature of an acute enteritis, commonly the outcome of what is called "food poisoning." As explained, the infection by the A bacillus conforms to quite a different type, and is best described as "paratyphoid fever." From this point of view, it seems desirable that a confusion of ideas be avoided and that, failing better terms of expression, we limit the use of the expression "paratyphoid fever" to cases of fever in which the causative micro-organism is the *Bacillus paratyphosus* A, and describe as "food poisoning" those in which the causative micro-organism is either the *Bacillus paratyphosus* B, or the *Bacillus suipestifer*, or the other closely allied organism, the *Bacillus enteritidis* of Gaertner.

It must be admitted that we have still much to learn regarding all these infections, and subsequent investigation may compel us to modify our conceptions as to the whole group, but speaking in the light of our present knowledge, it is submitted that the views here outlined afford the safer and the wiser attitude to adopt. A considerable mass of evidence is accumulating, and much knowledge is being acquired in India as to the prevalence, symptoms, epidemiology, and identity of the causative micro-organism of paratyphoid fever. In fact—may I be pardoned for saying so—there is a small group of officers of the Royal Army Medical Corps working in India who probably know more

about infection by the *Bacillus paratyphosus* A (paratyphoid fever) than any one in Europe. We are hopeful that when their work is made public the present ambiguities may be removed.—I am, etc.,

Simla, May 4th. R. H. FIRTH, Col., R.A.M.C.

## THE PREVENTION OF MALARIA.

SIR,—In your interesting and impartial review (May 13th) of the *Prevention of Malaria*, by Professor Ross, C.B., you suggest that a school is "arising in India" which, although "not openly hostile," nevertheless would oppose the views advanced by that authority. Your reviewer has probably assumed that, as a result of prolonged experience in that country, there is a tendency to adopt opinions that are not held in other parts of the world. Deductions formed under such circumstances would, doubtless, be of value; and due weight would be given them by sanitarians. But it happens that this attitude is founded upon, and dates from, no better practical experience than that afforded by the haphazard and incomplete experiments of 1902–3 at Mian Mir, the financially starved efforts of 1904, and the "not *openly* hostile" opposition which has followed their outspoken criticism by Professor Ross. In the interval no practical effort has been made which would justify the medical profession in India in relying "for the country at large" solely upon quinine prophylaxis.

The recent appearance of increased vitality in this policy is in reality due to the scheme by which "The Committee for the Study of Malaria in India" (they having modestly renounced the title of the "Scientific Committee" with which they were formerly credited) have been endowed by the Government of India with the power to "*direct* and co-ordinate" investigations as to malaria, throughout the one and three-quarter millions of square miles of India. As this decision was communicated by the Government of India at the Antimalaria Conference in 1909, the natural inference has been that the members proposed this autocratic method of administration, and endorsed the peculiar views of the officers already selected for the purpose. The conference was, however, given no option in the matter. Sanitary Commissioners with Local Governments being thus thrust aside, and the helm placed in the hands of a committee with a predetermined policy, their diplomatic skill would be weak indeed if they were not able to guide the sanitary ship in the route they would desire. But consultation with all medical representatives of Local Governments at this conference left no doubt in my mind that professional opinion in India—as elsewhere—whilst recognizing quinine prophylaxis as a desirable adjuvant, where appropriate and practicable, would rely upon minor and major works directed towards "mosquito reduction" as of prime importance where permanent results are desired.—I am, etc.,

W. G. KING,
Uffculme, N. Devon, May 15th. Colonel, I.M.S. (ret.).

## CARDIO-SPLANCHNIC PHENOMENON OF ABRAMS.

SIR,—Dr. Gordon[1] seeks to deny the existence of this phenomenon, and he proceeds to fortify his contention by percussion of the right heart border, and the theoretic observation that the posture of the heart must be influenced by gravity.

The phenomenon, in brief,[2] is as follows: If the lower sternal region—that is, the part of the sternum contiguous to the heart—is first percussed in the erect posture, the sound elicited is one of resonance or hyperresonance, but when the patient assumes the recumbent position a dullness supplants the resonance. This is the attitudinal cardio-splanchnic phenomenon. It is present in health, but absent when the splanchnic vasomotor mechanism is defective.

In describing the phenomenon the undersigned emphasized the importance of employing palpatory percussion.

The determination of the right heart border is neither a positive nor a negative evidence of this phenomenon. Percussion of the right heart border is difficult, and the results are often in accord with the prejudiced preconception of the observer. Again, by the time the right border is percussed the phenomenon has disappeared (*it is very limited in duration*), for the reason that a vigorous right ventricle immediately disposes of the augmented quantity of blood which has been conveyed to it by the change in posture.

The writer has sought to simplify the percussion of the heart by a recently described method,[3] and if Dr. Gordon will execute this method he will find decided discrepancies in his results, although the delimitation of the heart has absolutely no bearing on the phenomenon.

The latter fact is emphasized in my original contribution by the following quotation:

> I have endeavoured by means of the Roentgen rays to determine whether any of the manœuvres already suggested for provoking the cardio-splanchnic phenomenon in any way influence the cardiac diameters, and my investigations show that they do not.

As for the contention that the heart must be influenced by gravity, my skiascopic findings to the contrary permit me to say that the situs of the heart is maintained by pulmonary suction.—I am, etc.,

San Francisco, May 5th. ALBERT ABRAMS.

[1] BRITISH MEDICAL JOURNAL, March 25th, 1911.
[2] *American Journal of the Medical Sciences*, January, 1904.

## CONGENITAL APHASIA IN CHILDREN.

SIR,—The descriptions of defective children in Miss McCall's article, under the heading of "Two Cases of Congenital Aphasia in Children" (in the JOURNAL for May 13th, p. 1105), are no doubt of interest. The first case, however, is not one of aphasia, congenital or otherwise, neither is the other if the epithet of "word-deafness" applied to it is correct. Both are examples of defect in the receptive centres—in one case for written and in the other for phonated words—and to such conditions the term "aphasia," carrying with it the significance of imperfection in some part of the central neuromotor apparatus for language, is quite inapplicable. Congenital aphasia is distinctly rare and is apt to be confused with deaf-mutism by the unwary; congenital word-blindness, on the other hand, is a condition the existence of which even school teachers, who are as a class perhaps among the most conservative and unreceptive section of the community, are beginning to realize.—I am, etc.,

Renfrew, May 15th. W. J. RUTHERFURD, M.D.

## ENUCLEATION OF THE TONSIL.

SIR,—I would be glad of the opportunity of making some remarks on the discussion that took place at the last Annual Meeting on the anatomy of the tonsil.[4]

I wish to thank Dr. William Hill for remembering my papers sent to the two previous meetings, in which the claim was made that the so-called supratonsillar fossa was absolutely an intratonsillar space. The reason for the delay in this letter is that I have been trying to find referrence by Mr. Seccombe Hett in the *Journal of Anatomy*, in which he stated that he had drawn attention to the intratonsillar position of the fossa. I have been unable to get access to it, but I am almost sure that it was subsequent to my first, if not my second, paper, as Dr. Hill says, "no one had been willing to give Mr. Hardie Neil the slightest support." In fact, the punishment meted out to me by Dr. D. R. Paterson was very severe, but, in the light of the now universal recognition of the truth of my contention, it contained a fine compliment—namely: "He traverses in detail views now generally accepted and sufficiently established to have found their way into most modern textbooks." A perusal of his letter (October 10th, 1908) will give a clue to the methods by which he found "that there could be no question of its [the supratonsillar fossa] being outside the tonsil." His researches could not, surely, have been done on either human or mammalian tonsils. His denial of the existence of the capsule is simply inexplicable. However, the newer textbooks will do the subject justice, and consign the statements about the supratonsillar fossa going beyond the tonsil up into the soft palate and down outside the tonsil to the level of the angle of the jaw, to the oblivion suitable to them. Those statements, I think, retarded the proper surgery of the tonsil for years. Photomicrographs of tonsils, fetal, adult, and animal, were sent with my paper in 1908 to the Annual Meeting. Some may be seen in the Royal College of Surgeons and Melbourne University.

As to the surgical anatomy of peritonsillar abscess, a

[3] *La presse médicale*, December 14th, 1910.
[4] BRITISH MEDICAL JOURNAL, vol. ii, 1910, p. 1623.

definite pronouncement was made some three or four years ago by Ballenger, Chicago, as to its relation to the tonsillar capsule. One point not generally mentioned is that when quinsies burst spontaneously they lift the plica from the capsule on the posterior aspect of the tonsil almost invariably high up, just where the plica arches downwards towards the posterior pillar. They do not evacuate through the tonsil itself, but just at the margin of the plica.

If in a subchronic quinsy one incises the soft palate, and after syringing and mopping out the cavity, makes an inspection with a good reflected light, an idea can be obtained of the reason why cases of chronic quinsy ulcerating into the internal jugular artery have been reported. The size and depth of the cavity will astonish one. The line of least resistance seems to be in the direction of the great vessels.

As regards the enucleation of tonsils, the contention that deep anaesthesia is necessary is not in my experience justified. If abolition of the corneal reflex is meant, then that is absolutely unjustifiable, and the bloodless, flaccid condition of the parts mentioned by one gentleman as desirable is a sign of danger, and is to be avoided. As for skill required, I find that junior residents do the operation well after a little tuition. The upper part of the tonsil is readily pulled out until about two-thirds of the way down. Here is found a tough, fibrous band that comes almost horizontally across from behind the anterior pillar. Its origin is further out than the anterior pillar, and it passes into the anterior inferior aspect of the capsule. Over twelve months ago I sent a drawing of it to Dr. Arthur Keith, and he kindly promised to investigate it. This band was mentioned to Dr. Dan McKenzie. After severing by blunt dissection of the vessels away from the capsule as far below this band as possible, I would recommend the use of the Ballenger écraseur, using the blunt edges and remembering that the tonsil is like a blunted almond in shape and that the bulkiest part is above. The most haemorrhage comes from the severing of an artery at the superior anterior, but that has always yielded to a little sponge pressure. There are firm, unyielding walls to press up against, and in any circumstance the artery can be picked up readily and crushed if the patient is put in a suitable position for the operation. I can confidently recommend the placing of the patient on the back with a good firm pillow under the shoulders, the occiput resting on the table near the end. With a suture through the tip of the tongue given to the anaesthetist and an occasional lift of the base of the tongue by an assistant, the tonsillar space is absolutely under control of the operator, who sits facing the end of the table and uses reflected light, and any simple instrument will separate the pillars and allow all recesses to be easily examined. Respiration, if impeded, is freed by pulling the point of the jaw forward. This position is one that only requires a trial to be appreciated. The anaesthetic is delivered by a Junker apparatus through a Probyn Williams modification of Doyen's gag. Every one concerned can readily see the operative field. Sometimes the head of the table may require dropping a notch, but this should be raised and vigorous reflexes allowed to return for the removal of adenoids, if any.—I am, etc.,

Auckland, New Zealand. JAS. HARDIE NEIL.

## THE PATHOLOGY AND TREATMENT OF FISTULAE.

SIR,—I see Mr. Drummond, in the course of his remarks (May 6th, 1911, page 1048) on the treatment of fistulae, endows the internal sphincter with powers which it never had nor can have.

He says:

> Much has been written about the damaging results of injury to the sphincter muscles in operating upon fistulae. In this connexion it must be recognized that the internal is the important sphincter muscle, which will explain the fact that the external sphincter may be destroyed without any loss of control. In one case, for example, a patient admitted under the care of Mr. Gordon Watson, it was found impossible to lay open all the tracks without division of the external sphincter in three places, and yet the patient made a good recovery without any loss of control. On the other hand, an operation involving serious injury to the internal sphincter would in all probability be followed by permanent weakness.

Now the case under my friend, Mr. Gordon Watson, does not prove his argument at all. The reason why control was not lost was because the levator ani was uninjured, and it is this muscle which controls defaecation practically entirely. Besides, I was always taught that the internal sphincter was of the unstriped involuntary muscle variety. It is fortunate that we do not rely on our sphincters, either internal or external, for control, as awkward circumstances might arise; anyhow Mr. Harrison Cripps once said, in his inimitable way, in the out-patients' room at St. Bartholomew's Hospital, that he personally was glad he could rely on the levator ani and not on either sphincter for control; and what he does not know of the functions of that part of our anatomy is not worth knowing.

Involuntary uncontrollable muscles, like individuals, are unreliable.—I am, etc.,

Althorpe, Doncaster, May 8th. J. F. ROBERTSON.

## APPENDICITIS AND APERIENTS.

SIR,—Mr. Moynihan's experience entitles him to speak with great authority, but I fear his judgement is biassed by what I have termed elsewhere "the fallacy of perspective." He sees only severe cases. The general practitioner, on the other hand, sees too many slight cases; but if the latter is to forbid aperients to all patients with abdominal pain, the general mortality will certainly rise and appendicitis become even commoner. Every one is familiar with cases of caecal accumulation which, relieved by emptying the bowel, might, unrelieved, have gone on to appendicitis.

Further, there is no proof that the aperient is the cause of the gangrene or perforation of the appendix. Probably 95 per cent. of cases have had a preliminary aperient, and if all cases are equally liable to perforation there will naturally be more amongst the majority.

It is conceivable, however, that peristalsis may do harm when there is rigidity of the abdominal wall, and I submit that the true contraindication of aperients is not abdominal pain but abdominal rigidity.—I am, etc.,

London, S.W., April 29th. RALPH W. LEFTWICH, M.D.

## ESSENTIAL OR IDIOPATHIC ANASARCA.

SIR,—I believe I was the first to point out that what we used to call idiopathic peritonitis (for which no cause could be discovered) was a mere cloak for our ignorance; and, in spite of the appendix, which is undergoing such radical removal, we have still much to learn as to the cause of many ailments. W. Sbisà, we now learn from our EPITOME, has discovered an idiopathic anasarca, which is only another admission of our ignorance as to the true cause of disease.

From my personal observations I have come to the conclusion that there is much fluid retained in the system (when proper elimination of fluid fails) which is supposed to be fat, because such a form of anasarca does not pit on pressure, and I have no doubt it is that form which is now called essential, or idiopathic anasarca.

It is deserving of further study, and the discovery of its true cause will explain much as to the cause of all disease at present most obscure.—I am, etc.,

Denholm, Hawick, April 29th. JOHN HADDON, M.D.

## CHORAL SINGING AS A PREVENTIVE OF TUBERCULOSIS.

SIR,—A year or more ago I read a paper on mental hygiene before a lay community in the London district, pointing out incidentally the value of singing as a preventive of consumption. I gave an instance of a tuberculous family in which I believed the practice of singing had averted cases of the disease; and in our local press I have recommended conductors of choral societies to encourage the practice of sight-singing, for I conceive this to be a useful exercise to the air passages as preventive of oral, throat, tracheal, and lung affections—at least, I fancy singers pay greater regard for their mouths and throats than any other section of society. If we could prove by actual facts that voice production is remedial or really preventive of adenoids in children's throats, of diphtheria, and of diseases of the lungs in general, much would be

done, and at the same time an incentive would be afforded to competitive music, which is now becoming a rage.

I have been endeavouring for some time to point out to conductors of choral societies the healthiness of singing as an inducement to them to collect data as to whether singers are less liable to diseases of the air passages than non-singers. Now, conductors of choral societies might very easily co-operate in the investigation of the measure of the resisting power of the chest to disease by watching the members of their own class, and observing the number of chest affections among them during the session of practice. At the Alton Choral Society's attendances last season I noticed as a member and as a doctor a great freedom from throat and chest affections, so that absentees from this cause were quite the exception; and I wonder if compulsory singing for children in the open air were legalized, whether it would lessen cases of diphtheria, measles, whooping-cough, and scarlet fever?

In Alton one of the co-conductors of the Choral Society is this summer holding fortnightly sight-reading classes. I am instilling this into the members in the hope of keeping their mouths and air passages clear of disease and their mental health in good spirits. And is there a nicer way of sterilizing the air passages and maintaining them in health than singing the notes of the musical scale in harmonious concord in a well-ventilated room or in the open air?

I therefore excuse myself for writing these few lines on the plea of giving a grain of support to that most excellent editorial, "The Voice in Speech and Song," in the Journal of May 20th. That a reprint of that article circulated among the members of the musical profession would be most valuable to them—nay, to the faculty of medicine itself—is my conviction.—I am, etc.,

Alton, May 20th. John Frederick Briscoe.

## THE NEWSPAPER PRESS AND QUACKERY.

Sir,—During at least twenty years, on every opportunity and through every possible medium, in the Journal, in the other medical papers, in the *Spectator*—one of the very few periodicals that dare admit the subject to their pages—and latterly before Divisions of the Association, I have been urging that the appointment of a Royal Commission formed the indispensable preliminary step towards medical law reform, the sole means by which the tale could be unfolded in a method beyond controversy, and calculated to compel the attention of the Legislature. Throughout the whole of this time up to now my suggestion has been almost invariably damned authoritatively without even the mitigation of faint praise. It is, however, satisfactory to find this week in your editorial, at page 1284, an indictment of the newspaper press for its attitude towards quackery—an indictment absolutely justified, but not as strong or more fully justified than that formulated by me at the Reigate Division in May, 1909. It is, further, satisfactory to find that the admirable paper by Dr. J. H. Taylor (p. 1246) ends with a plea for the appointment of a Royal Commission.

In relation with quackery the conduct of the great bulk of the newspaper press, including most of those that stand in the front rank of journalism, forms one of the greatest scandals of the present day. The exposure of a Royal Commission might perhaps put an end to the progressive degradation of the periodical press, and this alone would constitute a real service to the State.—I am, etc.,

Earlswood Common, May 27th. Henry Sewill.

## THE METRIC SYSTEM AND THE CENTIGRADE THERMOMETER.

Sir,—Now that the adoption of the metric system in medical prescriptions is under discussion, the time would seem to be favourable for the advocacy of another change, which is all in the same direction, and which may be defended on the same grounds—namely, the substitution of the Centigrade for the Fahrenheit thermometer for clinical purposes.

What can be more absurd than to teach students to think in terms of the Centigrade scale while they pass successively through the preliminary studies of physics, chemistry, physiology, pharmacology, and bacteriology, and then to require them to take their patients' temperatures with Fahrenheit thermometers and to think in terms of that antiquated, though historically interesting instrument, so soon as they pass from the laboratories to the wards?*

If a student during his work in the wards is asked some question as to the energy value of the food of one of his patients, he will probably begin to think of a kilo of water raised 1° C., and not of a pound of water raised 4° Fahrenheit, just as he will (if he can) prefer to get the food factors into grams and litres. But if the temperature of the patient's body is alluded to, he will have to talk of degrees and tenths of degrees of the cumbersome Fahrenheit scale.

Similarly, if the case happens to be one of enteric fever, and some mention is made of the immunizing powers of antityphoid vaccines and their modification under varying temperatures, the Centigrade scale alone will be meant, while the temperature of the patient himself is being duly charted on the Fahrenheit scale.

No scientific defence of Fahrenheit's thermometer is now possible. The suggested innovation would carry us one step further towards a closer alliance between medicine and the other sciences both as to method and as to material, and the change is one which could be easily made complete in a few months.

Let the registrars of the various hospitals agree to allow none but Centigrade thermometers to be used in the wards, and let examiners forbid the use of any but the Centigrade scale in the answers of candidates for all medical examinations, and the thing would be done.—I am, etc.,

Brighton, May 18th. R. J. Ryle.

## THE ELECTION OF DIRECT REPRESENTATIVE.

Sir,—I wish to thank most heartily through your columns "one and all," to use the Cornish motto, of the 4,049 members of the medical profession who so loyally supported and voted for me in the late election for a Direct Representative on the General Medical Council.

The great measure of success I attained warrants me in thinking that I shall be justified in appealing once more to the registered practitioners of England and Wales when what may be termed the general election comes off in November of this year.

It is to be regretted that only 10,106 out of 25,472 on the *Register* took the trouble to vote.

I have received some communications to the effect that voting papers have not been received. That can scarcely be the case if the Registrar of the Council has been notified as to the present address; but it might be well for those who think they have not received it this time to communicate with the Registrar of the General Medical Council.—I am, etc.,

Plymouth, May 23rd. Geo. Jackson.

## DR. COOKE FUND.

Sir,—May I, through your columns, acknowledge (on behalf of my Barnstaple colleagues and myself) the splendid response which has been made to our appeal? To each and every generous giver we tender our warmest thanks.

I have received the following communication from Dr. Cooke:

Westward Ho!
May 24th, 1911.

Dear Dr. Harper,—

Will you please accept for yourself and your Barnstaple colleagues my most sincere thanks for all you have done on my behalf, and will you be good enough to express to those who have so generously subscribed to the Dr. Cooke Fund my heartfelt gratitude and intense appreciation?

Such a magnificent response to your appeal deserves to be chronicled to the lasting honour of the medical profession, and no words of mine can adequately acknowledge it, and I only wish I could personally thank and shake by the hand the hundreds of warm-hearted medical men and women who have been so good to me in my distress.

I have been thinking how best I can show the reality of my gratitude. It seems to me that I can do so in no

* See the letters of Sir S. Wilks and Professor Cleveland Abbe in *Knowledge* for 1902, concerning the basis of the graduation employed in Fahrenheit's thermometer. Sir S. Wilks gives reasons for believing that Sir Isaac Newton was the actual inventor (*Phil. Trans.*, 1701).

more practical and effective way than by adopting the admirable suggestion that the capital should on my death form the nucleus of a permanent fund for the benefit of the medical profession which has so generously subscribed it.

Will you formulate some plan for carrying this into effect? And if my blindness and the exceeding goodness of my medical *confrères* result in the establishment of some permanent addition to our medical charities it will surely help me to bear my affliction with patience and fortitude.

Again thanking you, and through you every one of the many kind contributors who have lightened my darkness and brightened my life,

I am,
Very gratefully yours,
CHARLES M. COOKE.

Dr. J. R. Harper, Barnstaple.

The net result of our appeal is that we find ourselves in possession of some £2,000—a splendid nucleus for such a fund as is foreshadowed in Dr. Cooke's letter. It is only fair to say that the idea of a permanent scheme first emanated from Sir Henry Morris—himself a most liberal giver—but numbers of our correspondents have touched upon it, and I gladly commend the suggestion to your advocacy and to the consideration of your readers.

If only one of our medical benevolent or charitable institutions would take over the £2,000 and (after securing to Dr. Cooke some such annuity as he could secure by sinking the capital) make a further appeal on an extended basis and for a permanent purpose the result would, in my opinion, be assured.

It would be intensely gratifying to all who have so nobly supported the "Dr. Cooke Fund" if, instead of the capital being sunk, it could be utilized as suggested, and form a monument for all time to the fraternal freemasonry of our profession.—I am, etc.,

JOHN R. HARPER,
Treasurer.

Barnstaple, May 25th.

## THE VACCINATION DEBATE IN THE HOUSE OF COMMONS.

SIR,—I quite agree with the statement in your editorial on the above subject, in the BRITISH MEDICAL JOURNAL for April 29th, that "the bulk of the medical profession is so thoroughly convinced of the value of vaccination that it is disposed to look upon the whole question as a *chose jugée*." Certainly, the ordinary "vaccination debate" between those who believe and those who disbelieve in vaccination is not a very edifying process, and, from the scientific point of view, it is generally entirely barren. The recent debate in the House of Commons, however, touched a higher level, and I think that both Dr. Hillier, on the one hand, and Mr. Burns, on the other, are to be congratulated on the way each presented his case. Dr. Hillier's arguments were quite orthodox, and I have no comment to make beyond pointing out, as Mr. Burns quickly did, that the behaviour of small-pox in the absence of vaccination in semi-civilized countries is not a very convincing argument as to how small-pox would behave in a country such as our own with an advanced system of sanitary control.

Mr. Burns, however, raised an all-important issue, which will certainly have to be faced; and, with your permission, I wish to refer to it. In effect, Mr. Burns suggested that it was possible for this country, in its present condition of comparatively high sanitary efficiency, to face small-pox with equanimity, even though infantile vaccination was falling more and more into disuse. Is it quite certain that Mr. Burns was wrong? As one who has been medical officer of health for ten years for a large industrial centre of nearly a quarter of a million inhabitants, which has the reputation of being the worst vaccinated community in the country, during which period two epidemics of small-pox, each numbering over 300 cases, has visited the town, I look at this question from a different point of view perhaps from most of your readers. To prevent misunderstanding let me make my position with regard to vaccination quite clear. I am an absolute believer in the power of vaccination to confer upon the individual complete, though temporary, protection against small-pox. I have publicly testified to this belief in Leicester by taking my wife and family—the youngest a babe in arms—all recently vaccinated, to the Leicester Small-pox Hospital, and there photographing them in a ward full of patients by the bedside of one of the worst cases. I knew, of course, that the experiment was free from any risk, but few medical men have testified to their faith in this simple and effective manner. The photograph obtained has been of great use in helping me to convince persons who have been exposed to the infection of small-pox of the immense value of recent vaccination. I may say, too, that not a single member of the Leicester Small-pox Hospital staff, during the epidemics referred to above, contracted the disease, and I attribute this entirely to the fact that I took care that every one (except one or two who had already had the disease) was recently vaccinated. I should be sorry, indeed, to have to fight an epidemic of small-pox without the invaluable protection which recent vaccination confers upon those who have to deal with the disease.

But having said this much, I feel I must go further and confess that my experience in Leicester, whilst it has confirmed me in the beliefs just expressed, has seriously shaken other beliefs which I held prior to coming to Leicester. I have now come to believe that the danger, at the present day, of small-pox "spreading like wild-fire in an unvaccinated community, once the sparks of infection are introduced," has been greatly over-estimated. There has been none of this "spreading like wild-fire" in Leicester. It is true that the entire population of the town is not unvaccinated, but one important section of it, the school children, are, for all practical purposes, entirely unvaccinated. Yet although school children have been repeatedly attacked whilst still attending school, the disease has never "caught on" in a single school, nor have I ever had to close schools on account of it. A similar immunity of the school children was observed in the earlier epidemic of 1893.

To be quite frank, I have come to doubt whether the problem of preventing the spread of small-pox, under modern conditions, is rendered much, if any, more difficult by reason of the existence of a large proportion of unvaccinated persons; and after all, the bulk of the adult population in any town (in this country) is virtually unprotected, for the effect of vaccination in warding off an attack only lasts for about a decade.

Perhaps at this point I had better clear the ground of the question of revaccination. I am quite aware that the protective power of vaccination can be renewed as often as necessary by revaccination, and I quite believe that if the German system (including a third vaccination of all males) could be adopted in this country, equal results would be obtained. But I am satisfied (even if I thought the risk of small-pox sufficient to justify such a heavy premium) that, with the strong prejudice that exists against vaccination, any system of compulsory revaccination is quite out of the question, and Dr. Hillier himself admitted that it was not practical politics. Therefore I do not propose to consider the question of revaccination any further.

But to return to the question of infantile vaccination, not only have I come to doubt how far the presence of unvaccinated persons in a population makes the problem more difficult, but I am even inclined to think that in an entirely unvaccinated community the problem might actually be easier. My reasons for this are as follows: My experience of small-pox in Leicester has impressed me with the great danger of spread of the disease arising from the occurrence of very slight, highly modified, and on that account unrecognized cases of the disease. Repeated examples of this have occurred in Liecester, and indeed everywhere. No precautions can be taken in these cases as their real nature is not known, and consequently they too often spread the disease broadcast. A good instance in point is the recent outbreak in the East End of London, due to an unrecognized case of small-pox, in a child of 12, who was treated for three weeks in a general ward in the Mile End Infirmary, with the result that at least 30 cases with 8 deaths occurred, and the disease was given a big chance of getting a foothold in the metropolis.

Now it is well known to every medical man (except those who disbelieve in vaccination) that these slight unrecognized cases of small-pox which do such infinite mischief are very much more likely to occur amongst those who have been once vaccinated than amongst the unvaccinated. Small-pox when it attacks an unvaccinated child

almost always produces such definite and characteristic symptoms that, with the rare exception of certain haemorrhagic or malignant cases, it is difficult to mistake it. I say without fear of contradiction that *the vast majority of mistakes in diagnosis occur with vaccinated subjects.* The child, Annie Levy, who was the innocent cause of the outbreak at the Mile End Infirmary, *had been vaccinated.* Mr. Burns might very well have mentioned this in his reply to Dr. Hillier. Moreover—and this is my point—I submit that if she had not been vaccinated it is unlikely that the mistake in diagnosis which caused the outbreak, with its eight deaths, would ever have been made. Did space permit I would have elaborated this view further, but I trust I have said sufficient to show that there is still some room for debate even amongst those who believe in vaccination.

The experience of Leicester is worth studying. For a quarter of a century infantile vaccination has virtually been abandoned. The most confident predictions have been repeatedly made as to the fate which would overtake the town, and, according to orthodox teaching, those predictions, made in perfect good faith, were fully justified. Yet the event has shown that the predictions were wrong. It was positively asserted that Leicester could not pass through the fire (of an epidemic) without being burnt up. She has passed through the fire, and she has not been burnt up. Surely, then, it is reasonable to submit that the theories upon which those predictions were based require revising.—I am, etc,

C. KILLICK MILLARD,
Medical Officer of Health for Leicester.

Leicester, May 1st.

## SIR EDWARD HANNES AND SIR WILLIAM READ.

SIR,—It has always seemed to me very unfair to bracket Sir Edward Hannes and Sir William Read as is done in the rhymes quoted in the very interesting paper on Quackery in the JOURNAL of May 27th. These two men had something in common, but much in which they differed.

Although Hannes was the son of a basket maker (a fact Radcliffe thought fit to remind him of when he and Hannes quarrelled over the treatment of Queen Anne's son), yet he was well educated, having been at Westminster and afterwards at Oxford (Christ Church), where he graduated both M.A. and M.D. Unfortunately, in order to get practice, he stooped to most deplorable tricks, such as employing men to go into coffee taverns and to stop carriages and inquire "whether Dr. Hannes were within." Probably, for conduct of this sort he was never admitted a member of the College of Physicians.

Read, on the other hand, was simply an uneducated humbug, as the following advertisement, which I take from the *London Gazette*, August 21st, 1714, seems to prove:

> Sir William Read, Oculist in Ordinary to Her late Majesty, Queen Anne, of Blessed Memory, his Occasions requiring his Attendance on some Persons of Distinction in Distempers relating to the Eyes, is now at home, so that he will be constantly to be advised with at his House in Durham Yard in the Strand, where himself, or the Lady Read, Couches the Poor of Cataracts gratis, which Operation she duly performs, and cures other Distempers incident to the Eyes with good Effect and great Success, having been well instructed by Sir William for the Service of the Public.

The Heralds objected to the Knighthoods conferred by the Sovereign on these men, but for very different reasons. Hannes because he had not registered his coat of arms at Heralds' College; Read, because he was illiterate, or, as they put it, the use of the word "*Read*" was limited to his name, as he could neither *read* nor write.—I am, etc.,

May 29th. S. D. CLIPPINGDALE, M.D.

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THE next course of vacation lectures of the Berliner Dozenten-Vereinigung will begin on October 2nd, and conclude on October 28th. Further particulars can be obtained from Herr Melzer, Ziegel-strasse 10–11 (Langenbeck Haus), Berlin.

THE first International Congress on Diseases of Children will be held at Brussels in August next (12th to 18th) under the honorary presidency of Dr. V. Desguin, of Antwerp, and the actual presidency of Dr. Deerdly, of Brussels. The general secretary is Madame Ioteyko, M.D., 35, Avenue Paul de Jaer, Brussels.

# Universities and Colleges.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary comitia was held at the college on Thursday, May 25th, the President (Sir Thomas Barlow) in the chair.

*Licence.*

The Licence of the College was granted to James Owen David Wade.

*Patent Medicines.*

A report was received from the Censors' Board on the letter from the Home Office, dated March 2nd, 1911, concerning the labelling of patent medicines, recommending that—

> In reply to the communication from the Home Office, the Royal College of Physicians is of opinion that it would be greatly to the benefit of the public if the manufacturers and vendors of patent medicines were compelled to print on the labels of the bottle or other vessel the exact composition of all such medicine, and the amount of each constituent.
>
> The College, however, recommends that the manufacturers and vendors shall not be allowed to print on the label the names of the diseases or symptoms which the patent medicine purports to cure, as the College is of opinion that such printing of the names furthers the erroneous idea that particular diseases and symptoms can always be cured by particular drugs.

*National Insurance Bill.*

The College then proceeded to consider the National Insurance Bill. (See SUPPLEMENT, p. 340).

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Council is at present constituted as follows:

*President.*

Mr. H. T. Butlin; C, (1) 1895, (2) 1903.

*Vice-Presidents.*

Mr. R. Clement Lucas; C, (1) 1901, (2) 1909.
Mr. C. W. Mansell Moullin; C, (1) 1902 (substitute), (2) 1907.

*Other Members of Council.*

Sir Henry Morris, Bart.; C, (1) 1893 (substitute), (2) 1898, (3) 1906.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.
Mr. Rickman Godlee; C, (1) 1897, (2) 1905.
Sir W. Watson Cheyne, Bart.; C, (1) 1897 (substitute), (2) 1901, (3) 1909.
Mr. F. Richardson Cross; C, (1) 1898, (2) 1906.
Sir A. Pearce Gould; C, (1) 1900, (2) 1908.
Mr. Clinton T. Dent; C, 1903.
Mr. G. H. Makins, C.B.; C, 1903.
Sir Frederick S. Eve; C, (1) 1904 (substitute), (2) 1907, (substitute for Sir J. Tweedy till 1912).
Mr. Anthony A. Bowlby, C.M.G.; C, 1904.
Mr. Gilbert Barling; C, 1904.
Mr. C. H. Golding-Bird; C, 1905.
Mr. W. Bruce Clarke; C, 1907.
Mr. Charters J. Symonds; C, 1907.
Mr. W. F. Haslam; C, 1908.
Mr. C. B. Lockwood; C, (1) 1908 (substitute), (2) 1910.
Mr. W. Arbuthnot Lane; C, 1908.
Mr. W. Harrison Cripps; C, (1) 1905 (substitute till 1908), (2) 1909.
Mr. Bilton Pollard; C, 1910.
Mr. C. A. Ballance, M.V.O.; C, 1910 (substitute for Mr. G. A. Wright until 1914).
Mr. J. Bland-Sutton; C, 1910.

The following list shows the proportional representation of metropolitan medical schools and the provinces:

| | |
|---|---|
| St. Bartholomew's ... ... | 5 |
| Guy's ... ... ... | 4 |
| King's College ... ... | 1 |
| London ... ... ... | 2 |
| Middlesex ... ... ... | 3 |
| St. George's ... ... ... | 1 |
| St. Mary's ... ... ... | 1 |
| St. Thomas's ... ... ... | 2 |
| University College ... ... | 2 |
| Total number attached to London schools ... ... ... | 21 |
| Provincial members (Birmingham 2, Bristol 1) ... ... ... | 3 |
| Total ... ... ... | 24 |

On this occasion only two members—Mr. Clinton Dent and Mr. Makins—retire, having served eight years. Mr. Butlin was likewise elected in 1903, but being President he does not retire. No substitute members retire this year.

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AT the annual meeting of the Society for the State Registration of Nurses, on May 25th, it was stated that its objects were now supported by medical societies and nursing bodies representing a united membership of 30,000 individuals.

# Obituary.

## THOMAS RUTHERFORD, M.B., C.M.EDIN.,

KELSO.

THE lamented death of Dr. Rutherford of Kelso, which occurred on May 7th, leaves a great blank in the ranks of the Scottish medical profession, for not only was he widely known and welcomed in his own borderland, but was recognized by his medical brethren and the public as one whose pre-eminence and force of character ever maintained the highest professional ideals.

Thomas Rutherford sprung from an old border family; he was a nephew of the late distinguished Professor of Physiology in the University of Edinburgh, was born in 1848, and received his early education in Crailing and the Nest Academy, Jedburgh. He studied Medicine in Edinburgh, and graduated M.B., C.M. in 1870. A leader amongst men, he won the respect and affection of his fellow students and teachers. Always remarkable for originality and energy, he volunteered while yet a student for the Franco-German war, and there gained much varied experience.

DR. THOMAS RUTHERFORD.

[*Photograph by W. Crooke, Princes Street, Edinburgh.*]

After graduation he was appointed one of the resident physicians in the Royal Infirmary, and thereafter his surgical leanings led to his receiving the post of Resident House-Surgeon under his old teacher, the late Professor Spence. He then continued his studies in Vienna and other Continental centres. After this he settled in Kelso, where he rapidly established a leading practice which was carried on with characteristic devotion till the end. Few busy practitioners could keep so well abreast of medical advance as Rutherford did, and his knowledge of public health, sanitation, and bacteriology found its expression in the local hospital, and was always fully at the service of his townsmen. He was a sound all-round practitioner, and possessed an extensive knowledge of ophthalmology.

Dr. Rutherford was a great and forcible personality. Straightforward, vigorous, upright, he spoke out boldly what he thought, and yet was always ready to receive and consider the opinion of others. His judicial mind rapidly formed and acted upon his honest convictions, and he enjoyed a deservedly high reputation as a skilled and trustworthy practitioner, whose advice was well worth having and whose counsel was eagerly sought. His strong virility concealed a tender heart, and, while he could not stoop to court practice, his experience and promptitude drew all to him.

Dr. Rutherford was Physician to the Kelso Dispensary and to the County Fever Hospital, as well as Parochial Medical Officer and Vaccinator for Smallholm and Linton. He was a member of the British Medical Association and of the Berwickshire Natural History Club, and a Fellow of the Hunterian Society.

Dr. Rutherford was catholic in his tastes; a keen lover of Nature, he revelled in the country and was a good golfer. Devoted to music, he welcomed many well-known musicians to his home, and few things gave him greater pleasure than well-rendered orchestral or operatic works. He travelled much, and refreshed his surgical longings at various foreign hospitals. He found solace in his leisure moments in literature, always harking back to his favourite Horace. He was endeared to an unusually wide circle, and those who were privileged to know him most intimately will ever treasure the memory of their great-hearted friend. Of late years Dr. Rutherford suffered severely from recurrent attacks of influenza and obstinate insomnia, and he sank unexpectedly after an operation performed for the relief of an internal affection. He leaves a widow to mourn his loss.

He was carried to his rest in the Kelso cemetery amidst the sorrow of his friends and with signs of public mourning.

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## EDMUND BANCKS WHITCOMBE, M.Sc., M.B., CH.B.BIRM.,

PROFESSOR OF MENTAL DISEASES, UNIVERSITY OF BIRMINGHAM.

A LONG career in alienist medicine, and one spent almost entirely in the service of a single institution, came to an end with the death of Dr. E. B. Whitcombe on May 13th. It was the result of pneumonia following an attack of influenza, and took place at the Birmingham City Asylum, of which he had been Medical Superintendent for many years.

Dr. Whitcombe received his professional education at the old Sydenham College, Birmingham, and after becoming M.R.C.S. and L.S.A., in 1868, almost immediately took up the study of mental disease as a speciality. Within two years he had joined the Birmingham City Asylum as Assistant Superintendent, and, except for four years between 1878 and 1882, when he was Medical Superintendent of the East Riding Asylum at Beverley, he remained in its service throughout his life. He succeeded the late Dr. Green as Medical Superintendent in 1882, and some three years ago the completion of his twenty-fifth year of office was celebrated by a dinner and presentations to him by members of the asylum staff and of the Asylums Committee. His connexion with the university was also long. He became Lecturer on Mental Diseases at Queen's College, Birmingham, in the early Eighties, and towards their end was appointed to the professorship of the university in the same subject. The degrees which he held in its faculties of medicine and science were conferred on him in 1901. Meantime he had delivered the Ingleby Lectures in 1890, and was president of the Medico-Psychological Association of Great Britain and Ireland in 1891.

As a Medical Superintendent Dr. Whitcombe disliked methods of restraint, and endeavoured to introduce into asylum life, as far as possible, something of the atmosphere of a home. He was also a strong advocate of open air in the treatment of mental disease. He was frequently consulted with regard to asylum enterprises in Yorkshire, and thus played a part in assisting the development of many mental hospitals other than his own. Of the Birmingham Benevolent Society he was President in 1907, and remained a member of its court of directors up to the time of his death. He enjoyed much esteem among his professional brethren, and by all those with whom his work brought him into contact his death will be sincerely regretted.

Dr. Whitcombe was married, and leaves a widow, four sons, and a daughter. His funeral on May 17th was attended by representatives of the university, and of several departments of the Corporation of Birmingham, as well as by a number of his medical colleagues.

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MR. GEORGE ASTON PEDLEY, of Winchester and Southampton, died at his residence in the former city at the end of April. He had not been in good health for some time previously, and had recently been away for a change of air. On his return he seemed very much better, but soon afterwards had a sudden attack of illness, and died the same evening. He received his medical education at St.

Mary's Hospital, becoming M.R.C.S., L.S.A., in 1886, and L.R.C.P.Lond. in 1887, serving meantime a term of office as House-Surgeon at the hospital. He then went to Burma, where he was surgeon to the Irrawaddy Flotilla Company, Honorary Surgeon to the Home for Lepers at Mandalay, and held a commission as Surgeon-Captain in the Upper Burma Volunteer Rifles. On returning home ten years later he took up the study of dentistry at the National Dental Hospital and in the dental department of Guy's Hospital, and received the licence in dental surgery of the Royal College of Surgeons in 1897. Thus qualified, he served a term of office as House-Surgeon at the National Dental Hospital, and then began to practise in Tonbridge, where he made many friends. Later on he moved to Winchester, and at the time of his death had been living there some six years, practising with a partner both in Winchester and in Southampton. In all that concerned the welfare of Winchester he took a deep interest, but was debarred by the state of his health from taking any part in its public life except in connexion with the Young Men's Christian Association and other allied bodies which specially appealed to his sympathies. He was in the 52nd year of his age, and has left behind him a widow and three daughters; his only son died through an accident about two years ago.

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DR. CHARLES MON STEWART, of Toronto, met with his death from a street accident in that city on March 25th. The horse which he was riding, becoming restive, got in front of a street car, with the result that Dr. Stewart was thrown between the lines and killed instantly. The news will be received with much regret by all those to whom Dr. Stewart became well known during his visits to this country. He was originally a student of the University of Toronto, where he took the degrees of M.D., C.M., in 1897, and remained on as House-Surgeon of the General Hospital for some two years. He then spent several years in post-graduate work in London and Edinburgh. On his return to Canada he became Superintendent of the General Hospital at Toronto, and later on again came to England to study ear, nose, and throat diseases. During this period he served a term of office as Resident Medical Officer and House-Surgeon to the Throat Hospital, Golden Square, where he enjoyed much esteem and popularity. He also at this time joined the Laryngological Section of the Royal Society of Medicine. He went back to Canada some three years ago, and had since been practising as a specialist. While in England he took the conjoint diplomas of the Royal Colleges in London. He was a Fellow of the Trinity Medical College at Toronto, and held an appointment in the Ear, Nose, and Throat Department at the General Hospital.

# Public Health AND POOR LAW MEDICAL SERVICES.

## THE CENSUS.

### ENGLAND AND WALES.

THE summary of the figures obtained at the recent Census, according to the preliminary examination of the returns, was issued with the parliamentary papers of May 25th. The figures are annexed to an answer by Mr. Burns, the President of the Local Government Board, to a question by Dr. Addison. Mr. Burns points out in his reply that the figures for 1911 are subject to correction, being the provisional numbers derived from summaries furnished by the local registration officers. The following results are shown in Mr. Burns's statement:

| | |
|---|---|
| The population of England and Wales has increased since 1901 by ... ... | 3,547,426 |
| Equal to ... ... ... | 10.91 per cent. |
| The increase is made up as follows: | |
| England ... ... ... ... | 3,286,640 |
| Wales ... ... ... ... ... | 260,786 |
| | 3,547,426 |
| The 62 administrative counties show an increase of ... ... ... ... | 2,660,014 |
| Equal to ... ... ... ... | 11.80 per cent. |
| The 75 county boroughs show an increase of ... | 887,412 |
| Equal to ... ... ... ... | 8.89 per cent. |
| In the County of London there is a decrease of ... | 13,306 |
| Equal to ... ... ... ... | 0.29 per cent. |
| In Greater London there is an increase of ... | 684,867 |
| Equal to ... ... ... ... | 10.20 per cent. |

*Previous Census Returns.*

| | |
|---|---|
| At the Census of 1901 the increase of population, as compared with the Census of 1891, was ... | 3,525,318 |
| Equal to ... ... ... ... | 12.17 per cent. |

The present rate of increase, 10.91 per cent., is the lowest ever recorded since the first general Census was taken in 1801. The numbers and percentages on previous occasions were:

| — | Population | Rate of Increase. |
|---|---|---|
| 1801 ... ... | 8,892,536 | — |
| 1811 ... ... | 10,164,256 | 14.00 |
| 1821 ... ... | 12,000,236 | 18.06 |
| 1831 ... ... | 13,896,797 | 15.80 |
| 1841 ... ... | 15,914,148 | 14.27 |
| 1851 ... ... | 17,927,609 | 12.65 |
| 1861 ... ... | 20,066,224 | 11.90 |
| 1871 ... ... | 22,712,266 | 13.21 |
| 1881 ... ... | 25,974,439 | 14.36 |
| 1891 ... ... | 29,002,525 | 11.65 |
| 1901 ... ... | 32,527,843 | 12.17 |
| 1911 ... ... | 33,075,269 | 10.91 |

### IRELAND.

The preliminary Irish Census report has just been issued. It shows that the population on April 2nd was 4,381,951 persons, including 2,186,804 males and 2,195,147 females. The decrease, as compared with the Census of 1901, is 76,824 persons, or 1.7 per cent. The decrease in the number of males equals 0.6 per cent., and of females 2.8 per cent. The only province which shows an increase of population is Leinster, with an increase of 7,499 persons.

The number of inhabitants in each of the provinces and in all Ireland in 1901 and 1911 is shown in the following statement.

| | 1901. | 1911. | Increase or Decrease. | Rate per Cent. |
|---|---|---|---|---|
| Leinster ... ... | 1,152,829 | 1,160,328 | + 7,499 | + 0.7 |
| Munster ... ... | 1,076,188 | 1,033,085 | −43,103 | −4.0 |
| Ulster ... ... | 1,582,826 | 1,578,572 | − 4,254 | −0.3 |
| Connaught ... | 646,932 | 609,966 | −36,966 | −5.7 |
| Total ... | 4,458,775 | 4,381,951 | −76,824 | −1.7 |

The greatest decrease—43,103 persons—is in Munster; Connaught shows a decrease of 36,966 persons, and Ulster 4,254 persons.

There was an increase between 1901 and 1911 in the population of four counties—Dublin, Down, Kildare, and Antrim. There was a decrease in the population of all the other counties ranging from 0.4 per cent. in Wicklow to 8.3 in Leitrim.

The number of families returned in 1911 is 912,711, an increase over 1901 of 2,455. The average number of persons per family is now 4.8 against 4.9 in 1901. In most of the larger towns an increase in population is shown: Dublin has an increase of 6.4 per cent., and has now a population of 309,272 persons; Belfast shows an increment of 10.4 per cent., and has now the largest urban population in Ireland—namely, 385,492 persons.

# Medico-Legal.

## WORKMEN'S COMPENSATION.

*Medical Referees and Medical Evidence.*

IN the case of Buckley *v.* Rose Bridge Colliery (Wigan, May 2nd) the evidence was to the effect that when the applicant was lifting a tub he complained of having strained his side. He was seen by two or three medical men, and received certificates for three weeks entitling him to receive compensation. Afterwards it was alleged that the man was suffering from varicocele, which could not be attributed to the accident.

His Honour Judge Bradbury asked the medical witnesses if they believed the applicant's story when they certified he was suffering from accident.

One medical man said he was bound to accept the man's statement, and another said the varicocele could not have been due to accident.

His Honour, in giving judgement for the applicant, said he was sick of hearing in that court evidence of medical men which was contradictory. In that case one partner said in

effect that the man was a liar, and the other believed what he said. Under the Act of Parliament he sent as many of those cases as he could to the medical referee, and the case before him showed the usefulness of such an official. He believed the man's story, and allowed him compensation.

# Medical News.

THE Lord Chancellor has added the name of Dr. Arthur D. Hughes to the Commission of the Peace for the borough of Deal.

ON the occasion of the anniversary of the Queen's birthday, May 26th, the flag presented to the Royal Dental Hospital by the Students' Club was hoisted for the first time by Mr. John Hampton Hale, Chairman of the Committee of Management.

WE are informed that at the Royal College of Physicians there are still a few seats, not yet allotted, to view the Royal Progress on Friday, June 23rd, and that these seats will be allotted to Licentiates of the College in the order of their application. The price of each seat is the same as to Fellows and Members—namely, one guinea and a half, to include refreshments; and applications should be sent to the College, Pall Mall East.

A BILL was introduced into the National House of Representatives (United States) on May 6th, providing "a stamp tax of one-eighth of a cent on every five cents' worth of proprietary medicines, perfumes, cosmetics, and similar articles prepared under secret or privately owned formulae." The bill has been referred to the Ways and Means Committee.

AT the annual meeting, on May 24th, of the Queen's Hospital for Children, Hackney Road, London, two ladies were elected on the committee of twenty governors for the ensuing year. The hospital has 134 beds in London, and will shortly have 30 beds at the seaside branch at Bexhill, which is to be opened on July 13th, by H.R.H. Princess Louise, Duchess of Argyll.

PROFESSOR WILSON recently contributed an interesting paper, on the inheritance of milk yield in cattle, to the Royal Dublin Society. His main conclusion was that milk yield is a Mendelian character, and in consequence he thought that if proper steps were taken the milk yield of a breed of cattle could be nearly doubled within a short time. His conclusions are based on an extensive investigation of the subject.

AT the recent examination for sanitary inspectors under the Public Health (London) Act, 1891, held by the Sanitary Inspectors' Examination Board, 20 candidates passed, of whom 7 were trained at the Royal Sanitary Institute, 4 at the National Health Society, 3 at King's College, 2 at the Battersea Polytechnic, and 1 at the Hackney Institute; the 3 other candidates were in office. Of the successful candidates, 9 were women.

PREPARATIONS for the Congress of the Royal Institute of Public Health, which is to be held this summer in Dublin, are well advanced, and a preliminary programme of subjects for discussion at the different sections has been drawn up. The list of selected subjects includes the following: (1) Vaccination; (2) aërial convection of disease; (3) typhoid carriers; (4) diseases transmissible from animals to man; (5) the vital statistics in Dublin; (6) medical inspection of schools.

THE *Boston Medical and Surgical Journal* states that it is reported that on May 4th the Governor of New Jersey signed the "Sterilization Bill" recently passed by the Legislature of that State, providing for the asexualization of criminals and defectives. A board of examiners is to be appointed to carry out the law. New Jersey is said to be the fourth State in the Union to enact such a measure, similar laws being already operative in Indiana, Connecticut, and California.

A BANQUET of the Brussels Medical Graduates' Association will be held at the Garden Club of the Coronation Exhibition, on Thursday, June 8th, at 8 p.m. All graduates of the University of Brussels are welcome, and members are invited to bring ladies. Tickets, 7s. 6d. each (not including wine) may be obtained from the Honorary Secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W.

THE fourteenth annual meeting of the Medical Library Association was held on May 9th and 10th, at Atlantic City. After an address by the President, Dr. J. H. Musser of Philadelphia, papers were read by Mrs. Grace W. Myers (Boston) on hospital records in relation to the hospital librarian, by Dr. Carl Black (Jacksonville, Illinois) on the establishment of medical libraries in county medical societies, and by Mr. C. Perry Fisher (Philadelphia) on the changes in medical periodical literature since January, 1909.

FROM the annual report of the Homes for Inebriates Association we gather that Dr. F. S. D. Hogg, Medical Superintendent of Dalrymple House, is of opinion that when an alcoholic is under medical observation he can be, and best is, deprived of all alcohol forthwith; in a morphinomaniac, on the contrary, the drug should be withdrawn only little by little. He would like to see all patients signing under the Act for the maximum period of two years; he would not detain them, however, for that period as a rule, but would allow them out on leave of absence granted on the condition that should a relapse occur the patient would be liable to return to the retreat. He has endeavoured to ascertain the after-history of 978 patients who have left the institution during his tenure of office—twelve years—and concludes that about 67 8 per cent. are doing well, 16.1 per cent. improved, and 16.1 per cent. not improved.

AT the last Italian Congress on Cremation, held in Milan, it was reported that since the federation for promoting that method of disposal of the dead was founded three years ago twenty societies have joined; in addition to these there are twenty-two independent societies. The membership of the federated societies is now about 6,000. Leghorn heads the list with 1,000 members; next come in order the societies of Milan, Bologna, Turin, Florence, Genoa, Brescia, and Novara. There are "cremation temples" at Arezzo, Asti, Bergamo, Brescia, Bologna, Codogno, Florence, Genoa, Leghorn, Milan, Piacenza, Pistoia, Siena, Turin, and Varese. Besides these, there are crematories at the disposal of communes at Brà, Como, Cremona, Lodi, Modena, Novara, Pallanza, Perugia, Pisa, Rome, San Remo, Spezia, Udine, Venice, and Verona. The following are the total numbers of cremations in the chief cities up to the end of 1907: Bologna, 374; Florence, 469; Leghorn, 456; Milan, 2,213; Rome, 1,345; Turin, 425; Cremona, 140; Venice, 101; Genoa, 100. To appreciate the relative value of these figures account must be taken of the population in each place and the date at which cremation was instituted. Thus, at Milan, where it was started in 1876, there were 2 cremations in the first year and 465 in 1907. In Rome cremation was instituted in 1883, in Turin in 1887, in Genoa in 1905. The crematories are of the Gorini type, except at Milan, where a gas oven is used. The cost of cremation ranges from a minimum of 15 francs to a maximum of 40 francs; the urn costs 10 francs extra. In some cities, like Turin, Perugia, Udine, and Verona, cremation is gratuitous to the poor.

AT the annual meeting of the Asylum Workers' Association, held at the rooms of the Medical Society of London on May 24th, Sir William Collins, M.D., President, in the chair, there was a large attendance, including many representatives of the medical profession and of the staffs of asylums. The annual report showed a satisfactory increase in membership, which now amounted to 5,276. The financial statement was satisfactory. The largest item of expenditure was that for *Asylum News*—£250 net. The association was indebted to Dr. James Nicoll for his able services as editor. The Homes of Rest Fund has not been so well supported as previously, but it had done good service, having provided needed rest and change to twenty-one convalescent attendants and nurses. In conjunction with the Medico-Psychological Association, a joint advisory committee had dealt with a number of cases of alleged grievances arising in the administration of the Asylum Workers' Superannuation Act, and in some cases satisfactory redress had been obtained; in others it had been necessary to obtain counsel's opinion, and in some cases of dispute appeal had been made to the Home Secretary, who was still awaiting the advice of the law officers of the Crown as to his powers under Section 15. The Executive Committee had spent much time in considering the best method of obtaining superannuation allowances for workers in registered hospitals and private asylums, either through the Royal National Pension Fund for Nurses or an insurance society, and had had under discussion Lord Wolmer's bill for limiting the hours of employment in the wards of asylums and certain amendments which he proposed in the Act of 1909. Evidence would be tendered to the Select Committee on behalf of the association. The presentation of two gold, two silver, and twenty-six bronze medals for long and meritorious nursing in asylums followed. The President was re-elected.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

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2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

ONYX asks for suggestions in the treatment of the following case: A lady, in consequence of suppuration under the nail of her forefinger, lost the entire nail; it has now grown halfway up, and the fleshy part of the terminal phalanx has increased in size. It is desired to make the nail continue its growth in order to cover the upper half of the nail bed.

## ANSWERS.

### AREA OF VACCINATION.

MARKER.—"One small mark" is not efficient vaccination. Clause 7 of the Third Schedule of the Vaccination Order, 1898, contains instructions to vaccinators as to the number and size of the vesicles as follows: "In all cases of primary vaccination the public vaccinator must aim at producing four separate and good-sized vesicles not less than half an inch from one another. The total area of vesiculation resulting from vaccination should not be less than half a square inch." Statistical evidence on the question submitted by "Marker" has been collected by many observers. Mr. Marston, of the London small-pox hospitals, made observations in nearly 6,000 cases of post-vaccinal small-pox. The subjoined table is founded on information he gave to the medical officer of the Local Government Board, based on those observations:

| Cases of Small-pox, classified according to the Vaccination borne by each Patient respectively. | No. of Deaths per Cent. in each Class respectively. |
|---|---|
| Stated to have been vaccinated, but having no cicatrix | 21 |
| Having one vaccine cicatrix | 7½ |
| Having two vaccine cicatrices | 4½ |
| Having three vaccine cicatrices | 1½ |
| Having four or more vaccine cicatrices | ¾ |
| Unvaccinated | 35½ |

## LETTERS, NOTES, ETC.

### EVIDENCE OF SEVERE ILLNESS AFFORDED BY THE NAILS.

DR. OWEN WILLIAMS (Glandyfi) writes: In the JOURNAL of May 20th I noticed a note under the above-mentioned heading, and I agree with the writer that the existence of transverse marks or furrows on the nails during illness or immediately after do not necessarily imply that the patient has been at "death's door." It was only last week that a young woman, aged about 25, called my attention to the transverse growth on all the nails of her fingers and asked me the significance of them, and I recalled to mind what I had read in the JOURNAL written by Dr. Norman Flower and Sir Samuel Wilks, but we could not come to the conclusion that she had at any time been near "death's door." I had been attending her recently for follicular tonsillitis and a gastric ulcer, and, like the patient referred to in the note, she had never been "seriously or dangerously ill." I may mention that she first noticed these furrows—a single furrow on each nail—a little over a week ago. They are now about one-eighth of the way down from the root of the nail, and look like new nails growing and gradually shedding off the old ones, and they will probably take from two to three months before the furrows disappear. It is possible that they occur in illness, but they do not necessarily signify that the patient has been at "death's door," and I should not have referred to the matter if I had not noticed the note in the JOURNAL.

### THE EXPRESSION OF THE COLOUR-BLIND.

DR. GEORGE HENRY TAYLOR (Sydney) writes: I have now seen and conversed with seven educated and intelligent red or green blind persons (Holmgren's classification) not connected with the railway service. I found that each of them belonged to the type I have described in my former notes. As a red or green blind person (in my former notes I described these as red-green blinds) has something wanting in the expression of his face that is always present (although varying in degree in different persons) in a person who has normal colour vision, the fact that a face is alert and intelligent may conceal this defect. In classifying a candidate's colour sense after he has been examined by the wools and the lantern, it is the quality of an error made that determines the expert, not the number of errors. A trained and alert mind if blind to red and green may escape detection by a careless and inexperienced examiner. When the mind of a red or green blind person is untrained in colour, detection is simple. In exceptional cases an equal degree of difficulty will exist even with a trained observer in classifying a face. With the ordinary candidate it is not difficult to recognize a red-green blind by his face value, under the conditions I have described in a former note. Many of the red or green blind persons I reject for work on the running lines are employed in the railway workshops. I occasionally see some of these men when they have been sick or injured. The type is obvious after it has once been recognized.

### SHIP SURGEONS.

DR. JOHN F. ELLIOTT (Member of Ship Surgeons' Subcommittee, British Medical Association, South View, Rostrevor, co. Down) writes: Now that a common cause is bringing medical men into closer union, and the next few weeks will see many meetings, a very favourable opportunity will be afforded those who are interested in the matter of getting into touch with ship surgeons, both active and retired, and bringing to their notice the fact that a subcommittee has been formed, under the auspices of the British Medical Association, for the purpose of placing matters connected with the medical marine upon an official footing.

### STATIC REFRACTION OF THE EYE.

GLAUCUS writes: Although the static refraction of the eye is defined as its refractive state while at rest, apparently some authors consider, or are undecided as to, this condition being fulfilled when the tone of the ciliary muscle is abrogated by atropine. That this ambiguity exists is readily found out by students of refraction when they come to apply their author's teaching and its implications. Writers on retinoscopy seem undecided as to whether they should say anything about deduction for atropine *per se* when this is used, while under the same conditions for "vision testing" by the old trial method the deduction is always insisted on. As is well known in retinoscopy, under atropine the deduction for "distance" at rate of 1 D for 1 metre point of reversal leaves as a result in hypermetropia the total H (manifest *plus* latent) and in myopia the total M, less the amount neutralized by relaxation of the ciliary by the mydriatic. Apart from retinoscopy, some authors deduct as little as one-third of the latent H; others all. As, especially in astigmatic cases, it is best to proceed at once with retinoscopy, both for diagnosis and measurement, the calculation of the result, say in H, with reference to the relative amounts of manifest and latent H does not generally obtain and requires extra time, therefore it might be well if authors would give their opinions in their teaching as to deduction for mydriatic *per se* in retinoscopy when such is used, as at present there seems much diversity of opinion or want of opinion on the subject.

### THE CAUSE OF THE SYMPTOMS OF MALARIA.

COLONEL M. D. O'CONNELL, M.D. (Kirkby Wharfe, Tadcaster), writes: From the ever-increasing number of works being published on the parasitology, biology, entomology, bionomics, epidemiology, and mathematics of malaria, is there not some danger of some of the more interesting, still unsolved, problems of the disease being lost sight of, such as the actual cause of the pyrexia, and the grave anaemia which follows it, or rather accompanies it? It is said that both are caused by a toxin formed within the parasite, and liberated therefrom during sporulation either immediately before or at the time of the rigor. This, I presume, is only conjecture. When the old miasmatic origin of malaria was held, it was said that the actual cause of the pyrexia was a *poison* given off from marsh land under certain conditions of atmospheric heat and humidity. If enthusiastic students inquired the nature of this poison they felt, naturally, disappointed on being told that it was "imponderable, immeasurable, and not recognizable by any test." In fact its very existence was conjectural. But is the parasitic toxin of to-day any less conjectural than the marsh poison of the past?


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# ON PREVENTIVE MEDICINE:

## *THE MEDICINE OF THE FUTURE.*

BEING THE ADDRESS IN MEDICINE DELIVERED AT THE ANNUAL MEETING OF THE CANADIAN MEDICAL ASSOCIATION, JUNE, 1911.

BY

**SIR JAMES BARR, M.D., LL D, F.R.C.P., F.R S E.,**

CONSULTING PHYSICIAN, LIVERPOOL ROYAL INFIRMARY; MEDICAL VISITOR, TUEBROOK ASYLUM; VISITING PHYSICIAN, HAYDOCK LODGE ASYLUM; PRESIDENT OF THE LIVERPOOL BRANCH OF THE EUGENICS EDUCATION SOCIETY.

MR. PRESIDENT, LADIES AND GENTLEMEN, — When you extended to me your warm and cordial invitation to deliver this address I felt that you were asking me to undertake a task which I could only very inadequately perform; and, moreover, I felt that the burden was further weighted by the appreciative and anticipatory remark of your President when he wrote me saying: "I don't know any one who could give us a more interesting and profitable address than yourself." His expectations evidently ran high; how far these will be realized is a matter for your consideration. Personally I put the question to myself, How can I best satisfy the aspirations of a young, enterprising, and vigorous race? This is my third visit to the Dominion, and on each occasion I have addressed a Canadian audience, so I am not quite a stranger. I hope, therefore, I can claim your indulgence for a patient hearing.

On such an occasion as this it is customary for one to magnify his office, to say pleasant things, to paint the glories of the past, and depict in glowing terms for the benefit of the public what medicine has done for humanity. On the other hand, it has been said that the art of pleasing is the art of deceiving, hence I have no wish that we should hoist a high standard of righteousness or pose as the only benefactors of the race. There can be no doubt that the great advances of medical science have been of enormous advantage to individuals, and have enabled innumerable persons to survive who would otherwise have succumbed to the stress of circumstances, but how far this has been an advantage to the evolution of the human race as a whole is a disputable point. Karl Pearson says:

> The very existence of human society depends upon a strong gregarious instinct having been evolved among men. Our highest human product, sympathy with our fellow men, is as much a product of evolution as the gregarious instinct of a herd of deer, or the combined action of a pack of wolves. Only it is more completely developed, and with increasing knowledge we have lost more and more touch with its instinctive gratification. The sympathy is there, ready to run riot in a thousand ways, which sober reflection may not show to be for the ultimate advantage of the herd. It is easy to give a shilling to a beggar, to subscribe a pound to a charity, or to found stipends for the blind or the deaf and dumb. Our strong instinct of sympathy with suffering has been gratified, but shall we really have contributed to the total enjoyment of the race? May be, and may be not—the pedigrees of general mental and physical degeneracy which I place before you may help you to a judgement. Of one thing, however, I feel sure, that no judgement will lead to lasting social gain which is reached by appeal to the emotions, which is based on inadequate knowledge of facts, or which collects data with the view of supporting any preconceived opinion.

The Scriptures say that it is more blessed to give than to receive, and I think I can claim, on behalf of our profession that, whether we have always been right or not, we have been ever actuated by a spirit of altruism. The process of vicarious charity, at the expense of the medical profession, has gradually grown so that in the present day at least a fourth of the population of England receives free medical advice. Why should all this charity be necessary? Why should such a large proportion of the population be pauperized? It would seem to me that it is because we are producing an inferior breed, because we are not raising up a healthy, independent race. The struggle for existence is not merely an individual question, but it is becoming more and more a national question, and the nation which produces the finest race is sure to win in the long run. As Professor Arthur Thomson says, what children usually die of is their parents, and what a nation dies of is lack of men.

In future medical men must not be content with treating the diseases of the community, they must point out the lines along which the nation is to be improved by encouraging the multiplication of the fit, and controlling the increase of the unfit. The public must be taught that the health of the nation is its most valuable asset, and that the maintenance of health is of much more importance than the treatment of disease. This departure in placing physiological processes before pathology involves a higher form of medical education than that prevalent in our medical schools of to-day—an education in which only men of the highest intelligence should take part.

"Prevention is better than cure" is one of those half-truths which readily command public acceptance as axioms which cannot be gainsaid; but it is not Nature's method, and medical men are incessantly talking about following the laws of Nature. The prevention of disease is very important to the individual, but when it enables undesirables to go on generation after generation propagating their species it can be of no advantage to the race. In an address on preventive medicine which I gave four years ago I stated that if the public were only alive to their own interests they would pay medical men liberally for directing them in the paths of truth and in the ways of health rather than for treating their diseases. If the money which is spent in the treatment of disease were devoted to the preservation of health, our huge hospitals would not be half filled, purveyors of synthetic remedies and artificial foods might find a suitable place in a home for the destitute, the necessity for surgeons and specialists would largely disappear and physicians would be fully occupied in advising their *clientèle* on the preservation of health and in looking after the aged. I am afraid we are still a long way off those halcyon days when our hospital buildings will be pointed out as relics of a decadent age; but still we should at least aim at transmitting high ideals to our successors. We can best attain those ideals by improving the stock; no environment will ever produce a genius.

Hitherto medical men have been devoting all their energies to the environment, adapting the environment to the individual, not the individual to the environment, thus not assisting the race to take care of itself. Attention, however, to the environment is absolutely essential in the prevention of disease. Although disease is Nature's method of killing off the unfit, it often severely damages those who survive, and is thus a slow and crude method of improving the race. Man has now risen superior to natural selection, and insists on living when all natural forces are against him. Medical science has succeeded in suspending the natural selective death-rate, and sentimentality renders the existence and rapid multiplication of the undesirables an easy matter. In the old countries the undesirables are increasing at a much more rapid rate than the mentally and physically fit. Those countries which have to a large extent suspended a selective death-rate, but are not wise enough to establish a selective birth-rate are certain to decay, and go the way of all the ancient nations who disappeared and made way for more vigorous races. You have got here a young country, a virgin soil, and you should see that it is peopled by a vigorous and intellectual race. You should shut out all degenerate foreigners as rigidly as you would exclude a mad dog. Do not follow our example, and make your shores a dumping ground for the rubbish of Europe. I believe you have already got a fair share of degenerates, but your population is still small, and there should be no difficulty in eliminating the unfit in the course of a generation or two.

When I was first in Canada, thirteen years ago, I read some literature about the rapid reproduction of the French Canadians, and the marked contrast in the size of their families to those in France. It was then calculated that, at the same rate of fertility, in about a century they would not only populate the whole of Canada, but would overrun the whole of North America. The Yellow Peril was not in it with them. However, I do not yet notice much change. A large number of you have not yet been pushed westward. Nature has her compensations, and this is evidently proving a saving grace to a less prolific breed. A high birth-rate is accompanied by a large infantile death-rate, and the natural increment in the population is not unduly excessive. Natural selection is still in force; the weaklings

are being killed off, and no doubt a strong and vigorous race is left behind.

The crude birth-rate for 1,000 persons living in Ireland, the Province of Ontario, England and Wales, and Scotland in 1909 was respectively 23.5, 24.9, 25.6, and 26.4. On the other hand, if we take the fertility of 1,000 wives between the ages of 15 and 45, we find that the Irish wives head the list, the numbers being: Ireland, 289.4; Scotland, 271.8; England and Wales, 235.5; and France, 157 5. I have not been able to get such statistics from Canada.*

Now when we come to the corrected death-rates at all ages for 1.000 living in 1909, we find the rate in Scotland: males, 18.56; females, 16.73; England and Wales: males, 18 37; females, 16.04; Ireland: males, 16.25; females, 16 90. In Canada in 1901, for both sexes, 15.10. In Ireland, Norway, Sweden, and Australia the infantile mortality is very low. In Ireland the death-rate for children under 10 years of age is very much lower than in England and Scotland, but it is rather higher among individuals from 10 to 35 years, and then there is a decided fall till the age of 75. Above that age the death-rate in Ireland rises rapidly, and it might look as if Ireland was a dangerous place for old people to live in, but it is simply due to the proportionately greater number of old people in Ireland. There is no evidence to show that the high mortality is due to the old age pensions.

The higher death-rate in Ireland from 10 to 35 years is almost entirely due to tuberculosis, and the lower death-rate at all other ages, except extreme old age, points indubitably to the fact that tuberculosis is one of Nature's methods of getting rid of the unfit. The wave of enthusiasm over the conquest of consumption is so overwhelming in the present day that it requires a very bold man to say a word in favour of the tubercle bacillus. Dr. D. W. Hunter, of the Royal Albert Asylum for Idiots, in criticizing a recent work on the conquest of consumption, said *inter alia*:

> Many an imbecile owes his existence to the fact that his parents failed to die of tuberculosis. . . . Again, as regards insanity, the authors themselves estimate that, roughly, one in every eight consumptives is likewise insane. This tendency to consumption among the insane they explain by the lowered resistance of the soil during the attack of insanity. This may be so, but it is certainly not the whole story. While, during the last fifty or sixty years, the death-rate from tuberculosis has steadily diminished, we are, on the other hand, faced with a very ugly rise in our insane rate. Since the insane show such a marked tendency to tuberculosis, it is not improbable that the diminishing death-rate from tuberculosis has played a considerable part in the increase of insanity:

And again:

> Let us take the case of the idiot. The death-rate among idiots is about ten times that of the normal population at the same age. Further, of deaths of idiots, about 80 per cent. are due to tuberculosis. Now an idiot has not even the resisting power necessary to die of phthisis. He dies of acute tuberculosis, death taking place in from three to six weeks from the onset of the illness. Surely here there is some inherited lowering of the soil. There are some 150,000 (estimated) of these defectives in England and Wales, and for every defective there are from six to a dozen of his relatives only a shade better than himself. Practically the same holds for insanity, yet we are asked to believe that a man cannot inherit a soil which will remain during his lifetime permanently below the average in resisting power.

Further:

> Until we have some restriction in the marriage of undesirables the elimination of the tubercle bacillus is not worth aiming at. It forms a rough but on the whole a very serviceable check on the survival and propagation of the unfit. This world is not a hothouse, and a race which owed its survival to the fact that the tubercle bacillus had ceased to exist would, on the whole, be a race hardly worth surviving. Personally I am of opinion, and I think such opinion will be shared by most medical men who have been behind the scenes and have not allowed their sentiments to blind them, that if to-morrow the tubercle bacillus were non-existent, it would be nothing short of a national calamity. We are not yet ready for its disappearance.

These are wise and weighty words, but it would be too much to expect that they would command public acceptance, because there is nothing in the present day which people hate so much as the truth when it conflicts with popular sentiment.

Dr. Osler, in a recent lecture in Dublin on the fight against tuberculosis, said: "And, lastly, for our great consolation, we know that the disease is not hereditary, and for this let us be thankful." We know nothing of the kind, although we are constantly having it dinned into our ears by medical men who ought to know better. We know that the tubercle bacillus, which is a necessary element in the production of tuberculosis, is not transmitted in the germ plasma, but the long, narrow, flat chest, delicate lungs and feeble resisting power to the tubercle bacillus and to many other germs are undoubtedly inherited, just as much so as the shape of your nose or the colour of your hair. Medical men who are shutting their eyes to the truth, and encouraging matrimony and the propagation of the species by mental and physical weaklings are incurring a fearful racial responsibility, and their action should be condemned in no uncertain language.

I am in favour of the abolition of tuberculosis, because I advocate artificial to assist natural selection. Moreover, tuberculosis is a poor method of a selective death-rate compared with typhus fever, which we have practically abolished. The latter disease cleared off the weaklings without doing any permanent injury to the survivors, but tuberculosis seriously damages the survivors, is a very slow and expensive disease to combat, and many an individual succumbs who would be a worthy citizen in a better environment. By all means improve the environment, improve your sanitary conditions, which will be beneficial in preventing tuberculosis and many other diseases. As far as possible destroy the tubercle bacillus, both human and bovine, and see that the milk supply is free from such organisms. Above all, both for the prevention of insanity and consumption, discourage and prevent the propagation of the species by the mental and physical weaklings. Raise up a race which will not be catching tuberculosis or anything else.

The medical officers of health are doing an enormous amount of good work in attacking the sources of supply of the tubercle bacilli, in preventing their dissemination, in looking after the milk supply, and in improving the sanitary conditions under which we live; but your blatant propagandist must see the disease before he begins to stamp it out with tuberculin dispensaries and sanatoriums. Dr. Barendt has reckoned that in the Middle Ages there were over a hundred leper houses in England when the population was less than four millions; there were also a few such houses in Scotland and Ireland. Leprosy was stamped out not so much by the leper houses as by improvements in the habits of the people, and by a holy abhorrence of the disease, so that the lepers took little or no part in adding to the population. It was laid down as a rule that the attendants or nurses at the leper houses should be discreet women of mature age.

During the last fifty years there has been a steady decline in the incidence of tuberculosis in England and Scotland, while in Ireland it has remained about stationary. On the other hand, during the same period the insane population of England and Wales has increased 250 per cent., while the whole population has only increased 81.6 per cent., and in Ireland, with a falling population, the increase has been about 100 per cent. The ratio of the insane to the general population is in England and Wales 1 in 278, in Ireland 1 in 158, and in Scotland 1 in 266. This is not all, as there is an even greater number of mental defectives in the three countries.

If you abolish the tubercle bacillus in Ireland then it will certainly become a question of "God save Ireland." Are the insane and defective-minded to be allowed to go on multiplying at the present rate? I do not know how matters stand in Canada, but I would advise you, while showing all possible kindness to the insane and mentally defective, not to allow them to indulge in the pastime of procreation, and give them clearly to understand that with them their breed must come to an end. Insanity and mental deficiency are largely questions of inheritance, and, unfortunately, owing to cross-breeding into impure stocks, there is a latent strain of insanity and other nervous affections in a great many families, so no matter how careful you are in your selection, it will take some generations before you eliminate this latent strain from the impure dominants, but the sooner you begin such a selective birth-rate and the elimination of the undesirables the sooner you will attain a more or less perfect race. With the insane, the imbecile, the idiot, the mentally defective, the criminal, the ordinary wastrel, the loafer,

* For my Canadian statistics I am very much indebted to Dr. Peter H. Bryce of Ottawa.

the professional pauper, the tramp, the footpad, the drunkard, and other mental and physical degenerates, prevention is certainly better than cure, but you will never succeed either in prevention or cure by maudlin sentimentality.

In England and Wales there has been a great reduction in the infantile mortality during the last ten years, due to the falling birth-rate, more favourable climatic conditions, and greater care of the infants, but there has been practically no reduction in the deaths from developmental and wasting diseases, which cause 61 per cent. of the total deaths during the first three months of life. It is, perhaps, best that this should be so, as the reduction in the birth-rate has been entirely among the better stocks, and if these 61 per cent. of defectives at birth survived, the only advantage that could possibly accrue would be in finding more work for the medical profession and more scope for the charitably disposed. Prevention in these cases implies breeding from better stocks.

Of recent years there has been a considerable increase in the death-rate from pneumonia, and this, no doubt, is partly due, as pointed out by the Registrar-General of England, to a more correct certification of deaths. Many of those formerly labelled bronchitis, especially among children, being now correctly designated pneumonia. But, whatever the cause of the apparent increase, there can be no doubt that the death-rate from this disease is somewhat fearful. In 1909 in England and Wales it caused more deaths than any other form of disease, with the single exception of all forms of tuberculosis. The deaths from it considerably exceeded those from phthisis; the numbers being per 1,000 deaths, pneumonia 89, phthisis 74·6; and the rate per 100,000 living, pneumonia 129, phthisis 108. Yet we have a great outcry about the conquest of consumption, but not a word about the conquest of pneumonia. It would seem as if the ordinary individual was incapable of getting more than one idea into his head at the same time.

Pneumonia is an infective process, due to infective organisms, the pneumococcus in the vast majority of cases, though many other organisms play an important rôle in individual cases. The pneumococcus is very widely spread, even more so than the tubercle bacillus, and I feel confident a bacteriologist would find it in the mouth of every one here present. Therefore, it is as a rule a harmless saprophyte, but in a dirty mouth it may assume a virulent character, and when the resisting power of the individual is depressed from any cause, such as undue exposure, especially during sleep when the control of the nervous system is largely in abeyance, alcohol, nervous prostration, the pneumococcus readily finds its way into the lungs or blood and sets up pneumonia, or general pneumococcal infection. Pneumonia is a common disease at the extremes of life, and in the aged it is often a terminal disease—the old die as easily from pneumonia as from anything else. Like typhus fever it is a good racial disease, it kills the weaklings, and, as a rule, causes no permanent injury to the survivors. The mortality is greater among males than females, and therefore in the old countries it increases the disparity between the sexes. Unfortunately it cuts off a large number of both sexes in the prime of life. The disease is short, and therefore inexpensive, so that no one makes much out of it except the undertakers, who grow fat on the misery of others. The case mortality is high, but yet no serious attempt has been made to curtail its incidence. The good lives cut short are soon forgotten. "The evil that men do lives after them; the good is oft interred with their bones." This disease is more prevalent in cities than in the country, and among those who lead unhealthy indoor lives rather than among those who work in the open.

Alcohol is a strong predisposing factor, a factor which not only increases the incidence of the disease, but also immeasurably lowers the resisting power of the individual, and so increases the mortality-rate. On the other hand, an excessive amount of lime salts in the blood greatly increases the resisting power of the individual, and so both lessens the incidence and the mortality. Any septic condition of the mouth increases the virulence of the organisms, and so a foul-mouthed individual is usually a greater danger to himself than to others. By way of prevention, the mouth should always be kept perfectly clean, and as aseptic as possible. The nasal passages and throat should be kept clean with some simple oily preparation, such as pure liquid paraffin, as they are frequently the paths of infection, not only for pneumonia, rheumatic fever, influenza, and diphtheria, but also for cerebro-spinal fever and poliomyelitis.

Sir Almroth Wright has introduced vaccines for the prevention and cure of many infectious diseases, and among the most valuable are the pneumococcal and influenzal vaccines, which, when judiciously used, are most valuable remedies in the prevention and treatment of these diseases. In apoplexy and hemiplegia the patient frequently succumbs to an attack of pneumonia, and this can be obviated by a proper vaccine. Operations on the mouth are frequently followed by a fatal septic pneumonia, and in such cases it is not sufficient to use antiseptic mouth washes, but previous to operation the pathogenic organisms in the mouth should be isolated, and a corresponding vaccine prepared. Antistreptococcal serum administered before operation is also a valuable adjunct.

Another common cause of the high mortality from pneumonia arises from lack of proper early treatment—often owing to the fact that some medical men take two or three days to diagnose the disease, and then call it congestion of the lungs, and treat it cavalierly as a matter of no great importance for fear of frightening the patient, until the unfortunate individual is too ill to be frightened by anything. In my opinion, if pneumonia were early recognized and properly treated the mortality would be greatly lessened.

In Ireland in 1909 the death-rate from pneumonia was lower than in England, being 60 per 1,000 deaths, and 99 in every 100,000 of the population.

In Scotland they move very slowly, even in the way of recording their deaths, as even now I have only been able to obtain the records of the eight principal towns for 1909. The death-rate from pneumonia was much higher than in England and Ireland, and this makes me wonder how much the national beverage had to do with the issue. The death-rate per 100,000 inhabitants was 177, varying from 217 in Glasgow to 92 in Perth; the rate per 1,000 deaths was 107, while that from phthisis was 77. In the Province of Ontario in 1907 the death-rate from this disease per 100,000 population was 138, and per 1,000 deaths, 91.

Bronchitis holds the second place as a cause of death in England and Wales, the numbers in 1909 per million persons living being 1,142, against 1,290 for pneumonia and 1,081 for phthisis. There has been a considerable diminution in the apparent incidence of the disease, partly owing to proper transference to the pneumonia list. Bronchitis is still very prevalent and fatal at the extremes of life, consequently the young and the old should be well protected against atmospheric changes. Some persons are much more susceptible to bronchial catarrh than others; this susceptibility is much lessened by a fair amount of lime salts in the blood, and increased by the salts of sodium and potassium, but in cases of true asthma the very reverse appertains. Alcohol and tobacco are injurious to the throat and bronchial mucous membrane; and the chronic cough thus induced is a frequent source of emphysema. A suitable vaccine is often highly beneficial in acute and chronic bronchitis, but there is no vaccine to counteract the effects of alcohol and tobacco. All destructive processes of the lung tissue cause emphysema. Senile emphysema is an atrophic process due to want of exercise of the lungs, associated with ossified costal cartilages; this can often be obviated by decalcifying agents and breathing exercises.

Pleurisy, again, is largely an infective but not a specific disease, as it may be associated with tubercle bacilli, rheumatism, pneumococcus, pyogenic organisms, typhoid and colon bacilli, etc. In its prevention and treatment we must avoid undue exposure and all depressing influences, and consider the infective organisms.

Since 1870 there has been a marked fall in the death-rate from small-pox, typhus, and enteric fever. Every person can be protected against small-pox at a very small cost; sanitarians have practically abolished typhus fever, and the incidence of enteric fever is and has been steadily diminishing, but we have still got to deal with some of its associated causes. The ordinary household scavenger, the domestic fly, is still a troublesome pest, and the human carrier usually causes a good deal of mischief before

discovery, and when discovered is difficult to control. The milk supply is still a frequent source of local epidemics, but the water supply is generally above reproach except in rural districts. A few epidemics have been traced to ice-cream vendors. The erroneous dread of sewer gas as a direct cause of the disease is now a matter of ancient history, except in the law courts, where it still does duty.

In the army Sir Almroth Wright has been fairly successful in lessening both the incidence and mortality of this disease by his vaccine, but in all campaigns thorough sterilization of the water is the most important method of prevention. Other matters must not be neglected, such as the disposal of the excreta and the protection of the food from infection by flies.

In diseases which largely affect children, such as measles, whooping-cough, diphtheria, and diarrhoea, the improvement has not been so marked, except in diarrhoea, in which, during the last few years, the incidence has fallen owing to favourable climatic influences. In scarlet fever where isolation is pretty universally adopted there has been a great fall both in the incidence and mortality. Although there has been quite a revolution in the treatment of diphtheria and consequently in the case-fatality, I am afraid sanitarians have not done their share in lessening the incidence of the disease. It will be very difficult to prevent the spread of infectious diseases among children so long as we have overcrowding, defective ventilation, dust, and want of cleanliness in the homes, schools, and public conveyances. However, a great deal can be done for local conditions by looking after the children's teeth, by seeing that their teeth and jaws get plenty of exercise in chewing food, by keeping their mouths and nasal passages as aseptic as possible, and by removing any obstructions, such as adenoids and large tonsils.

During the last forty years in England and Wales the number of deaths due to venereal diseases has fallen from 92.6 to 48 in the 1,000,000 population. So far as these statistics are reliable, they seem to me to point to a great improvement in the treatment, as there is no reason to believe that there has been any diminution in the incidence. These diseases, from their deteriorating effects on the race, merit the attention of a statesman. A determined effort should be made to stamp them out, notwithstanding the pharisaical hypocrisy of the unctuous and righteous, who compound for sins they are inclined to by damning those they have no mind to. The suffering caused to innocent wives and children by those diseases call aloud for their elimination. With a combined international effort they might be stamped out.

What can be done by well-directed legislative measures in stamping out disease is well exemplified by the muzzling order of Mr. Walter Long (to whom the country has never shown sufficient gratitude), as there has not been a case of hydrophobia in Great Britain or Ireland for the last fifteen years.

In England and Wales in 1909 there were 914,472 children born alive, and there were 1,429 mothers who died from septic diseases associated with parturition; there were also 3,171 women who died from diseases caused by or associated with pregnancy and child-bearing, but who had not produced viable children. The net result is that 1 woman died for every 199 children born alive. A large number of these women should never have been pregnant, and many died from preventable diseases which were not prevented. There is plenty of scope here for prevention, not only in advising women not to undertake risks which will prove their deathblow, but also by saving valuable mothers from septic infection. This can be easily accomplished by a little trouble before parturition in attending to the health of the mother, and if any pathogenic organisms are found in the *via naturalis* an appropriate vaccine should be administered previous to parturition. I know an ophthalmic surgeon who will not do a cataract operation until the conjunctival sac has been prepared and a bacteriologist pronounces it free from microbes. Why do gynaecologists not undertake somewhat similar precautions in the case of the parturient woman? The vaunted aseptic gynaecology of which we hear so much is not sufficient; there may be a breakdown in the technique, and, moreover, the germs may be there before the arrival of the asepsis.

The practical disappearance of erysipelas from hospital wards must largely account for the lessened death-rate from this disease. We must give the surgeons due credit for this diminution; in fact, I would like to give them the whole credit, as, so far as preventive medicine is concerned, very little can be placed to their credit. About the only diseases which they attempt to prevent are those which spoil their operations—erysipelas, pyaemia, and septicaemia. The surgeons largely live on the failures of the physicians and general practitioners, and I hope they will not take any umbrage at what I say here and in other parts of this address. They can, if they choose, put down my remarks to envy, jealousy, and all uncharitableness, but I shall not acknowledge any malice. I intensely admire their work and envy their fees, which are, like the falls of Niagara, magnificent.

In regard to rheumatic fever, there has been during the last forty years a marked fall in the death-rate, which appears to me to be more due to improved methods of treatment than to any lessened incidence of the disease. Although rheumatic fever is not very fatal, yet when we take into account that it is the chief cause of heart disease in the young, it must be looked upon as a terrible disease. Every child with rheumatic hereditary tendency should be well protected against wet and cold. Every affection of the nose and throat, and, in fact, the whole digestive tract, should receive immediate medical attention, as it is through these pathways that the rheumatic poison or organism is introduced. Immediately on the slightest appearance of this disease the milk and carbohydrates, which are apt to undergo acid fermentation, should be cut off, and red meat, which supplies ammonia to neutralize the sarcolactic acid in the muscles, should be freely given. For flushing out the system there is nothing better than hot water, but the water should not contain much lime. In order to save the valves of the heart, the citrates of sodium and potassium should be freely administered. As specific treatment the salicylates still hold their sway, the vaccine treatment being still in its infancy. Parents who transmit a hereditary tendency to rheumatism to their offspring have a serious responsibility which they cannot honestly transfer to Providence, and therefore they should themselves exercise a provident care over their children. There is no necessity for coddling, but the children should be adapted, or rendered adaptive, to the environment; cold sponging every morning, sufficient to induce healthy reaction, has a good protective influence. Fresh air, exercise, sufficient clothing, moderate diet, especially in carbohydrates, and general attention to the digestive tract are all necessary.

Diseases of the blood vessels, heart, and kidneys are on the increase, no doubt largely due to greater wear and tear, more worry and anxiety in life. From these three diseases, including cerebral haemorrhage, the death-rate per million living in 1909 was: In England and Wales, 2,708.4; in Ireland, 3,170; and in the eight principal towns in Scotland, 3,234; in Ontario, in 1907, 2,172. If these deaths occurred among the wastrels, it would perhaps not matter much, but this mortality to a large extent occurs among the most hard-working and most energetic men and women in the prime of life, from 35 to 65 years of age. One often hears patients say that they have never been ill a day in their lives, when an examination of the heart, kidneys, and blood vessels shows disease of fifteen to twenty years' standing, and the tenure of life reduced to a few years at most, and yet many of these conditions were preventable. Of course, many a man may prefer to lead a very active and short, but to him enjoyable, life rather than drag it out to an inordinate length. It is only with healthy blood vessels that any one can hope to retain his mental and bodily vigour, and expect to attain to a green old age. I know that there is another view of life, and that many men do not consider old age desirable. When man has ceased to be a productive agent, intellectually or physically, they look upon him as a mere cumberer of the ground—an obstacle in the path of progress which should be removed.

Diseases of the heart, in the vast majority of cases, arise from causes acting on the periphery, and by preserving healthy blood vessels—an end very easily attained if people were content to be intelligently directed—one can prolong a healthy and vigorous existence for many years. I have delivered several addresses on arterio-

sclerosis and allied subjects dealing with the prolongation of life, but I cannot enter into these matters here, as they would require several hours for their exposition. However, I may say that the lime salts play a very important rôle in these diseases, and some excellent work on calcium metabolism and diseases of the blood vessels has been done in Montreal by Oskar Klotz, Professor Adami, and others.

With many authorities it is not the popular method to anticipate disease; they prefer to get hold of a case of heart-block, cardiac arrhythmia, or angina pectoris, and then they can make something out of their cases in more senses than one. But I want to educate the public into the habit of taking an interest in their own health. We have here got a large field for preventive medicine, but it is very difficult for a practitioner to prevent disease when he is not consulted. To my mind it is very deplorable to find many of the ablest men of the day cut off in the prime of life and vigour of manhood from disorders of the circulation, which are much more easily prevented than some of the so-called preventable diseases. The distinguished man who coined the expression, "If preventable, why not prevented?" himself died of preventable disease.

In England and Wales the mortality from all forms of malignant disease has steadily risen since 1860 to 1909—in the male population from 210 to 826, and in the female population from 480 to 1,071 in the million living. In Ireland the earlier statistics were not very reliable, but in 1909 the death-rate to the million living was only, among males 750, and among females 850. In the eight principal towns of Scotland the rate for both sexes was 1,073, and therefore higher than either England or Ireland. In Ontario in 1907 the rate was 626. In England, where tuberculosis is steadily declining, cancer is just as rapidly increasing, and in Ireland both diseases are rather stationary, but the cancer death-rate is 9 per cent. lower among males and 11 per cent. among females than in England and Wales. So the higher tuberculosis death-rate in Ireland has its compensations. There have been in recent years great improvements in the surgical treatment of malignant diseases, and we are getting a little nearer the solution of the problem of their nature and prevention, but not quite so near as some would have us believe. Even now a great deal can be done towards their prevention. If all sources of constant irritation, internally and externally, were removed, the occurrence of these diseases would be frequently obviated. Metchnikoff says: "Stagnation is a familiar cause of disease, and is the probable cause of the frequency of cancer of the stomach." Its selective sites in the large bowel are those where there is stagnation and irritation. In cancer there is increased alkalinity of the blood with a diminution in the amount of free lime; the same condition may appertain in the tissues, but not, as a rule, in the same degree, as the lime taken up by the blood from the intestinal mucosa may be partly discharged into the tissues in the process of elimination. Recently Professor Benjamin Moore and his coadjutors have shown that the deficiency of free HCl in the stomach occurs no matter where the cancer is situated.

Myositis ossificans traumatica is a comparatively rare affection, and I should scarcely have considered it worthy of attention here only for two papers in a recent issue of the *Lancet* by two eminent London surgeons. These gentlemen have a good many conjectures as to the nature and causes of this affection, and, largely on the strength of skiagrams, these calcareous masses are spoken of as "bony," and microscopically said to be of the nature of cancellous tissue. They have not a single word about the amount of lime salts in the blood; and surely in the present day there is no justification for ignorance on this subject. When there is an excess of lime in the blood there is no more mystery about its deposition in an injured muscle than there is in a damaged artery. As in the artery, so in the muscle, the lime is deposited in the form of a calcium soap, and afterwards the fatty acid is replaced by carbonic and phosphoric acids; we then get a hard calcareous plate. These masses often disappear spontaneously when the calcium content of the blood, falls. The proper preventive and curative treatment is to see that there is no excessive amount of lime in the blood by regulating the diet, and the use of decalcifying agents. Massage and exercise of the injured part prevent the deposit, and hasten the elimination of lime from that region. It is less difficult to hasten the absorption of lime deposited in a muscle than to get rid of that in rigid costal cartilages, yet the latter feat can be accomplished with a little patience and trouble.

The failures of physicians and practitioners in the prevention and treatment of diseases of the digestive tract have provided a rich harvest for the surgeons, who, buoyed up with their successes, would now like to appropriate the whole region to themselves. I would advise them to make hay while the sun shines, for fear that the millennium should arrive sooner than they expect. Already the dawn of a new era is breaking forth, and under prevention there will not be much necessity for surgical interference.

I need not say anything about septic diseases of the mouth, which are well recognized by our profession, but unfortunately the public do not often recognize their danger, otherwise we should not see so many cases of pernicious anaemia.

A comparatively simple affection which occasionally occurs during the first few weeks of extrauterine life has been dubbed with the high-sounding title of congenital hypertrophic stenosis of the pylorus. There have been a great many learned disquisitions as to its nature and treatment by physicians and surgeons attached to children's hospitals, and now they are busily engaged trying to settle the question as to whether the treatment should be medical or surgical. This would be very amusing were it not for the fearful mortality which accompanies the efforts of both. The explanation is too simple to have attracted the attention of those gentlemen, and the explanation is simply that it is not congenital, but is due to an excessive amount of calcium in the stomach walls, and especially in that portion of the walls—the pylorus—which contains relatively the most muscular fibres.

If it were more generally recognized that even a minute trace of a soluble calcium salt produces a marked physiological effect on involuntary muscular fibre, not only would pyloric spasm, but a good many enterospasms, be more readily explained. No doubt a growing infant requires a good deal of lime, but even it can have too much of a good thing, and when a series of overdoses are concentrated in a particular organ the result is not what could be desired. The amount of lime in human milk varies considerably, and is apt to be greatest in the early period of lactation; moreover, the mother may be unnecessarily fortifying this secretion by herself drinking large quantities of milk and taking other articles of diet containing lime. In an unpublished thesis G. Claude Scott has shown that cow's milk contains five to six times as much lime as human, but in cow's milk, of the total lime, 72 per cent. is combined with the protein and 28 per cent. free, while in human milk only 44 per cent. is combined and 56 per cent. free. Moreover, the combined calcium in human milk is much less stable than in cow's milk. In such cases, when the infant is being fed on cow's milk, the milk should be stopped for a time, or at least it should be well diluted, citrated, and boiled some time before using. It is even better to add to the diluted milk a small amount of the citrate and about double the quantity of the bicarbonate of sodium, a mixture which not only splits off some of the fixed lime, but renders the free lime more insoluble. The value of the mixture is further enhanced by the addition of a minute quantity of an active potassium salt, such as the chloride, which hastens the relaxation of unstriped muscular fibre. The milk should always be boiled. When the infant is being fed at the breast we must get rid of the excess of lime by decalcifying the mother. This can be readily accomplished by cutting off for a necessary time all articles of diet containing lime, and by giving her a liberal allowance of such drugs as citrate and phosphate of sodium, lemon squash, etc. A teaspoonful of olive oil to the infant will have a more soothing effect on its stomach than a surgical operation. An opiate is often necessary to relax the spasm of the pylorus. Perhaps these cases would be much more common than they are only for the fact that infants vomit very readily without much apparent cause.

Gastric ulcer frequently occurs in young women after the establishment of the menstrual function; they become anaemic, suffer from constipation, and there is not only a deficiency of iron, but also of lime in their blood. By the

way of prevention, the calcium and magnesium salts are highly beneficial.

You do not often find a surgeon foolish enough to contract the fashionable disease, appendicitis. I believe in the United States you are not considered respectable if you have not had it. Personally I have never qualified for that mark of respectability, and I do not intend to do so. I am of opinion that if people were not so fond of keeping a cesspool in their interior the *Bacillus coli* and other organisms would not become virulent, and appendicitis would be a comparatively rare disease. A lady of a religious turn of mind once told me that she quite agreed with me on this point, "as man is a veritable sink of iniquity." A *Bacillus coli* vaccine is often useful in treatment.

I know a physician who considers himself a great authority on mucous colitis, and who freely prescribes milk; he might as well prescribe sandpaper. In these cases the insoluble lime soaps, especially those of stearin and palmitin, are very irritating to the large bowel. In such cases the blood often becomes deficient in lime because it is being rapidly excreted by the bowel. However, all insoluble lime preparations must be strictly avoided, also saturated fats, such as beef and mutton fats. Unsaturated fats, such as olive oil, cod-liver oil, butter, cream, and bacon gravy, can be freely used. Whatever lime is given must be administered in a very soluble form, such as the iodide or the glycerophosphate. In obstinate cases an examination of the flora of the intestine, and the administration of a suitable vaccine will prove useful. This disease is fairly amenable to judicious treatment, even without the assistance of the surgeon, and it is one which can be prevented. Some years ago there appeared in the *Lancet* a paper entitled "The Cause of Colitis, with Special Reference to its Surgical Treatment." This is the surgical and business way of looking at the subject. A less astute individual might have studied causation with a view to its removal and the prevention of disease. However, in the present day the public only pay for treatment, and have no right to any choice.

It should be worthy of the attention of surgeons and general practitioners to try and find out the cause of enlargement of the prostate gland, which not infrequently renders the lives of old men miserable. The surgeon may say, Remove it; but I would say, Find out and remove the cause, so that the necessity for the removal of the gland may disappear. This affection is not much in my line of work, but recently it has appeared to me to be at least associated with an excessive amount of lime in the blood and tissues. This is probably not the sole cause; there is likely some local irritation or some interference with functional involution; but I feel fairly confident that an excessive amount of calcium is an associated condition—a condition which has sufficient determining effect in stimulating hyperplasia to merit its removal. I have noticed the occurrence of this affection in men who have led exemplary lives, who have not considered wine the milk for old age, but who have preferred that from the cow. In these men I have found an over-supply of lime with deficient calcium metabolism, rigid costal cartilages, and calcareous deposits in the arteries.

The presence of lime is necessary in most glands of the body for the proper exercise of their respective functions, but when such glands as the female breast and the prostate in the male should cease to functionate and take on a process of involution it is not unreasonable to suppose that an excessive, and then unnecessary, amount of lime, especially when the blood is very alkaline, may play some part in the adenomatous growth or inflammatory hyperplasia which then occasionally takes place. Chronic mastitis, perhaps, most frequently occurs in single women the function of whose breasts has only been potential, but it is not the lime which is excreted either in milk or in the prostatic fluid that can work any mischief; in fact, the excretion of lime into the tissue of a diseased gland may serve as a cure. Moreover, the exercise of the function of the prostate is often protracted and its involution delayed. I have seen a large prostate and lively spermatozoa in a man over 80. If these suppositions be found correct, then the lines of prevention become more obvious.

Before concluding, I should like to say a few words on the last phase of life, old age. In 1909 the number of persons dying from old age per million persons living was in England and Wales 948, in the eight chief towns of Scotland 411, and in Ireland 2,029. In the latter country there were 192 males and 231 females who died at the age of 95 years and upwards. This does not speak badly for Irish longevity notwithstanding tuberculosis. In the whole of Canada in 1901 the rate was 1,115, and in Ontario in 1907 it was 1,180. This is better than Great Britain, but not much more than half the rate in Ireland.

I am not going to tell you how to prevent old age, most people are fairly successful on that score. I only propose to do a little soliloquizing—I do not know that I have ever met any one who really considered himself old. I once knew a physician of about 80 who was called in to see a professional brother about 20 years younger. At the consultation the old physician said about his younger colleague and patient, "After all, you know, he is getting an old man." Age is a very relative term, like heat and cold, and its importance somewhat depends on how the popular breeze is blowing. We do not exactly know in the present day what to do with our old people. We have not put Metchnikoff's idea as to their employment into practice, neither have we established Professor Osler's lethal chamber. There are some people who live too long for their reputation's sake. As I said on a previous occasion, a man cut off in his prime may be handed down to posterity as an intellectual giant, whereas if he had existed till his cerebral arteries became sclerosed, and he had become slow of thought and speech, or tended towards drivelling dementia, much of his former glory would have waned, and the memory of him would pass quickly into oblivion.

I am not now so much concerned with the prolongation of life as with the preservation of health—a sound mind in a sound body, the former can barely exist without the latter. We are not concerned with any useless attainment of longevity, but with the prolongation and efficiency of life. We are concerned with the efficiency and manhood of the nation. When a life ceases to be efficient it can retire into obscurity, or be withdrawn from circulation, and receive an old age pension. Paul Bert said about the aged: "They deserve congratulations, care, and consideration, but the prolongation of their lives does not demand any special solicitude from society." Paul Bert died comparatively young, perhaps if he had lived longer he would have modified his opinion. Since then we have humanely, and I think wisely, become more solicitous for the well-being of every one.

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay.

Whatsoever thine hand findeth to do, do it with thy might; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest.

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THE Italian Society of Internal Medicine will hold its twenty-first congress at Turin in October next (9th to 12th). The subjects proposed for discussion are progressive pernicious anaemia, the diagnosis of diseases of the pancreas, visceral arterio-sclerosis, and intravenous medication.

A HOSPITAL for twenty-four patients was opened in Great Malvern on May 29th, the funds for its erection and equipment having been provided by Mr. C. W. Dyson-Perrins. All accommodation for patients is at ground-floor level, and the building throughout is of the fireproof type. It is an open site in Lansdowne Terrace, and plenty of balconies have been provided. The architect was Mr. W. Henman, F.R.I.B.A., of Birmingham.

DR. JOHN GREASLEY, of Canterbury, was the recipient on May 29th of an illuminated address and a centenary jewel from the local lodge of Oddfellows, of which he is a member and which he has served as medical officer for some thirty-four years. There was handed to him at the same time an album containing the names of the subscribers to the testimonial, who numbered upwards of a thousand. The member of the lodge by whom the presentation was made said that it was not in his power to over estimate the work their surgeon had rendered to the order. There was no member of it who could not express his gratitude to Dr. Greasley for his kindly services in the cause of humanity, and they hoped he would be spared many years to continue his great work. In acknowledging the presentation, Dr. Greasley said that changes were taking place which they had never anticipated, and he hoped the National Insurance Bill would accord more generous treatment to the medical profession than was promised therein.

# THE IMPORTANCE OF PNEUMONIA AS A CAUSE OF DEATH.*

BY

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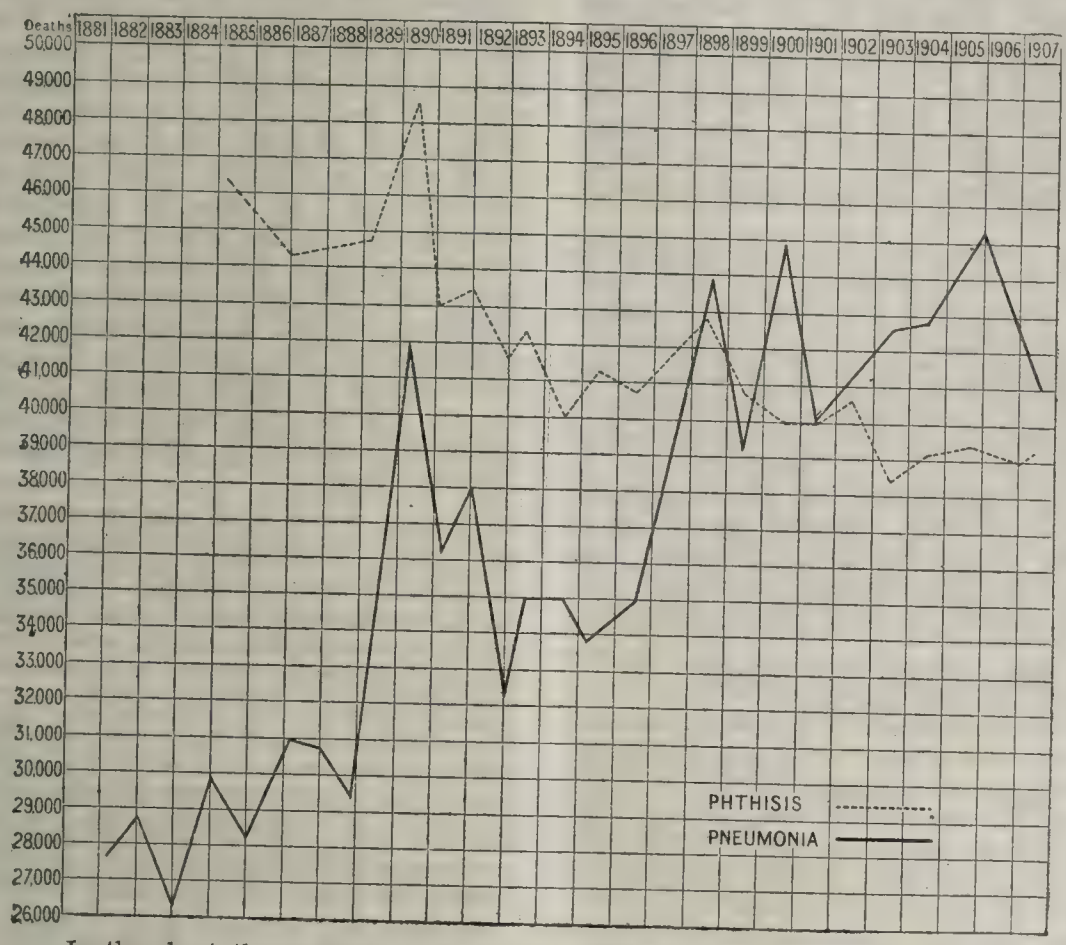
PNEUMONIA has been recognized as a distinct disorder as long as medicine has been an art. Hippocrates and all his successors treated of "peripneumony," recognizing the disease at its onset by only one of its symptoms—the pleural pain—which so often accompanies its onset. The viscid and blood-stained sputum of pneumonia was also well known to them. Hippocrates also distinguished between true pneumonia, which he called "peripneumonia vera," and "peripneumonia notha," a false or, as it became to be known later, a bastard peripneumonia, which appears generally to have been bronchitis or perhaps empyema. Laënnec elicited the physical signs of the disease, Rokitan-ky described its gross morbid anatomy, and, as a subsequent speaker will, no doubt, remind you, Weichselbaum discovered the micro-organism which we now regard as the immediate cause of this morbid condition.

Pneumonia, far from diminishing in frequency, has now attained the bad pre-eminence of actually causing in this country more deaths in a year than any other disease (irregular groupings by the Registrar-General excepted), and also of having caused in 1907 more than double the number of deaths it did in 1881.

I fancy that these facts will come as something of a surprise to many; I have therefore prepared a chart showing the number of deaths from pneumonia during the last twenty-eight years, and, for comparison, show on the same chart the deaths of what I should have considered before writing this paper to be the most fatal disease of the respiratory system—namely, pulmonary phthisis.




In the chart the number of deaths are indicated in the first column, the years at the heads of columns, and the numbers of deaths in each year underneath.

From an inspection of the chart it will be observed that the continuous line showing deaths from pneumonia is in 1881 away at the bottom, and the broken one which stands for phthisis away at the top, and that the respective deaths in the year were 23,700 and 47,500, phthisis killing twice as many as pneumonia. For the first eight years there is a slight rise in deaths from pneumonia, and a fairly steady fall in those from phthisis. About the year 1890–1 there is an increase in both, but that in pneumonia very much exceeds that in phthisis. In 1894 we find a rapid fall in pneumonia and a steady fall in phthisis. Phthisis rises again, but not much, to 1900, while at this time the rise of pneumonia deaths has been so great that the continuous line crosses the broken one. It falls below again in 1901, but since that date has been constantly above it, phthisis having fallen 11,000 below its maximum in 1883.

Of course, the explanation of the considerable rises of the continuous line in 1890 and 1900 to 1902 will have already struck you. The former corresponds with the first serious epidemic of influenza in our times, and the second with the recrudescence of the same disease. You will notice that the broken line rises in the same years, but I think we should not be wrong in assuming that the increase in phthisis deaths was due in many cases to pneumonic complications.

Now pneumonia, as far as I know, stands alone (or only with cancer) in its steady increase. Other respiratory diseases which might seem to be subject to the same conditions have not followed a similar course; and here I may venture on a digression and join issue with the medical officers of health and the Registrar-General, who continue to lump pneumonia with bronchitis, emphysema, and pleurisy.[1]

Dr. Boobbyer of Nottingham, in his latest report, says:

> It is still convenient to consider them together as affections of the same organs, having similar seasonal curves . . . and affected in their prevalence and fatality by the concurrence of similar acute specific maladies.

Against this dictum I can set the fact that the death-rate per million from bronchitis was, in 1881, 2.145, and in the influenza year (1890) 1,682, and is now (1908) only 1,092. Pneumonia had bounded up from 910 in 1881 to 1,372 in 1890; in 1907 was 1,380; and, though a slight decline set in in 1908, is still 1,180. Similarly, the deaths per million living from phthisis were: 1881, 1,825; 1890, 1,682; and 1908, 1,100. I give you these figures because it might be objected that in my chart I gave total deaths and made no allowance for increase of population. It will be clear, however, that though a rise in pneumonia deaths may be discounted by a rise in population, the fall in deaths from phthisis and bronchitis is appreciated by the population increase. The case mortality of pneumonia is quite an unknown factor. The latest text-books give 14.0 per cent., but it may well be greater; and we certainly know it to be greater in men of age 40–50.

Had this disease suddenly appeared among us we should have seen a kind of panic seize the public, and leagues would have been founded and large sums of money contributed to combat it; but because it is an old friend we see it calmly accepted as an inevitable concomitant, as well as a mode of termination, of life. Is it too much to hope that some form of antidote, whether by serum or other means, may be discovered in the near future?

REFERENCE.

[1] See Sir J. W. Moore in *Dublin Journal of Medical Science*, January, 1911.

*Introduction to a discussion on Pneumonia by the Leicester and Rutland Division of the British Medical Association.

SOME particulars of the medical side of the manœuvres of the United States army in Texas are given by Dr. N. S. Jarvis in a paper published in the New York *Medical Record* of May 27th. The army, which consists of 12,000 men, is served by four field hospitals, with four complete ambulance corps. The camp is supplied with water piped from the neighbouring city; carefully disinfected latrines are used, and solid and liquid refuse is cremated; the entire army underwent antityphoid vaccination and vaccination against small-pox; after one month no cases of typhoid had appeared. An expert bacteriologist examined the blood of every case of fever of forty-eight hours' duration, and sanitary instruction is given to officers and men.

# SOME FEATURES OF AORTIC REGURGITATION IN YOUNG SUBJECTS.

BY

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Aortic valve disease, causing regurgitation, in young subjects, presents some features of especial interest and importance, runs a course which in many respects is different from the same disease in adults, and gives a clinical picture which has certain distinctive features. Certain of the vascular phenomena which are consequent upon free regurgitation through the valve are seen in most marked and characteristic form in the young, partly, no doubt, from the more yielding nature of their vessels. Compensatory changes in the heart and circulation are rarely satisfactorily established, and the disease is an even more serious one, and runs a shorter course than in adults.

In all the cases mentioned in this paper the patients were so ill as to require admission to hospital, and I have limited myself to in-patient cases, because of the greater opportunity for systematic observation. It follows also from this selection that I deal only with the more serious cases of the disease. Many of them were under my care at intervals for several years, so that the progress of the affection could be followed. In all of them, though in the large majority other valvular lesions co-existed, aortic regurgitation and its results were the predominant feature in the case.

The general incidence of aortic valve disease in hospital in-patient practice is not without interest. Of 3,300 cases admitted to my beds during the time the cases under consideration occurred, there were 96, or nearly 3 per cent., of cases of aortic valve disease; of these 33, or 1 per cent., were under 28 years of age. The age of 28 may seem a somewhat arbitrary upper limit, but it was taken as such in order to include 4 cases in whom the disease began in childhood, and who had been under my observation for many years. Cases in which there was any possibility of congenital heart disease were, of course, excluded. The tables which follow show the sex and age incidence. My colleague, Dr. Carey Coombs, has also kindly given me a list of out-patients under 28 suffering from aortic disease. In both in-patients and out-patients the main incidence of the disease lies between 10 and 20 years. The youngest of my own cases was 12 years old, but in Dr. Coombs's series there are four patients between 6 and 10 years. With regard to the adult cases, it may be added that the Bristol Hospital supplies an industrial district containing large docks, and in which the males are mostly engaged in laborious occupations involving heavy strain.

Aortic Valve Disease (Regurgitation).

I.—*Above 30 Years of Age.*

| Years of Age. | Total. | Males. | Females. | + Mitral Disease. | |
|---|---|---|---|---|---|
| | | | | Males. | Females. |
| 30 to 35 ... ... | 14 | 13 | 1 | — | — |
| 35 to 40 ... ... | 12 | 12 | 0 | — | — |
| 40 to 45 ... ... | 8 | 4 | 4 | — | 3 |
| 45 to 50 ... ... | 16 | 13 | 3 | — | 3 |
| 50 to 60 ... ... | 7 | 4 | 3 | — | 1 |
| 60 to 70 ... ... | 5 | 4 | 1 | 1 | — |
| 70 ... ... | 1 | 1 | 0 | — | — |
| Total ... | 63 | 51 | 12 | 1 | 7 |
| | | 81 per cent. | 19 per cent. | 12.6 per cent. | |

II.—*Under 28 Years of Age.*

| Years of Age. | Total. | Males. | Females. | + Mitral Disease. | |
|---|---|---|---|---|---|
| | | | | Males. | Females. |
| 12 to 15 ... ... | 9 | 4 | 5 | 3 | 2 |
| 15 to 20 ... ... | 12 | 8 | 4 | 3 | 2 |
| 20 to 25 ... ... | 7 | 3 | 4 | 2 | 1 |
| 25 to 28 ... ... | 5 | 1 | 4 | 1 | 2 |
| Total ... | 33 | 16 | 17 | 9 | 7 |
| | | 48.4 per cent. | 51.6 per cent. | 48.4 per cent. | |

III.—*Out-patients Under 28 Years of Age (Dr. Carey Coombs).*

| Years of Age. | No. of Patients. |
|---|---|
| 6 to 10 ... ... ... ... ... ... ... ... ... | 4 |
| 10 to 15 ... ... ... ... ... ... ... ... ... | 10 |
| 15 to 20 ... ... ... ... ... ... ... ... ... | 16 |
| 20 to 25 ... ... ... ... ... ... ... ... ... | 3 |
| 25 to 28 ... ... ... ... ... ... ... ... ... | 9 |
| Total ... ... ... ... ... ... ... ... | 43 |

Males, 24; females, 18 = Males, 57 per cent.

Some points which appear from these tables are that in the in-patient cases under 28 years males and females are about equally affected; in the out-patient cases the proportion of males is a little higher, 57 per cent.; whilst in those above 30 years there are more than four times as many males as females. This difference is connected with the etiology. In the 33 in-patients under 28 acute rheumatism was the cause in 21, chronic rheumatism in 4, and chorea solely in 4, a total of 29, or 87 per cent., in which there was a history or present evidence of some rheumatic manifestation, and in Dr. Coombs's out-patient cases such manifestation was present in 83·3 per cent.; whilst the other causes of aortic disease in adults are, of course, absent. In one patient, however, aged 22, there was a doubtful history of the valvular mischief being caused by a severe strain.

One case, a girl of 14, was an example of the rare form of aortic incompetence produced directly by mechanical dilatation of this orifice. She suffered from a small white kidney, and presented in marked degree—unusually so for a child—the cardio-vascular changes of renal disease. The systolic blood pressure was 190–200 mm. Hg, and during the first part of her stay in hospital there was heard only a very accentuated loud, ringing aortic second sound. After a time, during which she was steadily getting worse, a faint aortic diastolic murmur appeared following the second sound, and this gradually became longer and more distinct; with this, the left ventricle dilated, the lungs became engorged, and she died three or four weeks later of heart failure and uraemia. At the *post-mortem* examination the aorta and aortic orifice were dilated, and the valve did not hold water, but the segments, except for being a little opaque, were quite healthy in appearance, and were not shrunken.

This is the clearest case I have seen in which aortic regurgitation presumably occurred as the direct result of excessive blood pressure, for we were able to watch the process throughout.

Two of the 33 cases were known to develop infective endocarditis. It is interesting to note that of the 4 cases which owned chorea only as the cause, in 2 patients there had been eight, and in 1 seven attacks.

Another point is that, although it is by no means infrequent to find pure or uncomplicated aortic regurgitation, with a diastolic murmur only, in adults, this seems to be decidedly uncommon in younger patients. In 27 out of the 33 patients other murmurs were present, although as regards signs and symptoms the aortic lesion predominated the case. In 9 of the 27 the second murmur was an aortic systolic one, which of course does not by any means imply actual aortic stenosis, nor necessarily any serious complication; in the other 18 there were mitral murmurs. This difference from the adult is probably again connected with the etiological factor of rheumatism.

Professor Clifford Allbutt[1] alludes to extension of pericarditis to the aortic area as a cause of aortic valve disease. In five of my patients acute pericarditis was observed at some time, either preceding the appearance of the diastolic murmur, or both murmur and pericarditis were present on admission. Probably more patients were thus affected, but these were the only attacks actually observed. In those cases in which aortic disease was complicated with mitral regurgitant murmurs, in

at least four cases the aortic disease was certainly primary, and later on, as the heart enlarged, mitral regurgitation ensued. In another a murmur, which was at first mid-diastolic and regarded as an aortic murmur conducted to the apex, became three years later a definite and characteristic presystolic crescendo murmur.

In the majority of these cases of combined lesion both valves were affected, as evidenced by murmurs, at the time they first came under observation. It is generally held that the usual course is for the rheumatic process to spread from the large mitral flap to the adjacent aortic valve segment; but in cases of acute rheumatism, when the heart is first involved, it is certainly not uncommon to hear an aortic systolic murmur accompanying the more obvious signs of mitral valve disease; and I believe that in the cases under consideration the affection of the mitral valve is very often secondary, and the mitral regurgitation due to weakening of the ventricular wall from recurrent rheumatic affection of the heart muscle (carditis), and consequent dilatation of the mitral orifice.

With regard to symptoms, as in cases of aortic disease generally, pain in the precordial region is the most frequent and prominent symptom in young subjects. Many of the patients suffered from attacks of severe angina pectoris. When angina occurs in these young patients it is often remarkable for its frequency; three or four attacks, or even more, may occur in each twenty-four hours, and that at intervals over a long period of time. Although the pain is severe the patient does not, however, look so very ill as an older patient in an attack of angina pectoris, nor is there the same fear of impending death. None of my patients died in an anginal attack. Next in frequency to pain comes palpitation, or rather a violent throbbing of the heart and great vessels. Then comes dyspnoea, either persistent on exertion or in the form of attacks in which the patient gasps for breath and has a most distressing sense of being unable to breathe. Attacks of syncope may occur, and in one case this was the cause of death.

Certain forms of haemorrhage are not infrequent. Epistaxis is by far the most common: in two of my patients it was profuse and often repeated; in two others haemoptysis occurred several times, it was slight in amount but continued two or three days; in one of these there was a mid-diastolic murmur and thrill, so that mitral stenosis may have been present as well as aortic disease; in the other there was pure aortic regurgitation. It is well to bear in mind this possibility of haemoptysis in the aortic disease of the young. In one case associated with mitral regurgitation there was a smart attack of haematemesis, and this also occurred in one of Dr. Coombs's patients; a purpuric rash was observed in another patient, with no evidence of malignant endocarditis. One patient with aortic disease (purely) of eight years' standing, of no great severity and without much enlargement of the heart, had a typical attack of embolism at the age of 20, resulting in right hemiplegia and aphasia. In another patient, aged 18, persistent insomnia and mental symptoms in the form of delusions were the prominent features. Young patients do not, however, suffer from insomnia as older ones do. Oedema, as in cases of heart disease generally in children as compared with adults, is conspicuously absent until the terminal stages of heart failure. A symptom that appears with somewhat unexpected frequency is albuminuria. In 13 out of the 33 cases albuminuria was present on admission to hospital. It did not occur with greater frequency in those patients who had a mitral as well as an aortic lesion. As a rule, the amount of albumen was small, and in 11 patients out of the 13 it disappeared after a few days' rest in bed. Renal casts were either absent altogether, or there were a very few hyaline ones. In the other two patients there was a considerable quantity of albumen, which persisted and was due to coincident renal disease.

With regard to the changes in the heart itself, great enlargement of it is an even more marked feature of aortic disease in children than it is in adults. The bulging of the precordial region, the violent pulsation and shaking of the small chest, are frequent and striking clinical signs. With this goes in a considerable number—36 per cent. of my cases—pronounced dilatation of the aorta, causing extension of dullness to each side of the sternum and upwards, even as high as the sternal notch. Over the same area, or generally extending considerably beyond it on each side and above, is often to be felt a thrill, and the aorta itself and the thrill may be felt above the sternal notch. These phenomena are rarely seen in older to the same extent as in young patients, and may be attributed partly to the more yielding nature of the aortic wall in the latter and to its stretching more readily under the constantly repeated excessive strain, and partly to the weakening of the wall by recurring attacks of rheumatic infection. The large vessels share to a less extent in the dilatation. In one case, in which these signs of dilatation of the aorta were clinically very conspicuous, although *post mortem* the aortic valve was quite incompetent to tests and the orifice much dilated, the aorta itself was very little, if at all, above the normal size, so that the great dilatation observed clinically was a dynamic and not a permanent feature, and the walls of the large arteries also appeared healthy.

Certain abnormal sounds or murmurs are heard on auscultation of the arteries in cases of aortic regurgitation. As they only occur when the regurgitation is free, they are, apart from their clinical interest, of some importance as indicating severity of lesion. These signs are especially frequent and well marked in young subjects. I allude only to sounds heard when the bell of the stethoscope, or preferably its small end after removal of the wooden or ivory chest piece, is placed as lightly as possible over the vessel, and not to the murmur which is produced when an artery is compressed or narrowed at one point by pressure. The abnormal sound most often heard is an abrupt, sharp, single knock, snap, or "thump"—the latter word sometimes exactly represents the sound—occasionally there is a double "thump, thump." Although this sound can hardly be connected with cardiac murmurs, I find that when the double one occurred there was an aortic systolic as well as a diastolic murmur. These sounds were audible in as many as 15 out of the 33 cases, and in the majority in the most distal arteries, the radial and the dorsalis pedis. In a few instances, the single thump was followed by a diastolic soft murmur, but the latter could only occasionally be traced into the distal arteries; as a rule it was not audible beyond the brachial and femoral arteries—that is to say, the "thump" can be followed far distal to the murmur. In two cases double murmurs, systolic and diastolic, were distinct in the arteries, and in one of them the first element was of an unusual character, being loud and squeaking. Capillary pulsation was not especially marked nor invariably present in the cases with these abnormal arterial sounds. So far as my experience goes, this peculiar "thump" is not met with outside aortic regurgitation, certainly not in arteries so distant as the dorsalis pedis. It is difficult to time, but it seemed generally to follow the arterial wave immediately; if so, it may be due to the sudden relaxation of the over-stretched arterial wall—the murmur which occasionally followed the "thump" was certainly diastolic.

With regard to the heart murmurs, the only points to which I wish to allude in the aortic diastolic murmur of the young subject are that it is often very long, running almost up to the first sound, and to its loudness or harshness, and its variability. The murmur is more frequently heard at the apex than in adults—Flint's murmur; this was the case in 51.5 per cent. of the patients, and in 34 per cent. it was accompanied by a well-marked diastolic thrill. Not infrequently the murmur at the apex is mid-diastolic, and then the diagnosis between a mid-diastolic murmur of aortic origin and one due to mitral stenosis may be extremely difficult. Especially is this the case where the heart affection is rheumatic, and enlargement of the right heart or a systolic apex murmur shows that the mitral valve is involved. I believe that the dictum is correct that in cases where Flint's murmur is present in which there is a history of rheumatism it is impossible to exclude with certainty mitral stenosis. In one case, during the course of about six years' illness, the transformation of a mid-diastolic apex murmur into the typical crescendo murmur of mitral stenosis was watched. On the other hand, a short diastolic murmur limited to the first part of the long silence is not, I believe, of mitral origin.

There is one point with regard to the conduction of an aortic murmur in the child. It comes out, from the analysis of these cases, that in every instance in which the aortic incompetence was concomitant with enlargement

(dilatation) of the right heart (from mitral disease) the aortic diastolic murmur was loudly and plainly conducted down and outside the right edge of the sternum; the conduction might be to the apex as well, but that to the right of the sternum was very marked.

Mention has been made above of the appearance of mitral regurgitant murmurs in the course of heart disease which began as aortic, and in which the mitral affection may fairly be inferred to be secondary to it. No relief appeared to be thereby afforded to the cardiac disorder.

SUMMARY.

| | Males. | Females. | Total. |
|---|---|---|---|
| Aortic regurgitation purely ... | 2 | 4 | 6 |
| Aortic regurgitation, with aortic systolic murmur ... ... | 4 | 5 | 9 |
| Aortic regurgitation, with mitral regurgitation ... ... ... | 5 | 4 | 9 |
| Aortic regurgitation, with mitral stenosis only ... ... ... | ?1 | 0 | ?1 |
| Aortic regurgitation, with aortic systolic murmur, and also mitral disease ... ... ... | 5 | 3 | 8 |

| | Cases. | |
|---|---|---|
| Great enlargement of heart present in ... | 21 | |
| Dilatation of aorta ... ... ... ... | 12 | |
| Flint's murmur ... ... ... ... | 17 | |
| Flint's murmur, with thrill at apex ... | 11 | |
| A "knock" audible in peripheral arteries ... | 10 | |
| A "knock," together with a murmur ... | 5 | |
| Albuminuria present in ... ... ... | 13 | |
| Albuminuria disappearing rapidly ... ... | 11 | |
| History of previous acute rheumatism ... | 21 | |
| History of rheumatic pains only ... ... | 4 | 29 |
| History of chorea only ... ... ... | 4 | |
| History of scarlet fever only ... ... | 1 | |

A few remarks as to treatment may be added. Of course, in cases severe enough to be admitted to hospital rest often over a long time is necessary. Restriction of the amount of fluid taken, so far as can be done without discomfort to the patient, is valuable, by relieving the work of the heart by after a time diminishing the amount of fluid in circulation. In the absence of rheumatic manifestations or of fever, I have not seen much benefit from the continued use of the salicylate group of drugs; short courses may be useful in relieving precordial pains. The iodides, in combination with salicylates or alone, have not seemed to me to influence the course of the disease, and the iodides given for some time have not prevented the occurrence of attacks of angina or acute dyspnoea in those subject to them. Digitalis was given whenever there was signs of heart failure according to the indications in each individual case as they occurred from time to time; it is more often necessary than in the aortic disease of adults, partly because of the far greater frequency of implication of the mitral valve. As to relief of special symptoms, the most urgent are the very distressing and sometimes alarming attacks of angina pectoris, which are not infrequent. In these young patients amyl nitrite is the most effectual drug. In several cases, nitro-glycerine, and the other nitrites, completely failed both to relieve and prevent the atacks, when amyl nitrite gave prompt relief, but of course did not prevent their recurrence. Possibly it owes its good effects to its rapid action, as the attacks, though severe and sometimes very frequent, are as a rule of short duration. The dose inhaled has sometimes to be increased up to ♏x to ♏xij at a time to maintain the effect, but seems to entail no unfavourable consequences. One girl, who at times during the last two years of her life suffered from six to ten sharp paroxysms daily, used to inhale as much as ʒjss to ʒij amyl nitrite in the twenty-four hours, and no other drug did her any good. The next most urgent symptom is the attack of dyspnoea or suffocation, which is probably a form of angina. Here again amyl nitrite often relieves, but sometimes caffeine and ammonia is more effectual.

Not so immediately urgent, but distressing from its persistency, is the excessive or violent pulsation of the greatly enlarged heart. This palpitation is often the subject of the patient's chief complaint. I have found a mixture of liq. arsenicalis, ac. hydrocyan. dil., and tinct. veratri viridis, given for some time, most useful in the treatment of this symptom, which is often a most troublesome one, even when the patient is at rest in bed, and when there is no evidence that the heart is not able, in spite of the abnormal conditions, to maintain an efficient circulation. In other cases, of course, this symptom is one of the expressions of the failure of the heart to do this, and must be treated accordingly.

REFERENCE.

1 *System of Medicine*, second edition, 1910, vol. vi, p. 421.

# BLOOD PRESSURE IN MENTAL DISORDERS.

BY

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RECENT investigation tends to disprove that there is any constant correlation, as hitherto more or less generally accepted by alienists, between certain types of mental disorder—namely, states of emotional exaltation and depression—and definite modifications of the arterial pressure. It is chiefly to Dr. Maurice Craig[1] in this country that the view is to be attributed that states of emotional exaltation are usually associated with low pressures and states of emotional depression with high pressures. Of the work recently published which fails to confirm this relationship that of Dr. John Turner[2] is the most important. He concludes from his observations that the blood pressure bears no definite relation to the mental state, but only has a constant relation to the age period.

The observations on which this paper is based were made on cases forming a considerable proportion of the female admissions to the Suffolk District Asylum during a period of two years. The instruments used were Martin's modified Riva-Rocci, and Leonard Hill's latest pattern wrist instrument. In the majority of cases both instruments were used in making the earlier observations, and from time to time the larger one was used to confirm the readings obtained by the wrist instrument. With few exceptions both forms of apparatus were found to give similar results, but Hill's sphygmometer, besides being more portable, has advantages in dealing with the insane; it is less imposing, and in certain types of depressed patients nervous influences appear to cause unduly high readings. In these cases, by spending a quarter of an hour or more taking readings at frequent intervals, I have frequently found that the pressure gradually falls until it reaches a constant point; whereas in cases of mania, more especially those with marked excitement, the same influences do not appear to be at work. The higher readings of earlier observations have been noted by other observers. In the cases here summarized the observations were made about noon with the patient sitting, and resting the forearm on a table so that the artery being examined was approximately at heart level. In the large majority of cases an average was struck from the weekly readings, 3 to 5 in number, immediately following the admission of the patient, and subsequently in many of the cases observations were made at monthly and then longer intervals in patients remaining under treatment. There were some cases in which the number of observations was necessarily limited to one or two, and a few in which single observations were made have been included where I was satisfied with their accuracy. I only attempted to read the manometer scale to the nearest 5 mm., which is accurate enough for ordinary clinical purposes. The pulse-rate was observed at the time, and cases with marked irregularity of rhythm excluded; a note was also made as to the condition of the vessel wall as judged by the fingers. In all cases coming under the headings of mania and melancholia, the observations from which the averages were taken were made while the patients exhibited respectively definite exaltation or depression of the emotional tone.

## MANIACAL STATES.

The observed cases numbered 33. They had an average age of 33 years, and showed an average systolic pressure of 115 mm. The maximum pressures were obtained in three patients aged 56, 56, and 52 years, with readings of 150, 140, and 135 mm. respectively. The minimum pressure was 100 mm., observed in 5 cases aged 19, 21, 30, 30, and 46 years. The radial arteries in these cases were not palpable or barely so. There were included among these 33 cases 10, with an average age of 29 years, of a

particularly acute type, exhibiting more intense and continuous excitement, and the average duration of whose attacks was seven days before coming under treatment; these also gave an average systolic pressure of 115 mm. Observations made during the subsequent progress of many of these cases showed in 5 instances a rise and 5 instances a fall of from 5 to 20 mm. on the return of the emotional tone to normal, 2 cases being recoveries, while 3 cases showed no change under the same circumstances.

### Melancholic States.

In 49 cases, with an average age of 48.5 years, there was an average systolic pressure of 125 mm. The maximum readings were 165 and 155, in women aged 50 and 64 respectively; both had sclerosed radial arteries. The minimum pressure was 95 mm., in a woman aged 36 with radials scarcely palpable. This class includes 18 cases of the agitated, excited type, having an average age of 54 years, but the same systolic pressure of 125 mm. Continued observation of many of these cases showed a rise in 5 instances of from 5 to 20 mm. on the improvement in the emotional tone, 3 of them being recoveries. Two cases showed a fall of 5 mm. under similar circumstances. One case on becoming excited rose 10 mm., and 2 cases fell 15 and 20 mm. on failing physically. One case gradually rose from 120 to 160 mm., associated with amelioration of the mental symptoms; she had marked arterio-sclerosis. Two cases showed falls of 10 and 20 mm. on passing into stupor, the second of these rising to the original point on improvement in the mental state. The average duration of the attacks in this class was one and a half months.

### Stuporose States.

In 6 cases of an average age of 28 years the average systolic pressure was 110 mm. The maximum and minimum were 125 and 95 mm. One case rose 5 mm. and another 20 mm. on mental improvement.

### Delusional States.

There were 15 undifferentiated cases of this type which showed no noticeable excess in the emotional tone. The average age was 43 years and the average systolic pressure 125 mm. The maximum was 170 mm., in a patient aged 63 with a markedly sclerosed radial artery. The minimum was 100 mm., in a case aged 37 with soft arteries. One case rose 10 mm. on improving mentally, and one fell 35 mm. on developing phthisis.

### Congenital States.

In 12 cases, mostly epileptics, with an average age of 25 years, there was an average pressure of 100 mm. The maximum and minimum were 120 and 85 mm., and in all cases the radial arteries were not palpable, or barely so, with the exception of the case giving the maximum reading, in which the artery was readily palpable.

### Senile States.

In 10 cases, with an average age of 74 years, the average systolic pressure was 140 mm.; the maximum and minimum were 200 and 115 mm. One case aged 78 with a pressure of 125 mm., and one aged 77 with a pressure of 135 mm., showed marked sclerosis of the radials, both being well physically; while in all the others the thickening was about normal for their age.

High pressures have been recorded in confusional states, but there were only 2 cases of this type observed; one aged 65, and with not abnormally thickened arteries, gave a reading of 145 mm., and the other, with marked arterio-sclerosis, gave most variable readings between 115 and 165 mm. at different times.

### Influence of Drugs.

In 2 of the maniacal cases, while taking potassium bromide, which had a favourable influence on the excitement, there were falls of 10 and 15 mm.; 2 melancholic cases fell 5 and 20 mm. under the same drug, becoming more composed mentally. Under the administration of opium and veronal two melancholic cases maintained a lower level by 15 mm., with accompanying amelioration of the symptoms.

### Albuminuria.

Two cases with a transient trace of albumen but no departure of the blood pressure from the normal, are included in the foregoing results, but 3 cases having a persistent and considerable quantity are omitted. One (a case of quiet melancholia, aged 22 years) had an average pressure of 140 mm., rising on improvement, ending in recovery, to 180 mm. A second, aged 34, a delusional case with no excess of the emotional tone, had a pressure of 150 mm., rising gradually to 190 mm., with no obvious change in the mental state. A third case, aged 74, was of the quiet, depressed type, and maintained a pressure of 175 mm.

In several cases, irrespective of the mental state, considerable variations in the systolic pressure were observed from time to time without any appreciable change in the affective tone. Of six patients who at later periods developed tuberculosis, five had pressures below the normal for their age periods. I think Sir Lauder Brunton has similarly observed a relation between low pressures and phthisis incidence.

In Table I the various mental states have been correlated with three grades of systolic pressure, and the middle grade (110–120) may be taken as representing the limits within which fall the pressures of the majority of normal adults up to middle life. In calculating the average age for each grade of pressure the congenital and senile states have been excluded, as their relation to lower and higher pressures respectively, which is fairly constant, would tend to obscure the results.

Table I.

| Type of Mental Disorder. | Under 110 mm. | 110 to 130 mm. | Over 130 mm. |
|---|---|---|---|
| Maniacal states ... ... ... | 11 | 19 | 3 |
| Melancholic states ... ... | 5 | 31 | 13 |
| Stuporose states ... ... ... | 3 | 3 | — |
| Delusional states ... ... | 2 | 9 | 4 |
| Congenital states ... ... | 7 | 5 | — |
| Senile states ... ... ... | — | 4 | 6 |
| Average age (excluding congenital and senile states) | 32.5 years | 40 years | 56 years |

In Table II it is attempted to correlate all the cases with the exception of the congenital, according to their pressure grades, with the three age divisions suggested by Sir Clifford Allbutt, and these latter subdivided so as to show a relation between the various pressures and the condition of the radial arterial wall as estimated by palpation. This is perhaps a somewhat rough and arbitrary method.

Table II.

| | Under 30 years. | | | 30 to 60 years. | | | Over 60 years. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Vessel Wall. | | | Vessel Wall. | | | Vessel Wall. | | |
| | Not Palpable. | Readily Palpated. | Sclerosed. | Not Palpable. | Readily Palpated. | Sclerosed. | Not Palpable. | Readily Palpated. | Sclerosed. |
| Under 110 mm. | 6 | 1 | — | 12 | — | 2 | — | — | — |
| 110 to 130 mm. | 13 | 3 | 3 | 21 | 15 | 2 | — | 6 | 4 |
| Over 130 mm.... | 1 | — | — | — | 5 | 5 | — | 1 | 14 |

### Influence of Arterial Wall on Observations.

The influence of the vessel wall on the manometer readings is still a doubtful point. Although a soft artery may have little effect in obscuring the real pressure, it seems to me that marked sclerosis must modify the readings considerably. I have records of 3 cases of arterio-sclerosis which, owing to a poorly nourished bodily condition, allowed of the arteries being palpated with particular ease, and of the point of obliterative pressure in the posterior tibial artery, where it passes behind the internal malleolus, being ascertained with considerable accuracy. With the patients in the horizontal position as nearly as

possible, simultaneous observations were made by means of two armlets connected to the one manometer. In this way differences were observed in all the cases varying from 6 to 25 mm.; the differences in the limbs of the opposite sides did not correspond. In some instances the tibial reading was higher, and in others lower, than the brachial, but I have generally found both brachials to correspond. In a few cases also, when using the Riva-Rocci and Hill's instruments together, I have found a constant difference of 30 mm. or less between brachial and radial arteries, the latter being the lower. I assume that in all these cases the difference may be regarded as an expression of the variation in the resistance of the vessel walls under observation, but it of course gives no idea of the total resistance offered to compression. Then, on the other hand, one not infrequently obtains low readings in marked arterio-sclerosis.

CONCLUSIONS.

1. That maniacal and melancholic states are not associated with any constant modification of the arterial blood-pressure, nor any marked departure in it from the normal.
2. That the same applies to other types of mental disorder with the exception of congenital states in which the pressure tends to be low.
3. That the pressure bears some relation to the bodily tone, and increases as age advances; and that as melancholia is on the whole a disorder of more advanced years than mania it is only associated with higher manometer readings on this account.
4. That sedative drugs have a slight influence in lowering blood pressure.
5. That the manometer readings bear a fairly close relation to the sclerosis of the vessel wall.

REFERENCES.

[1] Blood Pressure in the Insane, *Lancet*, vol. i, 1898. [2] Blood Pressure and Vascular Disease, *Journal of Mental Science*, July, 1909.

# THE INTERPRETATION AND SIGNIFICANCE OF SOME IRREGULARITIES OF THE PULSE.*

BY

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IN the textbooks of medicine the scanty accounts which are given of pulse irregularities do not elucidate their sources of origin. Of late years, however, an immense amount of work has been done upon this subject, both experimentally and clinically, and we now possess some real information as to the mechanism by which irregular pulses are produced. In clinical medicine methods of recording and interpreting irregularities of the pulse at the bedside have been elaborated.

Of this work Dr. James Mackenzie has been the pioneer. In 1902 he published his book on *The Study of the Pulse*, in which he gave descriptions of apparatus which he had invented for recording the movements of the various chambers of the heart, and he classified and described the various pulse irregularities. Since the publication of his book numerous workers have followed along his lines, and an immense amount of literature on the subject has arisen. The result has been to confirm Mackenzie's work in nearly all points, and to afford an insight into the mechanism of the heart's action which was previously unknown.

In most cases of irregular pulses it is impossible to know what the various chambers of the heart are doing without some graphic method, and without such a method it may be impossible even to detect an irregular pulse. Previous to the knowledge which graphic methods afford, I think that the main tendency has been to regard most pulse irregularities as having some unfavourable significance, though in reality sometimes an irregularity of the pulse has an important bearing, and sometimes appears as a harmless accident.

On the one hand, an irregular pulse may have an important bearing in disease. For instance, an occasional irregularity of the pulse during the course of pneumonia may be the first sign of a fatal termination. On the other hand, I know a family in which all the sons possess an irregularity of the pulse in the form of ventricular extra-systoles. They are all perfectly strong, middle-aged men, and their father, who had a similar pulse irregularity, lived to the age of 82. In such cases a just opinion can only be formed by a comprehensive consideration of all factors. Again, it sometimes happens that a pulse may appear quite regular to the palpating finger, but when the movements of the heart are analysed, it is found to possess a gross irregularity. For example, in conditions of heart-block the radial pulse may appear to be quite regular, as in an instance which I shall show you, but by a graphic method it can be shown that the auricles and ventricles are absolutely dissociated. The factors which govern the normal beat of the heart are—first, stimulus formation; secondly, excitability; thirdly, contractility; fourthly, conductivity; and fifthly, tonicity.

The bias of opinion at present very strongly favours the view that the heart initiates and conducts by its own muscle fibres the proper orderly contraction of auricles and ventricles. This is known as the myogenic theory. Even if it is ultimately proved that the nervous system plays a considerable part in the normal beat of the heart, we have obtained from the myogenic theory a very good working explanation of many irregularities of the pulse. This theory assumes the muscle fibre to contain some physico-chemical material, which gradually accumulates until it is present in sufficient quantity to stimulate the muscle fibre to contract. Cardiac muscle has the peculiar characteristic that during contraction the stimulus matter is used up, and immediately following the contraction the property of excitability is temporarily lost. In other words, no further contraction can take place until the stimulus matter has been regenerated, and until the property of excitability has been restored. This period of enforced rest is known as the refractory period of the heart. It will be apparent that the heart, unlike ordinary muscle fibre, cannot be continuously stimulated to a tetanic condition, or even made to contract immediately after a previous contraction.

I wish to emphasize very strongly the fourth property of the heart—namely, that of conductivity. Any particular cardiac muscle fibre during its contraction has the power of exciting a contraction of the contiguous fibres, so that by causing the contraction of a single cardiac fibre a wave of contraction is conducted along the neighbouring fibres.

Can this principle of fibre to fibre stimulation be applied to the human heart? You will remember that the auricles are separated from the ventricles by distinct rings of fibrous tissue—that is to say, there is no direct continuity of ordinary cardiac muscle fibre between auricle and ventricle. A wave of contraction, beginning in the ordinary auricular fibres, will be arrested at this fibrous ring, and would not be conducted to the ordinary ventricular fibres. To obviate this difficulty a specialized band of muscular fibres, however, exists, which extends across the fibrous ring from auricle to ventricle, and is capable of conducting stimuli from auricle to ventricle. This specialized band, which is composed of cardiac muscle fibres of an embryonic type, is known as the "bundle of His." By this band of specialized muscle tissue the stimulus is conducted in an orderly manner from the auricle to the ventricle.

Lastly, the fifth property which the heart muscle possesses is that of tonicity. In other words, the heart muscle fibres, like the muscle fibres of the body generally, are never completely relaxed, so that the heart wall always maintains a certain degree of rigidity.

In a normal heart these five properties of heart muscle fibres are interdependent. In pathological conditions, however, they may be affected independently of one another. In some diseases of the heart they all suffer. In some cases we find a depression of the property of conductivity, and in others an increase of excitability. Certain poisons seem to have a discriminative effect upon the properties of the heart muscle. For example, digitalis depresses conductivity and increases the tonicity of the heart. Other poisons, like alcohol and muscarin, diminish the tonicity of the heart. As it is the orderly exercise of these five properties which determines the normal rhythm of the heart, it is only by the analysis of these five properties of the heart separately and collectively that we

* A paper read before the Sunderland Division of the British Medical Association on November 22nd, 1910.

can really understand to what extent the heart is affected in diseased conditions. I believe that, with a deeper insight into the detailed working of each diseased heart, the time is not far distant when we will be able to point to and treat the erring function—whether of excitability, contractility, conductivity, or tonicity.

From the ordinary examination of the radial artery at the wrist we can obtain information regarding the action of the left ventricle, but by all the ordinary methods of examination no information can be obtained of the movement of the auricles. By investigation of the venous pulse in the neck important facts regarding the action of the auricles can, however, be demonstrated. Dr. James Mackenzie has invented an ink polygraph by which simultaneous records can be taken from the venous pulse in the neck and the radial artery at the wrist. By so doing we are able by measurement to obtain exact information of the movements of the chambers of the heart. By placing the tambour over the jugular bulb, which is situated between the two heads of the sterno-mastoid muscle, a record of the variations of pressure within the jugular vein is obtained. It is known that these variations in pressure are similar to the variations of pressure which take place in the auricles, allowing for the delay in time required for the transmission of the pulse from the auricle to the jugular bulb.

Fig. A shows the similarity between the auricular and jugular curves. There are certain rises and falls of

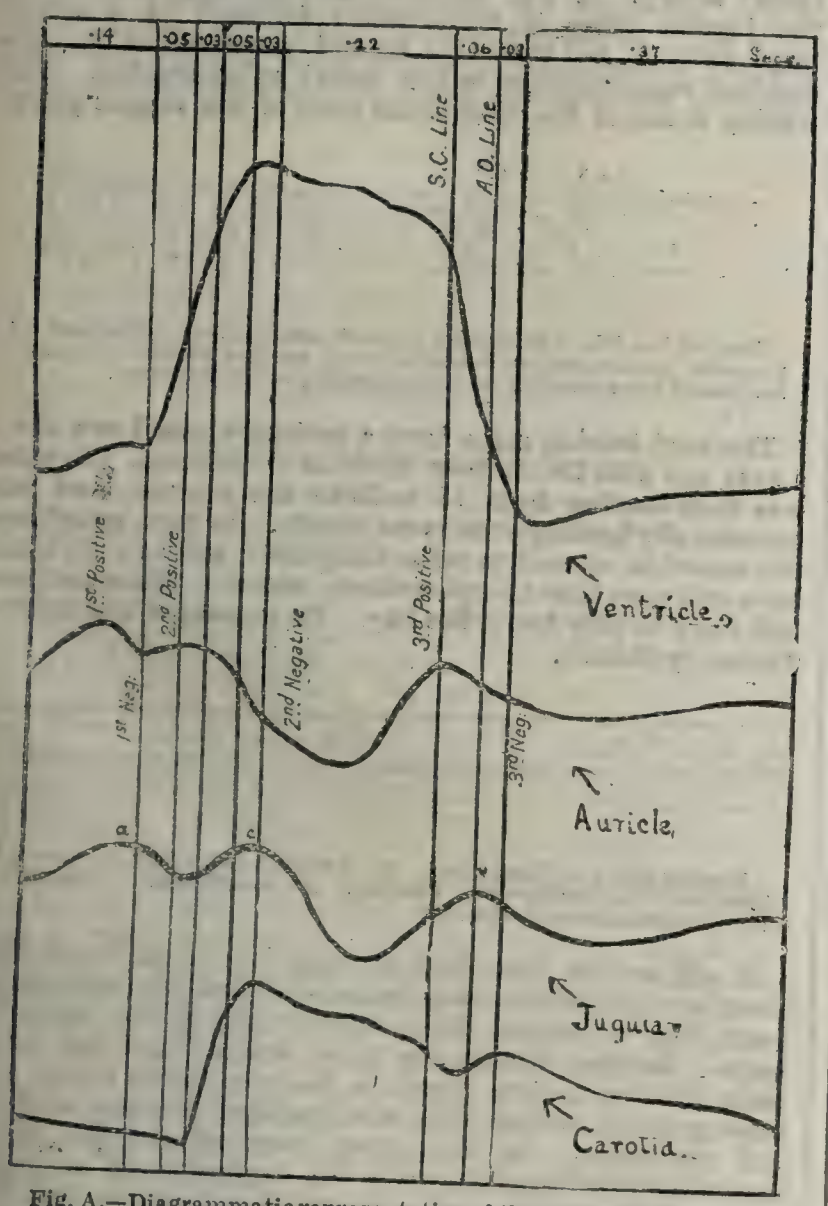
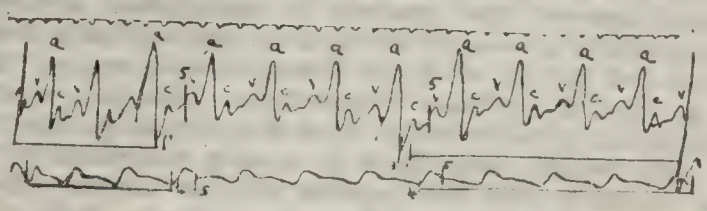



Fig. A.—Diagrammatic representation of the events of the cardiac cycle and of the carotid and jugular pulses in relation to standard movements. The scale of abscissae is 1 mm. to $\frac{1}{100}$ second. S C. = Semilunar valve closure. A O. = Auriculo-ventricular valves open. (After Lewis, *Further Advances in Physiology*.)

pressure in both, and without detailing the proof I may state that these variations in pressure are due to similar events in the cardiac cycle. We must now compare the time relationships of these rises and falls in auricular and jugular pressure with the time relationships of ventricular events. In the two uppermost curves, one of auricular and the other of ventricular pressure placed one above the other, it will be noted that the first positive wave of the auricular curve occurs before the systole and upstroke of the ventricle, and that the second positive wave in the auricular curve is synchronous with the sudden rise of ventricular pressure. It will further be noted that during the contraction of the ventricle there is a depression and fall of pressure in the auricular curve broken towards its termination by a third positive wave in the auricular curve. It is generally recognized that the first positive wave in the auricular curve is due to the contraction of the auricle. The second positive wave is due to some factor synchronous with the ventricular contraction. The time of the third rise is variable, but the fall which occurs after its apex is very constant. This fall occurs as soon as the tricuspid valves open. In this way we are able to trace the events occurring in the auricle during a complete cardiac cycle. First the auricle filled with blood contracts, and causes a sudden rise of pressure. It then relaxes, causing a fall in pressure. This fall would continue, but it is interrupted by a rise of pressure which occurs at the moment of ventricular systole, and gives rise to the second positive wave. You see that the fall is continued after the second positive wave. During the systole of the ventricle the tricuspid valves are closed, and the blood gradually collecting in the auricle steadily raises the pressure. This gradual rise of pressure may contribute to the third positive wave. This rise continues until the tricuspid valves open, which event occasions a fall, because the blood then flows easily through the auricle into the ventricle. The blood continues to flow from the auricle into the ventricle until the pressures are the same. Then the auricle contracts, and we begin a new cardiac cycle.

Exactly similar events are shown in the curve from the jugular bulb, but are slightly later. During each cardiac cycle there is a rise (*a*) which is due to the contraction of the auricle; (*b*) a fall of pressure due to the relaxation of the auricle, interrupted by a second rise (*c*) synchronous with the pulse in the carotid artery; a second fall of pressure occurring in the early part of the ventricular systole, followed by a third rise of pressure towards the end of the systole, while the tricuspid valves are still closed. From these diagrammatic pressure curves it will be evident that the events in the jugular vein and carotid artery bear to each other time-relationships identical with those which exist between auricular and ventricular events. The variations in pressure in the jugular vein and carotid artery are merely later in time than the variations in the auricle and ventricle.

In this way a record of the venous pulse in the neck will afford direct evidence of the events taking place in the auricle and the ventricle. In tracing No. I, taken from the venous pulse in the neck by means of the ink polygraph, variations of pressure similar to those which I have described in the auricular and jugular curves will be seen.

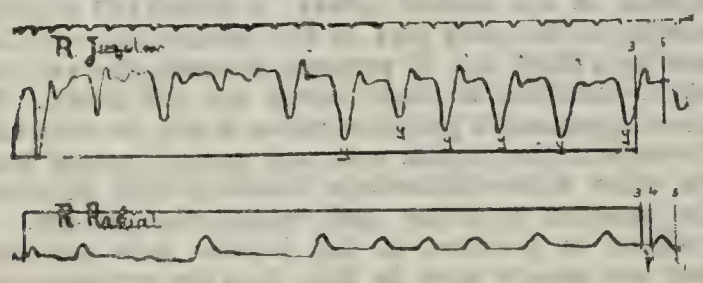



Tracing No. I.—Auricular form of venous pulse. *a* = Auricular contraction. *c* = "Carotid impulse." Vertical line = Ordinate. Upper curve = R. jugular. Lower curve = R. radial artery.

At the top of the tracing is the record of the time-marker indicating fifths of seconds. Immediately below this is the tracing from the jugular bulb, and at the bottom is a record of the radial artery. The records from the jugular vein and the radial artery have been obtained by the simultaneous working of the two pens of the polygraph. At the beginning and end of the tracing, after the machinery has been stopped, the rubber tubes are squeezed so that the pens make straight lines up and down the paper. These are the ordinates and represent simultaneous events, and are used as standards from which to make measurements. We employ the radial artery as the standard of time. I have marked a point (4) on the radial tracing which indicates the commencement of a radial upstroke. By measuring the distance between (4) and the radial ordinate and transcribing this measurement into the jugular tracing you will see that it falls immediately in front of a sudden upstroke which is due to the pulse of the carotid artery. Now we know that the carotid pulse occurs about one-tenth of a second before the radial pulse. We have learnt, then, where the ventricular systole begins

in the jugular tracing. We must now see where the ventricular systole ends. We proceed as follows: We know that as soon as the aortic valves shut there is a wave of pressure transmitted to the radial artery which gives rise to the *dicrotic notch*. Therefore the line which I have marked (5) just previous to the dicrotic notch indicates the period of time synchronous with the closure of the aortic valves—that is, the end of systole. The period, then, between the beginning of the radial upstroke (4) and this line (5) indicates the time during which the aortic valves are open—that is, the period occupied by the ventricular systole. We now transcribe this period into the jugular tracing, measuring from the beginning of the upstroke of the carotid (3) so that we can now divide the jugular tracing into two parts. All between the line (3) and the line (5) occurs during ventricular systole. The portion of the tracing between the line (5) and the commencement of the next (3) indicates the events happening during diastole. Let us take the two periods separately. During systole we have here represented a sharp upstroke (*c*) due to the carotid impulse, immediately followed by a second upstroke (*v*) which only attains its maximum at the end of systole, and of whose significance I have already told you. In the diastolic period a sharp upstroke (*a*) is followed by a corresponding downstroke, and these represent auricular contraction and relaxation respectively. It will be observed that in this tracing a wave due to the contraction of the auricle is always a very obvious feature. This variety of venous pulse is known as the auricular form.

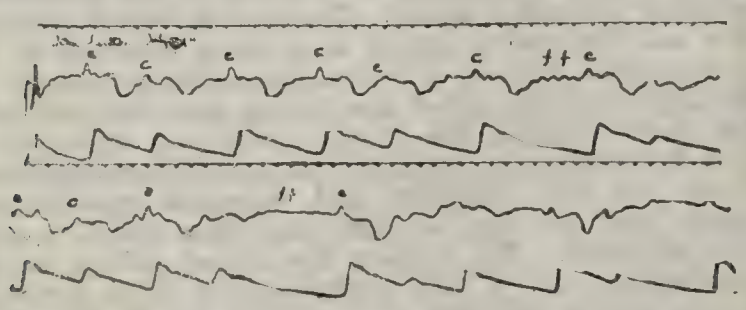
We may roughly classify tracings obtained from the jugular pulse into those which possess a single wave due to the contraction of the auricle and those in which it




Tracing No. II.—Ventricular form of venous pulse. The figure 3 marks the time of the carotid impulse ($\frac{1}{10}$ second before the radial upstroke 4).

is absent. The latter is known as the ventricular form of venous pulse.

As will be seen, there is in the jugular tracing a sudden upstroke immediately preceding the point of time of the carotid artery; the pressure is maintained during the whole period of ventricular systole, and suddenly drops at the end of systole when the tricuspid valve opens. There is no sign of auricular contraction. This is a record of ventricular pressure rather than of auricular pressure, and for this reason, that there is merely interposed between the ventricle and the jugular bulb an auricle which is dilated and inefficient. There is evidence—both clinical and *post mortem*—that in cases in which this form of venous pulse has been obtained the auricle is dilated, and that it never gives rise to a single forcible contraction. There are times when the auricle gives rise to numerous incomplete contractions, of which I show you an example (auricular fibrillation).



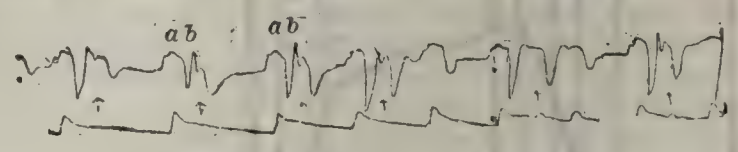
Tracing No. III.—Auricular fibrillation. The small waves due to auricular fibrillation are marked *f*; *c* marks the carotid impulse.

I believe also that there are conditions when the auricle lies as an inactive reservoir between the great veins and the ventricle. All tracings from the jugular bulb in the neck broadly follow one of these two forms of tracing. That is, there is either evidence of auricular contraction, the auricular form of venous pulse, or there is no sign of a definite auricular contraction—the ventricular form of venous pulse. With this knowledge of the types of pulse which can be obtained from the jugular bulb we may now proceed to consider some characteristic irregularities. I will show you examples of abnormally slow pulses, abnormally fast pulses, and some other irregularities, all of which I have met with in my own work.

Slow pulses may be due to one of the following causes: (1) A slow rate, in which both auricles and ventricles participate. (2) The slow rate may be due to the failure of the ventricular contraction to make any impression upon the radial artery, because the ventricle has contracted too soon and too incompletely to transmit a wave to the radial pulse. (3) There are some cases where the slowing is due to the influence of digitalis upon a heart in which the auricle is completely or partially paralysed—cases, that is, of the ventricular form of venous pulse. (4) The slow pulse is due to the fact that impulses from the auricle to the ventricle are blocked.

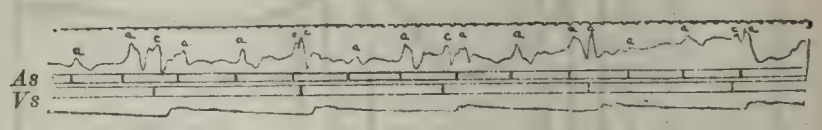
1. In the group of cases in which the slow rate is common to both auricles and ventricles are included abnormally slow pulses, which are present in normal persons, and occasionally also in conditions where the heart is labouring against a high peripheral resistance.

2. Tracing IV shows how a premature contraction of the ventricle fails to make any appreciable impression on the radial artery. It will be seen that the large wave (*a*) in the jugular pulse is immediately followed by a second large wave (*b*), but that this second wave (*b*) has only the smallest representative in the radial pulse tracing. This tracing is one of the ventricular form of the venous pulse.




Tracing No. IV.—Ventricular form of venous pulse. The rises of pressure (corresponding to heart beats) against which "crosses" are placed have small or no corresponding radial impulses.

The next tracing came from a patient whom I saw about a year ago with Dr. Andrew Smith of Whickham. His pulse was then beating from 18 to 25 to the minute, and was occasionally beating even more slowly. In fact, sometimes the ventricle seemed to cease altogether, and at such times he would pass into an epileptiform attack. He sometimes had forty to fifty fits in the day. He presented the Stokes-Adams syndrome.

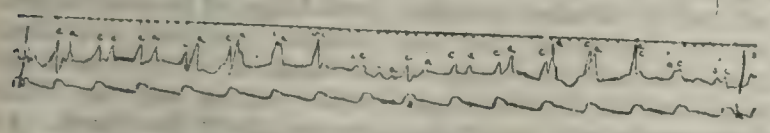



Tracing No. V.—Heart-block. *a* = Auricular impulse; *c* = carotid impulse. In interposed diagram *As* = auricular impulses, *Vs* = ventricular impulses.

It will be seen that there are only four radial beats, that there are twelve auricular beats, and that the ventricular beats bear no proper time relationship to the auricular beats. Between the jugular pulse tracing and the radial pulse tracing I have placed a diagram which shows in a more graphic manner the relationships between auricles and ventricles. In the upper compartment are black upstrokes which correspond to the beginnings of auricular contractions, and you will see from this diagram that the auricles are beating perfectly regularly at a rate of sixty to the minute. In the lower compartment are upstrokes corresponding to the beginnings of ventricular contractions (*c*). The ventricles, as you will see, never receive normal impulses from the auricles, and have assumed a rhythm of their own, which is at the rate of twenty-three to the minute. Dr. Smith told me that after the patient had been under treatment for some time his pulse was almost normal, and that he was able to work in his garden. At this time I obtained tracing No. VI.

It will be seen that the pulse-rate is very much quicker—about 60 to the minute. When I felt his pulse with my fingers and found it quite regular and beating at such a rapid rate, I concluded that the block between auricles and ventricles was removed. In fact, I surmised that he

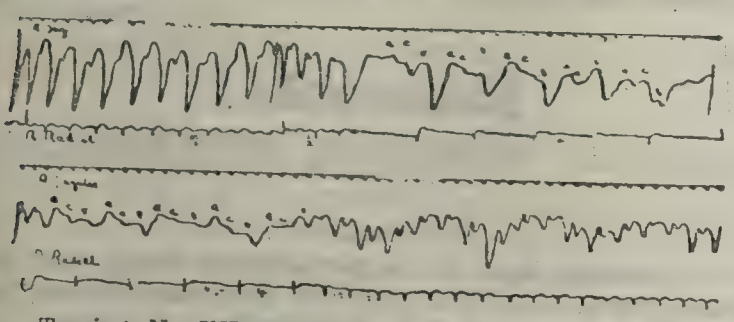
would have a normal jugular tracing, by which I mean that the ventricles would be contracting in response to stimuli from the auricles, but it will be seen that the auricles and ventricles are still dissociated. At the beginning of the tracing the contraction of the ventricle precedes that of the auricle; at the seventh beat the



Tracing No. VI.—Heart-block (same case). *a* = Auricular impulse; *c* = carotid impulse.

ventricular beat has caught up the auricular, and later again appears behind it. In a case such as this, examined at a period when the pulse-rate was regular and fast, it would be impossible to know that the patient possessed a very serious heart lesion without such a graphic record.

Fast pulses are met with most frequently (1) as the result of fever, (2) in cases of exophthalmic goitre, and (3) in cases of paroxysmal tachycardia. In Groups (1) and (2) the relationships between auricles and ventricles are perfectly normal, and both beat at the abnormally high rate. In paroxysmal tachycardia the condition of the heart changes, when the pulse-rate passes from the slow to the fast rate. I can indicate what these two changes are by briefly describing the case from which I obtained Tracing VII.



Tracing No. VII.—Paroxysmal tachycardia. In upper tracing the transition from a slow to a fast rate is shown. In lower tracing vice versa.

In this case the attack of quick heart-beat used only to last about ten minutes. During the attacks of tachycardia the heart could be demonstrated to have dilated—that is, the right margin of heart dullness extended 1 in. to the right of the sternum, having previously only reached the mid-sternum. The veins in the neck were engorged and pulsated with every beat of the heart. The patient became cyanosed and the breathing became hurried. The pulse was small and quick. After the attack had lasted for ten or fifteen minutes, the pulse would almost suddenly become slow, the veins of the neck would subside, and the area of heart dullness would diminish.

In the left-hand part of the upper tracing the jugular tracing is of the ventricular venous type and the pulse-rate is rapid and small. This period corresponds to the condition of acute dilatation with turgid pulsating veins. As we follow the tracing from left to right we see that the pulse slows and that the jugular tracing takes the auricular form. In the lower part of the tracing I have caught the transmission from a slow rate to the fast rate of an attack of tachycardia. The patient from whom this tracing was obtained had mitral incompetence as the result of rheumatic fever. He has a brother and a sister, both of whom have had rheumatic fever; they have rheumatic heart lesions, and are subject to similar attacks of tachycardia.

The last group of irregularities to which I wish to draw your attention is very common. With the fingers upon the radial artery it is noticed that every now and then there seems to be a long pause, followed probably by an excessively big impulse in the radial artery. This would be called an intermittent pulse. With the stethoscope on the heart and the finger on the radial artery it is found that two normal sounds of the heart are quickly followed by one or two short sharp sounds, and the first of the short sharp sounds corresponds to a very faint impulse, or no impulse at all, in the radial artery. Fig. B is a graphic representation of this.

In these conditions the excitability of the ventricle is so increased that a contraction takes place before the end of its proper resting period. If this extra-systole occurs very early in the diastole of the ventricle the pressure in the aorta will be so great that this additional weak contraction will be unable to open the aortic valves, and the extra-systole will have no representative in the radial artery. The later in diastole that the extra-systole occurs the

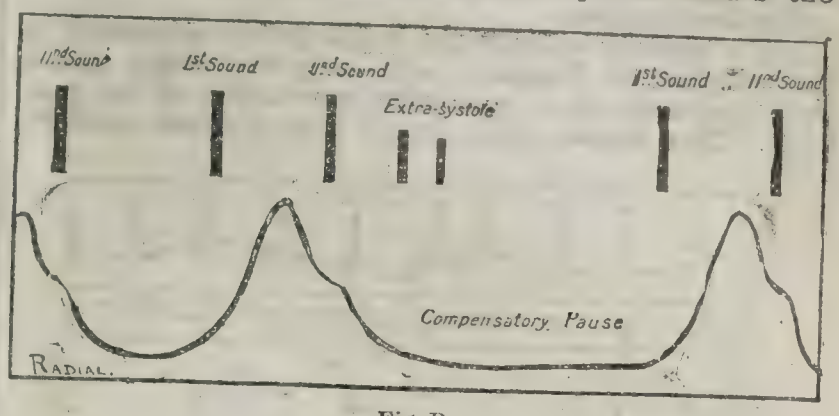
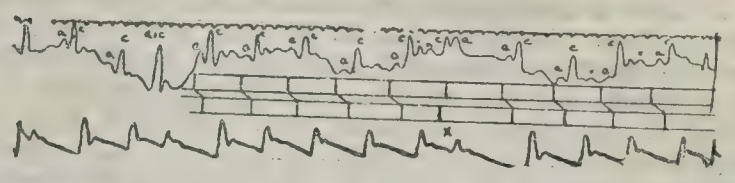


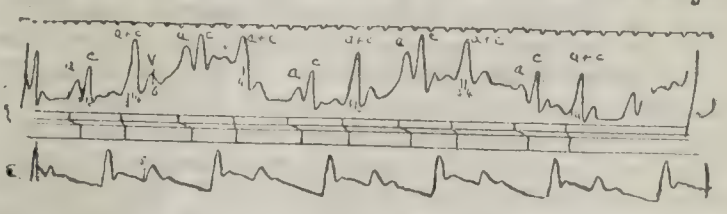

Fig. B.

stronger it will be, and the greater will be the fall in aortic pressure. Under these conditions the extra-systole will have a representative in the radial artery. Tracing VIII is an example of the ventricular extra-systole. In



Tracing No. VIII.—Ventricular extra-systole. Extra-systole at *x*. In the jugular tracing a carotid impulse has preceded an auricular impulse.

the lower tracing of the radial artery there is a small beat in the radial artery following the sixth upstroke of the radial tracing, measuring from the right hand end, If we measure from the right ordinate to the beginning of the upstroke of the small beat and transcribe this measurement into the jugular tracing it will be found to correspond to a carotid impulse. The interposed diagram shows what has occurred. The early appearance of the extra-systole in the lower compartment of the diagram will be noticed. In the upper part of the diagram it is evident that the auricles maintain their normal rhythm throughout. The auricular contraction which follows the extra-systole has no effect upon the ventricle because the ventricle is in the resting stage following the extra-systole. After the extra-systole there is a long pause before the next heart contraction. This is known as the compensatory pause. The interval occupied by the contraction of the extra-systole and the previous full beat is greater than the interval occupied by any two normal beats. Tracing IX shows an extra-systole

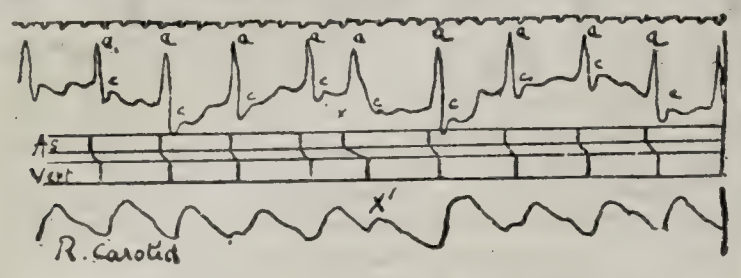


Tracing No IX.—Ventricular extra-systoles. Ventricular extra-systoles occur alternately with normal beats.

which occurred later in the diastolic period. The extra-systole is still, however, of ventricular origin. Following the tracing from left to right, it will be seen that the first beat is represented in the jugular tracing by an auricular contraction followed by a normal ventricular contraction, but at the second beat it will be observed that there is one single very large rise in the jugular tracing. If we measure from (*s*) to the ordinate on the left of the radial tracing and make the same measurement from the ordinate in the jugular tracing it is plain that the ventricle contracted immediately after the beginning of the contraction of the auricle. This almost simultaneous contraction of the auricle and ventricle gives rise to a very large (*a* and *c*) wave in the jugular tracing because the auricle would find closed auriculo-ventricular valves during the greater part of its contraction. The condition of affairs is, perhaps, more easily seen from the interposed diagram. There it will be seen that the normal auriculo-carotid intervals of one-fifth of a second alternate with the almost

simultaneous contraction of auricles and ventricles. This type of pulse is one variety of the so-called bigeminal pulse. Though the abnormal extra-systoles reach the pulse they are considerably smaller than normal, and are followed by a considerable pause.

In the last two tracings the extra-systole originated in the ventricle; in Tracing X a too early contraction of the auricle gave rise to a premature contraction of the ventricle. This tracing came from a case of mitral stenosis.




Tracing No. X.—Auricular extra-systole. The carotid extra-systole $x^1$, which corresponds in the jugular tracing with the mark *c*, is preceded by a large *a* wave, due to an auricular extra-systole.

At $x^1$ there is a premature and smaller beat in the carotid artery. This might be due to the fact that either the ventricle itself has generated a premature impulse or that the ventricle has the stimulus to contract conducted to it from a premature auricular beat. We find that the distance from the ordinate of the carotid to $x^1$ falls exactly at the beginning of the small *c*. This gives us the time of ventricular systole. Just previous to that there is a very big wave which can only be due to the contraction of the auricle. The jugular pulse shows that the *a* waves rise with perfect regularity, except at this particular spot, where the contraction of the auricle has occurred too soon. The sequence of events can be more easily understood from the interposed diagram. I have indicated the extra-auricular systole at *x*. This is followed at a considerable interval by the small contraction of the carotid at *c*. The interval of time occupied by the passage of the stimulus from the auricle to the ventricle is in the case of the extra-systole considerably longer than normal, owing to the fact that the too early auricular systole finds the conducting fibres of the auriculo-ventricular bundle in a resting or refractory condition, and the stimulus conduction is delayed. Further, the interval of time occupied by the extra-systole and the previous normal contraction is less than the interval of time occupied by two normal contractions, in contradistinction to the long compensatory pause which I pointed out in the case of a ventricular extra-systole.

Whenever an extra-systole occurs, it means that the muscle is in an unduly excitable condition. It means, further, as in the examples I have shown you, that the auricle or ventricle contracts prematurely in response to impulses other than the normal. It has been suggested that these abnormal impulses have their origin in the bundle of His, and therefore that they may arise in the auricle, in the node of tissue between the auricle and the ventricle, and lastly in the ventricle itself. One frequently meets with extra-systoles in elderly people, and it has been suggested that in these cases the heart muscle is made more excitable from lack of proper blood supply, due to thickening of the coronary arteries. In old people extra-systoles, apart from signs of heart failure, have no particular significance. They have no sinister meaning unless they are discovered at a time when some particular call is being made upon the heart. If a patient with extra-systoles is attacked with a disease which causes fever and quickening of the heart-rate it is a favourable sign if, with the quickening of the heart, the extra-systoles disappear. I presume that in such a case the quickened heart-beat exhausts the irritability of the cardiac muscle, or at any rate that part of the muscle which gives rise to the extra-systole. The extra-systole occurs sometimes in dyspeptic and neurotic people, and is simply an evidence of the general lack of nervous control. Further, one meets with extra-systoles in young people in whom there is no rheumatic history and no cardiac sclerosis. I would sum up the significance of extra-systoles by saying that their presence has no serious import except when they occur in such diseases as pneumonia and rheumatic fever. In these conditions the heart muscle is involved in the disease process. In other cases the most serious result lies in the knowledge of the patient that he possesses an irregular pulse. He keeps feeling his pulse, and the irregularity fills him with unnecessary alarm.

I have endeavoured to show how by a graphic method we are able to unravel pathological conditions of the heart and to obtain a detailed knowledge of its mechanism which we previously did not possess. In fact, our ideas of heart disease are being revolutionized. Up to now too much attention has been paid to the valves and too little to the nervous and muscular components of the heart. As I said earlier, I believe that this recent knowledge of the heart's action will place our treatment of heart disease on a more exact basis. We must beware lest we are carried too far into the intricacies of a complicated mechanism like that of the heart, and place too much importance upon it; for, after all, the main question in any heart lesion amounts to this, What is the heart capable of doing? It is, however, always better to possess exact information rather than to work in the dark, and I have no doubt that with our more exact knowledge a more rational therapeusis will arise.

I take this opportunity of expressing my great indebtedness to Dr. Mackenzie for his help and encouragement, and to Dr. William Ritchie and Dr. John Cowan for their assistance in early difficulties. I thank also my colleagues at the Royal Victoria Infirmary for so readily placing their material at my disposal.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### SALVARSAN.

I HAVE recently had the opportunity of using this preparation upon a badly syphilized pregnant woman, and the notes of the case may be of interest.

A woman aged 26 was admitted to the union infirmary on February 27th, 1911, seven and a half months pregnant. The mouth and throat were extensively ulcerated, the voice husky, there were gummata on the chin and cheeks, a typical rash all over the body, numerous condylomata on the labiae and around the anus, and a foul vaginal discharge. There was severe dyspepsia and continual vomiting. She was placed on liquid diet, put to bed, and treated with mercury perchloride internally and black wash to the condylomata. She improved generally, vomiting ceased, and all the local conditions were modified. On March 21st an intramuscular injection of salvarsan was given. Beyond a slight soreness in the injection area no discomfort was felt. On March 23rd the patient said she felt much better. On March 24th the vaginal discharge had quite ceased, and the ulcers in the mouth and pharynx were looking much healthier, as also were the condylomata. On March 30th the ulcers were quite healed, the condylomata nearly gone, and all soreness had ceased in the vagina and vulvae, the patient stating that she felt quite well. On April 7th she was delivered of a male child of fully average weight and in good condition. The skin on its face, hands, and soles of feet had a puckered, dry appearance, otherwise there was none of the usual conditions found in the newly-born syphilized child. From its birth there was desquamation, especially on the hands and feet, until the fifth day. On the seventh day the child's appearance was that of a perfectly normal and healthy infant, and there had been no sign of any tendency to ophthalmia. The placenta was dark, soft, and "rotten looking."

Although the mother showed the excellent effect of salvarsan, the interest of the case centres in the condition of the child, which but for the new treatment would no doubt have been born with the usual syphilitic lesions.

On the same day a dose of salvarsan was given to another badly syphilized woman. She had been under mercurial treatment at intervals for several years, and had got steadily worse. On admission she was very emaciated. The soft palate was in a foul sloughing condition. She could barely swallow liquids and the voice was practically gone. Three days after the injection she could swallow. On the fourth day she could speak. Ten days after the pharynx and soft palate were healed, and on the twenty-fourth after the injection she appeared and felt quite well and had quite lost all appearance of emaciation.

Personally, I am disposed to think that the intramuscular method is preferable to the intravenous, at any rate in general practice.

Bishop Auckland. MARK WARDLE.

## CONGENITAL ABSENCE OF ONE KIDNEY.

HAVING noticed in the issue for January 28th the report by Dr. J. Maughan of a case of congenital absence of one kidney, I beg leave to record a similar abnormality.

In July, 1907, I made a *post-mortem* examination of the body of a male Mozambique Kaffir, aged about 30 years, who had died of pneumonia in the compound hospital of the South Geldenhuis Deep Mine at Germiston, Transvaal. The right kidney lay unusually far over to the left, the upper end coming quite across to the mid line, and the hilum looking almost downward. On removal it was found to be very large. The upper part was enlarged so that about three-quarters of the bulk of the organ lay above the ureter. The posterior lip of the hilum was very prominent. The pelvis and ureter were both large. But for cloudy swelling the organ was otherwise healthy.

The left kidney was absent, and also the left suprarenal, and there were no left renal vessels. The lower end of the left ureter was present and had a lumen in part of its length. Just above the point where it crossed the iliac vessels it became a fibrous cord, and this tapered off till two or three inches higher up it lost its identity, becoming merged in the areolar tissue over quadratus and psoas.

The subject of congenital absence of a kidney is mentioned by Greenfield (*Pathology Lectures*, 1904), who indicates that the condition is not of surpassing rarity. It would be unfortunate if a person thus defective were unwittingly subjected to nephrectomy. For this, then, as well as other reasons, one should determine the renal activity of both sides of the body by means of the Luys's segregator, or otherwise, before surgically interfering with any kidney.

Eketahuna, N.Z. J. P. S. JAMIESON, M.B., Ch.B.Edin.

## PAROXYSMAL PULMONARY OEDEMA.

I READ with interest the article (231) in the EPITOME of the BRITISH MEDICAL JOURNAL of April 22nd on paroxysmal pulmonary oedema. I have a case under my care which corresponds closely to the description given.

A married lady aged 46 has a history of frequent attacks of "asthma" (?) for the last two years; during these attacks she was unconscious, and had a great amount of frothy blood-stained fluid coming from the nose and mouth. I saw her first in a typical attack about two months ago. She was quite unconscious, had a high degree of cyanosis, much bloodstained frothy fluid coming from the nose and mouth. I promptly gave her ¼ grain of morphine hypodermically, and applied a hot linseed poultice to the chest. She recovered consciousness in about half an hour. Next morning the temperature was 100·7° F., respirations 35, pulse 100. The cardiac sounds were normal except that the aortic second sound was accentuated. The urine was pale, specific gravity 1010, slightly albuminous. The morning after she got up and was apparently quite well. The urine was normal, specific gravity 1020, and contained no albumen.

Within the next fortnight she had three attacks of much the same severity. During the next month she had four attacks of dyspnoea, but with no sign of oedema. Lately she has been taking a mixture containing potassium iodide and tincture of digitalis, with a dose of sal volatile when an attack threatens.

At first I thought she was suffering from cardiac or renal asthma, but that was quickly disproved. Later I attributed the oedema to the high blood pressure she occasionally suffered from. I intend to try a small hypodermic injection of adrenalin if she has another severe attack.

Liverpool. OLIVER CARLYLE, F.R.C.S.Edin.

## MEDICAL AND SURGICAL APPLIANCES.

*Fine Pencils of $CO_2$ Snow for General Practice.*

DR. JOHN ASTON SWINDALE (Whitchurch) writes: The various forms of apparatus for $CO_2$ snow look cumbersome and complicated, and are somewhat expensive. It is necessary that the outfit be as portable as possible, and the initial outlay is a consideration, as also is the time entailed in packing up and sending empty gaskettes or cylinders for refills. The Prana apparatus answers our purpose very well (Aërators, Limited, Upper Edmonton, N.). It costs £2 10s. and packs into a box 11 in. by 3½ in. by 5 in.; the gaskette costs 6s. and is also most portable and light, length 16 in. by about 1½ in. Both are easily carried in the ordinary bag. It is a good plan to have three gaskettes. Two can go up for refills together at 6d. each and the train fare; the other remains behind for work. Full instructions as to fitting the parts together are supplied with each outfit. In fair-sized port-wine stains, and most naevi, the pencil obtained with this apparatus is of efficient size, and quite satisfactory. But as it is friable and cuts and pares badly, it is not so useful for small moles and other blemishes, or for small naevi. To treat such cases one feels the need of a very small-bored and flat-ended hard pencil of the snow, and so I had the little apparatus made shown in Figs. 1 and 2.

Fig. 1.

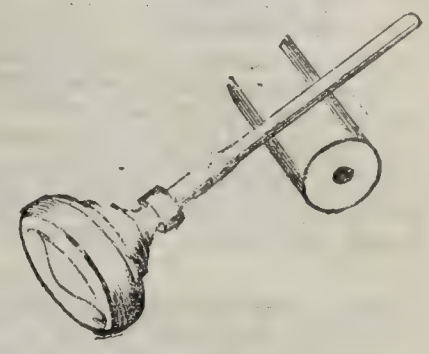


Fig. 2.

Fig. 1 represents a section of solid steel bar, about 3 in. in height and 1 in. in diameter. It is carefully funnelled at the top end to a depth of nearly 1 in., the other end being quite flat, so that it stands easily on any flat surface. A hole is bored completely through to the desired size—namely about that of the end of a fine penholder. In Fig. 2 is shown the plunger, a steel rod, accurately fitting the hole, and mounted on a comfortable handle, with good grip. After the snow has been prepared, enough of it is placed in the cuplike funnel to fill it completely. It is then cleared from the sides of the funnel with a spatula and forced down bit by bit with the plunger. The resisting power at the other end being the base cap of the Prana apparatus, a piece of stout metal or glass, or a firm table. If a pencil of somewhat larger or smaller bore be required, all that is necessary is to make use of one or two more sections of the bar, the same plunger handle could be made to act by screwing the new rods into it.

# Reports

ON

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## WESTMINSTER HOSPITAL.

### ULCERATIVE COLITIS AND THE BACILLUS PYOCYANEUS.

(Under the care of DR. DE HAVILLAND HALL.)

[Reported by ALFRED BERNSTEIN, M.B.Lond.]

THE following case is recorded on account of the obscurity of the etiology of the disease:

Margaret H., aged 32, admitted to Westminster Hospital on April 6th, 1910.

*Complaint.*—Pains in the abdomen and blood in the stool.

*Family History.*—Father died of consumption; nothing else notable.

*Previous History.*—Always good health, except slight dyspepsia. Bowels regular. The patient had never been abroad.

*Present Illness.*—At the beginning of March, 1910, the patient first noticed blood in the stool. She then had diarrhoea for two weeks with several attacks of severe pain in the abdomen daily, which made her lie down. She had nausea, but no vomiting and no headache, and went about her work. Since about March 23rd she had only taken beef-tea for food.

*Condition on Admission.*—Moderately nourished; teeth fair; tongue coated. Abdomen soft; some tenderness and pain in left iliac region. Per rectum *nil*. Chest *nil*.

*Course.*—On April 8th the stools contained much blood and pus. In the first twenty-four hours there were twelve motions, chiefly blood. On April 14th distinct pieces of mucosa were mixed with the blood and pus. The stools were much less frequent and smaller, but the patient was weaker and paler. On April 16th the blood was in clots and darker. On April 19th it

was noted that she was steadily getting weaker. In the night she had passed about half a pint of blood and clot in bed. She could not retain starch and opium enema, but took food well, though in a typhoid state. On April 25th the stools were slighter, thinner, and greenish-black. *B. coli* and *B. pyocyaneus* were cultivated from the faeces. On April 29th she was slightly delirious; vaccine of *B. coli* and *B. pyocyaneus*, 5 millions, was given. On May 3rd she was weaker, and there were large butterfly-shaped patches of erythema on the nose and cheeks. On May 7th there was only slight blood in the stool. In the evening she had much pain over the abdomen, which was distended and tender. She was delirious. The temperature suddenly dropped, and then rose again, and in two or three hours she died. It was thought that perforation may have occurred, but even so laparotomy was out of the question.

Blood count, April 19th:

| | |
|---|---|
| Red blood corpuscles ... ... ... | 3,550,000 |
| White blood corpuscles ... ... ... | 14,400 |
| Colour index... ... ... ... ... | 0.78 |
| Polymorphs ... ... ... ... ... | 86 per cent. |
| Monomorphs ... ... ... ... | 14 ,, |

Widal reaction for typhoid was negative.

There was remittent pyrexia throughout the illness. During the first week it was 100° to 104° F.; then afterwards generally between 100° to 102° F., but occasionally 99° F. The pulse was over 120 throughout and small.

The treatment consisted of light diet; bismuth salicylates and tinct. opii, enemata of boric acid, and later stimulants were given. The patient steadily went downhill.

*Post Mortem.*

Emaciation and advanced decomposition, small haemorrhages over body, guts ruptured, but as there was no peritonitis, almost certainly due to *post-mortem* decomposition, which was very advanced. Numerous thin adhesions of the coils to anterior abdominal wall and to one another. The transverse colon was adherent to anterior wall and to stomach. The chief changes were in the large intestine and colon. These were congested and oedematous, and there was extensive ulceration, causing the mucosa to be ragged.

The ulcers were so close that no area bigger than a sixpence was free. The ulcers were oval and the edges were overhanging. In many places no mucous membrane remained, exposing the muscular coat, and in many places even the peritoneum. The parts between the ulcerated areas were thickened, and the mucosa hung loose into the lumen of the bowel. The largest ulcer was about 1 in. by ¾ in., formed by the coalescence of smaller ulcers.

The small intestine showed numerous small ulcers about ¼ in. diameter and confined to the lymphoid follicles, and no deeper than the mucosa. There was no ulceration higher than 6 in. from the ileo-caecal valve. Mesenteric glands not enlarged. Liver and spleen decomposed. Other organs *nil*.

This case exhibits all the classical signs of ulcerative colitis—typhoid state, prostration, nausea, diarrhoea with passage of blood, pus and sloughs, loss of flesh, and abdominal pain and tenderness. But the chief interest of the case lies in the fact that the *B. pyocyaneus* was isolated from the faeces.

Hewlett[1] mentions the fact that this organism has been isolated in the disease, but out of 303 cases reported from the chief London hospitals in twenty-five years to provide a basis for the discussion opened by Sir William Allchin[4] at the Royal Society of Medicine in 1909 there was mention of the *B. pyocyaneus* being found in the stools in one case only, and then in association with a streptococcus and a spore-bearing bacillus. Unfortunately the great majority of these cases were not investigated from a bacteriological standpoint.

Williams and Cameron[2] reported several cases of infection by the *B. pyocyaneus*, but generally in association with other organisms, but they consider that two of these cases were a pure infection; these cases were chiefly infants with green diarrhoea, fever, and sometimes haemorrhages in the skin or intestine. The mucosa of the intestine was never ulcerated, but was thickened in all cases. Often boils and abscesses developed in the skin. In some the organism was isolated from kidney, spleen, and liver, and even from the abscesses. And in one case, although it was not found in these organs, cultures were made from the contents of the caecum. In nearly all these cases the stools were not examined for bacteria. The organism has also been found in the intestinal tract of infants by Booker.[3]

In the case here recorded cultures from the stools showed *B. coli* and *B. pyocyaneus*, but unfortunately no attempt was made to cultivate the bacillus from the organs.

REFERENCES.

[1] Hewlett, *Textbook of Bacteriology*, 1910. [2] Williams and Cameron, *Journ. Path. and Bact.*, vol. iii, 1896. [3] Booker, *Transactions International Medical Congress*, vol. iii. [4] *Proceedings Royal Society of Medicine*, Medical Section, January 26th, 1909.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF DISEASES OF CHILDREN.

*Friday, May 26th, 1911.*

Dr. E. CAUTLEY, President, in the Chair.

*Treatment and Prevention of Measles.*

IN a paper read on March 24th Dr. Milne advocated the treatment of measles by inunction of the body with eucalyptus oil and the local application of 1 in 10 carbolic oil to the throat, by which means he maintained that infection could be prevented. In opening a discussion on the paper, Dr. J. D. ROLLESTON said that as the contagion was chiefly spread by discharges from the nose and eyes, especially during the pre-eruptive period, it was difficult to understand what useful purpose could be served by mere inunction of the skin with eucalyptus oil and the application of carbolic oil, itself an antiseptic of very doubtful value, to the throat, even if the treatment could be carried out at home. Inunction of the skin, in Dr. Rolleston's opinion, was of very doubtful value in scarlet fever, and of still less value in measles. Dr. Milne further claimed that his treatment rendered disinfection unnecessary, but in ordinary circumstances the process was not required unless the patient died from broncho-pneumonia or some secondary infection. Dr. BEZLY THORNE upheld the use of eucalyptus oil, having found it very beneficial in his early days. It was, however, open to the objections that patients disliked it, and that it irritated the skin. He therefore substituted an aqueous emulsion of carbolic acid, which he used for scarlet fever, measles, and varicella, and gave eucalyptus oil internally, with the result that his cases ran a benign course and all danger of infection was prevented. Dr. BIERNACKI said that during a severe epidemic of measles he had tried Dr. Milne's method and found it a total failure. There had never been so many cross-cases at the hospital as when the treatment was being carried out. Nevertheless the fact that a treatment had been tried and failed was not a sufficient reason for refusing to try it, and he recommended that someone should try the method quite independently, working under the same conditions as had Dr. Milne. Dr. T. R. WHIPHAM dealt with the question of the conveyance of measles infection by a third person, such as a nurse, and asked whether a nurse doing duty in a ward could be so saturated with eucalyptus oil that she would not convey measles to another patient. At what period should the treatment be carried out? Was one to assume that every case with indefinite symptoms was a potential case of the disease, or should one wait until the characteristic signs were evident? In the latter case what was to prevent the spread of infection during the incubation period? If every indefinite case was to be treated early one would be continually living in an atmosphere of eucalyptus. No suggestion as to the *rationale* of Dr. Milne's method had yet been advanced, nor as to how the internal administration of eucalyptus, as recommended by Dr. Bezly Thorne, acted. Dr. MILNE, in replying, said he had issued a free invitation to the members of the section and all interested to come and see his cases. After the use of the eucalyptus oil there was a decided odour of it in the urine. All the complications arose through secondary infections, but when the throat was treated early secondary infections never occurred. He was able to advance hundreds of testimonials in support of his position, and he would be glad to know how he could have done more than he had to have his system properly tested. Dr. BEZLY THORNE, answering Dr. Whipham, said that he assumed the eucalyptus oil acted by destroying the bacilli, particularly when it was taken internally, but he could no more explain how the eucalyptus oil acted in these cases than how quinine acted in malaria.

*Exhibits.*

The following were among the exhibits: Dr. E. CAUTLEY: (1) *Pyloric hypertrophy and spasm* in a male infant, aged 10 weeks, who had weighed 6 lb. at birth. Fed on Allenbury No. 1 food, he gained 1 lb. in the first week, and then began to vomit. The vomiting became more severe and projectile in character, and the bowels

were constipated. Feeding on whey, cream, and lactose had checked the vomiting and brought about an increase in weight, and the stools were normal. There was marked peristalsis of the stomach extending to the duodenum, and the pylorus was palpable, but not much enlarged. The stomach was not dilated, and it was thought justifiable to wait longer before advocating operation. (2) *Cerebral sclerosis and idiocy* in a girl, aged 2 years and 4 months, with no history or evidence of syphilis. The child was stated to have been normal until 9 months of age, when she developed fits of opisthotonos and screaming. She was small and wasted, and had never been able to sit up or talk. There was head retraction and opisthotonos with general rigidity and spasmodic movements of the limbs. The knee-jerks were exaggerated and Kernig's sign was present. The child was blind, but the eyes showed no abnormal features. The diagnosis lay between a sclerosis of post-natal origin, perhaps secondary to encephalitis, and cerebral palsy of the type known as cerebral spastic diplegia. Mr. P. L. MUMMERY: A case of severe *Tuberculous peritonitis* in a girl. When first seen, the child was emaciated and anaemic, and the abdomen was distended with fluid. General treatment causing no improvement, laparotomy was performed, when the peritoneum was found to be covered with tubercle. The child had since become quite well, and there was now no evidence of tuberculous peritonitis. Mr. S. STEPHENSON: *Night-blindness with peculiar conjunctival changes* in a boy. The subjects of this condition usually suffered from insufficiency of food, and the amount of haemoglobin in the blood was always below normal. The relation of the condition to snow-blindness and kerato-malacia was discussed.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

*Friday, May 12th, 1911.*

Dr. H. JELLETT, President, in the Chair.

*Implantation of the Ureter.*

THE PRESIDENT exhibited a specimen from a case in which he operated by Wertheim's method for malignant disease of the cervix. In the course of the operation, in cutting through a piece of cancer that lay close to the bladder, he found he had cut through the ureter. On examining it he found the ureter apparently impervious, and entirely occupied by cancerous tissue. Later in the operation he cut off the lower end of the ureter where it was still blocked, until he got to a piece of healthy ureter. He then adopted an expedient mentioned by Professor Alfred Smith at a meeting of the Academy, of drawing the bladder up to the ovarian pelvic ligament and cutting a small hole in the fundus of the bladder and carrying the ureter into the bladder. The cancer was extremely extensive, and in separating the bladder wall from the anterior wall of the cervix it was found that the bladder was involved. He sutured it up, and closed it completely, and it remained closed for nearly a fortnight. Then it broke down owing to the extension of cancer. The method of suturing was one which was available in cases in which the ureter was left somewhat short. Professor ALFRED SMITH said the demonstration of the success of the implantation of the ureter was to him very gratifying. He noticed that when implanting the ureter into the bladder sutures were used. His idea was that when the bladder was anchored so that it could not retract, if they made an opening sufficient to allow the ureter to drop into the cavity of the bladder, all that was necessary was merely to close on each side the angles of the bladder wall. The rapidity with which the operation could be performed was noticeable. It was interesting to him that there was no evidence of hydronephrosis. Where they had a leakage through a ureter they would have the kidney secreting, and hydronephrosis coming on. If they cut the ureter and ligatured at once, the tension in the kidney reached a certain standard, and the kidney ceased to functionate.

*Rotunda Reports, 1909–10.*

Dr. E. HASTINGS TWEEDY read the Rotunda Hospital Reports for 1909–10. The PRESIDENT said that in his opening paragraph Dr. Tweedy had referred to the possibility of improvement in the results as an outcome of the opening of the new labour wards. The results up to the present were as good as they could be, but he confessed that it was an astonishment to him how they were so. They were passing through the wards 1,000 per year more patients than when these wards were built. The conditions of hospital practice limited them in the use of the teaching capacity of the hospital. The number of vaginal examinations had to be limited considerably in order to keep morbidity to the lowest bounds. It was a question if they were entitled to try to bring down the morbidity in the hospital if the result was to raise the mortality outside. If students were cramped in the number of examinations, that might be an excellent thing for the morbidity of the hospital, but it would certainly move in the direction of increasing the mortality of students' practice when they became qualified practitioners. Dr. TWEEDY, in reply, said that when he took up his duty as master, he felt he inherited a very old institution, and he said to himself the Rotunda Hospital was doomed the day that architectural perfection became the all-important item in maternity practice. They could not compete in money or structure with some of the great places that were supported by Government. Men were taught in the Rotunda to go into general practice. Surely the worst way to teach them was to impress them with the importance of bricks and mortar. Their nurses had too short a training for private practice. They left the Rotunda at six months, and were fairly good, but at the end of six years a great number of them were hopeless. The argument of the Master that he did not think they were entitled to lower the morbidity of the patients at the expense of the students was one that could be used against all humanitarians. With regard to vaginal examinations, these were not discouraged at all. He thought the examinations were made with the utmost safety if they used sterilized finger stalls.

## ULSTER MEDICAL SOCIETY.

AT a pathological meeting on May 10th, Sir PETER O'CONNELL, President, in the chair, Professor SYMMERS read short notes on the value of antiformin in the search for tubercle bacilli in thick sputum, etc. Dr. DICKSON read a paper on experiments made by Dr. Wilson and himself showing the *Viability of typhoid bacilli* in water under natural conditions in a tank in the ground; the bacilli were recovered up to three weeks and two days by means of Dr. Wilson's apparatus. Professor Symmers said he doubted the exact analogy of the conditions described with those of a large reservoir with various currents. Captain SEWELL described his investigation of the water supply of a camp. Dr. WILSON described the gravimetric method of *Standardization of vaccines*. Drs. SYMMERS and HOUSTON regarded it as serviceable when vaccine in large quantity was required, as in typhoid inoculation of a regiment, but not for the ordinary 15 c.cm. bottle. Drs. ST. GEORGE and WILSON read notes of a case showing the infective nature of rheumatoid arthritis; the streptococci were obtained from the urine. Dr. DICKSON read notes of a case of enteric fever. On the fifty-third day the patient gave evidence of becoming a carrier; three inoculations were given, and cleared the urine. He suggested the possibility of inoculation of all cases to anticipate the infectivity of urine or gall bladder.

## SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

AT a meeting on May 20th, Dr. THOMAS BARR in the chair, the following were among the exhibits:—Dr. THOMAS BARR: A patient who, twenty-four years ago, came under his care suffering from *Otitic temporo-sphenoidal abscess*. Sir William Macewen operated. It was fully reported in the *Lancet*, March 20th, 1887, and was of historic interest as being one of the first of its kind operated on, Barker's and Caird's cases preceding it by only two or three months. Dr. WALKER DOWNIE: (1) A man from whom he had removed a large subglottic papilloma by *Thyrotomy*. This method was adopted in preference to the direct because of the foul appearance of the growth and because of loss of movement of the cord. The larynx was immediately closed. At the present time the cord moved well, but was still congested, and, in spite of the pathologist's report, "simple

warty papilloma," Dr. LOGAN TURNER voiced the opinion of other members in considering it a case which should be carefully watched for signs of malignancy. (2) A case of *Bilateral abductor paralysis* of the cords in which it was found necessary to perform tracheotomy to prevent suffocation. A most careful examination failed to disclose the cause of the paralysis. (3) A patient nine years after the injection of molten paraffin to remedy deformity of the nose. The paraffin, he said, remained inert, showed no tendency to migrate nor to become absorbed, and the improvement effected was permanent. Dr. J. STODDART BARR: A patient on whom operation for cerebellar abscess had been performed, contrasting with this case one which had ended fatally. Both were the result of chronic middle-ear suppuration. In the fatal case the abscess was associated with infective panlabyrinthitis and with septic thrombosis of the lateral sinus. In the other case there was no labyrinthine involvement. Dr. JAMES ADAM: A patient who had suffered from chronic oedema of the face associated with maxillary antral disease and extensive dental caries. Attention to these conditions combined with vaccine treatment resulted in great improvement. Dr. A. BROWN KELLY: (1) A woman, aged 21, suffering from *Syringobulbia* with implication of the nose, pharynx, and larynx; (2) a boy, aged 13, suffering from *Myasthenia gravis*, with impaired speech. Dr. TURNER remarked that it was probably one of the youngest cases of the kind reported. Dr. KERR LOVE: A girl, aged 8, on whom he had operated for *Lateral sinus thrombosis* secondary to chronic middle-ear suppuration. The sinus was occupied by septic clot from the jugular bulb almost to the torcular. The internal jugular vein was tied and the sinus evacuated, and the child made a steady though slow recovery. Dr. GALBRAITH CONNAL: A patient from whose right external auditory meatus he had removed a large *Exostosis*, which completely blocked the channel. It was then seen that the patient had a chronic middle-ear suppuration, of which he had been unaware, the tympanum being filled with foul-smelling, cheesy material. Later the radical mastoid procedure was carried out. With reference to the causation of these growths, the speaker remarked that a history of frequent and inordinate bathing could usually be elicited. (The patient shown lived by the sea, and bathed as many as six times a day during the summer months.) Dr. FULLERTON: A girl on whom he had performed *Killian's operation* for fronal sinus disease. It appeared that the intersinus septum was destroyed, but no opening could be found leading from what seemed to be the left sinus into the nose. Probably the true state of matters was that the right sinus encroached to an unusual extent on the left, which was so small as to be almost non-existent. Dr. W. S. SYME: A woman with *Anaesthesia of the palate, pharynx, and larynx*, and paresis of the palate. When first seen four months ago, the anaesthesia of the palate, pharynx, and root of tongue was fairly well marked. This had improved, but the larynx remained decidedly anaesthetic. Vertigo, with tendency to fall to the left, had lately developed, and her sight had deteriorated. There was optic neuritis. No history of syphilis could be elicited. The knee-jerks were much exaggerated. Cold water in the left ear quickly produced a very marked coarse nystagmus towards the right, with severe vertigo, and tendency to fall to the left. With the right ear the reaction was much less marked, and practically no sense of vertigo was caused. A provisional diagnosis of cerebellar tumour had been made.

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THE Ozonair Company, we are informed, has made a contract with the Central London Railways to place and work one of its plants at each of the stations on the combined lines. In the company's device air, after subjection to filtration and a process by which ammonia and sulphurous acid are removed, has its oxygen contents reinforced by ozone, and is then redistributed into the atmosphere by a fan. The ozone is produced by electrical discharges, and the amount mixed with the air can be regulated at will. The air fan can also be used independently of the ozonizing plant. The system is now being employed on the premises of a good many commercial undertakings and in some public buildings, and is understood to be applicable to bedrooms and other apartments of private houses.

# Reviews.

## ALBINISM IN MAN.

THE first two parts of a *Monograph on Albinism in Man*[1], prepared by Professor KARL PEARSON, F.R.S, Mr. E. NETTLESHIP, F.R.C.S., and Mr. C. H. USHER, M.B., B.C.Camb., forming one of the Drapers Company's Research Memoirs, has been issued. The compilers state that they have been influenced in publishing this first section by two considerations—the first that further delay might suggest that the work would never appear at all, and the second that in this way the very great expenditure involved is diminished. The compilers express their acknowledgements for the invaluable assistance they have received from medical men and other friends in all parts of the world, and their hope that the appearance of this section will tend to direct inquiry into the channels in which experience shows that observation and research will be most profitable.

This work, which has been long looked for by scientific naturalists, will be warmly welcomed. It consists of two volumes, one of letterpress and one of portraits, chiefly from photographs. In the main it is a collection of rare cases, many of them exceedingly rare. It is probably only a third of what the work will be when complete. It is in every respect well got up, and whilst the illustrations, which are very numerous, are mostly good, the letterpress and appended notes give evidence of extensive research, and the whole constitutes an invaluable contribution to the natural history of man and the laws of heredity.

The authors have exercised great zeal in the search for examples of rare maladies, and have investigated various individual cases in a most painstaking manner. Examples of what have been called "piebald men" were supposed to be extremely rare, and this *Atlas* of plates exhibits a collection of them which will be most valuable to all interested in their study. The collection of very rare cases constitutes, indeed, one of the most important features of the work.

Those who may have expected that "a monograph on albinism in man" would deal chiefly with the well-known type of the complete albino will find that much wider ground has been taken, and, although it would be rash to say that this breadth has in some respects confused the subject, yet we must point the reader's attention to the fact that many cases are included which at first sight are not albinos. This matter will, no doubt, be fully discussed in that part of the work which has not yet appeared. It is impracticable to review as a whole the work of which we have only a part. It may, perhaps, be proved that piebald conditions and leucoderma are directly related to complete albinism, and may occur in different generations of the same family tree. We cannot avoid a fear, however, that, despite the labour which has been expended, the facts are as yet too few in number to justify the application of statistical methods. Unless, however, terms are strictly defined, it is, we cannot but think, desirable to keep many of the facts there placed in juxtaposition in separate categories.

So far as the text has gone, it does not appear to advance any novel suggestions respecting the study of the albino in the restricted sense. The question of inheritance was, of course, one of the most important which the authors proposed to investigate. It seems, however, not easy to go much beyond the conclusions at which our forefathers had arrived. A general failure of pigmentation, more or less complete, and not as a rule locally restricted, was their idea of albinism, and they knew that it occurred all over the world, and in all races, and believed that it was not more prevalent in one race than another, although it would naturally be much more conspicuous in some. These impressions appear to be endorsed by the authors, and their comments on certain conditions which they assume to be cognate will be read with the greatest interest.

We cannot but regret that, whilst they have dealt with the subject very widely with reference to human beings, they have restricted their inquiry to this branch of the mammalian family. Most instructive lessons as to the facts of albinism, in their sense of the word, are to be

[1] Royal 4 to; pp. 273. Text and Atlas. Part I. London: Dulau and Co. 1911. (Price 38s.

found amongst the domestic and other animals. The authors, indeed, appear to recognize that they cannot restrict their work to the terms of the title, and in the pages of their *Atlas* we find delineations of a white ferret and many of white hares. We wish, indeed, most heartily that we could have received a work from their pens dealing with the whole subject. It would be difficult to find authors better qualified for the task, and we could not easily mention a task in reference to this branch of physiology of more seductive interest.

It may be doubted whether it is quite correct to call a piebald a partial albino. The term "localized albinism" would be more correct if any real association can be asserted (see plate, H H). Greater exactitude in definitions is desirable. The terms "albinism" and "albinotic" ought, we think, to be restricted to conditions which are believed to be related in kind to the perfect or completed albino. If allowed to include all in which conditions of whiteness are recognized it becomes almost meaningless.

With regard to the illustrations, we may remark that more is expected of photography without colour than it can possibly give. A "xanthus negro" cannot be represented to any good end without introducing colour. The frontispiece and its companion are examples of what we mean, for it is impossible to recognize the albino.

Unless we are to be for ever misleading one another by the use of terms to which each of us attaches his own special meaning it is necessary that we should agree as to the signification which shall be attached to the words we use. To men such as Karl Pearson and Mr. Nettleship it is almost an impertinence to complain of the use of terms which are imperfectly understood. Yet it remains the fact that explicit definitions, first, of the word "albinism" itself, and next of "albino," "piebald," "leucoderma," "nigrition," and several others, would aid the reader's comprehension of the subject. We are grateful for the rejection of the adjective "true" in connexion with such words as "albino," but we venture to point out that the term "partial" is used as applicable to two very different conditions. The expression "complete albino" implies universal whiteness of skin and hair and a fire-red pupil, and we know of these conditions that they may be, and often are, present only in minor degrees. These lesser degrees claim the appellation of "partial albinos," but is it convenient to speak of a piebald animal under the same name?

The compilers state that the remaining sections are in an advanced state; the chapters on albinotic eye and hair in man and in animals are ready for the press, and we are told that those on the correlation between albinism and other defects, on the heredity of albinism, and on the statistics of the condition, are practically ready; while the detailed description of albinotic families, the bibliography of albinism, are already printed as appendices, as is also the third section of the atlas, containing 54 plates with more than 650 pedigrees. The second section of the atlas, containing the coloured plates, maps, etc., is also ready. It is therefore hoped that the final issue will be made in the course of this year, but we gather that this is to some extent conditional on the number of subscriptions. The volumes are issued solely to subscribers. The charges have been mainly defrayed out of the funds placed at the disposal of the Department of Applied Mathematics at University College, London, by the Worshipful Company of Drapers, out of a contribution to the expenses of drawing the pedigree plates made from the Treasury grant for research to University College, and from a sum, only slightly less than the total of these two, provided by the authors themselves towards the cost of illustration.

## CARDIAC IRREGULARITY.

IRREGULAR action of the heart has been recognized as a clinical fact from the earliest days of clinical study, but it is only within the last twenty years or thereabouts that serious efforts have been made to arrive at an intelligible explanation of the cause or causes of such irregularity. The discovery that the contraction of the heart in its normal cycle invariably followed the same course, beginning at the base of the organ at the point of entry of the great veins, opened up at once a very wide field for research, in which the explanation of the abnormalities of rhythm might possibly be found. But the inquiry was difficult; the necessary experiments upon the living heart were not such as could be successfully undertaken by other than skilled observers, but the fascination of the pursuit of such a vitally important secret called forth the best energies of scientific investigators in many lands, and the fruit of their labours is now being given to the medical world in collected form.

From Paris we have received two works upon the clinical aspects of the subject, one of which is devoted entirely to the study of irregularity of rhythm,[2] while the other[3] deals somewhat more generally with circulatory abnormalities. But it is interesting to note that, although presumably influenced by the same school, the two authors adopt diametrically opposite views as to the genesis of the abnormal action of the cardiac muscle, each adducing the same evidence, but deducing different conclusions from it. On the one hand it is asserted that the neurogenic theory is now regarded as quite worked out, while on the other hand it is maintained that the myogenic theory is altogether inadequate to account for the facts observed. This radical difference of opinion is in each case well argued and for the most part supported by experimental evidence. Many of the results obtained by experimental research are, however, open to more than the one interpretation, and it can only be by further work in the same direction that a common basis of agreement can be reached as to the parts played respectively by the central or peripheral nerve supply and by the cardiac nerves and muscles.

Dr. VAQUEZ's contribution takes the form of a handsomely-bound volume of clinical lectures, under the general title of *Les Arythmies*, in which he enters with minute detail into the phenomena generally described under the names of extrasystole, tachycardia, bradycardia, palpitation, etc. While the phenomena of the Stokes-Adams syndrome are fairly constant, and have been accepted as a clinical entity due to a definite cause, the conditions under which tachycardia are known to arise are by no means so universally recognised. That temporary disturbance of the heart's action may be brought about by a variety of outside influences, such as tobacco or alcohol, is known to everyone, but the more lasting increase in the rate of pulsation is not open to any such explanation, and must depend upon some condition within the heart itself by which the rapid action is maintained. In some cases the rapid heart beat has been found to be associated with definite organic disease, either of valve or muscle, but in others no lesion has been brought to light, and hence the continued over-action "must be ascribed to some form of morbid excitability peculiar to the individual, the cause of which remains obscure." This definition is by no means satisfactory, but it probably expresses the state of opinion at present among the majority of the profession.

Dr. Vaquez traces the sequence of cases of extrasystole, which he maintains is often followed by paroxysmal tachycardia, which in its turn becomes a permanent condition, but he admits the occurrence of either of the two first without any such sequelae. Paroxysmal tachycardia is often associated with disturbed function in other organs, but these are so inconstant in their appearance that no direct connexion with the cardiac condition can be proved. The sudden onset of the attack and its equally sudden subsidence serve, in the opinion of the author, to prove that the cause of the mischief is in the heart wall. In the presence of valvular disease or myocardial degeneration it may be a grave symptom, more especially where the arterial pressure is much lowered, but in the cases where no such lesions are present it usually is of short duration, although it may be the forerunner of more frequent attacks, and finally of a permanent condition. Much stress is laid upon the diagnosis of the exact condition of the left auricular appendix, but the difficulties attending such diagnosis are great. Dilatation of the appendix, if it can be discovered, is held to be evidence of back pressure, and possibly formation of clot. The alternate pulse, bradycardia, and persistent irregularity are each in turn made the subject of lectures which may be read with interest by every one who wishes to keep himself acquainted with the progress of modern thought on this complicated subject.

[2] *Les Arythmies.* By Dr. H. Vaquez, Physician to the St. Antoine Hospital in Paris. Clinical Lectures recorded by Dr. Ch. Esmein. With 48 figures in the text. Paris: J. B. Baillière et Fils. 1911. (Pp. 437.)

[3] *Clinique du Coeur.* By Dr. Arthur Leclercq, Laureate of the Academy of Medicine. Paris: Octave Doin et Fils. 1908. (Roy. 12mo. pp. 357.)

While the textbooks supply the details of technique and the record of observed facts, Dr. Vaquez's lectures supply the well-balanced thoughts of the clinician who seeks to apply the new knowledge to the elucidation of old experiences.

The work of Dr. LECLERCQ is also essentially clinical in its tone and approaches the study of the heart from the point of view of its rhythm. His book forms the second of a short series of works dealing with the diseases of the fifth decade, arterio-sclerosis, diabetes, and albuminuria being each dealt with in separate volumes. Between the ages of 50 and 60, many influences combine to put stress upon the heart. The average man or woman living an active life is apt to forget his or her age, and it is not until the heart gives warning that the advancing years are realized. Of all forms of disturbance of cardiac action, palpitation and tachycardia are the most frequent and the most difficult to explain. Dr. Leclercq, as has been stated above, declares himself to be a whole-hearted supporter of the neurogenic theory of origin for all such phenomena, although fully recognizing the effects of diminished blood supply and consequently impaired nourishment of the heart muscle. The greater part of his book is occupied with the examination of the numerous and varied conditions under which tachycardia is met with, and such lines of treatment as may be appropriate to each are indicated. The whole forms a very comprehensive account of all forms of heart irregularity as seen by the clinical physician, but with little reference to the more mechanical aspect of the subject as it presents itself to the experimental pathologist.

## THE SUN CURE FOR TUBERCULOSIS.

DR. MALGAT'S work on the sun cure for chronic pulmonary tuberculosis[4] is well deserving of study. At the end of a very interesting and instructive preface, in the latter part of which reference is made to the work of all the leading physicists of modern times, and a summary given of the facts and principles established by them, the author presents his readers with a solar formula of Nice and the Mediterranean littoral. The observations have been most carefully made, and have extended over many years, during winter, spring, summer, and autumn. The excessive abundance of infra-red rays in the summer light between noon and 2 p.m., is said to be due to the fact that the tension of the vapour of water is then very elevated. The luminous intensity and chemical activity of the sun's rays have been most carefully considered and results as carefully tabulated. Indeed the author, by the extreme care with which his analysis of many individual cases has been conducted, has come to conclusions as to the positive effects of abundance of infra-red rays, being equally important in the production of anaemia, for example, with that of the rarity of luminous rays, when the two exist in common. The entire book points to a degree of precision and scientific accuracy that cannot fail to inspire confidence in the soundness of the methods of application, modification and supplementation which he advocates and practises. Nothing is suggested without apparently adequate reasons why that which is pursued at one period of the day or year is recommended rather than something else, and cases, of which many are given in detail, appear fully to support the principles enunciated. It is but fair to remark the caution displayed by the author in his report of cases, etc. He is never apparently desirous of disregarding difficulties or of claiming certainty when at the best only probability is attainable. Such expressions as "Cette excitation spéciale *inconnue*, mais réelle," occur again and again. When drawing attention to the result of exposing tuberculous patients to a daily insolation of twenty minutes' duration, and comparing a sound man after a similar exposure, and noting certain differences produced in the two cases, there follow the words: "This is a fact which requires explanation," whereupon an interesting and detailed comparison is given. The results obtained on Koch's bacillus, the necessity of the congestion, etc., are fully entered into. From one of the very interesting discussions of organic life, both animal and plant—namely, that of solar obscurity—most valuable general conclusions can be drawn; but notwithstanding such authorities as Charcot, Foucault, Bouchard, Videmark, Finsen, Hammer, who are referred to, we are inclined to believe that the readers of Dr. Malgat's book will probably agree with him in thinking that the question does not seem to have yet been completely cleared up.

[4] *La cure solaire de la tuberculose pulmonaire chronique.* Par le Dr. J. Malgat. Paris: J. B. Baillière et Fils. (Demy 8vo, pp. 390. Fr. 6.)

## SKIN DISEASES AND GYNAECOLOGY.

THE relations of skin disease to female sexual functions[5] have attracted the attention of observers from the days of the "wise man" till now, and Dr. SCHEUER has put all who are interested in the matter under obligation by his painstaking research among the records. The mere titles occupy thirty-three large octavo pages, and the references seem to be very carefully given, and abstracts are distinguished from original papers. Having acknowledged our gratitude to the bibliographer, we turn to the text in search of the dermatologist, but experience less satisfaction. In successive chapters under the headings of the various sexual periods, functions, and diseases, Dr. Scheuer has given short accounts of the cases which have been recorded as showing apparent linking of sexual function with individual affections of the skin. In this respect his criticism might well have been more stringent and the digestion of the material carried a stage further, but he has been very gentle with the old authors and relates even their explanations with great tenderness. In his own pathology he occupies, as we all do more or less, the position of the modern humoralists, but his method of falling back on the existence of intoxication from ovarian hypersecretion, from placental tissue, or from adrenal or thyroid or hypophysis reaction to a primary ovarian condition does not make for clearness of thinking, and he leaves for the explorer a wide hinterland in his summary sentence:

> In the origin of dermatoses there is not always direct production by these (internal) glandular secretions, but at times a denaturation of the soil in the sense of increased vulnerability underlies them.

This makes it rather difficult to state succinctly the practical yield of Dr. Scheuer's study. Even such a well-known clinical fact as the association of acne with the physiological changes at puberty is not elucidated by such a paragraph as—

> Directly or indirectly the acne of puberty is connected with substances arising from the internal secretion of the sexual glands. Either some substance formed by part of the sexual organs evokes the acne directly in virtue of its chemical composition or the absence or diminution of some product necessary or favourable for the body leads to an accumulation of metabolic products in the blood and these then give rise to the acne. Perhaps both processes go on simultaneously.

If we could accept this as a mere statement of ignorance it might stimulate to deeper search and deny us refuge in an at present blessed "toxaemia." As things are we must be thankful for the cataloguing which Dr. Scheuer has done for us. The chapter on the menstrual relations of skin affections is the longest in the book, and includes instances of nearly every condition in dermatology. The most prominent features apart from all those conditions which are directly modified by changes in the circulation are the tendencies to urticaria and acute localized oedema, the latter especially in the face; to herpes, especially genital, which is exaggerated in those suffering from venereal diseases; to hypertrichosis and erysipelas. In relation to pregnancy, the most prominent conditions are cases of herpes gestationis, impetigo herpetiformis, and chloasma, and the puerperium gives occasion for a full discussion of scarlatinal rashes. The relations of the menopause, artificial and natural, and of diseases of the genital organs, are all fully dealt with; and all who have occasion to inquire into any curiosity in the genital relations of the skin may consult Dr. Scheuer's list with the certainty of finding in it analogous observations already recorded, and frequently a summary account of the individual cases.

## FISHERS AND FISHES.

THE month of May is the month of anticipation, and of all anticipatory delights there are few more keen than those which present themselves to the mind of the fisher-

[5] *Hautkrankheiten sexuellen Ursprungs bei Frauen.* Von Dr. Oskar Scheuer. Berlin und Wien: Urban und Schwarzenberg. 1911. (Sup. roy. 8vo, pp. viii, 204. M. 8.)

man, more especially if he be a hard-worked doctor. He may conjure up the glories of a summer afternoon by the side of a dry-fly stream in the South, with the lush grass springing up around its banks affording shelter to the fisher as he creeps up to reach the two-pounder feeding in the pool above; or, a still more entrancing vision (in the eyes of another type of fisherman) may be that of a lonely Highland loch, far away in the hills, with only the cry of the curlew or the call of the grouse to break the stillness or to vary the gentle sound of the breeze as it stirs the rushes where the big trout lie. Such mental pictures may bring refreshment to many a worried practitioner, and enable him to face his daily list with renewed vigour, in view of the possibilities which they suggest. Mr. RUSSELL writes of the chalkstream and the moorland[6] from personal experience, and his book is full of practical hints founded on careful observation of the habits of fish, flies, and fishermen. He tells frankly of his own failures no less than of his successes, and he has formed definite opinions as to the powers of special sense possessed by different varieties of fish which add greatly to the interest of the book, although they are not strictly in accord with the published experience of others. But the book as a whole may be commended to all, especially doctors, who love "quietnesse and vertue and angling."

## NOTES ON BOOKS.

No. 41 of the Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India[7] is a monograph by Captain A. C. MACGILCHRIST, M.D., on the solubility and absorbability by various channels of quinine and its salts. The importance of administering quinine in the form and manner which shall secure the maximum of efficacy is obvious, especially in the treatment of malarial fevers; but comparison of the many published statements showed very great differences of opinion as to the respective values of different salts and the advantages of oral and rectal administration, subcutaneous, intramuscular, and intravenous injection. Captain MacGilchrist accordingly submitted the matter to special investigation, carried out partly in the pharmacological laboratory of Edinburgh University and partly in the Pasteur Institute of India at Kasauli. The conclusions arrived at, which would require too much space to be summarized here, furnish useful guidance on many parts of this important subject.

*Through the Alps to the Apennines*[8] is the story of a motor tour made by an art critic and his wife, an architect bewitched by the rococo, and an amateur photographer who was also something of a gourmet. Mr. KONODY has succeeded very well in conveying the special quality of the enjoyment to be derived from a motor tour, its uncertainties which appear glorious after the puncture has been mended and the rain has stopped, the beauties of Nature and art, the little intimate glimpses of rural life which the railway tourist misses, and the sense of the open air also denied to him. Owing to want of foresight too many tyre troubles had to be endured, and as usual too much was attempted in the time. But the descriptions of Volterra, S. Gimignano, and some other places off the beaten track, make the reader inwardly resolve that he also will dare the dust and the uncharted roads of northern Italy. If he carries it out he must take this book with him, though it be big for the purpose owing partly to the numerous photographs it contains. On the way back through Tyrol Mr. Konody transcribed a legend over the door of a wayside inn which, though we seem to have seen it before, is worth quotation as a humorous instance of the straits to which a man may be put to excuse his liking for alcholic beverages:

> Alkohol ist der Menschen groesster Feind.
> Aber in der Bibel steht's geschrieben:
> Deine Feinde sollst due lieben.

(Alcohol is man's greatest enemy. But in the Scriptures it is written: Thou shalt love thy enemies.)

[6] *Chalkstream and Moorland: Thoughts on Trout Fishing.* By Harold Russell, of the Inner Temple. London: Smith, Elder, and Co. 1911. (Roy. 12mo, pp. 248.)

[7] Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. (New Series.) No. 41: *Quinine and its Salts: their Solubility and Absorbability.* By Captain A. C. MacGilchrist, M.A., M.D., M.R.C.P., I.M.S. (Edited by the Director-General, Indian Medical Service.) Calcutta: Superintendent Government Printing, India. 1911. (Demy 4to, pp. 46; 9 tables. 10d.)

[8] *Through the Alps to the Apennines.* By P. G. Konody. Photographs and Sketches by E. A. Richards. Frontispiece in colour from a drawing by R. Little, R.W.S. London: Kegan, Paul, Trench, Trübner, and Co. 1911. (Roy. 8vo, pp. 382. 12s. 6d.)

Which may be paralleled by the profane syllogism Lord John Russell got from the old Spanish priest:

> Qui bene bibit bene dormit,
> Qui dormit non peccat,
> Qui non peccat salvatus erit.

## THE FASTING CURE.

AT the present day when the health of the body receives so much attention, the question of diet is naturally very prominent. There are many and diverse systems, each of which has its prophet who holds that his own particular dietetic code ensures freedom from all earthly ills. The food fad embraces every variety from raw beefsteak to grape nuts. Now there seems to be a tendency to simplify the problem by dispensing with food altogether for longer or shorter periods of time. Mr. Upton Sinclair, who made our flesh creep some years ago with his "revelations" of the horrors of Chicago meat packing, has, perhaps by a natural recoil, become an apostle of fasting as a cure of disease and a means of preserving health.

It is unquestionable that most people eat too much, and fasting within certain limits has been recognized by physicians, as well as by philosophers and teachers of religion from remote times, as beneficial to soul and body. Mr. Upton Sinclair is only trying to revive the practice of the hermits of the Thebaid, and to rival the achievements of the Indian fakirs. A very pretty quarrel is at present going on between him and Dr. William J. Robinson, President of the American Society of Medical Sociology. Mr. Upton Sinclair says he has been obliged to give as much time to the investigation of medical questions as if he had taken out a complete medical course in any of the recognized schools. But instead of permitting the authorities to fill his mind with "the dead formulas of materia medica," he boasts that he has made practical experiments and has read the new ideas and thought for himself. He gives the following autobiographical details:

> For the first twenty-five years of my life I was a patient and humble follower and victim of the conventional medical school. I had "family physicians" one after another; I went to experts and specialists of various sorts. I visited sanatoriums and health resorts. I have figured out that in that period I spent a total of 15,000 dollars (£3,000) on physicians, surgeons, hospitals, and sanitariums in an effort to find health for myself and family. My wife underwent four surgical operations; my little boy nearly died on half a dozen occasions. And at the end of the experience all three of us were all but complete physical wrecks and all but hopeless neurasthenics.

It might be said that they were neurasthenic from the first, but apparently Mr. Upton Sinclair puts the blame for the sufferings of his afflicted family on the "dead formulas of materia medica," whatever these may be. So he threw over the doctors and took matters into his own hands. The result is that to-day he has gained 25 per cent. in weight, and he tells us that his pictures are sometimes mistaken for those of a prize-fighter. Having seen some of these pictures, which Mr. Sinclair publishes to show what fasting can do, we can only say that we are as anxious to know what the American idea of a prize-fighter is as Mr. Pecksniff was to learn Mrs. Todgers's notion of a wooden leg. Mr. Upton Sinclair goes on to say that he no longer has diseases nor thinks about them. It is clear that he thought a great deal too much about them before; but as to his no longer having them, we would remind him of the wise saying of Falstaff's doctor, that "for the water itself it was a good healthy water, but for the party that owed it, he might have more diseases than he knew for."

As an instance of the curative powers of fasting, Mr. Upton Sinclair cites the case of a man who had been unsuccessfully operated upon by his surgeons, and was given up for dying, and was being slowly killed by morphine as the alternative to enduring the most awful agony. This man, he says, began fasting, and by the fourteenth day was almost completely restored to health. This is only one, we are told, of a hundred cases. Of course, from vague statements of this kind no conclusion can be drawn, except, perhaps, that among the other qualities produced by fasting credulity would seem to occupy a prominent place. Mr. Upton Sinclair, however, commits himself to an extremely definite statement when, speaking of malaria, gonorrhoea, and syphilis, he says that the patient can cure

any one of these diseases with absolute certainty by fasting for a week or two. We are further told that chronic kidney trouble, typhoid fever, etc., can be cured in the same way and in the same time, "but, of course, may last for months under the drugging and feeding regimen."

From all which we infer that the new ideas "read" by Mr. Sinclair are so remarkable that, as Dr. Robinson points out, they would not only revolutionize medicine, but do away with the need for doctors. He challenges Mr. Sinclair to bring his statements to a definite test. He offers to stake a thousand dollars against a similar sum staked by Mr. Sinclair. He will infect Mr. Sinclair with gonorrhoea or syphilis; that gentleman will then fast a week or two, or even three or four, and undertake no medical treatment. If at the end of the fasting period he is well, the £200 is his; and Dr. Robinson will proclaim publicly that medicine is a fraud and a humbug, and that fasting is the cure for all diseases. On the other hand, should the fast fail, Mr. Upton Sinclair is to confess that his theories about disease are wrong and misleading, and that his strictures on the medical profession are pernicious and unjustifiable. Dr. Robinson points out that Mr. Sinclair cannot reasonably object to the test, as fasting to him is nothing, and according to his own declaration he is certain that by that means he can be cured of the disease in a week or two. The benefit to the human race from such a public experiment could not be expressed by millions. Dr. Robinson adds that he has chosen the diseases mentioned because they are within his speciality, and he always has patients from whom he could take infective material. But there is, he says, another infectious disease which is not self-limited in duration. It has hitherto been believed that insufficient nourishment is the cause of a good many diseases, and in particular is a potent factor in the development and prevalence of tuberculosis. In sanatoriums this theory is acted on, and patients are made to consume large quantities of eggs, meat, milk, and cream. Dr. Robinson goes on:

> Strange to say, this excessive feeding seems to do the poor emaciated patients good. They gain flesh, they stop coughing; the cavities in their lungs close up, and the tubercle bacilli disappear, but apparently it has all been an error. Henceforth we shall have to advise the sanatorium physicians to starve their patients.

And when, he adds, in the future the socialists discourse of tuberculosis as an economic disease they will appeal in vain to the sympathy and co-operation of the medical profession. Why, indeed, should conditions of life be improved? Why should wages be increased? In fasting lies our hope of redemption from the white scourge as from all other diseases, and fasting is certainly cheap.

We should be glad if Mr. Upton Sinclair's view proves correct, as this would have the immediate effect of setting free for other purposes the millions which Mr. Lloyd George proposes to devote to the extermination of tuberculosis. It is indeed a fascinating theory, and should solve all manner of problems that have perplexed political economists, and have been stones of stumbling to practical statesmen. The course of human history, we have hitherto been led to believe, has mainly been determined by a struggle for food supplies. In future, if the Upton Sinclair doctrine prevails, human life will be greatly simplified, and we can all live out our length of days without taking thought of to-morrow's dinner. It is a beautiful dream. But when we compare the children of the poor with those of the well-to-do, and when we observe, as we do, that the contrast becomes more and more marked as they grow up, we cannot help feeling that after all the food factor is one of the most important elements in the health of the individual and in the well-being of the community. The fasting cure in moderation is good for those who habitually overstrain their powers of digestion. But it is not a panacea. It is almost needless to say that Mr. Upton Sinclair has found an excuse for declining Dr. Robinson's challenge. To speak strictly, he has found two: He professes to think the challenge a joke; moreover he is too busy, and has other things to do with his time! As regards the former excuse, we can only envy the facility with which Mr. Upton Sinclair is amused; in this happy disposition he rivals the friends of Mr. Peter Magnus. But that he should be "too busy" to put his fasting cure to the touch of experience in diseases chosen by himself suggests that, despite his brave words, he is not quite confident of the "certainty" of his cure.

## ALCOHOL AND INSANITY.

THE annual meeting of the Society for the Study of Inebriety was held on April 11th under the presidency of Dr. THEO. B. HYSLOP.

### *Alcohol and Insanity.*

It was chiefly devoted to a discussion on the subject of "Alcohol and Insanity," opened by Dr. F. W. Mott, F.R.S. The discussion was prefaced by a short address from the chair on the work of the society, in the course of which Dr. HYSLOP said that, both in this and in other countries, the work done by scientific investigators had been so extensive and so real that the conclusions arrived at had enabled temperance advocates to continue their work with a cheerfulness and sense of justification hitherto but seldom attained. The work of the Galton Eugenics Laboratory, of University College, London, had stimulated into activity some of the most able thinkers of the day, and in that respect the famous memoirs had been the indirect cause of much benefit, inasmuch as, by attacking problems the solutions of which had already been determined in the public mind, they had in reality emphasized certain truths which, although capable of still further elucidation and precision in definition, formed the very basis on which the cause of sobriety had formerly appeared to have been justified. It was of interest to note that the problem of the influence of parental alcoholism on the physique and ability of offspring would be discussed at the next International Congress against Alcoholism, which meets at The Hague in September next, and Dr. Hyslop, as president of this society, had been asked to open the discussion. When one turned from the work of this and kindred societies to the consideration of some of the effects of that work, one could not fail to be struck by the fact that the community at large was becoming more and more awakened to the dangers of an indiscriminate or excessive use of alcohol. The knowledge that civilization had brought with it not only a more highly constituted nervous mechanism, but also one less tolerant of the effects of alcohol, had done much to diffuse a general wave of temperance throughout the land. To members of the learned professions alcoholism usually signified mediocrity in personal attainment. Survival of the fittest meant for them abstention from everything that tended to blunt the higher mental functions and susceptibilities. Abstention was for them but the tacit acknowledgement of the possession of a nervous mechanism so finely constituted that, it being their chief asset, they could not afford to tamper with it. It was now a stale observation that alcoholism impaired commercial efficiency, and London could tell a tale of reform in the matter of drinking which had afforded an example to be followed by every other centre of commerce throughout the world. The ever-increasing complexities of machinery and mechanical invention required a mental and physical alertness but little known to their forefathers. The individual experiences of those who had to control machinery force convictions which were becoming more and more evident. Even the taxi-driver openly admitted that things were different now, and that he could not afford to drink. In play, also, they found more common sense and temperance. There were always two classes of individuals in sport and play—those who aspired to play and those who played to perspire. To the former, let him aspire to be in the front rank of cricket, golf, tennis, football, billiards, or any other sport or game, his experience told him that his handicap would bear a certain ratio to his use or abuse of alcohol. To be clear in vision and readily adaptive in reaction, the sportsman and the athlete alike must choose between success and failure—the latter being coupled with self-indulgence in alcohol. Not only did alcohol impair efficiency, but it diminished staying power, and nowadays it was being almost entirely discarded from use where there was any real aspiration to succeed or excel. Of the second class, including as it did the "liver brigade" and the thousands of elderly sportsmen, golfers, and others who exercised themselves in order to get rid of the effects of self-indulgence or to counteract the effects of a too sedentary life, he had little to say. Were it not for such pastimes and an abundance of fresh air and exercise, many plethoric individuals who had also been brain workers would stand but little chance of survival.

Dr. MOTT then delivered his address, which was illustrated by demonstration with the epidiascope. He said many difficulties presented themselves in an inquiry upon the subject of chronic alcoholism in relation to different forms of insanity when based upon data obtained from the numerous London County asylums, where different forms of classification were in use, and where often a different nomenclature was employed. Again, where a varying degree of interest occurred, and where personal opinions by medical officers concerning alcohol as an effective cause perforce existed, collective and comparative statistics, instead of helping to solve the question, made for confusion. Interest and diligence in interviewing relatives and friends to ascertain facts, instead of relying upon a printed form, which was seldom filled up, he had found, made a great difference in obtaining reliable information concerning the following necessary data: The cause of the patient taking to drink; the nature of the drink and the quantity taken; the period of time the patient had been drinking; was it taken with food or instead of food? was it taken because he was employed in an occupation where it was always obtainable, or because his occupation caused thirst? or was it taken because he was miserable and depressed? Again, it was necessary to ascertain whether drinking to excess, or the transition from moderation to intemperance, was merely one of the signs of the mental breakdown. Such a circumstance frequently occurred in incipient general paralysis; again, it often preceded or accompanied an attack of mania depressive insanity, involutional melancholia, and other forms of insanity. It was only when asylum statistics relating to intemperance were based upon such complete data as he had above indicated that they could be taken seriously. He threw on the screen a table relating to alcohol and insanity for thirteen years in the London County asylums, which showed that there was a great variability of percentages in the same asylum for different years and in different asylums for the same year (although the admissions were drawn from the same class of the population)—such a difference as could only be explained by a difference of opinion by medical officers as to what constituted evidence of alcoholic excess, or that other factors contributed or were in reality the cause. Not only had they, however, to take into account the personal equation of the medical officers who obtained, or failed to obtain, the requisite information, but also of the friends who gave or failed to give, the information required to establish alcohol as a cause of the patient's mental affection. This variability was so marked that it could not be explained by the individuals admitted. Thus, in the year 1902, from the same class of people, alcohol was the assigned cause of 25.6 per cent. of the admissions to Hanwell, and to Claybury it was only 11.2 per cent.; but in 1906 in 28 per cent. of the admissions to Claybury intemperance was the assigned cause, while at Colney Hatch it was only 14 per cent.

At Bexley Asylum, where a modern classification was adopted, and where the statistics appeared to be nearly uniform since its opening, intemperance as an assigned cause was very high, the average being 22.8 per cent. for the seven years. An analysis of the cases admitted during 1905 to this asylum, in which intemperance was an assigned cause in 25.7 per cent. of the total admissions, showed that there were a large number of cases in which there were other, and probably more important, causes. Of 248 male admissions, alcoholic excess was assigned as a principal cause in 46, or 18.5 per cent.; and out of the 246 female admissions, alcoholic excess was the principal cause in 38, or 15.4 per cent., a total percentage on the whole admissions of 17. But when one inquired into these cases one found that 13 were imbeciles, 13 epileptics, 5 were chronic delusional insanity, 5 organic dementia, and no less than 20 were primary dementia. In fact, quite one-half were imbeciles, epileptics, lunatics, or potential lunatics, and in a majority of the cases doubtless the subject of an inborn tendency to mental disease. Dr. Mott's experience at Claybury and the other asylums corroborated this statement. Moreover, he had found that the notes showed hereditary insanity or epilepsy quite as frequently in these so-called "alcoholic" cases as in other forms of insanity, and much more frequently than in general paralysis. In the family histories of these cases of insanity as a result of intemperance, there were found frequently neuroses, criminal degeneracy, imbecility, epilepsy and insanity. In the personal histories, inherent instability was frequently found in the form of neuropathies, imbecility, criminal degeneracy, epilepsy, and intolerance of alcohol, as manifested by previous admissions, when they were termed recurrent mania, recurrent melancholia, or mania-depressive insanity. Sometimes there was a history of a head injury or organic brain disease, and not infrequently incipient or early general paralysis. Some few cases were admitted on account of murderous assaults or sexual crimes, to which might be added a considerable number of attempted suicides.

Coincidence and cause might thus be confused, for a lapse from moderation to intemperance might be the first *recognizable* sign of the mental breakdown. Especially was this the case with the involutional psychoses occurring at the climacteric period in women; also men and women between 50 and 60 who suffered from melancholia, and at the same time were the subjects of arterio-sclerosis. Again, general paralytics and cases of adolescent insanity might take to drink. There could be no doubt that neurasthenics, hysterics, epileptics, imbeciles, degenerates, eccentrics, and potential lunatics—all those, indeed, with an inherent narrow margin of highest control—were markedly intolerant of the effects of alcohol, and the failure to discriminate between what was the *result* of alcoholism and what was innate and *due to inheritance* had been the cause of much confusion. As physician to Charing Cross Hospital for the past twenty-five years, Dr. Mott said he had seen a large number of patients the subjects of chronic alcoholism. He had seen numbers of persons who had drunk for very many years large quantities of alcohol in the form of beer or spirits, or both combined, and yet these patients had shown no signs of insanity, the only apparent effect upon the mind being the establishment of a vicious habit denoting a lack of will power and moral sense. Situated amidst the theatres, restaurants, music halls, and places of amusement, Charing Cross Hospital received a number of persons who were intemperate in the pursuit of pleasure; also it received a number of people engaged either directly or indirectly in the liquor traffic, or whose occupations led to prolonged intemperance. Among such were potmen, barmen, barmaids, publicans, prostitutes, waiters, cooks and kitchen servants for hotels, stage-carpenters, scene-shifters, cabmen, bus drivers and conductors, and particularly Covent Garden porters, who were addicted to drinking large quantities of beer. As a rule, all these people were, when they were brought to the hospital for relief, in employment. He regarded this as a very important point in connexion with the nervous symptoms which might be manifested as a result of prolonged intemperance, because to the casual observer certainly, and to the skilled observer often, no marked mental deterioration might be discoverable in a large proportion of these inebriates when the effect of the liquor had passed off. Occasionally a head injury or other injury, a surgical operation, the onset of disease, especially pneumonia or other microbial infection, or an extra bout of drinking, might result in delirium tremens, for which the patient might be brought to the hospital, or which might develop after he had been admitted, and when alcohol was withheld. A considerable number had been admitted into the wards for liver affection and dropsy. A few cases, proportionally, of polyneuritic psychosis occurred, especially in women, and the majority of them left the hospital cured. All the mental symptoms passed off by withholding the alcohol, and by careful diet and nursing, etc., the paralysis caused by the neuritis persisting, as a rule, long after the mind had cleared. It was, however, difficult to judge whether the patient really was the same as before the onset of the mental symptoms. Some cases, he was sure, were mentally enfeebled. This form of polyneuritic (Korsakoff) psychosis met with in hospital, occurring especially in women, but also in men, was identical with that seen in asylums, although not very common in either. It was far more frequently met with in women than in men in both asylums and hospitals. In hospitals it was the paralysis and the neuritic symptoms which were predominant as a rule, whereas in asylums it was the mental symptoms. But he believed neither were entirely absent. Although the notes frequently did not mention mental symptoms, he was

convinced that very seldom in any case were they completely absent if the patient were carefully examined in hospital cases. Conversely, in asylums (in spite of the fact that the knee-jerks might be present or increased instead of absent) some evidence of neuritis was almost invariably present, and might form an important causative factor in the production of hallucinations and delusions.

Many of these cases, both in asylums and hospitals, with characteristic mental symptoms arose in married women who, without, perhaps, ever having been drunk and incapable, had acquired the habit of continuous tippling, sometimes secretly. He had observed that in "Korsakoff psychosis" chronic alcoholism was very frequently associated with some other morbific factor—for example, septic infection from a miscarriage or abortion, gonorrhoea, endometritis, parametritis, salpingitis, syphilis, pneumonia, or pulmonary tuberculosis—that it was difficult to assert in these cases how far the mental and neuritic symptoms might be partially due to such cause, and not solely to the direct effects of the alcohol on the nervous tissues. Still, it might safely be said that if they had not been chronic inebriates there would have been no nervous or mental symptoms.

It might be said with justice that their system of relief of the sick and suffering poor did not admit of a just appreciation of the effects of alcohol in the production of insanity. For the hospitals would not receive cases of mental affection due to alcohol; they would be sent or transferred direct to the infirmaries. Still, it was from the infirmaries that all the cases were received at the asylums; therefore drink cases with mental symptoms must either be discharged cured or certified and sent to the asylums. He had already given reasons why the statistics which asylums afford relating to the percentage of admissions in which alcohol was the *assigned cause* of insanity, could not be accepted as reliable until more comprehensive and reliable data were forthcoming. Admitting that experience in hospitals and private practice indubitably showed that a large proportion of the population were able to drink large quantities of alcoholic liquors for long periods of time without becoming insane, it followed that another factor was in operation in the majority of cases of insanity in which alcohol was assigned as a cause of admission to the asylums. That factor, in his opinion, was in the great majority of cases the neuropathic or psychopathic tendency due to inheritance. He had long been struck by the fact that, whereas cirrhosis of the liver with ascites was relatively common in the wards and *post-mortem* room of the hospital, he had only once seen a case of advanced cirrhosis with ascites at the asylums, and that was in the case of a notorious police-court character who was convicted of drunkenness nearly four hundred times before she was found incapable of taking care of herself and certified as insane. If she served no other useful purpose in life, she afforded a constant object-lesson of the insufficiency and inefficiency of the laws dealing with chronic inebriates. He compared the statistics of hospital and asylum *post-mortem* examinations, and was struck by the fact that in the former there were a large number of cases of advanced cirrhosis of the liver, whereas in the latter there were relatively very few. [Dr. Mott threw on the screen a synopsis of statistics of hospital and asylum *post-mortem* examinations.] He said that since he compiled these statistics he had again collected more data, and whereas he found in 2,000 *post-mortem* examinations at Charing Cross Hospital 110 cases of cirrhosis of the liver, 60 per cent. with ascites, he found only one with ascites at Claybury, and that was the case alluded to.

At Claybury, in only one instance of the 23 cases was cirrhosis of the liver mentioned as the assigned cause of death, whereas at the hospital in over 72 per cent. of the cases of cirrhosis of the liver the affection of the liver was assigned as the cause of death. This showed how very much more marked was the cirrhosis of the liver in the hospital cases as compared with the asylum cases. It was noteworthy that the few cases of well-marked cirrhosis met with on the *post-mortem* table at the asylum were large livers, and they occurred in persons who had a well-marked history of chronic alcoholism, and who during life presented physical signs and mental symptoms of "Korsakoff psychosis." A short time ago Sir Victor Horsley wrote to him asking for information upon certain points relating to this question of alcohol and cirrhosis of the liver in hospitals and asylums. In reply, he stated that there was generally definite evidence of prolonged abuse of alcohol in the notes of the hospital cases of cirrhosis. Usually the amount of beer or spirits taken was given, and the period or time it had been taken. In reference to the asylum cases, he found the most meagre information of relatively only a few cases. He had gone through more than 2,000 cases in their *post-mortem* records with the view of ascertaining facts concerning the quantity of alcohol taken, and the period of time, in all cases that had died in which the diagnosis on admission was alcoholic insanity or alcoholic dementia. If such evidence as the notes copied from the case-books afford were used as a proof of alcohol being an important cause of insanity, he was afraid they would prove the reverse. The following was a tabular summary of this inquiry:

MALE ALCOHOLICS.

*13* Cases from 1,025 Autopsies (1.2 per cent.).*

Average age on admission = 57.2.
Average age at death = 62.7.

1. In every case it was the first attack.
2. There are no notes stating the quantity or kind of alcohol consumed, or the period during which it was taken.
3. Five cases were resident under three years, the remainder for periods up to eleven years.

FEMALE ALCOHOLICS.

*46* Cases from 1,048 Autopsies (4 4 per cent.).*

Average age on admission = 53.
Average age at death = 57.

1. In thirty-nine cases it was the first attack, in two cases former history not known.
2. Very few notes concerning quantity and kind of alcohol consumed, or period during which it was taken. The following were the only notes given (nine cases):

(*a*) Brandy and gin for three years.
(*b*) Whisky—quarterns daily.
(*c*) Temperate and steady.
(*d*) Gin and whisky fifteen years.
(*e*) Sometimes bottles of gin a day.
(*f*) For three months.
(*g*) For some years.
(*h*) Every now and then.
(*i*) Whisky, stout, and ale, in bouts for seven years.

3. Twenty cases were resident one year or less; ten cases were resident from one to three years; the remainder, periods up to ten years.

It was noteworthy that, among 2,077 cases that had died at Claybury, and upon which autopsies had been made, only 2.7 per cent. of them were diagnosed *on admission* as "alcoholic" or "(?) alcoholic," the 46 females in 1,048 being 4.4 per cent., and the 13 males in 1,025 being 1.2 per cent. If alcohol were the important factor that asylum statistics appeared to show, it was hardly reconcilable with these data. It would be observed, moreover, that among the females the curves of age incidence on admission and death closely corresponded, and that the maximum occurred about the climacteric period. It would also be noted that the average age of death in women was quite as high as that of the average age of death of the total population. Another important question which Sir Victor Horsley addressed to him was whether cases of alcoholic insanity and dementia, admitted with cirrhosis of the liver, might not, by the withholding of alcohol for a considerable time, show such an improvement in the condition of this organ that it might account for the relatively few cases showing cirrhosis at death as compared with hospital cases. It would be observed that, of these 46 females out of 1,048, the average period of time elapsing between admission and death was, generally speaking, short. Moreover, by far the most marked case in females which he had seen of cirrhosis was that of Jane Cakebread, who was more than two years in Claybury, and a considerable time previously at Duxhurst; yet she developed marked ascites while in the former institution, and died with a most pronounced hobnail liver. The very few cases which showed liver enlargement or obvious naked-eye cirrhosis which might be attributed to alcohol as a prime factor were cases of multiple neuritic psychosis, with well-marked symptoms and permanent dementia caused by changes in the cell

* This includes a considerable number of cases in which the diagnosis was "(?) alcoholic dementia or alcoholic insanity." It is not claimed that this represents the true estimate of alcohol in relation to insanity, but it shows that we must be careful in accepting high estimates of the correlation of alcohol and insanity.

and fibre structures of the central nervous system. They were in all six in number. Curiously enough, the one male who showed a well-marked change in the liver (hypertrophic cirrhosis) at the *post mortem* examination was the one who had been the longest time in the asylum—namely, seven years. He did not, therefore, think that Sir Victor Horsley's suggested explanation could account for the facts he had brought forward regarding the relative infrequency of cirrhosis of the liver in asylum cases as compared with hospital cases. In fact, this further inquiry supported his contention that heredity was the predominant factor in all cases of admission to asylums that were not due to acquired organic disease, and he included under organic disease general paralysis of the insane, which he thought Sir Victor Horsley would agree with him was due in the main, if not entirely, to syphilis. Dr. Mott freely admitted, however, that the abuse of alcohol aggravated the effects of syphilitic infection, and was an important coefficient in accelerating, and even determining, the onset of all organic nervous diseases, just as it did functional neuroses and psychoses in individuals of a neurotic or insane temperament. In connexion with the problem of causal relationship of alcoholism and certifiable insanity, it was of interest to note that Drs. Sullivan, Bevan Lewis, and Macdonald had shown a regional dissociation between alcohol and insanity. Thus, inland and agricultural communities had the least inebriate, but highest ratio of pauperism and insanity. Maritime, mining, and manufacturing communities above all others were the most intemperate, but revealed a lower ratio of pauperism and insanity. Dr. Sullivan, by careful analysis and tables, had shown that in the regional distribution of insanity it was difficult to trace any evidence of alcoholic influence, such as might be expected if alcoholism really accounted for one sixth of the total number of cases. Thus Lancashire, Warwickshire and Cheshire, which ranked very high in the scale of alcoholism, and the mining counties, where drunkenness was rife, were alike in showing comparatively very low rates of insanity. Sullivan concluded that alcohol as a cause of certifiable insanity fell a good deal short of 16 per cent., at which it was rated in the official statistics, and might be something under 10 per cent. There was, however, in Dr. Mott's opinion, a reason why agricultural communities in England should have a higher percentage of paupers and lunatics: it was on account of the emigration of the mentally and physically capable men and women to the industrial centres, leaving the feeble in mind and body to procreate their species; and this at the present time was a matter of national importance. While the drink bill was annually falling, the percentage of insanity in the population was rising. If alcohol was not responsible for certified insanity to the extent generally believed—indeed, it might be a means of elimination by weeding out those who inherited a lack of higher control—yet there could be no question that it was the most fruitful cause of pauperism and crime. Sullivan asserted that 60 per cent. of the crimes of violence were due to drink. Moreover, Dr. Mott thought it would be well if the fact were recognized that the chronic inebriate was not infrequently quite as antisocial, and often more so, than the lunatic. Drink was not only the cause of a great number of crimes, but of great misery and human suffering; it caused disease and accelerated and aggravated diseases caused by pathogenic organisms—for example, tuberculosis and syphilis. Moreover, it was the indirect cause of venereal infection in a large proportion of the cases. He was of opinion that the chronic inebriate might be as dangerous to himself, and as harmful and dangerous to society, as the certifiable lunatic, and should, when other means failed to cure him of his antisocial habit, by which he had become a permanent and constant menace to his family and the community, be segregated for long periods, whether he willed it or not.

Again, they had to consider the cost to the ratepayer of the drunkards. Quinton (*Crime and Criminals*) said:

> In 1908–9 the committals for "simple drunkenness" and drunkenness with aggravation were close on 63,000, or about one-third of the total committals from ordinary courts; and although there were many occasional drunkards included in these figures, the greater proportion had had previous convictions for the same offence.

Quinton referred to the failure of the Inebriates Act, and concluded a chapter on social defection by saying:

> Large numbers of persons who are socially inefficient—some from physical inefficiency, others from mental deficiency, and others from confirmed inebriety—will be excluded for considerable periods, and prevented for the time being from propagating their kind; whilst the public, on whom they depend for their living, will be spared much pecuniary loss and much untold misery which these wretched folk inflict on their relatives and all who are connected with them.

Passing to the consideration of chronic inebriety among the feeble-minded, Dr. Mott said he would illustrate this point by showing the photographs of a number of chronic inebriates who were sent to reformatories, and he would call their attention to the striking evidence, in the physiognomies, of degeneracy and feeble-mindedness. This fact he would correlate with an extract from the report of Dr. Branthwaite for the year 1905, concerning certified inebriate reformatories established under the Inebriates Acts, 1879–1900. On p. 10 he remarked:

> Upwards of 62 per cent. of the persons committed to reformatories under the Act are found to be insane or defective in varying degree. I am satisfied that the majority of our insane inebriates have become alcoholic because of congenital defects or tendency to insanity, not insane as a result of alcoholism, and that the drunkenness which preceded alcoholic insanity was merely the herald—the only obvious sign of incipient mental disorder. In relation to the final insanity, drunkenness in such cases is the intensifier, perhaps, but not the cause of the disease. These chronic alcoholics, who eventually come under the care of the State, may be divided into two classes: (*a*) Degenerates, imbeciles, and epileptics; (*b*) moral and social defectives.
>
> A marked intolerance to the action of alcohol is present in both the refractory and quiet class of defectives, very small quantities of drink, no more than is taken daily without apparent physiological effect by an ordinary individual, being sufficient to cause disorderly and violent behaviour. *Our experience in this direction has led us to accept the view that intolerance of the exciting effects of small quantities of alcohol may be considered a fairly certain sign of impaired mental equilibrium.*

Dr. Branthwaite's experience corroborated, therefore, Dr. Mott's statement that small quantities of alcohol acted as a poison to all those who inherited a lack of highest control.

Archdall Reid had argued with considerable force that the most temperate races were those which had consumed alcohol for the longest periods of time, natural selection and survival of the fittest having eliminated those who had an inborn tendency to drink to excess or who were unduly susceptible to its influence. The Jews were notably a temperate people, yet insanity was more prevalent among them than Christians; no doubt this might be partially explained by the fact that this race had survived and multiplied and acquired an extraordinary power in many lands by the possession of that neurotic temperament associated with quick perception and intellectuality. The very fact that the Jew had survived under the most adverse conditions, not by physical strength but by quick-wittedness, had led to the inheritance of a more active but more unstable mentality increased by racial purity. Again, it was well known that among Quakers insanity was very prevalent, although as a community they were the most temperate class of the population. This might be explained by intermarriage.

The vexed question of transmission of acquired characters, especially in relation to alcoholism, was one of great importance and interest. That the germ cells were sequestered "in the body, and not of the body," therefore not participating in the biochemical changes which occurred therein, and that in prolonged toxic conditions they were uninfluenced in their nutrition and specific vital energy, was contrary to reason. It might, therefore, be asked how it was, as so often happened, that a chronic alcoholic might have offspring mentally and physically sound. The question was wrapped up in the causes which led a man or woman to drink, and his observations and the facts he had brought before them seemed to show that a man who could drink continually for numbers of years, and keep out of a lunatic asylum, a prison, or a hospital, must have possessed an inherent stable mental organization, and he in a measure transmitted this, the virility of the stock remaining potent in spite of the ruinous habit he had acquired, although it was probable that his offspring would have been stronger and fitter had he been a

temperate man. Drunkenness in successive generations would, he believed, undoubtedly lower the virility, and mental and physical degeneracy of the stock would result.

But Nature was always striving to go back to the normal average in one way or the other. On the one hand it might happen that the children, witnessing the fearful effects of drink in the parents, became total abstainers: for he had very frequently noticed that the children of chronic drunkards, especially when the father drank and the mother was temperate, were total abstainers. Or, on the other hand, mental and physical defectiveness associated with drunkenness of the stock in one generation might, by the "law of anticipation," lead to its appearance in a more intense form and at an earlier period of life, either at birth or adolescence, and the stock in consequence died out.

There could be no question that chronic alcoholism did figure largely in the pedigrees of many of the patients admitted to asylums, but the same occurred, though he could not think so frequently, in the pedigrees of hospital patients. Of this, however, he had not sufficient precise data to make any absolute statement. Since he had established the card system of all the relatives in the London County asylums, he had come to the conclusion that many of the statements and statistics made in respect to alcohol being the direct cause of insanity and epilepsy appearing in a stock must be accepted with reservation until more precise data were obtained. It has long been the opinion that chronic drunkenness of the parents might lead to mental degeneracy in the offspring, in the form of feeble-mindedness and epilepsy. How far, however, this was due to the alcohol and how far to the weak will-power and lack of moral sense that led to the man or woman becoming a chronic drunkard, it was difficult to decide. He did not believe that a desire for alcohol was transmitted from parent to offspring in the form of *like begetting like*, but a tendency to like; that was to say, then, an inherited weak will-power and lack of moral sense might be transmitted, whereby the individual was more susceptible to temptation and imitation, and in this way environment played an all-important part.

The psychoses which occurred in the subjects of chronic alcoholism might be divided into the following groups:

1. Mental affections which were the result of the direct or indirect action of alcohol upon a usually previously healthy brain for a considerable period of time, causing delirium tremens and polyneuritic psychosis (Korsakoff's disease). Occasionally such cases terminated in a permanent alcoholic dementia in which recognizable structural changes in the brain were demonstrable.
2. Mental affections resulting from alcoholism occurring in an individual who was either potentially insane or possessed a morbid temperament. At least, this was the explanation he would offer, because the cases in many respects were hardly distinguishable from insanities occurring in abstainers.
3. Cases in which Groups 1 and 2 might be combined.
4. Dipsomaniacs. This might almost be looked upon as a form of periodic insanity in which there was an obsession for an unnatural craving for alcohol; in the intervals the patient might lead a blameless life.

There was a form of insanity associated with alcohol termed "alcoholic hallucinosis," but it was very difficult to decide simply by the character of the hallucinations and delusions alone whether alcohol was the principal cause. Should these hallucinations persist, especially auditory hallucinations, while the mind otherwise was clear, it was probable that alcohol had only acted as a coefficient. Consequently, it was often very difficult to differentiate such cases from paranoia or hallucinating insanity occurring in non-drinkers; moreover, the chronic forms might begin insidiously or by an acute onset in both drinkers and abstainers.

Certain signs and symptoms might be regarded as pointing to alcohol as the effective cause—viz., the existence of physical signs and symptoms indicative of an attack of delirium tremens; the existence of physical signs and symptoms of visceral disease (for example, an enlarged liver) and the evidence of neuritis, associated with any of the characteristic mental symptoms of Korsakoff's syndrome. Beside these were certain mental symptoms which pointed to alcoholism—namely, morbid jealousy and suspicions relating to the sexual functions and reproductive organs, marital relations, and maternal instinct; threatening or terrifying visual and auditory hallucinations, accompanied by delusions of being followed by policemen and detectives; also delusions connected with the deranged cutaneous and kinaesthetic sensibility caused by neuritis. Delusions of poisoning were not infrequent in both alcoholic and non-alcoholic cases, and it was possible that these delusions might be an insane interpretation of gastritis or other morbid conditions of the stomach. In most of the cases of psychosis occurring in patients the subjects of chronic alcoholism, morbid states of depression predominated and persisted, causing morbid apprehension and fear and tendency to suicide; in some cases there was persistent exaltation, lying loquacity, and a tendency to vulgar wit, rhyming, and inconsequential confabulation.

Other signs of mental impairment—such as loss of memory of recent events, personal illusions, loss of knowledge of time and place, and mental confusion—were usually present in varying degrees of intensity, and in typical cases of chronic alcoholism were generally associated with signs of neuritis—for example, tenderness of the limbs on deep pressure, absence of knee-jerks or sometimes increase of jerks, varying degrees of paresis or paralysis of the lower extremities, accompanied by varying degrees of cutaneous anaesthesia and analgesia. There was no loss of control over the sphincters unless there was a marked dementia. The more the cases exhibited during life these obvious neuritic signs, conforming to the cases met with in hospital practice, the more likely was there to be a well-marked cirrhosis of the liver, and the more likely was alcohol the effective cause of the insanity. The few cases of permanent alcoholic dementia which had died in Claybury Asylum, and to which he had previously referred, exhibited marked changes in the liver. The large number of females diagnosed as suffering with alcoholic insanity in those dying at Claybury were affected about the climacteric period of life; if there had been forthcoming positive evidence of alcohol having been an effective cause of the insanity, one would have expected more definite evidence in the organs of the body, and he could not help thinking that the more important cause of their admission to the asylum was the "change of life," which so often was associated in total abstainers and most temperate women with a mental break-down.

How did alcohol cause these changes in the brain and its functions? It might be argued that the progressive and continuous poisoning of the body with alcohol led to permanent changes in the organs, and induced thereby permanent disturbances of the biochemical changes incidental and essential to their normal vital functions, causing an autotoxaemia. Poisons circulating in the blood would find out the inherited *locus minoris resistentiae*, if there were one; the brain, the most complex and delicate mechanism of all, the one in which individuality and personality was shown in an infinite variety of ways by which it reacted to environment, was therefore the organ which was earliest affected.

Although no changes were discoverable microscopically in the brain of a great majority of cases of alcoholics, whether dying in hospitals or asylums, this did not prove changes had not taken place. In fact, what was a "habit" but some altered state of reaction to environment, conduct whereby the brain was impelled to satisfy a desire? and although their methods did not permit the demonstration of any physical or chemical change, yet by analogy they must presume a change had taken place.

Dr. Mott showed on the screen the principal changes which could be observed in the brain in cases of alcoholic dementia. There was not much wasting; there was some thickening of the membranes, especially over the frontal and central convolutions; the fissures were deeper than natural, and the convolutions smaller, especially in the regions mentioned. There was some excess of cerebro-spinal fluid, proportional to the wasting. The membranes stripped off without leaving erosions, and there was no granulation of the ependyma of the ventricles. These two conditions were very characteristic of general paralysis, and were very rarely absent. The cerebro-spinal fluid did not give the Wassermann reaction characteristic of a parasyphilitic affection. Microscopic examination showed by methods used for staining fibres a diminution of the superficial fibre systems of the cortex, and there was no marked increased vascularity. The cell destruction and distortion of the cortex was not marked, as in general paralysis. The most noteworthy change in

the cells was shown by the large Betz cells, which presented an appearance similar to those of the motor anterior horn cells of the spinal cord—namely, they were swollen. The Nissl granules were absent or diminished; if present, they were only found at the circumference of the swollen cell. The nucleus was very frequently displaced, and eccentric in position. There was, he thought, a parallelism between the absence of fibre-staining in the superficial cortex cerebri and the degree and permanence of the dementia. These were the only changes of importance he had found in the brain in the few cases of alcoholic dementia he had had the opportunity to examine. In one hospital case he found multiple minute haemorrhages, which he attributed to rupture of degenerated vessels, brought about by cerebral congestion owing to fatty degeneration and failure of the heart's action.

In an inquiry relating to heredity and insanity, he had lately interviewed several of the relieving officers who knew the histories of these pauper insane patients and their families, and one relieving officer of eleven years' experience in a very large parish volunteered this information:

> He did not know how the asylum authorities could possibly find such a large percentage of insanity due to alcoholic abuse. He referred to 420 cases of alleged lunatics to whom he had been called, and he stated that there were 20 chronic inebriates among these suffering with delirium tremens; these had been sent to the infirmary, and after a short period of time had been discharged. Among the remaining 400 cases who were lunatics and sent to the asylum, he did not find any cases where there was evidence of prolonged abuse of alcohol.

Without precise data this evidence was not to be taken as scientifically accurate, but he thought that it was likely to be more accurate than the untrustworthy evidence arrived at by sending out printed forms for relatives to fill up, as was the method upon which much of the data in asylum districts was built up.

Dr. ROBERT JONES said that he was responsible for the assertion, which Dr. Mott had urged should be restated, that "Intemperance in drink is responsible for more than 20 per cent. of all cases of insanity among the admissions" (to asylums). Statistics with regard to insanity varied, of course, with the personal equation of the individual medical officer who collected them. But his own experience of alcoholics in asylums had been considerable, and although he took it for granted that it was only a *façon de parler* on the part of Dr. Mott when he said incidentally that teetotalers were as numerous among the insane as those who took alcohol, he felt bound to contradict that statement absolutely. It was very rarely indeed that one came across a teetotaler in an asylum. He must defend the figures so far as they related to Claybury, which Dr. Mott had to some extent called in question. At Claybury he and his fellow medical officers were not content to send out inquiry forms and await the reply. They saw the friends of all the patients, and ascertained the conditions of life from which they had come and to which they would return. The asylum patient was very largely drawn from a floating population, any of whom were ready to drop into certifiable insanity, and in a great number of cases alcohol was the agent which precipitated into a lunatic the man or woman who had hitherto been living a comparatively useful and responsible life. It was their duty as a society not to lose sight of the fact that there were a multitude of unstable people in the world, and that the stimulus of alcohol might be sufficient to drive them into the ranks of the insane. The Claybury percentages were based upon a total of 12,653 cases. Out of this number of admissions to the asylum in seventeen years he elicited a history of alcoholism in 28 per cent. of the men and 14 per cent. of the women, making a mean percentage of 21. He placed side by side with these the statistics of other county asylums where the superintendents had furnished a summary of the various influences operating in insanity, and, taking a three-year basis, the percentage of admissions in which alcoholism was a factor was 28.6 for the men, 14.7 for the women, making a mean of 21.6, exactly corresponding to his own figures. Dr. Jones went on to declare that neurotic people might lay the flattering unction to their souls that it was neurotics who did the finest work of the world. It was neurotics—"quicksilver people"—who were also most susceptible to the precipitating influence of alcohol, and therefore they had the greater reason for abstaining altogether. In the latest Blue Book—the report for 1910 of the Commissioners in Lunacy—it was stated that alcoholism stood fourth among all the causes of insanity. At the back of the insanity lay inherited mental instability, defective physical organization, the climacteric in women, and the rest of a familiar list, but in a great number of these cases alcohol was the precipitating factor. He believed that alcoholism had a much greater influence than was generally supposed. In order of frequency it was probably the most common single factor among males. He admitted that when the remains came into the *post-mortem* room it was often difficult to realize its ravages, but they who were in constant association with the insane were satisfied that alcoholism was a very frequent cause of insanity. What was the psychological effect of alcohol? It was an elementary law that the latest acquired was the first to disappear. On analysing mind one first found cognition, and above cognition the subsequently acquired will. The effect of alcoholism was to weaken and degrade that will. In the report of the Royal Asylum of Inverness, it was stated that a larger and larger number of these people were characterized by doubt, hesitancy, and incapacity, and in that he thoroughly agreed. Education and encouragement must be the treatment in asylums, but when alcoholism affected the psycho-motor cells of brain workers, such as journalists and school teachers, it brought them down to a lower plane, and reconstruction to the original level was a practical impossibility.

After remarks by Dr. C. W. SALEEBY,

Dr. CLAUDE TAYLOR spoke of the numerous class of unstudied and unclassified cases which were dealt with in the workhouse infirmaries and never went on to the asylums. He believed that this class would furnish a vast amount of evidence which would go to correct to a large extent the conclusions that Dr. Mott had put before them as to the causation of insanity by alcohol. In his experience a great number of these cases were due to drink, though it was difficult to say whether alcoholism should be regarded as antecedent, coefficient, or cause. Doubtless many of the cases were from neurotic stock, and therefore had a tendency to become deranged. But large numbers dealt with in the Poor Law institutions did become suicidal or homicidal on the spur of a very little alcohol. The evidence of the patient himself as to the amount of alcohol taken, however, was most unreliable.

The PRESIDENT (Dr. Hyslop) disagreed with Dr. Saleeby in his statement that Dr. Mott had furnished the most condemnatory evidence against the report of the School of Eugenics. Nothing that Dr. Mott had said could be applied in that way, but he had given them most valuable information in the direction of delineating the problem that was before the country, particularly with regard to the difference between persons with a degenerate family history and those suffering from alcoholism *per se*. The speaker was always looking for those cases in which alcohol had been the sole factor. He had no doubt such cases existed, but they were rather phantom-like, and on going more fully into the history one generally found evidence of some hereditary neurosis. The real lesson to be taken to heart was that the victim of any neurosis should refrain from touching alcohol, so that the practical result was the same as if alcohol had been arraigned as the single cause of the degeneracy. Alcohol invariably attacked the weakest system. In the majority of the instances in which disease of the liver had not occurred in the asylum it was probable that the alcohol had attacked the weaker system first, and the patient had gone into the asylum before the effects could have reached the liver. That was rather in favour of the School of Eugenics. The difference between the report of the School of Eugenics and Dr. Mott's thesis was that the one was put forward in a statistical manner, which was capable of extension, as they knew, and the other was on a scientific basis.

Dr. MOTT, in reply, said that it had been his desire to tackle the question impartially, and to bring before his audience the facts, leaving them to draw their own inferences. His observations did not controvert those of Professor Karl Pearson. If anything, they tended to support them. He had the greatest admiration for Professor Pearson's work, and, although he did not agree

with him, he knew that he was actuated by the most honourable and straightforward motives. He thought the mistake had arisen because Professor Pearson had drawn his results from alcoholics of a low grade who were probably innately better than the total abstainers who had got into that grade. With regard to the discussion, he thought the evidence brought forward went to show that alcoholism was responsible for a large number of admissions to asylums, but he still held that in the majority of cases alcohol was more in the nature of a coefficient than an actual cause. Having alluded to the difficulties of investigation in London, where the cases that ought to be examined were split up under the care of various institutions, infirmaries, hospitals, and asylums, he proceeded to differ with Dr. Jones in what the latter had said about cirrhosis of the liver. As with cirrhosis so with neurotic psychosis, one might say that, strictly speaking, it was not due to alcohol. There might be some microbic infection, but the fact remained that if the persons had not taken the alcohol they would not suffer from the neuritis or from the disease of the liver. He believed that alcohol allowed toxins to pass in from the alimentary canal, causing cirrhosis of the liver, and that the result was due to the absorption of these toxins rather than to the direct effect of the alcohol itself.

*Election of Officers.*

Previous to the discussion some business was transacted. The annual report of the society, read by the Honorary Secretary, reviewed the work of the year and outlined possible future developments, including the establishment of research studentships. The Treasurer reported a balance in hand of £34. Dr. Hyslop was re-elected President, and the Vice-Presidents were re-elected, with the addition of the President of the British Medical Association. Dr. Claude Taylor was called to the office of Treasurer.

## THE DAYLIGHT SAVING (?) BILL.

By John Milne, F.R.S.,
Shide, Isle of Wight.

I was led to the consideration of time in consequence of work which involves, amongst other things, the translation of times given for the occurrence of an event in a distant country into Greenwich or English time. Years and years ago I learnt that astronomers, geographical societies, or cable companies of any nationality whatever could give me little help in carrying out these apparently simple operations. To translate Indian time into English time you had, and may still have, to refer to 49 pages of the closely-printed *Indian Telegraph Guide*. For certain varieties of Chinese time you must still refer to the hours of the cat, the dog, and other animals. American time is supposed to be perfection. The country is divided up into zones, 15 degrees apart, each of which is separated from its neighbour by one hour. For certain purposes this is sufficient, but there are State laws, and States are not divided from each other by a mere meridian. To translate the time used in certain Pacific islands it is not always a question of hours, but of days. In one island it may be Sunday, but on a neighbouring one it may be Monday. Ordinary people talk glibly about time, but about time as it is kept in the world they usually know but little.

To put myself in a better position with this question, in 1898, through the kindness of the Foreign, Colonial, and India Offices, I was enabled to make inquiries about local, standard, legal, railway, astronomical, and other kinds of time which were kept in all parts of the world where we had representatives. I learnt much, and have since seen and noticed how in country after country a definite time has been adopted, and a trend has been taken towards the adoption of a standard. For various reasons the standard chosen was that of this country—G.M.T., or Greenwich mean time. The other day France sacrificed nine minutes in order to have the same time as Great Britain, Holland, Belgium, Spain, Algeria, and other places. France did not do this to save daylight, but it was for the sake of commercial transactions and international relationships that she put herself in line with her neighbours. When Cape Colony made herself an exact two hours before Greenwich she adopted a time suitable to South Africa and easily comparable with that of other countries. To say that she took this action to save daylight is nonsense. People in South Africa, like those in Australia, want to know when cablegrams are dispatched, when contracts are completed, and they can do this best if they work in relationship to a standard.

It is now proposed to alter this standard, so that between the third Sunday in April and the third Sunday in September all our clocks shall be one hour fast. They will therefore show noon when it is really eleven, and show five when it is really only four.

Let us consider what this may mean in connexion with our "overseas" relationships, and then in relation to ourselves. Who will benefit and who will suffer?

Travellers, mails, and freight are now timed to reach the Continent at times which suit Continental arrangements, which have been adopted to fit in with British time. Inasmuch as these arrangements fall in line with those of European states in general, and then again with the arrangements of more distant countries, it is not likely that they will be altered to suit British eccentricity. The alternative is that the trains and steamer services of this country must suffer changes twice a year. But this threatened confusion is by no means the end of the trouble.

In our own country I will assume that there are millions of workmen who now get up at five o'clock to reach factories or works at six. As matters now stand, during the prescribed period of change each of these men rises twenty-seven times before the sun. When he has to get up at an imaginary five o'clock, which will be really four, he will have to do this 102 times. Thus the frequency of early morning darkness and morning cold will for the workman of Great Britain be increased fourfold. I have made no allowance here for dawn and twilight (cold and warmth), which, as everybody knows, are variable quantities.

Advocates of daylight saving who wilfully neglect to call attention to this fact are not good sportsmen. They might also call attention to the facts that ever since we have had a standard time the resident in the West of England always gets twenty or more minutes of afternoon sunlight than the man in the East, while the Scotsman gets in the summer months about an hour. So why all this hubbub? It is to give a few clerks in the South-east corner of England pleasant afternoons, to give to Devonshire and Scotland that which in a greater or less degree they already possess, and to disturb millions of households on cold, dark mornings.

It is a selfish, wicked, and ill-considered project, which, if carried out, will affect the nation with moral, financial, and physical trouble. If the master of the house has for more than three months of the year to get up at four, fumble about for matches, possibly light a fire, wake up a household, and go on a bike or a tram to his work, I can imagine that the mental strain involved would be such that his language and that of the household would excel that of Job.

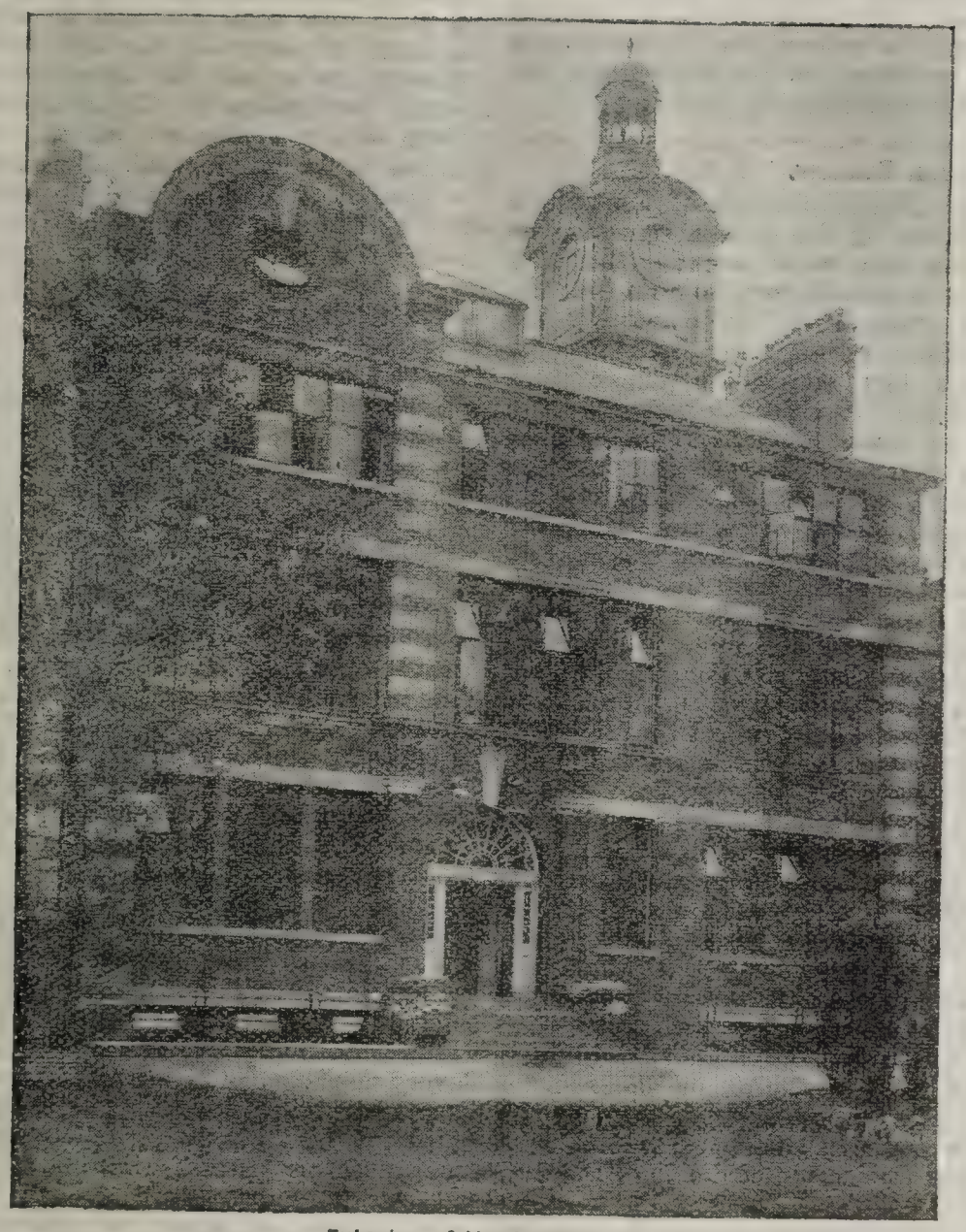
When in the street, too, his chances of accident or bronchial troubles, particularly when frosts are about, would be increased. On arrival at the factory or workshop this would have to be lighted up and warmed. Upon this point the employer would have something to say.

The worst feature, perhaps, because it will hit the clerk as well as the workman, would be the fact that twice a year habits would have to be altered. Now, habits *cannot* be trifled with. We may change them, but the change takes time. Meals at irregular times are bad for our system, and the shifting of the hours of work is bad for the work. Medical men are well acquainted with the results of experiments bearing on these points, the inference from which is that, should the bill come into force, for a certain period twice a year the efficiency of the worker would be somewhat damped.

Those who live in the South-east of England are to go home at four because it has been legally enacted that they can push on the hands of the clock and call it five, bask in the sun, play more tennis, more golf, have more rifle-shooting, gain more health, and all the rest of it, whilst the workmen in our industrial centres are to rise at four. It is a daylight-saving proposal for a minority, and a darkness-giving bill for the majority.

## CANCER HOSPITAL RESEARCH INSTITUTE.

THE new Research Institute of the Cancer Hospital in Fulham Road was opened by the Duke of Connaught on May 23rd. This building, which stands detached from the hospital, contains ten separate laboratories, each excellently equipped for its purpose. The institute is a lofty building of three floors with a spacious basement. It measures 40 ft. from back to front and 60 ft. in width, and the height of the rooms on each of the floors is from 12 to 14 ft. The usual passages have been abolished, and the laboratories, which intercommunicate, open also directly on to the staircase around the central lift. The ground floor is devoted principally to administrative purposes. It contains a large reference room and library, still awaiting its volumes, the secretary's and director's offices, and, leading from the latter, the director's laboratory. This laboratory is to be devoted chiefly to the study of parasitology in its bacteriological and cytological aspects, and, like the other rooms, it illustrates the care for detail and the purposefulness with which the organization has been carried out. For example, the window, stretching along the whole of one side of the room, has narrow metal frames so as not to interfere with the light; a system of travelling electric lamps has been installed; the basins are fitted with telescopic plugs; the walls have rounded corners; the draining arrangements are on the latest scientific principles, and the cabinets have glass doors and sliding shelves. The various pipes for hot and cold water, gas, waste, and electric wires, are all differently coloured to indicate their separate purposes.



Exterior of the Institute.

On the first floor are the main research laboratories. These include a laboratory for comparative pathology, equipped with a kymograph and a Cambridge microtome for cutting large sections; a very large chemical laboratory, with fume cupboards in front of the window, central benches, an open drain, a Korting vacuum pump, and a hot chamber for drying tissues, which is kept at blood heat; a laboratory for physical measurements, equipped with photometers, thermostats, balances, and similar contrivances; and a serological laboratory, furnished with large and small centrifuges. The second floor is devoted wholly to experimental work, chiefly to the study of animal tissues, and includes an excellent physiological laboratory. Above these is the tower, fitted with a laboratory for special light experiments.

Other laboratories find a home in the basement. The apartment devoted to electro-radio-physics has not yet been fully equipped, but its excellent photographic dark room is in working order. It has an asphalted floor, and also an exhaust fan—the only piece of artificial ventilation in the building—while the light is trapped owing to the air being made to travel in the form of a wave. Another laboratory is occupied with preparatory chemistry, and is fitted with grinding mills, Buchner presses for extracting cell juices, combustion furnaces, and an apparatus for producing distilled water at the rate of 3½ gallons an hour at the cost of ½d. a gallon. Other incidentals of the basement are a room containing various sterilizers, a large carbon dioxide machine for refrigeration, with a cold store adjoining, a destructor or crematorium, a boiler house, an engineer's workshop, and a series of eight vaults devoted to various purposes, such as chemical and spirit storing, and the housing of a large centrifuge of 24 tons pressure. One of these vaults also forms an underground laboratory for working at an equable temperature.

Our representative was conducted over the building by Dr. Alexander Paine, the director, who pointed out that the institute was equipped for attacking the problem on both its experimental and its clinical side, and that not only could cancer research be undertaken but that work could be done upon tuberculosis, and, indeed, any kind of work in connexion with the investigation of disease.

At the opening ceremony Lord NORTHBROOK read an address in which he sketched the hospital's history and dwelt upon the patient research work which had proceeded side by side with the routine treatment. The new institute would afford accommodation for study in every branch of medical science bearing on the subject and was adequate for the most advanced investigation. He paid a tribute to Mr. Alexander Graham, the architect, and to Dr. Paine, the director, for the skill with which the building had been designed. The DUKE OF CONNAUGHT, in reply, said that he was associated with many hospitals in the metropolis, and took a very keen interest in their special institution and in their combat with a fell disease. A wonderful work had, he said, been performed within those walls during the last sixty years. It had not been performed without great difficulties, both from the monetary point of view and from that of the strenuous work demanded of the medical man. Many of those present had had relatives who had suffered from cancer, and all realized the importance of leaving no stone unturned not only to alleviate the individual case, but to fight the disease at its source. His Royal Highness then proceeded to the institute, the door of which he unlocked with a silver key. After he had made a tour of inspection the premises were thrown open to the general company.

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DR. G. E. HERMAN will deliver the Bolingbroke Lecture, before the South-West London Medical Society, at the Bolingbroke Hospital on Friday, June 16th, at 8.45 p.m. The subject selected is *ante-partum* haemorrhage. All medical practitioners are invited to be present.

THE Congress of French-speaking Alienists and Neurologists will hold its annual meeting at Amiens in August next (1st to 4th). The following are the questions proposed for discussion: The different kinds of psychopathic pains, their significance and importance; tumours of the pituitary body; the value of the evidence given by lunatics in a court of law.

## MEDICAL DEFENCE UNION.

THE annual general meeting of the above society was held at the Grand Hotel, Brighton, on May 18th. The chair was taken by the President, Mr. STAMFORD FELCE, who gave an address upon the disabilities of the profession, especially in relation to the proposed scheme of National Sickness Insurance of Mr. Lloyd George. The disadvantages of the suggested legislation and its interference with general practice of practitioners were dealt with fully, and a hope was expressed that strenuous and united resistance would be made to this scheme by the profession. The meeting accorded a unanimous vote of thanks to the president, and the question of the publicity of the address was left to the decision of the council. The report of the council was adopted and approved, and the usual formal and statutory resolutions were passed. An election for three members of the council took place, and Dr. Roche Lynch, Mr. Messiter, J.P., and Mr. R. F. Jowers, F.R.C.S., of Hove, Sussex, were appointed. A vote of thanks to the president and the council for their valuable and gratuitous services rendered to the members of the Medical Defence Union was unanimously passed.

### ANNUAL REPORT.

The annual report of the Medical Defence Union, which was presented to the members at the general meeting as reported above, embraces the work accomplished by the Council in 1910. It is satisfactory to note that the funds of the union have again proved sufficient to cover the very heavy expenditure necessitated by the legal costs in actions in the law courts—an expenditure which amounted to £2,663 19s. 9d., exceeding the amount paid in 1909 by over £1 000. The number of cases placed in the hands of the solicitors to the union was 183, and, of the total costs, £1,020 6s. 7d. was for "out of-pocket" expenses. In 8 cases alone the costs were £1,600 12s. 3d., the average expenditure in point of law costs and disbursements being £200 1s. 6d. Two-thirds of the total legal costs were attributable to these 8 cases. The work undertaken by the union during the past year has been abnormally heavy. The geographical distribution of the cases dealt with by the solicitor is interesting. It appears from the legal report that 55 cases occurred in the metropolitan area, 109 in the provinces, 7 in Scotland, 2 in Ireland, and 10 in Wales.

Actions for alleged malpraxis are evidently not on the decrease, as it is shown that there were 49 in 1910, the next highest being in 1906, when the number was 41. It is clear, however, that a very large proportion of actions threatened are quashed as soon as the patients or their solicitors have knowledge that the union will defend, and it is in this way chiefly that the value of this organization is so specially shown. In libel and slander cases the union has been busy, 45 of such being undertaken either for prosecution or defence by the union's solicitors. The actual expenditure for the past fifteen years in law costs has been £22,728 8s. 8d.; ninety actions alone within this period cost £12,441 4s. 1d., or an average of £138 4s. 8d. for each case. As the solicitor, Mr. Hempson, points out in his report, "access to these figures will afford to members some idea of the heavy nature of the litigation which has been undertaken and accomplished by the union." The value of co-operation was never better illustrated than by this report. Had any one of the medical practitioners been required personally to pay £200 in defence of an action brought against him, it would have brought prominently to his notice the value of the union. The progress of the union has been steady and persistent, and the work accomplished each year is a benefit not only to the members, but indirectly to the whole profession.

As pointed out in the report of the Council, the Medical Act would be practically a dead letter without the union, as it is the only society which puts the Act into force against unqualified practice. Inefficient as the Medical Act is, it would be detrimental to the interests of the public and the medical profession were the penal clauses never to be put in action; and it is greatly to the credit of the Medical Defence Union that, where possible, prosecutions are undertaken and conducted with success; and even on this ground alone it should be supported by medical practitioners. It is chiefly, however, with the work of defence that the union has made its name, and the last year has again been prolific with successful cases.

It is quite clear that both would-be litigants and speculative solicitors are chary of entering into contest with the union, and that a very large proportion of actions threatened fall to the ground the moment it is decided that the society will defend. In one case quoted by Mr. Hempson a threatening letter was received by a member; but on hearing that the union would defend the reply was that the would-be litigant was extremely disappointed "to find that the practitioner he desired to attack was a member, and that he would not proceed further." In another case, after offer was made by the union to accept service of a threatened writ through their solicitor, no writ was issued; and later it appeared that the solicitor of the plaintiff had stated, "The Medical Defence Union are far too strong for us to fight—we must lose." With these considerations the necessity for joining a medical defence or protection society should be apparent to all; and it is a matter of some surprise that, with all the manifest advantages to be obtained at a very small annual cost, the whole profession in Great Britain does not subscribe. Even where a member has no occasion to consult the Union or to call for aid, advice, or assistance, the moral advantage of membership is great; and there is always the satisfaction of knowing that by subscribing each member is helping his less fortunate neighbour. The date at which actual assistance may be required cannot be estimated; it may not be to-day; it may quite possibly be to-morrow; no man can actually feel that he is secure from molestation, however capable he may be in the treatment of his cases. An hysterical woman amongst his patients, pauper or wealthy, may at any moment make it necessary for him to defend his professional repute or honour in the law courts; if he be a member of the union the success of his action is more certain, and certainly less expensive, than if he had failed to utilize the advantages which are his for the asking. He may have performed a brilliant operation of grave character which has undoubtedly saved his patient's life, yet if some little accident, such as a scald from a hot-water bottle, or something similar has occurred, the value of his services is forgotten and it is sought to mulct him in damages for the error of a nurse or attendant, and he may be called upon to defend an action in which, although the verdict may be in his favour, he will have to pay heavy costs incurred in his defence without the slightest possibility of recovery of such from the plaintiff, who is, in many cases, a person in an impecunious position. In respect of this the council states that many thousands of pounds are owing to the union for costs awarded, but that there is no chance of obtaining even a fraction of such. The arrangements which the council has entered into with the Yorkshire Insurance Company, by which for a small annual premium every member can be insured against the costs and damages accorded in lost actions, is an excellent one; and, as it is purely voluntary, no objection can be taken to it even by the most critical. The scope of the work of the union is varied, and practically can be extended to touch any matter of doubt or difficulty in the working of daily practice. The experience which the executive of the union has now gained by years makes the aid, advice, and assistance to be obtained most valuable, and the medical profession can with safety and advantage to itself accept the benefits provided. It is no slight claim to the esteem of the profession to be able to record, as the solicitor does in this report, that in no single instance has an action for libel or slander been lost where proceedings have been taken on behalf of a member in vindication of his professional honour and reputation; and we note with satisfaction the opinion expressed by the solicitor when he states that this result "constitutes a record not to be equalled, and certainly not surpassed, by any association carrying on work similar to that which the union conducts." The work of the union is no longer an experiment, it is a necessity; and carried on, as it is, by men of great experience, and judged by its excellent results, we recommend all practitioners to secure the benefits which are at their call. We have pleasure in congratulating the council and the executive upon the satisfactory report and record of work admirably carried out.

## LITERARY NOTES.

DR. J. B. HURRY, who is well known as the author of an excellent book on Reading Abbey, is presenting the town of Reading with memorials of the first and last Abbots of Reading, which will be placed in the Chapter House of the Abbey Ruins. For the following details we are indebted to the *Reading Standard*: The two memorials are carved each out of a single slab of blue Forest of Dean stone, measuring 6 ft. by 5 ft. 6 in., and represent in bold relief scenes from the lives of the first and last Abbots. Mr. W. Ravenscroft, F.S.A., F.R.I.B.A., designed the architectural portions of the memorials, and Mr. W. S. Frith, sculptor, the scenes, the whole of the work being executed by Mr. Frith. Abbot Hugh de Boves is represented as receiving the insignia of his office at the hands of King Henry Beauclerc, the design being based on a rough sketch of a similar event, probably by Matthew of Paris. King Henry is accompanied by men-at-arms, while the Abbot is supported by some of his tonsured brethren, who are bearing a reliquary in honour of so auspicious an occasion. This memorial bears the arms of Reading Abbey, and also a panel with a *bœuf passant*, a rebus on the name of *Boves*. The following inscription is placed at the base of the tablet:

TO THE MEMORY OF HUGH DE BOVES,
FIRST ABBOT OF READING (A.D. 1123–1130),
AFTERWARDS ARCHBISHOP OF ROUEN
(1130–1160).
'AMOR PLEBIS, TREMOR POTENTIUM,
CLARUS AVIS, CLARUS STUDIIS, RECREATOR
EGENTIUM.'

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Abbot Hugh Faringdon, with a rope round his neck, stands at the foot of the gallows in the act of addressing the burghers of Reading, who have flocked to witness the last scene prior to the dissolution of Reading Abbey. Close by are the two monastic brethren who shared his fate. The background is filled by a crowd of soldiers and burghers. Two coats of arms are carved on this memorial —namely, that of Reading Abbey and the personal arms of Hugh Faringdon. The inscription at the foot reads as follows:

TO THE MEMORY OF HUGH COOK FARINGDON,
LAST ABBOT OF READING (1520–1539),
WHO REFUSED TO SURRENDER HIS ABBEY
TO KING HENRY VIII, AND DIED ON
THE GALLOWS.
'IN TE, DOMINE, SPERAVI.'

Percivall Pott says, speaking of quackery:

The desire of health and ease, like that of money, seems to put all understandings on a level. The avaricious are duped by every bubble, the lame and unhealthy by every quack. Each party resigns his understanding, swallows greedily, and, for a time, believes implicitly, the most groundless, ill-founded, and delusory promises; and nothing but loss or disappointment ever produces conviction.

That quacks sometimes succeed when a rational practitioner fails, need not be denied. The reason almost invariably is that the quack plays without scruple on the hopes of the sufferer, and thus inspires him with what Charcot calls the faith that heals. A good illustration of the efficacy of the quack's liberal use of suggestion is given by the author of a book entitled *Physic and Physicians* (London, 1839). He says:

Within a very short period flourished, in the Isle of Wight, a man who was formerly mate of a ship. This fellow began his career at Lymington; and, happily for the inhabitants of Cowes, continued it there. I say "happily," for the credulous came to him in droves, and all the lodgings in the town were occupied. He was a blessing to the owners of boats and packets and the public-houses there. This wonderful man pretended to cure the sick, the lame, the halt, and the blind. The applications were so many that he formed a committee, by whom the patients were to be introduced twelve per diem. It must be confessed that his mode of healing the lame and the palsied was ingenious. He broke their crutches and hung them up in his hall of audience as trophies of his skill! Some of the patients were cured by being frightened. At length the bubble burst. People were obliged to buy new crutches; others, dying, had no necessity for such purchase; and the rest had their excursion for nothing.

This story may be taken as a typical example of the quack's career.

The short account of Perkins, whose "metallic tractors" inflamed the imagination of so many people at the beginning of the last century, given in the JOURNAL of May 27th, may be supplemented by the following extract from a paper by Sir Benjamin Brodie (*Works*, collected and arranged by Caesar Hawkins, vol. i):

Persons of the highest station bore testimony to the wonders worked by the tractors. Among the vouchers, says Perkins, will be found eight professors in four universities in the various branches, as follows: Three of natural philosophy, four of medicine, one of natural history. To these may be added nineteen physicians, seventeen surgeons, and twenty clergymen, of whom ten are doctors of divinity, and many others of equal respectability. Perkinism advanced rapidly in reputation everywhere, but the chief seat of its triumph seems to have been in Bath, which at that period, before the road was opened to the German spas, was resorted to by a vast number of invalids of every description, and what was more to the purpose, by a host of *malades imaginaires* also. Nor was this all. It was thought, and not without reason, that if the principle were good, it might be extended further; and many grave and sober-minded gentlemen wore pieces of loadstone suspended round the neck for the purpose of preventing or curing the gout. Similar experiments to those of Haygarth were carried out by Richard Smith, Surgeon to the Bristol Infirmary, and they were witnessed by a great number of persons. The results were not less remarkable than those which followed the use of the real Perkinian instruments. There was only one patient among those subjected to the operation who did not declare that he experienced from it more or less benefit, and in him the effect of it was greatly to augment his sufferings, so that he would on no account allow it to be repeated. He said that the tractors had tormented him out of one night's rest, and that they should do so no more! This exposure was a death blow to Perkinism. Even in Bath the following year produced only a single case of supposed cure from the tractors, and in the course of two or three years the delusion had vanished in other places.

Writing on the suppression of quackery in the *Quarterly Review* in 1842, Sir Benjamin Brodie says:

The Provincial Medical Association has a committee on quackery, who make an annual report on the subject, and they would urge Parliament to interfere for the purpose of suppressing it with the strong hand of the law. But indeed we do not agree with them in the views which they have taken, and we shall, in conclusion, briefly state our reasons for this difference of opinion:

First. We are convinced that the thing is impracticable. It may be made penal for a man to call himself a physician or surgeon, or apothecary, who has not obtained a licence; but how is he to be prevented from giving advice, and medicine too, under the name of botanist, hygeist, or homoeopathist? Or he may put Doctor before his name on the door, and say, probably with truth, "I am a Doctor, for I purchased the degree of Doctor of Philosophy for five pounds at Heidelberg." Moreover, the experiment has already been made, and without success. The College of Physicians of London are armed by ther charter and Acts of Parliament with ample powers for the purpose, but they long since abandoned the exercise of them in despair; and in France, where the legislature have done all that they could do to suppress it, quackery flourishes as much as in any country in the world.

But, secondly, even if the suppression of unlicensed practitioners were practicable, we are far from being satisfied that it would be either proper or expedient. If the art of healing had attained perfection, if physicians and surgeons could cure all those who apply to them, we grant that the case would be otherwise; but as matters now stand, would not such a proceeding be a very tyrannical interference with the right of private judgement? Let us see how such a system would operate in a particular instance. A patient labours under an incurable disease. His case is hopeless. His medical attendant complains in a court of justice, or some one complains for him, that the patient has placed himself under the care of an unlicensed practitioner, who has never studied medicine, who treats all who consult him with the same remedies, and believes that most of the diseases to which mankind are subject arises from cows eating buttercups; and therefore he requires that the interloper should be punished. But it turns out that the remedies which this individual administers are innocent; and as to the theory of buttercups, it is as good as Cullen's theory of fever, and it can do no harm. It is a comfort to the patient to try this new scheme, and wherefore should he be prevented from doing so?

This passage is interesting in several ways. In the first place we see the British Medical Association under its original name striving for medical reform as far back as 1842. In the second we learn that the drastic powers conferred on the Royal College of Physicians of London by their charter had long been allowed to lapse; this is important to remember in view of the fact that these powers have lately been treated in some quarters as still operative. In reality they are as dead as Henry VIII, who gave the college its charter. Brodie's opinion as to the expediency of prohibiting unlicensed practice has now

only a historical interest. But although we live under the new dispensation of Medical Acts, quackery flourishes just as rankly as before.

In Bransby Cooper's *Life* of his famous uncle (London, 1843, vol. 2, p. 177) it is stated that Sir Astley Cooper's name was often used by other practitioners and very largely by quacks. Spurious certificates were occasionally brought before the notice of the public as if under his authority. The vendors of secret medicines did not fail to take the opportunity of connecting his name with some of the articles advertised by them for sale. In these instances the employers of the deception usually attempted to screen themselves from punishment by substituting the Christian name of Ashley for Astley. Cooper himself never considered it worth the trouble to take any steps to expose the contrivers of these frauds, but used to observe: "It is of all things what they most desire that I should bring an action against them, as it would be the best way of advertising the pretended specifics of these rascals." If he happened to come into contact with any of these persons he never exhibited hauteur, but either ironically inquired about the success of their secret remedies, or made some of his usual jocose remarks, as if it were not a matter of sufficient importance for him to allow it to disturb his temper. Bransby Cooper relates, on the authority of Travers, that on one occasion Astley Cooper was sent for by Dr. G., an advertising quack in Shoreditch, whose window announced in capital letters, "The Universal Remedy Under God." Before examining the injury Cooper began to banter him, suggesting a trial of The Universal Remedy. "Come, come, Dr. Cooper," replied G., "*this* is a serious affair. This is no matter for joking!"

## CONGRESS ON THE PREVENTION OF DESTITUTION.

THE first sittings of the National Conference on the Prevention of Destitution were held last week at Caxton Hall, Westminster, and were attended by representatives of municipalities and other local governing bodies in all parts of the country. Sectional meetings were held during the four days of the conference, and at these problems of juvenile employment, medical inspection and treatment of school children, the various social and economic evils resulting from mental deficiency, and questions of improved administration of municipal services were discussed, generally speaking, pointedly and with moderation.

The presidents of the various sections were: Public Health, Sir T. Clifford Allbutt, K.C.B.; Education, Professor M. E. Sadler; Unemployment, Sir Alfred Mond, M.P.; Mental Deficiency, Sir William Chance; Legal and Financial, Mr. Justice Phillimore. The general honorary secretaries were Mr. J. W. Hills and Mr. R. V. Harcourt, M.P. An official report of the whole of the proceedings of the conference will be obtainable later on.

On Tuesday, May 30th, the opening day, a joint meeting of the Education and Public Health sections was devoted to a discussion on the medical inspection and treatment of school children. Mr. HENRY HOBHOUSE, dealing with the administrative aspects, attributed much of the reluctance of local authorities to provide treatment to the absence of substantial grants from the national exchequer. Dr. E. W. HOPE, Medical Officer of Health, Liverpool, and Dr. A. A. MUSSEN, Assistant Medical Officer of Health for the same city, contributed a paper on the practical working of inspection, mentioning that in Liverpool it had been found best to associate this work with the public health department rather than the education department. Dr. LEWIS WILLIAMS, of Bradford, described the work of the school clinic there, and Mr. A. W. GANT, who gave an account of the municipal dental clinic at Cambridge, said that over 90 per cent. of the elementary school children had been found to have traces of caries in their teeth, but through the work in the clinic 70 per cent. of the permanent dentures had been freed from caries. Dr. LAURISTON SHAW devoted a paper to an argument in favour of school medical treatment by general practitioners, on the ground that they could carry their influence into the home and educate the parents in the proper care of the children's health. The work, he said, was unsuited to an army of whole-time officers; it needed wide knowledge of all diseases and patients rather than an exhaustive study of a limited branch of medicine or surgery. A general discussion revealed some difference of opinion as to what was being accomplished in medical treatment in rural districts. School clinics were generally approved.

The Mental Deficiency Section discussed the relation of heredity to destitution. Dr. F. W. MOTT, F.R.S., Pathologist to the London County Council Asylums, advanced the propositions: That (*a*) insanity was the cause of destitution, from the fact that feeble-minded and epileptic as well as insane children were liable to be born to parents who were insane themselves; (*b*) destitution might induce insanity in certain temperamental conditions. Dr. A. F. TREDGOLD said that slum life had very little to do with the causation of mental defect, which was as common amongst the well-to-do as amongst the poor, and more prevalent in rural than in urban districts. He condemned the unrestricted propagation of degenerates.

The treatment of tuberculosis occupied the attention of the Public Health Section on Wednesday, when sanatoriums, compulsory notification, and the domiciliary treatment of tuberculosis were amongst the topics discussed. The Mental Deficiency Section considered the relations of crime and mental defect, and in an opening address Sir WM. CHANCE pointed to the advance made in the care of lunatics as one of the most remarkable signs of progress during the Victorian era.

### *Insurance Bill.*

On Thursday afternoon the Relation of Sickness and Invalidity Insurance to Public Health was discussed in the Public Health Section. Mr. CHRISTOPHER TURNER read a paper on the German System. He combated the idea that administration of insurance through the public health services would prove extravagant. It would be easier, in fact, to compel those able to pay for services rendered to do so. The task of the sanitary authority would be greatly lessened by the direct and indirect assistance of invalidity insurance. The vast and ever-accumulating capital would be used to raise the general standard of health amongst the poor.

Dr. R. J. COLLIE (Medical Examiner to the London County Council) dealt with the pertinent question of malingering, discussing states of mind which might lead people honestly to believe they were ill when they were not. People were victimized by their unstable nervous systems; too often they made no stand against introspection. The prevention of malingering might be summed up in the financial independence of the medical attendant and in repeated periodical independent medical supervision.

Dr. R. A. LYSTER (M.O.H. Hampshire) urged the appointment of a special committee by the county councils as the best method of securing the most efficient treatment of the insured. The committee could be assisted by a small local committee, on which medical practitioners, insured persons, and employers should serve.

Mr. H. B. LEES-SMITH, M.P., discussed the weakness of the Insurance Bill as regards Post Office contributors. Unless there was a supplementary grant from the State, the contributions would be insufficient, and those who needed assistance most would not receive it. The proposal for the establishment of a new health authority was reactionary and would have to be repealed when Poor Law reform was undertaken. The new committees should be statutory committees of the county or borough councils.

The unification of public medical services was the principal subject of discussion at the concluding session on Friday. During the conference visits were paid to labour colonies, infirmaries, school clinics, schools for mothers, etc., and the delegates were entertained at various social functions.

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THE Russian Government is, it is stated, trying to organize an international committee for the scientific study of alcoholism. For that purpose it has appointed an official representative who has instructions to enlist the interest of every country in Europe and America in the scheme.

A BILL making cremation optional in Prussia was read a third time in the Lower House of the Prussian Diet on May 20th by a majority of 1. The entire Left, the Free Conservatives, and a small number of Conservatives recorded 156 votes in favour of the bill; the whole Centre and the majority of the Conservatives, making a total of 155, voted against it.

## SCIENCE NOTES.

THE innate desire for freedom displayed by wild animals in captivity is instanced by many a story, but it is seldom we hear such a charming tale as M. Millot has to tell in *La Nature* (March 11th). He relates the romantic story of the incarceration of a tiny harvest mouse in the depths of a glass bottle, and the ingenious device whereby the little prisoner succeeded in breaking its confinement. The harvest mouse is one of the smallest and most delicately graceful of all living mammals, and it is so light that it can ascend and devour an ear of corn without bending the stalk. Its agile movements are assisted by a surprisingly prehensile tail. The little creature which was entrusted to M. Millot's care was tended as devotedly and made as comfortable in its glass prison as human care could contrive. It was given materials for a house which it fashioned after the manner of its kind, and it appeared perfectly happy and contented in its new abode. One day a visitor unthinkingly passed a thread through the canvas covering the top of the bottle. This hung down only a short distance, but was within reach of one of the straws in the bottle. The mouse was not slow to perceive this nor long in endeavouring to profit by it. Climbing to the very pinnacle of the straw and hanging on by little more than its tail, it essayed to reach the thread; very soon it had a grip of it, and was promptly at the top of the bottle, where its sharp teeth began to work their way through the canvas. At this point its gaoler intervened and rudely consigned it to the depths once more. As a consolation it was given some stalks of corn, which appeared temporarily to appease its thirst for liberty. Not long afterwards, however, it was noticed to be manipulating these stalks, very dextrously piling them up about and on top of its nest, the longest sticking up into the air. Its object was not suspected until one day the prison was found empty. The mouse had used the stalks to gain the top, and so had succeeded in escaping. Sad to say, the ingenious animal was recaptured and returned to durance vile. It made no further efforts to escape; it appeared to have lost hope, and it seemed resolved to bear its captivity in a spirit of philosophic patience.

It is well known that certain plants bear much simpler leaves at first than in later life, and usually the transitional changes are gradual. It is not infrequently found, too, that the primary leaves of one species bear some resemblance to the adult leaves of another species more or less closely allied. By many botanists this has been regarded as an evolutionary process akin to embryonic recapitulation of ancestral characters, and it has been maintained that the primary leaves represent the structure of the adult leaves of some ancestral form. This opinion has received some confirmation from observations made by Dufour.[1] He has studied some anemones, and has found that their leaves present a gradation of complexity which leads him to suggest that although they do not necessarily represent successive stages in lineal descent, they show obvious evidence of being derived from a common ancestor with simpler leaves. From a general view of the matter he comes to the conclusion that plants possessing complex leaves from the outset are higher in the evolutionary scale than those which first bear simpler primary leaves, and that a careful comparative study of these leaf forms cannot fail to throw light on the affinity of species.

## MOTOR CARS FOR MEDICAL MEN.

THE Continental Tyre and Rubber Company have issued a pamphlet, entitled *How Can I Reduce My Tyre Bill?* containing articles on correct air pressures, how to gauge loads for front or rear axles, on the care of tyres generally, and on repairs. The company offers to forward a copy to any interested motorist. The address of the company has been changed, and is now Thurloe Place, London, S.W., close to Brompton Tube Station.

Messrs. S. F. Edge, Limited, 14, New Burlington Street, London, W., have issued a new catalogue of motor accessories, every article in which, it is stated, has been subjected to the most severe tests, under the hardest conditions, and has only been adopted after the firm has been thoroughly satisfied with its behaviour under road conditions. The firm offers to send a copy to any reader who might be interested to receive it. The catalogue seems to include every kind of accessory from head lamps to flower vases.

[1] *Rev. gén. bot.*, xxii, p. 369.

## BRITISH MEDICAL BENEVOLENT FUND.

AT the May meeting of the above fund 18 cases were considered by the committee, and grants amounting to £144 made to 14 of the applicants. Appended is an abstract of the cases relieved.

1. Daughter, aged 61, of late F.R.C.S. Has maintained herself for 35 years by nursing, but small savings have been spent in assisting relations, and she is now obliged to resign her post on account of ill health. Voted £12.
2. Widow, aged 62, of L.F.P.S.Glas. Quite unprovided for at husband's death; endeavours to support herself and a daughter in feeble health by selling sweets on commission. Relieved three times, £48. Voted £10.
3. Widow, aged 62, of M.R.C.S. Dependent on letting lodgings and slight help from a son. Relieved five times, £70. Voted £10.
4. Widow, aged 50, of M.R.C.S., L.S.A. Lives rent free as a caretaker, and earns a little by needlework. Relieved nine times, £95. Voted £9.
5. Daughter, aged 56, of late M.R.C.S. Income £15 a year, and sight very bad. Voted £5.
6. Widow, aged 53, of M.R.C.S. Assisted her husband during a period of ill health, and supported herself and son many years after his death by taking mental cases, but has recently been unable to obtain any, and is consequently in temporary difficulties. Voted £10.
7. Widow, aged 53, of M.R.C.S., L.R.C.P. Has just enough to exist on herself, but asks for help on account of the unavoidable expenses of a daughter's illness. Voted £5.
8. Widow, aged 51, of M.B., C.M.Glasg. Was moderately provided for at husband's death a few years ago, but lost most of her capital through the defalcations of a solicitor. Tries to support herself by taking a resident patient. Voted £10.
9. Widow, aged 46, of L.R.C.P., L.R.C.S.Edin. Husband's savings exhausted by a five years' illness ending in death, and the proceeds of his insurance policy entirely lost through the failure of a bank. Four children, barely self-supporting. Takes boarders, but at present only has one, and is unavoidably in arrears with her rent. Voted £10.
10. M.B., C.M.Glasg., aged 40. Spent all his capital in an unsuccessful endeavour to establish a practice in Scotland, and is now quite incapacitated by phthisis. Has several young children. Voted £18.
11. L.R.C.P., L.R.C.S.Edin., aged 51. Used to have a flourishing practice, but was obliged to have one eye enucleated, and is now totally blind in the other. Only income is derived from boarders. Five children, aged 16 to 11. Relieved three times, £54. Voted £18.
12. Daughter, aged 56, of L.F.P.S.Glas. Lives with a sister rent free in a house which belonged to the father, and receives £10 a year from the Scottish Indigent Gentlewomen's Fund. Relieved four times, £48. Voted £12.
13. Widow, aged 57, of M.R.C.S., L.R.C.P. Only provision a small annuity, and has been obliged to incur heavy expenses on account of a chronic complaint. Two children, aged 16 and 14. Relieved seven times, £89. Voted £5.
14. Widow, aged 55, of L.R.C.P.Edin. Quite unprovided for at husband's death a few years ago and dependent on a son earning a small weekly wage. Relieved once, £10. Voted £10.

Contributions may be sent to the honorary treasurer Dr. Samuel West, 15, Wimpole Street, London, W.

AT the annual meeting of the Invalid Children's Aid Association the Archdeacon of St. Albans, in moving the adoption of the report, said that he had read it through twice and was struck by the soundness of the methods the association employed in its work, and by the thoroughness of its co-operation with other bodies, such as boards of guardians, hospitals, and school managers. Mr. Edmund Owen also dwelt on the unobtrusive thoroughness of the work, and compared present-day methods with those followed when he first began to practise, and when there were no such societies as the Invalid Children's Aid Association to fall back on for advice and help. The address of the society is 69, Denison House, Vauxhall Bridge Road, S.W.

On May 9th the Prime Minister of Spain, Señor Canalejas, introduced into the Cortes a scheme for the organization of the public health services. It provides for the regulation and co-ordination of the sanitary administrations, central, provincial, and municipal, and for the regulation of veterinary practice, pharmaceutical practice, and the working of watering and thermal stations. Tuberculosis is included in the list of notifiable diseases. The notification must be made by the doctor in charge of the case, and by the head of the family or his substitute in case of absence (employers, hotel managers, directors of hospitals, etc.), under penalty of a fine amounting from 50 to 500 pesetas (£2 to £20). Widows and orphans of medical officers or sanitary inspectors who succumb to epidemic disease contracted in the service are to be awarded pensions in proportion to the salary of the deceased.

# British Medical Journal.

SATURDAY, JUNE 10TH, 1911.


## THE PROVISION OF SANATORIUMS AND THE ENDOWMENT OF RESEARCH.

THE proposal of the Government to allot large capital sums to the building of sanatoriums brings the whole question of sanatorium treatment into the forefront of practical politics, and it is greatly to be desired that the public mind should be disabused of some of the fictions now associated with it.

A warning note was sounded by Mr. Balfour, in a recent debate, indicating the views now very generally held by those best qualified to judge as to the powers and limitations of sanatorium treatment. He made no secret of the fact that at best it is but a half measure, and that any real advance towards the suppression of tuberculous disease of the lungs can only be looked for as a result of further scientific research. The Chancellor of the Exchequer, in his reply, made it clear that he and his advisers were alive to the force of these arguments, and he pointed out that provision was made for the endowment of research, even though only as a secondary object. The erection of sanatoriums for the treatment of many thousands of consumptives by skilled observers may, in the Chancellor's opinion, lead to the discovery of the long-sought cure. But the fact has apparently been disregarded that skilled observations of this kind have been persistently made in all civilized countries during the last half-century. It is not at the bedside that the chief advance has been made. The work of Koch and of his followers, which has added so greatly to knowledge of the disease and its treatment, was done in the laboratory, and not in the wards; and it is to laboratory research, properly endowed and directed, that we must look for further enlightenment. The chest hospitals and sanatoriums have applied the knowledge provided by the schools of research, but they can do no more.

Scientific research and experimentation on animals susceptible to the infection have taught us that the natural forces of the human body can overcome the growth of certain microscopic organisms, such as the tubercle bacillus, if these natural forces are maintained in their fullest working order. But in order to maintain this high standard of health, the patient who has become the host of the tubercle bacillus must live an ideally hygienic life, and this, in most cases, he can do only if he gives up his whole time to it. By entering a sanatorium he places himself under scientific direction, and leads the kind of life that may be prescribed for him. Sanatorium treatment implies compulsory hygiene. The patient is forced to do those things which he ought to do and to leave undone those things which he ought not to do. If his natural powers of recovery are then unequal to the contest with his microscopic enemy, the sanatorium can do no more. The disease progresses, more slowly perhaps than it otherwise might, but still it progresses. Hence the necessity so often urged and so seldom regarded of adopting the treatment at the earliest possible moment.

The recently published report of the Charity Organization Society, upon which we commented in our issue of May 13th, goes to prove that at the present time the proportion of patients found to be fit for work for a long time after leaving their sanatoriums stands at 53 per cent. Doubtless this proportion would be higher if all cases were treated at the outset, but even if a much higher percentage could be achieved, the ultimate stamping out of the disease would still remain afar off. To use Mr. Balfour's words, it is only by "giving expert medical authorities the power of carrying on investigations" that an advance towards extinction can be hoped for.

Mr. Lloyd George justifies the proposed large expenditure on buildings by the dictum that the money will not be thrown away, whatever happens. This, however, must largely depend upon the way in which the money is spent. A building which is to last for many years, without considerable cost for repair, cannot be built for £100 a bed, although the Chancellor appears to have been advised that "quite good buildings" can be erected for that sum. In some country sanatoriums it has been found possible to put up slender shanties of wood and light iron for an even smaller figure, but the necessary quarters for the administrative, medical, and nursing staff have brought the whole cost per bed to a much larger sum. Many extravagant statements on the part of enthusiasts have hitherto been allowed to pass with only some good-humoured expressions of doubt, not only as to the result, but also as to the cost of sanatorium treatment. The subject has now to be faced in earnest, and it is well that hard facts should take precedence of vague generalities.

That the leader of the Opposition and the spokesman of the Government should be in cordial agreement upon the principles of a proposal of this magnitude is as notable as it is rare in Parliamentary annals, but we sincerely trust that the valuable criticism of the former will carry due weight, and that a proper balance will be held between the provisions made for prevention and for cure respectively.

The progress of consumption may be checked by sanatorium treatment, but research alone can point the way to its prevention.

## PROGRESS OF PARASITOLOGY.

IN a review of recent progress in parasitology,[1] Professor H. B. Ward gives a succinct and interesting account of the chief work done and the most valuable results attained during the past three years. The increasing attention which is being paid to this subject is evidenced by the long list of important contributions which have appeared during that short period. Perhaps the chief stimulus towards this highly desirable result has been the recognition of the widespread relation of parasites to disease, more especially in tropical and subtropical countries. There has ensued a much more intensive study of human parasites, which has provided a wealth of discoveries; but Professor Ward is careful to emphasize a point, very apt to be forgotten, that, although "those papers must be regarded as most valuable which present results obtained from a study of the

[1] *Trans. Amer. Micr. Soc.*, 1910, December.

human species . . . yet it is evident on a moment's thought that comparative studies are as indispensable for a thorough understanding of the field of medical zoology as they are in other portions of the biological field." He refers to the increasing number of universities and colleges which are instituting courses in parasitology, protozoology, etc., and to the attention which animal parasites and animal carriers of disease are receiving from medical journals. While admitting that much of this activity owes its origin to the recognition of the scientific value of the observations made, he considers that in the main it is due to the increased importance, commercially, of tropical countries and peoples. It is doubtful, he thinks, whether sleeping sickness would have demanded as widespread attention or as strenuous efforts for its suppression had it not been a grave commercial danger to the nations developing colonial possessions in Africa. Reference is made to the sleeping sickness commissions instituted by France, Germany, the Royal Society, and the Sudan Government, as well as to the establishment of the Sleeping Sickness Bureau in London.

The Commission for the Suppression of Ankylostomiasis in Porto Rico came to an end in 1909 for lack of funds. The beneficial nature of its work may be judged by the fact that the deaths from anaemia fell from 12,000 to less than 2,000 in seven years. A similar commission, on a much more extensive scale, has been instituted in the United States, and has already done much valuable prophylactic work. The foundation in 1907 of the Liverpool *Annals of Tropical Medicine and Parasitology*, and a year later of *Parasitology* as a supplement to the *Journal of Hygiene*, has provided a welcome outlet to workers in this country. Mention must also be made of the *Index Catalog of Medical and Veterinary Zoology*, edited by Stiles and Hassall, and published by the U.S. Department of Agriculture. The printing of this work was begun in 1902, and it constitutes the greatest bibliographic effort which has ever been undertaken in this subject. Quite a crop, too, of special textbooks on parasitology—the majority of them in French—has sprung up during the past two or three years. More elaborate works on protozoology have been published by Calkins in America and Doflein in Germany.

Reference here to the numerous individual original contributions can only be very brief. In protozoology considerable attention has been paid to the parasitic amoebae. The earlier view of Schaudinn that there are at least two human species—one pathogenic, the other non-pathogenic—has been confirmed and extended by Craig. A number of other forms have been added, and a fair measure of success has attended efforts at artificial cultivation of these parasites. Investigations with regard to trypanosomes and spirochaetes have been extremely numerous, and as the most important of these have already received ample notice in this JOURNAL it is needless to re-enumerate them. The discovery of a new human flagellate, *Schizotrypanum*, by Chagas in Brazil, is of interest; the parasite was experimentally demonstrated to be transmitted by a bug. The work of Minchin and Woodcock on the blood parasites of fishes has afforded much valuable information on nuclear structure. The addition of *Leishmania infantum* and *Leishmania tropica* to the *Leishmania* group of parasites has advanced our knowledge of kala-azar. Another pathogenic form, *Histoplasma*, discovered by Darling in Panama, appears to have some relation to the foregoing group. Valuable experimental researches in the treatment of piroplasmoses have been made by Nuttall.

With regard to parasitic worms, one of the most extensive series of investigations has been that of Shipley on the relation of entozoa to grouse disease. Lühe has made a very useful summary of all the forms of helminths known to inhabit the fresh water fauna of Germany. Lebour and Nicoll have made numerous additions to the entozoa of British birds and fishes, while Odhner has greatly amplified Looss's work on African Trematodes. The existence of a third species of human blood fluke (*Schistosoma mansoni*) seems to be confirmed by Da Silva's work, but the matter is still in doubt. The most important experimental work on Trematodes is the investigation of the life-history and mode of infection of *Schistosoma*. The experiments of Katsurada and Hashegawa confirm Looss's theory that infection takes place through the skin, and that there is no intermediate host. The most important works on tapeworms are two monographs on bird cestodes by Fuhrmann and Ransom. Few observations have been made on human tapeworms. Stiles has reported the occurrence of *Plerocercoides prolifer* for the first time from America, while Léon has described two new species from Roumania, and Stephens one from Tasmania and one from Nigeria. On the Nematodes perhaps the most remarkable work has been that of Goldschmidt, who traced out the complete nervous system of *Ascaris* to its finest ramifications. Railliet and Henry have made a systematic study of the *Strongylidae*, and have shown that *Eustrongylus* is really more allied to the *Filariidae*. Leiper has shown that the cat and dog Ascarids are generically distinct, while Rodenwaldt has contributed some interesting observations on the behaviour of larval *Filariae* in the blood stream. The most important taxonomic papers have come from Jägerskiöld and von Linstow, while Stephens has recorded a new human Nematode, *Strongylus gibsoni*, from Hong Kong. A most important summary of our knowledge of the little-known group *Acanthocephala* has been made by Lühe.

Ectoparasitic arthropods have received a very considerable share of attention. The very extensive work of Nuttall and his collaborators at Cambridge on the relation of ticks to disease is well known and has done much to establish a thorough knowledge of the bionomics of these parasites. The importance of fleas in the spread of disease has also been further recognized, and has received the attention of numerous observers.

In Professor Ward's short review several important omissions have of necessity been made. He has succeeded, however, in indicating the main lines along which progress has been made and in emphasizing the growing claims of medical zoology, and in particular parasitology, to rank as an important branch of medical science.

## GOOD SPIRITS AND BAD.

THE term "cyclothymia" (κύκλος, a circle; θυμός, humour or spirit), with which readers of recent Continental psychiatrical literature have become increasingly familiar, appears to have been employed first by Kahlbaum,[1] who described two forms—a "*vesania typica circularis*," with a tendency to terminal feeble-

[1] Kahlbaum: Ueber cykliches Irresein. *Breslauer aerzt. Ztschr.*, October, 1882.

ness of mind; and, secondly, a simple emotional phenomenon, an alternation of hypothymia and hyperthymia, light in degree, and not terminating in dementia. Kraepelin,[2] Wilmanns,[3] and others were unwilling to admit any fundamental difference between the two forms described by Kahlbaum, and regarded the lighter cyclothymic disturbances as minor or imperfectly developed forms of manic-depressive insanity. Deny [4] amplified this latter view with a difference, for he asserted that, like the graver forms, the mild forms are the manifestation of a special constitution which precedes the appearance of the more extreme deviations from the normal *curriculum vitae*, and survives their disappearance. Thus, according to Deny, cyclothymia is a phenomenon which may be exhibited not only in circular insanities, but also in psychasthenia and hereditary, or constitutional, neuroses, a view supported by Soukhanoff and others.

There can be little doubt that this latter view is correct. The sole difficulty appears to be where to draw the boundaries of its application. It has been well said by Professor Ballet that the world is full of circulars. The striking periodicity of inanimate and animate nature, the alternations of sleeping and waking, of hunger and satiety, appear to have impressed themselves so deeply upon all nervous mechanisms that their primal function of irritability has an inherent tendency to fluctuate in a regular way. Thus, in testing bodily and mental efficiency in individuals kept awake for seventy-two hours, Patrick and Gilbert [5] found their efficiency to be in all cases at its lowest ebb in the hours customarily given to sleep. Over and above these diurnal variations, however, some persons, perhaps many, exhibit fluctuations of longer wave length and greater amplitude. In regularly recurring sequences such subjects pass through successive phases of bodily inertness, emotional depression and intellectual torpor, to phases of bodily hyper-activity, pronounced euphoria and mental vivacity amounting at times to the creative productivity of genius. Some happy mortals there may be whose inner organic rhythm and emotional and mental life are at once so admirably balanced and so harmoniously attuned to their environment that they are enabled to pursue the even tenor of their way affected only by the customary shocks of circumstance; but most, and among them many highly-gifted individuals, are in some degree true circulars. In apparent independence of any external cause, they have their ups and downs.

In its most marked manifestations this tendency was noted very long ago; indeed, it is probable that its observation gave rise to the term "lunatic." It was commented upon, it appears, by Dulaurens in the sixteenth century, and simple cyclothymia appears to have been described by Sanctorius in the seventeenth century and later by Gall. In a recent essay on cyclothymia[6] Dr. Pierre-Kahn describes what he calls simple cyclothymia as a mere alternation of depression and excitation, without any morbid alteration in the content of consciousness apart from its pronounced affective colouring, a disequilibration of the humour. The subjects who when they seek medical advice have, as a rule, recourse to the neurologist rather than the alienist, are generally set down, he says, as neurasthenics. Prodromes, when they occur, are described by the patients most frequently as a *choc au cœur*, or a sudden feeling of malaise, or at times there is an impulsion to some bizarre act, but whenever present the prodromal disturbances have two characteristic features: they are sudden in onset and the prodrome is always the same for each crisis of the same sign (depression or excitation).

As to the attacks themselves little need be said, for the symptoms are those ordinarily associated with depression on the one hand and excitation on the other. The diminished mobility, hang-dog gait, flaccid and icteric visage, feelings of insufficiency, or of general malaise, and apathetic detachment from matters of customary interest, are accompanied by constipation, dyspepsia, and a general diminution of organic functions. Then suddenly—for Dr. Pierre-Kahn denies the existence of any "free interval," the end of one phase marking the beginning of the next—the reverse picture is presented. But throughout both phases the reasoning powers remain unaffected; the subjects are not insane, though they may be regarded by their acquaintances as "original" or eccentric.

Concerning the profoundly interesting questions of etiology and pathogenesis Dr. Pierre-Kahn has much to say, but most of it is exceedingly unsatisfactory. Under the former heading, he discusses infections, intoxications, traumatism, pregnancy, and the menses, and under the latter he emphasizes the importance of the hereditary factor and assumes a "circularism of coenesthetic states." To instance a pathological heredity as cause of these periodic disturbances is only to refer the unknown to the unknown; whilst, to speak of a "circularism of coenesthetic states," is merely to restate the problem in other terms. Krafft-Ebing attempted to push the pathogeny of the periodic psychoses a little nearer home when he said that they had for base "a durable pathological excitability of the central organ, analogous to the particular modification which constitutes epilepsy." Morel, Doutrebente, Anglade, and Jacquin also considered them to be a kind of *épilepsie larvée*, and in this connexion it may be recalled that, according to Aschaffenburg, the essential clinical characteristic of epilepsy, the common feature of all its forms, is a periodic fluctuation of emotional tone.

The cause of this, as of other forms of periodic disturbances of humour, is still to be found; but is it too venturesome to suggest that the various humoral disturbances may have a common cause? that whilst the form of expression of the disturbance, whether manic-depressive insanity, epilepsy, periodic inebriety, or recurrent neurasthenia or psychasthenia, may be and doubtless is determined by individual differences, inherited or acquired, the cause of the humoral periodicity may be one and the same? And, if so, is it not probable that the origin of the abnormal and greater fluctuations is to be sought in some perturbation of the mechanism which imposes the normal diurnal rhythm of sleep and wakefulness? Here, it must be admitted, we pass at once into the obscurity which envelops all ultimate biological phenomena. There are, however, indications that sleep is not due to any simple intoxication of nervous tissues, is not even primarily a psychical process, but is a true function of the vegetative life closely connected with the due action of the glands of internal secretion. For the cogent reasons advanced in favour of this hypothesis a remarkable work, entitled *La*

[2] Kraepelin: *Psychiatrie*, 1904.
[3] Wilmanns: Die leichten Fälle des manisch-depr. Irreseins (Zyclothymie), *Samml. klin. Vorträge*, von Volkmann, 1906.
[4] Deny: La Cyclothymie, *Semaine médicale*, April, 1908.
[5] Patrick and Gilbert: Effect of the Loss of Sleep. *University of Iowa Studies in Psychology*, i, 40-61. 1897.
[6] *La Cyclothymie: De la constitution cyclothymique et de ses manifestations.* Par le Dr. Pierre-Kahn. Préface de M. G. Deny. Paris: 1909. G. Steinheil. Pp. 252.

*fonction du sommeil*, by Dr. Salmon[7] of Florence, should be read. Remembering the close connexion of affective states with the general nutrition of the body, and particularly with secretory glands, it seems possible that, as he suggests, periodic emotional disturbances are closely linked with this all-important part of the vegetative life. In its practical, pedagogical, and even forensic bearings, the recognition of minor cyclothymic states, which must largely escape the notice of alienists, who are, as a rule, consulted only when its presence is manifested in aggravated form, is of some importance, and undoubtedly opens up a field for clinical investigation.

## SOUTH AFRICAN CIVIL SURGEONS.

A GATHERING of medical men who served as civil surgeons during the South African war took place at the Connaught Rooms on June 1st. It brought together upwards of 180 members and guests, and met under the chairmanship of Mr. Lenthal Cheatle. The guest of the evening was Field Marshal Lord Kitchener, others who had accepted invitations to be present being the Presidents of the two Royal Colleges in London, and the Directors General of the medical departments of the Royal Navy and the Army. The dinner was served at a number of separate tables for parties of six or eight, and to facilitate the meeting of old friends, or of those who had served in the same areas, each of these was marked on the table plan in the ante-room with the name of some corps, division, or command. A toast to "The Imperial Forces" is a common and often somewhat trite feature of public dinners, but on this occasion was the toast of the evening. It was moved by the chairman, who, in the course of his speech, read out a message from the First Lord of the Admiralty with reference to the reform of the medical department of the navy, and regretting his inability to be present in person. The Board of Admiralty, he said, attached great weight to the views of the Naval Medical Service Committee which sat in 1909, and had devoted earnest thought to the proposals made by it, especially those relating to the post graduate training of naval medical officers. Practically all the recommendations made by the committee relating to naval nursing sisters, the organization of naval hospitals, and of naval sick berth staffs and reserves had been accepted by the Board. In addition hospital ships designed on the lines recommended by the committee had been included in the ship-building programme for the current year. As for the proposals made by the committee with reference to the officers in the medical department, some of the most important involved many issues, affected other departments of Government, financial and otherwise, and were still the subject of correspondence. Mr. McKenna could not, therefore, make any definite announcement as to their adoption in entirety or not. He would, however, do all that he could to expedite settlement and hoped very soon to make known what the changes would be. The toast was acknowledged by Lord Kitchener, who spoke very pleasantly of the work of the civil surgeons during the war and of the useful results which had accrued in many directions other than those immediately in view from their employment in large numbers. The remaining items on the toast list were "The Guests"—the toast to whom was moved by Sir Frederick Treves and acknowledged by Surgeon-General Gubbins—and "The Chairman," which was proposed by Sir Watson Cheyne and duly acknowledged by Mr. Cheatle. Before the party separated a compliment of the same kind was paid to the honorary secretaries of the dinner, Mr. Gordon Watson and Dr. E. Fremantle. It was acknowledged by the former, who from the beginning has been associated with the organization of these dinners, and to whom their continuance is largely due. The trouble which they involve must be obvious to any one who has ever attempted to bring together any considerable number of participants in a long past event, whatever its interest, and of men who, as in this particular instance, are widely scattered all over the world. Even their precise number has so far been a matter of some doubt, for a good many of them were not sent direct from this country. The figures Mr. Gordon Watson has in various ways secured point to a total of 1,060 odd. Of their names he has got 800. This dinner was the seventh which has been held since the end of the war; in future they are to be held biennally.

[7] A. Salmon: *La fonction du sommeil*. Paris: Vigot Frères, 1910.

## WORCESTERSHIRE ASSISTANT SCHOOL MEDICAL OFFICER.

IT is on many grounds to be regretted that the Worcestershire County Council has succeeded, in spite of the Warning Notice and the efforts of the Worcester Division, in inducing a practitioner to accept the appointment of assistant school medical officer at a salary which is below the minimum approved by the Association for appointments of this kind. For over two years the British Medical Association has fought the battle for a minimum salary of £250 per annum for these appointments, and, on the whole, with great success. The success would have been unvarying had it not been for the regrettable fact that some practitioners seem inclined to place an unduly modest valuation upon the worth of their services. It has not been difficult to convince most local authorities making these appointments that a salary of £250 per annum is not too great to ask for the services of a practitioner who has spent at least five years and a considerable sum of money in qualifying to enter the profession and to hold a position of this kind. It would have been less difficult had it not been for the existence of the small class of practitioners referred to above, whose modesty cannot, however, be allowed to depreciate a standard of remuneration which is certainly not excessive. In the report of the Worcester County Education Committee contained in the *Worcester Echo* and *Worcester Daily Times* of May 20th, in which we find announced the appointment, at a salary of £200 per annum, of Miss Menzies as assistant school medical officer, unfavourable comment was made upon the action of the local Division of the Association, and especially upon that of its able and active honorary secretary, Dr. Neville Crowe. It appears that there were originally four candidates, two of whom withdrew on being informed of the circumstances by Dr. Crowe. One member of the County Council compared the efforts of Dr. Crowe to picketing, while another said that, when interviewing members of the council, he seemed to have no arguments. The latter speaker seems to have overlooked the fact that if the arguments were not sufficient to convince those members of the education authority who were determined to secure as cheap a medical officer as possible, they were at any rate sufficient to convince half the number of candidates who originally applied. If the Worcestershire Education Committee compares the number of candidates it succeeded in attracting with a salary of £200 per annum with the number of those who apply for posts

advertised at the accepted standard amount, it will probably come to the conclusion that the reasons by which Dr. Crowe, on behalf of his Division, succeeded in convincing two out of four of the candidates who did apply that they had made a mistake, were also sufficient to deter many practitioners from applying, and thus to prevent the Committee from having that choice of candidates which the ratepayers have a right to expect. We feel sure that Dr. Crowe—who has given a very great deal of time and energy to the organization of the Worcester Division and the carrying out of the policy of the Association locally—will be influenced far more by the admiration which his colleagues and those who are best able to judge have for his excellent work, than by the remarks made by a body whose sole object is apparently cheapness. The Education Committee may, however, be excused for the very natural soreness with which it must have noted the success which Dr. Crowe's work has had in inducing medical practitioners to refrain from applying for a post for which there should have been in an ordinary way twelve to twenty or more candidates.

## DOCTORS AND MIDWIVES.

MR. LLOYD GEORGE is unlike Joseph Addison—who was also in his day a Secretary of State—in many ways. One of these is his ease of delivery. It is recorded that Addison on one occasion, in attempting to address the House of Commons, could get no further than the words, "Mr. Speaker, I conceive," which he repeated three times. Whereupon an honourable member called the Speaker's attention to the fact that Mr. Addison had conceived three times and brought forth nothing. Mr. Lloyd George has brought forth many words, and one or two things. As far as he is concerned, the latest birth of time is his National Insurance Bill. Hailed by many as the dawn of a social millennium, it has been received with tempered enthusiasm by the doctors. As it is taken for granted by our legislators that the medical profession is a negligible quantity in the action of political forces, it is not surprising that the Chancellor of the Exchequer should have failed to see that without the co-operation of the doctors his scheme could not be worked. He has confessed that he learnt much from the Special Representative Meeting, and the resolutions passed by the Divisions of the British Medical Association, and the criticisms which have appeared in the press may have taught him still more. Although he has had few whole-hearted champions among the doctors, he apparently may count on the support of a class which, from its close connexion with labour and delivery may be considered to be of special importance. Doubtless, therefore, he will be pleased to learn that he has a doughty champion in a lady of this class who has honoured a doctor with a communication which he has forwarded to us. Referring to a letter which appeared in the *Daily Mail* she says "I hope Lloyd George has struck the victorous cord of his life if he can manage to keep people that is ammassing fortunes on water and soap under." Here we have the situation plainly stated. Mr. Lloyd George is going to "keep under" the doctors. The obstetric Sybil proceeds in a fine frenzy, breathlessly defiant of punctuation as of spelling: "first the Drs. tryed to gain as much experience as possibl at poor peoplis sffering and cost of lives expermenting as every body knows a woman's bedside is not a place for a man at that time although he puts him self forward to do certain things and bluffs far more than cures. Its with the greatest discust a man looks on a doctor for this same reason and at the best they were helping nature and sometimes trying by experments to forse nature and brig death sooner than a patient woman to woman would do I am surprised to see a Dr. raising any objection to women attending women as Its their place not man's place I hope to God the time is at hand when no Dr. will be found at such a bed with his forsips and chloroform and tape making a lot of silly women believe he is a second god and only a money rogue thinks on £ S. D. not that he cares for out else very often the poor husbands is made to believe a lot of things that has never happened as he is told to keep out side if he is silly enough to give into such a thing. I know what Drs. are or pretend to be . . . (down with the rotton Idea that women are not fit for a woman's bedside a man is not for it. Its not his place." This vindication of the midwife comes from Liverpool; we are sorry we are unable to let Mr. Lloyd George know the name of his fair ally, as it is unsigned. Mr. Croaker, in Goldsmith's *Goodnatured Man*, said that when he was determined he always listened to reason, because then it could do no harm. It may, perhaps, be surmised without impertinence that Mr. Lloyd George is of a kindred temper of mind. He will therefore, we think, be glad to have the midwife's view of his bill.

## A ROMAN QUACK.

M. FERNAND MAZADE, in an article which recently appeared in the *Société Nouvelle*, gives an interesting account of Lucius Horatillavus, a Roman quack of the time of Augustus. He was a handsome man, and came from Naples to Rome, his sole outfit being a toga made of a piece of cloth adorned with obscene pictures, and a small Asiatic mitre. Like many of his kind at that day he sold poisons and invented five or six new remedies which were more or less haphazard mixtures of wine and poisonous substances. He had the good luck to cure his first patient, Titus Cnoeus Leno, who, being a poet, straightway constituted himself the *vates sacer* of his physician, and induced some of his fashionable mistresses to place themselves under his hands. So profitable was Horatillavus's practice that he is said to have saved one hundred and fifty thousand sesterces in a few months. But for a moment his good fortune seemed to abandon him. A Roman lady, Sulpicia Pallas, died suddenly under his ministrations. This may have been due to his ignorance or carelessness; but he was accused of having poisoned his patient. This event might have been expected to bring his career to an end; but, as in the case of St. John Long, it was not long before he recovered the confidence of the people whom he deluded with his mystical language and promises of cure. He had three methods of treatment, all consisting of baths—hot, tepid, or cold—preceded or followed by the taking of wonder-working medicines. Horatillavus treated every kind of disease, internal and external; he even practised midwifery, which was then in the hands of women. Ten years after he settled in Rome he had accumulated a fortune of some six million sesterces. He had a villa at Tusculum, whither he went three times a month; there he led a luxurious life in the most beautiful surroundings, and there his evil fate overtook him. His orchard was his especial pride. One day he found that birds had played havoc with his figs, the like of which were not to be found in Italy. Determined to prevent similar depredations in future, he poisoned the fig trees. Continuing his walk, he plucked fruits of various kinds here and there. While eating the fruit he had culled and

drinking choice wine, he put into his mouth a poisoned fig, which he had inadvertently gathered, and quickly died in convulsions. Before passing away, however, he is said to have composed his own epitaph. This M. Mazade believes he has found. It is to the following effect: "The Manes of Sulpicia Pallas have avenged her. Here lies Lucius Horatillavus, physician, who poisoned himself." If the epitaph is genuine it is a confession of guilt; or it may be charitably interpreted as an expression of remorse. In any case, the death of the quack by his own poison is a curious Nemesis. The manner of his death proves that it was accidental, as few quacks are bold enough to take their own medicines.

## THE GARDEN SUBURB MOVEMENT.

THE garden suburb movement has lately been receiving a good deal of encouragement, and has been taking vigorous strides. The Modern House-building and Town-planning Exhibition at Gidea Park, on the outskirts of Romford, which has already been the subject of an article in these columns, was opened on June 1st with a characteristic speech by the President of the Local Government Board, who pointed out the splendid position of Essex with regard to public health—Cinderella of the metropolitan counties though she be—in lowness of death-rate and of infant mortality, and in the front she opposed to the white scourge of consumption. Mr. Burns had some pungent criticisms to make respecting London's basement houses and forecourt shops, and he also satirized the front room of the poorer class of dwelling—a room, he said, sacred to the doctor and undertaker, stuffed birds, and artificial fruit. There were several other excellent speeches, none more to the point than that of Alderman Thompson, Chairman of the National Town-planning Council, who rejoiced to see the new housing movement getting clear of philanthropy and even of what might be called public utility work, and settling down upon the steady lines of commerce. The Earl of Warwick, who presided over the gathering, humorously said that he did not see how a garden suburb would solve the problem of a miner on his coalfield, who asked for a new house because he had thirteen children and another expected! Mr. Burns rose to his feet and to the occasion. He suggested a committee of three, consisting of the Earl as mine-owner, a representative of the local authority, and the man himself. The President of the Local Government Board should be chairman, "and if we could not devise a way out of the difficulty," said Mr. Burns, "I am not the sixteenth of eighteen children." Another recent garden suburb function was of a much more stately character. It was the opening by the Duke and Duchess of Connaught of the club and institute at Brentham, the pioneer co-partnership suburb of the Ealing Tenants, Limited. Mr. Henry Vivian, who has been so closely identified with the movement of co-partnership in housing, had a stirring story to tell of the development of co-partnership during the last ten years, and of its present responsibility for fourteen societies, with 652 acres of land, which are destined to have 6,500 houses and a population of more than 30,000. The institute is a palatial building for a garden suburb. It is more than a glorified club, for it is intended that it shall be the centre of the social life of a co-partnership community. In the co-partnership system a feeling of neighbourliness and the cultivation of the social amenities are at least as essential to success as any financial ingredient, and hence the recognition of the part taken by the playing field, the village green, the billiard room, and the common library. A number of lords and ladies graced the occasion, and the Duke of Connaught, in a sympathetic speech, showed the same appreciation of the housing problem, and of its influence upon the health and morality of the race, as characterized His late Majesty and also characterizes King George, who recently visited the co-partnership estate at Hampstead. An interesting feature of the afternoon was a display by the Women's Sick and Wounded Convoy Corps and the 48th Division of the St. John Ambulance Corps.

## A PROBLEM OF PERSONALITY.

IN the JOURNAL of May 28th, 1910, page 1313, a detailed account was given of the pygopagous twins known as Rosa-Josepha Blazek. They made their first public appearance in 1891, when they were 13 years of age. Marcel Baudouin described them at the time as intelligent young girls of different tastes. For instance, one liked beer, the other preferred wine; one was partial to salad, which was distasteful to the other. One could keep awake while the other slept. The radial pulses did not keep time. As to the psychology of the twins nothing definite seems to have been elicited. They spoke only Czech, and this made it practically impossible for him to get accurate information from them as to their emotions—fear, hate, and so forth. Obviously, even had there been no difficulty of language, little reliance could have been placed on the answers of children of that age who would be unable to analyse their mental processes. They would either say what they thought the questioner wanted or what was suggested to them, or on the other hand, from love of mischief, might deliberately mislead him. On testing sensibility it was found that there was only a limited area in the lower extremities common to the twins. History appears to be silent about them till they had reached the age of 31, when an important development occurred. They applied at the General Hospital, Prague, one of them (Rosa) having an abdominal swelling. The possibility of pregnancy was denied. Nevertheless, Rosa was delivered of a healthy boy on April 17th, 1910. Dr. Trunecek, who examined the twins on the twelfth day after delivery, found that they were united posteriorly by the sacrum which was common to the pair. There were lineae albicantes on Rosa's abdomen and not on her sister's, but the nipples of each were pigmented and milk was secreted by the breasts of both. There was a common anus and perineum. There was a rectal ampulla into which the large gut of each emptied itself 2 in. above the anal outlet. The urinary meatus was also common; the urethra was single for an inch above the meatus where it bifurcated. Rosa had undergone lithotrity a few years before and there remained traces of cystitis. Desire to pass water was distinct in the twins, but it was otherwise in regard to defaecation. While Rosa's uterus was as big as a man's fist, on Josepha's side that organ was of the nulliparous type. The vagina was of the same type, with well-marked rugae, while on Rosa's side the mucosa was hypertrophied and smooth. Anatomically, therefore, one of the twins was a virgin, while the other, besides the indubitable proof supplied by parturition, presented the local conditions that would be expected in a woman who had had frequent intercourse. The case presents problems in which the old casuists would have revelled. They would have debated whether Josepha played simply a passive part, or how far she was an active participator in the act which led to impregnation, or at least morally a consenting party; whether there were two souls in one body, or two bodies with one soul, as far as sexual matters were concerned. If the old adage, *propter uterum est mulier id quod est*

be accepted, the decision must have been that the twins were two women. Even at the present day the problem of personality has seriously exercised the minds of people who have had to deal with them in ordinary affairs of life. In January last, as reported in the *Times*, a discussion took place at the King's Cross Station of the Great Northern Railway when the twins arrived from Edinburgh. It was found they had bought only one ticket. The question arose whether the railway company was entitled to ask for a second fare. Such a case, it is said, had never come before the officials, and after much perplexity they had to be content with taking the name and address of Mr. Ike S. Rose of Berlin, who accompanied the twins, and who stated that he had never taken more than one ticket, and had never been asked for a second fare. We have not heard anything further about the case; but as the mother was carrying a nine months old baby in her arms, while the other, as we said, is at least a *demi-vierge*—in a different sense from that in which the word is used by Marcel Prévost in his well-known novel—we do not understand on what grounds they are treated as one individual. Although their union, such as it is, is accepted as entitling them to the privilege of travelling as one individual, there are drawbacks to the theory that they are what George Colman might have called two single ladies rolled into one. A short time ago, when they were on exhibition in a music hall at Berlin, a warrant was issued for the arrest of one of them for failure to comply with a judgement against her in a suit for breach of contract Being unable to cut the Gordian knot of the leg a problem with which he had to deal, the officer seized and imprisoned both. The innocent sister forthwith brought an action for illegal seizure and detention of her person. We have not seen the issue of the case, if it ever came before the court, but it was stated that the counsel for the plaintiff would argue that Rosa-Josepha are legally separate individuals, and that the State could be held liable in damages for infringement of the liberty of one of them. This opens up all sorts of possible forensic complications. For instance, if a man marries one, will he *ipso facto* be guilty of bigamy? The Siamese twins were both married, but there was in them no fusion of sex, and therefore, there need not have been any doubt as to paternity. In them, too, moreover, there was sufficient mixture of persons to make one suffer for the other's sin. For one of the brothers was given to drink, and when he got drunk the other was sick. In the case here under consideration, Josepha suffered laceration of the vagina when her sister was confined. These twins might truly be said in the words of the poet:

> To grow together
> Like to a double cherry, seeming parted,
> But yet a union in partition.

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## EUGENICS TWO HUNDRED YEARS AGO.

THE modern scientist is apt to speak somewhat boastfully of the new departments of eugenics and genetics as the offspring of the twentieth century in its most far-seeing and beneficent mood, but there were brave men before Agamemnon, and there were some not unworthy notions of eugenics in the early years of the eighteenth century, as the following paragraphs from the *Tatler*[1] show. Steele, writing under the pseudonym of "Isaac Bickerstaff," is dealing with the improvement of the breed, and he has something to say of the Bickerstaff ancestry. There was in the days of King Arthur a knight of the Round Table, called Sir Isaac Bickerstaff. "He was low of stature and of a very swarthy complexion, not unlike a Portuguese Jew. But he was more prudent than men of that height usually are, and would often communicate to his friends his design of lengthening and whitening his posterity." So he married his eldest son to a lady who was very tall and very fair. The issue of this experiment in eugenics "with the help of high shoes made a tolerable figure in the next age, though the complexion of the family was obscure until the fourth generation from that marriage." Thereafter, till the time of William the Conqueror, fine needlework and fine skins made the female Bickerstaffs famous. Among the males, however, there were signs of dysgenesia, for "there happened an unlucky accident," says Bickerstaff, "in the reign of Richard III; the eldest son of Philip then chief of the family, being born with an humpback and very high nose." "This was the more astonishing," he continues, "because none of his forefathers ever had such a blemish," and even the most strictly recessive of unit characters could hardly have lain concealed so long as that; "nor, indeed, was there any of that make in the neighbourhood, except the butler, who was noted for round shoulders and a Roman nose. What made the nose the less excusable was the remarkable smallness of his eyes." Eugenics was invoked once more. "These several defects were mended by succeeding matches; the eyes were opened in the next generation, and the hump fell in a century and a half; but the greatest difficulty was to reduce the nose, which I do not find was accomplished until about the middle of Henry VII's reign, or, rather, the beginning of that of Henry VIII." Other improvements were effected, but "our race," says Isaac, "suffered very much by the marriage of one of our heiresses with an eminent courtier who gave us spindleshanks and cramps in our bones; insomuch that we did not recover our health and legs until Sir Walter Bickerstaff married Maud the milkmaid, of whom the then Garter King at Arms, a facetious person, said pleasantly enough, that she had spoiled our blood, but mended our constitutions." The writer brings his remarks "pleasantly enough" to a conclusion with words which have an aphoristic and eugenistic ring about them, that "one might wear any passion out of a family by culture, as skilful gardeners blot a colour out of a tulip that hurts its beauty."

[1] *The Tatler, or Lucubrations of Isaac Bickerstaff, Esq.* Vol. ii, No. 75, October 1st, 1709.

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## CROYDON UNION APPOINTMENT.

IN the JOURNAL of March 25th attention was drawn to the difficulty which had arisen between the medical practitioners resident at Thornton Heath and the Croydon Board of Guardians in connexion with the appointment of a medical officer for the No. 2 District of the Croydon Union. In consequence of a great increase of the population among the class from which the parish patients are drawn, and a corresponding increase in the amount of work, the late holder of the appointment applied for an increase of salary, which was refused. He thereupon resigned, and when the guardians advertised the post at a salary of £70 a year, a reduction of £5 on the old salary, as a result of the action of the local Division, no applications were received. The guardians thereupon raised the salary to £120 per annum, the sum for which the Division had contended. For this increased salary the five members of the profession resident in the district were candidates together with Dr. Gording, a practitioner residing outside the district, and Dr. Gording was appointed conditionally on his establishing a surgery in the district. It was felt by the Division

that the only reason for the action of the guardians in thus going outside the resident practitioners was to punish them for the stand which had been made for an increase of salary; and Dr. Gording, on being approached on the subject, also took this view of the situation, and resigned the appointment. The guardians have now appointed one of the original five members resident in the district, and the incident is thus happily closed. At a meeting of the Croydon Division held on May 30th a hearty vote of appreciation of the action of the five members who took united action, and of the way in which Dr. Gording had received the representations of the Division, was unanimously passed. We take this opportunity of recording our congratulations to Drs. Passman, Chennells, Pepper, Rippon, Murdoch, and Gording for this splendid example of what union in the profession, together with an active sense of *esprit de corps*, can do. The happy termination of the dispute must be a considerable source of satisfaction to Mr. E. H. Willock, the active Honorary Secretary of the Croydon Division, on whose shoulders much of the work of negotiation has fallen.

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WE regret to have to announce the death of Dr. Alexander Bruce, Physician to the Edinburgh Royal Infirmary, and hope to publish an obituary notice in a subsequent issue.

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THE President of the Board of Education will receive a deputation from the British Medical Association on the subject of the medical inspection and treatment of school children in London on Tuesday, June 27th.

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IT is announced that Sir Victor Horsley has accepted the invitation of the executive of the North Islington Liberal and Radical Association to address the council of that association with a view to his adoption as prospective Liberal and Radical candidate for the division at the next election. Last December Mr. G. A. Touche defeated Mr. D. S. Waterlow, the former Liberal member.

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# General Medical Council.

## NOTES.

**Preliminary Education.**—Comments contained in the reports of certain post-graduate examinations, namely, those for the public medical services, indicated that in respect of general education a good many even of those who had succeeded in obtaining qualifications did not possess the attainments that could be desired, and the Education Committee endeavoured to ascertain from the examining boards which had been the entrance examinations passed by the candidates whose attainments had been adversely criticized. This, however, was found to be impracticable, and a request was formulated that, if possible, this information should be in future placed at the disposal of the Council. At the end of the last session, and after some of those interested had left, a resolution was passed that after the end of 1913 certain of the junior examinations now available should no longer be recognized, and amongst these was the examination conducted on behalf of the Irish Royal Colleges. This gave rise to a lengthy discussion on the following day, which resulted in the recommendation of the committee being withdrawn, and a resolution substituted providing that this particular examination should be retained until it had been shown to be inadequate. Another recommendation made by the committee was that it should be empowered to employ expert assistance to enable it to arrive at conclusions as to the substitution of new examinations of a higher standard, and for this purpose a vote of £100 was asked for. The Senior Treasurer moved an amendment to reduce this amount to £50, upon the ground that it was not necessary for the Council to enter into much detail on the subject of general education, of which it was not, perhaps, the best judge, but that it might well be content to accept examinations generally reputed to be of sufficiently high standard, a contention to which the long discussion already alluded to lent weight. The amendment was, however, lost, and the £100 was voted.

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**Science Teaching in Secondary Schools.**—It was moved by Sir Henry Morris and seconded by Dr. Saundby that in general terms, when secondary schools had been inspected and approved by licensing bodies, they should be approved by the Council as places at which medical study may be commenced. It was urged that already the Council had recognized many institutions other than medical schools for this purpose, though it could not be maintained that the instruction given in these places was one whit better than that now obtainable at the public schools, and that, as in fact many secondary schools were now recognized for the purpose by the Conjoint Board in England, and by the Universities of Oxford, Cambridge, and London, the change proposed was no more than would serve to bring the Council's rules into accord with existing facts which the Council had no power to alter. It was pointed out that, although the Education Committee had somewhat recently pronounced against this change, that committee was largely composed of Scottish and Irish members, and that admittedly in those countries the same facilities for science instruction in secondary schools did not exist; and further that the change, if not made now, would be inevitable from the march of public opinion within a few years. The President feared the change, if made, would tend towards whittling down the five-year curriculum, but this was contested by subsequent speakers, who showed that the control of this would lie, as it does now lie, with the licensing bodies, who had the power to make their own regulations for their respective qualifications, nor could it be maintained that, bodies other than medical schools being already recognized by the Council, any question of length of curriculum was dependent upon the place of study being a technical school or a secondary school. Another point raised against the proposal was that the chemistry, physics, and biology useful to the medical man were becoming daily more specialized, and that this special direction of study could not be expected at a secondary school. But neither could it be expected at a technical institute, so that this argument went to the refusal to recognize any but medical schools. The answer to this, as has frequently been pointed out, is that the initial grounding of a lad approaching for the first time the study of science must be the same in all cases, whatever the ultimate application is to be, and that in one year no more than the merest grounding is possible. A lad fresh to the study of the sciences is in no position to be brought face to face with the exceedingly difficult problems of chemistry and physics which constitute their application to physiology, pathology, and medicine. In the further discussion of the subject on the last day of the session certain objections were urged by the Chairman of the Education Committee and by others, some of which belonged to the past rather than to the present; but it was felt that in its existing form the duty of reporting favourably upon a body which it could not really approve might seem to be imposed upon the Students' Registration Committee, and the form of the motion was by consent altered so as to make it clear that this committee was to report to the Council upon the evidence offered to it, and that the decision whether the school should be included in its list or not should rest

with the Council. In this amended form the resolution was passed by the large majority of 24 to 5. This settles the long-vexed question of the recognition of secondary schools, an extension of recognition which we have consistently advocated for years.

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**The Apothecaries' Hall of Ireland.**—The reports of the Assistant Examiners appointed by the Council contained strictures upon the general education of the candidates, and upon their knowledge of operative methods; yet of eight candidates seven passed, and the marks given appeared hardly to correspond with the comments. Accordingly, a motion that they be asked to explain this discrepancy was brought up and passed. The Apothecaries' Hall was also asked in the terms of the Act to give certain particulars about exemptions, which had not been answered in response to a previous inquiry. Four Indian candidates who had been refused admission to a Scottish examination had been exempted from the first, second, and third examinations, and admitted to the final examination of the Hall. It seemed that some or all of these candidates had studied according to the requirements for the subordinate branch of the Indian Medical Service, and the Examination Committee was of opinion that there was not evidence that the courses of study followed and the examinations passed guaranteed "the possession of the knowledge and skill requisite," etc.

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**Midwives Act.**—Amended rules framed by the Midwives Board were brought up for the sanction of the English Branch Council, the body appointed by statute for this purpose. The alterations proposed were all considered to be improvements, and did not involve any change of principle. The only discussion of particular interest was whether breech presentations, as being somewhat dangerous to the child, should remain amongst those left to the midwife, the rule being that she must seek medical assistance in all presentations other than "uncomplicated head or breech." It was decided that the rule should be left as it stands, the occurrence of the word "uncomplicated" being deemed a sufficient safeguard.

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**The Finance Report.**—The report of the Finance Committee showed a deficit of £295 upon the year's working. Though this amount is not very serious in itself, the fact that it was caused by a diminution in income renders it significant. The number of students registering and also of practitioners subsequently qualifying and registering upon the *Medical Register* shows a constant and steady diminution when taken over five-year periods. Students registered from 1886 to 1890 averaged 1,927 per annum, whilst from 1906 to 1910 the average was 1,126; similarly from 1891 to 1895 the numbers registered as qualified averaged 1,455, and from 1906 to 1910 only 1,117. It was pointed out by Mr. Tomes, the Senior Treasurer, that the wording of the Act caused an unnecessary and heavy expenditure in the election of Direct Representatives. The cost of an election, which amounts to from £500 to £600, is not affected by the number of vacant seats and of candidates. Consequently when a vacancy occurred, as lately happened by the death of Dr. McManus, an election was necessitated, which took place in May, although the normal quinquennial election of Direct Representatives will take place this coming autumn. That is not the whole trouble, for, as the new representative is not elected for the balance of his predecessor's time, but for five years, and a Direct Representative cannot set it right by resigning, since this renders him ineligible for re-election, the timing can never come right again, but there may have to be a separate single election in perpetuity. As a similar want of synchrony in the election of the three English representatives, the unnecessary expenditure involved may run into thousands of pounds in the future. The President was authorized to draw the attention of the Lord President to these anomalies with a view of remedying them should a convenient opportunity arise.

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**Unqualified Practice Prevention Committee.**—This committee had on previous occasions presented most valuable reports upon the conditions of medical practice in various countries. The first outcome of their inquiries was an investigation undertaken by the Local Government Board upon the extent of unqualified practice in this country, and a parliamentary paper embodying the results was published last year which, while containing some valuable information, is very incomplete, at all events as regards some localities. The committee brought forward a recommendation, which the Council adopted, to the effect that the necessity of legislation for the better protection of the public should be urged upon the Government, and the Council offered its assistance in framing such a measure.

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**Public Health.**—A report was received from this committee which advocated certain changes in the regulations for public health diplomas. Dr. Newsholme explained that whilst the time required was shortened, more work was actually prescribed. The report was not discussed, as it was thought better to submit the recommendations in the first place to the licensing bodies and to the Local Government Board.

# Medical Notes in Parliament.

[From our Lobby Correspondent.]

**Sewers and Drains.**—In answer to Mr. Raffan, who asked if the Government proposed to do anything with regard to the unsatisfactory state of the law, Mr. Burns said that he had received a number of representations of the kind referred to, but could not promise to introduce legislation on the subject this session. The Public Health (Sewers and Drains) Bill, which was now before the House, would, with some amendment, go a long way to meet the difficulty caused by the present unsatisfactory state of the law. If the bill could be got through unopposed he would be pleased to do the rest of the business.

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**The Asylum Officers (Employment, Pensions, and Superannuation) Bill.**—The Select Committee appointed to consider this bill consists of Mr. Charles Bathurst, Mr. Black, Mr. Brocklehurst, Mr. Cotton, Mr. Charles Craig, Sir Henry Craik, Mr. Dickinson, Mr. Hayden, Mr. Higham, Sir David Brynmor Jones, Mr. M'Callum, Mr. William Redmond, Mr. Remnant, Mr. Charles Roberts, Mr. Watson Rutherford, Mr. Stanier, Mr. Wardle, and Viscount Wolmer.

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**The London Poor Bill.**—Lord Alexander Thynne has brought in a bill to provide for the amendment and better administration of the law relating to the poor of London. The bill starts with substituting for the thirty-one boards of guardians which at present operate within the metropolitan area, one central authority in which would be concentrated all the functions now distributed among five or six different kinds of authority. Three advantages, he said, would follow: Greater economy and efficiency of administration; improved status and character of the officials; and, lastly, one central rate for all Poor Law purposes in the metropolis. The central authority would be the county council acting through a statutory committee, and with local committees for smaller areas. The general principles of administration laid down in the second part of the bill are directed to the rehabilitation of the individual as opposed to punitive or deterrent methods. The bill is backed by Mr. Harris, Mr. Guinness, Sir W. Bull, Colonel Griffith-Boscawen, and Mr. Peel.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## SOUTH WALES.

### THE UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

THE BUILDINGS OF THE CARDIFF MEDICAL SCHOOL.

THE Cardiff Medical School, now one of the most important constituents of the new University of Wales, is at present carried on in the old college buildings in Newport Road. Later on, when sufficient money has been collected for building purposes, it is intended that the school shall share the new college buildings in Cathays Park. One of these buildings —housing the administrative department, the arts school, the normal school, and the library—has already been completed, and forms the western side of a proposed square of buildings. With the erection of the remaining three sides it was never intended to proceed until the debt on the first block had been acquitted, and it now remains to be seen whether, so far as the medical department of the college is concerned, the original plan will not be entirely abandoned or greatly modified.

This certainly seems likely to be the case if due attention is paid to the considerations raised in a paper read in April by Dr. Berry Haycraft, Dean of the Medical Faculty and Professor of Physiology in the College, before the Cardiff Medical Society and since published as an illustrated pamphlet. As an indictment of the present plans it gains force from the form in which its author expressed his views. Tracing the history of the development of the architectural construction of universities from mediaeval times, he showed that the plans for the new university buildings at Cardiff conformed to ancient, not modern, ideas, and that a change was necessary if Cardiff was to possess a successful medical school. As examples of the earliest types of university buildings he cited certain of the colleges at Oxford and Cambridge. They consisted for the most part of rooms for students and teachers, together with a dining hall and a chapel, but they contained no laboratories or museums, for at the time they were built science was in a very embryonic condition. All the accommodation they provided was arranged around a large self-contained quadrangle shut in by gates. This plan of building was excellently devised for the purpose it was meant to fulfil, securing, as it did, quietude and freedom from interference. It soon became stereotyped and commended itself by its very compactness to subsequent university builders, and it was adopted when the University of Edinburgh was built.

Unfortunately it was likewise adopted when that university was rebuilt some thirty years ago, and though the buildings resulting were a gem of architecture which for a time fulfilled its purpose admirably, they were now a structure from which everybody who worked therein wished to be free but could not escape. This was because the quadrangular form of university building allowed of no expansion, and provision for expansion was absolutely necessary in connexion with the science of medicine and its teaching. During the last twenty years the teaching requirements of physiology, for instance, had enormously increased. Not only was histology, but chemical pathology and experimental physiology also were now taught separately in practical classes. Each required a special class of instruments for the students to use and different laboratory arrangements. But in addition to the growth of individual sciences new sciences arose, bacteriology being a case in point. This need of expansion had been recognized abroad a good many years ago, and attempts to break away from the quadrangular type of university building had also been made in Great Britain, a notable example being provided by Glasgow. Professor Haycraft briefly described the principal university buildings in the United Kingdom, showing the extent to which they meet modern needs, and finished this part of his address by an allusion to the arrangements at Bristol, which he described as excellent. He also pointed out that Bristol was not far from Cardiff, and indicated that unless care were taken, the Bristol Medical School might tap the recruiting grounds for medical students of the University of Wales and thus prove a formidable rival to its medical school. He then turned to the plans at present in view at Cardiff. The new school, he showed, would form part of a building of the old stereotyped form, and no sooner would they be settled in it than they would have to try to go elsewhere. He himself, in his own physiological laboratory, would be wedged in by anatomy above and by materia medica and engineering below, and his work would be unable to expand in any direction.

A second point that Professor Haycraft emphasized was the importance of the medical school being near the place where the students obtained clinical instruction. The new laboratories of the Cardiff school, besides being capable of expansion, should be built near the Infirmary, instead of being placed a mile away, as would be the case if they were erected in Cathays Park. Anatomy and physiology led the student to the pathological and clinical work which he would find in the infirmary, and only perhaps the teacher and the student knew the value and importance of having these related studies placed close together for study. In this connexion he noted that both at Birmingham and Manchester the school of medicine suffered from the fact that the anatomical and physiological laboratories were built some distance from the infirmaries. In the discussion which followed, Professor Haycraft's views were thoroughly endorsed, and a committee was formed to consider the matter and bring it before the authorities.

NEW GYNAECOLOGICAL THEATRE AT THE CARDIFF INFIRMARY.

There was a large gathering at the Cardiff Infirmary when Lady Aberdare officiated at the opening of the new gynaecological operating theatre. The guests who were present formed a procession from the out-patient department to the theatre. Here a prayer was said by the Rev. W. E. Winks, and Lady Aberdare declared the theatre open with these words: "May God bless all those who in this theatre will fight death and disease." The Lord Bishop of Llandaff then pronounced the benediction, and the company proceeded to a large ward in the new wing which has not yet been opened.

Here on the platform with the Chairman, Major-General H. H. Lee, J.P. (Chairman of the Board of Management of the Infirmary), assembled the Lord Bishop of Llandaff and Mrs. Hughes, Lord and Lady Aberdare, the Lord Mayor and Lady Mayoress of Cardiff, Lieutenant-Colonel G. M. Bruce Vaughan, Dr. Ewen Maclean (Senior Gynaecologist to the Infirmary), and Sir Francis Champneys, Bart., M.D., Chairman of the Central Midwives Board, who was specially invited to attend the ceremony.

Lady Aberdare, who has taken the greatest interest in the Cardiff Infirmary, and particularly in the gynaecological ward, expressed her satisfaction at the completion of the new operating theatre, and referred gracefully to the honour paid her by the committee, who desired that the theatre should be named after her.

Dr. Ewen Maclean, on behalf of himself and his colleague Dr. Collins, thanked Lady Aberdare and the other donors for the great gift of the new theatre.

Sir Francis Champneys said he understood that Cardiff was at a very important crisis in the development of medical education and practice. He had just seen and admired the new municipal buildings, but he thought that the Cardiff Infirmary, with its new additions, was quite worthy of the city. The new operating theatre was not only up to date, but it was in advance of all existing operating theatres. The question might be asked, "What is the good of spending all this money?" and his reply was that as a woman was a very real asset to the State when

she had a family to bring up, any expenditure which had for its object the complete and perfect restoration of her health was money well spent. The matter must also be regarded from the educational standpoint. A hospital was like a great missionary centre, it not only dealt with the individual, but from it there radiated a great wave of good which spread throughout the surrounding country, and, in fact, throughout the world. The medical degrees of the University of Wales were hard to obtain, because it was necessary to take a degree in science previously. The watchword of the University of Wales was "Thorough"; their principle was "There is plenty of room at the top." Speaking of the accommodation at the infirmary, Sir Francis was glad to hear that a fund had been started to endow beds for lying-in cases, and he hoped that some day some one would build and endow a lying-in ward or a lying in hospital. It was absolutely essential that beds should be available for this purpose in order that the full medical curriculum could be provided at Cardiff, and there was a real need for some such institution for the training of midwives and the treatment of difficult labours. Much had already been done in the organization of midwives' training through the energies of Dr. Ewen Maclean, who had worked indefatigably. Sir Francis concluded by proposing a vote of thanks, which was carried by acclamation, to Lady Aberdare, who was known for her good deeds not only in Cardiff and Mountain Ash, but also in London.

The new operating theatre is fitted in the most up-to-date manner, with students' gallery at the north end, separated from the table by a glazed screen the full length of the room. Each of the sinks is fitted with a mixing valve, constructed in such a way that the water can be regulated to any temperature required. The improvement in the valve over other patterns is that the surgeon using it turns on the water from a lever, over which a film of water is flowing, thus doing away with the necessity for the loose handles usually adopted; but loose handles are also in readiness, and can be used if desired. Marmorite shelves are fitted in convenient places, and can be removed for cleaning purposes. The theatre is heated by means of two sets of radiators, one set being heated by hot water to the temperature of 70°, the other by steam designed to raise in five minutes the temperature to 90° if necessary. The ventilation is simple, fresh air being introduced through carbolized wool behind the radiators, and the vitiated air extracted by an 18 in. blade electric fan. One of Thompson Ritchie's hospital operating standards, with 8 ft. long arm and electric bulbs, is arranged to carry light over any part of the table during operations. The screen is plugged for electric lanterns and for heating the operating table by electricity. The theatre is lighted by four bulkhead ceiling lights (100 volt). The floor is of terrazzo, and the walls are lined with white Sicilian marble in large slabs and polished. The ceiling is in Parian cement and enamelled white. The interior painting is enamelled white, and the radiators are finished in aluminium paint. Arrangement is made for hoseing down the operation room, which falls to a sink outlet in one corner. The operating theatre is excellently lighted by a north top-light the full width of the building, in addition to end and side lights, and most of the casements are made to open.

The sterilizer room, entered by an archway from the operating theatre, is lined with marble, etc., to match the theatre, and is fitted up with the latest description of steam sterilizers for dressings, dishes, water, and instruments, and a spare sterilizer, worked either by gas or electricity, in case of the steam sterilizers being out of use. A hood over the sterilizers, with flue, carries away all steam.

The operating theatre and anaesthetic room are entered by sliding flush panelled teak doors. All other doors in this building are of teak and swing both ways, to allow the surgeon to use his shoulder in opening instead of his hands. All angles of the building are rounded.

## LIVERPOOL.

### IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE members of the Irish Medical Schools' and Graduates' Association held a most successful meeting in Liverpool on May 27th. The number of members of the association is about 700, and at the Liverpool meeting some 150 visitors did honour to the entertainment of the local members, who naturally mustered very strong. The president of the Liverpool Medical Institution, the senior physician of the Royal Infirmary, is a distinguished graduate of Trinity College, Dublin. The arrangements, which were most successfully carried through, were made by the indefatigable local secretaries, Dr. J. J. O'Hagan, Dr. Heaney, Dr. Allen.

On Saturday visitors had an opportunity of seeing the Liverpool docks and the river, but the great feature of the meeting was the banquet at the Exchange Station Hotel, under the chairmanship of Sir Charles Cameron. The speeches were limited to five minutes each, and were, perhaps for this reason, excellent. The Insurance Bill came into most of the speakers' minds. Professor Benjamin Moore alluded to the necessary increase that must come in the expense of keeping the nation defended from internal foes. We were willing, he said, to spend some sixty millions a year on preparations for war, and he looked forward to the country being willing to expend at least thirty millions on defence against inevitable foes; even though the medical profession was wiping out these foes to its own detriment, for typhoid fever was disappearing and with tuberculosis would follow obsolete typhus fever and small-pox, yet much remained to be done, and could not be accomplished without adequate payment of the medical profession. In Professor Moore's opinion this was not going to be accomplished through friendly societies.

Dr. Bradshaw, in proposing the toast of "The Visitors," told how the Association had come to Liverpool largely through the energy of the local Secretary, Dr. O'Hagan. He coupled the toast with the names of Sir Archibald Williamson, the President of the Royal Infirmary and of the District Nursing Association, and of Mr. Heild, the editor of one of the most influential local newspapers.

Sir A. Williamson, in replying, commended Mr. Lloyd George's attempts to solve the insurance problem, and endeavoured to prove that the Insurance Bill would benefit the medical profession, as it would in the aggregate cause more money to be paid to the profession than was at present being paid through the various friendly societies. His remarks were received with as forcible expressions of dissent as could be politely offered on such an occasion. Doubtless the feeling there expressed had been the subject of much deep consideration on the part of the speaker, and it is hoped that his influence will be used to aid the views of the profession. The other speeches were less controversial, if more amusing.

On the following day (Sunday) there was a special service in the Lady Chapel of the new Liverpool Cathedral, and members were given an opportunity of viewing the vast building operations which will result in the largest church in England built since the days of the Reformation. There was also special Mass at the Roman Pro Cathedral, and in the afternoon some of the guests paid a visit to Chester.

### EUGENICS.

The Eugenic movement has been active in Liverpool, and during the past month two important meetings have been held and addresses delivered at the Liverpool Medical Institution. On May 3rd Mrs. D. Whetham, of Cambridge, addressed a meeting of the local branch of the Eugenics Education Society; Sir James Barr presided over a good attendance. "Heredity and Environment as Factors in Social Evolution" was the title of a very thoughtful and interesting address. Mrs. Whetham considered that the future of humanity was being moulded by the two forces of

heredity and environment, often complementary and indistinguishable in their effects, though in certain aspects and at certain times they appeared to work at the expense of one another. Improvements due to heredity were permanent, while those due to environment required constant expenditure of time and money to maintain them in existence. Mrs. Whetham pointed out the danger of increasing longevity by improved environment, while at the same time the birth-rate was decreasing. Dr. Bradshaw, in seconding a vote of thanks proposed by the chairman, said that while working for the improvement of heredity, he hoped that the ardour for improvement in the conditions of the masses would not be lessened. Mr. Damer Harrisson also spoke.

On May 10th, at the same Institution, Professor Paterson delivered a lecture on "The Child as an Asset to the Empire." In the course of his lecture he indicated that the institution of marriage was responsible not only for great benefits to mankind, but also for some frightful evils and anomalies. It united the fit with the unfit. The conditions of modern life, he considered, were not natural, but artificial. He thought large families were to be desired, because the educational advantages rendered boys and girls more fit to take their proper place among their fellows. He believed that the maternal instinct was declining. The modern habit of restricting families was not eugenic or scientific, nor in harmony with the laws of Nature, and would ultimately result in a deterioration in the breed. From the point of view of the individual, the family, and the empire, he considered this an important national question which should receive the serious consideration of every lover of his country. A hearty vote of thanks was accorded Professor Paterson.

### THE TOXICITY OF LEAD.

At a meeting of the Society of Chemical Industries, held in the lecture hall of the Liverpool University, Professor Baley gave a lecture on the toxicity of lead. It was based upon experiments carried out with the view of ascertaining if lead in the form of volatile and toxic compounds was given off when white-lead paint made from the Dutch carbonate was used in the painting of rooms. The method used to determine this was by absorption of light. Photographs of the spectrum of a standard light were taken, and then the vapour placed between the source of light and the plate and the absorption of light in the spectrum recorded on a second plate. The beam of light was passed over the newly-painted object. It was found that lead compounds, when the white lead carbonate was mixed with 6 per cent. linseed oil, were given off, even at the ordinary temperature of a room. When "purex," the basic sulphate, or zinc white, was used, no metallic compound was given off. The volatile compound was readily soluble in water, and in the solution lead could be demonstrated with ease by ordinary chemical tests. The vapour, when distilled from the paint and frozen by means of liquid air *in vacuo*, became flocculent and formed a milky liquid on thawing. At the close of the lecture Professor Baley demonstrated his conclusions by experiments.

### INVALID CHILDREN'S ASSOCIATION CONFERENCE.

The second annual three days' conference of the Invalid Children's Aid Association for the Care of the Crippled and Invalid Children of the Poor was held in Liverpool last week. Over 200 delegates from all parts of the country assembled by invitation of the Liverpool Children's Association. Before meeting for discussions on Thursday, May 25th, they visited the Bowring House Country Open-air Residential School at Roby. The sessions for the reading and discussion of papers were held at the Liverpool Medical Institution. The Lord Mayor welcomed the conference. Several interesting papers were read, followed by discussion. A visit was paid to the Country Hospital for Children at Heswall and to the Chatham Place Special School, Edge Hill. On Friday evening Sir William and Lady Bowring entertained the delegates at their charming residence at Grassendale.

## MANCHESTER AND DISTRICT.

### WOMEN DOCTORS AND THE ROYAL INFIRMARY.

SOME time ago strong complaints were made by the women medical graduates of the Manchester University that they were excluded from posts as resident medical officers at the infirmary. The Board of Management could not see its way to accede to their request to be rendered eligible for such appointments, though a special committee was appointed to consider the matter. It was, however, decided to institute a scheme by which one or more medical women might be appointed to non-resident posts with an honorarium attached. In this way they would be enabled to work in the women's medical and surgical wards and in the special departments for six months. It was also decided that certain existing non-resident posts could be thrown open to them. The council of the Manchester University has carefully considered the scheme, and in a report to the Court of the university states that it considers it will be of great advantage to the women graduates in the faculty of medicine, "securing for them the experience and knowledge of infirmary practice and methods which are of the greatest importance for medical practitioners to possess."

### THE SALFORD ROYAL HOSPITAL.

At a meeting of the Board of Management of the Salford Royal Hospital a letter was read from Mr. E. T. Milner, stating that owing to continued ill health he regretted that he was obliged to tender his resignation of the post of honorary surgeon to the hospital. Mr. Milner was elected honorary assistant surgeon to the hospital in 1891, and was promoted to full surgeon in 1898; and in expressing its great regret at the cause of his resignation, the Board desired to convey to him its high appreciation of the valuable services which he had rendered to the institution since his appointment, and sincerely wished for his rapid and complete recovery in his new home at Castletown. It was further resolved that he be appointed honorary consulting surgeon to the hospital.

## LONDON.

### MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

THE Children's Care Subcommittee reported to the Education Committee of the London County Council on May 31st that though it was not yet in a position to submit a complete scheme for the medical treatment of elementary school children, it was necessary that the question of extending some of the agreements beyond the present year should be considered. Amongst these were the agreements entered into with committees of local medical practitioners in Norwood and Wandsworth. The arrangements had worked very satisfactorily, and there was need for further provision for medical treatment in these districts.

The present scheme at Norwood provided for the treatment of 500 ear, nose, and throat cases, 800 eye cases, and 200 ringworm cases a year, upon which the Council had guaranteed in addition to the salaries of the doctors a total capitation payment amounting to over £200. In view of the provisional consent of the Board of Education to the extension of all agreements to a common date—December 31st next—the subcommittee advised that the arrangements with the Norwood local committee should continue as at present until that date, but that afterwards, subject to the consent of the Board of Education, it should be put upon a permanent basis, and should provide for the treatment annually of 1,320 ear, nose, and throat cases, 400 eye cases, and 100 ringworm cases, it being understood that if and when necessary 200 ringworm cases would be able to receive treatment in the year.

In the Wandsworth scheme provision had been made for the treatment of 500 ear, nose, and throat cases, 900 eye cases, and 100 ringworm cases a year, and a capitation payment of £150, exclusive of ringworm cases, had been guaranteed. Arrangements had been made for ringworm cases to be treated at the surgery of one of the doctors at an inclusive fee of £1 1s. a case. This agreement should also be varied to secure that 1,760 children suffering from ear, nose, and throat defects, and 440 children suffering from affections of the eyes should be treated in each year, and that the maximum number treated for ring-

worm yearly should not exceed 150. Both schemes at present provided for the employment of a nurse on six half-days a week to assist the doctors, and the subcommittee had come to the conclusion that the nurses should work full time in order to enable them to assist in "following up" and keeping teachers, local care committees, and doctors in touch with one another. Under these arrangements the Norwood scheme would cost £626, and the Wandsworth scheme £817.

The Education Committee agreed, subject to the approval of the Board of Education, to renew the agreements on a yearly basis on the foregoing terms.

*The Probable Cost of Dental Treatment.*

It was announced a few months ago[1] that a scheme for dental treatment of elementary school children in Wandsworth through the agency of the local committee of medical practitioners was in course of preparation. On May 31st the Education Committee received a report which explained the delay in the completion of the matter. It appeared that the Finance Committee objected because the cost, based on a total of 1,500 children a year, worked out at over 8s. a child, six cases being dealt with each session, whereas the cost of the Poplar and Deptford schemes was estimated at 4s. 3d. a case on the basis of ten cases a session. Further, in the Wandsworth scheme provision was made for the employment of an anaesthetist on one half-day a week, and of a nurse on six half-days, although no such provision was made in the previous proposals. The Finance Committee asked for an explanation of the necessity for the increased requirements in the present case, and to be informed whether it was proposed to employ an anaesthetist and a nurse at Poplar and Deptford, and in connexion with any arrangements for dental treatment that might be made in the future. The cost of dental treatment had increased with each of the three proposals put forward up to the present, and the Finance Committee asked for the fullest information on the subject, and whether the present case was exceptional or might be regarded as indicating the standard of expenditure upon dental treatment in the future.

The Children's Care Subcommittee stated, in reply, that in submitting the earlier dental schemes special emphasis was laid on the meagre information available for the guidance of the Council and the possibility of subsequent modification of the proposals then made being necessary. The estimate that ten cases a session could be dealt with was made upon the best information then available. The amount of work, however, varied considerably in each case, and the dentists already engaged found they were unable to put the children's mouths in sound condition if they were expected to deal with an average of as many as ten new cases a session in addition to those cases needing two or more attendances. After a system of dental treatment had been established permanently the condition of the children's mouths would almost certainly improve, with the result that much less work per child would be required. But for the present eight new cases a session should be regarded as the maximum number to be dealt with, ten being a perfectly reasonable number later on when the work was established on a permanent basis. The agreement with the committee of Wandsworth medical practitioners provided that from six to eight new cases a session should be taken, and the estimate of cost submitted to the Finance Committee was based on the assumption that the lower number would attend owing to the fact that, as parents did not yet fully recognize the need for dental treatment, there might be some difficulty at first in securing that full advantage was taken of the facilities afforded. Endeavours would be made, however, to maintain a standard of eight new cases a session, which would reduce the estimated average cost. Although the neglect of teeth was a serious detriment to health, there was considerable prejudice against treatment, and painful extractions were likely to prevent children from completing treatment. The subcommittee understood that, in difficult cases, an anaesthetic might be necessary; but upon reconsidering the question it had arrived at the conclusion that it would probably be well that cases of this nature should not be dealt with at dental treatment centres, but should be referred to hospitals. The subcommittee therefore withdrew the proposal to appoint an anaesthetist. With regard to the employment of a nurse, in the earlier schemes for dental treatment a capitation payment of 2s. was considered sufficient, because the nursing staff was employed in other work connected with medical treatment. The capitation payment of 2s. did not cover the expense of nurses who had to be specially engaged. Apparatus would also have to be purchased specially when the Council made use of institutions which were not already equipped for the work, as was the case at Deptford and Poplar. With the modifications outlined, the cost of the Wandsworth scheme would be reduced from 8s. to about 5s. 4d. a case, and this might be regarded as representing the maximum cost involved in making any further provision for dental treatment.

The Education Committee approved an agreement with the committee of the Wandsworth medical practitioners, which provided *inter alia* that on not more than six half-days a week children from 6 to 8 years of age, and, in special cases, children of other ages, should be treated; a payment of £50 per annum to be made for each dentist working one half-day a week, and a capitation fee of 2s. on the number of cases actually referred to be accepted by the local committee in full discharge of the expense incurred by them; the Council to appoint one dentist working on one half-day a week for the purpose of dental inspection in the Wandsworth schools and the selection of children for treatment, and the committee of medical practitioners to be limited to the appointment of not more than three dentists, who should be selected by the British Dental Association.

[1] BRITISH MEDICAL JOURNAL, March 25th, page 717.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

CONFERENCE OF CHARITY ORGANIZATION SOCIETIES.

AT one of the general meetings of the conference of Charity Organization Societies held recently in Belfast, Dr. R. W. Philip of Edinburgh gave an address on antituberculosis dispensaries. He discussed the questions of the preventability, curability, infectivity, and endemicity of tuberculosis, and urged that, while it was absurd to segregate all cases, it was necessary to search out the open cases. Sanatoriums had done good, but a scheme of dispensaries in close relationship with the public health department, as in Edinburgh, was necessary also.

It was announced that in Belfast the Women's National Health Association of Ireland had decided to work in three directions—to promote school hygiene, to attack infant mortality, and to prevent the spread of tuberculosis and promote its cure. Professor Lindsay drew attention to the insanitary state of many of the primary schools; he was glad that school hygiene was put in the forefront. "It was a striking anomaly," he said, "that they devoted more attention to the sanitary condition of dairies, cowsheds, and even piggeries, than they did to the sanitary condition of their primary schools. They lodged their lunatics in palaces and taught their children very often in hovels." Dr. Lindsay also emphasized the enormous and far-reaching importance of the prevention of tuberculosis, and the study of infant mortality.

Dr. S. J. Maguire presided at a meeting of Section B, when an interesting debate took place on the Poor Law in Ireland, 1833–1911. The Chairman pointed out that the Old Age Pension Act had reduced old age pauperism no less than 50 per cent.; and the poor rate had been reduced by 2d. and in some cases by 4d. in the £. The National Insurance Bill would probably have a far-reaching effect in reducing pauperism.

WOMEN'S NATIONAL HEALTH ASSOCIATION.

The fourth annual meeting of this association was held at Ballsbridge on June 1st, under the presidency

of Lady Aberdeen. The annual report stated that the branches of the association numbered 150, with a membership of nearly 18,000. The expenditure on the various projects of the association amounted to over £4,000 during the year. Apart from the details of the report the most important matter brought before the meeting was a letter from Mr. Birrell in which he gave full credit to the association for the part it had taken in promoting the scheme lately sanctioned by the Treasury for the heating and cleansing of Irish primary schools. A letter from the Society of United Irishwomen was also read, stating that in the opinion of that society, affiliation with the Health Association would be unwise. At the end of the first day of the meeting Lady Aberdeen was unanimously re-elected president.

EMPLOYMENT OF TUBERCULOUS PERSONS.

At the last meeting of the Athlone Board of Guardians the Chairman said that the guardians of the North Dublin Union, in the face of the crusade all over the country against consumption, had hired out as a farm servant at Athlone a consumptive boy, and his state was discovered by the dispensary medical officer of the district. He was thereupon removed to an isolation ward in the workhouse. The Chairman proposed that the attention of the Local Government Board should be called to the matter, and this was carried. Subsequently a resolution was passed condemning the action of the guardians in the strongest possible manner. The above incident is of much importance from many points of view, but without accurate knowledge of the condition of the tuberculous patient in question it is hardly possible to comment on the incident fairly. The action of the Athlone guardians, more especially their direction that the boy should be removed to an isolation ward, seems, however, to arise from unnecessary panic. We sympathize with them in their indignation that a consumptive boy should be hired out without the employer being informed of his condition; but we hope their action does not mean that in future no tuberculous persons will be able to earn a living in Ireland.

BORSTAL INSTITUTE, CLONMEL.

The report of the Clonmel Borstal Institute states that 40 youths had been discharged during the last twelve months. Of these 1 had been committed to an asylum and 2 to prison. Of the remaining 37, 16 were discharged on expiration of their sentence and 21 on licence. Of the 16 whose sentence had expired 14 were doing well; and of the 21 on licence 19 were giving satisfaction to their employers. The medical report stated that the system resulted in a great improvement of the physical and moral condition of the inmates of the institution.

NATIONAL CHILDREN'S HOSPITAL.

At the recent annual meeting of the National Children's Hospital, Dublin, it was suggested that open-air balconies on a large scale should be constructed at the back of the hospital for the purpose of carrying out to some extent, at any rate, the principles of open-air treatment for the many tubarculous children under treatment in the institution. The suggestion has been taken up by the committee, and funds are now sought to carry out the project.

# Scotland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

SCOTTISH NATIONAL HISTORICAL EXHIBITION, GLASGOW.

A SERIES of lectures on "Callings for Women" are being held in the Conference Hall of the Scottish Historical Exhibition now open in Glasgow. The second lecture was delivered by Mrs. Scharlieb, who chose as her subject Medicine and Public Health, and pointed out that the lot of women medical students was now much more satisfactory in the medical schools than in the old days when the pioneer medical women were fighting their way. But even yet a woman student entering on a course of medical study should have perfect health of mind and body. Mrs. Scharlieb entered a protest against parents, guardians, school authorities, and missionary bodies permitting young women to commence so long and arduous a struggle without enough money to carry them through their student days and the early part of their professional career in ordinary comfort. In the foreign mission field there was scope for medical women, especially in India, where the women of the Hindu and Mohammedan classes were not able to avail themselves of male doctors. In general practice at home the lady medical practitioner was apt to be poorly paid for much hard work. She pointed out that women could now hold various civic appointments as sanitary inspectors, inspectors of school children, factory inspectors, and health visitors. She did not think that Mr. Lloyd George's scheme of national insurance against sickness and invalidity, with its present inadequate scheme of remuneration and subjection of the doctors to the friendly societies, would be acceptable to any respectable practitioner, male or female.

# Correspondence.

## THE BUTLIN DINNER.

SIR,—We have already received more than 200 names of those who intend to be present at the complimentary dinner which is to be given to Mr. Butlin at the Connaught Rooms next Tuesday, June 13th. As the committee proposes to seat the guests in parties at separate tables, it is desirable to have all names sent in to us at 429, Strand, not later than Saturday's post. A few tables will be reserved for late applicants, but all who wish to attend are requested to send in their names at once.—We are, etc.,

D'ARCY POWER,
W. GRIFFITH,
Honorary Secretaries.

London, W.C., June 7th.

## THE VACCINATION DEBATE IN THE HOUSE OF COMMONS.

SIR,—Dr. Killick Millard's letter in the JOURNAL of June 3rd is an example of the length to which the thoughtful man will be carried when he allows himself to forget the hard lessons of practical experience. One is accustomed to hear the stock argument of the antivaccinist—the wonderful advance in sanitary efficiency—used in debate not only in the House of Commons, but also in Hyde Park. It is a new experience to see it employed by a medical officer of Dr. Millard's standing in the public health service.

Dr. Millard acknowledges that recent vaccination is a sure preventive, and quotes his own experiment as a proof of the faith that is in him. Having gone so far, he immediately branches off into the by-path along which one is prone to wander who is accustomed to consider disease almost entirely from the point of view of the epidemiologist or of the statistician. "To be quite frank," he says, "I have come to doubt whether the problem of preventing the spread of small-pox, under modern conditions, is rendered much, if any, more difficult by reason of the existence of a large proportion of unvaccinated persons." Now what does Dr. Millard mean by the "spread of small-pox?" Surely the disease has spread when the first case appears among the contacts. What possible effect can "sanitary efficiency" have in preventing the appearance of this case? Does a partial immunity acquired by vaccination have no bearing on this victim's chance of life? Is the problem of saving life from the ravages of small-pox easier in the unvaccinated than in the vaccinated community? That is the only problem for the medical officer of health in his dealings with small-pox. It cannot be too strongly emphasized that the only means at our disposal at the present time for "preventing the spread of small-pox" are (1) diagnosis and (2) vaccination, and it is on account of our neglect of the latter that the former occupies the position of primary

importance. To associate "sanitary efficiency" with the "prevention of the spread of the disease" is a misuse of language. The utmost that can be accomplished by sanitary efficiency of the highest degree is the *limitation* of the spread of the disease. Some lives can be saved. But others must be sacrified. Does Dr. Millard acquiesce in "facing this with equanimity"?

Besides Leicester, there are other towns which have neglected vaccination. Their sanitary efficiency may not reach so high a degree as that of Leicester, and yet they have not had much recent experience of epidemic small-pox. Perhaps the opportunity has been lacking. I would ask Dr. Millard if he has made allowance, in drawing his deductions from his Leicester experience, for the variations in virulence and in striking power which epidemic small-pox exhibits?

There is no doubt that the difficulty of limiting the spread of the disease is increased by the occurrence of the mild attack in the partially protected individual. But Dr. Millard seems almost to blame this unlucky victim for causing the outbreak—an attitude which might be compared with that of the man who thrashes his horse because it stumbles over a hole in the road. Would it not be more logical for the medical officer of health who believes in the efficacy of vaccination to take up the position that if every "contact" had the degree of immunity possessed by the "culprit" small-pox would be comparable to chicken pox in importance, his "problem" would entirely disappear, and we might be able to turn over our enormous small-pox hospitals to the more remunerative purposes foreshadowed in the National Insurance Bill?

Dr. Millard is unfortunate in selecting the case of Annie Levy, in the recent London outbreak, as an example of the "very slight, highly modified, and on that account unrecognized case." The case of Annie Levy could not be so described.

Dr. Millard's communication is open to the very serious criticism that in considering the possible occurrence of an outbreak of small-pox in an unprotected community he ignores the fact (perhaps one ought rather to say that he allows it to remain in the background) that small-pox mortality is frequently high and is always selective. This is the important point—in fact, the only point which it is our duty to emphasize when the question of vaccination or no vaccination is raised. What is to happen to *some* of those Leicester children *if they are attacked by small-pox?* Does Leicester possess another prophylactic? If she does not it seems advisable for her medical officer of health to leave platform quibbles about sanitary efficiency to the professional antivaccinist.—I am, etc.,

London, S.E., June 5th. A. F. CAMERON.

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SIR,—The letter of Dr. Killick Millard has much interested me. Five years ago I read a paper, much on the same lines, before the Derby Medical Society. In spite of a good deal of "chaff" which I got from some of the members of that society at the time, I know, from conversations I have had with them since, that they (and I) have come to the conclusion that we have two alternatives before us. We must either copy the Germans and do thorough and efficient vaccination and revaccination, or we must abolish the Vaccination Acts and trust to sanitation, voluntary vaccination, and the common sense of the people.

The first alternative is impossible, as any one who has practised in the Midlands knows. Unless we move in the matter the second alternative will be enforced upon us, and it is surely better that we should put our early prejudices on one side and take the lead.

I am a thorough believer in the efficacy of vaccination, but not in the necessity of its being compulsory.—I am, etc.,

GEORGE RICE,
Consulting Physician to the Derbyshire Royal Infirmary.

Bideford, June 5th.

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## RENAL CALCULI AND CALCIUM METABOLISM.

SIR,—Dr. Benjamin Moore's letter[1] in reply to mine does not in any way lessen the value of my criticisms of his paper. In fact, they confirm what I stated, that a limited laboratory research will not upset the experience of years of good clinical observation. The writer treats me as inappreciative of pure chemical investigation—an accusation thoroughly unjustifiable, for I have for some years had a well-fitted laboratory, where careful quantitative analyses of the urine of all patients is made, both before and after the cure, and where all calculi, etc., are examined. He further insinuates that calculi examinations made by me are rough and incomplete. He is probably not aware that for thirty years I have done, outside medicine, a lot of petrographical and mineralogical work, and that therefore I have sufficient technical knowledge to be able to study the crystalline and amorphous components of a renal calculus in a proper way.

He then goes on to repeat remarks and criticisms concerning spa treatment and distilled water that are rather antiquated. Many years ago, in a state of physiological ignorance, I treated patients with distilled water, plain and gasified, very extensively, and with very poor results. They all complained that "I can't digest that water," or "That water lies so heavy on my stomach," or "That water makes me so flatulent," or "It blows me up" (even the ungasified). Dr. Benjamin Moore knows that the injection of a small quantity of distilled water into the blood is dangerous and even fatal, but that if he raises its salinity to approach the osmotic tension of the blood cells, it may be injected with impunity. Now did it ever occur to him that our organs of assimilation have sufficient vital selective or rejective power that they will not allow a stomach and intestine full of distilled water to enter the blood stream? When a person drinks distilled water, that water either takes up from the remnants of a previous meal sufficient soluble salts to give it the pass-by to the organs of absorption, or must await the arrival of a fresh meal to supply the requisite materials to make it tonic to the blood stream. Not only is distilled water objectionable but even injurious, for in its acquirement of the necessary osmotic tension to enter the blood, intestinal toxins will be taken up and added to the blood stream.

If we replace distilled water by a suitable mineral water, just a little hypo-tonic to the blood, then we have rapid absorption and rapid elimination, carrying with its excretion the toxines and waste products that it found in the blood or lixiviated from the tissues. This is indicated by the fact that even constipation may supervene when a drinker of Vittel water is consuming, say, four to six pints a day. Distilled water in half that quantity would often be a violent purgative.

I do not quite glean whether the prefixing of "St." to Vittel is done through ignorance or satire on Dr. Moore's part, but it is hardly justifiable in a scientific discussion, especially on such an important question of practical medicine.

As to the "non-chloride" reference he makes, let me ask him to think over these points. If you can reduce (instead of increase, as you do with most mineral waters) the amount of sodium chloride passing through the system, say from 12 down to 6 grams per diem, by a modified dietary simultaneously with the passage of a more dilute chloride solution through the kidneys, you allow those organs the equivalent of 6 grams of KCl energy to devote to the elimination of urates and other toxic substances.

As a moral I would conclude by saying the practitioner or clinical physician must utilize and appreciate the work of the laboratory man, but the laboratory man must check his results, and repeat or extend his researches when these are not confirmed by clinical experience—that is my conception of the practice of medicine.—I am, etc.,

Vittel, France, June 1st. H. J. JOHNSTON LAVIS.

[1] BRITISH MEDICAL JOURNAL, May 20th, p. 1210.

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## CONGENITAL APHASIA IN CHILDREN.

SIR,—I would like to endorse Dr. Rutherfurd's remarks (June 3rd, p. 1348) on Miss McCall's "Two Cases of Congenital Aphasia in Children." I also concluded that the first of these cases did not conform to this title, and I was doubtful as to the second. Unfortunately, there seems to be a good deal of confusion as to the exact meaning of the term "word-deafness," and as a result, quite a variety of cases are published under this heading, none of which can be considered as satisfactory instances of the condition. This confusion is accentuated when, in a recently published textbook, one finds the following given as "types of word-deafness": amnesic aphasia, monophasia, amnesic agraphia, inability to repeat what is heard and understood.

As a matter of fact, none of these are instances of true word-deafness. Some exact definition is required which can once and for all suitably describe the condition. Possibly "a case in which, the sense of hearing being otherwise normal, there is failure to appreciate the significance of spoken words" might meet the case.

I quite agree with Dr. Rutherfurd that congenital aphasia is distinctly rare, much more rare than congenital word-blindness. With one exception, all the cases brought under my notice hitherto have proved to be quite other conditions. The exception to which I allude, which gave brilliant results under the oral method of teaching, was reported in the *Transactions of the Royal Society of Medicine*, vol. ii, Part 1, Children's Section, page 157. I have another case now under observation which may ultimately prove to be of a similar nature.—I am, etc.,

London, W., June 6th. MACLEOD YEARSLEY, F.R.C.S.

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SIR,—I can find no evidence that Dr. Rutherfurd has any special claim to utter *obiter dicta* on questions in the domain of diseases of children, and I do not propose to reply to his criticism of my cases of congenital aphasia, further than to say that I am perfectly aware of the comparative rarity of this condition. It was on this account that I thought the cases worth publishing. The nomenclature is that adopted by Dr. R. H. Crowley in his book, *The Hygiene of School Life*, in describing similar cases, as well as by other writers on the subject.—I am, etc.,

Cambridge, June 6th. EVA MCCALL.

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## SCHOOL TEACHERS.

SIR,—Dr. W. J. Rutherfurd's remark in his letter on "Congenital Aphasia in Childhood," that "school teachers are, as a class, perhaps among the most conservative and unreceptive section of the community," seems to me a singularly ungenerous general attack by a member of another profession. It comes with exceeding ill grace from a member of the medical profession, which suffers so much from this irresponsible kind of criticism, and betrays a state of mind the more to be condemned at this moment when doctors are coming into closer touch with the teachers and the schools. The *Speaker* remarks this week, in another connexion, that "accusations made against whole classes of persons are always unfair, because it is almost necessarily impossible to rebut them." There is no necessity to rebut Dr. Rutherfurd's criticism in detail. Personally I have extremely intimate and very friendly associations with teachers of all kinds. I count among my friends in that profession some of the most original and revolutionary thinkers and actors of the day. As a class, I expect they are not very different from other groups of persons.—I am, etc.,

London, W., June 8th. M. D. EDER,
Joint Editor of *School Hygiene*.

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## QUACKERY.

SIR,—The JOURNAL of May 27th, which deals largely with the different aspects of quackery, is at least interesting to the general practitioner. But should it remain simply a matter of interest? At the present time, when the medical profession is looming large in the eyes of the public on the question of the Insurance Bill, when Cabinet Ministers and members of Parliament are speaking sympathetically of the woes of the doctors and realizing their hardships, is this not the time for the admittedly powerful organization, the British Medical Association, to move in this matter of quackery and persuade the Government to introduce new legislation to amend the Medical Act so as to protect members of the profession against quackery of all kinds?—I am, etc.,

Stourbridge, June 5th. GEORGE J. DUDLEY.

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AT a meeting of the Section for the Study of Disease in Children of the Royal Society of Medicine on May 26th Dr. G. H. Sutherland was elected president, Sir Watson Cheyne, Dr. H. D. Rolleston, and Mr. H. J. Stiles, vice-presidents, and Dr. T. R. Whipham and Mr. H. S. Clogg, honorary secretaries. Representatives on the library and editorial committees and a council of twenty-four members were also appointed.

# Public Health
AND
# POOR LAW MEDICAL SERVICES.

## CONFERENCE OF METROPOLITAN PUBLIC HEALTH AUTHORITIES.

IT is seven years since the Public Health Committee of the London County Council reported that there was considerable want of uniformity in the enforcement by the sanitary authorities of London of their varions statutory powers and duties, and recommended that a conference of these authorities be convened. On two days in July, 1904, a conference was accordingly held, and the interchange of views which took place resulted in considerable benefit. On the recommendation of Sir Shirley Murphy, the medical officer of health of the county council, a similar conference was held on April 6th last, and a detailed account of the proceedings has just been issued. Among the subjects discussed in 1904 were: Houses let in lodgings, inspection of places where food is prepared, water supply to tenement houses, and precautionary measures against measles and phthisis. Each of these questions was again the subject of debate at the latest conference, and in addition there was discussed the Notification of Births Act, 1907, and the provision of chapels of rest, apart from mortuaries, for bodies awaiting inquest.

*Notification of Phthisis.*—In 1904 the conference resolved that a system of voluntary notification of phthisis was desirable, and should be made general throughout London. In April last a further step was recommended, and it was resolved that the principle of compulsory notification should be extended to all cases of pulmonary tuberculosis, and that the establishment of tuberculosis dispensaries throughout London was urgently required.

*Measles.*—The last conference was held at the time when measles was epidemic in various parts of the metropolis, and after considerable discussion it was recommended that a better organization was desirable for the control of this disease in schools; that during a serious outbreak children under 5 years of age should be excluded from school attendance; that compulsory notification was desirable; that the cleansing of infants' departments and of the furniture, lower walls, and floors should take place once a week; that accommodation should be provided in the Metropolitan Asylums Board's Hospitals for urgent non-pauper cases, and that the school regulations should provide that all children from houses infected with measles should be prohibited from school attendance.

*Domestic Water Supply.*—The conference in 1904 expressed the opinion that a draw-off tap from the rising main and a sink should be provided on every floor of a tenement house, and a resolution in almost similar terms was carried in April last.

*Notification of Births Act, 1907.*—The discussion on this Act was concerned chiefly with the propriety of appointing women health visitors or women sanitary inspectors. With the exception of one of the representatives from Camberwell, all the speakers were in favour of these officials being appointed. There was some difference of opinion as to the desirability of a woman health visitor being also qualified as a sanitary inspector; but the prevailing view appeared to be that it was desirable she should have the double qualification.

*Pollution of Food.*—Dr. J. F. J. Sykes (M.O.H. St. Pancras) had little difficulty in persuading the conference to accept his resolution that it was desirable regulations should be made to limit the pollution resulting from exposure in improper manner in public places or adjacent to the public way of food and food receptacles. He pointed out the absurdity of closing in such shops as clothiers, furniture dealers, or stationers and leaving open those in which food stuffs were supplied, such as butchers, fruiterers, or fishmongers.

*Mortuary Chapels.*—On the question of providing chapels of rest, the conference came to the conclusion that it was desirable these buildings should be provided by sanitary authorities for bodies apart from those which were awaiting inquest, and, on the suggestion of Dr. McCleary (M.O.H. Hampstead) it was further recommended that all private mortuaries should be registered and regulated.

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## POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this Association was held at 34, Copthall Avenue, E.C., on May 17th. Dr. D. B. Balding, J.P., presided, and there was a large attendance.

*Cases.*

The Honorary Secretary reported that with regard to the dispute between the Shoreditch Guardians and their district medical officers, matters were at a standstill. The Local Government Board had done nothing further, and there had been no fresh developments since the last council meeting. With regard to Dr. Milward of Cardiff, in answer to the representation of the council, the Local Government Board had arranged to send an inspector to investigate the matter on the spot.

*Conference of Poor Law Officers.*

The delegates of the association reported what had been done at the conjoint conference of Poor Law Officers at Norfolk House, the final meeting of which had recently taken place. Most of the medical recommendations of the association had been adopted by that conference, but there had been some important modifications at the final meeting, when the report of the whole conference was drawn up.

*Part-Time Medical Officers of Health.*

The delegates appointed to attend the recent conference of part-time medical officers, reported that it had been arranged to form a conjoint committee of representatives from the Poor Law Medical Officers' Association, the Public Vaccinators' Association, the Association of Postal Medical Officers, the Association of Factory Surgeons, and the Police Surgeons' Association. The council elected Dr. Withers Green, Dr. Lloyd Brown, and Dr. Major Greenwood as their representatives.

*Public Vaccinators.*

The Hon. Secretary reported that at the request of the Secretary of the Public Vaccinators' Association he had forwarded the opinion given by Sir Robert Reid on the question whether public vaccinators could be considered "officers" under the provisions of the Poor Law Officers' Superannuation Act. It would appear that that association was again investigating the question.

*Annual Meeting.*

The annual meeting of the association will be held on Thursday, July 6th, in the Council Chamber of the British Medical Association at 3 p.m. There will be no dinner this year, but tea will be provided for those attending the meeting.

*"The Poor Law Medical Officer" Journal.*

The Honorary Secretary reported that the first number of the journal of the association, *The Poor Law Medical Officer*, had been published on April 29th, and the editor asked permission to increase the number of pages of the next issue in order to insert therein the notices that were usually sent at this time to the members individually. He stated that a copy of the first number had been sent to all outdoor Poor Law medical officers in England and Wales. The council unanimously congratulated the editor on the useful character of the first number.

*Mr. George Jackson.*

A letter was read from Mr. George Jackson thanking the association for its assistance in his candidature for a seat on the General Medical Council, and assured it that he was doing his best to promote a meeting of the association in Plymouth in 1912.

*The National Insurance Bill.*

The Honorary Secretary said that the injury likely to be done by the National Insurance Bill to the whole profession reduced to insignificance any special injury to their service. As far as he could discover after a careful search through the bill, there were only two direct references to the Poor Law service:

1. It is ordered that boards of guardians, in giving relief to insured persons, should not take into account any sickness allowance not exceeding 5s. a week. So that in such cases the Poor Law medical officer might be required to afford medical services to those who were entitled to State medical attendance.
2. In Ireland it would seem that the doctors who were to work the Government scheme were essentially the Poor Law medical service of that country.

# Medico-Legal.

## DAMAGES AGAINST A BONESETTER.

AT the Hull County Court on Thursday, April 27th, a female domestic servant, aged 20 years, sought to recover £100 damages for alleged negligence and unskilful treatment from John Blackbourne, a man stated by her counsel to have carried on business as a bonesetter in Hull for a number of years.

The evidence was to the following effect. The plaintiff stated that in October, 1909, she was employed near Hull as a housemaid at £19 a year. She was then aged 18. On October 18th she slipped when carrying a bucket down some steps and fell with her leg under her on the edge of the bottom step. Shortly afterwards, Dr. Gillespie, of Sutton, arrived and examined her ankle, which was severely sprained. He put her foot in cotton-wool bandages, and she went to bed. She remained there three days, during which Dr. Gillespie continued to attend her. On October 20th she went to her sister at Hull, in a cab. There Dr. Gillespie continued to visit her, following the treatment originally commenced, bathing the ankle in hot water and rubbing it with liniment. He also used light massage, and bandaged the ankle with cotton-wool.

On November 12th she and her sister visited the house of the defendant, who looked at the foot but did not handle it. He said that he could make it right, but that it would take some time. At this time her foot was considerably swollen, but not discoloured; the leg was quite straight, but too painful to put to the ground. The defendant took hold of her leg with both hands and twisted it, causing her great pain. He also knocked her heel up and fixed a splint on the outer side of the limb, stating that there was a fracture of the ankle. She visited the defendant every day for the first week, and kept on the splint in accordance with his instructions night and day, for at least a fortnight. When it was taken off the defendant removed it, and both the leg and the foot were very much swollen. Her foot was then discoloured. A day or two after the splint was taken off the son of the defendant blistered her foot, but did not say why. This was followed by a discharge of matter which continued for three months. The defendant also used an electric battery, and on one occasion placed her foot and leg up to the knee in a hot oven. Her foot became curled up and her leg would not go out straight. Later he placed splints again at the back of the leg to try and get it straight. Although the splint was kept on three days it did not make her leg straight. The son of the defendant took the splint off because, he said, it was fixing the hip. On a later occasion the defendant told her sister she ought to have something to put her leg straight, but that he could not do the stretching required, because he could not give an anaesthetic and use the knife.

The defendant afterwards blistered the hip because it had become fixed owing to the splint. Whilst she was under treatment she was given the following certificate by his son:

> December 3rd, 1909. This is to certify that Edith Batchelor is suffering from a fractured leg and ankle and is unable at present to follow her occupation.

To convince herself and her sister about the break the defendant one evening placed the *x* rays over her.

On February 17th she became an out-patient of the Hull Royal Infirmary, and on March 14th an in-patient, and the wound healed splendidly. There was still a little swelling. On cross-examination she said she knew that the defendant was not a doctor. When she first went to him her leg was straight. He did not draw her attention to a grating noise when the ankle was moved.

The evidence of the plaintiff having been corroborated by her sister, Dr. Archibald Gillespie stated that when he found she had a severe sprain of the ankle-joint he applied elastic pressure to the ankle, bandaged it with cotton-wool, and sent the girl to bed. He attended her on fifteen different occasions, and at the time she dispensed with his services she was progressing very well, and would have been fit to resume her duties in about a month or six weeks. There was no indication of any fracture. In his opinion the use of a splint in such a case was improper, and the blistering was also improper. A splint might be used in a fracture even if a slight one, but the defendant was wrong in his diagnosis, and even if he thought there was a fracture he was wrong in using the splint, because the injury was then three weeks old.

At the adjourned hearing of the case on May 12th, evidence as to the impropriety of the treatment adopted by the defendant was given by Dr. Devine and Dr. Milburn. The latter had examined the plaintiff on July 8th, 1910, and found evidence of a severe sprain, but not of fracture.

Mr. Howlett, Senior Surgeon at the Hull Royal Infirmary, also gave evidence and produced *x*-ray photographs which had been taken of the plaintiff's foot, and which showed that there was no fracture.

The defendant, giving evidence on his own behalf, stated that he treated the defendant on the assumption that there was a fracture, and that that did not amount to negligence. He added that he had been unable to get a doctor to come and examine the girl and to give evidence on his behalf, though he had tried in Leeds, Sheffield, Grimsby, and Hull.

The judge having summed up, the jury returned a verdict for the plaintiff, assessing damages for the amount claimed.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## INTERFERENCE WITH THE PATIENT OF ANOTHER PRACTITIONER.

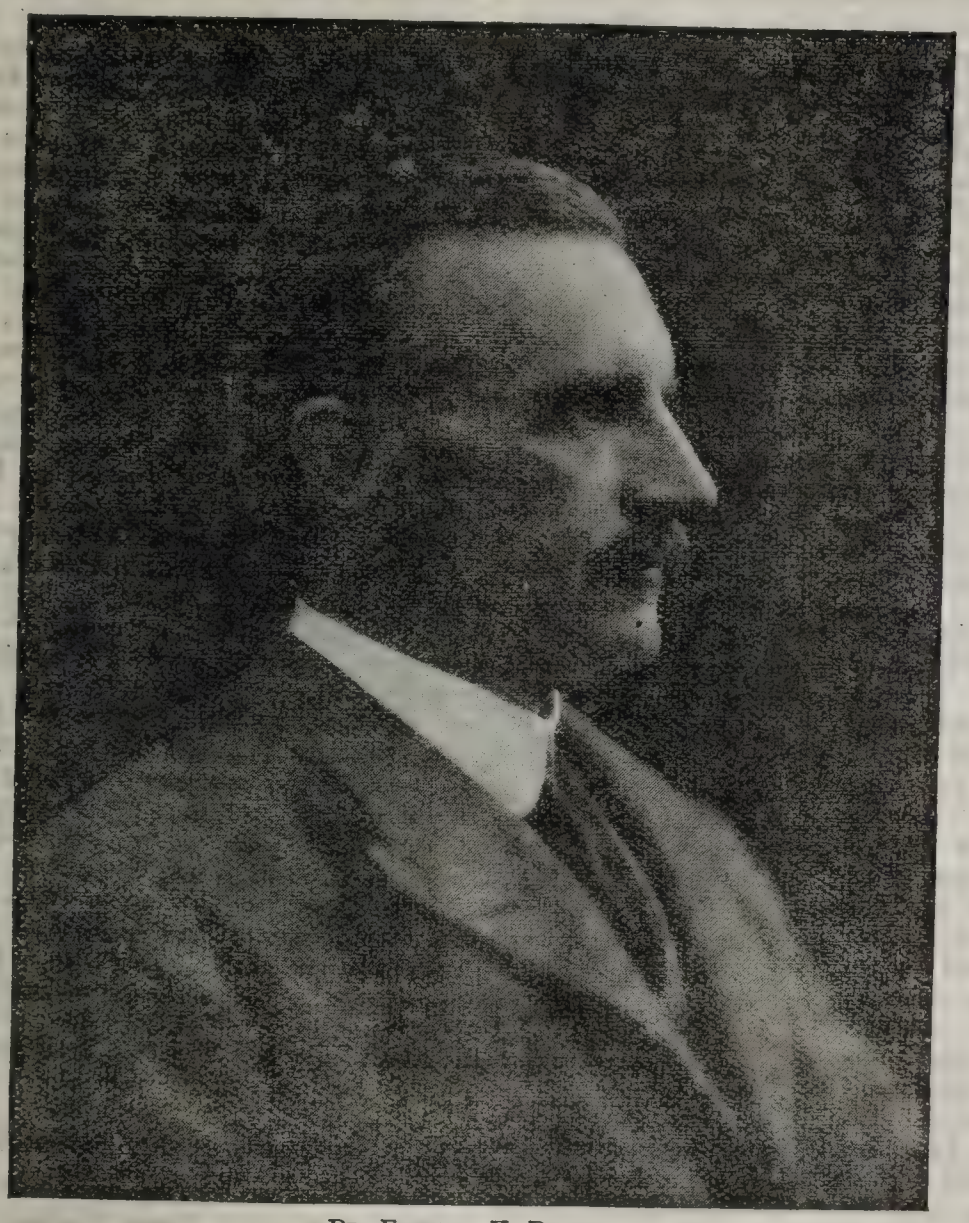
VERITAS.—It is natural that a patient should wish to see her relative, and when the lady wrote to say that she intended to do so, A. ought to have suggested that he should meet B. By taking no step to secure this he may have appeared to consent to B. seeing the case alone. On the other hand, it may be said that B., when asked to see the case, should have suggested that A. should be asked to meet him. It is possible that he did this and that the patient's letter was written with this intention.

# Obituary.

## EDWARD H. DOUTY, M.D., M.C., F.R.C.S.,

CANNES.

A WIDE circle of Cambridge men, especially medical graduates of the closing fifteen years of the last century, will have seen with sincere regret the notice of the death of E. H. Douty. He was born on December 17th, 1861, at Wilton, near Salisbury, and was the second son of Joel Douty, a wellknown schoolmaster of Netherhampton House, near Salisbury, and Mary, daughter of J. Donaldson, of Carlisle. He was educated at St. Edmund's School, Salisbury, and at King's College, Cambridge, which he entered as a choral scholar, with the intention of taking Holy Orders. In 1884 he was placed in the second class in Part I of the Natural Science Tripos, and, as his father died on the day he took his degree, he at once devoted himself to keeping his father's school, which was disposed of later as going concern. In 1885 he returned to Cambridge to work for a medical degree, supporting himself meanwhile by coaching. During the next twelve years he worked incessantly and with restless activity, becoming Senior Demonstrator of Anatomy in 1887, and Supervisor of Medical Students at King's and Emmanuel Colleges. At one time he was nearly elected a Fellow of King's with a view to his being made Dean. After qualifying M.R.C.S., L.R.C.P., in 1888, he was House-Surgeon in 1889 at the Middlesex Hospital, where he had worked in the vacations, and where his elder brother, Harrington, had had a brilliant career. He then began practice in Cambridge with the late Mr. Hyde Hills, and rapidly achieved a great success. Before this he had worked up an enormous coaching connexion, and shown himself a teacher of the highest ability. His engagements rapidly multiplied; he became after a contested election Assistant Surgeon and Surgeon-in-Charge of the Gynaecological Department, and was Lecturer in Midwifery in the University. In 1890 he performed what was probably the first cholecystotomy in East Anglia, and was supported at this operation by the presence of his senior, Sir George Humphry, whom he resembled in his impressive manner and powers of teaching. He was a member of the Cambridge County Council, and Surgeon-Captain Harwich Infantry Brigade. In 1897 he had haemoptysis after influenza and sent the sputum to be examined by the late Professor Kanthack, who, believing it to be from some patient unknown to him, said casually to Douty that it was teeming with tubercle bacilli. This ended a chapter in Douty's life and made him a wanderer over Europe; he was for a time a patient at Nordrach under Walther, and later settled in practice at Davos where he carried out the Nordrach treatment at the Belvedere Hotel. After some years he found the cold of Davos so unbearable that he decided to practise elsewhere, and finally settled at Cannes, for a time having rooms in Paris. His ambition had always been in the direction of surgical practice, and in 1906 he spent some months working in London and in spite of severe intercurrent illness obtained the F.R.C.S. He often thought of settling in London, and no doubt his extensive connexion with patients who had passed through his hands at Davos would have ensured him success, but his health was too uncertain to justify such a step, and he laid himself out for surgical practice in the Riviera where he was Surgeon to the Asile Evangelique, Cannes, and to the Queen Victoria Memorial Hospital, Nice.



*Photograph by]* DR. EDWARD H. DOUTY. *[J. Palmer Clarke, Cambridge.*

From a medical point of view he was remarkable on account of his numerous qualifications; indeed, apart from those in possession of honorary degrees, he was probably the best qualified man in the world. His degrees and qualifications included M.A., M.D. (1898), M.C.Cantab. (1908), M.D.Paris (1904), M.D.Lausanne (1901), Swiss Federal Diploma, Geneva (1900), M.R.C.P.Lond. (1904), and F.R.C.S. The foreign degrees were of course necessary to enable him to practise in Davos and Cannes. He had many interesting stories about his examinations, and he obtained the Paris degree in the face of very considerable difficulties. As a medical man he formed his opinions quickly, accurately, and seldom made mistakes. He had a facility for attracting and managing patients, and rapidly got into work. His contributions to medicine were comparatively few, and were confined to a few papers on the treatment of tuberculosis and of syphilis, and to reports on some surgical cases.

His surprising energy enabled him to triumph over constant and slowly increasing physical disabilities, and to accomplish an amount of work of which few realized the cost or the extent. A man of the world of extraordinary versatility, he was a connoisseur in music, literature, and in almost every form of art. There were, indeed, few subjects on which he had not clear and independent views. With a mind exceptionally virile, and little inclined to bow to authority as such, he had a shrewd eye for humbug in high places and a generous appreciation for merit in unlikely subjects. His striking personality exerted a direct and wholesome influence over his pupils and patients, especially the undergraduates at Cambridge between 1885 and 1897. No one was less like the traditional Don, but many owe much to his kindly and vigorous assistance at critical periods of their lives.

With his many-sided nature, Douty had numerous friends, such as the late J. W. Clark, J. H. Middleton, F. Whitting, Felix Cobbold, to mention some only of those who are dead. No doubt his outspoken and upright character raised opposition among those who failed to understand his aims and ambitions; though he was frank in his opinions and could hold his own, he bore adverse criticism without rancour. His old friend, E. H. Parker of Cambridge, writes: "He was a man of extraordinary personality and the best of companions, but perhaps the

most attractive part of his character was shown by his unostentatious work amongst the poor of Cambridge without reward. It was no uncommon thing for him to pass the night in the poorer part of the town, gratuitously attending the confinement of some poor woman. There was no amount of trouble he would not take for the poor or for a friend. His sympathy and personal magnetism were felt by all."

On September 21st, 1909, he married Kathleen, third daughter of the late Sir Frederick Wills, Bart., and of this exceptionally happy union there is a son aged 8 months.

The funeral took place on Friday, June 2nd, at the Church of St. Helen, Clifford Chambers, near Stratford-on-Avon, and was conducted by the Venerable Archdeacon William Cunningham, who had officiated at his marriage twenty months before. H. D. R.

## PETER HUME MACLAREN, M.D.,

CONSULTING SURGEON TO THE ROYAL INFIRMARY, AND FORMERLY PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

DR. PETER HUME MACLAREN died at his residence in Edinburgh on May 20th, after several weeks of severe illness.

In his 75th year at the time of his death he looked a much younger man, and was conspicuously so in body and mind until within the past few years repeated serious illnesses left their mark upon him. He returned to Edinburgh last autumn in better health than he had enjoyed for long, and even when in spring there was a return of the former symptoms of hepatic disorder, it was hoped that his vigour of constitution would enable him to regain his health, but an attack of facial erysipelas so exhausted his strength that these hopes were disappointed.

DR. MACLAREN.

*Photograph by*] [*W. Crooke, Edinburgh.*

Dr. Maclaren was born in Edinburgh, and received his early education there by private tuition. He studied medicine in a golden age of the Edinburgh Medical School, and graduated M.D. in 1857, having passed his examinations before he was 21. After a period of work as House-Surgeon to Professor Spence in the Royal Infirmary, Edinburgh, and a year in an Assistantship in Forfar, he went to Berlin, and studied under Virchow, Traube, and Langenbeck, and always looked back upon this time with great delight.

On returning home Dr. Maclaren spent some fifteen years in most successful practice at Lasswade, where he laid the foundation of a connexion which, after his return to Edinburgh in 1877, rapidly brought him a large practice amongst the most influential members of the community. During his residence at Lasswade he was Surgeon in the Edinburgh County Militia; he retired with the rank of Surgeon-Colonel.

Shortly after his settlement in Edinburgh Dr. Maclaren was appointed Assistant Surgeon to the Royal Infirmary, in due course becoming full Surgeon with the charge of wards. Engaged in friendly rivalry with men whose names add lustre to their school and hospital, he maintained his position as a successful and popular clinical teacher. His best work was done during his occupancy of the charge of the lock wards, and his teaching on venereal disease was embodied in an Atlas, and in pamphlets, which in their time were recognized works of reference.

Dr. Maclaren was one of the last of the general practitioners of Edinburgh who obtained appointment in the hospital, and though no doubt his engagements in general practice set a limit to his surgical work, yet in virtue of that wider experience his teaching had for his students a value and distinction of its own. Many among his students have in after-life recognized how much of value for their practical work they got from the mature wisdom and shrewd judgement of their old teacher.

When Dr. Maclaren's period of office as Acting Surgeon ended he did not lose interest in the work of the infirmary and the advance of modern surgery, but as one of the managers rendered the hospital further valued service.

He was elected President of the Royal College of Surgeons of Edinburgh in 1894, and continued to occupy the chair for the customary period of two years. He was for many years one of the Examiners for the Licence and Fellowship of the College.

In 1900 Dr. Maclaren retired from his private practice, to the great and lasting regret of his numerous and attached patients, and during the ensuing years found abundant scope for work and influence on the boards of the Royal Infirmary, the Royal Hospital for Sick Children, and the Royal Asylum, of all which he was a highly respected and influential member. He also was a Manager of the Orphan Hospital, a home of residence for children of the working class. During many years he was the Principal Medical Officer of the Caledonian Insurance Company, a position for which he was peculiarly qualified by reason of his knowledge of men and affairs; this office he resigned in 1908. He acted also as Medical Adviser to the Commissioners of Northern Lighthouses.

In all the important and very various offices which, as has been seen, Dr. Maclaren held, his work was distintinguished by the exercise of balanced judgement and strong common sense, but perhaps he was seen at his best going out and in among his patients, much more than a doctor, "a guide, philosopher, and friend," whose entrance brought into the sick-room cheer and hopefulness.

His holidays he thoroughly enjoyed; he was a good shot, and in his later days became a keen golfer; on all occasions of social meeting he was the soul of good fellowship and the centre of mirth.

The news of his death will cause grief to his many former students and assistants throughout the world, and his memory will always remain with us.

## CHARLES JOHN ROBERTSON-MILNE, M.D.,

MAJOR, INDIAN MEDICAL SERVICE.

MAJOR CHARLES JOHN ROBERTSON-MILNE, of the Bengal Medical Service, died of enteric fever at Barhampur, on May 22nd, 1911.

He was born on January 8th, 1872, educated at Aberdeen, where he took the degrees of M.B., C.M., in 1893, and subsequently the M.D., with honours, in 1909, and entered the I.M.S. as Surgeon-Lieutenant on January 29th, 1895, becoming Surgeon-Captain on January 29th, 1898, and Major on January 29th, 1907. While in military employment, he served in the Tirah Campaign of 1897–8, including the actions of the Sampagha and Arhanga passes; the reconnaissance of the Saran Sar and actions of November 9th and 11th, 1897; the operations against the Khani Khel Chamkanis; and the operations in the Bazar Valley, December 25th to 30th, 1897; and received the medal with two clasps.

Entering civil employment in Bengal in 1900, he served successively as Resident Physician of the Calcutta Medical College Hospital, as Civil Surgeon of Backerganj, and as Deputy Sanitary Commissioner of Western Bengal. He was then placed on special duty to conduct an inquiry into cerebro-spinal fever, the outcome of which was an

interesting little monograph, *Report on Epidemic Cerebro-spinal Meningitis in India*, Calcutta, 1906. For the past five years he had been Superintendent of the Central Lunatic Asylum for natives at Barhampur, better known to English readers as Murshidabad, the old capital of the Mussulman kingdom of Bengal. He was also the author of the *Bengal Lunatic Asylums Manual*, Calcutta, 1910, and contributed the chapter on insanity to the last edition of Lyon's *Medical Jurisprudence for India*.

Major Milne's father was also an officer of the Indian Medical Service—Surgeon Robert Moir Milne, who died of cholera at Benares on August 11th, 1875, after less than ten years' service. Major Milne had lately been much affected by the unexpected loss of his wife, who died in Edinburgh on February 22nd, 1911, and, when attacked by a severe type of enteric fever, he had no desire or power to make a struggle for his life.

The Bengal Medical Service has been hit very hard by the hand of death in the last few months, having lost four officers, all much above the average in attainments and reputation: Colonel J. A. Cunningham on December 31st, Lieutenant-Colonel J. W. T Leslie on March 27th, Major G. Lamb on April 11th, and now Robertson-Milne.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

*Degrees.*

THE following were among the degrees conferred on May 27th:

M.D.—A. S. MacNalty, H. L. Tidy.

*Lectureships.*

Mr. A. P. Dodds-Parker, of Magdalen College, has been re-appointed University Lecturer in Applied Anatomy for three years from October 10th, 1911; Dr. W. Tyrrell Brooks has been appointed to the Litchfield Lectureship in Clinical Medicine, and Mr. D. L. Chapman, of Jesus College, has been approved as an Examiner for the Diploma in Public Health.

## UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—H. P. Crampton, C. Roper.
M.B.—C. K. McKerrow, K. Pretty.
B.C.—C. K. McKerrow, J. Van Schalkwijk.

## UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

*Lectureship in Genetics.*—At a meeting of the University Court on May 18th, it was resolved, on the recommendation of the Senatus, to institute a Lectureship in Genetics, and Mr. A. D. Darbishire, M.A., was appointed to the office of Lecturer, and it was arranged that a course of six lectures on Heredity should be given by Mr. Darbishire during the current summer session, the course to be free to all matriculated students.

*Examiner in Surgery.*—Mr. A. A. Scot Skirving, M.B., F.R.C.S.Edin., was appointed an additional Examiner in Practical Surgery.

*Grants for Research.*—Grants recommended by the Senatus from the Earl of Moray Endowment for the promotion of original research were approved.

*Rectoral Election.*—The next rectoral election was fixed for October 28th, 1911. The candidates are the Earl of Crewe and the Earl of Minto.

*Recognition of Teachers.*—Recognition was granted to the following extra-academical teachers in the Natal University College for purposes of graduation in medicine: (1) Professor J. W. Bews (botany); (2) Professor R. B. Denison (chemistry, certificate to include elementary inorganic and practical inorganic and elementary organic and practical organic).

*Students' Representative Council.*—Alterations proposed by the Students' Representative Council in the constitution and laws of the Council were approved.

*Professor Chiene.*—The gift of a bronze replica of a silver medallion, presented to Professor Chiene by his old house-surgeons, was accepted with thanks. A letter from the honorary treasurer of the Chiene Portrait Fund was read, intimating that the Executive Committee of the fund had resolved to hand over to the university the balance of the fund, amounting to between £310 and £320, to form a fund to provide a bronze medal, to be called "The Chiene Medal in Surgery." The court resolved to accept administration of the fund.

THE report of the Nightingale Fund for 1910 shows that the year ended with a satisfactory balance on the right side, and that nurses trained at the school of the fund at St. Thomas's Hospital continue to carry off a considerable proportion of the vacant appointments at different institutions. The report also records the retirement of Dr. Sharkey after eighteen years' valuable service to the fund as lecturer on medical subjects and in other capacities.

# Medical News.

THE dinner of the Durham University Medical Graduates' Association will be held at the Imperial Restaurant, Regent Street, W., on Saturday, June 17th. The President, Dr. J. Inglis Parsons, will take the chair at 7.30 p.m.

THE American Breeders' Association, which has its head quarters at Washington, has recently turned its attention to the consideration of questions relating to the deterioration and improvement of the human race by the neglect or adoption of methods practised in the breeding of animals. The association includes three sections, which respectively concern themselves with the breeding of plants, animals, and men. President Jordan, of Stanford University, is the chairman of the section of eugenics. This section has four standing committees—one on the heredity of insanity, of which Dr. Adolph Meyer, of the Johns Hopkins University is chairman; one on the heredity of feeble-mindedness, presided over by Dr. A. C. Rogers, Superintendent of the Minnesota Institution for the Feeble-minded; one on the heredity of epilepsy, of which Dr. M. W. Ballard is chairman; and one on the heredity of criminology, of which the chairman is Dr. Charles R. Henderson, of the University of Chicago. The Association publishes a quarterly journal entitled *The American Breeders' Magazine*.

A MOST enjoyable entertainment took place at the Natural History Museum, South Kensington, on the evening of May 30th, when the Royal Society of Arts held a *conversazione* for some fifteen hundred guests. The chairman, Sir John Cameron Lamb, C.B., C.M.G., and other members of the council received their visitors in the central hall, where an excellent selection of music was played by the band of the Royal Artillery, whilst a vocal and instrumental concert was given in the shell gallery, and a miscellaneous programme of dancing, recitations, and music was provided in the fish gallery under the direction of Mr. Patrick Kirwan. A remarkable feature of the reception was the large proportion of visitors from the overseas dominions to be observed among the guests, who included the Raja Dhiraj of Shapura, the Raj Kumar Sardarsing of Shapura, the Sirdar Charanjit Singh of Kapurthala, and the Tikka Saheb and Saheba of Nabha; whilst the Portuguese Minister, Sir Herbert Maxwell, Colonel Sir David Bruce, Judge Rentoul, Professor Luigi Ricci, and Sir William Crookes were amongst those who put in an appearance during the course of the evening.

THE spring dinner of the Glasgow University Club in London took place at the Trocadero on May 26th, and brought together about 150 members and guests. The chairman of the evening was Professor J. M. Thomson, now of King's College, who in the course of a sketch of the progress of the university claimed that his connexion with it probably constituted a record, for having been born in the Old College buildings he entered the university on the day of his birth, March 7th, 1849. The Universities of Oxford and Cambridge were of a special kind, and did their work admirably, but otherwise education was much better carried on in Scotland than in England. In the former country there was close relationship between the high schools and the universities. The latter were founded for the people, appealed to the people, and kept themselves in close contact with the people down to the peasant on the land. The small band of men who founded University College in Gower Street included many Scotsmen, and it was intended to be a Scots college in London. For a plan they unfortunately went to Edinburgh instead of Glasgow, and but for this fact King's College, to which he now belonged, would probably never have been called into existence. It was a pity that the old B.A. degree at Glasgow in languages and philosophy had been abolished; it only required two years' work, and was a much better preparation for after-studies than a matriculation examination. The correlation between the medical faculty and the Royal Western Infirmaries was a matter for congratulation. So, too, was the correlation recently sanctioned between the university and the West of Scotland Technical College. Professor Thomson also mentioned that the Glasgow Club in London now numbered over 300 members. During the course of the evening Dr. C. L. Hawthorne proposed a toast to Dr. W. Walton Don, who is about to retire from the office of treasurer after having rendered seven years' service. The toast having been duly honoured was suitably acknowledged by Dr. Don.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

UNGUIS asks what is the explanation of chalky whiteness of the finger-nails, and whether any significance is to be attached to it. In the case in which he is interested—a young man in good health—all the finger-nails are affected; some have large patches, in others almost the whole nail is chalky white. The nails are not brittle, and, except as to colour, seem normal. The condition makes them conspicuous across the room.

COMPENSATION FOR LOSS OF LAST PHALANX OF THE THUMB.

RICHMOND writes: I have removed the necrosed ungual phalanx of the left thumb in a woman suffering from whitlow. At the present time, three months later, although there is a certain amount of recently generated solid where once the ungual phalanx existed, yet there is numbness, tenderness and a distinct loss of power to hold needlework, etc., between the thumb and the fingers. Piano playing also is impossible. The questions I am asked are:—(1) Whether eventually the thumb will recover entire use? to which I answer, No. (2) The amount which should be demanded from the employers, the poisoning having admittedly occurred from her occupation? Her salary was 16s. weekly, and the employers were a noted charitable institution.

## ANSWERS.

FER DE LANCE.—*Lachesis lanceolatus* is the name of the Fer de lance, but it is also sometimes referred to as *Bothrops lanceolatus* or *Craspedocephalus lanceolatus*. The mocassin, or copperhead snake, is called *Ancistrodon contortrix*, but may be referred to as *Trigonocephalus cenchris*. Both belong to the same subfamily as the rattlesnakes (*Crotalinae*), but neither possesses a rattle.

MANCHESTER.—If certifiable as imbecile the case might be received at the Royal Albert Institution, Lancaster. Terms can be obtained from the Secretary, Mr. S. Keir, Lancaster. If not so certifiable, admission might be obtained to (1) Princess Christian's Farm Colony, near Tonbridge, Kent. Particulars from Miss Kirby, Secretary, National Association for Feeble-minded, Denison House, Vauxhall Bridge Road. (2) Sandwell Park Institute, near Birmingham. For terms apply to the Secretary, National Institution for Persons Requiring Care and Control, 14, Howick Place, Westminster, S.W. Industrial training is given in all these institutions.

THE EVIDENCE OF RECENT SEVERE ILLNESS AFFORDED BY THE NAILS.

DR. NORMAN FLOWER (Yeovil) writes: With regard to the letters of Dr. Davis and Dr. Richard Kay on the above subject, Sir Dyce Duckworth records in the *St. Bartholomew's Hospital Reports*, 1909, that the transverse furrow was first described by M. Beau, physician to the Hôtel-Dieu in Paris more than forty years ago, who regarded it as trustworthy evidence of past illness. We now know that this condition occurs commonly after illnesses of ordinary severity, but this is not the case with the colour disturbance illustrated in my communication of April 15th, which takes the form of broad white lines lying across the axis of all the nails. These are the only real indication that the patient was at one time at death's door. Moreover, the nature of the nails on the proximal side of the white lines is of a different character to the rest, being quite soft and resembling those of a child—a fact which is not so apparent when only the furrowing occurs. It is evident that the trophic disturbances in the nails described by Dr. Davis and Dr. Kay in scarlet fever are directly analogous to those occurring in the skin during the period of desquamation.

## LETTERS, NOTES, ETC.

EXTRACTION OF CATARACT IN THE CAPSULE.

MAJOR G. H. FINK, I.M.S.(Ret.) desires it to be stated that the two communications from him of which we published a summary on page 1216 of our issue for May 20th, were in answer to remarks made by Captain Lister, I.M.S., and by a correspondent signing herself Amy Shepherd, and were dated April 14th and 15th.

THE EFFECT OF SALVARSAN UPON TREPONEMA PALLIDUM.

DR. ARTHUR LOXTON (Birmingham) writes: The memorandum of Dr. Andrew Balfour in the JOURNAL of May 20th is exceedingly interesting, and may possibly exert a powerful influence upon our methods of using the new salvarsan. Arguing from Dr. Balfour's laboratory observation, one would expect to obtain more permanent results from intramuscular or subcutaneous than from intravenous injection. After intravenous injection salvarsan appears to be eliminated in a few days, arsenic rarely being found in the urine after the fifth day, while after other methods of injection it has been found for considerable periods. In the *Münchener medizinische Wochenschrift* for March 28th Dr. Isaac of Berlin reports that he has treated patients with marked success by repeated injections of small doses of salvarsan. The patients continue their work as usual, and once a week receive a subcutaneous injection of 0.1 gram or 0.2 gram salvarsan suspended in oil of sweet almonds. Salvarsan is now put up in ampoules of 0.1 gram and 0.2 gram of the drug. This system is being tried at the Birmingham Skin Hospital, and I hope to report results shortly.

THE TREATMENT OF CLEFT PALATE.

MR. R. W. MURRAY (Liverpool) writes with reference to the meeting of the Section of Surgery of the Royal Society of Medicine, held on May 9th: The chief reason for this meeting being held was that a definite answer might be given to the oft-repeated question, At what age should a cleft of the palate be closed—in early infancy or in early childhood? If during early infancy, then the only way in which the cleft can be closed is by means of a turn-over flap (Lane's operation); if, on the other hand, the operation be postponed until early childhood, the cleft may be closed by paring the edges and bringing them together in the middle line (Langenbeck's method). As the main object in closing the cleft is to enable the child to speak distinctly, then surely the question as to which is the better method is entirely a matter of evidence, and the witnesses must be the children operated upon and not the surgeons who performed the operations.

At the meeting a multitude of witnesses were brought forward by several surgeons (more especially by Mr. James Berry) who favour operating during early childhood; and it was most interesting and encouraging to hear how admirably they bore testimony in favour of Langenbeck's method, by repeating clearly and distinctly such words as "sixpence," "cup and saucer," and even "British constitution." Unfortunately the surgeon, who has for years so conspicuously and so persistently advocated the flap operation during early infancy, for some reason or other did not think it desirable to bring forward even half a dozen children as witnesses out of the many hundreds, possibly thousands, of cases he must have operated upon. Certainly two or three cases were shown in which the cleft had been closed by the flap method during infancy, but articulation was so imperfect that the children could with difficulty make themselves understood, and later on will surely find it hard to earn a livelihood.

For some years I have been interested in the treatment of cleft palate, and speaking from considerable clinical experience can say that a well-formed and freely-movable soft palate is essential for clear articulation. Now if a cleft of the soft palate be closed by means of a turn-over flap, not only are the muscular arrangements of the palate ignored, but a raw surface is exposed which must heal by granulation and contract, so resulting in a soft palate too short, too tight, and incapable of movement, since it is largely composed of scar tissue. If, on the other hand, the operation be performed during early childhood, then the edges of the cleft may be united in the middle line, and a well-shaped and freely-movable soft palate fashioned, containing merely a thin central line of scar tissue.

I regret very much that I was unable to take part in the debate, for I was most anxious to cross swords with those who advocate operating during early infancy, but I had to return to Liverpool with the four children I had brought with me. However, we all heard the children speak, and I firmly believe that, had a vote been taken of those surgeons present, an overwhelming majority would have been obtained in favour of delaying operation until early childhood.

I went to the meeting anxious "to learn what is true, in order to do what is right," and I know now it is *true* that when a cleft of the palate is closed during early infancy by the flap method the child will never be able to speak distinctly, and I know it is *right* to delay the operation until early childhood and close the cleft in the ordinary way, for the child may then speak in a perfectly natural manner.

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# WHERE CHEMISTRY AND MEDICINE MEET.*

BY ARCHIBALD E. GARROD, D.M., M.A.OXON., F.R.C.P., F.R.S.,

PHYSICIAN, WITH CHARGE OF OUT-PATIENTS, TO ST. BARTHOLOMEW'S HOSPITAL; PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

THERE was a time, not so very long ago, when this country could challenge comparison with any other as regards the number of able and zealous workers who were engaged in the study of the chemical aspects of disease. Those were the days of Prout, of Alexander Marcet, and of Bence Jones, and others whose names occupy distinguished places in the roll of honour of British medicine, and who, following in their footsteps, carried on and extended their work. Of these, the veteran Dr. Pavy is still among us, and hands on the tradition to younger generations. Yet it must be admitted, with regret, that of recent years we have tended to fall behind, and to leave to investigators in other lands in which the organization of research has been more developed than with us, the task of unravelling many of the problems which await solution. Our workers in this field are not less zealous than their predecessors, but their numbers are fewer in proportion, and the development of fresh fields of pathological study has opened out many attractive lines of investigation in other directions. Although the profession at large, in this country, gives an ungrudging recognition to the importance of chemical pathology, it prefers for the most part to admire at a distance, and to a medical audience a discourse on this subject is not always acceptable. This is in part the fault of the labourers in the field, who have somewhat neglected the task of exposition. If the workers are few, textbooks are still fewer, and the results obtained are seldom discussed in our medical societies. Yet in these days of press activity the omission to add largely to the bulk of the writings with which the busy medical man is expected to cope will be regarded leniently as a vice which makes a near approach to virtue. May the scantiness of such writings in our own language serve as an excuse for my incursions into the chemical field, in response to the invitation to address you with which I have been honoured.

In few branches of scientific investigation have greater advances been made of recent years than in that which deals with the chemistry of living things, but it is no easy task which he enters upon who sets himself to investigate the metabolic processes at work in the animal organism, and the derangements which these processes undergo in disease. It may be compared with that which confronts a man who wishes to study the manifold activities of a great chemical factory which he is forbidden to enter. He is able to examine the raw materials which are brought to the factory, the finished products which emerge from it, and the waste substances which are washed away in the drains, escape from the chimneys, or are thrown upon the dust heap. Upon such examinations, supplemented by an occasional peep through the windows, he must rely for his information as to what goes on within.

Nevertheless, with no better means at their disposal, chemical physiologists and pathologists have found out much about the chemistry of the human body, and are year by year making fresh incursions into the vast territory of the unknown.

All such knowledge is of importance to us as practical medical men. It enables us to gain clearer ideas of many problems which confront us, it arms us with new weapons for our fight with disease, and corrects many misconceptions which have been handed down for generations, and which tend to warp our practice.

It is of the general bearings of this increased knowledge upon our science and art that I propose to speak this afternoon, and I hope to be able to show that no special chemical training beyond that which forms an essential part of medical education is necessary for the appreciation of its import, whatever may be the case as regards the more technical details.

I cannot more fitly begin my discourse than by referring briefly to the immense advances made in the study of that great group of complex compounds in which all albuminous substances are included. The proteins are the essential constituents of living organisms, and it is upon their properties that the very possibility of life depends. Thanks to the labours of a body of indefatigable workers, among whom the great German chemist Emil Fischer stands pre-eminent, our knowledge of proteins is no longer limited to a knowledge of their ultimate compositions, of the various temperatures at which they coagulate, and other chemico-physical data. Their complex molecules have been taken to pieces, and it has been shown that they are built up of a number of comparatively simple fractions which can exist as independent chemical substances, and which, widely as they differ in structure, have this in common that they belong, almost without exception, to the group of amino-acids. Some of these fractions of proteins are old friends, long known as occasional constituents of the excreta, such as leucin, tyrosin, and cystin, in which last the sulphur of proteins resides; and from others equally familiar excretory products or products of putrefaction are derived, such as indol from tryptophane, cadaverin from lysin, and putrescin from arginin. In the elaborate protein molecules these various fractions play parts which may be compared with those played by atoms in simpler chemical molecules, and they are so numerous, and are capable of such various groupings, that from them may be formed an almost infinite variety of compounds of the protein class. Some proteins are peculiar in that from them certain of the primary fractions are absent. Thus gelatin contains no tyrosin, and zein, the protein of maize, no tryptophane. It is now believed that in the process of digestion the protein molecules undergo much more complete disintegration than used to be supposed, and that instead of being absorbed as proteins and incorporated as such in the organism which digests them, they are taken to pieces more or less completely, and are reconstructed to form the proper tissue proteins of the new host.

Even if there were no other grounds for this belief, it could hardly be avoided in view of the demonstration by means of the delicate ultra-chemical precipitin reactions, that the proteins of which the tissues of animals are built up are not identical for the different species, and that the more nearly two species are related, the more closely do their proteins approximate.

Seeing that the boundaries of species are not rigid in any strict sense, it follows of necessity that similar but even more subtle differences must exist between the tissue proteins of individuals of a species. The notion must be abandoned, once and for all, of a multiplicity of structure and form, but a uniformity of chemical process throughout the animal kingdom.

Such considerations, although they appear at first sight to have a merely theoretical interest, have a real practical importance for us, and this altogether apart from the medico-legal applications of the precipitin test.

It will be evident that the optimum diet of a man must contain not only a sufficiency of protein in general, but must also contain an adequate supply of each individual fraction of the protein molecules which enter into the structure of the human tissues.

As you well know, the balance of the nitrogen in the excreta against the nitrogen of the food affords a measure of the quantities of protein broken down and built up on a particular diet. When the output of nitrogen exceeds the intake, this shows that tissue breakdown is in excess of reconstruction, whereas when active reconstruction is in progress the intake of nitrogen exceeds the output in the urine and faeces.

Again, it is a well-established fact that an even nitrogen balance may be maintained upon diets of very different protein content, and may also be maintained upon a diet much poorer in protein than that which is usually taken by healthy men, and which represents the level instinctively arrived at by mankind, civilized and uncivilized alike.

Yet it does not follow from this fact that the reduced diet, although it maintain the nitrogen balance, is an optimum diet, and more probably we need to take habitually excessive quantities of food proteins, in order that we may get from our diet all that we need of each individual fraction of the protein molecules.

* An address delivered to the Gloucestershire Branch of the British Medical Association.

You will remember the stone bricks which were so popular as children's toys some years ago. They were of different colours, shapes and sizes, and with them could be constructed a variety of buildings of different kinds—houses, churches, temples, and the like. However, if the bricks of some particular kind had been lost, as was often the case, although abundance of others were available one could not construct some special kind of building which was wanted. So it is with protein reconstruction. A protein which has some special deficiency, such as gelatin which lacks the tyrosin bricks, does not form a satisfactory substitute for other kinds of protein foods. The organism does not need protein alone, but demands tyrosin as an essential building stone for its tissues, and the same is true of other fractions also. According to the more modern views, which are associated with the name of Folin, large quantities of the ingested proteins are merely stripped of their nitrogen and burnt as fuel, just as fats and carbohydrates are, and from this excess we may suppose that the organism readily picks out the particular fractions which it needs, and in the proportions necessary for the reconstruction of its tissues, for which purpose only a small fraction of the total supply is utilized.

There is another practical lesson to be learnt from what has gone before—namely, that the more nearly the proteins of the food approximate in structure to the tissue proteins, the more completely satisfactory and easy of utilization will they prove to be. This may be supposed to be of special importance to the newborn animal whose digestive ferments are as yet only imperfectly developed; and accordingly Nature has provided, in mother's milk, an optimum diet at that period of life. This is, perhaps, the reason why no substitute is as good for an infant as mother's milk. We may, with care, rearrange the constituents of cow's milk so that its several constituents are represented in proportions almost exactly similar to those in which they occur in breast milk; but however completely we may humanize cow's milk, it is not in our power to make it human, nor to give to its proteins the peculiar stamp of specificity.

At first sight this appears to be an argument for cannibalism; but it is not really so. As the infant grows into the child, and the child into the man, he is quite able to dispense with these slight advantages which may be of inestimable value in his earliest days of life. Even those animals which are by instinct and practice vegetarians, who reconstruct their tissues from proteins which are not even of animal kinds, are nourished with maternal milk at the beginning of their lives.

It is in the proteins of the tissues that chemical specificity and individuality resides. The simpler molecules of fats and carbohydrates admit of no such range of variation. Glucose wherever met with is one and the same substance, and, although the composition of the fats of animals varies in different species, it is probable that these variations are mainly due to differences of diet. When an unusual fat is administered to an animal it is stored as such in its adipose tissues.

The clearer insight gained into the structure of proteins also throws a flood of light upon many urinary problems. We see that various abnormal constituents of urine, the origin of which was previously quite obscure, are in reality protein fractions which have escaped destruction in the ordinary way, or products of the incomplete breakdown of such fractions.

The evidence available tends to show that each individual protein fraction follows its own path of breakdown its destruction being effected step by step by the action of enzymes, a fresh enzyme taking up the work where another has left it. Thus the study of the rare and interesting congenital anomaly of metabolism known as alcaptonuria has thrown much light upon the ordinary fate of the aromatic protein fractions tyrosin and phenylalanin; whereas in the sister anomaly, cystinuria, the cystin fraction of proteins in part escapes the fate which normally overtakes it, and is excreted unchanged in the urine. Moreover, it appears that the derangement of the catabolism of one such fraction does not necessarily involve the implications of others also.

On the other hand, the ductless glands appear to exert a controlling influence upon metabolism as a whole, as witness the stimulation thereof which results from excessive thyroid activity in exophthalmic goître, and the slackening which characterizes the converse malady, myxoedema. It would seem that the thyroid secretion has a power of activating many enzymes.

The several metabolic paths for different substances, which have doubtless been shaped by evolutionary influences, are in the main permanent routes, and it is probable that when a patient excretes an abnormal product, or abundance of a product normally excreted in mere traces, this is not due to the deflection of the metabolic paths into new and abnormal lines, but rather to arrest at an incomplete stage of catabolism, or to excessive calls upon mechanisms but little utilized in health.

The fact that the organism has provided itself with means of defence against certain chemical poisons with which it is often called upon to cope, is not opposed to, but is rather confirmatory of, this view.

The protective mechanisms, which recall the more subtle defences, as yet beyond the ken of the chemist, by which the organism is guarded against bacterial poisonings, are of no small medical interest. In principle they all agree more or less closely; the harmful substance is rendered harmless by combination with some intermediate or final product of metabolism, and so combined is got rid of in the excreta. The metabolic product made use of plays the part of a watchful policeman, who, finding the toxic substance loitering in the organism, presumably for an unlawful purpose, takes it by the arm and conducts it outside the door.

It is a well-known fact that when benzoic acid is taken by the mouth hippuric acid is excreted in the urine. This is an example of such a protective arrangement. Benzoic acid, like most aromatic compounds, has toxic properties, whereas hippuric acid is relatively inert. Hippuric acid is a product of the combination of benzoic acid with glycine, the simplest of the primary protein fractions and presumably a product of metabolism. Some other aromatic compounds of similar nature to benzoic acid are similarly combined with glycine and excreted, for example, salicylic acid, which appears in the urine as salicyluric acid.

There is an alternative and even more important method of dealing with aromatic poisons, namely, by combining them with the sulphuric acid which is formed by the oxidation of the cystin fraction of proteins. Aromatic sulphates so formed are present in all human urines, even in health, for we all take in aromatic poisons with our foods, or form them in our intestines.

In health about one-tenth of the sulphuric acid of the urine is in such forms, but when the intake or formation of aromatic poisons is excessive, the proportion is far higher, and in carboluria nearly all the sulphuric acid is so combined.

The decomposition of proteins in the alimentary canal by the action of intestinal bacteria is an important source of such poisons. In ordinary circumstances fluctuations of the output of aromatic sulphates in the urine are mainly due to such decomposition, and hence the proportion of the total sulphates so combined affords some measure of intestinal putrefactive changes. The so-called indican of urine is such a compound, an indoxyl-sulphate formed from indol which is derived from the tryptophane fraction of proteins under the influence of intestinal bacteria, and its abundant presence also testifies to the activity of protein putrefaction.

Another most important protective mechanism is that by means of which the organism is guarded against poisoning by acids and vegetivora, which from the abundance of the alkalis in their diet run comparatively little risk of such poisoning, appear to lack this means of defence. It is far easier to kill a rabbit with acids than a dog. The fixed alkalis of the tissues are urgently needed for more important uses than the mere neutralization of acids, and any excessive call upon them for that purpose has disastrous results; but by the breaking down of proteins, and the stripping off of the amino groups from the various protein fractions, ammonia is abundantly found, and normally goes to the making of urea. In acid poisoning more or less of this ammonia is intercepted, is employed for neutralization, and appears in the urine as ammonium salts.

Hence it comes about that the amount of ammonia in the urine affords a measure of the quantities of abnormal acids in circulation in the organism, and when sodium bicarbonate is freely taken in cases of acidosis there is

less need of ammonia for neutralization, and the output is accordingly diminished.

Although under the stress of special conditions the ordinary metabolic scheme is departed from in certain directions, and, indeed, is more or less deranged in almost all diseases, it is highly improbable that the body chemistry ever goes wrong on its own initiative, and in this, as in other connexions, the epithet "idiopathic," now seldom used, is a survival of an age of ideas which are fast becoming obsolete.

Whether if placed in a perfect environment the human body would survive much more than a hundred years may still be looked upon as an open question, despite the brilliant writings of Metchnikoff and his well-known views upon the subject. In every chemical process there is some loss, by formation of by-products, and it may well be that the cumulative effect of such infinitesimal losses, in the constant breaking down and repair of the cells of the body, would, in any circumstances, bring the machine to a standstill in time. In all such speculations the crux of the problem is why the average duration of life of different animals varies so widely—why a dog becomes senile almost before his human contemporary is out of the nursery—and the intestinal theory hardly seems to explain this.

However, comparatively few human beings die of senile decay. Many succumb in early life to the invasions of the bacteria which surround us. Many, again, succumb to what may be styled the maladies of the second half of life, granular kidney and its congeners, some of which may well be effects of the accumulated minimal insults to which the organism is exposed, of trifling injuries, and minor indiscretions of diet and hygiene.

Advancing knowledge tends to bring the conviction that all diseases come from without, save such as are inborn (not merely acquired *in utero*) and which are less diseases than structural or functional peculiarities, inherited and *bred in the bone*. Such inborn peculiarities are met with in the domain of metabolism, as well as in that of structure. By coming from without I do not mean to imply that all maladies are due to invasion of the organism by vegetable or animal parasites. The alimentary canal is, strictly speaking, an external region, and an important rôle as exciters of disease must be ascribed to poisons introduced into the alimentary canal, or formed by the action upon food materials of the bacteria which abound therein.

The disturbances of metabolism which result from disease are often slight and inconspicuous, but in some maladies, which are often spoken of as diseases of metabolism, such disturbances dominate the clinical picture. Yet "diseases of metabolism" is a misleading term, for the chemical processes in the organism do not go wrong on their own initiative, and metabolism is no more truly diseased, than a machine is out of order because it goes wrong or comes to a stop when a stick is inserted among the wheels.

In gout, which is one of the diseases commonly included under this name, uric acid is the villain of the piece, but not, I believe, nearly so truculent a villain as it is often depicted. Indeed, I would venture to assert that uric acid has acquired in the public mind, and in that of many members of our profession, a pathological importance wholly beyond its deserts.

Some fifty or sixty years ago, soon after the discovery of an excess of uric acid in the blood of the gouty, the question of the pathology of gout appeared to have been solved to a great extent. It was taught that, owing to an impaired power of excreting uric acid by way of the kidneys, the observed accumulation occurs in the blood; that at intervals the power of the blood to hold uric acid in solution becomes overtaxed, and deposition of sodium biurate results in those tissues, such as cartilages, in which the conditions are least favourable to its remaining in solution, and that such deposition is the exciting cause of the acute paroxysm of gout. Since that time much elaborate work has been done upon the metabolism of the gouty, and by methods far exceeding in accuracy any which were available sixty years ago. Theories have arisen and theories have gone to the wall. Opinion has swung, like a pendulum, now towards the views that even in gout itself uric acid plays only a small and secondary rôle, then towards the attribution to this substance of a predominant influence in many diseases besides gout.

It has been maintained that the gouty deposits are formed *in situ*, and even that the uric acid in the blood is derived from the deposits, and not the deposits from the accumulated uric acid in the blood. Again, the view has been advocated that it is the uric acid in solution which does the mischief, and not its deposition from solution.

And yet, of recent years, the opinion of most of those who have studied the subject most closely has steadily tended back to something very closely resembling the original theory. Recent researches have corrected not a few minor inaccuracies, mainly due to the lack of adequate methods and a more embryonic stage of chemical knowledge, such as the view that the deposition is determined by lowering of the alkalinity of the blood. On the other hand, there seems to be no way of escape from the conclusion that uric acid is present in excess in the blood of gouty patients because it is imperfectly excreted. In no other way can the undoubted fact be explained that the excess in the blood is not accompanied by any excess in the urine, and often by some diminution of the output. Only for short periods during or immediately after the acute attacks has any increased excretion been observed.

If the excretion of uric acid were unimpaired, excess in the urine would go hand in hand with excess in the blood, as is actually the case during an excessive intake of purin substances—for example, when thymus gland is freely eaten, and when there is an excessive formation of uric acid, as is the case in some forms of leukaemia. Nevertheless the cause of the impaired excretion, and whether it be due to failure of renal functions or some unusual combination or state of the uric acid which hinders its excretion, is still unknown. Many other problems of gout still remain unsolved. It is uncertain in what combination the uric acid exists in the blood, what are the actual conditions which determine the deposition in the tissues, and how far the many symptoms which are commonly diagnosed as gouty, often upon very flimsy evidence, are directly connected with true gout, and are in any way dependent upon the uric acid error.

I lay stress upon the impairment of uric acid excretion, because there is a very widespread belief that the urine of a gouty patient is loaded with uric acid, and even that the existence of a gouty state can be diagnosed by examination of the urine. No one can diagnose goutiness by such means, and the erroneous belief doubtless had its origin in the frequency of uratic deposits in the urine of gouty patients, or the presence of abundant crystals of uric acid. These phenomena have no necessary connexion with an excessive daily output, but are rather due to concentration and other conditions unfavourable to solution. Excessive output is a cause, but only one of the causes, of such deposits.

Again, it is very generally assumed that because a drug is a good solvent of uric acid it is therefore of value in the treatment of gout. From the standpoint of the chemist this is a most unsound assumption. However soluble the urate of a metal may be, there is little chance that by administering a salt of that metal by the mouth we shall be able materially to promote the excretion of uric acid. Combinations of acids and bases are controlled by rigid chemical laws, and the bases with which an acid combines are determined by the relative amounts of the several bases on the spot. There is little hope that by giving a particular base in medicinal doses we can secure its presence, in any given region of the body in such quantities that it will have a chance against the sodium which is so abundant in the blood and tissues. The uric acid will show no preference for the base with which it forms a more soluble compound; and that base must take its chance with the rest in the general scramble. Thus it will be seen that there is no scientific ground for the use of substances which form specially soluble urates in the treatment of gout.

Our notions as to the place of uric acid in metabolism have undergone profound change in recent years. It is recognized that this substance can no longer be looked upon as an intermediate product in the formation of urea, but that it is a special product of the breaking down of one particular class of protein substances, the nucleo-proteins. A second mode of origin, by synthesis, is perhaps operative, to some extent, in the human body, and must play an important part in birds and reptiles, the bulk of whose nitrogenous excretion is in this form.

Obviously this change of view cannot fail to modify profoundly our ideas as to the optimum diet of gouty patients. Our aim will be to avoid adding to the excess of uric acid in the blood, by limiting the intake of its parent substances, the purin bodies and nucleo-proteins. To this end it no longer appears necessary to restrict protein foods generally, unless the kidneys be actually diseased, but rather to restrict such foods as are rich in the constituents referred to, namely, the extractives of meat, the glandular organs, such as sweetbreads and kidneys, and the varieties of meat which are specially fibrous, and therefore rich in nucleo-proteins. Other restrictions which are imposed, and with good cause, are made upon empirical grounds, and mainly on the testimony of those best qualified to judge of their desirability, namely, gouty sufferers themselves.

Of all foods the thymus gland, or throatbread, is far the richest in purins, whereas some protein foods, such as eggs, milk and cheese, are, as Walker Hall has shown, almost entirely purin-free.

Remember that in these ways we are not treating the actual disease, but are trying to modify its symptoms. The accumulation of uric acid in the blood is not the cause of gout, but only that of its symptoms. It is the result and not the cause of the primary disease. Regulation of diet is helpful to a sufferer from gout, just in the same way as a restriction on different lines is helpful to a sufferer from diabetes.

Of all diseases known to us, diabetes is that in which metabolic disorders most run riot, whereas the underlying mischief usually manifests itself by no outward signs. We are accustomed to speak of diabetes as a disease, but it would be more correct to describe it as a syndrome common to several diseases. It is true that in their clinical features and developments cases of diabetes closely resemble each other, although they differ widely in their rates of progress, duration, and gravity. Any diabetic patient may acquire cataract or gangrene, may lose flesh, and is liable to suppuration after slight injuries; and any case may end in diabetic coma.

These resemblances supply no argument against diversity of origin, for the symptoms mentioned are, one and all, secondary effects of the derangement of the carbohydrate metabolism, and are either due to the excess of sugar in the blood, or to the tissue destruction which persistent glycosuria brings in its train.

The definition of diabetes as a disease characterized by persistent glycosuria is by no means adequate, for no sharp dividing line can be drawn between transitory and permanent glycosuria, nor is it a satisfactory plan to exclude from the diabetic group any case which does not go on to a fatal ending.

Some cases of diabetes are undoubtedly due to organic disease of the pancreas, which can be demonstrated *post mortem* and is sometimes revealed by the passage of fatty stools or other signs of affection of that organ appreciable during life. In other cases nothing can be found amiss with the pancreas after death, and the most recent researches of Falta and others, carried out in von Noorden's clinic, suggest that the ductless glands may play an important part in the pathology of diabetes, possibly by an influence exerted by their secretions upon the functions of the pancreas. At any rate, it is a noteworthy fact that carbohydrate metabolism is conspicuously influenced by the secretions of the thyroid, pituitary, and suprarenal glands alike. Time forbids more than this passing reference to the fascinating question of the influence of the ductless glands upon metabolism, of which much will probably be heard in the future. Again, we cannot leave out of account in discussing the pathology of diabetes the influence of the nervous system, exerted either directly or indirectly through the ductless glands, an influence which has been well recognized ever since the days of Claude Bernard.

No plan of treatment hitherto tried has succeeded in attacking diabetes at its foundations. Appropriate dietetic treatment, and to a less extent treatment by drugs, is capable of modifying its course to a remarkable degree, and undoubtedly prolongs greatly the lives of many sufferers. Yet such treatment, as applied in practice, is too often perfunctory and by rule of thumb, whereas it should be adapted to each individual case, and even to the particular stage of the patient's malady. Only in this way can the best results be obtained.

Let us pause to consider for a moment the aims of dietetic treatment in diabetes. By its means we are able, in many cases, to decrease materially, or even to arrest completely, the output of glucose, and this because we are able to diminish or to remove the excess of sugar in the blood. The loss of the potential energy of the unburnt sugar can be readily compensated by dietetic means, but the hyperglycaemia is the cause of many of the troubles to which diabetic patients are liable. Again, by resting the damaged mechanism as far as may be, we not only arrest the aggravation of the error, but even bring about, in no small proportion of cases, a remarkable recovery of tolerance for carbohydrates—a matter of no small importance. Some diabetics are able, after a course of rigid dieting, to deal with much larger quantities of starch than would have sufficed to excite glycosuria before such treatment. Whereas when starchy food is allowed without restriction a progressive aggravation of the metabolic error results, often very rapidly.

Remember that not a few diabetic subjects, in the earliest stages of their malady, pass sugar only under severe provocation as after a meal rich in starch, and unless the urine of certain times of day be examined, the glycosuria may escape notice. In such cases a restriction of carbohydrate food is eminently desirable. It is a well-known fact that a meal of sugar, provided that it is large enough—for example, some 150 to 200 grams of glucose—will excite transient glycosuria in any normal individual, but in health no amount of starch which can be taken will bring about this result, and when glycosuria is provoked by starchy as distinguished from sugary food, the patient must be looked upon as a potential diabetic at least.

Whether by a restriction of diet an individual with an inherited tendency to diabetes can be saved from developing the disease is a question which cannot yet be answered, but some limitation of the intake of sugar and starch by such persons is certainly not an unreasonable precaution.

That actual recovery does occur in some cases which are rightly classed as examples of diabetes, I firmly believe, and we may well hope that the investigations of which this malady continues to be the subject will some day enable us to treat some cases with success. On the other hand, it is little likely that any one plan of treatment will serve in all the conditions in which diabetes originates. Therapeutic measures which may prove of much service in cases in which the pancreas is not primarily involved, might well prove powerless in the face of organic disease of that gland.

Even in its graver forms disease of the pancreas is not easy of diagnosis, and in its slighter forms may wholly elude our diagnostic methods. It can hardly be doubted that, like other glands, the pancreas is the seat of passing inflammatory lesions, which, if rightly treated, may leave no permanent structural damage to the gland, but may, whilst they last, give rise to glycosuria. In this connexion I would refer you to a recent and very suggestive paper by Mr. Mayo Robson on the surgical treatment of some cases of glycosuria, and examples are occasionally met with which are best explained on such lines.

I do not propose to attempt to give even a cursory sketch of what has been learnt about the perverted chemistry of diabetes. To do so several hours rather than a few minutes would be necessary. However, the acetonaemia, which plays so conspicuous a part in this malady, calls imperatively for mention.

The presence of acetone in the urine, in the breath of the patient and in his blood, is not in itself a matter of serious moment. It serves rather as a valuable advertising sign of an important metabolic disturbance. The acetone is formed from aceto-acetic acid, the substance which yields the familiar reaction when ferric chloride is added to the urine—another valuable warning signal. Behind the aceto-acetic acid again is its parent substance, $\beta$ oxybutyric acid, the presence of which is not revealed by any simple clinical test, but which is the chief offender. In grave cases of diabetes 30, 50, or even 70 grams of $\beta$-oxybutyric acid may be excreted in the course of twenty-four hours. It is believed that this substance and aceto-acetic acid exert their malign action as acids rather than in virtue of specific toxic properties, and hence the condition under discussion is often spoken

of as acidosis. A diabetic patient may die with some of the symptoms which are usually associated with coma, although he has little β-oxybutyric acid in his blood, but it is generally held at the present day that the characteristic air hunger and the coma which follow upon it are actually due to acid poisoning. At any rate, such symptoms develop in fatal cases of acetonaemia in which there is no diabetes, for be it noted that acetonaemia is a common symptom in sick children suffering from a variety of different maladies.

Some degree of acidosis is induced by mere abstinence from food, and even by the withdrawal of carbohydrates from the diet. The acetone bodies are formed in part from the breaking down of fats, and in part from certain fractions of the protein molecules, and a diabetic patient who shows no signs of acetonaemia when on an ordinary mixed diet will usually develop a conspicuous iron reaction as his carbohydrates are more and more restricted, until that part of his carbohydrate intake with which even he is capable of dealing has been cut off.

It is generally conceded that an abrupt change from an ordinary diet to a strict one is fraught with dangers to a diabetic patient, and that the reduction should be gradual, acidosis being guarded against by the free administration of sodium bicarbonate when acetonaemia is pronounced.

Thus we are confronted with the dilemma that the therapeutic measures which experience shows to be essential are liable to increase the tendency to one of the gravest accidents of the disease, and experience teaches that it is far easier to increase acetonaemia by restricted diet than to diminish it by subsequent relaxation. Yet the restriction *must* be carried out, but with watchful care and circumspection.

There is no doubt that children much more readily develop such acidosis than do adults, and apart from diabetes, many of the morbid states which it complicates are characterized by vomiting, as, for example, the cyclic vomiting of children, and that very fatal and puzzling mishap known as delayed chloroform poisoning. It is a tempting hypothesis which regards the vomiting as the actual cause of the condition, in view of the starvation which it involves, but there are serious clinical obstacles to such a view. In some cases the signs of acetonaemia are present almost before the vomiting begins; in others, despite incessant vomiting, acidosis is not developed. Again, no such explanation applies to some other varieties of acetonaemia in children, such as that which so often accompanies bronchopneumonia.

It is difficult to escape from the belief that in delayed anaesthetic poisoning—for chloroform is not the only culprit—the conspicuous acidosis is the actual cause of death with symptoms so like those of diabetic coma, and it is with children, who are so prone to acetonaemia, that such accidents occur.

The fatty change seen in the liver in delayed chloroform poisoning is also observed in cases of acidosis due to other causes, and in some cases at least the free administration of alkalis has appeared to have saved the lives of the patients. One is tempted to believe that the liver is loaded with fat which has been brought to it for burning in quantities greater than it is able to deal with efficiently, with the result that, owing to its incomplete combustion, the acetone bodies are formed in excessive amounts. However, when one attempts to fit in the observed clinical facts with so simple a theory, difficulties are encountered at every turn; nor can it even be contended that the acidosis theory offers a complete and satisfactory explanation of the phenomena of diabetic coma. It is highly probable that other, as yet unknown, factors are also at work in the causation of that condition.

To turn to yet one other field, the subject of calculus formation offers many interesting chemical problems. Stones, wherever met with in the body, are formed of substances which are sparingly soluble in the surrounding media, but the mere fact that a sparingly soluble substance is present, or is even deposited from solution, does not supply an adequate cause for calculus formation. The rare anomaly, cystinuria, affords the clearest example of this fact. Cystin is an abnormal excretion product, which is very readily deposited in crystals in the urinary tract, and those who excrete it are very apt to suffer from calculi. Nevertheless, a cystinuric may pass crystals for years and yet not suffer from stones. A catarrhal condition is necessary to bring about their formation. It is quite possible that the deposited crystals contribute to exciting this catarrh, but what has been learnt of recent years as to the infection of the biliary passages as the cause of gall stones, and as to the readiness with which the *Bacillus coli* finds its way into the urinary tract, suggests that such an infection may be an important factor in not a few instances.

The same applies to other varieties of urinary calculi, oxalic, uric, and phosphatic alike. They are not mere casual agglomerations of crystals, but bodies of crystalline structure formed around an organic basis composed of catarrhal products.

It is not yet known for certain whether the condition which we call oxaluria—that is, the excretion of crystals of calcium oxalate—is ever due to a true metabolic anomaly and is independent of dietetic causes. The bulk of the oxalic acid of urine appears to be derived from the food, and an oxalate-free diet will usually, if not always, suffice to remove the crystals from the urine. After the eating of foods specially rich in oxalates, such as rhubarb and spinach, the crystals become very abundant, and by their mechanical action may excite albuminuria, and even haematuria.

The deposition of crystals does not by any means go hand in hand with excessive excretion of oxalic acid; such excessive output is only one of several factors, amongst which the reaction of the urine, and, as Klemperer and Tritchler have shown, the relative amounts of calcium and magnesium present in it, are amongst the chief.

Hence our aim in treatment should be to eliminate from the diet those vegetable foodstuffs which contain most oxalate, such as rhubarb, spinach, and tea, and a number of fruits and vegetables. At the same time we may attempt to influence the proportions of the bases present in the urine by cutting off foodstuffs specially rich in calcium, such as milk and eggs; and by prescribing such as are rich in magnesium and at the same time poor in oxalic acid, such as peas, beans, and coffee, and oxalate-free foods, such as all kinds of meat.

The so-called phosphaturia has, as you well know, nothing to do with increased excretion of phosphoric acid; indeed, such an increase would augment the acidity of and effectually prevent the deposition of earthy phosphates from the urine. The urine is turbid and deposits phosphates simply because it is alkaline, and therefore unable to hold the earthy phosphates in solution.

In many cases phosphaturia is associated with neurasthenic conditions, and general hygienic and tonic treatment has more effect in restoring the natural acidity of the urine than has the administration of acids, of which, as Dr. R. Hutchison has shown, acid sodium phosphate is the most efficacious. On the other hand, there is a class of cases, chiefly met with in children, which is of special interest, the true nature of which has only been revealed by the chemical investigations of Soetbeer and Tobler.

Normally the bulk of the calcium excretion of the body is effected by way of the intestine, and only a small part by way of the kidneys. In the cases referred to this relation is reversed, and owing to some morbid condition, probably catarrhal, of the intestinal wall, the bulk of the calcium appears in the urine. There is no increase of calcium excretion as a whole, but merely diversion of part of the output. As a result the urine becomes alkaline, the earthy phosphates are increased at the expense of the alkaline phosphates, and copious deposition occurs. Withdrawal of foods specially rich in calcium, such as milk and eggs, will usually suffice to stop the phosphaturia, but our treatment should also be directed to the intestinal disturbance to which the condition is due.

And now, Sir, the time has come when I must gather in the threads of my discourse, hoping that the few examples amongst many to which I have briefly alluded will suffice to prove the thesis with which I set out—that chemistry is able to lend valuable aid in the solution of problems of clinical and practical importance to medical men, and helps materially as a guide to treatment.

On the other hand, we must not expect from chemical studies more than they can reasonably be expected to give. Unlike the bacteriologist who deals with the actual *causae causantes* of many morbid states, the chemical pathologist

can only study the response of the organism to morbific agencies. He can tell us much concerning the forms which disease takes and the origin of symptoms, but comparatively little as to the actual causation of maladies.

We have been considering this afternoon examples of phenomena which can be studied by ordinary chemical methods, which are accessible to the test tube and the balance; but the advance of bacteriology is revealing responses of the organism of much more subtle nature still, and has familiarized us with theoretic substances known by such names as antitoxins, and agglutinins, precipitins, and the like. The phenomena of immunity have doubtless a chemical basis, although the substances concerned are known as yet only by single properties, just as, for a number of years, the planet Neptune was only known by its disturbing influence upon the orbit of its nearest celestial neighbour Uranus. Now, Neptune has been seen, weighed and measured, and has taken its place as a regular member of the solar system, and we may reasonably hope that in due time the substances of which we are speaking will, in like manner, be brought within the grip of the chemist, and will rank as compounds of known constitution and molecular structure.

Obviously the realization of this dream will result in an immense extension of the field in which chemistry and medicine meet.

## THE ASSOCIATION OF TOXAEMIA OF PREGNANCY WITH HAEMORRHAGE.

BY

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THE following remarks are based upon a series of cases of toxaemia of pregnancy treated at Guy's Hospital during the last eleven years. Investigation of their records has shown that haemorrhage in one form or another is not a very infrequent symptom of the disease, and that in some cases it may be so great as to constitute its principal feature.

It may be said at once that part of this paper, which deals with antepartal haemorrhage, concerns facts the interpretation of which is the subject of controversy, and one of my chief reasons for its publication is that very strong and, to my mind, conclusive evidence is shown of the causal relationship between toxaemia and this form of haemorrhage. Lastly, a small group of cases occurs in which haemorrhage, not from the uterus, was so severe as to be a very great source of danger to the patient, and, so far as I can gather, no similar condition has hitherto been described in association with toxaemia of pregnancy.

I wish here to express my thanks to the obstetric surgeons of the hospital for their kindness in allowing me to make use of their cases.

The cases of haemorrhage fall into three groups.

### I. HAEMORRHAGE FROM THE KIDNEYS.

Haematuria is mentioned as a symptom in all descriptions of eclampsia, and needs no special attention here. It is a sign of advanced degeneration of the renal epithelium, and for this reason has an importance from the point of view of prognosis.

Among the 36 cases of eclampsia treated at Guy's Hospital in the period stated above, haematuria was present in 10, and of these patients 6 died—that is, 60 per cent.—while of the total number only 11 died, or 30.5 per cent. It is therefore clear that haematuria has a grave prognostic significance in eclampsia.

I do not propose to describe these cases in detail. Suffice it to say that they were all typical examples of eclampsia.

### II. HAEMORRHAGE FROM THE UTERUS.

As long ago as 1885 Winter drew attention to the fact that in many cases of accidental haemorrhage albuminuria was found, and he expressed the opinion that a causal relationship existed between the two conditions. Since then several writers, notably the French, have supported his opinion, but their teaching has not been generally followed, and in the English textbooks of to-day, though renal disease is mentioned as a cause of haemorrhage, it is not given any particular prominence.

I hope to show that toxaemia of pregnancy is very frequently found in association with one form of accidental haemorrhage—namely, concealed—so frequently that it seems incredible that a direct causal relationship does not exist between the two.

On the face of it, toxaemia of pregnancy would seem likely to cause haemorrhage from the uterus, for it is undoubted that marked changes occur in the placenta as a result of it, leading to extensive infarction, and it is natural to expect that these changes may in some cases cause separation of the placenta from the uterine wall and resulting haemorrhage between them.

Again, it is a common experience that patients suffering from concealed haemorrhage are frequently much more ill than the amount of their haemorrhage would lead one to expect. If in these cases toxaemia is also present, a ready explanation at once presents itself.

During the years 1900–1910, 13 cases of concealed accidental haemorrhage were treated, and of these 8, or 61.5 per cent., presented symptoms of what I take to have been toxaemia of pregnancy; surely more than can possibly be accounted for by coincidence. On the other hand, of 30 cases of external accidental haemorrhage, only 1 showed signs of toxaemia.

This striking difference may be explained by the fact that in a great many cases the external haemorrhage may have been due to low implantation of the placenta, which, however, was not low enough to be felt by the hand in the early stages of labour, and that they were wrongly classed as accidental. Probably, therefore, a greater percentage of cases of external haemorrhage are the subjects of toxaemia than appears from these figures.

The signs of toxaemia were as follows: In most cases albuminuria occurred, and was the only sign in the five patients who recovered. That the albuminuria was toxic and not due to old-established nephritis is, I think, evident from the fact that all these patients had been quite well previously, and that in each case the albuminuria completely disappeared within a few days after the confinement, as it would not have done if a chronic lesion of the kidney had been present.

In several cases oedema was noticed, which also rapidly subsided after the confinements.

In one case (III) eclamptic convulsions occurred, and it is possible that they may have been the cause of the haemorrhage; but as the last fit occurred three days before the haemorrhage started, it seems hardly probable. In Case VIII the evidence is, I admit, doubtful. She had one fit before medical aid was summoned, but the description of it given by the relatives corresponded so exactly with those of eclampsia that I think it may fairly be included in the series. Unfortunately, no histological examination was made of the liver and kidneys *post mortem*. The *post-mortem* findings in the other two fatal cases were those typically found in toxaemia of pregnancy.

The retinae were examined in those cases where a suspicion of chronic nephritis was entertained, but in all cases were found to be normal.

I think, then, that it may justly be assumed that all these patients, with the possible exception mentioned, were suffering from toxaemia of pregnancy.

The frequent association with haemorrhage—more than 60 per cent. in cases of concealed haemorrhage—must be more than coincidence, and the logical conclusion is that the toxaemia is the cause of the haemorrhage, probably through its effect upon the placenta.

The preponderating frequency of concealed haemorrhage is noteworthy, and may be explained by the fact that in these cases the uterine muscle is in an atonic state and makes no effort to expel the blood. Also I am convinced that, as I have said above, external accidental haemorrhage is much less common than is generally supposed, many, if not most, of the cases being really due to placenta praevia.

*Short Histories of the Cases.*

CASE I.

Eliza W., aged 38, multipara, was admitted on January 19th, 1904. She had had nine full-term pregnancies and four miscarriages, and had always had good health. In her present pregnancy she was quite well till the end of the eighth month, when she suddenly fainted, and began to lose blood per vaginam. She was brought up at once to the hospital.

On admission she was very anaemic and looked extremely ill. Her temperature was 96° F. and pulse 64. The fundus uteri reached to the ensiform cartilage and the uterus felt very hard. The abdomen was very tender. The cervix was nearly fully dilated and there was some slight external haemorrhage. The urine contained 6 parts per 1,000 of albumen.

Labour terminated spontaneously soon after admission, and a large mass of blood clot was expelled with the placenta. There was no *post-partum* haemorrhage. The child was born dead. The patient made a rapid convalescence. The albumen in the urine disappeared four days after the confinement, and she was discharged in fairly good health, but still rather anaemic, three weeks later. The retinae were examined whilst she was in the hospital and found to be normal.

CASE II.

Annie W., aged 32, multipara, was admitted on June 6th, 1904. She had had three previous pregnancies, all straightforward, and she had never had any illness. Her present pregnancy was normal till the end of the seventh month, when she had severe abdominal pain and began to lose blood per vaginam.

On admission the same day she was very anaemic and collapsed; pulse 120. The face was puffy and the legs slightly oedematous. The urine contained 5 parts per 1,000 of albumen and some blood and epithelial casts. The uterus reached to within 2 in. of the ensiform cartilage and was hard and tender. The cervix admitted one finger. There was slight external haemorrhage,

The cervix and vagina were plugged with gauze, and four hours later bipolar version was performed and a leg brought down. Labour terminated without further assistance and a dead child was born. The placenta came away with the fetus and a large mass of dark blood clot. There was slight *post-partum* haemorrhage, which was easily controlled. She made a good recovery, and the albumen disappeared from the urine within a week of the confinement. She was discharged on July 2nd in good health.

CASE III.

Louisa G., aged 19, primipara, was admitted on April 15th, 1904. There was no history of previous illness. Her pregnancy was normal until the middle of the seventh month, when her legs became oedematous. Two weeks later she began to have morning sickness, and two weeks after this, that is, in the middle of the eighth month, she had an eclamptic fit. She was at once brought to the hospital, and on her arrival she had a second fit.

On admission she was comatose, and looked desperately ill, pulse 110. She was not in labour. The urine contained 12 parts per 1,000 of albumen, and the legs and lower part of the body were very oedematous. The usual treatment of eclampsia was given, and she began to improve at once. She had one more fit on the following day, but speedily improved after this. The oedema diminished considerably, and only a trace of albumen was found in the urine, and her pulse-rate descended to normal.

On April 19th she appeared to be making good progress, but at 6 p.m. she began to lose blood per vaginam and became very restless. Labour pains set in at the same time. At 9 p.m. she became collapsed, and the pulse rose to 136. The uterus was firmly contracted and very tender. Concealed haemorrhage was diagnosed, and it was decided to empty the uterus. The cervix was dilated rapidly with the hand, and craniotomy performed. The child was extracted without difficulty, and the placenta was followed by more than a pint of blood clot. There was no *post-partum* haemorrhage. She rallied slightly after this, but two hours later she had a severe eclamptic fit, and in spite of various restoratives succumbed shortly afterwards.

At the necropsy all the internal organs were found to be very pale, but presented no other macroscopical abnormality. Histological examination of the kidney showed cloudy swelling of the epithelium of the convoluted tubes. The liver was not examined.

CASE IV.

Amy S., aged 34, multipara, was admitted on October 19th, 1904. She had had seven children, and with the last two pregnancies there had been *ante-partum* haemorrhage during the eighth month. Except on these two occasions she had always been healthy. During the seventh month of the present pregnancy her legs became oedematous, and a few days later she was seized with severe abdominal pain, and became faint.

On admission the same day she was anaemic, but the pulse was good. The legs were oedematous, and the urine contained a large quantity of albumen, but no other abnormal constituent. The uterus was considerably over the normal size for the date of the pregnancy, and was tender, but not hard. The cervix admitted two fingers.

Bipolar version was performed and a leg drawn down. Shortly after the manipulation she became very collapsed, and it was noticed that the uterus had increased in size. As the cervix was still too small for extraction of the child, Caesarean section was decided upon and performed without delay. The uterus contained a large amount of blood, and, as it was still bleeding, hysterectomy was performed. She was very collapsed after the operation, but eventually made a good recovery. The oedema quickly subsided, and the albumen disappeared from the urine completely in a few days.

CASE V.

Emily W., aged 26, primipara, was admitted on January 1st, 1905. She had had no previous illness. During the sixth month she complained of severe occipital headache, and began to bleed slightly from the vagina. Her legs at the same time became oedematous, and her urine was found to contain albumen.

On admission her temperature and pulse were normal, and she did not look ill. The legs were slightly oedematous, and the urine contained 2 parts per 1,000 of albumen. The uterus corresponded in size to the date of pregnancy, and the cervix was not dilated. There was no vaginal haemorrhage. Later on the same day she suddenly had severe abdominal pain, and it was found that the uterus was considerably larger than on admission. The cervix now admitted one finger.

Concealed haemorrhage was diagnosed, and the cervix and vagina plugged with gauze. During the following night a dead fetus was expelled together with a large amount of recently clotted blood. There was no *post-partum* haemorrhage. She made a good recovery. The urine was free from albumen in seven days, and the oedema rapidly subsided. She was discharged on January 17th in good health.

CASE VI.

Eliza E., aged 36, multipara, was admitted on July 1st, 1905. She had had five children, all normal pregnancies, and had never been ill. Throughout the present pregnancy she had felt ill. In the middle of the eighth month she had a sudden severe haemorrhage from the vagina and became faint.

On admission the same day she was very anaemic; pulse 108. The urine contained albumen. There was no oedema. The uterus reached to the ensiform cartilage, and was very hard and tender. There was considerable external haemorrhage, and the cervix admitted two fingers.

Concealed haemorrhage was diagnosed, and the cervix and vagina plugged with gauze after rupture of the membranes. Four hours later a dead child was expelled together with 1½ pints of blood clot. There was no *post-partum* haemorrhage. She made a good recovery, and the urine was free from albumen within a few days after the confinement.

CASE VII.

Alice S., aged 39, multipara, was admitted on February 27th, 1908. She had always been healthy and had had no trouble with her previous confinements. Her present pregnancy was normal up to the end of the sixth month, when slight haemorrhage from the vagina occurred. This continued for three weeks, at the end of which time she sought medical advice and was sent at once to the hospital.

On admission her condition was extremely grave. She was very collapsed, pulse 110, temperature 101.6°. The uterus corresponded in size to the eighth month of pregnancy, and was very firm and tender. The cervix admitted two fingers, and there was very little external haemorrhage. A mass of blood clot could be felt in the lower part of the uterus. No urine was obtainable.

A Charpentier de Ribes's bag was introduced into the cervix. Three hours later she suddenly became dyspnoeic and the pulse was imperceptible. Various stimulants were given, but she died shortly afterwards.

At the necropsy the uterus was found to contain two pints of firm blood clot, apparently of some days' standing. The placenta was entirely separated from the uterine wall, but normal in position. The fetus, of about six months' date, was slightly macerated, and had evidently been dead for some time. The kidneys were large and pale, and, on histological examination, showed cloudy swelling of the epithelium of the convoluted tubes with in many places patches of complete necrosis. All the other viscera were bloodless, but showed no other sign of disease.

CASE VIII.

Alice G., aged 39, multipara, was admitted on April 4th, 1908. She had had ten previous pregnancies, and had always been healthy. Throughout her present pregnancy she was well until shortly before term, when she had a fit, described by her relatives as starting with convulsions and followed by a long period of unconsciousness. Later in the same day she suddenly became faint, and was brought to the hospital.

On admission she appeared to be extremely ill. She was very anaemic, pulse 132, temperature 96°. The uterus was firmly contracted and tender, and reached to the ensiform cartilage. The cervix admitted two fingers, and there was no external haemorrhage. There was no albumen in the urine.

The vagina and cervix were plugged with gauze, and four hours later a Charpentier de Ribes's bag was introduced. One and a half hours later a dead child was delivered with forceps, and two pints of blood clot were evacuated from the uterus. By this time she was pulseless and obviously moribund. She died one and a quarter hours later.

At the necropsy all the viscera were very pale, but not obviously diseased. The uterus showed several ruptures in the peritoneal coat of the fundus, not extending into the muscle, and the peritoneal cavity contained a pint of fluid blood. Unfortunately no histological examination was made of the viscera.

CASE IX.

Ellen B., aged 39, multipara, was admitted on May 19th, 1904. There was no history of any previous illness. Shortly before term she was taken with severe haemorrhage from the vagina, and brought up to the hospital.

On admission she was very blanched. Pulse 108, and temperature subnormal. The uterus reached to the ensiform cartilage, and she was in labour. She was losing freely from the vagina, and the cervix was slightly dilated. The urine contained 11 parts per 1,000 of albumen.

The cervix and vagina were plugged with gauze, and labour terminated thirty-six hours later. The child was stillborn. She made a good recovery. The urine was almost free from albumen three days after the confinement, but it continued to contain a slight trace till her discharge from the hospital three weeks later.

*Post-partum Haemorrhage.*

Eclampsia is said sometimes to cause *post-partum* haemorrhage. Among all the cases of toxaemia of pregnancy in all its forms treated at Guy's during the past eleven years, only one case occurred which showed any tendency to *post-partum* haemorrhage, and in this the haemorrhage was not at all severe. What is more remarkable is that in none of the cases of concealed accidental haemorrhage associated with toxaemia was there any tendency to *post-partum* haemorrhage. It would seem, then, that the danger of *post-partum* haemorrhage has been somewhat exaggerated.

III. PURPURA, AND HAEMORRHAGE FROM THE MUCOUS MEMBRANES.

In these cases a haemorrhagic form of toxaemia occurred which has not, I think, previously been described in connexion with pregnancy. Extravasations of blood into the solid viscera and under the serous membranes are well known to occur with eclampsia, but in these patients the haemorrhage was an obvious outward symptom of the disease, and of such an amount as greatly to increase the gravity of their condition, and in one case, at any rate, to be the principal cause of death.

Three cases occurred, all of them between the ages of 20 and 30. Two were primiparae, and one was pregnant for the second time. Two of the patients died, while the third recovered only after being comatose for four days.

The symptoms were those of an acute toxaemia occurring in the later months of pregnancy, and consisted of persistent vomiting, which lasted for periods varying from four days to several weeks, followed by the more or less sudden onset of coma during or shortly after labour.

In Case II the coma was ushered in by eclamptic convulsions. In Case I the urine was found to contain large quantities of albumen ten days before labour. The haemorrhage began in Cases I and III some time before the onset of the acute symptoms; in Case II it was not observed until after the fits started.

The haemorrhage was from the stomach and intestines in all three cases, while in Cases I and III purpura and haemorrhage from the gums also occurred. In all cases it was severe enough to cause profound anaemia, while in Case I it was undoubtedly the chief cause of death. There was no abnormal loss from the uterus in any case. In Case III there was moderate jaundice during convalescence.

The *post-mortem* findings in both the patients who died were those generally seen in eclampsia, except that a very marked degree of haemorrhagic extravasation was noticed in the liver, and that the liver cells also showed a much more advanced stage of degeneration than those of the kidneys. The mucous membrane of the stomach and the intestines was deeply congested, and these organs were filled throughout with fluid blood.

From the presence of severe vomiting in each case, of jaundice in the case that recovered, and of the very extensive changes in the livers of those who died, it would appear that the toxaemia was in the main hepatic in origin.

CASE I.

S. W., aged 27, primipara, was admitted on February 18th, 1910. Her health had previously been good, and her pregnancy was within a few days of full term. For a fortnight before admission she had been treated at home for vomiting and pain in the epigastrium. The vomited matter contained small quantities of blood. Ten days before admission the gums began to bleed and continued to do so up to the time of her admission, the haemorrhage becoming more and more profuse. Throughout this time the urine had contained large quantities of albumen, but no blood; no oedema had been noticed.

On admission she was very weak and anaemic; pulse 124. She was bleeding slightly from the gums. The uterus reached to the ensiform cartilage, and labour pains were occurring. The cervix was slightly dilated. Labour pains continued throughout the following night, but there was no change in her general condition till the following morning, when, at 7.30 o'clock a stillborn child was delivered. There was not an abnormal amount of haemorrhage from the uterus, but she appeared to be greatly exhausted after the labour.

At 3 p.m. on the same day the gums began to bleed more profusely, and it was noticed that she had a slight purpuric eruption on face and limbs. In the evening she became comatose, and her pulse could scarcely be felt. The purpura had greatly increased, and her face, trunk, and limbs were covered with large blotches, many of them measuring as much as 2 in. in diameter. She never rallied, and died at 7 a.m. on February 20th, twenty-four hours after the termination of labour.

At the necropsy the mouth, stomach, and intestines were found to be full of blood and the mucous membrane in many places showed large patches of ecchymosis. The liver was yellow and showed large areas of extravasated blood throughout its substance. The kidneys were large and pale, and all the other viscera were very bloodless. Histological examination of the liver and kidneys showed in the former many areas of necrosis at the periphery of the lobules, and in the latter cloudy swelling of the epithelium of the convoluted tubes.

CASE II.

Ellen P., aged 21, primipara, was admittted on January 15th, 1911. Her health before the present pregnancy had been good, but throughout her pregnancy she had been troubled with vomiting. Labour began at midnight, January 14th-15th, when she was about seven and a half months pregnant. At 7 a.m., January 15th, she had a fit, and between this and 1.30 p.m. she had fits at frequent intervals.

She was admitted at 1.30 p.m., having had about thirty fits. Her condition was extremely grave. She was semiconscious, and very cyanosed. Pulse, 132; temperature, 101°. She was constantly vomiting large quantities of chocolate-coloured fluid, obviously containing blood. The os uteri admitted two fingers, and the uterus was contracting. The urine contained large quantities of blood and albumen, and the legs were slightly oedematous.

She was kept under slight anaesthesia until 3 p.m. and during this time she had two more fits. At 3 p.m. the cervix was dilated with the fingers and craniotomy was performed and the child extracted. The placenta came away without trouble, and there was no *post-partum* haemorrhage. Vomiting throughout was very troublesome, and large quantities of blood-stained fluid were brought up. At 5.30 p.m. a saline injection was given and a hot-air bath. The pulse was 124 and the temperature normal. At 9.30 she was conscious and a little better, but shortly afterwards she had another fit. Three more fits occurred during the night, and she grew steadily worse, the temperature gradually rising, and the pulse getting weaker and more rapid. Two ¼-grain injections of morphine were given during the night, and towards the end stimulants, but without effect, and she died at 9 a.m. January 16th.

At the necropsy the stomach and intestines were found to be filled with blood, and the mucous membrane throughout was deeply congested. The liver was yellow, and marked on its surface and throughout its substance with large areas of haemorrhage. The left kidney was atrophied; the right double its normal size, and presenting the typical appearance of acute nephritis. Both liver and kidney under the microscope showed marked degenerative changes, the former many areas of necrosis, chiefly at the periphery of the lobules, and the latter cloudy swelling of the epithelium of the convoluted tubules, with here and there patches of complete necrosis.

CASE III.

Mary Ann S., aged 27, was admitted on April 1st, 1911. She had had a previous pregnancy which was normal in every way, and she had always enjoyed good health. The present pregnancy was straightforward till the end of the eighth month, when she began to vomit after her food. The vomited matter contained blood, but no haemorrhage occurred from the mouth. After four days, during which she vomited repeatedly, she was admitted to the hospital.

On admission she was semiconscious, pulse 104, temperature 97.6° F. Tongue dry and thickly furred. She looked ill, and was anaemic. The urine contained albumen, but no blood. The uterus corresponded in height to the eighth month of pregnancy, and contractions were occurring. The cervix admitted two fingers.

Shortly after admission she brought up a large amount of deeply blood-stained fluid from the stomach, and it was then noticed that her gums were bleeding. On the next day she was comatose. The pulse was 128, and rather weak. She was still vomiting at long intervals. Her mouth was continually becoming filled with blood clot from the bleeding gums, and she had incontinence of urine and faeces.

On April 3rd labour terminated, a dead and slightly macerated fetus being born. She was still comatose and in much the same condition as on the previous day, but more anaemic. The urine contained only a slight trace of albumen, and was being passed in large quantities. The vomiting had ceased, and the haemorrhage from the gums was much less.

On April 5th consciousness returned and she seemed better in every way. On this day a purpuric rash appeared on the shoulders and buttocks, and she became slightly jaundiced. On April 7th both the purpura and the jaundice were more marked, but she was much better. The incontinence of urine had ceased and no haemorrhage occurred from the gums. The urine still contained a trace of albumen.

From this point she made a rapid convalescence; both the purpura and the jaundice quickly faded, and the albumen disappeared from the urine entirely. She was discharged from the hospital on April 26th in fair health, but still anaemic.

# THE PREPARATION OF VARIOUS FOODSTUFFS (ESPECIALLY WHEAT AND RICE):

## *ITS EFFECT ON THEIR CONTENT OF ORGANIC PHOSPHORUS COMPOUNDS AND ITS RELATION TO DISEASE.*

BY

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In November, 1910, Professor Ross called our attention to certain papers on beri-beri,[1] and suggested that further inquiry might be of value; since that date we have devoted a considerable amount of time to such researches and to consideration of the literature. In the meantime great public attention has been directed to the question of our bread supply, and as this is closely bound up with our subject, we directed attention to the matter in a letter to the BRITISH MEDICAL JOURNAL on May 6th, 1911.

In 1896 Eijkman[2] discovered that exclusive feeding of fowls on certain diets led to the production of multiple peripheral neuritis, and many observers have extended his results both to other species of animals and to other diets. Special interest attached to these results when Braddon[3] called attention to the fact that the incidence of beri-beri was closely connected with the variety of rice used as the staple food by the various Eastern races, and it has been shown that any rice which produced tropical beri-beri would also produce polyneuritis in fowls. Fletcher[3] and others have proved conclusively that tropical beri-beri depends alone on the use of rice which has been deprived in preparation of the outer layers, including the pericarp, and is independent of infection, etc.

Holst,[4] investigating the diseases of scurvy and ship beri-beri, which attack the crews of sailing ships, and are of great importance to Scandinavian nations, found that many articles used as food on ships cause neuritic and (or) haemorrhagic lesions in birds and animals when used as exclusive diets; and he noted that white wheat bread and barley bread, and also preserved meats (if the temperature used for sterilizing rose above 120° C.) led to neuritis.

Schaumann,[5] as the result of an exhaustive analysis of the work of these and other observers, and of his own far-reaching researches, has conclusively demonstrated that the cause of experimental polyneuritis and of tropical and ship beri-beri is connected with deficiency of organic compounds of phosphorus—though whether the deficiency is of nucleins, lecithins, phosphatides, phytins, or other classes, is as yet undetermined. The minimum phosphorus requirement of an adult man at work is about 2 grams, and it would seem that the higher animals have not been endowed by nature with the power of preparing their own organic compounds of phosphorus from inorganic phosphorus, nor, indeed, are they probably able to form such compounds of one group from those of another. These bodies are of far-reaching importance to the bioplasm; indeed, are indispensable, and their absence or deficiency in the food supply will lead to serious symptoms, or even to death. In times of plenty the animal organism stores excess of phosphorus to meet times of stress; in times of deficiency there is no class of compound (not even protein) that the animal organism more carefully husbands and requires than its organic phosphorus.[6]

The experimental determination of the exact pathological effect of deficiency in any one of these groups on the animal organism is beset with great difficulty, since the processes for their isolation are imperfectly known, and the matter is further complicated by the changes in their molecular combination which are induced during separation.

Experimental polyneuritis in animals is, however, produced on the one hand by diets of substances such as rice, barley, and white wheat flour in which the outer layers of the grains have been removed by milling, and in which the proportion of phosphorus is very low. On the other hand, it is originated by foodstuffs which have been heated for a time to a temperature of 120° C. (especially in the presence of alkali) by which the organic phosphorus compounds have been partially broken down, and by substances from which the same compounds have been extracted by long exposure to solvent action. It is not prevented by the addition of protein (egg albumen), carbohydrate, inorganic phosphates, or the synthetic organic phosphates (glycerophosphates, albumen metaphosphate, etc.); its occurrence is prevented by addition to the diet of substances which are rich in organic compounds of phosphorus, such as yeast, testicular extracts, pancreas, peas or beans (especially the katyang-idjo bean), or of the parts of rice and wheat removed in milling (wheat bran, rice meal), which are also rich in phosphorus; the protective power of these substances is absolute, if given in sufficient proportions, and the amount which is required of each per day varies inversely as its phosphorus contents, and can be arrived at by calculating the quantity necessary to contain the amount of phosphorus maintaining equilibrium for the class of animal used (2 grams P for a man, 0·5 gram P for a dog, a day). Moreover, these same substances (yeast, rice meal, etc.) are not only protective when added to diets but have a marked and rapid curative effect on animals reduced to the last extremity by polyneuritis after a period on restricted diet.

Pigeons, rabbits, apes, dogs, cats, goats, guinea-pigs, and rats are among the animals in which polyneuritis has been experimentally produced; the symptoms prior to death are wasting, diarrhoea, loss of appetite and activity, loss of power in the limbs, retraction of the head, cramps and convulsions, loss of reflexes, rapidity and irregularity of the heart, oedema of muscles and other tissues, possibly also sponginess of the gums and haemorrhages; after death various degrees of nervous degeneration and muscular oedema can be demonstrated; in addition, changes in bones and bone marrow and haemorrhages are specially likely to be found in guinea-pigs. These latter animals seem to suffer differently from others, and die on almost any form of diet, restricted as to kind; rats are markedly resistant, and may live for a long time in spite of neuritis; young animals are unsuitable, as their store of organic phosphorus is usually large; pigeons and fowls are specially suitable, as the changes are rapid in onset and easily seen.

It may be briefly noted that pigeons die in some three to four weeks on diets of polished rice, white wheat bread, or barley bread; that the daily addition to any of these diets of 1.5 grams of rice meal ($P_2O_5$ 0.057 gram), 5 grams of wheat bran ($P_2O_5$ 0.055 gram), 1 to 2 grams of katyang bean ($P_2O_5$ 0.015 gram), or 1.5 gram of yeast ($P_2O_5$ 0.057 gram) will suffice to prevent the onset of symptoms and to maintain their health and weight. Similar amounts rapidly and completely cure them when reduced to the last extremity. Several months' continued feeding on such insufficient diets, with partial revival at times with protective substances, reduced a goat to a very low state in which revival even on a rich protective diet was slow. It showed, in addition to the usual lesions, degenerative changes in the central nervous system.

Rye bread (even fine), oatmeal, whole rice (paddy), and barley grain do not set up polyneuritis in pigeons.[4]

Ship beri-beri is a disease of the European crews of sailing ships, occurring usually at the end of the voyages. It is specially apt to develop when (1) in addition to lack of fresh provender, the peas and beans have become hard and dry, and are either uneatable or only rendered soft enough to eat by long boiling in soda; and when (2) the pickled meat has lost nearly 50 per cent. of its organic phosphate by the extractive and decomposing action of the pickle lye (or is repulsive to part of the crew from its taste and smell). Under these circumstances the crew rely mainly on bread, biscuit, rice, and dried potatoes—substances with low phosphorus contents. They suffer from neuritis and oedema and rapidly recover on fresh meat or vegetables being added to their diet, and this recovery is markedly accelerated by yeast, katyang bean, or testicular extracts. On landing from the ships the phosphorus excretion is invariably low—on the average less than 50 per cent. of the normal, though it rapidly rises with change of diet.

Tropical beri-beri occurs in certain Eastern races who use as their staple diet rice from which the outer coats and their contained phosphorus compounds have been removed in milling, in asylums or institutions where similar rice is mainly used, and in the coloured firemen of ships who live on a low diet in which such rice again preponderates. It is a chronic disease and relapses are frequent; the patients recover but slowly even on full diets.

It does not occur in races using partly-milled rice, or in institutions where such rice is used. Its occurrence in certain instances has been proved to be large and constant if polished rice were used in the diet, and has been entirely abolished by the substitution of partly-milled rice (so-called "cured rice", vide Fletcher, Fraser,[7] Ellis,[8] Braddon,[9] and others). In these cases the remainder of the diet was unchanged—their caloric value was ample—the protein carbohydrate and fat almost unchanged. The phosphorus content alone was altered, being on cured rice raised from some 2 grams, $P_2O_5$ to 4.5 grams $P_2O_5$ per man per day. Equally efficacious in its prevention or cure are additions of sufficient quantities of rice meal, peas or fresh meat—katyang beans, again, seem to possess the greatest favourable influence.[7]

Schaumann has shown that in these cases, again, phosphorus excretion is very much reduced prior to the change of diet or treatment being commenced, and calls attention to the fact that the transmission of beri-beri from mother to nursling is associated with marked diminution of the organic phosphorus of the milk. Indeed, the nursling generally suffers first, as the maternal organism economizes at the expense of the milk when the failure of dietary phosphorus commences. (See, however, Teruuchi.[12])

Occasionally in races whose dietary phosphorus is sufficient beri-beri is set up sporadically or epidemically by gastro-intestinal disorders; either intestinal bacteria split and use the organic phosphates themselves, or intestinal catarrh prevents its absorption.

The experimental polyneuritis of animals and sailing ship beri-beri appear to be due to an acute severe deficiency of organic phosphorus compounds (apparently nucleins being most important), rapid in its onset, and equally rapid in its disappearance on suitable treatment. Tropical beri-beri, equally due to deficiency of phosphorus, is, however, due to a long deficiency of less degree; with slower onset but more marked organic degenerations, which take longer to recover.

Schaumann finally calls attention to the strong probability that a similar deficiency of some one or more groups of organic compounds of phosphorus in the diet is connected with scurvy, and suggests that similar deficiencies of other groups or combinations of groups may also play a part in the causation of other diseases, such as infantile scurvy, rickets, osteomalacia, pellagra, and certain forms of malnutrition in artificially reared children. Different groups of these compounds play very different parts in the internal metabolism, and have great influence not only on the digestive glands but on the metabolism of proteins and carbohydrates. Deficiency of any one group or any combinations of groups will probably have its own specific effect, and the effects may further vary in accordance with the demands of the human organism at different ages of life. So deficiency of one group (probably nucleins) may be the cause of beri-beri in normal adults; in pregnant women deficiency of the one group may initiate osteomalacia; deficiency of some other group or combination of groups in infants may lead to rickets.

Schaumann emphasizes the speculative nature of these hypotheses, but points out that the careful proof or disproof of such theories is the foundation of the advance of medical sciences, and it seems to us likely that one at least may be proved true in the near future.

We have ourselves confirmed many of the results of these experiments on polyneuritis in animals, and we found, in particular, that the curative effects of yeast in birds with polyneuritis was even more rapid and complete than we had expected.

We do not propose at present to communicate our results at length, but will shortly summarize those dealing with the wheat bread.

Adult pigeons, previously on ample mixed diet, were fed exclusively on good white wheat bread guaranteed from unbleached and unadulterated flour. They ate it readily and greedily, but loss of weight and diarrhœa soon commenced; the other symptoms of polyneuritis followed, and the first bird died on the fifteenth day. The average duration of life was twenty-nine days, and the average loss of weight 26 per cent., and marked degeneration of the branches of the sciatic nerve was found in some, early degeneration in main trunks of wing and leg nerves in others. Some when exhibiting marked lameness or convulsive seizures were revived rapidly and fully by administration of yeast (allowances of one or two days have been made for these in calculating the day of death).

On wholemeal and standard bread the birds remained perfectly well for seven weeks, and had gained on the average 8 per cent. of their original weight. Some, indeed, paired and laid eggs. One pair (the experiment was abandoned during the sitting) have hatched their young; the others abandoned (and ate) their eggs on the diet being changed to white bread, and began to go downhill.

These results, especially in conjunction with those of Holst (white bread), Schaumann (white meal), and Leonard Hill[11] (white and standard bread on young rats), appear fully to bear out the claims put forward for the superiority of wholemeal breads in comparison with white bread.

It is interesting to note that some degree of rickets is almost universal among the children of our poorer classes—so common, indeed, by comparison with Germany that it has earned the name of the "English disease" in the latter country; and it is less common in the Highlands of Scotland and among the Irish peasantry. The diarrhœa, marasmus, listlessness, spasm, convulsions, œdema, and neuritis of the pigeons on white bread correspond closely with the diarrhœa, marasmus, listlessness, tetany, convulsions, œdema, and limb-tenderness of the rickety child.

If we exclude cases among infants who have been entirely reared artificially (sterilized milk is probably to some extent "denaturized" by heat), the diets of these children of different races are to some extent similar; most of them get some milk (often poor in quality and insufficient in quantity no doubt) and polished rice, and they also receive as the basis of their food the form of bread used in the country.

The Highland child still usually receives oatmeal containing 0.9 per cent. of $P_2O_5$, mainly in organic combination; he does not often suffer from rickets, but sunlight and air may aid in its prevention. The Irish child gets probably fresh milk and butter (1 per cent. $P_2O_5$) in addition to potatoes, which contain a fair amount of phosphorus near their skins. Light and air here again may play their part in protecting him from rickets.

The German child gets rye bread, and in this grain the organic phosphates are evenly diffused throughout, and even fine rye bread contains sufficient (1 per cent. $P_2O_5$) of these compounds.[4] He does not suffer from rickets in the same proportion as the English child, whose diet, perhaps insufficient in caloric value, is apt to be largely composed of skim milk, margarine ($P_2O_5$ 0.03 per cent.) and white bread ($P_2O_5$ 0 2 per cent.), all notably deficient in organic phosphates. Much white bread is now made in wholesale bakeries with baking powder—even yeast-baked bread contains very little yeast. Occasionally he gets some meat, often unsuitable from its nature or cooking, and therefore hurried through the intestines. It seems highly probable that rickets is at least in part due to this deficiency in diet, though, no doubt, infectious enteritis, faulty absorption, lack of air and sun, and other conditions all contribute to swell the total, and it may well be that Schaumann and his co-workers on tropical diseases may have indirectly aided in elucidating the etiology of this disease.

This work and the present agitation for a more natural bread may, then, have a wide-reaching effect in lowering infantile mortality, bettering the physique of the nation and lightening the overcrowding of hospitals. At present we use the phosphates of the wheat and rice as food for our prize cattle.


References.

[1] Fraser and Stanton, *Lancet*, 1910, Nos. 4515 and 4555. [2] Eijkman, *Virchow's Arch.*, 1897, Bd. cxlviii, p. 523. [3] Fletcher, *Lancet*, 1907, No. 4374, p. 1776. [4] Holst, *Journ. of Hygiene*, October, 1907, vol. vii, No. 5. [5] Schaumann, *Archiv f. Schiffs- und Tropen Hygiene*, Bd. xiv, 1910, Beiheft 8. [6] Albu and Neuberg, *Phys. und Path. des Mineralstoffwechsels*, Berlin, 1906. [7] Fraser, *Lancet*, 1909, vol. xxvi, No. 4459, p. 451. [8] Ellis, British Medical Journal, 1909, No. 2544, p. 935. [9] Braddon, British Medical Journal, 1909, p. 1007. [10] Hulshoff Pol, *Arch. für Schiffs- und Tropen Hygiene*, 1910, Bd. xiv, Beiheft 3. [11] Leonard Hill, British Medical Journal, 1911, May 6th. [12] Teruuchi, *Biochem. Centralbl.*, Bd. xi, S. 719.


THE Cavendish Lecture before the West London Medico-Chirurgical Society will be delivered at the Kensington Town Hall by Professor A. Neisser on June 27th at 8.15 p.m., the subject selected being the evolution of the modern treatment of syphilis.

# THE AVERAGE HEIGHT AND WEIGHT OF ENGLISH SCHOOL CHILDREN.

BY

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THE accompanying tables show the average height and weight of a number of English school children inspected during 1909 and 1910, and were compiled from figures kindly supplied to us by school medical officers in response to a circular letter which we sent out early in the year. We asked for the number of children examined of each sex and age, with the sum of their heights in centimetres and of their weights in kilograms. The form for reply was composed of slips which enabled us to make our calculations direct from the figures sent to us.

We received a large number of replies, and were very sorry not to be able to avail ourselves of many of the figures sent, as a number of school medical officers forwarded their own averages, and the returns of others were not comparable with the majority of the figures received on account of variations either in the amount of clothing worn by the children when measured or in the method adopted for classifying the measurements afterwards.

We decided to confine our calculations to those returns in which the total heights and weights were given of children measured and weighed in ordinary indoor clothing and without boots, and as only one such return was received from Wales it was omitted in order that the present calculation should refer only to English children.

The actual figures from which our averages are derived represent measurements of 583,640 children, and were received from seventeen county and forty-four urban education areas scattered throughout England, and we believe that, taken together, they are fairly representative of the country as a whole. Totals for 1909 only were received from seven districts, for 1910 only from fourteen, and for both years from forty. We combined the figures for the two years, and worked out separate averages for the county and urban areas as well as for the North and South of England, the line of demarcation adopted being one following the southern borders of Salop, Staffordshire, Leicestershire, Rutland, and Lincolnshire.

The averages representing the North of England are derived from the figures of nine county and twenty-six urban areas; those for the South of England from the figures of eight county and eighteen urban areas. We were constrained in a few instances to exclude figures that were obviously incorrect, and our results give the average height and weight for each age and sex of those children whose measurements were included in the totals we made use of.

As we do not know whether or not the children were evenly distributed through each year of age, we cannot claim that these averages represent the true mean heights and weights of English school children, though we think that the curves on the accompanying chart demonstrate that fairly approximate averages have been obtained.

AVERAGE HEIGHT AND WEIGHT OF ENGLISH SCHOOL CHILDREN.

*Boys.*

| Age last Birthday. | England. | | | County Education Areas. | | | Urban Education Areas. | | | North of England. | | | South of England. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. |
| | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. |
| 3 | 9,388 | 92.4 | 14.86 | 5,793 | 93.1 | 14.93 | 3,595 | 91.3 | 14 74 | 5,628 | 92.4 | 14.86 | 3,760 | 92.5 | 14.85 |
| 4 | 24.047 | 98.2 | 16.29 | 12.898 | 98.5 | 16 44 | 11,149 | 97.7 | 16 10 | 14,062 | 98.0 | 16.36 | 9,985 | 98.4 | 16.18 |
| 5 | 65,438 | 103 0 | 17.54 | 32,390 | 103 2 | 17.71 | 33,048 | 102.7 | 17.34 | 43,070 | 102 6 | 17.54 | 22,368 | 103.7 | 17 53 |
| 6 | 20,554 | 108 0 | 19 33 | 9,469 | 108.6 | 19 35 | 11,085 | 107 5 | 19 31 | 13 038 | 107.7 | 19.49 | 7,516 | 108.6 | 19.04 |
| 7 | 37,515 | 114.7 | 21.20 | 14,784 | 115 3 | 21.47 | 22,731 | 114.3 | 21.01 | 17,271 | 114.1 | 21.17 | 20,244 | 115.2 | 21.22 |
| 8 | 9,684 | 119.3 | 22.86 | 1,940 | 119.5 | 23.30 | 7,744 | 119.0 | 22.75 | 3,719 | 118.3 | 22.62 | 5,965 | 120.0 | 23.01 |
| 9 | 7,873 | 124.7 | 25.12 | 2,699 | 126.6 | 25.86 | 5,174 | 123.7 | 24 73 | 4,330 | 125.4 | 25.46 | 3 543 | 123.8 | 24.71 |
| 10 | 21,579 | 129.4 | 27.42 | 8 234 | 130.0 | 27.75 | 13,345 | 129.1 | 27.22 | 16,447 | 129.3 | 27.46 | 5,132 | 129 8 | 27.31 |
| 11 | 5,084 | 134.2 | 29.93 | 1,775 | 135.2 | 30.78 | 3,309 | 133.7 | 29.47 | 2,531 | 134 0 | 30.17 | 2,553 | 134.5 | 29.69 |
| 12 | 37,230 | 139.8 | 33.05 | 25,933 | 140.2 | 33.31 | 11,297 | 138.9 | 32.45 | 20,601 | 139.4 | 32.89 | 16,629 | 140.2 | 33.24 |
| 13 | 52,232 | 142.5 | 35.15 | 21,632 | 142.6 | 35.32 | 30,600 | 142.4 | 35.03 | 30,649 | 141.5 | 34.89 | 21,583 | 143 8 | 35.52 |
| 14 | 4,342 | 147.1 | 38.15 | 1,331 | 147.8 | 38.34 | 2,961 | 146 8 | 38.06 | 2,340 | 145.5 | 37.45 | 2,002 | 149.0 | 38.97 |

*Girls.*

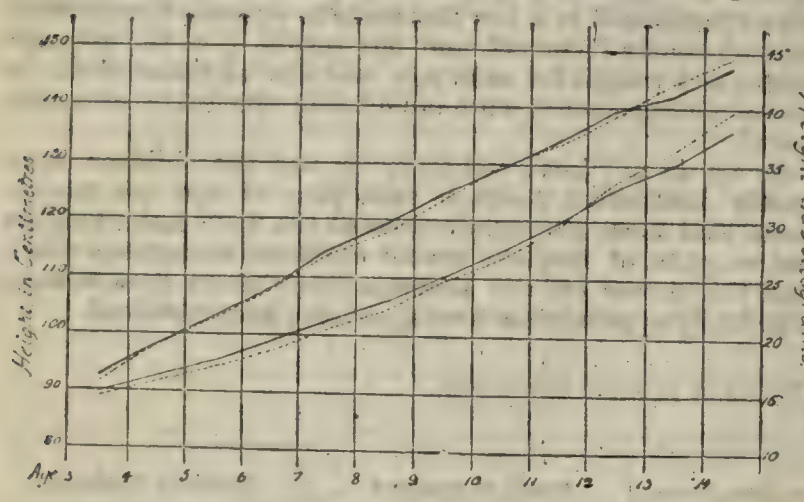
| Age last Birthday. | England. | | | County Education Areas. | | | Urban Education Areas. | | | North of England. | | | South of England. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. | No. | Height. | Weight. |
| | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. | | Cm. | Kilos. |
| 3 | 8,478 | 91.6 | 14.44 | 5,343 | 91.9 | 14 52 | 3,135 | 90.9 | 14.29 | 5,256 | 91 5 | 14.46 | 3,222 | 91.7 | 14.40 |
| 4 | 21,362 | 98.1 | 15.82 | 11,695 | 99.2 | 15.92 | 9,667 | 96.7 | 15.69 | 12,874 | 97.8 | 15.82 | 8,488 | 98.6 | 15.82 |
| 5 | 63,825 | 102 6 | 17.07 | 31,464 | 103.1 | 17.22 | 32,361 | 102 0 | 16 92 | 42,189 | 101.9 | 16 98 | 21,636 | 103 8 | 17.25 |
| 6 | 21,238 | 107.6 | 18 58 | 10,101 | 108 0 | 18 74 | 11,137 | 107.2 | 18.44 | 13,686 | 107.0 | 18 52 | 7,552 | 108.6 | 18 70 |
| 7 | 36,477 | 113.9 | 20.50 | 14,570 | 114.6 | 20.64 | 21,907 | 113.4 | 20.40 | 17,261 | 112.9 | 20.46 | 19,216 | 114.8 | 20 53 |
| 8 | 12,014 | 117.6 | 22.19 | 4,639 | 117.8 | 22.22 | 7,375 | 117.5 | 22 18 | 6,342 | 117.2 | 22.09 | 5,672 | 118 1 | 22.31 |
| 9 | 8,138 | 123.7 | 24.75 | 2,886 | 125.6 | 25.10 | 5,252 | 122.6 | 24.56 | 4,578 | 124.2 | 24.93 | 3,560 | 122.9 | 24.52 |
| 10 | 21,017 | 129 8 | 26 71 | 8,126 | 130.2 | 26.94 | 12,891 | 129.4 | 26 57 | 15,278 | 129.2 | 26.59 | 5,739 | 131.1 | 27.03 |
| 11 | 5,129 | 133.5 | 29.59 | 1,913 | 135.6 | 30.31 | 3,216 | 132.3 | 29 16 | 2,634 | 133.6 | 29.59 | 2,495 | 133.4 | 29.59 |
| 12 | 36,577 | 138 7 | 33.51 | 24,909 | 138.5 | 33 84 | 11,668 | 139.3 | 32.79 | 20,607 | 138.7 | 33 25 | 15,970 | 138 8 | 33.84 |
| 13 | 50,717 | 144.5 | 36.31 | 21,771 | 145.1 | 36.79 | 28,946 | 144.0 | 35.94 | 28,854 | 143.7 | 36.08 | 21,863 | 145.6 | 36 60 |
| 14 | 3,702 | 149.0 | 39.81 | 1,269 | 149.3 | 40.12 | 2,433 | 148 7 | 39.65 | 2,035 | 147.7 | 39.00 | 1,667 | 150 7 | 40.79 |

The most marked irregularity in these curves is the elevation at age 12 in the boys' height curve and in both the boys' and girls' weight curve; this, we think, is probably due to the fact that children leaving school are more likely to be inspected towards the end than the beginning of their twelfth year, and the averages for this year are probably greater than the true mean.

The elevations in both height curves at age 7 and in the girls' height curve at age 10 are not accompanied by any corresponding deflection of the weight curves, and we are unable to account for them. We constructed curves for the subsidiary areas and found that, generally, those for the urban areas were the most regular, those for the county areas being least so.

In comparing the averages for county and urban areas, it should be borne in mind that the areas of many county education authorities have a considerable urban population. The county averages are, with one exception, better than those for urban districts.

The averages for the South of England are, on the whole, better than those for the North, particularly at the




The two upper lines represent heights, the two lower lines weights. Boys ———; girls - - - -

later ages, though the differences between these two sets of averages are not so marked as between those of the county and urban areas.

The height and weight of girls are a little less than those of boys until the eleventh and twelfth years, when the relative positions become reversed. The greater development of girls at these ages is most marked in the South country averages.

We should like to take this opportunity of pointing out and apologizing for two errors in the printing of the tables we have already sent to those school medical officers who assisted us with their returns. They refer to the weight of North of England boys aged 5, and North of England girls aged 3; the correct averages are given in these tables.

## THE DIAGNOSTIC VALUE OF RACHICENTESIS.

BY

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The method of performing rachicentesis is simple. The patient should lie on one side or the other. To perform rachicentesis with the patient sitting is to incur grave risk. His hips should be close to the edge of the bed, his trunk well flexed. This position widens the space between the spinous processes of the vertebrae, renders tense the ligamentum subflavum, and raises the lower end of the spinal cord. The site of puncture is determined by the position of the fourth lumbar spine, which is crossed by a line dropped perpendicularly from the highest point of the iliac crest to the bed. The needle may be introduced in the mid-line or slightly to one side in the second or the third intervertebral space or just to the side of the spine of the corresponding vertebra. The spot selected is marked and the skin rubbed with lysol solution (1 in 20), and then with pure chloroform. The use of liquid carbolic acid or of pure lysol endangers the local vitality. The needle is passed steadily in with a slight inclination upwards. There is resistance at the skin and at the ligamentum subflavum; after the latter is pierced the needle is liable to plunge if too great force be used; the subarachnoid space (from which the fluid is drawn) is generally 5 cm. from the entrance wound. When this is reached the cerebro-spinal fluid usually appears. If it do not come the needle should be turned round once or twice in case fibres of the ligament be blocking the point. If the needle strike bone it must be withdrawn 2 cm. and reintroduced in another direction. If the point have touched a small vessel the first portion of the fluid may be bloodstained. This contamination is inevitable if the skin have been incised before introducing the needle. The amount of fluid removed varies, but 10 to 12 c.cm. is a convenient quantity; it is allowed to drop from the end of the needle into a sterile test tube. During its escape the colour and pulse of the patient must be watched; any sign of collapse requires instant stoppage of the withdrawal and the administration of oxygen. In any case the flow should be stopped from time to time by a sterile swab if the needle have no stopcock. In a case of cerebral tumour there is very real danger in removing the fluid too freely or too rapidly. The puncture is sealed with collodion. The patient should lie flat for some hours afterwards.

The fluid should be examined without delay. The rate of flow is noted at the time. About 5 c.cm. of the fluid are centrifugalized for ten minutes, the supernatant fluid poured off, and the deposit transferred to a sterile slide. When dry this film is fixed and stained with methylene blue or other stain.

Normal cerebro-spinal fluid is clear, colourless, and alkaline; the degree of alkalinity seems to vary, but the significance of this is not known. It becomes slightly turbid when boiled; it reduces Fehling's solution, glucose being present in the proportion of 0.4 to 0.5 per cent. The glucose may disappear when meningitis develops. The fluid may become coloured. Yellow fluid may indicate tuberculous or chronic meningitis, or tumour of the spinal cord; in subdural haemorrhage or cerebral laceration it is red, but if the trauma be some days old the colour may be dark amber. Red colour may be due to accidental contamination; coagulation in the test tube is stated to be an infallible sign of this, but such a conclusion is not always justifiable. It has been asserted that bile does not appear in the fluid in cases of jaundice; one of the cases described contradicts this. Turbidity is an indication of meningitis, but the fluid may be clear in subacute tuberculous meningitis. It is clear also in extradural haemorrhage and in cerebral tumour.

A film made from normal cerebro spinal fluid contains very few leucocytes, and many fields may be examined before one corpuscle is found. Absence of leucocytes excludes meningeal inflammation, locomotor ataxy, and superficial gumma of the brain. It does not exclude cerebral abscess unaccompanied by meningitis; this shows the value of making a leucocyte count of the blood at the time the cerebro-spinal fluid is examined.

In pathological states the number of leucocytes is increased, and in inflammatory conditions a varying number of endothelial cells may be seen. The variety of leucocyte which becomes the more abundant depends on the lesion. It is probable, however, that the explanation of the predominance of the one variety over the other lies in the fact that the inflammatory change is of a less active type, demanding fewer phagocytes.

The significance of the actual changes will now be considered:

1. Lymphocytosis generally means a chronic meningitis, and is found when the cause is syphilis or tubercle (the latter especially in children), in locomotor ataxy, in epilepsy, and in general paralysis of the insane. It is said to occur in acute parotitis and in herpes. Some cases of cerebral glioma have shown this lymphocytosis. It is absent during the initial stage of tuberculous meningitis. Development of lymphocytosis in the course of a disease means improvement, and in those cases of non-tuberculous meningitis which have recovered the number of lymphocytes has steadily increased.

2. A polymorphonuclear leucocytosis generally means acute meningeal disease. It is found during the initial stage of tuberculous meningitis, but is often persistent in this disease in adults. In cerebro-spinal meningitis it is present from the beginning, and is increased at each

exacerbation. The onset of acute anterior poliomyelitis is said to be accompanied by a leucocytosis of this kind.

The leucocytosis in the blood and in the cerebro-spinal fluid in the different conditions which have been referred to may be shown as follows:

| | Cerebro-spinal Fluid. | Blood (thousands). |
|---|---|---|
| Meningitis (*a*) tuberculous... | Mononuclear (except at outset) | 10–14 |
| ,, (*b*) pyogenic ... | Polymorphonuclear (except when recovering) | 15–22 |
| Locomotor ataxy ... ... | Mononuclear | Normal |
| Epilepsy ... ... ... | ,, | ,, |
| General paralysis ... ... | ,, | ,, |
| Cerebral tumour ... ... | ,, | 7–12 |
| Cerebral abscess ... ... | No excess | 14–18 |

The therapeutic use of rachicentesis will be discussed very briefly. In infective cases the removal of a fluid heavily laden with toxins and its replacement by a fluid with a bacteriotropic power as yet uncalled upon must be beneficial, whether the inflammation be in the meninges or in the peritoneum. Unfortunately, the excellent effects of laparotomy for tuberculous peritonitis have not been obtained in rachicentesis for tuberculous meningitis. Fluid would have to be withdrawn frequently before much effect would take place. In one case described now there was distinct improvement, which, though transient, would have been sufficient if important social or family affairs had had to be settled by the patient before he died. In such a case rachicentesis might be regarded as almost obligatory. High intracranial pressure, whether due to cerebral neoplasm or to effusion of blood after injury or rupture of a vessel, or to depressed bone, may be relieved by the withdrawal of fluid. When this has been done, the further excess may be absorbed, as happens in the pleural or the peritoneal cavity.

The following cases have been selected from a number with the design of illustrating the foregoing remarks:

CASE I.

Mrs. P., aged 57, had been losing weight for several weeks, and had epigastric pain which was worse after food. She was intensely jaundiced, and had been so for two months. There was oedema of the ankles; the umbilicus protruded, and the abdomen at this level measured 82 cm.; at the level of the ninth costal cartilage, 80.6 cm. In the epigastrium was a very hard, immovable hemispherical mass 7 cm. in diameter. Bile was abundant in the urine. Cerebro-spinal fluid came out at the rate of fifty drops per minute, and was clear with a distinct greenish tinge. It gave bile reactions with fuming nitric acid and with Lugol's solution, but not with Oliver's peptone solution. Films made from the deposit showed no leucocytes, endothelial cells, or bacteria. The necropsy revealed the presence of primary disease of the gall bladder with large secondary nodules in the liver.

CASE II.

R. S., aged 44, fractured his skull in 1904, and in the five years following had three attacks of unconsciouness, unattended by convulsions. In March, 1910, he had a series of left-sided convulsions, which came on without warning, and were not attended by incontinence. These lasted five weeks, and recurred on September 30th, when what was apparently the "status epilepticus" set in and lasted until October 2nd. The reflexes in the right leg were distinctly more active than those in the left, but this was the only abnormality discovered. The urine contained 1.4 per cent. urea and no albumen. It was not until four days later that he knew where he was, and then he was able to walk while supported and without shuffling. His cerebro-spinal fluid was clear and strongly alkaline. The field gave an average of 1.6 leucocytes (all mononuclears) and no endothelial cells; the blood-count was 11,277. By itself this result did not exclude a cerebral tumour, but the patient improved steadily, and had no headache or vomiting. The diagnosis made was simple epilepsy.

CASE III.

E. L., aged 18 years, had intense pain on the left side of his skull for three weeks. Examination detected no local tenderness anywhere, except behind the knees on an attempt to elicit Kernig's sign, and in the nape of the neck. There was diplopia on looking down; optic neuritis was absent, and the fundal veins were rather engorged. Rotatory nystagmus to the left was very marked, and was increased on looking to the left; this caused no vertigo. Left pseudoptosis was present; the fields of vision appeared to be full. Continuous hissing tinnitus was present in the left ear. With tuning-fork she had very poor conduction for both low and high tones; Rinne's test was negative; Weber's test conducted to the right. His cerebro-spinal fluid was clear; immediately after the withdrawal he became very collapsed. Later on he complained of headache, and was restless. The average field showed 55 leucocytes, and lymphocytes and polymorphs were present in almost exactly equal numbers in a total of 600 cells counted; the blood count was 12,000. The diagnosis was then a subacute meningitis, which might be due to a cerebral abscess or tumour, or to tuberculous disease. Pyogenic meningitis was excluded, the fluid being clear and showing no organisms; three culture tubes inoculated from the fluid remained sterile. The blood count was too low for an abscess. In tuberculous meningitis lymphocytes would probably predominate; no tubercle bacilli were found in the deposit; von Pirquet's reaction was negative; the tuberculo-opsonic index was .99. The condition thus came to be regarded as a cerebral glioma. He was treated with potassium iodide, and nine weeks later his condition had so far improved that he was allowed to resume a cautious outdoor life. At this time the nystagmus was well marked, diplopia unchanged, ptosis almost gone, knee-jerks normal, plantar reflex sluggish: there was no inco-ordination when he stood with his eyes shut, even when he was pushed. Nine weeks after this Wassermann's reaction (which had not previously been done) was found negative.

CASE IV.

R. T., aged 37 years, had syphilis at the age of 24 years; eleven years later he had dysuria, which still troubled him when he came under notice. At that time he had vomiting and sudden pain in the stomach lasting one day. A similar attack occurred eighteen months later, and another seven months after this. With this third attack he had dull heavy pain in his legs, which was sometimes worse at night. The fourth attack began two days before he came under observation. When seen he had Argyll Robertson pupils, no knee-jerks, no plantar response in right foot, slight extensor response in left foot. There was distinct inco-ordination in his arms, none in his legs. The disease was obviously locomotor ataxy—a diagnosis which was confirmed by his cerebro-spinal fluid, which was clear and alkaline, showing 73 lymphocytes to the field, a few endothelial cells, no polymorphs, and no bacteria.

CASE V.

H. T., aged 50 years, gave a history of pain in the left side of the abdomen and sickness after meals of ten years' duration. Recently this pain had become worse and he had lost weight. On account of these symptoms a diagnosis of malignant disease of the intestine had led to a laparotomy being performed, and after this he had felt better. Some weeks before he was seen he began to vomit more frequently, found that "his feet would not go where he wanted," and fumbled very much in fastening his buttons; there was no complaint of any visual defect. On examination his pupils reacted sluggishly to light and accommodation, the left optic disc seemed paler than the right, and the arteries were small. There was distinct inco-ordination in the arms; knee-jerks were slow; Romberg's sign was present. Plantar response was absent, gait was high stepping; with bare feet he could not tell when he had stepped from boards to a towel, but felt these to be different from a door-mat. The cerebro-spinal fluid showed only twelve cells on the film, ten being lymphocytes. This was not definite, but suggested an early stage of tabes dorsalis. The inco-ordination increased and the knee-jerks became more sluggish; but he was lost sight of after a month.

CASE VI.

P. B., aged 18 years, had a very extensive pericardial effusion, which was treated by incision and drainage. As a full account of this case has appeared elsewhere,[1] it will suffice to say that four months after the pericardotomy he showed signs of a commencing meningitis. Lumbar puncture was accordingly done; the fluid was turbid and did not reduce Fehling's solution. The film showed many endothelial cells and an average of 94.5 leucocytes; a differential count gave lymphocytes 62.14 per cent., polymorphs 37.8 per cent. This pointed to a tuberculous meningitis of some standing, with the supervention of an acute non-tuberculous process. The necropsy revealed a tuberculous deposit over the heart, with miliary tubercles in the lungs and in most of the abdominal viscera. The pia arachnoid was oedematous, and showed a few scattered tubercles. Firm chronic adhesions were seen at the optic tracts and in the Sylvian fissures. Pus was entirely absent, but the separated surfaces showed carpeting with minute grey tubercles, which were also found in the aqueduct of Sylvius and in the lining of the ventricles.

CASE VII.

F. J., aged 3 years, had a history of wasting, peevishness, and convulsions. Her head was retracted and burrowed into the pillow; the knee-jerks and plantar reflexes were much diminished. Only 0.5 c.cm. of fluid was obtained, and when evaporated on a slide this showed 65 leucocytes, with lymphocytes and polymorphs in almost exactly equal numbers; no bacilli were found; the blood count was 26,504. Tuberculous meningitis was diagnosed. Some days later she became very restless and recent haemorrhages were seen in both fundi. She died five weeks after the puncture. At the necropsy a chronic hydrocephalus was found. The surface of the cerebrum and of the caudate nucleus was finely granular, and the basal membranes were thickened. The dilatation of the ventricles probably explains the absence of pressure in the fluid.

CASE VIII.

S. E., aged 16 years, had a history and symptoms (of a week's duration) strongly suggestive of an early stage of tuberculous meningitis. By lumbar puncture 18 c.cm. of fluid were removed; it came out in a jet, was rather turbid, and began to show a deposit in five minutes. It was slightly alkaline and did not reduce Fehling's solution. The average field contained 100 leucocytes, of which 98 per cent. were mononuclear. During the night he answered questions and complained of headache. Next day 30 c.cm. of fluid were removed; this was quite cloudy and came out at the rate of 120 drops per minnte. At night the temperature dropped from 101.4° F. to 98.6° F., and in the morning he quite understood questions put to him; 18 c.cm. of fluid were removed, but this was distinctly less turbid. The fluid next day was still clearer; 41 c.cm. were drawn off, and with it came a clot of lymph about 10 mm. long. In the evening he became unconscious and died. No tubercle bacilli were ever found in the fluid. At the necropsy was found dense inflammation and many tubercles in the membranes at the base of the brain and of the cord, being more marked in the dorsal region. No tubercles were seen in the thorax, but the great omentum, the visceral peritoneum, and the appendix were thickly covered with them. A tuberculous abscess was found over the right lobe of the liver and one in the spleen.

CASE IX.

V. H., aged 16 years, was a healthy-looking girl who came home from school with a violent headache, vomited once, and at night had a temperature of 105°. In the morning she was semi-conscious, and had a pulse-rate of 140; her knee-jerks were absent, and Kernig's and Babinski's signs were very marked on both sides. Her fluid was faintly turbid; the film showed a few diplococci and numerous polymorphs. Cultures on broth, agar, and Loeffler's medium were all negative. That evening the patient asked for tea and was able to talk to people; she remained conscious for forty-eight hours. When told to perform the movement of Kernig's sign she said that "her leg wouldn't go," but it did not hurt her to try. The following day she was again unconscious, and about 30 c.cm. of opalescent fluid were removed. The field contained 100 leucocytes, of which 97 per cent. were polymorphs. Cultures on agar and Loeffler's medium grew staphylococci freely, owing to a contamination. Films made from the growth and stained with methylene-blue and carbol thionin showed a few extra-cellular diplococci, probably pneumococci; no tubercle bacilli were found. Death occurred about six hours later, and a necropsy was not allowed.

REFERENCE.

[1] *The Lancet*, April 22nd, 1911.

## NOTE ON THE BLOOD IN SYMPATHETIC OPHTHALMIA.

BY

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AT a meeting of the Ophthalmological Section of the British Medical Association in London, July, 1910,[1] Mr. A. W. Ormonde referred to the results of blood examinations made by one of us (C. P. J.) of three cases of sympathetic ophthalmia, which showed great increases from the normal in the relative percentages of the large mononuclear cells, amounting in one case to as much as 20 per cent., and associated with a diminished percentage of polymorphonuclear leucocytes—a condition which suggested a protozoal and not a bacillary infection.

Prior to this, and also subsequently, we have had the opportunity of examining the blood in nine cases of sympathetic ophthalmia, and have in all specimens found a similar blood-cell type, as is shown in Table I.

Unfortunately, the total white cell counts were not made, but assuming there was in no case any leucocytosis, and taking the average normal absolute numbers per cubic millimetre of lymphocytes as 1,500, of large mononuclears as 500, and of polymorphonuclear leucocytes, as 5,000, and the average normal total white cell count as 7,000 per cubic millimetre, the absolute numbers in the above cases may be calculated; they are expressed in Table II.

From these figures it appears that in all cases the lymphocytes are increased in absolute number per cubic millimetre on an average for the 9 cases of about 30 per cent., the range of increase varying from 2 per cent. to 42 per cent.

TABLE I.

| Case. | Lymphocytes per Cent. | Mononuclears per Cent. | Polymorphs per Cent. | Eosinophiles per Cent. | Mast Cells per Cent. |
|---|---|---|---|---|---|
| 416 | 27.4 | 20.4 | 47.0 | 4.6 | 0.6 |
| 3,987 | 27.2 | 13.0 | 58.8 | 0 | 0.6 |
| 363 | 34.6 | 16.4 | 46.8 | 2.2 | 0 |
| 360 | 28.6 | 16.2 | 51.4 | 3.4 | 0.4 |
| 353 | 21.8 | 12 0 | 63.6 | 2.0 | 0.6 |
| 113 | 29.6 | 14.3 | 48.0 | 1.3 | 0 |
| 48-2 | 30.6 | 30.0 | 38.6 | 0 6 | 0 |
| 100 | 31.0 | 12 3 | 49.0 | 3.6 | 0.6 |
| 104 | 22.6 | 42.0 | 34.6 | 0.3 | 0.3 |

TABLE II.

| Case. | Lymphocytes. | | Mononuclear Cells. | | Polymorphs. | |
|---|---|---|---|---|---|---|
| | No. | Increase. | No. | Increase. | No. | Diminution. |
| | | No. % | | No. % | | No. % |
| 416 | 1,918 | 418 = 27 | 1,428 | 928 = 185 | 3,290 | 1,710 = 34 |
| 3,987 | 1,904 | 404 = 26 | 910 | 410 = 82 | 4,116 | 884 = 17 |
| 363 | 2,422 | 922 = 61 | 1,148 | 648 = 129 | 3,276 | 1,724 = 34 |
| 360 | 2,002 | 502 = 33 | 1,134 | 634 = 126 | 3,598 | 1,402 = 28 |
| 353 | 1,526 | 26 = 2 | 840 | 340 = 68 | 4,452 | 548 = 11 |
| 113 | 2,072 | 572 = 38 | 1,001 | 501 = 100 | 3,360 | 1,640 = 32 |
| 48-2 | 2,142 | 642 = 42 | 2,100 | 1,600 = 320 | 2,702 | 2,298 = 46 |
| 100 | 2,170 | 670 = 44 | 861 | 361 = 72 | 3,430 | 1,570 = 31 |
| 104 | 1,582 | 82 = 5 | 2,910 | 2,440 = 488 | 2,422 | 2,578 = 51 |

The large mononuclear cells are increased in absolute numbers per cubic millimetre on an average for the 9 cases of 170 per cent., the range of increase varying from 68 per cent. to 488 per cent. The polymorphonuclear leucocytes are in all cases diminished in absolute number per cubic millimetre on an average of about 30 per cent., the range of diminution varying from 10 per cent. to 51 per cent.

This type of blood is met with in protozoal infections. With this view it was desirable to exclude the possibility of syphilis, and in 6 cases Wassermann's test was applied, and in each instance gave a negative result.

Of further interest are the results obtained in 2 cases after the administration of salvarsan. Table III shows the differences in the blood counts taken before and after the injection.

TABLE III.

| Case. | Lymphocytes. | Mononuclears. | Polymorphs. | Eosinophiles. | Mast Cells. | |
|---|---|---|---|---|---|---|
| 416 | 27.4 | 20.4 | 47.0 | 4.0 | 0.6 | |
| 416 | 12.8 | 7.8 | 76.6 | 2 6 | 0.2 | 24 hours after. |
| 48-2 | 30.6 | 30.0 | 38.6 | 0.6 | 0.0 | |
| 48-2 | 11.0 | 20.6 | 67.0 | 0.3 | 1.0 | 3 weeks after. |

These remarkable changes in the type of the blood after treatment seem to support the above suggestion that sympathetic ophthalmia is a protozoal infection.

In a future communication we hope to give results of salvarsan treatment in an extended series of these cases, but the probably great diagnostic value of blood examination appears to us to deserve the more immediate attention of the profession.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1910, p. 1326.

A PORTRAIT of Faraday has been presented to the Royal Institution of Great Britain, where he worked and lectured so long, by Dr. Donald Hood.

THE Honorary Secretaries of the South African Civil Surgeons' Dinner write to state that the dinners are now held every third year, and that the next will take place in 1914.

# BONESETTING AND THE TREATMENT OF PAINFUL JOINTS.

BY

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*(Concluded from p. 1250.)*

### *Elbow-joint.*

EVEN comparatively trivial injuries of the elbow-joint are liable to be followed by some impairment of the normal mobility. In a large number of cases when a too prolonged use of the sling has been permitted, though a certain amount of flexion and extension is painlessly and easily performed, anything like free use of the joint is prevented by the contraction of the biceps and triceps muscles. Indeed, the limitation of movement allowed by this contraction is often so restricted that till it is overcome the additional presence of adhesions is not always easy of diagnosis. Even when adhesions are the principal cause of the stiffness, pain on use is not a marked symptom unless the joint be suddenly moved beyond the limits of its existing range. In cases where recovery is slow, soundness is undoubtedly hastened by manipulating the joint and careful stretching of the contracted muscles.

Occasionally, the full range of movement can be obtained immediately anaesthesia is established; but more often, apart from the presence of adhesions, a considerable amount of muscular resistance is experienced, especially if the case be of long standing. The hands should grasp the limb just above and below the joint when effecting the necessary movements, care being taken to keep the thumb of the lower hand firmly pressed over the head of the radius during extension of the joint lest the pull of the contracted biceps causes dislocation of that bone. Quick rotatory movements of the forearm must, first of all, be made, followed by a rocking of the joint backwards and forwards, the first motion of which should be in the direction of least resistance. That is to say, if flexion is the more defective movement, the elbow should be extended and then flexed, gradually increasing the range, on the principle of a swinging pendulum. When mobility of the joint is fairly free, the muscles should be carefully stretched. This can be best accomplished by a series of light intermittent jerks, and the muscles appear to yield more readily than if they are stretched by continuous pressure or strain.

Should there have been any interference with the proper performance of pronation or supination, the forearm must be briskly put through these movements.

As in former cases, rubbing and exercises will complete the cure.

Regarding the movements necessary for the rupture of adhesions in the wrist and hand, no detailed account need be given, as they are practically similar to those advised in treating the ankle and foot.

### *The Lumbar Region.*

Pain and stiffness in the lumbar region arising from injury occasionally persist long after the immediate and acute condition has passed off.

The history of these cases tells of some definite, though frequently slight, sprain of the back, necessitating, perhaps, but a few days' treatment for apparent recovery. Instead of perfect recovery, the pain, though rarely severe, never quite disappears, and as time goes on becomes more persistent. Good results can be obtained by treatment based on the assumption that the condition is due to some adhesions in the muscular or tendinous structure of those parts.

On examination the lumbar muscles will be found wasted, whilst those on the affected side are usually rigid and contracted, and it may be assumed that it is here that some matting of the muscles or adhesions amongst the deeper tendons exist. In this condition of what may be termed traumatic lumbago, treatment aims at stretching the contracted muscles and rupturing any possible adhesions.

An anaesthetic having been given, the method employed is this: The leg on the sound side is flexed at the knee, and the thigh flexed on the body till the knee touches the chest wall. It is then brought back to the extended position. The leg on the affected side is now put through the same movements, and comparison can be made as to the difference in resistance. Both legs are now brought up together, and both knees should be kept pressed against the chest for about a minute. The legs having been brought to the extended position once more, the patient is now raised to a sitting posture. The operator places one hand firmly on the affected side, whilst with the other he thrusts the patient back on to the couch. The hand in the small of the back acting as a fulcrum, causes extension of the part. By these movements, full flexion and extension of the lumbar region is obtained. Pain rarely follows these manipulations, and greater freedom of movement is experienced almost immediately afterwards, but treatment by rubbing and exercises will be essential before recovery can be considered complete.

### *The Hip-Joint.*

Perfect recovery from an injury to the hip is often unduly delayed by the formation of adhesions either in the capsule of the joint or amongst the surrounding muscles. After such an accident as fracture of the neck of the femur the bands of adhesions may be so general as to cause almost complete loss of movement.

Simple sprains of the joint, however, or that very common injury to the abductor muscles called "rider's sprain," are not infrequently followed by considerable interference with the mobility of the limb and though flexion and extension may be quite unimpaired the action of abduction and rotation outwards are limited and painful.

Provided other means have failed to effect a cure rupturing the adhesions under anaesthesia will afford the best chance of recovery.

In the performance of the necessary manipulations for the more severe cases of ankylosis the hands should grasp the thigh close up to the joint and by quick circular movements obtain a certain degree of mobility whilst the pelvis is fixed by an assistant. When the head of the bone is felt to be moving freely the operator, in order to get better leverage, should slip his shoulder under the patient's knee, and by alternately raising and lowering his body obtain gradual increase of flexion, the hands in the meanwhile still continuing the circular movements of the limb. As soon as the thigh is flexed on the trunk the movements of abduction, adduction, and rotation should be briskly performed. The thigh is then extended, abduction again performed, and the contracted adductor muscles firmly kneaded. Finally cross the leg over its fellow in the position of extreme adduction and smartly rotate outwards. Should the thigh be fixed by adhesions in the position of flexion the patient must be rolled on to the sound side and the thigh extended. In the less serious cases the shoulder leverage will not be required, as the movements can be carried out by the grasp of the hands alone. Where, however, ankylosis is almost complete, such leverage will be found very useful, but care must be taken to previously loosen the joint by rotatory movements before attempting flexion for fear of fracturing the neck of the femur.

After-treatment must be on the same lines as in other joints, with the object of maintaining the mobility and restoring the wasted muscles.

### *The Knee-Joint.*

The medical profession fully appreciates the value of early movement and massage in the treatment of acute traumatic synovitis, but in spite of the adoption of modern methods small adhesions are formed in this joint more frequently than is generally suspected, and it is especially with regard to these indefinitely crippled limbs that the modern bonesetter gains such success. The treatment and cure of the acute condition should not be the only aim of the practitioner. The invariably wasted muscles and occasionally painful joint following recovery from the immediate effects of injury should not be left for time to cure, but efforts should be made by means of suitable exercises and electrical treatment to bring about perfect soundness before dismissing the patient.

Where there is no evidence of disease or any internal derangement of the knee-joint, but where in spite of treatment certain movements continue to be painful or defective, the possibility of adhesions delaying recovery should be considered.

In the more severe cases, where any useful movement of the joint has been lost, adhesions are easily recognizable, but in certain conditions, where there may be merely a painful interference with the completion of full extension or full flexion, their presence is liable to be overlooked.

It will be found that these lesions usually occur when the synovitis has been due to a sprain of the joint, in contradistinction to that resulting from direct injury, and it may be assumed, therefore, that the adhesions are connected with the tendons controlling the joint. Again, the pain is more usually noticed on the inner side of the joint, the structures in that region being more liable to injury from the tendency of a spraining joint to yield on the inner aspect; adhesions are likely to form there.

The manipulations necessary for the correction of such disability are as follows: The patient, being duly anaesthetized, should be so placed that the offending limb extends over the edge of the bed as far as the popliteal space. The operator should then grasp the patient's foot between his thighs, and with his hands rock the patella from side to side to free it from any possible adhesions, and no attempt at flexion of the joint should be made till this be found to be moving freely. Cases have occurred in which fracture of the patella has resulted owing to neglect of this important point.

The operator now bends his knees, whilst his hands, acting as a fulcrum, firmly grasp the shaft of the tibia close up to the joint. By this means the force necessary to bend the knee and rupture the adhesions can be regulated and the muscular resistance appreciated. No attempt should be made to obtain full flexion immediately, but by alternately bending and straightening the knees free movement of the joint will gradually follow. The amount of resistance offered by the contracted extensor femoris should be the guide as to how far it will be permissible to continue flexion, and care must be exercised to avoid rupturing or spraining this muscle. Once the adhesions have been ruptured, after-treatment will restore the remaining degrees of flexion.

The operator should next make a quick but not violent rotatory movement of the tibia whilst his thumbs are firmly pressed against the sides of the joint.

In those cases in which adhesions are preventing the full extension of the joint, but where flexion is normal a similar grasp should be employed—the only difference being that the force will be applied by straightening the knees and pushing the hands against the faulty joint.

In those cases in which manipulations have been necessary to restore the extension of a joint, subsequent treatment will overcome the muscular resistance of the flexor muscles, and on no account should a back splint or any fixed apparatus be put on. Pain rarely follows manipulative treatment of the knee-joint provided violence has been avoided, and no fear need be felt that synovitis will be set up. Rubbing and movements should at once follow the breaking down of the adhesions, and in the course of a few days exercises must be commenced for the restoration of the weak muscles.

In the class of patients who come to the practitioner complaining of a pain on the inner side of the knee and of a feeling of weakness in the joint it will be found that treatment by intensive radiation and wave current will, in a certain number of these cases, effect considerable and prompt relief. When the knee is submitted to examination the parts affected will be usually observed to be swollen in some, but not all, instances to a considerable degree, and it may hastily be inferred that the case is merely one of synovitis; if, however, the patient be interrogated, he will in most cases describe how he has suffered a bruise or a strain of the knee, which was followed by swelling that diminished after a more or less extended period of rest. On resuming full work the knee becomes stiff and more oedema appears with pain on movement, especially adduction, felt at the inner side of the knee. A careful examination will now convince the practitioner that the case is not one of synovitis, because of the absence of the uniform distension and the floating patella so characteristic of that condition. The explanation of the position of affairs is supplied by recognizing the part played in these conditions by the lacerated muscle fibres injured at the time the "sprain" took place. In a certain proportion of these cases the pain assumes the character and symptoms of so-called irregular gout or rheumatic gout or rheumatism, and a course of treatment suitable to such a diagnosis is instituted, with but slight benefit to the unfortunate patient. An accurate and useful account of the true condition of the parts was furnished some time ago by a keen observer in the following words:

> The original swelling both distends the skin and impairs its elasticity, and the inaction of the muscles permits the continuance of a certain amount of venous congestion, with the result that there is stagnation of the blood and liability of transudation into the tissues round.

In such a condition of the knee it is easy to understand how intensive irradiation secures an amelioration of the pains so bitterly complained of by the patient; the stasis is relieved, local metabolism is favoured, and elimination sufficient to pass on the irritative products of prolonged stasis is secured. The wave current restores tone to the muscles and power to the joint, and forms an efficient means of securing an early return to the normal activity of the injured limb.

*Ankle-Joint.*

Any severe injury in the neighbourhood of the ankle-joint which necessitates prolonged immobility is not infrequently followed by the formation of adhesions either in the joint itself or amongst the tendons. Though a certain amount of movement is usually possible, in the majority of cases any attempt to use the joint in a normal manner or obtain a greater range of motion gives rise to considerable pain. Walking is only accomplished by keeping the ankle rigid and everting the foot, instead of the ordinary toe-and-heel method of progression.

Flexion is the movement most commonly found to be at fault, since in most cases of fracture in that region the foot is kept at right angles to the leg. Again, though flexion and extension may be comparatively normal, the movements of eversion and inverson are often found defective and painful from the presence of adhesions in the tendons passing round the malleoli. In such conditions recovery can be expedited by manipulating the joint under anaesthesia.

The foot should be seized by the operator's right hand, whilst the left takes a firm hold just above the joint, and short, quick, rocking movements made in the direction of extension and flexion. As mobility increases the knee should be flexed to relax the tendo Achillis, and greater force applied as each movement of extension is made. When extension of the foot has become fairly free, flexion should be gained by the same method, only that the increasing force is applied to the direction of flexion. The foot should now be briskly inverted and everted and then made to describe circles from within outwards and without inwards.

Where these movements are advisable it may happen that the whole foot is rigid from disuse, and it will be as well to give a brief description of the manipulations to be employed for loosening the stiff phalangeal and metatarsal joints.

Each metatarso-phalangeal joint should be grasped by the left hand whilst the right flexes and extends the joints of the corresponding digit. The metatarsal bones must now be freely moved; this can be done by gripping the first metatarsal at the phalangeal articulation between the finger and thumb of one hand, the other hand seizing the second metatarsal in like manner. The bones are then briskly flexed and extended in opposition to each other—that is to say, whilst the first bone is extended the second is flexed and vice versa. The remainder must be dealt with in like fashion till mobility is established.

These manipulations will often prove of value in certain cases of the metatarsalgia described by Morton.

After-treatment must be on the same lines as in other joints, but the course of rubbing will usually have to be more prolonged.

# Memoranda:
## MEDICAL, SURGICAL, OBSTETRICAL.

### EPITHELIOMA OF THE AURICLE.

J. B., aged 86, first seen by me on August 7th, 1910, stated that about four years earlier he had noticed a small wart on the outer edge of his left ear. There was no pain, but the ear felt warm and he got into the habit of rubbing the ear. In March, 1910, he had an attack of eczema of the ear for which he tried several lotions and ointments without effecting a cure. When he showed me the ear the left auricle was thicker than the right and was covered with a layer of scales which were easily detached. The wart was present on the outer margin of the helix on a level with the antitragus as in Fig. 1. The eczematous condition yielded to a lotion of silver nitrate (10 grains to 1 fl. oz.) in spirit of nitrous ether. When I saw the patient again on March 10th, 1911, the ear showed a typical fungating epitheliomatous ulcer occupying the middle third of the pinna as in Fig. 2. It extended to within half an inch of the attachment of the auricle into the skull. It had perforated the auricle and the perforation admitted the point of a pair of dressing forceps. The discharge, which was very fetid, filled the meatus and the patient complained of burning pain in the ear. There were no enlarged glands in the neck or on the anterior surface of the parotid gland, no emaciation or cachexia, and no loss of appetite. A piece of the growth examined microscopically exhibited the characters of squamous epithelioma.

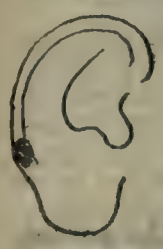

Fig. 1.

Fig. 2.

At the request of the patient and his relatives, and on account of his advanced age and absence of glandular enlargement, I removed the growth locally. The meatus was syringed out and the auricle and meatus were painted with iodine. The incision was made through healthy tissue half an inch wide of the disease. It was carried down to the attachment of the auricle to the skull. The amount of tissue removed was a little larger than half a crown. Owing to the mobility of the part the edges of the incision could be brought together without tension and also fixed to the attachment of the auricle to the skull. Plugs of wool were kept in the meatus for twelve days when healing was complete.

This case is interesting because epithelioma of the auricle is uncommon. The irritation produced by his constant rubbing of the wart probably led to a change into epithelioma.

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### ANOTHER ARSENIC COMPOUND FOR SYPHILIS (HYDRARSAN).

IN connexion with the "606" controversy may I say that somewhat remarkable results have been found in Dublin to follow the use, in cases of syphilis, of a mixture or compound of a salt of arsenic with phenyl-dimethyl-iso-pyrazolon and mercuric perchloride combined with potassium iodide.

For convenience sake the compound is colloquially termed "hydrarsan." What may be its exact chemical composition after reaction has taken place between the four salts of the compound I will not dare to say, but it appears to have an extraordinarily potent effect on the manifestations of syphilis. Its characteristic seems to be that an apparent cure is effected after a few doses, but that a recrudescence or relapse occurs if the remedy be not persevered in.

As concerns dosage, quite moderate amounts appear sufficient—say, in each dose;

| | | | | |
|---|---|---|---|---|
| Phenazonum | ... | ... | ... | gr. 10 |
| Mercuric perchloride | ... | ... | ... | gr. $\frac{1}{8}$ |
| Arsenic chloride | ... | ... | ... | gr. $\frac{1}{10}$ |
| Potassium iodide | ... | ... | ... | gr. 5 |

It is best given in solution, and I have used with it tincture of cinchona, which possibly augments the action.

I think Dr. Marshall has demonstrated that the benefits of "606" are not notably greater than such as may follow from a combination of recognized specifics like mercury and potassium iodide combined with arsenic and a salt of the salicylic series.

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# Reports
## ON
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### STATION HOSPITAL, PORT LOKKO, WEST AFRICA.*

#### A CASE OF ACUTE YELLOW ATROPHY OF THE LIVER.

THE patient in the following case, a private in the West African Regiment, was admitted to hospital on October 25th. His age was 21, and he had been one and two-twelfth years in the service. On admission he complained of constipation and pain over the region of the liver. He was very jaundiced and his urine deeply coloured with bile. He was given calomel gr. iv in the morning, and mist. alb. ʒij in the evening. He was placed on milk diet. Evening temperature 102°; bowels moved twice during the day.

*Progress.*

October 26th. Morning temperature 97.8°. Bowels moved three times during the night. Stools light coloured. Patient felt better. Liver less tender. On palpation it was found to be slightly enlarged. He was given a mixture of sod. bicarb. gr. x to the ounce; dose ʒj t.d. s. Evening temperature 98.6°.

October 26th. Calomel and mist. alb. repeated. Temperature normal. Mist. sod. bicarb. continued. Jaundice slightly improving. Patient dull and lethargic.

October 30th. Temperature normal. Calomel and mist. alb. repeated. Jaundice improving. There has been much trouble in persuading the patient to take his milk, and on several occasions he has managed to obtain other patients' food.

November 4th. Morning temperature normal. The patient is improving slowly. The area of liver dullness is diminishing. Evening temperature 99 8°.

November 5th. Morning temperature normal. The patient had severe diarrhoea during the night, so he was given the following astringent mixture: Tr. catechu, ac. sulph. dil., sp. chlorof. Evening temperature 99.8°.

November 6th. Morning temperature normal. Astringent mixture continued, which checked the diarrhoea. The jaundice remains unchanged. Evening temperature 99.2°.

November 7th. Morning temperature 98°. Tr. nucis vom. ♏v ad ʒj added to the sod. bicarb. mixture. The diarrhoea has ceased, so the astringent mixture is discontinued.

November 9th. Case taken over from Captain Parsons, R.A.M.C., by Captain J. B. Clarke, R.A.M.C.

November 10th. Treatment continued. Morning temperature 99.2°. The patient was discovered by the wardmaster to be eating raw flour, which he had obtained in some unknown manner. He later complained of abdominal pain, and his temperature rose to 103.8°. He had a little diarrhoea, and particles of undigested flour could be seen in the stools.

November 11th. Morning temperature 98°. The patient was very low, and jaundice more marked. Marked tenderness over liver area, and dullness diminishing. Evening temperature 97.8°.

November 12th. Morning temperature subnormal. During the day the patient had violent diarrhoea, and became very collapsed. He was given brandy and strychnine. Hot bricks were put to his feet, and he was covered with blankets. Evening temperature 99.6.

November 13th. Morning temperature 97.2°. The patient was very low and comatose. Stools passed under him. Strychnine given hypodermically. During the day a little brandy and milk got down his throat.

November 14th. The patient never rallied, and died at 12.15 a.m.

*Post-mortem Examination.*

A *post-mortem* examination performed at 8 a.m. Rigor mortis well marked. Capsule of liver wrinkled. Substance intensely yellow, and in places semi-fluid. Gall bladder half full of yellow bile. No obstruction in the ducts could be detected. Pancreas normal. All the tissues of body deeply dyed with bile. Other organs normal.

* A report prepared by J. B. Clarke, Captain, R.A.M.C., and forwarded as a case worth recording, on account of its comparative rarity, by Captain N. E. Harding.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF BALNEOLOGY AND CLIMATOLOGY.

*Saturday, May 27th, 1911.*

Dr. T. FRED. GARDNER, President, in the Chair.

*The Influence of Calcareous Water.*

AT this, the annual provincial meeting, a discussion on the influence of calcareous water in health and disease was opened by Dr. PERCY LEWIS (Folkestone).

Commenting on the views expressed, Dr. PERNET said that in his experience calcareous water taken internally was not productive of eczema, but its local effects were certainly bad. In some skins, too, it led to an eczematous-looking dermatitis.

Dr. BAGSHAWE (St. Leonards) believed that a tendency to constipation among new comers was common to all seaside places, and was probably due to fresh surroundings and mode of life.

Dr. W. J. TYSON (Folkestone) said he thought there was little doubt that such troubles as mild chronic rheumatism, certain skin diseases, biliousness, and perhaps the anaemia of young people, were more common at the seaside than elsewhere; but this seemed to him to be due not to the presence of hard water but to the climate, for the hard water found in inland towns did not appear to be a factor in the causation of the forementioned diseases.

Dr. CLIPPINGDALE, reciting his study of the Chiltern Hills, said he had found that the process used for softening water, while it had diminished the tendency to calculus, had increased the tendency to goitre.

Dr. LENNOX WAINWRIGHT (Folkestone) maintained that there were three factors to be considered in dealing with the question, namely, the diathesis of the individual, the climatic conditions, and the nature of the water supply. Many people came to Folkestone after leading strenuous lives in the east and elsewhere, and were in a pathological condition of health. Such patients required individual treatment in the matter of water, just as much as in the matter of diet. Hard water had the advantage that it was free from contamination, whilst distilled and softened waters were almost impossible in town supplies. Chalk might be removed, but lead and disease might then be carried. Constipation was common in sailors who drank condensed water, and it could not in this case be ascribed to chalky water.

Dr. LEONARD WILLIAMS held that the alleged injurious influence of calcium salts in drinking water would not bear examination. In the formation of calculi it was the acids, oxalic and uric, which were really responsible, and not the calcium base. It was impossible to get rid of all calcium, even if one wanted to. The patient would die of osteomalacia.

Dr. BATEMAN said that Folkestone water was derived from deep wells in the chalk, and that the amount of chalk taken in 1 pint of it would be about 2½ to 3 grains, when drunk unboiled. If boiled, the amount would be about ½ grain, which was not sufficient to be considered deleterious in any way.

Dr. A. F. STREET (of Westgate-on-Sea) said if chalk-containing water could cause the effects sometimes attributed to it, physicians who had practised for many years among populations using water drawn from wells in the chalk, could not fail to be familiar with them. It was almost impossible to believe that such evil effects could occur and yet remain unknown to them. Surely the weight of evidence had proved that this is not so.

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## THE NEW LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on June 8th, Dr. P. S. ABRAHAM, President, in the chair, the following were among the exhibits: Dr. G. NORMAN MEACHEN (for Dr. ABRAHAM): (1) A man, aged 29, with *Lupus erythematosus* of the face of five months' duration. The backs of the hands and the lobules of the ears were also affected. (2) A young woman, of 21, with a similar condition affecting the backs of the fingers, of nine months' duration. (3) A man, aged 38, with a *Sycosiform syphilide*, the lesions of which were seen upon the face and neck, having appeared six weeks ago. Four months ago a "corn" was noticed upon the left palm, ultimately developing into a shallow ulcer, and at the present time there were keratotic patches upon both palms. The Wassermann reaction was strongly positive. (4) A man, aged 31, with *Pseudo-pelade of Brocq*, of twelve years' duration. The sides of the face were also affected with smooth, shiny areas, upon which there had been folliculitis. Dr. KNOWSLEY SIBLEY: A case of *Dermatitis herpetiformis* in a woman, of fifteen years' duration. Various remedies had been tried, but some improvement had distinctly resulted from the injection of an autogenous (streptococcal) vaccine. Dr. TOM ROBINSON: A case of *Lupus erythematosis* in a woman, aged 66, of thirty years' duration, affecting the scalp and face severely. Dr. DENNIS VINRACE: A child with *Uticaria*, showing a relapsing tendency. Dr. J. D. P. MCLATCHIE: A boy of 14, with *Pityriasis rosea*.

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# Reviews.

## FRANCIS BACON.

THE writing of this book has evidently been to the author, Dr. WALTER STEEVES,[1] a labour of love. Besides a sketch of the principal events in the life of Bacon, isolated as much as possible from general history, it is intended to serve more especially as a bibliographical record. Dr. Steeves expressly disclaims any intention of entering on what he calls the Bacon-Shakespeare discussion, and he warns his readers that those who look for controversial food in his pages will be disappointed. Apart from the minute and accurate knowledge of everything relating to Bacon which it displays, the distinguishing feature of Dr. Steeves's book is the wholesome sanity of judgement by which it is, in scholastic phrase, "informed." The biography tells all that is essential in a fair spirit. Dr. Steeves has, as is natural, the highest admiration for Bacon's intellect, and he shows a kindliness for the man which inclines him to leniency in judging his actions. But he does not excuse Bacon's pusillanimous behaviour with regard to his patron and friend, Lord Essex; nor does he conceal his eccentricities and his childish delight in the vanities of life. Bacon was extravagant, never out of debt, and it was doubtless these faults of character that led to his fall. He was convicted of bribery in his capacity of judge, and acknowledged himself guilty of corruption. Dr. Steeves points out that Bacon's unquenchable ambition was the root of all his blackslidings. It is true that the standard of public morality of his day was not the same as happily prevails among judges now, but Bacon was beneath the low level of his own time. He sold justice, and it would appear that he also sold injustice, like Goezman, the unhappy French judge whose infamy was made immortal by Beaumarchais. How justly Dr. Steeves judges the moral defects of his hero's character, appears in the following passage:

> Those who have watched his career with an unbiassed eye must admit that he was hard and unyielding in his legal transactions even to the point of cruelty, rather than his personal aims should be thwarted or allowed to suffer.

Of Bacon's private life the little that is known is creditable. Of his ability in practical affairs there is abundant proof in the history of his time. To the wide scope of his outlook in the purely intellectual sphere his works bear witness. We cannot share Dr. Steeves's opinion as to the depth and originality of the famous essays, which, though pregnant enough with worldly wisdom, are in any high spiritual or even intellectual sense as ashes in the mouth. We wish to avoid the Shakespeare-Bacon controversy, but we cannot help saying that the essays remind us of nothing so much as of the utterances of Polonius. This hint—a poor humour of ours, as Touchstone says, but our own—we place freely at the disposal of the holders of the Baconian faith.

Of the works of Bacon Dr. Steeves gives a full account. His writings, as he points out, were mostly published both

[1] *Francis Bacon, a Sketch of his Life, Works, and Literary Friends, chiefly from a Bibliographical Point of View.* By G. Walter Steeves, M.D. With 43 illustrations. Methuen and Co. Limited. 36, Essex Street, W.C., London. (Price 6s.)

in English and in Latin. He thought that his works would best live in the minds of posterity and be more universally read in Latin, believing that "those modern languages will, at one time or another, play the bankrupt with books." This feeling is expressed by him again and again. In his account of Bacon's writings Dr. Steeves shows evidence of a minute knowledge of the particular subject combined with a wide familiarity with the literature and history of the period. This enables him to shed light on the circumstances in which each work was produced in a manner which brings out its true significance. The works are classified under the three heads — Philosophical, including the *De Augmentis Scientiarum* and the *Novum Organum;* Literary, including the *Essays* with the *Colours of Good and Evil*, historical, religious, and poetical works—*Apophthegms* and the *Wisdom of the Ancients;* and Professional. Of all these Dr. Steeves gives brief but clear summaries, illumined by many sidelights from various sources. In referring to the much-debated question, Was Bacon a poet? Dr. Steeves quotes Coleridge's opinion that "Bacon was not only a great poet but a great philosopher." With this, he says, he does not agree; nor would he place the poet before the philosopher. In the list of Bacon's legal works is one bearing the following title: *A True Report of the detestable Treason intended by Doctor Roderigo Lopez, a Physician attending upon the Queen's Majesty, whom he, for a sum of money promised to be paid him by the King of Spain, did undertake to have destroyed by poison; with certain circumstances both of the plotting and detecting the said Treason. Penned during the Queen's Life.* In connexion with this it may be interesting to recall a fact not mentioned by Dr. Steeves, that Dr. Roderigo Lopez was thought by Martin Hume to have been the original of Shylock.

The work is illustrated by reproductions of the title pages of a number of Bacon's writings, with portraits and reproductions of portions of manuscript. A chapter of special interest is devoted to Bacon's literary friends, William Rawley, Sir Tobie Mathew, and Ben Jonson, and their relation to his work. Mention must also be made of George Herbert, Crashaw, and Donne, the poets; Bishop Lancelot Andrews, whose advice Bacon was in the habit of seeking on various philosophical subjects; and Thomas Bodley, whose name is enshrined in the great library at Oxford. To him Bacon was in the habit of submitting his treatises for criticism, which seems sometimes to have been given somewhat too frankly for the author's taste. Bacon corresponded occasionally with Sir Henry Wotton and John Selden, and Thomas Hobbes assisted him with some of his translations.

Dr. Steeves's work is a monument of intelligent industry, and within a comparatively short compass comprises all that is definitely known about Bacon and his writings. Though, as is almost inevitable, the spirit of the hero worshipper peeps out here and there, the work, on the whole, is a model of impartiality. The scholarship displayed in the book reflects the highest credit on the author, and indirectly on the profession to which he belongs. His tact in dealing with questions on which a writer at the present day walks *per ignes suppositos cineri doloso* cannot be too highly commended. To the book collector the information as to editions will be highly useful, while to the ordinary reader the book has the merit, rare in the writings of those so full of antiquarian lore as Dr. Steeves, of being full of human interest and eminently readable.

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## THE THEORY OF STATISTICS.

Of recent years so much attention has been directed to the enormous importance of rightly handling statistical lines of evidence in the discussion of medical topics that medical workers have been moved to consult statistical handbooks. Apart from compendiums of formulae, such as that of Davenport, all the better-known treatises, for instance, the works of Czuber, Blaschke, Bertrand, Poincaré, and, to some extent, Elderton, present considerable difficulties to the average medical reader. In the first place, there is the difficulty always experienced by minds trained in the methods of observational and experimental science, in coming to close quarters with quantitative ideas; in the second, all the works named presuppose a technical acquaintance with departments of mathematical knowledge not falling within the purview of the strictest medical "preliminaries." Evidently the first of the difficulties mentioned cannot be evaded or notably diminished, but the second can and should be reduced. To lighten the reader's task requires, however, qualities not always found in textbook writers. Evidently, before one can depart from the usual methods of treating statistical theory, it is necessary to have an uncommonly firm grasp and wide knowledge of the fundamental notions, a mastery which can hardly be attained by any one who has not performed original work in the field of statistical theory.

Mr. G. UDNY YULE has long been recognized as one of the most brilliant members of the English school of mathematical statisticians, and his contributions to the theory of correlation have reached a high standard of excellence. Perhaps no one could more fittingly have expounded the principles of modern statistics, and his recent *Introduction to the Theory of Statistics*[2] justifies expectations.

Within a reasonable compass Mr. Yule has contrived to present a lucid description of nearly all the chief methods employed by modern statistical experts, while the demands made upon the reader's knowledge of technical mathematics are so small that the book can be read with profit by any intelligent person. The earlier chapters of the work are devoted to a study of classification and association, the important subject of consistence being examined in some detail. The conception of a frequency distribution is then fully explained, measures of dispersion and the various kinds of average are described and illustrated, the reader being then introduced to the subject of correlation. The chapters on correlation are clearly written, the pages dealing with the thorny subject of multiple correlation being worthy of special praise. Chapters XIII and XIV, which treat of sampling and the effects of removing customary limitations, should be carefully studied by the medical reader, since difficulties of interpretation frequently arise in the case of medical and biological data. The concluding chapters contain an account of some properties of the normal curve, an introduction to the theory of normal correlation, and a sketch of the methods in vogue for testing the significance of certain constants of frequency distributions.

The book is far and away the best manual of the subject, and any criticisms we should be disposed to suggest are merely the outcome of the slight differences in point of view which characterize different workers in a large field of research. We should be inclined to think that it would have been better to pass more lightly over the somewhat difficult subjects discussed in Part I, and to introduce the reader to the theory of variables at once. In connexion with frequency distributions, more attention might have been devoted to the practical application of Pearson's remarkable skew curves. It was not, of course, possible within the limits laid down by the author, to discuss the theoretical basis of these curves in detail, but some idea of the practical methods of fitting might have been given. In connexion with the subject of non-linear regression, the correlation-ratio deserved somewhat fuller notice. The treatment of probable errors would have been simplified if the notation of differentials had been adopted; Mr. Yule's powers of exposition are such that he would have had no difficulty in explaining the notation in a few pages. These are minor criticisms; as a whole, the book leaves little to be desired, and Mr. Yule may be congratulated on the completion of what must long rank as the standard work on the subject.

In conclusion, it seems desirable to sound a warning note for the benefit of would-be medical statisticians. Though Mr. Yule has removed most of the artificial obstacles which stood in the way of a non-mathematical reader, this does not mean that his book is light literature. On the contrary, it requires a somewhat sustained effort of attention to follow; were it otherwise, the book would have had no scientific value. Two opinions appear to prevail in the profession regarding statistics. Some hold that any one fairly familiar with the multiplication table can safely reason from statistical data; others believe that the statistical shrine can only be approached by ex-senior wranglers or professors of applied mathematics. Neither

[2] *An Introduction to the Theory of Statistics.* By G. Udny Yule. 1911. London: Griffin. (Pp. 376. 10s. 6d. net.)

opinion is correct. Any man of ordinary intelligence can attain to considerable proficiency in statistical science if he is prepared to pay the price exacted in every other department of knowledge, to undergo a reasonable amount of intellectual drudgery, and honestly to face grave difficulties. Any medical man who, having counted the cost, really desires to acquaint himself with modern statistical processes, could not wish for a better guide, philosopher, and friend than Mr. Yule.

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## THE WASSERMANN REACTION.

Dr. Harald Boas of Copenhagen has issued in German a treatise on the Wassermann reaction[3] which is introduced by a highly eulogistic preface from the pen of Professor Wassermann. The Danish author certainly deserves commendation. He is not only a sound laboratory worker but possesses the rarer gift of being able to write a good book. He writes concisely and clearly and summarizes his facts in a way which enables the reader to grasp them at a glance. With a view to testing the accuracy of the reaction for the diagnosis of syphilis he has examined 36 normal individuals and 1,028 patients suffering from one or other of a large variety of non-syphilitic diseases. In only one of these 1,064 cases was a positive reaction obtained, the exceptional instance being a scarlatina patient in whom the reaction soon disappeared. In all his other control cases where, contrary to initial expectation, a positive reaction was obtained, further investigation either revealed proof positive of syphilitic disease, or brought to light a history rendering syphilitic infection highly probable. In the first stage of syphilis the test may fail. Thus out of 76 such cases the author obtained 56 positive and 20 negative results. In secondary syphilis he regards the test as infallible provided that the patient has not previously undergone any treatment; in each of the 269 cases of this type which he examined a positive reaction was obtained. Where treatment had been previously applied his results were not quite so good, there being 12 negative reactions out of 199 cases showing secondary syphilis. Similarly, in tertiary syphilis he obtained 100 per cent. of positive reactions in previously untreated cases, but 4 failures out of 20 instances where there had been previous treatment. He has also obtained instructive results with "latent" syphilis—that is, syphilis during the period when there are no clinical manifestations. In 243 such persons examined within the first three years after infection there were 89 positive and 154 negative reactions; and in 111 cases examined at dates subsequent to the first three years there were 44 positive as against 67 negative results. Another interesting result of the writer's work is that the serum of each of his 139 cases of dementia paralytica gave a positive reaction. Dr. Boas has also contributed something to the highly important but difficult and complicated study of the transmission of syphilis from mother to child. His data cannot be summarized adequately in brief space, but may be recommended to the perusal of our readers. At the end of the volume there is a very full bibliography. Dr. Boas is a strong believer in the importance of Wassermann's reaction, but he is not a special pleader; he always takes care to base his statements upon tangible data. We know of no book which we can more strongly recommend to the busy man who wants to "get at the facts" which will enable him to form his own opinion about the clinical utility of this test for syphilis.

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## THE ORIGIN OF SYPHILIS.

Dr. Iwan Bloch issues the second part of his "origin of syphilis" ten years after the appearance of Part I.[4] The delay is not surprising, for he has collected an enormous quantity of material, and has arranged it to support his main contention that syphilis was a new disease to Europe, introduced from America at the end of the fifteenth century. The first part of his work dealt with the origin and spread of the disease, and contained a searching inquiry into the facts as they were given by the original Spanish writers. The second part deals with the times before Columbus, and the conclusion arrived at is that no evidence of syphilis exists, except in the New World, amongst any of the peoples of antiquity. The various conditions which might be mistaken for syphilis are brought under review, and Dr. Bloch easily succeeds in showing that the use of medical terms was very loose when knowledge was conveyed in the vernacular from Latin versions of Arabian translations of Greek originals. The chapter dealing with sexual life in classical times is interesting, and to a certain extent breaks new ground. It is an axiom in biology that the generative system is amongst the most conservative in the animal kingdom, for it has undergone the least change. Ova and spermatozoa were developed very low in the scale; they have remained practically unaltered in character and in their modes of action in the very highest types. It is far otherwise with the senses which call them into play. Dr. Bloch necessarily places great reliance upon the satirical poets of Greece and Rome, but he contends that the sexual instinct in classical times differed from that of the present day. The Greeks acquired it by some means, probably from an older civilization, and the Romans imitated them roughly and coarsely, as was their custom. The instincts still linger in the East, but they were practically destroyed by the northern nations, who brought with them a healthier sexual life. The Greeks and Romans were outspoken in regard to all sexual matters, and the various venereal diseases of the times were observed and freely commented upon. Yet in all the mass of Greek and Latin allusions which Dr. Bloch has collected he has nowhere found anything to show that the Greeks and Romans knew or feared any constitutional disease from their enormous lust and frightful promiscuity. Dr. Bloch promises a concluding part of his book dealing with the venereal diseases of the Middle Ages, and containing his general conclusions and the indices to the whole work. The subject is distasteful, but Dr. Bloch treats it with severe restraint and in a scientific spirit which is deserving of the highest praise. He unites in himself the qualities which are necessary to carry the subject to so successful an issue that it will never need to be done again. He is an accomplished physician, a first-rate classical scholar, and he is possessed of such sound common sense that he can see both sides of the question he is discussing.

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## TEXTBOOKS OF PATHOLOGY.

It is about six years since the tenth edition of Dr. T. H. Green's *Manual of Pathology*[5] was reviewed in the British Medical Journal. An eleventh edition, revised and enlarged by Dr. W. C. Bosanquet, is now before us. The book is now published by Messrs. Baillière, Tindall, and Cox, and has been included in their University Series of Manuals, with binding and format corresponding. The chief alterations in the present edition include notice of recent advances in parasitology, especially with regard to the spirochaetes and the protozoa, and new facts in relation to chemical pathology; a new section on diseases of the skin has been added, and affections of the joints have been more systematically treated than in previous editions. The chapter on tumours has been recast in the light of recent experimental research, without, however, any fundamental change in its general conception of the nature of new growths. The volume is certainly much more bulky than its well-known prototype, but it remains a good and indeed a short introduction to elementary pathology.

The *Manual of Clinical Pathology*,[6] by Mr. Weiss and his collaborators, professes to be the second edition,

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[3] *Die Wassermannsche Reaktion: mit besonderer Berücksichtigung ihrer klinischen Verwertbarkeit.* Von Dr. Harald Boas. Mit einem Vorwort von Geh. Rat. Professor Dr. A. Wassermann. Berlin: S. Karger. 1911. (Roy. 8vo, pp. 186.)

[4] *Der Ursprung der Syphilis.* Eine medizinische und kulturgeschichtliche Untersuchung von Dr. med. Iwan Bloch in Berlin. Zweite Abteilung. 1911. Jena: Verlag Gustav Fischer. (8vo, pp. xi and 317–765.)

[5] *A Manual of Pathology and Morbid Anatomy.* By T. Henry Green. Eleventh edition. Revised and enlarged by W. Cecil Bosanquet. With 350 illustrations. University Series. London: Baillière, Tindall, and Cox. 1911. (Demy 8vo, pp. 652. Price 15s. net.)

[6] *Manual of Clinical Pathology for the General Practitioner.* By Richard Weiss, M.A., Ph.D., F.C.S., in collaboration with George Herschell, M.D.Loud., and Andrew Charles, F.R.C.S.Dub. London: J. and A. Churchill. 1910. (Post 8vo, pp. 72; 2s.)

rewritten and enlarged, of a work which appeared in 1908 under the title of *Newer Methods for the Qualitative and Quantitative Analysis of the Urine and Gastric Juice*. It is, however, mainly concerned to bring before the profession certain little cases containing apparatus for clinical examination, and the methods suggested in the book are those for which these cases have been specially arranged. The book deals with analysis of the urine, the stomach contents, the faeces and blood, including the diagnosis of syphilis and of typhoid fever. The directions given, except when they involve the use of the special apparatus to which we have referred, follow pretty much the ordinary textbooks, although they are necessarily brief. We do not think it was worth while giving the saffranine test for sugar, as it has many fallacies, and in the list of these in connexion with Fehling's solution it should certainly have been mentioned that the urine of patients taking the salicylates, aspirin, salol, chloroform, or alcohol, may give a positive reaction. The apparatus for making quantitative estimation of sugar by means of yeast shares the defects of all such instruments in being affected by variations of external temperature; for general use the plan is not so trustworthy as the old method of Sir William Roberts. The sulphur test for bile salts is attributed to "Hale," which we presume is a misprint for "Hay"; it is called a "very delicate test," but in our experience it is useless as a test for bile salts in urine. The test for acetone by sodium nitro-prusside in ammonia is credited to "Jackson Taylor," although it was originally described by Le Nobel (*Arch. f. exp. Path.*, Bd. xviii, p. 6). We are at a loss to understand why the reaction of perchloride of iron with melanotic urine is described as "grey," for nothing is more pronounced than its jet black colour. There is no description of Bence Jones's albumen, or of other forms of albumose. We do not approve of the "combined test-meal," as we do not see how it is possible to discriminate between the digestive products of each, and we should advise practitioners to follow the simpler procedure. The writer says "the expression method still advocated in some of the textbooks may be mentioned only to be condemned," but there is nothing to "condemn" in it as it often acts well and never does harm, but as aspirators are now commonly sold we agree that it is well to have one atttched to the stomach tube. On page 46 the writers say that "as the result of a large number of examinations it has been definitely established that a positive pancreatic reaction points to there being active degenerative change in the pancreas, at the time of examination," a statement not in accordance with the bulk of evidence, which only supports the view that there is a functional change in the pancreas. With regard to some of the tests recommended (syphilis, for example) we think busy practitioners would be wise not to rely upon the results they can themselves obtain, but to leave them in the hands of those who are accustomed to their daily performance.

## NOTES ON BOOKS.

REPORTS, more or less complete, have from time to time emanated from public and private sanatoriums for consumption, giving details of results achieved and experiences gained. The latest of these, from the pen of Dr. E. W. DIVER,[1] a former resident physician to a sanatorium, deals with the subject from a general point of view, and places before his readers a very concise account of the outcome of recent research as to the self-protective powers possessed by the human body and the way in which these powers are exercised by the leucocytes and the serum respectively. The little book is doubtless intended for patients as well as for doctors, and it is interesting to note that the experience gained by close association with many types of disease leads to much the same conclusions as to treatment as were expressed by the resident physicians at Goerbersdorf many years ago. These conclusions, therefore, may be regarded as permanently established, and we can commend Dr. Diver's version of them as being well arranged and clearly expressed.

Dr. ALFRED ROTHSCHILD, who as a pupil of the late Professor Max Nitze had ample opportunities for becoming thoroughly acquainted with the matured views and practice of that well-known urologist, gives as his chief reason for writing a large textbook of urology[2] the fact that Nitze himself produced no full and systematic work on the subject. The book is divided into a general and a special part. The general portion comprises the history and examination of the patient, examination of the urine, instrumental examination, including urethroscopy and cystoscopy, catheterization of the ureters, and radiography. The special portion begins with affections of the urethra, including gonorrhoea. Then follow sections on diseases of the penis, bladder, prostate, testicles, seminal vesicles, and on the functional disorders of the male sexual organs. An extensive section on the diseases of the kidneys and ureters concludes the book, which as a whole may be confidently commended as a practical and carefully written presentation of the numerous subjects which are now included under the name of urology. Perhaps it is hardly necessary to add that the details of urethroscopy and cystoscopy, in the evolution of which Professor Nitze himself took such a prominent and important part, are both adequately dealt with and fully illustrated.

A pamphlet with some forty pages of print and twenty-six plates, swollen out by means of empty leaves to a book of 120 pages, bound in limp leather, and costing 12s. 6d. Such might be a description of the *Manual of Cystoscopy*,[3] by Drs. J. BENTLEY SQUIER and HENRY G. BUGBEE, of New York Post-Graduate Medical School. The pictures are below the average of cystoscopic atlases, and the description in the text is not much help. Any one who has learnt cystoscopy practically probably does not need any atlas, and this one will not teach any one cystoscopy without practice, any more than will the best atlas in the world. As an aid to beginners it will not be as useful as a single afternoon at a urinary clinic.

[1] *Consumption: Its Prevention and Treatment.* By E. W. Diver, M.D., late Resident Physician, Belle Vue Open-air Sanatorium (now closed). London: Bale, Sons and Danielsson. 1911. (Cr. 8vo, pp. 135, 6 illustrations.)

[2] *Lehrbuch der Urologie und der Krankheiten der männlichen Sexualorgane.* Von Dr. Alfred Rothschild, Specialarzt für Urologie in Berlin. Leipzig: Dr. Werner Klinkardt. 1911. (Pp. 522, with 162 illustrations and 1 coloured plate.)

[3] *Manual of Cystoscopy.* By J. Bentley Squier, M.D., Professor of Genito-urinary Surgery, New York Post-Graduate Medical School and Hospital; and Henry G. Bugbee, M.D. Instructor in Genito-urinary Surgery, New York Post-Graduate Medical School and Hospital. Published by Paul B. Hoeber, 69, East Fifty-ninth Street, New York City. 1911. (Pp. 117; plates 26. Three dols. net.)

## LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE annual general meeting of the London and Counties Medical Protection Society was held in St. James's Vestry Hall, Piccadilly, on June 8th, Dr. G. A. HERON, the chairman of its council, being in the chair.

### *The Annual Report.*

In its annual report the council was able to give a satisfactory account of the financial position and membership of the society and of its work during the year. Although there had been a continuous fall in the value of gilt-edged securities, the capital of the society had crept up by nearly £2 000 in the last two years, and the number of members had risen to 4,738 despite strict adherence to the rule of erasing the names of those who failed to pay their subscriptions. An arrangement has been made with an insurance society, which in return for certain payments has made itself responsible for the costs of "the other side" in any actions which may be fought out unsuccessfully in court, as also for any damages which may be assessed against members. In order to give all members the advantage of this additional security, the memorandum and articles of association were altered during the year, so that every member now pays an annual subscription of £1, or such less sum as the council may from time to time prescribe. Hence all members in addition to receiving advice, information, and the assistance of the society in any cases in which they may be interested, are now insured against the whole of the outlay directly involved by any actions undertaken on their behalf by the council.

It appears that about 10 per cent. of all the members consulted the society during the year, and that in order of frequency the questions with which the council dealt related to (1) fees and other like matters, (2) cases of libel and slander on or by members, (3) allegations of lack of skill or malpraxis in the performance of their duties, (4) ethical questions. (5) difficulties arising in reference to

partners and assistants, and (6) the buying and selling of practices. The published report contains short notes on the leading points of a very large number of cases. These are classified under the headings, "Cases in the Law Courts," "Cases before the General Medical Council," "Alleged Negligence or Unskilfulness," "Libel and Slander," "Partners and Assistants," "Buying and Selling Practices," "Contract and Club Practices," "Poor Law Medical Officers and Public Vaccinators," "Medical Fees," "Notification of Births and Infectious Diseases," "Medical Certificates," "Coroners' Inquests," "Medical Evidence," "Medical Ethics," "Advertising and Touting," "Professional Secrecy," "Unqualified Medical Practice," and "Dental Cases," and a perusal of them would be an informing study to most practitioners.

*Adoption of the Report.*

Dr. HERON, in moving the adoption of the report, congratulated the members on the satisfactory financial position of the society. He also referred to the inquiry the King's Fund had commenced with reference to the abuse of out-patient departments. The society had sent in notice of its intention to tender evidence, and in preparation for this duty had sent out post-cards of inquiry to about 7,000 persons. It had, however, only received twenty-eight replies. Nevertheless, the information already in its possession sufficed to enable it to give evidence of a valuable character. As to the National Insurance Bill, while he was sure the medical profession thoroughly sympathized with the desire to improve the position of the working classes in respect of their ability to obtain prompt and skilled medical attendance without becoming the object of charity, the evidence which had accumulated left no doubt that medical men throughout the country were unanimous in their determination not to accept the position created for them by the bill as it at present stood, and that unless material alterations were made the medical profession as a whole would refuse in any wise to co-operate with the authors of the bill. It was true that it might nevertheless become an Act of Parliament, but it would still remain to put it into operation, and this would be impossible without the cordial help of medical men.

# Nova et Vetera.

## SOME ROYAL DEATH-BEDS.

*(Continued from page 210.)*

### GEORGE III.

THE reign of George III was, with the single exception of that of Queen Victoria, the longest in English history. He was the grandson of George II, and was born in 1738. He came to the throne in 1760, and died in 1820; he was therefore sovereign of these realms for a period of three score years. During the last nine years of his life he reigned only nominally. He was insane and blind, and his place as the figurehead of Government was taken by the Prince Regent, afterwards George IV. George III was the first of his house who was born amongst us, and who spoke from his birth the language of the country which he ruled. The contemptuous description of the Hanoverians in the old Scottish Jacobite song,

> Wha the de'il hae we gotten for a King
> But a wee bit German lairdie?

did not apply to him. The fact that he was an Englishman gave him a great advantage over his predecessors in the eyes of his subjects. Moreover, his moral character made him respected by the nation, a feeling which found expression in the nickname "Farmer George" applied to him on account of his homely virtues. He was an honest man according to his lights, which were none of the brightest, and always anxious to do what he considered his duty. It does not fall within our province to relate, still less to discuss, the great political events of his day; but there can be no doubt that the strain of the responsibilities thrown upon George III unhinged his mind. As early as 1765 he showed symptoms of mental disorder, though the fact was carefully hidden from the public. In 1783 he had an attack of insanity which could not be concealed. It is recorded by Madame d'Arblay, better known as Fanny Burney, author of *Evelina* and *Cecilia*, and the petted friend of Samuel Johnson, that on November 5th, 1788:

> The King at dinner had broken forth into positive delirium, which long had been menacing . . . and the Queen was so overpowered as to fall into violent hysterics—the Prince of Wales had burst into tears.[1]

In a footnote to this passage the following further particulars are given:

> According to the Prince's own after-account at Lord Jersey's table, his Majesty, under some impatience of control, had seized him by the collar, and thrust him violently against the wall. Other versions of the story add that the heir to the throne—never remarkable for nerve—was greatly alarmed by the paternal attack. His sisters had to rub his temples with Hungary water, to prevent his fainting, and he was "blooded."

In the same diary there is the following entry under the date November 6th:

> The King, in the middle of the night, had insisted upon seeing if his Queen was not removed from the house; and he had come into her room with a candle in his hand, opened the bed-curtains, and satisfied himself she was there. This observance of his directions had much soothed him; but he stayed a full half-hour, and the depth of terror during that time no words can paint. The fear of such another entrance was now so strongly upon the nerves of the poor Queen, that she could hardly support herself. The King—the Royal sufferer—was still in the next room, attended by Sir George Baker and Dr. Heberden, and his pages. . . . He kept talking unceasingly; his voice was so lost in hoarseness and weakness, it was rendered almost inarticulate; but its tone was still all benevolence. . . . She (the Queen) bid me listen, to hear what the King was saying or doing. I did. . . . "I am nervous," he cried; "I am not ill, but I am nervous; if you would know what is the matter with me, I am nervous. But I love you both very well; if you would tell me truth: I love Dr. Heberden best, for he has not told me a lie—a white lie, he says, but I hate a white lie! If you will tell me a lie, let it be a black lie!"

Under the date November 7th it is said:

> The King had risen in the middle of the night, and would take no denial to walking into the next room. . . . Sir George Baker was there, and was privately exhorted by the gentlemen to lead the King back to his room; but he had not courage: he attempted only to speak, and the King penned him into a corner, told him he was a mere old woman—that he wondered he ever followed his advice, for he knew nothing of his complaint, which was only nervous.

Madame d'Arblay at the time referred to had a post at Court which kept her in immediate attendance on Queen Charlotte; she therefore writes with first-hand knowledge.

In addition to Heberden and Baker the King was attended by Drs. Warren, Reynolds, and others—in particular by Francis Willis, who had a great reputation in that day for his treatment of insanity. As his name is preserved in history in connexion with that of his royal patient, a short account of him may not be out of place. He was the son of one of the vicars of Lincoln Cathedral, and was born in 1718. He was educated at Oxford, where he was Fellow. Subsequently he became vice-principal of Brasenose College. In deference to his father's wishes he took holy orders, but he had a strong inclination to the study of medicine, and as an undergraduate attended lectures on the subject. He seems to have thought that the knowledge acquired in this way entitled him to practise medicine without a licence. This is somewhat remarkable considering the facility with which admission into the profession could be obtained at that time. In 1779 the University of Oxford did what it could to legitimize his position by conferring on him the degrees of M.B. and M.D. Nevertheless, he does not appear to have been regarded by regular members of the faculty as a professional brother, being, in fact, according to Lord Sheffield, "considered by some not much better than a mountebank, and not far different from some of those who are confined in his house." This amiable estimate is an allusion to the fact that Willis kept a private madhouse at Gretford, near Stamford. Whatever may have been his training, he had had a considerable amount of experience in medical practice. In 1769 he was appointed physician to a hospital at Lincoln, which he had taken an active part in establishing, and for six years he attended there regularly twice a week.

When called to the King he gave a favourable prognosis. In his examination before a committee of the House of

[1] *The Diary and Letters of Madame d'Arblay.* Edited by her niece, Charlotte Barrett. Vol. IV.

Lords,[2] Willis was asked if he could guess the causes of the King's insanity. In his reply he said that from what he had been told of His Majesty's mode of life over a period of twenty-seven years, he was inclined to think the indisposition had been brought about by using very strong exercise, taking little sustenance, watching, or want of sleep, perhaps when his mind was upon the stretch with very weighty affairs. Willis's treatment consisted in the administration of bark, blistering, and an occasional dose of calomel.[3]

Willis also frequently used mechanical restraint, though according to modern ideas there seems to have been nothing in the King's condition that called for its application. But the evidence goes to show that he treated the King with more humanity than was generally accorded to lunatics in those days. At any rate he was popular at Court, and is described by Hannah More as "the very image of simplicity, quite a good, plain, old-fashioned country parson." John Heneage Jesse, in his *Life and Reign of King George III*, says:

> That the King, notwithstanding his afflicted condition, retained his old love of humour may be gleaned from the following anecdote. Aware of Dr. Willis being a clergyman, he taxed him at their first interview with having abandoned his sacred calling for profit—a rebuke to which the latter rejoined that the Saviour had cured demoniacs. "Yes," said the King, "but he did not get £700 a year for it."

So much was Willis regarded by the medical profession as an interloper, that it was only by the benevolent action of the University of Oxford that he appears to have escaped a prosecution. Willis had a great belief in the power of his eye over insane persons. The command he had over his royal patient is shown by the following facts:

> The King had not undergone the operation of shaving during more than five weeks; nor would he submit to have it performed, yet expressed a wish to shave himself. Willis gratified him in this wish.[4] "Your Majesty," he said, "is desirous to get rid of your beard. You shall have a razor given to you for the purpose." He instantly put the instrument into the King's hand, who went through the process with perfect success, Willis governing him by his eye throughout the performance.

Edmund Burke asked Willis how he would have acted if the King had suddenly been seized with frenzy while the razor was in his hand. Whereupon Willis asked that two brilliant lights should be placed between the famous statesman and himself, and said, "There now, I should look at him thus," glaring at Burke with an expression that held him spellbound with fear. This way of looking at a maniac, Willis explained, cowed him more effectively than chains. If we are to believe the evidence given by Warren before the Parliamentary Committee, however, when he asked Willis how he could trust the King with a razor, he replied, "I shuddered at what I had done."

Willis must have had infinite tact in dealing with his patient. When the King was convalescent he asked if he might ride. Willis reasoned with him so convincingly that His Majesty was persuaded to forego his favourite exercise. Other instances of his influence over the King are given by the writer already quoted.[5]

> The King made another proposal. "You know, Dr. Willis, I am fond of music; do you think a concert would injure me?" The doctor bowed assent, but at the same time requested it might be upon a scale. A pause succeeded when the King, recollecting himself, observed with great coolness that anything which affected strongly his feelings, disturbed him. "We will therefore," said he, "postpone it for some time." During his Majesty's illness Dr. Willis permitted him to walk in the garden. When there, regardless of everything else but his own impulses, the King threw his hat into the air, and hurled a stick he held in his hand to an incredible distance, such was the force that animated him. His Majesty then proceeded with a rapid movement to the pagoda, which he was desirous to ascend. Being thwarted in that, he became sullen and desperate, threw himself upon the earth, and so great was his strength and so powerful his resistance, that it was three quarters of an hour before Willis and four assistants could raise him. Upon another occasion, when His Majesty was walking through the gardens at Kew, he again suddenly conceived a strong inclination to go up the pagoda. The attendants remonstrated against the desire; but His Majesty persevered, and insisted upon having it gratified. An apprehension that His Majesty might conceive some rash intentions, if suffered to go up, induced the attendants to exert their strength to prevent him; and when he found that he could not overcome them, he threw himself suddenly on the ground, declaring he would not quit the place. Fearing that the damp ground would be injurious to him, four of the attendants took him up, two holding his arms and two his legs, and in this manner he was conveyed to his room; but in a very furious state, until Dr. Willis entered, when he was quieted instantly.

It has been said that mechanical restraint was used, and it is related that after the King's recovery he saw a strait waistcoat which had been carelessly left on a chair. The equerry in attendance was dismayed, and tried to pretend that he did not see it. The King, however, said: "You need not be afraid to look at it. Perhaps it is the best friend I ever had in my life."

After the King's restoration to health Willis was granted an annuity of £1,500 a year for twenty-one years, while his son John, who was also in attendance, got a pension of £650 for life, to which were added fees of 30 guineas for each visit to Windsor and 10 guineas for each visit to Kew. The same fees were given to each of the other physicians; in the case of Sir George Baker, who was longest in attendance, the fees amounted to about 1 300 guineas. Baker was a man of great judgement, and a fine type of the old scholarly physician. He was a friend of Goldsmith's friends the Hornecks, and is mentioned in a rhyming epistle in the Jessamy Bride. Heberden's *Commentaries on the History and Cure of Diseases*, founded on notes made at the bedside, is one of our medical classics.

The reputation Willis gained by his treatment of George III led to his being sent for to minister to the diseased mind of the Queen of Portugal. She had the dreadful delusion that she was in hell, and said that a skilful physician might sometimes cure madness but never reverse the decrees of fate. For his services to her Willis received £20,000. The number of his private patients became so great that he had to build a second house for their accommodation.

Willis died in 1807. His son John, who had assisted him in treating George III in 1788, was also with the King in the final attack. Another son, Robert Darling, born in 1760, became physician in ordinary to the King, and was among those who attended him on his death-bed.

The King had a recurrence of madness in 1801, the immediate cause of which appears to have been the stress of the political situation. This time recovery was rapid. In directing his physicians to inform Pitt of his restoration to healing, the King said:

> Tell him I am now quite well; quite recovered from my illness; but what has he not to answer for who has been the cause of my being ill at all?

In the early part of 1804 George III's mind again became disordered. The attack was of short duration, and the physicians were soon able to report to a parliamentary committee appointed to inquire into the state of the King's health that he had so far recovered as to be able to attend to all his public and private business.

For several years before his death the King was blind. In the *Diary and Correspondence* of Charles Abbot, Speaker of the House of Commons 1802–1817, under the date July 3rd, 1805, there is the following entry:

> This day it was understood that the King had for some time lost the use of one eye by the formation of a cataract, and that another was forming in the other eye. He was informed of it two or three days ago. He bore the news with the most perfect composure and a religious fortitude

On July 4th it is recorded:

> Sir Joseph Banks saw the King to-day at Kew; a cataract is completely formed in one eye, of which he has lost the use for some weeks past. He has no direct vision with the other eye, but can see downwards to distinguish what he walks on. He knows persons at the distance of three or four yards. He has not been able to read a word for some time, but can sign as usual with great clearness and readiness. . . . It is supposed his eye may be in a state for an operation in about two months hence.

Later deafness was added to his other afflictions. The death of his favourite child, the Princess Amelia, in 1810,

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[2] *Report of the Lords' Committee Appointed to Examine the Physicians who have attended His Majesty during his Illness, touching the state of His Majesty's Health.* Published in 1788.

[3] D. H. Tuke: *Chapters in the History of the Insane in the British Isles.* London, 1882. He quotes from evidence given before the House of Commons and from the Debates on the Regency. (Hansard, vol. xxvii.)

[4] *Physic and Physicians: A Medical Sketch-Book.* London, 1839. Vol. ii. p. 171.

[5] *Physic and Physicians: A Medical Sketch Book.* London, 1839. Vol. ii. p. 173.

brought on another attack of insanity. A bulletin dated Windsor Castle, November 13th (reprinted in the *Times* of November 13th, 1910), stated that: "The King has had some increase of fever this day, but is now rather better." This was signed by H. R. Reynolds, H. Halford, W. Heberden, M. Baillie, R. Willis. Mrs. M. E. Boutflower, Well Green, Hale, Cheshire, in the *Times* of November 14th, 1910, apropos of the signatures attached to the bulletin, recalls the following skit which was given to her by her father-in-law, John Boutflower, F.R.C.S., who died on March 19th, 1889, aged 91:

If in London aught should ail ye,
Consult Willis, Heberden, or Baillie,
Three distinguished clever men,
Baillie, Willis, Heberden,
Doubtful which more sure to kill is,
Baillie, Heberden, or Willis.

In a later issue another correspondent, signing himself "F R.C.S." writes that he thinks the first line should read—

The King receives three doctors daily,

and adds that it was written with reference to the King's attendants, not to patients in general.

The Heberden whose name is attached to the bulletin quoted was a son of Johnson's friend and physician, and Matthew Baillie was a nephew of William and John Hunter, and a pioneer of pathological anatomy in this country. Revell Reynolds, noted as a dandy as well as a doctor, was the grandfather of the late Sir John Russell Reynolds, President of the British Medical Association in 1895. Halford was physician to five sovereigns of these realms and to innumerable royal personages. Willis was a son of Francis Willis, who had treated the King in 1788.

Later bulletins spoke in the optimistic language usual in such documents, and it was said that the King's health was so far restored that several points of public business had already been submitted to him as previously to his indisposition. But the clouds gathered over his reason in ever-blackening gloom, and the last years of life were spent in total mental as well as bodily darkness.

Nevertheless, his bodily health continued good nearly to the end. The first symptoms of decay in his constitution showed themselves about two months before the end of 1819. Some months before his death he lost his appetite, which had previously been so hearty that it had been usual to medicate his food in order to procure digestion and prevent any injury from the tendency to excessive indulgence.[6] It is recorded that almost up to the end his recollection of past events was very exact, and his occasional sketches of persons and characters, which took the form of soliloquies, gave proof of the activity of his mental powers. Till not long before his death it had been his custom to dress and undress himself without assistance. It was only with the greatest reluctance that he submitted to be shaved.

The last scene of all was ushered in by a slight bilious attack, which left him much weakened. Some weeks later there was a recurrence of this disorder. Everything that he took passed through him as he received it, and he was reduced almost to a skeleton. It was not till two days before his death that he kept entirely to his bed, though for several days before he had not risen at his accustomed hour. On January 28th, 1820, the symptoms became alarming, and on the evening of the 29th he became gradually weaker and weaker, apparently suffering no pain, and at half-past eight he breathed his last without a struggle.

Everyone must remember Thackeray's description in the *Four Georges* of the pretty Amelia, who was George III's darling, and his account of the last days of his life. We are sure that many of our readers will be glad to read it once more:

Ere yet she was dead the agonized father was in such a state that the officers round about him were obliged to set watchers over him, and from November, 1810, George III ceased to reign. All the world knows the story of his malady. All history presents no sadder figure than that of the old man, blind, and deprived of reason, wandering through the rooms of his palace, addressing imaginary Parliaments, reviewing fancied troops, holding ghostly courts. I have seen his picture as it was taken at this time, hanging in the apartment of his daughter the Landgravine of Hesse, Hombourg—amidst books and Windsor furniture and a hundred fond reminiscences of her English home. The poor old father is represented in a purple gown, his snowy beard falling over his breast—the star of his famous Order still idly shining on it. He was not only sightless: he became utterly deaf. All light, all reason, all sound of human voices, all the pleasures of this world of God were taken from him. Some slight lucid moments he had; in one of which the Queen desiring to see him entered the room and found him singing a hymn and accompanying himself at the Harpsichord. When he had finished he knelt down and prayed aloud for her, and then for his family, and then for the nation, concluding with a prayer for himself, that it might please God to avert his heavy calamity from him, but if not to give him resignation to submit. He then burst into tears and his reason again fled.

It is a picture that might move the hardest heart.

Driven off his throne; buffeted by rude hands; with his children in revolt; the darling of his old age killed before him untimely; our Lear hangs over her breathless lips and crys Cordelia, Cordelia, stay a little!

Vex not his ghost—oh let him pass—he hates him
That would upon the rack of this tough world
Stretch him out longer!

[6] *Memoirs of His late Most Excellent Majesty King George III.* Chiefly illustrative of his private, domestic, and Christian virtues: his patronage of the arts, literature, etc. With numerous original anecdotes. Published in 1820 by R. Miller, 24, Old Fish Street, St. Paul's, London.

## DINNER TO MR BUTLIN.

MR. BUTLIN, President of the British Medical Association and of the Royal College of Surgeons of England, was, on the initiation of the Metropolitan Counties Branch, entertained by the medical profession to a complimentary dinner held at the Connaught Rooms, Holborn, on June 13th, with Dr. LAURISTON SHAW in the chair.

The company numbered over two hundred, and among those present were Lord Ilkeston, Sir Thomas Barlow, Sir W. S. Church, Inspector General R. Bentham, Sir Alfred Keogh, Sir Anderson Critchett, Colonel E. F. Drake-Brockman, Surgeon-General Greany, Colonel T. H. Hendley, Colonel C. H. Joubert de la Ferté, Sir Henry Morris, Sir Felix Semon, Sir John Tweedy, Dr. St. Clair B. Shadwell, Dr. Edwin Rayner, Dr. James F. Goodhart, and Mr. Andrew Clark.

The CHAIRMAN said the company were present for the sole purpose of doing honour to their most respected guest, Mr. Butlin. When he looked around at the distinguished company of medical men he was amazed at the carelessness of fortune which had tossed him into the position of chairman, and given him the responsibility of being the spokesman for the evening. In his year's office as President of the Metropolitan Counties Branch of the British Medical Association many duties had fallen to him, duties both pleasant and interesting, but none of them of which he was more proud than the opportunity of presiding over that gathering. In regard to none had he felt more diffident of his power to do justice to the occasion, and yet to none had he held more tenaciously, despite the fact that he knew there were many present who could do it much better, and there were none who did not envy him his position that evening. Perhaps a word of explanation was due as to how it came about that the representatives of a mere section of one of the many bodies who were proud to have Mr. Butlin as a constituent should have the opportunity of putting its representative into that privileged position. It was simply because in the Metropolitan Counties Branch the idea occurred of giving a complimentary dinner to Mr. Butlin in that Coronation year. As soon as that idea arose it was recognized that it was a very good idea. As soon as it began to be carried out it was recognized that it could be no sectional affair; it was recognized that every member of the profession who desired to do honour to Mr. Butlin should have the opportunity of being present that evening. The Metropolitan Counties Branch had merely been the business organizers of the dinner, and it was hoped that the company present would convey the idea that the work had been done well. He believed that the present was the largest complimentary dinner of medical men to any medical man which had been held within the memory of man. There were over 200 medical men present to do honour to one medical man. He desired to take the opportunity, on behalf of his constituents the members of the Metropolitan Branch of the British Medical Association, to say how gratified they were that Mr. Butlin two years ago accepted the invitation to allow himself to be nominated for the Presidency of the British Medical Association. Those members had never regretted offering

that invitation to Mr. Butlin—(hear, hear)—and it was sincerely hoped that, now his year of office was nearly drawing to a close, and the troubles which had been given him were passing, he would not regret it. He (the speaker) confessed that when he had the great pleasure of personally conveying to Mr. Butlin the invitation he was a little anxious as to whether it was right to add to Mr. Butlin's numerous duties any more duties, but as each month had passed and he had had opportunities of watching Mr. Butlin, he had been pleased to see his gradually increasing strength and his continual thirst for work. And he was almost convinced that the occupation of the Presidency had been as good for Mr. Butlin as it had been undoubtedly for the British Medical Association itself. At the critical point upon which the medical profession was now entering, it had been of the greatest possible advantage to the profession that the head of the British Medical Association should be Mr. Butlin; and he believed that that fact would be more and more brought home to the members as they went through the troublous times in the succeeding year. But there were many present that evening who had come to do honour to Mr. Butlin as the President of the Royal College of Surgeons of England. They recognized that he was there holding the most coveted honour which was open to any English surgeon. They recognized—as everybody recognized—that Mr. Butlin was performing the duties of that office in a manner fully worthy of the most illustrious predecessors in the chair. But he really thought that the institution which was responsible for the most numerous ties and the closest ties which joined the guests and the hosts together was the great hospital with which Mr. Butlin had been connected, and had been proud to be connected ever since he started his professional career. He did not doubt that there were present men who began their friendship with Mr. Butlin by grumbling at "Bart's" at having to attend compulsory lectures. There were men present—he could see many of them before him, and he saw them with great pleasure—whose friendship with Mr. Butlin as colleagues at St. Bartholomew's Hospital had been constantly extended by their friendly rivalry to do better than the other for the interests of their medical school, and he thought most would agree that they had seldom done better than Mr. Butlin. Lastly, he was sure, as far as "Bart's" was concerned, that there were a large number of men present who came as Mr. Butlin's pupils to testify to the advantages which they had received from his lucid teaching. Those three great institutions—St. Bartholomew's Hospital, the Royal College of Surgeons of England, and the British Medical Association—were, he believed, responsible for the majority of interests between the hosts and guests that evening. But they had not been sufficient to absorb Mr. Butlin's enormous energies. Ten years ago, when the University of London was reconstituted—or rather he should say when it began to be reconstituted—Mr. Butlin was the first Dean of the Faculty of Medicine of the University of London. As the Honorary Secretary of that body he then first had the pleasant opportunity of being closely connected with Mr. Butlin in official work, and he speedily acquired the admiration and affection for him which he believed it was common for everybody who worked with him to acquire. Some might think that the enormous energy which Mr. Butlin put into the task of endeavouring to improve medical education in London under the auspices of the University of London had been lost. That it had not been fulfilled was not due to any defect in Mr. Butlin's work; it was due to initial defects in the constitution of London, which some day, by fusion or by fission, might be overcome, and then the great work which Mr. Butlin did six years ago would bear its proper fruit. In the Pathological Society of London and the Laryngological Society—now happily amalgamated in the Royal Society of Medicine—Mr. Butlin, during many years gave most onerous service. In the work which he did—scientific work—in those societies he obtained his world-wide reputation as a surgeon, and he did not doubt that many were present that evening because of their mutual work with him in those societies. Some were, perhaps, honoured, as he (Mr. Butlin) was, by membership of the Society of Surgeons of Paris, and of the Society of Laryngologists of Berlin. But he believed there was still a very large group of friends present who were not accounted for by any of the groups he had mentioned. A large number of general medical practitioners were present because they had always recognized in Mr. Butlin their consulting surgical friend—one who could always be trusted to provide them with the soundest scientific opinion, with the highest possible operative skill, and all tempered with a sympathetic insight into the many difficulties which beset the general practitioner, both with regard to his patients and his cases. He thought also there were one or two present in order to show their gratitude to Mr. Butlin because by his surgical skill he had restored them to health. It was open to but few to put in his debt so many strong institutions, so many different classes of persons. It was characteristic of Mr. Butlin's versatility and energy that he had been able to sympathize with all those great movements, and by helping forward the best energies of all of them had promoted their united professional aid. Mr. Butlin was the embodiment of professional union; it was because of this that so many people with different aims and different work were there to meet him and to greet him; it was because of that that he (the speaker) found at once his dual task a most difficult one and yet a most easy one. Nothing could be easier than to persuade the company, his hosts and friends, to rise and drink Mr. Butlin's health and happiness with the utmost enthusiasm; yet nothing was more difficult than for him to express in words the diversity and depth of the feelings held by the company towards Mr. Butlin. He proposed to get over that difficulty by adopting the simple British method of not attempting to express their feelings in words. He was sure it was thus that Mr. Butlin would prefer it; it was thus that Mr. Butlin had done his work. Thus it was that Mr. Butlin had aroused in them those feelings which he found himself incapable of expressing in words. Turning to Mr. Butlin, Dr. Lauriston Shaw concluded by saying that the hosts were greatly pleased to see him there. It was a humble meal which had been offered him, and it was but a symbol of their feelings and an indication of the admiration which was entertained for him on account of the splendid work which he had done to further the science and art of surgery. It was an expression of the appreciation they felt of the enormous services which he had rendered to all sorts of bodies which were working for the good of the profession. It was an expression of the affection and regard entertained towards him, a feeling of colleagueship and fellowship, and an expression of their wish that he might long be spared in health and strength to continue his good work, and that every blessing might rest upon him and Mrs. Butlin, and their children and grandchildren.

The toast was drunk with great enthusiasm, and with the singing of "For he's a jolly good fellow."

Mr. HENRY T. BUTLIN said: Mr. President of the Branch, Ladies, and Gentlemen,—After listening to the very kind recital of my virtues and of my actions during the many years in which I have been engaged in the practice of my profession, I cannot but think it will be a relief to you if I leave out the personal equation in my reply as far as possible and only use it in relation to the one great body with which it has been my fortune to be mixed up for a great many years—the British Medical Association. My excuse for doing so is that this dinner was initiated by the Metropolitan Counties Branch, and that I am here rather as President of the Association than in any other capacity; also, because this is a favourable moment for expressing certain views which I hold in regard to the Association. For, it is undoubtedly a period of great anxiety to many of the members of our profession, and what may fairly be termed a crisis in our affairs. It is impossible for a man who is gifted with a spark of imagination to pursue the work of a professional life in a great city for forty years without meeting with a surprise from time to time. I do not suppose that I have met with more of them than most other surgeons of my age; but it is safe to say that most of them, and the most surprising surprises of them, have come through the British Medical Association. I was placed upon the Council of the Association many years ago by the active secretary of this Branch, who engineered it for more than a dozen years—Dr. Grigg—and I was sent up to the Council in order to promote the interests of

the great Collective Investigation. Up to that time I had only been acquainted with London medical society, which I looked on as so far superior to every other kind of medical society that I am afraid I did actually look down on this new body with which I had to do. I thought that the members of the Council would be disposed to take their lead from the London members of it, and my first surprise was when I found that they not only did not do so, but that they were strongly disposed to resent any disposition on the part of the metropolitan members to dictate to the Council. Some of them still looked back with longing to the time when the Association was the Provincial Association, and they only admitted the metropolis because it was so difficult to keep it out. I soon found that the men I now met were able to hold their own, and that they knew far more about the relations of the profession to the public, about State medicine and the like, than the men I had been accustomed to meet. As I got to know them better I learnt to respect many of them more, and secured the friendship of a number of them which it has been my good fortune to retain until the present time, except where death has intervened to cut it short. Among them I can only name a few, Lord Ilkeston, Wade, Wheelhouse, Waters (Chester), Withers Moore, Bridgwater, Holman, Parsons (Dover), Bruce Goff, Hugh Ker, Strange, and others. In the course of time I was elected on to the Journal and Finance Committee, and I do not think I had been a member of that committee more than a year when the second surprise which the Association had in store for me occurred. The annual meeting that year was in Birmingham, where it is to take place next month. I had not yet gone down to the meeting when, on the Tuesday afternoon, I received a wire from Birmingham to say that I had been elected Treasurer of the Association. I was immensely indignant. Not only had I never been asked whether I would accept the office, but I had not even received a hint that my name would be submitted to the general meeting. I hied me down to Birmingham in a great rage, told the Council that I would not be Treasurer, and that some other person must be elected. But it was pointed out that were I to refuse to serve and that the Council had never approached me on the subject, their prestige would be damaged in the eyes of the general meeting, and that I need only hold the office for a year, if I did not wish to hold it longer. I still could not understand why I had been selected for this post, until I recalled an incident at the first meeting of the Journal and Finance Committee at which I had attended, and it will serve to amuse you as an anecdote. There was at that moment a very serious uproar in the Association, especially in the metropolitan area, due to the unworthy treatment of a surgeon of my own standing on the part of the Editor of the JOURNAL. The conduct of the Editor was in question. It was customary, in those days, for him to attend the meetings of the committee, but not of the Council. At this meeting he was asked —very gently, as I thought—to explain his conduct. He had sharply attacked a letter to the JOURNAL from my friend the surgeon. The surgeon had replied to the attack, but the Editor had suppressed the reply, while inserting a short offensive paragraph in relation to it. When asked why he had done so, he said, airily, that that was commonly done in journalism. I expected that the Chairman of the Committee would remonstrate. But he did not, nor did any other member of the committee speak. I was full of indignation, and said, "Well, if those are the manners of journalists, they are not the manners of gentlemen." Of course, I expected to be backed up by the committee. Not a bit. They sat silent, while Mr. Hart jumped to his feet, as if some one had struck him, and said, "What did you say?" I repeated it, and again there was silence, only broken by the angry muttering of the Editor. I then discovered what I had not before appreciated—the extraordinary influence which he exercised over that committee, and that he was rather their master than they his, and that I had unwittingly performed almost a heroic action in attacking him in the open. During the six years that I was Treasurer, I naturally served on many committees and gained a knowledge of the affairs of the Association and of other matters which have been useful to me more than once since then and particularly in the course of the last two years. I need not tell the story here of the circumstances which led to the reconstitution of the Association. It suffices to say that the new constitution deprived the vice-presidents, of whom I was one, of their duties and responsibilities. We were no longer members of the Council by right of our vice-presidencies, and I therefore lost touch with the affairs of the Association during a period of years. Vague rumours reached me from time to time, and I gleaned from the JOURNAL that very considerable changes had taken place in many directions. What I heard and read did not impress me favourably, so that when I fell in with Holman, or Bridgwater, or some other of my former colleagues we shook our heads and said: "What a mess they are making of it." And when a former opponent of the Council and a great reformer met me at one of the annual meetings and raised his hands and said, "Oh, Mr. Butlin, to think I should have fought to bring about such a state of things as this"! I was quite prepared to believe the worst. Matters were in this posture when, on the first Sunday of August two years ago (1909), I received a visit from Dr. Shaw and my third surprise in connexion with the Association. He told me that the Metropolitan Counties Branch proposed to invite the Association to London for the Annual Meeting of 1910. It seemed to me only the other day that we had met in London, and I was not too well pleased to hear that we were to meet again so soon. I supposed he had come to ask me whether the College of Surgeons would be likely to take any part in entertaining. But when he told me that it was proposed that I should be the President that year I thought he must have invented the proposal. If I had been asked to suggest four or five names for the presidency my own name would never have occurred to me. The Association seemed to have forgotten me, and I had no wish to be their President. I made careful inquiries of the reasons which had led the Branch to offer me the Presidency, and learnt or divined that there was some friction in the Metropolitan Counties Branch, that the Branch wished to select a President who had actually worked for the Association but who had not been mixed up in any party question, so that he would not be obnoxious to any part of the members. And it was pointed out to me that I might really do the Association a service by accepting the Presidency. After consultation with Mrs. Butlin I determined to accept the honour—for it is a great honour—provided the Council of the College of Surgeons did not offer any objection. And, it was further agreed that I should not be expected to take any part in the political affairs of the Association, but should confine my attention to doing my best to make the London Meeting a success. Now, although I had determined to keep clear of all the business of the Association, much printed and typewritten matter poured into my house—reports of committees, agenda papers, minutes of Council and committees. At first I looked them casually through with the resolve not on any account to read them. But old habits are strong and the power of resistance is less strong, and I soon found myself eagerly reading and immersed in the matters which these papers dealt with. I said to myself: "These people seem to be very active." There was evidently no lack of energy in the workmen, and there was plenty of good stuff in the work. I looked up the names of the members of the various committees and the record of their attendances, and was astounded at the time they had devoted to the business. At the meetings of the Council I found some of my old friends, but many new members, who seemed to me to be men of capacity, quite fit for the posts they held. Any one who has come in contact with such men as Macdonald, Rayner, and Maclean, must at once perceive that the Association has never been more efficiently served than it is by them. But I was still not satisfied with what seemed to me the cumbrous machinery of Divisions, each with its Representative, forming a kind of parliament, where time and money were wasted. I thought the business of the Association could have been quite well conducted without this superfluous body. And, the cost of the Representative Body and of the new Medical Secretary's Department seemed to be exceedingly heavy and out of all proportion to the work they did. I attended a meeting of the Representative Body at the Guildhall, and observed with satisfaction the order and decorum which prevailed, but it did not alter my opinion on the general question. And that

opinion might have remained unchanged throughout my lifetime had not circumstances occurred which had completely modified it. A great crisis threatened the medical profession. It was of supreme importance to discover the feeling of the profession on certain points, and to do so with the least delay. The position was seen—nay, foreseen—by the leaders of the Association. The department of the Medical Secretary put the machinery of the Divisions in motion. They were urged to call their members together, and not to be content with that, but to invite every member of the profession within their several areas to confer with them, with the result that, before the National Insurance Bill actually appeared, such a mass of opinion on some of its chief provisions had been obtained as had never previously been obtained on any question relating to our profession. It may be said that this could have been perfectly well accomplished by the Branches. With all respect for the Branches, I do not think so. I fully believe that only such an organization as that which now exists could have carried out so thoroughly and so speedily what was done. The Chancellor of the Exchequer has shown his opinion of the importance of the Representative Body by spending two hours in conference with them. And I venture to say that you will find that the profession has shown equal interest and confidence in the Association by a very large access of new members in these last few weeks. For the first time in its history the Association has proved that it is equipped to fight the battles of the profession as no other body possibly can do. I sincerely hope that every part of the Association, every medical body, and every member of the profession, will see that no action is taken which is likely to run counter to what has thus far been done. I shall say nothing of the bill—the burning question of the hour—except to draw attention to one point which has been overlooked or underrated by the promoters of the bill. I understand that there are many medical men who practically only attend persons whose income is from £100 to £200 a year. They are sufficiently prosperous, and their patients are content. These men will be grievously hit by the bill. The Chancellor of the Exchequer has suggested that compensation for the loss of these patients will be found in the payment which the fund will supply for persons whose incomes are from 15s. to 17s. a week, who are not on the parish, who do not belong to clubs, and who have been attended by medical men out of pity for no one knows how long past. But they are not attended by the same men. And it is no solace to A. when he finds himself impoverished, to learn that B. is better off. There is only one other matter connected with the Association of which I should like to speak. It is to what is called its trade union aspect. Trade unionism is just as necessary to our profession as it is to the legal profession. In the last few years the Association has begun to feel its power in many directions, and there is a tendency—I will not say on the part of the Association, but on the part of some of its members—to use threats and to employ language which is likely to inflict serious damage on the good name of the Association. There are generally two ways of doing the same thing. And I am quite sure the Association will study its best interests by providing striking examples of its power to protect the profession and by the rewards it confers on those who act in accordance with its desires. The successful defence of the interests of our profession when those interests are menaced by some other body is a much greater inducement to membership than the punishment of ill-doers. Of course, ill-doers must be punished when they interfere with the interests of the profession or act in such a manner as to lower its dignity. My college punishes such persons, and very severely, too, and the Association must do the same. Again, I hear complaints against consultants from time to time, and threats are uttered of extermination and I know not what else. But I have yet to learn that the Association, or any part of the Association, has shown its appreciation of those consultants who act in a manner beyond reproach by rewarding them with the work they often richly deserve. I would humbly venture to hold up this possible alternative to punishment to those fiery spirits who wish to crush the life out of any consultant who offends them. And now, Sir, I come to the last surprise which the Association has provided me with. It came through you a few weeks ago, when you imparted to me the desire of the Metropolitan Counties Branch to entertain me at dinner. I could not understand then, nor can I understand now, the reason. I suggested that the idea emanated from you, and not from any number of members of the Branch, and I begged to be excused. I am not fond of complimentary dinners, and it speaks rather well than badly for our profession that we very seldom offer them. They are bad enough when offered to other people, but when such a dinner is offered to oneself the idea is appalling. To think for weeks beforehand that, on a certain night, after dinner, a number of one's colleagues will be expected to listen to an exaggerated account of actions which have more often been prompted by selfish than by lofty motives, is an ordeal which is little short of cruel. It is impossible to reply with grace, difficult to reply with dignity, or even with decency. And I have therefore preferred to incur the charge of boring you than to answer to the charges which Dr. Shaw has made against me. I tried hard to escape this dinner, as I told you. But, now, as I look round these tables, and see this great gathering of members of the Branch, of members of the Association who are not members of the Branch, of my colleagues at the College of Surgeons, of my colleagues at St. Bartholomew's Hospital, of my former house-surgeons, of old pupils, of friends of all kinds, and last, but far from least, of those ladies who have been my unwavering allies wherever we have worked together, I am forced to confess that this is a wonderful moment in my life, and that I cannot possibly regret that it has happened. I cannot express to you my feelings in words—indeed, I dare not do so, for I should make an exhibition of myself. I can only say, I thank you, and repeat, I thank you, and continue to repeat it. I thank you all for your attendance here to-night and for the manner in which you have fêted me. I thank you, Sir, for the terms in which you proposed my health. The toast ought not to have been placed in your hands, for I have had too many proofs of your devoted esteem for me to believe that you could speak of me in any but exaggerated terms. You have referred to hospitality and liberality. I would like to tell you that there has been one person at my side through all these years who is even more responsible for my hospitalities and what you are pleased to term my liberalities than I am myself. Had it not been for Mrs. Butlin I could never have carried the hospitalities through. I have always left to her every arrangement which it was possible to leave, knowing how much better she could manage than I, and it is she who has suggested all those little attentions which are grateful to guests, especially to the foreign guests we have entertained. I will not say that she has had to encourage me to be liberal, but she has always joined heartily with me in such matters, and I believe she would be ready to despoil her children rather than to thwart me in any scheme on which I had set my heart. I owe her many things, and not the least of them that she has prevented me, on more than one occasion, from openly exhibiting bad taste and a very bad temper, for which a gouty constitution must be held to be in some sort responsible.

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THE authorities of the Margaret Street Hospital for Consumption are making a special appeal for support this year. They can only obtain a renewal of the site of their premises on condition that they rebuild them, and at the same time they are very anxious to improve the Fairlight Sanatorium at Hastings, which is under their control. They are also opening a sanatorium for children near Stroud in Gloucestershire. In the published report some statistics are given as to the after-results of the work at Hastings, but, as details are not supplied as to the date at which the patients left, they are not informing.

DR. W. E. HENDERSON, school medical officer for Westmorland, has prepared for his authority a pamphlet entitled *Notes for Teachers on School Infections*. After some introductory information and definition of terms, each disease is considered under the subheadings—Recognition; incubation; suspense; infectiousness; dangers; and immunity. Finally come some brief sections dealing with children belonging to infected houses, and with school disinfection, ventilation, heating, and lighting. The descriptions given are both succinctly and clearly phrased and the whole idea well carried out. Copies, price 3d. each, can be obtained from Atkinson and Pollitt, printers, Kendal.

# British Medical Journal.

SATURDAY, JUNE 17TH, 1911.


## THE HEALTH OF THE BRITISH ARMY IN INDIA.

THE circular issued by the Commander-in-Chief in India, drawing the attention of all ranks to the notable reduction of disease, mortality, and invaliding in the European army in India during the year 1910, is a document which bears striking testimony to the new spirit in which the teachings of medicine with regard to the prevention of disease are viewed by those responsible for the welfare of the army in India as well as at home. As will be seen from the table embodied in the circular (p. 1454) the extremely low death-rate of 1910—4.66 per 1,000 serving—is not only the lowest on record, but is accompanied by an equally remarkable diminution in the ratio of invalids sent home, and a very large diminution in the ratio of constantly sick. In the decade ending 1903 the ratio of deaths was 17.13 per 1,000 serving, of invalids sent home 42.32, and of constantly sick 81.2. In 1910 these ratios had fallen to 4.66, 7.77, and 31.93 respectively. When these ratios are compared with those of an earlier period the improvement is, of course, still more remarkable. Fifty years ago the death-rate among European soldiers was in Bengal 74, Bombay 51, and Madras 39 per 1,000. The *Pioneer*, in a leading article on the subject, enumerates the causes to which the improvement may be attributed. It mentions first the rise in the standard of education and conduct among the men themselves, to which the increased pay given to the rank and file has contributed, since fuller purses have led to a higher scale of taste and recreation. "The institute," it says, "flourishes side by side with the canteen. The spread of hockey, football, and boxing tournaments has no doubt been a great influence on the right side, nor can we forget the advent of the bicycle, which now every afternoon gives pleasant employment to hundreds of men who would formerly have loafed when the only alternative was a tedious and dusty walk."

The second cause mentioned is the fact that both officers and men have come to appreciate the benefit that follows attention given to sanitary teaching in detail. The next cause assigned is the improvement in the general conditions of cantonments owing to greater activity on the part of the cantonments magistrates, who were at one time chiefly regarded as disciplinary authorities. But it is added that even now there is in most places probably much to be done before the state of extra-regimental areas comes up to the level of lines under the direct jurisdiction of commanding officers; the progress made, however, is to the credit of all concerned, and should be an incentive to further efforts. Having mentioned these matters as contributory causes, our contemporary continues: "It must be acknowledged that the active impetus has come from the Royal Army Medical Corps. The sudden transformation of this service from a body of discontented men, largely employed in writing angry and unreasonable letters to the newspapers, into a highly efficient and zealous service is one of the most remarkable administrative phenomena of our times. At any rate, there is no question of the forward place its members have been taking in sanitary effort of recent years, and the European army in India is witness to the results. To the senior medical officers of stations and garrisons too much praise cannot be given. These are they who have suggested and put initiative and energy into others, and as they have been seconded by cantonment magistrates and commanding officers, the results are those with which the Indian public has just been presented. To those of us who are acquainted with the circumstances of particular stations once chronically unhealthy now characterized by little sickness, the truth comes home that these improvements are invariably associated with the presence of an energetic senior medical officer, backed by a good cantonment magistrate and enlightened regimental commandants."

The *Pioneer* then pays tribute to the medical sanitary administration generally, and especially to the work done by the Principal Medical Officer of His Majesty's forces in India and his staff: "To them the European army owes the initiation of an organized system of efficient segregation and detention of the infected. To them we owe the introduction of modern laboratory methods for the detection, prevention and cure of preventable disease. In fact, the present results are the outcome of regarding the Royal Army Medical as a scientific service, and giving the officers of that Corps the means of applying scientific methods to the ordinary routine of medical work." The *Pioneer* drops a hint that even now the Government of India may be, possibly from financial considerations, niggardly in its attitude towards the advanced methods of preventive medicine; but as it goes on to point out that to the Commander-in-Chief the knowledge of the physical fitness and well-being of the great force under him must be a high satisfaction, there seems to be good ground for hoping that the Government of India may realize the true economy of encouraging the development of work which has already yielded such striking results.

As is shown by the table, the improvement in the figures has been steady during the last seven or eight years, and the British profession will congratulate the Principal Medical Officer with the Head Quarter Staff of the Army in India, Surgeon-General F. W. Trevor, C.B., and the able Sanitary Officer on his staff, Colonel R. H. Firth, F.R.C.S., R.A.M.C., formerly the officer in charge of the School of Army Sanitation at Aldershot, and Professor of Military Hygiene at the Royal Army Medical College, on the result achieved. Those who remember the long struggle of the British Medical Association to obtain for the medical officers of the army just recognition, reasonable remuneration and adequate opportunities for rendering efficient service, may be inclined to think that the brilliant results which have followed from the victory then won for the profession against sneers, misrepresentations, and charges of interested motives, contain a lesson for Parliament at the present moment when an attempt is being made to fix upon the civilian profession at home a pernicious system of contract practice against which it has long protested, and the evil effects of which on the efficiency of medical services have been fully exposed.

## MIND AND BODY.

WHATEVER the mind may be, or however it acts, there is, as we have often had occasion to insist, no doubt that it exercises a powerful influence on the body. This is, of course, a very old truth, but it is one that a few years ago seemed to be in some danger of being forgotten by those who excluded from the sanctuary of Science whatever could not be weighed or measured. Now, perhaps, the pendulum, as is usual in human thought, tends to swing rather too far the other way. We are told by the *Stellar Ray*, a luminary which has not before swum into our ken, that "when we come to realize that just as surely as that (*sic*) the mind regulates the muscular movements of the body, so it may control all its functions, we shall become a healthy, happy race of beings."

At present, we fear, we are far from this millennial state of things. So far from our minds ruling all our bodily functions, too often the body rules the mind. A person suffering from the symptoms conveniently but vaguely called "bilious," and attributed in many cases unjustly to the liver, or a man in the throes of gout or even of a common colic, generally finds his mind disagreeably affected by his bodily condition. How many crimes in history are due to an unruly body running away with the mind which is supposed to govern it is beyond all computation; and in spite of the manifold forms of faith healing which now promise us deliverance from every human ill by the simple process of saying that they do not exist, we doubt whether the sum of human misery due to a disordered body has been appreciably lessened. The *Stellar Ray*, however, is much more optimistic. It affirms that "it is a demonstrated fact that the higher development of mind force will produce astonishing results. No one is surprised to note that a man can pluck a bunch of grapes and eat it." This we were taught by Touchstone, who in his oracular manner gave not only the fact but the explanation when he said: "The heathen philosopher when he had a desire to eat a grape would open his lips when he put it into his mouth; meaning thereby that grapes were made to eat and lips to open." Our spiritualistic philosopher, however, goes far beyond Touchstone, for he says that it would surprise the average mind to learn that a man has any further control over the organs of digestion than masticate and swallow the fruit. It is, however, we are told, a truth which can be proved by "any sincere open-minded person, that all the organs of digestion may be properly directed in their activities by the awakened consciousness." This will be good news to many who at present are deterred from following the bent of their appetite—in the way of lobster salad, for instance, and other things which they have found by experience prone to make what St. Francis called "Brother Ass" kick against the pricks of an ill-directed digestive activity. But it may be asked, What is this awakened consciousness which is to enable us to control the activities of the organs of digestion? Like all great discoveries, it is so simple that the wonder is it has been overlooked so long. It is nothing more than "a state of mind which is awake to the fact that there are possibilities of achievement far beyond the present knowledge of them—a mental state which is also imbued with an impelling desire to know further of such hidden possibilities. Then through faithful endeavour will the light of truth penetrate the soul as the sunlight wakens one to fully realize that another day has dawned." It may be regretted that this inspired writer splits an infinitive, but such a trifle must not be allowed to blind us to the "light of truth" of which he appears to know the secret. It must be said to his credit that he does not, as too many prophets of mental influence do, content himself with high-sounding phrases. He condescends to be practical, and gives us the following advice: "To improve the health, use for a while the following exercise, and note the results: Each morning upon rising, drink a glass of fresh water, sending it to the stomach with this mental assertion: 'This crystal stream shall cleanse my body from all harmful deposits.' Repeat the thought several times, concentrating upon it for a moment or two earnestly. Then as you walk out into the open air, breathe deeply with the earnest thought, 'I inhale from God's marvellous atmosphere those qualities which cause pure blood to flow through my veins giving me perfect health.'" To the profane mind the thought may occur that the "crystal stream" may perhaps contain harmful deposits. In such a case—and even with the best water supply it may possibly happen — how will the mental assertion work? We should be glad to see its effects, say, on the typhoid or cholera bacillus, scientifically tested. Moreover, to many who have to live in crowded cities it must be difficult, if not impossible, to inhale God's marvellous atmosphere, which is unfortunately polluted to an extent that makes it ill fitted to cause pure blood to flow through the veins, however earnest the thought that seeks to persuade itself that it is getting perfect health from such a source. The writer concludes that "no physical organism with a mind capable of these sincere reverent aspiring affirmations will fail to respond to that law which is for the uplifting of humanity, 'for the healing of the nation.'"

With regard to this oracular utterance, we can only say with Teufelsdröckh, speaking of the whole duty of dandies as set forth in *Pelham*, that for the present we content ourselves with modestly but peremptorily and irrevocably denying the proposition.

## POST-GRADUATE EXTENSION STUDY.

A NEW departure in practical teaching has been instituted by the University of Bristol in the formation of a course of demonstrations of recent research in pathology and bacteriology to be given in various centres in the South-West of England. The object is that medical practitioners who are unable to spare time to journey to the university should be enabled to see and investigate the practical application of recent discoveries. These classes are conducted by Dr. Walker Hall, Professor of Pathology in the University of Bristol. The first course, which consisted of six weekly demonstrations, has just been completed at Frome, Somerset, where twenty-two medical practitioners of the towns and county districts of Somerset and Wiltshire in the neighbourhood of Frome availed themselves of the opportunity. At the close of the course the practitioners of Frome and its immediate neighbourhood entertained the lecturer and others, who came from remote distances, at dinner at the George Hotel, Frome. Dr. J. M. Rattray, who had acted as local secretary to the class, occupied the chair. After the loyal toast, he proposed "The University of Bristol," coupling

with it the name of Professor Walker Hall. Dr. Rattray eulogized the spirited policy of the university, which had placed at the disposal of those in parts remote from the university so excellent an opportunity of learning at first hand something of the extension of recent knowledge. He considered that Dr. Walker Hall had come amongst them as a scientific missionary; that he had made several of the difficult problems of the day clear and comprehensible; and that he had most skilfully shown them the application of many of the newer methods of treatment. In instancing the effect of the work of the bacteriologist as an assistance to the clinician the speaker referred to the devastating epidemics of small-pox and typhus, and particularly a visitation of Asiatic cholera which happened nearly fifty years ago. Living in the vicinity of the fever hospital in his early childhood days, he could remember being awe-stricken at the appalling numbers of the dead as he had witnessed them carried forth—sixteen to twenty-five in a day. But so thoroughly was the cause of this dread disease now unravelled and scientifically known that the lecturer had thought nothing of experimenting in their presence with the actual virus, the very poisonous germs which he brought with him in the test-tubes and removed from his bag with no greater concern than if he were unlocking and taking out the contents of his hat-box. Surely it was a tremendous advantage to humanity that those terrible epidemics no longer existed! It was also a great gain to human knowledge and a triumph of bacteriology of which science might justly be proud. He cordially thanked Professor Walker Hall for his lectures and congratulated him on the achievement which he had so successfully accomplished. Professor Walker Hall said it was always an honour to respond for a university, but it was a greater one when the response was to a number of practitioners and colleagues who had voiced this proposal in such kindly and appreciative terms. He was sure that the Senate would be glad to hear of the large class at Frome and of its enthusiasm. It was due to them to say that the inception of the class arose from an address by the Chairman on "Post-graduate Study." Realizing from this address the difficulties of the country practitioner in leaving his practice to attend demonstrations at the university, the speaker was prompted to initiate a scheme whereby demonstrations could be arranged for in various centres of the West of England. The large attendance at Frome had shown that this class of extramural work was wanted. It showed also that the medical men of the district were keenly alive to the value of research work, and anxious to hear of discoveries so soon as these had reached a stage at which they could be applied. At the same time it indicated how close were the bonds between the pathologist and the bacteriologist in his laboratory and the physician and surgeon at the bedside. The University of Bristol, although its buildings were some distance away, had within it, by means of these demonstrations in outside centres, the promise of direct benefits to the practitioners of country districts, and so indirectly to the whole community, both rich and poor. Those present, as well as the general population, were much indebted to the energies of the local secretary, Dr. Rattray, for the arrangements he had made for the carrying out of the course. The other toasts were "The Visitors," proposed by Dr. Dupont, of Frome, and responded to by Dr. George Tayler, of Trowbridge, and "The Donors of the Feast," proposed by Mr. Herbert Tayler, Bradford-on-Avon, and responded to by the Chairman. The address to which Professor Walker Hall referred was the presidential address delivered by Dr. Rattray before the Bath and Bristol Branch of the British Medical Association last year. In it he pointed out how very much more advantageous it was to see the application of the results of the newer methods of treatment and operation than merely to read about them. When they had been seen the practitioner was placed in a much more advantageous position. "He can," Dr. Rattray continued," then gauge in what cases he should adopt or recommend their application, and thus insight into the probabilities becomes clear. On the medical side I may refer to such methods as vaccine and serum therapy, blood examinations, and the determination of the opsonic index; radiology as a means of diagnosis and of cure, ionic medication, etc. It is also well for the practitioner to see the application, even should he not practise it himself, of the newer instruments, such as those for illuminating the internal cavities of the body, like the gastroscope and bronchoscope."

## THE NATIONAL PROVIDENT ACT OF NEW ZEALAND.

THE New Zealand National Provident Fund Act of 1910, which came into operation on March 1st, 1911, is intended to offer facilities for voluntary thrift on a basis of mutual contributions by the State and the individual. It is claimed that no other State system offers such liberal benefits at such low contribution rates. The feature of the scheme that will appeal to the public is an increase of allowances without any additional payments in proportion to increase of the contributor's family responsibilities. The qualifications are residence in New Zealand, age between 16 and 45 on joining, and income not over £200 a year; no medical examination is required on joining. The contributions may be paid at any post office or directly to the superintendent of the fund at Wellington. In the event of a contributor leaving the fund or dying, all contributions, less any benefits received, are refunded. The benefits are guaranteed by the State, which subsidizes the contributions to the extent of one-quarter of the amount paid into the fund. The co-operation of employers either in paying or assisting to pay contributions is specially invited, as it is suggested that the allowances during prolonged incapacity may solve the problem which often faces employers interested in the welfare of their employees, and it is specially provided that in case of refund, parents, guardians, or employers can claim any sums paid by them on behalf of a contributor. The benefits provided are as follows: (1) After contributing for a year a sum not over £6 for medical attendance on the birth of a contributor's child. (2) After contributing for five years, an allowance, after three months' incapacity to work, of 7s. 6d. a week for each child under the age of 14 of a contributor. (3) A pension at the age of 60 of 10s., 20s., 30s., or 40s. a week according to the scale of contributions paid. (4) After contributing for five years, an allowance on the death of a contributor of 7s. 6d. a week for each child under 14 years of age, and 7s. 6d. for the widow so long as any child is under 14. The contributions vary with the age at joining and with the amount of the weekly pension that it is desired to secure at the age of 60. Thus a contributor joining at the age of 17 pays 9d. a week for a pension of 10s., 1s. 6d. for 20s., 2s. 3d. for 30s., and 3s. for a 40s. pension. For a person joining at the age of 21 the contributions are 1s., 2s., 3s., or 4s., and these are doubled for those joining at 33, while for those who only join at the age of 45 the weekly contributions are 4s. 11d., 9s. 10d., 14s. 9d., and 19s. 8d., according to the pension desired. An illustration will show how the fund works out in

practice: A young man of 22 pays 1s. a week for a pension of 10s. a week at the age of 60. If he marries, then for every birth happening after he has been in the fund for a year he is entitled to a payment not exceeding £6. After the age of 27—that is, five years after joining—he would be entitled, should he be unable to work for more than three months, to an allowance, provided he suffers pecuniary loss to that extent, of 7s. 6d. a week for each child under 14 years old, so that if he has four children he would get 30s. a week. On his death his widow would receive 7s. 6d. a week so long as any child is under 14, and a similar sum for each child up to 14 years of age, a total for widow and four children of 37s. 6d. a week. If at the age of 27 he wishes to secure a higher pension at 60 than he originally intended, he may do so by commencing to pay the increased contribution for that age. If he started on the higher pension scale he may reduce it, but still retain the full rights to the other benefits, and, further, he may receive back any excess contributions he may have paid at the higher rate. Again, if a contributor reaches the age, say, of 32 without having married, and desires to withdraw, he would be entitled, after giving a year's notice, to receive back the whole of his weekly contributions, which by that time would have amounted to £26. Thus the fund would have acted as a savings bank for him, and he would have received ten years' free insurance. On reaching the age of 60 he would have the option of receiving a lump sum of £98 16s., or a weekly allowance of 10s. for the rest of his life. If he die after the age of 60, before receiving as pension a sum equal to the contributions paid in, the difference is returnable to his representatives, and if a contributor throughout life receives no benefits he leaves nothing in the fund, and is not asked to pay for a risk that has not materialized. Very great latitude is allowed for arrears, and no contributions are paid during incapacity, which may last for fourteen years, and even though he may have drawn full incapacity allowance he is not debarred from his pension at 60. A contributor whose yearly income subsequently exceeds £200 loses right to maternity benefit but retains his right to pension and incapacity allowance, and his widow and children are still entitled to their allowance at his death. The combination of pension allowance with special family benefits is believed to be unique, and the attraction to the small wage earner is that, though he may only be contributing for the lowest pension, he is entitled to the same value of maternity expenses, incapacity pay, and widow's and children's allowances as a contributor who is paying for the highest pension—a provision which stands out as one of the most prominent advantages of the Act. It is to be noted that this provident scheme is quite separate from the old age pensions provided by the Government for the poor.

## TRAINING FOR THE MAIMED.

WE have compensation for working people who suffer injury in the discharge of their duty, but as far as we are aware comparatively little has yet been done in this country to place those who are permanently disabled in a position to earn their living. It may be interesting, therefore, to give some account of what is being done elsewhere towards the fulfilment of this desirable end. Dr. Jeanbrau, Surgeon to the Hospital of Montpellier, who was sent on a mission to Germany and Belgium, has published an interesting report in the *Montpellier Médical*, of a visit which he paid to Charleroi, a school of apprenticeship of a somewhat novel character. It consists of workshops established by a philanthropist, M. Pastur, with the object of furnishing means of livelihood to the victims of industrial accidents by teaching them new trades suited to their physical state, and to the degree of their education and intelligence. The workshops so far actually opened are one for binding and cardboard work, one for brush-making, and another for the manufacture of carpets and rush mats. The school comprises several departments. There is one for the training of counting-house clerks, where the pupils are taught French, mathematics, book-keeping, stenography, drawing, and manual work. There are others for apprentices in tailoring, saddlery, shoemaking, and bookbinding. All persons mutilated by accidents can follow the courses or be employed in the workshops whatever be their mutilation or incapacity. The pupil apprentices, as well as the workmen in the shops, receive wages from the first if they remain more than six months. They work under the direction of able-bodied craftsmen who do the work before them and point out the mistakes they make. Except for cripples whose upper limbs are intact, there is no apprenticeship in the ordinary sense of the word. A normal workman can evidently not show a person who has lost several fingers of each hand how to make a brush, bind a book, or paste a box. He can only do the work before the mutilated pupil, who then does whatever his mutilated stump allows him to do. In the cardboard-making shop there are apprentices with congenital malformations of the upper limbs, infantile paralysis, mutilations of the hands and fingers, and various joint affections. A man whose two hands have been amputated can make brushes almost as well as a normal subject. There are school workshops of the same kind in Germany at Munich, Potsdam, and Hamburg. But it is in Denmark that this work for the help of cripples seems to have reached its greatest development. This is due to Pastor Knudsen, who in 1874 founded a very modest establishment which afterwards, owing to the benefaction of a lady, Miss Petersen, was greatly extended. In the course of twenty-five years 5,800 cripples of every age were cared for, and were given artificial hands and so forth. Two hundred and fifty-five children and 175 adults were admitted to the workshop. In France, owing to the initiative of M. Marsoulan, Member of the General Council of the Seine there was founded in 1899, at Pré Saint-Gervais, a workshop for invalid, disabled, or crippled workmen, living with their family. On May 9th, 1900, a second was opened in Paris in the Rue Planchat, and in 1902 a third in the Rue Arsène Chérot. Among the trades taught in these establishments is mat-making, brush-making, and binding. The making of cardboard-boxes, of lampshades, and of crowns, are reserved for women. Except the departmental workshops of the Seine, which are older than the school of Charleroi, there are no analogous institutions in the French provinces.

## THE MORPHOLOGY OF THE VERMIFORM APPENDIX.

STAPLEY AND LEWIS, in a paper which was read before the Royal Society of Victoria, show that the evidence of comparative anatomy is directly opposed to the "abdominal tonsil" theory of the appendix, which supposes that organ to be a part of the alimentary canal specialized for lymphoid function. As evidence of their contention they point to the atrophic caecum of the cat, which has no vermiform appendix, but contains in proportion quite as much lymphoid tissue as the human. The pig has a Peyer's patch some 6 feet in length and yet no appendix is developed for

its reception; and the appendix of the wombat contains only an amount of lymphoid tissue that is normal to its intestine. How, then, they say, can we believe that the lymphoid tissue is the cause of the development of the human appendix? They are strongly of opinion that it is a vestige indicating recession from a larger caecum, and that its shape depends very largely on the arrangement of the external longitudinal muscle coat of the caecum in bands. In some of the carnivora no muscle bands form on the caecum, and in them its atrophy is not attended with formation of a vermiform appendix. After studying many forms of intestines, they find it impossible to escape the belief that the function of the bowels dominates their development. The wombat and the koala show many points of resemblance. The koala took to the trees and lived exclusively on gum leaves; it has an enormous caecum to digest this type of food. The wombat took to the ground, and depended on less bulky material for its nourishment; its caecum is represented by a vermiform appendix, and it is the only primate that possesses such an organ. The paper is the result of careful work and thought, and contains a number of good plates which illustrate the points the authors wish to make.

## THE RESULTS OF CATARACT EXTRACTION.

The general public, and perhaps many medical men, have formed a too optimistic opinion of the functional results of the operation for extraction of senile cataract. It is true that in the majority of cases the final vision obtained is highly gratifying to both patient and surgeon, but, on the other hand, the percentage of failures, or partial failures, is by no means negligible. It is difficult to form a reliable opinion as to the exact statistics, because a visual acuity perfectly satisfactory to a farm labourer might be practically of no value to, for instance, a watchmaker. Again, one surgeon might regard a case as good which would fail to satisfy a man with a higher standard of excellence. Even a bare statement of the vision recorded is not an adequate record of the real result of the operation, for a very imperfect eye, from a surgical standpoint, might see well for a time, and yet the condition might be such that good vision would not be long maintained. A result could only be counted first class if the patient had a corrected vision of $\frac{6}{6}$ or more, if he could read fine print easily, and if the eye, considered from a surgical standpoint, were normal. The pupil must be small and mobile, the wound must be accurately placed and almost invisible, there must be no entanglement of the iris, and there must be no changes in the vitreous. We have ample material to form an estimate of the vision which may be expected to follow an extraction in the hands of expert operators. Lieutenant-Colonel Smith, I.M.S., in a paper published in this Journal on September 26th, 1903, claims a percentage of 99.42 of first-class results, but he expressly states that he was generally too busy to test the vision, and that when he had time the cases were only roughly tested by placing an 8 D. lens before the eye and then letting them count the military test dots at a distance of from 40 to 57 ft. Only about 30 per cent. passed this rough test, and yet he claims a percentage of first-class results which is only a fraction under 100. This illustrates the point we have endeavoured to make above, namely, that the estimate of what constitutes a first-class result is to a large extent contingent on the patient's occupation. A good summary of European results will be found in the *Recueil d'Ophtalmologie*, September, 1910, written by de Micas. The reports of in all six surgeons are cited comprising 2,700 extractions. Of these only 38 are classified as having $\frac{6}{6}$ vision. About 600, or 30 per cent., had V = $\frac{6}{6}$ to $\frac{6}{12}$. If we allow $\frac{6}{12}$ vision as a first-class result we find that of operations performed by some of the best men in Europe only 30 per cent. came up to this standard. About 80 per cent. were good useful eyes, and from 4 to 5 per cent. of the eyes were lost. Taking the results of these figures as a basis it would appear that a man whose work demanded excellent vision has about a 30 per cent. chance of obtaining his wish after the operation; 15 per cent. will only see enough to get about comfortably and perhaps read very large print, and 5 per cent. will remain blind. The prognosis of the probable outcome of the operation must therefore be very guarded.

## "CONSUMPTION CURES" IN AMERICA.

According to a report recently issued by the (American) National Association for the Study and Prevention of Tuberculosis, more than $15,000,000 (£3,000,000) is spent every year in the United States in "fake" consumption cures. As might be expected, this money comes from the pockets of those who can least afford it—the poor and ignorant people who are deceived by lying advertisements. Investigations which have been made show that the "cures" belong to one or other of three categories. In one of these are classed devices and drugs of one kind or another which can be bought at prices ranging from 10 cents to 5 dollars. The second comprises the "institutes," "professors," or "companies of doctors," who for a suitable consideration will guarantee to cure the worst case of tuberculosis by secret methods, of which they profess to be the sole depositaries. In the third are home remedies, among which are enumerated onions, lemons, rattlesnake poison, coal dust, lime dust, pig's blood, milk "sluppings," and alcohol. It is melancholy to think of remedies which might have been recommended by Pliny being used by consumptives in the hope of conjuring away a doom which might be averted by fresh air. But it is still sadder to think of such unfortunate sufferers being made the prey of unscrupulous rogues who traffic in human lives. It has been stated that the Post Service of the United States has checked the circulation of fraudulent statements as to the virtues of quack remedies; and certainly a few journals have set a noble example in refusing advertisements of such things. Yet, according to the National Association for the Study and Prevention of Tuberculosis, something like £600,000 is spent in advertising these consumption "cures" in the States. There, as here, it is in the newspapers that the root of this terrible evil is to be found, and it is there that the blow most likely to be effective can be struck.

## AMPUTATION OF THE BREASTS IN PUERPERAL ECLAMPSIA.

Sellheim announced in October, 1910, that he succeeded in saving two desperate cases in which the fits had begun or continued after delivery, one by an injection of a solution of potassium iodide into the glandular tissue of the breasts, another by amputation of both mammary glands. The hypothetical eclampsia toxin, in his opinion, was largely developed in the breasts, and in removing them the chief focus of infection was extirpated. Hence, in extreme instances of persistent eclampsia, this active surgical line of treatment seemed justifiable. Herrenschneider of Colmer, had published

a report of a case in which he resorted to amputation.[1] The patient was a single unipara, aged 18, admitted into a hospital in the last month of pregnancy, quite unconscious, with her tongue bitten and with a very livid face. After several fits, Caesarean section was performed and a living female child delivered. Severe convulsions continued; next day both breasts were amputated, and the convulsions ceased. Post-eclamptic coma followed; on the second day after the second operation the patient became conscious, but pneumonia and post-operative mania developed. The abdominal wound, made for Caesarean section, yielded on the ninth day; it was closed, but a fistulous tract remained. In the third week the patient expectorated great quantities of fetid pus. At the end of five weeks all the obstetric features of the case were favourable. The scars of the amputated mammae had cicatrized well, after a little suppuration. There was paralysis of the sixth nerve on the right, and the expectoration was still somewhat fetid, but the patient seemed convalescent. Herrenschneider lays great stress on the marked fall in the blood pressure which immediately followed the amputation of the breasts, and was associated with immediate cessation of the convulsions. The amputation caused the fall, and the fall caused, in his opinion, the cessation of the fits, which had become very violent.

## THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the approaching election to the Council, Mr. Clinton Dent and Mr. G. H. Makins, C.B., who retire in rotation, having been elected in 1903, will offer themselves for re-election. Mr. Dent's Fellowship dates from 1877, Mr. Makins's from 1878. Both are likely to be strongly supported in their candidature. There is only one applicant for election, Mr. B. G. A. Moynihan, the eminent Professor of Clinical Surgery in the University of Leeds, Surgeon to the Leeds General Infirmary, and author of several well-known treatises and monographs on abdominal surgery. His name is very familiar to the readers of the JOURNAL. He will, no doubt, receive wide support, as Leeds is not at present represented on the Council. Mr. Gilbert Barling and Mr. W. F. Haslam stand for Birmingham, and Mr. Richardson Cross for Bristol, these three gentlemen making up the sum of three provincial representatives, or one-eighth of the total number of members of Council; the remaining twenty are being all attached to metropolitan schools. Mr. Moynihan's Fellowship dates from 1890.

THE annual general meeting of the Research Defence Society will be held at the Royal College of Physicians, Pall Mall, on Monday, June 19th, at 5 o'clock. The Earl of Cromer, O.M., G.C.M.G., G C.B., President of the Society, will take the chair, and will give an address. The list of speakers will include Sir Frederick Treves, Bart., G.C.V.O., Mrs. Garrett Anderson, M.D., and Sir Gilbert Parker, D.C.L., M.P.

AS already announced, the Second International Congress of Urology is to be held in London in July next (24th to 28th) under the presidency of Mr. Hurry Fenwick. The following are the questions proposed for discussion: Phosphaturia and oxaluria; remote results of prostatectomy; extensive resections of the bladder. All communications relative to the congress should be addressed to the General Secretary, Dr. Desnos, 59, rue La Boëtie, Paris.

[1] *Centralbl. f. Gynäk.*, No. 18, 1911.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**The House of Commons** met after the Whitsuntide recess on Tuesday afternoon. There was only a moderate attendance of members, and the usual listlessness which prevails after a holiday was evident. Even the National Insurance Bill gave rise to only some half-dozen questions of no great importance, which the Chancellor of the Exchequer answered with comparative brevity. In the course of three-quarters of an hour all the preliminary business was finished and the House went into Committee of Supply on the Ordnance Vote.

**Instruction in Hygiene.**—In answer to Dr. Addison, who asked for provision to be made in the Code for the teaching of hygiene, Mr. Trevelyan said that the Board of Education had for some time past endeavoured to secure that the elementary principles of hygiene and temperance should be taught in public elementary schools, and instruction of this kind was given, either incidentally or otherwise, in most of the schools. In order to secure that such instruction might be effectively given, the Board had for some time past required that hygiene should be included in the ordinary course for the certificate at training colleges for teachers in elementary schools. When next the Code was under revision the Board would consider whether they could usefully make further requirements as to the instruction in hygiene which should be given in the public elementary schools. He might, perhaps, remind the hon. member of the fact that the Board had recently issued syllabuses of lessons in hygiene, temperance, physical exercises, and suggestions for instruction in infant care and management.

**Pauper Lunacy (Cost).**—Mr. Pike Pease asked the President of the Local Government Board the total cost of pauper lunacy for the twenty five years ending March, 1910, and the total cost of asylum buildings for the fifteen years ending March, 1910. Mr. Burns replied that the precise figures asked for were not available, but the following particulars gave substantially the information desired: The expenditure of local authorities in England and Wales on lunatics and lunatic asylums for the twenty-five years ended March, 1909, was approximately £71,500,000. This would include expenditure on all classes of lunatics (private patients as well as paupers); but pauper lunatics form a very large majority of the patients in the local authorities' asylums. According to the annual reports of the Lunacy Commissioners, the expenditure on these—that is, county and borough asylum buildings (including land purchase)—amounted to £9,698,000 in the fifteen years ended March, 1909. The total cost incurred by Poor Law authorities in respect of all lunatics who are paupers cannot be given; but the total amount paid by guardians during the twenty-five years ended March, 1909, for the cost of maintenance of pauper lunatics in county and borough asylums, registered hospitals, and licensed houses was £42,784,000. This sum was of course to a large extent a duplication of the maintenance expenses already included in the sum of £71,500,000 specified above.

**General Medical Council.**—Mr. Oliver Locker Lampson asked the Prime Minister whether his attention had been drawn to a recent decision of the General Medical Council in regard to a medical practitioner connected with the Sandow Institute, and whether he would consider the advisability of recommending an inquiry by way of Royal Commission into the constitution of and powers exercised by the General Medical Council. The Prime Minister replied: I see no sufficient reason for instituting such an inquiry. Mr. Locker Lampson: As the General Medical Council is the only professional tribunal with disciplinary powers from whose decision there is no appeal whatever, does the right hon. gentleman consider this body's virtual combination of the functions of prosecutor, judge and jury is consistent with the principles of justice? The Prime Minister said: I do not in the least agree with the hon. member's representation.

# England and Wales.

[*From our special correspondents.*]

## SOUTH WALES.

### The Glamorgan Red Cross Branch.

"The Red Cross Society is an organization of medical men and civilians who are properly trained, during time of peace, in ambulance work and home nursing, and who undertake, at the outbreak of war, to co-operate with the Army Medical Department in mitigating the sufferings of wounded and sick soldiers by supplying first aid, stretcher bearers, skilled nursing, suitable food, clothing, and shelter; in other words, to try and give to the sick and wounded soldier during war such comforts as are usually available to civilians during ordinary times of peace." These are the opening words of the report of the Glamorgan Branch of the British Red Cross Society, which gives a history of the branch since its inauguration in 1907 to the end of 1910.

The British Red Cross Society itself was inaugurated at a meeting at Buckingham Palace on July 17th, 1905, under the presidency of Queen Alexandra. The formation of a Glamorgan branch was seriously taken in hand in April, 1907, when the President of the branch, the Countess of Plymouth, and the Honorary Secretary, Mr. J. Lynn Thomas, C.B., took the matter up, and the branch was formally constituted at a public meeting in Cardiff on February 22nd, 1908. In September, 1909, the Glamorgan County Territorial Association handed over to the Glamorgan Branch of the British Red Cross Society the work of organizing voluntary aid detachments throughout the county. Glamorganshire has now been mapped out into divisional areas each with a division committee. The honorary secretary has visited most of the divisions to explain details of organization and administration illustrating his addresses with lantern slides. The report gives three reasons why Glamorganshire should be well equipped and be ready for any emergency: (1) That in case of mobilization the only base hospital in Wales would be established at Cardiff with 520 beds; (2) the South Wales coalfields which supply most of the best steam coal for naval purposes is within its area, and (3) practically one half of the population of Wales is within the area of the county. In conclusion the honorary secretary mentions a fact which shows how the existence of such a local organization may be of value in civil life; on a recent visit to the hospital of the French Red Cross Society, which contains 22 beds, the lady director informed him that in two hours after the receipt of a telephone message informing her of the distress caused to poor families by the inundations in Paris last year, she had 200 families, including forty-five babies in cradles, safely sheltered and cared for in the hospital.

The pamphlet in which the report is printed contains a number of illustrations, including the portrait of M. Dunant, the founder of the Red Cross organization, and an illustration of the way in which the first Geneva Convention arrived at the Red Cross; it was out of compliment to M. Dunant, and consisted of a reversal of the colours of the flag of his country, Switzerland.

The Glamorgan Branch of the British Red Cross Society has a dépôt at the headquarters of the R.A.M.C. (Territorial) at Cardiff, and it is hoped that a similar dépôt may be established at Swansea so soon as the new drill hall there is completed.

## LIVERPOOL.

### Liverpool School of Tropical Medicine.

The approaching departure of Professor Newstead on an expedition to Nyasaland, and the return of Professor Todd and Professor Wolbach from their expedition to the Gambia and French Senegal, were made the occasion of a banquet given by Mr. W. H. Lever, Chairman of the Liverpool School of Tropical Medicine, on June 7th. In the unavoidable absence of Mr. Lever, the chair was occupied by Sir Owen Phillips, K.C.M.G., Vice-President of the School. Among those present were Sir Rubert Boyce, Dean of the School; Mr. F. C. Danson, Vice-Chairman; and Professors H. E. Annett and Sherrington. After proposing "Our Founder, of revered memory," the Chairman proposed "The Members of the Two Expeditions," coupled with the names of Professors Newstead, Todd, and Wolbach. Professor Newstead, he said, was about to start on the twenty-eighth expedition in which the Liverpool School had taken part. He was to proceed to Malta, for the school, at the request of the Government, to study the life-history of the sand fly in connexion with Malta fever. He had already, on behalf of the school, visited Jamaica to study cattle ticks and Nyasaland in connexion with sleeping sickness. He had now been appointed a Professor of the University of Liverpool as the first holder of the Chair founded in the University by the School of Tropical Medicine in memory of the late Dr. Dutton. Professors Todd and Wolbach had just returned from an expedition which went through the Gambia to French Senegal. This enterprising policy of the school, however, though a wise one, had two drawbacks. First, these expeditions were attended with very great personal risk, and the memory of Mr. Walter Myers, who died in Brazil, and of Dr. Dutton, who died on the Congo, would never be forgotten. Secondly, they were very very costly, and had already cost over £30,000. But so long as scientific men were prepared to risk their lives in this work, he felt certain that every one interested in the development and improvement of the commerce of Britain's tropical empire would continue to find the money necessary. He was pleased to be able to bear testimony to the great interest displayed by the Colonial Office and the Colonial governors and officials in this important work. He felt strongly, however, that the tropical schools of this country had not yet received from the Imperial Treasury the support to which they were entitled. He therefore would urge upon the local members of Parliament to see that the Chancellor of the Exchequer was asked again and again, if necessary, to give increased support to the schools of tropical medicine. Professor Newstead, in response, said sleeping sickness was spreading southward and eastward in Africa. It had reached North-Eastern Rhodesia and Nyasaland. Dr. Stephens, whom he was delighted to see present, had discovered that the parasite which caused the sleeping sickness in those regions was not of the same species as caused the disease in the Congo and some other districts. Professor Todd pointed out that the white race, having reached the extreme practical limits of North and West, and having met the Eastern races on the Pacific slopes, could now turn only to the South. In the South new civilizations could be formed where the old civilizations of Carthage and Rome once existed. It was now practicable for white people to live healthily in tropical regions. For example, 40,000 white people could to-day live in Panama, where formerly 20,000 perished. Panama was now more healthy than New York. The school wanted more money. It wanted a laboratory in the tropics, and he had no hesitation in naming the Gambia, and specifying in particular Cape St. Mary, twenty miles from Bathurst, as the most suitable site for the laboratory. There, where steamers rarely called to disturb one, and removed by only two weeks' voyage from England, scientists could work under healthy surroundings, and as easily as at home. Professor Wolbach remarked that the results of the Gambia expedition had been practical rather than of great scientific or academic importance. The chief problem of the expedition was the diagnosis of sleeping sickness. During the 100 days that the expedition remained in the Gambia, it covered something over 600 miles, and examined the people of ninety-six villages—a total of over 12,000 people. More than seven-tenths of those examined—or 1 per cent. of the entire population—were proved to be suffering from sleeping sickness. It had been

established that the parasite was present in the enlarged lymphatic gland. Material for other diseases had been collected for work in Liverpool and in their respective laboratories. Mr. Robert Hield proposed the toast of "Tropical Medicine and Commerce." Sir Rubert Boyce, in responding, after referring to the establishment at the university of a chair of entomology as a memorial to the late Dr. Dutton—the first of its kind—remarked that there was still unrealized another dream of Sir Alfred Jones—a chair of parasitology, in memory of Walter Myers, and he hoped that before many months were over Sir Alfred Jones's wish would be fulfilled.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### THE CENTENARY OF SIR JAMES SIMPSON.

THE annual meeting of the subscribers to and friends of the Edinburgh Royal Maternity and Simpson Memorial Hospital, held on Wednesday, June 7th, had the special interest that it was held on the centenary of the birth of Sir James Simpson. Professor Lodge presided and five relations of Sir James Simpson were present: Miss Eva Blantyre Simpson, daughter; Sir Alexander R. Simpson and Mr. R. R. Simpson, W.S., nephews; the Very Rev. Dr. Wells, Moderator of the General Assembly of the United Free Church of Scotland, nephew-in-law; and Dr George Freeland Barbour Simpson, grand-nephew.

The report for the year 1910 contained a reference to the proposed reconstruction of the hospital. There was a serious decrease in the funds. The Chairman moved the adoption of the report, and gave a eulogy of Sir James, "the great surgeon who was one of the greatest of Edinburgh's citizens, and one of the most eminent ornaments of that great medical school, which was the pride of the city, and which drew students from all parts of the habitable globe." The Rev. Dr. Fisher seconded.

The Rev. Dean Skinner Wilson, in the absence of the Bishop of Edinburgh, moved the following resolution:

> That this meeting, held on the one hundredth anniversary of the birth of Sir James Young Simpson, Bart., records its gratitude to Almighty God for the beneficent work in the service of suffering humanity accomplished by Professor Simpson, and for the inspiration of his devoted life; and looking to the advances that have within recent years been made in medical and surgical science, and the urgent necessity of providing in Edinburgh—the premier medical school of the British Empire—a thoroughly up-to-date and properly equipped maternity hospital, welcomes the proposal to reconstruct and enlarge the Royal Maternity and Simpson Memorial Hospital, and heartily commends the claims of the institution to the generous support of the Scottish public.

Sir Ludovic J. Grant, Bart., seconded, and the resolution was adopted. The Rev. Dr. Wells and Mr. R. R. Simpson gave some personal reminiscences of Sir James. Sir Halliday Croom proposed a vote of thanks to the chairman.

### NOTIFICATION OF INFANTILE OPHTHALMIA.

The Corporation of Glasgow has adopted the recommendation of its Health Committee and included infantile ophthalmia in the list of diseases notifiable under the Infectious Diseases Notification Act. A special report was called for and submitted by Dr. A. K. Chalmers, the City medical officer of health, in which were incorporated the results of extensive inquiries directed to ascertain the prevalence of the disease in Glasgow. One-fourth of the children in attendance at the Blind Asylum owe their loss of sight to ophthalmia in infancy. It is calculated that 55 per cent. of midwifery cases in the city are attended by midwives, and Dr. Chalmers advised the adoption of the Notification Act for three years only, in order to ascertain its value. Skilled supervision of all notified cases is necessary if the adoption of the section of the Act is to be of any value, so that the Town Council has decided to engage one or more nurses to supervise the cases. The decision of the council must receive the approval of the Local Government Board for Scotland ere it can take effect, and Glasgow is the first authority in Scotland to adopt the provisions of the Act.

### GLASGOW'S EXTENSION SCHEME.

The special committee of Glasgow Corporation on amalgamation has decided to recommend that application be made to Parliament for a provisional order for the extension of the city boundaries to include the burghs of Govan, Partick, Rutherglen, and Pollokshaws, and several parts of the counties of Lanark, Renfrew, and Dumbarton. These communities maintain a separate administrative existence, although they derive from Glasgow their gas and water supply and tramway facilities. One of the strong grounds for extension is the difficulty of public health administration. The whole scheme will come before the Town Council at an early date, so as to permit of the order being applied for early next winter.

### GLASGOW PARISH COUNCIL AND EPILEPTICS.

The plans for the epileptic colony to be erected at Muchcroft provide for the erection of four villa blocks to accommodate 200 patients with provision for the erection of two additional blocks if required. Dr. Baugh, senior medical assistant at Gartloch, was appointed medical superintendent of the colony at a salary of £300, with free house, in order that his expert knowledge might be available to the committee during the construction of the buildings.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

### THE ROYAL VICTORIA HOSPITAL, BELFAST.

AT the meeting of the Board of Management of this institution on June 7th, three new appointments were made; the posts had previously been created by the Corporation on the advice of the Visiting Staff to the Board. Dr. Thomas Houston was elected Assistant Physician-in-Charge of the Vaccine Department; Dr. John C. Rankin was elected Assistant Physician-in-Charge of the Electric Department; and Dr. Victor G. L. Fielden, Assistant in-Charge of Anaesthetics. After service of seven years they will be entitled to the rank of full physician. Their work in their respective department is well known throughout Ulster, and the appointments will be popular, both with their colleagues and the profession.

### ABUSE OF COUNTY INFIRMARIES.

Under the above heading reference was made in the issue for May 20th (p. 1209) to certain statements made at a meeting of the Cookstown guardians regarding the ability of patients admitted to the Tyrone County Hospital, Omagh, to pay for hospital treatment. The statements made have, we understand, been denied on behalf of the hospital board, and a pamphlet has been issued in reply to the criticisms made regarding the hospital management. From the pamphlet we learn that, compared with three other county hospitals, the Tyrone hospital bears a very favourable comparison financially, the cost per patient being less; and, further, that the only qualification enforced prior to admission of a patient is that he should be one capable of being cured or relieved by hospital treatment.

### COUNTY DUBLIN CONSUMPTION SANATORIUM.

The consumption sanatorium which has been erected at Brittus by the Dublin Joint Hospital Board was opened on June 8th by the Lord Mayor of Dublin. It is situated in the open country, about 950 ft. above sea level. It is built throughout of wood, plaster, and corrugated iron, and is composed of a central administrative block, with two wings for the patients' dormitories. At present it will accommodate fifty patients, but extensions can easily be erected at a moderate

expense, if required. The present building, including the establishment of an electric supply plant and the laying of drains, cost nearly £10,000. It is proposed to admit only curable cases to the sanatorium.

### Royal Medical Benevolent Fund Society of Ireland.

The report read to the annual meeting of the subscribers to this fund, held last week in Dublin, by Dr. Finny contained the announcement that the King had become patron of the fund. The number of applications for relief during last year was one hundred, and the total amount of grants recommended was £1,447, a sum considerably exceeding the average annual distribution. The thanks of the committee are tendered to the General Secretary of the British Medical Association for receiving subscriptions to the fund. Subscriptions during last year were well in advance of those in the previous year, but much apathy was still shown by medical practitioners towards this the only benevolent fund in Ireland in connexion with the profession. Only 790 out of about 2,200 Irish medical men are subscribers. This year the fund received a special donation of 20 guineas from the President of the Royal College of Physicians, and the committee tendered him its special thanks for his generosity.

# Special Correspondence.

## VIENNA.

*Tuberculosis Congress in Austria.—Distribution of Doctors in Austria and other Medical Statistics.*

The first tuberculosis congress ever held in Austria took place at Vienna towards the end of last month, its chief purpose being to discuss the best means of combining all the charitable, humanitarian, and scientific efforts for the suppression of consumption in this country into one vast organization, and to force the State to fulfil its duty towards such of its citizens who are disabled and consequently in need of State assistance. So far, with very few exceptions, all attempts to better the condition of consumptives have been of a purely private character, but it is to be hoped that this will soon be no longer the case, thanks to the success of this meeting. Not only was it attended by large numbers of scientists and official representatives, but numerous papers were read, some of which were of real interest (though containing nothing new), and one at least of unquestionable importance and which should have valuable and far-reaching results. This was an account by Dr. Czech of the shop assistants' sick club (Kaufmannskrankenkassa), in which the author described the system which enables this society to notify and keep under observation every case of proved or suspected tuberculosis amongst its members. Each case is entered on a list and its progress is reported every few months, whilst the hygienic, social, and financial conditions of the patient are kept under close observation. On a larger scale this plan could be adopted with equal success by the State. In another paper Dr. Reisinger, medical officer of health at Prague, described a scheme which is now in the course of preparation for the purpose of centralizing and organizing tuberculosis dispensaries all over the country. The speaker laid special stress upon the necessity for instructing the rural population in all matters connected with hygiene, both of men and animals, particularly with regard to cows and calves, and spoke of the useful work which might be done in this respect by the strict supervision of stables and dairies, the examination of milk and of the people who handle it, and by demonstrations of the course and effects of the diseases of animals. These dispensaries are to be established in the principal village of each district. A few clinical papers were also read, in one of which Docent Dr. Hamburger asserted that all tuberculous infection takes place through the respiratory organs, and emphasized the necessity for preventing the spread of infection by the seclusion of advanced cases, which he believes to be more important than the care of the disease in its earlier stages. Professor Chiari, however, declared that his experience had led him to regard the tonsils and adenoids as the chief seat of infection. This congress marks a new departure in Austria, inasmuch as the public has at length realized that the only effectual way of stamping out a disease is by a united effort on the part of the nation itself—an idea which hitherto has been totally unknown in the country. There are at present only six sanatoriums for phthisis in the whole of Austria!

The general census taken on December 31st, 1910, affords some interesting details with regard to the number and distribution of medical men in Austria. Out of a population of 28,000 000, 13,202 were registered as licensed doctors, but the ratio between the doctor and the population varies considerably according to the district. Thus, in towns the ratio may best be expressed as follows: 1 in 1,010 in Trieste; 1 in 610 in Vienna; 1 in 560 in Prague; and 1 in 390 in Olmütz; whilst in the country the figures vary between 1 in 2,030 and 1 in 10 000, and even in certain districts 1 in 16,000. In many Austrian health resorts a considerable number of doctors only practise during a part of the year—usually the summer months—and therefore we find that during the season Karlsbad, for instance, has 163 doctors, whilst other spas have far less (70 to 38). About 60 per cent. of the total number of medical practitioners hold appointments either from the State, the county, or the municipality. The number of women doctors, which eight years ago only amounted to 10, has risen to 80, of whom the majority are to be found in towns or health resorts. With regard to specialists, the figures are only given for Vienna, Prague, and Gratz. In Vienna 425 men, or 16 per cent. of the total number of doctors, and in Prague 25 per cent., have devoted themselves to a special branch of medicine or surgery, and have consequently withdrawn from general practice. This is probably due to the fact that the above-named are university towns, which naturally require more specialization than other cities of a similar size. It is interesting to note that the number of doctors in Austria has increased during the last five years by more than 6 per cent.—a higher rate of increase than is shown by the census of the general population.

# Correspondence.

## SECONDARY SCHOOLS AND MEDICAL SCHOOLS.

Sir,—In your leading article on secondary schools and medical schools (June 3rd, 1911), you refer to a letter of mine on the subject which was published in the Educational Supplement of the *Times*. While it would serve no good purpose to go over the whole ground again, I would like to make clear the main point to which my letter was directed. I consider that it would be unfortunate if the General Medical Council, by recognizing *for the purpose of the First Professional Examination*, the teaching of physics, chemistry, and biology, which is available in the secondary schools, affirmed afresh that the elementary instruction in these subjects which is offered by public schools is a sufficient introduction to the study of the later subjects of the curriculum. If the General Medical Council does this it will cut the ground from under the feet of those in medical schools who have been endeavouring to teach these subjects with a view to their application to the later studies. It is impossible outside the medical school to organize the teaching from this "applied" point of view. By all means let the elementary teaching of the public schools be encouraged and supported by the General Medical Council, but with a view to the preliminary examination, not to the First Professional.—I am, etc.,

Liverpool, June 12th. K. W. Monsarrat.

## RULES UNDER THE MIDWIVES ACT.

Sir,—In the Journal for June 10th, p. 1400, under the heading of General Medical Council Notes, it is stated that:

> Amended rules framed by the Midwives Board were brought up for the sanction of the English Branch Council, the body appointed by statute for this purpose, . . . It was decided that the rule should be left as it stands.

In the Midwives Act, 1902, Clause 3, at the end of the clause, the following words occur:

> Rules framed under this Section shall be valid only if approved by the Privy Council; and the Privy Council, before approving any such rules, shall take into consideration any representations which the General Medical Council may make with respect thereto.

The correct statement would, therefore, have been as follows:

> Amended rules, framed by the Midwives Board, were brought up for *consideration* by the English Branch Council. . . . It was decided *that the Privy Council should be advised* that the rule should be left as it stands.

The Note, as quoted in the JOURNAL, is doubtless worded as it is for the sake of brevity; but the only body which has the power of framing rules is the Central Midwives Board. Such rules when framed are, as a matter of practice, referred for comment to other bodies besides the General Medical Council—for example, to any of the Government departments which any particular rule concerns; but their suggestions are not necessarily accepted by the Privy Council, though they are carefully considered by it, and they are always submitted for comment to the Central Midwives Board. Neither the Privy Council, nor any other body, has the power to insert any rule, or alteration of a rule, and the Privy Council is the only body whose assent to a new rule or alteration of an old rule is necessary.

I may add that this somewhat complicated relation works admirably in practice, and that the suggestions of the bodies concerned are often very helpful, and are received by the Central Midwives Board with all the respect that they deserve.—I am, etc.,

London, W., June 9th. F. H. CHAMPNEYS,
Chairman of the Central Midwives Board.

## PRELIMINARY EXAMINATIONS AND DEFICIENCIES IN GENERAL EDUCATION.

SIR,—In your otherwise very accurate account of the proceedings of the General Medical Council in the summer session of 1911 there is an error, which I ask you to correct in justice to myself as representative of the Royal College of Physicians of Ireland on the Council. At p. 429 of the SUPPLEMENT of June 10th it is stated that

> Sir John Moore, speaking as a member of the Education Committee, said that the Committee had no idea it was doing anything which would meet with opposition from the Colleges concerned; it imagined that it was carrying out the wishes of the Colleges.

The allusion is, of course, to the proposed removal of the preliminary examination held under the auspices of the Royal Colleges of Physicians and Surgeons of Ireland from the list of preliminary examinations recognized by the General Medical Council. I am not a member of the Education Committee. I had just strenuously opposed the recommendation of that committee so far as it related to the preliminary examination of the Irish Royal Colleges. It was my friend and namesake, Dr. Norman Moore, who made the statement which is attributed to me.—I am, etc.,

Dublin, June 10th JOHN W. MOORE.

## STATE SANATORIUMS.

SIR,—In the article on this subject (June 10th, p 1392) you throw some doubt on a building cost of £100 a bed for sanatoriums. May I say that the children's sanatorium at Stannington, in Northumberland, was erected in brick and stone, three miles from a station, for £100 a bed? It had, however, the advantage of an honorary architect, and the supervision of a committee of three, the chairman (Mr. John T. Lunn) being an able business man. As medical adviser I advocated the sanatorium being erected on a farm and was allowed a free hand in effecting economy, and the system of lighting saved some £2,000 in capital cost and £150 yearly in expenditure. We have four-bedded wards, but in the State establishments larger and cheaper wards could be adopted.

I should, however, put the average cost of State sanatoriums at £25,000 for each 100 patients. This amount is made up as under:

| | |
|---|---|
| *Site*—A farm of 150 acres ... ... ... | £ 5,000 |
| *Sanatorium*—At £150 per bed, for 100 patients ... | 15,000 |
| *Extras*—Furniture, lighting, sanitation, etc. ... | 5,000 |
| | £25,000 |

I feel satisfied that in Northumberland a sanatorium could be erected in concrete blocks for this amount.

The maintenance cost at Stannington for 50 patients does not exceed 15s. a patient a week, the farm supplying non-tuberculous milk, cream, and butter, also fresh eggs and vegetables at market value. In the State sanatoriums the cost should not exceed 25s. a patient a week, if on farms.

Whilst I venture to think the best place for research would be at sanatoriums, I somewhat demur to the dictum that "research alone can point the way to prevention," as I hold that tuberculous dispensaries, if given control of the three means of infection (milk, spray, and sputum), could stamp out the disease in any city in the country in the course of the next twenty years. In my opinion, given country sanatoriums for the early, and city wards (or home supervision) for the later cases, together with absolute control of the means of infection, the scourge of tuberculosis could readily be suppressed, if not entirely done away with, in the lifetime of an individual.—I am, etc.,

Newcastle-on-Tyne, June 10th. T. M. ALLISON, M.D.

## THE VACCINATION DEBATE IN THE HOUSE OF COMMONS.

SIR,—I am very grateful to Dr. George Rice for his letter, and it is encouraging to find that I have the support of a man of his experience and standing in the profession. I believe that there are others, also, who would be glad to see our profession admit that it is possible, under modern conditions, to deal effectively with small-pox without compulsory vaccination before such recognition is forced upon us—as I believe it certainly will be—by the inevitable trend of events.

As regards Dr. A. F. Cameron, he says my letter "is an example of the length to which the thoughtful man will be carried when he allows himself to forget the hard lessons of practical experience." With all due deference, I submit that my views, as embodied in my letter, are the outcome of very practical experience during ten years (several of which were small-pox years) as medical officer of health for the most unvaccinated town in the country. Dr. Cameron will find that I expressed the same views in my reports issued immediately after the epidemics of 1903 and 1904.

Dr. Cameron asks what possible effect "sanitary efficiency" can have in preventing the spread of small-pox. My reply is that, if he prefers, I will use the term "public health" efficiency. Of course, one is not referring to the condition of the drains and sewers of a town, but rather to its general efficiency in the matter of disease prevention. Then he says that "the only means at our disposal at the present time for preventing the spread of small-pox are (1) diagnosis, and (2) vaccination." If, as I assume, he includes under "diagnosis" all the train of preventive measures that are now almost invariably carried out—such as prompt and complete isolation of infected persons, disinfection, careful supervision of contacts, etc.—I quite agree, and would point out that that is just my case. We cannot now any longer pretend to depend upon the vaccinated condition of our population (as a matter of fact we never could or should depend upon it without a universal system of repeated revaccination), and therefore we must of necessity fall back upon: (1) "Diagnosis," and the all-important preventive measures that follow in its train. But the present system of single vaccination in infancy has, as I tried to point out in my first letter, the most unfortunate effect of seriously interfering with diagnosis; and it is for this reason that I venture to repeat that I think it possible that in an entirely unvaccinated community the problem of small-pox prevention might, under modern conditions, actually be easier than at present. I know this will seem a hard saying to many who have been brought up to regard our system of infantile vaccination as above the possibility of reproach; but I would remind such that this aspect of the question has not hitherto, as far as I know, been seriously

discussed, and modern experience has made some recasting of old-established theories imperative.

The importance of the "missed" case and the "carrier" case in spreading an epidemic is only now becoming adequately realized. Anything which helps a disease to spread, as it were, in the dark, must handicap us immensely in our efforts to fight it, for every one knows how hard it is to eradicate those weeds which spread underground. Now, I maintain that this is just what our present half-and-half system of vaccination tends to do.

Dr. Cameron concludes his letter by an appeal to our sympathies on behalf of the unvaccinated child who might be attacked by small-pox. One of the "hard lessons" I have had to learn by practical experience is that the danger to the unvaccinated child, even in the presence of an epidemic of small-pox, provided modern preventive measures are efficiently carried out, has been somewhat exaggerated. It is not fair to quote the experience of times when the disease was left to burn itself out, much as measles still is. In uncivilized and semicivilized countries universal vaccination must still remain the best thing to be done. But in Leicester, at any rate, the unvaccinated child has not, so far, suffered to anything like the extent that was predicted. In the last epidemic, that of 1904, out of a total of 321 persons attacked, there were only six cases of unvaccinated infants under 1 year of age, one of which proved fatal. In the previous epidemic, out of 394 cases there were four cases of unvaccinated infants, two of which proved fatal. But I suggest that a majority of the cases which have occurred in Leicester have been infected by once-vaccinated persons rather than by those who have never been vaccinated, the reason being that the latter have usually been at once recognized and isolated.

Another point I wish to make is that, apart from infants or very young children, childhood is a period when small-pox is not so fatal as later in life, so that children, apart from the very young, even though they have never been vaccinated, run no more risk of a fatal attack than elderly people, though the latter have been vaccinated in infancy. In proof of this I submit the following figures: In Leicester, during the last two epidemics, there were 278 cases in unvaccinated children between the ages of 5 and 20 years, ten of which proved fatal, equal to a case mortality of 3·6 per cent., and there were 97 cases of vaccinated men and women above the age of 40, five of which proved fatal, equal to a case mortality of 5.1 per cent. So that there is really no more reason to be alarmed for the safety of unvaccinated children, should they contract small-pox, than that of once-vaccinated adults above the age of 40. I doubt if this fact is sufficiently appreciated.

On the ground of protecting the individual there is really not much more to be said in favour of compulsory infantile vaccination than of compulsory adult revaccination; and as we have never had the latter we need not be very concerned if we have to abandon the former.—I am, etc.,

C. KILLICK MILLARD,
Medical Officer of Health.

Leicester, June 10th.

## CHRONIC INTESTINAL STASIS.

SIR,—Mr. Harold Chapple, in answer to my letter of May 6th, has been good enough to amplify his article of April 22nd, and to work out the mortality of cases of intestinal stasis treated by colectomy or ileo-sigmoidostomy by Mr. Arbuthnot Lane at Guy's Hospital, since June, 1908.

Would it be too much to ask Mr. Chapple if he could carry his researches still further, and show the immediate and ultimate mortality for colectomy alone from the first case operated on up to the end of last year? Some of the successful cases recorded in his article date back to 1904.

The operation of ileo-sigmoidostomy (when performed in the absence of acute obstruction) is admittedly one which possesses a very low mortality. When cases of ileo-sigmoidostomy are grouped with cases of colectomy, and a combined mortality worked out, the actual mortality of colectomy is in danger of being rendered obscure. As an instance of this Mr. Chapple mentions that Mr. Lane has operated on 26 cases in private for the above complaint, and that he has excised the large bowel in 12 of these. Two of these latter cases died. This gives a colectomy mortality of 16.6 per cent. Mr. Chapple (excluding 1 fatal case on whom a caecostomy had previously been performed) arrives at a combined mortality of under 4 per cent.

In his final paragraph, Mr. Chapple expresses an opinion that the mortality of colectomy will in the future be "reduced almost to a vanishing point" by the systematic use of fomentations to prevent suppuration in the wound, which he states has been a source of trouble in the past and caused a fatal result in 3 cases. In his concluding sentence he seems to have lost sight of this "troublesome suppuration" when he states that adhesions "form the only source of anxiety or risk in case of colectomy."—I am, etc.,

C. GORDON WATSON.

London, W., June 7th.

## TREATMENT OF PNEUMONIA.

SIR,—In the BRITISH MEDICAL JOURNAL of June 10th Sir James Barr and Dr. Frank M. Pope both refer to the increase of mortality from pneumonia in recent years. But it is quite evident that both ignore the treatment I described at the last Annual Meeting, and which was quite sufficiently set forth in your issue of November 19th, 1910. It is possible that "they do not read the papers," but if they will run through your report of date above mentioned and note that at present I have treated 27 cases without one death, and in some instances with abortion of the disease, they will feel it, I think, to be their duty to try this simple method of combating a disease which is making terrible inroads where national life is rich with thought and energy and generally.

May I appeal to any who may have already accumulated sufficient data to give reports at the Annual Meeting or elsewhere, that so many cases may be accumulated by various workers, unblackened by a single fatality, that the treatment may be fairly launched on a long-suffering world, to the glory of the Great Giver of a priceless remedy and the incalculable benefit of the race?—I am, etc.,

ARTHUR J. MATHISON.

London, N., June 12th.

## CROYDON UNION APPOINTMENT.

SIR,—Will you kindly allow me to correct a slight printer's error that occurred in the paragraph dealing with the Croydon Union appointment in the JOURNAL of June 10th? Dr. Simonds Gooding—not Gording—"played the game" in such a splendid manner that the least one can do is to see that his good work is accurately recorded.—I am, etc.,

E. H. WILLOCK,
Honorary Secretary Croydon Division.

Croydon, June 14th.

# Universities and Colleges.

## UNIVERSITY OF LONDON.

### MEETING OF THE SENATE.

A MEETING of the Senate was held on May 17th.

*Recognition of Teachers.*

The following were recognized as teachers in the subjects and at the institutions indicated:

*London Hospital Medical School.*—Mr. Francis S. Kidd (Clinical Surgery).

*King's College Hospital Medical School.*—Mr. Percy B. Ridge.

*Lecturers in Physiology.*

Professor A. B. Macallum, F.R.S., Toronto, has been added to the panel of university lecturers in physiology.

*Semon Lectureship and Medal in Laryngology.*

The Academic Council reported an offer received from Sir Felix Semon, K.C.V.O., M.D., to transfer to the university for the foundation of a lectureship and medal in laryngology the sum of £1,040 presented to him by the British laryngologists on his retirement from practice. The benefaction was accepted upon the conditions offered, and the grateful thanks of the Senate was voted to the donor.

*The Senate—Appointment and Resignation.*

Mr. H. J. Waring, M.S., F.R.C.S., has been appointed the representative of the Faculty of Medicine on the Senate for the

remainder of the period 1909–13 in place of Professor E. H. Starling, M.D., F.R.S., resigned.

*Appointment of Representatives.*

Dr. Thomas Buzzard, F.R.C.P., has been appointed a governor of the Westminster Hospital Medical School.

Dr. S. L. Box has been nominated for appointment as the Representative of the university on the Ealing Education Committee.

*A.K. Travelling Fellowships.*

It was reported that at a meeting of the trustees on April 27th Mr. Ivor Back, M.A., M.B., B.C.Camb., F.R.C.S., assistant surgeon to St. George's Hospital, had been elected to an A.K. Travelling Fellowship.

UNIVERSITY COLLEGE.

The University College Committee reported the receipt from Mr. Carnegie of a donation of £5,000 towards the building and equipment of the Medical Sciences Institute of the college, the physiology section of which was opened two years ago.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST FELLOWSHIP.—J. S. Bookless, A. E. Brown, H. Bullock, L. Cook, M. Corry, Eleanor Davies-Colley, G. D. East, I. Fahmy-El-Minyawi, A. R. Finn, W. E. Gallie, W. Gemmill, A. Gibson, B. G. Goodwin, A. L. P. Gould, J. Gow, S. L. Graham, J. N. J. Hartley, D. W. Hewitt, A. E. Iles, H. Lee, C. MacKenzie, A. F. Maclure, F. D. Marsh, H. L. Meyer, M. G. O'Malley, R. Pearse, A. E. Quine, L. N. Reece, C. G. Shaw, A. J. E. Smith, R. W. Smith, W. A. Sneath, F. G. N. Stephens, J. W. Stretton, M. L. Treston, W. H. Trethowan, T. B. Vaile, G. H. L. Whale.

## GRANT MEDICAL COLLEGE, BOMBAY.

A NOTE issued by the Bombay Government contains criticisms passed on the colleges affiliated to the Bombay University by the committee of the syndicate appointed to inspect them. The committee, in dealing with the Grant Medical College, raised the question of the conditions of appointment of the principal and professors, and once more objects to a system which makes it possible that a successful principal should be suddenly diverted from the teaching branch of his profession to some other sphere of service, and the blame for what is described as an anomaly is put on the system of confining all the higher appointments to members of the Indian Medical Service. The Government reply that, in view of the qualifications which are demanded by such posts, it considers that they are most likely to be found among officers of the Indian Medical Service.

# Public Health AND POOR LAW MEDICAL SERVICES.

## APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH, SCHOOL MEDICAL OFFICERS, AND ASSISTANT MEDICAL INSPECTORS OF SCHOOL CHILDREN.

THE Local Government Board for England and Wales, after consultation with the Board of Education, has issued a circular letter, dated June 7th, 1911, to County Councils with regard to the appointment by County Councils of medical officers of health and school medical officers and their assistants. The Board recalls that in its Memorandum of December, 1910,[1] it had, in conjunction with the Board of Education, expressed the view that it was desirable to co-ordinate the two services by the appointment of the same officer in both capacities. In the great majority of counties this has been done. The Board also recommends the appointment as assistant medical inspectors of school children of medical officers of health appointed by district councils. In this way the services of an officer who gives his whole time to work of a public health character may be secured, and travelling and establishment expenses reduced, so that the Education Committee may expect to attract a man of greater experience for the medical inspector of school children, since its conjunction with the work of medical officer of health opens a wider field to his ambition. The circular continues as follows:

But the chief object that the Board have in view in advocating such combined appointments is the better co-ordination of the two services, which come into touch with one another at many points. The reports they receive show them that in some cases friction arises from the separation of the offices, and in others delays which may prove detrimental to the public health. Both the medical officer of health and the school medical officer have power in certain circumstances to advise the closure of schools, and instances in which the opinions of the two officers have been in conflict have come before the Board. A medical man holding both offices and discovering in the course of his medical inspection an undetected case of infectious disease can, as medical officer of health, follow up the case, and may thus be able to prevent an outbreak. If communication with another officer is necessary the delay involved, even if there is cordial co-operation between them, may have unfortunate results.

The chief argument which the Board have heard against this combination of offices is that difficulties may arise where the two different authorities can command the time of the same officer, since they might both require his services at the same time. The Board have not found that this difficulty occurs in practice to any appreciable extent, though in many counties the medical officer of health to the district council is already engaged as assistant medical inspector of school children in the work of school inspection. On the other hand, it appears to them that the arrangement might form a useful link between the county and the local authority.

In order to facilitate this combination of offices the Board now make it a practice of requesting local authorities to make the appointment of their medical officer of health to July 31st, the date to which the Board of Education approve of arrangements made for the medical inspection of school children, and they trust that County Education Committees, when they find it necessary to make an alteration in their arrangements for the medical inspection of school children, will consider the practicability of appointing as assistant medical inspector of school children an officer who will also be appointed as medical officer of health for a combination of districts in the county, and will give his whole time to the work of the two offices.

[1] SUPPLEMENT, 1910, vol. ii, p. 466.

## THE "POOR LAW MEDICAL OFFICER."

WE have received the first number of the *Poor Law Medical Officer*, which is the official monthly circular of the Poor Law Medical Officers' Association of England and Wales. It is issued as a monthly supplement to the *Medical Officer*, and is edited by Major Greenwood, M.D., LL.B., D.P.H., Barrister-at-Law. In the introductory editorial, a short sketch is given of the history of the Poor Law Medical Officers' Association, and stress is laid on the need felt by the council of that association for "a better medium of communication between the executive and its constituent members," it being considered that a "journal of this kind might prove a remedy." Emphasis is laid on the fact that many Poor Law medical officers are not satisfied with the medical recommendations of the late Royal Commission on the Poor Laws, or with "the insidious proposal, not obscurely threatened by a Government department, to abolish as far as possible all part-time medical services." It is urged that this proposal is not one that threatens only the welfare of Poor Law medical officers, but that "it strikes at the prosperity of nearly all the general practitioners of the country." Some complaint is made that the British Medical Association "does not offer much encouragement, as there is no real Poor Law Committee within its organization." And, further, it is suggested that the recent circular issued to the Divisions by the Poor Law Reform Committee, on which it is asserted that "Poor Law medical officers are conspicuous by their absence," did not "even remotely" consider the special interest of the Poor Law medical officers. It may be pointed out that these statements now require some modifications. The Special Poor Law Reform Committee of the British Medical Association was originally appointed to consider all matters affecting the profession arising under the report of the Poor Law Commission, but it very soon became evident that the matter of the most pressing importance which admitted of no delay was that of State Sickness Insurance suggested in the Commission report as one of the most potent means of reducing pauperism. This was bound for the time being to overshadow every other question. At the last meeting of the Council, however, a special committee was formed to deal with State Sickness Insurance and the original committee, of which Dr. Greenwood and several other district medical officers are members, will now be free to devote its time to other matters not directly connected with State insurance, but perhaps more closely affecting the Poor Law Medical Service. The rest of the journal contains a considerable amount of information on medico-political matters of interest, not only to Poor Law medical officers, but to part-time medical officers of health and the rest of the profession, and in wishing every success to the endeavour by this means to strengthen the organization of the Poor Law medical officers we may express the confident bope that there may continue to be the heartiest co-operation between the Poor Law Medical Officers' Association and the British Medical Association.

MESSRS. BURROUGHS WELLCOME AND COMPANY have opened at 54, Wigmore Street, premises intended not for the receipt or dispatch of orders, but to afford medical men an opportunity of examining the firm's products at their leisure. The place is excellently arranged; journals and works of reference are available, and provision is made for medical men to write their letters or meet their colleagues at this permanent exhibition room.

# Medico-Legal.

## LIBELS ON A MEDICAL PRACTITIONER.

IN connexion with the annoyance to which Dr. James Pearse of Trowbridge has been subjected by the receipt of various postcards, to which reference was made in our issue of March 25th, p. 729, the person who sent them was at the Wilts Assizes on May 31st charged with publishing criminal libels. Dr. Pearse, in the witness-box, said he had never seen the accused before he saw her at the police-court.

Mr. Zeffort, for the prisoner, submitted that the postcards were not taken seriously by anybody, and could have done no harm. The whole matter, indeed, was too ridiculous for words.

The Judge, in summing up, said it was all very well to laugh at the matter and say it was humorous, but people would ask what Dr. Pearse was about if he took no notice of it. Mankind was not always as charitable as it ought to be, and sometimes people suspected; in fact, the human mind was somewhat prone to suspect, and he did not wonder that, after standing it for a while, Dr. Pearse felt he could not put up with it any longer. If the prisoner were found guilty, but was discovered to be insane, she would be properly treated.

The jury returned a verdict of guilty, and Dr. McKay, prisoner's doctor, said the prisoner was quite mad.

The Judge: Under those circumstances I shall pass the nominal sentence of a fortnight's imprisonment without hard labour.

## ACTION AGAINST A HOSPITAL SURGEON.

AN interlocutor has been issued by Sheriff Fyfe in an action brought in Glasgow Sheriff Court by George Frame, Motherwell, who had been a patient in the Western Infirmary, Glasgow, against Dr. Alexander MacLennan for £500 for alleged negligence. The Sheriff dismissed the action, which was defended by the Medical and Dental Defence Union of Scotland, finding pursuer liable in expenses as between agent and client. In a note the Sheriff said that even if pursuer had stated an *ex facie* relevant case upon the alleged facts, the action was barred on various grounds. In the first place he did not think that a patient who was accorded the privilege of treatment at the infirmary had a title to sue such an action. There was no contract between him and any individual infirmary surgeon, nor was there any contract between him and the directors of the institution. The pursuer had certainly no title to sue an action of damages grounded on failure on the part of an infirmary surgeon to render the services he was retained to render to the institution.

## WORKMEN'S COMPENSATION.

*Medical Referees.*

THE case Macauley *v.* Shipping Federation (Cardiff, May 12th) raised a point of general interest in relation to medical referees. It was whether a medical referee who had been appointed by the judge to decide in a compensation case, and had done so, could be called in again on the owner's behalf in a private capacity again to examine the workman with a view to a fresh reference to the court. There were no authorities on the point, which arose in consequence of Macauley's solicitor refusing to allow his client to submit himself to a further examination by Dr. Cyril Lewis, although it was urged that compensation would be liable to be suspended if the man did not present himself. His Honour said it was a clear legal point and a very interesting one. He thought it was in the highest degree undesirable that employers should be entitled to use the medical referee (who has already reported on the case to the court) in a private capacity. It followed, in his opinion, that the action by the employers must fail. He dismissed the application with costs and continued the compensation payments (13s. 9d.) meantime, pending a decision as to appeal.

*Definition of Accident.*

A case came before Lords Kinnear, Dundas and Mackenzie, in the Court of Session, Edinburgh, on May 26th, to decide whether Robert Kelly, miner, died from the effects of injury by accident arising out of and in the course of his employment with the Auchenlea Coal Company, Limited, Cleland. On June 27th, 1910, Kelly and his brother fired a shot in their working place, and about three minutes after the explosion returned to the spot. The place was then full of smoke. Both men felt ill, and after working for about three-quarters of an hour they decided to abandon the work for the day. They accordingly proceeded to the pit bottom, but were not allowed to ascend the shaft, and were kept waiting for two hours and a half exposed to cold and draught. On July 5th Robert Kelly died from pneumonia and heart failure.

Sheriff-Substitute Millar Craig found it proved that the combustion of gunpowder generated *inter alia* carbon monoxide gas in varying proportions, depending upon the ventilation; that blasting operations in deceased's working place were of daily occurrence; and that inhalation of the gases generated thereby frequently caused pain in the heart and nausea; that pneumonia was not infrequently caused by carbon monoxide gas poisoning, but was more frequently due to other causes; and that the pneumonia from which the deceased died was caused by inhalation of carbon monoxide gas generated by the explosion. On the facts the Sheriff-Substitute found that the death of Robert Kelly resulted from injury by accident arising out of and in the course of his employment, and that his widow and children were entitled to compensation, which he assessed at £221.

The Auchinlea Coal Company appealed. The Division affirmed the judgement of the Sheriff-Substitute with expenses.

Lord Kinnear said that the question submitted to them was primarily a question of fact, but when the facts were ascertained there remained behind a question as to whether the cause of the injury, which the Sheriff-Substitute found proved, did or did not answer to the statutory description of injury by accident. That was no doubt a question of legal construction which was proper for the courts of law, and they knew that it was a question which was frequently considered both in this country and in England, and that it had been regarded as a question of some difficulty. The Lord President had occasion to observe in a recent case that in the previous decisions he could find no perfect definition of "accident" as that word was used in the statute, and probably that was not very surprising, because, as had been pointed out by a very high authority, the Act of Parliament in the clause was using popular, ordinary language, and a perfect definition involved an exact accuracy of language, which was more than ordinary popular usage would bear. Although there was no very precise definition which they could apply as a criterion, there was a great deal of authority binding upon them, and extremely valuable in the interpretation of the word. In both the House of Lords cases cited to them it was pointed out that whether "accident" was capable of accurate definition or not, it implied something unexpected and undesigned, and also it implied some external act which could be the subject of a notice to the employer, because whatever was doubtful about the intention of Parliament in using the phrase, it was certain that it did intend that a notice should be given of the occurrence which was said to have been an accident. Applying the rule of interpretation to the particular facts of the case, so far as the mere generation of this poisonous gas was concerned, it could not be said that there was anything unusual or unexpected in its production by the explosion of gunpowder. That, the Sheriff-Substitute said, ordinarily happened. During the three months the deceased and his brother had been working in the pit they had suffered headache and nausea as the effects of inhaling the gas, but the Sheriff-Substitute said the gas was generated in varying proportions, depending on ventilation, and their Lordships must infer that the death of the workman from pneumonia was not a usual occurrence from daily blastings of this kind. On the cases cited, his Lordship thought that what they had to inquire was whether there was any element of the unforeseen and unexpected occurring in the event which caused the injury, and he thought there was. He thought the injury to this man occurred from the presence of carbon monoxide gas arising from his blasting of gunpowder on this particular occasion, and upheld the decision of the Sheriff-Substitute.

The other judges concurred.

## NECROPSIES FOR CORONERS.

JUVENTUS.—Most coroners make it a rule to instruct the practitioner called in to a deceased person to make the *post-mortem* examination. In some counties the coroner is authorized to pay for information given which may avoid the necessity for a *post-mortem* examination or inquest.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.*

## THE MULTIPLICATION OF DOORPLATES.

A. H. H.—There is a general rule that a medical practitioner should not affix a doorplate on any premises where he is not a bona-fide tenant, but an exception is allowed in scattered rural districts, where it is a public convenience for a place to be indicated at which messages may be left. Even under these circumstances, there is an obvious objection to using a chemist's shop for this purpose.

## THE OBLIGATIONS OF A SUBSTITUTE.

N. F. R.—The principle involved is that no one who sees a case as a substitute for another practitioner should take advantage of the introduction to secure the patient for himself, and therefore a sufficient interval should always be allowed to elapse before the substitute can consider himself at liberty to attend the patient if asked to do so. This interval is by some fixed at two years, but in each case the circumstances must be taken into account.

WEARDALE.—(1) The answer given above to "N. F. R." applies equally to this question. (2) Where a practitioner is summoned to attend a patient owing to the patient's own medical adviser being out of the way, it is not a friendly act to take advantage of this accident by continuing in attendance or by becoming the patient's medical adviser a few weeks later.

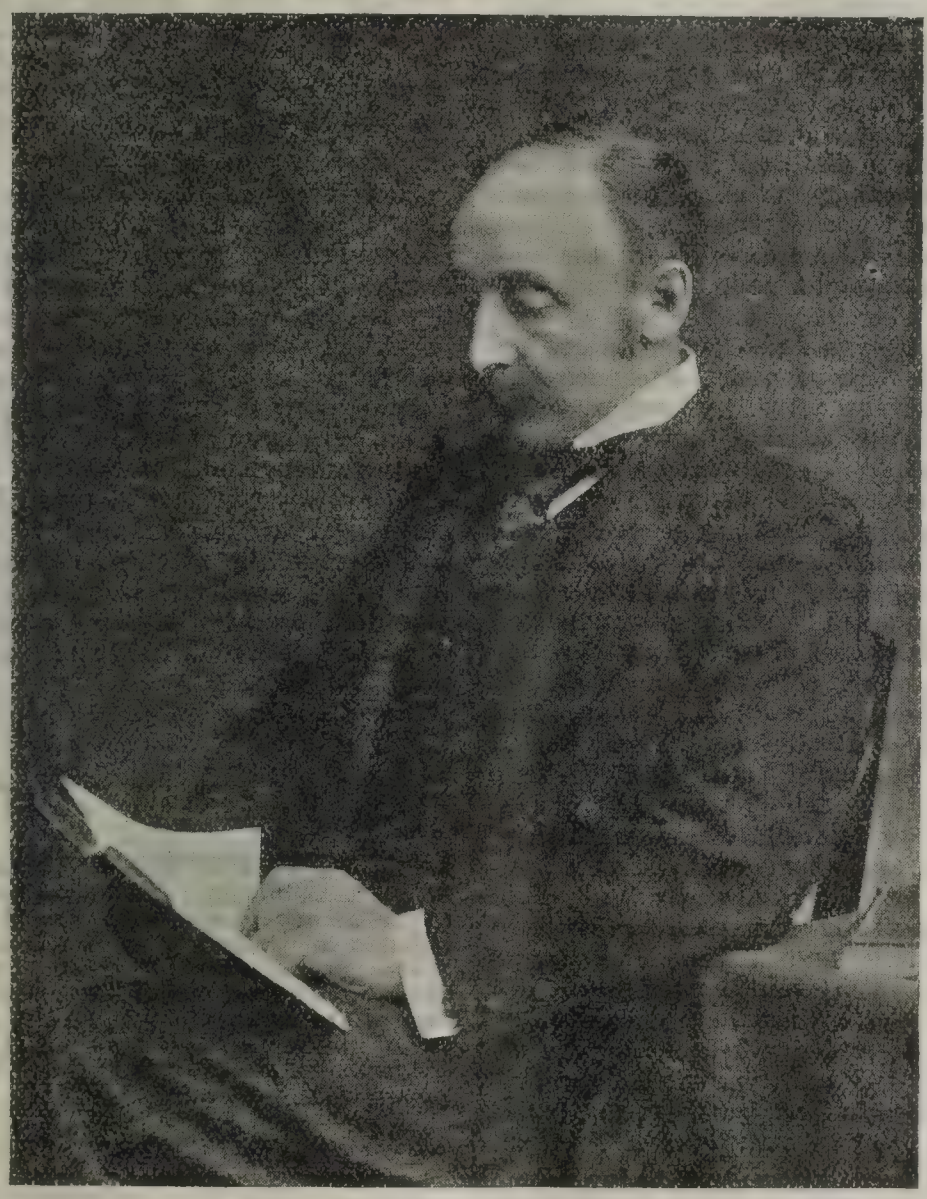
# Obituary.

## ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E., F.R.S.E., LL.D. ABERD.,

LECTURER ON PRACTICE OF MEDICINE IN THE EDINBURGH SCHOOL OF MEDICINE, AND ONE OF THE PHYSICIANS TO THE ROYAL INFIRMARY OF EDINBURGH.

We regret to announce the death of one of the ablest members of the medical profession in Edinburgh on Sunday morning, June 4th, at the age of 57, just when he seemed to be at his best.

Alexander Bruce was born at Ardiffery, Cruden, Aberdeenshire, in 1854. He was educated at the Chanonry School, Old Aberdeen; at the University of Aberdeen, where he was First Bursar, Simpson prizeman in Greek, Seafield medallist in Latin, and Town Council gold medallist; at the University of Edinburgh, where he was Tyndal Bruce Bursar, Ettles Scholar, and Leckie MacTier Fellow; and later at Vienna, Heidelberg, Frankfort, and Paris. He was Cullen prizeman at the Royal College of Physicians of Edinburgh. After graduating M.B., C.M. (with First Class Honours) at Edinburgh in 1879, he was Assistant Clinical Clerk at the West Riding Asylum, Wakefield; Resident Physician, Royal Infirmary of Edinburgh; Lecturer on Pathology, Surgeons' Hall; Pathologist to the Royal Infirmary, Royal Hospital for Sick Children, and Longmore Hospital for Incurables. On taking his M.D. degree in 1887 he received a gold medal for his thesis. He was Lecturer on Neurology, and one of the Lecturers on Practice of Medicine at Surgeons' Hall; Physician to and Lecturer on Clinical Medicine at the Royal Infirmary of Edinburgh.



*Photograph by]* DR. ALEXANDER BRUCE. *[Balmain, Edinburgh.*

Some years ago Dr. Bruce was Morison Lecturer on Diseases of the Nervous System at the Royal College of Physicians of Edinburgh. Some twelve years ago he had the signal honour of being made a corresponding member of the Neurological Society of Paris. In 1908 the Royal Society of Edinburgh awarded him the Keith Prize for the biennial period of 1905–1907, for his communication on the "Distribution of Cells in the Inter-medio-lateral Tract of the Spinal Cord." In 1909 his Alma Mater, the University of Aberdeen, conferred on him the honorary degree of LL.D. In presenting Dr. Bruce for this the Dean of the Faculty of Law said:—"His work and writings in the department of neurology are known wherever neurology is studied, and in some respects may be regarded as epoch-making. It is not too much to say that there is no neurologist in Britain whose work has better stood the test of time."

In the beginning of August, 1910, he was appointed Chief Medical Officer of the Scottish Widows' Fund Life Assurance Society, an appointment for which he did not apply, but which was offered to him, despite the fact that there were several able applicants in the field. The directors and officials of that society had a very high appreciation of his services. He succeeded in that appointment the late Dr. Claud Muirhead, but unhappily only held office for the short period of ten months. For many years he acted as Assistant Medical Officer of the Standard Life Assurance Company, a position he relinquished on his appointment as Chief Medical Officer of the Scottish Widows' Fund.

He went away for a holiday in the early part of August, but he was at work translating Oppenheim's *Textbook of Nervous Diseases*. When it was finished he broke down.

His other books—he was an inveterate worker—were *Illustrations of Mid and Hind Brain*, *Topographical Atlas of the Spinal Cord*, and a translation of Thoma's *Manual of Pathology*; he was founder and editor of *The Review of Neurology and Psychiatry*. In addition he gave an account of a case of congenital absence of the corpus callosum to the Royal Society of Edinburgh in 1888; and published papers on descending degeneration of the lemniscus (*Brain*, 1893); on progressive muscular atrophy in a child (Edinburgh Royal Infirmary *Reports*, vol. i); on chronic poisoning by carbon bisulphide (*Transactions* of the Edinburgh Medico-Chirurgical Society, 1884), on syphilitic nodose periarteritis (ibid, 1894); and on the distribution of cells in the intermedio-lateral tract of the spinal cord (*Transactions* of the Royal Society of Edinburgh, vol. 45, Part I).

His great interest was given to the investigation and treatment of diseases of the nervous system, and on his chosen subject his reputation was European. Of late years he had a large and important consulting practice in Edinburgh and Scotland. His health broke down towards the end of December last. Towards the end of March last he went to Bournemouth, Dawlish, and Torquay, and returned to Edinburgh about the end of April not much bettered. He was never out of doors again. Latterly it became manifest that he was suffering from a deep-seated malady which was sapping his strength, and with no hope of remedy.

Dr. Bruce was a man of outstanding ability in his profession, and was held in high esteem by men in general practice, and by his colleagues in the Royal Infirmary. He was a keen, careful, and shrewd observer of wide mental outlook. He had the saving grace of humour, even if it was of the somewhat severe Aberdonian type. He thoroughly enjoyed a good story, and on occasion could tell one. He had read widely outside his professional work. He was a genial and thoroughly straight friend. He did too much work, and has died in harness, as he wished to do, at the zenith of his fame.

In holidays—when he took a holiday, which was much too seldom—his recreations were travel, shooting, golf, and cycling.

He leaves behind him to mourn his too early death his wife, three sons, and two daughters. One of his sons is a member of the medical profession in Edinburgh. He was an elder in St. Cuthbert's Parish Church, and one of his lifelong friends was the Very Rev. Dr. MacGregor, late

senior minister of that church, and one of the Deans of the Chapel Royal.

A very impressive memorial service was held in St. Cuthbert's Parish Church on Wednesday afternoon, June 7th, when there was a large gathering of members of the Royal College of Physicians and the staff of the Royal Infirmary, of the medical profession, of the Kirk Session of St. Cuthbert's, and the public. He was buried in the family vault of Longside Old Church, Aberdeenshire, on Thursday, June 8th. He rests from his labours, and his works will long follow him, and his friends long miss a man of rare charm of manner, absolute uprightness, and outstanding ability.

Sir THOMAS R. FRASER writes:

To every one interested in the advance of medicine and its progress on a scientific basis—not only in the United Kingdom but throughout much of the civilized world—the death of Dr. Alexander Bruce will be realized as a grievous loss and even as a disaster.

For many years he has been closely associated with this advance. He has largely contributed to it by his writings and original investigations, especially on the subject of the pathology and symptomatology of the nervous system, in which subject he has gained the place of one of the leading authorities. His descriptions of the minute structure of the brain and spinal cord have materially simplified the explanation of previously obscure symptoms of disease, and his recently published translation of Oppenheim's *Text-book of Nervous Diseases* affords an example of his unflagging devotion to work, sustained during the difficulties of failing health.

It is not, however, to this aspect of the loss sustained by the medical profession that I wish to make reference, but rather to Dr. Bruce's qualities as a man, a teacher, and a physician. A long friendship, dating from the very beginnings of his professional life, a continuous association with him in several official capacities—when, for instance, as a student he was my class assistant; as a young and highly-distinguished graduate, resident in my wards in the Royal Infirmary, and then Assistant Physician attached to the same wards; and, subsequently, a colleague teacher of clinical medicine and examiner in that subject and a co-official medical adviser to a public company—have placed me in an exceptional position to make at least a few observations on these aspects of Dr. Bruce's life and work.

The many opportunities afforded during this long period of time enabled me fully to realize Dr. Bruce's admirable qualities of character and disposition. He was always a steadfast and most amiable associate. His capability for work was untiring, and the nature of it exceptionally good. In times of relaxation he was an agreeable companion, witty and fond of a good story, in which, when he was the narrator, scintillations of Aberdonian humour lightened his otherwise grave manner of speech. This combination of gravity with humour formed a characteristic of Dr. Bruce. The gravity of manner was, no doubt, inborn in the man, and it gave weight to his remarks. It constituted one of his attractions as a teacher commanding the attention of his hearers and conveying to them something of the high importance which he attached to his subject matter. Few men, indeed, excelled him as a clinical teacher. He was a master in his exposition of the intricate symptoms of an obscure case of brain or other nervous disease, clear in his summary of its essential features, and suggestive in his comments.

It was not remarkable, therefore, that these personal qualities as well as his knowledge derived from the close observation of cases of disease and from his original and elaborate investigations, should have gained the confidence of the practitioners of medicine whom he had trained. For many years his advice was much in request at the bedside and in the consulting room. As a physician, he was most thorough in his examination of patients, and convincing in the reasons for his opinion; and withal so considerate towards his fellow practitioners and so kindly towards patients that he became one of the most popular of physicians, whose assistance was required not only in Scotland and elsewhere in the United Kingdom but on occasions even abroad.

In the midst of these exacting occupations his health began to fail a few months ago. To the great disappointment of his friends, complete relaxation from work and residence in the South of England did not succeed in restoring his energies. He sustained a physically depressing illness with much courage. His mental faculties, fortunately, remained but little affected, so that almost to the end he was able to continue part of his official work.

The inevitable termination, however, has at length been reached. The recollection of his lovable qualities, high aims, and great services to his profession will long be treasured by his friends.

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DEPUTY SURGEON-GENERAL WILLIAM PEYTON PARTRIDGE, late of the Indian Medical Service, died at Beckenham on May 27th, at the age of 80. He became a member of the Royal College of Surgeons in 1853, and entered the Bombay Medical Department as an assistant-surgeon July 3rd, 1854, becoming Deputy Surgeon-General February 7th, 1885, in which year he retired from the service. He took part in the Persian Expedition in 1856–7, being present at the landing at Hallilah Bay and at the bombardment and capture of Bushire and Mohumrah, for which he received a medal with clasp. During the Indian Mutiny in 1858–9 he served against the rebels in the Thur and Parkur districts, and was at the engagement at Nuggur Parkur. In the Abyssinian war in 1867–8 he had medical charge of the hospital ship *Star of India*, receiving a medal.

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DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Surgeon-General Villaret, one of the most distinguished medical officers of the Prussian Army, aged 64; Dr. Heinrich Braun, Professor of Surgery in the University of Goettingen, and one of the leading surgeons of Germany, aged 64; Dr. Brossard, Professor of Internal Pathology in the Medical School of Poitiers; Dr. Arthur Fallot, Professor of Hygiene and Forensic Medicine in the Medical Faculty of Marseilles; Dr. Karl Henig, Professor of Obstetrics, Gynaecology, and Diseases of Children in the University of Leipzig, aged 86; Dr. Hermann Knapp, for many years one of the foremost ophthalmic surgeons of New York, aged 80; and Dr. Dastat, of Mons, formerly President of the Belgian Ophthalmological Society, who recently celebrated the fiftieth anniversary of his graduation.

# The Services.

## HEALTH OF THE BRITISH ARMY IN INDIA.

A LEAFLET showing the remarkable standard of health attained in 1910 among European troops in India has recently been distributed in barracks. Such a course, we believe, is unprecedented, but so is the remarkable improvement in the health of the army which has taken place. The continuance of the improvement must in part depend upon the hearty co-operation of all ranks, and the facts contained in the leaflet are of a character to appeal to every one, and therefore to bring about the desired state of things.

*Note on the Improvement in Health of the British Army in India.*

His Excellency the Commander-in-Chief in India draws the attention of all ranks to the notable reduction in disease prevalence, mortality, and invaliding in the European Army of India during the year 1910.

The returns are peculiarly good, and constitute a record under all headings. They are extremely encouraging and show what can be done and has been done by attention to sanitary rules. The results obtained are a credit to all concerned, and His Excellency hopes that the figures will be an encouragement to both officers and men to continue the attention and care in regard to all sanitary details which has evidently been the case during the past year.

In 1910, the average number of men constantly sick was but 2,314 in all India, this being 566 fewer than in 1909, or the maintenance of more than half a battalion of infantry out of hospital. The admissions to hospital throughout all India were 10,910 fewer than in 1909. The death-rate per 1,000 men in 1910 was only 4.66 as compared with 6.25 in 1909 and 15.4 ten years ago. Enteric fever cases in 1910 were but 335 with 46 deaths, as compared with 636 cases and 113 deaths in 1909 and as many as 970 cases with 289 deaths ten years ago. The malaria cases were 5,000 fewer in 1910 than in 1909, and the venereal cases were 700 fewer than in 1909. The invaliding, too, has been much reduced, the actual figures being only 482 men sent home in 1910, as compared with 534 in 1909. Ten years ago as many as 2,026 men were sent home unfit owing to sickness. The reduction in the enteric fever prevalence alone means a saving of 67 lives in 1910 as compared with 1909, and

of 243 as compared with ten years ago. The reduction in the total deaths from all cases means a saving of exactly 600 lives in 1910, as compared with ten years ago, or nearly a battalion of infantry or a full-strength cavalry regiment.

| Year. | Average Strength. | Average Number Constantly Sick. | Ratios per 1,000. | | | |
|---|---|---|---|---|---|---|
| | | | Admissions. | Deaths. | Invalids Sent Home. | Constantly Sick. |
| 1894-1903 | 65,896 | 5,374 | 1,312 | 17.13 | 32.22 | 81.2 |
| 1904 ... | 70,413 | 4,023 | 897 | 11.28 | 35.5 | 57.1 |
| 1905 ... | 70,994 | 3,721 | 833 | 10.38 | 21.2 | 52.4 |
| 1906 ... | 70,193 | 3,612 | 871 | 10.43 | 28.3 | 51.4 |
| 1907 ... | 69,332 | 3,215 | 756 | 8 18 | 25.4 | 46.3 |
| 1908* ... | 68,528 | 3,139 | 836 | 9.09† | 15.6 | 45 8 |
| 1909 ... | 71,556 | 2,880 | 716 | 6 25 | 9.06 | 40.26 |
| 1910 ... | 71,500 | 2,314 | 577 | 4.66 | 7.77 | 31.93 |

* An exceptionally bad year for malarial fevers.
† Of these, 35 were caused by cholera, otherwise 1908 would have been a record year.

F. W. TREVOR, Surgeon-General,
P.M.O., H.M.'s Forces in India.

## REGIMENTAL MEDICAL EXERCISE.

A REGIMENTAL medical exercise for R.A.M.C. officers of the regular and territorial forces was held at Kirkcaldy under the supervision of Colonel Woodhouse, Principal Medical Officer of the Scottish Command. Assisting him on the directing staff were Lieutenant-Colonel Yarr, R.A.M.C., Major Erskine, R.A.M.C., Major McMiching, D.S.O., Staff Officer, Lowland Division, and Major Hare, Staff Officer, Highland Division. The exercise was divided into two periods, each of three days, the first for regular officers and Territorial Highland Divison officers, and the second for regulars and officers of Lowland Division Territoral units. During the three days medical schemes were worked out on the ground from Falkland and Markinch to Aberdour and Rosyth, each evening being devoted to lectures by the P.M.O. and Colonel Yarr.

## ACCOMMODATION FOR GLASGOW R.A.M.C. TERRITORIALS.

THE result of further negotiations with the War Office regarding the provision of head quarters, drill hall, wagon sheds, and stores for the Glasgow units of the R.A.M.C.(T.F.) was reported to the Glasgow Territorial Force Association last week. Owing to the cost of preparing the originally selected site at Yorkhill another part of the same ground has been suggested, which will in some measure meet the War Office objections to the heavy expense involved, and the proposal has been approved by the A.M.O.

# Medical News.

A CREMATORIUM was opened at Dresden on May 20th.

A FIRST AID SOCIETY has been founded in Constantinople.

THE annual meeting of the Durham University Medical Graduates' Association will take place at 11, Chandos Street, W., to-day (Saturday, June 17th), at 6 p.m., and the members will dine together at the Imperial Restaurant, Regent Street, at 7.30 p.m. The charge for the dinner is 7s. 6d., exclusive of wine. Further particulars can be obtained from the Honorary Secretary, Mr. Bryden Glendining, F.R.C.S., 7, Devonshire Place, W.

THE annual general meeting of the Poor Law Medical Officers' Association of England and Wales will be held on Thursday, July 6th, at 3 p.m., at 429, Strand, London. Surgeon-General Evatt, C.B., the President, will be in the chair, and after the annual business has been transacted, the meeting will be open for discussion of Poor Law medical subjects. A paper entitled, The National Insurance Bill and the Poor Law Medical Service, will be read by Major Greenwood, M.D., LL.B., Barrister-at-Law. All medical men interested in Poor Law professional subjects are invited to be present. The usual annual dinner will not take place this year.

A DINNER will take place on Monday, June 26th, at the Connaught Rooms, of the officers of the Royal Army Medical Corps of the 1st and 2nd London Divisions of the Territorial Force, Colonel P. B. Giles, Administrative Medical Officer, 1st London Division, in the chair. Notices have been forwarded to all the officers concerned, and it is hoped that not only will every officer on the active list make a point of being present, but that many of those *à la suite* of the general hospitals and sanitary service will also attend. A number of distinguished guests have accepted invitations to be present, and it is hoped that several of the medical officers attached to Colonial troops on duty at the Coronation will also attend. Further information and tickets (10s. 6d. each) can be obtained on application to the honorary secretary to the Dinner Committee, Major E. M. Callender, 47, Connaught Square, Hyde Park, W.

THE British Hospitals Association, of whose meeting anent the National Insurance Bill an account appeared in the SUPPLEMENT last week, was formed last year for the purpose of affording facilities for the consideration and discussion of matters connected with hospital administration, and to take measures to further any decisions reached. Included in its objects are the holding of an annual conference and arrangements for the reading and discussion and publication of papers concerning hospital management in general. The first conference was held in Glasgow last September, and arrangements are now in progress for holding a second conference next September in Manchester. All those connected with the active administration of hospitals either as trustees, members of committee, or executive officers, are eligible for membership on payment of an annual subscription of half a guinea. This membership it is desired to increase as far as possible, for the expenses incurred by the association one way and another are very considerable. The honorary treasurer is Mr. Conrad W. Thies, of the Royal Free Hospital, who will be glad to receive applications for membership.

THE staff and friends of the West London Hospital and its Post-Graduate College held a well-attended dinner on May 18th, under the chairmanship of Dr. A. P. Beddard, who proposed the toast to the joint institutions. It was acknowledged on behalf of the hospital by Mr. Samuel Bewsher, one of its constant supporters, and for many years a conspicuous representative of public life in the neighbourhood in which the hospital lies. After making a very handsome acknowledgement of the value of the school to the hospital, he justly claimed that the hospital in its turn had rendered a service to medicine in throwing open its wards for post-graduate work. On this account he called upon old students of the school and all other medical men to make the financial needs of the hospital known, and more especially to support the Coronation dinner which is to take place on June 29th at the Garden Club, White City, under the presidency of the Duke of Abercorn. On behalf of the college the toast was acknowledged by its dean, Mr. L. A. Bidwell, who briefly traced the progress of this, the oldest post-graduate institution in London, and gave reason for believing that the attendance of post-graduates this year will reach as many as 250. The toast to the visitors, proposed by Mr. Swinford Edwards, met with acknowledgement from Dr. J. A. Macdonald, the news of whose election to the General Medical Council had just been made public. In the course of the evening Dr. Beddard mentioned the Insurance Bill, and said that if the medical profession failed to unite, it would only have itself to blame for the consequences.

A BANQUET of the Brussels Medical Graduates' Association was held at the Garden Club of the Coronation Exhibition on June 8th, when about twenty members and guests were present. Among those present were Mr. Bruce-Joy, R.H.A., Colonel Hesketh, Mr. Kirby, F.S.A., and several ladies. The President, Dr. Francis Edwards, after the usual loyal toasts, read a letter from Dr. Samuel West regretting his inability to be present, and then gave the toast of "The Brussels Medical Graduates' Association." The Honorary Secretary, Dr. Arthur Haydon, in responding, said that a very successful annual meeting and banquet was held in the Kaiserhoff Restaurant of the Brussels Exhibition last August; this was the first time the association had ever held a meeting abroad. While in Brussels he had an interview with Professor Rommelaere, the president of the university, and was greatly pleased to hear that not only had all the recommendations of the council of the Brussels Medical Graduates' Association in 1908 been carried out by the senate, but the same reforms had been adopted in other departments of the university, such as engineering and natural science. Two other banquets had been held last year, one at the Trocadero and the other at the Garden Club. Dr. Major Greenwood, in proposing the toast of "The President," referred to his work as secretary for five years, in addition to being a member of the council for some time; he also made some reference to the National Insurance Bill as it affected the profession.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

M.B., CH.B. (South Manchester): Can a university graduate who has had dental training, but is not an L.D.S., call himself (that is, put up a plate) a dental surgeon?

*** Yes. Sec. 3 of the Dentists' Act, which prohibits the use of dental titles by others than persons registered under the Act, ends with the words "provided that nothing in this section shall apply to legally qualified medical practitioners."

## ANSWERS.

J. M. P.—The practice of applying to householders to know if they wish to let their houses seems common among house agents, but the extension of the same principle by medical agencies to medical men who have expressed no desire to dispose of their practices seems undesirable.

M. D. writes: I have not much doubt that the case described by "Proptosis" is suffering from incipient exophthalmic goître. The anaemia, pulse 96 per minute, and palpitation are suggestive. He also speaks as if there is a loss of weight. The only satisfactory treatment seems to be a prolonged rest in the open air as much as possible, and a generous amount of nourishing food.

DR. DOUGLAS MACDONAGH (London) writes: In reply to enquiry of "Onyx," I think he would find strapping with either Johnson's adhesive Indiarubber plaster, or Simpson's Z O. plaster a simple and effective plan of treatment. I have had most satisfactory results in somewhat similar cases, as well as in eczema of the nails.

## LETTERS, NOTES, ETC.

### A WARNING.

THE Secretary of the London Hospital desires to call the attention of matrons and others to the fact that any woman trained at the London Hospital should be able to produce a certificate showing that she has undergone such training. A register is kept at the hospital of all nurses trained there.

### DIPHTHERIA ANTITOXIN BY THE MOUTH.

IN the JOURNAL of April 29th, p. 993, Dr. Helen M. Greene stated that she and her partner had been giving antitoxin by the mouth exclusively for two and a half years, and had only lost two cases. A correspondent wrote to point out that the statement was of little value, inasmuch as the number of cases treated was not given. We have communicated with Dr. Greene, who states that the total number of cases was forty-two, and that of the two cases that died one had had diphtheria within the previous twelve months, and in the other diagnosis was not made until the fifth day. Dr. Selby W. Plummer, M.O.Durh R.D.C. Infectious Hospital, states that in mild cases he often gives antitoxin by the mouth, supplementing it by swabbing the throat with it.

### TUBERCULIN DISPENSARIES.

DR. ARTHUR H. GAULT (Adelaide, South Australia), in a note referring to the articles and correspondence which have appeared recently in the JOURNAL on this subject, writes: The starting point of the theory depends on the value of the tuberculin reaction; now all careful observers are agreed that a definite positive reaction is obtained by von Pirquet's method in 80 per cent. of adults; and, as far as my experience goes, a definite tuberculin reaction can be obtained in 70 or 80 per cent. of perfectly normal persons. If this is so, then Dr. Camac Wilkinson's figures will need some alteration, for they are largely based on cases in which, from a clinical standpoint, the diagnosis is, to say the least of it, doubtful. I would also like to suggest that in compiling statistics at least two observers should examine the patients and agree that the disease was definitely arrested, for we all know how easy it is to make a mistake and find the disease lighting up again when it was apparently quite dormant, and I hold that we cannot take a failure to react to a diagnostic dose of tuberculin as evidence of arrest.

### TREATMENT OF ASIATIC CHOLERA.

MR. H. D. PANT, L.M.S. (Lucknow, India), writing with reference to the internal administration of potassium permanganate in the treatment of Asiatic cholera, says that he called attention to the use of this drug, which he has employed for seventeen years, in a discussion which followed the reading of a paper on the treatment of Asiatic cholera by Major Leonard Rogers at the Bombay Medical Congress in 1909. He adds the following quotation from the transactions on the congress: "Hypodermic injections of camphor, rectal injection of saline solution, and teaspoonful doses every quarter or half an hour of a solution of permanganate of potash, gr. ½ to oz., are my sheet anchors during collapse. What effect the permanganate has, and how I came to adopt it, I am unable to explain. Suffice it to say that the use of this drug has satisfied me and my patients by giving force to the wavering and flickering pulse."

### THE INCREASE IN THE ACIDITY OF BREAD DURING MASTICATION.

MR. THOMAS READ, L.D.S. (Ventnor, I.W.), writes: Concerning the tests that Dr. Hill and Mr. Martin Flack have recently conducted to obtain the amount of acidity developed while chewing bread, it appears that the ferments of the wheat germs contained in the standard bread must have been injured before bread-making. This can have been done by too much heat being used in drying the grain after washing, or heat generated by running a stone mill too rapidly, or by baking the wheat germs removed in roller milling before replacing them in the flour. Then both white and standard would form acid in a very similar manner during mastication. If the ferments are not injured before baking, the conversion of starch into grape sugar takes place during bread-making, and no acid is formed during mastication If the flour does not contain the ferments of the wheat germs, or the ferments have been injured, no conversion of starch into grape sugar takes place during bread-making, and when the bread reaches the mouth the ptyalin of the saliva forms starch into grape sugar, and bacteria in the mouth convert this freshly-formed sugar into lactic acid, which decays the teeth.

### A SCARLATINIFORM RASH PRODUCED BY QUININE.

DR. D. OWEN WILLIAMS (Glandovey) writes: I agree with Dr. W. M. Hartshorn that the case which he described in the *American Journal of Obstetrics*, April, 1911, p. 658, and which is reported in the BRITISH MEDICAL JOURNAL for May 27th, was a scarlatiniform eruption due to the administration of quinine. I remember that some seven or eight years ago I was suffering from a toothache, and usually in such cases before doing anything to the tooth I administer a tonic mixture containing quinine and iron. This is what I did for myself. I had only taken the second dose; it was in the evening, and I noticed that my face was alarmingly swollen and red, and my body was covered with a scarlatiniform rash, lobster-coloured. I came to the conclusion that it must have arisen from the medicine, and stopped taking it, and next morning I was all right, and the rash had disappeared I do not think that there was any rise in temperature, and I do not think that any food I had taken had anything to do with it. It was one of those rare cases of a rash being produced on the skin by the effects of quinine, and there did not seem in my case to be any other manifestation of "cinchonism." I believe that prior to this I had been suffering from a slight cold, and had probably been taking an appropriate medicine for this, but not at the same time as the tonic mixture. I have not ailed from anything since. I may mention that I have previously taken quinine as a prophylactic in malarial districts, and never suffered any ill effects from it.

### A MODERN WATER DOCTOR.

A CORRESPONDENT has sent the following story to the author of one of the papers published in the Special Number on "Quacks and Quackery" which appeared on May 27th. The recipient has been good enough to give us permission to use it. A member of the profession, with university qualifications but with all the qualities of the quack, had a great reputation in the city of Glasgow for a time. He had his own methods for the purpose of impressing his patients, and one was to take a sample of urine and show them the crystals, etc., in the microscope. A farmer from Paisley, that town of poets, consulted him, and was treated in the usual fashion. On returning home he informed his friends that he was very ill *of course*, but the great man would cure him. "I've ye ken, says he, he set me luk (look) into his instrument, and as fac (sure) as death I'm pishing *stars*. Aye, I'm awfu' ill."


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# An Address

ON

# THE EARLY RECOGNITION AND PREVENTION OF CARCINOMA OF THE STOMACH.

DELIVERED BEFORE THE SOUTH ESSEX DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

BY

**JAMES SHERREN, F.R.C.S.,**

SURGEON TO THE LONDON HOSPITAL, ETC.

THERE is no disease amenable to surgical treatment for which so much could be done by the practitioner as for carcinoma of the stomach, not only in its early recognition, but in its prevention. General practitioners see the disease early, often in its precancerous stage. I, with rare exceptions, see it only in its more advanced stages, when diagnosis is certain and the result of treatment problematical. For example, among the 70 cases I have operated on, only in 17 was I able to do the modern operation of partial gastrectomy, and none of these could be called "early cases."

There is no organ upon which operation on modern lines for cancer gives such great relief and so excellent a prospect of cure; if untreated, death usually ensues within twelve months from the first onset of symptoms.

I do not propose to discuss at any length tests of the gastric contents which are almost impossible of execution by a man in active practice. I wish simply to draw attention to the early symptoms suspicious of carcinoma, the means at our command of proving or disproving their correctness, and to the possibility of preventing the onset of malignant growth in the stomach.

Cancer of the stomach is in the majority of cases a primary disease, the rare cases in which it is involved secondarily to growth of the pancreas, colon, or gall bladder, or from the oesophagus, do not concern us now. In the majority of instances the disease starts on the lesser curvature within an inch of the pylorus. Among the 70 cases I have operated upon, in 17 only was it actually at the pylorus, in 43 on the lesser curvature.

Carcinoma of the stomach in the majority of cases produces symptoms early, but they are usually vague, and those which are supposed to be typical of carcinoma only reveal themselves at a late stage of the disease. This is a most important point to remember in dealing with these cases.

In rare instances no symptoms are produced by the primary growth. I have met with this latency in 7 cases. In 4 the onset of ascites, sudden or gradual, first brought the patient under medical supervision, in 1 progressive loss of weight, in the remaining the presence of secondary growth—in 1 in the liver, and in the other in the left ovary.

I think we shall not be far wrong in saying that in 85 per cent. of the cases symptoms are present pointing to the stomach as the seat of the disease. These cases fall into three groups:

(1) Carcinoma of the body of the stomach—usually pre-pyloric.
(2) Carcinoma of the pylorus.
(3) Carcinoma at the cardia.

In both (2) and (3) there are early signs of obstruction which I need not discuss.

Cases of carcinoma of the body of the stomach fall into three groups by the symptoms produced:

(1) Following previous gastric disease.
(2) Occurring in individuals with a previously "clean" gastric history.
(3) Latent.

The last class I have already referred to.

(1) This is a most important group, and the one which is concerned with the prevention of gastric carcinoma.

Physicians generally have been sceptical as to the possibility of malignant growth originating in chronic gastric ulcer, but among my cases were 26 with a history pointing to chronic gastric ulcer of over four years' duration, 18 of these were over five, 5 of twenty-five to twenty-eight, 1 of fifteen, and 1 of sixteen years' duration. The evidence, to my mind, admits of no doubt. Other surgeons have found higher percentages—Robson 59 per cent.[1] and Moynihan 60 per cent.[2] I have not included in these figures those cases in which there was a history suggestive of gastric ulcer many years previously, followed by years of good health. They include only those in which the symptoms extended over the periods named with the "free intervals" which usually occur in cases of chronic ulcer. Had all cases with a history of previous gastric trouble been included my figures would approximate those given by Robson and Moynihan.

Evidence has been obtained from the other side. Mumford and Stone[3] traced 60 patients treated for chronic dyspepsia at the Massachusetts General Hospital. They found that 30 of them died from what was clinically carcinoma of the stomach. Of microscopical evidence we have the work of Wilson and McCarty[4] in the Mayos' clinic, who found on examining the specimens removed by partial gastrectomy that in 71 per cent. there was evidence that the carcinoma had developed in chronic gastric ulcer.

It will not be overstating the case if we conclude that considerably over a third of the cases of carcinoma of the stomach originate in chronic ulcers and are therefore "preventable."

The following are examples of this group:

CASE I.—M. A., a woman of 41, was sent to me in June, 1909. She had had attacks of indigestion off and on for twenty-eight years. Six years previously she was told she had a chronic gastric ulcer, and was treated at home in bed for four weeks, in hospital for two. She got better, but relapsed so soon as she returned home. This treatment had been repeated several times. She was a thin, spare woman, in whom abdominal examination revealed no evidence of gastric disease. Free HCl was present, 0.14 per cent. Total acidity was 66. I operated, and found carcinoma of the prepyloric portion of the stomach on its posterior surface. I performed partial gastrectomy, and she left hospital three weeks later and is now well.

CASE II.—A fortnight ago I operated on a woman of 53 who had had attacks of indigestion treated as chronic gastric ulcer for ten years. For the past two years the symptoms had increased in severity, and the pain had been almost constant day and night for two months. On examination a hard irregular tumour was felt immediately beneath the ensiform, and on distension a large area to the left of this became resonant. Test meal: Free HCl absent, total acidity 12. I diagnosed an hour-glass stomach due to malignant growth. On exploration I found carcinoma starting on the lesser curvature, adherent to the under surface of the liver, producing hour-glass contraction with a large cardiac pouch. There were massive deposits in the subpyloric glands, and the growth had spread into the lesser sac and through the transverse meso-colon.

I could quote many similar cases in which serious gastric disease was diagnosed, treated by rest in bed, and relapsed, and yet surgical treatment was not undertaken until malignant disease had supervened. Had operation been carried out earlier there can be little doubt that the onset of malignant disease would have been prevented.

It is in the second group, in which carcinoma occurs in individuals with a clean gastric history, that early recognition is so urgently called for. The first symptom is usually epigastric pain or discomfort, called "indigestion," coming on in the midst of perfect health. Of insidious onset, the discomfort becomes pain, which may be a constant gnawing made worse by food, often keeping the patient awake at night, and not so often relieved when the stomach is empty as is the pain and discomfort of chronic ulcer. There may be no other symptoms. As time goes on the disease reveals itself by the gradual development of what are considered to be the symptoms of gastric carcinoma. The patient develops a distaste for food, particularly for meat, vomiting of coffee ground material commences, a tumour develops, and changes are noted in the gastric contents after a test meal, signs that the disease has advanced too far for the most effectual surgical treatment. Occasionally an acute haematemesis in a previously healthy man is the first indication of gastric disease. I have recently performed partial gastrectomy on a patient who had treated such a haematemesis twelve months previously as being due to cirrhosis of liver.

At the present time it is perfectly safe to say that all the positive signs of carcinoma of the stomach are *late* signs, and that any one of them (with the exception of the

secondary deposits) may be found in cases of simple gastric disease, or even in disease of other abdominal viscera.

I will briefly refer to the results of the analysis of gastric contents after a test meal. Considerable stress has been laid in the diagnosis of carcinoma of the stomach upon the absence of free HCl and diminution of the total acidity in the gastric contents removed after a test meal. There are, however, so many exceptions that too great importance must not be attached to it.

Among the last 20 consecutive cases of gastric carcinoma that I have operated upon at hospital, free HCl was absent and the total acidity was low in 11; in 6 of those in which free HCl was present the gastric symptoms had extended over many years. In these cases the acidity, free and total, was what we are accustomed to obtain in cases of chronic ulcer. Of the remaining 3 in which there was no history of previous gastric trouble, in 2 a trace only of free HCl was present and the total acidity was low; in the other both appeared to be normal. Comparing this with the results obtained from the last 20 consecutive hospital patients upon whom I have operated for simple gastric and duodenal diseases: they comprise 13 chronic gastric ulcers, 6 duodenal ulcers, and 1 case of chronic gastritis; free HCl was present in about normal amount, and the total acidity corresponded in all but 3 of the cases of chronic gastric ulcer—2 of these were cases of hour-glass stomach from the contraction of the scar of simple ulcers, and 1 had had a recent haematemesis. Among the 6 duodenal ulcers, HCl was present and increased in amount in all except 1, that I shall mention later. In the patient with chronic gastritis of many years' duration free HCl was absent and the total acidity was low.

In all these cases the investigations were carried out in the London Hospital Clinical Laboratory by the Director, Dr. P. M. Panton, to whom many thanks are due.

I am accustomed to teach that it is usual to obtain an excess of free HCl and a high total acidity in cases of chronic duodenal ulcer. In cases of carcinoma originating in a previously healthy stomach, at the time at which we see them free HCl is usually absent, and the total acidity is low. If this is so within a month of the onset of symptoms I have not yet been able to ascertain. In cases of chronic gastric ulcer and in carcinoma originating in chronic ulcer, free HCl is usually present in about normal amount, sometimes slightly in excess, and the total acidity corresponds. In those cases in which most help is needed to enable the correct surgical procedure to be carried out after operation has been decided upon—namely, those with many years' history, which may be chronic ulcer or may have overstepped the line and become malignant—no information is given of any value. In cases of chronic gastric ulcer apart from growth very rarely, in carcinoma of other organs commonly, and after severe haemorrhage, free HCl may be absent.

That these exceptions must be remembered in considering the weight to be placed on the absence of free HCl and the diminution of the total acidity is obvious from the following histories of three patients I operated on on one afternoon recently.

CASE III.—The first was a man, aged 35, with a history suggestive of duodenal ulcer of three months' duration. As he had never been medically treated I had his septic teeth removed, and asked my colleague Dr. Robert Hutchison to take him under his care. A test meal was given. No free HCl was found, and total acidity was 49. I therefore thought it my duty to explore. I found what I considered to be a simple chronic ulcer of the first part of the duodenum. In view of the result of the test meal, however, I excised it, and performed a posterior gastro-jejunostomy. The microscopic examination confirmed the naked-eye diagnosis.

CASE IV.—The second patient was a man of 38 who had had a severe haematemesis due to a small acute ulcer on the lesser curvature. There was absence of free HCl, and total acidity was 36.

CASE V.—The third was a woman of 47 who had had symptoms of gastric disease for ten years. Free HCl was absent, and total acidity was 12. I found a malignant hour-glass stomach.

This last case is an apparent exception to the teaching that in cases of carcinoma of the stomach supervening on chronic ulcer there is little change in the gastric contents examined after a test meal. But the growth had produced an hour-glass stomach, and I have found in the last two examples of this condition due to simple causes that I have operated on a similar absence of free HCl. In both cases further examination fourteen days after gastro-jejunostomy showed free HCl present.

At the present time there is no certain early sign of gastric carcinoma. How, then, is it to be recognized early? This can only be done by treating seriously any digestive disturbance arising in adults; the surest early sign we possess is given by the failure of medical treatment.

If dyspepsia arises in an adult previously in good health a careful examination is made for signs of organic disease of the stomach, tumours, dilatation, etc. After treatment of all bad teeth, the patient should be given a few days' rest in bed. This is often sufficient to cure, but if symptoms persist or recur after all causes, such as overwork and bad habits, have been corrected, surgical intervention should be the rule after analysis of gastric contents. It is only in this way that we can hope to treat carcinoma of the stomach early.

If signs of organic disease of the stomach are present on the first examination, the patient should be advised to submit to surgical treatment.

My contention is that any previously healthy adult who without obvious reason, bad habits, overwork, etc., commences to suffer from epigastric discomfort, should be looked upon as possibly suffering from carcinoma. We need to educate the public to understand that dyspepsia at this time of life should not be regarded lightly and cannot be efficiently treated without rest, often rest in bed.

In connexion with this subject it must be remembered that disease of any part of the digestive tract—gall bladder, appendix, colon—may interfere with the functions of the stomach and cause discomfort after food. The difficulty that not infrequently arises in the diagnosis between certain cases of duodenal ulcer and gall stones must be familiar to you all. "Appendix dyspepsia" is a very definite condition, and while usually associated with excess of free HCl I have found absence of free HCl in long-standing cases, the patients being sent to me as carcinoma of the stomach. These are further reasons why surgical treatment should be undertaken.

I do not wish it to be understood that I advocate surgical exploration in every case of dyspepsia; far from it. I simply contend that cases of dyspepsia in adults which do not yield to rest in bed and diet after removal of carious teeth and correction of bad habits are usually due to organic disease, amenable only to operative treatment, and at a certain period of life are suspicious of carcinoma.

You may be surprised that I have not mentioned the gastroscope as a diagnostic instrument. In its present form its use is probably more dangerous than exploratory laparotomy in the hands of a competent surgeon. It is difficult, if not impossible, to see the whole of the stomach; other parts of the intestinal canal and other viscera cannot be investigated. I have also omitted all mention of the presence of a tumour as a symptom, as this is a late sign. Early and certain recognition of carcinoma of the stomach is only possible by surgical exploration after the failure of medical means of cure.

It would be out of place to do more than briefly touch upon the methods employed after abdominal exploration. With regard to the cases in the second group in which early exploration is justifiable, the abdomen should be opened by pulling the right rectus outwards after dividing its anterior sheath. If this is done, a post-operative hernia is impossible. After the belly has been opened, the stomach is carefully examined from end to end and on both surfaces, special attention being directed to the cardiac end, for it is here that disease is apt to be overlooked, especially the pouch of an hour-glass stomach—a disease which may mimic carcinoma. If no disease is found by external examination, it is useless to open the stomach. The duodenum, gall bladder, colon, kidney, and appendix should be examined for signs of disease. If carcinoma of the stomach is present, our aim is to remove it freely, together with the lymphatic territories concerned. This always means the whole of the lesser curvature, the first part of the duodenum, the lesser omentum, and as much of the great omentum as possible, leaving enough of the fundus of the stomach to do a gastro-jejunostomy. The amount removed can be seen in a photograph I have taken of the parts removed by partial

gastrectomy from a woman of 32, in whom carcinoma developed after thirteen years' medical treatment for gastric ulcer.[5]

The death-rate of this operation should not be more than 15 per cent. In the 17 that I have done 3 have died—one in whom also I removed a portion of liver to which the pyloric end of the stomach was adherent died two months later as the result of a biliary fistula; one died from shock; and in the other the wound had to be hurriedly sutured with one layer of stitches; on the fourth day these gave way and he died from bronchopneumonia developed after the second anaesthetic.

The results of this operation are encouraging. The average duration of life, if recurrence takes place, is eighteen months. This is a considerable gain, as the duration of life from the first onset of symptoms in untreated cases is rarely more than twelve months. The quality of life is good; as a rule, no indigestion or vomiting, and the recurrence usually does not affect the stomach. At the present time about 65 per cent. of those who have survived the operation died of recurrences within three years. We must, however, remember that these were all "late" cases.

There may be difficulty in diagnosing the condition even when the belly is opened, but this will rarely arise in this second group of case. If it occurs, a rapid microscopic examination of a portion of the edge of the ulcer should be made while gastro-jejunostomy suitable for use after partial gastrectomy is being carried out. If the growth is found to be irremovable, gastro-jejunostomy should be done only if obstruction is present; if it is not, the operation entirely fails to relieve.

The death-rate of exploration is negligible.

I must now pass on to the second part of my subject—the prevention of carcinoma of the stomach. Earlier this evening I made the statement that at least one-third of all cases of carcinoma of the stomach arose in connexion with gastric ulcer. These cases I believe could be prevented. There is little doubt that acute gastric and duodenal ulceration is a septic disease. Acute ulcers of the stomach and duodenum are frequently found *post mortem* in cases of appendicitis, urinary sepsis, burns, etc. Cell poisons circulating in the blood lower the resistance of the gastric cells so that auto-digestion takes place,[6] or minute suppurative foci occur in the lymphatic follicles along the lesser curvature.[7] Oral sepsis is, I believe, a fertile cause of gastric ulcer, and hence one of the predisposing causes of cancer of the stomach. It is no uncommon thing for me to have to delay operation on patients with undoubted organic gastric disease of long standing until carious stumps have been removed.

It is not known with certainty why many acute ulcers heal and others do not; it may be that oral sepsis has something to do with it. Every acute ulcer, whether of the type found in the disease called gastrostaxis or not, should be treated by rest in bed and suitable medical measures after all carious teeth have been dealt with.

Chronic gastric ulcer should be treated in the same way unless signs of pyloric stenosis or hour-glass stomach are present, or haematemesis occur, when the surgeon should be called in. If rest fails to relieve or symptoms recur on resuming work, surgical treatment should be adopted. Chronic simple ulcers of any part of the stomach or duodenum will heal after a well-planned gastro-jejunostomy and efficient after-treatment. I have had the opportunity of proving this in several cases.[8]

If the ulcer is large, or markedly indurated, or if there is any suspicion of malignancy, it should be excised in addition.

Attention to the hygiene of the mouth, thorough treatment of acute and early chronic gastric ulcer, handing over to the surgeon those in the latter group that fail to respond to or relapse after treatment, would, I am sure, greatly diminish the incidence of carcinoma of the stomach.

REFERENCES.

[1] Mayo Robson, *Medico-Chirurgical Trans.*, vol. xc, 1907, p. 232. [2] Moynihan, *Trans. Clin. Soc. Lond*, vol. xxxix., 1905, p. 84. [3] Mumford and Stone, quoted Deaver and Ashurst, *Surgery of the Upper Abdomen*, 1909, vol. i, p. 270. [4] Wilson and McCarty, *American Journ. of Med. Sciences*, December, 1909. [5] Sherren, *Clinical Journ*, October 19th, 1910, p. 25. [6] Bolton, Chas., *Trans. Med. Soc. Lond.*, vol. xxxi, 1908, p. 249. [7] Miller, Chas., *Archives* Path. Institute London Hospital, vol. i, 1906, p. 39. [8] Sherren, *Trans. Clin. Soc. Lond.*, vol. xl, 1907, p. 156.

# ACUTE JEJUNAL OBSTRUCTION IN A CASE OF ADVANCED PREGNANCY: OPERATION: RECOVERY.

BY

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THE following case is unusual and interesting.

The patient, an extremely healthy young married lady of 20 years of age, had been attended by Dr. E. A. Roberts during her pregnancy. The confinement was expected on November 15th, 1910.

When seen on October 25th she complained of extreme pain in the lower abdomen. On examination there were no signs of commencing labour, and the bowels had acted on the previous day. There had been a similar attack two days before, which had lasted two or three hours. On October 26th the pain shifted from the pelvis and became epigastric and severe, and the vomiting, which had commenced on October 25th, now became continuous.

Notwithstanding all forms of treatment these symptoms continued until October 28th, when she was seen by Dr. R. A. Gibbons and Dr. Herman, and the opinion was formed that the patient had intestinal obstruction high up in the small intestine. It was thought that induction of labour was not justified, and laparotomy was advised. Later Mr. Warrington Haward saw the patient and concurred with this view.

The patient was removed to a nursing home that night late, and was operated on at 4 am. on October 29th, Dr. Gibbons and Mr. Haward being present.

*Notes by Mr. Wallis.*

The patient was carried straight on to the operation table, where I first saw her. She was much distressed and in a nervous and excited condition. She was violently sick when on the operation table. After this had passed off she was anaesthetized by Mr. Bellamy Gardner and the abdomen was painted over with iodine solution. The abdomen was opened by an incision in the mid-line above the umbilicus 5 in. in length. The uterus presented itself at the opening and was gently held forwards. The stomach was found to be much distended, as was also the duodenum. The small intestine was collapsed and empty.

The uterus was held still further forward to enable the commencement of the jejunum to be seen, and it was at once obvious where the obstruction lay. About 6 in. from the commencement of the jejunum the gut was seen to be pressed on by the uterus—there was no suggestion of volvulus, but there was a definite line where the bowel ceased to act and where it was flat and contracted. This contracted portion and the bowel above were pulled out of the abdomen and the intestinal contents gradually pushed on. After a minute the collapsed bowel was seen to begin to be active, and as this was watched it was seen that the intestinal contents gradually passed on and on down the intestine which was quite healthy apart from the contraction.

It was not thought necessary to do anything further, and the wound was closed in layers, and finally by interrupted silkworm gut sutures. The stomach was washed out before the patient left the table.

*Notes by Dr. A. E. Roberts.*

Labour pains began six hours after the operation—that is, at 10.30 a.m. on October 29th. The first stage was complete at 1 o'clock. At 1.30 a stillborn fully-developed male child was born quite naturally and without assistance; fifteen minutes later the placenta and membranes came away naturally. Uterine pains were very strong throughout and contraction after delivery quite normal.

The patient appeared to suffer no additional discomfort from the operation wound, and was quite free from pain or discomfort after delivery. The puerperal period passed without any feature calling for remark, and was quite normal throughout.

The fetus was well nourished, weighing 8 lb., fully developed, but dead. Fetal movements had not been noticed by the patient for three days previously.

The patient made a perfect and uninterrupted recovery. The temperature at the time of the operation was 100.2°, and during parturition rose to 101.6°; pulse 130. Both dropped to normal the next morning, and remained so. The stitches were removed on the tenth day after operation, and the wound had healed well.

The rapid recovery of this patient was remarkable, and was in large measure due to her wonderful physique.

This case is unique in our experience of acute intestinal obstruction. The main points of interest are:

1. *The Seat of the Obstruction.*—This was unusually high up, and no doubt accounted for the almost continuous vomiting, and in many ways the symptoms were more like

those of duodenal obstruction. The fact of this obstruction being so high up was probably a factor in the excellent recovery made, as there was little chance of any septic absorption occurring.

2. *The Character of the Obstruction.*—This was also unusual, as there was no volvulus or twist, band or adhesion, but merely a flattened piece of intestine, which was not inflamed or kinked.

3. *The Cause of the Obstruction.*—As to this we can give no opinion, and it would be interesting to know from gynaecologists whether the uterus could be a factor in producing the obstruction.

## TREATMENT OF APPENDICITIS IN CHILDREN.

BY

W. A. REES, M.D., F.R.C.S.,

SWANAGE.

From time to time one sees letters in your columns on appendicitis, and the various opinions expressed show how divided the profession is as to the line of treatment in acute cases—I mean especially as to the time to operate and how much should be done. I wish it were possible to get an expression of opinion from general practitioners on the question; the surgeons are practically all agreed that operation at once is necessary as soon as the diagnosis is certain, and the appendix must be removed if possible.

With regard to adults this may be the correct course, but in children (under 7 years of age, for example) I feel most strongly this is wrong, and have lately come across two cases that confirm my opinion—namely, that the less done in abscess cases the better. Children, especially of the better class, with excessive sensibility of the nervous centres, will not stand a long abdominal operation; even swabbing out an appendicular abscess is harmful, and removing a difficult appendix will be sufficient to turn the scale from life to death in many cases at this early age. Opening and simply draining an abscess cavity can often be done in ten minutes, while if a difficult appendectomy is done at the same time the operation is often prolonged to fifty minutes or so, with, I am sure, in the majority of cases, a fatal result. Surgeons may say that the case ought not to have been left to form an abscess, that it ought to have been operated on in the first twenty-four hours, but the fact is the majority of cases are not seen till after twenty-four hours have elapsed since the initial symptoms, and then it is best to wait till an abscess forms and simply drain. We hear a great deal about the necessity of removing the appendix in abscess cases, for fear of getting a recurrence, such recurrence being estimated at about 10 per cent.; but what is the danger of recurrence when compared with the danger of an immediately fatal result following the longer operation? Simple drainage of the abscess cavity is all that is required to relieve the little patient, and the appendix, in the great majority of cases destroyed by the inflammatory process, never gives any further trouble. This, I am sure, would be found to be the experience of the vast majority of general practitioners, who would be in the best position to know the after-history of their cases over a long course of years.

I think we are all agreed as to the treatment of these cases by starvation, avoidance of purgatives, and keeping the patient absolutely at rest in the recumbent position, using the rectal tube or glycerine suppository to help the expulsion of flatus, but in most cases avoiding enemata. Personally I generally allow small doses of laudanum to be given when the pain is bad, but not in big enough doses to mask symptoms. One correspondent who wrote a short time ago stated that in children appendicitis generally subsided with simple medical means; but my experience is that, given the same degree of acuteness of onset, in a child the case is more likely to go on to form an abscess than in the adult.

I believe Mr. Moynihan is quite right in his statement that in all these cases in which the appendix perforates and abscess results in children there will be found to be a history of a purgative having been given. To illustrate my point as to the treatment of these cases I will give notes of the last case seen.

A boy of 4½ years complained of pains in the stomach, but got about and took his food; in the evening he was given a purgative; he had rather a restless night, and the next day the pains were worse, and he was sick, but was still able to be up for a few hours. Later in the day he returned to bed, and was seen for the first time the same evening. He was then crying with pain, the temperature was 101° F., and the pulse 130; the abdomen was distended and tender everywhere, especially on the right side, and there was some rigidity of the right rectus muscle. He was put on the regimen stated above. He had a restless night, dropping off to sleep, but waking up with pains every half-hour or so. Next morning (third day of the attack) the temperature had come down to 99° F., and the pulse to 100, and he had had no more sickness; the abdomen was still distended, but he was able to pass some flatus and he micturated naturally. On the fourth day the pulse was still 100, and the temperature varied between 98.0° and 99°, tenderness was now present only in right iliac region, extending across to the left side of the middle line. On the fifth day there was no change; on the sixth day there was some dullness in the right iliac region and rigidity there was more marked; the temperature kept very near the normal. On the seventh day the temperature in the morning was still normal, but a definite lump was to be felt in the right iliac region, the size of half a cricket ball, very tender and dull to percussion.

Operation was decided on. The lump was cut down on, and an abscess opened directly under the abdominal wall, and in contact with it; it was well shut off; it contained thick, stinking pus. The abscess cavity was swabbed out and the appendix searched for, and after some difficulty found to the outer side behind the caecum; it was freed from adhesions, ligatured and cut off, and, with further difficulty, the peritoneum sutured over the stump. A large drainage tube was inserted into the cavity and some gauze plugs; afterwards a stitch or two was passed through the abdominal parietes. Before the operation the pulse was 108, and the temperature 100° F. After the operation, which took fifty minutes, the pulse was 130 to the minute, and he was very restless. Six hours later the pulse became very feeble, and in spite of transfusion, strychnine, brandy, infundibular extract, etc., it went from bad to worse, and the patient died three hours later, that is, nine hours after the operation, bringing up "coffee ground" vomit at the last.

**I say that this result is alarmingly frequent, and I feel sure might be avoided in many cases if simple drainage of the abscess was alone employed, thus shortening the operation to the least possible time, and doing away with all shock. The practitioner, in charge of a case like this, can manage to get his wishes carried out in the matter by advising the parent beforehand to give his consent to the operation being performed on condition that the abscess is only opened and drained, and that nothing further in the way of an appendectomy shall be done.**

## PYOCYANEUS INFECTION IN DOGS AND ITS SIMILARITY TO RABIES.

BY

MAJOR W. F. HARVEY, I.M.S.

AND

CAPTAINS R. MARKHAM CARTER, I.M.S., and HUGH W. ACTON, I.M.S.

Several variations from typical rabies have been described both in animals and in man. These have received such names as "chronic rabies," "abortive rabies," and so on. The question of the possible spontaneous cure of rabies has also received attention. Some authors in discussing these conditions have suggested the possibility of incorrect diagnosis and the idea of a bacterial causation. We do not directly deal with any one of the conditions mentioned above, but our own experience leads us to believe that the bacterial causation hypothesis is worthy of attention. In this paper we consider that we make out something of a case for the existence of a *B. pyocyaneus* infection occurring naturally in dogs, and that such infection may, both as regards symptoms produced and tests applied, lead to confusion with rabies. Of course, we are aware that *B. pyocyaneus* is a very ubiquitous organism, and we must therefore leave to our readers the judgement as to whether contamination has or has not been excluded in the case which we present to them. The diagnosis of rabies by animal experiment is often the only test at our disposal, and may be summed up as depending on the subdural inoculation in a rabbit of an emulsion of the brain of the suspected animal with subsequent onset of paralysis and death within a given period. Only exceptionally do

we add to this a bacteriological examination. The result of such an examination in rabies should, of course, be negative. We think we are right in saying that if the cultivation from brain substance showed sterility in forty-eight or seventy-two hours, it would be assumed that the tissue was sterile, and that the experiment went to confirm the diagnosis. We shall see that some of our cultivations from brain substance did not develop growths of *B pyocyaneus* for more than seventy-two hours after inoculation. The point is an important one. Further, if subpassages are made by subdural inoculation, and the same train of paralytic symptoms leading to death appears as in the original experiment, the diagnosis of rabies would be considered as completely established. But we show that the brains of animals which have succumbed to subdural inoculation, and which have yielded pure cultures of *B. pyocyaneus*, are capable of giving rise to the same symptoms as in the original when reinoculated after the manner for rabies diagnosis. We have carried this experiment to as many as eleven subpassages in one case. It must be remembered that, as part of the evidence leading to a diagnosis of rabies, we must include the suspicion attaching to the condition of the animal or brain of the animal which was brought or sent to the institute on account of the fear that the animal was rabid.

The disease produced in rabbits and guinea-pigs by *B. pyocyaneus* is well-known, and has been described. As far as we know, it has not been specially described as a disease naturally occurring in dogs. The points of differentiation from rabies of the disease are:

1. Absence of Negri bodies from the hippocampus major of the animal suspected of rabies, if a microscopical examination is available. The absence of Negri bodies from the brain of the animal inoculated is not absolutely to be relied upon. We have been able to show scanty Negri body formation in the brains of guinea-pigs inoculated with pure cultures of *B. pyocyaneus*.[1]

2. The paralysis induced in the inoculated rabbit is somewhat different in character, although not necessarily in incubation period, from that of rabies. The description of the disease in rabbits as given by E. Macé[2] will bring out both the points of resemblance to conditions which have been called rabic and also the points of difference. Pyocyaneus disease, he says, takes different forms, according to the character and the quantity of the virus introduced into the organism and also according to the state of the animal. The affection may manifest itself very acutely in less than twenty-four hours, less acutely in three to four days, or it may develop in chronic fashion and last even for several months. In the rapid forms the chief symptoms are readiness to stumble, loss of appetite, somnolence, and often at the end convulsions. There are, besides, fever, diarrhoea, albuminuria. The animal emaciates and falls into a cachectic state. Finally there appears in certain cases motor paralysis of a type which is quite characteristic. These paralyses do not supervene immediately after inoculation. There is a rather long period of incubation—twenty days to two months. The hinder extremities are the first attacked, either simultaneously or successively or singly. At the autopsy no lesions, either of muscles, nerves, or nerve centres, are to be found. The diagnosis is easily made clinically or bacteriologically. The above description refers to animals inoculated either subcutaneously, intraperitoneally or intravenously. Our cases were those of dogs which apparently had developed the disease naturally, or rabbits which, having been inoculated subdurally in the test for rabies, developed the chronic cachectic form (otherwise described as consumptive rabies), or were animals subdurally inoculated with brain material containing *B. pyocyaneus*, and which developed the acuter form of the malady. The symptoms in the animal observed by us corresponded accurately with those described by Macé. The paralysis in particular is very typical, and may easily be distinguished from that due to rabies when attention is drawn to it. Diarrhoea was not a prominent symptom in our animals. The paralysis in its final stages could not be distinguished from that of rabies.

3. Cultures from heart's blood or liver or brain give a pure growth of *B. pyocyaneus*. This we were able to obtain in all our cases.

Other dogs than those mentioned were examined—animals to which no suspicion of rabies attached—and no growth of *B. pyocyaneus* occurred. Nor did cultivations made from heart's blood, liver, or brain of test animals dying from undoubted rabies ever show growth of *B. pyocyaneus*.

In many of the cases, in order to exclude the possibility of agonal infection, the animals were not allowed to live until death, but were chloroformed in the later stages of the disease. The *B. pyocyaneus*, we found, can, when contained in tissue, resist the action of pure glycerine for a time. It can thereafter give rise to "pyocyaneus disease" in rabbits subdurally inoculated, although with a long incubation period and more manifest wasting than when unglycerinated cerebral tissue is used.

The case which led up to the search for and experimentation with *B. pyocyaneus* is instructive in its details. It was as follows: A patient came to the institute for treatment, after having been licked on abrasions by his own dog. The dog died under suspicion of rabies. (Some time before the development of the disease this dog had pups which were about 6 weeks old.) During our patient's stay under treatment one of these pups developed a sickness and was brought to us for inspection. The animal was very weak and could not stand, and was detained under observation. Before death it exhibited spasmodic movements of the limbs. The symptoms were not exactly characteristic of rabies, but did not exclude the possibility, and, when taken in conjunction with the history, were at least suggestive of that disease. The brain of the pup was removed, and was used in a series of dilutions (subdural inoculation) in an experiment designed to determine the connexion between length of incubation and degree of dilution. That is to say, we assumed that the disease was rabies, and had no suspicion of any other. The actual experiment was instituted because it is comparatively seldom that at this institute fresh brains can be obtained, and we did not wish to lose the opportunity thus afforded us. Six rabbits were inoculated subdurally with varying dilutions. All six developed paralysis and died. It was the nature of the paralysis which raised our suspicion that the disease was not rabies, and which led to the making of cultures from brain and from heart's blood. The heart's blood culture gave a growth of *B. pyocyaneus*, but the culture made from the brain did not do so at all. This last fact indicated that the bacilli were at least very sparse in the cerebral tissue. That they were there, however, was shown by the subpassage experiments which followed. The following are the details of our cases:

CASE I.

Puppy belonging to Captain L., a patient. Mother of pup died of suspected rabies. Puppy fell sick, could not stand, and died twenty-four hours later with convulsions. Six rabbits inoculated with emulsion of fresh puppy's brain. All six developed in the course of sixteen to twenty days paresis of the hinder extremities and died a few days later.

Rabbit 2 (passage), inoculated subdurally from one of the six rabbits, developed the same disease. The heart's blood gave a culture of *B. pyocyaneus*, whilst the culture from brain was sterile.

Rabbit 3, inoculated from Rabbit 2 October 16th, 1909, showed tremor October 30th; paralysis in hind quarters October 31st, and died November 2nd. Heart's blood gave growth of *B. pyocyaneus*. Brain showed sterile.

Rabbit 4, inoculated from Rabbit 3 November 2nd, 1909, showed paralysis November 23rd, and died November 25th. Heart's blood showed *B. pyocyaneus*. Brain sterile.

This series was continued. The broth tubes inoculated from the brain might have given a growth had this been kept long enough. The subpassages gave quite clear evidence that the brain tissue was also infected, as later cultivations showed, with *B. pyocyaneus*. In the later subpassages *B. pyocyaneus* was recovered also from the brain. Rabbit 11—the last of the series, inoculated February 17th, 1910—showed paralysis on March 3rd, and was killed with chloroform on that date. The heart's blood on culture gave a green scum on the surface of the broth in twenty-four hours, whilst the culture from the brain gave the same in forty-eight hours. Coloration of the broth itself followed.

A portion of the brain of Rabbit 11 was placed in pure glycerine, and kept there for three days at room temperature.

Rabbit 12, inoculated with glycerinated brain of Rabbit 11, March 7th, 1910, did not show any paresis until May 11th. The animal had undergone considerable emaciation. Paralysis

nearly complete May 13th; killed May 16th. Heart's blood gave a greenish-brown scum on the broth culture on May 17th, which by May 18th was a thick green growth. Brain culture showed a definite green tinge of the fluid and growth on May 19th. Thus *B. pyocyaneus* lying in cerebral tissue can withstand the sterilizing action of pure glycerine for three days and give rise after that period to symptoms and death resembling those of what has been called consumptive rabies.

CASE II.

Dog of Lieut. S., brought to Institute on December 24th, 1909. The dog presented an appearance which might have been that of the last stage of rabies. It lay on its side quite unable to move and saliva was dribbling from its mouth. The dog was chloroformed. The hippocampus major showed no Negri bodies.

Rabbit 1, inoculated subdurally from dog's brain, showed total paralysis and death on the third day. Heart's blood gave culture of *B. pyocyaneus* in twenty four hours; brain in forty-eight hours.

Rabbit 2, subinoculated from Rabbit 1, January 29th, 1910, showed marked paresis on February 7th, and was killed with chloroform on February 8th. The paresis in this case came on earlier than in the previous cases. Heart's blood gave culture of *B. pyocyaneus* in forty-eight hours; brain in ninety-six hours.

Rabbit 3, done from Rabbit 2, February 8th, 1910, showed paresis, February 15th, complete paralysis, February 16th, on which date it was killed. Cultural results the same as in Rabbit 2. In this series we find a very distinct shortening of the incubation period.

Rabbit 4, subinoculated, February 16th, 1910; paresis, February 23rd; marked, February 24th; killed, February 26th. Cultures from both heart's blood and brain gave green scum in forty-eight hours. The brain of Rabbit 4 was kept in glycerine at room temperature three days, and Rabbit 5, inoculated with this glycerinated material, developed symptoms of wasting and paralysis, and died seventy-two days after inoculation.

CASE III.

A dog was sent to the Institute from a near station. On arrival the dog was in a distressed condition, and ropy saliva was hanging from its mouth. The dog was not aggressive, and did not look altogether like a case of rabies. It died the same night (January 25th, 1910), and the body was placed on ice.

Guinea-pig 1, inoculated with emulsion of dog's brain, January 26th, 1910; paresis, February 15th; death, February 16th. Cultures from heart's blood and brain gave growth of *B. pyocyaneus*.

Guinea-pig 2, from Guinea-pig 1, February 16th, 1910; was observed to be unwell, February 27th; showed no definite paresis, but died emaciated, March 9th. Heart's blood gave culture of *B. pyocyaneus* in twenty-four hours; brain in forty-eight hours.

CASE IV.

A dog had bitten unprovoked three persons. The persons came to the Institute for treatment, bringing the dog with them. The dog was kept under observation. It did not show any special signs of rabies. Any symptoms shown were rather those of viciousness. It did, however, on one occasion dart at a stick passed in between the bars of its cage. As the dog remained alive for over ten days the persons bitten were not treated. This dog was kept some time. It became emaciated and developed diarrhoea, and was chloroformed. A heart's blood culture, taken this time from the dog's heart itself, gave a marked *pyocyaneus* culture in forty-eight hours. The case is important in connexion with histories of unprovoked attacks and the value attached to this in the diagnosis of rabies.

These cases all agree most remarkably in the finding of *B. pyocyaneus* in the heart's blood and brain. Some of the animals were not allowed to die, but were chloroformed before death. An agonal infection is thus excluded. Nevertheless, *B. pyocyaneus* is a widely distributed organism in nature. But the invariability of the finding in the cases of animals under suspicion of rabies, and the absence of the particular organism in cases where rabies either was not in question or was quite definite, suggested that here we were dealing with a disease occurring naturally in dogs, and which may simulate, say, either rabies or distemper. We decided, however, not to publish the above four cases, or to raise the question of diseases liable to be confounded with rabies until we should confirm our findings with another such case. This we have in Case v. As the case is an important one from the point of view of decisions as to the necessity or non-necessity of treatment we give it somewhat fully.

CASE V.

The dog in question had licked two people and bitten two. The two who were bitten received their injuries in the course of an attempt to administer medicine. All four persons came to the Institute—a distance of some 300 or 400 miles—for treatment. Only the two bitten were treated. The circumstances of the case were these;

A change was noticed in the quality of the bark. The animal showed some perversion of appetite—ate earth. It was able to drink milk, and showed no particular irritability. The dog was sent to a veterinary subordinate, and as it showed weakness of the extremities also, it was shot as rabid.

The brain arrived in glycerine, and was changed into fresh 50 per cent. glycerine September 14th, 1910. An emulsion of glycerinated brain was inoculated subdurally into a rabbit on September 15th. The animal remained well till October 15th, when it showed a certain amount of wasting. The hind limbs were noticed to be slightly paralysed on October 20th, and it died on October 26th, with both hind limbs paralysed.

*Post-mortem Examination.*—Brain somewhat injected, liver engorged, spleen normal, bladder distended. The hippocampus major showed no Negri bodies. Culture from brain sterile. A portion of the brain of this rabbit was placed in glycerine for twenty-four hours and inoculated subdurally into a second rabbit, October 27th, 1910. Wasting showed itself on November 10th, and paralysis of the hind legs on October 12th. The animal when fully paralysed was chloroformed. *Post mortem:* Engorged liver; slight congestion of vessels of pia, arachnoid; distended bladder. Subcultures were made from heart's blood, liver, and brain.

The culture from the liver alone showed a growth, and that again was *B. pyocyaneus*.

The brain was kept for twenty-four hours in glycerine, and a third subpassage carried out on November 15th, 1910. Paralysis of the hind legs appeared on November 26th, and the animal died on December 1st. *B pyocyaneus* was recovered from the brain, heart blood, and liver. The subpassage was done up to the seventh, and every time the *B. pyocyaneus* was recovered from the heart blood.

REMARKS.

1. *B. pyocyaneus*, although a common and widely-distributed organism, is not such a common contamination or such a common agonal infection as to account for the facts here set forth. Agonal infection is negatived by the fact that many of the animals were not allowed to die naturally, but were put out of existence by chloroform.

2. Other observers have mentioned the possibility of the occurrence of microbial diseases simulating rabies, but have not, so far as we know, incriminated *B. pyocyaneus*.

3. One author (Beck[3]) has been able to reproduce a disease by subdural inoculation in a case of distemper, but was not successful in carrying the subpassages further. Other observers have been able to make several subpassages with distemper virus.

4. The confirmation of the facts here set forth, and their bearing on cases of reputed cure of rabies and such conditions as chronic rabies, abortive rabies, and consumptive rabies, must be left to further investigation.

REFERENCES.

1 Captain Acton and Major Harvey, *On the Specificity of Negri Bodies.* 2 *Traité pratique de bactériologie.* 3 *Archiv f. wissenschaft. u. praktische Thierheilkunde.* 1902, Bd. 28, Heft 5, p. 505.

## A CASE OF BLACKWATER FEVER IN ENGLAND.

BY JAMES ROOTH, M.R.C.S., L.R.C.P.,

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IT is so rarely that a general practitioner in England has the chance of treating a case of blackwater fever that the following seems to me worthy of record:

A young man, R. W., aged 26, came to me on a visit from Burma. He was in the best of health and spirits, and the day following his arrival we went by train to see some friends in the country. As we alighted at our destination, he remarked that he had a touch of fever coming on, and he began to shiver. We got to our friend's house, and I administered 6 grains of quinine, and he lay down. Two and a half hours later he rang for me, and drew my attention to the chamber; he had passed quite a pint of black urine, the colour of stout. He suggested blackwater fever, but I thought it might be merely malarial haematuria. During the afternoon he vomited frequently a yellow bile, and passed more urine of the same colour. I managed with some difficulty to get him back to Brighton, and took him straight to a nursing home.

His temperature that evening rose to 105°; he vomited occasionally, and still passed black urine. My experience of malaria was confined to a few mild cases in Kimberley Hospital, so I asked Major Rattray, of the R.A.M.C., to see him, which he very kindly did. Acting on his advice, as we knew the patient had neglected taking quinine lately, I gave him an injection of 2 grains of the hydrobromide of quinine (acid) into the muscles of the buttock. The temperature was kept down by sponging to about 102°. Calomel 5 grains was given. Next morning the temperature was 102°; vomiting continued at frequent intervals,

pronounced jaundice was present. There was now no doubt as to this being a case of haemoglobinuria. The urine on standing separated into a brown sediment, with a supernatant fluid of a rich port-wine colour. The patient was semi-conscious, but could be roused. No nourishment could be taken by the mouth, not even ice was retained. I ordered tr. iodine in one minim dose every hour; it seemed to afford a slight relief. Nutriment enemata were given every four hours, and a saline injection of one pint per rectum every eight hours. I also injected saline (half a pint) into the cellular tissue of the right breast. The enemata were well retained, and the calomel had acted with the help of a soapy enema.

During the day the vomiting and haemoglobinuria continued. I ordered hydrocyanic acid diluted in 1 minim doses; the patient was too weak to pass his water, which was drawn off with a catheter. There was a good quantity throughout. The vomit was very dark, practically a "black vomit." Quinine was administered once more in the morning hypodermically; no more was given after this.

In the evening the patient was unconscious, but still retained his enemata. I gave up all hope of his recovery. The temperature rose to 103° at night, falling at 4 a.m. to 96°.

Next morning the patient was conscious, talked a little to his relations, and I was pleased to draw off practically clear urine; the temperature was normal.

The vomiting still continued, but less, and at 10.30 I injected morph. sulph. ⅛ grain hypodermically; the vomiting subsided and the patient slept quietly. There was throughout a haemic murmur over the aortic valve.

At 4 p.m. the temperature was 100°, the breathing was getting very stertorous, and the patient comatose. There were no convulsions or suppression of urine. In other respects his condition continued as before; there was no return of the vomiting. He took champagne or brandy and water every hour by the mouth, as well as his nutrient enemata and two salines per diem. At 10 p.m. the pulse was 130, breathing bad, the temperature rose to 103°, and the case was evidently hopeless.

At 2 a.m. of the fourth day he quietly passed away. No *post-mortem* examination was performed.

The debatable point in the treatment was the administration of quinine. I am aware that the consensus of opinion is against it, but there were circumstances in this case which decided us upon starting with a preliminary dosage of quinine. For one thing, I knew the patient had been taking very little lately. Dr. Galt, of the Sussex County Hospital, examined the blood, and reported that the parasites were present. They were, however, almost entirely extra-cellular, and their exact type doubtful. There were no rosettes or crescents observed, but much free pigment in the blood. Under these circumstances I should certainly consider it rational to exhibit quinine at the commencement of the illness, and if no improvement followed, to stop it. In this case the patient recovered from the actual haemoglobinuria, to die of toxaemia.

It would be very interesting to know what number of cases of blackwater fever occurring in this country are recorded, and what the mortality. Is it generally a milder form than is found in the tropics, or is it equally malignant? I have heard of a case in which blackwater fever appeared with fatal results a year after returning to England. In this case the interval was three weeks.

## THE RAPID TREATMENT OF GONORRHOEA.

BY

A. C. MAGIAN, M.D., B.CH.VICT.,

MANCHESTER.

THE drawback to the ordinary routine treatment of gonorrhoea is the length of time necessary to effect a cure, and I propose to outline briefly here a method by which one can, in my experience, almost invariably rely upon a perfect cure within a week, provided, of course, that the disease is tackled in a sufficiently early stage. In most cases five days' treatment will suffice.

The apparatus, drugs, and technique necessary are as follows:

*Apparatus and Drugs.*

1. Three large glass jars fitted on irrigation stands, which can be raised or lowered at will. The jars should be capable of holding 3 to 4 gallons each.
2. A similar jar to hold 1 gallon.

All the above to be fitted with suitable stoppers, taps, and rubber douche piping.

3. Several two-way irrigator tubes, and simple nozzles of various sizes.
4. The following drugs for injection: Permanganate of potash, protargol, chloride of gold, sulphate of zinc, and nitrate of silver. Internally, allosan tablets.

*Technique.*

1. Commence by giving a 3-gallon irrigation with potassium permanganate solution. Sufficient force of fall must be allowed to drive the fluid up to the neck of the bladder. The strength should be about 1 in 5,000.

The two-way irrigation tube used for this purpose may be improved by the addition of a glass handle, such as has been made to my design by Mr. Otto Baumbach of Manchester. This prevents the fingers from being stained, and enables the patient to keep the tube more easily in the correct position.

2. Now irrigate with 3 gallons of a distilled water, followed by a similar quantity of a solution containing 1 oz. of protargol. The irrigations must be given under as high pressure as possible, in order thoroughly to distend the mucous membrane.

3. Next an irrigation (under pressure) with one quart of chloride of gold solution (at least 30 grains to the quart). For this injection use a single-way irrigator nozzle. Wash, after an interval, with distilled water.

4. Send the patient home, with instructions to use an injection of protargol (½ per cent.) eight or ten times during the ensuing twenty-four hours. At night a Neisser bougie, 6 in. long, and containing 1 per cent. protargol and 2 per cent. antipyrin, is inserted and tied in. Internally give one tablet of allosan every three hours during the day.

The above-mentioned irrigations are repeated in increasing strength on the second, third, and fourth days.

5. On the fifth day we use 3 gallons of weak sulphate of zinc solution, and on the sixth day a similar amount of weak nitrate of silver. The exact strength of these last irrigations varies according to the severity of the case. The cure is now almost invariably complete. In a very few instances an additional day or two is required.

Microscopic examination of urethral swabs reveals no gonococci at the end of the week, and there is no trace of any discharge. The urine shows no threads or any other deviation from the normal.

I have used this method in 100 consecutive cases, and in only three instances was a cure delayed beyond the seventh day.

The solutions are preferably used warm, except in the case of protargol. The Neisser bougies which I use are those prepared by Dr. Charles Mitchell, of Philadelphia. They are much longer-lasting than the ordinary kind, and seem to produce better results.

The success of the method seems to be due to the employment under pressure of large quantities of the various remedial liquids, and to their use in sequence. The treatment is naturally a tax on the surgeon's time, and the expense is not inconsiderable; but among the classes able to afford suitable remuneration it may be found of considerable value.

It has been suggested to me that instead of using very large quantities of liquid, the simple distension of the urethra with a syringe injection of the various drugs would answer equally well, provided that each injection be retained sufficiently long. The reply to this is, that it is disproved by practice. Moving fluid appears to be much more efficacious than still applications. It has also been suggested that the chloride of gold produces no real effect. The explanation of its action may be difficult, but the results of practice prove that it certainly has a definite action. Similarly, the addition of antipyrin to the protargol in the soluble Neisser bougies has an important beneficial effect.

The usual restrictions on diet and exercise must be imposed, and frequent warm baths recommended. The patient's syringe should have a blunt conical end, and may with advantage be given a trial in the surgeon's presence. Suspensory bandages and Hartmann's absorbent wood-wool bags are very useful.

A FREE public vaccination service was established at Teheran at the end of February, and the system has been extended in the neighbourhood by the medical students of the Polytechnic School. At the same school a mixed Commission has been sitting for some time to inquire into the practice of medicine and pharmacy in Persia, and has drafted two laws—one for medicine and the other for pharmacy—which have been unanimously adopted by the Sanitary Council of the Persian Empire. Dr. Georges, the French delegate, who has presided over the Sanitary Council for some time, retired at the meeting on May 1st, being compelled by private affairs to return to France; his place in the chair was taken by Dr. Neligan.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### OPEN ETHER ANAESTHESIA.

I HAVE read with interest the summary of Dr. P. T. Crymble's paper in the BRITISH MEDICAL JOURNAL for March 18th, page 624. His conclusions seem to me, however, to be discouraging, if not misleading, to those anaesthetists who do not yet adopt this system. I have used open ether exclusively, both in hospital and private practice, now for over three years, in all classes of patient, at all ages, and for every variety of surgical procedure. The apparatus employed is my own wire frame (described and illustrated in the *Dental Surgeon*, vol. vi, No. 279), covered in by a pad consisting of eight layers of gauze between two layers of lint. The ether is applied extremely slowly at first, but may be added freely when consciousness begins to disappear. The method is perfectly comfortable to the patient—struggling, cyanosis, and excessive mucous secretion, depending as they do upon asphyxia, caused either by oxygen deprivation direct or excess of moisture in the inspired air, are absent, and a quiet deep anaesthesia can be obtained in from three to ten minutes with from ʒss to ʒij of ether, according to the age, sex, and physique of the patient. Metal inhalers and rubber face-pieces limit air supply and are not applicable for true *open* administration. It is a mistake to group administrations by C.E. mixtures with open ether administrations. The dangerous stage with chloroform is the induction stage, and it is unlikely that the ether in the mixture does more than dilute, and so limit, the dose of chloroform.

W. E. ALDERSON, M.D., M.S., D.P.H.,
Lecturer on Anaesthetics,
Newcastle Dental School.

Newcastle-upon-Tyne.

### AN EPIDEMIC OF INFECTIOUS JAUNDICE.

IN the JOURNAL of April 22nd there is an interesting note on this subject. Since December 27th, 1910, I have had 12 cases of jaundice under my care, and I know that other cases have occurred in the same locality which were not attended by any medical practitioner. All my cases except one were between the ages of 10 and 30, the majority being girls with an average age of 16. All were affected in a more or less similar manner. For a day or two before the jaundice appeared there was a sense of heaviness or pain in the epigastrium, loss of appetite, constipation, a feeling of cold, and general depression. The temperature was slightly raised and pulse quickened.

After a variable time, but generally two days, there was well-marked jaundice, bile in the urine, and in a few cases a small quantity of albumen. The stools were more or less clay-coloured. In most cases constipation was very marked, calomel, salines etc., being little use; enemata gave most relief. In no case was any definite splenic or hepatic enlargement detected. In some cases there was slight tenderness over the hepatic region. All cases recovered.

Of the 12 cases 11 occurred in the same locality. In one family three sisters were affected in three weeks. A school teacher had jaundice on February 10th, and in about fourteen days was quite well. A girl came to live in the house early in March, and in a few days she developed a severe attack of jaundice. The treatment was similar to that adopted by Dr. Vaisey, except that calomel, salines, and salicylates were used in all cases.

These are evidently cases of epidemic icterus, and, as Wilson says in *Medical Diagnosis*, "The disease commonly assumes the guise of ordinary catarrhal jaundice, and runs a benign course." Whether there is any relation between these two epidemics and Weil's disease is difficult to say, but from the textbook picture of the latter it does not seem probable. Weil's disease apparently has a sudden onset like influenza, the temperature is high, and the liver and spleen are enlarged. It occurs mostly in the summer months, and 90 per cent. of cases are males.

K. R. COLLIS HALLOWES.

Crossdoney, Ireland.

### SECONDARY SYPHILITIC NEPHRITIS.

THE interesting case of syphilitic nephritis, reported by Messrs. Hall and Beattie in the JOURNAL of May 13th, leads me to remark that in a very well-marked case treated by me some years ago (1904), I found the albumen to be mainly in the form of albumose. This was very readily demonstrated in large quantity by Jacquemet's test (shaking with ordinary sulphuric ether) described in the JOURNAL October 8th, 1904, p. 924. The albumen proper was demonstrable after filtering off the gelatinous ether-albumose. If the test tube be corked, the specimens keep indefinitely, the albumose on the surface. This simple clinical test for albumose does not seem to have attracted much attention.

JAMES CAMERON.

Edinburgh, May 16th.

### CHLOROFORM DURING SLEEP.

WITHIN the last few months I have on two occasions given chloroform to children without awakening them. Both cases were prepared for operation, and on my arrival were in a sound sleep. The anaesthetic was given on a modified Skinner's mask, which until the breathing showed signs of the patient being under the influence of the chloroform was held slightly away from the face. Before the corneal reflex disappeared the child allowed the mask to be laid on the face, and, although some slight movement of the head was made, there was no disturbance. The pupil, of course, could not be examined from the beginning of the anaesthetic, but when first examined was moderately contracted and responsive to light. Both children were about 6 years of age.

Considering the amount of disturbance and nervousness displayed by children as a rule when anaesthetized, the above cases, I think, are noteworthy.

IAN JEFFERISS.

Gillingham.

### SUBCUTANEOUS EMPHYSEMA ASSOCIATED WITH ACUTE BRONCHITIS IN AN INFANT.

A MALE infant, aged 6 months, during an ordinary attack of bronchitis, on April 22nd developed in the course of two hours a swelling which completely obliterated the outline of the neck, and spread rapidly to the chest wall as far down as the third rib. All the physical signs of surgical emphysema were recognizable.

Disseminated over the swelling were small nodules, the size of a split pea, which, when taken between finger and thumb, dispersed, and gave rise to a distinct crepitus. There was no unusual dyspnoea, and the condition has progressively subsided as the bronchitis improved, and has now practically disappeared.

W. L. RENÉ WOOD.
CLIFFORD C. PICKLES.

Ossett.

# Reports

ON

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

### ROYAL INFIRMARY, HULL.

TETANUS: SUBDURAL INJECTIONS OF ANTITETANIC SERUM: RECOVERY.

(Under the care of Dr. FRANK NICHOLSON, Senior Physician to the Hospital.)

[Reported by G. H. WATSON, M.R.C.S., L.R.C.P., House-Physician.]

THE patient, a boy aged 9, was admitted on January 17th, 1911, with the following history: His illness began two weeks previously with pain and stiffness in his jaw; he gradually got worse, until nearly all his muscles were painful and stiff. Almost every hour he had sharp attacks of pain and increased rigidity, lasting about five minutes. He had had no sleep for eight days before admission, and for two or three days had had difficulty in swallowing.

*State on Admission.*

There was well-marked risus sardonicus and rigidity of the muscles of the arms, leg, back, abdomen, and jaws. The hands

were held firmly flexed at the wrist, and there was slight head retraction. He was unable to sit up or feed himself, and could only swallow fluids.

His temperature was 99° F., pulse 112, and respirations 24. There was a sore on the right heel, apparently caused by the chafing of a badly-fitting boot; as no other wound could be discovered, this was regarded as the source of infection.

*Treatment and Progress.*

Two hours after admission he had an attack of severe pain lasting three or four minutes, during which the rigidity became more marked, and the head retraction was increased.

The following morning the sore on the heel was excised, and lumbar puncture was performed, a little over a drachm of cerebro-spinal fluid, which ran very slowly, being removed. This done, 18 c.cm. of antitetanic serum were introduced through the trocar into the subdural space. The foot of the bed was then raised 12 in. higher than the head.

No marked improvement followed, though he had no more attacks of severe pain; so on January 20th the lumbar puncture was repeated, and a further injection of 20 c.cm. of antitetanic serum given subdurally. From then improvement set in, though slowly at first.

*Result.*—On January 22nd he could swallow minced meat without difficulty, and at the end of a week he could sit up and feed himself, and at the end of another week he was up and playing about the ward.

REMARKS.

During the first ten days he was in hospital he was taking a mixture of pot. brom. 10 grains, and chloral hydrate 3 grains six hourly.

On each occasion the injection of the serum was followed by a rise of temperature up to between 102° and 103° F.; it, however, quickly subsided.

Though the case belongs to the chronic type of tetanus in which prognosis is good, I think the patient's recovery was undoubtedly hastened by the injections of the serum.

# Reports of Societies.

## THE ROYAL SOCIETY.

*Thursday, June 1st, 1911.*

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

*Restoration of Paralysed Muscles by Nerve Anastomosis.*

DR. ROBERT KENNEDY, Surgeon to the Western Infirmary, Glasgow, communicated the results of the first of three series of experiments on restoration of paralysed muscles by means of nerve anastomosis, a report of which will be published in a subsequent issue.

*Surra.*

Colonel Sir DAVID BRUCE, C.B., F.R.S., said that *Trypanosoma evansi* (Steel), which caused the disease in elephants, camels, horses, cattle, and dogs, known in India as surra, was discovered in 1880 by Evans in the Punjab, and was the only pathogenic trypanosome of the domestic animals which had up to the present been described from India. Africa, where many species were known, might be said to be the home of the trypanosome diseases, which on that continent were associated with tsetse flies. In India there were no tsetse flies. The carrier of surra had not yet been identified. It was generally thought that surra had been introduced into Africa by means of the camel, but this was by no means established. It had been usual to look upon the trypanosomes of surra and nagana as indistinguishable morphologically; 820 individuals of *T. evansi* had been carefully measured, and a curve representing the distribution in respect to length made. This curve was very different from that of *T. brucei*. It was therefore evident there should be no difficulty in future in separating these two species by this means. Again, on comparing the curve of the Indian camel disease with that of the African, the similarity was very striking, and afforded some proof that the two diseases were caused by the same species of trypanosome.

*Human Trypanosomiasis.*

Mr. HUGH S. STANNUS and Dr. W. YORKE (Liverpool) contributed a paper on the pathogenic agent in a case of human trypanosomiasis in Nyasaland. During the past three years a considerable number of cases of human trypanosomiasis had occurred in Nyasaland, notwithstanding the fact that *Glossina palpalis* had not been discovered in the Protectorate. The authors had examined the trypanosome obtained from the blood of a European infected in the Dowa subdistrict of Nyasaland. The parasite was also examined in the blood of a monkey, rabbit, and goat infected from the patient. Morphologically the trypanosome was found to present the same peculiarity as was observed in the case of a trypanosome from a patient infected in the Luangwa Valley of North-East Rhodesia. This consisted in the fact that amongst the short forms some had the nucleus at the posterior (non-flagellar) extremity. In a condition of heavy infection these posterior nuclear trypanosomes formed from 2 to 5 per cent. of the total parasites present. A second interesting point was that the cytoplasma was frequently found to be vacuolated in a remarkable manner. Whether or not this was a constant feature could not be stated from the small amount of material at disposal. A monkey, rabbit, or goat inoculated with the parasite became infected, and in all the disease ran an acute course. As a result of these observations the authors were of opinion that the trypanosome in question was not *T. gambiense*. On the other hand, it very closely resembled *T. rhodesiense*, and was probably identical with it. The disease was contracted in a district (Dowa subdistrict of Angoniland), where *G. palpalis* had never been found, but where *G. morsitans* was known to exist in large numbers. It appeared probable, therefore, that this trypanosome (*T. rhodesiense*) was a distinct species, capable of transmission by some other agent than *G. palpalis*, probably *G. morsitans*.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, June 7th, 1911.*

Dr. BYROM BRAMWELL, President, in the Chair.

*The late Dr. Alexander Bruce.*

THE PRESIDENT referred to the loss sustained by the death of Dr. Alexander Bruce, and it was resolved by the society to send a letter of condolence.

*Intestinal Obstruction.*

Mr. RUTHERFORD MORISON (Newcastle) discussed some advances in diagnosis and treatment of intestinal obstruction in recent years. The diagnosis was based on a trinity of symptoms—griping pains, inability to pass flatus, and evidence of increased peristalsis. But there were exceptions, and all these signs might be present without obstruction. In illustration, he had had a case of a woman who showed all the signs along with faeculent vomiting, in whom operation only revealed some irregular contractions of intestine. Acute obstruction with shock usually meant obstruction and strangulation, but shock might be present without strangulation, and strangulation without shock. The physical explanation of shock was a profound disturbance of the balance between the somatic and visceral circulations. He cited an example of this in a nervous woman, where, an hour after operation for haemorrhoids by ligature, there was severe shock associated with blushing of the skin. A fact not generally recognized in intussusception was spontaneous reduction. A patient of his had shown three times in one year symptoms of intussusception, spontaneous reduction occurring each time without operation. An operation was then performed to prevent recurrence. In adults acute intussusception was less common than chronic, the latter often accompanying tumours. In the acute form, hardening of the swelling during the pains, and its slackening or disappearance between them, was usually pathognomonic, but here, too, there were exceptions. Volvulus was primary or secondary, the primary form being associated with a badly-developed mesentery, the secondary occurring in hernial sacs and underneath peritoneal bands. Tumours of the ascending colon formed sausage-shaped masses, the lower end consisting of distended caecum and disappearing with its evacuation. Bismuth and $x$ rays localized strictures anywhere in the colon, and the sigmoidoscope was of great value in its lower part. As to treatment, early operation was as

important as ever. In doubtful cases without vomiting the obtaining of faeculent material by the stomach-tube was useful; also the exhibition of castor oil to stir up the intestine and so help the diagnosis. In acute obstruction of the small bowel the chief improvement was Professor Barker's extensive removal of loaded intestine above the obstruction. In colon growths, the stages of operation were (1) caecostomy; (2) removal of the growth, the extent of resection being governed by the lymphatic distribution as recommended by Dobson and Jamieson; and (3) closure of the caecum. Mobilization of the colon diminished both the dangers and difficulties of operation. In his opinion, lateral anastomosis was the best form of junction, and the use of Murphy's button or a glass bobbin accelerated the process. In inoperable cases, lateral anastomosis was better than colostomy. The patient with colostomy was usually unhappy. Mr. CATHCART had not found the objections to colostomy on the part of hospital patients to which Professor Morison had referred. As to the value of resection of bowel above the obstruction, recommended by Barker, he suggested it might remove organisms and so diminish the risk of peritonitis. Mr. WALLACE did not believe in the use of castor oil to stir up the bowels and so localize the obstruction. In the large intestine it was advisable to diagnose the site of obstruction at the first operation. Mr. HODSDON said it was of great importance to wash out the stomach early in obstruction. Professor ALEXIS THOMSON said that Professor Morison's invagination method of joining the bowel had not received sufficient recognition. He did not go so far as to say that escape of bowel determined the issue. He held with Kocher that in obstruction the aim should be to get rid of the obstruction if possible, and in any case to empty the bowel above. Mr. MILES agreed that spontaneous reduction of intussusception frequently occurred, and thought it was due to the reverse peristalsis which was so regular in the large intestine. This probably explained the cures by injection of air and water. Dr. AFFLECK thought that in operation for obstruction a large protrusion of bowel was to be avoided. Mr. RUTHERFORD MORISON replied.

*Enlarged Prostate and Vesical Tumour.*

Mr. DAVID WALLACE read notes of 6 cases of enlarged prostate with neoplasm of bladder, where all the symptoms might have been due to the enlarged prostate. In all there was much haematuria. The coexistence of a bladder tumour always made the prognosis much less favourable for the patient, and it was therefore important to diagnose the presence of this complication in enlarged prostate. This could be done by the cystoscope. In cases where there was much bleeding or bleeding without any aggravation of the other symptoms of enlarged prostate examination with the cystoscope should be made.

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## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Thursday, June 8th, 1911.*

Dr. GEORGE A. BERRY, President, in the Chair.

*Conical Cornea.*

MR. WRAY read a paper on conical cornea. He urged that it was important to diagnose conical cornea early, for a cone implied thinning as well as softening. Efforts should be made to stop the thinning—to prevent the increase of pathological astigmatism and to reduce that already formed. According to the author, conus was preceded by astigmatism against the rule mostly correctable by a *plus* cylinder tending 5 to 15 degrees down and in. A *minus* cylinder was more frequently needed possibly because myopia was less frequent than hypermetropia. The conus was detectable by the mirror where the astigmatism was about +1. Over +2.5 the vessel test and cone shadow were easily seen, though above 5 the vessel phenomenon was less so. Most of the patients were females from 18 to 25 years of age. The important points in diagnosis were: (*a*) The correcting cylinder being generally + and 5 degrees to 15 degrees down and in; (*b*) a distinct cone shadow in those which developed on account of asthenopia; (*c*) the blood vessel phenomenon being always marked but more easily seen in the lower grades; (*d*) the astigmatism being seldom stationary; (*e*) the patients seeking advice later than those with ordinary astigmatism; (*f*) distant and near vision with and without glasses being better than in ordinary astigmatism. It had been said there was no evidence that suitable treatment could retard the progress of conical cornea. This was not the author's experience. Nothing short of accurate correction would prevent the "lid squeezing" that masked and accelerated the evolution of the cone, even if softening and thinning were not present. The leading points in treatment were: (*a*) Accurate glasses; (*b*) no work at reading distance; (*c*) good hours; (*d*) air, exercise, etc., no night work; and (*e*) a suitable occupation. Local treatment should be based on the type in hand. Type 1: Uniocular conus astigmatism. Both eyes to be corrected, as the other would probably become affected later. A slight pressure bandage should be worn night and day over the affected eye. No work at reading distance. Type 2: Both eyes affected; astigmatism +6 D. Binocular bandage night and day. During exercise one eye open. The eyes never to be fully opened. Correcting glasses when the eyes were in use. Type 3: Considerable difference between the eyes. The worse eye should be bandaged night and day. The good eye, suitably glassed, to be used for exercise and meals. The good eye not to be opened wider than necessary. Type 4: Uniocular cone, astigmatism in the other. The same treatment as previously stated. The cautery should be used if the cone were considerable or if minor measures effected no improvement in three months. Type 5: Binocular conus. The best operative procedure was Sir Anderson Critchett's, but it should be clearly understood the operation neither strengthened the softened cornea, nor cured the thinning. Mr. Wray regarded operative procedures neither as the beginning nor the end of treatment. He had had a case in which vision was $\frac{6}{9}$ immediately after the operation, but reduced to fingers several years later.

*Simple Trephining for Glaucoma.*

Major ELLIOT, I.M.S., read a paper entitled "The Operation of Simple Trephining for the Relief of Glaucoma." The paper was based upon 400 recent operations at the Government Hospital, Madras, performed by fifteen surgeons. The quadrant of the eye for the trephining was the upper for choice, as the wound was less exposed to infection, and was under the cover of the lid; also the flap rarely required a stitch. In staphyloma one must choose the best available spot. Originally he brought his incision on both sides of the cornea; but now he made a flap out of each side of the cornea, to provide a new way for the fluid which filtered through the anterior chamber. The conjunctiva should be seized as high up as possible with forceps and drawn down, the patient being instructed to look strongly downwards. A general anaesthetic was practically never used in the Madras Hospital. It was not necessary to clean right down to the sclerotic throughout the limits of the flap, only down to the part where it was intended to trephine. It was a great mistake to pull upon the flap in any way. The appearance at the edge of the cornea was very comparable to the appearance of the glans penis, the cornea seeming to overhang the surrounding sclerotic like the corona of the glans penis surrounding the neighbouring part. In Madras they steadily separated the corneal conjunctiva from the cornea itself, splitting the cornea so as to get well forward on to the anterior chamber. If one went too far back one came upon an adherent iris, and there was trouble. When beginning to split the cornea one saw an appearance like a myopic crescent, and when that seen surrounding the flap one was quite safe in entering the anterior chamber with a trephine. It was necessary to have a sharp trephine, and to keep the operation area clear of blood, so as to see exactly what one was doing. If the disc happened to be pushed into the chamber, it should be left alone, as it was aseptic tissue, and would do no harm. Tension was low for the first few days, and then gradually rose. He followed up some educated patients, and eight months afterwards there was no detachment of retina, and

the vision was good. Surgeons feared low tension because it was so often associated with detachment of retina. Cocaine and adrenalin should be injected a few minutes before the operation, and then no general anaesthetic was required. Out of 403 cases before he left 66 had returned. Mostly the vision improved, pain was relieved, and the tension went down.

*Anatomical and Mechanical Factors in Accommodation.*

Mr. THOMSON HENDERSON read a paper on anatomical and mechanical factors in accommodation. After explaining Helmholtz's theory, and pointing out several objections to it, he explained that his view of the mechanism of accommodation was that although in accommodation the lens was released from tension, yet this result was not brought about by a dragging forward of the choroid but by a descent of the zonular curve by which the ciliary muscle alone, and not the choroid, sustained the full weight of the elastic traction of the lens. Each of the three anatomical divisions of the ciliary muscle had a specific rôle. The circular fibres acted as a sphincter ciliaris, having as opponent the radiating fasciculi. These latter from their position supported the zonular curve, and therefore operated as a tensor zonulae. The longitudinal fibres terminated in the stroma of the suprachoroidea and orbiculus ciliaris, and acted as a sustentaculum zonulae to the distal extremity of the zonule. In positive accommodation the zonular curve was lowered by contraction of the sphincter ciliaris (circular fibres) associated with simultaneous relaxation of the tensor zonulae (radiating fibres), while in negative accommodation the now relaxed tensor contracted and raised the zonular curve and the sphincter relaxed. The sustentaculum zonulae (longitudinal fibres) played throughout a purely passive part, as it merely supported the orbiculus ciliaris, and thus prevented any strain being transmitted to either choroid or retina.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF LARYNGOLOGY.

AN extra-metropolitan meeting of the Laryngological Section of the Royal Society of Medicine was held on Friday, June 2nd, at the University of Bristol, Dr. WATSON WILLIAMS, the President, in the chair. About forty-five members and visitors were present. The *Annual general meeting* was first held. A *Report of the Council* for the past session was read, but on the list of officers proposed by the Council being brought forward, it was proposed by Sir FELIX SIMON, and seconded by Dr. WILLIAM HILL, that a special general meeting be called to consider the matter at a date to be fixed by the Council. This was carried. The PRESIDENT moved that in future no one should hold the office of President two years in succession. This was seconded by Mr. HUNTER TOD and carried. There was also a presentation of an *Illuminated address to Sir Felix Semon*, who, in returning thanks, stated that the Semon Lectureship in Laryngology at the London University had now been settled.

The annual meeting was followed by an ordinary meeting. Demonstrations were given in *Bronchoscopy and oesophago-gastroscopy* by Drs. WATSON WILLIAMS, FINZI, WILLIAM HILL, G. HERSCHELL, and Mr. A. J. M. WRIGHT. The PRESIDENT also showed some cases of *Epithelioma of the larynx, malignant disease of the oesophagus*, and patients illustrating results of his *Osteoplastic radical frontal sinus operations*. These were discussed by Drs. CATHCART, TILLEY, and STCLAIR THOMSON. Mr. HERBERT TILLEY showed *Foreign bodies removed by direct bronchoscopy and oesophagoscopy*, with skiagrams relating to these and the nasal accessory sinuses. A discussion afterwards took place on the relationship of diseases of the noses and accessory sinuses to affections of the eye and the orbit. This was opened by Dr. STCLAIR THOMSON and Mr. F. RICHARDSON CROSS; Drs. WALLIS and MATHIESON MACKAY joined in the discussion. The members were afterwards hospitably entertained by the President and Mrs. Watson Williams at dinner and at a reception at the Grand Spa, and also by Dr. S. V. Stock; and on Saturday at Bath, by the Mayor and Dr. Pagan Lowe and other gentlemen.

A CORRECTION.—Dr. W. Bezly Thorne writes to state that there is an error in the report of the discussion on the treatment of measles in the Section of Diseases of Children of the Royal Society of Medicine, page 1374. It should have been stated that Dr. Thorne substituted for eucalyptus oil an aqueous emulsion of eucalyptus oil.

# Reviews.

## THE DISEASES OF CHINA.

THE authors of the *Diseases of China*[1] have done valuable service to medical literature by placing before us China and the Chinese in their medical aspects. Putting aside the ailments common to temperate and tropical countries, the authors deal especially with the diseases most commonly met with in China. Few, if any, of these are peculiar to that country, yet their prevalence, their distribution, and their manifestations in the yellow race are points of great interest.

After an introductory account of some native practices and of remedies in use amongst the Chinese, the authors present a table of the diseases met with in China. Of the infectious diseases, plague occupies the first place; isolation and segregation of all plague "contacts" are regarded as impossible except in the case of pneumonic plague; cleansing of the house, keeping of cats, and the administration of prophylactic injections to "contacts," in places where plague rats are found dead, are recommended.

Dengue epidemics frequently occur in Southern China, but the disease invades the more northern parts of the empire only during the heat of summer. Malta fever is rare in China. Enteric—although there is difficulty in diagnosing it from many of the continued fevers—is, nevertheless, comparatively rare. This is, no doubt, due to the fact that the Chinese avoid drinking water except when boiled and in the form of tea, and also to the fact that milk is seldom consumed. Typhus fever is seldom seen in the south of China, but in the north, which is subject to floods and famine and the overcrowding and poverty consequent upon these calamities, it is more often met with. Cholera occurs in all parts of China at stated intervals, but seems especially prevalent in the centre of the empire.

Leprosy is relatively rare in North China, and in the tropical regions it is believed to be of a milder type than elsewhere. Beri-beri is especially a coast disease, "encroaching on the hinterland along the coast of the great rivers. It is quite common in Formosa." Of malarial fevers, the tertian and the aestivo-autumnal are exceedingly common; the quartan variety is often seen, especially about Foo-chow and at Hoihow. Blackwater fever has been observed. Kala-azar has been recognized in Chil-li, Shan-tung, Hu-pei, and Kiang-si provinces. Yaws is not a disease of China, but is imported by coolies coming from the Straits Settlements and elsewhere. Filariasis, schistomiasis, ascariasis, and ankylostomiasis are carefully considered by the authors, and there are excellent illustrations of intestinal parasites in man and animals in the text. Dysentery and tropical abscess of the liver, sprue, and cancrum oris are discussed in an interesting chapter. Diseases of the nervous system, the opium habit, and suicide are fully dealt with, and the subject of opium smoking is carefully gone into.

Such subjects as foot-binding, lacquer poisoning, chronic mercurial poisoning, and chronic enlargement of the os calcis are especially Chinese ailments, and of the undifferentiated fevers of China glandular fever—a seven-day fever—and urticarial fever are the more prominent. Diseases of the bones, of the skin, of the genito-urinary tract (including urinary calculi), diseases of the eye and ear, and of the uterus and its appendages, are described and illustrated in a way which is at once interesting and instructive; a wealth of information is conveyed in a clear and masterly manner. The concluding chapters on "Hygiene among the Chinese" and on "Hospitals in China" are a fitting end to a book which represents a great amount of labour and much careful thought and study. We congratulate the authors on their great work, by which medical

[1] *The Diseases of China, including Formosa and Korea.* By W. H. Jeffreys, M.D.Penn., and J. L. Maxwell, M.D.Lond. London: John Bale, Sons, and Danielsson, Limited. 1910. (Pp. 717, with 5 coloured plates, 11 noso-geographical plates, and 360 illustrations in the text. 25s. net.)

literature has been enriched and amplified. The publishers are also to be congratulated upon the appearance of the work. The paper, binding, printing, and illustrations are all good.

## SEWAGE IN THE TROPICS.

The disposal of sewage in the tropics is a difficult subject, and books dealing with the matter are not numerous. Major Clemesha's work, *Sewage Disposal in the Tropics*,[2] will therefore meet a distinct want, and it should be closely perused by all interested in this branch of sanitary science. A good deal of space in it is given to the septic tank, and though this method of disposing of sewage has not been looked upon with so much favour lately by sanitarians at home, yet as Major Clemesha says, it certainly answers in India, where the natives are practically pure vegetable feeders. The advantages of having big mill installations to work upon has helped the author not a little, especially because of the accuracy with which the figures and other details have been checked. For such institutions the septic tank principle is clearly in advance of the "aërobic beds only" method, and for other places in the tropics, especially in some of the tropical colonies, might with advantage be installed. The ultimate disposal of the effluent is always a question replete with interest, but it must be settled for each place.

The plan of discharging it into specially constructed tanks or ponds is ingenious, but if vegetation were introduced into these, as the author indicates, then even in the presence of fish there would be a very great danger of these areas becoming regular mosquito nurseries, and therefore a nuisance if nothing more. More might be made, we think, of the method described on page 212—namely, "the raising of the effluent to boiling point by means of an apparatus placed in the flue of the boiler." Where such boilers exist, as in the mill described, this would seem—if it is feasible from an engineering point of view—to be an excellent way of sterilizing the effluent. Certainly, after being raised to the boiling point or over for a considerable time, there could be no danger of faecal organisms still remaining in the water.

For other places where no such conveniences exist other methods would have to be tried. Though a strong supporter of the septic tank principle, Major Clemesha nevertheless gives a very good description of other methods, such as the aërobic, trenching, destruction by incineration, etc. All these are well treated, and the clear way in which the text is written holds the reader's attention. Medical officers of health, in whatever part of the tropics, will find the book most useful, as it contains many practical and useful hints, which may be of the utmost use and advantage to the colony in which they happen to be serving. The book is one of the most interesting on the subject of the disposal of sewage that has appeared for many a long day.

## DISORDERS OF METABOLISM.

Professor Schüle's chapter on *Achylia Gastrica*, which forms part of Albu's encyclopaedia of diseases of digestion and metabolism[3] is up to the general standard of that excellent work, but the subject being a comparatively small one he has managed to deal with it in some forty pages, of which one quarter is occupied by an account of the recent physiology of the secretion of the gastric juice based upon the experiments of Pavlov, Bickel, the author, and others. He agrees with Einhorn in believing that there is not only a primary achylia, but that for it no anatomical explanation may be discoverable, and he holds that in neurasthenia it may be purely functional; in other cases it may be congenital, and he asks whether the inherited "weak stomach" of which we often hear is due to such a functional defect. Secondary achylia is, of course, well known to occur after typhoid fever and other diseases, and in cancer, pernicious anaemia, and chronic nephritis. With regard to symptoms, he believes the cases fall into three groups: (1) Those in which there are stomach symptoms; (2) those in which the stomach function is apparently normal but there is bowel trouble; and (3) those in which both stomach and bowel symptoms are present. It is interesting to note that among stomach symptoms may be sour risings, a paradoxical condition which is apt to mislead by suggesting excessive acidity. Obstinate diarrhoea seems, however, to be the most usual symptom of this condition. He points out that there is great difficulty in diagnosing primary from secondary cases, and quotes briefly two cases where the absence of hydrochloric acid in patients with a recent history of stomach trouble, and considerable loss of weight made the diagnosis of cancer extremely probable, yet the subsequent history of both cases showed that this could not have been present. With regard to treatment, he speaks favourably of acidol and the administration of comparatively large quantities of hydrochloric acid in sweetened tea or water, taken as a drink at meals. He also believes that small doses of hydrochloric acid taken before a meal acts as a stimulant to the stomach in cases where the secretion is merely deficient.

The metabolism of nucleins and their relations to gout and the uric acid diathesis is one of the departments of pathology in which very great advances have been made in recent years, and Drs. Theodor Brugsch and Alfred Schittenhelm,[4] the authors of a monograph on the subject, have done much work with regard to it, and are well entitled to express their views. In a general introduction they give a clear account of the chemistry of the nuclein bodies and of their metabolism, but the greater part of the book is taken up with the pathology of gout and uricaemia and of the uric acid diathesis. They consider that the view so long held as expressed in the letter of Erasmus to More, in which he wrote, "You have kidney stone, I the gout, so we have married two sisters," should no longer be maintained, as gout is due to a disturbance of purin metabolism, but stone is caused by alterations in the chemico-physical relations of the urine. They believe that there are two fundamental forms of gouty uricaemia, which they call metabolic gout and renal gout, the nature of the latter being explained by the subtitle "retention-uricaemia," and they believe that in gout the uric acid circulates in a less easily excretable form. With regard to treatment, they adopt the general principle of purin-free diet, but point out that it is not sufficient to exclude flesh, tea, coffee, and cocoa, as many vegetables, such as spinach, peas, and beans, contain as much purin as meat; they forbid alcohol on account of its undoubted interference with nuclein metabolism. They think further experience is needed with regard to Falkenstein's treatment of gout by hydrochloric acid,[5] but believe that it is probably useful in cases in which the gout is associated with some dyspeptic disturbance, such as diminution or absence of the hydrochloric acid of the gastric juice. They cannot explain the action of colchicum, but consider it is probable that its effect is merely that of an analgesic.

The ninth and tenth parts of Professor von Noorden's system of metabolic and nutritional diseases contain only a brief monograph on *Vagotonie* by Drs. Hans Eppinger and Leo Hess.[6] By this title they mean the excitability of the functions of the vagus nerve. They regard the vagus and sympathetic systems as antagonists, and illustrate this from pharmacology; what stimulates the sympathetic depresses the vagus, and vice versa; stimulation of the vagus causing free flow of saliva, gastric juice and sweat, spasm of the pylorus, spastic contraction of the bowel and of the bronchioles. They believe that there are many people who suffer from a congenital irritability of the vagus, and that such people are of neurotic habit and appearance; their movements are quick, they are subject to sudden blushing replaced by pallor, to the appearance of erythematous patches on the skin; their hands are

[2] *Sewage Disposal in the Tropics.* By Wm. Wesley Clemesha, M.D.Vict., D.P.H., Major (I.M.S.), Sanitary Commissioner, Bengal; Professor of Hygiene, Calcutta University; late Officiating Sanitary Commissioner, Madras. Calcutta and Simla: Thacker, Spink and Co. London: W. Thacker and Co. 1910. (Demy 8vo, pp. 241. 15s.)

[3] *Verdauungs- und Stoffwechsel-krankheiten*, Herausgegeben von Prof. Dr. A. Albu in Berlin. *Wesen und Behandlung der Achylia Gastrica* Von Prof. A. Schüle. Halle-a.-S. Carl Marhold. 1910. (Med. 8vo, pp. 44. M. 1.20.)

[4] *Der Nukleinstoffwechsel und seine Stoerungen (Gicht, Uratsteindiathese u. a.).* Von Dr. Theodor Brugsch und Dr. Alfred Schittenhelm. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo, pp. 166. M. 4.50.)

[5] See Journal, April 9th, 1910, p. 875.

[6] *Sammlung klinischer Abhandlungen ueber Pathologie und Therapie der Stoffwechsel und Ernaehrungsstoerungen.* Von Professor Dr. Carl von Noorden. 9 und 10 Heft. *Die Vagotonie*, von Dr. Hans Eppinger und Dr. Leo Hess. Berlin. 1910. August Hirschwald. (Med. 8vo, pp. 99. M. 2.80.)

cyanosed, damp, and cold; they sweat easily; their eyes are wide open and rather protruding; their general nutrition is poor and their constitution feeble; they have thick lips, broad noses, and often show signs of having had enlarged glands in childhood; they suffer from attacks of acne and seborrhoea; they are often myopic, and frequently have squint; the saliva is abundant, tongue large and moist, gums badly developed, tonsils enlarged, and they are liable to frequent sore throats; in childhood they often have adenoids, and it is typical of them that the throat is extremely sensitive; the heart's action is tumultuous, the position of the diaphragm is high, the pulse is 60 or less, and is slowed by deep inspiration and often irregular after a heavy meal; they are subject to constipation alternating with diarrhoea; they digest carbohydrates badly; micturition is frequent, but the urine, which contains urates, oxalates, or alkaline phosphates, is scanty; the knee-jerks are increased, and dermographism is common. Such people suffer from the slighter forms of angina, from asthma, hyperacidity of the stomach, with pyloric spasm and vomiting, spastic constipation, bradycardia, and visceroptosis. The irritability of the vagus may also show itself as a local affection involving only certain branches with their related organs. The authors believe it to be often associated with a functional defect of the adrenal secretion, and perhaps with overaction of the lymphatic system. The only suggestions they make for treatment are the use of atropine, digitalis, and adrenalin.

## PHYSICAL EXERCISES AND PERSONAL HYGIENE.

DR. HUEPPE'S book on the hygiene of bodily movements[7] is a reprint of a contribution to the *Handbook of Hygiene*, and was written, he says, so long ago as Christmas, 1909, but there is nothing in the subject which makes this long delay of any importance. He claims to write from the standpoint of a physiologist who is also a practised athlete and sportsman, and he believes that as games become more popular in Germany it will be found that they have a national and economic value, and their hygienic advantages will be better appreciated. He describes the devotion of the Greeks to bodily exercise, and claims as a result the perfection of symmetry and carriage in the statues of antiquity, which were doubtless modelled from living persons. In modern times there has, he thinks, been too great a tendency to neglect the body and to pay exclusive attention to the training of the mind, though he instances Leonardo da Vinci and Goethe as magnificent specimens of men as well as examples of the highest genius. He sees no reason why the modern citizen should not be trained so as to carry himself better and avoid those attitudes at his work which are not only ungraceful but lead to bodily deformities. He approves of all active sports, because they cause many muscles to be exercised and promote bodily activity and strength. German gymnastics attempt to systematize the training of movements and to produce the results of games in a scientific manner without running the risk of developing only certain groups of muscles. The great disadvantage is that they are carried out indoors. He also describes Swedish gymnastics which attempt to exercise particular groups of muscles and the American system of physical culture which seeks to combine the advantages of the German and Swedish methods. All his descriptions are illustrated by drawings and photographs of antique statues, modern athletes, and fine specimens of natural humanity as illustrating the results of various kinds of training. He discusses the influence of diet, and particularly describes the achievements of vegetarian athletes. He points out how clothing may hinder the movements or deform the shape of the body, condemning the practice of wearing corsets and of suspending heavy clothing by waistbands; in connexion with the care of the body he describes baths and douches, swimming, and the use of air and sun baths. On the whole we gather that while Dr. Hueppe advocates care of the body he has a preference for attaining this result if possible by natural out-of-door games and exercises rather than by artificial training in classes, a view which while popular in this country is held by a minority only of Dr. Hueppe's fellow-countrymen who discuss this question.

Dr. ANNA GALBRAITH, the authoress of a book on *Personal Hygiene and Physical Training for Women*,[8] tells her readers that the aim of her work is "to present in a clear and concise manner the fundamental physiological laws on which all personal hygiene is based, together with the practical, detailed directions for the proper development of the body and the training of the physical powers to their highest degree of efficiency by means of fresh air, tonic baths, proper food and clothing, gymnastic and outdoor exercise, so that the tissues will be placed in the best possible condition to resist disease." On the whole the pious intention has been well carried out, though it may be objected to this, as to many other similar treatises, that the patience of the reader is somewhat taxed by an unnecessary amount of padding. The information which is conveyed is good and reliable, but it might, with no loss of utility, have been compressed into half the number of pages. Prolixity is always a bar to popularity, and though there is nothing but what is praiseworthy in the book, it would have been both more useful and more commendable if throughout it had been severely cut short. In the concluding chapters, which deal with dress and physical training, the authoress is at her best, and we can cordially recommend to all who are interested in the physical culture of women the experience and recommendations of Dr. Anna Galbraith as therein narrated. The book is pleasantly written and suitably illustrated. If it tells us nothing new, it reproduces in an attractive style many facts which bear repetition, and emphasizes the need, which every one admits, for more attention on the part of women to the great hygienic laws of health upon which depends so largely not only the physical well-being of their sex, but also the stamina and physique of future generations of mankind.

## NOTES ON BOOKS.

UNDER the title of *The Views of Vanoc*,[9] Mr. ARNOLD WHITE has republished in book form articles contributed by him to the *Referee* since he succeeded the late Mr. David Christie Murray as the front-page leader writer to that paper. Mr. White has chosen many themes—from the problems of eugenics to an abstract discussion of fame, from religion to flowers. Most of the burning questions of the day are discussed in a moderate and sane manner, remarkably free from the exaggerations of party feeling. Among the subjects treated of is, of course, the doctor—one of the stock topics of present-day writers. Mr. White is inclined to think that the Chinese method of payment on the basis of prevention might with advantage to the public be applied to the practice of medicine. He has, of course, something to say about health, another inevitable subject; he lays stress on the personality—that is to say, the suggestive power—of the physician, which has, he thinks, to a considerable extent taken the place of drugs. Under the heading of "eugenics" he discusses the problem of the sterilization of the unfit, but holds that its most effective solution is the provision of decent house accommodation and better conditions of living for those unfavoured by fortune. In another article under the same heading he strongly urges the necessity of race culture. "The first step," he says, "in national defence is to breed, rear, and train a race of self-respecting men and women who regulate their own lives and make the best of them." Like most latter-day teaching on the same subject, however, that of "Vanoc" is like a signpost showing the direction but not telling us how the road is to be made. We are grateful to Mr. Arnold White for publishing these suggestive and stimulating essays in volume form; they are far too good to be lost for ever in lighting Monday morning's fire. The book, though small, contains more matter for thought and more sound doctrine than many more pretentious works dealing with social problems.

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[7] *Hygiene der Koerperuebungen.* Von Ferdinand Hueppe. Leipzig: S. Hirzel. 1910. (Med. 8vo, pp. 162; 47 figs. M. 3.)

[8] *Personal Hygiene and Physical Training for Women.* By Anna M. Galbraith, M.D., Fellow of the New York Academy of Medicine, etc. Illustrated. Philadelphia and London: W. B. Saunders Company. 1911. (Post 8vo, pp. 371. Price 10s.)

[9] *The Views of Vanoc.* By Arnold White. London: Kegan Paul, Trench, Trübner, and Co. (5s.)

# Nova et Vetera.

## MEDICAL HERALDRY.

IT is related by Munk in his *Life of Sir Henry Halford* that in recognition of the devoted attendance of that physician on the Duke of York he received by royal warrant a grant of armorial augmentations and supporters. His arms were previously: Argent, a greyhound passant sable, on a chief azure three fleurs-de-lis, or. For the central fleur-de-lis was substituted a rose argent; and in further augmentation was added on a canton ermine a staff entwined with a serpent proper, and ensigned with a coronet composed of crosses patée and fleurs-de-lis (being that of a prince of the blood royal). As a crest of augmentation, a staff entwined with a serpent or, as on the canton. As supporters, two emus proper, each gorged with a coronet, composed of crosses patée and fleurs-de-lis. This, says Munk, is the only instance in English heraldry of the grant of supporters to a practising physician. The explanation of the choice of the supporters is said to be that George IV some time previously had presented Halford with two fine emus that had been sent him from abroad. These were forwarded to Halford's country house at Wistow, where they proved to be very mischievous. The courtly physician, however, bore with their depredations in consideration of their royal donor, and they were permitted to die a natural death. When the question of supporters was under consideration, Sir Henry's loyalty led him to suggest the emus, and they were at once assigned to him.

A physician, though no longer a practising one, who achieved distinction in his profession under the name of Sir Walter Foster, last year received a higher honour, having been created a peer under the title of Lord Ilkeston. As such he has the privilege of "supporters," as appears from the document issued under the seal of Garter Principal King of Arms which is printed below.

The details of the coat of arms here reproduced have a special significance in relation to the profession of Lord Ilkeston and his work in medicine. The heraldic description is as follows:

Argent: A human heart gules between in chief two Foxgloves leaved and slipped, and in base a Caduceus proper; and for the crest, on a wreath of the colours: In front a stag's head couped proper three human hearts in fesse gules.

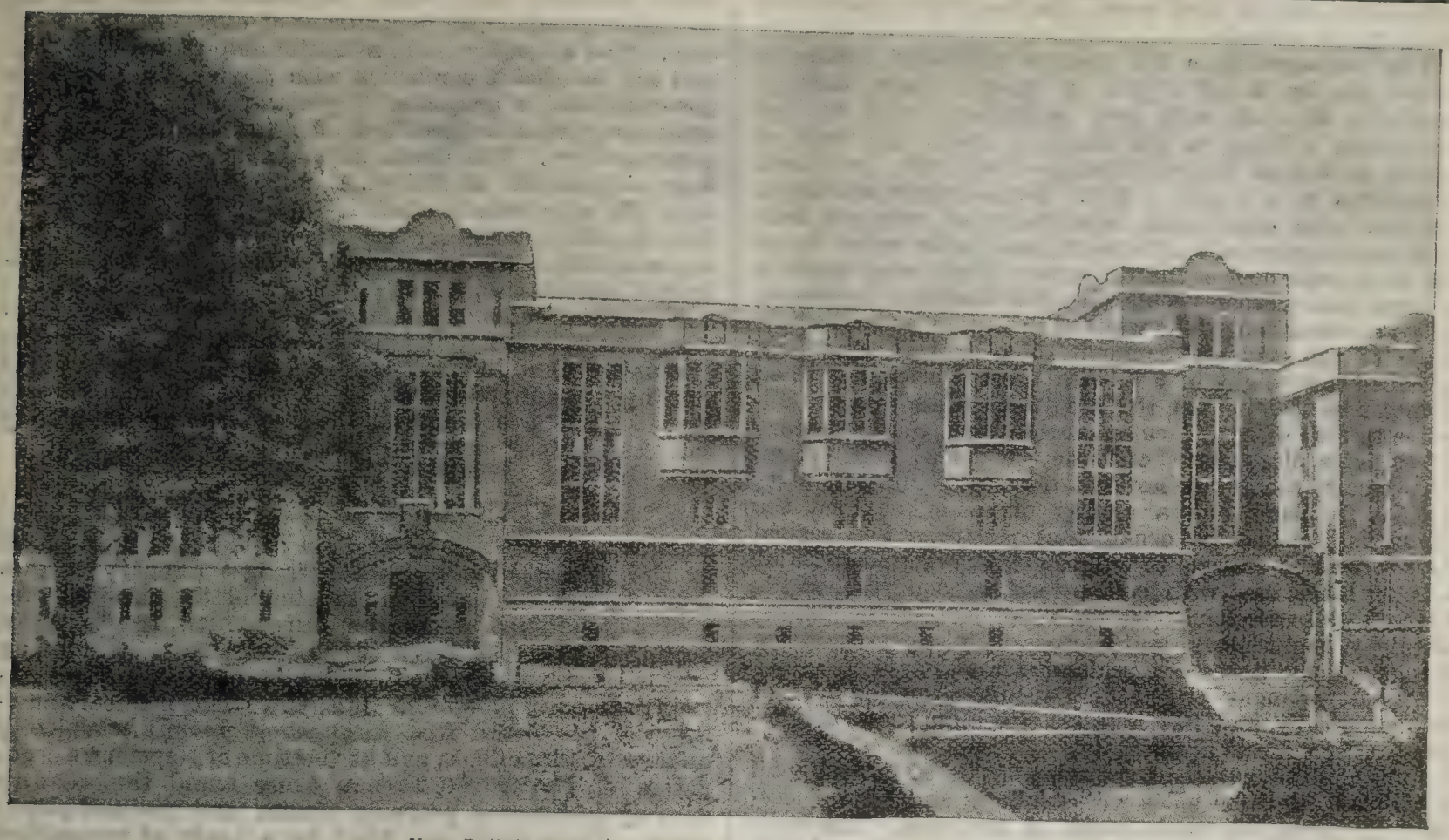
Supporters: On either side an Elk reguardant proper pendant from the neck of each a bugle horn stringed gules.

It will be seen that the dominant note in the symbolism of the arms is the Heart, to which Lord Ilkeston as a physician devoted special attention. He is the author of a book on the sphygmograph, which was published in 1866, and he contributed articles on diseases of the heart to *Quain's Dictionary of Medicine*. The Foxgloves indicate his researches on the active and right use of digitalis. The Caduceus is the symbol of medicine. The Elks were chosen as supporters as a graceful compliment to the Ilkeston Division of Derbyshire—a constituency which Lord Ilkeston represented in the House of Commons for twenty-three years. Ilkeston was at one time the seat of a tribe whose emblem was the Great Elk. Altogether the coat of arms is as appropriate as it is effective. The motto, *Labore et Virtute*, which may be translated "By Work and Worth," is well chosen.

TO ALL and SINGULAR to whom these Presents shall come Sir Alfred Scott Scott-Gatty, Knight Commander of the Royal Victorian Order, Garter Principal King of Arms Sendeth Greeting.

WHEREAS His Majesty By Letters Patent under the Great Seal of the United Kingdom of Great Britain and Ireland, bearing date the fourteenth day of July last, was graciously pleased to create The Right Honourable Sir Balthazar Walter Foster, Knight, a PEER of the said United Kingdom of Great Britain and Ireland, by the same style and title of Baron Ilkeston of Ilkeston in the County of Derby, to hold to him and to the heirs male of his body lawfully begotten: And it being a privilege of the Peers of the Realm to bear Supporters to their Arms as well for their greater honour and dignity as to distinguish them from persons of inferior rank: KNOW YE that I the said Garter by virtue of my Office, and with the consent and approbation of The Most Noble Henry, Duke of Norfolk Earl Marshall and Hereditary Marshall of England, Knight of the Most Noble Order of the Garter, Knight Grand Cross of the Royal Victorian Order and one of His Majesty's Most Honourable Privy Council, signified to me by Warrant under His Gracious hand and seal do by these Presents grant and assign unto the said Balthazar Walter Baron Ilkeston the Supporters following, that is to say On either side An Elk reguardant proper, pendant from the neck of each a Bugle-horn, stringed Gules, as the same are in the margin hereof, more plainly depicted to be borne and used forever hereafter by him the said Balthazar Walter, Baron Ilkeston and by those upon whom the dignity of Baron Ilkeston shall descend in virtue of His Majesty's said Letters Patent of Creation:—IN WITNESS whereof I the said Garter Principal King of Arms have to these presents subscribed my name and affixed the Seal of my Office this 25th day of August in the First year of the Reign of Our Sovereign Lord George the Fifth by the Grace of God of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith, and in the year of Our Lord One Thousand nine hundred and ten.

A. S. SCOTT-GATTY (Seal.) Garter.



New Buildings of the McGill Faculty of Medicine, Montreal.

## THE NEW BUILDINGS OF THE McGILL FACULTY OF MEDICINE, MONTREAL.

THE new buildings of the Faculty of Medicine of the McGill University were formally opened on June 5th by His Excellency the Governor-General, Lord Grey, in presence of a distinguished company. The dedication of the new home of the faculty was preliminary to a week of celebration. Convocation for conferring degrees had been held the same afternoon at three o'clock in the hall of the Royal Victoria College; and the occasion was used to welcome back to the university the 600 graduates who have come for the first reunion.

The Faculty of Medicine of McGill University is the direct outcome and continuance of a teaching body known as the Montreal Medical Institution, which was organized as a medical school in the years 1823-4 by Drs. Wm. Robertson, Wm. Caldwell, A. F. Holmes, John Stephenson, and H. P. Loedel. These men constituted the first medical staff of the Montreal General Hospital, itself established in 1819. The first session of the Montreal Medical Institution opened in November, 1824, with twenty-five students, and the lectures were given at the house of the institution, No. 20, St. James's Street, a building situated on the north side of that street at or near Place d'Armes. In the year 1829 the Montreal Medical Institution became, by the formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University. The first session of the McGill Medical Faculty took place in the winter of 1829-30, and the first university degree, a medical one, was conferred four years later in 1833.

The work of the faculty was carried on for some years in the centre of the city until 1872, when a building in the university grounds was provided by the governors. This building met the demands of the steadily increasing number of students until 1885, when an addition was found neccessary. In 1893 the late Mr. J. H. R. Molson purchased property adjoining the grounds of the college, and enabled the faculty to erect new buildings and extensively alter and improve those already in use. The new wings comprised a large new lecture room capable of accommodating 150 students, and new laboratories for pathology, histology, pharmacology, and sanitary science. The library and the museum of pathology were also enlarged and improved, but, notwithstanding the greatly increased accommodation, a further extension became almost imperative in less than five years.

Before the want of space and new equipment were found necessary, Lord Strathcona in 1898 contributed the sum of 100,000 dollars towards the necessary extensions. When the buildings were completed they had more than twice the capacity of those previously occupied, and enabled the faculty to increase greatly the scope of its laboratory teaching. Six years later, however, on April 16th, 1907, a part of these new and commodious buildings, together with the original medical building, was destroyed by fire. Fortunately, the wing containing the teaching laboratories and the chief lecture room of the faculty were saved, though to some extent damaged by smoke and water. This wing was completely restored in time for the opening of the session 1907-8, so that the work of the faculty was not seriously interfered with.

The university had 336,500 dollars insurance from the fire of April, 1907, which, with some further sums, sufficed for the erection of the east wing. It was not at first intended to carry out the entire plan immediately; but funds gave out before the museum could be provided for, and the problem was laid before Lord Strathcona. With great munificence he came to the rescue with the donation of half a million dollars, as a result of which the building opened on June 5th represents nearly a million dollars of capital expenditure.

This edifice is the first building in Canada whose plans were chosen by public competition under the strict rules of the Institute of British Architects. A number of architects were invited to send in their designs, and the award was left in the hands of a board of assessors, experts in architecture. Their decision was unanimous, and the plans of Messrs. Brown and Vallance, of Montreal, were put into execution. The handsome building is erected on the south-west corner of Pine Avenue and University Street, opposite the Royal Victoria Hospital. It is the largest building of the university group, having a total frontage on Pine Avenue and on the Campus of 268 ft. 4 in. The University Street wing has a frontage of 47 ft. 2 in. and a depth of 171 ft.; the Carlton Road wing has a frontage of 47 ft. 2 in. and a depth of 114 ft.; and the main building, facing the Campus, has a frontage of 114 ft. and a depth of 70 ft.; the museum, facing Pine Avenue, in the form of a cross, is 74 ft. square. The building is of the highest type of modern steel construction, and is thoroughly fireproof. The exterior of the whole building is constructed of finely-cut Montreal limestone, and the roof is covered with green slate and copper flashings. All the windows are fitted with steel frames and sashes. The corridors have mosaic floors, with marble borders, and all

other floors are of hard wood; the finish throughout is of white quartered oak.

The entrances from the Campus and from University Street are by broad flights of granite steps, through vestibules finished with grey sandstone, with vaulted terra-cotta ceilings, to the staircase halls, the walls of which, as well as the corridors, are lined with low glazed terra-cotta to a height of 8 ft. Two separate staircases, finished with ornamental balustrades of wrought iron, with marble steps of ample width, lead to the upper floors. On the ground floor of the University Street wing there is a large locker room containing 500 students' lockers of metal construction. The walls of this room, as well as the walls of the students' common room on the same floor, are lined to a height of 9 ft. with pressed brick laid to an ornamental design. On the first floor there are the administration offices, faculty room, and the necessary laboratories, class-rooms, etc., for the dental department. The faculty room has an oak panelled dado 8 ft. high, with a fireplace, and a mantel of sandstone, and the ceiling is finished in ornamental plaster. The second floor is devoted entirely to pathological work, and contains a large laboratory with cement walls and a vitrified tile floor, as well as a demonstration room, library, incubators, histology, bacteriology, and microparasitology preparation rooms, and the necessary professors' rooms.

The department of anatomy occupies the top floor of the same wing, and has a large dissecting room, demonstration room, and professors' offices. The dissecting room is the full width of the wing; it is 90 ft. long, and is lighted on three sides with windows and a large skylight extending the whole length of the room. The walls are lined with white enamelled brick, and are floored with vitrified tile. In the basement of the main building is the ventilating plant, the library unpacking room, and storage and work-rooms for the curator of the museum.

On the ground floor are placed the offices for the professors, work-room for the museum curator, and a large lecture theatre. On the first floor is the stack room, which will accommodate 100,000 volumes, with research rooms, a large lecture room, and rooms for experimental surgery. On the second floor are the librarian's office and workroom, a large reading-room, a journal room, an anatomical theatre, offices, and a private museum for the dean of the faculty. The Carlton Road wing contains the departments of pharmacology and hygiene, as well as a large lecture theatre, to seat 250 students. The attic is arranged for animal surgery. The upper parts of the towers are planned for the accommodation of the animals. All are finished in cement, with kennel boxes of the same material.

The museum facing on Pine Avenue is three stories in height, and is entered from each floor of the main building. The open well for light in the centre is finished in low glazed terra-cotta, surmounted by a leaded glass dome, with an outer dome of prism glass. The doors are of mosaic, with marble borders, and the cases for specimens are made of steel.

The building is heated by hot water from the university's own plant, the piping running to the building in an underground conduit. The ventilation is of the most modern type. All air is thoroughly heated and washed before being blown to the different rooms by large fans in the basement of the main building, and the vitiated air is exhausted through fans in the roof. The electric current for lighting and power is also generated by the university plant. An electric passenger elevator is provided in the University Street wing, as well as a special lift from the preparation room to the dissecting room. Electric lifts are also installed for bringing books and subjects from the unpacking room and to the museum. The pathology and bacteriology sections are well situated. The students' laboratories are equipped with all the most modern appliances. These occupy the north end, and will give accommodation to about eighty students at one time. In addition to these there are research rooms and private suites for the professors, including a private laboratory. In this part of the building there is also a small demonstration theatre. The parasitology department includes four fully equipped laboratories and research rooms. The west wing will give accommodation to two departments—hygiene and pharmacology. In addition it will contain a large assembly hall, with preparation rooms for the accommodation of the department of experimental medicine. The assembly hall has useful ante-rooms adjoining, and will be used in connexion with the faculty, as well as for examination purposes. Special rooms are also set apart for private research and offices of the department of pharmacology. The dental department has only recently been established at McGill., With the accommodation that has now been allotted it will continue to improve. The department has lecture rooms and suitable private accommodation for the professor, and three large well-lighted laboratories.

Whilst the ceremony of opening was going on, a cablegram was received from Lord Strathcona offering his congratulations, and informing the governors that an additional sum of a hundred thousand dollars was at their disposal to make the equipment of the new building absolutely complete.

## MEDICINE IN MEDIAEVAL EGYPT.

AN interesting article by M. Paul Tribier which appeared in the *Presse Médicale d'Egypte* last January throws some curious sidelights on the state of the medical profession in Egypt before the introduction of European doctors during the reign of Mehemet Ali. For many centuries previously there seems to have been no regularly organized profession in Egypt. The medical knowledge of the Arabs had disappeared almost completely under the Mamelukes, and at the time of Napoleon's occupation of Egypt the French army found the country entirely destitute of properly trained and qualified physicians. Their place was filled by a horde of unqualified practitioners, who were controlled by a State official called the *mohteceb*, whose duty it was to enforce the observance of certain rules and regulations upon the members of the different trades and professions.

One of the most important duties of this functionary (whose office seems to have come into being somewhere about the twelfth century) consisted of a close supervision of all matters relating to public hygiene. For instance, all who wished to practise medicine were obliged to bind themselves by oath before the *mohteceb* never to prescribe such medicines as might be injurious to the health of a patient, nor to tell people about poisons, and never to show a pregnant woman the way to procure an abortion, or a man how to destroy the powers of procreation. Moreover, the oculist had to prove his knowledge of the writings of Honein, and the bonesetter his acquaintance with anatomy and the art of massage before the *mohteceb* would allow them to prey upon an ignorant public. Herbalists and sellers of lotus leaves were under police supervision, whilst the proprietors of public baths were forbidden to admit any sick person into their establishments, and the most stringent rules were made to ensure the purity of all provisions sold to the public.

Wise as these rules undoubtedly were, in too many instances they were treated as a dead letter, and at the beginning of the nineteenth century the *mohteceb* was little more than an examiner of weights and measures, who carried out his task with all the cruelty of an Eastern despot. Practitioners of the healing art were divided into two principal groups, *hakims* and *djerrahs*. The former, corresponding to physicians, usually acquired such knowledge as they possessed from tradition, only the most learned amongst them having read the Canon of Avicenna, and other ancient authorities. They classed all human ills under four headings, hot and cold, moist and dry, and divided temperaments into the fat and the thin. Their diagnosis was usually made from the state of the patient's pulse, and their treatment consisted of tonics, purgatives, and cooling and heating draughts. The *djerrahs*, who practised surgery, were barbers, who formed themselves into a corporation, at the head of which was the *djerrah-bachi;* apparently they learnt their trade by the simple process of experimenting on the public. They performed the operations of cupping, bleeding and scarifying; treated fractures, bruises, and dislocations; drew teeth, opened abscesses, mutilated eunuchs, and circumcised male children. Matrons circumcised little girls and stitched up the vulvar orifice in black slaves. They also acted as midwives and attended women in sickness. The *djerrahs* attempted the treatment of hernia, though with little

success; they had fairly good results in cutting for stone. They sometimes, though seldom, performed amputations in a rough and ready way; they operated for cataract and treated diseases of the eye. Besides the *hakims* and *djerrahs*, there were bonesetters or *mougabbers*, who confined themselves to the treatment of fractures and dislocations.

It is hardly necessary to add that the Egyptians in those ages appear to have placed as great faith in the efficacy of charms and incantations as in the prescriptions of their doctors. Dust from the tomb of Mahomet, or water from the sacred spring of Zem-Zem, at Mecca, were firmly believed to avert disease, whilst another favourite superstition was to drink the water in which had been washed a text copied from the Koran. A certain cure for eye trouble was to take a piece of dry earth from the right bank of the Nile at Boulac and cross the river to deposit it at Embabeh, on the opposite side; whilst barren women were wont to walk seven times under the stone slab on which the bodies of beheaded criminals were placed, and then bathe the face in the water in which the corpses had been washed. The essential part of this treatment consisted in its being carried out in unbroken silence, a task of some difficulty if the ladies of ancient Egypt suffered from weak nerves!

These superstitions are all the more remarkable inasmuch as we learn from M. Tribier that the Egyptians, who frequently relied on home treatment instead of calling in a doctor, were not without a certain amount of real therapeutic knowledge, such as the usefulness of diet in cases of fever and the efficacy of baths in inducing perspiration. This was the state of things when European medicine was introduced into Egypt by Clot-Bey and other Frenchmen about 1830. That the innovation was not welcomed with enthusiasm is only what might have been expected. The attitude of the conservative Egyptian is shown in the following fragment of a song of Hassan, a soldier who, after campaigning in Arabia for three years, returns to Egypt: "And forthwith fever seizes me and I am taken to the great hospital of Abou-Zabel, and the *frendgi* (French or European) doctors, more unbearable than my disease, forbade me to eat in order that they might sell my rations. God damn them!" At this his betrothed, Fatma, comes on the scene. As soon as he hears her voice, he says: "I throw the cup in the nurse's face; strength comes back to me and flows in my blood; I get up cured and the stupid doctors fancy it is their remedies that have made me well." But there is nothing in this specially characteristic of Egypt in its pre-European state. Hassan's opinion of medicine would be echoed by many in the countries that call themselves enlightened at the present day.

## WORKMEN'S COMPENSATION ACT.

MALINGERING AND THE WORKMEN'S COMPENSATION ACT.

We received two communications, both written before the introduction of the National Insurance Bill, extracts from which may still be read with interest.

The first is from a surgeon who practises in one of the great industrial districts of the Midlands. He writes:

The real danger seems to me not so much true malingering, which can usually be detected, but the loss of that sense of independence engendered by the Workmen's Compensation Act.

The true malingerer usually gets caught sooner or later, but the lazy man created largely by this Act, who has some real, though it may be trivial, injury, which makes him less perfect as a workman, makes use of this as a marketable commodity.

He trots out the pain bogey before the county court judge, who tells him and the medical witnesses that he is bound to believe the man when he says "it hurts him" when he tries to work. Thus he is encouraged to try it on until he really believes it himself, and, pain or no pain, he does not mean to risk work so long as "compensation" is paid him.

In the case of older men—men getting past work—the temptation to this is far greater, for it is common knowledge now that no employer will engage an old workman who has been in receipt of compensation. There was a time when employers were ready and willing to take on old or damaged workmen at a low wage—an arrangement beneficial to all concerned. But now, with a prospect of a fatal termination in an elderly man, neither employers nor insurance companies care to venture to do so.

The latitude given by coroners and judges to the interpretation of an "injury" is largely responsible for this state of things. A man ruptures an aortic aneurysm which has existed for years, in doing what would be in a healthy man harmless labour; another and very frequent example is found, too, in a tuberculous subject who gets a trivial injury which may lead to amputation and possibly death. For this again the master is held liable, and so on of almost innumerable conditions which are only very remotely connected with injury or accident; still liability ensues.

This applies with even greater force to compensation in industrial diseases—many of which are the outcome of constitutional States which would have certainly led to permanent incapacity at an early date in any case.

Every one who has the courage to express his opinion that a workman is quite fit to work in spite of his protests about pain, stiffness, and the rest of it, is now looked upon as a sort of brute, and maudlin sentiment carries the day.

How to remedy all this is not easy. One method might be to adopt that of most friendly societies, in which the pay is after a time reduced or ceases altogether; another might be to have a regulated scale like that of accident insurance companies for special injuries, so much for loss of an eye, a limb, etc. If a man with a trivial real or imaginary disability realized that the pay would automatically cease some time, he would make an effort which at present he has no inducement to make, but the contrary.

The real difficulties are these: The attitude of most county court judges, whose sympathies are entirely one-sided, and the ineffectiveness of the system of medical referees. The difficulty arising from the unwillingness of employers to find suitable work for those who cannot honestly do the work they did before the accident.

The knowledge on the part of older workmen that once their compensation pay ceases they cannot and will not obtain further work anywhere; they naturally do their utmost to drag on.

Another element is parental influence. A mother or father refuses to allow their children to go to the same work again. This happens frequently where a girl loses the tip of her finger, or a boy gets hurt in a mine, etc.; and it is on the increase. They invariably want a lump sum, often out of all proportion to any future earning incapacity.

In glaring cases of real malingering it ought to be made a punishable offence of trying to obtain money under false pretences. This would act as a wholesome deterrent in some cases, for such men are arrant cowards as a rule.

Insurance companies are waking up to the necessity of having their own surgeon to inspect and report on their cases much oftener than they did, and it would be a great help to them if such inspection were permitted to be made whenever the surgeon desires it, and not to be hampered, as he often is at present, by having to make formal appointments through solicitors and others. This sometimes defeats the very object of a surprise visit. They are cunning fellows, some of these model malingerers!

The second letter is from Dr. Highet of Workington, and from this communication we take the following:

My object in writing this letter is to draw attention to what I think is a blot in the Act, which, if remedied, would have the effect of putting a stop to much of the malingering which is fast eating the fibre out of the British workman, and occupies so much of the time of the county court judges. I refer to the power of sending cases to the medical referee. At present a workman cannot be sent before that authority unless he himself elects to go, and in the majority of cases this consent is not obtainable. Now, at the present time, when a claim is put in for injury, it is usually accompanied by a certificate from the workman's own medical attendant, and the employers or insurance companies, as the case may be, have for their satisfaction an examination made by a medical man of their own choosing. In nearly every case the club certificate favours the workman's application, and perhaps at the beginning there is little or nothing to complain of, but there comes a time when a difference of opinion begins to be exhibited. Then comes a deadlock which can only be solved by going into court. To avoid this, perhaps, payment is continued for a few more weeks, in the hope that there will speedily be a return to work, but, alas! there are many reasons preventing this—lawyers can be found and a case is the result. The class of case in which this is seen best is strain or injury to the back. This particular region has

long since been recognized by the workman as the best for what the old Scottish woman said of the sermon, "Jummelling the judgement and confounding the reason." There is nothing abnormal to be seen or felt, the symptoms are all subjective; probably both sides admit this. The man simply says he has a pain in his back, probably increased by certain movements, and who can say that he is not telling the truth?

My suggestion is that in every case in which there is a difference of opinion between the workman's own doctor and the medical man acting for the insurance company or employers, and where this difference dates back for a fortnight, the case should go at once to the medical referee. At present the county court judge can avail himself, if he pleases, of the assistance of the medical referee, but I would go further than this. Every county or division has at least three or more medical referees. They, and they alone, should be the tribunal for hearing the medical aspects of the case. All cases such as I have indicated should be sent to them; they could deal with them once a month or oftener if required; their decision (majority vote) should be final, and their report should be sent to the county court judge to enable him to announce the result.

Were this course adopted we would not hear of so much malingering. There would not be the same disposition on the part of some to go into court, and cases would not be bolstered up as they are at the present time. Medical men in granting or withholding certificates would do so with the full knowledge that they would have to give a reason for the faith that was in them before a tribunal that could thoroughly appreciate their evidence, and the county court judges would be freed of a responsibility which is often harassing to them, and from which in most cases they would be only too glad to be relieved. I can see no reason why either side should object to it. If the condition complained of were genuine and capable of proof, the necessary compensation would still be forthcoming; if not, then the fraud would be detected.

## SCIENCE NOTES.

SOME curious observations, which may be of significance in therapeutics, have recently been made by Popielski.[1] He was studying the effect of intravenous injection of various chemical compounds in dogs, and found that in doses exceeding 0.8 mg. per kilo of body weight, atropine caused fall of blood pressure, great excitation with subsequent depression, and loss of coagulability of the blood. The same phenomena followed the injection of morphine in doses of 10 mg. per kilo, and to a less marked extent in the case of cocaine. These effects bear a certain resemblance to those of anaphylaxis, and the author explains their occurrence on the assumption that the alkaloid acts on the cellular elements of the blood, and gives rise to vaso-dilatine. The latter substance is usually obtained from Witte's peptone, but can also be got from blood corpuscles by thorough shaking. Its physiological effect is identical with that seen in Popielski's experiments.

Artificial parthenogenesis has provided some of the most sensational experimental work of recent years, and the results obtained have to no inconsiderable extent modified our ideas on the mechanism of sexual reproduction. Parthenogenesis is a phenomenon of common occurrence in Nature, although it is limited to certain groups of animals. Throughout the rest of the animal world gamogenesis is the predominant method of reproduction, and, until a few years ago, the process of fertilization was regarded as indispensable. This belief was shaken by the experimental work of Loeb and others, whose researches have now become classical. It was shown that in animals in which gamogenesis is normal the ovum could be induced to develop without the entry of the male element by a suitable adjustment of the environment. This was effected in various ways, such as by adding certain salts to the water in which the ova are contained, by changes of temperature, or by the action of carbonic acid gas. In each of these ways it is obvious that some stimulus is supplied to the ovum, and that this stimulus is not necessarily specific. Experiments of this nature have now been multiplied enormously, and confirmation of the original observations has been obtained throughout the various phyla, from the Coelenterates to the Amphibians. As a rule the segmentation induced by such artificial means comes to a stop after a short time, but this point of arrest varies very greatly in the different groups of animals. In the Coelenterates, Ascidians, and Lamellibranchiate molluscs, for instance, the process is arrested at a very early stage. In the case of fishes and amphibians, too, no larval stage was obtained, until during the past year. In Holothurians and Gasteropod molluscs, however, development proceeded to the blastula stage; in Arthropods to the more advanced gastrula stage. A much more advanced stage has been achieved in the case of marine worms (*Polychaeta*), in which the development was carried to the characteristic *trochophore* larval state; but far the greatest success has been attained with the *Echinodermata* (starfishes and sea urchins), in which complete adult development has been witnessed. In one of Delage's experiments two of these artificially developed animals were kept alive for as long as eighteen months. The most recent notable advance in artificial parthenogenesis has been made by Professor Bataillon of Dijon. A preliminary account of his work was given to the Académie des Sciences in April, 1910, and since then he has prosecuted further researches. Previous work has for the greater part been done on invertebrates, and no great success has been met with in vertebrate animals. It is only the lower forms of vertebrates—namely, teleostean fishes and amphibians—in which fertilization of the ova takes place externally. Bataillon chose as his subject the common frog. His method of procedure was to take ripe eggs just about to be laid, and to puncture each with a very fine platinum needle. They were then placed in water. Less than an hour afterwards the dark pole of the egg began to rotate upwards. Frogs' eggs are black at one pole and light at the other. Unfertilized eggs lie with the light pole uppermost, and the earliest sign of fertilization is a rotation of the dark pole to the top. Three hours later the first signs of segmentation became apparent, and in about three days there was unmistakable evidence of the formation of an embryo. A few days later saw the appearance of young tadpoles. Only a very small proportion—about 2 per cent.—of the punctured eggs reached this stage. In three months several of these tadpoles were well on the way to metamorphosis. One of them had both pairs of limbs well developed, another had the posterior pair well developed and the anterior pair just about to emerge. The further fate of these larvae has not yet been disclosed. In addition to this practical demonstration Bataillon has several suggestive considerations to offer. With regard to the initial cause of segmentation, he thinks that it is to be found in a modification of the osmotic equilibrium of the egg produced under normal circumstances by the entry of the male element, or artificially by any of the means above enumerated. He believes that the extrusion of the polar bodies in the maturing ovum alters the osmotic equilibrium, and that some stimulus is required to restore the tone necessary for segmentation. The entrance of the male element is followed by a contraction of the ovum and the extrusion of waste products which would otherwise retard development. In all cases studied the fertilized ovum becomes surrounded by a fluid exudate which appears to contain a toxin which prevents the entrance of other sperms. These considerations, together with the results of further experiments on cross fertilization, lead Bataillon to the conclusion that the process of fertilization is not specific. His success with such a highly organized animal as the frog will undoubtedly stimulate further work in this direction, and it seems not unreasonable to expect, in spite of the difficulties of the technique, that artificial parthenogenesis may yet be induced in animals in which fertilization takes place internally.

In the March number of the *Zoologist*, McIntosh gives an interesting account of the toothed whales. These gigantic animals have always been a subject of popular as well as zoological interest from their great size and curious mode of life. Probably not many people in England have seen a whale in its natural element, but to the inhabitants of the northern coasts of Scotland they are a by no means uncommon sight, and in the Shetland Islands they are captured in considerable numbers. Zoologically whales are divided into two classes, whalebone whales, in which

[1] *Centralbl. f. Physiol.*, xxiv, No. 24.

the teeth are replaced by plates of whalebone, and toothed whales, which include the porpoises and dolphins. Economically the former are the more valuable, and constitute the chief object of the whale fisheries, which in this country have long had their headquarters in Dundee and Peterhead. The toothed whales are mainly of value for their blubber. So entirely aquatic is their mode of life that the mammalian nature of whales is apt to be lost sight of. Their structure, however, enormously modified as it is in several respects, possesses all the fundamental mammalian characteristics. The greatest degree of modification has, naturally, taken place externally, and this is evidenced by the fish-like shape and tail and the smooth skin. The typical hairy covering has disappeared, but hairs are to be met with on various parts of the head. The great development of the subcutaneous fat or blubber is characteristic of whales, and this layer may exceed a foot in thickness. In some species it becomes hypertrophied on the snout, and may form a mass weighing two or three tons. One of the most remarkable organs of the whale is its tail, and there is still difference of opinion with regard to the homology of this organ. One view is that the caudal flukes are the degenerate homologues of the hind limbs, but the most probable opinion is that the hind limbs have entirely disappeared, and that the flukes have been secondarily acquired. A vestige of the pelvis remains, except in the Susu. Another interesting feature is the method of respiration. There is a single nostril or blow-hole, situated, except in the sperm whale, on the top of the head. The aperture is controlled by muscles, but closes by its own elasticity. The larynx has the form of a long tube, the end of which can be grasped and closed by the muscles of the soft palate and so prevent the entrance of water to the lungs during feeding. The lungs are of great capacity, and in the sperm whale can contain enough air to enable the animal to remain below the surface for as long as an hour. The sense of sight is moderately acute, and the same may be said of hearing, although there is no external ear. Taste and smell, on the other hand, appear to be feebly developed. Whales have an undoubted sense of social instinct, as is evidenced by their habit of going in schools and of following a leader. Professor McIntosh concludes his interesting paper by reviewing some of the theories on the origin of these peculiar mammals.

## LITERARY NOTES.

THE Duke of Norfolk, as Earl Marshal, with the approval of the King, has authorized Mr. H. Farnham Burke, the Somerset Herald, to prepare a historical record of the Coronation of King George V and Queen Mary. Mr. Farnham Burke prepared a similar work in connexion with the Coronation of the late King Edward VII and Queen Alexandra. The volume will be of royal quarto size, bound in full royal purple morocco, gilt edges, containing about twenty beautifully coloured illustrations and approximately 200 pages of historical matter. The price is four guineas. The production of the book has been entrusted to McCorquodale and Co., Limited, of 40, Coleman Street, London, E.C.

We have received the first number of *Chemical Engineering*, the official organ of the recently founded Association of Chemical Technologists. It contains an able paper on the need for reform in our system of chemical training.

The *Edinburgh Medical Journal* devotes the greater part of its current issue to Sir James Young Simpson, the centenary of whose birth fell on June 7th. Miss Eva Blantyre Simpson contributes interesting personal reminiscences of her distinguished father; Sir Alexander R. Simpson deals with the man and his work in a special article; Joseph Anderson, LL.D., Professor of Antiquities to the Royal Scottish Academy, reviews Simpson's work in archaeology. Other articles are "Sir James Simpson's Influence on the Progress of Obstetrics," by Sir Halliday Croom; "Simpson as Gynaecologist," by Dr. A. H. Freeland Barbour; an appreciation of his work in anaesthesia, by Dr. Berry Hart; an account of his contributions to antenatal pathology, by Dr. J. W. Ballantyne. The number is freely illustrated with portraits of Simpson, pictures of the house at Bathgate in which he was born; of the house (52, Queen Square) which he made famous as a meeting place of celebrated men in every sphere of human activity and from every part of the world, and others. We congratulate all concerned on the production of a remarkable number, which is a worthy monument to the memory of one of the greatest benefactors of humanity.

It has often been stated that Sir Benjamin Ward Richardson was opposed to vivisection. We hear a great deal, too, at the present day about the "torture" inflicted on animals in researches on cancer. It may not be amiss, therefore, to recall Richardson's exact position in regard to experiments, especially on cancer, as set forth by himself. In *Biological Experimentation, Its Functions and Limits* (George Bell and Sons, London, 1896), he discusses a number of questions concerning experimentation on living animals. He had himself done a good deal of experimental work, though his experiments had never been of a painful character. Still, he appears to admit that experiments necessarily involving a considerable amount of suffering to the animals used for the purpose are, in certain circumstances, justifiable. With regard to cancer in particular, he says:

> I believe there is not one reasoning person who has seen the purgatory of cancer who would not say that every experiment hitherto performed for the prevention or cure of this disease has been, when carried out with a true and honest intention, a justifiable experiment.

These words, taken by themselves, might be interpreted in a sense which Richardson would have deprecated as strongly as ourselves. It is well known that in France, and possibly elsewhere, experiments have been made as to the inoculability of cancer in the human subject. There is no reason to believe that these experiments were not performed "with a true and honest intention." Yet they have been unequivocally and rightly condemned by the general voice of the profession. We commend Richardson's opinion to the attention of those who denounce experiments performed with the object of discovering the means of abolishing the "purgatory of cancer." It may be added that, while strongly holding that "vital experiments, to have any value at all, must be conducted without any trace of the disturbing influence of suffering," Richardson differed utterly from "those enthusiasts who have forced the present system of legislation in England for regulating experiments on lower animals, and for the licensing of experimentalists." He justly objected to a law "which places professors of medicine in the same position as the licensed publican, and for the same reason." The authority of Sir William Fergusson is often invoked by antivivisectors. They may therefore be interested to learn that, as is pointed out by Richardson, Fergusson, when he said that he did not remember any case in which experiments had been practically useful, forgot his own teaching. Fergusson blamed Snow severely for inducing him to try amylene as an anaesthetic on the human subject without having made a sufficient number of experiments on living animals. Some years later, when Richardson himself brought amylene under his notice, Fergusson warned him to avoid Snow's mistake, saying, "A solemn introduction like that requires a hecatomb of animals."

Gout and indigestion in those who hold in their hands the destinies of nations must be held accountable for many crimes. If the plain unvarnished truth were written history would be, to a large extent, a record of the melancholy results of over-indulgence on the part of rulers. We have on previous occasions given some examples of "royal appetites." But, as far as we know, no sovereign has equalled the fearsome dietary of Francesco de Medici, Grand Duke of Tuscany (1541–87). The following account of it is given in *Enchanters of Men*, by Ethel Colburn Mayne (Methuen and Co.):

> Everything he ate was mixed with the most fiery condiments, ginger, pepper, nutmeg, cloves; and "before, during, and after these meals," he would swallow raw eggs, filled with red pepper. . . . His second choice in eatables was raw onions, radishes, any roots, in fact . . . together with "enormous quantities of the strongest cheese." . . . When Francesco had had his fill of these dainties, he would drink immense beakers of iced water, plunge his head and hands in snow, and go to bed in iced sheets. The last delight was "his constant habit," says Soderini.

It is no wonder that a man who lived on such a diet was terribly moody; that his brow was for ever black with gloom; and that he had occasional fits of appalling violence.

British Medical Journal.

SATURDAY, JUNE 24TH, 1911.

## PLAGUE INFECTION OF RATS.

ACCORDING to the *Times* of June 17th, the examination of a dozen rats procured at Wapping last week showed that at least four were infected with plague. This discovery is unpleasant for two reasons: First, the locality from which the rats were derived is higher up the river than the situations where plague-infected rats have been previously discovered, and is close to the densely populated areas of Stepney and Bethnal Green. Furthermore, it is early in the season for an epizootic of rat plague to have arrived at sufficient proportions to attract attention, and the fact suggests that, owing to the spell of warm weather which we have experienced, conditions for the spread of infection amongst the rats are already favourable. The early discovery of this particular focus of infection may, however, be devoid of significance, and merely due to chance.

We understand that a careful search for further evidence of rat plague in the neighbourhood is being undertaken by the sanitary authorities. This should decide what importance is to be attached to the discovery.

In his report Dr. Williams, Medical Officer of Health for the Port of London, emphasizes the fact that during the last three years plague-infected rats had been discovered in proximity to shipping in the port. The places in which they have been found were in 1908 at the West India Dock, in 1909 at the South India Dock, and last year near the Seamen's Hospital at the Royal Albert Dock. No extensive mortality amongst the rats was in either case discovered, so that the disease appears to have been limited to a few colonies of rats.

It would be surprising if the rats in the docks of London had altogether escaped infection, considering the amount of intercourse between London and numerous ports throughout the world where rat plague exists; and we presume that if during the late summer of the last few years a more insistent search had been made in the docks of London the existence of further instances of plague infection amongst the rats would have been discovered. It is evident, however, that no severe epizootics have occurred, for they would have indicated their presence by an unusual rat mortality which could hardly have escaped attention.

The danger to a European community from the existence of sporadic outbreaks of rat plague in a port is not great. A large number of the principal ports throughout the world, especially those situated in the warm regions, have afforded indications that more or less rat plague smoulders amongst their wharves, but the spread of the disease to human beings has been of infrequent occurrence. The presence of rat plague is, however, a constant menace to the commerce of a port, for should human cases occur they must be notified to the foreign Powers who are signatory to the Venice and Paris Conventions, and the port would be declared infected, and interruption to the shipping trade occasioned.

Whilst in no way wishing to minimize the ugly significance of the appearance of plague infection amongst the rats in Wapping in early June, we would point out that the danger to a European community in a port like London would be greatly exaggerated if it were measured by Indian experience.

The important lessons to be learnt regarding the spread of bubonic plague from the many excellent observations of the last fifteen years, and particularly from the work of the Commission for the Investigation of Plague in India, may be briefly summarized as follows: (1) In the great majority of cases, during an epidemic of plague, man contracts the disease from plague-infected rats through the agency of plague-infected rat fleas. (2) The chance of human infection is determined by the number of hungry infected rat fleas, provided they will feed on man, and man's accessibility for them.

As far as this country is concerned, the first essential in this chain of causation is satisfied. Plague rats have been discovered in some part of the Port of London each summer during the last four years, and last autumn the existence of a widespread epizootic in East Anglia was brought to light. *Ceratophyllus fasciatus*, the commoner rat flea in this country, as has been shown by Drs. Chick and Martin,[1] readily bites man, and some of these fleas taken off infected rats contained plague bacilli in their stomachs in considerable number. There is no reason to suppose that should such infected fleas feed upon man, the chances of their transmitting the infection would be less than in the case of *Xenopsylla cheopis* in Bombay.

It is not difficult to explain the relative infrequency of transmission to man in the case of a European population, even in the presence, in certain localities, of an epizootic of such severity as would, in India, assuredly have been associated with the spread of the disease. How far this relative immunity has depended upon the larger number of fleas per rat in India we are not in a position to state. We do know, however, that in England, in the case of rats living in the fields, only some of the fleas belong to a species which feeds on man; and it is quite likely that the effective flea prevalence upon rats has never reached the numbers usual in India during the plague season. As, however, this question has not been investigated during the late summer—a time when the flea population in temperate climates is at its maximum—we can only conjecture that such may be the case.

With regard to the accessibility of man to rat fleas (which, owing to the death of a number of rats, are seeking a host), the greatest difference exists between India and this country. The common rat of India is *Mus rattus*, *Mus decumanus* only occurring in three or four of its large seaport towns, whereas in this country, even in the docks, the latter greatly preponderates. Compared to its congener the brown or Norwegian rat, *Mus rattus* is a domesticated creature. Bred for numberless generations amidst a population which is averse to the destruction of animal life and indifferent to the inconvenience of its presence, this rat lives in the closest association with man all over India. Even when the people occupy well constructed rat-proof buildings, families of rats may be found in the same room with mankind. A plentiful supply of food is provided for them both inside and outside the buildings. Grain and other eatables are

[1] *Journal of Hygiene*, 1911, p. 122.

stored inside the living rooms, the refuse is thrown into the streets just outside, and the remains of food supplied to animals (themselves kept in the living rooms or tethered near by) support a large rat population in the closest proximity to the human inhabitants. Rats' nests containing a family of young ones are not uncommonly found amongst the belongings which are accumulated in their homes by the poorer classes. As the majority of the fleas are to be found in the rats' nests, the presence of nests in proximity to man is of much greater importance than the occasional clandestine visit of a rat to the premises.

The European, on the other hand, does not suffer the companionship of rats gladly. He will not, as a rule, permit them to live undisturbed and bring up a family in his bedroom. In this country *Mus decumanus* has therefore to make his home outside, and in the country to provide himself with a burrow in some spot as free as possible from molestation. Further differences in the domestic economy of the two peoples are not without influence. The Indian peasant's hut or room, as well as being his bedroom, also serves to store his food supplies; whereas in this country, except amongst very poor people, food is not stored in the sleeping apartment. The Indian hut, with its floors of cow-dung and its indescribable muddle and litter, in addition to providing cover for rats to nest, affords good breeding ground for fleas of all sorts. The amount of vermin infestation in these homes may be gathered from the fact that in one room in which dead rats had been found and plague cases had occurred the Commission for the Investigation of Plague in India secured 263 rat fleas. Lastly, a large proportion of the population in India have bare feet and legs and sleep upon the floor, thus rendering them more accessible to the attacks of fleas.

## RABIES AND PSEUDO-RABIES.

THE communication by Major Harvey and Captains Carter and Acton on "Pyocyaneus Infection in Dogs," published elsewhere in this issue, is of more than usual interest. *Bacillus pyocyaneus* is a well recognized pus-producer of widespread distribution, but in comparison with other pyogenic organisms its occurrence has hitherto been regarded as infrequent. Recently, however, Minett and Duncan[1] have found it frequently associated with pathological conditions in British Guiana. It usually produces localized purulent conditions, sometimes haemorrhagic oedema, and septicaemia not uncommonly accompanied by nephritis and albuminuria. The manifestations most generally met with by Minett and Duncan were localized suppurations, but they also found the bacillus in cases of acute peritonitis, pericarditis, and enteritis, usually associated with *B. coli communis* or a streptococcus. They also obtained it frequently from the lymphatic glands in cases of filariasis. Hitherto rabic and paralytic symptoms have not been recorded, and it is on this account that the cases observed by Harvey, Carter, and Acton are of particular interest. No mention of paralytic symptoms is made by Minett and Duncan, although they performed numerous inoculations on guinea-pigs. In dogs there are many obscure diseases which are, for lack of fuller knowledge, diagnosed as distemper or some aberrant form of rabies, but which differ from rabies in the character of the symptoms and in the fact that cure often results.

In this connexion, reference to a recent investigation by Zwick and Zeller[2] of an outbreak of what they term pseudo-rabies may be of interest. Pseudo-rabies is a disease which attacks cattle, dogs, cats, and rats, but up till the present it has not been met with outside Hungary. The symptoms are somewhat like those of rabies, malaise, pharyngeal paralysis, with periods of excitement, in the course of which the animal attempts to bite. Its etiology is still a mystery, and the authors have endeavoured to throw some light upon it by means of experimental investigations. Infection can apparently be transmitted both by the mouth and through the skin. By the first method only cats and rats succumbed, but by the second method various animals, and especially rabbits, were rapidly killed. Mice, curiously enough, were quite refractory, as were also fowls and pigeons. In the dead animals the virus could be recovered from the brain liver, kidneys, spleen, and the blood and urine, but was not present in the bile or the saliva. The virus was found to be fairly resistant but could be rendered innocuous by drying in a desiccator for eight days. When left to dry in the room, however, at ordinary temperature the virus remained infective for seven weeks. It is rapidly destroyed by various antiseptics, and it does not pass through a Berkefeld filter. The infection does not appear to be contagious. Attempts to produce immunity have been unsuccessful, as have also been all efforts to discover the morphological identity of the infecting agent. This epidemic bears a close resemblance to the cases described by Harvey, Carter and Acton, and one would not be surprised to find that there was some connexion between them. Zwick and Zeller, however, failed to isolate any organism in their cases.

[1] *Journal of Tropical Medicine*, June 1st, 1911, p. 163.

[2] *Arbeit. aus d. Kais. Gesundsamte*, xxxvi, 3, p. 382.

## LITERATURE AND DISEASE.

Is there any relation between disease and literature? To this question we have no hesitation in answering, Yes. We go so far as to say that without disease, or physical disability of some kind, there would be very little literature. We do not believe with Lombroso and his school that genius is a disease in itself; but there can be no doubt at all that it is very often associated with disease. It is easy to see how disease may act as a stimulus to the working of genius. Scott has told us how the paralysis which crippled him in infancy led to the storing up in his mind of impressions which gave him the material on which his imagination was afterwards to work. His lameness made him listen to legends and stories and read books instead of birdnesting and playing football. It has been said that the pen is mightier than the sword; but how many young men would prefer the former if they could wield the latter? Did not Kipling envy Rhodes, and unfavourably contrast the man of words with the man of action? In the good old days it was mainly the men who had not strength enough to cleave other men's heads to the chin, or the weaklings unfitted for the rough mediaeval life, who became monks. And it is to the monks that we owe the preservation of most of ancient literature and the history of the middle ages. Intellectually, as well as spiritually, these men were in their day the salt of the earth, and there can, we think, be no question that it was largely physical delicacy, and the lack of the

animal spirits that are the result of rude health, which led them to seek in the cloister peace and safety from the storms of the outer world.

In our own day how many could say, with Alfred de Vigny, that sickness is the lamp which illuminates the head? Besides the disorders which are the penalty of a sedentary life, there are certain diseases which seem to find an easy prey in persons of literary genius. Among these is consumption. Among the many victims of that disease, the names of Sterne, John Keats, and John Addington Symonds, will occur to everyone. Consumptives often display a feverish excitability and a certain mental exaltation, and it might be possible to trace the influence of these psychological peculiarities on their intellectual output. But the literary disease *par excellence* is gout. The frequency of its occurrence in men of exceptional ability is so great that it is impossible to look upon it as accidental. Does the gout help to produce the genius, the uric acid in the blood acting as an irritant to the higher nervous centres? Or is it the genius, or at any rate the conditions of its manifestation, that engenders the gout? It is conceivable that gout may sometimes be a cause, sometimes an effect. When the poison is diffused through the body in the blood stream, the brain suffers, and mental gloom is produced. When it concentrates its assault on the joints, the mind seems to undergo a kind of purgation, and the result is shown in increased clearness and vigour. Arthritic gout, indeed, has something of the effect which Falstaff attributes to sack—it dries all the foolish and dull and crudy vapours which environ the brain, and "makes it apprehensive, quick, forgetive, full of nimble, fiery, and delectable shapes." The mental outlook of the gouty man varies according to the nature of the attack; hence his criticism of life, founded as it is on observations made from two distinct points of view, is likely to be fuller as well as more penetrating than that of men whose mental and moral temper is not liable to periodical disturbance.

The type of intellect and character seen in gouty men of genius differs decidedly from the excitability and optimism of the consumptive; we have instances in Milton, Gibbon, Samuel Johnson, Henry Fielding, Congreve, Walter Savage Landor, William Morris, and in French literature in La Rochefoucauld. These men, though differing widely in other respects, all display in their writings a robust virility in marked contrast with the somewhat feminine excitability characteristic of the tuberculous type. Other diseases in which uric acid is believed to play a leading part—rheumatism, gravel, and especially stone—are common in men of letters. The list of distinguished sufferers from the last-mentioned infirmity includes such men as Erasmus, Luther, Montaigne, Leibnitz, Bossuet, Buffon, d'Alembert, Jean Jacques Rousseau, and Voltaire.

Among other diseases that are comparatively frequent in men of genius must be mentioned asthma and angina pectoris. The first recorded case of angina occurred in John Hunter, who had his full share of the irritability of genius.

Does the literary life predispose to insanity? We know, of course, that Dryden said:

> Great wits are sure to madness near allied.

We know, too, that Lombroso likens genius to a pearl—the beautiful result of morbid irritation in a diseased oyster; and that the late F. J. Nisbet found evidence of insanity or hallucinations and eccentricities in Swift, Pascal, Johnson, Goldsmith, Rousseau, Cowper, Southey, Shelley, Byron, Campbell, Charles Lamb, Landor, Edgar Allen Poe, Chateaubriand, Tasso, Silvio Pellico, and Alfieri. According to the same authority there was mental unsoundness in the families of Shakespeare, Milton, Coleridge, Walter Scott, Wordsworth, the Brontës, and Victor Hugo. Shakespeare himself, Thackeray, George Eliot, Wilkie Collins, and Browning were "neuropaths"; Gustave Flaubert was an epileptic; and Balzac, Dumas, and Alfred de Musset were in one way or another eccentrics. To these Havelock Ellis adds William Collins, George Borrow, Lever, D. G. Rossetti, and Ruskin, as "individuals who may be said, with a fair degree of certainty, to have been once insane, but whose insanity was either slight, of brief duration, or quickly terminated by death, sometimes by suicide." To them, again, we may add the great master of the short story, Guy de Maupassant. A great authority, Dr. Henry Maudsley, says, "It is no exaggeration to say that there is hardly ever a man of genius who has not insanity or nervous disorder of some form in his family." The statement rests on the *ipse dixit* of the eminent physician; and one is tempted to retort that, if proper records were available, it just as probably would be found that no family, especially at the present day, is exempt from insanity or nerve disease. On the whole we agree with Havelock Ellis that while it is true that madness is unusually frequent in men of genius, "insanity is rather a Nemesis of the peculiar intellectual energy of genius exerted at a prolonged high tension than an essential element in the foundation of genius."

## THE CORONATION HONOURS.

THE list of Coronation honours contains no announcement which will give greater satisfaction to the medical profession than the notification that the King has conferred a baronetcy on Mr. Butlin, President of the British Medical Association and of the Royal College of Surgeons of England, and Consulting Surgeon to St. Bartholomew's Hospital. Mr. Butlin first became known as a pathologist; he was active in the old Pathological Society, which used to bring together all that was most energetic and accomplished in the medical world of London; he was its secretary for a period and was chosen President in its jubilee year. When, having won the confidence of the profession as a consulting and operating surgeon, success came, he found in it a reason and an opportunity for doing public work for medicine. For the last twenty years or more Mr. Butlin has always been ready to lend the weight of his influence and knowledge to every movement for the advancement of medicine and for the benefit of the profession, and when the circumstances called for it he gave time and energy unstintingly. Much of this work has been done through the British Medical Association; he acted as Treasurer during two periods, and when it was determined to invite the Association to hold its annual meeting in London he was generally designated as the proper person to be chosen as President. His acceptance gave universal satisfaction, and every member of the Association will congratulate Sir Henry Butlin on the honour conferred on him during his term of office. The baronetcy conferred on Dr. Goodhart, consulting physician to Guy's Hospital, also gives the stamp of national recognition to a professional reputation won by clinical work of the best kind. Sir James Goodhart also first became known to the profession

as a pathologist, and it was upon this groundwork that his eminence as a physician was based. In conferring a baronetcy also on Sir Charles Ball, Regius Professor of Surgery in the University of Dublin and surgeon to Sir Patrick Dun's Hospital, the King has honoured a member of the profession whose claims to distinction are solidly founded on his reputation as a surgeon, and in the respect and esteem in which he is held by the profession in the three kingdoms. The like honour conferred on Sir Thornley Stoker, Consulting Surgeon to the Richmond, Whitworth, and Hardwicke Hospitals, Dublin, is a recognition of professional distinction which will give pleasure to the profession in Ireland. In creating Dr. Osler a baronet the King has recognized the eminent services to medicine on two continents of one who, in spite of some temptations to belong to other nations, has been proud to remain a British subject; his fellow citizens, on their part, have always been proud to reckon him amongst their number, and the welcome he met in this country when he accepted the office of Regius Professor of Medicine in the University of Oxford must have convinced him that he has a very warm place in our hearts and a very high place in our esteem. The honour of knighthood has been conferred upon Mr. Anthony Bowlby, C.M.G., Surgeon to St. Bartholomew's Hospital, who served as Senior Surgeon in charge of the Portland Hospital in the South African war, and was appointed Surgeon-in-Ordinary to King George V last year; on Dr. Richard Brayn, late Medical Superintendent, Broadmoor Asylum; on Dr. Alexander Dempsey, Physician and Gynaecologist to the Mater Infirmorum Hospital, Belfast, and an ex-President of the North of Ireland Branch of the British Medical Association and of the Ulster Medical Society; on Dr. Frederic W. Hewitt, M.V.O., Anaesthetist to the King and Physician-Anaesthetist to St. George's Hospital; and on Mr. Frederick C. Wallis, F.R.C.S., Surgeon to the Charing Cross, Grosvenor, and St. Mark's Hospitals, who has also done much work for the Union Jack Club, of which he is vice-president. The King has directed that Dr. Michael Francis Cox, Physician to St. Vincent's Hospital, Dublin, and a member of the Senate of the National University, shall be sworn a member of the Privy Council in Ireland. His Majesty has taken this opportunity of promoting Major Ronald Ross, C.B., Professor of Tropical Medicine in the University of Liverpool and the Liverpool School of Tropical Medicine, who received the Nobel Prize in Medicine for his researches in connexion with malaria in 1902, and Dr. Benjamin Arthur Whitelegge, C.B., Chief Inspector of Factories, to be Knight Commanders of the Order of the Bath, Civil Division. Similar promotion is accorded to Inspector-Generals of Hospitals and Fleets D. Money Shaw, C.B., T. Desmond Gimlette, C.B., Surgeon-General W. L. Gubbins, C.B., M.V.O., Director-General of the Army Medical Service, and Surgeon-General Adam Scott Reid, C.B. The distinction of Companion of the Bath is conferred upon Inspector-Generals of Hospitals and Fleets Charles C. Godding, Arthur William May, and Howard Todd, and on Fleet Surgeon P. W. Bassett-Smith; Surgeon-General J. G. MacNeece, P.M.O., 8th (Lucknow) Division, India; Surgeon-General G. W. Robinson, P.M.O., Aldershot command; Colonel Charles F. Willis, I.M.S., P.M.O., 5th (Mhow) Division; Colonel Thomas Grainger, I.M.S., P.M.O, Burma Division; Colonel P. Broome Giles, Administrative Medical Officer, 1st London Division (Territorial); Lieutenant-Colonel H. E. R. James, F.R.C.S., R.A.M.C., attached to the General Staff of the War Office, formerly Commandant and Director of Studies, Royal Army Medical College, and Colonel G. S. Elliston, Administrative Medical Officer, East Anglian Division (Territorial). Dr. John Rose Bradford, Holme Lecturer on Clinical Medicine, University College Hospital Medical School, and Physician to University College Hospital, a member of the Advisory Board of the Army Medical Service, and one of the secretaries of the Royal Society, is nominated K.C.M.G.—a recognition of the part which the Royal Society has taken in the systematic investigation of tropical diseases which will be highly appreciated by the profession. Dr. John Pringle, C.M.G., a member of the Privy and Legislative Councils, Jamaica, is promoted to be K.C.M.G. The distinction of Companionship of the Order of St. Michael and St. George is conferred upon Dr. James W. Barrett, Lecturer on the Physiology of the Special Senses in the University of Melbourne, a member of the Council of that University, and Consulting Oculist to the Melbourne Hospital; on Mr. A. H. Milne, Secretary of the Liverpool School of Tropical Medicine; on Dr. T. Zammit, Government Analyst, Public Health Department, Malta, and on Dr. Dugald Christie, Superintendent of the Moukden Medical Mission and head of the medical missionaries in China. The honour of knighthood is conferred on the Hon. John McCall, M.D., Agent-General in London for Tasmania. Dr. Bertrand Dawson, Physician-Extraordinary to the King and Physician to the London Hospital, has been appointed K.C.V.O.; Mr. Milsom Rees, F.R.C.S.Edin., Laryngologist to His Majesty's Household, Mr. A. W. Mayo Robson, and Fleet Surgeon Arthur R. Bankart, M.V.O., R.N., have been nominated C.V.O.; and Dr. William Fairbank, Surgeon-Apothecary to His Majesty's Household at Windsor, M.V.O. The Hon. Sir Frederick William Borden, K.C.M.G., M.D., Honorary Colonel of the Canadian Army Medical Corps, and Minister of Militia and Defence in the Dominion of Canada, is nominated an Honorary Surgeon-General. Colonel J. Raglan Thomas, R.A.M.C.(T.), Administrative Medical Officer of the Wessex Territorial Division, and Colonel Damer Harrisson, F.R.C.S.Edin., R.A.M.C.(T.), Administrative Medical Officer of the West Lancashire Territorial Division, have been nominated Honorary Physician and Honorary Surgeon respectively to His Majesty, for His Majesty's Territorial Forces. Sir James Reid, G.C.V.O., K.C.B., Physician-in-Ordinary to the King, is granted an augmentation of his arms in consideration of the services rendered to His Majesty's dearly beloved Father.

## THE ANOINTING.

IT may come as a surprise to many that the anointing is no inconsiderable part of the coronation service; but so it is, and it would even be correct to describe it as more important than the crowning itself—more important, that is, from the inner and significant aspect of the ceremony. As part of the coronation ritual anointing was introduced into England in 871, when King Alfred came to the throne, and into Scotland in 1097, when King Edgar was crowned; it now forms the culminating point in the solemn spectacle enacted in Westminster Abbey, when a new monarch comes to rule as King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas. It is interesting, further, to recollect that anointing has a long history behind it, and that it probably took origin, as A. E. Crawley asserts,[1] in pre-theistic and even pre-fetish times. At first unguents, varying in nature from a crude animal fat to a perfumed vegetable oil, were used for cosmetic purposes; they gave to the body, after bathing, a feeling of comfort, and they were useful in hot climates

[1] *Encyclopaedia of Religion and Ethics*, vol. i, pp. 549-57, 1908.

to protect the skin against the sun's rays and in cold countries to prevent the escape of the body heat. But soon a new meaning—the aesthetic—was added to the cosmetic; the oil gave a gloss to the skin, and the effect was increased by the admixture of a colouring substance. "Of the majority of early peoples," says Crawley, "it may be said that grease and ochre constitute their wardrobe." "In this way personal attractiveness was sought for, and, in the opinion of those interested, was obtained. What, then, could be more natural than to anoint the body for such special occasions as festivals and holy days? The honoured guest also was welcomed with bathing and anointing, and inanimate objects were polished and to some extent preserved from decay by being rubbed with unguents. It is easy to link on these uses to the magical and religious employment of ointments, but in the process a new notion is found to have come in. Organic matter is believed to be instinct with some Divine force or vital essence and to have a magical or supernatural power; further, this power can be transmitted either by eating and drinking the specially sacred matter, or, more easily and doubtless more safely, by external application of it to the body of the worshipper. Fat has come to occupy a curiously important place among the substances which are held to transmit the desirable gifts of life and strength; and it is reported, for instance, that the Australian savage will kill a man to get his kidney fat for anointing himself with. A further stage in development sees fat consecrated in various ways, so that it may serve as the vehicle for the transmission of a Divine essence. It can now be seen how anointing has entered into medical practice, not by one, but by several routes. There has been the belief in the magical effect of the fat as well as in the sacred influence which it carries; there has been in an interesting way (too intricate to enter into here) the principle of the removal of tabu; there has been the discovery of the invigorating effect of rubbing the skin with oil; and there has been the knowledge of the action of the unguent upon the cutaneous secretions and upon transpiration. If to these be added the ascertained therapeutic effects of various medicinal substances, we are possessed of a series of contributing causes which sufficed to introduce anointing into medicine and to keep it among the accredited means of treating disease. And so, as Carlyle[1] said, "You will find fibrous roots of this day's Occurrences among the dust of Cadmus and Trismegistus, of Tubal-cain and Triptolemus."

## THE RECENT CENSUS.

A PRELIMINARY report[2] on the recent census was issued last week—a volume containing over 100 pages of tables in addition to some subsidiary tables in the introductory chapter. But, despite its bulk, its interest is somewhat limited, since it deals solely with the crude figures relating to the number, sex, and distribution of the population. In other words, it is a report on a census in its most elementary aspects. The outstanding points are that the population of England and Wales has increased by a little over 3½ millions since the last census, and now stands at 36,075,269. This is equal to a percentage increase of 10.90, a lower rate of progress than in any previous decennial period. Of the total population in the two countries, 78.1 per cent. now belong to urban districts and only 21.9 to rural districts. The term "urban," it is to be remembered, has a somewhat conventional meaning, for it applies to 102 districts with a population of less than 2,000, as well as to great towns. Of the latter—places whose populations number 50,000 and upwards—there are now 98, and Sheffield has displaced Leeds as the fifth on the list. The tendency for the centres of large towns to become relatively depopulated also continues. In respect of sex, the proportion of females to males is 1,038 to 1,000, or the same as at the census in 1901. At the latter date, however, a large number of males were absent in South Africa, so that it is considered that the true proportion of females to males is really higher now than it was ten years ago. The proportions differ greatly in different parts of the country, the lowest ratio of females to males being in Monmouthshire, where it is only 912 to 1,000, the highest in Sussex, where it is 1,218 to 1,000. Another fact revealed by the report is that, as in some previous decennial periods, the estimated increases have been greater than the true increase. On this occasion the error is 1.13. Its effect on local statistics, of course, differs widely. Thus, the overestimation of the West Hartlepool population led to its death-rate for the first quarter of this year being stated as 11.4 instead of 15.0, while conversely the death-rate of Coventry was stated to be 20.7, whereas it was really only 16.0. A hope is expressed that more accurate means of estimating the total population of the country may possibly be devised, but it is added that as regards localities nothing will mend matters but a census at shorter intervals. Since the first census, in 1821, the population of the United Kingdom as a whole has more than doubled, and now stands at 45,216,665. Over 75 per cent. of it belongs to the United Kingdom, rather more than 10 per cent. to Scotland, rather less than 10 per cent. to Ireland, and about 4½ per cent. to Wales. The highest percentage of increase in the intercensal period is in Wales—18.1; in England it was 10.5, and in Scotland 6.4. In Ireland the increase has been negative; that is to say, the decrease in its population which has been going on for the past sixty years fell in the last decennial period to 1.7 per cent. On the political side it is of interest to note that there are 8 constituencies in which the population per member of Parliament is less than 20,000, and 83 in which it is upwards of 100,000. Nowhere in the report is mentioned the attempt of the more militant portion of the suffragist party to invalidate the census, so presumably it proved ineffective. We hope to return to this report at a later date, and meantime note that the final report will be issued in volumes relating to the whole country, but dealing only with particular subjects, such as occupation, fertility, ages, and like points. Volumes relating to particular localities will be issued still later.

[1] T. Carlyle, *Oliver Cromwell*. Vol. I, Chapter I.

[2] *Preliminary Report with Tables of the Population enumerated in England and Wales (Administrative, Registration, and Parliamentary Areas) and in Scotland, Ireland, the Isle of Man, and the Channel Islands on 3rd April, 1911.* London: Wyman and Sons; Edinburgh: Oliver and Boyd; Dublin: C. Ponsonby. [Cd. 5705.] (Price 1s. 4d.)

## THE EVOLUTION OF MEDICINE.

IN his book *Christianity at the Cross-Roads*[3] the late Father George Tyrrell, the well-known Modernist, made an interesting comparison between the evolution of medicine and that of religion. He says that "though it is yet far from exactitude and universal validity, the art and science of medicine offers the closest parallel to religion in many ways, as dealing with a general and permanent need of humanity. In its pre-scientific stage it is absolutely chaotic in its diagnoses and prescriptions—a wilderness of fables and superstitions, as various as the vagaries of the human imagination." There is at most a unity

[3] Longmans, Green, and Co. London, 1909, page 239.

of idea in that it seeks the causes and cures of disease; it professes to proceed experimentally or empirically; it justifies itself by its fruitfulness. But, he goes on to say, it had no idea of what experiment really meant, or of the conditions of a valid induction. It imputed ailments to mystical or purely fanciful causes, on the grounds of some merely subjective association of ideas. In the same way it devised fanciful cures, that might often cure by mere suggestion. Herbs that resembled a part of the body were good for that part. A disease was a devil that must be exorcised; an emetic threw him out, and if the emetic were beneficial, it was because the devil had departed. Obviously this sort of etiology will not hold good for any two tribes, let alone for the whole world. The progress of thought consists in gradually separating the series of objective, and universally valid, from that of subjective, experiences. Dreams and reality are mixed up; subjective connexions are objectified. For the simple needs of an almost animal life imaginative associations are practically sufficient, without any attempt at systematic understanding and logical inference. But understanding is there, untrained and unskilled, interfering with purely animal psychology and producing the wildest confusion in its clumsy quest of order as is seen in the whole history of magic, tokens, and taboos. "It is already beginning to separate subjective from objective, and to search for that truth of which the animal imagination has no need. Not till man seeks to distinguish subjective from objective does he fall into the madness of confounding one with the other. Yet it is from this ever-flowing stream of wild hypotheses and conjectures that useful, and objectively valid, discoveries are selected." It need not, therefore, surprise us that man's earlier efforts, compared with our own attainments, should seem capricious, fanciful, and incoherent. Even to-day, says Tyrrell, the diversities of medical opinion and practice are enough to show that the science is yet far removed from unification and general validity. But we now recognize the need and possibility of this unification, and we know the methods by which it can be continually approached. The complexity of the subject matter, together with the conservation of patients and practitioners, offer an obstruction from which astronomy, chemistry, electricity, and such sciences are free. "But already medicine has passed from its chaotic and subjective to its objective and rational stage; and its catholicism is in view." He goes on to say, what has often been said in this JOURNAL, that the arrogance of doctors and teachers has been one of the greatest obstacles to human progress; few men can withstand the corrupting influence of unlimited trust. Credulity in the listener breeds untruthfulness in the speaker. "When men are trusted without limit, when they profess to draw their knowledge from esoteric sources, when their inaccuracies cannot be checked or their information verified, when, in short, they are placed in primitive conditions, their primitive nature comes out, and the whole weight of their authority is lent to the obstruction of truth and the multiplication of error. Not till men are drawn together from all quarters to compare notes is their trust in personal authority shaken by the hopeless inconsistency of its utterances. Not till medicine and other sciences passed from the sway of personal authority and began to draw their knowledge from sources accessible to all; not till their professors were exposed to criticism and detection did those sciences become unified, objective, and catholic." The difference between scientific medicine and quackery of all kinds lies in the readiness of orthodox practitioners to make their methods public and submit their results to the criticism of competent judges. They publish failures as well as successes. When they do not succeed, instead of hiding the facts, they seek to discover for themselves, or with the help of their brethren, the causes of failure, making, as St. Augustine says, of their faults a staircase by which they may rise to better things.

## THE INVESTIGATION OF MEASLES.

WE have the best authority for stating that Mr. John Howard McFadden, of Philadelphia and London, the well-known cotton "magnate" who has already supplied funds for researches on cancer, is about to turn his attention to initiating the much-needed investigation of measles. The research will be undertaken in London, and the work will, we understand, be done at the Lister Institute. The zeal of the philanthropist, though inspired by the highest motives, is not always according to knowledge, and his activity is sometimes led astray into undesirable channels. But the scientific investigation of disease is an object as to the beneficial character of which there can be no doubt. Rich men cannot devote their wealth to a better purpose than the furtherance of scientific knowledge which will help to rid mankind of scourges such as measles that, in addition to the immediate suffering which they cause, levy a heavy toll on the rising hope of a nation, and thereby tend to undermine its efficiency.

## INDIAN EXPERIENCE OF THE VALUE OF BIOCHEMICAL TESTS FOR BLOOD STAINS

THE value of Uhlenhuth's precipitin test for blood stains has been universally admitted, and Lieutenant-Colonel Sutherland's memoir on the subject (Scientific Memoirs of Officers of the Medical and Sanitary Department of the Government of India, No. 39, Calcutta, 1910), gives the result of his experience with it in a tropical climate, where the conditions are not altogether the same as in Europe. He believes that the test is absolutely trustworthy, provided the limits of time and dilution as defined by Uhlenhuth are observed. The reaction is not affected by the decomposition of the blood, by heat, and although it may be prevented by the action of mineral acids and certain other substances, there are no circumstances under which a positive reaction appears to cause a fallacy. As rabbits are not easily procured in Calcutta, Colonel Sutherland has worked mainly with fowls, and has found them answer the purpose very well, but he has also used rabbits, and has had good results with them. With goats and monkeys he has "only had failures." He cannot confirm Uhlenhuth's statement that the blood of apes gives a reaction indistinguishable from that of human blood. He has tested for this purpose the blood of the Orang-utan, Hooluck, Siamang, Lungoor, bonnet monkey, Simpai, Macacque, pig-tailed monkey, slender loris, and Rhesus monkey, but in none was a human reaction obtained. He has also examined the blood of various races of mankind—Indians, Chinese, Japanese, Malays, Annamites, Europeans, Eurasians, and Jews—and concludes that no difference of medico-legal importance exists. He uses no antiseptic, but keeps the antiserum frozen in the dark until it is needed. Exposure to light and warmth renders it soon inert, and it is important to thaw the serum slowly, or a precipitate may appear with any antigen dilution. It has been suggested that the test by the deviation of complement should be used for purposes of confirmation, but he has "utterly failed to obtain the high potency serums needed to insure the necessary accuracy," while the standardization involves exposure to heat and light, by which the serums are deteriorated; he has for this reason been unable

to obtain results by this method which are conclusive from a forensic point of view. The other confirmatory test by anaphylaxis is regarded by him as promising well, but its value under all circumstances has yet to be established, and in any case it involves a delay of fourteen days. All these tests are exceedingly delicate and difficult in their technique; they can only be regarded as affording trustworthy indications when they are performed by an expert.

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Dr. Friedrich von Müller, the distinguished Professor of Medicine in the University of Munich, will deliver a clinical lecture in the Physiological Theatre at Guy's Hospital on Thursday, June 29th, at 3 p.m. The lecture will be on some subject connected with renal or pulmonary disease, and will be delivered in English. Medical men are invited to attend.

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A conference between members of Convocation of the University of London and Sir Philip Magnus, the representative of the University in Parliament, to discuss the medical provisions of the National Insurance Bill, will take place on Thursday, July 6th, at 5 30 p.m., in Grand Committee Room No. 10, at the House of Commons.

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We regret to have to record the sudden death, at his house in Liverpool, on June 16th, of Sir Rubert Boyce, F.R.S., Holt Professor of Pathology in the University of Liverpool, and Dean of the Liverpool School of Tropical Medicine. Sir Rubert Boyce suffered a hemiplegic attack some years ago, but made a marvellous recovery, and much of his best work in tropical medicine was done subsequently. We hope to publish a biography in an early issue.

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Dr. C. Powell White, research student of the Pilkington Cancer Research Fund, will give three lectures on cancer on July 5th, 12th, and 14th, at 4.30 p.m. on each day, in the medical school of the University of Manchester. The lectures, which are open to members of the medical profession and to undergraduates in the medical faculty, will deal with the following subjects: The geographical and topographical distribution of cancer: its frequency and its increase from year to year: its incidence in respect to age, sex, and organs affected; the influence of occupation and habits; and the relation of cancer to other diseases.

# Medical Notes in Parliament.

**National Insurance Bill.**—Mr. Clynes asked the Chancellor of the Exchequer whether, in fixing the medical expenditure at 6s. per head of insured persons under his insurance scheme, he had obtained information from the Post Office, police authorities, and similar public bodies, as to how much they paid per head on their employees for medical attendance; and whether he could state how his scale compared with theirs. The Chancellor of the Exchequer stated that the information was obtained from a variety of sources, but a comparison of the scales of payment in the cases mentioned would be misleading.

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**Old Age Pensioners (Medical Assistance).**—Mr. James Thomas asked the Chancellor of the Exchequer whether in the scheme of State insurance he could provide medical assistance for old folks now in receipt of old age pensions at a nominal charge, and thereby confer a boon upon those whose limited means prevented them having the medical assistance they required. Mr. Lloyd George said that the hon. member's suggestion would impose a serious charge on the Exchequer, and, moreover, it would not be consistent with the contributory character of the scheme to provide benefits at a nominal charge.

**Medical Referees (Workmen's Compensation Act).**—In answer to Mr. Hancock, who inquired as to the appointment of referees for particular trades, Mr. Churchill said that referees were not appointed for particular trades, but for areas—namely, the county court circuits and the districts into which the circuits were divided. In a number of circuits specialist referees had been appointed for particular industrial diseases, such as lead poisoning; but, subject to this, the referees took all cases arising in their areas. A list of the referees was printed for Home Office use, but it had not been placed on sale because all references to referees had to be made by the registrar of the county court, and employers and workmen did not require, therefore, to consult a list. Changes in the list also were fairly frequent. He thought it was unnecessary to incur the expense of issuing the list as a return, but if the hon. member desired it, he should be happy to have one or two copies of the list corrected up to date placed in the Library for reference.

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**River Pollution.**—In the debate on the Consolidated Fund (No. 2) Bill on Friday last Mr. Booth spoke strongly about the pollution of rivers, especially citing the case of the Aire and Calder. Mr. Burns, in reply, said he believed that in a very short time they would be able to give that particular district and other districts some relief from the pollution of their rivers, which had gone on to a scandalous extent. The Royal Commission on Sewage, he thought he was justified in saying, would have concluded its labours certainly by the end of this year. He believed one of the recommendations of the Royal Commission would be in favour of the creation of joint river boards. There would be other recommendations, he believed, bearing upon the question of how trade effluents could be more satisfactorily disposed of, and how sewage effluents could be better dealt with before they were discharged into rivers and waterways. By the adoption of sane and practical remedies the rivers in industrial counties would be saved from the gross pollution to which many of them had been subjected, and the Local Government Board was now almost in a position to draft legislation the effect of which would be, he believed, to meet in a substantial way the complaints of his hon. friend.

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**Tropical Diseases.**—In the discussion of the Report of Supply on Thursday last Dr. Hillier called the attention of the House to the inadequate sum which was provided for the investigation of tropical diseases. The sum actually granted was £1,000. This was a miserably inadequate amount, and when it was borne in mind that, as a result of the researches and discoveries of Sir Patrick Manson and Major Ronald Ross, the death-rate in India from malaria had steadily decreased, and that an immense amount of human suffering had been prevented and an enormous number of human lives had been saved in tropical countries, it surely behoved them to deal a little more generously with the institutions in which the distinguished men of science who first gave these results to the world were still carrying on their work. Major Ronald Ross informed him that the total amount of Government grants at the disposal of the London and Liverpool Schools of Tropical Medicine was £3,245, of which the Imperial Government contributed £1,000, the Government of India £500, and the Colonies £1,745, and that, in his opinion, "it would be a good, sound national policy to increase the grants to the schools very considerably from the Treasury in order to enable the schools to be properly consolidated." He expressed a strong hope that the Government would see their way materially to increase the grant.

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**Plague in India.**—In answer to Mr. Ginnell, Mr. Montagu stated that the recorded number of deaths from plague in India (including Native States) in each of the last ten years was:

| | | | | | |
|---|---|---|---|---|---|
| 1901 | ... ... | 287,027 | 1906 | ... ... | 356,721 |
| 1902 | ... ... | 576,365 | 1907 | ... ... | 1,315,892 |
| 1903 | ... ... | 883,076 | 1908 | ... ... | 156,480 |
| 1904 | ... ... | 1,143,993 | 1909 | ... ... | 178,808 |
| 1905 | ... ... | 1,069,140 | 1910 | ... ... | 511,202* |

*Preliminary figures.

For the ten years the total was 6,473,704. There was no estimate of plague deaths as distinct from the number of deaths recorded as due to plague. There was no reason to believe that there was much unreported plague mortality.

# Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## THE HEALTH OF EDINBURGH.

DR. WILLIAMSON, Medical Officer of Health of the City, has issued his annual report for 1910. He first gives a summary of statistics for the year. The estimated population he gives as 360 548 (the census returns put it at 320,315), the estimated increase at 4,927—a long way above the actuality—excess of births over deaths, 2,162; area of city, 11,416 acres, or, excluding the public parks and principal open spaces, approximately 6,267 acres; density of population, 31.5 persons per acre over total area; 71,555 inhabited, and 5 051 unoccupied habitable houses; 2,730 marriages; 7,063 births registered (birth-rate, 19.58), and 4,651 deaths (death-rate, 12.89); infantile mortality, 728 deaths under one year, or 103 per 1,000 births; phthisis death-rate, 1.07 per 1,000; and infectious diseases death-rate, 0.78 per 1,000 (excluding phthisis). Then follow four extremely interesting charts, "which are plainly indicative of the extraordinary progress in public health matters during the past few years." The first shows that twenty years ago the city death-rate was 20 per 1,000—a figure which was nearly maintained until the year 1897, from which date a gradual fall has taken place, until the lowest point (12.89) has now been reached. The second chart shows the rate of infantile mortality. Twenty years ago it was nearly 140 per 1,000; it rose to 164 in 1897, in 1909 it was 113, in 1910 it had further fallen to 103 per 1,000. The third chart shows that the death-rate from phthisis is now actually 45 per cent. lower than it was twenty years ago, "an indication of the success which is attending the measures now so actively adopted." The most interesting of the four charts shows that twenty years ago there were between 400 and 500 cases of enteric fever in the city, with forty-two deaths. Since that period these figures have uniformly declined, until last year there were only 43 cases of the disease, 6 of which proved fatal.

### *Population Estimates.*

In his introductory letter Dr. Williamson urges that "owing to the obvious fallacies (based upon a calculated or estimated population) in the figures which may occur between one census and another, health statistics generally attain an element of unreliability which, from all points of view, it is of the first importance to remove. In order that this might be accomplished, it is obviously essential that a more ready method of obtaining information in regard to an *actual* population should be rendered possible at very much shorter intervals than those at present in force."

### *Births.*

Of the 7,063 births 3,559 were boys and 3,504 were girls. "The birth-rate per 1,000 of the population was therefore 19.6, a figure which is considerably lower than any hitherto recorded, and showing not only a continuance, but an acceleration of the decline which has been going on for some years." Of the total births 653, or 9 2 per cent., were illegitimate, but the various institutions in Edinburgh render this percentage unreliable. A table is given comparing the birth-rate in twenty-nine other large towns with that of Edinburgh, from which it appears that Liverpool, with 30.1, had the highest birth-rate, Greenock second with 29.3, Hull third with 28.6, Sunderland fourth with 28.5, Dublin fifth with 28 3, the lowest being Bradford with 18.6, Edinburgh the second lowest, with 19.6.

### *Marriages.*

There were 2,730 marriages, as against 2,795 in 1909, and 2,995 in 1908.

### *Deaths.*

The deaths numbered 5,036, or, after correction, 4,651, giving a death-rate of 12.89 per 1,000 of the population, or one death among every seventy-seven persons living; 587 deaths occurred in institutions, all of these being patients from beyond the city.

### *Causes of Death.*

Infectious diseases last year showed a diminished death-rate as compared with the preceding year. There was an undue prevalence of diphtheria of a somewhat virulent type; 511 cases were notified, and there were 60 deaths. It is interesting to note that over 93 per cent. of the diphtheria cases were admitted to hospital. There were 1,512 cases of scarlet fever, with 42 deaths. There were 117 deaths from measles, and 33 from whooping-cough. Neither of the latter are now notified, which, as Dr. Williamson very properly points out, is a very unsatisfactory state of affairs. There were only 20 deaths from influenza; diarrhoeal diseases were slightly more fatal than during the previous year—131, as against 108 in 1909, and 123 in 1908. The rate per 1 000 is nevertheless lower than the average for the preceding five years. Of the 131 deaths no fewer than 94 were children under one year of age. The deaths directly ascribed to alcoholism continue at the extremely low level which has characterized recent years. Of 387 deaths grouped under cancer, 182 were attributed to malignant disease, 189 to carcinoma, and 16 to sarcoma. "The Registrar-General for England, in his report for 1909, comments on the increased mortality from cancer in recent years. If these figures be compared with those for Edinburgh, it is found that the combined rate for both sexes is now almost identical in both instances, and is likewise the highest so far recorded. The maximum had, however, been more nearly approached some years ago in Edinburgh than it had in England and Wales, with the result that the increased number of deaths recorded in the latter returns, and to which attention is being directed, is not repeated to anything like the same extent in our own statistics." The outstanding feature regarding the prevalence of cancer is contained in the fact that one out of every eight persons reaching the age of 35 dies from some form of this disease. Tuberculous diseases accounted for 554 deaths (305 males and 249 females). If phthisis be deducted, we find the deaths distributed thus: General tuberculosis 29, meningitis 72, tabes mesenterica 6, tuberculous peritonitis 21, and of other organs 37—giving a total of 165, compared with 193 in 1909. The most notable reduction occurred in the case of general tuberculosis. The deaths under one year showed a considerable diminution, while the deaths under five due to the foregoing causes only totalled 87, as contrasted with an average of 123 during the preceding five years. Diseases of the nervous system gave 263 deaths, of which 45 were in infants under one year, and 68 under five years. The greatest number of deaths at all ages was said to be due to "meningitis," with 55, "softening of the brain" coming next with 49, and "convulsions" with 35. Circulatory system diseases gave 1,026 deaths, as against 1,065 the previous year. Respiratory diseases gave 729 deaths, as compared with 892 the previous year. The reduction is equally noticeable in bronchitis and pneumonia. Of the total of 398 deaths said to be due to pneumonia (lobar, bronchopneumonia, or vaguely pneumonia), 153 were under five years of age and 76 were less than a year old. Digestive system diseases caused 183 deaths (27 were due to appendicitis); diseases of the urinary system caused 214 deaths (117 were due to Bright's disease and albuminuria). Horse-drawn vehicles caused 6 deaths, motor-propelled vehicles 7; yet recently a Scottish judge stated that horse-drawn vehicles caused far more deaths than motors. Accidental poisoning due to chloroform gave 3 deaths. Were there a coroner's inquest in Scotland, this last figure might be different. There were 33 suicides. As to infantile mortality, the deaths caused by zymotic diseases were fewer in number than in any previous year, and this is particularly true in the case of whooping-cough, to which only 8 deaths in children under one year have been attributed, as contrasted with 77 in 1909. Tuberculous diseases continue at the low level to which the deaths fell during the previous year, but measles showed an increased mortality with 33 deaths under one year, as against 20 in 1909.

*Notification of Births.*

Of 7,309 births, 303 were stillborn, a proportion of 4.2 per cent. Dr. Williamson speaks highly of the services of the Voluntary Lady Visitors, of whom there are now 267 at work in the city, in seeing the babies of the poor at least once a fortnight.

*Phthisis.*

The arrangement between the Corporation and the Royal Victoria Hospital and Dispensary, whereby 10 beds for early cases are at the disposal of the medical officer of health, works harmoniously and with excellent results. During the year 145 advanced cases were admitted to the City Hospital at Colinton Mains, and there were 77 deaths—a mortality of 53·1 per cent., if calculated on deaths to admissions. The following figures give a comparison with other towns in Scotland, from the report of the Registrar-General for 1910:

| | | | | | |
|---|---|---|---|---|---|
| Dundee | ... | ... | ... | 152 | per 100,000 living. |
| Perth | ... | ... | ... | 127 | ,, ,, |
| Glasgow | ... | ... | ... | 122 | ,, ,, |
| Greenock | ... | ... | ... | 119 | ,, ,, |
| Paisley | ... | ... | ... | 110 | ,, ,, |
| Leith | ... | ... | ... | 105 | ,, ,, |
| Edinburgh | | ... | ... | 97 | ,, ,, |
| Aberdeen | ... | ... | ... | 94 | ,, ,, |

Of 539 cases admitted to the diphtheria pavilions of the hospital, 476 were classed as diphtheria from the public health point of view, while 24 were "carriers," that is, they harboured the bacillus in throat or nose, but had no clinical manifestations of the disease, and thereby were a greater source of danger than those actually ill. Of the 452 who presented clinical symptoms of the disease 11.06 per cent. died. This figure is the highest for some years, but the type of the disease prevalent in Edinburgh has recently been becoming more virulent. Only 7 cases of cerebro-spinal fever occurred last year, and of these 4 died. Five cases were removed to hospital, and 2 died, the other 3 making good recoveries after treatment with Flexner's serum. At the Usher Institute 1,921 bacteriological examinations were made. There are interesting sections on infectious diseases among school children, a report on the City Hospital by Dr. Ker, and various reports relating to meat inspection, cow byres, dairies, ice-cream shops, workshops, bake-houses, hair-dressing saloons, shop-hours, seats for shop assistants, and "Foods and Drugs Acts"—but space forbids further details.

Throughout Dr. Williamson's report is able, interesting, and valuable, and gives ample evidence that in his hands and that of the Public Health Committee, Edinburgh continues to hold a foremost place in the matter of public health.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The seventeenth general meeting of the Edinburgh Royal Infirmary Residents' Club was held at the Caledonian Station Hotel, Edinburgh, on June 16th. The President (Sir Watson Cheyne, Bart., C.B.) occupied the chair. In his report the Honorary Secretary (Dr. R. W. Johnstone) referred to the losses the club had sustained during the year by the deaths of twelve members, including Dr. P. McLaren, a past president. The Honorary Treasurer (Dr. D. H. Croom) read his report, which showed the club to be in a satisfactory financial condition. The reports were adopted on the motion of Dr. Bannerman (Stanhope), seconded by Captain J. M. Cuthbert. The members of the club, to the number of 76, then dined together. After the toast of "The King," the President proposed the toast of "The Residency" in a speech full of interesting reminiscences of the days when he was house-surgeon to Lister. Dr. Comrie then asked the President, in the names of those members of the club who had served as residents under Colonel Warburton, to present to the colonel a pair of handsome Japanese bronze vases in token of the esteem and affection which will follow him into his retirement from the position of superintendent of the infirmary. Colonel Warburton made a cordial reply. The health of the President was proposed by Professor Alexis Thomson. Sir George Beatson, Dr. Gulland, Dr. Ker, Dr. J. M. Darling, and others contributed to a very enjoyable evening.

# Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

CORK JOINT HOSPITAL BOARD.

AT a meeting of the board held at the Sanatorium, Streamhill, Doneraile, Dr. Ahern reported that 15 patients had been admitted to the sanatorium and 7 had been discharged. Two men patients had died during the month, one from heart failure and the other from haemorrhage. There were at present 46 patients in the institutions—32 men and 14 women—the great majority of whom were progressing favourably. A discussion took place as to the rate of payment for paying patients. The general rate was 35s. a week, but patients recommended by charitable societies, such as the Women's National Health Association, were taken at £1 a week. It was eventually decided to refer the matter to a committee of the whole board. The question of examining the sputum bacteriologically was discussed, and it was proposed that Dr. Ahern should be asked to do so at a remuneration of £50 a year instead of sending the sputum to Dr. Moore, University College, Cork.

ASYLUM OFFICIALS BILL.

At the last meeting of the Committee of Management of the Richmond District Asylum, Dr. Donelan, resident medical superintendent, directed attention to the provisions of the amending bill now before Parliament dealing with the work of asylum officials; the bill was now in Committee, and evidence would be received regarding the effect of the proposed changes. After some discussion it was decided to oppose the bill, and to approach the other asylums in Ireland with a view to taking concerted action. The main feature objected to in the bill is the limitation of hours of duty of attendants to sixty hours a week. This limitation would, it is stated, necessitate almost twice as large a staff as is at present employed in the Richmond Asylum.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## MANCHESTER AND DISTRICT.

THE HEALTH OF SALFORD.

IN the annual report of the health of Salford for the year 1910 the medical officer of health notes that the rates are calculated on the Registrar-General's estimate of the population in the middle of the year, but the Census figures now show that the estimate was much too high. The actual population is seen to be 231,380, whereas it was estimated at 244,636, so that the rates of births, deaths, etc., given in the report are too low. As examples, the birth-rate is given in the report as 26.9, but on the Census figures it is really 28·49, while the death-rate, given as 15.3, should be 16·15. The same holds good for all the other rates, though it is often of little practical moment.

*Birth-Rate.*—Taking the figures as given, it is noted that the birth-rate is the lowest on record, though it is still higher than the average for the whole country. The total number of births during 1910 was 6,594, of which 4,984—that is, 75·6 per cent.—were attended by the 56 midwives resident or practising in the borough, and 1,610, or 24·4 per cent., were attended by the medical practitioners.

*Practice of Midwives.*—There were 24 cases of puerperal fever notified, of which 15 were in the practice of midwives. In one of these cases the midwife was suspended and reprimanded by the local supervising committee for failure to carry out the rules of the Central Midwives Board, while another midwife was severely censured by the Board and placed on probation for three months. Notifications of calling in

medical practitioners by midwives were received in 533 cases.

*Death Rate.*—The death-rate is also the lowest on record, and the total number actually the least since the year 1872, when the population was only about 130,000; the death-rates from all the diseases are exceptionally low, except in the case of malignant disease. The total deaths were 3,738, of which 202 were attributed to cancer, 817 to acute lung disease (bronchitis, pneumonia, and pleurisy), 365 from nervous diseases, 332 from heart disease, 315 from phthisis, and 182 from other tuberculous diseases. The most noticeable facts about phthisis are its much greater incidence among males than females, and the advanced age at which many cases commence, the mean age at death from phthisis being for males 40 years and for females 31 years. The Health Committee has retained five beds for Salford patients at Delamere Sanatorium, for which the annual subsidy of £273 is paid, and of 14 cases sent in 1910, 4 were in an unsatisfactory condition at the end of the year, 5 were in good condition, and 5 were still in the sanatorium. The reduction in the phthisis death-rate has been well maintained, the rate being 1·3, against 1·5 in the previous year and 1·7 the average for the preceding ten years. The infant mortality-rate was 131 per 1,000 births, against 141 in the previous year and 149 the average of the preceding five years.

*Infectious Diseases.*—Out of 1,508 cases of infectious disease notified during the year, 1,074, or 71 per cent., were removed to the isolation hospital. It is noted that out of 99 bacteriological examinations in cases of enteric fever made by Professor Delépine a positive reaction was only obtained in 34, and of 99 cases of suspected diphtheria the specific bacilli were only found in 26 cases. Of 326 examinations for diphtheria made at the hospital itself only 53 were positive and 273 negative. The total number of cases of infectious disease notified was the smallest on record, being 979 fewer than in the previous year and 471 below the average for the preceding five years.

*Sore Throat.*—An extensive epidemic of sore throat with enlarged glands in the neck occurred at Broughton, and bacteriological examination showed that the epidemic was caused by streptococci. Information was received of 693 cases, but these were apparently only a small proportion of the whole number. The outbreak was not traced to any definite local causes, and seems to have been merely an exceptionally virulent outbreak of a condition always present to a greater or lesser extent. No deaths are reported, though a considerable number of serious complications occurred, especially acute rheumatism.

*Medical Inspection of School Children.*—During the year 9,821 medical examinations were conducted, but it was found impossible to deal with more than 4,709 children in accordance with the requirements of the Education Code. Of the total examinations, 3,376 were of special cases examined at the education offices, and 816 were eye examinations, practically all retinoscopic. The number of cases examined at the central offices seems bound to increase, and a great amount of work is entailed in the *x* ray treatment of ringworm, which has left quite insufficient time for the routine school examinations. Last year the sanction of the Board of Education was obtained for the treatment of ringworm by *x* rays, and during the year 58 cases have been thus treated at the central offices, the average duration of the treatment of the cured cases being 4.64 months. Among the 12 year-old children, epilepsy was met with in 1.3 per 1,000 and mental defect in 6.1 per 1,000. Systematic vision testing was carried out in all the 12-year-old children, about 10 per cent. being found to have defective vision. No less than 3.4 per cent. of the children in the upper departments were found to be wearing spectacles, and the eye specialist who is engaged prescribed 618 pairs of spectacles during the year. All cases of phthisis with cough and expectoration, or with distinct physical signs, are excluded from school, but it is not thought necessary or advisable to exclude all cases of incipient or doubtful phthisis. For the latter class the report says it is highly desirable that an open-air school should be provided.

*Tubercle Bacilli in Milk.*—Owing to the discovery of tubercle bacilli in the milk supplied to a large public institution, six farms were visited from which the supply came. Three of these were found very unsatisfactory, being in a dirty insanitary condition, and the cows of a poor class. The other three were small, but fairly good. Owing to this unsatisfactory condition arrangements were made for changing the supply of milk.

# New Zealand.

[*FROM OUR SPECIAL CORRESPONDENT.*]

## HOSPITALS AND CHARITABLE AID.

THE report of the Inspector General of Hospitals and Charitable Institutions of New Zealand for 1910 states that £237,640 was spent on hospitals during the year, being an increase of £837 on the previous year. The receipts amounted to £276,805, derived one-third from the rates, one-third from the consolidated fund, and one-third from voluntary contributions, patients' payments, and other sources of revenue. Payment from patients amount to £34,574, an increase of £6,177 on the previous year. The cost per occupied bed was £100 7*s.*; the average number of beds in daily occupation was 1,709.

In the public hospitals, which contain 2,689 beds, 21,108 patients were treated during the year. The average mortality was 7.7 per cent. The average stay in hospital was thirty five days. The cost per patient was 5*s.* 7*d.* a day.

There were 822 trained nurses on the register, of whom 622 were in the public service.

The names of 1,028 midwives are on the register—namely, trained 283, untrained 745. There are nine training schools for midwives in the dominion. The number of patients treated in St. Helen's Hospitals in 1910 was 883, with 4 deaths; 829 babies were born alive, 13 were stillborn, and 4 babies died. Each baby born in St. Helen's Hospitals cost the country about £2.

During 1909–10 £112,833 was spent in charitable aid. The receipts amounted to £142,456. The average cost per bed for maintenance of the 1,169 persons in the Old People's Homes was £27 12*s.* 11*d.*

The past year has been rendered momentous in the history of social effort in the Dominion by the placing on the Statute Book of the Hospitals and Charitable Institutions Act, 1909, the principal features of which are as follows:

1. Election of members of boards supersedes the previous system of nomination. The representatives on the board are elected by the electors of the local authority of the contributory districts instead of being nominated by the local authorities themselves.
2. Continuity of office. Representatives hold office for two years.
3. One body administers both hospitals and charitable aid in the district.
4. Government subsidies. These are put on an improved basis.

Other improvements come under the scope of the new Act, which it is to be hoped will materially aid in the management of hospitals and charitable institutions.

Appended to the report of the Inspector-General are separate reports on individual hospitals and charitable institutions, showing in detail hospital statistics, receipts, and expenditure.

# Tasmania.

[*FROM OUR SPECIAL CORRESPONDENT.*]

## PUBLIC HEALTH.

THE annual report of the Department of Public Health for the year 1909–10, which reached us a short time ago, contains some interesting facts concerning the public health of the colony.

Tasmania, with an area of 26,215 square miles, had at the end of 1909 a population estimated at 186 860, showing an increase of 1,036 for the year. It is the only State in the Commonwealth in which a slight increase in the crude birth-rate (number of births per 1,000 of mean annual population) occurred between 1901 and 1908, there being a gradual rise from 28.60 to 30.90. There was a remarkable increase of masculinity of births (the number of males per 1,000 females registered) in Tasmania in 1905, when it reached 115.01, the highest record for any Australian state.

The crude death-rate was 11.71 in 1908, as contrasted with 10.52 in 1901. The death-rate for 1909, corrected according to estimated population, was 10 01, the lowest yet recorded in Tasmania. There has been a gradual reduction in infantile mortality during the past ten years; in 1909 the rate per 1,000 births registered was 65, as against 76 in 1908. The death-rate per 1,000 from tuberculosis for 1908 was 0.96, only 0.01 higher than for Western Australia, the lowest in the Commonwealth. In 1909 it was even lower, 0.88 per 1,000. In 1908 there were 180 deaths from tuberculous diseases, of which 139 were due to consumption. In 1909 there were 163 deaths from tuberculous diseases, 115 of which were due to consumption. The decrease in consumption during the past few years has been gradual and steady. The report states:

> Certainly, if there is no relaxation in the public and private efforts which are being made for the control of this preventable disease, and the attention given in the schools to better ventilation produces a generation more appreciative of living and sleeping in the fresh air, one may hope that the present death-rate from tuberculosis should again be reduced by half during the next twenty years.

There were 252 cases of diphtheria and 544 cases of typhoid fever in 1909–10. The death-rate from typhoid fever in 1909–10 was 2.01 per 10,000. Defective sanitary methods seem to have been the cause of the outbreak in the majority of cases, while convection by flies in certain districts is amply proved. A considerable part of the report is taken up with an account of this outbreak, and much valuable information is given both as to the means adopted to trace the different cases and the methods which were and are being taken to improve the sanitary conditions of the affected areas. It has been arranged that the State hospitals are to take over the charge of cases of infectious diseases, each local authority being responsible for the cost of maintaining cases from its district.

# Correspondence.

## THE PATHOLOGY OF THE JEW.

Sir,—It has been well said by Dr. Beddoe[1] that "of all white races the Jews are most likely to reward a careful study of special morbid tendencies." He adds: "But I am not aware that this has ever been thoroughly carried out."

The work by Maurice Fishberg, reviewed in the Journal of May 6th, 1911 (pp. 1057–8), is a valuable contribution by a Jew to the study of his people. Mr. Fishberg, however, appears to believe in the inheritance of acquired traits in ascribing the present nervous instability of the Jew to past persecution. I would suggest as an alternative theory that this neurotic tendency has contributed directly or indirectly to the Jew's compassing his survival, which has not been effected by active physical force. Perhaps the most interesting aspect of the modern Jew is as an urban type which has attained a certain degree of stability. In this respect he is centuries ahead of the Gentile; he knows how to nurture his children under urban conditions, and, having shed his alcoholics in the distant past, has become constitutionally temperate in the manner explained by Dr. Archdall Reid. Nor does he rely, like our own urban stock, on continual replenishings from rural immigrants. At the present time we are witnessing in our cities the process of evolution of industrial types from the débris of disintegrated pastoral and agricultural communities, with all the harrowing phenomena that must accompany a great and sudden change of environment.

Does the study of the Jew in his modern aspect hold out any hope, or is "back to the land," with our cities abandoned to the Israelite, the only alternative to progressive degeneration? I agree with Mr. Fishberg that Jews are specially prone to functional gastric disorders. They are also very liable to enlarged tonsils, adenoid growths, and other troubles associated with naso-pharyngeal catarrhs, which in my experience constantly precede or accompany catarrhal conditions of the alimentary tract.

I hold this to be due to the racial evolution of the Jew having taken place in warmer, drier regions than North-west Europe, the same proclivity being observed in other racial types migrating into this country from similar regions, and even in localized native types shifting from dry to damper regions within our borders.

I would urge that if the study of the Jew can help us in the maintenance of national physique we should lay aside prejudice and learn, for at present our need is great.—I am, etc.,

London, N.W., June 17th. J. S. Mackintosh, M.D.

[1] Anthropology and Medicine, *Allbutt's System*, vol. i.

## THE VACCINATION DEBATE.

Sir,—Dr. Killick Millard has expressed the opinion that recent vaccination will protect the individual against small-pox. He has testified to his faith, as he told us in his letter in the Journal of June 3rd, by exposing his vaccinated children to the concentrated infection of the disease. In his last letter in the Journal of June 17th, he gives further evidence of the soundness of his belief in a reference to his experience of small pox in Leicester, when he says that in 1904, of 6 cases of unvaccinated infants under 1 year attacked by small-pox, 1 died, and in the previous epidemic, of 4 similar cases 2 died, a death-rate of 16 6 and 50 per cent. respectively. Yet Dr. Millard concludes his letter as follows: "On the ground of protecting the individual there is really not much more to be said in favour of compulsory infantile vaccination than of compulsory adult revaccination."

What does Dr. Millard mean? Let us examine his method of reasoning. In his first letter he seemed to say, "Come, let us talk about the prevention of small-pox." It seemed a hopeful subject, and the disappointment was great when one discovered that "prevention" as used by Dr. Millard has a wider meaning than that usually given to it. Now, in his last letter, he seems to say, "Why be so particular? It will be all right if you only play the game of make-believe properly. Take the word *diagnosis*. Let us assume that *diagnosis* means ever so many other things besides *diagnosis*. Let us assume that it means also 'prompt and complete isolation of infected persons, disinfection, careful supervision of contacts, etc.'" It used to be a fascinating game, the game of make-believe. Unfortunately one is no longer young. Besides, one must protest against Dr. Millard playing his game with *diagnosis*. By all means let him play with *prevention*. Since the appearance of the report on the Poor Law that word has become more and more indefinite in its meaning, until now it seems to have joined the great army of the shibboleths. But we dare not play with *diagnosis;* it represents all that is left to the profession of medicine.

But there is also a serious side to the views expressed by Dr. Millard. It is very disappointing to find him (an avowed believer in the efficacy of vaccination, and an exponent of the necessity for revaccination) trying to reinforce his argument by quoting the death-rate in Leicester among patients over 40 who were *once* vaccinated. It is difficult to understand so complete a misapprehension of the true value of infantile vaccination. Why should we concern ourselves with the adult of 40 or over who acquires small-pox? Has he not the right of the freeborn citizen to expose himself to the chance of death from the disease if he so desires? Vaccination or revaccination is free. He has liberty to choose. Let him take it or leave it. But the children—the Leicester infants of whom Dr. Millard speaks—what choice had they? They could not avoid exposure to infection, and the result of that exposure depended entirely upon the strength of their natural resisting power. Can Dr. Millard, by any degree of sanitary efficiency (or public health efficiency if he prefers the term) and without previous vaccination, prevent such infants from becoming infected with the disease if the opportunity is afforded them? Can he be certain of influencing the result, even with the help of vaccination,

after infection has taken place? That is the case for compulsory infantile vaccination, and I regret that it has seemed necessary to demonstrate the obvious.

When one who believes in the power of recent vaccination to protect from small-pox, and who is in a position of authority in the public health service, puts forward the view that "we need not be very concerned if we have to abandon" this measure, he seems to assume a responsibility as unnecessary as it is enormous. If the people of this country say that they do not want compulsory vaccination of infants, we are compelled to acquiesce. But I would point out to Dr. Millard that we may still retain our beliefs, that we are not compelled to acquiesce without protest, and that still less does it accord with our duty to consent willingly and to attempt to reconcile the unscientific views of the opponents of the measure with scientific facts which by this time ought to be familiar to every one.—I am, etc.,

London, S.E., June 16th. A. F. CAMERON.

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SIR,—Dr. Cameron, in the JOURNAL of June 10th, says the only means at our disposal for preventing the spread of small-pox are: (1) Diagnosis and (2) vaccination. Dr. Killick Millard (June 17th) agrees with this, assuming, no doubt truly, that Dr. Cameron includes under diagnosis "all the train of preventive measures which are usually carried out—such as isolation of infected persons, disinfection, careful supervision of contacts," etc. Let us examine this train of preventive measures. First, what is meant by "isolation"? Does it mean putting the unfortunate patient at the top of a mountain or under a glass case? No. To quote Mr. John Burns, it means "surrounding him by a ring of protected persons," that is, really *vaccinated* persons. Next, as to disinfection. This, of course, is all right, but one cannot disinfect the patient himself, nor the air he breathes. As to "supervision of contacts," no amount of supervision will prevent these from developing small-pox unless they are vaccinated. Supervision of contacts, then, really means vaccination of contacts, plus supervision, and surrounding them by another, or the same, "ring of protected persons" should the disease develop. Thus Dr. Millard's train of measures, which constitute the Leicester system, with the single exception of disinfecting the patient's deserted bed and lodging, may all be summed up under vaccination!

There is also the fact, which is not mentioned by any of your correspondents, that, whenever small-pox breaks out in a locality, nearly all the inhabitants go off in hot haste to be vaccinated. The dread of small-pox, when the disease is really at hand, is a most potent persuader to vaccination. I remember reading (I think, Sir, in your columns, the last time that small-pox appeared in Leicester) that "pro-vaccinators and antivaccinators are tumbling over each other in their hurry to obtain vaccination."

The much-vaunted Leicester system, then, practically consists in doing nothing, except provide a hospital, until the disease appears, and in then taking in the patients as fast as they appear, disinfecting their lodgings, and, last but not least, turning on the public and private vaccinators and driving them night and day until the plague is stayed. It is therefore really vaccination which stops the spread at Leicester as elsewhere, and Dr. Millard shows his appreciation of the fact by having his own family vaccinated as "object lessons," notwithstanding that, according to his original contention, he is thereby rendering them much more likely to spread the disease in the future.

This "system" has been practised in other places besides Leicester with a fair measure of success. Of course a few lives are sacrificed every time the disease appears, but they are mostly those of poor and ignorant persons. Moreover, it is not always even the partial success it has been at Leicester and Reading. The severe and fatal epidemic at Gloucester is still fresh in the minds of some of us.

However, for good or ill, the nation, egged on by Messrs. Lupton and Co., led by Mr. John Burns, and encouraged by Dr. Millard, has now practically decided upon this system, and it is the only one available. What, then, is Dr. Millard troubled about? Surely he ought to be satisfied. Why is he so anxious to persuade the medical profession to back him up? Can it be that he dreads the breakdown of his system and desires not to be alone when the storm bursts, as it is certain to do sooner or later?—I am, Sir, yours in deep cogitation,

Reading, June 17th. F. W. STANSFIELD.

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## THE PATHOLOGY AND TREATMENT OF FISTULAE.

SIR,—I am obliged to Dr. Robertson for the notice he has taken of my paper published in the JOURNAL of May 6th, even though his object is to correct an error and point a moral. It is possible I may have overstated the importance of the internal sphincter, and, if so, I am under obligation to your correspondent for the reminder; but I would like to refer him to our friend Mr. Gordon Watson, whose opinion, I believe I am right in saying, is fairly represented in the quotation.

I should not, however, have taken notice of Dr. Robertson's letter, including, as it does, a gentle personal rebuff, if along with my own shortcomings as an "individual" he had not included those of the sphincters, for I have a great respect for them, and still venture to think we are very largely indebted to them for the security we enjoy.—I am, etc.,

Newcastle-on-Tyne, June 12th. HAMILTON DRUMMOND.

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## PROPOSED MEMORIAL TO LOMBROSO.

SIR,—Efforts are being made to collect funds for the purpose of erecting a suitable monument to honour the memory of the late Professor Cesare Lombroso, at his native place, Verona, Italy. The central committee is at Rome, and consists of distinguished Italian scientists and others. Committees have been formed in many other countries also. It is thought that there are a number of people in this country who would like to contribute a small amount to such a good object, and we have been asked to remit any funds collected for the purpose to the central committee at Rome. The following gentlemen have allowed their names to be put on the English committee: Sir John Tweedy, LL.D., F.R.C.S., etc., President of the Medico-Legal Society; Mr. H. Havelock Ellis, the well-known author; Rev. Dr. W. D. Morrison, author of *Crime and Its Causes*, etc.; Dr. M. Eden Paul, translator of Professor Kurella's biographical sketch of Lombroso, and Dr. W. A. Brend, Honorary Secretary to the Medico-Legal Society.

To those who have taken any interest in the great subject of crime and its treatment, the name of Lombroso is a household word. Although his views were not accepted in their entirety by scientists, yet he did a great life's work, and his writings on crime and criminals have had a world-wide influence.

Subscriptions will be gratefully received by Dr. Brend, Medico-Legal Society, 11, Chandos Street, W., or by myself, and forwarded to the central committee at Rome.—I am, etc.,

JAMES SCOTT.

Royal Societies' Club,
63, St. James's Street, London, W.,
June 14th.

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## OBITER DICTA.

SIR,—From the context of the letter in the JOURNAL of June 10th it would appear that Dr. Eva McCall can find no evidence that Dr. Rutherfurd has any special claim to utter words of wisdom or to make authoritative statements on questions in the domain of diseases of children.

But why *obiter dicta?*

Surely any one who is not afflicted with aphasia, congenital or acquired, is capable of saying, *by the way*, what he thinks on any subject in which he is interested.

*Obiter dictum sit.*—I am, etc.,

Walthamstow, June 10th. ST. CLAIR B. SHADWELL.

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THE Governor of New York recently signed a bill appropriating £13,000 for the establishment in Buffalo of a hospital where investigations into the cause, nature, treatment, prevention, and cure of cancer and allied diseases are to be carried out. The management is to be vested in a board of trustees consisting of seven members. Among them are the State Commissioner of Health and Dr. Roswell Park.

# The Services.

## THE INDIAN MEDICAL SERVICE.

The annual London dinner of the Indian Medical Service took place at the Hotel Cecil on June 14th, under the chairmanship of Surgeon-General W. R. Browne, C.I.E. The guests were General Sir Beauchamp Duff, K.C.B., K.C.S.I., K.C.V.O.; Sir Henry Morris, Bart., President of the Royal Society of Medicine; Mr. Austin Low; and the editors of the *Lancet* and the British Medical Journal. The following is a list of those present: Surgeon-Generals G. Bainbridge, A. M. Branfoot, C.I.E., W. R. Browne, C.I.E., J. P. Greany, G. Hay, Sir L. D. Spencer, K.C.B.; Colonels C. W. Carr-Calthorp, Sir R. Havelock Charles, K.C.V.O., H. N. V. Harington, W. Hume Henderson, D. E. Hughes, C. H. Joubert de la Ferté, C. Colhoun Little, R. D. Murray, C. H. L. Palk, F. C. Reeves, J. Shearer, C.B., D.S.O., C. F. Willis; Lieutenant-Colonels J. Anderson, D. G. Crawford, H. P. Dimmock, F. J. Drury, A. Duncan, P. J. Freyer, G. H. D. Gimlette, C.I.E., R. A. K. Holmes, E. R. Johnson, D. F. Keegan, C. G. W. Lowdell, D. P. Macdonald, R. C. MacWatt, J. Moorhead, T. R. Mulroney, A. H. Nott, A. Stephens, W. H. Thornhill, D. Warliker, H. G. L. Wortabet, F. W. Wright, D.S.O., A. C. Younan; Majors R. Bryson, S. H. Burnett, T. H. Foulkes, E. D. W. Greig, A. Hooton, S. Hunt, J. C. H. Leicester, R. H. Maddox, A. H. Moorhead, L. Rogers, R. G. Turner; Captains W. H. Boalth, E. W. C. Bradfield, G. Franklin, J. Good, E. T. Harris, D. Heron, W. H. Leonard, W. C. Long, J. C. S. Oxley, F. B. Shettle, W. H. Tucker. No speeches were made, and the only toast was that of the King.

## THE AFRICA GENERAL SERVICE MEDAL.

An Army Order just issued announces that the King has been pleased to approve of the Africa General Service Medal (as instituted by His late Majesty King Edward VII), with clasp inscribed "West Africa, 1909–10," being granted to all officers and men who took part in the fighting in the Ogwashi-Oku country between November 2nd and December 18th, 1909, and between January 6th and April 24th, 1910, under the command of Captain (Honorary Major) G. N. Sheffield, 3rd Battalion, Essex Regiment, and between May 4th and 27th, 1910, under the command of Major G. E. Bruce, Norfolk Regiment, all dates inclusive. Those already in possession of the Africa General service medal will receive the clasp only.

# Public Health AND POOR LAW MEDICAL SERVICES.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Wallasey.*—The third annual report of Dr. Naylor Barlow, M.O.H. for the new Borough of Wallasey, has just been issued. Scattered over the north-west of the Wirral peninsula between the sea and the rivers Mersey and Dee, Wallasey has a high sandstone backbone, and consequently for the most part has good natural drainage. Most of the inhabitants are occupied in Liverpool, but there are also labourers at the Birkenhead fairages and a small proportion of casuals and undesirables who pick up a living on the New Brighton sands in the tripper season. The report shows how a worker community in this country may compare with such favoured populations as those of New Zealand and Australia, and how superior modern conditions render life in contrast with the conditions inherited from previous ages in the older towns. The population of the borough is about 75,000 and the death-rate 11·8 per 1,000, being in the Seacombe division, which is the industrial part, 13.2 per 1,000, while in the residential part, Wallasey proper, it is only 8.1 per 1,000. The infant mortality-rate is 86. Dr. Barlow states that the birth-rate is the lowest recorded, and, like the birth-rate of the country in general, is steadily declining, probably owing to artificial restrictions of the family. The adoption of the Notification of Births Act is recommended for the next year, as it is found that births and deaths are in some cases notified together, so that it is impossible for the lady sanitary inspector to call and give advice in such cases before it is too late. Another recommendation is made that charitably disposed persons should institute the provision of a least one substantial free meal per day to any poor mother who shall be willing to eat it at the dépôt where it is provided. Attention is called to the fact that although six times more children are breast-fed than are bottle-fed, there are actually double the number of deaths of bottle-fed children. A special inquiry into the effect on infants of the mothers going to work showed that among women industrially employed a larger proportion were able to feed their children naturally in the first month, probably because this class of mother was physically more capable than the non-worker class, but after the first month the percentage of breast feeding rapidly declined among the mothers industrially employed and with this came a corresponding increase in the mortality of the infants. Seven cases of small-pox were notified during the year, in two separate outbreaks. The first started in a worker in a grain warehouse, and the second in a worker in a flour mill adjoining. One of the cases was the 3-year-old daughter of one of the disinfecting staff who assisted in removing a patient twelve days after this patient was absent from work, and he was certified as suffering from pleurisy, though he had vomiting and some spots on his forehead, which disappeared in a few hours; he had been revaccinated at least twice. The child's attack was unmistakable; it began sixteen days after the commencement of the father's illness. The child was unvaccinated, and only just escaped death. Dr. Barlow draws attention to the danger of the large and growing numbers who are now susceptible to small-pox either from their being unvaccinated or only ineffectively vaccinated with one or two marks; he suggests that this undervaccination would not be so serious if revaccination were compulsory at the age of ten years. The facts relating to the working of the Midwives Act show that 53 per cent. of the births are attended by midwives—a large proportion when the prosperity of the district is considered. Of the 4 cases of puerperal sepsis notified, 2 occurred in the 53 per cent. of cases attended by the midwives.

# Universities and Colleges.

## UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.D.—A. S. M. Palmer.
M.B.—G. Holmes, M. H. Whiting.

## UNIVERSITY OF LONDON.

The following candidates have been approved at the examinations indicated:

Third M.B.—*A. G. H. Lovell, Mary H. Atherton, A. D. E. Bayliss, T. Beaton, T. K. Boney, N. Booth, Barbara Broster, G. S. Candy, H. W. Catto, A. E. D. Clark, A. C. S. Courts, E. G. H. Cowen, Hazel H. Cuthbert, Gertrude M. Dobrashian, Florence M. Edmonds, R. B. Edwards, W. M. Feldman, W. E. Fox, Helen M. Franklin, Katherine A. Gill, Edith C. Goodison, Ethel R. Griffiths, G. R. Hind, Harrie M. Hood-Barrs, Charlotte L. Houlton, C. D. Kerr, F. N. H. Maidment, R. K. Mallam, Mabel Muncey, W. J. O'Donovan, J. Paulley, E. A. Penny, Morna L. Rawlins, H. D. Rollinson, N. G. H. Salmon, G. F. R. Smith, H. Thwaite, A. H. Todd, B.Sc., H. A. Treadgold, J. Tremble, J. W. Trevan, B.Sc., G. R. Ward, H. P. Warner, Elsie Warren, H. O. Williams.*
B.S.—J. W. Little.

* University Medal and distinguished in Medicine, Surgery, Midwifery and Diseases of Women.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary council was held on June 8th, Mr. H. T. Butlin, President, in the chair.

*Diplomas.*

Diplomas of Fellowship were granted to thirty-one candidates found qualified at the recent examination.

Diplomas were granted to forty-four candidates found qualified for the Licence in Dental Surgery.

*Elections.*

Mr. Robert Lawford Knaggs and Mr. Jonathan Hutchinson were elected on the Court of Examiners, in the vaccancies occasioned by the retirement of Mr. C. T. Dent and Sir Frederic Eve.

The following were appointed examiners for the Diploma in Tropical Medicine:

*Bacteriology.*—(1) Dr. John William Henry Eyre.
*Diseases and Hygiene of the Tropics.*—(2) Dr. Charles Wilberforce Daniels.

And in the subjoined subjects the appointments were as follows:

*Elementary Biology.*—(1) James P. Hill. (2) Thomas William Shore.
*Anatomy.*—(1) William Henry Clayton Greene. (2) Arthur Robinson. (3) William Wright.
*Physiology.*—(1) Benjamin Moore. (2) Ernest Henry Starling.
*Anatomy (for the Fellowship).*—(1) Charles Herbert Fagge. (2) Frederick Gymer Parsons. (3) James Sherren. (4) Arthur Thomson.
*Physiology (for the Fellowship).*—(1) George Alfred Buckmaster. (2) Edmund William Wace Carlier. (3) Herbert Willoughby Lyle. (4) Charles Frederick Myers-Ward.
*Midwifery.*—(1) William Blair Bell. (2) George Francis Blacker. (3) Hugh James Moore Playfair. (4) James Henry Targett.
*Public Health.*—Part I.—Richard Tanner Hewlett. Part II.—Richard Deane Sweeting.

*The Otological Collection in the College.*

A letter was read from Mr. Arthur H. Cheatle, who was recently appointed by the council to rearrange the ear specimens in the museum, advising that the Toynbee collection in the museum should be left undisturbed, and offering to present to the college several hundred specimens of his own, demonstrating the surgical anatomy of the temporal bone throughout life and the pathology of ear disease, to form the basis of a new collection. Mr. Cheatle's offer was accepted with thanks.

*The Dental Department of the London Hospital Medical College.*

The Board of Examiners in Dental Surgery reported to the council that they had considered the application from the Dean of the London Hospital Medical College asking that the proposed dental department of that college might be recognized for the curriculum in dental surgery, and they recommended that provisional recognition should be granted, subject to the conditions mentioned in the dean's letter being fulfilled, and to syllabuses of the courses of lectures being satisfactory to the board at the conclusion of the Winter Session 1911–12. The recommendation was adopted by the council.

*Election of Council.*

The President reported that a meeting of the Fellows would be held at the college on Thursday, July 6th, for the election of two Fellows into the council of the college in the vacancies occasioned by the retirement in rotation of Mr. Clinton Thomas Dent and Mr. George Henry Makins, C.B.

## ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

*The Fellowship.*

AT a meeting of the College on May 16th the following were admitted to the Fellowship:

W. Gilbert, E. S. Chapman, F. H. Dommisse, F. B. Elwood, W. T. Gardiner, A. B. Gordon, C. Hibbert, E. B. Hinde, J. G. W. Johnson, G. A. Jolly, Captain I.M.S.; G. McPherson, Major I.M.S.; E. C. G. Maddock, Captain I.M.S.; E. L. Marchant, A. T. Paterson, S. R. Rao, S. A. Smith, and A. P. Watson.

*Awards.*

The Bathgate Bronze Medal (with a microscope) for materia medica was awarded to Mr. G. F. B. Page, and the Ivison Macadam Memorial Prize in chemistry to Mr. J. W. Irvine.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting on June 12th Mr. R. H. Woods was elected president, Mr. R. D. Purefoy vice-president, and Sir C. A. Cameron secretary. The following were elected members of Council: Sir H. R. Swanzy, W. Stoker, Sir C. A. Cameron, J. B. Story, Sir C. B. Ball, Sir T. Myles, Sir J. Lentaigne, Sir A. Chance, Sir L. Ormsby, H. G. Sherlock, R. Bolton McCausland, F. Conyer Dwyer, R. Lane Joynt, W. Taylor, E. H. Taylor, C. B. Maunsell, W. I. Wheeler, T. E. Gordon, and A. Blayney.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved at the examinations indicated:

SURGERY.—*H. H. Budd, †J. M. E. R Le Dentu, †H. Rowntree.
MEDICINE.—*J. M. E. R. Le Dentu, †H Rowntree.
FORENSIC MEDICINE.—R. A. Robinson, G. H. Varley.
MIDWIFERY.—J. M. E R. Le Dentu.
* Section I, † Sections I and II.

The diploma of the society has been granted to Mr. H. Rowntree.

# Obituary.

THE death is announced of another Crimean veteran, Deputy Surgeon-General ARTHUR GUY ELKINGTON, who died at Farnborough Park, Hampshire, on May 31st, in his 79th year. He was appointed assistant-surgeon, Scots Fusilier Guards, in 1853, but in 1868 he was transferred to the Grenadier Guards, and served with that regiment till his retirement from the service in 1887. During the Crimean war in 1854–5 he was present at the battles of Inkerman (where he was wounded) and Balaclava, and at the siege and fall of Sebastopol. He was mentioned in dispatches, granted a medal with three claps, the Turkish medal, and the 5th Class of the Order of the Medjidie.

DR. WILBERFORCE JOHN J. ARNOLD (Colonial Surgeon) has been appointed a Member of the Executive Council of the island of St. Helena.

A BILL was introduced into the United States House of Representatives on May 12th providing for the establishment in the District of Columbia of a laboratory for the study of the criminal, pauper, and defective classes. The work is to include, not only laboratory investigations, but also the collection of sociological and pathological data, especially such as may be found in institutions for the criminal, pauper, and defective classes. The director is to receive a salary of £600 a year, and to make an annual report to the Commissioners of the District of Columbia, which with their approval will be published.

# Medico-Legal.

## A MANCHESTER EYE SPECIALIST.

IN the Manchester County Court, on April 10th, William Hodson, a signalman, claimed £100 damages from William Mellor, who was described as an eye specialist, practising in Oxford Road, Manchester. The plaintiff alleged that by representations as to treatment he was put to a cost of £16 13s. 6d., and had suffered great pain and loss of health; that the defendant was not a registered medical practioner, and did not hold any medical or surgical qualification; and that defendant was not possessed of any special skill, knowledge, or treatment, and was not able to cure the cataract in the plaintiff's eye. Alternatively the damages were claimed for alleged negligence. It was stated that eight years ago the plaintiff had his left eye cured of cataract by an operation performed by Dr. Parker in the Bolton Infirmary. In 1908 his right eye became similarly affected, but the cataract had not developed to the stage when an operation could be performed. Seeing a newspaper advertisement, he wrote for the defendant's booklet, a passage in which ran as follows: "Mr. William Mellor, the famous eye specialist, rightly claims to have been the recipient of more unsolicited praise from people he has cured than any other man in the country. Twenty-five years ago, in spite of the strongest criticism from narrow-minded members of the faculty, he entered practice, with a firm determination to cure diseases of the eye without resource to the knife, being confident that if only the right principles were adopted every disease and defect of the eye was capable of improvement, and, in most instances, of being permanently cured. The 'William Mellor' system of eye treatment is based upon irrefutable scientific principles which have long been justified by their astounding success, the experience of thousands of people proving that there is now no room for scepticism or doubt," and continued, "In no case undertaken is a guarantee, verbal or otherwise, to cure given or implied." The plaintiff saw the defendant, who examined his eye, and said he could cure it without an operation, and guaranteed that he would do so. All he did, however, was to give him drops for the eye and some medicines and pills. Once a month for two years the plaintiff attended at the defendant's place of business, but no improvement was effected, and at last the defendant said he would have to go to the surgeon who had operated on his other eye.

The plaintiff, in cross-examination, said that after about six months' treatment, to please the defendant, he wrote him a recommendation to the effect that he had suffered from cataract and had now been cured, thanks to the defendant's skill, but that, he said, was because the defendant assured him that he was progressing splendidly, and would certainly be cured.

Dr. Parker, of the Bolton Infirmary, stated that he had operated on the plaintiff's left eye in 1903. In his opinion there was no known remedy in medical science for cataract except an operation.

Cross-examined, he did not know what was in the "drops" supplied by the defendant for the plaintiff's eye, but he stated that the effect of them on the eye was to inflame it, and at the end of the two years' treatment the eye was worse. There were some books in which remedies other than those by operation were suggested, but there had never been any proof of them.

Dr. Alexander Hill Griffith, surgeon to the Royal Eye Hospital, Manchester, gave evidence similar to that of Dr. Parker. There had been no accredited records of cataract having been cured without operation. It might be removed by absorption, but that was not a cure.

Dr. Gray Clegg, honorary surgeon to the Royal Eye Hospital, Manchester, said that he found the plaintiff to be suffering from cataract not ready for operation. It was not possible to cure cataract without an operation, although experiments were being made to this end.

The defendant in his evidence said he had been in practice as an oculist in Manchester for sixteen or seventeen years. The plaintiff came to consult him in September, 1908, and as the result of examination the witness found a fully-developed cataract on the right eye, and on the left eye there was a sort of secondary film, which had formed after an operation. At the end of nine months the witness succeeded in removing that film from the left eye. He did not undertake to cure the plaintiff's right eye, nor did he guarantee that it should be cured. He never asked for a testimonial. The "stuff" or drops used for the left eye was not a secret remedy, being manufactured by a London firm. The witness said that he told the plaintiff afterwards that he could do nothing for him, but the plaintiff wanted to keep on with the drops and continue the visits, and the witness reduced his fees. The contents of the booklet referred to were true.

In cross-examination the witness admitted that he had been in Perth, Australia, but denied that he had ever been a doorkeeper at the eye hospital in that town, or that his sole scientific experience had been obtained in that capacity. He had never asked a patient for a testimonial, and all such testimonials were absolutely unsolicited. The drops consisted of "oil of anemone." The witness did not guarantee to cure cataracts without operation when they were fully developed, but he believed the oil would cure some sorts of cataracts. He believed that he could cure the plaintiff with the oil, but he did not tell him so. The plaintiff had paid him nine guineas during the nine months, and then twelve half guineas.

Mr. J. Ernest Parry, analytical and consulting chemist, London, said the "anemone" drops consisted of 98 per cent. of olive oil and 2 per cent. of the extractive matter of pulsatilla. There was no irritating matter in the drops, nor was there any harmful or hurtful matter in them.

Mr. Claude A. Worth, surgeon to the London Ophthalmic Hospital, said he had never used pulsatilla, but, judging from the report of the analyst, he thought it could not produce any effect one way or the other. In reply to the judge the witness said there was no cure for cataract except by operation, but there was nothing in the drug which would cause pain.

It was stated on behalf of the defendant that twenty witnesses were anxious to say that they had considerable reason to be grateful to Mr. Mellor, and that their testimonials were volunteered by them and were truthful. The judge ruled them out, on the ground that they had nothing to do with the case. If there was a bona fide case of cataract which the defendant had cured he would be glad to see it.

In announcing his decision the judge said it was one of those cases in which a person held himself out to possess skill which he did not possess, and by means of some very hopeful and optimistic advertisements trusted to get people to come and consult him. In this particular case he did not believe the evidence of the defendant, and he accepted the story told by the plaintiff. There would be a verdict for the plaintiff for £30, and costs on the C (highest) scale.

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### INQUEST FEES.

C. W. G. B.—As B. was served with a coroner's order to make a *post-mortem* examination and attend the inquest after his engagement with A. had ceased, and he consequently had to perform these duties at a time when he was receiving no remuneration from A., we consider his claim for half the fees in question to be quite reasonable.

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### WORKMEN'S COMPENSATION ACT.

*Heart Disease.*

JUDGEMENT was given by the Recorder of Dublin in a case last week in which compensation was claimed under the above Act by the widow of a deceased workman. Deceased was employed on May 9th loading a wagon, and had just carried a bag weighing 16 st., and thrown it into the wagon, when he fell dead. The *post-mortem* examination showed the existence of advanced valvular disease of the heart. The Recorder held that the work in which deceased had been engaged contributed to his death and awarded £150 compensation.

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# Medical News.

THE King has been graciously pleased to sanction the enrolment of Dr. W. E. St. Lawrence Finny, J.P., Alderman, and Deputy Mayor of Kingston-upon-Thames, as an Honorary Associate of the Order of St. John of Jerusalem in England.

THE twenty-fifth anniversary of Dr. William Merck's connexion with the firm of E. Merck, Darmstadt, was celebrated on June 1st, when the grand medal for art and science was presented to him, in the name of the Grand Duke of Hesse, in recognition of his services in promoting the advance of chemical research, and the development of this branch of German industry, and also as a distinguished patron of art.

THE late Frau Josefa Mittermayer has bequeathed a million crowns to the Imperial Royal Society for the Study and Suppression of Cancer for the foundation of a hospital for patients suffering from that disease. She also left half a million crowns to the Franz-Josef Children's Hospital for the erection of a pavilion for scarlet fever, and the same amount for various other humanitarian purposes.

AT a meeting of the New York Academy of Medicine, held on May 4th, the Section of Obstetrics and Gynaecology presented the following resolution, which was adopted: "Whereas, It is estimated that about 50 per cent. of the births in the large cities of this country are attended by midwives (in New York City, approximately 50,000 births are reported annually by midwives); and Whereas, The profession of midwifery in this country is followed, in most instances, by ignorant, untrained, incompetent women; and Whereas, Some of the results of obstetrical malpractice are unnecessary blindness, mental and physical degeneracy, and death of infants, and unnecessary suffering, invalidism, and death of others; and Whereas, Although both doctors and nurses in this country are given instruction in the treatment and care of childbearing women and new-born infants, there is no existing provision for the adequate training of women who take into their keeping the lives and future well-being of this large number of both mothers and infants, be it Resolved, That the New York Academy of Medicine recommends that measures be taken in the State to secure State legislation which shall provide for the training, registration, licensure, supervision, regulation, and control of women engaged in the practice of midwifery."

THE Seventh International Congress of Criminal Anthropology will be held at Cologne in October next. The official languages of the congress are German, French, English, and Italian, but it is requested that, if possible, only German or French should be used in the discussions. Among the subjects proposed for discussion are the influence of tendency and environment on crime; the morphology and psychology of the primitive races of man; the present state of criminal psychology; morphological abnormalities, especially of the skull, in relation to the legal view of responsibility; the treatment of so called diminished responsibility; the prison system; accommodation for dangerous lunatics. A number of papers will also be read. In connexion with the congress there will be an exhibition of objects relating to criminal psychology, such as models and plans of institutes, safety appliances, apparatus for the examination of patients, literary and other works of patients, weapons and instruments for breaking loose. All information as to the congress will be supplied by Professor Aschaffenburg, 130, Stadwaldgürtel, Cologne Lindenthal. Communications as to the exhibition should be addressed to Staff Surgeon Dr. Partenheimer, Psychiatrische Klinik, Cologne. Those who intend to take part in the congress are requested to send their names to Dr. Brüggelmann, Psychiatrische Klinik, Cologne.

ON June 8th Mr. W. Bateson delivered the Guthrie Lecture before the Medical Society of Westminster Hospital. He dealt in a very lucid manner with the main principles of hereditary transmission as gathered from experimental investigation on the lines laid down by Mendel, and explained the significance of the terms "dominant" and "recessive." He mentioned as a point of interest to medical jurists the observation that a brown-eyed child can come only from parents one of whom at least possesses this characteristic. On the screen were shown numerous pedigrees illustrating Mendelian transmission for such diseases as presenile cataract, tylosis, Huntingdon's chorea, diabetes insipidus, etc. An interesting series of reproductions of portraits of members of the Hapsburg Royal Family for many generations were shown, exhibiting the well-marked hereditary characteristic of prognathes. Passing on to repulsion, the lecturer illustrated his remarks with photographs of the blue and hooded peas, and expressed the opinion that repulsion explained transmission in sex-limited conditions, such as Daltonism, where maleness and the abnormality repelled one another, so that a father did not hand on the condition to his son, but to his grandson through his unaffected daughter. Dealing lastly with the eugenics of Mendelism, Mr. Bateson warned his audience to be very cautious in forbidding marriage in any case except where feeble-mindedness or some such defect was so marked as to render the individual certain to produce children of his own type.

IN 1905 and 1907 International Congresses for the study of questions relating to infantile mortality and the protection of infant life were held in Paris and in Brussels. The third will be held at Berlin next September (11th to 15th) under the patronage of Her Majesty the German Empress. In addition to scientific discussions the programme will include an inspection of the measures taken in Berlin for the reduction of infantile mortality as well as a visit to the International Hygiene Exhibition in Dresden, where a special department is being devoted to infant hygiene. The Executive Committee of the British National Congress on Infantile Mortality, 1908, has been invited to form itself into a committee of organization for this country. The British Government will be officially represented at the congress. The President of the British Committee is the Right Hon. John Burns, M.P. The Hon. Joint-Secretaries are Mr. Alderman Broadbent, Ex-Mayor of Huddersfield, and Councillor W. Fleming Anderson, Ex-Chairman of the Health Committee, Glasgow. The Hon. Joint-Treasurers are Dr. A. K. Chalmers, Medical Officer of Health, Glasgow, and Dr. S. G. H. Moore, Medical Officer of Health, Huddersfield. Among the members of the

Executive Committee are Dr. Richard Caton, Ex-Lord Mayor of Liverpool; Dr. J. Spottiswoode Cameron, Medical Officer of Health, Leeds; Dr. Henry Handford, County Medical Officer of Health, Nottingham; Dr. E. W. Hope, Medical Officer of Health, Liverpool; Dr. J. Robert Kaye, Medical Officer of Health, West Riding of Yorkshire; Dr. G. F. M'Cleary, Medical Officer of Health, Hampstead; Dr. James Niven, Medical Officer of Health, Manchester; Dr. George Reid, County Medical Officer of Health, Stafford; Dr. J. Robertson, Medical Officer of Health, Birmingham; and Dr. H. Scurfield, Medical Officer of Health, Sheffield. The Secretary is Mr. William Jones, Sanitary Chambers, Glasgow, to whom all communications should be addressed.

THE brief and formal character of the sixth annual meeting of the Convalescent Homes Association, which took place at 32, Sackville Street on May 30th, under the presidency of Sir William Church, failed to reveal the excellent though modest work of this organization. Dr. S. H. Habershon, one of the honorary secretaries, reported that the outcome of the year's labour was greatly to advance the association's position. A medical and a lay member of the committee had inspected certain homes which had not previously received a grant from King Edward's and other Funds, and in all save two cases the visitors were able to report favourably, and a testimonial to that effect was forwarded to each institution. The association was careful to disavow any desire to trench on the work of the Convalescent Homes Committee of King Edward's Fund. As a result of the association's advice, twelve homes had received grants from the executors and trustees of the "Julia, Lady Goldsmid Fund," the amounts ranging from £250 to £750. The statement of accounts showed a cash balance of over £200 and a permanent fund of two sums of £1,000 each, the interest in the case of one of these to be applied for the benefit of convalescent homes, and in the case of the other for the support of the association. The honorary secretaries, Mr. M. O. Fitzgerald and Dr. Habershon, and the treasurer, Lieutenant-Colonel Montefiore, were re-elected on the motion of Mr. D'Arcy Power, and there were some re-elections to the Executive Committee. Votes of thanks were accorded to the honorary officers, and a special honorarium of £25 was granted to Mr. A. Hayes, the secretary of the Metropolitan Convalescent Institution, for his services to the association. Appreciative reference was made to Sir William Church's constant work on the association's behalf, and Sir William, in leaving the chair, made a passing reference to the fact that convalescent homes, like hospitals, though not to the same extent, would be affected by the Government's Insurance Bill. The association has four hospitals and twenty convalescent institutions on its roll of membership.

THE seventieth annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the house of the Royal College of Physicians of Ireland on July 13th and 14th under the presidency of Dr. W. R. Dawson. On the previous day the committees will meet, and members will have the opportunity of being shown over the Richmond Asylum, St. Patrick's Hospital, and the Stewart Institution. The formal business—the election of committees, etc.—will be conducted on the morning of July 13th, in the afternoon the President will deliver his address, and papers will be read by Dr. G. M. Robertson (Morningside) on the treatment of general paralysis; Dr. W. Graham (Belfast), on psycho-therapy in mental disorders; by Dr. M. J. Collins (Ewell Colony), upon sudden death in epilepsy and the treatment of the disease; and by Dr. R. R. Leeper (St. Patrick's Hospital), on hereditary insanity. The annual dinner will take place in the evening at the Royal College of Surgeons. On Friday morning the following papers will be read: Dr. T. Drapes (Enniscorthy), on the personal equation in alienism; Professor A. C. O'Sullivan, F.T.C.D. (Dublin University), on degeneration of the spinal cord following infection by *B. pyocyaneus*, illustrated by lantern slides; Dr. J. Shaw Bolton (Wakefield), on the morbid histology of general paralysis; Drs. Colin McDowall (Cheddleton) and W. T. Sewell (Newcastle), on the toxic nature of insanity. In the afternoon the following papers will be read: Professor W. H. Thompson (Dublin University), on the chemical regulation of neuronic function; Dr. E. Mapother (Long Grove), on mental symptoms in association with choreiform disorders; Dr. J. J. Fitzgerald (Cork), trephining in mental diseases; and Dr. Ivy McKenzie (Glasgow), on salvarsan in syphilitic and parasyphilitic conditions. On Saturday there will be various excursions. The Archbishop of Armagh has invited members to lunch or tea at Armagh Palace on Saturday, July 15th, or Monday, July 17th.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

F. asks for experience in the use of fibrolysin for the treatment of obesity.

PEPSIN desires to hear of a children's home or hospital where an orphan boy, aged 7, suffering from pulmonary tuberculosis and chronic middle-ear disease could be received for a small sum weekly.

## ANSWERS.

### PROMINENCE OF UPPER INCISORS.

MAJOR, I.M.S.—Prominence of the upper incisors still needs treatment by mechanical means. In the few cases which are due to such mechanical causes as thumb-sucking, mechanical means suffice; in the large majority of cases in which the deformity is an accompaniment of adenoids or nasal obstruction, these latter conditions must first be dealt with, otherwise recurrence on removal of apparatus is certain. In some of these latter cases extraction may be combined with mechanical treatment, but a more perfect result is obtained by expanding the arch of the teeth and retracting the prominent ones. Both upper and lower arches may need to be treated. It is worth noting that the upper teeth may appear prominent because the lower jaw recedes, and that this condition is far commoner than a true protrusion of the upper teeth; in these cases the arch of the upper teeth should be expanded till it is wide enough to receive the arch of the lower teeth in the more forward normal position; thus, by means of mechanical devices, the habit of biting with the lower jaw more forward must be fixed.

## LETTERS, NOTES, ETC.

### A WARNING.

A MEDICAL CORRESPONDENT in Richmond, Surrey, writes: A plausible, gentlemanly man, 5 ft. 6 in. or 5 ft. 7 in. in height, about 25 years of age, of slender build and dark complexion, foreign in appearance, speaking English well, with a foreign accent, called on me on June 8th under the pretext of introducing a Viennese lady as a patient. During a moment or two when I had left the room he removed a carriage clock of some value, concealing it under a light coat he carried loosely over his left shoulder, and deposited it with a neighbouring pawnbroker. The police here will be glad to learn of the whereabouts of this member of the light-fingered fraternity.

### CYCLE BAG.

DR. W. LLOYD EDWARDS, School Medical Officer, Barry, writes to recommend to medical men who use a bicycle or a motor cycle a leather case made by Lycett and Co., Birmingham, which fits in between the carrier and the rear mudguard. The case, which can be fitted with a lock, contains a drawer large enough for a few instruments or dressings, or a drawer can be fitted to contain the usual sized cards, 5 in. by 8 in., used by school medical officers. The cost of the appliance is about 6s. or 7s.

### EVIDENCE OF RECENT SEVERE ILLNESS AFFORDED BY THE NAILS.

DR. P. C. SMITH (Tunbridge Wells) writes: With reference to the recent correspondence on this subject, may I point out that transverse furrows on the nails are not necessarily a mark of illness at all, though doubtless they show malnutrition? I have seen them after grief, I have seen them after worries, and I have seen them when the patient could suggest no definite cause. It is probable that some persons have

congenitally defective nutrition of the nails, just as others have of, for example, the veins. Again, some persons show somatic disturbance after nervous depression more readily than others, and those who do so are precisely those in whom one often finds congenital defect of some tissue.

### MEDICAL "HOWLERS."

AN "Old Student of University College" contributed some interesting reminiscences of his own time—in the later Seventies, we should judge from internal evidence—to the *University College Hospital Magazine* some months ago. Speaking of his examination for the Second M.B. of London University, he tells the following story about Dr. Murchison, one of the examiners, who said to him: "You have made one mistake, more a matter of date than of fact. In the treatment of aneurysm you say (reading from my paper): 'In barbarous times it was the custom to insert iron wire into the sac. This treatment has been quite exploded, and would not be followed by any one of common sense in these more civilized times.'" Murchison went on to say that the first time it was ever tried was at the Middlesex Hospital by himself. The candidate says he was aghast and looked everywhere but at the examiners. At last when he dared to look at Wilson Fox he found him positively beaming, which gave him courage to look at Murchison, who said: "Never mind. I killed my patient, and no one of common sense ought ever to do it again." This was only a somewhat inappropriate answer in the circumstance, which the candidate could not be expected to know. But there is no lack of "howlers" of the most authentic kind in the records of medical examinations. We remember that a candidate at the College of Surgeons, whose answers had been the reverse of brilliant, was at last shown the base of a skull. The examiner, pointing to the foramen magnum, in order, by tempering justice with mercy, to see if the man knew anything, asked him what it was. The candidate looked at it for some time with lack-lustre eye, then suddenly he woke up and said, beaming, "Ah, many a good meal has gone down that hole." A correspondent recently published in the *Paris Médical* what he calls "Pearls picked up at a recent competition for the externat of the Paris Hospitals." Asked as to the method of administering chloroform, a candidate replied, "One should encourage the patient. One tells him that it is *nothing*, for instance, if he is suffocating! You need not bother about the pulse. If the patient vomits a little, less chloroform should be given. If the breathing stops the first thing to be done is to faradize the phrenic nerve." Asked about bleeding, another candidate said venesection was indicated in drowned and strangled persons. He went on to explain that if the patient faints during the bleeding, that is due to emotion. By way of restorative he should be given a sound slap. Speaking of urethral catheterism one sapient person said that in women it was a simpler matter than in men. All that had to be done was to seize the meatus with the left hand. In answer to a question as to the reduction of a fracture of the leg, one student said that counter-extension should be carried out by holding the patient under the armpits. Another said that in the orchitis of mumps the treatment to be followed was to place the testicles on a wooden fan covered with cotton-wool. Asked as to the diagnosis of pregnancy, another wise youth said: One feels the spinous processes of the vertebrae of the fetus by palpitation of the abdomen of the mother. Another candidate gave as a diagnostic point that the respiration of the fetus could be heard. Doubtless many gems of equal lustre could be added to this string by any one who should take the trouble to play the part of the "chiel takin' notes" at an examination.

### THE PATHOLOGY AND TREATMENT OF FISTULAE.

DR. WILLIAM A. CASKIE (Glasgow) writes: I can corroborate the views regarding the function of defaecation expressed by Dr. F. Robertson in his criticism (BRITISH MEDICAL JOURNAL, June 3rd, page 1349) of Mr. Drummond's paper in the JOURNAL of May 6th. In cases of haemorrhoids associated with haemorrhage and with fissure of the anus the function of defaecation is frequently incompletely performed. The passage of the faeces through the inflamed or irritable external sphincter excites contraction of the internal sphincter before defaecation is completed, which no voluntary effort can overcome. Though conscious that the rectum is not emptied, one has to wait patiently until the spasm relaxes. When defaecation is completed, much discomfort is experienced—it may be for hours—by a similar spasm preventing the passing of flatus, which may be relieved by introducing the index finger into the rectum as far as the middle joint and retaining it there until the spasm relaxes. As soon as flatus is passed relief is obtained. That the levator ani is the principal expulsive muscle in defaecation may be proved in cases of contraction subsequent to operation by the increased power derived in altering the sitting to the dorsal position. Fissure of the anus is produced by the voluntary or involuntary action of the external sphincter in contracting before the mass of hardened faeces has been expelled.

### SENSIBILITY TO THE PRESENCE OF PYLORIC SPASM.

F.R.C.S. writes: The other night I dined at 8 p.m. at a small out-of-the-way hotel. The food partaken of consisted of salmon and cucumber, stewed pears and custard, a little buttered bread, and finally a cup of fresh tea. It was taken at the end of a thirty-mile motor spin, and was followed within ten minutes of the finish of the meal by a return journey of the same length. At 10 p.m. another cup of freshly-brewed tea was partaken of, and no solid food with it. At 11.30 I turned in and slept well, except for slight non-nightmarish dreams. At 4 a.m. I was awakened by a burning sensation situate behind the costo-cartilages of the seventh, eighth, and ninth ribs. The sensation was decidedly painful, and made me break out in a fairly copious perspiration. It was not, however, acute, lancing or cutting. It could be felt distinctly increasing in intensity, and slowly easing away. The spasm lasted several minutes, and its after-effects longer. It was repeated at intervals of about ten minutes, but by the time of the second attack I had obtained a strong solution of sodium bicarbonate in plain cold water, and had sipped it slowly. I drank nearly a tumblerful of the solution in sips, spread over a quarter of an hour, and in an hour's time the symptoms had all abated and sleep returned. Breakfast of eggs and tea at 8 30 was followed by no untoward symptoms. My reason for mentioning these points is that, so far as I am aware, sensibility to an attack of pyloric colic is uncommon. I am not engaged in general practice, and my ignorance may therefore be excused if such cases should be more common than I fancy. However, a description by a medical man of his own case is perhaps more valuable than one gleaned from a layman's description. It was of interest to note that at no time was there any pain under the right shoulder blade, or any pain referred to any other region, but to a 4 or 5 in. circle, the centre of which would be over the tip of the eighth costal cartilage. As the spasm waned the pain travelled out and down. Lying on one's face and on the right side distinctly aggravated, and brought on a spasm. A slight transient feeling of nausea was present for a brief interval. The benefit of the alkaline solution was undoubted, and doubtless a few drops of belladona would have materially eased one. I enclose my card if any should desire further details.

### SCIENCE AND KINGSHIP.

I saw her in my Dream—
I cried to her:
"Time and Eternity *thy* crown shall weave
Of yew and cypress—blood and tears and thorns,
Patience and rue of Patience, bitter morns,
Noontides of hopes deferr'd, dreams that deceive,
Shadows of fact where one small truth would stir
Thy mighty-hoping heart!"
She answered me:

"Empires and Kingdoms, these are transient things,
They ebb and flow, pass on, evanish soon,
Flit as a fire-seared moth 'twixt sun and moon,
To thrid the star-ways with white ruin'd wings:
Ambition is for fools: though force and fraud,
Falsehood and petulant dreams of stale success
Shadow the conqu'ror's wraith, not Fear has thaw'd
Nor Time reversed Truth's cold impenetrableness;
The work shall crown the end with gyves of toil,
And Christ's own hand rain down the consecrated oil!"

"Lord God!" she murmured, "when Thy Kingship gave
To Sonship Intercession's wand of pow'r,
The gentle Galilean, in that hour,
Found Science reverend and left her brave—
For she has paraphrased this world of Thine
So that Thy gift of Life be seen and known
A greater miracle than Cana's wine
By purpose great to mightier purpose grown—
And where Thy lightnings blind to make men bleed
Science, like Christ, bends down to intercede—"

And then methought a Voice rang out afar,
Deep from the astral heights of fearsome space:
"The great Enigma thine to make or mar,
Strong must thou be to look Truth in the face!
The Lord thy God thy talisman shall be,
Thy fervid spirit fed by breath of Him
Who notes each sand-speck of the ranging sea,
And knows each heart ache of the Seraphim—
And where My Kingdom's portals shall unfold—
No trust or truth suborned or soil'd or sold—
Science shall stand God-crown'd, God-aureoled!"

G. H. R. D.


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THE

# British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

# EPITOME

OF

# Current Medical Literature.

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# INDEX TO THE EPITOME FOR VOLUME I. 1911.

READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goître, and Thyroid; Diabetes, Glycosuria and Sugar; Eye, Ophthalmia and Vision, etc.

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# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 1. Koch's Tuberculin in Diagnosis

M. OTTEN (*Wien. med. Klin.*, No. 28, 1910) deals with the value of the subcutaneous tuberculin test injected according to Koch's method for cases of early apical phthisis. In his experience physical examination, especially percussion and Roentgen ray examination, may give adequate information as to the position and extent of the diseased area, but frequently do not distinguish between active and quiescent areas. The specific tuberculin diagnosis has only partially fulfilled the expectations aroused by it, and the local tuberculin reactions obtained by von Pirquet's or Moro's methods, not being accompanied by a general reaction or a reaction at the diseased area, do not settle the question of activity or inactivity of the disease. By Koch's method, however, valuable information is obtained, because it is only in active disease that a local reaction at the diseased area occurs. The present article reports 324 cases in which Koch's test has been carried out, during the five years from 1904 to 1909. The cases treated were those in which the history and general symptoms suggested a commencing phthisis, but in which the insignificance of the signs in the lungs, the negative results of sputum examinations, and the absence of fever and of any signs on Roentgen-ray examination did not support the diagnosis of a recent tuberculous process in need of treatment. The injections were only carried out on patients without fever, and who had not had recent haemorrhages. The initial dose was 0.1 mg. of Koch's Old Tuberculin, increasing up to 10 mg. as a final dose. The result of the injections was that 197 cases (60.8 per cent.) showed a reaction at the diseased area together with a general reaction, 24 cases (7.4 per cent.) showed only a reaction at the diseased area, 76 (23.5 per cent.) only a general reaction, 27 (8.3 per cent.) no reaction at all. In the first group most of the cases reacted to the smaller doses, 115 cases to doses of 1 mg. or under; the reaction was weak in 106 cases, the temperature not going above 38° C. (100.4° F.), and of medium severity, the temperature not going above 39° C. (102.2° F.), in 65 cases. The changes in physical signs during the reaction were in 78 cases an increase and spread of an area of dullness which had been previously observed, and in 66 cases the increase of percussion dullness over an area previously observed together with the development of râles; in 6 cases an area of percussion dullness was first observed after the injection. In addition to changes in the physical signs, certain symptoms were deserving of notice. The patients often complained spontaneously of pain at the diseased area; in a few cases a cough developed after the injection for the first time, in 3 cases blood appeared for a short time in the sputum, and in 3 tubercle bacilli appeared in the sputum. As a rule, the reaction was only noticeable for twenty-four hours, although in a few cases the signs persisted for from four to five days, but in no case did there appear to be any permanent injury as the result of injection. In the group of cases in which a general reaction only was observed, reaction in the great majority of cases only occurred with the higher doses of 1 to 10 mg., and rise of temperature above 39° C. (102.2° F.) only occurred in 10 cases. The rise of temperature was accompanied by general symptoms, such as headache, pains in the limbs, loss of appetite, etc. The large proportion of cases noted as reacting positively at the diseased area was, perhaps, partly the result of extreme care in the examination of the chests before and after the injection. The author looked upon 3 cases only, which belonged to the first and second groups—that is, cases in which there was a diseased area reaction—as cases of recent tuberculosis in need of treatment, and recommended them only for sanatorium treatment. Results justified a distinction between the two sets, for a later investigation showed that in almost three-fifths of the cases belonging to the first two groups the condition had become worse, in spite of sanatorium treatment, and only two-fifths of the patients were fit for work, while of those belonging to the two last groups, with a few exceptions, the condition had remained unchanged, even without sanatorium treatment. It is thus seen that the occurrence of a general reaction only after the test injection cannot with certainty decide as to the activity or quiescence of a tuberculous area in the lungs.

### 2. Sulphaemoglobinaemia.

T. WOOD CLARKE AND ROBERT A. CURTIS (*New York Med. Record*, December 3rd, 1910) report a case of sulphaemoglobinaemia, which is the first one recorded in America, seven only having been reported in the world. They give a summary of the previously reported cases. The condition is one of cyanosis without heart or lung lesions or symptoms, caused by the formation in the blood of a dark pigment, which makes the blood of a chocolate colour. The patient appears to be in a dying condition. The dark substance is caused by the action of sulphuretted hydrogen from an unknown source acting on the haemoglobin of the blood. It has been found that the presence of a reducing agent allows sulphuretted hydrogen to act upon the blood, producing sulphaemoglobin. It is supposed that the presence of some undiscovered reducing agent in the blood causes this reduction to occur in the presence of $H_2S$. The author's case occurred in a woman, aged 24, otherwise healthy, but suffering from constipation. Her skin was of a dark blue and her lips of a purple-black colour. The blood was of a chocolate colour, and spectroscopic examination showed the characteristic bands of sulphaemoglobin. Purgation benefited the condition. The diagnosis of this condition is made by the spectroscope. Especial importance is given in these cases to prognosis, a good outlook being present if the diagnosis is made, while a fatal outcome is otherwise to be expected. The disease is always accompanied by constipation, and a milk diet does not temporarily stop the symptoms, as it does in methaemoglobinaemia. Treatment has been unsatisfactory.

### 3. Babinski's Sign in Diphtheria.

J. D. ROLLESTON (*Review of Neurology and Psychiatry*, July, 1910) records the results of his investigations upon the plantar reflex in 877 cases of diphtheria. Babinski's sign was present for varying periods in 172 of the cases (19.6 per cent.), in 29 flexion alternated with extension, while in the remaining 676 the normal flexion persisted. None of the cases had been treated with strychnine, nor were any signs of pyramidal disease present, and the character of the reflex varied in degree from a deliberate movement indistinguishable from that met with in organic disease of the pyramidal system to a rapid response. Although an extensor response is exceptional after the first year, no pathological significance attaches to the sign before the third year of life, but after that age extension of the great toe is abnormal. The sign may be obtained in diphtheria until adult life, but with rapidly decreasing frequency and duration after the eighth year. The sexes are almost equally affected, females showing only a very slight preponderance over males. Essentially a phenomenon of the acute stage, in the great majority of cases it is replaced by a flexor response in convalescence, but transition stages often exist in which various forms of response may be obtained. The frequency and severity of complications of diphtheria were above the average in the cases showing Babinski's sign, so that its presence has a certain prognostic value, it being more frequent and persistent in the severe than in the mild cases, as shown by the character of the angina, the higher mortality, and the greater frequency of paralysis and albuminuria among those cases in which it is present. It is not pathognomonic of diphtheria, since it occurs in enteric, scarlatina, pneumonia, etc., but its greater frequency in diphtheria than in non-diphtheritic angina gives the sign a certain diagnostic value. There is no association with any special condition of the tendon jerks, and it is never accompanied by ankle clonus. The condition is probably due to a transitory perturbation of the pyramidal system by the circulating toxins comparable to the slight meningeal reaction which frequently occurs in acute infections.

## SURGERY.

### 4. Operative Removal of Cancer of the Rectum.

CHALIER (*Arch. gén. de chir.*, No. 10, 1910) holds that there is a general agreement of modern surgeons that in the treatment of rectal cancer, as of most other kinds of cancer, radical removal is the method of choice, and the

only effective means of affording to the patient a definite cure, or, at the least, an appreciable survival. It is shown by statistics that, as a result of strict asepsis and improved methods of technique, the direct mortality of this operative treatment has been reduced from 40 to 20 per cent., and that the average of durable cures, the limit of three years being taken, is now about 25 per cent. Though the results of the radical operation in regard to completeness and the duration of the cure may be often disappointing, such intervention, when applied under favourable conditions, is, the author believes, always likely to prove beneficial, and it certainly constitutes the best method of palliative treatment. In too many instances, unfortunately, the patient comes for the first time under the notice of the surgeon when it is too late to operate. The delay in diagnosing rectal cancer, and of realizing the necessity of an early operation, cannot always be placed to the charge of the patient, as it is often the result of the surgeon's omission to practise careful digital and rectoscopic examination in every case of an apparently mild and almost inappreciable affection of the lower bowel. Consideration of the reasons which render the radical treatment justifiable, and of the necessity of an early operation, should, the author points out, be based on correct ideas of the anatomical extent of the rectum, and especially of its superior limit. This is situated at the level of the third sacral vertebra, and corresponds to the posterior reflection of the cul-de-sac of Douglas, and to the lowest part of the meso-sigmoid. Tumours situated exclusively within the peritoneal cavity cannot, it is held, be regarded as rectal growths. The limits of free and radical intervention in cases of extensive and advanced malignant disease are now very wide, and every case of rectal cancer ought, it is held, to be submitted to operation, if such course be possible. The increased range of surgical activity in this respect has certainly been associated with an increased rate of mortality, but it has been shown by recent statistics that in cases of huge growths involving the upper part of the rectum, and at first sight apparently inoperable, radical operative treatment may result frequently in prolonged freedom from relapse, and sometimes in a durable cure. In discussing the factors which influence the operative prognosis, the author, after a brief reference to the very important and essential conditions of surgical skill, perfect technique, and strict asepsis, deals at length with the intrinsic conditions relating to the general state of the patient and to the extent and character of the local disease. Advanced age by itself he does not regard as a contraindication. Its prognostic significance depends mainly on the faulty conditions with which it is so often associated. It is very necessary, therefore, in an old patient to be quite assured, before operating, of the functional competency of the heart, lungs, and kidneys. By reason of certain differences, both anatomical and physiological, between the two sexes, the conditions favourable to operative intervention are more frequently met with in women than in men. In the former the pelvis is larger and the pelvic peritoneum more resistant, and, generally speaking, the operation is less difficult and not so formidable. In considering the prospects of a radical operation in any case of rectal cancer, the surgeon should depend mainly on the general condition of his patient. The usual causes of doubt and hesitation in such cases are extreme debility, cachexia, the presence of a second growth in some other part of the body, and general metastasis. Cachexia, if not intense, need not be regarded as a contraindication. If associated with marked debility and anaemia, an attempt might be made, other conditions being favourable, to remove the disease, but with the difficult undertaking to operate rapidly and with little loss of blood. The author refers to some instances of the very rare association of rectal cancer with cancer of the ovary and also of the stomach, to support his conclusion that operative intervention need not, in the absence of any other unfavourable complication, be contraindicated in such cases. There are, it is pointed out, certain visceral affections, quite independent of cancer, which decidedly contraindicate the operation. In the first line of these stand chronic diseases of the lungs and the heart, which increase very much the risks both of prolonged anaesthesia and of a complicated and very formidable intervention. Albuminuria, when abundant and persistent, forbids any operative treatment, as does also glycosuria, unless it be very slight and can be readily controlled by internal remedies. The author insists on the importance of searching for sugar before deciding on an operation, as glycosuria is an occasional complication of rectal cancer. In regard to the influence of the local conditions on the choice of treatment, it is held that at the present day the height of the seat of rectal cancer does not *per se* constitute an operative contraindication. The extension of the disease along the axis of the bowel has far less importance than its peripheral extension. Perirectal adhesions are, it is stated, often purely inflammatory, but in actual practice there seems to be great difficulty in distinguishing between these and adhesions of a neoplasic nature. Firm adhesion of the cancerous rectum to the prostate need not be considered a contraindication. If it be found that the latter organ is also cancerous, it may be removed, together with the rectum, with fair prospects of success. The author, however, is opposed to the idea of any intervention if the bladder be involved. Adhesions to the uterus or its appendages do not, the author adds, contraindicate removal of the rectum. When, as is usually found, these adhesions are very firm and difficult to dissect, the surgeon need not hesitate to expose these organs by laparotomy, and, if these be found involved in the malignant disease, to practise castration.

**5. Double Congenital Luxation of the Radius.**

BELOT AND CHAPERON have described before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 17, 1910) a case of double congenital luxation of the radius. The patient, a man aged 37 years, had a symmetrical osseous projection at the external point of each elbow. A radiograph showed that these projections were not exostoses, as was at first imagined, but that there was a double luxation. All the classical signs of the congenital malformation were present—projection of the radial head outside the articular region, exaggerated movement of the osseous extremity, lengthening of the radius, persistence of the various articular movements, and no traumatism. Moreover, the abnormality had been noticed almost from birth. The authors attribute the condition to the dystrophic action of hereditary syphilis. It was noticeable that the patient's nose was of the "lorgnette" type—a heredo-syphilitic characteristic. They add that in cases of luxation of the radius operation should only be resorted to if the articular constraint is considerable. One may then adopt, according to the nature of the case, the method of tenotomy of the tendon of the biceps, total resection of the elbow, or, more frequently, resection of the radial head, which last remains the operation of choice.

## OBSTETRICS.

**6. Rupture of Uterus after Caesarean Section.**

DAHLMANN (*Monats. f. Geb. u. Gyn.*, July, 1910) has collected 23 cases of rupture of the uterine cicatrix in subjects who had undergone Caesarean section, and adds 3 more under his own observation. The first patient was 33, and had undergone the Caesarean operation in February, 1903, because labour was obstructed by a fibromyoma of the cervix. A fundal incision was made, the fetus extracted, and then two large pedunculated fibromyomata, springing from behind the cervix, were removed. The fundal wound was united by three layers of sutures. Parametritic exudation developed. The patient was warned to be careful. She became pregnant, and on October 31st, 1904, at the end of a normal pregnancy, labour began; a feeling as though something was being torn accompanied the first pains, collapse ensued, and the patient died. A photogravure of the uterus is given. The peritoneal cavity was found full of blood; the placenta protruded through a big rent. On closely examining the margins of the laceration, it was found, among other pathological conditions, that the placenta was partly inserted on to the serous coat of the uterus, the muscular layers of the Caesarean wound having failed to unite. The second patient was operated upon on account of varix of the vagina. The fundal incision was made and the child extracted, the uterine wound was closed, with ten musculomuscular silk sutures and a continuous sero-serous suture of the same material. The latter came away three months later through a fistula in the abdominal wound. The patient became pregnant again, and rupture occurred suddenly, close on term, two years and two months after the Caesarean section. The patient was saved, the uterus being amputated above the cervix. The muscular layers, as in the first case, had failed to unite, the decidua and serous coat lying in contact at several points, and some omentum had grown into the scar, insinuating itself between the divided muscular tissue and greatly weakening the wound. The third patient, a prudent woman, returned to hospital when pregnant after Caesarean operation on account of rickety

pelvis. As before, the operation was repeated at term after the first pains had set in; this was done three years and a half after the first operation. All seemed to be going well, and there had been no symptoms indicating rupture. When the abdominal incision was opened, the operator was surprised to find that the uterine wound (fundal incision) had ruptured, though it had not begun to bleed, the placenta not being implanted over the cicatrix. The scar, even beyond the seat of rupture, was exceedingly thin. The fetus was saved, being extracted through a median incision. This was closed, the tissue round the old cicatrix was excised and fresh sutures applied, and the Fallopian tubes were excised at the cornua. The patient made a good recovery.

**7. Pulmonary Embolism in the Puerperium.**

BAR (*Journ. des prat.*, April 30th, 1910) remarks on the painful nature of unforeseen accidents occurring without any premonitory symptoms, among which one of the most startling is death from embolism in childbed. Sometimes, about the seventh or eighth day, the parturient woman may complain of a sharp stitch in the side, which passes away without any further trouble, and a small embolism is diagnosed. Soon after death may occur suddenly, the end coming in a few seconds, or being delayed even for thirty or forty minutes. After enumerating the different varieties of clot which may cause the embolism, Bar describes an operation which has been tried when the patient survives beyond a few seconds. Trendelenburg advised an incision along the left border of the sternum from the first rib to the third, and a horizontal one at the level of the second costal cartilage 10 cm. (4 in.) in length. The second and third cartilages are resected, the pleura and pericardium opened, and the artery and pulmonary artery compressed by a rubber band for about fifteen seconds, during which time the trunk of the pulmonary artery must be opened and the clots removed. This has been done four times, one of the patients surviving for five days, the other three for thirty-seven hours.

## GYNAECOLOGY.

**8. Carcinoma of Fallopian Tube following Gonorrhoeal Salpingitis.**

ROSSINSKY (*Inaug. Dissert.*, Bâle, 1910) records a case of primary cancer of the Fallopian tube where the history was of much importance. A married woman, aged 44, whose last confinement occurred sixteen years previously, came under von Herff's care for an abdominal tumour. Eleven months previously he had attended her for an attack of pelvic peritonitis, which he found to be of gonorrhoeal origin; it subsided, but five months later an acute attack of pelvic pain occurred, followed by emaciation and free discharge of a reddish-brown watery fluid. A tumour developed in the left iliac fossa, and could be felt to be closely related to the uterus. A hard gland was detected in the left supraclavicular fossa. Von Herff removed a tumour which was firmly adherent to intestine and mesentery; it burst during separation, and much reddish-brown fluid escaped, and it was seen to have developed in the left appendages. The right tube and ovary were normal. During convalescence the supraclavicular gland grew rapidly so as to cause dysphagia; it was removed and found to be cancerous. The patient died within a month or two after the second operation. The tumour of the appendages consisted of a greatly dilated and abstracted Fallopian tube which communicated with a small cyst closely adherent to the ovary the tissues of which were normal. The tube and cysts bore solid growths which were found to be cylindrical-celled carcinoma. There could be no doubt that the malignant disease had arisen in a tube recently damaged by specific salpingitis.

**9. Cancer and Tuberculosis of Uterus.**

D'HALLUIN AND DELVAL (*Bull. et mém. de la Soc. Anat. de Paris*, July, 1910) discovered this combination of diseases in a multipara aged 35, two of whose sisters had died, when adults, of tuberculous phthisis. After her tenth pregnancy, an abortion, hypogastric pains developed, and two attacks of acute pain occurred at the interval of a month. Admitted after the second attack, dullness at the right apex was detected. The uterus rose a little above the symphysis, and the appendages were much enlarged; the right tube and ovary formed a mass which filled Douglas's pouch and pushed the cervix towards the left. Total hysterectomy was performed; the separation of the right appendages adherent to the rectum proved difficult. The patient was in good health two months after the operation. The uterus and appendages formed a mass as big as a fist, tuberous and tense. When laid open a multitude of irregular pouches were exposed; they were filled with blood and mucus. The solid parts were so altered by disease that uterus, tube, and ovary could not be distinguished. On microscopic examination typical cylindrical-celled epithelioma of the body of the uterus was detected. Tuberculous granulations were discovered in the midst of the cancerous tissue; the giant cells were very distinct.

## THERAPEUTICS.

**10. "606."**

S. EHRMANN (*Wien. med. Woch.*, No. 38, 1910) has made use of Ehrlich's preparation "606," at first dissolved in methyl, then in ethyl-alcohol, and later prepared for use according to the different methods of Alt, Wechselmann, and Blaschko. Wechselmann's method takes more time than Blaschko's, but a finer emulsion is produced, and the subjective symptoms after injection, although not very marked in either case, yet seem to be less than with Blaschko's method. Different methods of preparation to some extent affect the temperature curve. If the powder is dissolved in sodium hydrate, and the solution afterwards neutralized with acetic acid, no rise of temperature is observed until the second or third day, while by Blaschko's method the temperature usually begins to rise a few hours after the injection, and in twenty-four hours comes down finally to normal. The author has not been able to trace any considerable difference between intramuscular or subcutaneous injections, either with respect to subjective symptoms caused by the injection or to rapidity of action upon the disease, and would therefore in any particular case use the method indicated by accessory circumstances. With regard to Ehrlich's injection and Herscheim's reaction, the author found the reaction to occur both after smaller (0.3 gram) and larger (0.6 gram) doses; he does not look upon its occurrence as a sign of a too small dose, since cases in which it is present recover completely. The time of observation (seven weeks) is too short to decide as to the effect upon Wassermann's reaction. In one case treated at the early primary stage the reaction has up to the present remained negative. In another the reaction was negative before the injection, became positive immediately after it, and six weeks later again became negative. In all other cases the reaction remained unchanged. The author's conclusion is that arseno-benzol acts on the most different signs of syphilis more quickly and effectually than the most active mercury preparations. In the very few cases in which the symptoms improve very quickly after the injection, but then remain stationary, he believes that complete recovery would follow a second injection.—Fischer (*Pediatrics*, September, 1910) publishes a few data concerning the new Ehrlich-Hata therapy called "606," because it is the result of 606 studies which seem to result in a specific remedy for the cure of spirochaete infections in syphilis. It is an arsenical preparation described as "dioxy-diamido-arseno-benzol." It is a light-coloured powder, and is dissolved in methyl alcohol, to which about 10 c.cm. of sterile water is added, then add ½ c.cm. of normal saline solution and water to yield 25 c.cm. The solution is very acid, from 0.1 to 0.6 gram is given as an intragluteal injection, and used once only. The Wassermann reaction is made to control the result of the treatment; a negative reaction generally results within twenty-four or forty-eight hours after treatment. It is for this reason that specific results are claimed for this method of treatment. The specific effect in syphilis is noted on the mucous patches and eruptions, while ulcerous and glandular swellings show evidence of healing within a few days after injection. Chronic recurring manifestations disappear so soon after an injection as to occasion surprise. The treatment does not cause any constitutional disturbance or provoke any ill-effects. It has been applied to cases of hereditary syphilis in nurslings. Those suffering from pemphigus neonatorum were selected because they are generally fatal. The eruptions disappeared, ulceration and sloughing of the uvula ceased, and a general tendency to renewed vitality appeared, such as had never been noted with mercurial or potassium iodide administration. This remedy appears to offer a specific therapy in syphilis which will supersede the old mercurial remedies.

**11. Radium and Rheumatism.**

HANS JANSEN (*Ugeskrift for Laeger*, November 3rd and 10th, Nos. 44 and 45, 1910) gives an exhaustive account of radium as a therapeutic agent generally, and particularly in

connexion with the various forms of rheumatism, including sciatica, alcoholic, gonorrhoeal, syphilitic, traumatic, and gouty rheumatism. Radium was given in baths at first in the form of emanosal tablets; but their strength was found to vary greatly, and they failed to contain the stated number of units. For these reasons, and because emanations of radium appear to be but slightly absorbed by the skin, the baths were discontinued and drinking water saturated with radium emanations was substituted. The procedure is simple. All springs contain the emanations, some to a great extent; but any water may be charged to saturation by suspending an insoluble salt of radium in it for some time. The dosage of this water is 10 c.cm. (5,000 units) once daily for three days; for the next three days the dose is doubled, and then for two to three weeks it is trebled. The water is drunk as soon as it is poured out, for the emanations tend to disappear quickly. Forty-four patients—26 men, 18 women—were thus treated. That the radium affected them at all by other means than suggestion is shown by the fact that it caused a strong reaction in most, including exacerbations of the symptoms and an occasional rise of temperature. Other sources to which the improvement might be ascribed are rest in hospital and chance, but in many cases the treatment was ambulatory, and the cases of improvement were too numerous for chance to be a factor every time. The patients were classified in the following manner: Subacute or chronic polyarticular rheumatism (10 patients), of whom 4 were greatly improved, 2 remained as before, and 4 ceased treatment owing to a febrile reaction; in only 1 of the 10 did no reaction occur. Chronic monarticular rheumatism (3 patients), of whom 2 were greatly improved and 1 remained as before. Syphilitic, alcoholic, or tuberculous rheumatism (6 patients). In this heterogeneous group the results were excellent in 5 and fair in 1; exacerbations of their symptoms occurred in 5 out of the 6, but there was no rise of temperature. Arthritis urica chronica (11 patients), 8 of whom greatly improved; improvement was doubtful in 1 and not found in 2; there was a moderate reaction in 9 of the 11, and in 1 there was a rise of temperature. Arthritis deformans (1 patient), whose improvement was slight, and due probably to suggestion. Sciatica (7 patients), in 5 of whom excellent results were obtained, while 2 whose disease was probably of alcoholic origin remained *in statu quo*.

### 12. Lactic-acid Therapy.

Kendall (*Pediatrics*, September, 1910) discusses the lactic acid bacteria and what they are supposed to do. Lactic-acid therapy consists in administering by mouth living cultures of lactic acid bacilli, either in milk soured by their action, or as tabloids, together with some easily fermentable carbohydrate. The bacteria ferment in the alimentary tract, producing lactic acid. This treatment restrains the activity of putrefactive bacteria in the intestinal canal. Lactic-acid bacteria do not form putrefactive products; they break down only enough protein to satisfy their nitrogenous requirements. The growth of putrefactive organisms in the intestine is promoted by an excess of protein diet, especially of animal protein, by imperfect gastric digestion; by gastric and intestinal stasis, which retards the passage of the food through the intestines; and by impaired intestinal absorption. Bacterial activity in the intestine is due to two kinds of organisms—the putrefactive and the fermentative. The first require protein for their media, and do not thrive in a media containing fermentable carbohydrate. The second thrive best in a media containing sugar. There is also a third group of bacteria, which are facultative, and can thrive in either of these media, exhibiting either putrefactive or fermentative characteristics, according to the media in which they find themselves. One of the most widely used sour milk organisms is *Bacillus bulgaricus*, which has been shown to localize itself in the small intestine; on the other hand, the *Bacillus acidophilus* is found in large numbers in the great intestine. If it is true that proteolytic activity is most marked in the large intestine, then *B. acidophilus* will be more efficient in attempts to control it, since it will produce considerable amounts of lactic acid in a suitable media. The lactic acid generated by *B. acidophilus* will be liberated in the middle of putrefactive bacteria, while that elaborated by *B. bulgaricus* must be carried with the intestinal contents from the small to the large intestine. In spite of the accepted idea that the seat of bacterial activity upon protein is localized in the large intestine, the writer believes that there may be extensive bacterial decomposition of protein in the small intestine as well, this decomposition takes place in experimental animals under certain conditions. Proteolytic bacteria may be producing harmful effects in the small or large intestine; in the former case *B. bulgaricus*, in the latter *B. acidophilus*, will give the most benefit. If there is reason to suspect that these normal intestinal lactic bacilli are enfeebled in their action, or absent, they can be supplemented by supplying fresh cultures through the mouth or rectum. In addition to the formation of lactic acid, it appears that other products associated with their development may be formed which also act beneficially; but the nature of these products and the character of their beneficial action is not definitely known.



### 13. Treatment of Stuttering.

Scripture (*Arch. of Ped.*, June, 1910) considers stuttering and stammering terms which are applied to a disease whose most striking symptoms consist of cramps of excessive tension of the organs connected with speech. These cramps show themselves either in spasmodic contractions of the lips or in cramps of the breathing muscles. The trouble is mental; it is a psychoneurosis arising from a compulsive idea. Stutterers are compelled by the thought of speaking to tighten up all their muscles of speech, so that they move stiffly or get into cramps. They have no difficulty in singing or in speaking a dialect, because there is no compulsive idea connected with the thought. The cure has to proceed on the principle of training them to speak in some new way. Since this way is free from the compulsive idea they do not stutter while they are using it. The new way is to drawl the vowels, to speak very slowly, to beat time while speaking, or to speak in a hollow voice These methods are effective in that the patient can speak in an odd way with more or less success. When the result is permanent the patient is usually left with some vocal oddity, and in trying to free himself of his oddity—that is, of the very thing which is curing him—he relapses. It is more scientific to teach the patient to speak in a normal voice, which is a "new way" to him. The most constant abnormality in the stutterer's speech is stiff laryngeal action. This stiffness may be broken up by the "melody cure"—that is, by teaching him to speak so that his voice constantly rises and falls through an octave. The good results obtained from this method are due to the fact that in running over the octave the person passes from the set of muscular adjustments required for the chest register to an entirely different set required for the head register. This breaks up the laryngeal cramp, and with the laryngeal cramp the other cramps are lost also.

## PATHOLOGY.

### 14 Leprosy

Gerber, stimulated by a monograph published by Ebstein, discusses some points in connexion with the disease leprosy (*Deut. med. Woch.*, September 15th, 1910). The first point examined is the question of the primary lesion of leprosy. Sticker believes that this is always the nasal mucosa. Gerber admits that leprosy of the head and face begins in the nose, but these cases only represent 78 per cent. of all the cases. After adducing the evidence of his experience of leprosy in Königsberg, the author comes to the following conclusions: (1) No bacilli are, as a rule, found in the healthy air passages of lepers. (2) Bacilli are not found in the air passages of healthy persons living with lepers. (3) Typically affected upper air passages secrete bacilli continuously in enormous numbers. (4) The greatest number of bacilli are derived from the nose. (5) The secretion becomes the poorer in bacilli the farther down its source is placed. (6) Bacilli can be detected in fluid or dried secretion after months or even one year. (7) Bacilli are sprayed most freely by sneezing, and next most freely by coughing and spitting. (8) Pocket-handkerchiefs act as the chief carriers of bacilli, and give off bacilli to the washing water. Next to them, other linen and clothing carry bacilli, after these have come into contact with secretions. (9) The author failed to find bacilli on the walls, in the beds, and on the floors of the rooms in which the lepers live. These rooms, however, were very well kept. (10) No bacilli can be found in the secretion of the trachea below the tracheotomy wound. The bacilli are situated both intracellularly and extracellularly. He has gained the impression that the latter were more common. Lastly, he points out that although Ebstein believes that it is not possible to distinguish between leprosy bacilli and tubercle bacilli, the very enormous numbers in which the former are met with serves to distinguish them from the latter.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 15. Diagnosis in Heart Disease.

N. V. JAGIÉ (*Wien. med. Klin.*, November 27th, 1910) deals with those newer methods of diagnosis which are of practical clinical importance in heart disease. Radiography has led to a further development of percussion methods. Moritz and Goldscheider's methods appear to be of much the same value, but for demonstration purposes and in the sick room, where absolute quietness cannot be obtained, Moritz's percussion stroke of medium force is perhaps to be preferred. Illustrations are given to show the accuracy of the estimation of the right border of the heart by Moritz percussion tested by orthodiagraphy. Comparison of the percussion results and the Roentgen ray results as to the left border of the heart do not correspond so exactly, and the divergence becomes greater the more the apex is displaced outwards. The reason of the difference is that wherever the thoracic wall is curved the Roentgen rays strike the chest at an angle different from that of the perpendicular percussion stroke, and Goldscheider's view that it is possible at points at which the thoracic wall is curved to give a sagittal direction to the percussion stroke does not appear to be practicable. The matter is of less importance because the position of the apex beat, when it is palpable, provides a method of checking results as to the left limit of the heart. In mapping out the heart the most satisfactory method is to estimate in centimetres the distance of single points from the middle line; in the case of emphysematous chests the author has repeatedly been able by this means to get results exactly corresponding to those given by Roentgen rays. For estimation of the absolute dullness Goldscheider and Sahli's method of quite light percussion should be exclusively employed. Of late years much work has been done on the subject of irregularity of the heart's action. Hering especially has emphasized the possibility of distinguishing between the most important forms of arrhythmia without the use of complicated apparatus. Palpation of the radial pulse alone is useless; the veins of the neck and the apex beat must be inspected, and it is of special importance to auscultate the heart simultaneously with the palpation of the radial pulse. Respiratory arrhythmia, which up to a certain grade can be considered almost physiological, is easily recognized by observing that the radial pulse becomes clearly slower during expiration in deep breathing, but that no such change occurs after administration of atropine—the arrhythmia is, in fact, a typical vagus arrhythmia. The so-called "extrasystole arrhythmia" is of special clinical significance. In this condition, resulting as a rule from some form of irritation—as by tobacco, alcohol, etc.—the systole may be on occasion weaker than normal, and give rise to a weak hastened radial pulse, or may be missed so as to cause a larger pause. If the condition is well marked it can generally be easily recognized from the radial pulse, where a compensatory pause follows the hastened, small extrasystole pulse. In one of the illustrations given the pause is just perceptible in the carotid, but imperceptible in the radial pulse. If, however, the condition cannot be made out from the pulse, auscultation of the heart continued during several minutes will certainly after a little practice lead to its detection with certainty. The author considers the occurrence of sporadic occasional extrasystoles particularly indicative of early myocardial degeneration. Above all is to be noted an alternation of extrasystole arrhythmia with the so-called "regularly intermittent pulse." Another important form is the permanently irregular pulse diagnosed by the extreme irregularity and by a process of exclusion. Cases which form a group by themselves are those of irregularity of the pulse and of the ventricular contractions dependent upon disturbance of conductivity; here the auricles contract normally, but the ventricles may contract much less often or automatically, but independently of the auricular contractions. In these cases the diagnosis may sometimes be made by observation of the veins of the neck, which may fill repeatedly between the ventricular contractions, the pulsation in the veins being often more noticeable if pressure be made on the liver. The pulsus alternans, which almost always indicates cardiac weakness and is only seen in severe organic disease of the circulatory system, is diagnosed by auscultation. Thus, in a whole series of cases the particular form of disturbance of cardiac rhythm can be diagnosed by simple physical examination.

### 16. The Slowness of Certain Stomachs to Empty.

IT has been noted that ptosed stomachs with ptosis of the pylorus sometimes manifest considerable slackening in the evacuation of their contents without any anatomical or clinical cause other than the ptosis to explain it. This retardation in the process of emptying may exist in stomachs which fill normally, and in which peristaltism is normal. Chilaïditi, of Vienna, has been drawing the attention of the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 19, 1910) to some considerations which, in his opinion, may not only explain this condition but also help to clear up the pathogeny of some affections of the duodenum, including ulcer. He insists particularly upon the point that for the proper discharge of the normal functions of the orifice of the stomach it is essential that there should be a condition of acidification above the pylorus and of alkalinization below. Normally, the stomach contents being acidified by the gastric juice, the pylorus opens to discharge a portion of them, which passes into the duodenum. The pylorus is closed again immediately, and is not reopened until the alkalinization of the duodenal contents has taken place. But an abnormal anatomical configuration of the gastro-duodenal tract interferes with the rhythm of this process. In a ptosed stomach with ptosis of the pylorus, the greater part of the chyme propelled into the upper portion of the duodenum—the ultra-pyloric portion, which is considerably in evidence after the contraction of evacuation, and which has been named by Holzknecht the "duodenal bulb"—may be arrested in that bulb for a longer time than normally. This arrest is due to the fact that the ptosed stomach and pylorus carry away the mobile portion of the duodenum, while the fixed portion, which commences as the summit of the subhepatic angle, remains in place, resulting in a protraction of the duodenal bulb. Further, owing to the fixity of that angle and the lowered pylorus the chyme remains in the bulb, and is not immediately propelled by the contractions into the middle part of the duodenum. The upright instead of horizontal position of the bulb, and the lack of tonicity in its walls, have also to be reckoned with. Thus there is a delay in alkalinization by the bile and pancreatic juice, and consequently the pylorus remains closed in spite of the preparation and sufficient acidification of the stomachal chyme above. The eventual emptying of the bulb may take place because of the action, tardy though it be, of the alkaline juice of the glands of Brunner, or because the muscles of the portion have not lost the whole of their tonicity, or because massage and movement and abdominal compression have assisted the passage of the aliment. The author believes that the very satisfactory results which have been noted in accelerating the stomach evacuation by making the patient lie on the right side for four hours after the principal meal are really due to a movement of these duodenal contents which permits the reopening of the pylorus. The weight of the chyme when the patient is in such a position assists its progress. Massage, also, although it should never be increased with the idea of forcing the pylorus, may have good results when directed upon the duodenum. He emphasizes the point that ulcer of the duodenum may arise as a result of this special duodenal configuration. It is the first or juxtapyloric portion of the duodenum, rendered anatomically abnormal by elongation and atony, which holds the stagnant acidified chyme, and certain of the acids may readily have a serious effect upon its altered coating. This needs to be considered in relation to the fact that, in 95 per cent. of the cases of duodenal ulcer, the ulcer occupies a position in the first portion of the duodenum, and in the majority it is found in the immediate neighbourhood of the pylorus.

### 17. Cerebro-spinal Meningitis.

MERLE (*Ann. méd. et chir.*, October 15th, 1910) reports 9 cases of cerebro-spinal meningitis occurring within twelve months, but without any epidemic being present. The cases were mostly typical, but one developed roso-

coloured spots simulating typhoid on the seventh day. This eruption disappeared entirely in three days; it is an infectious erythema, and if not recognized might mislead the diagnosis. All the cases were completely cured except one which contracted hemiplegia. Excellent results were obtained from the use of the antimeningococcic serum. Either Flexner's or Dopter's was the one used, as on several occasions Kolle's seemed to give a doubtful reaction. A dose of 20 c.cm. was given for the first three days, this being generally enough to ensure recovery; in other cases where the temperature or meningeal symptoms persisted further injections were employed. In a prolonged case with persistent fever, the spinal injections were supplemented by subcutaneous injections of the same serum and proved highly successful. This method is advised as an adjuvant in cases where the meningococcus is present in large quantities.

## SURGERY.

### 18. Resection of Nerve Roots for Gastric Crises of Tabes.

Lambret (*Echo méd. du Nord*, December 4th, 1910) discusses the resection of the posterior nerve roots of the spinal cord for the gastric crises of tabes. The justification for this procedure, he says, rests on the hypothesis that the gastric crises of tabes are due to irritation of the sympathetic abdominal nerves, the filaments of which pass into the posterior roots of the seventh, eight, and ninth dorsal pair. This view is supported by the existence of pain and hyperaesthesia over the corresponding area of the abdominal wall. This, it may be supposed, leads reflexly to motor and secretory disorders of which vomiting is a notable feature. The author quotes the case of a man, aged 36 years, who suffered from these gastric crises. The attacks were constant, one crisis sometimes beginning before the other was over. The patient's condition was very bad; his complexion earthy, his wasting and feebleness extreme. Morphine gave no real relief. Laminectomy was done, the dura mater being incised, and the seventh, eighth, ninth, and tenth spinal roots resected. A considerable degree of oedema of the arachnoid was noted—indeed, so turgid was it that it formed a hernia into the dura mater incision. On the third day the patient began to suffer from hiccough, and there was some distension of the intestine due probably to the resection of the tenth pair. His general condition, however, remained good. There were no more crises and no more pain. There was, indeed, rather hypoaesthesia of the abdominal region previously supplied by the resected nerve roots. A disagreeable symptom, however, was the constant discharge of cerebro-spinal fluid, and the wound did not heal. This continued for thirteen days. Later there was some incontinence of the sphincters, the temperature rose, and finally the patient died of septic meningitis, twenty-three days after operation. Although the operation ended in this case unsuccessfully, the author considers that ordinarily there need be no grave physiological consequences to the operation, and the results in the relief of suffering well justifies the risks. The conclusions he comes to are that the whole operation ought to be done at once—the laminectomy itself being easily borne; that the danger lies in opening the dura mater, not because of the immediate cerebro-spinal discharge—which can be stopped by lowering the head and raising the body—but in the continued draining away of the fluid, if union does not take place. To minimize this danger the author suggests doing the operation without opening the dura, and although there are anatomical difficulties in the way he thinks this is not impossible. If the dura mater be opened it must be closed absolutely with a continuous suture. There must be no drainage, and the spinal muscles must also be securely sutured and the wound closed. The author considers that as the surgical technique of the operation improves the risks will become appreciably less.

### 19. The Extension Treatment of Fractures.

In a clinical lecture R. Bardenheuer and Graessner (*Deut. med. Woch.*, November 17th, 1910) addressed themselves to the general practitioner with the view of impressing him with the necessity of giving up the older fixing treatment of fractures and of applying the extension treatment. The treatment of fractures aims at the retention or regaining of the function of the injured limb. The extension treatment admits of an exact apposition of the fractured surfaces and their retention in this position until union has taken place, and of exercise of the injured limb during the process of healing, including movement of the limb and flexion of the joint, without any appreciable alteration of the position of the fragments. It consists in rough terms in applying extension by means of weights or springs pulling on bands or strapping adjusted to the limb. The extension has to be applied not only parallel to the axis of the limb, but also transversely, while rotation has at times also to be applied in order to replace the bone in its former position. Forcible reduction is, as a rule, not necessary, but in certain cases of impacted fracture this may be advisable, and should then be undertaken during anaesthesia. Operative reduction associated with extension is required only in some cases of fractured patella, fracture of the olecranon, and the like. One of the objects of the extension is to retain the elasticity of the muscles and the movability of the joints. The authors proceed to describe in detail the application of the more common forms of extension for fractures of the lower and upper extremity, illustrating the form of extension by diagrams, showing clearly the manner in which the bandages are to be applied and the direction of the extension. The authors discuss Zuppinger's method of extension with flexion of the leg, and while they approve of the underlying principle, they are not satisfied with the present means of carrying this out, although they hope that the technique will be improved in the near future. Fractures of the lower extremity must be treated in bed, while those of the upper can be dealt with while the patient is moving about, the extension being carried out by spring. The position is to be controlled by $x$ rays before the reduction, then either the day after or eight days later, and lastly before discharge. All fractures implicating a joint should in their opinion be treated in hospital. The extension treatment is indicated in all simple fractures, in dislocations which can be shown by $x$ rays to be associated with the breaking off of splinters of bone, in compound or complicated fractures, when the wound in the skin or soft tissues is not great. On the other hand, they only use plaster-of-Paris for the purpose of transporting the patient, in complicated fractures with large wounds, in delirous patients to protect them from self-inflicted injuries, and after operative suture of fractured bones.

### 20. Operation for Cervical Rib.

Tridon (*Rev. d'orthopédie*, No. 6), in concluding a lengthy anatomical and clinical study of the seventh cervical rib, gives the following suggestions on the surgical treatment of this abnormality. Such treatment, which should consist in total removal of the supernumerary bone, ought not to be attempted except in cases in which the patients are suffering from troublesome and painful symptoms. In such cases the intervention should not be delayed until the lesions due to compression have become incurable. The abnormal rib may be exposed either by a vertical incision, or by a horizontal one similar to that made for ligature of the subclavian artery, or, again, by making a large triangular flap, the attached base of which is on the front of the neck, while one side corresponds to the clavicle and the other side to the antero-external margin of the trapezius. It is advisable to make a free and open incision, as it is often difficult to find the rib, which is usually deeper and at a higher level of the neck than the surgeon might have been led to expect before the operation. Great care in dissecting around the rib is imposed by the necessity of removing the whole of its periosteum. Reference is made to a recorded case which shows that the bone may be reproduced in part from periosteal débris. The chief dangers to be avoided in the actual removal of the rib are injury of the brachial plexus and the subclavian artery, and also laceration of the pleura. There is less difficulty, it is stated, in dealing with the nerves and the artery than with the pleura, which in the case of a long supernumerary rib may be closely adherent to the bone. The results, however, of pleural injury are not likely to be very serious, as in instances of this kind very probable adhesion of the apex of the lung to the cul-de-sac of the pleura will prevent pneumothorax. The removal of a cervical rib must be regarded as a delicate and difficult operation. It may be followed by unfortunate results, as instances have been reported of prolonged and also of incurable paralysis of the upper limb, of neuralgia in the arm and shoulder, and of persistence, notwithstanding complete removal of the rib, of the old troubles.

## OBSTETRICS.

### 21. Eclampsia.

James R. Mitchell (*Med. Record*, November 19th, 1910) brings forward a theory of the causation of eclampsia, which depends on an intoxication due to the subtraction

of calcium salts from the system of the mother. These may come from the bones, causing osteomalacia; from the teeth, causing decayed teeth; from the nerves, causing tetany or eclampsia. The fetus requires calcium, even at the expense of the mother's health. Animals suffering tetany after parathyroid removal show decrease of calcium in the blood and tissues; increase of nitrogen excretion by the urine; increase of ammonium output in the urine; excess of ammonia nitrogen relative to urea; increase of ammonia in the blood. These same symptoms are found in eclampsia and in tetany. Eclampsia is tetany plus coma. Toxaemia of pregnancy is a picture of the mother's need for calcium. The calcium theory explains many clinical features of eclampsia: the greater frequency in twin pregnancy, and at term; nervous excitability and convulsions; delayed coagulation time of the blood; decayed teeth; urinary findings; associated eczema, and value of the milk diet in eclampsia.

**22. Treatment of Premature Infants.**

PAQUET (*Echo méd. du Nord*, December 12th, 1909) describes a very simple method which he employed in the case of a child born two months before full term. Three weeks after birth it had lost weight considerably, and was in a wretched condition of atrophy, the thighs no thicker than a man's thumb, and the transparent fingers like knitting needles. The abdomen was distended but the stomach not dilated; the head could not be steadied on the flaccid muscles of the neck; the fontanelle was depressed and very wide, and all the limbs were fixed in a condition of flexion. Thrush was present, and the smallest quantity of liquid swallowed caused instant vomiting, the infrequent stools being reddish in colour. Cyanosis appeared from time to time, the rectal temperature was only 94°, and the infant was too weak to cry. An incubator not being procurable, Paquet enveloped the child in a half pound packet of absorbent cotton-wool, leaving only a small opening for air and feeding, covering the wool with jaconet to prevent evaporation. The infant was then surrounded with hot-water bottles in a warm cradle in a room kept at a temperature of about 80°. As the mother could not suckle the child, milk and water were given in small quantities, and Quinton's isotonic serum injected per rectum. The vomiting soon ceased, the temperature rose on the next day to 96° and very soon to normal, and the child was restored to normal health. The chief interest of the case lies in the simple method of improvizing an incubator, preventing evaporation, and conserving animal heat.

## GYNAECOLOGY.

**23. Involution of Ovarian Tumour.**

FRAENKEL (*Monats. f. Geb. u. Gyn.*, August, 1910) discusses a pathological phenomenon already observed and reported by three other writers. He was consulted about a woman, aged 25, for slight haemorrhage in the second month of pregnancy. Three weeks later, hyperemesis set in, and the uterus had increased in size with unusual rapidity. There was, on the other hand, no indication of any pelvic or abdominal tumour. Within a week the uterus reached first to the umbilical level, then to the ribs, and there was high temperature with dyspnoea. The os was dilated and a vesicular mole removed; under the microscope, the intravillous spaces were seen to be packed with chorion-epithelial growth. A pedunculated tumour, as big as a goose's egg, could clearly be defined on the right of the uterus, and a larger tumour was also detected to its left. Within a fortnight after the delivery of the mole, some acute attacks of abdominal pain, and, later on, dyspnoea and haematemesis developed. Torsion of the pedicle of one of the tumours or some other familiar complication causing peritonitis was suspected, but the probability of chorion-epithelioma of the uterus with metastases in the lungs was not overlooked. The patient was in a very bad condition of health, and Fraenkel, in consultation with Küstner, agreed that if the lungs were really invaded operation would be too late, whilst, if there were no chorion-epithelioma and the tumours were common ovarian cysts, there would be but small risk in waiting till the patient's health had improved. About a week later the tumours were still easily defined, yet appreciably smaller. Four weeks afterwards they could hardly be made out by palpation, which, however, caused straining; but two months later, when the patient had returned from an inland watering place, the parts were no longer tender, and not only had the tumours entirely disappeared, but there was no difficulty in making out the ovaries, which felt perfectly normal and free from any neoplastic or inflammatory change. Vesicular mole has been repeatedly reported in association with ovarian tumour. Albert noted complete disappearance of a pair of small cysts two months after the expulsion of a mole of this class. Gouilloud watched closely a similar case; the ovarian tumours were as big as a fetal head and perfectly movable. Phlebitis and embolic complications followed the expulsion of the mole. The tumours underwent involution synchronously with the uterus, and at the end of three months nothing more than slight enlargement of the ovaries could be defined. Two years after the molar pregnancy the patient aborted at the fourth month, but the fetus and placenta showed no signs of degeneration. Kroemer observed the complete involution of small ovarian cysts after the delivery of a vesicular mole in two cases.

**24. Treatment of Leucorrhoea.**

LIEPMANN (*Therap. Monats.*, December, 1910) considers that injections for leucorrhoea are not only useless but make matters worse. He recommends a thorough drying of the vagina with dry wadding, and, after this is completed, thorough powdering of the vaginal mucous membrane with 20 per cent. of leuicet (acetate of aluminium). He recommends leuicet, as it removes the unpleasant smell so frequently present in leucorrhoea, besides acting as a slight disinfectant and astringent. The author has had 90 per cent. of cures. In obstinate forms of cervical catarrh he cauterizes with iodine or curettes, according to circumstances.

## THERAPEUTICS.

**25. The Modern Arsenic Therapy of Syphilis.**

ACCORDING to Karl Zieler (*Muench. med. Woch.*, November 22nd, 1910) the advances in our knowledge in regard to syphilis by the discovery of the causal parasite by Schaudinn, by the achievement of inoculating the disease in animals, and by the working out of the Wassermann reaction, has laid a sound foundation for advance in the treatment of the disease. Schaudinn pointed out that there was a marked similarity between the spirochaetes and the trypanosomes, and Uhlenhuth, after experimenting with hen spirillose, tried atoxyl in syphilis. Neisser and Metchnikoff obtained excellent results also in experimental syphilis with atoxyl, especially when large doses were employed. Lesser, Hoffmann, and Roscher first pointed out that atoxyl produced dangerous and unpleasant symptoms in man at times. It was claimed that atoxyl acted extremely well in malignant syphilis and in those cases in which mercury and iodides failed. Zieler and Perls, however, were able to show that it frequently failed in malignant syphilis. After a time Buschke stated that atoxyl had proved a complete failure in the treatment of syphilis. In spite of the justifiability of this remark, Uhlenhuth and Mulzer still maintain that atoxyl acts particularly well. The same objections can be brought forward to arsacetin, which at first was regarded as less dangerous than atoxyl. Uhlenhuth suggested a combination treatment in the shape of the atoxylate of mercury, which he considered to be more efficacious than the salicylate of mercury. Neisser, however, did not obtain satisfactory results with this combination. Lesser, on the other hand, claimed to have got good results with it. Zieler tried it and found that when small doses were employed it was useless, and even when it produced a good effect on the symptoms recurrences occurred within a short time, while when large doses were given the effects were painful and dangerous. In animals it was shown that the toxic dose of atoxyl was twice that of the therapeutic dose, that that of the atoxylate of mercury was two and a half times and that of arsacetin three times the therapeutic dose. The margin was thus much too narrow for practical use. Ehrlich and Bertheim then determined the chemical constitution of atoxyl. The former studied the matter still more closely and found that atoxyl acted on the trypanosomes only after undergoing a slight chemical modification. "Atoxyl-fast" trypanosomes could be readily killed by atoxyl compounds which possessed an acetic acid group—for example, arsacetin. Ehrlich, therefore, assumed the presence of multiple chemical receptors in the protoplasm of the trypanosomes, of which the arsenoceptor and the aceticoceptor are but two. Arsenic compounds, which are readily taken up by certain parasites, and of which the arsenic is able to exercise a strong destructive action on the parasite, may possess but little affinity to the organ cells, and on account of the presence of suitable receptors in the parasites, which are absent in the organ cells, he termed them parasitropic but not

organotropic compounds. Spirilla possess an iodine receptor, so that iodized arsenic combinations have a special action on these parasites. In a similar manner Ehrlich found that the *Spirochaeta pallida* possesses an amido-oxy receptor. Further, he was able to show that the trivalent arsenic compounds behave quite differently toward the organism to the pentavalent compounds. Building up on these and similar considerations, he introduced after many experiments his dioxy-diamido-arsenobenzol or "606." Hata and others have determined that the tolerated dose of this drug is from seven to twenty times the therapeutic dose—that is, the dose sufficient to kill the spirilla of relapsing fever and the spirochaetes of syphilis. Zieler devotes the rest of his article to the action of "606" and the methods of administering it. Briefly summarized, it appears that he believes that a single dose of this preparation seldom if ever effects a complete sterilization in syphilis in man, but nevertheless he speaks of its extraordinary therapeutic value in terms of highest praise. He does not fear any grave toxic symptoms from the new drug if it is properly employed and given only in suitable cases.

**26. Iodipin in Syphilis.**

Buss (*Therap. Monats.*, December, 1910) reports the case of an alcoholic patient who six months after infection suffered from marked oedema and albuminuria. These symptoms were not improved by hot packs, or by the administration of sodium iodide. Purgatives and incisions into the thighs proving of no avail, Buss, about six weeks after this treatment was begun, injected subcutaneously 10 to 12 grams twice a week of a 25 per cent. solution of iodipin. Eight days afterwards the amount of urine increased, and three months of this treatment sufficed to remove the albuminuria and the oedema; 250 grams of iodipin were injected altogether. The nephritis, the author considers, was no doubt due to syphilis, and is the only case he has seen recover when alcoholism, nephritis, and syphilis had been combined in a young person. Buss relates a second case of syphilitic disease of the spinal cord, in which the phenomenon of syphilitic spinal paralysis and so-called pseudo-tabes syphilitica were present. This was likewise cured by iodipin. A third case of syphilitic chronic arthritis was also cured by iodipin. The author considers iodipin the most powerful of all iodine preparations, and if given subcutaneously is gradually absorbed, and only gradually excreted.

**27. Dangers of Tuberculin.**

Georg Wolfsohn (*Wien. med. Klin.*, No. 37, 1910) reports a case of reaction at an old, quiescent, tuberculous area, under small injections of tuberculin administered as a treatment of a fresh tuberculous abscess in another part of the body. The patient was a woman 34 years of age suffering from multiple abscesses of the left mamma, obviously tuberculous in origin, the first signs of which had been observed six weeks previously. Twelve years earlier the patient had been operated upon for a left-sided tuberculous coxitis; the wound had healed permanently seven weeks after the operation. The condition of the left breast was treated by puncture of the abscesses and injections of iodoform glycerine, and three days later, when the patient's temperature was subfebrile, $\frac{1}{10000}$ mg. of new tuberculin B.E. was injected. There was no clinical reaction. Five days later the state of the breast was still so serious that the question of amputation was considered. After another three days the abscesses were again punctured and iodoform glycerine injected, while a second injection of tuberculin was made. In four days the improvement was clearly marked; the abscess had for the most part fallen in, but on the outer side of the breast there was a fistula 2 cm. ($\frac{4}{5}$ in.) deep. Four more injections were made, one of $\frac{1}{80000}$ mg., two of $\frac{1}{75000}$ mg., and one of $\frac{1}{70000}$ mg. of tuberculin B.E. at intervals of six days, fourteen days, six days, and 21 days respectively. After the second of these the fistula healed, and the patient continued the treatment as an out-patient. She put on 8 lb. in weight in about six weeks. Six days after the last injection it was found that the scars of the old coxitis operation were becoming reddened, and the tuberculin cure was at once stopped, but nevertheless both scars broke down, and much tuberculous pus was evacuated. Iodoform glycerine was injected under pressure, and the patient recovered in about two months. The case is of great interest in view of the recent growth of opinion that an area reaction on subcutaneous injection of old tuberculin only occurs in cases of active disease requiring treatment. In this case the injection was made with B.E., not with old tuberculin, and a difference may exist between the two preparations in this respect, or it may be that the conditions with regard to reaction are different in the lungs and in bone. In any case the breaking down of a 12-year-old scar must be looked upon as a specific area reaction in the narrowest sense. It further appears from this case that the subcutaneous use of tuberculin, even in minimal doses, is not always free from danger. A change in a local lesion similar to the one here described, if it had occurred in the lungs, would have been far more serious, and might have ended fatally. Another interesting point in the case is the favourable effect of the tuberculin upon the state of the breast. Local immunity variations of different tissues must, it would seem, have played some part in the result. The author suggests that the subject of area reaction should receive more attention in the future than has been the case in the past.



**28. Treatment of Basedow's Disease.**

Ebstein (*Therap. Monats.*, December, 1910) refers to a paper of his published in 1901 in which he narrates a number of cases of this disease cured by removal of marked constipation. He now returns to the subject and says that it can be readily understood that intestinal poisons generated by constipation can set up all the symptoms of Basedow's disease. The author narrates 4 cases in which removal of coprostasis had convinced him of the permanency of the cure or mitigation of the symptoms of Basedow's disease. In the first case the patient was well thirteen years afterwards; in the second marked improvement followed daily enemata, but the patient was lost sight of; in the third permanent cure resulted; and in the fourth all the symptoms of Basedow's disease disappeared, but further news of the patient could not be obtained. All the cases were in women. Ebstein considers that although removal of constipation does not by any means always cure cases of Basedow's disease, treatment by such means should be adopted unless rapid advance of the disease compels immediate operative procedures.

## PATHOLOGY.

**29. Weichardt's Epiphanin Reaction.**

Ascoli described recently a method of determining the alteration of the surface tension of antigen-antibody mixtures to which he gave the name the meiostagmin reaction. Weichardt came to the conclusion that this method, as well as several others, were scarcely delicate enough for diagnostic purposes and therefore worked out a much finer test, to which he gave the name "epiphanin" reaction. Fr. Schroen (*Muench. med. Woch.*, September 20th, 1910) describes this test. The reaction is carried out by placing a dilution of antigen *plus* a dilution of antibody in one tube, a dilution of antibody *plus* water in the second, a dilution of antigen in the third, and water alone in the fourth. In each case the dilution is the same. To each of these tubes, or cylinders, he then adds 1 c.cm. of a normal sulphuric acid. This has to be very carefully measured by means of special apparatus. The cylinders are then corked up with perfectly clean rubber corks and carefully shaken until the fluids are well mixed. Next 3 c.cm. of a saturated solution of baryta, to which a 1 per cent. solution of strontium chloride has been added in proportions of one part to nine parts of the baryta water, is added. Lastly, to each cylinder 0.1 c.cm. of a 1 per cent. solution of phenolphthalein is added. If the acid has been inexactly made up, there may be a slight excess or deficiency. It will then be necessary to add either more acid or some sodium hydrate to obtain the neutral point to the phenolphthalein. Naturally exactly the same amount must be added to all the tubes as is sufficient to turn the reaction in the first or second of the cylinders. Now if no change takes place in the mixture of the antigen and the antiserum, then the colour of the first tube will be exactly the same as the colour of the second and third tubes when mixed together later. This, however, is not so. The displacement of the phenolphthalein neutral point is calculated in values of increased H ion concentration on the one hand or OH ion concentration on the other. In the tables given the author marks the former as *plus* (+) and expresses the values in N/100 $H_2SO_4$, and the latter as *minus* (−) values. He shows by means of these tables that the varying dilutions of antigen mixed with a constant dilution of the antiserum (he used a homogeneous emulsion of typhoid bacilli as antigen) are accompanied by definite changes in the surface tension, which can be depicted graphically in curves. A comparative curve set up with a suspension of *B. coli communis* shows the possibility of differentiating between one antigen and another with an antiserum only active toward the one. The test is extremely delicate.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 30. Cardio-respiratory and Subclavian Artery Murmurs.

LANDIS AND MUNFORD (*Amer. Journ. of Med. Sci.*, November, 1910) support the theory that cardio-respiratory murmurs depend upon variations of intrathoracic pressure connected with systolic contractions of the heart, although the exact mechanism of their causation is not clear. Their distribution is fairly definite and usually in the immediate neighbourhood of the heart, being best heard along its left border in the second and third interspaces, near the apex, and at the angle of the left scapula. They almost invariably accompany inspiration only, either shallow or deep, and are very rarely heard during expiration. Posture often influences them and they are by no means constant, but may disappear and reappear from time to time at subsequent examinations, while their disappearance when the breath is held distinguishes them from endocardial murmurs. Of 228 normal persons cardio-respiratory murmurs were heard in only two instances, but were noticed in 45 out of 70 tuberculous cases. Murmurs in the subclavian artery are more common in men than in women and on the left side than on the right, being most frequently best heard at the junction of the middle and outer thirds of the clavicle. They are always systolic, and, though occurring either with inspiration, or expiration, or both, they are most frequently heard during inspiration. Altering the position of the arm may tend to produce them and they are intensified by deep breathing, but care must be taken not to exert any pressure on the artery with the stethoscope. Of 31 cases in which a subclavian murmur was heard 20 were tuberculous, but in 4 instances the murmur was heard on the opposite side to that presenting signs of obvious disease. While neither the cardio-respiratory nor the subclavian artery murmurs can be regarded as pathognomonic of tuberculosis it is a suggestive fact that they should be more frequently encountered in this disease than in other conditions or in health.

### 31. Syphilis of the Upper Respiratory Tract.

J. ZANGE (*Wien. med. Klin.*, November 29th, 1910) discusses the diagnosis of syphilitic affections of the upper respiratory tract, especially those affections which belong to the primary and tertiary stages of the disease, since those of the second stage, though resistant to treatment, are easy of recognition. The clinical condition varies greatly in different cases. In the nose there is in the third stage a diffuse or circumscribed infiltration which may first affect the mucous membrane and later the bone or cartilage, or which may start in the bone and affect the mucous membrane later. The infiltration breaks down and finally ulceration and necrosis and perforation of bone may occur. The parts involved are, in order of frequency, the nasal septum, the nasal muscles, the lateral walls, the accessory cavities being also sometimes involved, the floor, and finally the roof of the nose. Occasionally syphilitic granulomata are seen which cannot be distinguished microscopically from tuberculous growths. In the throat gummatous affections may quickly lead to widespread ulceration and any part of the larynx may be the seat of gummatous and ulcerative processes. The local signs are therefore not always characteristic, although widespread destruction of tissue, especially perforation of the nasal bones, may make the diagnosis obvious. A foul-smelling discharge is suggestive of syphilis though it is not diagnostic. The differential diagnosis is, in the first place, from tuberculosis and may also be from chronic osteomyelitis, malignant growth, and from actinomycosis, leprosy, or from the sporotrichosis Beurmannii which has been recognized only of recent years, but which bears so striking a resemblance to syphilis in its manifestations. In tuberculosis the cartilages of the nose and the arytenoid neighbourhood of the larynx are most frequently affected rather than the bony parts, and there is less reaction in the surrounding tissues in tuberculous affections, but these differences are not constant, and it may not be possible to make a diagnosis from the local appearances. Great importance attaches to the history of the case and to the signs in other parts of the body, but in many cases these also fail to establish the diagnosis. Microscopical examination of excised tissue often clearly differentiates syphilis from new growth, but may not necessarily differentiate it from tuberculosis. In the primary stage bacteriological examination often shows the presence of the *Spirochaeta pallida*, but very seldom does so in the tertiary stage. Moreover, the utmost care is needed, in examining preparations from the mouth, nose, or throat, not to mistake the *Spirillum refringens*, which is not specific and is harmless, for the spirochaete of syphilis. If in doubt between tubercle and syphilis, injection into guinea-pigs may clear up the diagnosis by proving the presence of tuberculosis. Wassermann's serum reaction is a test of greater value. If the reaction is positive, the cases can be divided into those in which the diagnosis is based upon the reaction, other diagnostic signs being absent, and those in which the reaction confirms a probable diagnosis of syphilis. A negative reaction does not, as a rule, justify the exclusion of syphilis, but it may help in arriving at a correct estimate of the condition. Thus, in a case of nasal obstruction occurring in a young girl in which there was a foul discharge, involvement of the antrum and deep ulceration leading down to bone, a strong suspicion of syphilis was aroused; the reaction, however, was negative, and a radical operation was therefore performed which confirmed the diagnosis of osteomyelitis, and resulted in speedy recovery. A final method of diagnosis is observation of the result of a mercury and potassium iodide course of treatment; but this, in the author's opinion, is of doubtful benefit, because it is never certain whether recovery follows or is due to the treatment; and not only do other diseases—as, for example, tuberculosis, actinomycosis, and sporotrichosis—react to potassium iodide, but syphilis is occasionally altogether refractory to the treatment.

### 32. Stereo-Roentgenography in the Diagnosis of Pulmonary Tuberculosis.

LESTER LEONARD, of Philadelphia (*Archives of the Roentgen Ray*, December, 1910) pleads for the more general adoption of stereo-roentgenography in examining the lungs. In pulmonary tuberculosis stereoscopic vision reveals foci of disease which would have escaped detection in a single negative. The air-filled lung is seen to be studded with small groups of tubercle, and traversed by radiating bands of infiltration, which are easily differentiated from the bronchi and blood vessels. Consolidations, instead of appearing as opaque areas, receive a plasticity which gives them form and mass and a definite relation within the lung. Cavities are no longer areas of lesser in greater density, but they have a definite form with concave and convex walls of variable and appreciable thickness. The stereo-roentgenogram determines more accurately the size and character of the peribronchial glands, the presence and volume of areas of superficial pneumothorax, and assists materially in differentiating the normal from the pathological structure, and in determining the amount of displacement produced in the mediastinal viscera. Rapid exposures are essential, and the necessary change of position of both plates and tube for the two pictures may now be made in one half second. A plate-changing device which has been worked out in Philadelphia consists of a thin sheet of aluminium stretched over a metal frame. Beneath the aluminium sheet the plate-holders containing the plates are rapidly passed by means of a coiled spring and air-cushion device. At the same time, by a simple mechanical arrangement, the tube is shifted the required distance, and both these automatic changers are controlled by the operator from the switchboard of his generator.

## SURGERY.

### 33. Rupture of the Gall Bladder in Contusion of the Abdomen.

VANDENBOSSCHE (*Arch. gén. de chir.*, No. 7, 1910), in a clinical comment on a case of rupture of the gall bladder from abdominal contusion, points out, in the first place, that this injury, in regard to its prognosis and treatment, is quite distinct from a wound of this viscus associated with a penetrating lesion of the abdomen. In discussing the results of the effusion of bile in subcutaneous rupture of the gall bladder, the author states that the peritoneal reaction under such circumstances would, if the bile were

normal and aseptic, be marked only by the production of adhesive membranes and of ascitic fluid. It is held that, failing primary infection of the bile, and also secondary infection, which might be theoretically attributed to the passage into the common duct of intestinal germs which is now permitted by the absence of any biliary current, the effusion of this fluid into the peritoneal cavity causes no trouble except what is inherent in every biliary fistula—such, for instance, as impaired nutrition, emaciation, and cachexia. It seems to be very difficult and, in many cases, impossible to make a certain diagnosis of ruptured gall bladder at an early stage of contusion of the abdomen. The vesical lesion does not at first present any special characters. Jaundice, partial discoloration of the stools, and biliary retention, together with local tenderness, are common to lesions of the gall bladder and to those of the liver and its ducts. Hildebrandt's sign of a localized icteric patch over the seat of injury, caused by percolation of bile through the abdominal wall, is very useful when present, but as a rule it takes some time to develop. In the author's case the staining had not, on the seventeenth day, spread further than the posterior layer of the sheath of the rectus. The diagnosis, hypothetical soon after the injury, is rendered certain in the later stages of the case by the slow evolution of an abdominal swelling, by persistence of biliary retention, by the absence of any haemorrhagic phenomena, and of indications of injury of any other abdominal viscus. As a result of the difficulty in establishing an early diagnosis and of the retarded manifestation of reliable symptoms, laparotomy, which is the sole recognized treatment of ruptured gall bladder, has often been long delayed. In 10 of 15 cases collected by the author this operation was practised after intervals from the dates of injury, varying in the different instances from some weeks to some months and even years. In dealing with the injured gall bladder, the surgeon, if a biliary fistula still exists, has to decide whether he should close this by suturing or perform cholecystectomy. The latter operation, the author holds, is indicated only when the gall bladder has been much injured, and closure of the old wound in the bladder by sutures is regarded as a procedure more in accordance with the principles of modern biliary surgery. The mortality from operative intervention in cases of ruptured gall bladder from abdominal contusion has hitherto been high, as in 6 of the 15 instances collected by the author the results were fatal. In the original case reported in this paper the operation, though it was restricted to subhepatic packing and drainage, was followed by alarming collapse.

### 34. Treatment of Total Rectal Prolapse.

LILLA (*Rif. Med*, June 27th, 1910) discusses complete rectal prolapse—not a mere prolapse of the mucosa. The doubtful results of the various surgical procedures used in these cases is well illustrated by their number and variety, and the author has tabulated 13 chief methods advocated, in addition to some modifications. As in every other disease, a careful estimation of the probable cause is necessary, and no single method of treatment is available for all cases. Lately much importance is laid on the necessity more or less to obliterate Douglas's pouch. Mere resection of the rectum has not been found satisfactory, nor is it devoid of risk. Postero inferior rectopexy is not very satisfactory, and all the more since it has been ascertained that in most cases prolapse begins at the anterior surface of the rectum. A study of the statistics of colopexy shows that out of 57 cases, reduced by the author to 22 by excluding all cases of less than a year's post-operative duration, 13 out of the 22 showed relapse. A rational intervention should combine colopexy with the abolition of Douglas's pouch and a subsequent perineorrhaphy; by this combination some hope of permanent cure is given. In the author's view, one of the most important causes of complete rectal prolapse is to be found in the state of Douglas's pouch, and the chief aim of treatment is to obliterate this sac. Resection of the rectum may be necessary where the bowel is extensively ulcerated or in such a morbid state as to make it inadvisable to preserve it.

### 35. Intussusception of the Appendix.

ALEXIS V. MOSCHKOWITZ (*Med. Record*, December 17th, 1910) describes the case of a child who had an intussusception of the appendix into the caecum. Operation resulted in recovery. This is a rare occurrence, if one is to judge by the number of cases reported up to date, which amount to 25, including the author's case. A summary of these cases is given by the author. The symptoms are pain of a very severe, cramplike character, which has entire remissions of hours or days. In the intervals the patient feels and looks perfectly well. The patient is constipated if there is added to the intussusception of the appendix one of the caecum into the colon, or ileum into the caecum. The disease may last from several weeks to months. A tumour may be felt through the abdominal walls under anaesthesia; without anaesthesia it is generally not discernible on account of the boardlike hardness of the walls. Blood and mucus may be seen in the stools. The intussusception of the appendix may be partial or total, and may involve the other parts of the intestine. It may be inverted into the caecum. Treatment should be operative. One may incise the caecum, disinvaginate, and extirpate the appendix; incise the caecum and extirpate from within; or resect the caecum with the appendix in one mass.

### 36. Epileptic Attacks after Orthopaedic Operations.

A. CODIVILLA has seen epileptic attacks following orthopaedic operations on nine occasions, while Schanz has seen the same on ten occasions. In addition to these well-marked attacks, the former has seen several slightly developed attacks. He describes the attacks, and discussed their nature and causes (*Deut. med. Woch.*, November 17th, 1910). There is usually a prodromal stage. The first sign is uneasiness. The patients complain of feeling ill, of headache, and of inability to sleep. They become delirious, especially at night time; the pulse becomes slowed, and the pupils dilated. At times there is belly-ache and some hyperaesthesia of the lower part of the abdomen, while micturition is difficult. This stage may last for a few hours or several days. The convulsive stage sets in with a short severe fit. The attacks then become more and more frequent, and often follow one another without interval. During the intervals the patients may return to full consciousness, but are usually apathetic and sleepy. He argues against the etiology suggested by Schanz—namely, that the attacks are due to fat emboli, and shows that they only occur after the operated limb is held in a forced position. The attacks cease immediately on freeing the limb again. He therefore is of opinion that the undue stretching of the nerves sets up a reflex irritation of the central nervous system. He has noticed that many of the patients are predisposed to epilepsy or possess a nervous temperament. The treatment of the condition depends primarily in freeing the restrained limb. In some cases it is possible by an energetic course of bromides during the prodromal stage to prevent the onset of the attacks. In these cases it is wise to apply the forcible redressment very gradually and with great care.

## OBSTETRICS.

### 37. Appendicitis in the Puerperium.

BRUNO BOSSE AND ERNST FABRICIUS (*Wien. klin. Rundschau*, No. 38, 1910) describe a case of metastatic appendicitis and cholecystitis occurring in the late puerperium. The patient was a primipara who towards the end of pregnancy had an empyema of the antrum of Highmore on the left side. Several carious teeth were extracted, and the antrum opened and pus evacuated. The acute symptoms disappeared, but a month later, when she was confined, there was still some tenderness and swelling of the affected area, and pus was still being discharged. Labour and the puerperium were normal, and the temperature only went up twice, once to 38° C. (100.4° F.) on the second night, and once to 37.8° C. (100° F.) on the sixth night after delivery. Six weeks after delivery, when the empyema had completely healed, there was a rise of temperature to 37.7° C. (99.6° F.) in the axilla, 38.7° C. (101.4° F.) in the rectum, followed by signs of irritation in the peritoneum—constipation, meteorism, severe pain and tenderness in the ileo-caecal region, and attacks of pain in the liver and stomach regions; there was exquisite tenderness over the gall bladder, but palpation of the gall bladder was impossible because of the reflex tension of the abdominal walls. An area of dullness on percussion gradually developed, which took in the whole right side of the abdomen, except for a small area above Poupart's ligament. The patient's general condition was disturbed out of proportion to the temperature, which only once, a fortnight after the beginning of the illness, was above normal, and was then only 37.2° C. (98.9° F.). The diagnosis was of appendicitis and cholecystitis. The treatment was at first conservative, but as the condition did not improve an operation was performed twenty-six days after the beginning of the illness. The appendix was found to be embedded in

adhesions; after removal it formed a large tense mass about 8 cm. (3 in.) long, with a circular area of inflammatory reddening and granular swelling of the mucous membrane about 1½ cm. (⅝ in.) in diameter in the middle of its length. The gall bladder was united to the liver and to the peritoneum by many adhesions; a considerable amount of clear ascitic fluid poured from the subphrenic space; the gall bladder itself did not show inflammatory change, nor could gall stones be felt, and cystectomy was therefore not performed. The condition found at the operation left it undecided whether all the symptoms had originated from the appendix; taking into consideration, however, the nature of the initial symptoms, the authors believe that the diagnosis of cholecystitis was correct, but that the organisms were of small pathogenicity, so that the inflammation quickly receded, leaving behind only the pericystic adhesions. The patient made a good recovery. The origin of infection in this case was, in the author's opinion, the suppuration in the antrum, the spread of the infection being furthered by the puerperal state. The fact that the original infection was ten weeks old, and had been promptly treated, explains the small pathogenicity of the organism. It cannot be definitely decided whether the bacteria reached the appendix by the blood stream or from the intestinal tract; the sharply limited condition in the appendix points rather to the effect of infective embolism, though cases in which the propagation occurred *per continuitatem* have been more frequent. The significance of carious teeth and suppuration in the buccal cavity is shown by cases from the literature. The author urges the importance of the extraction of carious teeth and the adequate treatment of any suppurative condition of the mouth during pregnancy, and holds that the fear of operation upon the teeth during pregnancy is absolutely unsupported by facts.

**38. Rupture of Tubal Sac: Minute Ovum Detected.**

DEHELLY (*Bull. et mem. de la Soc. Anat. de Paris*, July, 1910) reports a typical case of ruptured tubal sac. The patient was 33, acute internal haemorrhage occurred fifteen days after a period. Dehelly opened the abdomen and found the peritoneal cavity full of liquid blood and clots. The left Fallopian tube was slightly enlarged, and blood issued from an extremely minute rupture in its middle portion. Something like a clot seemed to be blocking it up. On examination, the clot-like body was found to be a perfect ovum. It was as big as a hazel-nut, and almost completely invested with villi; at one point where they were absent a complete embryo a few millimetres long could be seen through the membranes. It is very rarely that a complete ovum can be found in these cases of early rupture of a tubal sac. The extreme minuteness of the laceration and the free inundation of the peritoneum with blood were striking features in this case.

## GYNAECOLOGY.

**39. Electro-Surgical Treatment of Genital Prolapse.**

CLUZAN (*Arch. d'électr. méd.*, December 10th, 1910) says that the treatment of genital prolapse has hitherto been mainly palliative, and little attention has been paid to the removal of the cause for the condition. The prolapse is due to a lesion of the levatores ani in the portion which acts as the vaginal band, maintaining the walls of the vagina, and indirectly supporting the uterus. Whether it be a spontaneous prolapse without definite cause, or a traumatic prolapse following upon a perineal rupture, the tearing or atrophy—frequently both at the same time—of the fibres of the levatores is the condition that must be combated. Treatment, therefore, should be directed upon the repair of the torn or distended perineal muscles, and upon the restoration of their normal tonicity. For the first of these purposes surgical treatment takes the form of colpoperineorrhaphy with suture of the levatores. For the second, electricity is the only therapeutic of real value. The active movements of massage and kinesiotherapy quickly fatigue the patients, while the movements which may be excited by electrical means can be repeated almost indefinitely. The rhythmic faradic current is the best for the purpose, producing an exercise essentially the same as that of the physiological action of the muscle. If there is reaction of degeneration, of course rhythmic galvanization should take its place. The faradization should commence from the time that the patient has recovered from the effects of the operation. Sittings may be given every other day, lasting, in the earlier part of the treatment, from ten to fifteen minutes, and, in the later part, from twenty five to thirty minutes, the intensity being as strong as can be borne by the patient. The indifferent electrode should be placed on the abdomen, the active electrode in the vagina. By means of a special manometric electrode designed by the author he has been able to record on a manometric scale the response of the perineal muscles to the electrical excitations, and has proved that the prolapsed subject always has a perineal musculature feebler than the normal woman, and that sometimes these muscles may be as profoundly atrophied as those of the arm or leg. In prolapse of the first and second degree electrotherapy alone may be sufficient to ameliorate, if not to cure, the condition; but in prolapse of the third degree, when the muscular fibres are so relaxed and the muscles ordinarily supporting the vagina are so distended as no longer to contract under electrical excitation, surgical intervention becomes a necessity. But if electrotherapy should be checked, it is still always possible to resort to operation; and even in such cases the electrical treatment has not been entirely useless, for it has been a solace to the patient and a preparation for the muscle, which is thus made the better able to support the stitches of the suture.

## THERAPEUTICS.

**40. Treatment of Phlebitis.**

HEINR. FISCHER (*Wien. med. Klin.*, November 30th, 1910) describes a new treatment for phlebitis, the advisability of which occurred to him almost accidentally, and which he finds to be simple and free from danger and to bring about a quick recovery. The absolute rest usually prescribed for phlebitis is in danger of slowing the circulation in the limbs to such a degree as to lead to spread of thrombosis, even into the abdomen and to the heart, with a fatal result, while in spite of all the care taken the possibility of embolism is not excluded. Even in the most favourable cases the treatment is prolonged and irksome. When treating ulcers by Unna's method the author found that small, inflamed thrombi of the veins of the leg when included in the bandage healed up surprisingly quickly. The treatment was next applied to larger thrombi with the same result, until in the last six to eight years he has treated cases of extensive and painful phlebitis on the same principle, but with bandages specially constructed for the purpose, and found the results equally good. In putting on the bandage thigenol is first applied to any specially reddened and painful areas and allowed to dry; over this anaesthesin may be spread. The leg is then painted from above the ankle to 2 cm. (⅘ in.) below the head of the fibula with moderately firm zinc gelatine to which some peppermint oil and in some cases thigenol has been added. Cotton-wool is placed to prevent the gelatine from cutting into the skin when it hardens; finally, a gauze bandage, previously prepared and soaked in hydroxy-oxycyanide solution (1 in 1,000) is applied as firmly and with as even a pressure as possible. If it is feared that a part of the thrombosis should be loosened during the application of the zinc gelatine, this can be applied from above downwards, but the gauze bandage is applied as before from below upwards. The edges of the bandage are notched to prevent fraying of longer threads which might catch round limb and even cause gangrene, and an "ideal" bandage is put on firmly over the gauze one. If the thrombus extends above the knee a pad is placed behind the joint and adhesive plaster is applied beginning just below the upper limit of the lower bandage; it is not enough to pull the bandage firmly, but the skin must be constantly pulled to meet the bandage and allowed to adhere in this position in order that when the bandage is fixed on, and the skin withdraws into its normal position the bandage may lie tightly and firmly. Embolism during the application of the bandage is prevented by pressure of the finger on the vein. It is astonishing that the enormous pressure of the bandage is borne almost without pain even in cases in which there has previously been great tenderness. A patient who has been confined to bed is usually able to go out on the day after that on which the leg has been bandaged, and by the third or fourth day the swelling of the leg has so much diminished that the bandage has to be reapplied. The second bandage can remain in position for about ten days and under it or under the third bandage full recovery usually takes place. The author's view is that the firmness of the bandage prevents embolism, and if a small clot should get free the compression of the vein above the thrombus prevents its escape. Under the firm pressure of the bandage softening and later absorption rapidly takes place. The bandage also by narrowing the

lumen of the vein restores the efficiency of the valves of the vein and so aids the circulation with the result that the patient loses the feeling of heaviness of the limb. This method of treatment is not applicable in cases in which the thrombus extends so high that the bandage cannot exert pressure above its highest point, and in cases in which purulent infection of the thrombus has taken place surgical treatment is demanded.

**41. Arsenic and Malaria.**

RUDOLF FLEXSEDER (*Wien. klin. Woch.*, No. 36, 1910) describes a case of malarial infection treated with enesol and with Ehrlich's preparation, "606." The patient was a man 39 years of age, who was twice treated at the II Medical Clinic in Vienna, the first time from November, 1909, to January, 1910, the second time from July 6th to July 28th, 1910. On the first occasion the patient came complaining of recurring rigors, for which he had been treated with quinine. No malarial parasites were, however, found in the blood; there were a few normoblasts. The absence of malarial parasites in the blood, the irregularity of the attacks of fever, which were not accompanied by sweating and, later on, not by rigors, the insignificant amount of enlargement of the spleen, which was present, all united against a diagnosis of malaria. On the other hand, there was a history of syphilis, Wassermann's reaction was completely positive, and the liver was much enlarged. The diagnosis, therefore, was of an acute form of diffuse syphilitic hepatitis, and this was confirmed by the prompt effect of potassium iodide, and still more by the effect of a course of twenty injections of enesol. At the end of this course the Wassermann reaction was negative. Blood films were made at the time and stained by Leishman's stain, but these, by an accident, were not examined until later, when the patient again presented himself. It was then found that typical Laveran's crescentic bodies had been present in large numbers, and it was clear that the case had been one of malignant malaria. After his discharge from hospital, the patient remained well until he was bitten by mosquitos and developed typical tertian fever, for which he came for treatment. Malarial parasites were now present in the blood in large numbers, but no crescentic bodies; eosinophiles were almost absent from the blood. Wassermann's reaction was again completely positive. Both liver and spleen were enlarged, the spleen more enlarged than before. An injection of 0.3 gram of Ehrlich's preparation, "606," was made, with an apparently completely successful and surprisingly quick result. No more malarial attacks occurred from the third day after the injection, and the liver and spleen went back in size. Wassermann's reaction, however, remained positive, though of medium strength only, and the later history of the patient showed that malarial parasites reappeared in the blood, and attacks of tertian fever recurred. The question as to whether the positive Wassermann's reaction in the first illness should be taken to indicate a syphilitic as well as a malarial infection is decided in the negative. Boehm found Wassermann's reaction positive in 35.5 per cent. of non-syphilitic malarial cases, and the present case is another instance of the same thing. The treatment in the first attack led to a permanent cure of the pernicious malaria, as shown by the freedom of the blood from crescentic bodies in the later illness and the purely tertian type of the second illness, which started after a fresh infection. Wassermann's reaction was, therefore, completely positive when the tropical parasites were present in the blood and became negative on recovery, while during the tertian fever the reaction was strongly positive, but became much reduced in strength when the disease was still present, but in a latent stage. The author, therefore, finds (1) that eosinophilia and mononucleosis of the blood may be signs of a latent malarial infection. The number of eosinophiles is in malaria dependent on the measure of the erythrolysis, (2) Wassermann's serum reaction may be completely positive both in tropical and in tertian fever, and can be taken, in conjunction with the blood condition, as an indicator of recovery or otherwise. (3) Arsenic is a specific poison to the malarial parasite, and protracted intramuscular injection of enesol can bring about complete recovery from tropical fever. (4) Ehrlich's preparation, injected during an attack of benign tertian fever, led to a cessation of attacks, but not to permanent recovery. In either form of malaria, however, injections of arsenic are to be tried when there is an idiosyncracy against quinine.

**42. Tuberculin Therapy for Children.**

GOURAND (*Arch. med. des enfants*, October, 1910) finds that in his experience children respond to tuberculin treatment differently to adults, they benefit from it equally well, but it requires more careful manipulation and watching. As a general rule after the lungs have been infected, they bear this treatment badly, the greatest successes being obtained when the earlier symptoms are treated, such as tuberculous glands or scrofulous lesions. When skin lesions and articular or osseous affections are injected, or tuberculous peritonitis and genito-urinary disease the results from tuberculin are often very good. Age is no disadvantage, the results obtained from infants of eight and ten months being excellent. Tuberculin helps to promote active immunization; the power of immunization is feeble in children and very slight in the early years. An adult may develop antibodies before tuberculin has been administered, but an investigation made upon twenty children, aged from 8 months to 2 years, showed that no such protection was present. For this reason the treatment is only useful when tuberculosis is limited and not very virulent in type. The minimum dose, $\frac{1}{10}$ c.cm. or less, should be used at first, and increased every three days, the injection being made in the interscapular region. The reaction may be seen as a rash, a general constitutional disturbance or swelling of the glands or joints, if it is feeble, the same dose may be repeated, if strong the dose should be slightly decreased. The dose may be raised to 1 c.cm. of the pure solution, if it is tolerated well, when two or three such doses have been given at intervals of eight or ten days it is advisable to stop. Children tolerate tuberculin better than adults, bad results are so rare that tuberculin-therapy is regarded as not dangerous for them. The general condition is more improved than local lesions. This is specially well marked in infants who are debilitated a week, and who, after treatment gain in weight and development. Scrophulides disappear rapidly, but the effect upon adenitis, arthritis, and osteitis is much slower, and owing to the weak immunizing power the treatment does not altogether supersede surgery. It does, however, improve the prognosis both for the present and for the distant future.

**43. Citrate of Soda in Infant Vomiting.**

VARIOT (*La Clinique*, October 28th, 1910) considers the citrate of soda to be a specific in all cases of vomiting occurring in infants. It is present in cow's milk, and may be freely given, as it has no toxic properties. Vomiting is due to overfeeding, in which case the citrate will have a sedative action on the stomach. It is also due to underfeeding, which induces a spasmodic contraction, and consequent rejection of its contents. In this case the salt hastens digestion, and enables the infant to make use of it. In some breast-fed children there is gastric irritability, which may be controlled either by mixed feeding or changing to cow's milk, with the addition of sodium citrate. The action of the salt in infants is antiemetic. Its effect is generally very prompt. Added to sterilized or humanized milk it is a preventive of infantile scurvy. It merits an important place in infant therapeutics.

## PATHOLOGY.

**44. Antitryptic Power of the Blood in Malignant Disease.**

VECCHI (*Rif. Med.*, October 24th, 1910) has carried out certain researches on the above question and also in relation to Rivalta's serum reaction. His general conclusion is that the antitryptic property is not reliable as far as the diagnosis of malignant growths is concerned. In the subjects of malignant growths there is very frequently (78.9 per cent. in cancer and 91.6 per cent. in sarcoma) an increase in the antitryptic power of the blood, most marked as a rule in rapidly growing tumours or where metastasis has taken place and least marked in the most benign power of cancer and in early growths. On the other hand this same antitryptic power is sometimes increased in non-malignant state, for example, hernia. The albumen content of the blood serum gets less in proportion to the advancement of the growth and the degree of cachexia. There is no relation between the antitryptic power of the blood and its albumen content. In advanced states of malignancy the blood shows in the Rivalta serum reaction an amount of globulin above the normal. There is no constant relation between the antitryptic and the Rivalta reaction, but usually the increase of one goes with the increase of the other. A positive antitryptic reaction (that is, an increase in the antiproteolytic power of the blood) has no value in the diagnosis of malignant disease. A negative antitryptic reaction authorizes one to exclude cancer with a certain degree of probability. But early cases of cancer (42.8 per cent.) fail to give a reaction.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

**45. Asystole.**

BERNHEIM (*Journ. des prat.*, October 29th, 1910) expresses his dissatisfaction with the term "asystole," and, for want of a better one, prefers to call it cardiac insufficiency. The condition really is a diminution of the work of the heart which consists of a double-pumping action—forcing and aspirating. When the work of the heart is insufficient this double function suffers, there being less blood forced into the arterial system and less aspirated from the venous system. As a consequence there is diminution of arterial tension, and an increase of venous tension—a rupture, indeed, of the haemodynamic equilibrium. The causes of this insufficiency may reside in the heart itself, or in the vascular system. In the case of the heart itself, faulty innervation as well as valvular lesions help to bring it about, and in the vascular system as a whole atheroma, arterio-sclerosis, interstitial nephritis, and pulmonary emphysema, all play a part. If the cardiac muscle is unable to combat these handicaps, a varying degree of asystole becomes established. A typical instance of the condition is mitral asystole in which if compensation fails the well-known clinical picture of backward venous pressure in varying degrees is to be seen. The author expresses the view that in this connexion there are differing diatheses in individual cases; certain organs presenting more resistance than others to the abnormal pressure. If weakness is first shown by the pulmonary vascular system he calls it a condition of pulmonary asystole; if by the vessels of the liver, hepatic asystole and so on. In each subject there is an organ of special vulnerability. In lesions of the aortic orifice, the asystole is arterial only. There is in effect an arterial anaemia. Here the useful work of the heart is greatly diminished. In aortic stenosis, in particular, the condition of hypersystole is largely neutralized by the narrowed orifice, which will only permit of the passage of a comparatively small amount of blood. There is no venous stagnation, however, the blood accumulating in the dilated left ventricle. The ventricular cavity, indeed, forms a kind of reservoir placed between the venous system and the general arterial circulation. This explains why it is that in aortic asystole so-called the rupture of the haemodynamic equilibrium produces less marked effects than in mitral cases. Enfeeblement of the cardiac muscle from degeneration of the myocardium also brings about this condition of asystole or cardiac insufficiency, but does not produce such a disturbance of the circulatory equilibrium as mitral lesions. There may be feebleness of pulse, arrhythmia, dyspnoea, and syncopal attacks, the systole weakening gradually. There is, nevertheless, in such cases a certain circulatory equilibrium maintained. Many infectious diseases, such as typhoid fever, produce nervous enfeeblement of the heart, but the clinical picture when in evidence is rather that of cardiac collapse than asystole with venous pressure. The author concludes by pointing out that the condition determining venous asystole is insufficiency of the right heart, be that insufficiency due to a dilatation consequent upon an original mitral lesion, or a pulmonary affection.

**46. Congenital Heart-block.**

FULTON, JUDROW, AND NORRIS (*Amer. Journ. of Med. Sciences*, September, 1910) record 3 cases of congenital heart-block occurring in one family, 1 of them an infant, thus showing the influence of heredity. The father, aged 41, had typhoid when 20 years old, followed by marked dyspepsia. After prolonged severe exertion, he once had general epileptiform convulsions followed by attacks of angina pectoris, and he now suffers from dyspnoea on exertion and vertigo on stooping. He was pale, with moderately thickened arteries and an average pulse-rate of 50 per minute, and the tracing showed an incomplete heart-block with a 3 to 1 rhythm. The eldest girl, aged 20, had marked pallor in infancy, and during childhood she suffered from diphtheria, once without cardiac weakness, and pertussis lasting three months, followed by persistent cough and attacks of epistaxis. She complains at times of occipital and frontal headache, neurasthenic in type, but there is no history of vertigo or convulsions. Pulse was 68 sitting and 60 recumbent, giving a tracing showing incomplete heart-block with a 2 to 1 rhythm. The baby, a bright and vigorous child, aged 22 months, was born at full term, and was nursed by the mother for six months, after which the pallor, which was noticeable from the first, became more marked. At eleven months a severe attack of bronchopneumonia occurred, and although there was extensive lung mischief the colour was good and the heart stood the strain well. During the first week of life the pulse varied between 40 and 50, and a tracing taken when 22 months old showed distinct auriculo-ventricular inco-ordination with apparently complete heart-block. Of two other children, one, a girl aged 14, gave a past history of syncopal attacks followed by severe convulsions, which were regarded as epileptic, but she completely outgrew them, and is now in good health, with a pulse of 80. It is probable that these attacks may have been due to heart-block when the family history is taken into consideration. The other child, a son, aged 18, has always been healthy and has never shown any signs of cardiac symptoms. This hereditary and apparently congenital tendency to auriculo-ventricular inco-ordination naturally suggests that some of the people having normally slow pulses may present some defect of conjunctivity. The tracings in the above cases show that the bradycardia was due to a depression of conductivity, probably from a congenital physiological, and possibly anatomical, abnormality in the auriculo-ventricular bundle or its blood supply.

**47. Radiography of the Infantile Heart.**

VISCO (*Pediatria*, No. 8, 1910), discusses the value of radiography in the hearts of children. In pericardial effusion, where the pericardial area dullness is marked by lung resonance, a radiographic examination is of service in revealing the true state of affairs. It is also useful in displacements of the heart, in congenital atrophy, dilatation or hypertrophy. It may also be of advantage in the discovery of the cause of an extracardiac murmur. In congenital diseases affecting the endocardium radiography has been of service. So, too, in the determination of different types of ectopia cordis.

## SURGERY.

**48. Perforation of Gastric Ulcers.**

M. MARTENS says (*Berl. klin. Woch.*, March 7th, 1910) that perforation of gastric ulcer requires a rapid diagnosis, and the responsibility of the medical practitioner is extremely great, because a life that might be saved hangs in the balance. He includes in his remarks duodenal as well as gastric ulcers, but not those encapsulated ulcers which perforate into other organs without opening into the peritoneal cavity. The complication may occur at any age from 6 years to 80. The majority of the patients have had previous gastric symptoms, usually vomiting of blood or passage of blood in the motions. In a few cases the perforation takes place without any preceding complaint of pain or other symptom. At times sudden exertion may determine the perforation. Sudden and extremely severe pain heralds the perforation in all cases. The pain may be accompanied by collapse or fainting. The temperature may be raised or even high, or when collapse occurs it may be subnormal. In the same way the pulse may become rapid or slowed. An increase in the number of leucocytes is usually noted (the author does not state whether this leucocytosis is a polymorphonuclear neutrophile leucocytosis or not, but we presume that he infers that it is this form). When collapse sets in and the temperature falls the number of leucocytes may fall considerably. Vomiting may occur, but is not constant. The tongue is dry from the first. On examination the pain is usually limited to the epigastrium, but may extend to the region of the caecum. The abdominal walls are usually tense, and especially the right rectus is held contracted. At first the abdomen is not distended, but rather retracted. Free gas in the abdomen and free fluid may be made out, but the author cautions the clinician from examining directly for this, since the necessary manipulation may produce a further escape of gastric contents. The diagnosis can usually be made from the history, the sudden onset, the severe pain, and the tension of the abdominal walls. The

usual mistakes in diagnosis are confusion with appendicitis. This may be fatal for the patient, when the clinician does not believe in immediate operation for this condition. Other forms of peritonitis may be mistaken for perforated gastric ulcer, but when this leads to operative interference, less harm is done than when a less urgent diagnosis leads to the postponement of the operation. As soon as the diagnosis is made the operation should be performed. The shock is best combated by removal of pain and anxiety, which can be attained by anaesthesia, and by removal of the cause, that is, by closing the opening in the stomach or duodenum. He much prefers inhalation anaesthesia to lumbar or local anaesthesia. As soon as the perforation is found this should be closed, and he believes in suture without resection in every case, since the chances of recovery depend in part on rapid operation, with as little shock as possible. He does not close the wound at first, as there is always a risk that the sutures will not hold, and the perforation may again open. After the ulcer has been sutured, he flushes the abdomen with physiological saline fluid until all the rinsings come away clear. His own cases include 12 up to 1907, and 6 since. Of these 1 died before the operation could be performed, 1 died after the operation, but the condition was desperate from the first, 1 died a few hours later from shock. The last 8 cases dealt with all recovered, and he records 3 other recoveries. He has come to the conclusion that every case can be saved if the operation is undertaken early, his successful cases being operated on from two and a half to twenty-six hours after perforation, while all those operated on later died.

### 49 Surgical Methods of Treating Hyperthyroidism.

Charles H. Mayo (*Med. Record*, December 31st, 1910) says that glands of elimination are provided with an intermittent discharge, and among these is the thyroid. It is difficult to estimate the amount of hypersecretion; the entire absence of secretion might occur and be compensated by other glands of associated function. One can hardly tell the amount of oversecretion that can be neutralized by other glands. The author's observations cover over 2,000 cases operated on, and it is evident that the amount of disease in the gland varies much as to the appearance of symptoms. Goître may be a reversion to a former function of the gland; hyperthyroidism is a toxaemia due to absorption of thyroid secretion. The stimulus may be the same as was present in primitive man; this was then a normal stimulus; it may still be present in food or water, be formed through some process in the intestine, result from metabolism, or exist in the air. The types of goître are but stages in a general process. Goître may be classified as to pathology, into cystic, chronic parenchymatous hypertrophic, papillary cystic goître, hypertrophic fetal goître, and fetal adenoma of the thyroid. The operative mortality in surgical treatment of simple goître is very low; in hyperthyroidism it is quite a different matter. This condition often causes death or invalidism. If fatal, death occurs within a few weeks of the beginning of the disease; seldom does it progress slowly to death. The ligation of vessels, nerves, and lymphatics seeks to cause a reversion to simple goître. Early cases may be treated thus; serious cases with degeneration of heart, liver, and kidneys, are also benefited by this operation, there being a gain in weight immediately. Over 1,100 patients operated on at St. Mary's Hospital, Rochester, Minn., show mortality after ligation of 37.10 per cent.; after extirpation of 39.10 per cent.; about 70 per cent. of the patients consider themselves cured.

### 50. Amoebic Abscess of the Liver.

Rogers (*Philippine Journ. of Science*, July, 1910) records the results of his experience in Calcutta during ten years in investigating tropical liver abscess, especially as regards its prevention and treatment. Everything points to the fact that amœbic dysentery, either active or latent, invariably precedes amoebic hepatitis, which latter arises secondarily by infection through the portal system. The earliest minute amoebic multiple hepatic abscesses commence in the terminal branches of the portal vein, and on several occasions such abscesses have been found to contain amoebae, but no bacteria or cocci. Since active and latent amoebic ulceration of the large bowel always precedes liver complication, and ipecacuanha is of great value in amoebic dysentery, it may be concluded that this drug will be useful in preventing acute hepatitis from passing on to liver abscess, and the author has already published cases illustrating its marvellous effects in this connexion. During the last four years no patient under treatment for hepatitis in the 100 male beds in the Calcutta open wards of the European Hospital has developed an amoebic liver abscess, although formerly this was of frequent occurrence; while in the returns of the British army in India the mortality has fallen by 60 per cent. If the disease is still in the presuppurative stage, the fever, pain, and hepatic enlargement rapidly yield to ipecacuanha; while, even if pus has already formed, no harm results from a few days' delay, since exploratory puncture may be performed with less risk after the general hepatic congestion has been lessened by treatment with this drug. The great majority of tropical liver abscesses are solely due to the protozoal organism and amoebic abscesses are primarily sterile, though bacteria and cocci become almost invariably present after the abscess has been opened; the chief cause of the mortality or extreme debility after the open operation undoubtedly bring infection of the abscess cavity by pyogenic organisms which have gained access through the wound. In order to avoid this bacterial invasion after incision of a liver abscess, bacterially sterile prior to incision, as much of the pus as possible is withdrawn through an aspirating needle followed by the injection into the cavity of quinine solution, without any incision or drainage being used, the process being repeated if necessary. In rare cases in which the aspirated pus is found to contain bacteria, the abscess must be opened. Where sterile drainage is necessary it may be performed by siphonage through a flexible sheathed trocar, to whose sheath a piece of large bore tubing is connected and carried into a bottle of antiseptic lotion beneath the bed. By means of a Y-shaped silver tube, the aspirator can be applied daily to the flexible sheath and any thick pus withdrawn, while sterile quinine solution can also be injected daily. Following operation by whatever method adopted, full doses of ipecacuanha should be given as soon as possible with a view to healing the ulcers in the large bowel, thus greatly lessening, or entirely preventing, the formation of further hepatic abscesses.

## OBSTETRICS.

### 51. Haemorrhages due to Placenta Membranacea and Rigid Membranes.

Lepage (*Comptes rendus de la Soc. d'Obstét. de Gynéc et de Péd. de Paris, etc.*, June, 1910) has published several instances of uterine haemorrhages during pregnancy where the placenta or membranes were abnormal. When the chorionic villi continue to develop over the greater part of the decidua so as to constitute a placenta membranacea, the course of the pregnancy is prejudiced greatly, for the suppressed normal membranes are much more yielding than placental tissue. As the ovum develops, much impeded by the rigidity of the almost ubiquitous placenta, it drags on its unyielding envelop. Experience of such cases teaches that there are two frequent results—haemorrhages during pregnancy due to local detachment of the membranes, and premature expulsion of the fetus caused by contraction of the uterine muscle set up by the dragging of the developing fetus on its rigid membranes. These two complications, haemorrhages and premature labour, Lepage declares, have been noted in subjects where there was localization of the placental tissue—that is to say, a normal and not a membranaceous placenta—yet the decidua proved on examination to be very tough and rigid. Lastly, pregnancy where the fetus is extramembranous, having slipped through a hole in the decidua and continued to develop, is according to the reports of collected cases almost always associated with marginal or battledore placenta. Lepage would explain this fact by one out of two hypotheses. Either the changes in the decidua which lead to the development of battledore placenta cause, at the same time, alterations in the amnion and chorion which produce the complications in question—haemorrhage or escape of the fetus through the membranes—or else the rigidity of the membranes is the primary cause, giving rise to traction and the development of a placenta marginata. Pinard, in discussing Lepage's report, related an instance in his own practice where the membranes were literally placenta throughout, the most perfect instance of placenta membranacea in his experience. He agreed with Lepage as to the haemorrhages during pregnancy associated with placenta membranacea and rigid membranes. On the other hand, that authority held that Lepage's explanations, like those of others, were purely theoretical, and agreed with Lepage only when he admitted that obstetricians know nothing positive about the subject.

**52. Duration of Pregnancy.**

MCDONALD (*Amer. Journ. of Med. Sciences*, September, 1910) formulates a rule based upon the size of the fetus for the estimation of the duration of pregnancy, and for determining the date of labour, which he considers more accurate than the usual method adopted by calculating the number of days since the last menstrual period. The rule is dependent upon the height of the fundus above the symphysis, which height is dependent upon the occipito-coccygeal measurement of the child, and this, together with the length, varies in direct proportion to the weight of the child. The details of this proportion have been previously worked out by the author, and the duration of pregnancy in lunar months is found to be equal to the height of the uterus in centimetres divided by 3.5. The rule depends upon the more or less regular growth of the uterus by 3.5 cm. each lunar month, and after the sixth month is very exact. With the patient lying flat the lower end of the tape is placed at the upper border of the symphysis, the upper end being held by the thumb into the palm, the extended fingers being held at right angles to the fundus, so that the tape follows the contour of the uterus, except at the last dip at the upper end, where it is held between the thumb and the palm. Multiparae with lax abdominal walls and thin uteri should be supported at the sides, so as to bring the occipito-coccygeal axis of the pelvis into the long axis of the mother's body. It is claimed that this method is the most exact means of estimating the duration of pregnancy, and is really an estimation of the size of the fetus. An average-sized baby usually arrives at the average period of pregnancy, for, as shown in a previous paper, when the uterus reaches the height of 35 cm. or full term ($\frac{35}{3.5}$ = ten lunar months), the fetus weighs 3,300 grams, or average size. After the sixth month this rule is extraordinarily accurate, and affords the most exact means we possess of prognosticating the date of labour, since, in the majority of cases, an average-sized baby is born at the average time. Thus, if the fundus measures 26 cm. from the symphysis, the duration of pregnancy is 26 divided by 3.5, or $7\frac{3}{7}$ lunar months, and therefore the patient has $2\frac{4}{7}$ lunar months to go to term—that is, ten weeks and two days. It may often be an advantage to use this rule in conjunction with the estimation of pregnancy by the usual method, and its usefulness in determining the size of the fetus is obvious when the question of induction of labour for contracted pelvis or other cause arises.

## GYNAECOLOGY.

**53. Operative Treatment of Hermaphroditism.**

SKUTSCH (*Zentralbl. f. Gynäk.*, No. 51, 1910) has operated successfully on two cases where great relief was given by the opening up of a rudimentary vagina. The first case underwent operation over two years ago, and after the general consideration of the patient's history and the appearances of the genital tract revealed by operation, Skutsch concluded that the sex was practically neuter. The genital tract was female in type, excepting for the penis-like clitoris, whilst the secondary characters were masculine. In the other case, more recent, the clitoris and secondary characters were also masculine, but the uterus and ovaries could be defined and there were regular catamenia. The patient, aged 25, was an accountant in an office. The periods had appeared at the age of 17, but when she was a child of 5 the malformation was already detected, a doctor advising an operation. She felt certain that her instincts were feminine, and certain incidents in the course of her life seemed to prove that she was physiologically a female. She grew a strong beard, which she carefully shaved; her voice was deep, and the thyroid cartilage prominent. The mammae were reduced to a pair of small nipples, as in a male. There was dense hair on the linea alba and pubes. The external organs were two small cutaneous folds, bearing hair outside, representing the labia majora. The clitoris was $1\frac{1}{2}$ in. long; the glans was well formed, but without a meatus. A groove ran along the posterior surface of the clitoris and led to an opening, the orifice of the sinus urogenitalis, bounded posteriorly by the anterior limits of the perineum, which was quite two inches deep. The orifice, about one-fifth of an inch in diameter, could be dilated a little without tearing. A metal catheter was passed into the bladder and retained after the urine came away; then a uterine sound was passed upwards, without meeting resistance, for over three inches; the two instruments were felt to be separated by a septum. On rectal exploration the tip of the sound could be defined lying against a minute tuberosity corresponding to a cervix. Above it was the body of the uterus, about two inches long. The ovaries were easily detected on palpation, and the right was of normal size. Thus there was evidently a vagina with a uterus, arrested in development, behind it. Skutsch made a median incision along the deep perineum, including about two-thirds of an inch of the posterior wall of the sinus urogenitalis—that is to say, the posterior vaginal wall. This exposed a true meatus urinarius at the upper end of the groove in the clitoris, with an indication of a hymen posterior to it. By a plastic operation the parts, which gaped freely, were kept open after further dilatation of the vagina. After convalescence dilatation was continued up to No. 24 (Hegar's instrument) without discomfort. The periods set in, and through a speculum bloody mucus could be seen issuing from the os externum.

## THERAPEUTICS.

**54. Salvarsan.**

SERRANO AND ÁLVAREZ SÁINZ DE AJA (*Rev. de Med. y Cirug. Prát.*, December 14th and 21st, 1910) relate their experience with salvarsan ("606") in 40 cases of syphilis treated by themselves in the Hospital of St. John of God, Madrid, as well as in other cases treated by Azúa, Castelo, and Bandelac. In the preparation of the infection they have employed the suspension method of Herxheimer, the emulsion of Azúa, and the solutions of Schreiber and Alt. Solution they regard as the best method of preparation. Suspensions are uncertain in their action, and, owing to the encystment of the drug which sometimes occurs at the point of injection, may become dangerous if the patient has to be reinjected. Emulsions suffer from the same disadvantages; they may, however, have the saving virtue of being possibly preserved in a sterile state in a glass capsule without any change of character or impairment of therapeutic effect. The reaction of the drug does not influence the pain unless it be unduly acid or alkaline. Faintly acid injections are neutralized by the blood plasma which is met in the tissues. The introduction of the drug in the highest state of chemical purity into the organism is the ideal to be sought after; tempering with it *in vitro* may easily hinder or nullify its therapeutic activity. The following are the routes of infection, arranged in the authors' order of preference: Intravenous, intermuscular, intramuscular, subcutaneous. In addition to these, the writers are now trying injections into the corpora cavernosa penis. The advantages of intravenous injection are: (1) An entire absence of pain following the injection; (2) the patient may resume his usual occupation on the day after the injection. Intermuscular injections are given in the subscapular region under the subscapularis muscle. They are considerably less painful than the intramuscular injections, and do not interfere to the same extent as do the latter with the function of the muscles. The patients so injected require rest in bed for days. Intramuscular injections are administered in the buttocks, loins, or interscapular regions. They cause great pain, impede the function of the muscles, and necessitate the patient's confinement to bed for a week or more. Dose of the preparation: 1 cg. of salvarsan per kilo of the body weight if given intermuscularly or intramuscularly. If given intravenously, 1 cg. per $1\frac{1}{2}$ kilos of the body weight. Weight and weight only should be the criterion of the dose. Age and sex ought not to be considered. Patients suffering from slight albuminuria and ocular lesions will require a somewhat less dose, at the physician's discretion. In a very emaciated subject 1 cg. of 606 per 3 kilos of body weight produce a perfect result. *Phenomena following Infection.*—Intravenous: If perfectly successful, no pain should be felt beyond that of the skin puncture. Stomatitis occurred in 3 cases. Injection followed, as a rule, by rigors and cyanosis, high but transient pyrexia; all over in six hours. These phenomena occurred earlier and were more transitory in endovenous than in parenchymatous injections. Tachycardia occurs independently of the fever, which it outlasts. Occasionally there occurred heavy sweating and roseola, tenesmus, with or without diarrhoea, polyuria, and dryness of the throat. Constipation is the rule; phlebitis ensued in half the intravenous cases, but was of a very mild type. The therapeutic effects were most marked in the cases injected by the intravenous route, reaction being more intense and the results ensuing more quickly than by the other methods. Papules clear up in a few hours, lesions of the mucous membranes disappearin

before those of the skin. The best results were seen in cases of congenital syphilis; then tertiary symptoms would seem to be the next in order of benefit, and afterwards secondary manifestations and chancres. The parasyphilides were unaffected by the treatment. As to the effect of the treatment upon Wassermann's reaction, the writers do not wish to dogmatize. They believe this therapy is not, like so many others, a "flash in the pan." Mercurial treatment will contiue to reign, perhaps alternated with injections of salvarsan. Expense is a factor against its general employment. Cure by a solitary injection is, *a priori*, very doubtful, and *a posteriori* not proven. Prolonged intermittent treatment — that is, by three-monthly injections for a period of three years—will probably be found the most effective method of cure. The drug does not immunize. It might be added that the writers have devised a syringe with a two-way key, which they claim to be a marked improvement on Schreiber's instrument.—Victor Reisner (*Wien. klinische Rundschau*, No. 39, 1910) reports on 20 cases of syphilis treated with Ehrlich-Hata "606." The patients were all in a garrison hospital, and were many of them so little intelligent that they would not have carried out the most primitive rules of care of the body and mouth, and in their case an ordinary mercury cure would have been a matter of difficulty. The dose of the preparation varied between 0.4 and 0 6 gram. Ehrlich's method of making the solution was rigidly followed. All the patients were confined to bed. The results obtained were as favourable as those described by other workers. The cases belonged some to the first, some to the second, and some to the third stage of the disease, and in every case the symptoms had disappeared in from four to five days, in 1 case on the third day. All the patients left the hospital cured in from six to eight days after the injection. The side-effects were insignificant. The painfulness varied, and evidently depended greatly on the individuality of the patient; in 1 case only did the pain set in with somewhat greater intensity, but it had altogether gone by the fourth day. Pyramidon given twice and sometimes three times a day reduced the pain to a minimum. Some rise of temperature always followed the injection, but it was in no case higher than 38.6° C. (101.5° F.). The Ehrlich treatment seems to be especially suited for military purposes, since the patients can be discharged fit for service in eight days. The author believes that Ehrlich's preparation should displace older syphilitic remedies.—M. v. Zeisel (*Wien. med. Woch.*, No. 34, 1910) has made an earlier report as to 31 cases of syphilis treated with "Ehrlich 606," and now reports on a further 21 cases. In all the 52 cases he has had no unpleasant side-effects, although in a few of them there was slight fever, two patients complained of headache which, however, soon passed off, and others complained of pain at the site of injection, but if they had previously been treated with injections of mercury stated that the pain from the Ehrlich injection was no greater than from the other. The author describes the rapidity with which Ehrlich's preparation acts upon the manifestations of the disease in all its stages, and states that in cases of recent syphilis the patient is able to return to work as a rule within fourteen days, in a condition less dangerous to other people than after treatment by the the older methods, under which they were often obliged to remain three to four months in hospital. In two cases macular syphilides, which had for a long time proved refractory to all mercurial preparations, disappeared with extraordinary rapidity under Ehrlich's treatment. In another case a primary ulcer for days after the injection had become soft with a granulating surface. In another, in which a papular rash had appeared under active mercurial treatment, the rash receded in four days after the injection in an astonishing manner. Secondary symptoms have not appeared in any of the author's cases after injection in the primary stage, but the time is still too short for conclusive evidence as to the possibility and prevention of the secondary symptoms. Because of the rapidity of its action the treatment is recommended for syphilitic pregnant women with a view to the prevention of abortion, or to the delivery of a sound child. The author would only employ Ehrlich's preparation in nerve cases when these are in an early stage and the optic nerve is intact. The single precaution needed in administering the injection is to prepare the solution immediately before use with the most careful attention to asepsis and to give the patient absolute rest for seven days. The author has always employed the original solution with methyl alcohol. The dose for men varies from 0.5 to 0.6 gram ($7\frac{3}{4}$ to $9\frac{1}{5}$ grains), for women and weakly individuals from 0.4 to 0.45 gram ($6\frac{1}{5}$ to $6\frac{9}{10}$ grains). For children 2 years of age Wechselmann recommends 0.05 gram ($\frac{4}{5}$ grain approx.) or smaller amounts if the children are weakly; the dose can be repeated if necessary after a fortnight's interval. In none of the cases have any complications arisen as to the heart, the bladder, of any other organ as a result of the treatment.



### 55. Action of a New Arsenic Preparation in Recurrent Fever.

THE line of thought which had led Ehrlich to develop his chemotherapy within recent years has developed into an endeavour to find a substance which is capable of killing off an invading parasite in the animal body without damaging the host. J. Iversen (*Muench. med. Woch.*, April 12th, 1910) calls this endeavour "Therapia sterilisans magna." In order to test the efficacy of these arsenical substances the author conceived that recurrent fever would be the best disease to work with, as the continued presence of parasites could be ascertained from the occurrence of repeated attacks of fever with almost mathematical certainty. The substance with which he has been experimenting is the bichloride (hydrochloride) of diamido-arseno-benzol, a pale yellow powder, which has to be converted into the sodium salt each time before use, as it is unstable in this combination, and has to be preserved in sealed tubes in the acid condition. The solutions employed were 1 per cent. aqueous solutions. Intramuscular injections of from 0.05 to 0.4 gram were used. In all, 52 patients were subjected to the treatment. Of these, 37 received the injection during the first attack, 11 during the second attack, and in 4 the injection was given intravenously during the first attack. In all these patients the fever ceased critically and the spirochaetes disappeared from the blood. The fall of temperature occurred between seven and fourteen hours after the injection in the greater number. In two cases a second attack took place after the injection had been given on the first day. The longest interval between the interval and the fall of temperature, save in these two cases, was twenty hours. In 92 per cent. of the cases no recurrence took place. A single injection had sufficed to kill off all the spirochaetes. Four patients had recurrences; in three of these the attacks were very short. In two the injections had been carried out on the first day of a second attack, when the spirochaetes were sparse and difficult to find. He next attempted to determine whether the arseno-benzol injected in the interval could prevent a recurrence. This was tried in one case on the third day after the attack. No further attack took place. He concludes that the sodium salt of dichloride of diamido-arseno-benzol is able to check an attack of recurrent fever within twenty hours and to prevent a recurrence in 92 per cent. of the cases. A single injection suffices for this purpose. A therapeutic dose is from 0.2 to 0.3 gram. The substance injected intramuscularly in the gluteal regions causes some pain and a little infiltration, but this is variable. On the other hand, the intravenous injection is painless, and does not cause any untoward symptoms. No pathological constituents appeared in the urine of any of his cases.

## PATHOLOGY.

### 56. Wassermann Reaction.

C. NAUWERCK AND M. WEICHERT have systematically carried out the Wassermann reaction with serum gained from bodies in the *post-mortem* room at the Pathological Hygienic Institute in Chemnitz with a view of determining whether the results obtained in this way are of pathological value. They record the results in the *Muench. med. Woch.* of November 8th, 1910. In a certain number of cases the serum could not be used. At times the cadaveric blood had undergone haemolysis, while at other times no serum separated out from the clotted blood. Advanced decomposition also prevented the test from being applied. In all they examined about 200 cases. At times serum was obtained from the femoral vein, when none could be got from the heart. The cases are given in tabular form, according to the result of the test. It appears that in the vast majority of the cases the *post-mortem* find tallied with the *ante-mortem* find, but in certain cases some differences were met with. In each positive case the occurrence of pathological signs of syphilis were sought for and frequently found. The individual cases are discussed at some length, and in conclusion the authors feel justified in stating that the Wassermann reaction can be utilized with advantage at the autopsy.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 57. Functional Heart Troubles from Disturbance of Special Cardiac Muscle Systems.

HERING (*Arch. des mal. du coeur des vaisseaux et du sang*, March, 1910) gives a brief summary of some of the functional heart troubles and a rational explanation of the way in which these arise. He points out that the regions of the sinus node and the auriculo-ventricular node possess in the highest degree the property of initiating stimulation, and that the right auricle possesses the property of initiating a motor stimulus to a greater degree than does the left auricle. Destruction of or poisoning of the sinus node allows the auriculo-ventricular node to take on an automatic action, whilst stimulation of the vagus or of the accelerator fibres of the sympathetic acts in a similar way. Ventricular automatism, which follows a lesion of the bundle of His, is completely independent of the auriculo-ventricular node. This ventricular automatism may arise in the fibres of Purkinje, or in several distinct parts of the ventricle. Extra-systoles arise from supplementary excitations and several different forms of extra-systoles and attacks of paroxysmal tachycardia may arise according to the seat at which the supplementary stimulation occurs. Cardiac fibrillation appears to be due to the occurrence of a large number of simultaneous and supplementary stimulations. Prolonged ventricular fibrillation ends fatally. Continuous arrhythmia is due to disturbed stimulation, which probably depends upon fibrillation of the auricles. With regard to disturbances of the power of conduction, one may distinguish two forms—first, where the disturbance depends upon a lesion between the place where the heart contraction originates and the auricle, and, secondly, where a lesion exists between the auricles and ventricles. The latter gives rise to dropping out of certain ventricular systoles (incomplete heart-block) or to complete dissociation of auricular and ventricular systoles. Syncopal or convulsive attacks occurring in cases where there is a lesion of the bundle of His may arise in cases of incomplete or complete heart-block, or in cases where there is dissociation of auricular and ventricular contractions. Both the vagus and the accelerator fibres of the sympathetic have an action on the automatic contraction of the ventricle, especially the latter.

### 58. Influenzal Rashes.

GHEDINI (*Rif. Med.*, October 24, 1910) summarizes no less than fifteen different groups of cutaneous affections described in association with influenza: (1) Morbilliform; (2) scarlatiniform eruptions; (3) urticarial; (4) papular erythemata; (5) polymorphous erythema; (6) haemorrhagica purpura; (7) pemphigus; (8) herpes; (9) suppurative dermatitis; (10) serous dermatitis; (11) erysepilatous eruptions; (12) oedematous infiltrations; (13) pigmentary changes—for example, vitiligo; (14) trophic changes—for example, sudden whitening of the hair, alopecia; (15) miliaria. The question arises as to whether these numerous rashes are really influenzal or conincident rashes due to some other cause. The author adduces 4 cases observed by him where there appeared no doubt from careful examination that the cause in these cases was influenza. In his cases 1 assumed a scarlatiniform type, 2 a morbilliform, and the last showed as multiple cutaneous vasomotor oedema. In each of the cases the influenza bacillus was detected.

### 59. Idiopathic Circumscribed Spinal Serous Meningitis.

WEISENBURG AND MÜLLER (*Amer. Journ. of Med. Sciences*, November, 1910) combat the assertion that it is impossible to make a differential diagnosis between spinal cord tumour and circumscribed serous meningitis, and they consider that in all well-recorded cases of the latter condition consecutive examinations will show a pathognomonic variability of the sensory and motor symptoms. Of the sensory phenomena pains of a numb, burning character in part or whole of a limb will be found to vary in distribution from day to day, and there will be variations in the limits of the disturbances of sensation, while of the motor phenomena the affected limbs may be spastic or flaccid on different examinations, weakness generally appearing first in one limb and later in both, with variability in reflexes, which may be increased or diminished in consecutive examinations. At the operation the dura is found to be tense, bluish, and congested, with little or no pulsation, and on incision a small quantity of cerebro-spinal fluid escapes. The dural slit immediately becomes filled by a thin pial membrane which bulges forward under tension, and contains a clear fluid which spurts out as soon as the membrane is opened, this latter then flapping backwards and forwards as a definite curtain attached to the dura and cord. Usually there is some accompanying inflammation of the meninges, and less often of the cord, but the condition can occur either without disease of the cord or of further disease of the meninges. In a case recorded of a girl, aged 20, there was a history of traumatism two years previously, when she fell skating and severely struck her right hip and buttock. A year later she began to complain of a burning, tingling, numb feeling over the anterior and inner portion of the right thigh, gradually becoming more marked, with associated weakness and altered sensations. While the tendon reflexes were always prompt their degree varied considerably at different examinations, and a fortnight prior to operation the right toe became bluish and both feet were cold. She made an uninterrupted recovery, except for a sinus discharging cerebro-spinal fluid, which closed spontaneously at the end of three weeks. Urotropine was given regularly throughout the patient's stay in hospital.

## SURGERY.

### 60. Duodenal Ulcer and its Surgical Treatment.

RICARD AND PAUCHET (*Ann. prov. de chir.*, No. 9, 1910) assert that recent developments effected by English and American surgeons, in the clinical study and the operative treatment of duodenal ulcer, claim the serious attention of every practitioner. In a full and instructive paper on this subject the authors deal exclusively with the primary and chronic form of ulcer, the secondary or acute form such as is met with in cases of burns, and as a result of infection presenting, it is pointed out, no special surgical interest. The chronic ulcer occurs three times more frequently in the male than in the female, and as a rule is developed between the twenty-fifth and the fiftieth years of life. The authors acknowledge that the attention lately directed to this affection by Mayo Robson and Moynihan, and the improvements these surgeons have made in its diagnosis and operative treatment, have shown that it is not so rare a lesion as it is generally supposed to be by Continental practitioners. Duodenal ulcer, it has been asserted, is more frequent than gastric ulcer, and, according to one experienced observer, duodenal perforation occurs in 6 per cent. of cases of acute peritonitis of supposed appendicular origin. The ulcer, which is usually single, is in 95 per cent. of cases situated on the anterior wall of the first part of the duodenum close to the pylorus. Its existence in most cases is first declared by complications, such as perforation and stenosis, and not by any specific symptoms. Notwithstanding the vagueness of the latter and the long latent period of the ulceration, it is not difficult, by careful and close questioning of the patient, to arrive at a correct diagnosis. Much stress is laid on a report of occasional attacks of "hunger-pain," in each of which this trouble comes some two or three hours after a meal and is at once relieved by taking fresh food of any kind into the empty stomach. A history of frequent successions of such attacks with prolonged intervals of freedom in a man, between the ages of 25 and 50 years, who has long suffered from gastric neurosis or hyperchlorhydria ought, the authors point out, to excite a suspicion of duodenal ulcer. In further investigation the practitioner should make a careful examination of the faeces with the object of determining in the first place, by Weber's or Meyer's tests, the presence or absence of traces of blood, and, in the second place, after the ingestion of a test meal, whether or not the fatty, muscular, and starchy elements of food are properly digested. The authors hold the opinion that the treatment of chronic ulcer of the duodenum should always be exclusively surgical. Medical treatment, it is believed, often affords but temporary and imperfect relief; and the life of the patient, after such treatment, is disturbed by a

succession of relapses which interfere with his social duties and impose a very strict regimen. The complications of haemorrhage are more formidable in duodenal than in gastric ulcer, as in the former affection they are usually very sudden in their onset and more violent. Operative intervention is indicated by the following conditions: (1) Persisting dyspeptic troubles with hyperacidity, by which the general health is much impaired and the normal course of life interrupted; (2) cicatricial stenosis of the duodenum with gastric stasis and vomiting; (3) haemorrhage when profuse, and also slight but still persistent; (4) acute or subacute perforation with or without peritonitis; (5) chronic perforation with suppurative peri-duodenitis; (6) chronic perforation with plastic and adhesive peri-duodenitis: (7) certain rare complications such as duodeno-cutaneous fistula, compression of the common bile duct, and abnormal communication with some other viscus. The method of operative treatment will vary according to the condition of the lesion as revealed by laparotomy. If the ulcer be a small one and situated in the anterior wall of the duodenum, and be quite free from adhesions, it should be excised, the intestinal wound being at once closed by sutures. On the other hand, if the ulcer involve more than half the circumference of the duodenum, the surgeon should practise posterior gastro-enterostomy. In a case of acute perforation the opening should be occluded by bringing over it two adjacent folds of duodenal wall, secured by a double row of sutures. The treatment of chronic ulcer with peri-duodenal suppuration should consist in simple evacuation of the purulent cavity and drainage. If a persistent external fistula result from this treatment, the authors would practise posterior gastro-enterostomy with exclusion of the pylorus, if this orifice be still permeable. In discussing the treatment of more or less haemorrhage in cases of duodenal ulcer, the authors state that the visible presence of blood in the stools, however small the quantity may be, is a decided indication for operation which should consist not in opening the intestine and in exposing the seat of the bleeding, but in gastro-enterostomy and constriction of the base of the ulcer by sutures. In conclusion, it is pointed out that the results of duodenal surgery in expert hands and under favourable external conditions have been very good.

### 61. Anaesthesia by Bier's Endovenous Method.

MANTELLI (*Rif. Med.*, July 4th, 1910) gives his experience, in 17 cases, with Bier's endovenous method of producing anaesthesia. Bier used 0.50 per cent. solution of novocain, and out of 134 cases got perfect anaesthesia in 115 and only failed absolutely in 5 cases (probably owing to too weak solution). The author used a weaker solution, 0.25 per cent., and the maximum dose given to any one patient was 12.5 cgr. (In this case the arm and the leg were rendered anaesthetic, successively.) With a weaker solution it took an average of nine minutes to produce anaesthesia. It is good to localize the vein some time before operation as this saves time and unnecessary disturbance of the tissues in searching for the vein. In 45 per cent. of the author's cases a good deal of pain was caused by the application of the elastic bandages used to limit the area affected, 30 per cent. had slight pain, and 25 per cent. no pain. Iodine was used as a skin disinfectant. This method of anaesthesia is contraindicated in arterio-sclerosis or in cases of phlebitis. The author has seen no toxic symptoms after the endovenous use of novococain.

## OBSTETRICS.

### 62. Treatment of Perineal Lacerations.

LA POINTE (*La Clinique*, September 16th, 1910) discusses old lacerations under the headings "incomplete" and "complete." The former condition does not involve the sphincter ani, and is only troublesome when accompanied by uterine prolapse. It is always necessary to repair a complete laceration. The sphincter, and often the rectum and vagina, are so torn that incontinence is complained of; but, as a rule, it is not complicated by prolapse. Two methods of operation are recognized: the edges may be pared and sutured together, as is done by Martin and Emmet, who employ three sets of sutures—rectal, perineal, and vaginal; or Lawson Tait's procedure, where the parts are dissected up and folded over each other and stitched, may be adopted. The latter method is preferred, when the tear has reached the vagino-rectal wall, as it permits of the tissues being firmly approached to each other. It is also indispensable in cases of genital prolapse when a firm perineum is desired. The former operation is all that is required in cases of colporectocele. The author considers the triple layer of sutures is superior to a single layer; it enables the lacerated parts to be restored to their natural position and relationship. In complete laceration with prolapse Lawson Tait's method is advised, but it has no advantage when there is no prolapse.

### 63. Primary Ovarian Pregnancy.

BARROWS (*Amer. Journ. Obstet.*, December, 1910) reports an authentic example of this type of ectopic gestation. A married woman, aged 25, had an attack of acute pain in the hypogastrum towards the right side after lifting a heavy tub. The pain was associated with profuse vomiting, cold sweats, and syncope. The last periods had been seen six weeks before the attack, and within the preceding eight months the patient had only menstruated four times. In that space of time there had been no evidence of pregnancy. The patient was admitted into Bellvue Hospital, New York, twenty-four hours after the beginning of the attack, with all the appearances of internal haemorrhage. The abdominal cavity was found full of fluid blood with few clots. The left Fallopian tube and ovary were normal. The right tube was also free from any morbid condition; but the right ovary was as big as a large walnut. A clot protruded from a rent on its surface. Elser, of Cornell University, reported that the clot appeared to be partially surrounded by a capsule, and at one point it showed tissue resembling placental structure; numerous chorionic villi were detected on microscopic examination, and the capsule was seen to be made up of ovarian structures. The right Fallopian tube showed no signs of gestation. In a discussion on this case Foerster referred to haematoma of the ovary developed in chronic inflammation, in association with typical changes in corpora lutea. Rupture of a haematoma might be followed by severe haemorrhage. Barrow's case seemed a genuine instance of primary ovarian pregnancy. The haemorrhage was even worse than Foerster had ever observed after rupture of a haematoma.

### 64. Phlebitis and Thrombosis of Mesenteric Vein after Abortion.

LERAT AND CLERET (*Bull. et mém. de la Soc. Anat. de Paris*, July, 1910) report a case where the symptoms were very acute and no artery involved. A multipara, aged 39, aborted, and was treated in a hospital in Paris. After her discharge she had a sudden attack of violent abdominal pain. A fortnight later, two months after the abortion, she was admitted into the Lariboisière, under Launois. Her face was of a pale greenish-yellow colour, the abdomen distended and tender, with high pulse and temperature. As the patient had grown very thin and the pains had lasted for fifteen days, and as vomiting and hiccough were present, incomplete intestinal obstruction due to a tumour was suspected. On the second day after admission, dark-red blood, without clot, escaped from the bowel, and on the third the painful distension was so extreme that Chaput operated. Some turbid sanious fluid was found amidst the coils of distended small intestine. One coil of jejunum was seen to be intensely dark, with thickened mesentery. It was resected with its mesentery, which showed thrombosis of all its veins, apparently of uterine origin. The patient was almost moribund, the open ends of the intestine left after resection were fixed to the wound as a plastic operation was out of the question. Death followed in a few hours. Over 30 in. of bowel were resected.

## GYNAECOLOGY.

### 65. Tubal Pregnancy simulated by Primary Tubal Cancer.

HASTINGS TWEEDY (*Journ. of Obstet. and Gynaec. of Brit. Emp.*, December, 1910) recently read, at a meeting of the Section of Obstetrics of the Royal Academy of Medicine in Ireland, a case where a woman, aged 30, missed two periods after repeated haemorrhages. A tumour developed behind and to the right of the uterus. The symptoms led to the diagnosis of tubal pregnancy, and when abdominal section was performed the appearances seemed at first sight to confirm the diagnosis. A mass was drawn out of Douglas's pouch; it was found to be organized clot. Below lay the right Fallopian tube, in which was a fungating growth, adherent to both ovaries and small intestine. The portion of the tube including the growth, and nothing more, was excised. On microscopic examination, the growth was found to be a true papillomatous carcinoma; in parts the cancer cells were closely packed,

and the papillomatous or adenomatous appearance was lost in those parts. Three weeks later a second abdominal section was performed. On opening the abdomen everything appeared normal. The right ovary and part of the left Fallopian tube were excised; the left ovary and stump of the right ovary seemed free from cancer.

**66. Hydatid (Echinococcus) of Fallopian Tube.**

DASHKEVITCH (*Journ. f. Geb. u. Gyn.*, 1910, p. 235, translated *Zentralbl. f. Gyn.*, 1910, No. 51) publishes a case of hydatic disease of which the primary seat was not clear. A woman bore her first and only child at the age of 23. Two years later a swelling developed in the left iliac region. About a year later the patient felt sharp pain when moving a weight and the swelling disappeared. Similar attacks occurred in the course of many subsequent years and apparently the swelling disappeared occasionally for months. At length it grew steadily and slowly, and at the end of four years, when the patient was 43 years old, she came under observation. There was a large pelvic mass; abdominal section was performed and a tumour of the size of a child's head, thin-walled and elastic, was found deep in Douglas's pouch. It was covered on all sides with adherent intestine and could not be separated from its surroundings. It was therefore tapped at a point where the intestine was not densely adherent, a number of hydatid cysts came away, and then the parent cyst was successfully detached. The left Fallopian tube was thickened and much distended; it was therefore removed. The pelvic cavity was packed with gauze, an intestinal fistula developed during convalescence but closed afterwards. The tube contained several daughter-cysts which had caused its distension.

## THERAPEUTICS.

**67. Old and New Tuberculin.**

THE question as to what form of tuberculin to administer in any case and at any particular stage is still not definitely decided. Hubert Kehl (*Wien. med. Klin.*, No. 36, 1910) makes use of a combination of Koch's old tuberculin and new tuberculin bacillary emulsion, and finds that very small doses of the two together act better than large doses of either tuberculin given singly. Eight different solutions are employed. Solution No. I contains in 10 c.cm. $\frac{1}{10000}$ mg. of Old Tuberculin and $\frac{1}{1000000}$ mg. of New Tuberculin. No. II contains ten times the amount in No. I and so on. The following is the method of use: The temperature is taken at three-hourly intervals for three days, and on the fourth the first injection of one loopful of solution No. I (I 0.1) is made; the loopful contains $\frac{1}{100}$ of the contents of 10 c.cm. If no reaction or a subjective reaction only follows the injection, two loopfuls of No. I (I 0.2) are given after an interval of three days. Then I 0.3, I 0.5, I 0.7, II 0.1, II 0.2, II 0.3, II 0.5, and so on up to IV 0.7, always at intervals of three to four days. Injections of No. V. are made at five days' interval, of No. VI. at six days, and so on. The author has followed this plan in many thousand cases without one case of abscess formation. The object aimed at is to produce little or no reaction, and if reaction occurs the above scheme is modified. An objective reaction is shown by fever, reaction at the infected area, decrease in weight, and quickened pulse. A rise of two or three points is held to be a feverish reaction if it appears on the day of the injection or the following day, and is above the patient's temperature tested at a corresponding time before the injection. A feverish reaction necessitates breaking off the treatment until the temperature has again been normal for three days, and then beginning again with a smaller dose and a longer interval between the doses. Increased pulse-rate or the occurrence of a subjective reaction is met by repetition of the same dose from one to three times without prolongation of the interval, and an area reaction, as soon as the signs have disappeared, is treated in the same way. In case of loss of weight continued for two or three weeks, the injections should be stopped for three to four weeks. The treatment should be continued so long as objective and subjective improvement takes place. The higher solutions are not needed in all cases; in any given case a lower solution may prove to be the optimum, and treatment be continued with it. The patient's clinical condition is held to be the best guide to treatment. Tuberculosis of glands and slight cases of phthisis in the first stage may show improvement almost amounting to recovery, even after one course, but the author recommends in any case a further course after an interval of three to four months. Three to six courses of treatment are recommended according to the peculiarities of the individual case. In combination with the tuberculin treatment the author makes use of a liniment with a soap basis which contains balsam of Peru, 6 to 8 per cent.; menthol, 2 to 4 per cent.; camphor, 0.5 to 1 per cent., and is convinced of the favourable effect produced. On such lines 42 cases have been treated, 12 in the first stage, 25 in the second, 5 in the third; 3 of the 5 in the final stage died. Of the remainder, 14 had had fever, one for as long as four months, and this disappeared; 8 improved almost to the point of recovery (6 in Stage I, 1 in II, 1 in III). In all the remaining cases tubercle bacilli disappeared from the sputum; there was a mean increase in weight of 3.2 kg. ($4\frac{2}{5}$ lb.); one tuberculous scrotal fistula healed up. All were able to perform their work. The patients were out-patients, and their social condition was of the lowest.

**68. The Treatment of Vascular Naevi.**

DURING recent years the therapeutic arsenal has been reinforced by various new methods of treatment for angiomata, and the older procedures, such as compression, vaccination, the injection of coagulating liquids, and cauterization, have been placed in the background. Nobele, of Ghent (*Arch. d'électr. méd.*, November 25th, 1910), reviews these newer agents, particularly from the point of view of the cosmetic removal of the naevus vascularis. This form of angioma presents the greatest difficulty because of the extent of the lesion and its predilection for the face. The first agent to be considered is electrolysis, but this, for the level, superficial naevi has certain inconveniences. The coagulating action of the current is localized at the point of penetration of the needle, and produces on the smooth and tinted surface of the skin a number of lightly discoloured and retracted clusters, suggestive of small-pox. Nevertheless, in cavernous angiomata, and in the stellate naevi so frequent in infants, electrolysis gives excellent results. As to the spark of high frequency, this is painful, rarely efficacious in a single application, and produces easy suppuration and slow cicatrization. Radiotherapy also, although its efficacy has often been recorded, has been abandoned very largely because the removal of the naevus is only purchased as a rule at the cost of an extensive radio-ulceration. Radium-therapy, again, has had admitted successes, but it should not be considered an exclusive treatment in all cases of naevus, and its advocates insist upon the danger of passing the needful dose in pale, superficial naevus planus. The author inclines to ultra-violet rays as the best form of treatment. The Kromayer lamp will give good results, he says, in superficial naevi of well-limited dimensions, red or bluish-red in colour, which are formed by the dilatation of the superficial network of capillaries. These are the cases in which radium is the least successful. He applies the lamp as closely as possible to the skin, the duration of the sitting being ten minutes. Some hours afterwards a violent erythema makes its appearance and vanishes within about two weeks, leaving a tissue of normal colour with no dilatation of the capillaries. Two other methods have lately come forward, but the time has been too short to make a definite statement as to the permanence of the results. The first is refrigeration by carbon dioxide. The two important features of this method are the duration of application, which for a naevus is 40 seconds, and the pressure, which should be sufficiently strong to arrest the local circulation. The thawing of the frozen tissue leaves a pustule, frequently a vesicle, which in its turn gives place to a crust, and the final result is a pale, soft, flexible cicatrix. The other process is diathermy or electro-coagulation, which is based on the calorific effect of the currents of high frequency. In erectile naevus the active electrode may be reduced to a needle, or in naevus planus it may take the form of a plate several centimetres in diameter.

**69. Tebean.**

L. STEFFEN (*Muench. med. Woch.*, April 19th, 1910) gives an account of the results which he has obtained with a tubercle bacillus preparation called *tebean*. This preparation has been evolved by Professor Levy. It is made by shaking virulent human tubercle bacilli in 25 per cent. galactose for four and a half days at 37° C., and then concentrated *in vacuo* until each gram of powder corresponds to 5 mg. of bacilli. The employment of *tebean* is as follows: the powder is dissolved in physiological saline solution just before use. It is weighed in a sterile watch glass, being handled by means of a sterilized platinum spatula. The doses employed begin with $\frac{1}{500}$ to $\frac{1}{200}$ mg., and are increased up to 0.1 or even 1 mg. Steffen has found that 0.1 mg. yields better results than larger doses. He gives short histories of some 9 cases, of which he states

that the treatment had to be interrupted in 2, and in 1 other the unfavourable course could not be checked. He claims that the other 6 were favourably influenced. The cases were severe ones in which the prognosis was supposed to be bad. In 3 patients a caseous pneumonic process of the upper lobes and part of the lower lobes was said to have been healed, while the author further claims that a favourable course was obtained in a severe recurrence and in an acute florid tuberculosis. The details of the individual cases are briefly given.

### 70. X-Ray Treatment of Status Lymphaticus.

RACHFORD (*Amer. Journ. of Med. Sci.*, October, 1910) records two cases of status lymphaticus treated successfully by *x* rays from which certain inferences may be drawn as to the physiology of the thymus gland. The first case suffered from thymic asthma with well-marked lymphocytosis, and was treated by the application of *x* rays for from three to eight minutes anteriorly and posteriorly over the region of the thymus, the rest of the body being carefully protected. Sixteen treatments were given during a period of six weeks, and marked improvement resulted both in the stridor, general appearance, and reduction of the thymus to its normal size, three very slight recurrences promptly responding to one or two applications of the *x* rays. In the second case twelve treatments in all were given, resulting in marked diminution in the size of the thymus, spleen, and lymph nodes, and improvement in the stridor and heart's action. Of special interest was the appearance of a polymorphonuclear leucocytosis with a low lymphatic count following the *x*-ray treatment, and this marked disappearance of the lymphocytosis points to the fact that a careful study of the blood should give important information as to the efficacy of the treatment and the length of its continuance. Since the associated chloro-anaemia may be aggravated if *x*-ray treatment is continued too long, it may be wise to discontinue when the lymphocytosis disappears, even if some slight cough and stridor still persist, and a course of hypodermic injections of iron, with careful feeding and fresh air, may be necessary to restore the blood to its normal. Although no portion of the body, with the exception of the area of the thymus, is exposed to the influence of the *x* rays, decrease in the size of the hyperplastic thymus, spleen, and lymph nodes takes place, and the cough, stridor and asthma, and lymphocytosis disappear, the normal conditions of health and intellectual growth being stimulated, and the excessive physiological action of the thymus controlled. It would seem that the exciting cause of status lymphaticus acts primarily upon the thymus causing marked hyperplasia and an increase or perversion of its internal secretion, and that this increased or perverted secretion is responsible for the general hyperplasia of the lymphoid tissues, the lymphocytosis, and the general feebleness of constitution. The inference appears justified that in intrauterine life the normal thymus exercises a controlling influence over the functional capacity of the lymphoid tissues and also over the metabolic processes necessary to the normal development of the fetus.

## PATHOLOGY.

### 71. Immunity in Syphilis, Syphilitic Superinfection and Reinfection.

PINARD (*Thèse de Paris*, 1910), after giving an interesting account of modern investigations into these problems, comes to the following conclusions: (1) It is possible, but not proved, that certain individuals have a natural immunity against syphilis. (2) Immunity is not always absolute during the evolution of syphilis. (3) It is possible to produce a syphilitic lesion by inoculating with the active virus during the incubation of the primary chancre. (4) The syphilitic chancre is auto-inoculable during the first ten days. (5) After this interval up to the appearance of the roseola inoculations in subepidermic pockets with a larger quantity of virus may produce a chancre. (6) That the lesions produced by reinoculation are truly syphilitic is shown by their incubation (ten to twelve days), appearance, and histological structure, and by the presence of the *Spirochaeta pallida*. (7) The lesions of reinoculation of the primary period resembled either early chancres or secondary papules. (8) The lesions of reinoculation are due to the introduction of the spirochaete, and cannot be produced by traumatism alone; they last several months. (9) The lesions of inoculation may also be produced in regions remote from or near to the primary chancre, and their evolution is the same. Immunity is established slowly, but does not progress from region to region. (10) Inoculations with the patient's own virus or with other virus give similar results. (11) During the secondary period reinoculation is difficult, and the lesions are small insignificant maculo-papules. (12) It is possible to produce lesions of reinfection, or rather superinfection, in tertiary syphilitics. The lesions have the typical appearance of tertiary syphilis, and have an incubation period of fifteen to twenty days. (13) Lesions of superinfection may be observed clinically as well as experimentally, and may be due to autoinoculation or heteroinoculation. During the incubation of the chancre new contaminations may produce successive chancres, less and less developed. During the existence of the chancre new chancres sometimes develop by contact or pressure. During the tertiary period certain genital chancriform syphilides, impossible to differentiate clinically from spontaneous lesions, may be due to second infection. These cases are more common than is usually supposed. (14) Cases of true syphilitic reinfection, with a second syphilis and more or less complete secondary lesions, may also occur. (15) Heredo-syphilitics, not only the dystrophic but also those who have received actual syphilis, are liable to contract syphilis again. (16) Immunity is incomplete during the primary period, very pronounced during the secondary period, reaches its acme after the disappearance of secondary lesions, and becomes weaker during the tertiary period. (17) Early mercurial treatment, intensive or prolonged, contributes to the disappearance of immunity—that is, to cure. (18) The Wassermann reaction, negative at first but constantly positive during the secondary period, is often negative in the tertiary stage, especially at an advanced date from the primary infection, and when the patient has been treated intensively. (19) True lesions of superinfection and reinfection are not only possible but more frequent than is believed. The syphilitic reacts to a new inoculation according to the stage of his first attack, that is, according to the degree of his immunity. (20) A syphilitic may after a certain time completely lose his immunity, and may then undergo true reinfection. There are undoubted examples of this.

### 72. Spontaneous Rupture of Aorta.

PÉLISSIER (*Echo méd. du Nord*, November 13th, 1910) discusses the anatomy and pathology of this rare event, which happened in the case of a young woman 30 years of age. Sections of the aorta were made both in the immediate neighbourhood of the rupture and of the descending portion of the aortic arch, and the author describes their histology. In the former case there is no trace of endothelium, although the inner coat on the whole was hypertrophied. The innermost layer of this, however, is only represented by a few slender elastic fibres forming a kind of network in the meshes of which could be seen some cellular elements, degenerated and necrosed. The external stratum of the inner coat was constituted of a more voluminous network of elastic fibres than is normally the case. That these, instead of being continuous and homogeneous, were made up of a series of small rods placed end to end. These also contained migratory cellular elements. The middle coat presented the same condition of hypertrophy with granular degeneration, and the connective tissue elements showed all the characteristics of hyaline degeneration. The muscular elements were practically non-existent. The fibres of the adventitia also showed granular degeneration. The external elastic membrane was obviously slight, and the hyaline degeneration of the connective tissue affected the walls of the vasa vasorum. The section cut at the level of the descending part of the aortic arch showed similar features. The contractile elements were again atrophied and the connective tissue had become hyaline, although in parts there had been some attempt at regeneration. The author raises the question as to whether this state of affairs is a primary degeneration affecting more especially the inner and middle coats of the artery or one that had become continued from a prior endocarditis. Although there was undoubted thickening of the aortic and mitral valves, in the absence of vegetations or ulceration of the endocardium he favours the former hypothesis. There was no evidence of typical atheromatous plaques. The calibre of the aorta as a whole was rather less than normal, it had preserved its suppleness and cut easily. Microscopic examination, too, had revealed nothing suggestive of atheroma. In the pathological state of the aorta as it was found, any strain such as that caused by an attack of asthma, or a fit of passion, would be quite sufficient to cause rupture. The author believes the changes in the aorta as described have a toxic or infectious origin, and are possibly related to syphilis

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 73. Effect of Quickening of Pulse-rate upon Cardiac Resistance.

M. HEITLER (*Wien. med. Klin.*, No. 40, 1910) has carried out a series of investigations on the effect of quickened action of the heart upon the resistance of the heart. Experiments on dogs showed that infusions of physiological salt solution into the jugular vein resulted as a rule in increase in the size of the heart, in slowing of its action, and often in marked arrhythmia. In one experiment, however, in which all these results were clearly seen, the heart suddenly began to beat quickly, became distinctly smaller, and arrhythmia disappeared, and in spite of the further injection of large amounts of salt solution this state of things continued. It would appear in this case that the heart exerted a greater resistance to the dilating influences, and that dilatation was hindered by its rapid action. The author has shown in his earlier works that in man the energy of the heart's action can be diminished by various exercises, as by raising the arm slowly to the horizontal, by raising the leg in a similar manner, by rising on tip-toe, clenching the fists, etc. Such proceedings as a rule cause a weakening of the heart sounds, lessening of the pulse, and increase in the area of cardiac dullness; occasionally, especially on rising on tiptoe, all these changes are exaggerated, the pulse becoming very small, and the heart sounds almost inaudible. These signs may be found in cases in which any disease of the cardiac muscle can be excluded with certainty. In some cases, however, the exercises described have an exactly opposite effect upon the heart sounds, pulse, etc. The author has now tested the effect of the different procedures, which, as a rule, lessen the energy of the heart, as, for instance, the raising of the arm, when they are undertaken under conditions in which the pulse-rate is quickened. In some cases the increased pulse-rate was obtained by quick walking, by running, etc.; in a few cases the pulse-rate varied spontaneously at different times, and the tests were carried out when the rate was quick, and one case was of permanent tachycardia. In one series of cases in which the exercises described above when performed when the pulse-rate was normal had lowered the energy of the heart, the same exercises when the pulse-rate was quickened had the opposite effect, the resistance of the cardiac muscle was increased as a result of the quickened pulse, and the heart sounds became stronger, the pulse larger, and the area of heart dullness was stationary or diminished. In another series of cases the exercises performed when the pulse was quick had a similar but more marked effect upon the energy of the heart than when the pulse was normal—that is, the quickening of the pulse caused a diminution in the resistance of the cardiac muscle. These variations depend upon the effect upon the energy of the heart of a quickening of pulse rate. In cases in which quickening of the pulse-rate increased the energy of the heart, the exercises were found either to have no effect upon the cardiac resistance or to increase it. Where quickening of the pulse-rate lessened the energy of the heart the exercises led to a diminished resistance. It was also found that increased pulse-rate not only affects the energy of the heart differently in different individuals, but it may do so also in the same individual on different occasions. Thus, in a case of permanent tachycardia in which the pulse was sometimes large and sometimes small, the resistance of the heart was increased during the phase of large pulse and diminished during the phase of small pulse.

### 74. Subscapular Friction.

MIRAMOND AND LAROQUETTE (*Arch. gén. de méd.*, December, 1910) discusses this subject very fully. Of 824 cases examined, 620 were healthy, 161 suffering from various illnesses and 43 were children. Of the 620, friction was heard in 51 = 8.2 per cent., of 161 in 30 = 18 6; 45 of these were tuberculous, and in 8 of these = 18.2 per cent., the sign was present. Of the 43 children, 13 were tuberculous, and in the whole 43 in only 1 was friction heard = 2.3 per cent. In 25 dead subjects the sound could be produced by pressing the shoulder blade against the thorax, at the same time moving the shoulder, but not by moving the shoulder alone, in 12 cases. The sound could sometimes be heard from some distance, and on palpation, and at other times only on auscultation. The authors consider it to be due to displacement of the scapula on the thorax, and that its maximum intensity corresponds to the spinal border, and particularly to the origin of the spine and at the superior internal angle. It could be heard on both sides in some cases, but most frequently on the right alone. When present it was always noticed during rotation of the scapula. In some subjects it was noticed during respiratory movements, when the shoulder was more or less fixed, and ceased when the scapula was moved. It is rarely painful, but sometimes leads to permanent inconvenience. It was found associated with inflammatory phenomena. The authors did not find that the occupation had anything to do with its production. Painful friction was commoner in females and young people. They did not consider it had anything to do with tuberculosis. They believed that it was due to an articular phenomenon localized in the scapulo-thoracic action resulting from close apposition and displacement of one on the other, and hence is a normal anatomical and physiological and not pathological condition. It may easily be confounded with friction in the glenoid cavity, but the latter can be detected by fixing the scapula on the thorax with the hand and then rotating the arm. The error of confounding it with pleural friction or crepitations at the apex can be obviated by taking care during auscultation to move the shoulder; the subscapular friction becomes modified, but the pulmonary signs undergo no change. The authors recommend in painful cases galvanic currents of feeble intensity, massage and exercise. In a very obstinate case Mauclaire detached from the spinal border a piece of the trapezius and rhomboids and fixed it to the pectoralis major with great success. The authors suggest in obstinate cases injection of oil of vaseline under the scapula at the level of the internal angle.

### 75. Uraemic Nephritis.

CASTAIGNE (*Journ. de méd.*, January, 1911) divides chronic nephritis into hydropigenous and uraemic, basing his classification on clinical rather than pathologico-anatomical grounds. The former shows itsel by the predominancy of renal and dropsical symptoms. Its characters are more or less generalized oedema, scanty thick urine, containing numerous substances in solution and much albumen. The renal permeability is normal, and there are no cardiac or arterial signs, or any uraemia. In the second form, urinary, cardio-vascular, and uraemic symptoms are marked. Polyuria, pollakiuria, clear urine, with few soluble substances, and little or no albumen. The permeability of the kidney is diminished, and there are signs of cardiac hypertrophy and intoxication symptoms, giving rise to uraemia, which shows itself in the nervous, alimentary, or respiratory symptoms. In asthmatical crises associated with this latter form he recommends blood-letting and hydrotherapy. A small injection of morphine may be given, to be followed immediately by plenty of pure water to drink; afterwards milk and hydrocarbons, with little chloride of sodium.

## SURGERY.

### 76. Colon Infections of Urinary Tract in Children.

PORTER AND FLEISCHNER (*Arch. of Ped.*, November, 1910) find that the colon bacillus may reach the urinary tract by ascending the urethra from the blood stream and by contamination from rectum to bladder when the pelvis is inflamed. In children haematogenous infection with simple pyelitis may follow fissure in ano, a condition often overlooked in constipated babies. In childhood the greater number of infections are of the ascending variety, and in female infants may be traced to careless cleansing or too tight diapers. Several types of the condition are recognized; they range from persistent bacilluria, discovered only on routine examination of the urine, to acute infections simulating typhoid or meningitis. Intermediate in severity range cases of enuresis, cystitis, and pyelitis. Fever may be slight, or may be hyperpyrexia, continuous, or variable, like that seen in septic infections. Leucocytosis is the rule, but is variable. Bacilluria often gives

rise to no symptoms other than slight malnutrition and anaemia, or to incontinence of urine, and may persist for years without being discovered. When the infection is more severe it is often subacute or chronic, and there is evidence of the inflammatory condition. In small babies the first symptom may be pallor and failure to gain weight, with a slight rise in temperature and motile bacilli and pus cells in the urine. The condition is frequently masked by gastro-intestinal symptoms. The more severe cases present a fairly typical picture of an intestinal intoxication. The onset is variable; either diarrhoea comes on with fever, or the child will be sick for several days with perplexing symptoms of toxaemia, which are apparently explained when the signs of an acute colitis appear. In older children is found the so-called typhoidal type of urinary infection. The infection comes on acutely, with an irregularly high temperature; the symptoms are purely those of toxaemia. An interesting feature of these cases is that after the children have been ill for some weeks the blood serum in high dilutions will agglutinate typhoid bacilli. Finally, there is a group of cases in which the symptoms are referable direct to the urinary tract. These are usually surgical cases, but may recover under conservative treatment. Any of the acute urinary infections may begin with symptoms referable to the cerebro-spinal meninges, and rigidity of the back of the neck is not uncommon. Some of the cases are marked by recurrent vomiting, with fever and constipation occurring every six or eight weeks, such attacks being followed occasionally by urticaria or enuresis. The prognosis is usually good. In some rare cases of infection of the kidney with multiple renal abscesses a fatal result may ensue. The symptoms tend to clear up quickly, but a bacilluria with malnutrition may persist or the bacilli may disappear and reappear again in a short time. The infection of the urinary tract may last from several days to months or even years. Prophylaxis includes great cleanliness of the genitals. In boys with phimosis circumcision may cause the bacilli to disappear without further treatment. Removal of oxyurides from the bowels often relieves the bacilluria. The use of urotropin gr. xv daily is advised, and Morse recommends alkalis, which he finds even more efficacious, but in the more intense persistent cases autogenous vaccines are the only hope. The vaccine is given in the largest possible dose that will not produce a marked reaction, and repeated every four days. In the mild cases all methods that tend to improve the general condition should be employed. The urine should be cultured in all cases of persistent fever of obscure origin, as this simple procedure will often clear up the diagnosis.

### 77. Traumatic Rupture of the Spleen.

LEVY (*Zentralbl. für Chir.*, No. 50, 1910) publishes a brief record of a case of traumatic rupture of the spleen, with the main object of directing attention to what he regards as an important and useful diagnostic sign in instances of this injury. This sign, which, though mentioned by Kehr in von Bergmann's *Handbuch der Chirurgie*, has been almost generally ignored, consists in very intense pain over the left shoulder. In the author's case, in which a severe abdominal injury was clearly indicated by local tenderness, this reflex shoulder pain was the most prominent symptom. The author, whilst acknowleging that in many cases of rupture of the spleen a precise diagnosis can be made without difficulty, points out that it may be found impossible to distinguish between this injury from one of the intestine or some other abdominal organ. A reliable sign of splenic injury would be of value as indicating the best way of reaching the seat of injury by laparotomy, which, if practised as an exploratory operation in the median line, would have to be widely extended to enable the surgeon to reach and effectually deal with the injured organ. In the surgical treatment of ruptured spleen, extirpation, the author thinks, would in most cases be found preferable to packing or suture. As a proof that the organism is not permanently impaired by the radical operation, he refers to the case here reported, in which the patient, soon after recovery from this operation, recovered also from severe and extensive burns.

### 78. Congenital Torticollis.

COUVELAIRE (*Rev. d'orthop.*, No. 1, 1911) has been led by the results of his pathological investigations to oppose Stromeyer's hypothesis that the torticollis of birth is the result of a traumatic lesion of the sterno-mastoid muscle produced in the course of a difficult labour. There can be no doubt, he acknowledges, that obstetrical injury of this muscle may be caused by forcible traction on the head or shoulder of the fetus during delivery, but it is held that such injury alone is incapable of setting up permanent retraction provided the muscular structure be free from pathological changes. Such changes, it is held, occur more frequently in the fetal sterno-mastoid than is generally supposed. They consist, according to the results of the author's examination of four dead infants, in a partial lesion of the muscular fibres, conforming to the type of the lesion known as Zenker's degeneration, with more or less marked hyperplasia of the connective tissue. These changes may be associated with diffused infiltrations of blood due to force necessitated by the difficulty in extracting the fetus. The traumatic lesions may have been favoured by the pathological condition of the muscle; but the latter, whether complicated or not by obstetrical lesions, are sufficient to account for the clinical phenomena of the torticollis of birth. In concluding, the author states that on *a priori* grounds the practitioner cannot be held responsible for a permanent torticollis in an infant who has been subjected to a forcible delivery.



## OBSTETRICS.

### 79. Spontaneous Rupture of Uterus: Hydatidiform Mole.

WALDO (*Amer. Journ. Obstet.*, September, 1910) relates an instance of this remarkable accident where the adhesion of a piece of omentum until operative relief was at hand saved the patient. She was 22 years old, married one year, and her only previous pregnancy had ended in abortion at the fourth month. One month later she menstruated, and the periods recurred once more and ceased. The patient believed that she was pregnant; there was nausea with vomiting and the breasts enlarged. Eight weeks after the last flow some spots of blood were seen without any painful symptoms. The uterus was enlarged and hydatidiform mole was suspected, but no fragments could be found. In the fourth month after the last period, when at stool, the patient had a violent attack of abdominal pain with syncope. The fundus uteri reached the umbilicus, the urine was scanty and albuminous. There appeared to be rupture of an ectopic sac. The patient was kept quiet for three days, then Waldo opened the abdomen by a median incision. The peritoneal cavity contained much blood, chiefly fluid; the ovaries were considerably enlarged and cystic. The uterus was of the size normal at the sixth month of pregnancy. An irregular perforation $\frac{3}{4}$ in. in long diameter was detected on the anterior wall of the uterus $1\frac{1}{2}$ in. below the fundus, slightly to the left of the middle line. This perforation was closed by an adherent piece of omentum; when it was detached small cystic bodies were seen protruding from the interior of the uterus, the edges of the perforation being very thin. Panhysterectomy, with removal of the Fallopian tubes and ovaries, was performed. Convalescence was rapid. The uterus was filled with a typical hydatidiform or vesicular mole. Its walls were examined by a pathologist at five points, but no trace of chorion-epithelioma could be detected. There was at certain points a little blood between the walls of the uterus and the mole. The uterine musculature was thinned throughout, though mostly near the perforation. The patient was in good health, free from any sign of local disease six months after the operation. Hydatidiform mole is a source of anxiety, as it has been found to exist in over 40 per cent. of all cases of chorion-epithelioma. Waldo finds that many cases of rupture of the uterus affected with chorion-epithelioma have been reported, but only five of rupture of the uterus due to hydatidiform mole, the reporters being: Wilton (1840), Lord (1868), Krieger (1872), Seitz (1904), and lastly Bowin, quoted by Charpentier. All five ended fatally.

### 80. Dystocia from Vaginismus.

GAUJON (*Comptes rendus de la Soc. d'Obstét. de Paris et de la Soc. d'Obstét. de Toulouse*), vol. xii, 1910) reports an unusually severe instance of vaginismus during labour. The patient was a married lady, aged 26. She was rather tall and perfectly robust. She had been suckled by her mother till the age of 15 months, and there were no neuropaths amidst her nearer relations. The catamenia began when she was 14 years old, and had always been regular. She showed no evidence of neurosis, nor had she been exposed to influences inducing neurosis. On the other hand, since her marriage about a year before delivery coitus had been painful from the first. The pregnancy had been quite normal down to the ninth month, when she consulted Gaujon, whom she desired to attend her. The uterus was of the normal size, and on abdominal palpation the head was definable in the left occipito-anterior position. All attempts at digital exploration caused

intense pain and tonic spasm of the coccygei and levatores ani. The finger seemed to pass up a narrow tunnel, the os could not be well defined, and hence bimanual palpation was of no avail for obstetric purposes. The fetal head lay at the level of the inlet, not engaged in the pelvis. It was clear, considering the stage of the pregnancy and the complication, that the spasm of the musculature of the pelvic floor was keeping back the head. Labour came on at term. Gaujon describes its course at full length. It lasted thirty-six hours; the taking of a pain caused "horrible" suffering, the cervix around the os externum being, it is stated, intensely tender to touch. The pelvic muscles underwent painful contraction during each pain; the membranes bulged into the muscular tunnel but the fetal head made no advance. Small doses of chloroform were given as the pains came on, since they seemed to torture the patient, who at length grew exhausted. The patient was therefore thoroughly anaesthetized, and Tarnier's forceps applied. The blades were introduced without much difficulty but the muscles offered strong resistance to traction. After rotation of the occiput backwards the fetus was delivered. It was a male, covered with meconium, nearly 7½ lb. in weight, and living; it was afterwards reared by a wet nurse. The placenta was delivered spontaneously half an hour after the extrication of the fetus. There was an incomplete laceration of the perineum, and also a rent in the posterior wall of the vagina about 1¾ in. from its orifice. This rent was closed with a continuous catgut suture, the perineal laceration being repaired with three silkworm-gut threads. Convalescence was non-febrile.

## GYNAECOLOGY.

### 81. Fulguration in Gynaecology.

RICHTER (*Muench. med. Woch.*, April 26th, 1910) is of opinion that it was the duty of the gynaecologist to test the capability of fulguration for those cases of malignant disease of the female pelvic organs in which a radical operation cannot be performed. It was clear to him from the first that the results could not be as striking in this region as it is in carcinomata of the surface. In carrying out the attempts to treat inoperable cases by Keating-Hart's method, he found it impossible to employ the bipolar method, and therefore had to content himself with the unipolar. After describing the apparatus which he used, he proceeds to detail his procedure. Before the fulguration was begun as much of the diseased tissue was first removed by means of the sharp spoon. At times the scissors and knife had also to be employed. The first sparking was directed towards arresting the haemorrhage. A large compress was pressed into the cavity of the wound, and this was removed a moment before the spark was passed. This was repeated until no bleeding of consequence took place. The fulguration was then continued until the wound was covered with a continuous brownish scab. He continued to fulgurate the wound after this for several minutes, and in this continued process the scab was usually destroyed. The first stage occupied from ten to twenty minutes, and the second period of fulgurating the dry cavity also occupied from ten to twenty minutes. Finally a glycerine tampon was inserted. The wound was then irrigated twice or three times a day with potassium permanganate, and acetone baths were applied to the vagina. He used chloroform anaesthesia for the procedure, but later found that the fulguration is not painfnl, and in the majority of his later cases he succeeded in carrying the treatment out without any anaesthesia. The results of the treatment were not curative. In no case was any permanent benefit obtained, but he states that since fulguration arrests haemorrhage, stops fouling and discharge, and removes pain rapidly he considers it a valuable method of treatment in inoperable cancer of the female genital organs. He lays especial stress on his experience that the pain was controlled. In a number of cases this relief from pain lasted for a considerable time.

### 82. Transverse Incision in Gynaecological Coeliotomy.

KYNOCH (*Journ. of Obstet. and Gynaec. Brit. Empire*, August, 1910) has adopted Pfannenstiel's incision for gynaecological coeliotomy, and finds that it prevents hernia and is more successful. About an inch and a half above the pubes a curved transverse incision is made through the skin, subcutaneous tissues, and anterior sheath of the recti. The anterior sheaths are dissected up from their attachments to the recti muscles, and the attachment to the linea alba is divided with scissors. The linea alba is then divided vertically, and the abdomen opened in the usual way. In closing the wound the peritoneum, recti fascia, and the skin layers were united with continuous sutures. The result of this incision is that the transverse fascial wound is protected by intact muscle. The edges of the skin and fascial layer fall naturally together, a fine linear, almost imperceptible, cicatrix resulting; no nerves are divided, and consequently no muscular atrophy can occur. A hernia is only possible where the fascial transverse incision is crossed by the vertical incision between the recti, and this can in great part be avoided by suturing together the muscles at this point. The advantages are the avoidance of post-operative hernia and the accessibility afforded to the field of operation. This is due to the low position of the incision and to the separation of the muscles from the anterior sheath, permitting of wide retraction. Patients can rise sooner than when the ordinary vertical incision is employed, and in elderly patients it is a gain to be able to sit them up on the third or fourth day; further, no abdominal belt is required after the operation. The writer finds this method of opening the abdomen an improvement on the usual vertical incision through the linea alba.

## THERAPEUTICS.

### 83. Radio-therapeutic Treatment of Syringomyelia.

A CASE is reported by Marquès (*Arch. d'électr. méd.*, December 10th, 1910) in which radio-therapy has been found to have considerable influence in the amelioration of syringomyelia. The patient, who was 38 years of age at the time the treatment was started, dated the first manifestations of his malady from 1900, when he felt vague pains in his limbs and had a blister under his great toe, resulting in an ulceration which persisted for six years. In 1906 he gave evidence of a certain amount of awkwardness and feebleness in moving the hands, and also of insensibility to burns. The emaciation of the extremities followed, with increasing embarrassment in walking. Before the beginning of *x*-ray treatment, in 1909, the report of the chief of the clinic at the hospital showed that the patient's impotence was most acute in the hands. He was totally deficient in the power of grasping, and the opposition of the thumb was impossible. He was unable to raise the feet or to shift them from a drooping position. The sensibility to pain was almost entirely abolished over the whole body. At some points of the thigh and the thorax he experienced a simple sensation of contact when pricked with a pin. Occasionally he endured violent pains in the feet and hands. Sensibility to cold and heat was generally lacking, but was preserved in the labial, lingual, and buccal mucosa. Sensibility to contact was completely abolished on the feet and legs; on the fore part of the thighs it was diminished and on the hinder part conserved. It was diminished but not abolished on the trunk, arms, and hands. A considerable amount of muscular atrophy was found in the two hands, especially in the interosseous parts, and on the thenar and hypothenar eminences. There was also atrophy of the muscles of both feet. Treatment was commenced in July, 1909, with a moderately hard tube, at 15 cm. distance from the part. Sittings of ten minutes' duration were given from July to December, 1909 (August excepted), the various portions of the vertebral column being successively irradiated. A region was treated until a very light radio-dermatitis was produced, and was then protected by a sheet of lead, while the neighbouring region was submitted to the therapy. A certain amount of amelioration was noticeable from the first sittings. On the patient's departure from the hospital in December, 1909, a large measure of strength had returned to his hands; he could raise his food and take hold of a book without difficulty; press his fingers energetically, and lift a weight of more than 2 st. The opposition of the thumb, however, was still impossible, and the muscular atrophy was still evident. The muscular force was increased in the lower extremities, but the feet were still helpless. Thermic insensibility remained complete; sensibility to pain existed in the lower part of the abdomen and some parts of the thorax. The tactile sensibility was restored, save in the hands and feet; and certain lesions of the toes cleared up. The patient was seen again in June, 1910. He had returned to the hospital because the violent pains, which had ceased after the first irradiations, were again

felt in the extremities, and the ulcerations on the toes had recurred. But the amelioration in his conditions of motility and sensation persisted; he could dress himself, carry heavy weights, and walk with sureness. During June and July the treatment was resumed. The ulceration on the toes cicatrized within a few days, and from the first sittings the pain in the extremities diminished in violence, ceasing altogether at the end of the latter month.

**84. Vaccine Treatment of Gonorrhoeal Complications.**

W. Friedländer and H. Reiter (*Berl. klin. Woch.*, September 5th, 1910) have employed vaccines of gonococci in cases of gonorrhoeal complications, and discuss the theoretical and practical aspect of this treatment. They found that it would be impracticable to use the patient's own cocci for several reasons, and therefore treated their cases exclusively with polyvalent standard vaccines. They further consider that in local infections the opsonic index can be dispensed with, although they believe that it should be carried out in general infections. They treated 25 cases of acute, subacute, and chronic gonorrhoeal epididymitis, employing Reiter's vaccine in doses of 2 million cocci, rising to 5 million, with pauses of from two to three days, when no rise of temperature occurred. In the acute and subacute cases the swelling practically disappeared after three injections, or at times after four or five. Slight remains of infiltration were, however, still ascertainable after several additional days. The results obtained in acute catarrhal prostatitis (gonorrhoeal) were indefinite. In follicular prostatis (acute and chronic) the results were better, and after the ninth injection the turbidity of the urine cleared up completely. The treatment was useless for cases of remains of epididymitis with scar formation, for cases of acute and subacute urethritis (anterior and posterior), and also urethrocystitis gonorrhoeica. In these cases vaccines cannot be compared with the modern silver preparations for curative action.

**85. Sarcoma of the Tonsil Treated by X Rays and Radium.**

Lars Poling (*Arch d'électr. méd.*, No. 289, 1910) describes a case of sarcoma which was treated at first by the *x* rays and afterwards by radium. The tumour was situated in the pharynx, connected with the left tonsil by a prolongation, and totally hid the soft palate. There was also a ganglionary invasion on the left side of the neck. Surgical intervention being impossible, an *x* ray dose of 22 H. was applied in the course of fifteen days upon the neck and one of 15 H. upon the tumour in the pharynx. The pharyngeal tumour began slowly to diminish three weeks later, but the ganglionary invasion persisted. Radium was then resorted to, and a varnish apparatus containing 1½ cg. of radium salt, 500,000 activity, applied on the pharyngeal tumour for two hours daily for fifteen days. Twelve days after treatment the tumour had greatly diminished, and six weeks later had completely disappeared, the soft palate being normal. The ganglionary mass was also treated by means of radium, and the region quickly became supple, but there were some recurrences, necessitating the extirpation of a ganglion and a renewal of radium treatment. Although the greater success seems to belong to the radium treatment, the author insists upon the value of the first diminution of the tumour caused by radiotherapy. Histological examination showed it to be a sarcoma, very like lymphosarcoma.

**86. The Treatment of Eczema in Infants.**

Rocaz (*Ann. de méd. et chirur. infant.*, November, 1910) writes: Eczema, however slight, has a deleterious effect upon the general condition of the child, and should be treated. It is the cause of insomnia and constant irritation, while the skin lesions permit acute bacterial infection to invade the body. Local treatment should be directed to removing the crusts and exudate, especially on the scalp; this may be effected by using a sterilized oil or poultices of potato flour or fomentations for several days. This treatment reduces the inflammation and calms the irritation. Antiseptic lotions are only indicated when the eczema is of the impetiginous type. Very weak solutions are employed—1 in 4,000 of the cyanide of mercury or 1 in 10,000 of the sublimate without the addition of alcohol. One of the most efficacious lotions is sulphate of zinc and sulphate of copper āā 2 grains, saffron 40 grains, made up with camphor water to 1,000 parts. Carbolic acid is unsuitable for children. After cleansing the eczematous surface an emollient ointment may be used; the oxide of zinc is the most soothing, but in seborrhoeic eczema salicylic acid gives excellent results. It may be applied as follows: Acid salicylic 10 grains, zinc oxide 3 grains, vaseline 30 grains. Where vaseline is not tolerated it is well to substitute glycerine or benzoated ointment. Sulphur is useful for eczema of the scalp when seborrhoea predominates. Intense irritation and redness of the skin is reduced by applications of a liniment composed of lime water and sterilized oil. Dry eczema is best treated with ichthyol, or, where greasy substances are unsuitable, by a powder containing talc, bismuth subnitrate, and oxide of zinc; this should be frequently dusted over the affected area. Some method to prevent the child scratching itself must be adopted. Baths are more harmful than useful; they increase the dermatitis or spread the infection over the skin; they should be used with circumspection. Whatever the source of eczema may be, even if it seems to have no connexion with the alimentary canal, the digestion and feeding must be carefully regulated. In breast-fed children the nurse must be dieted, or it may be necessary to change her for another. In hand-fed babies digestion should be promoted by the administration of sodium citrate. It has been advised to change the diet to a mixture of whey and barley water to which a little casein is added. It is necessary to regulate the climatic conditions, the high air of mountain districts being especially beneficial, while sea air aggravates the complaint. Internal treatment consists of gentle purgation, castor oil, or calomel, followed by citrate or bicarbonate of soda. The value of intestinal antiseptics is doubtful, but the lactic ferment is much to be recommended. When it is suspected that the thyroid gland is functionating imperfectly, the thyroid extract can be given; in many cases it has been successful, but it cannot be regarded as a routine treatment. The writer considers that when other means have been tried and the eczema continues intractable, thyroid medication should be tried; it may give unexpected results. The drug is well borne even by young infants.



## PATHOLOGY.

**87. Idiopathic Dilatation of the Oesophagus.**

Einhorn (*Amer. Journ. of Med. Sci.*, October, 1910) reports 5 cases (2 of cardiospasm and 3 of oesophageal dilatation) treated by stretching the cardia by means of a cardiodilator. The instrument, as figured in the text, is provided with a scale for the dilatable part, and is made in two sizes, one dilating up to 8 cm. and the other up to 10 cm. in circumference. A case previously reported has remained cured since the operation and has gained 50 lb. in weight, while the 5 now recorded have either been entirely cured or so much improved as to be practically well. Even in those patients in whom a small residue is found in the oesophagus they no longer experience discomfort at meals. In 1 case the *x*-ray photographs before and after treatment show plainly the variation in size in the oesophagus, which became reduced to one-third the size it was prior to treatment. The success of this method in cardiospasm and diffuse dilatation of the oesophagus was so marked as to render it the accepted mode of treatment, and led to the trial of a similar procedure in the treatment of pylorospasm with some apparently good results.

**88. The Wassermann Reaction.**

Casoni (*Rif. Med.*, October 3rd, 1910) has carried out a series of experiments with a view to determining how far the Wassermann reaction is influenced by the presence of certain common drugs. He took 16 individuals, 12 of whom were definitely non-syphilitic, and 4 suffering from syphilis, and observed their reaction to the Wassermann test before and after the administration of the following medicaments, namely: Iron citrate, sod. arseniat., strychnine, guaiacol, glycerophosph. of soda, quinine. In the 12 non-syphilitic cases the Wassermann reaction was negative both before and after treatment. In the 4 syphilitic cases 1 remained unaffected by treatment, the reaction being positive all the time. Of the remaining 3, in one the reaction disappeared completely under arsenic, and in the other two it was much less marked. Quinine abolished it entirely in one, whilst it did not modify it in the others. It was only the quinine and arsenic which modified the reaction, and this not in every case. Iron, strychnine, guaiacol, and glycerophosphate had no effect in this respect.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 89. Transitory Amaurosis.

L. POLLNOW described in full three cases of transitory amaurosis, and discusses the condition critically (*Deut. med. Woch.*, October 20th, 1910). The first case was that of a girl, aged 12, who was brought to the author on account of almost complete blindness. The mother ascribed the blindness to vaccination, which had been carried out three weeks before the eyesight had become affected. The vaccination had been performed with great care, and had "taken" in three out of the four places. The child was supposed to have been feverish three days later, and to have been weak twelve days after the vaccination. The eyesight became worse, and when seen three weeks after the vaccination fingers could be recognized with difficulty at a distance of 1 to 1½ metres. No improvement was attained with the aid of glasses, and colours were not distinguished at all. The internal organs were apparently normal. On the following day hydrotherapeutic sweating was carried out with slight improvement of the sight. Slight albuminuria and irregularity of the heart's action appeared, and later the pupils became fixed, the papillae became blurred, optic atrophy was determined, and the retinal veins were much dilated. The blindness became complete eight days after the treatment was begun. This consisted in digitalis, salt baths, wine, and inunction with mercurial ointment. This was followed by a gradual improvement, and the condition after ten months was fairly satisfactory. The optic atrophy at this period was very slight. In this case Pollnow on inquiry found that an epidemic sore throat was present at the school where the patient attended, and raises the question as to whether the child was not attacked with this about the time of the vaccination, although the parent did not know that the child had a sore throat at all. Against an idiosyncrasy toward the vaccine, he urges that at the first vaccination no ill effects followed, and the fact that no other children suffered from any symptoms at all who were vaccinated with the same lymph as the patient received spoke against any accidental contamination of the lymph. In the two other cases, the amaurosis followed scarlatina in a boy of 10 and his brother aged 8 years. In the first case there was slight albuminuria, a systolic murmur, and attacks of giddiness associated with blindness, which became absolute, and gradually improved later. At the height of the illness the quantity of urine was much diminished. The other child did not show any uraemic or nephritic symptoms. The elder child was taken with a recurrence of his albuminuria at a later date, and the amaurosis also returned for a short time. The author briefly reviews the symptomatology of his and other published cases, and then turns his attention to the explanation of the condition. He is inclined to believe that amaurosis occurring after an acute exanthem may depend on various causes, and leans to the view that his scarlatinal cases were of the nature of retrobulbar neuritis affections of a toxic origin.

### 90. Pylorospasm.

MAX EINHORN (*Med. Record*, January 21st, 1911) considers pylorospasm pure and simple of the chronic variety, not secondary to other stomach diseases. In this condition there is severe pain in the epigastric region, radiating to the right. Vomiting may be present. A spastic contraction simulates a benign obstruction of the pylorus. The differential diagnosis is not easy. It is aided by the use of the duodenal bucket and examination of the thread. If the thread is yellow for only a short distance this indicates that the bucket has reached the duodenum, which it could not do in obstruction from a growth. Treatment must be directed towards eliminating or curing any primary affection. In idiopathic cases dilatation must be tried. The author describes a new dilator arranged by him, consisting of a rubber bulb covered with silk gauze which is passed as the duodenal pump is introduced. The bulb is attached to a long rubber tube with a metal endpiece. After introduction the bulb is injected with air and gentle efforts at drawing it out are made. When it has been withdrawn the amount of contained air is noted in the syringe, and this amount is recorded for use in future trials. The author gives histories of two cases treated with benefit by this method. The spastic form of pyloric obstruction may be cured without surgical measures.

### Respiratory Movements in Radiological Examination of the Stomach.

DEMETRIUS CHILAÏDITI, of Vienna, has been describing to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, December, 1910) his method of examining the mobility of the stomach and of other abdominal organs for radiological diagnosis. His aim is to lift the mobile organs by exercising upon the diaphragm a form of suction. After some deep respirations the person to be examined is told to expire to the full, and then, access of air to the lungs being entirely prevented by voluntary occlusion of the glottis, or by closing the mouth and stopping the nostrils with the hand, to make a vigorous movement of purely thoracic inspiration. Thus the thorax becomes greatly extended at its base, and the diaphragm much elevated, without any pulmonary expansion. The movement presents no great difficulty in practice. Actors often have resort to it when simulating emotion, and the desired result is sometimes obtained in the case of women simply by asking them to make the abdominal motion which is natural to them upon accommodating a very tight corset. When the desired movement is obtained not only do the mobile organs of the abdomen follow the ascent of the diaphragm, but the expansion of the thoracic base creates a place for them to occupy. The ascent of the pyloric portion of the stomach is often more considerable than that of the diaphragm, and consequently greater than that of the cardiac portion. From being more or less vertical the stomach may become almost horizontal. The pyloric portion may by this method be lifted between 10 cm. and 15 cm. from its normal position. The author cites instances of chronic ulcers with localized perigastritis and peritoneal adhesions which have been disclosed after thoracic inspiration. In generalized ptosis the movement, although well executed, does not produce a noteworthy ascent of the organs in question, but this is not altogether a disadvantage, since it affords information from the point of view of different forms of ptosis and of stomachal dilatation. The method has other utilities. The duodenum filled with bismuth becomes visible throughout its length after a thoracic inspiration which is unaccompanied by the entry of air into the lungs. Palpation under the *x*-ray screen, which is indispensable to complete radiological examination, also becomes easier in practice. Therapeutically he is of opinion that the method may be useful, not only as a respiratory exercise, but also in the massage of the stomach, while its action upon the great intestine is such as to suggest that it may be attempted for the relief of certain forms of constipation. Chilaïditi adds that during the previous eight days, for the purpose of demonstrating upon himself the effect of this method, he had absorbed more than 700 grams of bismuth carbonate without malaise or intestinal trouble; and Aubourg in the subsequent discussion states his belief that bismuth carbonate in large doses is an excellent means of regulating intestinal functions.

### 92. Bilateral and Symmetrical Herpes Zoster.

ILLUMINATI (*Gazz. degli Osped.*, September 25th, 1910) reports an unusual case of bilateral herpes zoster. The patient was a married woman, aged 27, who, after thirty-six hours' neuralgic pain in the head, developed an attack of typical herpes zoster appearing simultaneously on each side of the face. The distribution was almost exactly symmetrical, and affected the malar and superior maxillary region, and in these parts was exactly symmetrical; but lower down on one side the vesicles were on the chin and on the other about the angle of the mouth. The submaxillary glands were slightly tender and enlarged. There were old scars of similar herpetic attacks in the right submammary region and also in the right lumbar area. On the internal aspect of the thighs there was a pruriginous urticarial rash. The spleen was enlarged. The reflexes suggested a certain degree of hysteria, otherwise nothing abnormal was discovered. No obvious cause for the herpes was discovered, and the eruption pursued the usual course. Two photographs are given which illustrate clearly the actual distribution of the rash.

# SURGERY.

### 93. Rectoscopy.

DECKER (*Wien. klin. Rund.*, No. 40, 1910) discusses the diagnostic and therapeutic value of rectoscopy. The three forms of specula which he has found most useful are: (1) The double-bladed duckbill speculum, which causes little pain, and which is useful for a preliminary examination and for inspection of the sphincter area; (2) Kelly's obturator rectoscope, suitable for examination of the ampulla recti; (3) Strauss's rectoscope, with which a length of bowel sometimes as great as 50 cm. (1 ft. 7½ in.) can be examined. The light for the first two instruments is electric light reflected by means of a head mirror; for the third the light is carried to the far end of the tube. The passage of the instrument must always be carried out under the guidance of the eye; neglect of this precaution has led to perforation of the bowel and fatal peritonitis. The direction of passage is that in which the mucous membrane opens itself out. The bowel should be emptied before passage of the rectoscope, but the presence of faecal material does not necessarily prevent effective rectoscopy. For examination of any part of the rectum higher than the sphincter area the knee-elbow position is the best, though the rectoscope can be introduced for a fair distance with the patient lying on his side. The use of the rectoscope makes possible a more exact diagnosis of the cause of rectal haemorrhage. Slight bleeding may be due to fissure, superficial ulcer of the mucous membrane, or to acute or chronic proctitis the result of a high carcinoma. Moderately severe haemorrhage to venous congestion of the mucous membrane of the pars ampullaris or to internal haemorrhoids. Profuse bleeding, usually occurring at irregular intervals only, may be caused by a high rectal carcinoma or carcinoma of the sigmoid flexure. As a rule even the high carcinomata can be reached by the rectoscope, but in some cases the S. romanum is normally fixed instead of being freely movable, and in these the rectoscope cannot be passed so far. The examples given of the practical value of the procedure are of interest. In one case a patient had severe bleeding for fourteen days, and was thought to be suffering from haemorrhoids. Rectoscopy, however, showed the existence of a wound in the upper pars ampullaris. into which the blood welled up as if from a cut vein. Cauterization and pressure with tampons for a few hours stopped the bleeding. Pain is another symptom which can often be explained by means of rectoscopy. Anal fissures are more easily recognized by means of the rectoscope than by palpation. Carcinoma of the ampulla recti is especially liable to cause abdominal pain immediately above the symphysis, while high-seated cancer more often gives rise to pain shooting into the iliac region of one or both sides; a pain similarly situated in the iliac region may also be caused by the presence of a foreign body in the rectum. In an example given a patient complained of most severe pain in the rectum which had lasted some days, and for which digital examination supplied no explanation; by means of the rectoscope a hard piece of bone was discovered about 15 cm. (6 in. approximately) above the anus embedded in the mucous membrane. In another case in which cancer was strongly suspected, the cause of the symptoms proved to be an old extrauterine pregnancy with a subsequent perforation of the rectal wall. In another case a diagnosis of carcinoma of the rectum, situated about 17 cm. (7 in. approximately), above the anus was made by means of the rectoscope when symptoms had only been observed for three weeks, and when, therefore, the prognosis of an operation was at its best.

### 94. Surgery of the Heart.

KARL GÜTIG (*Wien. med. Woch.*, No. 43) describes a case of surgical treatment of a wound of the heart muscle. The case was one of attempted suicide. The patient, a man 40 years of age, when seen was blanched, the radial pulse not palpable, the respirations of a terminal type. The pupils reacted sluggishly to light and were of medium size; the corneal reflex could not be obtained. A wound about 3 cm. (⅕ in.) in length was visible 2 finger-breadths outside and below the left breast; no blood was coming from the wound. The cardiac dullness had disappeared, and there was clearly an extensive pneumothorax. The wound was so far outside the ordinary heart limits that a diagnosis of injury to the heart could not be easily made, but the extreme anaemia and desperate condition of the patient decided Gütig to operate. The fourth and fifth ribs were divided at their attachment, the cartilages of the lower ribs cut through, and the thoracic coverings—skin, muscle, and ribs—drawn backwards in one flap. The pleura was opened in this procedure, and collapsed lung and much blood clot, which filled the pleural cavity, became visible. About 2 cm. (¾ in.) above the apex of the heart there was an oblique wound in the pericardium; this wound was enlarged and a corresponding wound found in the anterior wall of the right ventricle. As the small amount of blood clot was being cleared out of the pericardium and the wounds in the heart and pericardium closed by sutures the heart suddenly ceased to beat. As a last resort the left ventricle was filled with physiological salt solution and the heart began to contract, but after forty to fifty strong rhythmical contractions it again became weaker and death ensued. On seeing the knife with which the wound had been inflicted, the idea suggested itself to Gütig that the heart had probably been pierced through, and this idea was proved at the autopsy to be correct. The knife had pierced the anterior wall of the right ventricle and come out through the posterior wall near the sulcus coronarius. The condition found explained the course of the case. The pericardium, perforated in two places, had allowed the blood to enter the pleural cavity, and enormous quantities of blood had been able to pass from the heart and bring about the most severe anaemia, while the filling of the heart with salt solution had only been successful until the salt solution was able to pass out through the posterior opening. The author has not found in the literature the record of any similar case in which a doctor has been able to intervene. The patient, after the wound had been inflicted, had opened the door of the room in which he was and called out to his friends, had walked through a corridor into another room, and had taken hold of his children's hands and led them into a room to say good-bye to them. The case suggests the advisability of showing the instrument with which a wound has been inflicted to the doctor in charge rather than taking it to the police station, as was done in this case. Since sending this contribution the author has had the opportunity of treating another case of very severe injury to the heart by operation, and this time with a successful result.

### 95. Concealed Chancre of Male Urethra.

CHARLES M. WHITNEY (*Med. Record*, January 28th, 1911) is of opinion that concealed chancre of the male urethra is of rather frequent occurrence. This would account for the cases not infrequently met with in which syphilitic symptoms are present, but without any history of chancre. From a study of a series of 38 cases of this kind the author believes that one may make a diagnosis of the condition from the following symptoms: a slight mucous or watery discharge from the urethra, a flattening of the lips of the meatus, a reddened zone of mucous membrane in this region, oedema of the prepuce without obvious cause, and the presence of induration of the tissues of one or both lips of the meatus, extending usually to the fossa navicularis. The classical symptoms of dysuria, marked urethral discharge, and obstructed urinary stream are not usually present. The author gives histories of illustrative cases.

# OBSTETRICS.

### 96. Decapsulation of the Kidneys in Puerperal Eclampsia.

BOLLENHAGAN (*Zentralbl. f. Gynäk.*, No. 47, 1910) reports a very bad case of eclampsia in a primipara aged 26, where the uterus was emptied by perforation, yet the convulsions continued. There was great delay in transferring the patient to a home; the fits continued, and there was cyanosis, with stertorous breathing, rapid pulse, high temperature, loss of consciousness, and almost complete suppression of urine. That which was drawn off from the bladder solidified on boiling. About nine hours after delivery decapsulation was practised. The right kidney bulged out of the capsule directly it was incised, the surface of the glandular substance showed numerous ecchymoses, but the kidney was not enlarged; there was no difficulty in drawing it down into the wound. The left kidney was not so easy to manipulate, the fatty envelope was adherent, the capsule was only detached from the glandular tissue with difficulty. The organ did not tend to bulge out of the incised capsule, nor was it enlarged. The lumbar wounds were drained with gauze. Hardly any blood was lost during the operation, which was practically done without anaesthesia; there were several convulsions before it was finished. There were 170 c.cm. of blood removed by venesection, and 750 c.cm. of saline solution with 50 minims of digalen injected. Two more

attacks occurred afterwards, and were followed by great restlessness, then consciousness began to return, and the patient complained of intense thirst; she drank over three pints of milk and four of a mineral water in the night. All the essential symptoms of renal failure steadily disappeared, and the patient was able to get up at the end of a fortnight. During the earlier days of convalescence great quantities of a clear thin secretion came away from the wounds, especially on the left side. This case was published as an instance of the value of decapsulation after delivery has failed to stop the fits, which in this instance were very severe.

**97. Puerperal Goitre.**

RUDAUX (*La Clinique*, November 25th, 1910) discusses the relation of pregnancy to goître. At this time the thyroid gland has to functionate rapidly, and an increase in its circulation is seen, which may explain the sudden development of goître. Puerperal goître is fairly frequent, and is often unrecognized, as it causes no symptoms or trouble. When goître appears with a first pregnancy its evolution is variable; it may disappear, increase, or remain stationary after delivery. A subsequent pregnancy causes the gland to swell more or less rapidly. The gland is not always entirely invaded; when it is it is known as annular, retropharyngeal, or retrosternal goître. In such cases there is risk of suffocation from its rapid growth or its situation. Fatalities are most liable to occur when the goître extends downwards into the thoracic cavity; this type is generally fibrous, situated laterally, and of the size of a small egg; it passes into the thorax along the sides of the trachea, and causes pressure on the neighbouring organs. Compression of the trachea gives rise to dyspnoea, which tends to become continuous, and is aggravated by attacks of suffocation which are often fatal. Cough, dysphagia, laryngeal troubles, and oedema are also produced mechanically. The patient becomes gradually cachectic, owing to insufficient aëration and nourishment, and to the want of rest. Prognosis is difficult in puerperal goître; it depends very much upon the situation and size and the character of the pressure symptoms. In cases where there is definite compression surgical aid may be needed at any moment. The pregnancy itself is seldom interfered with by the goître; when it is the cause of marked circulatory disturbance the fetus may be indirectly affected.

## GYNAECOLOGY.

**98. Laceration of the Attachment of the Hymen.**

BOSHOUWERS (*Zentralbl. f. Gynäk.*, No. 4, 1911) discusses the precise mechanism of injuries to the vulva that are certainly due to coitus. A radiating laceration from the free border of the hymen outwards to the labium minus vestibule or perineum is a very common result of defloration, though not rarely caused by the introduction of foreign bodies in single women, probably virgins. There is no difficulty in understanding the true nature of these radiating wounds, nor is it remarkable that they should sometimes bleed severely. The way that the hymen may be torn from its attachment in coitus seems less easy to explain. Veit, Boshouwers observes, doubts whether the more severe and less common forms of laceration are caused by normal intromission. Sexually weak, nervous, or drunken men have been known to facilitate intromission by the aid of the finger, or even by instruments, with disagreeable results. Boushouwers, however, reports a case in his own practice where there could be not doubt that the intromittent organ lacerated the attachment of the hymen, and entered the vagina without tearing through the free edge of the hymen. A patient, aged 29, consulted him on account of pain and haemorrhage during coitus. She had been married four days, and it seemed perfectly clear that coitus had been complete, as the husband was a powerful and intelligent man, and neither brutal nor neurotic. The orifice of the hymen was so narrow that it could only admit the tip of the little finger. The border was perfect; but there was a laceration, an inch long when flaccid, in the substance of the hymen on the left posteriorly, radiating outwards like a complete tear, and involving the labium minus. Boshouwers trimmed away the free border with scissors and closed the laceration with a catgut suture. This operation was effected under local anaesthesia. The author quotes a somewhat similar case reported by Jayle. The patient was 27 years old, and married over two months; she was also robust and the pelvic musculature was very strongly developed. The hymen was tough and fleshy, and, as the intromittent organ was large in this case, a bad injury occurred. The attachment of the hymen was torn through posteriorly, yet at the same time there was another bad laceration involving its free border. Thus, intromission had been effected both through the substance of the hymen and through the hymeneal orifice. There can thus be no doubt, as these cases prove, that in rare instances when the hymen is tough and narrow the intromittent organ may fail to lacerate the normal orifice yet succeed in tearing the structure away for an inch or so from its attachment.

## THERAPEUTICS.

**99. The Scientific Treatment of Pulmonary Tuberculosis.**

RÉNON (*Journ. des prat.*, November 19th, 1910), in dealing with this question, emphasizes the fact that a truly scientific treatment must embrace causes as well as morbid effects—the former, perhaps, even more than the latter. The treatment, in effect, must be both etiological and pathological. It is of primary importance to understand the method of toxicity of the tubercle bacillus. To do this the bacillus must be studied not only morphologically, but in respect of its chemistry and biology. After referring to the well-known histological characteristics of the bacillus, the author mentions the researches of Auclair and Paris on its chemical composition. For these experiments a six weeks old broth culture of tubercle bacillus was used. By maceration in distilled water the albumens were removed, and similarly the globulins by the use of 10 per cent. NaCl solution. kept for twenty-four hours at 38° C. The fatty envelope of the bacillus is next dissolved by the successive action of alcohol, ether, and chloroform. These substances remove lethicin, acid, and neutral fats. The stroma of the bacillus thus treated was found, to begin with, to consist of a protein body, which was extracted by treating with strong acetic acid at 80° C. This protein, which constituted the essential substance of the protoplasm of the bacillus, has been termed "bacillo-caseine." It is a paranucleo-albumin, and finally appears as a fine, pale yellow powder. Stained by Ziehl's method, it is found to be very acid resistant, and feebly resistant to alcohol. According to the author, the tuberculous follicle arises from the reaction of the organism against the bacillus itself, while caseation is due to one of the poisons adherent to the fatty envelopes of the bacillus—called by Auclair "éthérobacilline"—sclerosis in like manner is brought about by the chloroformo-bacilline—another toxin attached to the bacillary envelope. In addition to these, there are other soluble poisons, which Koch utilized in his first tuberculin. They are responsible for the fever, the vasomotor and nutritive disturbances. Experiments have shown, however, that the most formidable poison of all is the bacillo-caseine of Auclair, already referred to. These investigations prove that any therapeutic measure, to be of scientific value, must be capable of attacking all these various toxins. Tuberculosis, the author thinks, has only a partial action; and so it is with the various serums also. His opinion is that the best results will be got from vaccination—not using a serum of augmented virulence, but one of decreasing virulence, until an innocuous strain has been found which is well supported by the organism. The author mentions Calmette's method of administering slightly virulent bacilli by the digestive tract as a possible means of immunization. He regards the experiments of Henri, which proved the attenuation and final destruction of the tubercle bacillus, by means of the ultra-violet rays, as worthy of serious consideration. Tuberculin is found also to be modified by these rays, and gives no reaction in the tuberculous guinea-pig. The author refers also to the curious fact that the *Galeria ninousla*, which lives in the wax of beehives, is immunized against tuberculosis. It destroys the tubercle bacillus, depriving it of its waxy envelope, when bacteriolysis takes place by means of what appears to be a proteolytic ferment. This suggests the possibility of a scientific treatment based upon zymotherapy. The psycho-therapeutics of the disease must not be forgotten, and the extraordinary benefit that seems to accrue from the exhibition of a new remedy. The author further emphasizes the rational treatment of tuberculosis from the hygienic and dietetic standpoint, and finally the benefit of surgical interference in certain appropriate cases.

### 100. The Management of Poliomyelitis and its Sequelae.

TAYLOR (*Arch. of Ped.*, October, 1910) discusses the epidemic character of poliomyelitis. The onset of the disease is sudden, usually with fever and constitutional symptoms, and the palsy follows in a short time. Prostration and inability to walk are common. It is now recognized that bulbar, cerebral, facial, neck, and trunk palsies are not very rare. In epidemics there are numbers of quickly fatal cases, as well as cases without palsy, or in which the palsy soon clears up. Such cases may suffer from dysphagia, aphonia, ocular and facial palsies, and temporary palsy of the bladder and rectum. Unconsciousness and delirium are rare, whereas apathy and head retraction are common. Limb palsies are very irregular in their distribution, and abdominal palsy is common, though often overlooked; it may affect one or both sides, and is usually associated with limb paralysis. In many of the cases observed there is severe scoliosis. The palsy is always one of relaxation and wasting; it is never spastic. The deep reflexes are lost, vasomotor paresis is present, wasting involving the bones and other tissues as well as the muscles begins quickly, and growth is impaired. During the period of recovery there is a tendency to acquire fixed deformities, partly from accommodation to habitual postures and partly from strain. Scoliosis is seen occasionally where the history or examination of the limbs gives evidence of a previous attack of poliomyelitis. Fixed scoliosis does not result from the inequality of the length of the legs alone, but is due to paralysis of the spinal or abdominal muscles. Partial recovery takes place during the first six months; after one year further spontaneous improvement cannot be expected, and if the child walks on a damaged limb without proper mechanical support, the deformity and weakness are aggravated. Even when both legs are practically helpless, locomotion with crutches and splints may often be avoided. Treatment by massage and electricity is ineffectual; improvement only occurs during the period of recovery; it is advisable instead to institute orthopaedic measures early. During the first four to six weeks it is important to give rest in bed with hygienic and symptomatic treatment. As deformities may be acquired during these weeks, they must be prevented by attention to posture and, if necessary, by moderate stretchings and splintings. The child should not stand or walk till the active process is over and till the limbs and joints are strong enough to stand the strain, or until proper supports have been prepared. In advanced cases the indications are: To improve the local circulation, nutrition, static and muscular balance, and to correct deformity. For the nutritive and circulatory inadequacy and retardation of growth, vibration—local, spinal, and epiphysial—is the most powerful remedy, except one, the normalized use of the part—that is, its use in proper relations and without undue strain. Deformities must first be corrected, by simple tenotomies, myotomies, and fasciotomies, followed by retention apparatus giving support without restriction. Equalizing muscle balance is of great importance. When the opponents to a certain muscle are practically dead, the cultivation of the functionating muscle increases distortion. A better balance and distribution of power is needed; this may be obtained by voluntary movements of the weaker group, and orthopaedic and surgical treatment. When the only effect of the contraction of an active muscle is to distort the part and make function more difficult, it may be wise to lock up such a part by an operation or a brace, thereby increasing symmetry and supporting power and sacrificing only deleterious action.

### 101. Thermo-penetration.

THERMO-PENETRATION, or diathermy, is distinguished from all other methods of applying local heat, such as hot air and electric light baths, says Laqueur, of Berlin (*Arch. d'élec. méd.*, September 10th, 1910) by the fact that the heat is produced only in the tissues to be treated. The commercial introduction of instruments which, by means of the currents of high frequency, effectively carry heat internally, has recently familiarized British workers with this latest addition to the armament of thermo-therapeutics. Laqueur has found, by experiments on animals, that it is possible to enfeeble or destroy micro-organisms by thermo-penetration without damaging the tissues. He has injected into the articular cavity of two knees of a rabbit the same quantity of various micro-organisms, has then treated one knee for half an hour by thermo penetration, afterwards making a puncture in both knees, and comparing by the usual methods the number and vitality of the micro-organisms found in the discharge. Micro-organisms only slightly resistant to heat (pneumococci, gonococci, vibrio comma) may be destroyed or attenuated by thermo-penetration without visible damage to the skin or other tissues, but micro-organisms having greater resistance to the heat (streptococci, staphylococci) are not to be influenced in this fashion. Clinically, thermo-penetration has given good results in articular affections (articular rheumatism, subacute and chronic, gonorrhoeal arthritis and gout), as well as in rheumatism of the muscles and tarsalgia. The pain especially is influenced in a striking manner, but if the affections are not too old the objective symptoms (effusion, inflammation, etc.), are also ameliorated in the course of the treatment. At the same time the analgesic effect rapidly permits the mobilization of the joints. In arthritis deformans the pain may frequently be soothed or even made to disappear for some time, but the objective symptoms are not influenced directly by the thermo-penetration. It is principally the articular affections, subacute and subchronic, which are amenable to this treatment. In the author's opinion, the principal rôle is played, not by the antibacterial action of internal heat, but by the hyperaemia which, as regards the deeper tissues, cannot be brought about to such an extent by any other thermo-therapeutic method. Laqueur uses the Simon apparatus with the Poulsen lamp, by means of which currents of from 400 to 800 milliampères may be made to traverse the body. Up to a certain point, the patient has no sensation save that of the heat, which is developed in the tissues along the path between the two electrodes. The skin is heated rather more intensely than the deeper parts, which, although in some respects a disadvantage, is at least a means of safeguarding the deeper tissues from an overdose which might entail damage. The duration of a sitting is fifteen to twenty minutes, and it must not be forgotten by the operator in all thermo-penetrative procedures that even if the intensity of the current remains equal the heat is increased in the course of a sitting by the weakening resistance of the tissues of the patient.

## PATHOLOGY.

### 102. Cancer and the Infectious Diseases of Childhood.

R. SCHMIDT (*Wien. med. Klin.*, No. 43, 1910) reviews the literature on the subject of an antagonism between cancer and particular forms of infectious disease and deals with a series of cases of cancer which have come under his own observation and which suggest an antagonism between cancer and infectious diseases in general. Rokytanskys and W. R. Williams found that active tuberculosis was only very exceptionally present in cases of carcinoma, in only two out of 136 cases investigated by Williams. In a series of cases investigated also by Williams syphilis could only be demonstrated in one out of 160 cases of carcinoma of uterus, and in not one out of 165 cases of cancer of the breast. Fränkel called attention to the rarity of progressive paralysis in cancerous cases, only 5 out of 1,774 cases. The present author was struck during the course of years by the frequency with which cancer patients stated that they had always been healthy and had never had any feverish diseases, and he has made a systematic investigation of a series of cases of cancer with respect to the previous incidence of infectious diseases. The great majority of the cases were of cancer of the stomach, of which there were 190; of these 141 had been free from infectious disease in childhood, out of 20 cases of cancer of the rectum 15 had been free, 12 of the gall bladder 11 had been free, 6 of the gall bladder 5 free, 5 of the pancreas 3 free, 4 of the duodenum 2 free, 3 of the oesophagus 2 free, 1 of the small intestine which had been free. Thus 180 out of 241 cases had been free from infectious diseases during childhood, and in the same series 99 had been free from all infectious disease. Nor had there been a compensatory increase in the number of attacks in later life, for 59 out of 81 cases in which the patients had suffered from infectious disease as adults had only had one infectious illness each. These cases suggest that persons who have been particularly free from infectious illness in childhood are more liable than others to cancer at a later age. If further investigations should prove a general law of this kind to exist, there would be two methods of explanation of the facts: (1) That there was a predisposition to cancer—that is, a cancer diathesis—and that this diathesis was antagonistic to infectious diseases; or (2) that infectious disease is prophylactic in its effect against cancer.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 103. Gastric Ulcer.

RUMMO (*Rif. Med.*, November 7th, 1910), continuing his lectures on diseases of the stomach, deals with gastric ulcer. He says there is an intimate causal connexion between gastric ulcer and hyperacid secretion dependent ultimately on changes in the nervous mechanism of gastric secretion. As a deduction from this hyperacidity, and from the fact that the post-prandial pain coincides with the acid secretion, a test for gastric ulcer has been suggested—namely, the injection of some strongly acid fluid which, if an ulcer is present, gives rise to the peculiar burning pain of gastric ulcer. In a fatal case quoted by the author his test failed to give a positive result. The writer draws attention to the periods of comparative ease and freedom from pain which are sometimes noticed in cases of chronic thick-walled ulcers. He also lays stress on the importance of examining the faeces for minute traces of blood. In cancer of the stomach "occult" blood is likely to be constant in the faeces, whilst in simple ulcer it is more often an intermittent phenomenon. Radiography after bismuth feeds, although useful in some other gastric conditions, has not been of much value as far as the writer's experience goes, in gastric ulcer. In differentiating duodenal from gastric ulcer, the following points may be of assistance:—In duodenal ulcer the pain comes on three or four hours after food, is situated to the right of the middle line, and is more or less independent of the kind of food ingested, often preceded by cold hands or feet, much commoner in men, and the vomit is different; but when all is said, the author admits that one can rarely diagnose duodenal ulcer with certainty from the purely clinical side. He does not say anything about "hunger pain."

### 104. Epidemic Cerebro-Spinal Meningitis.

VOISIN AND PAISSEAU (*Arch. gén. de méd.*, December, 1910) analyse 25 cases of the above disease. Vomiting frequently repeated was nearly always present. Fever was very slight, or was absent altogether. Kernig's sign was always present; erythemata in 9 cases. Herpes (8 cases) was usually discrete, and affected the lips, cheeks, ears, scalp, mouth, and eyelids. Articular manifestations (2 cases) were rare. Paralysis other than ocular only once in a girl of 8, who was attacked with left hemiplegia and facial paralysis of the same side which disappeared rapidly. Convulsions were only noticed twice except in sucklings, of which there were 5. Three of the patients showed tremors which may be of diagnostic value. The reflexes were variable, sometimes exaggerated, sometimes normal, and sometimes diminished, and differed frequently on the two sides. Out of 15 examinations, Babinski's sign was present 3 times on both sides. In the case of hemiplegia it was present on only one side. As regards the mortality, of 4 chronic cases 1 died, and of the 21 acute cases 4. Two out of the five sucklings (under 2 years of age) died. Sequelae were met with such as deafmutism, loss of sight, persistent strabismus, irritability of temper, change of character.

### 105. The Intracutaneous Tuberculin Test

EVANS AND WHITNEY (*Arch. of Intern. Med.*, September 15th, 1910) report their investigations upon the diagnostic value of the intracutaneous tuberculin test in a series of forty-two patients. With a fine hypodermic needle a minimum amount of a 1 to 5,000 solution of old tuberculin is injected into the upper layers of the cutis, preferably in the upper part of the back. This should produce a very small wheal about the size of a pin's head, the absence of such a wheal indicating that the fluid has been injected too deeply. The reaction, if positive, is of extreme exactness, and appears within a few hours as an infiltration, either merely palpable, or even just visible, of red or white colour. This increases until, at the end of twenty-four hours, it is pink or light red, and occasionally oedematous, with an erythematous zone. The climax is reached in forty-eight hours, the central papule and peripheral area having become more intense, with occasionally an intermediate zone separating them. The infiltration is seldom less in size than a ten-cent. piece, and often more than a fifty cent. piece, while together with the peripheral area it may attain the size of the surface of a hand. Sometimes the infiltration appears as a porcelain-white centre with decidedly reddened surrounding area. The reaction is unaccompanied by any febrile or general symptoms, and after forty-eight hours it gradually decreases. Control injections of salt solution were used in the majority of the cases with negative result. Of the 42 cases, 23 reacted to both the cutaneous and the intracutaneous tests; 10 did not react to either; 9 reacted to the intracutaneous only, while there were none who reacted to the cutaneous only. From the study of these few cases it would appear that the intracutaneous test is more delicate than the cutaneous test, and affords a method of more exact dosage. A more general application of this test is urged, always bearing in mind that tuberculin tests may become a source of error when given a more prominent diagnostic place than painstaking physical examination.

### 106. Yangtse River (Urticarial) Fever.

THE statistical Report on the Health of the Navy for the year 1909 (the substance of which was given in the JOURNAL of December 17th, 1910, p. 1950) contains two short papers (pp. 194–7) on this fever which, though long known on the Yangtse River under the names of Hankow, Shanghai, Kiukiang fever, has received little notice in medical literature. The fever lasts about a fortnight, the temperature varying rapidly from 102–103° F. to normal. The onset is accompanied by malaise, pains in the head and abdomen, urticaria, and itching. There may be dysphagia, cough, and dyspnoea, and even transient physical signs suggesting pulmonary tuberculosis, but no tubercle bacilli in the sputum. These symptoms may be due to an urticarial change in the mucous membranes. The blood has in one at least of the cases reported here shown a well-marked eosinophilia, but no parasites were found. The etiology and pathology of the disease are unknown; examination of the food and water has failed to show any cause. From its incidence in a number of men at the same time it would naturally appear to be of infective origin, and it has been suggested that it is in some way connected with freshly turned soil. It is stated to be entirely confined to the Yangtse river, and not to be mentioned in any textbook.

## SURGERY.

### 107. After-Results of Fulguration.

IN the BRITISH MEDICAL JOURNAL of September 11th, 1909, p. 717, was published a summary of a report by René Desplats of Lille upon all the available observations of cases in which fulguration had been called in to assist the surgery of cancer. The same statistician has now supplemented it with a further history of cases in which the operation, followed by the application of the high-frequency spark, dates back from one to three years. In all, there are 138 observations, compiled not only from the author's own list of cases, but from the lists of De Keating-Hart, Juge, and Dubois-Trépagne. The bald figures of the results of fulguration for grave cancers after operation by an insufficient surgery are as follows (*Arch. d'élec. méd.*, July 25th, 1910):

I. 43 relapsed within a year.
II. 17 relapsed before the end of the second year.
III. 5 relapsed after two years.
IV. 38 cures date back for less than two years.
V. 30 cures date for more than two years and less than three.
VI. 5 cures date back for three years or more.

These figures, of course, count for very little without some further information. Desplats does not include in his list of cures those well-limited cancers which were operated on for the first time by a large surgery, but he bases his judgement, generally speaking, upon grave cancers, which had relapsed once, twice, or three times, and which had reached or surpassed the ordinary limit of operability because of their extent, either in surface or in depth. To this rule, however, he makes two exceptions, and includes among the grave cancers some cases of operable cancer which have relapsed in spite of the fulguration, and also some cases operated upon by a too sparing

surgery. He excludes patients who have been lost to view, even though it is known that cicatrization continued for some time; he also excludes cases in which death took place under operation. Thus he avoids the charge of manufacturing brilliant percentages, and deliberately confines his "cures" to those cases which had presented a seriously malignant aspect, while, on the other hand, including without selection all cases of local relapse or metastasis, whatever the character of the original condition. The following is a brief summary of the detailed observations upon each of the classes which figure in the foregoing statistics: (1) Of the 43 cases which relapsed in less than a year the greatest number of one species (fourteen) were cancers of the mouth or of the pharynx. Was the fulguration of any benefit in spite of the relapse? The author hesitates to say, but he underlines a remark of Dubois-Trépagne that an osteo-sarcoma of the thigh, after amputation and fulguration of the stump, relapsed in ten months, whereas an exactly similar case which was not fulgurated relapsed immediately. (2 and 3) Desplats claims that in these cases the final relapse was postponed by the fulguration. (4) The cures included seven very malignant cancers of the breast and six of the buccal mucosa. The greater number of these cases were old relapses after previous surgical intervention without fulguration. (5) This class included six grave cancers of the breast, and among the other cases was a cancer of the vulva which had previously twice relapsed, and now had remained cicatrized for two years and three months. (6) These five cases were made up as follows: a vegetating epithelioma of the nose and eyelids, treated by simple cleansing and fulguration; an epithelioma of the angle of the nose, which had relapsed after the cicatrization which followed upon *x* ray treatment; a large ulcerating cancer of the breast; a gingival epithelioma, and a small epithelioma developed in the gingivo-labial cavity. All these cases belonged to De Keating-Hart, and to the beginning of fulguration practice. After three years' experience with fulguration Desplats considers that the method very greatly enlarges the field of surgery, and he is now clear upon a point he had previously left in suspense—namely, that, even if a relapse occurs after fulgation, the interval before relapse is longer than in parallel cases in which the surgeon did not avail himself of the method.

**108. Appendicitis.**

Ali Krogius (*Finska Läkaresallskapet's Handlingar*, October, 1910, p. 283) gives an analysis of all the cases of appendicitis treated in the Helsingfors Hospital during the years 1901–8. There were 1,283 cases admitted, of which 1,033 were operated upon. In 129 cases operated upon for acute appendicitis with or without localized peritonitis there were 6 deaths, or a mortality of only 5 per cent. In 177 cases complicated by diffuse peritonitis there were 68 deaths, or a mortality of 39 per cent. In 146 cases in which a late operation was performed for such complications as localized abscess there were 26 deaths, or a mortality of 18 per cent. In 581 cases in which the appendicitis was quiescent at the time of operation there were only 2 deaths, or a mortality of 0.3 per cent. One of these deaths was due to heart failure in a patient with congenital stenosis of the coronary arteries; the other death was due to strangulation of the small intestine owing to old adhesions; 62 per cent. of the patients were between the ages of 10 and 30; 60 per cent. were men, 40 per cent. were women. The incidence of appendicitis month by month during the period 1901–8 was compared with the incidence of angina (or croup), influenza, and enteritis during the same period. It was found that appendicitis and angina followed strikingly similar curves, whereas there was no similarity between the curves followed by the former and by influenza or enteritis. Faecal concretions were found in 12 per cent. of the cases in which operation was performed in the quiescent stage of the disease; but they were found in 32 per cent. of the cases operated upon in the acute stage. Seventy-five per cent. of all the cases operated on for an acute attack showed signs of an old inflammation about the appendix. With regard to early operation the writer considers that each case must be judged on its own merits, but that, as a rule, the indications for an early operation are given by any sign pointing to an exacerbation of the original symptoms, or when the disease is very acute and violent from the beginning. An analysis of the cases of peritonitis showed that of the 79 cases operated upon within thirty-six hours of the onset of peritonitis, there were 14 deaths, or a mortality of 18 per cent., whereas of the 70 cases operated upon from thirty-six to seventy-two hours after the onset of peritonitis, there were 33 deaths, or a mortality of 47 per cent. The mortality was as high as 75 per cent. among the 28 cases operated upon after the third day of the appearance of peritonitis. The mortality from peritonitis was far higher in the years 1901–3 than in the subsequent years, being 62 per cent. in the former, and only 28 per cent. in the latter; but this difference was due not to any improvement in technique, but to the fact that after 1904 patients were sent to hospital at an earlier stage of the disease. As a rule tampons were employed to drain the abdominal wound, the use of long drainage tubes and lavage of the peritoneum being usually dispensed with. Of the 146 cases in which a late operation was performed, the majority were operated upon for localized abscess. Pelvic abscess occurred 139 times, subphrenic abscess 6 times, retroperitoneal abscess 8, and pylephlebitis 5 times. The 100 deaths from acute appendicitis were due to the following causes: Peritonitis, 65 cases; haematemesis, 4 cases; subphrenic abscess, 5 cases; retroperitoneal phlegmon, 5 cases; pylephlebitis, 5 cases; intestinal obstruction, 4 cases; pneumonia, 7 cases; pulmonary embolism, 1 case; heart failure, 4 cases. The writer concludes that the chief cause of the high mortality which still prevails in appendicitis is to be found in the physicians who attempt palliative treatment till the most favourable time for operative treatment is lost. "A patient who suffers so much pain as to require an injection of morphine is first and foremost in need of surgical help."

**109. Cancer of the Ampulla of Vater.**

Hartmann (*Bull. et mém. de la Soc. de Chir. de Paris*, 39, 1910), in a report on two cases, one communicated by Navarro of Montevideo, the other by Cunéo, of cancer of the ampulla of Vater treated by operation, adds collected records of 12 other cases of this affection, in which recourse was taken to surgical intervention. In the study of this subject care should be taken, Hartmann points out, to distinguish between cancer of the ampulla of Vater and the more extensive and more formidable cancer of the duodenum. Primary growths of the ampulla are, as a rule, small and circumscribed, and have slight, if any, tendency to infiltrate surrounding structures. Together with the portion of the duct in which it originated, the growth is enclosed within a fibrous capsule which isolates the cancer from the adjacent parts, and thus favours the prognosis of operative treatment. It is only by exploratory duodenotomy with either a longitudinal or a transverse incision that the surgeon is enabled to make a sure diagnosis. The intestinal incision will, if the case be one of impacted calculus, permit removal of the obstruction, and if a tumour be present and not a calculus, allow free ablation of the neoplasm. It has been proved also by pathological observations that cancer of the ampulla of Vater does not present any intensely malignant characters. Death, it is stated, is more frequently due to functional suppression of the excretory ducts or to ascending inflammation of the biliary canals, than to cancerous generalization. The results of removal of the growth by duodenotomy have, Hartmann holds, been satisfactory. The immediate or operative effects have hitherto, it is acknowledged, been high, as death followed the intervention in 6 of the 14 recorded cases. A proportion of 57 per cent. of cures ought, however, to be regarded as favourable for a method of treatment still in an early stage of development, and hitherto often too long delayed in its execution. The remote results of operative treatment are very promising, as cases are here put on record of survivals after intervals of nine months and of two and nearly four years. Gastro-enterostomy, which was practised in some of these cases as a complementary operation, is regarded by Hartmann as unnecessary, except in cases in which the duodenum has been constricted as a result of the intervention. With the object of preventing infective mischief the biliary area should for some few days be protected against such danger, either by direct drainage ducts or by cholecystostomy.

## OBSTETRICS.

**110. Septicaemia after Abortion.**

Lemierre et Benard (*La Clinique*, September, 1910) point out the comparative frequency of uterine infection by streptococcus and the *Bacillus coli*, and the rarity of a streptococcic invasion, although this organism is practically always present in the skin. The writers report the case of a woman who had a typical miscarriage with normal loss for five days, followed by a herpetic eruption on the genitalia; she subsequently had a rigor and rise of

temperature and a number of small pustules were observed about the hands and feet, with some oedema of one arm and tenderness in the course of the lymphatic vessels. The abdomen was distended and tender on palpation. Meteorism and phlebitis in the arm became very pronounced, some purpuric spots appeared, stupor supervened, and the patient died after seven days' illness. A vigorous staphylococcic culture was obtained from the blood and the same organism was present in the pus taken from the pustules on the arm. It is characteristic of the staphylococcus to produce the pustular skin lesions noted in this case, no *post-mortem* examination could be obtained so that definite information as to the local condition was not obtained.

**111. Three-yelk Triplets delivered at Term.**

VEDENYAPINSKY (*Zentralbl. f. Gynäk.*, No. 47, 1910) reports an instance where three fetuses with three placentae were delivered living at term. The mother was 42 years old, and had been ten times pregnant. The girth of the abdomen at term exceeded 56 in. A head presented at the beginning of labour; the heart sounds were audible at two spots, but at one they sounded double, so that triplet labour was suspected. Dyspnoea was severe, the patient was sent into hospital for observation, labour pains set in, and within three hours a live male child was delivered. The processes of parturition ceased for over twenty-four hours, then they returned. At the end of eight hours, as the heart sounds were growing feeble, the presenting child was delivered with the forceps. It was a living female; twenty-five minutes later the third, a female, presentiug, like the rest, at the head, was expelled spontaneously; it was also living. The children weighed respectively 7½ lb., 7¾ lb., and 7 lb. The three placentae weighed over 4½ lb. Thus, without including the liquor amnii, the products of conception weighed over 26 lb.

## GYNAECOLOGY.

**112. Ectopic Fetus retained Twenty Years.**

DELETREZ (*Bull. de la Soc. Belge de Gynéc. et d'Obstét.*, November, 1910) reports in full an instructive instance of retention of an extrauterine fetus for twenty years, and its removal by operation. The patient had borne two children; the last confinement occurred twenty-six years before the operation. Six years after the confinement she became pregnant again, and in the third month acute symptoms appeared, pain, vomiting, tympanites, and high temperature, with the development of a mass in the right fornix. She refused operation. The symptoms subsided gradually, and the catamenia returned and remained regular until the menopause, which occurred at the age of 49. But subacute attacks of abdominal pain began to trouble the patient and impair her health. The mass in the right fornix was quite definable, resistant and tender. There was no fever. Abdominal section was undertaken. The caecum and the vermiform appendix adherent to the right Fallopian tube were soldered together, forming a kind of capsule which ruptured as it was being separated from adjacent parts. A fetal skeleton of the fourth month came away bone by bone. The sac, which was connected with the Fallopian tube, was fixed to the abdominal wound as it could not be removed. The vermiform appendix was excised. The sac, at first packed with gauze, was drained a few days later. The patient made a good recovery. Deletrez, after referring to several more or less well-known cases where the fetal bones were discharged by the bowel, relates an instance of retained fetal skeleton reported by Steltner. A pregnancy was suddenly arrested in the eighth month by acute abdominal symptoms; operation was refused, and the symptoms subsided. Acute attacks occurred from time to time, and at the end of ten years the urine became opaque and milky, with great deterioration of health. Eighteen months later pieces of fetal bone came away from the bladder. The abdomen was opened and a sac discovered, which was sutured to the parietes. Five days later the sac was incised, putrid green fluid escaped, and bones came away till the sac was emptied. The urine gradually became clear, but pains in the lumbar region set in, and the right kidney was found to be enlarged and tender, due to hydronephrosis caused by pressure on the ureter. This enlargement disappeared within three months.

**113. Omental Tumour in Hernial Sac.**

STOECKEL (*Monats. f. Geb. u. Gyn.*, September, 1910) recently exhibited at a meeting of a society a mass of omentum as big as a child's head, forming a fatty tumour. The patient was 47, and he removed the uterus on account of total procidentia. There was also a right femoral hernia, with a big sac universally adherent to the surrounding parts. When laid open, it was found to contain the fatty mass which had lost all connexion with the omentum and the peritoneal cavity internal to the sac. It was removed, and the hernia treated radically with satisfactory results. The omental tumour had undergone torsion and separated itself from the omentum, being afterwards nourished by the adhesions which had united it to the sac. After separation it had undergone hypertrophy. This separation after axial rotation is, as is well known, much more frequent in ovarian disease.

## THERAPEUTICS.

**114. Treatment of Haemoptysis in Phthisis.**

A. HEISLER AND E. TOMOR, former assistants at the Consumption Sanatorium at Belsig, sketch the various methods of treating haemoptysis, which they found useful in cases of phthisis (*Muench. med. Woch.*, April 26th, 1910). The principle which should govern the treatment is that which governs the treatment of all forms of bleeding; but, inasmuch as it is not possible to look for the bleeding vessel and tie it in cases of haemoptysis, only the indirect methods are available. The first point mentioned is securing rest for the bleeding organ. This is only possible within narrow limits. They advise a half-sitting position, the patient being kept in bed, and consider that it is of paramount importance to attempt to reassure the patient and generally to allay the fear which nearly always accompanies a haemorrhage from the lung. Speaking must be absolutely forbidden, a fluid diet should be ordered, and the fluids should be lukewarm; saline purgatives should be prescribed for the double purpose of decreasing the blood pressure in the pulmonary circulation and of preventing increased abdominal pressure in the passing of a motion. They point out that, since narcotics may be required and since the patient may be rendered very anaemic by repeated bleedings, the nursing should be conducted with great care and a catheter should be passed if the bladder does not empty itself regularly. Passing on to the special means of treatment, they first speak of medicaments. Narcotics are the most important. They prefer morphine combined with atropine injected subcutaneously. Morphine and scopolamine also act well; this combination may be preferred to the former, since the atropine at times excites at first. Codeine, heroin, dionin, etc., may be alternated with the morphine. They have used amyl nitrate in view of the beneficial action reported by F. Hare, and have obtained very good results. Gelatine and calcium chloride may be used to increase the coagulability of the blood. V. d. Velden has recommended 10 per cent. solutions of sodium chloride (3 to 5 c.cm.) injected intravenously for the same purpose. It has long been known that heterogeneous serum increases the coagulability of the blood, but the authors, while recording the possible benefits of this form of treatment, warn the physician to be careful lest hypersensibility and its attendant dangers are induced. They consider that ergotin, adrenalin, and the like should never be used for haemoptysis. Among the physical methods of treatment, they mention ice applications in the form of an ice bag, and ice pills, but prefer the former. Warmth applied to the extremities and abdomen, and even electric light baths do good by diverting the mass of blood from the pulmonary vessels. Niedner's strapping is recommended for fixing the apex from which the haemorrhage is proceeding. Lastly, they deal with operative means. Resection of the first rib with compression of the apex has been suggested, but the results obtained so far do not justify them in recommending this procedure. Artificial pneumothorax on the other hand may be very useful, provided that the pleural cavity is free from adhesions. Blood letting may be advisable in desperate cases. The authors point out that Möller only experienced one single case of death from acute haemorrhage in phthisis during the fifteen years of his sanatorium practice. Death from suffocation is far more common, and it is therefore necessary to remove blood clots from the pharynx, etc., and to give expectorants. If intravenous infusion of saline fluid is practiced at all, great care should be exercised that the haemorrhage is not again started.

**115. The Treatment of Morphinism.**

L. W. WEBER (*Deut. med. Woch.*, October 27th, 1910) considers that two facts must be borne in mind in order to understand the true nature of morphinism and to guide

he treatment of this condition along proper lines. The first is that morphinism is a chronic poisoning and has nothing to do with acute morphine poisoning, in either its symptomatology or pharmacology, and the other is that morphinism arises on a pre-existing peculiar soil—a predisposition. The essentials of this predisposition are contained in a lowered resistance of the nervous system, which in the majority of cases takes the form of a congenital degenerative type. He maintains that it is extremely rare, if indeed it occurs at all, that a perfectly healthy person, with a normal resistance of body and mind, is induced to become a morphinist as a result of one or two morphine injections. The etiology therefore has three factors: a predisposition, usually congenital; a painful, frequently a chronic, affection which is symptomatically relieved by morphine injections (Weber states that the cases in which morphine is used purposefully because the person likes the sensation or to "drown care" are rare); and the use of morphine itself. The second and third factors lead to an increased loss of resistance and thus tend to form a vicious circle. The author in dealing with prophylactic measures, points out that it is a duty of the general practitioner to assist in combating the endogenous weakness of the nervous system of the individual by various social means and by education. He enters into the question of the conditions in which the practitioner finds himself compelled to prescribe morphine, and of the danger of trusting others with the bottle of morphine and the syringe, and urges that the greatest care should be exercised to prevent a predisposed person from becoming addicted to the habit. Attention should be paid not only to a patient who is being treated with morphine, but also to the relatives and others in contact with the patient, in whom a trial injection undertaken out of inquisitiveness or some other cause may end in morphinism. The actual treatment consists in the withdrawal of the alkaloid and the attention to the actual bodily and mental condition. Whether the withdrawal is carried out immediately or gradually, he states that it is useless to seek for a real substitute for morphine. The practitioner will do well to urge the relatives and the patient to agree to have the withdrawal carried out in a sanatorium or institution, which would, when properly equipped, guarantee protection for the patient against a secret continuation of the morphine taking, and against suicidal attempts, and where prompt measures can be adopted during the withdrawal stage. In the sanatorium the person and belongings of the patient must be searched for a stock of the drug and for a syringe, since it is hopeless to start the treatment until the drug has been removed. Restlessness, fear, disturbance of the gastric function, and the like may be dealt with by occasional doses of other narcotics, such as chloral, veronal, dionin, opium or, in cases of necessity, single doses of morphine, but never cocaine. The patient is best kept in bed at first. The various symptoms of the abstinence—such as profuse sweating, loss of appetite, cardiac weakness, sleeplessness, etc.—can be dealt with by baths, open air, digitalis, camphor, strophanthus, etc. The diet should also be carefully planned. A little alcohol—especially champagne—at times does good. At the same time, the practitioner should examine the skin all over the body for furuncles and acne due to old injections, and treat these if necessary. In non-complicated cases the withdrawal is completed in about a fortnight, and the pupils should then react promptly—perhaps too promptly—the sleep should then be good, the appetite improved, and the patient should be putting on weight rapidly. When there are psychical complications more difficulty is experienced, and in these cases the practitioner has to deal with his patient as a man and friend and as a true adviser. Further difficulties are spoken of, including the necessity of treating the symptoms for which the morphine was first given before the morphinism developed, the danger of the patient giving up morphine and taking to alcohol and tobacco, and other factors. In each case the practitioner must act individually, and will succeed if he bears in mind the etiology of the poisoning.

**118. The Effect on the Kidney of Caffein in Continued Doses.**

TOMASETTI (*Rif. Med.*, Nov. 7th, 1910) has watched the effect on the kidneys of prolonged doses of benzoate of caffein. The animals experimented upon were rabbits, and the dose of the drug given was from ½ to 1 cgr. per kilogram of body weight. It was found that doses of 1 cgr. per kilogram, after thirty to forty days daily dosage, produces changes in the cells of the convoluted tubules of the kidney. In doses of ½ cgr. per kilogram, continued for sixty days, in addition to the above-mentioned changes in the tubule cells, distinct vascular and interstitial alterations were to be seen. In spite of these cellular changes, the urine showed no pathological alteration. In view of these observations, the author believes it inadvisable to administer caffein for long periods at a time.

**117. Arsenobenzol.**

WILLIAM S. GOTTHEIL (*Med. Rec.*, December 31st, 1910) gives his experience with the use of arsenobenzol in 38 cases, of which 25 were kept under observation long enough to get reliable results. The histories of these 25 cases are given. The author believes that arsenobenzol has undoubted efficacy in syphilis of various forms, especially in early cases with mucous lesions. Its immediate effect is better in some cases than that of mercury; in others it is slower and less certain, while it fails in still others. It must be used with care on account of the possibility of increasing kidney lesions. In most cases treated it brought about kidney irritation shown by blood cells, albumen, and casts in the urine. These patients showed none of these symptoms before the use of the drug. It should never be given in ambulant or office practice, and the patients should be kept in bed under observation for several days after the injection. It is indicated in malignant or severe cases, where mercury has failed, and in cases in which unusual antiluetic measures are necessary. While the symptoms recede after one or two doses, one cannot yet say whether one gets a permanent cure. The author does not believe the drug to be superior to mercury in its action.

## PATHOLOGY.

**418. The Causal Parasite of Trachoma.**

H. HERZOG produces his argument for regarding the trachoma bodies as involution forms of the gonococcus (*Deut. med. Woch.*, No. 23, 1910). He found that the same morphological characteristics which present themselves in the trachoma bodies can be demonstrated in gonococci which are cultured on Wertheim's agar medium, when the specimens are stained by Giemsa. The usual staining methods fail to reveal these characteristics. Giemsa staining enables the observer to distinguish within the body of the bacterium a dissociation between the plasma and the chromatin. The chromatin is, according to Schaudinn, diffusely distributed in the plasma in the form of chromidial substance. Within the nuclear mass, which has become visible, dumb-bell division takes place. This may or may not be associated with disintegration of the plasma. He claims to have shown that this form of division is the only one which takes place in these involution forms of gonococci. The micrococci are recognizable by taking on a distinct red staining. In the next place he points out that no protozoal organism is known which is so small as this coccus, or which possesses such a simple structure. Further, he has succeeded in demonstrating in cases of gono-blenorrhoea after the acute inflammatory stage has passed that the typical gonococci disappear and the involution forms appear with the formation of typical trachoma bodies. He states that he has succeeded in typical early cases of trachoma to demonstrate intracellularly-placed micrococci having the characters of normal gonococci. He regards these as transitional forms of the microgonococcus. Lastly, he states that he inoculated a human eye (affected with glaucoma and totally blind) with an absolutely pure culture of gonococci isolated from a twelve-day-old attack of acute urethral gonorrhoea. After fourteen days typical trachoma bodies developed in the inoculated eye. In the bodies he found, beside the individual definite microgonococci, most minute round bodies, and also minute dumb bell forms. K. Lindner (*Deut. med. Woch.*, No. 28, 1910) attacks these views chiefly on the ground that in fresh cases of trachoma no forms of the parasite are found which behave like true gonococci in so far as form, position, and tinctorial characteristics are concerned. Prowazek described cell inclusions which have been called initial forms, which can readily be distinguished from gonococci, and which, indeed, can only be mistaken for these on superficial examination. He details the characteristic differences (morphological, tinctorial, etc.) of these forms and gonococci. Further, he points out that Halberstädter and von Prowazek's cases were proved to be free from gonococci, as were Stargardt's and Schmeichler's. The total absence of bodies which have any resemblance to gonococci in trachoma of infants and adults disproves, in his opinion, the thesis set up by Herzog.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 119. Alcoholic Neuritis simulating Pseudo-hypertrophic Muscular Paralysis.

EICHHORST (*Corr. Bl. f. schweizer Aerzte*, October 20th, 1910), on October 4th, 1887, saw a boy aged 8 who had complained of lumbar pain during two years, and had progressive weakness of the muscles of the legs and back. His father was addicted to brandy, and eventually hanged himself. His mother died about the same time of tuberculosis. Three brothers and sisters were healthy. After his parents' death, and three years before admission to hospital, he was brought up by foster parents in poor circumstances. They were at once struck by his uncertain, clumsy gait, rapid fatigue when walking, and preference for the prone position in bed. He was dull and subject to headache. Lumbar pain was constant, and became steadily worse. Shortly before admission he could not sit up without the support of the arms, or stand up when sitting on the floor. He was of delicate appearance, but answered questions promptly and correctly. The viscera were normal. The pupils were equal, and reacted normally. The pulse varied between 76 and 116. There was marked pes equino-varus which could not be passively corrected. The toes could be flexed and extended. The skin of the legs was mottled and cyanotic, and felt cold. The subcutaneous fat on the legs was abnormally developed. The muscles of the outer and anterior aspects of the legs were atrophied, but the calves were unusually developed, hard, and lumpy. In the thighs, the quadriceps extensors, adductors, and flexors were well developed. Though the buttocks were small, the glutei felt peculiarly hard and lobulated, like the calves. There were fascicular contractions in the quadriceps extensors and the glutei. The knee-jerks were lively, and the plantar, Achilles, and cremaster reflexes were preserved. Sensibility was normal. Though the lower limbs were feeble, all movements were possible. There was slight diminution of idiomuscular excitability of the calf muscles, both to the galvanic and faradic currents, but otherwise the electrical reactions of the nerves and muscles of the legs were normal. The mechanical excitability of the muscles was exaggerated. When told to sit up the boy raised the body with the arms. When sitting there was marked kyphosis, especially in the mid-thoracic region. The extensors of the spine were extremely atrophied, and showed marked diminution of excitability to the faradic current and frequent fascicular twitchings. The muscles of the scapulae and arms were normally developed, though occasionally lively fascicular contractions occurred in the deltoids. The muscles of the arms and abdomen appeared to possess the power proper to the boy's age. To get out of bed he first sat up with the aid of the arms, and, on placing the feet on the floor, stood with the feet widely separated. The mid-thoracic and cervical kyphosis was then seen to be compensated by lower thoracic and lumbar lordosis. The gait was unsteady and waddling. The legs and feet were raised high, and the first to come in contact with the ground were the toes and external borders of the feet. He was constantly stumbling and falling about. At each step the side of the pelvis was thrown forward with the corresponding leg. If placed on the floor and told to stand up he turned the entire body towards one side and supported himself on the corresponding arm. He then knelt on the knee of the same side and placed both hands above the patellae. Finally he "climbed up his thighs" exactly as occurs in pseudo-hypertrophic paralysis. When standing, if he was told to sit, he first grasped the thighs and then fell backwards into the chair. To rise from a sitting posture he first rocked the body from side to side, and then grasped the thighs and climbed up them. In bed he preferred the prone or lateral position. Pseudo-hypertrophic muscular paralysis was diagnosed, and he was treated with baths, massage, and iodides. No improvement occurred. In March, 1888, it was noticed that the spirit lamp for testing urine in his ward always became empty more rapidly than in the other wards. One night the nurse saw him creep out of bed towards the lamp and begin to empty it. Investigation showed that he had had frequent opportunities of drinking this spirit, and that on one occasion he had drunk a jarful of alcohol used for cleaning windows. The boy admitted he had an uncontrollable longing for alcohol, to which he had been addicted from earliest childhood. The foster parents confessed that he had been brought up almost entirely on schnapps, must, and maize. He was closely watched. Slow improvement occurred, and in May the gait was more certain and natural. In June he could sit with scarcely any support from the arms, and in July he could move about as well as any one. In August, 1888, he was discharged cured. He remained a total abstainer, and a year later had developed splendidly. The chief points of interest in the case are: (1) the extreme rarity of alcoholic neuritis in the first decade; (2) the differential diagnosis; (3) the lively patellar reflexes; and (4) the absence of pain, tenderness, and paraesthesia in the paralysed parts. As to the first, this was the only case in 67 consecutive cases in the Zurich medical clinic. The majority of cases occurred between 31 and 40, and the fifth decade took second place. No case occurred in the second decade. As regards the second point, the knee-jerks are occasionally preserved in the alcoholic neuritis of adults. The case shows that extreme caution is necessary before cases of supposed recovery from pseudo-hypertrophic paralysis can be accepted. In alcoholic neuritis the muscles undergo fatty degeneration, and cases have previously been recorded in which an apparent increase of size from this cause has occurred. In this case the deposit of fat in the calf muscles and also in the subcutaneous tissue of the legs was remarkable. Spontaneous fibrillary twitchings in the muscles in pseudo-hypertrophic paralysis are rare but are said to occur. In this case the twitchings were marked and involved also the deltoids. Eichhorst has seen similar twitchings in functionally intact arm muscles twice in a series of 45 cases of alcoholic neuritis in adults.

### 120. Bismuth in the Air Passages.

THE accidental aspiration of bismuth in the air passages of the living subject has scarcely ever been noted. Two interesting cases, however, have recently been chronicled by Continental observers. The first was related by Zimmern, Turchini, and Benard at a meeting of the Société de Radiologie Médicale de Paris (*Bull. et mém.*, December, 1910). The patient entered the hospital for dysphagia. Ten months previously he had an attack of laryngitis, which lasted for eight weeks. Shortly before admission he became voiceless; he was in a state of advanced cachexia and was not able to swallow any solid substance. A neoplastic contraction appeared to be situated at the lower extremity of the pharynx. A small cachet of bismuth was placed on the tongue, and an endeavour made to follow by radioscopy its descent into the oesophagus. At the order to swallow the patient made the effort of deglutition, but the cachet remained firmly fixed in the pharynx. Bismuth milk was then administered, the patient succeeding painfully in swallowing some mouthfuls, and the thread of bismuth could be followed in its oesophageal descent. At this moment an unexpected phenomenon occurred. The lower lobes of the respiratory system, injected with bismuth down to the extreme bronchial ramifications, appeared upon the screen, and the clearness and fineness of the image was such as to make it an excellent anatomical picture. The remarkable feature of the case was that, apart from coughing, followed by the expectoration of a considerable quantity of bismuth, the patient's condition was in no way unfavourably influenced, and there was no tendency to syncope. This aspect of his lungs was subsequently obtained radiographically, though with less success than upon the screen. Two days later the patient succumbed to the consequences of a gastrotomy, but his death was in no way due to the absorption of bismuth, and the quantity absorbed did not obstruct a respiratory area sufficiently to arrest the haematosis. At the autopsy a cancer of the oesophagus was found, covering the whole circumference of the passage, so that a gouging sound could not penetrate. In the middle of the length of the neoplastic mass, and on its anterior surface, were found two ulcerations, the one small, not admitting a penholder, and establishing a communication between the oesophagus and the trachea; the other, situated immediately below and easily admitting the finger, leading to the tracheal bifurcation. In short, the patient, who was supposed to have a neoplastic contraction highly situated

in the alimentary passage, was shown by the irruption of bismuth in the air passages to have a tracheo-oesophageal fistula. Another case, almost completely analogous, was brought before the Imperial Society of Medicine of Vienna by Schwarz in April, 1910. It was also the case of a man suffering from cancer of the oesophagus. The ingested bismuth passed in considerable quantity into the bronchial ramifications of the two lower lobes of the lungs by means of a fistula, situated at the level of the tracheal bifurcation. No dyspnoea was caused, nor was there any subsequent respiratory trouble.

## SURGERY.

### 121. Transplantation of Pectoral Muscle in Erb's Paralysis.

BRUNO BOSSE AND ERICH ROSENBERG (*Wien. klin. Rund.*, No. 41, 1910) briefly review the development of the method of transplantation of muscle in the treatment of paralyses. Hildebrand in 1905 was the first to obtain a strikingly good result in a case of paralysis of the shoulder muscles by substituting an unparalysed pectoralis major muscle for a paralysed deltoid muscle. Experiments on guinea-pigs carried out under Hildebrand's directions showed that for the preservation of a muscle it was necessary not only that it should not be divided from its trophic centre, but also that it should remain united to its nerves and the vessels supplying them. Hildebrand's procedure was therefore to loosen the pectoralis major from its thoracic attachments, at the same time preserving the anterior thoracic nerves and the vessels supplying them, and to turn the muscle through an angle of 90 degrees and stitch it to the acromion and acromial end of the clavicle. As a result the muscle was able to take on the function of the deltoid, and the patient left the clinic after six weeks able to raise the arm to the horizontal. In 1906 Sachs repeated the operation in a case of acute poliomyelitis anterior, and obtained the same result. The author's case was one of paralysis following a traumatic separation of the epiphysis at the upper end of the humerus. The patient was a child 2½ years of age, who had fallen upon the right shoulder. Dislocation of the shoulder had been diagnosed, and had been apparently reduced, the arm being put up in splints for three weeks; at the end of this time—that is, about a month after the original accident—it was found that the child was unable to move the arm. The patient now came to the policlinic, and a diagnosis of traumatic separation of the epiphysis was made. Splint treatment was tried for three weeks, but although the fracture appeared to heal, power of active movement did not return; passive movements were free. About a month later obvious atrophy of the deltoid, with slackening of the capsule of the joint, was present. Atrophy of the upper arm muscles increased in spite of treatment by massage, electricity, etc., but the pectoralis major was found to be fully intact and capable of transplantation. Six months after the operation transplantation of the pectoralis major was undertaken on the lines indicated above. The wound healed by first intention. Three weeks after the operation no return of function could be demonstrated. Massage and electricity were applied, and at the end of another month the arm could be raised, through about 45 degrees; the pectoral swelling was maintained, but no contraction of the muscle could be felt. At the end of another three months the patient could raise the arm to the horizontal, and a month later could raise the hand to the face. He used the arm in playing, but not in eating. Examination of the transplanted muscle showed it to respond to both faradic and galvanic currents at the anterior part, but only very weakly at the posterior part. The other upper arm muscles were, as before, not excitable. The case differed from Hildebrand's and Sachs's cases in several particulars. First, in regard to causation. The authors suggest the possibility that the roots of the much-stretched fifth and sixth cervical nerves may have been torn from the spinal cord. Another difference was that in the authors' case recovery of the power of raising the arm to the horizontal was only obtained after six months, instead of after six weeks as in the other cases. A possible explanation is that the plaster-of-Paris bandage was retained too long after the operation, and that treatment by massage, movements, and electricity was not begun early enough. The result was, however, a not unsatisfactory one. The boy was able to raise the hand to the head; he used it often when playing, less often in eating; he could shake hands without difficulty, and (with further strengthening of the transplanted muscle) further improvement could still be looked for.



### 122. Bloodless Liver Surgery.

BÁRON (*Zentralbl. für Chir.*, No. 49, 1910) holds that Tuffier's method of controlling hepatic haemorrhage by digital compression of the hilus during a surgical operation on this viscus is open to serious objection. Its persistent application during a long operation causes much fatigue, and the assistant is likely to hinder the free action of the operator. Moreover, it is very doubtful whether the vena porta and the hepatic artery can, as Tuffier maintains, be simultaneously compressed by two fingers. Haberer has succeeded in practising extensive resection of the liver with very little bleeding by tying the smaller branches of the hepatic artery and underpinning the corresponding branches of the portal vein, but this method has in actual practice proved very unsatisfactory. It presents much technical difficulty, does not assure complete haemostasis, and the results of the operations in which it has been tried show a high mortality. In his laboratory research Báron has found a plan of rendering the liver quite bloodless during a partial resection. The hepato-duodenal ligament after it has been approached by the foramen of Winslow, or, if this opening be closed, by tearing through the small omentum, is, together with the portal vein, the hepatic artery, and the choledochus, compressed between the guarded blades of a small clamp. After a short delay to allow the liver to empty itself of blood in the direction of the heart, a portion of the organ can, it is stated, be removed without any bleeding. The clamp is not removed until all the cut orifices of artery, vein, and duct, have been secured by ligature. This plan has, in the author's experiments, been applied with safety, and on necropsies after varying intervals in different instances no signs, either gross or microscopical, were found of injury of the peritoneal ligament or of thrombosis. The risk of air embolism may, the author suggests, be prevented by resecting the condemned portion of the liver in slow and short stages, and by tying each of the large vessels as it is divided. Another probable risk which attends all haemostatic procedures of the Esmarch type is free oozing of blood from the cut surfaces after the removal of the clamp. This, however, was not observed in any of the author's experiments. This method of haemostasis was practised on ten dogs subjected to more or less extensive resection of the liver. In nine of these cases healing resulted without any complications. Two dogs were living at the date of this report, and in the other seven dogs who were killed soon after the operation no traces were observed of hepatic necrosis or secondary haemorrhage. In the single fatal cases the death occurred within twenty-four hours after removal of three-fifths of the liver; and it is to be attributed, the author holds, rather to the resulting insufficiency of the hepatic function than to the direct traumatism or to the method of preventing haemorrhage. As, at least from an operative standpoint, the supply of blood to the liver in the dog is anatomically and physiologically analogous to that of man, the author is led to think that the method described in this paper may be applied with useful and beneficial results in human surgery. If this prove so, it would very probably have a wide range in the operative treatment of both injury and disease of the liver and its biliary appendages.

### 123. Retrograde Cholecystectomy.

HARTMANN (*Bull. et mém. de la Soc. de Chir. de Paris*, No. 1, 1911), alluding to the frequent occurrence of fatal haemorrhage after removal of the gall bladder, and also to the great improvements made in hysterectomy by attention to anatomical detail, especially the relations of the blood vessels, and to a systematic technique, points out the importance before practising cholecystectomy, of studying the relations of the cystic artery and duct. This subject has been recently considered by Gosset and Desmarets, who found in their dissections on twenty-five subjects many variations in the length and origin of the cytic artery, and its relations to other structures. The chief point of surgical interest in their anatomical report is the fact that the artery, which is a double vessel in about 12 per cent. of cases, reaches the gall bladder at or close to its neck. As the surgeon should try to avoid securing both cystic artery and duct in the same ligature, and also with a view to a sure arrest of haemorrhage, be able to form a good idea of the mutual relations of these structures under both normal and abnormal conditions, it is advised by the two authors that in the first stage of his operation the artery and the cystic canal be separately occluded after exposure by careful dissection, and that, after this has been done, the gall bladder be cut away from neck to fundus. Hartmann, in his report on the communication of Gosset and Desmarets points out that the method of retrograde cholecystectomy has already

been described by Moynihan and Mayo. He regards it on the whole as an excellent method in regard to haemostasis, and to the preservation of a useful peritoneal flap after enucleation of the gall bladder; but, he adds, its performance will unfortunately be too often prevented by adhesions and other results of advanced biliary lithiasis.

## OBSTETRICS.

### 124. Malarial Fever during the Puerperium.

ATKINSON (*The Philippine Journal of Science*, July, 1910) records two cases from Hong Kong in which the puerperium was complicated by malaria. The first was that of an English primipara, at full term, who had been suffering from fever for some days prior to admission to hospital. The temperature, which was 101.6° F. on admission, was normal on the following morning, but as the blood showed simple tertian parasites and ring forms, 5 grains of quinine were ordered every four hours. Labour commenced the same evening, and was normally terminated the following midday. In the evening the temperature was 104.0° F., due evidently to a tertian attack and not to sepsis, and the following morning it was normal again. The quinine was continued, although there was no more fever, and during the next three weeks no malarial parasites were present in the blood. The patient had only arrived in the colony a few months previously, never having had malaria, nor coming from a malarial country, but since being in Hong Kong she had resided in a malarial locality. In the second case premature labour at eight months was induced by an attack of malarial fever, which began the day before labour commenced, and the day following birth benign tertian parasites were present in great numbers. Both cases might have been anxiously puzzling had they not occurred in a malarial country where all illnesses are so frequently complicated by malaria that it is the rule to give quinine to parturient cases whenever there is the slightest fever after labour. The author does not consider that quinine as a prophylactic should be withheld during pregnancy in women who are subject to attacks of malarial fever, as he regards the induction of abortion or premature labour as being more probably due to the malarial fever than to any ecbolic action of the quinine. The general consensus of opinion points to the fact that quinine acts as a general stimulant and promoter of vital energy and functional activity, and that its ecbolic action is very slight, if anything at all; and certainly, when administered during malarial fever, it expends its energy in killing the plasmodium, and does not produce any deleterious effect on the system.

## GYNAECOLOGY.

### 125. Metrorrhagia in Virgins.

SIREDEY AND LEMAIRE (*Rev. de gynéc. et de chir. abdom.*, February, 1911) have carefully treated and reported four cases of obstinate menorrhagia in young virgins between the ages of 14 and 20 inclusive, all otherwise, or at the beginning of the illness, in perfect health. Thus were excluded all prejudicial conditions of any kind known or suspected to be causes of menorrhagia in subjects whose chastity is unimpugned, such as cardiac lesions, albuminuria, paludism, biliary lithiasis, neuro-arthritic affections, haemophilia, hereditary syphilis, and lesions of the ovaries and uterus, including fibro-myoma and adenoma not absolutely unknown in youth, and arteritis observed after enteric fever. In Siredey and Lemaire's four cases dilatation and the use of the curette brought about the patient's cure, this form of menorrhagia, so unlike several other varieties, being apparently not obstinate. While therapeutics proved satisfactory, pathological research, based on the microscopic examination of scrapings from three of the cases, showed identical changes. There was very active proliferation of the epithelial elements of the mucosa, the glands being enormously overdeveloped; but the basement membrane was absolutely intact, nor was there a trace of the changes indicating inflammation. Hence carcinoma and metritis were excluded. The authors rank this condition with Menetrier's *productions adénomateuses* reported in his "Cancer" (*Traité de méd. et de thérap.*, 1909) as existing in the alimentary canal as the result of chronic irritation. As local treatment proves so satisfactory whilst these definite histological changes must be due to some cause behind them, the pathology of these cases of apparently uncomplicated menorrhagia remains obscure. Siredey and Lemaire suspect some still unknown chemical changes in the blood or mucus.

### 126. Dermoid or Epidermoid of Vesico-Uterine Cellular Tissue.

SITZENFREY (*Zeit. f. Geb. u. Gynäk.*, vol. lxvii, 1910) reports a case where a dermoid cyst developed in the pelvic connective tissue under the vesico-uterine fold. The patient was a virgin aged 37; the catamenia were always irregular, free, and painful, but she consulted a doctor on account of constant desire to micturate, which had troubled her for about six months. A spherical tumour could be defined between the cervix and the bladder; it bulged downwards into the vagina to within an inch of the vulva, and was more to the left than to the right of the middle line. The catheter passed in front of it. A vertical incision was made in the middle line through the anterior vaginal wall. A cystic tumour was then exposed; it burst as it was being enucleated, and much semisolid soft dough-like material bearing cholestearine escaped. The contents were evidently of dermoid origin. The cavity left after enucleation of the cyst was packed with iodoform. The wound healed well. In the interior of the cyst lay a solid oval mass of which the diameters were $2\frac{1}{2}$ in., $1\frac{3}{4}$ in., and 1 in. It sprang from the wall of the cyst, and five other solid growths of smaller dimensions arose from the cyst wall close to it. The microscopic appearances of the growth are minutely described and figured. It was an "epidermoid," collections of well-developed epidermic cells with layers and basement membrane perfect as in normal epidermis, arranged very irregularly. No doubt it was derived from the epithelium of the urogenital sinus, as a diverticulum of the vagina.

## THERAPEUTICS.

### 127. The Internal Administration of Fats.

BONNES AND ELLOY summarize (*Gaz. hebdom.*, December 4th, 1910) the indications for and against the administration of fats in the dietary. The amount necessary for ordinary alimentation varies, of course, according to race, climate, and social habits. The nutrition equilibrium is found to readjust itself, whether one suppresses or diminishes any one of the great groups of alimentary substances—albuminoids, fats, and starches. This species of substitution is made use of in the dietetic treatment of any illness where weakness or asthenia demand reserve material. In the case of tuberculosis, for example, it is taken advantage of in order to supply the body with an excess of fatty food, as much as 80 to 160 grams per diem being given in the form of cream, milk, yolk of egg, fresh cheese, caviare, bacon fat, and vegetable and animal oils. After quoting several authors in support of this method of treatment, the author refers to the experiments of Lannelongue on guinea-pigs, the results of which were opposed to this view. Three groups of 20 guinea-pigs fed on 40 grams of potatoes and 10 grams of peas were used for these experiments. The first series of guinea-pigs received in addition to the dietary mentioned 9 grams of butter; the next group 20 grams of sugar, and the third group 20 grams of gluten. After inoculation by the tubercle bacillus, those in which butter had been used as a dietetic supplement died in forty days; those receiving sugar in eighty-seven days, and the third group which had gluten in 371 days. It is at least certain that a fatty dietary is not of much use in the case of an animal so little carnivorous as the guinea-pig. The author believes, however, that this does not hold good in the case of tuberculous man. In diabetes a diet rich in fats diminishes the sugar in the urine and arrests wasting. The authors do not believe that excess of fats in this condition leads to acetonaemia. As a complication of diabetes lipaemia is very rare. If there is any intolerance of fats in diabetes, the use of green vegetables, a small quantity of alcohol and bicarbonate of soda assist the patient in tolerating this dietary. A dietary rich in fats has also been proposed in obesity, for this condition is not so much due to the quantity of fat absorbed as to its non-utilization. The authors believe, however, that obese, non-diabetic patients ought to diminish not only their carbohydrate intake but also their fats, while at the same time increasing the albuminoids. A slight excess of albuminoids appears to possess the power of regulating the excess of fat in the various organs. In gastric affections with a predominance of painful symptoms the exhibition of olive oil in large doses is of much benefit. It lessens the acid secretion and forms a true food. Olive oil is also of use in spasmodic stenosis, in cicatricial contractions, and in ulceration of the stomach

as well as in hyperchlorhydria. The emulsion of oil of almonds may be given in fastidious patients. While amylaceous foods may be acceptable in enteritis at first, they are apt latterly to accumulate in and undergo fermentative changes in the large intestine. In such cases fats have been found to be of value, while in biliary lithiasis the benefit of the administration of oil is incontrovertible although its mode of action is open to discussion. In the administration of fats, the increase in volume of the liver is an early sign of saturation of the organism.

### 128. Dosage in Thermo-therapeutics.

THE employment therapeutically of the radiations from incandescent electrical lamps has gained greatly in favour during the past few years, but very little has been done in dosage and measurement, although these questions are as important in this branch of physiotherapy as in any other. The problem is a difficult one because of the multiplicity of the radiations and the variety of their thermal, luminous, and chemical effects. Nevertheless, Dr. Miramond de Laroquette, of Nancy (*Arch. d'électr. méd.*, November 10th, 1910) shows that a certain amount of precision is possible. Although it is usual to speak of "light" baths, the energy of the electrical current in an incandescent lamp is transformed chiefly into heat, the light representing only a very small percentage of the total action. The calorific energy may be divided into two classes: (1) Radiant luminous heat; (2) non-luminous or dark heat, which is the essential agent in hot-water or hot-air baths. It is the penetrating luminous radiation which distinguishes "light" baths from other thermo-therapeutic procedures. This luminous heat is very important. Therapeutically it differs from dark heat in the greater intensity and rapidity of its effects. Physically, it is distinguished by its rectilineal propagation and by its penetrability for transparent bodies, these it penetrates in exactly the same proportion as the light that accompanies it. Physiologically, luminous and dark heat have substantially the same effect. The author employs two special therometers to assist in graduating these radiations. The one, a mercury thermometer with a bright cuvette, reflects the luminous radiations, and indicates only the intensity of the non-luminous heat. The other thermometer has a cuvette smoked with lamp-black, which thus absorbs the whole of the radiation, luminous and non-luminous. When the two thermometers are placed in a "light" bath the difference between their readings represents the intensity of the luminous radiation. The author shows that, although the total temperature rises progressively with the duration of an experiment, the intensity of luminous heat remains almost constant, or even decreases if the lamps and thermometers are in a closed container. In the author's "light" bath, having a cubic space of 6,333 cm., and not open to the air, the following results in degrees centigrade have been obtained:

| | Four Lamps, 5 Candle-power. | | | Six Lamps, 10 Candle-power. | | |
|---|---|---|---|---|---|---|
| | Smoked Thermometer: Total Heat. | Bright Thermometer: Dark Heat. | Difference: Luminous Heat. | Smoked Thermometer: Total Heat. | Bright Thermometer: Dark Heat. | Difference: Luminous Heat. |
| *Pressure, 220 Volts:* | | | | | | |
| After 5 minutes ... | 77 | 46 | 31 | 103 | 60 | 43 |
| After 30 minutes ... | 116 | 94 | 22 | 160 | 135 | 25 |
| After 60 minutes ... | 126 | 107 | 19 | 177 | 152 | 25 |
| *Pressure, 110 Volts:* | | | | | | |
| After 5 minutes ... | 70 | 40 | 30 | 98 | 59 | 39 |
| After 30 minutes ... | 102 | 81 | 21 | 155 | 129 | 26 |
| After 60 minutes ... | 111 | 92 | 19 | 175 | 150 | 25 |

Ventilation in light baths modifies only the dark heat, not the luminous heat. The intensity of luminous heat, however, diminishes much more quickly than that of obscure heat when the luminous point of the lamp is removed to a greater distance. Dark heat at a distance of 12 cm. from the lamp in an open container is about one-third less in intensity than at a distance of 4 cm., and in a closed container it is one tenth less, whereas the luminous heat loses three-quarters of its original intensity in both cases. If, therefore, intensive and rapid effects are desired with "light" baths the distance separating the lamps from the region to be treated should be reduced, or the proportion of luminous radiation may be augmented by employing a greater number of lamps or by "stepping up" the lamps in use. In order to avoid local burning, a minimum distance of from 8 to 10 cm. should be maintained between the lamps and the skin, but the burning may be avoided by covering the skin with layers of various thicknesses of linen.



### 129. Antitryptic Power of the Blood Serum in Cancer of the Digestive Organ.

ROUX AND SAVIGNAC (*Arch. des mal. de l'app. digestif et de la nutrition*, December, 1910) discuss the results of their investigations. In 89 per cent. of cases of cancer (verified by autopsy), and in 80 per cent. of cases most probably cancer, the antitryptic power was a quarter above that found in the normal subject. They consider this sign of great diagnostic value, especially in cases where other signs are negative, and narrate numerous cases in support of its diagnostic importance. In all chronic affections of the digestive system save cancer, the authors have never found the antitryptic power increased except in one case of duodenal ulcer, and they insist that if a weakened antitryptic power of a quarter or more is present, cancer may certainly be negatived.

## PATHOLOGY.

### 130. Multiple Post-traumatic Osteoma.

OBSERVATIONS of osseous tumours following upon traumatisms, which were comparatively rare before the radiographic era, are now quite ordinary, but the curious features of a case of multiple osteoma recorded by Spéder (*Arch. d'électr. méd.*, November 25th, 1910) are the large number of growths which were discovered, and the age of the patient, namely, 51 years. Out of Weber's 65 cases only one had passed the age of 50. Spéder's patient was a mill porter who was caught by a portion of the mill machinery and for a full minute was whirled round by a wheel making about two revolutions each second. His lower limbs were struck repeatedly against an iron girder, and his lesions included luxation of both knees and extensive ecchymoses. Fourteen months after the accident, when he was still suffering from muscular atrophy and other effects of his injuries, and was only able to stand in an attitude like that of a performing bear, he was made the subject of a radiographic examination, and more than ten osteomata of various forms and sizes were found distributed in his lower members. Three or four of them were clearly the direct result of the traumatism. Two of these were tendinous osteomata in the ligaments of the right knee, one of them forming a kind of flying buttress between the tibia and the femur; another was situated above the left knee. The large bases of these exostoses, their adherence to the bone, and their diminution in size as they proceeded from their line of implantation, together with other reasons, made it evident that they were due to the osteogenetic activity of the torn periosteum. There was also an osteoma, 16 cm. in length and shaped like a cuttlefish seen in profile, situated in the right thigh. This appeared to have no continuity with the femur, and the author ascribes it to an ossification of the conjunctive embryonic callus of a muscular rupture. But, in addition to these, there were half a dozen or so free osteomata distributed in the fibrous parts of the locomotor apparatus surrounding the knees. To explain these the personal and hereditary history of the patient was invoked. His father (dead) was tuberculous, his mother was paralysed, and his children were rickety. In earlier life he was scrofulous and suffered from torpid abscesses. At the time of the accident he was not well nourished; his general state was enfeebled, his labour was hard, and his subsequent suffering completed the dilapidation of his organism. The author recalls the testimony of various writers to the effect that certain diseases and conditions of life, such as tuberculosis, scrofula, syphilis, alcoholism, and profound misery, are predisposing causes of arthritis deformans and osseous hyperplasia; quotes Virchow as saying that the same influences which in infancy lead to the formation of multiple rachitic extoses may, in the aged, cause proliferating osseous modifications; and concludes that in this case the traumatism was not the sole cause for the production of the multiple osteoma, but that the general dyscrasic state of the patient precipitated a veritable osteogenetic diathesis on the occasion of the accident.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 131. Relationship of Syphilis and Tuberculosis.

GOUGET (*Journ. des praticiens*, November 26th, 1910) states that while tuberculosis does not predispose to syphilis, the latter certainly does to tuberculosis. Although it has been noted that laryngeal or tracheo-bronchial syphilis has actually resulted in the implantation of the tubercle bacillus, this is not so usual. It is rather the debilitative effects of syphilis which predispose to tuberculosis. Patients in the secondary stage are much more susceptible than old and tertiary syphilitics, unless, indeed, in the latter case there are suppurative lesions, tabes, or general paralysis. Sergent, after careful investigation of the matter, is stated to have come to the conclusion that tuberculosis is intimately bound up with syphilis, although the latter may be only a remote antecedent. Statistics go to show, however, that the influence of syphilis in this connexion is less than that of alcoholism. When tuberculosis attacks a syphilitic it does not result in a mixed lesion. Each disease keeps its own proper sphere, and the author quotes cases in which the same lung showed tuberculous nodules at the apex and syphilitic nodes at the base. If the patient is already in an advanced stage of tuberculosis an intercurrent attack of syphilis will hasten the fatal issue. Sergent believes that the engrafting of syphilis upon a tuberculous patient hastens the beneficial tendency to sclerosis. The author is of opinion, however, that this can only happen in the tertiary stage, when the patient has already passed through the earlier phases of the disease. Speaking generally, the advent of tuberculosis in the case of a person passing through the secondary stage of syphilis carries with it a bad prognosis, frequently resulting in a galloping consumption. The tendency to sclerosis, however, in later syphilis delays the progress of tuberculosis, and the existence of a high arterial tension in tertiary syphilis is also of favourable import. The treatment of a patient with these two diseases running concurrently raises some important points. The evidence goes to show that treatment by mercury is not, on the whole, contraindicated by the existence of tuberculosis. In this connexion the author discountenances the giving of mercury per oram. He advocates daily injections of a soluble salt of mercury such as the benzoate or biniodide. The ordinary regional treatment of tuberculosis is also, of course, carried out.

### 132. Typical and Atypical Phthisis.

THE modern tendency of casting overboard old clinical methods and older nomenclature in favour of newer methods of examination and more recent terms is one which D. von Hansemann strongly deprecates. (*Berl. klin. Woch.*, January 2nd, 1911.) He points out that the bacteriologist of to-day speaks of pulmonary tuberculosis when he really means pulmonary consumption, for the general grouping of such pathological conditions as true miliary tuberculosis, chronic phthisis, acute florid phthisis and caseous hepatization is impractical both from the clinical and from the pathological point of view. Tuberculosis of the lung is always a part of a more generalized tuberculosis of other organs. The author states that a pure isolated tuberculosis of the lung in an anatomical sense does not exist. After dealing briefly with acute miliary tuberculosis and with submiliary tuberculosis, which he incidentally points out never leads to a phthisis, he passes on to the consideration of pulmonary consumption. This he divided into typical and atypical. The typical form is that which begins in the apex of the lung and runs a definite course. All phthisis which does not begin in the apex is atypical. He goes on to consider the cause of the apical location of typical phthisis. Freund and Hart have shown that there is an anatomical basis for this location. These two observers have described a definite stenosis of the upper thoracic aperture. Von Hansemann insists on the fact that all chronic non-tuberculous affections of the lung offer a disposition for a tuberculous infection. A stenosis of the upper thoracic aperture is seldom met with without tuberculous phthisis. In a similar manner, syphilis, actinomycosis, pulmonoconiosis, and even cancer and chronic bronchitis with consecutive lymphangitis are nearly always associated sooner or later with secondary infections by tubercle bacilli. He therefore comes to the conclusion that, while the tubercle bacillus is a necessary factor in phthisis, it is immaterial how the bacilli gain an entrance into the body, whether through the atmospheric air, or by dust, or from the intestinal canal, or through the tonsil. In all cases there must be the disposition and resulting on a superimposed infection, the typical caseous, inflammatory, ulcerating, or tuberculous changes will be caused. Droplet infection, he states, cannot produce a direct lesion in the apex. Birch-Hirschfeld has shown that the situation of the typical lesion is not at the extreme apex, but at the point of the stenosis which is a little below the top of the lung. In the atypical phthises, it is usually possible to determine the anatomical basis for the infection. The diseases syphilis, actinomycosis affecting the lung, as well as chronic bronchitis, lymphangitis, pneumonoconosis, and cancer, as has already been pointed out, are responsible for many secondary infections. In each case the situation of the tuberculous lesion will be a chance one, depending on the situation of the primary pathological lesion. Diabetes also predisposes to an atypical phthisis. Certain deformities and traumatic lesions may further determine the site. Thus a fractured rib, produced by a shot or stab wound, may press on the lung at some place other than the apex, and the infection may be engrafted in this situation. Phthisis in very young children and very old people appears to be exceptional as regard situation. In the former, as the process begins in the lymphatic apparatus at the root of the lung, the phthisis is found at first at the hilus. A phthisis beginning in the hilus of the lung only occurs in children. In old people tuberculous affections tend to affect the serous membranes. Phthisis in these persons therefore usually begins from the pleura covering some part of the lung other than the apex. It produces the clinical appearances of a miliary tuberculosis at first, but runs a very chronic course. Lastly, he tells of some very rare forms of phthisis in which no anatomical basis can be discovered. In turning to treatment and prognosis, he finds that as a general rule diseases which at times undergo spontaneous cure can be cured by treatment, while those which never heal spontaneously cannot be cured at all. Acute miliary tuberculosis never undergoes spontaneous cure, and no treatment does any good. Practically the same may be said of the florid type of phthisis (galloping consumption). On the other hand, apical phthisis very frequently clears up by itself, and it is in these cases that treatment can do the most good. The author regards the suggestion of Freund of artificially constructing a joint in the first rib, when this is the cause of the stenosis, as a reasonable one, but he is of opinion that a proper joint formation can be achieved by systematic orthopaedic strengthening of the muscles attached to the first rib. He strongly advises this orthopaedic treatment for all children in phthisical families from the age of 12 or 13 till the twentieth or twenty-first year. He considers the form of cure as revealed by pathological studies. There is a simple scar, which reveals the cure of an early tuberculous process; next there is a scar enclosing a caseous centre. In some of these cases tubercle bacilli are still present and alive. This form represents a curing of a second-stage phthisis. Lastly, there is a scar formed like a horseshoe embracing an old cavity. In this case there are usually living bacilli, which may at any time give rise to a fresh infection. He maintains that affections which involve the apex and spread below the level of the second or third rib, with cavity formation, cannot undergo either spontaneous or artificial cure. The prognosis of the atypical phthisis forms is less good. The most that can be achieved in these cases is a prolongation of life and a slowing of the tuberculous process.

### 133. Sarcoma of the Medulla.

CLAUDE AND CHABROL (*Arch. gén. de méd.*, December, 1910) narrate a case of sarcoma of the medulla, and refer to one other case published by the latter last year. Chabrol in 1908 collected 90 cases from the literature of tumour of the bulb, in only 15 of which was the tumour a sarcoma. Sarcoma of the bulb develops chiefly in women between the ages of 25 and 40. It is rare for the tumour not to affect the nuclei and destroy the nerve elements. The signs appear suddenly, and death is nearly always sudden from invasion of the cardio-respiratory centres.

Haemorrhages within the neoplasm conduce to the rapidity of the fatal symptoms. Sarcomata often give rise to a syndrome, and hence may permit of a diagnosis which is most difficult in gliomata. Ocular signs predominate, the eyes are widely opened, pupils dilated, there may be convergent strabismus and facial paralysis. Glycosuria has been noticed, and in the case described difficulty in swallowing and painful contraction of the trapezius due to affection of the vago-spinal nerve. Cerebellar troubles may be superadded, as vertigo, ataxia, and Romberg's sign, which are more frequent in sarcomata than gliomata.

## SURGERY.

### 134. Recurrence of Prostatic Hypertrophy after Perineal Prostatectomy.

E. LUMPERT (*Corr. Bl. f. schweizer Aerzte*, January 20th, 1911) recently performed a necropsy in a case of recurrent prostatic hypertrophy. A man, aged 55, was admitted to hospital in May, 1899, with disturbances of micturition. The prostate gland was of the size of an apple. Suprapubic cystotomy was performed. Both lateral lobes were of the size of nuts, and projected into the lumen of the bladder. At a second operation they were cauterized, and at a third the projecting portions were excised. The conditions improved, though three urinary fistulae persisted for some time. On May 5th, 1902, daily catheterism became necessary. There was again considerable prostatic hypertrophy, with severe cystitis and left epididymitis. The left testicle was excised. Improvement followed treatment directed to the cystitis. In 1907 micturition again became difficult. Perineal prostatectomy was performed, though a few fragments of the prostate were left behind superiorly in the middle line. The patient was then fairly comfortable until June, 1910, when painful micturition recurred. He was readmitted to hospital, and died on June 22nd with uraemic symptoms. *Post mortem* the prostate gland, vesiculae seminales, bladder, ureters, and kidneys were removed together. The prostate gland measured $9 \times 7\frac{1}{2} \times 8$ cm. ($3\frac{3}{5} \times 3 \times 3\frac{1}{5}$ in.). The right lobe was flattened, the left was roundish and greatly hypertrophied. It was of a lobular structure, the lobules consisting of dilated and in parts branching glands lined with a single layer of cylindrical epithelium. Some of the tubules contained prostatic calculi. The glands were separated by wide connective tissue septa and strands of unstriped muscular tissue, which contained numerous lymphocytes. In numerous sections no trace of malignancy could be detected. The bladder contained turbid, haemorrhagic urine, and was hypertrophied with numerous pockets between the trabeculae. Near the urethra were two false passages containing pus. The right ureter was in turn stenosed and dilated and contained pus. There was right pyelitis, and the kidney contained numerous abscesses. On the left side there was considerable hydronephrosis; also there were present bronchiectasis, arterio-sclerosis, and cardiac hypertrophy. Several cases have been reported of recurrence of prostatic hypertrophy after partial prostatectomy. It is now known that even after so-called total prostatectomy or enucleation microscopic fragments of the prostate remain. These suffice occasionally to allow of recurrence of the prostatic growth. Thus, in 1906 Hedinger reported two cases in which large recurrent growths followed a short time after total prostatectomy. The growths were microscopically benign. These three cases show that the prostate gland possesses unusual powers of regeneration. They also suggest that simple proliferation may be concerned in the production of enlarged prostate in addition to inflammatory conditions.

### 135. Testing Collateral Circulation.

MATAS (*Ann. of Surg.*, January, 1911), in a lengthy paper giving much technical detail, considers the subject of testing the efficiency of the collateral circulation as a preliminary to the occlusion of the great surgical arteries. In dealing with an aneurysmal or an injured artery the modern ideal of surgical treatment is to cure, if possible, without the suppression of the vascular function. Great advance has been made in this direction through the results of laboratory experiments and the performance in human surgery of the author's intrasaccular method of suture. The accomplishment of this ideal, however, has been impeded by the fear of obliterative thrombosis and secondary haemorrhage, and also by the difficulties of the operative technique, and many surgeons, even the most skilful, are still led, it is acknowledged, to follow the old beaten path, and, trusting to the chance of an efficient collateral circulation, to rely on the easy method of obliteration. Attention is directed to the value of the "hyperaemia test" introduced by Moszkowicz of Vienna as a means of finding the limits of the active circulation in gangrenous limbs. This "test," which consists in determining the rate of progress and the intensity of the blush following the removal from a limb of Esmarch's bandage and constrictor, is regarded as a valuable addition to the diagnostic resources of modern surgery. The author presents a full description of a modification which he has made of Moszkowicz's test in order to adapt it to aneurysmal conditions, and in concluding this part of his contribution lays down the following propositions: (1) That in the treatment of the surgical or operable aneurysms of the extremities, a preliminary knowledge of the resources of the collateral circulation is very desirable, if not absolutely necessary, in view of the possible obliteration of the main trunk in the course of the intervention; (2) that in his modification of the "hyperaemia test," which has thus far satisfied his clinical needs, surgeons have a simple practical means of obtaining approximative pre-operative information in regard to the condition of the collateral circulation; (3) the same modified method may, by systematic compression of the main artery, prove of value in developing the collaterals when they are found deficient. In discussing a way of testing the collateral circulation in aneurysms of the ileo-femoral and iliac vessels, those of the aorta below the renal branches and those of the innominate tracts, the author gives the results of a series of laboratory experiments with metallic bands. This research was based on the experimental and clinical work of Halsted, which, it is asserted, has proved the great value of removable aluminium bands in effecting preliminary occlusion of the arteries, and in thus acting as a prophylactic against cerebral complications and peripheral necrosis in other parts of the body. The object of this method, it is pointed out, is a provisional interruption of the flow of blood in a large vessel without injuring its walls. If untoward symptoms or signs of peripheral ischaemia should manifest themselves in the brain or other distal parts, it would be possible to remove the occluding band, and to allow the circulation through the vessel to be restored. Halsted's chief purpose in using metallic bands has been to obtain a *gradual* obliteration of the artery, but the idea here presented by Matas is an *immediate* and *total* obliteration with the view of determining the sufficiency of the collateral circulation as a preliminary to permanent obliteration of the involved vessels. The results of his experiments made with the chief objects of determining, in the first place, the length of time a large artery could be occluded by temporary compression without permanent damage or obliteration; in the second place, the changes that occur in the vessel after the occlusion has been maintained for a certain number of hours or days; and, thirdly, what kind of material is best suited for the arterial occlusion, are summed up in the following statements. It is possible, the author concludes, to compress a vessel to the point of abolishing its pulse, and to maintain this pressure for a period of from three to four days before adhesive or obliterative changes occur in the intima. All the vessels clamped by metallic bands stood compression for seventy-two hours without microscopic change in the intima. There is apparently no reason why in occluding in continuity the great vessels at the root of the neck and in the lower part of the abdomen, the removable metallic band should not be substituted for the circular ligature, which permanently damages the artery even when carefully applied. The ligature does not permit of the release of the constriction after a few days without thrombosis at the seat of ligation. No mention is made of any risk of thrombosis after temporary constriction by the metallic band. In view of the above statements it would seem logical, the author thinks, to utilize this simple method of occlusion as a preliminary test of the efficiency of the collateral circulation in all cases in which the "hyperaemia test" is not applicable. No clinical evidence is given of the prospects of such preliminary treatment, nor is any mention made of probabilities of any serious changes being set up by even a temporary arrest of the flow of blood to the brain.

## OBSTETRICS.

### 136. Radiography of the Fetus in Utero.

THE radiography of the fetus *in utero* has been attempted ever since Roentgen's discovery, but until quite recently it was only the eye of faith which could discern in a radiograph more than an image of a fragment of the fetal

skeleton in the living mother. The special difficulties of this line of work are due to the movements of the fetus and of the maternal organs, the thickness of the tissues to be traversed, the layer of blood circulating in the uterine wall, and especially the presence of the amniotic fluid. Fabre, Barjon, and Trillat, of Lyons, now come forward (*Arch. d'électr. méd.*, December 25th, 1910) to say that many of the difficulties have been surmounted, and that fetal radiography is ready to enter the domain of practice. Radiographs have been obtained at the Hôpital de la Charité in which the fetal skeleton has been reproduced with great clearness in the larger number of its details. The fetal head is obvious; it is even possible in some cases to discern the orbits and the inferior maxillae. The cervical, dorsal and lumbar vertebrae, with the ribs, are easily to be made out; the iliac bones are visible, and the lower extremities are rendered with special distinctness. Altogether, the image of the whole fetus is obtained, clearly detached from the image of the maternal pelvis, and in such a manner that the presentation and position may be readily determined. Three points in technique are insisted upon. (1) The woman must be in ventral decubitus, with the photographic plate beneath her. The position is painful, especially if exposure is prolonged, but it is essential if more than a fragment of the fetal skeleton is to be obtained. (2) The *x*-ray tube must be placed above, at a position corresponding to about the middle of the thigh, or in such a manner that a perpendicular line from the antikathode would fall about 20 cm. distance from the pubis. This, although the the best practicable position, has the disadvantage that the rays do not fall homogeneously upon all parts of the plate. (3) A powerful installation must be employed. By using an intensifying screen, the authors have reduced the necessary exposure from 33 to 5 seconds, a current of 12 milliampères being passed through the secondary. Hard tubes are used, having an equivalent spark of 14 to 15 cm., and giving rays numbered 8 on the Benoist scale.

**137. Case of Obstructed Labour.**

ARMIN KALMAR (*Pest. med. chir. Presse*, No. 41, 1910) describes a case of obstructed labour due to a rare form of hydrocephalus. The patient was a multipara, 33 years of age. Kalmar was called to the case of a midwife who had been unable to extract the after-coming head of the child. Labour pains had ceased with the birth of the child as far as the head, and had been in abeyance for three hours when Kalmar arrived. On examination the pelvis appeared to be normal; the hand could reach to the eyes of the fetus, the occiput was immovable above the symphysis. Traction by means of Smellie Veit's grip, Wiegang-Marten's, and the Prague grip was tried without result. The neck was greatly stretched, and the author found that on strong pulling the skin appeared to widen, the neck became thicker, and fluctuation was apparent. Acting on this observation, the author decided that before perforating the base of the skull through the submaxillary soft parts he would attempt to reach the foramen magnum and remove parts of the brain by means of a Braun's hook. With this object he pierced the skin of the neck, when immediately a stream of greyish-white fluid mixed with particles of brain tissue flowed out, to the amount of at least 3 litres. The head now slipped out by its own weight. On examining the head, it was found that the frontal bones were defective, the frontal portion being absent on each side, and also the squamous portion of the temporal bones and the part above the external protuberance of the occipital bone; the parietal bones were altogether absent. A fibrous membrane replaced the bone. The mother made a good and speedy recovery.

## GYNAECOLOGY.

**138. Subtotal Hysterectomy for Fibroid: Cancer of Stump.**

VON FELLENBERG (*Zentralbl. f. Gynäk.*, No. 4, 1911) denies that supravaginal hysterectomy should be absolutely rejected in favour of panhysterectomy in cases of fibromyoma of the uterus. The objection to the less complete procedure is the chance of cancer of the stump of the cervix. The risk, however, does not appear to be great, and in several recorded cases, which von Fellenberg quotes, the complication appeared long after the hysterectomy, and it was not always clear that the operation or the new growth for which it had been undertaken was the cause of the malignant degeneration. It is true that malignancy has appeared within a few years. But in two or more the interval was five years, and in Hinterstoisser's ten years, an "erosion" having been observed and treated for two years. Von Fellenberg recently had under treatment a maiden lady, aged 61. Chrobak had operated on her twenty years previously for uterine fibroid, amputating the uterus above the cervix. Within a few years later she twice underwent a plastic operation for incisional hernia. About a few months before she consulted von Fellenberg she noticed a sanious discharge which caused her great alarm, as her sister had undergone an operation for cancer of the breast. The abdominal cicatrix, already the seat of three operations, was quite firm, and showed no signs of malignant deposit. The stump of the cervix was quite movable, and there was no infiltration in the fornices, but there was a more than suspicious new growth around the os externum. To the touch it felt like a mucous polypus. Von Fellenberg removed it by abdominal section. The stump was easily drawn up to the level of the incision in the parietes; the serous membrane covering it was then dissected off. There was but little difficulty in dissecting away the stump, as there was no infiltration of any kind, and, besides, the blood vessels were very small, far smaller than when there is a large fibroid, or even a normal uterus. There were no metastatic deposits or enlarged glands. The serosa was closed by suture over the vagina, and the parietes united without any drainage, but a sandbag was placed on the abdomen. Under the microscope the typical appearances of pavement-celled carcinoma of the portio were detected, but the disease was very superficial. The patient was examined thirteen months after the operation; there was no evidence of recurrence locally or elsewhere, and the vaginal wound was in a healthy condition. There was no reason to believe that the malignant affection was the result of the operation performed twenty years earlier, and there was a cancerous family history. Von Fellenberg still believes in the subtotal operation, but he considers that the mucosa of the cervix should be removed as far as possible after the amputation of the fibroid uterus. The muscular coat is, in the author's method, freely trimmed away around the cervical canal, and then the rest of the muscularis united by catgut sutures.

## THERAPEUTICS.

**139. Sore Throat and Tuberculin.**

RICHARD KRÄMER (*Wien. klin. Woch.*, No. 40, 1910) reports on cases of sore throat resulting from the administration of tuberculin as a diagnostic or therapeutic agent in the Universtäts Augenklinik in Vienna. Tuberculin has been employed in the clinic during the last seven years, and in that time 70 cases have been specifically treated, and hundreds of diagnostic subcutaneous injections carried out. Cases have frequently occurred in which treatment has had to be discontinued because of fever and throat symptoms, which were considered at first to be of the nature of intercurrent affections, but which were later considered to be in some way special, if not, so to speak, specific, and more careful observations then began to be made. The observations upon which the present article is based deal with 70 cases treated with tuberculin, either new tuberculin or bacillary emulsion. The occurrence of sore throat was noted 16 times—that is, in 22.8 per cent. of the 70 cases. The following is a typical case. A 22-year-old girl with iridocyclitis, on the day after the twenty-fifth injection ($\frac{1}{5}$ mg. T.R.), suffered from follicular tonsillitis with a maximum temperature of 37.8° C. (100° F.). The duration of the attack was three days. At the same time the condition of the eye became worse, and iridectomy had to be performed because of increase of pressure. The possibility of the throat affections in the series of cases described, being accidental, is negatived by the comparative rarity of such affections in patients at an eye clinic, where the general health of the patients is usually good. Nor does infection of one patient by another play any considerable part, because, with one exception, the attacks were independent in time of those of other patients. There was, moreover, something characteristic about the cases. Thus the sore throat began in two cases after the first injection of tuberculin; in a third after the first effective injection; and in a fourth, that of a woman twice treated with tuberculin with an interval of a year, the sore throat began each time after the first injection. Although these cases suggest the presence of a specific local reaction, the author's investigations have not enabled him to arrive at a positive conclusion upon the point. In two cases in which the tonsils were excised and examined the result was negative; the cases are not, however, enough upon which

to base a decision, especially as, according to some authorities, tubercle bacilli are not present in the superficial, but only in the deeper, parts of enlarged tuberculous tonsils. The results obtained by Reimann when dealing with phthisical patients in a sanatorium are of interest. Reimann found that the tonsils were affected in all cases in which bacilli were present in the sputum and in 6 per cent. of the other cases. Krämer, however, points out the impossibility of local reaction in the tonsils not having been previously observed in the hundreds of thousands of injections of tuberculin which have been made, supposing that tuberculous tonsils were so often present as a complication of phthisis. Further investigations are needed to decide whether the author's cases were accidental or were of the nature of a local reaction.

**140. Mineral Water and the Gastric Secretion.**

THEOHARI AND BABÈS (*Arch. des maladies de l'appar. digest.*, September, 1910) refer to the Roumanian spa "Slanic," where the springs are rich in carbonic acid and alkaline and contain sodium chloride, and seek to determine the action of such waters upon the gastric secretion. The general effect is to stimulate the secretion, and in some cases, when taken during digestion, to neutralize the excess of hydrochloric acid. They exert the most beneficial effect upon cases of dyspepsia with anaemia and malnutrition. Sodium bicarbonate diminishes the secretion of the small cul-de-sac of the stomach unless given at the same time as meat, when by the action of the carbonic acid which it liberates upon the hydrochloric acid of the stomach its effect is excitatory. The alkali should therefore be given when fasting. Sodium chloride increases secretion, and the two combined have a mixed action which depends upon the predominating salt. Although mineral waters cause a variation in the amount of the gastric secretion its composition remains unchanged. When there is an excess of hydrochloric acid the gastric juice is normal, but is secreted abundantly and the acid is not neutralized by food, saliva, or alkaline mucus. Such a water as that of the Slanic springs excites secretion by its sodium chloride content, and neutralizes the secretion by its sodium carbonate. A water containing 9 grains of each salt lessens the secretion, as the action of the sodium bicarbonate is the stronger; but where the sodium chloride is 13 grains and the bicarbonate is 6 grains the secretion is excited. The amount secreted and the amount of free hydrochloric have in some instances been increased, while the pepsin has been diminished. The effect of the different springs varies in a slight degree.

**141. Restricted Diet in Acute Inflammatory Disease of Skin.**

L. DUNCAN BULKLEY (*Med. Rec.*, January 28th, 1911) has found of great use in cases treated by him, as well as in a skin affection experienced by himself, a restricted diet consisting of boiled rice, with bread and butter, to be carried out for about five days at a time. The acute inflammatory diseases of the skin are marvellously well affected in a few days by the use of this diet. It is productive of relief, especially to the itching and burning of these affections. Diet has a very great effect on skin diseases. An improper diet renders the tissues of the skin more susceptible to the action of micro-organisms. Proper liver action and phagocytosis account for the increased resistance of the skin. A deranged action of the chylopoietic organs is another factor in the production of skin diseases, producing deranged circulation. Illustrative cases of the use of the rice diet are given. Imperfect or deranged urinary secretion has much to do with the causation of skin diseases. Proper kidney action is assisted by the exclusion from the food of the nitrogenous elements of the diet; the patient feels better, lighter, and freer while taking the rice diet. The five days of non-nitrogenous diet causes an increased output of nitrogen, which is lessened when a return is made to the ordinary diet.

**142. Camphor in Large Doses in Pneumonia.**

LEONARD WEBER (*Med. Rec.*, January 21st, 1911) advocates the use in pneumonia of injections of camphor in oil, made aseptically, with the needle thrust well down into the cellular tissue. Thus given there will be no pain, local swelling, or irritation of bladder, kidneys, or stomach. The author details a case of pneumonia in which there were evidences of intense pneumococcic septicaemia, in which camphor was used successfully after this method, and recovery occurred.



# PATHOLOGY.

**143. Purulent and Tuberculous Diseases of Kidney.**

L. JORES (*Wien. med. Klin.*, No. 44, 1910) deals with the pathology of purulent and tuberculous diseases of the kidney, and compares the two conditions. The two methods of infection of the kidney which have been demonstrated with certainty are the haematogenous and the urogenous. Examples of the infection by the blood stream are the multiple so-called miliary abscesses of general septopyaemic processes and the miliary tubercles, which may stud the kidneys in general miliary tuberculosis and which may be present in the kidneys in smaller numbers in cases of phthisis. These areas are situated for the most part in the cortex and are typically embolic areas. But similar areas due to the secretory functions of the kidney may be found in the medullary substance. The question as to whether virulent bacteria can be excreted without injury to the parenchyma of the kidney is still undecided. Most workers have found that after injection of bacteria into the blood stream, several hours elapse before bacteria appear in the urine, and that small lesions of the kidney parenchyma can be demonstrated; such results point to injury of the capillary epithelium of the glomeruli as a necessary condition for the excretion of virulent bacteria by the kidneys. Biedl and Kraus, however, found bacteria in the urine a few minutes after their injection into the blood, and decided that no serious kidney lesion was necessary. The appearance of the small haematogenous tuberculous areas in the kidneys, as of lesions due to tubercle bacilli in other organs, may be that of a simple inflammatory process only, and the diagnosis may depend on the occurrence of such areas in tuberculous patients, and still more upon the demonstration of the presence of the bacilli. Larger discrete tuberculous areas which grow to a considerable size, and often break through the pelvis of the kidney and give rise to secondary infection of the urinary passages, is particularly characteristic. In purulent infections also larger abscesses may occur, but these more often give rise to perinephritic and paranephritic abscesses, than to a descending pyelitis. The ascending urogenous method of spread is the ordinary one in the case of purulent infections, and it used to be thought that the same method was common in tuberculous infections. This view has, however, been modified. V. Baumgarten and Kraemer found that in guinea-pigs tuberculosis of the bladder or urethra might lead to disease of the prostate, but never of the vas deferens, the testicle, the uterus, nor the kidneys, and v. Baumgarten enunciated the law that tubercle bacilli never travel against the stream either of blood, of lymph, or of a secretion. Kraemer believes that the same law holds good in man, and points out that the seat of predilection in bladder tuberculosis is at the opening of the uretus, showing the entrance points of the bacilli; that the upper part of the ureter is often affected and the lower part free, but never the reverse; that the coexistence of tuberculosis of the genital organs and kidneys is almost equal in the two sexes, instead of being more frequent in the male, in whom the passage of infection from the genital organs to the urinary organs would more readily occur. On the whole, the author's opinion is that the anatomical conditions support v. Baumgarten's view, though the possibility of an ascending affection cannot be denied, and since, in the course of a tuberculosis, obstruction of the flow of urine is likely to arise, such ascending affection might occur, even though v. Baumgarten's law holds good. Other experimental facts leading to the same conclusions are given. Infection of the second kidney must also sometimes occur by the urogenous method, and the author has frequently seen cases in which the appearance of the kidney was typically that of an ascending infection, striped areas of the kidney substance being affected, even though the pelvis of the kidney and the ureter might be unaffected. With regard to the question of primary infection of the kidneys the author's opinion is that it probably does not occur. The question of spontaneous recovery is of interest. Pyelonephritis may be accompanied by interstitial inflammation tending towards the formation of scar tissue. Advanced caseo-cavernous kidney tuberculosis can become quiescent and the lesions show an unmistakable tendency towards healing; the cavities are filled with a chalky white mass, exactly like that found in old lung scars; the kidney pelvis is contracted, and the fat in the hilum merely increased; the ureter is usually filled with the white chalky material, and finally becomes stenosed or obliterated.

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# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 144. Erythraemia or Polycythaemia.

SENFERT (*Amer. Journ. of Med. Sciences*, December, 1910) records two cases of erythraemia presenting the symptom-complex of cyanosis, polycythaemia, and enlarged spleen. The splenomegaly may manifest itself a long time before the appearance of the cyanosis, which latterly is usually seen on the face, hands, and feet, and exceptionally over the whole body. The blood is very dark purple in colour and flows sluggishly from a prick, its viscosity being three or four times greater than normal, and the coagulation time markedly shortened. The red corpuscles range from 8,000,000 to 12,000,000 per c.mm., and the haemoglobin is usually from 125 to 150 per cent. Headaches and dizziness are complained of early, and later mental torpor, impaired memory, confused ideas, and incoherent speech may develop. Nausea and vomiting are usually present with pain in the left hypochondrium due to the hypertrophy of the spleen, and this latter may be the only symptom present for years. The disease, which is generally fatal, usually lasts for from four to ten years, with periods of remission. Treatment has little influence on the course of the disease, and in the two cases recorded arsenic, quinine, and *x* rays were tried without any result. Inhalations of oxygen afforded temporary relief for twenty-four hours at a time, and removal of 250 c.cm. of blood gave transient benefit in one case. The sequence of events appears to be a diminished absorption of oxygen following upon some deterioration in the haemoglobin, thus giving rise to an increased erythroblastic activity in the bone marrow with consequent polycythaemia, causing an increase in the viscosity of the blood. In order to lessen the resistance due to this increased viscosity, dilatation of the small blood vessels and venous stasis result, producing arterial sclerosis and hypertrophy of the left ventricle. The enlargement of the spleen may conceivably be the result of either mechanical or toxic irritation due to the increased number of red blood corpuscles, and when all the compensatory changes begin to fail cyanosis would naturally result. The condition appears primarily to be a disease of the bone marrow with considerable over-production of red corpuscles, upon which follows the above sequence of events.

### 145. Association of Measles and Scarlet Fever.

HUTINEL (*Journ. de méd.*, January, 1911) observed 5 cases of scarlet fever succeeding measles, and all the patients recovered without any complication. He considers that the gravity of the former disease supervening on the latter depends on whether the latter is complicated or not by bronchopneumonia or bronchitis. If scarlet fever and measles exist at the same time (a very rare condition), the eruption produced by the two is simultaneous, but this association is not serious. The most important and serious condition is when measles succeeds scarlet fever. Out of 15 of his cases 4 died, all from pulmonary complications. The shorter the interval between the two fevers the more grave the outlook. As a whole, the writer does not consider the association of the two diseases as dangerous, the secondary infections after scarlet fever, nearly always streptococcic, being the chief cause of danger.

### 146. A Urine Reaction of Breast-fed Children.

ST. ENGEL AND L. TURNAU (*Berl. klin. Woch.*, January 2nd, 1911) report that they came across a peculiar behaviour of infants' urines toward silver nitrate when testing for chlorides. In a few instances they forgot to acidify the urine before adding the silver salt, and to their surprise a flocculent precipitate formed, which, at first white, became black as it sank to the bottom of the test tube within a few minutes. On investigation they found that the reaction was not due to a reduction by light of the silver, as the blackening took place well in the dark. They found that the reaction was marked in breast-fed infants and absent in bottle babies, while in mixed-feeding infants it was less distinct. They took 5 c.cm. of urine and added from 15 to 20 drops—that is, about 1 c.cm.—of a 2 per cent. silver nitrate solution. The tube was allowed to stand for ten minutes. If the precipitate became black after this time, they state that the urine belonged in all cases to a breast-fed infant. Boiling hastened the reaction, but the result may not be distinct. It is therefore advisable to carry it out in the cold. They do not attempt to explain the reaction.

### 147. A Quick Macroscopic Typhoid Agglutination Test.

BASS AND WATKINS (*Archives of Internal Medicine*, December 15th, 1910) have developed an agglutination test practical for the general practitioner, which they describe, after more than a year's experience and 100 comparative tests, as being as accurate as the Widal reaction. The only materials required are a microscopic slide or piece of glass, a puncture needle, a medicine dropper, and one drop of a suspension of typhoid bacilli, and the time occupied in making the test is less than two minutes, and it may be performed at the beside. The suspension is of the strength of 10,000 million dead bacilli per cubic centimetre in 1.7 per cent. solution of sodium chloride, to which 1 per cent. of liquor formaldehydi has been added. This test fluid can be easily prepared, and it is stable, and can be marketed as other reagents and test solutions are. The test is made by pricking the ear lobe or finger with a puncture needle, and diluting the blood by dissolving it in approximately four times its volume of water. One or two drops of this diluted blood are placed on the microscopic slide or other piece of glass, with an equal quantity of the test fluid, and the slide tilted from end to end so as to keep the mixture flowing backwards and forwards. If the reaction is positive, a greyish mealy sediment consisting of agglutinated bacilli, and easily seen by the naked eye, appears in less than a minute. The appearance is first noticed in the fluid around the edges, and tends to collect there. If the agitation of the slide is continued for a couple of minutes the clumps increase in size, but if there is no reaction in two minutes none will occur later, the mixture remaining clear and unchanged when the result is negative. The blood may be collected by squeezing out about a quarter of a drop from the puncture, touching the slide to it, and spreading it out, and, if no slides are at hand, one drop of blood may be collected in a bottle containing four drops of water. The advantages of this test over the usual method of obtaining the Widal reaction are that it takes only two minutes to perform, does not necessitate any laboratory experience or facilities, is inexpensive, and can be carried out every day if necessary at the bedside, giving immediate information for diagnosis.

## SURGERY.

### 148. Gypsum and Varicose Ulcers.

SAMUEL DIÓSSJILÁGYI (*Pest. med.-chir. Presse*, No. 46, 1910) has employed the method recommended by W. Pust in the treatment of varicose ulcers of the legs, and has met with much success. On this system a thick layer of gypsum is placed over the site of the ulcer, separated from it by a thin gauze bandage; over the gypsum is placed a thick layer of cotton wool, and the whole covered with gutta-percha, Billroth cambric, or similar material. No sterilization of the gypsum is needed. During the first days the gypsum and cotton wool are often changed without changing the gauze. As soon as the ulcer becomes clean the following ointment can be substituted for the dressing: ℞ Argenti nitro cryst. 0.30, bals. peruviani 3.0, zinci oxydati 2.0, vaselini flav. amer. 30.0. Pust maintains that under such treatment obstinate ulcers become clean often within a few hours, and that wounds received under unfavourable conditions, such as the wounds of enginemen or navvies, remain sterile. The author has tried the treatment in fourteen cases of varicose ulcer of the leg during eighteen months. His experience has been that even in obstinate cases, in which the ulcer has spread in spite of treatment and has caused continual pain, there has been immense improvement within twenty-four hours. Foul smell has disappeared as a result of absorption of gases by the hard porous mass formed by the action of the secretion from the wound on the gypsum. The ulcer cleaned up on the second day, oedema of the edges diminished, and, what was of even greater importance to the patient, pain also diminished. At the same time secretion became less, so that the dressing could be left

in position much longer. As a rule, the change to ointment could be made in from five to ten days, according to the rate of progress. Not one of the fourteen cases proved resistant to the treatment. The author also treated two cases of broken-down buboes with gypsum, but substituted for the ointment a daily irrigation with 3 per cent. $H_2O_2$, and the result in these cases was as satisfactory as in the others. The gypsum acts by drying up the wound and so making the conditions unfavourable for bacterial life, and at the same time causing increased circulation locally and providing more favourable conditions for the tissue cells.

**149. Cysts of the Kidney and Cystic Kidney.**

PAPIN AND CHRISTIAN (*Rev. de gynéc. et de chir. abdom.*, February, 1911) aim in a short but important monograph to determine the correct specification of the different varieties of cystic kidney, the word "cyst" being understood in all senses for which it has been employed. He distinguishes thirteen different forms of renal, perirenal, and pararenal cyst which may be detected in the lumbar region. (1) Cysts due to chronic nephritis, well known in aged subjects. (2) Large serous cysts, often overlooked till after death, as they are of slow growth, and not as a rule painful. (3) Large haematic cysts, really very rare, only seven authentic cases having been collected. This cyst arises as a haematoma, which becomes secondarily encysted, or as a serous cyst, into which haemorrhage occurs from degenerate vessels in its wall or from trauma. (4) Congenital cystic kidney. The surgeon must remember that it is generally bilateral, and that the ureter may be obliterated in one of the pair; lastly, unilateral disease is exceedingly rare (about three cases reported). This tumour is frequent in the newborn. (5) Polycystic kidney or adeno-cystoma, found in the adult, although the congenital cystic type is not unknown in the mature. (6) The small pseudo-polycystic kidney, not identical with (1). It may be associated with tubercle, which, however, is most probably secondary; other inflammatory processes besides nephritis cause it. (7) Cystic cancerous kidney, usually with many loculi full of blood, but big single cysts are known. (8) Dermoid cysts, very rare, but several authentic cases have been reported and preserved. (9) Hydatid cysts. (10) Aneurysm; 4 cases have undergone operation. (11) Perirenal and pararenal cysts; blood cysts, epithelial or parapyelic cysts, lymphatic cysts, Wolffian cysts, and retroperitoneal dermoid cysts. (12) Partial hydronephrosis and cysts developed in hydronephrotic kidney. (13) Pseudocysts due to double ureter. The ureter from the upper part of the renal pelvis often opens into the bladder lower than the ureter from the inferior portion, or has an abnormal orifice. Hence a cyst caps the kidney, or the affected ureter may through chronic dilatation form an elongated tumour. The surgery of all these cysts is fairly well known. Tapping is dangerous; thus in Class 3 fatal haemorrhage has been reported. The question of bilateral disease is always to be taken into account. There remain grave uncertainties about the proper management of (4) and (5). As a rule, they demand medical treatment; but the surgeon should remove a big polycystic tumour if associated with haematuria, pain, or dyspnoea, provided the condition of the other kidney justifies the step. When one polycystic kidney has suppurated or has been badly damaged, nephrectomy may be imperative.

**150. Transplantation of Sartorius Muscle in Treatment of Hernia.**

MANTELLI (*Gazz. degli Osped.*, November 22nd, 1910) speaks favourably of a plastic use of the sartorius in the treatment of inguinal hernia, and publishes 4 cases in illustration. All 4 cases were instances of relapsing hernia. The upper third of the sartorius, minus its sheath, is transplanted over the inguinal canal, below the crural arch, and sutured to the sheath of the rectus abdominis. In the 3 cases which could be followed, nine months later the transplanted muscle had preserved its electrical and functional capacity, and the hernia had not recurred. The fourth case could not be followed. The normal function of the sartorius is so limited in man that transplantation does not involve any great loss.

**151. Extragenital Syphilitic Infection.**

ERNÖ IVÁNYI (*Pest. med.-chir. Presse*, No. 24, 1910) gives short notes of 157 cases of extragenital syphilitic infection which he has observed during the last eight years. The location of the primary infection was perigenital in 6 of the cases, and was unknown, but was certainly not genital in 19. The patients were about equally divided as to sex; 27 of them were children, the remainder adults, the age varying from 11 months (a child infected from its foster-mother) to 60 years. Of the women, 16 were married, 1 a widow. Of the men, 9 were married, 1 a widower. The primary lesion was on one or both lips in 62 cases, on the tongue in 2 cases, on the face in 7, on the forehead in 2, on the left ear in 1, on the eyelids in 3, on the breast in 9, the fingers in 8, and the anus in 3. Most of the cases were caused by a kiss or bite of an infected person. It is of importance that such cases should be reported, in order that the possibility of extragenital syphilitic infection should not be lost sight of in making diagnoses. The author suggests that the danger of spreading infection cannot be too strongly impressed upon the patients, and would give each patient a printed paper on the subject.



## OBSTETRICS.

**152. Fatal Necrosis of Myoma after Abortion.**

JOLLY (*Zentralbl. f. Gynäk.*, No. 3, 1911) reports that a unipara aged 24 aborted at the third month, and the uterus was emptied by the patient's doctor. She had been feverish before the miscarriage. She was sent into hospital by her doctor, and an interstitial myoma as big as a fist was defined on examination. The temperature remained high, thrombo-phlebitis developed, and the patient died with pulmonary symptoms. The myoma, which lays in the substance of the posterior wall of the uterus, was totally necrosed, and advanced suppurative changes were detected in the veins. Jolly notes that this case proves the dangers which may arise from the presence of an interstitial fibroid tumour during pregnancy. It is already generally known that a submucous fibroid may be the source of sepsis in the puerperium. In a discussion on this case Hammerschlag agreed that it is not only submucous fibroids that endanger gravid women. He reported an instance of fever setting in during the puerperium after delivery complicated by fibroid. Death occurred within a few days. The fibroid had suppurated and its serous coat had become perforated, so that septic peritonitis occurred. Hammerschlag admitted that, as a rule, necrotic fibroids do not cause general infection in the puerperium.

**153. Substitute Feeding in Premature Infants.**

LADD (*Archives of Ped.*, June, 1910) compares the records of the infants' and children's hospitals with regard to the results of the treatment of premature children. In neither hospital did any infant in the sixth month of gestation survive, while the percentage of infants in the seventh month who lived was nearly twice as great as those of the eighth month. The number of eighth-month babies was comparatively small, and the data as to the period of gestation was in some cases doubtful. The facts are consistent with the view generally held, that premature babies of seven months are more likely to survive than those born prematurely at eight months. No infant weighing under 1,200 grams at birth survived. The smallest baby admitted weighed 570 grams at birth, and lived for six days. The mortality might be lowered if some proper means of conveying the children to the hospitals were devised. The parents are unable to keep the child warm, and at the same time provide it with air to breathe. The condition in which many of the children arrived was deplorable. The babies were given oil-baths, wrapped in quilted cotton jackets and placed in padded cribs with hot-water bottles. The food, almost without exception, was some form of modified milk; occasionally a mother has supplied one or more feedings of breast milk daily. The babies who survived gained on an average only 50 grams a week, for an average period of 70 days each. The average energy quotient of the food of 11 cases who lived and gained in weight was 107, but there was no definite relation between the energy quotient of the food and the weekly gain in weight. Modified milk, however carefully administered, must be considered an unsatisfactory food for premature infants, and should only be used when mother's milk cannot be obtained.

## GYNAECOLOGY.

**154. Primary Sterility in Women.**

A. J. RONGY (*Med. Record*, February 18th, 1911) believes that the great factor in primary sterility is gonorrhoea. His observations are based on 120 cases of sterility treated by him, in which the husband was examined as to his part in the causation of sterility. It is unfair, he says, to

the woman to treat or operate on her until one is sure that the responsibility does not rest with the husband. The prognosis for cure of sterility is unfavourable. In fully 70 per cent. it is due to gonorrhoeal inflammation, and dysmenorrhoea is present in 84 per cent. of the patients. In 22 of the patients treated sterility was cured. Dysmenorrhoea was cured in 56 per cent. and relieved in 6 per cent. Displacements alone, apart from inflammation and thickened discharge in the cervix, are not frequent causes of sterility. Sedentary occupation is a frequent cause of displacements and dysmenorrhoea. Leucorrhoea was present in 95 per cent. of the patients treated. Infantile uterus seldom causes sterility. In 12 per cent. the author could not account for sterility; 30 per cent. of men who have had gonorrhoea have azoospermia. The best operative results were obtained by dilatation of the cervix and the introduction of the stem pessary. A considerable number of cases recover under medical treatment.

**155. Malignant Fibroid: Lipomyosarcoma.**

SITZENFREY (*Zeitsch. f. Geb. u. Gyn.*, vol. 67, 1910) publishes a minute report of an interstitial uterine tumour with two unusual elements, fat and sarcoma tissue; in short, the fibroid was malignant. The clinical history is important in relation to the question of malignancy. The patient was 62 years old, and had seen no periods for seven years; she sought advice because of a fetid discharge which she had only observed for a month, and during that space of time there had been attacks of haemorrhage, much watery blood escaping. On examining the abdomen, a uterine tumour, a firm growth with all the characters of a common fibroid, was detected. The uterus was removed. Its cavity contained a long, tongue-shaped glandular polypus, and the endometrium was uniformly thickened. This condition was sufficient to account for the alarming discharge and haemorrhages, which suggested carcinoma or the breaking down of a sarcomatous growth. Yet a tumour of the latter type was present, after all. Besides some subserous true myomata, there was an interstitial growth, as big as a fetal head, in the anterior uterine wall. This growth consisted of several distinct myomata, with much pure fat between them. The fat bore in parts an investment of connective tissue in which lipoblasts in different stages of development were detected, all quite out of place in the normal uterine wall. Strands of adipose tissue insinuated themselves between the bundles of fibres in the myomata. On investigating sections of the myomata sarcoma cells were detected in many parts, small spindle cells, large spindle cells, and giant cells, many undergoing different types of degeneration. The relation between the sarcoma cells, fat cells, and muscle cells is discussed. The patient recovered from the operation (September, 1909), but there is no after-history.

## THERAPEUTICS.

**156. Modern Treatment of Acute Local Inflammations.**

RUGGI (*Rif. Med.*, December 12th, 1910) discussing the above subject, with especial reference to the Bier treatment, comes to the conclusion that the older methods of treatment are decidedly better. In early cases the Bier treatment may be tried with great circumspection, and preferably in hospital, where the effects can be constantly watched. The aim of treatment should be to weaken the initial active stage of inflammation by removing the venous engorgement and dispersing the liquid effusions, which serve as good media for the growth of microbes. The best way to accomplish this is by giving increased tone to the vessels by cold applications, and by encouraging the peripheral circulation with moist heat, and by drawing blood from the inflamed part. Hence the advantage of early free incision, and, if suppuration has formed, opening under the usual antiseptic rules, followed by drainage and dry antiseptic dressings, which act like sponges and suck out the poisonous fluids. Dressings should not be changed often, the wound cleansed with dry sterile gauze, and the periphery washed with gauze soaked in alcohol or tr. iodi. Aspiration may succeed in some cases by disturbing the equilibrium more or less established between the pathogenic elements and the peripheral part.

**157. Diphtheria Antitoxin.**

RAYMOND WALLACE (*Med. Record*, January 7th, 1911) says that up to the present time there has been a failure to recognize an occasional danger of sudden death after prophylactic injections of antitoxin in sensitized individuals and those subject to asthma or other forms of respiratory distress. Persons susceptible to odours of horses or stables, the asthmatic, the hay-fever patient, and the subject of bronchitis should be injected with caution and after the use of adrenalin as a prophylactic. Insufficiency or inadequacy of the suprarenal glands may account for the asthmatic type of reaction. Aqueous injections of adrenalin before serum is used, in order to control the vasomotor system, is a prophylactic measure of great value, and a useful heroic treatment after the acute attacks of serum disease have begun. The desquamation following serum disease may be mistaken for scarlatinal desquamation.

**158. Treatment of Syphilitic Bubo.**

DAL FABBRO (*Gazz. degli Osped.*, January 3rd, 1911) finds that syphilitic bubo is decidedly more common in men than women. In man it is owing chiefly to the specific ulcer, in woman to the gonorrhoea, for in woman there is a larger extent of mucous surface from which absorption may take place, and coitus is more frequent in the female than in the male gonorrhoeic. Any syphilitic ulcer may give rise to bubo, but it is frequently found that a given group of buboes may all be traced to one source of infection, so that it is possible either from a separate organism or from a symbiosis of bacteria, there may be venereal ulcers which exhibit a special power of causing bubo. In treatment the author teaches that palliative measures are usually useless, the only effectual treatment being surgical. He does not advise iodine, but after shaving disinfects the the skin with ether, freezes locally, and then makes a small incision $1\frac{1}{2}$ cm. at the most, carefully avoids any squeezing out of the contents, as he believes this to be a very bad practice. At the first three dressings a little aspiration may be tried, followed by an injection of oxygenated water (12 vol.), and simple drainage with sterile gauze. The author believes that oxygenated water acts like a true specific in these cases; after the first three dressings he uses nothing else. By this treatment cure occurs in about fourteen days as an average. No better results are obtained by more modern methods, for example, Bier's treatment.

**159. Ventilation and Children's Health.**

LASSABLIÈRE AND SCHÄTZMANN (*Ann. de méd. et chir.*, November, 1910) have made investigations on the effect which the aspect and ventilation of dwelling rooms have upon children's health. They inspected fifteen dwellings occupied by workmen, factory hands, etc., and considered the aspect, the total air capacity of the house and of the children's bedrooms, as well as the methods of ventilating and heating the whole. They also obtained samples of air from the children's rooms in the early morning, and estimated the amount of oxygen and carbonic acid gas present in them. The children were also examined with regard to their previous illnesses, and an examination of their blood was made. They conclude that the number of illnesses among children is greater as the amount of cubic air space is lessened; thus in a family where the children had been ill fourteen times the air capacity was one-third of that in other houses where the children were healthy. In such dwellings the blood counts showed a considerable amount of anaemia. In bedrooms anything less than 24 cubic ft. per child is insufficient, and renders the family susceptible to infectious disease and anaemia. A north or south-east aspect appears to be unfavourable. In some cases the open window at night appears to have sufficiently supplemented the want of air space. The rise in carbonic acid was not very high above the normal, but it is probable that long-continued exposure to a vitiated atmosphere will interfere with the oxydation of the child and promote malnutrition.

**160. Aeration by Osmosis.**

FITCH (*Pediatrics*, October, 1910) describes a rational and practical method of relieving asphyxia in the newly-born child. He relates more than one case in which the fetus and envelopes were delivered intact and left unattended to for one or more hours after birth, when the child was found to be surviving and could be resuscitated. These were cases of fetal circulation carried on by aëration of the blood through the medium of the exposure of the maternal portion of the placenta to the atmospheric air. The writer holds that the easiest method of resuscitating an infant is by aëration of the infant's blood through osmosis, by allowing the atmospheric air to come in contact with the irregular maternal surface of the placenta where aëration has been going on from the earliest moments of the beginning of embryonic life. In cases of prolonged and difficult labour it should be possible to deliver the placenta rapidly and without dividing the cord; the

maternal surface is then cleansed from blood and clots with warm water and spread out to the air. As long as circulation persists in the cord the child may be kept alive. As soon as respiration begins—and in some cases it has been delayed for thirty or forty minutes—the circulation changes from the placenta to the lungs, and pulsation in the cord ceases, when the child may be separated from the placenta, as in ordinary cases. In asphyxia the various centres are but feebly irritable and require active stimulation. The exposure of the maternal surface of the placenta to the atmospheric air will by osmosis aërate the blood of the child and relieve asphyxia.

**161. Ichthyol in Pulmonary Diseases.**

WILLIAM S. BARNES (*Med. Record*, January 21st, 1911) finds in ichthyol a safe and valuable remedy in diseases of the respiratory tract, especially early tuberculosis, bronchitis, and pleurisy. The drug is an alterative, intestinal antiseptic, and vasoconstrictor. It stimulates the gastric mucous membrane and thus increases assimilation of food. It is given in peppermint water, and in doses up to 20 grains three times a day. It diminishes the secretion of the bronchial mucosa. The author gives histories of eight cases treated with this drug.

**162. Veronal in Sea Sickness.**

EMIL SCHEPELMANN (*Therap. Monats.*, December, 1910) considers that in sea sickness the movement of the boat has a prejudicial effect on the organs of equilibrium, but an exalted sensitiveness of the nervous system is necessary for the production of the disease. He considers veronal in doses from 0.5 gram to 1 gram the best drug, given in tablet form.

## PATHOLOGY.

**163. Micro-organism found in the Blood of Acute Cases of Poliomyelitis.**

SAMUEL G. DIXON, HERBERT FOX, AND JAMES B. RUCKER (*Laboratory Report, Department of Health, Commonwealth of Pennsylvania*) state that in examining the blood from acute cases of poliomyelitis in human beings, and also in monkeys in which the disease was produced experimentally, an organism was found different in morphological character from any heretofore described. This, they say, may or may not, on further investigation, prove to be the etiological factor in the causation of the disease. Blood smears being fixed in methyl alcohol for one minute and stained with carbol-thionin, the organism appears as a faintly stained blue rod with regular cell wall about 10 microns long and about 0.8 microns in width, curved at an angle of 60 to 75 degrees at one end, occasionally at both ends. At times the curved end is bulbous. Some of the organisms appear to have a very finely granular protoplasm when the highest amplification is employed. They may be discerned by means of a 4 mm. dry objective, but their characteristics are much more satisfactorily delineated under the 1–12 oil immersion lens. They are found free in the serum as well as within the body of the red blood cell. The organisms do not retain the violet colour when stained by the method of Gram, but assume the colour of the counter stain, which, as generally used in this laboratory, is a very dilute solution of carbol fuchsin. The bloods examined were from 10 different cases of acute poliomyelitis in children, and were taken during the epidemic of the summer and autumn of 1910; and from 13 cases of the disease during the acute stage, which had been produced experimentally in as many monkeys. Blood smears from three normal human beings were carefully examined, and, although the search for these organisms was diligently made, none were found. Smears were made from the bloods of 13 normal monkeys with negative results. After inoculation with the virus these same monkeys gave positive results. The blood of other normal monkeys gave negative results. Blood smears were stained with iodine and sulphuric acid in order to test the organisms for cellulose but no blue-stained organisms were seen. Smears from the cords and brains of paralysed monkeys and from one human case were examined but none of the new organisms were found. Filtered virus stained with carbol-thionin and by Gram's method showed none of these organisms. Defibrinated blood, three weeks to two months old, from two paralysed monkeys showed the forms in increased numbers. Cultures made from the blood of a paralysed monkey in blood bouillon, plain bouillon, and blood agar, examined after having been inoculated three weeks, showed the presence of the organism in increased numbers. Dorsett's egg medium was inoculated with the same blood at the same time, but the organism was not found in smears from the surface of the medium or from the water of condensation. The authors searched without success for moving organisms in fresh blood, in old tubes of defibrinated blood from paralysed monkeys, in blood bouillon, plain bouillon, serum bouillon cultures three weeks old, and in the condensation water in three weeks old cultures on Dorsett's egg medium under dark field illumination. Attempts to isolate the organisms have so far been unsuccessful.



**164. Anaphylaxis and Haemolysin Poisoning.**

HERMANN PFEIFFER (*Wien. klin. Woch.*, No. 42, 1910) looks upon the fatal poisoning often seen after burns, the condition of anaphylactic shock and poisoning by normal haemolysins, as after the injection of large amounts of ox serum, to be all instances of autotoxicosis from poisonous products resulting from the breaking down of proteins. Anaphylactic shock and poisoning by normal haemolysins may both be considered cases of exogenous autotoxicosis, with the difference that in anaphylactic shock the immune body and complement are produced within the body and the antigen upon which they work introduced from without, while in poisoning by normal haemolysins the immune body and complement are introduced from without and act upon the normal proteins of the body. Poisoning after burns, on the other hand, is a purely endogenous autotoxicosis brought about by the same products. The author investigated the cause of death from burns some years ago and found it to be due to the overproduction of a toxic product, traces of which are normally formed in the body and excreted in the urine; in large quantities the product injures the kidneys and may lead to uraemia and death. Later, working with S. Mita, he showed that as a result of sensibilization of a guinea pig with a suitable antigen a proteolytic ferment appears in the serum, and that this, acting on the antigen and probably also on the protein of the body, leads to the formation of an incoagulable cleavage product of the nature of a peptone. These results, together with those of v. Dungern and U. Friedmann, who have shown a rapid disappearance of the antigen in an immunized animal, of Biedl and Kraus as to the identity of the symptoms in dogs of anaphylactic shock with peptone poisoning, of Doerrs and Niedbergs and others as to the production of poisons *in vitro* from the action of proteid immune bodies on their antigen, all lead to the view that in anaphylactic shock also there is autotoxicosis from the destruction products of protein bodies. If this view is correct it should be that in anaphylactic shock, as is seen after burns, the urine should show increased toxicity. This actually proved to be the case; thus, 2 c.cm. of urine of normal guinea-pigs injected into other healthy guinea-pigs, either intraperitoneally or subcutaneously, was scarcely at all injurious, and mice recovered rapidly from symptoms of poisoning due to the injection of 1 c.cm. On the other hand, with urine from sensibilized animals excreted during several hours of severe but protracted anaphylactic shock—(1) 1 c.cm. to 2 c.cm. injected intraperitoneally caused severe poisoning in guinea-pigs and the same symptoms could be induced in white mice. (2) Injected subcutaneously, the same amount caused necroses of the cutis in guinea-pigs, and the action on the cutis was so far specific that it was not seen if the injection was made on the white mice. The toxic urine, like the toxic urine after a burn, had no action on the erythrocytes. (3) The toxicity varied with the severity of the anaphylactic shock and disappeared as a rule within twenty-four to forty-eight hours after recovery from shock. (4) There was no increase in toxicity if (*a*) a different inactivated antigen, causing shock, were injected into a previously treated animal, or if (*b*) a guinea-pig not previously treated were injected with an inactivated serum. The author has also investigated the condition of the urine in animals not previously treated and poisoned by normal haemolysins, as in large injections of ox serum. The similarity in the symptoms of such poisoning and of anaphylactic shock had already been shown by Doerr and Moldovan, and later by the author and S. Mita. Pfeiffer now shows that the urine of animals poisoned by normal haemolysins contains the same toxic bodies as the urine after abnormal destruction of protein in the body. After large doses of serum the urine, like the urine of anaphylactic shock, becomes very toxic, does not destroy the cutis in white mice, is indifferent to erythrocytes, and produces in guinea-pigs symptoms indistinguishable from those of anaphylaxis urine poisoning. The toxicity depends on a thermostabile poison, which in its chemical physical condition acts like that of the urine after burns or in anaphylaxis. The more severe the haemolysin poisoning the greater becomes the toxicity of the urine, but the toxicity quickly disappears after the disappearance of the symptoms of poisoning.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 165. Trichocephalus Enteritis.

CADE AND GARIN (*Arch. des mal. de l'appareil digestif et de la nutrition*, June, 1910) point out that the trichocephalus worm is one of the most common of intestinal worms, and that it may give rise to various reflex nervous manifestations, to more or less marked anaemia, and to toxic symptoms. One of the commonest symptoms produced by this worm is some form of digestive disturbance, and the authors believe that in all cases it causes enteritis, which may be of a dysenteric character, and associated sometimes with short rises of temperature. It is probable that these symptoms are produced as a result of infection of the body by the microbes normally inhabiting the intestine which are inoculated by the worm; possibly, also, some of the intestinal symptoms may result from nervous disturbance, but this factor probably plays but a small part. Clinically, trichocephalus enteritis shows itself in various forms. Sometimes a severe and rebellious diarrhoea occurs, accompanied or not by colicky pains and tenesmus, but usually without much pain. The stools are liquid, yellow, and sometimes mixed with mucus. Visible blood is uncommon but occult blood is almost always present. This diarrhoeal form resembles very much that due to tuberculous disease of the intestine. If there is much mucus in the stools and there are colicky pains and tenesmus, dysentery is simulated. In other cases constipation alternating with attacks of diarrhoea is liable to occur, and the stools then often contain mucus and false membranes; if to these symptoms are added attacks of abdominal pain, muco-membranous entero-colitis, or intestinal dyspepsia is likely to be diagnosed. In these cases there may be pain or pressure over the right iliac fossa, and appendicitis or typhlitis is suspected. Sometimes the symptoms take the form of heaviness after eating, less commonly of pain and rarely of vomiting. Loss of appetite is common. As these patients often exhibit neurotic manifestations their symptoms may be put down to nervous dyspepsia. Headache, dizziness, vertigo, loss of strength, and asthenia, out of proportion to the general condition of the patient, are also common. A rise of temperature in trichocephalus infection is common, either a moderate rise lasting for some days, or even sudden rises to a greater height. The diagnosis can only be arrived at by, if necessary, repeated examination of the stools for the ova of the worm. Eosinophilia, though helpful, is not by any means a constant sign in trichocephalus infection. With regard to the treatment of this condition, the author adopts the following method:—Thymol in 1 gram doses is given in the form of a cachet three or four times a day for three or four days, and this is followed by a saline purge. No wine, alcohol, or oil should be taken during the treatment. This treatment should be resumed, if necessary, after a few days. Although it is not always successful in removing the worms, even after several séances, it is absolutely devoid of danger, and in every case causes decided amelioration of the symptoms. The author considers that in persons suffering from vague intestinal symptoms of indefinite causation, a search should be made for ova of worms in the stools, as if these be found a definite and rational line of treatment can be adopted.

### 166. Haematuria in Granular Kidney.

G. ANTONELLI (*Boll. della Soc. Lancisiana d. Osp. di Roma*, Rome, 1910, xxx) remarks that haematuria is not rare in granular kidney, and that the blood usually comes from the renal tubules. This was not so, however, in his case The patient, a labourer of 64, who had had syphilis at 19 and malaria at 21, was admitted with debility, severe headache, frequent slight epistaxis, and haematuria. He showed the signs of arterio sclerosis and cardiac hypertrophy, and there were numerous petechiae on the skin. Five days later he died; the kidneys were small, granular, with grey, ill-defined cortex and red medulla, and there was marked haemorrhagic infiltration of the renal pelves, the calyces containing clots. Microscopically there were no red cells in the glomeruli or interstitial tissue, no blood casts in the tubes, no deposits of haemosiderin in the tissue; only a few tubules contained a red cell here and there. But the wall of the renal pelvis was infiltrated with blood, which had detached the epithelium in certain places, and the blood vessels were congested. Antonelli believes that the haematuria was of renal pelvic origin, and connects it with the epistaxes and subcutaneous haemorrhages, all being due to the diathesis haemorrhagica uraemica.

### 167. Alopecia Traumatica.

MORITZ SCHEIN (*Pest. med.-chir. Presse*, No. 51, 1910) describes a rare case of alopecia traumatica. The condition had been described by Trebitsch in 1908. It is seen only in women, beginning at the age of puberty and being of progressive character. The place of election is the parietal region, and usually only one plaque is to be seen on the skin of the head, sometimes more, which may in course of time become confluent. The disease spreads towards the forehead and the neck, and ends at last in an almost universal alopecia. No change can be found in the hair which drops out. Trebitsch only saw the condition in the western parts of Greenland in women who dress their hair after the manner of the country by pulling it on to the top of the head and twist it into a knot, which is pressed down by means of a band. Nansen considers the cause of the alopecia to be the excessive tightness with which the hair is twisted. The continual stretching of the hair leads to atrophy of the papillae. The skin also is stretched, and its nutrition suffers. The falling out of the hair may be only a temporary matter if the causes have not been too long in operation and atrophy of the papillae has not occurred. The author's case was that of a young girl who consulted him about the falling out of her hair. This had begun at puberty and had persisted for several years. The hair over three round patches in the parietal region was more scanty and shorter than elsewhere. Alopecia areata could be excluded, since the loss of hair in all three places was moderate in amount, and the old and new hairs did not differ from one another either in colour, thickness, or distance from one another, and the alopecia had never been total and had remained unchanged for years. On inquiry it turned out that the girl used to dress her hair on the side of the head in a tight knot, and had suspected that the loss of hair was connected with this procedure.

### 168. Intestinal Amoebiasis.

BREM AND ZEILER (*Amer. Journ. of Med. Sci.*, November, 1910) report 11 cases of intestinal amoebiasis with dysentery, and 3 without dysentery, successfully treated with ipecacuanha, the treatment in 4 cases without dysentery being unsuccessful; but in these latter it was not thoroughly carried out, while it seems probable that different strains of amoebae may vary in their susceptibility to the drug, thus explaining the reason why a certain number of failures are to be expected. Repeated examinations of the stools were made, and in one case they became negative for amoebae five days after the ipecacuanha treatment was commenced. The drug is best administered in salol-coated pills, the thickness of the coat being carefully regulated so as to prevent vomiting on the one hand, and on the other the passage of intact pills through the intestines, $\frac{1}{16}$ in. being a suitable thickness. It is best to begin the treatment by giving 60 to 80 grains at bedtime, decreasing the dose by 5 grains daily until a dose of 10 grains is reached, by which time it is usually advisable to discontinue treatment, lest the further administration of small doses should keep up the catarrhal condition of the bowel which the larger doses have already excited. Rapid cures may sometimes be effected by giving 40 grains three times during twenty-four hours. During treatment the patient should be kept in bed and upon a liquid diet, and since solid food and milk curds may delay the pills in the stomach, nothing of this kind should be given for at least six hours before the ipecacuanha, and no food of any kind for three hours before. The pills should be given about 8 or 9 p.m., after which the patient should be kept lying on the right side for some time, the colon having been flushed out with normal salt solution during the preceding afternoon. No opiate is needed, and experience shows that a large proportion of amoebic infections can be eradicated by this method, which has proved itself to be far superior to any other line of treatment, and deserving of a thorough trial before any surgical treatment is attempted.

# SURGERY.

### 169. Cerebral Decompression.

LUCAS-CHAMPIONNIÈRE (*Journ. et chir. et ann. de la Soc. Belge de Chir.*, No. 9, 1910), in a communication to the Société Française de Chirurgie at its twenty-third congress, points out that decompression of the brain by more or less extensive trephining of the cranium is now a recognized method of palliative treatment in cases of cerebral tumour in which a radical operation is contra-indicated. Removal of a portion of the cranial wall may, it is stated, be followed not only by cessation of pain that has resisted other methods of treatment, but also exert a modifying influence on various cerebral conditions and alter for the better the state of the patient. Its indications, first presented by severe pains of uncertain origin, will, if observed, afford a valuable resource in the operative treatment of certain forms of essential epilepsy. Trephining is indicated also in vertigo with pain which so often follows cranial injury, in morbid conditions of traumatic origin very analogous to those presented by general paralysis, and in cerebral syphilis and probably general paralysis. The results of decompression in cases of syphilitic affection of the brain are, the author asserts, very remarkable. There can be no doubt, he believes, that lesions of this kind previously rebellious to well-directed specific treatment will after trephining become very favourably influenced on a return to such treatment. These good results should encourage surgeons to treat syphilitic cerebral lesions by early trephining. It would be logical also, it is suggested, to deal in the same way with general paralysis of syphilitic origin. The prognosis of operative intervention in old traumatic cases presenting the form of general paralysis is also regarded as favourable. Lucas-Championnière, who has performed many decompressive operations, feels that full advantage has not yet been taken of this valuable therapeutical method. It is very simple, he states, and consists in trephining the cranial wall, in enlarging the opening by cutting forceps, and in incising the dura mater. Even when it has been found necessary to remove much bone a prothetic application will be quite unnecessary provided the wound has healed quickly and regularly and without any suppuration. It has been proved by ample experience that cerebral decompression can, if it be found necessary, be repeated several times on the same subject easily and with but slight risk.

### 170. Treatment of Stricture of Oesophagus.

AT a meeting of the Spanish Medico-Chirurgical Academy (*Revista de Med. y de Cir. Practicas*, February 14th, 1911) Goyannes read a paper on new methods of treating strictures of the oesophagus. He showed a girl of 17 who drank by mistake some caustic soda in a laundry, and was immediately seized with intense gastric pain accompanied by haematemesis. For a fortnight no food could be administered except by the rectum. A proctitis caused this to be suspended, and recourse had to be taken to endeavouring to get her to swallow a few drops of milk and water. Tolerance of food and power of deglutition were gradually re-established, and at the end of six months the patient could swallow a little bread soaked in milk, and she began to regain weight. On examination with the sound, an impermeable stricture was detected 25 cm. from the dental line. Swallowing of liquids is very dilatory, and at times followed by regurgitation. No scars can be detected in the mouth. Even the finest bougie (olivary) cannot be passed. Examined with Brüning's oesophagoscope an annular stricture, white and cicatricial, is detected, above which a slightly dilated reddish zone extends for 2 cm. The stricture measures 2 or 3 mm. at its orifice, and at its level the oesophageal wall is rigid. An incision was made in the middle line above the umbilicus, the anterior wall of the stomach was attached by sutures to the parietal peritoneum, and was then incised for two centimetres. Through the opening thus made was then drawn the point of a fine urethral catheter which had previously been passed from the mouth through the stricture and into the stomach. To the lower extremity of this catheter was attached a stout silk thread, which was then drawn up through the mouth and fixed to the ear. The stomach wound was then closed and subsequently that in the abdominal wall, leaving room, however, for the gastric end of the silk cord to emerge at its lowest angle. With the aid of the silk cord, on the very day of the operation, a fine Nélaton's sound was drawn from the mouth into the stomach, and by this means a good quantity of milk was introduced. By this simple method the structure was dilated daily, until a Nélaton's sound, No. 30 Charrière, could be passed. After the eighth day the patient was able to swallow liquids. The wound healed by first intention, except for a tiny fistula necessitated by the exit of the silk cord. The recovery of the patient was complete and uneventful.



### 171. Atony of the Bladder.

THOMSON WALKER (*Ann. of Surg.*, November, 1910) describes a special and unusual form of atony of the bladder, in which neither obstruction to the outflow of urine nor any signs of organic nervous disease can be discovered. Twelve cases observed by the author are here reported. The ages of the patients, all of whom were males, varied from 28 to 63 years. In many of these cases the vesical atony had been present for a sufficient period to justify the conclusion that it is not associated with tabes or any other disease of the spinal cord, and no indications were presented in any of urethral obstruction or prostatic disease. Reference is made to a few cases apparently of a similar nature that have been recorded by foreign surgeons. The failure of the detrusor muscle of the bladder in this form of atony usually begins insidiously, and is progressive. In one case the atony suddenly increased after it had remained moderate during fourteen years. In all these cases the condition of the bladder as shown by the cystoscope was very striking. Trabeculation was a common feature, and in three cases this condition was far in excess of anything that the author has ever seen in other diseases of the bladder. The observations made in these cases tend to favour a suspicion long held by the author that there must in the causation of a trabecular condition of the bladder be some other factor acting with obstruction or apart from it. There is, the author states, a difference between this form of trabeculation and that observed in cases of obstruction. The trabeculation of an obstructed bladder is coarse, the muscular ridges are thick and irregularly branched, and the interspaces are deeply pouched. In the trabeculated bladder in which the condition is not the result of obstruction, the muscular ridges are fine and evenly set, and their ramifications are regular and orderly. There is a difference also in the distribution of the trabeculation. In cases of obstruction the trigone is the part chiefly affected, while in the unobstructed bladder this region usually escapes, and the lateral walls and the apex are the main seats of the change. In his clinical study of the form of vesical atony described in this paper, the author has rigidly excluded all cases in which abnormality of the prostate or of the prostatic urethra, or of the vesical orifice of the urethra, could be detected either by rectal exploration or by the use of the cystoscope. Good evidence is given in support of the statement that the instances of atony here recorded do not belong to the early and irregular forms of spinal disease. In a brief notice of the etiology and nature of these cases, the author expresses his belief that they may be explained by the existence of some lesion of the reflex centres which are situated in the hypogastric and haemorrhoidal plexuses of the sympathetic.

# OBSTETRICS.

### 172. Retroplacental Haemorrhage.

PINARD (*Journ. des prat.*, January 14th, 1911) relates the history of one of these cases. He was much impressed by the peculiarly woody resistance offered by the uterine wall. The uterus gave the impression of a block of wood sunk in the abdomen. Auscultation of the fetal heart gave negative results, while the urine contained a considerable quantity of albumen. As the state of the patient became steadily worse—the pulse rising to 140 per minute—while the size of the uterus also increased, and there seemed no prospect of natural delivery, laparotomy was performed. The uterus was found to be infiltrated with blood. A dead fetus was extracted, and utero-ovarian amputation performed, the operation lasting thirteen minutes. The placenta on examination showed numerous white infarcts and other evidences of haemorrhage at various stages, a condition of affairs which the author calls "truffle placenta." The principal cause of retroplacental haemorrhage is, according to Pinard, albuminuria. He has noted that even when an albuminuric is delivered of a live child there are evidences of small placental haemorrhages, which, while not being sufficient to deprive the fetus of life, seriously compromise its development. A traumatism, such as accidental shortening of the cord in utero, with undue tension upon the placental site, may also be responsible for retro-

placental bleeding, as may a blow upon the placental area from without, but these are rare causative factors, as compared with albuminuria. Patients suffering from this accident are always more seriously affected as to their general health than in haemorrhage of even greater degree externally, a fact which Baudelocque explains as being due to the additional albuminuric intoxication. An increased pulse-rate, coupled with a normal temperature, and the peculiar woody hardness of the uterus already referred to, is always suggestive of this condition. The author is of opinion that to temporize with these cases is for the most part useless, and that Caesarean section, with utero ovarian amputation, is not only legitimate, but the only certain means of saving the maternal life. If the albuminuria is discovered in time, then dietetic and other precautionary measures may ward off the danger.

### 173. Eclamptic Mothers and Nursing.

GOODALL (*Arch. of Ped.*, January, 1911) has met with several cases of seemingly healthy infants, born of eclamptic mothers, who showed no symptoms of illness until the first copious nursing, when they suddenly died without apparent cause. Referring to the literature on this subject, it appears that such children have often been found to show signs of general intoxication, and in a large percentage the lesions were identical with those of eclamptic mothers who had succumbed to the disease. Children born of such mothers are far from being healthy. Those which survive and those which die in whom the urine is examined show signs of renal injury; therefore one must consider these children as tainted with the same disease as the mother. Since the mother's blood is saturated with the poisons of metabolism to such a degree as to cause cerebral disturbances culminating in eclamptic seizures, the secretion of the breast will be tainted with the same metabolic products. We may therefore assume that the toxins are eliminated in the milk, and it has been shown that the urine of eclamptic women is less toxic than their blood. By the analogy of drugs we have strong proof that the mother's milk can secrete a more concentrated toxin than that which circulates in her blood. Arsenic administered by the mouth to the mother is found to be ten times stronger in her milk than in her urine; the child therefore receives a larger dose of poison through the milk than it did through the placental circulation. When full diuresis and elimination occurs in the *post partum* days, by the time the breasts begin to secrete actively there is a low grade of toxaemia present and the child may escape, but in cases where elimination fails toxaemia reaches its height during full lactation with fatal results. Eclamptic convulsions seldom, if ever, come on in pregnant women without uterine contractions having set in. The toxin is thought to be of fetal origin. Therefore compression of the large uterine lymphatics and cavernous sinuses throws a large amount of toxins into the maternal circulation, and this flooding of the organism with noxious products finds expression in eclamptic convulsions. In mothers who are toxaemic and jaundiced it is advisable to feed artificially for quite a few days, and to have the breasts pumped dry once or twice after the maternal toxaemia has improved and before the child is allowed to nurse. When the convulsions come on *post partum*, the maternal elimination should be prolonged until she is freed from the greater part of her toxaemia, and then the breasts should be emptied before allowing the child to nurse. Where albuminuria persists after gestation, it is well to feed artificially throughout.

## GYNAECOLOGY.

### 174. Subtotal Hysterectomy for Fibroid: Cancer of Stump.

EKLER (*Zentralbl. f. Gynaek.*, No. 8, 1911) finds that 42 cases of carcinoma of the cervix after supravaginal or subtotal hysterectomy for uterine fibro-myoma have been already reported. As the operation is so frequently performed this fact is hardly to its discredit, though no doubt some instances of the complication have not been reported. Uhl believes that the cancer is of the cicatricial type, such as has been observed already by surgeons of a past generation in scar tissue in other parts of the body, hence he denounces subtotal operations and considers that panhysterectomy is safer. Ekler doubts about cancer of the cervix being in these instances of cicatricial origin. A woman aged 35 underwent subtotal hysterectomy after Chrobak's supravaginal method. There were several fibro myomata, but the amputated uterus was carefully examined and no trace of any malignant growth could be detected. For three years and nine months the patient was free from any trouble; then sacral pains and vaginal discharge set in, and she lost nearly 10 lb. in weight within three months. There was evidence of carcinoma at the os externum. Fleischmann of Vienna four years after the first operation removed the stump of the cervix after Wertheim's radical abdominal method. The parametrium was perfectly free, nor could any enlarged glands be discovered. The cancer was far away from the scar tissue, and appeared as an ulcerated swelling of the size of a cherry stone on the free surface of the cervix at the os externum. Ekler doubts that it had any connexion with the first operation. Von Fellenberg (see EPITOME, March 11th, No. 138) reports another case, making 44 in all.

### 175. Inequality in the Breasts in Relation to Quantity and Quality of Milk.

FINIZIO (*La Pediatria*, November, 1910) has examined 100 healthy nursing women and finds that amongst them only 15 showed equal sized breasts (the size was estimated by the eye), 45 showed greater volume of the right breast, and 40 of the left. The quantity of milk, as estimated by weighing before and after nursing, was taken in 70 women, and no constant relation between size of breast and quantity of milk was found. Two breasts of equal size may give different amounts of milk, and vice versa. When a volumetric asymmetry exists at the same time as functional asymmetry the two types of asymmetry do not necessarily correspond in degree. Not infrequently the larger breast gives the smaller quantity of milk. Of the 70 cases 28 gave an equal quantity of milk from each breast, and 42 an unequal quantity, and of these last the larger amount of milk came from the left breast in 27 and from the right in 42 cases. In estimating the quality of the milk (drawn off by hand milking), whilst differences were found as regards the two breasts, in the majority of cases no great difference was observed. No constant relation between size of breast, quantity and quality of milk could be made out. The chief differences noted were, in order of importance and degree, as to the amount of fat, lactose, proteid, and, lastly, of ash; that the differences (15 to 20 centigrams of proteid or lactose, 40 to 60 centigrams of fat) were really not much greater than might have been found in the breast milk of any woman taken at different times of the day, so that practically it is only in exceptional cases (for example, when twins nursed at separate breasts differ widely in their nutrition) that it is necessary to examine separately the milk of both breasts.

## THERAPEUTICS.

### 176. Treatment of Congenital Syphilis by Injection of Mother with Salvarsan.

PEISER (*Berl. klin. Woch.*, No. 1, 1911) reports two cases of congenital syphilis, treated by injection of the suckling mother with "606," which terminated fatally. In each case both mother and infant gave positive Wassermann reactions. The first case, an infant 8 days old, was severe and of bad prognosis. The mother was injected with 0.5 gram of "606," and the infant died two weeks afterwards. *Post-mortem* examination showed absence of spirochaetes. The second case, a child 7 weeks old, was of a milder type and of good prognosis. The mother was injected with 0.4 gram of "606," and the child died nine days later. Peiser draws attention to the fact that both cases died of secondary infection (pyaemia in the first case and bronchopneumonia in the second), an event which ought not to occur with proper antisyphilitic treatment, especially when the infants are suckled by the mother. He also points out that, even if injection of the mother led to destruction of the spirochaetes in the infant in the first case, it obviously failed to do so in the second, for in this case abundant spirochaetes were found in the suprarenals. Peiser refers to the cases reported by Taege, Duhot, Scholtz, and Debrovitz, in which the symptoms disappeared in the infants after injection of the mothers, also Ehrlich's explanation of this phenomenon by the sudden death of large numbers of spirochaetes in the mother, as the result of injection with "606," setting free endotoxins which give rise to the formation of antitoxin which is secreted in the milk and thus transmitted to the child. He also mentions another case of Rosenthal's which terminated fatally after similar treatment, and three cases of Escherich's in which this treatment failed to prevent relapses in the infants. He concludes that the

treatment of congenital syphilis by injection of the suckling mother with "606" is not to be depended upon.

**177. Salvarsan.**

Charles H. Chetwood (*Med. Rec.*, February 25th, 1911) reports on the use of the Ehrlich-Hata preparation in 16 cases, of which he gives detailed histories. There were three tertiary bone lesions, one tertiary skin lesion, one late secondary skin lesion, one primary, one syphilitic orchitis, one late secondary of fauces and forearm in a first series of 8 cases. In all of these symptoms improved rapidly, and disappeared in about two weeks. No bad effects were noted. Wassermann was positive in all but two. Four cases had the drug injected hypodermically and 4 had intravenous injections. All took the same course as the other cases reported. The intravenous injection is the most satisfactory method, being prompt in action and free from pain.

**178. The Treatment of Syphilis by Salvarsan.**

Halberstaedter (*Therap. Monat.*, January, 1911) describes the treatment of syphilis by salvarsan, based on a personal experience of 90 cases, as well as on the writings of other authors. The preparation "606" originally used is the dichlorhydrate of dioxy-diamido-arseno-benzol. It is a yellowish powder, soluble in hot water; the yellowish fluid produced is markedly acid. Gradual addition of a solution of caustic soda causes the following changes to take place: (1) The monochlorhydrate is formed (monazide solution, acid); (2) further addition of soda sets free the dioxy-diamido-benzol in a neutral solution as a yellow gelatinous deposit; (3) further addition of soda forms the sodium salt; the fluid is now strongly alkaline. The remedy may be used intravenously, intramuscularly, or subcutaneously. Administration by the stomach or rectum is not now employed. For intravenous injection a very diluted alkaline solution is employed. Schreiber recommends a dilution to about 200 c.cm. of warm sterile water with the 0.3 or 0.4 of the substance, *plus* 0.7 c.cm. normal caustic soda solution to each 0.1 of the substance. If any pain or formation of wheals occurs, showing that the tissues have been infiltrated the needle must be withdrawn and another attempt made. For subcutaneous injection the neutral suspension is recommended; the most favourable place being between the shoulder blade and the vertebral column. For intramuscular injection the acid and alkaline solutions may also be employed. If large quantities are to be used. the injection should be made into the glutei. In sucklings it has been observed that treatment of the mother with salvarsan improves the condition of the child, the medicament acting doubtless through the milk. After the injection a number of local and general effects are produced; pain and infiltration at the site of the injection, the latter leading in some cases to extensive necrosis; peroneal paralysis has been noticed after injection into the glutei; of occurrences of a general nature may be mentioned rise of temperature, palpitation of the heart, acceleration of the pulse, vomiting, headache, shivering, and slight collapse. Hyperleucocytosis is constant; polyuria and decrease of urine and light albuminuria had also been noticed. Skin eruptions, very similar to measles or scarlet fever are common. All these appearances may occur in a day or two after the injection, or be delayed for from nine to twelve days. Amongst rarer phenomena, icterus, bladder disturbances, coma, epileptiform seizures may be mentioned. Serious effects have also been reported; affection of the vestibular nerve, ocular paralysis, optic neuritis, and death. The author almost exclusively uses the intravenous method in doses of 0.3 in women and 0.4 in men. In sucklings he employs doses of from 0.008 to 0.01 according to the weight of the child and divides the dose into three parts, administering each part a week after the preceding dose. In all cases after some time he subjects the patient to treatment with mercury and iodide of potash. As regards the influence of the remedy on syphilis the author considers that we have in it an excellent medicament, but the extravagant statements which have appeared regarding its curative powers are unjustifiable, as relapses frequently occur and he has met with such. Every patient so treated should be carefully watched and submitted to further treatment. The author considers that cases should be treated by salvarsan in which mercury has failed or cannot be carried out, and also all forms of severe syphilis, especially malignant syphilis owing to the great rapidity of its action. Contraindications to the treatment are: Severe diseases and disturbances of function of heart and vessels, especially aneurysm, more particularly of the cranial vessels; non-syphilitic diseases of the kidneys; severe affections of the liver also forbid its use. neither should be employed in severe disturbances of metabolism, extensive degeneration of the nervous system, especially advancing tabes and paralysis. Tuberculosis offers no contraindication. The author does not advise employment of the remedy in all cases which have been subjected to a long treatment by atoxyl or arsacetin, even if the fundus is normal, and an absolute contraindication exists if an obvious atrophic process of the optic nerve is taking place, and he also considers it should be avoided if there are any changes of any description in the fundus.



**179. Orientation of the Filters in Radiotherapy.**

H. Bordier (*Arch. d'électr. méd.*, October 25th, 1910) lays stress upon the importance of the position of the filters in radiotherapy. He points out that the energy of the $x$ rays emitted from the anticathode is far from having an equal value in all directions. There is a direction, to be found separately for each tube, in which the Roentgen effect is at its maximum. This direction is within the median plane of the tube—that is, the plane which passes through the centre of the cathode and is perpendicular to the anticathode, having an angle of about 75 degrees to a line passing through the centres of cathode and anticathode. The effect varies from this principal axis as the cosine of the angle according to which the rays act. The exact position of the filters, therefore, should be carefully studied. If the filter is not perpendicular to this principal direction of the tube it will be no longer the stated thickness of the filter which is actually traversed by the $x$ rays, but a different thickness, more considerable and very variable. With the filter disposed obliquely on the region to be treated, it may easily be that the rays will have to traverse 50 per cent. greater thicknesses of filter than the direct thickness of the filtering sheet itself. Thus, with the same filter set at different inclinations to the principal direction of the rays, all the effect of different filtrations may be obtained. Bordier has applied this principle to the construction of a new radiochromometer which he is to bring forward shortly.

## PATHOLOGY.

**180. Wassermann's Reaction in Otology.**

Schousboe (*Ugeskrift for Laeger*, Nr. 2, 1911) gives a summary of recent literature on this subject. The part which syphilis plays in diseases of the ear has hitherto been a matter for speculation rather than for exact investigation, and the opinions of aural surgeons have been much at variance. Thus, some claim that syphilis is a very rare cause of oto-sclerosis, while others maintain that syphilis, congenital or acquired, is the commonest etiological factor. The majority share with Politzer an intermediate view. Nearly all, however, agree that labyrinthine disease is frequently of syphilitic origin. Wassermann's reaction, by demonstrating the presence of syphilis even in the absence of all clinical evidence, has thrown much light on these questions. Out of 17 cases of oto-sclerosis Busch found a positive reaction marked in 4, and slight or doubtful in 9. Arzt, on the other hand, found the reaction negative in all his 21 cases, and Beck found the reaction positive only twice in 42 cases. The two latter writers conclude that syphilis is not a factor in the causation of oto-sclerosis, and Beck attaches no significance to his 2 cases of positive Wassermann. It should, however, be noted that Arzt, at any rate, selected all his cases to the rigid exclusion of all patients showing clinical evidence of syphilis. More unanimity exists as to the syphilitic origin of diseases of the auditory nerve and internal ear. Beck has applied Wassermann's reaction to 34 cases of pure internal ear disease in which syphilis was denied, and no definite etiological factor could be found to account for the deafness. He found the reaction markedly positive in 10, and slightly positive in 2. Busch found the reaction positive in 15 out of 29 cases in the same category, and in 4 cases of disease of the auditory nerve Arzt found the reaction positive in 3. The practical value of these observations is still uncertain, for antisyphilitic remedies cannot, as a rule, affect much here. Busch has, however, obtained strikingly successful results by the use of pilocarpin, which was originally advocated by Politzer in labyrinthine disease of syphilitic origin; in other forms of this disease the drug is valueless. Beck has applied the reaction to 100, and Urbantschitsch to 125, deaf-mutes, and a positive reaction appeared in 3 and 9 cases respectively. The positive reaction was the first sign of syphilis in some of these patients. Wassermann's reaction is therefore, in the writer's opinion, a valuable aid to the diagnosis of certain aural diseases of obscure origin.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

**181. Myelitis as a Sequel of Meningitis.**

Before describing the case, G. Padoa (*L'Encéphale*, Paris, 1910) briefly notes two cases of tuberculous meningitis with temporary complete recovery. One patient, a girl of 5, was moribund with all the signs of tuberculous meningitis, when she recovered and showed all the bodily and psychical appearances of the most absolute health for three months; then she relapsed and died. The second, a girl of 16, had a similar period of complete recovery lasting three months, then relapsing; at the obduction a few old, hard, yellow sclerotic meningeal tubercles were found, side by side with more numerous and recent grey tubercles. Myelitis as a sequel of meningitis was seen in a healthy young married woman of 21 who had a bad sore throat of uncertain bacteriology. Two days later the temperature rose to 106° F., with headache, photophobia, rigidity of the neck, vomiting, and hiccough, squint, pains in the legs, convulsions. These signs of cerebro-spinal meningitis lessened after a fortnight, and twelve days later the patient was feeling so well that she returned to her work as a shopwoman and did it for three weeks. At the end of this time she had to give up work, the legs being weak, rigid, the site of sudden and painful spasms; there was incontinence of urine. It was found that Babinski's sign and ankle clonus were present, with spastic paresis of the legs and much increased knee-jerks; sensation was a little lessened from the level of the mamma downwards, and much lessened in the legs. No abnormality was found in the head, neck, arms, or upper part of the trunk. The electrical reactions of the muscles showed no great change. The literature is quoted; Padoa lays stress on the rarity with which an interval of health intervenes between a myelitis and a meningitis when the one is caused by the other.

**182. Epidemic Poliomyelitis.**

Edward E. Mayer (*Med. Record*, February 18th, 1911) states that pathological research has emphasized the existence of a severe toxaemia in epidemic poliomyelitis. The virus has a predilection for nervous tissue, especially the anterior horns of the cord. Early diagnosis is very important. The main portal of entry of the virus is the nasal mucosa. Early prostration and helplessness are marked in this disease. Pain is frequent and slight rigidity of the neck is often noted. A rapid tremor and surface coldness are characteristic. Lymphocytosis of the cerebro-spinal fluid is seen, as well as of the blood. Lumbar puncture is an aid to clearing up the diagnosis. In treatment, counter-irritation and strychnine are contra-indicated, and the patient should not rest on his back. Eliminative and supportive measures are needed. No electricity or massage should be given in the early stages. Hot baths relieve restlessness. In the stage of recovery we must prevent deformity by support of the paralysed limbs and stimulation of the muscle masses by electricity. Exercises and play are to be arranged so as to bring into use the paralysed muscles as far as possible.

**183. Unrecognized Diphtherias of Infancy.**

Terrien (*Ann. d. méd. et chir. infant.*, March, 1911) considers the three chief forms of unrecognized diphtheria in childhood are (1) nasal, (2) bronchial, (3) adenitis. The first form may only appear at first to be a slight cold which gradually gets worse, and may have disseminated the disease for some time before its true nature is discovered. In any child with coryza which persists for some time, diphtheria should be thought of even in the absence of false membrane. The bronchial form is frequently unrecognized until the false membrane is ejected. Some signs should raise a suspicion, such as polypnoea without dyspnoea or spasm, a *bruit de drapeau* perceived on auscultation, and feebleness of the vesicular murmur in one part of the chest. Adenitis, primary and localized to the glands, is the most serious form. It is associated with an ordinary adenitis coupled with the signs of a severe intoxication, such as great depression without fever, rapid pulse, and extreme pallor. Such a condition ought to raise suspicions, and bacteriological examination will often reveal the bacillus of Loeffler.

**184. A Thermo-reaction in Enteric Fever.**

R. Silvestrini (*Ann. della Facoltà di Med.*, Perugia, 1908, viii, 1) finds that patients with or convalescing from enteric fever give a sharp and brief febrile reaction on the injection of ¼–1.0 c.cm. of a heat sterilized or filtered broth culture of *B. typhosus*. There is no local reaction, unless the bacteria are injected alive. Repetition of the injection produces feebler and feebler reactions. Patients with pneumonia or with tuberculosis do not react thus to *B. typhosus* injections; nor do enteric patients to injections of pneumococci, although they do to injections of *B. paratyphosus* B, or of *B. coli*. A leucocytosis accompanies the thermo-reaction, while the agglutinating power of the serum is diminished, rising to a higher level afterwards.

## SURGERY.

**185. The Roentgen Ray in the Diagnosis of Renal Tuberculosis.**

Hofmann (*Zentralbl. f. Chir.*, No. 51, 1910) does not agree with the authorities on skiagraphy who hold that the use of the Roentgen rays has no practical value in the differential diagnosis of renal tuberculosis. He states that the diseased kidney is often enlarged, and that the shadow of its inferior pole extends nearer to the iliac crest than that of a healthy kidney. This clinical fact, it is suggested, might be found useful in enabling the surgeon to determine which of the two organs is diseased in those cases in which it is very difficult and, indeed, impossible to make a differential diagnosis by cystoscopy and separation of the ureteral streams of urine. Vesical methods of investigation may be prevented by a contracted state of the bladder, are very difficult to apply except it be by an expert, and usually give much pain to the patient. The author has had but a very limited experience of skiagraphy in cases of tuberculous kidney, but has been led to advocate this method of diagnosis by the good results of a case under his care, in which, other means failing, he succeeded in localizing the diseased and enlarged organ, and in removing it through a single incision.

**186. Suboccipital Pott's Disease.**

Mauclair (*Journ. des prat.*, December 24th, 1910) gives an account of a case of this disease which occurred in a man aged 40 years, who up to that time had seemed in perfect health. He began to suffer from pains, which at the time appeared to be rheumatic, in the region of the cervical vertebrae. In spite of antineuralgic and other treatment, the pains persisted; movement of the head became more and more restricted, and finally became impossible, and in this state the patient entered hospital. The diagnosis was made at once by the characteristic attitude, the absolute immobility of the head, and the appearance of the neck, which gave the impression of being shortened. The normal nuchal fossa had disappeared, and palpation, which was painful, gave a feeling of deep puffiness. Exploration of the post-pharyngeal area was not carried out, as the author believes it is dangerous in such cases. Immobilization of the spinal column was carried out, but without suspension. The patient died a short time afterwards from subluxation of of the atlas vertebra and acute pressure on the cord. Although sudden fatality is common in tuberculous lesions in this locality for obvious reasons, there are many cases in which slow compression of the cord by progressive and gradual subluxation of the atlas occurs. When recovery takes place it is brought about by ankylosis of the vertebral articulation, which has been attacked. The occurrence of cold abscess is frequent in this form of Pott's disease, as elsewhere. Meningeal complications, bulbar symptoms, neuralgias, and paralyses of the upper limbs also occur. Apart from immobilization in some form, the author does not believe in even light extension. Cold abscesses are to be healed by iodoform injections and the general regimen of a tuberculous patient as regards food and air suitably carried out.

**187. Primary Sarcoma of the Lung.**

Guyot (*Gaz. hebd.*, January 29th, 1911) relates the history of an interesting case of this nature. The patient had

always enjoyed good health up to September, 1909, when he was suddenly attacked by severe pain in the right scapular region. This was shortly followed by haemoptysis, which occurred at intervals up to March, 1910. The blood was bright red in colour, and there were indications, as it seemed, of commencing pulmonary tuberculosis of the right apex. In June, 1910, the patient noticed the existence of a painless tumour about the size of an egg in the right pectoral region, and at the same time the violent pain, radiating from the right scapular region, recurred. An exploratory puncture was made with negative results. On examination the tumour was found to have its upper limit two fingerbreadths below the clavicle, its inner limit three fingerbreadths from the right border of the sternum, while outwardly it extended into the axilla, which it filled almost completely. The respiratory murmur posteriorly was absent, but there was no sign of pleural effusion. The other viscera appeared to be normal, and there was no glandular enlargement. The expectoration was negative as regards tubercle bacillus, as was also von Pirquet's reaction, and the blood examinations indicated nothing abnormal. An exploratory incision yielded a quantity of dark blood and blood clots. Tuberculosis and hydatid being excluded the diagnosis of sarcoma was made, and in consideration of the fact that the man seemed otherwise in good health, and suffering almost continuous pain with frequent haemorrhages, it was decided to intervene surgically. The exploratory wound was enlarged, the pectorals were cut, and the tumour separated as to its extrathoracic portion from the axillary attachments already referred to. This was done with difficulty, and necessitated resection of a portion of the axillary vein, which was finally adherent to the tumour. The intrathoracic portion of the tumour was then traced, and was found to be encapsulated and of very friable consistence, allowing a reddish grumous material to escape on rupture. The thoracic cavity was cleansed. The shrivelled-up lung showed evidence of considerable loss of substance, and was evidently the starting point of the neoplasm. Nothing could be done with the lung, so after introducing three drainage tubes the wound was closed. The patient made a good recovery. The pathological examination of a portion of the tumour conclusively proved it to be spindle-celled sarcoma, containing numerous vessels having no organized vessel walls. An interesting sequel of the case was the return of the vesicular murmur at the apex of the affected lung.

### 188. Surgical Treatment of Constipation.

Rudolf Goebell (*Wien. med. Klin.*, No. 45, 1910) deals with the surgical treatment of constipation. Persistent constipation may depend upon abnormalities of the large intestine, as, for example, increase in its size and capacity, increase in length, or abnormal mobility, either of the caecum alone, or in more severe cases of the whole ascending colon and the fluxura coli. Again, in cases in which the condition has been present since childhood, it may depend upon either tonic spasm of the sphincter ani tertius or upon abnormal development of the valves in the rectum, and at the junction of the rectum and the sigmoid flexure. In the detection of the abnormalities of the large intestine not only should the intestine be dilated from below and an abdominal examination be then carried out, but also Roentgen-ray examination after a test meal is desirable, and will make clear the position of the first part of the large intestine. For the examination of the rectum and lower part of the sigmoid flexure, procto-sigmoidoscopy is essential. By means of it it is possible to illuminate the lowest 28 cm. (11.2 in.) of the bowel and to determine with certainty whether the cause of the constipation is to be found in the rectum or lower part of the sigmoid flexure. By the help of proctoscopy a sound can be passed into the sigmoid flexure, and in patients with lax abdominal walls by palpation from outside and the use of the sound it is possible to determine the length of the flexure. If the abdominal walls are very lax an electric light can be introduced after the sound, and the presence of the conditions of macro-sigmoid or mega-sigmoid determined. Abnormality of the rectal valves seems to be a not infrequent cause of constipation, the author having met with five cases in two years. In the most severe cases of congenital over-development of the valves the three valves so block the rectum as to give rise to the formation of separate cavities joined by rounded openings; the same appearance may be simulated in ptosis of the bowel when the tug of the connective tissue attachments causes a contraction of the lumen, but in the latter case stretching of the intestine partially removes the condition. The valves may be destroyed by means of the galvanic cautery, but the author is accustomed to treat the condition by fixing clamps on to the valves, so as to cause necrosis; the clamps usually separate spontaneously in from four to six days. A series of illustrative cases is given in which lifelong constipation was successfully relieved by these means. In one instance, that of a man 47 years of age, the patient after the treatment had the first spontaneous motion for ten years, and since then has had daily motions without enemata or other aids. With regard to the treatment of a constipation which depends on anomalies of position, length or volume of the large intestine, the author recommends that surgical treatment be undertaken as soon as a diagnosis has been made; he has himself treated several cases with success. He further states that his experience of operative treatment has been so favourable that in cases of constipation of long standing, whether congenital or not, if the examination of the stools is negative, and proctoscopy and the other methods of examination fail to explain the cause, he would advise an exploratory laparotomy.

## OBSTETRICS.

### 189. The Method of Momberg in Post-partum Haemorrhage.

Perdrizet (*La Clinique*, January 13th, 1911) describes the method employed by Momberg for arresting serious haemorrhage after the delivery of the fetus. Baudelocque's system of digital compression of the aorta is difficult and inconvenient, and is not always effective, since the ovarian arteries, which branch off just below the renal arteries, carry blood to the uterus, and the flow through them is not checked by this method. Momberg's method was first used for surgery on the lower limbs, and subsequently in obstetric practice. It consists in passing a stout rubber tube several times round the body between the pelvis and the lower costal margin and tightening it until pulsation in the femoral arteries ceases. The tube is about the thickness of the thumb and 2½ yards in length. It is placed just above the iliac crests, and is slowly drawn tight by two people. When femoral pulsation ceases the tube is fixed with a pair of forceps. It is more easily adjusted if it is oiled first; as a rule it is not necessary to wind it round the body more than twice. When pressure is made the coils of the intestine slip up towards the thorax; should any of them be compressed they may remain so for an appreciable time without sustaining injury. The ureters also escape damage. The tube is kept tight for from ten to thirty minutes, after which it is slowly relaxed. If haemorrhage recurs it is readily readjusted. Out of 30 cases reported 28 have been successful. Of these, 8 were due to atony of the uterus, 12 to retained placenta, and 2 to lacerations of the cervix. This method gives the obstetrician time for disinfecting his hands and the parts before manipulation. In the case of lacerations it is an advantage to have the torn area exsanguinated; it makes repair easy and quick. Patients tolerate the treatment well; they feel pain from the compression, and the limbs feel cold and dead, but serious complications are rare. Collapse may follow the removal of the ligature, the blood rushing into the lower limbs and producing anaemia of the brain or heart. This may be obviated by the Trendelenburg position or by tilting the bed. Thrombosis and embolism are rare and may be disregarded. Where other antihaemorrhagic measures fail this one may be the means of saving life.

### 190. Examination of the After-birth.

Rudaux (*La Clinique*, January 13th, 1911) advises a careful examination of the placenta and membranes, even in normal cases. The membranes should be drawn back into position, and the opening through which the child has passed, with its relations to the placental surface, should be noted. When this opening cannot be distinctly determined it shows that the membranes have been torn, and a watch must then be kept for symptoms which might indicate that any fragments had been left behind in the uterine cavity. By separating the amnion from the chorion it will be possible to see the extent of the tearing and the amount retained. In some cases the placenta is expelled with no membranes attached. When laceration of the membrane has occurred a more than usually careful examination of the placenta is required to ascertain its entirety and to guard against the retention of one or more cotyledons. If such retention is observed the hand must be at once introduced into the uterus to detach and clear them out. It is not enough to make an inspection only; the hand is used to palpate the surface thoroughly, so as to detect any softness or loss of resist-

ance in its substance. In addition, whenever it is possible the placenta ought to be weighed. Without the cord and membranes it should scale six times less than the child. Wherever the weight is less than one-sixth suspect syphilis and search carefully for confirmatory evidence; by so doing the future of the child and the course of subsequent pregnancies may be greatly benefited. The writer reports a case where the child was born dead, the placenta being deficient in weight, thick, and pale-coloured. The previous child had also died before birth, but no history of syphilis could be obtained. As soon as conception occurred again systematic treatment with mercury and iodide was undertaken and continued until delivery, which was entirely successful.

## GYNAECOLOGY.

### 191. Inaccessible Vesico-Vaginal Fistula following Panhysterectomy and Wertheim's Operation.

G. GRAY WARD (*Trans. Amer. Gynaec. Soc.*, vol. xxxv, 1910) has devised a plastic operation for this condition, which may occur at times in the hands of the most skilled operators after the extensive dissections in the neighbourhood of the bladder requisite in modern panhysterectomies after the radical methods of Wertheim and others. A fistulous tract embedded in the scar tissue of the vaginal vault, occupying the former position of the cervix, is hard to reach, and it may be of some length. The ordinary methods for closing vesico-vaginal fistulae are certain to fail. Gray Ward describes his operation, with illustrations of the two principal steps. The bladder is first distended with an aniline solution in order to make sure that the fistula is not urethral. A deep paravaginal incision severing the anterior fibres of the levator ani is made in each vaginal sulcus. A longitudinal incision is directed along the anterior vaginal wall from the urethra through the fistula upwards, extending into the posterior vaginal wall in the vaginal vault. Then a lateral incision is made across the fistula, extending the full length of the vaginal vault. The operator now begins to dissect up the vagina at the lower end of the longitudinal incision well below the cicatricial tissue. He continues his dissection upwards and laterally until the base of the bladder is thoroughly separated from the anterior vaginal wall and the vault of the vagina. This allows of the next step—the evisceration of the bladder into the vagina by means of a sound or similar instrument passed through the urethra. Then the opening in the bladder is closed, the vaginal flaps being united by suture separately afterwards. Gray Ward performed this operation with success on two very bad cases.

## THERAPEUTICS.

### 192. Treatment of Acute Catarrh of the Upper Air Passages.

G. ZUELZER recommends the treatment of acute catarrh of the upper air passages by the inhalation of suprarenal preparations (*Berl. klin. Woch.*, February 13th, 1911). He states that Spiess's vaporisor enables us to reduce the various medicaments to such a fine spray or cloud that it becomes intimately mixed with the inspired air and penetrates into the lung at each inspiration. The local action of adrenalin on mucous membranes has long been known. Segel and later Pick found that when applied in fine spray adrenalin acted marvellously in bronchial asthma. The action in this case consisted in a specific one inhibiting the secretion through the sympathetic and a local anaesthetic action. The author has applied adrenalin in spray form in 25 cases of acute and chronic bronchitis, laryngitis, pneumonia, and tuberculosis. The acute catarrhal cases were objectively and subjectively improved in a most striking manner. Extensive bronchitis with diffuse rhonchi was cleared up—at all events temporarily—in from five to ten minutes. The patients were able to sleep without any codein, although they had suffered from sleeplessness, owing to the cough and dypsnoea, before. He states that the course of the acute bronchitis cases was obviously shortened by the treatment. He used glycirenan, which is a solution of 1 gram of epirenan in 750 c.cm. of water and 250 c.cm. of glycerine added; 1.3 gram of this is sprayed at one time. Chronic catarrhs were not materially improved by the treatment. A few patients with emphysema derived some benefit during the inhalation, while others were not affected one way or the other. In two cases of chronic interstitial pneumonia considerable improvement followed, consisting in the clearing up of the catarrhal signs. A third case was not so improved. In acute croupous pneumonia the cough disappeared almost immediately. The tuberculosis cases were not improved, save two mild cases, in which the râles at the apex cleared up in five and fourteen days. In conclusion, the author states that no ill effects of the adrenalin were seen in any of the cases. The pulse and blood pressure remained uninfluenced, and glycosuria did not appear in any of the cases. A mild attack of giddiness was noticed in a few cases, but this disappeared almost immediately.

### 193. The Treatment of Morphinism.

P. SCHROEDER (*Berl. klin. Woch.*, February 13th, 1911) finds that just as the physician used to fear the onset of disastrous symptoms when an alcoholic was treated without any alcohol, the majority of physicians are afraid to withdraw morphine suddenly lest "abstinence" symptoms develop. He shows that this doctrine is taught in textbooks and monographs, even by such authorities as Erlenmeyer, Kraepelin, and others. The symptoms which are most dreaded are attacks of cardiac weakness, severe attacks of excitement or mania (the delirium of morphine), collapse, irregularity of the pulse, sleeplessness, diarrhoea, vomiting, etc. Schroeder states that this fear is unfounded. During the past few years no morphine has been given to the majority of the morphinists admitted into the Breslau psychiatric clinic. A few patients, it is true, were given small doses soon after admission. He gives the details of a number of cases, from which it appears that no signs of serious disturbance due to the sudden withdrawal of the drug arose. In no case did he experience even a temporary delirium or collapse, and in many of the patients the quantity of morphine taken right up to the time of admission was very considerable. He found that a sense of discomfort, sleeplessness, shivering, and occasional vomiting, which were produced by the withdrawal, only lasted for from three to five days on the average, and that these symptoms were never severe. In those cases in which a congenital degeneration of the nervous system existed, the signs of an associated degenerated character became apparent during the period of withdrawal. As a rule, the patients put on weight during the first week. It is frequently urged that it is immaterial to the result of the treatment whether the withdrawal is completed slowly or rapidly. Against this, Schroeder finds that the patient, his relatives, and his doctor appear to be content to postpone any such treatment until numerous abscesses, cachexia, the occurrence of attacks of excitation, or other complications renders it absolutely imperative, and then the chances of success are far less good than before. He claims that his records prove that the onset of severe and threatening symptoms due to the sudden withdrawal of morphine is imaginary. The most important therapeutic measures must be directed to the condition of the heart and to the general condition. Small doses of other hypnotics act well during the first few days. He further finds it valuable to impress on his patients, who can usually be made to believe it, that the treatment is not dangerous and that no morphine can be allowed in future under any circumstances. Their pains and other symptoms are usually no longer present by the time they have got back enough energy to take matters into their own hands, and the desire for morphine, as a rule, has disappeared for a time. They must, however, be kept under continuous supervision.

### 194. Relief of Odynphagia.

P. TETENS HALD (*Med. Record*, February 25th, 1911) has examined the statement of Howell that relief of laryngeal pain may be had by firm pressure on the ears and mastoid region in swallowing, and has found it confirmed by his observations. He tried this method in 33 cases of inflammatory diseases of the tonsils and their surroundings. In 24 cases pain was considerably relieved by pressure against the tragus, or against the upper part of the mastoid. Tragus pressure was most efficient. The author has constructed a simple apparatus for exercising continued pressure throughout a meal. He then determined the exact location of the skin areas that were pressed upon to get relief. He explains the process by supposing that it exercises a strong counter-irritation of the skin area whose sensitive nerve supply is in intimate relation to the sensitive nerve supply of the diseased tonsil. He limits the area to the lateral portion of the posterior meatal wall.

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### 195. Pharmacology of Mistletoe.

R. GAULTIER (*Arch. internat. de pharm. et de thér.*, Brussels and Paris, 1910, xx, 97) has investigated the action of watery extract of mistletoe, *Viscum album*, using the leaves and bark. Each cubic centimetre of the extract made with 0.7 per cent. NaCl solution contained the active principles of 0.25 gram of mistletoe. Given intravenously to the dog (from 1 to 5 c.cm.), this extract produced a rapid and marked lowering of the arterial blood pressure, lasting three-quarters to two and a half hours; the respiration is a little quickened, the heart's action is quickened considerably. As the effect passes off, well-marked Traube-Hering curves are seen in the pulse-respiration tracings. An overdose causes death by heart failure, the phenomena of asphyxia appearing. Gaultier recommends the use of mistletoe extract in cases of arterial hypertension, and particularly for checking haemoptysis in pulmonary tuberculosis when it occurs as an early sign.

### 196. The Action of Digitalis in Irregular Heart.

EDENS (*Therap. Monat.*, January, 1911) discusses the action of digitalis. After noting that the best results of the drug are to be found in mitral insufficiency giving rise to feebleness of the heart's action and quickened pulse, he passes on to consider its action in other forms of irregular heart. In one case of atrio-ventricular extra-systole he administered the drug intravenously, and instead of producing an improvement in the condition an increase of extra-systoles occurred with collapse, but this was not the case when the drug was given by the mouth. The author also refers to the occurrence of pulsus bigeminus during the use of digitalis, and to what has been called pseudo-alternans. In this latter condition the frequency of the heart beat is so great that the pulse succeeding the second systole in the pulsus bigeminus is no further distant than that between the first and second systole in the bigeminus. As a result of digitalis, therefore, a double rhythm of the whole heart, auricle and ventricle, appears to occur, but the author considers this is only due to a bigeminus of the ventricle. Digitalis acts in many cases adversely where conductivity is lowered, although in some cases it seems to produce an improvement in conduction power, but on the whole Wenckebach's original rule still holds good—that disturbances of conduction are not suitable cases for digitalis. In cases of so-called arrhythmia perpetua, the author notes that digitalis has a favourable influence.

### 197. High-frequency Current and Nervous Diseases.

RUDOLF V. JAKSCH (*Wien. med. Woch.*, No. 44, 1910) gives the result of a five years' experience of the use of the high frequency current in medicine. The method used was that of a general arsonvalization. In certain affections Oudin's glass electrode was used and sparks generated, a treatment which is painful and analogous to static electricity and the faradic current; when pressed quickly and firmly to the skin, however, the glass electrode was not painful but only gave rise to a slight prickling and feeling of warmth. The author first describes the failures of the method. The results were negative in cases of diabetes, of tuberculosis, and of arterio-sclerosis except that in two typical cases of arterio-sclerosis, sleeplessness and headache were exceedingly favourably influenced. Next with regard to diseases of the nervous system. Although many nervous affections and nervous symptoms seem to be altogether unaffected and some made worse by the treatment, the author does not, like Apostoli, consider its use to be necessarily contraindicated. Repeatedly in cases of neuralgia the high-frequency current gave no result, the pains in tabes dorsalis were sometimes lessened, and in cases of multiple sclerosis in which the treatment gave no result in the sense of effecting a cure intention tremors were benefited and in a few instances temporarily removed. Very good results were obtained in two cases of writer's cramp. In hysteria symptoms such as anaesthesias and paralyses yielded to treatment, but the results were not better than could have been expected from the use of the faradic current or static electricity. General arsonvalization gave a good result in a series of cases of hysterical women. Results like these might be put down to the effect of suggestion, but the author has repeatedly had extremely good results in cases of neurasthenia in which suggestion could be excluded. In a case described in the article, that of a doctor suffering from neurasthenia following repeated attacks of influenza, the author recommended the use of the high-frequency current as being at any rate free from danger, but did not give much hope of benefit. The patient had been for two and a half years unable to write, and had suffered from obstinate sleeplessness and from loss of voice. Treatment in a hydrotherapeutic institution was followed by recovery of bodily strength and improvement in voice, but he still could not sleep and was not fit for work. A stay in hilly country was also without the desired effect. For the sleeplessness he had tried veronal, trional, isopral, and sulphonal without permanent benefit. Treatment by high-frequency current was now begun, the application being made twenty minutes a day. After a fortnight the headaches had begun to diminish, the voice was stronger, and the sleep was better, veronal being, however, still needed, though in a dose only one-fifth as great as before. The treatment had to be discontinued after thirty of the daily applications because of an accident which happened to the patient. After about six weeks the applications were begun again, and were continued for another forty days until the condition became stationary. The patient was now able to resume work, though not to the full extent, for about eight months, after which a fresh course was needed, because of return of sleeplessness. The patient is again at work, and has recovered his sense of enjoyment of work and exertion. This case shows the usefulness of the high-frequency current in cases even of severe neurasthenia. The treatment is without danger, and the author believes that the recognized indications for its use will become more numerous as further trial of it is made.

## PATHOLOGY.

### 198. Noguchi's Modification of the Wassermann Reaction.

J. C. SLEESWIJK (*Deut. med. Woch.*, No. 26, 1910) deals with one of the latest of the many modifications of the Wassermann reaction. It is claimed for this modification that it is a simplification and an improvement of the original method of carrying out the reaction. The test is performed with fresh unheated serum. The antigen is either an alcoholic lecithin solution or an alcoholic extract of fresh human organs (liver, kidney, etc.). The amboceptor employed is an antihuman rabbit's serum. The titre must, according to Noguchi, be stronger than 0.01 for complete haemolysis. The reagents are used in drops. Noguchi appears to accept the thesis that a drop of blood from the finger or a drop from any pipette are of approximately equal size. Noguchi further recommended the use of amboceptor dried on filter paper and cut in strips of equal size. Without going into minute details, the author finds that the use of human amboceptor is fraught with danger that antibodies active to human albumins might act inhibitorily on the haemolysis. He put the modification practically to the test, and found that the modification is not an improvement on Wassermann's original method. Unspecific inhibitions take place which alter the significance of the reaction. He is inclined to believe that this modification would lead to wrong diagnoses, and therefore declares that it is neither simpler than Wassermann nor an improvement on it.

### 199. Parathyroidectomy and Bony Changes.

JOVANE AND VAGLIO (*La Pediatria*, No. 11, October, 1910) have removed the parathyroids in puppies, and at a later period examined several of the bones to see if any changes occurred. In the first group of animals (weighing 0.800 kg.) the parathyroids were removed on January 20th; the animals were then suckled by the mother for about a month and finally killed on May 4th. No changes were noticed when compared with the bones of the control animal. In the second group the puppies weighed less—0.600 kg.—and on March 13th as complete removal of the parathyroids as possible was carried out. About ten days after the operation the animals showed tremors, rigidity, etc.; one passed on to complete tetany, dying on April 30th. The second animal also died of similar tetany seventy days after operation. At the autopsy, one animal showed a very small nodule of parathyroid tissue at the upper extremity of each thyroid gland; the other animal showed a similar nodule above the right thyroid gland, but none on the left side. No changes in length or thickness of bones could be observed in his second group any more than in the first, nor were there any abnormal microscopic changes. So that, as far as they go, these experiments do not support the theory that there is a relation between parathyroidal insufficiency and bony changes.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 200. The Simple or Peptic Ulcer of the Oesophagus.

C. Cantieri (*Arch. per le Sci. Med.*, Turin, 1910, xxxiv, 439) has collected 62 fatal cases of this rare condition from the literature and added 6 of his own; details of all are given, with illustrations of the ulcers in his own cases. Out of 61 cases, 25 were over 50 years old, 17 were aged 30 to 35; 42 of the patients were men, 19 women. Occupation seems to have no influence in the production of the ulcer; chronic alcoholism was present in at least a quarter of the patients; chronic nephritis and arterio-sclerosis were observed in 6 patients: there seemed to be no connexion between ulcer of the oesophagus and syphilis. As to the symptoms, pain was felt in four-fifths of the cases at the xiphoid and in the epigastrium, often radiating to the back, causing dysphagia and often pain even half an hour after eating. At first the dysphagia is due to the pain; later, perhaps, to paralysis of the ulcerated tube; still later to stenosis. It was absent in the rapidly progressing cases, in the cases of infants, and in a third of the adult cases—in 7 the ulcer had not been suspected, and was only found at the obduction. Vomiting either immediately, soon, or long after taking food was recorded in three-quarters of the cases, absent in the rest. Haematemesis, usually with melaena, was seen in over half the patients; in 3 it was sudden, copious, and fatal. The ulcer perforated in 34 out of 68 cases; into the pleural cavity in 9, the lung in 7, the bronchus in 4, the trachea in 3; into the mediastinal tissue in 8, the aorta in 4, the abdominal cavity in 3. In 4 instances perforation was the first sign of the ulcer. The duration of the disease is very variable; it usually lasts for a few months or a year. The pathogenesis of oesophageal ulcer has always been supposed to be the same as that of gastric ulcer; it is attributed to reflux of gastric juice through the cardiac orifice. Schaffer has found islands of cylindrical-celled gastric mucous membrane bedded in the stratified squamous epithelium that normally covers the lower end of the oesophagus; these islands may be the sites of ulceration. In 8 patients gastrectasis was observed; in 13 there was also ulceration of the stomach or duodenum or both, the history indicating that the oesophageal ulceration was often the latest to occur—but not always. The ulcer is usually near the cardia and on the posterior wall of the oesophagus, or at the level of the bifurcation of the trachea, rounded, and $\frac{1}{2}$ to $1\frac{1}{2}$ in. in diameter. Multiple ulcerations are not rare. Cancerous change seems to be very rare in these ulcers, if it ever occurs. The diagnosis has to be made from gastric ulcer or cancer and from oesophageal cancer, as a rule. The prognosis is very bad. Cantieri has found only 8 recorded cases of recovery, but remissions occur fairly often. The treatment is that of gastric ulcer, rest and rectal feeding being indicated. References to the literature are given.

### 201. Thomsen's Disease.

Babonneix and Lemaire (*Ann. d. méd. et chir. inf.*, March, 1911) describe a case of this rare disease in a girl of 10. The diagnosis gave rise to some difficulty, as the case did not entirely coincide with the generally recognized signs of Thomsen's disease. Marked general hypertrophy of the muscles at first suggested amyopathy, especially the amyotrophic type of Duchenne, but the presence of contractures after the cessation of effort, as in walking, negatived such a diagnosis. Electrical examination clenched the diagnosis. The characteristic myotonic reaction of Erb was present. In addition, the well-known sign of Thomsen's disease existed—namely, that on first attempting to walk movement was difficult, but after a few minutes the trouble passed off and the child could walk quite easily. It should be noted that the child was the only one in the family affected. This is contrary to the usual history of the disease.

### 202. Nephritis in Children.

Waugh (*Pediatrics*, November, 1910) discusses the frequency with which nephritis follows infectious disease in its different types. In treatment, régime is most important, and water should be given to flush the blood. A child of 6 years should have a pint of fluid, either Evian or Vittel water sweetened with lactose, which is a good diuretic in itself. After three days milk may be given. As a rule this régime will stop the albuminuria; if not, and more food is required, the patient is given a moderate quantity of carbohydrate, vermicelli and vegetable soups, rice, sago, and arrowroot. Where the urine continues scanty and high-coloured and vascular tension is too high, chlorides must be forbidden, as well as eggs and meat. Later a little pork or ham may be tried, then white, and finally red meats. In serious attacks physical and mental rest are imperative. Cupping is useful to relieve renal hyperaemia, baths are given, and in nervous patients the body may be wrapped in wet gauze and covered with oiled silk. When the acute onset has subsided, the kidneys may be relieved by steaming, hot-air baths, diaphoretics, and purges. When uraemic symptoms begin to appear, diuretics of the caffeine group are indicated. Theobromine in small doses is good; theocin is well borne, and caffeine valerianate, gr. $\frac{1}{6}$, every fifteen or thirty minutes, often answers admirably. When vascular tension is high and the urine scanty, digitonin acts promptly; it should be given in doses of gr. $\frac{1}{6}$ every half-hour till the pulse relaxes; its effect is evanescent, so that doses should be rapidly repeated. Vascular tension is seldom so low as to call for cardio-tonic principles. The purest heart tonic effect with the least vascular tensor stimulation is obtained by using digitalein, gr. $\frac{1}{134}$, for a child of 6, or sparteine, gr. $\frac{1}{6}$, for the same age. When uraemic symptoms arise, small enemas of saturated saline solution, half a pint, induce exosmosis from the blood into the bowel and drain off a large quantity of toxins. These enemas must be more concentrated than the blood, or else they will be absorbed and add to the stock of retained chlorides. When a saline diuretic is indicated, the following is advised: Chloroform, ʒj, ac. benzoic ʒj, sod. acetat. ʒj, water to make ʒxij; ʒss every two or four hours for an adult, or ʒij for a child of 6 years. The diet should include chiefly milk and things made with milk; farinacea, fruit juices, and pickled meats are better than any others when animal food is permitted. When the loss of albumen is excessive, arbutin is given, beginning with a grain daily and rising to large doses. It may be continued for six months or more. Cantharidine and volatile oils are not advised.

## SURGERY.

### 203. Cerebral Abscess of Amoebic Origin.

In October last Jacob, of the Val-de-Grâce Hospital, communicated to the Société de Chirurgie de Paris 2 cases of cerebral abscess of amoebic origin developed in the course of dysenteric suppuration of the liver, in each of which the intracranial lesion was diagnosed and exposed by operation. In a recent report on these cases, Sieur (*Bull. et mém.*, No. 4, 1911) states that abscesses of undoubted amoebic origin and associated with dysenteric hepatitis have been found in the lung, in the kidney, and perirenal tissues, and in the brain. The last mentioned localization is not so rare as it is supposed to be by French surgeons who have had much experience of hepatic abscess. Kartulis holds that amoebic suppuration of the brain cannot be regarded as a very rare complication, as it occurs in 3 per cent. of the cases of hepatic abscess observed in Egypt. The 2 cases reported by Jacob were taken from 36 cases of amoebic hepatitis on which this French surgeon had operated up to the date of his paper. In his 2 cases, as in those collected and treated by Kartulis, amoebae living and dead were found in the pus and the walls of the cerebral abscess. The abscess involved in the first case the left, in the second case the right, side of the brain. Sieur alludes to several interesting clinical details in Jacob's records. According to the rule, in cerebral abscess, cephalalgia was the earliest symptom, but in both of Jacob's cases it was much more intense than the same symptom observed in instances of cerebral abscess of otitic origin, a fact which is attributed to the morbid, rapid evolution of the amoebic lesion. The indications of localization failed in the first case, in which the patient presented paraphasia and contracture of the right upper limb. In the second case the symptoms—left bilateral hemianopsia and paresis of the left upper limb—proved true, as they led to direct exposure of the abscess. In this

case the cranial cavity was opened at the crossing of the supraorbital (horizontal), and the retro-mastoid (vertical) lines that are followed in Krönlein's method of trephining over the posterior branch of the middle meningeal artery. Both patients rapidly succumbed after the operation. The bad prognosis of surgical treatment in cases of this kind is attributed by Jacob to the nature of the brain lesion. In the brain, as in the liver, an amoebic abscess is a form of infarction, and presents a diffused mass of necrotic tissues, with haemorrhagic deposits, the formation of which keeps pace with the extension of the abscess and causes laceration and softening of the cerebral substance. In cerebral amoebic abscess, however, notwithstanding its operative mortality, surgical intervention is decidedly indicated. It is important in such cases to diagnose early, as a prompt intervention might then, Sieur thinks, arrest the encephalic inflammation, and ameliorate to some extent the result of a complication which up to the present time has been invariably fatal. Potherat (*Bull. et mém. de la Société de Chirurgie de Paris*, No. 5) has since put on record a case of acute amoebic dysentery followed in rapid sequence by liver abscess, purulent vomica in the lung, and fatal cerebral metastasis. The presence of living amoebae in the discharges from the hepatic and pulmonary abscesses was well attested. The patient, a commercial traveller, aged 40, had, it is asserted, never been out of France.

### 204. Appendectomy in Chronic Processes in the Ileo-caecal Region.

J. Petrivalsky (*Wien. med. Woch.*, Nos. 49, 50, 51, and 52, 1910) discusses the cases of appendicitis which have been verified as such, either at the operation or the *post-mortem* examination, during the last three and a half years, at Kukula's surgical clinic in Prague, and lays stress on the necessity of appendectomy in chronic processes in the ileo caecal region. During the period in question appendectomy was performed in 189 cases of relapsing appendicitis, and in 11 other cases abscesses were opened without any deaths; 2 patients died out of 9 operated upon for diffuse peritonitis. The whole mortality was, therefore, 3.3 per cent. On the other hand, of those in whom the appendix was not operated upon, 4 died from subphrenic or subhepatic abscess, or from metastatic abscesses in the lungs, kidneys, etc.; 2 from purulent hepatitis of appendical origin; and 1 from pyelophlebitis. In addition to these, out of 95 patients treated by conservative methods, 11 died of diffuse peritonitis. The mortality, therefore, amongst those not operated upon was 18 per cent., as compared to 3 3 per cent. among those operated upon. In the 189 cases of operation for relapsing appendicitis, empyema of the appendix was found in 45 cases, abscess with perforation of the appendix in 34; faecal concretion in 35; torsion deformity, or obliteration of the appendix, in 62; atrophy and partial obliteration, with retention of mucus or pus in the part left patent, in 5 cases; spontaneous amputation in 4; relapse due to a faecal concretion after the opening of an abscess years before, in 4 cases. The cases of faecal concretion without perforation, or retention of mucus in a tortuous appendix, or in one deformed as a result of adhesion, simulated clinically appendicular colic—McBurney's spot was either not tender, or only moderately so, and there was no palpable tumour. Chronic appendical abscesses need to be differentiated from cases of stercoral typhlitis in which the appendix is secondarily affected. One such case in which laparotomy was performed is described in the article. Three cases of peritonitis of appendical origin are of special interest. In one of them, which proved *post mortem* to be of purulent hepatitis after empyema of the appendix, there had been during life no symptom referable to the appendix. In a second a gangrenous appendix was extirpated, and the patient died a week later with symptoms of purulent hepatitis. In both the process began with an infectious thrombosis in the veins of the appendix, and travelled along the veins to the liver. In the five cases of subphrenic abscess resulting from purulent appendicitis the time between the beginning of the appendix attack and the development of the symptoms of subphrenic abscess was about three, five, one and a half, three, and eight weeks respectively. In one case the abscess pointed anteriorly, was opened, and more than 2 litres of pus removed; the patient recovered. A review of all the cases shows that the clinical symptoms often give little information as to the extent and severity of the changes in the appendix. The line of treatment adopted at the clinic is to operate on every case of appendicitis seen in the first forty-eight hours. Cases of purulent diffuse perforative peritonitis seen later than the second day are probably hopeless, unless it is thought that the whole abdominal cavity has not been attacked, in which case operation is indicated. Slight cases seen later than the first forty-eight hours are not operated upon, and are only advised to undergo operation in the quiescent interval if a similar attack has occurred before, or if some tenderness of the appendix region remains, or the result of the local condition upon the health is such as to cause injury to the patient's work; otherwise the patients are told to come back immediately for operation on the occurrence of another attack. Where plastic changes with chronic lesions are left after the attacks operation is recommended, because such changes depend as a rule either on empyema of the appendix or effusion with adhesions, and with torsion or narrowing of the appendix or perforation of the appendix by a faecal concretion or partial necrosis. In such conditions recovery on conservative lines is not to be expected, and an acute exacerbation may at any moment endanger the life of the patient. Chronic relapsing appendicitis is but little less dangerous, and depends on very much the same conditions. In such cases an early appendectomy not only frees the patient from risk in the future, but also restores him to health; the nervous system is found to suffer if chronic relapsing appendicitis is left untreated.



### 205. Ulceration of Jejunum after Gastro-enterostomy.

Wilkie (*Arch. gén. de chir.*, No. 12, 1910) directs attention to the frequent occurrence of ulceration of the jejunum after gastro enterostomy, and, basing his views on a clinical study of three cases recently observed by himself, offers an explanation of the causation and pathology of this unfortunate complication. It presents, he states, two types: One of ulceration at the seat of the anastomosis; the second of ulceration, single or multiple, situated in the jejunum and not involving the gastro-intestinal opening. The former type is that which presents itself in most instances. The interval between the operation for gastro-enterostomy and the development of the ulceration varies in different cases from a few weeks to many years. This development usually manifests itself by a renewal of the previous gastric troubles, but in many cases the first indications of the jejunal ulceration are symptoms of perforation. There is apparently a greater tendency to perforation in jejunal than in gastric ulcer, and consequently the former is the more serious and fatal affection. In all recorded cases, with one doubtful exception, of jejunal ulceration following gastro-enterostomy this operation had been performed for the relief of non-malignant disease, the development of post-operative ulceration is not influenced to any marked degree by the choice of method of gastro-enterostomy, but the author thinks that probably it is met with more frequently after anastomoses of the Y type. The general view of the causation of the secondary jejunal ulcer is that it is probably due to the action of the acid gastric secretion on the intestinal mucous membrane, which, under normal conditions, is exposed to an alkaline agent. The results of his clinical and also experimental research have led the author to the following conclusions: (1) Hyperacidity of the gastric fluids is not by itself a cause of jejunal ulceration after the operation for gastro-enterostomy; (2) the union of the margins of the cut gastric and intestinal mucous membranes is effected by granulation, and requires seven days on an average for its perfection; (3) irritation caused by the passage of solid food over the zone of granulation is an important factor of the interruption of the cure; (4) marked hyperacidity of the gastric contents tends to retard healing, and may lead to extension of any ulceration that has already been developed; (5) healing of the zone of granulation may also be retarded by the presence of a non-absorbable suture, a point indicating that catgut and not silk should be the material of the internal suture; (6) chronic gastro-intestinal ulcer is probably caused by a failure in the healing of the parts involved in gastro-enterostomy, such failure being the result of the irritation of food or a persisting suture; (7) in the operation for gastro-enterostomy functional closure of the pylorus may be readily and effectually practised by the application of one or two rows of the Lembert suture.

## OBSTETRICS.

### 206. Vesicular Mole: Missed Abortion.

Hallauer (*Zentralbl. f. Gynäk.*, No. 3, 1911) induced labour in a woman, aged 35, in the tenth month of pregnancy. The uterus had remained stationary in size for four months. Missed abortion was diagnosed. A firm mole, bigger than a fist, was expelled; it was pyriform, taking the shape of the uterine cavity, and measured 5½ in.

in vertical diameter. Its surface was quite smooth. When laid open its interior was found to be spongy in the middle and quite firm towards the periphery. The amniotic cavity lay in the upper third, the amnion itself remained, but there was no trace of a fetus. The spongy tissue around the cavity could be seen, without the aid of the microscope, to be made up of characteristic vesicles, as big as small peas. Under the microscope some of the vesicles appeared degenerate, others perfect; as a whole they were dropsical. The syncytium was in parts overgrown and elsewhere wanting. Blood and fibrin lay between the vesicles. Thus the mole was of the hydatidiform or vesicular type, and it had become firm and fleshy owing to bleeding, shrinking, and compression. Hallauer adds that, according to monographs, a vesicular mole is, as a rule, expelled between the third and fifth month. In about 4 per cent. it is retained till the tenth month, but a few cases are recorded where it remained in the uterus for a month longer.

### 207. Attempted Abortion: Ectopic Gestation Sac Opening into Rectum.

Brickner (*Amer. Journ. Obstet.*, February, 1911) reports in full a case where the patient was a married woman, aged 23, the mother of one child. The period being four weeks overdue, with pains in the right iliac region, she suspected that she was once more pregnant, and inserted a bougie into the uterus herself. A swelling developed in the right side of the pelvis, with uterine haemorrhages. Small pieces of ovum (? uterine decidua) were removed by the curette; the temperature at the time was high. The patient was kept under the hot-air treatment. At the end of a fortnight the pelvic swelling was found to be larger; three days later haemorrhage from the rectum occurred, and a fish-bone, detected by the proctoscope, was removed from the bowel. Yet bad symptoms continued to develop, especially exhausting bleedings from the bowel. Transfusion was practised at the end of about three weeks, and on the next day Brickner operated. Then the mass on the right side of the uterus was found to be not an exudate set up by the fish-bone, as Brickner had suspected, but a tubal sac which had opened up the right broad ligament. The appendix vermiformis adhered to the sac. The peritoneum over the sigmoid colon was incised, the appendix cut away, and the uterus amputated above the cervix. The sac had to be removed separately; during enucleation it was found to involve 4 in. of the rectal wall, including the mucous membrane. The adherent tract of bowel was excised; no chorionic villi could be detected in its substance. The wound was closed by suture, the peritoneum of the broad ligament was sewn over the line of suture, and the pelvis drained by gauze passed through the cervix, which was split for the purpose, and shut off from the peritoneal cavity by suture of the cut edges of peritoneum. A faecal fistula developed on the fourth day, but soon closed, and the patient was convalescent within six weeks after the operation. The sac was of the size of a goose's egg, and contained distinct chorionic tissue. The case illustrated the great difficulty in making a diagnosis in complicated cases of extrauterine pregnancy.

## GYNAECOLOGY.

### 208. Gynaecology and Kidney Disease.

Mirabeau (*Monatsschr. f. Geb. u. Gyn.*, February, 1911) dwells on three renal affections not rare in women. The first is pyelitis in pregnancy. The second, tuberculous disease of the kidney and ureter, is associated with two important symptoms. The patient often seeks medical advice on account of gnawing pains along the borders of the lower ribs, a symptom liable to be ascribed to pressure or dragging of clothes or to intercostal neuralgia. The second symptom is of importance because it is not difficult to detect if the patient be carefully examined. The thickened ureter can be detected on digital exploration of the pelvis. When it can be felt running down the pelvic brim the patient generally suffers from radiating lumbosacral pains which she ascribes to the uterus. In 50 subjects Mirabeau only failed in defining the thickened ureter in a few where the disease was quite incipient. Repeatedly, on the other hand, when there was no thickening of the ureter, an exploratory operation showed that the renal disease was not tuberculous. Should the ureter be diseased down to its lower extremity the cystoscope will show its ulcerated orifice with rigid, thickened borders. Its mucosa, ulcerated and covered with patches of phosphatic deposit, is often prolapsed. The third renal disorder frequent in women is chronic intermittent hydronephrosis due to obstruction to the downward passage of urine. The attacks come on, at least in the earlier stages of the malady, at each menstrual period, and are colicky in character, radiating down the course of the ureters. There is usually some common pelvic disease which accounts for the coincidence of the temporary dilatation of the kidney, such as displacements, uterine myoma and fibrosis, and old unabsorbed exudations. The periodic symptoms thus assume the characters of dysmenorrhoea, and that symptom may be taken for the primary disease unless the abdomen be carefully explored. Neglect of this kind is grave, as ultimately the kidney tends to sink down towards the pelvis, to cause kinking of its ureter, and to become infected; hence the importance of early diagnosis.

### 209. Catheter Retained in Placenta.

Palmer Findley (*Amer. Journ. Obstet.*, March, 1911) publishes a drawing of a hard rubber catheter embedded in a placenta. It was introduced in the seventh month of gestation. A few days later Findley was consulted. The patient had a pulse of 122 and temperature 101°, with hypogastric pain and profuse fetid vaginal discharge. The fetus was evidently dead. The cervix was dilated with a Barnes's bag, and a macerated fetus extracted. The patient declared that a physician had introduced a catheter which had not come away. It was found embedded in the placental tissue. The patient recovered.

## THERAPEUTICS.

### 210. New Treatments for Cancer.

Agasse-Lafont (*Arch. gén. de méd.*, September, 1910) gives a general review of some of the latest methods of treating cancer. Phototherapy is of use only for superficial cancers, and its application must be considerably prolonged, and, although amelioration of the disease can often be obtained, there is never a complete cure. Electrolysis also is only rarely employed, as it requires prolonged applications. With regard to electro-coagulation (Doyen), the author points out that nothing definite at present can be said as to its value. Serumtherapy has so far proved valueless. With regard to the various chemical agents employed in the treatment of cancer, Hallopeau has employed 40 per cent. formaldehyde locally to small epitheliomata. Cotton-wool soaked in formalin is placed on the growth and left for three or four days, and, according to this author, he has obtained cures by this method. The application to the growth of a solution of magnesium chlorate and its administration by the mouth has been carried out by Dr. Barbarin. Thirty grams of magnesium chlorate dissolved in 120 grams of distilled water may be used as lotions for superficial cancer, and may be taken by the mouth for cancer of the mouth and stomach, and for those growths which are not directly accessible. Potassium or sodium chlorate may be used in a similar way, the former of which, however, is decidedly toxic. Subcutaneous injections of the hypochlorite of soda and potash have also been employed. The author thinks that these methods of treating cancer often cause rapid cessation of pain and haemorrhages, arrest of growth and sometimes even its apparent disappearance, and he thinks they might be employed when surgical intervention is refused or is impossible. *X*-ray treatment is suitable, especially for superficial and easily accessible cancers, such as cutaneous epitheliomata. Epitheliomata of the lips should not be treated by *x* rays; they are so frequently accompanied by glandular enlargement, and the growth itself usually continues to increase in size, in spite of the treatment. Epithelioma of the inner canthus of the eye is also unsuitable for this method, owing to the difficulty of applying the rays to this part. Other unsuitable growths are extensive cancers, especially those which have invaded mucous cavities, bones, or subjacent cartilages. *X*-ray treatment may be employed, therefore, for epitheliomata, sarcomata, and lymphomata, which are suitable; and even in cases of deep-seated growths (mediastinal, abdominal, etc.) they have been employed. After apparent cure has been obtained by the *x* rays the treatment should be continued for some months with gradually increasing intervals, so that the whole of the neoplastic elements may be destroyed. The glands draining the area on which the cancer is seated should also be *x*-rayed, even although they may not appear to be diseased. For deep tumours very penetrating rays are employed, a filter of aluminium

being employed to reduce absorption of rays by the superficial tissues. After *x*-raying an ulcerated growth one notices in a few hours an abundant lymphorrhoea, which is followed in a few days by filling up of the wound, and in favourable cases cicatrization occurs after one or two weeks. In some cases a preliminary curetting of the superficial cancer is followed by *x*-raying, and, according to the author, this method has given the best results. In the operation of fulguration the patient should be under a general anaesthetic, and the majority of authors think that in cases where the growth is accessible complete excision should be carried out, but that when for various reasons this is not possible, the easily accessible parts of the growth should be removed; in both cases this surgical procedure is followed immediately by treatment with sparks of high tension and high frequency. Fulguration being completed, the lips of the wound are brought together, a large drainage tube is inserted, and a very absorbent dressing applied. The author's opinion as to the value of fulguration in the treatment of cancer is that it should be adopted in those cases which are deemed inoperable, as it diminishes pain and haemorrhage and prolongs life sometimes, and may complete imperfect results obtained by surgical intervention. Radium may be employed for the treatment of benign epitheliomata or of tumours of medium gravity situated on the face, eyelid, conjunctiva, nasal mucosa, etc. Epitheliomata rebellious to other forms of treatment, those of rapid growth or of wide extent, and those with surrounding inflammation may similarly be treated. Infected glands, mammary growths, subcutaneous tumours, adenomata, sarcomata, lymphosarcomata, cancers of prostate, rectum, uterus, oesophagus, stomach, intestine, and peritoneum can also be treated by radium. In treating budding growths or cutaneous growths of superficial character, it appears preferable to employ massive doses with short séances. For growths of mucous membranes or for growths accompanied by inflammation or deep infiltration small doses and long duration of application should be adopted. Growths may be treated by the application of tubes containing radium to the surface, and also by injecting into the tumour radioactive substances. For growths which are accessible with difficulty special tubes and apparatus are used. The first effect of treatment of subcutaneous growths by radium consists of disappearance of congestion and production of analgesia. In ulcerated growths haemorrhage and discharge ceases, whilst fetor and pain disappear. Then the growths diminish in size, loose their adhesion to surrounding parts, protuberances and ulceration disappear, and the growth ultimately becomes replaced by fibrous tissue. The scars of epitheliomata treated by radium are very good, and are neither protruding, retracted, nor depressed; usually they are smooth and supple. In epitheliomata of medium gravity—for example, rodent ulcer, epitheliomata of eyelids, auricle, nasal mucosa, etc.—radium has given about 95 per cent. of cures. In mammary cancer, tongue, lip, uterine, oesophageal, and rectal cancers, and in lymphosarcoma, observations so far are neither numerous enough nor sufficiently comparable for any instructive statistics to be deduced from them. Recurrent growths have been treated successfully with radium, and even in those cases where a cure has been obviously impossible treatment by radium has brought amelioration of symptoms and prolonged life when other methods of treatment have been without avail. The author considers that radium is one of our most efficacious methods of treatment for superficial or deep cancer, either at its beginning or when it is advanced, but that in a majority of cases treatment by radium should be associated with treatment by surgical methods.

### 211. Treatment of Tuberculosis and Lupus of the Upper Air Passages.

PFANNESTIEL (*Zentralbl. f. d. gesamte Ther.*, January, 1911) treated with complete success a very severe case of tuberculosis of the upper air passages with sodium iodide given per os and inhalations of ozone. The author attributes the action to the evolution of nascent iodine as a result of the union of the ozone with the sodium iodide, which passes into the blood and then into the pulmonary secretion; that the good effect is due to the iodine the author considers proved, as he found by omitting the iodide or the ozone no influence was produced on the disease. The author concludes the first part of his article, which is to be completed in another number of the journal, as follows: (1) Inhalation of ozone in suitable concentration occasions no danger or discomfort; (2) if the concentration is stronger cough is induced, but no permanent irritation or catarrh of the air passages occurs; (3) after some time the patient becomes accustomed to the treatment, so that the concentration can be increased without any trouble; (4) inhalation of ozone alone has no effect; (5) by the combination of sodium iodide internally and inhalation of ozone a very severe case of tuberculosis of the throat and adjoining cavities was completely healed.



### 212. Banana Flour for Infants.

PRITCHARD (*Pediatrics*, October, 1910) has for some years recommended the addition of mashed banana to the milk mixtures of artificially-fed infants. He has found its antiscorbutic properties valuable in the maintenance of nutrition. He is now using banana meal made into gruel or a decoction as a substitute for the expensive proprietary infant foods with good results. The digestion of cow's milk is made easier for the infant by the addition of cereal decoctions and solutions of gum or gelatine. If cereal gruels are given to facilitate the digestion of casein, they should not be given in excessive quantities before the infant has developed its power of diastatic digestion. Very thin gruel should be used at first and gradually strengthened. Cereal gruels include barley water, bread, jelly, oatmeal and barley jelly, all of which take time to make. The banana gruel is made by rubbing up a tablespoonful of the flour with a pint of water, and boiling for five minutes. This gruel has excellent colloidal properties when added in equal parts to the milk; it prevents the formation of a leathery coagulum of casein, and is a satisfying food. It is of a light chocolate colour, owing to the presence of a pigment which adheres to the starch granules; the fibre which it contains does not appear to have any injurious effect upon the delicate mucous membrane of the intestine. The nutritive properties are high; it contains of albuminoids, 2.5 per cent.; of starch, sugar, and gum, 77.7 per cent.; and it compares favourably as a food with most cereal flours.

### 213. Adalin.

E. FROEHLICH (*Berl. klin. Woch.*, January 2nd, 1911) states that he has employed adalin, a new sedative and hypnotic, in a large number of cases, and finds its action prompt, safe, and persistent. The medicament is a bromine compound of diaethyl-acetyl-urea. It is manufactured by Bayer and Company in powder form, and also in tablets. The author gives a few details of cases in which it induced sleep in patients who were suffering from insomnia and in whom other hypnotics had failed to produce sleep. The dose given was 1 gram, while if this has to be repeated, 0.5 gram may be given as a second dose. It should be given with a plentiful supply of warm fluid. The author finds that it does not produce a cumulative effect, nor does it tend to lose its action after being taken for some time. It can be given to patients suffering from heart disease.

## PATHOLOGY.

### 214. The Hard Arterio-sclerotic Liver.

O. BARBACCI (*Lo Sperimentale*, Florence, 1910, lxiv, 31) remarks that cirrhosis of the various abdominal organs is common in arterio-sclerosis, but least common in the liver. The only constant change in the arterio-sclerotic liver is in its consistency, best noted by pressure with the fingers; but the physical changes do not amount to those met with in true cirrhosis of the liver, and Barbacci has never been able to find microscopical evidence of increase in the hepatic connective tissue to account for the hardness. The application of Bielschowski's silver nitrate method has solved the problem, however; applied to sections of the liver this method brings into prominence a quantity of fine fibrillated reticular tissue (German, *Gitterfasern*), derived embryologically from the interstitial connective tissue, penetrating the whole of the liver and supporting the parenchymatous cells. The ordinary methods of staining, including van Gieson's, leave these fibrils unstained, excepting when they become converted into collagen fibres by some pathological process. These fibrils are increased in size and number in the hard arterio-sclerotic liver; Barbacci has not yet met with a case proving that this arterio-sclerotic increase of reticular tissue can go on to, or form the primary stage of, a true cirrhosis of the liver. The fact that arterio-sclerosis produces fibrosis in most of the other abdominal organs before it does so—if, indeed, it ever does so—in the liver, he explains by the presence of a double blood supply (hepatic and portal) in that organ.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 215. Addison's Disease.

Busch and Thew Wright (*Arch. Intern. Med.*, vol. v, January 15th, 1910) quote the following cases of Addison's disease. First Case: A man aged 29, who came under observation chiefly for weakness. On examination his skin was seen to be of a yellowish-brown hue, and there were a few freckle-like spots of a darker tint on the face and body. There were diffuse patches of pigment on the inner surfaces of the lips, but the sclerotics were not pigmented. Examination of abdomen and chest showed no abnormality beyond weak heart-sounds. Lymph glands in both triangles of neck were enlarged. The pulse registered 118 per minute, and was of small size and low tension, blood pressure being 90. Calmette and von Pirquet and Moro reactions were tried, the first and the last being positive. Ten days before death a positive Wassermann reaction was obtained (the patient had been infected with syphilis). The urine showed evidence of chronic interstitial nephritis. Tuberculin injections were administered without benefit. Desiccated suprarenal was then given by mouth in 30-cg. doses three times daily, also without benefit. Antisyphilitic treatment was commenced, but had to be stopped in a few days owing to the occurrence of fever and salivation. *Post mortem* there were found old pleural and pericardial adhesions. The heart muscle was thin, and showed fatty infiltration, and atheroma was present around the coronary arteries. Liver was cirrhotic. Retroperitoneal glands enlarged and some caseous. Kidney capsules adherent. Both adrenals caseous, broken down, and a pus sac in the right one. Tubercle bacilli were found in smears from the adrenals. Second Case: A mulatto, aged 56, admitted with a history of increasing weakness and increasing pigmentation of the skin. When first seen was troubled with nausea, vomiting, and epigastric pain. Skin uniformly dark, with areas of deeper pigmentation. Patches of pigment on buccal mucosa. Nothing abnormal in chest or abdomen. Heart sounds strong, second sound over aorta being accentuated. Blood pressure varied from 125 to 155. Moderate thickening of radial artery. Evidences of chronic interstitial nephritis. Von Pirquet positive. Treatment consisted in administration of desiccated suprarenal and finally adrenalin hypodermically. *Post mortem* both adrenals were much enlarged and showed caseous areas. Mesenteric and retroperitoneal lymph glands not notably enlarged. Kidneys cirrhotic. Third case. A Russian Jew, aged 35, admitted with history of increasing weakness and pigmentation of the skin. On admission temperature was 97.9, pulse 80, small and of low tension. Blood pressure, systolic 88, diastolic 63. Skin uniformly darkened, with scattered patches of deeper pigmentation on face. Very deep pigmentation of scrotum, penis, areolae of breasts, axillary and inguinal folds, and waist and collar lines. Patches of pigmentation on buccal mucosa. Leucodermic patches on back and scrotum. Heart sounds feeble. Poor expansion at both lung apices, but no abnormality on auscultation. No reaction to Moro's test. Adrenal transplantation was carried out as follows: A female shoat, weighing 40 lb., was killed and the left adrenal gland immediately removed. About one-fifth of the gland was shaved off from each side, exposing the medulla. The ends were treated in the same way, so that approximately two-thirds of the whole gland remained for transplantation and presented four raw surfaces for contact with the receiving organ. It was originally intended to graft this on to the patient's kidney, but the operative measures this would entail were considered to be unsafe in the patient's precarious condition. The testicle was, therefore, chosen. This was exposed under local anaesthesia, an incision was made into the tunica albuginea and just enough of the testicle proper excised to allow the graft to be snugly accommodated. This was buried and covered by the tunics which were sutured with catgut. On the third day the wound was dressed, and no inflammation reaction was present; both temperature and pulse also were normal. For a few days after patient's admission to hospital desiccated suprarenal was given, but owing to nausea this was withdrawn. Adrenalin hypodermically was also employed. For a time after the operation evident improvement in the patient's condition occurred, he became less despondent, ate better, felt somewhat stronger, and the vascular tonus increased. During this time, also, it seemed that the pigmentation somewhat lessened. Two or three days before death, however, weakness became pronounced and pigmentation increased, and death occurred two and a-half weeks after the operation. An autopsy was refused, but the organ containing the graft was secured. The graft was seen to be well embedded in the testicular substance; at one end a number of new-formed blood vessels could be seen radiating from the graft into the surrounding testicle. The major part of the medulla had apparently become necrotic, but many new-formed blood vessels containing normal human red cells were found in the graft. Numerous eosinophile cells were found at the periphery of the graft and especially in the necrotic tissue. In all these cases the blood picture was strikingly similar. The haemoglobin and red counts were both high. In the differential counts there was a decrease in the relative number of polynuclears and an increase in the small and large lymphocytes, as also an increase in the eosinophile cells. The use of the adrenal gland either by the mouth or hypodermically in the form of adrenalin showed no apparent beneficial effects and the authors consider that adrenal transplantation is the most promising method of treating Addison's disease, and although their attempt was not successful a large part of their graft had lived for a period of two and a half weeks. Their experiment was, however, carried out under great disadvantages as they had to be content with an unsuitable organ for the graft to be placed on, and they were compelled to use the adrenal from another species of animal instead of from man as they had wished.

### 216. "Electric Lavement" as an Aid to Prognosis in Intestinal Obstruction.

"Electric lavement," or the injection of a saline enema which has been electrized by the continuous current, is made the subject of some considerations by Zimmern (*Arch. d'électr. méd.*, January 25th, 1911) in connexion with the prognosis of intestinal obstruction. He points out that generally, when confronted with a case of occlusion which has commenced suddenly, it is difficult to form a causal diagnosis with any precision. Under these circumstances the "electric lavement" finds a certain utility as a therapeutic test. While an acute obstruction caused by a strangulation may be insurmountable, in spite of the stimulation of peristaltism by the electrical current, this is not the case with purely stercoral and certain other obstructions. As a result of his experience with 43 cases the author attaches importance to certain clinical phenomena associated with the lavement. Cases in which these phenomena are favourable generally call for a repetition of the electrical treatment, and those in which they are unfavourable suggest an obstacle practically insurmountable and indicate the necessity for surgical intervention. Apart from the lavement, the case is unfavourable when the condition is of sudden onset and acute form, and when poor abdominal meteorism, considerable pain, a bad pulse, and a tendency to distressing hiccough are among the symptoms. During the lavement the unfavourable phenomena are an augmentation of pain—the patient suffering from the passage of a current which is continuous and gives no brusque shocks—and also the absolute clearness of the water which is expelled after one or more simple enteroclyses. Another unfavourable sign is the cessation of the desire to defaecate when the current is suppressed. Increase of pain and feebleness of pulse after the lavement, together with the persistence of faecaloid vomiting, the appearance or continuance of hiccough, and the presence of oliguria or anuria, are unfavourable phenomena, and suggest that the case is one for the surgeon. On the other hand, the prognosis is favourable if the patient has previously had similar attacks, if the pulse is good, and if there is no hiccough. It is favourable if, during the lavement, the patient reacts less acutely to the current, and if the need for defaecation, instead of lessening when the current is suppressed, persists or even becomes augmented. Furthermore, in favourable cases, the water used for the lavement, when expelled after injection, is tinted, or may even contain some faecal débris. These signs, together with a good pulse after the douche and a diminution of the stercoraemia, make it probable that the issue of a second or a third lavement will be successful in removing the obstruction. They furnish an indication for prolonging the treatment.

**217. Erythema Exudativum Grave.**

A. BIGNAMI (*Riv. Osped.*, Rome, 1911, I, 61) has had the opportunity of observing at Rome during the last five years several cases of exudative erythema associated with severe nervous and cardiac symptoms, running a febrile course in two to four weeks, and without relapse. Examination of the blood has always proved negative (bacteriaemia, malarial parasites, Widal's reaction). Details of four cases are given. After a period of vague prodromes lasting a week, the illness begins with increasing fever, headache, muscular pains; jaundice was noted in two cases. A week later the cutaneous eruption comes out on the trunk as a polymorphic exudative erythema, the spots varying in diameter up to half an inch, reddest at their edges. The eruption lasts as long as the fever, paling in two to four weeks, vanishing in convalescence; successive crops are rare, and the spots are not haemorrhagic. In the second week the fever increases and is accompanied by stupor, coma, delirium, a frequent small pulse, cyanosis, albuminuria. Recovery, in the third or fourth week, is fairly rapid; convalescence is slow. The spleen is enlarged a little, sometimes the liver also; bronchitis is common. The disease seems not to be contagious or infectious. Bignami is at a loss to define or explain the disorder, which is neither a bacteriaemia, malaria, enteric fever; he believes it is an acute infective disease, analogous perhaps to the mild disorder, erythema nodosum. He has not seen a fatal case.

## SURGERY.

**218. Operative Treatment of Wounds of the Heart.**

BREWSTER AND ROBINSON (*Annals of Surgery*, March, 1911) publish a recent case of the heart, lung, and liver in which operative treatment was unsuccessful. The reported cases of wounds of the heart that have been treated by direct surgical intervention show a proportion of 71 successes to 106 fatal results. In 24 only of all these cases were the injuries caused by bullets. A table of these 24 cases shows, the authors find, a comparative frequency of wounds of both walls of the ventricles, while in stab injuries a single wound is the rule. A study of the symptoms, the indications for operation, and the technique of such treatment, based upon an analysis of their own and collected cases, has led the authors to the following conclusions: (1) The diagnosis of heart injury is usually difficult; (2) a wound of the heart in a large majority of instances involves pleura or lung; (3) operative rather than expectant treatment is indicated in most instances; (4) osteoplastic flaps should not be made; (5) intercostal incision with or without division of the ribs is the preferable method of approach; (6) in certain cases the heart wound may be so large as to bleed very profusely at the time of suture. In such instances interrupted manual compression of the superior and inferior venae cavae may possibly be a safe procedure; (7) differential air pressure, though not indispensable in the operative treatment of wounds of the heart and lung, is, however, a valuable means of controlling the respiratory function, of regulating the heart's action, and of reinflating the lung at the end of the operation; (8) air-tight closure of the pleural cavity, with reinflation of the lung, should be practised when possible; (9) drainage of the pericardium is unnecessary.

**219. Actinomycosis.**

SOME details are given by Schwartz (*Journ. des prat.*, January 21st, 1911) of a case of actinomycosis. The patient was a man of 71 years of age—an agriculturist—who had a swelling of the cheek which had lasted about six weeks. He remembers distinctly when sleeping on the grass, feeling a sharp prick on the left cheek to which at the time he paid little attention. On examination a tumour the size of an almond was found in front and below the lobe of the ear, adherent to the skin but not to the deeper tissues over which it was freely movable. There was no fluctuation, and it was very hard and painful to touch. It was removed under local anaesthesia. A section of the tumour showed a cavity filled with a yellowish purulent material, containing in the centre some yellow grains, and an ear of corn still green. On microscopic examination the puriform liquid stained by Gram showed abundant clusters of mycelium, resembling in all particulars the filaments of actinomycosis. The absence of the usual club formation may be explained by the fact that the lesion was comparatively young. The vegetable character of the ear of corn found in the tumour was demonstrated microscopically. A section of the tumour exhibited a network of fibrous material containing a mucocolloid substance, in which lay the mycelium. It seemed as if the toxins of the parasite had brought about a sort of dissolution of the sebaceous and sweat glands in its immediate vicinity, and still more deeply had attacked an aberrant lobe of the parotid. The author quotes 2 cases of Boströms, practically identical with the one described. Extirpation in these early cases appears to be successful. When the lesion is more widespread, large doses of KI may be given.

**220. Sarcoma of the Prostate treated by Radium.**

RUDOLF PASCHKIS (*Wien. klin. Woch.*, No. 48, 1910) describes a case of treatment of prostatic sarcoma by radium. Such a tumour is especially suitable for the treatment, both because sarcomata react to radium better than other tumours, and because the position of the tumour made it readily accessible. The patient was 32 years of age, had contracted gonorrhoea twelve years before, and had never completely recovered. About eighteen months before the patient was admitted into the Rothschild Hospital in Vienna the symptoms referable to the genito-urinary system became exacerbated, micturition became painful, and pains in the rectum and perineum increased, and were felt in walking. A month before admission there was severe intermittent haematuria, and finally complete retention of urine for which catheterization was several times required. The prostate was increased in size. On admission, examination per rectum showed that corresponding to the prostate was an irregular tumour; the part corresponding to the left lobe was the size of an apple and projected against the rectum; that corresponding to the right lobe was still greater, its upper limit not being palpable. The tumour was very dense and very tender. Cystoscopy was not possible because of severe bleeding and small capacity of the bladder; a catheter permanently in position could not be borne. Radical operation on the tumour was not possible, and Zuckerkandl, the operating surgeon, decided on the formation of a bladder fistula. At the operation it was found that the tumour, which was ulcerated superficially, projected in great nodules into the bladder, and had already attacked a part of the bladder wall; its size was about that of a man's fist. Histologically the tumour was found to be a spindle-celled sarcoma. 4.7 mg. (7 grains) of radium bromide was applied from the fistula to the bladder, so that the radium capsule was applied directly to the tumour. The patient received twenty-one sittings of about twenty minutes' duration each at fortnightly intervals. The last sitting was ten months after the operation, by which time the patient's sick leave was over. A catheter was now fixed in position, and after ten days the fistula healed. At first the patient passed water every two hours, later at intervals of three, then of four hours. Micturition was painless, and the urine free from blood. The general condition of the patient was excellent. In place of the large tumour there could be felt from the rectum a smooth not sharply defined infiltration, which was absolutely free from tenderness on pressure, and which extended on the right side towards the wall of the pelvis. The prostate could not be differentiated. The case could not be said to be a complete cure, but the objective improvement was undeniable, and clinical recovery almost complete.

**221. Treatment of Burns.**

LUCAS-CHAMPIONNIÈRE (*Journ. de méd.*, March, 1911) discusses the treatment of burns of the second, third, fourth, fifth, and sixth degrees. In the first case the indications are to sterilize as far as possible the periphery of the burn by oxygenated water 12 volumes, or 1 in 20 solution of glycerinum acidi carbolici, to open the blebs, and to carefully avoid injuring the healthy skin by washing, and then to cover the affected part with an ointment of pure vaseline 100 grams, essence of geranium, origan, verbena, and thyme āā 15 drops. To this may be added 20 or 30 cg. of naphtholate of soda. Instead of this ointment the following may be used: Pure vaseline 100 grams, finely powdered boracic acid 10 grams, balsam of Peru 1 gram, and naphtholate of soda 30 cg. The dressing to be changed every day, or every second or third day, according to indications. This treatment is to be continued until all secretion has disappeared, and an anodyne powder then applied, completing the treatment by powdered starch. In burns of the fourth, fifth, and sixth degree strong antiseptics, tar or balsam of Peru, are to be constantly applied until all decomposing material is removed, and the burns are then treated as simple suppurating wounds.

# OBSTETRICS.

**222. Cholecystitis in Pregnancy.**

RUDAUX (*La Clin.*, March 3rd, 1911) writes that when pregnancy is complicated by cholecystitis the symptoms do not usually appear until the eighth or ninth month. The attack may have been preceded earlier by gastric trouble or constipation, or by febrile attacks and some subacute pain. Its onset is generally sudden, beginning with acute pain in the right hypochondrium, which radiates across the abdomen, and is accompanied by rigors, vomiting, and fever. The pain is constant, and is increased by respiration, cough, palpation, or movement. Vomiting is biliary in character, and there is alternative diarrhoea and constipation. Distension, due to flatulence, may be so pronounced as to simulate obstruction. The pulse is rapid, the temperature high, and the appearance one of acute illness. The urine is scanty, with traces of albumen and bile in it. The hepatic region is tender and resists palpation, it is not always possible to distinguish a tumour, as the uterus is largely developed. A spontaneous cure is rare in these cases, and there is a constant risk that the gall bladder may rupture and discharge its purulent contents into the abdominal cavity, thus causing acute peritonitis. When the gall bladder is adherent to the intestine rupture may occur into the lumen of the bowel; death is also caused by hepatic insufficiency or general infection. The disease may react upon the pregnancy and lead to premature delivery. Cholecystitis requires to be distinguished from appendicitis, pyelonephritis, hepatic colic, and after delivery from infections having a puerperal origin. Preventive treatment consists in careful regulation of the bowel function by the free use of laxatives, such as cascara or rhubarb powder, in giving a strict and limited dietary, from which game, pastry, and viands which putrify or ferment easily are excluded. The patient should also have loose clothing and daily exercise. When an attack occurs the treatment should be medical. The diet should contain lactic acid, and small doses of calomel or salol or salicylates should be given; the latter is a valuable hepatic antiseptic. When the condition fails to improve surgical intervention is necessary, and the gall bladder is opened and drained, or the calculi are removed with forceps. When a sinus is formed further operative measures are required at a later period.

**223. Primary Ovarian Pregnancy.**

YOUNG AND RHEA (*Boston Med. and Surg. Journ.*, February 23rd, 1911) publish an illustrated report of the case of a single woman, aged 27, who had been subject to pains in the lower part of the abdomen for a year, followed by an attack of menorrhagia. The curette was applied, and for eight months afterwards the patient was subject to irregular uterine haemorrhages, ending in three severe attacks within three weeks. Then Young examined the pelvis. The ovaries, especially the left, were enlarged; they moved with the uterus. A few days later the left ovary had become much larger. Abdominal section was performed. There was some free dark clot in the pelvis covering the viscera, which adhered to each other. On separating some soft adhesions on the left side, a large recent coagulum was exposed. It enveloped the ovary, which contained a big red structure, a sac full of old dark clot. On its surface was a ruptured area, whence bleeding was found to issue. The fimbriated extremity of the left Fallopian tube was closed. The right ovary was polycystic and contained no corpus haemorrhagicum, the right tube was adherent to adjacent structures and not completely distended. The appendages were amputated. The left tube and ovary were carefully prepared. In the sac full of blood occupying the outer part of the ovary a minute fetus was discovered. The walls of the sac bore chorionic villi. No such structures could be detected in any part of the Fallopian tube.

# GYNAECOLOGY.

**224. Inversion of the Vagina after Hysterectomy.**

GUIBAL (*Arch. gén. de chir.*, No. 1, 1911) defines "inversion of the vagina" as a complete prolapse of this organ which projects beyond the vulva, forming an actual hernial sac into which may descend a more or less considerable mass of the pelvic viscera. This condition, when present in association with advanced forms of uterine prolapse, needs no special study, but when consecutive to removal of the womb, claims much practical interest as being a serious result of this operation. It seems, however, to be a rare complication, as the author has after long search been unable to add to an original case of his own but six other records. In all these seven cases the inversion followed vaginal hysterectomy, this operation having been performed five times for complete prolapse of the uterus, once for uterine fibroma, and once for metrorrhagia. The prolapsed and inverted vagina, which in the author's case had attained the size of a very large orange, is closely attached at its neck to the levator muscles. The protruded and mobile portion representing the dome of the vagina and the segment above the levators is distended by the pressure of the abdominal viscera, and the hernial sac thus formed is occupied by intestine, and constitutes a vaginal enterocele. The association of this condition with a tendency to cystocele and the irritation of the prolapsed vagina by the pressure of the thighs and by the flow of urine, renders this a grave affection, and indicates prompt and active treatment. In regard to both the pathology and the therapeutics of this form of vaginal prolapse, the author attaches much importance to the state of the levator muscles. These structures are always widely separated in cases of vaginal inversion, and this leaves a wide urogenital hiatus in the pelvic diaphragm. In some cases the muscles remain firm and well developed, while in others they are much atrophied. If the muscles are structurally sound, even though there be a wide gap, good results may be obtained from bringing them together by suture. If, on the other hand, they be very thin and wasted, they would not suffice to strengthen the perineum, and it would be necessary to associate with perineal reflection an operation for suspension and fixation of the vagina. After pointing out how the surgeon in the course of a hysterectomy may prevent vaginal inversion, the author describes at length the curative treatment of this unfortunate result, which should consist, the operative indications being favourable, either in colpopexy associated or not with cystopexy, or in colpectomy followed by restoration of the perineum.

# THERAPEUTICS.

**225. Salvarsan.**

LEVY-BING AND DUROEUX (*Ann. des mal. vén.*, March, 1911) report the results of six months' experience with intramuscular injections of "606," chiefly carried out at the St. Lazare Hospital, Paris. The drug was administered in an insoluble form, in an excipient consisting of 1 part of sterilized anhydrous lanoline and 9 parts of sterilized oil of poppy. The dose varied from 0.4 to 0.8 gram. Primary sores healed in from three to twenty days, but the corresponding glands were not influenced. Mucous patches generally healed in six to eight days, but in papular syphilides the action was less marked than that of injections of biniodide of mercury. Secondary lesions of the tongue were little influenced by "606." Papulosquamous eruptions often took a month to clear up, and left pronounced brown cicatrices. This dark coloration of the cicatrices was more marked than after mercurial treatment. The pigmentary syphilide of the neck was not influenced by "606," neither was its subsequent appearance prevented. Arseno-benzol appeared to have no more effect on the general adenitis than on the adenitis accompanying chancre. Syphilitic alopecia was not much benefited. In tertiary ulcerations "606" is an energetic cicatrizing agent, but not in all cases. Cases of syphilitic onyxis, cranial exostoses, otitis interna, tabes, paraplegia, and leukoplakia were not benefited. The Wassermann reaction remained positive in some cases; in others it became negative after forty or fifty days, but again became positive on the occasion of relapses. Relapses were much more rapid than after mercurial treatment. Some cases in which the chancre and roseola disappeared in a few days and the serum reaction was negative after two months, cases which therefore might have been regarded as permanent cures, showed a recurrent roseola and a positive reaction a month later. Not only were relapses more rapid than after mercurial treatment, but they appeared to assume a more severe form. In one case iritis, optic neuritis, and retinal haemorrhages occurred twenty days after the injection of "606." In fact, the injection of arseno-benzol cures symptoms, but does not cure the disease. As regards the repetition of injections, the authors found that the second injection always acted less than the first, even with a larger dose, and for subsequent injections they fear arsenic resistance on the one hand and anaphylaxis on the other hand. The authors sum up as follows. Intramuscular injections of arseno-benzol have not, on the whole, given much better

results than those obtained by soluble injections of mercury, but arseno-benzol is useful as a healing agent in the following conditions: (1) Ulcerated or phagedaenic primary sores; (2) extensive secondary or tertiary ulcerative lesions of the skin and mucous membranes; (3) lesions resistent to, or intolerant of, mercury; (4) in the interval between two intensive courses of mercurial treatment. They conclude that mercury and arseno-benzol should not exclude one another, but should be combined in the treatment of syphilis. Whether intravenous administration gives better results will be shown by a further series of observations. Of much interest were the results obtained in two non-syphilitic cases—a case of psoriasis which improved rapidly without local treatment, and a case of ulcerated lupus, which healed temporarily, but recurred a month later.

### 226. Feeding in Gastric Ulcer.

Gustav Singer (*Wien. med. Klin.*, No. 51, 1910) has for the last four years carried out, with some modifications, Lenhartz's method of treatment of gastric ulcer, the main principles of which, as compared with those of the older method, being to obtain a larger value in calories with a smaller volume. In spite of the favourable statistics with regard to haemorrhages on Lenhartz treatment, the author finds that, after a severe haemorrhage, patients can often not bear an immediate beginning of feeding by the mouth. Thus, in one of his cases in which there had been a haemorrhage eight days before admission and another on the day of admission there was a recurrence of bleeding when food was given by the mouth three days after admission, and, again, on another tried four days later; only after six days of rectal feeding alone was combined rectal feeding and feeding by the mouth able to be resumed without giving rise to haemorrhage. The increase of weight in cases of gastric ulcer treated on Lenhartz's system is most striking, as seen in diagrams showing the steep rise in the weight curve. Eggs, milk, cream, and butter are a good foundation for the diet and are extraordinarily beneficial for the peracidity so often present; when there is a good tolerance for fats the author lays special stress on the giving of cream and much butter. Carbohydrates are not absolutely excluded. Nearly always the author adds "hygiama" or bioson to the milk, and purée of potatoes, and foods, such as Nestlé's, Mellin's, etc., may be given. When there is much vomiting ice prepared with hygiama and milk has repeatedly been found to give good results. The loss of weight which follows a few days' absolute rest from stomach feeding is not to be considered of importance as it can soon be made up. Indeed, on Lenhartz's system, by the ninth day 2,000 calories of food value are being administered as compared with 1,000 calories on the fourth week on the older method. Rest in bed is one o the most essential conditions of a good cure of ulcer, and Singer finds that his private patients, after a cure has been effected, are much more willing to avoid indiscretions of diet than to permanently cut themselves off from physical over-exertion. Yet absolute proof that an ulcer has healed is not present after the most apparently successful cure. With respect to treatment by drugs the author has found gelatina alba in 5 to 10 per cent. solution and adrenalin useful in combating haemorrhage, and he often makes use of Parke Davis's extract of mistletoe in doses of two to three teaspoonfuls daily. Anaesthesin acts very favourably on the symptoms, and hypersecretion and hyperacidity are often influenced by the use of the 1 to 2 per cent. solution of anaesthesin in mistura amygdalina. When this fails atropine preparations, and especially eumydrin, given subcutaneously, or Merck's methylatropinum bromatum may be successful. Both Lenhartz and Leube lay stress on the early administration of iron in the form of Blaud's pills; the author has often, however, found a great intolerance of Blaud's pills to be present, and is chary of ordering iron in the early stages where recurrence of haemorrhage is threatened. In the later stages he orders iron in an easily assimilable form, especially haemoglobin preparations. In early cases he gives intramuscular injections of "metharsenate de fer." With regard to operations, the author agrees with Payr that entero-anastomosis is indicated in ulcers at or near the pylorus and in stenosis due to scar tissue, but that resection is suitable for extra-pyloric ulcers.

### 227. Serum Treatment of Haemophilia.

Weil (*Rev. Française de méd. et de chir.*, January 25th, 1911) relates several successful cases of the serum treatment of haemophilia. In one case the patient had suffered from severe attacks of spontaneous bleeding since infancy at intervals of not more than three months. The treatmen was begun during an attack of haematuria, which rapidly ceased, and since that time spontaneous bleeding has ceased. In the first part of the treatment excessive haemorrhage following cuts did not take place, but reappeared whenever the intervals of injection were lengthened. Four years afterwards the patient suffered from some articular pains from time to time, but is able otherwise to lead a normal existence. The blood which used to coagulate in about four and half hours, now does so in forty to fifty minutes. A brother of the patient who suffered from the same condition underwent similar improvement. The author also quotes the case of a child of 7 years who benefited by this treatment. Life in such cases is rendered tolerable by this means, especially when spontaneous attacks of bleeding have followed one another in rapid succession. One of the patients treated suffered from haemarthrosis of the right knee, but that was after a fall, and would certainly have resulted fatally before treatment. These cases are, of course, liable to the risks of anaphylaxis as any others treated continuously by serum-therapy, but there is no evidence that they are particularly sensitive to such results. In children the cessation of bleeding has been followed by rapid growth in weight. The author has used horse serum and antidiphtheritic serum in doses of 20 c.cm. administered subcutaneously and repeated every two months.

## PATHOLOGY.

### 228. Tumours of the Liver Lined with Ciliated Epithelium.

Two cases are described by G. Cagnetto (*Archivio per le Sci. Med.*, Turin, 1910, xxxiv, 495) in which he found ciliated columnar epithelium lining spaces inside hepatic tumours. Such ciliated epithelium is, of course, not rare in tumours derived from the genital tract and in embryomas; since 1898 a few cases of carcinoma with ciliated cells have been recorded in growths both primary and secondary. Cagnetto's first case was that of a woman of 79 who had a large primary tubular scirrhous adenocarcinoma, the size of an infant's head, in the right lobe of the liver, invading the stomach and pancreas, and with secondary deposits in the liver. The cancer cells were variously shaped, round, polyhedral, prismatic, pear-shaped, bifurcating; and in the adenomatous part of the tumour were provided at their free margins with cilia 3 to 5 $\mu$ in length. He thinks the growth may have originated in a bile duct, and that the biliary epithelium may have reverted to an embryonic ciliated condition by metaplasia. His second patient, a woman of 70, died with advanced pulmonary tuberculosis, had an atrophic brown liver. On the surface of its right lobe was a thin-walled semitransparent cyst, the size of a grain of maize, with a thickening of Glisson's capsule around it. This cyst was lined with ciliated epithelium, and overlay a thick stratum of connective tissue in which ramified numerous large tubercles lined with prismatic epithelium which was in part ciliated; the fibrous tissue also contained remains of hepatic lobules in which were large multinucleated cells in continuity with columns of liver cells. Examining the livers of a number of fetuses, Cagnetto has found a few ciliated cells in their bile passages in a few sections. He believes that this tumour was fetal or embryonic in origin.

### 229. Tetany and Parathyroid Insufficiency.

Jovane and Vaglio (*La Ped.*, November, 1910), in view of the conflicting reports of various experimenters with regard to the amount of calcium in the blood in relation to tetany, believe there must be some other and more constant factor present as a cause. This they believe to be in great part the parathyroids. They have carried out a series of experiments on dogs, and find that after total parathyroidectomy the electrical excitability is markedly increased. They also tried the effect of a partial removal of the parathyroids, and in this case an increase in electrical excitability occurred after operation. They then, after removing the parathyroids, tried the effect of injections of $CaCl_2$ and $MgSO_4$ respectively (daily injections of 100 c.cm. of a 5 per cent. solution). In each case the hyperexcitability was lowered whilst the injections were continued. The authors suggest that one reason why tetany is more common in artificially fed children is perhaps owing to the fact that in breast-fed children some parathyroid secretion gets into the milk, for it has been noticed that there is a state of hyperfunction in the parathyroids in the nursing mother.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 230. Epidemic Cerebro-spinal Meningitis in Children.

In three successive articles in the *Gaz. heb. des sci. méd.* for July 31st, August 7th and 14th, 1910, Moussous and Rocay deal with the symptoms and diagnosis of this malady. After referring to the usually sudden onset of the disease, which is ushered in quite frequently by such indefinite symptoms as sore throat, slight cold, abrupt fever, sickness, and headache, the authors pass on to the more characteristic symptoms, and call particular attention to the characteristic rigidity of the neck which gives the impression of soldering of the vertebrae. This peculiar rigidity extends frequently to the trunk muscles also, making rotation of the body almost impossible. They then describe several methods of eliciting Kernig's sign, one of the most constant features of the disease but by no means pathognomonic of cerebro-spinal meningitis only. This may be elicited in the upper extremities also. They refer also to Brudzinski's signs, of which there are two. The one is called the reflex contro-lateral identique. In this, the patient being supine with both legs extended, it is found that, on flexion of the leg and thigh of one side upon the abdomen, the moment the thigh touches the abdominal wall the other leg follows suit. If this is not obtainable, the second of them, the reflex contro-lateral réciproque, may be found. In this case, one leg and thigh being flexed as before and the other extended, it is found that when the flexed limb is lowered to the extended position the opposite limb undergoes, in turn, flexion on thigh and abdomen. Paralyses in the course of the disease are infrequent, although sometimes there may be a fleeting paresis of the limbs alternating with the contractures. The reflexes are greatly exaggerated, and Babinski's sign is generally present. When absent it is, according to Triboulet, owing to anaemia of the cord brought about by the hypertension of the cerebro-spinal fluid. This is shown by the frequent reappearance of the sign after lumbar puncture. Of painful symptoms the cephalalgia comes first, but there is in addition a general sensory and muscular hyperaesthesia. The intelligence is generally unimpaired, but there is considerable psychic disturbance, although delirium is rare. The facies of the patient does not undergo the rapid alternation of flushing and pallor that obtains in tuberculous meningitis, there being either a marked pallor or more frequently a flushed or suffused condition of the face. The fever is constant but variable in character and degree; it may fall by crisis or have an irregular decline in cases that recover. But when the temperature has reached normal there is no assurance for a considerable time that it may not again rise to its initial height. The pulse and respiration rates are disturbed as in tuberculous meningitis. Arterial pressure is markedly increased and is associated with bradycardia, but if matters move to a fatal termination the blood pressure falls and the pulse increases in frequency. With regard to cutaneous lesions, herpes is an important diagnostic sign. It appears early in the illness, from the second to the fifth day, at the angles of the lips or nose, and Debre has observed a herpetic eruption corresponding to the distribution of the sacral plexus. But of more importance are the purpuric eruptions. They are often pale spots, purplish in colour, like flea bites without the central point. In other cases they are red and haemorrhagic, and if confluent look like naevi. The purpuric eruption spreads rapidly, and usually becomes general in a period varying from one to eight hours. The articular manifestations are interesting in a child, for the joint pains may precede even the meningeal symptoms. The knees, wrists, and elbows are most frequently affected, and the condition is apt to be mistaken in some cases for rheumatism. Suppuration may ensue possibly as the result of a secondary infection, but oftener due to the meningococcus which may be found in the pus. Clinically, the authors divide the disease into four varieties—(*a*) the ordinary acute form, already described, which is by far the commonest; (*b*) the superacute, which kills the patient in from two to four days with all the evidences of profound intoxication; (*c*) the fulminating form, which lasts only a few hours, and hastens to a fatal issue so rapidly that a diagnosis is often difficult; (*d*) cases of slow development, in which at first the chief symptoms are cephalalgia, convulsive attacks and vomiting, lasting for several days before the malady declares itself in specific form. The complications and sequelae of the disease are many and varied. In the circulatory system endocarditis, sometimes ulcerative in type, is not uncommon, and phlebitis of the sinuses has been noted. In the respiratory system pleurisy is of grave import, and is often purulent. Complications affecting the nervous system are naturally most in evidence, and as the condition is really a meningo-encephalitis and meningo-myelitis, sclerotic changes occur, and from these arise the many incurable nervous symptoms which so darken the prognosis of the disease. Among the commonest are quadriplegia, diplegia, and hemiplegia. In these slow improvement is the rule but it is rarely complete. Associated with such are sometimes found athetosis, ataxias, nystagmus, and often evidences of sclerosis en plaques. In other cases the authors point out these are all the symptoms of a multiple neuritis; and, again, cases so resembling anterior poliomyelitis have been observed as to lead some authors to suggest the relationship of the two diseases. Among the sequelae affecting the special senses, paralysis of the extraocular muscles frequently leads to a persistent strabismus. Papillitis, too, often occurs, and is frequently followed by complete optic atrophy. The disease as affecting the middle ear is not usually so serious in its consequences as in the case of the internal ear. In the latter the prognosis is grave, as the deafness which results is almost always bilateral, and, in the case of young children up to the age of 8, deaf-muteness generally follows in its train. The authors then describe the cytology of the disease, and call attention to the unreliability of present bacteriological methods for establishing the identity of the meningococcus in the cerebro-spinal fluid. They mention the precipito reaction of Vincent in some detail as being an almost certain means of diagnosis.

### 231. Paroxysmal Pulmonary Oedema.

Stengel (*Amer. Journ. of Med. Sci.*, January, 1911), in discussing the treatment of paroxysmal pulmonary oedema, distinguishes the condition from the acute oedema associated with other pulmonary lesions from acute inflammatory oedema, and from the acute oedema accompanying rapid cardiac dilatation. Clinically its distinguishing features are its sudden onset with but slight provocation, an intense pulmonary oedema with the expectoration of quantities of frothy blood-stained serum, and the repetition of such attacks without any intercurrent complicating conditions. Five typical cases are mentioned, and the condition is probably due to a temporary pulmonary engorgement, owing to a sudden disproportionate working between the left and right ventricle, together with an increased vascular permeability. In the treatment of this condition the effect of a hypodermic injection of morphine is so striking as to render other lines of treatment unnecessary. Chloroform also controls the attacks, and in one case on record, in which seventy-two distinct attacks occurred, the patient became comfortable in from ten to thirty minutes, but as a routine measure it can hardly be recommended on account of the possible dangers attending its use in cardiac disease. Nitroglycerine upon theoretical grounds should be useful, but practically both it and the nitrites fail entirely, and possibly this may be accounted for by the fact that the condition occurs in cases of persistent high pressure and arterio-sclerosis in which the vasomotor mechanism has been exhausted to the extent that vaso-dilatation has ceased to be available. Venesection also will relieve the condition, but, compared to the simplicity of a hypodermic injection of morphine, it cannot be more prompt or satisfactory. After the first stage of the attack has been controlled by an injection of morphine and atropine, injections of strychnine, digitalin, and nitroglycerine may be employed to revive the power of the left ventricle, and, if possible, promote vaso-dilatation, while sal volatile or brandy may be given by the mouth if the patient can swallow. In cases under the constant care of a nurse instructions may be given for the immediate administration of sal volatile at the earliest threatening of an attack, followed by a hypodermic injection of morphine sulphate $\frac{1}{4}$ grain, with atropine sulphate $\frac{1}{250}$ grain, as soon as the first definite symptoms appear. This injection may be repeated in fifteen minutes, followed later by injections of strychnine and nitroglycerine.

**232. Pellagra and Dementia Praecox.**

G. Ronco (*Il Morgagni*, Milan, 1911, liii, Archivio 19) of Vicenza gives brief details of 27 cases in which hebephrenic or catatonic dementia praecox was associated with a strong family or personal history of pellagra. Three of them were under 20, 11 were 20 to 30, 12 were 30 to 40, 1 was 56. He notes that Kraepelin describes dementia praecox as a disease of degeneration, an auto-intoxication; White (1906) believes it to be due to defective development of the nervous system. Ronco concludes that it is a degenerative psychosis, common in country districts, due largely to the effects of pellagra on the parents who do not, as a rule, exhibit evidences of insanity.

## SURGERY.

**233. Surgery of Spinal Cord and Nerve Roots.**

Russell S. Fowler (*Medical Record*, March 25th, 1911) divides the spinal cord into the cord proper, with non-neurilemmatous elements, which cannot be regenerated after injury, and the cauda with the anterior and posterior nerve roots, which have neurilemma and can be regenerated. Operative interference is of value only in the portions capable of regeneration. An exact diagnosis of the injury is necessary to give indications for operation. This rests upon the nature of the traumatism, the onset of paralysis (whether immediate or late), the extent of paralysis, and the use of radiography. Extradural haemorrhage gives no indication for operative interference unless increasing pressure symptoms are present. If respiratory embarrassment occurs after a period of natural respiration following injury, operation may do good. If this symptom occurs at once it indicates contusion of the medulla, which will not be benefited by operation. Intradural haemorrhage does not indicate operation unless increasing pressure symptoms occur. Early operation is indicated in haematomyelia. In fracture of the spinal arch early operation is indicated if nerve disturbance can be attributed to the fracture. In fracture-dislocation it may be useful. In gunshot injuries, if the bullet can be seen by radiography to be in the vertebral canal, operation is indicated. Treatment of injury of the cauda differs radically from that of the cord proper. In injuries below the twelfth dorsal vertebra the cord should be exposed and sutured. Resection of the lumbo-sacral roots in severe spastic paralysis should relieve spastic symptoms. Abbe and Forster have operated successfully. Section of the posterior nerve roots has been done for tabetic pains.

**234. Localized Osseous Rarefaction.**

Laquerrière has brought for diagnosis before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, January, 1911) a case of a man, 24 years of age, suffering from obscure pain and impediment in the lower part of the leg, and gradually becoming worse until walking was almost impossible. A radiograph showed that at the lower extremity of the tibia the osseous tissue had completely disappeared for a length of more than 3 cm. along the anterior part of the bone. The visible effect was that of a clearly defined niche in the bone within which the opacity of the rays was identical with that of the soft parts adjoining. Yet the periosteum was conserved, and was translated in the radiograph by a fine blade presenting the normal bony colour. No deformity was proved, nor any proliferation, and the osseous tissue surrounding the lesion appeared to be absolutely normal. Tuberculosis and syphilis were thought of, but the absence of all deformity and all hyperostosis in the neighbouring parts, together with the conservation of the periosteum, although the loss of substance was so considerable, negatived these hypotheses. Again, osseous rarefaction following upon traumatism did not seem likely to bring about effects of such intensity. Laquerrière was more inclined to a diagnosis of intra-osseous hydatid cyst. After six weeks of medical care the young man was taken, under the advice of a surgeon, to an expert in syphilis, who, on seeing the radiograph, said immediately, "This is a gumma," and prescribed an intensive mercurial treatment. This treatment was followed regularly for thirty days, and at the end of that time another radiograph proved that there had been neither advance nor recession of the lesion. In the course of the discussion upon this case tuberculosis and syphilis were set aside, and more than one speaker suggested a diagnosis of sarcoma. Bonniot said that he had had occasion to make a radiograph in a young patient who showed an almost exactly similar lesion. The diagnosis, verified by operation, which consisted in grattage of the cavity, and by histological examination, was sarcoma of the giant cells of the bone marrow (*sarcome à myéloplaxes*), that is to say, sarcoma of slow progress and relatively benign. Since the intervention the state of the patient had notably ameliorated, and a later radiograph showed a very advanced reconstitution of the osseous tissue.

**235. Treatment of Mechanical Injuries of the Head.**

Illoway (*Arch. of Ped.*, December, 1910) points out the frequency with which infants and young children suffer from blows on the head. In the greater number of cases the traumatism is slight, and the brain is not affected thereby; in others it is the cause of serious, and even fatal, disease. It is not possible to foretell whether a fall or blow upon the head will engender cerebral disease or not. When confronted by such an accident, an effort must be made to prevent, if possible, graver consequences. The writer reports the case of a child of 10 who received a severe blow on the head, which rendered her unconscious. After a few days in bed she appeared to be in normal health, and resumed her ordinary life. Three weeks later she developed headache, and died after eleven weeks' illness of cerebral abscess. A boy of 11, who knocked his head against a stone, was unconscious for some time, then apparently recovered, but was seized about six hours later with vomiting, shivering, fever, and some delirium. He was given 2 grains of calomel twice at an interval of two hours; by midnight he had improved, and in the morning the temperature was normal. The calomel was continued at intervals of four hours till the next day, when it began to act upon the bowels, and was discontinued. He remained in bed for a further twenty-four hours, and had no more trouble. With both adults and children the writer has had excellent results from rest in bed, light diet, and the administration of calomel. He notes that blows or falls upon the head are accounted among the causes of meningitis, and are factors in the causation of epilepsy in children. Tumours of the brain and its coverings are not of rare occurrence in childhood, and may be due to mechanical injury of the head. Blows are also an exciting cause of diabetes in the child. The treatment that is imperatively needed is to allay all irritation as quickly as possible, and to further the restoration of the injured brain structures to the normal, and this is achieved by the measures here indicated. Calomel is a most potent remedy to allay vomiting. It has an antiphlogistic action on the brain and its coverings, and possibly also on the spinal cord. By its antiphlogistic action you can effect what cannot be accomplished with the bromides and the various hypnotics. It has a quick and effective manner of allaying cortical irritation.

**236. Foreign Bodies in Duodenum.**

E. Burci (*Lo Sperimentale*, Florence, 1910, lxiv, 87) relates the case of a hysterical girl of 19, whom he had treated for intermittent fever, pains in the right hypochondrium going through to the right shoulder and down to the thigh, attacks of vomiting, and wasting for about five weeks. Some four months later the symptoms were still persisting. Professor Grocco found signs pointing to localized peritonitis in the right hypochondrium, which was hard and tender, and the stomach extended as low as the umbilicus. It was thought that pyloric or duodenal ulcer might be present, and exploratory laparotomy was performed. Burci found a nail 4½ in. long and three hairpins in the vertical part of the duodenum, which was generally thickened. The foreign bodies were removed, as was a sewing needle fixed in the posterior wall of the great omentum. After the operation the vomiting of food and bile persisted, and five days later Burci performed a posterior gastro-enterostomy, after which the patient recovered. There had been no vomiting for some time before the operation, and there seemed to be no duodenal stenosis at the time of the first operation. No doubt the stenosis was due in part to the suturing of the duodenum—two openings were necessary—and the post-operative oedema at the sutured spots.

## OBSTETRICS.

**237. Treatment of Post-partum Haemorrhage.**

Perdrizet says (*La Clin.*, January 13th, 1911) *post-partum* haemorrhage does not begin until the uterus is entirely emptied of its contents; it may be stopped by exciting contraction of the uterine muscles, by haemostatics applied to the uterus itself, by means employed to cut off the blood supply from the uterus and by removal of the organ. The

best known of the mechanical measures is that of massage, by rubbing the external surface of the uterus through the abdominal wall; where the haemorrhage is serious this method is more effective if a hand is introduced into the uterine cavity at the same time. Vibratory massage also gives good results. Goth's method should also be considered; it consists in grasping the uterus with the thumb and finger, through the abdominal wall, and just above the symphysis and pressing it vigorously upwards. Useful pharmaceutic agents are ergot and ergotine injected subcutaneously, adrenalin injected directly into the uterine muscle through the abdominal wall, and stypticin. Hot intrauterine douches are advised, with the addition of chlorine water as an antiseptic and as a local styptic. Icebags on the abdomen are not of great value. Many people still use gauze tampons, but these are only of use when they excite uterine contraction and they tend to become a source of infection. The blood supply may be cut off by Baudelocque's method of compressing the aorta which is a fatiguing and difficult procedure. Momberg's method is more effective, in which a rubber tube is wound tightly round the body until the femoral pulse is stopped. As the application of this ligature is painful the patient will not always tolerate it unless morphine is administered. Before removing Momberg's ligature the lower limbs must be firmly bandaged to prevent a too rapid return of the blood. Various methods have been tried for causing pressure on the uterine arteries, either by flexing the uterus or by attaching forceps; the methods are all difficult and uncertain. When all other means fail it will be necessary to perform a laparotomy, and tie the arteries and remove the organ; this is sometimes the only way of saving the patient's life.

### 238. The Placenta: Its Amylogenic and Amylolytic Properties.

DELLA CHIAGE (*Ann. de gynéc. et d'obstét.*, February, 1911) has conducted a series of experiments to test the value of certain opinions prevalent about the exchange of hydrocarbons between the mother and fetus, the amylogenic properties of the placenta, and the nature of placental glycogen. He himself has already published researches on the production of hepatic and muscular glycogen during gestation. In order to avoid certain sources of error which he indicates, he finally made a series of original experiments. A pregnant bitch, kept on the same diet as the other animals of the same species subjected to these investigations, was placed on the operating table, one uterine cornu was then opened and the placentas removed. At the same time two pieces of liver, each about equal in weight to the corresponding placentas were excised. Haemostasis being assured, the abdominal cavity was closed. Lastly 10 c.cm. of a 30 per cent. solution of glucose was injected subcutaneously. Within from one to two hours the other cornu was opened and the placentas removed; two pieces of liver were also excised as before. Seven subjects were submitted to these experiments. Della Chiage found that the injections of glucose produced a distinct increase of glycogen in the placental tissue and in the fetal liver. The longer the interval of time after the injection and the greater the dose of glycogen the less glycogen was found in the placenta and the more in the fetal liver. Therefore the placenta seems to possess amylogenetic and amylolytic functions necessary for the products of conception.

## GYNAECOLOGY.

### 239. Absence of One Ovary: Normal Parous Uterus.

SACHS (*Monatsschr. f. Geb. u. Gyn.*, February, 1911) describes an instance of total absence of one ovary and arrested development of the corresponding Fallopian tube discovered at the necropsy on a multipara aged 28. She died after an operation for perforating appendicitis in the fifth month of her sixth pregnancy. She was well nourished, the secondary sexual characters were marked, and the external genitals normal. The uterus was perfectly well developed, being quite symmetrical in form. The left Fallopian tube was free from any abnormality, the ovary was as big as a goose's egg, and its lowest part was occupied by a dermoid cyst. The attachments of the cystic left ovary showed no trace of arrested development, the ovarian ligament was stout and well marked. No ovary could be detected on the right side. The right border of the uterus was quite smooth and no ovarian ligament sprang from it, nor was there any cicatricial area in its neighbourhood. The peritoneum of and around the right broad ligament was carefully searched, but no solid or cystic structure suggesting a rudimentary ovary was discovered. The interstitial part of the right Fallopian tube did not admit a probe passed from the uterine cavity outwards. The tube itself was reduced to a slender cord running from the uterus immediately behind the origin of the round ligament, which was well developed, under the peritoneum. There was no fimbriated extremity and the rudimentary tube did not raise the serous membrane to the slightest perceptible extent; in other words, there was no broad ligament. The cord-like tube, lost externally under the pelvic peritoneum, showed plain muscle fibre, but no lumen nor any epithelial elements could be seen in sections of the tube made for the microscope. The perfect symmetry of the uterus, showing that the lower part of the right Müller's duct had not been arrested in development like the outer or tubal portion, was noteworthy, as was also the fact that there were no symptoms indicating the arrested development during life, nor any lack of fertility.

## THERAPEUTICS.

### 240. Malignant Syphilis and "606."

BUSCHKE (*Berl. klin. Woch.*, January 2nd, 1911), while admitting that the term malignant syphilis is not clearly defined, agrees with Lesser's definition of this condition, which includes those cases of syphilis in which the usual secondary period is absent or very short, and which are characterized by the early appearance of ulcerations of the skin and mucous membrane, which differ from the usual tertiary ulcerations in the circular instead of serpiginous form, and in being more widely distributed over the body. Malignant syphilis is also subject to frequent relapses, and is often accompanied by diffuse, infiltrative, gummatous or ulcerative lesions of the internal organs. Buschke does not consider that malignant syphilis has any connexion with phagedaenic chancre, and states that the chancre is usually normal in such cases. As regards the causation of malignant syphilis, Buschke points out that the condition often occurs in robust subjects, and is not necessarily due to predisposing causes, such as alcoholism, tuberculosis, anaemia, and general bodily weakness. Neither is malignant syphilis due to the intensity of the virus, for both benign and malignant syphilis may arise from the same source of infection, and it has been shown by confrontation that the source of infection of a case of malignant syphilis need not be malignant itself. In fact, the subjects of malignant syphilis are predisposed in some way, but the nature of this predisposition is not known. Buschke draws attention to the similarity of malignant syphilis to the form in which syphilis appeared as an epidemic at the end of the fifteenth century, and mentions Finger's suggestion that this severe form affects the individuals of generations who have long been free from syphilis. He distinguishes four forms of malignant syphilis: (1) Cases which hardly require specific treatment, and recover under stimulating and nourishing general treatment; (2) cases which react to mercurial and iodide treatment like ordinary syphilis; (3) cases which react to intensive mercurial and iodide treatment, especially to calomel injections; (4) cases which are resistant to mercury and iodides. In these cases he recommends mild arsenical treatment. But such cases are rare, and it is remarkable how so many observers who have reported on Ehrlich's preparation have suddenly come across so many cases which were refractory to mercury. In the very rare cases which do not react to the above treatment, Buschke would have recourse to "606," provided there were no contraindications. However, he points out that this preparation has a deleterious neurotropic action, and mentions cases of ocular paralysis and affections of the labyrinth which have been reported by Finger, Stern, and himself. In addition to this neurotropic action, Buschke points out that deposits of "606" in the tissues are known to produce necrosis, and he thinks it not improbable that microscopic foci of necrosis may be produced in this way in the internal organs after injection of the drug; moreover, that such deposits may predispose to further manifestations of syphilis. In support of this view he mentions the tendency of syphilides to appear in tattoo marks in the skin. He also mentions cases of severe headache after intravenous injection of "606," which did not improve under mercury and iodides. With regard to the mode of action of "606," Buschke points out that spirochaetes are absent in the lesions of malignant syphilis, and scarce in those of tertiary syphilis. Hence he con-

siders the action of "606" to be organotropic, like that of mercury and iodide, and not parasitotropic as Ehrlich supposed. Experimental inoculation of apes from cases of malignant syphilis also produced lesions in which no spirochaetes could be found. Buschke mentions the interesting fact that in no case of tabes or general paralysis has he found the characteristic scars of malignant syphilis. He concludes that the nature and origin of malignant syphilis will repay further study, especially as this form resembles, perhaps, the original epidemic form of syphilis rather than the ordinary syphilis of the present day.

### 241. The Treatment of Diabetes.

Le Gendre (*Journ. de méd.*, March, 1911) sums up the treatment as follows: All meats can be taken, for preference with a good deal of fat if it is digested; oils, cheese, and cream are useful; eggs and shellfish can also be eaten. Green vegetables are particularly to be recommended; potatoes are recommended by Mossé in large amounts, as they seem to diminish the sugar and polydipsia; their richness in potash salts appears also to play a favourable part. Oatmeal is frequently tolerated; peas, lentils, and beans are to be avoided. Oranges, gooseberries and raspberries, and stone fruit can be taken; raisins should be forbidden. Milk is valuable, particularly in diabetes with albuminuria, but it is often badly digested. Wines are generally well borne, but beer, cider, liqueurs, and chocolate must be forbidden. The best drink is pure water with lemon juice, or tea or coffee. Bread should be avoided as much as possible, and replaced by potatoes. Of drugs, the best are alkalis, as bicarbonate of soda. Vichy water is valuable, and the action of this water can be increased by two cachets a day of benzoate of lithia 25 centigrams, bicarbonate of soda 1 gram, benzoate of soda 25 centigrams. Antipyrin and bromide of potash are to be used with caution, and all medicaments which depress the nervous system are to be avoided if the patellar reflex is absent or weak. In these cases stimulants are indicated, as arsenic and strychnine; quinine is also useful; codeine is also of value, and the author frequently employs the following formula:

| | |
|---|---|
| Sulphate of strychnine ... | ... 1 demimilligram |
| Arseniate of soda ... | ... 1 milligram |
| Codeine ... ... ... | ... 1 centigram |
| Valerianate of quinine ... | ... 5 centigrams |
| Extract of valerian ... | ... q.s. |

Ft. pilula. Five or six of these per diem, according to toleration.

### 242. Effects of Injections of Killed Streptococci.

Weaver (*Amer. Journ. Med. Sci.*, September, 1910) reports the results of investigations upon the effects of injections into the living body of killed virulent streptococci, both as to their ability to produce immunity in the previously uninfected, and also as to their therapeutic value in overcoming an already existing infection. The destruction of streptococci within the body is accomplished by phagocytosis, for which opsonin is essential, and in estimating the power of the individual to cope with streptococcic infections the leucocytes as well as the serum must be taken into consideration. Injections of killed streptococci into an animal raise its resistance to living virulent streptococci, thus enabling it to withstand doses of the latter which would otherwise produce a fatal infection. Streptococci which have been killed by a strong solution of galactose stimulated the production of antibodies to a much greater extent than did the same culture killed by heat, the rise in the opsonin being well marked in those rabbits which had received the galactose-killed streptococci, while the opsonin was but little affected in those receiving the heat-killed bacteria. Most of the investigations upon the therapeutic value of injections were made in cases of erysipelas and scarlet fever, galactose-killed streptococci being used. Of 22 cases of erysipelas treated only 3 were benefited, while in the acute stage the injections produced no appreciable result. Of 31 cases of scarlet fever presenting streptococcic complications 11 (36 per cent.) showed prompt improvement, the beneficial effects being most marked in the subacute and chronic cases. As a prophylactic against scarlet fever injections might be useful if tried under conditions favourable for control, but treatment early in the course of the disease does not appear to prevent later streptococcic complications. While apparently of but little influence in acute erysipelas and in the acute stages of streptococcic complications of contagious diseases, the injections appear to be of some benefit in subacute and chronic cases, though frequently even in these no appreciable effect results, and great caution must be exercised before ascribing improvement entirely to the injections.



## PATHOLOGY.

### 243. The Typhoid Bacillus and the Respiratory System.

Follet and Bourdinière (*Prog. méd.*, January 14th, 1911) from their experience emphasized the fact that the most diverse affections can be caused by every known micro-organism. This is well known in the case of the pneumococcus, meningococcus, and others. In the case of Eberth's bacillus, however, it was supposed for a long time that its infectivity was exclusively manifested in the condition known as enteric fever. It has since been found, however, by a number of observers as a primary infection in the thyroid, the lungs, and the meninges. The practice of blood culture has shown that in all such cases there exists a specific septicaemia, and the transmission by the blood of the organism explains their widespread localization. The authors quote two cases bearing directly on this matter. The first was the case of a chauffeur who had fallen a considerable distance, damaging his left side. There was severe local pain at first, which gradually abated, but did not disappear altogether. He continued in active work, but about two months afterwards began to complain of malaise, sensation of fatigue, and lameness at the end of the day, with a tendency to somnolence and vertigo. At this stage he was treated by saline purgatives. The hebetude and somnolence increased, however, he got thinner, and the pain in the left side reappeared. There was a disagreeable odour from the breath, but no cough or expectoration. He had suffered from pneumonia of the left lung in 1907, but had never had typhoid fever, and there was no evidence of syphilis or alcoholism. On examination the digestive apparatus presented nothing abnormal. There was no vomiting, diarrhoea, or meteorism. There were no rose spots, and no enlargement of the spleen. With regard to the respiratory system, there was no dyspnoea, cough, or haemoptysis. There was an area of dullness at the base of the left lung, but Traube's space remained clear. The urine contained neither sugar nor albumen. The pulse was about 80 per minute. An exploratory puncture was made, resulting in the withdrawal of purulent and haemorrhagic fluid, and resection of a rib was done. On examination, the pus was found to contain fibrinous substances, red cells, altered leucocytes, and a bacillus which was Gram-negative. A culture was made on bouillon, which in twenty-four hours resulted in a highly motile organism. It did not liquefy gelatine and did not coagulate milk, which remained alkaline. Culturally, indeed, it was found to present all the characteristics of the *Bacillus typhosus*. The second case had very similar symptoms up to a point. In this case an exploratory puncture revealed nothing, although there was dullness at the base of the right lung. The patient latterly developed a phlebitis, which was recovered from, but, after getting about for five months, he began to complain of loss of appetite, general fatigue, and violent headache. He vomited for several days a purulent fluid, from which was isolated a bacillus similar in all respects to that described above. The patient finally died in a toxaemic condition. These primary localizations of the *Bacillus typhosus* seem, as a rule, less serious than the secondary infections of a typhoid septicaemia. Inoculations proved without doubt that the bacillus found was one of feeble virulence. The authors' conclusion is that the bacillus of Eberth is less a specific organism than one capable of determining ordinary infections, such as angina, abscesses, pleurisy, and pneumonia.

### 244. Simplification of the Technique in Fixation of the Complement.

To accomplish this end L. Ferrannini (*Rif. Med.*, February 6th, 1911) uses the blood of the eel to provide the haemolytic amboceptor. As he points out, the eel is an animal easily procured, not difficult to keep, and practically is found to provide a perfectly suitable and reliable serum at the smallest expenditure of labour. In actual experience, the serum so procured is found to be prompt and sure in action. It is not absolutely necessary that the animal should be alive, one recently killed will give a reliable serum. The tail of a medium sized eel (200 grams) will provide enough blood to yield 2 to 3 cm. of a clear, slightly fluorescent serum. This serum is haemolytic, especially as regards the red corpuscles of the rabbit, one of the commonest of laboratory animals. In dilutions of 1 in 10 to 15 the eel serum exerts a sure and quick haemolytic power on a 5 per cent. suspension of red globules of the rabbit in physiological serum: the dilution may even in some cases reach 1 in 20.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 245. Essential or Idiopathic Anasarca.

U. SBISÀ (*Il Morgagni*, Milan, 1910, lii, Archivio 421) records 5 cases in which anasarca occurred without any renal, cardiac, or other lesion to account for it. Similar cases have been recorded before, and he notes that Litten has recorded a patient with scarlet fever, but free from albuminuria throughout, who died on the twentieth day, and was found to have a typical scarlatinal nephritis; 2 of Sbisà's cases were men of 56 and 62; 1 of them certainly, and the other probably, was suffering from oedema of cardiac origin without albuminuria. The other 3 patients, however, were children; 1 probably had a scarlatinal oedema, the other 2 had oedema as a result of severe diarrhoea, but none of them exhibited any albuminuria or exudation into the serous cavities, and all recovered. Sbisà remarks that essential anasarca is commoner in children than adults; most frequent after scarlet fever, dysentery, or enteric fever; in infants it may result from chronic enteritis. Its etiology is quite obscure. Filatow attributes it to myocarditis, Siegel and Richter to fatty degeneration of the intima of the cutaneous and subcutaneous lymphatic and vascular capillaries, others to renal disease or renal impermeability. Sbisà notes that essential anasarca has the same distribution as renal oedema; its diagnosis depends on the failure to discover any other cause for the oedema.

### 246. Purulent Diaphragmatic Pleurisy.

LEGRAND (*Echo méd. du Nord*, October 16th, 1910) reports the following case which occurred in his practice. A small farmer was suddenly seized on May 5th, 1909, with abdominal pains, severe colic, said to begin in the right hypochondrium, and to spread first towards the umbilicus and then to the end of the penis. The left shoulder was also somewhat implicated, the face anxious, the tongue furred, the temperature very little above normal. There was no cough and no disturbance of respiration. Some nausea was complained of, and the bowels were constipated, but micturition was normal. Abdominal palpation was impossible owing to muscular resistance, and auscultation gave no special result, although there was some obscuring of the breath sounds at the right base, and the patient seemed afraid to breathe deeply. Percussion was normal. Nephritic or hepatic colic was thought of, but nothing was done beyond a hypodermic injection of morphine, which had to be repeated next day on account of a fresh access of pain, and the condition was more satisfactory for a time until, towards the end of May, the acute pain returned, this time not affecting the abdomen. An exploratory puncture gave no result, only a drop or two of straw-coloured fluid being withdrawn. On June 4th the patient was much worse, the temperature reaching 100.2° F., and the physical signs remaining the same, the pain continuing in the right side and flank. Exploration this time resulted in the withdrawal of a syringeful of fetid pus, and the diagnosis made was subphrenic abscess, probably of hepatic origin, puncturing the diaphragm. The next day a resection of the tenth rib was performed, 5 or 6 cm. (about 2 in.) being removed, the incision into the pleura giving vent to a large quantity of very fetid pus. A finger passed in to feel all over the the convexity of the diaphragm found no perforation to account for the origin of the pus. The cavity was drained for about three weeks, after which convalescence progressed rapidly, and the cure has been permanent. The uncertainty attending the commencement of the illness is the excuse for reporting the case, in which the facts alone are given without any attempt at explanation.

### 247. The X Ray and Diagnosis of Gastric Carcinoma.

G. E. PFAHLER (*Med. Rec.*, March 25th, 1911) extols the diagnostic value of the *x* rays in cancer of the stomach and bowels. One should suspect cancer in every person over 40 years of age who has stomach symptoms. The rays in the hands of an expert, and by no other, should they be used, are painless and harmless. Loss of appetite, distaste for meats, inability to digest solid food, and pain and tenderness over the stomach, lead one to seek for a definite diagnosis. Carcinoma modifies the outline of the stomach and its position, interferes with the peristaltic waves and the motility, and obstructs the passage of food. The earliest evidence will come from obstruction of the peristaltic waves. The patient should wear only one garment, and should be examined first standing, then lying down. By roentgenoscopy one may see the food enter the stomach, and may judge of its outline, position, tone, effects of peristaltic waves, and motion with respiration, etc. A mixture of bismuth and water or bismuth and fermented milk is ingested to make the stomach visible. The mixture drops rapidly to the lower part of the stomach in atonic stomachs. Normally it passes slowly along to the lower pole. If gastric dilatation is present it falls like a shower through the contained secretion. Carcinoma in the fundus deflects the bismuth or causes an indentation. Hour-glass constrictions may be recognized. If spasmodic, they do not last; if due to carcinoma they are permanent. The pylorus is the region of most active peristaltic waves; if carcinoma is present the waves are interrupted; if the sphincter is smooth on both sides carcinoma may be excluded. A positive diagnosis can be made in most cases; if good peristaltic waves are present a negative diagnosis can be made. The posture should be interpreted in the light of clinical history.

### 248. Acute Circumscribed Oedema of Eyelids a Manifestation of Anaphylaxis.

SCHREIBER (*Arch. de méd. des enfants*, April, 1911) reviews the different forms of acute circumscribed oedema. (1) Arthritic oedema (Trousseau) affects arthritic subjects. It appears as a pyacious white oedema with sudden onset, chiefly affecting the face and eyelids, and may give rise to ephemeral nodules. (2) Hysterical. A sudden acute oedema of the eyelids, in most cases, in hysterical subjects with alimentary disturbance. (3) Quincke's disease. Habitually noticed in adults of arthritic stock between 25 and 30 years of age; often hereditary. Affects for preference the face and uncovered parts; very often associated with gastro-intestinal troubles, and may lead to oedema of the larynx and necessitate tracheotomy. (4) Purpuric oedema. Neuro-arthritic young subjects, resulting from fatigue or over-eating. White or coloured oedema, and associated with purpuric spots on the inferior limbs. (5) Acute cyclical. Evolution cyclical, infectious phenomena, with fever, neuralgic pains; only observed in the eyelids; deviation of the tongue, facial paresis, abolition of tendon reflexes are met with. Lymphocytosis of the cerebro-spinal fluid. (6) Serum oedema. Frequently seen after the use of antidiphtheritic serum, particularly on the eyelids. The author considers that all the forms of oedema save the purpuric and cyclic resemble each other, and are due to a hypersensitiveness of the stomach or body generally, to certain kinds of food or drugs, or serums acting on an arthritic or nervous constitution —in other words, to anaphylaxis.

## SURGERY.

### 249. Lumbar Anaesthesia.

KARL EWALD (*Wien. med. Woch.*, Nos. 19, 20, and 21, 1910) describes his experience of lumbar anaesthesia, which now extends to more than 1,000 cases. He gives a dose of 0.1 gram of tropacocaine, and finds that a smaller dose is less satisfactory, while this amount is never injurious. At one time he was in the habit of adding to the 5 per cent. solution of tropacocaine two drops of adrenalin, and during the last year he has given an injection of scopolamine and morphine before the lumbar injection. In the different cases the depth to which the needle had to be inserted to reach the canal varied between 2.5 cm. and 10 cm. (0 1 in. to 0.39 in). As a rule the injection was made with the patient in a sitting position; on the operating table, while the site of the operation was being made ready, the patient's pelvis was raised, and the head end of the table raised, so that the head should be higher than the spine; for the operation itself, the table was brought back to the horizontal. The technique of the operation and of the sterilization of the instruments is fully described. The worst disadvantage of the process is its uncertainty. In 16 of the 1,000 cases the spinal canal was not reached; in 14 no fluid could be withdrawn, though it was believed

that the canal had been reached, and even when the puncture had been successfully made, in 38 cases there was no result, and in 70 the result was so weak that narcosis had to be resorted to. Fairly often the spinal fluid flowed away, but could not be sucked up into the tube; in such cases the injection was made without first diluting it within the syringe with spinal fluid, and the effect appeared to be unaltered. When a vessel was perforated, and blood drawn up into the syringe instead of spinal fluid, the course pursued depended on the amount of haemorrhage. If the bleeding was severe a second puncture usually gave no better result, and therefore, as a rule in these cases, lumbar puncture was given up. If, however, the bleeding was slight the injection was made, and in no case with bad results. The insertion of the needle was found decidedly unpleasant, but after the preliminary scopolamine and morphine injection was instituted there was no further difficulty in this respect. In 5 cases, 4 men and 1 woman, after scopolamine and morphine and a successful lumbar puncture followed by anaesthesia, a general anaesthetic had still to be given because of the restlessness of the patient. The author has since found that this restlessness may follow lumbar puncture even when no scopolamine is given. The duration of anaesthesia was usually three quarters of an hour, and was often longer than an hour, but in 14 cases it was found necessary, after one or one and a half hours, to give general anaesthesia. In these cases the author believes that a combination of the two agents was not as harmful as a prolonged general anaesthesia. In 4 per cent of the cases pain in the stomach was complained of soon after the injection, and in 6 per cent. there was vomiting; the vomiting did not, however, disturb the operator, because complete relaxation of the abdominal walls had been obtained. No vomiting occurred in cases in which a preliminary scopolamine injection had been made. Operations could seldom be carried out under a lumbar anaesthesia at a level higher than the umbilicus, though some operations were successfully undertaken on the gall bladder. Once or twice the loss of sensation extended up to the neck. When no scopolamine was given, the patients in 0.6 per cent. of the cases complained of some difficulty in breathing, but as diaphragmatic action was intact this symptom was not a serious one. Sometimes, as a result of the increasing apathy of the patient, the breathing became continuously weaker and more superficial, and the patient had to be roused. In some cases even artificial breathing was carried out, but in no case was there a true asphyxia. When scopolamine was used no such cases were observed. The addition of adrenalin to the injection caused no dangerous symptoms, but it did not add to the effectiveness of the injection, nor lessen unpleasant symptoms. Peristalsis in the small, and also the large, intestine was very often seen, when adrenalin was used, and the result of the increased peristalsis, though sometimes inconvenient, was often useful, especially in cases of appendicitis and peritonitis. Difficult cases of appendectomy were sometimes made considerably more easy as a result of the contraction of the intestine. The usual dose of scopolamine was 0.0005 gram (0.0077 grain), though often as much as 0.001 gram (0.0154 grain) was given in divided doses, even to women. The dose of morphine was 0.03 gram (0.46 grain); sometimes, in the case of men, as much as 0.02 gram (0.3 grain). The effect of the scopolamine was unequal, and in some cases was altogether absent. In the 1,000 cases there were 10 deaths, occurring either during the operation or shortly after it, in which a connexion with the anaesthesia might have been subjected, but the author does not believe that in any of these cases the form of anaesthesia was the cause of death, and the pathologist, Professor Schlagenhaufer, fully concurs. The severity of the operation was never considered a reason against lumbar anaesthesia. Appendectomies and radical operations on herniae were those most frequently done, but the list included also conditions such as ovarian cyst, myoma, extrauterine pregnancy, carcinoma of the sigmoid flexure, caecal tumours, and occasionally operations on the stomach and gall bladder. The after-effects of lumbar anaesthesia were very similar to those seen after general anaesthesia, but were less frequent. Headache and sickness if present often lasted longer than after a general anaesthesia, sometimes as long as eight days or longer. In 3 cases the symptoms made a repetition of lumbar puncture necessary, and the withdrawal of spinal fluid had an effect in each case, but in one, in which the symptoms persisted for eight weeks, the effect was only temporary. In one case paralysis of the abducens developed, but disappeared on the seventeenth day. Sometimes the patients complained of headache and giddiness or nausea when they began to get up; in one case these symptoms did not entirely disappear for three months, and in another for two months after the operation. The following are amongst the conclusions arrived at by the author: (1) Lumbar anaesthesia is a recognized method which should be known to every surgeon. (2) The indication for its use are not yet clearly defined. It is especially to be considered when a competent anaesthetist is not at hand, in a few cases in which general anaesthesia is considered dangerous because of diseases of the heart, lungs, or kidneys, in operations on hard drinkers, or where a complete and prolonged relaxation of the abdominal walls is desired. (3) Lumbar anaesthesia is not to be recommended for children or in septic cases, but is especially suitable for old people. (4) The dangers appear to be rather less than those of general anaesthesia, and considerably less in the absence of a competent anaesthetist. (5) The effect is uncertain, and the operator must be prepared for failure of this form of anaesthesia in at least 10 per cent. of the cases. (6) The addition of adrenalin excites peristalsis, and may endanger the stitching of the abdominal wall, but is in some cases advantageous. (7) A preliminary injection of scopolamine and morphine is of considerable benefit in removing the pain of the lumbar injection and diminishing the excitement and fears of the patient, and these advantages altogether outweigh the disadvantage that in exceptional cases a condition of excitement which may even make general anaesthesia necessary may follow the injection.

### 250. Sarcoma of the Rectum.

C. HAMILTON WHITEFORD (*Journ. Path. and Bact.*, vol. xv, 1911) records a case of sarcoma of the rectum in a woman aged 81, and summarizes the literature of the subject. In textbooks and articles on diseases of the rectum, he remarks, either no reference to rectal sarcoma is made at all or it is dismissed with a statement that it has occasionally been found. Inquiries at fifty of the principal hospitals and museums in Great Britain and Ireland produced only 2 cases; and in literature, if allusions to the subject are rare, cases in which details are supplied are still rarer. With his own, they provide 10 cases, the growth in 3 being round-celled, in 3 spindle-celled, and in 1 mixed celled; the remaining 3 represented respectively alveolar, lympho-sarcoma, and fibro-sarcomata. In 7 cases the patient's sex is stated as male, in 1 as female; in the other 2 the sex is not given. The author's conclusion is that the seat of origin is almost invariably the submucosa of the lower rectum, and that, with the important exception that glandular infection is either lacking or very late in onset, the symptoms are those of carcinoma. Excision of the rectum is indicated, but in view of the slight tendency to glandular involvement an operation less heroic than that commonly practised for carcinoma is permissible. Macroscopically the growth in the author's case was of a papillomatous character and caused pain on defaecation. It was sent to him with a history of haemorrhoids for many years, and of a growth having protruded at intervals during nine months, while another nine months previously a rectal examination had been made and no growth had been found. A description of a corresponding kind applies to several other of the cases detailed.

### 251. A Method of Exposing the Naso-pharynx.

KROGIUS (*Zentralbl. f. Chir.*, No. 12, 1911) describes an operation for exposing the naso-pharynx by median division of the lower jaw and separation of the soft from the hard palate. After experiments on the cadaver, carried over several years, the author has recently practised this operation on two living subjects of naso pharyngeal tumour. The results of the method in both these cases were, it is stated, very satisfactory, and they compared favourably with those of other methods which the author had previously practised. There was very little haemorrhage, the patient in each instance stood the operation well, and afterwards made satisfactory progress. The author attaches much importance to the detail of the detachment of the soft palate, as this, he states, permits free exposure of the lower part of the sphenoid, and affords better facilities than those found in other methods of penetrating into the sella turcica, and of attacking a tumour of the hypophysis. It is, however, in the removal of naso-pharyngeal growths that this method is more likely to prove useful as a surgical procedure, allowing with but slight danger a free access to the field of operation. It has thus, the author believes, a decided advantage over suprahyoid pharyngotomy through a cervical incision, in which operation the surgeon has to work in a deep and narrow wound.

# OBSTETRICS.

**252. Stroganoff's Treatment of Eclampsia.**

E. Roth (*Archiv f. Gyn.*, vol. xci, part ii) publishes the results obtained by the employment of Stroganoff's method in 31 cases of eclampsia in Dresden, where this treatment has been systematically practised for some time. Apparently the writer's is the first large hospital to adopt this treatment since Stroganoff's advocacy of it, and the results are favourable in spite of the severity of most of the cases. The treatment consists in the administration of morphine, chloral hydrate, and chloroform according to a definite scheme, the aim of which is to arrest the convulsions before they can develop. It is, therefore, prophylactic and not merely palliative. The patient is continuously kept under the partial influence of narcotics, and is isolated in a darkened room in order to escape external stimuli as much as possible. Reflexes are further checked by administering a small quantity of chloroform (20 m) whenever catheterization, disinfection, or the injection of an enema is performed. Even a hypodermic injection of morphine is preceded by inhalation of chloroform, and none but the medical attendant and nurse are allowed in the room. Stroganoff individualizes, but gives the following instructions for a typical case:

| | | |
|---|---|---|
| 0 hour after the beginning of treatment | | 0.015 gram morphine |
| 1 | " " " | 2.0 grams chloral |
| 3 | " " " | 0.015 gram morphine |
| 7 | " " " | 2.0 grams chloral |
| 13 | " " " | 1.5 grams chloral |
| 21 | " " " | 1.5 grams chloral |

The chloral is usually given with milk or barley broth as an enema. The convulsions subside, and usually cease at the end of the first day, but the chloral should be continued in doses of 1 to 1.5 grams thrice daily on the following days, and even after birth. Careful attention must be paid to every detail of this prescription; attempts to vary it in the Dresden hospital were singularly unfortunate. As soon as the conditions are favourable to both mother and child, labour is induced, and, in the absence of contraindications, the membranes are ruptured. When the convulsions are refractory to treatment Stroganoff employs accouchement forcé, but this he has found necessary once only. With his material of 360 cases he shows a mortality of 6.6 per cent. for the mother and 21.6 per cent. for the child. The figures compare favourably with those which are published by hospitals in which immediate induction of labour is practised in this complication. Thus the mortality for the mother is 14 per cent. according to Bumm and 15 per cent. according to Zweifel, while in the München clinic it is as high as 21.8 per cent. for the mother, with a mortality of 43 per cent. for the child. In 23 of the writer's 31 cases the convulsions appeared after the onset of labour. The treatment made the convulsions cease at once in 12 cases, after one to three attacks in 13 cases, after four or more attacks in 6 cases. Of the 5 deaths among the infants 1 was due to a kyphotic pelvis, which necessitated perforation, 1 infant was dead before the patient's admission, and 1 was premature. Only one mother died (empyema). The sooner the treatment is begun the better. It can be employed in the patient's home, but a hospital is preferable where she can be under constant observation, and where, if necessary, labour can be induced or hastened, either because the convulsions continue in spite of the treatment or because labour has advanced so far that the additional aid of the forceps is advisable. The treatment has still to pass through its period of probation, during which it should be limited to the larger maternity hospitals, though to the medical attendant outside a hospital who in a difficult case has at present to choose between a number of alternatives, all more or less heroic, it presents many advantages during the dilatation of the cervix.

# GYNAECOLOGY.

**253. Blood Cyst of Ovary at Puberty.**

Mériel (*Comptes rendus de la Soc. d'Obstét. de Paris et de la Soc. d'Obstét. de Toulouse*, vol. xiii, March, 1911) reports that a girl, aged 14, had a show of blood in the last week of January, 1909. Then followed four periods with distinct molimen but no show. A tumour was detected in the right iliac fossa, distinct from the uterus. Several months passed, and the molimen, with pain in the region of the swelling but no show, continued regularly. Haematometra was suspected. At the end of September there were symptoms of peritonitis, and the tumour had grown much larger, reaching to the middle line. Mériel examined the parts, and found that there was no atresia of the uterus. Haematosalpinx seemed still probable. He operated at the end of October, removing "an enormous haematic cyst of the right ovary." It had not rotated on its pedicle. It adhered to the parietal peritoneum, omentum, and small intestine, and was filled with dark blood and fibrin. The right Fallopian tube was normal, and quite free from any kind of obstruction. The left ovary, as well as the uterus, showed no malformation nor any signs of disease. On December 3rd the catamenia appeared, painless and normal in quantity and quality. They continued regular in January, 1910, and thenceforward remaining normal at the date of Mériel's report, February, 1911. Mériel dwelt on the fact that the left ovary was healthy, that there was no show after January, 1909, until the removal of the right ovary in October, and that immediately afterwards the menstrual function became normal. He suspected that the evolution of a unilateral ovarian tumour of this type—namely, a blood cyst—paralysed the functional activity of the opposite ovary. The development of a blood cyst might explain some cases of dysmenorrhoea developing at puberty.

# THERAPEUTICS.

**254. The Failure of Digitalis.**

Fiessinger (*Journ. des praticiens*, March 4th, 1911), in discussing this matter, quotes the three causes advanced by Huchard to explain the non-success of digitalis in certain cases. It may be due to (1) the administrator, (2) the drug, (3) the patient. The author deals only with the last of these. Suppose the patient to have been placed under the most favourable conditions for treatment, and the drug administered in the form of the crystallized digitalin—which, according to Huchard, is the best—and still refuses to react to the drug. What, the author asks, may be the reasons? There may be a central obstacle in the form of excessive dilatation of the heart; a peripheral obstacle such as marked oedema of the extremities, or a visceral barrier such as ascites or pleural effusion. The first of these may be dealt with by bleeding, or if the patient is weak by cupping over the precordium, with the administration in the form of injection of the iodide of caffein night and morning. With regard to the second of these obstacles—oedema of the extremities—the fluid is to be drained off under strict asepsis, while pleural effusion or ascites is suitably treated by paracentesis. If even then the myocardium does not respond to digitalis, there may be an advanced myocardial lesion, or too large doses of the drug have been given. Excessive doses of digitalis, such as 60 cg. of the infusion, lead only to undue excitation and contractility of the cardiac muscle. Such cases, indeed, offer less chance of improvement than the most grave myocarditis. In cases of oedema, 5 drops of a 1 in 1,000 solution of digitalin may be given for five or six days running, along with theobromine. The digitalis is then suspended, but the theobromine is continued, and with this may be given the iodide of caffeine. If there is still no result, recourse may be had to strophanthus during the day, with small doses of morphine in camphor oil at night. At the same time, repose in bed must be absolute and the dietary strict. The essential thing is to restore the lost contractility of the myocardium. After about ten days of this treatment, the heart often begins to contract more regularly, and then digitalis may be tried again in very small doses. If strophanthus does not succeed in the manner suggested, the author gives sparteine in conjunction with quinine for periods of five days alternated with periods of ten days, when the drug is not administered.

**255. Treatment of Obesity.**

Robin (*La Clinique*, February 10th, 1911) makes two propositions—first, that in the obese the albumen-destroying ferments retain their normal activity; and, secondly, that the faculty of oxidization is increased. He concludes that they require a normal amount of albuminous material, but a less quantity of oxidizable material. The accumulated fat in the tissues must be set in motion, and this can only be done by movement; the treatment must be adapted to the life of the patient, and should not deprive him too rigidly of either food or drink. The patient should not spend more than seven or eight hours in bed each night; he should not read in bed at night, and should get up when he wakes in the morning. At 7.30 a.m. he may drink weak, freshly made tea (almost hot water), and should learn to drink it without sugar. At this meal a little cold meat, ham, or chicken is allowed, and some breadcrumb, as this contains less nourishment than crust

about 1 oz. of bread is advised. After this meal the patient should walk on the flat for half an hour if he can, or for a gradually increasing time if half an hour is too long at first. At 10.30 a.m. he will take two boiled eggs, a little bread, and a large cup of very weak tea very hot. This meal is followed by half an hour's walking. For the next meal—at midday—the patient will not have much appetite; he will have meat, ham, chicken or fish, a little bread, and a large plateful of salad with lemon juice. He will have green vegetables cooked in water, and as much fruit of all sorts as he will take; as a drink, hot water or tea, and then half an hour's walking exercise. At 5 p.m. he has a cup of tea and a very little crumb of bread, followed by another walk. At 7.30 the midday meal is repeated, but if hot meat is partaken of, another walk should be insisted upon. Thus a person with a good appetite will assimilate daily 18 oz. of meat, three eggs, 3 to 4 oz. of bread, ⅔ oz. butter, and 9 to 10 oz. of vegetables, which represents 1,300 calories. Now, an obese person utilizes from 2,625 to 1,925 calories daily, according to his weight. And the difference between the amount required and the amount supplied—1,300—is made up by utilizing the fat accumulated in his own tissues. Many of these patients are also arthritic or gouty. The question of when to stop the treatment arises. The best guide is the quantity of urine passed daily. When the cure is efficacious the amount rises and all is going well; if the amount does not increase or decreases the treatment should be stopped. This latter eventually occurs in about 6 per cent. of the cases treated. The treatment also ceases when the patient reaches the desired weight; it is unwise to attempt to reduce to the original weight; an addition of 2 per cent. should always be allowed for. It is necessary to analyse the urine often, and to stop the treatment when the amount of azote eliminated exceeds the amount ingested. The author has found this treatment very efficacious.

**256. Nascent Mercury in Syphilis.**

HUBBES (*Muench. med. Woch.*, February 14th, 1911) recommends the administration of mercury *in statu nascendi* by inhalation, a method which he considers more active and efficacious than the usual modes of administration. He mentions that the Balkan people treat syphilis by means of inhaling the fumes of burning cinnabar, which contain mercury in the nascent state. The disadvantage of this method is the formation of sulphur dioxide, but the author avoids this by mixing a suitable proportion of chemically pure iron with the cinnabar before heating the latter. The iron binds the sulphur in the form of sulphide of iron. Oxide of mercury may also be used instead of cinnabar. The fumes must be directly inhaled before they lose their chemical property. The mercury is said to combine with the haemoglobin, probably through increased affinity, and has a destructive action on the spirochaetes. The author gives eight to ten inhalations in the course of four or five days, and says that this causes even severe symptoms to disappear in ten to fourteen days. He has treated 15 cases of syphilis of all kinds, including cases in which the usual mercurial treatment had failed. He considers that the rapid effect compares favourably with that of salvarsan, and so far he has had no relapses.

**257. The Treatment of Boils.**

SCHÜLE (*Therap. Monat.*, January, 1911), in discussing this subject, states that there is no certain prophylaxis, but yeast and opsonin treatment should be tried as well as the ichthyol pastes devised by Unna. For removal of the focus he recommends as a certain remedy central cauterization, which has never failed him. It is performed in the following manner. The boil is anaesthetized with a 3 per cent. solution of novocain until a wheal forms; then 1 c.cm. of the solution is injected slowly for 8 minutes into the centre of the boil. After that a thin platinum burner (Paquelin or electric cautery) is used, and the centre throughout the whole cutis is burnt out. The burning pain ceases in half an hour, and in twelve hours the redness is distinctly less.

**258. Injection of Drugs, especially Salvarsan, into Lumbar Muscles.**

S. J. MELTZER (*Medical Record*, March 25th, 1911) states that the sacrospinal muscle is anatomically an exceptionally well isolated large compact mass, densely packed with fine muscle bundles. For this reason it is an especially favourable site for the injection of drugs in solution or suspension, like salvarsan. The drug will remain in the muscle and not affect the adjacent tissues, which is an advantage. The absorption from this muscle is shown experimentally to be greater than from the gluteal muscles, and much better than from the subcutaneous tissue. Clinically salvarsan was found to exert a fairly rapid effect when injected into this muscle, in cases of secondary and tertiary syphilis. The Wassermann reaction was absent after this treatment. The author advocates the injection of salvarsan into this muscle in the treatment for syphilis on account of its efficiency and the absence of pain.



## PATHOLOGY.

**259. Lymphangio-sclerosis due to Adrenalin.**

THE production of arterio-sclerosis by the administration of adrenalin is well known. G. Donzello and G. Vita Tardo (*Lo Sperimentale*, Florence, 1909, lxiii, 891) have endeavoured to produce a similar sclerosis of the lymphatics by the intravenous injection of adrenalin in dogs. The various dogs employed showed different degrees of sensitiveness to the injections; the injections were given daily, were from nineteen to fifty in number; the dose was 0.5 to 1.5 c.cm. of 1 in 1,000 solution. In each case the thoracic duct was examined microscopically *post mortem*; comparison was made with the thoracic ducts of five normal dogs. The authors found that these injections of adrenalin produced marked thickening of the wall of the thoracic duct, which became from three to five times as thick as normal. The main new growth was in the media, with hypertrophy and hyperplasia of the muscular and connective tissues; the elastic fibres were increased in number and diminished in size, but no fatty, calcareous, or atheromatous degeneration were observed. Obliterating endarteritis and endophlebitis of the vasa vasorum were very marked, and hyaline degeneration of the muscle fibres of the duct and of its vessels were seen. The authors attribute the thickening of the duct to the endarteritis of its vessels, and this endarteritis to the action of the adrenalin. All three coats of the duct were thickened.

**260. Developmental Defects in the Renal Cortex.**

M. PERUZZI (*Lo Sperimentale*, Florence, 1910, lxiv, 237) draws attention to the fact that in the normal human kidney maldevelopment and early involution of the outermost layers of glomeruli and Bowman's capsules in the renal cortex is quite common, and is apt to be taken by the pathologist for evidence of renal disease. He attributes this to the fact that the outermost glomeruli are having the smallest arterial blood supply; also, they arose late in the development of the fetus, for the outer two of the normal eight or nine rows of glomeruli do not appear before the eighth month of intrauterine life. He finds hypoplasic and hypotrophic glomeruli constantly present in the peripheral cortex of the kidneys of infants 1 to 2 months old and of young animals. These glomeruli degenerate further as time goes on; the capsule of Bowman thickens and causes atrophy of the glomerular vessels, producing a fibroblastic nodule, which undergoes hyaline degeneration and finally disappears. A similar atrophy slowly overtakes the uriniferous tubule corresponding to such a glomerulus, reducing it finally to a strand of connective tissue; before this period it will show epithelium of the embryonic type. Peruzzi points out that all these changes are normally present in the healthy young kidney, but have been described as epithelial or endothelial glomerulo-nephritis, or productive epithelial glomerulitis, by a number of authors who have recognized them as evidence of scarlatinal or diphtheritic nephritis.

**261. Antiformin Methods in Examination of Tuberculous Sputum.**

MANGERI (*Rif. Med.*, February 27th, 1911) has examined 30 sputa for tubercle by different methods, and concludes that the antiformin method gives the best results. Of the 30 examined 13 gave positive and 13 negative results by all the methods tried, whilst 4 only gave positive results by the antiformin method, the Ziehl-Nielsen being negative, and in those cases where the result was positive for all methods the antiformin method gave better results. Antiformin is a mixture of sodium hypochlorate and sodium hydrate, and is used in 10 or 20 per cent. aqueous solution. The author's method is as follows: Into a test tube of about 50 c.cm. capacity he pours 5 c.cm. of sputum and adds 25 c.cm. of antiformin solution diluted from 10 to 20 c.cm. according to the density of the sputum, shaken well until the whole is homogeneous (about a quarter of an hour), then centrifuges, washes three times with physiological solution, centrifuging after each washing, dries the sediment on a slide, and stains with Ziehl's solution.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 262 Broncho-oesophagoscopy in Mediastinal Tumours.

CABOCHE (*Journ. des praticiens*, February 25th, 1911) discusses in detail the diagnostic use of broncho-oesophagoscopy in mediastinal tumours. He points out that whereas hitherto it has been mainly employed to aid the extraction of foreign bodies, it is becoming more and more used for the diagnosis and treatment of organic affections of the mediastinum. A number of cases of stricture of the oesophagus for which the sole treatment used to be gastrostomy have been healed by dilatation, with or without electrolysis after an internal oesophagotomy has been done by the aid of the oesophagoscopic tube. Again, many malignant tumours of the oesophagus have been detected in quite an early stage, before the ordinary clinical signs had made their appearance. The author quotes several authorities who in these circumstances have practised resection of stricture, and removal of tumour of the trachea under control of the bronchoscope. One of these was the case of a man who for two years had suffered from blood-stained expectoration, and which it was supposed was due to pulmonary tuberculosis. Broncho-scopy showed the trachea to be normal, but in the right bronchus a small tumour was found, about the size and colour of a raspberry, which turned out to be a carcinoma. The author gives in some detail the history of a case of posterior mediastinal tumour examined and diagnosed by this method. The patient was a man of 53 years of age who for more than two years had suffered from dyspnoea, wheezing, and intermittent cough, not unlike whooping-cough in character. There was abundant expectoration, and deep-seated pain about the middle of the chest. The patient had complained for some time of difficulty in swallowing solid food, it seemed to be arrested at a point opposite mid-sternum. Two years ago the dyspnoea was not permanent, but about a year ago he suffered from severe pain—pleuritic in type—in the left side of the chest, and since that time it has become constant. Laryngoscopic examination revealed nothing abnormal. There was no dilatation of the thoracic veins, no modification of either pulse, and the pupils were equal. The apex beat was in the sixth intercostal space. Auscultation of the right lung gave normal results, but on the left side there was complete abolition of the vesicular murmur. The hypothesis of an anterior mediastinal tumour was not a likely one in the absence of compression of the great venous trunks, thus eliminating the probability of hydatid, or a tumour arising from the thymus gland. Broncho-oesophagoscopy was decided on, after a skiagraph had been taken to remove any doubt as to the likelihood of there being an aortic aneurysm. The examination established in a remarkable manner the fact that there was a posterior mediastinal growth which was both extra-tracheal and extra-oesophageal. The tumour was insinuated between the trachea and oesophagus, causing in both passages the pressure and occlusion which resulted in the symptoms before described.

### 263. Precocious X-Ray Reactions.

THE systematic study of certain forms of precocious *x*-ray reaction, some of which have hitherto been regarded as isolated neuropathic manifestations, has been entered upon by Bergonié, of Bordeaux, and his assistant Spéder (*Arch. d'électr. méd.*, March 25th, 1911). The reactions considered are totally different from the ordinary reactions of the first, second, and third degree, and are divisible into three groups according to their superficial, deep-seated, or generalized character. The first group comprises superficial precocious reactions. It has been noted that within two or three hours after exposure the skin in the irradiated zone, and sometimes beyond it, may become lightly tumefied, dry, and occasionally painful. Epidermic pellicles appear after eight or ten hours, and the phenomena disappear at the end of ten or twelve days. The second class of precocious reactions include those in which the effect is deeper, such as troubles of sensation localized to certain nerve territories and functional troubles relating to certain glands and organs. The authors note observations of patients who have suffered from cephalalgia or neuralgia over the whole of the trigeminus a few hours after an exposure upon the head; of pain in the intercostal nerves and torticollis, lasting six or eight hours, after exposure upon the breast; of numbness and tingling in the lower members following irradiation for uterine fibroma. After exposures upon the face, also, patients have complained of the extreme dryness of mouth and throat—a condition disappearing on the following day. Five hours after a sitting at which both cheeks had been irradiated, a young girl developed the appearance of bilateral parotiditis. Gingivitis, with swelling and tenderness of the gums, frequently followed irradiation of the lips. Irradiations for fibromata have had curious results. One patient, after nocturnal colic following upon a single *x*-ray exposure, expelled two ascarides, another worm after a second irradiation, and two more after a third; while another observer has chronicled the expulsion of a taenia after one irradiation of the abdomen. These facts are suggestive in connexion with the therapeutics of various parasitic affections, such as trichiniasis and ankylostomiasis. Difficult micturition, modifications of the menses, and relief of constipation have also followed upon irradiations for fibromata. The third class of precocious reactions are termed "general," and are frequently observed after treatment with filtered rays. They include general fatigue, slight fever, shivering and faintness, lasting from one to three days; occasionally high fever with vomiting and nausea. The dryness of mouth and throat, already observed after irradiations of face and neck, has been noted in a patient after each irradiation of the abdomen. The skin of the whole body has, indeed, become dry, as though every sudoriparous and sebaceous gland had lost its power of secretion. The authors state that they were careful never to make any suggestions to the patients or to interrogate them directly regarding any manifestation, and, wherever possible, the patient's voluntary statement has been confirmed by a reference to his friends. What, then, is the process involved in these precocious reactions, which occur equally with applications from hard tubes and soft, with rays filtered and unfiltered, with massive doses and doses scarcely sufficient to cause an erythema? The secretory modifications, the dryness of tongue, nose, and throat, the modifications in menstruation, and the expulsion of intestinal worms may be explained by the direct action of the rays on tissues with cells in very active karyokinesis, and therefore very sensitive to the radiations. The general troubles, such as fatigue and faintness, may be due to some passing defect in the reflex regulation of the organism, similar to that which follows difficult digestion, painful excitement, or prolonged intellectual contention. There remain such manifestation as tumefaction of the teguments, headaches, neuralgia, anuria, torticollis, the sensitivity of the ovary, and the sensitive phenomena along the nerve tracts. Are these to be considered as the result of reflex action, or of direct modifications of the blood, vessels and nerves? The authors leave the question open, only asking that similar cases should be observed scientifically, so that a more precise knowledge of the mechanism of *x*-ray action may be arrived at. They append a list of 23 detailed observations in which these precocious reactions have occurred.

### 264. Lumbar Puncture in Diagnosis of Infantile Paralysis.

MORSE (*Arch. Pediat.*, March, 1911) finds that during the acute stage the fluid is clear, and not infrequently the pressure is somewhat increased; it often shows a fibrin clot, and always contains an excess of cells, chiefly of the mononuclear type, mostly lymphocytes. These changes are present before paralysis appears. The author considers lumbar puncture is of the greatest assistance in differentiating infantile paralysis from cerebro-spinal meningitis in which the fluid is turbid or purulent, contains a large number of polynuclear cells, and as a rule many meningococci. The author does not find that the leucocyte count is of any assistance in the early diagnosis of infantile paralysis.

### 265. Malta Fever contracted in the Laboratory.

ARLOING, COURMONT, AND GATÉ report that whilst dealing with cultures of Malta fever in the experimental laboratory one of them developed the disease (*Prov. méd.*, December 24th, 1910). During April the patient was working with

the cultures. On May 8th he was seized with rigors, headache, and anorexia, with fever which lasted for three or four days and then gradually subsided. On the evening of the day on which he first went out the symptoms recurred; headache, however, was not present, and the fever fell on the fifth day. Evening temperatures were noticed for another week; then suddenly a rise occurred, and recourse was again had to cold baths, which reduced it for two days. Another rise took place, followed by ten days of evening temperature, after which recovery was established. The disease was characterized by intermittent fever and by sweats at night and pains in the joints. Abdominal pain was present towards the end of the disease, and much malaise and constitutional disturbance. Widal's reaction gave a negative result, but Wright's serum test gave a positive result, and haemoculture showed the presence of *Micrococcus melitensis* in small numbers. Contagion appears to have been due to direct inoculation, and would indicate the advisability of special prophylactic measures being adopted with regard to Malta fever.

## SURGERY.

### 266. Diagnosis of Renal Sufficiency.

IN testing the relative functional value of the kidneys the modern practitioner has the choice of two surgical methods of exploration. One of these, which in most cases is comparatively simple and easy, is Luys's method of the intravesical separation of urine, while the other, which is more difficult and complicated, consists in catheterism of the ureters. Notwithstanding its simplicity, the former method has lately lost favour with many French surgeons, and it is held by Tuffier and others that it is apt to misguide and to lead to the disaster of an unnecessary nephrectomy. Luys's method, it is urged, should be altogether rejected in favour of ureteral catheterism. Against this condemnation an appeal has recently been made by Delbet (*Bull. et mém. de la Soc. de Chir. de Paris*, No. 35, 1910), who, whilst acknowledging that ureteral catheterism is preferable, the method of Luys still claims the full confidence of surgeons. By an analysis of recorded instances of grave results from reliance on this method, an attempt is made to prove that these cases supply no argument against the practice of urinal separation, which, it is asserted, has lost ground simply because catheterism of the ureter is a better method. There are many reasons, however, why the practice of the former should be retained. Reference is made to the teaching of Pasteau that intravesical division or separation of urine ought to be practised when ureteral catheterism is impossible, as in infants, as when the bladder is much contracted, when this organ is very irritable, when the ureteral orifice cannot be found, or when the introduction of the catheter is prevented by any congenital anomaly of the canal. It is held, however, that this method should be practised not only when ureteral catheterism is impossible or very difficult, but also, as a rule, in conjunction with the latter and as a preliminary step in the investigation. In summing up, Delbet states that, in his opinion, catheterism and separation should be regarded not as hostile, but as allied methods. If it be necessary to abolish one of these, that one, he acknowledges, must be separation. There is no necessity, however, to abolish either. The surgeon, whilst putting, in the first place, ureteral catheterism, which gives much better information as to the functional value of the kidneys, should still hold by urinal separation, as this may in many cases afford results sufficiently accurate and complete to justify him in refraining from the use of the catheter, and also because it is a by no means negligible adjunct when associated with the latter method.

### 267. Retroperitoneal and Mesenteric Cysts.

MAKINS of St. Thomas's Hospital (*Ann. of Surg.*, March, 1911) gives a short review of the nature, the clinical characters, and the resulting symptoms of simple retroperitoneal cysts. Two cases of such growths are described together with two cases in which the cysts were situated in the folds of the mesentery of the small intestine. These cysts, it is stated, are of lymphatic origin, resembling in nature the so called hydrocele of the neck, and the multilocular lymphatic cysts of the axilla and the spermatic cord. The unilocular which is usually the larger variety of cyst is most commonly situated behind the parietal peritoneum, and, by appropriating to itself the peritoneum of the mesentery, tends to fix the corresponding portion of bowel and to encroach upon its lumen. The multilocular growth is more commonly situated in the mesentery of the small intestine, and is composed of separate globular cysts of varying size. The contents of the cyst, when no secondary change has occurred, may consist in a thin, colourless and transparent fluid, or, as in one of the published cases, in a fluid apparently, though not really, chylous. The rate of increase is slow, but may be accelerated by injury. Traumatic haemorrhage into the cavity of the cyst may cause rapid enlargement of the tumour, and when recurrent it may result in an enormous increase in the size of the cyst, with much thickening of its wall. When the cyst is of the unilocular and retroperitoneal variety, it is usually fixed, while in the multilocular and mesenteric cyst, which is more irregular in outline, free mobility is the rule. The latter variety of cyst is practically central in position, the unilocular cyst on the other hand, although generally corresponding to the root of some part of the mesentery of the large intestine, may be situated in almost any part of the abdomen. The most difficult problem in the diagnosis, which must usually be made by a process of exclusion, is to distinguish between these simple growths and hydatid cysts. In cases of doubt, the blood, it is held, should be examined with the object of determining the presence or absence of eosinophilia. High situation and fixity of an abdominal cystic growth, together with a history of gastric disturbance, glycosuria, and faecal evidence of defective pancreatic digestion, will indicate a cyst of the pancreas. In a case of sarcomatous cyst the rate of growth is more rapid, and pain, as in cases of solid retroperitoneal sarcoma, is an earlier and more marked symptom. Reference is also made to the possible difficulties in excluding cold abscess, ovarian cyst, uronephrosis, and distended gall-bladder. In the treatment of simple mesenteric cyst the ideal procedure, the author holds, is enucleation of the growth without any interference with the continuity of the alimentary canal. In most cases of unilocular cyst, this course may usually be adopted without risk, but if the growth has been firmly fixed by secondary changes, the dissection necessary for its removal may give rise to serious haemorrhage. In the removal of a multilocular mesenteric cyst, encroaching on the alimentary canal and causing some obstruction, it will be necessary to resect the implicated portion of small intestine.

### 268. Tympanites and Abdominal Injury.

ZESAS (*Arch. gén. de chir. de Paris*, No. 2, 1911), in a contribution on the semeiological importance of tympanites in traumatism of the abdomen, reports a case recently under his care, in which this condition followed a simple abdominal contusion. The subject of this case was a lad aged 16, who had been struck over the front of the abdomen by a football. The chief symptom was tympanites in a marked degree, which showed itself almost immediately after the accident. The abdominal pain had no special character, and the absence of muscular contracture—a sign which is almost constantly met with in instances of severe intra-abdominal lesion—seemed to exclude the idea that any organ within the peritoneal cavity had been injured. In cases of grave abdominal injury, contracture and rigidity of the muscles of the anterior abdominal wall are, as a rule, rapidly developed, this result, it is pointed out, preventing a speedy appearance of tympanites. In slight forms of abdominal injury this muscular defence is wanting, and there is nothing to prevent the rapid occurrence and the free development of tympanites. The early appearance of abdominal gaseous distension would contraindicate a serious abdominal injury in which such distension, when it occurs, is late and slow in its evolution. Tympanites complicating slight abdominal traumatism, though its pathological cause has not been thoroughly studied, is probably due, the author thinks, to acute intestinal paralysis of a reflex nature, such as is occasionally observed after an abdominal operation. It is held by some who have studied this subject that the paralysis is the result of direct irritation of the nerve branches of the abdominal wall and the intestinal canal, while others attribute it to the action of the injury on the retroperitoneal twigs of the vagus, or those derived by the intestines from the sympathetic. A distinction must be made between the early generalized tympanites described by the author, and a tympanitic sound developed in an early stage of an abdominal injury over a limited area. A clear sound over a restricted one would indicate an intestinal lesion and necessitate prompt intervention.

### 269. Proctoscopy and Sigmoidoscopy in Infants.

BOWDITCH (*Arch. of Pediatics*, January, 1911) has used the electro-pneumatic sigmoidoscope in cases of infectious diarrhoea in infants, and has been able to examine the

local intestinal condition and to watch the effect of local treatment and irrigations. This infection is dependent on a local specific infection of the mucous membrane, sometimes associated with bacteriaemia and toxaemia. Locally there is an inflammatory condition of the intestinal mucous membrane, which may present a catarrhal, ulcerative, or membranous condition. From the local study of the mucous membrane in a number of cases the author concludes that in cases of diarrhoea which have a history of blood in the stools signs of inflammation are present, the follicles are prominent, and ulcers of differing types are seen, the lesions varying according to the virulence of the infection as to number and general appearance. These lesions gradually heal, leaving no scar tissue visible. Further blood and normal intestinal mucous membrane may be present in cases of fermental diarrhoea. After repeated irrigation with nitrate of silver a gradual improvement occurred, but the mucous membrane did not show any betterment from one irrigation only. Experience would tend to show that few cases were benefited by this irrigation treatment.

## OBSTETRICS.

### 270. Dystocia in Breech Presentations.

RUDAUX (*La Clinique*, December 23rd, 1910) considers that extraction of the fetus in breech cases should not be undertaken unless there are indications of urgency either on the part of the mother or child, or until dilatation is complete and one is sure that there is no disproportion between the pelvic measurements and those of the fetus as far as it is possible to make them out. It is, however, extremely difficult in breech presentations to estimate the size of the fetal head. In primiparae the difficulty of rapid extraction is often very great, as one is obliged to overcome the resistance of soft parts—the vaginal canal and the vulvar orifice—in a few minutes, whereas in normal cases gradual softening and dilatation is going on for several hours. It is advisable to use a Champetier de Ribes's bag in the vagina while the cervix is dilating; it gives distension of the soft parts and facilitates delivery. Delivery is threefold in these cases; the trunk, then the shoulders, and finally the head all call for special treatment and skill. Interference is indicated where the mother has been many hours in labour, and where, owing to ill health or disease, she is unable to continue to make expulsive efforts. Auscultation will show when the child is in difficulties. This presentation is in itself a cause of dystocia. The trunk fails to engage in the pelvis, the membranes tend to rupture early, and the loss of the amniotic fluid is a source of danger to the fetus, and an obstacle in the way of delivery. The management of the case differs according to the position of the breech. Rapid delivery is easy after the feet have been expelled and the cord is being pressed upon between the pelvic brim and the head. In all these cases—even in those which promise a normal termination—it is well to have a bath, with mustard at hand, two large sterilized compresses, and a table with all that is necessary for restoring the child. In cases of difficult delivery it is an advantage to put the patient on a table and induce anaesthesia with chloroform. When the patient is ready in the obstetrical position the operator grasps the fetus with both hands by the thighs and exerts gentle traction, if possible, at the same time as the uterine contractions occur. As soon as the umbilicus appears he releases the cords, then, raising the legs with one hand, he passes the other up to find and draw down the posterior arm; the body is then lowered and the other hand passed in to bring down the other arm. Further traction on the body, aided by expression made by an assistant, will cause the head to engage and descend on the pelvic perineal floor, when it may be delivered by the Maurice-Pinard method. When the breech is not engaged the manipulation is much more difficult. The position of the fetus must be clearly defined, then the hand is passed in so as to grasp the foot of the anterior hip—that is, the left foot in the left sacro-iliac position, the right in right sacro-iliac position. The anterior hip is found resting on the symphysis pubis, and must be dislodged before the breech can be brought down. The foot having been brought out at the vulva, has a ligature placed round it, and gentle traction is then made upon it. If the wrong foot is brought down, it is wiser to abandon it and go in search of the right one, rather than to try to convert the position into the opposite sacro-iliac one. Traction is continued until the other hip bulges the perineum, then the direction of the traction is changed, and it finally becomes almost vertical. When the other hip refuses to engage, the thigh is grasped with both hands and firm downward traction is made until the umbilicus appears, when delivery of the legs is easily accomplished. If the head is difficult to deliver, a finger may be inserted into the mouth and the head turned a little so as to disengage the posterior parietal prominence, this manœuvre being followed by flexion and delivery. In a breech case at full term, if one wishes to deliver the child alive and the sacro pubic diameter is less than 90 mm., one must not attempt to deliver by traction, but must resort to a Caesarean section at the onset of labour.

## GYNAECOLOGY.

### 271. Wertheim's Operation for Uterine Cancer Double Ureters.

AMANN (*Monats. f. Geburts. und Gynäk.*, February, 1911) operated on a nullipara, aged 37, subject for a year to reddish fluid discharges and pain on micturition. During the last fortnight haemorrhages set in and there was emaciation. The portio vaginalis of the cervix was quite healthy, but the os admitted the tip of the finger, and broken down masses could be felt in the cervical canal. The abdomen was opened, some small racemose cysts were found, one free in the peritoneal cavity, and seemed to have broken off from a cystic tumour lying behind the normal right ovary. Amann believed that they were derived from an accessory ovary. The ureters were laid free. They proved to be symmetrically double, and both became single about ¾ in. above the bladder. A large number of glands were enucleated and the uterus removed with the upper part of the vagina. The two double ureters had to be freely dissected away from the infiltrated parametrium which surrounded them. Then they lay free in the pelvic cavity. Amann fixed them to the side of the pelvis, covering them near their extremity with the peritoneal covering of the bladder which was sutured to the anterior vaginal wall. The posterior wall was divided vertically with the thermo-cautery, to ensure drainage from the most dependent part of the pelvis. The peritoneum was then drawn down over the lateral pelvic wall and the upper part of the rectum united to the back of the bladder. Recovery was uncomplicated. There was carcinoma of the whole of the anterior wall of the uterus and the upper part of the canal of the cervix.

## THERAPEUTICS.

### 272. Death following Treatment by Salvarsan.

EMILIO LUQUE MORATA (*Revista de Medicina y de Cirugia Prácticas*, February 28th, 1911) reports the following case: A bachelor, aged 21, native of Cordoba, suffered from hard chancre, adenitis, and roseola two years before, when he was advised to have mercurial inunction, but did not have the treatment. He sought Morata's advice for the first time a year ago. The patient was a pale, slight man, with syphilitic plaques on the tongue, lips, and pharynx, a diffused papular exanthem, and several enlarged glands. He was ordered biniodide of mercury injections, which were badly borne, and subsequently injections of 40 per cent. grey oil. He was lost sight of till the end of January last, when he again consulted Morata. During the autumn he had been under the care of a distinguished specialist at Archena, who had treated him with injections of calomel. On re-examination, the glands of the neck, especially those of the posterior triangle and the jugular area, were found to be much enlarged; the plaques in the mouth quite evident. Weight 43 kilos. No albuminuria. No lesion could be detected in the heart or lungs. He begged to be given "606," and, having obtained the consent of his parents, Morata injected him at 3 p.m. on January 31st. Forty centigrams of "606" were first dissolved in serum, then neutralized with 15 per cent. caustic soda, and diluted with 200 grams of normal saline solution (9 per 1,000). The equipment used consisted of a wide-mouthed funnel, a rubber tube, and a needle, all well boiled. The needle entered the vein at the first attempt, and the drug was not introduced until it had been seen that some warm saline passed freely into the vein. This was the nineteenth case which Morata had treated with salvarsan. Three hours after injection, vomiting, diarrhoea, and sweats supervened. The vomited matter was greenish and at times mingled with dark blood, the diarrhoea abundant and frequent, perspiration copious, and palpita-

tion violent. The lips were violet, the tongue chocolate-hued and dry, the aspect very pale, temperature 36° C., radial pulse almost imperceptible. The patient, who was very restless, complained of a fluttering sensation in the abdomen. Between 3 p.m., when he was injected, and 8 p.m. he passed water several times, though a specimen could not be collected as the urine was mixed with faeces. After 8 p.m. on that day (January 31st) until 6 p.m. on February 2nd, when he died, the patient did not pass a single drop of urine, and the bladder was entirely empty. The notes continue:

February 1st, a.m. General condition the same as yesterday; temperature 36° C.; radial pulse imperceptible; vomiting and diarrhoea ceased; thirst and restlessness increased. 3 p.m. Condition unchanged; temperature 35.8° C. 11 p.m. Very cold; thirst intense; neither vomiting nor diarrhoea; urine suppressed; very restless; pulse still imperceptible; heart's action heaving.

February 2nd, 8 a.m. Condition unchanged, except for increased restlessness; colour of the lips from violet becomes red. 11 a.m. Began to be delirious; heart's action almost imperceptible; temperature 36° C. 3 p.m. Very cold; bowels still unmoved; raging thirst; wild delirium. 5 p.m. The death struggle began, and at 6 o'clock he died in a state of coma.

From the above notes it may be concluded that anuria was the salient symptom in this case, and that this was caused by the influence of the salvarsan, which produced congestion and swelling of the renal epithelium, depriving it of its functions and causing it, in its swollen condition, to block the canalicular lumen. The writer adds that, notwithstanding this experience, he will continue to employ salvarsan. He insists, however, that the drug should *always* be given in emulsion and intramuscularly, as thus it is more slowly absorbed. Moreover, this method permits us, on the first appearance of symptoms of arsenical poisoning, to cut down over the injected area and to wash out the site of the injection, which is the only antidote we have against arsenic poisoning.

**273. The Tonsillar Treatment of Rheumatism.**

P. SCHICHHOLD (*Münch. med. Woch.*, February 8th, 1910) has been induced to study the treatment of articular rheumatism by removal of the tonsil. This treatment was first described by Gürlich, who found that in practically every rheumatic affection pus collects in the tonsillar lacunae and forms the primary focus of the infection. This can be demonstrated by direct examination. The tonsil can be thoroughly exposed to view by hooking up the anterior pillar of the fauces and drawing it aside. The pus can be obtained by passing a hollow sickle-shaped probe into the lacunae. In order to obtain satisfactory results the author advises that the lacunae should be slit up, and he prefers to do this with a Hartmann's conchotome. He does not consider it necessary to slit up every lacuna, but limits himself to those which prove to be harbouring pus. Having done this he proceeds to remove the tongues of tonsillar tissue formed by the incisions. The tonsil is then almost completely removed, although sufficient adenoid tissue is left both at the base of the tonsil and elsewhere in the fauces to satisfy the needs of the body. Removal of the tonsil with the guillotine is quite insufficient for the purpose. He has practised this method of slitting open the lacunae and removing the tonsils thoroughly in 70 cases, and states that only on one occasion did he meet with haemorrhage which required special means of treatment. He claims that the removal of the tonsil not only cures the attack but also prevents a recurrence. The pain in the joints and the swelling diminish and disappear rapidly, although a reaction sets in on the second or third day. He attempts to explain this reaction on assumptions of a highly hypothetical nature. The general condition improves at once, and he does not even find it necessary to give salicylates. The operative procedure is carried out in from three to five sittings. He does not use cocaine or any other form of anaesthesia. If the treatment is broken off before the greater part of the tonsil has been removed the tendency to recurrence is not destroyed. With regard to endocardial complications Schichhold states that these are improved in the early stages, when no organic changes have occurred, but as soon as vegetations have formed and the valves are definitely affected the tonsillar treatment fails to do good. The changes in the endocardium may form a secondary focus of infection, and the same form of secondary deposit may take place in other organs. Under these circumstances removal of the tonsil cannot even alleviate the condition. The author therefore pleads for the tonsillar treatment early in every case of rheumatic affection during the time when the tonsil alone harbours the causal organisms. He has further attempted to apply this form of treatment to other conditions, such as nephritis, in which a tonsillar inflammation is often found. The results will be reported later.



**274. Effects of Vaccines.**

HAMILL (*Arch. of Ped.*, February, 1911) finds as a result of study of the literature of vaccine-therapy as it relates to both adults and children that localized infections with the *Staphylococcus pyogenes aureus* are quickly cured, especially if autogenous vaccines are employed; that generalized infections with the same organism are favourably influenced; and that gonococcal joint affections, which are relatively rare in children, are usually benefited. As regards tuberculosis in early life, opinions are in favour of small doses. For under 1 year the dose varies from $\frac{1}{12000}$ to $\frac{1}{8000}$ mg., and for children from 1 to 12 years from $\frac{1}{4000}$ to $\frac{1}{1000}$ mg. Schlossman, however, strongly advises high doses. He begins with $\frac{1}{100}$ mg., and in one case of a child 18 months old he started with an injection of $\frac{1}{10}$ mg.; and as a support of these large doses he states that tuberculous antibodies are not formed in the child until $\frac{1}{10}$ mg. has been reached, and that the quantity of antibodies formed increases parallel with the quantity of tuberculin. So long as the antibody content is maintained further injection of tuberculin is not followed by a reaction. For children on prolonged treatment he gives tuberculin in doses from 0.5 to 2 mg. repeated from every five to eight days. Bad effects occasionally occurred as a result of the temperature of reaction failing to return to the normal, miliary tuberculosis causing death. He points out that cases of this kind are almost certain to succumb to the disease. All observers are agreed that localized tuberculous lesions, especially of the glands, are more favourably influenced than the pulmonary type.

## PATHOLOGY.

**275. Experimental Typhus.**

NICOLLE, CONOR, AND CONSEIL (*Ann. de l'Inst. Pasteur*, February, 1911) have continued in 1910 their researches, commenced in 1909, on the production of typhus in experimental animals. Their work, conducted at the Pasteur Institute in Tunis, shows that typhus is inoculable from man to the chimpanzee and to various types of monkeys. The chimpanzee is more susceptible than the lower animals, being infected with certainty by subcutaneous inoculation with 1 c.cm. of human blood. To make sure of success with monkeys an intraperitoneal dose of 4 or 5 c.cm. is recommended. When a sufficient dose is administered, the clinical picture of the disease induced is very similar to that of human typhus. It may be transferred by passage experiments from monkey to monkey time after time, the authors having made nine passages with positive results. The blood of the experimentally infected animals is virulent from the commencement of the fever up to the second day of convalescence. After a severe infection complete immunity is established, but if the attack is only slight the protection conferred is less certain. In the stage of convalescence and immediately subsequently preventive and curative properties are found in the blood serum, but these properties rapidly disappear, and are completely inactive in from fifteen to twenty days after defervescence. The authors have failed to discover the specific micro-organism microscopically or by the use of the ultramicroscope in the blood of infected animals. From their filtration experiments they think that it is a filter-passer, provided that the pores of the filter be not filled up with cellular débris and colloidal material. But apparently it does not pass through the filter in large numbers, and in explanation of this they suggest that the situation of the organism in the tissues is intracellular. The virus is destroyed by a heat of from 50° to 55° C. Epidemiological studies in Tunis since the year 1906 have convinced the authors that the disease is transmitted from man to man by vermin. They think the bug and the flea may be excluded from suspicion, but they make out a strong case against the louse. In four human cases the disease followed bites by lice, and in four instances they produced the disease in experimental animals by means of lice previously fed on infected monkeys. They find that the bite of the louse is infective from the fifth to the seventh day after it has partaken of infective blood, but neither before nor after this period. Hence they consider it probable that the unknown micro-organism of typhus undergoes some special phase of evolution in the body of the louse.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 276. Heredity and Predisposition in Infantile Tuberculosis.

OLIARI (*La Pediatria*, May, 1910), in an article of some length, discusses his experience with reference to the above question as regards 333 cases of infantile tuberculosis occurring in children from 3 months to 8 years of age. Amongst these he did not find a single instance of congenital tuberculosis. He does not deny the possibility of such a condition, but says it must be very rare and only to be accepted after careful inquiry and in children not more than 1 month old. It is necessary in these cases carefully to examine the mother (especially the genital organs, the umbilical cord, and placenta) as well as the child. When congenital tuberculosis does exist the lesions are usually pretty generally distributed, and especially in the liver; an exclusive pulmonary form is hardly ever seen. For the most part people are born not so much tuberculotic as tuberculizable. The tuberculous diathesis means insufficiency of nutrition in a wide sense. No doubt in cases where the mother is tuberculous this diathetic state is partly induced by the effect of a chronic slow intoxication due to tuberculous toxins in the materno-fetal circulation. Amongst other characteristics of the tuberculous diathesis the author mentions undue hairiness of the interscapular region, a peculiar type of lobule in the ear, dental erosion, etc. Some figures of Piesary's relating to tubercle in the parents are quoted—for example, in 469 marriages where both parents were tuberculous, out of 1,428 children 8 per cent. died of tubercle. In 100 marriages with one parent tuberculous (292 children) 31 per cent. became tuberculous. Of the author's 333 cases only 194 could be carefully followed out, and of these 24 had a tuberculous father and 20 a tuberculous mother, and the death-rate of these 44 was 81 per cent. Of the other 150 children without, as far as could be ascertained, any parental tubercle on either side the death-rate was only 54 per cent. As showing the influence of measles or whooping-cough in precipitating tuberculosis, 123 out of the 333 children gave a history of one or other of these complaints.

### 277. Tuberculosis of the Bronchial Glands.

STOLL (*Amer. Journ. of Med. Sci.*, January, 1911) urges the importance of diagnosis of bronchial gland tuberculosis, seeing that pulmonary tuberculosis is generally secondary to it, with frequently a long intervening period before the lung becomes involved. These glands are more prone to caseous degenerations than the cervical or mesenteric, and those situated at the bifurcation of the trachea are usually the first to be affected. Insidious in onset, the symptoms are in part toxic—namely, capricious appetite, fatigue, languor, irritability, and irregular pyrexia—and also in part due to pressure of the glands upon vascular, bronchial, and nervous tissues. Indefinite chest pain, sometimes substernal, and induced by deep breathing or vigorous exercise, is an early symptom, and the characteristic cough which eventually follows is paroxysmal and brassy, being usually the result of stimulation of the terminal filaments of the superior laryngeal nerve. Erosion of the trachea, bronchi, or oesophagus may result from long-continued pressure. Dilated veins over the anterior aspect of the thorax, dilated capillaries in the region of the seventh cervical vertebra, and slight puffiness of the face and eyelids from venous obstruction may be present, and there may be slight inequality in apical expansion. Tenderness over the manubrium and at the sterno-costal junction is suggestive, but tenderness over the spines of the upper thoracic vertebrae is more frequently met with. While dullness over the manubrium is of but little diagnostic value, dullness over the fifth or sixth dorsal spine is pathological and is indicative of mediastinal tumour. Normally the tracheal quality of the respiratory murmur ceases at the seventh cervical vertebra, but when the bronchial glands are enlarged this quality, though slightly diminished, is continued downwards over the thoracic spines for a variable distance, and in some instances, while absent over the upper thoracic vertebrae, may be present at the fifth or even lower. The *x* rays are a most valuable help in the diagnosis, calcified glands giving a sharp, clear-cut shadow, and cheesy glands a less dense and less clearly defined shadow. The earliest evidence of tuberculosis of the bronchial glands appears to be a shadow that extends from about the anterior tip of the right third rib upwards to the first rib. Swollen, but not cheesy, glands are less clearly seen, and may not be recognizable at all. Since other diseases may cause enlargement of the endothoracic glands the diagnosis should be confirmed by the use of tuberculin, or in the case of children by von Pirquet's skin test. Intensification of pressure symptoms following a subcutaneous injection indicates a focal reaction in the glands. Since tuberculin therapy gives excellent results in glandular tuberculosis, the recognition of the disease while it is still limited to the bronchial glands is of the utmost importance.

### 278. The Typhus Fever of Mexico.

RICKETTS AND WILDER (*Journ. Amer. Med. Assoc.*, April 16th, 23rd, and July 23rd, 1910) have been inquiring into the etiology of *tabardillo*, the typhus fever of Mexico. They find that some information can be obtained from experiments on monkeys. It appears that the *Macacus rhesus* can be infected with tabardillo invariably by the injection of blood taken from human cases of the disease on the eighth to the tenth day of fever. The authors were not successful, however, in their attempts to keep up the disease by passage through monkeys. Typhus was transmitted to the monkey by the bite of the louse in two experiments; in one of these the lice had derived their infection from man, and in the other from a monkey. Another monkey was infected by typhus through the introduction of the excreta and abdominal contents of infected lice into small incisions. From these and other observations they consider that the louse plays a part in the transmission of the disease. Similar experiments in which the attempt was made to produce the disease in monkeys by means of infected fleas and bed bugs yielded negative results, and the authors do not think it probable that the disease is spread by either of these latter insects. Were the flea in any way responsible, the distribution of typhus in Mexico City would be much more general than is the case, for the flea is widely distributed; and the period of greatest prevalence of the flea is the summer, whereas the season of typhus is the winter and early spring. In exoneration of the bed bug it is stated that typhus often occurs in buildings where none of these insects can be found, and that the distribution of the fever in general does not point to its being a "house disease." When the serum of a tabardillo patient has been passed through a Berkefeld filter it fails to infect a monkey, although the unfiltered serum is virulent for these animals. It is, therefore, probable that the virus of the disease is of sufficiently large size to be demonstrable under the microscope, if an appropriate method of staining can be found. In the hope of discovering the micro-organism the authors have made a careful search for the blood of patients, and have compared any micro-organisms found with the microbes occurring in the organs of the body louse. In stained (Giemsa) preparations of the blood of patients taken from the seventh to the twelfth day of the disease they have invariably found a short bacillus bearing some morphological resemblance to the "haemorrhagic septicaemia group." It is about $2\mu$ in length, and, on minute examination, shows an unstained or faintly stained bar extending across the middle. The organisms are not actively motile, but vibrate more or less rapidly. Other bodies showing marked bipolar staining are also found, and the authors suggest that they may be degeneration or involution forms of the above-mentioned bacilli. Similar bipolar organisms occur in lice. They have only found them occasionally in normal lice, but state that they "are present almost constantly and often in large numbers" in lice which have fed on cases of tabardillo. The authors suggest that this bipolar organism and the bacillus found in human blood may be one and the same, and that it may be the virus of tabardillo. They admit that they have not proved their case conclusively.

### 279. Exanthemata after Vaccination in Children.

MADAME BIEHLER (*Arch. de méd. des enf.*, April, 1911) finds that the symptoms that may occur after vaccination exactly resemble those of serum fever. Between the eighth and fourteenth day there is a slight elevation of temperature, an infiltration of the glands, which become painful, and pains in the joints; oedema, chiefly of the face, and

albuminuria, were also met with. On two occasions there was a leucopenia. Over the whole body or on the back and chest only an erythema appeared, varying in character, in some cases resembling scarlet fever, in others measles, and in others again urticaria; the commonest fever of all was an erythema multiforme. These rashes are not common, they were only met with in 36 cases out of 1,070 vaccinations—that is, 3.3 per cent. The author considers that the production of the exanthemata after vaccination is identical with that after serum injection—namely, that they are due to the union of specific antibodies with the vaccine or with a foreign serum. The treatment is purely symptomatic; itching is relieved by menthol 1 per cent., and then a menthol ointment of the same strength. Antipyretics are not necessary; the oedema and albuminuria require no treatment.

## SURGERY.

### 280. Drainage of Ascites.

MAUCLAIRE (*Arch. gén. de chir.*, No. 1, 1911) describes the many and very diverse attempts that have recently been made to effect by surgical action a palliative treatment of ascites. He holds that Talma's operation of omentopexy has a doubtful therapeutical value, and is not free from danger. It has certainly resulted in cure, but in only 35 per cent. of the recorded cases in which it was practised, and at the present time it is difficult to determine the conditions under which it would be indicated. Six cases are reported in this paper in which the author tried the method of drainage of the ascitic fluid into the subcutaneous connective tissue. This was carried out by the retention of a T-shaped drainage tube, which, after removal of the fluid from the abdomen by laparotomy, was introduced into the wound, the vertical limb being passed into the pelvic cavity and the horizontal limb placed subcutaneously in the fatty tissue of the abdominal wall, where it was left covered by the margins of the sutured skin wound. The ascites was of cirrhotic origin in three of these cases, of cancerous origin in two cases, and the result of peritoneal tuberculosis in the sixth case. In the last case the patient made a good recovery after retention of the drainage tube over three months, but the good result in this instance might have been due, the author acknowledges, to the laparotomy. In one—the case of hepatic dropsy—death occurred after the tube had been retained without any bad local effects for one month. In the remaining cases the treatment did harm, as the patients at once lost ground and soon died. These bad results may, the author suggested, be explained by the action on the organism of the ascitic fluid, which, in the opinion of some French pathologists, possesses toxic properties in cases of hepatic cirrhosis and cancer. It is, therefore, necessary, before making any further trial of subcutaneous drainage in the treatment of ascites, to inquire fully into this probable toxicity of peritoneal effusions. Beyond this likely contraindication of the treatment there might also be that of the possibility, in cases of tuberculosis and cancer, of the disease being carried into the system by the ascitic fluid.

### 281. Renal Calculus in a Young Child.

ORAISON (*Gaz. hebdomadaire*, February 12th, 1911) relates the history of a case of renal calculus in a child aged 7 years, in which the coexistence of a neoplasm had eventually to be entertained. The child had had no previous illness of consequence. In November, 1909, he was seized with violent pain in the region of the right kidney. The pain did not radiate, and lasted about five or six minutes altogether. It then disappeared completely, allowing the child to resume his play. An hour after the patient passed urine, without pain, of a very dark colour, which gradually cleared up. In February, 1910, and September, 1910, there were similar crises with the addition of vomiting. In the intervening time the urine had remained clear, there being no undue frequency and no pain. On examination the right kidney was found to be enlarged, being two fingerbreadths below the false ribs, but there was no pain on pressure. The child was not wasted, and his appetite was good. A skiagraph confirmed the increase in size of the right kidney. Cystoscopy was practised with catheterization of the right ureter. The bladder seemed normal, as also did the orifices of the ureters. The ureter was easily catheterized with a No. 6 sound, which was passed for a distance of 15 cm. After about fifteen minutes, urine of the colour of port wine began to flow. An examination of the urine showed the presence of blood in large quantity, albumen, and a few crystals of uric acid. There were no crystals of oxalate of lime, no malignant cells, and no tubercle bacilli. In the specimen of water passed in the ordinary way, on the other hand, there were many crystals of oxalate of lime. The author then discusses the probable causes of the haematuria in so young a child. He points out that it may arise from haemorrhagic nephritis, varices of the papillae, tuberculosis, neoplasm, or calculus. Of these he narrows down the issue to neoplasm or calculus, and suggests that in this case these may coexist, the supposition being based mainly on the size of the kidney and on the facility with which haemorrhage begins on a sound being passed into the pelvis of the kidney. With this reservation, everything seems to point to the condition being one of renal calculus. The crises, the vomiting, and the analysis of the urine all point to this. In the intervals the right kidney appears to function as naturally as does the left. The absence of crystals of oxalate of lime in the catheter specimen from the right ureter is explained by the fact that they attach themselves to the calculus, and so do not pass, and in a catheter specimen drawn from the left ureter there were many more crystals of uric acid than on the affected side. The author points out the rarity of this condition as compared with the relative frequency of calculus of the bladder.

### 282. Retained Teeth.

TREYMANN (*Wien. klin. Rundschau*, No. 42, 1911) deals with the serious consequences which may result from retained teeth, and describes three cases which have come under his own care. The diagnosis is easily made by means of Roentgen rays. The first was that of a woman, 25 years of age, suffering from mercurial stomatitis, the mercury having been administered after a diagnosis of syphilis had been made. The patient had been examined by a specialist because of nasal symptoms and headache, and perforation of the nasal septum with formation of sequestra had been found. On the hard palate a circular ulcer had formed and with the sound a communication with the nasal cavity could be traced; there was a profuse foul discharge. Syphilis was diagnosed, an inunction cure ordered, and later a course of iodine. The patient consulted the author on account of stomatitis and toothache; he found that the normal amount of teeth were present, but that a milk tooth was still present in place of an eye tooth. A Roentgen ray photograph showed that the eye tooth was retained, that it had exceptionally long roots, and was abnormally placed and fixed at one end into the palate, at the other into the septum. Examination of the nose showed that the sound, after removal of granulations and sequestra, came upon a hard, smooth body, which was the missing tooth. The tooth was removed by means of a hammer and chisel and the patient quickly recovered. The next case was one of a fistulous opening to the inner side of the internal canthus of the eye. A sound was passed and came posteriorly upon a hard substance. The lacrymal passages were free and did not in any way communicate with the fistula. Nothing in the nasal cavities was found to account for the condition, and the patient refused an operation which was recommended on the supposition that the fistula might result from osteomyelitis of some bone of the orbital cavity. Some weeks later the patient came to the author because of alveolar pyorrhoea, the result of diabetes. It was then found that there was retention of two canine teeth. On the other side of the fistula the apex of the root of the shut-in tooth reached nearly to the superficies nasalis of the upper jaw, while its alveolus communicated with that of the milk tooth. The alveolar pyorrhoea had brought both teeth into contact with pus, and the retained tooth now acted like a foreign body and caused an affection of the under surface of the orbital wall. The result of treatment supported this view, as, after removal of the tooth, the fistula healed without leaving any appreciable scar. In the third case the symptoms were marked oedema of the orbital cavity and the eyelids with protrusion of the eyeball. The patient was a child 12 years of age. On the affected side the two premolar teeth and the eye tooth had not come through, and the space for them was relatively very narrow. The case was suggestive either of a new growth in the retrobulbar cellular tissue or of inflammation in the right frontal sinus. Both frontal sinuses proved to be clear on transillumination, but the right antrum was slightly darker than the other—a fact which was not surprising, since three teeth had still not come through. The application of Roentgen rays showed that the eye tooth was placed much higher than the premolars and was up to the floor of the orbit. The eye tooth, which was imbedded nearly 1 c.cm ($\frac{2}{5}$ in.) in bone, was brought away in fragments after compression of

the arteria incisiva, and the wound was plugged with gauze. After six weeks all the eye symptoms had completely disappeared.

## OBSTETRICS.

### 283. Cornual, Uterine, and Tubal Pregnancy in the Same Subject.

COUVELAIRE AND GUILLAUME (*Comptes rendus de la Soc. d'Obstét. de Gynéc. et de Pédiat. de Paris*, January-February, 1911) report the obstetrical history of a patient who, as proved at an operation in the fourth month of her second pregnancy, was the subject of malformation of the upper part of the genital tract. The right cornu bore a Fallopian tube and ovary, and possessed a cavity which became the seat of pregnancy. It was connected by a thick short pedicle, with the cervix of the opposite cornu. This left cornu possessed a tube and ovary, and was completely developed, its cavity opening through a permeable cervical canal into the vagina, which was normal. The patient menstruated regularly, although the catamenia did not begin till she was 18 years old. At the age of 20 she gave birth, in the sixth month and spontaneously, to a live fetus which died in a few seconds. A year later she became pregnant for the second time. In the fourth month symptoms of acute internal haemorrhage occurred, and abdominal section was performed. Gestation had taken place in the right cornu, which had ruptured; the fetus lay under the liver. The cornu with its tube and ovary was removed. Next year a third pregnancy ended after a few weeks in an attack of acute pain in the left iliac region, followed by syncope and slight uterine haemorrhage. Three weeks later, a mass as big as a fist, tense and tender, could be defined in the left and posterior part of the pelvic cavity, pushing the left cornu forwards to the right. This cornu was distinctly enlarged. Forty-eight hours after the examination dark blood and pus escaped by the rectum, and the mass steadily diminished in size. The uterus was empty. Thus, the symptoms all indicated tubal abortion on the left side, and consequent pelvic haematocele. Patients with a single pervious cornu appear to be as fertile as subjects with a completely developed uterus. Cornual gestation when the opposite half uterus is pervious is not rare, but the authors do not trace any relation between cornual and tubal pregnancy.

### 284. Pregnancy and Bilateral Ovarian Dermoids.

HÖRRMANN (*Monatsschr. f. Geb. u. Gyn.*, vol. xxxiii, February, 1911) recently exhibited bilateral dermoids removed during pregnancy. In the first case diagnosis was very difficult. One of the ovarian dermoids was as big as a man's head, and the other of the size of a child's head; both had undergone axial rotation, and the uterus itself, in the second month of pregnancy, was rotated 180 degrees on its long axis. The diagnosis was ovarian tumour in Douglas's pouch behind a uterus in the sixth month of pregnancy. The two tumours were removed. Abortion occurred on the tenth day. The second patient also underwent operation in the second month. A dermoid of the right ovary was removed, and a distinctly dermoid tract excised from the left ovary. Hörrmann purposely saved the corpus luteum by leaving behind the portion of the ovary which contained it. Gestation was not interrupted.

## GYNAECOLOGY.

### 285. Hypertrophy of the Mammae at Puberty.

CAUBET (*Arch. de méd. des enfants*, March, 1911) describes a case of this rare condition, and briefly describes 25 cases from the literature. Examination of these 26 cases showed that the disease begins between the ages of 11 and 16. It has nothing to do with menstruation. In Caubet's patient heredity seemed to have played a part, as the mother had been affected in the same way. The size of the breasts varies; they may extend as far as the pubes. Examination by the microscope showed that in the centre of the tumour the conjunctival tissue is quite lax and oedematous, and there is no elastic tissue. The glandular tubules are fewer in number than in the peripheral parts; in the latter the oedema is much less, the connective fibres are arranged in a parallel manner. Here and there there is diffuse cellular infiltration, principally perivascular and periglandular. The glandular tubules commonly show a large cavity which may or may not be incompletely filled with a fine granular exudate. The disease commences gradually and then progresses rapidly; the skin becomes distended, but the tumour is never adherent to it. There is usually no pain. The menses become irregular and then cease; the general health suffers greatly. It has no tendency to spontaneous retrogression, and may lead to death from exhaustion. The prognosis is always grave; treatment is entirely surgical, and consists in removal.

## THERAPEUTICS.

### 286. Vaccines in Gonorrhoeal Arthritis.

HARTWELL (*Massachusetts Gen. Hosp. Publications*, October, 1910) reviews 51 cases of gonorrhoeal arthritis treated with vaccines made from the gonococcus. All the cases received local treatment for the urethritis, and if this was withheld for any reason while vaccines were being given for joint affections, no improvement in the urethral discharge resulted from the vaccine treatment alone. When possible, autogenous vaccines were used, varying in strengths from 100,000,000 to 600,000,000 organisms per c.cm. Commencing in acute cases with a small inoculation of from 10,000,000 to 25,000,000, the dose was gradually increased at intervals of from two to four days up to 100,000,000, while in chronic cases the intervals varied from five days to a week, and the dose was pushed up to 500,000,000 or 600,000,000. It did not appear that much immunity was obtained by the first few inoculations, and certainly no lasting immunity was conferred, and autogenous vaccines gave far better results than when stock vaccines were used. Thirty-one of the cases came under treatment after the acute inflammation had subsided, and they all presented typical indolent crippling lesions, the majority being so disabled as to be unable to work. As the result of treatment, 27 of these cases were discharged with complete functionating joints without disability. Among the chronic cases there were 5 with stiff backs in whom the improvement was very striking, the spinal movements being so much increased as to cause no inconvenience when at work, and pain was entirely relieved. It would seem that gonococcus vaccines, especially autogenous ones, are a valuable therapeutic agent in gonorrhoeal arthritis in all stages of inflammation except when ankylosis has occurred. They do not, however, seem capable of preventing extension to fresh joints in early cases, neither do they produce sufficient lasting immunity to prevent recurrence.

### 287. High-frequency Currents in the Treatment of Ozaena.

HIGH-FREQUENCY currents, according to Torrès Carreras (*Arch. d'élect. méd.*, March 25th, 1911) are of considerable value in the treatment of ozaena. It is not surprising, he thinks, in view of the agreement of authors that ozaena caused by atrophic rhinitis is due to a trophoneurosis, that it should be efficiently combated by a therapeutic agent endowed with so excellent a trophic action. After practising intranasal alkaline irrigations twice a day for the purpose of getting rid of the mucus, he brings into play a vacuum-glass electrode of special form for introduction into the nasal fossae, and capable of reaching the pharynx if required. The patient's head is carefully immobilized, since he is liable to make a sudden movement upon the starting of the current and break the electrode. The current is regulated to the required intensity, and the electrode, having been introduced into the nose, is passed along the folds of the nasal mucous membrane, perhaps up to the pharynx. Sittings last from two to five minutes, and are repeated every two or three days, the applications being well tolerated. The nine cases treated in this manner have all been cured or are in process of amelioration, and details of a typical case are given. The patient, who was of feeble constitution, had suffered for a long time from intermittent nasal occlusion, with expulsion of fetid, thick, and dry mucus. Treatment consisted of alkaline irrigations and applications of high-frequency. After six sittings the mucosa no longer presented its former blanched appearance; it was more coloured and humid, and there was less adherent mucus. The patient wiped his nose with more freedom and less frequency, and he was able faintly to perceive odours, although previously there was complete anosmia. After twelve sittings all the local symptoms disappeared and the general health was improved. The author attributes the favourable results to a trophic action on the nasal mucosa, a stimu-

lating action on the general nutrition, and a bactericidal action due the ozone formed along the path of the local electrode. In obstinate cases where injections—paraffin injections are favoured by the author—are necessary, these should follow the high-frequency, which brings the nasal mucosa into a better condition to receive them.

**288. Kephaldol.**

KAMILLO LILL (*Wien. med. Klin.*, No. 50, 1910) describes his experience of the use of kephaldol as an antipyretic in the St. Elisabeth Krankenhaus in Vienna. The daily dose given was from 2 to 4 grams (31 to 62 grains). The preparation was willingly taken by the patients, and did not give rise to any unpleasant side-effects. The drug was given as an antipyretic in cases of fever of the most widely different description; 0.5 gram (7.7 grains) was the usual single dose. Smaller doses were uncertain in their effects, and larger doses were, as a rule, unnecessary. A fall of temperature usually occurred in about an hour. In cases of typhoid fever the results of the administration of kephaldol were good; the temperature began to fall slowly but steadily after the first dose, and the mental condition, breathing, and pulse were all markedly improved. Thus the case of a woman aged 37 years, whose temperature during a relapse at the end of the first month went to 39.9° C. (103.8° F.) pyramidon was given and failed to reduce the temperature below 39° C. (102.2° F.) Eight days later the temperature at two o'clock in the afternoon was 40.5° C. (104.9° F.), and 5 daily doses of kephaldol begun to be administered. At six o'clock the temperature was 38.6° C. (100.4° F.); at eight o'clock the next morning 37.6° C. (99.7° F.); and at ten o'clock 36.8° C. (98.2° F.); and later the temperature varied between 37° C. and 38° C. (98.6° F. and 100.4° F.). About three weeks later the patient was able to be discharged as recovered. In the fever of phthisis 1 gram (15.5 grains) of kephaldol was given an hour before the rise of temperature was expected, with the result that two hours later the temperature was almost always normal. In one case only had the use of the remedy to be discontinued because it gave rise to excessive sweating. Night sweats were not, as a rule, amenable to treatment by kephaldol. In chronic forms of muscular and joint rheumatism prompt improvement was obtained through kephaldol, but in acute cases the results were not so good. It was often useful for nervous headaches and for the habitual headaches of chlorotic patients; but in chlorosis the headaches sometimes only disappeared as the disease yielded to treatment by iron. Neuralgias of the most different varieties were often benefited.

**289. Diathermy in Syphilitic Ulcers.**

THE new method of diathermy, or the adaptation of currents of high frequency for the deep penetration of heat into the tissues, is being utilized in a Paris hospital in the treatment of venereal ulcers. Fournier, Ménard, and Guénot (*Arch. d'élect. méd.*, March 10th, 1911) report ten observations of cases in which the treatment has been more or less effective. In syphilitic chancre cicatrization has been rapidly obtained. A typical case is that of a man aged 25 years, without previous history of syphilis, who entered the hospital for two syphilitic chancres of the penis, dating back for eight days. There was bi-inguinal adenopathy. The first application of diathermy was followed by an immediate amelioration, and the patient left the hospital a week later with both chancres completely cicatrized and the specific induration considerably diminished. In order to discover the value of the heat, this and the other patients had no specific medication—mercurial, arsenical, or other—either during or previous to the diathermic treatment. The general treatment of the syphilis was withheld until after the cicatrization of the chancre. Local treatment consisted simply of lavages and dressings with aristol. In soft chancre the results of diathermy have been less satisfactory. The most favourable case was that of a man who had several chancres on the preputial border with partial subinflammatory phimosis. Cure was complete after three sittings. The other three or four cases were more intractable, but even in these the evolution of the soft chancre was arrested. Local treatment again consisted of applications of aristol. In blenorrhagia dating back for not more than a week the authors have obtained a considerable diminution of the physical and functional signs from the first sittings, but the number of patients and the opportunities of following up the cases for a sufficient length of time have been too limited to justify an assertion of complete and definite cure. The authors defer an explanation of their technique—the form and nature of their electrodes, for instance—to a later paper, and only say that it is necessary to observe a certain amount of precision in the dosage of the current. The sittings have been given, sometimes every other day, at other times after intervals of a week. (The procedure of diathermy was referred to in the BRITISH MEDICAL JOURNAL of January 29th, 1910, page 269, and November 12th, 1910, page 1547.)



## PATHOLOGY.

**290. Ophthalmic Experiments.**

K. WESSELY reports in the *Muench. med. Woch.* of November 2nd, 1909, that he has performed a large number of experiments on the eyes of newborn animals, chiefly rabbits, and has obtained some striking results. In dealing with the influence of the various operative measures for reducing intraocular tension, he has found that iridectomy causes a slight but constant interference with the growth of the bulb. The volume of the eye after iridectomy is between $\frac{1}{15}$ and $\frac{1}{30}$ less than the intact eye. On the other hand, iridencleisis (according to Holth) actually produced an increase in the volume. Sclerotomy (posterior) led to a slight diminution in the size of the eye. From these results he concludes that iridectomy produces a permanent, albeit slight, diminution in the intraocular tension, while Holth's operation produces the opposite. It is, however, possible that other factors may influence the growth of the eye apart from tension. In the next place he found that all the animals in the second week of life in whom he performed iridectomy developed typical saddle shaped coloboma of the lens. In incising the iris of these young animals, defects of the zonula and of the ciliary process are produced. This reveals a dependence of the form of the lens on the tension of the zonula. When the zonula is locally relaxed, a changed growth of the lens results and a coloboma develops. The third set of experiments dealt with the artificial production of central cataract. It is quite easy to cause a traumatic cataract by means of discission in newborn rabbits. The opacity of the lens occupies the whole of the pupil and the mass protrudes into the anterior chamber. After some months the pupillar area clears up and an unimpeded view into the otherwise normal interior of the eye is again possible. It is thus shown that the lens of the newborn animal possesses extensive power of regeneration. A similar experience was made when the author produced the cataract by massage. In a further set of experiments he was able to show that by extensive discission in the eyes of infantile rabbits disturbance of development could be produced. Microphthalmos was produced. If the discission is performed in such a way that the external portions of the lens are much damaged, the iris is pressed firmly on to the cornea by the swelling of the lens and an artificial glaucoma is produced. The size of such a growing eye continues to be considerably greater than that of the intact eye. On the other hand, he was able to show that quite a small iridectomy sufficed to check this increased growth of the eye. Lastly, he reports that by dividing all four rectus muscles the eye was induced to take on an elongated shape. After two months this change of shape proved to be sufficient to cause three dioptres of myopia. Tenotomy of the superior and inferior recti alone caused a corneal astigmatism. He is continuing these experiments on growing eyes, and hopes to obtain further results of a valuable nature.

**291. Malignant Tumours of Infective Origin.**

A. FRANCHETTI (*Lo Sperimentale*, Florence, 1910, lxiv, 581) goes very thoroughly into the history and literature of the parasitic or infective theory of malignant disease, and then details his own experiments with Sanfelice's *Saccharomyces neoformans* and with various blastomycetes isolated by himself from freshly excised cancers and other tumours. Growths of microbes, blastomycetes, or moulds, or several of these together, were commonly obtained from these tumours; but pure cultures were never obtained, and Franchetti seems to think that the growths were contaminations. The inoculations of cultures and extracts of two blastomycetes thus obtained and of Sanfelice's saccharomyces were made on guinea-pigs, rats, and dogs. The extracts appeared to have no toxic action at all. Injections of the blastomycetes themselves caused suppuration in many cases; in rats they gave rise to tumours best described as granulomas, formed of connective tissue without any participation of epithelial structures. Nothing in Franchetti's observations leads him to support the parasitic theory of the origin of cancer. Many references to the literature are given.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

**292. Psycholepsy and the Thyroid Gland.**

RAYMOND (*Journ. des prat.*, July 30th, 1910) reports that he had under his care in hospital a young Breton girl of 19, who had come to Paris as a nursemaid, and had become subject to attacks which made her regular work impossible. Her natural temperament was to be bright and cheerful, troubled by nothing except unjust blame; but now, at any hour of the day, she was liable to fall into a state of depression, without loss of consciousness, but with no power to do any work beyond mechanical movements connected with her usual occupations. The pathological aspect of the case consisted in a state of psycholepsy, or a lowering of the psychological attention, and the family history showed a double heredity, alcoholic and bacillary. The patient was a very simple young country girl, whose mental type was very little complicated—a case all the more interesting to study because of its tendency to lead to psychoses and various other neuroses. She did not menstruate till she was 15; she always found it difficult to learn; she had "neither brains nor memory"; then the menses ceased for some months, and she became anaemic. She had a great grief in the loss of her mother, after which she complained of insomnia, although in the clear intervals she slept well. The onset of the symptoms may be ascribed to a combination of mental emotion, more luxurious food on coming to Paris, and an unhealthy heredity. The girl had a round moon face, fat hands, feet and legs, coarse hair and eyebrows, and a poorly developed thyroid gland—in short, the characteristics of myxoedema. Menstruation was irregular, and it was just at the time of the menstrual trouble that the attacks came on. The treatment recommended was the administration of thyroid and ovarian preparations, tepid baths, followed by dry friction, plenty of fresh air and lacto-vegetarian diet.

**293. Algerian Relapsing Fever.**

SERGENT AND FOLEY (*Ann. de l'Inst. Pasteur*, May, 1910) have had the opportunity of investigating an epidemic of this disease at Beni-Ounif during the years 1907–1909. They find that it presents a greater resemblance to European relapsing fever than to African tick fever. It is caused by a spirillum which varies in length from 12 $\mu$ to 18 $\mu$ and is from 0.25 $\mu$ to 0.3 $\mu$ in thickness. The number of spirals is from 4 or 5 to 8. The spirochaete of the European disease, according to Schellack, is from 19 $\mu$ to 20 $\mu$ long and 0.39 $\mu$ broad, whereas the African spirochaete of tick fever is from 24 $\mu$ to 30 $\mu$ long and 0.45 $\mu$ broad. The Algerian parasite is directly inoculable upon man and upon the monkey, but cannot be kept up by serial passage from monkey to monkey. Rats and mice are only slightly susceptible, other laboratory animals not at all. The Algerian spirochaete seems to be a distinct variety, since (1) it is capable of infecting a monkey which has recovered from infection with the European virus; (2) it is not influenced *in vitro* by the serum of animals immunized against the Russian virus; and (3) the Russian spirilla are immobilized, agglutinated, and destroyed by such serum, but are not affected by the serum of animals immunized against the Algerian virus. The authors therefore propose to distinguish the Algerian organism by the name *Spirochaeta berbera*. The spread of the disease seems to be limited to cases where there has been close contact with infected persons. In every case of the disease the authors found *Pediculus vestimenti* in greater or less abundance; and in a few cases, where they had specially good opportunities for observation, they were able to exclude the possibility of any insect carrier other than the louse. In attempting to produce the infection experimentally by means of various insects the authors met with some slight success when they employed lice, but none when they used other insects. They think that the possibility of fleas, bugs, or mosquitos being the carriers may be excluded; as to the rôle played by lice they reserve their opinion, pending further discoveries.

**294. Diagnosis of Duodenal Ulcer.**

M. GROSS (*Med. Record*, April 22nd, 1911) thinks that duodenal ulcer is a common disease, more so than gastric ulcer. The characteristic symptoms are painful dyspepsia, violent attacks of "hunger-pain," regurgitation or vomiting of acid masses, lessening of symptoms after eating and alkalis, hyperchlorhydria and hypersecretion. The diagnosis is confirmed by the finding of small masses of blood floating on the duodenal contents which have been aspirated. The presence of this blood should be established by tests. Physical signs include a tender point and rigidity of the abdominal muscles to the right of the parasternal line at the level of the duodenum. Excessive haemorrhages and perforation are very rare. The author regards Einhorn's bucket and thread test as unreliable, and advocates instead the use of his duodenal tube with its little silver ball.

**295. Meningeal Complications during Appendicitis.**

MICHEL (*Ann. de med. et chir. infant.*, September, 1910) points out that various observers have reported meningeal symptoms supervening in cases of septic appendicitis. The authors have experienced 4 such cases, only one of which recovered. There may be difficulty in differentiating between toxaemia and septicaemia, since the similarity of the symptoms confuses diagnosis. These cases exhibited genuine meningeal symptoms, delirium, high temperature, and coma. The first three cases died, the fourth, which occurred in a boy of 16, was more early recognized. The abdomen contained pus, and the appendix was gangrenous. Twenty-four hours later the pulse was 120, and the patient became restless and excited; three days later he became comatose, with unequal pupils and strabismus. He made an unexpected and sudden recovery. It is probable that the early intervention and complete drainage accounted for this. It is difficult to decide whether surgical intervention in these cases is beneficial or whether it aggravates the condition. When once the ideal moment for intervention is passed, that is, after the first twenty-four or thirty-six hours, it may be wiser to leave it to nature, and merely to watch for unfavourable signs indicating operation.

**296. Nephritis in Children.**

BINGHAM (*Arch. of Pediatrics*, December, 1910) insists upon the importance of looking for nephritis in young children, since every infectious disease is liable to cause it. It is recognized as a frequent complication of scarlet fever and diphtheria, but it may frequently be found associated with measles, mumps, influenza, and even with tonsillitis. Mild cases give few symptoms, and are unnoticed unless the urine is examined. Severe cases suffer from nervousness or convulsions, with a high-tension pulse, oedema and vomiting, and the urine is scanty and smoke-coloured or red. A slight albuminuria occurs in the early days of scarlet fever and other febrile diseases; it is often transitory, and does not indicate a true nephritis. Treatment must consist in rest in bed and a diet of milk, or milk with a moderate quantity of some farinaceous food added to it. Warm baths, hot packs, and saline injections into the rectum are valuable aids. Potassium bitartrate in the form of lemonade or orangeade will increase the quantity of urine when necessary. This acts as a diuretic, and is a method of getting the child to drink the desired quantity of water. With a high-tension pulse only a moderate amount of water should be given. The return to ordinary diet is slow and difficult to regulate, as these children are constantly calling for a greater variety of food.

## SURGERY.

**297. Intestinal Carcinoma.**

J. SCHNITZLER (*Wien. klin. Rundschau*, Nos. 1 and 2, 1911) discusses the diagnosis and treatment of carcinoma of the large intestine. The most frequent form of the disease is that in which a diagnosis can be made relatively early, on the strength of the presence of a palpable tumour or of the gradual onset of signs of intestinal stenosis or of both. In other not uncommon cases an attack of intestinal obstruction is the first symptom, and at the operation the growth may prove to be already inoperable. In making a diagnosis it is to be remembered that neither the absence of cachexia nor the occurrence of spontaneous improvement in the symptoms, nor the fact that the patient is below middle life, exclude the possibility of carcinoma. Irregularity in

the motions, especially obstinate diarrhoea, coming on in later life and uninfluenced by dietetic measures, should arouse a suspicion of carcinoma. Modern methods of investigation are dealt with. The presence of traces of blood in the stools is more readily detected than was formerly possible. Roentgen rays aid in the detection of stenosis, if taken in connexion with other signs. Rectoscopy discloses tumours up to 25 to 30 cm. (10 to 12 in.) above the anus. Differentiation between carcinoma and inflammatory tumour may be a matter of almost insurmountable difficulty in old people. A case is described in which intestinal carcinoma in a boy 12 years of age led to a diagnosis of relapsing appendicitis; the boy had had three apparently typical attacks of appendicitis in a year, and at the operation, which was performed in what was taken to be a quiescent interval, a hypertrophied appendix was removed; three months after the operation the boy was seized with severe pain, and presented the appearance of intestinal stenosis, a hard tumour being now palpable on the middle region of the abdomen, and it was found that he was suffering from carcinoma of the transverse colon with widespread infiltration of the mesenteric glands. Carcinoma is so much the most common cause of intestinal stenosis after middle life that stenosis occurring then is an indication for operation. One possible source of error is to be kept in mind—namely, that attacks of abdominal pain, combined in some cases with the presence of blood in the stools, may be due to arterio-sclerosis of the mesenteric arteries, but may closely simulate intestinal stenosis, though there is absence of the signs of hypertrophy of the intestinal wall; in these cases exploratory laparotomy is clearly contraindicated. Treatment can only be operative. Illustrative cases are given to show that the prognosis depends upon the degree of malignity of the growth as well as upon the time and nature of the operation performed. In one case in which a growth taken to be a small polypus was discovered by the aid of rectoscopy, and in which laparotomy was performed with resection of the tumour and the neighbouring intestinal wall, histological examination showed carcinomatous degeneration of the growth, and in spite of early operation the patient died within half a year from carcinoma of the mesenteric glands. On the other hand, in a case which a palliative entero-anastomosis was performed for an apparently inoperable cancer and the growth left untouched, the patient remained well for seven and a half years, although the earlier diagnosis was confirmed by the section made after death. In comparatively benign tumours radical operation may, however, lead to permanent recovery, and the chance should therefore not be neglected, though the decision in the individual case may be a matter of great difficulty. The article deals also with recent improvements in technique.

**298. Gastric Surgery.**

GILBERT BARLING (*Birmingham Med. Rev.*, March 15th, 1911), in a paper read at a recent meeting of the Midland Medical Society, discusses many points of interest relating to the surgical treatment of different forms of gastric disease. The title of this paper, "A Year's Experience of Gastric Surgery," is, the author points out, too comprehensive, as reference is made only to benign conditions, and cases of malignant disease are excluded. The list of 29 cases operated on for innocent conditions of the stomach during 1910 is headed by an interesting instance of cardio-spasm treated by gastrostomy fourteen years ago for supposed malignant stenosis of the oesophagus, in which after this long interval the stomach opening has been closed. This record is very instructive, as it indicates that many patients formerly assumed to have been the subjects of carcinomatous stenosis were really suffering from spasm of the lower end of the oesophagus and of the lower end of the stomach protective to a gastric ulcer. The second case is one of peptic ulcer following gastro-jejunostomy after an interval of two and a half years. The possibility of such a sequel, acknowledged to be a defect of gastro-jejunostomy, is regarded by the author to be slight, and ought not, in his opinion, to deter the surgeon from having recourse to an operation which in suitable cases affords immense boon. To prevent peptic ulcer the best means, it is suggested, would be a free anastomosis at the most dependent part of the stomach, and reasonable precaution on the part of the patient to avoid the conditions likely to set up gastric catarrh and hyperacidity. In the comments on 8 cases of duodenal ulcer treated by gastro-jejunostomy the importance is urged of closing the pylorus by a purse-string suture in those instances in which the ulceration has not caused stenosis of this orifice. Five examples are given of the interesting condition from a surgical point of view of chronic ulcer at or near the lesser curvature of the stomach without material stenosis. The interest of these cases lies in the difficulty of deciding what operative measures to adopt for their relief. The author states that he has for some time past been dissatisfied with the results of gastro-jejunostomy in such cases. Three reasons are given for this feeling: (1) The incomplete relief which often follows a mere anastomosis between stomach and intestine; (2) the possibility of free, and, indeed, fatal, bleeding from the ulcer, despite a successful anastomosis; and (3) the danger, which is believed to be a real one, of carcinomatous degeneration of a simple unhealed ulcer. The author's experience supports the view advocated by the Mayos that carcinoma supervenes on simple ulcer of the stomach in a high percentage of cases. The utility of excision in cases of ulcer on the lesser curvature is discussed at some length. The author, while recognizing that excision of a large gastric ulcer is a more difficult and a more severe operation than a simple anastomosis, looks on the radical operation with favour. He has, he states, felt constrained to reject excision in some of his feebler patients, but the absence of mortality from this operation in all his cases up to the present time now induces him to push it to a further degree than he has hitherto done. After reference to 2 cases of double gastric ulcer and 2 cases of perforating ulcer, the synopsis of instructive cases of gastric diseases concludes with 3 examples of proptosis and dilatation treated by gastropexy. The value of this operation seems to be a difficult question for the author to answer, and from subsequent information concerning the condition of the patients on whom he operated he is inclined to reserve his judgement.

**299. Surgery of the Heart.**

HOUZEL (*Rev. française de méd. et de chir.*, 1911, April 25th) describes a case of atrio-ventricular wound of the left heart caused by a knife. Five sutures were inserted into the ventricle, and after the last suture the heart ceased to beat, owing to the extreme loss of blood. Massage of the heart was applied, and the contractions reappeared in about twelve seconds. Two litres of warm serum were then poured into the wound in order to obtain an immediate effect. As a result of this treatment the cardiac rhythm became regular, and cardiac massage could be abandoned. The patient lived for seventeen hours.

**300. Iodine and Sterilization of Skin.**

ELLICE MCDONALD (*Med. Record*, April 15th, 1911) has experimented with a new iodine solution for antisepsis which he considers superior to the one generally used. It consists of iodine 2 parts, carbon tetrachloride 98 parts. The author has used it for three years in abdominal work with satisfaction. It is swabbed over the surface of the abdomen after washing the skin with an antiseptic soap. It combines the advantages of Grossich's tincture and the alcohol-acetone disinfection of the skin. It is a fat solvent, and with the iodine becomes a powerful antiseptic. It does not burn or explode, and is not injurious to the hands unless used too often.

## OBSTETRICS.

**301. Conservative Caesarean Section.**

RIVIÈRE AND DROUIN (*Gaz. hebd. des sci. méd. de Bordeaux*, September 18th, 1910) describe a case recently treated by them. The patient was a primipara, 23 years of age, with no special family history, several brothers and sisters being all healthy and normally developed. She herself, breast-fed, was unable to walk until she was 4 years old, and was lame from her first steps; although not well grown, she had had no real illness, except measles at 16; and she was now pregnant for the first time. Her height was only 1.28m. (4 ft. 3in.), and the spine showed a very marked scolio-kyphosis, the dorsal vertebrae being covered by the scapula on one side, with a corresponding compensatory curvature on the other. The left anterior superior iliac spine was higher than the right, the right femur had an anterior curvature, and genu varum was present on that side. The uterus measured 37 cm. (14½ in.), and the conjugate diameter of the pelvis 9½ cm. (3¾ in.); the other diameters were correspondingly diminished, and the whole condition rendered natural, spontaneous delivery impossible. Symphysiotomy being undesirable and insufficient, Caesarean section was decided upon, and the time fixed for three days before the expected onset of labour. The operation was carried out without any drawback, and the child delivered ten minutes after the first incision, in a state of suspended animation,

but soon induced to breathe. The placenta detached itself as soon as the uterus was incised, and every fragment of membrane was carefully removed from the neighbourhood of the undilated cervix, the haemorrhage being scarcely more than in a normal delivery. The uterus was sutured in three layers, the deepest with silk and the two outer with catgut, which was also used for the muscular layer of the abdominal wall, deep silver wire stitches and superficial horsehair sutures being also employed. The whole operation having been done outside the abdominal cavity, there was no danger of sepsis, and no drainage was used, a simple bandage concluding the proceedings. The silver wire sutures were removed on the sixth day, the horsehair stitches on the tenth and thirteenth, primary union took place, and the patient was discharged on the twenty-seventh day in a thoroughly satisfactory state of health, able to suckle the child, who seemed quite healthy. Sterilization was not performed, as the woman wished to retain the possibility of bearing future children, in spite of the dangers. Silk sutures were used for the deeper tissues of the uterus, on account of the tendency which catgut has to loosen its knots under the influence of uterine involution, the operators having previously lost a patient from secondary haemorrhage due to this cause. The selection of the time of operation just before the onset of labour ensured aseptic conditions, and prevented the necessity for drainage, with the result that the whole wound healed rapidly without suppuration or hernia. The writers lay stress on the necessity of providing for the resuscitation of the child, which is always born asphyxiated, owing to the premature separation of the placenta.

**302. The Management of Pregnancy.**

RUDAUX (*La Clinique*, April 28th, 1911) considers that as soon as the practitioner has diagnosed pregnancy the patient should be carefully advised as to her mode of life and the necessity of showing her to her doctor at regular intervals, about once a month if no abnormal symptoms arise. At each visit one should ascertain the shape, consistency, and development of the uterus, the conditions of the veins and subcutaneous cellular tissues, the action of the bowels, and the amount of urine passed in twenty-four hours, and the presence of albumen, if any. In primiparae, during the eighth month it is important to examine the patient and diagnose the presentation; this precaution may be left till the ninth month in the case of multiparae. In primiparae the fetus should engage or be fixed in the pelvis by the eighth month; if this is not the case, and the presentation is a normal one, the pelvis must be carefully examined for contraction or anything which might cause dystocia, such as rachitism, spinal curvature, or lameness. Vicious presentations are most readily transformed into normal ones at this time. In multiparae fixation is more tardy, and may not occur until a few days before labour or until labour has begun. It is necessary to be sure that the presentation is cephalic, and that it has no tendency to sink into one or the other of the iliac fossae. The more pregnancies a woman has had the more she is liable to malpresentations, for the frequent distension of the abdominal tissues has lessened the tonicity and elasticity of the abdominal wall and the uterine muscle.

## GYNAECOLOGY.

**303. Post-operative Pseudo-menstruation.**

NEU AND PYCHLAU (*Zentralbl. f. Gynäk.*, No. 10, 1911) have made observations at the Heidelberg University Gynaecological Clinic on 54 cases of operations where the ovaries and Fallopian tubes were removed, whether for disease of the inflammatory type, new growths, or ectopic pregnancy. The researches were made with a view to throw light on the show of blood so often seen shortly after such operations, the "pseudo-menstruation" of gynaecologists. Neu and Pychlau's statistics seem to prove that it is a definite phenomenon. Further, it is closely associated with the menstrual process, as it does not occur in patients who have passed the menopause, or who have not begun to menstruate. The pseudo-menstrual show seems constant when the operation is performed within fourteen days after a period, or after the bleeding corresponding to a tubal abortion. It does not appear when the interval is less. The pseudo-menstrual show comes on about the second or third day after the operation, and resembles the patient's normal period in amount and duration. In three cases pseudo-menstruation did not begin till the fifth or sixth dry, and in all three the last period had occurred about thirteen days before the operation. Thus pseudo-menstruation is a definite phenomenon, and no accidental haemorrhage from bruising of the endometrium, or of the blood vessels ligatured at the operation. Some stimulus sets it up, but what that stimulus may be Neu and Pychlau admit they cannot explain.

## THERAPEUTICS.

**304. Salvarsan.**

P. EHRLICH (*Wien. med. Woch.*, No. 1, 1911) contributes a note on salvarsan. As regards the toxicity he considers it, after an experience that extends to about 30,000 patients, to be of minimal toxicity provided that certain classes of cases are excluded. Thus in cases of disease of the heart and blood vessels, especially the combination of syphilitic aortitis and sclerosis of the coronary arteries with degeneration of the heart muscle, in cases of extensive diffuse affections of the central nervous system, especially advanced paralyses, and in severe cases of general disease, as, for instance, severe diabetes or nephritis, the salvarsan treatment is absolutely contra-indicated, and wherever the danger is obviously above normal, if salvarsan is to be used, the patient should be in an institution. With regard to the neurotoxic properties of salvarsan, Ehrlich is confirmed in his view that the preparation as such has no special affinity for the nervous system. Especially striking in this connexion is the fact that salvarsan has been used with excellent results in many forms of eye disease, in optic neuritis, specific retinitis, and gummatous iritis, and reports by some of the best known eye specialists have testified to its being given without injury in atrophic conditions. One case of amaurosis has been reported by Finger in which atrophy of the optic nerve began three months after an injection of salvarsan, but the patient had during the course of one year had 5 arsacetin cures and later 4 enesol cures, so that it is probable that a condition of over-sensitiveness to arsenic had been produced. Two cases of peroneus paralysis are regarded by Ehrlich, not as the result of any neurotoxic peculiarity of the drug, but as the result of traumatism, the fluid having come into direct contact with nerves. Certain symptoms, undoubtedly nervous in origin, have been described from the Prague clinic, such as retention of urine, absence or diminution of reflexes, and rectal tenesmus, but these may be accounted for by an oxidization of the dioxy-diamido-arseno benzol into p. oxymetamidophenylarseno oxide, which has been shown to be highly toxic, and the occurrence of such symptoms is to be avoided in future by the use of freshly-made solutions only, and by ascertaining that the ampoules provided have no leak, and that the powder looks normal. The functional disturbances in certain nerve regions, first observed in tabetic cases after injection, are considered by Alt to be analogous to Herxheim's reaction. Another set of nervous symptoms affecting the auditory, optic, and facial nerves are also seen, though with less frequency, after mercurial treatment, and are to be considered not as caused by the drug itself, but as of the nature of neuro-relapses due to the development of isolated areas of spirochaetes which have escaped destruction in the nerves; this form of relapse occurs almost exclusively in cases in the early secondary stage in which distribution of the spirochaetes is known to occur on a colossal scale, and it occurs also only when one single injection has been made usually of a medium dose of the emulsion of which the action is uncertain; the author looks upon such relapses as signs of inadequate treatment and would give a second or even a third injection. Ehrlich lays stress upon the irregular absorption of the emulsion administered subcutaneously; local symptoms are not unlikely to occur because of the difficulty of ensuring that the medium shall be aseptic; deposits remain for a long time, and if the injection is repeated a cumulative action may occur; moreover the deposit may become altered in the tissues and form highly poisonous substances. Some of these dangers can be diminished by making several small injections instead of one larger one, and applying massage at the sites of injection to help absorption, but it is still more effectual to use the intravenous method, in which the dose can be small if necessary and repeated with safety. Although sterilization has occurred after single injections, Ehrlich would not rely upon this, and recommends the repetition of the injection in order to prevent the occurrence of relapse. As yet it is too early to speak of absolute recovery except in those exceptional cases in which re-infection has occurred, but already two such cases have been recorded.

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**305. Serum Treatment of Urticaria.**

Linser (*Wien. med. Klin.*, No. 4, 1911) describes several cases of urticaria successfully treated by injections of normal serum. Some time ago Linser and Mayer treated a case of impetigo herpetiformis occurring in a pregnant woman at the Tubingen Frauenklinik by injections of serum from a normally pregnant woman and recovery followed in a short time. They then treated several cases of skin affections in pregnant women in the same way and obtained strikingly good results. One of these was a case of severe urticaria in which two intravenous injections of 20 c.cm. of serum brought about recovery in a very short time. The author then proceeded to give injections of normal serum in cases of urticaria not connected with pregnancy. Three cases are reported. The first was that of a man, 46 years of age, who had suffered from severe urticaria for three weeks, in spite of systematic treatment. The irritation disappeared a few hours after the injection of 30 c.cm. of serum from a healthy man, and by the end of the day the urticaria had disappeared and has not since returned. An equally good result was obtained in a case of chronic urticaria of three months' duration. In the third case urticaria was possibly the result of injections of tuberculin causing anaphylaxis, and disappeared a quarter of an hour after the injection of normal serum. Subcutaneous injections appeared to act as effectively, but not quite so rapidly as intravenous ones.

**306. Hygiene of the Mouth and Teeth.**

Bonnes (*Gaz. hebdomadaire des sciences médicales de Bordeaux*, September 18th, 1910) passes in review the various substances which are or may be used as dentifrices. Ordinary soap, even when neutral in reaction and of good quality, is not pleasant to the taste, and is apt to irritate the gums. A suitable tooth powder may, however, be made from cocoa butter soap, dried and pulverized. Glycerine serves to keep tooth paste from drying up, but glycerine of starch is liable to decomposition. After stating the objections to the employment of pumice stone, charcoal, tannin, quinine, precipitated chalk and bismuth, Bonnes recommends carbonate of magnesia, or, even more strongly, the silicate, talc, which may be reduced to an impalpable powder, the "soap powder" of glovers. For flavouring he advises vanilline or essence of roses, suggesting menthol in addition, on account of the feeling of freshness induced by it. Colouring, which he characterizes as absolutely useless, may be given by tincture of saffron, eosine, or carmine. Daily careful employment of such a dentifrice, with rinsing of the mouth after each meal, will keep the teeth and gums in a comfortable and healthy condition.

**307. Salvarsan in Leprosy.**

Gioseffi (*Gazz. degli Osped.*, January 29th, 1911) has tried "606" in a case of chronic leprosy, but the results were not satisfactory. The patient, aged 24, first noticed symptoms in 1901, and at the present time the disease is more or less generalized all over the body. The nasal secretion contained numerous Hausen's bacilli. No spirochaetes were found, and the Wassermann reaction was negative each time it was tried. Von Pirquet's cuti-reaction gave rise to small papules. A node removed from the left leg showed the typical histological appearances of leprosy. An injection (0.50 gram) of "606" was given in two different places, in the interscapular region. Considerable pain and restlessness followed, necessitating an injection of morphine. The pain lasted off and on for three days. No marked change in the blood followed, and daily examination of the nasal secretion did not show any diminution in the number of bacilli after the use of the "606." As far as could be shown no beneficial influence on the leprous nodules could be detected.

**308. Soy Bean as a Food in Diabetes.**

Friedenwald and Ruhräh (*Amer. Journ. Med. Sci.*, December, 1910) treated 8 cases of diabetes with soy bean, the patients being first placed upon an unlimited diet, then upon the usual diabetic diet, and, thirdly, upon the same diet plus the soy bean, which latter largely replaced the gluten of wheat bread, and in nearly every instance there was a marked diminution in the glycosuria. Soy beans contain practically no starch, and may be taken as a vegetable by soaking them for about sixteen hours until the skins can be removed, after which they are boiled in salt water or with bacon and seasoned with pepper, salt, and butter. When the bean is not available the gruel flour is even more serviceable, the percentage of protein in it being almost one-third greater than the percentage of protein in the whole bean, being due to the removal of the fibrous hulls which contain but little protein. Each ounce of soy gruel flour yields about 13 grams of protein and 120 calories, and it can be used as a gruel or in broths or in making biscuits. Directions are given for making gruels, broths, and muffins, and because of its palatability and the numerous ways in which it can be prepared it forms a valuable addition to a diabetic dietary, and causes a further reduction in the percentage and total quantity of sugar passed in diabetics on the usual dietary restrictions. The soy bean is an annual leguminous plant cultivated in China and Japan, and it forms the basis of the soy sauces used as condiments all over the world. In all the 8 cases under observation there was a marked diminution in the glycosuria when upon the ordinary diabetic diet, and a further marked diminution was noted when the soy bean was added to this dietary. In one case, however, the glycosuria entirely disappeared while the patient was upon the ordinary diabetic diet and before the addition of the soy bean thereto.

## PATHOLOGY.

**309. Demonstration of Tubercle Bacilli in Sputum.**

St. Pekanovitch (*Pest. med.-chir. Presse*, No. 45, 1910) describes a new method of demonstrating the presence of tubercle bacilli in sputum. The method is a modification devised by the author of the antiformin treatment of sputum recommended by Uhlenhut and Xylander in 1908. Shaking up sputum with antiformin renders sputum homogeneous, and provided that the contact is not too protracted the virulence and staining peculiarities of the bacilli are not affected. Uhlenhut recommended centrifugalization of the mixture to obtain the deposit, but this is not always convenient, because to be effective centrifugalization must be carried out at a rate of at least 4,000 revolutions per minute, and a hand centrifugalizer is therefore not available. The author has made considerable use of Bernhard's and Haserodt's modification of the antiformin method. In this the sputum, after being rendered homogeneous by preliminary treatment with four times its volume of 20 per cent. antiformin, is shaken up with ligroin, and the mixture allowed to stand for from half to one hour. The ligroin separates out from the sputum, and appears above it in two layers, the upper one clear, the lower greyish and turbid. The bacilli are found in the lower layer, and the author employs a very fine pipette for removing the material on to cover-glasses for examination. The results obtained compare very favourably with those of the usual method of examination of loopfuls of sputum. Thus in a series of 100 cases, positive results were obtained in 8 cases which had given negative ones by the other method. The bacilli appear to be present in greatest numbers in the layer just above the antiformin. Careful fixing is necessary, and the author carries out Lagrèze's recommendation of treating the preparation for one to one and a half minutes with 3 per 1,000 sublimate solution, and decolorizing with 3 per cent. hydrochloric acid alcohol. The disadvantages of the antiformin and ligroin method are that it is tedious and needs care and expertness in carrying out, and that both antiformin and ligroin have an effect upon the staining capacity of the bacilli. The author has devised a further modification of the method, based upon the fact that antiformin oxidizes organic matter by virtue of the sodium hypochloride which it contains, and that the process of oxidization, if carried too far, injures the vitality and staining capacity of the bacilli. To check oxidization, as soon as solution of the sputum has been obtained lead acetate is added, and forms a precipitate of lead sesquioxide if an excess of sodium hypochloride is present, and otherwise leads to the formation of sodium acetate, which acts as an indifferent body, and does not aid oxidization. The method is as follows: 20 per cent. antiformin is added as before, and the mixture shaken up with sputum until solution occurs, the process being hastened, if necessary, by slightly heating the flask over a flame. After cooling, 30 per cent. lead acetate is added until the characteristic white flocculent precipitate is brought down. An excess of lead acetate is desirable. Centrifugalization is the readiest method of obtaining the deposit, which is transferred to coverslips, stained, and examined. The results obtained by this method were always positive, except in one instance in which a suspicion only of tuberculosis existed, and in which repeated examinations by ordinary methods gave negative results. The whole examination on these lines can be carried out easily and rapidly, and the fixing of the specimen presents no difficulty.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 310. The Acidosis Index.

HART (*Arch. Intern. Med.*, March 15th, 1911), from observations upon forty-one cases of acidosis, varying in intensity from the mildest to those of extreme acid intoxication, suggests an "acidosis index" as a simple clinical method for estimating the degree of acidosis and the daily fluctuations of the organic acid output. The method is based upon the intensity of the colour obtained with the ferric chloride reaction. While it cannot claim to be an accurate quantitative estimation of the excretion of the acetone bodies, it does give real information as to the fluctuation of the total acidosis from day to day, and is a simpler, and probably a more accurate, means than others in general use. Two test tubes of equal calibre and two solutions are needed: (1) A "standard solution" containing ethyl acetate, 1 c.cm.; alcohol, 26 c.cm.; and distilled water to 1,000 c.cm.; and (2) a ferric chloride solution containing 100 grams of ferric chloride dissolved in 100 c.cm. of distilled water. Ten c.cm. of the "standard solution" are put into one of the test tubes, and into the other 10 c.cm. of the urine to be tested, and to each of these 1 c.cm. of the ferric chloride solution is added. After standing for a couple of minutes the colour of the two test tubes is compared when they are held between the eye and the sky. If the tube containing the "standard solution" is lighter in shade than the one containing the urine mixture the latter should be diluted with distilled water until the colours match, noting the volume required for dilution. This gives the acidosis index per litre (1 for every 10 c.cm.) as follows:

| Volume of Urine Solution. | | Acidosis Index per Litre. |
|---|---|---|
| 10 c.cm. | = | 1 |
| 15 c.cm. | = | 1.5 |
| 20 c.cm. | = | 2 |
| 25 c.cm. | = | 2.5 |
| 40 c.cm. | = | 4 |
| 100 c.cm. | = | 10 |

intermediate volumes having a proportional index. By multiplying the value of the "acidosis index per litre" by the quantity of urine in litres passed in twenty-four hours the "acidosis index" proper is obtained—for example, 3,200 c.cm. urine was passed in twenty-four hours, and the 10 c.cm. treated as above required dilution to 75 c.cm. in order to match the standard. The "acidosis index per litre" was therefore 7.5, and the acidosis index proper 24 (7.5 × 3.2). The values thus obtained run parallel with the degree of acidosis estimated by (*a*) the polariscopic method, (*b*) the ammonia output, and (*c*) the chemical determination of the acetone bodies.

### 311. The X Rays in the Diagnosis of Pulmonary Tuberculosis.

MINOR (*Bulletin Johns Hopkins Hosp.*, September, 1910), from ten years' experience of the use of the fluoroscope in the diagnosis of pulmonary tuberculosis, considers it a valuable addition to other means of examination, both from the corroboration which it gives to existing standard physical diagnostic methods and from the information it affords of the topography of the disease. Except in the case of bronchial gland shadows, its value for early diagnosis in incipient cases is not equal to that of the usual examination of physical signs, for it cannot antedate rough inspiration and feeble or slight vesiculo-bronchial breathing. A long apprenticeship in experience and thorough mastering of detail is needed in order to render the readings of the fluoroscope of value, and the following points are important: The tube must have a good sharp focus with means for instantaneously raising and lowering its penetration without taking the eye from the screen, as well as having a diaphragm by which the illuminated area can be lessened or enlarged. The screen should be 16 by 24 in., framed in wood, with a handle in the middle of its long side. For the operator's safety and for darkness, the tube must be in a lead-lined box with an opening, which can be diaphragmed down on one side opposite the anode, and capable of being easily raised and lowered. The patient should be at least 2 ft. from the anode, and the operator should spend five minutes in the dark before starting the machine, so as to render his eye sensitive, which will not be the case immediately after coming out of the light. In incipient cases no change is visible except Williams's sign, a limitation of motion of the base of the diseased lung as compared with the good side, which, though suspicious, does not, however, justify a diagnosis. The most valuable early sign from a corroborative point of view is an apical shadow, but this, if unaccompanied by auscultatory changes, is not diagnostic, though very suspicious, and necessitates careful watching of the case. The shadows of enlarged bronchial glands are extremely valuable, as they often precede by some time the appearance of physical signs. The most common are those along the main bronchi and their prolongations downwards, and are seen as irregular patchy shadows radiating downwards and outwards from the third rib. In moderately advanced cases the usual finding is a shadow densely clouding the apex, with its lower border in an oblique line from the outer portion of the clavicle downwards and inwards to the sternum at the second or third or, even rarely, the fourth rib, a similar obliquity being equally visible behind. Since only definite condensation of tissue can be recognized by means of the *x* ray, it is readily understood why it is of so little value in the earliest stages, when no appreciable condensation has taken place. The fluoroscope is preferable to the radiograph in such work on account of its greater ease of manipulation, requiring as it does less complex and expensive technique and affording immediate information with greater simplicity in interpreting the findings.

### 312. Gastric Biloculation without Organic Lesion.

BARRET AND LEVEN have brought before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 22, 1911) a case of gastric biloculation caused by gaseous distension of the stomach and of the colon, in which considerable deformation was produced without any organic lesion. The patient in question suffered very slightly from the stomach, complaining chiefly of oesophageal crises which appeared capriciously. Suddenly, in the middle of a meal, swallowing would become painful, then impossible, and the aliments already taken would be rejected. These crises were followed by long periods of reprieve. Radioscopic examination of the stomach revealed a spasm of the cardiac orifice, which was even more pronounced for liquids than for solids. The bismuth milk was accumulated in the lower part of the oesophageal tract and descended slowly to traverse the cardiac coarctation. The mediastinum was free, and the cardio-aortic image was normal. Well-developed gaseous zones were visible in the abdominal region, and particularly in the left hypochondrium under the diaphragm. The stomach presented a complete biloculation. Its cavity was divided into two compartments, the upper and larger portion being greatly distended and occupying the width of the left hypochondrium. In general appearance the gastric image resembled a chemical retort, the flask corresponding to the upper compartment; and the neck, bent and directed vertically downwards, corresponding to the lower portion of the stomach. Between the flask and the neck was a small opening which the stomach contents had to leap in order to pass into the lower cavity. Pyloric evacuation was normal. Radioscopy in the lateral position proved that the upper compartment of the stomach was not in contact with the abdominal wall, but was separated therefrom by a large gaseous zone, corresponding to the splenic angle of the colon. The colon, filled with gas at this angle, had undergone a true ectopia and had become insinuated in front of the stomach. The upper part of the stomach had thus been forced to the costal edge and the lower portion had been driven back by the transverse colon on the other side of the middle line in the right hypochondrium. Hence the middle portion of the gastric cavity was crushed by the distended colon against the vertebral projection, and biloculation was created. The patient, unfortunately, was only examined once, but it was beyond reasonable doubt that the gastric biloculation was temporary, and that, being associated with the gaseous distension, it disappeared with it. Although in this case the biloculation may be explained independently of all organic lesion, the authors add that a neoplastic stenosis of the cardia might, from the point of view of gaseous distension and consecutive deformation, play the same rôle as the functional spasm.

**313. Constipation in Young Children.**

Cross (*Pediatrics*, November, 1910) considers that in dealing with constipation in babies it is wise to remember the possible existence of anatomical abnormalities, or of such structural defects as atresia or imperforate anus. It may also be due to anal fissure or excoriations, haemorrhoids, or prolapse. The constipation accompanying paresis of the bowel may be secondary to some acute febrile disease. In breast-fed infants, often the mother is constipated or her milk is deficient in fat or in sugar, or the quantity is too small, or the child is unable to digest breast milk. Costiveness on the part of the mother must be corrected, and the quality of her milk improved. For this purpose malt preparations such as stout and porter may be given, and meat and eggs can be taken in increased quantities. The best laxatives for mothers are cascara sagrada or phenolphthalein. The baby should have water between the feeds, and oatmeal water or orange juice are advised. When the fat content is low, a piece of butter can be given daily, or half a drachm of cream before nursing, twice or thrice daily. Well-diluted milk of magnesia is a suitable laxative. In bottle-fed children the composition of the milk may be at fault, and it may be necessary to alter the fat percentage of the food, or to add lactose or Mellin's food, or in some cases to reduce the casein present by dilution. As casein is rendered less digestible by heating in pasteurization and sterilization, the use of unboiled milk often corrects constipation. Water should be given regularly between the feeds, and two teaspoonfuls of orange juice or prune juice between the feeds is a valuable remedy. For small infants, milk of magnesia added to the evening bottle is a good laxative; as they grow older, half to two drachms of olive oil in the morning is more suitable. In chronic constipation castor oil has no field of usefulness at all. After the age of 1 year, calomel, mercury, and chalk or phenolphthalein can be used occasionally. Abdominal massage is of use when the musculature is poor. In some cases a soap suppository or a soap and water enema is required. The addition to the latter of glycerine and magnesium sulphate increases the efficiency when much intestinal flatulence is present. Olive oil injected per rectum softens faecal masses and acts as a lubricant. It may be introduced in a small quantity at night to be retained. With older children diet is an important point, and regular habits require to be cultivated. The efficacy of general tonic treatment, outdoor life, and exercise is not to be overlooked or underestimated.

## SURGERY.

**314. Burns produced by Industrial Electricity.**

Besson (*Archives gén. de chir.*, No. 3, 1911) states that among the numerous and varied forms of injury caused by industrial electricity, burns presenting clearly defined clinical characters constitute a distinct chapter. These lesions, which are discussed in the author's paper, play, it is believed, an important part in the prophylaxis of fatal accidents due to currents of high tension. By the definition "electric burn" the author means any lesion of the skin and subjacent tissues produced by the direct contact of a metallic electric conductor with the human body. This definition would therefore eliminate any lesion due to radiation or to any indirect thermic action. The degree and superficial extent of an electric burn are influenced by several conditions of the accident, and particularly by the conductivity of the skin and the duration of contact. If the skin be moist the current passes under the most favourable conditions for diffusibility; but if the local and superficial lesions are slight, the lesions of internal organs may then attain their maximum. On the other hand, if the skin be dry there is considerable resistance to the current acting at the point of contact, and a localized injury is produced which is more or less severe according to the extent of the contact and the strength of the current. The lesions described by the author, which, he states, present interesting and absolutely special clinical features, are divided into two groups—one of superficial, the other of deep burns, the former corresponding to the first and second, and the latter to the third of Dupuytren's degrees. A special characteristic of burns of the second group is an elongated and, as it were, excavated cavity destroying integument and muscle, and sometimes reaching to bare and carbonized bone. The superficial margin of this wound is sharply cut and is never surrounded by an inflammatory zone. The destruction of tissue caused by the injury is confined to the surface of the penetrating wound, and does not involve or spread to the surrounding parts. In other instances the injury produced a hard and dry eschar with well-defined margin. A constant clinical feature distinguishing electric from ordinary burns is a total absence of pain during the whole course of the case, from the moment of the accident to the completion of cicatrization. Another remarkable result of these special forms of burn is the absence of general reaction, and of suppuration. There is, it is stated, no tendency either to fever or to visceral congestion. The wound during its evolution remains aseptic. It closes rapidly and regularly, and, except in cases in which much muscular tissue has been destroyed, the results of cicatrization are almost perfect, the exposed raw surface being covered by a smooth, non-contractile, and scarcely perceptible scar. In cases in which the functional capacity of the injured limb is not seriously impaired by destruction of muscle, tendons, and nerves the prognosis is very favourable, the patient rapidly recovering without general or local complications, and the limb after convalescence being useful and free from deformity. Occasionally, however, reasonable claims for compensation may be raised on account of muscular atrophy developed after a long interval from the date of injury, and also of traumatic neurosis due not to the burn itself, but to primary shock of the nervous system. In a section on the prophylactic influence of burns against fatal results from electric currents of high voltage, the author states that death is more frequently caused by currents of moderate than of high intensity. A current of 500 or 600 volts will very often cause instantaneous death, whilst one of 3,000 or even 4,500 volts may fail to produce any grave general disturbance. In explaining what seems to be a paradoxical statement, the author points out that electric currents of high voltage inhibit at first the respiratory centre; and, secondarily, the heart. A certain duration of the full action of the current is necessary to cause death. The very great resistance almost constantly opposed to the current by the surface of the skin brings about at the point of contact localization of the high tension under extreme density, with consequent production of a temperature capable of carbonizing the tissues and forming volatile products. The lesions thus caused and the gaseous atmosphere almost immediately oppose to the current an impassable barrier, so that the organism, if submitted to the full shock of the current for too short a time for a fatal result, and subjected only to a very temporary inhibition of the respiratory centre, at once finds itself, as it were, "isolated," and placed under favourable conditions for the results of artificial respiration and other therapeutical methods.

**315. Syphilitic Affections of the Eye.**

Poulard (*Journ. de méd.*, March, 1911) states that syphilis can affect all parts of the eye. The conjunctiva is rarely affected, but chancre is the most frequent lesion. The sclerotic is also rarely attacked. Scleritis shows itself by a diffuse redness, which appears as a subconjunctival prominence. The cornea is frequently attacked, interstitial keratitis is common, the corneal surface is intact, but in the depth of the transparent membrane an opacity absolutely characteristic of syphilis is visible. Iritis is frequent; the iris changes colour, the pupil contracts and becomes irregular. In choroido-retinitis the ophthalmoscope reveals opacities and streaks, and there is also a diminution in visual acuity. The optic nerve may become atrophied, or there exists an optic neuritis. The oculo-motor system is often affected, and this shows itself by ptosis, strabismus, diplopia, mydriasis and immobility of the pupil, sudden presbyopia, unequal pupils, and Argyll Robertson phenomenon. Poulard considers that perhaps three-quarters of the affections of the eye seen in hospital are due to syphilis. The crystalline lens nearly always escapes. Hereditary syphilis may give rise to congenital cataract. Iritis is nearly always syphilitic. Inequality of the pupil is nearly always due to syphilis; it may, however, be congenital.

**316. Sand Baths in the Treatment of Infected Wounds.**

Thies (*Zentralb. für Chir.*, No. 13, 1911) reports that good results have been obtained in the surgical clinic at Giessen from the so-called suction treatment of infected and suppurating wounds by sterilized sand baths. This method is based on the capacity of finely grained substances of taking up fluids by capillary attraction. Fine sand when applied in a thick layer over a wound, or ulcer, or a fistula, speedily absorbs the serous or purulent secretion, and thus removes both infected products and the sources of renewed infection. The sand used for this purpose is sterilized by prolonged boiling in a 10 per cent. soda solu-

tion. In ordinary cases the sand should be renewed every second or third day, but when soon rendered foul, or when used for wounds infected by the *Bacillus pyocyaneus*, should be changed more frequently. This suction treatment by baths of sterilized sand is, the author has found, indicated in cases of extensive wounds swollen by inflammatory exudation, of wounds covered by unhealthy or hypertrophied granulations, and showing no tendency to sound cicatrization, and of oedematous wounds secreting a putrid discharge. Under the influence of this treatment the oedema and inflammation rapidly yield, the wound secretion is diminished, and the granulations put on a healthy appearance and are covered by epithelium. At the same time the seat of the wound is freed from pain, and the movement of the adjacent joint is no longer impeded. It is likely to be found very useful in cases of much contused and sloughing wounds. It has also proved of service in cases in which transplantation of skin has been practised, as the sand, by absorbing effused blood and abundant wound secretion, prevents displacement and probable necrosis of the epithelial grafts.

## OBSTETRICS.

**317. The Radical Treatment of Abortion.**

KOSMAK (*Bull. Lying-in Hospital*, City of New York, June, 1910) writes that abortion occurs in 1 out of every 5 cases of pregnancy, the stage and variety of the abortion must be recognized before proper means of treatment can be employed, and the after-care of these patients is extremely important. Predisposition is due to increased sensitiveness to nerve stimulation, to previous abortions, to the menstrual period, to endometritis, congestion of the uterus, lacerations of the cervix or amputation of the cervix. The exciting cause may be mechanical, thermic, toxic or nerve irritation, or the death of the fetus. The term "abortion" should include all cases in which the product of conception is expelled from the uterus before viability. Pain and haemorrhage are always present. The early signs are a feeling of abdominal distress and uneasiness, becoming colicky pain and a discharge of mucus in blood. If the exciting cause can be eliminated quickly, the process may go no further, otherwise the pains increase and the discharge of blood from the uterus becomes more marked, and is often in the form of clots. When the fetus is expelled the pain ceases, but the secundines may still be retained. A careful examination of the discharges and of the cervix and uterine cavity is essential. Ectopic pregnancy and pyosalpinx are liable to be confounded with abortion. In ectopic gestation the uterus is found enlarged and the cervix soft, but the haemorrhage is in the form of a slight steady trickling with no clots. The pain is localized in one or other of the iliac fossae, and where rupture of the tube has occurred signs of prostration and collapse are present. Pyosalpinx, in addition to simulating ectopic pregnancy, may be productive of uterine symptoms which closely resemble abortion. The treatment should be directed to preventing abortion if possible. If the patient is not bleeding very much, and if examination shows that the cervix is tightly closed, she should be kept in bed and given an injection of 10 to 15 drops of Majendie's solution. Morphine is the best sedative, and no attempt should be made to move the bowels; the diet should consist of fluids, and she should remain recumbent for several days after all symptoms have subsided. If, however, it is evident from the amount of bleeding that abortion is inevitable or complete, the uterus should be cleared of any clots or material which may be in the cervix and ready to be expelled, and then packed as tightly as possible, though without the expenditure of force, with iodoform gauze. The vagina is likewise packed and the patient kept in bed till the next day, when she is carefully prepared for curettage. Even when the entire product of conception has apparently been passed this course should be pursued, for the curette will bring down considerable masses of tissue which would only separate off from the uterine wall after a lapse of time. After abortion a woman is just as liable to become septic, perhaps even more so than after ordinary labour. The operator uses first a large blunt curette and then a sharp one, very lightly and carefully applied; instead of douching the uterine cavity it is wiped or scrubbed out with a wad of gauze held in a forceps. The cavity is then packed with a continuous strip of plain or iodoform gauze about 2 inches wide. The first portion of the gauze should be carried well up into the cavity, so that blood may not accumulate above the packing. The cervix and vagina are likewise packed, this helping to push the uterus upwards into its normal position and permitting the suspensory ligaments to resume their normal tone. Erosion of the cervix should be treated with the sharp curette before packing, and where the abortion has occurred some days before and the discharge is foul the cavity may be swabbed out with tincture of iodine before the gauze is introduced. Fluid diet and rest in bed with care are required. About the second day it is advisable to give a mixture containing ½ oz. each of glycerine and castor oil. Douches are generally unnecessary. Where the abortion is due to constitutional errors they should be remedied by appropriate measures; where it is due to local causes, such as uterine malpositions, lacerations, or endometritis, curative methods should be adopted. The author emphasizes his opinion that every case of abortion before the fifth month should be submitted to thorough curettage.

## GYNAECOLOGY.

**318. Frequency of Chorion-epithelioma.**

CATURANI (*Amer. Journ. Obstet.*, April, 1911), as gynaecologist to the Italian Hospital, New York, dwells on the fact that three characteristic cases of this new, that is newly recognized, disease have been under his observation between 1905 and 1908, and all the patients were poor Italian women. The first was 51 years old. She had, when about 46 years of age, passed a hydatidiform mole at the third month. Chorion-epithelioma developed at the menopause; there was haemoptysis due to metastases in the right lung, and death three months later. The second patient was 26. The disease developed within a few weeks after her fourth confinement; hitherto all had gone well, and she had never miscarried. Hysterectomy was undertaken hardly more than a month after delivery; within three months symptoms of malignant disease of the kidney developed and the patient died seven months after the operation. As in the first case, the third patient passed a hydatidiform mole. She was 30 years old and had borne two children. The mole was expelled six months after the birth of the second child. Then profuse irregular haemorrhages occurred, they subsided, two regular periods were seen, the period was suppressed for two months, and, lastly, an attack of profuse haemorrhage came on. The patient was curetted for abortion. In the course of three months the curette was applied three times. At the end of that space of time, as the last scrapings, unlike those previously removed, showed the characteristic signs of deciduoma, Caturani removed the uterus and appendages. The patient was free from any sign of recurrence three years after the operation. The author notes that there is everywhere a relative frequency of chorion-epithelioma amongst the poorer classes, who are less apt to regard seriously the predisposing causes. Of such causes, incomplete abortions and passing of moles are the most conspicuous. The obstetrician should curette all cases where moles have been passed. In the first case the cells embedded in the tissues were the germs of malignant disease, which developed five years later; and in the last Caturani is of opinion that, since the malignant disease was of such slow development, a thorough early application of the curette might have saved the patient. Chorion-epithelioma must, he feels sure, be more common even than is now generally believed.

## THERAPEUTICS.

**319. Tuberculin Treatment for Children.**

TH. ESCHERICH (*Wien. med. Woch.*, No. 2, 1911) discusses the value of tuberculin in the treatment of tuberculous disease in children. He himself has not obtained very satisfactory results from tuberculin administered by the ordinary immunizing method—that is, given in gradually increasing doses until the limit of tolerance is reached, any severe reaction being avoided. Even in the case of older children suffering from apical tuberculosis, he did not find that prolonged immunization treatment protected against relapse if any intercurrent disease—as, for instance, mild influenza—set in. The extreme frequency of tuberculosis in childhood has only been recognized since von Pirquet's method of diagnosis became available. Hamburger and Monti, examining children in Vienna who were not obviously tuberculous, found that in 95 per cent. of them von Pirquet's reaction was positive. Yet the number of deaths is almost a minimum between the fifth and

fourteenth years of life, and the treatment required is therefore one which will strengthen the power of resistance to tuberculosis, which must be normally present. In cases of manifest tuberculosis in early life the tendency to generalization is such that large doses of tuberculin are contraindicated, except in special cases or during the later years of childhood. On the other hand, many mild cases without symptoms recover without treatment. Two groups of cases are, in the author's opinion, specially suited for treatment with tuberculin. The first group consists of children usually in the middle period of childhood, who may have been infected for a long time without symptoms, but who for some unknown cause, or often after some intermittent illness—as, for example, measles, influenza, or whooping-cough, or as a result of overwork or bad hygienic conditions—get into an unsatisfactory general condition, are pale, suffer from loss of weight and appetite, cough, night sweats, and some fever, and in whom von Pirquet's reaction is positive. In such children the protective powers of the organism are failing, and treatment is required which shall give rise to the formation of antibodies, and help the natural healing processes. Another group is of children in a family of which one member has sickened of manifest tuberculosis, who are pale, easily tired, and do not put on weight, and in whom von Pirquet's test is positive. Such children might be treated by change to the south and improved hygienic conditions, but such treatment, if carried out, is frequently unsuccessful, and is in most cases impossible. To cases belonging to either of these groups the author gives injections of tuberculin according to what he describes as the anaphylactic method. The tuberculin given is, as a rule, the bacillary emulsion, and a dose of 0.001 to 0.002 mg. is administered once or twice a week. As a rule, no local or general symptoms result, and the treatment can therefore be an ambulant one. The effect is usually first noticed by the mother in an improvement in general condition and appetite, and as a rule the child begins to put on weight. The treatment is continued for from two to three months, and then, if possible, the child may be sent to the country. The improvement in the patient on his return is striking, and in a few cases von Pirquet's reaction has become negative. The injection cure is to be repeated if recovery is not complete. The author has employed this method for about two years, and has obtained results which have been satisfactory in all cases, and surprisingly good in others; these results can obviously not be tabulated in statistical form, and in any case years must elapse before the value of the treatment can be finally decided by observation of the later history of the patients. The article concludes with a statement that if tuberculin is to obtain a permanent place in the treatment of tuberculosis in childhood, it must be used not as a last resource in advanced cases, but in latent or early cases with some power of resistance, and it must be given in small doses.

### 320. X Rays in the Treatment of Syringomyelia.

A COMPREHENSIVE report upon the radio-therapeutic treatment of affections of the spinal cord was presented to the April, 1911, Physio-Therapeutic Congress in Paris (*Arch. d'électr. méd.*, April 10th, 1911). Duhain, its author, who bases his conclusions upon forty observations by twelve or fifteen French workers, states that, although radio-therapy has been absolutely without effect upon certain patients, it has resulted in a definite amelioration of five-sixths of the cases observed. There are considerable differences in the technique which is followed by the various radio-therapeutists, but the greater number have proceeded by means of fractionized doses, repeating the sittings every two or three days. Others have given massive doses with intervals of eight or ten days. All are in accord as to the usefulness of the hard rays (7 to 9 Benoist). Some of them practise the irradiation of the spine, not vertically, but obliquely, first on the one side and then on the other, so that the skin only receives half the total dose absorbed by the cord. The first result is generally an amelioration of the motor symptoms, the patients becoming more capable of delicate and dextrous movements. When the rays appear to be losing their effect they may be associated with massage, electrization, and gymnastics, which, hitherto useless, have at this stage a certain value. The modification of the sensitive disturbances is less complete. If the tactile anaesthesia disappears rapidly, the thermo-analgesia is slower to yield to treatment, while the troubles of the deeper sensibilities and of the stereognostic sense are not influenced until much later. Spontaneous pain is thought by some observers to be an element most rebellious to treatment, but in this respect it is extremely difficult to eliminate the effect of suggestion. It has been stated that the return to the normal is effected in the inverse order of the appearance of the various anaesthesias, and the author thinks that in some cases this may be said, not only of the sensitive troubles, but of the treatment in general. Unfortunately, the rays fail in the case of muscular atrophy, except where the muscles have been lightly attacked and react to a certain extent to the faradic current. The increase of muscular force, however, the return of tactile sensibility, the disappearance of the trophic troubles and the oedema, and the new occupations which open out to the patient, suffice to raise the general condition. Evidently in a number of cases it cannot be a question of absolute cure. The rays have no power to fill the void and create a new portion of marrow to replace that which has been destroyed. But for lesions still in evolution the result is as perfect as one can wish. As to the biological action exercised by the *x* rays on syringomyelic marrow, the author institutes an analogy between the glioma of syringomyelia and certain sarcomatous tumours upon which the radiations have an undoubted action. The rays act by destroying the hyperplastic elements which compress and destroy little by little the nerve elements. In addition to this, however, he thinks that the rays have a vivifying, reconstitutive action on the nerve cells which are in course of degeneration. The action of *x* rays on the evolution of syringomyelia is equalled by the action of radium, and what has been said of the one applies fairly well to the other.

### 321. Thorium Paste in Epithelioma and Lupus.

L. DUNCAN BULKLEY (*Med. Record*, April 22nd, 1911) gives his results at the Skin and Cancer Hospital and in private practice in the treatment of lupus and epithelioma with thorium paste. The results have been very gratifying. The paste is made from thorium protoxide, sulphate of lead, sulphuric acid, and a small amount of hydrochloric acid. It is semi-liquid, and forms a thin white pellicle, which remain adherent for ten days. The action is moderately destructive to diseased tissue, but the destruction can be regulated at will. It modifies cell growth, and accelerates the growth of healthy cells. In epithelioma repeated applications are required to cause healthy tissue to appear, induration is removed, and the surface becomes normal with little scar. In lupus vulgaris a supple cicatrix results. The close application of the slightly radioactive thorium modifies the action of cell life. This is an addition to the means at one's service for combating some of the most rebellious forms of skin lesions. Histories of illustrative cases are given.

## PATHOLOGY.

### 322. Tuberculous Immunization.

BEZANÇON AND DE SERBONNES (*Gaz. hebd. des sciences médicales de Bordeaux*, September 18th, 1910), at the French Congress for the Advancement of Science, summed up a discussion on the question as to whether the curing of a first attack of tuberculosis conferred subsequent immunity. Put forward by Marfan in 1886, and at first eagerly discussed, the idea did not afterwards receive the attention it deserved from the medical profession. The two doctors here mentioned concluded that clinical observations were not sufficient to test the truth of Marfan's views, and that they could be accepted only if experimentation should confirm our conception of immunity in chronic cases. Their conclusion was that immunity is conferred only on the particular tissue directly invaded by the bacillus, but that general immunity cannot be attained so long as new territories of the body remain unaffected.

### 323. Spontaneous Disappearance of Malignant Growths.

J. W. GLEITSMANN (*Med. Record*, April 22nd, 1911) gives various authoritative statements of different observers to the effect that malignant growths sometimes undergo retrograde metamorphosis and disappear spontaneously. Koschier states that the growth of malignant neoplasms depends on the resistance of the tissues, the locality and functions of the organ attacked, the quantity of fibrous tissue, and the scarcity of lymphatic vessels present. Immunity against cancer is based upon the power of the living cell to conform to the law of normal development, and to avoid increased multiplication, upon the opposition to the intrusion of cancer cells and the inhibition of the growth of cancer.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

**824. Diphtheria Bacillus Carriers.**

PAGE (*Archives of Internal Medicine*, January 15th, 1911) urges the importance of eliminating diphtheria bacillus carriers by a careful sanitary survey after every diphtheria outbreak, and a case is reported which was successfully treated by overriding the infected area in the throat with a pure culture of *Staphylococcus pyogenes aureus*. The persistence of virulent bacilli in clinical cases averages 31.6 days, but cases have been reported lasting over 100 days. Where isolation was imperfect, virulent bacteria were harboured in 50 per cent. of contacts, but in families where isolation was good 10 per cent. of those living in the same house became infected. Of persons not known to have been exposed to infection 3 per cent. were found to harbour bacilli, but they were present in only a very few healthy throats, so that in localities where throats are prevalent great care should be exercised to detect carriers, and every case of tonsillitis should be regarded as diphtheria until the contrary is proved. While animals may be sources of infection, the human carrier is the most dangerous, and in addition to the convalescent carriers and others in ill-health with diphtheritic lesions, perfectly healthy persons carrying bacilli, which animal inoculation prove to be virulent, may give rise to epidemics, even though they themselves are quite well and never develop any local symptoms. Antiseptics locally fail to affect the presence of the bacilli in carriers, but 7 cases have been treated successfully by overriding the infected area with *Staphylococcus pyogenes aureus*, a method which by its safety, ease, and success would appear to solve the problem of the treatment of carriers. Pure cultures sprayed in the throat destroyed the Klebs-Loeffler bacilli in these carriers in from two to three days. In the case reported tests of the patient's serum showed that there was almost complete absence of any protection, and had not the bacilli been rapidly eliminated by the staphylococcus, weekly protective doses of antitoxin would have been advisable. These tests proved that a carrier may have practically no protection in his serum against the toxin which is being constantly elaborated in his throat, and since this toxin is a nerve poisoner it is imperative to adopt treatment to prevent serious nerve lesions. This method by spraying and swabbing with *Staphylococcus pyogenes aureus* is harmless, and should be adopted for all carriers, and immediately after convalescence from an acute attack, and while it probably would be successful during an acute attack, at present it is inadvisable to adopt it except in mild acute cases.

**825. Actinomycosis of Hepatic Flexure of Colon.**

G. FERRARINI (*La Clin. Chir.*, Milan, 1910) relates the case of a commercial traveller of 44, with nothing noteworthy in his previous or family history, who had been ill for eleven months with debility, loss of weight, pain in the right hypochondriac region, frequent attacks of diarrhoea, slight fever. Then he was observed to have a tumour the size of an orange in the upper right segment of the abdomen. It was hard, rather fixed, tender, and appeared to the medical man to be connected with the liver. A month later it had increased in size, but then grew smaller, and in two weeks ceased to be palpable, the patient having intense diarrhoea during this period, but feeling better. The abdominal pains lessened and he returned to his work; but in two weeks the pain, tumour, and fever returned. When Ferrarini saw him he had been ill fourteen months; he was much emaciated, and had a tense, elastic, rounded tumour on the right side of the abdomen, which measured 42 in. round at the umbilicus (right side 24, left 18 in.). The tumour was tender, and moved on respiration; it was thought to be a sarcoma. Laparotomy was performed. The tumour was found to be as large as a child's head, involving the colon, adherent posteriorly, and also to several coils of small intestine. Nothing could be done. The wound healed well; the patient died comatose a month later. At the *post-mortem* examination the liver and other viscera were normal, but the hepatic fleure of the colon took the form of a swollen mass adhering to the duodenum, pancreas, and small intestine, but not to the anterior abdominal wall. Its lumen was dilated here; no stenosis was found anywhere in the large intestine, and the colonic mucosa was not ulcerated. The thickened wall of the colon measured up to 7 cm. in section, and was hard, woody, sclerotic, almost cartilaginous in places. The adherent walls of the duodenum and small intestine were similarly, but less, thickened. Microscopically, the changes seen were those of chronic inflammation and fibrosis, and typical growths of actinomycosis were found in specially stained sections, but no cultures were made. There was little formation of elastic tissue. Moderate enlargement of the mesenteric lymph glands was observed. These showed chronic fibrotic changes but no giant cells were found. There was nothing to show how the infection of the colonic wall occurred.

**826. Pleuritic Effusions in Infancy.**

MILLER (*Arch. of Ped.*, January, 1911) discusses the need of an early diagnosis of pleuritic effusions, since in children such effusions rapidly become purulent. With an effusion, large or small, children usually show signs of illness and constitutional disturbance, but the physical signs differ materially from those met with in adults. Diminution of movement and enlargement of the side are frequently absent, but the chest is often flattened laterally, bulging of the interspaces is rare, while in very young infants depression and inspiratory recession has been observed, even with very large effusions. Vocal vibrations and fremitus are not much guide, and in young infants localized tenderness cannot easily be estimated, although in older children such tenderness, especially over the site of the lobar divisions, should, with other signs, suggest a collection of pus. With the flatness or dullness of infants there is an increased sense of resistance to the percussing finger, which is highly characteristic. The upper line of dullness is more horizontal than in adults, and impaired resonance may be noted both in front and behind. The respiratory sounds are almost always bronchial in character, and often as intense as the sniffling tubular breathing of pneumonia. This is heard, not only over the root of the lung, but everywhere over the effused fluid. Râles, both friction and bronchial, may be heard over very large effusions, not only above, but also below the level of the fluid. Hence their presence does not exclude an effusion. Friction râles are rarely heard in infants. Localized and sacculated empyemas are often only diagnosed by means of an exploratory puncture or operation. Such collections occur generally at the base in the interlobar divisions, or upon the diaphragm. Repeated examinations are necessary, localized tenderness over the interlobar septa being a valuable sign if it is present. Diaphragmatic collections of pus are still less distinctive, dullness from below upwards is suggestive, or a difference between the diaphragmatic movements on the two sides. Exploratory puncture is the sure and decisive means of diagnosing a pleural effusion. The needle should be short, stout, and of large calibre. A source of confusion and delay is the variability of the physical signs in infants. It should be remembered that such variability is never found in pneumonia. The most reliable signs of effusions are exploratory puncture, dullness with a sense of resistance, and displacement of the apex. The other signs, so valuable in differentiating effusions in the adult, are variable and uncertain and cannot be relied upon in infants.

**827. Metabolic Changes in Haematoporphyrinuria.**

DANA (*Amer. Journ. of Med. Sci.*, February, 1911) records a case of haematoporphyrinuria which afforded exceptional opportunities for making blood and metabolism studies, the condition being an evidence of a metabolism disorder, and not due to any drug poisoning, toxaemia, or internal haemorrhage. The patient, a male, aged 67, had an apoplectic seizure, with temporary right hemiplegia and aphasia, followed by a short excited and a long confusional mental state lasting about three months, with eventually complete recovery. Haematoporphyrinuria was first noticed five weeks after the commencement of the illness, and persisted for two months. Seven nitrogen examinations were made, showing increase of kreatinin and rest nitrogen. There were no signs of haemolysis nor of drug intervention, and there was no evidence of intestinal toxaemia. The clinical history pointed to an incomplete cerebral thrombosis involving the left frontal

lobe, and the study of the blood and urine showed that the haematoporphyrinuria was not the result of a breaking up of blood cells, either living or from a brain clot, otherwise there would have been some presence of haematin. Possibly, therefore, the haematoporphyrin in cases of drug poisoning may be due rather to metabolic disorders rather than to a haemolysis, and this view receives some support from the fact that in such cases the liver cells show fatty degeneration. Haematoporphyrin may be present in the urine without any change of colour, the dark urinary colour being due to other abnormal pigments, while it may be inferred from a consideration of this reported case that its presence is not necessarily of so ominous a significance as it appears to be in drug cases.

## SURGERY.

### 328. Osteoma of Frontal Sinus.

Dubar and Potel give (*Echo méd. du Nord*, February 5th, 1911) the history of one of these rare cases. The patient since the beginning of 1908 had noted the existence of a slight swelling of the upper and inner part of the right orbit about the size of a pea. It grew slowly and painlessly. The inferior limit of the growth was most accessible, and gave the impression of peculiar hardness. It was absolutely immobile. The upper portion was hidden by a soft, semi-fluctuating swelling, slightly red, which appeared to be formed by the distended lacrymal canal. The eye was not deviated, vision was intact, and the general health was good. The patient at first objected to surgical interference, and was given potassium iodide internally. After six months' time the tumour had reached the size of a walnut, and the eye had become markedly deviated. A skiagraph was taken, and demonstrated the existence of a tumour as large as a filbert attached by a pedicle to the deep surface of the frontal sinus. This and the clinical evidence was enough to show that the nature of the tumour was that of an osteoma. An incision with the convexity downwards was made along the level of the superciliary line. The soft parts were separated and turned back, and the osseous mass was found separated from its surroundings by a little liquid mucus. The tumour was grasped by forceps, and a slight movement of torsion sufficed to detach it. The sinus cavity was drained and the wound united by first intention. The extirpation of an osteoma is by no means always so easy as this proved. Some of these tumours may be found free in the frontal sinus; others are attached by a more or less fragile pedicle, as in this case; while others, again, resist all effort at detachment. The chief danger in such a case lies in possible fracture of the base of the skull, which is easily caused when the osteoma is attached to the deep wall of the frontal sinus. The use of the gouge and mallet is undesirable, as, in the author's opinion, the risk of cerebral damage is great. Even the best of modern instrumental methods are useless at times in these cases, and it is well to recognize the probable difficulties of the situation before intervention is attempted.

### 329. Pelvic Kidney Reimplanted in

Dougal Bissell (*Trans. Amer. Gynaec. Soc.*, vol. xxxv, 1910) reports an operation on a pelvic kidney which he calls reimplantation, and gives reasons for believing that the displacement was acquired. The left kidney is the more liable to congenital misplacement of this kind. In Bissell's case the right kidney lay in the pelvis; at first it was taken for a fibroid on the posterior wall of the uterus. Shortly afterwards, as the patient was in the thirty-first week of pregnancy and the pelvic mass seemed likely to cause dystocia, labour was at once induced, and when the patient was anaesthetized the mass could be defined as like a kidney in outline. A child, 7 lb. in weight, was delivered. The patient was 41 years old, she had never miscarried, and her two labours—the last fourteen years previously—ended normally. A month after the induction of labour Bissell explored the abdomino-pelvic cavity. The kidney was retroperitoneal, and lay behind and to the right of the uterus. The posterior fold of Douglas's pouch was divided and the kidney drawn up into the peritoneal cavity. It could not be raised higher than the brim until certain bands, which proved to be supernumerary arteries arising from the internal iliac, were divided. Then the kidney could be raised approximately to its normal level in the loin. The renal artery and vein were greatly elongated. The incision in the pelvic peritoneum was extended far up above the brim to the outer side of the caecum and ascending colon. The connective tissue posterior to this incision was torn up until the fascia of the lumbar region was exposed. Nephropexy was then performed, the fibrous capsule of the kidney being incised and fixed by suture to the fascia and muscles in the loin. Two years later the patient was in good health, and all painful symptoms, to which she had been subject for several years before the displacement of the kidney had been detected, had passed away.

### 330. Chloride of Zinc in Tuberculous Disease of Knee.

Charrier (*Gaz. hebdom.*, February 12th, 1911) discusses the value of this method of treatment as compared with those methods most commonly resorted to, and details two cases in which the results were most successful. The first was a cabdriver, aged 40, who had suffered from pain in the right femoro tibial articulation for four months. The pain was slight at first, but gradually increased, and finally not only prevented him from walking, but allowed the most limited movements of flexion and extension. The patient was examined by Lannelongue, who diagnosed a tuberculous condition. The man's general condition was good, and there was no fever. Deep injections of chloride of zinc were commenced, one drop being injected down to the periosteum at the extremity of the tuberculous infiltration, another drop a centimetre away from this, and so on up to eight drops in a semicircle above the patella. Acute pain followed the injections, necessitating morphine. The séance was repeated every fifteen days with similar results, including swelling and congestion of the skin. After two months of the treatment a fibrous barrier could be plainly felt above the patella, taking the place of the original tuberculous outgrowth. The general condition of the patient remained excellent. After seven months all injections were stopped; the knee was firm and all the periarticular tissue sclerosed, and there was no pain whatever. The patient was seen some time afterwards following his occupation as cabdriver, and, although necessarily suffering from a good deal of exposure, had experienced no inconvenience whatever from his ankylosed joint. The second case related had precisely similar results, although the patient's general condition was not so favourable to begin with. The author warmly commends the method, in spite of the comparative slowness of treatment, as suitable for many cases in which surgical interference is for other reasons inapplicable.

### 331. Acute Urethritis of Chemical Origin.

William J. Robinson (*Med. Record*, April 8th, 1911) believes that urethritis, due to the application of strong antiseptics to the urethra, is not infrequent, and is attributed to gonorrhoea, with the result of the continuance of the disease for a long time. He reports 3 cases which came under his observation: one was caused by the use of a very strong solution of corrosive sublimate on the advice of a druggist. The second was due to zinc sulphate; the third was due to the silver nitrate test for gonorrhoea. In all 3 cases repeated examinations failed to show the presence of gonococci in the discharge. Most cases of this kind are due to self-administered remedies. The diagnosis is to be made by the history, freedom of discharge from gonococci, and improvement when let alone. A useful agent in treatment is a solution of an organic derivative of iodine in olive oil.

## OBSTETRICS.

### 332. Amniotic Infection.

Rudaux (*La Clinique*, March 24th, 1911), in discussing the habitual sterility of the amniotic fluid, writes that when it becomes infected it is due to a loss of continuity in the membranous sac, such as is caused by a spontaneous or artificial rupture of the membranes. The amniotic fluid is a good culture medium; the vagina is full of microbes, which can easily ascend once the mucus plug in the cervix has been removed. Amniotic infection also occurs, though rarely, when the membranes are intact. The sac is only impassable when the membranes are perfectly normal, individually and in their relations to one another. These infections are seldom discovered until labour has begun, either the rupture of the membranes shows that the fluid has a fetid smell, or it may be like a syrup or even thick and opaque, while the child is coated with green or grey matter with a disagreeable odour. Such a case may have a normal pulse and temperature and show no signs of general infection. On the other hand, acute symptoms may occur at once. If the fetus dies before birth, it will

rapidly decompose; if it is born alive, it is liable to suffer from infections of the respiratory passages or alimentary canal. The mother is liable to develop puerperal fever or peritonitis, or a general septicaemia. In all cases of premature rupture of the membranes antiseptic precautions must be redoubled and examination must be practised as little as possible. Where the rupture has occurred some days before delivery an injection of anti-streptococcic serum should be given as soon as labour is completed, as a prophylactic measure. When the temperature is high and the patient shows signs of infection, delivery should be assisted and hastened as far as possible, and immediately afterwards the patient should be given a large intrauterine douche containing 20 grams of the tincture of iodine and 3 grams of potassium iodide in a pint of water. The irrigation should consist of 6 pints of fluid. After the placenta is born, a second irrigation is required, and a subcutaneous injection of antistreptococcic serum is administered and repeated daily for four or five days. The child's eyes, nose, mouth, and ears must be cleansed and disinfected, the cord must be painted with a solution of tincture of iodine and enveloped in sterile gauze, a disinfectant powder is advised, and, if possible, sterilized linen clothing, which should be frequently changed.

**333. Epidemic of Puerperal Fever.**

FABRE ET BOURBET (*Ann. de gynéc. et d'obstét.*, March, 1911) read before a medical society last year a report of a bad epidemic of puerperal fever in a hospital, the origin of which outbreak was clearly ascertained. A patient had a slight rise of temperature in the puerperium, and streptococci were found in the lochia. Within three weeks sixteen other puerpera had streptococci in the lochia. One died on the eighth day of haemorrhagic septicaemia. Bacteriological tests proved that the streptococcus was of a very virulent type, yet the first patient had no bad symptom except a rise of temperature. The presence of the septic microbe might easily have been overlooked, which shows how in an epidemic of puerperal fever the patient whence the infection started may be overlooked also.

## GYNAECOLOGY.

**334. Carcinomatous Fallopian Tube forming a Palpable Abdominal Tumour.**

CULLEN (*Johns Hopkins Hosp. Bulletin*, January, 1911) describes and figures one of the largest carcinomatous tubes ever recorded. The patient was 46; she had a miscarriage when 18, but there was no family history of cancer and no evidence that she had suffered from pelvic inflammation. She had recently been troubled with a profuse leucorrhoeal discharge, which had become fetid and sanious during the last year. Two years before she came under observation she had an attack of pain simulating appendicitis; it persisted for the last year, and there was pain in the left as well as the right iliac fossa; the pains ran down the legs, which had become swollen. A tender mass occupied the lower part of the abdomen. The uterus, quite small, was removed by bisection, with a piece of intestine which bore a subserous cyst suspected to be a secondary growth, and the Fallopian tubes. The right tube was 5½ in. long, 4¾ in. broad, and a little under 4 in. in thickness. The left tube was distinctly enlarged. Both adhered to adjacent structures. The right tube contained much bloody fluid and clots. A mass of arborescent growths sprang from its inner wall; they represented a cylindrical-celled carcinoma. The left tube bore a similar growth. When the patient was last examined, three years and four months after the operation, a large palpable abdominal mass was definable.

**335. Haematosalpinx from Acute Torsion of Normal Appendages.**

NIGEL STARK (*Journ. of Obstet. and Gynaec. of British Empire*, February, 1911) reports a case of haematosalpinx due to acute torsion of normal appendages. The patient, a virgin of 46, had had three attacks of acute abdominal pain, each lasting a few days and being relieved by simple measures. Each attack occurred a day or two after menstruation, which was quite regular. Examination under anaesthetic in a free interval revealed a swelling on the right side of the size of a tomato and thickening of the left tube. At the operation the left tube was found tightly twisted on itself, near the uterus, in three complete turns. The twisted portion was very dark, the tube gradually expanding from this to the fimbriated extremity, which was dilated and contained firm clot. There was blood lying free in the pelvis. The tube and ovary were removed, and microscopically showed no sign of pregnancy. The swelling on the right side was a small dermoid in the broad ligament.

## THERAPEUTICS.

**336. Treatment of Diabetes.**

CARL VON NOORDEN (*Wien. med. Klin.*, No. 1, 1911) holds that the older view of the causation of diabetes, the view, that is, that the hyperglycaemia of diabetes results from an over-production of sugar in the liver, rather than from diminished oxidization in the tissues, is the true one, and that it is no longer a theory, but is supported by a considerable body of evidence. The consideration of artificially produced glycosuria speaks for an excessive output of sugar from the liver. Thus in Bernard's puncture glycosuria only occurs if the liver is filled with glycogen, and in this form and in glycosuria due to certain forms of poisoning, as, for instance, poisoning by diuretin, the glycogen of the liver is quickly used up, while there is nothing to indicate that the power of oxidization of sugar by the tissues is diminished. The study of glycosuria caused by adrenalin is even more confirmatory, for if large doses be given and no more glycogen is available from the liver, fats and proteins are broken down to form sugar, and it is thus seen that adrenalin—a natural product of the human body which gives rise to diabetes—is an active promoter of the sugar-forming process, while there is no sign at all that it lessens the action of the tissues upon the sugar in the blood. Again, the respiratory quotient, that is, the ratio of the carbonic acid products to the oxygen used up, is strikingly low in diabetic patients. The conclusion that the low coefficient depends upon lessened oxidization is hasty, for it may be that the action of the tissues upon the sugar in the blood is normal, but that as a result of faulty metabolism in diabetes, fats and proteids have gone to produce the sugar in the blood. Experiments carried out in the author's clinic confirm this latter explanation. It is known that the breaking down of fats and proteins into sugar takes place only in the liver, and in the experiments in question it was found that ligaturing of the hepatic veins—that is, shutting off from the circulation products formed in the liver—resulted in a rise of the respiratory coefficient both in normal animals and in animals in which the pancreas had been extirpated and diabetes thus brought about. Further information as to the over-production of sugar in diabetes is now available. The liver has long been recognized to be the regulator of the sugar contents of the blood, but the pancreas and the suprarenals are now also known to be concerned in the process. The internal secretion of the pancreas lessens and that of the suprarenals increases the activity of the liver in the production of sugar, and thus extirpation of the pancreas leads to over-production and extirpation of the suprarenals to lessened production. Clinically, the muscular fatigue of Addison's disease may well be ascribed to deprivation of the muscles of sugar as a result of the diminished amount of sugar in the blood. Neither the pancreas nor the suprarenals, however, act independently of other organs. The internal secretion of the thyroid modifies the action of the pancreas, and, therefore, in morbus Basedowii there is a tendency to alimentary glycosuria and sometimes to spontaneous glycosuria, while, on the other hand, in animals upon which thyroidectomy has been performed, and in cases of myxoedema in man, glycosuria is difficult to produce. The pituitary body acts in the same sense as the thyroid, and thus in acromegaly, where there is an excess of function, alimentary glycosuria is common, and true diabetes is present in about 40 per cent. of the cases. The suprarenal bodies as a result of their close connexion with the sympathetic nervous system are less independent bodies even than the pancreas. Irritation of the suprarenals causes increase of secretion with a resulting increase of activity of the liver, and in some cases the production of glycosuria. The powerful effect upon the intensity of a diabetic glycosuria which may be exercised by the central nervous system is comprehensible in this way. On the whole the author's opinion is that that anomalies of the pancreas, usually functional anomalies, play a leading part in by far the greater number of cases of diabetes mellitus whether slight or severe, but that the suprarenals seem to play the chief part in acute transitory cases of glycosuria. The conclusion that diabetes depends on over-production of sugar has a bearing upon questions of treatment. The

great indication in treatment is to avoid anything which excites the liver to over-production. In severe cases muscular activity which calls for an additional supply of sugar for the muscles, causes an increase in the amount of sugar in the urine. Food of any kind excites the liver to activity, and few cases of glycosuria will fail to be modified temporarily by absence of food for a couple of days. Carbohydrate food has the greatest effect in causing over-production; fat, the least. In severe cases proteid food is a powerful irritant, and on this account the unlimited amount of meat which used to be allowed has latterly been restricted. Individualized treatment is especially needful in diabetes, and the regulation of the diet is the essential treatment, because food is the factor which acts continuously, day by day, upon the mechanism for sugar regulation. The beneficial effect of "cures," as, for instance, Carlsbad cures, upon diabetes is largely the result of the adoption by the patient of a rational system with respect to eating, drinking, and habits of life, and it is important that the fact should be appreciated, because the fate of the patient will depend upon his carrying such rational habits into his ordinary life. The careful individual treatment or slight cases, in which everything is to be gained or lost, is all important.

### 337. X Rays and Radium in Acne Cheloid.

ACCORDING to Belot and Gouin (*Arch. d'élec. méd.*, January 25th, 1911) static electricity, the continuous current, high frequency, and phototherapy have all proved unsatisfactory in acne cheloid of the nucha, the dermatitis papillaris capillitii of Kaposi. Radiotherapy gives the best results, with radium as a good second. There are two "periods," the one following the other, to be observed in the attack upon this disease. In the first the result aimed at is epilation, in order to arrest the infection. In the second and subsequent period a direct assault is made upon the cheloid formation. One or two *x*-ray sittings are sufficient to bring about not only the fall of the hair, but also the sideration of the follicles and sebaceous glands. Before beginning the depilatory irradiation the diseased region is cleansed with camphorated alcohol, and if there are crusts humid dressings are applied for a day or two. An extensive acne is divided into small contiguous areas, which are successively irradiated. The first irradiation must act considerably beyond the infected zone. The cutaneous surface should receive a dose of 5 to 6 H., with rays of 7 Benoist, projected without a filter. The fall of the hair takes place within two or three weeks, but if epilation is not fully accomplished, and if there has not occurred a slight inflammatory reaction on the skin, another dose of 4 to 5 H., directed only upon the diseased points, is given within fifteen to twenty days after the first. The second period of treatment, also preceded by a cleansing of the part with camphorated alcohol, aims at the regression of the cheloid tumour, and the first irradiation is given when the skin presents no further trace of the epilatory applications. The irradiation is now limited to the cheloid, or only encroaches by a few millimetres upon the apparently sound tissue. In order to have radiation as penetrating and monochromatic as possible, aluminium filters are employed, having a thickness of at least 1 mm., or preferably 2, if length of exposure is not a consideration. A dose of 5 to 6 H. is given with this filter. Fifteen to twenty days must intervene between each irradiation, and after two or three sittings there is usually a great apparent improvement. Relapses are frequent, however, and the total duration of treatment in some cases is two years. The period may be shortened, and the danger of relapse averted, by a mixed method of surgical ablation followed by radiotherapy. Cocaine is used in this operation, but the patients, nevertheless, complain of pain, anaesthetics penetrating badly into cheloid tissues. Immediately after the knife the region receives a dose of 6 H. without a filter. A fortnight or three weeks later a further dose of 4 to 5 H. is given, and generally three or four of these applications are sufficient. This procedure should be reserved for lesions comparatively recent and not of too great size. Although radium has been put forward as having a specific and elective action on cheloid tissue, the authors consider that radium therapy must be regarded only as an adjunct to the *x* rays. For an equal dose absorbed the effect is practically the same with the two agents, but, taking into account the extent of the lesion and the duration of the applications, radiotherapy has the preference. Radium, however, is beneficial in rebellious cases. After some *x*-ray sittings have modified but not broken down the cheloid, the gamma (ultra-penetrating) rays may complete the cure.



### 338. The Value of Menthol.

LAURENS (*La Clinique*, February 17th, 1911) considers menthol a valuable remedy for coryza, rhinitis, etc.; but it has fallen into disrepute because of its irritating effect on the mucous membrane and the tendency it has to produce erythema, conjunctivitis, cough, and laryngitis. He finds that these disadvantages may be eliminated by careful technique and by using a smaller dose of the drug. Menthol increases the glandular secretions of the nasal mucous membrane, assists in expelling the muco-pus, and so cleanses the cavities. The volatile elements permeate into the remoter sinuses, they stimulate the mucous membrane, and impart a feeling of freshness and relief. It may be administered as an ointment for the nose or in oil (not almond oil), or as an inhalation for catarrh of the larynx and trachea. A teaspoonful of alcohol with 5 per cent. of menthol may be added to boiling water in the inhaler and the patient be instructed to breathe in the vapour through the nose, keeping the mouth closed for five minutes, ten or twelve times a day for several days. At first the inhalation may cause sneezing or coughing, as it irritates the throat; but this does not last, and allows the dose to be increased. Dry inhalation is a good treatment for rhinitis. A 10 per cent. solution of menthol in alcohol is used; a little is spread upon a handkerchief twice a day and held over the nose and breathed in vigorously. If properly used, menthol is a safe and very effective remedy.

### 339. Serum Treatment of Pneumonia in Infants.

E. MATHER SILL (*Med. Record*, April 22nd, 1911) states that the death rate from pneumonia is steadily increasing, while that from tuberculosis is decreasing. One tenth of all deaths in the United States are due to pneumonia. There is an increase in the deaths from pneumonia among children under 5 years of age. The author began treatment of children one year ago with polyvalent pneumonia serum, and gives detailed histories of 12 cases. His conclusions are given. The best hope of a specific remedy for pneumonia is in the use of a polyvalent serum. It should be made in a concentrated form. Pneumonia is generally a mixed infection with the pneumococcus as the prevailing germ. The polyvalent composite serum is an advance in the right direction, and in a number of cases seemed to limit the disease. The serum should come from horses immunized to the pneumococcus, and also to the other germs commonly found present. The child should be injected early in the disease with a good-sized dose of the serum. Lobar pneumonia is more likely to be due to the pneumococcus than bronchopneumonia. Pneumonia is just as great a scourge as tuberculosis.

### 340. The Treatment of Erysipelas.

MARIO (*Gazz. degli Osped.*, March 26th, 1911) has treated 40 cases of erysipelas by painting with tr. iodi. His results were very successful, and he believes this is largely owing to the technique employed, which was as follows: A sterilized swab is dipped in fresh tr. iodi (10 to 12 per cent. alcoholic solution), and lightly painted over the surrounding healthy skin, then another swab is similarly dipped and painted over the erysipelatous area, and the whole bound up with sterilized wool. The painting should be quite lightly done, so as not to cornefy the skin, and may be repeated five or six times a day. His patients did not complain of the pain, and where there is much pain, the author says, it is due possibly to using an old preparation of the tincture, for in the process of keeping certain chemical changes occur which make it much more powerful. Most of his cases were from 21 to 40 years of age, and included facial erysipelas (21 cases), erysipelas of the scalp (6 cases), complicating wounds (11 cases), etc.

## PATHOLOGY.

### 341. Reactions to Tuberculin.

LOUIS C. ROUGLIN (*Med. Record*, April 22nd, 1911) states that the study of reactions to tuberculin treatment is of the utmost importance. The cause of reaction is not fully explained. It is perhaps due to the introduction into the system of a foreign toxin, not attuned to the condition of the organism, which excites an increased irritability and activity of the toxin already present. A reaction may be local with swelling, redness, etc.; or it may be general with fever, pain in the limbs, and other general phenomena, It will last but a few hours or days. In treatment with tuberculin reaction should be avoided and a dose given which is below that needed to produce reaction.

# AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

**342 Mitral Pseudo-Stenosis.**

TRISSIER (*Riforma Medica*, April 10th, 1911) discusses the above condition and illustrates it by a record of some clinical cases and by certain experiments on a dog which had a typical intermittent extracardiac murmur. The author, whilst fully recognizing the existence of pseudo-stenotic murmurs, does not accept that explanation which attributes them to spasm of the muscular papillae. Against his hypothesis are: (1) The brief duration of the inter-systole; (2) the cessation of the murmur with the onset of the first sound; (3) spasm of the papillae, if prolonged, should produce valvular insufficiency and not stenosis. The author finds a more probable explanation in the state and velocity of the blood, and has been able to carry out certain experiments in relation to these facts on the dog previously mentioned. By cutting the vagus he produced acceleration and by bleeding anaemia, and in each case the murmur was intensified afterwards. In the so-called pseudo stenotic murmurs you do not get accentuation of the second sound nor retardation of radial pulse, both of these being common in true stenosis. The prognosis in pseudo-stenosis (not including the presystolic murmur which is sometimes seen in association with aortic regurgitation and is a bad sign) is usually good. A true mitral stenosis may sometimes be seen in association with aortic insufficiency, and is a good sign, according to the author, since it tends to compensate the dangers of the aortic lesion.

**343. Syringomyelia with Superadded Neurosis.**

PIEVREL AND BENOIT (*Echo méd. du Nord*, April 2nd, 1911) give particulars of a case of this nature. The patient was a man of 59 years of age, who for a number of years worked as a dyer, and dealing in the course of his occupation with chromates and other toxic substances. There was no hereditary taint, and the man had never suffered from syphilis, but, on the other hand, was rather addicted to beer drinking. On both sides movements of extension and apposition of the thumbs are normal, but flexion is impossible, as is also the case with flexion of the terminal phalanx of the forefinger. There is some atrophy of the thenar eminences and of the first interosseous space. The patient cannot grasp objects and is unable to write. There is severe pain in the shoulders and forearm, and heat analgesia, but persistence of the sense of touch localized on the left by a longitudinal band parallel with the axis of the upper limb, and reaching from almost the extremity of the thumb to midway between elbow and wrist. On the right side this is more restricted, and is limited to the dorsal aspect of the thumb. The patient feels no pricking, especially in the first left interosseous space, and the anaesthesia exists equally for heat and cold. He has often been burnt by a match without feeling any pain. At the level of the articulation of the metacarpal and first phalanx of left thumb there is on the dorsal aspect a wound of several days' standing which refuses to heal. This is probably trophic in origin. There is marked exaggeration of the patellar reflexes, but no Babinski. The sphincters are unimpaired, but the cremasteric reflexes are abolished, as are also the corneal and pharyngeal reflexes. There exists a concentric narrowing of the field of vision, and a dyschromatopsy characterized by more prolonged vision for red than blue, which is the inverse of normal. The fundus presents no abnormality, and there is no pupillary inequality. In presence of these symptoms the motor troubles, which at first sight might have been attributed to a neuritis of toxic origin, owing to the patient's occupation, must be put down to syringomyelia. According to the distribution of the lesions, the cord would appear to be affected at the level of the first roots of the brachial plexus. The motor troubles localized in the manner this patient has shown are comparatively rare. More frequently there is cubital paralysis with *main en griffe*, and with persistence of movement in the two first fingers. The visual peculiarities described above the author attributes to a neurosis, the coexistence of hysteria and syringomyelia being by no means uncommon.

**344. The Only Child.**

JOSEF K. FRIEDJUNG (*Wien. med. Woch.*, No. 6, 1911) deals with the pathological peculiarities of the "only child," or of the favourite child, such as the only boy or girl in a family, the youngest child born after a long interval, etc. During the last few years the author has had under his care 100 only children, 45 boys, 55 girls; 9 of the children were between 11 and 15 years in age, 86 between 3 and 11. Children under 2 years were not, as a rule, included. Eighty-seven of the 100 children were neuropathic, as compared with 31 out of a 100 children belonging to families with one or more children; 18 of the 87 children were neurotic in a somewhat high degree. As a rule, the girls were more severely attacked than the boys. The children could be divided into two groups, those with general and those with localized symptoms. An almost invariable symptom, only absent in 12 out of the 87 cases, was that of undue timidity, the fears being of different sorts—thus, some children were afraid of being alone, others of sleeping alone, others of dark rooms, others of animals, as, for instance, horses or dogs. Restlessness at night, going on sometimes to typical night tremors, was a common symptom. Capriciousness or irritability were almost the rule. Along with these went almost always a prematurely rapid intellectual development. A symptom of great significance, and one often misunderstood, is a defect of general nutrition—the children were often pale, weak, and under the normal weight, a condition which depends especially upon a more or less severe anorexia. We thus come to the other class of cases, in which symptoms referable to special organs were present. Those referable to the digestive tract were especially common. Lack of appetite was almost the rule. Habitual vomiting was not uncommon, being present in 37 of the author's cases. Constipation was present in 20 cases, and was of such severity as to lead in some cases to the development of fissure and in one case to prolapse. It appeared as if many of the children suffered from relapsing catarrh of the mucous membrane analogous to enteritis membranacea. Abnormalitis, referable to the urinary system, were not uncommon, and enuresis nocturna et diurna was certainly present in 10 boys and 2 girls. Of skin affections lichen urticatus seemed to be common. Apart from special symptoms the cause of intercurrent illnesses, in which a nervous element was a factor, tended to be especially severe amongst these children, as, for instance, whooping-cough. Also, in heart disease, subjective symptoms were especially troublesome. Diseases accompanied by high fever, such as measles, otitis media, erysipelas, and painful affections, ran a severe course, as far as subjective symptoms were concerned. The cause of all these peculiarities is, according to the author, the excess of affection and attention concentrated on these children. The prophylaxis and treatment are sufficiently indicated by the cause.

**345. Spheno-palatine Ganglion Neurosis.**

SLUDER (*Amer. Journ. Med. Sci.*, December, 1910), from a study of 60 cases, formulates a syndrome of the disturbances radiating from the spheno-palatine ganglion. Although no one case has presented every sign there have been definite indications in all clearly pointing to the ganglion as the centre of disturbance. The pains of post-ethmoidal or sphenoidal diseases usually precede the development of the characteristic neuralgic manifestations, and after these latter have persisted for some time they become irregular and assume the form of migraine, which may continue for years after all the local inflammatory conditions have disappeared. Most striking is the wide and characteristic distribution of pain along definite lines, and this is complained of at the root of the nose and sometimes in and about the eye, taking in the upper and sometimes also the lower jaw and teeth, and extending beneath the zygoma to the ear. The pain is emphasized at the mastoid, but is severest at a point about 2 in. posterior to this, and from thence it may extend to the occiput and neck, and even into the shoulder-blade and shoulder, and in severe attacks to the axilla, arm, forearm, hand, and fingers. Occasionally the patient complains of stiffness and aching in the throat, pain or itching in the roof of the mouth, or pain in the side of the nose. Slight anaesthesia of the soft palate and pharynx as far as the lower part of the tonsil and of the anterior lower part of the nose may be detected on the affected side, and the palatine arch may be higher, and in the movement of the soft palate upward and backward the median raphe may

be deflected from the affected side, and a diminished and delayed perception of taste is present on that side. In four cases there was salivation, and in three great sneezing with profuse serous secretion. The neuralgic symptom-complex can generally be relieved by the application of one drop of a 20 per cent. or even a saturated solution of cocaine to the nasal mucous membrane covering the spheno-palatine foramen, and in some recent cases of moderate severity this may be curative, but even in the severest cases cocaine affords temporary relief during an exacerbation. In cases of longer standing injections of alcohol have proved beneficial. Notes of four illustrative cases are given, and in ten cases of glaucoma the ocular pain has been controllable by the application of cocaine to the spheno-palatine foramen. The local application should be made at the site of the spheno-palatine foramen, as cocainization of other areas of the nose, even to the extent of producing general intoxication, does not relieve the pain.

### 346. Melalgia Paraesthetica.

MILLER (*Arch. Intern. Med.*, February 15th, 1911) records a case of melalgia paraesthetica due to pressure of the corset. The peculiar disturbance of the external cutaneous femoral nerve is characterized by paraesthesia, or more or less severe pain, when in the erect posture, and various causes have been given for its production. The pain is usually described as burning, but is not generally very severe, the most annoying feature being the paraesthesia and hypersensitiveness of the skin over the affected area rendering the slightest pressure of the clothing painful. Occasionally the pain may be so severe as to require morphine for its relief. The case recorded was that of a woman, aged 23, of good family and personal history, who was engaged in office work which necessitated standing most of the day. Two years previously she noticed a peculiar sense of numbness over the upper and outer side of the right thigh when standing or walking. This was followed in a few weeks by occasional attacks of burning or stabbing pain in the same region, which gradually so increased in frequency and severity as to compel her to discontinue her work. Standing excited the attacks, which immediately disappeared on sitting or lying down. Twice the patient had sudden attacks of excruciating pain, which caused her to fall down, and during which she was unable to move the limb. The attacks lasted about half an hour, and were always followed by a period of extreme hyperaesthesia over the upper part of the thigh. The lower edge of the corset was found to hook over the anterior superior spine and press into the thigh, and after this portion had been cut away the attacks entirely disappeared, leaving only a slight numbness. An attempt a few months later to wear a new corset of the old pattern produced a recurrence of the symptoms, which were completely cured by cutting out a piece of the corset, as was done in the first instance, where it exerted undue pressure on the thigh.

## SURGERY.

### 347. Anterior Metatarsalgia

FORBES (*Amer. Journ. of Orthopedic Surgery*, February, 1911) describes an operation for the relief of anterior metatarsalgia, including Morton's disease. Since the condition is generally caused by the falling of one or more metatarsal heads from an abnormal laxity of the ligaments and transverse metatarsal muscle, the procedure aims at reposition of the depressed head rather than excision as usually practised. The pressure upon the soft parts beneath the displaced bone is the primary cause of the pain, which may become aggravated later by callus formation on the underlying skin. As a secondary result of the depression of the metatarsal head, a mild form of arthritis supervenes; and since the second, third, and fourth metatarso-phalangeal joints are supplied by the external branch of the anterior tibial nerve, which supplies the extensor communis digitorum, spasm of this muscle becomes an associated symptom. The operation consists in reposition of the affected metatarsal bone and in maintaining it in position by the transplantation of the long extensor tendon into its head. This tendon when in spasm acts detrimentally whilst attached to the phalanx, but when transplanted to the depressed metatarsal head its action assists in keeping the head in its normal position, while the phalanx, now released from its action, is held in place by the short extensor tendon, which suffices to maintain its position of equilibrium between flexion and extension. In attaching the extensor tendon to the depressed head, any difficulty met with may be overcome by pressing up the bone from below, and, if necessary, drilling through it from either side downwards to a fixed point near its centre, thus forming a V-shaped canal for the reception of the tendon. Such bony attachment is necessary owing to the thinness and lack of strength of the periosteum. The possibility of infection should be guarded against by carefully burying all sutures as deeply as possible, and by extreme care in the preparation of the material used.



### 348. Transvesical Prostatectomy.

LUYS (*Comptes rendus du 23e Congrès de l'association Française de Chirurgie*, 1910) holds that the results, both immediate and remote, of transvesical prostatectomy are almost perfect. This operation, by abolishing the use of the catheter, restores the patient to normal conditions of life, and renders him a more active man. Now that its technique is well understood, the dangers have been much diminished. The latest report of Freyer of 100 cases show, it is pointed out, a reduction of the rate of mortality from nearly 7 to 4 per cent. As precautionary measures to be taken before the operation, Luys insists on the importance of determining the size of the prostate by catheterism, rectal exploration, cystoscopy; of a careful analysis of the urine; of a thorough medical inquiry as to the condition of the internal organs, and of great care being taken to guard against the dangers of infection and haemorrhage. The bladder should be cleansed by injections of nitrate of silver, and the state of the urine improved by the internal administration of urotropine. A very useful precaution against haemorrhage has been found in giving calcium chloride in doses of from 3 to 4 grams during the two days preceding the operation. In discussing in order the many remote complications which may occur after transvesical prostatectomy, Luys states that secondary haemorrhage is an exceptional result. Symptoms of mild post-operative infection are nearly always observed in the course of the first two days, but these, it is stated, may be readily controlled by vesical lavage. A later and more menacing attack of infection may occur two or three weeks after the operation when the hypogastric fistula is on the point of closing. In almost every instance of this secondary complication observed by the author an attempt had been made to further the closure of the vesical wound by continuous urethral catheterism. This opening, it is held, should be allowed to close without any interference with the vesical cavity. The author describes an apparatus for collecting the urine, originally devised by Irving and since modified by Gauthier and himself, which has done good service after prostatectomy by enabling the patient, when it is worn over the hypogastric fistula, to move about freely both in bed and in his room whilst the wound in the bladder remains open. Strong objection is raised against the use of the retained catheter after the operation, as it is often the cause both of grave infective symptoms and also of acute orchitis.

### 349. Sigmoiditis and Infection.

POULAIN (*Arch. gén. de chir.*, No. 2, 1911), in a contribution on sigmoiditis, an infection of the internal genital organs of the female, publishes a series of cases in support of the following propositions: (1) The sigmoid flexure is very readily influenced by infection originating in the female genital organs. The microbic propagation is effected by way of the peritoneum, and is revealed by the formation of adhesions that may be so abundant and formidable as to give rise to a para-intestinal tumour, and thus to be the starting point of obstruction. (2) Infection of the sigmoid loop, such as may be set up by constipation, is apt to react on the genital organs. This reaction causes annexial symptoms, the diagnosis of which is often very puzzling. The lesions, when treated in good time, are curable, but when neglected may cause irreparable damage of the genital organs. (3) If adhesions be formed between a salpingitic pouch and the sigmoid loop the infection caused by the latter may contribute to intensify the lesions. This may explain the prevalence of salpingitis on the left side. (4) In every case of annexitis, and especially when the painful symptoms are most pronounced on the left side, it is advisable to have recourse to warm intestinal lavages in preference to vaginal injections, as the former plan of treatment both acts on the annexial mischief and favours energetic disinfection of the sigmoid loop. (5) It is always necessary to have recourse to this treatment before operating for salpingitis or on a sclero-cystic ovary.

## OBSTETRICS.

**350. Acute Poliomyelitis in Pregnancy.**

RENAULT (*Sem. méd.*, March 29th, 1911) relates the case of a woman four months pregnant who was suddenly seized with vomiting, shivering, and, finally, general paralysis of the extremities and trunk, with cardiac and respiratory embarrassment. In spite of the gravity of her condition pregnancy evolved naturally. At the ninth month the woman gave birth to a well-developed child, who was entirely unaffected by the condition. The mother recovered completely, as was in a measure foreseen during the illness, as the affected muscles had at no time given the reaction of degeneration.

## GYNAECOLOGY.

**351. Treatment of Uterine Fibromyoma.**

UTERINE fibromyomas differ so markedly in their character that it is difficult to appreciate the results of the various treatments directed against them. Some of the tumours, after appearing early in life, develop very slowly; others appear late and quickly assume disquieting proportions; others again, after remaining stationary for some years, show suddenly a rapid increase. Nevertheless, says Siredey of Paris (*Arch. d'électr. méd.*, May 10th, 1911), there is one point in the etiology of all of them which can scarcely be contested, namely, the influence upon their development of all that provokes cardio-vascular erethism. Fatigues of every sort—excesses at the table, highly seasoned food, the abuse of wine, tea, and coffee—appear to favour the increase of fibromas, or at least to increase the gravity of the pains and haemorrhages which attend them. Along these lines especially medical therapeutics may have effect. A hygienic régime, in which the patients forego excesses, and take more vegetarian diet, free from condiments and excitants, is the first element of the treatment. A number of patients benefit from certain medicaments capable of action on the pelvic circulation, such as the rye ergot and its derivatives, and hydrastis and hamamelin. Thyroideal opotherapy also has sometimes modified the general state. Further, good is done by warm injections, hydrotherapy in various forms, saline cures, principally with water strongly chloridic, which diminishes the local congestion, and with water feebly chloridic, which calms the cardio-vascular erethism; kinesitherapy, under the form of massage and decongestionizing gymnastics; and, finally, electricity, which makes its influence felt on the utero-ovarian circulation and on the fibromas themselves. But these various treatments make no pretence to the radical cure of the fibroma. Radical cure really belongs to surgical treatment alone, but within recent years two new methods have come on the scene in the shape of radium and the *x* rays. Radium brings about modifications which sufficiently demonstrate its local action, but the treatment is of discouraging slowness and uncertainty. The *x* rays are more decisive, provoking as they do the atresia of the Graafian follicles simultaneously with the accentuated production of sclerosis. Thus a dry castration is brought about and with it the menopause, generally leading to a rapid regression of the myoma. A woman of 47 years, having abundant haemorrhages preceded by vivid pain, lost all visible symptoms after four sittings of radiotherapy, and after nine sittings the uterus was considerably reduced. Radiotherapy appears to have special value in preventing loss of blood. But while radiotherapy is a new treatment, and determines real modifications in the genital apparatus, the surgical treatment should have its old place in the case of voluminous tumours which bring about complications due to compression, sphacelated fibromas and tumours of rapid evolution in which there is reason to fear degenerate phenomena. Surgical intervention also should be substituted for radiotherapy if the latter proves inefficacious or too slow, and it should be employed if the cure by *x* rays is incomplete, as, in the opinion of some, the enlarged sclerotic uterus predisposes to cancer.

## THERAPEUTICS.

**352. Salvarsan in Yaws.**

STRONG (*Journ. of Exper. Med.*, April, 1911) has treated 25 cases of yaws with salvarsan. Although yaws and syphilis are caused by spirochaetal organisms, the spirochaetes in each disease belong to different species *Treponema pertenuis* of yaws being morphologically distinguishable from *Treponema pallidum* of syphilis. The full reports of the cases so treated are being reserved for the present in order to ascertain whether any relapses occur, but so far all have remained cured, although many were treated four months ago or longer. The alkaline solution of the preparation was used and injected deeply into the gluteal muscles. The following day there was usually some reddening, swelling, and induration of the skin and deeper tissues, but suppuration never took place, and the pain, if any, was not severe. Among the patients were several children who did not appear to suffer pain either during or after the injection, although they seemed less lively than usual for the twenty-four hours following. One injection proved sufficient to cure the lesion in spite of the existence in several cases of tertiary lesions with ulceration, and no other form of treatment, either local or general, was employed. The effects of the drug were rapid, the granulomatous lesions changing and diminishing three or four days after administration, and in from ten to twenty days there was usually complete disappearance, resulting in a smooth pigmented surface of skin. In severe cases of long standing with extensive ulcerations a second injection might be given with advantage about three weeks after the first. From 0.25 to 0.3 gram was the dose employed in children, and from 0.4 to 0.5 gram in adults. No unfavourable constitutional symptoms followed, and the general health improved rapidly after the eruption had disappeared.

**353. Treatment of Typhoid Fever.**

MCALISTER (*Arch. of Pediatrics*, April, 1911) is a strong advocate of the treatment of typhoid fever by hydrochloric acid. The acid is deficient in gastric secretion of all fever patients, especially in those with typhoid fever. The author first employs calomel followed by a saline or castor-oil, and then gives the acid in doses from 2 to 15 minims, according to age and requirements, three or four times a day. Pepsin may be added if indicated.

**354. Food Reactions.**

COWIE (*Arch. of Pediatrics*, February, 1911), as the result of numerous observations on food reactions in the infant's stomach compared with those *in vitro*, comes to the following conclusions: (1) The infant's stomach secretes all the digestive juices from the first day of life. (2) Free hydrochloric acid rarely occurs in the infant's stomach during the active part of the day; it may be found at times in the fasting stomach, at the height of digestion, or at the end of the digestive period. (3) The evacuation of the normal infant's stomach depends to a large extent upon the degree of acidity of the stomach contents; excessive acidity delays evacuation. (4) Basic calcium casein, which is formed when lime water is added to milk in sufficient quantity to neutralize any acid present and saturate the proteid until an alkaline reaction is produced, does not inhibit the formation of rennet curds in the infant's stomach; it delays the formation of the curd, the saturation of the proteid with acid, and the acid pyloric reflex, and hence the evacuation of the stomach contents. The action of rennet or basic calcium casein in the test tube is not comparable to what takes place in the stomach, as the conditions differ. (5) Sodium citrate inhibits the action of rennet in the stomach as well as in the test tube. (6) The curds normally present in the infant's stomach are paracasein hydrochloride, which is formed by rennet curds (calcium paracasein) uniting with the acid of the stomach.

**355. Roentgen Rays and Arsenobenzol Injections.**

KARL ULLMANN AND MARTIN HAUDEK (*Wien. klin. Woch.*, No. 3, 1911) have investigated by means of Roentgen ray photographs the rates of absorption of subcutaneous and intramuscular injections of certain preparations of mercury, calomel, grey oil and salicylate of mercury, and later of arsenobenzol. With respect to the mercurial preparations, they found that (1) the absorption took longer than had previously been supposed; (2) subcutaneous injections were, as a rule, absorbed three times as slowly as intramuscular ones; (3) the rate of absorption varied with the different preparations, being much the most rapid for salicylate of mercury and slowest for grey oil. Such being the result, it is clear that for practical purposes the injection method is not available for exact dosage, and that an overdose may occur if an injection be given, while absorption is still taking place from the deposits from old injections. In order to obtain a photograph, oil or paraffin emulsion of Ehrlich's arsenobenzol had to be employed, though later the authors succeeded in obtaining photo-

graphs with neutral suspensions and concentrated acid solutions. The dose given was 0.3 gram to 0.4 gram (4.6 to 6 grains). They found that with the acid emulsion the deposit of arsenic persisted in the tissues almost without exception for a time which varied from several weeks to several months, the time being much longer than for the mercurial preparations, the deposits of which in intramuscular injections had usually disappeared in from two to three weeks, and in subcutaneous injection almost always in at least the same number of months but often much sooner. Moreover, the deposits in the case of the acid emulsion of arsenobenzol were present for at least two or three months and often for much longer, altogether independently of the presence of any severe manifest infiltrations or necroses. Facts such as these have not been sufficiently considered when it is recommended that injection should be repeated in a full dose for a second or third time if the first dose is not altogether effectual, or if relapses occur. Clinical facts point to a similar slow absorption in the case of injections, especially subcutaneous injections, of the neutral suspension, and although the neutral suspension does not give a deposit perceptible so readily by the Roentgen ray method, the authors in one case were able to get a good picture, and showed the presence of a deposit three months and ten days after an injection. The authors conclude that single injections of large doses of preparations such as salvarsan are not to be recommended. Only a small part of the injection is rapidly absorbed, and therefore is sufficient for symptomatic effect, while the larger part remains unchanged in the body, or may act injuriously. If intramuscular or subcutaneous injections of the Ehrlich-Hata preparation are to be employed, they recommend the administration of several small doses, either at the same time or at intervals, in order to lessen the danger from large deposits, which may sooner or later have an undesirable action.

### 356. Antimeningococcic Serum.

Emil Schepelmann (*Wien. klin. Woch.*, No. 4, 1911) describes a case of epidemic cerebro-spinal meningitis successfully treated by antimeningococcic serum. The patient was a woman 26 years of age who was admitted to hospital on the third day of illness, with the symptoms of acute headache, pain in the back, stiffness of the neck, somnolence, fever, slow pulse, neuralgia of the trigeminus and occipitalis, ptosis, muscular rigidity, Kernig's sign, absence of skin and tendon reflexes, Babinski's sign. The cerebro-spinal fluid was at a pressure of 210 mm., and contained ¾ to 1 per 1,000 albumen. Antipyretic and antineuralgic treatment had no result, and only the frequent administration of large doses of morphine kept under the headache. Lumbar puncture was performed twice, but without decisive effect on the course of the illness. This first showed a definite change on the thirteenth day of the illness after an intraspinal injection of 35 c.cm. of antimeningococcic serum. There was severe headache and a rise of temperature for half a day after the injection, probably because the serum was injected under pressure, but the temperature fell by crisis within twenty-four hours of the injection to 36.9° C. (97.4° F.), and after occasional rises to 37.7° C. (99 8° F.) in the first week, never afterwards went above 37° C. (98.6° F.). Albumen was found in the urine on the day after the injection, but did not persist for more than a few hours. The patient also suffered from a severe recurrent urticaria as a result of the serum and during the first attack there were signs of cardiac weakness, which, however, readily yielded to treatment by digalen and camphor. Specific signs of the disease had disappeared within twenty-four hours after the injection, and the patient was discharged, well, on the twenty-eighth day of the illness. Kernig's sign was the last to disappear on the eleventh day after the injection. The serum employed was the polyvalent serum of Jochmann. The cocci are grown on ascitic agar, and horses, sheep, or goats treated with injections, at first made subcutaneously, later intravenously, of dead and afterwards living cultures. A review of the disease as a whole, and of its treatment by specific serums, is contained in the article. The author finds the treatment by specific serum to be the only rational treatment. Under it the mortality diminishes from two-thirds to one-quarter, and the whole course of the disease is milder and quicker. Occasionally, as in the author's case, a single injection is enough, but in other cases frequent injections are required. The earlier the injection the better the prognosis, but good results have been obtained even at an advanced stage. The dose given has often been much too small; 40 c.cm. should be given for an adult by intralumbar injection; subcutaneous and intravenous injections are decidedly less effective. Failure may also be due to the difficulty in obtaining a high grade polyvalent immune serum and the lack of an exact method for estimating the titre of the serum. The use of one large dose is better than several small doses, both for the obtaining of a quick result and for guarding against by-effects due to the serum. The author agrees with E. Neufeld that the antimeningococcus serum when rightly employed is, with the diphtheria serum, the most effective of all the serums.



### 357. Anaemia and Injections of Blood.

Guido Mann (*Wien. med. Woch.*, No. 9, 1911) describes three cases of severe anaemia successfully treated by subcutaneous injections of fresh non-defibrinated blood. The first patient was a woman, aged 23, who had had a most severe haemorrhage from the stomach and melaena. The patient was bleached and comatose, reacting to no irritation, and appeared to be moribund. Subcutaneous injections of 20 to 25 c.cm. of blood were begun, first daily, later every other day, the only other treatment being injections of camphor and digalen, and nutrient enemata. The patient quickly began to recover. After eight days the haemoglobin had risen from 18 per cent. to 50 per cent of normal. Injections of arsenic were then begun, and after nine weeks the patient was dismissed as recovered with a haemoglobin content of 75 per cent. The next case was of anaemia after severe metrorrhagia, and in this case, after four weeks of injections made every other day, the haemoglobin had risen from 28 per cent. to 59 per cent., and the number of erythrocytes from 1,720,000 to 3,800,000. In the third case, that of a man, aged 40, suffering from typical Laënnec's cirrhosis of the liver and anaemia, the result of continual slight œsophageal haemorrhages, the patient remained weak and anaemic in spite of liberal diet, sanatogen, etc., and of iron and arsenical preparations, until finally subcutaneous injections of blood were tried, when improvement began at once, and after two weeks was so marked that it became possible to perform a Talma operation, which had been postponed on account of his general condition. The author had previously published reports of similar cases. He has found that the injections are scarcely painful. Absorption takes place in less than twelve hours, and there have been no unpleasant side-effects.

## PATHOLOGY.

### 358. Action of Dilute Formalin on Blood Corpuscles.

Armand-Delille and Launoy (*Ann. de l'Inst. Pasteur*, March 25th, 1911) have tried the action of dilute formalin upon the red blood corpuscles of the sheep, ox, and horse, with a view to preserving them in a condition suitable for use in the Wassermann reaction. They find that when the washed corpuscles are left in contact with formalin (strength 1 in 500) at ordinary temperatures (18° to 25° C.) they remain without haemolysis, and without the formation of any appreciative amount of methaemoglobin for about a fortnight. The corpuscles so treated and kept at laboratory temperature preserve their morphological characters unaltered. As regards their physical properties, their resistance to hypotonic solutions of NaCl is unchanged. Their permeability to 0.95 per cent. NaCl is diminished during the first four or five days after treatment; subsequently it returns to the normal, and then, at a later stage, it becomes inferior to that of fresh corpuscles. The treated corpuscles, though rendered "stable," are not "fixed"; they are in every respect comparable to fresh washed corpuscles as regards their resistance to haemolytic agents. They are serviceable for the Bordet-Gengou reaction, even when they have been kept at room temperature for as long as three weeks. Accordingly the authors have been able to use them in the diagnosis of syphilis by the Wassermann method, and they consider that this method of preservation is much superior to the ordinary method of keeping the corpuscles in the ice-chest. As sheep's blood, which is commonly employed for the work, is generally obtained from the slaughter-house, where sterile precautions cannot be strictly observed, the difficulty of preserving it for any length of time, even in the ice-chest, has been one of the obstacles to the routine use of the Wassermann test. This disadvantage, the authors claim, will be to a considerable extent removed by the use of their formalin method.

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# THE SEVENTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

## BIRMINGHAM,

## JULY 25TH TO 28TH, 1911.

**President:**
H. T. BUTLIN, Pres.R.C.S., D.C.L., LL.D, Consulting Surgeon, St. Bartholomew's Hospital, London.

**President-elect:**
Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

**Past President:**
Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica, Queen's College, Belfast.

**Chairman of Representative Meetings:**
EWEN JOHN MACLEAN, M.D, Gynaecologist, Cardiff Infirmary.

**Chairman of Council:**
JAMES ALEXANDER MACDONALD, M.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

**Treasurer:**
EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

**The Seventy-ninth Annual Meeting of the British Medical Association will be held in Birmingham in July, 1911. The President's Address will be delivered on Tuesday, July 25th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 21st, 1911.**

## PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by BYROM BRAMWELL, M.D.Edin., F.R.C.P.Edin., Senior Ordinary Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by JORDAN LLOYD, M.S, F.R.C.S, Surgeon, Queen's Hospital, Birmingham.

## THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday July 26th, Thursday, July 27th, and Friday, July 28th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

*Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the* BRITISH MEDICAL JOURNAL *without special permission.*

**The following sixteen Sections have been authorized by the Council:**

## ANATOMY AND PHYSIOLOGY.

*President:* Professor THOMAS H. BRYCE, M.A., M.D., Glasgow.

*Vice-Presidents:* Professor EDMOND WILLIAM WACE CARLIER, M.D., Birmingham; Professor PETER THOMPSON, M.D., Birmingham; ALEXANDER LOW, M.B., Aberdeen.

*Honorary Secretaries:* DAVID FRASER HARRIS, M.D., University, Birmingham; THOMAS YEATES, M.B., University, Birmingham; JOHN ERNEST SULLIVAN FRAZER, Anatomical Department, King's College, W.C.

## DERMATOLOGY.

*President:* JAMES GALLOWAY, M.D., London.

*Vice-Presidents:* JAS. H. SEQUEIRA, M.D., F.R.C.P., London; HORATIO GEORGE ADAMSON, M.D., London; E. GILBERT SMITH, F.R.C.S., Birmingham.

*Honorary Secretaries:* A. DOUGLAS HEATH, M.D., 41, Newhall Street, Birmingham; R. CRANSTON LOW, M.B., 6, Castle Terrace, Edinburgh; W. ARTHUR LOXTON, F.R.C.S., 85, Cornwall Street, Birmingham; ARCHIBALD M. HENRY GRAY, M.D., F.R.C.S., 30, New Cavendish Street, London, W.

## DISEASES OF CHILDREN.

*President:* OTTO JACKSON KAUFFMANN, M.D., Birmingham.

*Vice-Presidents:* WALTER ROSS JORDAN, M.D., Birmingham; GEORGE HEATON, F.R.C.S., Birmingham; JOHN DOUGLAS STANLEY, M.D., Birmingham; Miss ANN ELIZABETH CLARK, M.D., Birmingham.

*Honorary Secretaries:* JAMES EDWARD HILL SAWYER, M.D., 93, Cornwall Street, Birmingham; SEYMOUR GILBERT BARLING, M.S., 81, Edmund Street, Birmingham; REGINALD HY. MILLER, 53, Queen Anne Street, London, W.

## ELECTRO-THERAPEUTICS AND RADIOLOGY.

*President:* HUGH WALSHAM, M.D., London.

*Vice-Presidents:* ASTLEY VAVASOUR CLARKE, M.D., Leicester; W. DEANE BUTCHER, M.R.C.S., London; JOHN ALFRED CODD, M.D., Wolverhampton.

*Honorary Secretaries:* FRANKLIN EMRYS-JONES, L.M.S.S.A., 103, Newhall Street, Birmingham; GEORGE HARRISON ORTON, M.D., 67, Upper Berkeley Street, London, W.

## LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

*President:* FRANK MARSH, F.R.C.S., Birmingham.

*Vice-Presidents:* FREDERICK WALTER FOXCROFT, M.D., Birmingham; WILLIAM LAMB, M.D., Birmingham; ATWOOD THORNE, M.B., London.

*Honorary Secretaries:* WILFRED GLEGG, M.D., 85, Cornwall Street, Birmingham; BERTRAND SEYMOUR JONES, F.R.C.S., 93, Cornwall Street, Birmingham; WILLIAM GUTHRIE PORTER, F.R.C.S., 16, Manor Place, Edinburgh.

## MEDICAL SOCIOLOGY,

INCLUDING MEDICAL INSPECTION OF SCHOOL CHILDREN, HOSPITAL ADMINISTRATION, AND CONTRACT PRACTICE.

*President:* GEORGE REID, M.D., Stafford.

*Vice-Presidents:* MATTHEW HALLWRIGHT, M.R.C.S., Birmingham; MATTHEW ARDEN MESSITER, M.R.C.S., Dudley,; HENRY WILLIAM ARMIT, M.R.C.S., London.

*Honorary Secretaries:* JAMES NEAL, M.R.C.S., 610, Coventry Road, Small Heath, Birmingham; GEORGE AUGUSTUS AUDEN, M.D., Solihull, Birmingham; JAMES PEARSE, M.D., 28, St. George's Terrace, Trowbridge.

## MEDICINE.

*President:* ALFRED HENRY CARTER, M.D., Birmingham.

*Vice-Presidents:* HENRY MALET, M.D., Wolverhampton; THEODORE STACEY WILSON, M.D., Birmingham; WILLIAM HUNTER, M.D., London.

*Honorary Secretaries:* ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; JOSEPH GEORGE EMANUEL, M.D., 47, Newhall Street, Birmingham; EDWARD TURTON, M.D., 1, Albion Street, Hull; HAROLD PRITCHARD, M.D., 11, Welbeck Street, London, W.

## NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

*President:* EDWIN GOODALL, M.D., Whitchurch, Cardiff.

*Vice-Presidents:* JAMES WILLIAM RUSSELL, M.D., Birmingham: CUTHBERT S. MORRISON, L.R.C.P., L.R.C.S., Hereford; JAMES CRAIG, M.D., Dublin.

*Honorary Secretaries:* SAMUEL ALEXANDER KINNIER WILSON, M.B., 63, Wimpole Street, London, W.; BENJAMIN HENRY SHAW, M.B., County Asylum, Stafford.

## OBSTETRICS AND GYNAECOLOGY.

*President:* Professor EDWARD MALINS, M.D., Birmingham.

*Vice-Presidents:* CHRISTOPHER MARTIN, F.R.C.S., Birmingham; CUTHBERT LOCKYER, M.D., London; NATHANIEL THOMAS BREWIS, M.B., Edinburgh; FREDERICK EDGE, M.D., Wolverhampton.

*Honorary Secretaries:* SMALLWOOD SAVAGE, F.R.C.S., 133, Edmund Street, Birmingham; JOHN THOMAS HEWETSON, M.D., 89, Cornwall Street, Birmingham; HAROLD BECKWITH WHITEHOUSE, M.S., 52, Newhall Street, Birmingham; HARRY BECKETT-OVERY, M.D., 30, Harley Street, London, W.

## ODONTOLOGY.

*President:* Professor FRANK EARLE HUXLEY, M.R.C.S., L.D.S., Birmingham.

*Vice Presidents:* HENRY WATSON TURNER, M.R.C.S., L.D.S., London; NORMAN GODFREY BENNETT, M.B., L.D.S., London.

*Honorary Secretaries:* PERCY THOMAS NADEN, L.M.S.S.A., L.D.S., 22, Temple Road, Birmingham; JOHN HERBERT GIBBS, F.R.C.S., L.D.S., 12, Coates Crescent, Edinburgh.

## OPHTHALMOLOGY.

*President:* HENRY EALES, M.R.C.S., Birmingham.

*Vice-Presidents:* EDWARD WILLIAM WOOD WHITE, M.D., Birmingham; HENRY SECKER WALKER, F.R.C.S. Leeds; JOHN GRAY CLEGG, M.D., Manchester.

*Honorary Secretaries:* ROBERT JAMES COULTER, M.B., Bryn Ivor, 11, Clytha Park Road, Newport, Mon.; JOHN JAMESON EVANS, M.D., 85, Edmund Street, Birmingham; WILFRID ALLPORT, F.R.C.S.Edin., 95, Cornwall Street, Birmingham; ARTHUR WILLIAM ORMOND, F.R.C.S., 7, Devonshire Place, London, W.

### PATHOLOGY.

*President:* Professor ROBERT FRASER CALDER LEITH' M.B, Birmingham.

*Vice-Presidents:* JAMES HUGH THURSFIELD, M.D., London; CHARLES JAMES LEWIS, M.D., Birmingham; WALTER D'ESTE EMERY, M.D., London.

*Honorary Secretaries:* WILLIAM HY. WYNN, M.D., 41, Newhall Street, Birmingham; LEONARD GEORGE JOSEPH MACKEY, M.D, 141, Great Charles Street, Birmingham; BRYDEN GLENDINING, F.R.C.S., 7, Devonshire Place, London.

### STATE MEDICINE AND INDUSTRIAL DISEASES.

*President:* Professor ALFRED BOSTOCK HILL, M.D., Birmingham.

*Vice-Presidents:* JOHN ROBERTSON, M.D., Birmingham; ERNEST HUGH SNELL, M.D., Coventry; SIDNEY BARWISE, M.D., Duffield, Derbyshire; MABYN READ, M.D., Worcester; EDWARD WILBERFORCE GOODALL, M.D., London.

*Honorary Secretaries:* ROBERT ARTHUR LYSTER, M.D., Clifton Terrace, Winchester; THOMAS SHADICK HIGGINS, M.B., Health Department, Council House, Birmingham; ARTHUR DOUGLAS COWBURN, M.D., 31, Barkston Gardens, London.

### SURGERY.

*President:* Sir THOMAS FREDERICK CHAVASSE, F.R.C.S., Birmingham.

*Vice-Presidents:* WILLIAM DUNNETT SPANTON, F.R.C.S., Hanley; WILLIAM FREDERICK HASLAM, F.R.C.S., Birmingham; JAMES THOMAS JACKMAN MORRISON, F.R.C.S., Birmingham; EDWARD DEANESLY, M.D., Wolverhampton; DAVID WALLACE, C.M.G., F.R.C.S.Edin., Edinburgh.

*Honorary Secretaries:* LEONARD PARKER GAMGEE, F.R.C.S., 95, Cornwall Street, Birmingham; CHARLES ARTHUR KINAHAN BALL, M.D, 22, Lower Fitzwilliam Street, Dublin; CHARLES ALBERT LEEDHAM-GREEN, F.R.C.S., 9, Newhall Street, Birmingham; JOHN HOWELL EVANS, F.R.C.S., 25, Berkeley Square, London.

### THERAPEUTICS, INCLUDING DIETETICS.

*President:* Sir ROBERT M. SIMON, M.D., Birmingham.

*Vice-Presidents:* PAUL MORGAN CHAPMAN, M.D., Hereford; THOMAS SYDNEY SHORT, M.D, Birmingham; HENRY WILLOUGHBY GARDNER, M.D, Shrewsbury.

*Honorary Secretaries:* WILLIAM ALEXANDER POTTS, M.D., 118, Hagley Road, Birmingham; ALEXANDER BRYCE, M.D., "St. Kilda," Anderton Park Road, Moseley, Birmingham; HECTOR CHARLES CAMERON, M.D., 6, St. Thomas Street, London.

### TROPICAL MEDICINE.

**An announcement with regard to this Section will be published shortly.**

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Honorary Local Treasurer—

J. T. J. MORRISON, Esq., F.R.C.S.,
54, Newhall Street, Birmingham.

Honorary Local Secretaries—

ALBERT LUCAS, Esq., F.R.C.S.,
9, Easy Row, Birmingham.

JOHN FURNEAUX JORDAN, Esq., M.B, F.R.C.S.,
9, Newhall Street, Birmingham.

W. TRACEY LYDALL, Esq., M.D.Brux.,
122, City Road, Birmingham.

A. W. NUTHALL, Esq., F.R.C.S.,
89, Cornwall Street, Birmingham.

### PROVISIONAL PROGRAMME.

**The following is suggested as a provisional Time Table. The final fixing of the hour for the meeting of the Representative Body is left to the Chairman of the Representative Meetings and the Chairman of Council:**

FRIDAY, JULY 21ST, 1911.
10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 22ND.
9 A.M.—Representative Meeting.

MONDAY, JULY 24TH.
9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.
4 P.M.—Annual General Meeeting to appoint Auditors.
7 P.M.—Secretaries' Conference and Dinner.

TUESDAY, JULY 25TH.
9.30 A.M.—Representative Meeting.
4 P.M.—Religious Service.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 26TH.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.

THURSDAY, JULY 27TH.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 28TH.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings,

SATURDAY, JULY 29TH.
Excursions.

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# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

### BIRMINGHAM BRANCH.

**THE third ordinary meeting of this Branch was held on Thursday, December 15th, at the Medical Institute. The PRESIDENT (Professor Gilbert Barling) was in the chair and forty-five members were present.**

*Confirmation of Minutes.*—**The minutes of the previous meeting were read, confirmed, and signed.**

*Institutional Treatment of Puerperal Septicaemia.*—**The following resolution was moved by Dr. THOMAS WILSON, seconded by Dr. LYDALL, and, after some discussion, carried unanimously:**

> That in view of the difficulties attending the treatment of puerperal septicaemia in the patients' own homes, this meeting of the Birmingham Branch of the British Medical Association is of opinion that institutional treatment of cases of this affection is urgently needed; and that such institutional treatment would be of much advantage to the women affected and would be of value in assisting to prevent the spread of infection; and that a copy of this resolution be forwarded to the Chairman of the Health Committee of the City Council.

*Bluebottle Larvae in Intestine.*—**Professor LEITH showed four rat-tailed larvae of the bluebottle fly, which had been passed per anum by a farmer, and had been sent to him for examination.**

*Substernal Goître.*—**Mr. GEORGE HEATH showed a substernal goître removed for pressure on the right innominate vein. The patient was a lady, aged 50, who complained of swelling of the chest and neck and right arm, with a feeling of fullness in the head and dizziness. There were marked signs of venous pressure. The right arm and the right side of the neck were**

swollen, congested, and the superficial veins were much enlarged. The arm was oedematous. There were no signs of pressure on the trachea. At the operation the bronchocele was extremely congested and vascular. The right lobe sent two processes behind the sternum and inner end of the right clavicle which compressed the right innominate vein. They were removed with some difficulty. The patient made an excellent and rapid recovery.

*Lingual Dermoid.*—Mr. SEYMOUR JONES showed a case of lingual dermoid, which presented itself as a cystic growth, the size of a walnut, in front of the epiglottis at the root of the tongue.

*X-Ray Diagnosis of Phthisis.*—Dr. W. B. KNOBEL read a paper on *x* rays in the diagnosis of phthisis, and showed a number of lantern slides in illustration thereof. The paper was discussed by the PRESIDENT, and by Drs. SHORT, DOUGLAS STANLEY, CODD, MELSON and WYNN. Dr. KNOBEL replied.

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## BOMBAY BRANCH.

A MEETING of the members of this Branch was held in the University Library on Thursday, November 24th, when Lieutenant-Colonel C. H. L. MEYER, I.M.S., M.D., the Senior Vice-President, occupied the chair. The following members were also present: Drs. M. B. Patel, Vazifdar, J. M. Meher-Homjee, D. M. Gagrat, F. N. Kapadia, Sorab K. Nariman, Sorab K. Engineer, Lieutenant-Colonel W. E. Jennings, I.M.S., Major S. E. Evans, I.M.S., Drs. A. P. Bacha, J. B. Mama, K. N. Karanjia, J. Dordi (a visitor), and the Honorary Secretary, Dr. D. R Bardi.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

*Draft Rules for Branch.*—The draft rules for the Branch (circulated amongst the members), amended by the Branch Council in conformity with the views expressed by members in response to the circulation of their first draft rules, were discussed, and with only two additions—incorporated in writing in the printed draft rules, on the suggestion of Dr. F. N. KAPADIA and others—they were unanimously adopted, on the motion of Lieutenant-Colonel W. E. JENNINGS, I.M.S., seconded by Dr. J. M. MEHER HOMJEE.

*Representative at Representative Meetings.*—On the motion of Lieutenant-Colonel W. E. JENNINGS, I.M.S., seconded by Dr. SORAB K. ENGINEER, Lieutenant-Colonel H. P. Dimmock, I.M.S., M.D., was elected as the Substitute Representative for Representative Meetings for the remaining period of the year, in place of Lieutenant-Colonel L. F. Childe, I.M.S.

*Vote of Thanks.*—After a vote of thanks to Dr. Sorab Nariman, who occupied the chair at a later stage of the meeting, as Colonel Meyer had to leave to attend another meeting, the meeting was dissolved.

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## GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of the Branch was held at the Cheltenham General Hospital on December 15th, 1910, at 7 p.m. The PRESIDENT was in the chair, and there were thirty-eight members present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Election of Representative.*—On the proposal of Dr. MARTIN, seconded by Dr. CARTER, Dr. FINLAY was re-elected Representative for the year 1911.

*Exhibits.*—Dr. BOWERS, of Cheltenham, showed: (1) Specimen of sarcoma of ciliary body; (2) a case operated on for ectropion. Dr. E. CARTER gave notes, and showed specimen from a case of tuberculous pericarditis. Dr. F. JOHNS gave notes, and showed specimen of cirrhosis of stomach in a case of tuberculosis.

*Medical Inspection of School Children.*—Dr. MARTIN read a paper on medical inspection of children attending public elementary schools in the county of Gloucester. A discussion followed, in which the PRESIDENT and Dr. GRACE STEWART BILLINGS and Messrs. PRUEN, AFFLECK, HOWELL, and GARRETT took part. It was proposed by Dr. FINLAY, seconded by Dr. CARDEW, and carried by 16 to 3, to postpone further discussion till the meeting on December 22nd.

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A SPECIAL general meeting of the Branch was held at the Royal Infirmary, Gloucester, on December 22nd, 1910, at 4.45 p.m. The PRESIDENT was in the chair, and twenty-five members were present. Dr. Bibby, a non-member, was invited to be present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Rules for District Nursing Association.*—A discussion was introduced by the SECRETARY on model rules for district nursing associations, with special reference to the minute passed by the Branch on November 18th, 1909:

> The Gloucestershire County Nursing Association objected to the rule, and asked that the following rider should be added:
>
> This rule is not intended to preclude the nurse from giving friendly help in cases of trifling ailments and accidents, such as would be attended to by a good children's nurse in any large household. The Secretary and Committee of Local Associations should keep themselves informed of all such work done by their nurses.

This rider was proposed by Dr. ANCRUM and seconded by Dr. MARTIN. A long discussion followed, in which the PRESIDENT and Drs. COX, CARDEW, CARTER, CUTHBERT, JOHNSTONE, LLOYD DAVIS, SCOTT, BIBBY, and the SECRETARY joined. The rider was lost by 22 to 2. The original minute as passed on November 18th, 1909, was then put from the chair and carried by 18 to 2.

*Proposed Arrangements as to Meetings.*—After discussion, it was proposed by Mr. CUTHBERT, seconded by Dr. CARDEW, that a trial should be made of having meetings at 5.30 and dinner at 7.30 p.m. Attention was drawn by Dr. CARDEW to length of speeches in discussions.

*Fees for Certification of Inability to Attend School.*—Mr. EDGAR ELLIS introduced the subject of fees for certification of illness of children unable to attend school. A discussion followed in which Drs. ANCRUM, BOWER, CARDEW, HOPE, CUTHBERT, GOSS, MARTIN, and MCLANNAHAN took part. It was determined to ask the Council to select a deputation to approach the county and city authorities on the subject.

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## LANCASHIRE AND CHESHIRE BRANCH.

A CLINICAL meeting of this Branch was held, at 2.30 p.m. on Thursday, December 15th, in the Liverpool Royal Infirmary, by invitation of the Committee and the Medical Board. About eighty members of the Branch were present, including several from distant Divisions of the Branch. No papers were read.

*Demonstrations.*—The members of the honorary staff provided a series of demonstrations, comprising the exhibition and description of interesting cases, the performance of surgical operations, radiography, the employment of special methods of clinical examination, and clinical pathology and bacteriology. After the demonstrations afternoon tea was provided by the Chairman and Committee of the infirmary, and several members of the Committee, as well as Mr. Francis Moore, the Secretary and Superintendent, were present to show the visitors over the building.

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## METROPOLITAN COUNTIES BRANCH:

### CHELSEA DIVISION.

A MEETING of the Division was held at the Fulham Town Hall on December 20th, 1910, Dr. JAMES YOUNG in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*British Red Cross Society and Teaching of First Aid.*—A letter was read from Dr. J. Halls Dally, a member of the Division, enclosing correspondence between him and the Honorary Secretary of the Chelsea

Division of the British Red Cross Society with reference to the teaching of first aid and sick nursing. Dr. Halls Dally was requested to do this work voluntarily, and he declined. Dr. FLETCHER moved, and Dr. BUTLER seconded, the following resolution, which was carried unanimously:

> That Dr. Halls Dally be informed that the Chelsea Division approves of his action, and is of opinion that no work of this, or any other description, should be undertaken by medical men unless they receive adequate fees for it.

*State Sickness Insurance.*—A letter from Dr. Goodall, the Honorary Secretary of the Metropolitan Counties Branch, was read. He regretted his inability to be present, and urged the Division not to commit itself to the adoption of any particular scheme of State insurance until it has all the possible schemes before it.

*Medical Treatment of School Children.*—A communication from the London County Council, enclosing the following resolution, adopted by the Chelsea Local Association as to the medical treatment of school children, was presented:

> We are of opinion that the treatment of the children at the hospitals should be continued, but we do not approve of the present form of assessment of the parents, and we think that there should be better supervision in the distribution of the cards and in the care of children after they have been discharged from the hospitals.

A letter from the Honorary Secretaries of the Branch Council was read in which they inquired if the Division had been able to formulate any scheme satisfactory to the London County Council for the treatment of school children by local medical practitioners in its area. The HONORARY SECRETARY remarked that a special meeting was held on May 3rd last to discuss this subject, when Sir Victor Horsley and Dr. Howard were present. The former explained the details of the draft proposal which the School Committee of the Branch suggested the Divisions should submit to the London County Council, and Dr. Howard described the negotiations that had taken place between the Norwood Division and the London County Council. Eventually a committee was appointed to represent the Division and also the practitioners who did not belong to it, and to formulate a scheme to be submitted to the London County Council. The Honorary Secretary stated that he called a meeting of this committee on May 24th, when a subcommittee was appointed. A meeting of this subcommittee was held on May 31st, at which two members only were present. In consequence of the small attendance, further consideration of the matter was postponed until the annual meeting of the Division on June 21st. At that meeting it was decided to take no further action at present, but to await the result of the negotiations pending between other Divisions and the London County Council. It was now decided that the committee (described as the School Clinic Committee) should be called together early in the new year.

*Letters from Walthamstow and Altrincham Divisions.* — Letters from the Walthamstow and Altrincham Divisions were postponed until the next meeting.

*Defaulting Patients.*—Consideration of a proposed resolution as to defaulting patients was adjourned to the next meeting.

*P.S.A. Sick Club.*—The SECRETARY reported that he had, as directed by resolution of the meeting on November 1st, 1910, requested the Medical Secretary of the Association to insert a Warning Notice in the JOURNAL concerning this society. The Medical Secretary replied that the notice could not be inserted unless the Chairman of the Central Ethical Committee was satisfied that the Division was taking all possible steps to secure the objects for which the Warning Notice was to be inserted. He also inquired if the Division had made any representations to the authorities of the sick club. The Secretary stated that on receipt of this reply he had written to the secretary of the club in question, enclosing a copy of the resolution passed at a meeting of local practitioners held on November 1st, 1910, with reference to that society, and also stating the two main objections to its rules, namely: (1) That they do not include a wage limit; (2) that in them no provision is made for representation of the medical staff in the management. He had further inquired if the society would be prepared to so amend their rules as to meet these objections. A copy of this letter was sent to the Medical Secretary of the Association. Further discussion of this subject was adjourned to the next meeting.

*State Invalidity and Sick Insurance.*—Dr. E. R. FOTHERGILL attended by invitation and explained at length his proposals, as set out in the BRITISH MEDICAL JOURNAL of September 17th, 1910, reprints of which had been circulated amongst the medical practitioners of Chelsea and Fulham. The meeting listened intently to a most able exposition of his own views and to a searching analysis of the objections that had been urged against them. He strongly advised the Division to protect the interests of the general practitioner by advocating a scheme which would include adequate payment according to work done.

*Vote of Thanks.*—A hearty vote of thanks was accorded Dr. Fothergill for his address.

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### CITY DIVISION.

A GENERAL meeting of the Division was held at the Town Hall, Hackney, on Tuesday, December 13th, 1910, at 4 p.m. Thirty members and visitors were present.

*Confirmation of Minutes.*—After tea, which was served at 4 o'clock, the minutes of the general meeting of November 11th, 1910, were read, confirmed, and signed by the CHAIRMAN (Dr. E. A. Lermitte).

*Paper.*—The CHAIRMAN then introduced Dr. T. J. HORDER, F.R.C.P., of St. Bartholomew's Hospital, by whom a most interesting and instructive paper was read on the problem of rheumatic fever. This was followed by a discussion, in which the CHAIRMAN and Drs. STANHOPE DAWSON, OTTO MAY, MAJOR GREENWOOD, E. W. GOODALL, PORTER, J. W. HUNT, HADFIELD, and others took part, and many questions were asked, to which Dr. HORDER kindly replied very fully.

*Vote of Thanks.*—On the motion from the Chair, a hearty vote of thanks was tendered to Dr. Horder and carried by acclamation; this having been suitably acknowledged, the meeting closed at 6 p.m.

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### KENSINGTON DIVISION.

*National Organization of Medical Attendance on Wage-earning Classes.*—A meeting of this Division was held on Friday, December 9th, 1910, at the Kensington Town Hall, when forty members and visitors were present to hear an address from the Medical Secretary on the National Organization of the Medical Attendance on the Wage-earning Classes. Mr. SMITH WHITAKER alluded to the recommendations of the Minority and Majority Reports of the Royal Commission on the Poor Law; to the possibilities of the forthcoming proposals of the Government for sickness and accident insurance; and to the controversies amongst the members of the Association with regard to the Public Medical Service proposals of the Association. The long and lucid address was followed with the closest interest by those present, and, on the motion of the CHAIRMAN (Dr. Charles Buttar), a hearty vote of thanks was accorded to Mr. Smith Whitaker.

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## SOUTH MIDLAND BRANCH:

### NORTHAMPTONSHIRE DIVISION.

A MEETING of the Division was held in the Board Room of the Northampton General Hospital on December 13th. Dr. TERRY was in the chair, and there were present Drs. Burt, Hichens, Gibbons, Grindon, Baxter, Evans, and Bailey.

*Confirmation of Minutes.*—The minutes were read and confirmed.

*Club Fees.*—Dr. HICHENS read a communication from Dr. Harries-Jones, the Branch Secretary, stating that the Branch at the autumnal meeting had requested that the Divisions should take an early opportunity of discussing club fees. He also read a letter from Dr. Larking, the Secretary of the Buckinghamshire Division, on the same subject. The question was then discussed by Drs. TERRY, BAXTER, HICHENS, and EVANS, and emphasis was laid on the fact that, as invalidity insurance was about to be taken up by the Government, it would be most undesirable to begin a quarrel with the friendly societies at the present juncture. On the proposition of Dr. BURT, seconded by Dr. BAXTER, the following resolution was passed unanimously:

> The members of the Division, while recognizing that 4s. a year is a totally inadequate club payment, think that it would be undesirable to propose any corporate action till after the question of invalidity insurance has been settled by the Government. They are prepared, however, to give any assistance they can to any individual medical man trying to raise his fees.

*Cases.*—Dr. HICHENS then showed some clinical cases, and the meeting adjourned to a tea kindly provided by Dr. Evans at his house.

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## SOUTH WALES AND MONMOUTHSHIRE BRANCH:

### MONMOUTHSHIRE DIVISION.

A MEETING of this Division was held in the Newport and Monmouthshire Hospital on Friday, November 25th. Dr. LAWRENCE, Chairman, presided, and the following members were also present: Drs. Crinks, Cowie, Greer, J. L. Thomas, T. M. Thomas, Jones, Gregg, O'Keefe, Morgan, Gratte, Vines, Daniels, Joubert, Bird, and Coulter.

*Apology for Non-attendance.*—Apology for inability to attend was received from Dr. S. Hamilton.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Vote of Sympathy.*—On the motion of the CHAIRMAN, a very sincere vote of sympathy with the relatives of the late Dr. G. A. Brown of Tredegar (a former Chairman of the Division) was passed.

*Election of Representative.*—Mr. W. J. GREER was unanimously elected Representative for the Annual Representative Meeting in July, 1911.

*Report re Disputes.*—It was reported that a satisfactory settlement of the Cwmtillery dispute had been effected, and the warning notice had been withdrawn from the JOURNAL. A report on the Ebbw Vale dispute was also submitted and discussed.

*Ethical.*—The question of an appointment at Abertysswg was considered. The interim report of the Central Ethical Committee on the position of medical practitioners called upon to examine patients who are under the care of other practitioners was considered and approved.

*Altrincham Division.*—The resolution from this Division was considered, and it was decided to defer the matter pending receipt of the report of the Poor Law Reform Committee.

*Clinical Cases and Specimens.*—Drs. MORGAN and CRINKS showed cases of naevus under treatment with carbon dioxide snow. Dr. VINES: Tumour of the parotid region. Dr. R. J. COULTER: Paradoxical pupil. Drs. THOMAS, GREER, COULTER, and GRATTE: Thyroidectomy for exophthalmic goître. Dr. THOMAS: Gastro-jejunostomy. Dr. GREER: Enlarged lobes of thyroid from two cases of exophthalmic goître.

*Tea.*—Tea was provided for the members present.

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## SOUTH-WESTERN BRANCH;

### EAST CORNWALL DIVISION.

A SPECIAL meeting of members of the newly-formed East Cornwall Division of the British Medical Association was held at Liskeard on December 19th, 1910.

*Election of Officers.*—The following officers were elected: *Chairman*, Dr. W. Nettle; *Vice-Chairman*, Dr. S. G. Vinter; *Honorary Secretary and Treasurer*, Dr. E. M. Pearse; *Representative for Representative Meeting*, Dr. W. Hammond; *Representative for Branch Council*, Dr. R. Hingston.

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## STIRLING BRANCH.

A SPECIAL meeting was held by the kind invitation of Captain Stirling, of Keir, in the hospital, Doune Road, Dunblane, on Thursday, December 8th, at 3 p.m. Drs. Katharine R. M. Lucas, Haldane, Greig, Moorhouse, Gardner, Ronalk, Hunter, Wood, Dewar, Lawrence, Mitchell, Highet, Buist, Mackenzie, and Stewart attended, and the Hon. Mrs. Stirling of Keir, Principal Stewart, St. Andrews, Drs. Paterson and Ward of Glasgow, and Dr. Cribbes of Carronshire, the Rev. Messrs. Ritchie and Nicol, and Messrs. Templeton and J. G. Stewart were present as guests.

*Telegram from Chairman.*—A telegram from the President (Dr. Strachan) regretting his unavoidable absence, and expressing his hope that the meeting would be a success, was received.

*Confirmation of Minutes.*—Lieutenant-Colonel GREIG occupied the chair, and signed the minutes of the previous meeting.

*Intravenous Injection of Iodoform in Pulmonary Tuberculosis.*—Dr. T. W. DEWAR (Dunblane) gave a demonstration of the mode of preparation of the solution of iodoform in ether and liq. paraffin., which he uses intravenously in the treatment of pulmonary tuberculosis. He referred to the insecurity attending treatment of the disease on purely sanatorium lines, giving the statistics for a number of years of the Bridge of Weir Sanatorium. He also alluded to the fact that as tuberculin is now known not to be the true toxin of tubercle, and as no true opsonization of the blood is believed to take place after its injection, as no agglutinin is formed, as the blood has no bacteriolytic or bactericidal property, the rationale of its use on the lines of scientific vaccine-therapy is not fulfilled. He showed, too, how a patient may be immunized to Koch's Old Tuberculin, tolerating in four days $2\frac{1}{2}$ c.cm. subcutaneously, and after an interval of four days $1\frac{1}{2}$ c cm. intravenously, without being upset, and yet harbour tubercle in her sputum which injected into a guinea-pig caused tuberculosis. He exhibited a chart showing details of Koch's injection, Calmette's, Moir's, and von Pirquet's tests, disclosing most anomalous and contradictory results in the phthisical and healthy. Other charts showed the great diurnal variation in weight both in health and disease, the diurnal variations in blood pressure in haemoglobin, and the different percentages obtained by different methods at the same observation; the wide range of rectal temperature in the healthy, the discrepancy in the readings of oral and rectal temperatures taken simultaneously, the antipyretic effect of iodoform injections in phthisis, and its general beneficial effect He also referred to the intermediate forms of tubercle bacilli and how they may possibly re-establish on scientific grounds the old belief in the heredity of the disease, showing several pedigrees of tuberculosis in support of this. He referred to the statement that the treatment was alleged to have caused embolism. If it can do so he had never met with a single instance of it during the ten years he had employed the method, and during that time he must have given thousands of injections. The fact that it seems to diminish the risk of haemoptysis was also referred to—how it diminishes cough, gives better sleep, and does not affect the appetite. In concluding he acknowledged the disinterested kindness of Captain and the Honourable Mrs. Stirling of Keir in building, equipping, and defraying all cost in connexion with the Hospital for Consumption at Dunblane.

*Vote of Thanks.*—Lieutenant-Colonel GREIG moved a vote of thanks to Dr. Dewar for his demonstration. This was carried with acclamation.

*Tea.*—The members and guests were afterwards entertained to tea by Captain and Mrs. Stirling.

ULSTER BRANCH:

BELFAST DIVISION.

THE opening meeting of the session was held on Tuesday, December 15th, in the Medical Institute. Dr. J. SIMPSON, Chairman, presided, and there were 33 members present.

*Chairman's Address.*—The CHAIRMAN gave an introductory address on the history of the Forster Green Hospital for Consumption and Chest Diseases, of which he was an original member of the staff. Sir JOHN BYERS proposed and Professor SINCLAIR seconded a vote of thanks for the address.

*Discussion on Tuberculosis.*

A discussion then took place on tuberculosis. Each speaker was allowed seven minutes and spoke on a separate aspect of the problem.

Professor SINCLAIR spoke on tubercle of the serous membranes, peritoneum, and pleura from the surgical aspect.

Sir JOHN BYERS gave statistics in relation to tubercle and pregnancy. He showed that while the incidence in single women fell from 30 years of age onwards, in married women it increased from 25 to 45 years. In the child-bearing period in Ireland the incidence in tubercle rose at school age more in girls than boys. The favourable results obtained in Denmark by the separation of calves from tuberculous cows that had given the tuberculin reaction was dwelt on.

Dr. CALWELL dealt with the susceptibility to tubercle from a clinical standpoint; Dr. MCKISACK the value of physical signs in the estimation of a lesion.

Mr. MITCHELL mentioned cases of gastric and duodenal ulcers where glands removed from the lymphatic tract proved to be tuberculous. He also spoke of the German statistics of the number of cases of gastric ulcer that later develop phthisis.

Dr. HOUSTON spoke of the newer methods evolved from the laboratory, the various tuberculin reactions, agglutinations, and opsonic tests. He spoke of the difficulty of deciding with the tuberculin reactions whether, when the reaction was positive, the tubercle was the cause of the symptoms from which the patient was at the time complaining.

Dr. CECIL SHAW said tubercle of the larynx was now looked on as almost always secondary, and not a primary focus.

Mr. FULLERTON related a case of apparently primary tubercle of the bladder, the kidney or epididymis being nearly always the first seat of infection. The cystoscope and catheterization of the uretus were practically indispensable if a correct diagnosis of genito-urinary tubercle was to be made.

The CHAIRMAN having spoken on the general question, the meeting was brought to a close.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ELECTION OF CENTRAL COUNCIL 1910-11

FOR this constituency, which had not previously made any nomination for representation on the Central Council the following is declared duly elected:

| *Grouped Branches.* | *Name of Representative.* |
|---|---|
| Cape of Good Hope (Western), Cape of Good Hope (Eastern), Cape of Good Hope (Border), Griqualand West (including Orange River Colony), Transvaal, Natal, Egyptian, Malta, and Mediterranean, and Gibraltar Branches | Dr. T. D. Greenlees, Fenstanton, Streatham Hill, S.W. |

By Order,

GUY ELLISTON,

*Financial Secretary and Business Manager.*

December 28th, 1910.

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 25th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,

*Financial Secretary and Business Manager.*

January 5th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D, Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting of the Division will be held at the Town Hall, Hackney, on this day, Friday, January 6th, at 4 p.m.—Agenda: 1. Minutes. 2. Letters. (*a*) From Walthamstow Division. 3. Matters referred to the Division:—From Medico-Political Committee: (*a*) Model rules concerning nursing associations; (*b*) regarding instruction in first aid, hygiene, and kindred subjects; (*c*) scale of fees for life assurance medical examinations; (*d*) (1) notification of ophthalmic neonatorum; (*d*) (2) report of the Honorary Secretary *re* interview with the Medical Officer of Health for Hackney. From Hospitals Committee: (*a*) Representation of local profession on hospital managements; (*b*) barring of paid appointment holders from private practice. From Central Ethical Committee: Examination of patients under care of other practitioners. 4. Consideration of proposed adoption of model ethical rules; Dr. Goodall will move, "That it is desirable that Rule Z be adopted as soon as possible by the Division." 5. Interim report by Honorary Secretary upon ward committees. 6. Treasurer's report upon financial position of the Division. 7. Other business.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting will be held at the rooms of the Medical Society of London, Chandos Street, Cavendish Square, W., on Monday, January 9th, at 4.30 p.m. Agenda: Minutes; Questions; Letters; any other Business. At 5 p.m. there will be a special meeting of all registered practitioners of Marylebone on treatment of school children. The aim of the discussion will be the formulation and recommendation of some scheme for the treatment of those children who are at present untouched by private practice. It is proposed that the following questions should be considered in the order given; other suggestions will be welcomed, but they should reach the Honorary Secretary three clear days before the date of the meeting: (1) Is it desirable that school clinics should be established within hospital premises? (2) Should independent school clinics be established in centres convenient to the school districts by the London County Council; and staffed by registered practitioners, selected, appointed, and adequately paid by the London County Council? (3) Should independent school clinics be established in centres convenient to the school districts by local registered medical practitioners, and staffed by practitioners selected from amongst themselves; the cost of such clinics including equipment, maintenance, and medical service, to be borne by the London County Council? Further, to appoint a committee to carry out the recommendations of the meeting.—N. BISHOP HARMAN, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—The third ordinary meeting of the session will be held on Friday, January 13th, at 9.15 p.m., at the Hornsey Conservative Association's Rooms, Station Road, Finsbury Park. Chairman, Dr. A. Greenwood. Business: 1. Consideration of position of medical men called upon to examine the patients of other practitioners—after paper by Dr. W. H. Paine (Wood Green). 2. Dr. J. R. Fuller (Crouch End), on A Public Medical Service and Contract Practice. Discussion to follow. 3. Any other business.—J. A. PERCIVAL BARNES, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION. The next meeting of the Division will be held on Thursday, January 12th, at the Criterion Restaurant. Dinner, 7.30 p.m. Dr. Goodall, Secretary of the Metropolitan Counties Branch, will read a paper on Some Points connected with the Serum Treatment of Diphtheria. All members of the Association are invited to attend.—J. HOWELL EVANS, Honorary Secretary.

# Naval and Military Appointments

## ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEONS G. T. COLLINGWOOD, M.V.O., and A. R. BANKART, M.V.O., M.B., Honorary Physician to the King, have been awarded the Sir Gilbert Blane gold medals, granted for "distinguished proofs of skill, diligence, humanity, and learning in the exercise of their professional duties."

The following appointments have been made at the Admiralty:—Fleet Surgeon R. A. FITCH and Surgeon N. S. MEIKLEJOHN to the *Neptune* on commissioning, January 11th; Fleet Surgeon E. C. CRIDLAND, M.B., to the *Illustrious*, on recommissioning, January 11th; Fleet Surgeon A. MACLEAN, M.B., to the Royal Marine Artillery, January 11th; Fleet Surgeon E. C. WARD, M.B., to the *Jupiter*, January 11th; Fleet Surgeon H. W. FINLAYSON, M.B., to the *Victory*, for the Royal Naval Barracks, January 4th; Fleet Surgeon E. J. FINCH, M.D., to the *Blake*, January 4th; Fleet Surgeon C. S. FACEY, M.B., to the *Warrior*, January 4th; Fleet Surgeons E. B. TOWNSEND and F. D. LUMLEY, Staff Surgeons H. H. PEARSE, L. E. DARTNELL, S. CONNER, M.B., R. WATERFIELD, G. E. MACLEOD, F. C. B. GITTINGS, M.D., J. A. FORREST, M.B., H. R. GARDNER, M.B., N. J. ROCHE, P. G. WILLIAMS, J. G. PEEBLES, M.B., and W. E. GRIBBELL, and Surgeons F. M. V. SMITH, E. B. KENNY, M.B., L. C. E. MURPHY, and H. B. GERMAN, to the *President*, additional, for three months' course of hospital study, January 5th (to join Greenwich College, January 4th); Staff Surgeon C. J. E. COCK, to the *Thames*, January 4th; Staff Surgeon O. REES, M.D., to the *St. George*, January 4th; Staff Surgeon J. K. RAYMOND, M.B., to the *Foresight*, January 4th; Staff Surgeon J. THORNHILL, M.B., to the *Vivid*, on expiration of foreign service leave, undated; Staff Surgeon A. K. SMITH-SHAND, M.B., to the *Natal*, January 4th; Surgeon G. R. MCCOWAN, M.D., to the *Victory*, additional, for disposal, December 17th, 1910; Surgeon C. H. DAWE, to the *Pembroke*, January 2nd; Surgeon S. H. VICKERY, M.B., to the *King Alfred*, additional, January 2nd; Surgeon J. A. THOMPSON, M.B., to the *Pembroke*, additional, for disposal, January 2nd; Fleet Surgeon F. FEDART, M.B., to the *Mars*, on recommissioning, January 12th; Fleet Surgeon G. G. BORRETT, and Surgeon J. H. MCDOWALL, M.B., to the *Lord Nelson*, on recommissioning, January 12th; Fleet Surgeon G. LEY and Surgeon D. LOUGHLIN, M.B., to the *Triumph*, on recommissioning, January 11th; Staff Surgeon E. S. TUCK to the *Victorious*, on recommissioning, January 12th; Staff Surgeon E. H. HODNET DE COURTMACSHERRY, M.D., and Surgeon A. B. MARSH, to the *Hibernia*, on recommissioning, January 12th; Surgeon E. P. G. CAUSTON to the *Vivid*, additional, for disposal, January 13th; Surgeon L. L. GREIG, M.B., to the *Cumberland*, January 13th; Surgeon H. B. HILL, M.B., to the *Racer*, additional, for Osborne College, and for duties in connexion with physical training, January 13th; Surgeon W. H. KING to the *Leviathan*, January 13th; Staff Surgeon A. I. SHELDON to the *Britannia*, December 21st, 1910; Staff Surgeon A. DAVIDSON, M.B., to the *Pembroke*, for the Royal Naval Barracks, January 2nd; Staff Surgeon H. R. H. DENNY and Surgeon F. J. GOWANS to the *President*, additional, for hospital course, January 5th; Staff Surgeon C. R. SHEWARD, M.B., to the *Pathfinder*, on recommissioning, January 17th; Surgeon J. A. THOMPSON, M.B., to the *King Edward VII*, January 2nd; Surgeon H. STONE, M.B., to the Royal Naval Barracks, January 2nd; Surgeon F. C. ALTON to the *Berwick*, January 2nd; Surgeon F. C. ROBINSON to the *Pembroke*, additional, for disposal, January 2nd; Surgeon S. L. MCBEAN, M.B., to Portland Hospital, December 21st, 1910; Surgeon H. M. LANGDALE, to the Royal Marine Division, Portsmouth, undated: Surgeon H. WOODS, M.B., to the *Barham*, on recommissioning, January 24th; Surgeon C. H. L. PETCH to the *Indus*, January 24th.

## ARMY MEDICAL SERVICE.

COLONEL R. PORTER, M.B., has been appointed Principal Medical Officer at Malta, vice Colonel W. G. MACPHERSON, C.M.G., M.B., who has proceeded to India.

### ROYAL ARMY MEDICAL CORPS.

Lieutenant B. G. GOODWIN resigns his commission, December 21st, 1910. He was appointed on probation, July 31st, 1909.

Captain R. G. H. TATE, M.D., Brigade Laboratory, Ambala, India, is appointed Specialist in the Prevention of Disease, from October 18th, 1910.

## ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL R. H. HALL, M.D., has been appointed Senior Medical Officer, Bermuda.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

LIEUTENANT C. J. SIMPSON, M.B., is confirmed in his rank.

## TERRITORIAL FORCE.

### ROYAL ARMY MEDICAL CORPS.

*Second East Anglian Field Ambulance.*—Captain G. B. MASSON, to be Major, October 10th.

*First London (City of London) General Hospital.*—The surname of Captain G. E. GASK, F.R.C.S Eng., is as now stated, and not as announced in the *London Gazette* of September 29th, 1908.

### INFANTRY.

Surgeon-Major E. P. A. MARIETTE, M.B., the 5th (Prince of Wales's) Battalion the Devonshire Regiment, resigns his commission, December 21st, 1910.

## INDIAN MEDICAL SERVICE.

MAJOR F. O'KINEALY is appointed Surgeon on the personal staff of the Governor-General of India from November 23rd.

Brevet-Colonel J. SHEARER, C.B., D.S.O., M.B., is permitted to retire from the service, from December 11th. Particulars of his commissions and war services were given in the BRITISH MEDICAL JOURNAL of December 10th, and therefore need not be repeated here.

Captain A. S. M. PEEBLES, M.D., is appointed Specialist in Mental Diseases, Northern Army, from October 17th.

Lieutenant-Colonel D. ST. J. D. GRANT, M.B., is appointed to officiate as Principal Medical Officer, Sirhind and Jullundur Brigades, vice Lieutenant-Colonel J. W. RODGERS, who, on relief, will revert to his regiment, the 52nd Sikhs.

Lieutenant-Colonel E. F. H. DOBSON, M.B., Bengal, is permitted to retire from the service, from November 27th, 1910. He was appointed to the Bengal Medical Department, October 2nd, 1880, and became Lieutenant-Colonel, October 2nd, 1900.

## CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during November, 1910:

| | | FROM | | TO |
|---|---|---|---|---|
| Surgeon-General | J. G. MacNeece | Naini Tal | ... | Lucknow. |
| Colonel | T. M. Corker, M.D. | — | | Cairo. |
| ,, | M. W. Kerin, C.B. | Mussoorie | ... | Bareilly. |
| ,, | S. C. B. Robinson | Jubbulpore | ... | Peshawar |
| ,, | T. J. R. Lucas, C.B., M.B. | Peshawar | ... | Jubbulpore. |
| ,, | R. Porter, M.B. | Chester | ... | Malta. |
| ,, | W. G. Macpherson, C.M.G., M.B. | Malta | ... | India. |
| Lieut.-Col. | W. J. Baker | — | | Cairo. |
| ,, | A. E. Tate | Kasauli | ... | Ambala. |
| ,, | C. Birt | Dublin | ... | Curragh. |
| ,, | C. W. Johnson, M.B. | Gibraltar | ... | S. Command. |
| ,, | C. T. Blackwell, M.D. | Woolwich | ... | Madras. |
| ,, | G. Cree | Madras | ... | London. |
| ,, | S. G. Allen | London Dist. | ... | Gibraltar. |
| ,, | J. H. Daly | Tipperary | ... | Limerick. |
| ,, | J. J. Russell, M.B. | Limerick | ... | Salisbury. |
| Major | M. P. C. Holt, D.S.O. | Kasauli | ... | Ambala. |
| ,, | C. R. Elliott, M.D. | Dalhousie | ... | Lahore. |
| ,, | W. Hallaran, M.B. | London Dist. | ... | ,, |
| ,, | T. B. Beach | Aldershot | ... | Cairo. |
| ,, | A. E. Smithson, M.B. | Harrismith | ... | Wynberg. |
| ,, | W. W. O. Beveridge, D.S.O., M.B. | R.A.C. Factory | | London Dist. |
| ,, | G. A. T. Bray | Southampton | .. | Maidstone. |
| ,, | B. Forde, M.B. | Wynberg | ... | Bloemfontein. |
| ,, | H. J. M. Buist, D.S.O., M.B. | — | | Pretoria. |
| ,, | J. C. Jameson, M.B. | Khartoum | ... | Cairo. |
| ,, | A. F. Tyrrell | Fermoy | ... | Tipperary. |
| ,, | F. R. Buswell | London Dist. | | Jubbulpore. |
| ,, | A. C. Fox | — | | Tientsin. |
| ,, | S. J. C. P. Perry, F.R.C.S.I. | Dover | ... | India. |
| ,, | H. W. Grattan | Naini Tal | ... | Lucknow. |
| ,, | J. V. Forrest, M.B. | — | | Cairo. |
| ,, | A. H. Waring | Secunderabad | | Portland. |
| ,, | M. Swabey | Jubbulpore | ... | Secunderabad. |
| ,, | G. E. F. Stammers | Tidworth | ... | India. |
| ,, | S. L. Cummins, M.B. | London | ... | R.A.M. Coll. |
| ,, | H. G. F. Stallard | Aldershot | ... | India. |
| ,, | S. de C. O'Grady, M.B. | Cairo | ... | Khartoum. |
| ,, | H. P. W. Barrow | Liverpool | ... | Jamaica. |
| ,, | F. J. C. Heffernan, F.R.C.S.I. | Fyzabad | ... | London. |
| ,, | F. Ashe | Colchester | ... | Secunderabad |
| Captain | T. C. Lauder, M.B. | Cork Dist. | ... | Fethard. |
| ,, | H. H. Norman | Bhamo | ... | Rangoon. |
| ,, | C. C. Cumming, M.B. | London | ... | R.A.M. Coll. |
| ,, | A. M. MacLaughlin, M.B. | Pirbright | ... | London. |
| ,, | C. R. Evans | Strensall | ... | York. |
| ,, | J. G. Foster, M.B. | Curragh | ... | Bangalore. |
| ,, | B. S. Bartlett | Colchester | ... | Multan. |
| ,, | J. T. Johnson, M.D. | Newcastle-on-Tyne | | Sheffield. |
| ,, | W. R. P. Goodwin | R. Arsenal | ... | India. |
| ,, | H. E. J. A. Howley | Lichfield | ... | ,, |
| ,, | J. W. West, M.B. | Dublin | ... | India. |
| ,, | W. M. B. Sparkes | Uganda | ... | Dublin. |
| ,, | A. W. A. Irwin | Kildare | ... | Gibraltar. |
| ,, | S. M. Adye-Curran | Fermoy | ... | India. |
| ,, | N. D. Walker, M.B. | London | ... | R.A.M. Coll. |
| ,, | H. J. Crossley | York | ... | Richmond, Yorks. |
| ,, | J. W. S. Seccombe | Kasauli | ... | Jullundur. |
| ,, | T. S. Coates, M.B. | Queenstown | ... | Woolwich. |
| ,, | C. W. Holden | Peking | ... | Tientsin. |
| ,, | D. Abern | Limerick | ... | Egypt. |
| ,, | G. A. Kempthorne | Dalhousie | ... | Scottish Command. |
| ,, | M. C. Wetherell, M.D. | Meerut | ... | Sialkot. |
| ,, | L. Bousfield, M.D. | Taunton | ... | Falmouth. |
| ,, | W. F. H. Vaughan | — | | S. Command. |
| ,, | G. E. Cathcart | Lancaster | ... | Warrington. |
| ,, | R. J. Cahill, M.B. | Madras | ... | Irish Comd. |
| ,, | S. C. Bowle | Deolali | ... | S. Command. |
| ,, | G. A. D. Harvey | Khartoum | ... | Dover. |
| ,, | E. J. H. Luxmoore | Meerut | ... | E. Command. |
| ,, | K. A. C. Doig | Muttra | ... | S. Command. |
| ,, | J. S. Pascoe | Cairo | ... | Belfast Dist. |
| ,, | R. P. Lewis | Bloemfontein | .. | Wynberg. |
| ,, | W. McConaghy, M.B. | Tidworth | ... | Oxford. |
| ,, | M. Keane | Landour | ... | Meerut. |
| ,, | H. E. Gotelee | Ceylon | ... | Belfast. |
| ,, | C. T. Edmunds | Khanspur | ... | Peshawar. |
| ,, | V. G. Johnson | Peshawar | ... | Nowshera. |
| ,, | J. H. Spencer, M.B. | Gibraltar | ... | India. |
| ,, | E. J. Elliot, M.B. | — | | Tientsin. |
| ,, | W. F. M. Loughnan | Bareilly | ... | Amritsar. |
| ,, | O. C. P. Cooke | Colaba | ... | Khandalla. |
| ,, | J. C. Hart, M.B. | — | | Peking. |
| ,, | W. B. Purdon, M.B. | Maymyo | ... | Wellington. |
| ,, | H. W. Farebrother | Malapuram | ... | Bangalore. |
| Lieutenant | J. C. L. Hingston | Hilsea | ... | ,, |
| ,, | J. S. McCombe, M.B. | Bangalore | ... | Malapuram. |
| ,, | T. B. Nicholls, M.B. | Tidworth | ... | Egypt. |
| ,, | J. B. Jones, M.B. | Londonderry | ... | Lucknow. |
| ,, | S. McK. Saunders | Woolwich | ... | Cairo. |
| ,, | J. Startin | Deepcut | ... | Poona. |
| ,, | H. H. Leeson | Woolwich | ... | Cairo. |
| ,, | A. D. Stirling, M.B. | Aberdeen | ... | Edinburgh. |
| ,, | A. S. M. Winder, M.B. | Donard Camp | | Curragh. |
| ,, | J. R. Yourell, M.B. | Omagh | ... | Athlone. |
| ,, | W. B. Rennie, M.B. | Aldershot | ... | Deepcut. |
| ,, | H. G. Robertson, M.B. | Richmond | ... | Sheffield. |
| ,, | P. C. Field | Deepcut | ... | Aldershot. |

Lieutenants F. R. Laing, M.B., appointed on probation July 31st 1909, and J. T. Simson, M.B., January 28th, 1910, have been stationed at Aldershot.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 7,973 births and 4,611 deaths were registered during the week ending Saturday, December 24th. The annual rate of mortality in these towns, which had decreased from 18.1 to 15.2 per 1,000 during the three preceding weeks, further declined to 14.2 in the week under notice. Among the several towns the death-rates ranged from 6.8 in Stockton-on-Tees, 7.9 in Northampton, 8.6 in Smethwick, and 9.1 in Willesden and in Derby, 21.0 in Middlesbrough, 21.4 in Preston, 21.6 in Stoke-on-Trent, 25.4 in Dewsbury, and 25.9 in Rotherham; in London the death-rate did not exceed 14.0 per 1,000. The annual rate of mortality from the principal epidemic diseases in the seventy-seven towns during the period dealt with averaged 1.4 per 1,000; in London the rate was equal to 1.6 per 1,000, while among the seventy-six other large towns it ranged upwards to 2 9 in Middlesbrough, 3.5 in Grimsby, 4.5 in West Hartlepool, and 7.1 in Rotherham. Measles caused a death-rate of 2.0 in Tottenham, 2 5 in Plymouth and in West Hartlepool, 3.5 in Grimsby and 3.9 in Rotherham; diphtheria of 2.5 in King's Norton; and whooping cough of 1.9 in Middlesbrough. The mortality from scarlet fever, enteric fever, and diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,719 and 1,680 at the end of the two preceding weeks, further declined to 1,627 at the end of the week under notice; 167 new cases were admitted during the week, against 169 and 156 in the two preceding weeks

In seventy-seven of the largest English towns, 6,915 births and 4,591 deaths were registered during the week ending Saturday last, December 31st, 1910. The annual rate of mortality in these towns, which had been 16.8, 15.2, and 14.2 per 1,000 in the three preceding weeks, further declined to 14.1 per 1,000 last week. Among the several towns the death-rates ranged from 5.0 in Smethwick, 5.1 in West Hartlepool, 7.4 in King's Norton, 7.8 in Wallasey, and 7.9 in Hornsey and in Aston Manor to 18.8 in Oldham, 20.4 in Dewsbury, 22.0 in Rotherham, 23.1 in Huddersfield, and 24.0 in Tynemouth; in London the death-rate was equal to 14.5 per 1,000. The annual rate of mortality from the principal infectious diseases in the seventy-seven towns last week averaged 1.2 per 1,000; in London the rate amouted to 1.5 per 1,000, while among the seventy-six other large towns it ranged upwards to 2.6 in Hornsey, 2.9 in Great Yarmouth and in West Bromwich, 3.6 in Brighton, and 6.3 in Rotherham. Measles caused a death-rate of 1.8 in Bury and in Oldham, 2.1 in Grimsby, 2.4 in Brighton, and 4.7 in Rotherham; diphtheria of 1.1 in Walthamstow, 1.4 in Ipswich, and 1.5 in West Bromwich; whooping-cough of 1 3 in Newcastle-on-Tyne, and 1.6 in Rotherham; and enteric fever of 1.3 in Preston. The mortality from scarlet fever showed no marked excess in any of the large towns and no fatal case of small-pox was recorded during the week. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,680 and 1,627 at the end of the two preceding weeks, further declined to 1,594 at the end of last week; 140 new cases were admitted during the week, against 156 and 167 in the two preceding weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, December 24th, 823 births and 486 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.2 and 16.5 per 1,000 in the two preceding weeks, declined to 13.4 per 1,000, and was 0.8 per 1,000 below the mean rate during the same period in the large English towns. The rates in the several Scottish towns ranged from 8.9 in Paisley and 10.7 in Aberdeen to 19.6 in Perth and 20.8 in Dundee. The death-rate from the principal epidemic diseases averaged 1.1 per 1,000, and was highest in Greenock, Perth, and Dundee. The 223 deaths from all causes registered in Glasgow during the week under notice included 1 from scarlet fever, 6 from diphtheria, 3 from whooping-cough, and 5 from diarrhoea. Two deaths from scarlet fever, 2 from diphtheria, and 3 from whooping-cough were recorded in Dundee; 2 deaths from whooping-cough were registered in Aberdeen and 2 in Greenock.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 17th, 552 births and 432 deaths were registered in the twenty-two principal urban districts of Ireland, as against 533 births and 432 deaths in the preceding period. The annual death-rate in these districts, which had been 19.1, 18 1, and 19.6 per 1,000 in the three preceding weeks, remained at 19 6 per 1,000 in the week under notice, this figure being 4.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 19 8 and 17 7 respectively, those in other districts ranging from 8 0 in Dundalk and 9 6 in Sligo to 35.1 in Waterford and 48.7 in Lurgan, while Cork stood at 20 5, Londonderry at 20.4, and Limerick at 21 9. The zymotic death-rate in the twenty-two districts averaged 1.0 per 1,000, as against 1.5 per 1,000 in the previous week.

During the week ending Saturday, December 24th, 1910, 477 births and 423 deaths were registered in the twenty-two principal urban districts of Ireland, as against 552 births and 432 deaths in the preceding period. The annual death-rate in these districts, which had been 18.1, 19 6, and 19.6 per 1,000 in the three preceding weeks, fell to 19.1 per 1,000 in the week under notice, this figure being 4.9 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.6 and 17.6 respectively, those in other districts ranging from 4.8 in Sligo and 5.3 in Tralee to 31.0 in Portadown and 35.4 in Lurgan, while Cork stood at 17.1, Londonderry at 19.0, Limerick at 10.9, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000, as against 1.0 per 1,000 in the previous week.

During the week ending Saturday, December 31st, 1910, 584 births and 371 deaths were registered in the twenty-two principal urban districts of Ireland, as against 477 births and 423 deaths in the preceding period. The annual death-rate in these districts, which had been 19.6, 19.6, and 19.1 per 1,000 in the three preceding weeks, fell to 16.8 per 1,000 in the week under notice, this figure being 2.7 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 18.9 and 12.1 respectively, those in other districts ranging from 9.6 in both Ballymena and Sligo, and 10.6 in Tralee, to 29.4 in Newry and 31.8 in Lisburn; while Cork stood at 25.3, Londonderry at 16.8, Limerick at 28.7, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.0 per 1,000, as against 1.1 per 1,000 in the previous week

# Hospitals and Asylums.

## THE RETREAT, YORK.

THE annual report for 1909 of Dr. Bedford Pierce, the Medical Superintendent of this asylum, shows that on January 1st, 1909, there were 179 certified patients in the asylum and on the last day of the year 176. The total cases under treatment during the year numbered 223 and the average number daily resident 176.3. During the year 44 were admitted as compared with 52 for the year previous. Of the admissions 37 were direct and 7 indirect admissions, and in the direct admissions in 11 the attacks were first attacks within three and in 1 more within twelve months of admission; in 10 not-first attacks within twelve months, and of the remainder the attacks were of more than twelve months' duration, including 1 congenital case. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 6; melancholia of all kinds, 12; senile dementia, 2; delusional insanity, 5; general paralysis, 2; primary dementia, 4; confusional insanity, 3, and volitional insanity, acute delirium and congenital defect, 1 each. As to causation, Dr. Pierce says, that as is usual at the Retreat, the number due directly to intemperance was small, 2 out of 37. Syphilis does not appear to have been assigned in any case, but other toxins in 5; critical periods in 8; various bodily affections in 7; nervous disorders in 5 and mental stress in 8. An insane heredity was ascertained in 16, an epileptic heredity in 2, a neurotic heredity in 3, of eccentricity in 1 and of alcoholism in 5, giving a total neuropathic heredity in 27 out of 37, or just under 73 per cent. During the year 20 were discharged as recovered, giving a recovery-rate both on the direct admissions and of recoveries in the direct admissions on the direct admissions of 54.05 per cent. Also 7 were discharged as relieved, and 10 as not improved. During the year 10 died, giving a death-rate on the average number resident of 5.67 per cent. Of these 1 had been at the Retreat for fifty-six years, and two over forty years. The average age at death was 65 years. All deaths were from natural causes, and do not call for special mention. At the beginning of the year, also, there were 6 voluntary boarders, not included in the foregoing figures, in the asylum. During the year 25 were admitted, and at the end of the year there remained 5 on the hospital registers; 3 having been discharged as recovered, 12 as relieved, and 11 as not improved. Dr. Pierce says that although there is no doubt that in certain cases it is of considerable advantage that patients should be able to place themselves under care as voluntary boarders, it has to be admitted that this method of treatment is not so successful as might have been anticipated. On admission it is often found that the patient is either unwilling to remain or the malady is so severe that there is no proper understanding of the position, and in a short time certificates are necessary. During the year of the voluntary boarders had to be certified in this way.

## SUFFOLK DISTRICT ASYLUM.

ACCORDING to the annual report for 1909 of Dr. J. R. Whitwell, the Medical Superintendent of this asylum, there were 829 patients in the asylum on January 1st, 1909, and 815 on the last day of the year. The patients chargeable to Suffolk county decreased by 19 during the year. The total cases under treatment during the year numbered 1,047 and the average number daily resident 849 as compared with 875 for the previous year. During the year 218 were admitted, of whom 191 were direct and 27 indirect admissions. In only 49 of the direct admissions were the attacks first attack within three months, and 16 more within twelve of admission; 56 were cases of not-first attacks within twelve or not known whether first attacks or not; in al the remainder, including 18 congenital cases and 5 in whom the duration was unknown, the illness was of more than twelve months on admission. From the point of view of duration and recurrence, therefore, the admissions do not appear to have been of very favourable character. The direct admissions were classified according to the forms of mental diserder into: Recent mania, 50, chronic and recurrent, 9; recent melancholia, 48, chronic and recurrent, 4; senile and secondary dementia, 21; delusional insanity, 14; insanity with epilepsy, 8; general paralysis, 2; confusional insanity, 10; stupor, 6; insanity with gross brain lesions, 1, and congenital defect, 18. Turning to the etiological factors in the direct admissions, alcohol was assigned in only 11 or 5.7 per cent., syphilis in 1, influenza in 9 and other toxins in 6; critical periods in 86; diseases of the nervous system in 37; various bodily disorders in 42, bodily trauma in 14, and mental stress in 38. An insane heredity was ascertained in 74, an epileptic heredity in 3, a neurotic heredity in 11, and of alcoholism in 7, giving a combined neuropathic heredity in 95, or just under 50 per cent. Also congenital mental defect was assigned as cause in 15. The above list of etiological factors, showing the small parts played by alcoholism and syphilis and the relatively large parts played by the internal stresses of puberty, the climateric and senile involution are, as one would expect, in marked contrast with the statistics of the asylums whose populations are drawn from closely-packed industrial centres. The differences that are to be found in the relative distribution of general paralysis in the various counties in England and Wales are very well brought out by Dr. Whitwell in some interesting remarks on this point, illustrated by a useful map constructed by him from the Lunacy Commissioners' reports. During the year 38 were discharged as recovered, giving a recovery-rate on the direct admissions of

19.89 per cent., also 28 as relieved, and 48 as not improved. During the year 118 died, giving the rather high death-rate on the average numbers resident of 13.89 per cent. We see that in only one year since 1898 has the death-rate been expressed in single figures and that the annual death-rates have ranged between 10.32 per cent. and 13.89 per cent., the average being 11 8 per cent. The deaths were due in 16 to diseases of the nervous system, with only 7 from general paralysis; in 17 to diseases of the heart and blood vessels; in 4 to respiratory diseases; in 3 to diseases of the digestive system; in 12 to chronic Bright's disease, and in the remainder to general diseases, including tuberculous diseases in no less than 38, or 32.1 per cent. of the total. Concerning these latter Dr. Whitwell says that one half were diagnosed on admission as suffering from tuberculosis.

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## CUMBERLAND AND WESTMORLAND LUNATIC ASYLUM.

THE annual report of Dr. W. F. Farquharson, the Medical Superintendent of this asylum, for the year 1909 shows that on January 1st, 1909, there were 832 patients in the asylum, and on the last day of the year 846. The total cases under care during the year numbered 1,007, and the average number daily resident 844. During the year 175 were admitted, of whom 165 were direct admissions. The admissions were less by 5 than those of the previous year, and the number of pauper patients chargeable to Cumberland and Westmorland was rather under the average of recent years. As to duration of disorder in the direct admissions, in 52 the attacks were first attacks within three, and in 35 more within twelve months of admission; in 30 not-first attacks within twelve months; in 6, admittted within twelve months, it was unknown whether the attacks were first attacks or not; and in all the remainder, including 8 congenital cases, the attacks were of more than twelve months' duration on admission. They were classified according to the several forms of mental disorder into: Mania of all kinds, 75; melancholia of all kinds, 41; senile and secondary dementia, 15; delusional insanity, 9; insanity with epilepsy, 7; general paralysis, 5; less common forms, 5; and congenital defect, 8. As to causation, Dr. Farquharson says that the most important causative factors, simply or in combination, were assigned as follow: Alcohol in 16, or 9 7 per cent.; senility in 16, epilepsy in 13, other bodily affections in 14, child-bearing in 6, bodily trauma in 6, influenza in 4, and mental stress in 18. An insane heredity was ascertained in 47, or 28.5 per cent. During the year 61 were discharged as recovered, giving a recovery-rate on the direct admissions of 37 per cent., or of recoveries in the direct admissions on the direct admissions of 35.8 per cent. Also 20 were discharged as relieved, and 7 as not improved. During the year 73 died, giving a death-rate on the average numbers resident of 8.6 per cent. The deaths were due in 12 to cerebro-spinal diseases, with only 6 deaths from general paralysis; in 13 to diseases of the heart and blood vessels, and in the remainder to general and local diseases, including 23 from lobar pneumonia, and 9, or 12.3 of the total deaths, from phthisis. All deaths were due to natural causes, and verified in every case by *post-mortem* examination. The general health was good throughout the year; there were no cases of epidemic disease, and no serious casualties among the patients.

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## MONMOUTHSHIRE ASYLUM, ABERGAVENNY.

THE annual report for the year 1909 of Dr. J. Glendinning, the Medical Superintendent of this asylum, shows that on January 1st, 1909, there were 937 patients on the asylum registers and 935 on the last day of the year. The total cases under care during the year numbered 1,099, and the average number daily resident 922.65. During the year 162 were admitted, of whom 147 were direct admissions. Of the direct admissions, in 72 the attacks were first attacks within three, and in 17 more within twelve months of admission; in 22 not-first attacks within twelve months; and in the remainder, excluding 1 in whom it was unknown whether the attack was a first attack or not, the attacks were of more than twelve months' duration on admission, including 7 congenital cases. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 67; melancholia of all kinds, 25; senile dementia, 8; delusional insanity, 14; general paralysis, 10; insanity with epilepsy, 9; less common forms, 7, and congenital or infantile defect, 7. As to probable causation among the direct admissions, alcohol was assigned in 32, or over 21 per cent., syphilis in 11, and other toxins in 10, critical periods in 17, nervous diseases in 14, various bodily disorders in 5, bodily trauma in 6, and mental stress in 22. An insane heredity was ascertained in 29, or just under 20 per cent., and an epileptic heredity in 1. During the year 54 were discharged as recovered, giving a recovery-rate on the direct admissions of 36.7 per cent., or of recoveries in the direct admissions on the direct admissions of 36 0 per cent.; 15 as relieved, and 9 as not improved. During the year 86 died, giving a death-rate on the average numbers resident of 9.3 per cent. The deaths were due in 25 to nervous diseases, including 12 from general paralysis; in 7 to heart disease and in 5 to apoplexy; in 6 to respiratory diseases, in 4 to abdominal diseases, in 1 to suicide by hanging and in the remainder to general diseases, including 20 from pneumonia, and 10 from tuberculosis, pulmonary or general. No fewer than 23 of the patients who died were over 70 years of age, 10 were over 80 years, and 2 were over 90. The general health was good throughout the year and at the time of the visit of the Commissioners in Lunacy in April no case of zymotic disease had been recorded beyond a few cases of influenza and mild diarrhoea.

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## WILTS COUNTY ASYLUM.

FROM the annual report for the year 1909 of Dr. J. Ireland Bowes, the Medical Superintendent of the asylum, we see that on January 1st, 1909, there were 969 patients in the asylum and on the last day of the year 988. The total cases under care during the year numbered 1,148, and the average number daily resident 972 4. The authorized accommodation at this asylum is for 1,000 patients, and towards the end of the year there was an excess of patients over accommodation on the male side. From a table included in Dr. Bowes's report we see that the Wilts insane rose from 902 in 1891 to 1,076 in 1901, and again to 1,161 in 1909, so that further provision seems unavoidable. Against this, however, the Committee set the uncertainty of the whole position in consequence of the Report of the Royal Commission on the Feeble-minded. The proportion of lunatics to population in this county is high, namely, 1 in 227 in the year 1909. During the year 179 were admitted, of whom 148 were first, and 31 not-first, admissions. During 1908 there were 181 admissions, the highest number since 1900. Of the total admissions during 1909, in 74 the attacks were first attacks within three and in 28 more within twelve months of admission; in 37 not-first attacks within twelve months; and in 40 the attacks were either of more than twelve months' or of unknown duration. A marked feature was the age of the admissions, no less than 28 being over 70 years of age. The admissions were classified according to the forms of mental disorder into: Mania of all kinds, 106; melancholia of all kinds, 52; senile and secondary dementia, 16; general paralysis of the insane, 5; insanity with epilepsy, 4; and congenital defect, 16. As to causation, alcohol was assigned in 16; syphilis in none, and other toxic causes in only 2; nervous diseases in 10; critical periods in 18; bodily trauma in 8; and mental stress in 17. An insane heredity was ascertained in 38; an epileptic heredity in 6; and an alcoholic heredity in 2. During the year 44 were discharged as recovered, giving a recovery-rate on the admissions of 24.5 per cent. Dr. Bowes says that the low recovery-rates which have obtained at this asylum of recent years have been due to the insanity being of a less curable kind than formerly, and to the increasing number of congenitally defective, senile, and demented patients admitted. Also 8 were discharged as relieved and 10 as not improved. During the year 98 died, giving a death-rate on the average number resident of 10.0 per cent. The deaths—all from natural causes—were due in 15 to nervous diseases, with 9 from general paralysis; in 16 to heart diseases; in 5 to respiratory diseases; in 3 to digestive and genito-urinary diseases; and in the remainder, including 21 from senile decay and 15 from tuberculosis, to general diseases.

The general health was good, and, apart from influenza and 17 cases of dysentery, there was no epidemic or zymotic disease.

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## GREENOCK EYE INFIRMARY.

THE thirtieth annual meeting of this institution was held on November 17th, 1910. Dr. Cluckie, in his report, stated that the new cases during the year numbered 3,469; there were 14,965 consultations, and 1,274 workmen were treated for injuries. Excessive use of alcohol and tobacco continued to have a serious effect on the vision of many of those seeking advice; 106 patients were admitted to the indoor department for serious diseases or injury. There is also a throat, nose, and ear department in the institution, and Dr. Fullerton reported that the number of cases dealt with there totalled 1,091.

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# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist; (2) Honorary Medical Registrar; (3) two House-Physicians; (4) House-Surgeon; (5) Obstetric and Ophthalmic House-Surgeon; (6) Throat, Nose, and Ear House-Surgeon; (7) Casualty Officer. Salary for (3) and (4), £100 per annum; for (5) and (6), £75 per annum; and for (7), £50 per annum.

CENTRAL FOUNDATION SCHOOLS OF LONDON.—Medical Officer for the Girls' School, Spital Square, E. Salary, £50 per annum.

CLINICAL RESEARCH ASSOCIATION, York Buildings, Adelphi.—Assistant Director. Remuneration to commence at £250 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician (male). Salary at the rate of £75 per annum.

EAST SUSSEX COUNTY COUNCIL: EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum.

GLOUCESTER: BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Second Assistant Medical Officer (male). Salary, £160 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician. Honorarium, 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician. Salary, £30 for six months, and £2 10s. washing allowance. (2) Fourth Anaesthetist. Honorarium of £15 15s. a year.

HULL: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £100 per annum.

JERUSALEM HOSPITAL.—Chief Surgeon. Salary, £500 per annum, rising to £600.

LEEDS INFECTIOUS DISEASES HOSPITAL AND SANATORIUM.—Two Medical Assistants. Salary at the rate of £110 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £100, increasing to £110 on reappointment.

LIVERPOOL EYE AND EAR INFIRMARY.—Honorary Assistant Surgeon.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar. Salary, £100 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Medical Registrar. Honorarium at the rate of 40 guineas per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Honorary Anaesthetist.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

NORWICH: NORFOLK EDUCATION COMMITTEE.—Assistant Medical Officer. Salary, £250 per annum.

OCHILTREE PARISH COUNCIL, Ayrshire.—Medical Officer under the Poor Law. Salary, £25 per annum.

OLDHAM UNION.—Resident Medical Officer for the Workhouse. Salary, £130 per annum, and fees.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male).—Salary, £110 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Obstetric Assistant (resident).

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Road, S.E.—Surgeon to Out-patients.

ST. JOHN'S WOOD AND PORTLAND TOWN DISPENSARY.—Third Medical Officer. Honorarium £150, and midwifery and vaccination fees.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Resident Medical Officer. Salary, £105 per annum.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, North Shields.—House-Surgeon. Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Crediton, co. Devon; Kinghorn, co. Fife; and Sheffield (Hillborough), co. Yorks, West Riding.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act for County Court Circuit No. 55.

## APPOINTMENTS.

ALLAN, K. B., M.B., B.S.Durham, House-Surgeon to the Albert Dock Hospital, Seamen's Hospital Society, Albert Dock, E.

APPLEYARD, J., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Shaftesbury Union.

BEADLES, J. N., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Poplar and Stepney District Sick Asylum.

BECKETT, H. G. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Wem Union.

BREWIS, R. A., M.D.Edin., Medical Officer of Health of the Dursley Rural District.

BRICE, E., L.R.C.P. and S.Edin., District Medical Officer of the Swansea Union.

CLAPHAM, S. C., M.B., B.S.Durh., District Medical Officer of the Yeovil Union.

CRIDLAND, A. B., F.R.C.S Edin., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No, 25.

DAVIES, E. C., M.D.Durh., Medical Officer of Health of the Borough of Lampeter.

DAVIES, Trevor Berwyn, M.B., B.S., B.Sc., House-Surgeon at University College Hospital.

DREW, J. H., M.D.Lond., Certifying Factory Surgeon for the Poole District, co. Dorset.

DUNCAN, R., M.B., Ch.B.Edin., District Medical Officer of the Richmond (Surrey) Union.

DURRANT, Charles E., L.R.C.P.Lond., M.R.C.S., Medical Officer to the Oriental and British Malay Rubber Companies, Negri Sembilan, Federated Malay States.

EALES, W. H. Fulford, B.A., B.Ch.Cantab., M.R.C.S., L.R.C.P.Lond., Junior House-Surgeon to the Birmingham Eye Hospital.

FEGAN, J. H. C., M.R.C.S., L.R.C.P., District Medical Officer of the Wisbech Union.

GRAVES, H. J. H., M.R.C.S., L.R.C.P.Lond., Senior Resident Assistant Medical Officer of the Shoreditch Union Infirmary.

HARDIE, C. F., M.B., B.C.Camb., Medical Officer of Health of the Barnet Urban District.

HARNETT, William George, M.A., M.D.Dubl., Medical Superintendent of the Barnet Isolation Hospital.

HEATON, George, M.A., M.B.Oxon., F.R.C.S., Examiner in Surgery to the University of Oxford.

HODSON, J. E., M.R.C.S., L.R.C.P., District Medical Officer of the Croydon Union.

JOHNSTON, T. Arnold, M.D., Honorary Pathologist to the Leicester Infirmary.

KING, D. Barty, M.A., M.D., M.R.C.P., Assistant Physician to the Royal Hospital for Diseases of the Chest, E.C.

LIDDELL, R. M., M.B., Ch.B.Edin., District Medical Officer of the Rugby Union.

MACDONALD, D. M., M.D., Certifying Factory Surgeon for the Leven District, co. Fife.

MCDONALD, P. N. M., M.D.Edin., District Medical Officer of the Tiverton Union.

MYERS-WARD, C. F., M.R.C.S., L.R.C.P.Lond., Dean of Charing Cross Hospital Medical School.

ORR, J., L.R.C.P. and S.Edin., L.F.P.S.Glasg., D.P.H.Liverpool, Medical Officer of Health of the Borough of Barrow-in-Furness.

REYNOLDS, L. W., M.R.C.S.Eng., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 37.

RICH, A. H., M.R.C.S., Second Resident Assistant Medical Officer of the Schools, Infirmary, and Workhouse of the Brentford Union.

RICHARDSON, J. N., M.D.Durh., Medical Officer of Health of the Ilkley Urban District.

SANKEY, W. O., M.D.Lond., District Medical Officer of the Newton Abbot Union.

WYATT, W. L., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Hornsea District, co. Yorks., East Riding.

MANCHESTER ROYAL INFIRMARY.—The following officers have been reappointed:

Anaesthetists: S. R. Wilson, M.B., B.S.Lond., F.R.C.S.Edin.; R. A. H. Atkinson, M.B., Ch.B.Vict.; T. Coogan, M.B., Ch.B.Vict.

Medical Officer for Radiography and Electricity Department: A. E. Barclay, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

Director of the Clinical Laboratory: G. E. Loveday, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CLARE.—On December 26th, 1910, at 59, Highcross Street, Leicester, the wife of T. C. Clare, M.D., F.R.C.S., of a son.

DURHAM.—On December 29th, 1910, the wife of H. E. Durham, Sc.D., F.R.C.S., of Broomy Hill, Hereford, of a son (stillborn).

POTTS.—On December 6th, 1910, at the Bethnal Green Infirmary, Cambridge Heath, N.E., to Dr. and Mrs. W. J. Potts, a daughter (Lucy).

SCOTT.—At "Tregenna," Staines, on December 30th, 1910, the wife of Captain Norman Scott, I.M.S., of a son.

### MARRIAGE.

WIGRAM—TOWNSEND.—On December 29th, 1910, in All Saints' Church, Peshawar, the Rev. Marcus Edward Wigram to Mary Townsend, M.B., B.S.Lond.

### DEATH.

IREDALE.—On New Year's Day, H. Bertha, the beloved wife of J. Iredale, of Mablethorpe.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers:—(1) Dr. James Taylor: Some Ocular and Visual Conditions in Medical Cases. (2) Mr. Percy Flemming: Some Cases of Medical Interest met with in Ophthalmic Work.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Debate on the Operative Treatment of Cancer of the Rectum. The following gentlemen will take part: Mr. F. Wood Jones, Mr. F. Swinford Edwards, Mr. W. Harrison Cripps, Sir Frederic S. Eve, and Mr. H. F. Waterhouse. It will be continued on Wednesday, January 18th.

SOCIETY FOR THE STUDY OF INEBRIETY, 11, Chandos Street, Cavendish Square, W., 4 p.m.—Discussion: The Influence of Parental Alcoholism on the Physique and Ability of Offspring. To be opened by Dr. T. B. Hyslop.

### WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Second Hunterian Society's Lecture, by Mr. D'Arcy Power: Loose Cartilages and the Results of their Surgical Treatment.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W., 8 p.m.—(1) Cases and Specimens. (2) Communication:—Dr. F. Parkes Weber and Dr. G. Dorner: A Case of Congenital Pulmonary Stenosis, with special Consideration of the Nature of the Secondary and Blood Changes.

## POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., The Functions and Diseases of the Vermiform Appendix.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich. Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m. Special Lecture, Monday, 3.15 p.m., The Significance of Albuminuria.

MANCHESTER: ANCOATS HOSPITAL POST GRADUATE CLINIC.—Thursday, 4.15 p.m., Radiography of Diseases and Injuries of Bones and Joints.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. will be given as follows: Tuesday, Instrumental Methods in the Estimation of the Arterial Blood Pressures; Wednesday, Vaccine Treatment in Pulmonary Phthisis; Thursday, The Present Position of the *X*-ray Treatment of Ringworm of the Scalp.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Friday, 3.30 p.m., Tabes Dorsalis.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Practical Medicine, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

## RECENT PUBLICATIONS.

*Consultations Médicales Françaises.* Paris: A. Poinat, Publisher, 11, Rue Dupuytren.

A series of monographs by various more or less well-known French authorities, each of whom deals with some special point in medicine. They appear monthly, and can be obtained post free for about 6d. As they can be carried in the pocket they can be read at odd moments by those who desire to keep up their French.

*Surgical Instruments and Appliances Used in Operations.* By Harold Burrows, M.B., B.S., F.R.C.S. London: The Scientific Press. (Crown 8vo, pp. 100. Price, 1s. 6d. net.)

A third edition of a small book which made its first appearance some five years ago. It gives illustrated lists of the instruments required at all the more ordinary operations and describes the preparations and describes the preparations necessary for such work in private houses. Nurses and inexperienced assistants would be likely to find it of use. It has been revised and enlarged for the author by Dr. Hamish Anderson, and has a good index.

*The Ambulance Vade-Mecum.* By J. F. Sutherland, M.D. Thirty-sixth edition. Revised and enlarged. London: Houston and Sons. Edinburgh and Glasgow: John Menzies and Co. (Post 32mo, pp. 32. Price 3d.)

A vest-pocket book containing notes on "First Aid" and the anatomy and physiology connected therewith, illustrated by some coloured and other diagrams. Useful as a reminder to those who already know the work, or to a first aid student preparing for examination, but too abbreviated in language for other purposes. The author is a lecturer and examiner to the St. Andrew's Ambulance Association. The system of artificial respiration described is that of Sylvester.

*How to Become a Pharmacist.* Edited by John Humphrey. London: The Pharmaceutical Press. (Crown 8vo, pp. 46. Price 1s. 6d.)

The term "pharmacist" is used in what is now its legal sense. Preliminary education, apprenticeship, and each subject of study and examination are all dealt with in turn, full syllabuses of the examinations held by the Pharmaceutical Society of Great Britain and Ireland being supplied. The appendices deal with textbooks for students, pharmaceutical qualifications in Ireland, and degrees in pharmacy. A well-devised and useful book for those in need of such information.

*Essays on Duty and Discipline.* By various Authors. London: Cassell and Co., Limited. (Three vols. Cr. 8vo. Price 1s.)

A collection of some thirty essays, all dealing with the training of young children; clerics, journalists, peers, and medical men, all write with the object of counteracting the modern tendency towards indiscipline and the increasing lack of the grit which has hitherto enabled the British race to overcome difficulties by determination.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. OTTO SCHULZE AND CO., of Edinburgh, are the publishers of a translation of the fifth edition of Professor H. Oppenheim's *Textbook of Nervous Diseases*. The translator is Dr. Alexander Bruce, the editor of the *Review of Neurology and Psychiatry*.

Messrs. P. Blakiston's Son and Co. announce the publication of a second edition of a book entitled *Practical Bacteriology, Blood Work, and Animal Parasitology*, by E. R. Stitt, A.B., Ph.G., M.D., Surgeon U.S N.; of a third edition of *The Treatment of Disease*, by Professor Reynold Webb Wilcox, of the New York Post-Graduate Medical School; and of a second edition of a *Manual of Pharmacy for Physicians*, by Dr. M. F. DeLorme, Ph.G., Lecturer on Pharmacy and Pharmacology, Long Island College Hospital, New York.

Messrs. Rebman Limited are the publishers of the authorized translation of *Die experimentelle Chemotherapie der Spirillosen, etc.*, by Ehrlich and Hata, the German edition of which has just appeared. The same firm announce a work entitled *The Treatment of Syphilis with Dioxy-diamido-arseno-benzol* (Ehrlich-Hata "606") by Wechselmann.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JANUARY, 1911.** | |
| 6 FRIDAY | LONDON: Central Ethical Committee, 2 p.m.<br>CITY DIVISION, *Metropolitan Counties Branch*, Business Meeting, Town Hall, Hackney, 4 p.m. |
| 7 SATURDAY | |
| 8 Sunday | |
| 9 MONDAY | MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Rooms of the Medical Society of London, Chandos Street, W.; General Meeting, 4.30 p.m.; Special Meeting, 5 p.m. |
| 10 TUESDAY | LONDON: Public Health Committee, 3 p.m. |
| 11 WEDNESDAY | |
| 12 THURSDAY | WESTMINSTER DIVISION, *Metropolitan Counties Branch*, Criterion Restaurant, Dinner, 7.30 p.m. |
| 13 FRIDAY | TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Hornsey Conservative Association's Rooms, Station Road, Finsbury Park, 9.15 p.m. |
| 14 SATURDAY | |
| 15 Sunday | |
| 16 MONDAY | |
| 17 TUESDAY | |
| 18 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting Royal Hospital, Richmond, 8.30 p.m. |
| 19 THURSDAY | BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.<br>LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 20 FRIDAY | |
| 21 SATURDAY | |
| 22 Sunday | |
| 23 MONDAY | |
| 24 TUESDAY | |
| 25 WEDNESDAY | **London: Central Council, 2 p.m.** |
| 26 THURSDAY | |

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# SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 14TH, 1911.


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## Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

### CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held in the Branch Library at Grahamstown on December 9th, 1910, at 8 p.m. Dr. BRUCE-BAYS was in the chair, and there were present: Drs. E. Dru Drury, G. Fitzgerald, R. C. Mullins, A. Cowper, W. Scott, R. T. Harrison; Messrs. G. Robertson, M.R.C.V.S., C. and H. Collis; Dr. J. Louw (honorary member) and Drs. J. Muller and K. C. Mullins attended as visitors.

*Confirmation of Minutes.*—The minutes of the meeting of October 14th, 1910, were read and confirmed.

*Representative on Central Council.*—A letter from Dr. Greenlees was read, in which he expressed his thanks for the nomination of him by members of the Branch as representative on the Central Council.

*Representation of Medical Men on Hospital Boards.*—A letter from Mr. H. G. Piggott, M.L.C., was read, in which he expressed his approval and promise of support of adequate representation of medical men on hospital boards and committees.

*South African Medical Congress.*—Dr. BRUCE-BAYS gave some account of the work done in that portion of the Medical Congress with which he and Dr. R. C. Mullins were connected.

*Arsenical Poisoning.*—Mr. J. MULLER, Director of the Local Government Analytical Laboratory, read notes of a case of arsenical poisoning in which a native infant met its death through absorption of arsenic with its mother's milk, the mother having been made seriously ill with arsenious oxide which had been placed in her coffee by another native. Mr. Muller described how he repeated the experiment upon a nursing cat with four kittens, with fatal result to the kittens in an hour and a half, the mother recovering.

*The late Dr. Greathead.*—A unanimous vote of sympathy was accorded to Mrs. Greathead in her bereavement through death of her husband, Dr. J. B. Greathead, late of Grahamstown.

*Vote of Thanks.*—A vote of thanks to Mr. J. Muller was passed.

### DORSET AND WEST HANTS BRANCH

BOURNEMOUTH DIVISION.

A MEETING of this Division was held at the Church House, Wimborne, on Wednesday, November 30th, 1910, at 3.15 p.m. The chair was taken by Mr. LE FLEMING, and sixteen other members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Election to Branch Council.*—Mr. Marriner was elected as a member of the Branch Council in the place of Dr. Field, who has removed out of the Division.

*Letter from Altrincham Division.*—The circular letter received from the Honorary Secretary of the Altrincham Division was read, and the meeting expressed its approval of the resolution contained therein.

*Model Rules for Public Medical Services.*—The subcommittee appointed to consider this subject reported that they had arrived at no definite conclusions. Several members having spoken, urging the importance of the subject to the profession, it was agreed that a new subcommittee be appointed who should report later to the Division.

*Annual Representative Meeting.*—Dr. JOHNSON SMYTH presented a report of the meeting of Representatives held in July.

*Treatment of School Children.*—The meeting approved in general of the draft model scheme. It was

resolved that a special meeting should be called in January to discuss the subject in greater detail, and that invitations to attend this meeting should be sent to all members of the profession practising in the area of the Division.

*Central Ethical Committee's Interim Report.*—The meeting approved of the rules contained in this report, but recommended the following additions to Rules 1 and 4 respectively:

*Rule 1.*—That insurance companies be required in all cases to furnish the name of the medical attendant to the medical nspector.

*Rule 4.*—That Rule 4 be taken in conjunction with Rule 3.

*Ophthalmia Neonatorum.*—The report and draft scheme were discussed by the following members: Drs. Le Fleming, Batterbury, Paterson, Parkinson, Auld, and Marriner. The meeting unanimously agreed that ophthalmia neonatorum should be made a notifiable disease, and approved of the proposed scheme for the treatment of the same.

*The Outlook for the Country General Practitioner.*

Mr. Parkinson read a paper on this subject. He said the term "general medical practitioner" was so wide that he felt it necessary to explain that he did not in this case include those fortunate men who could afford to do without the worry of public appointments and the drudgery of ill-paid practice among the poorer classes, nor the type of practitioner found in the slums of great cities, where the conditions of practice were known to them only by hearsay. He referred to the old country doctors dotted over the country in the small towns and villages, who were being gradually deprived of the means of earning a livelihood by legislation and other causes. The shrinkage of population in the rural districts, which had been going on for so many years, had, of course, had a great effect, but the advent of the motor car had become an even greater source of loss, for the better classes sent to the town doctor, and the big houses and the wealthiest class to the semi-consultant of the large towns or cities, now that by means of the motor a twenty-mile visit could be done in less time than six or seven miles in the old days; and instead of the local man attending and the consultant coming as required, the so-called consultant took the case over, and the local man had the satisfaction of attending the servants or perhaps being called in on emergency or some trivial illness. These were, however, not all the changes, and the doctor trying to eke out a scanty living from attendance on the small farmers, tradesmen, and artisans by the aid of appointments of various kinds, found this source of employment gradually taken away by recent legislation. "The old order" (said Mr. Parkinson) "changeth, and our old and honoured institutions are being swept away one by one; individualism gives way to collectivism, and officialism is rampant. But is it in the interests of the people that the village doctor should be swept away with the parson, and replaced by a raw official employed by the State to attend the poorer classes only? Take a typical case—a man living in a large village in the centre of a scattered population (decreasing every census) of about 1,500 people, ten miles to the nearest station, six miles to the nearest doctor, and twelve miles to the nearest town; a district with a radius of five miles or more, with two or three large houses who send to a town for a doctor, and the rest—farmers, small tradesmen, and artisans, booking about £500 a year at the outside, half from appointments and clubs, and perhaps after paying rent, etc., and horse and carriage, netting £300 a year. Take away any of his public work and he must give up. What would the poorer classes do then in cases of sudden illness, to say nothing of the loss of the man who knows and is known to all, and to whom every one looks not only for medical skill and kindly attention, but( with the parson perhaps) for advice, and sympathy, and guidance?" Mr. Parkinson went on to say that the British Medical Association professed to look after the interests of the profession, and especially of the general practitioner; and some time since there was an outcry that the Association was not doing its duty, and a new Constitution was drawn up. What was the result?

He indicated some recent measures which showed that the action of the Association in recent years had not been on right lines. The Midwives Bill was strenuously opposed for many years and successfully, on public as well as professional grounds. It was urged that every woman should have skilled medical assistance in her trouble, and that, although labour might be considered, as a rule, a natural process not requiring any special skill, an emergency might arise at any time in the simplest case, and delay in procuring skilled attendance might lose a valuable life. On the other hand, the registration of midwifery nurses was advocated—women who would not only be useful in emergency by knowing when to send for the doctor and by assisting at the birth, but would also be skilled in the care of the newborn infant and in nursing the mother, and thus supply a great want and save many lives of infant and mother. On the professional side it was felt that midwifery could only be learnt by experience, that young men entering on general practice could only fit themselves for the various emergencies of labour by adding to the theoretical knowledge gained at hospital the practical experience only to be gained by attendance on many cases—preferably at first as assistants to some experienced man—and the experience of a large number of cases could not be hoped for in the ordinary practice if the poorer classes were attended by the midwife. But the new counsellors were content with inserting provisions restricting the midwife's action, and directing her to send for a doctor in certain events and forbidding the use of drugs or chloroform, although the provision for the doctor's fee was left in an unsettled state. What had been the result of this Act? The midwife attended more and more patients every year—not only the poor, but the lower middle classes—and with increasing practice gained greater skill and rarely sent for a doctor, and, if the doctor lived far off, had generally got the job over when he arrived, while the use of drugs was pretty general. Moreover, the midwife was also a sick nurse, and was called in by all classes in minor ailments, and often continued until some alarming symptom set in and the doctor was sent for in view of a death certificate; in short, the midwife "on her own" now did the work the unqualified assistant did in old days under the supervision of his principal. After referring to public vaccinators, Mr. Parkinson went on to speak of the medical inspection of school children. He said this Act, which no doubt would do great good if properly administered, was much helped forward by the action of the British Medical Association. But those who took an active part in furthering the measure knew only the conditions which obtained in great cities, especially London and its suburbs, and they had prepared a plan of whole-time medical inspectors as the rule, with some part-time appointments which no doubt might be necessary or advisable in crowded cities, but was unsuitable for country districts with a scattered population and large areas. Their own County Council, which knew the difficulties, desired to appoint district medical officers, but the Local Government Board insisted on whole-time appointments. It would have been more satisfactory if the local men had been appointed, who were travelling over their district daily in their practice, and who could visit more frequently at a smaller cost, and would also know the home conditions of the children's life and must be responsible for the treatment, and the work could have been carried out more efficiently at less cost to the State, and at the same time add somewhat to the incomes of the medical men. For the country medical man differed from the town general practitioner. He had only himself to rely on, and must be a man of resource and ready for any emergency and in every way fitted for the various duties required of him. With regard to the coroners' law amendment, Mr. Parkinson said he was a member of the Association committee for many years, and the only member cognizant of the work in country districts. It was resolved by the committee that a medical

expert should be attached to each coroner, and in the case of a sudden death where no doctor had attended and a certificate was therefore not obtainable, the medical expert should be sent for to make an examination and necropsy if necessary. This would practically take this coroner's work away from the general practitioner, and in a district like his own (and of course there were many much larger) it would mean a journey of perhaps twenty to thirty miles; it would take a day and require a heavy fee and travelling expenses, for work which, in his experience, had always been done satisfactorily by the local practitioner. Only in one or two instances during the last twenty years had he found it necessary to employ a strange doctor, and then at the request of the general practitioner where the case was of a criminal character and likely to entail attendance at assizes. This of course might be desirable in London where the conditions differed. Then came the question of the doctor visiting to certify the fact of death, and this had been urged on the Government by the Association. In his opinion the need of such a certificate rarely arose and in any case where the doctor had any reason to doubt the fact he would, for his own protection, visit and inspect; but was it necessary for a doctor to take a journey, perhaps six or seven miles out, to make sure that a person who had been suffering from long-standing incurable disease had passed away? Anyhow, if so compelled by the State, the State should pay a fee, not only the 2s. 6d. suggested but fair mileage, while the bill of Sir William Collins laid the obligation on his brethren without any fee.

Passing to the subject of clubs and public medical service, Mr. Parkinson said he considered that the British Medical Association had gone on dangerous lines, and that their policy of throwing these appointments open to all qualified men who applied to be placed on the list tended to various abuses injurious to the dignity of the medical men and the interests of the societies. He granted that in those places where medical men had joined together to start a medical service under their own control, and where they only admitted as medical officers men they knew they could trust, things generally went pleasantly and satisfactorily; but, he maintained, the old custom of the members of a society electing one or more men was preferable, and the doctor chosen could rest content that, as long as he did his work faithfully to the men and looked after the interests of the society, he would continue to retain the confidence of the majority although he might offend some of the shirkers. But, if the work was thrown open to all and sundry, there was the great chance that some unscrupulous person would by unworthy acts take members away from their more honourable brethren, and lead to competition in what can never be an overpaid branch of practice. Fresh dangers were hanging over the general practitioner, and the future position of the Poor Law and workhouse medical officer depended greatly on the action taken by the British Medical Association. The fear was that the present officers would be replaced by whole-time officials and the present part-time men, who, underpaid though they generally were, lived among and were known by rich and poor alike, would be starved out of existence. They had seen lately the Association reverse the policy of many years and surrender the part-time medical officer of health, and, accepting the principle of security of tenure for "whole-timers," leave the part-time men, who required protection as much, if not more, to the mercy of the district councils, ever averse to spending money on sanitary work.

The part-time medical officer of health must continue to exist, for the smaller urban and rural districts would strenuously oppose the power of appointment being taken out of their hands, and, as it was a matter of votes, nothing would be done. Surely the Association should press the necessity for their being given that security of tenure which alone would enable them to do their work fearless of consequences to themselves. Now if, as he maintained, the action of the Association in late years had done great injury to the country practitioner, tending to make it impossible to gain a living in sparsely populated districts, and if the loss of a resident doctor would lead to suffering and want of medical help to the poorer classes, what could be done to bring these facts to the notice of those who directed the policy of their Association? Something might be done by uniting together and passing resolutions, and sending them to the Council and the Representative Meeting, and by choosing representatives in the country districts who knew the conditions of existence and could speak with knowledge, for a great deal was due to the ignorance of the Representatives, who were chiefly men who could afford the time and money to give up to the work—specialists, consultants, and so on; but unless something was done soon it would be too late, and if the Association would not or did not help, the only thing would be to form a new society embracing all those part-time officers whose living was being gradually taken away, and instead of half a dozen or more small societies simply looking after their own small interests and having little weight or authority, uniting for mutual defence in one large body. The discontent was growing on all sides, and efforts were being made to form such a society; and if the Association did not take quick action the number of members, not increasing now, would fall away considerably.

He himself had retired from general practice some years, so that he was not personally affected; but he did feel deep interest in the future of a body of men who were the "salt" of the profession and a blessing to the community.

*Communications.*—The following papers were then read:—Dr. LE FLEMING: Notes on a case of parturition, with unusual complications. Dr. BATTERBURY: Notes on a case of whooping-cough, with unusual complications.

*Vote of Thanks.*—The meeting terminated with a hearty vote of thanks to the readers of these interesting papers.

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## GLASGOW AND WEST OF SCOTLAND BRANCH

### GLASGOW EASTERN DIVISION.

A MEETING of this Division was held in Bellgrove Hall on December 27th, 1910, when the following members composed the sederunt: Drs. Malcolm Black, W. L. Muir, Wishart Kerr, Munro, Gilchrist, Macdonald, McCutcheon, Sinclair, Russell, P. S. Buchanan, and Bryce (Honorary Secretary). Dr. MALCOLM BLACK (Chairman of the Division) presided.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, approved, and signed by the CHAIRMAN.

*Annual Representative Meeting.*—Dr. W. L. MUIR, the Divisional Representative, reported on the Annual Representative Meeting at London. His report was of a most interesting nature, and embraced the following points: (1) Alteration of article of association (viii) regarding arrears of subscription; (2) amount of capitation grant; (3) the question of resignation of membership to accept appointments regarding which the profession had decided that the acceptance of such was contrary to the best interests of the profession; (4) the new articles of association; (5) the matter of parliamentary representation; and (6) State sickness and invalidity insurance. On the motion of Dr. SINCLAIR, the thanks of the Division were unanimously accorded to Dr. Muir for his report and services.

*Reappointment of Representative.*—Dr. WISHART KERR moved, and Dr. SINCLAIR seconded, that Dr. W. L. Muir be reappointed Representative of the Division in Representative Meetings; and Dr. R. McC. Service was appointed his deputy, on the motion of Dr. MUNRO, seconded by Dr. P. S. BUCHANAN. Both these appointments were ratified *nemine contradicente.*

*State Sickness and Invalidity Insurance.*—Some correspondence was read regarding State sickness and invalidity insurance from Dr. Fothergill and the Medical Secretary. It was unanimously agreed not to procure Dr. Fothergill's memorandum thereanent.

*Fees for Medical Examination for Life Insurance.*—A letter was read from the Medical Secretary regarding the fees for medical examination offered by the Royal London Insurance Company. After a general conversation, during which it was ascertained that only one member had had a communication from this company to which he had not replied, Dr. P. S. BUCHANAN moved that consideration of the matter should be deferred meantime. This was seconded by Dr. RUSSELL. Whereupon the SECRETARY moved an amendment, seconded by Dr. W. L. MUIR:

> That we do not consider the lower fee adequate, advise members not to accept it, and notify the company accordingly.

On a vote the amendment was carried by 7 to 3.

*Vote of Thanks to Chairman.*—The Chairman was thanked for presiding, and the meeting terminated.

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## METROPOLITAN COUNTIES BRANCH:

### MARYLEBONE DIVISION.

### MEDICAL TREATMENT OF SCHOOL CHILDREN.

A SPECIAL meeting of registered medical practitioners resident or practising in Marylebone was held at the rooms of the Medical Society of London, Chandos Street, W., on Monday, January 9th, at 5 p.m., Dr. G. A. HERON (Chairman of the Division) presiding. The attendance book was signed by fifty members and visitors.

In opening the proceedings, Dr. HERON bade a welcome to the visitors who had come in response to their invitation. The importance of the subject was recognized by all. Medical inspection of school children was in force, and it was obvious satisfactory treatment must follow. On the method of carrying out that treatment there was not agreement; it was a subject of hot discussion. They had before them in the circular letter sent out three questions, each relating to some organized form of school clinic. The questions asked what they thought the most suitable form of clinic. A clinic in a public hospital, a clinic established independently by the public authority, or a clinic formed and worked by local doctors, and paid for by the public authority. He would ask them to discuss these three questions, and then signify their collective opinion upon them by voting Aye or Nay to each question separately.

QUESTION 1.—*Is it desirable that school clinics should be established within hospital premises?*

Mr. ATWOOD THORNE moved the answer be—No.

Sir VICTOR HORSLEY seconded the motion, and said it was evident already, from the demeanour of the meeting that that answer was approved of. The proposals of the County Council to subsidize hospitals, as they were now doing, had been dealt with in an earlier Branch meeting and repudiated by an overwhelming majority of a very large meeting. These clinics were not only wrong in principle, but they had already failed in practice, as witness the stringent condemnation of the Board of Education memorandum on the London County Council treatment organization.

Dr. F. J. SMITH said he had investigated the school clinic now in working at the London Hospital. The scheme had not worked altogether smoothly. The difficulties were not on the hospital side, but on the side of the County Council. The supply of children was erratic, sometimes there were too few, at other times too many. Children came on wrong days and at wrong hours. The parents were ignorant of how to use the Council warning cards; they supposed they were voucher cards entitling them to treatment. Then there was no proper oversight of the cases after a first visit. There should be a proper organization co-ordinating the work of school doctors, care committees, the parents, the nurses, and the hospital clinic. That was wanting, and therefrom the difficulty arose. He did not say as a general principle school clinics should be established in hospital premises, but he did think that in some localities and certain circumstances they might well be. He moved an amendment, "That in certain circumstances it is desirable that school clinics should be established within hospital premises."

Mr. GRIMSDALE seconded the amendment. He said he had watched the working of the school clinic at St. George's Hospital, and found it satisfactory.

Mrs. DICKINSON BERRY asked Dr. F. J. Smith if he would define circumstances that would justify the desirability of his amendment.

Dr. F. J. SMITH said that the present working of the clinic at the London Hospital was such a circumstance. With a little more outside organization it would justify its existence.

Dr. DAVID ROXBURGH said in his view such clinics were undesirable. Their existence was a warning to the hospital authorities of the tendency to deprive them of their independence. It would not be long before the County Council would proceed to dictate to them how and when and by whom their work should be done. It was a matter of principle and not of expediency.

Dr. SWAYNE (Norwood) asked whether the work of these hospital clinics was done by general practitioners under control of the hospital surgeons.

Dr. SMITH said he did not know. Mr. GRIMSDALE said that was so at the St. George's Hospital.

The amendment to the negative motion in reply to Question 1 was put to the vote. Four voted in favour, the rest of the meeting against. The original motion, replying "No" to Question 1, was carried *nemine contradicente*.

QUESTION 2.—*Should independent school clinics be established in centres convenient to the school districts by the London County Council, and staffed by registered practitioners, selected, appointed, and adequately paid by the London County Council?*

Mr. ATWOOD THORNE moved that the reply be in the affirmative.

Mr. HUGH THOMPSON seconded. He urged that the difficulty of hospital clinics was the lack of effective organization; these arrangements required an elaborate organization, and, from the point of view of the advantage of the children, they were defective. Local clinics did away with these difficulties. He had experience of one established in Woolwich by the Invalid Children's Care Association. It was a great success. There was no difficulty in controlling the work or in following up cases.

Dr. DAVID ROXBURGH objected to the "selection and appointment" of special doctors by the County Council. The general practitioner was there to do the work, the right of the independent practitioner to treat any or all of the cases occurring in his neighbourhood should not be restricted. The establishment of clinics implied a slur on the capacity of local men to treat local sickness. The establishment of a State service meant corruption in their ranks, and the choice of men on the score of political opinions rather than on fitness for work.

Mr. BISHOP HARMAN said the attack on the public services was unjustifiable. The County Council already employed large numbers of doctors in the Port of London, in school inspection, and in county asylums. No corruption had been known, but rather the work of these doctors had reached an extraordinarily high standard, both in practice and in research, which was sufficient evidence that State service was not evil. He further objected to the distinction drawn by some speakers between various grades of doctors. They were all registered practitioners, and selection of officers for school clinics should be guided by fitness for the particular duty involved and not necessarily by local residence. Further, he thought that the saddling of members of the profession with such administrative work as hiring buildings, servants, nurses, and the worry of maintaining these clinics was not right. This was a public service duty. To affirm Question 2 was to put this work on the proper shoulders, those o the

State; to affirm Question 3 was to throw it upon the doctors, who would have to perform this onerous service unpaid.

Dr. SWAYNE said he was the administrative officer of the Norwood Clinic, formed by a committee of local doctors. On him fell the duty of paying service bills and seeing to cleaning, etc. He agreed in the affirmation of Question 2 as a general principle, but neither he nor the Division he represented would agree to the selection of doctors by the County Council. Selection by the Council was no guarantee that men with local knowledge of the children would be chosen, and that was a prime necessity for successful following up of treatment. Their Norwood committee of twelve to fourteen had this knowledge, and the range from which they could select men was both large and satisfactory, and they had no difficulty in getting men with expert knowledge.

Sir VICTOR HORSLEY said the Norwood Clinic had proved most satisfactory, and the later established Wandsworth and Hampstead clinics, formed by local practitioners on similar lines, looked like proving equally satisfactory. He agreed there was no fear that selection of medical officers by the County Council would prove harmful to medical practitioners, but unless the clinic was worked in conjunction with the local doctors the Council would have no opportunity of coming into contact with the profession locally. The desirability of this had been recognized by the British Medical Association from the first. Committees of doctors willing to start school clinics had been formed in other localities, but so far the County Council adhered to the hospital scheme. Of that scheme he thought no more destructive criticism had been given than that contained in Dr. F. J. Smith's apology for the defects shown in the hospital clinic he had special knowledge of.

Dr. A. R. ROCHE (Hampstead) said he was the secretary for the school clinic established by the local doctors in his Division. It had been working three months and was tolerably successful. Their own difficulties had been as regards organization, and that was susceptible of improvement. He insisted that the staffing of these clinics should be in the hands of the local doctors, for a large number of these school children required home treatment, and not merely following up. Of the clinics described in the three questions, the first was bad, the second good, but the third best of all.

Mr. WALTER EDMUNDS pointed out that the local sanitary authorities had already ample powers for the establishment of any hospital accommodation needed. He thought these children's clinics should be in the hands of these authorities and not under the control of the Education Department of the County Council. An education scheme neglected the very young children who as much needed care as those of school age.

Question 2 was put to the vote. Ayes 15; Noes 25.

QUESTION 3.—*Should independent school clinics be established in centres convenient to the school districts by local registered medical practitioners, and staffed by practitioners selected from amongst themselves, the cost of such clinics, including equipment, maintenance, and medical service, to be borne by the London County Council?*

Sir VICTOR HORSLEY moved the answer be in the affirmative. Dr. LAURISTON SHAW seconded.

Dr. DAVID ROXBURGH emphasized his objection to school clinics. The work should be done by the local doctors in the ordinary way.

Sir VICTOR HORSLEY said Dr. Roxburgh evidently did not know that it had already been proved in Wales that the establishment of school clinics brought to light a large amount of neglected disease. The treatment of this in clinics was of vast benefit to the State, and incidentally brought work not only to the clinic officials, but also to the local doctors.

Dr. HERON said he had it on good authority that the use of school clinics by those children whose parents did and could provide independent medical treatment was not only discouraged but would be combated.

Dr. F. J. SMITH thought a combination of motions 2 and 3 would prove most acceptable by the meeting, so he moved an amendment to motion 3 to the effect—

That independent school clinics should be established in centres convenient to the school districts by the London County Council, and staffed by registered practitioners selected by local medical committees, . . . etc.

Dr. E. C. MONTGOMERY SMITH seconded the amendment, and argued as to the necessity of home treatment.

Mr. ATWOOD THORNE objected that this would still involve the performance of a large amount of clerical work by medical men.

Dr. G. A. BOYD agreed with Dr. David Roxburgh that clinics were not required. The work of treating these children should be shared out amongst the local practitioners under guarantee of payment in cases of necessity by the public authorities.

Dr. F. J. Smith's amendment was lost by 22 to 12.

Question 3 was then put as the affirmative motion; 18 voted for and 15 against.

Dr. LAURISTON SHAW then moved:

That the Executive Committee of the Division be empowered to form a committee to represent the practitioners of Marylebone and to prepare a scheme of local clinics.

Sir VICTOR HORSLEY seconded the motion, which was carried unanimously.

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## TOTTENHAM DIVISION.

THE meeting of this Division adjourned from December 2nd, 1910 (as reported in the SUPPLEMENT of December 10th, 1910), was held on January 5th. By kind invitation of Dr. Fred. Tresilian, it was again held at Enfield, Dr. GREENWOOD in the chair. Eleven members and two visitors were present.

*The Medical Treatment of School Children.*—The subject under consideration was the medical treatment of school children. Statements were made as to what the nine local education authorities within the area of the Division were doing. A published statement that the Prince of Wales's Hospital, Tottenham, had to do with 2,000 extra children a year as the result of the legislation requiring medical inspection, was quoted. Instances were given, in which a nurse provided by the education authority had carried out treatment in the homes of the children, without, as far as it was known, any scheme authorizing such action having received the sanction of the Board of Education. It was agreed that any ratepayer could raise objection to the expense so incurred at the next annual audit of the Urban District Council's accounts. Proceeding to the consideration of the attitude to be adopted by the medical men in the Division, it was agreed that the formulation of simple or elaborated schemes for treatment, for possible submission to the local education authority, if and when necessary, was a matter primarily for each ward—the wards of the Division corresponding in area to the areas of the several education authorities—and it was reported that several wards were already considering the matter. For the present the Division was content to express its attitude in the following resolutions:

1. That in the opinion of this Division of the British Medical Association:

   (*a*) No local education authority within the area of the Division should make any arrangements for the medical treatment of school children unless and until it is fully proved that existing agencies are unable to provide such treatment.

   (*b*) School medical officers on the occasion of the medical inspection of the children should confine themselves to pointing out the necessity for treatment, without specifying any place for treatment.

   (*c*) No local education authority should itself make any arrangements for the medical treatment of school children without first consulting the medical practitioners within its area.

   (*d*) In any case where arrangements for treatment are proved to be necessary, such treatment should be at the hands of the medical practitioners of the neighbourhood, such practitioners realizing their responsibility to the school medical officer.

That a copy of the foregoing resolutions be forwarded to the Medico-Political Committee of the British Medical Association and to each of the nine local education authorities within the area of the Division.

These resolutions were proposed by Dr. FRED. TRESILIAN (Enfield), and seconded by Dr. H. B. BRACKENBURY (Hornsey). Resolution 1 (*a*) was carried with one dissentient; the other resolutions were carried unanimously.

*Vote of Thanks.*—A hearty vote of thanks to Dr. Tresilian for his cordial reception of the members closed the proceedings.

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## QUEENSLAND BRANCH.

THE annual meeting of the Branch was held at the Young Men's Christian Association Buildings, Brisbane, on Friday, December 2nd, 1910. The PRESIDENT was in the chair, and twenty members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Report of Council and Financial Statement.*—The report of the Council and the financial statement were read and adopted. It stated that the membership now stood at 192, an increase of 27 on the previous year. In addition there was one honorary member, His Excellency Sir William MacGregor having done the Branch the honour to accept this position soon after his arrival in this State. During the year 31 new members had been elected, 4 had been transferred to other Branches, 8 had been transferred from other Branches, 3 had died, and 5 had been removed from the roll. The Council reported with regret the sudden deaths of Drs. H. F. Perkins, G. T. Lloyd, and W. D. Thomas. It was with deep sorrow the Association heard of the death of His Majesty King Edward VII, who had always taken a great interest in the profession and in all matters pertaining to public health. On behalf of the Association the President sent a letter of condolence to His Excellency the Governor. The Treasurer's statement showed a credit balance of £79. Of this amount, £19 8s. 6d. was owing to the Association, and £10 2s. 6d. to the *Australasian Medical Gazette*. It was satisfactory to have to note that the attendance at the ordinary monthly meetings was distinctly improving, the average attendance being 18, and that of 1909 being 14.4, and of 1908 being 13. The Council expressed gratification at the increased attendance. There was still room for considerable improvement, and it was hoped that members would help forward the Association in the ensuing year, so that its influence might be felt, and become a real power in all matters pertaining to the welfare of the public and profession. The meetings of the Branch had been held at the Young Men's Christian Association Buildings, owing to the Technical College room not being available. The Council regret that the negotiations carried on with the Government with regard to a site for a building for the Association were not brought to a successful issue. The Library and Museum were now housed at the Young Men's Christian Association. At the ordinary monthly meetings cases and specimens had been shown and the following papers read:

"A case of Laminectomy for Trauma of the Neck, with recovery," Dr. Cope.
"Physical Education," Dr. Brockway.
"Wassermann Reaction," Dr. Butler.
"Notes on Filaria, chiefly Historical," Dr. Jackson.
"Statistics in connexion with Filaria at the Brisbane Hospital," Dr. McLean.
"Notes on some cases of Filaria," Dr. Bancroft.
"Infant Mortality," Dr. Turner.
"Rectal Serumtherapy in a Case of Obstinate Gonorrhœa, with some Remarks on Immunity," Dr. Salter.
"Follicular Pharyngitis," Dr. G. L'Estrange.
"Speculations on the Prevalence of Syphilis in Brisbane, and a consideration of certain other matters in connexion with Public Morality Dr. G. S. Jackson.
"Medical Inspection of School Children," Dr. Elkington.
"Abdominal Section: Method and Technique from a record of 1,400 cases," Dr. Aeneas McDonnell.
"A plea for the Early Diagnosis and Treatment of Phthisis by Tuberculin," Dr. E. Ure.
"Notes on the Stanthorpe Sanatorium," Dr. H. Shaw.
"Theoretical Aspects of the Action of Tuberculin," Dr. Butler.

A special meeting was held in June in conjunction with the Australian Trained Nurses' Association. Miss HUGHES and Mr. BOULTON explained the aims, objects, and method of financing Lady Dudley's bush nursing scheme. On January 18th the Association had the honour of entertaining His Excellency the Governor at a dinner. Forty-one members were present. The usual monthly meetings of the Council were held during the year, and one special meeting to consider the question of honorary appointments. A subcommittee, to report on methods to be adopted to secure the appointment of a pathologist to take charge of the Bacteriological Institute, held two meetings. The Council noted with gratification the Government advertisement calling for applications for the position. There were three meetings of the subcommittee to deal with the question of syphilis. A pamphlet was drawn up and approved of by the Branch. A copy had been sent to all medical men in the State, and a number had applied for copies. A copy of the pamphlet was sent to the Council of Public Morality with liberty to make use of it in such manner as they should deem desirable. The Council have noted with pleasure the inauguration of medical inspection of school children. They regretted that no decided action had been taken by the Government with regard to the abatement of the mosquito nuisance. The new Medical Bill had again been shelved, and it was hoped that the Association would make a determined effort to have it introduced next session.

*Alteration in Rules.*—The following alteration in the rules was carried:

No member whose subscription is in arrears after September 1st shall be entitled to vote for the election of officers for the ensuing year, nor shall be eligible for election as an officer.

*Election of Officers.*—The ballot for officers for 1911 resulted as follows: *President*, Dr. E. Sanford Jackson; *Vice-President*, Dr. J. A. Cameron (Ipswich), elected; Dr. D. Hardie, retired; *Treasurer*, Dr. Alex. Marks; *Secretary*, Dr. Butler (Wickham Terrace, Brisbane); *Curator of Library*, Dr. H. J. Stewart; *Curator of Museum*, Dr. Wilton Love; *Auditors*, Dr. Buchanan, Dr. Carvosso; *Council*, Dr. D. A. Cameron, Dr. Elkington, Dr. McLean, Dr. Robertson.

*Presidential Address.*—The PRESIDENT (Dr. Hardie) read his presidential address and vacated the chair.

*Installation of New President.*—The incoming PRESIDENT (Dr. E. Sanford Jackson) returned thanks for the honour conferred upon him, and moved a hearty vote of thanks to Dr. Hardie for his address, which was carried with acclamation.

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☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## NOTICE OF THE FORMATION OF A NEW DIVISION OF THE ASSOCIATION.

*Westlands Division, New Zealand.*

THE following change has been made in accordance with the regulations of the Association, and takes effect from the date of publication of this notice:

The members of the Association resident in the counties of Westland, Grey, and Buller, and the town of Reefton, at present forming part of the Nelson Division (New Zealand Branch), are constituted a Division of the Association, designated the Westlands Division.

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 25th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

January 5th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next meeting of this Division will take place on Wednesday, January 25th, at the Kensington Town Hall, at 4.30 p.m. Dr. J. Edward Squire will open a discussion on "Tuberculosis Dispensaries," and it is expected that Dr. Sandilands, Dr. D. J. Williamson, and others will take part. In view of the importance of the matter both from a public aspect and also in its bearing on the interests of the profession, the Executive Committee hope that there will be a representative attendance. There will be a small amount of Divisional business to transact, but otherwise the whole of the time of the meeting will be given to the above discussion. Members are invited to bring any medical practitioners who may not be members of the Association. The discussion on Dr. Smith Whitaker's address is postponed until the report of the Special Poor Law Committee is in the hands of the members.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting will be held on Thursday, January 26th, at 27, St. John's Hill, S.W., at 8.45 p.m., for the transaction of business and the election of a representative.—S. VERDON-ROE, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held at the Leicester Infirmary, on Wednesday, January 25th, at 4.15 o'clock p.m. Agenda: Minutes of previous meeting. Election of Representative to Representative Meeting. Interim report of Central Ethical Committee on the position of medical practitioners called upon to examine (otherwise than at the request of the patient or persons acting on his behalf) patients who are under the care of another practitioner. Paper by R. Pratt. Esq., M.D., entitled "Further Notes on Treatment by Ionic Cataphoresis." Clinical cases to be shown in the wards of the infirmary. Any other business.—R. WALLACE HENRY, Honorary Secretary, 6, Market Street, Leicester.

## NEWPORT SCHOOL CLINIC.

ACTION BY MONMOUTHSHIRE DIVISION.

THE following correspondence, which explains itself, appears in the *South Wales Argus* of January 6th. The matter is dealt with in an article in the body of the JOURNAL:

*To the Editor of the "South Wales Argus."*

Sir,—We should be glad if you will find space in your valuable columns for the enclosed correspondence in regard to the proposed formation by the Newport Elementary Education Committee of a clinic for the treatment of children found defective upon medical inspection.

We take the view that if the work of treatment is to be undertaken by the Education Committee, it ought to be done in a spirit of thoroughness, and have full regard to the detailed care and safety of the defective children whom they would compel to undergo operative and other treatment under their statutory powers. We hold that the scheme submitted by the Monmouthshire Division of the British Medical Association would provide an efficient staff of experts for this work, and take out of the hands of any one individual the power of making a diagnosis and following it up by compulsory treatment. Moreover, the scheme would be moderate in cost, and would command the confidence of the public and of the medical and dental professions.

In the public interest we much regret that our scheme has been definitely rejected.

Yours faithfully,

R. J. COULTER,
S. HAMILTON,
Honorary Secretaries, British Medical Association, Monmouthshire Division.

11, Clytha Park Road, Newport, Jan. 5th.

11, Clytha Park Road, Newport, Mon.,
December 17th, 1910.

Gentlemen,—Following our discussion at your meeting on Monday, December 12th, we beg to report to you that the enclosed scheme for the working of a school clinic was adopted at a meeting of members of the medical and dental professions practising in the town of Newport, which was held at the Savoy Hotel on Thursday evening, December 15th, and we beg to ask your favourable consideration for it.

We are instructed to point out to you the serious and responsible position which you assume in undertaking the treatment of children found defective by your Medical Inspector of Schools, and we would very earnestly urge on you the importance of having this work done by local medical practitioners who are resident in the county borough of Newport and take responsible charge of the sick in the town. We are also instructed to point out the risks which might arise if you insist on this treatment being done by junior practitioners who would have an experience merely equivalent to that of house-surgeons. We would further point out that if this treatment is carried out by the same individual who carries out the work of inspection, or by any one under his control or direction, it would place your committee and the medical inspector (both having powers which might be said to be compulsory) in a position of considerable peril, and that such a dual appointment involves an absolute authority in the hands of one man, as regards diagnosis and treatment in relation to children who are powerless against the influence you are able to bring to bear on them, which is contrary to the public interest.

Our scheme provides for the service of men whom you would select from among the experienced practitioners who attend the public in the borough, and to whom the ratepayers entrust their own lives and the lives of those whom they hold dear. A list of those present at the meeting is appended.

We understand that you are coming to a final decision on the matter at your meeting on December 19th, and we should be deeply grateful if you will kindly favour us with your decision by the morning of December 21st.

We are, gentlemen, yours faithfully,

O. E. BULWER MARSH,
Chairman of meeting
R. J. COULTER,
Hon. Sec. of meeting.

The Chairman and Members of the School Clinic Subcommittee, Newport Elementary Education Committee.

BRITISH MEDICAL ASSOCIATION: MONMOUTHSHIRE DIVISION.

*School Clinic for the Treatment by Local Practitioners of School Children found Defective.*

1. That the Medical Inspector's duties be confined to inspection only.

2. That only children whose parents are unable to pay the doctor be treated. Proper inquiry into this matter is to be undertaken by the Education Authority with the co-operation of the medical staff.

3. That the work be carried out at a suitable centre fitted as agreed between the Education Authority and the medical staff. That the work of the clinic be not carried out at the hospital or on the hospital premises.

4. That operating instruments be provided by the medical staff.

5. That the number of the medical staff be four, one for eye patients, one for nose, throat and ear patients, one for anaesthetics, and one for dental patients.

6. That each member of the staff devote one afternoon per week during the school year to the duties of the clinic. The days and hours to be agreed upon by the medical staff.

7. That the remuneration be £50 per annum for each member of the staff.

8. That the Education Authority provide two fully-trained nurses, who shall be under the control and direction of the medical and dental staff.

9. That arrangements be made with chemists for the dispensing of prescriptions of the staff.

10. That arrangements be made with an approved optician for the provision of required spectacles.

11. That such clerical assistance as may be required be provided by the Education Authority.

12. That the medical staff be elected annually from medical practitioners who reside and practise in the borough of Newport.

13. That no alteration in the salaries or conditions of services be undertaken by the Education Authority without a written communication to the Monmouthshire Division of the British Medical Association as representing the medical profession.

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Newport Elementary Education Committee,
Education Offices, Charles Street, Newport,
20th December, 1910.

Dear Sir,—Your letter of the 17th inst., together with my enclosures, was yesterday placed before a meeting of my committee, and a long discussion took place upon the report of the subcommittee, and upon the scheme submitted by your Association.

I am directed to inform you that the committee approved of the report of their subcommittee, and the scheme contained in that report, and this will be duly sent to the Board of Education for their approval.

I believe you have full information of what the intentions of the committee are, but if there is any point upon which I could enlighten you, I should be pleased to give you any information you require.

Yours truly,
T. ARTHUR EAVES,
Secretary and Executive Officer.

R. J. Coulter, Esq., 11, Clytha Park Road, Newport.

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British Medical Association,
Monmouthshire Division.
11, Clytha Park Road, Newport,
21st December, 1910.

To the Secretary of the Newport Elementary Education Committee.

Dear Sir,—I am much obliged for yours of yesterday, informing me of the decision of your committee with regard to the proposed School Clinic. I should be very grateful if you could let me have the exact proposals of your committee, as my recollection differs from what I have since seen in the local press.

Yours faithfully,
R. J. COULTER, Hon. Secretary.

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Newport Elementary Education Committee,
Education Offices, Charles Street, Newport.
23rd December, 1910.

Dear Sir,—I beg to acknowledge receipt of your letter of the 21st inst., and in reply thereto to say that the deputation from your Association were informed of the full proposals of the committee, and I do not see how I can add to the information supplied to them. If, however, there is any point upon which the deputation were not clear which I could clear up, I shall be very pleased to do so upon hearing from you to that effect.

Yours truly,
T. ARTHUR EAVES,
Secretary and Executive Officer.

Dr. R. J. Coulter, 11, Clytha Park Road, Newport.

## DRAFT RELIEF REGULATION ORDER.

THE Departmental Committee appointed last March by the President of the Local Government Board (see JOURNAL, p. 101) appends to its report a draft relief regulation order.

In the preamble it is provided that all Orders now in force shall be rescinded, except the Paupers' Conveyance (Expenses) Order, 1898; the Relief (School Children) Order, 1905; and the said Orders relating to boarding-out. Article I consists of definitions, and it may be mentioned that the term "medical officer" means a medical officer for a workhouse or a district medical officer, and the expression "medical relief" means relief other than institutional relief afforded by the grant of medical or surgical attendance or of any matters or things supplied by or on the recommendation of a medical officer," and also "the expression 'relief in kind' means relief afforded by the grant of food, medicine, or other articles of absolute necessity or by the provision of temporary lodging."

ARTICLE II.—(1) Except as hereinafter provided, the guardians of a Poor Law union shall not afford relief other than institutional relief to any person who is within the union; and institutional relief shall only be afforded to any such person together with such of his family as may be resident with him and dependent on him for support:

(2) Nothing in Subdivision (1) of this Article shall apply in cases of—

(i) A person requiring relief on account of sickness or accident, or of bodily or mental infirmity (whether arising from old age or otherwise), affecting the person or any member of his family who is dependent on him for support;

(ii) A person requiring relief for the purpose of defraying the expenses of the burial of any member of his family;

(iii) A widow in the first six months of her widowhood;

(iv) A widow having a legitimate child dependent on her for support, and no illegitimate child born after the commencement of her widowhood; and

(v) A married woman living separate from her husband:

Provided that in the case last mentioned all relief given to the woman or to her child shall be given to the woman in the same manner and subject to the same conditions as if she were a widow;

For the purposes of this Article the term "family" shall extend to and include a wife.

ARTICLE III.—1. Except as hereinafter provided, the guardians of a Poor Law union shall not afford relief to any person who is not within the union.

2. In the case of a person who, though not within the union, is removable thereto, the guardians may afford relief subject to the same conditions as if the person were within the union. The clerk to the guardians shall enter in the minutes of each meeting of the guardians a statement showing in regard to each case in which a grant of relief under this subdivision has been made or confirmed at the meeting, or has been made by a duly authorized committee since the previous meeting of the guardians, the name of the person relieved, the amount of relief granted, the Poor Law union in which he is resident, and the period for which relief has been granted.

ARTICLE IV.—Where a person applies for relief on account of sickness or accident, or of bodily or mental infirmity (whether arising from old age or otherwise), relief, other than institutional relief, relief in kind, or medical relief, shall not be afforded by the guardians unless a certificate signed by a medical officer and stating the nature of the disability existing in the case is laid before them.

Provided that, in the case of a person requiring relief on account of bodily or mental infirmity arising from old age, or of any other disability which is in such a certificate stated to be of a permanent nature, it shall not be necessary for further certificates to be

laid before the guardians on the occasions on which orders are given for the further relief of that person on account of that disability.

ARTICLE V.—1. In every case in which an application is made for relief—

(*a*) Particulars of the case shall be recorded in a separate document (hereinafter referred to as "the case-paper") which shall contain all available information relating to the several matters mentioned in the schedule to this order and to such other matters as the guardians determine;

(*b*) The case-paper shall be provided by the guardians, and shall be filled up by the relieving officer or by such other officer as the guardians direct;

(*c*) On each occasion on which a further application for relief is made, the relieving officer or such other officer as aforesaid shall take such steps as may be necessary to verify and bring up to date the information contained in the case-paper;

(*d*) The case-paper shall be laid before the guardians on each occasion on which the case is considered by them; and particulars of any relief afforded, and any decision of the guardians on the case shall be noted on the case-paper.

2. The guardians shall make such arrangements as may be necessary for the preservation of case-papers under the supervision of their Clerk in such a manner that each particular case-paper may at any time be readily accessible.

3. The Board may, in any case in which the circumstances of a Poor Law union render it desirable that arrangements other than those prescribed in this Article be made in regard to the method of keeping the case-papers hereby required, sanction in respect of that union such a departure from the regulations contained in this Article as may seem to them expedient.

4. Nothing in this Article shall be deemed to require the use of a case-paper in the case of any person so long as he is receiving relief as a casual pauper.

ARTICLE VI.—It shall not be lawful for the guardians, or any of their officers, to pay, wholly or in part, the rent of the house or lodging of any pauper, or to apply any portion of the relief ordered to be given to any pauper in payment of any such rent, or to retain any portion of that relief for the purpose of directly or indirectly discharging any such rent, in full or in part:

Provided that nothing in this Article shall apply to any shelter or temporary lodging procured in any case of sudden and urgent necessity, or shall be taken to prevent the guardians, in regulating the amount of relief to be afforded to any person, from considering the expense that will during the period for which relief is given be incurred by him in providing lodging.

ARTICLE VII.—Except so far as the Board otherwise direct—

1. In any case in which relief other than institutional relief or medical relief is given, the relief shall be administered weekly or more frequently, as may appear expedient to the guardians;

2. The guardians shall not in the case of any person who at the time of application is not in receipt of relief under an order made by them order that relief shall be afforded for a period exceeding five weeks:

3. The guardians shall not in any case order that relief shall be afforded for a period exceeding fourteen weeks.

ARTICLE VIII.—It shall not be lawful for the guardians or any of their officers—

(*a*) To establish any applicant for relief in trade or business, or

(*b*) To redeem from pawn for any applicant for relief any tools, implements, or other articles, or

(*c*) To purchase for or give to any applicant for relief any tools, implements, or other articles, except such articles as are included in the expression "relief in kind," or

(*d*) To give money to or on account of any applicant for relief for the purpose of effecting any of the objects in this Article mentioned.

ARTICLE IX.—1. The guardians may, after not less than seven clear days' notice of the proposal has been sent by the clerk to each guardian, pass a resolution to the effect that it is expedient, on account of exceptional circumstances, that they be authorized to exercise the powers referred to in Article X or Article XI, as the case may be. A copy of the resolution, and a full statement of the exceptional circumstances existing in the case, shall be forwarded to the Board, and, if the Board assent, the powers referred to in the resolution shall be exerciseable by the guardians for such period as the Board may specify (hereinafter referred to as "the period of operation of a resolution").

2. During the period of operation of a resolution, relief given by the guardians in accordance with the regulations contained in Article X or Article XI, as the case may be, and reported to the Board within twenty-one days after the day on which the order for relief is made, shall, if otherwise lawful, not be deemed to be unlawful or be subject to be disallowed.

3. The Board may at any time during the period of operation of a resolution revoke their assent to the resolution, and thereupon the powers referred to in the resolution shall cease to be exerciseable by the guardians.

4. Nothing in this article shall have effect so as to prevent the Board from assenting to the exercise by the guardians at the same time of the powers referred to in Article X and Article XI.

ARTICLE X.—During the period of operation of a resolution referring to the powers of this Article, and subject to the provisions of subdivision (2) of Article IX:

(1) The guardians may, notwithstanding anything contained in Article II, afford relief other than institutional relief to the wife and family of any person to whom relief is afforded in a workhouse;

(2) Relief shall not be afforded in any case under this Article for more than a total of eight weeks in a year. For the purposes of this subdivision the term "year" means a period of twelve months ending on the thirtieth day of April;

(3) A person to whom relief is afforded in a workhouse while his wife and family are receiving relief other than institutional relief shall not be absent from the workhouse on any occasion without the consent of the guardians given for that occasion:

Provided that the guardians may delegate to the Master of the Workhouse the power of giving such a consent on their behalf in accordance with regulations approved by the guardians.

ARTICLE XI.—During the period of operation of a resolution referring to the powers of this Article, and subject to the provisions of subdivision (2) of Article IX—

(1) The guardians may, notwithstanding anything contained in Article II, afford to a male person relief other than institutional relief upon the following conditions; that is to say—

(i) The person shall be set to work by the guardians and kept employed by them;

(ii) One-half at least of the relief given to the person shall be relief in kind;

(iii) No person shall receive relief under this Article while he is employed by any person for wages or other hire or remuneration.

(iv) The guardians shall not in any case order that relief shall be afforded under this article for a period exceeding two weeks.

(2) The guardians shall submit to the Board with the resolution a statement showing the place or places at which persons relieved under this Article are to be set to work, the nature of the work in which those persons or any of them are to be employed, the times and mode of work, the scale of relief, and all such other matters relating to their employment as the guardians deem material to be communicated to the Board, or as the Board may require.

The guardians shall inform the Board of any change which they may propose to make with regard to any of the matters mentioned in the said statement, and shall afford to the Board any further information with regard to those matters which the Board may at any time during the period of operation of the resolution require.

ARTICLE XII.—If the guardians shall, upon consideration of the special circumstances of any particular case, deem it expedient to depart from any of the regulations hereinbefore contained (other than the regulations contained in Articles VI and VIII), and within twenty-one days after the departure report the same and the grounds thereof to the Board, then if—

(*a*) The relief given shall have been relief in kind afforded in a particular instance of emergency, or

(*b*) The Board approve of the departure,

the relief granted shall, if otherwise lawful, not be deemed to be unlawful or be subject to be disallowed.

ARTICLE XIII.—No relief which may be contrary to the regulations contained in this order shall be given by way of loan; but any relief which may be given to, or on account of, any person above the age of 21, or to his wife, or any member of his family under the age of 16, in accordance with those regulations, may, if the guardians think fit, be given by way of loan.

ARTICLE XIV.—The regulations contained in this order shall not apply or have effect in relation to any grant of relief in accordance with the regulations relating to the boarding out or the apprenticeship of children and in force for the time being.

ARTICLE XV.—This order shall come into operation on the day of , One thousand nine hundred and eleven: Provided that for the purpose of any sanction to a departure from the regulations contained in Article V., and of any proceeding referred to in Article IX, it shall be deemed to come into operation on the date hereof.

ARTICLE XVI.—This order may be cited as the Relief Regulation Order, 1911.

## SCHEDULE.

HEADINGS OF INFORMATION TO BE CONTAINED IN A CASE-PAPER.

1. Name, age, address, and condition as to marriage of—
   - (*a*) Applicant.
   - (*b*) Members of applicant's family resident with him and dependent on him for support.
   - (*c*) Relatives liable to contribute.
2. Date, nature, and cause of application.
3. Particulars as to home of applicant.[1]
4. Length of applicant's residence in the Poor Law union.
5. Occupation, earnings, and other income[2] of—
   - (*a*) Applicant.
   - (*b*) Members of applicant's family and relatives residing with applicant.
   - (*c*) Other relatives liable to contribute.

[1] Under this heading information should be given on such points as rent, number of rooms occupied, lodgers (if any), number of rooms sublet, and general sanitary condition.

[2] The information given under this heading in respect of the applicant and his family should include the facts as to allowances received from relatives, clubs, etc., and any other advantages received, such as meals provided for the children. Any payments regularly made for club subscriptions, insurance, and the like should be separately shown as deduction from the gross income.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,326 births and 4,711 deaths were registered during the week ending Saturday last, January 7th. The annual rate of mortality in these towns, which had been 14.2 and 14.1 per 1,000 in the two preceding weeks, was 14.3 per 1,000 last week. Among the several towns the death-rates ranged from 4.2 in King's Norton, 6.7 in Hornsey, 6.8 in Ipswich, 7.6 in Walsall, 8.3 in East Ham, and 8.4 in Gateshead, to 19.2 in Tynemouth, 19.3 in Grimsby and in Dewsbury, 19.4 in Oldham, 20.4 in Bootle, and 21.0 in Swansea; in London the death-rate was equal to 14.1 per 1,000. Measles caused a death-rate of 1.5 in Rotherham, 1.6 in Sheffield, 2.0 in Dewsbury, 2.4 in Middlesbrough, 2.6 in Bury, and 3.2 in Coventry, and diphtheria of 1.2 in Portsmouth and 1.4 in Bournemouth and in Handsworth (Staffs). The mortality from enteric fever, scarlet fever, and whooping-cough showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,680, 1,627, and 1,594 at the end of the three preceding weeks, had further declined to 1,491 at the end of last week; 154 new cases were admitted during the week, against 156, 167, and 140 in the three preceding weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, December 31st, 1910, 855 births and 534 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.5 and 13.4 per 1,000 in the two preceding weeks, rose to 14.7 per 1,000 in the week under notice, and was 0.6 per 1,000 above the mean rate during the same period in the large English towns. The rates in the several Scottish towns ranged from 11.0 in Aberdeen and 13.4 in Paisley to 19.6 in Perth and 21.3 in Greenock. The death-rate from the principal infectious diseases averaged 1.2 per 1,000, and was highest in Leith and Greenock. The 245 deaths from all causes in Glasgow included 2 from scarlet fever, 5 from diphtheria, 1 from whooping-cough, 1 from enteric fever, and 9 from diarrhoea. Five deaths from diphtheria were recorded in Edinburgh, 2 from diphtheria and 2 from whooping-cough in Dundee, and 3 from whooping-cough in Leith.

During the week ending Saturday, January 7th, 817 births and 526 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 13.4 and 14.7 per 1,000 in the two preceding weeks, declined to 14.3 per 1,000 last week, and was equal to the mean-rate during the same period in the large English towns. The rates in the several Scottish towns ranged from 9.7 in Perth and 11.3 in Greenock, to 16.5 in Dundee and 19.0 in Leith. The death-rate from the principal infectious diseases averaged 1.5 per 1,000, and was highest in Dundee and Leith. The 242 deaths from all causes registered in Glasgow last week included 2 from scarlet fever, 8 from diphtheria and croup, 7 from whooping-cough, 2 from enteric fever, and 7 of children under 2 years of age from diarrhoea. Two deaths from measles, 5 from diphtheria and croup, and 3 from whooping-cough were recorded in Edinburgh; and 3 deaths from whooping-cough in Dundee, and 6 in Leith.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon J. C. FERGUSON, M.B., to the *Royal Arthur*, January 1st; Surgeon E. L. MARKHAM, M.B., to the *King Alfred*, additional, for Devonport Subdivision, Home Fleet, December 27th, 1910; Staff Surgeon J. N. ROBERTSON, M.B., and Surgeon D. HORGAN, M.B., to the *Diana*, on recommissioning, February 4th; Surgeon A. F. CALDWELL, M.B., to the *Blenheim*, January 31st; Surgeon G. R. MCCOWEN, M.D., to the *Dwarf*, additional, January 31st, and on recommissioning, undated; Surgeon W. C. B. SMITH to the *Crescent*, January 31st, and to the *Tamar*, undated; Surgeon T. R. L. JONES to the *Crescent*, undated, and to the *Woodlark*, undated; Surgeon E. J. H. GARSTIN to the *Crescent*, January 31st, and to the *Nightingale*, undated; Surgeon F. H. STEPHENS to the *Crescent*, January 31st, and to the *Kinsha*, undated; Surgeon R. N. W. W. BIDDULPH to the *Doris*, additional, January 31st; Staff Surgeon P. F. ALDERSON to Chatham Dockyard, January 5th; Surgeon G. A. S. HAMILTON to the *Excellent*, additional, January 5th.

## ROYAL NAVAL VOLUNTEER RESERVE.

CHARLES F. A. HEREFORD is appointed Surgeon, December 30th, 1910.

## INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL J. A. BURTON, Madras, retires from the service, from December 6th, 1910. He was appointed Surgeon, October 2nd, 1880, and made Lieutenant-Colonel, October 2nd, 1900. He was in the China war in 1900, receiving a medal.

Major T. A. O. LANGSTON, Bengal, is also permitted to retire from the service, from December 12th, 1910. He joined the Bengal Medical Department as Surgeon-Lieutenant, January 30th, 1893, and became Major, January 30th, 1905. He served with the Waziristan Expedition in 1894-5 (medal with clasp), and in the campaign on the North-West Frontier of India in 1897-8, when he was present at the defence of Malakand, at the relief of Chakdara, and in the action at Landakai; he was mentioned in dispatches, and received a medal with two clasps.

The undermentioned officers have been appointed Honorary Surgeons to the Governor-General of India, from November 23rd, 1910: Surgeon-General P. H. BENSON, I.M.S., M.B., Surgeon-General with the Government of Madras; Surgeon-General A. T. SLOGGETT, C.B., C.M.G., British Service, Principal Medical Officer, 6th (Poona) Division; Colonel R. H. FORMAN, M.B., British Service; Colonel C. F. WILLIS, I.M.S., M.D., Officiating Deputy Principal Medical Officer, H.M. Forces in India; Colonel G. F. A. HARRIS, I.M.S., M.D., F.R.C.P., Inspector-General of Civil Hospitals, Bengal; Lieutenant-Colonel B. M. SKINNER, R.A.M.C., M.V.O.; Lieutenant-Colonel H. W. THOMPSON, R.A.M.C., D.S.O., M.B.; Lieutenant-Colonel R. S. F. HENDERSON,

R.A.M.C., M.B.; Lieutenant-Colonel H. SMITH, I.M.S., M.D.; Major B. G. SETON, I.M.S.; Major W. SELBY, I.M.S., D.S.O., F.R.C.S.

The King has approved the promotion of Lieutenant-Colonel J. A. CUNNINGHAM to be Colonel, and of Lieutenant-Colonel J. SHEARER, C.B., D.S.O., to be Brevet-Colonel, both of which have been announced in the BRITISH MEDICAL JOURNAL. The Royal approval has also been given to the retirement from the service of the latter officer. This retirement also has already appeared in the BRITISH MEDICAL JOURNAL.

Lieutenant-Colonel J. A. BURTON, Madras, has retired from the service, from December 6th, 1910. He was appointed Surgeon, October 2nd, 1880, and became Lieutenant-Colonel, October 2nd, 1900. He was in the China war in 1900, and received a medal therefor.

Lieutenant-Colonel G. E. FOOKS has also retired from the service, from December 6th, 1910. He joined the Bombay Medical Department as Assistant Surgeon, October 2nd, 1880, and became Lieutenant-Colonel, October 2nd, 1900. He served with the Zhob Valley expedition in 1884; in the operations against the Mazrui rebels in East Africa in 1895-6 (medal); and in the China war in 1900 as Senior Medical Officer during the relief of Peking (mentioned in dispatches, medal with clasp).

Lieutenant-Colonel H. N. V. HARINGTON, Madras, also retires from November 28th, 1910. He was appointed Surgeon, October 2nd, 1880, and became Lieutenant-Colonel, October 2nd, 1900.

Lieutenant-Colonel R. E. S. DAVIS, M.B., Madras, also retires from the service, from October 29th, 1910. His first appointment is dated September 30th, 1882; that of Lieutenant-Colonel, September 30th, 1902. He was with the Burmese expedition in 1886-7, was mentioned in dispatches, and received a medal with clasp.

### TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

*South-Eastern Mounted Brigade Field Ambulance, Royal Army Medical Corps.*—Major P. C. BURGESS to be Lieutenant-Colonel, November 24th, 1910.

*First South Midland Mounted Brigade Field Ambulance, Royal Army Medical Corps.*—WILLIAM H. CUSACK, M.B., to be Lieutenant, September 3rd, 1910.

*Second Home Counties Field Ambulance, Royal Army Medical Corps.*—Major A. R. HENCHLEY, M.D., to be Lieutenant-Colonel, November 26th, 1910.

*Third West Lancashire Field Ambulance, Royal Army Medical Corps.*—Captain HENRY DODGSON resigns his commission, retaining his rank and uniform, January 4th.

*Attached to Units other than Medical Units.*—Lieutenant IVAN C. KEIR, M.D., resigns his commission, January 4th. Captain JAMES MIDDLETON, M.B., to be Major, November 23rd, 1910.

# Hospitals and Asylums.

## VICTORIA INFIRMARY OF GLASGOW.

THE annual general meeting of the contributors to the Victoria Infirmary was held on December 1st, 1910, Mr. A. Cameron Corbett, M.P., chairman, presiding. The twenty-third annual report submitted showed that during the year 3,350 patients were treated in the wards, as compared with 3,353 the preceding year. The lesser number was accounted for by the closure of four small wards owing to reconstruction and improvement alterations. Of the cases treated to a conclusion, 249 died, a percentage of 8.02. Deducting moribund cases admitted, and those accident cases which died within a few hours of admission, the death-rate was 5.89 per cent. In addition to the above indoor cases, 552 minor accident cases were received in the indoor department. At the outdoor department 4,791 cases were dealt with, involving 16,389 consultations. At the Bellahouston Branch 11,057 cases were dealt with, involving 31,589 consultations; 665 patients convalescent had been sent for a period of residence at the infirmary convalescent home at Largs. During the year 3 additional beds had been endowed in perpetuity. There had been a decrease in general subscriptions to the funds, but the workmen's contributions, from which more than a third of the ordinary income was derived, showed an increase.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BIRMINGHAM: GENERAL HOSPITAL.—Two House-Surgeons. Salary for three months at the rate of £40 and for the next six months £50 per annum.

BRADFORD ROYAL INFIRMARY.—Honorary Assistant Surgeon.

BRECON: BRECKNOCK COUNTY AND BOROUGH DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum.

BRISTOL: BRISLINGTON HOUSE.—Junior Resident Medical Officer (male). Salary, £140.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist; (2) Honorary Medical Registrar; (3) two House-Physicians; (4) House-Surgeon; (5) Obstetric and Ophthalmic House-Surgeon; (6) Throat, Nose, and Ear House-Surgeon; (7) Casualty Officer. Salary for (3) and (4), £100 per annum; for (5) and (6), £75 per annum; and for (7), £50 per annum.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for Branch Dispensary. Salary, £180 per annum.

CLINICAL RESEARCH ASSOCIATION, York Buildings, Adelphi.—Assistant Director. Remuneration to commence at £250 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

DAVOS: QUEEN ALEXANDRA SANATORIUM.—Junior Pathologist and Bacteriologist.

DUDLEY DISPENSARY.—Resident Medical Officer. Salary, £180 per annum.

DUNDEE COMBINATION POOR-HOUSE AND HOSPITAL.—Resident Medical Officer (junior). Salary, £100 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician (male). Salary at the rate of £75 per annum.

EAST SUSSEX COUNTY COUNCIL: EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon. Salary, £72 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Clinical Assistants in Out-patient Ear, Throat, and Nose Department.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician. Honorarium, 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician. Salary, £30 for six months and £2 10s. washing allowance. (2) Fourth Anaesthetist. Honorarium of £15 15s. a year.

HULL: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £100 per annum.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £120 per annum.

LINCOLN EDUCATION COMMITTEE.—Assistant School Medical Officer and Assistant Medical Officer of Health. Salary, £250 per annum.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar. Salary, £100 per annum.

MANCHESTER ROYAL INFIRMARY.—Assistant Director to the Clinical Laboratory. Salary, £75 per annum.

MARGATE: ROYAL SEA BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary, £120 per annum.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

OLDHAM UNION.—Resident Medical Officer for the Workhouse. Salary, £130 per annum, and fees.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male).—Salary, £110 per annum.

ST. JOHN'S WOOD AND PORTLAND TOWN DISPENSARY.—Third Medical Officer. Honorarium £150, and midwifery and vaccination fees.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Dental Surgeon.

SHEFFIELD EDUCATION COMMITTEE.—Dental Surgeon for Elementary Schools. Salary, £250 per annum, rising to £300.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Creech St. Michael, co. Somerset.

## APPOINTMENTS.

BATTERSBY, John, M.B., Ch.B.Manchester, L.D.S.Eng., Honorary Dental Surgeon to the General Hospital, Nottingham.

CORKERY, T., M.D., M.Ch., R.U.I., District Medical Officer of the Belper Union.

CRABB, R. L., M.B., B.S., M.R.C.S., L.R.C.P., House-Surgeon to University College Hospital.

DWYER, H. de B., M.R.C.S., L.R.C.P.Lond., Medical Officer and Public Vaccinator of the Banbury District of the Banbury Union.

FLOOD, R., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the county of Down.

GRAHAM, S. G., M.R.C.S., L.R.C.P., District Medical Officer of the Williton Union.

GRAVES, H. J. H., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Shoreditch Parish Infirmary.

MCCLINTOCK, L. T., M.B., Ch.B.Edin., Medical Officer of Health of the Loddon and Clavering Urban District.

MOORE, H. E., M.B., Ch.B.Vict., Certifying Factory Surgeon for the Stourport District, co. Worcester.

PARROTT, E. J., L.R.C.P., M.R.C.S.Eng., Medical Officer of Health of the Hayes Urban District.

PHILLIPS, James, F.R.C.S.Edin., Honorary Surgeon to the Bradford Royal Infirmary, vice W. H. Horrocks, F.R.C.S., deceased.

PIPER, F. P., M.B.Lond., Certifying Factory Surgeon for the Whitstable District, co. Kent.

SELLARS, J. B., L.R.C.P.and S.Ire., Certifying Factory Surgeon for the county of Louth.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

CRAIG.—On January 4th, at 323, Hagley Road, Edgbaston, Birmingham, the wife of James Forsyth Craig, M.A., M.D., of a son.

### DEATH.

DEWES.—On January 10th, at St. Augustine's Vicarage, Pendlebury, Manchester, the Reverend Alfred Dewes, LL.D., D.D., in his eighty-sixth year.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CASSELL AND CO. will publish a *Text Book of Gynaecological Surgery*, by Dr. Comyns Berkeley and Mr. Victor Bonney, at the end of January. It represents the surgical experiences the authors have gained at the Middlesex Hospital and the Chelsea Hospital for Women, and is illustrated with nearly 400 drawings from the pencil of Mr. Bonney.

Messrs. J. and A. Churchill will publish about the middle of January a *Manual of Gynaecology* by Dr. Eden, Obstetric Physician to Charing Cross Hospital. It is intended as a companion volume to his *Manual of Midwifery*. The author's object is to present a comprehensive account of the diseases of women from the standpoint of pathology and treatment. The work will be copiously illustrated.—The same firm will issue in a few weeks a book entitled *Vicious Circles in Diseases*, by Dr. J. B. Hurry, of Reading.

## DIARY FOR THE WEEK.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 15, Cavendish Square, 8.30 p.m.—Communications:—(1) Dr. J. P. Candler: The Incidence of Gall Stones and of Primary Carcinoma of the Gall Bladder and Biliary Passages in the Insane. (2) Mr. H. Seidelin: Demonstration of Certain Protozoan-like Bodies in the Blood Organs of Yellow Fever Cases. (3) Dr. H. R. Dean: Studies in Complement-fixation with the Typhoid and Paratyphoid Group. (4) Dr. W. J. Penfold: Variability in the Gas-producing Power of Intestinal Bacteria. (5) Mr. S. G. Shattock: Microscopic Structure of Uric Acid Calculi.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, 4.30 p.m.—Papers:—(1) Dr. Clive Riviere: The Rôle of Auto-inoculation in Medicine: A Plea for its Rational Extension. (2) Dr. A. P. Beddard: Some Points in the Treatment of Pneumonia.

### WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—The adjourned debate on The Operative Treatment of Cancer of the Rectum will be continued by Mr. A. Boyce Barrow, Mr. F. C. Wallis, Mr. P. Furnivall, and Mr. Lockhart Mummery.

### THURSDAY.

ROYAL SOCIETY, Burlington House, W.—List of Probable Papers:—G. S. Walpole: The Action of *B. lactis aërogenes* on Glucose and Mannitol. Part II. Dr. W. E. Dixon: The Pharmacological Action of South African Boxwood (*Gonioma kamassi*). Dr. W. Yorke: Autoagglutination or Red Blood Cells in Trypanosomiasis. M. Nierenstein: The Transformation of Proteids into Fats during the Ripening of Cheese (Preliminary Communication). J. F. Gaskell: The Action of *X* Rays on the Developing Chick.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens.

NEUROLOGICAL SECTION, 15, Cavendish Square, W, 8.30 p.m.—Paper:—Dr. F. E. Batten: The Progressive Spinal Muscular Atrophies of Infants and Young Children.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Mr. J. Hall-Edwards: The Treatment of Cancer by *X* Rays and Radium.

OTOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—(1) Cases and Specimens. (2) Paper:—Mr. C. Ernest West: The Bacteriology of Chronic Post-nasal Catarrh: A Preliminary Study of Fifty Cases.

### POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Genu Valgum, Genu Varum, Curved Tibiae, Flat Foot; Thursday, 4 p.m., Purpura. Friday, 5.15 p.m., Congenital Talipes.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich. Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Monday, 2.15 p.m., Operative Wounds and Injuries; Tuesday, 4.30 p.m., Bronchial Affections in Children.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Visceroptosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be delivered as follows: Monday, Anaesthesia as an Aid in Diagnosis; Tuesday, Modern Methods of Treatment in Tuberculosis; Wednesday, Myopia; Thursday, Treatment of Certain Common Fractures.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Clinical Demonstration.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 am., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m. Lecture: Talipes and Its Treatment. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C., 6 p.m.—Acne Vulgaris in Its Three Stages.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathology, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Minor Surgery, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Practical Medicine, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JANUARY, 1911.** | |
| 18 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting Royal Hospital, Richmond, 8.30 p.m. |
| 19 THURSDAY | BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 20 FRIDAY | |
| 21 SATURDAY | |
| 22 Sunday | |
| 23 MONDAY | |
| 24 TUESDAY | |
| 25 WEDNESDAY | London: Central Council, 2 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4.30 p.m. LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Leicester Infirmary, 4.15 p.m. |
| **JANUARY** *(continued)*. | |
| 26 THURSDAY | WANDSWORTH DIVISION, *Metropolitan Counties Branch*, 27, St. John's Hill, S.W., Business Meeting, and Election of Representative, 8.45 p.m. |
| 27 FRIDAY | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. |
| 28 SATURDAY | |
| 29 Sunday | |
| 30 MONDAY | |
| 31 TUESDAY | |
| **FEBRUARY.** | |
| 1 WEDNESDAY | |
| 2 THURSDAY | |
| 3 FRIDAY | |
| 4 SATURDAY | |
| 5 Sunday | |
| 6 MONDAY | |

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LONDON: SATURDAY, JANUARY 21ST, 1911.

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# STATE SICKNESS AND INVALIDITY INSURANCE.

## DISCUSSION BY HAMPSTEAD DIVISION.

A MEETING of the Division was held on January 13th, Dr. FORD ANDERSON being in the chair, when a paper on State Sickness and Invalidity Insurance was read by Dr E. ROWLAND FOTHERGILL. He said:

Asked by your Chairman to read a paper on State Invalidity and Sickness Insurance, I received his permission to confine myself to that portion of the question more nearly affecting the medical profession, and also to place before you my own views on the more vital points relating to any proposal to associate with this national scheme of insurance a scheme to cover the necessary medical attendance on its beneficiaries.

I greatly appreciate the honour, and trust that one result of my paper may be to awaken in some of my listeners a keen interest in the problems involved, as also a desire to participate in their elucidation.

### *General Outlook.*

The physical and moral deterioration resulting from unemployment, insufficient or bad food and housing, neglected ailments, and ignorance, with all the consequent injury to the present and the succeeding generations, has for some time been brought prominently before the medical profession.

All parties in the State now recognize their existence and their urgency, and are in favour of taking some steps to try to stop this human wastage.

The problem would seem to be how to maintain those termed the labouring classes in the most perfect physical condition, so that they may one and all retain their positions of utility in what we may call "the fighting line"; how to return to that fighting line with the least possible delay those who are laid by temporarily through illness or accident; and how to prevent those who, through illness, age, or accident, have had temporarily or permanently to leave that fighting line from becoming a source of danger to the health of others.

### *Government Proposals.*

From various sources one has been able to obtain such information as will justify us in saying that the Government proposes in the near future—probably this year—to introduce an insurance scheme which will include the following:

1. It will affect 15,000,000 persons.
2. It will be compulsory and contributory.
3. It will be limited to those between the ages of 16 and 70.
4. It will affect all whose income is below £160.
5. It will be worked partly through the permanent friendly societies and insurance companies dealing with sickness insurance, and partly through companies or societies formed for similar purposes.

There does not seem to be at the present moment any direct intimation that the scheme will include women and children, or that it will cover medical attendance.

But, looking at the number it is said that the scheme will affect, one is entitled to say that women and children will ultimately be included; and, that if medical attendance is not included from the first, it is not because there is no necessity for it, in order to make any scheme a success, but because the Government is not prepared with a well-thought-out set of proposals for covering it.

It is for the medical profession to come to the assistance of the State in the elucidation of this portion of the problem, and thus to take its rightful position in the council of the nation.

### *The Position to be taken up by the Medical Profession.*

It should be your endeavour, as it is your privilege, to bring to bear on the consideration of this question of medical attendance on the labouring classes that

highly-trained acumen and acquaintance with human nature in all its aspects which you, during a long life, are bound to have acquired.

But might I urge on you the necessity for not looking at the problem only from a personal and class point of view. Conclusions come to, if based solely on such interests, may on the face of them appear satisfactory and convincing; but when they are brought into relation with the interests of other classes they may be found to be delusions, and likely to work untold disaster on those who adopt them.

It is, therefore, somewhat of a solace to those of us who desire to avoid such a catastrophe, to know and realize that the true interests of the medical profession and those of the community invariably coincide.

At the first blush this may not be apparent to all; but the further one probes into problems the more one becomes convinced that any schemes that you or the State may decide on—in matters that affect both the public and the medical profession, as such—which do not recognize this fact will prove ultimately to be unsound.

Having, therefore, this assurance, and remembering it for our guidance, we can the more readily apply ourselves to the consideration of the question of medical attendance under any scheme of State invalidity and sickness insurance.

*Should the Scheme include Medical Attendance?*

In order to answer this question we must look back a little into the past.

Medical men of the last century, and possibly before, were constantly meeting in their practices persons who were quite unable to pay for the cost of medical attendance, and for whom the State made no provision whatever. As a consequence doctors, suffering then as they do now from excess of kind-heartedness and lack of appreciation of what their actions would entail, accepted these persons as permanent patients, saying that they would look after them if and when required. And, in order to avoid hurting their susceptibilities, they agreed to accept from these patients an annual honorarium, fixed at almost the lowest coin of the realm. Both parties seemed pleased.

It is not necessary for me to enlarge on what followed—how this kindly act came to be looked on as a right; how other persons better off considered that they should share these benefits; how men banded themselves together to demand this charity as a business transaction and to organize it as such; how wealthy societies, with capitals running into millions, enslaved doctors, using them as sprats to catch herrings.

The doctor, isolated, unsupported, lacking in business knowledge, and often suspicious of his neighbouring colleagues, did not stop to think where he was drifting; and at the present moment we find a state of affairs in the medical profession and in the physical and moral condition of the labouring classes which, in my opinion, is largely due to this excess of charity and want of foresight on the part of those of our profession who have passed away.

It is for you to-day to see to it that while elaborating any scheme for medical attendance under a State insurance scheme, you are not likely to be considered guilty of capping the results of the acts of our predecessors by putting State organization finally as the rounding off of their indiscretion. If you do, then the further deterioration of our profession and the members of the labouring classes for whom you help to legislate will inevitably result; if not in your time, certainly in the time of our successors.

If the medical profession at this crisis should decide to accept as adequate remuneration for its services a sum, the determining of which has been influenced either by thoughts of charity, or by want of due appreciation of the extent of the services required, or by appeals to its sympathy for the accumulating burdens of the State, or by lack of union amongst its members, then it most certainly will follow that the very value placed by the profession on its services will come in course of time to be recognized as the true value, and permeating slowly but surely amongst the upper classes, will be eventually demanded by them also as a right.

As it will always be impossible for certain persons to meet the cost of medical attendance, and as it is not just that the medical profession should provide it for next to nothing, it is, I suggest, high time that the State took up the burden.

*Charity.*

Seeing that the Government intends to bring forward proposals to deal with this problem of State insurance, which to be complete should include medical attendance, any further necessity for appealing to the medical profession in the name of charity is gone. This point cannot be too strongly urged. Any mixing of charity and business is bound to react on the labouring classes in a most profoundly injurious manner.

The medical profession should, however, be on its guard that any difficulties which may for the moment arise in the elaboration of a scheme are not solved to the satisfaction of the laity by some such appeal.

*The Insurance Company.*

As the problem is to be solved by means of insurance, the question naturally arises, Who is to be the insurance company as regards the medical attendance?

It has been suggested that the organization and control could be in the hands of the British Medical Association, acting through local public medical services.

Now at the present time there are in existence only twenty of these services out of a possible 175 required in order to cover the entire country.

The British Medical Association cannot, if it would, undertake this office of insurance *directly*, under its memorandum of association; and it is not to be expected that the Government will consent to the Association doing it *indirectly* as agents, if unwilling to agree to incur any pecuniary or other liability in respect to any act, omission, or default of any of the central or local committees formed for the conduct and control of the scheme.

We must recognize that State funds would be used; that Parliament would have to sanction annually grants and supplementary grants for the service; that the public, as taxpayers, would have the right to criticize and control the conduct of the service as well as to make the Government of the day responsible for its success or failure.

It is as inconceivable to me that the State would be willing to hand over to one profession, and that a profession directly interested in one way, the conduct and control of a medical service affecting 15,000,000 of the working classes and involving an annual expenditure of possibly as many or more millions of money, as that it would consent to hand over to the National Union of Teachers the control and conduct of the elementary education of children.

Again, the British Medical Association is not in a financial position to take the risks attached to accepting capitation fees on the one hand from the State, the employers, and the employees, and on the other hand to insure to the medical attendants adequate remuneration under all contingencies.

That Divisions of the Association or local committees of medical men should take these risks would simply mean that any loss would either have to come out of the pockets of the local medical practitioners, or that these doctors would have to rest content with the receipt of a much less sum of money on division than they were encouraged to expect.

As the State with its limitless possibilities of calls will be fully able to guarantee the funds necessary for an efficient, constantly enlarging, and improving service, and as it must control the distribution of the funds in order to safeguard the interests of the taxpayers, the employers, and the employees, it alone would seem to be the party to take this position of responsibility.

Commerce and medical science are not professions which can be successfully organized and controlled by

one and the same body; and their combination, one would hope, will never meet with the approval of the medical profession.

The Government, no doubt, may be willing to consult the British Medical Association on the elaboration of a scheme, to use its organization for the disciplinary control of the members, and for voicing the wishes of the medical profession. And no doubt it could be induced to give adequate representation of the medical profession on all central and local boards and committees formed to control the service.

Let us leave to the State, then, the responsibility of dealing with the intricacies of an insurance business.

*Two Points affecting an Insurance Policy.*

I would like just here to record two points affecting any insurance proposal:

1. That it should be possible to place the beneficiary under the scheme in exactly the same position in all respects to that held by a person whose financial state renders an insurance unnecessary.
2. That there must be a maximum to the amount of benefit which can be drawn both absolutely and in relation to the amount of contribution paid.

The application of these points will become apparent as we proceed to discuss in more detail the scheme.

*Less Controversial Points in Any Scheme.*

In order to have time to discuss more fully those points of a more controversial nature I hope I may only briefly refer to the less controversial ones, giving them in the form of conclusions. They are:

1. That the scheme should include women and children.
2. That the scheme should not include those coming under the Poor Law, at all events pending such reforms as may result from the consideration of the reports of the Royal Commission on the Poor Law.
3. That there should be central and local boards and committees for the control and conduct of the service.
4. That on all these boards and committees there should be adequate representation of the medical profession.
5. That there should be central and local medical committees.
6. That each beneficiary who pays in whole or in part his premium of insurance should have the right to choose his doctor.
7. That the service should be open to all registered medical practitioners who care to participate in it.

*Wage Limit.*

Should there be a wage limit? The Government, if rumour is for once correct, evidently proposes to fix a wage limit to its scheme, placing it at the income tax level of £160 a year. But it is not clear whether this is a net or a gross amount. If it is net, it is readily conceivable that the door will be left open to an enormous amount of abuse through the endeavours of would-be beneficiaries to bring themselves within the limits of the scheme—an abuse with which possibly a doctor sympathizes when it arises from a desire to avoid paying income tax, but which would receive his warmest condemnation when it refers to medical attendance.

However, if we recognize that taxpayers will most probably refuse to approve a scheme which would include all ranks of society, and that employers of labour will decline to contribute to any scheme the control and soundness of which would be hazarded by the inclusion of those not in need of assistance by insurance, then we can well leave the fixing of a wage limit and the prevention of abuse to the Government, and concentrate our attention on the determination of what remuneration for the services expected of us by the beneficiaries, the employers, and the State we should ask for.

*The Contract with the Doctor.*

On what basis should the contract with the doctor be made? We must keep in mind the fact that the services that may be required by a beneficiary under the scheme cannot in all cases be rendered by one and the same registered medical practitioner. Consequently, if we advocate one system of contract for one class of doctor, it would seem to be logical to advocate it for all classes.

Now there are three possible modes of contract:

(*a*) Whole-time appointments.
(*b*) Payment by a capitation fee.
(*c*) Payment per attendance.

*Whole-time Appointments.*

The proposal to have a whole-time medical service for the benefit of those insured is advocated by many, and amongst them are members of the medical profession.

Without going fully into the question now, one can at once see that such a service would mean limiting the choice of doctor to those who up to now have had free choice while paying for his services; it would deprive many medical men of the larger part of their practice, and absolutely ruin many others; it would tend to perfunctory attendance on the part of the doctor under his three taskmasters—the State, employers, and employee; and it would fail in any attempt to carry out the ultimate aim of the whole scheme—namely, the improvement of the physical condition of the labouring classes by the prevention of disease.

The interests of the community and of the medical profession would not coincide under such a scheme; therefore it would prove ultimately to be unsound if adopted.

It can be taken that the large majority of the medical profession would be absolutely united against it, and they would decline to co-operate in any way in such a scheme.

*Capitation Payments: Payment per Attendance.*

We are therefore left with two proposals under either one of which the medical profession could offer to contract with the State.

It is needless to say here that with regard to these two proposals the most opposite opinions have been expressed, and the most active propaganda on behalf of one or the other has been undertaken.

One party says, "Accept capitation payments and all will be well, it is so simple." The other party says "Accept capitation payments and you have ruined the medical profession, *as a profession*, beyond recall."

One party says, "Accept payment for attendance—the State can and should afford it—and thus regain the freedom of the profession." The other party says, "If you ask for payment per attendance you will never get it, and you will throw the medical service into the hands of lay bodies for good and all."

There are some, belonging to neither party, who say it will make no difference whatever which form of contract you agree to; you will get the same amount of money in either case. But these persons, besides producing no proof in favour of such a statement, seem to entirely ignore the psychological effects of one or other system both on the beneficiary and the doctor, and their relation to the prevention of disease, which is the ultimate aim of the proposed insurance. I would suggest this as a most appropriate topic for a debate.

All, however, are agreed that the issue at stake is the most momentous one with which the medical profession has been faced in its political aspect. A mistake made now will be irretrievable later.

It is for you to concentrate on the arguments that will be placed before you from time to time that highly educated intellect which your training has given you.

If you approach the problem with a due sense of its importance and an appreciation of the fact that at this stage you have not to deal with the *amount* but the *mode* of payment, and will keep before you clearly the question, "which proposal is best for the community, for the employers, for the employees, and for the

doctors?" you will eventually, I feel sure, decide on an answer which you can support by the statement that by it, and by it alone, the interests of the community and those of the medical profession absolutely coincide, and therefore that that proposal will prove ultimately to be the only sound one.

In order to assist the consideration of the question, I have tabulated certain advantages and disadvantages stated to attach to each proposal, as well as criticisms of those statements. Having certain views of my own as to the answer that the medical profession should give, I have not hesitated to prepare what many may consider a statement of my case. I am here, I understand, for that purpose.

Before referring to those tables in detail, I would wish to emphasize that, if you place in the hands of a beneficiary the uncontrolled right to demand the services of a medical man—be he general practitioner, physician or surgeon consultant, or other specialist—when and as often as he desires, and on his own unsubstantiated word, you are introducing into your proposed policy a condition which no lay insurance company would accept, because it is impossible to obtain an actuarial valuation of human nature.

Now let us look through the lists of advantages and disadvantages.

### Capitation System.

| *Stated Advantages.* | *Criticism.* |
|---|---|
| 1. The medical practitioner would enjoy relative certainty of a steady income. | 1. This steady income would be far below the value of the services rendered. In an epidemic or illness resulting from a trade strike, or if additional duties were imposed, or if the chronically ill, the aged, and those engaged in hazardous employments were placed on his list, it would bear no relation to work done. |
| 2. The medical practitioner could attend as much as he desired, and not be accused of being out for fees. | 2. Seeing that the Government, the employers, the beneficiaries, and the permanent benefit societies will all exact as much attendance as possible, "in order to improve the health of the nation," this possibility would be illusory. He would have little or no spare time. Being human, he is likely to devote any spare time to his private patients and to his and their interests. |
| 3. Any inspection necessary would not need to be so elaborate as under "payment per attendance" scheme. | 3. Inspection is for three purposes: (1) To ensure adequate attendance; (2) to ensure no malingering; (3) to investigate complaints of one or other party to the bargain. This would arise under both systems. |
| 4. The administrative machinery necessary would be much simpler than under a "payment per attendance" scheme. | 4. This is denied. The only machinery in addition required for "the payment per attendance" system would be local—for receiving and checking doctors' accounts.<br>This would be placed against the local machinery necessary for preparing, correcting, and issuing lists of beneficiaries to doctors and membership cards to beneficiaries every quarter in the year. |

*Stated Disadvantages.*

1. The medical practitioner takes over the insurance risks rightly belonging to the State.
2. The new class of beneficiary who at present pay doctor's bills as private patients will when included tend to become as exacting as present club patients.
3. As "special services" cannot be included in the capitation payment made to one doctor, complicated provision would be necessary for settling accounts, even if the money were forthcoming. If specialists were contracted with on a capitation basis the tendency of the general practitioner would be to encourage the beneficiary to transfer himself to the specialist as soon as possible.
4. If "special services" were specially provided for by a special tariff, then at once a special machinery for charging, checking, and paying would have to be provided, and thus one of the objections to "payment per attendance" be introduced.
5. It would be impossible to compel a doctor to continue his attendance after his year's contract was terminated, at the same rates, on those on his list who had become chronics through misconduct, age, hazardous employment, or disease during the past year. Thus the scheme would fail at the very point it was intended to be beneficial to the community.
6. The imposition of additional duties on a doctor would entitle him to an increase of the capitation fee. This the Government would never consent to; and the employers, employees, and friendly societies would strenuously oppose it. The way would thus be prepared for future "battles of the clubs."

### Payment per Attendance.

*Stated Advantages.*

A. To the State.
1. The principle of payment for work done is the most equitable and satisfactory.
2. It conduces to smoothness of working between doctor and patient.
3. The cost to the State could be no more than under an *adequate* capitation grant.
4. The more efficient attendance guaranteed by this system will lessen the amount of sickness. It follows, therefore, that the cost of this method would be less in future years than under the capitation system.
5. It will tend to increase the efficiency of the medical profession.
6. The inclusion of women and children, chronic invalids, the aged, those ill through personal misconduct, and those in hazardous employments can be arranged for on this the only satisfactory basis and without any further adjustment.

B. To the Medical Practitioner.
1. He will be relieved of the onus of giving unlimited service for a limited premium.
2. The trivial consultation and the unnecessary call will not be a continual source of annoyance.
3. The remuneration will be in proportion to work done.
4. There will be no unremunerative patients.
5. The relation of patient and practitioner will be more cordial and personal.
6. The freedom of the private practitioner will be retained.
7. If additional duties should be required under the advance of social legislation, the necessary agreement between the State and profession would need no further adjustment.
8. The doctor in attendance on clubs would gain more by increased fees than he would lose by any transference of patients.

C. To the patient.
1. He can command the advice of any practitioner.
2. He can change his doctor, as in private practice.
3. He is assured of receiving adequate attention.
4. He has all the advantages of a private patient.
5. His self-respect is maintained, as services rendered are paid for.

| *Stated Disadvantages.* | *Criticism.* |
|---|---|
| 1. The patient being insured can call in the doctor as often as he likes; and the doctor can increase his account unnecessarily, and so there would be excessive demand on the insurance fund. | 1. Various checks are at present in vogue where this system is in use, and one or more could be adopted.<br>In the interests of the community over-attendance is better than under-attendance, as would occur under capitation grants. |
| 2. The medical practitioner would suffer from disadvantages of fluctuation of income due to varying amount of sickness. | 2. As the medical practitioner would be able to count on receiving each quarter full payment for services rendered (whereas under capitation payments he would only be paid in part for such services), his bank account would be in 75 per cent. of instances far above the level under the capitation system, and never as low as it. |
| 3. Government criticism would act as a deterrent to adequate attendance; the beneficiary would complain of doctor's under-attendance. | 3. The various checks referred to under (1) above would operate to control the patient; the employer's interest in the return of his employee because of his liability to contribute, for sick payment, an increased premium in future years, would urge the employer to compel prompt and efficient attendance by the doctor.<br>Experience, after a time, would adjust Government criticism. |

It is not desirable that at present you should definitely give your opinion as to the relative merits of the two proposals, but I trust that when you are

called upon to do so there will be no hesitancy on your part in coming to a decision—

1. That the State, and not the medical profession, should be the insurance company, and should take all risks;
2. That the State having fixed the wage limit should take steps to prevent abuse;
3. That there should be payment made to all classes of the medical profession in direct proportion to services rendered on a tariff based on "payment per attendance."

If the medical profession could unite to adopt these principles and to urge their acceptance on the Government, we might hope that they would be accepted.

In this way the medical profession, while freeing itself from the servitude which seems to be gradually overwhelming it, would be best assisting the improvement of the physical conditions of the labouring classes and helping to the success of a national scheme of State invalidity and sickness insurance.

Dr. FORD ANDERSON said that the purpose of the discussion was not to express a final opinion, either collectively or individually, at that juncture. The question would bear much further inquiry, and would be dealt with when the official papers came down to the Division. It was not a club doctors' question. It affected in one way or another the whole of the medical profession—not only private practitioners, but also the physicians and surgeons and those who had to deal with the great hospital charities. As to the merits of the rival schemes about which they had heard that afternoon, he took it that, put shortly, Dr. Fothergill's proposal was to transfer the burden of insurance from the medical profession to the Government. The risk was entirely an unknown quantity, and he did not think that the Government would accept it. By the capitation system, on the other hand, the responsibility of the insurance was shared between the Government and the medical profession. But, after all, was this question of a capitation system *versus* a system of payment by attendance a fundamental one? Already in the scheme of the British Medical Association it was permitted to any local Division to choose its own method, and actually in some Divisions at the present time the attempt was being made to carry out that principle. Why not accept the assistance that the Government was going to give and leave the question of these terms of contract to the preference of the Divisions? Those that cared for the older system could have it, and those that were emboldened to make the experiment of payment by attendance were at liberty to do so. If they sent an ultimatum to Mr. Lloyd George to the effect that they would accept nothing but payment by attendance, he feared that the reply would be a refusal to deal with them on those terms.

Dr. H. J. MACEVOY, although speaking with an open mind as to the rival systems, thought that Dr. Fothergill's presentation in tabulated form of the arguments for and against each of the proposed terms of contract (see BRITISH MEDICAL JOURNAL, September 17th, 1910, p. 749) was not altogether impartial. The speaker complained particularly of the statement that no assurance would be furnished to the State under the capitation system that it was tending to the prevention of disease. It was undoubtedly the experience of those who attended by contract that the patient under such conditions was much more likely to send for the doctor at an early stage in his illness than under a system of payment by attendance, and he could not imagine any Government or organization agreeing to a system of payment by attendance in which the patient did not pay a proportion of the fee per visit or attendance. The earlier period of this first visit might often be the means of checking a disease in its initial stages. Moreover, the advantage of a closer relationship between doctor and patient, and one extending over a much longer time, was more evident in the system of contract practice than in that of payment by attendance. In the table from which he had quoted the objection arising out of "extras" was also urged against the capitation system. It was obvious that payment by contract could not be held to exact from the doctor all kinds of special services; but he took it that there would be "extras"—for confinements and operations, for instance—under both systems, and he did not think that this would present any practical difficulty. It was unfair criticism to suggest that doctor and patient would be tied together for a year; a clause permitting freedom of choice could be made one of the essential parts of the contract, and this was found in most present forms of contract. Dr. Fothergill had gone on to assert that under a capitation system patients would complain of neglect, and that in lengthened illnesses doctors would be likely to transfer them to hospitals. The speaker admitted that the present forms of contract were unsatisfactory; but he assumed that in a large system of contract under Government direction the remuneration would be adequate, and, that being so, there was no reason why the patient should not get all the attendance he required. On the other hand, the considerate practitioner hesitated to pay visits which the patient might think too frequent when the payment was by attendance, and if this objection were removed the doctor could freely pay him several visits a day, if necessary, in certain stages of his illness. The objection arising out of the likelihood of vexatious calls under a capitation system had also been mentioned; but, for his own part, he found the people whom he treated by contract no more difficult in this respect than his private patients. Certain of the doctor's wishes were made known—they were not in the nature of instructions—such as the time that it was most convenient for him to respond to a summons, and he found such requests thoroughly well respected in his contract practice; whereas, under a system of payment for attendance, there was a temptation for the patient to say, late at night, or in the night, "The doctor is paid for coming—we may as well have him." He agreed that a special provision would have to be made in the terms of contract for chronic cases, and he would not suggest the same contract fee in the case of old people as in the case of those who had not reached the age of 50.

Dr. A. R. ROCHE said that there were some who held that the State had no business to interfere between the patient and the doctor. But it would be as effective to attempt to withstand State interference in this matter as for King Canute to stay the tide. As the Medical Secretary of the British Medical Association had pointed out in his masterly presentation of the facts, the State would insist upon interfering. And it was a very good thing that the State was taking up this matter of invalidity and sick insurance. Individualism had done its best, and the magnificent work of the friendly societies stood as its record, but outside the friendly societies there were thousands of men who could not or would not make provision against sickness and invalidity. Judging by the article, apparently inspired, in the *Times* of January 4th, it appeared that at present the Government did not intend to mix up the question of medical attendance with that of State insurance, but if the State did not include this question to-day it would do so to-morrow. One of the chief reasons why the State should not include it at the moment lay in the fact that the State was about to assume an immense responsibility, and had no data, no facts which could be stated in any actuarial tables, upon which to base the risks. But the very fact that the State was about to bring in such a scheme as this profoundly affected medical practice. Mr. Lloyd George was most anxious, as he had publicly stated, not only to conciliate the friendly societies but to work through them. The friendly societies would have placed upon their books a very large number of people for whom the State guaranteed insurance up to 5s. weekly. It would follow that there would be an enormous increase of club practice, and that was a serious question. They were all aware that among the artisan classes men earning £160 a year

were perfectly able to pay ordinary medical expenses, and he felt convinced that neither by capitation nor payment by attendance would doctors be compensated for the loss of private practice. But the point around which the question had mostly centred had been these rival terms of contract. He believed that if the State did take up the question, its manner of doing so would furnish a further illustration of the tendency of the time towards limited liabilities. Be the advantages or disadvantages of contract what they might, he was absolutely certain that the Government's proposal would be on some contract basis, and as a matter of practical politics, therefore, it would pay the medical profession better to see that the contract should be upon an adequate capitation basis than to attempt to elucidate some difficult scheme—he was sure it would be difficult—on the basis of attendance.

Dr. W. Winslow Hall, in considering the views advanced by Dr. Fothergill, thought that they must have regard first of all to what was practicable. It was more practicable for the authorities to estimate for a known number of human beings than for the quite uncertain incidence of disease. As regards the medical man's point of view, he could only say that he had had experience of both capitation and per attendance systems, and he found, on the whole, contract practice to be more enjoyable than private practice. He had noticed no tendency on the part of the contract patient to take an undue advantage of his medical attendant, and the relation between patient and practitioner was necessarily more intimate under this than under any other system. He thought that the matter of a special rate for chronic cases and extra fees for special services could be arranged, as in a provident dispensary, without setting up any ponderous machinery.

Dr. E. Claude Taylor advocated the whole-time appointment system, which, he thought, would ultimately be accepted as the fairest between the three parties concerned. The first step, however, would be a capitation arrangement so as to find out the geographical distribution of patients. In places like Hampstead they would be scattered; in other parts of London they would be grouped more conveniently for one man's attendance. But, the areas having been mapped ont, the arrangement finally would crystallize into the appointment of whole-time officers. There would be an incentive to such officers to make the best of their position, and promotion would be possible from one area to a more lucrative one according to the efficiency of the work rendered. He believed that whole-time medical officers did as good work as any class of medical men in the country, and there would be a stimulus to efficiency if there were to be one system regulated by one governing body.

Dr. E. Jessop thought that as a profession they would never agree to the creation of a system of whole-time appointments. The first thing they would demand would be a service open to all, and the question of payment by capitation or payment by attendance was quite secondary to such a stipulation. Payment by capitation seemed the more feasible scheme.

Dr. Percy Evans, speaking from twenty years' experience, said that good work could not be done on a capitation basis. It was quite a legitimate argument to put forward that in cases of lengthened illness the doctor under such an arrangement would be tempted to transfer the patients to the hospital or the infirmary. That was inevitable under any system of contract practice (No"). When he was paid for attendance the doctor, in a case of long duration, felt that his services were rewarded, and that the case repaid his continued care.

Dr. Fothergill replied briefly. Dr. Macevoy had suggested that under a capitation system the doctor could rid himself of undesirable cases, and transfer other cases in which there was unsuitability as between doctor and patient. But the speaker believed that the Government would not allow these manipulations. The doctor had entered into a contract, and he was bound to fulfil it. He had not anticipated that the question of whole-time appointment would be raised. Was it a desirable system in the interests of the profession? They had to remember that some of their own private patients were coming into the scheme, and these would be transferred to the care of the whole-time officer. He had been asked about the cost of the proposals he favoured, and he admitted that the scheme would be costly. But if the nation could spend millions on Dreadnoughts some money might be provided to ensure, for one thing, that those Dreadnoughts had good men in them. It was their business to educate the Government up to the fact that this was worth paying for. He had been asked, Why not leave the question to the Divisions? But the Government would not tell them to do as they liked. The Government would pay by capitation or by attendance as the case might be. The choice of systems lay with the Government. It was not a question for consideration now as to which system a given Division should adopt subsequently to pay out to the doctors money received from the Government.

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## DISCUSSION BY THE ABERDEEN BRANCH.

Dr. William Bruce (late member of the General Medical Council) opened a discussion on the same subject at a meeting of the Branch held on January 12th. He said:

A careful study of the correspondence in the columns of the British Medical Journal, which has now been going on for some weeks back, must lead all unprejudiced observers to the conclusion that there cannot fail to be present in the minds of disputants differing so widely some underlying confusion of ideas on the subjects so hotly discussed. Some years ago there were similar conflicting opinions, due, doubtless, to the same want of clearness in the conceptions of the rival projectors of schemes of reform in connexion with medical clubs. I confess I was then an "opportunist," and exceedingly sorry to find that the chance of adding largely to the salaries of holders of club appointments was lost, owing to the persistent opposition of obstinate idealists. Now, however, in the prospect of the inauguration by the Chancellor of the Exchequer of a complete national system, not only of medical aid, but of relief to the unemployed by means of insurances kept going by a trinity composed of the State, of employers, and of working people, I consider it absolutely necessary to take stock of the situation and to examine closely the grounds on which any such scheme to be secure should be based.

With a revised, and, let me add, a more benevolent system of Poor Law relief, it must be clearly laid down at the initiation of a new system that nothing pauperizing should have any place whatever in its working, whether expressed or implied. It should, on the part of the working man, be a contributory arrangement, as well as from the point of view of the employer and the State, the two latter taking their share of the burden as a matter of public polity and for the good of the people at large. As the Scriptures have it: "He that cannot work" (that is, give back some share of his wage), "neither shall he eat." If a non-contributor should need help when sick, or unable to work, he must swallow his pride, if he has any left, and apply to the parish for assistance. There should be no room for the viciously idle and utterly improvident. Having so far cleared the ground, I come to the discussion of the questions which vitally interest ourselves. How is a scheme of contributory medical aid to be worked so as to be successful and at the same time with fairness to the profession. I firmly believe through the instrumentality of the registered friendly societies, these societies doing the work while financial help should, by way of addition, be provided by the employer in the first place and by the State in the second. In this combination the friendly societies would act as representatives of the workmen and have the choice of the doctors, while at the same time an end should be put to the present club system, by which the medical attendant assumes the rôle of *insurer*. Let the club doctor be

paid per visit, as I shall proceed to explain. At present clubs are in the way of giving a fixed allowance per week to their sick members for maintenance; let them add to this a parallel contribution as doctors' pay. Clubs, from experience, know exactly what they can afford as sick pay, which, after all, only represents a part of the whole amount needed for the upkeep of the invalid, and, it may be, of his family as well. In a similar fashion it need not be difficult to estimate what the club can afford for medical attendance, supplemented, as we have explained, by the contributions of the other parties to the fund—namely, the employer and the State. I have said "afford"—not pay for. In the case of sick pay the club allows a certain fixed weekly sum. It does not pretend, as I have said, to give a full wage. I take it the sick member is supposed to be financially able to bear a portion of the expense of his household when laid aside from work, and so, in precisely the same way, his doctor's pay would not necessarily represent in a given case the whole amount of medical fees. There might—and I daresay often would—be a margin for which the sick man would be liable. If he is to choose his own medical attendant as he buys his own food—that is, where he likes—then he and his doctor would understand each other just as does himself and his grocer. There would be mutual give and take, and the difficulty of what constitutes a proper amount of medical attention would at once be completely got over. For here lies the trouble—in my opinion unsurmountable—in purely *contract* practice in any shape, whether made by a club, by the ordinary employer, or by the State, with the medical attendant. Can skill and attention be weighed and measured? Never! And the State, if it became liable, would inevitably be driven to guard itself by an army of inspectors—that curse of all attempts at playing with socialism in its worst form. Surely the nation is sufficiently inspected, and more than sufficiently inspected, already. Individual energy and individual responsibility are being sapped all round, to the inevitable detriment of personal private character.

As illustrating the position I venture to take up, and to press in the strongest manner possible on the profession, I would in all courtesy refer to the system at present in force of appointing medical officers to post-offices. Originating, doubtless, as much from the wish to help its servants when sick as from the desire to check malingering, the present plan, to my knowledge, does not work well in actual practice. As far as I have means of knowing—and several of those officials are personal friends of my own—there is nothing to say against the standing of those lucky enough to have been selected. All the same there were doubtless many equally as good candidates for the position passed over, which, in spending public money, is, I consider, unfortunate, not to say unfair; and yet this is not by any means the main objection to the appointment of *selected* individual doctors for this work. The strong, and to my mind the fatal, reason why such a course should not be followed is that the Post Office servants themselves have no voice in the choice. The apophthegm stands good for all time:

> The reason why I cannot tell,
> I do not like thee, Dr. Fell.

So much for the man; what about the poor man's wife? Is she, too, to be turned over to the Post Office doctor "nolens volens"? I trow not, the result being that they each have their own medical attendant; or, what is more likely, the lady carries the day, and the official doctor is never called in, if it can be helped—truly an unsatisfactory state of, let us assume, well-meant official benevolence.

It may be said that the State must have some decided hold over the doctor. Certainly. But would it not be sufficient if there were a list to select from of carefully chosen practitioners liable to dismissal when playing the game unfairly, instead of a single individual being employed for all?

The subject of hospitals and dispensaries of a paying kind to be placed at the services of working men and small tradesmen is well worthy of discussion in this connexion. It must be left over in the meantime. To recapitulate—medical assistance in sickness should be divided into three categories: First, family and consulting private practice, paid by fees in the ordinary way; secondly, working-class practice, supported jointly by the State, by employers, and by friendly societies; thirdly, pauper practice, paid for out of the rates, and comprehending all that remains after one and two are exhausted.

I have said that club practice in the ordinary sense places the doctor in the position of an insurer, in other words for the nonce he becomes a gambler. He takes the risk of striking a balance between the easy and the severe cases on his list. Is it fair to make him the holder of the scales? As long as human nature is constituted as it is, will he not in spite of himself try to make the heavier equalize the lighter or *vice versa*? On the other hand, will not his client be only too ready to believe—for remember he cannot be a proper judge—that he is not getting a full measure of his just share of attention and skill? There is only one safe way of going to work. Let the patient pay for and the medical man be remunerated for the work actually done. I have been told that by throwing open State practice, let us call it, to all, there would be a constant scrambling and touting for patients. Well, after all, is touting and advertising unknown in ordinary medical practice? Unfortunately it must be allowed that the profession is constantly suffering from such mean and despicable conduct. There is only one way of meeting such unfair competition. Let each of us endeavour to do his work thoroughly and conscientiously, and in time we shall receive our reward. Finis coronat opus et opus coronat se?

In conclusion, it may be as well to say a word or two on the hateful subject of the possibility of the medical officer so far forgetting his duty to his employers as to encourage malingering. Meantime, doubtless there is a feeling on the part of managers of clubs that the doctor in his own interest acts the part of a watch-dog. But should he be so utterly wicked, and have so little of a conscience as to cheat the employer and the State, there is no reason, if unscrupulous enough, why he should not conspire with the members of clubs as at present constituted, and allow the rogue, though in good health, to go drawing sick pay indefinitely, unless in both cases he—the doctor—is afraid to be found out. I may as well deal with another objection before I close—namely, that a contributor to the new fund might draw his pay for medical attendance and not call in a doctor. By simply insisting on the receipt for fees being produced to the treasurer of the society, this difficulty at once disappears.

Finally, as Mr. Smith Whitaker in his address at Cardiff so ably showed, the profession has to face a real crisis in relation to its position and standing—nay, even to the individual existence of many of its members. Is it to lose its independence by the bribe of a mess of pottage? Nay, are we to stand by and see our fellow-subjects and their wives and families handed over to a set of officials without being allowed a voice in the selection of their medical attendants? And here I want to press these questions on the strongest and closest attention of the profession. Payment by capitation may or may not be the best plan as affecting the working man himself; but I have not met with a single experienced practitioner who does not entirely disapprove of the same system in connexion with his attendance on his domestic relatives.

In the way things are moving, can any serious person not see that in the near future the arguments for invalidity insurance for the working man will be used, and will certainly prevail, in favour of extending the benefit of a national system to his dependants? The result, to my mind, is inevitable.

It becomes us, then, as a profession to look well before us, and to stand united in favour of a system of payment by results which will be flexible enough for all time coming to adapt itself to so serious extension of our responsibilities. The chance of the present, or a similar, club system meeting such a position with fairness to the doctor is practically *nil*.

# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## METROPOLITAN COUNTIES BRANCH:

### CITY DIVISION.

A GENERAL meeting of the Division was held at the Hackney Town Hall on Friday, January 6th, at 4 p.m. Dr. E. A. LERMITTE, Chairman of the Division, presided, and there were present Drs. Evans. E. W. Goodall, Major Greenwood, Hadfield, Kimball, Mitchell, David Petty, Montagu Smith, Frederick Wallace, Dr. Elizabeth Wilks, and the Honorary Secretary.

*Confirmation of Minutes.*—The minutes of the meeting of December 13th, 1910, were read, confirmed, and signed by the Chairman.

*Apologies for Non-attendance.*—Expressions of regret at absence were received from Drs. Hunt and Swan.

*Appointment of Ophthalmic Surgeon to Walthamstow Education Committee.*—A letter and statements were read from the Honorary Secretary of the Walthamstow Division announcing the position created in Walthamstow by the appointment of a special school medical officer for refraction cases. It was resolved:

> That a letter expressing sympathy with the position and efforts of the Walthamstow Division, and promise of any support practicable, be sent.

*Model Rules for Nursing Associations.*—The model rules for nursing associations referred to the Division by the Medico-Political Committee were considered. It was proposed by Dr. F. WALLACE, seconded by Dr. MAJOR GREENWOOD, and carried:

> That the model rules be approved.

*Instruction in First-aid, Hygiene, and Kindred Subjects.*—This question, referred by Medico-Political Committee, was discussed. The previous decisions of the Division (March 23rd, 1905, and March 17th, 1910) were reaffirmed, namely:

> That instruction in first-aid and ambulance classes should not be considered a matter of charity, but should be charged at a rate of not less than one guinea per lecture.

As regarded the other subjects, it was resolved, on the motion of Dr GOODALL, seconded by Dr. HADFIELD, to refer the matter to the Executive Committee to act for the Division.

*Scale of Fees for Examinations for Life Assurance.*—The letter from the Medical Secretary giving the scale of fees offered by the Royal London Insurance Company was read, and, after discussion and inspection of one of the voluminous report forms issued by the company, it was decided to write to the company commenting upon the extensive nature of the report, and suggesting modifications in it and also in the scale of fees.

*Notification of Ophthalmia Neonatorum.*—In regard to this matter, referred to the Divisions by the Medico-Political Committee, the HONORARY SECRETARY reported upon his interview with Dr. King Warry, Medical Officer of Health for Hackney, respecting the recommendations of the Divisions. As since then notification of the disease has been determined upon by the London County Council no further consideration of, nor action in, the matter was at present required.

*Representation of Local Profession on Hospital Boards.*—On discussion of this matter, referred to the Divisions by the Hospitals Committee, it appeared to be the general opinion of the meeting that at present it is impracticable as regards the hospitals in the area of the Division—namely, St. Bartholomew's, the Metropolitan, German, City of London Chest, Queen's Children's Moorfields Eye, St. Mark's Fistula, Mildmay Mission, and Metropolitan Asylums Board Fever Hospital, but it was moved by Dr. DAVID PETTY and resolved:

> That the Division generally approves and supports the motions by the Hampstead and Wandsworth Divisions and the recommendations of the Council to the Representative Meeting.

*Barring of Holders of Paid Appointments in Hospitals from Private Practice.*—This matter, also referred to the Divisions from the Hospitals Committee, was considered. In the knowledge of the members present there was no such custom at any of the hospitals in the Division area, but the tendency of boards of guardians to confer the outdoor and Poor Law and vaccination appointments upon their resident medical officers after a year or two of service in the infirmaries was adversely, and somewhat strongly, commented upon as being unfair to older and more experienced practitioners resident in the district, who were thus deprived of all chance of the appointment, and besides had competitors started in practice with the appointment as a nucleus.

*Examination of Patients under Care of other Practitioners.*—This question, referred from the Central Ethical Committee, received full and prolonged consideration. It was shown that a large number of practitioners—in the City Ward especially—were engaged in this class of practice. Several had responded to inquiry and stated their usual procedure. The opinions of the members present tended to show that friction between the patient or the attending practitioner and the examiner rarely occurred. In regard to the suggested rules, it was pointed out by the CHAIRMAN that certifying factory surgeons and others acting under Government appointments might be obliged to inspect a wound or injury in fulfilment of their duties. It was ultimately resolved to approve the rules, with the addition to the final sentence of Rule 4, "except when circumstances imperatively demand it."

*Proposed Adoption of Model Ethical Rules.*—It was referred to the Executive Committee to consider the rules and bring the matter formally before the annual meeting in May.

*Auditors.*—Drs. J. W. Hunt and Fred. Wallace were reappointed honorary auditors.

*School Children Committee and Report.*—On this question it was resolved:

> That the Chairman and Honorary Secretary draw up a report to be sent to those practitioners who had promised assistance to the school clinic scheme.

*Ward Committees.*—The HONORARY SECRETARY briefly reported upon the progress made and present prospects in the forming of ward committees.

*Division Finances.*—The TREASURER reported that the application to the Branch Council for extra remittance for 1910 had been granted to the amount of £6.

The meeting closed at 6 p.m.

### HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held on Friday, January 13th, at 4 30 p.m, at the Central Library, Finchley Road, Dr J. FORD ANDERSON in the chair. The attendance numbered 25

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Practitioners called in to Examine Patients under Care of Other Doctors.*—The Interim Report on the position of medical practitioners called upon to examine (otherwise than by request of the patient or person acting on his behalf) patients under the care of other practitioners, published in the BRITISH MEDICAL JOURNAL SUPPLEMENT of October 22nd, 1910 was considered. The suggested rules were read, and the following amendments were recommended The deletion of Rule 2, as being unnecessary, and conflicting with Rule 1. That Rule 4 shall read as follows:

> If the medical attendant objects the medical inspector shall not do anything in the course of his examination, which involves active interference with the treatment of the case, instead of "the medical inspector must not, without the consent of the medical attendant," etc.

The following resolution was carried *nemine contradicente* (only six voting):

> In the case of a consultation between the medical inspector and the medical attendant, since in many cases the latter is present in the interests of the insurance company, his fee should be paid by the insurance company.

A letter was read from Dr. Benthall calling attention to the decision of the Scottish Court of Appeal published in the BRITISH MEDICAL JOURNAL of January 7th:

> That the workman has no right to have his medical attendant present at an examination by a medical practitioner appointed by the employer, and if he does not submit himself for examination he loses his half pay.

*State Sickness and Invalidity Insurance.*—Dr. E. R. FOTHERGILL then read an interesting paper on State sickness and invalidity insurance which is published in this week's SUPPLEMENT, p. 25. Drs. FORD ANDERSON, MACEVOY, ROCHE, WINSLOW HALL, TAYLOR, JESSOP, and P. EVANS joined in the discussion, a report of which will be found at p. 29.

*Vote of Thanks*.—A vote of thanks to Dr. Fothergill, proposed by Dr. OAKLEY, was seconded by Dr. WARE, and carried unanimously.

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### WALTHAMSTOW DIVISION.

A MEETING of this Division was held at the Walthamstow Hospital, on Thursday, December 8th, 1910, at 4 p.m. Nineteen members and visitors were present. Dr. ROBERT JONES presided.

*Diseases of Nose, Throat, and Ear, in General Practice.*—A lecture on hints on diseases of the nose, throat, and ear, in general practice, was given by Dr. DUNDAS GRANT, who dealt with his subject under the following heads: (1) Golden rules in regard to diagnosis and treatment; (2) danger signals in diseases of the nose, throat, and ear; (3) methods of carrying out special treatment in general practice. The lecture was of a most practical and useful nature and much appreciated by those present. A discussion followed in which the following: Drs ROBERT JONES, ROWLAND JONES, BERRILL, HORNER, SHADWELL, PANTING, JAMES CLARKE, and ELDRED, took part.

*Vote of Thanks*.—A vote of thanks to the lecturer was proposed by Dr. ROWLAND JONES, and seconded by Dr. JAMES CLARKE, and carried by acclammation. Dr. DUNDAS GRANT thanked the meeting, and then left.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Letters.*—Letters from the Medical Secretary and Dr. Harford were read.

*Appointment of Ophthalmic Surgeon to the Walthamstow Education Committee.*—The SECRETARY reported that letters had been received from the following Divisions relating to the resolutions of this Division concerning the appointment of an Ophthalmic Surgeon to the Walthamstow Education Committee: City, Stratford, Lambeth, Ealing, Norwood, Tottenham, Wandsworth, Marylebone, Croydon, and Hampstead. The SECRETARY informed the meeting that the letters were all couched in terms friendly to the action of this Division, and they were taken as read.

*Hour of Meeting.*—A resolution:

> That the meetings of the Division be held at 3.30 instead of 4 p.m.,

was proposed by Dr. WOOLF, and seconded by Dr. JAMES CLARKE.

After some discussion the motion was withdrawn on the understanding that in future the meetings commenced at 4 p.m. prompt, light refreshments being served at 3 45 p m.

The meeting then ended.

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### SOUTH-EASTERN BRANCH:
### GUILDFORD DIVISION.

A MEETING of the Division was held at the Royal Surrey County Hospital, December 2nd, 1910, at 4.30 p.m. Dr. WEAVER, Chairman of the Division, presided, and the following members were present: Drs. E. J. Smythe, N. F. Kendall, R. M. Winstanley, F. W. Botall, A. B. Hudson, G. Thorne Thorne, B. H. Kingsford, F. E. Pearse, H. B. Butler, C. P. Lankester, E. G. A. Morshead, A. M. Mitchell, E. Sheaf, and Boyd. The visitors present were: Drs. Pain, Wilkinson, and Fisher.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Chairman's Address.*—The CHAIRMAN addressed the meeting on the subject of the fees offered by the board of guardians to medical men called in to assist midwives. He explained the reason why Dr. Kingsford's resolution at the last meeting *re* obtaining the views of all the medical men in the district had not been put into practice. The reason was that on their arrival at their homes after the meeting they found the SUPPLEMRNT of the BRITISH MEDICAL JOURNAL containing the schedule of fees proposed by the Council of the Association, and the intimation that the adoptior of this tariff was going to be pressed upon the Local Government Board. This being so, he (the Chairman) and the Secretary were strongly of the opinion that it would be unwise for local Divisions to press upon the authorities different scales of fees, but that it would be better for the present to provisionally adopt the scale recommended by the Council. Dr. MITCHELL proposed that they should adopt the schedule of fees recommended by the Council of the British Medical Association. Mr. H. B. BUTLER seconded. Dr. PEARSE of Ripley objected that the Association schedule was too complicated. He said that the guardians would prefer to pay a fixed fee without regard to distance, and he suggested that we should ask for fees on some such simple scale as:

| | £ | s. | d. |
|---|---|---|---|
| Visit night or day ... ... ... ... | 0 | 10 | 6 |
| Attendance at a labour without complications ... ... ... ... ... | 1 | 1 | 0 |
| Attendance at a complicated labour ... | 2 | 2 | 0 |
| Attendance for the administration of anaesthetic ... ... ... ... ... | 1 | 1 | 0 |

Dr. KINGSFORD (Woking) agreed with Dr. Pearse as to the difficulties of a complicated schedule. A general discussion followed which tended to show that the large majority of those present were in favour of the Association schedule, which provided remuneration in proportion to the work done, with due regard to the distance. Drs. PEARSE and KINGSFORD conceded that they approved the fairness of the Association schedule, but that they only doubted whether the guardians would accept a sliding scale. Dr. Mitchell's proposition was then put to the vote and carried unanimously. The Secretary was instructed to write to the guardians and inform them that the fees offered by them are entirely inadequate, and to suggest to them that they adopt the schedule of payment suggested by the Council and unanimously approved by this Division of the British Medical Association.

*Papers.*—Dr. ERIC SHEAF read a short paper describing the work being done in the new electrical department of the hospital, especially in regard to *x*-ray diagnosis. He afterwards illustrated his remarks by demonstrations in the department itself. A specially interesting demonstration was given, showing a meal, impregnated with bismuth, in its progress through the alimentary canal.

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☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 25th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,

*Financial Secretary and Business Manager.*

January 5th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held at St. Bartholomew's Hospital on Tuesday, February 7th, at 3.30, by invitation of the hospital staff, when a clinical demonstration of throat cases will be given by Douglas Harmer, F.R.C.S.—A. G. SOUTHCOMBE, Honorary Secretary, Homerton, N.E.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next meeting of this Division will take place on Wednesday, January 25th, at the Kensington Town Hall, at 4.30 p.m. Dr. J. Edward Squire will open a discussion on "Tuberculosis Dispensaries," and it is expected that Dr. Sandilands, Dr. D. J. Williamson, and others will take part. In view of the importance of the matter both from a public aspect and also in its bearing on the interests of the profession, the Executive Committee hope that there will be a representative attendance. There will be a small amount of Divisional business to transact, but otherwise the whole of the time of the meeting will be given to the above discussion. Members are invited to bring any medical practitioners who may not be members of the Association. The discussion on Dr. Smith Whitaker's address is postponed until the report of the Special Poor Law Committee is in the hands of the members.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—The fourth meeting of the session will be held at the Prince of Wales's Hospital, Tottenham, on Friday, February 3rd, at 4.30 p.m. Chairman, Dr. A. Greenwood. Business: (1) Report of Special Subcommittee on the establishment of a Public Medical Service in the Division. (2) Dr. J. Ford Anderson, Past President Metropolitan Counties Branch, on the subject of Hospital Control; discussion to follow. (3) Any other business. Tea provided.—J. A. PERCIVAL BARNES, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting will be held on Thursday, January 26th, at 27, St. John's Hill, S.W., at 8.45 p.m., for the transaction of business and the election of a representative.—S. VERDON-ROE, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held at the Leicester Infirmary, on Wednesday, January 25th, at 4 15 o'clock p.m. Agenda: Minutes of previous meeting. Election of Representative to Representative Meeting. Interim report of Central Ethical Committee on the position of medical practitioners called upon to examine (otherwise than at the request of the patient or persons acting on his behalf) patients who are under the care of another practitioner. Paper by R. Pratt. Esq., M.D, entitled "Further Notes on Treatment by Ionic Cataphoresis." Clinical cases to be shown in the wards of the infirmary. Any other business.—R. WALLACE HENRY, Honorary Secretary, 6, Market Street, Leicester.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—A meeting will be held in the Board Room, Gravesend Hospital (by kind permission of the Committee), on Tuesday, January 24th, at 3.30 p.m., to consider: (1) Minutes of last meeting; (2) Correspondence (if any); (3) Report of Kent Organization Committee *re* treatment of school children found defective on medical inspection; (4) any other business. All medical men in the district are cordially invited to attend this most important meeting. After the meeting those present will be shown the hospital, the *x*-ray apparatus, and any cases of interest in the wards.—H. CHISHOLM WILL, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A special meeting of this Division will be held in the Savoy Hotel, Newport, on Saturday, January 21st, at 3 30 p.m —R. J. COULTER, S. HAMILTON, Honorary Secretaries, Newport.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON GEORGE WELSH has been promoted to be Deputy Inspector-General, December 7th, 1910. He was appointed Surgeon, February 11th, 1884; Staff Surgeon, February 11th, 1896; and Fleet Surgeon, March 26th, 1899.

The following appointments have been made at the Admiralty:—Fleet Surgeon E. SUTTON and Surgeon R. J. G. PARNELL to the *Highflyer*, on completing, February 21st; Staff Surgeon E. R. L. THOMAS to the *Sphinx*, additional, February 21st, and on recommissioning, undated; Staff Surgeon J. BOYAN to the *Edgar*, February 21st, and to the *Pegasus* on recommissioning, undated; Surgeon L. C. HUNT to the *Blenheim*, additional, for the *Swift*, February 16th; Surgeon C. F. O. SANKEY, to the *Téméraire*, February 16th; Surgeon W. C. CARSON to the *Pelorus*, February 16th, and to the *Merlin* on recommissioning, undated; Surgeon P. B. EGAN, M.D., to the *Skipjack*, February 21st; Surgeon E. MACEWAN to the *Africa*, February 21st; Surgeon A. H. JOY to the *Bulwark*, additional, February 21st; Surgeon D. A. MITCHELL to the *Argonaut*, and for the group of ships of the 4th Division, Home Fleet, February 21st; Surgeon F. C. ROBINSON to the *Edgar*, February 21st, and to the *Sealark*, on recommissioning, undated; Surgeon C. J. AVELING to the *Edgar*, February 21st, and to the *Fantome*, on recommissioning, undated; Staff Surgeon J. N. ROBERTSON, M.B., to the *Pembroke*, additional, for disposal, January 5th; Surgeon H. COOPER to the *Vivid*, additional, for disposal, January 19th; Surgeon E. P. G CAUSTON to Pembroke Dockyard, January 19th; Surgeon A. C. W. NEWPORT to the *Victory*, additional, for disposal, January 22nd; Fleet Surgeon S. H. BIRT to the *Carnarvon*, February 16th; Surgeon R. J. G. PARNELL to the *Victory*, additional, for disposal, January 4th; Fleet Surgeon E. F. MORTIMER, to the *Bellerophon*, on recommissioning, February 1st; Fleet Surgeon W. G. AXFORD and Surgeon H. E. D. STEPHENS, M.B., to the *Good Hope*, on commissioning, February 14th. Fleet Surgeon E COOPER to Queensferry Sick Quarters, February 14th; Staff Surgeon A. X. LAVERTINE and Surgeon J. S. WARD, to the *Defence*, on recommissioning, February 14th; Surgeon H. A. KELLAND-KNIGHT to the *Bellerophon*, and as Acting Interpreter in German, on recommissioning, February 1st; Surgeon L. C. ROWAN-ROBINSON, M.B., to the *Victory*, additional, for disposal, on the *Drake* paying off, undated.

### ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT C. RYLES, M.B., Brigade Laboratory, Kurrachee, India, is appointed Specialist in the Prevention of Disease, from December 1st, 1910.

### INDIAN MEDICAL SERVICE.

LIEUTENANT A. J. MACNAB, Bengal, is posted as Residency Surgeon in Cashmere, from November 26th, 1910.

Captain W. D. HAYWARD, M.B., Bengal, is appointed Medical Storekeeper to the Government of India, from November 27th, 1910.

Lieutenant B. GALE, M.B., is appointed Specialist in Electrical Science, 1st (Peshawar) Division, from November 15th, 1910.

Lieutenant A. C. MUNRO, M.B., is appointed Specialist in Ophthalmology, 7th (Meerut) Division, from November 15th, 1910.

### SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN JONATHAN CLARKE, to be Major, January 11th. JAMES O. HAMILTON, M.B., to be Lieutenant (on probation), November 9th, 1910.

### TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL P. E. HILL, Administrative Medical Officer of the Welsh Territorial Division, resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, January 18th.

ROYAL ARMY MEDICAL CORPS.

*Third South Midland Field Ambulance, Royal Army Medical Corps.*—CHARLES F. WALTERS, F.R.C.S.Eng. (late Quartermaster and Honorary Lieutenant, 2nd Southern General Hospital), to be Lieutenant, January 18th.

*Second Southern General Hospital, Royal Army Medical Corps.*—Quartermaster and Honorary Lieutenant CHARLES F. WALTERS, F.R.C.S.Eng., resigns his commission, January 18th.

*For Attachment to Units other than Medical Units.*—JAMES A. SIMPSON, M.B., to be Lieutenant, October 12th, 1910; Captain J. K. PATRICK, from the 2nd Lowland Field Ambulance, Royal Army Medical Corps, to be Captain, November 18th, 1910; CHRISTOPHER F. MURPHY, to be Lieutenant, November 29th, 1910.

*Attached to Units other than Medical Units.*—Captain (Honorary Captain in the Army) JAMES C. G. MACNAB, M.B., resigns his commission, January 18th.

# Vital Statistics.

### HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,394 births and 5,101 deaths were registered during the week ending Saturday last, January 14th. The annual rate of mortality in these towns, which had been 14.2, 14.1, and 14.3 per 1,000 in the three preceding weeks, rose to 15 5 per 1,000 last week In London the death-rate last week was equal to 15.2 per 1,000, against 13 3, 14.0, and 14.1 in the three preceding weeks. Among the seventy-six other large towns the death-rates ranged from 3.6 in Hornsey, 5.9 in King's Norton, 7.6 in Leicester, 8.4 in Aston Manor, and 8.5 in Burton-on-Trent, to 21.5 in Huddersfield, 21.8 in Bootle, 23.3 in Merthyr Tydfil, 24.2 in Grimsby, and 26.2 in Rotherham. Measles caused a death-rate of 1.4 in Middlesbrough, 1.5 in Rhondda, 1.7 in West Ham, 1.8 in Tynemouth, 3.1 in Rotherham, and 3.2 in Sheffield, and diarrhoea and enteritis of children under 2 years of 1.5 in Bootle and in Rhondda. The mortality from enteric fever, scarlet fever, diphtheria, and whooping-cough showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. Of the 5,101 deaths recorded in the seventy-seven towns last week, 56 were uncertified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Liverpool, 6 in Birmingham, 6 in St. Helens, and 5 in Preston The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,594 and 1,491 in the two preceding weeks, had further declined to 1,410 at the end of last week; 135 new cases were admitted during the week, against 140 and 154 in the two preceding weeks.

### HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 14th, 889 births and 611 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 14.7 and 14.3 per 1,000 in the two preceding weeks, rose to 16.6 last week, and was 1.1 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged

from 13.7 in Paisley and 14.6 in Edinburgh to 20.4 in Greenock and 27.7 in Perth. The death-rate from the principal infectious diseases averaged 1.4 per 1,000, and was highest in Dundee and Perth. The 281 deaths from all causes registered in Glasgow last week included 2 from enteric fever, 2 from measles, 2 from scarlet fever, 9 from whooping-cough, 3 from diphtheria, and 3 of children under 2 years of age from diarrhoea and enteritis. Two deaths from scarlet fever were recorded in Edinburgh; 5 from whooping-cough in Dundee and 3 in Leith; and 2 from diphtheria in Perth.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 7th, 638 births and 434 deaths were registered in the twenty-two principal urban districts of Ireland, as against 584 births and 371 deaths in the preceding period. The annual death-rate in these districts, which had been 19 6, 19.1, and 16.8 per 1,000 in the three preceding weeks, rose to 19.4 per 1,000 in the week under notice, this figure being 5.1 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.5 and 16.0 respectively, those in other districts ranging from 4.2 in Newry and 9.1 in Lisburn to 36.2 in Portadown and 43.9 in Dundalk, while Cork stood at 24.0, Londonderry at 24.9, Limerick at 13.7, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.0 per 1,000 in the preceding week.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BRECON: BRECKNOCK COUNTY AND BOROUGH DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £50 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist; (2) Honorary Medical Registrar.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CAPETOWN: SOUTH AFRICAN COLLEGE.—Two Professors for the chairs of Human Anatomy and Physiology. Salary at the rate of £500 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary at the rate of £50 per annum.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon. Salary, £72 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Clinical Assistants in Out-patient Ear, Throat, and Nose Department.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Medical Officer and Pathologist (non-resident). Salary, £200 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Fourth Anaesthetist. Honorarium of £15 15s. a year.

HULL: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £100 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon. Salary, £125 per annum.

LIVERPOOL CITY INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary, £120 per annum.

MAIDSTONE: KENT COUNTY ASYLUM.—Male Fourth Assistant Medical Officer. Salary to commence £175 per annum.

MANCHESTER CORPORATION.—Medical Officer of Health to the Withington Committee, and Assistant Medical Officer of Health for the City. Salary, £250 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the Crossley Sanatorium, Delamere Forest. Salary, £100 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Anaesthetist. Honorarium, £15 per annum.

MANCHESTER TOWNSHIP.—Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MARGATE: ROYAL SEA BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary, £120 per annum.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Honorary Anaesthetist (female).

MIDDLESEX HOSPITAL, W.—Richard Hollins Scholarship in the Cancer Research Laboratories. Value, £100 per annum.

MIDDLESBROUGH: NORTH ORMESBY HOSPITAL.—House-Surgeon (male). Salary, £120 per annum, increasing to £170.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant Surgeon.

PONTYPRIDD AND DISTRICT COTTAGE HOSPITAL.—Honorary Consulting Surgeon and Honorary Consulting Gynaecologist.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Clinical Assistants in the Out-patient Department.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male).—Salary, £110 per annum.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION IN IRELAND, Newcastle, co. Wicklow.—Junior Resident Medical Officer. Salary, £75 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

MEDICAL REFEREE.—The Home Secretary announces a vacanc as Medical Referee under the Workmen's Compensation Act for County Court Circuit No. 50,

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces vacancies at Brownhills, co. Stafford; Dunfermline, co. Fife; and Glenavy, co. Antrim.

## APPOINTMENTS.

BERNSTEIN, Julius, M.B., M.R.C.P., D.P.H., Assistant Physician to the West London Hospital.

CLEGG, Sydney J., M.B., Ch.B., D.P.H., Resident Medical Assistant at the City Hospital for Infectious Diseases, Newcastle-upon-Tyne.

DOBBS, A. F., M.B., B.Ch.Dubl., Certifying Factory Surgeon for the Athlone District, co. Westmeath.

DOW, W. A., M.D.Durh., Medical Officer of Health of the Chailey Rural District.

DOYLE, W., M.B., C.M.Glasg., Medical Officer of Health of the Borough of Colne.

FARRIES, S. J., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Creetown District, co. Kirkcudbright.

FRIEDLANDER, A. J., M.R.C.S., L.R.C.P., Second Resident Assistant Medical Officer of the St. Marylebone Parish Infirmary.

GORE, A. J., M.R.C.S., L.R.C.P., District Medical Officer of the Elham Union.

HALLAM, P., M.B., Ch.B.Edin., District Medical Officer of the Williton Union.

KEMP, E. W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Horbury District, co. Yorks, West Riding.

LE FANU, H. G. P., L.R.C.P. and S.I., District Medical Officer of the Wem Union.

MCCLINTOCK, L. T., M.B., Ch.B.Edin., Medical Officer of the Loddon and Clavering District and Union Workhouse.

MACDONALD, D. M., M.D.Aberd., M.R.C.P.E., Medical Officer of Health for Burgh of Leven.

MOORE, H. E, M.B., Ch.B.Vict., District Medical Officer of the Kidderminster Union.

PIPER, F. P., M.B., District Medical Officer of the Blean Union.

TATTERSALL, Norman, M.R.B S.Lond., M.B., Ch.B.Vict., House-Surgeon to the Cancer Hospital, London.

THOMPSON, George W., M.B.Edin., F.R.C.S.Eng., Ophthalmic Surgeon to the Hospital for Epilepsy and Paralysis and other Diseases of the Nervous System, Maida Vale, W.

VERITY, R. J. S., M R.C S., L.R.C.P., D.P.H., District Medical Officer of the Pontypool Union.

WALKER, F. J., M.D.Durh., Certifying Factory Surgeon for the Spilsby District, co. Lincoln.

WILCOCKSON, G. M., L.R.C.P., L.R.C.S.Edin., etc., District Medical Officer of the Guildford Union.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—The following gentlemen have been appointed Clinical Assistants: Dr. J. E. Boon, Dr. Dudley Corbett, Dr. W. P. Henley Munden.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

FLEMMING.—On January 15th, at 34, Alma Road, Clifton, Bristol, the wife of A. L. Flemming, L.R.C.P., M.R.C.S., of a son.

MACKELLAR.—At Manor Place, Dewsbury, on January 4th, the wife of J. Matheson MacKellar, M.B., Ch.B., of a daughter.

SHAW.—On January 14th, to Dr. and Mrs. William Fletcher Shaw, a son.

### MARRIAGE.

KINSEY-MORGAN—CAMPBELL.—On January 19th, at Holy Trinity Church, Edinburgh, by the Rev. E Brook-Jackson, M.A., Rector, A. Kinsey-Morgan, M.D., M.R.C.P.E., etc., of Hillcote, Bournemouth, to Beatrice, only daughter of Mr. and Mrs. Robert Campbell, of 7, Lansdowne Crescent, Edinburgh.

### DEATHS.

CORNISH.—On January 10th, 1911, Edward Cornish, M.R C.S.Eng., L.R.C.P.Lond., of sarcoma, at Bayswater, aged 47. R.I.P.

RIDLEY.—On January 13th, at 6, Ellison Place, Newcastle-on-Tyne, Walter Ridley, M B., M.S., F.R.C.S., aged 49 years.

WOOD.—At Southbourne, Hants, on January 10th, 1911, aged 61 year , Edwin Stanley Wood, L.R.C.P. and L.M.Irel., and M.R.C.S.Eng., formerly of Pontypool, Cambridge, Buckfastleigh (S. Devon), etc. Interred at Trevethin, Pontypool, Monmouthshire, January 13th, 1911.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. W. B. SAUNDERS COMPANY are about to publish a work entitled *The Anatomic and Histological Processes of Bright's Disease*, by Horst Oertel, M.D., Director of the Russell Sage Institute of Pathology, New York.

Messrs. P. Blakiston's Son and Co. announce the publication of a second revised edition of a *Guide for Laboratory and Field Studies in Botany*, by William Gould Vinal, A M. (Harvard).

The Caxton Publishing Company has in active preparation another important and comprehensive work for the scholastic profession, under the title of *The Teachers' Encyclopaedia of the Theory, Method, Practice, History, and Development of Education.* Among the contributors are Professor John Adams, Professor Bretland-Farmer, Professor Findlay, Professor Sadler, Dr. Sophie Bryant, and nearly a hundred other well-known educationalists. The work will consist of seven volumes, and the first volume will be issued very shortly.

# DIARY FOR THE WEEK.

## MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Clinical evening. Cases will be exhibited by Dr. H. French, Dr. F. S. Palmer, Mr. Maynard Heath, Mr. Charters Symonds, Dr. Bunch, Dr. Poynton, and others.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper:—Mr. Charles Goulden: Some Inflammatory Conditions of the Eye due to Oral Sepsis.

## TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8 30 p.m.—Papers:—(1) Adjourned discussion on the Workmen's Compensation Act, to be opened by Arthur S. Morley, F.R.C.S. (2) Dr. Walter Asten: Traumatic Neurasthenia and the Workmen's Compensation Act.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Papers:—(1) Dr. A. E. Garrod: The Auscultation of Joints. (2) Dr. W. Essex Wynter: The Loss of Abdominal Movements in Pericarditis.

## WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Paper:—Dr. F. J. Smith: On Medical Fees.

## THURSDAY.

HARVEIAN SOCIETY, Paddington Green Children's Hospital, 8 p.m.—Clinical evening.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Card Specimens by Messrs. Dorrell and James. Papers (9 p.m.):—(1) Mr. J. Herbert Fisher: The Pituitary Body and Lesions of the Optic Chiasma. (2) Mr. Leslie Paton and Dr. Gordon Holmes: Histo-pathology of Papilloedema. (3) Dr. Hill Griffith: Three Cases of Optic Nerve Tumour.

## FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—Cases and Specimens: (1) Dr. Eric Pritchard: (*a*) Intermittent Word and Letter Blindness: (*b*) Idioglossia. (2) Dr. T. R. Whipham: Enlargement of the Liver (for diagnosis). (3) Mr. Sydney Stephenson: Embolism of the Central Artery of the Retina in a Girl of 11¾ years. (4) Mr. H. S. Clogg: Sequestrum from a Case of Necrosis of the Jaw. Papers:—(1) Dr. F. Parkes Weber: Splenomegaly with Recurrent Jaundice, ending in Hepatic Cirrhosis and Ascites; with Remarks on the Splenomegaly of Inherited Syphilis in Children. (2) Mr. S. F. Rose: Ulcerative Stomatitis in Children.

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 15, Cavendish Square, W., 5.30 p.m.—Paper:—Dr. Buckley (Buxton): Chronic Rheumatism in its Relation to Osteo-arthritis.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. F. A. Bainbridge: The Etiology and Epidemiology of Paratyphoid Fever and Food Poisoning.

## POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Congenital Dislocation of the Hip. Thursday, 4 p.m., The Use of Tuberculin in Surgical Diseases. Friday, 5.15 p.m., Paralytic Deformities.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich. Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., Visual Complications of Nervous Disease; Wednesday, 3.30 p.m., Ophthalmoscopic Evidences of General Disease.

MANCHESTER: ANCOATS HOSPITAL, Thursday, 4.15 p.m.—Post-graduate Clinic: Acute Intususception.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin: Tuesday, Medical; Wednesday, Surgical; Thursday, Medical: Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Treatment of Puerperal Infection; Tuesday, The Neurone Theory; Wednesday, Dyspnoea in Bright's Disease and in Diabetes; Thursday, Prognosis in Phthisis (second lecture).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3 30 p.m., Hydrocephalus. Friday, 3.30 p.m,, Cerebral Vascular Lesions.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 2.30 p.m., Operations. Clinics: Medical Out-patient, Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient: Skin and Eye Clinics; *X* Rays; 4.30 p.m., Lecture: The Treatment of Recurrent Carcinoma and Rodent Ulcer by *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: The Indications for and Results of Gastric Surgery. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C., Thursday, 6 p.m.—Coccus Diseases.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstrations of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.: Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. each day except Saturday.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JANUARY, 1911.** | |
| 21 SATURDAY .. | MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Special Meeting, Savoy Hotel, Newport, 3.30 p.m. |
| 22 Sunday .. | |
| 23 MONDAY .. | |
| 24 TUESDAY .. | DARTFORD DIVISION, *South-Eastern Branch*, Board Room, Gravesend Hospital, 3.30 p.m. |
| 25 WEDNESDAY | LONDON: Poor Law Drafting Sub-committee, 10 a.m.<br>**London: Central Council, 2 p.m.**<br>KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4.30 p.m.<br>LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Leicester Infirmary, 4.15 p.m. |
| 26 THURSDAY .. | WANDSWORTH DIVISION, *Metropolitan Counties Branch*, 27, St. John's Hill, S.W., Business Meeting, and Election of Representative, 8.45 p.m. |
| 27 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. |
| 28 SATURDAY .. | |
| 29 Sunday .. | |
| 30 MONDAY .. | |
| 31 TUESDAY .. | |
| **FEBRUARY.** | |
| 1 WEDNESDAY | |
| 2 THURSDAY .. | |
| 3 FRIDAY .. | TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Prince of Wales's Hospital, Tottenham, 4.30 p.m. |
| 4 SATURDAY .. | |
| 5 Sunday .. | |
| 6 MONDAY .. | |
| 7 TUESDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, St. Bartholomew's Hospital, 3.30 p.m. |

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SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 28TH, 1911.

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# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## MELBOURNE AND VICTORIA BRANCH.

THE annual meeting was held on December 7th, 1910.

*Election of Officers.*—The following office-bearers were elected for 1911: *President*, Dr. R. H. Fetherston; *Vice-Presidents*, Drs. J. F. Wilkinson and W. R. Boyd; *Honorary Treasurer*, Dr. C. H. Mollison; *Honorary Secretary*, Dr. A. E. Rowden White; *Honorary Librarians*, Drs. A. W. F. Noyes and H. D. Stephens; *Council*, Dr. A. V. M. Anderson, Dr. L. J. Balfour, Dr. K. Hiller, Dr. R. Hamilton Russell, Dr. Beattie Smith, Dr. G. A. Syme, Dr. R. R. Stawell, Dr. A. J. Wood.

## METROPOLITAN COUNTIES BRANCH:

### STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, January 12th, at the West Ham Hospital, at 9 p.m., Dr. DAYUS presiding.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and approved.

*Communications.*—The HONORARY SECRETARY laid before the meeting communications from (*a*) the Walthamstow Division, (*b*) from two of the lecturers to the Division in regard to changing the dates of their addresses, and (*c*) from the Medical Secretary *re* Special Poor Law Reform Committee.

*Chronic Urethral Discharge.*—Mr. J. ERNEST LANE then delivered a very interesting address on the causes and treatment of chronic urethral discharges. Afterwards a number of questions were asked, and Mr. Lane, having replied to these, was awarded a very hearty vote of thanks.

*Matters Referred to Divisions.*—Some matters referred to the Divisions were afterwards considered.

*Balance Sheet.*—The balance sheet for the year was submitted and passed, the Chairman and Secretary being authorized to sign it.

### TOTTENHAM DIVISION.

THE third ordinary meeting for the session was held at Finsbury Park on January 13th, Dr. GREENWOOD in the chair. Eighteen members and one visitor were present.

*Confirmation of Minutes.*—The minutes of the second and of the adjourned meetings (December 2nd and January 5th) were read, and with slight verbal amendment were passed.

*Membership of the Division.*—Satisfactory progress in membership was reported. In the eight years from the date of the inauguration of the Division to Michaelmas, 1910, the membership had increased by 17. Whereas in the period that had elapsed since Michaelmas 20 medical men had applied for, and in due course would no doubt be admitted to, membership.

*Royal London Insurance Company.*—The communication of the Medico-Political Committee of December 21st, on the scale of fees offered by this company, was read, and it was agreed that instances of such fees being accepted within the area of the Division should be reported, if and when they became known.

*Medical Men called upon to Examine the Patients of Other Medical Men.*—Dr. W. H. PAINE (Wood Green) opened the consideration of this subject by a thoughtful paper. With quotations from the Workmen's Compensation Act of 1906, he defined the rights and duties of employers. He pointed out that no notice of intention to examine a workman need be given. He cited the case of a workman who refused to submit to an examination until such time as his own medical attendant should be present, and whose action in so doing was justified in court (See Knocker, *Accidents in their Medico-Legal Aspects*, p. 1007). He contrasted this with the case recorded in the BRITISH MEDICAL JOURNAL of January 7th, 1911, p. 57, where a contrary judgement was given. Dealing with insurance cases, he instanced the difficulty arising when the medical attendant refused to be present at the inspection of the patient unless the insurance company guaranteed a fee for his attendance. He stated that in most of these cases the insurance companies emphatically deny their liability to pay any fee unless a written report or special information is asked of the medical attendant. The suggested rules in the British Medical Association's Memorandum Dr. Paine characterized as

sufficiently comprehensive, concise, and clear. With Rules 1, 2, and 3 he was in entire agreemeet. Rule 4 needed to be emphasized. Rule 5 in his opinion, was very important, and he should like to add to it the recommendation that in cases likely to come before a court of law, it was especially desirable that the medical men representing opposite sides should come to some measure of agreement, so that no serious conflict of evidence should be presented to the judge. A discussion ensued. Finally it was proposed, and seconded, and carried *nemine contradicente*:

That the five suggested rules contained in the Association's Memorandum have the approval of the Tottenham Division.

*A Public Medical Service.*—Dr. J. R. FULLER (Crouch End) then rose to urge practical proposals in relation to this subject. Rapidly outlining the position of medical men at the present time in relation to the proposed Government measure of State insurance and the forthcoming arrangements for the treatment of school children, he urged the establishment of public medical services within the area of the Division. The general assent given by the Division to the model rules for such a service on May 27th, 1910, was recalled. The rules formulated by the Association after so much care, with obvious slight modifications, were entirely applicable to the Division. He contended that, without further loss of time, steps should be taken to establish the service. Many members having spoken, each of the following resolutions was respectively proposed, seconded, and carried unanimously:

1. That this Division is of opinion that a public medical service within the area of the Division is now desirable.
2. That a subcommittee of three members be forthwith appointed to consider the subject, to determine the requirements of each ward of the Division in this respect, and to report to the next ordinary meeting of the Division on February 3rd next
3. That the Executive Committee of each ward of the Division be requested to meet and report within the next fortnight as to the requirements of its local area in respect to a public medical service.

The following members were then appointed as subcommittee: Drs. Fuller, Ellwood, and Barnes, with Dr. Greenwood (Chairman) *ex officio*.

*Votes of Thanks.*—Votes of thanks to Drs. Paine and Fuller for their carefully-prepared papers closed the proceedings.

## SOUTH WALES AND MONMOUTHSHIRE BRANCH:

### MONMOUTHSHIRE DIVISION.

*Newport School Clinic.*

A SPECIAL meeting of the Division, fourteen days' notice having been given, was held in the Savoy Hotel, Newport, on Saturday, January 21st, at 3.30 p.m., to consider the following agenda and take any action with regard to it which might be deemed advisable.

1. To receive a report of the action taken by the Executive Committee with regard to a proposed school clinic at Newport.
2. To consider the following recommendations of the Executive Committee:
   (*a*) That the appended scheme for a school clinic under the Newport Elementary Education Committee (marked A), which has been approved by a duly summoned meeting of the members of the medical and dental professions practising in the borough, held at the Savoy Hotel on December 15th, 1910, be adopted.
   (*b*) That no member of the Division shall accept or continue to hold any appointment under the Newport (Mon.) Elementary Education Committee in relation to the proposed scheme for the treatment of children found defective by the medical inspector of schools at a school clinic at a lower rate or upon other conditions than are presented in the attached Form A.
3. To consider the insertion and continuance of Warning Notices.

The text of the scheme referred to in resolution 2 (*a*) was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 14th, p. 19.

Dr. A. G. LAWRENCE, the Chairman of the Division, presided, and the following members were also present: Drs. Elworthy, Basset, Cowie, Crinks, Williams, Vines, Marsh, Greer, Glendinning, Mulligan, O'Sullivan (Cwm), Frost, Weaver, Cropper, Burpitt, Lewis, Connellan, H. Bevan, J. McGinn, Gratte, Neville, Irwin, E. B. H Hughes, Mason, and Coulter and Hamilton, Honorary Secretaries.

The HONORARY SECRETARY presented the report on the action of the Executive Committee with regard to the proposed school clinic at Newport, the correspondence in connexion with which has been published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL JOURNAL for January 14th, and pointed out that such action was consequent on a resolution passed by the Division on May 28th, 1909, to the effect that school clinics, if established, should be staffed by members of the local profession.

Resolution 2 (*a*) was proposed by Dr. O. E. B. MARSH, seconded by Mr W. J. GREER, and carried, twenty-two members voting for it and none against.

Resolution 2 (*b*) was proposed by Dr. J W. MULLIGAN, seconded by Dr. J. GLENDINNING (President of the South Wales and Monmouthshire Branch), and carried, twenty two members voting for it and two against.

It was proposed by Mr. W. J. GREER, seconded by Dr. O. E. B. MARSH, and carried, that the Warning Notice be continued in the JOURNAL and inserted in the local press.

## STIRLING BRANCH.

A SPECIAL meeting was held on Thursday, January 12th, at 8 p.m., by the kind invitation of Dr. John G. Ronald, Larbert, in his residence there. In the absence of the President and Vice-President, Dr. RONALD presided, and there were present Drs. Katherine R. M. Lucas, Gardner, Clarkson, Moorhouse, Laurance, Hunter, Watt, and Stewart. Dr. Cribbes, Carronshore, was present as a guest.

*Apologies for Non-attendance.*—Apologies for non-attendance were received from the President (Dr. Strachan) and Drs. Griffiths, Lindsay, Dewar, Hamilton, and Greig.

*Lectures on Public Health, First Aid, etc.*—The meeting carefully considered Minutes 259 and 263 of the Annual Representative Meeting, 1910, and, after a discussion, in which all present joined, it was resolved, on the motion of Dr. MOORHOUSE, seconded by Dr. CLARKSON:

That members of the medical profession should be suitably remunerated for teaching subjects in connexion with the public health, such as nursing, first aid to the injured, and hygiene; that a minimum fee of 10s 6d. per lecture should be charged, and that in the case of public bodies, such as school boards, county councils, etc., the fee should be £1 1s. per lecture.

*Model Rules for Nursing Associations.*—The meeting approved of the model Rules for inclusion in rules of nursing associations, as approved by the Annual Representative Meeting.

At the close of the meeting the members were hospitably entertained by Dr. and Mrs. Ronald.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 24th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner tickets, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Junior Secretary not later than February 11th.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—A special meeting of this Division will be held at the Medical Society's rooms, Bournemouth, on Wednesday, February 1st, at 4 p.m. Agenda: (1) Discussion of the draft model scheme for the treatment of school children found upon inspection to be defective. (2) Report of Subcommittee on public medical services. (3) Any other business. In view of the importance of these subjects invitations to attend the meeting have been sent to the members of the local profession.—ELEANOR C. BOND, Honorary Secretary.

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LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R COOPER, M D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

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METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held at St. Bartholomew's Hospital on Tuesday, February 7th, at 3.30, by invitation of the hospital staff, when a clinical demonstration of throat cases will be given by Douglas Harmer, F.R C.S.—A. G. SOUTHCOMBE, Honorary Secretary, Homerton, N.E.

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METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—The fourth meeting of the session will be held at the Prince of Wales's Hospital, Tottenham, on Friday, February 3rd, at 4.30 p.m. Chairman, Dr. A. Greenwood. Business: (1) Report of Special Subcommittee on the establishment of a Public Medical Service in the Division. (2) Dr. J. Ford Anderson, Past-President Metropolitan Counties Branch, on the subject of Hospital Control; discussion to follow. (3) Any other business. Tea provided.—J. A. PERCIVAL BARNES, Honorary Secretary.

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PERTHSHIRE BRANCH.—A special meeting of this Branch will be held this day (Friday), January 27th, at 3 30 p m., in the Board Room, Royal Infirmary, Perth. Agenda: (1) Report of Subcommittee in regard to Red Cross ambulance classes. (2) Consideration of Sickness and Invalidity Bill as likely to affect the medical profession. (3) Any other business. Council meeting at 3 15 p.m. As the subjects to be discussed are of vital interest to a large number of the profession it is hoped that every member will endeavour to be present.—WM. A. TAYLOR and ALEXANDER TROTTER, Honorary Secretary.

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SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The annual meeting of the Folkestone Division and of the Folkestone, Ashford, and Dover Constituency will be held at the house of Dr. Eastes, 18, Manor Road, Folkestone, on Thursday, February 2nd, at 8 30 p m. Agenda: Minutes. To receive the annual report of the Executive Committee To temporarily suspend Rule 6 for this year. (Rule 6.—"The officers shall be elected annually at the annual meeting of the Division the Chairman being elected from among those members of the Division who have not held the office during the previous three years.") To transact any other business. A paper will be read by Dr. Wainwright on The Scientific Dilution of Milk. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, Honorary Secretary.

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## BRITISH MEDICAL ASSOCIATION LIBRARY.

### BOOKS NEEDED TO COMPLETE SERIES.

**THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:**

American Association of Obstetricians and Gynaecologists. Transactions. 1908 and 1909.
——— Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1–9.
——— Laryngological Association. Transactions. Vols. 1–6, 8–9.
——— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
——— Medico-Psychological Association. Transactions. Vol 13, 1906.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26, 27.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893.)
Archives générales de médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
——— of Ophthalmology. Vols 1–3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1–7, and 20–22.
——— de Parasitologie. Vols. 1–8.
——— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants. 1875–80.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896–7–8–9, 1900, and since 1903.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
——— für medicinischen Wissenschaften. Vols. 1–19.
——— für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin, Verhandlungen. 1–12, and 14, since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht, 1906–1908.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853–1868.
——— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg, and Third Paris, 1910.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B, Part 1; Section 15, Part 2.
——— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahresbericht Neurologie und Psychiatrie, 6 and 11–14.
Journal of Laryngology. Vols. 1 to 9.
Lakeside Hospital Clinical and Pathological Papers, Series 2.
Montreal Medical Journal, prior to 1900.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892–1898, 1901–1904
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James. Padua.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmologie, prior to 1893.
Revue Neurologique, prior to 1893 and since that date.
St. Bartholomew's Hospital Gazette. Vols. 1–6.
St. George's Hospital Gazette. Vols. 1–7.
St. Mary's Hospital Gazette. Vol. 4.
Sei-i-kwai Medical Journal. Vols. 1–11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1895.
South African Medical Journal. February and April, 1895, Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1–7, 10–14.
United States Hygienic Laboratory Bulletins. Nos. 1, 3, 8, 9, 10, 11 12. 13, 15. 17 18, 19, 22, 23, 24, 26, 29, 35, 43.
Virchow Archiv. Vols 1–150
Watt. Bibliographia Britannica, 4 vols. 1824.

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## CENTRAL MIDWIVES BOARD.

**A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on January 19th, with Sir FRANCIS CHAMPNEYS in the chair.**

*Amendment of the Midwives Act, 1902.*

**A letter was considered from the Town Clerk of Birkenhead as to the difficulties experienced by the Local Supervising Authority in obtaining a conviction under Section 1 (2) of the Midwives Act, 1902, which is as follows:**

> **1.—(2) From and after the first day of April one thousand nine hundred and ten, no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under this Act; any woman so acting**

without being certified under this Act shall be liable on summary conviction to a fine not exceeding ten pounds, provided this section shall not apply to legally qualified medical practitioners, or to any one rendering assistance in a case of emergency.

The Board decided that the communication should be transmitted to the Privy Council, with a suggestion that, with a view to the effective administration of the Midwives Act, 1902, Section 1 (2) should be amended by the omission of the words "habitually and for gain," and the Board also directed that the Town Clerk of Birkenhead be informed of the action of the Board.

*Visits of Midwife during the Puerperium.*

A letter was considered from the Medical Officer of Health for Sheffield as to the extent of a midwife's obligation to visit a patient during the puerperium. The Board decided that the Medical Officer of Health for Sheffield be informed: (*a*) That the Board has designedly refrained from making it obligatory on the midwife in every case to attend her patient for ten consecutive days, and that the number of visits required must vary according to the circumstances of each case, the midwife remaining responsible if anything goes wrong with the patient owing to the omission of a visit. (*b*) That any visit paid by an assistant must not be in substitution for, but in addition to, a visit of the midwife.

*Examinations in Madras.*

Letters were considered from the Superintendent and the Matron of the Government Maternity Hospital, Madras, requesting the Board to hold examinations in Madras. The Board directed that the Superintendent of the Government Maternity Hospital, Madras, be informed that the Board regretted that it was impossible to accede to his application.

*Drunk on Duty not Proved.*

A letter was considered from the Clerk of the Worcestershire County Council requesting the Board to state the grounds on which it came to the decision to take no further action in the case of a certified midwife against whom the local supervising authority had found a prima facie case of misconduct. The Board decided that the Clerk of the Worcestershire County Council be informed (*a*) that while the Board is entirely in sympathy with any endeavour to remove from the Roll the name of a midwife who has been proved to be drunk on duty, and would regret as much as the local supervising authority the failure of any such case for want of complete legal proof, the responsibility for the decision in any particular case must remain with the Board alone. (*b*) That in the case in question the Board, after careful consideration of all the available evidence, came to the conclusion that the charges had not been proved beyond all reasonable doubt.

*Certificates without Examination.*

A letter was considered from the Clerk of the Devon County Council requesting the Board to make a rule enabling uncertified women practising as midwives to be granted certificates without examination up to March 31st next. The Board decided to inform the clerk that the Board regrets that it cannot accede to his request.

*Complaint of Conduct of an Examiner.*

Letters were considered from a candidate who failed at the December examination, complaining of the conduct of one of the examiners. The Board directed that the candidate be informed that the Board, having carefully considered her two letters, and having communicated with both examiners acting at the table specified at the examination in December last, had come to the conclusion that she must have misinterpreted the attitude and the words of the examiner of whom she complained.

*Action against Midwife.*

A letter was considered from Dr. J. R. Currie, M.O.H. Chester, asking the advice of the Board as to taking action against a certified midwife for breaches of the rules. The Board decided that it be pointed out to Dr. Currie that it is the duty, under Section 8 (2) of the Midwives Act, 1902, of the local supervising authority, and not of the Board, to find whether a prima facie case of malpractice, negligence, or misconduct has been established.

*Amending Bill of The Midwives Act (No. 2) and Practice of Doctors.*

Sir GEORGE FORDHAM called attention to Clause 7 of the Midwives Bill (No. 2) 1910, and moved a resolution that the Lord President of the Privy Council be asked to receive a deputation from the Central Midwives Board to lay before him the serious objections to this clause of the bill and the difficulties that must arise if it became law. Sir George Fordham contended that the Midwives Roll by this clause would be reduced to an annual list, and that the official machinery for dealing with such annual notification would be very expensive and practically unworkable.

Clause 7 relating to proposed annual fee of 1s. for keeping a midwife's name on the Roll is as follows:

7. Every certified midwife shall on or before the thirty-first of January in each year send to the Central Midwives Board on a form to be supplied by the Board for the purpose, her name and address, together with a fee of one shilling, and if any certified midwife in any year fails to comply with this requirement her name shall be removed from the roll and thereupon her certificate shall be deemed to be cancelled; but where her name has been so removed on account of such non-compliance she shall at any subsequent time be entitled to have her name restored to the roll and the cancellation of her certificate rescinded on the payment of a fee not exceeding five shillings.

Mr. E. PARKER YOUNG moved an amendment to add Clause 11 (1) of the Midwives Bill (No. 2) 1910, to Sir George Fordham's resolution. Mr. Parker Young pointed out that Clause 11 was objectionable because it meant interference with the practice of doctors.

Clause 11 (1) o the amending bill runs as follows:

Where a woman certified under the principal Act, who has not given to the local supervising authority such a notice as is mentioned in Section 10 of the principal Act, or a woman not so certified, attends any woman in childbirth in any capacity other than that of a midwife, and a duly qualified medical practitioner is not present at the time of the birth, she shall, within forty-eight hours from the birth, give to the local supervising authority notice in writing of the fact that she so attended, and if she omits to do so shall be liable on summary conviction to a fine not exceeding five pounds, but nothing in this section shall be construed as exempting any woman practising as a midwife, or holding herself out as so practising, from the obligation to give any notice which, under Section 10 of the principal Act, she is required to give.

The amendment on being put to the vote was declared lost.

The SECRETARY said that to meet the provisions of Clause 7 the staff of the Board would have to be increased, and other premises provided, and declared that the clause would seriously cripple the power of the Board.

The resolution moved by Dr. George Fordham was then carried.

# Naval and Military Appointments

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon E. H. MEADEN to the *Orontes*, January 20th; Fleet Surgeon F. FEDARB, M.B., to the *Hecla*, January 20th; Fleet Surgeon W. L. RICHARDS to the *Mars*, January 20th; Staff Surgeon A. J. HEWITT to the *Blake*, January 20th; Surgeon A. S. PATERSON to the *Jupiter*, additional, January 20th.

## ARMY MEDICAL SERVICE.

### ROYAL ARMY MEDICAL CORPS.

THE following officers have been appointed Senior Medical Officers of the Coast Defences, as specified: Lieutenant-Colonel R. P. BOND, Eastern; Lieutenant-Colonel G. WILSON, M.B., South-Eastern; Lieutenant-Colonel R. R. H. MOORE, M.D., North Irish; Lieutenant-Colonel T. E. NODING, South Irish; Lieutenant-Colonel H. M. ADAMSON, M.B., North-Eastern; Lieutenant-Colonel F. S. HEUSTON, C.M.G., F.R.C.S.I., Scottish; Lieutenant-Colonel R. E. R. MORSE, Southern; Lieutenant-Colonel R. KIRKPATRICK, C.M.G., M.D., South-

Western; Lieutenant-Colonel A. DODD, North-Western; Lieutenant-Colonel P. C. H. GORDON, Western.

The undermentioned officers, serving in India, are appointed Specialists in the subjects named, from the dates specified: Advanced Operative Surgery—Major T. H. J. C. GOODWIN, D.S.O., 10th (Quetta) Division, from April 6th. Midwifery and Diseases of Women and Children—Major F. ASHE, 9th (Secunderabad) Division, from October 16th, 1910. Prevention of Disease—Captain E. W. POWELL, Brigade Laboratory, Aden, November 8th, 1910; Captain S. M. ADYE-CURRAN, Brigade Laboratory, Sialkot, November 30th, 1910.

## INDIAN MEDICAL SERVICE.

MAJOR F. O'KINEALY has been confirmed as Surgeon to the Governor-General of India.

## TERRITORIAL FORCE.

### INFANTRY.

SURGEON-CAPTAIN PETER MCFADYEN, M.B., 7th Battalion Princess Louise's (Argyll and Sutherland Highlanders), resigns his commission, January 11th.

### ROYAL ARMY MEDICAL CORPS.

The undermentioned Lieutenants, of the 3rd Northumberland Field Ambulance, to be Captains, from the dates specified: O. L. APPLETON, August 9th, 1910; P. R. ASH, August 19th, 1910.

*Attached to Units other than Medical Units.*—Captain JOHN PATON, M.D., resigns his commission, January 21st.

## CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during December, 1910:

| | | FROM | TO |
|---|---|---|---|
| Colonel | T. J. O'Donnell, D.S.O. | Aden | Quetta. |
| Lieut.-Col. | E. J. E. Risk | Belfast | London. |
| ,, | R. R. H. Moore, M.D. | Bulford | Belfast. |
| ,, | T. B. Winter | Chakrata | London. |
| ,, | G. F. Gubbin | Colaba | Dublin Dist. |
| ,, | J. Maher | Wynberg | London. |
| ,, | J. R. Forrest | Cork | Tipperary. |
| ,, | C. W. Johnson, M.B. | Gibraltar | Bulford. |
| ,, | F. W. C. Jones, M.B. | Tidworth | India. |
| ,, | R. L. R. Macleod, M.B. | Karachi | Aden. |
| ,, | R. H. Hall, M.D. | Colchester | Bermuda. |
| ,, | L. T. M. Nash | Hyderabad | Karachi. |
| ,, | M. O'Halloran, M.D. | Shorncliffe | Canterbury. |
| ,, | H. P. G. Elkington | Queenstown | Exeter. |
| Major | S. Macdonald, M.B. | Hong Kong | London. |
| ,, | F. Smith, D.S.O. | Murree | Rawal Pindi. |
| ,, | F. J. W. Porter, D.S.O. | London | S. Command. |
| ,, | I. A. O. MacCarthy | Straits Settlements | E. Command. |
| ,, | L. P. More, M.B. | Murree | Rawal Pindi. |
| ,, | C. G. Spencer, M.B. | London | York. |
| ,, | John M. Buist, M.B. | Netley | Pontypridd. |
| ,, | J. H. Campbell, D.S.O. | Mauritius | London. |
| ,, | G. B. Riddick | Rangoon | Maymyo. |
| ,, | A. E. Thorp | Tidworth | Pretoria. |
| ,, | G. H. Goddard | Alderney | Shorncliffe. |
| ,, | W. B. Winkfield | Portland | India. |
| ,, | H. D. Packer | Devonport | Exeter. |
| ,, | J. F. Burke (retired pay) | Lancaster | Falmouth. |
| Captain | E. B. Knox, M.D. | Colchester | Norwich. |
| ,, | W. C. Croly | ,, | Ipswich. |
| ,, | G. J. Houghton | Limerick | Queenstown. |
| ,, | C. H. Furnivall | York | Secunderabad. |
| ,, | A. C. Adderley | Lichfield | South Africa. |
| ,, | L. L. G. Thorpe | Netley | Tidworth. |
| ,, | J. T. Johnson, M.D. | Sheffield | Newcastle. |
| ,, | C. D. Myles, M.B. | Cosham | Gosport. |
| ,, | E. W. Powell | Belgaum | Aden. |
| ,, | A. W. Sampey | Colchester | Warley. |
| ,, | T. J. Potter | London | Jamaica. |
| ,, | W. F. Tyndale, C.M.G., M.B. | Curragh | Dublin. |
| ,, | J. M. H. Conway, F.R.C.S.I. | Kilbride | ,, |
| ,, | J. H. Duguid, M.B. | Youghal | Limerick. |
| ,, | D. P. Watson, M.B. | Pembroke Dock | Lancaster. |
| ,, | J. T. McEntire, M.B. | Newcastle | Irish Comm'd. |
| ,, | G. F. Rugg | Chatham | India. |
| ,, | L. Bousfield, M.D. | Falmouth | Devonport. |
| ,, | A. L. Otway, M.B. | Dublin | Belfast. |
| ,, | C. H. Turner | Murree | Irish Comm'd. |
| ,, | W. F. H. Vaughan | — | Cosham. |
| ,, | R. J. Cahill, M.B. | Madras | Curragh. |
| ,, | C. Ryley | Chatham | Shoeburyness. |
| ,, | R. C. Hallowes, M.B. | Cairo | Belfast Dist. |
| ,, | E. J. H. Luxmoore | Meerut | Dover. |
| ,, | A. T. Frost, M.B. | Curragh | Dublin. |
| ,, | K. A. C. Doig | Muttra | Cosham. |
| ,, | P. A. Lloyd Jones, M.B. | Malta | Cork District. |
| ,, | J. St A. Maughan | ,, | Cosham. |
| ,, | J. P. Lynch | Ranikhet | Eastern Comd. |
| ,, | E. G. R. Lithgow | Aden | ,, |
| ,, | J. S. Pascoe | Cairo | Enniskillen. |
| ,, | M. B. H. Ritchie, M.B. | Murree | Rawal Pindi. |
| ,, | G. W. W. Ware, M.B. | Sialkot | Aden. |
| ,, | W. McConaghy, M.B. | Oxford | Tidworth. |
| ,, | C. F. White, M.B. | Maymyo | Rangoon. |
| ,, | F. C. Sampson, M.B. | Bloemfontein | Potchefstroom |
| ,, | A. A. Sutcliff, M.B. | Singapore | Alderney. |
| ,, | H. E. Gotelee | Belfast | Holywood. |
| ,, | A. C. Vidal | Pretoria | Bloemfontein. |
| ,, | E. J. Elliot, M.B. | Tientsin | N. Comd. |
| ,, | W. G. Aviss | Quetta | Hyderabad. |
| Lieutenant | J. B. Hanafin, F.R.C.S.I. | Sialkot | Kalabagh. |
| ,, | W. R. O'Farrell | Cairo | Khartoum. |
| ,, | B. A. Odlum | Tidworth | Wynberg. |
| ,, | J. James, M.B. | Woolwich | S. Africa. |
| ,, | D. S. Buist, M.B. | Netley | Pontypridd. |
| ,, | A. M. Pollard | Winchester | S. Africa. |
| ,, | T. J. Mitchell, M.B. | Aberdeen | Rawal Pindi. |
| ,, | F. H. Somers-Gardner, M.B. | Hilsea | Pontypridd. |
| Lieutenant | D. H. C. MacArthur, M.B. | London Dist. | Rawal Pindi. |
| ,, | G. S. Parkinson | Enniskillen | S. Africa. |
| ,, | H. Gall | Dover | Rawal Pindi. |
| ,, | C. H. O'Rorke, M.B. | Newbridge | Curragh. |
| ,, | A. W. Byrne, M.B. | Manchester | Rawal Pindi. |
| ,, | S. W. Kyle, M.B. | Mullingar | Belfast. |
| ,, | J. A. Manifold, M.B. | Piershill | Fort George. |
| ,, | W. H. O'Riordan | York | Lichfield. |
| ,, | A. D. Stirling, M.B. | Edinburgh | Piershill. |
| ,, | E. C. Lambkin, M.B. | Windsor | Caterham. |
| ,, | M. J. Williamson, M.B. | Tidworth | Cardiff. |
| ,, | J. J. D. Roche, M.D. | Dublin | Dundalk. |
| ,, | W. Mathieson | London | S. Africa. |
| ,, | H. G. Robertson, M.B. | Sheffield | Lichfield. |
| ,, | E. C. Stoney, M.B. | Ipswich | Colchester. |

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,374 births and 5,411 deaths were registered during the week ending Saturday last, January 21st. The annual rate of mortality in these towns, which had been 14.1, 14.3, and 15.5 per 1,000 in the three preceding weeks, further rose to 16.4 per 1,000 last week. In London last week the death-rate was equal to 17.1 per 1,000 against 14.0, 14.1, and 15.2 in the three preceding weeks. Among the seventy-six other large towns the death-rates ranged from 7.1 in King's Norton, 7.7 in Handsworth (Staffs), 9.3 in West Hartlepool, 9.9 in Gateshead, 11.4 in Brighton, and 11.7 in Southampton to 20.7 in Sheffield, 20.9 in Oldham, 21.0 in Bury, 21.4 in Coventry, 23.0 in Middlesbrough, and 25.1 in Stockton-on-Tees. Measles caused a death-rate of 1.9 in Tottenham, in Coventry, and in Middlesbrough, 2.2 in Oldham, and 2.6 in Sheffield; whooping-cough of 1.1 in Leyton, and 1.2 in Willesden, in Reading, and in York; diphtheria of 1.1 in Walthamstow, 1.6 in Swansea, and 1.9 in Stockton-on-Tees; and diarrhoea and enteritis of children under 2 years of age 2.4 in Middlesbrough. The mortality from enteric and scarlet fevers showed no marked excess in any of the large towns and no fatal case of small-pox was recorded during the week. Of the 5,411 deaths recorded in the seventy-seven towns last week, 37 were uncertified either by a registered medical practioner or by a coroner after inquest, and included 9 in Liverpool, 5 in Birmingham, and 3 in Barrow-in-Furness. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,491 and 1,410 at the end of the two preceding weeks, further declined to 1,349 last week; 126 new cases were admitted during the week against 154 and 135 in the two preceding weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 21st, 836 births and 544 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 14.3 and 16.6 per 1,000 in the two preceding weeks, declined to 14.8 last week, and was 1.6 per 1,000 below the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 11.1 in Perth and 11.5 in Paisley to 17.6 in Greenock and 17.7 in Dundee. The death-rate from the principal infectious diseases averaged 1.2 per 1,000, and was highest in Glasgow and Leith. The 259 deaths from all causes registered in Glasgow last week included 2 which were referred to enteric fever, 1 to typhus, 2 to scarlet fever, 12 to whooping-cough, 4 to diphtheria, and 4 of children under 2 years to diarrhoea and enteritis. Two deaths from whooping-cough were registered in Edinburgh; 2 from diphtheria in Dundee, and 4 from whooping-cough in Leith.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 14th, 617 births and 443 deaths were registered in the twenty-two principal urban districts of Ireland, as against 638 births and 434 deaths in the preceding period. The annual death-rate in these districts, which had been 19.1, 16.8, and 19.4 per 1,000 in the three preceding weeks, rose to 19.9 per 1,000 in the week under notice, this figure being 4.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.4 and 19.8 respectively, those in other districts ranging from 4.5 in Lisburn and 4.8 in Ballymena to 28.6 in Newtownards and 33.0 in Queenstown, while Cork stood at 20.5, Londonderry at 15.4, Limerick at 15.0, and Waterford at 27.3. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000, as against 1.5 per 1,000 in the preceding week.

## VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1910.

IN the accompanying table will be found summarized the vital statistics of the City of London and of the metropolitan boroughs, based upon the Registrar-General's returns for the fourth quarter of last year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are obtained by distributing the deaths in institutions among the several boroughs in which the deceased persons had previously resided. The 27,847 births registered in London during the quarter under notice were equal to an annual rate of 22.9 per 1,000 of the population, estimated at 4,872,702 persons in the middle of last year; in the fourth quarters of the three preceding years the rates were 24.4, 23.6, and 23.4 per 1,000 respectively, the average rate for the corresponding period of the ten years 1900–9 being 26.0 per 1,000. The birth-rates last quarter ranged from 12.2 in Hampstead, 13.4 in the City of Westminster, 15.6 in Stoke Newington, 15.7 in Kensington, 16.7 in Chelsea, and 17.1 in the City of London to 27.9 in Poplar, 28.9 in Stepney, 29.8 in Bethnal Green, 31.2 in Shoreditch, 31.6 in Bermondsey, and 33.9 in Finsbury.

During the three months under notice the deaths of 17,831 London residents were registered, equal to an annual death-rate of 14.7 per 1,000, against 14.3, 13.7 and 13.5 per 1,000 in the three preceding years; the average death-rate in the ten years 1900–9 was 15.7 per 1,000. Among the several boroughs the crude death-rates last quarter ranged from 10.2 in Hampstead, 10.5 in Lewisham, 11.3 in Wandsworth, 11.6 in Fulham, 11.7 in Greenwich, and 11.8 in Woolwich, to 17.3 in Poplar, 18.5 in Bethnal Green, 19.1 in Shoreditch, 19.5 in Southwark, 20.7 in Finsbury, and 21.0 in Bermondsey.

The 17,831 deaths from all causes in London last quarter included 1,670 which were referred to the principal infectious diseases; of these,

*Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1910.*

| Boroughs. | Estimated Population middle of 1910. | Births. | Deaths. | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Infectious Diseases. | Deaths from Principal Infectious Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric Fever. | Ill-defined Pyrexia. | Diarrhœa. | Phthisis. | Deaths of Children Under 1 Year of Age to 1,000 Registered Births |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COUNTY OF LONDON ... | 4,872,702 | 27,847 | 17,831 | 22.9 | 14.7 | 1.37 | 1,670 | — | 843 | 41 | 145 | 131 | — | 83 | — | 427 | 1,590 | 128 |
| Paddington ... ... | 153,004 | 689 | 516 | 18.1 | 13.5 | 1.10 | 42 | — | 15 | — | 3 | 3 | — | — | — | 21 | 31 | 129 |
| Kensington ... ... | 184,635 | 723 | 666 | 15.7 | 14 5 | 1.16 | 53 | — | 31 | — | 4 | 9 | — | — | — | 9 | 36 | 152 |
| Hammersmith ... | 127,413 | 699 | 466 | 22.0 | 14.7 | 2.38 | 76 | — | 37 | 2 | 12 | 7 | — | 3 | — | 15 | 33 | 130 |
| Fulham ... ... | 181,282 | 953 | 524 | 21.0 | 11.6 | 1.00 | 45 | — | 23 | — | 4 | 4 | — | 1 | — | 13 | 49 | 137 |
| Chelsea ... ... | 75,457 | 315 | 259 | 16.7 | 13 8 | 0.27 | 5 | — | 1 | — | 2 | — | — | — | — | 2 | 27 | 146 |
| City of Westminster | 167 233 | 559 | 523 | 13.4 | 12.5 | 0.53 | 22 | — | 7 | — | 5 | 3 | — | 3 | — | 4 | 39 | 93 |
| *St. Marylebone .. | 125,195 | 991 | 451 | 31.7 | 14 4 | 0.82 | 26 | — | 11 | 1 | 2 | 2 | — | 1 | — | 9 | 36 | 68 |
| Hampstead ... ... | 95,729 | 290 | 243 | 12.2 | 10.2 | 0.67 | 16 | — | 4 | 1 | 2 | 5 | — | 1 | — | 3 | 16 | 97 |
| St. Pancras ... ... | 237,792 | 1,292 | 936 | 21.8 | 15 8 | 1.61 | 96 | — | 55 | 5 | 6 | 6 | — | 2 | — | 22 | 86 | 144 |
| Islington ... ... | 353.356 | 1,882 | 1,433 | 21.4 | 16.3 | 2.28 | 201 | — | 136 | 4 | 13 | 11 | — | 7 | — | 30 | 109 | 138 |
| Stoke Newington ... | 54,838 | 213 | 167 | 15.6 | 12.2 | 0.72 | 10 | — | 3 | — | 1 | 1 | — | 1 | — | 4 | 17 | 66 |
| *Hackney ... ... | 239,979 | 1,290 | 781 | 21.6 | 13.1 | 0.75 | 45 | — | 9 | 1 | 4 | 3 | — | 8 | — | 20 | 84 | 121 |
| *Holborn ... .. | 53,142 | 319 | 203 | 24.1 | 15.7 | 1.29 | 17 | — | 9 | — | 1 | 1 | — | 2 | — | 4 | 24 | 103 |
| *Finsbury ... ... | 94,578 | 800 | 489 | 33.9 | 20.7 | 3.56 | 84 | — | 45 | 1 | 8 | 5 | — | 2 | — | 23 | 50 | 125 |
| City of London ... | 17,152 | 73 | 65 | 17.1 | 15.2 | — | — | — | — | — | — | — | — | — | — | — | 6 | 41 |
| Shoreditch ... ... | 114,387 | 890 | 546 | 31.2 | 19.1 | 1.95 | 55 | — | 27 | 1 | 5 | 7 | — | 5 | — | 10 | 39 | 197 |
| Bethnal Green ... | 131,579 | 979 | 608 | 29.8 | 18.5 | 1.51 | 50 | — | 8 | — | 7 | 8 | — | 10 | — | 17 | 59 | 160 |
| *Stepney ... ... | 314,379 | 2 262 | 1,172 | 28.9 | 15.0 | 1.10 | 86 | — | 29 | 4 | 6 | 3 | — | 6 | — | 38 | 103 | 130 |
| Poplar ... ... ... | 172,432 | 1,201 | 745 | 27.9 | 17.3 | 1.08 | 46 | — | 9 | 6 | 5 | 5 | — | 3 | — | 18 | 69 | 145 |
| Southwark ... ... | 211.832 | 1,423 | 1,029 | 26.9 | 19.5 | 3.14 | 166 | — | 111 | 1 | 18 | 7 | — | 3 | — | 26 | 104 | 153 |
| Bermondsey ... ... | 127,238 | 1,002 | 666 | 31.6 | 21.0 | 3.68 | 117 | — | 70 | 1 | 7 | 9 | — | 1 | — | 29 | 70 | 155 |
| *Lambeth ... ... | 327,074 | 2,070 | 1,196 | 25.4 | 14.7 | 1.47 | 121 | — | 64 | 4 | 9 | 11 | — | 11 | — | 22 | 126 | 109 |
| Battersea ... ... | 188,222 | 1,005 | 646 | 21.4 | 13.8 | 1.38 | 65 | — | 33 | 3 | 3 | 7 | — | 4 | — | 15 | 67 | 124 |
| Wandsworth ... ... | 305,838 | 1,628 | 863 | 21.4 | 11.3 | 0.55 | 42 | — | 15 | 1 | 4 | 5 | — | 3 | — | 14 | 70 | 87 |
| Camberwell ... ... | 286,058 | 1,591 | 1,036 | 22.3 | 14.5 | 1.44 | 102 | — | 69 | — | 7 | 4 | — | 4 | — | 18 | 100 | 140 |
| Deptford ... ... | 119 642 | 663 | 438 | 22.2 | 14.7 | 0.87 | 26 | — | 13 | 1 | 3 | — | — | — | — | 9 | 46 | 139 |
| Greenwich ... ... | 112,935 | 614 | 329 | 21.8 | 11.7 | 0.65 | 18 | — | 1 | 1 | 2 | — | — | — | — | 14 | 24 | 116 |
| Lewisham ... ... | 164,899 | 786 | 431 | 19.1 | 10.5 | 0.42 | 17 | — | 2 | 2 | 2 | 3 | — | 2 | — | 6 | 27 | 102 |
| Woolwich ... ... | 135,422 | 645 | 399 | 19.1 | 11.8 | 0.63 | 21 | — | 6 | 1 | — | 2 | — | — | — | 12 | 43 | 115 |

* No correction can be made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

843 resulted from measles, 41 from scarlet fever, 145 from diphtheria, 131 from whooping-cough, 83 from enteric fever, and 427 from diarrhœa, but not any from small-pox, from typhus, or from ill-defined pyrexia. These 1,670 deaths were equal to an annual rate of 1.37 per 1,000; in the corresponding quarter of the three preceding years the rates were 1.36, 1.25, and 0.77 per 1,000, the decennial average rate being 1.35 per 1,000. No deaths from any of these infectious diseases was recorded last quarter in the City of London; among the metropolitan boroughs they caused death-rates ranging from 0 27 in Chelsea, 0 42 in Lewisham, 0.53 in the City of Westminster, 0 55 in Wandsworth, 0 63 in Woolwich, and 0 65 in Greenwich, to 1 95 in Shoreditch, 2 28 in Islington, 2 38 in Hammersmith, 3 14 in Southwark, 3 56 in Finsbury, and 3 68 in Bermondsey. The greatest proportional mortality from measles was recorded in Hammersmith, Islington, Finsbury, Southwark, Bermondsey, and Camberwell; from scarlet fever in Hammersmith, St. Pancras, Poplar, and Battersea; from diphtheria in Hammersmith, Finsbury, Bethnal Green, Southwark, and Bermondsey; from whooping-cough in Kensington, Hammersmith, Hampstead, Finsbury, Shoreditch, Bethnal Green, and Battersea; from enteric fever in Hackney, Holborn, Shoreditch, Bethnal Green, and Lambeth; and from diarrhœa in Paddington, Finsbury, Bethnal Green, Stepney, Southwark Bermondsey, and Greenwich.

During the quarter under notice 1,590 deaths from phthisis were registered among London residents; these deaths were equal to an annual rate of 1 31 per 1,000, the rates in the corresponding period of the three preceding years being 1.34, 1 35, and 1 34 per 1,000; in the fourth quarter of the ten years 1900–9 the rate averaged 1 56 per 1,000 The death-rates last quarter from this disease ranged from 0 66 in Lewisham, 0.67 in Hampstead 0 78 in Kensington, 0.81 in Paddington, 0 85 in Greenwich, and 0 92 in Wandsworth, to 1 80 in Bethnal Green, 1 81 in Holborn, 1 97 in Southwark, 2.12 in Finsbury, and 2.21 in Bermondsey.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 128 per 1,000 last quarter, against 131, 123, and 116 in the fourth quarters of the three preceding years; in the corresponding period of the ten years 1900–9 the rate averaged 136 per 1,000. The lowest rates of infant mortality last quarter were recorded in the City of Westminster, Hampstead, Stoke Newington, the City of London, and Wandsworth; and the highest rates in Kensington, Shoreditch, Bethnal Green, Southwark, and Bermondsey.

# Hospitals and Asylums.

## WEST HAM LUNATIC ASYLUM.

IN his annual report for 1909 Dr. D. Hunter, the Medical Superintendent, includes the tabular statement which he has given for some years, showing the fluctuations in the pauper insane of West Ham. From this we see that the actual increase for the year was only 9, and that the proportion of total admissions per 10,000 of population was 6.27, as compared with 6.09 for England and Wales, and the proportion of first admissions only 3 51, as compared with 5 00 for England and Wales. Not only does West Ham compare favourably with the rest of England and Wales, but these figures show a substantial reduction on the figures of last year for West Ham. This decrease has been taking place for the last eight years, and the first admission-rate for 1909 was less than one-third of that for 1902. On January 1st, 1909, there were 875 patients in the asylum, and on the last day of the year 884. The total cases under care during the year numbered 1,080, and the average number daily resident 862. During the year 205 were admitted, of whom 182 were direct admissions. Of the direct admissions in 52 the attacks were first attacks within three and in 21 more within twelve months of admission; in 33 not-first attacks within twelve months; and in all the remainder, with one exception, the attacks were of more than twelve months or of unknown duration, including 20 congenital cases. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 44; melancholia of all kinds, 52; senile and secondary dementia, 15; general paralysis, 16; primary dementia, 12; delusional insanity, 8; less common forms, 13; and congenital defect, 20. As to causation alcohol was assigned in 23, syphilis in 5, and other toxins in 2, critical periods in 48, child-bearing in 10; nervous diseases in 13, other bodily diseases in 3, bodily trauma in 3, and mental stress in 42. An insane heredity was ascertained in 62, an alcoholic heredity in 23, and 1 of neuroses, epilepsy or eccentricity in 9 more, giving a total neuropathic heredity in 94, or over 52 per cent. Concerning this matter of heredity Dr. Hunter says that when one considers the number of ill-assorted unions one is surprised not at the large number of people in asylums, but at the smallness of that number. He is convinced that a prevention of the marriage of members of degenerate stocks would result in incalculable benefit to the race, but is of opinion that the only way to arrive at this happy result is by educating the public and not by hasty State prohibition schemes or surgical operation Also, and in common with most others, he is of opinion that the importance of alcohol as cause of insanity has been greatly exaggerated. During the year 55 were discharged as recovered, giving a recovery-rate on the direct admissions of 30.22 per cent., or of recoveries in the direct admissions on the direct admissions of 26.37 per cent. Considering the unfavourable class admitted Dr. Hunter thinks this a good result. Also 48 were discharged as relieved and 14 as not improved. During the year 79 died, giving a death-rate on the average numbers resident of 9 16 per cent. This is the lowest recorded since the opening of the asylum. The deaths were due in 33 to nervous diseases, including 18 from general paralysis; in 6 to diseases of the heart and blood-vessels; in 2 to respiratory diseases; in 4 to diseases of the digestive or urinary systems; in 1 to accident, and in all the remainder to general diseases, including 14 from senile decay and 9 from tuberculosis. The general health was good throughout the year, and no fatal accident occurred.

## EAST SUSSEX COUNTY ASYLUM, HELLINGLY.

THE annual report for the year 1909 of Dr. F. R. P. Taylor, the Medical Superintendent of this asylum, shows that on January 1st, 1909, there were 1,103 patients on the register, and on the last day of the year 1,091. The actual increase of East Sussex

cases was from 779 to 792. The total cases under care during the year numbered 1,380, and the average number daily resident 1,092. During the year, 277 were admitted, of whom 247 were direct admissions. In these latter, in 88 the attacks were first attacks within three and in 37 more within twelve months of admission; in 57 not-first attacks within twelve months, and in 8 more also within twelve months, but it was unknown whether first attack or not, and in the remainder the attacks were either of more than twelve months (22), or of unknown duration (15), or congenital cases (20). The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 68; melancholia of all kinds, 72; senile and secondary dementia, 36; delusional insanity, 19; general paralysis, 9; primary dementia, 5; less common forms, 10; and congenital defect, 20. As to causation, alcohol was assigned in 25, or 10 per cent., syphilis in 4, and other toxins in 11; critical periods in 103 (senility, 63); diseases of the nervous system in 16, other bodily disorders in 10, trauma in 8, and mental stress in 36 An insane heredity was ascertained in 87, an alcoholic heredity in 6, and of epilepsy or eccentricity in 3, giving a total neuropathic heredity in 96, or 32 per cent. During the year, 108 were discharged as recovered, giving a recovery-rate on the direct admissions of 43.37 per cent, or of recoveries in the direct admissions on the direct admissions of 39.67 per cent., also 22 as relieved and 61 as not improved. During the year 98 died, giving a death-rate on the average numbers resident of 8.97 per cent. The deaths were due in 11 to nervous diseases, 9 of whom died from general paralysis, in 19 to diseases of the heart and blood vessels, in 11 to respiratory diseases, in 4 to disease of the digestive system, in 5 to diseases of the urinary system, and in the remainder to local and general diseases, including 13 from senile decay and only 11 from tuberculosis. All deaths were from natural causes, very few serious casualties occurred, and the general health was good throughout the year.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary, £120 per annum.

BIRMINGHAM CITY HOSPITAL.—Assistant Medical Officer. Salary, £120 per annum.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon (male). Salary at the rate of £80 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist; (2) Honorary Medical Registrar.

CAPETOWN: SOMERSET HOSPITAL.—Two Assistant Medical Officers. Salary, £200 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary at the rate of £50 per annum.

CHELTENHAM EYE, EAR, AND THROAT FREE HOSPITAL.—House-Surgeon. Salary, £200 per annum.

CHESHIRE EDUCATION COMMITTEE.—Third Assistant to the Chief School Medical Officer. Salary, £350 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male).

DAVOS: QUEEN ALEXANDRA SANATORIUM.—Assistant Medical Officer. Salary, £120 per annum.

DUMBARTON SECONDARY EDUCATION COMMITTEE.—Two Medical Inspectors. Salary, £300 per annum.

ECCLESALL BIERLOW UNION.—Resident Assistant Medical Officer of the Workhouse. Salary, £150 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary at the rate of £60 per annum.

GRAVESEND HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway N.—Clinical Assistants in Out-patient Medical Department.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Liverpool.—Assistant Medical Officer and Pathologist. Salary, £200 per annum.

LEITH HOSPITAL.—Medical Registrar.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon. Salary, £125 per annum.

LIVERPOOL CITY INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary, £120 per annum.

LIVERPOOL: COUNTY ASYLUM, Rainhill.—Assistant Medical Officer. Salary, £150 per annum, rising to £250.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

MANCHESTER: CHORLTON-ON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the Crossley Sanatorium, Delamere Forest. Salary, £100 per annum.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Honorary Anaesthetist (female).

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—House-Surgeon. Salary, £100 per annum.

NATIONAL DENTAL HOSPITAL AND COLLEGE, Great Portland Street, W.—Anaesthetist as deputy.

PARK HOSPITAL FOR CHILDREN, Hither Green, S.E.—Assistant Medical Officer. Salary, £150 per annum, rising to £180.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant Surgeon.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham.—(1) Pathologist. Honorarium, £50 per annum. (2) Honorary Anaesthetist.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W. Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Medical Officer in Charge of the Department for *X* Rays and Electro-Therapy. Salary at the rate of £60 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

UNIVERSITIES' MISSION TO CENTRAL AFRICA.—Medical Officer. Salary, £200 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Honorary Medical Registrar.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male).

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Broughton Astley, co. Leicester.

## APPOINTMENTS.

ALDOUS, George F., F.R.C.S.Edin., Surgeon to the South Devon and East Cornwall Hospital.

CALEY, T. A., M.R.C.S., L.R.C.P., Medical Officer of Health of the Tickhill Urban District.

DORAN, R. S., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Prescot Union Workhouse.

HANBURY, S. W., M.R.C.S., L.R.C.P., District Medical Officer of the Tendring Union.

INMAN, E., M.B., B.S.Durh., Certifying Factory Surgeon for the Ammanford District, co. Carmarthen.

MOORE, H. E., M.B., Ch.B.Vict., District Medical Officer of the Droitwich Union.

PAGE, C. H. W., M.D., Certifying Factory Surgeon for the North Walsham District, co. Norfolk.

RICH, A. H., L.M.S.S.A., Assistant Medical Officer of the Brentford Union Schools, Infirmary, and Workhouse.

STRAIN, Thomas, M.D., D.P.H.Camb., Medical Officer of Health and Medical Superintendent to the Isolation Hospital of the Urban District of Barnes.

UNIVERSITY COLLEGE HOSPITAL. The following appointments have been made:

House-Physician.—C. W. Morris, M.R.C.S., L.R.C.P.
House-Surgeon.—T. B. Davies, M.B., B.S.
Obstetric Assistant.—D. McCully, M.R.C.S., L.R.C.P.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGE.

IRWIN—SINCLAIR.—January 17th, 1911, at Fitzroy Church, Belfast, by the Rev. William Colquhoun, B.A., assisted by the Rev. Charles Davey, B.A., Samuel Thompson Irwin, M.B., M.Ch., F.R.C.S., Belfast, son of John Irwin, Bovally, Limavady, to Mary Jemima (May), only daughter of the late A. W. Sinclair, J.P., Newry, and Mrs. Sinclair, 1, Wellington Park Terrace.

### DEATH.

BARRADELL-SMITH.—Sydney Barradell-Smith, M.B., of "Fair Lawn," Lowestoft, at the National Hospital, London, on the 15th inst., aged 31 years, elder son of the Rev. Canon Barradell-Smith, Master of Greatham Hospital. R.I.P.

## DIARY FOR THE WEEK.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor F. W. Edridge-Green: Colour Vision and Colour Blindness.

### THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham.—4.15 p.m., Clinical Meeting.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W.—8 p.m., Discussion on the Indications for, and Technique of, Caesarean Section and its Alternatives in Women with Contracted Pelves who have been long in Labour and exposed to Septic Infection. To be opened by Dr. Amand Routh.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor F. W. Edridge-Green: Colour Vision and Colour Blindness.

ROYAL SOCIETY OF MEDICINE

LARYNGOLOGICAL SECTION, 11, Chandos Street, W.—5 p.m., Cases and Specimens.

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W.—8 p.m., Continuation of Thursday's Discussion.

SECTION OF ANAESTHETICS, 15, Cavendish Square, W.—8.30 p.m., Communications:—(1) Dr. McCardie: Death during Anaesthesia. (2) Mr. Gill: Anaesthesia in Post-pharyngeal Abscess. (3) Dr. Blumfeld: Reflex Effects from Stimulation of the Nasal Mucous Membrane during Anaesthesia. (4) Dr. Hughes: Cheyne-Stokes Respiration during Anaesthesia. (5) Mr. Coleman: A New Form of Stop-cock for Gas and Air Administration.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital.—8 p.m., Pathological Meeting.

### POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Torticollis; Congenital Affections of the Upper Extremity: Obstetric Paralysis. Thursday, 4 p.m., Demonstration of Medical Cases. Friday, 5.15 p.m., Kyphosis, Lordosis, Neurotic Spine, Pigeon-toe.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Some Features of Heart Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Some Affections of the Mediastinum, Tuesday, On Nervous Exhaustion. Wednesday, Piles: Their Pathology and Treatment. Thursday, Bronchitis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Polio-encephalomyelitis. Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic: 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Obstruction to Free Respiration and its Influence on Anaesthesia. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations: Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C.—Thursday, 6 p.m., Fungous Diseases of Hair.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical, Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathology, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.: Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures, at 5 p.m. daily.

## RECENT PUBLICATIONS.

*Prince Francis of Teck.* By Reginald Lucas. London: A. L. Humphreys. (Crown 8vo, pp. 53. Price 1s. net.)

This pamphlet, sold for the benefit of the Prince Francis of Teck Memorial Fund of the Middlesex Hospital, gives an account of the Prince's early life, of his career as a soldier, his various occupations as a civilian, and his more recent work at the Middlesex Hospital. An illustrated attractively written account of a man much beloved by his friends and justly honoured in connexion with charitable enterprises.

*Pneumonia.* Reprinted from *American Medicine.* Arranged and edited by H. Edwin Lewis, M.D. New York City: The American Publishing Company. (Crown 8vo, pp. 182.)

A reprint of a number of papers which appeared in our contemporary last April, constituting a symposium on the occurrence, etiology, diagnosis, prognosis, and treatment of pneumonia. Dr. Lewis has supplied by way of introduction a short account of the history of pneumonia, but there is no list of papers, authors, or other indication of the special points dealt with.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL have just ready for publication a new edition of another volume of *Allen's Commercial Organic Analysis.* It is volume iv under the new arrangement, and has been rewritten under the editorship of Mr. W. A. Davis, B.Sc., and Mr. S. S. Sadtler, S.B.

A work entitled *Careers for Men, Women, and Children*, edited by George Edgar, will be issued in February by Messrs. George Newnes, Ltd. The book is meant for all face to face with the necessity of choosing a career in every order of social life. It is stated that in it will be described more than 750 occupations, all necessary information being given regarding education or training required, length of time taken in preparation, the cost of qualiying, incomes to be made, and prospects afforded by the employments.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JANUARY, 1911.** | |
| 27 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>PERTHSHIRE BRANCH, Special Meeting, Board Room, Royal Infirmary, Perth, 3.30 p.m.; Council Meeting, 3.15 p.m. |
| 28 SATURDAY .. | |
| 29 Sunday .. | |
| 30 MONDAY .. | |
| 31 TUESDAY .. | |
| **FEBRUARY.** | |
| 1 WEDNESDAY | BOURNEMOUH DIVISION, *Dorset and West Hants Branch*, Special Meeting, Medical Society's Rooms, Bournemouth, 4 p.m. |
| 2 THURSDAY.. | FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting of Folkestone Division, and of the Folkestone, Ashford and Dover Constituency, 18 Manor Road, Folkestone, 8.30 p.m. |
| 3 FRIDAY .. | TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Prince of Wales's Hospital, Tottenham, 4.30 p.m. |
| 4 SATURDAY .. | |
| 5 Sunday .. | |
| 6 MONDAY .. | |
| 7 TUESDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, St. Bartholomew's Hospital 3.30 p.m. |
| 8 WEDNESDAY | |
| 9 THURSDAY .. | SOUTH WALES AND MONMOUTHSHIRE BRANCH, Clinical Meeting, Cardiff. |
| 10 FRIDAY .. | |
| 11 SATURDAY .. | |
| 12 Sunday .. | |
| 13 MONDAY .. | LONDON: Organization of Medical Students Subcommittee, 1.30 p.m.<br>LONDON: Regulations and Standing Orders Subcommittee, 2.30 p.m. |
| 14 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m. |

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# SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 4TH, 1911.


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# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## METROPOLITAN COUNTIES BRANCH:

### WATFORD AND HARROW DIVISION.

A MEETING of the Division was held at Harrow on December 15th, 1910, Dr. LAMBERT in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting (June 24th, 1910) were read and confirmed.

*Report of Representative.*—Dr. WILLIAMS presented his report of the proceedings at the Annual Representative Meeting. He stated that a slight modification of the resolution sent up by the Division respecting a universal code of ethics for the whole Association had been suggested, limiting the code to the Home Branches, and that he had agreed to this suggestion. He also stated that the chief business of the meeting seemed to be the conversion of the Association into a company on the basis of the scheme for incorporation which had been abandoned.

*Vote of Thanks.*—A hearty vote of thanks was given to Dr. Williams for attending the meeting, and for his report.

### MATTERS REFERRED TO DIVISIONS.

1. *The Custom of Barring Holders of Certain Appointments from Private Practice.*—Resolved, on the proposition of Dr. FISHER, seconded by Dr. PENNEFATHER—

That in the opinion of this Division it is desirable, in small towns and country districts, that a medical man freshly introduced for special work—for example, as medical inspector of schools, medical officer to institutions, etc.—should only be appointed if he give an undertaking in writing not to practise within a specified area for a specified time.

2. *The Election of Representatives of the Local Profession on the Boards of Hospitals, etc.*—Resolved:

That it is desirable that the local profession should be so represented.

3. *Ophthalmia Neonatorum: The Questions of Notification and of Treatment.*—Resolved:

That in view of the resolutions on the subject already adopted by the Division, and of the very small number of cases occurring in the Division, no further action be taken.

4. *The Position of Practitioners called upon to Examine Patients under the Care of other Practitioners.*—Resolved:

That the proposed Rules be approved with the following addendum to Rule (4).

"That where the attending practitioner fail to communicate with the examining practitioner, the latter shall have a free hand regarding any examination he may consider it necessary to make."

*Expression of Opinion by Branches and Divisions.*—The following resolutions, proposed by Dr. BONTOR and seconded by Dr. FISHER, were unanimously adopted:

1. That in questions affecting the general interests of the Association, or of the profession as a whole, a vote passed at a meeting of a Branch or Division shall not be circulated as the opinion of that Branch or Division unless and until opportunity shall have been given to every member of the Branch or Division to express his opinion upon it either in person or by post.

2. That, in view of the increasing number and importance of questions in which Branches and Divisions are brought into contact with county councils and other administrative authorities, it is desirable that the boundaries of Branches and Divisions should be reorganized so that they correspond as nearly as possible to the area of the administrative authorities, the county council and parliamentary areas being suggested as a suitable basis for such reorganization.

*The Treatment of School Children found upon Inspection to be Defective.*—On this matter it was resolved:

That, in consequence of the difficulty of making satisfactory arrangements with the various administrative authorities in the Division, the matter be left in the hands of the sections—the Watford section to arrange for the Herts areas and the Harrow section to arrange for those in Middlesex.

*Correspondence.* — From the Buckinghamshire Division respecting fees for contract practice. Resolved:

That, in view of the recent alteration of such fees in the Division, no further action be taken, but that a copy of the scale of charges at present in force be sent to the Buckinghamshire Division.

*State Invalidity and Sickness Insurance.*—Resolved:

That the consideration of this matter be deferred to the next meeting.

## SOUTH-EASTERN BRANCH:

### DARTFORD DIVISION.

A GENERAL meeting of this Division was held on January 24th, at 3.30 p.m., in the Board Room, Gravesend Hospital. Dr. STEEN was in the chair, and seven members and two visitors were present.

*Confirmation of Minutes.*—The minutes of the last general meeting were read and confirmed.

*Report of Kent Organization Committee.*—The HONORARY SECRETARY explained the scheme of the Kent Organization Committee *re* the treatment of school children found defective on medical inspection, and, after discussion, it was proposed by CHAS. FIRTH, M.D., and seconded by Dr. WALKER:

That this meeting, having considered this scheme, does hereby approve of it.

This was carried unanimously.

*Medical Treatment of Defective School Children.*—The following resolutions were also passed unanimously:

(*a*) That the Dartford Division approve of the action of the Bromley Division in sending a letter to the Central Council of the Association requesting the Council to take what immediate steps it can to prevent the "treatment of school children found upon medical inspection to be defective" and sent to London hospitals from the county of Kent being carried out at these charitable institutions.

(*b*) That the Dartford Division approve of the suggested action of the Kent Organization Committee in sending a letter to the committee and to the medical staff of all hospitals in Kent requesting them not to carry out at their charitable institutions the treatment of school children found upon medical examination to be defective, as the local profession is prepared to undertake the treatment of such cases.

(*c*) That the Dartford Division trusts that members of the medical profession practising within the area of the Division will act collectively and not individually as regards the treatment of school children found upon medical inspection to be defective, and that any medical practitioner who may receive from the county council with regard to his willingness to act in any capacity will refer the county council to the Honorary Secretary of the Kent Organization Committee appointed to deal with the matter on behalf of the medical practitioners of the county.

*Vote of Thanks.*—A vote of thanks was passed to the committee and staff of the hospital for kindly giving the use of the board room.

*Exhibits.*—After the meeting the staff of the hospital showed a number of *x*-ray photographs and cases illustrating the use of Mr. Lane's plates in treatment of fractures, and also showed members and friends round the wards and operating theatre.

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## WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:

### WORCESTER DIVISION.

AN ordinary meeting of this Division was held at the Worcester General Infirmary on Wednesday, January 18th, at 4.30 p.m. The chair was taken by Mr. LIONEL STRETTON, twelve other members being present.

*Confirmation of Minutes.*—The minutes of the last ordinary meeting were read and confirmed.

*Model Ethical Rules.*—A letter was read by the HONORARY SECRETARY informing the Division that the Central Council had approved the adoption by the Division of the draft model ethical rules of procedure, of the Bradford Rules and Rule Z.

*Assistant M O H., City of Worcester.*—The HONORARY SECRETARY reported that the City Council had sanctioned the raising of the salary of this post from £200, at which they had advertised, to the minimum laid down by the British Medical Association, namely, £250.

*Fees for Ambulance Lectures, etc.*—The HONORARY SECRETARY informed the meeting that he had circulated all medical practitioners in the area of the Division (both members and non-members of the British Medical Association) of the adoption of Minutes 259 and 263 of the Annual Representative Meeting, London, 1910.

*Fees for Medical Examination for Insurance.*—The HONORARY SECRETARY read a letter received from the Medico-Political Committee *re* the fees offered by the Royal London Insurance Company for medical examinations for insurance. Dr. C. POLLARD proposed and Dr. E. S. ROBINSON seconded:

That the consideration of the fees paid by the company mentioned should be postponed until the whole subject had been considered by the Central Council.

Whereupon Mr. W. G. BENNETT proposed and Dr. G. W. CROWE seconded the following amendment:

That in the opinion of this meeting the fees offered by the Royal London Insurance Company are not satisfactory, and that no member of this Division of the British Medical Association should perform the work for such remuneration.

This was carried *nemine contradicente* both as an amendment and subsequently as the motion. Dr. C. POLLARD then moved:

That we do not accept a fee of less than 10s. 6d. for medical examination for life insurance where such examination includes an examination of the urine.

Dr. J. J. COWAN seconded. The motion was carried. Dr. BERTRAM ADDENBROOKE then proposed:

That the discussion of the subject of fees for examination should be postponed to a subsequent meeting, which should be called specially for the purpose if necessary.

Mr. S. C. LEGGE seconded. The resolution was carried. Mr. LIONEL STRETTON mentioned a case in which a medical report given to two companies was duplicated and given to two other companies, one of which refused to pay a fee to Mr. Stretton when asked. Dr. STANLEY HAYNES moved the following four motions:

1. That this Division is opposed to any measure sought to be imposed by the authorities which puts further gratuitous work on the medical profession.

This was carried *nemine contradicente*.

2. That this Division should oppose any proposition that medical practitioners should visit deceased persons without a fee.
3. That no public medical service be instituted without allowances for fees for work done, such fees to be regulated by time and distance, and whether the service be during the night or day.

The CHAIRMAN and HONORARY SECRETARY asked the meeting not to bind itself to this policy, which is not that of the whole of the British Medical Association, although it is what most members aim at. Dr. G. W. CROWE seconded.

4. That a copy of these resolutions be sent to the Central Council, and that a report of the meeting be sent up to London for insertion in the columns of the SUPPLEMENT to the JOURNAL.

All these motions were carried.

*Hospitals and the Treatment of School Children.*—A letter from the Branch Honorary Secretary was read *re* the action taken by the board of the Herefordshire Hospital (on the recommendation of the honorary medical and surgical staff) in regard to the exclusion of children found upon inspection to be defective from treatment at the hospital after, say, June 30th, 1911. It was mentioned that the honorary staffs of the Worcester General Infirmary and of the Kidderminster Infirmary and Children's Hospital did not see the way clear to make any recommendation on the subject to their respective Boards of Management. The meeting then terminated.

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☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## NOTICE OF THE FORMATION OF A NEW BRANCH OF THE ASSOCIATION.

*Punjab Branch.*

NOTICE is hereby given of the following resolution of the Council of January 25th, 1911:

That a Branch of the Association be formed, designated the Punjab Branch, and composed of the members of the Association resident within the area of the Province of the Punjab.

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## BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 24th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for

holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner tickets, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Junior Secretary not later than February 11th.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

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LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

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METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held at St. Bartholomew's Hospital on Tuesday, February 7th, at 4 p.m., by invitation of the hospital staff, when a clinical demonstration of throat cases will be given by Douglas Harmer, F.R.C.S.—A. G. SOUTHCOMBE, Honorary Secretary, Homerton, N.E.

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SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—A meeting of the Division will be held on Tuesday, February 7th, at the Royal Bucks Hospital, Aylesbury, at 3.30 p.m. The annual dinner will be held at the Crown Hotel at 6 p.m., after the meeting. Agenda: (1) Letter from Medical Secretary *re* Pharmaceutical Society and Dispensing by Medical Practitioners. (2) Model Rules for Nursing Associations. (3) Fees in Insurance Cases. (4) Report of Representative (Dr. Bradbrook). (5) Questions *re* Barring of the Holders of certain Appointments from Private Practice. (6) Address by Sir Felix Semon. (7) Position of Practitioners called to Examine Patients who are under the Care of other Practitioners. Any other business. Members who propose to attend the dinner are requested to intimate their intention.—ARTHUR E. LARKING, Honorary Secretary, Buckingham.

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STAFFORDSHIRE BRANCH: SOUTH STAFFORDSHIRE DIVISION.—A meeting of the Division will be held at the Star and Garter Hotel on Thursday, February 16th. Supper (2s. 6d. each) at 8.30 p.m.; meeting at 9.15 p.m. Business: (1) Confirm minutes of last meeting. (2) Treatment of School Children found Defective on Inspection. (3) State Sickness and Invalidity Insurance. (4) Wolverhampton Coroner's Officer. (5) First Aid Hygiene, etc. (6) Model Rules for Nursing Associations. Members who intend to be present at the supper are requested to notify the Honorary Secretary at once.—H. C. MACTIER, Honorary Secretary.

# Vital Statistics.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 21st, 617 births and 430 deaths were registered in the twenty-two principal urban districts of Ireland, as against 617 births and 443 deaths in the preceding period. The annual death-rate in these districts, which had been 16.8, 19.4, and 19.9 per 1,000 in the three preceding weeks, fell to 19.3 per 1,000 in the week under notice, this figure being 2.9 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.4 and 15.4 respectively, those in other districts ranging from 3.9 in Galway and 6.9 in Armagh to 27.3 in Lisburn and 34.3 in Kilkenny, while Cork stood at 24.7, Londonderry at 23.8, Limerick at 20.5, and Waterford at 11.7. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.1 per 1,000 in the preceding week.

# Naval and Military Appointments.

## TERRITORIAL FORCE.

LIEUTENANT-COLONEL ALBERT R. HENCHLEY, M.D., whose promotion has already been mentioned, s commandant of the Second Home Counties Field Ambulance, R.A.M.C. This unit was, we believe, the first medical unit to attain full establishment within six months of its formation.

Major M. D. ERSKINE, R.A.M.C., has been selected for appointment as Staff Officer to the Administrative Medical Officer, Lowland Division.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BEDFORD COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—House-Surgeon (male). Salary at the rate of £60 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary, £120 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

CHESHIRE EDUCATION COMMITTEE.—Third Assistant to the Chief School Medical Officer. Salary, £350 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

DUMBARTON SECONDARY EDUCATION COMMITTEE.—Two Medical Inspectors. Salary, £300 per annum.

ECCLESALL BIERLOW UNION.—Resident Assistant Medical Officer of the Workhouse. Salary, £150 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Resident Medical Superintendent. Salary, 100 guineas per annum and £5 washing allowance.

LIVERPOOL: COUNTY ASYLUM, Rainhill.—Assistant Medical Officer. Salary, £150 per annum, rising to £250.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—House-Surgeon. Salary, £100 per annum.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Physician; (2) Junior House-Surgeon. Salary for (2) at the rate of £80 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Pathologist; Honorarium, £50 per annum. (2) Honorary Anaesthetist. (3) Junior House-Physician; salary at the rate of £50 per annum.

RANSOM SANATORIUM FOR CONSUMPTION, Sherwood Forest, near Mansfield.—Resident Medical Officer (female). Salary, £100 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £80 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

ST. JOHN'S HOSPITAL FOR MANCHESTER AND SALFORD FOR THE EAR AND EYE.—Honorary Anaesthetist.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Honorary Medical Registrar.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male).

## APPOINTMENTS.

BROWN, L., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Bolton Union.

HERRING, J. F., L.R.C.P.and S.Edin., Medical Officer of Health of the Atherstone Rural District.

HEWAT, A. Middleton, M.B., Ch.B.Edin., D.P.H., Assistant Medical Officer of Health and Assistant School Medical Officer to the City of Lincoln.

HOLROYD, J. B. H., M.R.C.S., L.R.C.P.Lond., Resident Assistan Medical Officer of the Sheffield Union Hospital.

HORNE, Maynard, M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S. Assistant Anaesthetist to St. George's Hospital.

LAMBERT, E. C., M.D.Brux., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer of the Wandsworth Union Workhouse.

LANGMEAD, Frederick, M.D.Lond., Assistant Physician to the Royal Free Hospital, Gray's Inn Road, W.C.

LORD, W. J., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Faringdon Union.

MCKAY, Robert, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon to St. Thomas's Hospital.

MARTIN, Robert, L.R.C.P.and S.Edin., etc., Medical Attendant to the Royal Irish Constabulary stationed at Banbridge, Laurancetown, Scarva, and Loughbrickland, vice Dr. Smyth, J.P., deceased.

MOISER, L. H., M.B.Lond., District Medical Officer of the Crediton Union.

PRICE, L. E., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Nuneaton District, co. Warwick.

ROSS, D. B., L.R.C.P.and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Selby Union.

THOMAS, D. R., M.B., Ch.B.Glasg., District Medical Officer of the Cardiff Union.

WALKER, W., L.R.C.P.and S.Edin., Certifying Surgeon for the Mid-Calder District, co. Edinburgh.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGE.

BANKOLE-BRIGHT—BISHOP.—On January 15th, at Wesley Chapel, Freetown, Sierra Leone, Herbert Christian Bankole-Bright, L.R.C.P., L.R.C.S.Edin., etc., son of the late Jacob Galba Bright, Esq., merchant, of that city, to Addah Maud, youngest daughter of the late Honourable T. Colenso Bishop, J.P., ex-Mayor of that city, and sister of Councillor F. A. Bishop, J.P.

### DEATHS.

BLACKER.—January 29th, at 8, Meridian Road, Redland, Bristol, Ernest Blacker, M.D., M.R.C.S., L.R.C.P., son of the late G. F. Blacker, M.R.C.S., of Midsomer Norton.

CULHANE.—On January 30th, at Glin House, Mount Pleasant, Hastings, Mary Lucy, wife of F. W. S. Culhane. Funeral, Hastings Cemetery, 3 p.m., Thursday, February 2nd.

SAWDON.—January 25th, at his residence, 22, Grosvenor Crescent, Scarborough, aged 67, Frederick John Sawdon, M.D.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S, SON AND CO., announce the publication of a fourth edition of the *Compend of Gynaecology*, by Wm. H. Wells, M.D, Associate in Obstetrics, Jefferson Medical College, Philadelphia.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W.—9 p.m., First Lettsomian Lecture:—Mr. Wm. F. Haslam: A Review of the Operations for Stone in the Male Bladder.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor W. d'Este Emery: The Immunity Reaction in Relation to Surgical Diagnosis.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, National Hospital, Queen Square, W.C.—8.30 p.m., Laboratory Meeting:—Dr. C. M. H. Howell: (1) Changes in the Central Nervous System probably resulting from the Administration of "606." (2) The Pathology of Paraplegia in Spinal Caries. (3) Examination of the Central Nervous System in a Case of Syphilis in a Girl aged 21 years. Dr. F. W. Mott, F.R.S.: The Changes in the Nervous System in Amaurotic Idiocy; and other Papers.

### WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Hunterian Oration:—Dr. J. H. Sequeira: The Progress of Dermatology since Hunter's Time.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor W. d'Este Emery: The Immunity Reaction in Relation to Surgical Diagnosis.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W.—5 p.m., Paper: Fleet Surgeon R. C. Munday, R.N., on Beri-Beri: Its History in the Navy and in the Persian Gulf.

### THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, London, W.—8.30 p.m., Papers:—Mr. Jackson Clarke, F.R.C.S.: Two Cases of Abscess of Liver Complicating Appendicitis. Dr. McCann: The Surgical Treatment of Sterility in Women.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Card Specimens:—Mr. Grimsdale: Irideremia and Deformity of Lens. Mr. Brewerton: Symmetrical Marginal Corneal Degeneration. Papers:—Mr. Leslie Paton and Dr. Gordon Holmes: Histo-Pathology of Papilloedema.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor B. Moore: New Views on the Chemical Composition and Mode of Formation of Renal Calculi and the Metabolism of Calcium in Gout and Allied Conditions.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W.—8 p.m., Cases:—Dr. H. Fletcher Morley: Infantilism with Genu Valgum and Chronic Nephritis. Dr. H. D. Rolleston and Dr. C. H. S. Taylor: A Result of "Late Rickets"; and other cases.

### POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Acute and Chronic Inflammatory Lesions of Bone, Syphilis, Tuberculosis, etc. Thursday, 4 p.m., Demonstration of Surgical Cases. Friday, 5.15 p.m., Diseases of Bone. Tumours, Fractures, Separation of Epiphyses, Dislocations.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday: Skin, at noon and 4 p.m., Tuesday and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., Anaesthetics. Wednesday, 3.30 p.m., Differential Diagnosis of Common Diseases of the Eye. Thursday, 4.30 p.m., Diphtheria: Its Later Manifestations.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat Lectures at 5.15 p.m. each day will be given as follows: Monday, Arterio-Venous Aneurysm. Tuesday, Essentials to Modern Treatment of Fractures. Wednesday, Piles: Their Pathology and Treatment (*continued*). Thursday, Mixed Morbid Conditions in the Chest.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Muscular Atrophy. Friday, 3.30 p.m., Paraplegia and Pott's Disease.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C. Thursday, 6 p.m., Fungous Diseases of the Skin: (1) Tinea Circinata; (2) Tinea Imbricata; (3) Tinea Versicolor; (4) Erythrasma; (5) Actinomycosis; (6) Madura Foot.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m. Lecture: Practical Medicine, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m.: Monday, The Tragedies of Ocular Disease. Tuesday, Rheumatism in Childhood. Wednesday, Disseminated Sclerosis, with Cases. Thursday, Early Cases of General Paralysis. Friday, Practical Medicine.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **FEBRUARY.** | |
| 5 Sunday .. | |
| 6 MONDAY .. | |
| 7 TUESDAY .. | LONDON: Metropolitan Counties Branch, Conference *re* Hospital Out-patient Question, 4.30 p.m.<br>BUCKINGHAMSHIRE DIVISION, *South Midland Branch*, Royal Bucks Hospital, Aylesbury, 3.30 p.m.; Annual Dinner, Crown Hotel, 6 p.m.<br>CITY DIVISION, *Metropolitan Counties Branch*, St. Bartholomew's Hospital 4 p.m. |
| 8 WEDNESDAY | LONDON: Medical Inspection and Treatment of School Children Sub-Committee, 12 noon.<br>LONDON: Hospitals Subcommittee *re* Abuse of Hospital Out-patient Departments, 4 p.m. |
| 9 THURSDAY .. | SOUTH WALES AND MONMOUTHSHIRE BRANCH, Clinical Meeting, Cardiff. |
| 10 FRIDAY .. | |
| 11 SATURDAY .. | |
| **FEBRUARY** *(continued)*. | |
| 12 Sunday .. | |
| 13 MONDAY .. | LONDON: Organization of Medical Students Subcommittee, 1.30 p.m.<br>LONDON: Regulations and Standing Orders Subcommittee, 2.30 p.m. |
| 14 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m. |
| 15 WEDNESDAY | LONDON: Conference of Special Poor Law Reform Committee and Contract Practice Subcommittee, 12 noon.<br>LONDON: Special Poor Law Reform Committee (immediately after above Conference).<br>RICHMOND DIVISION, *Metropolitan Counties Branch*. Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 16 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m.<br>BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.<br>SOUTH STAFFORDSHIRE DIVISION, *South Staffordshire Branch*, Star and Garter Hotel, Supper, 8.30 p.m.; Meeting, 9.15 p.m. |

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# SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 11TH, 1911.


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# An Address

ON THE

# PROSPECTS OF HOSPITAL REFORM.

DELIVERED BEFORE THE TOTTENHAM DIVISION ON FEBRUARY 3RD, 1911,

BY


**J. FORD ANDERSON, M.D.,**

PAST-PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH.


I MUST first thank the Tottenham Division for the great honour they have done me in asking me to give an address on the question of hospital reform. Your Honorary Secretary reminded me that I have discoursed on this subject before, but I am glad to say that I can speak this time more hopefully of the future than I have been able to do on former occasions, and there are some gleams of hope that better days are coming. The moment is specially appropriate for investigating the present position of hospital reform, in view of the fact that the British Medical Association has been invited to give evidence before the special committee appointed by the King's Hospital Fund to inquire into the out-patient question. I have to add that throughout my remarks I shall deal with the out-patient question only, and with special reference to London conditions.

### AIMS OF HOSPITALS.

Before dealing with the prospects of reform I shall refer to the original aims of the hospitals, and then in more detail to the defects that now call for removal.

For the origin of our hospitals we can have nothing but appreciation; they were founded for and aimed at curing rather than palliating the evils of poverty, and strengthening character sufficiently to keep the recipient of charity within the pale of society, but as we find these hospitals in our day abuses have crept in to such an extent that they actually create the faults which they were designed to meet. There is no chance of strengthening character by practically advertising that all may apply without let or hindrance, and we are only unjust stewards to the public if we allow such a system to continue.

So far as the hospital staffs are concerned, they have always been looked up to for guidance in medical science, and I trust that this will always be the case. In the ages gone by they were the only lights in the profession; but it must be recollected that in the old days the profession was divided into those who knew something and those who knew nothing, and the better educated and the better equipped occupied the hospital posts. That was no doubt right, but in our day the situation is changed. The portals of the profession are approximately the same for all; practically the same tests of knowledge are required from all; and whether they call themselves consultants or practitioners is often due to personal circumstances unconnected with their professional efficiency, and I would ask if it is right that a large portion of the profession who may have been highly esteemed and trusted during their time of pupilage should be excluded from hospital opportunities and even subjected to hospital competition when they settle in practice.

I would now ask you to look a little more closely into the defects of hospitals to which I have referred.

### OUT-PATIENT AND CASUALTY ABUSE.

In considering out-patient and casualty abuse we must keep in view the interests of the beneficiaries for whom hospitals exist, the subscribers who provide the means, and the medical staff, who are the stewards of both the others.

I will not attempt to discuss the subject systematically under these three classes, as it would entail repetition to do so and take too much time. Surely it is not an ideal arrangement for the beneficiaries that they should as a matter of course fly to the out-patient departments of hospitals when the day of sickness comes. Such a system perpetuates the helplessness of the sick child, who properly runs to its mother, but it is scarcely calculated to maintain virility and independence if continued into adult life.

I need scarcely labour this point of the demoralizing effect on the patients. The extent to which out-patients are increasing in London is disquieting. About 2,000,000 new out-patients are treated annually, and practically all these could be treated elsewhere, and could be better treated elsewhere, if the out-patient departments would withdraw their competition—a large number as private patients and many as provident dispensary and Poor Law patients. In each class many practitioners are deprived of opportunities of practice, with the loss of experience, loss of healthy stimulus in their work, which they cannot follow to the end, and loss of emolument.

That these statements are correct you will admit; you must see it in the disappointments and hardships of the doctors near the great hospitals, in the sixpenny fees, in the languishing provident dispensaries whose patients prefer the cheaper hospital; and, as if the out-patient departments were not full enough, some hospitals are tempting a higher social class to come in by collecting small payments. Such payments, I need scarcely add, create a false idea of sufficient payment, and intensify the unfair competition with the neighbouring practitioners, and patients who can quite well afford even the normal charges outside become habitual attendants at the hospital. It would be difficult for a new student of this subject to guess at first what interest the hospitals can have in such practices; but on reflection it is not far to seek.

The numbers in the congested casualty and out-patient departments appeal to the public—they do duty as advertisements. When the public see that several hundred thousand patients have been "relieved" they open their purse-strings, and it is said that the great hospital funds are similarly influenced; but that is not all: the casualty and out-patient departments act as feeders to the hospitals, and are said to be necessary for the supply of material for teaching. I may say here that the free treatment at the first attendance of real emergency cases at all hours of the day and night is one of the glories of our hospitals which can only excite our warm approval; but the spurious casualty departments, some of which are open at stated hours, are really out-patient departments disguised under another name, only more mischievous owing to the absence of checks.

I do not mean to imply that subscribers' letters are a sufficient check on abuse of out-patient departments. On the contrary, they have been the cause of much abuse, and have been condemned by practically all independent bodies, and they have been discontinued at many hospitals, as it has been found that they were given to persons able to pay for medical advice, or to those suffering from illnesses unsuitable for hospital treatment, and employers of labour practically buy those letters as a sick insurance for their employees, frequently obtaining in return five or six times the value of their subscriptions in medical comforts and maintenance. This, apart from anything else, can scarcely be called a remunerative transaction for the hospitals.

I should like here to refer to a statement made by Lord Kilmorey, Chairman of Charing Cross Hospital (*Daily Mail*, April 25th, 1906). He says: "A great evil, which we feel keenly in Charing Cross Hospital, is the presence of patients who can well afford to pay and come from a long distance." My comment on this important statement is that it expresses the situation not only in Charing Cross Hospital but in all the important London hospitals; amongst them they treat half the population of London and also many patients from a distance. Why do these patients leave their own local and well-equipped hospitals to come to London hospitals? Whatever the cause may be, whether the patient comes of his own accord or is sent by his local doctor, it throws an interesting sidelight on the working of provincial hospitals. If an opinion is required by the local practitioner on an important case, and the patient is economically suitable, there can be no objection to the visit to London, but there is reason to believe that patients and doctors often prefer a London hospital only because it is away from their locality.

### HOSPITAL TREATMENT OF SCHOOL CHILDREN FOUND DEFECTIVE ON INSPECTION.

I cannot do more than refer to this subject. In London and elsewhere there have been agreements between voluntary hospitals and local authorities to treat those children, the hospitals being paid by the local authority for so doing. That is to say, the voluntary hospitals treat, for money, cases which are outside their province and should be attended to by practitioners, and even if the hospitals work gratuitously for the authority, they are competing unfairly with practitioners and using voluntary funds to save the rates. This view is in agreement with the pronouncement of the British Medical Association which I shall quote later.

### RESULTS OF TREATMENT.

I will now consider whether the medical advantages neutralize the objection to casualty and out-patient departments. My own view is that the system is faulty so far as the physical betterment is concerned. A vision rises of the squalid gatherings in the out-patient and casualty departments of large London hospitals. The patients must be seen, the material for teaching and study must be selected, and those cases which are chosen for treatment have, it is admitted, every care so far as the conditions permit. But what of the others? Is it likely that, at the rate of one patient per minute, the medical or surgical bearing of cases can be grasped? Most emphatically they cannot, and, after their long wait, patients are sent away often with a doubtful diagnosis and a bottle of physic; they are prescribed for in ignorance of their means and their environment, and they have no further medical supervision in their poor homes to note and treat the changes which so often occur in the progress of cases. The hardship of the situation described is especially manifest in the case of Poor Law patients, and still more in the case of those who are of similar class to Poor Law patients—that is, the destitute.*

It follows from what has been said that, at the best, the system in the out-patient and casualty departments of great London hospitals is wasteful, and if I may be permitted to use a simile, it suggests a pearl fishery where the pearl oysters are carefully kept and the blanks are thrown away.

### RESPONSIBILITY FOR DEFECTS OF HOSPITAL.

Who have been responsible for the state of things which exists? It is difficult to say. Technically it is the governing bodies of the hospitals, but I fear we cannot altogether exonerate the medical staffs. We hear nothing but respect expressed for the way our hospital staffs use their opportunities for the advance of medical science, but in matters of hospital ethics, in so far as they affect the interest of the outside profession, they have been hitherto—with some notable exceptions—strangely passive. One hears it said by hospital physicians and surgeons that they have no taste for medical politics, but, with much respect, I would remind them that their high privileges carry with them duties to their working brethren outside the hospitals, and their disinclination to fulfil these duties scarcely meets the case. Much might have been done by them to satisfy the nearly unanimous cry of the profession for reform by influencing the governors of the hospitals, and especially in co-ordinating the work of the hospital and domiciliary visiting outside, on the lines adopted by scrupulous specialists in private practice, and in other ways. I know of one incident in a large London hospital when the staffs might have arrested a scheme for collecting payments from out-patients by voting against it, but for some reason which probably seemed good to them, they missed the opportunity of preventing a policy which has had most serious results for practitioners in the neighbourhood of the hospital, and, in my opinion, for the poor.

I am speaking here of what has happened in the past, but later in this paper I shall gladly acknowledge indications of a new spirit of co-operation in our friends in the hospitals which I trust will bear fruit and bring peace on the vexed question of hospital reform.

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*Miss Roberts, in her report to the Royal Commission on the Poor Laws, calculates: (1) That the extent to which patients receiving out treatment at the voluntary general hospitals are actually Poor Law cases is about 11 per cent.; (2) that the proportion of hospital patients who may be said to be of similar class as applicants for medical relief from the parish is about 38 per cent. (this proportion includes the aforesaid 11 per cent.).

### IMPROVED PROSPECTS OF REFORM.

There have been efforts at reform in former years; in the early Seventies, for instance, there was an agitation, and a public meeting of the profession was held, and the outcome of it all was the passing of resolutions for reform similar to those suggested in our day, such as consultation in out-patient departments and reference of cases to private practitioners and provident dispensaries or their equivalent—but it all ended in doing nothing; there was no shepherd, no co ordinating head.

### WORK OF THE BRITISH MEDICAL ASSOCIATION.

Now, we have a well-organized body in the British Medical Association, capable, with the aid of the hospital staffs, of almost compelling reform.

I will now describe the work of the British Medical Association in this matter. For seven years the committees have been working continuously at this subject of reform, and their recommendations are gradually receiving more and more consideration, and are adopted in many cases. There are two hospitals where many suggestions of the Association have been adopted with satisfaction to the hospital and to the neighbouring practitioners. I refer to Bolingbroke Hospital and the Dreadnought Hospital for Seamen at Greenwich, and I believe I am correct in saying that the Prince of Wales's Hospital, where we meet to-day, is in favour of a progressive policy.

What has the British Medical Association done? The British Medical Association began by issuing the Model Rules—I need scarcely give them in detail, as most of them have become public property—and they have been applied in some hospitals.

I submit a summary of these model rules, with short comments. The full text of these and the later pronouncements of the British Medical Association are in the hands of the meeting.

1. General principle of discrimination. (Inability to pay for adequate treatment is the test.)
2. Subscribers' letters. (Disapproved with modifications in some localities.)
3. Investigations as to suitability (by Almoner).
4. Recommendations 1, 2, and 3 to apply to all patients.
5. Evidence of suitability. (Unable to pay and suitable for treatment from hospital point of view.)
6. Urgent cases. (First attendance only.)
7. Trivial cases. (If ineligible to be referred elsewhere.)
8. Medical inspection of all cases. (To be seen by registered medical practitioner.)
9. Limitation of work of medical officers.
10. Scope of special hospitals. (To treat only cases within scope of work.)
11. Age limit for retirement.
12. Co-operation of hospitals.
13. Pay wards. (No objection if open to whole profession.)
14. Scope of out-patient departments. (Primarily for consultation.)
15. Reference elsewhere of unsuitable cases.
16. Co-ordination of hospitals with public medical services and provident dispensaries.
17. Notices to facilitate co-operation.
18. Reference of cases for special advice. (To be referred back after consultation.)
19. Relation of hospitals to the Poor Law Medical Service.

**The Representative Meeting has passed, besides the original model rules, additional important resolutions bearing on reform of hospitals. Thus, the following subjects were dealt with:**

1908. Gratuitous medical treatment of rate-maintained persons. (Disapproved of.)
1909. Reference of school children to charities. (Disapproved of.)
1909. Certificates of suitability for hospital treatment. (Medical certificates to be required, except in a case of casualty at its first attendance. Approved.)
1909. Fresh public medical institutions. (Local profession should be consulted.)
1909. Representation of local medical profession on boards of hospitals and similar bodies. (Approved.)
1909. Contributions to hospitals by employers of labour and employees. (No claim to hospital treatment to be based on these.)
1909. Gratuitous treatment of ophthalmia neonatorum. (Public authorities should be relieved of this duty.*)

* Copies of Model Rules and other pronouncements of the British Medical Association (1905 to 1909 inclusive) on hospitals, kindly provided by the Medical Secretary, were circulated in the meeting.

I shall personally comment in a few words on those resolutions of the Association. In the first place, I should like to adopt the resolutions, as I consider them trustworthy guides for the future management of hospitals. I am convinced, to use the words of Model Rule 14, "That the primary object of out-patient departments should be for consultation." It is the only solution of our difficulties which will satisfy the medical profession generally. It might be expedient in the transition stage to make a more or less gradual change, but it should never be lost sight of that our only hope lies in carrying out Model Rule 14. As to the other rules and resolutions, they are corollaries to Model Rule 14, and I have dealt with the subject-matter of some of them already, and will only mention here two points which are most important. I refer to the evidence of suitability of patients and the representation of the local profession on boards of hospitals.

The suitability should be chiefly determined by the practitioner, as he knows the economic and the medical fitness, but I see no objection to revision of the economic side of the question by an almoner. The representation of the local profession on boards of hospitals would be a most valuable means of co-ordinating hospital work with public and private practice outside. This has been tried with success in several provincial hospitals since it was proposed at the Hospitals Conference of 1908.

### ROYAL COMMISSION ON POOR LAWS.

A few years ago the British Medical Association gave evidence before the Royal Commission on the Poor Laws and the Model Rules were practically accepted, and as a result the Majority Report, in acknowledging the evidence of the British Medical Association, made the following most important statement:

> "Until, therefore, the work of the out-patient department is delimited in such a way as to prevent overlapping between its sphere and that of the Public Assistance Authority, and to leave full scope for private practice and provident effort, any endeavour to reform the system of public medical assistance will be locally thwarted. Indeed, all attempts to create order out of the present chaos will be disappointing. Even in the interest of the out-patient departments themselves a reform appears to be expedient in order to secure the greatest benefits from the treatment which they so lavishly bestow and to prevent those benefits from being abused by the well-to-do. Suggestions for remedying the abuse of out-patient departments have been laid before us by many witnesses, but by none more fully than the representatives of the British Medical Association. We are convinced with them that a strenuous effort should be made to circumscribe the work of the out-patient departments. They should be used almost exclusively for: (1) Casualties; (2) consultations; (3) cases requiring expensive equipment for the treatment of special diseases and defects. To this end the "letter" system should be thoroughly reformed or abolished, and, except for casualties, the recommendation of a medical officer or private practitioner substituted. We recommend, therefore, that the work of the out-patient departments of the voluntary hospitals should be organized on these lines, that they should be protected from abuse by the well-to-do, and that a strong endeavour should be made to bring their work into co-operation with that of the new organization of medical assistance which we propose to set up."

These recommendations may prove to be the first step in a new era for the profession, and in any case the courteous reference to the evidence given by the British Medical Association is very gratifying.

### ATTITUDE OF HOSPITAL STAFFS.

It is difficult to obtain from hospital staffs the reason of their inaction in the matter of reforming the out-patient system, but I understand that one reason is the fear that the teaching functions will be

affected, and another is that they consider practitioners incapable of carrying out the treatment. With regard to the first, I am sure that selected cases are best for teaching. The hospital officers select the cases themselves at present, but under the reform scheme the selection would be made by practitioners, who would send or bring their obscure and important cases for consultation, and as I believe good-will instead of suspicion will then reign, the practitioners may be relied on to co-operate loyally with the staffs by supplying cases of interest for teaching purposes.

With regard to the charge of incapacity of practitioners, it is only a sweeping statement regarding a large and varied class, and I can positively say that it is untrue so far as that class is concerned. I do not pretend that individual practitioners are equal to all emergencies, but if they co-operate in public medical services or combines of some sort—as they are doing successfully in some Divisions, under local education authorities, in the treatment of school children found defective on inspection—then they will be strong, for the same reason that the combined staff of any hospital is strong, and they will be capable of doing all that is required of them. I must, however, add that one does not hear the charge of incompetency made in general meetings of the profession nowadays, probably because the hospital staffs have come to realize the truth of the obvious retort that if practitioners are as incompetent as they say, they must have been badly taught in the hospitals.

Notwithstanding my reference here and previously to the action, or rather inaction, of hospital staffs as a cause of the continuance of the out-patient abuse, I think it only right to mention that there has been a growing willingness on their part to listen to our representations in the last year; thus, whereas formerly, when the British Medical Association began to act in this matter in the hope of bringing the hospitals into line with the views of the Association and of practitioners generally, our suggestions were often resented as an invasion of the rights of property, nowadays, on the contrary, there are indications that we are listened to, the hospitals being satisfied that the Association only desires the good of the profession as a whole. That, if my conjecture is true, as I think it is, is a great gain, and will smooth our path in future negotiations. As evidence of the desire of the hospital staffs to co-operate with the Association I shall describe two incidents which have occurred comparatively recently:

1. Negotiations with King's College Hospital.
2. Appointment of special committee of King's Fund on out-patient departments and co-operation of hospital staffs in connexion therewith.

1. In negotiating with King's College Hospital on the subject of out-patients in their new hospital at Camberwell, when we represented the views of the practitioners in South London, we were courteously received by the staff of King's College Hospital, and finally they accepted most of our suggestions. On one or two of the model rules they were not quite in agreement with us—thus, they would not accept the principle that "the primary object of an out-patient department should be for consultations," they were not quite prepared for that, but they accepted an older principle of the British Medical Association, "that consultations shall, as far as possible, be encouraged in out-patient departments." I do not see myself much difference between the two forms; the important point gained is that it rests with the South London practitioners to carry out their part of the agreement and push consultations in the out-patient department "as far as possible." The staff of King's College Hospital, on the same occasion, expressed approval of the abolition of subscribers' letters and appeared to favour medical certificates of suitability for hospital treatment in conjunction with Almoner's approval. We had every reason to be grateful for the courtesy of our reception and for the substantial concessions accorded by the staff. I have only now to express the hope that if the consultation scheme is carried out the practitioners will be met by members of the visiting staff.

2. With regard to the invitation to the British Medical Association to give evidence before a special committee of inquiry appointed by the Governors of King Edward's Hospital Fund for London, there have been several conferences between nominees of the Association and representatives of the hospital staffs to consider the evidence to be given, and the members of the conference were grateful for the kind and able co-operation of the representatives of the staffs. The following is the reference to the special committee of the Fund:

> "To consider and report generally as to the circumstances and conditions under which patients are admitted to the casualty and out-patient departments of the London voluntary hospitals, and especially as to what precautions are taken to prevent the admission of persons who are unsuitable, and as to whether adequate provision is made for the admission of such persons as are suitable, and to make such recommendations as may seem to them desirable."

I may mention that the special committee consists of Lord Mersey (Chairman), Lord Northcote, and the Bishop of Stepney.

The reference to the Committee of the King's Fund is far-reaching so far as casualty and out-patient departments are concerned, but as the evidence will be based on some of the decisions of the Association which I have already mentioned, I feel no doubt that the conferences and committees working under the auspices of the British Medical Association will be able to evolve a satisfactory and convincing scheme for the consideration of the special committee of the King's Fund.

I have now tried to place the situation with regard to hospital reform before the Division, and, although I have kept within the lines of well-considered opinion, I wish to say that I am alone responsible, apart from quotations, for the views advanced. The necessity and urgency of reform have been happily expressed in the extract from the report of the Poor Law Commission which I have quoted. It makes it clear that we are at the parting of the ways, and the outcome of the impending inquiry will decide the future of the medical profession, either for good or for evil, for a generation to come.

The question to be decided is this: Shall we of the profession live in amity, co-operating for the common good, or shall chaos and distrust be perpetuated? For, until and unless the out-patient system is radically reformed, it matters not what scheme is adopted for the domiciliary care of the poorer classes—it may be public medical assistance in the sense of the Commission, or public medical services, or State sickness insurance—they are all doomed to fail, as every attempt of the kind fails now, before the dominating and privileged abuse of the out-patient system.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## METROPOLITAN COUNTIES BRANCH:

### CHELSEA DIVISION.

A MEETING of this Division was held on January 10th at the Chelsea Town Hall, Dr. JAMES YOUNG in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Apology for Non-attendance.*—A letter was read from Dr. G. H. Coltart, regretting his inability to be present.

*State Sickness and Invalidity Insurance.*—Resolutions on this question from the Altrincham Division were read, and the Secretary was instructed to

acknowledge them, and to state that this meeting of the Chelsea Division approved of them.

*Ophthalmic Surgeon to Walthamstow Education Authority.*—A voluminous correspondence from the Walthamstow Division was read, setting forth the points at issue between the practitioners of Walthamstow and the local education authority *re* the appointment of an ophthalmic surgeon. The Secretary was instructed to acknowledge receipt of the correspondence, and to state that this Division entirely approved of the attitude of the profession in Walthamstow.

*Fees for Medical Examination for Insurance.*—A letter from the Medical Secretary of the Association was read, and it was moved by Dr. BUTLER, seconded by Dr. PARSONS, and carried *nemine contradicente:*

> That this Division is of opinion that the minimum fee for full examination and report should be 1 guinea.

*First Aid and Hygiene.*—It was moved by Dr. FLETCHER, seconded by Dr. BENHAM, and carried unanimously:

> That this Division is of opinion that the minimum fee for lectures on these subjects should be 1 guinea.

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### TOTTENHAM DIVISION.

THE fourth ordinary meeting for the session was held at the Prince of Wales's Hospital, Tottenham, on February 3rd. In the absence of the Chairman, Dr. J. R. FULLER was moved to the Chair. Twelve members and one visitor were present.

*Confirmation of Minutes.*—The minutes of the third ordinary meeting of January 13th were read and confirmed.

*Advertising by a Midwife.*—The case was reported, and the HONORARY SECRETARY detailed the steps taken to put a check on such practice.

*Medical Treatment of School Children.*—As the result of the submission of the Division's resolutions on this subject to nine local education authorities, two had formally considered the matter, and had replied. The Education Committee of Edmonton had "decided to take no action in the matter." That of Enfield found it necessary only "to formally acknowledge the receipt" of the resolutions. The *Tottenham Herald*, in its leading article devoted to the subject on January 27th, had commented favourably on this "interesting set of resolutions," and urged on another page that "the subject had not received the consideration that it was entitled to" at the hands of the local education authorities.

*A Public Medical Service.*—The subcommittee appointed on January 13th to deal with this subject presented its report, with recommendation. The report was received, and after discussion the recommendation was adopted by unanimous vote.

1. That each of the several wards of the Division forthwith appoint a "Public Medical Service Executive," with "officers."
2. That these members be prepared to act so soon as circumstances arising in connexion with the State Invalidity Bill, the arrangements for the medical treatment of school children, or the conditions of contract practice make such action desirable.
3. That the Public Medical Service Executive be a standing committee of its ward.

*Hospital Reform.*—Dr. J. FORD ANDERSON, who was cordialiy received, delivered an address on hospital reform, which is published at p. 49.

*Vote of Thanks.*—A cordial vote of thanks to Dr. Ford Anderson, gracefully acknowledged by him, closed the proceedings.

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### WESTMINSTER DIVISION.

A MEETING of this Division was held on Thursday, January 12th, at the Criterion Restaurant.

*Dinner.*—The business part of the meeting was preceded by a dinner. Dr. F. J. ALLAN (Chairman) presided, and there were twenty members present.

*Apologies for Non-attendance.*—Apologies for absence were received from several members.

*Some Points Connected with the Serum Treatment of Diphtheria.*

Dr. E. W. GOODALL, Medical Superintendent, Eastern Fever Hospital, read a practical paper on some points connected with the serum treatment of diphtheria, illustrated by a number of photographs showing skin eruptions following the use of antitoxin, which is published in this week's JOURNAL, p. 292.

Dr. EWART, in commenting upon the clinical pathology of the urgent symptoms and of the fatal results described by the author, invited an expression of opinion from him as to the line of treatment best suited to the emergencies. He offered the suggestion that in some instances, such as those referred to, venesection might, perhaps, be found of service, as it had proved to be in a variety of asphyxial conditions.

Dr. L. N. LEMPRIERE said that in dealing with a special class of patients—that is, boys—at a public school he found great value from the use of antitoxins in non-diphtheritic throats with tonsillar exudation, and practically always used it. He had noticed that antitoxin rashes, etc., were decidedly less frequent in true diphtheria than in non-diphtheritic throats, and less frequent also when high potency serum was used.

Mr. LAUNCELOT ARCHER asked whether in cases of children excluded from school by the medical inspector, in consequence of his finding diphtheria bacilli present in the throat, but without any clinical signs of illnes of any kind, it would be a proper and useful procedure to give antitoxin, either as a prophylactic, or with the object of destroying the bacilli. He further observed that in cases in which severe febrile and urticarial results were seen after the injection of antitoxic serum it appeared to be the serum, and not the bacillary contents, which caused the adverse symptoms, for he had seen several cases in which such symptoms followed the injection of serum (not only diphtheria, but also antigonococcus and antistaphylococcus), but in which the use of the vaccines was followed by no ill effect whatever.

Dr. FINUCANE said that after listening to the able and interesting paper by Dr. Goodall, he wondered if he really approved of the recent order of the Local Government Board in reference to the free distribution of antitoxin serum amongst the profession. For his part "where ignorance is bliss 'twere folly to be wise" of the grave dangers which the lecturer had pointed out as attending so frequently the administration of this serum, and it might be that with its more general use "Fools might rush in where angels fear to tread." That the dangers were real Dr. Goodall had amply shown; and it seemed to him, in view of the prompt recognition of a bad throat and early notification—without regard to its diphtheritic character—followed by prompt removal of the patient to the Metropolitan Asylums Board hospitals, with their magnificent and efficient services and highly skilled experts, that treatment with antitoxin might well be left to these gentlemen to carry out. Further, he would like to know if there had been any evidence or statistics in throat cases in the Metropolitan Asylums Board experience whereby a more prompt use of antitoxic serum previous to removal to hospital would have affected the mortality figures or the severity of the attacks.

Dr. BRAXTON HICKS asked Dr. Goodall whether it was his experience that antitoxin rashes showed a tendency in certain cases to recur in the same individual without a further injection, and quoted three instances in which antitoxin taken from a stock not known to be giving rise to a great percentage of rashes after injection had given rise to a recurrence of rashes.

1. A ward sister; mild attack of faucial diphtheria; severe generalized urticaria on tenth day after injection, which lasted two days. Two recurrences at intervals of ten days of a slighter nature.
2. Female; mild faucial diphtheria; rash about tenth day after injection; recurrences followed at irregular intervals.
3. Himself after 25 c cm. antistreptococcic serum for a septic arm after *post-mortem* wound. Severe generalized urticaria on evening of tenth day after injection, starting at site of inoculation and spreading rapidly. Two slight recurrences at seven days' interval.

He also agreed with Dr. Archer that vaccines as opposed to antiserums did not give rise to rashes, and in two years' experience with vaccines he had not seen a rash after injection of vaccine.

The CHAIRMAN, in conveying the thanks of the Division to Dr. Goodall, said he trusted that antitoxin would be made use of by the profession in such cases as might seem desirable. He was anxious that it should be used rightly and with caution, so that discredit might not be brought upon a mode of treatment the value of which was extremely high.

Dr. GOODALL, in reply, said he was much interested in Dr. Ewart's suggestions. He thought that in some of the cases he had quoted intubation or tracheotomy might be employed until the suffocative symptoms subsided. He believed them to be due to the swelling of the mucous membrane due to an eruption similar to the urticaria appearing externally. He was interested in Dr. Lempriere's results, which did not quite agree with his own; probably the class of patient might account for the difference. In reply to Mr. Archer's question, he said that antitoxin had not the slightest effect in removing the bacilli from the throat. When patients were to be moved to hospital within a few hours, he did not consider it to be of any use to the practitioner to administer a dose of antitoxin before removal. With reference to the recurrence of rashes mentioned by Dr. Braxton Hicks, he thought it possible that a mixed serum derived from more than one animal might have such an effect, as the serum from one source might cause a rash at a later date than that from another. He was much interested in the cases quoted by Dr. Braxton Hicks.

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

### ELECTION OF CENTRAL COUNCIL 1910-11.

FOR this constituency, which had not previously made any nomination for representation on the Central Council, the following is declared duly elected:

| *Grouped Branches.* | *Name of Representative.* |
|---|---|
| South Australian, Western Australian, and Melbourne and Victoria Branches. | Dr. C. G. D. Morier, 65, Hamilton Terrace, St. John's Wood, N.W. |

By Order,
GUY ELLISTON,
*Financial Secretary and Business Manager.*
February th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 24th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner tickets, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Junior Secretary not later than February 11th.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Altrincham Division will be held at the Brooklands Hotel on Wednesday, March 1st, at 4.30 p.m. A dinner will be held afterwards if sufficient names are sent in to the Honorary Secretaries. R.S.V.P. Further particulars in future notices.—H. G. COOPER, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BLACKPOOL DIVISION.—A meeting of the members of this Division will be held on February 16th, at 8 p.m., at Jenkinson's Café, Talbot Square, Blackpool. Agenda: (1) Minutes of the last general meeting. (2) Apologies for absence. (3) Minutes of Executive Committee, January 12th. (4) Address by Dr. T. W. H. Garstang, Representative Lancashire and Cheshire Branch on the Central Council, on (*a*) the Work of the British Medical Association; (*b*) State Invalidity and Sickness Insurance. (5) Any other business.—E. W. REES JONES, Honorary Secretary of the Division.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The Hampstead Division will meet at the Conservatoire this evening, Friday, February 10th, at 8.30 p.m., to consider general business and to hear a paper at 9 p.m. by Dr. P. J. Cammidge, entitled, The Differential Diagnosis of the Commoner Causes of Chronic Jaundice. Members are reminded that they have the privilege of introducing friends.

SOUTHERN BRANCH: WINCHESTER AND SALISBURY DIVISIONS.—A combined clinical meeting of these Divisions will be held at the Star and Garter Hotel, Andover, on Wednesday, February 22nd, at 8 p.m. Dinner will be provided at the hotel at 7 p.m. at 5s. per head (morning dress). Members wishing to dine are requested to communicate with the Secretary of their Division on or before February 18th.—H. J. GODWIN, Winchester, J. E. GORDON, Salisbury, Honorary Secretaries.

STAFFORDSHIRE BRANCH: SOUTH STAFFORDSHIRE DIVISION.—A meeting of the Division will be held at the Star and Garter Hotel on Thursday, February 16th. Supper (2s. 6d. each) at 8 30 p.m.; meeting at 9.15 p.m. Business: (1) Confirm minutes of last meeting. (2) Treatment of School Children found Defective on Inspection. (3) State Sickness and Invalidity Insurance. (4) Wolverhampton Coroner's Officer. (5) First Aid Hygiene, etc. (6) Model Rules for Nursing Associations. Members who intend to be present at the supper are requested to notify the Honorary Secretary at once.—H. C. MACTIER, Honorary Secretary.

# Vital Statistics.

### HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,232 births and 5,310 deaths were registered during the week ending Saturday, January 28th. The annual rate of mortality in these towns, which had been 14.3, 15.5, and 16.4 per 1,000 in the three preceding weeks, fell to 16.1 per 1.000 in the week under notice. In London the death-rate was equal to 16.3 per 1,000, against 14.1, 15.3, and 17.1 in the three previous weeks. Among the seventy-six other large towns, the death-rates ranged from 6.8 in Hastings, 7.4 in East Ham, 8.4 in Handsworth (Staffs), 8.5 in Walthamstow and in Burton-on-Trent, and 8 7 in Hornsey, to 20.2 in Birkenhead, 21.0 in Swansea, 21.1 in Halifax, 22.8 in Brighton, and 26.5 in Coventry. Measles caused a death-rate of 1.9 in Coventry, 2.6 in Bury, 2.8 in Grimsby, 2.9 in Sheffield, and 4.6 in Rotherham; and whooping-cough of 1.6 in Croydon, and 2.1 in Norwich and in Warrington. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 5,310 deaths recorded in the seventy-seven towns during the period dealt with, 41 were uncertified either by a registered medical practitioner or by a coroner, and included 6 in Liverpool, 4 in Stoke-on-Trent, and 3 apiece in Birmingham, St. Helens, and Sheffield. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,491, 1,410, and 1,349 at the end of the three preceding weeks, further declined to 1.311 on Saturday, January 28th; 129 new cases were admitted during the week, against 154, 135, and 126 in the three preceding weeks.

### HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, January 28th, 889 births and 576 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16 6 and 14.8 per 1,000 in the two preceding weeks rose to 15 7 in the week under notice, and was 0.4 per 1,000 below the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 11 1 in Perth and 11 3 in Aberdeen, to 18 4 in Leith, and 19 0 in Greenock. The death-rate from the principal infectious diseases averaged 1.3 per 1,000, being highest in Paisley and Leith. The 276 deaths from all causes registered in Glasgow during the week included 2 from enteric fever, 4 from scarlet fever, 5 from whooping-cough, 2 from diphtheria, and 3, of children under 2 years of age, from diarrhoea and enteritis. Three deaths from whooping-cough were recorded in Dundee; 2 deaths from diphtheria and 2 from whooping-cough in Paisley; and 2 deaths from diphtheria and 3 from whooping-cough in Leith.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 28th, 597 births and 476 deaths were registered in the twenty-two principal urban districts of Ireland, as against 617 births and 430 deaths in the preceding period. The annual death-rate in these districts, which had been 19.4, 19.9, and 19.3 per 1,000 in the three preceding weeks, rose to 21.3 per 1,000 in the week under notice, this figure being 5.2 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 27.5 and 15.4 respectively, those in other districts ranging from 3.9 in Galway and 11.7 in Waterford to 42.3 in Tralee and 48.1 in Armagh, while Cork stood at 25.3, Londonderry at 22.6, and Limerick at 20.5. The zymotic death rate in the twenty-two districts averaged 1.3 per 1,000, as against 1.2 per 1,000 in the preceding week.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL G. WELCH has been reappointed to the *President*, for special service at the Admiralty, temporary, on promotion, December 7th, 1910.

The following appointments have been made at the Admiralty: Staff Surgeon F. R. MANN to the *Terpsichore*, temporary, February 1st; Surgeons W. R. HARRISON and F. M RIVAZ, M.B., to the *Vivid*, additional, for disposal, to date February 3rd and 4th respectively; Surgeon H. WOODS, M.B., to the *Pembroke*, additional, January 24th; Fleet Surgeon R. S. BERNARD and Surgeon W. R. HARRISON to the *Indefatigable*, on commissioning, February 24th; Fleet Surgeon S. H. BIRT to the *Carnarvon*, on recommissioning, February 24th; Staff Surgeon M. L. M. VAUDIN, M.B., to the *Apollo*, February 24th; Surgeon E. MACEWAN to the *Warrior*, February 21st; Surgeon D H. C. GIVEN, M.B, to the *Tamar*, additional, for the *Rosario*, February 21st, and on commissioning, undated; Surgeon F. H. HOLL to the *Victory*, additional, for physicial training course, February 20th.

### RESERVE OF OFFICERS.

SURGEON-LIEUTENANT-COLONEL C. R. KILKELLY, C.M.G., M.V.O., M.B., retired pay, has resigned his appointment as House Governor and Medical Superintendent, Osborne Convalescent Home, to which he was appointed August 26th, 1905.

### TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

LIEUTENANT-COLONEL AND HONORARY SURGEON-COLONEL J. A JONES, M.D., from the Sanitary Service, Royal Army Medical Corps (Territorial Force), to be Colonel, on appointment as an Administrative Medical Officer of a Territorial Division, January 8th.

ROYAL ARMY MEDICAL CORPS.

*For Attachment to Units other than Medical Units*—FREDERICK W. PRICE, M.B., to be Lieutenant, September 28th, 1910; FREDERICK A. W. DRINKWATER to be Lieutenant, December 1st, 1910. HUGH PATERSON, M B, late Second Lieutenant 4th Battalion (Queen's Edinburgh Rifles) Royal Scots (Lothian Regiment), to be Lieutenant, November 7th, 1910.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BIRMINGHAM CORPORATION.—Assistant Resident Medical Officer at the City Hospital. Salary, £120 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRIGHTON: CHICHESTER HOSPITAL FOR WOMEN AND CHILDREN FOR NERVOUS DISEASES.—House-Physician (female).

CHELTENHAM EYE, EAR, AND THROAT FREE HOSPITAL.—House-Surgeon. Salary, £200 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EDINBURGH ROYAL INFIRMARY.—Superintendent. Salary, £600 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (male). Salary, £100 per annum and £10 for lectures to probationer nurses.

HALIFAX UNION.—Resident Medical Officer for the Poor Law Hospital, Salterhebble.—Salary, £110 per annum and £20 additional for dispensing.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITALS.—Surgeon to Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Resident Medical Superintendent; salary, 100 guineas per annum and £5 washing allowance. (2) Anaesthetist; honorarium, £15 15s.

HOSPITAL OF ST. JOHN AND ST. ELIZABETH, Grove End Road, N.W.—Resident Medical Officer. Salary at the rate of £80 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Honorary Physician. (2) Junior Resident Medical Officer. Salary, £65 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEEDS UNION.—Female Assistant Medical Officer. Salary, £100 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Three House-Surgeons. Salary at the rate of £60 per annum each.

LLANYBYTHER: WEST WALES SANATORIUM.—Medical Superintendent. Salary, £250 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

NEWCASTLE-UPON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, increasing to £180.

NEWCASTLE-UPON-TYNE: ROYAL VICTORIA INFIRMARY AND THE UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Assistant to the Professor of Pathology. Salary, £150 per annum, rising to £200.

NEWCASTLE-UPON-TYNE UNION.—Assistant Medical Officer of Workhouse (male). Salary at the rate of £150 per annum.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Lecturer on Physiology. Salary, £200 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NOTTINGHAM WORKHOUSE INFIRMARY.—Resident Medical Officer. Salary, £130 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary at the rate of £80 per annum.

RANSOM SANATORIUM FOR CONSUMPTION, Sherwood Forest, near Mansfield.—Resident Medical Officer (Female). Salary, £100 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—Clinical Assistants.

ROYAL NATIONAL MISSION TO DEEP-SEA FISHERMEN.—Medical Officers on Hospital Vessels. Salary, £4 4s. a week.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—(1) Clinical Pathologist; salary at the rate of £50 per annum. (2) Clinical Assistants. (3) Honorary Medical Registrar.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male).

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for the County Courts of Croydon and Epsom.

## APPOINTMENTS.

DIGHTON, Chas. Adair, M.B., F.R.C.S., Honorary Assistant Surgeon to the Eye and Ear Hospital, Myrtle Street, Liverpool.

DOTTRIDGE, C. A., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

FINCH, G., M.R.C.S., D.P.H., Assistant School Medical Officer to the East Sussex County Council.

MCGRATH, Mathew J., M.B., B.Ch., B.A.O.R.U.I., Assistant Medical Officer at Brislington House Private Asylum, near Bristol.

MARTIN, Jas. H., M.D.Glasg., Assistant Gynaecologist to the Glasgow Maternity and Women's Hospital.

ROBERTSON, W. H., M.B., C.M.Edin., Certifying Factory Surgeon for the Colne District, co. Lancaster.

WILLIAMS, S., M.D.Lond., Certifying Factory Surgeon for the Llanelly District, co. Carmarthen.

WOODS, Robert Stanton, M.D., M.R.C.P., Physician in Charge of the Physico-Therapeutical Department and the Electrical Department of the London Hospital, including the charge of the Tyrnaeur Baths.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—The following appointments have been made to the new Gynaecological Department:

Visiting Gynaecologists.—Dr. Robert Jardine and Dr. Sam. Cameron.

Assistant Gynaecologists.—Dr. James H. Martin and Dr. Donald Duff.

Supernumerary Assistant Gynaecologists.—Dr. Robert Adam and Dr. James Taylor.

Gynaecological House-Surgeon.—Dr. J. T. Kirkland.

GUY'S HOSPITAL.—The following have been appointed Dental House-Surgeons: H. F. Barge, F. S. Glover, W. H. Wootton.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

BEATTIE.—On February 1st, at 12, Caxton Road, Broomhill, Sheffield the wife of Professor J. Martin Beattie, M.D., of a son.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W.—8.30 p.m., Papers:—Dr. F. S. Palmer: Traumatic Neuroses and Psychoses and their Medico-Legal Considerations. Dr. Wm. Hill: The Treatment of Malignant Stricture of the Oesophagus, with especial reference to Intubation and to Radium. Illustrated by the Epidiascope and the Oesophagoscope.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor G. Elliot Smith: The History of Mummification.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor G. Elliot Smith: The History of Mummification.

### THURSDAY.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W.—5 p.m.:—Dr. H. G. Adamson: Some Cases of Unilateral Linear Pigmentary Naevus. Dr. Graham Little: Four Cases of Pigmentary and Verrucose Naevus; and other cases.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Professor G. Elliot Smith: The History of Mummification.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W.—8.30 p.m., Clinical Evening: Demonstrations:—Dr. Schmidt: A Universal Safety and Protective Tube Stand for all kinds of Fluoroscopy and Radioscopy. Mr. Deane Butcher: Mr. Heinz Bauer's Qualimeter, an Instrument for Measuring the Hardness of an *X*-ray Tube. Skiagrams, specimens, etc., will be shown by Dr. Lewis Jones, Dr. Ironside Bruce, Mr. A. D. Reid, Mr. Gilbert Scott, Dr. Stanley Melville, Dr. Knox, and others.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, 11, Chandos Street, W.—5 p.m.:—Cases and Specimens will be shown by Dr. Edward Law, Dr. H. J. Davis, Mr. Sydney Scott, Dr. Jobson Horne, and others.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, W., 8.30 p.m.—Paper:—The President (Professor Ronald Ross, C.B., F.R.S.): Some Enumerative Studies on Malaria and Sleeping Sickness.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Tracheoscopy, etc. Friday, 3.45 p.m., Clinical Pathology.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Appendicitis, Peritonitis, Abdominal Tuberculosis. Thursday, 4 p.m., Some Further Complications of Rheumatism. Friday, 5.15 p.m., Hernia, Intestinal Obstruction, Intussusception, etc.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 2.15 p.m., Angina Pectoris; Wednesday, 2.15 p.m., Bronchial Obstruction; Thursday, 4.30 p.m., Some Operations of Urgence.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.:—Lecture: Acid Intoxication.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: day: Monday, Skin. Tuesday Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Complications of Gastric Ulcer and their Surgical Treatment. Tuesday, Bovine Tuberculosis in the Human Subject and its Treatment. Wednesday, When to Examine and What to Look for. Thursday, Acute Pneumonia in Children.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Ataxy. Friday, 3.30 p.m., Diagnosis and Treatment of Epilepsy.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture Demonstration: Recent Developments in the Diagnosis and Treatment of Syphilis; Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics, *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations, Clinics, Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Selected Medical Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Thursday, 6 p.m., Lecture: Seborrhoea and Psoriasis dealt with as Stages of the same Dermatitis in Symptoms, Diagnosis, and Treatment.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **FEBRUARY.** | |
| 10 FRIDAY .. | HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Conservatoire, 8.30 p.m. |
| 11 SATURDAY .. | |
| 12 Sunday .. | |
| 13 MONDAY .. | LONDON: Organization of Medical Students Subcommittee, 1.30 p.m.<br>LONDON: Regulations and Standing Orders Subcommittee, 2.30 p.m. |
| 14 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m. |
| 15 WEDNESDAY | LONDON: Conference of Special Poor Law Reform Committee and Contract Practice Subcommittee, 10.30 a.m.<br>LONDON: Special Poor Law Reform Committee (immediately after above Conference).<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 16 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m.<br>BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.<br>SOUTH STAFFORDSHIRE DIVISION, *Staffordshire Branch*, Star and Garter Hotel, Supper, 8.30 p.m.; Meeting, 9.15 p.m.<br>BLACKPOOL DIVISION, *Lancashire and Cheshire Branch*, Jenkinson's Café, Talbot Square, Blackpool, 8 p.m. |
| 17 FRIDAY .. | |
| 18 SATURDAY .. | |
| 19 Sunday .. | |
| 20 MONDAY .. | |
| 21 TUESDAY .. | |
| 22 WEDNESDAY | WINCHESTER AND SALISBURY DIVISIONS, *Southern Branch*, Combined Clinical Meeting, Star and Garter Hotel, Andover, 8 p.m.; Dinner, 7 p.m. |
| 23 THURSDAY .. | LONDON: Conference of Medico-Political and Hospitals Committee *re* Abuse of Hospital Out-patient Departments, 12 noon.<br>LONDON: Joint Medico-Political and Hospitals Subcommittee *re* Payment of Staffs of Hospitals (immediately after above Conference). |
| 24 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m.; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, 6.30 p.m. |
| 25 SATURDAY .. | |
| 26 Sunday .. | |
| 27 MONDAY .. | |
| 2 TUESDAY .. | |

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# SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 18TH, 1911.


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## Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

### BIRMINGHAM BRANCH.

THE fourth ordinary meeting of the Branch was held at the Medical Institute on January 19th at 3.30 p.m. Professor GILBERT BARLING was in the chair and 42 members were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, confirmed, and signed.

*Mr. Joseph Chamberlain.*—The following resolution, recommended to the Branch by the Council was moved by the PRESIDENT, seconded by Dr. PENDRED, and carried unanimously:

That this Branch requests the Central Council to recommend the Representative Body to elect the Right Hon. Joseph Chamberlain, member of His Majesty's Privy Council, as an honorary member of the Association in recognition of his eminent services in promoting the systematic study of tropical diseases.

*Institutional Treatment of Puerperal Fever.*—Mr. JORDAN read the following letter from the Chairman of the Health Committee:

The Council House,
Birmingham.
December 21st, 1910.

Gentlemen,

I have to acknowledge the receipt of your letter of the 19th inst., enclosing resolution passed by the Birmingham Branch of the British Medical Association in regard to the Institutional Treatment of Puerperal Fever. In reply I have to say that the Health Committee has had under consideration during the past six weeks the possibility of arranging for some provision for cases of this disease, and I am glad to say there is a probability of certain accommodation being available shortly.

I am,
Yours faithfully,
THOS. FLETCHER,
Chairman for the Health Committee.

Drs. Lucas and Furneaux Jordan.

Mr. JORDAN also announced that the Health Committee had arranged with the Birmingham Hospital for Women for the use of two beds in the Margaret Ward at Sparkhill.

*Death Certification Bill.*—Dr. C. T. STANDRING presented a petition against the Government's Death Certification Bill. After some discussion it was resolved:

That it be left to the officers to suitably modify the petition, sign it, and send a copy to every member of Parliament in the area covered by the Birmingham Branch.

*Papers.*—Dr. D. BUCHANAN read a paper on the Public Health Problem of Tuberculosis. This was discussed by the PRESIDENT and by Drs. WYNN, TRUMPER, LYDALL, BAGSTER-WILSON, and MELSON. Dr. BUCHANAN replied. Mr. BERNARD J. WARD read a paper on Urinary Tuberculosis, which was discussed by the PRESIDENT and by Mr. LEEDHAM-GREEN. Mr. BERNARD J. WARD replied.

### LANCASHIRE AND CHESHIRE BRANCH:

LIVERPOOL AND BIRKENHEAD COMBINED DIVISIONS.

A MEETING of the combined Divisions was held on Tuesday, January 17th, at 4 p.m., at the Liverpool Medical Institution. Dr. A. C. E HARRIS was in the chair, and eighty-one other members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Treatment of School Children found upon Inspection to be Defective.*

The Joint Committee of the combined Divisions reported that the Liverpool Education Committee had ignored the scheme for the treatment of school children approved by the local Divisions and by the profession (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, December 31st, 1910, p. 469), and had formulated a scheme of its own for the treatment of eye troubles, as follows, namely:

LIVERPOOL EDUCATION COMMITTEE.

TESTING OF EYESIGHT OF SCHOOL CHILDREN.

*Memorandum of Suggested Arrangements with Hospitals.*

1. The hospitals will make special arrangements for the testing of eyesight and prescribing spectacles.
2. The hospital authorities will allocate part of all moneys so paid to them by the education authority in payment to the specially appointed medical officers and other assistants upon whom the work of attending to such cases falls.
3. Each child sent by the education authority shall present a voucher containing the name and address and a certificate signed by an official of the education authority of suitability for hospital attendance owing to the inability of the parents to pay for private medical advice.
4. The Education Committee shall investigate the financial circumstances of each child attending the hospital.
5. On presentation of such voucher the child will be examined and tested for spectacles. If found to be suffering from disease of the eye he will be transferred to the out-patient department, where he will become subject to the rules of the hospital governing the treatment of ordinary patients
6. The vouchers shall be redeemed by the education authority at the sum of 3s. per voucher. This payment does not include the cost of spectacles.
7. The Education Committee shall not be obliged to purchase spectacles from or through the hospitals.

The chief points of difference between the two

schemes are that the scheme of the education authority proposes—

(*a*) To *use the hospitals* for the purpose.
(*b*) That the education authority should be the sole judge of the ability or inability of the child's parents or guardians to pay.
(*c*) That the payment be 3s. per head instead of 5s. as proposed by the profession.
(*d*) That all cases of *diseases* of the eye are to be treated subsequently gratuitously.

**It was further reported that the Joint Committee had been informed that the two local eye hospitals had accepted this scheme, and were therefore not only definitely entering into private practice but underselling private practitioners. The Joint Committee caused the following letter to be sent to the members of the medical staffs of these hospitals, namely:**

BRITISH MEDICAL ASSOCIATION.
LIVERPOOL AND BIRKENHEAD COMBINED DIVISIONS.

Liverpool,
January 12th, 1911.

Dear Sir,

The Joint Committee of the Local Divisions of the British Medical Association is informed that the committee of your hospital has made or is contemplating making arrangements, in accordance with a scheme recently presented to them by the Education Committee, for attending those school children whose eyes are found upon inspection to be defective. This scheme, which has already been rejected by most of the leading hospitals of Liverpool, is diametrically in opposition to the principles agreed upon at the meeting of the local profession held last June and to those laid down by the British Medical Association, which condemn absolutely the employment of medical charities for this purpose.

I am instructed to ask you to give the profession and the Association your support in opposing this attempt to get the hospitals to make yet another plunge into private practice for gain.

A meeting of the local Divisions of the Association is to be held on Tuesday next, the 17th inst., and I should be much obliged if you would let me know before that date whether we may rely on your aid.

I am desirous of being able to inform the meeting of the position you intend to adopt.

I am, yours faithfully,
J. J. TISDALL,
Chairman, Joint Committee.

P.S.—Kindly address your answer to me c.o. Liverpool Medical Institution, and so that it may reach me by Monday night, January 16th, if possible.

**The replies were received and read, and the members of the staffs of both hospitals promised to give the Association and the profession their support; and it was resolved unanimously:**

That this meeting disapproves of the scheme of the Liverpool Education Committee for using the hospitals for the treatment of defective school children.

**It was further resolved unanimously:**

That a meeting of the medical profession of the district be called as soon as possible, and asked to support the local Divisions of the British Medical Association in this matter.

**The following letter was addressed to all practitioners of the area:**

BRITISH MEDICAL ASSOCIATION.
LIVERPOOL AND BIRKENHEAD COMBINED DIVISIONS.

Dear Sir,

Another serious attack is being made on the vital interests of the profession.

Such attacks have become so frequent in the last few years that the Combined Divisions are convinced that unless a firm and united stand is taken at once, the profession will soon cease to afford its members a livelihood.

For many years the *hospitals* have greatly diminished our sources of income by attending large numbers of well-to-do people. Recent investigations have shown that fully 26 per cent. of all out-patients have an income of over 30s. and even up to £5 10s. per week.

More recently, *by establishing paying wards*, they have deprived many practitioners and nursing homes of their private patients.

By arrangement with the authorities practically all *accidents* are now taken to hospital and largely attended there.

*Infective fevers* are now mostly removed to municipal hospitals from the care of private practitioners.

And now the very reasonable scheme adopted by the British Medical Association (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, December 31st, 1910) and approved by the profession for carrying out the *treatment of defective school children* by private practitioners has been ignored by the Education Authorities. These bodies are attempting to hand over this work to the hospitals, whose lay committees are, in some instances, quite willing to contract for it at fees below the minimum approved by the profession. *Is it fair that the profession which has to contribute its share to the rates should have its legitimate work handed over to institutions endowed for purely charitable purposes?*

The British Medical Association desires to urge on every medical practitioner the absolutely vital importance of taking his part in an organized struggle against these and other encroachments which are rapidly robbing us of our livelihood.

The supine attitude the profession has so far shown has encouraged not only these local bodies but the Legislature to ignore us entirely. The *gratuitous certificates of deaths and births* have been forced upon us, and within the next few months the *sickness and invalidity* schemes of the Government will be introduced. The friendly societies have been consulted in the matter. The medical profession, whose vital interests are at stake, has been ignored.

*Organised action is our only means of defence.* And whether a member of the Association or not, you are earnestly requested to attend the meeting.

If you are unable to be present, we shall be glad to hear from you and be assured of your support.

Non-members are urged to join the Association and to take an active part in the movement.

On behalf of the Committee of the Combined Divisions.

Yours truly,
K. GROSSMANN,
*Honorary Secretary.*

70, Rodney Street, Liverpool,
*January 23rd, 1911.*

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## MEETING OF MEDICAL PROFESSION.

**The meeting of the medical profession was held on January 31st, 1911, at 4.15 p.m., at the Liverpool Medical Institution. Dr. A. C. E. HARRIS was elected to the chair; between 150 and 160 members were present, and apologies for absence and promises of support were received from eighteen practitioners.**

**The CHAIRMAN explained the purpose for which the meeting was called, and after considerable discussion it was resolved unanimously:**

That this general meeting of the medical profession of Liverpool, Birkenhead, and district adheres to the scheme adopted by the meeting of the medical profession on June 20th, 1910, disapproves of the scheme of the Liverpool Education Committee, and pledges itself to support the local Divisions of the British Medical Association in opposing it.

**It was further resolved (with one dissentient):**

That this meeting of the medical profession of the Liverpool and Birkenhead district disapproves of the lay committees of hospitals arranging with the Education Committees for the treatment of school children found upon inspection to be defective, and pledges itself to support the medical staffs of the local hospitals in any contest or dispute that may arise between them and the lay committees in connexion with this matter.

**It was also resolved unanimously:**

That a copy of these resolutions be sent forthwith to the local Education Committees, to the lay committees of the local hospitals, and to the medical and lay press.

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## MANCHESTER (SOUTH) DIVISION.

**A MEETING of this Division was held at Dr. E. Vipont Brown's, Birch Lane, Longsight, on Friday, January 27th, at 3.45 p.m. Dr. HOPKINSON presided. There were also present Drs Brown, Cotterill, Edlin, Gregory, Howe, Mitchell, Sawers Scott, Simcock, and Stocks.**

***Apologies for Non-attendance.*—Dr. Russen Rhodes and Dr. Grant Davie wrote regretting their inability to be present.**

***Confirmation of Minutes.*—The minutes of the last meeting (November 29th, 1910) were read and confirmed.**

***Street Ambulance.*—Dr. HOPKINSON intimated that he had had an interview with the Chief Constable, who promised to send the ambulance (if available) at the request of any medical practitioner, provided the fee of 5s. was guaranteed.**

***Fees for Medical Examinations for Insurance.*—A letter was read from the Medico-Political Committee in reference to the fees paid by the Royal London Insurance Company. After the discussion on it, Dr. EDLIN proposed and Dr. SIMCOCK seconded the following resolution:**

That the Manchester (South) Division of the British Medica Association entirely approves of the course suggested—namely, that where a complete report, with examination of urine, is expected by insurance companies, no fee of less than 10s. 6d. should be accepted, and that all members of the Division be notified to this effect, and that Mr. Smith Whitaker receive a copy of the resolution.

**This was carried *nemine contradicente.***

*Joint Committee Meeting.*—An interesting account of the Manchester and Salford Joint Committee meeting was given by Dr. COTTERILL.

*Central Ethical Committee: Report (R. 11).*—This paper was read and discussed. Dr. HOPKINSON moved (from the chair):

> That this report (R. 11) be approved by the Division, with this exception, viz., that after Rule I the following clause be inserted: "That where the medical inspector has availed himself of the exceptions to this rule, it shall be his duty to send a letter to the medical attendant stating the fact of his visit and the reasons for his action."

This was carried *nemine contradicente.*

*Model Rules for Nursing Associations, etc.*—Model rules for nursing associations and "Memorandum on 'Alleged' Covering D. 5 and 6," were read.

*Date of Next Meeting.*—This was fixed for February 14th.

## METROPOLITAN COUNTIES BRANCH:

### LAMBETH DIVISION.

THE monthly meeting was held on January 26th at the Camberwell Infirmary, through the kindness of Dr. Kears, the Medical Superintendent.

*Paper.*—After some private business a paper was read by Dr. A. F. HERTZ on Tics, peripheral, mental, and visceral.

### WANDSWORTH DIVISION.

AN ordinary meeting of the Division was held on January 26th at 27, St. John's Hill, Dr. GAY being in the chair and twenty two members being present.

*Sickness and Invalidity Insurance.*—A letter from the Secretary of the Altrincham Division recording a resolution passed by that Division was read; it was agreed to defer consideration of the resolution until the report on State Sickness and Invalidity Insurance is before the Division.

*Royal London Insurance Company.*—A letter from the Medical Secretary with reference to the Royal London Insurance Company was read; this was referred to the Executive Committee, with instructions to draw up a resolution to be placed on the agenda of the next Division meeting.

*Election of Repres ntative on the Representative Body.*—Dr. Powell Evans was proposed by Dr. FOTHERGILL, seconded by Dr. VERDON-ROE, and unanimously elected.

*Vote of Thanks to Retiring Representative.*—Dr. GAY proposed a hearty vote of thanks to Dr. Fothergill, the retiring Representative. Dr. NASH seconded, while Drs. POWELL EVANS and BIGGS supported the vote, which was carried unanimously.

*Prophylactic Administration of Diphtheria Antitoxin.*—Dr. GAY drew the attention of the meeting to a paper by Dr. Goodall pointing out the dangers accompanying the prophylactic administration of diphtheria antitoxin. Drs. FOTHERGILL and NASH also spoke with reference to the matter.

*Recommendations of Medico Political Committee.*

Dr BIGGS reported the recommendations of the Medico-Political Committee:

1 The scheme of arrangements, for adoption by local sanitary authorities in connexion with the treatment of cases of *ophthalmia neonatorum*, suggested by the Central Council, was approved.

2 The *model rules for nursing associations* were approved.

3 Regarding *instruction in first aid, hygiene, and kindred subjects*, Dr. Biggs stated that the Committee had been in correspondence with the Medical Secretary with reference to the interpretation to be placed on the word "should" in Minute 259 of the Annual Representative Meeting, 1910. He was advised that the Minute formulated the policy of the Association; and therefore any member accepting a smaller fee than one guinea for each lecture, or lecturing without receiving any fee, would be liable to have his conduct called in question by the Ethical Committee Under the circumstances the Committee was opposed to the resolution, and proposed as an amendment that the following words be added to the resolution:

> Provided always that in cases where no payment can be made the question whether the lectures shall be given free or not at all shall be left to the discretion of the medical man concerned.

Dr. CROSSE seconded the amendment. Drs. SWALLOW, PRITCHARD, FINCHAM, LAMBERT, and HUGGINS spoke in favour, Drs. FOTHERGILL, NASH, and MACNAB against the amendment. The amendment, on being put to the vote, was declared carried, 15 voting in favour and 4 against.

Dr. NASH proposed as an amendment that the words "Executive Committee of the Division" be inserted in place of "medical man concerned." Dr. MCMURTRY seconded the amendment. Drs. FOTHERGILL and STOCKS spoke in favour of the amendment, and Dr. CROSSE against. The amendment was put to the vote and declared lost.

The resolution with the amendment proposed by Dr. BIGGS was then approved, and it was agreed that it should be placed on the agenda of the Representative Meeting.

The *interim report on the position of medical practitioners called upon to examine patients who are under the care of other practitioners* was referred to the Ethical Committee.

*Treatment of School Children.*—Dr. GAY reported the proceedings of the Treatment of School Children Committee in connexion with the formation of the Wandsworth School Treatment Centre, and the following recommendations of the Executive Committee were approved:

> (*a*) That the work of the Treatment of School Children Committee so far as it relates to the fitting up, furnishing and conduct of the Centre, be handed over to the House Committee of the Centre.
>
> (*b*) That the term of office of the Chairman of the Division, as *ex officio* member of the House Committee of the Treatment Centre, shall be concurrent with that of the other members of the Committee.

## MIDLAND BRANCH:

### LEICESTER AND RUTLAND DIVISION.

A MEETING of this Division was held at the Leicester Infirmary on January 25th at 4.15 p m. Dr. STAMFORD was in the chair, and twenty-seven members and two visitors were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Apology for Non-attendance.*—A telegram of apology from Dr. Ballard was read.

*Election of Representative.*—On the motion of the CHAIRMAN, seconded by Dr. SALOMON, Dr. R. Wallace Henry was re-elected Representative of the Division to the Representative Meeting.

*Communication from Education Committee.*—A letter from the Town Clerk of Leicester was read, to the effect that the Education Committee, in all cases in which a teacher called in a doctor to see a child, or a child was taken to a doctor by a teacher or by his or her instructions, would pay such medical man a suitable and proper fee for the particular attendance in question, but would not hold themselves responsible for subsequent attendances or treatment. The Secretary was asked to write expressing the approval of the meeting, and suggesting that the step taken should be notified to all practitioners in the area affected.

*Medical Men Called in to Examine Patients of Other Doctors.*—The interim report on the position of medical men called upon to examine patients under the care of another practitioner, otherwise than at the request of the patient or those acting on his behalf, was discussed by the meeting. It was moved by the SECRETARY, seconded by Dr. BURKITT:

> That the report, with the exception of Paragraph 4, be approved in cases in which legal proceedings were pending.

Whereupon Dr. PRATT proposed and Dr. TIBBLES seconded:

> That the report, with the exception of Paragraph 4, be approved in all cases.

The amendment was carried by 12 to 6, 9 neutral.

*Ionic Cataphoresis.*—Dr. Pratt read a paper entitled, Further Notes on Treatment by Ionic Cataphoresis. Having described the technique of the treatment, and given proofs of absorption, he read brief notes of the following cases in which this method of treatment had been tried—namely, tuberculous glands in the neck, tumour in the breast, enlarged prostate with cystitis and orchitis, perimetritis, painful swelling below the head of the fibula. Drs. Stamford, Spriggs, Stracey, Henry, Bremner, Marriott, and Johnston took part in the discussion.

*Cases.*—The following clinical cases were then shown: Enlargement of the pituitary body, with affection of vision and increase of the thyroid gland, by Dr. Wallace Henry; case of epulis and one of enlarged testicle (?) tuberculosis, by Dr. Marriott; aneurysm of the arch of the aorta, by Dr. Pratt; hyperthyroidism, by Dr. Rogerson for Dr. Pope; and Charcot's joint, by Dr. Rogerson for Dr. A. V. Clarke.

## NORTH OF ENGLAND BRANCH:

### North Northumberland Division.

An ordinary meeting was held on February 1st at the Infirmary, Alnwick, at which the following members were present: Drs. Dey, Rolson, Badcock, Forrest, D. Welsh, Philipson, and Burman. Dr. McEwen was present as a visitor. Dr Dey occupied the chair.

*Apologies for Non attendance.*—Apologies for absence were received from Drs. Maccashie, Mackay, Lawson, and Waterson.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Medical Secretary's Cardiff Address.*—The Secretary reported that a copy of the Medical Secretary's address at Cardiff had been sent to every member, and to other medical men practising in the Division who were not members.

*Proposed Union with Morpeth Division.*—A communication from the Secretary of the North of England Branch respecting the union of the Morpeth with this Division was read, and Dr. Robson proposed, and Dr. Forrest seconded:

> That in the opinion of this Division the proposed alteration was not considered advisable.

The resolution was carried unanimously.

*Fees for Medical Examination for Insurance.*—A communication from the Medical Secretary regarding fees offered by the Royal London Insurance Company was read, and members were recommended not to accept the scale of fees offered. A letter from a member regarding the new form of examination paper issued by the Pearl Assurance Company was read, and the fee offered was not considered an adequate one for the amount of work it entailed. The resolutions passed by this Division in March, 1907, 1908, and 1909 regarding insurance fees were ordered to be reported to the Medical Secretary in reply to his inquiry.

*Fees for Ambulance Lectures.*—Correspondence between the Secretary and several members regarding fees for ambulance lectures under the Red Cross Society was read, and members were urged to maintain in its integrity the resolution passed in March, 1910:

> That a fee of not less than five guineas be charged for a course of lectures.

*State Sickness and Invalidity Insurance.*—A discussion upon State sickness and invalidity insurance was opened by the Secretary, and letters from two members unable to be present were read upon the question, and after most of the members present had joined in the discussion, it was proposed by the Secretary and seconded by Dr. Robson:

> That this meeting be adjourned to a future date at Berwick-upon-Tweed, and the members in that district be given an opportunity of expressing their opinion on the very important subject, and, if thought advisable, meetings be held in other districts for the same purpose.

## SOUTH-EASTERN BRANCH:

### Folkestone Division.

The annual meeting of the Folkestone Division and of the Folkestone, Ashford, and Dover Constituency was held on Thursday, February 2nd, at the house of Dr. Eastes at 8.30 p.m. The following were present, namely, Drs. Wainwright, Eastes, Tyson, Barrett, Evans, Gilbert, Calverley, Palk, Davis, Chambers, Wilgress, and Dodd; also Drs. Bateman, Dimmick, and Lidderdale unattached.

*Apology for Non-attendance.*—A letter was read from Dr. Robinson of Dover stating his inability to attend.

*Confirmation of Minutes.*—The minutes of the last annual meeting were read and confirmed.

*Annual Report.*—The annual report and finances of the Executive Committee were received and adopted.

*Temporary Suspension of Rule 6.*—It was proposed by Dr. Chambers and seconded by Dr. Eastes that Rule 6 be temporarily suspended. This was carried unanimously.

*Election of Officers.*—The following officers were re-elected: *Chairman*, Dr. Wainwright; *Representative of the Division on Branch Council*, Dr. Eastes; *Representative for Representative Meeting*, Major Palk; *Executive Committee*, Drs. Calverley, Dobbs, and Streatfield; *Honorary Secretary*, Dr. P. Vernon Dodd.

*Fees for Medical Examination for Life Insurance.*—A letter was read from the Medico Political Committee concerning the low fees for examination paid by certain insurance companies. After a lengthy discussion it was carried that:

> This Division proposes to take no action in the matter.

*Paper.*—A paper was read by Dr. Wainwright on the "Scientific Adulteration of Milk, with Special Regard to the Albumen." He called attention to the new remedies, and hoped that papers and discussions would help to sift out their value, and so enable the profession to take a judicial view.

The meeting terminated with a social evening and billiards.

# Association Notices.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

Edinburgh Branch.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 24th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner tickets, 5s. Michael Dewar and E. Scott Carmichael, Honorary Secretaries.

Lancashire and Cheshire Branch.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. Cooper, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

Lancashire and Cheshire Branch: Altrincham Division.—A general meeting of the Altrincham Division will be held at the Brooklands Hotel on Wednesday, March 1st, at 4.30 p.m. A dinner will be held afterwards if sufficient names are sent in to the Honorary Secretaries. R.S.V.P. Further particulars in future notices.—H. G. Cooper, Honorary Secretary.

Metropolitan Counties Branch: City Division.—The next meeting will be held on Tuesday, March 21st, at 9 p.m., in conjunction with the Walthamstow Division, at Brooke House, Upper Clapton (by invitation of Dr. Gerald Johnston), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Forms of Nervous Disease.—A. G. Southcombe, Honorary Secretary.

Metropolitan Counties Branch: Kensington Division.—Sir Clifford Allbutt, Regius Professor of Physic, Cambridge, has kindly consented to address the members of the Kensington Division on March 10th, at 4.30 p.m., in the Kensington Town Hall. His subject will be Arterio-Sclerosis and the Kidney.

and in the discussion to follow Dr. Batty Shaw and Dr. C. O. Hawthorne have promised to take part Members of the Metropolitan Branch are invited, and the Honorary Secretary will be glad to receive the names of any gentlemen who would like to take part in the discussion.—H. BECKETT-OVERY, 24, Alexander Square, South Kensington, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A meeting of this Division will be held at the Lambeth Infirmary, Brook Street, S.E., on Thursday, February 23rd, at 4 p m. Mr. Lawrie McGavin, F.R.C S., will read a paper on The After-Treatment of Certain Surgical Conditions.—T. B. LAYTON, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—There will be a meeting of the Division, to which all members of the profession are invited, at the Wandsworth Town Hall on Friday, February 24th, at 8 45 p m. A paper, with demonstration, will be read by Mr. Richard T. Timberg, M.R C S., superintendent of the physical exercise department at St Thomas's Hospital, on Physical Exercises and Their Therapeutic Use.—S. VERDON-ROE, Honorary Secretary.

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MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—An ordinary meeting of this Division will be held on Friday, February 24th, at the White Hart Hotel, Boston, at 2.45 p.m. Agenda: (1) Minutes. (2) Annual report. (3) Election of Representative in Representative Meetings of the Association. (4) To consider the resolution recommended by the committee concerning State sickness and invalidity insurance. (5) Cases, etc. (6) Any other business. Tea will be provided, as on former occasions. Members wishing to show cases or specimens are requested to intimate their intention by February 22nd to A. E. WILSON, Honorary Secretary.

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SOUTHERN BRANCH: WINCHESTER AND SALISBURY DIVISIONS.—A combined clinical meeting of these Divisions will be held at the Star and Garter Hotel, Andover, on Wednesday, February 22nd, at 8 p m Dinner will be provided at the hotel at 7 p.m. at 5s. per head (morning dress). Members wishing to dine are requested to communicate with the Secretary of their Division on or before February 18th.—H. J. GODWIN, Winchester, J. E. GORDON, Salisbury, Honorary Secretaries.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A meeting of this Division will be held in the Pontypool and District Hospital on Friday, February 24th, at 3.30 p.m.—R. J. COULTER, S. HAMILTON, Honorary Secretaries.

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STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the Vine Hotel, Stafford, on Thursday, March 2nd The President will take the chair at 5.15 p.m. Business: (1) Minutes of the last ordinary general meeting (2) Correspondence. (3) Exhibition of living cases. (4) Papers: (i) A Case of Intrathoracic Suppuration due to *Bacillus coli*, Mr. H. Savory; (ii) Carious Teeth in our Elementary Schools, Mr. J. Priestley (5) Exhibition of pathological specimens, etc. Dinner, 7.15 p m., charge, 5s.—HAROLD HARTLEY, Honorary General Secretary.

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# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 7,890 births and 5,255 deaths were registered during the week ending Saturday, February 4th. The annual rate of mortality in these towns which had been 15 5, 16 4, and 16 1 per 1,000 in the three preceding weeks, was 16 0 per 1 000 in the week under notice In London the death rate was equal to 16 1 per 1,000, against 15.3. 17 1, and 16 3 in the three preceding weeks Among the seventy-six other large towns the death rates ranged from 5.1 in Hornsey, 8.7 in Wolverhampton, 9 0 in Aston Manor. 9 1 in Handsworth (Staffs), and 9 4 in Huddersfield, to 21 5 in Birkenhead. 21 6 in Oldham, 23.5 in Middlesbrough, 24.1 in Swansea and 24.5 in Bury. Measles caused a death-rate of 1.9 in Tottenham, in West Ham, in Coventry and in Stockton-on Tees, 3 5 in Grimsby and in Sheffield, and 5 4 in Rotherham; and whooping-cough of 2.3 in Rotherham, 3.3 in Norwich and 3.6 in Willesden. The mortality from scarlet fever, enteric fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. Of the 5,255 deaths registered in the seventy-seven towns during the period dealt with, 34 were not certified either by a registered medical practitioner or by a coroner, and included 7 in Birmingham 4 in Sheffield, 3 in Liverpool, and 3 in Warrington. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,349 and 1,311 at the end of the two preceding weeks, further declined to 1,264 in the week under notice; 130 new cases were admitted during the week, against 126 and 149 in the two preceding weeks.

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## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, February 4th. 768 births and 670 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 14.8 and 15.7 per 1,000 in the two preceding weeks, rose to 18.2 in the week under notice, and was 2.2 per 1 000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 12.1 in Aberdeen and 12.7 in Greenock to 19.8 in Glasgow and 24.4 in Dundee. The death-rate from the principal infectious diseases averaged 1.7 per 1,000, and was highest in Greenock and Dundee. The 340 deaths from all causes registered in Glasgow during the week included 1 from enteric fever, 5 from scarlet fever, 16 from whooping-cough, 4 from diphtheria, and 7 of children under 2 years of age from diarrhoea and enteritis. Four deaths from measles 2 from whooping cough, and 2 from diphtheria were recorded in Edinburgh and 2 deaths from scarlet fever in Dundee.

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## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 4th, 614 births and 437 deaths were registered in the twenty-two principal urban districts of Ireland, as against 597 births and 476 deaths in the preceding period. The annual death-rate in these districts, which had been 19 9, 19.3, and 21.3 per 1,000 in the three preceding weeks, fell to 19.6 per 1 000 in the week under notice, this figure being 3 6 per 1 000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 24.1 and 16.8 respectively, those in other districts ranging from 4.8 in Sligo and 8.2 in Drogheda to 29 5 in Kilkenny and 46 2 in Clonmel, while Cork stood at 20.5. Londonderry at 14 3, Limerick at 20.5; and Waterford at 19.5. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000, or the same as in the preceding week.

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## ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1910.

IN the accompanying table will be found summarized the vital statistics of seventy-seven of the largest English towns, based upon the Registrar-General's weekly returns for the fourth quarter of last year. The 99 716 births registered in these towns during the quarter under notice were equal to an annual rate of 23.6 per 1,000 of the population, estimated at 16,940,895 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 25 5, 25.0, and 24.4 per 1,000 respectively. In London the birth rate last quarter was equal to 22.9 per 1,000, while it averaged 23 9 in the seventy-six other large towns, and ranged from 12 0 in Hastings, 12 7 in Hornsey, 14 4 in Halifax, 16 2 in Bournemouth, 17.3 in Bradford, and 17.4 in Northampton, to 29.8 in Birkenhead and in Tynemouth, 30.2 in Middlesbrough and in Swansea, 31 1 in Merthyr Tydfil, 32 7 in Coventry, and 38.9 in Rhondda.

The 61,563 deaths registered in these towns last quarter were equal to an annual rate of 14.6 per 1,000, the death-rate in the fourth quarters of the three preceding years having been 15.4 14.8, and 14.3 per 1,000. In London last quarter the death rate was 14 7 per 1,000, while among the other large towns it ranged from 8.8 in Handsworth (Staffs), 9.0 in King's Norton, 9.6 in Hornsey, 9.7 in East Ham, 10.3 in Walthamstow, and 10.4 in Reading, to 17.5 in Liverpool and in Dewsbury, 17.8 in Oldham, 17.9 in Swansea, 18.1 in Burnley, 18.2 in Stoke-on-Trent, 19.3 in Middlesbrough, and 20.4 in Tynemouth.

The deaths from all causes included 5,473 which were referred to the principal infectious diseases; of these, 1 resulted from small-pox, 1,815 from measles, 347 from scarlet fever, 612 from diphtheria, 650 from whooping cough, 354 from enteric fever, and 1,714 from diarrhoea. These 5,473 deaths were equal to an annual rate of 1.29 per 1 000, the death-rate from the same diseases in the corresponding period of the three preceding years being 1.68, 1.49, and 0.94 per 1,000 respectively. The rate of mortality in London last quarter from these principal infectious diseases was 1.37 per 1,000, while among the other large towns it averaged 1.27 per 1,000 and ranged from 0.21 in Wallasey, 0.23 in Hastings, 0.27 in Bournemouth, 0.39 in Handsworth (Staffs), 0.46 in South Shields, 0 47 in East Ham and in Ipswich, and 0.48 in Hornsey and in Derby, to 2.10 in Plymouth and in Stoke-on-Trent, 2.12 in Burnley, 2.16 in West Hartlepool 2.60 in Grimsby, 3 26 in Tynemouth, 3.28 in Brighton, and 3.44 in Rotherham.

The 1,815 deaths from measles were equal to an annual death rate of 0.43 per 1,000; in London the death-rate from this disease was 0.69 per 1,000, while in the other towns it ranged upwards to 0.86 in Oldham, 0.92 in Portsmouth, 1.35 in Grimsby, 1.43 in Plymouth, 1.63 in Rotherham, 2.06 in Tynemouth, and 2.07 in Brighton. The 347 fatal cases of scarlet fever corresponded to an annual rate of 0.08 per 1,000; in London the rate was only 0.03 per 1,000, but among the other towns it ranged upwards to 0.19 in Norwich, 0.21 in St. Helens and in Salford, 0.27 in Liverpool, 0.28 in Walsall, 0.41 in Stoke on-Trent, 0.47 in Bury, and 0.50 in Smethwick. The 612 deaths from diphtheria were equal to a rate of 0.14 per 1,000 which was slightly above the rate in London; among the other towns the highest death rates from this disease were 0.32 in Blackburn, 0.33 in Reading, 0.34 in Stoke on-Trent, in Bury, and in Middlesbrough, 0.35 in Norwich, 0 51 in Burton on-Trent, and 0.57 in Barrow-in-Furness. The 650 fatal cases of whooping-cough corresponded to an annual rate of 0.15 per 1,000; in London the rate was 0.11 per 1,000, while among the other large towns it ranged upwards to 0.33 in Reading and in Birkenhead, 0 34 in Stoke-on-Trent and in Stockport, 0.38 in Newcastle-on-Tyne, 0.51 in Norwich, 0.56 in Middlesbrough, and 1 03 in Rotherham. The 354 deaths referred to enteric fever were equal to an annual death-rate of 0 08 per 1,000; in London the death-rate from this disease was 0.07, while amongst the other large towns the highest rates were 0.20 in Blackburn, 0.22 in Burnley and in Stockton-on-Tees, 0 23 in Hull, 0 26 in Portsmouth, 0.37 in Preston, 0 38 in Grimsby, and 0.70 in Wigan. The 1,714 fatal cases of diarrhoea corresponded to a rate of 0.41 per 1,000; in London the rate was 0 35 per 1,000, while among the other large towns the highest rates were 0 77 in York, 0.78 in Oldham, 0.80 in Rochdale, 0 82 in Brighton, 0.83 in West Hartlepool, 0 98 in Rhondda, and 1 34 in Burnley. One death from small-pox was registered in St. Helens, but none in any other of the seventy-seven large towns.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 137 per 1,000 last quarter, against 154, 146, and 128 in the corresponding quarter of the three preceding years. In London the rate of infant mortality in the quarter under notice was 128 per 1,000, while among the other large towns the lowest rates were 75 in Reading and in Wallasey, 80 in King's Norton, 83 in Leyton, 84 in Bournemouth and in Barrow in Furness, and 88 in Hastings; and the highest rates, 174 in Nottingham, 180 in Rotherham, 181 in West Hartlepool, 183 in Blackburn, 194 in Gateshead, 198 in Stoke on-Trent 200 in Middlesbrough and 215 in Burnley.

The causes of 498, or 0.8 per cent., of the deaths in the seventy-seven towns last quarter were not certified either by a registered medical practitioner or by a coroner. The highest proportions of uncertified deaths were 3.0 per cent. in Birmingham, 3.2 in Burton-on-Trent, 4 7 in Rochdale and in South Shields, 4 8 in St. Helens, 5.0 in Warrington, 5.1 in Bootle, and 6 6 in Gateshead.

*Analysis of the Vital Statistics of Seventy-seven of the Largest English Towns during the Fourth Quarter of 1910.*

| Towns. | Estimated Population middle of 1910. | Births. | Deaths. | Annual rate per 1,000 Living. | | | Deaths from Principal Infectious Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Enteric Fever. | Diarrhoea. | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Births. | Deaths. | Principal Infectious Diseases. | | | | | | | | | | |
| 77 Towns | 16,940,895 | 99,716 | 61,563 | 23.6 | 14 6 | 1.29 | 5,473 | 1 | 1,815 | 347 | 612 | 630 | 354 | 1,714 | 137 | 0.8 |
| 76 Provincial Towns | 12,068,193 | 71,869 | 43,729 | 23.9 | 14.5 | 1.27 | 3,803 | 1 | 972 | 306 | 467 | 499 | 271 | 1,287 | 141 | 1.1 |
| London | 4,872,702 | 27,847 | 17,831 | 22.9 | 14.7 | 1.37 | 1,670 | — | 843 | 41 | 145 | 131 | 83 | 427 | 128 | 0.1 |
| Croydon | 164,485 | 884 | 464 | 21.6 | 11 3 | 0.66 | 27 | — | 1 | 2 | 7 | 6 | — | 11 | 120 | — |
| Willesden | 166 088 | 920 | 4 33 | 22.2 | 10 5 | 0.57 | 24 | — | 6 | — | 1 | 5 | 2 | 10 | 113 | 0.5 |
| Hornsey | 98,561 | 311 | 236 | 12 7 | 9 6 | 0.48 | 12 | — | 1 | — | 4 | 4 | — | 3 | 113 | — |
| Tottenham | 132,803 | 843 | 443 | 25.5 | 13 4 | 1.42 | 47 | — | 27 | — | 9 | 1 | 5 | 5 | 119 | — |
| West Ham | 328,585 | 2,011 | 1,115 | 24.5 | 13 6 | 1 62 | 132 | — | 44 | 7 | 16 | 15 | 11 | 39 | 143 | 0.1 |
| East Ham | 156,208 | 759 | 376 | 19.5 | 9.7 | 0 47 | 18 | — | 4 | — | 1 | 1 | 5 | 7 | 104 | — |
| Leyton | 133.436 | 757 | 349 | 22.8 | 10 5 | 0.54 | 18 | — | — | 3 | 7 | 1 | 1 | 6 | 83 | — |
| Walthamstow | 141,748 | 761 | 364 | 21.5 | 10.3 | 0.56 | 20 | — | 3 | 1 | 7 | 3 | 2 | 4 | 109 | — |
| Hastings | 68,520 | 205 | 211 | 12.0 | 12.4 | 0.23 | 4 | — | — | — | — | — | — | 4 | 88 | 0.5 |
| Brighton | 131.900 | 597 | 545 | 18.2 | 16 6 | 3.28 | 108 | — | 68 | 3 | 1 | 6 | 3 | 27 | 139 | — |
| Portsmouth | 217,989 | 1,464 | 850 | 26.9 | 15 6 | 1.89 | 102 | — | 50 | 2 | 15 | 3 | 14 | 18 | 126 | 0.7 |
| Bournemouth | 73,947 | 299 | 228 | 16.2 | 12.4 | 0 27 | 5 | — | — | — | 2 | — | — | 3 | 84 | 0.4 |
| Southampton | 127.157 | 724 | 448 | 22.8 | 14.1 | 1.29 | 41 | — | 15 | — | 7 | 1 | 5 | 13 | 95 | — |
| Reading | 84,355 | 400 | 218 | 19.0 | 10.4 | 0 85 | 18 | — | — | — | 7 | 7 | — | 4 | 75 | 0.5 |
| Northampton | 99,113 | 430 | 288 | 17.4 | 11 7 | 1 01 | 25 | — | — | — | 5 | 7 | 2 | 11 | 123 | 0.7 |
| Ipswich | 75.936 | 411 | 266 | 21.7 | 14.1 | 0.47 | 9 | — | — | 1 | 4 | — | 1 | 3 | 105 | — |
| Great Yarmouth | 53,715 | 380 | 195 | 28.4 | 14 6 | 0.76 | 10 | — | — | — | 1 | 1 | 1 | 7 | 108 | — |
| Norwich | 125,446 | 689 | 388 | 22.0 | 12.4 | 1.34 | 42 | — | — | 6 | 11 | 16 | 1 | 8 | 120 | 0.5 |
| Plymouth | 126,266 | 651 | 449 | 20.7 | 14.3 | 2.10 | 66 | — | 45 | — | 5 | — | 3 | 13 | 129 | — |
| Devonport | 84,695 | 492 | 235 | 23.3 | 11 1 | 1.00 | 21 | — | 1 | — | 5 | 1 | 4 | 10 | 106 | — |
| Bristol | 382,550 | 1,958 | 1,204 | 20.5 | 12 6 | 0 56 | 54 | — | 1 | 7 | 8 | 21 | 4 | 13 | 106 | 0.2 |
| Stoke on-Trent | 245,726 | 1,792 | 1,117 | 29.3 | 18 2 | 2.10 | 129 | — | 14 | 25 | 21 | 21 | 11 | 37 | 198 | 2.1 |
| Burton-on Trent | 54,977 | 251 | 157 | 18 3 | 11.5 | 0 94 | 13 | — | 1 | — | 7 | — | — | 5 | 100 | 3.2 |
| Wolverhampton | 105,962 | 536 | 367 | 20.3 | 13 9 | 0.62 | 16 | — | 1 | 2 | 2 | 6 | — | 5 | 112 | — |
| Walsall | 101 035 | 650 | 294 | 25.8 | 11 7 | 1.08 | 27 | — | 1 | 7 | 1 | — | 2 | 16 | 102 | — |
| Handsworth | 72,335 | 329 | 159 | 18.2 | 8.8 | 0.39 | 7 | — | — | 2 | — | 1 | — | 4 | 100 | 1.3 |
| West Bromwich | 71,138 | 462 | 237 | 26.0 | 13.4 | 1.08 | 19 | — | — | 3 | 4 | 1 | — | 11 | 126 | 0.8 |
| Birmingham | 570,113 | 3,559 | 2,097 | 25.0 | 14.8 | 1.11 | 156 | — | 36 | 25 | 18 | 14 | 11 | 52 | 165 | 3.0 |
| King's Norton | 84,673 | 412 | 190 | 19.5 | 9.0 | 0.66 | 14 | — | — | 1 | 6 | 1 | — | 6 | 60 | 1.6 |
| Smethwick | 72,350 | 478 | 196 | 26.2 | 10 9 | 1 05 | 19 | — | — | 9 | 2 | — | — | 8 | 146 | — |
| Aston Manor | 86,269 | 460 | 261 | 21.4 | 12.1 | 0.83 | 18 | — | — | 3 | 2 | — | 2 | 11 | 146 | 0.8 |
| Coventry | 81,449 | 664 | 299 | 32.7 | 14.7 | 1 24 | 25 | — | 5 | 3 | 4 | 2 | 2 | 9 | 90 | 1.3 |
| Leicester | 248 374 | 1,281 | 788 | 20.7 | 12 7 | 0.65 | 40 | — | 8 | 1 | 4 | 3 | 5 | 19 | 157 | 1.8 |
| Grimsby | 74 283 | 471 | 296 | 25.4 | 16.0 | 2.60 | 48 | — | 25 | — | — | 2 | 7 | 14 | 157 | 1.7 |
| Nottingham | 266 471 | 1,477 | 1,051 | 22.2 | 15.8 | 0.88 | 58 | — | 7 | — | 2 | 14 | — | 35 | 174 | 0.7 |
| Derby | 131,256 | 772 | 399 | 23.6 | 12.2 | 0.48 | 16 | — | 3 | 1 | 7 | 2 | — | 3 | 95 | — |
| Stockport | 105,087 | 671 | 401 | 25.6 | 15.3 | 1.07 | 28 | — | 5 | — | 2 | 9 | 1 | 11 | 158 | 0.2 |
| Birkenhead | 122,431 | 911 | 511 | 29.8 | 16.7 | 1.06 | 32 | — | 2 | — | 7 | 10 | 2 | 11 | 147 | 0.4 |
| Wallasey | 73,173 | 359 | 201 | 19.7 | 11 0 | 0 21 | 4 | — | — | — | — | 1 | 2 | 1 | 75 | — |
| Liverpool | 767,606 | 5 464 | 3,351 | 28.6 | 17 5 | 1.73 | 331 | — | 85 | 52 | 30 | 41 | 7 | 116 | 143 | 2.7 |
| Bootle | 70,548 | 485 | 255 | 27.6 | 14 5 | 0.97 | 17 | — | 1 | — | 2 | 3 | — | 11 | 132 | 5.1 |
| St Helens | 96,523 | 712 | 395 | 29.6 | 16.4 | 1.46 | 35 | 1 | 10 | 5 | 2 | 2 | 4 | 11 | 159 | 4.8 |
| Wigan | 91 732 | 622 | 377 | 27.2 | 16 5 | 1.70 | 39 | — | 3 | 1 | 1 | 5 | 16 | 13 | 158 | — |
| Warrington | 73,295 | 518 | 280 | 28.3 | 15.3 | 1.31 | 24 | — | 4 | 3 | 2 | 2 | 3 | 10 | 141 | 5.0 |
| Bolton | 190,315 | 1,055 | 677 | 22.2 | 14.3 | 0.97 | 46 | — | 2 | 7 | 12 | 3 | 5 | 17 | 133 | 0.9 |
| Bury | 59,409 | 284 | 237 | 19.2 | 16.0 | 1.89 | 28 | — | 5 | 7 | 5 | — | — | 11 | 137 | 2 5 |
| Manchester | 716,354 | 4.400 | 3,018 | 24.6 | 16 9 | 1.27 | 228 | — | 69 | 20 | 29 | 30 | 24 | 56 | 151 | 0.6 |
| Salford | 244,636 | 1,593 | 952 | 26.1 | 15 6 | 1.22 | 75 | — | 18 | 13 | 5 | 10 | 8 | 21 | 131 | 0.2 |
| Oldham | 144,111 | 847 | 641 | 23.6 | 17.8 | 1 93 | 69 | — | 31 | 2 | — | 6 | 2 | 28 | 163 | — |
| Rochdale | 90,497 | 415 | 363 | 18.4 | 16 1 | 1.29 | 29 | — | 2 | 2 | 3 | 2 | 2 | 18 | 125 | 4.7 |
| Burnley | 107 448 | 615 | 485 | 23.0 | 18 1 | 2.12 | 57 | — | 4 | 2 | 4 | 5 | 6 | 36 | 215 | 1.9 |
| Blackburn | 137 972 | 698 | 525 | 20.3 | 15 3 | 1.89 | 65 | — | 10 | 5 | 11 | 6 | 7 | 26 | 183 | 1.3 |
| Preston | 119,253 | 626 | 480 | 21.1 | 16.1 | 1.42 | 42 | — | 5 | 2 | 2 | — | 11 | 22 | 141 | 1.7 |
| Barrow-in-Furness | 63,689 | 370 | 197 | 23.3 | 12.4 | 1.20 | 19 | — | 2 | 3 | 9 | — | — | 5 | 84 | 2.5 |
| Huddersfield | 94,702 | 545 | 410 | 23.1 | 17.4 | 1.14 | 27 | — | 5 | 3 | 6 | 3 | — | 10 | 110 | — |
| Halifax | 112,818 | 405 | 343 | 14.4 | 12 2 | 0.49 | 14 | — | 2 | 2 | — | — | 4 | 6 | 116 | 0 9 |
| Bradford | 295.865 | 1,279 | 1,030 | 17.3 | 14 0 | 0.95 | 70 | — | 1 | 5 | 11 | 22 | 10 | 21 | 140 | 0.2 |
| Leeds | 490 985 | 2,550 | 1,812 | 20 8 | 14.8 | 1.46 | 179 | — | 78 | 15 | 25 | 29 | 5 | 27 | 158 | 0.1 |
| Dewsbury | 51,224 | 252 | 224 | 19.7 | 17 5 | 1 32 | 17 | — | 3 | — | 3 | 4 | 2 | 5 | 167 | — |
| Sheffield | 478,763 | 3,014 | 1,716 | 25.2 | 14 4 | 1.76 | 210 | — | 78 | 8 | 12 | 27 | 4 | 81 | 147 | 1.4 |
| Rotherham | 66 414 | 450 | 285 | 27.2 | 17 2 | 3.44 | 57 | — | 27 | 2 | 4 | 17 | 1 | 6 | 180 | 1.4 |
| York | 88.159 | 438 | 276 | 19.9 | 12 6 | 1.32 | 29 | — | — | 1 | 2 | 6 | 3 | 17 | 126 | — |
| Hull | 280,006 | 1,901 | 1,104 | 27.2 | 15 8 | 1.37 | 96 | — | 21 | 3 | 11 | 10 | 16 | 35 | 151 | 1.1 |
| Middlesbrough | 107 014 | 807 | 516 | 30.2 | 19 3 | 2.06 | 55 | — | 8 | — | 9 | 15 | 3 | 20 | 200 | — |
| Stockton-on-Tees | 53,680 | 321 | 200 | 24.0 | 14 9 | 0 95 | 13 | — | 1 | 1 | 1 | 3 | 3 | 4 | 159 | 0.5 |
| West Hartlepool | 81 814 | 425 | 260 | 20.8 | 12 7 | 2 16 | 44 | — | 17 | — | 5 | 5 | — | 17 | 181 | 0.4 |
| Sunderland | 161 083 | 1,094 | 655 | 27.2 | 16 3 | 1 33 | 54 | — | 13 | 4 | 5 | 6 | 1 | 25 | 134 | 1.1 |
| South Shields | 119.737 | 799 | 408 | 26 8 | 13 7 | 0 46 | 14 | — | — | 1 | 1 | 4 | 2 | 6 | 120 | 4.7 |
| Gateshead | 133 676 | 830 | 456 | 24.9 | 13 7 | 0 84 | 28 | — | 3 | 2 | 4 | 2 | — | 17 | 194 | 6.6 |
| Newcastle-on-Tyne | 285 951 | 1,820 | 1,061 | 25.5 | 14.9 | 1.52 | 108 | — | 42 | 4 | 12 | 27 | 3 | 20 | 141 | 0.3 |
| Tynemouth | 56 378 | 419 | 287 | 29.8 | 20.4 | 3.26 | 46 | — | 29 | — | 2 | 4 | 1 | 10 | 169 | 2.4 |
| Newport (Mon.) | 79,729 | 547 | 256 | 27.5 | 12 9 | 0 70 | 14 | — | — | 2 | 3 | — | — | 9 | 128 | 0.4 |
| Cardiff | 199 189 | 1,101 | 597 | 22.2 | 13.0 | 0.78 | 39 | — | — | 7 | 12 | 2 | 2 | 16 | 127 | — |
| Rhondda | 138.674 | 1,344 | 548 | 38.9 | 15 9 | 2.00 | 70 | — | 14 | 5 | 5 | 6 | 6 | 34 | 156 | 0 2 |
| Merthyr Tydfil | 79 522 | 616 | 288 | 31.1 | 14.5 | 0 60 | 12 | — | 1 | 1 | — | 1 | — | 9 | 128 | 0.3 |
| Swansea | 98,817 | 743 | 441 | 30.2 | 17 9 | 1.25 | 31 | — | 4 | 2 | 5 | 5 | 1 | 14 | 153 | — |

# Naval and Military Appointments.

## INDIAN MEDICAL SERVICE.

MAJOR C. THOMSON, M.B., Bengal, is permitted to retire from the service, from January 30th. He was appointed Surgeon-Lieutenant, January 9th, 1884; Surgeon-Captain, January 29th, 1897; and Major, January 29th, 1906.

The retirement from the service of Lieutenant-Colonel H. N. V. HARINGTON, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

The King has approved of the admission of the undermentioned gentlemen to the Indian Medical Service:—*To be Lieutenants*, dated July 30th, 1910: PHIROZSHAH BYRAMJI BHARUCHA, F.R.C.S., RICHARD W. G. HINGSTON, M.B., JOHN B. TACKABERRY, M.B., CHARLES N. DAVIS, M.B., REGINALD C. CLIFFORD, CLIVE NEWCOMBE, M.B., HENRY E. SHORTT, M.B., THOMAS A. HUGHES, M.B., LATAFAT HUSAIN KHAN, ROBERT DE S. B. HERRICK, HARGOBIND L. BATRA, MURRAY PURVIS, M.B., WALTER O. WALKER, M.B., DUNCAN MCN. TAYLOR, M.B., VINCENT P. NORMAN. *To be Lieutenants on Probation*, dated January 28th, 1911: JOHN SCOTT, M.B., ALISTER R. S. ALEXANDER, M.B., FREDERICK W. HAY, M.B., "KANWAR" INDARJIT SINGH, M.B., SIDNEY M. HEPWORTH, M.B., HARRY S. CORMACK, M.B., GEORGE TATE, GEORGE S. BROCK, M.B., EDWARD S. GOSS, JOHN F. H. MORGAN, KRISHNAN GOPINATH PANDALAI, M.B., JYOTI LAL SEN, M.B., CHARLES A. WOOD, M.B., PERCIVAL S. CONNELLAN.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ASHTON-UNDER-LYNE UNION.—Male Resident Medical Officer for the Workhouse. Salary, £150 per annum

AYR, COUNTY OF.—Assistant Medical Officer. Salary, £250 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium, 52 guineas per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BOOTLE BOROUGH HOSPITALS.—Junior House-Surgeon. Salary, £80 per annum.

BOURNEMOUTH: ROYAL NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST.—Physician.

CROYDON COUNTY BOROUGH.—Assistant Medical Officer. Salary, £250 per annum.

DUMFRIES AND BURGHS.—Two Medical Assistantships to the Medical Officer of Health and School Medical Officer. Salary, £250 per annum.

EDINBURGH ROYAL INFIRMARY.—Superintendent. Salary commencing at £600 per annum.

EVELINA HOSPITAL FOR CHILDREN, Southwark, S.E.—House-Physician. Salary at the rate of £60 per annum.

GLOUCESTER COUNTY ASYLUM, Wotton.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (male). Salary, £100 per annum and £10 for lectures to probationer nurses.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITALS.—Surgeon to Out-patients.

HORNSEY BOROUGH.—Assistant Medical Officer of Health, Assistant to the Medical Superintendent of the Isolation Hospital, and Assistant Medical Officer. Combined salary, £225 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Anaesthetist. Honorarium, £15 15s.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Vacancy on Honorary Medical Staff.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £65 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Three House-Surgeons. Salary at the rate of £60 per annum each.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Three House-Surgeons. (2) Two House-Physicians. Salary at the rate of £60 per annum each.

LLANYBYTHER: WEST WALES SANATORIUM.—Medical Superintendent. Salary, £250 per annum.

LONDON SCHOOL OF TROPICAL MEDICINE.—Craggs' Research Prize, value £50.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium at the rate of £50 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer and Pathologist. Salary, £60 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Senior Assistant in the Out-patient Department.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Lecturer on Public Health.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Honorary Anaesthetist to the Out-patient Department.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer in Anatomy. Salary at the rate of £350 per annum, with share in special class fees.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Resident Medical Officer. Salary, £105 per annum.

ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SHREWSBURY: SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon (male). Salary commencing at the rate of £70 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary £80 per annum.

STOKE-ON-TRENT AND STOKE RURAL JOINT HOSPITAL BOARD.—Resident (Lady) Assistant Medical Officer. Salary, £100 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

SUNDERLAND INFIRMARY.—Two House-Surgeons (male). Salary £80 per annum.

TOWER HAMLETS DISPENSARY, Whitehorse Street, Stepney, E.—Resident Medical Officer. Salary, £100 per annum, rising to £120.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

WALLSEND BOROUGH.—(1) Medical Officer of Health. Salary, £400 per annum, rising to £600. (2) Lady Health Visitor. Salary, £80 per annum, rising to £110.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male).

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Northallerton, co. Yorks, and Inverkeithing, co. Fife.

## APPOINTMENTS.

BRISTOL EYE HOSPITAL.—The following appointments have been made:

Consulting Surgeon.—Clements Hailes, M.D., F.R.C.S.Edin.
Surgeon.—Alexander Ogilvy, F.R.C.S.I.
Anaesthetist.—William S. V. Stock, M.B., B.S.Lond., F.R.C.S.Eng.
Rhinologist.—Andrew T. M. Wright, M.B., B.S.Lond., F.R.C.S.Eng.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Resident Medical Officer.—Donald E. Core, M.D., Ch.B.Vict., M.R.C.P.
Resident Medical Officer at the Barnes Convalescent Hospital, Cheadle.—E. E. Hughes, M.B., Ch.B.Vict.
Medical Registrar.—F. E. Tylecote, M.D., Ch.B.Vict., M.R.C.P.

# BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

TURNER.—On February 13th, at 18, Harley Street, W., the wife of William Aldren Turner, M.D., of a son.

### MARRIAGES.

EAGER—TREMLETT.—On the 9th inst., at St. Leonards Church, Exeter, by the Rev. James Fountaine, uncle of the bridegroom, assisted by the Rev. Reginald Callender, Rector of the Parish, Richard Eager, of Exminster, son of Wilson Eager, to Marion Jane, second daughter of Charles H. Tremlett, Fairpark House, Exeter.

SYKES—AGARD.—February 8th, at St. John's Church, Altrincham, by the Rev. S. E. Collinson, assisted by the Rev. Canon Wainwright, Walter Sykes, L.R.C.P., L.R.C.S.E., L.F.P. and S.G., fourth son of the late Benjamin Sykes, of Preston, to Hilda Mary, younger daughter of Arthur Agard, Hale, Cheshire.

### DEATHS.

CRAWFORD.—February 7th, at 40, Rodney Street, Liverpool, in his 75th year, Joseph Dawson Crawford, M.D., F.R.C.S.Edin., formerly Senior Surgeon to the Liverpool Hospital for Cancer and Skin Diseases. Interred at Smithdown Road Cemetery on 11th inst. (Friends will kindly accept this, the only, intimation.)

HENDERSON.—At a Nursing Home, on February 9th, John Henderson, M.B., C.M., of Glenleith, Colinton, Midlothian (late of The Elms, Lasswade), son of Simon Henderson, 29, Merchiston Park, Edinburgh.

# DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 9 p.m.—Mr. W. F. Haslam:—Second Lettsomian Lecture: A Review of the Operations for Stone in the Male Bladder.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races, illustrated by the Museum collection.

### TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper: The Administration of the Law relating to the Medical Inspection and Treatment of School Children, by L. Haden Guest, M.R.C.S., L.R.C.P.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Papers:—Dr. A. G. Levy: Asphyxia under Chloroform. Dr. B. H. Wedd: Multiple Submucous Tumours in the Small Intestine associated with Carcinoma of the Larynx. Mr. S. G. Shattock: Lamarckism and Callosities.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Papers:—Dr. A. P. Beddard: Some Points in the Treatment of Lobar Pneumonia. Mr. F. R. Smyth: The Use of Local Anaesthetics in the Mouth.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races, illustrated by the Museum collection.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races, illustrated by the Museum collection.

ROYAL SOCIETY OF MEDICINE:

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m. Paper:—Dr. W. G. Savage: Diseases of the Cow (excluding tuberculosis) Affecting the Milk in their Relationship to Human Disease.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m. Cases and Specimens:—Dr. Bellingham Smith: Spasmus Nutans. Dr. Porter Parkinson: Congenital Dilatation of the Colon. Dr. A. W. G. Woodforde: Delayed Chloroform Poisoning; and other cases. Paper: Mr. Sydney Stephenson: Oculomotor Type of Polioencephalitis.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Method of Examination; Friday, 3.45 p.m., Some Appliances of Use to the Practitioner in Diseases of the Throat, Nose, and Ear.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W. Wednesday, 4 p.m., Some Points on the Radiography of the Chest.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Affections of the Middle Ear and Mastoid Complications; Thursday, 4 p.m., Pathological Demonstration; Friday, 5.15 p.m., Respiratory System, Foreign Body, Laryngeal Obstruction, Empyema.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich. Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., Recent Researches on the Micro-organisms of Certain Diseases; Thursday, 4.30 p.m., On Gummata; Friday, 2.15 p.m., Palpitation.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE LECTURE, Thursday, 4.15 p.m.—Screen Examination of Chest Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C. The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin: Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures, at 5.15 p.m. each day, will be given as follow: Monday, Some Aspects of Lymphadenoma; Tuesday, The Surgical Treatment of Tumours of the Breast: Wednesday, Some Common Affections of the Ear (with illustrative cases); Thursday, Demonstration of a New Method, combining Direct and Indirect Gastroscopy.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Surgery of the Nervous System; Friday, 3.30 p.m., Peripheral Neuritis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N. Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In patient; 4.30 p.m., Lecture: Enteroptosis and its Treatment. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture-Demonstration on Anaesthetics. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Thursday, 6 p.m., The Solution of the Confusion between Pityriasis Rubra Pilaris and Lichen and the Treatment of each.

WEST LONDON POST GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week:—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures, at 5 p.m. Monday, Clinical Lecture (Lecture II). Tuesday, Practical Medicine. Wednesday, Oral Conditions in their Relation to General Conditions of Health and Disease. Thursday, Practical Surgery (Lecture V). Friday, Anaesthetics.

## RECENT PUBLICATIONS.

*The Bradshaw Lecture on Cancer.* By Sir Alfred Pearce Gould, K.C.V.O. London: John Bale, Sons, and Danielsson, Limited. (Demy 8vo, pp. 77. 3s. 6d.)

The text of the Bradshaw Lecture on Cancer (published in the JOURNAL, December 10th, 1910), with some additional illustrations on plate paper.

*Innere Medizin.* Von Dr. Georg Zuelzer. I Teil. Leipzig: Dr. Werner Klinkhardt. 1911. (Roy. 8vo, pp. 330. M.7.50.)

The first volume of a medical handbook. It deals with acute infectious diseases and diseases of the heart, veins, and respiratory organs. The book is one of a series issued under the directorship of Professor Dr. Ph. Bockenheimer, Privat-Dozent in Surgery in the University of Berlin.

*The Local Government Annual and Official Directory for 1911.* London: The Local Government Board Journal. (1s. 6d.)

The twentieth issue of this useful work of reference, to which particulars as to the London markets, the Central Unemployment Committee, and Metropolitan Labour Exchanges have been added. The book is, especially in regard to London, very complete.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **FEBRUARY.** | |
| 19 Sunday .. | |
| 20 MONDAY .. | |
| 21 TUESDAY .. | |
| 22 WEDNESDAY | WINCHESTER AND SALISBURY DIVISIONS, *Southern Branch*, Combined Clinical Meeting, Star and Garter Hotel, Andover, 8 p.m.; Dinner, 7 p.m. |
| 23 THURSDAY .. | LONDON: Conference of Medico-Political and Hospitals Committee *re* Abuse of Hospital Out-patient Departments, 12 noon.<br>LONDON: Joint Medico-Political and Hospitals Subcommittee *re* Payment of Staffs of Hospitals (immediately after above Conference).<br>LAMBETH DIVISION, *Metropolitan Counties Branch*, Lambeth Infirmary, Brook Street, S.E., 4 p.m. |
| 24 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>BOSTON AND SPALDING DIVISION, *Midland Branch*, White Hart Hotel, Boston, 2.45 p.m.<br>EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m.; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, 6.30 p.m.<br>MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Pontypool and District Hospital, 3.30 p.m.<br>WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Wandsworth Town Hall, 8.45 p.m. |
| 25 SATURDAY .. | |
| 26 Sunday .. | |
| 27 MONDAY .. | |
| 28 TUESDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 25TH, 1911.

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# Association Intelligence.

## PROCEEDINGS OF COUNCIL.

A MEETING of the Council was held at 429, Strand, London, W.C., on January 25th, 1911.

*Present:*
Dr. J. A. MACDONALD, Taunton, Chairman of Council, in the Chair.
Mr. HENRY T. BUTLIN, P.R.C.S., D.C.L., LL.D., London, President.
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham, President-Elect.
Sir WILLIAM WHITLA, M.D., LL.D., Belfast, Past-President.
Dr. EWEN J. MACLEAN, Cardiff, Chairman of Representative Meetings.
Mr. EDMUND OWEN, LL.D., F.R.C.S., London, Past-Chairman of Council.
Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. J. GRANT ANDREW, Glasgow
Insp.-Gen. ROBERT BENTHAM, R.N. (ret.), London (Royal Navy Medical Service)
Surg.-Gen. W. R. BROWNE, M.D., C.I.E., London (Indian Medical Service)
Dr. R. C. BUIST, Dundee
Dr. W. A. CARLINE, Lincoln
Mr. ANDREW CLARK, D.Sc., K.H.S., London
Dr. M. DEWAR, Edinburgh
Mr. E. J. DOMVILLE, Exeter
Dr. J. E. EDDISON, Leeds
Mr. J. HENRY EWART, Eastbourne
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Mr. T. W. H. GARSTANG, Altrincham
Dr. E. W. GOODALL, London
Dr. W. GOSSE, Sittingbourne
Dr. T. D. GREENLEES, London, Cape of Good Hope, Eastern, Western, and Border Branches
Dr. MAJOR GREENWOOD, London
Sir VICTOR HORSLEY, F.R.S., London
Mr. HERBERT JONES, Hereford
Colonel C. H. JOUBERT DE LA FERTÉ, I.M.S., Weybridge
Mr. HUGH R. KER, London
Dr. F. W. KIDD, Dublin
Mr. F. C. LARKIN, Liverpool
Dr. G. R. LIVINGSTON, Dumfries
Mr. ALBERT LUCAS, Birmingham
Dr. JOHN MACDONALD, South Shields
Dr. D. J. MACKINTOSH, M.V.O., Glasgow
Dr. B. H. NICHOLSON, Colchester
Dr. FRANK M. POPE, Leicester
Dr. A. J. RICE-OXLEY, London
Dr. H. JONES ROBERTS, Penygroes
Dr. LAURISTON E. SHAW, London
Mr. C. R. STRATON, Salisbury
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Mr. T. JENNER VERRALL, Bath
Mr. D. J. WILLIAMS, Llanelly

### ELECTIONS TO CENTRAL COUNCIL.

The CHAIRMAN reported that the following had been returned to the Central Council: Surgeon-General P. H. Benson, I.M.S., by the Bombay, Burma, South Indian and Madras, Colombo Ceylon, Assam, Malaya, and Hong Kong and China combined Branches; and Dr. T. D. Greenlees, by the Cape of Good Hope Western, Cape of Good Hope Eastern, Cape of Good Hope Border, Griqualand West (including Orange River Colony), Transvaal, Natal, Egyptian, Malta and Mediterranean, and Gibraltar combined Branches.

### NEW MEMBER.

The CHAIRMAN OF THE REPRESENTATIVE BODY reported that he had appointed Dr. Gosse of Sittingbourne to fill the vacancy created by the death of Dr. J. J. Macan.

### APOLOGIES.

Letters of apology for non-attendance were read from Dr. David Ewart, Dr. John R. Hamilton, Mr. R. J. Johnstone, Dr. Munro Moir, and Professor A. H. White.

### ADDRESS TO THE KING.

The following letter from the Home Office was read and ordered to be entered on the Minutes:

Home Office,
Whitehall,
November 15th, 1910.

Sir,

I am commanded by The King to convey to you hereby His Majesty's Thanks for the Loyal and Dutiful Address of the Members of the British Medical Association, expressing their sympathy with His Majesty on the occasion of the lamented death of His late Majesty King Edward the Seventh, and congratulations on His Majesty's Accession to the Throne.

I am to say that the expression of sympathy with Queen Alexandra has been laid before Her Majesty, who desires me to convey to you Her Thanks.

I am, Sir,
Your obedient servant,
W. CHURCHILL.

The Financial Secretary,
British Medical Association,
429, Strand, London, W.C.

### DEATHS OF MEMBERS OF COUNCIL.

Letters of acknowledgement to the Resolutions of Condolence passed by the Council upon the deaths of Sir Constantine Holman and Dr. J. J. Macan were read and ordered to be entered on the Minutes.

### MR. H. A. BALLANCE.

A letter was read from Mr. H. A Ballance, Chairman of Representative Meetings 1909–10, thanking the Council for its Resolution appreciating his services to the Association.

DEATHS OF FORMER MEMBERS OF COUNCIL.

The CHAIRMAN reported the deaths of Dr. William Hall and Dr. J. B. Greathead, formerly Members of the Central Council, and was authorized to forward the Council's expressions of regret and sympathy to the respective families.

RESIGNATION.

The CHAIRMAN reported that Sir Alfred Keogh had resigned his membership of the Council, to which office he was elected by the Representative Meeting in July, 1910.

ANNUAL MEETING, 1914.

A communication from the Aberdeen Branch was read, stating that at the Annual Meeting of the Branch held in Aberdeen on Saturday, October 15th, 1910, it was unanimously resolved to invite the Association to hold its Annual Meeting in Aberdeen in 1914.

The Council decided to thank the Aberdeen Branch for the letter, and ordered that it should be entered on the Minutes for future reference.

FUTURE ANNUAL MEETINGS.

The Council decided that in future the question as to where the Association shall hold its Annual Meeting will be referred to the Organization Committee for report.

LETTER OF THANKS FOR USE OF COUNCIL CHAMBER.

A communication was read from the Central Committee for the State Registration of Nurses, thanking the Association for the use of the Council Room.

ROYAL SANITARY INSTITUTE.

An application from the Royal Sanitary Institute, inviting the Association to appoint Delegates to its Congress, to be held in Belfast, July 24th to 29th, 1911, was referred to the Public Health Committee.

AUSTRALASIAN MEDICAL CONGRESS.

In response to a communication from the General Secretary of the Australasian Medical Congress, asking for the appointment of a Representative to attend the Congress, to be held in Sydney, N.S.W., September 18th to September 23rd, 1911, the Council decided to ask the respective Presidents of the Australasian Branches to represent the Association officially at the Congress.

## REPORTS OF COMMITTEES.

FINANCE COMMITTEE.

The TREASURER presented the Minutes of the Finance Committee of January 18th, 1911.

*Accounts for the Quarter.*

The Accounts for the quarter ended December 31st, 1910, amounting to £14,457 6s. 6d., were approved, and the Treasurer empowered to pay those remaining unpaid, amounting to £3,740 10s. 7d.

*Annual Meeting Finance.*

The Council decided that any Branch or Division entertaining the Association in future is to be informed that, owing to the new system of financing the Annual Meeting, the Branch or Division is not at liberty to vote any of the Association funds to defray the expenses of the Meeting.

*Royal Progress of the King and Queen through London.*

The Council referred to the Premises Committee the whole question of the arrangements to be made for viewing from the offices of the Association the Royal Progress through London of the King and Queen on Friday, June 23rd, 1911.

ORGANIZATION COMMITTEE.

The CHAIRMAN (Mr. Larkin) presented the Quarterly Report of the Organization Committee.

*Grouping of Divisions and Branches, 1911–12.*

The Council decided that the Bromley and Croydon Divisions of the South-Eastern Branch shall be grouped, for the purpose of the election of Members of Council for the year 1911–12, with the rest of that Branch, instead of with the Metropolitan Counties Branch. Otherwise the grouping of Divisions and Branches in the United Kingdom for the election of Members of Council for the year 1911–12 shall be the same as for the year 1910–11.

*Particulars for Voting Papers.*

The Council decided to report to the Representative Body that it is not desirable to insert particulars of Nominations, whether by Divisions or Members, in voting papers for the Election of Members of Council by groups of Branches in the United Kingdom.

*Election of Service Members of Council.*

It was decided that one Member only for each Service should in future be nominated by the Council, provision being made to enable any Member of the Representative Body to nominate a further Member.

It was decided also to instruct the Naval and Military Committee to suggest at least three names for each seat on the Council to be held by Service Members, and to make suitable provision for ascertaining the willingness to serve of candidates so nominated.

*Amendments of Articles and By-laws.*

The Council approved of the action of the Organization Committee in giving instructions for the drafting of Amendments of the Articles and By-laws as stated in the Report of the Committee, for the purpose of giving effect to Minute 105 of the Annual Representative Meeting, 1910.

*Methods of Voting in Association Elections.*

In reference to Minute 114 of the Annual Representative Meeting, 1910, the Council decided to recommend to the Representative Body:

(i) That the following elections be conducted on the Transferable Vote System:

Members of the Council:

(*a*) By Branches within the United Kingdom by Voting Paper.
(*b*) By grouped Representatives.
(*c*) By the Representatives as a whole (Four Members).
(*d*) By the Representatives as a whole (Three Service Members).

Officers:

Elected by the Representative Body.

(*a*) President.
(*b*) Chairman of Representative Meetings.
(*c*) Deputy Chairman of Representative Meetings.
(*d*) Treasurer.

Elected by the Council:

(*e*) Chairman of Council.

(ii) That the following elections be conducted on the present basis—namely, that those candidates, up to the number to be elected, who receive the greatest number of votes, be declared elected:

(*a*) Members of Committees by the Representative Meeting.
(*b*) Members of Committees by the Council.

(iii) That the following elections be conducted in such manner as the Bodies concerned may think fit:

(*a*) Representatives in Representative Meetings by Divisions.
(*b*) Officers of Branches.
(*c*) Members of Branch Councils.
(*d*) Officers of Divisions.
(*e*) Members of Executive Committees of Divisions.

*Referendum and Postal Vote.*

The draft Report on the subject of Minute 330 of the Annual Representative Meeting, 1910, as to Referendum and Postal Vote, was adopted by the Council and referred for the consideration of the Divisions.

*Method of Voting in Representative Meetings.*

The Council decided to recommend the Representative Body to provide by Standing Order for names being taken, when desired, of those voting for and against any motion for which a two-thirds majority is required.

*Grant to Southern Branch for 1910.*

The Council authorized a Grant to the Southern Branch for the year 1910, at the rate of 4s. per head of Annual List, 1910.

*Affiliation of certain Outside Bodies.*

The draft Report under Minute 199 of the Annual Representative Meeting, 1909, submitted by the Organization Committee, was adopted as the Report of the Council to the Divisions and to the Representative Body on the subject.

*Grouping of Divisions for Representation in Representative Meetings.*

The Council approved of the Barnstaple, Exeter, Torquay, and Plymouth Divisions being accorded separate representation in Representative Meetings for the year 1911–12. The decision as to representation of the East and West Cornwall Divisions was postponed, pending receipt of further information.

*New Punjab Branch.*

The Council authorized the formation of a Branch of the Association to be designated the Punjab Branch, composed of the Members of the Association resident within the area of the Province of Punjab.

JOURNAL COMMITTEE.

The CHAIRMAN (Dr. Buist) presented the Quarterly Report of the Journal Committee.

*Leading Articles in "Journal" and Position of "Journal" as Regards Policy of Association.*

The Council approved the report to be presented to the Representative Body on the subject of Minutes 74 (*a*) and 84 of the Representative Meeting, 1910, and decided to recommend the Representative Body to express the opinion: (1) That, while it must clearly always be the object of those responsible for the conduct of the JOURNAL to maintain harmony between the Editorial utterances and the policy of the Association, and that there should be such co-operation between the Departments of the Association as may be necessary to secure that object, it is undesirable to lay down specific provisions such as were suggested by the Kensington Division; and (2) that it is inadvisable to adopt the policy of the Chelsea Division as indicated in Minute 74 (*a*) of the Representative Body held in London.

*Advertisements in the "Journal."*

With reference to Minute 365 of the Annual Representative Meeting, 1910, the Council decided to report to the Representative Meeting that the Association being a body formed not for profit but for certain objects defined in the Memorandum of Association, and the publication of the JOURNAL being simply one of the means by which the Association seeks to carry out these objects, the policy of the Association must override purely financial considerations when the two conflict. In its general professional policy the Association has felt it to be its duty to attempt to restrict all forms of unqualified practice, and especially the use of secret remedies. Without entering into other questions of public policy, it is desirable to withhold any assistance which advertisements in the BRITISH MEDICAL JOURNAL could give those whose objects are evidently opposed to its own, and the Council has adopted regulations to this effect.

SCIENCE COMMITTEE.

The CHAIRMAN (Dr. Pope) presented the Quarterly Report of the Science Committee.

*Purchase of Books.*

The Science Committee was authorized to expend £65 in the purchase of books and periodicals for the Library. The question of the use of the front basement was referred to the Premises Committee with power to act.

CENTRAL ETHICAL COMMITTEE.

The CHAIRMAN (Dr. Lauriston E. Shaw) presented the Quarterly Report of the Central Ethical Committee.

*Definition of the Term "Consultant."*

The Council approved of the Report to be submitted to the Representative Body.

The Council approved of a Conference being held for the consideration of the whole subject of the relations of those commonly designated "Consultants" and "Specialists," to General Practitioners; that those invited to take part be representative "Consultants," "Specialists," and "General Practitioners," resident in London; and that the procedure for convening the Conference be referred to the Central Ethical Committee, who shall seek the assistance of the Presidents of the Royal Colleges of Physicians of London and Surgeons of England.

The Council referred to the Ethical Committee the question of the advisability of similar conferences being held in Edinburgh, Dublin, and other places.

*Expulsion of Member.*

The Council, in exercise of its powers under Articles 10 and 11 of the Articles of Association, expelled a member from membership of the British Medical Association, on the ground that his conduct was deemed by the Council to have been detrimental to the honour and interests of the Medical Profession, and calculated to bring the profession into disrepute.

MEDICO-POLITICAL COMMITTEE.

The CHAIRMAN (Mr. T. Jenner Verrall) presented the Quarterly Report of the Medico-Political Committee.

*Merchant Shipping Act, 1894.—Conveyance of Insane Persons.*

The Council decided that it is eminently desirable that such modification of the Merchant Shipping Act, 1894, shall be made as will enable insane persons to be sent under proper care to their homes by passenger or other ships, in which suitable accommodation can be provided, at such times as may be considered necessary by properly constituted medical authority; and instructed the Medico-Political Committee to make suitable representations to the Board of Trade with a view to effect being given to this Resolution.

*Special Diplomas in Psychology and Neurology.*

The Council expressed strong approval of the institution of post-graduate courses in Psychology and Neurology, but disapproved of the institution of any special diploma in the subjects as unnecessary and inadvisable.

*Condition of Service of Pathologists and Bacteriologists.*

With reference to Minute 172 of the Annual Representative Meeting, 1909, the Council decided to report to the Representative Body that inquiry has revealed no general grievance in the conditions of service of Pathologists and Bacteriologists; and that the variety of the conditions under which such appointments are held renders it difficult and undesirable to make any suggestions of general application.

*Metric System.*

With reference to Minute 758 of the Annual Representative Meeting, 1908, the Council approved the Report, upon the adoption of the Metric System of Weights and Measures by medical practitioners in prescribing and dispensing, and directed it to be issued to the Divisions.

*Legislation re Administration of Anaesthetics.*

Upon consideration of a Resolution of the Section of Anaesthetics of the Annual Meeting, 1910, the Council expressed approval of the draft Anaesthetics Bill (referred by the Privy Council to the General Medical Council, and considered by that body on November 23rd, 1910) as being in accordance with the general policy of the Association, subject to Clause 2 of the draft Bill being amended, as recommended by the General Medical Council, to prevent the administration by unqualified persons of local anaesthetics applied to unbroken surfaces, and subject to the inclusion of nitrous oxide, as

also recommended by the General Medical Council, as the only substance to be named in the Schedule to the Bill.

The Council expressed disagreement with the Recommendation of the General Medical Council that special provision should be made in the Bill to enable registered dentists to administer the scheduled anaesthetics under the direction of registered medical practitioners for surgical operations, inasmuch as there is no reason for discriminating in this respect between registered dentists and any other persons who might, under the provisions of the draft Bill, administer any anaesthetic under the supervision of registered medical practitioners.

PUBLIC HEALTH COMMITTEE.

The CHAIRMAN (Mr. E. J. Domville) presented the Quarterly Report of the Public Health Committee.

*Whole-time Medical Officers of Health—Amended Minute 234 of Annual Representative Meeting, 1909.*

On consideration of Minute 315 of the Annual Representative Meeting, 1910, the Council approved for report to the Representative Body, of the following amended form of Minute 234 of the Annual Representative Meeting, 1909:

> That, in the general interest of Public Health and of the Medical Profession, it is desirable (i) that Medical Officers of Health should, as a rule (and without prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties; (ii) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable; (iii) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme; and (iv) that all Medical Officers of Health should be protected in the proper discharge of their duties, against capricious dismissal or reduction of salaries.

The Council decided to report to the Representative Body that, upon consideration of Minutes 316 and 317 (A) of the Annual Representative Meeting, 1910, it finds that the motion contained in Minute 316 is inconsistent with the decision of the Representative Body as stated in Minute 315, and that the substance of Minute 317 (A) is sufficiently dealt with in the Recommendation made as to the revision of Minute 234 of the Annual Representative Meeting, 1909.

The Council expressed approval of the reply to a communication from the Association of Medical Officers of Health.

HOSPITALS COMMITTEE.

The CHAIRMAN (Mr. Hugh R. Ker) presented the Quarterly Report of the Hospitals Committee.

*Inquiry by King Edward's Hospital Fund into Abuse of Out-patient Departments of London Hospitals.*

It was referred to the Medico-Political and Hospitals Committees to prepare, in conference with the Council of the Metropolitan Counties Branch, a Memorandum of evidence to be placed, on behalf of the Association, before the Committee of Inquiry into Out-patient Departments appointed by the King Edward's Hospital Fund, and to make all necessary arrangements for attendance of witnesses to give evidence.

SCOTTISH COMMITTEE.

Dr. D. J. MACKINTOSH presented the Quarterly Report of the Scottish Committee, which was approved.

IRISH COMMITTEE.

Dr. F. W. KIDD presented the Quarterly Report of the Irish Committee, which was approved.

ARRANGEMENTS COMMITTEE.

The CHAIRMAN (Dr. J. A. Macdonald) presented the Report of the Arrangements Committee, which was approved.

*National Temperance League.*

The Council sanctioned the holding by the National Temperance League of a Breakfast in connexion with the Annual Meeting, 1911.

TERRITORIAL FORCES COMMITTEE.

The CHAIRMAN (Colonel Andrew Clark) presented the Quarterly Report of the Territorial Forces Committee.

*Resolutions to be forwarded to the War Office.*

The Council approved certain Resolutions to be forwarded to the War Office, referring to the pay and allowances of the A.M.O. and his Staff, the composition of the Territorial Advisory Committee, the accommodation of medical units, etc.

SUPERANNUATION COMMITTEE.

The CHAIRMAN (Dr. Edwin Rayner) presented the Report of the Superannuation Committee.

*Printer of the "Journal."*

The Council expressed regret that ill health had necessitated the retirement of Mr. Frederick Barker, Printer of the BRITISH MEDICAL JOURNAL, and recorded its appreciation of the services rendered by him during the past twenty-eight years.

CANDIDATES.

The six candidates whose names appeared on the notices convening the Meeting were elected Members of the British Medical Association.

THE RIGHT HON. JOSEPH CHAMBERLAIN.

On consideration of a resolution of the Birmingham Branch, the Council unanimously decided, on the motion of the PRESIDENT-ELECT, seconded by the PRESIDENT, to recommend the Representative Body to elect the Right Hon. Joseph Chamberlain, M.P., member of His Majesty's Privy Council, an Honorary Member of the Association in recognition of his eminent services in promoting the systematic study of Tropical Diseases.

COMMITTEE RE ANNUAL MEETING IN 1913.

The CHAIRMAN presented the Report of the Committee regarding the Annual Meeting, 1913.

The Council decided that, as the International Congress of Medicine of 1913 will not begin its session before August 4th, the Association will hold its Annual Meeting as usual during the last week in July of that year. Meantime the Chairman of Council was authorized to take all necessary steps to obtain an invitation from some suitable centre.

# Meetings of Branches & Divisions.

## DORSET AND WEST HANTS BRANCH:

### BOURNEMOUTH DIVISION.

A MEETING of this Division was held on Wednesday, February 1st, at 4 p.m., at the Library of the Bournemouth Medical Society. The chair was taken by Mr. F. C. A. BUSHMAN. Twenty-three members and three non-members were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Treatment of School Children found upon Inspection to be Defective.*—A discussion on this subject was introduced by Dr. LE FLEMING. It was continued by several members, and finally the following resolution was proposed by Dr. PARKINSON and seconded by Dr. H. SIMMONS:

> That a committee be formed to discuss and formulate a suitable scheme, who should report as early as possible to the Division.

This was carried unanimously, and a committee of ten was subsequently elected, with power to add to their number.

*Public Medical Service.*—Dr. LE FLEMING presented the report drawn up by the subcommittee appointed in November to consider this subject. The model rules issued by the Central Council had been carefully considered and discussed by the committee, who proposed certain modifications in them. In doing this they had to guide them the experience of the Bournemouth Provident Medical Society, the rules of which were found to work satisfactorily by both officers and patients. Questions with reference to capitation or visit fees and fees for confinements and mileage having been answered, it was proposed by Dr. FOWLER and seconded by Dr. MARRINER:

That the report be adopted, and a copy of the same be sent to head quarters.

This was carried *nemine contradicente*.

*Proposed Cinematograph Exhibition of Pathological Films.*—Dr. H. SIMMONS suggested that a cinematograph exhibition of pathological films, such as was recently shown at the Royal Medical Society, would be of great interest to the Branch. Dr. PARKINSON proposed and Dr. JOHNSON SMYTH seconded:

That the Honorary Secretary communicate with the Branch Honorary Secretary, to see if it would not be possible to arrange such an exhibition at an early date.

This was carried.

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## LANCASHIRE AND CHESHIRE BRANCH:

### MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of this Division was held at Mr. P. Stocks's, 59, Wilmslow Road, Withington, on Tuesday, February 14th, at 3.45 p.m. Dr. HOPKINSON presided. There were also present: Drs. Booth, Vipont Brown, Chevers, Cotterill, Grant Davie, Godson, Gregory, Heathcote, Holt, Crichton Hood, MacDougall, MacGregor, Mitchell, Simcock, Sawers Scott, and Mr. P. Stocks.

*Apology for Non-attendance.*—Dr. Russen Rhodes wrote regretting his inability to be present.

*Confirmation of Minutes.*—The minutes of the last meeting (January 27th) were read and confirmed.

*Notification of Births Act.*—A letter was read from the Joint Committee of Manchester and Salford calling attention to the intention of the Manchester City Council to adopt the Notification of Births Act. The Joint Committee formulated four objections to this Act, and circulated them to all members of the City Council. At the same time the Joint Committee urged every Division to approach privately the councillors in their respective districts, so that the objections may be more fully explained. With this object the following members promised to approach the councillors in the districts named: Dr. Hopkinson (Withington), Dr. E. Vipont Brown (Longsight), Dr. Edlin (Levenshulme), Dr. Cotterill (Rusholme), Dr. Gregory (Gorton).

*Ophthalmia Neonatorum.*—A letter was read from the Heaton Norris Urban District Council announcing their intention to adopt the compulsory notification of ophthalmia neonatorum.

*Contract Practice.*—The SECRETARY intimated that another club had been raised from 3s. 6d. to 6s. per head per annum.

*Meeting of Joint Committee.*—Dr. COTTERILL gave an account of the last meeting.

*Paper.*—Dr. LOVEDAY read a most interesting and instructive paper on vaccine therapy. After the discussion on it, Dr. HOPKINSON expressed to Dr. Loveday the thanks of the meeting for his paper.

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### SOUTHPORT DIVISION.

A SPECIAL meeting of this Division was held on February 17th at the Temperance Institute. Dr. J. H. SYKES was in the chair, and there were present: Drs. Barwise, Bentall, Newburn Brown, Dall, Lewis, Littler, Pinkerton, Russel, Harris, and Swete-Evans. An apology for absence was received from Dr. Walker.

*Insurance Fees.*—The scale of fees offered by an insurance company was considered. After some discussion, it was resolved:

That the question be deferred pending the consideration by the Association of the whole question of life insurance.

*Model Rules for Nursing Associations.*—Model rules for inclusion in the rules of nursing associations, as approved by the Annual Representative Meeting, 1910, were considered, and with special reference to the local nursing society, and in particular to the engagement by the society of special medical practitioners to be called in case of emergency. It was resolved unanimously:

That the Division approves generally of these rules, and that a copy of them, with expression of their approval, be sent to the committee of the Southport and Birkdale District Nursing Society, calling attention to Rules 7 and 8, with the suggestion that all the medical practitioners in the town and district be approached by the society with the view of ascertaining whether they are individually willing to be called, and should supply a list of those assenting to the midwives, so that choice should be afforded by them to the patients.

*Practitioners called in to Examine Patients of other Doctors.*—The interim report on the position of medical practitioners called upon to examine patients who are under the care of other practitioners was discussed, and the suggested rules were approved unanimously.

*Ophthalmia Neonatorum.*—The suggested scheme of arrangements for adoption by local sanitary authorities in connexion with the treatment of cases of ophthalmia neonatorum was considered. In the absence of the medical officer of health, it was decided to refer the matter to the Executive Committee to confer with Dr. Weaver, M.O.H., and to report.

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## METROPOLITAN COUNTIES BRANCH:

### CITY DIVISION.

A MEETING of the Division was held on Tuesday, February 7th, at 4 p.m., at St. Bartholomew's Hospital, by invitation of the honorary staff. Fourteen members and friends attended. After tea Dr. DAVID ROSS, the Chairman and Vice-Chairman being unavoidably absent, was voted to the chair, and introduced Mr. Atcherley Rose, who had kindly consented to give a demonstration in place of Mr. Douglas Harmer, who was visiting the United States of America. Mr. ROSE then gave a most instructive demonstration on bronchoscopy and oesophagoscopy. Explaining in detail the construction and working of the instrument—Brünings's modification of Killian's—Mr. Rose showed the method of use in a case of malignant disease of the lower third of the œsophagus in a man aged 55, the growth being rendered clearly visible; and on the cadaver its utility in detecting foreign bodies in the trachea and bronchi, and the various forceps used in their removal.

*Vote of Thanks.*—In conclusion, a very hearty vote of thanks was accorded to Mr. Rose for his most interesting demonstration, and to the staff for their hospitality. Mr. ROSE suitably responded, and the meeting closed at 5.10 p.m.

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### HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held at the Conservatoire on Friday, February 10th, at 8.30 p.m.

*Minutes.*—The minutes of the last meeting having been printed in the JOURNAL were taken as read.

*Proposed Change of Boundaries.*—A letter from the Medical Secretary was read *re* the proposed change of boundaries of the Hampstead Division. Dr. Cunnington was requested to bring the matter forward at the next meeting of the Branch Council.

*Poor Law Commission.*—The subcommittee appointed to convene a meeting of the local profession to discuss the medical proposals of the Poor Law Commission reported that March 3rd had been fixed as the date of the meeting.

*Annual Financial Statement and Report.*—The annual financial statement and report for 1910 were read and approved.

*Insurance Fees.*—In accordance with the suggestion of the Medico-Political Committee that the Divisions

should consider the advisability of taking local action to prevent the lowering of the standard of medical remuneration, as proposed by an insurance company, a resolution, proposed by the Divisional Committee, was passed *nemine contradicente*:

That the insurance fee be 10s. 6d. for examination for insurance for sums not exceeding £250, and 21s. for sums exceeding £250.

*Representation of Local Profession on Hospital Boards.*—The scheme proposed by the Hospitals Committee for the assistance of Divisions in considering the nomination and election of representatives of the local medical profession on boards of hospitals and similar boards was read, considered, and approved.

*Paper.*—At 9 p.m. a paper was read by Dr. P. J. CAMMIDGE, entitled, The Differential Diagnosis of the Commoner Causes of Chronic Jaundice. A short discussion followed, in which Dr. FORSYTH and Dr. FORD ANDERSON joined. The paper and a report of the discussion will be published in the JOURNAL at an early date.

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### KENSINGTON DIVISION.

A MEETING of this Division was held at the Kensington Town Hall, on Wednesday, January 25th, at 4.30 p.m. Dr. CHARLES BUTTAR, the Chairman of the Division, presided, and forty members were present.

*Tuberculosis Dispensary.*—Dr. J. E. SQUIRE gave an interesting address on the working of a tuberculosis dispensary, and was followed by Dr. J. E. SANDILANDS, the Medical Officer of Health for Kensington, and Dr. D. J. WILLIAMSON, the Medical Officer of the Kensington Tuberculosis Dispensary, who spoke with special reference to the latter dispensary. The CHAIRMAN, Dr. WALSHE OWEN, Dr. H. H. STURGE, and Dr. SANGUINETTI, took part in the subsequent discussion, and after Dr. SQUIRE had replied to questions, the CHAIRMAN moved that a hearty vote of thanks be accorded Dr. Squire. This was carried with acclamation.

*Medical Practitioners called in to Examine Patients of other Practitioners.*—The report of the Central Ethical Committee on the position of medical practitioners called upon to examine (otherwise than by the request of the patient or persons acting upon his behalf) patients who are under the care of other practitioners was discussed by the meeting. The suggested rules were read by the HONORARY SECRETARY, and then Dr. R. J. COLLIE opened the discussion with an account of his experiences under such circumstances. He stated that he agreed with the recommendations of the Committee, and after a brief discussion the Division decided to approve them.

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### ST. PANCRAS AND ISLINGTON DIVISION.

A GENERAL meeting of practitioners was held by the Division on Thursday, January 26th, at the Midland Grand Hotel, at 9 p.m. Dr. W. GRIFFITH, Chairman of the Division, presided.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Proposed Change of Boundary of Division.*—A letter from the Medical Secretary was read asking for the views of the Division on a proposed change in its boundaries, so that an area in the north-west part should be included in the area of the Hampstead Division. After several speakers had expressed disapproval of the scheme, it was resolved to put the matter on the agenda for the next meeting.

*Election of a Member to the Executive Committee.*—Dr. R. M. Beaton, J.P., was unanimously elected.

*Reports from the Organizing Secretaries of Public Medical Services for Islington and St. Pancras.*—A detailed account of the work done and the present position of the services was given, and the following resolution was passed:

This Division protests against the treatment of school children being handed over to or undertaken by hospitals or institutions wholly or partly supported by voluntary contributions.

It was further resolved to send a copy of this to University College Hospital, the Great Northern Central Hospital, the Council of the Metropolitan Counties Branch, and to the London County Council.

*Suppression of Quackery.*—A paper on the suppression of quackery was then read by Dr. DAVID WALSH, who showed that Acts dating back to 1518 could probably still be used by the Royal College of Physicians of London for the summary arrest of quacks. A series of resolutions, arising out of the paper, were put by the CHAIRMAN to the meeting and carried *nemine contradicente*, to be dealt with by the Representatives at the next Representative Meeting. An interesting discussion, in which Drs. HERBERT SIEVEKING, GEORGE JACKSON, ARTHUR LYNCH, M.P., and J. F. J. SYKES took part, terminated with a hearty vote of thanks to Dr. Walsh for his paper.

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## SOUTH-EASTERN BRANCH:

### EASTBOURNE DIVISION.

A MEETING of this Division was held in the Mayor's Parlour, Town Hall, Eastbourne, on Tuesday, February 7th, at 8.15 p.m., Mr. H. D. FARNELL in the chair. Twelve members and three non-members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Apologies for Non-attendance.*—Letters of apology for inability to attend were read from Dr. G. Black and Mr. J. S. Kellett Smith.

*Ophthalmia Neonatorum.*—After further discussing the questions of notification and treatment of ophthalmia neonatorum, adjourned from last meeting, it was unanimously resolved:

That under the conditions existing in Eastbourne no action is necessary.

*District Nursing Associations.*—It was unanimously resolved:

That a general approval be given to the Model Rules.

*Instruction in First Aid, Hygiene, etc.*—It was unanimously resolved:

That the matter be referred to the Executive Committee, and their report considered at the next meeting.

*Medical Treatment of School Children.*—The report and scheme of the Kent Organization Committee were considered. A letter was read from the Honorary Secretary of the Branch inquiring on behalf of the Council whether the Divisions in Sussex and Surrey desired the organization of their county areas, and suggesting, if they should so decide, that the plan adopted with success in Kent should be similarly undertaken by Sussex. For this purpose, in the first place, each Division should hold a meeting to which all practitioners non-members of the British Medical Association residing within the area of the Division should be invited to co-operate in any action decided on. This meeting would elect three representatives, of whom one at least should be a non-member of the British Medical Association, and of two others one at least should be a rural practitioner. The representatives, together with the honorary secretary of each Division, would be summoned to a conjoint meeting of the county. This meeting would elect two organization committees, one for the east and one for the west of the county. The HONORARY SECRETARY of the Division reported that after consulting with the chairman he had sent notices to all non-member practitioners inviting them to attend this meeting. After considering and fully discussing the scheme of the Kent Organization Committee, it was resolved, and carried unanimously:

That the principle embodied in the scheme of the Kent Organization Committee be approved as suitable for adopting in the proposed organization of the county of Sussex, reserving, however, for further consideration the rates of remuneration laid down in paragraphs 6, p. 3, and 19, p. 6.

The following representatives were unanimously chosen: Drs. G. Black, Houlsham, Ashley G. Cluffe (non-member), and W. J. C. Merry.

### HASTINGS DIVISION.

A SPECIAL meeting of the Hastings Division, to which all registered medical practitioners in the district were earnestly invited to attend, was held on Wednesday, February 15th, at the Eversfield Hotel, at 5 p.m. Twenty-seven medical practitioners attended. Dr. HILL JOSEPH, Chairman of the Hastings Division, presided.

*Treatment of School Children.*—Dr. ALLFREY, President of the South-Eastern Branch, fully explained the scheme for the treatment of school children found upon medical inspection to be defective, and drawn up by the Kent Organization Committee. An animated discussion followed, and many of those present spoke upon the matter. A scheme of the Kent Organization Committee was approved. Dr. HILL JOSEPH proposed that two delegates be appointed to attend a conference of the East Sussex Divisions. Dr. Hill Joseph and Mr. Culhane were then elected as delegates. The following were elected to form an Organization Committee for the borough of Hastings, to confer with the local Education Committee: Dr. Batterham, Mr. Harry Mansell, Dr. Baker, Mr. Field, Dr. Daunt, Dr. Allfrey, President, South-Eastern Branch (*ex officio*), Dr. Hill Joseph, Chairman, Hastings Division (*ex officio*), Dr. G. Vickerman Hewland, Honorary Secretary, Hastings Division (*ex officio*).

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## SOUTHERN BRANCH:

### PORTSMOUTH DIVISION.

AN ordinary meeting of the Division was held at 5, Pembroke Road, on January 25th, at 4 p.m. Dr. M. P. MCELDOWNEY (Chairman) presided, and there were present: Drs. E. J. Biden, J. T. Leon, H. Burrows, E. R. Sircom, James Green, and L. K. H. Hackman.

*Confirmation of Minutes.*—The minutes of the meetings held on April 14th and June 2nd, 1910, were read and confirmed.

*Communications from the Medical Secretary.*—(*a*) Letters on State sickness and invalidity insurance, and dated October 27th and December 10th, 1910, were read, and the ACTING HONORARY SECRETARY said that it was in consequence of the receipt of these letters that the Honorary Medico-Political Secretary had not circulated any scheme among the members. (*b*) A letter, dated December 21st, 1910, referring to the fees offered by an insurance company, was read. After general discussion, it was resolved that:

> This meeting endorses the recommendation of the Executive Committee passed on January 12th, 1911, but is of opinion that no local action should be taken at present.

*Matters Referred to Divisions.*—(*a*) Interim report on the position of practitioners called upon to examine patients who are under the care of other practitioners. The rules suggested by the Central Ethical Committee were fully considered seriatim. Nos. 1, 2, 3, and 5 were unanimously agreed to, but No. 4 was deleted. (*b*) Report and scheme *re* ophthalmia neonatorum. After full debate the conclusions of the Medico-Political Committee as to: (1) Prevalence, were adopted. (2) Prevention: (*a*) It was resolved unanimously:

> That ophthalmia neonatorum should be added to the list of diseases notifiable under the local Notification of Diseases Act.

(*b*) and (*c*) were agreed to unanimously; (*d*) was agreed to (5 voting for, and 2 against); (*e*) was agreed to unanimously; (*f*) was amended by inserting the words "where possible" after the word "that" in the first line. The directions to midwives and nurses were agreed to. (*c*) Model rules of the Medico-Political Committee for nursing associations: These were discussed seriatim and agreed to.

*Election of Representative.*—It was resolved with acclamation:

> That Dr. B. H. Mumby be elected the Representative of the Portsmouth Division in the Representative Meetings of the British Medical Association, and that he be warmly thanked for his past services.

*Tuberculin Dispensary.*—Dr. J. PHILLIPS drew the attention of the meeting to the proposal for the establishing by the Corporation of a tuberculin dispensary in Portsmouth. After an animated discussion it was resolved to leave the matter in the hands of the Executive Committee to take whatever steps may be deemed advisable.

The meeting dissolved at 6.15 p.m.

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A clinical meeting of this Division was held at the Mayor's Banqueting Room, Town Hall, on February 8th, Dr. MCELDOWNEY, Chairman, presiding. There were also present the Mayor of Portsmouth (by nvitation) and fifty-seven members of the profession.

*Treatment of Tuberculosis with Tuberculin.*

Dr. CAMAC WILKINSON delivered an address on the treatment of tuberculosis by tuberculin. He first emphasized the fact that the sanatorium treatment of tuberculosis was a failure, inasmuch as it was not within the reach of the majority of the poor who suffered from tuberculosis. He next laid stress on Koch's two dicta: (1) That tuberculin was indispensable in the diagnosis of tubercle; (2) that early cases of tubercle could be cured by it. His experience confirmed these, and he gave illustrations from his own practice. One case in particular of tuberculous laryngitis, which had been given up as incurable by a well-known London laryngologist, had been completely cured by his treatment, and the effect of tuberculin on the ulcers in the larynx and on the palate were in this case under direct observation. He next pointed out the changes in the blood in tuberculosis, and emphasized the fact that under tuberculin it returned to its normal condition. There was no danger in administering tuberculin if due care was observed, and he had seen no case of generalization of tubercle under its use. Contraindications were mixed infections and serious renal disease. He did not think tuberculin widely applicable to advanced cases, but in the first and early second stages he regarded it as a specific. He advised those employing it to commence on early and simple cases, and to proceed, as they gained experience, to more difficult cases.

Several members present took part in the discussion which followed, and asked Dr. Wilkinson for information on details of treatment, the technique employed, form of tuberculin used, dosage, etc.

Dr. WILKINSON, in reply, explained the technique of the operation of injection in detail and the form of tuberculin he advocated. Old tuberculin was always used for diagnosis.

*Vote of Thanks.*—A vote of thanks was proposed by the CHAIRMAN to Dr. Wilkinson for his interesting and instructive address, and was carried by acclamation.

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## SOUTH MIDLAND BRANCH:

### BEDFORD AND HERTS DIVISION.

A MEETING of the Division was held at Dr. Bone's house, Castle Street, Luton, on January 26th. Dr. ROSS was in the chair, and there were present: Drs. Butters, Goldsmith, Bone, Edwards, McClure, Hine, MacFayden, Charles, Archibald, O'Meara, and Sworder.

*Vote of Condolence.*—The PRESIDENT read a letter from Dr. Veasey's nephew, of Aspley Guise, informing him of the death of his uncle on January 17th. On the suggestion of Dr. ROSS and the unanimous vote of the meeting the Secretary was directed to write a letter of regret on behalf of the Division.

*State Sickness and Invalidity Insurance.*—The meeting then proceeded to discuss the resolution of the Altrincham Division which was left over from the last meeting. (1) Free choice of medical attendant by the insured in all cases where the premiums are contributed. This was carried *nemine contradicente*. (2) With regard to the question of payment for work done or by capitation fee, Dr. MCCLURE, to test the feeling of the meeting, moved as an amendment that payment by capitation fee should be adopted, provided that such fee should be adequate. Drs. ROSS, BUTTERS,

BONE, EDWARDS, MACFAYDEN, O'MEARA, spoke against the amendment. Dr. MCCLURE then withdrew his amendment and the proposal that the medical attendant shall be paid for work done was carried unanimously. It was then proposed by Dr. HINE, seconded by Dr. MCCLURE, and carried with two dissentients:

That this meeting hopes that provision for medical attendance will be made in any Government scheme which may be provided.

All the members present took part.

*Rules for Nursing Associations.*—A discussion took place on model rules for inclusion in Rules of Nursing Associations. There was a general feeling among members present that Section 6 should be more clearly defined or omitted. It was subsequently proposed by Dr. BONE, seconded by Dr. ROSS:

That this Division approve of the model rules, and that steps should be taken to secure their adoption by the various nursing associations in the district.

It was proposed by Dr. BONE, seconded by Dr. ARCHIBALD:

That the Secretary be asked to send notice of the resolution, together with a copy of the model rules, to the various nursing associations.

*Fees for Medical Examination for Life Insurance.*—The question of fees for insurance having been thoroughly discussed at the Annual Meeting, 1908, no resolutions were passed. It was, however, pointed out that, until all the members of the profession residing in the Division became members of the Association and were willing to accept no less fee than £1 1s. for ordinary insurance or 10s. 6d. for industrial cases, no practical result could follow any resolutions which might be passed by members of the Division.

This concluded the business of the meeting.

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## BUCKINGHAMSHIRE DIVISION.

A MEETING of this Division was held at the Royal Bucks Hospital, Aylesbury, on Tuesday, February 7th, at 3.30 p.m. In the absence of Dr. Reynolds and Dr. S. O. Turner, Dr. BAKER was voted to the chair. The following were present: Sir Felix Semon, Drs. Baker, Benson, Bradbrook, Buxton, Bruce, F. A. Cooke, Craig, Durran, Deyns, Eagles, Graham, Henderson, Kennish, Kelly, Larking, Macfarland, Magrath, Morrison, Newcombe, Perrin, Rose, Shaw, Smith-Wynne, West, and Wollerton; total 26, of whom 2 were visitors.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Dispensing by General Practitioners.*—A letter was read from the Medical Secretary pointing out that there was no evidence that the Pharmaceutical Society desired to do away with dispensing by general practitioners.

*Medical Practitioners Called in by Police.*—The SECRETARY explained that owing to his not having definite cases of fees not being paid to medical men when called in by the police, he had not yet sent the letter as directed by the last meeting.

*Address by Sir Felix Semon.*—Sir FELIX SEMON then gave an informal address, giving his experiences during a recent visit to Japan. He then dealt with the discrepancies between the fees of physicians and surgeons, and concluded by giving a few particulars of the new remedy "606," or salvarsan. It was listened to with great interest, and a hearty vote of thanks was proposed by Dr. SHAW and seconded by Dr. KENNISH and carried with acclamation. Sir FELIX returned thanks, and expressed the hope that he might have the pleasure of attending more meetings of the Division.

*Model Rules for Nursing Associations.*—The model rules for nursing associations were approved.

*Fees in Insurance Cases.*—The question of fees in insurance cases was discussed, and it was proposed and carried unanimously

That this Division expresses its opinion that for ordinary insurance cases the fee should be one guinea, and in no case should it be less than half a guinea. This not to apply to industrial cases.

*Annual Representative Meeting.*—Dr. BRADBROOK gave his report on the Representative Meeting, and dealt with various important points. A hearty vote of thanks was accorded to him for his services.

*Coroners Bill.*—Dr. PERRIN enquired about the Coroners Bill, and expressed the opinion that it was unjust to the general practitioners.

*Fees for Ambulance Lectures.*—A discussion on fees for ambulance lectures took place, and it was generally agreed that no less fees than £5 5s. should be accepted for a course of lectures.

*Practitioners Called in to see Patients of other Doctors.*—The suggested rules as to the conduct of practitioners when called in to see patients of other practitioners were approved. It was ascertained that there were no appointments in the area of the Division in which private practice was barred.

*National Deposit Friendly Society.*—Dr. DURRAN drew attention to the National Deposit Friendly Society, and promised to initiate a discussion on the matter at the next meeting of the Division.

*Annual Dinner.*—The annual dinner took place at 6 p.m. at the Crown Hotel, and an excellent repast was provided. Dr. Reynolds, the chairman, was present, and the fourteen members who took part spent a very pleasant evening.

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## SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE clinical meeting of the Branch was held at the Infirmary, Cardiff, on Thursday, February 9th, at 3.30 p.m. The PRESIDENT was in the chair, and forty other members present. Mr. J. LYNN THOMAS showed a case of hepatico-choledochostomy and specimens of simple and malignant ulcers of the gall bladder. Dr. D. R. PATERSON read a paper on the importance of early recognition of intracranial trouble in chronic ear suppuration. Patients were shown after operation for: (1) Lateral sinus thrombosis; (2) labyrinth suppuration; (3) cerebellar abscess. Dr. ALFRED HOWELL showed a case of scleroderma. Dr. OWEN L. RHYS showed skiagrams of the thorax and abdomen. Mr. WILLIAM SHEEN showed clinical cases. Dr. CYRIL LEWIS showed a case of innominate aneurysm.

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## CARDIFF DIVISION.

A SPECIAL meeting of this Division was held at the Hamadryad Seamen's Hospital on Wednesday, February 15th, at 3 p.m. Dr. W. B. CRAWFORD TREASURE was in the chair, and seventeen other members were present.

*Apology for Non-attendance.*—A letter of apology for absence was read from Dr. Maclean, who was in London on Association business.

*Vote of Thanks.*—A vote of thanks was passed to the Chairman and the Executive Committee of the hospital for their kindly entertainment of the Division.

*Epidemic Diarrhoea in Children.*—Mr. MACKENZIE WALLIS gave the results of some recent investigations of his own on epidemic diarrhoea in children. His analyses of milk showed occasional formation of a special toxic albumose which injected into animals in small doses produced a fatal diarrhoea. This was caused by excessive stimulation of the pancreas, with consequent exhaustion of the glandular secretion and acidity of the intestinal contents.

*Tropical Diseases.*—Dr. WHELAN exhibited several specimens of tropical diseases, including one of ainhum. He also read some notes on the action of quinine in malaria.

*Milkborne Scarlet Fever.*—Dr. WALFORD read notes of two local epidemics of milkborne scarlet fever, in each of which milkers or other persons about the farms, and not the cows, were the originators of the infection.

# MEMBERS ELECTED DURING THE JANUARY QUARTER.

UNDER BY-LAWS 2 AND 3.

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# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

## BRANCH AND DIVISION MEETINGS TO BE HELD.

CAMBRIDGE AND HUNTINGDON BRANCH.—The next meeting of the Branch will be held at the Medical Schools, Downing Street, Cambridge, on Friday, March 3rd, at 2.30 p.m.—H. B. RODERICK, Cambridge.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Altrincham Division will be held at the Brooklands Hotel on Thursday, March 9th, at 4.30 p.m. A dinner will be held afterwards if sufficient names are sent in to the Honorary Secretaries. R.S.V.P. Further particulars in future notices.—H. G. COOPER, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The quarterly meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, March 14th, at 4 p.m.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting will be held on Tuesday, March 21st, at 9 p.m., in conjunction with the Walthamstow Division, at Brooke House, Upper Clapton (by invitation of Dr. Gerald Johnston), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Forms of Nervous Disease.—A. G. SOUTHCOMBE Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Sir Clifford Allbutt, Regius Professor of Physic, Cambridge, has kindly consented to address the members of the Kensington Division on March 10th, at 4.30 p.m., in the Kensington Town Hall. His subject will be Arterio-Sclerosis and the Kidney, and in the discussion to follow Dr. Batty Shaw and Dr. C. O. Hawthorne have promised to take part. Members of the Metropolitan Branch are invited, and the Honorary Secretary will be glad to receive the names of any gentlemen who would like to take part in the discussion.—H. BECKETT-OVERY, 24, Alexander Square, South Kensington, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON, EASTBOURNE, TUNBRIDGE WELLS, AND HASTINGS DIVISIONS.—A conjoint meeting of these Divisions will be held at the Sackville Hotel, Bexhill-on-Sea, on Friday, March 10th. The chair will be taken by Dr. Hill Joseph, Chairman of the Hastings Division, at 5 p.m. Mr. B. G. A. Moynihan, Professor of Clinical Surgery, University of Leeds, will give an address on the Acute Emergencies of Abdominal Disease. The Chairman invites members to tea at the Sackville Hotel at 4.30 p.m. Dinner at the Sackville Hotel at 6.45 p.m.; tickets 6s. each, exclusive of wine.—R. MARSH, Brighton; W. MUIR SMITH, Eastbourne; W. B. WARDE, Tunbridge Wells; G. VICKERMAN HEWLAND, Hastings.

SOUTH-EASTERN OF IRELAND BRANCH.—The first meeting of the session of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Club House, Carlow, on Wednesday, March 1st, at 5.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Dr. Laffan will move that the May meeting in Kilkenny shall be held on Tuesday, May 2nd. (4) Any other business.—J. QUIRKE, Piltown, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the Vine Hotel, Stafford, on Thursday, March 2nd. The President will take the chair at 5.15 p.m. Business: (1) Minutes of the last ordinary general meeting. (2) Correspondence. (3) Exhibition of living cases. (4) Papers: (i) A Case of Intrathoracic Suppuration due to *Bacillus coli*, Mr. H. Savory; (ii) Carious Teeth in our Elementary Schools, Mr. J. Priestley. (5) Exhibition of pathological specimens, etc. Dinner, 7.15 p.m., charge, 5s.—HAROLD HARTLEY, Honorary General Secretary.

WEST SOMERSET BRANCH.—The spring meeting will be held on Friday, March 3rd, at 3.30 p.m., at the Taunton and Somerset Hospital. Dr. Maidlow will take the chair. Agenda: Minutes of last meeting. Election of Representative for Representative Meeting, 1911. Clinical Cases: The following contributions have already been promised:—T. S. Balfour, M.D.: A Case of Furuncle due to the *Bacillus pyocyaneus*. D. M. Barry, M.B.: Some Naevi treated by Carbon Dioxide Snow. C. Farrant: A Fractured Ulna treated by Wiring. A. J. H. Iles: (i) Demonstration of Stereo-radiographs; (ii) Further Remarks upon the Treatment of Tuberculous Glands of the Neck by Applications of *X Rays* combined with Injections of Tuberculin (illustrated by cases). A. R. Iles: (i) A boy, aged 6, with Cavernous Naevus (? Meningocele); (ii) Some Results of Wiring Fractures. J. A. Macdonald, M.D.: An Obscure Nervous Case. J. W. Rutherford: Observations on the Use of Tuberculin in 48 Cases of Pulmonary Tuberculosis. Penrose Williams, F.R.C.S.Edin.: (i) Congenital Angioma of Head and Face, severe haemorrhage, operative treatment; (ii) Notes on a Case of Gastro-enterostomy. If any other members wish to bring cases or notes before the meeting, they are requested to intimate their intention beforehand to the Honorary Secretary. At the conclusion of the meeting those present will be entertained to tea by the President.—W. B. WINCKWORTH, Honorary Secretary, Taunton.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Huddersfield Infirmary on Wednesday, March 15th, at 4.15 p.m. Members intending to read papers, show specimens or cases, or to propose new members, are requested to communicate at once with the Secretary. Members will dine together at 6.30 p.m.—ADOLPH BRONNER, Honorary Secretary, Bradford.

# Vital Statistics.

## THE ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR ENGLAND AND WALES.

THE annual report of the Registrar-General on the vital statistics of England and Wales in 1909 has just been issued. The principal statistical facts have already been published in the "Annual Summary," which was issued in May last, and were derived from the quarterly returns furnished by the local registrars. For the present volume the statistics have been compiled from the registers deposited at the General Register Office, and are analysed in far greater detail than was possible for the earlier publication. The report now issued gives a forecast of some important changes to be introduced in future issues, beginning with the report which will relate to the year 1911. The probability of these changes was foreshadowed a year ago, and it is now stated that arrangements have been made which will enable the proposed improvements to be adopted. The changes to be made may be described briefly as:

1. Substitution of Local Government Administrative areas for Registration areas.
2. Substitution of the International List of Causes of Death for the list in present use.
3. Correction for births and deaths occurring among non-residents.

### MARRIAGE-RATE.

The number of marriages registered in England and Wales during 1909 was 260,544, corresponding to a rate of 14.6 per 1,000 of the population at all ages, estimated at 35,756,615 persons in the middle of that year. This crude marriage-rate in 1909, when compared with the average rate for the five years 1876-80 showed a decline of about 5 per cent., but if due allowance is made for changes in the age constitution of the population and in the proportion of unmarried persons of marriageable age, it will be found that the corrected marriage-rate has fallen by no less than 17-4 per cent. Among the several counties the lowest marriage-rates were recorded in Carnarvonshire, Surrey, Sussex, Kent, Shropshire, and Herefordshire; and the highest rates in Carmarthenshire, Lincolnshire, Durham, Nottinghamshire, Monmouthshire, and Glamorganshire.

### BIRTH-RATE.

The 914,472 births registered during the year under notice were equal to 25.6 per 1,000 of the total population. Calculated on this basis, the fall in the birth-rate since the period 1876–80 amounted to 27½ per cent., but when the rate is calculated on the number of possible mothers (that is, on the number of women from 15 to 45 years of age), the decline is equal to 33 per cent. Of the total births registered, 37,509 were illegitimate. The rate of illegitimacy has declined generally in recent years, and in comparison with the period 1876–80 has fallen by more than 40 per cent., whether expressed in proportion to the total population or in proportion to the unmarried and widowed female population aged 15–45 years. The excess of births over deaths was equal to a rate of 11.08 per 1.000 of the total population, against 11.69, 11.27, and 11.85 in the three preceding years.

### DEATH-RATE.

During 1909 the deaths of 518,003 persons were registered, equal to a rate of 14.5 per 1,000, or 1.6 per 1,000 less than the average rate in the ten preceding years. The mortality among males was equal to 15.4 per 1,000, and among females to 13.7 per 1,000; the principal causes of the excess of male mortality were infantile deaths, violent deaths, pneumonia and phthisis. As regards mortality at different ages it is observed that during the nineteenth century among children under five years of age the mortality declined *less* than that in any other age-group, but during the present century it has declined *more* than that in any other age-group. The rate of infantile mortality in 1909 was 8 per cent. below the lowest rate previously recorded, the decreased number of deaths of children under 1 year of age being partly due to the exceptionally low mortality from diarrhoeal diseases consequent on the unusually cold and wet summer. In a selected group of urban counties the corrected death-rate at all ages was 15.9 per 1,000, against 12.4 per 1,000 in a group of rural counties.

### CAUSES OF DEATH.

The proportion in which several of the principal causes of death contribute to the total mortality is clearly shown in one of the many new diagrams introduced into the report. Tuberculosis, in all forms, accounts for 105 out of 1,000 deaths; diseases of the heart for 98; diseases of the respiratory system for 94; pneumonia for 89; and cancer for 66.

The death-rate from all causes in 1909 was lower than in any previous year, and this was true also of the death-rates from tuberculosis (pulmonary and other forms), enteric fever, whooping-cough, and diarrhoeal diseases. On the other hand, the mortality from measles, pneumonia, and cancer showed an increase during the year, the last named being prominent as the one cause of death responsible for an important and significant increase of mortality.

The 8,992 deaths attributed directly to influenza were rather below the corrected average number for the past twenty years. The mortality from pneumonia was equal to 1,490 per million among males and 1,102 per million among females. From phthisis the rates for the two sexes were 1,270 and 903 per million respectively; the mortality from this cause during the past half-century has fallen by more than 50 per cent. at all ages, and by about 70 per cent. at ages under 25 years. The number of deaths attributed to cancer was 34,053, of which 19,513 were referred to carcinoma, and 1,974 to sarcoma; the cancer mortality among males was at the rate of 826 per million, and among females 1,071 per million.

In the year 1909 the deaths of 49,210 persons were referred to ill-defined or unspecified causes. In accordance with the usual practice inquiries were sent to medical practitioners asking for further information in some of these cases. The inquiries related chiefly to certificates of peritonitis, tumours of various organs, septicaemia, pyaemia, hydrocephalus, cerebro-spinal meningitis, paralysis and haematemesis. The number of replies received was 4,760.

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## EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth quarter of last year; the fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years can thus be readily seen.

*Small-pox.*—No death from this disease was recorded last quarter, and no cases of small-pox were admitted to the Metropolitan Asylums Hospitals during the quarter.

*Measles.*—The fatal cases of measles, which had been 251, 544, and 351 in the three preceding quarters, rose again last quarter to 844, and were 526 in excess of the corrected average number in the corresponding period of the five preceding years. Among the several metropolitan boroughs this disease was proportionally most fatal in Hammersmith, Islington, Finsbury, Southwark, Bermondsey, and Camberwell.

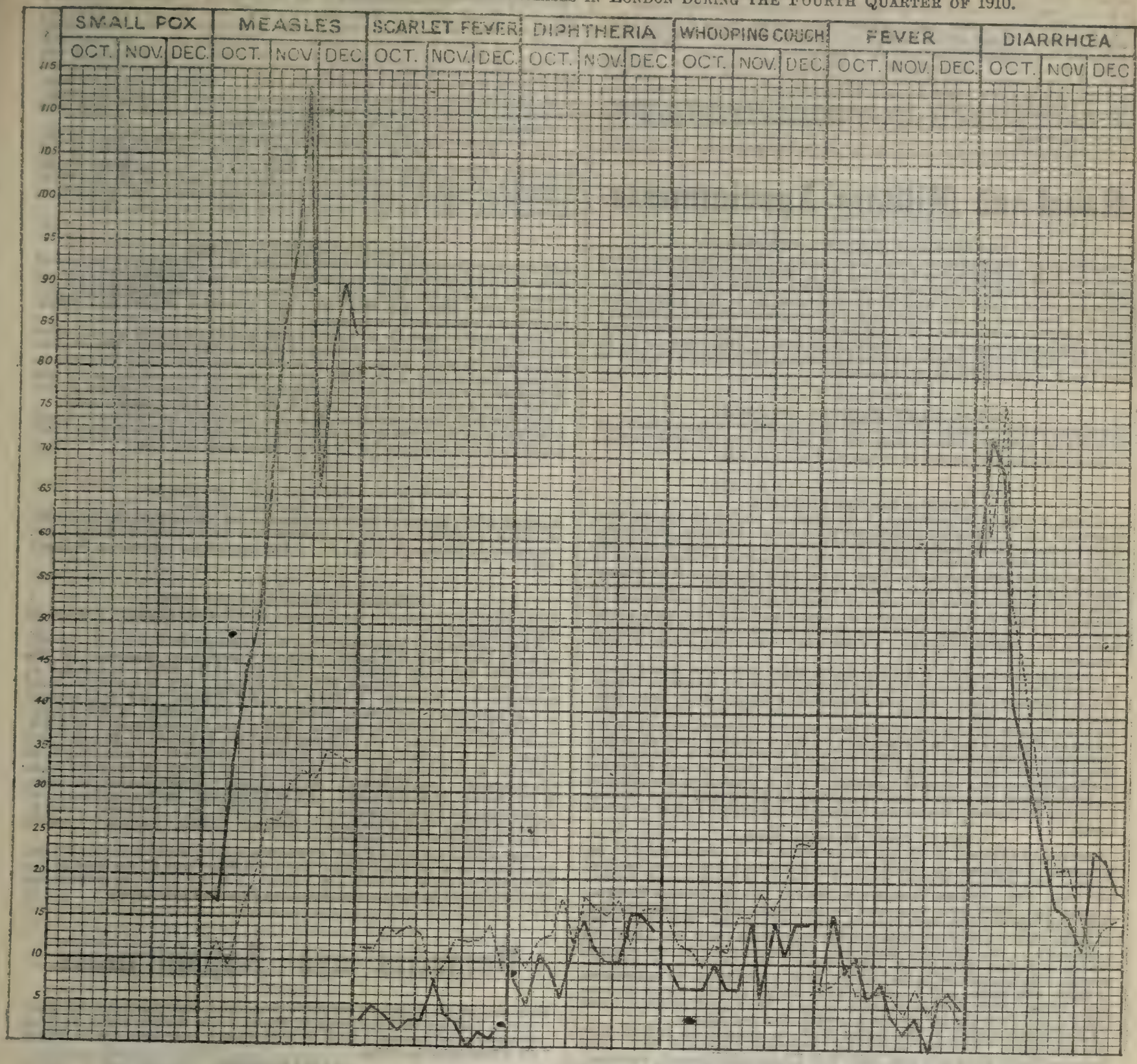
*Scarlet Fever.*—The deaths from scarlet fever, which had been 50 in each of the two preceding quarters, declined last quarter to 41, and were 116 fewer than the corrected average number. This disease was proportionally most fatal in Hammersmith, St. Pancras, Poplar, and Battersea. The Metropolitan Asylums Hospitals contained 1,574 scarlet fever patients at the end of last quarter, against 1,584, 1,358, and 1,630 at the end of the three preceding quarters. 2,448 cases were admitted during the quarter, against 2,507, 2,547, and 2,387 in the three preceding quarters.

*Diphtheria.*—The fatal cases of diphtheria, which had been 129, 76, and 91 in the three preceding quarters, rose again last quarter to 145, but were 47 below the corrected average number. The greatest proportional mortality from this disease was recorded in Hammersmith, Finsbury, Bethnal Green, Southwark, and Bermondsey. The number of diphtheria patients remaining under treatment in the Metropolitan Asylums Hospitals at the end of last quarter was 827, against 852, 673, and 746 at the end of the three preceding quarters; the admissions numbered 1,386 last quarter, against 1,169, 1,175, and 1,152 in the three preceding quarters.

*Whooping-cough.*—The deaths from whooping-cough, which had been 596, 452, and 200 in the three preceding quarters, further declined last quarter to 132, and were 77 fewer than the corrected average number. Among the several boroughs the highest death-rates from this disease were recorded in Kensington, Hammersmith, Hampstead, Finsbury, Shoreditch, Bethnal Green, and Bermondsey.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 38, 30, and 52 in the three preceding quarters, further rose last quarter to 85, and slightly exceeded the corrected average number. No death last quarter was attributed to typhus or ill-defined pyrexia. Enteric fever was proportionally most fatal in Hackney, Holborn, Shoreditch Bethnal

DEATHS FROM THE PRINCIPAL EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1910.




NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths during the corresponding weeks of the five preceding years, 1905-9.

Green, and Lambeth. There were 88 enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 84, 46, and 141 at the end of the three preceding quarters; 227 new cases were admitted during the quarter, against 145, 166 and 207 in the three preceding quarters.

*Diarrhœa.*—The 440 deaths from diarrhœa last quarter were slightly below the corrected average number. This disease was proportionally most fatal in Paddington, Finsbury, Bethnal Green, Stepney, Southwark, Bermondsey, and Greenwich.

In conclusion, it may be stated that the 1,687 deaths in London referred to the principal epidemic diseases last quarter were 16.1 per cent. above the average. No death from any of these diseases was recorded in the City of London, while among the metropolitan boroughs the lowest death-rates from the epidemic diseases in the aggregate were recorded in Chelsea, the City of Westminster, Wandsworth, Greenwich, Lewisham, and Woolwich; and the highest rates in Hammersmith, Islington, Finsbury, Shoreditch, Southwark, and Bermondsey.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,394 births and 5,783 deaths were registered during the week ending Saturday, February 11th. The annual rate of mortality in these towns, which had been 16.4, 16.1, and 16 0 per 1,000 in the three preceding weeks, rose to 17.6 per 1,000 in the week under notice. In London the death rate was equal to 17.3 per 1,000, against 17.1, 16.3, and 16.1 in the three preceding weeks. Among the seventy-six other large towns, the death-rates ranged from 7 7 in Hornsey, 8.9 in King's Norton, 9.9 in Walthamstow, 10.5 in Handsworth (Staffs), and 11.0 in Leyton, to 23.1 in Liverpool, 24.3 in Stoke-on-Trent, 25.2 in Coventry, 25.4 in Dewsbury, and 29.0 in Stockton on-Tees. Measles caused a death rate of 1.6 in West Ham, 1.8 in Devonport, 2.2 in Newcastle-on-Tyne, 2.3 in Gateshead, 2.5 in Coventry, 2.9 in Rhondda, 4.8 in St. Helens, and 5.7 in Sheffield; scarlet fever of 1.7 in Huddersfield; whooping-cough of 1.6 in Bradford, 2.4 in Middlesbrough 2.9 in Stockton-on-Tees, 3.3 in Norwich, and 3.5 in Warrington; and diarrhœa and enteritis (of children under 2 years of age) of 1.4 in Middlesbrough.

The mortality from enteric fever and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 5,783 deaths recorded in the seventy-seven towns, 50 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 8 in Liverpool, 4 in Sheffield, 3 in St. Helens, and 3 in Hull. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,311 and 1,264 at the end of the two preceding weeks, further declined to 1,257 at the end of the week under notice; 147 new cases were admitted during the week, against 129 and 130 in the two preceding weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, February 11th, 866 births and 728 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 14.8, 15.7, and 18.2 per 1,000 in the three preceding weeks, rose again to 19.8 in the week under notice, and was 2.2 per 1.000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 15.3 in Paisley and 16.8 in Aberdeen to 22.3 in Dundee and 23.9 in Greenock. The death-rate from the principal infectious diseases averaged 1.9 per 1,000, and was highest in Perth and Leith. The 357 deaths from all causes registered in Glasgow during the week included 1 from enteric fever, 1 from measles, 3 from scarlet fever, 24 from whooping-cough, 4 from diphtheria, and 3 of children under 2 years of age from diarrhœa and enteritis. Four deaths from measles, 3 from whooping-cough, and 3 from diphtheria were recorded in Edinburgh; 2 deaths from diphtheria and 5 from whooping-cough in Leith, and 2 from scarlet fever in Greenock.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 11th, 623 births and 533 deaths were registered in the twenty-two principal urban districts of Ireland, as against 614 births and 437 deaths in the preceding

period. The annual death-rate in these districts, which had been 19.3, 21.3, and 19.6 per 1,000 in the three preceding weeks, rose to 24.1 per 1,000 in the week under notice, this figure being 6.5 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 27.4 and 19.1 respectively, those in other districts ranging from 15.4 in Clonmel and 15.5 in Galway to 38.3 in Ballymena and 76.8 in Sligo, while Cork stood at 27.4, Londonderry at 20.2, Limerick at 24.6, and Waterford at 33.1. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.3 per 1,000 in the preceding week.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon E. R. D. FASKEN and Surgeon D. A. MITCHELL to the *Terrible* and for the group of ships of the Fourth Division, Home Fleet, February 28th; Staff Surgeon K. H. JONES, M.B., to the *Magnificent*, January 21st, and to the *Irresistible*, on recommissioning, February 28th; Surgeon P. M RIVAZ, M.B., to be lent to the *Pomona*, temporary, for Dartmouth Cadets' Sick Quarters, February 7th; Surgeon T. D. LIDDLE, M.B., to the *Edgar*, for the voyage out, February 21st, and to the *Torch*, on commissioning, undated.

## ROYAL ARMY MEDICAL COLLEGE.

LIEUTENANT-COLONEL E. J. E. RISK is appointed Commandant and Director of Studies, vice Colonel D. WARDROP, C.V.O., M.B., whose tenure of that appointment has expired, February 4th.

## ARMY MEDICAL SERVICE.

COLONEL DOUGLAS WARDROP, C.V.O., M.B., is placed on retired pay, February 11th. His commissions are thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; and Colonel, August 14th, 1907. He served as Civil Surgeon in the operations against Sekukuni and in the Zulu campaign in 1878-9, and received a medal with clasp. He was also with the Nile expedition in 1898, and was present at the battle of Khartoum; he was mentioned in dispatches and granted the British medal and the Egyptian medal with clasp. He was appointed Commandant and Director of Studies, Royal Army Medical College, in February, 1908, which office he now vacates.

Lieutenant-Colonel R. I. D. HACKETT, M.D., from the Royal Army Medical Corps, is promoted to be Colonel, vice D. Wardrop, C.V.O., M.B., February 11th. He was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. He took part in the Sudan expedition in 1885, and was present in the action at Hasheen and in the advance on Tamai (medal with clasp and Khedive's bronze star). He was also in the operations in Zululand in 1888, and in the South African war in 1899-1902, when he was Principal Medical Officer of a general hospital; he was present at the relief of Ladysmith and in subsequent operations in Natal and Cape Colony, receiving the Queen's medal with clasp and the King's medal with two clasps.

### ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel R. S. F. HENDERSON, M.B., is appointed an Honorary Physician to the King, and is granted the brevet rank of Colonel, vice Surgeon-Major-General J. Sinclair, M.D., deceased, November 22nd, 1910. Colonel Henderson entered the service as a Surgeon, August 2nd, 1884; was promoted to be Surgeon-Major, August 2nd 1896; and made Lieutenant-Colonel, August 2nd, 1904. His war record includes: The Soudan expedition, 1885 (medal with clasp, and Khedive's bronze star); the Burmese campaign, 1885-9 (medal with two clasps); the Chin-dushai expedition, 1890 (clasp); the Wuntho expedition, Burma, 1891 (mentioned in dispatches, clasp); the North-West Frontier of India campaign, 1897-8 (medal with clasp); and the South African war, 1901-2, including operations in the Transvaal, Orange River Colony, and Cape Colony (Queen's medal with five clasps).

Lieutenant-Colonel J. M. REID, M.D., is placed on retired pay, January 29th. He was appointed Surgeon, February 2nd, 1884; Surgeon-Major, February 2nd, 1896; and Lieutenant-Colonel, February 2nd, 1904. He served in the campaign on the North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force, receiving a medal with two clasps, and in the China war in 1900, for which he was mentioned in dispatches and received a medal.

Lieutenant-Colonel C. W. S. MAGRATH, M.D., is also placed on retired pay, February 2nd. His commissions are dated: Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. His war record includes—the Egyptian war of 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star); the Nile Expedition, 1884-5 (clasp); and the Burmese campaign, 1886-7 (medal with two clasps).

Lieutenant-Colonel L. W. SWABEY is likewise placed on retired pay, February 3rd. He joined the department as Surgeon, February 5th, 1881; was made Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901. He was in the Egyptian war in 1882, receiving a medal and Khedive's bronze star, and with the Soudan expedition in 1885 (clasp).

Lieutenant-Colonel J. B. W. BUCHANAN, M.B., retires on retired pay, February 4th. Appointed Surgeon-Captain, January 30th, 1886, he became Surgeon-Major, January 30th, 1898; and Lieutenant-Colonel, January 30th, 1906. He was in the South African war, 1899-1901, and was present at the relief of Ladysmith, at the actions of Colenso, the Tugela Heights, and Pieter's Hill, and in operations in Natal (action at Laing's Nek), the Transvaal, and Orange River Colony; he was mentioned in dispatches and received the Queen's medal with seven clasps.

Yet another officer, Major J. W. JENNINGS, D.S.O., is placed on retired pay, January 31st. He was appointed Surgeon-Captain January 31st, 1891, and became Major, January 31st, 1903. He served with the Dongola expedition in 1896 (Khedive's medal); in the Nile expedition in 1897 (clasp); with the expedition in the following year, including the battle of Khartoum and the defeat of Ahmed Fedil's army (mentioned in dispatches, appointed D.S.O. granted the 4th Class of the Order of the Medjidie, British medal, and clasp to Khedive's medal); in the South African war in 1899-1902, including the relief of Ladysmith, and operations on the Tugela Heights, in Natal (action at Laing's Nek), the Transvaal, and Orange River Colony (mentioned in dispatches, Queen's medal with five clasps, and King's medal with two clasps); and in Somaliland in 1903-4 (mentioned in dispatches, medal with clasp).

Lieutenant-Colonel SAMUEL TOWNSEND, M.D., retires on retired pay, February 8th. His commissions are thus dated: Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901. He served in the campaign on the North-West Frontier of India in 1897-8, receiving a medal with clasp. He was also engaged in the South African war in 1899-1902, being present at the relief of Ladysmith, in the actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieter's Hill, and in operations in the Transvaal, Orange River Colony, Cape Colony, and again in the Transvaal; he was mentioned in dispatches, and received the Queen's medal with five clasps and the King's medal with two clasps.

The undermentioned Lieutenants are confirmed in their rank: W. W. TREVES, M.B., C. H. H. HAROLD, M.D, E. L. FYFFE, M.B., R. F. BRIDGES, M.B., T. J. HALLINAN, M.B., J. D. BOWIE, M.B., C. H. STRINGER, G. O. CHAMBERS, J. K. GAUNT, M.B., L. F. K. WAY. Lieutenants Treves and Gaunt were appointed on probation, January 28th, 1910; all the other officers cited, July 29th, 1910.

## INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL W. B. BANNERMAN, M.D., Madras, is promoted to be Brevet Colonel from January 1st. He was appointed Assistant Surgeon, September 29th, 1883, and became Lieutenant-Colonel, September 29th, 1903. He was with the Burmese expedition, 1885-9, receiving a medal with two clasps.

Lieutenant-Colonel H. F. CLEVELAND is also promoted to be Brevet Colonel from January 1st. He joined the Bombay Medical Department as Surgeon-Captain, September 30th, 1889, and was made Lieutenant-Colonel, September 30th, 1909. He served in the campaign on the North-West Frontier of India with the Tirah Expeditionary Force, 1897-8 (medal with two clasps), and in the China war in 1900 (medal).

Captain S. R. CHRISTOPHERS, M.B., is promoted to be Brevet Major from January 1st. His first appointment to the department bears date September 1st, 1902; that of Captain, September 1st, 1905.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

ROBERT MCC. LINNELL to be Lieutenant (on probation), January 6th; WILLIAM CRYMBLE to be Lieutenant (on probation), January 13th. CHARLES A. BIGNOLD, M.B., to be Lieutenant (on probation, January 17th.

## COLONIAL MEDICAL SERVICES.

THE following changes in the Colonial Medical Services are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Appointments:* L. H. Booth, M.R.C.S.Eng., L.R.C.P.Lond., formerly Assistant Surgeon in the Bahamas, Southern Nigeria; J. Donnelly, M.B., B.Ch, B.A.O.R.U.I., Gold Coast; H. F. Hamilton, M.B., Ch.B.Edin., D.T.M.Liverpool, Gold Coast; A. Hipwell, L.R.C.S., L.R.C.P.Irel., D.P.H.Liverpool, D.T.M Liverpool, Southern Nigeria; P. D. Oakley, M.R.C.S.Eng., L.R.C.P Lond., D.T.M Liverpool, Gold Coast; G. Rollason, L.M.S.S.A. Lond., Sierra Leone; W. A. Ryan, L.R.C.P., L.R.C.S., L.M.Irel., Gold Coast; E. L. Sieger, M.B., Ch.B.Glasg, D.T.M Liverpool, Southern Nigeria; A. J. Smith, M.B., Ch.B.Birm., Gold Coast; W. G. Watt, M.B., Ch.B.Aberd., D.P.H.Aberd., Gold Coast. *Resignation:* R. Cope, M.R.C.S.Eng., M.R.C.P.Lond., D.T.M.Liverpool, Medical Officer, Gold Coast, resigns his appointment. *Retirement:* E. J. Kelleher, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., Medical Officer, Southern Nigeria, retires temporarily on pension.

OTHER COLONIES AND PROTECTORATES.—F. L. Boag, M.B. Ch.B.Vict., appointed as a Medical Officer in the Gilbert and Ellice Islands Protectorate; G. C. M. Davies, L.S.A.Lond., L.R.C.P.Edin., appointed as a Medical Officer in the British Solomon Islands Protectorate.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Medical Electrician.

ASHTON-UNDER-LYNE UNION.—Male Resident Medical Officer for the Workhouse. Salary, £150 per annum.

BARRA PARISH.—Medical Officer. Salary, £125, and £40 from other public offices.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium, 52 guineas per annum.

BRISTOL UNIVERSITY.—Demonstrator of Physiology. Salary, £180 per annum.

BURSLEM: HAYWOOD HOSPITAL.—Resident Medical Officer (female). Salary, £100 per annum.

DUBLIN: ROYAL VICTORIA EYE AND EAR HOSPITAL.—House-Surgeon. Salary, £40 per annum.

DUMFRIES AND BURGHS.—Two Medical Assistantships to the Medical Officer of Health and School Medical Officer. Salary, £250 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) House-Surgeon (male). Salary, £75 per annum. (2) Officer for the Electrical Department.

EDINBURGH ROYAL INFIRMARY.—Superintendent. Salary commencing at £600 per annum.

FARRINGDON GENERAL DISPENSARY, ETC., Bartlett's Buildings, E.C.—(1) Honorary Dental Surgeon. (2) Resident Medical Officer; salary commencing at £100 per annum.

GARTLOCH MENTAL HOSPITAL, near Glasgow.—Physician Assistant. Salary commencing at £125 per annum.

HULL ROYAL INFIRMARY.—(1) Assistant House-Surgeon. Salary, £100 per annum. (2) Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment or £80 for twelve months.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

KING EDWARD VII MEMORIAL SANATORIUM FOR SHROPSHIRE.—Resident Medical Officer. Salary, £200 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £65 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Three House-Surgeons. (2) Two House-Physicians. Salary at the rate of £60 per annum each.

LLANYBYTHER: WEST WALES SANATORIUM. Medical Superintendent. Salary, £250 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—(1) Physician; (2) Assistant Physician.

MAIDENHEAD: EAST BERKS UNITED DISTRICTS.—Medical Officer of Health, School Medical Officer, and Medical Superintendent of the Isolation Hospital. Combined salary, £475 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Male Resident Medical Officer. Salary for first six months £40, and for second six months £50.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician; (2) Two House-Surgeons; (3) Assistant House-Physician; (4) Two Assistant House-Surgeons. Salary for (1) and (2) at the rate of £60 per annum, and (3) and (4) £40 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Senior and Junior House-Surgeons. Salary at the rate of £100 and £80 per annum respectively.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Lecturer on Public Health.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Honorary Anaesthetist to the Out-patient Department.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Honorary Assistant Anaesthetist.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistants.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer in Anatomy. Salary at the rate of £350 per annum, with share in special class fees.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Resident Medical Officer. Salary, £105 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Obstetric Physician to Out-patients.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHPORT INFIRMARY.—Resident (male) Junior House and Visiting Surgeon. Salary commencing at £70 per annum.

STOCKPORT INFIRMARY.—(1) Senior House-Surgeon. Salary, £100 per annum, (2) Junior House-Surgeon (male). Salary, £80 per annum.

SUDAN UNITED MISSION.—Officer to take Medical Charge of the Freed Slaves' Home of Northern Nigeria.

SUNDERLAND INFIRMARY.—Two House-Surgeons (male). Salary, £80 per annum.

TOWER HAMLETS DISPENSARY, Whitehorse Street, Stepney, E.—Resident Medical Officer. Salary, £100 per annum, rising to £120.

UNIVERSITY COLLEGE MEDICAL SCHOOL, Gower Street, W.C.—Second Demonstrator in the Department of Bacteriology.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—(1) Honorary Surgeon. (2) Junior House-Surgeon; salary at the rate of £80 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male),

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Surgical Officer. Salary, £125 per annum.

WORCESTER COUNTY ASYLUM, Powick.—Third Assistant Medical Officer. Salary commencing at £140 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Mold, co. Flint.

## APPOINTMENTS.

BANKS, J., M.B., C.M Glasg., D.P.H., Certifying Factory Surgeon for the Dunoon District, co. Argyll.

BENSON, E. G. D., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer of Health of the Tanfield Urban District.

DOWSETT, Ernest B., M.R.C.S., L.R.C.P., L.D.S., Assistant Dental Surgeon to Guy's Hospital.

EVARTS, A. Chas., M.B., Medical Officer of Chavakachcheri, in the Northern Province of Ceylon.

FARQUHARSON, A. C., M.D.Glasg., District Medical Officer of the Auckland Union.

FEARNSIDES, Edwin Greaves, M.A., M.B., B.C.Cantab., B.Sc.Lond., M.R.C.P.Lond., Medical Registrar to the London Hospital.

GARMAN, W. C., M.D.Edin., Certifying Factory Surgeon for the Wednesbury District, co. Stafford.

HARDIE, C. F., M.B., B.C.Camb., District Medical Officer of the Barnet Union.

HOLROYD, J. B. H., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer of the Sheffield Union Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

PORTEOUS.—On February 18th, the wife of Dr. Porteous, Newbury House, Weston-super-Mare, of a daughter.

THURSTON.—On February 21st, at 14, Henrietta Street, Cavendish Square, the wife of Captain E. Owen Thurston, I.M.S., of a daughter.

### MARRIAGE.

ORTON—LOMAX.—On February 22nd, at Huyton Parish Church, Liverpool, by the Rev. J. W. Orton, V.D., assisted by the Rev. Leigh L. Orton, M.A., Chaplain, Henshaw's Blind Asylum, Old Trafford, and the Rev. J. Fraser L. Orton, B.A., Dewsbury Parish Church, father and brothers of the bridegroom, and the Rev. Canon Sanderson, M.A., Vicar of the Parish, Douglas Catterall Leyland Orton, L.R.C.P.Lond., M.R.C.S., Rodney Street, Liverpool, second son of the Vicar of St. Stephen, Oldham, to Lilian, daughter of George E. Lomax, J.P., of Huyton.

### DEATHS.

FINDLAY.—At Colombo, on January 21st, Mary Lilla, beloved wife of Harry Findlay, M.B., M.R.C.S., D.P.H., Rangoon.

KENNEDY.—At 3, Gay Street, Bath, on February 18th, Alice Frances L'Estrange, the dearly beloved and loving wife of Dr. W. P. Kennedy.

MACMUNN.—On February 18th, at 5, Lonsdale Road, Wolverhampton, Charles Alexander MacMunn, M.A., M.D., V.D., J.P., aged 58 years.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Pathological Evening. Specimens will be exhibited by Dr. F. J. Poynton, Mr. A. E. Barker, Dr. Parkes Weber, Dr. R. C. Jewesbury, Mr. Charters Symonds, Dr. H. M. Turnbull, Mr. T. B. Layton, Dr. Ernest H. Shaw, Dr. Spilsbury, Mr. Maynard Heath, and Mr. T. P. Legg.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, 8 p.m.—Paper:—Mr. A. A. H. Johnson and Mr. A. Hopewell Smith: A Case of Multiple Supernumerary Teeth Preceding a Central Incisor. Casual Communications:—Mr. T. Stordy: Absorption of a Permanent Molar due to an Unerupted Premolar. Mr. W. de C. Prideaux: (1) Three Cases of Torus Palatinus; (2) Skull from a Barrow Showing Somewhat Symmetrical Mandibular Exostoses.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, 5.30 p.m.—Dr. Wilfred Edgecombe: Some Observations on Low Blood Pressure.

### WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races.

ROYAL SOCIETY, Burlington House, London, W., 4.30 p.m.—List of probable Papers:—Professor C. S. Sherrington, F.R.S., and Miss S. C. Sowton: Reversal of the Reflex Effect of an Afferent Nerve by Altering the Character of the Electrical Stimulus Applied. Dr. H. E. Roaf: Carbon Dioxide Output during Decerebrate Rigidity (preliminary communication). (Communicated by Professor C. S. Sherrington, F.R.S.) Dr. A. Harden, F.R.S., and W. J. Young: The Alcoholic Ferment of Yeast Juice. Part VI. The Influence of Arsenates and Arsenites on the Fermentation of the Sugars by Yeast Juice. Colonel Sir D. Bruce, F.R.S., and others: Experiments to Ascertain if Certain *Tabanidae* act as the Carriers of *Trypanosoma pecorum*.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 15, Cavendish Square, 5.30 p.m.—Dr. Ringrose Gore (Llandrindod Wells): Climatic and Balneological Treatment of Neurasthenia.

### THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Cases.

RÖNTGEN SOCIETY, 66, Victoria Street, Westminster, S.W.—Paper: Mr. A. A. Campbell Swinton: Some Experiments with a 10,000-volt Storage Battery.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W.—First Milroy Lecture, by Dr. A. E. Boycott: Ankylostoma Infection.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W., 8 p.m.—Specimens: Dr. Eardley Holland: Sarcoma of Uterus with Haematometra. Dr. R. D. Maxwell: (1) Ovarian Cyst with Thyroid Gland Contents; (2) Hydatidiform Mole with Associated Ovarian Enlargement. Dr. H. Macnaughton-Jones: Hydrosalpinx and Peritoneal Cyst: Uterus removed by Hysterectomy followed by Double Phlebitis. Dr. Paramore: Diffuse Fibroma of the Ovary which has undergone Central Degeneration with Extravasation of Blood. Short Communication:—Dr. Blair Bell: Primary Abdominal Pregnancy in a Rabbit. Epidiascopic Demonstration:—Miss McIlroy: The Origin of the Follicle Cells of the Ovary. Paper: Dr. Blair Bell: The Nature of Fluid contained in a Haematosalpinx.

NEUROLOGICAL SECTION, National Hospital, Queen Square, W.C., 8.30 p.m.—Dr. Kinnier Wilson: Progressive Lenticular Degeneration (a Familial Disease with Cirrhosis of the Liver).

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anthropology of Ancient British Races.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens: By Professor Hobday, Mr. Tilley, Dr. Pegler, Mr. Gay French, and others.

SECTION OF ANAESTHETICS, 15, Cavendish Square, 8.30 p.m.—Discussion on the Use of Scopolamine and Morphine, Atropine, and Similar Drugs by Injection, before Inhalation Anaesthesia. To be opened by Dr. Dudley Buxton.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 p.m.—Paper: Mr. Harold Pritchard: The Present Position of Vaccinotherapy.

### POST-GRADUATE COURSES AND LECTURES.

ANCOATS HOSPITAL, Manchester.—Post-Graduate Clinic, Thursday, 4.15 p.m.: Some Further Aspects of Heart Disease.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday and Friday, 3.45 p.m.: Accessory Sinuses.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m.: Demonstration of Pathological Specimens.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m.: Nose and Pharynx, Diseases of Lymphatic Glands. Thursday, 4 p.m.: Demonstration of Medical Cases. Friday, 5.15 p.m.: Genito-Urinary System, Infections, Tumours, Calculus Tuberculosis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 3.15 p.m., Surgical Treatment of Aneurysm; Thursday, 4.30 p.m., Rheumatic Manifestations in Childhood.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Treatment of Common Symptoms among Infants; Tuesday, Eye Affections in Nervous Diseases; Wednesday, Anaemia; Thursday, The Use and Abuse of Tuberculin.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Cerebral Abscess. Friday, 3.30 p.m.: Intracranial Tumour.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics, *X* Rays; 4.30 p.m., Special Demonstration of Selected Skin Case. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Thursday, 6 p.m.: Chesterfield Lecture, Diseases of Skin Due to Bacillary Infection.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday: Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Surgical Registrar, 10 a.m.; Lecture, Practical Medicine, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m. Lectures, at 5 p.m.: Monday, Therapeutics; Tuesday, Some Medical Aphorisms: Wednesday, Practical Medicine, Lecture V; Thursday, Gynaecological or Obstetrical Subject; Friday, Cases of Skin Disease.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CASSELL AND COMPANY will publish on March 10th a fifth edition of Mr. Bland-Sutton's *Tumours: Innocent and Malignant*, in which much new matter is incorporated.

Messrs. P. Blakiston's Son and Co. announce an eleventh edition of *Memoranda on Poisons and Their Antidotes*, by Thomas Hawkes Tanner, M.D., revised by Henry Leffmann, M.D., Professor of Chemistry in the Woman's Medical College of Penna.

Messrs. William Hodge and Company, Edinburgh and London, announce that they intend to publish a new series of volumes under the title of *Notable English Trials*. The first volume, entitled *The Trial of the Stauntons*, will be issued on March 1st; it will be followed at frequent intervals by volumes dealing with other famous trials, such as those of Franz Müller, Dr. Palmer, Dr. Lamson, Lord Lovat, the Wainwrights, etc. *The Trial of the Stauntons* is edited by J. B. Atlay, M.A., barrister-at-law. This is said to be the first time that a report of the case, which caused so great a sensation in 1877, has been issued in book form. Amongst the editors of the reports of the other trials may be mentioned the names of Messrs. H. B. Irving, George H. Knott, barrister-at-law, David N. Mackay, solicitor, and H. L. Adam. Each volume will be fully illustrated, and the price will be 5s. net.

## RECENT PUBLICATIONS.

*The Motorists' Pocket Tip Book.* By Geoffrey Osborn. London: Mills and Boon. (5s.)

A convenient pocket book, containing a description of the construction and working of a car, as far as possible in general terms, hints on car management and on driving, and practical notes on the causes and remedies of road stops. There are descriptions of the Bosch dual ignition and of the Daimler S.K. engine, as well as numerous diagrams. The text is printed on thin paper and the cover has pockets.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **FEBRUARY.** | |
| 27 MONDAY .. | |
| 28 TUESDAY .. | |
| **MARCH.** | |
| 1 WEDNESDAY | SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also of Branch Council and Local Division, Club House, Carlow, 5.30 p.m. |
| 2 THURSDAY .. | STAFFORDSHIRE BRANCH, General Meeting, Vine Hotel, Stafford, 5.15 p.m.; Dinner, 7.15 p.m. |
| 3 FRIDAY .. | CAMBRIDGE AND HUNTINGDON BRANCH, Medical Schools, Downing Street, Cambridge, 2.30 p.m.<br>WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.30 p.m. |
| 4 SATURDAY .. | |
| 5 Sunday .. | |
| 6 MONDAY .. | |
| 7 TUESDAY .. | |
| 8 WEDNESDAY | LONDON: Regulations and Standing Orders Subcommittee. |

| Date. | Meetings to be Held. |
|---|---|
| **MARCH** *(continued).* | |
| 9 THURSDAY .. | ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Brooklands Hotel, 4.30 p.m.<br>WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Grove Hall, Grove Road, Wanstead, 4 p.m. |
| 10 FRIDAY .. | BRIGHTON, EASTBOURNE, TUNBRIDGE WELLS, AND HASTINGS DIVISIONS, *South-Eastern Branch*, Conjoint Meeting, Sackville Hotel, Bexhill-on-Sea, 5 p.m.; Tea, 4.30 p.m.; Dinner, 6.45 p.m.<br>KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4.30 p.m. |
| 11 SATURDAY .. | |
| 12 Sunday .. | |
| 13 MONDAY .. | |
| 14 TUESDAY .. | LONDON: Medical Inspection and Treatment of School Children Subcommittee, 3 p.m.<br>WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4 p.m. |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 4TH, 1911.

**SPECIAL NOTICE TO MEMBERS.**

***Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.*** ***BY ORDER.***

## REPORT ON THE ORGANIZATION OF MEDICAL ATTENDANCE ON THE PROVIDENT OR INSURANCE PRINCIPLE.

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# MATTERS REFERRED TO DIVISIONS.

## REPORT

ON THE

## ORGANIZATION OF MEDICAL ATTENDANCE

ON THE

## PROVIDENT OR INSURANCE PRINCIPLE.

### INTRODUCTORY.

#### REFERENCE.

1. The Annual Representative Meeting, 1909, resolved as follows :

> **Minute 118.—That the following motion be referred to the Council for consideration and report :—**
>
> That the time is now opportune for the British Medical Association to take into consideration the drafting of a scheme for a Public Medical Service, to embrace Philanthropic Dispensaries and Medical Services, School Clinics, the Poor Law Medical Service, Provident Dispensaries, and the Medical Services of Friendly Societies and Clubs.

#### PROCEDURE.

*Past Action.*

2. While the above instruction of the Representative Meeting was before the Council, attention was directed to other aspects of the same subject, first, by consideration of the Reports of the Royal Commission on the Poor Law, and, secondly, by the public announcements as to the prospective institution by the Government of State Sickness and Invalidity Insurance. A Report on the whole question was placed before the Annual Representative Meeting in London, in July, 1910, and was remitted to the Council for further consideration and issue to the Divisions. The Council has referred the matter to a Special Committee (alluded to throughout the Report as "The Committee") with authority to issue it when completed to the Divisions. In view of certain subsequent events, especially representations received from certain Divisions of the Association, with respect to the advisability of the adoption of the system of payment per attendance for the remuneration of medical practitioners under any provident or insurance medical service, the Committee has found it advisable to recast the whole Report.

*Form of Report.*

3. In order adequately to place before the Divisions all the matters requiring their consideration in connection with a subject of such importance, range and complexity, the Committee has found it necessary to prepare a Report of great length. It has been thought advisable, therefore, to compile a Summary for the assistance of those who may not be able to find time, at all events in the first instance, to peruse the whole Report.

4. The Report and Summary are divided into Sections—(A) dealing with the reasons which necessitate the consideration of the subject by the Association at the present time, (B) stating certain general considerations by which the Association must, in the opinion of the Committee, be guided in its deliberations on the matter, (C) containing a detailed examination of questions affecting the actual organisation of a medical service on a provident or insurance basis, and (D) discussing the possible effects of such a scheme on the interests of the medical profession and of the community. The Committee has also drawn up a series of Questions which will, it is hoped, assist the Divisions both in directing their attention specially to those matters upon which pronouncements by the Association appear most necessary, and also in so framing their replies as to afford the fullest guidance to the Council in its further consideration of the subject.

*Proposed procedure for further consideration of subject.*

5. Having regard to the special difficulty and importance of this subject, the Committee considers the adoption of an exceptional procedure for its further consideration by the Association desirable. One of the chief difficulties is the interdependence of the various parts of the subject. The decision of the Association upon some points must materially affect the decision upon others. It may, therefore, be desirable that the Divisions, before expressing definitely their opinion upon any point, should be in possession of reliable information as to the general tendencies of opinion in the Association upon other matters to which it is related.

6. The Committee proposes, therefore, that the following procedure should be adopted :—

(*a*) Discussion of the present Report by the Divisions, who are asked to give replies to the Questions submitted and instructions to their Representatives, which should be, for the present, provisional only.

(*b*) Discussion of the whole matter in a Special Representative Meeting, to be held about the end of April, when the Representatives would have the opportunity of comparing the views of their respective Divisions.

(*c*) Consideration of the replies of the Divisions upon the questions submitted, and of the resolutions of the Representative Meeting, by the Council, which would then prepare a further report to the Divisions and Representative Body containing definite recommendations.

(*d*) Consideration of such further Report by the Divisions and definite instructions to Representatives.

(*e*) Consideration of the Report by the Annual Representative Meeting at Birmingham, at the end of July, when the policy of the Association would be determined so far as might then be found necessary or desirable.

## REPORT.

*General nature of the Report.*

7. The object of the present Report is to assist the Divisions in considering (i.) whether it is desirable in the interests of the profession that the British Medical Association should organise, or co-operate with the Government or with local public authorities in organising, a provident medical service (or services) of national scope, such as was foreshadowed in Minute 118 of the Annual Representative Meeting, 1909, and (ii.) if this is thought advisable, what kind of Service or Services should be promoted or supported by the Association.

*Definition of "Provident or Insurance Medical Service."*

8. The term "Provident Medical Service," and the equivalent terms "Insurance Medical Service," or "Medical Service on a provident or contributory basis," must frequently be employed in the present Report. The Committee has had evidence of the prevalence of misconceptions arising from the use of such terms. It seems well, therefore,to explain at the outset that by the term "Provident Medical Service," or any of the equivalent expressions stated, is meant any organisation or arrangement whereby persons are enabled to provide for the cost of medical attendance by insurance. As the Report will show, this general object may be carried out in a great variety of ways, both as regards the bodies by which, and the objects with which, the Service is instituted, the method of administration and control, the definition of the persons who are to be admitted to benefit, and of the benefits provided, and the methods of selection, terms of employment, and mode and amount of remuneration of the medical practitioners who are to give the necessary attendance. The terms of employment may, in certain respects, closely approximate the conditions of ordinary private practice, or they may be more analogous to those of certain existing provident organisations, such as the Friendly Societies, or they may be assimilated to those of a State Medical Service of salaried officers. The object of the Report is to place before the Divisions, fully and impartially, all the possibilities that require consideration, in order that they may decide which should be favoured and which opposed by the Association, due regard being had to the interests both of the medical profession and of the community

### SECTION (A).—THE REASONS WHICH MAKE IT NECESSARY FOR THE ASSOCIATION TO TAKE ACTION IN THE MATTER.

*Reasons for Action are two-fold: First, Professional; Secondly, Public.*

9. The reasons for which the Association is called upon, at the present juncture, to take into its most earnest consideration the subjects of this Report, proceed, first, from the necessity of remedying certain grave disadvantages from which the profession at present suffers, and, secondly, from the necessity of meeting a growing demand on the part of the community.

*Reasons for Reform from the Professional Standpoint.*

10. The records of the Association from the time of its reorganisation in 1902 overflow with evidence . . . most of the existing arrangements for medical attendance upon the wage-earning classes are unsatisfactory to the medical profession. These arrangements may be considered separately under the heads of (i.) ordinary private practice; (ii.) so-called "contract practice"; (iii.) the medical charities; (iv.) the Poor Law Medical Service and other forms of medical relief at the public expense.

*(i) Ordinary Private Practice.*

11. Medical practitioners constantly complain that they cannot obtain payment of debts justly due to them for medical attendance. It is notorious that, by those who make debt-collecting a business, medical book debts are regarded as among the least valuable. The difficulty of obtaining payment of medical fees is commonly stated by medical practitioners as the reason for which they have entered into contract practice arrangements of a kind which they themselves recognise to be intrinsically undesirable.

*(ii) Contract Practice.*

12. In 1905, after investigating existing forms of contract practice, the Association found that:—

> 1. There are districts in which it appears to be necessary, under present conditions, that certain classes of the community should be enabled to provide for the cost of medical attendance and expenses directly related thereto by some system of small periodic payments.
>
> 2. In the systems whereby such provision is at present being made, two principal methods of remuneration of the medical attendant may be distinguished, and these differ in some respects in their effects upon the medical profession. These are:—
>
> (*a*.) The medical practitioner, in consideration of contracting to give such medical services as may be required by any or all of certain specified individuals, receives all or a specified part of the periodic payments made by or in respect of those individuals.
>
> (*b*.) The medical practitioner, in consideration of medical services actually rendered, is paid fees according to a specified schedule or scale, out of a fund created by the periodic payments of those concerned.
>
> The system (*a*) has been long established, and is widely prevalent; (*b*) is recent and exceptional.

3. Under the first system, where a definite organisation exists, the administration is usually under non-medical control.

4. Under the first system the rate of remuneration of the medical officer is, in the majority of cases, inadequate, even when measured by current rates of fees in working-class practice.

5. Under the first system the relation of the medical attendant to his patient tends to become unsatisfactory.

6. Under the second system the administration of the insurance is in all existing cases in the hands of non-medical organisations.

7. Under the second system the governing bodies fix scales of allowances for medical attendance, and these, though intended to be partial or minimal, are apt to become the maximal remuneration received by the profession.

8. Under both systems there is a tendency to admit persons who are able to pay for medical attendance by fees, and thus to violate the fundamental understanding upon which the medical profession has entered into such contracts.

9. Under both systems there is a tendency for the medical attendant to be brought into unsatisfactory relations with other members of the profession.

10. The cause of the above evils is the advantage which non-medical organisations are able to take of the competition between individual medical practitioners.

11. Where separate appointments or private clubs are held by individual medical practitioners, the competition is accentuated, and the power of non-medical organisations to impose unsatisfactory conditions upon the medical profession increased.

12. Conversely, where participation in contract practice has been thrown open to all medical practitioners in a district, the position of the profession as a whole has been improved.

13. Other measures which have improved the position of the profession in certain districts are the following:—

(i.) Representation of the medical profession in the management.
(ii.) The adoption of wage limits or equivalent provisions.
(iii.) Definition of special services and provision for payment therefor; and
(iv.) Increase of remuneration for ordinary attendance.

14. Those reforms which have been obtained have been effected by co-operation among members of the medical profession, locally and generally.

15. Such co-operation, except in self-contained districts in which there are few practitioners, has been brought about through the agency of organised local bodies representative of the profession.

16. Where the efforts of such local societies have failed to obtain the reforms attempted, such failure has been largely due to the want of their organic relation with an organised body representative of the profession throughout the country.

17. There is evidence that since the re-organisation of the British Medical Association this difficulty has already in some instances been overcome by the action of the Divisions as local medical societies organically connected with a national organisation of the profession.

13. The inadequacy of remuneration, and general defectiveness of the conditions of employment, of medical practitioners engaged in contract practice, especially in connection with the Friendly Societies, have been pointed out also by the Royal Commission on the Poor Law. In view of the prospect that the arrangements in connection with State Sickness Insurance, including those for the provision of medical benefits, may be left by the Government to a great extent in the hands of the Friendly Societies and similar bodies, it is important for the Divisions to keep clearly before their minds what experience has demonstrated as to the defectiveness of such arrangements both from the professional and public standpoint. Such a prospect, viewed in the light of such experience, constitutes one of the chief reasons for which the profession cannot afford at the present juncture to adopt a passive attitude.

### (iii.) *Medical Charities.*

14. A very large amount of medical attendance is given through medical charities. Most of the medical officers of these charities are entirely unremunerated. Nevertheless the charities compete with private practitioners by affording to many persons medical relief of a kind which such persons could, under a satisfactory provident system, obtain for themselves by insurance.

### (iv.) *The Poor Law Medical Service and other forms of Medical Relief at the Public Expense.*

15. The experience of the Association has been that local authorities tend to exploit their medical officers, under-paying Poor Law work, and unwarrantably discharging Public Vaccinators and Medical Officers of Health. This is amply confirmed by the Reports of the Royal Commission on the Poor Laws.

## *Proposals for Reform as affecting the subject of this Report.*

16. At various times during the past eight years the Association has proposed measures for dealing with most of the above evils. These have included, for the reform of contract practice, the establishment locally of public medical services controlled by the local profession and organised upon principles formulated by the Association. As regards hospitals, the Association has advocated, as part of the remedy for the abuse of out-patient departments, the reference of patients who do not need special hospital treatment, to private practitioners or provident organisations. As regards the Poor Law, the Association has advocated increased remuneration, and improvements in the system of remuneration and in the general conditions of service, of Poor Law Medical Officers. If these were carried out, Poor Law Authorities must inevitably consider, more carefully than at present, the fitness of applicants for medical relief at the public expense, and also the possibility of calling upon some of those who apply for relief to subscribe to provident organisations.

17. Thus the organisation of a provident or insurance medical service under conditions satisfactory to the profession, while not the only remedy, must be recognised as one of the most important remedies, for serious evils from which the profession now suffers. The Association must, on this ground, apply itself earnestly to the matter, even were there no prospect of action being forced upon the profession by the community, as for example, in connection with State Sickness Insurance or Poor Law Reform.

*The Public Demand for Reform; Report of Poor Law Commission.*

18. There is, however, a strong and growing demand from the public for better provision of medical attendance for the wage-earning classes, and the extent and nature of this demand call for the careful consideration of the medical profession. The Reports of the Royal Commission on the Poor Law have shown the failure, under existing conditions, not only of the system of public medical relief, but also of medical charities and of contract medical practice, to afford satisfactory medical attendance. It is clear that a large portion of the community do not obtain that prompt and efficient attendance which it is to the interest of the community that they should receive; that persons who, were the necessary organisation in existence, could afford to provide by insurance for the cost of medical attendance, have not at present the facilities which would enable and encourage them so to do; and that not only are the medical practitioners engaged in these various services under-paid for their work (a circumstance in itself detrimental not less to the public interest than to that of the profession), but much of it has to be performed under conditions which do not bring out the best service of which they are capable.

*Remedies proposed by the Majority of the Commission.*

19. Among the remedies proposed by the Majority of the Poor Law Commissioners for these grave evils it is clear that one of the most important in their estimation is the organisation of provident medical services by the local Public Assistance Authorities.

*Remedies proposed by the Minority.*

20. The Minority of the Commissioners advocate, on the other hand, the institution of a service of whole-time or part-time salaried medical officers employed by the local Health Authority, whose services would be available, indiscriminately, not only for those who could not, but also for those who could, afford to pay for their own medical attendance, a system of charge and recovery being relied upon for securing payment from persons of sufficient means.

*State Sickness Insurance.*

21. Since the appearance of the Poor Law Reports the Government have made known that they have under consideration a scheme of State Sickness Insurance, more or less analogous to those which have been adopted in Germany and some other countries. The method of organisation contemplated by the Government is not at present known. It is understood that something like one-third of the population is to be included within the scope of the scheme. Arrangements for the provision of medical attendance to the insured may or may not be specially dealt with in the scheme, but, even if the scheme of sickness insurance at first introduced does not include any kind of provision for meeting the cost of medical attendance, it appears inevitable that some such provision must ultimately be made.

*Public action in some form inevitable.*

22. The profession must be prepared, therefore, for the probability of action being taken in some form by the community, whether with or without the sympathetic co-operation of the profession, or even in disregard of the profession, which may profoundly modify existing conditions of medical practice among the wage-earning classes. Such action may take the form of (i) extension of provident dispensaries under the guidance of local Public Assistance Authorities, (ii) extension of treatment by salaried public officers employed by the Health Authorities, (iii) extension of provident medical attendance in connection with a National Sickness Insurance Scheme, or (iv) extension of contract practice under the auspices of the Friendly Societies, or of two or more of these operating side by side. Public opinion increasingly demands that adequate medical attendance shall be placed within the reach of all members of the community, not only in the individual interest, but also in the general interest. Public opinion will also prefer that those who are able to pay the cost of their own medical attendance should be encouraged or even compelled so to do. These tendencies, acting in conjunction, would find their fulfilment most readily in the improvement of existing arrangements, or in the organisation of new means, for affording medical attendance on the provident, contributory, or insurance principle.

*The Attitude of the Profession.*

23. Assuming for the moment that the profession should not be satisfied that it was to its own interest to foster such a development, it must consider what should be its attitude. If simple resistance to any provident medical organisation undertaken by the community were contemplated, it must be considered whether the profession is likely to be sufficiently united in such resistance to make it effective. The grave question has also to be considered whether such resistance, if partially or completely effective, might not cause the community to seek other methods of making the desired provision which would be even less satisfactory to the profession. A possible alternative would be that recommended by the Minority of the Poor Law Commissioners, namely, the employment of a few whole-time or part-time salaried medical officers, selected by local Health Authorities to carry out the work, which would thus be taken entirely out of the hands of independent private practitioners. The Committee believes, for the reasons explained in a later section of its Report, that such a solution would not be regarded by the profession as desirable, either in its own interest or in the public interest. If this belief be correct, it affords an additional reason for most carefully weighing the position before deciding to throw obstacles in the way of the development of medical services on provident or insurance lines.

*Co-operation of the Association in the Development of a System of Insurance against cost of Medical Attendance desirable.*

24. Due weight being given to all the considerations stated, the Committee believes it to be to the interest of the profession that the Association should, as the Divisions may think best, either undertake, or co-operate in, the organisation of a national system or systems of provision of medical attendance on the provident or insurance basis.

SECTION (B)—GENERAL CONSIDERATIONS BY WHICH THE ACTION OF THE ASSOCIATION MUST BE GUIDED.

(I) *A Review of existing conditions as affecting possibilities of Reform.*

25. Before proceeding to examine in detail, as is done in Section C of the Report, the various possibilities of reform which require examination, it is necessary to have regard to certain general considerations which must be present to the minds of the Divisions in arriving at their decisions for or against any particular proposals. Attention must first be paid to certain difficulties standing in the way of reform, especially those which might arise from interference with existing arrangements.

26. In any question of social or economic development, one of the most important questions is as to the extent to which existing arrangements should be utilised, adapted, and developed, or, on the other hand, swept away and replaced by new methods. Sweeping reforms can only be carried through with the approval of large majorities, or, at all events, in the absence of active opposition from strong minorities. In a case like the present, in which the Association might conceivably consider reforms desirable which would not, in the first instance at all events, be acceptable to considerable sections of the community, the force of a practically united profession would be necessary in order to carry such reforms into effect. It is necessary, therefore, to consider to what extent this degree of union in the profession is likely to be attainable in support of any particular proposals for reform, and particularly as to how the prospect of attaining such union might be affected by interference with existing conditions of practice.

27. In the first place it is to be noted that if new schemes of provision for medical attendance are to affect all those who are expected to be compulsorily insured under a State Sickness Insurance Scheme, namely, all below the income tax limit of £160 a year, a considerable amount of existing private medical practice will be affected. There are important districts in which at present practically no attendance is given upon provident, insurance, contract practice or "club" lines. It is probable that, in the country generally, the majority of those whose income exceeds 30s. or £2 per week, per family, and a fair proportion of those even below the lower limit stated, can and do pay the full cost of ordinary medical attendance without needing to avail themselves of any kind of insurance provision. They obtain their medical attendance in all ordinary ailments by direct arrangement of private patient with private doctor, without any interference from organised bodies, either of the community or of the profession. The only case in which such patients need to come into contact with organisations for the provision of medical attendance is that of illness requiring special medical or surgical skill, special nursing, or exceptionally prolonged attendance. Such assistance they may obtain either through medical charities, through the benevolence of the medical profession, or at the public expense. Thus, as affecting this class, the main interest which the profession have in the better organisation of medical attendance is that better provision should be made for affording the attendance required in the exceptional cases above stated, and for adequately remunerating the medical practitioners who give such attendance. Subject to this exception, the medical practitioners who attend these persons are satisfied with the existing state of affairs, and would be opposed to any interference which did not appear to them to offer compensating advantages in other directions.

28. Again, a considerable proportion of those below the limit above stated, who earn more than £1 a week, at present make provision for their attendance in ordinary illnesses through existing insurance, provident, contract, or club agencies. There are districts, as for example the mining districts, in which provident arrangements, organised under the Truck Act, are almost universal. While, as regards the country generally, such arrangements are usually open to the objections which the Association has pointed out, there are, on the other hand, districts in which the practitioners engaged in such practice are on the whole satisfied with existing arrangements, or only desire such amendments as can be brought about, as occasion arises, by the united action of the local profession with the support of the Association. They would be opposed to any systematic or wholesale upsetting of the existing conditions of practice which was not proved to them to offer compensating advantages in other directions.

29. While, however, practitioners who receive adequate fees from private practice among the working classes, or hold contract practice appointments upon conditions relatively satisfactory to themselves, might regard any change in the system of organisation of medical attendance as detrimental to their interests, there are other considerations that must be taken into account. The conditions of life in this country are rapidly changing, and the mode of life in rural districts is being gradually approximated to that in the towns. In many parts of the country the working classes are abandoning the usual mode of payment, and there is a greater tendency to combine for securing attendance at a lower rate through clubs and charitable institutions. Were the Government, or other Public Authorities to provide a national system of medical attendance on the sick, the question would

have to be seriously considered whether those practising for the most part in rural districts, or in other districts in which the working classes pay adequate fees, should urge that exceptions should be made, or whether it might be reckoned that any loss accruing from a different mode of practice would be compensated by a Government grant, or other payments from public funds, and by contributions from employers. The fact has also to be considered that the profession may not find it practicable in any event to maintain existing conditions. The choice open may very well be, not between any particular change and the *status quo*, but between some changes which might be more, and some changes which might be less, desirable from the standpoint of the medical profession generally, or of special sections of the profession. Any section who might consider that their interests would be specially prejudiced by any general scheme of re-arrangement must consider whether those interests could better be protected by simple resistance to reform, or by endeavours to secure exceptional consideration or compensating advantages in other directions.

30. When all such considerations are recognised, however, it is clear that the Divisions, taking a comprehensive view of the position, must be prepared to allow, not only for differences of opinion among those whose interests are broadly identical, but also for definite divergencies of interest, both between practitioners practising in the same district and between those practising in one district and those practising in another. In cases in which a sacrifice of personal interests would be involved, the minority obviously could not be called upon so readily to give way to the opinion of the majority, as where only differences of opinion were concerned.

31. It is obvious that the considerations above stated add greatly to the complexity and difficulty of the problems with which the Association is now faced, and must especially add to the difficulty of attempting a root and branch reform. Up to the present the Association has not felt justified in going beyond the formulation of certain general principles as ideals. It has been left to each district to effect the amelioration of local conditions with the support of the Association. Having regard to the comparatively short period which has elapsed since the Association undertook the task of systematic organisation of the medical profession for dealing with such matters, it is doubtful whether more rapid progress could have been made in any other way. In respect of each of the more extensive changes in existing arrangements, discussed in Section C. of the Report, it will be for each Division to consider whether the organisation of the profession within the area of that Division, or in the country generally, is strong enough to carry out such a change against such opposition as in the judgment of the Division it is likely to meet with, whether from within the profession or from bodies representative of the community. These considerations must affect the policy of the Association in two important respects, namely, first, as to the desirability or otherwise of the Association proceeding at once to formulate definitely its policy upon every aspect of the very extensive problems associated with insurance or provident medical services; and, secondly, as to the relative expediency, in dealing with each branch of the subject, of attempting to lay down a policy which should apply uniformly throughout the country, or of leaving wide freedom to the Divisions as to the action to be taken by each within its own district. These questions are discussed in the next succeeding paragraphs.

### (II.) *Considerations affecting extent to which policy should at present be formulated.*

32. The object of the present reference is to prepare the way, by discussion in the Divisions, for such pronouncements by the Representative Body as will put the Association in a position to take action if and when found advisable. Upon those matters on which there is already general agreement, there can, of course, be no object in deferring decision. But concerning those matters upon which there are, as already pointed out, wide divergencies, not only of opinion but also of individual interest, both between members of the profession in the same district and between those in one part of the country and those in another, it may be to the advantage both of the Association and of the profession not to make any binding declaration of policy so long as circumstances do not necessitate such a declaration, or until a more general agreement has been arrived it. One question, then, for the Divisions to consider, with respect to any of the matters dealt with in Section C of the Report upon which there are wide divergencies of opinion, will be whether there is urgency for the Association to define its policy on those matters.

33. The need for attention being given to the whole subject at the present time arises, as pointed out in Section A, partly from a recognition by the profession of the defectiveness of existing conditions from its own standpoint, and partly from the probability of public action being taken, through the Government, Local Authorities, or otherwise, to remedy existing evils from the public standpoint. It is the probability of public action which creates such urgency as exists for the Association to formulate its policy, in order to be prepared to deal satisfactorily with the position on behalf of the profession. This prospect of publicaction arises chiefly in connection with the State Sickness Insurance proposals, and the proposals of Poor Law Reform. Of these, State Sickness Insurance has up to the present been regarded as most urgent, but at the moment of preparation of this Report by the Committee there are indications which make it at least doubtful whether the State Sickness Insurance Scheme, which the Chancellor of the Exchequer is expected to bring before Parliament in the present session, will include arrangements for the provision of medical attendance. It is also not improbable that the arrangements will be left as much as possible in the hands of the Friendly Societies, in which case the action of the profession must be directed rather to making arrangements with these bodies than to an agreement with the Government affecting the country as a whole. Thus, the form which public action may take is at present very uncertain, and decisions on the part of the Government, or of Local Authorities, in certain directions may render action by the Association undesirable, which, under other circumstances, would be desirable. It is not necessarily

to the advantage of the Association, as representing the profession, that its decisions on every aspect of the subject should precede the decisions of those Bodies which represent the public. On some matters it is clearly important that the Association should be in a position to influence public opinion before decisions of public bodies are arrived at. On other matters, particularly those on which professional opinion is most acutely divided, it may be preferable to await rather than to forestall the course of events on the public side.

(III.) *Question of Uniformity of Policy throughout the country on local option.*

34. Considerations similar to those referred to in the preceding paragraph affect the important question whether it is necessary for the Association to formulate a uniform policy on every aspect of the subject, and to urge the profession in every district to conform to that policy, or on the other hand to gather for the assistance of the Divisions expressions of opinion as to what on the whole is most desirable, and to leave them to apply those principles at their discretion, and with due regard to the circumstances of their own districts. If the Government should, in connection with State Sickness Insurance, undertake the institution of a comprehensive scheme for provsiion of medical attendance, applying to the country generally, it would become necessary for the Association to be in a position to make suitable representations on behalf of the medical profession, and the adoption of certain uniform principles might be essential. Even here, however, it would probably not be necessary for every detail to be carried out uniformly in every part of the country, and the scheme might be so framed as to permit a wide degree of local option in certain matters. In Germany the method of employment and the method of payment of the doctors in each district are left to local determination. In some districts selected practioners are employed: in other districts the patients have choice of doctor. Where choice of doctor is permitted, practitioners are paid in some districts on a capitation basis, while in other districts the basis of payment per attendance is adopted. Although the profession in that country are generally agreed as to the undesirability of the employment of selected medical officers, there is no such agreement as to the relative advantages of payment per attendance and capitation payment. In some districts the profession are satisfied with one, in others with the other. It will clearly be easier to secure that united action by the profession, which is so essential for the maintenance of its interests, if any attempt to secure uniformity is confined to those matters upon which there is already general agreement, and if the greatest possible degree of liberty of local action is left in those matters in which agreement has not yet been attained, and as to which, possibly, it may be necessary to await the result of experience under new conditions before the information becomes available upon which such agreement could be based.

*No definite Scheme now submitted.*

35. In the earlier form of the present Report, which was placed before the Annual Representative Meeting at the Guildhall, London, a definite scheme was submitted of a Provident Medical Service on insurance lines, to be controlled by the local profession in each district. It differed from the Public Medical Service Scheme previously placed before the Divisions by the Council only in so far as provisions were incorporated for the co-ordination of all such services throughout the country, by the constitution of a Central Committee, and by arrangements to enable a contributor to the service in any one district to continue in benefit on removal to another. Upon further consideration of this, with alternative schemes brought to its notice, the Committee has come to the conclusion that, before a detailed scheme can be discussed with advantage, more definite indications must be obtained of the opinion of the Divisions, and of the profession generally, upon certain questions of principle involved. No scheme of any kind, therefore, is now submitted.

*Previous declarations of Policy by the Association.*

36. In conclusion of this Section, the Committee thinks it well briefly to state the position at which the Association had arrived, as regards its policy on this subject, up to the date of the instruction which gave rise to this report. Although, since the year 1906, when the Annual Representative Meeting last considered the subject comprehensively great changes have taken place in the public attitude, and perhaps also in the attitude of the profession, necessitating a reconsideration of the whole subject, it will doubtless be of assistance to the Divisions to have before them a statement of the general conclusions at which the Association then arrived. These were, stated shortly, that the abuses of existing provident medical services, both as regards "contract practice" and other systems then in operation, were chiefly due to the facts (*a*) that existing services were usually under the control of lay organisations, (*b*) that the terms of the service were arranged by agreements with individual practitioners instead of with bodies representative of the profession, and (*c*) that the system of employment of selected medical officers gave such officers indirect inducements to accept employment on terms intrinsically undesirable.

37. The chief principles upon which reform must be based were declared to be:—

(i.) That it should be open to every medical practitioner in each district who was prepared to conform to the Rules to take part in the work of any provident medical service.

(ii.) That the management should be in the hands of a Committee appointed by the local profession.

(iii.) That the Rules, including the provisions as to remuneration of medical officers, should be subject to the approval of organised bodies representative of the local profession.

*Previous consideration of questions of methods of remuneration.*

38. As regards a subject which has given rise to considerable discussion in recent months, namely, the relative advisability of a capitation system of

payment, or of a system of payment per attendance, of practitioners attending those who insure against the cost of medical attendance, the Association has not up to the present made a definite pronouncement. In the Contract Practice Report of 1905 it was pointed out (pages 8 and 25) that recognition of the necessity of some organisation to enable certain sections of the community to provide medical attendance by insurance, by payment of weekly premiums, did not necessarily imply that medical practitioners should enter into contracts to give attendance upon these terms; that the system of payment by the beneficiaries and the system of payment to the doctor must be separately considered (page 12); and that although the commonest system was for the doctor to be remunerated on the same basis as the Insurance Fund itself was constituted (*i.e.* on a capitation basis), nevertheless there were many cases in which the doctors were remunerated either by fixed salaries or by payment per attendance. It was further pointed out (page 26) that although it was possible for the profession in any district, in connection with a Public Medical Service under its own control, such as had been adopted in some districts, while accepting payments from the beneficiaries on the capitation basis, to introduce the system of payment per attendance for the remuneration of the doctors, this had not so far been attempted in connection with such Services. All then existing schemes under which practitioners were remunerated on the payment per attendance basis were under non-medical control and management, the chief example at the time being that afforded by the National Deposit Friendly Society, the working of which in some districts had been found unsatisfactory by the profession (page 26). In the Public Medical Service Scheme formulated by the Council of the Association under the direction of the Representative Meeting, and submitted to the Divisions in December, 1909, the capitation basis of remuneration of doctors was retained. It would however, be possible under that scheme for the profession in any district, while still accepting capitation payments from beneficiaries, to introduce the system of payment per attendance for medical remuneration. So far as the Association can be considered to have expressed any opinion on the subject up to the present, it has been on the whole in favour of the latter system in principle, although the difficulties of carrying it out in practice have been recognised.

## SECTION C.—QUESTIONS AFFECTING THE ACTUAL ORGANISATION OF A MEDICAL SERVICE ON AN INSURANCE OR PROVIDENT BASIS.

### *Summary of Matters to be considered.*

39. Whatever kind of Provident or Insurance Medical Service is instituted, the following points will require consideration:

(I.) The constitution of the bodies, central or local, or both, which (i.) control, and (ii.) carry out the detailed management of, the Service, and the part to be taken by the British Medical Association, or by other bodies representative of the medical profession, in such control and management.

(II.) The definition of the persons for whose medical requirements the Service is to provide.

(III.) The definition of the benefits to be provided.

(IV.) The sources of contribution to the insurance or provident fund, and the basis of calculation of such contributions.

(V.) The principle of selection of medical practitioners employed to attend the insured.

(VI.) The method of remuneration of the medical practitioners employed (i.) in respect of ordinary services, (ii.) in respect of special services, if any.

(VII.) The amount of the medical practitioner's remuneration under heads (i.) and (ii.) described in (VI.).

### (I.)—THE CONSTITUTION OF THE BODIES, CENTRAL OR LOCAL, OR BOTH, WHICH (i.) CONTROL, (ii.) CARRY OUT THE DETAILED MANAGEMENT OF, THE SERVICE, AND THE PART TO BE TAKEN BY THE BRITISH MEDICAL ASSOCIATION, OR OTHER BODIES REPRESENTATIVE OF THE MEDICAL PROFESSION, IN SUCH CONTROL AND MANAGEMENT.

### *Constitution of Service as affected by Origin and Objects.*

40. The constitution of the controlling and managing bodies of any such medical service as is under consideration, and the part to be taken by the medical profession in such control and management, must obviously depend largely, though, as will presently be seen, not entirely, upon the question by whom and with what object the service is promoted. The Committee proceeds, first, therefore, to state the many possibilities that need consideration in this regard. These fall under the heads of (i.) Services instituted by the Medical Profession; (ii.) Services instituted in connection with Poor Law Reform on the lines of the Majority Report; (iii.) Services instituted in connection with Poor Law Reform on the lines of the Minority Report; and (iv.) Possible forms of service under State Sickness Insurance, (A) if the medical arrangements are left entirely to the Insured, and (B) if such arrangements are made by the Government.

### (i.) *Services instituted by Medical Profession.*

41. If the medical profession think well, in the absence of any action by the Government or by Local Authorities, to continue its efforts for the improvement of medical practice on the broad lines already adopted by the British Medical Association, the control and management will rest with Medical Committees, central or local or both, assisted possibly by joint lay and medical Committees.

### (ii.) *Services instituted in connection with Poor Law Reform on Majority lines.*

42. If Poor Law Reform were carried out upon lines such as were recommended by the Majority of the Royal Commission on the Poor Law, or by Dr. J. C. McVail in his Report, Provident Medical Services would be organised throughout the country by the Public Assistance Authorities,

The Authority would be a Committee of the County Council, as proposed by the Majority of the Commissioners, or possibly a body closely resembling the present Boards of Guardians. It would be open to the medical profession to obtain, through the Divisions of the British Medical Association, a considerable measure of representation on the Management Committee, and to secure that the Division should be consulted (as proposed by the Poor Law Commissioners) as to wage limits, methods and rates of payment of medical officers, and other matters in which the profession was specially concerned. The work of medical attendance upon the insured, as regards, at all events, all those who contributed the whole or part of the cost of their medical attendance, would be thrown open to all members of the medical profession. In other words, reform upon these lines would be compatible with the continued existence of a class of private general practitioners practising among the wage-earning community, although the conditions of their practice would be considerably modified.

(iii.) *Service instituted in connection with Poor Law Reform on Minority lines.*

43. If the proposals of the Minority of the Royal Commission were put fully into operation, the local Health Authorities (*i.e.* County Councils and County Borough Councils, acting through their Health Committees) would organise a service of selected salaried Medical Officers. The control and management would rest with these Committees, or special Sub-Committees, acting probably through the Medical Officers of Health, it being open to all members of the community to obtain the services of this staff of medical officers, free of charge at the time, but subject to recovery of the cost by the Public Authority from those able to pay. The effect would be direct competition between such a service and private general practitioners, leading not improbably to the extinction of the latter as a class practising among the less well-to-do sections of the community.

(iv.) *Possible forms of Service under State Sickness Insurance* (A) *if Medical arrangements left entirely to insured.*

44. Under a State Sickness and Insurance scheme the possibilities as regards methods of control and management are very various. The chief difficulty which the Association has to face in approaching the whole subject springs from the uncertainty as to these possibilities, pending any declaration by the Government, taken in conjunction with the fact that such a Service, if so extensive in its operation as has been foreshadowed, would not improbably supersede any of those above considered. It is possible that the Government, in instituting its State Sickness scheme, may, in the first instance at all events, make no explicit provision as regards the means by which those insured are to obtain their medical attendance. It has been stated by the Chancellor of the Exchequer that six millions of the prospective insured are already members of Friendly Societies. If these Societies were left to their own devices those which already undertake provision of medical attendance would probably continue to avail themselves of the services of club doctors on the present lines, so long, of course, as members of the profession were found willing to continue to act upon those lines. As regards the remaining ten millions, of whom the Chancellor of the Exchequer has spoken as being outside the Friendly Societies, it is possible either that the Friendly Societies, with the assistance of state subsidies, might endeavour to extend their organisation so as to draw these into their fold, at least as regards the provision of medical attendance, or that new organisations might be formed which the insured would probably be, directly or indirectly, compelled to join. It would also be open to the profession, if it thought proper, to organise a service of its own through which these persons could obtain their medical attendance. If, lastly, the profession considered that such Provident Services, whether run by the Friendly Societies or otherwise, were inimical to the interests of the community, the profession, and the science of medicine, it would be necessary to press these views on the Government and to be prepared with an organized opposition in the event of their not finding acceptance.

(iv.) *Service under State Sickness Insurance;* (B) *if arranged by Government.*

45. Sooner or later, however, it must be anticipated that the Government will find it necessary to make some definite arrangements as regards the provision of medical attendance for the insured, first, as a necessary means of protecting the insurance funds from the burden that would result if, through the patients' neglect to obtain proper medical attendance, their illnesses were unnecessarily prolonged, and secondly, perhaps, from a recognition of the interest of the community in avoiding the general loss which must result from preventible disease amongst such a large section of the population. If these considerations prevailed with the Government, either at the inception of the scheme or subsequently, and they determined to make definite arrangements for the provision of medical attendance for all or any of the insured, this might be done in any of the following ways;—

(*a*) By the direct organisation of a Government Service having both medical officers and administrative officers in every district.

(*b*) By agreement with the Friendly Societies, under regulations laid down by the Government, as regards those of the insured who were members of the Societies, and, as regards the remaining ten millions, by arrangement with existing or new Societies more or less representative of the insured.

(*c*) By arrangement with the medical profession, acting through central and local representative Committees.

46. Under (*c*), and also possibly under (*b*) as regards the ten millions outside the Friendly Societies, the organisation, as regards control and management, might broadly follow the lines of the Scheme for Public Medical Services, already published by the Council of the Association in December, 1909.

*Possible forms of Administrative Organisation.*

47. From the foregoing review of the subject it will be seen that the possible forms of administrative organization of provident or insurance medical services, and of certain possible alternative arrangements for provision of medical attendance, may be grouped under the following heads:—

(*a*) Control and management in the hands of Medical Committees, central or local or both, assisted possibly by Advisory Joint Committees including both medical men and laymen.

(*b*) Control and management by bodies more or less representative of the insured, including the Friendly Societies and other organisations that may be developed to deal with the matter under a State Sickness Insurance Scheme.

(*c*) Organisation by the Local Authorities. [That is to say:—(i.) under existing conditions, the Boards of Guardians, Sanitary Committees, Education Authorities, etc.; (ii.) if Poor Law reform follow the Majority recommendations, the Public Assistance Authority; (iii.) if Poor Law reform follow the Minority recommendations, the Public Health Authority.]

(*d*) A Government Service organised by the Treasury or by the State Insurance Department, with the assistance possibly of local Committees.

The Committee proceeds briefly to review the general nature of each of these possible systems of control and management.

(a) *Control and management in the hands of Medical Committees, central or local or both, assisted possibly by Advisory Joint Committees, including both medical men and laymen.*

48. This would be the form of organisation if the profession, in the absence of legislation or of other action by the Government or Local Authorities, should decide to continue its own efforts for the reform of existing abuses by the organisation of medical services under its own control. It might conceivably be an acceptable alternative to the organisation of Provident Dispensaries on the lines suggested by the Majority of the Poor Law Commissioners. It might be instituted in connection with a Government Sickness Insurance Scheme, either as regards the treatment of the whole of the insured, or as regards the treatment of those of the insured who were not members of Friendly Societies. Such institution might be effected either through arrangement with the Government, in the event of the Government determining to deal directly with this matter, or through arrangements with the insured or organisations representing them, in the event of the Government leaving it in the hands of the insured.

(b) *Control and management by bodies more or less representative of the insured, including the Friendly Societies and other organisations that may be developed to deal with the matter under a State Sickness Insurance Scheme.*

49. Such organisation would tend to follow the lines of the present Friendly Society system, to which the profession in many parts of the country has taken exception, and which, as regards some of its features, has been condemned by the Association, and by the Poor Law Commissioners. In this matter the Committee knows of no reason for departing from the attitude already adopted by the Association. Notwithstanding repeated protests, the majority of the Friendly Societies continue to demand that all their members, whatever their income, shall be free to obtain medical attendance upon the same terms, and to maintain that the payment they make for such attendance is adequate, without regard to the circumstances which have led in the past to its being accepted by members of the profession. On the other hand, they have made but little provision for medical attendance upon women and children, and none for attendance upon lapsed members or invalids. It may reasonably be asked whether the provision of medical attendance should be regarded as necessarily falling within the province of Friendly Societies, and there are important districts in which at present the great majority of the members of the Societies, if not all, obtain medical attendance in other ways. In these circumstances, it is difficult to perceive upon what grounds they should be entrusted with the organisation of the medical service which is to provide for the needs of the great majority of the working classes, including the two-thirds (according to the estimate of the Chancellor of the Exchequer) who are at present outside the membership of the Societies, or why they should receive grants from the Government or other Public Authorities, and contributions from employers of labour for this purpose, more especially if the money should be handed over, as certain forecasts of the Government Scheme would appear to indicate, without any definite stipulation that part of it must be expended on adequate attendance for the sick. If such control over the administration were placed in the hands of the Friendly Societies, most members of the profession would in all probability decline, under the new conditions, to work for such inadequate remuneration as, whether on charitable grounds or for other reasons, they have done in the past. The field of selection of medical officers open to the Friendly Societies would thus be greatly restricted, and deterioration of the status and efficiency of the service must result. The consequence would be that, so far as the provision of medical attendance was concerned, the section of the community concerned might be placed in a worse condition after the State Sickness Insurance Scheme came into operation, than before. If the profession desires to prevent the continuance of such a system of organisation by the Friendly Societies, in the event of the administration of State Sickness Insurance being left by the Government largely or entirely in the hands of those bodies, it must either be prepared with an alternative

system of organisation of medical attendance which will prove more acceptable, in the long run, not only to the profession but also to the insured and to the community at large, or it must so organise itself as to become capable of resisting dictation of terms by the Friendly Societies to the individual practitioners employed by them.

(c) *Organisation by the Local Authorities, Boards of Guardians, etc., under existing conditions; the Public Assistance Authority in the case of Poor Law Reform on the lines of the Majority Report; the Local Health Authorities in the event of legislation on the lines of the Minority Report.*

50. Organisation under any of the Local Authorities is compatible with the principles of (i.) employment of private practitioners, (ii.) service open to the whole profession and (iii.) reasonable choice of doctor by beneficiary. In any case the creation of local medical committees would be necessary to watch the interests of the profession. On the other hand, the principle of employing selected salaried medical officers, which is definitely proposed in the Minority Poor Law Report, is also a possible form of organisation under any of the authorities. If such a salaried service were so constituted as to afford a practically free medical attendance, or to undersell the private practitioner, its institution would lead to the extinction of the private practitioner as such in regard to that portion of the population with whom the scheme dealt.

(d) *A Government Service organised by the Treasury or by the State Insurance Department with the assistance possibly of local Committees.*

51. For a centrally organised Government Service central and local administrative Committees and staff would seem to be required. There would also probably be a staff of Government Medical Inspectors to watch the interests of the Insurance Fund and to assist in maintaining the efficiency of the medical service. The arrangements for actual treatment might follow the lines of a whole-time salaried service, or the Government might employ private practitioners to do the work, it being left open to all reputable practitioners to take part on the terms laid down. In the latter event each individual insured would receive either a ticket or card enabling him to secure the services, when required, of the doctor of his choice for the time being, or a voucher on which the doctor, selected by him at the time when attendance was necessary, would enter particulars of his attendance and be paid on an agreed scale through the local Insurance Official.

*General principles for incorporation in State Sickness Insurance Scheme.*

52. The arrangements for medical attendance under State Insurance in other countries differ from the proposals put forward in the Majority and Minority Poor Law Reports in three important points, namely:—

(i.) That provident payment for medical attendance on all earning less than a certain wage is made compulsory.

(ii.) That towards payment for that attendance a contribution is made by employers and a grant from the State.

(iii.) That deductions from wages are graduated according to the amount of wages received.

53. In considering the advisability of the application of these principles to any system of insurance against the cost of medical attendance in this country, it is to be noted that:—

as regards (i.), it is evident that in large towns, and in those districts where at present little or nothing is paid by the majority of the working classes for attendance, the medical profession and beneficiaries would benefit greatly financially if payment were made compulsory;

as regards (ii.), it is abundantly evident from the facts brought before the Poor Law Commission that there is a large body of people in this country, not previously paupers, who are either pauperised through their inability to pay for medical attendance, or are deprived of necessary attendance through the deterrent character of existing arrangements.

as regards (iii.), any hardship which might be supposed to result from any deduction being made from the wages of those whose earnings are small, would be mitigated by the facts that the amount deducted was in proportion to the wages received, and that they derived benefit from the greater contributions of their better paid fellows* to the same funds, which would enable them to receive medical services to a greater value than their own payments would insure.

*Review of possibilities.*

54. Upon consideration of the possibilities above described, it will be obvious that the profession cannot determine the general conditions of control and management of some of the services contemplated.

*Organisation by Public Authorities; possible forms of professional action.*

55. If the Government or the Local Authorities show a definite disposition to regulate, whether generally only or in detail, the arrangements for medical attendance, it would remain for the profession to consider what representations should be made to the Government or to the Local Authorities, and what action should otherwise be taken, to secure that the arrangements of the service would be (*a*) satisfactory to the profession as regards the remuneration and the other conditions of employment of the medical officers, and (*b*) such as would tend to promote efficiency of the service both in its curative and preventative aspects.

*Respecting the consideration referred to in (iii.), in order to avoid misapprehension, it may be well to point out that the graduation referred to relates only to the contributions of the beneficiary to the insurance fund, and does not necessarily affect the remuneration, whether by fee or otherwise, of the doctor who attends such beneficiary.

*Organisation by profession: possible forms of action*

56. If the Government does not make definite provision, and if local Authorities either are not compelled, or, being allowed an option, do not decide, to organise Medical Services under their own control, the profession will have it within its power, if it so desires, to organise throughout the country a Service under its own control. It must rest with the Divisions to decide whether they think it desirable, and are prepared to devote the amount of time and attention that will be necessary, to organise such services, in order to retain the control and management in their own hands instead of allowing them to fall completely into the hands of Friendly Societies and similar bodies.

57. The possibility has also to be considered that the advent of State Sickness Insurance by the Government, or at all events, any attempt by the Government to make provision for medical attendance in connection with such insurance, may be postponed for some years, as may any attempt at Poor Law Reform involving the organisation of medical attendance by public authorities. If the profession is satisfied that its interests and those of the public would best be secured by a scheme of organisation of medical attendance in which a definite status would be assigned to Committees centrally or locally representative of the medical profession, much could be done to promote ultimate settlement on such lines by making use of the interval afforded by the postponement of public action to establish services under medical control. There must always be a disposition on the part of public authorities to avail themselves of the services of existing organisations. One of the disadvantages of the present position of the profession, in comparison with existing provident or insurance organisations, is that it has had, up to the present, so little to offer in the way of arrangements which would meet the existing public needs in a manner more satisfactory to itself and more advantageous to the community.

*Differences of opinion as to advisability of organisation by the profession.*

58. In considering, however, the advisability of such action on behalf of the profession as is discussed in the preceding paragraph, it is necessary to recognise that some members of the profession hold strongly that it is not the province of the medical profession to take upon itself in any way the onus of organising medical services; and that, in their judgment, the reasons for which the Association has in the past considered that the interests of the profession could better be defended by the development of such an organisation than by leaving the organisation and control in lay hands, apply only to cases in which the State has not accepted responsibility. Thus, taking the factors of organisation of the service and system of medical remuneration jointly into consideration, three sections of opinion within the profession have to be recognised, namely:—first, those who advocate the organisation of medical services by the medical profession itself, a capitation system of medical remuneration being adopted; secondly, those who advocate organisation by the profession with payment per attendance as the basis of medical remuneration and, thirdly, those who would be prepared to leave the organisation and control to lay bodies provided that a system of payment per attendance for medical remuneration were agreed upon. Of those who believe that medical control of the administration of a medical service would be desirable in connection with any method of remuneration of doctor, a considerable number are also of opinion that, if such control were secured, the system of remuneration adopted might be left to be decided by the profession of each district in accordance with what it considered most desirable.

*Medical organisation of medical service as regards administrative arrangements.*

59. Should the Divisions think it desirable to undertake organisation now in anticipation of prospective developments, it will be seen that the chief practical question for their consideration is that of the constitution of any Service that may be organised, or of any Committees that may be organised to represent the profession in making agreements with the Government or with Local Authorities, or possibly even with Friendly Societies and other bodies representative of the insured. Under the Public Medical Service Schemes already in operation, the control and management rests in the hands of purely local medical committee. For the satisfactory organisation of a medical service, national in scope, such as would be necessary to deal with the case of State Sickness Insurance, and possibly for some of the other cases above described, some central co-ordination, and possibly some central control, of the various local Medical Services seems also necessary. Such co-ordination and control might be afforded by a Committee chosen annually by the Representative Body of the Association, together with representatives selected in some manner by and from the medical practitioners who were actually taking part in the work. For the smooth working of a comprehensive Service the creation of local, and possibly also central, Joint Advisory Committees composed of both representative medical men and representative laymen would be necessary.

*Medical Committees not to contract but to represent individual practitioners in settling terms of their contracts.*

60. While it is conceivable that such a Central Medical Committee, or such Local Medical Committees, or the British Medical Association itself, might, acting as middlemen, contract with the Government or with Local Authorities, or with the persons insured, for

the provision of medical attendance upon agreed terms, and might contract, on the other hand, with private practitioners to give such attendance, there would be great difficulties in the way of either the British Medical Association or any other central or local body representative of the profession acting in this manner. The duties of such representative Committees would preferably be confined to negotiating on behalf of the profession as regards the terms upon which medical services should be rendered, and to discharging such other duties as those concerned might desire. The terms being thus settled, the actual contract for the provision of medical attendance would be a direct one between the individual doctor and either the individual persons insured, Friendly Societies or other organisations representative of the insured, local Public Assistance or Health Authorities, or the Government, as the case might be. It would be essential for the maintenance of the interests of the profession that individual members of the profession should bind themselves not to enter into agreements for the provision of medical attendance on any terms other than those approved by such local and central representative bodies of the profession.

## (II.) THE DEFINITION OF THE PERSONS FOR WHOSE MEDICAL REQUIREMENTS THE SERVICE IS TO PROVIDE.

### (I) *Question of Wage Limits.*

61. In considering the scope of any medical service on insurance lines, the question arises as to whether any persons who are able to pay the ordinary medical fees without insurance should be allowed to obtain medical attendance by means of insurance. This question needs separate consideration (*a*) as affecting a medical service associated with State Sickness Insurance, and (*b*) as affecting any other kind of provident or insurance medical services.

#### *(a.) In connection with a State Sickness Insurance Scheme.*

62. It is at present quite uncertain what wage limit will be fixed by the State. It is possible that all earning less than £160 a year may be compelled to insure, and it is even possible that persons earning more than £160 who are engaged in certain dangerous trades may also be compelled to insure. The profession must decide whether it will insist upon a wage limit of its own fixing, or will agree to provide medical attendance on insurance lines to all persons compulsorily insured by the State. There is no doubt that the wage limit for compulsory insurance will be fixed by general political considerations over which the medical profession will have little influence, and it would be found extremely difficult, if not impracticable, for the profession to fix another wage limit and, while accepting certain of the insured as patients on insurance rates, to refuse others who were also compulsorily insured. The question of fees or rates is of importance in this connection. In fixing the fees or rates for medical attendance on persons insured, part of whose premiums may be paid by employers and part or even the whole by the State, none of that element of charity can be admitted which is largely responsible for the low rates of existing medical clubs. Whether the doctors are paid *per capita* or per attendance, they should receive a full and proper remuneration for the most efficient medical attendance. Provided that the element of charity by the profession is thus entirely eliminated, and that, whatever system of payment be adopted, there is a full and proper remuneration, there seems no reason why any wage limit that the State is likely to fix for compulsory insurance should not be accepted by the profession as the limit of those admitted to medical attendance.

#### (*b.*) *In connection with any other Service.*

63. Apart from compulsory State Sickness Insurance, the Association has always held that the benefits of provident medical services should be restricted, by a wage limit or some similar provision, to persons unable to pay ordinary fees, and the Committee sees no reason to depart from this principle under present conditions.

### (II) *Question of persons who cannot themselves pay, even by insurance, the full cost of their attendance.*

64. If the evils of insufficient attendance on the one hand, and of inadequate medical remuneration on the other, are to be removed, it is necessary that adequate remuneration should in some way be obtained for attendance upon those who cannot, even by means of insurance, defray the whole cost of such attendance Part of the public problem which any scheme of State Sickness Insurance or Poor Law Reform must attempt to solve is the provision of necessary medical attendance for such persons. At present they obtain attendance (*a*) through charity from private medical practitioners, often in the form of not paying their medical bills, or being admitted to provident organisations at inadequate rates of remuneration; (*b*) through the combined charity of the medical officers of and subscribers to charitable organisations; (*c*) through assistance from public funds. Any satisfactory insurance or provident organisation should include at least all those who can by insurance meet part of the cost of their medical attendance. On the part of the medical profession there need be no objection to the inclusion even of those the whole of the cost of whose attendance is defrayed by others, although in their case special conditions may be necessary.

### (iii.) *Admission of Women and Children.*

65. Many existing provident organisations include adult males only. Any satisfactory insurance or provident scheme must include women and children. If the State Sickness Insurance Scheme should, in the first instance, apply to workers only, collateral arrangements may be necessary in some districts for the provision of medical attendance for the families of such workers.

## III.—The Definition of the Benefits to be Provided.

66. In connection with any form of Provident or Insurance Medical Services, or Medical Services provided by Public Authorities, such as are considered in this Report, the question of the range of medical requirements which the service shall provide is of great importance. Whether a capitation system or a system of payment per attendance be adopted for the remuneration of the doctors engaged, the premium to be paid by the insured must be fixed with regard to the range of services to which he is to be entitled.

### *Nature of Services Provided under existing Arrangements.*

67. To obtain a clear view of this matter it is necessary briefly to consider the position of existing Provident Insurance and Public Services. The services which can be rendered may roughly be classed as (1) domiciliary attendance, including attendance at the doctor's surgery, suitable for cases not requiring specialised forms of care or treatment; (2) institutional attendance, for cases unsuitable for home treatment; (3) special treatment, as in cases requiring special knowledge or skill, *e.g.*, major operations; (4) provision of material, such as medicines and surgical apparatus. In Works Clubs usually, and also in some other provident organisations, the contribution of the insured entitles him to every kind of medical attendance which can be given at the doctor's surgery or in the patient's home, and also, in some cases, to institutional treatment in hospitals maintained by the service. In a considerable number of provident organisations, including Friendly Societies, Provident Dispensaries, Public Medical Services, Medical Aid Societies and Private Doctors' Clubs, certain special services are specifically excluded, by the terms of the agreement, from the benefits which the beneficiary is entitled to claim in consideration of his ordinary premium, and must either be obtained from the medical officers of the Service on payment of special fees as prescribed in the Rules, or must be obtained under such arrangements as the patient may make as occasion arises. In a large number of cases the agreements between doctors and provident organisations are vague in terms, and frequently no written agreement exists. In these cases the legal rights of the parties, the beneficiary on the one hand, the doctor on the other, are indeterminate and liable to become the subject of dispute. In nearly all of these arrangements, special treatment is commonly obtained through the Medical Charities, General or Special Hospitals. Again, though the development of the Poor Law Infirmaries has extended the range of activity under the Poor Law Medical Service, many patients avail themselves of the Medical Charities who could legitimately obtain treatment at the public expense.

### *Conditions to be satisfied under a Government Scheme.*

68. No system of medical attendance organised under the sanction of the Government, in connection with a comprehensive State Sickness and Invalidity Insurance Scheme, could be left in such an indeterminate condition as has been above described, as regards the question of the services to which the insured were entitled in consideration of their premiums. Nor, secondly, could such a scheme be organised upon such a definite actuarial basis as would be necessary, if any reliance were placed upon the reference of patients to organisations so variable as regards the facilities they afford for treatment and in their general character as the Medical Charities of this country. Nor, thirdly, could either those who at present support medical charities by their subscriptions, or the members of the medical profession who give their services gratuitously, be expected to continue such benevolence for the benefit of persons for the cost of whose treatment the Insurance Fund had become liable. It must be anticipated, therefore, that if the Government makes definite arrangements for the provision of medical attendance to those insured in connection with the State Sickness Insurance Scheme, such provision must eventually include every kind of medical service that the insured may require, whether domiciliary or institutional. If the medical profession enters into an arrangement with the Government for the organisation of Medical Service, either for all the insured or for all those for whom provision is not made through existing organisations, any Schemes put forward by the profession must contain precise definitions of the Services to be rendered, and must specify in what way, and upon what special terms, if any, treatment of cases requiring special medical or surgical skill or institutional treatment is to be afforded.

### *Conditions under a Scheme organised by Local Public Authority.*

69. Similarly, as regards provisions for medical attendance in connection with any scheme of Poor Law Reform, whether the Public Assistance Authority or the Public Health Authority organise such a scheme directly, or the medical profession organise attendance under arrangements with the Local Authorities, definite provision of some kind must be made for every variety of medical service which may be required. Both the Majority and the Minority of the Poor Law Commissioners clearly contemplate the co-ordination of all forms of medical treatment for the less well-to-do, under a Public Assistance Authority in the one case and under the Public Health Authority in the other. Sooner or later the profession must form clear ideas as to how its own interests would be affected, and how the efficiency of the Service would be promoted or hindered, by any of the various arrangements that might conceivably be made, and must be prepared to make suitable representations to the Public Authorities, or to make suitable arrangements in any service which the profession may organise when opportunity arises.

### *Possible Arrangements.*

70. In any such case it would be possible to fix a premium which should, as in the case of the Public Medical Services already in operation, afford such

ordinary attendance only as may be defined in the Rules, leaving other services to be obtained by separate arrangements, or to fix an inclusive rate. It must be recognised that it will be beyond the ability of most persons with an income of less than £160 a year to pay such a premium as would meet the full cost, including adequate remuneration of the medical practitioners concerned, of every kind of medical attendance that might be required. The difference between the cost of such services and the premium which such persons can afford to pay must be made up, either by contributions from other sources to the Insurance Fund, as would be the case under a State Insurance Scheme, or by the provision of other agencies through which services beyond those for which the premium provides can be obtained.

*Variation of Method according to Requirements of Different Kinds of Services.*

71. It will be seen that the method of dealing with this matter must differ considerably according to the kind of organisation that is in contemplation. Under any State Sickness Insurance Scheme in which the provision for medical attendance was made definitely by the Government, or under any such scheme of re-organisation of the Public Health Services as has been proposed by the Minority of the Royal Commissioners on the Poor Law, it must be anticipated that the one service would be comprehensive of every kind of medical provision that might be required. Under such a scheme, on the other hand, as is proposed by the Majority of the Poor Law Commissioners, ordinary treatment would be given through the Provident Medical Service and paid for by the premium paid to that Service, while other treatment would be obtained through Public Institutions or Medical Charities, organised in co-ordination with the Service. If, again, the Government should leave the provision of medical attendance for the insured to be arranged by the insured themselves, or if, in the absence of any Government Sickness Insurance Scheme and of any re-organisation of medical attendance in connection with Poor Law Reform, the profession undertook the organisation of medical attendance on its own account, probably it would be found best for the premium of the insured to be fixed at an amount which would cover ordinary attendance, such as would be rendered at the doctor's surgery or in the patient's home, and to leave to other agencies the provision of treatment outside that which was specified in the rules of the Service as being covered by the patient's premium.

*Material Requirements.*

72. In any case it is probably preferable that the provision of actual medical attendance should be separated from the provision of material requirements such as medicines, dressings, etc. Such a separation would certainly be desirable in any contracts entered into directly with the State or other Public Authorities.

(IV.)—The Sources of Contribution to the Insurance or Provident Fund, and the Basis of Calculation of such Contributions.

(i) *State Sickness Insurance Service.*

73. Under a State Sickness Insurance Scheme contributions will presumably be received—

(i.) From the insured;
(ii.) From the employers of labour;
(iii.) From the National Treasury.

In connection with such a scheme it would be necessary for the profession to make such representations to the Government as should ensure the adequacy of the Insurance Fund to meet the cost of adequate remuneration of medical practitioners employed.

(ii) *Any other Insurance Service.*

74. Under any Provident Insurance Scheme organised apart from State Sickness Insurance the basis will be contributions from the insured, but provision should be made for contributions from employers or public funds, and it would always be possible for private or organised charity to supplement the contributions of individuals who could not pay the full premiums for themselves. The governing principle as regards amounts of contributions must be that the total receipts of the Insurance Fund shall be sufficient to meet the full cost of such medical attendance as is to be provided for the insured without calling upon medical practitioners to accept less than adequate remuneration for their work.

(V.)—The Principle of Selection of Medical Practitioners Employed to Attend the Insured

75. From the statements contained in Sub-Section (I.) of this part of the Report, dealing with the various possible forms of administrative organisation, it will be seen that Medical Officers of any such Service as is under consideration may be selected in either of two ways—by the individual patient or by the body controlling the Service.

*Employment of Private Practitioners with choice by the Patient.*

76. The Association has repeatedly affirmed, with respect to all forms of provident medical service, that it should be open to every reputable practitioner in the district, who agrees, to act on the terms laid down in the rules of the Service, and that it should be open to each patient to choose his own doctor, either at such intervals as may be agreed upon, as in the case of a system of capitation payment, or when occasion for his services arises, as in the case of a system of payment per attendance. The same principle has been recommended by the Majority of the Poor Law Commissioners in their Scheme, and might, if properly put forward, prove acceptable to the Government, the Friendly Societies, or other analogous organisations, or even to the Health Authorities in the organisation of any such Health Service as the Minority Poor Law Commissioners recommend

*Employment of Special Medical Officers.*

77. In the Minority Report of the Poor Law Commissioners, the employment by the Local Health Authority of selected salaried Medical Officers, though not essential to the rest of the Scheme, is strongly recommended. A similar system might be adopted by the Government under State Sickness Insurance, if it should decide itself to organise the Medical Service throughout the country, either for all those insured or for those who were not members of existing organisations providing medical attendance. It is also conceivable that the Friendly Societies, or other similar bodies which might enter into arrangements with the Government to carry on the work of the Insurance Scheme, might from the beginning, or in the course of time, seek to develop a service of selected salaried Medical Officers.

*Problem for the Divisions.*

78. It will be for each Division of the Association to consider which system of employment of medical men is, in its opinion, most conducive both to the interests of the profession and, as regards efficiency of service, to the interests of the community. If the Association clearly defines its policy on this matter and places it fully and clearly before the Government or other public authorities their decision may be materially influenced by such representations. The Committee summarises in the following paragraphs the considerations which need to be weighed in this connection, both from the professional and public standpoint.

*Selection by the Patients.*

79. From the professional point of view the Association came to the conclusion in 1905 that as regards all kinds of provident or insurance Medical Services, the principle of throwing the work open to all reputable practitioners in each district, and allowing the patient a reasonable freedom of choice of doctor, would in itself afford an important safeguard against many of the worst abuses from which the profession had suffered. It was then pointed out that such a system would remove one of the chief means by which lay bodies had in the past been enabled to take advantage of the competition between individual practitioners, and thereby to secure medical services at inadequate rates and upon conditions otherwise unsatisfactory to the profession. The system of throwing the work open to all practitioners must also be an important element in preventing the creation of a class of doctors separate from the rest of the profession, and devoted entirely to the service of the Public Authorities or of the Government, or of the Friendly Societies and other insurance organisations. Having regard to the extensive range of the Services contemplated in the recommendations of both sections of the Poor Law Commissioners, or of the Service that might be formed in connection with any Government Sickness Insurance proposals, the creation of such a special class of doctors would not improbably tend to the extinction of the independent private practitioner, xcept as regards those who attended the well-to-do classes.

80. From the public point of view it must be recognised that the choice of doctor by patient tends to give the patient greater confidence in his medical attendant and the medical attendant greater confidence in his dealings with his patient. Such mutual confidence may be in itself an important factor in successful treatment. The competition of a healthy kind between individual practitioners, which is maintained by the system of choice of doctor by patient, also tends to efficiency of service. There can be little doubt that if a direct vote of the population of any district could be taken as to whether they would prefer a system under which they could choose their own doctors, or a system in which their treatment must be carried out by medical officers selected for them by public bodies, the former would be greatly preferred. Even as regards the Friendly Societies, in which the doctors are chosen by the members as a whole, but the individual club patient can only obtain the services of the doctor approved by the majority, experience has shown that the objections to this system have proved a great source of strength to Public Medical Services, which afforded choice of doctor, in their competition with such Societies.

*Selection by the Controlling Bodies.*

81. Advocates of the system of employment of salaried selected officers, such as the Minority of the Poor Law Commissioners, have alleged that choice of doctor by patient is inconsistent with the efficiency of such a Service as they propose. They suggest that under such conditions the doctor would be under a temptation to do what was pleasing to his patient, even though it might not tend to the patient's ultimate benefit or might be prejudicial to the efficiency of the Service in other respects. It is further to be noted that the Friendly Societies amalgamations which have been formed in many towns in this country have usually employed salaried officers. Other Friendly Societies have usually preferred to employ a single doctor or firm for each Court or Lodge. In Germany, many Insurance Societies and other organisations have tended to employ selected medical officers. These examples indicate that the officials, in connection with any State Sickness Insurance Scheme, and others concerned in the organisation of the scheme, might not improbably favour the employment of salaried whole-time officers or other selected officers who would be under their more direct control.

82. It will be observed, however, that the foregoing arguments in favour of a salaried whole-time service present themselves chiefly from that administrative point of view which may be expected to appeal rather to the controlling bodies of the Service than to the beneficiaries. To the argument as to the danger of a doctor being under an undue temptation to please his patient, it may be answered, that a salaried medical officer may be under an undue temptation to please those officials or Committees of Public Authorities, or even individual members of those Committees of Public Authorities, with whom appointment, prospects of promotion, or increase of salary would rest. As regards the actual efficiency of the Service the results of even an

excessive desire to please the patients may be more advantageous than the results of an undue desire to please officials or members of Public Authorities.

83. It has been contended that medical officers of a salaried whole-time service would be more disposed to carry out the work of treatment with due regard to the preventive aspects of such work. This argument, so far as it has any basis, rests upon observation of the existing chaotic arrangements for the provision of medical attendance and is purely hypothetical as regards attendance given by private practitioners under the conditions that would prevail in connection with a comprehensive system of State Sickness Insurance, or of Public Services organised under the auspices of Public Assistance or Public Health Authorities. The history of the profession affords every reason for believing that private practitioners placed under such conditions would be fully alive to, and would conscientiously discharge, their responsibilities not only to their individual patients but to the community. Even under existing conditions, in which they have no such defined responsibilities, and in which, in the majority of cases, any work beyond the discharge of their personal duty to their individual patient is a work of supererogation on their part, the zeal of the profession for the advancement of medical science and for the public health has resulted in the performance by private practitioners of a large amount of unsolicited and unrequited work, done purely in the public interest and at considerable sacrifice to themselves.

84. It appears, therefore, to the Committee (i.) that the system of choice of doctor has many advantages in the public interest as well as in the interest of the medical profession, (ii.) that the supposed advantages of the system of employment of salaried officers are in many respects merely apparent, and exist only from the administrative point of view, and not from the point of view of the promotion of health, either of the individual or of the community, and (iii.) that any apparent administrative disadvantages of the system of choice of doctor can be overcome if the will to do so exists.

85. If the profession is definitely of opinion that the system of throwing the work open to all reputable private practitioners, and allowing doctor and patient reasonable freedom of mutual choice, is preferable, in the interests both of the profession and of the community, to the institution of a large new class of salaried medical officials, it will be necessary for this to be stated definitely, and for the Association to be put in a position to make proper representations accordingly, if and when occasion may arise.

*Reservations as to the application of the principle of Choice of Doctor.*

86. To the foregoing statement of the considerations in favour of the system of choice of doctor two reservations must be made, namely, first, as affecting those patients who do not themselves contribute anything to the cost of their medical attendance, and, secondly, as affecting the position of those doctors who are already employed either as salaried medical officers under public bodies, or as special medical officers of Friendly Societies and other provident organisations.

*Choice of Doctor not necessarily to be given to non-contributory beneficiaries.*

87. In the reference made in this section of the Report to the case of services organised by Public Assistance Authorities, it was indicated that special conditions might be required in the case of those who did not contribute at all to the provision for their medical attendance. It is reasonable that the advantages afforded by the privilege of choice of doctor should be used to encourage providence. Thus in cases where the whole cost is borne by Public Authorities or others the choice of doctor might advisedly be left to those who provide the cost.

*Protection of the position of existing holders of Appointments.*

88. In all action taken with the object of improving the conditions of medical practice the Association has recognised that special consideration must be given to the position of those who already hold appointments of a kind which would be affected by the adoption of the proposed reforms. Many of the changes considered in this Report are of a kind which need only be introduced gradually. Divisions which have undertaken the improvement of the local conditions of contract practice have already made special provision that the new conditions which they consider desirable should not affect existing appointments, but should only be introduced when such appointments became vacant. Again, many of the readjustments foreshadowed in this Report would in no way affect existing appointments but would, from their nature, only affect appointments made under entirely new conditions. The Committee desires, therefore, to make clear that the advocacy of the system of throwing the work open to all reputable medical practitioners is only intended to apply to new appointments, and such advocacy does not contemplate interference with present holders of appointments, without their consent.

## (VI.)—THE METHOD OF REMUNERATION OF THE MEDICAL PRACTITIONERS EMPLOYED (i.) IN RESPECT OF ORDINARY SERVICE, (ii.) IN RESPECT OF SPECIAL SERVICES, IF ANY.

*Possible Systems of Remuneration.*

89. The following are the chief possible methods of remuneration of the medical practitioners acting under any insurance or provident scheme:—

(*a*) Payment by fixed salary to selected whole-time or part-time officers for service to all the insured within a defined area.

(*b*) Payment of a fixed amount per head per annum in respect of all those persons whom the medical practitioner has agreed to attend if required.

(*c*) Payment of a fee on a fixed scale in respect of each attendance actually given.

*Payment by Fixed Salary.*

90. Any system of payment by fixed salary would almost certainly be associated with the system of employment of selected medical officers, and therefore must stand or fall with that system, which has already been considered. The Committee desires, however, to emphasize here the urgent necessity for the profession presenting a solid opposition to this system of employment and remuneration.

*Choice between Payment per capita and per attendance.*

91. As between the systems of capitation payment and payment per attendance, wide divergencies of opinion have manifested themselves within the profession, and the Committee considers that it can best discharge its duty by placing before the Divisions as fully and as clearly as possible the considerations for and against each system.

*Administrative arrangements in each case.*

92. Before attempting to discuss the relative advantages of the two systems of payment, it will conduce to clearness to state shortly what would appear to be the necessary administrative arrangements in each case. The arrangements for carrying out the system of payment per head would be (i.) that at certain intervals (yearly, half-yearly, or quarterly) the beneficiary would declare what doctor he wished to attend him, if he should need attendance, during the succeeding period, and (ii.) that, on the doctor agreeing, the amount payable in respect of that beneficiary would be assigned to him, and in case of need the beneficiary would be entitled to call directly upon that doctor for attendance. The arrangements suggested for the system of payment by fee per attendance are (i.) that the beneficiary needing medical attendance would obtain from the paymaster or other official of the Fund, Friendly Society, Provident Dispensary, or other organisation, a voucher which would be valid for a certain period, (ii.) that on occasion arising he would send this voucher to the doctor whose attendance he desired, and (iii.) that the doctor, if he accepted the voucher, would after giving the necessary attendance, return the voucher to the official, endorsed with a note of his charges in accordance with an agreed scale.

*Use of terms "Club Practice" and "Private Practice."*

93. In approaching the discussion of the very difficult question now under consideration it is necessary first to remove certain misconceptions due in part to the use of expressions which, though perhaps convenient on account of their familiarity, have tended to obscure the points actually at issue. Thus the phrase "Club Practice" has been used as the equivalent of a system involving capitation payment, and the term "Private Practice" as the equivalent of a system of payment per attendance. It is necessary to realise that the use of these phrases in this sense is misleading, and that to the existing embodiments of each system the Association has found it necessary to make serious objection.

94. "Club Practice," as hitherto known, has usually involved not only capitation payment but also lay control and selection of special medical officers to carry on the work. Both of the latter elements have been declared by the Association to be, in its opinion, to a great extent the cause of the under-payment of medical officers and of other unsatisfactory conditions of existing systems of such practice. Moreover, the chief existing organised system of provident medical work on the basis of payment for attendance which is in extensive operation, that, namely, of the National Deposit Friendly Society, has in some districts been opposed by the local profession as strongly as any other form of Contract Practice on account of the lay control and tendency to open or underhand selection of medical officers. The British Medical Association found it necessary to put medical men on their guard against the undesirable methods which were being adopted in certain districts on behalf of that Society. Thus, the question to what extent the recognised abuses of existing forms of "Club Practice" must be regarded as due to the general adoption of the system of capitation payment, and to what extent they must be ascribed to the other causes mentioned, is at least a matter of opinion. It is undesirable, therefore, that the Divisions, in arriving at the important responsible decisions which they will be called upon to make in connection with a new system of organisation of medical attendance, should be prejudiced in their judgment by association of the general principle of capitation payment with existing undesirable arrangements with which it has no necessary connection.

95. The term "Private Practice," on the other hand, is inapplicable to any conceivable arrangement for the provision of medical attendance to a person who is insured against the cost of such attendance. The essence of private practice is the direct contract between patient and doctor without necessary interference of any third party. But in any kind of medical service organised (otherwise than by the profession itself) on the insurance, provident or contributory basis, whether instituted in connection with State Sickness Insurance or by Local Public Authorities, or by Friendly Societies, the essence of the arrangement is the intervention of a third party who accepts the insurance risk, and thereby becomes entitled to a voice in the arrangements. For example, in the case of a service organised in connection with State Sickness Insurance, even although the Government should give the patient full choice of doctor, should enter into no standing contracts with doctors, should leave the patient free to call upon the doctor of his choice at the time when he requires his services, and should pay the doctor by fees per attendance, it would still remain the fact that upon the Insurance Fund, for which the Government was responsible, and not upon the patient, would fall the burden of any additional cost entailed by services rendered beyond any particular limit, or by any modification in the arrangements for attendance. In other words that freedom of contract between doctor and patient which prevails in private practice is incompatible with the fundamental conditions of any medical service organised on any insurance basis.

96. The expression of preference, therefore, which the Divisions have to make in this matter, whether it be made for the country as a whole, or for each Division as regards its own area, will not be as between "Club Practice" and "Private Practice." It will be between a system of payment on a capitation basis and a system of payment on the basis of fee per attendance, other conditions—such as the system of control by the Government or by local authorities or by the medical profession, the limitation of the patient's liability, and the system of throwing the work open to all doctors, and allowing the patient choice of doctor—being supposed the same in either case.

*Basis of State contribution as affecting desirability of payment per attendance.*

97. An important element affecting the question of choice between capitation payment and payment per attendance under a scheme of State Sickness Insurance relates to the basis on which the national contribution to the Sickness Insurance Fund would be calculated. The same consideration might conceivably apply to the organisation of a provident system by Local Public Assistance Authorities. The Insurance Fund would probably be made up partly of contributions from the insured, partly of contributions from the employers, and partly also of contributions from the public funds. In Germany, the State, while contributing to the Invalidity Insurance Fund out of which the provision for old age pensions is also made, does not directly contribute to the Sickness and Accident Insurance Fund, the former being based on contributions from workmen and employers only, and the latter based on contributions from employers after a certain fixed period. From statements made by the Chancellor of the Exchequer it has been inferred that in this country a contribution would be made from the public funds to the State Sickness Insurance Fund, and upon this expectation some advocates of the system of payment per attendance have based what they have indicated that they regard as an important part of their case. It is to be noted that two at least of the sets of contributions to the Insurance Fund must inevitably be calculated on a capitation or wages basis, those, namely, which are made by the insured and by the employers. The essence of the system is that the insured pays a fixed premium and thereby relieves himself of further liability. In Germany the employers' contribution bears a fixed ratio to that of the workmen, and, if the same principle were followed here, must also, therefore, be on a capitation basis. The question then is whether the contribution of the State would be similarly fixed in proportion to the contributions of the workmen and employers, or whether, as is hoped by the advocates of the system of payment per attendance above-mentioned, it would be a variable amount, budgetted for from year to year upon consideration of the requirements of the service. In other words, the Government would in the one case fix the amount of its liability relatively to the contributions of the other parties concerned, while in the other case it would give a guarantee to make up the difference, whatever it might be, between the total contributions of the insured and of the employers, on the one hand, and the total outgoings of the fund (sick pay, cost of medical attendance and administrative expenses) on the other hand.

*Either system, properly conducted, tends to the same financial result.*

98. It must be recognised that the liability of the Government, if it should undertake to pay fees, according to an agreed basis, for all necessary medical attendance (some suitable system of safeguards being adopted to put a check on unnecessary attendance) would only theoretically be unlimited. In practice the actual extent of the liability in this respect, if not calculable beforehand, would become so by experience. It is to be assumed that, in any event, all necessary medical attendance is to be given, and that it will be the honest desire of the Government, no less than of the medical profession, that medical practitioners shall in fact be remunerated adequately for the work that they do. The questions at issue are as to what system of provision for the remuneration of medical officers may be expected, in the long run, best to satisfy these two conditions. If the Government accepted a theoretically unlimited liability in respect of cost of medical attendance the assurance of adequate remuneration of the medical practitioner would be obtained in the fixing of the fees for the services of various kinds that had to be rendered, and the security that the attendance rendered was not more than necessary would be obtained by a system of inspection. If the Government contribution were fixed it would rest with the medical profession to secure by united action from time to time that the payments received by them, on whatever basis calculated, afforded adequate remuneration for the work which experience showed to be required of them, and some system of inspection would probably be necessary in this case to ensure that all necessary attendance was in fact given.

*Comparison of the two Systems, Tests to be Applied.*

99. It remains to consider in greater detail the prospective effects of each system of remuneration in promoting the two acknowledged desiderata, efficiency of medical service and adequacy of medical remuneration. These require to be examined from the standpoint of the community, of the individual beneficiaries, of the individual doctor, and of the medical profession as a whole.

*Advantages and Disadvantages of each System.*

100. The Committee proceeds to state categorically the chief advantages of each system of attendance as they have been put forward by advocates of that system and the disadvantages of each system as they have been stated by its opponents. The Committee has not felt called upon to attempt to include every argument which has been advanced on either side, but states those which appear to the Committee to possess weight, and advisedly refrains from attempting to strike a balance or to make any

recommendation in favour of either system. It can best discharge its duty by setting forth as clearly as possible the considerations which, in its judgment, require to be taken into account.

*Advantages of Payment per Attendance as the basis of Remuneration.*

101. In favour of a system of payment per attendance as the basis of medical remuneration, it is claimed by the advocates of that system:—

(i.) That, as regards the medical profession, it affords greater simplicity of working and involves no onus of organising Medical Committees.

(ii.) That it tends to greater efficiency than any system of contract practice.

(iii.) That the "Insurance Risk" borne by doctors under contract schemes is removed.

(iv.) That the medical practitioner would have the assurance that he would receive a pecuniary consideration in respect of each individual attendance or other service rendered.

(v.) That friction between doctor and patient arising from what the former regards as unreasonable claims by the latter upon his time and attention would disappear.

(vi.) That fewer difficulties would arise as to what practitioner should undertake the care of chronic invalids, aged persons, and those who might require an exceptional degree of attention.

(vii.) That no difficulty would arise from the differences between one district and another as regards the prevalence of disease due either to climate, nature of prevailing occupations or other causes, extra attendance due to such causes being met by remuneration directly in proportion to the amount of such extra attendance.

(viii.) That the records of attendances furnished by vouchers would result automatically in the compilation of records which would be available for the Government (or other Authorities), and in course of time would afford a valuable basis for national statistics of morbidity. This would have the result, from a national point of view, of enabling the State to form an estimate, such as is at present impracticable, of the loss to the community resulting from preventible diseases.

(ix.) That there would be no temptation, as under a capitation system, for medical practitioners to transfer cases requiring prolonged attendance to Hospitals, or other agencies without sufficient cause.

(x.) That practitioners would be able to fix their own fees, older and more experienced practitioners being able to charge more than newly qualified ones, the difference between the higher fees demanded by the practitioner and the fees allowed by the Insurance Fund being obtained from the patient.

(xi.) That, there being no contract, private practitioners would retain their independence

*Objections to payment per attendance.*

102. As objections to the system of payment per attendance it has been alleged:

(i) That the system is liable to abuse inasmuch as (*a*) the patient, being covered by the insurance against the cost of medical attendance, incurs no pecuniary loss through obtaining any attendance which he may desire, and (*b*) it is to the direct pecuniary advantage of the medical practitioner to give as much attendance as possible. There do not inherently exist, therefore, the safeguards against unnecessary attendance (and consequent excessive demand upon the insurance fund) which the Government or other controlling bodies would undoubtedly require.

(ii.) That if, as is probable, the Government contribution be a fixed amount, unnecessary attendance by some practitioners would entail hardship on all the rest in a given district.

*Safeguards against unnecessary attendance.*

103. It is convenient to state at once that the advocates of the system of payment per attendance suggest that, if safeguards against unnecessary attendance are thought to be required, one or more of the following could be adopted, namely:—

(*a*) That the medical practitioner having to render detailed accounts of his attendances, it would be open for the Paymaster to question accounts in cases in which the attendance seemed to be excessive, to enquire into the facts, and to refuse payment if not satisfied as the result of such enquiry;

(*b*) That Medical Supervisors or Inspectors might be appointed who would adopt various means for checking excessive attendance;

(*c*) That bonuses might be given to those insured whose medical attendance was not above an agreed amount.

(*d*) That the precedent of the National Deposit Friendly Society might be followed by paying part of the contributions of the insured into a deposit account, which should be untouched in cases of short illness, but drawn upon for prolonged illness, the balance, if any, being ultimately utilised for the benefit of the insured.

(*e*) That in respect of each attendance a small deduction might be made from the patient's sick pay, and in case of patients who, though receiving medical attendance, were not drawing sick pay, a similar increased levy might be made for a certain number of weeks.

(*f*) That the fact that the patient had to apply for a voucher would act as a deterrent against trivial calls on the doctor.

*Criticisms of safeguards.*

104. Of the foregoing suggested safeguards, (*a*) and (*b*) are admitted by the critics of the system of payment per attendance to be feasible, but they submit that they would involve the Government, Local Authorities, Friendly Societies or Insurance Companies in the creation of an expensive administrative staff, and that the supervision and inspection of their work and questioning of their accounts would be irksome to medical practitioners. As to the suggested checks (*c*), (*d*), (*e*) and (*f*), they submit that they would tend to encourage the patient to restrict the amount of his attendance below what might be desirable, and to refrain from calling in a doctor in the earlier stages of disease. Such deterrence appears to them to be inconsistent with certain of the arguments put forward in favour of payment per attendance, and generally contrary to some of the public objects which the Insurance or Provident system is expressly intended to promote. It is also urged that such checks would be difficult to apply to a public system.

*Objections to payment per attendance continued.*

105. Other objections alleged against payment per attendance are :—

(iii) That it sacrifices a great advantage of the capitation system, namely, the steadying of income and its relative freedom from such fluctuations as are due to causes entirely beyond the control of the practitioner.

(iv) That the practitioner would be constantly under restraint as regards giving attendance, the necessity of which was doubtful, by the knowledge that he would be exposed subsequently to Government criticism of his detailed accounts. The relation in this respect would not be the same as in private practice, because in private practice the patient can at any time indicate during the continuance of the attendance his desire that the attendance shall be kept within certain limits, and the matter is entirely one of agreement between his doctor and himself. In the case now under consideration the Government or other body upon whom the pecuniary burden of excessive attendance must fall would usually have no voice in the matter until the attendance was finished; the patient would naturally seek to get as much attendance as possible and might complain just as much as under a capitation system if he thought the doctor was not visiting with sufficient frequency.

(v) That every development of institutional treatment, and all advances in medical science and therapeutics which diminished the necessity for personal interviews between doctor and patient, would involve immediate loss of income.

(vi) That the system involves a temptation to keep a patient at home when some form of institutional treatment has become necessary.

(vii.) That the assumption upon which some appear to have been attracted to the system of payment per attendance, namely, that the fees would be approximately equal to those at present obtaining in private practice, is fallacious. Public men have argued that the present scale is fixed subject to the consideration of bad debts, and therefore a guaranteed scale should be lower. This consideration must affect the negotiations as to the fixing of the scale.

*Advantages of Capitation System of Medical Remuneration.*

106. Advocates of the capitation system of remuneration claim :—

(i) That the medical practitioner would enjoy a more steady income as regards the provident medical service portion of his practice, the only fluctuation being in respect of the number of persons who desired to put themselves under his care.

(ii) That the medical practitioner would be free to give as much attendance as he considered desirable in the interests of his patient, or of scientific knowledge, without suspicion of attempting to make more money thereby.

(iii) That, while some kind of inspection would no doubt be necessary, as a check against possible inadequacy of attendance, it would not need to be so elaborate as in the case of payment per attendance, because the influence of the patients themselves would be operative to keep the attendance up to the proper level. The principle of choice of doctor would automatically protect the patient against insufficient attendance up to the point where the doctor thought he was being imposed upon.

(v) That the doctor's privilege of declining to accept an individual for his list would act as an automatic check on unreasonable demands for attendance, for which no possible amount of fee per attendance would afford adequate remuneration.

(vi) That there would be no temptation to keep a patient under domiciliary treatment after institutional or any other form of treatment had become necessary.

(vii) That the doctor's rate of remuneration would improve in proportion to the skill with which he prevented illness or quickly restored his patient to health. He would be more free, therefore, to take a keen scientific interest in his profession, and a personal interest in his patients.

(viii) That the rate of remuneration would improve in proportion as the advances in pre-

ventive medicine or therapeutics reduced the sickness rate of the population.

(ix) That capitation payment, especially if calculated, as in some districts, in proportion to wages, admits of easy adjustment to dangerous occupations and is already in operation in sickness and accident insurance.

(x) That the relative simplicity of the administrative machinery might make it easier to induce the Government to decide in favour of the system of employing private practitioners instead of selected medical officers, and easier for the profession in any negotiations to obtain advantages in other directions.

*Objections to Capitation Payment.*

107. As objections to the capitation system of remuneration it is alleged:—

(i) That the medical practitioner would accept the risk, in respect of a sum fixed in proportion to the number of his prospective patients, of giving theoretically unlimited attendance. Although the cases in which a large amount of attendance was required might be balanced in the long run by the cases which require no attendance, or very little, and in respect of which payment was equally received, the tendency would remain for every beneficiary to require some attendance, and for the balance to be on the wrong side for the doctor. He must either accept what might seem to him the unreasonable burden, or, if he refused to attend, run the risk of a complaint from his patient, and there would still remain the risk and extreme probability of the total services exacted exceeding the estimate on which the capitation fee was based.

(ii) That complicated provision would be necessary for all kinds of special services. If the capitation grant were made as inclusive as possible, there would still remain services which the ordinary attendant could not be expected to render, such as operations requiring special surgical skill. If these were to be dealt with by a staff of special officers, there would be a temptation for the practitioner, who had nothing to gain by treating the patients himself, to refer them to such special officers without sufficient cause. If specialists declined to treat the cases on a capitation basis an invidious distinction would be drawn between one class of practitioners and others. If some definition were laid down, as in the Public Medical Service Scheme of the Association, of ordinary attendance, and provision were made for payment of special fees to the ordinary attendant for such special services as night visits, surgical operations, etc., the machinery of charging, checking, and paying such special fees might tend to become as complicated as it is alleged that the machinery under a general system of payment by fee per attendance would become.

(iii.) That insuperable difficulties would arise under a capitation system with free choice of doctor, as regards the provision of necessary attendance for chronic invalids, the aged and other persons who require special attention. It is admitted by advocates of the system that it would be impossible in this respect to maintain the principle of free choice between doctor and patient. Some restriction must be placed upon the freedom of the doctor to refuse to attend individual patients, because provision must be made for affording attendance to those whom no one might wish to have on his list. It appears, therefore, that the *per capita* system would [illegible] this extent incompatible with the Associa[illegible]'s resolution in favour of free choice of doctor by patient.

(iv.) That if, with the development of the public interest in the health of the individual members of the community, additional duties were imposed on the medical officers, or if the system of insurance produced in the beneficiaries a desire to call upon the doctor for more and more services, the basis of remuneration under a capitation system would require constant readjustment, in the course of which the profession might lose ground.

(v.) That under a system of payment *per capita* the trivial consultation and unnecessary call would be a continual source of annoyance.

(vi) That as there are no statistics in regard to the real need for attendance on all classes and ages of patients, it is impossible to say what would be an adequate capitation fee, whereas with a century of experience of private practice the fixing of a satisfactory scale of fees should be a simple matter.

(vii) That in negotiations with the State it would be easier to show the inadequacy of a fee per visit with which the public is familiar, than the inadequacy of a capitation grant of the method of computation of which the public knows nothing.

(viii) That it is very doubtful whether the administrative difficulties connected with a capitation system would be any less than those connected with a system of payment per attendance. An administrative staff would be required in any case and would probably need to be as great in the one case as in the other.

(ix.) That the imputations upon the doctors' good faith and the patients' reliability, which have been urged as rendering necessary certain safeguards against unnecessary attendance in connection with the system of payment per attendance, would render the system of capitation payment equally unsound.

(VII.)—THE AMOUNT OF THE MEDICAL PRACTITIONER'S REMUNERATION UNDER HEADS (i.) AND (ii.) DESCRIBED IN (VI.).

108. One of the chief duties of the British Medical Association, with respect to any system of medical

attendance on the Provident or Insurance basis, must be that of endeavouring to secure adequate rates of remuneration.

*Actual Rates not at present suggested.*

109. The Committee at present makes no attempt to suggest rates, not having as yet sufficient indication of the views of the profession to formulate even a basis for consideration. As a result of the present reference to the Divisions, indications will doubtless be received upon which may be based definite proposals, to be remitted again for their consideration and for voting upon in the Representative Meeting. The following considerations are put forward by the Committee for the assistance of the Divisions in framing such indications.

*Question as to advisability of Uniform Rates or Fees.*

110. The first question for determination is as to whether the Association should attempt to lay down rates to be applied uniformly throughout the country. If the Government should itself undertake the organisation of medical attendance, it would certainly be necessary for the Association to attempt to arrive at some agreement with the Government on the conditions of organisation of the service, including that of amounts of remuneration. Even in this case it might not be necessary to agree to a uniform rate applicable to every part of the country, and it might rest with the Association in that event to decide whether it considered the adoption of a uniform rate desirable. If the Government should not itself undertake the organisation of the medical service, the Association might be under no pressure to formulate uniform scales of salaries, *per capita* rates of attendance, or fees for attendance (as the case might be), unless it so desired.

111. Thus the Divisions have to consider, in the first place, whether in their judgment it is desirable at the present time to attempt to lay down uniform rates applicable to the whole country, or whether it is preferable to retain, as long as possible, the freedom of each district to determine this matter for itself. In the latter case, the Association would, of course, support its Divisions in every district in upholding the standard of remuneration which the local profession considered suitable to all the circumstances of that district. In considering the relative advisability of these courses, the Divisions will bear in mind the consideration stated in a previous section of the Report, namely, that while the adoption by the Association as a whole of a uniform standard of remuneration makes it easier for each district to enforce that standard, on the other hand there are great difficulties in the way of obtaining general agreement throughout the Association as to what the rates should be. The success of the Association in securing the acceptance by the Government, or by other lay bodies with which it may have to negotiate of the rates which the Association considers suitable is dependent on whether these bodies if not agreeing to the proposals of the Association, could obtain at lower rates the services of a sufficient number of members of the profession to meet their requirements. The pressure of this consideration might drive down the standard rate for the whole country below that which a considerable number of districts, which are well organised, could have obtained for themselves by local action supported by the Association. In other words, the tendency would be for a uniform rate to approach the lowest rate which the most imperfectly organised district could have obtained for itself; whereas, if the matter were left to the local action of the Divisions, each supported by the Association in maintaining its own standard in its own district, the well organised districts could secure a good standard of remuneration, and would set an example to other districts to improve their organisation with a view to themselves obtaining that standard.

*Possible necessity of suggesting uniform Rates.*

112. Even though the Divisions should be satisfied that liberty of local action should be retained as long as possible, the time may come when the Government, or Local Authorities, or Friendly Societies, or Insurance Companies, may desire to lay down uniform rates, and the Association may find it necessary to enter into negotiations on these lines. The Divisions are asked, therefore, not only to express their opinion as to the relative desirability of uniform or local rates of remuneration, but also to give some indications upon which negotiations as to uniform rates could be based if necessary.

*Questions for Consideration: Fixed Salaries.*

113. In the case of employment of medical officers at fixed salaries, it would be possible either simply to fix a minimum rate for the whole country; or to classify the various appointments and fix a minimum rate for each class of appointment; or to leave it to each district to decide what, in the opinion of the local profession, was a proper salary for each local appointment, and to take the necessary action to secure the payment of that salary. Such a salary might cover the ordinary duties of the officer appointed, and provision might be made for special payments for special services, as is done at present under the Poor Law. The respective advantages of such a system, and of the system of paying an inclusive salary covering every kind of work which the officer might be called upon to perform, would require consideration.

114. If, in any Government Medical Service on an insurance basis, the principle of employment of whole-time or part-time medical officers at fixed salaries were adopted, such salaries would probably vary according to the amount and responsibility of the work of each appointment. In the case of part-time officers it would probably be impossible to fix any uniform scale, unless on a time basis, and it would be necessary to take action with regard to each appointment separately. If whole-time officers were appointed, the Association would probably fix the minimum salary which, in its opinion, should be attached to the easiest and least responsible appointment, and higher salaries for the higher posts. Services demanding special medical or surgical skill might be remunerated by fee, or, possibly, special

officers at fixed salaries might be attached to institutions and be required to treat all cases admitted which fell within their province.

*Capitation Payment.*

115. If a capitation system of payment were adopted it would similarly be necessary either to fix rates of remuneration for ordinary attendances, and special fees for special services, as is the custom in some existing forms of contract practice, or to fix an inclusive rate in respect of which the medical practitioner would be liable to give every kind of attendance that every patient on his list might require.

116. In considering what capitation rates would be adequate for a Service of the kind under consideration, existing rates afford an imperfect basis of calculation owing to the difference of conditions. In any estimate in which they were taken into account the following facts must be noted:—

(i.) The present contracts for medical attendance on members of the working classes have been accepted by the profession on a basis partly of charity.

(ii.) Women and children have only to a very small extent received medical attendance in the past in connection with the Friendly Societies. Thus medical practitioners have had an inducement to undertake the attendance of the male adult members of the Friendly Societies at rates not in themselves remunerative, in order to obtain the benefit of the introduction to private practice among the families of such members. In any comprehensive scheme, under which not only men but women and children were attended, this inducement would disappear, and higher rates for men would be required.

(iii.) As regards the rates for attendance on women and children, where these have been attended in connection with the Friendly Societies, the Societies have usually failed to appreciate that both women and children require, on the whole, more medical attendance, individually, than men. The deterrent influence of the necessity of wage earning in the case of men, does not exist in the case of women and children. The rates for women and children must be at least equal to the increased rates for men.

(iv.) In a very large proportion of the cases in which members of Friendly Societies obtain medical advice and medicine from their medical officer, they do not at the same time claim sick pay from the Society. The records of sickness experience of such Societies, therefore, do not show the amount of medical attendance actually rendered by their medical officers.

(v.) The members of Friendly Societies are selected lives, since they have to be medically certified as of sound health at the time of admission. In calculating remuneration under any comprehensive insurance scheme there must be recognition of the greater amount of attendance which would be required by such of the insured as would have been refused by the Friendly Societies.

(vi.) The effects of giving the patient choice of doctor must be taken into consideration.

*Payment per Attendance.*

117. If a system of payment per attendance were adopted for the whole country, it might be necessary for the Association to draw up a tariff of fees which in its opinion would afford adequate remuneration for each kind of service to be rendered, such as an ordinary visit or an attendance at the practitioner's surgery, and each special kind of service which would not be properly remunerated by the ordinary fee, such as surgical operations, midwifery, consultations, night visits, special visits, &c. It would, doubtless, always be open to each doctor to fix his own fees, the patient who decided to employ him paying out of his own pocket the difference, if any, between those fees and the fees allowed by the Insurance Fund. Clearly, however, the Insurance Fund must have, as part of its contract with the patient, on the one hand, and with the doctor on the other, a definite tariff upon which it would pay. If the arrangements for medical attendance were carried out by the Government itself or placed in the hands of Friendly Societies or other societies representative of the insured, operating throughout the whole country, it might be necessary for a uniform tariff to be adopted, or it might be possible for the Association to secure a distinction between one district and another, based upon cost of living and other local conditions.

118. Concerning payment per attendance, as concerning capitation rates, existing conditions afford an imperfect basis for calculation. In some districts the existing ordinary fee per visit is inclusive of medicine. In other districts medical attendance and medicines are charged separately, and in some of these a relatively low fee per visit is compensated for by relatively high charges for medicines. In yet other districts doctors do not supply medicines. It is the custom in many districts to make a deduction in consideration of cash payment, and some practitioners charge lower fees when the case is seen at the doctor's surgery than for visits. Fees in general have undoubtedly been fixed with some regard to the fact of uncertainty of payment. In other words the consideration of the possibility of bad debts has caused the average fee charged to be higher than it would otherwise have been. The Divisions must consider what, in their judgment, should be the fee to be paid per attendance in a case in which the payment of such fee was assured. The National Deposit Friendly Society has adopted a scale of fees paid out of a special fund of the Society for medical services rendered to members of the Society. There is not a consensus of opinion as to these fees; whether on account of local conditions or for other reasons, some practitioners regard them as adequate, while others consider them inadequate. It might conceivably be urged that the Association should adopt the lowest scale which any considerable number of members of the profession regard as adequate, and leave it to those who considered that scale inadequate to protect themselves by demanding higher fees from those who desired their services, the patient making up from his own pocket the difference between the standard rate allowed by the insurance fund and the fee charged by the doctor. The question must be carefully

considered whether it is probable that medical practitioners would be able to induce patients to pay such fees to any great extent and whether, therefore, any great reliance can be placed on this method of protection. If the standard rate were fixed too low at the commencement there would obviously be difficulty in raising it afterwards. The serious danger must also be considered of its becoming the maximum rate applicable to all kinds of practice outside the Insnrance Service. On the other hand, if the standard fees demanded by the profession in connection with the system of payment per attendance were fixed too high, this might have a considerable effect in deterring the Government, Local Public Authorities, Friendly Societies, or other bodies, from agreeing to this system of payment.

## Section (D)—The Possible Effects of the Scheme on the Interests of the Medical Profession and the Community: Policy of the Association.

119. Possible effects, on both the medical profession and the community, of the organised extension and development throughout the country of any Scheme for the provision of medical attendance on a provident or insurance basis, whether under the auspices of the Government, of Local Public Assistance Authorities, of Local Health Authorities, of Friendly Societies and other Provident Organisations, or of the medical profession acting on its own initiative, have been discussed in previous Sections of the Report in relation to the various aspects of such a Scheme. The Committee considers, however, that it will be of assistance to the Divisions to bring collectively under review, in a separate Section of the Report, these important general aspects of the subject.

120. From the public standpoint, the advantages to be anticipated from any well-organised system of provision of medical attendance on the insurance basis are:—first, the improvement in the health of large sections of the community, resulting from the provision of efficient medical attendance to those who at present do not obtain it; second, the inducement to those persons who can afford to pay any part of the cost of their medical attendance, to contribute to such cost to the extent of their ability; third, the application of contributions from public funds or employers to the medical assistance of individuals in a manner more systematic and profitable than through the present wasteful and generally unsatisfactory agencies of the Poor Law and Medical Charities; and fourth, improvements in the service, springing from the more adequate remuneration and better general conditions of employment of the members of the medical profession attending the beneficiaries.

121. From the professional standpoint, the advantages would be:—first, certainty of obtaining adequate remuneration, both in cases hitherto unremunerated, and in cases in which only inadequate remuneration has been received; second, betterment of general conditions of practice; and, third, the satisfaction to the practitioner of being placed under conditions of employment which would be conducive to efficiency of service.

122. Disadvantages from the professional standpoint might be found in, first, disturbance of existing arrangements which are relatively satisfactory to the practitioners concerned, and, secondly, increased public interference in the relations between doctor and patient. Whatever system of organisation, and whatever method of remuneration of practitioners, may be adopted, the profession must be prepared for the relations of doctor and patient being fundamentally modified by the intervention of the Body controlling the Insurance Fund.

123. The extent to which the public will obtain the anticipated benefits, and the extent to which the profession can reap the anticipated advantages and minimise such disadvantages as may be inevitable, must be chiefly affected by the form of organisation of the service and by the action taken by the British Medical Association on behalf of the profession.

124. Concerning the possible forms of action of the Association, the Committee desires, in conclusion, to emphasize the fact that regard cannot be had to professional opinion only, inasmuch as upon some important matters the course of events must depend largely upon public action. If, for example, the Government should include medical attendance among the benefits of its State Sickness Insurance Scheme in a form not in agreement with professional policy, the power of the profession could ultimately be exercised only through the refusal of medical practitioners to give their services upon the terms offered. The prospect of such action would depend again upon the extent to which the profession was united.

125. The degree of union in the profession is not a fixed quantity which, for purposes of action, can be counted upon with precisely the same confidence in respect of every subject that may arise. If the question were one, for example, of amount of remuneration, some of the medical men who might be induced to support the Association loyally in refusing to accept a given appointment at, say, £200 a year, could not be induced, by any degree of professional pressure, to decline such an appointment at £300 a year. There is a point at which all but those most resolutely attached to the principle of medical union will refuse to sacrifice their personal interest to what the Association regards, but which they may or may not regard, as the general interest of the profession. Again, public opinion must be taken into account as a factor that would influence the minds of many members of the profession.

126. Thus, the choice of the Divisions respecting the various possibilities put before them in the Report cannot be so free as though purely intra-professional procedure had to be considered. The only form of action which it would be within the power of the Association to take, if necessary, independently of the Government, of Local Authorities, or of any organised bodies of the community, would be the establishment of a medical service under medical control. It would be necessary for such a

purpose to co-ordinate purely local services with some central committee, but assuming that the premiums were adequate, it would be possible to remunerate the practitioner in the way most agreeable to the opinion of the profession. Although such a service could be instituted independently of organised bodies of the community, it must depend for its success upon its attractiveness to the insured.

127. In regard to other possibilities reviewed in the Report the profession will be in the position of having to make bargains with public bodies or with organisations such as the Friendly Societies. In considering a bargain one party cannot prudently, as a rule, have regard to his own wishes only; he must consider what is likely to appeal to the mind of the person with whom he is negotiating. In determining its policy, for example, with regard to any Service organized in connection with State Sickness Insurance, the profession cannot merely ignore the side of the case that is likely to appeal to a Chancellor of the Exchequer.

128. Considerations such as these have led the Committee to emphasise, in various parts of the Report, the great importance of the Association not prematurely tying its hands by formulating, and attempting to enforce, a policy on which there is not already general agreement, before, at least, the course of events from the public standpoint has declared itself more clearly. On certain questions it is doubtless important that the profession should make its views known as soon as practicable, especially on the point of choice of doctor by patient, as compared with the establishment of selected salaried officers. On other matters it may be preferable to reserve, as long as circumstances will permit, full liberty of action to deal with the proposals of the Government or others as they take form.

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## QUESTIONS TO DIVISIONS.

### SECTION (A) OF REPORT.

### REASONS FOR ASSOCIATION TAKING ACTION

| QUESTIONS. | REPLIES. |
|---|---|
| 1. Does the Division consider that the conditions of medical practice generally would be improved by extending the facilities for persons, who cannot otherwise meet the cost of medical attendance, to insure against such cost? (Pars. 18-24.) | |
| 2. Does the Division consider it desirable that the Government should include medical attendance among the benefits afforded under its State Sickness Insurance Scheme? (Par. 44.) | |
| 3. Should the Association actively favour the establishment of an insurance medical service, or the development of such existing services, in any of the following ways, and, if so, in which :—<br>(*a*) By the Government whether directly, or through other agencies;<br>(*b*) By the Local Poor Law or Public Assistance Authorities;<br>(*c*) By the Local Health Authorities;<br>(*d*) By the Friendly Societies or other provident organisations under lay control;<br>(*e*) By the medical profession? (Pars. 47-60.) | |
| 4. Should the Association actively oppose any of the arrangements specified under Question 3 (*a*), (*b*), (*c*), (*d*) and (*e*), and, if so, which? | |

| QUESTIONS. | REPLIES. |
|---|---|

5. Does the Division consider that an increase of the facilities for certain sections of the community to insure against cost of medical attendance would be preferable to the establishment by the Government, or by Local Authorities, of a Medical Service of selected salaried officers, of which all members of the community would be free to avail themselves, such as is proposed in the Minority Poor Law Report? (Pars. 22-24; also 50).

## SECTION (C) OF REPORT.

*N.B.—For the assistance of the Divisions in answering the questions submitted under Section (C), attention is drawn to the fact that the Questions under each of the Sub-sections (I., II., etc.) are independent of those submitted under the others. For example, he adoption of any one of the methods of Organisation and Control, referred to in Sub section (I), would not necessarily involve adopting any one particular Method of Remuneration of Medical Officers, in preference to any other referred to in Sub-section (VI.)*

### (I.)—ORGANISATION AND CONTROL.

6. In the event of the Government including medical attendance among the benefits of State Sickness Insurance, does the Division think it preferable:—

(*a*) That the Service should be directly organised by the Government with medical and administrative offiials in each area; (Par. 51)

or

(*b*) That the Service should be organised by Friendly or other Insurance Societies, under agreement with the Government; (Par. 49)

or

(*c*) That the Service should be organised by the profession itself, acting through local and central medical committees, under agreement with the Government, (it being understood that no financial liability shall be deemed to be incurred by the profession)? (Pars. 56-60)

7. In the event of Local (Poor Law, Public Assistance or Health) Authorities undertaking the organisation of medical attendance either on such lines as are recommended in the Reports of the Royal Commission on the Poor Laws or otherwise:—

(*a*) Should the Service be directly organised by the Authorities, (Par. 50)

or

(*b*) Should the Service be organised through Friendly or other Insurance Societies, under arrangements with the Local Authorities (Par. 49)

or

| QUESTIONS. | REPLIES. |
|---|---|
| (*c*) Should the Service be organised by the profession itself in the locality, under arrangement with those Authorities (no financial liability being incurred by the profession)? (Pars. 56-60). | |
| 8. In the event of the Government, or Local Authorities, leaving the question of provision of medical attendance to the Friendly or other Insurance Societies, or other Societies representative of the Insured:— | |
| (*a*) Should the Profession undertake the organisation of a Service under the control of Medical Committees (no financial liability being incurred by the profession); | |
| or | |
| (*b*) Should the Association merely accept the duty of advising practitioners as to the terms that should be accepted from the Friendly or other Societies; | |
| or | |
| (*c*) Should the Association leave it to individual practitioners to accept or refuse as they think fit any terms offered by the Societies? | |
| 9. In the event of neither the Government nor the Local Authorities undertaking, for the present, the organisation of a Medical Service, does the Division consider it to be to the interest of the profession that the profession should, in the meantime, develop a Service of its own on insurance lines? (Pars. 56-60). | |

## (II.)—THE DEFINITION OF THE PERSONS FOR WHOSE MEDICAL REQUIREMENTS THE SERVICE IS TO PROVIDE.

### (i.)—*Wage Limits.*

| | |
|---|---|
| 10. For the purpose of any Medical Service organised in connection with a State Sickness Insurance Scheme,— | |
| (*a*) Should a separate wage limit fixed by the profession be insisted upon; | |
| or | |
| (*b*) Should a wage limit fixed by the State for compulsory insurance be accepted? (Pars. 61-62). | |
| 11. Should the benefits of any kind of insurance Medical Service, other than that of a State Sickness Insurance Scheme, be restricted by a wage limit, or by some similar provision having reference to the means of those seeking the benefits of the service? (Par. 63). | |

| QUESTIONS. | REPLIES. |
|---|---|
| 12. Should such wage limits, or equivalent provisions, as are referred to in the previous questions, be fixed locally or centrally? | |

(ii.)—*Admission of Non-Contributories.*

| | |
|---|---|
| 13. Should those who cannot, even by insurance, defray any part of the cost of their medical attendance be admitted under any conditions to the benefits of an insurance Medical Service? (Par. 64). | |
| 14. Should those persons be admitted to the benefits of an insurance Medical Service who pay only part of the premium, the rest being paid by the municipal or other local authorities or by charitable organisations? (Par. 64). | |

(iii.)—*Admission of Women and Children.*

| | |
|---|---|
| 15. Should women and children be admitted to the benefits of any provident or insurance medical service? (Par. 65). | |

## (III.)—DEFINITION OF THE BENEFITS TO BE PROVIDED.

(A) *Under a State Sickness Scheme.*

| | |
|---|---|
| 16. Should the benefits of any Medical Service organised in connection with State Sicknss Insurance include:— | |
| (i.) Institutional treatment? | |
| (ii.) Treatment requiring special medical or surgical skill? | |
| (iii.) Any other special benefits? and, if so, which? (Par. 67). | |

(B) *Under a Service established by Local Authorities.*

| | |
|---|---|
| 17. Should the benefits of any Medical Service organised by Local Authorities include:— | |
| (i.) Institutional treatment? | |
| (ii.) Treatment requiring special medical or surgical skill? | |
| (iii.) Any other special benefits? and, if so which? (Par. 68). | |

| QUESTIONS. | REPLIES. |
|---|---|

(C) *Under a Service established by Friendly and similar Societies.*

18. Should the benefits of any Medical Service established by Friendly or similar Societies include:—

(i.) Institutional treatment?

(ii.) Treatment requiring Special medical or surgical skill?

(iii.) Any other special benefits? and, if so, which? (Pars. 67-69).

(D) *Under a Service organised by the Profession.*

19. Should the benefits of any medical service organised by the medical profession on an insurance basis include:—

(i.) Institutional treatment?

(ii.) Treatment requiring special medical or surgical skill?

(iii,) Any other special benefits? and, if so, which? (Par. 71).

*Material Requirements.*

20. Should material requirements (medicines, dressings, etc.) be provided by the medical practitioner under the same inclusive fee or rate as his professional services,

or

Should the arrangement for the supply of such material requirements be kept separate from that for the provision of professional services. (Par. 72).

## (IV.)—SOURCES OF CONTRIBUTION.

21. In the event of medical attendance not being, in the first instance, provided under the State Sickness Insurance Scheme, should the profession urge upon the Government or other Public Authorities, the necessity of contributions being made by the Government, or other Public Authorities, or by employers of labour, to supplement the contributions of the beneficiaries for the maintenance of any Medical Service established, on insurance lines,

(*a*) by the Friendly and similar Societies,

(*b*) by the medical profession. (Pars. 73-74).

| QUESTIONS. | REPLIES. |
|---|---|
| (V.)—THE PRINCIPLE OF SELECTION OF MEDICAL PRACTITIONERS EMPLOYED TO ATTEND THE INSURED. | |
| 22. Does the Division approve of the employment of selected medical officers, to the exclusion of other practitioners in any of the following cases, and, if so, in which:— | |
| (i.) in connection with any Scheme of State Sickness Insurance? | |
| (ii.) in any Medical Service organised by Local Authorities? | |
| (iii.) in any service organised by Friendly or other Insurance Societies? | |
| or | |
| Does the Division consider that it should be open to every reputable practitioner in the district, who is willing, to take part in the work of any such Service? (Pars. 77-85). | |
| 23. Does the Division consider that it should be open to each patient, who pays any part of the cost of his attendance, to choose his own doctor from all those who are taking part in the work of the Service, subject to the consent of such doctor to attend him? (Par. 86). | |
| 24. Should persons whose whole premium is paid for them by some Public Body have free choice of doctor, or should the Body that pays the premium have the right to choose the doctor? (Par. 87). | |

**QUESTIONS.** **REPLIES.**

## (VI.)—THE METHOD OF REMUNERATION OF THE MEDICAL PRACTITIONERS EMPLOYED, (i.) IN RESPECT OF ORDINARY SERVICES, (ii.) IN RESPECT OF SPECIAL SERVICES, IF ANY.

25. What, in the opinion of the Division, is the order of preference as between the following methods of remuneration :—

(*a*) Payment by fixed salary, irrespective of the exact number of persons to be attended ?

(*b*) Payment at a fixed rate per head per annum of those whom the medical officer is for the time being under contract to attend ?

(*c*) Payment by fee in respect of each visit or other service rendered ? (Pars. 90-118).

26. Does the Division suggest any other method of payment as preferable to any of those specified in Question 25, and, if so, what ?

27. If, under a State Insurance Scheme or otherwise, the amount available for meeting the cost of medical attendance were fixed in proportion to the number of patients, would this affect the preference of the Division as to whether payment per head or per attendance should be adopted for the remuneration of the doctors ?

28. Does the Division consider that, on the question of method of remuneration of doctors, the preponderating opinion of the Divisions should be binding upon every Division, or that each Division should be left, as far as practicable, to deal with this matter according to the prevalent local opinion ? (Pars. 111-112).

29. Under a capitation system of payment :—

(*a*) At what periods should the patient be free to change his doctor, or the doctor to terminate his contract to attend any given patient ?

(*b*) How does the Division consider that the doctor could be protected against excessive demands for attendance ?

(*c*) What special provision, if any, should be made for the treatment of chronic cases, the aged, those engaged in hazardous occupations, and others who are likely to require an exceptional amount of attention ?

**QUESTIONS.** **REPLIES.**

(*d*) Should there be medical examination prior to admission?

(*e*) In what way does the Division consider that those acting in the interests of the beneficiaries or of the Insurance Fund could secure that adequate attendance would be given?
(Pars. 108-109).

30. Under a system of payment per attendance, how does the Division consider that those responsible for the Insurance Fund could be safeguarded against excessive demands on the fund through unnecessary medical attendance being given?
(Pars. 101-105).

## (VII.)—THE AMOUNT OF THE MEDICAL PRACTITIONER'S REMUNERATION (i.) IN RESPECT OF ORDINARY SERVICES, (ii.) IN RESPECT OF SPECIAL SERVICES (IF ANY).

31. Under a capitation system of payment:

(*a*) What rate per head per annum would your Division consider remunerative for medical attendance (exclusive of material requirements, institutional treatment, or treatment requiring special medical or surgical skill) upon:—

(i.) Adult Males?

(ii.) Adult Females?

(iii.) Children
All healthy at the time of admission.

(*b*) What rate would your Division consider suitable as an inclusive rate to cover every kind of medical attendance which the patient might require in each of the cases (i), (ii) and (iii), specified under (*a*)?

(*c*) What special charges, if any, should be made for any of the following:—

(i) Confinements ... ... ...

(ii) Miscarriages ... ... ...

| QUESTIONS. | REPLIES. |
|---|---|
| (iii) Vaccinations ... ... ... | |
| (iv) Fractures ... .. ... ... | |
| (v) Dislocations ... ... ... ... | |
| (vi) Consultations { Ordinary attendant ... ... ; Consultant ... .. | |
| (vii) Administration of general or local Anæsthetics ... { general ... ... ; local ... ... | |
| (viii) Night calls, *i.e.*, visits made between (8) p.m. and (8) a.m. in response to calls received within these hours ... ... | |
| (ix) Special Visits, *i.e.*, visits made in response to, and on the same day as calls received after a.m., or made on Sundays by the Subscriber's desire .. ... ... | |
| (x) Certificates ... ... ... | |
| (xi) Medical attendance in respect of illness arising from confinement or miscarriage within one month, operations requiring local or general anæsthesia, operative dentistry ; | |
| (xii) Medical service in respect of illness the consequence of personal misconduct; | |
| (xiii) Cod liver oil, linseed meal, leeches, serum, oxygen ; | |
| (xiv) Bottles, jars, dressings or bandages (except for first dressings) ? (Pars. 115-116). | |
| 32. In the event of a system of payment per attendance being adopted, what fees does the Division consider suitable for the following services :— | |
| (*a*) An ordinary visit to the patient's house ? | |
| (*b*) Additional charge for mileage ? | |
| (*c*) Consultation of the doctor at his own own residence ? | |
| (*d*) Should special charges be made for any of the following, and, if so, what charges ?— | |
| (i) Confinements ... ... | |
| (ii) Miscarriages ... ... | |
| (iii) Vaccinations ... ... | |
| (iv) Fractures ... ... ... | |

| QUESTIONS. | REPLIES. |
|---|---|
| (v) Dislocations ... ... | |
| (vi) Consultations { Ordinary attendant / Consultant | |
| (vii) Administration of general or local Anæsthetics ... { general / local ... | |
| (viii) Night calls, *i.e.*, visits made between (8) p.m. and (8) a.m. in response to calls received within these hours ... | |
| (ix) Special Visits, *i.e.*, visits made in response to, and on the same day as calls received after a.m., or made on Sundays by the Subscriber's desire ... ... ... | |
| (x) Certificates ... ... ... | |
| (xi) Medical attendance in respect of illness arising from confinement or miscarriage within one month, operations requiring local or general anæsthesia, or operative dentistry; | |
| (xii) Medical service in respect of illness the consequence of personal misconduct; | |
| (xiii) Cod liver oil, linseed meal, leeches, serum, oxygen; | |
| (xiv) Bottles, jars, dressings or bandages (except for first dressings)? (Pars. 117–118). | |

33. In the event of the Government not making provision for medical attendance in connection with State Sickness Insurance, does the Division consider it desirable that the Association should proceed to lay down minimum capitation rates or a tariff of minimum fees, and should call upon all members of the profession not to undertake any kind of medical work upon lower terms.

SPECIAL REMARKS, IF ANY, BY THE DIVISION, ON MATTERS NOT PROVIDED FOR BY THE FOREGOING QUESTIONS.

# REPORT

ON THE

# ORGANISATION OF MEDICAL ATTENDANCE

ON THE

# PROVIDENT OR INSURANCE PRINCIPLE.

## SUMMARY.

### SECTION A.

*Reasons which make it necessary for Association to take action.*

1. The reasons which compel the Association at present to take the subject into consideration are professional and public dissatisfaction with existing conditions. (Paragraph 9.)

2. The professional grounds for dissatisfaction are that the profession is (i.) in some cases inadequately remunerated, and in other cases not paid at all, and (ii.) placed otherwise under unsatisfactory conditions of employment, in respect of its services rendered to a considerable section of the community, whether such services be given through private practice, contract practice, hospitals and other medical charities, or the public service (Paragraphs 10 to 15.)

3. A medical service based on provident or insurance principles in a form satisfactory to the profession, would afford an important means of coping with the evils described, and, therefore, merits consideration apart from any question of meeting public demands. (Paragraphs 16 and 17.)

4. There is also, however, a growing public demand needing attention. The Reports of the Poor Law Commissioners show the defectiveness, from the public point of view, of existing arrangements for providing medical attendance for the class under consideration. They indicate the probability of action being taken by the State or by Local Authorities to remedy these defects, either by the development of insurance schemes for the provision of medical attendance, or, in the alternative, by the provision of unconditional medical relief by Local Authorities through a staff of selected salaried medical officers. Similar indications are afforded by the Government proposals, so far as known, as to State Sickness Insurance. (Paragraphs 18 to 21.)

5. Of the proposals (i) to establish services on provident or insurance lines, or (ii) to create practically a free medical service of selected officials, the former would not only be the more satisfactory to the profession as permitting the continued existence of a class of independent medical practitioners attending the working classes, but would also probably be the more attractive to the public, if satisfactory terms could be arranged with the profession. If agreement could not be arrived at as to the establishment of a medical service on insurance lines, the institution of a State Medical Service of selected salaried officers might have to be accepted. (Paragraph 22.)

6. The profession has to consider (i.) whether it is to its own interest that a medical service on insurance lines should be developed, and (ii.) whether, even though it would not, purely in its own interest, advocate or facilitate such developments, it may not be preferable to do so rather than risk the development of such a State Medical Service. (Paragraph 23.)

7. On these grounds, the Committee considers it desirable that the Association should undertake, or should co-operate in, the organisation of a national system or systems of provision of medical attendance on the provident or assurance basis. (Paragraph 24.)

### SECTION B.

GENERAL CONSIDERATIONS BY WHICH ACTION OF ASSOCIATION MUST BE GUIDED.

(i.) *Existing Conditions as affecting possibilities of Reform.*

8. Difficulties affecting the possibilities of reform must be considered, especially those which might arise through interference with existing arrangements. (Paragraph 25.)

9. Reform satisfactory to the profession can only be attained by the force of a united profession. The prospect of such union needs consideration, especially as it may be affected by interference with existing interests. (Paragraph 26.)

10. Any extensive scheme for the provision of medical attendance on insurance lines would interfere with existing private practice among the working classes, including that with which the practitioners who are at present engaged in it are, on the whole, satisfied. (Paragraph 27.)

11. Reform on certain lines would affect a large number of existing contract practice arrangements which are also satisfactory, on the whole, to the practitioners at present engaged therein. (Paragraph 28.)

12. Practitioners whose existing private or contract practice might conceivably be injured by proposed reforms must, however, recognise tendencies of public opinion which may make it impracticable to maintain existing conditions. Those whose interests may at first sight appear to be prejudiced in certain respects by proposed reforms must consider whether in other respects and on the whole such reform is not to their interest. (Paragraph 29.)

13. All said, however, the Divisions must take into account not only differences of opinion but also divergencies of interest.

14. Such considerations make sweeping reforms more difficult, and make it necessary carefully to estimate the strength of professional organisation before deciding as to policy: especially as to (i.) the expediency of any immediate declaration on those matters on which the profession is most divided, and (ii.) as to the expediency of attempting to make decisions on such matters apply uniformly throughout the country.

(ii.) *Scope of immediate declarations of policy.*

15. As to the necessity of immediately formulating a policy upon every aspect of the subject, this arises, if at all, from the prospect of early Government or other public action. The outlook as to such public action is however very uncertain. In some matters, especially those upon which professional opinion is most acutely divided, it may be not only not prejudicial, but distinctly advantageous, for the Association to make no binding pronouncement until the course of events on the public side is more fully declared. (Paragraphs 32 and 33).

(iii.) *Uniformity or Local Option.*

16. Professional Union will best be preserved by confining, so far as practicable, the immediate declarations of policy by the Association to those matters upon which there is general agreement, and leaving to local action for the time being, and decision by the Association in the future, if at all, those matters upon which such agreement has not yet been attained. (Paragraph 34.)

*No detailed Scheme submitted.*

17. As a result of further consideration of the subject the Committee deems the time inopportune for the submission of a detailed scheme of organisation of a medical service, such as was submitted with the earlier draft of the Report placed before the Annual Representative Meeting, 1910, and confines the present Report to a statement of matters of principle requiring decision. (Paragraph 35.)

*Previous policy of Association.*

18. For the assistance of the Divisions the statements of policy already arrived at by the Association are quoted, namely, that defects of existing contract practice arise from lay control, individual bargaining by medical practitioners, and employment of selected medical officers; and that reform must be based upon (i.) throwing work open to all reputable practitioners with choice of doctor by patient, (ii.) management by Medical Committees, (iii.) subjection of rules to approval of local organisation of the profession. (Paragraphs 36 and 37).

19. As regards medical remuneration "per attendance" and "per capita," the Association in the past has, on the whole, favoured payment per attendance in principle, but has pointed out that no system of payment per attendance combined with medical control of management has yet been devised. In the Public Medical Service Schemes submitted by the Council to the Divisions in December, 1909, the basis of payment adopted was per capita, although payment per attendance could be introduced by any Division which desired it. (Paragraph 38.)

## SECTION C.

### Questions Affecting Organisation of Medical Service on Insurance Basis.

20. The matters requiring consideration in connection with the organisation of any medical service on insurance lines are the following:—

(I.) The constitution of the bodies, central or local, or both, which (i.) control and (ii.) carry out the detailed management of the Service, and the part to be taken by the British Medical Association, or other bodies representative of the medical profession, in such control and management.

(II.) The definition of the persons for whose medical requirements the Service is to provide.

(III.) The definition of the benefits to be provided.

(IV.) The sources of contribution to the insurance or provident fund, and the basis of calculation of such contributions.

(V.) The principle of selection of medical practitioners employed to attend the insured.

(VI.) The method of remuneration of the medical practitioners employed (i.) in respect of ordinary services (ii.) in respect of special services, if any.

(VII.) The amount of the medical practitioner's remuneration under heads (i.) and (ii.) described in (VI).

(i.) *Management and Control.*

21. The constitution of the bodies controlling any service must depend upon the origin of that service and the objects with which it is instituted. (Paragraph 40.)

22. From this point of view the matter falls under the heads of (1) *services instituted* by the medical profession: *control* in the hands of Medical Committees representative of the medical practitioners taking part in the work and of the profession generally; (2) *services instituted* by Local Authorities to give effect to certain recommendations contained in the Majority Report of the Poor Law Commission; *control* in the hands of Committees, appointed by the local Public Assistance Authorities, in which the Divisions of the British Medical Association might be represented; (3) *services instituted* by Local

Authorities on the lines, and with the objects, indicated in the Minority Report; *control in* the hands of the local Health Authority, probably whole time salaried officers employed; (4) *services instituted* in connection with State Sickness Insurance (A) if the arrangements were left to the insured; *control by* Friendly Societies, as regards their own members, *control either* by Friendly Societies or by Medical Committees, as regards those insured who do not belong to the Friendly Societies; (B) if the services were organised by the Government; *control either* in the hands (i.) of insurance department with possibly Local Committees of the insured, (ii.) of Friendly Societies, or of Societies representative of the insured, (iii.) of Medical Committees. (Paragraphs 41 to 46.)

23. Subject next considered under the heads of forms of organisation. Short review given of the general plan of organisation likely to be adopted in each of the following cases:—

(*a.*) Control by Medical Committees.

(*b.*) Control by bodies representative of the insured.

(*c.*) Organisation by Local Authorities.

(*d.*) A Government service organised by the State Insurance Committee. (Paragraphs 47 to 51.)

24. General principles suggested, and reasons given for which they should be included in any Bill brought forward by the Government to deal with the subject of medical attendance under State Insurance:—

(i.) Provident payment for medical attendance should be compulsory on all wage earners below certain limit.

(ii.) Towards payment for that attendance there should be contributions from employers, and a grant from the State.

(iii.) Deductions from wages should be proportional thereto. (Paragraphs 52 and 53.)

25. If the Government or other public authorities undertake the organisation of a service, action must be taken by the profession to secure satisfactory conditions of organisation and medical employment. If the Government or other authorities do not take such action, it will be open to the profession, if it thinks proper, to develop a service on lines acceptable to itself. Some members of the profession consider this desirable as an alternative to the control falling into the hands of bodies such as the Friendly Societies. Such an organisation might be based either on payment of the doctors per attendance or on capitation payment. (Paragraphs 54 to 57).

26. It is necessary to recognise, however, that the profession is not agreed as to the desirability of Medical Services being organised and controlled by the profession. Some consider such action of the profession inadvisable if there is any prospect of securing the intervention of the State on terms permitting choice of doctor by patient and payment of doctor per attendance. (Paragraph 58.)

27. If the Divisions think medical organisation advisable, the chief practical question is that of constitution of Committees to control services, or to represent the profession in negotiations. In existing services, the Committees are purely local. For purposes now under consideration, Central Committees would also be required. Further, mixed medical and lay Advisory Committees would be necessary. (Paragraph 59).

28. In the development of any organisation established by the profession, a Medical Committee should not contract on behalf of the profession with the Government or any other authority, but should act as the representative of the local practitioners in arranging, with the Government or other lay authority, the terms upon which attendance should be given by those practitioners. (Paragraph 60.)

(II.) *Sections of the Community to be admitted to Benefit.*

(i.) *Wage Limits.*

29. In connection with State Sickness Insurance no question of wage limits would probably arise, these being fixed by the conditions of the insurance scheme. In any other case it would rest with the profession to propose suitable limitations based upon means of beneficiaries. (Paragraphs 61 to 63.)

(ii.) *Non-Contributories.*

30. Persons who cannot pay the full costs of their attendance may be admitted, but special conditions would probably be adopted in the case of those the whole of whose premium is paid by others. (Paragraph 64.)

(iii.) *Women and Children.*

31. The scheme must include women and children as well as men. (Paragraph 65.)

(III.) *Medical requirements to be provided.*

32. In existing conditions the medical requirements afforded by provident services are not clearly defined. A large proportion of the supposed beneficiaries obtain attendance through medical charities, and persons who provide for the cost of ordinary attendance obtain their special attendance through charities.

33. Under any scheme promoted or supported by Public Authorities, an exact definition will be necessary of the medical benefits to which the beneficiary is entitled in consideration of his premium. In so far as use should be made of existing medical organisations not under the control of an insurance authority, such as medical charities, definite arrangements for co-ordination would be necessary. (Paragraphs 66 to 71.)

34. Material requirements (drugs, dressings, etc.) must in every case be arranged for independently of medical service. (Paragraph 72.)

(IV.) *Sources of Contribution and Basis of Calculation.*

35 The sources of contribution in State Sickness Insurance would be the insured, employers of labour, and the National Treasury. Under any

other scheme contributions would be primarily drawn from the insured, but provision should also be made for contributions from employers and public funds. The total receipts of the insurance fund must be sufficient to meet the full cost of the benefits provided, including adequate remuneration of the practitioners employed. (Paragraphs 73 and 74.)

(V.) *Principle of Selection of Doctors.*

36. Two principal methods of selection of medical practitioners possible, namely, first, selection by the individual patient; second, selection by the body controlling the fund. (Paragraph 75.)

37. The system of leaving to each patient choice of doctor could be applied under a system of State Sickness Insurance, or under a scheme set up in accordance with the Report of the Majority of the Poor Law Commissioners. It would also be applicable to any other service organised by Local (Poor Law, Public Assistance, or Health) Authorities. (Paragraph 76.)

38. The selection of the doctor by the body controlling the service is recommended by the Minority Report of the Poor Law Commission for the service to be established by the Health Authority in connection with their scheme of Poor Law Reform, and might be applied to any other form of service organised by Local Authorities, or by the Government in connection with the State Sickness Insurance Fund, or by any other lay bodies organising a medical service in connection with such a fund. (Paragraph 77.)

39. The Association has advocated choice of doctor by patient as most desirable in the interests of the community as well as of the profession. The arguments in favour of selection by the body controlling the Service rest chiefly on administrative grounds, and not on grounds of the personal interest of the individual patient. Choice of doctor by patient would probably be preferred by the public if the case were properly put forward. If the profession believes the system of choice of doctor by patient to be preferable, it is of the first importance that it should make the necessary preparations to press forward its views for the consideration of all concerned in such matters. Paragraphs 78 to 85.)

In recommending system of choice of doctor by patient, two reservations necessary, first, as to non-contributories, second, as affecting existing holders of appointments. (Paragraph 86.)

If persons who contribute no part of cost of medical attendance admitted to benefits of Insurance Medical Service, they may be excluded from choice of doctor. (Paragraph 87.)

Principle of giving patient choice of doctor should not be applied to prejudice those already holding appointments. (Paragraph 88.)

(VI.) *Method of Remuneration of Medical Practitioners employed.*

40. Three methods of remuneration require consideration :—

(*a.*) Payment by fixed salary to selected whole-time or part-time officers who would be required to give to all the insured residing within a definite area all necessary attendance, or all attendance of certain specified kinds.

(*b.*) Payment of a fixed amount per head per annum in respect of all those persons whom the medical practitioner has agreed to attend if required.

(*c.*) Payment of a fee on a fixed scale in respect of each attendance actually given. (Paragraph 89.)

41. Payment by fixed salary is almost necessarily associated with selection of doctor by controlling body, and not by patient, which has been already considered, and therefore it does not need further discussion here. (Paragraph 90.)

42. As between the other two systems, there are wide divergencies of opinion in the profession, and the Committee simply states the arguments that have been advanced on either side. (Paragraph 91.)

43. Description of the administrative arrangements in each case. (Paragraph 92.)

44. The terms "club" practice and "private" practice should not be used as the equivalents of the terms "capitation payment" and "payment per attendance" respectively. (Paragraph 93.)

45. Any scheme of insurance against cost of medical attendance differs fundamentally from private practice in the unavoidable importation of a third party into the relations between doctor and patient. On the other hand, "club practice" is not necessarily associated with capitation payment. In some club practice there is payment per attendance, and this has not always been found to remove the objections generally associated with such practice. (Paragraphs 94 to 96)

46. The question of the advisability of adopting a system of payment per attendance is to some extent affected by the question whether the State would accept an unlimited liability in respect of the insurance of medical attendance. If the State can be induced to accept such a liability, the advantage to the profession of the method of payment per attendance will be enhanced. If it does not accept such a liability, the aggregate remuneration of the profession must inevitably be calculated upon a capitation basis. In that case the question as between payment per attendance and capitation payment will be merely as to the method whereby an aggregate sum, of the same amount under either system, shall be distributed between individual members of the profession. (Paragraph 97.)

47. Either system properly conducted must tend broadly to the same financial result. Both the Government and the profession must have in view the same objects, namely, that all necessary medical attendance shall be given, and that the practitioners doing the work shall be adequately remunerated with respect to all such attendance. The question is as to what system of payment will

tend in the long run most readily to produce these results to the satisfaction of both parties. (Paragraph 98.)

*Statement of advantages and disadvantages of each Scheme as based on the arguments put forward by the advocates of each course.*

48. The Committee does not attempt to strike a balance, but simply states the chief arguments which have been advanced in support of each system by its advocates, and in criticism of it by its opponents (For the statement of these arguments, which cannot satisfactorily be summarised, readers are referred to the Report itself). (Paragraphs 99 to 107.)

(VII.) *The amount of the Medical Practitioner's Remuneration under Heads* (i.) *and* (ii.) *described in* (VI.)

49. To obtain adequate rates of remuneration must be one of the chief objects of the Association in the present connection. (Paragraph 108.)

50. The Committee does not attempt to suggest rates pending discussion by the Divisions and receipt of their replies. Certain considerations are put forward for their assistance. (Paragraph 109.)

51. The first question is whether uniformity of rates should be attempted. If the Government itself organised the service, the Association might be obliged to consider a uniform rate and make suggestions. Otherwise, there would be no such obligation, and the question would be purely one of expediency. (Paragraph 110.)

52. The Divisions must consider whether it is desirable for the profession, apart from any pressure from the Government, to attempt to formulate uniform rates or whether it is preferable to retain local option. If local option preferred the Association would uphold within the area of each Division the policy adopted by that Division. Whilst adoption by the Association of a uniform rate would make it easier in some respects for the Divisions, there are great difficulties in securing the agreement necessary for the enforcement throughout the country of a uniform standard rate. These difficulties might result in such standard rate being the lowest which the most imperfectly organised district could have obtained for itself. On the other hand, under local option, the well-organised districts could obtain a good rate at which other districts would be encouraged to aim. (Paragraph 111.)

53. Even if local option considered preferable, the Association may be compelled to consider what might be a suitable uniform rate and the Divisions are asked to make suggestions bearing on this. (Paragraph 112.)

*Fixed Salaries.*

54. Three courses possible :—

(1.) A single minimum rate.

(2.) Classification of appointments and minimum rate for each class.

(3.) Local option.

55. The question also must be considered whether salaries should be inclusive of every kind of work or only of ordinary attendance, special fees being paid for special services as under the Poor Law. (Paragraph 113.)

56. Action may differ according to whether appointments are whole time or part time. For part time appointments salaries probably must be fixed locally only. For whole-time appointments uniform minimum rates might be established.

57. For services requiring special medical or surgical skill, officers might be remunerated by fee or special officers appointed at special salaries. (Paragraph 114.)

*Capitation Payment.*

58. The question whether rates should be inclusive of every kind of service or should cover ordinary attendance only with special fees for special services would need consideration. (Paragraph 115.)

59. In any attempt to calculate suitable rates under contemplated conditions existing rates afford an imperfect basis because :—(i.) any basis of supposed charity would disappear ; (ii.) women and children being admitted to the service, the existing inducements to practitioners to attend men at low rates, in the hope of obtaining private practice among families, would disappear ; (iii) existing rates for attendance on women and children are entirely inadequate ; (iv.) Friendly Societies' sickness experience affords no guide to amount of medical attendance required, because members so frequently obtain medical services without declaring on funds for sick pay ; (v.) members of Friendly Societies are selected lives, while a service such as is now under consideration must include persons in every state of health ; (vi.) the effects of giving choice of doctor will require consideration. (Paragraph 116.)

*Payment per Attendance.*

60. It would be necessary for the Association to draw up a tariff of fees with reference to every kind of service that might be required. The doctor might not be compelled to charge according to this tariff, but might be permitted to demand his own fees, the patient paying the excess over the fees allowed by the Insurance Fund. Patients not satisfied to pay such excess would go elsewhere. It might be necessary to have the same tariff throughout the country, or differences in local conditions might possibly be taken into account. (Paragraph 117.)

61. Existing conditions afford imperfect guidance in fixing the tariff under the new conditions contemplated. Customs as regards fees in different parts of the country vary very widely. Fees are sometimes inclusive of medicines ; sometimes medicines are charged separately ; and in

some districts the charges for these are high, fees for medical services being relatively low; in some districts doctors do not supply medicines; some practitioners make deductions in respect of cash payments; and some charge less for seeing patients at their own surgeries than in the patients' homes. Existing fees have undoubtedly been fixed with reference to uncertainty of payment. Some practitioners consider the tariff of the National Deposit Friendly Society adequate; others consider it inadequate. In fixing the fee it may possibly be considered that the lowest rate should be adopted which any practitioner would be prepared to accept, those who desired higher fees being free to obtain the difference from the patient. Others would consider the prospect of obtaining such higher fees too doubtful to justify such a course. If the standard fees were fixed too low at the commencement, great difficulty might be experienced in raising them; if fixed too high, they might deter the Government or other bodies concerned in the management of the Insurance Fund from accepting the payment per attendance principle. (Paragraph 118.)

## SECTION D.

### Prospective Effects of development of Insurance Medical Service: Policy of Association.

62. The Committee reviews, in this concluding section, the general effects of the development of an Insurance Medical Service or Services upon the interests of the Public and the Medical Profession. (Paragraph 119.)

63. The public advantages to be anticipated are (i) improvement in health of large sections of the Community; (ii) inducement to persons to contribute to the cost of their own Medical Attendances; (iii) better application than at present of public funds and of contributions of employers for provision of medical attendance; (iv) improvement in medical services rendered, through medical practitioners being placed under more favourable conditions of employment. (Paragraph 120.)

64. The professional advantages to be expected are (i) greater prospect of adequate remuneration; (ii) improved general conditions of practice; (iii) improved opportunities for doing satisfactory professional work. (Paragraph 121.)

65. Disadvantages from the professional standpoint would be (i) disturbance of existing conditions which are relatively satisfactory to those concerned; (ii) increased public interference between doctor and patient. (Paragraph 122.)

66. The chief factors in determining the extent to which the anticipated public and professional benefits are realised, and disadvantages minimised, would be (i) form of organisation of the services, and (ii) action taken by the Association on behalf of the profession. (Paragraph 123.)

67. Action by the Association must be taken with due regard both to public action and to the prospects of union in profession. (Paragraph 124.)

68. The degree of union in the profession will vary according to the nature of the proposals with respect to which action is required. Public opinion will also influence many members of the profession. (Paragraph 125.)

69. Thus, action by the Association cannot be so free as though purely intra-professional procedure had to be considered. The only form of action that lies practically in the sole control of the profession is that of organising, if thought advisable, services similar in constitution to the Public Medical Services already instituted, but subject to modifications necessary to meet new conditions and changes in professional opinion. (Paragraph 126.)

70. Apart from such organisation, the form of Insurance Medical Service must depend on bargains between the profession on the one hand, and the Government, other Public Authorities, and Friendly Societies on the other. In considering professional policy with a view to such bargains, prudence demands that due regard be had to the views of the other side. (Paragraph 127.)

71. Such considerations make it unwise for the Association to define its policy for the time being with greater precision than the necessities of the case demand. In some matters, especially the question of choice of doctor by patient as compared with services of selected salaried officers, an early decision is advisable to influence public opinion. On certain other matters, liberty of action should be preserved. (Paragraph 128.)

# Meetings of Branches & Divisions.

## LANCASHIRE AND CHESHIRE BRANCH:
### BLACKPOOL DIVISION.

A GENERAL meeting was held on February 16th, 1911, at Jenkinson's Café, Blackpool, at 8 p.m., Dr. RICHARDSON in the chair. There were present Drs. Dora Bunting, G. F. Jones, Gornall, McIntosh, G. Billing, Hill, Stewart, Baird, Anderson, McCandlish, Johnson, Rhodes, Parkinson, Rees Jones, and Garstang (visitor).

*Confirmation of Minutes.*—It was resolved that the minutes of the general meeting of June 16th, 1910, be approved and signed. It was also resolved that the following minutes of the Executive Committee held on January 12th, 1911, be approved and adopted:—

*Divisional Annual Report.*—The divisional annual report was read and approved.

*Holders of Certain Hospital Appointments and Private Practice.*—Circular T 2 was read, relating to the barring of holders of certain appointments from private practice. The reply of the Honorary Secretary was approved, and he was instructed further to reply stating that it was the unanimous opinion of the Executive Committee that holders of paid hospital appointments should be required to enter into an agreement not to start practice within the neighbourhood of the hospital for a specified period (say three years) from the termination of their appointment.

*Action in Disputes as to Appointments.*—Circular D 3 was read, and the Honorary Secretary was instructed to inform the Medical Secretary that the Committee considered it would be advantageous if a similar pamphlet to that attached to D 3 were prepared relating to medical men in private practice.

*Representation of Profession on Local Hospital Boards.*—Circular D 26 was read, relating to the advisability of the nomination and election of representatives of the local medical profession on boards of hospitals, and it was resolved to recommend the Division not to take any action in the matter.

*Ophthalmia Neonatorum.*—Circulars D 27 and 28 were read relating to the compulsory notification of ophthalmia neonatorum. The committee were of opinion that, as the uncertified midwives were now debarred from practice, the objects would be secured by enforcing notification from midwives only.

*Doctors Called to Examine Patients of Other Practitioners.*—Circular R was read relating to the position of medical practitioners called upon to examine (otherwise than by request of the patient, or persons acting on his behalf) patients who are under the care of other practitioners, and it was resolved to recommend the addition of the words "applying for" after the word "without" in line 1, No. 4, of the suggested rules.

*Invitation to Dr. Garstang.*—It was resolved that Dr. T. W. H. Garstang be invited to address a general meeting of the Division.

*Insurance Fees.*—A letter, dated December 21st, 1910, from the Medical Secretary was read, relating to the scale of fees offered by an insurance company, and it was resolved to recommend the Division to take no action in the matter.

*The Work of the Association.*—Dr. GARSTANG then addressed the meeting on the subjects of the work of the British Medical Association and State invalidity insurance. He demonstrated the large financial concern controlled by the Association, and explained the matter of the postal vote and referendum which had been under discussion by the Organization Committee. The injustices to medical practitioners by the proposed alteration in the mode of death certification were pointed out, and the efforts of the Association to counteract these injustices. After general discussion, in which most of the members present joined, cordial and unanimous votes of thanks were passed to Dr. Garstang and the Chairman of the meeting.

# Association Notices.

# ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

## BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH. — A scientific and clinical meeting will be held at the Manchester Royal Infirmary, in the afternoon, probably on Wednesday, March 29th. Members willing to show cases, give demonstrations, or communications of scientific or clinical interest are requested to write to the Honorary Secretary of the Science Committee before March 20th.—P. R. COOPER, M.D., etc. (Honorary Secretary of Science Committee), 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held on Thursday, March 9th, at 4.30 p.m., at the Brooklands Hotel, Brooklands. 4.30 p.m., general meeting; 7. p.m., dinner at the Brooklands Hotel. Members intending to be present at the dinner are asked to intimate their intention to the Honorary Secretary at once, as arrangements have to be made beforehand at the hotel. Agenda: (1) Adoption of minutes of forty-ninth meeting (circulated to members). (2) Apologies for absence. (3) Minutes of sixty-seventh meeting (committee). (4) Election of Representative for Representative Meetings, 1911–12. (5) Discussion on Report on Medical Attendance on the Provident or Insurance Basis (see p. 81). (6) Documents (matters referred to Divisions) D 5, Model Rules for inclusion in the rules of Nursing Associations; D 6, question of alleged covering in connexion with District Nursing Association (SUPPLEMENT, December 24th, 1910); D 7, memorandum concerning action to be taken to give effect to the decisions of the Annual Representative Meeting, 1910, respecting instruction in first aid, hygiene, and kindred subjects (not printed in SUPPLEMENT). (7) Any other business. Mr. Smith Whitaker, Medical Secretary of the Association, will open a discussion on the Insurance Proposals of the Government.—H. G. COOPER, Foye, Altrincham, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The quarterly meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, March 14th, at 4 p.m.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting will be held on Tuesday, March 21st, at 9 p.m., in conjunction with the Walthamstow Division, at Brooke House, Upper Clapton (by invitation of Dr. Gerald Johnston), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Forms of Nervous Disease.—A. G. SOUTHCOMBE Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Sir Clifford Allbutt, Regius Professor of Physic, Cambridge, has kindly consented to address the members of the Kensington Division on March 10th, at 4.30 p.m., in the Kensington Town Hall. His subject will be Arterio-Sclerosis and the Kidney and in the discussion to follow Dr. Batty Shaw and Dr. C. O. Hawthorne and others who have made a special study of the relation of arterio-sclerosis, high blood pressure, and renal

disease, have promised to take part. Members of the Metropolitan Branch are invited, and the Honorary Secretary will be glad to receive the names of any gentlemen who would like to take part in the discussion.—The next *Medico-Political Meeting* of the Division will take place at the Kensington Town Hall on March 24th, at the usual hour, when the Report of the Special Poor Law Reform Committee and other very important matters will be discussed.—H. Beckett-Overy, 24, Alexander Square, South Kensington, Honorary Secretary.

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Metropolitan Counties Branch: Tottenham Division.—The fifth ordinary meeting of the session will be held on Friday, March 10th, at 4 p.m., at the Athenaeum, Muswell Hill, Chairman, Dr. A. Greenwood. Business: (1) Report of the Association's Poor Law Committee on State Insurance against Sickness. (2) Dr. Robert Hutchison on Coeliac Disease. (3) Any other business.—J. A. Percival Barnes, Honorary Secretary.

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South-Eastern Branch: Brighton, Eastbourne, Tunbridge Wells, and Hastings Divisions.—A conjoint meeting of these Divisions will be held at the Sackville Hotel, Bexhill-on-Sea, on Friday, March 10th. The chair will be taken by Dr. Hill Joseph, Chairman of the Hastings Division, at 5 p.m. Mr. B. G. A. Moynihan, Professor of Clinical Surgery, University of Leeds, will give an address on the Acute Emergencies of Abdominal Disease. The Chairman invites members to tea at the Sackville Hotel at 4.30 p m. Dinner at the Sackville Hotel at 6.45 p.m.; tickets 6s. each, exclusive of wine.—R. Marsh, Brighton; W. Muir Smith, Eastbourne; W. B. Warde, Tunbridge Wells; G. Vickerman Hewland, Hastings.

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South-Eastern of Ireland Branch.—The first meeting of the session of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Club House, Carlow, on Wednesday, March 8th, at 5.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) To consider Report on Medical Attendance on the Provident or Insurance Basis in connexion with Poor Law Reform or other possible development (see p. 81). (4) To consider Model Rules for Nursing Associations. (5) To consider letter of the Association on question of Insurance Fees. (6) To receive Financial Statement and Annual Report. (7) Any other business.—J. Quirke, Piltown, Honorary Secretary.

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Yorkshire Branch.—The next meeting of the Branch will be held at the Huddersfield Infirmary on Wednesday, March 15th, at 4.15 p.m. Members intending to read papers, show specimens or cases, or to propose new members, are requested to communicate at once with the Secretary. Members will dine together at 6.30 p.m.—Adolph Bronner, Honorary Secretary, Bradford.

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## CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held at Caxton House, Westminster, on February 23rd, with Sir Francis H. Champneys in the chair.

*Bill to Amend the Midwives Act (No. 2) and Practice of Doctors.*

The following letter from the Clerk of the Privy Council, stating that the proposals contained in Clause 7 of the Midwives (No. 2) Bill, 1910, would not reappear in any future bill which might be introduced on the subject, was received:

26th January, 1911.

To the Secretary,
Central Midwives Board.

Sir,

Referring to your letter of the 23rd instant, embodying certain resolutions passed at a meeting of the Central Midwives Board on the 19th instant in regard to Clause 7 of the Midwives (No. 2) Bill, 1910, I am directed by the Lord President of the Council to state, for the information of the Board, that the proposals contained in the Clause in question will not reappear in any future Bill which may be introduced on the subject, and that no deputation is therefore necessary.

I am, Sir,
Your obedient Servant,
(Signed) Almeric Fitzroy.

Mr. Parker Young again drew attention to Clause 11, pointing out that it was objectionable, because it meant interference with the practice of doctors.

*Amendment of the Midwives Act.*

A letter was received from the Clerk of the Council in reply to the suggestion of the Board that Section 1 (2) of the Midwives Act, 1902, should be amended by the deletion of the words "habitually and for gain," pointing out that the proposed amendment might give rise to more laxity of administration than would prevent, as "emergency" would conceivably be more difficult to disprove than it would be to establish a practice which is habitual and for gain.

*Local Supervising Authorities.*

A letter was received from the Medical Officer of Health for Manchester inquiring as to the truth of a statement appearing in a report in *Nursing Notes* of January, 1911, of the Board's decision to take no action in the cases of two certified midwives against whom the local supervising authority had found prima facie cases of negligence or misconduct. The Board decided to reply in the affirmative, adding that the Board acted on the finding by the local supervising authority of a prima facie case which it assumed would be adequately supported by evidence capable of proof at the hearing of the case.

Letters were received from the Medical Officer of Health for Ipswich as to the Board's decision to take no further action in the case of a certified midwife against whom the local supervising authority had found a prima facie case of negligence. The Board decided that the Medical Officer of Health for Ipswich be informed that, while the Board is entirely in sympathy with any endeavour to censure or to remove from the *Roll* the name of a midwife who has been proved to be guilty of serious breaches of the rules, and would regret as much as the local supervising authority the failure of any such case for want of complete legal proof, the responsibility for the decision in any particular case must remain with the board alone.

*Midwife as a Maternity Nurse.*

The Board decided that the opinion of the Privy Council be sought as to whether a midwife guilty of a breach of the rules when acting as a maternity nurse is amenable to the jurisdiction of the Board.

# Vital Statistics.

### THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED TO THE "BRITISH MEDICAL JOURNAL."]

The Registrar-General has just issued his return relating to births and deaths in the fourth quarter of last year, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to an annual rate of 16.8 per 1,000 persons married, which was 0.3 per 1,000 below the average rate for the corresponding quarter of the ten preceding years.

The 213,348 births registered in England and Wales during the quarter ending December last were equal to an annual rate of 23.4 per 1,000 of the population, estimated at 36,169,150 persons in the middle of last year; this birth-rate was 2.8 per 1,000 below the average for the corresponding period of the ten preceding years, and is the lowest rate recorded in the fourth quarter of any year since civil registration was established. Among the several counties the birth-rates ranged from 16.7 in Carnarvonshire, 17.2 in Sussex, 17.5 in Northamptonshire, 19.1 in Kent, 19.2 in Cornwall, and 19 4 in Dorsetshire, to 27.6 in Nottinghamshire, 29.7 in Durham, 30.9 in Carmarthenshire, 31.6 in Glamorganshire, and 33.4 in Monmouthshire. In seventy-seven of the largest towns, including London, the birth-rate averaged 23.6 per 1,000 and ranged from 12.0 in Hastings, 12.7 in Hornsey, 14.4 in Halifax, 16.2 in Bournemouth, 17.3 in Bradford, and 17.4 in Northampton to 30.2 in Middlesbrough and in Swansea, 31.1 in Merthyr Tydfil, 32.7 in Coventry, and 32.9 in Rhondda; in London the birth-rate was 22,9 per 1,000.

The births exceeded the deaths, during the quarter under notice, by 86,310, the excess in the corresponding period of the three preceding years having been 89,641, 90,061, and 92,179 respectively. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outward of 29,466 English passengers, 980 Welsh, 10,437 Scottish, and 5,747 Irish, and an inward balance of 442 British Colonial passengers; among persons of foreign nationality there was an outward balance of 7,831.

During the fourth quarter of last year the deaths of 127,038 persons were registered, equal to an annual rate of 13.9 per 1,000, or 1.7 per 1,000 less than the mean rate in the corresponding period of the ten preceding years. The deaths last quarter, like the births, were fewer in proportion to population than they had been in the fourth quarter of any year on record. Among the several counties the death-rates ranged from 11.1 in Northamptonshire and in Essex, 11.3 in Berkshire and in Buckinghamshire, and 11.4 in Middlesex and in Worcestershire, to 15.5 in Lancashire, 15.7 in Monmouthshire, 16.3 in Cumberland, 16.8 in the North Riding of Yorkshire, and 17.3 in Carmarthenshire. In seventy-seven of the largest towns the death-rate averaged 14.6 per 1,000, and ranged from 8.8 in Handsworth (Staffs), 9.0 in King's Norton, 9.6 in Hornsey, and 9.7 in East Ham, to 17.8 in Oldham, 17.9 in Swansea, 18.1 in Burnley, 18.2 in Stoke-on-Trent, 19.3 in Middlesbrough, and 20.4 in Tynemouth; in London the corrected death-rate was 14.7 per 1,000.

The 127,038 deaths from all causes in England and Wales last quarter included 9,664 which were referred to the principal infectious diseases; of these, 3,044 were attributed to diarrhoea, 2,760 to measles, 1,361 to whooping-cough, 1,249 to diphtheria, 654 to enteric fever, 592 to scarlet fever, 2 to pyrexia of uncertain origin, and 2 to small-pox. The death-rate from these diseases in the aggregate was 1.05 per 1,000, or 0.34 per 1,000 less than the average rate for the corresponding quarter of the ten preceding years. The mortality from measles was above the average, but that from each of the other principal infectious diseases showed a decline.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 121 per 1,000, or 16 per 1,000 less than the average rate. The rates in the several counties ranged from 60 in Berkshire, 67 in Wiltshire, 73 in Oxfordshire, and 74 in Dorsetshire to 140 in the West Riding of Yorkshire, 144 in Lancashire and in Glamorganshire, 150 in Durham, and 152 in the North Riding of Yorkshire. In seventy-seven of the largest towns the rate of infant mortality averaged 137 per 1,000, the lowest rates being 75 in Reading and in Wallasey, 80 in King's Norton, 83 in Leyton, and 84 in Bournemouth and in Barrow-in-Furness, and the highest rates, 180 in Rotherham, 181 in West Hartlepool, 183 in Blackburn, 194 in Gateshead, 198 in Stoke-on-Trent, 200 in Middlesbrough, and 215 in Burnley.

The mortality among persons aged 1 to 60 years was at the annual rate of 6.8 per 1,000 of the population estimated to be living at that group of ages, and was 1.0 per 1,000 below the mean rate in the corresponding period of the ten preceding years. Among the seventy-seven towns the rates averaged 7.5 per 1,000, and ranged from 3.1 in Handsworth (Staffs), 3.5 in Hornsey, 4.3 in Smethwick, 4.6 in Croydon and in Hastings, and 4.7 in King's Norton, to 9.7 in Liverpool, in Oldham, in Huddersfield and in Dewsbury, 10.3 in Middlesbrough, and 11.9 in Tynemouth.

Among persons aged 60 years and upwards the death-rate in the quarter under notice was 67.1 per 1,000, which was slightly above the average rate. In the seventy-seven large towns the death-rate at this age-period averaged 72.5 per 1,000, the lowest rates being 50.8 in King's Norton, 55.1 in West Hartlepool, 55.3 in Gateshead, and 56.7 in Norwich and in Plymouth; and the highest rates 86.3 in Burnley, 87.1 in Preston, 90.1 in Swansea, and 92.4 in Rochdale.

The mean temperature of the air last quarter was above the average in nearly all parts of England; the rainfall during the quarter was considerably in excess of the average, and the duration of bright sunshine was generally below the average.

## HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 8,035 births and 5,673 deaths were registered during the week ending Saturday, February 18th. The annual rate of mortality in these towns, which had been 16.1, 16.0, and 17.6 per 1,000 in the three preceding weeks, declined to 17.2 in the week under notice. In London the death-rate was equal to 17.1 per 1,000, against 16.3, 16.1, and 17.3 in the three preceding weeks. Among the seventy-six other large towns the death-rates ranged from 8.4 in Smethwick, 9.8 in Handsworth (Staffs), 9.9 in East Ham, and 10.1 in King's Norton and in Tynemouth to 22.3 in Liverpool, 23.2 in Plymouth, 23.4 in Oldham, 24.1 in Swansea, and 26.1 in St. Helens. Measles caused a death-rate of 2.7 in Gateshead, 2.9 in Rochdale, 3.0 in Devonport, 4.6 in Rotherham, 4.8 in St. Helens and in Rhondda, and 7.4 in Sheffield; whooping-cough of 2 4 in Willesden, 2.5 in Norwich, and 4.3 in Reading; diphtheria of 1.6 in Northampton and in Barrow-in-Furness; and diarrhoea and enteritis (of children under 2 years of age) of 1.4 in Burnley. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 5,673 deaths recorded in the seventy-seven towns, 50 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 12 in Birmingham, 10 in Liverpool, 3 in St. Helens, and 3 in South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,264 and 1,257 at the end of the two preceding weeks, rose to 1,276 at the end of the week under review; 166 new cases were admitted during the week, against 130 and 147 in the two previous weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, February 18th, 843 births and 698 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.7, 18.2, and 19.8 per 1,000 in the three preceding weeks, declined to 19.0 in the week under notice, and was 1.8 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 13 2 in Aberdeen and 13.7 in Edinburgh to 21.1 in Greenock and 25.3 in Dundee. The death-rate from the principal infectious diseases averaged 1.9 per 1,000, and was highest in Glasgow and Leith. The 357 deaths from all causes registered in Glasgow last week included 2 from enteric fever, 1 from typhus, 1 from measles, 26 from whooping-cough, 4 from diphtheria, and 2 of children under 2 years of age from diarrhoea and enteritis. Two deaths from measles were recorded in Edinburgh; and 3 deaths from whooping-cough in Dundee, and 13 in Leith.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 18th, 600 births and 507 deaths were registered in the twenty-two principal urban districts of Ireland, as against 623 births and 538 deaths in the preceding period. The annual death-rate in these districts, which had been 21.3, 19.6, and 24.1 per 1,000 in the preceding weeks, fell to 22.7 per 1,000 in the week under notice, this figure being 5.5 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 25.5 and 19.5 respectively, those in other districts ranging from 4 1 in Drogheda and 4.9 in Kilkenny to 48 7 in Lurgan and 61.5 in Clonmel, while Cork stood at 25.3, Londonderry at 29.7, Limerick at 10.9, and Waterford at 23.4. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000, as against 1.2 per 1,000 in the preceding week.

# Naval and Military Appointments.

## ARMY MEDICAL SERVICE.

COLONEL T. F. MACNEECE, on completion of four years' service in his rank, retires on retired pay, February 16th. His commissions are thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; Colonel, February 16th, 1907. He served with the Nile Expedition in 1898, and was present at the battle of Khartoum, receiving the Egyptian medal with clasp and the British medal.

Lieutenant-Colonel H. H. JOHNSTON, C.B., M.D., from the Royal Army Medical Corps, is promoted to be Colonel, vice T. F. MACNEECE, February 16th. Colonel Johnston entered the service as Surgeon, July 30th, 1881; became Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. His war record includes: The Soudan Expedition, 1885 (medal with clasp and Khedive's bronze star); the campaign on the North-West Frontier of India in 1897–8, when he had charge of No. 1 British Field Hospital, and was present in the action at Landakai, in operations in Bajaur and the Mamund country, and at the capture of the Tanga Pass (mentioned in dispatches, medal with clasp); and in the South African war in 1899–1902, when he was again mentioned in dispatches, appointed C.B., and received the Queen's medal with clasp and the King's medal with two clasps.

### ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel R. E. R. MORSE retires on retired pay, February 18th. He was appointed Surgeon, February 5th, 1881; Surgeon-Major, July 12th, 1893; and Lieutenant-Colonel, February 5th, 1901. He was in the Egyptian war in 1882, receiving a medal and the Khedive's bronze star, and in the Sudan Expedition in 1885, being present in the actions at Arguin and Toski (mentioned in dispatches, granted the 3rd class of the Order of the Medjidie, and received a clasp).

The undermentioned gentlemen are appointed Lieutenants (on probation), January 27th: BENJAMIN BIGGAR, M.B.; JAMES D. KIDD, M.B.; CHARLES M. FINNY, M.B.; GORDON WILSON, M.B.; WILLIAM S. R. STEVEN, M.B.; EDWARD G. STAYNER CANE; WILLIAM A. FROST, M.B.; Lieutenant WILLIAM T. GRAHAM, M.B., from the R.A.M.C. Special Reserve; FRANCIS A. ROBINSON, M.B.; DOUGLAS A. REYNOLDS, M.B.; JOHN S. LEVACK, M.B.; PIERCE M. J. BRETT, M.B.; PATRICK HAYES, M.B.; Lieutenant THOMAS A. WESTON, M.B., from the R.A.M.C. Special Reserve; WALTER BISSET, M.B.; TOM C. R. ARCHER; WILLIAM L. E. FRETZ, M.B.; CHARLES D. K. SEAVER. The following are seconded under the provisions of Article 300, Royal Warrant for Pay and Promotion, 1909, January 27th: BENJAMIN BIGGAR, M.B.; JOHN S. LEVACK, M.B.; THOMAS A. WESTON, M.B.

Major J. S. GALLIE, who is serving in India, is appointed Specialist in Dermatology, 6th (Poona) Division, from October 30th, 1910.

The following Captains are promoted to be Majors:—J. G. GILL, T. C. LAUDER, M.B., D. E. CURME, H. S. TAYLOR, F. J. BRAKENRIDGE, N. J. C. RUTHERFORD, M.B., G. J. A. ORMSBY, M.D., H. K. PALMER, F. J. PALMER, V. J. CRAWFORD, A. L. A. WEBB, and HOWARD ENSOR, D.S.O., M.B. The previous commissions of Majors Gill to H. K. Palmer bear date—Lieutenant, January 28th, 1899; Captain, January 28th, 1902; of Majors F. J. Palmer to H. Ensor—Lieutenant, July 27th, 1899; Captain, July 27th, 1902. Their war records include—Major Taylor, West Africa, 1901 (medal with clasp); Major Brakenridge—Sudan, 1905 (Egyptian medal with clasp); Major Ensor—West Africa, 1897–8 (medal with two clasps), and South African war, 1899–1902 (Queen's medal with four clasps and King's medal with two clasps). All the other officers cited served during various phases of the South African war, 1899–1902, and received the King's medal with two clasps and the Queen's medal with clasps as specified; Majors Gill, Curme, and Ormsby, each four clasps; Majors Lauder and Webb, each five clasps; Majors Rutherford and F. J. Palmer, each six clasps; Major H. K. Palmer, seven clasps; and Major Crawford, two clasps.

The undermentioned Lieutenants to be Captains, dated January 29th: G. F. DAWSON, M.B., T. McC. PHILLIPS, M.B., H. V. B. BYATT, H. S. DICKSON, R. E. TODD, M.B., GERARD PETIT, F. J. STUART, M.B., J. B. HANAFIN, H. GIBSON, W. R. O'FARRELL, J. A. RENSHAW, C. A. T. CONYNGHAM, M.B., D. B. MCGRIGOR, M.B., R. G. S. GREGG, M.B., W. A. SPONG, M.B., H. W. CARSON, M.B., H. P. HART, M.B., F. T. DOWLING, M.B., R. F. O'T. DICKINSON, H. T. TREVES, J. C. L. HINGSTON, A. E. B. JONES, M.D., B. A. ODLUM, ALEXANDER HENDRY, M.B., C. P. O'BRIEN BUTLER, J. R. LLOYD, J. F. GRANT, M.B. Their first appointment bears date July 29th, 1907.

## INDIAN MEDICAL SERVICE.

MAJOR CHARLES THOMSON, M.B., is permitted to retire from the service, from January 30th. He joined the Bengal Medical Department as Surgeon-Lieutenant, January 29th, 1894, and became Major, January 29th, 1906.

Major T. B. KELLY has been appointed Specialist in Ophthalmology, with effect from January 20th.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

THE undermentioned Lieutenants are confirmed in their rank: J. B. WILLIAMSON, M.B., CLAUDE JOHNSON, M.B., JOHN ADAMS, M.B. D. T. M. LARGE, M.B., D. T. RICHARDSON, M.B., W. L. WEBSTER, M.B., F. W. LUMSDEN, M.B.

## TERRITORIAL FORCE.

### ROYAL ARMY MEDICAL CORPS.

*Second East Lancashire Field Ambulance.*—WILLIAM J. PURVES to be Lieutenant, December 21st, 1910.

*Second South Midland Field Ambulance.*—Lieutenant-Colonel CHARLES T. GRIFFITHS reverts at his own request to the rank of Major, February 15th. He resigns his commission from the same date.

*Attached to Units other than Medical Units.*—Major ALFRED C. TUNSTALL, M.D., is retired, under the conditions of paragraph 116, Territorial Force Regulations, retaining his rank and uniform, February 15th; Lieutenant WILFRED E. ALDERSON, M.D., to be Captain, October 26th, 1910; Lieutenant FREDERICK K. SMITH, M.B., to be Captain, November 1st, 1910; Lieutenant-Colonel DUNCAN W. CURRIE, M.B., resigns his commission, retaining his rank and uniform, February 18th; Major J. A. RIGBY, M.D., resigns his commission February 22nd; he retains his rank and uniform.

*Second Highland Field Ambulance.*—Major ALEXANDER OGSTON, M.B., from the 1st Highland Field Ambulance, R.A.M.C., to be Major, May 22nd, 1910.

*Second London (City of London) Field Ambulance.*—FREDERIC MORRES, to be Lieutenant, December 10th, 1910.

*First Lowland Field Ambulance R.A.M.C.*—Lieutenant E. A. BOXER resigns his commission, February 18th.

*First Northumberland Field Ambulance.*—Lieutenant F. G. ARMSTRONG resigns his commission, February 18th.

*For Attachment to Units other than Medical Units.*—WILLIAM L. HODGE, to be Lieutenant, December 15th, 1910; DUDLEY R. HARRIS, M.D., to be Lieutenant, January 7th.

*Second Home Counties Field Ambulance.*—Lieutenant E. A. HOUCHIN is restored to the establishment, December 15th, 1910.

*Fifth London Field Ambulance.*—Lieutenant ROBERT CORFE, to be Captain, December 1st, 1910.

*Third Northumbrian Field Ambulance.*—AUGUST F. PERL, M.B., to be Lieutenant, January 14th.

## VOLUNTEERS.

SURGEON-CAPTAIN WILFRID CURTIS, 1st Volunteer Battalion the Prince of Wales's (South Lancashire Regiment), not having signified his wish oin the Territorial Force, is struck off the strength, March 31st,

## CHANGES OF STATIONS.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during January:

| | | FROM | | TO |
|---|---|---|---|---|
| Colonel | E. Butt, F.R.C.S.I. | Darjeeling | ... | Calcutta. |
| ,, | W. G. Macpherson, C.M.G., M.B. | Malta | ... | Quetta. |
| ,, | T. J. O'Donnell, D.S.O. | Quetta | ... | Karachi. |
| Lieut.-Col. | S. Westcott, C.M.G. | Mhow | ... | Chakrata. |
| ,, | B. M. Skinner, M.V.O. | Peshawar | ... | Rawal Pindi. |
| ,, | G. F. Gubbin | — | | Curragh. |
| ,, | C. Birt | Curragh | ... | Dublin. |
| ,, | C. W. Johnson, M.B. | Bulford | ... | Cosham. |
| ,, | S. Hickson, M.B. | Potchefstroom | | Wynberg. |
| ,, | A. E. Morris, M.D. | Kamptee | ... | Cork. |
| ,, | J. M. F. Shine, M.D. | Naini Tal | ... | Fyzabad. |
| ,, | J. S. Green, M.B. | Nasirabad | ... | Naini Tal. |
| ,, | T. G. Lavie | Newbridge | ... | Queenstown. |
| ,, | H. H. Brown, M.B. | Murree | ... | Rawal Pindi. |
| Major | C. H. Hale. D.S.O. | Strensall | ... | India. |
| ,, | E. G. Browne | — | | Delhi. |
| ,, | A. W. Bewley | Landour | ... | Meerut. |
| ,, | A. E. Smithson, M.B. | Wynberg | ... | Pietermaritsburg. |
| ,, | J. W. Jennings, D.S.O. | Chester | ... | Liverpool. |
| ,, | I. A. O. MacCarthy | Straits Settlements | | Woolwich. |
| ,, | W. G. Beyts | London | ... | India. |
| ,, | S. H. Withers, M.B. | Gharial | ... | Ambala. |
| ,, | E. C. Anderson, D.S.O. | Kuldanna | ... | Rawal Pindi. |
| ,, | G. J. Buchanan, M.B. | Chaubuttia | ... | Agra. |
| ,, | G. A. Moore, M.D. | Woolwich | ... | Chatham. |
| ,, | A. F. Tyrrell | Tipperary | ... | Cork. |
| ,, | F. R. Buswell | Jubbulpore | ... | Kamptee. |
| ,, | John M. Buist, M.B. | Pontypridd | ... | Netley. |
| ,, | A. E. Milner | Tidworth | ... | Birmingham. |
| ,, | S. J. C. P. Perry, F.R.C.S.I. | Dover | ... | Belgaum. |
| ,, | R. J. Blackham | Cherat | ... | Peshawar. |
| ,, | G. E. F. Stammers | Tidworth | ... | Quetta. |
| ,, | H. G. F. Stallard | Aldershot | ... | Delhi. |
| ,, | W. H. S. Nickerson, V.C., M.B. | York | ... | India. |
| ,, | H. Herrick | Karachi | ... | Hyderabad. |
| ,, | H. B. G. Walton | — | ... | Bareilly. |
| Captain | J. G. Gill | Cherat | ... | Peshawar. |
| ,, | N. J. C. Rutherford, M.B. | Harrismith | ... | Wynberg. |
| ,, | H. Simson | Ahmednagar | ... | Poona. |
| ,, | H. M. Morton, M.B. | Potchefstroom | | Pretoria. |
| ,, | H. H. Norman | Rangoon | ... | Shwebo. |
| ,, | H. C. R. Hime, M.B. | Bangalore | ... | Madras. |
| ,, | A. M. MacLaughlin, M.B. | London | ... | Edinburgh. |
| ,, | W. C. Croly | Ipswich | ... | India. |
| ,, | R. L. Argles | Solon | ... | Ferozepore. |
| ,, | E. G. Ford, M.B. | Campbellpore | | Rawal Pindi. |
| ,, | A. E. Hamerton, D.S.O. | Uganda | ... | London. |
| ,, | H. F. Shea, M.B. | — | | Ambala. |
| ,, | J. T. Johnson, M.D. | Newcastle | ... | India. |
| ,, | W. R. P. Goodwin | Woolwich | ... | Fyzabad. |
| ,, | H. E. J. A. Howley | Lichfield | ... | Cawnpore. |
| ,, | J. W. West, M.B. | Dublin | ... | Rawal Pindi. |
| ,, | H. R. Bateman | Uganda | ... | London. |
| ,, | E. G. Ffrench, M.D., F.R.C.S.Edin. | — | | Ahmednagar. |
| ,, | F. W. Lambelle, M.B. | York | ... | India. |
| ,, | C. G. Thomson | Amritsar | ... | Ambala. |
| ,, | S. M. Adye-Curran | Fermoy | ... | Sialkot. |
| ,, | A. B. Smallman, M.B. | Quetta | ... | E. Command. |
| ,, | W. F. Ellis | Lahore | ... | N. Command. |
| ,, | A. H. Hayes | Dover | ... | York. |
| ,, | J. W. S. Seccombe | Jullundur | ... | Jhansi. |
| ,, | J. E. H. Gatt, M.D. | Cosham | ... | India. |
| ,, | D. Ahern | Limerick | ... | Cairo. |
| ,, | G. A. Kempthorne | Dalhousie | ... | Piershill. |
| ,, | J. T. McEntire, M.B. | Irish Commd. | | Newcastle. |
| ,, | M. C. Wetherell, M.D. | Sialkot | ... | Meerut. |
| ,, | C. H. Turner | Murree | ... | Newbridge. |
| ,, | G. E. Cathcart | Warrington | ... | Preston. |
| ,, | S. C. Bowle | Deolali | ... | Winchester. |
| ,, | H. T. Wilson | Barian | ... | S. Command. |
| ,, | R. C. Hallowes, M.B. | Cairo | ... | Dundalk. |
| ,, | K. A. C. Doig | Cosham | ... | Hilsea. |
| ,, | L. V. Thurston | Khanspur | ... | Irish Commd. |
| ,, | A. W. Gater | Murree | ... | ,, |
| ,, | J. P. Lynch | Ranikhet | ... | Canterbury. |
| ,, | E. G. R. Lithgow | Aden | ... | Sheerness. |
| ,, | R. E. Humfrey, M.B. | Nasirabad | ... | Ferozepore. |
| ,, | T. Scatchard | Kailana | ... | Ranikhet. |
| ,, | E. L. Moss | Ranikhet | ... | Bareilly. |
| ,, | W. C. Nimmo | Fyzabad | ... | Chakrata. |
| ,, | H. Stewart, M.B. | Upper Topa | ... | Ferozepore. |
| ,, | W. R. Galwey, M.B. | Dalhousie | ... | Lahore. |
| ,, | W. Egan, M.B. | Multan | ... | Rangoon. |
| ,, | F. Forrest | Ambala | ... | Bangalore. |
| ,, | A. S. Williams | Dum Dum | ... | Dinapore. |
| ,, | R. E. U. Newman, M.B. | Kuldanna | ... | Rawal Pindi. |
| ,, | A. H. Bond | Naini Tal | ... | Bareilly. |
| ,, | D. de C. O'Grady | Barian | ... | Rawal Pindi. |
| ,, | L. G. Gibson | Dagshai | ... | Amritsar. |
| ,, | J. H. Spencer, M.B. | Gibraltar | ... | Ambala. |
| ,, | A. C. Amy, M.B. | Ranikhet | ... | Meerut. |
| ,, | W. Mitchell, M.B. | Sabathu | ... | Ambala. |
| ,, | E. J. Elliot, M.B. | Tientsin | ... | York. |
| ,, | D. Coutts, M.B. | Cawnpore | ... | Allahabad. |
| ,, | J. A. Bennett, M.B. | Indore | ... | Mhow. |
| ,, | C. W. Bowle | Dalhousie | ... | Multan. |
| ,, | W. F. M. Loughnan | Amritsar | ... | Bareilly. |
| ,, | J. J. O'Keeffe, M.B. | Hyderabad | ... | Roorkee. |
| ,, | E. J. Kavanagh, M.B. | Ranikhet | ... | Delhi |
| ,, | A. H. Jacob | Gharial | ... | Rawal Pindi. |
| ,, | O. C. P. Cooke | Khandalla | ... | Deolali. |

| | | FROM | | TO |
|---|---|---|---|---|
| Captain | F. H. M. Chapman | Darjeeling | ... | Calcutta. |
| ,, | J. E. M. Boyd | Dalhousie | ... | Ferozepore. |
| ,, | M. O. Wilson, M.B. | Bareilly | ... | Ambala. |
| ,, | J. du P. Langrishe, M.B. | Poona | ... | Kirkee. |
| ,, | A. C. Elliott, M.B. | Kalabagh | ... | Rawal Pindi. |
| Lieutenant | G. F. Dawson, M.B. | Chakrata | ... | Meerut. |
| ,, | J. B. Hanafin, F.R.C.S.I. | Kalabagh | ... | Attock. |
| ,, | J. A. Renshaw | Cherat | ... | Bangalore. |
| ,, | D. B. McGrigor, M.B. | Quetta | ... | Karachi. |
| ,, | J. C. L. Hingston | Bangalore | ... | Madras. |
| ,, | A. E. B. Jones, M.D. | Shwebo | ... | Maymyo. |
| ,, | A. Hendry, M.B. | Indore | ... | Mhow. |
| ,, | F. B. Dalgliesh | Mhow | ... | Indore. |
| ,, | A. L. Foster | Kyra Gali | ... | Rawal Pindi. |
| ,, | T. S. Eves, M.B. | Lebong | ... | Lucknow. |
| ,, | D. S. Buist | Pontypridd | ... | Netley. |
| ,, | G. G. Collet, M.B. | — | | Kasauli. |
| ,, | T. B. Nicholls, M.B. | Tidworth | ... | Cairo. |
| ,, | J. B. Jones, M.B. | Lucknow | ... | Muttra. |
| ,, | T. J. Mitchell, M.B. | Rawal Pindi | ... | Lahore. |
| ,, | F. H. Somers-Gardner, M.B. | Pontypridd | ... | Cosham. |
| ,, | D. H. C. MacArthur, M.B. | Rawal Pindi | ... | Ambala. |
| ,, | H. Gall | ,, | | Jullundur. |
| ,, | C. H. O'Rorke, M.B. | Curragh | ... | Newbridge. |
| ,, | A. W. Byrne, M.B. | Rawal Pindi | ... | Lahore. |
| ,, | A. T. J. McCreery, M.B. | Birmingham | ... | Bulford. |
| ,, | S. S. Dykes, M.B. | Edinburgh | ... | Glencorse. |
| ,, | A. D. Stirling, M.B. | Piershill | ... | ,, |
| ,, | J. J. D. Roche, M.B. | Dundalk | ... | Belfast. |
| ,, | H. R. Edwards | Woolwich | ... | Guildford. |
| ,, | J. R. Yourell, M.B. | Athlone | ... | Belfast. |
| ,, | R. C. G. M. Kinkead, M.B. | Buttevant | ... | Cork. |

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Medical Electrician.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARRA PARISH. — Medical Officer. Salary, £125, and £40 from other public offices.

BIRMINGHAM PARISH INFIRMARY.—Assistant Resident Medical Officer. Salary £104 per annum.

BRADFORD: ROYAL EYE AND EAR HOSPITAL.—Lady Resident. Salary, £80 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Assistant House-Surgeon (male). Salary, £60 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE: CUMBERLAND INFIRMARY. — Resident Medical Officer (male), to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CARMARTHEN INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary at the rate of 100 guineas per annum.

DERBY COUNTY BOROUGH EDUCATION COMMITTEE.—School Medical Officer. Salary, £250 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) House-Surgeon (male). Salary, £75 per annum. (2) Officer for the Electrical Department.

EDINBURGH ROYAL INFIRMARY.—Superintendent. Salary commencing at £600 per annum.

FIFE COUNTY EDUCATION COMMITTEE - Assistant School Medical Officer. Salary, £250 per annum, increasing to £300.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

HULL ROYAL INFIRMARY.—(1) Assistant House-Surgeon. Salary, £100 per annum (2) Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, or £80 for twelve months

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

KING EDWARD VII MEMORIAL SANATORIUM FOR SHROPSHIRE.—Resident Medical Officer. Salary, £200 per annum.

KIRKBEAN AND COLVEND JOINT PARISHES.—Medical Officer. Salary, £70 per annum

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer Salary, £65 per annum

LEITH HOSPITAL. Outdoor Visiting Surgeon. Salary at the rate of £100 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL. — (1) Three House-Surgeons. (2) Two House-Physicians. Salary at the rate of £60 per annum each.

LONDON FEVER HOSPITAL, Liverpool Road, N.—(1) Physician; (2) Assistant Physician.

LONDON SCHOOL OF TROPICAL MEDICINE.—Craggs's Research Prize, value £50.

MAIDENHEAD: EAST BERKS UNITED DISTRICTS. — Medical Officer of Health, School Medical Officer, and Medical Superintendent of the Isolation Hospital. Combined salary, £475 per annum.

MANCHESTER: ANCOATS HOSPITAL.—(1) Assistant House Surgeon. (2) Anæsthetist. Salary, £70 and £40 per annum respectively.

MIDDLESEX HOSPITAL, W.—Richard Hollins Scholarship in the Cancer Research Laboratories, value £100 per annum.

NAZARETH MISSION HOSPITAL.—House-Surgeon. Salary, £80 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Honorary Assistant Anaesthetist.

ROYAL HOSPITAL POR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Obstetric Physician to Out-patients.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Honorary Assistant Medical Officer.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

SHREWSBURY: SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

STREET TUBERCULIN DISPENSARY.—Second Assistant (female).

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 per annum.

TOWER HAMLETS DISPENSARY, Whitehorse Street, Stepney, E.—Resident Medical Officer. Salary, £100 per annum, rising to £120.

WALSALL AND DISTRICT HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. (1) Honorary Surgeon. (2) Junior House-Surgeon; salary at the rate of £80 per annum.

WORCESTER COUNTY ASYLUM, Powick.—Third Assistant Medical Officer. Salary commencing at £140 per annum.

WREXHAM BOROUGH.—Medical Officer of Health and School Medical Officer. Salaries, £80 and £50 per annum respectively.

WREXHAM RURAL DISTRICT COUNCIL.—Medical Officer of Health. Salary, £300 per annum, and £70 as Medical Superintendent of Fever Hospital.

## APPOINTMENTS.

ADDIS, Thomas, M.D.Edin., Medical Registrar to the Leith Hospital.

ALCOCK, G. H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Creech St. Michael District, co. Somerset.

ALDRIDGE, Norman E., M.B., D.P.H., Medical Officer in charge of the *X*-Ray Department at the Royal Hampshire County Hospital, Winchester.

BEALE, Peyton T. B., F.R.C.S., Consulting Surgeon to the Great Northern Central Hospital.

CAMPBELL, A. Sydney, M.B., Ch.B., L.R.C.P., Medical Officer to the Post Office at Dundee, vice Alexander Campbell, M.D., F.R.C.S.E., retired.

CHAPPLE, Harold, B.C., F.R.C.S., B.Sc., Clinical Assistant to the Chelsea Hospital for Women.

CLARKE, William Bruce, F.R.C.S., Medical Referee under the Workmen's Compensation Act for the County Court Circuit No. 42, vice A. Benthall, F.R.C.P.Edin., M.R.C.S.Eng., resigned.

CREAN, F. S., L.R.C.P. and S.I., Assistant Medical Officer of the Bermondsey Union Infirmary.

CUNLIFFE, Ernest Nicholson, M.D., Medical Referee under the Workmen's Compensation Act for County Court Circuits Nos. 7 and 8, to be attached more particularly to Salford and Manchester County Courts, vice Dr. S. Buckley, deceased.

DAKIN, T. B., M.R.C.S., L.R.C.P., Medical Officer of the Henley Union District and Workhouse.

DAVIDSON, Patrick Moir, L.R.C.P., Medical Referee under the Workmen's Compensation Act for County Court Circuit No 9, to be attached more particularly to Macclesfield and Congleton and Sandbach County Courts, vice J. T. W. Baird, M.B., C.M.Edin., deceased.

DOTTRIDGE, Ch., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

HARTLEY, Harold, M.D., B.S.Lond., M.B., Ch.B.Manch., F.R.C.S.Eng., Honorary Assistant Surgeon to the North Staffordshire Infirmary.

HAY, Percival J., M.D., Medical Referee under the Workmen's Compensation Act for County Court Circuit No. 16, with a view to being employed in ophthalmic cases which may arise.

HEWER, H. M., M.B., C.M.Edin., District Medical Officer of the Market Bosworth Union.

HUSSEY, J., M.D.Lond., Medical Officer of the Farnham Union District and Workhouse.

HUTCHINSON, J. R., M.B., Medical Officer of Health of the County Borough of Wigan.

JOHNSON, G. W., M.A., M.B., B.S., House-Physician to University College Hospital.

JORDAN, Rose F., M.B., B.S.Lond., House-Surgeon of Birmingham Lying-in Charity and Maternity Hospital.

JOULE, J., L.R.C.P.I., L.S.A., District Medical Officer of the Warminster Union.

MACDONALD, D. M., M.D., M.R.C.P.E., Surgeon to the Admiralty, Leven, Fife.

MCEWAN, P., M.A., M.B., Ch.B., F.R.C.S.Edin., Honorary Assistant Surgeon to the Bradford Royal Infirmary, vice James Phillips, F.R.C.S.Edin., promoted.

MALIM, J. W., M.B., B.C.Camb., Honorary Anaesthetist to the Harrogate Infirmary.

ORAM, Walter C., M.D., D.P.H., Physician in Charge of the Light Department, Northern Hospital, Liverpool.

PARKER, R. P., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer of the Oldham Union Workhouse.

PARKINSON, John, M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Registrar to the London Hospital.

PATTISON, C. R. M., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Ballyward District, co. Down.

PEARCE, Frank J., L.D.S., Assistant Dental Surgeon to Guy's Hospital.

PIRIE, J. H. Harvey, B.Sc., M.D., F.R.C.S.E., Assistant Pathologist to the Edinburgh Royal Infirmary.

POLE, L. W., M.B., Ch.B.Edin., D.P.H., Medical Officer of Health of the County of Radnor.

RADCLIFFE, F., M.D.Vict., Visiting Surgeon to the Oldham Union Infirmary.

REES, William Rees, M.R.C.S., L.R.C.P., D.P.H., Medical Officer of Health, Cardiganshire County Council.

REYNOLDS, Wm., M.R.C.S.Eng., L.R.C.P.Lond., House-Surgeon at the Royal Isle of Wight County Hospital, Ryde.

RUTHERFOORD, H. E., M.D.Dubl., Honorary Assistant Physician to the Chester General Infirmary.

SKINNER, E. W., M.D.Edin., District Medical Officer of the Rye Union.

SMITH, C. W., M.B.Lond., Certifying Factory Surgeon for the Sheffield (Hillsborough) District, co. Yorks.

STONEHOUSE, G., L.R.C.P. and S.Edin., District Medical Officer of the Haltwhistle Union.

SWINDELLS, R. H., M.B., Assistant Medical Officer of the Fulham Union Infirmary.

TASKER, L. S. B., M.B., B.S., House-Surgeon at the Evelina Hospital for Sick Children, Southwark Bridge Road, S.E.

THOMSON, Herbert Campbell, M.D., Medical Referee under the Workmen's Compensation Act for the County Court Circuit No. 40, vice A. Benthall, F.R.C.P.Edin., M.R.C.S.Eng., resigned.

TUKE, A. L. S., M.B., C.M.Edin., Certifying Factory Surgeon for the Dunfermline District, co. Fife.

WILLIAMS, J. McG., M.B., R.U.I., Resident Assistant Medical Officer of the Stockport Union Hospital.

WORTH, F. J., M.D.Durh., Medical Officer of Health for the Basingstoke Rural District.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

HALL.—On February 24th, at 29, Brunswick Square, Hove, Brighton, the wife of Donald G. Hall, M.A., M.D.Cantab., M.R.C.P.Lond., of a son.

HOLLAND.—In Edinburgh, on the 23rd February, the wife of Dr. H. T. Holland, Quetta, of a son.

MCLANNAHAN.—On February 21st, at The Mount, Stonehouse, Gloucestershire, the wife of James Gunn McLannahan, L.R.C.P., L.R.C.S.I., of a son.

### DEATH.

SHAW.—On February 28th, at Middleton Cottage, Southport, Edmund Shaw, M.D., in his 82nd year. No flowers, by his own request.

## PUBLISHERS' ANNOUNCEMENTS.

SOME of our readers will be interested by the announcement that Messrs. J. and A. Churchill will shortly publish a work entitled *The Principles of Aëroplane Construction*, by Rankin Kennedy, C.E., author of numerous works on engineering. The book is illustrated by fifty-one diagrams. This work is intended to show the principles of the aëroplane as applied to flying machines, and to put in as concise a form as possible the theory of the aëroplane.

## RECENT PUBLICATIONS.

*Proceedings of the Conference of Health-promoting Institutions. London, 1910.* London: P. S. King and Son. (Cr. 8vo, pp. 286, 1s.; post free 1s. 2d.)

These proceedings include discussions on schools for mothers, infants' welfare schemes abroad, day nurseries, and care committees, the aims and opportunities of health societies, and the co-ordination of health-promoting agencies. The appendix contains a report on existing schools for mothers and similar institutions, with a directory of such schools.

## DIARY FOR THE WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor K. W. Goadby: The Association of Diseases of the Mouth with Rheumatoid Arthritis and certain other forms of Rheumatism.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m. Second Milroy Lecture by Dr. A. E. Boycott: Ankylostoma Infection.

### WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Papers:—Mr. James Sherren: The Diagnosis of Gall Stones. Dr. H. L. Tidy: Arsenic Poisoning.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Papers:—Lieutenant-Colonel P. J. Freyer, I.M.S. (ret.): The symptoms and modern methods of diagnosis of Stone in the Kidney, Ureter, or Bladder. Colonel H. Hathaway, A.M.S.: Ambulance Transport.

### THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Discussion on Colitis, to be opened by Dr. Sidney Phillips and Mr. D'Arcy Power, F.R.C.S.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, W., 8 p.m.—The following card specimens will be shown at 8 p.m.:—Mr. Grimsdale: Crystalline Opacities in the Cornea; two patients in the same family. Mr. W. H. Bralley: A Fixation Speculum. Mr. F. A. Juler: Microscopical sections of Neoplasm involving the Iris, from a case shown on November 10th. The President will take the chair at 8.30 p.m. Papers:—Dr. Hill Griffith: Three cases of Optic Nerve Tumour. Mr. Johnson Taylor: A Morgagnian Cataract Operation, remarks. Mr. Frank Thomas and Mr. George Coats: A peculiar Granuloma of the Retina.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Milroy Lecture by Dr. A. E. Boycott: Ankylostoma Infection.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Dr. Lediard (Carlisle): Benign (Bone) Cyst of Tibia. Dr. James Collier and Mr. P. Lockhart Mummery: Tabes Dorsalis with very early Rectal Crises. Mr. R. J. Godlee: Two unusual cases of Disease of the Thyroid Gland. Mr. Arthur Evans and Dr. C. H. Pring: Partial Removal of the Thyroid Gland in Graves's Disease. Dr. Leonard Guthrie: Congenital, hereditary, familial Pes Cavus; and other cases. Mr. Arthur Evans: Report on the subsequent history and present condition of a case of Excision of the Larynx (shown November 12th, 1909).

## POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday and Friday, 3.45 p.m., Pharynx and Nasopharynx.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., General Conditions of Joint Diseases, Injuries, Inflammation and its Varied Etiology, Haemophilia, Scurvy; Thursday, 4 p.m., Conjunctivitis in Children; Friday, 5.15 p.m., Relationship of Diseases of Epiphyses, Bursae, Tendon Sheaths to Joint Diseases.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., Intussusception; Friday, 3.15 p.m., Operative Treatment of Fractures (Balopticon Demonstration).

MANCHESTER: ANCOATS HOSPITAL.—Post-graduate Lecture, Thursday, 4.15 p.m., Prolapsus Uteri.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Pruritus; Tuesday, Treatment of Syphilis bearing on the Results obtained by Ehrlich's "606"; Wednesday, Heart Disease in Middle Age; Thursday, The Vasomotor Factor in the Causation and Treatment of High Blood Pressure.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Disseminated Sclerosis; Friday, 3.30 p.m., Progressive Muscular Atrophy.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Haemorrhoids and their Treatment. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: The Bacteriology of the Conjunctiva.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Thursday, 6 p.m., Chesterfield Lecture, The Limitation of the "606" Treatment.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements—Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m. Lectures at 5 p.m.: Monday, Some common forms of Eye Disease and their Treatment; Tuesday, Heredity and its Physical Bases; Wednesday, Practical Medicine (Lecture VI); Thursday, Gynaecological or Obstetrical Section; Friday, The Treatment of Acute and Chronic Urethritis.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MARCH.** | |
| 8 WEDNESDAY | LONDON: Regulations and Standing Orders Subcommittee, 12.15 p.m.<br>SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also of Branch Council and Local Division, Club House, Carlow, 5.30 p.m. |
| 9 THURSDAY.. | ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Brooklands Hotel, 4.30 p.m.<br>WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Grove Hall, Grove Road, Wanstead, 4 p.m. |
| 10 FRIDAY .. | BRIGHTON, EASTBOURNE, TUNBRIDGE WELLS, AND HASTINGS DIVISIONS, *South-Eastern Branch*, Conjoint Meeting, Sackville Hotel, Bexhill-on-Sea, 5 p.m.; Tea, 4.30 p.m.; Dinner, 6.45 p.m.<br>KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4.30 p.m.<br>TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Athenaeum, Muswell Hill, 4 p.m. |
| 11 SATURDAY .. | |
| 12 Sunday .. | |
| 13 MONDAY .. | |
| 14 TUESDAY .. | LONDON: Medical Inspection and Treatment of School Children Subcommittee, 3 p.m.<br>WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4 p.m. |
| 15 WEDNESDAY | RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m.<br>YORKSHIRE BRANCH, Huddersfield Infirmary, 4.15 p.m.; Dinner, 6.30 p.m. |
| 16 THURSDAY .. | BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.<br>LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 17 FRIDAY .. | |
| 18 SATURDAY .. | |

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LIBRARY OF THE UNIVERSITY OF ILLINOIS

SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 11TH, 1911.

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# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## BIRMINGHAM BRANCH.

THE fifth ordinary meeting of this Branch was held on February 16th at the Medical Institute. Professor GILBERT BARLING presided over an attendance of forty members.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, confirmed, and signed.

*Birmingham and District Provident Dispensary.*—The following were elected representatives of the Branch on the committee of the Birmingham and District Provident Dispensary: Drs. E. D. Kirby, W. Murray, H. Whittome, W. McCall, James Neal, and Henton White, and Mr. Albert Lucas.

*Specimens.*—Dr. PURSLOW showed a uterus with adeno-carcinoma of the body, which he had removed by the abdominal route from a multipara, 36 years of age, who gave a history of several floodings during the eleven months previous to operation. The uterus was enlarged to the size of a three-months gestation and its cavity was filled with a solid growth. The diagnosis had been confirmed by microscopical examination. The unusual feature of the case was the age of the patient, as corporeal uterine cancer is said to be rarely met with in women under 45 years of age. Mr. SEYMOUR-JONES showed a case of actinomycosis.

*Papers.*—Dr. THOMAS WILSON read a paper on the suprapubic transverse incision. This was discussed by Dr. PURSLOW, Mr. J. FURNEAUX JORDAN, Mr. BECKWITH-WHITEHOUSE, Mr. GEORGE HEATON, and the PRESIDENT. Dr. THOMAS WILSON replied. Mr. E. DEANESLY read a paper on some practical points in operating on the kidney and ureter. This was discussed by Mr. BERNARD J. WARD and the PRESIDENT. Mr. DEANESLY replied.

## BOMBAY BRANCH.

A MEETING of this Branch was held in the University Library on December 14th, 1910, Dr. SORAB K. NARIMAN in the chair. The following members were also present: Drs. N. H. Choksy, J. M. Meher-Homji, M. B. Patel, D. P. Sethna, Sorab K. Engineer, A. P. Bacha, D. Nayak, J. B. Mama, H. N. Anklesaria, N. Vazifdar, B. P. Karani. Lieutenant-Colonel W. E. Jennings, I.M.S., E. E. Madon (a guest), and the Honorary Secretary, Dr. D. R. Bardi. Half an hour was spent in social intercourse, when the members were entertained to tea.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

*Serum Treatment of Plague.*—Dr. SORAB K. ENGINEER read a paper on the serum treatment of plague. He said nothing was so good as a preventive as Haffkine's prophylactic. He had used it more than seven times, and so far had not observed any bad after-effects. As curative agents, all sorts of medicines, from aq. destill. to the most complex drugs of the *British Pharmacopoeia*, had been tried by men of experience. Plague Commissions from different parts of Europe had come to Bombay to investigate the disease, and different serums had been invented. The results of these were not encouraging. A new one was produced by the Paris Pasteur Institute, called the antipest serum. He had tried this serum hypodermically in some cases, and he gave his conclusions as follows: Of 7 cases treated during one epidemic, 4 recovered and 3 died. The cases which proved fatal were hopeless from the beginning; in 1 case there were three buboes, and the remaining 2 came for treatment thirty-six to forty-eight hours after the onset. If the serum was to be used it must be within twenty-four hours of the onset of the disease. During the same epidemic 12 were treated with medicine; only 2 recovered. Dr. Engineer said that in most cases 40 to 60 c.cm were injected for the first time instead of 100 c.cm. because he was of opinion that the patients could not bear a single dose of 100 c.cm. In some cases a red areola appeared at a distance of 3 in. to 8 in. from the point of injection. This faded away in six to eight days. The injection of 40 to 100 c.cm. in one place at a time caused a swelling at the site of injection. The constant application of an icebag reduced this in thirty-six to forty-eight hours. He recommended that a bubo should never be incised until it was soft in the centre, because at the beginning of the attack a bubo was so painful that even gentle passing of the hand over it caused the patient great agony. The pus was generally in thick, creamy drops. Lastly, he recommended that fashionable cardiac tonics should never be used. Those of the *British Pharmacopoeia* were quite satisfactory, notably strychnine, digitalis, and strophanthus. Lieutenant-Colonel W. E. JENNINGS, I.M.S., in starting the discussion, considered that the cases quoted had not advanced the only claim so far put forward for serum-therapy—namely, that it was undoubtedly efficacious in mild cases taken in hand very early. His own experience had led him even to accept that

claim with reserve, for when he had control of railway medical inspection camps, in which most cases were received for treatment in the early stages, about 60 per cent. of the mild cases recovered without serum-therapy, and he doubted whether that treatment had affected mortality more favourably. He was strongly in favour of continuing experiments on a large scale, as there were some points—for instance, in mitigation of suffering—which led him to think that past results were encouraging. Khan Bahadhur Dr. N. H. CHOKSY said that, subsequent to what he had to relate at the Bombay Medical Congress of 1909, fresh investigations had been undertaken at the Maratha Plague Hospital, by the Plague Research Commission. As the subject was still *sub judice*, all that he could state on the present occasion was that the discordant results hitherto recorded by various observers on the utility of the serum treatment of plague were mainly due to one vital and important factor, namely, septicaemia. It was noticed that recently 60 per cent. of cases of the bubonic type that appeared clinically favourable for observation for serum treatment or to act as controls, were found on blood examination to be septicaemic. It was therefore the extent and intensity of the septicaemia that controlled and determined the eventual success or failure of serum-therapy in plague. In these observations all moribund, convalescent, and semiconvalescent patients were excluded, and so also all those who had gone over five days of illness. Alternate cases from those remaining were taken for serum and control. Blood examination showed that these cases were divisible into four groups:

(*a*) Sterile.
(*b*) Septicaemic + = (10 colonies on agar from $\frac{1}{4}$ c.cm. of blood).
(*c*) Septicaemic + + = (10–100 colonies on agar from $\frac{1}{4}$ c.cm. of blood).
(*d*) Septicaemic + + + = (over 100 colonies on agar from $\frac{1}{4}$ c.cm. of blood).

The serum (Yersin's) was applied subcutaneously and intravenously, and the effects were watched by daily blood examinations for six days. It was noticeable that, although septicaemic cases with + + and + + + lived rather longer than similar controls, and the septicaemia became greatly reduced, or even temporarily absent, the eventual result was the same—fatal, no matter what the amount and frequency of the serum injections. In the control cases, however, the degree of septicaemia either persisted or increased, but in no instance was it found to be reduced. In sterile cases under serum treatment no septicaemia developed during treatment, whereas some control cases showed septicaemia, thus indicating that the application of the serum had prevented septicaemia. Similarly, in those septicaemic cases with + under serum, there was no further progress, whereas among the controls it often increased to + +, or even + + +. The above observations, therefore, established the fact that the early application of the serum forestalled a septicaemia, and that if present within moderate limits—that is, (+), it controlled it and prevented further increase. As to the final results, the + + and + + + septicaemic cases, whether under serum treatment or controls, all proved fatal. The sterile and + cases showed lower mortality amongst the serum group as compared with the control, and, strange as it might appear, the difference was greater in the + group. That might be due to the smaller number treated under + as compared with the sterile group. It was practically impossible to determine clinically whether a patient was septicaemic or not. The indications and symptoms had been clearly detailed in the paper on septicaemia at the Bombay Medical Congress. Still there remained a group of cases with apparently the most favourable clinical outlook—namely, moderate temperature, fair pulse, mind clear, total absence of nervous prostration, or any other signs of grave toxaemia, and yet blood examination revealed profound septicaemia, and death soon supervened. It appeared, therefore, that, so long as blood examination was not undertaken as a matter of routine in plague treatment, they would simply be groping in the dark. The after-effects of the serum treatment—the serum disease—had been already described by the speaker, and its preventive and curative treatment laid down. As to the prophylactic application of Yersin's serum, Dr. Choksy had used it in a number of cases in doses of 10 c.cm., and it had proved efficacious; the duration of immunity conferred is from ten to twelve days; and he had had under observation one case in which the patient developed plague thirteen days after inoculation with it; but he remained all throughout in the infected premises where dead and dying rats had been daily found. Dr. SORAB K. NARIMAN gave his experience gained as physician in the Parsee Plague Hospital, where in one season he had tried serum in 9 cases, 5 of which recovered and 4 died; and of the 12 controls (clinical) 8 recovered and 4 died. This is published in his report of 1907.

*Votes of Thanks.*—After a vote of thanks to Dr. Sorab Engineer for his interesting paper and to Dr. Choksy for his interesting remarks, as well as one to the Chairman, the meeting was dissolved.

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## BORDER BRANCH, SOUTH AFRICA.

THE annual meetings of the Branch and the Division and a meeting of the Council were held at East London, Cape Colony, on January 28th.

*Election of Branch Officers.*—The following were elected officers of the Branch for the ensuing year: *Honorary Secretary, Treasurer, and President-elect*, Dr. C. J. Lownds; *Council*, Drs. Alexander, Grey, Ganteaume, MacGregor, Miller, Nangle, Paisley, Robertson (Cathcart), Roulston, Skinner, and Sutton. Drs. Seale and Uppleby were appointed auditors.

*Election of Officers of the Division.*—The following were elected officers of the Division for the ensuing year: *Chairman*, Dr. MacGregor; *Vice-Chairman*, Dr. Lownds: *Honorary Secretary and Treasurer*, Dr. Anderson; *Committee*, Drs. Grey, Alexander, Nangle, Skinner. Ganteaume, and Sutton.

*New Members.*—The following two gentlemen were elected members of the Association: Drs. Walter C. C. Pakes, Sydenham, O.R.C., and Fred. Chas. Julius Fulss, District Surgeon, Aliwal North.

*Ethical Rules.*—It was decided to vote on the question of the adoption of the ethical rules of the Association at the next meeting of the Division.

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## EDINBURGH BRANCH.

THE winter clinical meeting of the Edinburgh Branch was held in the Royal Infirmary, Edinburgh, on Friday, February 24th, and was attended by over 150 members.

*Museum.*—The museum was exhibited in Ward 4, under the personal supervision of Mr. E. Scott Carmichael. It proved a great attraction, and was much appreciated by town and country members. An excellent exhibition of *x*-ray photographs was given by Drs. EDMUND PRICE and ARCHIBALD MCKENDRICK, illustrating fractures and diseases of bone. Dr. CRANSTON LOW and Miss RAE, as on former occasions, exhibited a new series of casts representing in a life-like manner various diseases of the skin. An unusually large collection of pathological specimens were exhibited, illustrating surgical and medical diseases, by Mr. COTTERILL, Professor CAIRD, Mr. H. J. STILES, Mr. CATHCART, Mr. WALLACE, Mr. MILES, Mr. GEORGE CHIENE, Mr. S. W. STRUTHERS, Mr. SCOTT CARMICHAEL, Mr. HENRY WADE, Mr. D. P. WILKIE, Mr. BEESLY, and Mr. BALFOUR PAUL, as well as by Drs. BARBOUR, FORDYCE, WATSON, KEAY, FLEMING, COMRIE, HARVEY PIRIE, LOVELL GULLAND, DRENNAN, CARNEGIE DICKSON, LAMOND LACKIE, JAMES MILLER, and Drs. GARDINER, CHALMERS WATSON, and FARQUHARSON. A complete microscopic demonstration, showing normal and pathological conditions of the inner ear, was given by Dr. J. S. FRASER.

*Demonstrations.*—During the forenoon clinical demonstrations were given by Mr. J. W. DOWDEN on venereal diseases in the Lock Department; gastric cases by Dr. WM. RUSSELL (the President), in Ward 27; treatment of fractures, by Mr. HENRY WADE, in the

out-patient theatre; as well as a demonstration on *x*-ray photographs and electrical therapeutics, by Dr. HOPE FOWLER, in the Electrical Department. In the afternoon Dr. NORMAN WALKER demonstrated various cases illustrating diseases of the skin. Ear and throat cases were shown by Dr. LOGAN TURNER and Dr. FARQUHARSON, and cases illustrating diseases of the eye by Dr. GEORGE MACKAY. Dr. WEBSTER showed the modern methods of hydro-therapeutics and electro-therapeutics in the Medical Baths, Minto Street.

*Clinical Meeting.*—This was held in the Extramural Clinical Medicine Theatre at 4 p.m.; Dr. WILLIAM RUSSELL (President) in the chair. There was a large attendance. Mr. COTTERILL, Professor CAIRD, Mr. STILES, Mr. WALLACE, Mr. MILES, Mr. STRUTHERS, Mr. CHIENE, Mr. WADE, Mr. BEESLY, and Mr. WILKIE showed cases after operative treatment, showing results in all branches of surgery. Dr. BYROM BRAMWELL, Dr. G. A. GIBSON, Dr. R. W. PHILIP, Dr. R. A. FLEMING, Dr. CHALMERS WATSON, Dr. W. T. RITCHIE, Dr. LOW, and Dr. GARDINER presented cases of much interest, showing effects of treatment in pernicious anaemia, Raynaud's disease, tuberculous diseases, gastric cases, heart-block, and skin diseases.

*Dinner.*—The members dined together in the Royal British Hotel, Princes Street, at 6.30, about fifty members being present, many being unavoidably prevented from attending at the last minute. The PRESIDENT (Dr. Wm. Russell) was in the chair. Dr. MATHESON, Dr. JOHN THOMSON, and Dr. T. R. RONALDSON acted as croupiers, and a very successful evening was spent. Apologies for absence were read by the Senior Secretary from Dr. Hamilton (Hawick), Dr. Blair (Jedburgh), Dr. J. W. Ballantyne (Edinburgh), Dr. Cruickshank (Nairn), Dr. Balfour Graham (Leven), Dr. Dawson Turner (Edinburgh), Sir Thomas Fraser (Edinburgh), Dr. Buist and Dr. Lowe (Dundee), Dr. Laing (Arbroath), Dr. Bird (Carlisle), Dr. Carlyle Johnstone (Melrose), Colonel Warburton, Dr. Gordon (Aberdeen), Dr. Munro Moir (Inverness), Dr. Macfarlane (Glasgow), Dr. Douglas (Cupar). The guests present were: Rev. Dr. Borland (Yarrow), Dr. Ashley Macintosh (Aberdeen), Dr. Norman Walker and Mr. Hodsdon, Dr. Strachan (Dollar), Dr. Taylor (Perth), Dr. Dow (Dunfermline), Dr. Marshall (Rothesay), Dr. Livingstone (Dumfries). The toast of "The British Medical Association" was given by the Rev. Dr. BORLAND (Yarrow) and replied to by Dr. MICHAEL DEWAR (Senior Secretary). Dr. EASTERBROOK proposed the toast of "The Guests," coupled with the names of Dr. Marshall (Rothesay) and Mr. Hodsdon. The health of the President was proposed by Dr. ASHLEY MACINTOSH (Aberdeen) in a laudatory speech. At intervals, Dr. Alex. James, Dr. George Mackay, and Dr. Hamilton sang songs, which were much appreciated. A most successful meeting was brought to a close with the toast of "Floreat Res Medica."

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## METROPOLITAN COUNTIES BRANCH:

### GREENWICH DIVISION.

THE fourth meeting of the Division was held at the Lewisham Infirmary on January 26th, Dr. C. J. PARKE in the chair. There were present thirty-three members and three visitors.

*Apologies for Non-attendance.*—Letters of regret at their inability to be present were read from Dr. Burton and Dr. Toogood.

*Confirmation of Minutes.*—The minutes of the previous meeting were confirmed and signed.

*Fees for Medical Examination for Life Insurance.*—The fees offered by various insurance companies were discussed, and the following resolutions put to the meeting and carried:

1. That the minimum fee for a full examination, including the examination of the urine, should be 10s. 6d.
2. That the various insurance companies be notified of this resolution.
3. That a copy of this resolution be sent to every medical practitioner resident in the Division, together with an inquiry as to whether he will support the action of the Division.

*Ophthalmia Neonatorum.*—The SECRETARY reported that the sanitary authorities at Lewisham and Greenwich had decided to make this disease notifiable.

*Medical Practitioners called in to Examine other Doctors' Patients.*—The Central Ethical Committee's interim report on the position of medical practitioners called upon to examine (otherwise than by request of the patient or persons acting on his behalf) patients who are under the care of other practitioners was discussed, and the following resolution passed:

That the suggested rules be approved by the Division, and that the Medical Secretary be notified of the same.

*Instruction in First Aid, Hygiene, and Kindred Subjects.*—In regard to this matter no action was taken.

*Rules for District Nursing Associations.*—In regard to this matter no action was taken.

*Report of Hospitals Committee.*—This report, having been printed and circulated among the members previous to the meeting, was considered, and the following resolutions passed:

1. That no further steps be taken, except with reference to the Miller Hospital, pending the appearance of the report now being prepared by the Committee of the King's Hospital Fund. In the event of this inquiry being considered unsatisfactory the Secretary to have power to call the committee of the Division together and reopen the question.
2. That a circular letter be sent to the medical practitioners in the neighbourhood of the Miller Hospital, asking for replies to the following questions:
   (1) Do you know of any cases of the out-patient department of the Miller Hospital being used by persons in a position to pay for the treatment required?
   (2) Do you know of any cases of similar abuse of the maternity department of the Miller Hospital?

*Vote of Thanks.*—The meeting concluded with a vote of thanks to the Chairman, and also to Dr. Toogood for his hospitality.

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### WANDSWORTH DIVISION.

A MEETING of the Division was held at the Wandsworth Town Hall on Friday, February 24th, at 8.45 p.m., Dr. GAY in the chair.

*Confirmation of Minutes.*—The minutes of the meeting on January 26th, having been printed in the SUPPLEMENT to the JOURNAL of February 18th, and no objections having been received by the Secretary, were approved as correct.

*Therapeutic Uses of Physical Exercises.*—Mr. TIMBERG, Superintendent of the Physical Exercise Department at St. Thomas's Hospital, then read a most interesting and instructive paper on physical exercises and their therapeutic uses, and gave a practical demonstration of the way the exercises should be carried out. After Mr. Timberg had replied to numerous questions, the meeting terminated with a hearty vote of thanks.

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## MIDLAND BRANCH:

### BOSTON AND SPALDING DIVISION.

AN ordinary meeting was held at the White Hart Hotel on Friday, February 24th. Dr. SOUTH was in the chair, and there were present: Drs. Braithwaite, Husband, Jacobsen, Mann, Mason, Miller, Pilcher, Reckitt, Rendall, and Wilson.

*Apologies for Non-attendance.*—Regrets at non-attendance from Drs. Spilsbury, Tuxford, and Witham were read.

*Confirmation of Minutes.*—The minutes were read, confirmed, and signed.

*Red Cross Society Lectures.*—Dr. PILCHER reported that he had received a letter from Mr. Smith Whitaker on this subject which upheld the decision of the Division to demand payment for lectures, whether first aid or otherwise. Mr. Smith Whitaker pointed out that honorary medical officers of this society could only be asked to keep the members efficient and able to perform their duties satisfactorily. The SECRETARY reported that the same advice had been given by Mr. Smith Whitaker with regard to the St. John Ambulance Brigade. It followed, therefore, that all candidates for such societies and all members requiring first aid, etc., instruction

*must* attend lectures given by a properly paid medical man.

*Annual Report.*—It was proposed by Dr. MILLER and seconded by Dr. RENDALL that the annual report be passed. This was carried *nemine contradicente*. It showed a membership of forty-two on December 31st, 1910, and a balance of £1 5s. 4d.

*Representative at Representative Meetings.* — Dr. WILSON proposed and Dr. MASON seconded the re-election of Dr. MacFarland of Lincoln.

*State Sickness and Invalidity Insurance.*—The Executive Committee proposed the following resolution:

> That, in the opinion of this Division, payment should be made in accordance with work done, and that every patient should choose his own medical attendant.

This was discussed at some considerable length, and finally the SECRETARY proposed and Dr. MASON seconded:

> That, whilst agreeing with the committee's resolution, it would be premature, in virtue of the gravity of the question, to pass it without first consulting the non-members living in the Divisional area and seeking their co-operation. Also, that a copy of Dr. Rowland Fothergill's paper, read before the Hampstead Division on January 13th last, be sent to each medical man, whether a member or not, and a meeting be called at Spalding some time in March, at which, if practicable, Mr. Smith Whitaker be asked to speak.

This was carried *nemine contradicente*. The Secretary was asked to write to the Secretary of the Lincoln Division to ask for their plans on this question.

*Case.*—Dr. MANN showed an interesting case of ruptured aortic valve in a young woman, caused by sudden effort. This led to a lively interchange of opinions.

*Tea.*—The members had tea in the hotel afterwards.

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## SOUTH-WESTERN BRANCH.

AN intermediate meeting of this Branch was held at Torquay on Tuesday, January 24th.

*Confirmation of Minutes.*—The minutes of the last intermediate meeting were read and confirmed.

*Rule VI.*—The Branch Council reported that they had received an intimation from the Medical Secretary that the Organization Committee had disapproved the new form of Rule VI adopted at the annual meeting at Plymouth in 1910.

*Thyrotoxicosis.*—Mr. GILBERT ARNOLD showed a case of profound thyrotoxicosis cured by operation, and read a paper on the subject, which was discussed by Messrs. GORDON, SOLTAU, WORTHINGTON, and LAWRENCE BENNETT.

*Congenital Hypertrophic Stenosis of Pylorus.*—Dr. GORDON and Mr. RUSSELL COOMBE reported a case of congenital hypertrophic stenosis of the pylorus, with pyloroplasty in the seventh week, and recovery. They read a paper on the subject, and Dr. SHIRLEY PERKINS contributed notes on the anaesthetic chosen and the precautions taken to avoid shock. Dr. RAGLAN THOMAS and Mr. LUCY discussed the case.

*Bacillus Coli Infection of Genito-urinary Tract.*—Dr. GORDON read short notes of a case of *Bacillus coli* infection of the genito-urinary tract treated by vaccines, and Dr. SOLLY read a paper on some cases of urinary infection with special reference to vaccine treatment. These two papers were discussed by Dr. FOX and Dr. SOLTAU, the latter of whom also read notes on some clinical results from the use of vaccines.

*Carbon Dioxide Snow.*—Dr. CHEYNE WILSON read a paper on the use of carbon dioxide snow, with demonstration of the apparatus, and Dr. FORTESCUE SAYRES also reported some cases similarly treated, and showed an apparatus for that purpose.

*Radiographs.*—Dr. Delpratt Harris was unable, owing to illness, to contribute a promised paper on a second case of pulmonary cavity treated surgically. He was also unable to show promised *x*-ray photographs of interest, but Dr. CHEYNE WILSON showed radiographs of (*a*) a case of chronic constipation with bismuth meal, (*b*) a case of regeneration of the tibia following Style's operation, (*c*) renal and vesical calculi, and a photograph of a case of lupus.

*Papers not read owing to Want of Time.*—Owing to the length of the meeting Mr. A. C. Roper was unable to read his paper on the Workmen's Compensation Act and traumatic neurasthenia, and Mr. Arnold's papers, (1) A few remarks on Billington's method of nephropexy, and (2) notes on a case of scopolamine-morphine anaesthesia, had also to be omitted.

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## STAFFORDSHIRE BRANCH:

### SOUTH STAFFORDSHIRE DIVISION.

A MEETING of the Division was held in the Star and Garter Hotel, Wolverhampton, on Thursday, February 16th, 1911, at 9.15. Dr. MALET was in the chair, and twenty-six members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*New Draft Model Ethical Rules.*—The SECRETARY read a letter from the Medical Secretary about the resolution passed by the last meeting *re* the new draft model ethical rules, showing that the resolution had been passed under a misapprehension. Dr. DEANESLY proposed, and Dr. BAILEY seconded:

> That the resolution on Rule 3 of the New Draft Model Ethical Rules passed at the last meeting be rescinded.

This was carried unanimously. Thereupon Dr. MACTIER proposed, and Mr. CHOLMELEY seconded:

> That the Draft Model Ethical Rules as they stand be adopted by the Division.

This was carried *nemine contradicente*.

*Medical Treatment of School Children.*—The meeting, after the SECRETARY had read the memorandum on the treatment of school children found defective on inspection, discussed this question at some length. Dr. DEANESLY proposed, and Dr. HARTILL seconded

> That this meeting approves of Minute 79 subject to reservation with regard to cases of special gravity.

This was carried unanimously. After a long discussion in which Drs. DEANESLY, MALET, HARTILL, BADGER, GROUT, MACTIER, JOBERNS, and EDGE took part, Mr. GROUT proposed, and Dr. CODD seconded:

> That this question be postponed and another meeting called to which all medical practitioners in the Borough of Wolverhampton be invited.

Whereupon an amendment was proposed by Dr. EDGE, seconded by Mr. SPACKMAN, to the following effect:

> That a subcommittee be appointed to see the Local Education Committee and find out what work is to be done, and then that a meeting be called to consider the question.

The amendment was lost and the resolution carried by 13 to 5.

*Coroner's Officer and Liability for Compensation.*—Mr. CHOLMELEY then reported that the coroners' officer had been in the habit of assisting at *post-mortem* examinations by sewing up the bodies, etc.; but he (Mr. Cholmeley) had been informed that this was not a part of the officer's duty as a police-sergeant, and if he sustained any injury while so employed, the surgeon whom he was assisting would be liable for compensation.

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## ULSTER BRANCH.

THE winter meeting of the Branch was held in the Medical Institute, Belfast, on Thursday, January 26th, at 4 p.m.; Dr. WILLIAM CALWELL, President of the Branch, was in the chair.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Report of Council.*—The report of Council was read, and showed that one meeting of Council had taken place since the last Branch meeting. Seven candidates had been elected as members of the Branch, and the Council had sanctioned an expenditure of not more than £5 on a couch for the convenience of members who wished to show or to examine patients in the recumbent position at the clinical meetings.

*Apology for Non-attendance.*—An apology for non-attendance was received from Dr. Taylor (Tandragee).

*Vote of Thanks to Honorary Secretary.*—On the motion of the PRESIDENT, seconded by Dr. THOMPSON (Omagh), a vote of thanks was unanimously passed to Dr. Cecil Shaw for his valuable services as secretary during a period of six years, in which the membership of the Branch had largely increased, the interest of the meetings and the attendance of members had been well maintained, and the Branch had successfully entertained the Association at the Annual Meeting of 1909, results largely due to his unwearied labours and skilful conduct of affairs.

*The late Dr. McQuitty.*—The PRESIDENT proposed and the members passed in silence, all standing:

That the Ulster Branch of the British Medical Association desires to place on record its sense of the loss which the profession and the public of the North of Ireland have suffered through the sudden and untimely death of the late Dr. W. B. McQuitty and to convey to his family their sincerest sympathy. Dr. McQuitty's clinical ability, tireless industry, and single-hearted zeal in the practice of medicine had earned for him that success as a physician, a consultant, and a teacher which his brilliant career as a student already presaged, and while his skill brought him many patients his modesty, geniality, and even temper made all who knew him his friends.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A meeting of this Division will be held during the last week of March or the first week of April in the County Hotel, Carlisle, at 3.30 p.m. The Report on the Organization of Medical Attendance on the Provident or Insurance Basis will be discussed. Members desirous of reading papers or showing cases or specimens are requested to communicate at once with the Honorary Secretary. Fuller details will be given in a future notice.—JAMES R. S. ANDERSON, Honorary Secretary, Garlands, Carlisle.

LANCASHIRE AND CHESHIRE BRANCH.—Members willing to give lectures or demonstrations on scientific or clinical subjects at Division or Branch meetings will oblige by communicating with P. R. COOPER, M.D., Honorary Secretary, Branch Science Committee, at 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH. — A scientific and clinical meeting will be held at the Manchester Royal Infirmary, in the afternoon, probably on Wednesday, March 29th. Members willing to show cases, give demonstrations, or communications of scientific or clinical interest are requested to write to the Honorary Secretary of the Science Committee before March 20th.—P. R. COOPER, M.D., etc. (Honorary Secretary of Science Committee), 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The quarterly meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, March 14th, at 4 p.m.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting will be held on Tuesday, March 21st, at 9 p.m., in conjunction with the Walthamstow Division, at Brooke House, Upper Clapton (by invitation of Dr. Gerald Johnston), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Forms of Nervous Disease.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY, STRATFORD, TOTTENHAM, AND WALTHAMSTOW DIVISIONS.—A joint meeting of these Divisions will be held at the Great Eastern Railway Hotel, Liverpool Street, E.C., on Friday, March 17th, at 4 p.m., when Mr. Smith Whitaker will give an address on the Report of the Poor Law Committee on Medical Attendance on the Provident or Insurance Basis.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next *Medico-Political Meeting* of the Division will take place at the Kensington Town Hall on March 24th, at the usual hour, when the Report of the Special Poor Law Reform Committee and other very important matters will be discussed.—H. BECKETT-OVERY, 24, Alexander Square, South Kensington, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held at the Assembly Rooms, Market Harborough, on Wednesday, March 22nd, at 4.15 o'clock p.m. Agenda: Minutes of the previous meeting. Election of vice-chairman of the Division. The following resolution will be proposed: "That this Division request the Education Committee of the Leicestershire County Council to adopt the resolution passed by the Borough Education Committee with reference to the payment of medical men called in to attend school children by teachers or other duly authorized persons." The following resolution will be proposed—"That the mode of election of twelve members of the Council by the Representatives of constituencies at the Annual Representative Meeting be by card voting." Discussion on Typhoid Fever—(1) Introductory, R. B. Stamford, F.R.C.S.; (2) Pathology and Bacteriology, T. C. Clare, F.R.C.S., M.B.; (3) Differential Diagnosis, C. H. McComas, M.D.; (4) Symptoms, R. Sevestre, M.D.; (5) Surgical Complications (Abdominal), C. J. Bond, F.R.C.S.; (6) Surgical Complications (Extra-abdominal), W. Cumberlidge, F.R.C.S.; (7) Treatment, R. Ballard, M.R.C.S., L.R.C.P. Nomination of two representatives to serve on the board of the Leicester Infirmary. Any other business. Tea will be provided at the Assembly Rooms at 4 o'clock by the kind invitation of Dr. Ballard.—R. WALLACE HENRY, M.D., Honorary Secretary, Leicester.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A meeting of this Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 25th, at 3 p.m. Agenda: (1) Report of Committee on the Organization of Medical Attendance on the Provident or Insurance Principle. (2) Election of Representative at Representative Meetings. (3) Consideration of various documents referred to Divisions. (4) Any other competent business.—J. MUNRO MOIR, M.D., Honorary Secretary.

WEST SOMERSET BRANCH.—A special meeting of this Branch will be held on March 31st to discuss the very important report which forms the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th.—W. B. WINCKWORTH, Honorary Secretary, Taunton.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Huddersfield Infirmary on Wednesday, March 15th, at 4.15 p.m. Members intending to read papers, show specimens or cases, or to propose new members, are requested to communicate at once with the Secretary. Members will dine together at 6.30 p.m. — ADOLPH BRONNER, Honorary Secretary, Bradford.

# Vital Statistics.

## VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1910.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs, based upon the Registrar-General's returns for the year 1910. The mortality figures relate to the deaths of persons actually belonging to the various boroughs, and are the result of a system of distribution of the deaths occurring in institutions among the various boroughs in which the deceased persons had previously resided.

The 116,227 births registered in London during 1910 were equal to a rate of 23.9 per 1,000 of the population, estimated at 4,872,702 persons in the middle of the year; this rate was lower than that recorded in any previous year, and was 3.3 per 1,000 below the average rate for the ten years 1900–9. The birth-rates last year ranged from 13.3 in Hampstead, 14.2 in the City of Westminster, 15.3 in the City of London, 16.3 in Kensington, and 17.3 in Chelsea, to 30.6 in Shoreditch and in Stepney, 30.8 in Bethnal Green, 31.2 in Bermondsey, and 35.9 in Finsbury.

The 61,756 deaths of London residents registered during the year were in the proportion of 12.7 per 1,000 persons living; the rates in the three preceding years were 14.6, 13.8, and 14.0 per 1,000, the average for the ten years 1900–9 being 15.7 per 1,000. The lowest death-rates last year were 8.6 in Hampstead, 9.6 in Lewisham, 10.2 in Wandsworth, 10.5 in Fulham and in Woolwich, and 11.0 in Stoke Newington; the highest rates were 15.2 in Poplar, 15.3 in Bethnal Green, 15.5 in the City of London, 15.9 in Southwark, 16.7 in Shoreditch, 17.6 in Finsbury, and 17.7 in Bermondsey.

During the year under notice, 5,559 deaths were referred to the principal infectious diseases; of these, 1,980 resulted from measles, 214 from scarlet fever, 434 from diphtheria, 1,362 from whooping-cough, 196 from enteric fever, 4 from ill-defined pyrexia, and 1,368 from diarrhoea, but not any from small-pox or from typhus fever. These 5,559 deaths were equal to a rate of 1.14 per 1,000, the corresponding rates in the three proceding years having been 1.42, 1.35, and 1.31 per 1,000, while the average rate for the ten years 1900–9 was 1.83 per 1,000. Compared with the respective averages for the five preceding years, the mortality from measles was in excess, while that from each of the other specified diseases showed a decline. Among the several boroughs the death-rates last year from the principal infectious diseases ranged from 0.46 in Hampstead, 0 47 in the City of Westminster, 0.48 in the City of London, and 0.58 in Stoke Newington, to 1.47 in Bethnal Green and Deptford, 1.51 in Poplar, 1.90 in Shoreditch, 1.92 in Finsbury, 2.02 in Southwark, and 2.44 in Bermondsey.

The greatest proportional mortality from measles was recorded last year in Hammersmith, St. Pancras, Finsbury, Shoreditch, Southwark, and Bermondsey. Scarlet fever was proportionately most fatal in St. Pancras, Bethnal Green, Poplar, Bermondsey, Lambeth, Lewisham, and Woolwich; the number of scarlet fever patients admitted into the Metropolitan Asylums Hospitals during the year was 9,889, against 23,953, 20,862, and 16,183 in the three preceding years; 1,574 cases remained under treatment at the end of the year, against 4,956, 3,498, and 2,329 at the end of the three preceding years. The highest death-rates from diphtheria last year were recorded in Hammersmith, Finsbury, Bethnal Green, Southwark, and Bermondsey; the admissions of cases of this disease to the Metropolitan Asylums Hospitals numbered 4,882 last year, against 7,303, 6,797, and 5,799 in the three preceding years; 827 cases remained under treatment at the end of the year, against 1,168, 1,241, and 904 at the end of the three preceding years. Whooping-cough was proportionately most fatal in St. Pancras, Finsbury, Shoreditch, Stepney, Poplar, Deptford, and Greenwich. The greatest proportional mortality from "fever" was recorded in Holborn, the City of London, Shoreditch, Bethnal Green, and Poplar; the number of enteric fever cases admitted to the Metropolitan Asylums Hospitals last year was 745, against 768, 708, and 539 in the three preceding years; 88 cases remained under treatment at the end of the year, against 119, 147, and 62 at the end of the three preceding years. Diarrhoea showed the greatest proportional fatality in Finsbury, Shoreditch, Stepney, Poplar, Southwark, Bermondsey, and Deptford.

The 5,555 deaths from phthisis registered during the year were equal to a rate of 1.14 per 1,000, the rates in the three preceding years having been 1.44, 1.32, and 1.31 per 1,000 respectively. The phthisis death-rates last year ranged from 0.55 in Lewisham, 0.59 in Hampstead, 0.77 in Kensington, 0.84 in Paddington, and 0.86 in Wandsworth, to 1.70 in Finsbury and in the City of London, 1.74 in Southwark, 1.76 in Bermondsey, and 1.98 in Holborn. The mortality from phthisis in the central group of boroughs was 1.79 per 1,000; in the eastern, 1.37 per 1,000; in the southern, 1.12 per 1,000; in the northern, 1.09 per 1,000; and in the western, 0 95 per 1,000.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 102 per 1,000, or 30 per 1,000 less than the average rate. The rates of infant mortality ranged among the several boroughs from 57 in the City of London, 63 in Hampstead, 66 in Stoke Newington, 79 in Wandsworth, 83 in Lambeth, and 84 in Woolwich, to 121 in Southwark, 122 in Poplar, 126 in Deptford, 127 in Bermondsey, 128 in Bethnal Green, and 151 in Shoreditch.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 7,526 births, and 5,345 deaths were registered during the week ending Saturday, February 25th. The annual rate of mortality in these towns, which had been 16.0, 17.6, and 17.2 per 1,000 in the three preceding weeks, declined to 16.2 in the week under notice. In London the death-rate was equal to 16.3 per 1,000 against 16.1, 17.3, and 17.1 in the three preceding weeks. Among the seventy-six other large towns the death-rates ranged from 7.0 in Bury, 7.7 in Hornsey, 8 3 in King's Norton, 8.4 in Handsworth (Staffs), and 8.5 in Walthamstow, to 20 8 in Sheffield, 21.3 in St. Helens, 21 9 in Wigan, 22.0 in Stoke-on-Trent, and 25.9 in Middlesbrough. Measles caused a death-rate of 2.5 in Coventry, 2.6 in West Ham, 4.2 in Aston Manor, 5.4 in Devonport, and 7 5 in Sheffield; whooping-cough of 1.2 in Willesden, in Reading, and in Norwich, 1.4 in Middlesbrough, and 1.5 in Bootle; and diphtheria of 1.0 in Middlesbrough and 1.1 in Blackburn. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. Of the 5,345 deaths from all causes in the seventy-seven towns 36 were uncertified either by a registered medical practitioner or by a coroner after inquest, and included 11 in Liverpool, 3 in Stoke-on-Trent, and 3 in Birmingham. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,264, 1,257, and 1,276 at the end of the three preceding weeks, declined to 1,242 on Saturday, February 25th; 138 new cases were admitted during the week, against 130, 147, and 166 in the three previous weeks. During the same week 35 cases of small-pox were admitted to the Metropolitan Asylums Small-pox Hospitals.

*Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1910.*

| Boroughs. | Estimated Population middle of 1910. | Births. | Deaths. | Annual Rate per 1,000 Living. Births. | Deaths. | Principal Infectious Diseases. | Deaths from Principal Infectious Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric Fever. | Ill-defined Pyrexia. | Diarrhoea. | Phthisis. | Deaths of Children Under 1 Year of Age to 1,000 Registered Births |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COUNTY OF LONDON ... | 4,872,702 | 116,227 | 61,756 | 23.9 | 12.7 | 1.14 | 5,559 | — | 1,980 | 214 | 434 | 1,363 | — | 196 | 4 | 1,368 | 5,555 | 102 |
| Paddington ... ... | 153,004 | 2,908 | 1,796 | 19.1 | 11.8 | 1.08 | 164 | — | 69 | 7 | 9 | 32 | — | 4 | — | 43 | 128 | 102 |
| Kensington ... ... | 184,635 | 3,006 | 2,190 | 16.3 | 11.9 | 0.77 | 141 | — | 53 | 1 | 16 | 32 | — | 5 | — | 34 | 142 | 113 |
| Hammersmith ... | 127,413 | 2,906 | 1,549 | 22.9 | 12.2 | 1.33 | 170 | — | 70 | 7 | 22 | 26 | — | 4 | — | 41 | 132 | 104 |
| Fulham ... ... | 181,282 | 4,213 | 1,907 | 23 3 | 10.5 | 1.13 | 204 | — | 65 | 7 | 14 | 6) | — | 2 | — | 56 | 170 | 110 |
| Chelsea ... ... | 75,457 | 1,298 | 950 | 17.3 | 12.6 | 0.65 | 49 | — | 19 | — | 4 | 1 | — | 2 | — | 12 | 87 | 108 |
| City of Westminster | 167 233 | 2,364 | 1,893 | 14.2 | 11.4 | 0.47 | 78 | — | 21 | 4 | 10 | 18 | — | 6 | — | 19 | 186 | 91 |
| *St. Marylebone ... | 125,195 | 4 095 | 1,600 | 32.8 | 12.8 | 0.93 | 116 | — | 28 | 7 | 9 | 44 | — | 6 | — | 22 | 137 | 62 |
| Hampstead ... ... | 95,729 | 1.270 | 822 | 13.3 | 8.6 | 0.46 | 44 | — | 15 | 2 | 5 | 11 | — | 3 | — | 8 | 56 | 63 |
| St. Pancras ... ... | 237,792 | 5,389 | 3,261 | 22.7 | 13.8 | 1.39 | 330 | — | 140 | 17 | 21 | 96 | — | 4 | — | 52 | 304 | 108 |
| Islington ... ... | 353 356 | 7.975 | 4,529 | 22.6 | 12.9 | 1.22 | 432 | — | 168 | 11 | 33 | 124 | — | 17 | 1 | 78 | 397 | 97 |
| Stoke Newington ... | 54,838 | 954 | 600 | 17.4 | 11.0 | 0.58 | 31 | — | 11 | 1 | 2 | 7 | — | 2 | — | 8 | 50 | 66 |
| *Hackney ... ... | 239,979 | 5.484 | 2,797 | 22.9 | 11.7 | 0.84 | 202 | — | 66 | 5 | 8 | 61 | — | 10 | — | 52 | 259 | 95 |
| *Holborn ... .. | 53,142 | 1,350 | 792 | 25.5 | 14.9 | 0.91 | 49 | — | 14 | — | 4 | 16 | — | 5 | — | 10 | 105 | 78 |
| *Finsbury ... ... | 94,578 | 3,386 | 1,656 | 35.9 | 17.6 | 1.92 | 182 | — | 66 | 4 | 21 | 36 | — | 4 | 1 | 50 | 160 | 102 |
| City of London ... | 17,132 | 261 | 264 | 15.3 | 15.5 | 0 48 | 8 | — | — | 1 | — | 2 | — | 2 | — | 3 | 29 | 57 |
| Shoreditch ... ... | 114,387 | 3,487 | 1,905 | 30.6 | 16.7 | 1.90 | 217 | — | 84 | 4 | 14 | 46 | — | 8 | — | 61 | 170 | 151 |
| Bethnal Green ... | 131,579 | 4,040 | 2,010 | 30.8 | 15.3 | 1.47 | 192 | — | 59 | 9 | 20 | 35 | — | 18 | — | 51 | 188 | 128 |
| *Stepney ... ... | 314,379 | 9,603 | 4,303 | 30.6 | 13.7 | 1.32 | 414 | — | 103 | 12 | 29 | 114 | — | 15 | — | 141 | 410 | 108 |
| Poplar ... ... ... | 172,432 | 4,964 | 2,609 | 28.9 | 15.2 | 1.51 | 259 | — | 42 | 12 | 21 | 84 | — | 13 | — | 87 | 234 | 122 |
| Southwark ... ... | 211,832 | 5,625 | 3,360 | 26.6 | 15.9 | 2.02 | 427 | — | 226 | 9 | 35 | 60 | — | 7 | — | 90 | 368 | 121 |
| Bermondsey ... ... | 127,238 | 3,958 | 2,240 | 31.2 | 17.7 | 2.44 | 310 | — | 145 | 14 | 19 | 43 | — | 4 | — | 85 | 223 | 127 |
| *Lambeth ... ... | 327,074 | 8,373 | 4,091 | 25.7 | 12.5 | 0.99 | 322 | — | 122 | 22 | 26 | 54 | — | 18 | — | 80 | 382 | 83 |
| Battersea ... ... | 188,222 | 4,286 | 2,120 | 22.8 | 11.3 | 1.11 | 209 | — | 74 | 7 | 12 | 51 | — | 7 | 1 | 57 | 194 | 101 |
| Wandsworth ... ... | 305,838 | 6.872 | 3,102 | 22.5 | 10.2 | 0.61 | 185 | — | 43 | 11 | 13 | 70 | — | 9 | — | 39 | 261 | 79 |
| Camberwell ... ... | 286,058 | 6.516 | 3,439 | 22.8 | 12.1 | 1.09 | 308 | — | 136 | 10 | 22 | 70 | — | 9 | — | 61 | 309 | 97 |
| Deptford ... ... | 119,642 | 2,907 | 1,667 | 24.4 | 14.0 | 1.47 | 176 | — | 59 | 3 | 11 | 48 | — | 5 | — | 50 | 142 | 126 |
| Greenwich ... ... | 112,935 | 2,457 | 1,306 | 21.8 | 11.6 | 1.42 | 158 | — | 48 | 3 | 10 | 57 | — | 3 | — | 37 | 106 | 106 |
| Lewisham ... ... | 164,899 | 3,411 | 1,585 | 20 7 | 9.6 | 0.61 | 100 | — | 12 | 12 | 20 | 29 | — | 3 | — | 24 | 90 | 90 |
| Woolwich ... ... | 135,422 | 2,869 | 1,413 | 21.2 | 10.5 | 0.62 | 82 | — | 22 | 12 | 4 | 25 | — | 1 | 1 | 17 | 136 | 84 |

* No correction s made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

### HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, February 25th, 888 births and 641 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 18 2, 19 8, and 19.0 in the three preceding weeks, declined to 17.4 per 1,000 in the week under notice, and was 1.2 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 14.6 in Aberdeen and 15 4 in Edinburgh to 20 8 in Perth and 25 0 in Dundee. The death-rate from the principal infectious diseases averaged 2.1 per 1,000, and was highest in Perth and Leith. The 295 deaths from all causes registered in Glasgow during the week included 2 from enteric fever, 1 from measles, 4 from scarlet fever, 22 from whooping-cough, 3 from diphtheria, and 3 of children under 2 years of age from diarrhœa and enteritis. Five deaths from measles, 3 from whooping-cough, and 2 from diphtheria were recorded in Edinburgh, 5 from whooping-cough in Dundee, and 8 in Leith.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 25th, 596 births and 466 deaths were registered in the twenty-two principal urban districts of Ireland, as against 600 births and 538 deaths in the preceding period. The annual death rate in these districts, which had been 19.6, 24 1, and 22.7 per 1,000 in the three preceding weeks, fell to 20.9 per 1,000 in the week under notice, this figure being 4 7 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.8 and 18.5 respectively, those in other districts ranging from 5.1 in Clonmel to 9.6 in Limerick and 31.0 in Portadown to 33.6 in Sligo, while Cork stood at 24.7, Londonderry at 22.6, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000, as against 1.3 in the preceding period.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Surgeon G. F. ADSHEAD, M.B., to Haslar Hospital, February 22nd; Staff Surgeon E. FOLLIOTT and Surgeon J. S. AUSTIN, M.B., to the *Vindictive*, for the voyage home, undated; Staff Surgeon S. CRONEEN and Surgeon H. F. BRIGGS, M.B., to the *Vindictive* for the voyage out, March 4th, and to the *Forte*, on recommissioning, undated; Surgeon F. W. QUIRK to the *Leander*, additional, for the *Tyne*, March 4th; Surgeon C. D. BELL to the *Vivid*, additional, February 15th; Staff Surgeon E. R. GRAZEBROOK to the *President*, additional, for Yarmouth Hospital, for the period March 11th to 31st inclusive.

### ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

MAJOR J. H. RIVERS retires on retired pay, February 25th. He was appointed Surgeon-Lieutenant, January 30th, 1893; Surgeon-Captain, January 30th, 1896; and Major, July 30th, 1904. He served in the Sudan in 1905 in the operations against the Nyam Nyam tribes in the Bahr-el-Ghazal Province.

Major R. F. E. AUSTIN, who is serving in India, is appointed Specialist in Laryngology, 3rd (Lahore) Division, from January 10th.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

AYR DISTRICT ASYLUM.—Second Assistant Physician. Salary, £120 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARBADOS GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £300 per annum.

BARRA PARISH.—Medical Officer. Salary, £125, and £40 from other public offices.

BATH ROYAL UNITED HOSPITAL.—(1) House Physician: (2) House-Surgeon. Salary, £80 per annum each.

BIRMINGHAM GENERAL HOSPITAL.—Resident Pathologist and House-Surgeon to Special Departments. Salary at the rate of £50 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—(1) Resident Medical Officer; (2) Resident Surgical Officer. Salary, £80 per annum each.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physician; (2) Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £50 per annum each.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRADFORD: ROYAL EYE AND EAR HOSPITAL.—Lady Resident. Salary, £80 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

BURY COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist. Salary at the rate of £250 per annum.

CARMARTHEN INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, rising to £180.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistant.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Physician. Salary, £80 per annum.

DERBY COUNTY BOROUGH EDUCATION COMMITTEE.—School Medical Officer. Salary, £250 per annum.

DOVER: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

ENFIELD AND EDMONTON JOINT HOSPITAL BOARD.—Resident Assistant Medical Officer. Salary, £150 per annum.

FIFE COUNTY EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum, increasing to £300.

GLOUCESTERSHIRE ROYAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House Surgeon (male). Salary at the rate of £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months and £2 10s. washing allowance.

ILFORD URBAN DISTRICT COUNCIL.—Medical Inspector of School Children for three months. Fee, 60 guineas.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

KIRKBEAN AND COLVEND JOINT PARISHES.—Medical Officer. Salary, £70 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary, £65 per annum.

MANCHESTER: ANCOATS HOSPITAL.—(1) Assistant House-Surgeon. (2) Anaesthetist. alary, £70 and £40 per annum respectively.

MARGATE: ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary, £120 per annum.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the Park Hospital for Children, Hither Green, and Children's Infirmary, Carshalton.—Salary, £150 per annum, rising to £180.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House Physician. (4) Two Assistant House-Surgeons. Salary for (1) and (2) at the rate of £60 per annum, and for (3) and (4) £40 per annum.

MIDDLESEX HOSPITAL, W.—Richard Hollins Scholarship in the Cancer Research Laboratories, value £100 per annum.

MONTROSE: ROYAL ASYLUM.—Second Assistant Medical Officer. Salary, £125 per annum.

NEWCASTLE-UPON-TYNE: ROYAL VICTORIA INFIRMARY.—Honorary Surgeon to the Throat and Ear Department.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Demonstrator of Bacteriology. Salary, £200 per annum.

PETERBOROUGH INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

SHREWSBURY: SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

WALTHAMSTOW URBAN DISTRICT COUNCIL.—Resident Medical Officer for the Infectious Disease Hospital. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Surgical Officer. Salary, £125 per annum. (2) House-Surgeon. Salary at the rate of £80 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Yatton, co. Somerset; Coalisland, co. Tyrone.

MEDICAL REFEREE.—The Home Secretary announces a vacancy for Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 4.

## APPOINTMENTS.

GRAY, H. Tyrrell, M.A., M.C.Cantab., F.R.C.S.Eng., Surgeon to Out-Patients at the Hampstead General and North-West London Hospitals.

KEANE, Frank, M.D., B.A.O., Assistant House-Surgeon to West Bromwich District Hospital.

MOISER, L. H., M.B.Lond., Medical Officer of Health of the Crediton Urban District.

MORGAN, H. B. W., M.B., B.S.Glasg., Resident Assistant Medical Officer of the Wandsworth Union Infirmary.

MURPHY, J. J., M.D., M.R.C.S., Clinical Assistant to the Chelsea Hospital for Women.

MOYES, J. M., M.B.Edin., Assistant Medical Officer, West Riding Asylum, Wakefield.

PARRY, George Hearn, M.B., C.M., Physician to the Southampton General Dispensary.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

HENDERSON.—On February 24th, at 76, Rodney Street, Liverpool, the wife of Dr. W. Savile Henderson, of a son.

PETERS.—On February 24th, the wife of A. E. Peters, M.R.C.S., etc., Petersfield, Hants, of a son.

WILLAN.—At 23, Claremont Place, Newcastle-on-Tyne, on March 4th the wife of R. J. Willan, F.R.C.S., of a daughter.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Papers:—(1) Dr. Nathan Raw: The Influence of Diabetes on the Tuberculous Infections of the Human Body. (2) Mr. D'Arcy Power: The Influence of Syphilis on Tuberculous Infections of the Human Body.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Goulstonian Lecture, by Dr. A. F. Hertz: The Sensibility of the Alimentary Canal in Health and Disease.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, Imperial Cancer Research Laboratory, Victoria Embankment, 8.30 p.m.—Laboratory Meeting.

SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Papers:—Mr. Rickman J. Godlee: Myositis Ossificans and its Results. Mr. G. H. Makins, C.B.: Myositis Ossificans. Mr. A. A. Bowlby, C.M.G.: The Formation of Bone in Periosteum separated by Injury. Mr. J. Berry: Congenital Pouch of the Bladder Treated by Excision. Mr. C. H. Fagge: The Inguinal Method of Radical Cure of Femoral Hernia. Mr. P. C. Fenwick: Rupture of the Bladder followed by Gangrene.

### THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Goulstonian Lecture, by Dr. A. F. Hertz: The Sensibility of the Alimentary Canal in Health and Disease.

ROYAL SOCIETY, Burlington House, 4 p.m.—Papers:—Sir T. R. Fraser, F.R.S., and Dr. J. A. Gunn: The Action of the Venom of *Echis carinatus*. Colonel Sir D. Bruce, F.R.S., and others: Further Researches on the Development of *Trypanosoma gambiense* in *Glossina palpalis*. Dr. M. Haaland: Spontaneous Cancer in Mice. (Communicated by Dr. J. R. Bradford, Sec. R.S.)

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Mr. A. D. Reid: Technique of Skiagraphy, illustrated by lantern slides, and a demonstration of a new tube stand.

OTOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—(1) Discussion on Trauma in Relation to Otology; to be opened by Dr. W. Milligan and Mr. C. A. Ballance, M.V.O. (2) Demonstration:—Mr. Cheatle: Fifteen Temporal Bones illustrating Injuries to the Auditory Apparatus.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, W., 8.30 p.m.—Agenda:—Papers: (1) Dr. R. Strong, Manila: The Specific Cure of Yaws by Dioxy-diamido-arseno-benzol (with epidiascope). (2) Dr. J. Preston Maxwell, Amoy: The use of Santonine in the Treatment of the Intestinal Affections of the Tropics.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Larynx; Friday, 3.45 p.m., Larynx.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Injuries and Disease of the Hip-joint; Diagnosis, Cause, Complications, Treatment. Thursday, 4 p.m., Coxa Vara. Friday, 5.15 p.m., Hip-joint (continued); Sacro-iliac Joint.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures at 2.15 p.m.: Wednesday, Addison's Disease; Thursday, Indigestion; Friday, Glycosuria.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Oesophageal Obstruction.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Anaesthetics in Abdominal Operations; Tuesday, Chronic Suppuration of the Antrum; Wednesday, Asthma; Thursday, Diagnostic Difficulties in Children.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Myopathy; Friday, 3.30 p.m., Optic Meningitis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Diagnostic Difficulties in Gynaecology. Wednesday, 2.30 p.m., Medical Out-patient: Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Demonstration of Selected Medical Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Chesterfield Lecture, Thursday, 6 p.m. Treatment (electrical).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X*-Rays, 2 p.m.; Operations, 2 p.m. Monday, Gynaecology, 10½ a.m.: Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture, Practical Medicine, 12 noon: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MARCH.** | |
| 14 TUESDAY .. | LONDON: Medical Inspection and Treatment of School Children Sub-committee, 3 p.m.<br>WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4 p.m. |
| 15 WEDNESDAY | LONDON: Regulations and Standing Orders Subcommittee.<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m.<br>YORKSHIRE BRANCH, Huddersfield Infirmary, 4.15 p.m.; Dinner, 6.30 p.m. |
| 16 THURSDAY .. | BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.<br>LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 17 FRIDAY .. | CITY, STRATFORD, TOTTENHAM, AND WALTAMSTOW DIVISIONS, *Metropolitan Counties Branch*, Joint Meeting, Great Eastern Railway Hotel, Liverpool Street, E.C., 4 p.m. |
| 18 SATURDAY .. | |
| 19 Sunday .. | |
| 20 MONDAY .. | |
| 21 TUESDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, in conjunction with Walthamstow Division, Brooke House, Upper Clapton, 9 p.m. |
| 22 WEDNESDAY | LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Assembly Rooms, Market Harborough, 4.15 p.m.; Tea, 4 p.m. |
| 23 THURSDAY .. | |
| 24 FRIDAY .. | KENSINGTON DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Kensington Town Hall. |
| 25 SATURDAY .. | NORTHERN COUNTIES OF SCOTLAND BRANCH, Northern Infirmary, Inverness, 3 p.m. |
| 26 Sunday .. | |
| 27 MONDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 18TH, 1911.

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# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of the Branch was held at Bath on February 22nd, 1911, Dr. J. M. RATTRAY (President) in the chair, and there were present forty-five members and visitors.

*Diseases of the Heart.*—A discussion on spa treatment of diseases of the heart was opened by Dr. JAMES MACKENZIE of London and continued by Dr. CARTER, the PRESIDENT, Dr. CAREY COOMBS, Mr. SCOTT, Dr. PRESTON KING, Dr. CAVE, Dr. NEILD, Mr. MUNRO SMITH, and Dr. SHINGLETON SMITH.

## METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.

THE fifth ordinary meeting of the Division was held on March 10th, at the Athenaeum, Muswell Hill. Dr. GREENWOOD was in the chair. Fifteen members and eight visitors were present.

*Confirmation of Minutes.*—The minutes of the last meeting (February 3rd) were read and confirmed.

*Coroners' Law and Death Certification (Amendment) Bill.*—It was announced that Dr. Geoffrey Plaister had drawn up and was circulating for signature a petition against the unjust provisions of this Bill to be presented in due course to the Member for the Parliamentary Division of Tottenham, the Member for the Parliamentary Division of Enfield having been similarly approached recently. Signatures were invited, and obtained at the close of the meeting.

*Medical Treatment of School Children.*—Augmenting the replies already received from local education authorities to the resolutions on this subject submitted by the Division, a reply from the Middlesex Education Committee (which was concerned with the matter in the districts of Friern Barnet, Southgate, and South Mimms), was read, to the effect that "the Education Committee have not made any arrangements for the medical treatment of school children after inspection."

*Coeliac Disease.*—Dr. ROBERT HUTCHISON, Physician to the London Hospital, then proceeded to describe a group of symptoms to which, conceived as a definite morbid entity, he gave the name "coeliac disease." He dealt with the etiology, course, and prognosis of the disease. He defined its differential diagnosis, suggested its pathology, and described its treatment. Much interest was shown, and many questions were asked.

*Vote of Thanks.* — The questions having been answered, a vote of thanks, moved by the CHAIRMAN, was carried with acclamation.

*State Sickness and Invalidity Insurance.*—An announcement of the dates of meetings to consider the Association's Poor Law Committee's Reports on State Insurance Schemes closed the proceedings.

## PERTHSHIRE BRANCH.

A SPECIAL meeting of this Branch was held in the Royal Infirmary, Perth, on Friday, January 27th, at 3.30 p.m.

*Council Meeting.*—A council meeting was held at 3.15. Dr. LYELL (President) was in the chair, and there were present Drs. Haig, Edwardes, and Taylor.

*New Member.*—H. G. Ramsbottom, L.R.C.P. and S.E., Murray's Asylum, Perth, was admitted a member of the Association and Branch.

*Ordinary Meeting.*—An ordinary meeting was held at 3 30. Dr. LYELL (President) was in the chair, and there were present Drs. Urquhart, Bruce, Burnett, Haig, Edwardes, McNaughton, Robertson (Errol), Davidson (Cupar Angus), Robertson (Scone), McLeish, Trotter, Menzies, Revack, and Taylor.

*Apologies for Non-attendance.*—Apologies for non-attendance were intimated from Dr. Stirling and Colonel Moffett.

*The Red Cross Society and Ambulance Teaching.*

The report of the committee appointed by the Branch to consider and report in regard to this work, consisting of Drs. Urquhart, R. Stirling and the Secretaries, was then read.

The Committee met on November 17th 1910. There were present: Dr. Urquhart, Dr. Stirling, and Dr. Taylor. Dr. Trotter was unable to attend. After a full discussion the following report was drawn up:

"The important changes in the army under the administration of Mr. Haldane have led to general considerations of special significance to the medical profession. The Territorial Forces are designed as an integral part of the army, and patriotic citizens are

urged to make them efficient by active service or by financial aid and encouragement. It is desired that they should be fit to take the field in the event of invasion. That not only depends upon the fighting units, but also means a complete equipment of transport service, ambulance and medical attendance, all effective and ready for mobilization. This medical service, with its ambulance and nursing division, is directly and solely organized as part of the Territorial Forces, just as the Royal Army Medical Corps is directly and solely organized for the regular army. It is the Royal Army Medical Corps of the Territorial Forces (R.A.M.C.T.F.).

"It is apparent that such a corps must be formed with the active support of the medical profession engaged in ordinary civil practice, at least of those who volunteer to serve with those forces. Further, it is for those who have undertaken these duties to instruct and command the volunteers who fill the ranks as ambulance men and nurses. All must be qualified by proved efficiency—the surgeons by their professional training and experience, the rank and file by their ambulance training and suitability as shown by certificates granted after examination.

"Ambulance work is familiar in our great centres of population, as well as in country districts. It is no new departure. The St. John Association, with head quarters in London, was established in Perth a generation ago, but a strong feeling arose in Glasgow that Scotland should have a distinctively national society, and the St. Andrew's Association was founded. In time, this was found to be in accordance with general Scottish opinion, although there were many dissentients who preferred and still prefer the older organization. For all practical purposes, however, it is the St. Andrew's Ambulance Association with which we, in Scotland, are now concerned. It is not a wealthy society, although it is widespread in its operations, and it would appear that there is at present opportunity and reason to strengthen it, to make it subserve the needs of the Territorial Forces as well as the requirements of civilian life. We discern no difficulty in this readjustment of aims and methods, and believe it would be to the advantage of all these interests.

"We assume that it will be admitted that the experience of our fighting forces in actual warfare has issued in methods of ambulance and surgical service which must be approximated as nearly as possible by the Territorial Forces. Therefore it was decided to adopt the Red Cross, which would give the units an international standing, and confer on them a distinctive and honourable position in the army. This led to the formation of Red Cross societies in large and enthusiastic numbers, and the question of organization has accordingly become pressing in detail and vital to success. Undue haste and divided counsels have been observed with concern. The country is embarking upon a new plan of action, and it is not surprising that in different localities different ideals have been followed. There is yet time to consolidate the willing forces which have been called into active existence, to adopt such methods as promise success and to avoid difficulties which are apparent. We desire to recommend the line of least resistance.

"It is generally recognized that the gratuitous work done by the medical profession contributes an honourable record. It is not so generally recognized that prudential limits must be set upon this gratuitous work for the protection of individual medical men. Time is money for the doctor; his income is broadly the equivalent of the professional work which he can accomplish day by day. We are aware of our duty as citizens of a great empire, and desire to fulfil that duty, but it is a wrong to the medical profession to charge it with unpaid work out of all proportion to the pecuniary position of its members. This wrong is apparent every day in the calling of doctors to attend on street accidents, which may lead them into serious difficulties and great delays in connexion with subsequent legal proceedings, which the public ignore and conveniently forget.

"This question of ambulance work has grown into importance, and your committee believe that the time has come when it should be dealt with, the methods organized in the public interest, and the service of the medical profession adequately recognized and recompensed. Those who undertake teaching and examining should not be taken advantage of, even in the public interest. We therefore heartily approve of the opinion of the British Medical Association—that ambulance lecturers should be paid at the rate of one guinea a lecture. It must be borne in mind that these lectures are not occasional efforts, which might very well be regarded as gratuitous; on the contrary, they are continuous and burdensome in execution. In fact, they constitute a new, important, and practically useful undertaking in the evolution of our country.

"It is understood that the county councils and the school boards of Scotland have power to pay for these lectures; and certainly education, properly understood, embraces instruction in ambulance work, in personal and public hygiene, and in the care of the sick. If the nation is to be effective in its dealings with itself, these subjects demand recognition and elucidation.

"The St. Andrew's Ambulance Association provides this very instruction, although hampered by insufficient means and lack of necessary authority. We therefore beg to suggest that the Red Cross societies should proceed to act in co-operation with that society. Already we understand that the certificates of competence conferred by the St. Andrew's Association are accepted as proof that the individual is suitable for Territorial service. We suggest that the small fees which they have paid should be refunded on joining the Red Cross Ambulance Society. We further understand that Red Cross societies have been desirous of instituting ambulance lectures in localities which perhaps have been neglected by the St. Andrew's Society, and have even borrowed the teaching materials and the teachers. This we believe to be an unfortunate decision. We urge that the St. Andrew's Ambulance Association should be the teaching and examining body for all such work in Scotland. We believe that it could fill the ranks of the Red Cross societies, and at the same time maintain its effective relations with civil life. We deprecate any attempt on the part of the Red Cross societies to take the place of the St. Andrew's Association, or to endanger the action of the county councils and school boards on the lines to which we have referred.

"Finally, we recognize that the duties imposed upon medical men and ambulance men and nurses are such as may well be undertaken by loyal citizens. An inspection and practice four times yearly is no galling yoke, but an honourable service rendered to the State. Our urgent opinion is that the long and arduous work of teaching and examining should be permanently organized and adequately remunerated, and that existing organizations should be utilized and consolidated. This is a public service of utility, and it ensures a continuous source of recruits to the Territorial Forces.

"To sum up, we urge that ambulance teaching should be systematized and paid for. As the Government does not intend to expend money on the Red Cross Association, the cost must therefore be borne by that Association, unless they act in connexion with the county councils and other similar public bodies. It would appear that a joint committee appointed by these co-operating authorities and qualified teachers should be formed annually or biennially in each district of Scotland, through the agency of the St. Andrew's Association concerned with ambulance, hygienic and nursing instruction in two sections, civil and military."

After discussion the Branch adopted the report, and later Dr. TROTTER moved:

> That the Branch decide that no lectures on ambulance should be given in the area of the Branch under one guinea a lecture.

Dr. BRUCE (Murthly) seconded, but suggested the addition that members of the profession in Perthshire should be circularized expressing the hope that

all would join in. This was unanimously agreed to. The Secretaries were instructed to carry this out and report later.

*Sickness and Invalidity Bill.*—It was agreed to leave over discussion of it in the meantime.

*Medical Examination for Insurance.*—The rates offered by an insurance company for medical examination were discussed. It was found this did not affect any members of the Branch.

*Vote of Thanks.*—This was all the business and the meeting closed with a vote of thanks to the President.

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### SOUTHERN BRANCH:

#### JERSEY DIVISION.

THE quarterly general meeting of this Division was held on March 8th, Dr. E. O. B. VOISIN, Vice-Chairman, presiding.

*Confirmation of Minutes.*—The minutes of the last general meeting were read and confirmed, and the minutes of the Executive Committee were presented.

*Report on Organization of Medical Attendance on the Provident or Insurance Principle.*—The SECRETARY read a detailed statement on this subject, with the object of eliciting the considered opinion of the Division in regard to its position and duty with respect to the report.

*Surgical Cases.*—Dr. VOISIN read a paper entitled "Notes on some Recent Surgical Cases." The cases referred to were of marked surgical interest, and their narration was followed by questions and discussion.

*Medico-Ethical Work of the Association.*—Dr. H. C. MAJOR communicated "Some Medico-Ethical Considerations of Permanent Importance," in which relation the medico-ethical work of the Association, including the weekly medico-ethical column of the BRITISH MEDICAL JOURNAL, was referred to with warm approval.

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### SOUTH WALES AND MONMOUTHSHIRE BRANCH:

#### MONMOUTHSHIRE DIVISION.

AN ordinary meeting was held at the Pontypool and District Hospital on February 24th. Dr. A. G. LAWRENCE was in the chair, and there were present Drs. Crinks, Mason, Glendinning, Nelis, Acomb, Haslett, Frost, Verity, Ryan, J. O'Sullivan (Cwm), Elworthy, Greer, Makins, Mitchell, Cowie, J. L. Thomas, and R. J. Coulter, Honorary Secretary.

*Confirmation of Minutes.*—The minutes of the meetings of November 25th, 1910, and January 21st, 1911, were read and confirmed.

*The late Dr. G. A. Brown.*—A letter was read from the relatives of the late Dr. G. A. Brown thanking the Division for its resolution of sympathy and wreath.

*Reports re Disputes.*—(1) Newport School Clinic: The HONORARY SECRETARY reported that the proposals of the Education Committee with regard to all operative treatment, physical exercises, and dental treatment had been withdrawn, and that the work of the clinic would be confined to the treatment of (*a*) errors of refraction and inflammatory conditions of the eyes, (*b*) discharging ears, (*c*) skin diseases without the use of *x* rays, (*d*) verminous heads. The Division adopted a line of policy in respect of any future development of the Clinic, and resolved to continue the Warning Notice. (2) Cwmtillery: The Honorary Secretary reported that the dispute had been settled on terms satisfactory to the Association. (3) Bedwellty Union: The Honorary Secretary reported that a vacancy having occurred for a medical officer under this authority, action had been taken which resulted in the salary being increased from £23 to £50 per annum, with the usual fees for vaccination, etc.

*Paper.*—Dr. L. E. ACOMB read a very exhaustive paper on anaesthetics and their administration, and after discussion a vote of thanks to him was passed on the motion of the CHAIRMAN.

*Tea.*—After the meeting the members present were entertained to tea by the authorities of the hospital, to whom a very hearty vote of thanks was passed on the motion of the CHAIRMAN.

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

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## BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A meeting of this Division will be held during the last week of March or the first week of April in the County Hotel, Carlisle, at 3.30 p.m. The Report on the Organization of Medical Attendance on the Provident or Insurance Basis will be discussed. Members desirous of reading papers or showing cases or specimens are requested to communicate at once with the Honorary Secretary. Fuller details will be given in a future notice.—JAMES R. S. ANDERSON, Honorary Secretary, Garlands, Carlisle.

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EAST ANGLIAN BRANCH.—The spring meeting of the East Anglian Branch will be held at Framlingham, Suffolk, on Thursday, April 20th. Members wishing to read papers or show specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, General Secretary, East Anglian Branch.

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LANCASHIRE AND CHESHIRE BRANCH. — A scientific and clinical meeting will be held at the Manchester Royal Infirmary on Wednesday, March 29th, at 4.15 p.m. Members willing to show cases, give demonstrations, or communications of scientific or clinical interest are requested to write to the Honorary Secretary of the Science Committee before March 20th.—P. R. COOPER, M.D., etc. (Honorary Secretary of Science Committee), 8, St. Peter's Square, Manchester.

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LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A special meeting of this Division will be held on Wednesday, March 22nd, at 4.30 p.m. (tea at 4 p.m.), at the Board Room of the Altrincham Hospital. Business: Replies to questions in the report published in the SUPPLEMENT March 4th, 1911. Members are requested to bring their copies of the SUPPLEMENT with them.—H. G. COOPER, Honorary Secretry.

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METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting will be held on Tuesday, March 21st, at 9 p.m., in conjunction with the Walthamstow Division, at Brooke House, Upper Clapton (by invitation of Dr. Gerald Johnston), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Forms of Nervous Disease.—A. G. SOUTHCOMBE, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: CITY, STRATFORD, TOTTENHAM, AND WALTHAMSTOW DIVISIONS.—A joint meeting of these Divisions will be held at Winchester House, Broad Street, E.C., on Friday (this day) March 17th, at 4 p.m., when Mr. Smith Whitaker will give an address on the Report of the Poor Law Committee on Medical Attendance on the Provident or Insurance Basis.—A. G. SOUTHCOMBE, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next *Medico-Political Meeting* of the Division will take place at the Kensington Town Hall on March 24th, at 4.30 p.m. Agenda: (1) Minutes of previous meeting. (2) Communication concerning the Royal Insurance Company's fees for examination. (3) Report on the organization of medical attendance on the provident or insurance principle. (This report appears in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th. Members are specially requested to study this report carefully, and the questions to be answered by the Division.) (4) Any other business that may arise.—H. BECKETT-OVERY, 24, Alexander Square, South Kensington, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—There will be a meeting of the Wandsworth Division on Thursday, March 23rd, at 27, St. John's Hill, Clapham Junction, at 8.45 p.m. Mr. Ernest Clarke, F.R.C.S., Surgeon to the Central London Ophthalmic Hospital, will give a practical demonstration on "Some Points in Sight Testing in General Practice."—S. VERDON-ROE, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held at the Assembly Rooms, Market Harborough, on Wednesday, March 22nd, at 4.15 o'clock p.m. Agenda: Minutes of the previous meeting. Election of vice-chairman of the Division. The following resolution will be proposed: "That this Division request the Education Committee of the Leicestershire County Council to adopt the resolution passed by the Borough Education Committee with reference to the payment of medical men called in to attend school children by teachers or other duly authorized persons." The following resolution will be proposed—"That the mode of election of twelve members of the Council by the Representatives of constituencies at the Annual Representative Meeting be by card voting." Discussion on Typhoid Fever—(1) Introductory, R. B. Stamford, F.R.C.S.; (2) Pathology and Bacteriology, T. C. Clare, F.R.C.S., M.B.; (3) Differential Diagnosis, C. H. McComas, M.D.; (4) Symptoms, R. Sevestre, M.D.; (5) Surgical Complications (Abdominal), C. J. Bond, F.R.C.S.; (6) Surgical Complications (Extra-abdominal), W. Cumberlidge, F.R.C.S.; (7) Treatment, R. Ballard, M.R.C.S., L.R.C.P. Nomination of two representatives to serve on the board of the Leicester Infirmary. Any other business. Tea will be provided at the Assembly Rooms at 4 o'clock by the kind invitation of Dr. Ballard.—R. WALLACE HENRY, M.D., Honorary Secretary, Leicester.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A meeting of this Branch will be held at the Northe n Infirmary, Inverness, on Saturday, March 25th, at 3 p.m. Agenda: (1) Report of Committee on the Organization of Medical Attendance on the Provident or Insurance Principle. (2) Election of Representative at Representative Meetings. (3) Consideration of various documents referred to Divisions. (4) Any other competent business.—J. MUNRO MOIR, M D., Honorary Secretary.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—The next meeting of this Division will be held at the Victoria Hotel, Hardres Street, Ramsgate, on Tuesday, March 21st, at 3.45 p.m., R. J. Archibald, Esq., in the chair. Agenda: Special meeting: The meeting is called to discuss the report on the organization of medical attendance on the provident or insurance basis which appeared in the issue of the BRITISH MEDICAL JOURNAL SUPPLEMENT dated March 4th. Members are specially urged: (1) To read the *leading article* on the subject (page 511 of JOURNAL). (2) To consider the *summary* on the report at the end of the SUPPLEMENT. (3) To do their best to fully consider the *report* itself. (4) And finally, to carefully prepare their answers to the *questions* on pages 107–116 of SUPPLEMENT. On *their answers*, it is considered, will depend, to a large extent, the future welfare of the profession. It is hoped, therefore, that members will make a special effort to attend, the Executive Committee having done their best to give members a good opportunity to discuss the questions. Tea will be served during the meeting. All members of the Association are invited to attend these meetings, and to introduce professional friends.—HUGH M. RAVEN, Honorary Divisional Secretary, Broadstairs.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital at 2.30 on Tuesday, March 28th. There will be a discussion on the attitude of the medical profession towards the Government's proposed scheme of the organization of medical attendance on a provident or insurance principle. The meeting will be addressed by Mr. J. Smith Whitaker, Medical Secretary of the Association. Owing to the importance of the subject, and the kind attendance of the Medical Secretary of the Association, it is hoped that all members will make an effort to attend, and also medical men not members of the Association, who are being invited on this occasion. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road. The charge for the luncheon is 2s. 6d., and those wishing to attend it should notify the Secretary four days beforehand.—P. S. HICHENS, Honorary Secretary.

SOUTH-WESTERN BRANCH: WEST CORNWALL DIVISION.—Special meetings of this Division will be held at the West Cornwall Infirmary, Penzance, on Tuesday, March 21st, at 3.15 p.m., and at the Royal Cornwall Infirmary, Truro, on Thursday, March 23rd, at 3 30 p.m. Agenda: To consider and reply to the "Report on Organization of Medical Attendance on a Provident or Insurance Prieciple," issued as a SUPPLEMENT to the JOURNAL of March 4th. As this matter has to be reported in time for a Representative Meeting of the British Medical Association in April, the meetings to be held for the consideration of the reports of the district meetings recently held on the "fees" question have temporarily to be postponed.—MARK R. TAYLOR, Honorary Secretary, West Cornwall Division.

WEST SOMERSET BRANCH.—A special meeting of this Branch will be held on March 31st to discuss the very important report which forms the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th.—W. B. WINCKWORTH, Hon. Secretary, Taunton.

# GENERAL MEDICAL COUNCIL.

## EXECUTIVE COMMITTEE.

**A MEETING of the Executive Committee of the General Medical Council was held on Monday, February 27th, Sir DONALD MACALISTER, President, in the chair.**

### PRELIMINARY EXAMINATION OF THE CONJOINT BOARD IN IRELAND.

**A letter was received from the Royal Colleges of Physicians and Surgeons in Ireland protesting against a resolution of the General Medical Council at its meeting on November 26th, 1910, adopting a report of the Education Committee containing a recommendation that after the year 1913 the preliminary examination of the Conjoint Board in Ireland should be removed from the list of those recognized by the Council. Sir John Moore drew attention to the circumstances under which the report of the committee was adopted on the afternoon of Saturday, November 26th, and handed in a statement which he desired to be regarded as supplementary to the letter from the Royal Colleges. The letter and statement were referred to the Education Committee for consideration and report to the next meeting of the Council.**

### DIPLOMAS IN TROPICAL MEDICINE.

**On November 22nd, 1910, the Council resolved to inform the Lord President that the Council was prepared to undertake the duty of registering diplomas in tropical medicine should Parliament think fit to amend the Medical Acts in the sense indicated. At the same time the Council forwarded copies of the memorial praying for such registration to the licensing bodies, inviting observations from them thereon. A memorandum prepared by the Registrar embodying the replies was directed to be transmitted to the Lord President of the Council for his information. The replies received were generally favourable to the establishment and registration of such a diploma. The Royal College of Physicians of London and the Royal College of Surgeons of England presented reports, both expressing the opinion that the qualifying bodies should alone have the responsibility of determining the conditions on which such diplomas should be granted, the General Medical Council having its statutory powers of inspection. The University of Birmingham expressed the opinion that the requirements of the examination should be under the control of the General Medical Council in order to obtain uniformity of study. The University of Leeds considered that the power of granting such diplomas should be limited to such qualifying bodies, as were also teaching institutions in the subject. The Royal College of Physicians of Edinburgh considered that the need for a special diploma had been established; that it was desirable that there should be uniformity in training and in standard of examination; that if uniformity can be attained by no other means, it would be advisable that such diplomas should be registrable; but as the registration of minor qualifications was open to objection, it asked whether the end in view could not be attained by an endorsement made on the Diploma in Public Health.**

### INSTRUCTION AND EXAMINATION IN OPHTHALMOLOGY.

**The Committee considered a communication from the Council of the British Medical Association transmitting the following resolution, copies of which were being forwarded also by the Association to the universities and other medical schools and examining bodies in the United Kingdom.**

> That it is desirable that diagnosis and treatment of disease of the eye, including the estimation of refractive errors and retinoscopy, should be compulsory subjects in every medical curriculum, and that every student should undergo a practical examination therein.

**The Executive Committee resolved to direct attention to the report of the Education Committee approved by the Council on November 26th, 1910, which contained the following passage:**

> In the curriculum of all the licensing bodies, with three exceptions, special courses on ophthalmology form an essential part. The committee are of opinion that every student of

medicine should receive some special instruction in the subject. The committee do not think it necessary to insist that every student should be examined in ophthalmology, but they are of opinion that all students should be liable to be examined in some branch of the subject.

ANAESTHETICS BILL.

**The following resolution adopted by the Council of the Birmingham and District Medical Practitioners' Union was considered:**

That while dentists may be permitted to administer nitrous oxide gas for dental operations, they should not be permitted to give any anaesthetic for operations other than dental, as they have had no complete training in medicine or surgery, and are consequently unqualified to cope with emergencies which might arise.

**The committee resolved to forward a copy of the report of the Anaesthetics Committee to the general secretary of the union, and to inform him that the Council on November 26th, 1910, adopted the following resolution:**

That in Clause 1 it is desirable that a provision should be introduced making it clear that a person registered under the Dentists Act, 1878, is not prohibited from administering for a legally qualified medical practitioner one or more of the scheduled anaesthetics in connexion with an operation, act, or procedure other than dental conducted by such medical practitioner.

FINANCE.

**The accounts of receipts and expenditure of the General Council, of the Branch Councils, and of the Dental Committee for the year ending December 31st, 1910, were received.**

**It appears that the total expenditure of the General Medical Council was £6,838 18s. 1d., the main items being as follows:**

| | £ | s. | d. |
|---|---|---|---|
| Fees and other expenses to members of the Council and Committees ... | 2,832 | 3 | 6 |
| Visitation and inspection of examinations, Apothecaries' Hall, Dublin ... ... ... ... | 120 | 16 | 6 |
| Printing ... ... ... ... | 1,171 | 3 | 6 |
| Office expenses ... ... ... | 1,109 | 0 | 3 |
| Law expenses ... ... ... | 553 | 6 | 3 |
| Miscellaneous expenses ... ... | 202 | 16 | 5 |
| Interest to date on mortgage ... | 699 | 11 | 8 |
| Contribution to Irish Branch Council ... ... ... ... | 150 | 0 | 0 |

**The printing expenses included £601 10s. cost of printing the *Medical* and *Students' Registers* for 1910; the sales of the *Registers* and other publications brought in £82 2s. 4d. The interest on mortgage refers to the mortgage on 299, Oxford Street and 16, Hanover Square, which are mortgaged to the English Branch Council.**

**The contributions of the Branches to the expenditure of the General Medical Council were as follows:**

| | £ | s. | d. |
|---|---|---|---|
| English Branch Council ... ... | 3,073 | 4 | 5 |
| Scottish Branch Council ... ... | 2,041 | 10 | 0 |
| Irish Branch Council ... ... | 810 | 19 | 0 |
| | £5,925 | 13 | 5 |

# Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon W. L. N. CHERRY to Portland Hospital, March 13th; Surgeon C. D. BELL, M.B., to the *Research*, on recommissioning, March 7th; Surgeon H. M. BRAITHWAITE, M.B., to the *Vivid*, additional, March 12th; Surgeon A. FAIRLEY, M.B., to the *Vivid*, additional, for disposal, on the *Invincible* reducing, undated.

INDIAN MEDICAL SERVICE.

COLONEL G. W. P. DENNYS is appointed Principal Medical Officer, Derajab and Bannu Brigades, vice Lieutenant-Colonel J. SHEARER, C.B., D.S.O., M.B., retired.

Surgeon-General C. P. LUKIS, C.S.I., M.D., Director-General, has been awarded a good service pension, vice Sir G. Bomford, K.C.I.E., M.D., retired.

TERRITORIAL FORCE.

ROYAL FIELD ARTILLERY.

SURGEON-CAPTAIN J. R. BIBBY, M.B., 1st South Midland (Gloucestershire) Brigade, resigns his commission, February 25th.

ROYAL ARMY MEDICAL CORPS.

*Third London (City of London) Field Ambulance.*—Lieutenan H. A. T. FAIRBANK, F.R.C.S., to be Captain, August 30th, 1910.

*First Scottish General Hospital.*—Officers retiring under the provisions of Paragraph 75 of the Territorial Force Regulations, February, 25th: Lieutenant-Colonel JOHN GORDON, M.D., Major GEORGE ROSE M.B.

*For Attachment to Units other than Medical Units.*—Major J. A. MASTERS, M.D., from the 2nd London (City of London) Field Ambulance, to be Major, January 23rd.

*Attached to Units other than Medical Units.*—Lieutenant A. L. S. TUKE, M.B., to be Captain, December 10th, 1910; Lieutenant-Colonel C. C. GREIG, M.B., retires under the provisions of paragraph 116 of the Territorial Force Regulations, and retains his rank and uniform, February 25th; Lieutenant EDWARD OLIPHANT, M.B., resigns his commission, February 25th.

*South Wales Mounted Brigade Field Ambulance.*—Major J. R. I. RAYWOOD, to be Lieutenant-Colonel, December 8th, 1910.

*Welsh Border Mounted Brigade Field Ambulance.*—Lieutenant GEORGE JUBB, M.D., resigns his commission, March 4th.

COLONIAL MEDICAL SERVICE.

THE following changes in the Colonial Medical Service are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Appointment:* C. S. THOMPSON, M.B., B.S.Durh., has been selected for appointment to the Staff, and assigned to Southern Nigeria. *Transfer:* H. C. JEFFREYS, B.A.Oxon., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Sierra Leone, has been transferred to Northern Nigeria.

OTHER COLONIES AND PROTECTORATES.—E. N. DARWENT, M.D., C.M. Edin., Resident Surgeon of the Colonial Hospital, Trinidad, has been appointed District Medical Officer, Arima District, Trinidad.

# Vital Statistics.

ENGLISH URBAN MORTALITY DURING 1910.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the seventy-seven large towns dealt with in the Registrar-General's weekly and quarterly returns. During the fifty-two weeks ending on December 31st last, 420,499 births were registered in these towns, equal to a rate of 24.9 per 1,000 of the population, estimated at 16,940.895 persons in the middle of last year; in the three preceding years the birth-rates were 27.0, 26.9 and 25.7 per 1,000. In London the birth-rate last year was 23 6 per 1,000, while it averaged 25.4 in the seventy-six other towns, and ranged from 13.4 in Hastings, 14.0 in Hornsey, 16.5 in Halifax, 17.0 in Bournemouth, 18 6 in Bradford and 19.2 in Northampton, to 31.8 in Tynemouth, 32.2 in Middlesbrough, 32.6 in St. Helens, Merthyr Tydfil and Swansea, 32.9 in Coventry, and 40.7 in Rhondda.

The deaths registered in the seventy-seven towns during the period under notice numbered 226,742, and were equal to a rate of 13.4 per 1,000; the death-rates in the three preceding years were 15.4, 14.9, and 14.7 per 1,000. The rate of mortality in London last year was 12.7 per 1,000; in the seventy-six other large towns the rate averaged 13.7 per 1,000, and ranged from 7.7 in Hornsey, 8.0 in King's Norton, 8.4 in Handsworth (Staffs), 8.9 in East Ham, and 9.1 in Willesden and in Walthamstow, to 16.3 in Burnley and in Preston, 16.4 in Merthyr Tydfil, 16.6 in Huddersfield, 16 9 in Middlesbrough, 17.1 in Tynemouth, 17.3 in Oldham, 17.6 in Swansea, and 17.7 in Liverpool.

The 226,742 deaths from all causes in these towns last year included 20,908 which were referred to the principal infectious diseases; of these, 9 resulted from small-pox, 5,190 from measles, 1,342 from scarlet fever, 1,974 from diphtheria, 4,972 from whooping-cough, 918 from enteric fever, and 6,503 from diarrhoea. The death-rate from these diseases in the aggregate was 1.23 per 1,000, the death-rates from the same diseases in the three preceding years being 1.54, 1.59, and 1.42 per 1,000. In London the mortality from these diseases last year was 1.14 per 1,000; among the seventy-six other towns the rate averaged 1.28 per 1,000, and ranged from 0.32 in Bournemouth, 0.35 in Reading, 0.39 in Hornsey, 0.49 in Handsworth (Staffs), 0 57 in Derby, and 0 59 in Bristol, to 1.84 in Stoke-on-Trent, 1.86 in Bootle, 1.89 in Tynemouth, 1.99 in Middlesbrough, 2.04 in Merthyr Tydfil, 2.05 in Barrow-in-Furness, 2.28 in Liverpool, and 2.47 in Burnley. The 5,190 deaths from measles were equal to a rate of 0.31 per 1,000: in London the death-rate from this cause was 0 41 per 1,000, while among the other towns it averaged 0.27 per 1,000, and ranged upwards to 0.58 in Oldham, 0.60 in Brighton and in Liverpool, 0.75 in Tynemouth, 0.79 in Barrow-in-Furness, and 1.20 in Merthyr Tydfil. The 1,342 fatal cases of scarlet fever corresponded to a rate of 0.08 per 1,000; the rate in London was only 0.04 per 1,000, while among the other towns the highest rates were 0 22 in Liverpool, 0.23 in St. Helens, 0.26 in Smethwick, 0.27 in Stoke-on-Trent, 0.31 in Coventry, and 0.34 in Bury. The 1,974 deaths from diphtheria were equal to a rate of 0.12 per 1,000; in London the death-rate from this disease was 0.09 per 1,000, while it averaged 0.13 in the seventy-six other towns, and ranged upwards to 0.22 in Devonport, 0.24 in King's Norton, 0.26 in Portsmouth, 0.32 in Middlesbrough, 0.33 in Stoke-on-Trent and in Barrow-in-Furness, and 0.35 in Burton-on-Trent. The 4,972 fatal cases of whooping-cough were equal to a rate of 0 29 per 1,000; in London the rate was slightly lower, while among the other towns the highest rates were 0 52 in Birkenhead and in Gateshead, 0 53 in Devonport and in Newport (Mon.), 0.54 in Oldham and in South Shields, 0.56 in Manchester, 0.58 in Liverpool, 0.60 in Rotherham, and 0.66 in West Hartlepool. The 918 deaths referred to enteric fever corresponded to a rate of 0.05 per 1,000; in London the rate was 0.04, while among the other towns it ranged upwards to 0.12 in Stoke-on-Trent, in Warrington, and in Rotherham, 0.13 in Stockton-on-Tees, 0 14 in Dewsbury, 0.17 in Preston, 0.18 in Portsmouth, 0 22 in Grimsby, and 0 28 in Wigan. The 6,503 fatal cases of diarrhoea were equal to a rate of 0.38 per 1,000; in London the death-rate from this cause was 0.28 per 1,000, while it averaged 0.43 in the seventy-six other towns, among which the highest death-rates from diarrhoea were 0.63 in Walsall, 0 67 in Sheffield, 0 69 in Birkenhead, 0.71 in Liverpool, 0.77 in Wigan, 0.86 in Rhondda 0.88 in Bootle, 0.93 in Hull, 0.99 in Preston, 1.13 in Burnley, and 1.17 in Middlesbrough. The 9 deaths from small-pox included 2 in South Shields, and 1 each in Nottingham, St. Helens, Blackburn, Sheffield, Hull, Newcastle-on-Tyne, and Cardiff.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 115 per 1,000 last year, against 127, 129, and 118 in the three preceding years. The rate of infant mortality in London last year was 103 per 1,000, while it averaged 119 in the seventy-six other towns, and ranged from 66 in Leyton, 67 in King's Norton, 70 in Hornsey, 75 in Bournemouth and in Reading, and 79 in Southampton, in Burton-on-Trent, and in Handsworth (Staffs), to 140 in Liverpool, 144 in Middlesbrough, 145 in Dewsbury, 149 in Stoke-on-Trent, 151 in Gateshead, 158 in Preston, and 168 in Burnley.

The causes of 1,849, or 0.8 per cent. of the deaths in the seventy-seven towns last year were not certified, either by a registered medical practioner or by a coroner. All the causes of death were duly certified in Croydon, Tottenham, Leyton, Southampton, Plymouth, Devonport, Derby, Dewsbury, and Swansea; the highest proportions of uncertified deaths were 3.0 in Birmingham and in Preston, 3.6 in Bootle and in South Shields, 3.9 in Warrington, 4.5 in St. Helens, and 5.5 in Gateshead.

*Analysis of the Vital Statistics of Seventy-seven of the Largest English Towns during 1910.*

| Towns. | Estimated Population middle of 1910. | Births. | Deaths. | Annual rate per 1,000 Living. | | | Deaths from Principal Infectious Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Enteric Fever. | Diarrhœa. | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Births. | Deaths. | Principal Infectious Diseases. | | | | | | | | | | |
| 77 Towns | 16,940,895 | 420,499 | 226,742 | 24.9 | 13.4 | 1.23 | 20,908 | 9 | 5,190 | 1,342 | 1,974 | 4,972 | 918 | 6,503 | 115 | 0.8 |
| 76 Provincial Towns | 12,068,193 | 305,629 | 164,986 | 25.4 | 13.7 | 1.28 | 15,353 | 9 | 3,210 | 1,128 | 1,540 | 3,609 | 722 | 5,135 | 119 | 1.1 |
| London | 4,872,702 | 114,870 | 61,756 | 23.6 | 12.7 | 1.14 | 5,555 | — | 1,980 | 214 | 434 | 1,363 | 196 | 1,368 | 103 | 0.1 |
| Croydon | 164,485 | 3,810 | 1,804 | 23.2 | 11.0 | 0.60 | 100 | — | 33 | 7 | 18 | 20 | — | 22 | 87 | — |
| Willesden | 166,088 | 3,808 | 1,513 | 23.0 | 9.1 | 0.63 | 103 | — | 30 | — | 11 | 29 | 2 | 31 | 82 | 0.5 |
| Hornsey | 98,561 | 1,377 | 758 | 14.0 | 7.7 | 0.39 | 39 | — | 1 | 4 | 8 | 12 | 3 | 11 | 70 | 0.3 |
| Tottenham | 132,803 | 3,696 | 1,516 | 27.9 | 11.4 | 0.80 | 105 | — | 32 | 4 | 13 | 32 | 10 | 14 | 86 | — |
| West Ham | 328,585 | 8,659 | 3,831 | 26.4 | 11.7 | 1.20 | 392 | — | 97 | 19 | 49 | 84 | 17 | 126 | 101 | 0.1 |
| East Ham | 156,208 | 3,420 | 1,390 | 22.0 | 8.9 | 0.65 | 101 | — | 31 | 4 | 13 | 23 | 6 | 24 | 94 | 0.1 |
| Leyton | 133,436 | 3,150 | 1,233 | 23.7 | 9.3 | 0.68 | 90 | — | 18 | 16 | 20 | 17 | 3 | 16 | 66 | — |
| Walthamstow | 141,748 | 3,188 | 1,288 | 22.6 | 9.1 | 0.63 | 89 | — | 20 | 4 | 14 | 33 | 3 | 15 | 95 | 0.1 |
| Hastings | 68,520 | 917 | 857 | 13.4 | 12.5 | 1.03 | 70 | — | 25 | 1 | 4 | 34 | — | 6 | 91 | 0.8 |
| Brighton | 131,900 | 2,612 | 1,875 | 19.9 | 14.3 | 1.27 | 166 | — | 79 | 6 | 2 | 19 | 9 | 51 | 109 | 0.1 |
| Portsmouth | 217,989 | 5,801 | 2,995 | 26.7 | 13.8 | 1.36 | 295 | — | 64 | 30 | 56 | 52 | 39 | 54 | 104 | 0.7 |
| Bournemouth | 73,947 | 1,251 | 862 | 17.0 | 11.7 | 0.32 | 24 | — | — | 2 | 11 | 4 | — | 7 | 75 | 0.9 |
| Southampton | 127,157 | 2,926 | 1,491 | 23.1 | 11.8 | 0.71 | 89 | — | 17 | 2 | 16 | 11 | 10 | 33 | 79 | — |
| Reading | 84,355 | 1,671 | 834 | 19.9 | 9.9 | 0.35 | 30 | — | — | 1 | 8 | 12 | 2 | 7 | 75 | 2.4 |
| Northampton | 99,113 | 1,901 | 1,127 | 19.2 | 11.4 | 0.76 | 76 | — | 19 | — | 7 | 24 | 4 | 22 | 110 | 1.2 |
| Ipswich | 75,936 | 1,787 | 1,028 | 23.6 | 13.6 | 0.94 | 71 | — | 34 | 1 | 8 | 17 | 2 | 9 | 97 | 0.2 |
| Great Yarmouth | 53,715 | 1,391 | 773 | 26.0 | 14.4 | 0.64 | 34 | — | 1 | 1 | 4 | 11 | 1 | 16 | 100 | 0.1 |
| Norwich | 125,446 | 2,870 | 1,560 | 22.9 | 12.5 | 0.69 | 86 | — | 8 | 11 | 17 | 19 | 4 | 27 | 103 | 1.3 |
| Plymouth | 126,266 | 2,550 | 1,700 | 20.3 | 13.5 | 1.16 | 147 | — | 47 | 1 | 11 | 38 | 8 | 42 | 114 | — |
| Devonport | 84,695 | 1,998 | 980 | 23.7 | 11.6 | 1.16 | 99 | — | 5 | 1 | 19 | 45 | 8 | 21 | 103 | — |
| Bristol | 382,550 | 8,262 | 4,402 | 21.7 | 11.5 | 0.59 | 230 | — | 32 | 13 | 38 | 66 | 8 | 73 | 90 | 0.1 |
| Stoke-on-Trent | 245,726 | 7,548 | 3,913 | 30.8 | 16.0 | 1.84 | 452 | — | 96 | 66 | 81 | 55 | 30 | 124 | 149 | 1.9 |
| Burton-on-Trent | 54,977 | 1,158 | 619 | 21.1 | 11.3 | 1.21 | 66 | — | 24 | 1 | 19 | 15 | 2 | 5 | 79 | 1.9 |
| Wolverhampton | 105,962 | 2,384 | 1,326 | 22.6 | 12.5 | 0.72 | 75 | — | 18 | 5 | 4 | 28 | 1 | 19 | 107 | 0.4 |
| Walsall | 101,035 | 2,746 | 1,210 | 27.3 | 12.0 | 1.07 | 107 | — | 9 | 19 | 7 | 5 | 4 | 63 | 113 | 1.0 |
| Handsworth | 72,335 | 1,414 | 607 | 19.6 | 8.4 | 0.49 | 35 | — | — | 10 | — | 11 | 2 | 12 | 79 | 0.8 |
| West Bromwich | 71,138 | 2,038 | 901 | 28.7 | 12.7 | 0.98 | 69 | — | 9 | 9 | 8 | 4 | 2 | 37 | 105 | 1.6 |
| Birmingham | 570,113 | 14,926 | 7,774 | 26.3 | 13.7 | 1.12 | 637 | — | 38 | 81 | 63 | 211 | 25 | 219 | 130 | 3.0 |
| King's Norton | 84,673 | 1,798 | 676 | 21.3 | 8.0 | 0.62 | 52 | — | — | 6 | 20 | 15 | — | 11 | 67 | 1.8 |
| Smethwick | 72,350 | 1,967 | 785 | 27.3 | 10.9 | 1.10 | 80 | — | — | 19 | 8 | 19 | 8 | 26 | 107 | 0.6 |
| Aston Manor | 86,269 | 1,993 | 931 | 23.2 | 10.8 | 1.10 | 94 | — | — | 17 | 5 | 25 | 4 | 43 | 111 | 0.8 |
| Coventry | 81,449 | 2,675 | 1,156 | 32.9 | 14.2 | 1.04 | 85 | — | 6 | 25 | 13 | 9 | 5 | 27 | 87 | 1.6 |
| Leicester | 248,374 | 5,313 | 2,797 | 21.4 | 11.3 | 0.68 | 169 | — | 13 | 12 | 11 | 52 | 10 | 71 | 126 | 1.1 |
| Grimsby | 74,283 | 2,089 | 1,038 | 28.2 | 14.0 | 1.71 | 127 | — | 27 | — | 3 | 35 | 16 | 46 | 131 | 1.1 |
| Nottingham | 266,471 | 6,603 | 3,770 | 24.8 | 14.2 | 1.01 | 268 | 1 | 52 | 15 | 30 | 64 | 13 | 93 | 128 | 0.5 |
| Derby | 131,256 | 3,160 | 1,449 | 24.1 | 11.1 | 0.57 | 74 | — | 14 | 4 | 22 | 14 | 7 | 13 | 85 | — |
| Stockport | 105,087 | 2,690 | 1,645 | 25.7 | 15.7 | 1.32 | 139 | — | 40 | 2 | 13 | 36 | 3 | 45 | 137 | 0.4 |
| Birkenhead | 122,431 | 3,761 | 1,981 | 30.5 | 16.2 | 1.78 | 217 | — | 33 | 5 | 23 | 64 | 8 | 84 | 135 | 0.7 |
| Wallasey | 73,173 | 1,724 | 912 | 23.6 | 12.5 | 0.97 | 71 | — | 14 | 3 | 4 | 20 | 7 | 23 | 87 | 1.0 |
| Liverpool | 767,606 | 23,057 | 13,587 | 30.1 | 17.7 | 2.28 | 1,749 | — | 461 | 172 | 98 | 444 | 34 | 540 | 140 | 2.1 |
| Bootle | 70,548 | 2,015 | 1,033 | 28.6 | 14.7 | 1.86 | 130 | — | 23 | 4 | 6 | 33 | 2 | 62 | 128 | 3.6 |
| St. Helens | 96,523 | 3,139 | 1,394 | 32.6 | 14.5 | 1.35 | 130 | 1 | 15 | 22 | 7 | 16 | 10 | 59 | 123 | 4.5 |
| Wigan | 91,732 | 2,725 | 1,388 | 29.8 | 15.2 | 1.46 | 133 | — | 8 | 10 | 8 | 11 | 26 | 70 | 131 | 0.1 |
| Warrington | 73,295 | 2,225 | 1,065 | 30.4 | 14.6 | 1.17 | 85 | — | 11 | 5 | 7 | 18 | 9 | 35 | 113 | 3.9 |
| Bolton | 190,315 | 4,348 | 2,546 | 22.9 | 13.4 | 1.08 | 207 | — | 2 | 37 | 29 | 56 | 12 | 71 | 117 | 0.6 |
| Bury | 59,409 | 1,235 | 869 | 20.8 | 14.7 | 1.19 | 70 | — | 8 | 20 | 8 | — | 3 | 31 | 126 | 2.1 |
| Manchester | 716,354 | 19,368 | 11,466 | 27.1 | 16.1 | 1.79 | 1,280 | — | 289 | 81 | 98 | 397 | 62 | 353 | 131 | 0.7 |
| Salford | 244,636 | 6,526 | 3,696 | 26.7 | 15.1 | 1.70 | 415 | — | 82 | 29 | 51 | 101 | 24 | 128 | 130 | 0.4 |
| Oldham | 144,111 | 3,712 | 2,485 | 25.8 | 17.3 | 1.79 | 259 | — | 84 | 4 | 9 | 78 | 10 | 74 | 127 | 0.1 |
| Rochdale | 90,497 | 1,951 | 1,349 | 21.6 | 14.9 | 0.82 | 73 | — | 3 | 8 | 9 | 17 | 6 | 30 | 104 | 2.5 |
| Burnley | 107,448 | 2,671 | 1,748 | 24.9 | 16.3 | 2.47 | 264 | — | 59 | 22 | 17 | 38 | 7 | 121 | 168 | 1.1 |
| Blackburn | 137,972 | 2,947 | 1,948 | 21.4 | 14.2 | 1.33 | 180 | 1 | 42 | 27 | 22 | 16 | 8 | 64 | 136 | 2.1 |
| Preston | 119,253 | 2,812 | 1,937 | 23.6 | 16.3 | 1.71 | 203 | — | 32 | 8 | 17 | 8 | 20 | 118 | 158 | 3.0 |
| Barrow-in-Furness | 63,689 | 1,611 | 907 | 25.4 | 14.3 | 2.05 | 130 | — | 50 | 4 | 21 | 28 | 1 | 26 | 120 | 2.5 |
| Huddersfield | 94,702 | 2,165 | 1,572 | 22.9 | 16.6 | 1.13 | 106 | — | 10 | 18 | 15 | 28 | 5 | 30 | 99 | 0.6 |
| Halifax | 112,818 | 1,858 | 1,443 | 16.5 | 12.8 | 0.71 | 81 | — | 14 | 4 | 24 | 14 | 9 | 16 | 89 | 1.3 |
| Bradford | 295,865 | 5,489 | 4,138 | 18.6 | 14.0 | 1.25 | 367 | — | 144 | 15 | 38 | 43 | 29 | 98 | 127 | 0.3 |
| Leeds | 490,985 | 10,867 | 6,691 | 22.2 | 13.7 | 1.28 | 627 | — | 159 | 41 | 67 | 150 | 20 | 190 | 132 | 0.1 |
| Dewsbury | 51,224 | 1,061 | 825 | 20.8 | 16.1 | 1.20 | 61 | — | 15 | 5 | 7 | 10 | 7 | 17 | 145 | — |
| Sheffield | 478,763 | 12,662 | 6,402 | 26.5 | 13.4 | 1.50 | 711 | 1 | 118 | 34 | 36 | 187 | 17 | 318 | 127 | 1.2 |
| Rotherham | 66,414 | 1,873 | 898 | 28.3 | 13.6 | 1.52 | 101 | — | 30 | 4 | 6 | 40 | 8 | 13 | 131 | 0.9 |
| York | 88,159 | 1,983 | 1,035 | 22.6 | 11.8 | 0.71 | 63 | — | 8 | 1 | 2 | 10 | 4 | 38 | 93 | 0.1 |
| Hull | 280,006 | 7,994 | 4,258 | 28.6 | 15.2 | 1.76 | 490 | 1 | 74 | 16 | 47 | 65 | 28 | 259 | 135 | 1.1 |
| Middlesbrough | 107,014 | 3,438 | 1,800 | 32.2 | 16.9 | 1.99 | 213 | — | 10 | 3 | 34 | 31 | 10 | 125 | 144 | 0.6 |
| Stockton-on-Tees | 53,680 | 1,471 | 813 | 27.5 | 15.2 | 1.13 | 61 | — | 13 | 3 | 7 | 12 | 7 | 19 | 124 | 0.7 |
| West Hartlepool | 81,814 | 1,860 | 939 | 22.8 | 11.5 | 1.48 | 121 | — | 21 | 1 | 14 | 54 | 2 | 29 | 131 | 0.3 |
| Sunderland | 161,083 | 4,583 | 2,548 | 28.5 | 15.9 | 1.44 | 232 | — | 60 | 14 | 21 | 45 | 11 | 81 | 129 | 2.0 |
| South Shields | 119,737 | 3,350 | 1,623 | 28.1 | 13.6 | 1.25 | 149 | 2 | 17 | 5 | 5 | 64 | 6 | 49 | 113 | 3.6 |
| Gateshead | 133,676 | 3,622 | 1,730 | 27.2 | 13.0 | 1.37 | 181 | — | 24 | 5 | 11 | 69 | 2 | 70 | 151 | 5.5 |
| Newcastle-on-Tyne | 285,951 | 7,542 | 3,950 | 26.4 | 13.9 | 1.15 | 330 | 1 | 85 | 12 | 40 | 80 | 9 | 103 | 121 | 0.3 |
| Tynemouth | 56,378 | 1,787 | 963 | 31.8 | 17.1 | 1.89 | 106 | — | 42 | 3 | 10 | 19 | 4 | 28 | 125 | 1.6 |
| Newport (Mon.) | 79,729 | 2,442 | 1,069 | 30.7 | 13.4 | 1.13 | 90 | — | 6 | 5 | 9 | 42 | 3 | 25 | 113 | 0.3 |
| Cardiff | 199,189 | 4,832 | 2,361 | 24.3 | 11.9 | 0.96 | 188 | 1 | 46 | 19 | 24 | 20 | 7 | 71 | 111 | 0.0 |
| Rhondda | 138,674 | 5,627 | 2,162 | 40.7 | 15.6 | 1.69 | 235 | — | 25 | 24 | 14 | 42 | 11 | 119 | 136 | 0.6 |
| Merthyr Tydfil | 79,522 | 2,586 | 1,303 | 32.6 | 16.4 | 2.04 | 162 | — | 95 | 12 | 5 | 14 | 1 | 35 | 134 | 0.2 |
| Swansea | 98,817 | 3,213 | 1,738 | 32.6 | 17.6 | 1.18 | 117 | — | 39 | 3 | 16 | 25 | 2 | 32 | 123 | — |

### HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 8,121 births and 5,040 deaths were registered during the week ending Saturday, March 4th. The annual rate of mortality in these towns, which had been 17.6, 17.2, and 16.2 per 1,000 in the three preceding weeks, further declined to 15.3 in the week under notice. In London the death-rate was equal to 14.8 per 1,000, against 17.3, 17.1, and 16.3 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 5.6 in Handsworth (Staffs), 6.2 in Hornsey and in West Hartlepool, 6.3 in Warrington, and 9 5 in Ipswich and in King's Norton, to 19.7 in Stoke-on-Trent, in Wigan and in Halifax, 21.5 in Huddersfield, 23.9 in Sheffield, and 24.4 in Middlesbrough. Measles caused a death-rate of 3.0 in Devonport and in Aston Manor, 3.2 in St. Helens, 3.8 in Coventry, 4.2 in Leyton, and 9.1 in Sheffield, and whooping-cough of 1.6 in Norwich, 1.9 in Coventry and in Stockton-on-Tees, and 2.4 in Middlesbrough. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns. A fatal case of small-pox belonging to the Metropolitan Borough of Stepney was registered during the week, but none in any other of the towns. Of the 5,040 deaths recorded in the seventy-seven towns, 47 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Liverpool, 4 in Gateshead, and 3 each in Rochdale, Blackburn, Preston, Sheffield, and Hull. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,276 and 1,242 at the end of the two preceding weeks, had further declined to 1,197 at the end of the week under notice; 129 new cases were admitted during the week, against 166 and 138 in the two previous weeks. The small-pox hospitals of the Metropolitan Asylums Board contained 45 cases of small-pox under treatment on Saturday, March 4th, including 16 new cases admitted during the week.

### HEALTH OF SCOTTISH TOWNS.

During the week ending Saturday last, March 4th, 898 births and 621 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 19.0 and 17.4 in the two preceding weeks, further fell to 16.9 per 1,000 in the week under notice, and was 1.6 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 8.8 in Paisley and 14.0 in Aberdeen to 19.7 in Greenock and 20.1 in Dundee. The death-rate from the principal infectious diseases averaged 1.6 per 1,000, and was highest in Glasgow and Dundee. The 315 deaths from all causes registered in Glasgow included 1 from enteric fever, 3 from scarlet fever, 16 from whooping-cough, 4 from diphtheria, and 8 of children under 2 years of age from diarrhoea and enteritis. Two deaths from measles and 3 from whooping-cough were recorded in Edinburgh; and 5 deaths from whooping-cough in Dundee, 3 in Paisley, and 2 in Aberdeen.

### HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 4th, 656 births and 455 deaths were registered in the twenty-two principal urban districts of Ireland, as against 596 births and 466 deaths in the preceding period. The annual death-rate in these districts, which had been 24.1, 22.7, and 20.9 per 1,000 in the preceding weeks, fell to 20.4 per 1,000 in the week under notice, this figure being 5.1 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.6 and 17.4 respectively, those in other districts ranging from 5.2 in Portadown and 5.3 in Tralee to 39.8 in Lurgan and 48.0 in Sligo, while Cork stood at 17.8, Londonderry at 28.5, Limerick at 30.1, and Waterford at 33.1. The zymotic death-rate in the twenty-two districts averaged 1.7 per 1,000, as against 1.1 per 1,000 in the preceding week.

# Vacancies and Appointments.

## VACANCIES.

BATH ROYAL UNITED HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary, £80 per annum each.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM GENERAL HOSPITAL.—Surgical Casualty Officer (non-resident). Salary, £50 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physician; (2) Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £50 per annum each.

BOLTON IRFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

BURY COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist. Salary at the rate of £250 per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, rising to £180.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor.—House-Surgeon. Salary, £100 per annum.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary to commence at £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon. Salary, £60 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Clinical Assistants to Out-patient Departments.

FIFE COUNTY EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum, increasing to £300.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £75 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY,—Senior House-Surgeon. Salary, £100 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—(1) Two House-Physicians. (2) Three House-Surgeons. Salary at the rate of £40 per annum each.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months and £2 10s. washing allowance.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, and £80 for twelve months.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Vacancy on Honorary Medical Staff.

KIRKBEAN AND COLVEND JOINT PARISHES.—Medical Officer. Salary, £70 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £65 per annum.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

LONDON FEVER HOSPITAL, Islington, N.—Assistant Physician.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Surgeon for Children.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

MONTROSE ROYAL ASYLUM.—Second Assistant Medical Officer. Salary, £125 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistants in Out-patients' Department, Fitzroy Square.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Demonstrator of Bacteriology. Salary, £200 per annum.

NORTHAMPTON SANATORIUM, Creaton.—Resident Medical Officer. Salary at the rate of £200 per annum.

NOTTINGHAM EDUCATION COMMITTEE.—Senior Medical Inspector. Salary, £300 per annum.

PETERBOROUGH INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

PLYMOUTH, SOUTH DEVON, AND EAST CORNWALL HOSPITAL.—Honorary Emergency Anaesthetist.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROYAL DENTAL HOSPITAL, Leicester Square, W.C.—Morning House Anaesthetist. Honorarium, 25 guineas per annum.

ST. MARY'S HOSPITAL, Paddington, W.—Assistant Ophthalmic Surgeon.

SEAMEN'S HOSPITAL SOCIETY: DREADNOUGHT HOSPITAL.—(1) Two House-Physicians. (2) Two House-Surgeons. Salary at the rate of £50 per annum each.

SHREWSBURY: SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUNDERLAND INFIRMARY.—Two Male House-Surgeons. Salary, £80 per annum.

THROAT HOSPITAL, Golden Square, W.—Honorary Assistant Surgeon.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

TRANSVAAL MINERS' PHTHISIS SANATORIUM, Springkell, Modderfontein.—Medical Superintendent. Salary, £1,000 per annum.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (male). Salary, £100 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Senior House-Surgeon. Salary, £110 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—(1) House-Surgeon. (2) Junior House-Physician. Salary, £100 and £75 per annum respectively.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Surgical Officer. Salary, £125 per annum. (2) House-Surgeon. Salary at the rate of £80 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Cranleigh, co. Surrey; Wooburn, co. Bucks; Tullaroan, co. Kilkenny; Ballyragget, co. Kilkenny; Penkridge, co. Stafford.

## APPOINTMENTS.

CARRUTHERS, D. A., M.D.Edin., Medical Officer of Health of the County of West Suffolk.

CONNOLLY, D. I., M.B., Ch.B.Vict., Junior Resident Assistant Medical Officer of the Crumpsall Workhouse of the Manchester Township.

FAIRCLOUGH, W., M.B., B.S.Durh., Certifying Factory Surgeon for the Hexham District, co. Northumberland.

GRIFFIN, W. R., M.B., B.Ch.Dub., Medical Officer of Health of the Tavistock Urban District.

GRIFFITHS, S. H., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Wandsworth Union Infirmary.

HARMAN, A. B., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for Southampton District, co. Hants.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Cancer Research Officers: C. B. Marshall, M.B., Ch.B.Vict.

Senior House-Surgeons: E. L. Horsburgh, M.B., B.S.Lond.; F. H. Diggle, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P.

House-Physician: R. F. Higgin, M.R.C.S., L.R.C.P.

Assistant Director of the Clinical Laboratory: C. E. Lea, M.D., Ch.B.Vict.

Sixth Anaesthetist: G. Jefferson, M.B., B.S.Lond., M.R.C.S., L.R.C.P.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

BARRETT.—On March 7th, at Rysseldene, Colwyn Bay, North Wales, the wife of W. Ernest Barrett, F.R.C.S., of a daughter.

BLETCHLY.—On March 12th, at Hazelwood, Nailsworth, Gloucestershire, the wife of George Playne Bletchly, M.B.Lond., M.R.C.S. Eng., L.R.C.P.Lond., of a son.

BUCKLEY.—On March 13th, at 9, The Ropewalk, Nottingham, the wife of Dr. J. C. Buckley, of a daughter.

CARRUTHERS.—On March 10th, 1911, at Moody Hall, Congleton, the wife of E. J. W. Carruthers, M.D., of a daughter.

MÁSINÁ.—On February 15th, at Jamshed Hall, Nepean Sea Road, Malabar Hill, Bombay, India, the wife of H. M. Másiná, F.R.C.S., of a son.

### DEATHS.

BOSSON.—At Alford, Lincolnshire, on March 11th, George Bosson, M.R.C.S., aged 66 years.

COBBLEDICK.—On Sunday, March 12th, at 368, Brixton Road, Whitton, the only son of Dr. and Mrs. Cobbledick, aged 6½ years.

## DIARY FOR THE WEEK.

### TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers:—Mr. H. Wippell Gadd (barrister-at-law): How far can the Abuse of Drugs be Prevented by Law? Dr. Tunnicliffe: Patent Medicines.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Goulstonian Lecture, by Dr. A. F. Hertz: The Sensibility of the Alimentary Canal in Health and Disease.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Papers:—(1) Dr. W. Langdon Brown: An Inquiry into the Value of Rectal Feeding. (2) Dr. D. V. Cow: The Reaction of Arteries to Certain Drugs.

### WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Papers:—(1) Dr. Davenport Windle: The Respiratory Relationships of Pulsus Alternans. (2) Mr. R. Warren: Punctured Wounds of the Heart.

### THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Lumleian Lecture, by Dr. J. Mitchell Bruce: A Clinical Study of Cardio-Vascular Degeneration.

### FRIDAY.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C., 3.30 p.m.—A special Clinical Demonstration of interesting cases.

ROYAL SOCIETY OF MEDICINE:

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. W. H. Hamer: Typhoid Carriers and Contact Infection; Some Difficulties suggested by Study of Recent Investigations carried out on "Living Lines."

SECTION OF DISEASES IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—(1) Exhibition of Cases. (2) Papers:—Dr. David Forsyth: The History of Infant Feeding from Elizabethan Days. Dr. Milne: A Plea for the Home Treatment and Prevention of Measles.

### POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Knee-Joint, Ankle-Joint and Tarsus. Thursday, 4 p.m., Some Affections of the Newborn. Friday, 5.15 p.m., Inflammation of the Elbow-Joint, Pulled Elbow, Pericipital Bursitis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lecture at 3.15 p.m., Monday: Early Manifestations of the Gouty Habit.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Some Chronic Affections of Joints.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Common Skin Diseases in Children and their Treatment; Tuesday, Angina Pectoris; Wednesday, Morbid Mental Growths; Thursday, Endometritis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Eye Symptoms in Disseminated Sclerosis; Friday, 3.30 p.m., Cerebellar Disease.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient: Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL, Leicester Square, W.C.—Chesterfield Lecture, Thursday, 6 p.m. Treatment (therapeutical).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, *X*-Rays and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. on Monday, Tuesday, Wednesday, and Thursday.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MARCH.** | |
| 17 FRIDAY .. | CITY, STRATFORD, TOTTENHAM, AND WALTAMSTOW DIVISIONS, *Metropolitan Counties Branch*, Winchester House, Broad Street, E.C., 4 p.m. |
| 18 SATURDAY .. | |
| 19 Sunday .. | |
| 20 MONDAY .. | |
| 21 TUESDAY .. | ISLE OF THANET DIVISION, *South-Eastern Branch*, Victoria Hotel, Hardres Street, Ramsgate, 3.45 p.m.<br>CITY DIVISION, *Metropolitan Counties Branch*, in conjunction with Walthamstow Division, Brooke House, Upper Clapton, 9 p.m.<br>WEST CORNWALL DIVISION, *South-Western Branch*, West Cornwall Infirmary, Penzance, 3.15 p.m. |
| 22 WEDNESDAY | ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Special Meeting, Board Room, Altrincham Hospital, 4.30 p.m.; Tea, 4 p.m.<br>LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Assembly Rooms, Market Harborough, 4.15 p.m. |
| 23 THURSDAY .. | WANDSWORTH DIVISION, *Metropolitan Counties Branch*, 27, St. John's Hill, Clapham Junction, 8.45 p.m.<br>WEST CORNWALL DIVISION, *South-Western Branch*, Royal Cornwall Infirmary, Truro, 3.30 p.m. |
| 24 FRIDAY .. | KENSINGTON DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Kensington Town Hall, 4.30. |
| 25 SATURDAY .. | NORTHERN COUNTIES OF SCOTLAND BRANCH, Northern Infirmary, Inverness, 3 p.m. |
| 26 Sunday .. | |
| 27 MONDAY .. | |
| 28 TUESDAY .. | NORTHAMPTONSHIRE DIVISION, *Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m. |
| 29 WEDNESDAY | |
| 30 THURSDAY .. | |
| 31 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>WEST SOMERSET BRANCH, Special Meeting. |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 25TH, 1911.

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# THE SEVENTY-NINTH ANNUAL MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION,
## BIRMINGHAM,
## JULY 25TH TO 28TH, 1911.

**President:**
H. T. BUTLIN, Pres.R.C.S., D.C.L., LL.D., Consulting Surgeon, St. Bartholomew's Hospital, London.

**President-elect:**
Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

**Past President:**
Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica, Queen's College, Belfast.

**Chairman of Representative Meetings:**
EWEN JOHN MACLEAN, M.D., C.M., M.R.C.P.Lond., F.R.S.E., Gynaecologist, Cardiff Infirmary.

**Chairman of Council:**
JAMES ALEXANDER MACDONALD, M.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

**Treasurer:**
EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Seventy-ninth Annual Meeting of the British Medical Association will be held in Birmingham in July, 1911. The President's Address will be delivered on Tuesday, July 25th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 21st, 1911.

## PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by BYROM BRAMWELL, M.D.Edin., President of the Royal College of Physicians of Edinburgh, Senior Ordinary Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by Professor JORDAN LLOYD, M.S., F.R.C.S., Surgeon, Queen's Hospital, Birmingham.

## THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday July 26th, Thursday, July 27th, and Friday, July 28th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

*Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the* BRITISH MEDICAL JOURNAL *without special permission.*

The following sixteen Sections have been authorized by the Council:

## ANATOMY AND PHYSIOLOGY.

*President:* Professor THOMAS H. BRYCE, M.A., M.D., Glasgow.

*Vice-Presidents:* Professor EDMOND WILLIAM WACE CARLIER, M.D., Birmingham; Professor PETER THOMPSON, M.D., Birmingham; ALEXANDER LOW, M.B., Aberdeen.

*Honorary Secretaries:* DAVID FRASER HARRIS, M.D., University, Birmingham; THOMAS YEATES, M.B., University, Birmingham; JOHN ERNEST SULLIVAN FRAZER, Anatomical Department, King's College, W.C.

## DERMATOLOGY.

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## DISEASES OF CHILDREN.

*President:* OTTO JACKSON KAUFFMANN, M.D., Birmingham.

*Vice-Presidents:* WALTER ROSS JORDAN, M.D., Birmingham; GEORGE HEATON, F.R.C.S., Birmingham; JOHN DOUGLAS STANLEY, M.D., Birmingham; Miss ANN ELIZABETH CLARK, M.D., Birmingham.

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## ELECTRO-THERAPEUTICS AND RADIOLOGY.

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INCLUDING MEDICAL INSPECTION OF SCHOOL CHILDREN, HOSPITAL ADMINISTRATION, AND CONTRACT PRACTICE.

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Honorary Local Treasurer—

J. T. J. MORRISON, Esq., F.R.C.S.,
54, Newhall Street, Birmingham.

Honorary Local Secretaries—

ALBERT LUCAS, Esq., F.R.C.S.,
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JOHN FURNEAUX JORDAN, Esq., M.B., F.R.C.S.,
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89, Cornwall Street, Birmingham.

## PROVISIONAL PROGRAMME.

The following was settled as a provisional Time Table. The final fixing of the hour for the meeting of the Representative Body is left to the Chairman of the Representative Meetings and the Chairman of Council:

FRIDAY, JULY 21ST, 1911.
10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 22ND.
9 A.M.—Representative Meeting.

MONDAY, JULY 24TH.
9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.
4 P.M.—Annual General Meeting to appoint Auditors.
7 P.M.—Secretaries' Conference and Dinner.

TUESDAY, JULY 25TH.
9.30 A.M.—Representative Meeting.
4 P.M.—Religious Service.
8.30 P.M.—Adjourned General Meeting, President Address.

WEDNESDAY, JULY 26TH.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.

THURSDAY, JULY 27TH.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 28TH.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings,

SATURDAY, JULY 29TH.
Excursions.

# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

THE annual meeting of this Branch was held at the residence of Dr. E. G. Dru Drury, the President-elect, at Grahamstown, on February 17th, at 8.30 p.m.

*Dinner.*—The meeting was preceded by a dinner at Steinmann's Hotel. Dr. E. G. Dru Drury was in the chair, and there were present: Drs. J. Bruce-Bays, H. Becker, G. E. FitzGerald, R. C. Mullins, J. A. Lea, F. A. Saunders, R. A. Forster, R. T. Harrison. Guests: Messrs. G. Robertson, J. Louw, A. Collis, Dr. Reed, Professor Carey of Rhodes University, Dr. Roberts, Principal of Lovedale College.

*Apology for Non-attendance.*—Apology for inability to attend was received from Dr. Grenfell, President.

*Reports.*—The Treasurer's statement and the Hon. Secretary's report were read and adopted.

*Election of Representative.*—Dr. J. Bruce-Bays was unanimously elected to represent the Branch at the Annual Representative Meeting to be held at Birmingham.

*Departure of Dr. Bruce-Bays.*—The members passed a unanimous vote of regret for the departure of Dr. Bruce-Bays; their best wishes for future happiness and success followed him.

*Election of Officers.*—The officers for the session 1911–12 were elected as nominated. The following is the list:—*President*, Dr. E. G. Dru Drury (Grahamstown); *Vice-President*, Dr. A. Cowper (Grahamstown); *Honorary Secretary and Treasurer*, Dr. R. T. Harrison (Grahamstown); *Council*, Dr G.E FitzGerald (Grahams-

town), Dr. F. A. Saunders (Grahamstown), Dr. R. C. Mullins (Grahamstown), Dr. R. A. Forster (Grahamstown), Dr. J. A. Lea (Grahamstown); Dr. C. E. Jones-Phillipson (Port Alfred); Dr. W. Scott (Somerset East), Dr. A. Gooding (Adelaide); Dr. P. B. Grenfell (Alexandria); *Member of Central Council*, Dr. T. D. Greenlees (London); *Member of South African Committee*, Dr. R. T. Harrison (Grahamstown).

*Paper*,—Dr. DRU DRURY then read a paper entitled "The Land We Live In." A most interesting and eloquent paper.

*Vote of Thanks*.—The meeting closed with a vote of thanks to Dr. Dru Drury.

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## EAST ANGLIAN BRANCH:

### NORTH SUFFOLK DIVISION.

A MEETING of members of the medical profession in the area of the North Suffolk Division was held at the Lowestoft Hospital on Saturday, March 18th, at 4 p.m. Non-members of the British Medical Association were invited, also members of the profession residing in the Norwich and East Norfolk Divisions. There was a good attendance.

*Organization of Medical Attendance on Provident Principle*.—The meeting listened with much appreciation to a very able address by Mr. J. SMITH WHITAKER on the organization of medical attendance on the provident or insurance principle, based on the report issued by a committee of the Council of the Association. An interesting discussion followed, in which the following took part: Messrs. BALLANCE, VICKERS, DANIELLS, SANKEY, WOOD-HILL, WYLLYS, BERRY, and HELSHAM. Mr. SMITH WHITAKER replied, and the meeting then terminated.

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## METROPOLITAN COUNTIES BRANCH:

### HAMPSTEAD DIVISION.

A MEETING of the local profession was held under the auspices of the Hampstead Division on Friday, March 3rd, at the Central Library, Arkwright Road, N.W., at 8.30 p.m. Dr. J. FORD ANDERSON was in the chair.

### MEDICAL ASPECT OF THE POOR LAW COMMISSION'S REPORTS.

Dr. FORD ANDERSON referred to the reports of the Royal Commission on the Poor Laws as a monument of industry. The vast amount of labour and diligent sifting of evidence which the Commissioners had gone through merited the gratitude of all who took an interest in the welfare of the people, and therefore of the medical profession. Viewed from the medical aspect, the reports dealt with matters which affected every practitioner, and it behoved the members of the profession to bestir themselves in order to see that their interests would be taken into account in the legislation which must follow. In briefly touching on the Majority and Minority Reports, he called attention to the latest scheme which had been put forward by the County Councils Association, which it was claimed would reconcile the two reports. The scheme dealt with administration. It was proposed to set up a Poor Law Committee which would levy the rates, and a District Committee which would dispense the benefits. He asked, At what cost would this reconciliation be achieved? He was afraid that more concessions were given to Mrs. Sidney Webb than to the majority of the Commissioners. Before calling on Mr. Smith Whitaker to give an outline of the medical provisions of the two reports, he emphasized the need of unity in the profession, and expressed the opinion that the real grievance which the profession was labouring under was that in matters of attendance on the poor the profession was governed by the laity instead of governing itself.

Mr. SMITH WHITAKER prefaced his remarks by stating that the range of the Poor Law reports was a tremendous one, including as it did an inquiry into the conditions of every agency, both public and private, by means of which any person obtained any of the requirements of living and of maintaining health not at his own expense, and of some of the agencies through which he obtained these at his own expense. It was important for a proper understanding of the reports to have regard to the definition which the Local Government Board had given to the word "destitution." Destitution, when used to describe the condition of a person as a subject for relief, implied that he was, for the time being, without material resources, (1) directly available and (2) appropriate for satisfying his physical needs, (*a*) whether actually existing or (*b*) likely to arise immediately. By "physical needs" in this definition were meant such needs as must be satisfied (1) in order to maintain life or (2) in order to obviate, mitigate, or remove causes endangering life or likely to endanger life, or impair health or bodily fitness for self-support. With this wide definition, it was clear that the vast majority of persons would be entitled to relief in certain circumstances. The speaker suggested that the reason why the majority of persons did not claim medical relief from the Poor Law authorities was that they could take advantage of institutional organizations or impose on the charity of the medical practitioner. He next dwelt briefly on the subject of the organized charity of hospitals and the unorganized charity of the medical practitioner who attended to poor patients at reduced fees or gratuitously. In addition, consideration had to be given to the person who made arrangements for medical relief through some provident institution. The Poor Law reports made recommendations which would benefit the conditions of employment and the continuation of that employment of the great class of Poor Law medical officers. In this respect both the Majority and the Minority Reports agreed. The recommendations of both reports must, however, further affect every medical practitioner in a practical manner. Turning first to the authority under which the reformed Poor Law would have to work, he pointed out that both reports agreed that the boards of guardians—the Poor Law authority of to-day, which was appointed *ad hoc*—should be swept away, and the administration should be placed in the hands of the county or county borough councils. The Majority Report recommended the retention of one part of the existing system; all persons who were to obtain public relief should seek it at the hands of a committee of the county council, which would be known as the Public Assistance Committee. The Minority Report aimed at breaking up the Poor Law altogether. Medical relief would be dealt with by the sanitary service, the care of children would be vested in the education service, the aged would be administered by the pensions authority, and the feeble-minded by the Lunacy Committee. Thus the existing Poor Law would be entirely broken up, and the work would be assigned to the various existing services. In the next place, he considered the persons to be relieved and the test of relief. These factors merged into one another. The majority of the Commissioners wished to maintain the existing tests, and advocated inquiry before relief was granted through the agency of the Public Assistance Authority. The Minority would grant relief immediately, and whenever it was claimed, no matter what the means of the person applying might be. The inquiry would follow, and, if necessary, a charge to the value of the relief accorded would be recovered. Mr. Whitaker, in reply to a question of Dr. Pritchard, presumed that in respect to the recovery for medical relief, inasmuch as the medical officer would be in the receipt of a salary, the amount recovered would go to the authority, and not to the medical man who had attended the patient. Resuming, he stated that the effect on the medical practitioner of these proposed changes must be very great. The Majority appeared to contemplate the continuance of a large class of private practitioners working under the Public Assistance Authority. The work of medical relief would be carried out through voluntary aid committees

and the like, and large provident dispensaries, based on a scheme similar in many respects to that advocated by the British Medical Association, would be organized. In these dispensaries the free choice of doctor would be insisted upon. It was proposed, however, that persons should be admitted who would not be admitted to the medical service of the Association. These were the persons who could not contribute anything—namely, the paupers. The effect of this would be to put a premium on pauperism. This individual would obtain the same benefits as the person who contributed to the dispensary and more, for he might also be in receipt of food and other necessaries of life as well as of medical attendance. Dr. J. C. McVail, however, had suggested that the non-contributing beneficiary should be deprived of the right to choose his own doctor. The recommendations of the Minority in this respect were very interesting, but it was somewhat difficult to grasp the full extent of what was proposed. At first sight it would appear that a great State medical service was planned with whole-time medical officers who would serve under the control of the medical officer of health. Mr. Whitaker asked whether such a proposal was acceptable to the general body of the medical profession. Without attempting to answer this question, he indicated some of the effects which this proposal would establish. The medical officer of health was largely concerned with administrative and preventive work, and, speaking in general terms, it might be said that the clinical side of his activity was more or less limited. He had to deal with zymotic disease clinically. It had been suggested that this administrative officer was not so advantageously equipped for general clinical work as the ordinary practitioner. As he understood the Minority Report, it would mean that the medical officer of health would be drawn into closer relations with the Poor Law authority than the doctor actually treating the patients. The tendency would be for the purely administrative work to receive greater public recognition, and to be more efficiently remunerated, and this would undoubtedly lead to the ambitious man choosing the administrative side of the work rather than the clinical side, along these lines would lie the path to glory and large salaries. It was an open question whether the clinical side; would not become starved on this account. In the great State service any one applying would find relief, and no charge would be made, although a charge might be recovered later. The attendance would no doubt be rendered little attractive, so that those who could afford to pay for private medical attendance would be indirectly induced to seek the private medical practitioner. On the other hand, the fact that no charge was made would be a great inducement to many people to get the treatment they wanted and to chance whether the State could squeeze anything out of them afterwards. It was therefore necessary to ask the medical profession whether it was ready at present for a nationalization of the profession. It had been urged that the Minority Report would tend toward the extinction of the individual work of the medical practitioner, but the reply given to this objection by the supporters of the report was that the great mass of medical practice was conducted in an unscientific manner. The Minority Report aimed at a simultaneous attack on disease from the administrative and from the clinical side. It was most difficult to estimate the effect which these proposals would have on the medical profession. Mrs. Sidney Webb maintained that they would serve to improve the total remuneration of the profession. She believed that by subjecting the curative to the preventive side of medicine an improvement in scientific achievement would be attained. Against this contention it should be pointed out that the individual practitioner ran the risk of having his independent practice largely destroyed. For the Majority Report, it was stated that there would result an increase in the remuneration of the individual practitioner. Mr. Whitaker said that the question which should be considered in this connexion was whether the pauper was or was not to be admitted into a provident dispensary like those who contributed. He was of opinion that definite changes would not be effected for some time, and it was therefore highly desirable that the present juncture should be used to the full by the profession in debating these subjects all over the country, and in forming a concrete opinion what would be the most advantageous demands which the profession could make. The Reports were the result of a public demand for inquiry and reform, and if they desired to influence public opinion, the British Medical Association, as the only organization in the profession, must select a programme and bring it prominently forward before the public.

Dr. MAJOR GREENWOOD stated that he had listened with great interest to Mr. Smith Whitaker's able exposition of the two reports, and the only criticism that he would make was that he had put some of the points somewhat vaguely. In regard to the definition of destitution, he claimed that since it would include practically everything, it might be made to prove nothing. The rector or the squire might be able to claim relief under its terms. He was of opinion that the Minority ideas of a medical service were but the first step toward a nationalization of medicine. This might be good or bad; he did not propose to argue the point at present, but it was necessary to recognize the fact. Clinically speaking, he felt sure that the effect of the Minority scheme would be bad. The present-day tendencies were all for specialization, and this scheme would crush specialists. He was of opinion that the detrimental effect of club practice was not its essence, but the present rates of remuneration. If the amount paid were sufficient, the difficulties would be removed. Dr. Greenwood disapproved of the medical recommendations of the Majority Report, and also disapproved of those of the Minority Report, although the latter were not so bad as the former. However, he could not accept the Minority Report under any conditions. He was of opinion that it cut especially against the private practitioner in poor districts. If a unified county service were to compete with the practitioners attending the poorer section of society, the latter would be abolished. He advocated that certain of the principles obtaining at present should be retained, and reform should be instituted only where the present system could be shown to be bad. He spoke strongly with regard to the proposals to crush out of existence the practitioners attending to the poor. This class would object to be abolished. It was highly unjust to belittle the work which these practitioners now carried out. He further considered it as utterly unscientific to scrap the Poor Law and to build up a new one out of the pieces. The criticisms levelled at the existing Poor Law were, to his mind, grossly exaggerated. Moreover, it was not proved that the conditions would be better under a unified medical service. He foresaw a grave danger in the practice of a person applying directly to the medical officer for relief treatment. After touching on some points of reform which were being pushed forward by Mr. John Burns and others, he concluded by saying that they must become united and demand their rightful place in determining the conditions of their own work.

Dr. MCCLEARY wished to point out that the Commissioners were unanimous in condemning the present administration of the Poor Law. It was useless to run their heads against a brick wall. Changes were inevitable, and should be welcomed. Were they, he asked, satisfied with the want of payment for medical attendance, with the extent and abuse of charity? He was not. There were two proposals. The Majority proposals wished to place the Poor Law under a Public Assistance Authority, which would be a statutory committee of the county or county borough council. This committee might have 50 per cent. of county councillors, and must have at least 50 per cent. of persons not county councillors, but those experienced in local administration of Public Assistance or other cognate work. This meant that at least half of the committee would consist of laymen who were experts in the exploitation of the medical profession.

The committee might delegate the work to the medical committee, but this committee again was to consist of representatives of the registered friendly societies, of representatives of charitable institutions, and to a small extent of the British Medical Association. Here again the majority would be experts in the so-called cognate work. Every self-respecting person of the working classes was to be encouraged to join the dispensaries, which Mr. Whitaker stated were to be conducted on lines in some respects like the provident medical service advocated by the Association. He wished to show in what respects there would be a material difference. The Association medical service was planned to be under the control of the profession, while these dispensaries would be controlled by the committees of which he had spoken. The wage limit would be fixed in the public assistance committee dispensary, and who would believe that it would be adhered to? In the Majority Report it was specifically stated that the system would be free from irritating inquiries into private resources. This was highly significant. He was convinced that the recommendations of the Majority Report, if carried into effect, would absorb a very large amount of private practice. The relieving officer would go under both reports. Urgent cases would apply to the district medical officer under the proposals of the Majority, and paupers would have a free choice of doctor. He therefore opposed both the continuation of the present system and also the recommendations of the Majority of the Commissioners. He would favour the following scheme: The class who could afford to pay the doctor's fee should be treated privately. The patient who could afford to pay something, but not the full fee, should be admitted into a public medical service, in which a wage limit would be fixed and adhered to, and the conditions of medical practice in which would be determined by the profession. The profession should strain every nerve to deal with this kind of patient. Lastly, there was the patient who could not pay anything, and for him he advised the unified scheme of the Minority Report. Dr. McCleary dilated on the utility of the preventive work of the medical officer of health and the necessity of an extension of his activities. Disease should be searched out and tackled at its inception. The idea that the searching work of the medical officer of health would be detrimental to the private practitioner was fallacious, since the fact that the patient applying would not have free choice of doctor would give the private practitioner a safeguard.

Dr. Macevoy held that disease should be treated as speedily as possible. Disease was dependent roughly either on causes acting within the individual or on causes acting on his environment. The proposals of the Minority Report did not create any difficulty with regard to diseases dependent on environment, and in this case it should be quite feasible to separate the private practitioner from the service of the medical officer of health. The remedies required in disease of the environment could be easily dealt with by officials. But in the instance of disease dependent on something connected with the individual himself, the scheme became practically impossible. He maintained that the patient would get on much better when treated by a doctor in whom he had confidence and whom he liked than when treated by an official chosen for him. The primary object of the patient who could pay for relief was to get medical attendance, and it would therefore be necessary for the State to take a part in this work. In the past charity had filled in the gap, and he took it that in the proposed reforms the contributions from the outside world must be extended, which would mean that the whole community, or, in other words, the State, must contribute. He noted that Dr. McCleary was in favour of the institution of the public medical service which was advocated by the Association. He could not believe that there would be any real difficulty with regard to a wage limit. In speaking of the treatment of paupers, he pointed out that a large number of very poor persons at present did not receive any medical treatment at all. They were now faced with the exacting demands of a State insurance for sickness, and it was therefore necessary for them to see that they were properly represented on the Public Assistance Committee.

Dr. Parsons stated that Mr. Whitaker referred to one or two objections to the Majority Report. After briefly touching on these objections, the speaker said that if these objections were removed, this report would be wholly acceptable to the medical profession. With regard to the exclusion of paupers, he mentioned that Sir A. Downes and others had urged the withdrawal of the anomaly of giving the pauper equal rights with those who contribute. With regard to the constitution and powers of the Public Assistance Committee, the medical profession must be unified and properly organized and this objection would then disappear. Unity of the profession was required not only in regard to this question, but also in regard to the question of the schemes relating to insurance. He would like to see the opinion of each medical practitioner taken by means of a report sent through the post and the replies also sent through the post.

Miss Dobbie believed that the effect of the recommendations of the Majority Report on the medical profession would be to lower it. She further believed that the proposals of the Minority would, on the whole, benefit the profession. She dealt with the question of the recovery of fees from those who had sought treatment and with the removal of the abuse of charity. She could not agree with the statement that the public health service would interfere with the practice of private doctors. She called attention to the natural and gradual growth of the public health department. Lunatics and persons suffering from infectious diseases had been taken over by this service. With regard to tuberculosis she was of opinion that a great gain would be effected by the discovery of every case and its efficient treatment. She also referred to Mr. Churchill's proposal to deal at an early date with the problem of the feeble-minded.

Mr. H. W. Armit found, in listening to this and other debates, and in reading the voluminous correspondence on the subject, that unanimity had been achieved in the medical profession in the desire to attain unanimity. He was afraid that since opinions differed so widely there was little likelihood that agreement would be arrived at, or that a scheme mutually and generally acceptable would be found in reference to the Poor Law question. Mr. Smith Whitaker had given the meeting an excellent summary of the proposals of the Majority and Minority Reports, and Dr. McCleary had supplemented this account in a most admirable manner. Objections had been raised against both. The Majority Report included recommendations which were based on the extension of a system which had proved itself a failure. This system was the provident system. The friendly societies, and, indeed, the majority of the provident dispensaries, had failed completely to effect what was required. The promoters of the former were the only individuals who had benefited, and he had no hesitation in condemning the principle on which they were based. The objections which had been raised against the Minority Report were also definite, and, at all events in its relation to medical practice, he failed to see how the recommendations could be accepted as satisfactory to the medical profession as a whole. It therefore appeared that two suggestions as to the medical attendance on the poorer sections of society had been put forward, and both had been found bad. Why accept either? He could not agree with Dr. Greenwood in advocating the retention of the existing system, which he regarded as worse than the systems of either Report. A fourth system must be found and pressed forward. The introduction of compulsory insurance against sickness and invalidity offered a good basis for such a scheme. Sickness could undoubtedly be treated efficiently and expeditiously in a public medical service, such as that which the British Medical Association had

advocated. The control should be vested in the profession, and the rate of remuneration should be fixed for each district in a manner which would satisfy the members of the profession practising there. Every one should be admitted into the service, from the pauper upwards. The insuring companies would have to pay for treatment obtained at the medical service. Each person would under the compulsory insurance scheme be forced to become insured if his income did not exceed a certain amount. Since there could be no exceptions, it was necessary for the authorities to be aware of the existence of each individual of the community. This was carried out in Germany by compulsory registration, and he wished to emphasize that any scheme for compulsory insurance which was not based on compulsory registration must prove a failure. He denied that the formalities existing in Germany with regard to registration caused inconvenience to persons of moderate respectability, and he presumed that it was in the interests of the community not to study the convenience of the disreputable in framing legislation. He briefly sketched a scheme by means of which a definite contribution for each district should be fixed for every person insuring, and when the individual did not earn a sufficient income to enable him to pay his premium the State should pay it in whole or in part, according to his circumstances. In criticizing Dr. Parsons's proposals for removing the objectionable provisions of the Majority Report recommendations and of retaining the rest, he pointed out that having removed the essentials, only a disjointed and meaningless tangle of detail would remain, which could not reasonably be regarded as a scheme at all.

Dr. CLAUDE TAYLOR said that the medical profession was bound to differ on the principles of a scheme. What was necessary was that it should insist on being adequately represented on those bodies which would have the duty of discussing these schemes and of selecting one for legislation. He dealt briefly with the proposals of the Minority Report, and especially with the functions of the official in improving the physical fitness and proper development of the future generation. He was of opinion that a selected and adequately salaried medical officer would under this scheme be able to report to the authority what he found and so set in action a power that could deal with cases and with the causes of physical disability. This could not at present be done by the private practitioner, as, although he was fully aware of the serious state of things around him, he had no one to whom he could report who would accept responsibility.

Mr. ERNEST WARE protested against the statement currently made that medical practice was improperly done at present. The practitioner, however, was hedged in by his inability to deal with such conditions as insanitary environments. He pleaded for an extension of the Compulsory Notification Act, to include every disease which was dependent on a defective environment. At present the private practitioner can not reveal what he discovered in connexion with his patient to the health authority, because by so doing he would be divulging professional secrets.

Dr. FORD ANDERSON closed the debate by agreeing with Dr. Claude Taylor, when he said that the medical profession must have a dominating voice in any scheme selected. He disagreed with Mr. Armit entirely in his statement that the provident dispensaries had proved a failure. He considered that they had done good service in the conditions obtaining in the past. He objected to sinking the curative work in the administrative department, and denied that preventive work would be better done by this department than by the practitioner. The private practitioner could adopt preventive measures much more gently and more efficiently than the medical officer of health. He was of opinion that the recommendations suggested in the report just issued by the Central Council on "the organization of medical attendance on the provident or insurance principle" were the only satisfactory solution to this question. He thought that it had been clearly shown that the Majority Report was impossible, and that the Minority Report was not to be trusted. He dealt briefly with the question of wage limit and asked Miss Dobbie how, if the Minority recommendations fixed 15s. a week as the wage limit, immediate treatment was to be accorded. (Miss Dobbie explained that above 15s. would justify recovery.) Dr. Anderson did not believe in this threat of recovery. Before concluding, he moved a vote of thanks to Mr. Smith Whitaker and Dr. Major Greenwood, the visitors, for having come to Hampstead to give the local profession the advantage of their views. The vote was passed by acclammation.

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## NATAL BRANCH:

### DURBAN DIVISION.

*Annual Report.*—The report for 1910 states that during the year there were two ordinary and three special meetings and one meeting of the council held. The two chief topics of importance that occupied the Division were the proposals as regards the creation of a Ministry of Health for the Union, and the question of the relations of the profession to the medical societies of Durban and district. As regards the first, they are dealt with in the report of the president for the Natal Branch. With reference to the second, the subject arose at the request of several members for advice, they, as doctors, attending certain clubs, having been asked to admit children, without payment, as participators of the medical benefits of the club. At the half-yearly meeting of the Division it was agreed to go into the whole question of clubs, and a committee was appointed to investigate and report thereon, and to make such suggestions as they thought advisable. This committee, after very careful consideration, made a report which was unanimously adopted at a special meeting of the Division; and the terms of this report were embodied in the following decisions, which are the minimum terms which it is recommended shall, in future, be accepted by any member of the Durban Division engaged in club practice:

1. Adults (male or female):
   - (*a*) Age—from 18 upwards.
   - (*b*) Subscription—minimum of 1s. per head per month.
   - (*c*) Exclusive of medicine.
   - (*d*) Preliminary examination—all candidates (male or female) to be medically examined on admission at a fee of 5s., payable by the candidate.
2. Children:
   - (*a*) Age—limited from 6 to 18. Children under 6 not to be accepted at any price.
   - (*b*) Subscription—minimum of 9d. per head per month.
   - (*c*) Exclusive of medicines.
   - (*d*) Examination on admission, 2s. 6d. per child, payable by the candidate.
3. Medicines:
   Where *necessary*, and if desired to include medicine, the subscription in both cases to be 6d. per head per month extra.
4. Confinements:
   For members, £1 1s. less than the ordinary fee, providing that the minimum charge be not less than £2 2s. For non-members, wives of members, the ordinary fee. In both cases chloroform and instruments to be charged extra.
5. Distance Fees:
   Outside the borough boundary half the *usual* distance fees.

It was agreed that these terms should not be retrospective in their operation prior to July 22nd. 1910; and they have been acquiesced in by every medical man practising in Durban, whether members of the Association or not. The Committee (at the request of the Division) met representatives of the various clubs on December 23rd to discuss them. It was found, however, that as there was no unanimity amongst the opinions of the club delegates, it was useless to proceed till such time as the clubs themselves arrived at a mutually satisfactory decision on each point involved. Further consideration has, therefore, been deferred, and meanwhile these decisions represent the minimum which any medical man in Durban can accept without disloyalty to his brethren. The Division during the year lost two members by death, Drs. Tritton and

Potts, and several new members have joined. The report concludes as follows: "It is most important, and especially in view of the many grave problems of a medical nature that must shortly engage the attention of both the Union Government and the Provincial Council, that every medical man within the Division who is not a member should be urged to join, and so strengthen the work of the Association."

*Head Quarters.*—The head quarters, in accordance with the rules of the Branch, have for the next year been removed to Pietermaritzburg.

*Honorary Secretary and Treasurer.*—Dr. A. Murray Gray of Durban has retired from the position of Honorary Secretary and Treasurer. He has been succeeded by Dr. W. Russell Strapp, Pietermaritzburg.

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## SOUTH-EASTERN BRANCH:

### BRIGHTON, EASTBOURNE, TUNBRIDGE WELLS, AND HASTINGS DIVISIONS.

A CONJOINT meeting of the Brighton, Eastbourne, Tunbridge Wells, and Hastings Divisions was held at the Sackville Hotel, Bexhill-on-Sea, on Friday, March 10th. The chair was taken by Dr. HILL JOSEPH, Chairman of the Hastings Division, after he had received the members and entertained them at tea. Fifty members attended the meeting.

*Acute Emergencies of Abdominal Disease.*—Professor MOYNIHAN, of the University of Leeds, gave an address on the acute emergencies of abdominal disease. His views were listened to with marked interest and attention, and several of his novel, didactic, and extremely emphatic opinions led to an animated and enthusiastic debate. The following members took part in the discussion: Dr. HILL JOSEPH (Bexhill-on-Sea), Dr. WILLS (Bexhill-on-Sea), Dr. MURDOCH (Bexhill-on-Sea), Dr. ADENEY (Tunbridge Wells), Dr. R MARSH (Brighton), Dr. BAGSHAWE (St. Leonards on-Sea), Mr. FOOTNER (Tunbridge Wells), Mr. LIGAT (St. Leonards-on-Sea). The address will be published.

*Dinner.*—The dinner following was attended by twenty-four members.

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## SOUTH-WESTERN BRANCH:

### EAST CORNWALL DIVISION.

*Medical Attendance on Provident or Insurance Principle.*—A general meeting of the East Cornwall Division was held on March 16th at St. Petroc's Hotel, Bodmin, at 3 p.m., to discuss the report on organization of medical attendance on a provident or insurance principle. Dr. S. G. VINTER took the chair in the absence through illness of Dr. Nettle (Chairman of Division). There were present: Drs. Hammond, Gill, Vinter, George, Wade, Cole, Derry, Anderson, Salmon, Donald, Trinder, and Pearse (Honorary Secretary).

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed. Dr. GEORGE proposed, and Dr. HAMMOND seconded, the following resolution:

> That the British Medical Association be asked to use every means in their power, by the issue of copies of the report in question or some form of circular letter, to get all medical men, whether members of the Association or otherwise, to support the Association in their efforts to safeguard the interests of the profession.

This was carried *nemine contradicente*. Dr. VINTER proposed, and Dr. DERRY seconded, the resolution:

> That, although the East Cornwall Division does not at present number sufficient members to entitle them to a Representative on the Representative Council, the Central Authority of the Association be asked to permit Dr. Hammond to represent the Division at meetings of Representatives.

This was carried unanimously. The questions accompanying the report on the organization of medical attendance on a provident or insurance principle were discussed and answers given for the Honorary Secretary to send in to the Association.

*Special Meeting.*—It was further decided that a meeting of the Division should be summoned to be held at Bodmin at some date in the early future to discuss the questions of: (1) Unqualified women continuing to practise as midwives; (2) certificates for school children.

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## STAFFORDSHIRE BRANCH.

THE second general meeting of the session was held at Stafford on March 2nd. Dr. J. A. CODD, President, took the chair; there were twenty-eight members present.

*Gastro-jejunostomy.*—Dr. MARSON showed two patients upon whom he had performed gastro-jejunostomy.

*Intrathoracic Suppuration due to Bacillus Coli.*—Dr. SAVORY related a case. The patient, a stout woman of 45, was attacked by acute pleurisy. She showed signs suggestive of empyema, for which, on the eighth day of the disease, the pleura was explored with negative results. The introduction of a Douglas Powell trocar through the pulmonary tissue gave vent to an exceedingly fetid odour and about thirty drops of semi-purulent fluid. Ribs were resected, and a drainage tube inserted into the lung. The patient then commenced to expectorate offensive matter, but as long as drainage acted symptoms were relieved, and the patient quite recovered and the wound healed in ten weeks. Bacteriological examination revealed chiefly pneumococci, with a *coli*-like organism. Dr. Savory considered that it had been a small patch of pneumonic gangrene, infected by *coli*-like organisms. He dwelt on the diagnosis and treatment, and tried to exclude any possibility of abdominal origin. He pointed out the rarity of encountering such an offensive odour accompanied by so little fluid. Drs. R. ALCOCK, BLUMER, C. REID, LOWE, and CODD discussed the paper, and Dr. SAVORY replied.

*Carious Teeth in Elementary Schools of Staffordshire.*—Mr. PRIESTLEY showed tables illustrating the distribution of carious teeth in the public elementary schools of Staffordshire, and discussed the etiology of caries in view of the measures necessary to deal with it. He pointed out that all observers were agreed as to the nature and cause of the carious process when once it had access to the dentine, the serious point in dispute being how this access was obtained. Many observers held that a chemical solution of enamel by means of adventitious acids was a *sine quâ non*, and, therefore, that keeping the mouth free from adventitious acids would infallibly prevent caries. The lecturer pointed out what little direct evidence of an inductive character there was to prove that carbohydrate particles ever did lodge in perfectly healthy mouths, at least for such a time as would allow of the development of an acid. In order to test the alleged connexion between caries and uncleanness, the conditions of the dentures of children in the elementary schools of the Staffordshire Education Committee were noted in nearly 10,000 cases. It was found that whereas 80 to 90 per cent. of children had carious dentures, only 5 to 15 per cent. had unclean dentures; and also that while the number of children with carious teeth at age 5 to 6 was substantially the same as at age 12 to 14, the numbers of children with unclean dentures rose steadily from 5 per cent. at the former age to 15 per cent. at the latter. Thus unclean dentures could be correlated with carious dentures. This matter of the etiology of caries was profoundly important, for if local authorities felt convinced that what the problem wanted was toothbrush drill or a radical change in food habits, they would never be induced to try the only means which was certainly known to be able to cure the disease—namely, the dentist. The paper was discussed by Drs. WHEATLEY, BULL, RIDLEY BAILEY, BLUMER, C. REID, COOKSON, and PETGRAVE JOHNSON, and Mr. PRIESTLEY replied.

*Dinner.*—The meeting was followed by a dinner at which twenty-three members were present.

*Epsom College.*—A collection in aid of Epsom College realized £1.

## GLASGOW AND WEST O SCOTLAND BRANCH.

THE following memorandum has been issued, and the Council of the Branch recommends it to the careful consideration of the medical profession :

### MEDICAL DEFENCE.

A meeting of the Branch Council held on February 22nd, 1911, a resolution was passed to the effect that the Branch Council should issue a statement to direct the attention of members of the profession in the counties embraced in this Branch to the serious nature of the proposals at present under consideration, which threaten to alter entirely the relationship of the profession to the public at large.

The Council feel that the matter cannot be too strongly urged, and trust that the state of affairs as shown in this memorandum, the facts stated therein being obtained from articles in the BRITISH MEDICAL JOURNAL and other publications, and based upon the memorandum of the South-Eastern Counties of Edinburgh Branch, may receive your earnest consideration.

The Branch Council begs to urge members of the medical profession to take immediate measures for medical defence.

1. *Defence Against What?*—Against the exploitation of the profession for any and every purpose.

2. *Defence Against Whom?*—Against all those who endeavour to obtain medical work for nothing or next to nothing. Amongst these are the organizers of clubs and managers of friendly and insurance societies, the promoters of charitable schemes, managers of hospitals, *et hoc genus omne*.

The chief exploiter of the medical profession is, however, the State, which employs large numbers, and is every year thrusting more work upon its employees, while at the same time salaries tend to diminish, owing to the competition of those from whom the work has been taken.

3. *State Servants.*—Amongst these are included:

(*a*) *The Poor Law Medical Service.*—Payments in some cases work out at from 6d. to 3½d. per visit. (Dr. McVail's Report).

(*b*) *Medical Inspectors of Schools.*—Salaries offered have been the subject of action by the British Medical Association. (May 21st, 1910.)

(*c*) *Public Health Service.*—Every year the salaries offered become lower. County Medical at £100 (vide Isle of Wight). Burgh Officers at £10 (numerous instances).

(*d*) *Post Office Medical Officers.*—Salaries already microscopic.

(*e*) *Navy Medical Service.*—Salaries satisfactory, but conditions of life seriously and generally objected to.

(*f*) *Army Medical Service.*—The most satisfactory employment open to medical men at the present time, but these conditions obtained only when the Government could not find candidates owing to combined action on the part of the profession and the Association.

4. *The General Practitioner.*—It is not generally recognized by the general practitioner that it is competition from his own ranks that prevents those in the employment of the State obtaining suitable remuneration.

Nor is it generally recognized by those in the employment of the State that it is owing to the loss of work taken from the general practitioner that he is reduced to competing with them.

5. *Interests Identical.*—No action to improve the conditions of life of members of the profession can be successful unless it embraces every department and every member of the profession.

The interests of those in the Public Medical Service and of Private Practitioners (including consultants) are identical.

6. *The Poor Law Commission.*—Majority and Minority Reports differ as to how the work is to be done, but they agree that all deterrents against free application for medical assistance must be removed—such as disfranchisement.

They agree that medical assistance must be obtainable on application; that Poor Law Infirmaries must be rendered comfortable to the inmates; that hospitals and dispensaries must be so organized as to be available to all requiring assistance in that form.

7. *Invalidity Insurance.*—It is understood that the Government has in hand a Bill for the establishment of invalidity insurance. Details are not yet published, but the Government will doubtless endeavour to meet the views of the Poor Law Commission so far as may be practicable.

Those responsible for the Bill may adopt any one of the following courses, viz.:—

(1) Leave medical relief entirely out of their scheme of invalidity insurance.

This course would result in many of the recommendations of the Poor Law Commissioners being refused, but the pressure of public opinion on succeeding Governments would ultimately cause the adoption of medical relief, and in that case the profession would be in a better position if organized now than if the work were left till later.

(2) May adopt the method of giving medical relief by the direct employment of medical men by the State, either as

Whole-time officers, who, in competition with a starving profession, will be unable to secure adequate remuneration; or as

Part-time officials, appointed by County and Town Councils, or such other local authorities as the duty of staffing a State Provident Dispensary might be devolved on. To judge by School and Post Office appointments, the local authorities will take the cheapest men.

(3) Subsidize friendly societies, hospitals, and similar organizations, which will make their own terms with the doctors.

In this case organization of the profession is urgently required.

The profession has no interest in objecting to medical relief as part of an invalidity insurance scheme if its members are not thereby forced into contract work at competitive rates or to become whole-time officers at inadequate remuneration.

If the profession undertakes contract work under a State scheme which does not prove to be a financial success, it means that its members will bear more than their share of the loss common to them as tax and rate-payers.

8. *Public Agitation.*—Influential committees have been formed to advocate particular schemes. Members of all political parties have expressed themselves as favourable to one scheme or another. The Labour Party in particular have adopted the scheme of the Minority Report.

9. *Political Influence.*—The political influence of the medical profession is practically negligible as compared with that of the bodies interested in exploiting the profession in favour of their particular charitable schemes. These bodies include:

| | |
|---|---|
| All Political Parties | Charity Organization Society |
| The Churches with their Charitable Organizations | Friendly Societies |
| Hospital Committees | Medical Club Associations |
| Dispensary Committees | Employers' Associations |
| Charitable Associations | Red Cross and Ambulance Associations, etc. |

10. *The Wage Limit*—Practitioners face to face with the prospect of their practice being flooded with Poor Law patients, working class patients at contract rates, and the certain gradual increase of contract practice, write to the BRITISH MEDICAL JOURNAL and demand a wage limit. Such a limit is undoubtedly a desirable thing, and such a limit is certain to be fixed, but

*What is it worth* if any political party may depend on buying votes by the simple expedient of raising it? and, in view of the negligible political influence of the profession, what chance is there of this tendency being successfully checked?

The only wage limit that is of any value is one fixed by a medical union or association with a united and combined profession in support of it. The powerful influences that can be brought to bear on us cannot be properly resisted by the profession unless enrolled in an association able to defend the interests of its members.

11. *What would Invalidity Insurance Mean?*

An extension of what is known as "club" or "contract" practice to every part of the country.

It has been estimated that in an average practice 94 per cent. of the patients would come under the scheme.

The number of "club" patients in the country would be increased from about three millions to from twelve to fifteen millions.

Hospital doctors will for a minimum salary have enormously enlarged institutions to conduct.

Younger consultants will find it difficult to get work except at contract rates.

"All in State employment may expect to have new duties thrust upon them without increased remuneration."

An unlimited increase in the number of lay persons encroaching on medical practice—namely, sick nurses, midwives, health visitors, etc.

If the recommendation of the Minority Report be accepted, medical inspectors will visit to see whether medical work be properly done.

12. *The Professional View.*—If, as a profession, we can secure adequate remuneration for services rendered, we are not particularly concerned with the nature of the scheme the State may adopt.

We note in the Report of the Council of the British Medical Association that 44 cases of inadequate remuneration were dealt with last year, and, therefore, the Association has already accepted the principle that it is proper and right to take action on Trade Union lines.

As an instance of what may be done by combination, we may refer you to the Cercle Médicale of Antwerp (BRITISH MEDICAL JOURNAL, September 3rd, 1910), which has 298 members out of 313 practitioners in the town and district. The following table shows the fees obtained, and accepted by the public in the district as a minimum scale:

| | Lower Class. | Middle Class. | Upper Class. |
|---|---|---|---|
| | Frs. | Frs. | Frs. |
| Day visit ... ... ... ... ... ... ... | 2 | 3 | 5 |
| Morning visit, from 6 to 8 a.m, and evening, 7 to 11 p.m. | 4 | 6 | 10 |
| Sundays and holidays after noon ... ... ... | 4 | 6 | 15 |
| Night visits, 11 p.m. to 6 a.m. ... ... ... | 5 | 10 to 15 | 25 |
| Prolonged visits ... ... ... ... ... ... | 5 | 10 to 15 | 25 |
| Confinements, simple natural labour ... ... | 30 | 50 | 100 |

In Germany (BRITISH MEDICAL JOURNAL, September 17th, 1910) rates have risen under a scheme of invalidity insurance, but there, again, 24,000 medical men are combined in an association.

The British Medical Association has, on behalf of the profession, proposed certain conditions of employment, and the matter is still under consideration by the Poor Law Reform Committee.

Any conditions are, however, but a pious opinion unless the profession is prepared to insist on them by combined action.

13. *Our Defences.*—The proposals made on all sides for an absolute overturn of the conditions of medical practice have found the profession unprepared and unorganized. The only association representing any considerable proportion of the profession is the British Medical Association.

It is the only association available to assist the profession at the moment, and the profession must necessarily depend on it for measures of defence.

Being strictly democratic, the Association is governed by its Divisions, and, therefore, these should take action at once and strongly.

14. *Local Defence.*—The Glasgow and West of Scotland Branch has decided to organize the Branch in every way possible, and to endeavour to influence the British Medical Association to take stroug measures in support of the interests of its members and the profession in general.

Many members of the Divisions have a difficulty in attending meetings, and, therefore, the Branch Council appeals to every member to declare by post his approval of the action taken, and his adhesion to the principle of combined defence; and, further, the Council appeals to all who are not already members to join the British Medical Association, or if for any reason they are not in a position to do so, the Council urgently requests them to indicate their adhesion and support to the action contemplated.

For entirely satisfactory results to be obtained every member of the profession should, in the Council's opinion, indicate that he will be prepared if necessary to enter into an agreement whereby he will undertake not to accept of any appointment under the State, friendly societies, or other body, unless the conditions of service and remuneration attached to that appointment have been approved of by the Division or Branch (as may be considered best) at a properly constituted meeting.

15. *What each of you can do*, in your own and the common interest, is to send your statement to the Secretary of the Branch, Dr. Wm. D. Macfarlane, jun., 17, Woodside Crescent, Glasgow, indicating your unqualified support of the Branch Council's action; or if you are not satisfied with the action taken or contemplated, indicating what in your opinion should be done. Every expression of opinion will be carefully considered by the Council.

16. *What you should think of.*—Will present conditions of practice last your time? No; a Bill to institute invalidity insurance is at present in preparation by the Government. Whatever party may be in power, it is certain an invalidity insurance and medical relief scheme will be introduced at an early date.

What will be the capital value of your practice on your retiring if invalidity insurance becomes general?

How should you like an inspector coming to inquire into your contract patients' complaints?

How will you like to be offered a Poor Law appointment at threepence per visit, and know that the man over the way will take it if you don't?

How will you like to see all the school children treated under contract, if not by underpaid school inspectors?

How will you like to see all your patients below Income Tax payers become members of a State Provident Association at contract rates, with the wage limit rising every Parliament until your middle class patients are also at contract rates?

Do you realize that all this is likely to come to pass within two years, unless a united effort is made to prevent it?

*What you should not think.*—That the profession does not matter to you, and that you will secure something out of the scramble. You forget that if you manage to secure an appointment which in time freezes the man over the way out of his best practice, he is waiting to step into your shoes at a lower salary whenever the time offers. The mere fact of his existence prevents your ever getting an adequate salary.

That you never cared particularly about the British Medical Association and are not inclined to trouble yourself now.

Can you put up any one to fight your battle with the same chance of success?

That a few men standing out cannot matter a great deal, and that it might turn to your advantage not to commit yourself. It is just a few men standing out that will encourage the authorities to think that if they force their scheme on they will find men to work it in spite of the British Medical Association. It will not turn to your advantage, as, unless the Branch finds it is strong enough to fight, the men in it are not going to bear the whole responsibility and spoil their individual chances for your sake.

17. *An Appeal.*—The members of the Branch Council feel that the matter is of such primary importance to any and every member of the profession that they ask the hearty co-operation of every one.

They feel strongly that nine-tenths of the grievances of the profession are due to lack of combination, to the insufficient support accorded to a central organization, and to the frequency of attempts to advance individual interests by accepting underpaid work to the detriment of the profession as a whole.

They would urge the fact that by combination the profession may place itself in a position to dictate its own terms and impose such conditions as are only compatible with supplying the public with competent

skilled advice, of benefit not only to the profession and its individual members but to the public itself.

If the members of the profession cannot accept such self-imposed discipline they will have only themselves to thank for the continued existence of their many grievances. The power of entering into an effective combination rests in our own hands, and if we but exercise it our position is secure.

The Council trusts that you will give the subject your immediate consideration, and that you will decide to give them your support.

Important meetings are pending, and the Council would be obliged if you will send your reply at your earliest convenience.

We are, Sir,

Your obedient servants,

(Signed) J. N. MARSHALL,
President.
W. L. MUIR,
President-elect.
R. STOCKMAN,
Vice-President.
J. GRANT ANDREW,
Member to Representative Council.
R. JARDINE,
P. N. GRANT,
Glasgow Central Division.
WM. J. RICHARD,
JNO. W. LEITCH,
Glasgow Southern Division.
WM. BRYCE,
Glasgow Eastern Division.
WM. A. CASKIE,
Glasgow North-Western Division.
J. BARR STEVENS,
Renfrewshire Division.
J. EWING HUNTER,
WM. SEMPLE YOUNG,
Dumbartonshire and Argyllshire Division.
ROBT. ROBERTSON,
Lanarkshire Division.
WALTER F. BROWN,
Ayrshire Division.
J. P. DUNCAN,
Honorary Treasurer,
202, Battlefield Road, Langside, Glasgow.
WM. D. MACFARLANE, JUN.,
Honorary Secretary,
17, Woodside Crescent, Glasgow.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham, on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,

J. SMITH WHITAKER,
*Medical Secretary.*

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 26th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

March 23rd, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A meeting of this Division will be held during the last week of March or the first week of April in the County Hotel, Carlisle, at 3.30 p.m. The Report on the Organization of Medical Attendance on the Provident or Insurance Basis will be discussed. Members desirous of reading papers or showing cases or specimens are requested to communicate at once with the Honorary Secretary. Fuller details will be given in a future notice.—JAMES R. S. ANDERSON, Honorary Secretary, Garlands, Carlisle.

EAST ANGLIAN BRANCH.—The spring meeting of the East Anglian Branch will be held at Framlingham, Suffolk, on Thursday, April 20th. Members wishing to read papers or show specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, General Secretary, East Anglian Branch.

GLASGOW AND WEST OF SCOTLAND BRANCH.—A special meeting of the Branch (to which all medical practitioners in the West of Scotland are invited) will be held in the Grosvenor Restaurant, Gordon Street, Glasgow, on Monday, March 27th, at 8.30 p.m. Mr. J. Smith Whitaker, Medical Secretary to the Association, will introduce a discussion on the report on the organization of medical attendance on the provident or insurance principle. A memorandum on the subject of medical defence, which the Council of the Branch recommends to the careful consideration of the profession, will be found at p. 153. —WM. D. MACFARLANE, Junr., Honorary Secretary, Glasgow.

LANCASHIRE AND CHESHIRE BRANCH. — A scientific and clinical meeting will be held at the Manchester Royal Infirmary on Wednesday, March 29th, at 4.15 p.m.—P. R. COOPER, M.D. (Honorary Secretary of Science Committee), 8, St. Peter's Square, Manchester.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A special meeting of this Division will be held at Bethlem Royal Hospital, on Thursday, March 30th, at 4 p.m., to discuss the report published in the SUPPLEMENT for March 4th. Members of the medical profession in the area, though not belonging to the Association, are specially invited to attend.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—A meeting of this Division, to which all practitioners in the area have been invited, will be held at the London Temperance Hospital, Hampstead Road, N.W., on Tuesday, March 28th, at 4 p.m. Special business will be to consider the report of the Association on medical practice on an insurance or provident basis, and members should bring with them the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A meeting of this Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 25th, at 3 p.m. Agenda: (1) Report of Committee on the Organization of Medical Attendance on the Provident or Insurance Principle. (2) Election of Representative at Representative Meetings. (3) Consideration of various documents referred to Divisions. (4) Any other competent business.—J. MUNRO MOIR, M.D., Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital at 2.30 on Tuesday, March 28th. There will be a discussion on the attitude of the medical profession towards the Government's proposed scheme of the organization of medical attendance on a provident or insurance principle. The meeting will be addressed by Mr. J. Smith Whitaker, Medical Secretary of the Association. Owing to the importance of the subject, and the kind attendance of the Medical Secretary of the Association, it is hoped that all members will make an effort to attend, and also medical men not members of the Association, who are being invited on this occasion. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road. The charge for the luncheon is 2s. 6d., and those wishing to attend it should notify the Secretary four days beforehand.—P. S. HICHENS, Honorary Secretary.

WEST SOMERSET BRANCH.—A special meeting of this Branch will be held on March 31st to discuss the very important report which forms the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th.—W. B. WINCKWORTH, Hon. Secretary, Taunton.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon E. G. E. O'LEARY, to the *Tamar*, March 8th; Surgeon W. H. HASTINGS, M.B., to Hong Kong Hospital, March 25th; Surgeon H. M. BRAITHWAITE, M.B., to the *Surprise*, on recommissioning, March 25th; Fleet Surgeon T. W. PHILIP, M.B., to the *President*, additional, for Greenwich Hospital School and the Royal Naval College, Greenwich, temporary, March 17th; Staff Surgeon J. H. STENHOUSE, M.B., and Surgeon A. L. ROBINSON, M.B., to the *Africa*, March 24th; Fleet Surgeon A. G. ANDREWS, to the *Egmont*, additional, for Malta Dockyard, March 27th: Fleet Surgeon E. B. TOWNSEND, to the *Superb*, March 27th; Fleet Surgeon JOHN MENARY, M.D., to Chatham Division, Royal Marines Light Infantry, April 5th; Staff Surgeon J. A. FORREST, M.B., to the *Andromache*, March 17th; Staff Surgeon R. S. OSBORNE, to the *Berwick*, March 22nd; Staff Surgeon H. HUSKINSON, M.B., to the *Bulwark*, March 24th; Fleet Surgeon F. D. LUMLEY, to the *Defence*, April 5th; Fleet Surgeon H. B. BEATTY, G. A. WATERS, M.D., R. HILL, M.V.O., A. GASKELL, B. F. PARISH, and L. KILROY, Staff Surgeons A. X. LAVERTINE, W. E. MATHEW, and G. ROSS, M.B., and Surgeon P. M. RIVAZ, M.B., to the *President*, additional, for three months' hospital course, April 5th; Staff Surgeon L. E. DARTNELL, to the *Mercury*, additional, April 3th, and vice Capps, May 19th; Staff Surgeon G. E. MACLEOD, to the *Dreadnought*, temporary, on recommissioning, March 28th; Surgeon H. COOPER, lent to the *Pomona*, additional, for Dartmouth College, temporary, March 11th; Fleet Surgeon H. C. ARATHOON and Surgeon G. A. BRADSHAW, to the *Formidable*, on recommissioning, April 4th; Fleet Surgeon J. K. ROBINSON, M.B., to the *Caesar*, on recommissioning, April 4th; Fleet Surgeon J. A. KEOGH, M.B., and Surgeon F. M. V. SMITH, to the *Cochrane*, on recommissioning, April 4th; Staff Surgeon A. T. GAILLETON, to the *Halcyon*, on recommissioning, April 4th; Staff Surgeon J. H. LIGHTFOOT, to the *Vivid*, additional, for disposal, April 4th; Fleet Surgeon H. W. GORDON-GREEN, to the *Hampshire*, on recommissioning, April 4th; Staff Surgeon W. R. TRYTHALL, to the *Aboukir*, on recommissioning, April 4th; Staff Surgeon A. DAVIDSON, M.B., to the *President*, additional, for three months' course at West London Hospital, April 5th; Surgeon A. T. RIVERS, to the *Africa*, March 25th; Surgeon A. L. ROBINSON, M.B., to the *Victory*, additional, for disposal on the *Dreadnought* paying off, March 28th; Surgeon L. C. ROWAN-ROBINSON, M.B., to the *President*, additional, for three months' course at the Dreadnought Seamen's Hospital, Greenwich, April 5th: Fleet Surgeon W. G. K. BARNES, to the *Impérieuse* and for Portland Dépôt, April 1st; Fleet Surgeon W. E. HOME, M.D., to the *Pembroke*, additional, for the Royal Naval Recruiting District, London, and for the medical charge of the West India Docks Store Dépôt, April 1st.

## ARMY MEDICAL SERVICE.

SURGEON-GENERAL SIR T. J. GALLWEY, K.C.M.G., C.B., M.D., retires on retired pay, March 15th. He was appointed Surgeon, March 31st, 1874; Surgeon-Major, June 15th, 1885; Lieutenant-Colonel, September 30th, 1893; Colonel, November 16th, 1898; and Surgeon-General, December 26th, 1901. His war record includes: The Afghan war, 1879, including the capture of Ali Musjid (medal with clasp). Egyptian expedition, 1882, including the action at Kassassin and battle of Tel-el-Kebir (medal with clasp, bronze star). Soudan expedition, 1884-5, in charge of Gubat Field Hospital and movable field hospital, and in the engagements during return of desert force to Korti (mentioned in dispatches, clasp, promoted Surgeon-Major). Expedition to Dongola, 1896, as Principal Medical Officer (mentioned in dispatches, appointed C.B., Egyptian medal with clasp). Nile expedition, 1897, as Principal Medical Officer in Egyptian army. Nile expedition, 1898, as Principal Medical Officer in Egyptian army, including the battles of the Atbara and Khartoum (mentioned in dispatches, promoted Colonel, two clasps to Egyptian medal, medal). South African war, 1899-1900, as Principal Medical Officer, Infantry Division, afterwards Principal Medical Officer, Natal, and present at the relief of Ladysmith, including actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieters Hill; also present in operations in Natal (action at Laing's Nek) and in the Transvaal (several times mentioned in dispatches, Queen's medal with six clasps, K.C.M.G.). He has been successively Principal Medical Officer with the Egyptian army, in the Home District, in Natal, again in the Home District, in India, of an Aldershot Army Corps, and of the Aldershot Command.

Colonel G. W. ROBINSON is promoted to be Surgeon-General, vice Sir T. J. Gallwey, March 15th. Surgeon-General Robinson's previous commissions are as follows: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, November 16th, 1898; and Colonel, June 21st, 1905. He was with the Momeik Column in Burma in 1891 (medal with clasp), and with the Nile expedition in 1898, including the battle of Khartoum (mentioned in dispatches, promoted to be Lieutenant-Colonel, and granted the British medal and the Egyptian medal with clasp).

Lieutenant-Colonel W. G. BIRRELL, M.B., from the Royal Army Medical Corps, to be Colonel, vice G. W. Robinson, March 15th. Colonel Birrell was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. He served with the Soudan expedition in 1885 (medal with clasp and Khedive's bronze star); in the Burmese campaign in 1886-7 (mentioned in dispatches); and with the Nile expedition in 1898 (British and Egyptian medals).

Colonel A. E. J. CROLY is placed on retired pay, March 9th. His commissions were thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; and Colonel, December 29th, 1905. He served in the campaign on the North-West Frontier of India in 1897-8 with the Tirah expeditionary force, receiving a medal with two clasps.

Lieutenant-Colonel E. J. E. RISK, from the Royal Army Medical Corps, to be Colonel, vice A. E. J. Croly, March 9th. Colonel Risk was appointed Surgeon, July 30th, 1881: Surgeon Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. He was in the Egyptian war in 1882, being present at the action at Tel-el-Mahuta, the capture of Mahsameh, and in both actions at Kassassin (medal and Khedive's bronze star); he was also in the South Airican war in 1932, receiving a medal with two clasps.

### ROYAL ARMY MEDICAL CORPS.

CAPTAIN W. G. AVISS resigns his commission, March 8th. He was appointed Lieutenant, January 28th, 1907, and made Captain, July 28th, 1910.

Lieutenant R. C. GALGEY resigns his commission, March 11th. His appointment dated from July 30th, 1906.

The date of the seconding of Lieutenant T. A. WESTON, M.B., is January 31st, 1911, and not, as stated in the *Gazette* of February 17th, 1911.

Major B. WATTS, who is serving in India, is appointed Specialist in Midwifery and Diseases of Women and Children, 7th (Meerut) Division, from January 17th.

## COLDSTREAM GUARDS.

SURGEON-LIEUTENANT-COLONEL SIR W. R. CROOKE-LAWLESS, C.I.E., M.D., retires on retired pay, March 15th. His commissions were thus dated:—Surgeon-Captain, January 30th, 1896; Surgeon-Major, January 30th, 1898; Surgeon-Lieutenant-Colonel, August 22nd, 1902. He was appointed to the Coldstream Guards, November 9th, 1898. He served in the South African war in 1899-1902, and was present in the advance on Kimberley, in the actions at Belmont, Enslin, Modder River, and Magersfontein; in operations in the Orange Free State (actions at Poplar Grove, Dreifontein, Vet River, and Zand River); in operations in the Transvaal (actions near Johannesburg, Pretoria, Diamond Hill, and Belfast), and in the Orange River Colony and Cape Colony. He was mentioned in dispatches, promoted to be Surgeon-Lieutenant-Colonel, and granted the Queen's medal with six clasps and the King's medal with two clasps.

## INDIAN MEDICAL SERVICE.

THE following Captains are promoted to be Majors, from January 28th: E. D. W. GREIG, M.B., C. DYKES, M.B., W. F. HARVEY, M.B., W. C. H. FORSTER, M.B., J. J. URWIN, M.B., D. MCCAY, M.D., A. B. FRY, M.D., E. C. G. MADDOCK, M.B., A. W. TUKE, G. H. STEWART, M.B. Their previous commissions are dated: Lieutenant, July 27th, 1899; Captain, July 27th, 1902. Such as have war records in the Army Lists are as follows: Major Forster—Waziristan expedition, North-Western Frontier of India, 1901-2 (medal with clasp). Major McCay—China war, 1900 (medal with clasp). Major Fry—Waziristan expedition, North-West Frontier of India, 1901-2 (mentioned in dispatches); operations against the Darwesh Khel Waziris; Tibet, 1903-4 (medal). Major Stewart—China war, 1900, including the relief of Peking (medal with clasp).

The following Captains to be Majors, dated January 28th: C. HUDSON, D.S.O., C. F. WEINMAN, M.B., H. M. CRUDDAS, G. KING, M.B., G. P. T. GROUBE, PANDIT PIARAYLAL ATAL, W. M. PEARSON, M.B., D. C. KEMP. Their first appointment bears date January 28th, 1899; that of Captain, January 28th, 1902. Such as have war records in the Army Lists are as follow: Major Hudson—China war, 1900 (medal); operations in Somaliland, 1902, including action at Jidballi (mentioned in dispatches, medal with two clasps, and appointed D.S.O.). Major Cruddas—China war, 1900 (medal); North-West Frontier of India, 1902, against the Darwesh Khel Wazaris, and in 1908 in the Mohmand country (medal with clasp). Majors Groube and Atal—China war, 1900 (medal).

The following Majors are promoted to be Lieutenant-Colonels, dated January 31st: J. M. CRAWFORD, M.B., BAWA JIWAN SINGH, E. G. R. WHITCOMBE, C. H. JAMES, F. O'KINEALY, and A. W. T. BUIST, M.D. Their previous commissions, which were simultaneous, were thus dated: Surgeon-Captain, January 31st, 1891; Major, January 31st, 1903. Lieutenant-Colonel Crawford served in the operations in the Northern Chin Hills in 1892-3; in the campaign on the North-West Frontier of India in 1897-8, including the capture of the Tanga Pass (medal with clasp); and in the China war in 1900 (medal). Lieutenant-Colonel Whitcombe was in the operations in Mekran in 1898 (mentioned in dispatches), and in the China war in 1900, including the relief of Peking (medal with clasp). Lieutenant-Colonel O'Kinealy was in the campaign on the North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force (medal with two clasps). The other officers cited have no war record in the Army Lists.

Colonel G. W. P. DENNYS is appointed Inspector-General of Civil Hospitals, Central Provinces.

Lieutenant H. C. G. SEMON, M.B., is permitted to resign the service, from March 27th. His appointment bears date, August 1st, 1908.

## SPECIAL RESERVE OF OFFICERS.

PHILIP S. VICKERMAN, M.B., to be Lieutenant (on probation), March 2nd.

### ROYAL ARMY MEDICAL CORPS.

LAURENCE M. ROUTH to be Lieutenant (on probation), February 6th.

## TERRITORIAL FORCE.

### YEOMANRY.

SURGEON-LIEUTENANT JOHN LIVINGSTONE, M.B., Westmorland and Cumberland, to be Surgeon-Lieutenant-Colonel, February 10th.

### ROYAL ARMY MEDICAL CORPS.

*First Lowland Field Ambulance.*—WILLIAM F. MACKENZIE, M.B., to be Lieutenant, February 18th.

*Second Lowland Field Ambulance.*—DUGALD H. MACPHAIL, M.B., to be Lieutenant, January 4th.

*First South-Western Mounted Brigade Field Ambulance.*—Captain SAMUEL MACLEAN, M.B., from the List of Officers attached to units other than medical units, to be Captain, December 28th, 1910.

*Second South Midland Field Ambulance.*—Captain S. G. BARLING, from the First South Midland Field Ambulance, to be Major, March 11th; Captain G. W. CRAIG, from the First South Midland Field Ambulance, to be Captain, March 11th.

*Attached to Units other than Medical Units.*—Major GEORGE WILLIAMSON, M.B., resigns his commission, retaining his rank and uniform, March 8th. Lieutenant A. H. GOODWIN resigns his commission, March 8th; Captain C. A. CORKE resigns his commission, retaining his rank and uniform, March 18th.

*For Attachment to Units other than Medical Units.*—NORMAN M. FERGUSON, M.B., to be Lieutenant, January 15th; ROBERT HENRY to be Lieutenant, January 9th.

## CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during February, 1911:

| | | FROM | | TO |
|---|---|---|---|---|
| Colonel | R. I. D. Hackett, M.D. ... | Pretoria | ... | India. |
| ,, | H. H. Johnston, C.B., M.D. ... | Curragh | ... | Chatham. |
| ,, | E. J. E. Risk ... .. ... | Belfast ... | ... | Comdt. R.A.M. Coll. |
| Lieut.-Col. | T. E. Noding... ... ... | Cork ... | ... | Hilsea. |
| ,, | G. E. Hale, D.S.O. ... ... | London | ... | India. |
| Major | C. H. Hale, D.S.O. ... ... | Strensall | ... | Kamptee. |
| ,, | C. A. Young... ... ... ... | Mauritius | ... | Shrewsbury. |
| ,, | S. F. Clark, M.B. ... ... ... | Maritzburg | ... | London. |
| ,, | B. Forde, M.B. ... ... ... | Bloemfontein | | Aldershot. |
| ,, | D. D. Shanahan ... ... ... | Secunderabad | | Ootacamund. |
| ,, | F. J. W. Porter, D.S.O. ... ... | London | ... | Cosham. |
| ,, | O. L. Robinson ... ... ... | Kailana | ... | Meerut. |
| ,, | I. A. O. MacCarthy ... ... | Woolwich | ... | Guildford. |
| ,, | H. A. Hinge ... ... ... | Ootacamund | ... | London. |
| ,, | H. S. Thurston ... ... ... | London... | ... | Malta. |
| ,, | W. D. Erskine, M.B. ... ... | York .. | ... | Glasgow. |
| ,, | W. J. Taylor, M.B. ... ... | Holywood | ... | West Africa. |
| ,, | J. P. Silver, M.B. ... ... | Edinburgh | ... | Glasgow. |
| ,, | S. H. Fairrie, M.B. ... ... | Shorncliffe | ... | Shoeburyness. |
| ,, | J. C. B. Statham ... ... ... | Pretoria | ... | London. |
| ,, | B. Watts ... ... ... ... | Campbellpore | | Meerut. |
| ,, | H. G. Martin ... ... ... | Lebong... | ... | Calcutta. |
| ,, | W. B. Winkfield ... ... ... | Portland | ... | Agra. |
| ,, | H. D. Packer ... ... ... | Exeter ... | ... | Devonport. |
| Captain | L. F. F. Winslow ... ... | Bradford | ... | Pontefract. |
| ,, | W. C. Croly ... ... ... | Ipswich | ... | Secunderabad. |
| ,, | F. S. Walker, F.R.C.S.I. ... | Fermoy | ... | Queenstown. |
| ,, | G. J. Houghton... ... ... | Queenstown | ... | West Africa. |
| ,, | A. C. Adderley ... ... ... | Lichfield | ... | Harrismith. |
| ,, | L. L. G. Thorpe .. ... ... | Tidworth | ... | Netley. |
| ,, | T. B. Unwin, M.B. ... ... | Aldershot | ... | West Africa. |
| ,, | R. N. Hunt, M B. ... ... | Bordon... | ... | Egypt. |
| ,, | F. W. Lambelle, M.B. ... | York ... | ... | Mhow. |
| ,, | A. B. Smallman, M.B. ... | Quetta ... | ... | Colchester. |
| ,, | H. V. Bagshawe ... ... | Lichfield | ... | Sheffield. |
| ,, | J. E. H. Gatt, M.D. ... ... | Cosham | ... | Allahabad. |
| ,, | D. Ahern ... ... ... ... | Cairo ... | ... | Alexandria. |
| ,, | J. T. McEntire, M.B. ... ... | Newcastle | ... | West Africa. |
| ,, | A. C. Osburn ... ... ... | Sheerness | ... | Colchester. |
| ,, | J. Fairbairn, M.B. ... ... | Glasgow | ... | West Africa. |
| ,, | D. P. Johnstone ... ... | Liverpool | ... | Seaforth. |
| ,, | L. V. Thurston ... ... | Khanspur | ... | Cork District. |
| ,, | A. W. Gater ... ... ... | Murree... | ... | Fermoy. |
| ,, | J. P. Lynch ... ... ... | Canterbury | ... | Lydd. |
| ,, | R. K. White ... ... ... | Cawnpore | ... | Aldershot. |
| ,, | E. B. Booth, M.D. ... ... | Kamptee | ... | Irish Comd. |
| ,, | R. E. Humfrey, M.B. ... ... | Ferozepore | ... | Nasirabad. |
| ,, | W. G. Maydon ... ... ... | Secunderabad | | Scottish Comd. |
| ,, | E. J Elliot, M B. ... ... | York ... | ... | Newcastle. |
| ,, | E. C. Phelan, M.B. ... ... | Calcutta | ... | Lebong. |
| ,, | S. Field ... ... ... ... | Chatham | ... | Jamaica. |
| ,, | J. H. Gurley ... ... ... | Woolwich | ... | Kingston-on-Thames. |
| ,, | R. E. Todd, M.B. ... ... | Alexandria | ... | Cairo. |
| ,, | C. P. O'Brien Butler ... ... | Poona ... | ... | Purandhar. |
| ,, | J. F. Grant, M.B. ... ... | Benares | ... | Lucknow. |
| Lieutenant | J. James, M.B. ... ... | Woolwich | ... | Potchefstroom |
| ,, | S. G. Walker, M B. ... | Lucknow | ... | Cawnpore. |
| ,, | C. E. L. Harding, M.B. ... | Purandhar | ... | Poona. |
| ,, | C. M. Rigby ... ... ... | Rangoon | ... | Jubbulpore. |
| ,, | D. S. Buist, M.B. ... ... | Netley ... | ... | India. |
| ,, | A. M. Pollard ... ... | Winchester | ... | Bloemfontein. |
| ,, | G. G. Collet, M.B. ... ... | Kasauli | ... | Quetta. |
| ,, | D. E. C. Pottinger, M.B.... | Glencorse | ... | India. |
| ,, | G. S. Parkinson ... ... | Enniskillen | ... | Harrismith. |
| ,, | C. H. O'Rorke. M B. ... | Newbridge | ... | India. |
| ,, | C. G. Sherlock, M.D. ... | Dublin ... | ... | ,, |
| ,, | S. W. Kyle, M.B. ... ... | Belfast ... | ... | ,, |
| ,, | J. W. Lane, M.D. ... ... | Dublin ... | ... | ,, |
| ,, | A. T. J. McCreery, M.B.... | Bulford | ... | ,, |
| ,, | J. A. Manifold, M.B. ... | Fort George | ... | Glasgow. |
| ,, | J. R. Hill, M.B. ... ... | Pembroke Dock | ... | Manchester. |
| ,, | H. R. Edwards ... ... | Guildford | ... | Woolwich. |
| ,, | R. H. Nolan ... ... ... | Bordon... | ... | India. |
| ,, | W. Mathieson ... ... | London | ... | Potchefstroom |
| ,, | F. R. Laing, M.B. ... ... | Aldershot | ... | Bordon. |
| ,, | C. M. Nicol, M.B. ... ... | Colchester | ... | Ipswich. |
| ,, | A P. O'Connor, M.B. ... | Shorncliffe | ... | Brighton. |
| ,, | V. P. Hutchinson ... ... | London... | ... | Southern Command. |

Lieutenant W. W. Treves, M.B., F.R.C.S., appointed on probation, January 28th, 1910, is now stationed at Chatham. The following Lieutenants, appointed on probation, July 29th, 1910, are now stationed at the places named: C. H. H. Harold, M D., London; E. L. Fyffe, M.B., Cork; R. F. Bridges, M.B., Shorncliffe; T. J. Hallinan, M.B., Fermoy; J. D. Bowie, M B, Aldershot; C. H. Stringer, Netley; G. O. Chambers, York; J. K. Gaunt, M B., Fermoy; L. F. K. Way, Cosham.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,180 births and 4,911 deaths were registered during the week ending Saturday, March 11th. The annual rate of mortality in these towns, which had been 17.2, 16.2, and 15.3 per 1,000 in the three preceding weeks, further declined to 14.9 in the week under notice. In London the death-rate was equal to 14.8 per 1,000 against 17.1, 16.3, and 14.8 in the three previous weeks. Among the seventy-six other large towns, the death-rates ranged from 7.6 in Wallasey, 7.7 in Handsworth (Staffs) and in King's Norton, 8.1 in West Hartlepool, and 8.2 in Walthamstow to 22.3 in Oldham, 22.4 in Devonport, 22.6 in Sheffield, 27.5 in Dewsbury, and 28.3 in Middlesbrough. Measles caused a death-rate of 3.4 in Rochdale, 3.9 in Wigan, 4.6 in Leyton, 9.1 in Devonport, and 10.3 in Sheffield; whooping-cough of 1.1 in Leyton and in Wigan, 1.9 in Middlesbrough and 2.0 in Dewsbury; and diphtheria of 1.1 in Gateshead, and 2.4 in Barrow-in-Furness. Six fatal cases of small-pox, all of which belonged to the Metropolitan Borough of Stepney, were registered during the week, but none in any other of the large towns. Of the 4,911 deaths in the seventy-seven towns, the causes of 38 were uncertified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 4 in Liverpool, 4 in Sheffield, and 3 in Portsmouth. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,276, 1,242, and 1,197 at the end of the three preceding weeks, had further declined to 1,166 on Saturday, March 11th: 120 new cases were admitted during the week, against 166, 138, and 129 during the three preceding weeks. On the same date, there were 47 patients under treatment in the Metropolitan Small-pox Hospitals; 10 new cases were admitted during the week, against 35 and 16 in the two preceding weeks.

In seventy-seven of the largest English towns 7,963 births and 5,052 deaths were registered during the week ending Saturday, March 18th. The annual rate of mortality in these towns, which had been 16.2, 15.3, and 14.9 per 1,000 in the three preceding weeks, rose to 15.4 per 1,000 in the week under notice. In London the death-rate was equal to 15.1 per 1,000, against 16.3, 14 8, and 14.8 in the three previous weeks. Among the seventy.six other large towns the death-rates ranged from 4.9 in Handsworth (Staffs), 5.3 in King's Norton, 7.6 in Wallasey, 8.3 in Northampton, and 8 7 in Stockton-on-Tees to 20.2 in St. Helens, 21.9 in Sheffield, 22 5 in Middlesbrough, 22.7 in Plymouth, and 23.3 in Coventry. Measles caused a death-rate of 3 8 in Coventry, 4.1 in Plymouth, 5.4 in Devonport, 5.6 in Wigan, and 8.0 in Sheffield; whooping-cough of 1.7 in Wigan, 1.8 in Aston Manor, and 1.9 in Coventry and in West Hartlepool; and diarrhoea of 1.4 in Middlesbrough. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns. A fatal case of small-pox belonging to the Metropolitan Borough of Poplar was registered during the week, but none in any other of the towns. Of the 5,052 deaths recorded in the seventy-seven towns during the week, the causes of 46 were uncertified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 4 in Stoke-on-Trent, and 3 each in Liverpool, Preston, and Sheffield. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,242, 1,197 and 1,166 at the end of the three preceding weeks, had further declined to 1,121 at the end of the week under review; 146 new cases were admitted during the week, against 138, 129, and 120 in the three previous weeks. On Saturday, March 18th, there were 38 cases of small-pox under treatment in the Metropolitan Asylums Hospitals; 1 new case was admitted during the week, against 35, 16, and 10 in the three previous weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, March 11th, 894 births and 583 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 19.0, 17.4, and 16.9 per 1,000 in the three preceding weeks, further fell to 15.9 during the week under notice, and was 1.0 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 11.0 in Paisley and 11.3 in Aberdeen to 24.9 in Perth and 25.3 in Greenock. The death-rate from the principal infectious diseases averaged 1.6 per 1,000, and was highest in Dundee and Leith. The 269 deaths from all causes registered in Glasgow included 2 from enteric fever, 3 from measles, 19 from whooping-cough, 1 from diphtheria, and 3 of children under 2 years of age from diarrhoea and enteritis. Two deaths from measles, 2 from scarlet fever, 2 from whooping-cough, and 2 from diphtheria were recorded in Edinburgh; and from whooping-cough, 8 deaths in Dundee, 2 in Paisley, and 4 in Leith.

During the week ending Saturday, March 18th, 907 births and 617 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.9 and 15 9 per 1,000 in the two preceding weeks, rose to 16.8 in the week under notice, and was 1.4 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 14 3 in Leith and 14.6 in Aberdeen to 20.1 in Dundee and 20.8 in Paisley. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Paisley and Leith. The 281 deaths from all causes recorded in Glasgow included 2 from measles, 2 from scarlet fever, 3 from diphtheria, 15 from whooping-cough, and 4 of children under 2 years of age from diarrhoea. Five deaths from whooping-cough, 4 from diphtheria, and 2 from measles were registered in Edinburgh; and from whooping-cough 5 deaths in Paisley, 5 in Leith, 4 in Dundee, and 2 in Aberdeen.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 11th, 627 births and 431 deaths were registered in the twenty-two principal urban districts of Ireland, as against 656 births and 455 deaths in the preceding period. The annual death-rate in these districts, which had been 22.7, 20.9, and 20.4 per 1,000 in the preceding weeks, fell to 19.3 per 1,000 in the week under notice, this figure being 4.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.0 and 15.4 respectively, those in other districts ranging from 9.3 in Wexford and 9 6 in Sligo to 30.8 in Clonmel and 46.1 in Queenstown, while Cork stood at 27.4, Londonderry at 15.4, Limerick at 24.6, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1 7 per 1,000 in the preceding week.

During the week ending Saturday, March 18th, 612 births and 389 deaths were registered in the twenty-two principal urban districts of Ireland, as against 627 births and 431 deaths in the preceding period. The annual death-rate in these districts, which had been 20.9, 20.4, and 19.3 per 1,000 in the preceding weeks, fell to 17.4 per 1,000 in the week under notice, this figure being 2.0 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 20.8 and 15.4 respectively, those in other districts ranging from 5.1 in Clonmel and 7.8 in Galway to 33.5 in Ballymena and 33.6 in Newry, while Cork stood at 16.4, Londonderry at 10.7, Limerick at 15.0, and Waterford at 15.6. The zymotic death-rate in the twenty-two districts averaged 0.9 per 1,000 as against 1.2 per 1,000 in the preceding week.

# Hospitals and Asylums.

## ROYAL FREE HOSPITAL, LONDON.

THE annual court of governors was held at the Royal Free Hospital, Gray's Inn Road, on the afternoon of Wednesday, March 15th, with Princess Christian of Schleswig-Holstein, the President of the hospital, in the chair. The Princess, who was accompanied by Princess Marie-Louise of Schleswig-Holstein, was received by Mr. Holroyd Chaplin, Chairman of the Weekly Board, the Bishop of Islington, and others. The annual report showed a considerable increase in the number of both in-patients and out-patients, 40,104 having been treated in place of the 39,539 received during the previous year. Of these, the in-patients numbered 2,444, whilst the out-patients and casualties amounted to 37,660, nearly 350 more than those received during 1909. With the increase of patients had come an increase of income, and, as a natural result of both, an increase of expenditure. The income of the hospital during 1910 amounted to £43,902, of which £30,303 was derived from legacies, and the total expenditure during the same year amounted to £17,715, thus exceeding by £226 the expenditure of the previous year. Since the legacies left during the year 1909 had in all only amounted to £6,726, it will be seen that last year was an unusually fortunate one for the hospital, the greater part of whose income is derived from such sources. Mr. Holroyd Chaplin, in moving the adoption of the annual report, laid stress upon the increased expenditure resulting from the greater cost of provisions and labour and of medical and surgical appliances. The first and most urgent need of the hospital was for a new out-patient department, the building of which was now rendered possible by the munificent gift of £50,000 bequeathed by the late Mr. Henry Silver. The need for a chapel was likewise to be remedied, the intention being to erect one as a memorial to the late King. Mrs. Scharlieb, Consulting Physician to the hospital, in seconding the motion, called attention to the lack of maternity beds. More beds were needed, not only for the sake of the patients, but also for the sake of the students, many of whom would in all probability take posts in lonely places in the East, where there would be no other doctor to consult, and where in difficult cases they would have to rely solely upon their own knowledge and experience. The report was adopted, and a vote of thanks, proposed by Sir Edwin Durning-Lawrence, and seconded by Major Ricardo, was accorded to Princess Marie-Louise of Schleswig-Holstein, President of the Ladies' Association, and to the members of the Association, for the help given by them to the hospital during the past year. In reply to the vote of thanks passed to the medical staff, Dr. Harrington Sainsbury, Senior Physician to the hospital, spoke of the immense benefit to be gained by setting apart special wards for observation and isolation, particularly in the case of epidemics, whilst Mr. James Berry laid great stress upon the inadequacy of the present out-patient department.

## GARTLOCH MENTAL HOSPITAL REPORT.

THE thirteenth annual report of the Glasgow District Mental Hospital at Gartloch has been submitted by Dr. W. A. Parker, medical superintendent. At May 15th the inmates numbered 759, of which 391 were men and 368 women—a decrease of 8 in the resident population, as compared with an average increase of 26 during the last five years. During the year 235 cases were admitted and 243 discharged; 81 cases were discharged recovered—a recovery-rate of 34.4 per cent. calculated on the year's admissions, or 31.9 per cent. males and 37 per cent. females. The work of the wards continue to be heavy, owing to the large number of epileptic and senile cases; the paralytic cases were numerous, and a feature during the past few years had been the increasing number of the troublesome hysterical forms of insanity. Regarding the alcohol question, the report says: "Again, as usual, alcohol alone or in combination with other agents is the most prolific determining cause of the insanity in our admissions, but this year there is a most notable fall in the number of cases apparently due to alcohol. Only 34 cases, or 14.4 per cent. of the admissions, are ascribed to alcohol as the determining cause, as compared with 23 per cent. (65 cases) last year and 24.3 per cent. (73 cases) the year before. Our histories still continue to show alcohol as an indirect cause of insanity very strikingly. The apparent influence of parental alcoholism on our adolescent admissions is as notable as ever. Excluding all those admissions in whose cases a definite history regarding parental abuse of alcohol was not obtainable, we find that there was excessive use of alcohol by one or both parents in 45.9 per cent. of our admissions. If our admissions be split in two groups, and only those whose first mental breakdown occurred over the age of 26 be taken, then we find parental abuse of alcohol present in only 31.8 per cent., while in those whose first mental breakdown took place under the age of 26 we find a much larger percentage of parental alcoholism—namely, 72.4 per cent."

## NORWICH CITY ASYLUM.

THE annual report of Dr. David Rice, the Medical Superintendent of this asylum, for the year 1909, shows that on January 1st, 1909, there were 484 patients on the register, of whom 384 were chargeable to Norwich, and on the last day of the year there were 474, of whom 391 were Norwich patients. The total cases under treatment during the year numbered 586, and the average number daily resident 472. During the year 102 were admitted, of whom 90 were direct admissions. Of these in 27 the attacks were first attacks within three and in 14 more within twelve months of admission; in 14 not-first attacks within twelve months, and in the remainder, including 3 congenital cases, the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 30; melancholia of all kinds, 21; senile and secondary dementia, 8; insanity with epilepsy, 10; general paralysis, 7; delusional insanity, 2; confusional insanity and primary dementia, 4 each; and congenital defect, 4. Dr. Rice says that more than 56 per cent. of the male and more than 64 per cent. of the female admissions were hopelessly incurable on reception. As to causation, Dr. Rice says that hereditary weakness stood out prominently, 31 per cent. of the direct admissions showing a family history of insanity and 43 per cent. giving one of either insanity, epilepsy, neuroses, or drink. Among other etiological factors, alcohol was assigned in 15, syphilis in 5 and other toxins in 6; critical periods in 18; diseases of the nervous system in 13; other bodily affections in 15; and mental stress in 17. During the year 32 were discharged as recovered, giving a recovery-rate on the direct admissions of 35.55 per cent., or of recoveries in the direct admissions on the direct admissions of 10.0 per cent. Also 7 were discharged as relieved and 27 as not improved. During the year 46 died, giving a death-rate on the average number resident of 9.74 per cent. The deaths were due in 12 to cerebro-spinal diseases, with only 3 from general paralysis; in 8 to heart disease; in 3 to respiratory diseases; in 8 to diseases of the digestive or genito-urinary system, and in the remainder to general diseases, including 6 from senile decay and 3 from pulmonary tuberculosis.

## GLASGOW ROYAL HOSPITAL FOR SICK CHILDREN.

THE twenty-eighth annual report for the year ending December 31st gives the total cases treated in the wards as 997, of which 426 were medical and 571 surgical. There were 140 deaths. The average daily number of patients resident was 67.27, and the average duration of residence 25.9 days. The arrangements for the rebuilding of the hospital at Yorkhill are now in an advanced state. It was originally intended to have each block only two stories in height, but the cost was found prohibitive, and the plans were completely remodelled in order to diminish the cost by reducing the number of separate blocks and increasing the height of most. While the plans allow of the ultimate erection of a 300-cot hospital on the spacious site of 10 acres on the crown of Yorkhill, it is intended meantime to erect accommodation for 200 cots only. The building will be on the pavilion system, each block being connected by a well-ventilated corridor. The original estimate, including site, was £120,000, but the directors now find that this will be considerably exceeded. £102,000 has already been subscribed, and the directors are confident that the balance will be supplied by a generous public.

## PROPOSED COTTAGE HOSPITAL IN BRIGHOUSE.

IT is proposed in Brighouse to build a cottage hospital as memorial to the late King Edward VII. Mrs. W. K. McGhie has already generously handed over to a body of trustees five acres of land for this purpose. On the land are twelve dwelling houses and some farm buildings, the whole estate bringing in a revenue of over £74 per annum. The whole of the income from the property is to form the nucleus of an endowment fund towards the maintenance of the hospital.

## HARROGATE ROYAL BATH HOSPITAL.

THE annual meeting of the Governors of the Royal Bath Hospital and Rawson Convalescent Home was held at the Hospital, Harrogate, on January 26th, Lord Mountgarret presiding. The report showed that the total number of patients admitted to the two institutions during 1910 was 1,591, as compared with 1,528 in 1909. The Chairman drew attention to the fact that the institutions were not only meant for the people of Harrogate but for the whole of the country, especially the North of England. It was to be hoped that they would be better supported by outsiders in the future than they had been in the past.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Surgeon. (2) Resident Medical Officer (male). Salary at the rate of £60 per annum.

BETHNAL GREEN INFIRMARY, Cambridge Heath, E.—Assistant Medical Officer. Salary at the rate of £100 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Two male House-Surgeons. Salary at the rate of £75 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Assistant Pathologist. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist. Salary at the rate of £250 per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, rising to £180.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor.—House Surgeon. Salary, £100 per annum.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary to commence at £100 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

DUBLIN: ROYAL CITY OF DUBLIN HOSPITAL.—Gynaecologist.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon. Salary, £60 per annum.

EDINBURGH: THE HOSPICE.—Resident, must be qualified medical woman. Honorarium at the rate of £25 a year.

ELGIN COUNTY.—Medical Officer of Health and Medical Inspector of School Children. Salary for combined office, £550.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Clinical Assistants to Out-patient Departments.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—Two Indoor House-Surgeons and two Out-door House-Surgeons for Obstetrical Department and one Out-door Surgeon for West-End Branch.

GLOUCESTERSHIRE ROYAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—(1) Two House-Physicians. (2) Three House-Surgeons. Salary at the rate of £40 per annum each.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months or £80 per annum for twelve months.

HULL: VICTORIA HOSPITAL FOR SICK CHILDREN.—Lady Assistant House-Surgeon. Salary, £40 per annum.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Vacancy on Honorary Medical Staff.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LLANELLY URBAN DISTRICT.—Medical Officer of Health and Schools Medical Officer. Combined salary, £400 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Male Resident Medical Officer. Salary for first six months £40, and for second six months £50.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Surgeon for Children.

MANCHESTER SCHOOLS FOR MOTHERS.—Honorary Medical Officer to the Ancoats Branch.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Male Resident Medical Officer. Salary, £100 per annum.

NORTHAMPTON SANATORIUM, Creaton.—Resident Medical Officer. Salary at the rate of £200 per annum.

NORWICH CITY.—Assistant Medical Officer of Health. Salary, £150 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Resident Medical Officer. Salary, £120 per annum.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Clinical Assistants.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistants.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Physician.

SEAMEN'S HOSPITAL SOCIETY: DREADNOUGHT HOSPITAL.—(1) Two House-Physicians. (2) Two House-Surgeons. Salary at the rate of £50 per annum each.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—House-Surgeon. Salary, £60 per annum.

SOMERSET COUNTY COUNCIL.—Bacteriologist-Chemist. Salary, £200 per annum.

SOUTH MANCHESTER TOWNSHIP.—Junior Resident Medical Officer at the Workhouse Hospitals. Salary, £100 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUNDERLAND INFIRMARY.—Two Male House-Surgeons. Salary, £80 per annum.

THROAT HOSPITAL, Golden Square, W.—Honorary Assistant Surgeon.

TORQUAY: TORBAY HOSPITAL.—Resident Medical Officer. Salary, £100 per annum and £5 for nurses' lectures.

TRANSVAAL MINERS' PHTHISIS SANATORIUM, Springkell, Modderfontein.—Medical Superintendent. Salary, £1,000 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Senior House-Surgeon. Salary, £110 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—(1) House-Surgeon. (2) Junior House-Physician. Salary, £100 and £75 per annum, respectively.

WEST LONDON HOSPITAL AND POST-GRADUATE COLLEGE, Hammersmith Road, W.—(1) Clinical Assistant. (2) Three Non-Resident Assistant House-Surgeons.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Surgical Officer. Salary, £125 per annum. (2) House-Surgeon. Salary at the rate of £80 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Amble, co. Northumberland; Bradford (West), co. Yorks.

## APPOINTMENTS.

BADGEROW, George W., F.R.C.S., Surgeon to the Throat Hospital Golden Square, vice Charles Heath, F.R.C.S., resigned.

CARTER, H. H., M.B.Lond., Certifying Factory Surgeon for the Northallerton District, co. Yorks.

FLETCHER, Duncan, L.R.C.P. and S.Edin., L.F.P.S Glas., Medical Referee under the Workmen's Compensation Act for the Sheriffdom of Inverness, Elgin, and Nairn, and to be attached more particularly to the Skye District, vice Dr. Dewar.

FURBER, Dr. E. P., Clinical Assistant to the Samaritan Hospital for Women, Marylebone Road, N.W.

GLOYNE, S. Roodhouse, M.D., Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

GRANT, J. Dundas, M.D., F.R.C.S., recognized by the University of London as a Teacher of Aural Surgery and Laryngology at the Brompton Hospital for Consumption.

HEATH, H. Llewellyn, D.P.H.Cantab., Medical Officer of Health to the County of East Suffolk.

MAGRANE, Vincent J., L.R.C.P.I., L.R.C.S.I. and L.M., Medical Officer of Health of the Darlaston Urban District, District Medical Officer of the Walsall Union, both vice S. Partridge, M.D., deceased.

MARTIN, P. S., M.R.C.S., L.R.C.P., House-Physician to University College Hospital.

MOORE, F. J., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

PATRICK, N. C., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Glenavy District, co. Antrim.

PULLAR, James, M.D., C.M. (Manitoba), Clinical Assistant to the Chelsea Hospital for Women.

POWELL, D. E., M.B., C.M.Glasg., District Medical Officer of the Wandsworth Union.

REEVE, H. M., M.B.Lond., District Medical Officer of the Rochford Union.

SWETE-EVANS, W. B., M.A., M.D., B.C.Camb., M.R.C.S.Eng., Honorary Assistant Medical Officer, Southport Infirmary.

TURNER, G. J. K., M.B., Certifying Factory Surgeon for the Broughton Astley District, co. Leicester.

WILSON, N., M.A., B.C.Cantab., Certifying Factory Surgeon for the Sherborne District, co. Dorset.

WILLIAMSON, P. G., M.B., B.Ch.Vict., Honorary Anaesthetist to the Harrogate Infirmary.

WORTH, F. J., M.D.Durh., District and Workhouse Medical Officer of the Basingstoke Union.

YEARSLEY, Macleod, F.R.C.S., Honorary Consulting Aural Surgeon to the Royal School for Deaf and Dumb Children, Margate.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CHRISTIE.—At 7, Alford Place, Aberdeen, on March 20th, the wife of Dr. J. F. Christie, of a daughter.

HEDLEY.—On March 15th, 1911, at 11, John Street, Berkeley Square, W., the wife of John Prescott Hedley, M.A., M.B., M.C.Cantab., of a son.

MARTIN.—On March 19th, at No. 3, Clifton Vale, Clifton, Bristol, the wife of R. Collins Martin, M.R.C.S., L.R.C.P., of a son.

RIDDELL.—At Highgate, Kendal, on the 16th inst., the wife of David Riddell, M.D., a son.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Clinical Evening.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper: Mr. H. J. Morris and Professor McWilliam: The Comparative Elasticity and Internal Structure of Cast and Rolled Gold Plate. Casual communication: Mr Howard Mummery: A Short Preliminary Note on the Distribution of the Nerves of the Dental Pulp.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture by Dr. J. Mitchell Bruce: A Clinical Study of Cardio-Vascular Degeneration.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Papers: (1) Dr Thomas Lewis: Electro Cardiograms. (2) Dr. Samuel West: Cases of Suffocative Catarrh in an Adult (Acute Pneumococcal Bronchitis).

### THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, 8.30 p.m.—Mr. C. B. Lockwood: The Harveian Lecture on Fractures of the Patella and their Surgical Treatment.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture, by Dr. J. Mitchell Bruce: A Clinical Study of Cardio-Vascular Degeneration.

ROYAL SOCIETY, Burlington House, 4 p.m.—Papers: Captain A. G. McKendrick, I.M.S.: The Chemical Dynamics of Serum Reactions. Dr. G. J. Burch, F.R.S.: The Measurement of Colour Sensations by Intermittent Light. Dr. E. W. A. Walker: On Variation and Adaptation in Bacteria, with Special Reference to Fermentation Tests.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday and Friday, 3.45 p.m., Ear.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Shoulder-Joint, Wrist-Joint, and Carpus. Thursday, 4 p.m., Appendicitis in Children. Friday, 5.15 p.m., Arthritis of Vertebral Column, Simple, Tuberculous, Syphilitic.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hossital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m.

MANCHESTER: ANCOATS HOSPITAL POST GRADUATE CLINIC.—Thursday, 4.15 p.m., The Medical Treatment of Gastric and Duodenal Ulcer.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Intestinal Stasis; Tuesday, The Borderland of Insanity; Wednesday, Some Cases of Lesions of the Optic Chiasma; Thursday, Treatment of Scoliosis in Childhood and Adolescence.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; X Rays. Thursday, 2.30 p.m., Gynaecological Operations: Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, X Rays and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of the tenth edition of Hughes's *Practice of Medicine*, thoroughly revised and enlarged by Dr. R. J. E. Scott. The text of this edition has been enlarged by 93 pages and the illustrations by 36. The publication of the following works is also announced by the same firm: *Foods and their Adulteration: the Origin, Manufacture, and Composition of Food Products, Infants' and Invalids' Foods, Detection of Common Adulterations, and Food Standards.* Second edition. By Harvey W. Wiley, M.D., Chief Chemist, United States Department of Agriculture, Washington, D.C. *Manual of Physical Diagnosis*, by Brefney Rolph O'Reilly, M.D., Demonstrator in Clinical Medicine and in Pathology, University of Toronto. The work contains six plates (three in colours) and forty-nine other illustrations of which six are in colours.

Messrs. Stanley Paul announce *The Life of James Hinton*, by Mrs. Havelock Ellis. The book is said to be based on hitherto unpublished papers, and distinct from the study of Hinton, which appeared in the same author's *Three Modern Seers.*

Mr. William Reeves announces the publication of *Vocal Science and Art, being Hints on the Production of Musical Tone*, by the Rev. Charles Gib and J. F. Halls Dally, M.D. It is said to contain the very latest in the way of experiments on the larynx and of our knowledge of the human voice.

## RECENT PUBLICATIONS.

*Analytical Notes, 1910.* Liverpool: Evans Sons, Lescher and Webb, Limited, 56, Hanover Street, Liverpool. (For free distribution to medical men.)

Notes on investigations made in the laboratories of the firm on samples submitted and tested in the ordinary course of business, with an index to four previous issues.

*The Tuberculins and their Employment in Diagnosis and Treatment of Tuberculosis.* London: Meister Lucius and Brüning, Limited, 51, St. Mary Axe, London, E.C. (For free distribution to medical men.)

A compilation enumerating the varieties of tuberculin supplied by the firm, and the purposes to which they are believed to be specially adapted.

*The Feeding of Nurses.* 1911. National Food Reform Association 178, St. Stephen's House, Westminster. (Demy 16mo, pp. 103. 6d.)

A report of a conference of matrons of hospitals and other institutions, held in London last November to consider this subject, together with press comments and letters, tables of food values, etc.; a short preface is contributed by Dr. R. Hutchison. It is freely admitted that the food supplied to hospital and institution nurses is much better in quality and quantity than was the case a few years ago, but many matters still requiring alteration are mentioned, and practical suggestions made, which it may be hoped will lead to improvements. The subject is of unquestionable importance, and this little book should be useful.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MARCH.** | |
| 26 Sunday .. | |
| 27 MONDAY .. | GLASGOW AND WEST OF SCOTLAND BRANCH. Grosvenor Restaurant, Gordon Street, Glasgow, 8.30 p.m. |
| 28 TUESDAY .. | NORTHAMPTONSHIRE DIVISION, *Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m.<br>ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, London Temperance Hospital, Hampstead Road, N.W., 4 p.m. |
| 29 WEDNESDAY | |
| 30 THURSDAY .. | LAMBETH DIVISION, *Metropolitan Counties Branch*, Bethlem Royal Hospital, 4 p.m. |
| 31 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>WEST SOMERSET BRANCH, Special Meeting. |
| **APRIL.** | |
| 1 SATURDAY .. | |
| 2 Sunday .. | |
| 3 MONDAY .. | |
| 4 TUESDAY .. | |
| 5 WEDNESDAY | |
| 6 THURSDAY .. | |
| 7 FRIDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with the Æsculapian Society, Metropolitan Hospital, Kingsland Road, 4 p.m. |
| 8 SATURDAY .. | |
| 9 Sunday .. | |
| 10 MONDAY .. | |
| 11 TUESDAY .. | |
| 12 WEDNESDAY | |
| 13 THURSDAY .. | SOUTH WALES AND MONMOUTHSHIRE BRANCH, Spring Meeting, Abergavenny. |
| 14 FRIDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

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## SOME OF THE MEDICAL ASPECTS OF STATE INSURANCE AGAINST INVALIDITY AND SICKNESS.

BY
H. MEREDITH RICHARDS, M.D.,
MEDICAL OFFICER OF HEALTH, CROYDON.

THOUGH one is hampered by the absence of precise information, there are certain advantages in discussing the medical aspects of State insurance at this stage. First, because there may still be opportunities for considered medical opinion to assist in moulding the scheme; and, secondly, because it is imperative that the medical profession should carefully weigh and consider the policy it should adopt when the scheme becomes law.

Though we are still very much in the dark, one gathers that the Government proposes that all persons in regular employment earning less than £150 a year shall be compelled to insure against sickness and invalidity. As to the number of persons that are likely to be included, no reliable estimate can at present be formed, but it is fairly certain that it will not be less than, say, the number of children attending elementary schools (one-sixth of the total population), and may be twice as large.

Concerning machinery, it seems to be agreed that those persons who are "attached" to approved friendly societies or trade unions will continue to draw their sick pay from these sources, and that the contributions of this class will be paid to a society or union selected by the insured and approved by the State. Obviously, however, the friendly societies and unions will not cover the whole ground. Many lives will be rejected by them for various reasons (for example, phthisis, syphilis, heart disease), and many persons will not elect to join a friendly society. For these "unattached" persons some new organization, national or local, will be required. The precise form of that organization depends very largely on the importance that is attached to the medical aspects of the scheme. It has been suggested that insurance against sickness can be undertaken independently of any scheme for medical attendance on the insured. In that case the local organization would be a very simple affair; the postmaster or the manager of the local labour exchange might be authorized to dispense sick pay to an insured person on the certificate of any medical man whose name appeared in the *Medical Register*. It is true that a few friendly societies do distribute sick pay on some such terms, but they are safeguarded by a system of medical referees and sick visitors and ample powers of expelling unworthy members.

A national scheme which provided sick benefit but made no arrangements for medical attendance would be foredoomed to failure, as it would obviously be open to all kinds of abuse. After all, too, the real interest of the State is not to pay a large amount in sick doles, but to prevent as far as possible the ravages of disease and to hasten the restoration to health of the sick. The efficiency with which this can be done will, in turn, add to the value of the fund, inasmuch as larger sick benefits can be offered if the average amount of sickness is reduced. Adequate medical attendance means less malingering, less disease, and more rapid cure, with obvious advantage to the finances of the insurance fund.

Other disadvantages of a simple sick benefit scheme were pointed out by Dr. Lyster in a recent number of the BRITISH MEDICAL JOURNAL, and it is hardly necessary to labour the point. Doubtless these and similar considerations will appeal as strongly to the Government as they do to medical experts, and one may, therefore, assume that the insurance scheme will include medical attendance. That being so, some local authority will have to distribute sick pay and organize medical attendance for the insured who are not attached to friendly societies, or are attached to friendly societies which do not provide medical attendance. What that authority should be is a matter of great importance, not only to the medical profession, but to the community. It is hardly necessary to point out that the machinery of the labour exchanges working under the supervision of the Board of Trade is obviously unsuitable. Such an arrangement would lead to further overlapping, which is already such a great evil in medical administration, and would necessitate the appointment of a large and extensive central and local staff to supervise the new work. Such a plan would combine the maximum cost with the minimum efficiency, and certainly would not add to the comfort of the general practitioner, who would have one more authority concerned in his work, and in this instance a huge central organization, with little or no elasticity or possibility of adaptation to local needs.

Obviously the local invalidity authority must be linked up with other public medical organizations, and must therefore be associated either with the Poor Law or with the public health service. The former is obviously unsuitable, and need not be further considered.

Failing the Poor Law, it is suggested that the new medical service should be co-ordinated with the public health departments of the large towns and

administrative counties. The precise way in which this co-ordination should be brought about need not be discussed at the moment. Probably a committee of the public health authority, to which representatives of the insured and of contributing employers were added, would prove most suitable for the purpose. The essential point is the importance of associating the medical service of the insured with the general work of the health authority, for the following among other reasons: Public health work is no longer a matter only of environment, but also of personal hygiene combined with more and more actual treatment of disease. This is accentuated by recent legislation, especially by the medical inspection of school children, supervision of midwives, notification of births, etc.

Certain public health authorities already provide for the diagnosis and treatment of certain diseases such as enteric fever, diphtheria, scarlet fever, measles, whooping-cough, puerperal fever, ophthalmia, phthisis, and other forms of tuberculosis; and for the medical supervision of young infants, and for medical attendance in midwifery emergencies; also, through their Education Committees, for the treatment of diseases of the eye, ear, throat, skin, and teeth occurring among children attending elementary schools.

All experience points to the necessity of more medical assistance being necessary. This is specially obvious in relation to the discovery of slight and anomalous cases of infection, and particularly in connexion with the control of tuberculosis and the supervision of infants. In all these matters treatment and prevention merge into one another.

Lastly, many public health officials have noticed with regret that their activities are not always regarded with favour by medical practitioners. This is to be deplored, and the present seems an opportune time for facing the difficulties that have arisen in respect to midwifery, the treatment of school children, and other matters, and placing the relative positions of the general practitioners and health authorities on a satisfactory basis.

Assuming that a local invalidity committee is appointed in all the larger towns* and that the public health authority is fully represented thereon, how can a medical service be developed that will be satisfactory to the State, to the insured, and to the medical profession? It is suggested that the following, among other conditions, must be fulfilled:

1. There should be as little interference as possible with existing economic conditions.
2. The scheme should be capable of development, so as to meet the future increasing needs of the community in relation, for instance, to the treatment of phthisis, school clinics, etc.
3. There should be as complete a check as possible on malingerers, and for this reason all medical certificates should be subject to revision by local referees not engaged in competing practice among the insured. This would not only safeguard the insurance funds, but be appreciated by medical men who are pestered to give certificates which the condition of the patient does not warrant.
4. Subject to certain safeguards, there should be free choice of doctor.
5. Considerable local option, so that the exact details might be modified to suit local conditions.

It is suggested that the following scheme would fairly satisfy the requirements of the larger urban districts. The local authority should establish a sufficient number of clinics, staffed by salaried medical officers,† who would

1. Treat patients able to attend at the clinics.
2. Undertake special work, such as eye, ear, throat, skin, and dental diseases, tuberculin and vaccine treatment, and such surgical operations as did not need institutional treatment.
3. Sign or countersign all certificates for sick pay.
4. Be available for consultations, but not undertake domiciliary treatment.
5. Undertake certain duties now incumbent on the local authority, such as the medical inspection of school children, the treatment of eye, ear, throat, skin, and dental diseases in school children, the supervision of midwives, etc.

The local authority should also arrange with general practitioners paid on a capitation or other basis for the domiciliary treatment of the insured. Subject to certain safeguards, the insured who were attached to approved societies might choose their domiciliary attendant from those medical men available within a given area. This choice should be exercised annually, subject to the right of the medical man to decline to accept a patient.

Persons who were unattached to any friendly society should be treated at their homes by a medical man *nominated* for the purpose by the local authority. Many of these unattached persons would for various reasons (for example, chronic phthisis, rheumatism) make exceptional demands on their medical officer. This difficulty would be met by the fair distribution of the chronic cases among the medical men contracting with the local authority.

This scheme would make full use of the existing professional staff of the public health authority, and be readily capable of extension so as to include the medical treatment (on a contributory basis) of those not coming within the insurance scheme. Thus satisfactory arrangements could be made for the treatment of school children and for other members of the families of the insured.

* For the moment I am leaving rural districts out of consideration. Medical problems are in the main urban, and there would be no essential difficulty in adapting the scheme to less populous districts, though the facilities offered therein would naturally be less elaborate.

† Either part or whole time, according to the needs of the district and the special aptitudes of the officers.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

## LANCASHIRE AND CHESHIRE BRANCH:

### Altrincham Division.

The fiftieth general meeting of this Division was held at the Brooklands Hotel, Brooklands, on March 9th, at 4.30 p.m. There were present: Drs. Garstang, Turner, H. S. Renshaw, Withers, Tattersall, C. E. Smith, H. G. Cooper, Blease, G. H. Smith, MacLaren, Owen-Jones, Agar Renshaw, Adolphe Renshaw, Chas. J. Renshaw, T. Ll. Fennell, Gough, Lyon, P. R. Cooper, G. E. Anderson, Ransome, Browne, and Melland, J. H. Taylor (associate member, Salford), and one visitor (Mr. Smith Whitaker, Medical Secretary). Dr. Garstang took the chair at 4.45 p.m.

*Confirmation of Minutes.*—The minutes of the forty-ninth meeting having been printed in an abbreviated form and circulated to every member of the Division, the Chairman moved that the minutes, with one slight correction, be adopted. To this the meeting agreed.

*Apologies for Absence.*—The Honorary Secretary reported that apologies had been received from Drs. Alan MacDougall, Leech, Savatard, Rhodes, Woodyatt, Williamson, Fennell, Hutton, Cross, and Clarke.

*Election of Representative.*—Dr. Gough proposed that Dr. Garstang be elected as the Representative for the Division at the Representative Meetings for 1911–12. Dr. Fennell seconded the proposal, and the meeting agreed unanimously. Dr. Gough was then proposed by Dr. H. G. Cooper as the Deputy Representative for the years 1911–12. This was seconded by Dr. Fennell and carried unanimously. Dr. H. G. Cooper, the Representative for this year, having resigned, proposed that Dr. P. R. Cooper be elected as the Representative for the remainder of the year 1911. This was seconded by Dr. Gough and carried.

*Organization of Medical Attendance on the Provident Principle.*—The Chairman then mentioned that the documents down for discussion, D 5. D 6, D 7, had been previously attended to by the Division, and moved that the meeting now proceed to Mr. Smith Whitaker's address. To this the meeting agreed.

Mr. SMITH WHITAKER then delivered an address. Dr. GARSTANG opened the discussion with a short speech, and moved a vote of thanks to Mr. Smith Whitaker for his very able and impartial address. Drs. P. R. COOPER, GOUGH, ADOLPHE RENSHAW, MELLAND, H. G. COOPER, and H. S. RENSHAW also took part in the discussion. Mr. SMITH WHITAKER afterwards replied to many of the points raised in the discussion.

*Vote of Thanks.*—The meeting then passed a hearty vote of thanks to Mr. Smith Whitaker.

*Questions to Divisions.*—The rest of the time was taken up with answering the "Questions to Divisions" on page 107 of the SUPPLEMENT, March 4th, 1911. The meeting adjourned at 7 p.m.

*Dinner.*—A dinner was afterwards held at the Brooklands Hotel to entertain Mr. Smith Whitaker.

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## METROPOLITAN COUNTIES BRANCH:

### LAMBETH DIVISION.

AN ordinary meeting of this Division was held at St. Thomas's Hospital on Thursday, March 23rd, at 4 p.m., Dr. W. H. B. STODDART in the chair.

*Minutes.*—The minutes of the last meeting were read and confirmed.

*Diplegia.*—Dr. C. R. BOX read a paper on the syphilitic factor in the diplegias of infancy and childhood, which will be published.

*Demonstration.*—A demonstration of cases was given by the RESIDENT ASSISTANT SURGEON.

*Votes of Thanks.*—The proceedings terminated by votes of thanks to Dr. Box for his paper and to the governors of the hospital for their hospitality.

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### WALTHAMSTOW DIVISION.

THE first meeting of the county ward of the Walthamstow Division was held at Claybury Asylum, Woodford Bridge, on March 9th, by the kind invitation of the Chairman, Dr. ROBERT JONES. The following members were present: Drs. Robert Jones (Chairman), P. McGregor, G. Norman, P. Eldred, A. Berrill (Secretary), S. M. Dowling, P. Warner, R. W. Pearson, H. C. Linden, W. F. Erskine, Moore, C. T. Ewart, Baines, J. Grogono, F. Paine, and E. M. Goldie. The following attended as visitors: Drs. M. Flegg, Harris, Tomkins, and Vivian.

*Subinvolution of Uterus after Delivery.*—Dr. W. S. A. GRIFFITH introduced a discussion on the conditions which lead to subinvolution of the uterus after delivery, laying special stress on excessive lochia with the passage of clots and severe after-pains, and pointed out that the uterus at the termination of labour should not only be empty, but what was of equal importance, its cavity should be closed by the gentle apposition of the anterior and the posterior walls, the failure of this being a frequent cause of excessive lochia and of subinvolution. Ergot was of less value than irrigation of the uterus with an antiseptic douche at a temperature of 117° F. *Post-partum* haemorrhage might occur at the time of delivery, and might then be termed *immediate* in distinction to that which sometimes occurred in the early days of the puerperium, which might be termed "late" rather than "secondary," which had no clear meaning. Apart from the rare cases of sudden severe mental shock, this late haemorrhage was due to a portion of placenta left in the uterus, and no treatment was really effectual which did not include the removal of the fragment, which was best done by the finger rather than the curette. It must be borne in mind that the retention of even large portions of the placenta did not always lead to haemorrhage, and might be expelled spontaneously without any. Dr. Griffith then discussed some difficulties of lactation where the secretion was deficient, or from defect of the nipple the infant was unable to seize the nipple. He pointed out how quickly a baby detects these troubles and expresses its feelings by refusing to suck and by crying. He also referred to the use of an india-rubber bandage for over-distension of the breast and for the prevention of secretion in cases where it is undesirable for the mother to nurse. Dr. Griffith's paper led to an interesting discussion, especially on the value of ergot in subinvolution and the details necessary completely to empty the uterus.

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## OXFORD AND READING BRANCH:

### OXFORD DIVISION.

A MEETING of the Division was held on Friday, March 17th, at the Radcliffe Infirmary, Oxford, at 3 p.m. Dr. TURRELL was in the chair, and over fifty members were present.

*Confirmation of Minutes.*—The minutes were read and confirmed.

*State Insurance.*—The SECRETARY gave notice of a special general meeting to be held on Friday, March 31st, to discuss and vote on the questions submitted to the Divisions concerning State insurance. The following members were elected to serve on a sub-committee to consider these questions in detail, prior to laying them before the general meeting: (1) Dr. Turrell (Chairman), (2) Dr. Duigan (Secretary), (3) Mr. Drew (Representative), (4) Mr. Dodds-Parker, (5) Dr. R. E. Yelf, (6) Dr. Alden.

*Fees for Medical Examination for Insurance.*—Dr. COLLIER proposed that the resolution passed by the Division in 1903, to the effect that:

> The medical practitioners of the Division should not accept any less fee than £1 1s. from insurance companies for sums of or over £100.

be circulated throughout the Division. This was seconded by Dr. H. THOMPSON, and carried *nemine contradicente.*

The meeting then proceeded to public business.

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## SOUTH-WESTERN BRANCH:

### TORQUAY DIVISION.

AN ordinary meeting of this Division was held at the Paignton Cottage Hospital on March 10th at 4.30 o'clock, Dr. VICKERS in the chair. There were present Drs. Nisbet, Vickers, Coulross, Collyer, Odell, Wiggin, Bennett, and King.

*Apologies for Non-attendance.*—Letters were read from Drs. Greenwood, Michie, Adams, and Ellery-Trewhella regretting their inability to be present.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed.

*Ethical Rules.*—The ethical rules adopted by the Exeter Division were discussed and adopted by this Division.

*Fees for Medical Examination for Life Insurance.*—A letter from the Medical Secretary *re* fees offered by the Royal London Insurance Company was read and considered.

*State Sickness and Invalidity Insurance.*—The SUPPLEMENT to the issue of March 4th of the BRITISH MEDICAL JOURNAL was read and considered. Answers were given by the members present to all the questions. These will in due course be handed to the Division's Representative.

*Vote of Thanks.*—A vote of thanks to the Weekly Board of the Paignton Cottage Hospital for the use of their board room was proposed and carried.

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### WEST CORNWALL DIVISION.

*Organization of Medical Attendance on a Provident Basis.*—Meetings of this Division were held at Penzance on March 21st, and Truro on March 23rd, to consider the report on the organization of medical attendance on a provident or insurance basis. Nine members and four non-members were present at Penzance, and seventeen members and one non-member at Truro. The answers to the questions were fully discussed, and the opinions of those present at each meeting were fairly unanimous, except on the payment by fee-capitation question. At each meeting a large majority was in favour of the payment by fee system.

## STAFFORDSHIRE BRANCH:

### SOUTH STAFFORDSHIRE DIVISION.

A MEETING of this Division, to which all the medical practitioners in Wolverhampton had been invited, was held in the Star and Garter Hotel on Thursday, March 16th, Dr. MALET in the chair. There were twenty-two members and two non-members present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Medical Treatment of School Children.*—The treatment of children found defective on medical inspection in the elementary schools was considered. Dr. MALET gave an outline of what had been discussed at the last meeting, for the benefit of those who were not present. Dr. MACTIER proposed and Dr. SPACKMAN seconded the following resolution:

> That while admitting the right of the school medical officer or his assistants to supervise the treatment of children found defective on inspection, the treatment of these children by the school medical officer or his assistants, when whole-time officers, is contrary to the interests of the profession and of the children and should therefore be opposed.

This was carried unanimously. Mr. CHOLMELEY proposed and Dr. GROUT seconded:

> That Dr. Mactier be instructed to bring this resolution before the Representative Meeting in Birmingham in July.

Carried *nemine contradicente*. Dr. DEANESLY then addressed the meeting, after which Dr. EDGE proposed and Dr. SPAIN seconded the following resolution:

> That this meeting of medical practitioners of Wolverhampton and district are unanimously opposed to the appointment of a whole-time salaried medical officer for the treatment of children found defective on inspection in the elementary schools, and although not opposed to the establishment of a school clinic are of opinion that the clinic should be officered by local practitioners.

This was carried *nemine contradicente*. Dr. CRAIG, seconded by Dr. BAILEY, then proposed as a rider:

> That it be an instruction to the Secretary in communicating with the Education Committee to request it to take every possible means to prevent the abuse of the proposed clinic by those who are able to pay reasonable fees for the treatment of their children.

This was also carried unanimously.

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## YORKSHIRE BRANCH.

THE spring meeting of the Branch was held at the Huddersfield Infirmary on Wednesday, March 15th, Mr. PYE-SMITH, President, in the chair.

*Driffield Dispute.*—This question was again discussed at some length, and the following resolution was adopted:

> That having decided a year ago not to take action in the Driffield dispute, as not primarily concerning the Yorkshire Branch, and having heard that the York Division, after careful consideration of the case, at the request of the East York Division, resolved not to take action in the matter, this council does not see its way to help in the initiation of a conference on the subject.

*Transfer of Brighouse from the Bradford to the Halifax Division.*—Both the Divisions concerned being willing to accede to the proposal, this proposed transfer was agreed to.

*Police Regulations and Medical Fees.*—This question was raised by the Halifax Division, who have arranged with the local police a scale of fees, and suggest that a similar scale should be arranged by the Branch with the county police. After some discussion it was decided not to draw up a special scale of fees. Members were requested to report to their Division or to the Branch if they ever had difficulty in obtaining adequate fees.

*Report of Committee on Treatment of Defective School Children.*

The committee appointed at Barnsley on November 2nd, 1910, to consider the question of the treatment of school children found to be defective have issued the following report: The following members, appointed by their respective Divisions, met at Leeds on February 23rd, 1911: The President (in the chair) and Drs. Forbes (Sheffield), Hillman (Wakefield, Pontefract, and Castleford), Johnstone (Harrogate), Metcalfe (Bradford), Roper (Leeds), Sadler (Barnsley), and the Honorary Secretary. After discussion, it was agreed as follows:

I. That, in the opinion of your committee, it is advisable that each Division of the Branch should seek a favourable opportunity for making known, either privately or officially, to the heads of its education authority or committee its willingness to discuss with them, informally or otherwise, the question of the medical treatment of defective school children.

II. That, whilst the draft model scheme of the British Medical Association on the subject contains much valuable suggestion, it should be borne in mind that it has been put forward as merely one among many possible plans, and your committee think that it should, in any case, be modified by the frank recognition of the right of education authorities, which provide the funds, to adequate representation on any committee charged with arranging the details of such schemes.

III. That, though the different conditions found in cities and large towns, in rural districts and in intermediate areas, prevent the recommendation of any uniform plan, your committee consider that the following points should be aimed at in making arrangements with education authorities, namely:

1. That it is desirable that any medical treatment carried out for an education authority should, whenever possible, be entrusted to local medical practitioners.

2. That such treatment should be adequately remunerated and should apply to those children only whose parents are unable to pay for medical treatment in the usual way.

3. That it should be restricted to (*a*) errors of refraction, (*b*) ringworm, and (*c*) dental disease.

NOTE.—With regard to the operative treatment of adenoids and enlarged tonsils, often involving general anaesthesia, your committee are of opinion (i) that few education authorities would be willing to accept responsibility for the risks of life involved; (ii) that it could not be efficiently or satisfactorily carried out without the provision of beds, (iii) that its adoption would be likely to lead to other fields of operative treatment being undertaken by education authorities, and (iv) that it is therefore better that it should be left to be provided, in the ordinary course, by medical practitioners in private and by public hospitals. The treatment of verminous heads is regarded by your committee as in the province of parents and nurses.

(Signed) R. J. PYE-SMITH,
President.
ADOLPH BRONNER,
Honorary Secretary.

This report was received and adopted by the Branch. It was decided to send a copy for publication in the BRITISH MEDICAL JOURNAL, and one to each Division Secretary.

*Annual Reports and Financial Statements.*—The annual reports and financial statements of the Divisions and of the Branch were read and adopted.

*Dinner.*—After the meeting twelve members dined together at the George Hotel.

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## GLASGOW AND WEST OF SCOTLAND BRANCH.

### *Medical Defence.*

DR. W. D. MACFARLANE, Honorary Secretary of the Branch, asks us to state that the Memorandum on Medical Defence, published in the SUPPLEMENT of March 25th, p. 153, is based on one issued by the South-Eastern Division of the Edinburgh Branch.

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## THE RED CROSS SOCIETY AND AMBULANCE TEACHING.

MAJOR C. C. FLEMING, D.S.O., Secretary of the British Red Cross Society, Scottish Branch, 137, Sauchiehall Street, Glasgow, sends the following correction with reference to a report read at a special meeting of the Perthshire Branch of the British Medical Association

held on January 27th, a report of which appeared in the SUPPLEMENT of March 18th, p. 137:

"The sole aim of the society in Scotland is to afford help to the medical departments of the services in time of war, and it is not intended to take the place of the St. Andrew's Ambulance Association, as stated in the report.

"The society is not a teaching body, but an organizing one for utilizing by means of Voluntary Aid Detachments the services of persons already trained in ambulance work for the Territorial Medical Service.

"The St. Andrew's Ambulance Association is already recognized by the society as its official teaching body, and it has patriotically taken in hand the qualifying on special terms of persons for membership in Voluntary Aid Detachments, and to this end it has conducted a large number of classes."

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 26th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,
*Financial Secretary and Business Manager.*

March 23rd, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of the East Anglian Branch will be held at Framlingham, Suffolk, on Thursday, April 20th. Members wishing to read papers or show specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, General Secretary, East Anglian Branch.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of the Branch Council will be held in Onward Buildings, Deansgate, Manchester, at 4.30 p.m., on Wednesday, April 12th.—F. CHARLES LARKIN, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 19th, at 4.45 p.m. Further particulars will be given in future notice.—H. G. COOPER, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BLACKPOOL DIVISION.—A meeting of the members of this Division will be held on April 5th, 1911, at Jenkinson's Café, Blackpool, at 8 p.m. Agenda: (1) Apologies for absence. (2) Minutes of last general meeting. (3) Consideration of the report on the organization of State sickness insurance. (4) Any other business.—E. W. REES JONES, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The discussion of the report of the Special Poor Law Reform Committee will be continued this day (Friday, March 31st) at 4 p.m., at the Kensington Town Hall, when the remaining questions will be answered.—H. BECKETT-OVERY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual general meeting of this Division will be held on Thursday, May 4th, at 4 p.m., at Bethlem Royal Hospital. There will be a demonstration of cases in the hospital.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—An extraordinary meeting of this Division will be held this day (Friday, March 31st) at 9.15 p.m., at the Hornsey Conservative Association's Rooms, opposite Finsbury Park Station. Business: To formulate formal replies to the several questions appended to the Association's recent report on schemes of medical insurance, for immediate transmission to the Association, and to instruct the Division's Representative.—J. A. PERCIVAL BARNES, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A special meeting of the Division will be held at the Walthamstow Hospital, Orford Road, on Tuesday, April 4th, 1911, at 4.30 p.m., to consider the report on "The Organization of Medical Attendance on the Provident or Insurance Principle," as published in the SUPPLEMENT to the JOURNAL, March 4th, 1911, and to answer the questions therein stated. All practitioners residing in the area, whether members or non-members of the Association, are cordially invited to attend.—A. POTTINGER ELDRED, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, also a meeting of Branch Council and Local Division will be held at the Adelphi Hotel, Waterford, on Wednesday, April 5th, 1911, at 3.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) To consider report on medical attendance on the provident or insurance basis in connexion with Poor Law reform or other possible development (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, March 4th). (5) To consider model rules for nursing associations (marked D 5 and D 6). (6) Any other business.—J. QUIRKE, Honorary Secretary, Piltown.

SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—A meeting of the medical profession of Buckinghamshire will be held on Thursday, April 6th, at 3.30 p.m. sharp, at the Royal Bucks Hospital, Aylesbury, to consider the best course to adopt with regard to the forthcoming sickness and invalidity scheme. Agenda:—The various points of view to be discussed will be specially dealt with by the following:—Dr. Shaw: The advisability of an insurance scheme to meet the cost of medical attendance. Shall it include paupers? Dr. Wheeler: Should the Government include medical attendance in its scheme or not? Who should administer it? Should the Association actively oppose the friendly societies having the charge of it? Payment should be by fee for each visit, etc. Dr. Morrison: Salaried medical officers not advisable. Dr. Reynolds: That the medical profession should organize the insurance scheme. Dr. Graham: Payment by fixed rate per head. Dr. Larking: The wage limit question. Payment by fixed salary.—ARTHUR E. LARKING, Honorary Secretary.

## CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on March 23rd, with Sir FRANCIS H. CHAMPNEYS in the chair.

*Re-election of Member of Board.*

A letter was received from the Secretary of the Midwives Institute announcing the re-election of Dr. George Ernest Herman as the representative of the institute on the Central Midwives Board.

*District Medical Officer Summoned to Assist Midwife.*

A letter was considered from the Clerk to the Willesden Guardians objecting to the district medica officer being summoned to assist a midwife in an emergency by means of an order on the relieving officer. The Board directed that the attention of the midwife be called to the necessity of complying strictly with the terms of Rule E 18, and that a copy of the

correspondence be sent to the Local Supervising Authority for Middlesex.

*Admission to Midwives Roll.*

A letter was considered from the Deputy-Registrar of Nurses and Midwives. New Zealand, asking the Board to admit to the roll women holding the State Midwifery Certificate of New Zealand, or alternatively to recognize training schools in the Dominion. The Board decided that the reply be: (*a*) That the Board has at present no power to grant reciprocal terms of treatment to women holding midwifery certificates in other parts of His Majesty's dominions. (*b*) That the Board will be pleased to consider the matter should Clause 12 of the Midwives (No. 2) Bill 1910, or a similar clause authorizing the Board to grant reciprocal terms, become law.

A letter was considered from Sister Henrietta of St. Michael's Home, Kimberley, Cape Colony, making a similar request with regard to women holding State Midwifery Certificates in South Africa. The Board decided that a reply similar to the last be sent.

*Revision of Rules.*

Sir George Fordham proposed a series of amendments to the draft rules, some of which were adopted. It was decided to send a copy of the rules as amended to each member of the Board. If the absent members approve, the Chairman will send them to the Privy Council.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

SURGEON T. F. O'KEEFE, M.B., has been promoted to be Staff Surgeon, from February 11th, 1909. He was appointed Surgeon, February 11th, 1901.

Surgeon R. H. ATKINS, M.B., is also promoted to be Staff Surgeon, from June 9th, 1910. His first appointment bears date June 9th, 1902.

The following appointments have been made at the Admiralty: Surgeon A. S. PATERSON, M.B., to the *Hearty*, March 28th; Surgeon E. L. MARKHAM, M.B., to the *Triton*, March 28th; Surgeon H. B. GERMAN to the *Jupiter*, April 5th; Surgeon E. B. KENNY, M.B., to the *King Alfred*, April 5th; Surgeon H. BURNS, M.B., to the *Halcyon*, additional, for the *Spanker*, on recommissioning, April 11th; Fleet Surgeon P. M. MAY to the *Dreadnought*, on recommissioning, March 28th; Fleet Surgeon G. H. FOOTT, M.D., to the *Glory*, March 28th; Fleet Surgeon C. BRADLEY, M.D., to the *Glory*, April 1st.

## ARMY MEDICAL SERVICE.

### ROYAL ARMY MEDICAL CORPS.

LIEUTENANT W. J. BAKER retires on retired pay, March 25th. His commissions are thus dated: Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; Lieutenant-Colonel, February 5th, 1901. He served in the South African war, 1899–1902, and was present in operations in the Orange Free State, in the Transvaal (action near Pretoria), in Cape Colony, and again in the Orange River Colony (actions at Colesberg) and the Transvaal; he has received the Queen's medal with three clasps and the King's medal with two clasps.

Lieutenant-Colonel A. E. MORRIS, M.D., has been appointed Senior Medical Officer, South Irish Coast Defence, vice Lieutenant-Colonel T. E. Noding.

Major D. D. SHANAHAN, who is serving in India, is appointed Staff Officer, Medical Mobilization Stores, from January 1st.

## INDIAN MEDICAL SERVICE.

SURGEON-GENERAL C. P. LUKIS, C.S.I., M.D., F.R.C.S., Director-General, is appointed to the charge of the duties of Sanitary Commissioner with the Government of India.

Surgeon-General H. W. STEVENSON is granted privilege leave in combination with furlough under military rules for six months.

Lieutenant A. MACD. DICK, M.D., is appointed Specialist in Advanced Operative Surgery, Burma Division, from January 1st.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

SYDNEY J. HIGGINS to be Lieutenant (on probation), February 15th.

## TERRITORIAL FORCE.

### INFANTRY.

SURGEON-CAPTAIN E. C. MCCARTHY, M.B., 6th Battalion Cheshire Regiment, resigns his commission, March 25th.

### ROYAL ARMY MEDICAL CORPS.

*Third Northern General Hospital.*—JAMES M. BEATTIE, M.D., to be Major, January 2nd.

*First Scottish General Hospital.*—ASHLEY W. MACKINTOSH, M.D. (late Major, First Highland Field Ambulance), to be Lieutenant-Colonel, whose services will be available on mobilization, February 25th.

*Fourth Scottish General Hospital.*—Captain JAMES WEIR, M.B., retires under the provisions of paragraph 75 of the Territorial Force Regulations, March 25th.

*Attached to Units other than Medical Units.*—Lieutenant T. P. THOMAS to be Captain, February 16th. Captain J. G. RONALD, M.B., resigns his commission, March 22nd.

## TERRITORIAL DECORATION.

THE Territorial Decoration has been conferred upon the following officers: Colonel W. P. WHITCOMBE, Administrative Medical Officer, South Midland Division; Surgeon-Captain J. W. RIGBY, 4th Battalion the Loyal North Lancashire Regiment; Lieutenant-Colonel H. J. MACKAY, M.D., First South-Western Mounted Brigade Field Ambulance, R.A.M.C.; Lieutenant-Colonel T. S. ADAIR, M.B., Third West Riding Field Ambulance, R.A.M.C.; Lieutenant-Colonel J. V. W. RUTHERFORD, First Northern General Hospital, R.A.M.C.; Major C. J. MARSH (retired), J. T. THOMAS, and H. P. BERRY, M.B., attached to units other than medical units; Surgeon-Major WILLIAM COX, Unattached List for the Territorial Force.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,571 births and 4,992 deaths were registered during the week ending Saturday last, March 25th. The annual rate of mortality in these towns, which had been 15.3, 14.9, and 15.4 per 1,000 in the three preceding weeks, declined to 15.2 per 1,000 last week. In London the death-rate was equal to 15.7 per 1,000, against 14.8, 14.8, and 15.1 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 7.1 in King's Norton, 7.5 in West Hartlepool, 7.7 in Handsworth (Staffs), and 8.3 in Wolverhampton, to 21.4 in Grimsby, 22.6 in Swansea, 22.7 in Coventry, and 28.8 in Middlesbrough. Measles caused a death-rate of 3.2 in St. Helens, 3.8 in Coventry, 5.1 in Sheffield, 5.3 in Middlesbrough, 5.6 in Wigan, and 8.5 in Devonport; whooping-cough of 1.4 in Bradford, 1.5 in Rotherham, 1.6 in Norwich, 1.7 in Wigan, and 2.4 in Middlesbrough; and scarlet fever of 2.6 in Bury. The mortality from enteric fever and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was recorded during the week. Of the 4,992 deaths recorded in the seventy-seven towns last week, the causes of 31 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 5 in Birmingham, 4 in Liverpool, and 3 each in Stoke-on-Trent, Preston, and Gatesbead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,197, 1,166, and 1,121 at the end of the three preceding weeks, had further declined to 1,077 at the end of last week; 121 new cases were admitted during the week against 129, 120, and 146 in the three previous weeks. On Saturday last, March 25th, there were 32 cases of small-pox under treatment in the Metropolitan Asylums Hospital; one new case was admitted during the week, against 16, 10, and 1 in the three preceding weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, March 25th, 945 births and 633 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.9 and 16.8 per 1,000 in the two preceding weeks, further rose to 17.2 in the week under notice, and was 2.0 per 1,000 above the mean rate during the same period in the large English towns. The death-rates in the several Scottish towns ranged from 13.4 in Edinburgh and 14.0 in Aberdeen to 24.4 in Dundee and 24.6 in Greenock. The mortality from the principal infectious diseases averaged 1.5 per 1,000, and was highest in Dundee and Perth. The 299 deaths from all causes registered in Glasgow last week included 1 from enteric fever, 2 from measles, 1 from scarlet fever, 19 from whooping-cough, 4 from diphtheria, and 4 (of children under 2 years of age) from diarrhoea. Six deaths from whooping-cough were recorded in Dundee, 3 in Leith, and 2 in Edinburgh.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 25th, 674 births and 472 deaths were registered in the twenty-two principal urban districts of Ireland, as against 612 births and 389 deaths in the preceding period. The annual death-rate in those districts, which had been 20.4, 19.3, and 17.4 per 1,000 in the preceding weeks, rose to 21.2 per 1,000 in the week under notice, this figure being 6.0 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 25.1 and 19.2 respectively, those in other districts ranging from 4.1 in Drogheda and 5.2 in Portadown, to 34.3 in Kilkenny and 37.0 in Tralee, while Cork stood at 21.9, Londonderry at 20.2, Limerick at 26.0, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.0 per 1,000, as against 0.9 per 1,000 in the preceding week.

# Hospitals and Asylums.

## ROYAL HALIFAX INFIRMARY.

THE report presented to the annual meeting of the Governors, held in Halifax on January 26th, showed the total number of persons treated during 1910 to have been 12,111, as against 10,839 in the previous year. The number of in-patients was 2,353, an increase of 274 on the previous year, and the daily average number of beds occupied was 125.8, against 118.3 in 1909. The average cost of in-patients was £3 10s. 10d., as against £3 16s. 2d. in 1909. The amount received from annual subscribers showed a falling off, and the board appealed for increased support.

## JAMES MURRAY'S ROYAL ASYLUM, PERTH.

THE annual report of Dr. A. R. Urquhart, the Medical Superintendent of this asylum, which contains the statistical tables for the year 1909, prepared by Dr. G. F. Oldershaw, shows that there were 127 patients in the asylum on January 1st, 1909, and 130 on the last day of the year. The total cases under treatment during the year numbered 167, and the average number daily resident 128.9. During the year 40 cases were admitted, 33 of whom were first admissions. Of the total number, in 17 the attacks were first attacks within three and in 4 more within twelve months of admission; in 9 not-first attacks within twelve months; in 8 of more than twelve months' duration, and 2 were congenital cases. The admissions were

classified according to the forms of mental disorder into: Mania of all kinds, 14; melancholia of all kinds, 14; dementia, 6; delusional insanity and congenital defect, 2 each; and confusional insanity and circular insanity, 1 each. Dealing as they do with very small numbers, not much significance can attach to the relative proportions of etiological factors. We see, however, that alcoholism was assigned in 5, and other toxins in 6 more; various bodily diseases in 33, bodily trauma in 2, physical stress in 2, and mental stress in 8. An heredity of insanity was ascertained in 27, an heredity of neuroses in 4, and of alcoholism in 2, giving a combined number of hereditary neuropathic factors in 33. In only 4 was a neuropathic heredity denied. During the year 10 were discharged as recovered, giving a recovery-rate on the admissions of 25.0 per cent.; also 15 as relieved, and 2 as not improved. During the year also 10 died, giving a death-rate on the average numbers resident of 7.75, as compared with 3.24 for the year previous. The deaths were due in 3 cases to pneumonia and influenza, and the remainder, in single numbers, to general paralysis, exhaustion after acute mania, chronic bronchitis, chronic Bright's disease, tuberculous peritonitis, and burns. All of those who died were, with one exception, elderly people. The general health was satisfactory; there were no entries of restraint or seclusion during the year, and accidents were slight and few in number. Dr. Urquhart says that the general principles of treatment remained unchanged; that certain new drugs, such as helmitol, were found of definite value; and he also speaks favourably of lactic acid bacilli in many cases of disorder of the alimentary system complicating mental affections, especially those of acute character.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £150 per annum.

BATH ROYAL UNITED HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £80 per annum each.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Surgeon. (2) Resident Medical Officer (male). Salary at the rate of £60 per annum.

BETHNAL GREEN INFIRMARY, Cambridge Heath, E.—Assistant Medical Officer. Salary at the rate of £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—(1) Senior Resident House-Surgeon. (2) Junior Resident House-Surgeon. Salary, £100 and £80 per annum respectively.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary commencing at £120 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Two male House-Surgeons. Salary at the rate of £75 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Assistant Pathologist. Salary, £100 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist. Salary at the rate of £250 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Resident House-Surgeon. Salary, £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

DARLINGTON BOROUGH.—Medical Officer of Health. Salary, £500 per annnm, increasing to £800.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DORCHESTER ASYLUM.—Assistant Medical Officer. Salary commencing at £190 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer and Second Medical Officer (males) to Casualty Department. Salary at the rate of £100 and £40 per annum respectively.

HAMPSTEAD GENERAL HOSPITAL, N.W.—House-Surgeon. Salary at the rate of £70 per annum.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

KING EDWARD VII MEMORIAL SANATORIUM FOR SHROPSHIRE.—Resident Medical Superintendent. Salary, £200 per annum.

LEEDS PUBLIC DISPENSARY.—Senior Resident Medical Officer. Salary, £200 per annum.

LONDON FEVER HOSPITAL, Islington, N.—Assistant Physician.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER: HULME DISPENSARY.—(1) Honorary Physician. (2) Honorary Surgeon.

MANCHESTER ROYAL INFIRMARY.—Director of the Cancer Research Laboratory. Salary, £300 per annum.

NEWCASTLE-ON-TYNE HOSPITAL FOR SICK CHILDREN.—Honorary Pathologist.

NORWICH CITY.—Assistant Medical Officer of Health. Salary, £150 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Male Assistant House-Surgeon. Honorarium, £20 for six months.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Female House-Physician. (2) Female House-Surgeon. (3) Senior Obstetric Assistant; salary, £50 per annum. (4) Clinical Assistant to Ophthalmic Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistants.

ST. ANDREWS UNIVERSITY.—Assistant Professor of Anatomy.

ST. HELENS COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Two Medical Registrars.

SEAMEN'S HOSPITAL SOCIETY: DREADNOUGHT HOSPITAL.—(1) Two House-Physicians. (2) Two House-Surgeons. Salary at the rate of £50 per annum each.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUTHERLAND COUNTY.—Medical Officer of Health and School Medical Officer. Salary for combined offices, £350 per annum and £100 for expenses.

SWANSEA COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary at the rate of £75 per annum.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

TRANSVAAL MINERS' PHTHISIS SANATORIUM, Springkell, Modderfontein.—Medical Superintendent. Salary, £1,000 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Senior House-Surgeon. Salary, £110 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—(1) House-Surgeon. (2) Junior House-Physician. Salary, £100 and £75 per annum respectively.

YORK DISPENSARY.—Resident Medical Officer (male). Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Culross, co. Fife; Clackmannan, co. Clackmannan; and Buckfastleigh, co. Devon.

## APPOINTMENTS.

ADAMS, Basil, B.M., B.Ch., Superintendent of the Tuberculosis Bureau at Durban, Natal.

BROWN, H. G., B.A.Cantab., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Tredegar District, cos. Monmouth and Glamorgan.

COLE, Robert Henry, M.D.Lond., M.R.C.P., Lecturer on Mental Diseases and Mental Physiology to St. Mary's Hospital Medical School, vice T. B. Hyslop, M.D., F.R.S.E., resigned.

JONES, E. S., M.R.C.S., L.R.C.P.Lond., D.P.H., Certifying Factory Surgeon for the King's Cliffe District, co. Northampton.

PHILLIPS, Miles H., M.B., B.S.Lond., F.R.C.S.Eng., Honorary Acting Medical Officer of the Jessop Hospital for Women, Sheffield.

TUCKER, S., M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H., House-Physician at the General Hospital, Tunbridge Wells.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Stoke-on-Trent.—The following appointments have been made:

Honorary Physician: John Russell, M.B., C.M.Aberd.

Honorary Surgeon; Reginald Alcock, M.B., Ch.B.Vict.

Assistant Honorary Physicians: George H. Sowry, M.D., B.S.Lond.; E. C. Myott, M.D., B.S.Lond.

Assistant Honorary Surgeons; Harold Hartley, M.D., B.S.Lond., F.R.C.S.; E. E. Young, M.S., M.B.Lond.

Medical Officer in Joint Charge of the Electrical Department: Hilton John, M.B., B.S.Lond.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

NOYES.—On March 21st, at Tarporley, Cheshire, the wife of H. Francis G. Noyes, M.B., of a daughter.

### MARRIAGE.

MACNAIR—PHORSON.—On March 28th, at North Bridge Street Presbyterian Church, Sunderland, David Macnair, M.B., Brunswick Terrace, Plymouth, to Winifred, only daughter of P. Phorson, Esq., of Glen Lea, Roker, and Braehead, Rothbury.

### DEATHS.

CASTLE.—On March 19th, at 106, St. James's Square, Newport, Isle of Wight, Eliza Jane Hutton, the beloved wife of the late Henry Thomas Castle, Esq., M.D., J.P., aged 82 years.

CORCORAN.—On the 25th inst., at Nazareth, Palestine, Thomas Corcoran, of Loughborough, L.R.C.S.I., L.A.H.Dub., M.O.H. Loughborough, aged 58.

MACMANUS.—On March 26th, at Mayo House, Spencer Park, Wandsworth Common, Leonard Strong MacManus, M.D., son of the late James MacManus, of Killeaden House, Kiltimagh, co. Mayo, aged 54.

PALEY.—On March 13th, at Heathfield Lodge, Ealing, William Paley, M.D., formerly of Peterborough, in his 95th year.

WILLAN.—On March 24th, 1911, at 23, Claremont Place, Newcastle-on-Tyne, from gastro-enteritis, Eleanor Constantine, infant daughter of R. J. and Dorothy E. Willan. No flowers.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of the seventh edition of a work entitled *Obstetric Nursing*, by Anna M. Fullerton, M.D., formerly Demonstrator of Obstetrics in the Woman's Medical College, Obstetrician and Gynaecologist to the Woman's Hospital, Philadelphia, etc.

## RECENT PUBLICATIONS.

*Ambulance Examination Questions.* By D. M. Macdonald, M.D. 1911. Bristol: John Wright and Sons. (Double pott 16mo, pp. 24; price 6d. net.)

A fourth reprint of a series of questions habitually asked by the author by way of elaborating and driving home the information on first aid work supplied by lectures conforming to the syllabuses of different ambulance associations.

*The Public Schools Year Book.* Edited by H. F. W. Deane, M.A., F.S.A., and W. A. Evans, M.A. 1911. London: Year Book Press (care of Swan Sonnenschein and Co.). Twenty-second year of publication. (Crown 8vo, pp. 724; price 3s. 6d. net.)

The official book of reference of the Headmasters' Conference, containing an abstract of its proceedings. Information relative to the principal public schools is given, together with lists of entrance scholarships thereat; and information as to the conditions of admission to universities, the army, navy, civil service, and other professions. A useful book for parents.

## DIARY FOR THE WEEK.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Oliver-Sharpey Lecture by Dr. James Mackenzie: Heart Failure—An Analysis of the Present Day Conception of Heart Failure.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, Laboratory Meeting at the University College Hospital Medical School, Gower Street, W.C., at 8.30 p.m.

### WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Paper:—Dr. David Brown (Harrogate): Some Pharmacological Effects of the Strong Sulphur Water (Harrogate).

### THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Dr. Howard Pirie: The Diagnosis of Obscure Conditions in the Chest, with Special Reference to New Growth, Aneurysm, and Enlarged Glands. Election of members.

RÖNTGEN SOCIETY, King's College, Strand, at 8.15 p.m.—Papers:—(1) Professor Barkla: Secondary Rays. (2) Professor Wilson: An Improvement in High Tension Discharge Apparatus.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Oliver-Sharpey Lecture by Dr. James Mackenzie: Heart Failure—The Estimation of Heart Failure and the Value of Symptoms.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W., 8 p.m.—(1) Exhibition of Specimens. (2) Short communications:—Mr. J. Malcolm: Case of Ovarian Tumour obstructing Delivery and Fixed by Suction in the Pelvis. Mr. H. J. Paterson: Case of Suppurating Ovarian Cyst in a Girl aged 10 years. (3) Papers:—Mr. E. Hey Groves: A New Operation for the Radical Treatment of Flat Pelvis. Dr. Victor Bonney: Five Cases of Utriculoplasty for Uterine Haemorrhage, one of which was followed by Pregnancy and Labour.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens will be shown by Drs. StClair Thompson and L. H. Pegler, and Messrs. Herbert Tilley and Walter Howarth.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Tracheoscopy, etc.; Friday, 3.30 p.m., Adenoids.

MANCHESTER: ANCOAT'S HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Demonstration of Cases by the Physicians and Surgeons of the Hospital.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Trophic Lesions in Diabetes: Tuesday, Abdominal Emergencies from the Standpoint of the Physician; Wednesday, Emphysema and Its Consequences; Thursday, The Treatment of Middle-Ear Suppuration.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Demonstration of Cases of the Infectious Fevers (at the North-Eastern Fever Hospital, St. Ann's Road, N.). Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; 4.30 p.m., Demonstration of Cases of the Infectious Fevers (at the North-Eastern Fever Hospital, St. Ann's Road, N.).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, *X* Rays and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MARCH.** | |
| 31 FRIDAY .. | KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4 p.m.<br>TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Extraordinary Meeting, Hornsey Conservative Association's Rooms, opposite Finsbury Park Station, 9.15 p.m. |
| **APRIL.** | |
| 1 SATURDAY .. | |
| 2 Sunday .. | |
| 3 MONDAY .. | |
| 4 TUESDAY .. | LONDON: Regulations and Standing Orders Subcommittee, 9.30 a.m.<br>LONDON: Organization Committee, 11.30 a.m.<br>WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Special Meeting, Walthamstow Hospital, Orford Road, 4.30 p.m. |

| Date. | Meetings to be Held. |
|---|---|
| **APRIL** *(continued).* | |
| 5 WEDNESDAY | LONDON: Contract Practice Subcommittee, 10.45 a.m.<br>LONDON: Medico-Political Committee, 2 p.m.<br>LONDON: Joint Medico-Political and Public Health Committees, 3 p.m.<br>BLACKPOOL DIVISION, *Lancashire and Cheshire Branch*, Jenkinson's Café, Blackpool, 8 p.m.<br>SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also Branch Council and Local Division, Adelphi Hotel, Waterford, 3.30 p.m. |
| 6 THURSDAY .. | LONDON: Hospitals Committee.<br>BUCKINGHAMSHIRE DIVISION, *South Midland Branch*, Royal Bucks Hospital, Aylesbury, 3.30 p.m. |
| 7 FRIDAY .. | LONDON: Standing Library Subcommittee, 11.30 a.m.<br>LONDON: Central Ethical Committee, 2 p.m.<br>CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with the Æsculapian Society, Metropolitan Hospital, Kingsland Road, 4 p.m. |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 8TH, 1911.

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# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## BOMBAY BRANCH.

A MEETING of the members of the Bombay Branch was held in the University Library on Thursday, February 23rd, 1911. Dr. H. J. DADYSETT occupied the chair. The following members were also present: Drs. Jal. R. Vakil, J. M. Meher Homjee, Mhaskar, Vazifdar, P. A. Dalal, H. N. Anklesaria, D. M. Gagrat, V. S. Sanzgiri, M. P. Kerrawalla, D. Sabja, S. K. Engineer, and Dr. S. B. Vakil and Lieutenant-Colonel Frenchman, I.M.S. (visitors), and Dr. D. R. Bardi, Honorary Secretary.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

### *Leukaemia.*

Dr. JAL. R. VAKIL, L.M. and S., read notes of a case of leukaemia:

B. M. N., a Parsi medical student, aged 22 years, was first seen by me on January 17th, 1911. He had returned a day previous from Edinburgh, where he was ill for nearly two months.

*History.*—In June, 1910, he noticed a slight hardness on the left side of his abdominal wall, but no notice of it was taken, as there were no other symptoms. During the six months which followed he experienced an occasional pain in the part. In the beginning of December, however, he began to have shortness of breath and attacks of giddiness, for which he consulted Dr. Rainy, who on examination found a very enlarged spleen, which reached as far as Poupart's ligament.

Examination of blood by Dr. Gulland revealed a great increase in the number of the leucocytes as well as of the nucleated red blood cells, the former being 200,000 per million, and the latter being 3,680,000; haemoglobin was 73 per cent. The case was diagnosed as one of leukaemia, and he was admitted into the Edinburgh Royal Infirmary, where he was put on gradually increasing doses of arsenic and *x*-ray treatment. While in the infirmary, at the end of a fortnight, he knew the diagnosis of his complaint; this made him melancholic, and he desired to return to India. A second examination of the blood at this time revealed the same condition as before, with haemoglobin 70 per cent., and a still further decrease of the red blood cells. The temperature varied from 99° to 100° during this time. As he grew weaker it was decided to send him to India. During the voyage his condition was much the same except that his temperature rose every evening to 101°.

On arrival in Bombay his condition was as follows: Temperature 101°, pulse 120, respirations 28. Giddiness and shortness of breath were present; appetite was much impaired.

His heart was dilated, the apex beat being displaced an inch. The first sound was feeble, and accompanied by a systolic murmur at the mitral and pulmonary areas. Lungs were normal. Spleen was greatly enlarged, being 9 to 7½ in., with slightly rounded margins, and the consistency slightly harder; it was somewhat tender. Liver was not enlarged; urine was normal; there were no glandular enlargements. Examination of the blood showed:

| | |
|---|---|
| Red blood corpuscles | 3,344,000 per c.mm. |
| White blood corpuscles | 14,000 " |
| Haemoglobin | 15 per cent. |

Many poikylocytes and polychromatophilia, a few punctate basophilar. Blood platelets not increased. Heredity history of no importance. Had malaria when he was young.

He was put on arsenic (liq. arsenicalis ♏ x three times daily), and a sitting every other day for exposure to the *x* rays of seven minutes' duration.

He continued in the same condition, with occasional rise of temperature to 103°.

The spleen after three sittings under *x* rays was reduced by about ½ in.

On January 22nd the temperature rose to 104°, and the patient complained of great weakness. A diaphoretic brought down the temperature to 101°, after which quinine hydrochloride grains ij thrice daily plus the arsenic were continued.

Early on the morning of January 23rd he became restless, and suffered from a violent delirium. Temperature then was 101°, pulse 140, and respirations 30. Twenty grains of ammonium bromide were ordered to be given every two hours, and three such doses did not produce any effect. Thereupon a mustard plaster to the nape of the neck and a suppository containing half a grain of morphine were prescribed. These were repeated a couple of hours afterwards, but to no effect. As he refused all nourishment, and as the pulse was getting worse in volume, an injection of digitalis combined with morphine was given, followed by inhalation of oxygen gas for half an hour. Temperature then was 98°, pulse 160, and respirations 30. Urine and faeces were passed unconsciously. In this state he remained for nearly twelve hours, during which he was kept on injections and oxygen inhalations. On more than one occasion during this period he was pulseless.

On January 24th he was still delirious, though the pulse was a little better. Another injection of digitalis and morphine quieted him, and he slept for an hour. On awakening he was a bit more conscious, and fed on a little milk and Brand's essence. During the whole day he had injections and oxygen gas, which improved the pulse, and it now numbered 130, respirations 28, and temperature 101°. He slept on and off the whole day and the night.

On January 25th, temperature 100°, pulse 130, and respirations 28. Heart sounds were better heard. The spleen was the same. There was much throat irritation. Stimulant and diaphoretic mixtures were given.

On January 26th the condition was practically the same, except that there was much pain in the throat and swallowing was difficult.

On January 28th, temperature 101°, pulse 110, and respirations 32. Crepitations were heard over the base of the right lung, which was painted with iodine, and expectoration mixture was given. He remained in the same state for the two or three succeeding days, the crepitations over the right base having disappeared; the throat pain having continued, tr. guaiaci ammoniata was added to the mixture and the throat trouble was relieved. During the next four days he felt much better and remained quite conscious.

On February 5th his temperature went up to 104° and he became restless. His pulse went up to 142. A fresh patch appeared on the left side in the axillary line.

Three days later his condition became worse and worse. The spleen remained the same in size, but very hard and tender; the abdomen was distended, and there was very severe pain in the lower extremities but no swelling. Heart sounds were feeble. Pulse 140, respirations 50; urine and faeces in bed.

On February 10th, pulse 160, respirations 60, and temperature 104°. He was unconscious and could not swallow. He remained in this state till he died on February 12th, 1911, showing a swelling of both his feet a few hours before his death.

The author pointed out that the important points noticed in connexion with this case were: (1) Absence of any definite cause. (2) Absence of heredity. (3) Absence of haemorrhages. (4) Absence of symptoms in connexion with the alimentary tract. (5) Severe pain and tenderness in the extremities. (6) Diminution of the leucocytes from 200,000 to 14,000 without any improvement in the haemoglobin contents of the blood. (7) Presence of tonsillitis. In the discussion which followed Drs. Sorab K. Engineer, M. P. Kerrawalla, P. A. Dalal, Vazifdar, and the Chairman took part. Dr. Jal Vakil having briefly replied, a vote of thanks was passed to Dr. Jal for the interesting notes.

*Removal of Coin from Intestines by Manipulation.*—The Honorary Secretary, on behalf of Dr. S. B. Nayak, Lecturer in Electro-Therapeutics, Grant Medical College, who was unavoidably prevented from coming to the meeting, read notes of a case of foreign body (a copper coin) lodged in the intestines and removed four days later by manipulation under the *x*-ray screen without operation:

A Parsi boy, aged about 14, was brought to the Electric Institute with the history of a coin (a pice) having been accidentally swallowed about four days before. The family physician who was consulted was said to have removed the coin by means of purgatives given continuously for four days without any result. On screen examination the coin was distinctly seen lying to the right of the umbilicus, very probably in the ileum. Around the coin there was seen to be a diffuse shadow, very likely due to the action of the digestive juice on the coin. Hence, in the skiagram the outline of the coin is not defined, but diffused. This was verified by the appearance of the coin after it was removed. The coin was found coated with some bluish material, probably a sulphate. The coin showed that it had been acted on previously by the acid juice. The diffuse outline also suggested that in all probability the coin got entangled in the intestinal mucous membrane. Dr. Nayak manipulated the part and dislodged the coin under the screen. Two meals of toast, plantains, and white of an egg were ordered for the diet, and a dose of castor oil early the next morning. Three hours after the castor oil dose a large faecal mass was passed, and the coin was found in the mass when broken open. The boy did not show any symptoms during the time the coin was in the intestine, except slight pain on pressure over the spot where the coin was lodged.

*Votes of Thanks.*—After votes of thanks to Drs. Engineer and S. B. Nayak and one to the Chairman, the meeting was dissolved.

## BURMA BRANCH.

The annual general meeting of this Branch was held at the Masonic Hall, Rangoon, on February 25th. Colonel Carruthers, I.M.S., President, took the chair. There were also present Dr. Pedley (Vice-President) Captain H. H. G. Knapp, I.M.S. (Honorary Secretary and Treasurer), and fifteen members.

*Confirmation of Minutes.*—The minutes of the two hundred and seventeenth meeting of the Branch were read and confirmed.

*Annual Report and Balance Sheet.*—The President then read the annual report and balance sheet, prepared by the Honorary Secretary. These were passed *nemine contradicente.*

*Election of Officers.*—The following were elected officers for the ensuing year: *President*, Colonel Carruthers, I.M.S. (re-elected); *Vice-Presidents*, Lieutenant-Colonel Powell, R.A.M.C., and Dr. Pedley (re-elected); *Honorary Secretary and Treasurer*, Captain A. Whitmore, I.M.S., vice Captain H. H. G. Knapp, resigned; *Members of Branch Council*, Major Barry, I.M.S., Lieutenant-Colonel Strickland, I.M.S., Captain Knapp, I.M.S., Dr. Parakh, and Dr. Foy.

*Registration of Medical Practitioners in Burma.*—The meeting then discussed the question of registration of medical practitioners in Burma. It was decided that nothing further could be done at present. The President undertook to ascertain the official view of the matter.

*Improvement of Meetings.*—Major Barry, I.M.S., raised the question of the improvement of the meetings of the Branch, and declared that in his opinion it was advisable to enlarge their scope. After a desultory discussion it was moved and carried *nemine contradicente:*

> That the following questions be referred to the Branch Council for discussion and report: (1) The present condition of the Branch; (2) the possibility of forming a purely medical society for Rangoon and Burma. The Council to meet before the next general meeting of the Branch.

This ended the business.

*Dinner.*—Members and their guests—twenty-six in all—then dined together and a pleasant evening was spent.

## EDINBURGH BRANCH:

### South-Eastern Counties Division.

The spring meeting of the Branch was held in the Railway Hotel, St. Boswells, on Thursday, March 30th, Dr. Oliver, St. Boswells, presiding.

*State Sickness and Invalidity Insurance.*—The Chairman, on behalf of the special committee appointed to draw up a circular with reference to the urgent need for professional unity and action by medical practitioners in face of the proposed scheme for invalidity insurance, drew attention to the very favourable way their circular had been received, and to its wide circulation far beyond the confines of the Division, the Glasgow and West of Scotland Divisions having expressed themselves as heartily in agreement with its views. In moving its incorporation in the minutes, Dr. Carlyle Johnstone paid a well-merited tribute to the Chairman, who had been responsible for drawing up the report. This was carried with acclamation.

*Organisation of Medical Attendance on the Provident Principle.*—The Division then answered, after due consideration, the questions raised by the Association regarding the "organization of medical attendance on a provident basis," and the Secretary was instructed to forward them to head quarters.

## GIBRALTAR BRANCH.

A general meeting of this Branch was held at the Royal Naval Hospital on Saturday, March 25th, at 4 p.m. Members and visitors were first kindly entertained to tea by the President, Dr. Lilly, and then visited the wards and afterwards adjourned to a large day room to hear the papers and discuss cases. Twenty members and one visitor were present.

*Cases Treated with Salvarsan.*—Dr. Lyons read notes on 24 cases treated with salvarsan, and showed several cases with remarkable improvement following the injections.

*Cases and Demonstrations.*—Fleet Surgeon Miller showed a case of divided extensor tendons of first and second fingers, right hand, treated by suturing, with excellent results. Fleet Surgeon Clift showed a case of osteitis of the tibia. Fleet Surgeon Axford showed a case of fracture of end of right fibula with *x*-ray photographs. Surgeon Biddulph showed a case of right congenital hydrocele of the cord. Dr. Parsons demonstrated the technique of tuberculin injections, and made a few remarks on its uses in diagnosis and treatment.

*Votes of Thanks.*—Votes of thanks were passed to the President for his generous hospitality and to all those who read papers or showed cases.

## GLASGOW AND WEST OF SCOTLAND BRANCH:

### DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A GENERAL meeting of this Division was held in Clydebank on Friday, March 24th, Dr. HUNTER, the President, in the chair. Fourteen members and one non-member were present.

*Apologies for Non-attendance.*—Apologies were intimated from three members who were unable to be present.

*Confirmation of Minutes.*—The minutes of last meeting were read, confirmed, and signed by the Chairman.

*Medical Certificates in Cases of Children Absent from School.*—The SECRETARY reported that, as a result of the action of the Division as stated in the minutes, the Parish of Row School Board had agreed to pay the fee of 1s. demanded for each medical certificate granted to them in the case of children who were absent from school on account of sickness, and payment had now been made to the medical men concerned for certificates granted during the past year.

*Medical Defence.*—The SECRETARY referred to the communication on this subject which each medical man had received from the Branch, and urged the necessity of all notifying the Branch Secretary with as little delay as possible of their approval of same. Discussion followed, and all present heartily endorsed the action of the Branch.

*Rules of Nursing Associations, etc.*—It was unanimously agreed to adopt these rules in any dispute which might arise where they were applicable.

*Instruction in First Aid, etc.*—It was agreed unanimously:

> That all ambulance and nursing instruction (including Red Cross Society) should be charged for in future at the rate of one guinea per lecture.

During the discussion on this subject it was evident from statements made by members that nearly all ambulance work done in this district is done gratuitously. While the school boards pay their lecturers, they do not pay as much as they should. One board gives 7s. per hour, or 10s. 6d. for a lecture of one and a half hours, which is equal to ten guineas for the course. Only one member had received any payment for ambulance work apart from school board appointments, and he received 10s. 6d. per lecture.

*Fees for Examination for Life Insurance.*—The members decided unanimously not to accept any insurance medical examinations which entailed a full report and urine examination under a fee of half a guinea, no matter how small the proposed insurance might be.

*Organization of Medical Attendance on a Provident Principle.*—Owing to the importance of this communication, and in view of the fact that Mr. Smith Whitaker was to address the profession in Glasgow on this subject, it was decided to hold over the discussion until after the Glasgow meeting, when a special meeting was to be called to deal with this matter.

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## LANCASHIRE AND CHESHIRE BRANCH.

A CLINICAL and scientific meeting of the Branch was held at the Manchester Royal Infirmary on Wednesday, March 29th, at 4.30 p.m. Over 107 members and two visitors were present. Tea was kindly provided by the Medical Board.

*Cases, etc.*—Cases were shown in the out-patient department by Drs. DYSON, LANCASHIRE, LA PAGE, MCNABB, MARSDEN, MELLAND, MORITZ, REYNOLDS, SAVATARD, TYLECOTE, WILLIAMSON, and Professor MURRAY, and by Messrs. BISHOP, RAYNER, SMITH, THORBURN, WESTMACOTT, and WRIGLEY. Dr. MILLIGAN operated in the ear department, and Messrs. BURGESS and RAY operated in the surgical theatres, Mr. WILSON administering anaesthetics. Drs. BARCLAY and BYTHELL showed screen cases and radiograms in the *x*-ray department. Dr. BURY showed cases in the medical wards. Dr. BROCKBANK exhibited blood slides in the pathological department. Dr. BROWN demonstrated a simple and quick method of detecting lead contamination of drinking water. Dr. LEA showed gynaecological specimens. Dr. Haring and Mr. Garnet Wright were unfortunately prevented from attending, and several apologies were received from members who were unable to be present. Some very interesting and a few rare cases were shown, and the meeting seemed to be greatly appreciated. The best thanks of the Branch are due to the Infirmary Board for allowing the use of the infirmary for the meeting and to the Medical Board for providing an excellent tea.

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### ALTRINCHAM DIVISION.

A SPECIAL meeting of the Altrincham Division was held on March 22nd at the Board Room of the Altrincham Hospital. Tea was provided at 4 p.m. Dr. GARSTANG took the chair at 4.30 p.m. There were also present: Drs. Woodyatt, Leak, Gough, Lyon, Melville, Leech, H. G. Cooper, Duncan, P. R. Cooper, Blease, Adolphe Renshaw, Agar Renshaw, Charles Renshaw, C. E. Smith, MacLaren, Ransome, Owen Jones, Savatard, Browne, Luckman, Melland.

*Apologies for Non-attendance.*—Apologies for inability to attend were received from Drs. Cox and Clarke.

*Organization of Medical Attendance on Provident Principle.*—The report on the Organization of Medical Attendance on the Provident or Insurance Basis—Answers to questions (D. 15 and SUPPLEMENT of the BRITISH MEDICAL JOURNAL, March 4th, 1911)—was considered. All the thirty-three questions were answered, and the meeting rose at 7 p.m.

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## METROPOLITAN COUNTIES BRANCH:

### ST. PANCRAS AND ISLINGTON DIVISION.

A MEETING of the Division was held on Tuesday, March 28th, at the London Temperance Hospital, where the board room and tea were very kindly placed at the disposal of the meeting. All practitioners in the area of the Division were invited. Dr. W. GRIFFITH, Chairman of the Division, presided.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed, whereon the CHAIRMAN cordially welcomed back Dr. Walter Smith after his illness.

*Proposed Alteration of Boundary of Division.*—A letter was then read from the Honorary Secretary, Organization Committee, *re* proposed alteration of the boundary of the Division by the Hampstead Division, and after discussion it was moved by Dr. WYNN WESTCOTT and resolved that

> This Division objects to a taking away of a part of itself.

It was further resolved to send a copy of this resolution to the Organization Committee.

*St. Pancras Public Medical Service.*—Drs. HAZEL and BEATON then gave interim reports on the St. Pancras Public Medical Service, and after much valuable information from Dr. Beaton, the Honorary Secretary was instructed by the CHAIRMAN, on behalf of the Division, to write to the Honorary Secretary of the Metropolitan Counties Branch asking its advice or assistance in the matter of the extreme delays experienced by the officers of the service in receiving answers to their communications with the London County Council. It was resolved to refer to the Executive Committee to draw up a plan for calling a public meeting in the matter.

*Organization of Medical Attendance on the Provident Principle.*—The questions on Form D 16 of the Association's Report on the Organization of Medical Attendance on the Provident or Insurance Principle were then answered by the Division and the replies sent to the Medical Secretary.

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## MIDLAND BRANCH:

### LEICESTER AND RUTLAND DIVISION.

A MEETING of this Division was held at the Assembly Rooms, Market Harborough, on Wednesday, March 22nd, at 4 p.m. Dr. STAMFORD was in the chair, and

twenty-eight members were present. Tea was provided by the kind invitation of Dr. Ballard.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Election of Vice-Chairman.*—It was proposed by Dr. STAMFORD, seconded by Dr. GIBBONS:

That Dr. Tibbles be elected Vice-Chairman of the Division.

This was carried unanimously. Dr. TIBBLES suitably replied.

*Payment for Medical Attendance on School Children.*—With the consent of the meeting, the resolution dealing with the payment of medical men called in to attend school children by teachers was removed from the agenda, the SECRETARY having intimated that the matter was under consideration by the county education authority.

*Election of Members of Council at Annual Representative Meeting.*—The SECRETARY proposed and Dr. POPE seconded:

That the Representative to the Representative Meeting be instructed to move: "That the mode of election of members of the Council by the Representatives of constituencies at the Annual Meeting be by card vote."

This was carried, the voting being: For 26, against 0, neutral 1.

*Representatives of Division on Board of Leicester Infirmary.*—Drs. Hicks and Hunter were re-elected representatives of the Division on the board of the Leicester Infirmary.

*Typhoid Fever.*—A discussion on typhoid fever was introduced by Dr. STAMFORD. Dr. CLARE spoke on the pathology and bacteriology of the disease; Dr. MCCOMAS on differential diagnosis; Dr. SEVESTRE on symptoms; Dr. BOND on abdominal surgical complications; Dr. CUMBERLIDGE on extra-abdominal surgical complications; and Dr. BALLARD on treatment; Drs. LAING and MARRIOTT also spoke.

*Vote of Thanks.*—A hearty vote of thanks to Dr. Ballard for his hospitality was carried by acclamation.

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## OXFORD AND READING BRANCH:

### OXFORD DIVISION.

*Special Meeting.*

*National Insurance.*—A special general meeting of this Division was held on March 31st at the Radcliffe Infirmary, Oxford, to discuss and vote upon the questions referred to the Divisions *re* national insurance. Dr. TURRELL, Chairman, presided, and twenty members and three non-members attended the meeting. The CHAIRMAN, in his introductory remarks, called attention specially to Questions 1 and 2. He considered that on the answers to these questions hung all the other points at issue which were dealt with in the subsequent thirty-one questions. He read in full Paragraphs 18–24 of the report issued from head quarters. The answers to Questions 1 and 2 being in the affirmative unanimously, the meeting proceeded to discuss a vote upon the remaining questions. The replies were forwarded to the Medical Secretary.

*Vote of Thanks.*—A vote of thanks was accorded to the subcommittee appointed at the last meeting to consider the questions previous to laying them before the Division meeting.

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## PERTHSHIRE BRANCH.

A MEETING was held in the Royal Infirmary, Perth, on Friday, March 24th, 1911.

### COUNCIL MEETING.

A council meeting was held at 3.15 p.m., Dr. LYELL (President) in the chair, and there were present Drs. J. Hume, Bruce, Trotter, and Taylor.

*New Members.*—Dr. J. T. Gunn (Auchterarder) and Dr. B. S. Nicholson (Coupar Angus) were elected members of the Association and Branch.

*The late Dr. Kennedy.*—The Secretaries were instructed to send the following minute of condolence to Mrs. Kennedy on behalf of the Perthshire Branch of the British Medical Association;

The Council resolved to enter in their minutes an expression of the deep sense of loss which has been felt by the members of the Branch in the all too sudden removal from their midst of Dr. Kennedy, who was an active member of the profession among them for many years. They recall that he acted as their President and fulfilled the duties to the satisfaction of all. They also remember all that he has done not only for the community at large, but especially for the Perth Royal Infirmary and the Poorhouse Infirmary. They desire to express their respectful sympathy with Mrs. Kennedy and all the members of the family.

### SPECIAL MEETING.

A special meeting was held at 3.30 p.m. Dr. LYELL (President) was in the chair, and there were present—Drs. Haig, Bruce, Gardiner, Burnett, MacNaughton, Bissett, Robertson (Scone), Robertson (Errol), Stewart (Crieff), Beattie, J. Hume, Menzies, Stirling, Sturrock, McEwen, Trotter, Liddell, Colonel McCreery, and Taylor. Dr. Smith attended as a visitor.

*Apologies for Non-attendance.*—Apologies for inability to attend were intimated from Colonel Moffett, Drs. Urquhart, Paton, Douglas (Scone), Temple, and Dobie.

*Organization of Medical Attendance on Provident Principle.*—The meeting at once took up consideration of the report on the organization of medical attendance on the provident or insurance basis, and all the questions to Divisions were fully discussed and the results sent on to head quarters.

*Tea.*—After the meeting the matron kindly entertained the members to tea in the house doctor's room.

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## SOUTH-EASTERN BRANCH:

### DARTFORD DIVISION.

A MEETING of this Division was held on Thursday, March 30th, at the Livingstone Hospital, Dartford, at 3 p.m. Dr. STEEN (Chairman) presided.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Next Meeting.*—The SECRETARY announced that Mr. Smith Whitaker had promised to address a meeting in May on State Intervention in the Provision of Medical Attendance.

*Apologies for Non-attendance.*—Letters of apology for inability to attend from Dr. Walker of Bexley and Dr. Lake of Sutton-le-Hone were read.

*Kent Organization Committee.*—Several amendments to this scheme were considered and passed.

*Organization of Medical Attendance on the Provident or Insurance Principle.*—The meeting then considered the report on the organization of medical attendance on the provident or insurance principle, and answered the questions attached to the report.

*Votes of Thanks.*—A vote of thanks was passed to the hospital authorities for kindly giving the Division the use of the board room. Also to Dr. Steen for presiding and for his kind hospitality.

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### EASTBOURNE DIVISION.

A GENERAL meeting of this Division was held in the Mayor's Parlour, Town Hall, Eastbourne, on Friday, March 31st, 8.30 p.m. Mr. H. D. FARNELL was in the chair, and fourteen members and five non-members were present.

*Apology for Non-attendance.*—An apology was received from Dr. L. Cane for inability to attend.

*Confirmation of Minutes.*—The minutes of last meeting were read and confirmed.

*Medical Examination for Life Assurance.*—It was unanimously resolved:

That no *efficient* medical examination for life assurance should be undertaken for less than half a guinea.

*Instruction in First Aid, etc.*—It was unanimously resolved:

It is earnestly hoped that no medical practitioner will give his services for instruction in first aid, etc., at a lower rate of remuneration than five guineas for a full course of lectures.

It was unanimously resolved to send out a copy of the foregoing resolutions to every medical practitioner within the area.

*Medical Treatment of School Children.*—It was unanimously resolved:

That the scheme of the Kent Organization Committee, with the exception of paragraph B, page 4 (formation of clinic or centre), be adopted as a basis for negotiation with the Education Committee of the Borough of Eastbourne, subject to the following amendments of the scale of remuneration laid down in paragraph 6, page 3:

(*a*) Refraction: 10s. 6d. per case; average of three attendances.

(*b*) Nasal obstructions, adenoids, tonsils, and suppurating ears: £1 1s. per case requiring operation; 10s. 6d. per case not requiring operation; attendance being limited to four per case.

(*c*) Ringworm: £1 1s. 6d. for medical or radio-therapy treatment.

(*d*) Administration of anaesthetics: 10s. 6d. per case.

The following committee was appointed to conduct negotiations: J. H. Ewart, H. D. Farnell, A. C. Gurney, A. P. Sherwood, with C. H. H. Cameron (non-member), and the Honorary Secretary.

*Organization of Medical Attendance on the Provident Principle.*—Owing to the lateness of the hour the consideration of the report on the organization of medical attendance on the provident or insurance principle was adjourned to a future early meeting.

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## SOUTHERN BRANCH:

### PORTSMOUTH DIVISION.

A CLINICAL meeting was held at Southsea on Wednesday, March 22nd, Dr. MCELDOWNEY (Chairman), presiding. Sixteen members were present.

*Oases, etc.*—Dr. COLE-BAKER showed a case of plastic restoration of the nose after removal of epithelioma; also three cases of radical cure of hernia presenting unusual features. Mr. CHILDE showed a case of large cystic hygroma of the neck, which had been successfully dissected out (with photograph). He also described an operation for perineal excision of the rectum by dividing the sphincter and levator ani in the mid-line and reflecting the flaps. Dr. BLACKMAN showed a case of papilloma of the skin, containing claws, in an old woman. Dr. MUGGLETON showed a case of cricoid aneurysm of the wrist and palm of the hand, with an aneurysm also of the brachial artery. Mr. RIDOUT showed a case in which pus had been evacuated from the pterygoid region after an abscess of the antrum of Highmore.

*Paper.*—Dr. CHARLES WHITE read notes of a case of sarcoma of the superior maxilla necessitating excision of that bone and the eyeball, in which the gap had been successfully filled in by a mechanical contrivance (with photographs).

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## SOUTH MIDLAND BRANCH:

### NORTHAMPTONSHIRE DIVISION.

A MEETING of the Division was held in the board room of the Northampton General Hospital on March 28th, at 2.30. Dr. TERRY, Chairman, presided, and there were present forty medical men, thirty from the Northants Division and ten from other Divisions or not members of the Association.

*Organization of Medical Attendance on the Provident Principle.*—Dr. TERRY then introduced the speaker, Mr. J. SMITH WHITAKER, who gave a very valuable and luminous address on the Government's proposed scheme of the organization of medical attendance on a provident or insurance principle. To show the importance of the matter he mentioned that the Chancellor of the Exchequer estimated that sixteen millions of the population would probably come under the scope of the Act. He pointed out that the Government might merely insure the people and leave them to provide for their own medical treatment, or might itself arrange for the provision of treatment either by (1) a State medical service; (2) the friendly societies; or (3) possibly by a medical committee in each district. He then discussed the Majority and Minority Poor Law Reports as they affected medical practice, and then the question of payments for medical attendance *per capita* or by the number of visits paid. He mentioned the fact that no body of medical men who have organized themselves has adopted the principle of payment by visits. He ended a very valuable address by laying down the axiom that as far as possible the existence of an independent medical profession should be preserved. The paper was discussed by Dr. LOVELL DRAGE, who spoke against the British Medical Association at present taking any part in the matter; by Dr. COOKE and by Dr. LARKING. Mr. SMITH WHITAKER replied. A vote of thanks for his address and his kindness in coming was then proposed by Dr. C. J. EVANS, and seconded by Dr. BULL, and carried with acclamation. Most of the audience then left, and only nine to six members remained behind to answer the schedule of questions. The meeting finally finished at a quarter to six.

*Apologies for Non-attendance.*—Letters of apology for non-attendance were read from Drs. Winckworth, Freeman, Perram, Bird, Dukes, and Woollerton.

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## SOUTH-WESTERN BRANCH:

### EXETER DIVISION.

A SPECIAL meeting of this Division was held at the Royal Devon and Exeter Hospital, Exeter, on March 23rd. Mr. E. DOMVILLE occupied the chair. Non-members of the Association were invited. There was a large and enthusiastic meeting, fifty-five members of the profession being present, representing all parts of the Division.

*Proposed Formation of an Exeter Section.*—Mr. RUSSELL COOMBE moved and Mr. E. DOMVILLE seconded the following resolution:

That the Branch Council be requested to authorize the separation of the Exeter members of the Exeter Division into an Exeter section of the Division.

This was carried *nemine contradicente*.

*Branch Council and Ethical Matters.*—Mr. RUSSELL COOMBE moved and Mr. A. ROPER seconded the resolution:

That it is desirable that any *pro formâ* ethical rules formulated for adoption by the Divisions generally should give power to the Chairman and Secretary of a Division to refer direct to the Branch Council any ethical matter concerning an individual member of the Division which, in their opinion, it would be detrimental to the interests of the Association to allow to be dealt with locally by the Division in question.

Mr. BELL opposed the resolution, which was, however, carried with one dissentient.

*Election of Representative for Division.*—Dr. FORTESCUE SAYRES moved that their present Representative (Mr. Russell Coombe) be re-elected; Dr. GORDON seconded, and Mr. Russell Coombe was unanimously re-elected.

*Organization of Medical Attendance on Provident Principle.*—The meeting then proceeded to consider and reply to the questions of the report on the organization of medical attendance on the provident or insurance principle. The discussion of some of the questions was prolonged but was useful in determining the feeling of the meeting on some of the more difficult and controversial subjects. There was a general consensus of opinion that any forthcoming organization should certainly not be left to the friendly societies to elaborate, but should be placed in the hands of the medical profession, preferably by the formation of public medical services. At 4.30 the meeting adjourned for tea. The meeting voted on the first thirty questions, but those concerning fees were thought too difficult to decide hurriedly at the termination of a long meeting, and it was left to a subcommittee to carefully consider these questions with a view to affording members further information on these points.

*Vote of Thanks to Chairman.*—At the termination of the meeting the CHAIRMAN (Mr. Domville) was thanked for the able manner in which he had conducted a long and difficult meeting.

# Association Notices.

## ANNUAL REPRESENTATIVE MEETING, 1911.

### DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1911, will be held at Birmingham on Friday, July 21st, 1911, and following days, as may be required.

### NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Birmingham in July, relating either to the alteration of the By-laws, or to questions affecting the honour and interests of the profession (Article XXXI and By-law 35), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 22nd, 1911, and for this purpose should be received by the Medical Secretary not later than Tuesday, April 11th, 1911.

By Order,
J. SMITH WHITAKER,
*Medical Secretary.*

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 26th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,
*Financial Secretary and Business Manager.*
March 23rd, 1911.

## NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of the publication of this notice:

*Newington.*

That Newington be transferred from the area of the Rochester and Chatham Division to the area of the Canterbury and Faversham Division of the South-Eastern Branch.

*Brighouse.*

That Brighouse be transferred from the area of the Bradford Division to the area of the Halifax Division of the Yorkshire Branch.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of the East Anglian Branch will be held at Framlingham, Suffolk, on Thursday, April 20th. Members wishing to read papers or show specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, General Secretary, East Anglian Branch.

FIFE BRANCH.—A meeting will be held in the Hotel, Thornton, on Thursday, April 13th, at 3 p.m., to consider the report on medical attendance, etc., in connexion with State sickness insurance.—R. BALFOUR GRAHAM, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of the Branch Council will be held in Onward Buildings, Deansgate, Manchester, at 4.30 p.m., on Wednesday, April 12th.—F. CHARLES LARKIN, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 19th, at 4.45 p.m. Further particulars will be given in future notice.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual general meeting of this Division will be held on Thursday, May 4th, at 4 p.m., at Bethlem Royal Hospital. There will be a demonstration of cases in the hospital.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The adjourned meeting for the purpose of continuing the discussion on the question of State sickness and invalidity insurance will be held in the Berwick Infirmary on Wednesday, April 12th, at 2.15 p.m.—C. CLARK BURMAN, Secretary, Alnwick.

## BRITISH MEDICAL ASSOCIATION LIBRARY.

### BOOKS NEEDED TO COMPLETE SERIES.

**THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:**

American Association of Genito-Urinary Surgeons. Transactions. 1906.
——— Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1–9.
——— Laryngological Association. Transactions. Vols. 1–6, 8–9.
——— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
——— Medico-Psychological Association. Transactions. Vol. 13, 1906.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26, 27.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893.)
Archives générales de médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
——— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1–7, and 20–22.
——— de Parasitologie. Vols. 1–8.
——— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Australasian Medical Congress. Transactions. Seventh Session. Adelaide, 1905.
Bentley and Trimen. Atlas of Medicinal Plants. 1875–80.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896–7–8–9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
——— für medicinischen Wissenschaften. Vols. 1–19.
——— für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin, Verhandlungen. 1–12, and 14, since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht, 1906–1908.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853–1868.
——— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Holden. Human Osteology. 1899.
Indian Medical Gazette. 1868–1884.
International Congress on Alcohol. Proceedings of First to Eleventh.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg, and Third Paris, 1910.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B, Part 1; Section 15, Part 2.
——— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahresbericht Neurologie und Psychiatrie, 6 and 11–14.
Journal of Laryngology. Vols. 1 to 9.
Lakeside Hospital Clinical and Pathological Papers, Series 2.

London County Council. Report of Medical Officer (Education). March, 1906.
Montreal Medical Journal, prior to 1900.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892–1898, 1901–1904.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James of Padua.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmologie, prior to 1893.
Revue Neurologique. prior to 1893 and since that date.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vol. 4.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1895.
South African Medical Journal. February and April, 1895, Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1–7, 10–14.
United States Hygienic Laboratory Bulletins. Nos. 1, 3, 8, 9, 10, 11, 12, 13, 15, 17, 18, 19, 22, 24, 26, 29, 35, 43.
Virchow Archiv. Vols. 1–150.
Watt. Bibliographia Britannica, 4 vols. 1824.

# British Medical Association.

## SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

### SCHOLARSHIPS.

**THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:**

**1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.**

**2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.**

**Each Scholarship is tenable for one year, commencing on October 1st, 1911. A Scholar may be reappointed for not more than two additional terms.**

**The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.**

### GRANTS.

**The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.**

**The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.**

### *Applications.*

**Applications for Scholarships and Grants for the year 1911–12 must be made not later than Tuesday, June 20th, 1911, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.**

**Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.**

J. SMITH WHITAKER, *Medical Secretary.*
429, Strand, London, W.C.
*March 30th, 1911.*

## CENTRAL MIDWIVES BOARD.

**A SPECIAL meeting of the Central Midwives Board was held on March 30th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.**

### *Midwives Struck off the Roll.*

**The Board considered the following charges, amongst others, against the midwives whose names are given below, and ordered them to be struck off the *Roll:***

*Annie Birchley*, that being in attendance as a midwife at a confinement, the patient suffering from rigors, abdominal pain, and vomiting, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (4). Also that she had habitually attended women in childbirth while suffering from severe septic ulceration of the leg, though she had been previously warned and was well aware of the danger involved to her patients thereby.

*Lucy Bowpitt*, that being in attendance as a midwife at a confinement, the placenta and membranes not having been completely expelled two hours after the birth of the child, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (3); that she never took the temperature of her patients, being unable to use a clinical thermometer.

*Emma Susannah Down*, that in contravention of Section I (4) of the Midwives Act, 1902, she had habitually employed an uncertified person as her substitute; that she had habitually aided and abetted the said substitute to contravene the provisions of Section I (2) of the Midwives Act by colourably and falsely pretending that the cases attended by the substitute were cases undertaken and conducted by her; and that she colourably and falsely notified to the Medical Officer of Health for Kensington the occurrence of certain births as having been attended by her, whereas in fact she was on no occasion in attendance at the birth.

*Eliza Eagle*, that she was uncleanly in her person, and her nails were long and dirty, contrary to Rule E 1; that when attending a confinement she did not wear a dress of washable material, as required by Rule E 1; that she did not possess the appliances and antiseptics required by Rule E 2; and that she did not take the temperature of her patients, being unable to use a clinical thermometer.

*Emma Goodwin*, that being in attendance as a midwife at a confinement, the patient suffering from excessive bleeding after delivery, with vomiting and diarrhoea, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (3).

*Alice Hamson*, that being in attendance as a midwife at a confinement, she attempted to remove the placenta by forcible traction on the cord; that the placenta and membranes not having been completely expelled two hours after the birth of the child, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (3); and that she left the patient before the expulsion of the placenta, contrary to Rule E 6.

*Sarah Ann Hankins*, that she did not possess the appliances and antiseptics required by Rule E 2; that she laid out the dead for burial contrary to Rule E 16; that she did not keep a register of cases as required by Rule E 22; and that she did not take the temperature of her patients, being unable to use a clinical thermometer.

*Annie Ireland*, that being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5).

*Mary Lee*, that being in attendance as a midwife at a confinement, the patient being ill and suffering from rigor, she did not take the patient's temperature, nor did she explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 18.

*Fanny Mason*, that being in attendance as a midwife at a confinement, the patient being ill, suffering from diarrhoea before and after the delivery, and subsequently from pneumonia and fever, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 18; that she did not take the patient's temperature at any time; that the child having died before the attendance of a registered medical practitioner, she failed to notify the fact to the local supervising authority, as required by Rule E 20.

*Elizabeth Ann Shaw*, that being in attendance as a midwife at a confinement, the patient suffering from excessive bleeding, and the placenta and membranes not having been completely expelled two hours after the birth of the child, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (3); that she inserted her hand into the patient's uterus and peeled away the placenta.

*Ann Whittaker*, that having been engaged to attend as a midwife at a confinement, the patient suffering from loss of blood, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (2).

*Maria Wigley*, that being in attendance as a midwife at a confinement and having advised that a registered medical practitioner should be sent for on account of the inflamed condition of the patient's breasts, she failed to notify the fact to the local supervising authority as required by Rule E 20.

*Rebecca Taylor*, whose case had been adjourned for judgement on report of the local supervising authority, was also struck off the roll.

*Midwives Severely Censured.*

**_Sarah Johnson_ and _Fanny Royle_ were severely censured after charges against them had been considered.**

*Midwives Censured.*

**The following midwives were censured after charges against them had been considered: _Mary Jane Cousins_ and _Elizabeth Williams_.**

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON H. S. R. SPARROW has been placed on the retired list at his own request, with the rank of Deputy Inspector-General, March 31st. He was appointed Surgeon, February 26th, 1881; Staff Surgeon, February 26th, 1893; and Fleet Surgeon, February 26th, 1897. He was Surgeon of the *Northumberland* throughout the Egyptian war of 1882, and had medical charge of men at the occupation of Ismailia, and landed with the men for the protection of the Suez Canal; he received a medal and the Khedive's bronze star.

Fleet Surgeon G. H. FOOTT, M.D., is also placed on the retired list at his own request, March 30th. His commissions bear date: Surgeon, August 20th, 1886; Fleet Surgeon, August 20th, 1902.

The following appointments have been made at the Admiralty:—Staff Surgeon O. REES, M.D., to the *Terror*, additional, for Bermuda Dockyard and Ireland Islands, April 16th; Staff Surgeon E. R. GRASEBROOK to the *St. George*, April 16th; Surgeon L. C. E. MURPHY, to the *Pembroke*, April 5th; Staff Surgeon N. J. ROCHE, to the *Jupiter*, April 5th; Staff Surgeon H. R. H. DENNY, to the *Vivid*, additional, April 18th; Surgeon F. J. GOWANS, M.B., to the *Victory*, additional, April 20th; Staff Surgeon S. CONNER M.B., to the *Bonaventure*, April 29th; Surgeon D. P. CHAPMAN, to the Royal Marine Artillery Division, Portsmouth, April 15th; Surgeon M. T. MALE, M.B., to the *President*, additional, for the *Maine*, April 15th; Fleet Surgeons J. H. STENHOUSE, M.B., and J. BOYAN, and Surgeons A. T. RIVERS and A. H. JOY, M.B., to the *Africa*, on recommissioning, April 25th; Staff Surgeons R. WATERFIELD and T. F. O'KEEFFE, M.B., to the *Implacable*, on recommissioning, April 25th; Staff Surgeon H. HUSKINSON, M.B., to the *Bulwark*, on recommissioning, April 25th; Staff Surgeon F. C. B. GITTINGS, M.B., to the *Adventure*, on recommissioning, April 25th; Staff Surgeon G. E. MACLEOD, to the *Sentinel*, on recommissioning, April 25th; Staff Surgeon J. WHELAN, to the *Vivid*, additional, for disposal, April 25th; Surgeon F. H. HOLL, to the *Pomona*, additional, for Dartmouth College, April 20th; Surgeon B. PICK, to the *Vivid*, additional, for disposal, April 20th; Surgeon A. W. IREDELL, to the *Victory*, additional, April 25th; Surgeon A. G. MALCOLM, M.B., to the *Pembroke*, additional, for disposal, April 25th.

## ARMY MEDICAL SERVICE.

COLONEL A. P. O'CONNOR, C.B., on completion of four years' service in his rank, retires on retired pay, April 5th. His commissions are thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; and Colonel, April 5th, 1907. He served in the Burmese campaign in 1885–6, receiving a medal with clasp, and in the South African war in 1899–1902, being present in operations in Cape Colony, the Transvaal, Orange River Colony, and again in Cape Colony; he was mentioned in dispatches, appointed C.B., and granted the Queen's medal with two clasps and the King's medal with two clasps.

Brevet Colonel F. J. LAMBKIN, from the Royal Army Medical Corps, to be Colonel, vice A. P. O'Connor, C.B., April 5th. Colonel Lambkin entered the service as Surgeon, July 30th, 1881; and was made Surgeon-Major, July 30th, 1893; Lieutenant-Colonel, July 30th, 1901; and Brevet Colonel, May 9th, 1906. He was in the South African war, 1899–1902, and was present at the relief of Ladysmith, in the actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieters Hill, and in operations in Natal, Orange River Colony, and Cape Colony, receiving the Queen's medal with four clasps and the King's medal with two clasps.

Colonel R. I. D. HACKETT, M.D., who is serving in India, is appointed Principal Medical Officer, Karachi Brigade.

## ROYAL ARMY MEDICAL CORPS.

CAPTAIN H. F. SHEA, M.B., who is serving in India, is appointed Specialist in Advanced Operative Surgery, 8th (Lucknow) Division, from February 11th.

### EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A MAJOR, R.A.M.C., due for abroad in December, wishes to exchange to remain at home.—State terms for exchange to Box No. 1792, BRITISH MEDICAL JOURNAL, 429, Strand, W.C.

## INDIAN MEDICAL SERVICE.

THE undermentioned Captains are promoted to be Majors, dated January 28th: E. D. W. GREIG, M.B., CAMPBELL DYKES, M.B., W. F. HARVEY, M.B., W. C. H. FORSTER, M.B., J. J. URWIN, M.B., DAVID MCCAY, M.B., A. B. FRY, M.B., E. C. G. MADDOCK, M.B., A. W. TUKE, and G. H. STEWART. Their previous commissions are dated: Lieutenant, July 27th, 1899; Captain, July 27th, 1902. Major Forster served in the campaign on the North-West Frontier of India in 1897–8, receiving a medal with clasp. Major McCay was in the China war, 1900 (medal). Major Fry: Waziristan, North-West Frontier of India, 1901–2 (mentioned in dispatches), and in the operations against the Darwesh Khel Waziris; Tibet war, 1903–4 (medal). Major Stewart: China war, 1900 (including the relief of Peking (medal with clasp). The other officers cited have no war records in the Army Lists.

Lieutenant A. P. G. LORIMER, M.B., is promoted to be Captain, November 7th, 1910. His lieutenant's commission bears date September 1st, 1906.

The following are also promoted to be Captains, dated February 1st, 1911: ROBERT KNOWLES, W. E. BRIERLEY, M.B., J. B. LAPSLEY, M.B., J. A. SHORTEN, M.B., R. B. S. SEWELL, C. H. FIELDING, M.B., W. L. WATSON, F. R. COPPINGER, M.B., W. J. SIMPSON, M.B., FREDERICK STEVENSON, M.B., S. H. MIDDLETON-WEST, M.B., SATYA CHARAN PAL, R. S. TOWNSEND, M.B. Their first appointment is dated February 1st, 1908.

The promotion of Major GEORGE KING to that rank, notified in the *London Gazette* of March 17th, 1911, is antedated from January 28th, 1911, to July 28th, 1910.

The undermentioned officers are finally admitted to the service from July 30th, 1910: R. W. G. HINGSTON, M.B., J. B. TACKABERRY, M.B., C. NEWTON-DAVIS, M.B., R. C. CLIFFORD, C. NEWCOMB, M.B., H. E. SHORTT, M.B., T. A. HUGHES, M.B., R. DE S. B. HERRICK, M. PURVIS, M.B., W. O. WALKER, M.B., D. MCN. TAYLOR, M.B., V. P. NORMAN.

## TERRITORIAL FORCE.

### ROYAL ARMY MEDICAL CORPS.

*Attached to Units other than Medical Units.*—Captain A. R. WILSON, M.D., to be Major, July 4th; Lieutenant J. A. NIXON to be Captain, December 22nd, 1910.

*For attachment to Units other than Medical Units.*—BERNARD R. BILLINGS, to be Lieutenant, March 1st; FRANCIS V. DENNE, to be Lieutenant, March 16th.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,487 births and 5,072 deaths were registered during the week ending Saturday last, April 1st. The annual rate of mortality in these towns, which had been 14.9, 15.4, and 15.2 per 1,000 in the three preceding weeks, rose to 15.4 per 1,000 last week. In London the death-rate was equal to 15.8 per 1,000 against 14.8, 15.1, and 15.7 in the three previous weeks. Among the seventy-six other large towns, the death-rates last week ranged from 4.8 in King's Norton, 7.6 in Bournemouth, 8.1 in West Hartlepool, and 8.6 in Derby, to 20.9 in Huddersfield, 21.1 in Devonport, 22.7 in Hastings, 25.8 in Coventry, and 26.8 in Middlesbrough. Measles caused a death-rate of 2.7 in Tynemouth, 2.9 in Middlesbrough, 3.1 in Dewsbury, 5.2 in Rhondda, 6.2 in Sheffield, and 7.3 in Devonport, and whooping-cough of 1.1 in Blackburn, 1.2 in Southampton, 2.4 in Middlesbrough, and 2.7 in Willesden. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 5,072 deaths recorded in the seventy-seven towns last week, the causes of 42 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Birmingham, 7 in Liverpool, and 3 in Smethwick, in South Shields, and in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,166, 1,121, and 1,077 at the end of the three preceding weeks, had further declined to 1,036 at the end of last week; 125 new cases were admitted during the week, against 120, 146, and 121 in the three previous weeks. On Saturday last there were 28 cases of small-pox under treatment in the Metropolitan Asylums Hospitals, against 47, 38, and 32 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 10, 1, and 1 during the three previous weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, April 1st, 963 births and 573 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.8 and

17.2 per 1,000 in the two preceding weeks, declined to 15.6 in the week under notice, and was 0.2 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates last week ranged from 9.4 in Aberdeen and 12.6 in Paisley, to 20.8 in Perth and 22 5 in Greenock. The mortality from the principal epidemic diseases averaged 1.2 per 1,000, and was highest in Leith and Perth. The 275 deaths from all causes registered in Glasgow last week included 1 from scarlet fever, 3 from diphtheria, 16 from whooping-cough, and 2 (of children under two years of age) from diarrhoea. Four deaths from whooping-cough were recorded in Leith, 2 in Dundee, 2 in Paisley, and 2 in Greenock.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 1st, 724 births and 461 deaths were registered in the twenty-two principal urban districts of Ireland, as against 674 births and 472 deaths in the preceding period. The annual death-rate in these districts, which had been 19.3, 17.4, and 21.2 per 1,000 in the preceding weeks, fell to 20.7 per 1,000 in the week under notice, this figure being 5.3 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.5 and 18.1 respectively, those in other districts ranging from 9.3 in Wexford and 10.3 in Portadown, to 42.7 in Galway to 47.6 in Tralee, while Cork stood at 19.2, Londonderry at 22.6, Limerick at 31.4, and Waterford at 23.4. The zymotic death-rate in the twenty-two districts averaged 0 9 per 1,000, as against 1.0 per 1,000 in the preceding period.

# Hospitals and Asylums.

### DORSET COUNTY ASYLUM.

THE interesting annual report for 1909 of Dr. P. W. Macdonald, the Medical Superintendent of this asylum, shows that on the first day of 1909 there were 847 patients in the asylum, and on the last day of the year 826. The total cases under care during the year numbered 1,020, and the average number daily resident 847. During the year 173 were admitted, of whom 143 were first admissions. In his general remarks upon the admission-rate and its wide fluctuations, Dr. Macdonald emphasizes the need for caution in accepting this rate as an index to the growth of insanity; he shows how the class of admissions, as well as their numbers, should be taken into consideration, and deprecates the inclusion of senile and congenitally-defective cases, many of whom are only certified and sent to asylums because of their difficulty of management at home, in any statistical inquiry into the growth of lunacy. The point is worthy of note by those who base sweeping assertions on lunacy returns. Another point of wide practical importance called forth by the statistics of his own institution concerns the duration of illness prior to admission. Dr. Macdonald says with justice that in only too many instances precious time is lost by placing cases in the workhouse. "Recent recoverable cases, very often young women, should not be sent to the workhouse, and for two reasons. First, there is the loss of valuable time in the initial stage of the attack; and, secondly, we are unable to obtain a correct history—very often no history at all—because the patient is unaccompanied by any relative. Even if we do not at all times receive reliable information from the relatives, a little is better than nothing at all, as too often happens when cases are drafted from the workhouse." As a matter of fact, 50 per cent. of the admissions of 1909 came under treatment within two or three weeks of the onset of the illness. Of the total, 144 were direct admissions, and in these in 55 the attacks were first attacks within three and in 21 more within twelve months of admission; in 28 not-first attacks within twelve months; and in all the remainder, with one exception, the attacks were of more than twelve months' or of unknown duration, including 13 congenital cases. The direct admissions were classified, according to the forms of mental disorder, into: Recent mania, 51; chronic and recurrent, 8; recent melancholia, 25; recurrent, 10; senile and secondary dementia, 16; general paralysis, 4; delusional insanity, 4; confusional insanity, 9; primary dementia, 3; insanity with epilepsy, 2; and congenital defect, 12. The small number of general paralytics and cases of epileptic insanity are favourable features of the above list. Turning to causation, alcohol was assigned in only 11, syphilis in 6, influenza also in 6, and other toxins in 4; critical periods in 51, epilepsy in 4, other bodily affections in 12, bodily trauma in 4, and mental stress in 31. An insane heredity was ascertained in 41, a neurotic heredity in 12, and of epilepsy, alcoholism, or eccentricity in 4 more, giving a total neuropathic heredity in 57, or just under 40 per cent. During the year 58 were discharged as recovered, giving a recovery-rate on the direct admissions of 40.21 per cent., or of recoveries in the direct admissions on the direct admissions of 40.17 per cent.; also 7 as relieved and 56 as not improved. During the year also 73 died, giving a death-rate on the average numbers resident of 8.62 per cent. The deaths were due in 18 to diseases of the nervous system, including 11 from general paralysis; in 9 to diseases of the heart and blood vessels; in 2 to respiratory diseases; in 10 to diseases of the digestive and genito-urinary systems, and in the remainder to general diseases, including 15 from senile decay and 11 from tuberculous diseases. Under the head of treatment Dr. Macdonald says that there was little new to mention except the successful treatment of recent and sick cases in the solaria instead of in bedrooms or dormitories. These solaria, Dr. Macdonald says, are much to be preferred to open verandahs. Lastly, the committee say that the advisability of providing a seaside convalescent home for private patients is under consideration.

### ROXBURGH, BERWICK AND SELKIRK DISTRICT ASYLUM.

THE Medical Superintendent of this asylum, Dr. J. Carlyle Johnstone, shows in his annual report for the year ended May 15th, 1910, that on May 15th, 1909, there were 316 patients in the asylum and 8 absent on probation, and that on the corresponding date this year there were 310 in the asylum and 9 absent on probation or pass, giving a decrease for the year of 5. The total cases under care during the year numbered 376 and the average number daily resident 322 2. During the year 52 were admitted, of whom 42 were first admissions, being 20 less than the admissions of the previous year. As to duration of disorder on admission, in 18 the attacks were first attacks within three and in 4 more within twelve months of admission; in 11 not-first attacks within twelve months; in 18 of more than twelve months, and 1 was a congenital case. The total admissions were classified according to the forms of mental disorder into: Mania of all kinds, 16; melancholia of all kinds, 20; senile and secondary dementia, 6; delusional insanity, 4; general paralysis and insanity, with gross brain lesion, 2 each; and congenital defect and insanity with epilepsy, 1 each. Alcohol was assigned as cause in 10, venereal disease in 1, and other toxins in 5; critical periods in 14, bodily trauma in 3, and mental stress in 13. Hereditary influences were ascertained in 18 and congenital defect in 4. During the year 23 were discharged as recovered, giving a recovery-rate on the admissions of 44.2 per cent., and 11 as relieved; also 23 died, giving a death-rate on the average numbers resident of 7.1 per cent. All deaths were from natural causes, and were due in 10 from cerebro-spinal diseases, with only 2 from general paralysis; in 1 to heart disease; in 9 to respiratory diseases, including 3 from pulmonary tuberculosis, and 6 more in whom pulmonary tuberculosis existed with other lesions; in 1 from pyonephrosis, and 2 from general diseases. Dr. Carlyle Johnstone says that pulmonary tuberculosis was found to be present in an active form in 34.7 per cent. of all deaths. As one would expect from the high recovery-rate and low death-rate mentioned above, the general health was good throughout the year.

### ASYLUMS FOR LEPERS, ROBBEN ISLAND AND EMJANYANA.

PART III of the Reports on Government-aided Hospitals and Invalid Homes, on Asylums for Lunatics and Lepers, and on Chronic Sick Hospitals[1] of the Cape of Good Hope contains a good deal of interesting matter. Robben Island, opposite Capetown, is about 2½ miles long by 1½ miles wide, and has generally about 1,000 patients, of whom rather more than one-half are cases of leprosy and the remainder inmates of Robben Island Lunatic and Leper Lunatic Asylums. The leper institutions occupy a separate area from that reserved for the use of official residents (other than leper attendants and nurses) and of the lunatics. The general report of the Commissioner, Mr. W. B. Magennis, who deals principally with such matters as water supply, tree planting and gardening, the dairies and piggeries, road-making, and recreations gives a not unpleasing picture of the life of the patients. Most of the patients keep fowls, and the eggs are purchased by the Government for use in the leper wards. Many of the coloured patients go fishing, and others are clever at woodwork. The women are fond of knitting, and make many useful articles. The gardens do well, and during 1909 some 15,500 cwt. of vegetables of all kinds were produced. The small flower gardens are very beautiful, and amply repay the care of the owners. The sexes, Mr. Magennis says, spend a great deal of time in calling on each other. "Soccer" football is very popular, and, as the patients take a great deal of interest in cricket and football matches played by the islanders against teams from the mainland, Mr. Magennis has had stands placed inside the enclosure, which is covered with turf, "and therefore soft to the feet and pleasant to the eye." The four institutions of the island—the male and female asylums, the institution for insane lepers, and the leper asylum—are all under the direction of the Senior Medical Officer, Dr. Ernest Moon, assisted by two junior medical officers. Also, at the end of last year a bacteriologist to the lepers was appointed, who is directly under the medical officer of health for the colony. It is to be hoped that good results will follow this appointment, which has long been desiderated by those interested in the work carried on at Robben Island. This appointment, however, in no way relieves the senior medical officer, who has repeatedly pointed out that the supervision of the four separate institutions dealing with two distinct classes of diseases—leprosy and insanity—and the general work and administration of the whole island are too much for any one man. We are glad, therefore, to note that the committee in the recommendations say, "and seeing that there are close on 600 lepers there, it seems to your committee desirable that they should have medical men to attend to them, apart from the other people on the island." The combined statistical tables for Robben Island and Emjanyana show that on January 1st, there were 625 patients in the former and 545 in the latter institution, and that on the last day of the year the numbers were 560 and 526 respectively. During the year 98 were admitted to Robben Island and 147 to Emjanyana. From Robben Island 92 were

[1] Reports on Government-aided Hospitals and Invalid Homes, on Asylums for Lunatics and Lepers, and on Chronic Sick Hospitals, including Report of the Inspector of Lunatic Asylums, Cape of Good Hope, for the Calendar Year 1909. Capetown: *Cape Times*, Limited 1910.

transferred and 1 escaped, whilst from Emjanyana 1 was transferred and no less than 70 escaped. Concerning these escapes, Dr. C. G. Cassidy, the medical officer in charge of Emjanyana, says that the men left in batches of from six to sixteen, armed with hatchets, knives, and kerries. The institution was visited and the patients were addressed by the Colonial Secretary, the Hon. N. F. de Waal, but in vain. The escapes have continued. The position, Dr. Cassidy says, is an absurd one. The law provides for the compulsory segregation of lepers, but makes no provision for the physical enforcement of their detention. During the year 66 lepers died at Robben Island and 83 at Emjanyani, giving percentage death-rates respectively of 10.99 and 17.0. Tuberculosis of some form appears to have been the most common cause of death. As to the special treatment of leprosy, Dr. Moon says that chaulmoogra oil, Dr. Dugue's treatment (liquid extract of red mangrove bark internally and hot baths containing some of the extract), "jagger roots," and the nastin treatment, mentioned by Professor Deycke and certain medical men in India as producing rapid improvement, were all tried without any noticeable result. A specific cure for the disease has yet to be found, but in the meantime Dr. Cassidy considers that much might be done by educating and civilizing the natives, by inducing, through the headmen and other councillors, the people to cook their food thoroughly, to eat separately and never from a common dish, and never to handle their food nor touch food that has been handled. If this be done, Dr. Cassidy prophesies that it will be the beginning of the end of leprosy in South Africa.

## CITY OF CARDIFF MENTAL HOSPITAL.

THE report for the year 1909 of Dr. Edwin Goodall, the Medical Superintendent of this asylum, shows that on January 1st, 1909, there were 684 patients on the registers and on the last day of the year 673. The total cases under care during the year numbered 873 and the average number daily resident 673. During the year 189 were admitted, of whom 181 were direct admissions. In 37 of these latter the attacks were first attacks within three and in 35 more within twelve months of admission; in 23 not-first attacks within twelve months; in 8, also within twelve months, it was unknown whether the attacks were first attacks or not, and in all the remainder the attacks were of more than twelve months' duration or were of unknown duration (40) or were congenital cases (12). Of the total cases, 46 were in good health, 64 in moderate, and 75 in bad health on admission. The direct admissions were classified as follows: Mania of all kinds, 50; melancholia of all kinds, 40; senile and secondary dementia, 23; general paralysis, 17; delusional insanity, 24; insanity with epilepsy, 7; less common forms, 8; and congenital defect, 12. As to causation, alcoholism was assigned in 39 of the direct admissions, or in 21 5 per cent., syphilis in 10, and other toxins in 2, critical periods in 13, child-bearing in 7, diseases of the nervous system in 10, other bodily affections in 5, and mental stress in 18. An insane heredity was ascertained in 24, an alcoholic heredity in 14, and of other neuropathic influences in 7, giving a combined neuropathic heredity in 45, or 24.8 per cent. During the year 64 were discharged as recovered, giving a recovery-rate on the direct admissions of 35.35 per cent., also 30 as relieved and 25 as not improved. During the year 81 died, giving a death-rate on the average number resident of 12.03 per cent. The deaths were due in 23 to nervous diseases, including 16 from general paralysis; in 15 to diseases of the heart and blood vessels; in 2 to respiratory diseases; in 3 to diseases of the digestive system; in 4 to cirrhosis of the kidneys; and in the remainder to general diseases, including 6 from dysentery, 12 from senile decay, and only 6 from pulmonary tuberculosis. All deaths were from natural causes, no serious casualty occurred and the general health was good throughout the year. In discussing the recoveries, Dr. Goodall takes occasion to point out that at a public institution like Cardiff Asylum cases have to be admitted, whether hopeless or otherwise. Therefore, if a fair comparison is to be made between the results of a county or borough asylum and such institutions as registered hospitals, where the admissions are all picked and only favourable cases need be received, the recovery-rate of county and borough asylums should be calculated in and upon the favourable cases received by these latter institutions. Calculated in this way, Dr. Goodall says, his recovery-rate for 1909 would have been 50 per cent. The point raised by Dr. Goodall is worthy of note by those interested in lunacy statistics.

## GLASGOW ROYAL INFIRMARY.

THE managers' report submitted to the annual meeting of contributors held on January 30th, showed the admissions during the year to be 8,361, an increase of 276 on the previous year; 8,311 were treated to a conclusion, of whom 862 died. The rate of mortality was 10.37 per cent., as against 11 per cent. during 1909; 349 died within forty-eight hours of admission, as against 326; mortality excluding these, 6.4 per cent., as against 7.2 per cent. The daily average number resident during 1910 was 603.8, against 594.7 during 1909, and the average residence of those treated to a conclusion 26.8 days. On December 31st 607 patients were in the house, and the largest number at one period during the year was 656. At the outdoor department 13,821 patients received treatment on the medical side and 11,641 surgical, the total attendances of these being 63,425 against a total during 1909 of 59,609. For special diseases the first attendances were 1,872 in the throat and nose department; 1,098 in the ear department; 625 eye cases; 2,748 skin cases; 1,162 dental cases; and 924 gynaecological, a total of 4,517 in addition to the general cases above noted. There were 12,159 accidents and urgent cases attended to, of whom 5,223 were admitted to hospital, and 6,936 were treated as out-patients; 464 out-patients were electrically treated in addition to 3,866 from the wards and other departments. The grand total outdoor patients was 49,824, involving 168,044 attendances, compared with 49,304, involving 155,667 attendances in 1909. The average cost of each fully-occupied bed was £74 9s. 11d., and the cost of each patient treated to a conclusion £5 9s. 1¾d.

## GLASGOW ROYAL ASYLUM.

THE annual meeting of contributors to the Glasgow Royal Asylum was held on February 16th. The report pointed out that as the foundation stone of the first Royal Asylum was laid on August 10th, 1810, the institution attained the centenary of its foundation in the year under review. Its career of actual usefulness did not begin until 1814, when patients were first admitted, and for this reason the directors decided to delay the celebration of its centenary. During the past year the medical treatment of the patients, as indicated by the number of recoveries, was satisfactory. Dr. Oswald, physician-superintendent of the asylum, spoke of the importance of the treatment of insanity in its early stages. He believed that if insanity and phthisis had not a common origin, they had origins which had very much in common. The trend of modern science and of the researches which were being made in regard to the problems of insanity was to show that many forms of insanity were due to some micro-organism or some poison which was planted on brains less robust than the brains of those who did not fall victims to the disease. Work at present was being done in Germany and in Great Britain, including Glasgow, which promised in the course of a few years to throw a very important light on the causation of mental trouble. If the public would support more strongly the research work which was being carried on, it would get a very rich return.

## GREENOCK INFIRMARY.

THE annual report of Greenock Infirmary was issued on February 8th. The admissions during the year were 1,037, as against 997 in 1909, and the deaths were 123. There was an increase of £317 in the ordinary income, but an increase of £351 in the ordinary expenditure. Legacies, or extraordinary income, were much under recent years, the amount being £273 as against £3,989, while the average for the last five years was about £1,900. The reconstruction of the fever house is now practically completed at a cost of £4,923, but the subscriptions towards the liquidation of this have not come up to expectations, only £2,754 having been received.

## HEREFORD COUNTY AND CITY LUNATIC ASYLUM.

THE annual report for the year of Dr. C. S. Morrison, the Medical Superintendent of this asylum, shows that on January 1st, 1909, there were 507 patients in the asylum, and 503 on the last day of the year. Of the total number at the end of the year, 487 were county and city cases. Also 23 were boarded out elsewhere, bringing the total number of Hereford cases to 512, as compared with 520 on the corresponding date of 1908. The total cases under care during the year numbered 593, and the average number daily resident 505. During the year 86 were admitted, of whom 77 were direct admissions. In only 23 of the direct admissions were the attacks first attacks within three and in 6 more within twelve months of admission; in 11 not-first attacks within twelve months; and in all the remainder—excluding 5 in whom either the duration was unknown, or whether it was the first attack or not was unknown—the illness was of more than twelve months' duration, including 7 congenital cases. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 22; melancholia of all kinds, 10; senile and secondary dementia, 12; delusional insanity, 8; general paralysis, 3; confusional insanity, 3; less common forms, 7; and congenital defect, 12. Concerning this classification, Dr. Morrison says that there was really a larger proportion of cases of congenital mental defect than is shown therein—that is, there were numbers of cases who, when their mental improvement had become established, were seen to belong to a congenitally defective type, and were thus higher-grade imbeciles. As to causation, alcohol was assigned in 8, acquired syphilis in 6, influenza in 7, tuberculosis in 4, specific fevers in 3, and thyroid insufficiency in no less than 32, or in 16.6 per cent. of the males and 63.4 per cent. of the females—as Dr. Morrison says, a truly remarkable proportion. Diseases of the nervous system were assigned in 9, and other bodily affections in 42; senility and puberty in none, the climacteric in only 1, bodily trauma in none, and mental stress in 9. An insane heredity was ascertained in 25, an alcoholic heredity in 5, a neurotic or epileptic heredity in 5, and congenital defect existed in 13. During the year 22 were discharged as recovered, giving a recovery-rate on the direct admissions of 28 5 per cent., or of recoveries in the direct admissions on the direct admissions of 23.3 per cent., a low recovery-rate which was to be expected of the class of admissions. Also 24 were discharged as relieved and 4 as not improved. During the year 40 died, giving a death-rate on the

average numbers resident of 7.9 per cent. The deaths were due in 3 to cerebro-spinal diseases; in 8 to diseases of the heart and blood vessels; in 5 to diseases of the urinary system, and in the remainder to general diseases, including 5 from pneumonia and 6 from tuberculous diseases. Except for an outbreak of typhoid fever affecting 2 male patients and 2 of the staff, and epidemic diarrhoea, of which there were 26 cases among the patients, the general health was good.

### DEWSBURY GENERAL INFIRMARY.

THE report of this institution shows that the financial position at the end of 1910 was better than at the beginning of that year. At the latter period there was a balance due to the bank of £308 14s., whereas at the end of the year there was a balance in hand of £126 18s. 9d. Pleasure was expressed that the board had been able to secure the services of Mr. Moynihan, of Leeds, as honorary consulting surgeon.

### ST. MARK'S HOSPITAL, LONDON, E.C.

THE report presented to the annual general meeting of St. Mark's Hospital, over which the Lord Mayor presided, referred to the additional accommodation of the nursing staff, and the erection of an outside fire escape staircase. The hospital had been in the hands of the builders and closed for four months. The number of in-patients had been 390, as compared with 598 in 1909; the number of out-patients was 1,936, as compared with 1,812. Mr. Swinford Edwards, senior surgeon, in acknowledging a vote of thanks to the medical officers, said that great credit was due to the resident medical officer and the nurses.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £150 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

BATH ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BINGLEY: ELDWICK SANATORIUM.—Resident Medical Officer (female). Salary, £75 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary commencing at £120 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-Surgeon. Salary at the rate of £80 per annum.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician; (2) Assistant House-Physician; (3) Casualty House-Surgeon. Salary, £60.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £100 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, increasing to £90 after six months.

CAMBRIDGE: COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £140 per annum, increasing to £170.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Resident House-Surgeon. Salary, £50 per annum.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, increasing to £100 on becoming Senior Medical Officer.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary at the rate of £90 per annum for first six months, and £100 per annum afterwards.

CREWE BOROUGH.—Medical Officer of Health. Salary, £350 per annum, rising to £450, with £50 extra for conducting medical inspection of school children.

CROYDON GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DORCHESTER ASYLUM.—Assistant Medical Officer. Salary commencing at £190 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) Medical Officer (male) to Casualty Department; (2) Officer for Electrical Department. Salary at the rate of £100 and £75 per annum respectively.

FIFE COUNTY.—Medical Officer.

GLASGOW: LIGHTBURN JOINT HOSPITAL FOR INFECTIOUS DISEASES, Shettleston.—Resident Physician. Salary commencing £150 per annum.

GUY'S HOSPITAL, S.E.—Gull Studentship. Annual value, £150.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HOLBORN UNION WORKHOUSE.—Medical Officer. Salary, £200 per annum and certain fees.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £85 per annum.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

LIVERPOOL STANLEY HOSPITAL.—Two Junior House-Surgeons. Salary, £70 and £60 per annum respectively.

LONDON FEVER HOSPITAL, Islington, N.—Assistant Physician.

MANCHESTER ROYAL INFIRMARY.—Director of the Cancer Research Laboratory. Salary, £300 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Male Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM: GENERAL DISPENSARY (BRANCH).—(1) Resident Surgeon; (2) Assistant. Salary, £180 and £160 respectively.

OUGHTERARD UNION.—Medical Officer for the Lettermore Dispensary District. Salary, £130 per annum, rising to £160.

PRINCE OF WALES'S HOSPITAL, Tottenham, N.—(1) Honorary Physician to the X-Ray and Electrical Department. (2) Senior House-Physician. (3) Junior House-Surgeon. (4) Junior House-Physician. Salary for (2), £75; and for (3) and (4), £50 per annum.

READING: ROYAL BERKS HOSPITAL.—House-Surgeon. Salary, £60 per annum.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners each in Anatomy and Physiology for the Fellowship. Two Examiners in Elementary Biology for the First Examination. Three Examiners in Anatomy and Two in Physiology for Second Examination. Four Examiners in Midwifery for Third Examination. One Examiner each for Parts I and II of the Examination in Public Health.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Morning House Anaesthetist. Honorarium. £25 per annum.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Surgeon.

ST. HELENS COUNTY BOROUGH.—Assistant Medical Officer of Health.—Salary, £250 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—House-Surgeon. Salary, £60 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUTHERLAND COUNTY.—Medical Officer of Health and School Medical Officer. Salary for combined offices, £350 per annum and £100 for expenses.

SWANSEA COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon. Salary, £120 per annum.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Carnarvon, co. Carnarvon; Witney, co. Oxford; and Arbroath, co. Forfar.

## APPOINTMENTS.

BALY, A. L., M.R.C.S., L.R.C.P.Lond., Medical Superintendent of Lambeth Union Infirmary.

BOVEY, T. W. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Tiverton Union.

BROWN, Ralph, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Physician to Bethlem Royal Hospital.

CATHCART, S. E., M.R.C.S., L.R.C.P.Lond., First Resident Assistant Medical Officer of the Edmonton Union Infirmary.

CROFTS, A. D., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Windsor District, co. Berks.

HERRING, J. F., L.R.C.P. and S.Edin., D.P.H.Camb., Certifying Factory Surgeon for the Atherstone District, co. Warwick.

HIRST, W., L.R.C.P. and S.Edin., District Medical Officer of the Goole Union.

LEACH, R. E. H., M.D.Oxon., Medical Officer of Health of the Bungay Urban District.

MORRIS, A., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Warwick Union and Medical Officer of the Scattered Homes.

PETTEY, T., F.R.C.S.Eng., Assistant Medical Officer, Princess Alice Hospital, Eastbourne.

TRUBSHAW, K. V., M.B., B.S.Lond., Certifying Factory Surgeon for the Mold District, co. Flint.

WOOD, W. L. R., M.R.C.S., L.R.C.P., District Medical Officer of the Dewsbury Union.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, 8.30 p.m.—Papers:—Dr. F. S. Palmer: Traumatic Neurosis and Psychoses and their Medico-Legal Considerations. Dr. Parkes Weber: A Case of Late Hodgkin's Disease, with remarks on various cases presenting the clinical picture of Splenic Anaemia (Banti's Disease). Dr. C. W. Chapman: Notes on a Case of Pigmentary Syphilide in a Patient with Heart Disease.

### TUESDAY.

ROYAL SANITARY INSTITUTE, 90, Buckingham Palace Road, S.W.—Discussion on Dirt in Food, to be opened by Miss E. L. Dove, M.B.

ROYAL SOCIETY OF MEDICINE:
THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Papers:—(1) Professor W. E. Dixon, F.R.S.: Section and Stimulation of the Bundle of His. (2) Dr. J. Gordon Sharp: Ergot from the Therapeutical Side.

### WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., at 8.30 p.m.—Annual Discussion on Colitis will be opened by Dr. Newton Pitt, followed by Dr. Sandwith on the Relation of Dysentery to Colitis, and Mr. Lockhart Mummery on the Varieties of Colitis and their Diagnosis by Sigmoidoscopic Examination.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lecture: Tuesday, 3.45 p.m., Anaesthetics.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Paralytic Deformities, Infantile and Spastic Paralyses.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical. Lectures at 5.15 p.m. each day will be given as follow: Monday, The Treatment of Pneumonia; Tuesday, The Treatment of Chronic Jaundice; Wednesday, The Rationale of Clothing; Thursday, Disturbances of Ocular Movements in Diseases of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration of Cases of the Infectious Fevers (at the North-Eastern Fever Hospital, St. Ann's Road, N.). Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* rays.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, Operations at 2 p.m. daily. Monday, Gynaecology, 10 a.m. Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. MACMILLAN announce the publication of a book entitled *Man and Beast in Eastern Ethiopia*, by J. Bland-Sutton, F.R.C.S.

Messrs. J. and A. Churchill announce the publication of a *Textbook of Diseases of the Skin*, by Dr. J. H. Sequeira, Lecturer and Physician to the Skin Department at the London Hospital The volume is illustrated with 44 plates reproduced direct from colour photographs, and 179 illustrations in the text.

Messrs. Baillière, Tindall and Cox announce that the new edition of Green's *Pathology* will be ready for publication by the end of the month. The work has again been revised by Dr. Bosanquet, much new material added, and rearrangement of subjects made. Its format has also been modified for inclusion in the "University Series of Manuals."

## RECENT PUBLICATIONS.

*The Mother Books—1. Children: A Märchen.* By Hugo Salus. 1910. London. Imperial 32mo, pp. 24. Post free 1s. 1d., from A. C. Caton, 22, Mount Carmel Chambers, Kensington.

A translation of a pamphlet by an Austrian doctor, who describes how he would, if married, reveal to his children the secret of their birth. He tells them the truth in the guise of a cleverly devised and prettily worded fairy story which many parents might like to peruse for themselves.

*The Essentials of Materia Medica and Therapeutics for Nurses.* By John Foote, M.D. Philadelphia and London: J. B. Lippincott Company. 1910. (Cr. 8vo, pp. 194; price 4s. 6d. net.)

The author, who is an assistant professor of therapeutics at the University School of Medicine, Georgetown, and an instructor at the Providence Hospital Training School for Nurses, gives a clear account of the pharmacology and therapeutics of the more important drugs and medicines, and a summary of the more commonly used drugs. A well devised book of its kind.

*Hygiene and Comfort in Infants' Clothing.* By Elia Renaud. 1911. Newcastle-on-Tyne: Mann Bros., Printers, Darn Crook. (Cr. 8vo, pp. 31; price 1s. net.)

The authoress, who is superintendent of midwives at Newcastle and lecturer to the Education Committee on home nursing and allied subjects, describes how babies should be clothed, and gives illustrated descriptions of the way to cut out and make up each garment. The publication of the book is due to her observation of the way in which infants are commonly clad. The soundness of her teaching on this subject is vouched for by printed statements by a number of leading medical men in Newcastle.

*The Social Guide.* 1911. Edited by Mrs. Hugh Adams and Edith A. Browne. London: Thomas Charles Black. (Cr. 8vo, pp. 252; price 2s. 6d.)

A calendar recording the dates of principal social events in view, and descriptions under alphabetic headings of various official and unofficial functions of a social or sporting kind, the dress worn thereat, and the fashion in which invitations are issued or admission otherwise secured. The absence of an index makes it difficult to be certain whether some apparent omissions are real.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **APRIL.** | |
| 8 SATURDAY .. | LONDON: Therapeutic Committee, 10 a.m.<br>LONDON: Science Committee, 12 noon. |
| 9 Sunday .. | |
| 10 MONDAY .. | LONDON: Colonial Committee, 2.30 p.m.<br>LONDON: Naval and Military Committee, 3.30 p.m. |
| 11 TUESDAY .. | LONDON: Public Health Committee, 3 p.m. |
| 12 WEDNESDAY | LONDON: Premises Committee, 3 p.m.<br>LONDON: Special Poor Law Reform Committee.<br>LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Onward Buildings, Deansgate, Manchester, 4.30 p.m.<br>SOUTH WALES AND MONMOUTHSHIRE BRANCH, Spring Meeting, Abergavenny. |
| 13 THURSDAY.. | FIFE BRANCH, Hotel, Thornton, 3 p.m. |
| 14 FRIDAY .. | |
| 15 SATURDAY .. | |

| Date. | Meetings to be Held. |
|---|---|
| **APRIL** *(continued).* | |
| 16 Sunday .. | |
| 17 MONDAY .. | |
| 18 TUESDAY .. | |
| 19 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 4.45 p.m. |
| 20 THURSDAY.. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m.<br>EAST ANGLIAN BRANCH, Spring Meeting, Framlingham, Suffolk. |
| 21 FRIDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with the Æsculapian Society, Metropolitan Hospital, Kingsland Road, 4 p.m. |
| 22 SATURDAY .. | |
| 23 Sunday .. | |
| 24 MONDAY .. | |
| 25 TUESDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 15TH, 1911.

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## SEVENTY-NINTH ANNUAL MEETING
OF THE
# British Medical Association
## BIRMINGHAM, JULY, 1911.

WE have already (December 10th, 1910) published some account of the city and institutions of Birmingham, where the Annual Meeting of the British Medical Association is to be held next July.

The Annual Representative Meeting will commence on Friday, July 21st, and the business will be continued on the following day, and on Monday, July 24th, and Tuesday, July 25th.

The President-elect, Dr. Robert Saundby, LL.D., F.R.C.P. Professor of Medicine in the University of Birmingham, and Physician to the Birmingham General Hospital, will deliver his presidential address in the great hall of the University (a striking picture of which illustrated the article published last December) on Tuesday evening, July 25th, and the meetings of the sections will take place on the following Wednesday, Thursday, and Friday. On this occasion it has been arranged to hold sixteen sections, which will, we believe, all or nearly all be accommodated in Mason College, the old building of the University. It stands immediately behind the Town Hall, which will be used as a reception room, as in 1890. The Address in Medicine, by Dr. Byrom Bramwell of Edinburgh, and that in Surgery, by Professor Jordan Lloyd, Surgeon to the Queen's Hospital, Birmingham, will be delivered in the theatre of the Midland Institute, which adjoins the Town Hall.

The Exhibition annually held in connexion with the Annual Meeting will be arranged this year in the Bingley Hall, a building which affords ample space, and is situated within a few minutes' walk from the Town Hall. It will contain three sections: (*a*) Medical and surgical instruments including books, charts, etc.; (*b*) foods, drugs; (*c*) sanitary and ambulance appliances, and articles of special interest to the medical profession. The applications for space already received make it certain that the Exhibition will be on a large scale and have a representative character.

Stratford-on-Avon.

There is probably no city in the United Kingdom where loyalty to the Association is more steadfast, and where the membership is more numerous and enthusiastic. The Annual Meeting was held in

Birmingham for the first time in 1834, when Dr. John Johnstone, F.R.S., was President, and it was next held in Birmingham in 1856, when Dr. James Johnstone was President. It met in Birmingham again in 1872, when Mr. Alfred Baker, F.R.C.S., was President, and once more in 1890, when Sir Willoughby F. Wade was President. At the meeting in 1834 Dr. John Conolly gave the chief address, then called the General Retrospective Address. In 1872 the Address in Medicine was given by Dr. (now Sir) Samuel Wilks, F.R.S., and the Address in Surgery by Mr. Oliver Pemberton, well known in that day as a leading surgeon in Birmingham. In 1890 the Address in Medicine was given by Sir Walter Foster, now Lord Ilkeston, and the Address in Surgery by Mr. Lawson Tait.

The medical school of Birmingham was founded by Mr. Sands Cox in 1828, and William IV gave it the title of the Birmingham Royal School of Medicine and Surgery. It was connected with the Queen's Hospital, and in 1843 it received a royal charter and became the Queen's College. In 1868 it was amalgamated with Sydenham College, which had arisen in connexion with the General Hospital. When the Mason Science College was opened, arrangements were made by which the students of Queen's College attended the classes of the professors of chemistry, physiology, and botany, and in 1892 the school of medicine separated from Queen's College and became the Queen's Faculty of Medicine of Mason College. When the University of Birmingham was incorporated in 1901, this faculty became the Medical Faculty of that University.

York Walk, Leamington Spa.

Although Birmingham is known best, and most properly, as the chief city of a busy manufacturing district, it should not be forgotten that the "Black Country" lies mainly, if not exclusively, on the north-west quadrant of a circle of which Birmingham may be supposed to occupy the centre, and that, while there is an almost unbroken series of towns and townlets stretching from Birmingham through the coal and iron districts of the Black Country to Wolverhampton, and on by Stafford to the Five Towns (Tunstall, Burslem, Hanley, Newcastle, and Stoke) of the Potteries (now combined into the county borough of Stoke-on-Trent) in the north-west of the county of Stafford, yet on the other three-fourths of the circle unspoiled country may be reached readily. Nowhere in England is there English landscape to be seen more characteristic in its beauty than among the wooded hills of Warwickshire and the leafy lanes of Worcestershire. If there are no mountains, neither is there any monotonous level plain; and, while water on a large scale may be absent, all admit the quiet charm of the historic Avon and the noble Severn. Nor must it be supposed that all Staffordshire has been sacrificed to the Moloch of modern industrialism, or that it presents only a vista of tall chimneys and pit mounds overhung by smoke. East and west of the central north-west trending strip lie large tracts of rural country. West of Wolverhampton is the old Forest of Brewood, where lies Boscobel with the Royal Oak; while east of Lichfield the country is open and agricultural. The county contains not only many private parks, the seats of noblemen and gentlemen, and many heaths, but the great primaeval waste of Cannock Chase, 30,000 acres in extent, where blackcock and deer may still occasionally be found. These are not places to which excursions can be planned, as there are no means for providing for large numbers; but those members who propose to bring motor cars to the meeting, for which garage accommodation is being arranged, might do worse than visit Boscobel and Tong, crossing into Shropshire, go by Shifnal to Buildas Abbey, Much Wenlock, and Bridgnorth, or, going by Sutton Coldfield to Lichfield, run on by Rugeley and Uttoxeter to Alton Towers or Ashbourne.

Lichfield, the ancient residence of many Mercian kings, and still the seat of a bishopric, has the charm of a quiet old Midland town, while its cathedral, its many quaint seventeenth century houses, and its association with the memories of Johnson and Garrick, will repay a visit. An invitation has been received from the local profession to a party not exceeding 150 to visit the city on the Wednesday afternoon of the Annual Meeting, when there will be an opportunity to attend the cathedral service and to see Dr. Johnson's house and other places of interest; afterwards the party will be received by the Mayor, be entertained at tea, and will return to Birmingham in time for dinner.

Warwickshire contains so much of interest that every afternoon in the week might be devoted to the exploration of places of historical or architectural interest within easy distance of Birmingham; but Coventry, Kenilworth, Warwick, Leamington, and Stratford should not be missed by those who have not already made their acquaintance. An invitation has been given for a party not exceeding 300 to visit Coventry on the Friday afternoon, when tea will be provided by Colonel Wyley, and the visitors will be shown some of the architectural beauties of the old city including the magnificent Church of St. Michael and All Angels, the splendid mediaeval St. Mary's Hall, now the centre of civic life, where are exhibited the muniments of the Corporation, and the charming old black and white buildings of Ford's Almshouses.

Among the excursions planned for Saturday are one to Leamington and Warwick, limited to 300, which may be made to include Kenilworth, and another to Stratford-on-Avon, limited to 150 with tea for those (limited to 50) who will prolong their journey in the afternoon, to Broadway, the beautiful Worcestershire village dear to artistic souls.

The county of Worcester, second to none in natural beauty or in places of historical interest, will shortly give up part of its area to be incorporated in Greater Birmingham, large residential suburbs having during the last generation stretched for some miles in this south-westerly direction. By the generosity of Messrs. Cadbury a large party will be received on Wednesday afternoon at the model village of Bournville, the visitors will be conducted over the works and entertained to tea. Invitations have also been accepted for the same afternoon to visit the interesting gauze and

Lichfield Cathedral.

Worcester Cathedral.

Warwick Castle, from the Bridge.

Kenilworth Castle.

bandage factory of Messrs. Southall and the motor works of the Wolseley Company.

An excursion to Droitwich has been planned in response to an invitation of the Corbet Trustees and the local medical profession, for Saturday, the number not to exceed 200, when liberal entertainment will be provided, and the baths and provision for invalids visiting this famous watering place will also be shown and explained. Arrangements have been made with the local hotels to permit members who wish to remain in Droitwich until the Monday to do so at reduced rates.

On the same day a party not exceeding fifty will be entertained to luncheon at Malvern, and be taken for a motor drive in its beautiful environs. In the afternoon the party will go to Worcester to see the cathedral and take tea with the local medical profession.

Another excursion, limited to fifty, will be to Hereford and Ross, the Wye, and Chepstow.

On the Thursday afternoon there will be a reception at the new university, when honorary degrees will be conferred on some of the distinguished visitors. An opportunity will be afforded for members to see the whole of the buildings, together with the modern laboratories and equipment.

By the kindness of the managing director, an exhibition of scientific and other films will be given to members at the Birmingham "Picture House" on the Friday afternoon.

Many private garden parties will also be held for the benefit of those members who are not otherwise engaged in the afternoons.

The plans for the evenings are: On Tuesday, the reception of delegated and foreign guests, followed by the President's address in the great hall of the new University at Bournebrook; on Wednesday, a reception by the Lord Mayor of Birmingham at the Council House and Art Gallery; on Thursday the Annual Dinner and a dramatic performance at the Theatre Royal for ladies and those members unable to go to the dinner; on Friday a garden fête given at the Botanical Gardens by the Local Organization Committee; the gardens will be illuminated and there will be a display of fireworks.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## BIRMINGHAM BRANCH:

### CENTRAL DIVISION.

GENERAL and special meetings of the Division were held at the Institute on Wednesday, March 22nd, at 3.30 p.m. Mr. MARSH was in the chair, and seventy-two members were present.

*General Meeting.*

*Apologies for Non-attendance.*—Apologies for non-attendance were received from Drs. Robertson and George Bryce, Mr. Priestley Smith, and Professor Barling. As 100 members, the necessary quorum to render the special resolutions effective, were not present, the ordinary business was taken first.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, confirmed, and signed.

*Certification of Children Unfit to Attend School.*—Dr. AUDEN, the Medical Officer to the Education Committee, called attention to the arrangement arrived at by his committee and the Division as to the certification of children unfit to attend school, and pointed out the advantages that would be gained by the universal adoption of the system locally. Several other members also spoke on the subject.

*Ophthalmia Neonatorum Report.*—The Executive Committee, to which the report had been referred back for further consideration, brought forward the following resolutions, which were adopted:

*Introduction:* That Clauses 1, 2, 3, and 4 be agreed to.

To next section to prefix: That this Division is in favour of all cases of ophthalmia neonatorum being compulsorily notifiable under the powers of the Infectious Disease (Notification) Act, 1889.

A 5 (*a*) and (*b*): That these clauses be agreed to.

A 6: That this clause be approved.

A 7: To amend as follows: After the word "sanitary" insert "or other," and to omit all words after "Authority."

Clauses B 8, C 9 and (*d*) 10: That these be all deleted.

*Special Meeting.*

The CHAIRMAN then declared the meeting special, and various matters relating to sick societies were discussed.

*Organization of Medical Attendance on the Provident Principle.*—It was decided to consider and instruct the Representative with regard to the report on the organization of medical attendance on the provident or insurance principle at a general meeting of the Division on Wednesday, April 5th.

## EDINBURGH BRANCH:

### COMBINED MEETINGS OF EDINBURGH DIVISIONS.

*State Sickness and Invalidity Insurance.*—Combined meetings of the three Edinburgh Divisions were held at Dowell's Rooms, Edinburgh, on Thursday, March 16th, and the two following Thursdays, to discuss the questions submitted to the Divisions concerning State insurance for sickness and invalidity. All members of the profession in the district, whether members of the Association or not, were invited to be present and to join in the discussion. The chair was occupied by Dr. JAMES RITCHIE. The questions submitted were discussed seriatim and answers given, and the respective Secretaries were instructed to send in replies to the Medical Secretary.

## METROPOLITAN COUNTIES BRANCH:

### TOTTENHAM DIVISION.

AN extraordinary meeting of the Division was held on March 31st at the Hornsey Conservative Association's Rooms, Finsbury Park. Dr. GREENWOOD was in the chair, and twelve members were present.

*Organization of Medical Attendance on the Provident Principle.*—After consideration and discussion, the Division's replies to twenty-nine of the questions appended to the Association's report on the provision of medical attendance on an insurance basis, as published in the SUPPLEMENT of March 4th, were formulated. Replies to the remaining four questions were agreed upon at an adjourned meeting held by kind invitation on April 7th at Dr. Greenwood's house. Dr. J. R. Fuller, the Division's Representative, received instructions to represent the Division's opinion at the Special Representative Meeting to be held at the end of April. The proceedings then terminated.

## NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

### FURNESS DIVISION.

A MEETING of this Division was held in Barrow on March 30th at 3.15 p.m. Notices had been sent to 42 members and 18 non-members; 14 members and 4 non-members attended. Dr. RUTHERFORD (Chairman) presided, and there were present Drs. Daniel, Callaghan, Wilson, Thompson, Forster, Johnston, Sansom, Alexander, Settle, Williams, Reed, Harper, and Livingston. Drs. Howit, Robinson, Mallagh, and Todd attended as visitors.

*Organization of Medical Attendance on the Provident Principle.*

Dr. RUTHERFORD, in introducing this subject, drew attention to the leading points in the report. He emphasized the difficulty there would be in interfering with present arrangements without rearranging the whole existing machinery of hospital management. The State and local authorities might take over the hospitals.

Dr. DANIEL (Representative) said he was there to take instructions. He had read the report over several times, and the more he read it the more complicated the whole affair seemed. He did not expect much consideration for the profession in any scheme

managed by the Government. The medical profession could not run a scheme of their own, as they had not the time. Payment per attendance, though attractive, was impracticable, and payment per head difficult on account of want of data from which to fix a sum. He did not think they should set feverishly to work to reform themselves, but should wait.

It was then decided to allow fifteen minutes for general discussion and devote the rest of the time to answering questions on D 15.

Dr. CALLAGHAN thought every individual should be entitled to the services of any doctor he wished, and the State should pay the bills.

Dr. MALLAGH found it difficult to understand the report. He thought the profession had to deal with a change which would come sooner or later. The best they could do would be to accommodate themselves to changing circumstances. Whether they intended to "wait and see" or take a more active part, each should be doing something.

Dr. JOHNSTON thought it would be difficult to devise a workable scheme, as men practised under such varying conditions. Personally, he wanted no change; and he failed to see how any Government could force him and his patients to adopt any plan which would alter their relations to each other.

The HONORARY SECRETARY thought it was difficult to decide whether they were likely to have to deal with a change, or whether there was a good deal of "bluff." In any case, if the profession were known to be united and determined no Government would bring in a scheme which would be unpopular; whereas, if the Government thought they were not united, or that, as a body, they were indifferent, they might find themselves, when it was too late to alter it, compelled to accept terms which would be anything but agreeable.

After several others had spoken, Dr. RUTHERFORD, in concluding the discussion, said he believed the Association was acting on this occasion in order, if possible, to prevent the profession being taken unawares, as happened when the Midwives Bill became law.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 26th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,

*Financial Secretary and Business Manager.*

March 23rd, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in Sherborne, Dorset, on Wednesday, May 17th, 1911. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the undersigned on or before Wednesday, May 3rd next.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

EAST ANGLIAN BRANCH.—The spring meeting of the East Anglian Branch will be held at Framlingham, Suffolk, on Thursday, April 20th. Members wishing to read papers or show specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, General Secretary, East Anglian Branch.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 19th, at 4.45 p.m. Further particulars will be given in future notice.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual general meeting of this Division will be held on Thursday, May 4th, at 4 p.m., at Bethlem Royal Hospital. There will be a demonstration of cases in the hospital.

NORTH WALES BRANCH.—A meeting of the Branch will be held at the George Hotel, Criccieth, on Tuesday, April 18th, at 2.45 p.m. Luncheon at 2 p.m.; tickets, 3s. 6d. Agenda.—To read the Minutes of the last meeting. To read Correspondence. To receive the Report of the Branch Council. To read the Financial Statement for 1910. The following papers will be read.—Dr. Price Morris: A Peculiar Case. Dr. J. Lloyd Roberts (Liverpool): Early Signs of Mediastinal Tumours. Mr. J. Howell Evans: (1) Important Points in the Treatment of (Acute) Haemorrhoids. (2) Foreign Body causing a Tumour Simulating Malignancy (with specimen). Dr. J. E. Gemmell: Subperitoneal Fibroid which had undergone Complete Calcification. Mr. H. E. Jones: Recent methods of Removing Enlarged Tonsils, and will show a new Tonsil Guillotine. Dr. J. Hill Abram: A Case of Pneumonia. The Branch Council will meet after the meeting.—H. JONES ROBERTS, Honorary Secretary, Penygroes, S.O.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of the Folkestone Division will be held at the Hotel Wampach, Folkestone, on Tuesday, April 25th, at 8.30 p.m. Agenda: Minutes. To consider Report on Medical Attendance on the Provident or Insurance Basis in connexion with Poor Law Reform, or other possible development (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 4th). Other business. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, M.D., Honorary Secretary, Folkestone.

## WANDSWORTH SCHOOL TREATMENT CENTRE.

THE following rules have been drawn up for the government of the Centre formed for the treatment of school children resident in the Wandsworth L.C.C. electoral area (exclusive of Streatham Ward) found on medical inspection to be defective, under the scheme approved by the Board of Education.

RULES.

1. The conduct of the Treatment Centre shall be in the hands of the House Committee acting on behalf of the members generally of the Medical Profession residing and practising within the L.C.C. Electoral Area of Wandsworth (exclusive of the Streatham Ward).

2. The House Committee shall be formed of five local medical men, not being members of the Staff of the Centre, resident and practising within the area controlled by the Centre, together with the Chairman of the Wandsworth Division of the British Medical Association and the Chairman of the Staff Committee as *ex officio* members. The Committee will elect its own Chairman, Honorary Secretary, and Honorary Treasurer. The five local medical men will be elected by the medical men resident and practising within the area of the Centre, as above, annually in December, by nomination and voting through the post.

3. Medical men desiring to visit the Centre are requested to send in their cards to the member of the staff on duty, and to sign the visitors' book. The accredited representative of the London County Council is entitled to inspect the Centre while treatment is being given.

4. The Centre will be open at 2 p.m. on those days on which the staff attend. Children should attend not later than 2.15 p.m.

Eye cases will be seen on Monday, Wednesday, and Friday; Ear, Nose, and Throat cases on Tuesday and Thursday.

*House Committee.*

5. Ordinary meetings of the House Committee shall be held on the last Friday in each month at 3.45 p.m. Three members will form a quorum.

6. A Special Meeting of the Committee shall be called by the Secretary on the requisition of three members, seven days' notice to be given, or at any time at the discretion of the Chairman.

At such Special Meeting only the business for which the meeting has been called shall be dealt with.

7. The House Committee shall have power to call a General Meeting of the local Medical Profession, at not less than seven days' notice.

On the receipt by the Honorary Secretary of a requisition signed by not less than fifteen Medical Men residing and practising within the area served by the Centre, or from the Executive Committee of the Wandsworth Division of the British Medical Association, the House Committee shall, within fourteen days and giving seven days' notice, call a General Meeting of the profession residing and practising within that area. Provided always that the cost of calling and holding such meeting has been previously guaranteed.

8 Each member of the House Committee shall, in rotation, be appointed to take the duty of visiting the Centre for a period of one month.

9. At each ordinary meeting of the House Committee a financial statement shall be presented by the Honorary Treasurer.

*Staff Rules.*

10. The Staff will be elected after the following procedure:

(*a*) The whole of the Medical Profession resident and practising within the area provided for will be circularized annually. They will be asked to apply, if they desire to be appointed, by a certain date, and to state on the form of application their experience, qualifications, etc.

(*b*) If an insufficient number of suitable applications are received, applications will be asked for from all registered Medical Practitioners resident and practising in such other districts as the House Committee shall determine.

(*c*) If only sufficient suitable applications are received, the applicants will be appointed for one year.

(*d*) If more than sufficient suitable applications are received, a special selection committee will be formed by the House Committee of the Treatment Centre of medical men, not resident in the electoral area, to select the Staff.

(*e*) The final selection will rest with the Medical Officer for the time being of the Education Department of the London County Council.

(*f*) The Staff will retire annually, but can apply for re-election. If more than sufficient applications are received in the second and following years, those who have not already held the post will be elected, if suitable, in preference to previous holders of the posts.

The Staff will form a committee and elect their own Chairman or representative on the House Committee, and, if necessary, their Honorary Secretary.

11. The members of the Staff will arrange among themselves for continuation of the work during temporary absence.

12. Members of the Staff will sign the Attendance Book on arrival, and in any case shall not leave earlier than 3 p.m.

13. A register shall be kept of the children attending the Centre, and a separate register of operation cases.

14. Each member of the Staff will be expected to devote from two to three hours to his department when on duty. He will be expected to see each day, on an average, eight new cases in addition to those he has told to come for further treatment.

15. The member of the Staff advising an operation must give to the parent or guardian of the child a consent form provided for the purpose, and see that it is returned to him, duly signed, before undertaking any operative measures. These forms must be filed for reference. He will also give to the parent or guardian a printed instruction as to the proper preparation of the child for operation and for its after-treatment. He shall not operate before he has satisfied himself that the instructions have been carried out.

16. No child is to be removed from the Centre without the permission of that member of the Staff who has operated.

17. No operation shall be performed which is incompatible with the safe removal home of the patient before the closing of the Centre, or which is likely to require after-treatment by a medical man within seven days.

18. The Anaesthetist shall examine the child's heart and lungs before administering the anaesthetic.

19. Cases considered to be outside the scope of the Centre treatment shall be referred direct to a suitable Hospital with a recommendation for treatment, and the fact reported to the Special School Officer with particulars.

20. If the Medical Officer considers that the case is one in which the circumstances of the parent or guardian do not warrant its treatment at the Centre, he shall report the case to the House Committee.

21. If home treatment is required, the parent must be instructed to seek medical advice.

22. A Nurse will be provided by the London County Council. She will act under the instruction and supervision of the Medical Officer in charge of the patient. The Nurse will attend at 1 p.m. on operation days, and at 1.30 p.m. on other days, and remain until the work is finished. She shall also be responsible for the care of the voucher cards and other forms, and for the clerical work connected with them.

23. An Optician will be appointed to the Centre. He will send a representative to attend on "eye" days in order to measure and take orders for the glasses ordered. Spectacles will not be given free. The Staff will mark on the prescription card the price to be charged. The children should be brought back for inspection after the glasses have been received.

24. All suggestions and complaints by the Staff shall be reported to the Honorary Secretary of the House Committee.

*Care Committees and the Centre.*

25. The following is the procedure by which the child will reach the Treatment Centre and obtain attention there:

(*a*) After medical inspection the parent, if the child is found defective, will be given a card on which will be printed a statement in general terms of the defect discovered, as also the following: "You are strongly urged to seek proper medical advice." The School Medical Officer is not authorized or entitled to give any such advice, nor to recommend any doctor or institution.

(*b*) If the child is taken to a doctor he will treat the defect, if the parent or guardian can pay the usual fee for the necessary treatment, and he will fill in on the card referred to in (*a*) above that he is attending to the child. The parent will be required to return the card to the Head Teacher of the child's department for the information of the Care Committee.

(*c*) If the parent states to the Head Teacher that he cannot afford the usual fee, or if the Care Committee has not received within a specified time the card indicating that the child is under treatment (*b*), then the Care Committee will take the necessary steps to satisfy itself as to whether the circumstances of the parents prevent them from paying the fees of private medical practitioners.

(*d*) These necessary steps would be by enquiry made at the home of the child or (and) by requiring the attendance of the parent before the Care Committee.

(*e*) If satisfied that the parent can afford the fees of private medical practitioners the Care Committee will inform the Education Department accordingly, when the necessary steps would be taken to compel the parent to obtain the necessary medical attention.

(*f*) If satisfied that the parent cannot afford the fees of private medical practitioners, the Care Committee will issue to the parent a card authorizing him to take the child to the Treatment Centre for treatment, and will advise him of the day and hour of attendance after the Special School Officer has made the necessary arrrangements with the Staff. The Care Committee, at the same time, will determine what charge (if any)

it will recommend the London County Council should be made on the parent for the necessary treatment.

(*g*) The Care Committee will send to the Centre a list of children who have been instructed to attend at the Centre. A list of names of those who have failed to attend as instructed will be sent by the Staff to the Care Committee.

(*h*) On receiving the report from the Staff that the instructions have been ignored by the parent the Care Committee will take such steps as may appear necessary.

(*i*) The House Committee and the Staff reserve to themselves the right to refuse to attend to children whose circumstances in their opinion do not warrant them being treated at the Centre. The House Committee will report these circumstances to the Care Committee concerned.

(*j*) The members of the Staff of the Centre will fulfil the obligation in (*b*) above, and the House Committee will report to the London County Council periodically full details as to those children that have come under treatment.

*Procedure as to Voucher Cards.*

Each child sent to the Centre by the Council will present a voucher card—green for eye cases, blue for ear, nose, and throat cases, and red for ringworm cases. This card will be perforated in the centre. The top half will form the voucher upon which the capitation grant will be paid by the Council, and should be returned with the quarterly account. The lower portion, filled in, should be returned to the Council as soon as possible after the child ceases attendance at the Centre.

# Naval and Military Appointments

## ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

*The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.*

A CAPTAIN, R.A.M.C., due for abroad in December, wishes to exchange to remain at home.—State terms for exchange to Box No. 1792, BRITISH MEDICAL JOURNAL, 429, Strand, W.C.

## ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL WILLIAM DICK, M.B., is placed on retired pay, April 6th. He was appointed Surgeon, February 4th, 1882; Surgeon-Major, February 4th, 1894; and Lieutenant-Colonel, February 4th, 1902. He was with the Nile Expedition in 1884–5, and was present at the action of Abu Klea, receiving a medal with two clasps and the Khedive's bronze star.

Major A. O. B. WROUGHTON is placed temporarily on the Half-pay List on account of ill-health, March 20th. His commissions are dated: Lieutenant, January 28th, 1899; Captain, January 28th, 1902; and Major, October 28th, 1910. He served in the South African war in 1899–1902, and was present at the relief of Ladysmith, at the actions at Colenso, Vaal Kranz, the Tugela Heights, and Pieters Hill, and in subsequent operations in Natal (action at Laing's Nek) and the Transvaal; he has the Queen's medal with six clasps and the King's medal with two clasps.

Captain E. G. FORD, M.B., retires, receiving a gratuity, April 8th. His first appointment bears date April 25th, 1900; that of Captain, April 5th, 1903. He was in the South African war in 1900–2, and took part in operations in the Orange River Colony, the Transvaal, and again in the Orange River Colony, receiving the Queen's medal with three clasps and the King's medal with two clasps.

Captain F. W. LAMBELLE, who is serving in India, is appointed Specialist in Advanced Operative Surgery, 5th (Mhow) Division, from February 17th.

Captain P. S. LELEAN, at present stationed at Meerut, is granted one year's extension of his appointment as Divisional Sanitary Officer; his tour of Indian service is also extended by the same period.

## TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

*First Northumberland Field Ambulance.*—Lieutenant WILLIAM T. HARKNESS, from the List of Officers attached to Units other than Medical Units, to be Lieutenant, March 1st.

*Attached to Units other than Medical Units.*—Lieutenant SAMUEL ENGLISH, M.B., to be Captain, September 30th, 1910. Captain J. S. SWAIN to be Major, October 23rd, 1910. Captain ALBERT EHRMANN to be Major, January 9th. HUGH L. MUNRO, M.D., to be Lieutenant, March 1st.

*For Attachment to Units other than Medical Units.*—RICHARD P. RYAN (late Lieutenant, 2nd (Prince of Wales's) Volunteer Battalion Devonshire Regiment) to be Lieutenant, February 1st. Captain A. W. FRENCH, from the Yorkshire Mounted Brigade Field Ambulance, R.A.M.C., to be Captain, March 15th.

## COLONIAL MEDICAL SERVICE.

THE following changes in the Colonial Medical Service are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Resignation:* T. F. Bayfield, M.D. C.M.McGill, L.R.C.S., L.R.C.P.Edin., Medical Officer, Gold Coast, resigns his appointment. *Retirement:* R. L. Roe, M.B., C.M.Edin., Medical Officer, Southern Nigeria, retires on pension. *Transfer:* G. J. Rutherford, M.R.C.S.Eng., L.R.C.P.Lond., Provincial Medical Officer for Ashanti, has been selected for appointment as Assistant Principal Civil Medical Officer of Ceylon.

OTHER COLONIES AND PROTECTORATES.—D. Drew, M.B., B.Ch., B.A.O. Dub., L.M.Irel., R. Drummond, M.R.C.S.Eng., L.R.C.P.Lond., and N. J. Watt, M.B., Ch.B.Edin., have been selected for appointment as Medical Officers in Nyasaland.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £150 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary, £100 per annum.

BIRMINGHAM GENERAL HOSPITAL.—Two House-Surgeons. Salary for three months, £40 per annum, and for next six months, £50 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-Surgeon. Salary at the rate of £80 per annum.

CARNARVON UNION.—Workhouse and District Medical Officer. Salary, £58 and £35 per annum respectively and fees.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DUMFRIES COUNTY COUNCIL.—Deputy County Medical Officer, Bacteriologist, and Chemist. Salary, £300 per annum, increasing to £400.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Officer for Electrical Department. Salary, £75 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HULL CORPORATION.—Resident Medical Officer for the Sanatorium and Evan Fraser (Small-pox) Hospital. Salary to commence, £250 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £85 per annum.

LEICESTER INFIRMARY.—Assistant House Surgeon. Salary at the rate of £60 per annum.

LINCOLN GENERAL DISPENSARY.—Resident Junior Medical Officer. Salary, £175 per annum.

MANCHESTER: HULME DISPENSARY.—(1) Honorary Physician; (2) Honorary Surgeon.

NEWCASTLE-UPON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160 for first year, increasing to £180 afterwards.

NEWCASTLE-UPON-TYNE: ROYAL VICTORIA INFIRMARY.—Honorary Assistant to the Throat and Ear Department.

PRINCE OF WALES'S HOSPITAL, Tottenham, N.—(1) Honorary Physician to the X-Ray and Electrical Department. (2) Senior House-Physician. (3) Junior House-Surgeon. (4) Junior House-Physician. Salary for (2), £75; and for (3) and (4), £50 per annum.

RAMSGATE BOROUGH.—Medical Officer and School Medical Officer. Combined salary, £400 per annum.

READING: ROYAL BERKS HOSPITAL.—House-Surgeon. Salary, £60 per annum.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £50 per annum.

SHEFFIELD: ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £65 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—Honorary Surgeon.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

WESTBOURNE PROVIDENT DISPENSARY, Harrow Road, W.—Medical Officer.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

## APPOINTMENTS.

BRADFORD, R. G., M.B., Certifying Factory Surgeon for the Brownhills District, co. Staffs.

BROWN, W., M.D.Glasg., Cert. Psych. Med., Medical Adviser in Lunacy Cases to the Bristol Magistrates.

CHAMBERS, Walter D., M.A., M.B., Ch.B.Edin., Assistant Physician, Crichton Royal Institution, Dumfries.

JARVIS, C. G., M.D.Paris, L.R.C.P.Lond., M.R.C.S.Eng., Visiting Physician to the Hertford British Hospital, Paris.

JOHNSON, T. C., M.B., Certifying Factory Surgeon for the Yatton District, co. Somerset.

LAKE, Norman C., M.B., B.S., B.Sc.(Hons.)Lond., Medical Registrar to Charing Cross Hospital.

ROBERTSON, J., M.B., C.M.Glas., Certifying Factory Surgeon for the Clackmannan District, co. Clackmannan.

WARDROP, Colonel Douglas, C.V.O., M.B., House Governor and Medical Superintendent of Osborne.

WILLIS, J. K., M.B.Cantab., Certifying Factory Surgeon for the Cranleigh District, co. Surrey.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

BARBER.—On April 3rd, at 46, Friar Gate, Derby, to Dr. and Mrs. Hugh Barber, a daughter.

ELLIOT.—On April 4th, at St. George, Queensland, the wife of Henry P. Elliot, M.B., and C.M.Edin., of a son. By cable.

## DIARY FOR THE WEEK.

### THURSDAY.

ROYAL SOCIETY OF MEDICINE:
DERMATOLOGICAL SECTION, Chandos Street, W., 5 p.m.—Cases and Specimens.

### FRIDAY.

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—(1) Demonstrations:—Mr. Deane Butcher: Osmotic Growths. Dr. Reginald Morton: Fracture of Sesamoid Bone of Great Toe. (2) Paper:—Dr. Samuel Sloan: Success and Failure in Electrotherapy; a Consideration of some of the Causes.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Method of Examination. Friday, 3.45 p.m., Method of Examination.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Friday, 5.15 p.m., Congenital Dislocation of the Hip, Coxa Vara, Coxa Valga.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Wednesday, 2.30 p.m., Medical Out-patient, Skin, and Eye Clinics, *X* Rays; 3 p.m., Demonstration of the Infectious Fevers (at the North-Eastern Fever Hospital, St. Ann's Road, N.). Thursday, 2.30 p.m., Gynaecological Operations, Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Demonstration of the Infectious Fevers (at the North-Eastern Fever Hospital, St. Ann's Road, N.).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

## RECENT PUBLICATIONS.

*The City of London Year Book, 1911.* London: W. H. and L. Collingridge, *City Press* Office, Aldersgate Street, E.C. (Double royal 16mo, pp. 373. 5s.)

A reference book to everything concerning the official life of the City of London, including lists of the committees of the Court of Common Council, of the London County Council, and of the members of Lloyd's, the Baltic, and the Stock Exchanges; also information as to the property of various city guilds and the schools and charitable trusts administered by them. An excellent book of its kind.

## INSTRUMENT CATALOGUES, ETC.

WE have received from Messrs. Newton and Co. (3, Fleet Street, London, E.C.) a comprehensive catalogue containing particulars of their *x*-ray and electro-medical outfits. In addition to the usual trade descriptions of their specialities, they provide some useful pages containing some general information likely to be useful to the practitioner who is intending to make use of any form of medical electricity. No prescriptions for treatment are given, of course, but merely practical advice as to the arrangement and use of an installation. Among the apparatus which is listed, a special feature is made of the "Instanta" induction coil, the distinction of which is its low secondary resistance; in other respects it is one of a group of coils which, under the trade name of "Apps-Newton," have attained considerable popularity. The catalogue ranges from mercury vapour lamps to the Snook outfit, and a section is devoted to the static machine, which appears to be coming into greater favour.

Messrs. Siemens, Brothers and Co., Limited (Caxton House, Westminster) forward us two pamphlets, the one a reprint of Dr. Nagelschmidt's recent paper on the thermal effects produced by high-frequency currents, read in the Electro-Therapeutical Section of the Royal Society of Medicine, and the other a description of the apparatus with which that pioneer in diathermy carried out his demonstration on that occasion. In appearance the apparatus is surprisingly simple, consisting merely of a portable table covered with a marble slab on which are mounted lever switch, terminals, and spark gap, as well as a high-frequency ammeter for measuring the current conducted to the body. This last can be regulated to 2.5 ampères—many times higher than the d'Arsonval current—and the instrument is keyed up to 600,000, or 1,000,000 oscillations per second.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **APRIL.** | |
| 16 Sunday .. | |
| 17 MONDAY .. | |
| 18 TUESDAY .. | NORTH WALES BRANCH, George Hotel, Criccieth, 2.45 p.m.; Luncheon, 2 p.m.; Branch Council, after the Meeting. |
| 19 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 4.45 p.m. |
| 20 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m.<br>EAST ANGLIAN BRANCH, Spring Meeting, Framlingham, Suffolk. |
| 21 FRIDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with the Æsculapian Society, Metropolitan Hospital, Kingsland Road, 4 p.m. |
| 22 SATURDAY .. | |
| **APRIL** *(continued).* | |
| 23 Sunday .. | |
| 24 MONDAY .. | |
| 25 TUESDAY .. | FOLKESTONE DIVISION, *South-Eastern Branch*, Hotel Wampach, Folkestone, 8.30 p.m. |
| 26 WEDNESDAY | LONDON: Committee on Fractures, 9.30 a.m.<br>London: Central Council, 2 p.m.<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 27 THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, Orford Road, Walthamstow, 4 p.m. |
| 28 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. |
| 29 SATURDAY .. | |
| 30 Sunday .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 22ND, 1911.

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**SPECIAL NOTICE TO MEMBERS.**

***Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.***

# MATTERS REFERRED TO DIVISIONS.

## ANNUAL REPRESENTATIVE MEETING IN BIRMINGHAM.

FRIDAY, JULY 21ST, 1911, AND FOLLOWING DAYS.

## NOTICES OF MOTION.

THE following Notices of Motion have been received for discussion by the Annual Representative Meeting of the Association, to be held in Birmingham, July 21st, 1911, and following days:—

### A.—NOTICES AFFECTING ADMINISTRATION OF ASSOCIATION.

*Alteration of Standing Order.*

**Amendment by LEICESTER DIVISION to Standing Order 16:**

**That the mode of election of twelve members of Council by Grouped Representatives under By-law 41 (c) be by card vote.**

*New Ethical Rules.*

By EXETER DIVISION:

**That it is desirable that any *pro forma* Ethical Rules formulated for adoption by the Divisions generally should give power to the Chairman and Secretary of a Division to refer direct to the Branch Council any ethical matter concerning any individual member of the Division which, in their opinion, it would be detrimental to the interests of the Association to allow to be dealt with locally by the Division in question.**

### B.—NOTICES AFFECTING POLICY OF ASSOCIATION.

*Certificates under Workmen's Compensation Act.*

By LEIGH DIVISION:

**That in cases arising under the Workmen's Compensation Act the minimum fee for the initial examination and report shall be £1 1s.**

*Death Certification.*

**That in the opinion of this Meeting it is expedient that uniform action be taken with regard to inserting the duration of disease on death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.**

*Tax on Alcohol used for Manufacture of Medicinal Preparations.*

By PLYMOUTH DIVISION:

That in the opinion of this Meeting it is an act of injustice and against public policy that an increased tax should be levied on alcohol which is used for the purpose of preparing tinctures, etc., and that the Council of the Association be instructed to take steps to bring the matter under the notice of the Chancellor of the Exchequer.

*Powers of Royal College of Physicians of London.*

That the Council of the British Medical Association be instructed to take such steps as they may deem suitable to induce the Royal College of Physicians of London to exercise the powers they undoubtedly possess against persons who are practising medicine, surgery, or midwifery illegally.

That the Council be instructed to petition the General Medical Council to take such steps as they may consider suitable to induce the Royal College of Physicians, London, to carry out the duties imposed on them by their Charters.

*Treatment by School Medical Officers.*

By SOUTH STAFFORDSHIRE DIVISION:

That, while admitting the right of the School Medical Officer or his Assistants to supervise the treatment of children found defective on inspection, the Representative Body considers that the treatment of these children by the School Medical Officer or his Assistants, when whole-time officers, is contrary to the interests of the profession and of the children, and should therefore be opposed.

*Medical Prescribing in Lay Papers.*

By BIRMINGHAM CENTRAL DIVISION:

That it is ethically improper for medical practitioners to prescribe treatment for individuals through the correspondence columns of the lay press.

In the event of the above being carried—

That the Council of the Association be instructed to take such action as may seem desirable to suppress the practice.

*Support of Unqualified Practitioner.*

By WESTMINSTER DIVISION:

That the Representative Body considers it is contrary to the interest of the British Medical Association that one of its Past-Presidents should have given evidence in support of the treatment of a bonesetter, a person not in possession of any registered medical qualification.

*Parliamentary Representation.*

By CHELSEA DIVISION:

That this Meeting recognizes the necessity for a union of medical practitioners with Parliamentary representation, and requests the Council of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date.

By direction of the Chairman of Representative Meetings,

J. SMITH WHITAKER, *Medical Secretary.*

April 19th, 1911.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## BIRMINGHAM BRANCH:

### CENTRAL DIVISION.

A GENERAL meeting of the Division was held on Wednesday, April 5th, 1911, at 3.30 p.m. Mr. J. F. JORDAN, and subsequently Mr. MARSH, was in the chair, and twenty-six other members were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, confirmed, and signed.

*Medical Advice in Lay Press.*—After considerable discussion the Honorary Secretary was instructed to forward the following resolutions from the Division, to be included in the Agenda of the Representative Meeting:

"That it is ethically improper for medical practitioners to prescribe treatment for individuals through the correspondence columns of the lay press." And in the event of this being carried, that the Representative be further instructed to move: "That the Council of the Association be requested to take such action as may seem desirable to suppress the practice."

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance principle, published in the SUPPLEMENT of March 4th, was then considered, and instructions given to the Representative as to the answers he should return to the questions contained therein.

This concluded the business, which occupied two hours and a half.

## DORSET AND WEST HANTS BRANCH:

### WEST DORSET DIVISION.

THE annual meeting of this Division was held on April 5th at the County Hospital, Dorchester. Mr. G. J. W. FLOWER was in the chair, and seventeen members were present.

*Election of Officers.*—The following were elected officers: *Chairman*, G. J. W. Flower; *Vice-Chairman*, W. C. Spooner, M.B.; *Honorary Secretary*, T. MacCarthy; *Representative*, D. Curme; *Representative Committee* and *Executive Committee*, the sitting members were re-elected.

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance basis was considered. The members considered that grateful thanks were due to the Council for the great trouble that it had taken in drafting the report and the appended questions.

*Report of Representative.*—The report of the Division Representative was taken as read, and Dr. Curme was thanked for his services.

*Vote of Thanks.*—A vote of thanks was passed to the Hospital Committee for kindly giving the use of the room.

## GIBRALTAR BRANCH.

THE annual meeting of this Branch was held on April 1st at the Colonial Hospital at 5 p.m., Deputy Inspector-General F. J. LILLY in the chair. Drs. Lyons, Dowding, and Gill, Staff Surgeon Hall, Surgeon McCutcheon, R.N., and L. D. Parsons (Honorary Secretary) were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Annual Report.*—The annual report was read.

*Election of Office-Bearers.*—The office bearers for the ensuing year were elected as follows: *President*, Dr. P. F. Lyons; *Vice-President*, Dr. W. W. Dowding; *Honorary Secretary and Treasurer*, Dr. L. D. Parsons; *Members of Council*, Deputy Inspector-General F. J. Lilly, Staff Surgeon R. W. B. Hall, Dr. Neil Oman, Dr. L. H. Gill, one vacancy being left; *Delegate to Annual*

*Meeting*, Dr. Dowding was elected a delegate to the Annual Meeting.

There was no annual dinner, as a sufficient number did not come forward.

*Votes of Thanks.*—Votes of thanks were passed to the retiring President, who congratulated Dr. Lyons on his election, and to the Honorary Secretary.

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## GLASGOW AND WEST OF SCOTLAND BRANCH:

### DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A SPECIAL meeting of the Dumbartonshire and Argyllshire Division was held on Thursday, April 6th, at Clydebank, when eleven members were present. Dr. HUNTER (Helensburgh) occupied the chair.

*Apologies for Non-attendance.*—The SECRETARY intimated apologies for absence from four members.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

*Election of Representative.*—The Honorary Secretary, Dr. Wm. Semple Young (Helensburgh), was unanimously appointed to fill the vacancy caused by the removal from the Division of Dr. Jane Gilmour.

*Organization of Medical Attendance on the Provident Principle.*—The many questions presented on this subject were fully discussed, all the members present taking part, and the answers which the Secretary was instructed to give were arrived at unanimously, with the exception of one.

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### GLASGOW NORTH-WESTERN DIVISION.

AN ordinary meeting of the Division was held in the Burgh Hall, Hillhead, on Thursday, March 30th, at 8.30 p.m., Dr. A. G. HAY presiding. The following members were also present: Drs. Morton, R. M. Buchanan, Richmond, P. H. Robertson, Snodgrass, A. T. Campbell, G. B. Buchanan, Baird, Whitehouse, T. B. Henderson, A. K. Chalmers, and Caskie.

*Apology for Non-attendance.*—The SECRETARY intimated an apology for non-attendance from Dr. Alex. Thomson.

*Confirmation of Minutes.*—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

*Organization of Medical Attendance on the Provident Principle.*—The report of the Poor Law Committee of the Association on the organization of medical attendance on the provident or insurance basis was considered, and the answers to the questions attached to it discussed seriatim as far as No. 30, when owing to the lateness of the hour it was agreed to adjourn the meeting till the following Thursday.

*Adjourned Meeting.*

At the adjourned meeting, which was held in the same place on April 6th, there were present the following members—namely, Drs. T. B. Henderson, Jas. Miller, Morton, Snodgrass, Whitehouse, W. Ritchie, G. B. Buchanan, Paterson, Primrose, Thomson, and the Secretary; also one non-member. Dr. A. G. HAY presided.

*Apologies for Non-attendance.*—The SECRETARY intimated apologies for absence from Drs. Oswald, J. Ritchie, and Mackintosh.

*Organization of Medical Attendance on the Provident Principle.*—The answers to the remaining questions, commencing at No. 31, relating to the remuneration of the medical profession under any proposed scheme of medical attendance on the provident principle, were decided after due consideration and discussion.

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## LANCASHIRE AND CHESHIRE BRANCH:

### SOUTHPORT DIVISION.

A SPECIAL meeting was held on April 6th at the Temperance Institute. All practitioners resident in the Division had been invited. Dr. LITTLER, Vice-Chairman, presided, and there were present Drs. Mewburn-Brown, Cox, Collier, Baildon, Barwise, Gill, Ransford, Irving, Speirs, Martin, Reid, and Harris; and Drs. Lawson Cairns, W. Davies, Edmiston, Henderson, and Marshall attended as visitors.

*Apologies for Non-attendance.*—Apologies for absence were received from Drs. P. R. Cairns, Ashworth, and Sykes.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed. Arising out of the minutes it was mentioned that letters in accordance with the expressed wish of the Division had been issued by the local district nursing society.

*Election of Representatives for Representative Meetings.*—Dr. Baildon was elected Representative and Dr. Stanley A. Gill Deputy, both unanimously.

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance principle was considered, and the questions answered seriatim as far as No. 26. The hour then being late the meeting was adjourned to Tuesday, April 11th.

*Adjourned Meeting.*

The adjourned meeting was held on April 11th, 1911, at the Temperance Institute, all practitioners resident in the Division having been again invited. Dr. LITTLER was in the chair, and there were present Drs. Ashworth, Baildon, Collier, Irving, Reid, Russel, Martin, Speirs, Walker, and Harris. Drs. Lawson Cairns, Edmiston, Marshall, and Mulholland attended as visitors.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Organization of Medical Attendance on the Provident or Insurance Principle.*—The consideration of the report was resumed and completed, all the questions being answered.

*Ophthalmia Neonatorum.*—A recommendation from the Executive Committee of the Division was received in favour of notification, and a resolution was passed unanimously:

> That this Division advises the Southport Corporation to add ophthalmia neonatorum to the list of notifiable diseases, and that the Secretary be instructed to communicate this advice to the health authority.

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## METROPOLITAN COUNTIES BRANCH:

### CHELSEA DIVISION.

A MEETING of the Division was held at 4 p.m. on February 21st at the Fulham Town Hall. In the absence of Dr. Young, Dr. CAMPBELL BOYD took the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Letters.*—Letters were read (1) from the Medical Secretary, with reference to the publication of certain matters in the JOURNAL; (2) from Dr. E. R. Fothergill, with reference to the Putney Hospital.

*Rules for the Division.*—The following committee was appointed to draft rules to be submitted to the next meeting of the Division—namely, Drs. Young, Campbell Boyd, Fletcher, Hanks, Millar, Spaull, and Gallard.

*Putney Hospital and South-West London Medical Hospital Committee.*—The recommendation of this committee, that in future the Executive Committee of the Wandsworth Division should act, was approved.

A meeting of the Division was held at the Chelsea Town Hall on April 11th. In the absence of Dr. Young, Dr. FLETCHER took the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Letters.*—Letters were read: (1) From the Secretary of the Westminster Division, enclosing a recommendation of its Executive Committee that a Branch meeting should be held to consider the questions *re* organization of medical attendance on a provident or insurance principle. The Secretary was instructed to express this Division's approval thereof. (2) From the School Children Committee. The Secretary was instructed to reply to the effect that the decision of this Division had already been communicated to the Branch Secretary.

*Election of Representative.*—The SECRETARY moved and Dr. MILLAR seconded the re-election of Dr. Fletcher. This was carried unanimously.

*Parliamentary Representation.*—The Secretary was instructed to give notice of the resolutions with reference to the formation of a trade union with parliamentary representation which were adjourned at the last Representative Meeting.

*State Sickness and Invalidity Insurance Scheme.*—The questions to Divisions on this subject were discussed and answered.

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### HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, April 7th, at 8.30 p.m., at the Hampstead Conservatoire. Dr. J. FORD ANDERSON was in the chair, and eighteen members were present.

*Minutes.*—The minutes of the last meeting were taken as read.

*Butlin Dinner Committee.*—A letter was read from the Honorary Secretary of the Butlin Dinner Committee.

*Proposed Change of Boundaries.*—A letter was read from the Honorary Secretary of the Organization Committee *re* the proposed change of name of the Tottenham Division and the proposed change of boundaries of the Hampstead Division. In view of the objections raised to any change of boundary on the east and south a resolution was passed *nemine contradicente*—

> That the Division postpone for the present consideration of the question of cutting off territory on the north and west.

*Model Rules for Nursing Associations.*—The model rules for inclusion in the rules of nursing associations as approved by the Annual Representative Meeting, 1910, were read. Regret was expressed that they did not more definitely state that a nurse should only attend emergencies when a medical practitioner was not available and definitely prohibit the prescribing of drugs.

*Instruction in First Aid.*—The recommendations contained in the Memorandum of the Central Council concerning instruction in first aid, hygiene, and kindred subjects, were approved. They are to the following effect:

> That members of the profession should be suitably remunerated for teaching subjects in connexion with the Public Health, such as nursing, first aid, etc., and that the fee adopted by the London County Council of £1 1s. for each lecture is one which appears suitable for general adoption; and that the same fee be charged for ambulance lectures given to the British Red Cross Society.

A resolution, proposed by Miss DOBBIE and seconded by Mr. ARMIT:

> That the local members of the profession be circularized with a view to obtaining their co-operation,

was carried unanimously.

*Proposed Amendment of Rule.*—A resolution, proposed by Dr. OPPENHEIMER, and seconded by Mr. ARMIT:

> That the Hampstead Division recommends that Rule 12 of the Metropolitan Counties Branch Rules be amended by inserting the words "or Deputy Representative at the choice of the Division" after the words "the Representative of the Division at the Representative Meeting,"

was carried unanimously.

*Organization of Medical Attendance on the Provident Principle.*—The report on medical attendance on a provident or insurance basis, which had been partly discussed at a meeting of the Division on March 10th, was again brought forward, and the recommendations of the Committee in regard to remuneration were accepted by the Division.

*The After-Effects of Appendicitis in the Female.*—A paper on this subject was read by Mr. CHARLES BALL, and an interesting discussion followed.

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### WALTHAMSTOW DIVISION.

THE second meeting of the County Ward was held at Rydal, Woodford Green, by the kind invitation of Dr. Warner, on April 6th. Dr. P. WARNER was in the chair. There were also present: Drs. Robert Jones, H. V. Hickman, Drew Harris, Candler, Moore, Vere Hodge, P. McGregor, Erskine, G. Norman, Dykes, and A. Berrill (Secretary).

*The late Dr. Harvey.*—A resolution was passed unanimously that the Secretary should write a letter of condolence to Mrs. Harvey on the sudden death of Dr. Harvey.

*Tuberculous Disease of Caecum.*—Notes on a case were read, and specimen shown, by Dr. BERRILL. The case was one of tuberculous disease of the caecum in which the healing of a large ulcer had produced a very noticeable stricture. The caecum was excised and the ileum joined on to the ascending colon with, so far, a very good result.

*Specimens.*—Dr. CANDLER showed several most interesting specimens: (1) *A heart in which a needle was firmly imbedded in the intraventricular septum.* The history showed that the needle must have been in this position for a very prolonged period. (2) *Malignant disease of the liver.* The specimen showed how extremely difficult it was to locate the primary disease.

*Microscopical Examination of Secretions.*—Dr. CANDLER made some remarks on the importance of microscopical examinations of the blood, urine, and faeces. He also demonstrated in a practical manner the best way to collect a specimen of blood for the purpose of testing for the Wassermann reaction.

*Asthma.*—Dr. WARNER, in the course of some interesting remarks on asthma, said it was a neurosis, and that the patient's environment had much to do with attacks. He also alluded to the fact that it was probably not only a spasm of the bronchial muscles, but of the muscles of respiration generally. Potassium iodide he considered of special value in treatment, combined with lobelia and arsenic for prolonged periods between the attacks. Breathing exercises were of the greatest benefit. A discussion followed, in which all present took part. The importance of the subject to the general practitioner was shown by the large number of interesting and definite facts connected with the disease that were brought forward.

*Vote of Thanks.*—A hearty vote of thanks was accorded to the Chairman for his kind hospitality.

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### WESTMINSTER DIVISION.

AN ordinary meeting of this Division was held on Thursday, April 6th, at the Criterion Restaurant. Dr. F. G. ALLAN, the President, was in the chair, and eleven members and one visitor were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read, approved of, and signed.

*Proposed Dinner to President of the Association.*—The meeting agreed to support the function of a complimentary dinner to Mr. Butlin as President of the Association.

*Treatment of School Children.*—A letter (reply) from the Chairman of the London County Council Education Committee *re* the treatment of school children within the Division was read.

*Change of Name of Tottenham Division.*—The Division had no objection to this alteration, but expressed the view:

> That as far as possible the name of a Division should indicate the geographical position of that Division in relation to the Branch.

*Election to Executive Committee.*—Mr. A. D. E. Kennard was unanimously elected to fill the vacancy on the Executive Committee.

*Organization of Medical Attendance on the Provident Principle.*—The Executive Committee met on March 24th, and fully considered the replies to questions in this report. The suggested replies entered in a copy of the SUPPLEMENT of March 4th, 1911, were freely circulated in the Division, a copy being sent to every medical man (member or non-member of the Association) residing within the Division. After some discussion on various details connected with these questions, the meeting unanimously adopted the replies recommended by the Executive Committee.

*Ethical Questions.*—Resolutions in connexion with two ethical questions were unanimously passed, and the Honorary Secretary was asked to report these to the head office, and to send copies to the secretary of every Division. The proceedings then terminated.

## PERTHSHIRE BRANCH.

*Skiagrams.*—In place of the clinical meeting of the Branch this year, Dr. W. F. SOMERVILLE, of Glasgow, kindly gave a lantern demonstration of *x* ray skiagrams, illustrative of various medical and surgical conditions, in the Royal Infirmary, Perth, on Monday evening, April 10th. There was a good number of the members of the Branch present, and the matron and all the nurses that could be spared enjoyed a delightful exhibition of up-to-date *x* ray work. The importance of this work was clearly demonstrated, not only in regard to diagnosis, but in the saving of suffering to the patient. Fractures and dislocations were beautifully portrayed, but the feature of the demonstration lay in the photographs of stone in the bladder and kidneys; aneurysms of the aorta and other blood vessels; skiagrams of dilatation of the stomach and bowel after administration of bismuth; and, finally, the demonstration of the varying clearness of metals, bones, wood, composite materials, etc.

*Vote of Thanks.*—After the demonstration, Dr. LYELL, the President, moved a very hearty vote of thanks to Dr. Somerville, for so kindly coming so far to give them that demonstration, and in his remarks stated it would not only be very helpful to the members of the Branch, but would undoubtedly assist in saving patients from many painful and irksome examinations. Dr. SOMERVILLE briefly acknowledged the vote of thanks.

## SOUTH-EASTERN BRANCH:

### ASHFORD DIVISION.

A MEETING of this Division was held on March 31st, at 5 p.m., in the Old Grammar School, Ashford Church Yard. Dr. KERR was in the chair, and there were present Dr. Wilks, and Messrs. Doughty, Hick, Mossop, and Vernon.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Treatment of School Children.*—The SECRETARY read a letter from Dr. Tennyson Smith, Secretary of the Kent Organization Committee, enclosing proposed amendments to the original scheme for the treatment of school children found to be defective. The amendments were considered seriatim.

Amendment I agreed to.
Amendment II agreed to.

Dr. HICK proposed, and Mr. MOSSOP seconded:

That, provided the fee for a single operation or anaesthetic be 21s., a mileage fee of 1s. per mile be accepted.

Amendment III agreed to.
Amendment IV agreed to.

*Friendly Societies and Fees.*—The SECRETARY reported that he had communicated a resolution relating to fees to a friendly society, and had received a letter in reply expressing regret. It was resolved:

That the resolution be printed and circulated to every member of the Division, and also to the Secretary of the Folkestone Division asking for the support of members of that Division.

*Annual Meeting of Branch.*—The proposed programme for the annual meeting of the Branch at Ashford was read and approved. Dr. HICK proposed, and Mr. DOUGHTY seconded:

That Dr. Wilks and the Secretary be a subcommittee to carry out the details, with power to add to their number.

*Model Rules for Nursing Associations.*—The model rules for inclusion in rules of nursing associations were read and approved. The Secretary was directed to forward copies to any nursing association in the Division. The memorandum on the question of alleged covering in a district nursing association was read.

*Next Meeting.*—Friday, April 21st, was fixed as the date of the next meeting.

### CROYDON DIVISION.

A MEETING of the Division was held at the Greyhound Hotel, Croydon, on March 30th, 1911. Mr. C. WRAY, Chairman, presided. Fifty-five members and visitors were present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Next Meeting.*—It was decided that the next meeting should be held at the Croydon General Hospital during the third week in May.

*Medical Officership of No. 2 District, Croydon Union.*—It was proposed by Dr. CRESSY, seconded by Dr. GENGE, that this meeting should confirm the action that the Committee had taken in reference to the vacancy of medical officer to No. 2 district of the Croydon Union. The proposal was adopted unanimously. As a result of the combined action of the local practitioners and the British Medical Association the guardians had raised the salary to the sum of £120 per annum instead of reducing it to £70 per annum as was proposed.

*Bradford Rules.*—The Bradford Rules and Rule Z were formally adopted.

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance principle was considered. Dr. COX, Deputy Medical Secretary, attended, and gave an able address dealing with the chief points raised, and touching upon the various difficulties and the many dangers that threatened the general practitioners. Dr. MEREDITH RICHARDS, M.O.H. Croydon, gave details of his own scheme, which has since been published in the BRITISH MEDICAL JOURNAL. It was decided that the various questions should be first of all discussed by a subcommittee consisting of the Chairman, Honorary Secretary, and Drs. Fowler, F. Nicholls, Dukes, Cressy, Genge, Meredith Richards, Braddon, and Redfern, and that the meeting be meanwhile adjourned.

#### *Adjourned Meeting.*

An adjourned meeting was held at the Greyhound Hotel, Croydon, on April 11th, Mr. C. WRAY, Chairman, presiding. The report was further considered, and the various questions answered. Sixty-eight members and visitors were present.

*Vote of Thanks.*—A vote of thanks to the Chairman concluded the proceedings.

### DOVER DIVISION.

A MEETING of the Dover Division was held at the Grand Hotel, Dover, on April 3rd. Dr. WOOD, Chairman, presided. There were also present: Drs. Murphy, Howden, Young, Stone Graham, Bruce Payne, Macdougall, and Osborn (Honorary Secretary).

*Apology for Non-attendance.*—Dr. Robinson wrote expressing regret at his inability to attend.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and signed.

*Bradford Rules.*—After a discussion on each in turn, the Division unanimously decided to adopt the Bradford Rules as to professional conduct with reference to contract practice and appointments in this neighbourhood.

*Rule Z.*—The Division unanimously adopted this rule.

*Colliery Practice.*—Dr. HOWDEN moved:

That in view of the fact that the universal experience in the North and Midlands had been that 9d. per family per fortnight is the very lowest rate of remuneration for colliery practice that a medical man can accept, this Division resolves that this be the recognized minimum rate for this district.

Dr. MACDOUGALL seconded the motion, which was carried unanimously.

## SOUTH-EASTERN OF IRELAND BRANCH.

A MEETING of this Branch was held at the Adelphi Hotel, Waterford, on April 5th, at 3.30 p.m., Dr. R. R. O'BRIEN in the chair. Other members were present to the number of ten.

*Apologies for Non-attendance.*—Apologies for inability to attend were received from four members.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Election of Office-bearers.*—Drs. D. Walsh and Laffan were nominated to be re-elected as Representatives on the Central Council and Representative Meeting respectively, whilst Drs. Carey and Quirke were nominated to be re-elected as Representative on the Irish Committee and as Honorary Secretary respectively.

*Organization of Medical Attendance on the Provident Principle.*—The organization of medical attendance on the provident or insurance basis was freely discussed. It was proposed by Dr. POWER and seconded by Dr. MORRIS:

> That this meeting, impressed with the complexity of the question of medical attendance under the proposed provident or insurance basis, as also by the different economic circumstances prevailing in this country as compared with England, reserve our opinion for further consideration, whilst leaving our English *confrères* to adopt at once proposals suitable for themselves.

*Model Rules for Nursing Associations.*—Model rules for nursing associations were also freely discussed. It was proposed by Dr. LAFFAN and seconded by Dr. JELLETT:

> That no Jubilee or other nurse, maternity excepted, should attend any patient save under immediate and during medical advice.

*Medical Officers and County Council Boards.*—It was proposed by Dr. LAFFAN and seconded by Dr. MORRIS:

> That we ask the British Medical Association authority to take steps to obtain counsel's opinion as to the legality of the exclusion of workhouse and dispensary medical officers by the Local Government Board of Ireland from county council boards, with which they have no connexion whatever which would justify such exclusion.

*Dinner.*—The business of the meeting having come to an end, the members dined together.

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## SOUTHERN BRANCH:

### GUERNSEY AND ALDERNEY DIVISION.

A MEETING of this Division was held on March 23rd. Nineteen members attended out of a total available membership of twenty-three.

*Small-pox.*—After transaction of formal business, Dr. H. D. BISHOP, Medical Officer of Health, opened a discussion on small-pox. A single case had been discovered in Guernsey a few days before, and taking that as his text, Dr. Bishop gave a useful practical address on the differences between natural and modified small-pox, laying special stress upon the distribution of the eruption in small-pox and chicken-pox. He described the action he took in the case isolated, and alluded to the abuse he had received for his promptitude. Drs. BULTEEL and BOSTOCK, who had reported the case to the medical officer of health, were absolutely convinced of the correctness of the diagnosis, though both confessed to a natural hesitancy in the early days of the disease. Other members had visited the case in the isolation hospital at Mont Crevelt; and at the close of the discussion a resolution was proposed and carried unanimously that all the eighteen medical men present concurred in Dr. Bishop's diagnosis, and considered that the whole community of Guernsey owed him a debt of gratitude for his prompt action in the matter. This resolution was forwarded to the Board of Health, and elicited from the President of the Board a cordial and appreciative reply which was at a later meeting directed to be entered on the minutes of the Division.

*Poor Law Reform.*—The report of the Committee on Poor Law Reform was then taken up, but the hour was too advanced to admit of more than the introductory statement of the Honorary Secretary and Representative, Dr. J. F. Carruthers; and the consideration of the report was adjourned to March 30th.

On that date the adjourned meeting proceeded to the detailed consideration of the report, and answers were given to Questions 1 to 29. At this point a further adjournment was made to April 4th, on which date the consideration of the report was completed.

The Division has therefore given two full nights and part of a third to the report, and was much impressed with the importance of it, and with the care and labour given to it by the committee. The interest shown in it by the members was striking, especially when it is considered that laws made by the English Parliament have no force in Guernsey, which has its own "States" and its own laws.

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## SOUTH-WESTERN BRANCH:

### PLYMOUTH DIVISION.

A SPECIAL meeting of this Division was held on Monday, April 3rd, in the rooms of the Plymouth Medical Society. Dr. NOY SCOTT, President of the South-Western Branch, was in the chair. There were also present: Drs. Benson (Lew Down), Cree (Tavistock), Musgrave (Lifton), Stile (Brent), Jaques, Jackson, McCarthy, Lander, Samuels, Simpson, and the Honorary Secretary.

*Apologies for Non-attendance.*—Apologies for inability to attend were read from Drs. Bowhay and Cooke.

*Organization of Medical Attendance on the Provident Principle.*—After a prolonged discussion and voting, the Honorary Secretary was instructed to furnish certain replies to the memorandum in the SUPPLEMENT for March 4th and forward them to the Medical Secretary. The Division is entirely hostile to coming to any terms with the friendly societies in any future arrangements that may be made in organizing medical attendance on certain classes of people.

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## STIRLING BRANCH.

A MEETING was held on Friday, March 24th, in the Station Hotel, Larbert, at 3.45 p.m. The PRESIDENT (Dr. Strahan) was in the chair, and there were also present: Drs. Katherine Lucas, Currie, Clarkson, Drew, Ronald, Hamilton, Lawrence, Moorhouse, Gardner, Highet, Alexander, Brown, Mitchell, Mackenzie, and Stewart. Dr. McLachlan (Falkirk) was present as a guest.

*Apologies for Non-attendance.*—Letters of apology for non-attendance were read from Drs. Livingston (Dumfries), Dewar and Campbell. Lieutenant-Colonel Greig sent a verbal apology.

*Confirmation of Minutes.*—The minutes of the previous meeting were signed by the President.

*Organization of Medical Attendance on the Providen Principle.*—The report on organization of medical attendance on a provident or insurance principle, and the questions referred to the Divisions on that report were carefully considered. The replies to the questions indicated that the meeting, led by Dr. GARDNER (Branch Representative), and Dr. MOORHOUSE (Stirling), was prepared to demand substantially improved conditions of general practice. Dr. DREW (Stirling), and Dr. MITCHELL (Camelon) were in favour of a somewhat more conservative plan of campaign. Perhaps in their case—

> Old experience doth attain,
> To something of prophetic strain,

and certainly disappointment had quenched the glowing hopes of the profession on previous occasions, where it seemed possible that reasonable reforms might be granted.

*Vote of Thanks.*—A vote of thanks to the Chairman closed the meeting.

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## BRITISH MEDICAL ASSOCIATION LIBRARY.

### BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
———— Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850;

vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1–9.
——— Laryngological Association. Transactions. Vols. 1–6, 8–9.
——— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
——— Medico-Psychological Association. Transactions. Vol. 13, 1906.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26, 27.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893.)
Archives générales de médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
——— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1–7, and 20–22.
——— de Parasitologie. Vols. 1–8.
——— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Australasian Medical Congress. Transactions. Seventh Session. Adelaide, 1905.
Bentley and Trimen. Atlas of Medicinal Plants. 1875–80.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896–7–8–9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
——— für medicinischen Wissenschaften. Vols. 1–19.
——— für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin, Verhandlungen. 1–12, and 14, since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht, 1906–1908.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853–1868.
——— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Holden. Human Osteology. 1899.
Indian Medical Gazette. 1868–1884.
International Congress on Alcohol. Proceedings of First to Eleventh.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg, and Third Paris, 1910.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B, Part 1; Section 15, Part 2.
——— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahresbericht Neurologie und Psychiatrie, 6 and 11–14.
Journal of Laryngology. Vols. 1 to 9.
Lakeside Hospital Clinical and Pathological Papers. Series 2.
London County Council. Report of Medical Officer (Education). March, 1906.
Montreal Medical Journal, prior to 1900.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892–1898, 1901–1904.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James of Padua.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmologie, prior to 1893.
Revue Neurologique, prior to 1893 and since that date.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vol. 4.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1895.
South African Medical Journal. February and April, 1895, Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1–7, 10–14.
United States Hygienic Laboratory Bulletins. Nos. 1, 3, 8, 9, 10, 11, 12, 13, 15, 17, 18, 19, 22, 24, 26, 29, 35, 43.
Virchow Archiv. Vols. 1–150.
Watt. Bibliographia Britannica, 4 vols. 1824.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## COUNCIL MEETING.

**A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 26th, in the Council Room at 429, Strand, London, W.C.**

By Order,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

March 23rd, 1911.

## NOTICE OF THE FORMATION OF A NEW BRANCH OF THE ASSOCIATION.

**THE following change has been made in accordance with the regulations of the Association, and takes effect from the date of publication of this notice:**

**That a Branch of the Association be formed, designated the Tasmania Branch, and composed of the Members of the Association resident within the area of Tasmania Island.**

## BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in Sherborne, Dorset, on Wednesday, May 17th, 1911. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the undersigned on or before Wednesday, May 3rd next.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

METROPOLITAN COUNTIES BRANCH. LAMBETH DIVISION.—The annual general meeting of this Division will be held on Thursday, May 4th, at 4 p.m., at Bethlem Royal Hospital. There will be a demonstration of cases in the hospital.

METROPOLITAN COUNTIES BRANCH. WALTHAMSTOW DIVISION.—A meeting of this Division will be held on Thursday, April 27th, at the Walthamstow Hospital, at 4 p.m. Agenda: (1) Minutes. (2) Letters. (3) Cases and papers by members. (4) Any other business. Visitors are cordially invited.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—A special meeting of this Division will be held on Friday, April 28th, at the White Hart Hotel, Spalding, at 3 p.m. Mr. J. Smith Whitaker will give an address on The Organization of Medical Attendance on the Provident or Insurance Principle. The committee is issuing invitations to all non-members residing in the Division to be present on this occasion. Tea will be provided in the hotel afterwards.—A. E. WILSON, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of this Division will be held in the Masonic Buildings, Barrow, on Friday, May 12th, at 3.15 p.m. Business: (1) Annual report. (2) Election of office-bearers. (3) The following resolutions will be submitted: (*a*) "This Division congratulates the Barrow Sanitary Authority on taking a preliminary step towards the control of pulmonary tuberculosis"; (*b*) "This Division cordially approves of the Barrow Health Authority providing facilities for the early sanatorium treatment of pulmonary tuberculosis." (4) Any other business.—J. LIVINGSTON, Honorary Secretary, Barrow-in-Furness.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of the Folkestone Division will be held at the Hotel Wampach, Folkestone, on Tuesday, April 25th, at 8.30 p.m. Agenda: Minutes. To consider Report on Medical Attendance on the Provident or Insurance Basis in connexion with Poor

Law Reform, or other possible development (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 4th). Other business. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, M.D., Honorary Secretary, Folkestone.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch, also a meeting of Branch Council and local Division, will be held at the Victoria Hotel, Kilkenny, on Wednesday, May 3rd, 1911, at 12.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Election of office-bearers. (5) To further consider Report on Medical Attendance on the Provident or Insurance Basis in Connexion with Poor Law Reform or other possible development. (6) Luncheon at 2 o'clock.—J. QUIRKE, Honorary Secretary, Piltown.

# British Medical Association.

## SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

### SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1911. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

### GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in he Regulations, a copy of which will be supplied on pplication to the Medical Secretary of the Association, 29, Strand, London, W.C.

*Applications.*

Applications for Scholarships and Grants for the year 1911–12 must be made not later than Tuesday, June 20th, 1911, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.

*March 30th, 1911.*

## MARYLEBONE SCHOOL CLINICS.

AT a meeting of the medical practitioners of Marylebone on January 10th, 1911, the Executive Committee of the Marylebone Division of the British Medical Association was instructed to appoint a Special Committee to formulate a scheme for school clinics at Marylebone.

This committee has twice met, and has drawn up the following scheme, which will be submitted to a meeting of the medical practitioners of Marylebone, summoned for this purpose, which will take place at 25, Cavendish Square (by kind permission of Sir Victor Horsley) on Thursday, April 27th, at 4.30 p.m.

OUTLINE OF THE SCHEME.

1. There are 28 schools within the electoral division with an average attendance of 12,391 scholars.

2. The arrangements will be for the treatment of school children found on inspection to be defective.

3. There should be two centres, one to the north and one to the south of Marylebone Road. Suggested sites are Capland Street Junior School in the north and Barrett Street School in the south.

4. The centres will be staffed by doctors residing in Marylebone. Each member of the staff will be expected to attend for two hours of one afternoon a week. The staff will be appointed from a rota. They will retire at the end of the first year of their service; but for a subsequent period of not more than two consecutive years shall be eligible for re-election. One member of the medical staff shall act solely as superintendent of the clinics and secretary to the Committee of Management. This officer shall be eligible for re-election annually.

5. The Committee of Management shall consist of doctors elected by a general meeting of the medical practitioners of the borough of Marylebone. The committee shall have power to co-opt additional members, not necessarily medical practitioners, and who shall not exceed in number one-sixth of the whole committee. One of the members of the London County Council, representing the borough of Marylebone, shall have a seat on the committee.

6. The clinics shall be open at all times to the inspection of the school medical officer of the London County Council.

7. The London County Council shall provide the necessary nursing service.

8. The selection of suitable accommodation shall be in the hands of the Committee of Management. The cost of premises, upkeep and service, shall be provided by the London County Council.

9. Drugs, cost of dispensing, instruments, spectacles, and all necessary materials shall be provided by the London County Council.

G. A. HERON,
Chairman of the Special Committee.
SOMERVILLE HASTINGS,
Honorary Secretary of the Special Committee.

# Vital Statistics.

## VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1911.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the City of London and of the metropolitan boroughs, based upon the Registrar-General's returns for the first quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the several boroughs, and are obtained by distributing the deaths in institutions among the boroughs in which the deceased persons had previously resided. The 29,305 births registered in London during the three months under notice were equal to an annual rate of 23.9 per 1,000 of the population estimated at 4,912,054 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates were 26.9, 29.3, and 24.5 per 1,000 respectively, the average rate in the first quarter of the ten years 1901–1910 being 28.2 per 1,000. The lowest birth-rates last quarter were 13.1 in the City of Westminster, 13.4 in Hampstead, 16.9 in Chelsea, 18.1 in Kensington, 18.5 in the City of London, 19.0 in Stoke Newington, and 19 8 in Paddington and in Lewisham; among the highest rates were 30.1 in Poplar, 30.4 in Shoreditch, 31.2 in Bethnal Green, and 33 7 in Bermondsey.

*Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1911.*

| Boroughs. | Estimated Population middle of 1911. | Births. | Deaths. | Annual Rate per 1,000 Living. | | | Deaths from Principal Infectious Diseases. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Enteric Fever. | Diarrhoea and Enteritis (Under 2 Years). | Phthisis. | Deaths of Children Under 1 Year of Age to 1,000 Registered Births |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Births. | Deaths. | Principal Infectious Diseases. | | | | | | | | | | |
| COUNTY OF LONDON ... ... | 4,912,054 | 29,305 | 19,380 | 23.9 | 15.8 | 2.02 | 2,465 | 8 | 1,581 | 43 | 170 | 425 | 28 | 210 | 1,717 | 108 |
| Paddington ... ... | 154,072 | 759 | 553 | 19.8 | 14.4 | 1.59 | 61 | — | 25 | — | 5 | 21 | 1 | 9 | 51 | 125 |
| Kensington ... ... | 185,607 | 837 | 735 | 18.1 | 15.9 | 2.72 | 126 | — | 82 | 1 | 10 | 24 | — | 9 | 37 | 147 |
| Hammersmith ... ... | 129,140 | 725 | 540 | 22.5 | 16.8 | 1.99 | 64 | — | 24 | 1 | 11 | 15 | 1 | 12 | 39 | 157 |
| Fulham ... ... ... | 186,190 | 1,054 | 583 | 22.7 | 12.6 | 1.40 | 65 | — | 38 | 2 | 6 | 14 | 1 | 4 | 59 | 93 |
| Chelsea ... ... ... | 75,673 | 319 | 312 | 16.9 | 16.5 | 1.21 | 23 | — | 18 | — | 1 | 3 | — | 1 | 34 | 97 |
| City of Westminster ... | 165 593 | 542 | 518 | 13.1 | 12.5 | 0.54 | 23 | — | 10 | 1 | 1 | 5 | 1 | 5 | 50 | 85 |
| *St. Marylebone ... | 124,373 | 1,055 | 529 | 34.0 | 17.1 | 1.99 | 62 | — | 45 | — | — | 11 | 1 | 5 | 57 | 59 |
| Hampstead ... ... | 97,288 | 326 | 211 | 13.4 | 8.7 | 0.49 | 12 | — | 6 | — | 2 | 2 | 1 | 1 | 16 | 61 |
| St. Pancras ... ... | 238,187 | 1,311 | 1,018 | 22.1 | 17.1 | 2.05 | 122 | — | 86 | 2 | 8 | 20 | 1 | 5 | 101 | 99 |
| Islington ... ... ... | 355,550 | 2,048 | 1,403 | 23.1 | 15.8 | 1.68 | 149 | — | 85 | 4 | 10 | 32 | 3 | 15 | 117 | 118 |
| Stoke Newington ... | 55,260 | 261 | 203 | 19.0 | 14.7 | 2.10 | 29 | — | 17 | 1 | — | 11 | — | — | 19 | 103 |
| *Hackney ... ... ... | 242,388 | 1,397 | 884 | 23.1 | 14.6 | 2.12 | 128 | — | 86 | 5 | 5 | 27 | 1 | 4 | 80 | 105 |
| *Holborn ... ... ... | 52,484 | 327 | 217 | 25.0 | 16.6 | 1.07 | 14 | — | 10 | — | 1 | — | — | 3 | 26 | 67 |
| *Finsbury ... ... | 93,874 | 823 | 511 | 35.2 | 21.8 | 3.59 | 84 | — | 63 | — | 5 | 10 | — | 6 | 46 | 126 |
| City of London ... ... | 16,069 | 74 | 86 | 18.5 | 21.5 | 0 25 | 1 | — | 1 | — | — | — | — | — | 6 | 95 |
| Shoreditch ... ... | 113,981 | 864 | 658 | 30.4 | 23.2 | 4.09 | 116 | — | 90 | 2 | 5 | 14 | — | 5 | 56 | 162 |
| Bethnal Green ... ... | 131,855 | 1,024 | 676 | 31.2 | 20.6 | 3.58 | 118 | — | 72 | 1 | 7 | 26 | 2 | 10 | 58 | 131 |
| *Stepney ... ... ... | 316,269 | 2,361 | 1,401 | 29.9 | 17.8 | 2.67 | 210 | 7 | 142 | 2 | 10 | 22 | 3 | 24 | 146 | 116 |
| Poplar ... ... ... | 172,917 | 1,298 | 888 | 30.1 | 20.6 | 4.49 | 194 | 1 | 151 | 1 | 21 | 14 | 3 | 3 | 54 | 125 |
| Southwark ... ... | 212,560 | 1,379 | 989 | 26.0 | 18.7 | 2.08 | 110 | — | 61 | 2 | 9 | 26 | 1 | 11 | 88 | 111 |
| Bermondsey ... ... | 126,919 | 1,065 | 636 | 33.7 | 20.1 | 1.96 | 62 | — | 30 | 4 | 3 | 16 | 2 | 7 | 60 | 134 |
| *Lambeth ... ... | 330,000 | 2,157 | 1,213 | 26.2 | 14.7 | 1.41 | 116 | — | 70 | 3 | 9 | 19 | 4 | 11 | 120 | 82 |
| Battersea ... ... | 190,434 | 1,065 | 737 | 22.4 | 15.5 | 2.97 | 141 | — | 90 | 1 | 11 | 22 | — | 17 | 68 | 114 |
| Wandsworth ... ... | 314,087 | 1,674 | 1,088 | 21.4 | 13.9 | 2.89 | 226 | — | 169 | 3 | 11 | 28 | — | 15 | 72 | 114 |
| Camberwell ... ... | 289,130 | 1,586 | 1,084 | 22.0 | 15.0 | 1.43 | 103 | — | 66 | 3 | 7 | 15 | 1 | 11 | 110 | 95 |
| Deptford ... ... | 120,715 | 761 | 445 | 25.3 | 14.8 | 1.07 | 32 | — | 10 | 2 | 2 | 12 | — | 6 | 42 | 102 |
| Greenwich ... ... | 114,872 | 642 | 318 | 22.4 | 11.1 | 0.34 | 10 | — | 3 | — | 2 | 2 | — | 3 | 30 | 69 |
| Lewisham ... ... | 169,078 | 835 | 483 | 19 8 | 11.5 | 0.92 | 39 | — | 14 | 2 | 6 | 11 | 1 | 5 | 27 | 77 |
| Woolwich ... ... | 137,489 | 736 | 461 | 21.5 | 13.4 | 0.74 | 25 | — | 7 | — | 2 | 3 | — | 3 | 48 | 92 |

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

During last quarter the deaths of 19,380 persons belonging to London were registered, equal to an annual rate of 15.8 per 1,000; the death-rates in the three preceding first quarters were 17.0, 19 0, and 14.3 per 1,000 respectively, the average rate for that period in the ten years 1901–10 being 17.6 per 1,000. The death-rates in the several boroughs last quarter ranged from 8.7 in Hampstead, 11 1 in Greenwich, 11.5 in Lewisham, 12 5 in the City of Westminster, and 12 6 in Fulham, to 20.1 in Bermondsey, 20.6 in Bethnal Green and in Poplar, 21.5 in the City of London, 21.8 in Finsbury, and 23.2 in Shoreditch.

The 19,380 deaths from all causes last quarter included 2,465 which were referred to the principal infectious diseases; of these, 8 resulted from small-pox. 1,581 from measles, 43 from scarlet fever, 170 from diphtheria, 425 from whooping-cough, 28 from enteric fever, and 210 (among children under 2 years of age) from diarrhoea and enteritis. The deaths from small-pox and from measles exceeded the corrected average number for the corresponding period of the five preceding years, but from scarlet fever, diphtheria, whooping-cough, and enteric fever the numbers showed a decline. The lowest death-rates from these diseases in the aggregate were recorded in the City of London, the City of Westminster, Hampstead, Greenwich, Lewisham, and Woolwich, and the highest rates in Finsbury, Shoreditch, Bethnal Green. Poplar, Battersea, and Wandsworth. The greatest proportional mortality from measles was recorded in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Wandsworth; from scarlet fever in Stoke Newington, Hackney, Shoreditch, Bermondsey, and Deptford; from diphtheria in Kensington, Hampstead, Finsbury, Bethnal Green, Poplar, and Battersea; from whooping-cough in Paddington, Kensington, Stoke Newington, Shoreditch, Bethnal Green, Southwark, and Bermondsey; and from diarrhoea and enteritis (among children under 2 years of age) in Hammersmith, Finsbury, Bethnal Green, Stepney, and Battersea. The 28 deaths from enteric fever included 4 in Lambeth, 3 each in Islington, in Stepney, and in Poplar, 2 in Bethnal Green, and 2 in Bermondsey. Of the 8 fatal cases of small-pox, 7 belonged to Stepney and 1 to Poplar.

During the quarter under notice the deaths from phthisis among London residents numbered 1,717, and were equal to an annual rate of 1.40 per 1,000, against 1.56, 1.65, and 1.28 in the three preceding first quarters; the average rate in the corresponding period of the ten years, 1901-10 being 1.64 per 1,000. The death-rates from this disease last quarter ranged from 0 64 in Lewisham, 0.66 in Hampstead, 0.80 in Kensington, 0.92 in Wandsworth, and 1.05 in Greenwich, to 1 80 in Chelsea, 1.84 in St. Marylebone, 1.85 in Stepney, 1.90 in Bermondsey, 1 97 in Finsbury, and 1.99 in Holborn.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 108 per 1,000 last quarter, against 110, 112, and 101 in the corresponding period of the three preceding years; in the first quarter of the ten years, 1901-10, the average rate was 120 per 1,000. Among the boroughs in which the lowest rates were recorded were the City of Westminster, Hampstead, Lambeth, Greenwich, and Lewisham; the highest rates were recorded in Hammersmith, Kensington, Finsbury, Shoreditch, Bethnal Green, and Bermondsey.

## HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns, 7,666 births and 4,980 deaths were registered during the week ending Saturday, April 8th. The annual rate of mortality in these towns, which had been 15.4, 15.2, and 15.4 per 1,000 in the three preceding weeks, declined to 15.1 per 1,000 in the week under notice. In London the death-rate was equal to 14.9 per 1,000, against 15.1, 15.7, and 15.8 in the three previous weeks.

Among the seventy-six other large towns the death-rates ranged from 7.5 in Burton-on Trent, 7.7 in King's Norton and in Smethwick, 8.3 in Bournemouth, and 8.4 in Handsworth (Staffs) to 20.2 in St. Helens, 24.2 in Stockton-on-Tees, 24.7 in Swansea, 25.4 in Devonport, and 28.8 in Middlesbrough. Measles caused a death-rate of 3.0 in Sheffield, 3.2 in Coventry, 3.3 in Rhondda, 4.9 in Plymouth, and 8.5 in Devonport, and whooping-cough of 1.4 in Warrington, 1.9 in Stockton-on-Tees, and 2.9 in Middlesbrough. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns. One fatal case of small-pox was recorded in Bootle, but none in any other of the seventy-seven towns. Of the 4,980 deaths registered in the large towns during the period dealt with, the causes of 54 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Stoke-on-Trent, 6 in Liverpool, 5 in Birmingham, 4 in Bootle, 3 in Leicester, and 3 in Manchester. The number of scarlet-fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,121, 1,077, and 1,036 at the end of the three preceding weeks, had further declined to 991 in the week under notice; 100 new cases were admitted during the week, against 146, 121, and 125 in the three previous weeks. There were 19 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday, April 8th, against 38, 32, and 28 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 1, 1, and 3 during the three previous weeks.

## HEALTH OF SCOTTISH TOWNS.

During the week ending Saturday, April 8th, 904 births and 635 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.2 and 15.6 per 1,000 in the two preceding weeks, rose to 17.3 in the week under notice, and was 2.2 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns, the death-rates ranged from 9.7 in Perth and 11.0 in Aberdeen to 22.5 in Greenock and 24.1 in Dundee. The mortality from the principal epidemic diseases averaged 1.8 per 1,000, and was highest in Dundee and Paisley. The 290 deaths from all causes registered in Glasgow during the period dealt with included 1 from enteric fever, 3 from measles, 2 from scarlet fever, 23 from whooping-cough, 4 from diphtheria, and 3 (of children under 2 years of age) from diarrhoea. Two deaths from measles, 2 from scarlet fever, and 3 from whooping-cough were recorded in Edinburgh; 2 deaths from diphtheria and 4 from whooping-cough in Dundee; and 6 deaths from whooping-cough in Paisley, and 2 in Greenock.

## HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 8th, 624 births and 499 deaths were registered in the twenty-two principal urban districts of Ireland, as against 724 births and 461 deaths in the preceding period. The annual death-rate in these districts, which had been 17.4, 21.2, and 20.7 per 1,000 in the preceding weeks, rose to 22.4 in the week under notice, this figure being 7.3 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.2 and 22 5 respectively, those in other districts ranging from 5 2 in Portadown and 6 6 in Queenstown to 30.8 in Cork and 35 6 in Londonderry, while Limerick stood at 17.8, and Waterford at 11 7. The death-rate in the twenty-two districts averaged 1 1 per 1,000, as against 0.9 per 1,000 in the preceding week.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

THE undermentioned Acting Surgeons have been confirmed in the rank of Surgeon in His Majesty's Fleet: MAURICE C. MASON, May 6th, 1910; the following to date November 4th, 1910: SIDNEY W. GRIMWADE, M.B., HERBERT E. PERKINS, ALEXANDER SCOTT, M.B., BASIL TAYLOR, M.B., ERNEST C. HOLTOM, CHARLES F. WILLES, JAMES G. DAWSON, M.B., GEORGE J. CARR, M.B., HENRY H. ORMSBY, M.B., EDWARD M. BROWNE, ALGERNON E. P. CHEESMAN.

Surgeon H. COOPER has been appointed to the *Medea*, on recommissioning, May 16th.

## ARMY MEDICAL SERVICE.

SURGEON-GENERAL G. W. ROBINSON has been appointed Principal Medical Officer Aldershot Command, vice Surgeon-General Sir T. J. Gallwey, K.C.M.G., C.B., M.D., who has gone on retired pay.

### ROYAL ARMY MEDICAL CORPS.

Captain H. L. HOWELL, who is serving in India, is appointed Specialist in the Prevention of Disease, and is appointed to the charge of the Brigade Laboratory at Ahmednagar, from January 1st.

Lieutenant-Colonel J. H. A. RHODES retires on retired pay. He entered the service as Surgeon, February 5th, 1881; became Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901.

## INDIAN MEDICAL SERVICE.

CAPTAIN C. G. SEYMOUR is appointed Specialist in the Prevention of Disease and to the charge of the Brigade Laboratory, Dehra Dun, from February 14th, 1910.

Lieutenant-Colonel D. ST. J. D. GRANT, M.B., Bengal, is promoted to be Colonel from January 1st, and the tenure of his appointment will reckon from March 14th. He was appointed Surgeon October 1st, 1881, and became Lieutenant-Colonel O tober 1st, 1901. He served with the Akha expedition in 1883-4.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

ROBERT H. NOLAN, M.B., to be Lieutenant (on probation), March 7th. WILLIAM BIDEN, M.B., to be Lieutenant (on probation), March 31st. Lieutenants K. B. MACGLASHAN, M.B., A. G. BROWN, and P. W. MATHEW are confirmed in their rank. LEONARD W. O. TAYLOR, M.B., to be Lieutenant (on probation), March 17th.

## CHANGES OF STATION.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during March, 1911:

| | | FROM | | TO |
|---|---|---|---|---|
| Surgeon-General | G. W. Robinson ... | Cape Town | ... | Aldershot. |
| Lieut.-Col. | W. W. Pike, D.S.O., F.R.C.S.I. ... ... ... | Tidworth | ... | Egypt. |
| ,, | F. W. C. Jones, M.B. ... | — | | Quetta. |
| ,, | J. Meek, M.D. ... ... | Quetta ... | ... | Cosham. |
| ,, | H. D. Rowan, M.B.... ... | Aldershot | ... | Tidworth. |
| ,, | J. Will, M B. ... ... | Kinsale... | ... | Richmond, Yorks. |
| Major | S. F. Clark, M.B. ... ... ... | London | ... | Chester. |
| ,, | G. T. Rawnsley ... ... ... | Aldershot | ... | Manchester. |
| ,, | C. A. Stone, M.D. ... ... ... | Bellary... | ... | S. Command. |
| ,, | W. E. Hardy ... ... ... | Wynberg | ... | Caterham. |
| ,, | J. C. Jameson, M.B. ... ... | Cairo ... | ... | E. Command. |
| ,, | W. G. Beyts... ... ... ... | London... | ... | Ranikhet. |
| ,, | C. T. Samman ... ... ... | Dinapur | ... | Mhow. |
| ,, | E. S. Clark, M.B. ... ... ... | Belfast... | ... | Holywood. |
| ,, | J. P. Silver, M.B. ... ... ... | Glasgow | ... | Edinburgh. |
| ,, | H. E. Staddon ... ... ... | Curragh | ... | E. Command. |
| ,, | A. H. Morris ... ... ... | Edinburgh | ... | Malta. |
| ,, | H. L. W. Norrington ... ... | Chatham | ... | ,, |
| ,, | J. McD. McCarthy, M.B. ... | Chester | ... | India. |
| ,, | H. G. F. Stallard ... ... ... | Delhi ... | ... | Roorkee. |
| ,, | G. B. Carter, M.B. ... ... | Kildare... | ... | India. |
| ,, | P. H. Collingwood ... ... | Devonport | ... | Crownhill. |
| Captain | H. E. M. Douglas, V.C., D.S.O. | Woolwich | ... | London. |
| ,, | D. O. Hyde, M B. ... ... | Dublin ... | ... | York. |
| ,, | H. F. Shea, M.B. ... ... | Ambala | ... | Lucknow. |
| ,, | J. F. Whelan, M.B. ... ... | Manchester | ... | India. |
| ,, | J. T. Johnson, M.D. ... ... | Newcastle | ... | Bareilly. |
| ,, | A. C. Duffey, M.D. ... ... | Dublin ... | ... | India. |
| ,, | H. R. Bateman ... ... ... | London | ... | E. Commd. |
| ,, | J. H. R. Winder, M.D. ... | Shorncliffe | ... | Aldershot. |
| ,, | H. W. Long, M.B. ... ... | — | | London. |
| ,, | W. F. Ellis ... ... ... | Lahore | ... | Bradford. |
| ,, | H. V. Bagshawe ... ... | Sheffield | ... | Halifax. |
| ,, | G. H. J. Brown, M.B.... ... | Delhi ... | ... | N. Commd. |
| ,, | M. C. Wetherell, M.D. ... | Meerut... | ... | Irish Commd. |
| ,, | G. F. Rugg ... ... ... | — | | Quetta. |
| ,, | G. E. Cathcart ... ... ... | Preston | ... | Chester. |
| ,, | H. T. Wilson ... ... ... | Barian ... | ... | Cosham. |
| ,, | H. W. Russell, M.D. ... ... | London... | ... | Aldershot. |
| ,, | J. St. A. Maughan ... ... | Cosham | ... | Tidworth. |
| ,, | L. V. Thurston ... ... ... | Khanspur | ... | Queenstown. |
| ,, | R. G. Meredith, M.B. ... ... | Malta ... | ... | Northern Com. |
| ,, | F. E. Roberts ... ... ... | ,, | | Scottish Comd. |
| ,, | J. E. Hoar ... ... ... | St. Thomas Mount | | Irish Comd. |
| ,, | E. B. Booth, M.D. ... ... | Kamptee | ... | Kildare. |
| ,, | C. W. O'Brien ... ... ... | Aden ... | ... | Irish Comd. |
| ,, | J. M. B. Rahilly, M.B. ... | Cairo ... | ... | Eastern Comd. |
| ,, | W. G. Maydon ... ... ... | Secunderabad | | Ayr. |
| ,, | G. Ormrod, M.B. ... ... | Roorkee | ... | Irish Comd. |
| ,, | E. L. Moss ... ... ... | Bareilly | ... | Irish Comd. |
| ,, | W. McConaghy, M.B.... ... | Tidworth | ... | Birmingham. |
| ,, | C. F. White, M.B. ... ... | Rangoon | ... | Jubbulpore. |
| ,, | J. du P. Langrishe, M.B. ... | Kirkee ... | ... | Poona. |
| ,, | T. McC. Phillips, M.B. ... | Lucknow | ... | Fyzabad. |
| Lieutenant | A. C. H. Suhr, M.B. ... | R.A.M.Coll. | ... | Malta. |
| ,, | F. M. Hewson ... ... | Quetta ... | ... | Karachi. |
| ,, | W. H. S. Burney ... ... | Egypt. Army | ... | Irish Comd. |
| ,, | J. A. Clark, M.B. ... ... | London | ... | Egypt. |
| ,, | S. S. Dykes, M.B., ... ... | Glencorse | ... | Glasgow. |
| ,, | O. W. McSheehy, M.B. ... | Devonport | ... | Worcester. |
| ,, | P. G. M. Elvery ... ... | Curragh | ... | Egypt. |
| ,, | J. J. H. Beckton ... ... | Canterbury | ... | India. |
| ,, | V. P. Hutchinson ... ... | London | ... | Netley. |
| ,, | J. T. Simson, M.B. ... | Aldershot | ... | Bordon. |
| ,, | T. J. Hallinan, M.B. ... | Fermoy | ... | Curragh. |

# Hospitals and Asylums.

## AYR DISTRICT ASYLUM.

THE report for the year 1910 of Dr. G. Douglas McRae, the Medical Superintendent of this asylum, shows that on January 1st of that year there were 532 on the asylum register, and on the last day of the year 536. The number of Ayrshire cases at the end of the year stood at 508, which was an increase of 15 on those of the previous year. The total cases under care during the year numbered 674, and the average number daily resident 533.5. During the year 142 were admitted, of whom 117 were first admissions. The total admissions were 14 less than in the previous year, and though proving nothing, Dr. McRae hopes from this fact that the more enlightened and healthier ways of living of the general population are beginning to have beneficial results. Of the total admissions, in 38 the attacks were first attacks within three, and in 17 more within twelve months of admission; in 29 not-first attacks within twelve months, and in the remainder the attacks, whether first or not, were either of more than twelve months' duration (46) or of congenital origin (12). Dr. McRae notes that, especially among the men, patients are placed in the asylum only as a last resort. The admissions were classified according to the forms of mental disorder into: Mania of all kinds, 38; melancholia of all kinds, 53; secondary, senile, organic, and epileptic dementia, 22; general paralysis, 13; acquired epilepsy, 3; coma, 1; and congenital or infantile defect, 12. In an exceedingly interesting though brief discussion of the causation of insanity in his admissions, Dr. McRae submits some considerations upon hereditary predisposition. He quotes the results of a French inquirer into the relation of cancer and heredity, who showed that 18 per cent. of persons suffering from any disease whatever had a family history of cancer, whilst actual cancerous subjects gave a family history of cancer in only 16 per cent. "In view of these and similar experiences," he says, "it is certain that elucidation of the causation of mental diseases lies in a search into environmental conditions rather than by attempting to sound the unfathomable depths of so-called hereditary predisposition. . . . That insanity appears in generation after generation of the same stock is undeniable. The fact admits of no explanation, however, unless the originating factor in our material surroundings which started the morbid process be discovered." Turning to the statistical table of probable causes, alcohol was assigned in 35, or in nearly 25 per cent.; syphilis in 13, and phthisis in 12; critical periods in 43; child-bearing in 10; epilepsy in 12 and chorea in 1; gross brain disease in 8, and other bodily affections in 21; domestic worry in 3, and in 75 no cause could be assigned. An insane heredity was ascertained in 46 (32 per cent.), and in 15 congenital defect was present. During the year 40 were discharged as recovered, giving a recovery-rate on the admissions of 28.17 per cent., 34 as relieved, and 10 as not improved. During the year also 54 died, giving a death-rate on the average numbers resident of 10.13 per cent. The deaths were due in 28 to nervous diseases, including in this category 13 from general paralysis and 8 from cerebral haemorrhage, atrophy, or softening; in 13 to chest diseases, with 5 from pulmonary consumption; in 5 to abdominal diseases, and in 8 to general diseases. Tuberculosis was the cause, principal or contributory, of death in 10, or 18 per cent. of the total deaths, but of these 7 had definite signs of consumption on admission. All deaths were from natural causes; the general health was good throughout the year, and the institution was entirely free from epidemic disease. The Lunacy Commissioners in their favourable report observe with satisfaction that a laboratory for more minute and extended clinical research has been fitted up in the hospital block.

## BRITISH LYING-IN HOSPITAL.

THE medical report presented to the annual meeting of the British Lying-in Hospital, Endell Street, London, W.C., stated that 470 women, of whom 125 were primiparous, had been admitted during the year. In 16 cases induction of labour was performed with satisfactory results to both mother and child; Caesarean section was performed twice, with excellent results; operative interference was necessary in 36 cases. There were 3 maternal deaths, 1 due to heart failure in a debilitated subject following severe *post-partum* haemorrhage, 1 due to exhaustion and heart failure in a subject rendered extremely anaemic by repeated severe haemorrhages during pregnancy and during labour, and 1 due to uraemia. The total number of children born was 472; 13 children were stillborn, 11 died from prematurity, and 1 from periostitis. In the out-patient department 601 women, including 15 primiparous, were delivered.

Forceps were applied on three occasions, and version was performed once. There was no maternal death; 6 children were stillborn, of whom 3 were macerated and 1 premature; *ante-partum* haemorrhage occurred in 1 case and severe *post-partum* haemorrhage in 8.

### THE QUEEN'S HOSPITAL, BIRMINGHAM.

THE number of patients treated at this hospital during 1910 was 42 638, and of these 3,273 were in-patients and 39,365 out-patients. This was a slight increase upon the numbers of the previous year. The total amount of income was £10,818, and the expenditure £16,037. The excess of expenditure over income, amounting to £5,200, has had to be met by drawing upon the legacies and exceptional donations suspense account. The finances of this hospital cannot be considered satisfactory until the normal income and expenditure approximate much more closely than at present.

### ROYAL DENTAL HOSPITAL, LONDON.

THE report for 1910, submitted at the annual general meeting of the Royal Dental Hospital on March 9th, showed that the institution had had a satisfactory year. The mortgage debt still remains very high, but was reduced during the year by £1,500 over and above the half-yearly compulsory repayments of some £1,400. The joint report of the chairman of the Medical Committee (Mr. J. F. Colyer) and the dean of the school (Mr. W. H. Dolamore) showed that the surgical operations numbered 19,606, and miscellaneous operations (including special surgical cases) 12,855. The number of visits in the children's department was 7,015, while over 12,000 cases passed through the general anaesthesia department.

### BRADFORD ROYAL EYE AND EAR HOSPITAL.

THE report presented to the annual meeting of this hospital, held at the Bradford Town Hall on February 24th, under the chairmanship of the Lord Mayor, showed that the number of in-patients admitted during the year was 1,340, and the number of operations 1,392, of which 103 were cataract operations; 8,063 out-patients attended—4,508 from Bradford and 3,555 from places outside the city; one-fourth of the cases were sent by doctors. The total expenditure was £3,925. This was larger than usual on account of various alterations and improvements made in the building. These included a complete system of ventilation, repairs calculated to render the wards aseptic, and the conversion of the large day-room into a new ward containing 13 beds and 7 cots. A nurses' home had also been provided.

### NATIONAL MATERNITY HOSPITAL, DUBLIN.

THE annual report of the National Maternity Hospital, Dublin, states that the number of intern maternity patients during the past year was 898. The extern maternity cases attended by the doctors and nurses of the hospital numbered 1,135, while over 4,000 patients attended for treatment of various sorts at the hospital dispensary. Each extern case was attended daily for nine days subsequent to confinement. A strong appeal for financial support was made, as the hospital is over £4,000 in debt.

### GLASGOW CANCER HOSPITAL.

THE report submitted to the annual meeting of the Glasgow Cancer Hospital on March 30th showed that 139 patients had been treated in the hospital and 45 in the outdoor department. Details were given as to the building extensions now completed, which, it is hoped, will be formally opened at an early date. The research department had also been equipped and organized. The hospital is the only one of its kind in Scotland.

### BRISTOL CHILDREN'S HOSPITAL.

AT the annual meeting of the Children's Hospital it was stated that there were 711 children and 56 women admitted as in-patients, 3,758 children and 1,650 women as out-patients. The income was £4,808, the expenditure £4,972; and the committee had for the first time kept their accounts on the system advocated by Sir Henry Burdett.

# Vacancies and Appointments.

***This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.***

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Physician.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CARDIFF INFIRMARY.—House-Surgeon for the Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Resident House-Surgeon. Salary, £50 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary for first six months at the rate of £90 per annum, afterwards £100 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN HOSPITAL AND DISPENSARY.—Resident Male House-Surgeon. Salary, £90 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Senior House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician. Honorarium, 30 guineas for six months.

HULL CORPORATION.—Resident Medical Officer for the Sanatorium and Evan Fraser (Small-pox) Hospital. Salary to commence, £250 per annum.

HUNTINGDONSHIRE COUNTY COUNCIL.—Medical Officer of Health and School Medical Officer. Salary, £400 per annum.

LEEDS GENERAL INFIRMARY.—Ophthalmic Officer. Salary, £100 per annum.

LINCOLN GENERAL DISPENSARY.—Resident Junior Medical Officer. Salary, £175 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

MANCHESTER: HULME DISPENSARY.—(1) Honorary Physician; (2) Honorary Surgeon.

NEWCASTLE-UPON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160 for first year, increasing to £180 afterwards.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Male Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Salary, £130 per annum, rising to £150.

OLDHAM ROYAL INFIRMARY.—(1) Senior House-Surgeon. (2) Third House-Surgeon. Salary £120 and £80 per annum respectively.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £50 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—House-Surgeon. Salary, £50 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Resident House-Surgeon. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—Honorary Surgeon.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUNDERLAND ROYAL INFIRMARY.—Male (Junior) House-Surgeon. Salary at the rate of £80 per annum.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £80 per annum.

WAKEFIELD WEST RIDING ASYLUM.—Assistant Medical Officer to act as locumtenent during summer months. Salary, £3 3s. per week.

WEST HAM UNION.—Second Assistant Medical Officer for the Workhouse. Salary, £120 per annum, increasing to £150.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Ottery St. Mary, co. Devon, and Forgue, co. Aberdeen.

MEDICAL REFEREES.—The Secretary of State for the Home Department announces vacancies for County Court Circuit No. 5 and No. 17 and for the Sheriffdom of Berwick, Roxburgh, and Selkirk.

## APPOINTMENTS.

ADAMS, E. G. B., M.B.Lond., Clinical Assistant to the Samaritan Free Hospital.

BREWSTER, Rex C., M.R.C.S., L.R.C.P., House-Physician to the Royal Hospital for Diseases of the Chest, City Road, E.C.

DAMAN, Thomas W. A., M.A.Camb., M.B., C.M.Edin., Medical Referee under the Workmen's Compensation Act for County Court Circuit No. 17—that is, Lincoln, Gainsborough, Horncastle, Market Rasen, and Caistor County Courts.

EVANS, T., M.D.Edin., Medical Superintendent of the Holborn Union Infirmary.

KILGOUR, William Robert, M.R.C.S., L.R.C.P., Resident Medical Officer to the Kensington Dispensary and Children's Hospital.

LIMONT, A. W., M.B., C.M.Edin., District Medical Officer of the Ormskirk Union.

LOUGHRIDGE, J. A., M.B., Ch B.Edin., Certifying Factory Surgeon for the Amble District, co. Northumberland.

MEADOWS, F. E. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Woodbridge Union.

MUIR, Garvin D., M.B., Ch.B.Glasg., F.R C.S.Edin., House-Surgeon to Hartlepools Hospital, Hartlepool.

NOCK, W. W., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Penkridge District, co. Stafford.

PEEL, H. G., L.S.A., District Medical Officer of the Bromsgrove Union.

PRATT, J. H., M.B., District Medical Officer of the Epping Union.

SALT, A. P., M.R.C.S., L.R.C.P., District Medical Officer of the Eastry Union.

SCOTT, J. W., M.B., B.Ch.Dub., Certifying Factory Surgeon for the Coulsland District, co. Tyrone.

TURNBULL, George Lindsay, M.A., M.D., B.Ch.Oxon., Honorary Medical Officer to the Kensington Dispensary and Children's Hospital.

WHITE, J., L.R.C.P.and S.Irel., Certifying Factory Surgeon for the Ballyraggat District, co. Kilkenny.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CANDLER.—On April 9th, at 9, The Terrace, Woodford Green, Essex, to Dr. and Mrs. J. P. Candler, a son (Horace John Pycock).

MACDONALD.—On March 12th, at Zanzibar, East Africa, the wife of George Allardice MacDonald, M.B., C.M.Edin., Principal Medical Officer, of a daughter

### DEATHS.

LAMB.—At 41, Comely Bank, Edinburgh, on April 11th, Major George Lamb, M.D., Indian Medical Service, Director of the Pasteur Institute, Kasauli, in his forty-second year.

TRACEY.—On the evening of Good Friday, April 14th, in Exeter, Henry Eugene Tracey, M.B.Lond., M.R.C.S., of Willand, aged 44. Funeral at Willand Church on Wednesday, April 19th, at 3.30.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers:—(1) Dr. C. W. Chapman: Notes on a Case of Pigmentary Syphilide in a Patient with Heart Disease. (2) Mr. E. W. Roughton: A Short Account of Fourteen Consecutive Successful Laparotomies for Acute Intussusception in Infants. (3) Dr. F. Langmead; Colonic Tetany.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration by Mr. Shattock of Specimens illustrating Actinomycosis, Leprosy, etc.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—(1) Paper:—Dr. W. Knowsley Sibley: The Relation Between the Teeth and Certain Diseases of the Skin and Mucous Membrane. (2) Casual Communications:—Mr. Peyton Baly: (*a*) An Erosion Cavity on the Lingual Aspect of a Lower Incisor; (*b*) Dislocation of the Pulp of a Temporary Incisor, the Result of a Fall, with Subsequent Removal of the Pulp and Apex Intact.

### TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper:—Dr. F. J. Waldo, J.P.: The Ancient Office of Coroner.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Discussion on the After-History of Cases of Albuminuria Occurring in Adolescence, to be opened by Dr. J. F. Goodhart, followed by Drs. West, Tirard, Saundby, Clement Dukes, Herringham, Collier, Hale White, Armstrong, Garrod, and others.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration by Professor Keith of Specimens illustrating Meningocele and other Congenital Deformities of the Brain and Membranes.

ROYAL SOCIETY OF MEDICINE:

SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—Cases and Specimens.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper: Dr. W. Bulloch and Mr. Major Greenwood, jun.: The Existence of a Phthisical Diathesis.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Accessory Sinuses. Friday, 3 p.m., Clinical Demonstration.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Scoliosis, Neurotic Spine. Friday, 5.15 p.m., Flat-foot, Genu Valgum, Genu Varum.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Some Aspects of Diseases of the Breast.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics. 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics, *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations, Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C. — Thursday, 5 p.m., The Hair in Health and Disease.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m. Eye, 10 a.m.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **APRIL.** | |
| 24 MONDAY .. | |
| 25 TUESDAY .. | FOLKESTONE DIVISION, *South-Eastern Branch*, Hotel Wampach, Folkestone, 8.30 p.m. |
| 26 WEDNESDAY | LONDON: Committee on Fractures, 9.30 a.m.<br>**London: Central Council, 2 p.m.**<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 27 THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, Orford Road, Walthamstow, 4 p.m. |
| 28 FRIDAY .. | BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.<br>BOSTON AND SPALDING DIVISION, *Midland Branch*, White Hart Hotel, Spalding, 3 p.m. |
| 29 SATURDAY .. | |
| 30 Sunday .. | |

| Date. | Meetings to be Held. |
|---|---|
| **MAY.** | |
| 1 MONDAY .. | |
| 2 TUESDAY .. | |
| 3 WEDNESDAY | SOUTH-EASTERN OF IRELAND BRANCH, Annual Meeting of Branch, also Branch Council and Local Division, Victoria Hotel, Kilkenny, 12.30 p.m.; Luncheon, 2 p.m. |
| 4 THURSDAY .. | LAMBETH DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Bethlem Royal Hospital, 4 p.m. |
| 5 FRIDAY .. | |
| 6 SATURDAY .. | |
| 7 Sunday .. | |
| 8 MONDAY .. | |
| 9 TUESDAY .. | |
| 10 WEDNESDAY | |
| 11 THURSDAY .. | |
| 12 FRIDAY .. | FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Buildings, Barrow, 3.15 p.m. |

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# SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 29TH, 1911.


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## SPECIAL NOTICE TO MEMBERS.

***Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.***

# MATTERS REFERRED TO DIVISIONS.

## REPORT OF COUNCIL ON THE REFERENDUM AND POSTAL VOTE.

### INTRODUCTORY.

1. The Council has taken into careful consideration the following instruction of the Representative Body:

ANNUAL REPRESENTATIVE MEETING.

*Minute* 330.—That, while recognizing the necessity of proceeding without delay with the formation of a new Company, the Representative Meeting considers it desirable that a full consideration should be given by the Association to the question of the Referendum by postal vote, and the arrangements generally for securing that the decision of the Representative Meeting shall, as far as possible, represent accurately the opinion of the Association, and that it be an instruction to the Council to prepare a Report on these subjects for the consideration of the Divisions, and, after receiving and considering the replies of the Divisions, to submit a Report with recommendations to the next possible Representative Meeting, whether that takes place under the present Company or under the new Company which it is proposed to form.

2. The instruction of the Representative Body relates both to the specific question of taking a Referendum by the postal vote, and also to the arrangements generally for securing that a decision of the Representative Body shall, as far as possible, represent accurately the opinion of the Association.

3. The conclusions at which the Council has arrived, and which it submits herewith for the consideration of the Divisions, are summarized shortly in the paragraphs immediately following.

The considerations which have led the Council to these conclusions are stated more fully, for the assistance of the Divisions, in the appended Memorandum (page 202).

### SUMMARY OF CONCLUSIONS.

I. REFERENDUM BY POSTAL VOTE.

(A) *Changes of Procedure in Initiating a Referendum.*

4. The Council has fully considered the arguments advanced by those who consider that at present the initiation of a Referendum by a vote of the Council is so hampered, by the regulations as to the quorum and majority necessary for the purpose, as not to afford a sufficient opportunity for a Referendum to be taken in every case in which it is desirable in the interests of the Association that this should be done. The Council is of opinion that, in so far as the existing arrangements might operate to prevent a Referendum from being taken in a case in which it was desirable, the proper remedy is not to permit a smaller proportion of the Council than at present to initiate a Referendum, but to provide an alternative method—namely, by the action of a minority of the Constituencies. The taking of a Referendum by the Council upon a decision of the Representative Body produces an appearance of a conflict between the two principal authorities of the Association, which, in the interests of the Association, should be avoided as far as possible. The Council proposes, therefore, that provision should be made whereby one-fifth of the total number of Constituencies in the Association, including in their membership not less than one-fifth of the aggregate membership of the Association, should have power to obtain a Referendum on a decision of the Representative Body. The detailed arrangement as regards period within which action must be taken, and procedure necessary, will be a matter for subsequent consideration in the event of the Divisions indicating by their replies that they approve the principle of this proposal.

(B) *Mode of carrying out Referendum: Postal Vote.*

5. On the subject of taking a Referendum by the Postal Vote, the Council is of opinion that it would be prejudicial to the interests of the Association, for the reasons stated in paragraph 9 of the appended Memorandum, to facilitate the decision of a Referendum by the votes of those who had habitually exhibited no interest in the work of the Association. On the other hand, the Council recognizes that Members who have a genuine interest in the work of the Association may on occasion be debarred, by circumstances over which they have no control, from taking part in a Meeting of a Division, and that such Members should be afforded a reasonable opportunity of exercising their vote. The cases which appear to the Council to demand consideration and provision are (1) Members of widely scattered Divisions who may find it impracticable to attend Meetings except upon rare occasions; (ii) Members who ordinarily would attend Meetings of their Divisions, but who may be accidentally prevented by the claims of professional duty from attending the Special Meeting at which the vote on a Referendum is being taken. In the opinion of the Council both these cases will be met adequately by a provision that if any Member shall, on or before a certain fixed date in any year, intimate formally to the Head Office of the Association his desire that, in the event of a Referendum being taken on any occasion during the ensuing twelve months, he be permitted to record his vote, if necessary, by post, arrangements shall be made for his vote being so recorded in the event of his being unable to attend the Meeting in question. The detailed arrangements necessary for giving effect to such a provision would be a matter for subsequent consideration, and regulations for the purpose would be submitted by the Council to the Divisions and to the Representative Body, in the event of the Divisions intimating by their replies upon this Report that they think it desirable that such arrangements should be made. In the meantime the question of principle only is submitted.

II. OTHER ARRANGEMENTS FOR SECURING THAT THE DECISIONS OF THE REPRESENTATIVE BODY AS FAR AS POSSIBLE REFLECT THE OPINION OF THE ASSOCIATION.

6. The chief difficulty requiring consideration under this head is the fact that it is within the power of the Representative Body, by the adoption of amendments to motions which have been circulated to the Divisions, or by the adoption of motions arising out of the consideration of Reports of the Council or of Committees, to pass Resolutions which have not been in terms before the Divisions. The usefulness of the work of the Representative Body would, in the opinion of the Council, be greatly impaired were it deprived of the power of passing Resolutions under such conditions. On the other hand, the power to pass something which has not been in terms before the Divisions might occasionally result in a misrepresentation by the Representative Body of the opinion of the Association, and provision against such miscarriage would relieve some of the anxieties which have given rise to the demand for modifications in the method of taking a Referendum. The Council considers that it is not desirable that a possible miscarriage of the kind here under consideration should be dealt with by way of Referendum; that is to say, by way of formal appeal against the decision of the Representative Body. A simpler procedure should be devised, and would be found, in the opinion of the Council, in giving power to the Council, in any case in which it considers that the substance of a Resolution of the Representative Body has not previously been considered by the Divisions, to refer it for the consideration of the Divisions in the same manner in which it would have been considered had it been placed before them in the first instance. A discretion being thus left to the Council, it should also be placed within the power of a minority of the Constituencies to compel such a reference by requisition, and the Council thinks the number of Constituencies for this purpose should be fixed at one-tenth of the total number. In any case where it is important that a decision should be arrived at promptly, the Council should be authorized to take action in accordance with the preponderating replies of the Divisions, and where immediate action is not necessary, to reserve the matter for decision, after discussion in the Divisions, by the next Representative Meeting.

## QUESTIONS SUBMITTED TO DIVISIONS.

QUESTION 1.

**Is the Division of opinion that, in addition to the existing provisions whereby a Referendum upon a decision of a General Meeting or of the Representative Body may be taken upon the initiative of the Council, provision should be made in the Regulations empowering not less than one-fifth of the Constituencies, having an aggregate membership of not less than one-fifth of the membership of the Association, to compel a Referendum to be taken?**

QUESTION 2.

**Is the Division of opinion that, in order to enable those Members of the Association, who are precluded by circumstances beyond their control from attending a Division Meeting held to consider the subject of a Referendum, to express their opinion, provision should be made whereby any Member, who shall have intimated to the Head Office of the Association, in writing, on or before a date fixed by the Council, his desire to be allowed to record his vote on a Referendum by post, shall be allowed so to record it (in such manner as the By-laws may provide) in respect of any Referendum taken within the ensuing twelve months?**

QUESTION 3.

**Is the Division of opinion (i):—**

**That power should be given to the Council, before taking action upon any resolution of the Representative Body, the substance of which in the opinion of the Council has not previously been considered by the Divisions, to refer it for the consideration of the Divisions, and that the Council should have power to take action on the matter, if one of urgency, in accordance with the replies of the Divisions upon such reference, or to reserve it, if not urgent, for decision by the next Representative Meeting after consideration by the Divisions;**

**and (ii):—**

**That power should also be given to one-tenth of the Constituencies to obtain by requisition a reference, in the same manner, to the Divisions of any resolution the substance of which has not, in their opinion, previously been considered by the Divisions?**

## APPENDIX.

### MEMORANDUM.

*Object of Referendum and Present Procedure.*

1. The ground for the provision of a Referendum is that occasionally a decision of the Representative Body (or of a General Meeting) may not correctly reflect the opinion of the Association. Under the arrangements adopted on the recommendation of the Constitution Committee in the new Constitution of 1902, it was left to the Council to protect the Association against such a possible misrepresentation of its views, and the machinery adopted for the purpose was that of a reference to General Meetings of the Divisions. The only change made since that date has been to provide that the majority of the Council necessary for deciding upon an appeal of the kind against a decision of the Representative Body should be the same as the majority of the Representative Body which is necessary to make its decision binding on the Association, namely, a two-thirds majority, and also that the quorum of the Council for such a purpose should be the same as the quorum of the Representative Body, namely, half the Members appointed.

*Arguments against Present Method of taking Referendum.*

2. It has been contended that this machinery is inadequate for the following reasons: first, because over one-third of the Council are appointed either by the Representative Body as a whole, or by the Representatives in Representative Meetings, and thus the Council does not, it is suggested, afford an independent check; secondly, because the quorum and majority required are so large that the Referendum would, it is suggested, rarely be attainable by those who considered the decision of the Meeting unrepresentative; thirdly, because of the, as it is considered, defective character of the bodies to which the reference is

made, namely, the General Meetings of the Divisions, these being, in the first place, the bodies by which the Representatives were themselves appointed and instructed, and, secondly, not affording, it is alleged, an adequate representation of the membership of the Association, inasmuch as such a small proportion of members actually attend Divisional Meetings.

*Suggested Alterations in Method of taking Referendum.*

3. It has, therefore, been proposed (*a*) to reduce the majority of the Council necessary for taking a Referendum; (*b*) to provide an alternative machinery for determining upon the Referendum, namely, a requisition from a certain number of Constituencies which should include, in the aggregate, a certain minimum number of members; and (*c*) to make the reference, not to the Divisions voting in General Meetings, but to the individual Members of the Association by post.

4. It will be seen that the proposals (*a*) and (*b*) deal with the machinery for initiating a Referendum, while the proposal (*c*) relates to the method in which the Referendum should be taken. These two aspects will more conveniently be considered separately. Before proceeding to examine the considerations specially applicable to each, the Council thinks it well to draw attention, to one point which affects both, namely, as to the extent to which the actual experience of the Association may be considered to demonstrate the necessity for any change in the existing machinery. It appears to the Council that the dangers which have been discussed of the Representative Body failing to voice the opinion of the Association are rather theoretical than actual. In so large a meeting as that of the Representative Body, composed of selected Representatives, the broad average common sense and sense of duty of the Members in general have scope to come into operation. Upon a review of the actual work of the Representative Body during the last eight years, it is apparent that the decisions against which there has been opposition from any appreciable number of Members have, in fact, been very few, and those which have excited the most controversy have been resolutions adopted, not by snatch votes, but after careful discussion by the Divisions, and they have been reaffirmed after further reference and protracted discussion.

5. It is questionable, in fact, whether there has been any real ground for suggesting that the decisions of the Representative Body have not reflected the will of the general body of Members. What has really happened has been that the decisions have been contrary to what an active minority have thought desirable.

6. On the other hand, the prolonged agitation in the Association on this subject demonstrates the existence of uneasiness among a considerable number of Members which it is desirable to allay, if this can be done without prejudice to the interests of the Association. The Council proceeds to examine, therefore, the objections that have been made to the proposals (*a*), (*b*), (*c*), stated in paragraph 3, and to indicate the conclusions at which it has arrived on the subjects, (i) of possible changes in the method of initiating the Referendum, and (ii) of possible changes in the method of carrying it out.

*Method of Initiating Referendum.*

7. Respecting (*a*), the question of reducing the majority necessary in the Council, it may be sufficient to say that probably the Association would not desire an appeal by the Council from a decision of the Representative body to be made too easy of attainment, avowed conflict between the Governing Body and the Executive of the Association not being in itself a desirable incident. Moreover, the fact that twelve Members of the Council are elected by grouped Representatives does not mean necessarily that, as has been suggested, they will vote on all matters in accordance with the decision of the majority of the Representatives, and therefore the attainment of a two-thirds majority of the Council in a suitable case would not be so impracticable as has been alleged.

8. On the other hand, the adoption of the proposal (*b*) to empower a certain number of Constituencies to demand a Referendum would avoid the difficulties associated with such action by the Council, and would be in accordance with the machinery of the Referendum in countries in which it is adopted as part of the regular legislative working of the national constitution. The number of Constituencies enabled to exercise this power must be considerable. The estimated cost of taking the Referendum in 1908 was £135, and on this and every ground it is undesirable to make the Referendum a procedure frequently put into operation.

9. The Council is therefore of opinion, as stated in Paragraph (A) of the Summary of its Conclusions, that, while it is undesirable to alter the majority or quorum of the Council necessary for initiating a Referendum, it is desirable to give power for the initiation of a Referendum to such a minority of the Constituencies as shall be large enough to indicate the existence of a body of opinion of whose objections it is desirable authoritatively to dispose, one-fifth of the Constituencies, including one-fifth of the Members, being suggested as suitable.

*Machinery in taking Referendum.*

10. Concerning the Postal Vote, the following objections to its adoption require consideration:

11. First, that any actual difficulty of attending Divisional Meetings applies only to a small proportion of the Divisions, the small attendance elsewhere merely corresponding in point of fact to the experience in all other departments of life as to the number of members of any organization who can or will take part in its active work. In the majority of cases it is not inability, but the ordinary inertia of human nature that creates the difficulty. As regards difficulties due to distance of Members from place of meeting and defective railway communication, it was a fundamental principle of the new constitution that the Divisions should be assigned such boundaries that every Member of a Division would have a reasonable opportunity of attending every important meeting thereof. This principle was pointed out to the Branches at the time when the Divisions were mapped out by the Branch Councils, immediately after the adoption of the new constitution, and if it be the fact that Members of any large number of Divisions have not a reasonable opportunity of attending their meetings, the question arises whether those Divisions and their Branch Councils ought not to be asked to reconsider their boundaries.

12. Secondly, that those who attend Division Meetings have the opportunity of taking part in a thorough discussion of the subject, and are thus in a better position to vote advisedly than those who merely receive, and may or may not read, the papers circulated.

13. Thirdly, that it is exceedingly difficult to frame a question satisfactorily for decision by a Postal Vote. Much would depend upon the way in which the question was framed, and this might be so done as to prejudice the decision in one way or the other.

14. Fourthly, that the work of the Association, as of every other organization of its kind, is carried on from month to month, and from year to year, by its active Members, who are virtually authorized by the inactive to conduct the work for them. Continuity of policy would be seriously prejudiced if the machinery existed for frequent appeals, by discontented minorities, from the decisions of the active to the inactive, who would not be familiar with those considerations which had inspired the general course of policy of the Association upon a wide subject, a small part only of which would form the actual subject for reference.

15. Fifthly, that it is most important for the success of the Association to do everything possible to encourage Members to attend Meetings for the purpose of fostering personal acquaintance and exchange of opinions. If the procedure of referring questions for decision by Postal Vote became easy or common, it would remove one important inducement to Members to meet together.

16. In view of the considerations above stated, the Council does not think it conducive to the interests of the Association to provide that a Referendum should be taken automatically by submitting the question by post to every Member, but that the decision should continue to be ascertained through General Meetings of the Divisions. On the other hand, the Council considers that there exist genuine grievances (i) as regards the constant difficulty experienced by many Members of certain exceptionally situated Divisions in attending Meetings, owing to distance and defective railway communications; and (ii) as regards the difficulty which may occasionally be

experienced by any Member in attending a Division Meeting owing to the exigencies of professional duty. To meet these difficulties the Council thinks it sufficient to propose, as stated in paragraph (B) of its Summary of Conclusions, that those Members who will take the trouble to make a special application on or before a fixed date in each year should be permitted to record their votes by post in any Division Meeting held to decide on the subject of a Referendum during the ensuing twelve months.

*Other Arrangements for Securing Accurate Representation of the Opinion of the Association.*

17. In accordance with the instruction of the Representative Meeting, the Council deals in this Report with other questions, besides that of the Referendum by postal vote, of possible means for securing more fully than at present that the decisions of the Representative Body shall, as far as possible, represent accurately the opinion of the Association.

18. In addition to the questions to which the discussions within the Association have drawn attention—namely, of the means to be relied upon for initiating the Referendum, and of the mode of taking such Referendum, the important question arises as to the kind of occasions which should be regarded as justifying the taking of a Referendum. These were originally defined in the Regulations in 1902 as being when the Council was of opinion that a decision of the Representative Meeting did not accurately represent the wishes of the Association, but no indication was given as to the considerations by which the Council should be guided in arriving at such conclusion.

19. If the Resolutions of the Representative Body were confined to the *ipsissima verba* of those motions which had been published in the JOURNAL up to, say, three months before the Meeting, the only justification for an appeal by Referendum would appear to be, either (i) that at the time when the matter was before the Divisions they had not in their possession the information necessary to enable them to give a vote which represented their true opinion; or (ii) that the Representatives had definitely disobeyed their instructions. Either of these contingencies may be regarded as not likely often to occur, and if either of them should be deemed to have occurred in any given instance, the existing Regulations, subject to the amendments already proposed in this Report, would afford sufficient protection.

20. There are, however, circumstances in which a Body such as the Representative Body may unavoidably be placed in a position of difficulty for which it seems desirable that some provision other than that of a Referendum should be made. These arise from the necessity of permitting amendments or riders to be moved in the Meeting, of the terms of which it may not have been possible to give notice previously to the Divisions.

*Difficulty in connexion with Amendments.*

21. It is possible under the Regulations for an Amendment or Rider which has not been before the Divisions to be moved in the Representative Meeting to a Motion which has been before the Divisions, or for a Motion which has not been before the Divisions to be brought forward as a Rider or Amendment to the Motion for adoption of a Report. It is possible in this way for the Representative Body to pass important resolutions the substance of which the Divisions have not had a previous opportunity of discussing.

22. This case has been urged as justifying the desire to make easier the taking of a Referendum, but it does not appear to the Council to be a case which should be treated in a form suggesting, as does a Referendum, a formal appeal to the Divisions against a decision of the Representative Body. The Referendum should be regarded as an exceptional procedure to which it is desirable very rarely to have resort, the object being to meet a condition which must be expected rarely to occur. The case now under consideration is one of inherent difficulty, which may not infrequently arise, and for which some simple procedure should be adopted which can readily be put into operation. Such a procedure would be that in any case in which a resolution of the Representative Body had not been, in substance, considered by the Divisions, it should be open to the Council or to a small number of Constituencies to require that it be referred to the Divisions and a further vote taken in a Representative Meeting before action was taken upon it, or, in any case in which it was necessary to act promptly, that the Council should be authorized to act in accordance with the preponderating opinion of the Divisions ascertained in the same manner as it would have been had the resolution been placed before the Divisions in the ordinary way in the first instance. The power, as regards the Constituencies, of putting in motion such a reference, may suitably be exercised by a smaller number than is suggested for initiating a Referendum, and the number proposed by the Council is, at least, one-tenth of the whole number.

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## REPORT OF COUNCIL ON THE ADOPTION OF THE METRIC SYSTEM OF WEIGHTS AND MEASURES BY MEDICAL PRACTITIONERS IN PRESCRIBING AND DISPENSING.

(1) The Council, in pursuance of the instruction of the Annual Representative Meeting (Sheffield, 758), having considered the question of a procedure by which the Metric System may with least inconvenience to medical practitioners be introduced for prescribing and dispensing, submits for the considerations of the Divisions the scheme embodied in the following report and recommendations.

(2) The Council recognizes that the full and complete adoption of the Metric System in practice depends upon its being made the system according to which students are trained, so that they will learn to think of quantities primarily in grams, centimetres, etc., instead of, as at present, primarily in terms of grains, minims, etc. It is therefore recommended that the teaching, both theoretical and practical, in pharmacology and materia medica, should henceforth be according to the Metric System.

(3) The advantages of the adoption of the Metric System may be briefly stated:

(*a*) All calculations and measurements are simplified where the various measures are related by multiplication (or division) by 10, which is the basis of our system of notation.

(*b*) The adoption by the medical practitioner of the same system of measures as is universally employed in laboratory work would make the reports of the investigator more readily intelligible to the practitioner, and would tend to keep in closer touch the investigations of science and the applications of practice, and so to unify British science and practical medicine.

(*c*) The work of Britain and of other modern nations would both gain by being stated in the same terms, and so being mutually intelligible.

(4) The difficulties in the way of the introduction of the system are, first, the difficulty which practitioners trained to use the English system of weights and measures find in adapting themselves to a new system in prescribing and (when they dispense for themselves) in dispensing, and secondly, the difficulty of bringing about the necessary co-operation between doctors and chemists in cases in which doctors do not themselves dispense. These questions are considered separately in the following portions of this Report:

A.—TRANSITIONAL PROCEDURE SUGGESTED FOR ADOPTION BY MEDICAL PRACTITIONERS.

(5) To practitioners who have been trained according to the present system, the Council recommends the adoption of transitional procedure, which would enable them at once to adapt their prescriptions to the measures of the Metric System, and so avoid the drawbacks that would arise from a divergence in practice between junior and senior practitioners, and would also at once secure for senior practitioners the advantages which make the general adoption of the Metric System desirable.

(6) The difficulty before the practitioner who has been trained to think in terms of grains and minims is to translate his quantities readily into grams and cubic centimetres, and if absolute exactitude were necessary he would require the constant use of tables of equivalents. In practice, how-

ever, the most common mode of administering medicines is by spoonfuls, and even when these are poured carefully into a medicine glass the range of variation is relatively wide and the dosage must be such as to make this variation entirely safe. The Council, therefore, feels justified in recommending to the profession as a transitional measure the following methods which are based on the actual conditions of British practice, and for the suggestion of which the Council is indebted to Dr. R. C. Buist. These will be found to give automatically the conversion of a dosage in grains and minims into a prescription which the dispenser can measure in grams and cubic centimetres with an approximate exactitude well within the range of variation of spoon measures.

*Mixtures.*

(7) In the prescription of an 8-oz. mixture, of which each tablespoonful is to contain

(*a*) Tr. Belladonnae, m V.
Spt. Ætheris, m X.
Vin. Ipecac., m XV.
Syr. Scillae, m XX.
Inf. Senegae ad ½ oz. (*i.e.*, m CCXL).

The Metric prescription for the mixture would be

(*b*) Tr. Belladonnae, 5.
Spt. Ætheris, 10.
Vin. Ipecac., 15.
Syr. Scillae, 20.
Inf. Senegae ad 240.

On comparing (*a*) and (*b*) it is evident that the numbers are the same in both.

(8) The prescriber intends a mixture to contain certain substances in fixed proportions, which will be the same in the single dose and in the bulk, and will not be affected, whether the measures be stated in minims or in cubic centimetres; the numbers of minims will be larger, but the proportions will be the same. The exact factors for the conversion of grams into grains and of cubic centimetres into minims are 15.4324 and 16.906, respectively. The procedure used in the above example is to take 16 as a near approximation to each of these numbers. (The extent to which this is inexact may be stated as 4 drops in a teaspoonful.) Now, in ordinary prescribing, 16 doses is the most common of all orders, as represented by tablespoonful doses of an 8-oz. mixture. If, therefore, in such a mixture the prescriber orders the numbers of minims of the drugs A, B, C, D, E in each tablespoonful which he would order in a prescription in English measures, but omits the symbols, and if the dispenser measures in each case the same numbers of cubic centimetres into the bottle, the conversion from English into Metric measures will be automatically completed. Thus it is recommended that the practitioner who wishes to write a prescription for Metric measures should simply write without symbols the drugs with the number of grains or minims he intends to give in each spoonful, and that the dispenser be instructed that each prescription where no symbols are written are to be dispensed in Metric measures.

For teaspoonful doses the bulk would be 2 ozs. or 60 c.c. and for dessertspoonful doses, 4 ozs. or 120 c.c.

(9) The following prescriptions are given in illustration:

(*a*) Recipe—
Tr. Nucis Vom., 5.
Inf. Quass. conc. ad 60.
Sig. Teaspoonful in water before each meal.

(*b*) Recipe—
Tr. Digitalis, 7.5.
Spt. Ætheris, 10.
Dec. Scoparii ad 120.
Sig. Dessertspoonful morn. and night.

(*c*) Recipe—
Ac. Hydrocyan. dil., 3.
Liq. Morph. Mur., 10.
Syr. Tolut., 30.
Inf. Rosae Acid. ad 240.
Sig. Tablespoonful thrice daily.

*Solutions.*

(10) In ordering solutions for various purposes the proportions are so evident that no difficulty arises, and the only point to be borne in mind is the total quantity desired. Thus—

(*a*) Cocain Hydrochlor., 3
Aq. ad 60.
Sig. 5% Cocain Hydrochlor.

(*b*) Argent. Nitrat., 1.
Aq. destil. 50.
Sig. 2% Silver Nitrate.

*Pills and Powders.*

(11) The procedure in ordering pills and powders must be somewhat different from that hitherto described. The order for a pill or powder is based on fractions or small multiples of the grain. The prescriber should therefore become familiar with the equivalence 1 grain = 0.06 gram, which is sufficiently exact for practical purposes. To facilitate the work of the dispenser the number of pills or of powders ordered should be a multiple of ten. Thus—

Recipe—
Aloin.
Podophylli Rosinæ.
Jalapæ Resinæ.
Ext. Hyoscyami āā 0.015. M. ft. pil.
M. 10.
Sig. One after each meal.

For his pill mass the dispenser simply shifts the decimal point of the prescription.

*Linear Measures.*

(12) The equivalence 1 inch = 2.5 cm. is used in practice.

SUMMARY.

(13) The procedure here recommended for the use of medical practitioners may thus be summarized:

(*a*) The prescription is still to be based on the single dose.

(*b*) In the case of mixtures 16 doses are to be ordered by writing with figures only the number of grains or minims of each ingredient in one spoonful.

(*c*) In the case of pills and powders 10 are to be ordered and the prescription is to give in figures only the metric equivalent of the grains of each ingredient in the single dose.

(*d*) The dispenser is to be informed that every prescription written without symbols is to be dispensed in Metric measures.

(14) The adoption of the foregoing suggestions would overcome the difficulty of introduction of the new system by a medical practitioner who does his own dispensing, or by one whose dispensing is usually done by the same chemist. For such cases no intervention by the Divisions will be necessary beyond that of bringing this Report under the notice of the local profession. It can be left to each practitioner to take his own course.

B.—CO-OPERATION WITH PHARMACISTS.

*Divisional Action.*

(15) It remains to deal with the case of prescriptions given to be made up by any chemist to whom the patient may choose to go. For this purpose some definite understanding between medical practitioners and pharmacists will be necessary and Divisions could usefully bring about such understanding. The procedure would be for the Executive Committee of the Division, after ascertaining that medical opinion in the district is ripe for the step, to make representations to the local Pharmaceutical Association, and to arrange a conference between a small number of members of the Executive Committee and a small number of pharmacists appointed by their Association.

*Central Action.*

(16) If, and when, the Divisions considered the time ripe, representations would be made by the Association to the Central Organizations of Pharmacists, in order that, pending the general adoption of the Metric System, prescriptions might be systematically written and dispensed in the transitional method suggested in the present report.

C.—RECOMMENDATIONS.

(1) That the teaching both theoretical and practica in pharmacology and materia medica should henceforth be according to the Metric System.

(2) That medical practitioners should now write their prescriptions in Metric form, and that, to facilitate this, mixtures should be ordered in sixteen-dose bulk, and pills or powders should be ordered in tens.

(3) That dispensers should be instructed that every prescription written without symbols is to be dispensed in Metric measures.

(4) That the Divisions should take the matter into consideration, and, if they think desirable, confer with the pharmacists in their area.

## REPORT OF COUNCIL ON THE AFFILIATION OF OUTSIDE BODIES.

The following Special Report is submitted on the subject of Minute 199 of the Annual Representative Meeting at Belfast:—

1. The Council has considered the following instruction of the Annual Representative Meeting, 1909:—

> *Minute 199.*—That it be an instruction to the Council to consider and report to the Divisions on the question of making such arrangements as will allow of the affiliation to this Association of Associations of Medical Men in certain Public Services, and of other Medical Societies.

2. In the opinion of the Council the only kind of affiliation of the Bodies referred to in the instruction which would be compatible with the constitution of the Association would be that they should cease to exist as independent bodies; that those of their Members who are not at present Members of the Association, should be induced to join the Association; and that the Association should make suitable arrangements for carrying out, through its Central Executive, or through Branches or Divisions, as the case might require, the work at present done by those Societies.

3. In consideration of the possibility and desirability of such absorption, distinction must be made between Local Medical Societies, which are open to include in their membership any Local Practitioner, whatever the nature of his professional work, whom the Society considers suitable for election, and the Societies, not usually confined to any area less than that of one of the countries of the United Kingdom, which are formed with the special object of promoting the interests of Members of the profession who occupy some special position such as that of Medical Officer of Health, Poor Law Medical Officer, etc., and whose membership is confined, as a rule, to persons occupying such special positions.

*Local Medical Societies.*

4. As regards the absorption of Local Medical Societies in the Divisions, it has been pointed out repeatedly and consistently, since the reorganization of the Association in 1902, that the Divisions of the Association are capable of carrying out any kind of work which can be done by any Local Medical Society; that they can also through their organic connexion with the Central Organization of the British Medical Association, do some kinds of work better than any purely local Society; that they can undertake some work which purely local Societies could not carry out at all; and that in view of such considerations, the continued separate existence of local Medical Societies causes a waste of energy and of money, and so far from furthering the interests of the profession is often an actual hindrance to the efforts of the Association to promote those interests.

*Societies Representative of Special Interests.*

5. Considering the other branch of the subject of reference, namely, the desirability and practicability of absorption by the Association of Societies devoted to the furtherance of the interests of special classes of medical practitioners, the Council is satisfied by the inquiries made through the Organization Committee that such absorption would be resisted by the executive bodies of most if not all of such Societies; that it could only be carried through, therefore, in the case of any single Society, if a very large proportion of the active members were satisfied that their interests demanded such a change; and that there is not the evidence of the existence of such a desire, which would certainly be forthcoming if the desire were experienced.

6. Looking at the matter from the standpoint purely of the Association, the absorption of any such Society as is under consideration would certainly entail upon the Association the duty of making arrangements for watching specially the interests of the section of the profession whose interests that Society had previously promoted, and such an undertaking might involve the Association in a difficult conflict between its duty to the profession generally and its duty to the special class in question.

7. The Association has repeatedly received applications from Societies representative of special interests to support them in their efforts for the maintenance of those interests. Such support has been readily accorded in so far as it was considered to be consistent with the general interests of the profession, and successful results have been achieved through such co-operation. Every object can possibly be accomplished in this way, which the absorption of such Societies by the Association could be expected to bring about.

8. The Council is therefore of opinion that while the absorption of local Medical Societies by the Divisions is desirable in the interests of the profession, and should be brought about as opportunity arises, it is, on the other hand, undesirable for the Association to absorb existing Societies devoted to the protection of the interests of special sections of the profession, and attempts at such absorption would probably fail.

# British Medical Association.

## SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

### SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1911. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

### GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

*Applications.*

Applications for Scholarships and Grants for the year 1911–12 must be made not later than Tuesday, June 20th, 1911, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C., *March 30th, 1911.*

## THE ANNUAL MEETING, BIRMINGHAM, 1911.

### PATHOLOGICAL MUSEUM.

THE following are the members of the Committee:

*Chairman:* Professor R. F. C. LEITH.

*Honorary Secretary:* A. W. NUTHALL, F.R.C.S.

*Ex-officio Members.*

The PRESIDENT-ELECT (Professor Saundby, M.D., F.R.C.P.).

The LOCAL HONORARY TREASURER (Professor J. T. J. Morrison, F.R.C.S.).

The LOCAL HONORARY SECRETARIES.

The following circular has been sent out by the Committee of the Pathological Museum to gentlemen interested in pathology and likely to help in the organization of a Museum:

The Committee appointed to organize the Pathological Museum in connexion with the Annual Meeting in Birmingham, 1911, propose to arrange the material under the following heads:

I. Exhibits bearing on discussions and papers in the various Sections.

II. Specimens and illustrations relating to any recent research work.

III. Instruments relating to clinical diagnosis and pathological investigation.

IV. Individual specimens of special interest, or a series illustrating the following special subjects:

(*a*) The degenerations and complications of fibroid tumours of the uterus.
(*b*) Osteo-arthritis and rheumatoid arthritis.
(*c*) Granulomatous formations in tertiary visceral syphilis, including hereditary syphilis.
(*d*) The inter-relation between human and bovine tuberculosis.
(*e*) The pathology of glaucoma.
(*f*) Malignant growths of the gastro-intestinal tract removed by operation, with final results.
(*g*) Simple and malignant tumours of the testis.
(*h*) Hypernephromata.
(*j*) Radiograms illustrating — Osteo-arthritis and rheumatoid arthritis; abnormal and pathological conditions of the abdominal viscera; early pulmonary tuberculosis.
(*k*) Pyloric obstruction in children.
(*l*) Diseases of the middle ear.
(*m*) Diseases of the pancreas.

The Committee wish it to be understood that the above are only suggestions, and if there is any subject in which you are specially interested and can supply interesting specimens, they will be welcomed.

The Museum will occupy a central position in the same building as that in which the Sectional work is carried on, and will be easy of access.

The Committee desire to enlist your hearty co-operation, and I shall be glad to hear from you if you are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

Yours faithfully,

A. W. NUTHALL,
Honorary Secretary.

89, Cornwall Street, Birmingham, April, 1911.

# Meetings of Branches & Divisions.

## FIFE BRANCH.

A MEETING of this Branch was held in the Hotel Thornton on Thursday, April 13th, Dr. W. B. DON, LL.D., President, in the chair. There was a larger attendance than usual, twenty-seven members being present.

*Organization of Medical Attendance on the Provident Principle.*—The PRESIDENT opened the discussion with a few appropriate remarks on the importance of the occasion. Regarding the circular which had been issued calling the meeting, the HONORARY SECRETARY explained that the Branch Council did not consider that there would be time in one meeting to dispose of all the matters dealt with in the report, and had advised the members first of all to consider some salient points as dealt with in Questions 2, 3, 6, 22, 25, and 33 of the report, and that after the scheme of the Government had been issued another opportunity would be given further to discuss the subject and instruct the Representative prior to the Representative Meeting in July. The meeting then proceeded to consider the above questions seriatim. The result of the voting was communicated to the Medical Secretary. As there was no time for further discussion, it was agreed to consider the report in more detail at the annual meeting of the Branch in June, by which time it was hoped the Government proposals would be made known. The HONORARY SECRETARY called attention to an answer given lately in the House of Commons by Mr. Hobhouse, Secretary to the Treasury, to the effect that the State sickness scheme was not yet in a sufficiently advanced state to be submitted to representatives of the medical profession. This would appear as if it were intended to consult or at least elicit the opinions of the profession, and a hope was expressed that the British Medical Association, as representing the great body of the profession in the country, would be the medium through which the views of the profession would be ascertained.

The members thereafter enjoyed a cup of tea together, and thus terminated a pleasant and profitable afternoon's conference.

## METROPOLITAN COUNTIES BRANCH:

### CITY DIVISION.

A MEETING of this Division, conjointly with the Æsculapian Society, took place at the Metropolitan Hospital, Kingsland, N.E, on Friday afternoon, April 21st. After partaking of tea, which was served in the Resident Officer's Room at 4 o'clock, the meeting was held in the Board Room, Dr. LEONARD WILLIAMS, President of the Æsculapian Society, in the chair.

*Cases.*—The following interesting series of cases were shown:—Dr. LANGDON BROWN: (1) Huntingdon's chorea; (2) lympho-sarcoma (?) of mediastinum in a boy; intense dyspnoea and cyanosis had been relieved by one exposure to *x* rays; (3) combined degeneration of cord with spasticity and tabes; (4) pancreatic infantilism in a boy of 13; (5) gumma of hard palate after treatment with "606." Dr. LESLIE DURNO: Naevus of glans penis. Mr. GORDON WATSON: Appendicostomy for mucous colitis. Mr. ELMSLIE: Infantile palsy cured after fifteen years by instrument and exercise. Dr. LEONARD WILLIAMS: (1) Graves's disease, two cases, male and female; (2) myxoedema; (3) Parkinson's disease. The cases were discussed as shown, and many questions were asked and answered.

*Vote of Thanks.*—On the motion of Dr. E. A. LERMITTE, Chairman of the City Division, a very hearty vote of thanks was accorded to the staff for the interesting demonstration and hospitality.

## NORTH WALES BRANCH.

A MEETING of the Branch was held at Criccieth on Tuesday, April 18th, at 2.45 p.m., Dr. O. WYNNE GRIFFITH (Pwllheli), the President, in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were confirmed and signed.

*Report of Branch Council.*—The HONORARY SECRETARY (Dr. H. Jones Roberts) read the report of the Branch Council, which was received and adopted.

*Financial Statement for 1910.*—The balance-sheet for the year 1910 was submitted, received, and adopted.

*Papers and Exhibits.*—The following communications were presented: Dr. PRICE MORRIS (Old Colwyn): A case of hydatid of the liver with peculiar complications. Dr. J. E. GEMMELL (Liverpool) showed a subperitoneal fibroid which had undergone complete calcification. Mr. H. E. JONES (Liverpool): Recent methods of removing enlarged tonsils; and showed a new tonsil guillotine. Dr. J. LLOYD ROBERTS (Liverpool): Early signs of mediastinal

tumours. Dr. J. HILL ABRAM (Liverpool): A case of pneumonia.

*Vote of Thanks.*—A hearty vote of thanks was accorded to the readers of the papers.

*Luncheon.*—Before the meeting the members lunched together at the George Hotel, and were afterwards entertained to tea by the President.

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### SOUTH MIDLAND BRANCH:
#### BUCKINGHAMSHIRE DIVISION.

A MEETING of the Division was held on Thursday, April 6th, at the Royal Bucks Hospital, at 3.30 p.m., Dr. REYNOLDS in the chair. There were present Drs. Baker, Benson, Bell, Buxton, Durran, Eagles, Gardner, Hardwicke, Henderson, Larking, Magrath, Macfarlane, Morrison, Perrin, H. Rose, Shaw, Smith-Wynne, E. O. Turner, and Humphrey Wheeler. Drs. Craig, Pearson, Stedman, and the house-surgeon attended as visitors, making a total of twenty-four.

*Apologies for Non-attendance.*—Apologies for absence were received from Drs. Graham, Bradbrook, and Woollerton.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Organization of Medical Attendance on the Provident Principle.*—The various points of view of the Invalidity and Sickness Medical Insurance Scheme were discussed for over an hour, and then the various questions were voted upon. Great interest was shown by all those present. The voting upon the question of capitation *versus* payment for work done was very close, 11 votes being recorded for the former and 10 for the latter. The greatest unanimity was shown in regard to the friendly societies, who have in the past treated the profession so badly, and it was agreed that every effort should be made to prevent these having any control over medical attendance. If the insurance scheme only took in those who up to the present have paid the profession little or nothing, it would be quite satisfactory, but if it included every one who received wages up to £150 a year, the result would be ruin to many medical men.

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☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

### ELECTION OF CENTRAL COUNCIL 1911–12.

NOTICE is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1911–12 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Tuesday, May 23rd, 1911. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared (*a*) for a nomination by a Division and (*b*) for a nomination by any three Members respectively, *and those applying are requested to state for which purpose the form is desired.*

Election will be by voting papers. These papers, which will contain the names of all duly nominated candidates, will be issued from the Central Office on Saturday, June 10th, and will be returnable not later than Saturday, June 17th.

By Order of the Council,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

April 29th, 1911.

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### BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in Sherborne, Dorset, on Wednesday, May 17th, 1911. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the undersigned on or before Wednesday, May 3rd next.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of the Division will be held at the Infirmary, Warrington, on Tuesday, May 9th, at 4 p.m. Agenda: Election of Chairman, Vice-Chairman, Honorary Secretary and Treasurer, Executive Committee, Representative on Branch Council; business of the Annual Representative Meeting (if any); to make new rules, or alter or repeal existing rules (if necessary); report on medical insurance, etc. (final consideration); to transact any ordinary business.—T. A. MURRAY, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH. LAMBETH DIVISION.—The annual general meeting of this Division will be held on Thursday, May 4th, at 4 p.m., at Bethlem Royal Hospital. There will be a demonstration of cases in the hospital.

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METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting of the Division will be held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Tuesday, May 2nd, at 5 p.m. Agenda: (1) Minutes. (2) Questions. (3) Letters. (4) Letter from Branch Council *re* Northern Boundary. (5) St. John's Wood: For the furtherance of local medical interests, and for the spread of the work of the Association, the Branch Council suggests that "Wards" be formed, covering suitable areas within the Division. The Executive Committee considers that the formation of a St. John's Wood Ward would be of advantage, and asks for an expression of opinion by members resident in that part of the Division. (6) At 5.15 p.m. a discussion will be opened on the Medical Aspects of State Invalidity Insurance, by Dr. Christopher Addison, M.P. It is requested that members will personally invite medical men who are not members to attend this discussion. Note.—Election of officers for the Division, 1911–12: Nominations must reach the Honorary Secretary not later than May 1st.—N. BISHOP HARMAN, Honorary Secretary, 108, Harley Street, W.

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NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of this Division will be held in the Masonic Buildings, Barrow, on Friday, May 12th, at 3.15 p.m. Business: (1) Annual report. (2) Election of office-bearers. (3) The following resolutions will be submitted: (*a*) "This Division congratulates the Barrow Sanitary Authority on taking a preliminary step towards the control of pulmonary tuberculosis"; (*b*) "This Division cordially approves of the Barrow Health Authority providing facilities for the early sanatorium treatment of pulmonary tuberculosis." (4) Any other business.—J. LIVINGSTON, Honorary Secretary, Barrow-in-Furness.

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SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch, also a meeting of Branch Council and local Division, will be held at the Victoria Hotel, Kilkenny, on Wednesday, May 3rd, 1911, at 12.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Election of office-bearers. (5) To further consider Report on Medical Attendance on the Provident or Insurance Basis in Connexion with Poor Law Reform or other possible development. (6) Luncheon at 2 o'clock.—J. QUIRKE, Honorary Secretary, Piltown.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DVISION.—The annual meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, May 26th, at 3.30 p.m.—R. J. COULTER and S. HAMILTON, Honorary Secretaries.

# Vital Statistics.

### ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1911.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of seventy-seven of the largest English towns, based upon the Registrar-General's weekly returns for the first quarter of the year. The 106,488 births registered in these towns during the quarter under notice were equal to an annual rate of 24.9 per 1,000 of the population, provisionally estimated in the middle of last year at 17,160,256 persons; in the corresponding quarters of the three preceding years the rates were 28.3, 26.7, and 25.4 per 1,000 respectively. In London the birth-rate last quarter was equal to 23.9 per 1,000, while it averaged 25.3 in the seventy-six other large towns and ranged from 14.5 in Hastings, 15.1 in Hornsey, 16.0 in Bournemouth, 16.7 in Halifax, 18 3 in Handsworth (Staffs), and 19.2 in Bradford, to 31.0 in Birkenhead, 31.1 in Warrington, 31.5 in Merthyr Tydfil, 33.6 in St. Helens, 35.3 in Coventry, 35.9 in Swansea, and 41.8 in Rhondda.

The 67,664 deaths registered in these towns last quarter were equal to an annual rate of 15.8 per 1,000, the death-rates in the first quarter of the three preceding years having been 17.9, 18.7, and 14.8 per 1,000. In London last quarter the death-rate was 15.8 per 1,000, which was also the average in the seventy-six other large towns, among which the rates ranged from 7.6 in King's Norton, 8.5 in Hornsey and in Handsworth (Staffs), 10.4 in East Ham, and 11.4 in Walthamstow and in West Hartlepool, to 19.2 in Oldham, 19.3 in Dewsbury and in Swansea, 19.4 in Liverpool, 20.0 in Sheffield, 20.7 in Coventry, and 23.1 in Middlesbrough.

The 67,664 deaths from all causes included 8 which were referred to small-pox, 4,048 to measles, 298 to scarlet fever, 727 to diphtheria, 1,374 to whooping-cough, 211 to enteric fever, and 719 to diarrhoea and

*Analysis of the Vital Statistics of Seventy-seven of the Largest English Towns during the First Quarter of 1911.*

| Towns. | Estimated Population middle of 1911. | Births. | Deaths. | Annual rate per 1,000 Living. | | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Enteric Fever. | Diarrhœa and Enteritis (under two years of age). | Deaths of Children under one year of age to 1,000 Births. | Rate per cent. of Uncertified Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Births. | Deaths. | | | | | | | | | |
| 77 Towns | 17,160,256 | 106,488 | 67,664 | 24.9 | 15.8 | 8 | 4,048 | 298 | 727 | 1,374 | 211 | 719 | 115 | 0.8 |
| 76 Provincial Towns | 12,248,202 | 77,183 | 46,284 | 25.3 | 15.8 | — | 2,467 | 255 | 527 | 949 | 183 | 509 | 118 | 1.2 |
| London | 4,912,054 | 29.305 | 19,380 | 23.9 | 15.8 | 8 | 1,581 | 43 | 170 | 425 | 28 | 210 | 108 | 0.1 |
| Croydon | 167,918 | 938 | 565 | 22.4 | 13.5 | — | 15 | 4 | 12 | 23 | 3 | 3 | 94 | — |
| Willesden | 171,786 | 974 | 552 | 22.7 | 12.9 | — | 16 | 1 | 4 | 59 | 2 | 5 | 138 | — |
| Hornsey | 101,513 | 383 | 215 | 15.1 | 8.5 | — | 9 | — | 1 | 5 | — | — | 57 | — |
| Tottenham | 136,167 | 992 | 497 | 29.2 | 14.6 | — | 44 | — | 4 | 5 | 1 | 4 | 105 | — |
| West Ham | 335,456 | 2,292 | 1,291 | 27.4 | 15.4 | — | 150 | 2 | 16 | 40 | 6 | 7 | 113 | 0.1 |
| East Ham | 162,877 | 874 | 421 | 21.5 | 10.4 | — | 37 | 1 | 3 | 2 | 1 | 3 | 86 | — |
| Leyton | 137,284 | 787 | 463 | 23.0 | 13.5 | — | 55 | 4 | 4 | 12 | 1 | 3 | 103 | 0.2 |
| Walthamstow | 146,923 | 822 | 419 | 22.4 | 11.4 | — | 12 | — | 9 | 7 | — | 3 | 97 | — |
| Hastings | 68,884 | 249 | 277 | 14.5 | 16.1 | — | 6 | 1 | 1 | 3 | — | — | 80 | — |
| Brighton | 132,890 | 648 | 546 | 19.6 | 16.5 | — | 6 | 2 | 4 | 7 | 1 | 2 | 90 | — |
| Portsmouth | 221,291 | 1,486 | 902 | 26.9 | 16.4 | — | 23 | 10 | 24 | 8 | 7 | 9 | 95 | 0.8 |
| Bournemouth | 75,538 | 301 | 252 | 16.0 | 13.4 | — | 1 | — | 2 | 1 | — | 2 | 100 | — |
| Southampton | 129,667 | 701 | 484 | 21.7 | 15.0 | — | 3 | — | 4 | 5 | 1 | 5 | 108 | — |
| Reading | 85,727 | 438 | 291 | 20.5 | 13.6 | — | — | 1 | 5 | 16 | 3 | 2 | 121 | 2.7 |
| Northampton | 100,488 | 503 | 334 | 20.1 | 13.3 | — | — | — | 5 | 6 | 3 | — | 121 | 1.8 |
| Ipswich | 76,994 | 438 | 238 | 22.8 | 12.4 | — | — | — | 2 | — | 1 | 3 | 84 | — |
| Great Yarmouth | 54,005 | 337 | 196 | 25.0 | 14.6 | — | — | — | 1 | 5 | 2 | 1 | 80 | — |
| Norwich | 126,772 | 734 | 496 | 23.2 | 15.7 | — | — | 6 | 2 | 45 | 1 | 6 | 146 | 0.4 |
| Plymouth | 128,371 | 694 | 594 | 21.7 | 18.6 | — | 44 | — | 3 | 2 | 2 | 1 | 118 | — |
| Devonport | 86,299 | 567 | 354 | 25.9 | 16.5 | — | 74 | 1 | 6 | — | 1 | 6 | 127 | — |
| Bristol | 387,510 | 1,983 | 1,522 | 20.5 | 15.8 | — | 52 | 4 | 12 | 72 | 4 | 14 | 141 | — |
| Stoke-on-Trent | 249,248 | 1,912 | 1,161 | 30.8 | 18.7 | — | 9 | 17 | 20 | 31 | 7 | 31 | 143 | 2.2 |
| Burton-on-Trent | 55,508 | 280 | 187 | 20.2 | 13.5 | — | — | 2 | — | — | — | 3 | 93 | 3.2 |
| Wolverhampton | 107,306 | 627 | 343 | 23.4 | 12.8 | — | — | 3 | — | 1 | 1 | 2 | 94 | — |
| Walsall | 102,686 | 655 | 359 | 25.6 | 14.0 | — | 1 | 1 | 2 | — | 2 | 2 | 127 | 0.3 |
| Handsworth | 74,497 | 340 | 157 | 18.3 | 8.5 | — | 7 | 2 | 3 | 1 | — | 1 | 88 | — |
| West Bromwich | 71,827 | 519 | 274 | 29.0 | 15.3 | — | 2 | — | 3 | — | — | 3 | 127 | 2.2 |
| Birmingham | 575,545 | 3,782 | 2,345 | 26.4 | 16.3 | — | 208 | 13 | 22 | 19 | 8 | 27 | 128 | 3.5 |
| King's Norton | 87,732 | 469 | 167 | 21.4 | 7.6 | — | 1 | 1 | 3 | 2 | — | 2 | 79 | 3.0 |
| Smethwick | 74,337 | 488 | 240 | 26.3 | 13.0 | — | — | — | 4 | 3 | 1 | 4 | 111 | 1.3 |
| Aston Manor | 87,292 | 533 | 282 | 24.5 | 13.0 | — | 24 | — | 2 | 6 | 1 | 3 | 83 | — |
| Coventry | 82,746 | 728 | 428 | 35.3 | 20.7 | — | 53 | 8 | 3 | 12 | — | 5 | 118 | 1.2 |
| Leicester | 252,530 | 1,298 | 785 | 20.6 | 12.5 | — | 36 | 4 | 3 | 3 | 2 | 6 | 123 | 0.5 |
| Grimsby | 75,542 | 550 | 323 | 29.2 | 17.2 | — | 25 | — | 4 | 1 | 3 | — | 151 | 1.5 |
| Nottingham | 269,535 | 1,678 | 999 | 25.0 | 14.9 | — | 2 | 3 | 14 | 12 | 5 | 14 | 105 | 0.4 |
| Derby | 133,120 | 752 | 476 | 22.7 | 14.3 | — | 37 | 1 | 4 | 3 | 4 | 1 | 113 | — |
| Stockport | 106,483 | 651 | 419 | 24.5 | 15.8 | — | 4 | — | 7 | 3 | 3 | 4 | 112 | 0.7 |
| Birkenhead | 123,755 | 956 | 539 | 31.0 | 17.5 | — | 7 | 1 | 7 | 12 | 1 | 4 | 92 | 0.6 |
| Wallasey | 75,355 | 445 | 231 | 23.7 | 12.3 | — | 1 | — | 1 | 1 | 1 | 3 | 65 | — |
| Liverpool | 774,951 | 5,818 | 3,744 | 30.1 | 19.4 | — | 100 | 42 | 39 | 76 | 5 | 50 | 113 | 2.4 |
| Bootle | 71,713 | 541 | 320 | 30.3 | 17.9 | — | 2 | 1 | 5 | 6 | — | 4 | 107 | 3.8 |
| St. Helens | 97,898 | 820 | 458 | 33.6 | 18.8 | — | 53 | 4 | 2 | 1 | 2 | 7 | 130 | 5.5 |
| Wigan | 92,797 | 653 | 414 | 28.2 | 17.9 | — | 40 | 1 | 4 | 12 | 10 | 7 | 130 | 0.2 |
| Warrington | 74,324 | 577 | 264 | 31.1 | 14.2 | — | 4 | 1 | 2 | 12 | 1 | 6 | 114 | 4.9 |
| Bolton | 192,832 | 991 | 694 | 20.6 | 14.4 | — | 4 | 10 | 13 | 1 | 5 | 5 | 96 | 0.7 |
| Bury | 59,591 | 297 | 232 | 20.0 | 15.6 | — | 17 | 7 | 1 | — | — | 1 | 135 | 1.7 |
| Manchester | 724,549 | 4,777 | 3,020 | 26.4 | 16.7 | — | 47 | 11 | 25 | 35 | 23 | 49 | 109 | 0.5 |
| Salford | 247,355 | 1,621 | 919 | 26.3 | 14.9 | — | 11 | 3 | 9 | 9 | 4 | 26 | 118 | 0.2 |
| Oldham | 144,937 | 920 | 694 | 25.5 | 19.2 | — | 31 | 3 | 5 | 4 | — | 6 | 129 | 0.1 |
| Rochdale | 91,352 | 484 | 410 | 21.3 | 18.0 | — | 25 | 2 | — | 6 | 2 | 2 | 122 | 2.9 |
| Burnley | 108,642 | 634 | 455 | 23.4 | 16.8 | — | 7 | — | 7 | 3 | 2 | 14 | 144 | 2.4 |
| Blackburn | 139,002 | 748 | 592 | 21.6 | 17.1 | — | 24 | 7 | 4 | 20 | 2 | 9 | 158 | 1.4 |
| Preston | 120,000 | 701 | 513 | 23.4 | 17.1 | — | 3 | 3 | 5 | 4 | 3 | 3 | 127 | 3.7 |
| Barrow-in-Furness | 64,390 | 441 | 234 | 27.5 | 14.6 | — | — | 3 | 8 | 2 | 1 | 4 | 132 | 5.6 |
| Huddersfield | 94,664 | 545 | 410 | 23.1 | 17.4 | — | 6 | 3 | 7 | 1 | — | 4 | 114 | 0.2 |
| Halifax | 113,738 | 474 | 446 | 16.7 | 15.7 | — | 3 | — | 5 | 7 | 2 | 2 | 114 | 0.2 |
| Bradford | 297,780 | 1,428 | 1,155 | 19.2 | 15.6 | — | 1 | 2 | 11 | 56 | 9 | 5 | 126 | 0.1 |
| Leeds | 498,027 | 2,722 | 1,925 | 21.9 | 15.5 | — | 32 | 13 | 62 | 53 | 6 | 12 | 127 | 0.1 |
| Dewsbury | 51,246 | 297 | 247 | 23.2 | 19.3 | — | 17 | 2 | 3 | 6 | — | 1 | 165 | — |
| Sheffield | 486,639 | 3,276 | 2,423 | 27.0 | 20.0 | — | 683 | 10 | 14 | 17 | 6 | 15 | 149 | 1.4 |
| Rotherham | 67,769 | 455 | 292 | 26.9 | 17.3 | — | 41 | 2 | 1 | 13 | 1 | 1 | 149 | 1.7 |
| York | 89,326 | 513 | 298 | 23.0 | 13.4 | — | — | 1 | 2 | 15 | — | — | 90 | — |
| Hull | 284,502 | 2,000 | 1,131 | 28.2 | 15.9 | — | 59 | 3 | 8 | 21 | 5 | 7 | 114 | 1.2 |
| Middlesbrough | 108,790 | 834 | 627 | 30.7 | 23.1 | — | 53 | 1 | 10 | 40 | 2 | 23 | 186 | 0.8 |
| Stockton-on-Tees | 53,948 | 359 | 239 | 26.7 | 17.8 | — | 7 | 1 | 4 | 8 | 1 | — | 95 | 0.4 |
| West Hartlepool | 83,956 | 471 | 239 | 22.5 | 11.4 | — | 5 | — | 6 | 6 | — | 1 | 96 | 0.4 |
| Sunderland | 162,809 | 1,149 | 658 | 28.3 | 16.2 | — | 13 | 1 | 6 | 7 | 1 | 3 | 117 | 2.0 |
| South Shields | 121,866 | 847 | 434 | 27.9 | 14.3 | — | 2 | — | 8 | 11 | 2 | 2 | 102 | 5.8 |
| Gateshead | 136,348 | 909 | 485 | 26.7 | 14.3 | — | 43 | 1 | 7 | 8 | — | 6 | 113 | 4.1 |
| Newcastle-on-Tyne | 290,360 | 1,849 | 1,134 | 25.5 | 15.7 | — | 67 | 7 | 5 | 44 | — | 3 | 131 | 0.1 |
| Tynemouth | 56,956 | 418 | 212 | 29.4 | 14.9 | — | 10 | — | 2 | 2 | — | 3 | 103 | 1.9 |
| Newport (Mon.) | 81,134 | 602 | 306 | 29.8 | 15.1 | — | 1 | 1 | 3 | 3 | 3 | 2 | 116 | 0.3 |
| Cardiff | 203,107 | 1,222 | 671 | 24.1 | 13.3 | — | 2 | 9 | 16 | 1 | — | 8 | 97 | — |
| Rhondda | 141,475 | 1,474 | 571 | 41.8 | 16.2 | — | 79 | 3 | 8 | 5 | 4 | 15 | 129 | 0.7 |
| Merthyr Tydfil | 80,689 | 634 | 317 | 31.5 | 15.8 | — | — | 3 | 3 | — | 1 | 5 | 112 | 0.6 |
| Swansea | 99,336 | 888 | 477 | 35.9 | 19.3 | — | 11 | 1 | 11 | 1 | 1 | 4 | 116 | 1.0 |

NOTE.—The publication of the aggregate deaths from the principal infectious diseases and of the rates of mortality therefrom has been discontinued in the Registrar-General's weekly return; these two columns are therefore omitted from the above table.

enteritis (among children under two years of age). The 8 fatal cases of small-pox were all registered in London. The 4,048 deaths from measles were equal to an annual rate of 0.95 per 1,000; in London the death-rate from this disease was 1.29, while among the other large towns the rates ranged upwards to 1.95 in Middlesbrough, 2.17 in St. Helens, 2.24 in Rhondda, 2.43 in Rotherham, 2.57 in Coventry, 3.44 Devonport, and 5.63 in Sheffield. The 298 fatal cases of scarlet fever corresponded to a rate of 0.07 per 1,000; in London the rate of mortality was 0.04 per 1,000, while among the other large towns the highest rates were 0.19 in Norwich and in Barrow-in-Furness, 0 20 in Blackburn, 0.22 in Liverpool, 0.27 in Stoke-on-Trent, 0.39 in Coventry, and 0.47 in Bury. The 727 deaths from diphtheria were equal to a rate of 0.17 per 1,000; in London the death-rate from this disease was 0 14 per 1,000, the rates in the other large towns ranging upwards to 0.32 in Stoke-on-Trent and in Cardiff, 0.37 in Middlesbrough, 0.44 in Portsmouth and in Swansea, and 0.50 in Barrow-in-Furness and in Leeds. The 1,374 fatal cases of whooping-cough corresponded to an annual rate of 0.34 per 1,000; in London the rate was 0.35 per 1,000, while among the other large towns the highest rates were 0.75 in Reading, in Bristol and in Bradford, 0.77 in Rotherham, 1.38 in Willesden, 1.42 in Norwich, and 1.47 in Middlesbrough. The 211 deaths from enteric fever were equal to a rate of 0.05 per 1,000; in London this disease caused a death-rate of only 0.02 per 1,000, while among the other large towns the rates ranged upwards to 0.13 in Portsmouth and in Manchester, 0.14 in Reading, 0 15 in Great Yarmouth and in Newport (Mon.), 0.16 in Grimsby, and 0.43 in Wigan. The 719 fatal cases of diarrhoea and enteritis among children under 2 years of age were equal to a rate of 0.17; in London also the rate was 0.17, while among the other towns the highest rates were 0.30 in Wigan, 0 32 in Warrington, 0.42 in Salford, 0.43 in Rhondda, 0.50 in Stoke-on-Trent, 0.52 in Burnley, and 0.85 in Middlesbrough.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 115 per 1,000 last quarter, against 124, 123, and 115 in the corresponding period of the three preceding years. In London the rate of infant mortality in the quarter under notice was 108 per 1,000; in the seventy-six other large towns the rate averaged 118 per 1,000, and ranged from 57 in Hornsey, 65 in Wallasey, 79 in King's Norton, 80 in Hastings and in Great Yarmouth, 83 in Aston Manor, and 84 in Ipswich, to 149 in Sheffield and in Rotherham, 151 in Grimsby, 158 in Blackburn, 165 in Dewsbury, and 186 in Middlesbrough.

The causes of 557, or 0.8 per cent., of the deaths in the seventy-seven towns last quarter were not certified either by a registered medical practitioner or by a coroner. The highest proportions per cent. of uncertified deaths were 3.0 in King's Norton, 3.2 in Burton-on-Trent, 3.5 in Birmingham, 3.7 in Preston, 3.8 in Bootle, 4.1 in Gateshead, 4.9 in Warrington, 5.5 in St. Helens, 5.6 in Barrow-in-Furness, and 5.8 in South Shields.

### HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 7,623 births and 5,222 deaths were registered during the week ending Saturday, April 15th. The annual rate of mortality in these towns, which had been 15.2, 15.4, and 15.1 per 1,000 in the three preceding weeks, rose to 15.9 in the week under review. In London the death-rate was equal to 14.4 per 1,000, against 15.7, 15.8, and 14.9 in the three previous weeks. Among the seventy-six other large towns, the death-rates ranged from 7.9 in Reading, 8.6 in East Ham, 8.8 in Ipswich, and 9.2 in Hornsey and in Walthamstow, to 22.9 in Rhondda, 23.0 in Wigan, 23.2 in Stockton-on-Tees, 24.7 in Bootle, and 30.2 in Middlesbrough. Measles caused a death-rate of 2.3 in Rotherham and in Gateshead, 2.4 in Devonport and in Aston Manor, and 4.4 in Rhondda; whooping-cough of 1.3 in Coventry and in Hull, 1.7 in Wigan, 1.8 in York, and 1.9 in Stockton-on-Tees; and diphtheria of 1.2 in Derby. The mortality from scarlet fever and enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox occurred in London, but none in any other of the large towns. Of the 5,222 deaths recorded in the seventy-seven towns, the causes of 60 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 13 in Liverpool, 7 in Birmingham, 4 in Manchester, 4 in Gateshead, and 3 in Burnley. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,077, 1,036, and 991 at the end of the three preceding weeks, had further declined to 982 on Saturday, April 15th; 125 new cases were admitted during the week, against 121, 125, and 100 in the three previous weeks. The number of small-pox cases under treatment in the metropolitan small-pox hospitals, which had been 32, 28, and 19 at the end of the three preceding weeks, had further declined to 10 on Saturday, April 15th; 1 new case was admitted during the week, against 1, 3, and 2 in the three previous weeks.

In seventy-seven of the largest English towns 7,490 births and 5,060 deaths were registered during the week ending Saturday, April 22nd. The annual rate of mortality in these towns, which had been 15.4, 15.1, and 15.9 per 1,000 in the three preceding weeks, declined to 15.4 per 1,000 in the week under notice. In London the death-rate was equal to 15.8 per 1,000, against 15.8, 14.9, and 14.4 in the three previous weeks. Among the seventy-six other large towns, the death-rates ranged from 6.7 in Northampton, 7.6 in Hastings, 7.7 in Handsworth (Staffs), 7.9 in Reading, and 8.6 in East Ham, to 18.6 in Stockport, 19.4 in Swansea, 22.1 in Liverpool, 25.4 in Middlesbrough, and 26.5 in Tynemouth. Measles caused a death-rate of 2.4 in Middlesbrough, 2.8 in West Ham, 2.9 in Stockton-on-Tees, 3.6 in Devonport, and 3.7 in Rhondda; whooping-cough of 1.1 in Bristol, in Wigan, and in Blackburn, and 1.8 in Tynemouth; and enteric fever of 1.4 in Halifax. The mortality from scarlet fever and diphtheria showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. Of the 5,060 deaths recorded in the seventy-seven towns, the causes of 36 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Birmingham, 7 in Liverpool, 6 in Sheffield, 2 in Barrow-in-Furness, and 2 in Halifax. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,036, 991, and 982 at the end of the three preceding weeks, rose to 995 at the end of the week under review; 155 new cases were admitted during the week, against 125, 100, and 125 in the three previous weeks. There were also 7 cases of small-pox under treatment, against 28, 19, and 10 at the end of the three previous weeks; 2 new cases were admitted during the week, against 3, 2, and 1 in the three preceding weeks.

### HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, April 15th, 859 births and 625 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.6 and 17.3 per 1,000 in the two preceding weeks, declined in the week under notice to 17.0, but was 1.1 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns, the death-rates ranged from 13.1 in Leith and 14.3 in Aberdeen to 20.4 in Greenock and 21.9 in Paisley. The mortality from the principal epidemic diseases averaged 2.0 per 1,000, and was highest in Perth and Paisley. The 305 deaths registered in Glasgow included 27 from whooping-cough, 9 from measles, 5 (of children under 2 years of age) from diarrhoea, 2 from diphtheria, 1 from scarlet fever, and 1 from enteric fever. Two deaths from measles, 2 from diphtheria, and 2 from whooping-cough were recorded in Edinburgh; 2 from diphtheria and 3 from whooping-cough in Dundee; 2 from diphtheria in Perth; and 5 from whooping-cough in Paisley, 2 in Leith, and 2 in Greenock.

During the week ending Saturday, April 22nd, 916 births and 612 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.3 and 17.0 per 1,000 in the two preceding weeks, declined to 16.7 in the week under notice, but was 1.3 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns, the death-rates ranged from 10.5 in Aberdeen and 14.3 in Leith to 25.2 in Paisley and 27.4 in Greenock. The mortality from the principal epidemic diseases averaged 2.2 per 1,000, and was highest in Perth and Paisley. The 278 deaths from all causes registered in Glasgow included 3 from measles, 1 from scarlet fever, 28 from whooping-cough, 3 from diphtheria, and 6 (of infants under 2 years of age) from diarrhoea. Two deaths from measles, 8 from whooping-cough, and 3 from diphtheria were recorded in Edinburgh; and 14 from whooping-cough in Paisley, 2 in Dundee, and 2 in Greenock.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 15th, 529 births and 452 deaths were registered in the twenty-two principal urban districts of Ireland, as against 624 births and 499 deaths in the preceding period. The annual death-rate in these districts, which had been 21.2, 20.7, and 22.4 per 1,000 in the preceding weeks, fell to 20.3 per 1,000 in the week under notice, this figure being 4.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures, both in Dublin and Belfast, were 21.1, those in other districts ranging from 4.1 in Drogheda and 4.2 in Newry to 28.6 in Newtownards and 44.2 in Kilkenny, while Cork stood at 27.4, Londonderry at 26.1, Limerick at 17.8, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.6 per 1,000 as against 1.1 per 1,000 in the preceding week.

During the week ending Saturday, April 22nd, 547 births and 490 deaths were registered in the twenty-two principal urban districts of Ireland, as against 529 births and 452 deaths in the preceding period. The annual death-rate in these districts, which had been 20.7, 22.4, and 20.3 per 1,000 in the preceding weeks, rose to 22.0 per 1,000 in the week under notice, this figure being 6.6 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.3 and 20.2 respectively, those in other districts ranging from 4.7 in Wexford and 12.3 in Drogheda to 33.0 in Queenstown and 37.8 in Newry, while Cork stood at 21.2, Londonderry at 17.8, Limerick at 28.7, and Waterford at 31.2. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.6 per 1,000 in the preceding week.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon F. R. MANN to the *Aeolus*, on recommissioning, May 23rd; Surgeon A. L. ROBINSON, M.B., to Malta Hospital, May 21st; Surgeon J. E. JOHNSTON, M.B., to the *Gossamer*, on completing, April 21st.

### ARMY MEDICAL SERVICE.

#### ROYAL ARMY MEDICAL CORPS.

MAJOR M. P. C. HOLT, D.S.O., who is serving in India, has been appointed Honorary Surgeon to the Viceroy, vice Colonel R. S. F. HENDERSON, M.B., K.H.P., vacated; the latter officer, also serving in India, has been appointed Honorary Surgeon to the King.

Lieutenant S. MCK. SAUNDERS is seconded for service with the Egyptian army, March 26th.

### SPECIAL RESERVE OF OFFICERS.

#### ROYAL ARMY MEDICAL CORPS.

REGINALD FISHER to be Lieutenant (on probation), March 27th.

Lieutenant GEORGE ROLLASON is seconded for service under the Colonial Office, January 4th.

# Hospitals and Asylums.

### SOUTH WIMBLEDON COTTAGE HOSPITAL.

THE annual report for 1910 states that the number of cases treated in the wards was 264, of which 216 were discharged cured, 14 relieved and improved, and 15 died. In all, 201 operations were performed, while 5 clinical examinations under anaesthesia were carried out. In addition 175 cases of accidents received treatment. The average length of each patient's stay was 14 days, as compared with 11 in 1909. The average cost per in-patient per week was £1 1s. 11d., and the average total cost of each in-patient £2 3s. 4½d. The income for the year was £674 17s. 1d. and the expenditure £633 1s. 3d., a credit balance of £41 15s. 10d. being thus left. The financial statement also shows that both the Hospital Sunday and the Hospital Saturday Funds again lent substantial assistance in the shape of grants to the hospital. Since its opening in 1900 it has treated altogether 2,171 patients.

### QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

THE report presented to the annual meeting of Queen Charlotte's Lying-in Hospital, Marylebone, on February 28th, stated that during the year 1,775 women had been admitted to the wards of the hospital, and 2,449 others had been attended

and nursed in their own homes. The mortality-rate was 3.3 per 1,000 in the case of the in-patients and 0.4 per 1,000 in the case of the out-patients. A grant of £1,500 had been received from King Edward's Hospital Fund, £500 of which was towards improvements recently carried out, including the installation of electric light and electric sterilizers. The chairman stated that the committee had been able to clear off the deficit of £3,287 incurred during the years 1907–8–9, but there was still a debt of £2,130 on the nurses' home. The work done by the hospital in training medical students, midwives, and monthly nurses steadily increased, and the applications received at the hospital for maternity nurses for private cases showed that the establishment of the private nursing staff was greatly appreciated by the public and the medical profession.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (male). Salary at the rate of £60 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon. Salary at the rate of £75 per annum.

BRISTOL GENERAL HOSPITAL.—Casualty House-Surgeon. Salary, £60 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CAPE TOWN: SOUTH AFRICAN COLLEGE.—Professor of Physiology. Salary, £500 per annum, rising to £800.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, increasing to £100 on becoming Senior Medical Officer.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary for first six months at the rate of £90 per annum, afterwards £100 per annum.

DEVON COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £140 per annum, increasing to £155.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN HOSPITAL AND DISPENSARY.—Resident Male House-Surgeon. Salary, £90 per annum.

DREADNOUGHT HOSPITAL, Greenwich, S.E.—Locumtenent for Medical Superintendent.

DUMFRIES: CRICHTON ROYAL INSTITUTION.—Two Crichton Research Fellowships of £250 a year each.

HACKNEY UNION.—Second Assistant Medical Officer for the Workhouses. Salary, £120 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

HUNTINGDONSHIRE COUNTY COUNCIL.—Medical Officer of Health and School Medical Officer. Salary, £400 per annum.

KING'S COLLEGE HOSPITAL, W.C.—(1) Sambrooke Medical Registrar; (2) Clinical Assistant in Throat Department and Ear Department.

LEEDS GENERAL INFIRMARY.—Ophthalmic Officer. Salary, £100 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LIVERPOOL STANLEY HOSPITAL.—Third House-Surgeon. Salary, £60 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Two House-Surgeons. Honorarium at the rate of £50 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, W.—Honorary Physician.

NORTHAMPTONSHIRE COUNTY COUNCIL EDUCATION COMMITTEE.—Temporary Assistant to School Medical Officer. Remuneration, 20 guineas per calendar month.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

NORWICH: NORFOLK EDUCATION COMMITTEE.—Assistant Medical Officer. Salary, £250 per annum.

OLDHAM ROYAL INFIRMARY.—(1) Senior House-Surgeon. (2) Third House-Surgeon. Salary £120 and £80 per annum respectively.

PASSMORE EDWARDS HOSPITAL FOR WILLESDEN.—Three Members of Honorary Medical Staff.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum, increasing to £60 on appointment as Senior Resident Medical Officer.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant to the Clinical Pathologist. Salary, £50 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—(1) Senior Assistant House-Surgeon; (2) Junior Assistant House-Surgeon; (3) Seventh Resident Medical Officer. Salary, £70, £65, and £60 per annum respectively.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUNDERLAND ROYAL INFIRMARY.—Male (Junior) House-Surgeon. Salary at the rate of £80 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

THROAT HOSPITAL, Golden Square, W.—Honorary Assistant Registrar.

WALTHAMSTOW URBAN DISTRICT COUNCIL.—Resident Medical Officer for the Hospital for Infectious Diseases, Chingford. Salary, £120 per annum.

WEST HAM UNION.—Second Assistant Medical Officer for the Workhouse. Salary, £120 per annum, increasing to £150.

WHITECHAPEL UNION INFIRMARY.—First Assistant Resident Medical Officer. Salary, £140 per annum, increasing to £160.

WILTS COUNTY COUNCIL EDUCATION COMMITTEE.—Assistant School Medical Inspector. Salary, £550 per annum.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Resident Medical Officer. Salary, £150 per annum.

YORK DISPENSARY.—Two Resident Medical Officers (males). Salary, £140 per annum.

YORKS: ELDWICK SANATORIUM, near Bingley.—Resident Medical Officer (female). Salary, £75 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Long Eaton, co. Derby, and Lismore, co. Waterford.

## APPOINTMENTS.

ALLINGHAM, H. R., M.B., B.S.Lond., District Medical Officer of the Totnes Union.

APPLEYARD, William, M.B., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Royal Eye and Ear Hospital, Bradford.

BAILEY, G. F. S., M.D.Camb., Certifying Factory Surgeon for the Wooburn District, co. Bucks.

BRADFORD, R. G., M.B., District Medical Officer of the Cannock Union.

MCNEIGHT, W. R. P., M.D.Dubl., District Medical Officer of the Chipping Norton Union.

MARTIN, Mary Edith, L.R.C.P. and S.Edin., L.F.P.S.Glasg., L.S.A., M.P.C., Assistant Medical Officer, Lindville Private Asylum, Cork.

SCOTT, Alexander R. P., M.R.C.S.Eng., L.R.C.P.Lond., Assistant House-Surgeon to the Poplar Hospital.

SHAW, Ernest H., M.R.C.P.Lond., Director of Clinical Pathology at the Great Northern Central Hospital, Holloway Road, N.

TRIMBLE, C. J., L.R.C.P., D.P.H.Edin., L.R.C.S.Irel., Medical Officer of Health of the Walton-le-Dale Urban District.

WAY, A. O., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Winchester Union Workhouse.

WESTROPE, L. L., M.B.Durh., Resident Medical Officer of the Gateshead Union Workhouse.

WILLIAMS, S. R., M.B.Lond., District Medical Officer of the Totnes Union.

WRAY, Gerald G., M.B., Ch.B.Edin., Resident Surgical Officer to the Manchester Children's Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

LOWRY—LOW.—On April 22nd, at Mains Parish Church, near Dundee, by the Rev. R. Spencer Ritchie, Robert Alexander Edwards Lowry, L.R.C.P.E., L.M., L.R.C.S.E., etc., of 4, Starkie Street, Winckley Square, Preston, Lancashire, second son of the late James Lowry, Esq., of Springtown House, near Londonderry, Ireland, to Mary Low, M.A., M.B., Ch.B., youngest daughter of David Low, Esq., of Claverhouse, near Dundee, Scotland. At home May 30th and 31st.

RUSHER—SHERWOOD.—On April 18th, at White Ladies Aston Church, John Golby Rusher, M.R.C.S., of Pershore, Worcestershire, to Annie Emily, younger daughter of the Rev. H. M. Sherwood, of Pershore, late Vicar of White Ladies Aston.

WADE—LORD.—On April 19th, at the church of St. Mary-the-Virgin, Primrose Hill, N.W., by the Rev. Percy Dearmer, assisted by the Rev. C. R. Bramley, cousin of the bridegroom, Richard Ramsden Wade, M.A., M.D., B.Ch.Oxon., to Constance Irene, youngest daughter of the late Charles Edmund Lord.

### DEATHS.

CASE.—On April 25th, at Fareham, Hants, George Henry Case, aged 72.

GODWIN.—April 24th, at West View, Warren Drive, New Brighton, Cheshire, aged 44 years, Alfred Harold Godwin, M.R.C.S., L.R.C.P.Lond., youngest son of the late George Godwin, of Winchester and Edgbaston.

KNAGGS.—April 23rd, at 2, Bradley Lane, Huddersfield, aged 82 year Samuel Knaggs, M.R.C.S., L.S.A.

MACKIE.—At 4, Polmuir Road, Aberdeen, on April 18th David Mackie, M.D., Brigade Surgeon A.M.D. and late of the 7th Royal Fusiliers in his 75th year.

## DIARY FOR THE WEEK.

### MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration by Mr. Shattock: Specimens illustrating the Biology of Malignant Growths.

### WEDNESDAY.

LIFE ASSURANCE MEDICAL OFFICERS' ASSOCIATION, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Paper:—Vaccination in Relation to Life Assurance, by Mr. W. H. Jelland, F.R.C.S.

### THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Cases.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W.—8 p.m., Exhibition of Card Specimens. 8.30 p.m., Papers:—Mr. Nettleship: New Cases of Hereditary Nystagmus. Mr. Herbert: Interim Report on the Small-flap Sclerotomy. Mr. Wray: The Treatment of Conical Cornea.

ROYAL SOCIETY OF MEDICINE:

NEUROLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Clinical Meeting.

ROYAL SOCIETY, Burlington House, 4 p.m.—J. S. Huxley: Some Phenomena of Regeneration in Sycon, with a Note on the Structure of its Collar-cells. Communicated by Professor G. C. Bourne, F.R.S. Papers:—Dr. J. A. Murray: Cancerous Ancestry and the Incidence of Cancer in Mice. Communicated by Dr. J. R. Bradford, Secretary Royal Society. Dr. F. W. Mott, F.R.S., Dr. E. Schuster and Professor C. S. Sherrington, F.R.S.: Motor Localization in the Brain of the Gibbon Correlated with a Histological Examination. Dr. R. T. Hewlett: Immunization by means of Bacterial Endotoxins. Communicated by Professor W. D. Halliburton, F.R.S.

### FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstrations by Professor Keith: Specimens Illustrating the Conditions Hydrocephaly, Microcephaly, and Oxycephaly.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Discussion on "The Present Position of the Treatment of Chronic Frontal Sinus Suppuration," to be opened by the President (Dr. P. Watson-Williams).

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 p.m.—Dr. Reginald Morton: "Present Position of the *X* Ray and Radium Treatment of Malignant Disease."

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAT, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Pharynx and Naso-pharynx. Friday, 3.30 p.m., Nasal Obstruction: Its Causes, Consequences, and Cure.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Torticollis, Kyphosis, Lordosis. Friday, 5.15 p.m., Congenital Affections of Upper Limb, Volkmann's Contracture, Deformities Resulting from Damage to Epiphyseal Lines.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lecture, Tuesday, 4.30 p.m.: "Muscular Atrophies."

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Intestinal Worms and Their Treatment.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Tuesday, Displacement of the Uterus and Pelvic Floor. Wednesday, The Radium Treatment of Cancer in the Gullet and Stomach. Thursday, Ophthalmology in General Practice.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Cerebral Diplegia. Friday, 3.30 p.m., Subacute Degeneration of the Spinal Cord.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

## RECENT PUBLICATIONS.

*Hossfeld's Dutch Dialogues.* By J. M. Schnitzler. New edition revised and enlarged. London. 1911. Hirschfeld Bros. (Fcap. 16mo, pp. 253. Price 1s.)

A booklet intended to serve as an adjunct to ordinary Dutch grammars and to enable travellers and those desirous of acquiring conversational Dutch to learn many useful phrases. It includes a vocabulary, the conjugation of the commoner regular and irregular verbs, and a chapter on pronunciation, but no attempt is made to give a phonetic representation of words.

*Burmese Self-Taught.* By R. F. St. A. St. John, Honorary M.A.Oxon. 1911. London: E. Marlborough and Co. (Cr. 8vo, pp. 168. Price 5s.)

An addition to a well-known series of guides to the conversational use of foreign languages, but more expensive than its fellows. They contain short notes on grammar and lists of English words and common sentences, followed by their foreign equivalents and a phonetic representation of the latter. The foreign equivalents are in this instance given in their original script, one which no one has as yet succeeded in transliterating into Roman characters satisfactorily. This is Pali, which contains as many as thirty-two consonants and eight primary and many secondary vowels. On the other hand, Burmese grammar would seem to be simple, everything in the way of conjugation and declension being achieved by the addition of easily recognized suffixes and prefixes.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MAY.** | |
| 1 MONDAY .. | |
| 2 TUESDAY .. | MARYLEBONE DIVISION, *Metropolitan Counties Branch*, General Meeting, Rooms of Medical Society of London, 11, Chandos Street, W., 5 p.m. |
| WEDNESDAY | SOUTH-EASTERN OF IRELAND BRANCH, Annual Meeting of Branch, also Branch Council and Local Division, Victoria Hotel, Kilkenny, 12.30 p.m.; Luncheon, 2 p.m. |
| 4 THURSDAY .. | LAMBETH DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Bethlem Royal Hospital, 4 p.m. |
| 5 FRIDAY .. | |
| 6 SATURDAY .. | |
| 7 Sunday .. | |
| 8 MONDAY .. | |
| 9 TUESDAY .. | WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m. |
| 10 WEDNESDAY | |
| **MAY** *(continued).* | |
| 11 THURSDAY .. | |
| 12 FRIDAY .. | FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Buildings, Barrow, 3.15 p.m |
| 13 SATURDAY .. | |
| 14 Sunday .. | |
| 15 MONDAY .. | |
| 16 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m. |
| 17 WEDNESDAY | DORSET AND WEST HANTS BRANCH, Spring Meeting, Sherborne, Dorset. |
| 18 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 19 FRIDAY .. | |
| 20 SATURDAY .. | |
| 21 Sunday .. | |
| 22 MONDAY .. | |
| 23 TUESDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 6TH, 1911.

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# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 26th, 1911. Dr. J. M. RATTRAY, President, was in the chair, and there were thirty-three members and visitors present.

*Demonstration.*—Dr. WATSON WILLIAMS gave a demonstration of bronchoscopy.

*Papers.*—Mr. SCOTT WILLIAMSON read a paper on the therapeutic uses of bacteriological emulsions. Dr. J. MICHELL CLARKE recorded some features in aortic valve disease in children and young adults, and the paper was discussed by Dr. CAREY COOMBS.

*Specimens.*—Dr. R. WATERHOUSE showed some specimens from a case of osteitis and arthritis deformans on the right side, associated with cerebral tumour on the left. In the discussion which ensued, Dr. CAVE and Dr. MUMFORD joined.

## LANCASHIRE AND CHESHIRE BRANCH:
### ROCHDALE DIVISION.

THE annual meeting of this Division was held in the Wellington Hotel, Rochdale, on Thursday, April 20th. In the absence of the Chairman and Vice-Chairman, Dr. LORD of Castleton was voted to the chair. There were present; Dr. Brown of Bacup, Drs. Geddes and Hitchon of Heywood, Drs. Kerr, McMaster, Melvin, Walker, and Ward of Rochdale.

*Confirmation of Minutes.*—The minutes of the last annual meeting were read and confirmed.

*Election of Officers.*—The following officers were unanimously elected for the ensuing year: *Chairman*, Dr. Kerr; *Vice-Chairman*, Dr. Walker: *Secretary*, James Melvin; *Representative to Representative Meeting*, Dr. Brown; *Representative on Branch Council*, Dr. Walker.

*Executive Committee.*—It was moved by the SECRETARY and seconded by Dr. LORD:

That the following, with the officers, form the Executive Committee: Drs. Brentnall, Lord, McMaster, and Ward.

*Annual Report.*—The SECRETARY read the annual report, as follows:

| | | |
|---|---|---|
| Membership on December 31st, 1909 ... | | 48 |
| Increases: New members ... ... ... | | 4 |
| | | 52 |
| Losses: Resignations through arrears... | 1 | |
| Through change of address ... | 2— | 3 |
| Net membership on December 31st, 1910 ... | | 49 |

*Financial Statement.*—The financial statement, without a grant from the Branch Council for two years, showed a balance to the good of £1 3s. 6d.

*Report of Representative at Annual Representative Meeting.*—Dr. BROWN then gave his report of the Annual Representative Meeting, specially pointing out the decision of the Annual Representative Meeting on the motions which the Division had sent up.

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance basis sent down from head quarters was then considered, and all the questions were considered separately and answered according to vote.

*Proposed Invitation to Branch.*—A proposed invitation of the Branch meeting to Rochdale for next year was then considered.

*Joint Meeting of Division and Rochdale and District Medical Society.*—It was moved by Dr. KERR, seconded by Dr. MCMASTER, and carried unanimously:

That a joint meeting of the Rochdale and District Medical Society and the Rochdale Division be called by the two Secretaries soon after the bill for Sickness and Invalidity has been introduced into Parliament, and the two subjects to be discussed at this joint meeting.

*Motion to Annual Representative Meeting.*—Dr. WALKER moved, and Dr. BROWN seconded, and it was carried:

That membership of the British Medical Association should not necessarily imply subscribing to the BRITISH MEDICAL JOURNAL, and an alternative subscription should be provided, fixed at a figure which will cover the share of the working expenses of the Association which members would pay who under this scheme would not subscribe to the JOURNAL.

## METROPOLITAN COUNTIES BRANCH:
### CHELSEA DIVISION.

A MEETING of the Division was held at the Fulham Town Hall, on April 25th, Dr. YOUNG in the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Proposed Dispensary in Fulham for the Prevention of Consumption.*—Dr. JACKSON, M.O.H. for the borough, said that a Provisional Committee had been formed to obtain subscriptions for this purpose, and he had been requested to ascertain if the local profession approved of its object. He gave details of the scheme and particulars of the one in operation in Paddington. Many questions were asked and a long discussion took place. The general feeling of the meeting was that although there were some serious objections to the proposal, it was practically a *fait accompli*. Dr. PARKES, M.O.H. for Chelsea, stated that a central fund had been already collected amounting to £20,000, and that a grant from this fund would be made to this proposed dispensary. He urged the Division to safeguard the interests of the general practitioners in the district by asking for adequate representation on the Committee of Management. Dr. BUTLER moved:

That a vote of thanks be passed to Dr. Jackson, and that a meeting of all the practitioners in Fulham be convened to consider this proposal.

This he withdrew after further discussion, and the following resolution, moved by Dr. FLETCHER, was carried unanimously:

That Dr. Jackson be thanked for his explanation of the scheme for the foundation of a dispensary in Fulham for the prevention of consumption, and that he be empowered to inform the Provisional Committee that this Division trusts that it will have adequate representation on the Committee of Management.

*Invalidity Insurance.*—Dr. BUTLER proposed, and Dr. HAMILTON seconded:

That the Council be requested to call a Special Representative Meeting to discuss this subject.

This was carried *nemine contradicente*. The Secretary was instructed to communicate with other Divisions asking them to support this action.

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### MARYLEBONE DIVISION.

A SPECIAL meeting of registered medical practitioners resident or practising in Marylebone was held on Thursday, April 27th, at 4.30 p.m., at No. 25, Cavendish Square (by kind permission of Sir Victor Horsley). The attendance book was signed by thirty-four members and visitors, and five letters of regret were received. Dr. G. A. HERON, Chairman of the Division, presided.

*Confirmation of Minutes.*—The minutes of the previous special meeting called to consider this subject were read and confirmed.

*Medical Treatment of School Children.*

The Executive Committee of the Division, by reason of a resolution passed at that meeting, had appointed a special committee to represent the practitioners of Marylebone, and to prepare a scheme of local clinics. Twelve gentlemen were asked to serve, together with the Chairman and Honorary Secretary of the Division; ten agreed to serve. The committee consisted of Dr. Heron (Chairman), Messrs. Percy Spurgin, Walter Edmunds, Montgomery Smith, David Roxburgh, Stephen Mayou, C. Boyd, Somerville Hastings, C. A. Parker, George Pernet, Bishop Harman, and Sir Victor Horsley. Mr. Somerville Hastings acted as Secretary to the Special Committee.

The SECRETARY OF THE COMMITTEE reported that two meetings had been held, and that a scheme of school clinics had been drawn up. (Published in the SUPPLEMENT, p. 196, April 22nd, 1911.)

A motion—

That the report be received—

was put from the chair and passed. It was then proposed that the scheme be considered section by section.

Dr. DAVID ROXBURGH moved as an amendment that the report be referred back to the Committee. He said this course appeared to him the only means of calling attention to a scheme which he held was preferable to that of the Committee. Dr. BOYD seconded.

The CHAIRMAN said that an alternative scheme could hardly be taken as an amendment to the Committee's scheme, but that opportunity should be given to Dr. Roxburgh to present his scheme.

Sir VICTOR HORSLEY moved:

That the meeting hear Dr. Roxburgh's scheme read, and then proceed to the discussion of the Committee's scheme section by section.

This was seconded by Dr. SPURGIN and carried.

Dr. ROXBURGH said that his scheme was designed to avoid two serious evils certain to be initiated or accentuated by a scheme of clinics. Clinics meant the death of general practice, and clinics meant spending much money on buildings. Both prospects were bad. The work of treating defective school children should be turned over to the men living near the schools, and at premises provided by them—to wit—their surgeries. His scheme, which he said was in brief, and perhaps roughly drafted, was as follows:

1. The medical treatment of the children attending the public elementary schools in the borough of Marylebone shall be undertaken by the medical practitioners in the borough, acting through a Committee appointed by themselves in conjunction with the representatives of the Education Committee of the London County Council.

2. The Committee shall appoint for the treatment of the children a school clinical staff, consisting of two classes of medical men: I. General practitioners; II. Consultants or specialists.

3. That it shall be open for all practitioners to apply and be appointed, if suitable, to one or other of these two classes.

4. That they shall perform their duties on premises provided by themselves within short distance of the schools or the children's homes, and at hours which are approved by the Committee and the London County Council.

5. That the children shall be sent by the school authorities in rotation to the members of Class I, and by them referred to the consultants if the nature of their ailments require special knowledge.

6. That the funds provided by the education authorities shall be divided between these two classes of practitioners as the Committee shall direct. In the first instance they might be equally divided, on the assumption that although the specialists see fewer children the cases are more difficult and require greater skill and longer time.

7. Practitioners appointed in Class I shall be required to reside in the borough, shall be debarred from acting in a similar capacity elsewhere, and shall be expected to be in daily attendance.

Practitioners appointed in Class II shall not be required to conform to these conditions.

8. The two classes of practitioners shall be equally represented on the Committee.

The scheme formulated by the Committee was then discussed with much keenness. Certain amendments and additional clauses were proposed and agreed to.

An addition emphasizing that the clinic was provided only for those who were not under the care of a medical practitioner was proposed by Dr. MONTGOMERY SMITH and seconded by Dr. C. A. GOULLET.

On the formation of the rota of practitioners willing to serve on the clinics, an addition directing that the action of the Committee of Management should be subject to confirmation by a meeting of the general body of Marylebone practitioners was proposed by Dr. ALBERT WILSON and seconded by Sir VICTOR HORSLEY.

A new clause relative to the transference of cases requiring home treatment to practitioners living nearest the children was proposed by Mr. BISHOP HARMAN and seconded by Sir VICTOR HORSLEY.

A new clause forbidding the transference of cases to voluntary hospitals was proposed by Dr. C. O. HAWTHORNE and seconded by Sir VICTOR HORSLEY; and a direction to the Special Committee to formulate suitable provision for the treatment of severe cases beyond the scope of the clinic was proposed by Sir VICTOR HORSLEY and seconded by Dr. C. A. GOULLET.

In the formation of the Committee of Management annual election (proposed by Dr. WISE) was agreed to.

The co-option of members of the School Care Committees was proposed by Mr. BISHOP HARMAN, and seconded by Sir VICTOR HORSLEY.

*The scheme as amended:*

1. There are 28 schools within the electoral division with an average attendance of 12,391 scholars.

2. The arrangements will be for the treatment of school children found on inspection to be defective and who are not under the care of any medical practitioner.

3. There should be two centres, one to the north and one to the south of Marylebone Road. Suggested sites

are Capland Street Junior School in the north and Barrett Street School in the south.

4. The centres will be staffed by doctors residing in Marylebone. Each member of the staff will be expected to attend for two hours of one afternoon a week. The staff will be appointed from a rota drawn up by the Committee of Management and confirmed at a meeting of the medical practitioners of Marylebone. They will retire at the end of the first year of their service; but for a subsequent period of not more than two consecutive years shall be eligible for re-election. One member of the medical staff shall act solely as superintendent of the clinics and secretary to the Committee of Management. This officer shall be eligible for re-election annually.

5. Where the condition of children referred to the school clinic is such that treatment at a clinic would be incomplete and home treatment is required, the committee shall have power to transfer the care of such children to the doctor practising nearest to their home. Payment shall be made for his services by the London County Council on the basis of 3s. 6d. for a first attendance and 2s. 6d. for each subsequent attendance. Cases so referred shall be notified to the Council authorities.

6. Children shall not be referred from the clinic to any voluntary hospital either for consultation or treatment. [The Special Committee shall consider and suggest suitable arrangements for the treatment of children whose cases are of such gravity as to render a clinic unsuitable.]*

7. The Committee of Management shall consist of doctors elected annually by a general meeting of the medical practitioners of the borough of Marylebone. The Committee shall have power to co-opt additional members, not necessarily medical practitioners, and who shall not exceed in number one-sixth of the whole committee, and who shall include a member or members of the School Care Committees. One of the members of the London County Council, representing the borough of Marylebone, shall have a seat on the committee.

8 The clinics shall be open at all times to the inspection of the school medical officer of the London County Council.

9. The London County Council shall provide the necessary nursing service.

10. The selection of suitable accommodation shall be in the hands of the Committee of Management. The cost of premises, upkeep and service, shall be provided by the London County Council.

11. Drugs, cost of dispensing, instruments, spectacles, and all necessary materials shall be provided by the London County Council.

12. Clause on the responsibility of the Council, to be drawn up by the Association lawyer.

Sir VICTOR HORSLEY moved that the scheme as amended be adopted, and that the Special Committee be authorized to open negotiation with the London County Council. Dr. MONTGOMERY SMITH seconded.

Dr. ROXBURGH moved as an amendment that the report be referred back to the Special Committee for reconsideration, particularly as regards the scheme suggested by himself. Dr. BOYD seconded.

The amendment was lost, and the motion carried *nemine contradicente*.

During the course of the discussion certain points of great importance were raised. It was found that in many instances children requiring treatment were told to go to hospitals, instead of their being sent to their own doctors (Dr. DAVIS). The possibility of fixing liability upon the Council for payment of fees to practitioners in cases where such children attended their family doctor (Dr. CAREY REES).

*Vote of Thanks.*—The meeting closed with a vote of thanks to Sir Victor Horsley for his hospitality; and the proposer (Dr. HAWTHORNE) added that the whole body of the profession was indebted to their host for the immense amount of work he had done all over London in connexion with school treatment.

* At a meeting of the Special Committee held May 1st it was decided to complete Clause 6 in the following manner: "In order to provide for cases that require hospital treatment the Committee suggests that the County Council should establish or acquire two or more small indoor clinics for the service of the metropolitan school clinics; alternatively or additionally a certain number of beds should be provided at each school clinic."

## WALTHAMSTOW DIVISION.

A MEETING of this Division was held on Thursday, March 9th, at the Fillebrook Lecture Hall, Fairlop Road, Leytonstone, at 4 p.m. Sixteen members and friends were present. Dr. ROBERT JONES presided.

*Diagnostic Difficulties in Eye Disease.*—The meeting opened with a lantern demonstration on diagnostic difficulties in eye disease, given by Mr. E. TREACHER COLLINS, Surgeon to the Royal London Ophthalmic Hospital. The slides illustrated the following cases: (1) Ptosis, (2) lacrymal abscess, (3) distension of the frontal sinus, (4) conjunctivitis due to Morax bacillus, (5) conjunctivitis due to the Koch-Weeks bacillus, (6) conjunctivitis due to pneumococci, (7) recurrent iritis, (8) tuberculous affections of the eye, (9) senile cataract, (10) opaque nerve fibres, (11) cupping of the optic disc. A discussion followed in which the following took part: Drs. ROBERT JONES, H. TOMKINS, A. BERRILL, WOOLF, PANTING, DAVIES, and ELDRED.

*Vote of Thanks.*—Mr. COLLINS having replied, a vote of thanks, proposed by Dr. SHADWELL and seconded by Dr. PANTING, was carried with acclamation. Mr. COLLINS thanked the meeting.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*Letters.*—Letters were read from the Medical Secretary and Dr. J. C. Muir.

*Walthamstow District Council Elections.* — The action taken by the local profession in the Walthamstow District Council elections was discussed and the Secretary instructed to forward to the Medical Secretary a copy of Mr. TYLER'S speech made in defence of the Education Committee.

*Election of Representative at Annual Representative Meeting.*—It was proposed, seconded, and carried unanimously that Dr. Robert Jones be elected Representative at Representative Meetings for 1911.

## NORTH OF ENGLAND BRANCH:
### NORTH NORTHUMBERLAND DIVISION.

THE adjourned meeting for the purpose of giving the members in the northern part of the Division an opportunity of discussing the question of State sickness and invalidity insurance was held at the Infirmary, Berwick-on-Tweed, on April 12th. There were present Drs. Dey, Welsh, Mackay, Purves, McEwen, Neill, Philipson, and Burman.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*State Sickness and Invalidity Insurance.*—The SECRETARY opened the discussion by reading a short paper on State sickness and invalidity insurance and how it would affect the general practitioner if the State should institute medical attendance on the provident or insurance principle. An animated discussion followed, in which every member took part, and subsequently the following resolution was proposed by Dr. SCOTT PURVES, seconded by Dr. MACKAY, and carried unanimously:

> That in the opinion of this Division any scheme of State sickness and invalidity insurance which includes medical attendance should embrace two main principles: (1) Free choice of medical attendant by the insured in all cases where the premiums are contributory; (2) payment of medical attendance according to work done and not by a fixed capitation fee.

The list of Questions to Divisions on the subject were considered seriatim and the Secretary instructed as to the answers to be given.

## STAFFORDSHIRE BRANCH.

THE third general meeting of the session was held at the Victoria Hotel, Wolverhampton, on Thursday, April 27th. Dr. J. A. CODD (President) and eighteen members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read, approved, and signed.

*Obscure Kidney Trouble.*—Dr. W. F. CHOLMELEY read notes of the following case: A boy, aged about 7 years, in apparent good health and with no history of accident, was on August 31st suddenly seized with very profuse haematuria. Mr. Cholmeley saw him ten days after the onset. The urine was porter-coloured and had a sediment of fragments of blood clot. There was no temperature, no pain, no oedema; in fact, except for the bleeding and some slight effects of the continued loss of a rather large quantity of blood, the boy appeared in perfect health. The urine had been porter-coloured except on one or two occasions. As a rule the urine had been well mixed with the blood, but two or three times the first passed was only smoky, while that passed at the end of micturition was dark. There was very slight tenderness on deep pressure over the right kidney. The case was looked upon as one of villous tumour growing over the mouth of the right ureter. As nothing would stop the bleeding, and the boy began to show signs of the effect of the loss of blood, it was decided to operate on September 15th. By means of cystoscopy the bladder was seen to be quite normal, and the left kidney appeared to be so also, but from the right ureter almost pure blood was issuing, and with very short pauses. On exploring, the right kidney was found to be a little enlarged, and was difficult to bring to the surface for careful examination as the pedicle was short and thickened at the upper part. The kidney had a mottled appearance, parts looking pale and oedematous, and others seeming to be infiltrated with blood. It was impossible to be certain as to the real condition of the kidney, but it evidently was the cause of the haematuria, which was beginning to affect the child's health. Mr. Cholmeley removed the kidney, and found that the thickening of the pedicle was at the upper part, and extended to the middle line, and appeared to extend up the front of the spine for as far as he could reach. The after-history was uneventful; the boy made an uninterrupted recovery, and had been in excellent health ever since. On opening the kidney it had in some places the appearance of very extensive infarcts. The kidney was sent for examination to two pathological departments, and they reported as follows: One reported at first "acute tubal nephritis," but on again giving them a history of the case, and remarking that there were no symptoms of acute nephritis, the report was that acute nephritis was not the cause, but it might be intermittent pressure on the vein, as from kinking in movable kidney. The report from the other pathological department was to this effect: "The appearances are suggestive of the margin of a large infarct, or else the result of some pressure upon the renal veins leading to intense congestion and secondary necrosis." This report Mr. Cholmeley was inclined to look upon as the real condition, and that the pressure on the vein was caused by the induration in the upper part of the pedicle, though what it was due to he was unable to suggest. The kidney when returned by the first department had been kept in strong spirit too long to allow of accurate examination.

*Papers.*—The following papers were also read:—Dr. E. DEANESLY: Remarks on Subphrenic Abscess Dr. C. A. STIDSTON: Two Years' Mistakes. In the discussion of these papers the following took part: Drs. CODD, HATTON, R. ALCOCK, DEANESLY, LOWE, HARTHILL, and EDGE.

*Pathological Specimens.*—The following were exhibited:—Dr. J. A. CODD: Ulcerative endocarditis. Dr. DEANESLY: (1) Drawing-pin removed from right bronchus, using a bronchoscope; (2) calculus removed from ureter.

*Dinner.*—The meeting was followed by a dinner at which sixteen members were present.

*Epsom College.*—A collection in aid of Epsom College realized 17s. 6d.

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## ULSTER BRANCH:

### PORTADOWN AND WEST DOWN DIVISION.

ON March 22nd the Executive Committee met at 2.40 in the Anchor Café, Portadown. Dr. W. E. HADDEN and subsequently Dr. H. SINCLAIR occupied the chair, and there were present Drs. Agnew, Taylor, Lawless, Pedlow, Fergus, Deane, Moore, and Darling (Honorary Secretary). The report of the Committee on Insurance Fees was considered and a resolution drawn up to be submitted to the Division Meeting.

*Division Meeting.*—The Division meeting took place at 3.15. In addition to the members of the Executive Committee there were present Drs. Bracken, Dougan, Johnson, Wright, Marshall, Haire, Williamson, R. E. Hadden, Carlisle, R. Martin, A. B. Mitchell (members), and Drs. McWilliam and Wilson (honorary members).

*Apologies for Non-attendance.*—Apologies received from Drs. Beamish and S. E. Martin.

*Confirmation of Minutes.*—The minutes of the last meeting were read and signed.

*Election of Representative at Annual Representative Meeting.*—On the motion of Dr. LAWLESS, seconded by Dr. W. E. HADDEN, Dr. Darling was appointed Representative on Representative Body.

*Insurance Fees.*—The HONORARY SECRETARY, on behalf of the Committee, stated that a year ago Drs. Hadden, Pedlow, and he had been appointed to ascertain the views of the members as to the scale of fees below, which were suggested at that meeting as the minimum which should be accepted from insurance companies—namely, £1 1s. for examination and report on applicants for life insurance, except industrial policies which were excluded from consideration; £1 1s. for examination and report on claimants under accident insurance policies made on behalf of the companies where claimant has to be visited; 10s. 6d. when claimant comes to examiner's consulting-room. At the June meeting the committee reported as follows:

> We sent out circulars, and find some are in favour of a higher scale than that suggested, but the majority of our members agree to that suggested. After discussion it was resolved that the committee be reappointed, and requested to ascertain how many members were willing to pledge themselves to refuse lower fees if the Division decided on their adoption. A form of pledge was accordingly sent to each member, and at the winter meeting the following report was presented: "We have received pledges from a large majority of the sixty-four members from whom we might expect to receive replies. From parts of the district the replies are unanimous. We recommend that an effort be made to find out how far the practitioners within our area, who are not members of our Association, are willing to stand in with us."

After discussion, the recommendation was adopted. A circular was accordingly sent with an identical form of pledge to that already sent to the members, and now the following report was presented:

> As directed, we have sent a circular to all practitioners within our area, so far as we have been able to ascertain their names. As far as we can estimate, there are about 100 in practice, and an overwhelming majority of these have signed. In most of our area we are unanimous.

Nearly all present took part in the discussion of the report, and on behalf of the Executive Committee the HONORARY SECRETARY proposed, and Dr. AGNEW seconded, the following resolution:

> That this Division confirms the resolution previously adopted as to the minimum scale of fees to be accepted from insurance companies, and requests the members of the profession within our area to refuse to act for less. The Honorary Secretary to communicate this decision to the companies concerned, and to seek their consent. In case any company refuses, we shall take all the means in our power to secure our terms.

It was arranged that it be left to the practitioners who have pledged themselves in each section of the area to seek to bring all in that neighbourhood into line, and that the time for enforcing the decision there be settled by them. The HONORARY SECRETARY promised to give any assistance he could.

*Communications.*—Dr. W. E. HADDEN showed a child suffering from congenital dislocation of both hip-joints, demonstrated the diagnostic points, and explained the etiology of the condition.

Mr. A. B. MITCHELL gave a most instructive address on gastric and duodenal ulcer, illustrated by many specimens. He discussed the relationships with phthisis, malignant and other diseases, gave indications for operation, and showed the results of 110 consecutive gastro-jejunostomies followed by 3 deaths

from all causes. Many took part in the discussion that followed.

*Vote of Thanks.*—On the motion of Drs. MARSHALL and JOHNSON a cordial vote of thanks to Mr. Mitchell was passed.

*Summer Meeting.*—The Chairman's invitation to hold the summer meeting at Warrenpoint was heartily accepted.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ELECTION OF CENTRAL COUNCIL 1911–12

NOTICE is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1911–12 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Tuesday, May 23rd, 1911. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared (*a*) for a nomination by a Division and (*b*) for a nomination by any three Members respectively, *and those applying are requested to state for which purpose the form is desired.*

Election will be by voting papers. These papers, which will contain the names of all duly nominated candidates, will be issued from the Central Office on Saturday, June 10th, and will be returnable not later than Saturday, June 17th.

By Order of the Council,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

April 29th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in Sherborne, Dorset, on Wednesday, May 17th, 1911.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of the Division will be held at the Infirmary, Warrington, on Tuesday, May 9th, at 4 p.m. Agenda: Election of Chairman, Vice-Chairman, Honorary Secretary and Treasurer, Executive Committee, Representative on Branch Council; business of the Annual Representative Meeting (if any); to make new rules, or alter or repeal existing rules (if necessary); report on medical insurance, etc. (final consideration); to transact any ordinary business.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting."

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting will be held conjointly with the Walthamstow Division on Thursday, May 11th, at 9 p.m., at St. James's Parish Room, adjoining St. James's Church, Lower Clapton Road, N.E. (near Lea Bridge Corner), when Dr. A. J. Whiting will give a cinematograph demonstration on Some Types of Nervous Disease. Members are invited to bring professional friends.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The Hampstead Division will meet at the Central Library, Arkwright Road, N.W., on Friday, May 12th, at 4.30 p.m., to consider the following business: Revision of boundaries; matters referred to Divisions; resolutions to be brought forward at the Representative Meeting (see BRITISH MEDICAL JOURNAL SUPPLEMENT, April 22nd), and reports on the Referendum by postal vote, and the affiliation to the Association of certain outside bodies (see BRITISH MEDICAL JOURNAL SUPPLEMENT, April 29th). At 5 p.m. the meeting will stand adjourned for a meeting of the local profession to consider a report on the Hampstead Hospital matter, and if thought desirable elect representatives to the council of that body. Members are reminded that the annual meeting for the election of officers and committee takes place on June 9th, and that nominations to be in order should be sent in writing to the Secretary on or before May 19th.—C. W. CUNNINGTON, Honorary Secretary, 88, West End Lane, N.W.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—The annual meeting of the Division will be held on Wednesday, May 17th, at the Leicester Infirmary, at 4.15 o'clock. Agenda: Minutes of the previous meeting. Election of Representatives of the Division on the Branch Council, and of officers and members of the Executive Committee of the Division. Nomination of Representative to the Central Council of the Association. Annual Report of the Executive Committee. Consideration of matters referred to the Division from the Central Council, namely: Report on postal referendum; suggested introduction of the metric system in prescription writing; affiliation of other medical societies and associations with the British Medical Association; replies to certain questions dealing with treatment on the provident or insurance basis, and matters connected therewith. The subject of tuberculosis dispensaries will be brought before the meeting by Dr. C. K. Millard, to be followed by a discussion thereon.—R. WALLACE HENRY, Honorary Secretary, Leicester.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of this Division will be held in the Masonic Buildings, Barrow, on Friday, May 12th, at 3.15 p.m. Business: (1) Annual report. (2) Election of office-bearers. (3) The following resolutions will be submitted: (*a*) "This Division congratulates the Barrow Sanitary Authority on taking a preliminary step towards the control of pulmonary tuberculosis"; (*b*) "This Division cordially approves of the Barrow Health Authority providing facilities for the early sanatorium treatment of pulmonary tuberculosis." (4) Any other business.—J. LIVINGSTON, Honorary Secretary, Barrow-in-Furness.

SOUTH-EASTERN BRANCH.—The sixty-seventh annual meeting of this Branch will be held at the Old Grammar School, Ashford, on Wednesday, June 7th, at 2.15 p.m. The Council will meet before lunch at the Saracen's Head; notice of the time of this meeting, together with the agenda of business, will be sent to members of council in due course. Dr. Wilks (President-elect) kindly invites members to lunch at the Saracen's Head, Ashford, from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting, (1) To receive the report of the election of officers for 1911–12, who shall thereupon take office. (2) To receive the Annual Report of the Council on the affairs of the Branch and the Annual Financial Statement. (3) To consider the Revised Rules presented by the Council for adoption by the Branch. After the meeting the members will drive to Godington, a fine old Elizabethan mansion containing some splendid carving, where they will be kindly entertained to tea by Mr. Ashley Wood, J.P. The annual dinner will be held at the Saracen's Head at 6.30 p.m.; charge, 6s. each. Wine will be provided by the local members. Members intending to be present at the lunch, the excursion, or the dinner are requested to signify their intention to Mr. Claude M. Vernon, Stoke House, Ashford, not later than Saturday, June 3rd.—E. A. STARLING, Tunbridge Wells, Honorary Secretary.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—The annual meeting of this Division will be held at the Bull Hotel, Dartford, on Tuesday, May 9th, at 3.15 p.m. Agenda: Election of officers, reports, etc. Mr. Smith Whitaker will give an address on The Present Outlook of the Medical Profession as Affecting the Need for Union. All medical men residing in the Division are cordially invited to be present.—H. CHISHOLM WILL, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DVISION.—The annual meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, May 26th, at 3.30 p.m.—R. J. COULTER and S. HAMILTON, Honorary Secretaries.

## CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on April 27th, Sir FRANCIS H. CHAMPNEYS in the chair.

*Midwife as a Maternity Nurse.*

A letter was considered from the Clerk of the Privy Council as to whether a midwife guilty of a breach of the rules of the Board when acting as a maternity nurse under the direction of a qualified medical practitioner is amenable to the jurisdiction of the Board. The Board adopted the following resolution:

The Board does not consider that the midwife under the circumstances was amenable to Rules E.

*Certification.*

A letter was considered from the Clerk of the Privy Council transmitting for the observations of the Board a copy of a letter addressed to the President of the Local Government Board by an applicant whom the Board refused to certify under Rule B.2. The Board decided that the Clerk of the Privy Council be informed that the application was carefully considered by the Board, which, for reasons appearing to be sufficient, came to the conclusion that it would be inadvisable that the applicant should be granted a certificate.

*Practice of Midwifery.*

A letter was considered from the Clerk of the Privy Council transmitting a copy of a letter from the Devon County Council in regard to the suggestion of the Board that Section 1 (2) of the Midwives Act, 1902, should be amended by the deletion of the words "habitually and for gain." The Board directed that the Secretary do communicate to the Clerk of the Privy Council a list of those Local Supervising Authorities who have concurred with the Board's suggestion for the amendment of Section 1 (2) of the Midwives Act, 1902, by the deletion of these words.

A letter was considered from the Director of Public Prosecutions informing the Board that a certain woman whose name was removed from the midwives roll on July 12th, 1906, had been convicted of manslaughter at the Central Criminal Court on March 30th, and had been sentenced to four months' imprisonment with hard labour. The Board directed that the communication of the Director of Public Prosecutions be acknowledged with thanks.

*Attendance in Childbirth.*

A letter was considered from the Clerk of the Derbyshire County Council inquiring whether the Board would be prepared to defray the expenses of an appeal from the Chesterfield justices, who had held that attendance otherwise than at the actual time of birth was not attendance "in childbirth." The Board approved the reply of the Secretary pointing out that the power and duty of taking proceedings under Section 1 (2) of the Midwives Act, 1902, is conferred on the local supervising authority by Section 13 of the Act, and that correlatively the duty of bearing the "expenses of any such prosecution" is imposed on the authority.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon G. S. WOODWRIGHT and Surgeon W. H. KING to the *Leviathan*, on recommissioning, May 16th; Staff Surgeon P. K. NIX, M.B., and Surgeon C. F. O. SANKEY, M.B., to the *Téméraire*, on recommissioning, May 16th; Staff Surgeon R. S. OSBORNE and Surgeon F. C. ALTON to the *Berwick*, on recommissioning, May 16th; Surgeon A. G. MALCOLM, M.B., to the *Sappho*, for the voyage out, and to the *Hussar*, on recommissioning, undated.

### ARMY MEDICAL SERVICE.

COLONEL W. G. BIRRELL, M.B., has been appointed Administrative Medical Officer at Woolwich, vice Lieutenant-Colonel W. Dick, M.B.

ROYAL ARMY MEDICAL CORPS.

Major W. C. POOLE, M.B., retires on retired pay, May 3rd. He joined the department as Surgeon-Captain, February 5th, 1887, becoming Major, February 5th, 1899. He was engaged in the campaign on the North-West Frontier of India in 1897-8 with the Malakand Field Force, receiving a medal with clasp. He was also in the South African war in 1899-1902, and was present in operations in the Orange Free State, in Cape Colony, in the Transvaal, and in the Orange River Colony, for which he received the Queen's medal with three clasps and the King's medal with two clasps.

Captain C. J. COPPINGER, from the Indian Medical Service, to be Captain, vice W. S. Nealor, who exchanges, March 31st.

Lieutenant W. H. S. BURNEY, from the Seconded List, is restored to the establishment, April 1st. He was seconded for service with the Egyptian Army, April 1st, 1909.

Colonel F. J. LAMBKIN has been appointed Administrative Medical Officer at Capetown, vice Colonel G. W. Robinson.

Lieutenant-Colonel J. MEEK, M.D., has been appointed Senior Medical Officer, Southern Coast Defences.

### INDIAN MEDICAL SERVICE.

SURGEON-GENERAL H. HAMILTON, C.B., M.D., Bengal, is permitted to retire from the service, from April 7th. He joined the Bengal Medical Department as an Assistant Surgeon, March 31st, 1876, and became Surgeon-General, March 25th, 1907. His war record includes: The Afghan War, 1878-80—Action of Charasiah, operations at and around Kabul in December, 1879, affair of Saidabad, march from Kabul to relief of Kandahar and battle of September 1st; mentioned in dispatches; medal with three clasps and bronze decoration. With the Chitral Relief Force, 1895; medal with clasp. North-West Frontier of India, 1897-8—Operations on the Samana and in the Kurram Valley: mentioned in dispatches; two clasps. Tirah, 1897-8—Mentioned in dispatches; clasp; promoted Brigade Surgeon-Lieutenant-Colonel. China, 1900—Medal.

Lieutenant-Colonel C. M. THOMPSON, M.B., Madras, is also permitted to retire from the service, from April 1st. He was appointed Assistant Surgeon, March 31st, 1880, and became Lieutenant-Colonel, March 31st, 1900. He was present with the Tirah Expeditionary Force in 1897-8, and was at the actions of Chagru and Dargai, receiving a medal with two clasps.

The promotion to be Colonel of Lieutenant-Colonel D. ST. J. D. GRANT, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King. Colonel Grant's tenure of appointment will reckon from March 14th.

Colonel C. H. BEATSON, C.B., Bengal, has retired from the service, March 27th. He was appointed Surgeon September 30th, 1876, and became Colonel, June 16th, 1905. He took part in the Afghan war in 1878-9, receiving a medal, and with the Manipore Expedition in 1891, for which he was mentioned in dispatches. He was for some time Principal Medical Officer in India.

Colonel W. A. QUAYLE, M.D., has also retired from the service, from April 30th. He joined the Madras Medical Department as Assistant Surgeon, March 30th, 1878, and was made Colonel, April 1st, 1908.

The retirement, dated April 15th, is also announced of Lieutenant-Colonel H. P. DIMMOCK, M.D., Bombay, who entered as Assistant Surgeon, March 31st, 1880, and became Lieutenant-Colonel, March 31st, 1900. He served with the expedition against the Marri Tribe in 1880-1.

Lieutenant-Colonel MANEKSHAW JAMSHEDJI KELAWALA, Madras, likewise retires, from April 16th. His first appointment bears date October 2nd, 1880; that of Lieutenant-Colonel, October 2nd, 1900. He was in the Burmese campaign in 1886-8, receiving a medal with two clasps, and again in Burma in 1890-2 with the Tlang Tlang Column, for which he was granted an additional clasp.

### SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned to be Lieutenants (on probation): JOHN H. C. GRENE, March 28th; Cadet Sergeant PERCIVAL T. PRIESTLEY, from the Birmingham University Contingent, Officers' Training Corps, March 30th; GILBERT K. AWBERY, March 31st; Cadet Sergeant HENRY H. BROWN, from the Edinburgh University Contingent, Officers' Training Corps, April 1st.

# Vital Statistics.

### HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,389 births and 4,695 deaths were registered during the week ending Saturday, April 29th. The annual rate of mortality in these towns, which had been 15.1, 15 9, and 15.4 per 1,000 in the three preceding weeks, declined to 14.3 per 1,000 in the week under notice. In London the death-rate did not exceed 13.6 per 1,000, against 14.9, 14.4, and 15.8, in the three previous weeks. Among the seventy-six other large towns, the death-rates ranged from 7.6 in Grimsby, 7.7 in Newport (Mon.), 8.2 in Coventry, 8.4 in Smethwick, and 8.7 in Leyton, to 20.9 in Huddersfield, 21.0 in Rhondda, 21.5 in Swansea, 21.8 in Stoke-on-Trent, and 22.0 in Tynemouth. Measles caused a death-rate of 1.8 in Willesden and in King's Norton, 1.9 in Great Yarmouth, 2.3 in Tottenham, 2.5 in West Ham, and 4.1 in Rhondda, and whooping-cough of 1.4 in Burnley, 1.9 in Blackburn, and 2.4 in Middlesbrough. The mortality from scarlet fever, diphtheria and enteric fever showed no marked excess in any of the large towns and no fatal case of small-pox was recorded during the week. Of the 4,695 deaths recorded in the seventy-seven towns, the causes of 37 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Liverpool, 5 in Birmingham, 4 in Gateshead, and 3 in Stoke-on-Trent. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 991, 982, and 995 at the end of three previous weeks, rose again to 1,037 on Saturday last; 141 new cases were admitted during the week, against 100, 125, and 155 in the three preceding weeks. There were 9 cases of small-pox under treatment in the small-pox hospitals on Saturday last, against 19, 10, and 7 in the three preceding weeks; 2 new cases were admitted during the week, against 2, 1, and 2 in the three previous weeks.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 29th, 687 births and 465 deaths were registered in the twenty-two principal urban districts of Ireland, as against 547 births and 490 deaths in the preceding period. The annual death-rate in these districts, which had been 22.4, 20.3, and 22.0 per 1,000 in the preceding weeks, declined to 20.8 per 1,000 in the week under notice, this figure being 6.5 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 22.4 and 20.9 respectively, those in other districts ranging from 4.1 in Drogheda and 6.6 in Queenstown to 35.9 in Dundalk and 37.8 in Newry, while Cork stood at 24.0, Londonderry at 14.3, Limerick at 10 9, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000, as against 1.2 per 1,000 in the preceding week.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

BATH ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (male). Salary at the rate of £60 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon. Salary at the rate of £75 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

CAMBRIDGE COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £140 per annum, increasing to £170.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CAPE TOWN: SOUTH AFRICAN COLLEGE.—Professor of Physiology. Salary, £500 per annum, rising to £800.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

DEVON COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £140 per annum, increasing to £155.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DUBLIN: TRINITY COLLEGE.—Chief Demonstrator in Anatomy.

DUMFRIES: CRICHTON ROYAL INSTITUTION.—Two Crichton Research Fellowships of £250 a year each.

EAST LONDON HOSPITAL FOR SICK CHILDREN, Shadwell, E.—Medical Officer for the Electrical Department. Salary at the rate of £75 per annum.

GENERAL POST OFFICE, E.C.—Assistant Medical Officer (Female). Salary, £200 per annum, rising to £300.

GROSVENOR HOSPITAL FOR WOMEN, Vincent Square, S.W.—Medical Registrar.

HASTINGS: EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

KING'S NORTON AND NORTHFIELD EDUCATION COMMITTEE.—Assistant Medical Officer. Salary at the rate of £250 per annum.

LEEDS GENERAL INFIRMARY.—(1) Ophthalmic Officer; (2) Medical Officer for the Ida and Robert Arthington Hospitals; (3) Obstetric Officer; (4) Two House Physicians. Salary for (1) £100 per annum, and for (2) £30 for six months.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

LUDLOW UNION.—District and Workhouse Medical Officer. Salary combined, £210 per annum and fees.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER COUNTY ASYLUM, Prestwich.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250 and to £350 according to promotion.

NORTH SHIELDS: TYNEMOUTH VICTORIA JUBILEE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Salary, £130 per annum, rising to £150.

ROCHDALE BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer. Remuneration, £130 per annum.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, ETC., City Road, E.C.—Two Clinical Assistants.

ST. MARYLEBONE PARISH.—(1) Visiting Medical Officer of the Workhouse and Houseless Poor Wards; (2) First Assistant Medical Officer at the Infirmary. Salary to commence, £225 and £150 per annum respectively.

SHEFFIELD ROYAL INFIRMARY.—(1) Senior Assistant House-Surgeon; (2) Junior Assistant House-Surgeon; (3) Seventh Resident Medical Officer. Salary, £70, £65, and £60 per annum respectively.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHWARK UNION INFIRMARY.—Assistant Male Medical Officer. Salary, £120 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon. Salary, £120 per annum.

THROAT HOSPITAL, Golden Square, W.—Honorary Assistant Registrar.

WAKEFIELD GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

WHITECHAPEL UNION INFIRMARY.—First Assistant Resident Medical Officer. Salary, £140 per annum, increasing to £160.

WILTS COUNTY COUNCIL EDUCATION COMMITTEE.—Assistant School Medical Inspector. Salary, £550 per annum.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Resident Medical Officer. Salary, £150 per annum.

YORK DISPENSARY.—Two Resident Medical Officers (males). Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Glasgow (Central), co. Lanark, and Taunton, co. Somerset.

## APPOINTMENTS.

BARR, William, M.B., Ch.B., B.Sc. (Public Health) Glasg., D.P.H. Camb., Assistant Medical Officer of Health and School Medical Officer for Ayrshire.

HARRY, A., M.D., Honorary Ophthalmic Surgeon to the Rochdale Infirmary.

LAIRD, Arthur H., M.B., T.C.D., House-Physician to the Royal Halifax Infirmary.

MITCHELL, A. J., M.D. Glasg., District Medical Officer of the Gloucester Union.

MOORE, Reginald M., M.A., M.B., B.C. Camb., M.R.C.S., L.R.C.P., Medical Officer of Health to the Rural District of Malmesbury.

SMITH, W., M.B., B.S. Durh., District Medical Officer of the Gateshead Union.

YOUNG, William Semple, M.D. Glasg., Medical Referee under the Workmen's Compensation Act for the Sheriffdom of Stirling, Dumbarton, and Clackmannan; to be attached more particularly to the Dumbarton District.

ANCOATS HOSPITAL, MANCHESTER.—The following appointments have been made:

Senior House-Surgeon: H. E. Allanson, M.B., Ch.B. Vict.
House-Physician: H. McDonald, M.B., Ch.B. Vict., M.R.C.S., L.R.C.P.
Junior House-Surgeon: J. H. Titcombe, M.B., Ch.B. Vict.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Junior House-Surgeons: E. R. Eatock, M.B., Ch.B. Vict.; J. F. Cocker, M.B., Ch.B. Vict.
House-Physician: E. Gray, M.B., Ch.B. Vict.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

CRICHTON MILLER.—At San Remo, Italy, on April 27th, the wife of H. Crichton Miller, M.D., San Remo, and Aviemore, Inverness-shire, of a daughter.

### MARRIAGES.

GRAY—YATES.—On April 27th, at Christ Church, Pennington, Lancashire, by the Rev. L. Spencer Murdoch, M.A., Vicar, assisted by the Rev. J. Lund, M.A., Vicar of St. George's, Tyldesley, Thomas Gray, M.B., youngest son of John Gray, Londonderry, Ireland, to Elizabeth Hope (Bessie), elder daughter of Hugh J. Yates, Holly House, Lowton.

PEACOCK—TREDINNICK.—On April 27th, at Stokesay Church, Craven Arms, Shropshire, by the Rev. W. Peacock, father of the bridegroom, assisted by the Rev. R. M. Cole-Hamilton, Vicar of the Parish, the Rev. W. M. D. La Touche, Rector of Wistanstow, and the Rev. E. H. G. de Castro, Vicar of Halford-cum-Sibdon, William Henry Peacock, M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S. Eng., West African Medical Staff, eldest son of the Rev. W. Peacock, Vicar of Westgate, co. Durham, to Mary Hamilton, only daughter of Dr. Ernest Tredinnick, of Perlu House, Craven Arms, Shropshire.

### DEATHS.

CLAREMONT.—On April 30th, 1911, at his residence, Petersleigh, 57, Elm Grove, Southsea, Hants, Claude Clarke Claremont, M.D., aged 56, eldest son of the late C. C. Claremont, M.R.C.S., of Millbrook House, Hampstead Road, London.

CRAIG CHRISTIE.—At Bedlay, Chryston, Lanarkshire, suddenly, on April 20th, Bernard Ramsay Craig Christie, M.D., aged 41 years, of 32, Inverleith Gardens, Edinburgh, younger son of the late Thomas Craig Christie, of Bedlay and Petershill.

## PUBLISHERS' ANNOUNCEMENTS.

MR. H. B. IRVING, the well-known actor, has just completed, and hopes to publish before his departure for Australia on May 12th, a volume dealing with the trial of Franz Müller. This volume will form the second of the new Series of Notable English Trials now being published by Messrs. William Hodge and Company, Edinburgh and London. Franz Müller, a German, was tried at the Old Bailey in 1864 for the murder of a Mr. Briggs in a railway carriage on the North London Railway. Despite the strenuous efforts of his fellow-countrymen in England and Germany, he was executed at Newgate on November 14th, 1864. Mr. Irving gives a full history of the case, and also of the Dickman and other well-known railway outrage cases. A report of the proceedings at the trial, and appendices containing information regarding the extradition proceedings, subsequent events, biographies, etc., will also be included. The volume will be illustrated with several interesting contemporary portraits.

## RECENT PUBLICATIONS.

*Roses and their Cultivation.* By T. W. Sanders, F.L.S. Seventh edition. London: W. H. and L. Collingridge. (Cloth 8vo; illustrated. Price 2s. 6d. net.)

Described on the title page as a practical guide to the cultivation of roses outdoors and under glass. It contains also chapters on the propagation of roses, on manures, and on the insect and other enemies of roses. There is a list of all cultivated roses which the author considers worth growing.

## DIARY FOR THE WEEK.

### MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W.—8 p.m., General Meeting and Election of Officers; 8.30 p.m., Papers: (1) Dr. A. F. Voelcker, The Limitations of the Successful Employment of Salicylates in Rheumatic Affections; (2) Mr. Wilfred Trotter, The Symptoms of Malignant Tumours of the Naso-pharynx.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—5 p.m., Museum Demonstration by Mr. Shattock. Specimens illustrating Diseases of Voluntary Muscle, Cartilage, Bursae.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 11, Chandos Street, W.—5 p.m., Demonstration of Cases of Cleft Palate operated on by various methods, and a Debate, opened by Mr. Arbuthnot Lane, followed by Dr. Ulrich (Copenhagen) and Messrs. A. W. Murray (Liverpool), Harold J. Stiles (Edinburgh), Edmund Owen, Douglas Drew, F. F. Burghard, G. E. Waugh, Barrington Ward, and T. H. Kellock.

### WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W.—5 p.m., Papers:—(1) Fleet Surgeon W. A. Whitelegge: Eye-strain in the Royal Navy; (2) Fleet Surgeon J. H. Whelan: The Action of Quinine in Malarial Fever.

### THURSDAY.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W.—8 p.m.: (1) Annual Meeting and Election of Officers; (2) Exhibition of Specimens; (3) Short Communication:—Dr. A. E. Johnson: Gangrene of the Vagina, probably due to the action of a pink rubber pessary; (4) Dr. A. E. Johnson: Demonstration with Epidiascope of the mode of action of the fetal structures on the maternal tissues, with an explanation of the functions of the decidua and of a very early human ovum.

THE NEW LONDON DERMATOLOGICAL SOCIETY, West London Hospital.—4.30 p.m.: (1) Paper:—Dr. David Walsh: Notes on a Case of Osmium Rash; (2) Clinical Cases.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W.—8 p.m.: (1) Annual Meeting and Election of Officers; (2) Demonstration of Cases; (3) Communication:—Dr. Wilfred Harris and Mr. W. H. Clayton-Greene: The Treatment of Acute Suppression of Urine by Incision of the Kidneys.

## POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Aneurysm.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Diseases of Joints, General Considerations, Acute Infections, Pneumococcal, etc. Friday, 5.15 p.m., Rheumatoid Arthritis, Haemophilia, Perforating Injuries, Fractures.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3 15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4 30 p.m. Special Lectures: Monday, 2.15 p.m., Surgical Conditions of Veins. Wednesday, 3.30 p.m., Optic Nerve Atrophy. Thursday, 2.15 p.m., Cerebral Haemorrhage.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Cholelithiasis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Rectal Incontinence and its Treatment. Tuesday, Mental Disorder and Suicide. Wednesday, Bursal Swellings in the Neighbourhood of the Knee-joint. Thursday, Congenital Syphilis (with lantern demonstrations).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Sinus Thrombosis. Friday, 3.30 p.m., Tabes.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics; 10 a.m., Surgical Out-patient; 2.30 p m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2 30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday. 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Changes in the Thorax and Thoracic Organs during Adolescence. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics. *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily except Saturday.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MAY.** | |
| 7 Sunday .. | |
| 8 MONDAY .. | |
| 9 TUESDAY .. | DARTFORD DIVISION, *South-Eastern Branch*, Bull Hotel, Dartford, 3.15 p.m.<br>WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m. |
| 10 WEDNESDAY | |
| 11 THURSDAY .. | CITY DIVISION, *Metropolitan Counties Branch*, General Meeting, conjointly with Walthamstow Division, St. James's Parish Room, Lower Clapton Road, N.E., 9 p.m. |
| 12 FRIDAY .. | FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Buildings, Barrow, 3.15 p.m.<br>HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Central Library, Arkwright Road, N.W., 4.30 p.m. |
| 13 SATURDAY .. | |
| 14 Sunday .. | |
| 15 MONDAY .. | |
| 16 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m. |
| 17 WEDNESDAY | DORSET AND WEST HANTS BRANCH, Spring Meeting, Sherborne, Dorset.<br>LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Annual Meeting, Leicester Infirmary, 4.15 p.m. |
| 18 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 19 FRIDAY .. | |
| 20 SATURDAY .. | |
| 21 Sunday .. | |
| 22 MONDAY .. | |
| 23 TUESDAY .. | |
| 24 WEDNESDAY | RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital, Richmond, 8.30 p.m. |

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# SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 13TH, 1911.


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## SPECIAL NOTICE TO MEMBERS.

***The attention of Members is called to the Notice of the Special Representative Meeting, on Wednesday, May 31st, and following day, on page 236.***

# NATIONAL INSURANCE BILL.

THE text of the National Insurance Bill, introduced by the Chancellor of the Exchequer on May 4th, was issued to Members of the House of Commons and to the press on May 9th.

The bill is in three parts, the first consisting of 59 clauses under fourteen heads, the second of 23 clauses under one heading of Unemployment Insurance, the third of 6 clauses under the heading of General.

It contains altogether 87 clauses and 9 schedules; it fills 82 foolscap pages.

The bill is backed by Mr. Sydney Buxton, Mr. Secretary Churchill, Mr. Burns, Mr. Herbert Samuel, Mr. Attorney-General, Mr. Solicitor-General, Mr. Masterman, and Mr. Hobhouse.

We give below an abstract of the bill, with the full text of those clauses which most nearly affect medical interests:

### TITLE.

A BILL to provide for Insurance against Loss of Health and for the Prevention and cure of Sickness and for Insurance against Unemployment, and for purposes incidental thereto.*

### PART I.
### INSURED PERSONS.

*Clause 1.*—All persons employed within the meaning of Part I shall be, and any person not so employed but possessed of certain disqualifications may be insured in the manner provided by the Act and are entitled to the benefits in respect of health insurance and prevention of sickness conferred by the Act in the manner and subject to the conditions provided therein.

The term "persons employed" includes all persons of either sex engaged in any of the employments specified in Part I of the first schedule to the Act, but the Insurance Commissioners with the approval of the Treasury may include amongst employed persons those engaged in the employments specified in Part II.

The term "persons not employed" within the meaning of the Act but who are yet entitled to insurance includes all those who (*a*) are either engaged in some regular occupation and are wholly or mainly dependent for their livelihood on earnings derived by them from that occupation, or (*b*) have been employed contributors for a period of five years or upwards. Those who possess such qualifications and become insured under the Act are called "voluntary contributors." A voluntary contributor of five years' standing or more who ceases to possess the qualifications in question nevertheless remains entitled to contribute; but no person over the age of 65 years not previously insured may become so.

#### EXEMPTIONS.

*Clause 2.*—Exemption from compulsory insurance can be claimed by a person not usually "employed" more than thirty-nine weeks a year and (*a*) who is in receipt of a pension or income of the annual value of £26 or upwards, not dependent on his personal exertions, or (*b*) who is ordinarily dependent on some other person. Claims for exemption are to made to, and granted by the, Insurance Commissioners unless these permit such claims to be dealt with by "approved societies" and local health committees.


*To be purchased, either directly or through any bookseller, from Wyman and Sons, Ltd., Fetter Lane, E.C., and 32, Abingdon Street, S.W.; or Oliver and Boyd, Tweeddale Court, Edinburgh; or E. Ponsonby, Ltd., 116, Grafton Street, Dublin. Printed by Eyre and Spottiswoode, Ltd., East Harding Street, E.C., Printers to the King's Most Excellent Majesty. Price 8½d.

### Contributions.

Clauses 3 to 7 deal with contributions. Of the funds necessary to provide the benefits of the Act, seven-ninths in the case of men, and three-quarters in the case of women, are to be provided by the contributors or their employers, and the rest by moneys furnished by Parliament.

*Employed Contributors.*—Contributions in respect of employed contributors (at rates laid down in Schedule II, Part I) are payable weekly or at other prescribed intervals. They are to be paid in the first instance by the employer, who is to recover the money by deductions from wages or otherwise (see Schedule III).

An employed contributor temporarily unemployed need not pay contributions, but may do so if he pleases by way of not getting into arrear.

All contributions in respect of employed contributors cease at the age of 70. An employer of a person not insured under the Act, either because exempted from its operation or because not insurable by reason of his not having become "employed" before attaining the age of 65, must nevertheless pay an employer's contribution in respect of such person.

*Voluntary Contributors.*—These shall pay a rate appropriate to their age at the date of their entry into insurance. Such rate will be ascertained from a table to be prepared by the Insurance Commissioners. In the case, however, of a person who comes into insurance within six months after the commencement of the Act, the voluntary rate shall be the same as the employed rate provided he is below the age of 45. If above that age, it will be such a rate as having regard to his age at the date of his entry shall be sufficient to cover seven-ninths in the case of men, and three quarters in the case of women, of the benefits conferred by the Act.

### Change of Insurance Status.

An employed contributor of five years' standing on becoming a voluntary contributor pays the same rate as previously.

All voluntary contributions cease to be payable at the age of 70

When a voluntary contributor becomes a member of an approved society, the rate payable in respect of him shall be the voluntary rate, even though he becomes employed within the meaning of the Act, unless he gives notice of his wish to be transferred to the employed rate.

If he gives such notice, the rate payable in respect of him shall be the employed rate, but his sickness benefit shall be such reduced amount as would have been had he not been previously insured, subject to an allowance representing the value of the contributions previously paid by him.

When he does not give such notice the contributions payable in respect of him by his employer shall be at the employed rate, such contributions being treated as in part satisfaction of the voluntary rate due by the contributor.

An employed contributor of less than five years' standing who ceases to be employed and becomes a voluntary contributor must pay the difference between the aggregate contributions paid in respect of him as an employed contributor and the sum which would have been paid had he originally become a voluntary contributor, the difference being cancelled between any reserve value or which is credited to the friendly society of which he is a member and the reserve value which would have been credited to that society in respect of him had he originally been a voluntary contributor.

*Mode of Payment.*—The Insurance Commissioners may make regulations providing for any matters incidental to the payments and collection of contributions, and in particular for the payment of contributions by means of adhesive or other stamps, the entry in or on books or cards of contributions paid and benefits distributed, and for the issue, sale, custody, or delivery of books or cards, and the replacement of books or cards lost, destroyed, or defaced.

**The following is the text of Clauses 8 to 19 inclusive:**

### Benefits.

8. *Rates and Conditions of Benefits.*—(1) The benefits conferred by this Part of this Act upon insured persons are—

(*a*) Medical treatment and attendance, including the provision of proper and sufficient medicines (in this Act called "medical benefit");

(*b*) Treatment in sanatoria or other institutions when suffering from tuberculosis, or such other diseases as the Local Government Board with the approval of the Treasury may appoint (in this Act called "sanatorium benefit");

(*c*) Weekly payments whilst rendered unfit to provide their own maintenance by some specific disease or by bodily or mental disablement, commencing from the fourth day after notice thereof is given, and continuing for a period not exceeding twenty-six weeks (in this Act called "sickness benefit");

(*d*) In the case of the disease or disablement continuing after the determination of sickness benefit, weekly payments so long as so rendered unfit by the disease or disablement (in this Act called "disablement benefit");

(*e*) Payment in the case of the confinement of the wife of an insured person, who is not herself an insured person, or of a woman who is an insured person, of a sum of *thirty shillings* (in this Act called "maternity benefit");

(*f*) In the case of persons entitled under any scheme made in accordance with this Part of this Act to any of the further benefits mentioned in Part II of the Fourth Schedule to this Act (in this Act called "additional benefits") such of those benefits as may be distributable under that scheme.

(2) Subject to the provisions of this Part of this Act, the rate of sickness benefit and disablement benefit to which insured persons are entitled shall be the rates specified in Part I of the Fourth Schedule to this Act.

(3) The right to sickness benefit and disablement benefit shall not commence before the insured person attains the age of sixteen and shall cease on his attaining the age of seventy, but, save as aforesaid, the right to benefits (other than additional benefits) shall continue throughout life.

(4) Except with the consent of the society or committee administering the benefit, no insured person shall be entitled to any benefit during any period when he is resident either temporarily or permanently outside the British Islands, or to medical benefit during any period when he is resident outside the United Kingdom.

(5) Where an insured person, having been in receipt of sickness benefit, recovers from the disease or disablement in respect of which he receives such benefit, any subsequent disease or disablement, or a recurrence of the same disease or disablement, shall be deemed to be a continuation of the previous disease or disablement, unless in the meanwhile a period, continuous or discontinuous, of at least twelve months has elapsed, and at least fifty weekly contributions have been paid by or in respect of him:

Provided that the benefit in respect of such subsequent or recurrent disease or disablement shall not commence to be payable before the date at which it would, apart from this provision, have commenced.

(6) Where a woman is herself entitled to maternity benefit, she shall not be entitled to sickness benefit, disablement benefit, or medical benefit at and for a period of four weeks after her confinement.

(7) Notwithstanding anything in this Part of this Act, no insured person shall be entitled—

(*a*) To medical benefit during the first six months after the commencement of this Act;

(*b*) To sickness benefit unless and until twenty-six weeks have elapsed since his entry into insurance, and at least twenty-six contributions have been paid by or in respect of him;

(*c*) To disablement benefit unless and until one hundred and four weeks have elapsed since his entry into insurance, and at least one hundred and four contributions have been paid by or in respect of him;

(*d*) To sickness benefit in respect of any disease or disablement which commenced during the twenty-six weeks, or to disablement benefits in respect of any disease or disablement which commenced during the one hundred and four weeks, next following his entry into insurance;

(*e*) To sickness benefit or disablement benefit during any period when he is provided with board and lodging by his employer;

(f) To maternity benefit unless and until twenty-six, or in the case of a voluntary contributor fifty-two weeks have elapsed since his entry into insurance, and at least twenty-six, or in the case of a voluntary contributor fifty-two, contributions have been paid by or in respect of him.

(8) As soon as a sum has been accumulated by investment sufficient to provide interest at *three per cent.* per annum on the amounts then standing to the credit of all approved societies the benefits payable to insured persons under this Part of this Act shall be extended in such manner as Parliament may determine, but in determining the distribution of such extended benefits amongst the persons who become entitled thereto regard shall be had to the claims or special considerations of persons who have entered into insurance at an early age.

9. *Reduced Rates of Benefits in Certain Cases.*—(1) In the case of insured persons who are under the age of twenty-one years and unmarried, sickness benefit and disablement benefit shall be at the reduced rates specified in Table B. in Part I of the Fourth Schedule to this Act.

(2) The rates of sickness and disablement benefits may in any case, and shall in all cases where the rate of sickness benefit or disablement benefit (as the case may be) exceeds two-thirds of the usual rate of wages or other remuneration earned by insured persons, be reduced to such an extent as the society or committee administering the benefit, with the consent of the Insurance Commissioners, determines; but where such reduction is made provision shall be made by the society or committee, with the like consent, for the grant of one or more additional benefits of a value equivalent to such reduction.

(3) Sickness benefit shall be reduced in accordance with Table C. in Part I of the Fourth Schedule to this Act in the case of any insured person who is over fifty years of age at the date of any claim by him for such benefit, and has not then paid at least five hundred weekly contributions.

(4) In the case of every person over the age of sixteen years who, not having been previously insured under this Part of this Act, becomes an employed contributor subsequently to the expiration of one year from the commencement of this Act, the rate of sickness benefit and maternity benefit to which he is entitled shall (unless he proves that his time since he attained the age of sixteen has been spent in a school or college, or otherwise in the completion of his education, or unless he undertakes himself to pay the difference between the voluntary rate and the employed rate, or pays to the Insurance Commissioners, to be credited to the Society, such capital sum as will be sufficient to secure him benefits at the full rate) be such reduced rate as may be fixed in accordance with tables to be prepared by the Insurance Commissioners, but not in any case less than *five shillings* a week for sickness benefit or *fifteen shillings* for maternity benefit:

Provided that if at any time subsequently such person would become entitled to sickness benefit at a higher rate if he were treated as having become an employed contributor as from the time when he attained the age of sixteen, or as from the expiration of one year after the commencement of this Act, whichever date may be the later, and as being in arrear for all contributions which, had he become an employed contributor at that date, would have been payable in respect of him between that date and the date when he actually became an employed contributor, he shall, if he so elects, be entitled to be so treated.

10. *Reduced Rates of Benefits where Contributions are in Arrear.*—(1) Where an insured person being a member of an approved society is in arrear to an amount greater than thirteen contributions a year on the average since his entry into insurance, his right to benefits under this Part of this Act shall be suspended, and at the expiration of the next succeeding calendar year any sums credited to the Society in respect of him, calculated in the prescribed manner, shall, if his right to benefits still continues to be suspended, be transferred to such account and dealt with in such manner as may be prescribed:

Provided that if at any time after such suspension he again becomes employed within the meaning of this Part of this Act he shall be entitled to benefits at such rate, after the lapse of such time and after the payment of such number of contributions, as would have been applicable to his case had he not previously been an insured person, but if he so elects at any time the rate of benefits shall be such rate as he would be entitled to, were the period from the time of his original entry into insurance taken as a whole.

(2) Where an employed contributor claiming sickness benefit is at the date of such claim in arrears but the arrears are less than as aforesaid, then the rate of sickness benefit shall be reduced to a sum not less than *five shillings* a week, or the time when sickness benefit commences deferred, proportionately to the amount of arrears in accordance with the Table in the Fifth Schedule to this Act.

(3) Where a voluntary contributor is in arrears he shall be liable to such reduction or suspension of benefits as may be prescribed.

(4) In calculating arrears of contributions, no account shall be taken of any arrears accruing—

(a) During any period when the person in question has been, or but for this or the two next succeeding sections of this Act would have been, in receipt of sickness benefit or disablement benefit; or

(b) In the case of a woman who, being an insured person, is herself entitled to maternity benefit, during two weeks before and four weeks after her confinement; or

(c) During the first twelve months after the commencement of this Act; or

(d) During any period when the contributor (if an employed contributor) is under the age of sixteen years;

but, save as aforesaid, contributions shall be deemed to be payable in respect of every week from the date of entry into insurance.

(5) Where an insured person has paid any arrears of contributions payable by or in respect of him which accrued during the calendar year current at the date of payment and the previous calendar year, together with interest thereon at the rate of *three per cent.* per annum from the respective dates on which the contributions accrued due and the date of payment, he shall be treated for the purposes of this section as if the arrears so paid had never become due:

Provided that if such person is at the date of payment or subsequently within one month thereafter becomes unfit to provide for his own maintenance through disease or disablement, he shall for the purposes of this section be deemed to be still in arrear in respect of the amount so paid until after the expiration of one month from the date of his recovery from such disease or disablement.

11. *Provisions in the Case of Contributors Entitle to Compensation or Damages.*—(1) Where an insured person has received or recovered, or is entitled to receive or recover, whether from his employer or any other person, any compensation or damages under the Workmen's Compensation Act, 1906, or any scheme certified thereunder, or under the Employers' Liability Act, 1880, or at common law, in respect of any injury or disease, the following provisions shall apply:—

(a) No sickness benefit or disablement benefit shall be paid to such person in any case where any weekly sum or the weekly value of any lump sum paid or payable in respect of any such compensation or damages is equal to or greater than the benefit otherwise payable to such person, and where any such weekly sum or the weekly value of any such lump sum is less than the benefit in question, such part only of the benefit shall be paid as, together with the weekly sum or the weekly value of the lump sum, will be equal to the benefit:

(b) The weekly value of any such lump sum as aforesaid may be determined by the society or committee by which the sickness and disablement benefits payable to such person are administered:

(c) No person entitled to any such compensation as aforesaid from his employer shall, except with the consent of the society or committee by which the sickness and disablement benefits payable to such person are administered, enter into any agreement to accept any lump sum in respect thereof, and any agreement entered into without such consent shall be null and void.

(d) Nothing in this section shall affect the right of an employer to redeem a weekly payment by payment of a lump sum in any case where he is entitled to do so under the Workmen's Compensation Act, 1906, but where he exercises such right he shall, within three days thereafter, send to the Insurance Commissioners, or to the society or committee concerned, notice in writing of such redemption, giving particulars as to the amount of the lump sum and of the application thereof:

(e) Where an insured person is entitled to any such compensation or damages as aforesaid and refuses or neglects to take proceedings to enforce his claim, it shall be lawful for the society or committee con-

cerned, either at its own expense, to take in the name and on behalf of such person such proceedings, in which case any compensation or damages recovered shall be held by the society or committee as trustee for the insured person, or to withhold payment of any benefit to which apart from this section such person would be entitled.

(2) Nothing in this section shall prevent the society or committee paying to an insured person entitled to such compensation damages benefit by way of advance pending the settlement of his claim for compensation or damages, and any advance so made shall, without prejudice to any other method of recovery, be recoverable by deductions from or suspension of any benefits which may subsequently become payable to such person.

12. *Provisions in the Case of Contributors who are Inmates of Hospitals, etc.*—(1) No payment shall be made in respect of sickness disablement or maternity benefit to any insured person during any period when he is an inmate of any workhouse, hospital, asylum, or infirmary, supported by any public authority or out of any public funds or by a charity, or of a sanatorium or similar institution established under this Part of this Act.

(2) During such period as aforesaid any such benefit which would otherwise have been payable to such person—

(*a*) Shall be paid to or applied in whole or in part for the relief or maintenance of his dependants (if any) in such manner as the society or committee by which the benefit is administered think fit; or

(*b*) If such person is an inmate of a sanatorium or similar institution in which he is receiving treatment in accordance with the provisions of this Part of this Act, and has no dependants, shall be paid to the local Health Committee towards the general purposes thereof.

(3) For the purpose of this section, the expression "dependants" shall include such of the following members of the insured person's family as are wholly or in part dependent upon the earnings of such person at the time when he became an inmate of any such institution as aforesaid, that is to say, his or her wife or husband, father, mother, grandfather, grandmother, step father, step mother, son, daughter, grandson, granddaughter, step son, step daughter, brother, sister, half brother, half sister.

(4) The society or committee by which the sickness disablement or maternity benefit of any insured persons is administered, may enter into any agreement with the proper officers or authorities of any Convalescent Home or Sanatorium, admission to which is conditional on the payment of the whole or any part not less than *one half* of the cost of maintenance, for the payment thereto of any sickness disablement or maternity benefit which would, apart from this section, be payable to or in respect of any such person who becomes an inmate of such home, during any period for which he remains an inmate.

## ADMINISTRATION OF BENEFITS.

13. *Benefits to be Administered by Approved Societies or the Local Health Committee.*—(1) Sickness benefit, disablement benefit, and maternity benefit, and, subject to the provisions of the next succeeding section, medical benefit, shall be administered, in the case of insured persons who are members of an approved society, by and through the society, and in other cases by and through the local Health Committees; sanatorium benefit shall in all cases be administered by and through local Health Committees.

(2) Subject to the provisions of this Part of this Act, an approved society may, with the consent of the Insurance Commissioners, provide for the application of its existing rules or make new rules with regard to the manner and time of paying or distributing and mode of calculating benefits, suspension of benefits, notices and proof of disease or disablement, behaviour during disease or disablement, and the visiting of sick or disabled persons, and for the infliction and enforcement of penalties (whether by way of fines or suspension of benefits or otherwise) in the case of any member being an insured person who is guilty of any breach of any such rule, or of any imposition or attempted imposition in respect of any benefit under this Part of this Act, and may from time to time with the like consent alter or repeal any such rules; but:

(*a*) No fine imposed under any such rule shall exceed *ten shillings* or, in the case of repeated breaches of rules, *twenty shillings*;

(*b*) No such rule shall provide for the suspension of any benefit for a period exceeding one year;

(*c*) Every such rule relating to the visiting of insured persons shall provide that women shall not be visited otherwise than by women;

(*d*) Every such rule relating to behaviour during disease or disablement shall be in the prescribed form.

(3) The local Health Committee shall, subject to the approval of the Insurance Commissioners, make rules in respect of any of the matters mentioned in the last preceding subsection for the purpose of regulating the payment or distribution of benefits administered by the committee:

Provided that no such rule relating to anything to be done by, to, or through the Post Office shall be made without the consent of the Postmaster General.

(4) Where, under any such rule as aforesaid, payment of sickness or disablement benefit is suspended on the ground that the disease or disablement has been caused by the misconduct of the person claiming the benefit, such person shall nevertheless continue to be entitled to medical benefit.

(5) Where under any Act regulating the constitution of an approved society the rules of the society are required to be registered, any rules approved under this section by the Insurance Commissioners shall forthwith be registered, but till so registered shall have effect as if they had been duly registered.

14. *Administration of Medical Benefit.*—(1) Every approved society and local Health Committee shall for the purpose of administering medical benefit make arrangements with duly qualified medical practitioners for insured persons to receive attendance and treatment to the satisfaction of the Insurance Commissioners from such practitioners.

(2) Every such society or committee shall also make provision for the supply of proper and sufficient drugs and medicines to insured persons, and no arrangement shall be made with a medical practitioner under which he is bound or agrees to provide drugs or medicine for any insured person at an inclusive fee, without the consent of the Insurance Commissioners, which consent they shall not give unless the circumstances of any locality situate in a rural district are such as to make it expedient to do so.

(3) An approved society may enter into an agreement with the local Health Committee for the administration of medical benefit among such of the members of the society entitled thereto as may be resident in the county or county borough for which the committee is established; and on any such agreement being made the committee shall take over such administration and there shall in each year be paid out of moneys credited to the society such sum in respect of every member of the society entitled to the benefit and resident in the county or county borough as may be agreed between the society and the committee.

(4) If in any year the amount payable to a local Health Committee in respect of all persons for the administration of whose medical benefit it is responsible is insufficient to meet the estimated expenditure thereon, the Committee may, through the Insurance Commissioners, transmit to the Treasury and to the council of the county or county borough an account showing the amount so payable and the estimated expenditure, and the Treasury and the county council or the council of the county borough shall, if satisfied that the amounts so payable and the proposed expenditure are reasonable and proper in the circumstances, sanction the expenditure.

(5) The Treasury and the council of the county or county borough sanctioning any such expenditure as aforesaid shall thereupon each be liable to make good, *in the case of the Treasury, out of moneys provided by Parliament*, and in the case of the council of a county or county borough out of the county fund or borough fund or borough rate, as the case may be, *one half* of any sums expended by the local Health Committee on medical benefit in the course of the year in excess of the amounts so payable to the local Health Committee as aforesaid.

15. *Administration of Sanatorium Benefit.*—(1) For the purpose of administering sanatorium benefit local Health Committees shall make arrangements, to the satisfaction of the Insurance Commissioners, with persons or local authorities having the management of a sanatorium or other similar institution approved by the Local Government Board for the treatment therein of insured persons entitled to sanatorium benefit under this Part of this Act.

(2) The sums available for defraying the expenses of sanatorium treatment in each year shall be—

(*a*) *One shilling and threepence* in respect of each insured person resident in the county or county

borough payable out of the funds out of which benefits are payable under this Part of this Act;

(b) *One penny in respect of each such person payable out of moneys provided by Parliament:*

Provided that the Insurance Commissioners may retain the whole or any part of the sums so payable out of moneys provided by Parliament for the purposes of research.

(3) An insured person shall not be entitled to sanatorium benefit unless the local Health Committee considers the case one suitable for sanatorium treatment.

16. *Administration of Maternity Benefit.*—(1) Where the mother of the child is herself an insured person maternity benefit shall be treated as a benefit for her and shall be administered by the approved society of which she is a member, or if she is not a member of any society by the local Health Committee; if she is not herself an insured person the benefit shall be treated as a benefit for her husband and shall be administered by the approved society of which he is a member, or if he is not a member of any such society by the local Health Committee, and shall be payable in respect of a posthumous child.

(2) The money payable by way of maternity benefit shall be expended in such manner as may be prescribed, and no payment shall be made by way of maternity benefit if the mother of the child has failed to comply with such conditions as may be prescribed.

17. *Power to Approved Societies to Subscribe to Hospitals, etc.*—It shall be lawful for an approved society to grant such subscriptions or donations as it may think fit to hospitals and other charitable institutions, or for the support of district nurses, and to appoint nurses for the purpose of visiting insured persons who are members of the society, and any sums so expended shall be treated as expenditure on such benefits under this Part of this Act as may be prescribed.

## APPROVED SOCIETIES.

18. *Conditions for the Approval of Approved Societies.*—(1) Any society, that is to say, any body of persons, corporate or unincorporate (not being a branch of another such body), registered or established under any Act of Parliament, which gives such security as is required to be given under this Part of this Act and otherwise complies with the requirements of this Act relating to approved societies, may be approved by the Insurance Commissioners, and if so approved shall be an approved society for the purposes of this Part of this Act.

(2) No society shall receive the approval of the Insurance Commissioners unless it satisfies the following conditions:

(i) It must have at least ten thousand members, being insured persons;

(ii) It must be precluded by its constitution from distributing any of its funds otherwise than by way of benefits (whether benefits under this Act or not) amongst its members;

(iii) Its affairs must be subject to the absolute control of its members;

(iv) Its constitution must provide for the election of all its committees, representatives, and officers by its members.

(3) A society may apply for approval at any time before or after the commencement of this Act, and a society with less than ten thousand members being insured persons which otherwise fulfils the requirements of this section may be approved by the Insurance Commissioners conditionally upon its having the requisite number of such members within such time as the Insurance Commissioners may allow.

19. *Special Provisions for Employers' Superannuation Funds, Etc.*—(1) Where a society consists of persons entitled to rights in a superannuation fund or any similar fund established by an employer or a number of employers for the benefit of workmen employed by him or them, the society may be approved—

(a) Notwithstanding that it does not satisfy the conditions laid down by this Part of this Act as to numbers;

(b) If the employer is responsible for the solvency of the fund, or is liable to pay part of, or to make contributions towards, any benefits payable out of the fund similar to those conferred by this Part of this Act greater in amount or value than the employer's contributions payable by him under this Part of this Act, notwithstanding that he is entitled to representation on the committee or other body administering the fund, to an extent not exceeding one quarter of the total number of the body.

(2) Where, by reason of any such society becoming an approved society, it is necessary to make any alteration in the existing rules or constitution of the fund, a scheme for the purpose may be submitted for the approval of the Insurance Commissioners.

(3) Where such a scheme has been approved by the Insurance Commissioners, the Act or deed constituting the fund shall have effect subject to the provisions of the scheme, but the Insurance Commissioners shall not approve any such scheme unless they are satisfied that the members of the society have been given an opportunity of voting thereon, and that the scheme makes proper provision for safeguarding existing rights and interests.

*Clause 20. Security to be Given.*—**As a provision against misappropriation or malversation, every approved society or branch thereof must deposit a security belonging to it. Unless otherwise determined by the Commissioners, it must be equal in value to not less than half the aggregate of the annual contributions paid by or on behalf of insured members.**

21. *Approved Societies to Provide for Local Administration, &c.*—(1) Every approved society, being a society with branches, shall make proper provision by rules to the satisfaction of the Insurance Commissioners—

(a) For the government of the society and its branches;

(b) For the determination of disputes arising between the society and any branch thereof, or between one such branch and another;

(c) For the administration of benefits by the branches as respects insured persons who are members of such branches;

(d) For the keeping of proper books of account by the branches in any case where separate accounts are usually kept by those branches;

(e) For depriving of or suspending from the right of administering benefits under this Part of this Act any branch which is guilty of maladministration of those benefits, and for providing in such a case for their administration by the society or otherwise.

(2) Every approved society whose affairs are managed by delegates, or by whose rules voting by proxy or by post is permitted, or which distributes benefits amongst members residing at a greater distance from its head office or principal place of business than three miles if such place of business is situate in London or a borough or urban district, or ten miles if such place of business is situate in a rural district, must, in every locality in which there are ordinarily resident one thousand of its members being insured persons, establish a local committee for the purpose of administering benefits, so that as far as practicable there shall be one such local committee at least for every thousand members of the society who are insured persons.

(3) Subject to regulations made by the Insurance Commissioners, every approved society must, in every locality distant more than three miles from its nearest office in which there are ordinarily resident not less than two hundred and fifty of its members being insured persons, on the written requisition of not less than fifty of such members, establish a local committee in respect of such locality.

(4) Proper provision shall be made by rule to the satisfaction of the Insurance Commissioners for the election of local committees established under this section by the members of the society residing in the locality for which such committees are appointed, and for the proper management of such committees and the government thereof by the society.

(5) Every approved society and every branch thereof, and every such local committee as aforesaid, shall comply with any regulations made by the Insurance Commissioners as to the place in which meetings are to be held, and those regulations may provide for the use for such meetings, with or without payment, of any offices or other buildings belonging to or under the management of a local authority.

*Clause 22. Secessions.*—**No branch having insured persons among its members can secede from the parent society except with the consent of the Commissioners; nor can an approved society or branch thereof be dissolved without their sanction. A branch of an approved society cannot be expelled therefrom**

until approved provision has been made in respect of any insured members.

*Clause 23. Withdrawal of Approval.*—In certain circumstances the Commissioners may withdraw their approval from an approved society and make whatever provision they deem necessary in respect of such of its members as are insured persons.

MEMBERSHIP AND TRANSFER OF MEMBERS.

*Clause 24.*—(1) Subject to the provisions of this Act, any insured person and any person desirous of becoming an insured person may apply to an approved society for membership therein.

(2) An approved society shall be entitled, in accordance with its rules, to admit or reject any such applicant, or to expel any of its members being insured persons; provided that no such application shall be refused solely on the ground of the age of the applicant.

*Clause 25.*—If an insured person, being a member of an approved society, ceases to be a member of that society, whether voluntarily or by expulsion, and becomes a member of another approved society, there shall be transferred to such other society in respect of such person a sum representing the liability of the first-mentioned society in respect of him (in this Act called "transfer value") calculated in accordance with tables to be prepared by the Insurance Commissioners.

*Clause 26.*—Transfers to societies or institutions of a similar kind to approved societies, but situated in a British possession outside the United Kingdom, or in a foreign country, may also be approved by the Commissioners provided they are satisfied that such society or institution gives corresponding power of transfer in favour of any of its members who become resident in the United Kingdom. They may make arrangements to this end, but these must not interfere with the right of approved societies in the United Kingdom to refuse applications for membership when they please.

27. *Double Insurances.*—A person shall not be or attempt to become a member for the purposes of this Part of this Act of more than one approved society at the same time, or, being a deposit contributor to, become at the same time a member for the purposes of this Part of this Act of an approved society, but nothing in this Act shall prevent any person who is a member of an approved society or a deposit contributor under this Part of this Act becoming a member of the same or any other society independently of this Act, or affect the right of an approved society to reject or expel from membership any person not being an insured person, or the rights or liabilities of an approved society or of any member thereof arising otherwise than under this Part of this Act; and, subject to the provisions of this part of this Act, all rules made by an approved society or any branch thereof shall remain and be of the same force and effect as though this Act had not been passed:

Provided that where an insured person is a member of an approved society or a Post Office contributor under this Part of this Act, and is also a member of a society independently of this Act, and the sums payable to him by way of benefit under this Part of this Act, and independently of this Act, would exceed his wages or other remuneration, the benefits payable to him under this Part of this Act shall be reduced by the amount of the excess.

ACCOUNTS AND VALUATIONS.

*Clauses 28 and 29.*—Every approved society and branch thereof must keep books relating to the insurance funds. They must be separate from all other books of the society, and be kept in such form as may be prescribed by the Commissioners. When required, they must be submitted to audit by auditors appointed by the Treasury. An approved society must also submit to having its assets and liabilities valued, and upon a surplus or deficit being shown must comply with the provisions relating thereto.

This valuation is to be made every three years, or at such other times as the Commissioners appoint. For the purpose of such valuation it shall be assumed that the society or branch in question is liable to provide for the cost of the benefits accrued to its assured members, and for interest at the rate of 3 per cent. per annum.

30. *Surplus.*—(1) If upon any such valuation a surplus (certified by the valuer to be disposable) is found, the following provisions shall apply:—

(*a*) If the society is a society with branches, the surplus shall, subject to the provisions of the next succeeding section of this Act, be applied in the first instance in making good any deficiency shown by any of its branches:

(*b*) Subject as aforesaid, the society may submit to the Insurance Commissioners a scheme for distributing out of such surplus any one or more additional benefits among insured persons who are members thereof, and upon any such scheme being sanctioned by the Insurance Commissioners the society may distribute such additional benefit or benefits in accordance with the provisions thereof:

(*c*) If on the valuation of a branch of an approved society a surplus is shown in respect of such branch, there shall be transferred to the central body or other central authority of the society of which it is a branch *one half* of the surplus, and the branch may itself, or through the society, submit to the Insurance Commissioners a scheme for distributing out of the remaining *one half* of such surplus any one or more additional benefits, and upon any such scheme being sanctioned by the Insurance Commissioners, the branch may distribute such additional benefit or benefits in accordance with the provisions thereof:

(*d*) If at any time after a scheme submitted by a society has been so sanctioned as aforesaid there is found to be a deficiency in the funds of the society or of any of its branches which the society is required to make good, or if at any time after a scheme submitted by or on behalf of a branch has been so sanctioned as aforesaid there has been found to be a deficiency in the funds of the branch, no additional benefits shall be distributed under the scheme until such deficiency is extinguished and a surplus shown.

(2) A scheme made under this section may prescribe the conditions to be complied with as respects any additional benefit conferred by the scheme, and every such scheme shall so far as practicable provide for the reduction, suspension, or deprivation of the additional benefits conferred by the scheme in the case of members who are in arrears, and may make a corresponding reduction in the amount to which such members are to be deemed to be in arrears for the purpose of reckoning the rate of sickness benefit.

31. *Deficit.*—(1) If upon any such valuation a deficiency is found, the following provisions shall apply:—

(*a*) If the deficiency is shown by a branch of an approved society, it shall, in the first place, so far as possible, be made good out of any surplus in the hands of the central body or other central authority of the society:

Provided that the society may, if it is satisfied that the deficiency is due to any maladministration on the part of the branch in question, with the consent of the Insurance Commissioners, refuse to make good the deficiency or any part thereof out of such surplus;

(*b*) Subject as aforesaid, every deficiency shall be made good in accordance with a scheme for that purpose to be prepared by the society and submitted to the Insurance Commissioners for their sanction; such a scheme shall provide for making good the deficiency, within a period of three years from the date at which the valuation was made, in any one or more of the following ways:—

(i) By a compulsory levy upon members of the society or branch being insured persons;

(ii) By reducing the rate of sickness benefit or maternity benefit;

(iii) By deferring the date as from which sickness benefit becomes payable;

(iv) By reducing the first or the second period of thirteen weeks during which sickness benefit is payable, or both such periods;

(v) By increasing the period which is required by this Part of this Act to elapse between two periods of disease or disablement to prevent the one being treated as a continuation of the other,

and on the sanction of the Insurance Commissioners being given to the scheme the society shall proceed to make good the deficiency in accordance therewith.

(*c*) Any compulsory levy may be enforced according to the rules of the society on the subject; and an employer asked to make a reduction from wages to meet such levy and to pay the amount to the society must comply.

(*d*) If the society fails to take the prescribed action within six months of the declaration of a deficiency, or within such further period as the Commissioners may authorize, the latter shall themselves take the necessary steps, administering the affairs of the society for this purpose.

(*e*) Any dispute as to the amount of a deficiency or the adequacy of a scheme for its abolition shall be decided by an independent valuer appointed by the Lord Chief Justice.

(*f* and *g*) A person who is an insured member of a society remains liable to a levy or reduction of benefit in respect of a deficiency until such deficiency is made up, even if he transfers to another society. But no member is liable who is aged over 70 or who joins after the date of the valuation resulting in the declaration of a deficiency.

Any member may escape from a levy payable at intervals by paying the capitalized value thereof to the Commissioners.

DEPOSIT INSURANCE.

32. (1) Until Parliament otherwise determines, the following provisions shall apply in the case of insured persons (in this Act referred to as deposit contributors) who, being employed contributors, have not joined an approved society within the prescribed time, or who, having been members of an approved society, have been expelled therefrom and have not joined another approved society:

(*a*) Contributions by or in respect of a deposit contributor shall be credited to a special fund to be called the Post Office Fund:

(*b*) The sums required for the payment of any sickness, disablement, or maternity benefit payable to a deposit contributor, except so far as they are payable out of moneys provided by Parliament, shall be paid out of the money standing to his credit in the Post Office Fund, and his right to benefits under this Part of this Act shall be suspended on the sums standing to his credit in that fund being exhausted, except that his right to medical benefit and sanatorium benefit shall continue until the expiration of the then current year:

(*c*) A deposit contributor shall not be entitled to sickness benefit unless at least fifty-two weekly contributions have been paid by or in respect of him:

(*d*) Such sum as may be prescribed shall in each year be payable in respect of each deposit contributor towards the expenses incurred by the local Health Committee in the administration of benefits:

(*e*) Such sum as the local Health Committee may, with the consent of the Insurance Commissioners, determine shall in each year be payable in respect of each deposit contributor for the purposes of the cost of medical benefit:

(*f*) The sums payable in respect of a deposit contributor for the purposes of medical benefit and sanatorium benefit, and towards the expenses of administration, shall, except so far as they are payable out of moneys provided by Parliament, be deducted at the commencement of each year from the amount standing to his credit in the Post Office Fund.

(*g*) The amount standing in the Post Office Fund to the credit of any deposit contributor shall, upon his dying, be forfeited.

(2) A valuation of the Post Office Fund shall be made by a valuer to be appointed by the Treasury at the expiration of every three years dating from the commencement of this Act, or at such other times as the Insurance Commissioners may appoint, and if the valuer certifies that the fund shows a disposable surplus the Insurance Commissioners may carry the surplus to the credits of the deposit contributors in proportion to the number of contributions paid by, or in respect of, them respectively;

Provided that if the local Health Committee for any county or county borough in which more than twenty per cent. of the insured persons resident in the county or county borough are deposit contributors makes an application for the purpose, the Insurance Commissioners shall make provision—

(*a*) for crediting and debiting to a separate account the sums to be credited or debited under this Part of this Act in respect of deposit contributors resident in the county or county borough; and

(*b*) for a separate valuation being made of such account and for distributing any surplus found on such valuation to be disposable amongst the depositors resident in the county or county borough, who shall not be entitled to participate in any distribution of any surplus in the general Post Office Fund.

*Clause 33.*—When an insured person ceases to be a member of any approved society, his transfer value, or the difference between this and his reserve value, is carried to the account of the Post Office Fund, and if such person becomes a deposit contributor it is passed to his credit.

Similarly, if a deposit contributor becomes a member of any approved society, the latter will take over any sum standing to his credit with the Post Office Fund which is not in excess of the amount for which the Society would be liable had he been a member from the beginning. If the depositor's credit is less than such amount, he shall be treated by the Society as being in arrear in respect of the deficiency.

SPECIAL CLASSES OF INSURED PERSONS.

34. *Married Women.*—(1) Where a woman who, having before marriage been an insured person, marries, and is supported by her husband, she shall, unless she continues to be employed within the meaning of this Part of this Act, be suspended from receiving any benefits under this Part of this Act until the death of her husband, and if she is a member of an approved society any sums credited to the society in respect of her, calculated in the prescribed manner, shall be carried to such account and dealt with in such manner as may be prescribed, but if at any time after such death she again becomes employed within the meaning of this Part of this Act, the period between her marriage and the expiration of one month from the death of her husband shall be disregarded for the purpose of reckoning arrears:

Provided that where such married woman again becomes employed within the meaning of this Act before such death contributions shall thereupon again become payable in respect of her, and she shall cease to be suspended from receiving benefits, but the period between her marriage and the time when she so again becomes employed shall be disregarded for the purpose of reckoning arrears.

(2) Where a woman who was a married woman living with and supported by her husband at the commencement of this Act at any time subsequently either before or within one year after the death of her husband becomes an employed contributor and a member of an approved society, she shall be entitled to full benefits notwithstanding that at the time of so becoming she is over the age of sixteen.

(3) Where any arrears of contributions have accrued due in respect of a married woman during coverture such arrears shall, on the death of her husband, be disregarded and she shall be thenceforth entitled to benefits as if such arrears had never accrued due.

(4) A married woman shall not be entitled to become a voluntary contributor, and if a woman is before marriage a voluntary contributor she shall on marriage not be entitled to continue to be such a contributor.

(5) Save as aforesaid, the provisions of this Part of this Act shall apply to a woman who has been married, both during and after coverture, in like manner as if she had never been married.

(6) This section shall apply in the case of a woman who is legally separated from her husband by divorce or otherwise as if her husband had died at the date at which such separation took effect.

*Clause 35. Aliens.*—The Act applies to "employed" aliens, but when such persons are admitted to approved societies, or become deposit contributors, nothing must be paid for or in respect of them out of any moneys provided by Parliament, unless in pursuance of any arrangement made in respect of such alien with a foreign Government. A woman who has lost her British nationality by reason of marriage ceases to be an alien when she becomes a widow.

*Clause 36. Soldiers and Sailors.*—A series of detailed provisions makes the Act applicable to all sailors, marines, and soldiers belonging to the naval and military forces. With certain facultative exceptions each man is to have 2d. a week deducted from his pay, and contributions in respect of each man are to be handed to the Insurance Commissioners by the Admiralty and Army Council respectively. Arrangements are made for the transfer of the accounts of men insured before entry into the services, and for the transfer of sums standing to their credit in the service fund to approved societies or the Post Office Fund when their service is at an end. Discharged men unable to join an approved society owing to the state of their health are to have arranged for them a disablement allowance at the rate of 5s. a week. These sections are to apply to reservists and members of the Territorial Force when called out for training or embodiment.

*Clause 37. Civil Employees of the Crown.*—The Act applies to these persons, the State being treated as their employer.

38. *Persons under 16.*—In the case of an insured person under the age of sixteen no part of the contributions payable by or in respect of him above the sum of *four shillings and eightpence* (or in the case of a girl *four shillings and sixpence* a year) shall be credited to the society of which he is a member, or if he is a deposit contributor, carried to his credit in the Post Office Fund, and in the latter case that sum alone shall be payable out of his account to the local Health Committee towards the expenses of the benefits to which he is entitled and the cost of the administration thereof.

FINANCIAL PROVISIONS.

39. *National Health Insurance Fund.*—(1) All sums received in respect of contributions under this Part of this Act and all sums paid out of moneys provided by Parliament under this Part of this Act in respect of the benefits thereunder and the expenses of administration of such benefits shall be paid into a fund, to be called the National Health Insurance Fund, under the control and management of the Insurance Commissioners, and the sums required to meet expenditure properly incurred by approved societies and local Health Committees for the purposes of the benefits administered by them and the administration of such benefits shall be paid out of that fund.

When moneys belonging to the fund are handed for safe keeping to the National Debt Commissioners, preference in their investment is to be given to local loans raised for the purposes of the Housing of the Working Classes Act, 1890 to 1900.

The accounts are to be audited by the Treasury, and an annual statement presented to Parliament.

*Clause 40. Reserve Value.*—The Insurance Commissioners are to prepare tables showing the "reserve values" of members entering into insurance at various ages over 16, these values being the capital sums regarded as necessary to provide against any loss which may possibly accrue to a society from acceptance of a member for insurance purposes. The sums thus credited to a society are to carry interest at the rate of 3 per cent. per annum.

Also to be credited to the societies are all sums received by the Commissioners in respect of any insured member of an approved society, with the exception of 1d. and five-ninths in the case of a male, and 1½d. in the case of a woman, which are to be retained by the Commissioners in respect of their liability to societies for "reserved values."

INSURANCE COMMISSIONERS: ADVISORY COMMITTEE.

41.—(1) As soon as may be after the passing of this Act there shall be constituted for the purposes of this Part of this Act Commissioners (to be called the Insurance Commissioners), with a central office in London, and with such branch offices as the Treasury may think fit, and the Commissioners shall be appointed by the Treasury.

(2) The Insurance Commissioners may appoint such officers, inspectors, referees, and servants, for the purposes of this Part of this Act as the Commissioners, subject to the approval of the Treasury as to numbers, may determine. [Here follows provision as to payment by the Treasury.]

(3) The Insurance Commissioners may empower any such inspector to exercise in respect of any approved society or any branch of an approved society all or any of the powers given by section seventy-six of the Friendly Societies Act, 1896, to an inspector appointed thereunder:

Provided, that any complaint or report as to any such branch as aforesaid made by an inspector under this subsection shall be communicated to the central body or other central authority of the society.

42. *Advisory Committee.*—The Insurance Commissioners shall as soon as may be after the passing of this Act appoint an Advisory Committee for the purpose of giving the Insurance Commissioners advice and assistance in connection with the making and altering of regulations under this Part of this Act, consisting of representatives of associations of employers and approved societies, and of such other persons as the Commissioners may appoint.

LOCAL HEALTH COMMITTEES.

43. *Appointment.*—(1) A local Health Committee shall be constituted for every county and county borough.

(2) Such number of the members of the committee as the Insurance Commissioners, having regard to the circumstances of each case, determine, but in no case less than nine or more than eighteen, shall be appointed—

(*a*) As to one third thereof (which shall consist wholly or in part of members of the local sanitary authorities) by the county council or the council of the county borough:

(*b*) As to one third thereof by such approved societies as have members resident in the county or county borough who are insured persons, or, if such societies cannot agree upon the appointment, by the Insurance Commissioners:

(*c*) As to the remaining one third thereof by any association of deposit contributors resident in the county or county borough which may have been formed under regulations made for that purpose by the Insurance Commissioners; provided, that if no such association has been formed, such one third shall, subject to the approval of the Insurance Commissioners, be appointed by the other members of the committee, or in default by the Insurance Commissioners, from amongst, so far as practicable, such deposit contributors as aforesaid.

(3) Any members appointed by the Insurance Commissioners under paragraph (*b*) of the last preceding subsection shall be appointed from among insured persons resident in the county or county borough who are members of approved societies, and in making such appointments regard shall be had to the desirability of securing that, as far as practicable, this representation of the several societies should correspond to the number of such insured persons who are members thereof.

(4) The Insurance Commissioners may, in any case where it may be desirable to do so, by regulations vary the proportions in which the county council or borough council, the approved societies, and the deposit contributors respectively are entitled to appoint members of the committee, but any such regulations shall be laid before Parliament as soon as may be after they are made.

(5) The remaining members of the committee, not exceeding in number one fourth of the members appointed in manner aforesaid, shall be appointed by the Insurance Commissioners, but so that at least two of the members so appointed shall be duly qualified medical practitioners.

(6) The Insurance Commissioners may make regulations as to the appointment, quorum, term of office, and proceedings generally, of the committee, and the use by the committee, with or without payment, of any offices of a local authority, and any such regulations may provide for the appointment of auxiliary committees consisting wholly or partially of members of the committee, and for the powers and duties of any such auxiliary committee.

(7) Any local health committee may, and shall if so required by the Insurance Commissioners, combine with any one or more other local health committees for all or any of the purposes of this Part of this Act, and where they so combine the provisions of this Part of this Act shall apply with such necessary adaptations as may be prescribed.

44. *Powers and Duties.*—(1) The local Health Committee of a county or county borough shall, in addition to the other powers and duties imposed or conferred on it by this Part of this Act, have the following powers and duties:—

(1) It shall consider generally the needs of the county or county borough with regard to all questions of public health, and may make such reports and

recommendations with regard thereto as it may think fit.

(2) It shall make such provision for the giving of lectures and the publication of information on questions relating to health as it thinks necessary or desirable.

(2) For the purpose of assisting local health committees in the exercise and performance of their powers and duties under this Part of this Act the medical officer of health for the county or county borough may, at the request of the committee, attend meetings of this committee and give such advice and assistance as is in his power.

*Clause 45. Income.*—The Health Committee at the beginning of each year is to receive or be credited with all sums available for sanatorium benefit in the county or borough and all those payable in respect of deposit contributions for medical and administrative expenses. The committee is also to receive one penny a year in respect of each member of an approved society residing within its area. This sum may be raised to 2d. if the committee thinks it proper to refund the travelling expenses of its members. The committee must keep proper books, submit them for audit and make any returns desired by the Insurance Commissioners.

A local authority may contribute towards the expenses of the local Health Committee out of the rates or other available fund any sum that it thinks fit.

EXCESSIVE SICKNESS.

*Clause 46.*—Any approved society or local Health Committee which deems that there is excessive sickness among the insured in its area, and that this is due to the conditions or nature of their employment, or to neglect of sanitary precautions imposed by various Acts on individuals and public authorities, may request the Local Government Board to cause an inquiry to be held. If such inquiry is held, and the sickness is found to have exceeded for not less than three years before the inquiry or during an outbreak of infectious disease what might have been expected by more than 10 per cent., and that such excess is due to the cause alleged by the society or Health Committee, the employer or authority deemed by the inquirer to be responsible shall be ordered by him to make good the loss that has fallen on the society or committee. If the society or committee is not held to have proved its case, but is deemed to have had reasonable cause for asking for an inquiry, it shall not be liable for the costs of the opposing side, and may be repaid by the Treasury the whole of the expense it has incurred.

SUPPLEMENTARY PROVISIONS.

47. *Sanatoriums.*—(1) If under any other Act of the present session any sum is made available for the purposes of the provision of sanatoria and other institutions for the treatment of tuberculosis or such other diseases as the Local Government Board with the approval of the Treasury may appoint, such sum shall be distributed by the Local Government Board with the consent of the Treasury in making grants for those purposes.

(2) If any such grant is made to a county council, the Local Government Board may authorise the county council to provide any such institution, and where so authorised the county council shall have power to erect such buildings and to do all such things as may be necessary for the purpose, and any expenses of the county council, so far as not defrayed out of the grant, shall be defrayed out of the county fund.

(3) For the purpose of facilitating co-operation amongst county councils, county borough councils, and other local authorities for the provision of such sanatoria and other institutions as aforesaid, the Local Government Board may by order make such provisions as appear to them necessary or expedient by the constitution of joint committees, joint boards, or otherwise, for the joint exercise by such councils and authorities of their powers in relation thereto, and any such order may provide how, in what proportions, and out of what funds or rates the expenses of providing such institutions, so far as they are not defrayed out of grants under this section, are to be defrayed, and may contain such consequential, incidental, and supplemental provisions as may appear necessary for the purposes of the order, and an order so made shall be binding and conclusive in respect of the matters to which it relates.

*Clause 48. Regulations.*—The Insurance Commissioners may draw up any regulations indicated to be required by the Act or its schedules, and these shall have the same effect as if enacted in the Act itself.

*Clause 49. Disputed Questions.*—They shall also decide any questions raised by individuals as to liability to insurance or rates payable. Persons aggrieved by such decisions may appeal to a county court judge, and from him on any question of law to any Judge of the High Court selected for the purpose by the Lord Chancellor.

*Clause 50. Disputes.*—Disputes between an existing or until recently insured member of an approved society and the society or between branches of such society are to be determined primarily by the rules of the society, but either party may appeal to the Insurance Commissioners, whose decision, whether given by themselves or by a referee appointed by them, shall be final.

Similar rules apply to disputes between a deposit contributor and a local Health Committee as to his or her rights under the Act.

*Clause 51. Distress Proceedings during Illness.*—No distress warrant or judgement for rent may be executed on a person in receipt of sickness benefit, or for fourteen days after its termination. A person who attempts to enforce any such judgement shall be liable on summary conviction to a fine not exceeding £50.

The period of exemption may be extended by a county court judge on his being satisfied that the proceedings indicated would endanger the life of the insured person. The extension must not exceed twelve months from the date at which the proceedings first became lawful, unless proper security is given for the payment of the rent thereafter to become due, or for the amount of the judgement debt.

*Clauses 52 and 53. Offences.*—A person who knowingly makes a false statement or representation in order to obtain a benefit or payment under the Act becomes liable to imprisonment for three months with or without hard labour. Contravention of the Act or of any regulations laid down in virtue of it are punishable by a fine not exceeding £10 for each offence. If such contravention is failure on the part of the employer to pay a contribution due, the fines are additional to the amounts of the contributions. An insured member of an approved society who is deprived of any part of his benefits owing to the failure of his employer to pay the society the contributions due in respect of him has a right to take proceedings against the employer irrespective of any other action to which such failure may render the employer liable.

54. *Benefits Improperly Paid.*—If it is found at any time that a person has been in receipt of any payment or benefit under this Part of this Act without being lawfully entitled thereto he, or in the case of his death his personal representatives, shall be liable to repay to the Insurance Commissioners the amount of such payment or benefit, and any such amount may be recovered as a debt due to the Crown and when so recovered shall be carried to the credit of the society of which such person was a member, or if he was not a member of any approved society, of the Post Office Fund.

55. *Existing Funds.*—(1) Any registered friendly society or branch which provides benefits similar to those conferred by this Act shall submit to the Registrar of Friendly Societies a scheme for abolishing, reducing, or altering such benefits as respects members who become insured persons under this Part of this Act, and for the application of the funds accumulated in respect of such members for the purposes of such benefits in any one or more of the following ways:

(*a*) In the payment of other benefits;
(*b*) In the reduction of the contributions of members in respect of benefits payable by the society independently of this Part of this Act;
(*c*) In the payment of contributions under this Part of this Act payable by its members;

and any such scheme when confirmed by the registrar shall have effect as if enacted in this Act.

(2) This section shall come into operation on the passing of this Act.

*Clause 56. Superannuation Funds.*—An employer who at the date of the passing of the Act has

established a fund to which he himself contributes in virtue of a deed, and which secures for his employees benefits similar to those conferred by this Act, may obtain authority to deduct from such contributions a sum equal to the amount he pays as employer's contributions under the Act.

*Clause 57. Power to Remove Difficulties.*—If any difficulty arises in constituting a health committee or the advisory committee, the Insurance Commissioners may, with the approval of the Treasury, make by an order any appointment or do anything else they deem expedient to bring the Act into operation.

*Clause 58. Application to Scotland.*—The Act applies to Scotland, subject to such verbal modifications as are necessitated by the different terms used in Scotland and England respectively to express a practically equivalent meaning—as, for instance, "burgh" and "police burgh" for "county borough," and "sheriff" for "county court judge"—and, further, subject to such modifications as are necessitated by differences in the methods of distributing payments to and between various public authorities.

*Clause 59. Application to Ireland.*—It also applies to Ireland, with corresponding modifications. In addition: (1) An "approved society" in Ireland need not have more than 5,000 instead of 10,000 members. (2) If it appear to any county council desirable, it may submit to the Insurance Commissioners, within twelve months of the commencement of the Act, a scheme for the establishment of a "county society" for the benefit of employed contributors within its area. Such society shall rank as an approved society, even though its membership be less than 5,000. An Irish county council has the right of appointing three-fourths of the members of the local Health Committee. Such committee may arrange for the performance of duties in the administration of benefits by officers of local authorities and pay them correspondingly. The duties of medical officers to such committee must be performed by the medical officer of health of each dispensary district without the production of any medical relief ticket, and he is to supply drugs from the guardians' stock. For this work he is to receive such yearly payment as may be prescribed, the guardians also receiving an allowance for drugs. If in any particular locality an approved society cannot make reasonable arrangements for medical benefits, it may, with the approval of the Commissioners, suspend these in that locality and substitute others for them.

## PART II.

## UNEMPLOYMENT INSURANCE.

*Clauses 60 to 81* of the Act confer on workmen belonging to certain trades described in Schedule 6 the right to "unemployment benefit" payable at the rates and for the periods authorized under Schedule 7, and lay down the conditions attaching thereto in respect both of workmen and employers, and provide for the collection and administration of the unemployment fund.

The trades in question are any form of building, including repair and decoration, construction works connected with railroads, harbours, bridges and the like; shipbuilding of every kind, including decoration and tackle making when done by persons not members of the ship's crew; mechanical engineering, including the manufacture of firearms, and the construction and decoration of vehicles or parts thereof. The unemployment rate in respect of each week following the first week of unemployment is for builders 6s., and for mechanical engineers 7s.

*Contributions.*—The fund out of which unemployment benefit will be paid is (Clause 61) to be provided partly by the workmen in the insured trades, partly by contributions from the employers of such men, and partly by Parliament, the rates being determined by Schedule 8. Both for workmen and employers they are 2½d. a week, but an employer may compound for a whole year by paying 15s. in respect of his own contribution for each workman he expects to employ. Employers may not contract themselves out of the Act by arrangement with the workmen, and the contributions are to be collected in the same fashion as those for sickness benefits.

The moneys to be provided by Parliament are to equal one-third of the total contributions received from employers and workmen during any one year.

*Conditions of Benefit.*—To receive unemployment pay the workman must (Clause 62) have been employed in the insured trades for not less than twenty-six calendar weeks previous to the commencement of the Act, and must have applied for unemployment benefit in the prescribed fashion, and since that date have been "continuously unemployed." He must be capable of work, but unable to obtain suitable employment, and must not have exhausted his right to unemployment benefit.

*Disqualifications.*—A workman is not deemed to have refused (Clause 63) employment if the situation offered him is one rendered vacant by the operation of a strike, or when the rate of wage offered is lower than that habitually paid in the district. If, however, he loses employment by reason of a strike in which he is directly concerned, or through misconduct, or voluntarily leaves his employment without just cause, or is imprisoned for some legal offence, or is in an institution wholly or partly supported out of public funds, or is temporarily or permanently resident outside the United Kingdom, he either loses his right to unemployment benefit altogether or is disqualified from receiving it for a certain time.

*Administration.*—Machinery is provided for the adjustment of claims (Clause 64), and for the appointment of insurance officers, inspectors, and umpires (Clause 65), and also for a court of referees (Clause 66).

The Board of Trade is given power to issue schedules prescribing the occupations deemed to belong to the insured trades and dealing with other like matters (Clause 67).

*Refunds to Workmen and Employers.*—A workman who has paid not less than 500 weekly contributions and who has reached the age of 60 may be repaid (Clause 71) out of the unemployment fund any sum over and above the amount which he has drawn in the way of unemployment benefit, together with compound interest at the rate of 2½ per cent. It may be given him in a lump sum or by way of annuity. The age may be reduced to 55 in the case of workmen who definitely cease to follow any insured trade.

Provision is also made (Clause 72) for refunding to employers who prove that they have paid contributions in respect of men who, owing to depression of trade, have systematically had to work for short times only, a proportion of such contribution. In certain circumstances a Labour Exchange (Clause 73) may perform for an employer the duties in respect of collection of contributions thrown on him by the Act.

*Incompetent Workmen.*—If the repeated failure of a workman to obtain or retain employment is deemed (Clause 74) by the insurance officer to be due to defective skill or knowledge, such workman may be offered a suitable course of technical instruction at the expense of the fund. Should he refuse to take advantage of this offer or fail to benefit thereby, the question of whether he shall be deemed any longer rightly to belong to the insured trade in question shall be considered.

*Offences under the Act.*—Penalties are established for the punishment (Clause 75) of offences committed under this part of the Act, either by way of making false statements in order to obtain benefits or failing to pay contributions. They are of the same kind as those laid down in Part I.

*Revision of Scales.*—After the expiration of five years from the commencement of the Act the Board of Trade has power to revise the scales of contribution if the employers' fund is found to be either insufficient or more than sufficient to discharge the liabilities imposed upon it. But no such alteration (Clause 76) shall increase the contributions payable either by workmen or employer by more than 1d. a week.

*Extension of the Act to other Trades.*—With the consent of the Treasury, the Board of Trade may

extend this part of the Act to other trades than those mentioned in the existing schedule; but the Treasury (Clause 77) shall not give its consent if such extension seems likely, within three years of the making of the order, to increase the contribution to be provided by Parliament to a sum exceeding a million pounds a year.

*Refunds to certain Associations.*—Power is also given to the Board of Trade to refund from time to time to any association of workmen which provides for unemployment pay to its members, these being workmen in an insured trade, a sum equal to the amount which such workmen would have received by way of unemployment benefit under the Act if no such arrangement had been made (Clause 79). But no such repayment must exceed two-thirds of the actual amount of the payments made by such association during the period which the refund covers. In virtue of this clause such associations may reduce their rates of subscriptions accordingly.

Provision is also made for paying to associations not trading for profit, but which provide for their members unemployment benefits, a certain proportion of the contributions by Parliament to the unemployment fund, in addition to any repayments which may be made to such associations in respect of contributions by their members to the unemployment fund.

*Definitions.*—The expression "workman" means any person aged upwards of 18 employed wholly or mainly in manual labour, and who works under a contract of service or apprenticeship, whether verbal or in writing (Clause 81). A man is deemed to have been "continuously unemployed" if he has been unemployed for two periods each not less than two days, separated by not less than two days, or for two periods each not less than one week, separated by an interval of not more than six weeks.

This part of the Act shall apply to employees of the Crown other than those serving it in a permanent capacity, unless an Order in Council specially adapts the Act to the case of such employees.

### PART III.
### GENERAL.

The concluding part of the Act—Clauses 82 to 87—directs that the necessary stamps which are to be used in paying contributions shall be provided by the Commissioners of Inland Revenue (Clause 86), and that when a person receiving any benefit under the Act applies to a board of guardians for relief such board (Clause 87) shall not take into consideration such benefit except so far as it exceeds 5s. a week. In the distribution of the assets of an employer who has become bankrupt, the amounts due by him in respect of contributions shall (Clause 84) take priority of all other debts. The same priority is accorded in respect of the assets of a company which is being dissolved, unless it is being wound up merely for the purpose of reconstruction or amalgamation with another company.

None of the benefits conferred by any part of the Act can be assigned or charged by agreement in any circumstances (Clause 85).

An inspector appointed under the Act is given power (Clause 86) to take any steps he deems necessary, in the way of entering premises and like acts, to carry the Act into effect, and employers must give him such information and produce such registers and books and documents as he may reasonably require.

Obstruction of an inspector is punishable by a fine not exceeding £5.

The Act is to come into effect on May 1st, 1912.

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## THE SCHEDULES.

SCHEDULE I defines employment within the meaning of Part I of the Act. Every person is "employed" who does his work in the United Kingdom under a written or oral or expressed or implied contract of service, irrespective of whether he serves one person or more than one person, or whether he is remunerated at a time rate or by piecework, or not paid in money at all. The same considerations apply to a person who works in a ship registered in the United Kingdom, or whose owner or manager has his principal place of business therein.

Outwork, such as may be specified by a special order under the Factory and Workshop Act (1901), Part VI, is also "employment." So, too, is plying for hire in a vehicle or vessel, the use of which is obtained from the owner in consideration of a fixed sum or of a share in the earnings.

Naval and military service, including service in the Officers' Training Corps, is also employment, as also is the service of Army and Navy Reservists and of members of the Territorial Force when these are on actual service or are embodied.

But the term "employment" does not apply to work under the Crown, or under any local or public authority, when such employment secures the worker benefits in respect of sickness and disablement corresponding to those conferred by Part I of the Act.

Also not "employed" are (*a*) teachers in the public elementary schools; (*b*) agents paid by commission or fees or in corresponding fashion, and who do not ordinarily work for one employer only; (*c*) persons not paid by wages or money, and whose employer is the occupier of an agricultural holding of a value assessed under the Income Tax Act at less than £20, or who is the parent of or liable to maintain the person employed, such person being under age 16; (*d*) persons employed otherwise than by way of manual labour at a fixed rate of remuneration exceeding £160 a year; (*e*) persons doing work of a casual nature and otherwise than for the purpose of the employer, trade or business, and otherwise than for the purpose of any game or recreation where they are engaged or paid through a club, which then becomes their employer under the Act.

### SCHEDULE II.
### RATES OF CONTRIBUTION UNDER PART I.

*Employed Rate.*

| | |
|---|---|
| In the case of men ... ... | 7d. a week. |
| In the case of women ... ... | 6d. ,, |

*Contributions by Employers and Employed Contributors.*

| To be paid by the Contributor— | A Week. |
|---|---|
| Men ... ... ... ... ... | 4d. |
| Women ... ... ... ... | 3d. |
| To be paid by the Employer ... ... | 3d. |

In the case of Employed Contributors of either sex over the age of 21 whose wages or other remuneration do not exceed 2s. 6d. a day and who are not provided with board and lodging by their employer, the following shall be the rates of contribution:

Where the wages or other remuneration do not exceed 1s. 6d. a day—

| To be paid by the Employer— | A Week. |
|---|---|
| For men ... ... ... ... | 6d. |
| For women ... ... ... ... | 4d. |
| To be paid by the Contributor ... ... | 1d. |

Where the wages or other remuneration do not exceed 2s. a day—

| To be paid by the Employer— | A Week. |
|---|---|
| For men ... ... ... ... | 5d. |
| For women ... ... ... ... | 4d. |
| To be paid by the Contributor ... ... | 2d. |

Where the wages or other remuneration do not exceed 2s. 6d. a day—

| To be paid by the Employer— | A Week. |
|---|---|
| For men ... ... ... ... | 4d. |
| For women ... ... ... ... | 3d. |
| To be paid by the Contributor ... ... | 3d. |

### SCHEDULE III.
### RECOVERY OF CONTRIBUTIONS UNDER PART I OF THE ACT.

This schedule lays down rules as to the payment and recovery by employers of contributions paid by them on behalf of employed contributors. An employer may deduct the precise sum of the contributions he has paid on behalf of a workman from any wages or other remuneration due to him for the period for which the deduction was made, but not from wages from any other period. If he cannot recover his contributions as aforesaid he may recover them summarily as a civil debt, provided he institutes such proceedings within three months of the date at which the contribution was payable.

The employer of a contributor who is employed by more than one person in any calendar week is the first person who employs him in that week.

Regulations may also be made to secure payment of contributions in the case of men who do their work under

the control of a person other than the employer himself. They may allow such intermediate person to be treated as an employer, but leave him free to deduct any contributions for which he has thus become liable from his own employer.

An employer who does not give money wages must pay both the employee's contributions and his own. No contract is valid which anticipates the return to the employer (by the deduction of wages or otherwise) of the "employer's contribution" which he pays in respect of any workman.

### SCHEDULE IV.

BENEFITS UNDER PART I OF THE ACT.

PART I.

*Rates of Benefit.*

Table A.—*Ordinary Rates.*

Sickness benefit: During the first thirteen weeks the sum of 10s. a week for men, and the sum of 7s. 6d. for women; for the second thirteen weeks, 5s. a week for men and women alike.

Disablement benefit: The sum of 5s. a week for men and women alike.

Table B.—*Reduced Rates in the Case of Young Persons.*

Sickness Benefit: For males, the sum of 5s. a week throughout the whole period of twenty-six weeks. For females, the sum of 4s. a week throughout the whole period of twenty-six weeks.

Disablement Benefit: For females, the sum of 4s. a week.

Table C.—*Reduced Rates for Persons over Fifty in Certain Cases.*

Where the insured person is over 50 and under 60—

For men, the sum of 7s. a week during the first thirteen weeks, and 5s. a week during the second thirteen weeks.

For women, the sum of 6s. a week during the first thirteen weeks, and 5s. a week during the second thirteen weeks.

Where the insured person is over 60—

For both men and women the sum of 5s. a week throughout the whole period of twenty-six weeks.

PART II.

*Additional Benefits.*

(1) Medical treatment and attendance for any persons dependent upon the labour of a member.

(2) An increase of sickness benefit or disablement benefit inthe case either of all members of the society or of such of them as have any children or any specified number of children wholly or in part dependent upon them.

(3) Payment of sickness benefit during the second thirteen weeks of disease or disablement at the same rate as during the first thirteen weeks thereof, or from the first, second, or third day after notice of disease or disablement.

(4) An increase of maternity benefit.

(5) Allowances to a member during convalescence from some disease or disablement in respect of which sickness benefit or disablement benefit has been payable.

(6) The building or leasing of premises suitable for convalescent homes and the maintenance of such homes.

(7) An addition to old age pensions payable under the Old Age Pensions Act, 1908; or the payment of old age pensions at an earlier age than seventy years, with an option to the person entitled to take in lieu of such earlier payment a proportionately increased pension at a later age.

(8) Payments to members who are in want or distress.

(9) Payments for the personal use of a member who, by reason of being an inmate of a hospital or other institution, is not in receipt of sickness benefit or disablement benefit.

### SCHEDULE V.

DEDUCTION FOR ARREARS.

This schedule sets forth and explains a table by which can be calculated the deductions from the sickness benefit which must be made when the beneficiary is in arrears of payment for a varying number of weeks. It is sufficient to state that when the arrears amount to four contributions a year on an average, the sickness benefit during the first thirteen weeks of its receipt is reduced to 9s. 6d. in the case of men and to 7s. 3d. in the case of women. When the arrears number thirteen contributions a year on an average the sickness benefit falls to 5s. for both sexes. In no case does it fall lower than 5s., but the date at which the benefit becomes payable is postponed a certain number of days according to circumstances.

### SCHEDULE VI.

INSURED TRADES.

The contents of this schedule have already been described in the first paragraph relating to unemployment insurance.

### SCHEDULE VII.

DURATION OF BENEFIT.

In addition to laying down the rules mentioned in the first paragraph relating to unemployed insurance, this schedule states that no workman shall receive within any period of twelve months unemployment benefit for more than fifteen weeks, or any such other number of weeks as may be prescribed for the trade in which he is engaged, or in respect of any period less than one day, nor can he receive more unemployment benefit than in proportion of one week's benefit for every five weeks' contributions. If, however, the workman satisfies the Board of Trade that he has habitually worked at an insured trade before the passing of this Act, there may be added to the contributions he has actually paid five contributions for each period of three months that he has so worked before the passing of the Act up to a maximum of twenty-five contributions.

### SCHEDULE VIII.

RATES OF UNEMPLOYMENT CONTRIBUTION.

The contents of this schedule are sufficiently set forth at page 230 in the third paragraph relating to unemployment insurance.

### SCHEDULE IX.

SPECIAL ORDERS.

This relates to special orders which may be made by the Board of Trade under the powers conferred on it by the Act. It is laid down that when any special order is proposed, notice thereof must be given and objections raised considered. The Board may either dismiss such objections or amend the draft order accordingly, and then treat it as if it were an original order in respect of giving notice. It may also, if it thinks fit, cause inquiry on sworn or other evidence to be held into the objections lodged.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## METROPOLITAN COUNTIES BRANCH:

MARYLEBONE DIVISION.

A GENERAL meeting of the Division was held at the rooms of the Medical Society of London, Chandos Street, W., on Tuesday, May 2nd, at 5 p.m. Dr. G. A. HERON, Chairman of the Division, presided. Thirty-three members and visitors were present.

*Confirmation of Minutes.*—The minutes of the last general meeting were read and confirmed. Mention was made of two special meetings of the Marylebone practitioners called by the Divisional officers.

*Boundary of Hampstead Division.*—A communication from the Medical Secretary *re* the Hampstead boundary was read. The Hampstead Division desired to absorb certain of the territory of the Marylebone Division; this territory formed part of the electoral borough of Marylebone. The Executive Council of the Division had already registered their objection to the proposal, and this objection was confirmed by the meeting.

*Fees for Medical Examination for Life Insurance.*—A letter was read from the Medico-Political Committee of the Association in reference to the cutting of rates for medical examinations for life insurance purposes. The CHAIRMAN said the fault lay with the profession. Companies would buy in the cheapest market; it was the duty of the profession to combine and secure reasonable rates. Sir VICTOR HORSLEY moved that the matter be referred to the Executive Committee to take what action they saw fit. This was seconded by Dr. GOULLET and passed.

*Reinstatement of Lapsed Membership.*—A letter from the Branch Secretary concerning proposed reinstatement of lapsed membership was read. Dr. LAURISTON SHAW moved that it be agreed to. Mr. ATWOOD THORNE seconded. The resolution was passed.

*St. John's Wood Ward.*—The Executive Committee had considered the scheme of the Branch Council for the formation of wards covering suitable areas within Divisions. The Committee considered that the formation of a St. John's Wood Ward would be of advantage. That portion of the Division was well defined in locality, and its interests were in many respects distinct from other portions of the Division. Dr. C. A. GOULLET, representing the St. John's Wood members, agreed that a ward committee might be formed with advantage. He moved that authority be given for its formation. Sir VICTOR HORSLEY seconded. Passed.

*Medical Aspects of State Invalidity Insurance.*

A discussion on this subject was opened by Dr. CHRISTOPHER ADDISON, M.P., who referred to the magnitude of the task involved in the organization of a national scheme of sickness insurance, and declared that the greatness of the task was a measure of the opportunity of the profession. The achievement of conspicuous success lay before them if they would avoid cavilling too much over minor details and have regard to the effect of the proposed reform in its broad relation to the public health. The classes of the community immediately concerned were the members of the friendly societies and trade unions on the one hand, and on the other the large masses of casual workers and unskilled labourers who for the most part were outside the scope of such organizations. He proposed to review only those parts of the case which called for amendment and criticism. They all admitted that the present arrangements for medical attendance upon members of friendly societies and trade unions were far from satisfactory. A fundamental objection to the present system was the lack of provision for preventive medicine. From the public point of view, the most important feature of the scheme now at the birth was the earlier treatment of cases. Again, the existing arrangements provided very inadequate facilities for following up cases, particularly if the cases were attended in public institutions. At St. Thomas's Hospital there was, indeed, an organized system for following up a certain class of cases, but at the moment it was in an experimental stage. As for the mass of the people, including those in the sick clubs, those attending Poor Law institutions, and those covered by cheap practices, there could be no question that from the point of view of the prevention of disease and the improvement of physique, the arrangements were deplorable. While opposed to interference with or discouragement of thrift and the organizations which promoted thrift, they must as a profession say fairly that it would be undesirable to leave the arrangements entirely in the hands of clubs or friendly societies. If the arrangements were left in that manner, members of the profession might find themselves in the course of a few years in a position which existed to a considerable extent in Germany, where different organizations endeavoured to beat down practitioners. It was an elementary condition that all arrangements must be subject to the approval of a central body. Proceeding to discuss the question of medical machinery, Dr. Addison said that, in addition to private medical attendance upon individual cases, there must of necessity be provision of an elastic character in the scheme which would enable proper arrangements to be made for institutional treatment when required. It was the more necessary to be careful in dealing with this point because at some places in Germany an undesirable state of affairs had arisen respecting the allotment of money as between payment by attendance and institutional provision. Further, there were certain conditions which the State, making a contribution through a friendly society or a recognized union of sufficient financial stability, would be entitled to insist upon. One of these was the early notification of cases of infectious disease, and, he hoped, of tuberculosis. In the second place, it would lay it down that, however the choice of a medical man to treat a particular patient might be made, it should not be subject to unnecessary fluctuations. Thirdly, there must be provision for the transference of friendly society or trade union cases to institutions, whenever necessary, and for the giving of surgical treatment, if that was desirable. In these respects the national scheme would make a great alteration. As to the people outside friendly societies, whose work was often irregular, and whose wages were small, it was evident that no central committee could have cognizance of them, and local committees must be established for the management of the district machinery. In conjunction with these committees there must be referees, because there would, without doubt, be a considerable amount of attempted imposition. There must also be some machinery whereby the local operation of the fund should be brought into touch with the school authorities. As to the selection and mode of payment of medical officers of the fund, it was fairly clear that it was inpracticable, even if it were desirable, to propose that a fixed sum should be paid to certain officers. It would be a work of supererogation on his part to discuss the question of payment per attendance *versus* payment per head, in view of the detailed report issued by the British Medical Association. But there were certain advantages attached to payment per attendance. For example, it avoided the unnecessary passing of cases on to institutions for treatment. On the other hand, it had very serious objections. It made it wellnigh impossible for the Chancellor of the Exchequer to estimate the State's contribution, and, further, it would lead to abuses by the less scrupulous members of the community, and also hinder institutional treatment when such might be necessary in the interests of the patient and of the general health. Payment per head had the great advantage that it rendered calculation easier, both for the Chancellor of the Exchequer and the medical man concerned, and it would also prevent a multiplication of visits, which was an undesirable attribute of a system of payment by attendance. Chronic cases would represent a difficulty. No medical man would wish to be saddled with an undue proportion of them, and yet if the unlimited right were given to refuse such cases it would ultimately mean the appointment of specially paid men to attend them, and this, when it became known, would result in prejudice to the profession. With regard to those whose contributions under the scheme would be very small, or perhaps absent altogether, and yet whose efficient treatment was very necessary in the interests of the public health, he thought that such patients should not have the option of choice, but that it might be left with the local committees to make arrangements. Provisions for maternity attendance should be incorporated in the bill. Finally, in his opinion, no scheme could be successful unless it left the way open for all Poor Law institutions, fever institutions, and other public medical institutions of all sorts and kinds, to be brought under one unified health authority. Nothing could be more chaotic than the present condition of affairs in this respect. It followed that if this central fund were to make contributions to institutions the control of those institutions must also be somewhat modified, and there must be some association between the voluntary hospital and the local administration of the fund. He hoped that the hospital authorities would not stand too much upon their dignity in such a matter. To the profession he appealed for a broad spirit of co-operation and goodwill as being the most likely to bring about the successful working of a scheme of incalculable benefit to the public health that ought also to bring new honour to the profession.

Dr. LAURISTON E. SHAW emphasized the fact that if medical treatment under the new system were to be successful it was essential that the medical men who gave it should be properly paid; and he hoped that members of the profession, who would have a great many opportunities of discussing this question with influential laymen, would "rub in" the fact that in this desire for the proper payment of the profession they were not seeking any sordid interest whatever. They were determined, nevertheless, not to make the mistake which was made fifty years ago and to submit to a public service so inadequately remunerated as

to be foredoomed to failure. They wanted to be properly paid, moreover, because without a well-paid profession they could not hope that the class of men who ought to be within its ranks would continue to enlist. The deputation from the British Medical Association which waited recently upon some members of the Government recognized that in the minds of certain Ministers there was an obvious anxiety with regard to the conditions of the service. Should the medical men who were to do this work be chosen by the State or other authority or by the patient? This was a question which was exercising those responsible for the measure, and in this respect the State was on the horns of a dilemma. If the State chose the doctor for the patient, it followed that the State-appointed doctor with his fixed salary and State interests might in certain cases tend to be sterner and more chary of accepting the statement of a man that he was sick, and in that way the early stages of disease would come to be neglected. On the other hand, if the patient chose his own doctor, the doctor who was most comformable to the patient's wishes would probably be chosen, and there might ensue a certain amount of unnecessary attendance with its consequent State expenditure. They all recognized that the sympathetic relationship between doctor and patient was a first necessity in successful treatment, and that sympathetic relationship could scarcely be expected if a whole-time service were instituted. Such a service was unpopular with the people, and the medical man under such a system might be regarded by the patient as one who paid more attention to questions of public health than to his own pains and disabilities. Choice of doctor by patient would provide a more popular and more efficient service. There was naturally some anxiety in the Governmental mind as to the possibility of malingering. He hoped that as a profession they would insist upon the fact that malingering was not a serious risk, at least under the system of payment by capitation grant.

Dr. Montgomery-Smith thought that, when once the State took these matters in hand the profession would have little opportunity of putting forward their own preferences. There must, of course, be a certain rigidity in the administration of public funds. What he desired chiefly to learn was the fate of the voluntary institutions. In addition to the hospitals, there were hundreds of dispensaries which already were finding their subscription revenue failing because the subscribers knew that the State was about to look after the very class they covered. Many of these institutions would sink for want of funds, and in the absence of anything to take their place a gap would be left between the well-to-do patients who could go into a nursing home and pay from 3 to 10 guineas a week and the class who entered larger institutions and paid nothing.

Dr. D. S. Roxburgh held that the great danger to which they were exposed was the destruction of the freedom of the medical profession owing to matters of control being left in the hands of comparatively few men. He had been interested in the organization of a scheme for the treatment of school children, and here he found that there were practically only two systems by which these children could be dealt with—namely, the voucher system and the institution of a clinic. The same alternatives applied to a large extent in the question with which they were dealing that afternoon. He ventured to suggest a voucher system for the payment of medical men, but with no value attached to the voucher. Under his method it made no difference to the medical man's income whether he received one patient or ten. All the medical men in a district who wished for this kind of work would be admitted to it freely and the patients would be sent to them in rotation. The money at the disposal of the committee would be distributed according to the number of medical men engaged, and not according to the number of patients whom each of them saw. The patient under this system was not entitled to select his own medical man. The method might be a practicable one for dealing with the patients who would be brought in under the invalidity scheme. Dr. Addison had spoken of the unification of institutions. For his own part, the speaker saw in such unification a very considerable peril. Things which savoured of unification always reminded him of articles "made in Germany" or of diverse objects compressed into a particular pattern. The enormous development in the organization of hospitals was due to the fact that these institutions had been individually separate from one another, and the institutions under the Poor Law, in so far as they had developed at all, had done so by imitating the hospitals outside. He wished to see individual independence conserved both in connexion with the institutions of the country and with the medical men who would work under the State sickness scheme.

Dr. C. G. D. Morier appealed to the profession to present an absolutely united front in the demand for fair dealing, independence, and adequate remuneration. The profession had been exploited too much in the past. At this important juncture they should stand by their rights. He was of opinion that they were doing very well without this new departure. The Chancellor of the Exchequer was an able man, but he was liable to mistakes. As an instance, in dealing with old age pensions he did not discover until after he had been in Germany that the scheme in that country was very largely a contributory one.

Sir Victor Horsley thought that the two last speakers had forgotten that what was often spoken of as individual independence was really crystallized selfishness. Indeed, so far from really wanting individual action in the profession, Dr. Morier had suggested that what they required was collectivism, not individualism. He (the speaker) believed that, whatever failures there had been in the public service in the past, these were the fault of the profession. He instanced the surgical part of the Poor Law Service. The list of operations for which miserable and beggarly fees were paid was not the work of laymen only; it must have been also the work of professional men, and it dated back to somewhere about 1845. Whose fault was this state of stagnation in the medical service of the Poor Law? They were all very careful to say that they were not going to be trampled on by the Government, but the trouble was that the profession made no effort to trample on the Government. Some of their speeches were suggestive of fear, and to fear an enemy at the beginning of the battle was certainly a very bad symptom indeed. With regard to institutions, any one would suppose from the tone of some of the remarks which had been made that the question of rate-aid for voluntary hospitals was a new one. The cry was raised, "But you will interfere with the independence of the hospitals. They will be on the rates." The fact was that they were on the rates already, and had been so for many years. If a Poor Law patient was sent to a general hospital the general hospital was not backward in extracting from the guardians the payment for his treatment in the hospital. On the broad question he urged that all these systems were matters of evolution, and in this country evolution proceeded slowly. When at any time it was accelerated by a brilliant genius like Mr. Lloyd George, people became afraid of the consequences, and instead of calmly considering the principles of the scheme, they looked at its details. If the profession would act collectively and not individually, and pay attention to the broad principles of the treatment of the sick poor, there would be genuine advance along the ordinary lines of evolution.

Mr. Smith Whitaker (Medical Secretary of the British Medical Association) said that an inference drawn by the deputation which waited recently upon the Government was that Ministers were perplexed as to whether they should employ a whole-time service or could devise a practicable scheme whereby private practitioners could be brought in. If the profession could make it clearly and widely known that there was a keen concern and desire that private practitioners should be employed there was a good prospect of such a course being followed. The bill would probably go to Grand Committee, and, if so, although they would not have the opportunity

of giving evidence as in the case of a Select Committee, it would mean that the Government were more open to consider suggested alterations than in the case of a bill which was referred to a Committee of the whole House. It was not regarded as a blow to the Government to amend a bill in Grand Committee; their *amour propre* was less affected. On this question of employment by private practitioners there was one special, but purely administrative, consideration which weighed with public men. If the Government began by trying to employ a whole-time staff for a very great population they would find themselves committed once and for all to the engagement of a large number of doctors at fixed salaries. On the other hand, to employ private practitioners would be to take the line of least resistance, for it committed them to nothing. It would be just as easy to create a whole-time staff in three or five years' time as to-day, whereas, if they started with a whole-time staff and it were to break down, they would have all these medical men on their hands. He could not but feel that the Government had exaggerated the importance of the existing membership of friendly societies. Some of the largest and most important of these societies, such as the Hearts of Oak, did not provide medical benefits. Moreover, a large proportion of the working classes did not obtain their medical attendance through the friendly societies at all. In the colliery districts of Northumberland and Durham and in South Wales there were loose combinations for the purpose of providing medical attendance for the colliery employees. In Lancashire the textile workers, again, preferred to pay their doctors by fees per attendance. Therefore a very large proportion of the comparatively well-to-do working class did not at the present time obtain medical attendance through friendly societies.

The CHAIRMAN (Dr. Heron) said that it seemed to him inevitable, when State aid was recognized in connexion with hospitals, that there should sooner or later be an end to voluntaryism. A new factor had recently been introduced into this question in the shape of the King's Fund, inaugurated by King Edward, and, believing as he (Dr. Heron) did that the voluntary hospitals must eventually come under the control of the State, he saw in the use of the King's Fund a kind of buffer between the hard officialism of the State and the sympathetic feeling which was essential in the carrying out of any satisfactory relationship between patients and doctors. He emphasized the value of the national scheme from the point of view of the prevention of disease. Those of them who were in hospital practice recognized the evils that followed from the too long delay on the part of patients to seek medical advice; and it was well known in all the hospitals of London that the vast bulk of cases of pulmonary tuberculosis which came before those in charge had already gone past the stage at which there was any real hope of cure. These cases could only be reached earlier by means of an efficient service, and he could see no service save one, which was State-paid and State-controlled, capable of working out the problem. The thing that remained to be done was to make that service attractive, and he believed this could be accomplished as it had been accomplished already in the medical services of the army and navy. He added that rather fallacious comparisons were constantly being drawn between German and English doctors who were engaged in certain branches of the public service; but it should be remembered that the German doctor did not dispense. He wrote his prescription, and the drug was supplied and dispensed by another official. Those of them who had to dispense would appreciate the difference.

In a brief reply upon the whole discussion, Dr. ADDISON agreed with the opinion which had been expressed, that if the medical profession did not come out of this business as well as they ought to do, the responsibility would lie with them and not with the Government. He was surprised to find one speaker championing existing arrangements. As a matter of fact, nothing could be more deplorable than the present system under which a child having something the matter with it at school was placed under one authority; or, having to go into the workhouse, was placed under another authority; or, having got the measles, was placed under a third; while somebody else looked after the drains of the house in which it lived. The profession generally would agree that it should be an essential of the proposed scheme to leave the way open for the unification of all these authorities, so that the treatment of any family or case might be directed with a full knowledge of all the facts, which at present it was impossible to obtain, owing to the overlapping of the different authorities.

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### WALTHAMSTOW DIVISION.

THE third meeting of the County Ward of the Walthamstow Division was held at Buckhurst Hill, by the kind invitation of Dr. Norman, on May 4th. Dr. G. NORMAN was in the chair. The following members were present: Drs. Robert Jones, Candler, M. Greenwood, jun., Dykes, Moore, Davis, Pendred, and A. Berrill, Honorary Secretary.

*Epidemiology of Plague.*—Mr. M. GREENWOOD, jun., read a paper on the epidemiology of plague. He considered that among the chief epidemiological characters of plague might be numbered: (1) A tendency to the occurrence of severe pandemics at long intervals, the most striking instances being the plague of Justinian's time, the Black Death, and the wide extension of the plague area since 1896; (2) the seasonal character of epidemics, the seasonal prevalence being remarkably constant for a given district and type of the disease; (3) the marked association between an epidemic and an epizootic which has characterized the majority of modern outbreaks of bubonic plague. The statistical aspect of the subject was illustrated from Indian data, and the experimental work bearing on the part played by insects in transmitting the disease was dealt with. The history of some of the great epidemics in the past was also epitomized. An interesting discussion followed a most instructive paper, for which Mr. Greenwood was accorded a hearty vote of thanks.

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## SOUTH-EASTERN BRANCH.

### FOLKESTONE DIVISION.

A MEETING of this Division was held at Hotel Wampach, Folkestone, on Tuesday, April 25th, at 8.30 p.m. The following members were present: Drs. Wainwright, Major Palk, Chambers, Wilgress, Barratt, Davis, Evans, and Dodd.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Medical Treatment of School Children.*—The resolution of the Kent Organization Committee on the medical treatment of school children was approved.

*Organization of Medical Attendance on the Provident Principle.*—The report of the organization of medical attendance on the provident or insurance basis was thoroughly discussed seriatim, and the questions answered and forwarded to the Medical Secretary.

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### REIGATE DIVISION.

A SPECIAL meeting was held at the Reigate and Redhill Hospital on Thursday, April 27th, at 4 p.m. Dr. RAWLINGS was in the chair, and thirteen members were present. The matron kindly provided tea.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Voluntary Hospitals and Treatment of School Children.*—A letter from the Guildford Division was read, inquiring if this Division would be willing to co-operate in any representation to the Surrey Education Committee deprecating the use of voluntary hospitals and similar institutions for the treatment of school children found on medical inspection to be defective. The Honorary Secretary was instructed to reply that, although the question did not arise in this district, the members were willing to co-operate with them.

*Election of Deputy Representative.*—Dr. Spencer Palmer was elected Deputy Representative at the Special Representative Meeting in place of Dr. Caldecott, who is unable to act owing to ill health.

*Organization of Medical Attendance on the Provident Principle.*—The report on the organization of medical attendance on the provident or insurance basis was freely discussed, and the questions submitted to the Division were replied to. The Executive Committee had gone very fully into the subject, and in most instances the replies suggested by them were agreed to.

*Ophthalmia Neonatorum.*—The report on this subject had been submitted to Dr. PORTER as medical officer of health, and he proposed:

> That no action is necessary for the notification of ophthalmia neonatorum in the Division.

This was seconded by Dr. BLACKLER, and carried unanimously, 12 voting.

*Instruction in First Aid and Kindred Subjects.*—The resolutions of the Annual Representative Meeting, 1910—that members of the medical profession should be suitably remunerated for giving instruction in such subjects, and that one guinea is a suitable fee for each lecture—were unanimously approved of.

*Reform of Medical Law.*—The following resolution, sent up by Mr. H. SEWILL, was proposed by Dr. RAWLINGS:

> The Reigate Division would again press upon the Council the urgent necessity of vigorously pushing forward the movement towards medical law reform, including control of the traffic in quack medicines and apparatus, under cloak of which a great part of unqualified practice is carried on. The Division still believes that the existing evils and abuses could be best exposed by a Royal Commission, but considers it within the power of the Association itself to prepare a report which might compel the attention of Parliament and lead to the needed legislation.

This was seconded by Dr. OGLE and carried unanimously.

*Votes of Thanks.*—Votes of thanks to the Executive Committee for their labours, to the matron for providing tea, and to the Chairman were passed.

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☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## ELECTION OF CENTRAL COUNCIL 1911–12.

NOTICE is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1911–12 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Tuesday, May 23rd, 1911. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared (*a*) for a nomination by a Division and (*b*) for a nomination by any three Members respectively, *and those applying are requested to state for which purpose the form is desired.*

Election will be by voting papers. These papers, which will contain the names of all duly nominated candidates, will be issued from the Central Office on Saturday, June 10th, and will be returnable not later than Saturday, June 17th.

By Order of the Council,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

April 29th, 1911.

## SPECIAL REPRESENTATIVE MEETING.

A Special Representative Meeting will be held on Wednesday, May 31st, 1911, at 10 in the forenoon, and on the following day, if necessary, for the consideration of matters arising out of Minute 340 of the Annual Representative Meeting, 1910 (see below), including the National Insurance Bill, now before the House of Commons, as affecting the medical profession; and for the consideration also of matters arising in connexion with the proposed formation of a new Company to carry on the work of the Association with extended powers.

Minute 340 of the Annual Representative Meeting, 1910, was as follows:

> Resolved: That the Council be instructed, after receiving and considering the replies of the Divisions on the Poor Law question, to call a Special Representative Meeting as soon as possible at some convenient centre.

The Agenda will be issued to Representatives not later than Wednesday, May 24th, and will be published in the "British Medical Journal" of May 27th, 1911.

*BY ORDER OF THE COUNCIL,*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

J. SMITH WHITAKER,
*Medical Secretary.*

May 11th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of the Branch will be held at the Medical Institute, Edmund Street, on Thursday, June 15th, at 3.30 p.m. Nominations of officers should be sent to us by not later than June 1st.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual general meeting will be held at the Coventry Hospital on Tuesday, May 23rd, in conjunction with the Tamworth and Nuneaton Division, at 8.15. The Invalidity Insurance Scheme, the election of officers, and other important matters will be discussed.—VAUGHAN PENDRED, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—The spring meeting of the Branch will be held in the Church Hall, Digby Road, Sherborne, on Wednesday, May 17th, at 3.30 p.m., the President, Dr. T. Fred. Gardner, in the chair. Agenda: (1) The minutes of the last meeting. (2) Letters, apologies for non-attendance, etc. (3) Financial statement for 1910. (4) Reports from the Divisions for 1910. (5) Report of the Council for 1910. (6) The President will vacate the chair and introduce his successor, Dr. Whittingdale. (7) The date and place for the summer meeting. (8) The President will deliver a presidential address, entitled "The Incidence and Behaviour of certain Diseases occurring in Adolescence." (9) Mr. W. Burrough Cosens will communicate Notes and Skiagrams on a Phlebolith. (10) A communication from the Bournemouth Division *re* Medical Treatment of School Children. The Branch dinner

will be held in the Half Moon Hotel, at 6 p.m., price 6s. per head, exclusive of wine, etc. Members who intend to be present are requested to communicate with Dr. Whittingdale not later than Monday morning, May 15th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of the Division will be held at the Board Room of the Altrincham Hospital on Thursday, June 1st. Tea, 4.30 p.m. Annual meeting, 4.45 p.m. Dinner at the Brooklands Hotel, 7.30 p.m. Further particulars will be given in a future notice.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—The ninth annual general meeting of this Division will be held at the Prince of Wales's Hospital, Tottenham, on Friday, May 26th, at 4.30 p.m., Dr. A. Greenwood in the chair. Business: (1) Nominations for officers of the Branch. (2) Election of officers and representatives of the Division. (3) Annual report of the executive. (4) Any other business. Tea provided. —J. A. PERCIVAL BARNES, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—The annual meeting of the Division will be held on Wednesday, May 17th, at the Leicester Infirmary, at 4.15 o'clock. Agenda: Minutes of the previous meeting. Election of Representatives of the Division on the Branch Council, and of officers and members of the Executive Committee of the Division. Nomination of Representative to the Central Council of the Association. Annual Report of the Executive Committee. Consideration of matters referred to the Division from the Central Council, namely: Report on postal referendum; suggested introduction of the metric system in prescription writing; affiliation of other medical societies and associations with the British Medical Association; replies to certain questions dealing with treatment on the provident or insurance basis, and matters connected therewith. The subject of tuberculosis dispensaries will be brought before the meeting by Dr. C. K. Millard, to be followed by a discussion thereon.—R. WALLACE HENRY, Honorary Secretary, Leicester.

SOUTH-EASTERN BRANCH.—The sixty-seventh annual meeting of this Branch will be held at the Old Grammar School, Ashford, on Wednesday, June 7th, at 2.15 p.m. The Council will meet before lunch at the Saracen's Head; notice of the time of this meeting, together with the agenda of business, will be sent to members of council in due course. Dr. Wilks (President-elect) kindly invites members to lunch at the Saracen's Head, Ashford, from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting, (1) To receive the report of the election of officers for 1911–12, who shall thereupon take office. (2) To receive the Annual Report of the Council on the affairs of the Branch and the Annual Financial Statement. (3) To consider the Revised Rules presented by the Council for adoption by the Branch. After the meeting the members will drive to Godinton, a fine old Elizabethan mansion containing some splendid carving, where they will be kindly entertained to tea by G. Ashley Dodd, Esq., D.L., High Sheriff of Kent. The annual dinner will be held at the Saracen's Head at 6.30 p.m.; charge, 6s. each. Wine will be provided by the local members. Members intending to be present at the lunch, the excursion, or the dinner are requested to signify their intention to Mr. Claude M. Vernon, Stoke House, Ashford, not later than Saturday, June 3rd.—E. A. STARLING, Tunbridge Wells, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of the Branch will be held at Cardiff on Thursday, June 15th. Nominations of officers must be sent to me not later than May 25th.—ALERED HANSON, Honorary Secretary, Swansea.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DVISION.—The annual meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, May 26th, at 3.30 p.m.—R. J. COULTER and S. HAMILTON, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The annual meeting of the Council will be held at the North-Western Hotel, Stafford, on Tuesday, May 16th, at 4.40 p.m. Agenda: (1) Minutes of the last annual Council meeting. (2) Correspondence. (3) Nomination of officers for the ensuing year—President-elect, Secretary, and Treasurer. (4) To decide the place of holding the annual meeting in 1911 and 1912. (5) To draw up the annual report to the Branch. (6) To prepare the financial statement. (7) To make arrangements for the annual meeting. (8) To consider representation of Branch on the Committee of the Staffordshire Nursing Association. (9) To consider the question of establishing a library in connexion with the Branch.—HAROLD HARTLEY, Honorary General Secretary, Stoke-on-Trent.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon J. K. RAYMOND, M.B., to the *Foresight* on recommissioning, May 2nd; Staff Surgeon H. R. GARDNER, M.B., to the *Blonde*, on commissioning, May 17th; Staff-Surgeon H. H. PEARSE to the *Venus*, May 15th; Surgeon W. T. HAYDON to the *Victory*, additional, for disposal; Surgeon R. THOMPSON to the Royal Marine Artillery, Eastney, May 12th; Staff Surgeon W. R. CENTER, M.B., and Surgeon E. B. KENNY, M.B., to the *Donegal*, on recommissioning, May 23rd.

## ROYAL ARMY MEDICAL CORPS.

SPECIAL RESERVE OF OFFICERS.

HAROLD FITZ VELLACOTT to be Lieutenant (on probation), April 24th.

## ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

COLONEL RICHARD JENNINGS, M.D., to be an Honorary Surgeon to the King, vice Surgeon-General J. A. Marston, C.B., M.D., deceased, April 1st.

Major G. J. S. ARCHER, who is serving in India, has been appointed Specialist in Advanced Operative Surgery, Burma Division, with effect from March 24th.

## INDIAN MEDICAL SERVICE.

CAPTAIN G. C. L. KERANS has been detailed to do duty with the Indian Contingent at the forthcoming Coronation.

Captain G. E. MALCOMSON, M.D., is appointed Specialist in the Prevention of Disease, and to the charge of the Brigade Laboratory at Nowshera, from January 13th.

## TERRITORIAL FORCE.

ROYAL FIELD ARTILLERY.

*Third East Anglian (Howitzer) Brigade.*—Surgeon-Captain R. W. MULLOCK resigns his commission, May 6th.

*Third North Midland Brigade.*—BERTRAM J. T. FORD (late Transport Officer and Honorary Lieutenant, 3rd North Midland Field Ambulance, R.A.M.C.), to be Lieutenant, May 6th.

ROYAL ENGINEERS.

*West Riding Divisional Engineers.*—Surgeon-Lieutenant J. M. BENSON, M.B., to be Surgeon-Captain, September 26th, 1910.

ROYAL ARMY MEDICAL CORPS.

*First Home Counties Field Ambulance.*—THOMAS H. PEYTON to be Lieutenant, March 3rd.

*Third North Midland Field Ambulance.*—Transport Officer and Honorary Lieutenant BERTRAM J. T. FORD resigns his commission, May 6th.

*Attached to Units other than Medical Units.*—Captain W. GRAY, M.D., resigns his commission, May 6th.

*For Attachment to Units other than Medical Units.*—DAVID DICKIE, M.B., F.R.C.S.Edin., to be Lieutenant, March 31st.

## TERRITORIAL FORCE RESERVE.

ROYAL ARMY MEDICAL CORPS.

SURGEON-CAPTAIN A. J. H. MONTAGUE, from the 8th Battalion Sherwood Foresters (Nottinghamshire and Derbyshire Regiment), to be Captain, with precedence as in the Territorial Force, May 6th.

## COLONIAL MEDICAL SERVICE.

THE following changes in the Colonial Medical Service have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*New Appointments:* The following gentlemen have been selected for appointment to the Staff: G. G. BUTLER, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Sierra Leone; A. CONNAL, M.B., Ch.B.Glasg., D.T.M. and H.Cantab. (formerly Assistant at the Medical Research Laboratory at Lagos), Gold Coast; M. B. HAY, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Lond., Gold Coast; A. INGRAM, M.D., C.M.Edin, M.R.C.S.Eng., L.R.C.P.Lond., D.T.M.L'pool (formerly Medical Officer, Baro-Kano Railway), Gold Coast; A. F. KENNEDY, M.B., B.Ch., B.A.O R.U.I., Gambia. *Retirement:* W. N. ALEXANDER, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., D.P.H.Irel., Medical Officer, Sierra Leone, retires with a gratuity.

OTHER COLONIES AND PROTECTORATES.—E. B. BATE, M.B., B.Ch., B.A.O.Dubl., appointed Public Physician at Inagua, Bahama Islands; R. HAMILTON, M.D., B.Ch.Edin., appointed a Medical Officer in the East Africa Protectorate; J. A. MACKINTOSH, M.D. Rush Medical College, Chicago, U.S.A., Public Physician at Inagua, appointed an Assistant Surgeon in Nassau, Bahama Islands; J. C. A. RIDGWAY, M.D., B.Ch., B.A.O.Dubl., L.M.Irel., appointed a Medical Officer in Uganda.

# Vital Statistics.

## EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first quarter of the year; the fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years are shown, except that in the case of diarrhoea and enteritis among children under 2 years of age the average mortality is not available.

*Small pox.*—Eight deaths of London residents were attributed to small-pox last quarter; 7 of these belonged to Stepney and 1 to Poplar; 66 cases of small-pox were admitted into the Metropolitan Asylums Hospitals during the quarter, and 28 remained under treatment on April 1st.

*Measles.*—The fatal cases of measles, which had been 544, 351, and 844 in the three preceding quarters, reached the unprecedentedly high total of 1,581 last quarter, and were nearly 1,000 in excess of the corrected average number for the corresponding period of the five preceding years. Among the several metropolitan boroughs this disease was proportionally most fatal last quarter in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, Battersea, and Wandsworth.

*Scarlet Fever.*—The deaths from scarlet fever, which had been 50 and 41 in the two preceding quarters, numbered 43 last quarter, but were 79 fewer than the corrected average number. This disease was proportionally most fatal in Stoke Newington, Hackney, Shoreditch, Bermondsey, and Deptford. The Metropolitan Asylums Hospitals contained 1,012 scarlet fever patients at the end of last quarter, against 1,630 and 1,574 at the end of the two preceding quarters; 1,706 cases were admitted during the quarter, against 2,387 and 2,448 in the two preceding quarters.

*Diphtheria.*—The fatal cases of diphtheria, which had been 76, 91, and 145 in the three preceding quarters, further rose last quarter to 170, but were 36 below the corrected average number. The greatest proportional mortality from this disease was recorded in Kensington, Hammersmith, Finsbury, Bethnal Green, Poplar, and Battersea. The number of diphtheria patients remaining under treatment in the Metropolitan Asylums Hospitals at the end of last quarter was 881, against 673, 746, and 827 at the end of the three preceding quarters; 1,446 cases were admitted to these hospitals during the quarter, against 1,175, 1,152, and 1,386 in the three preceding quarters.

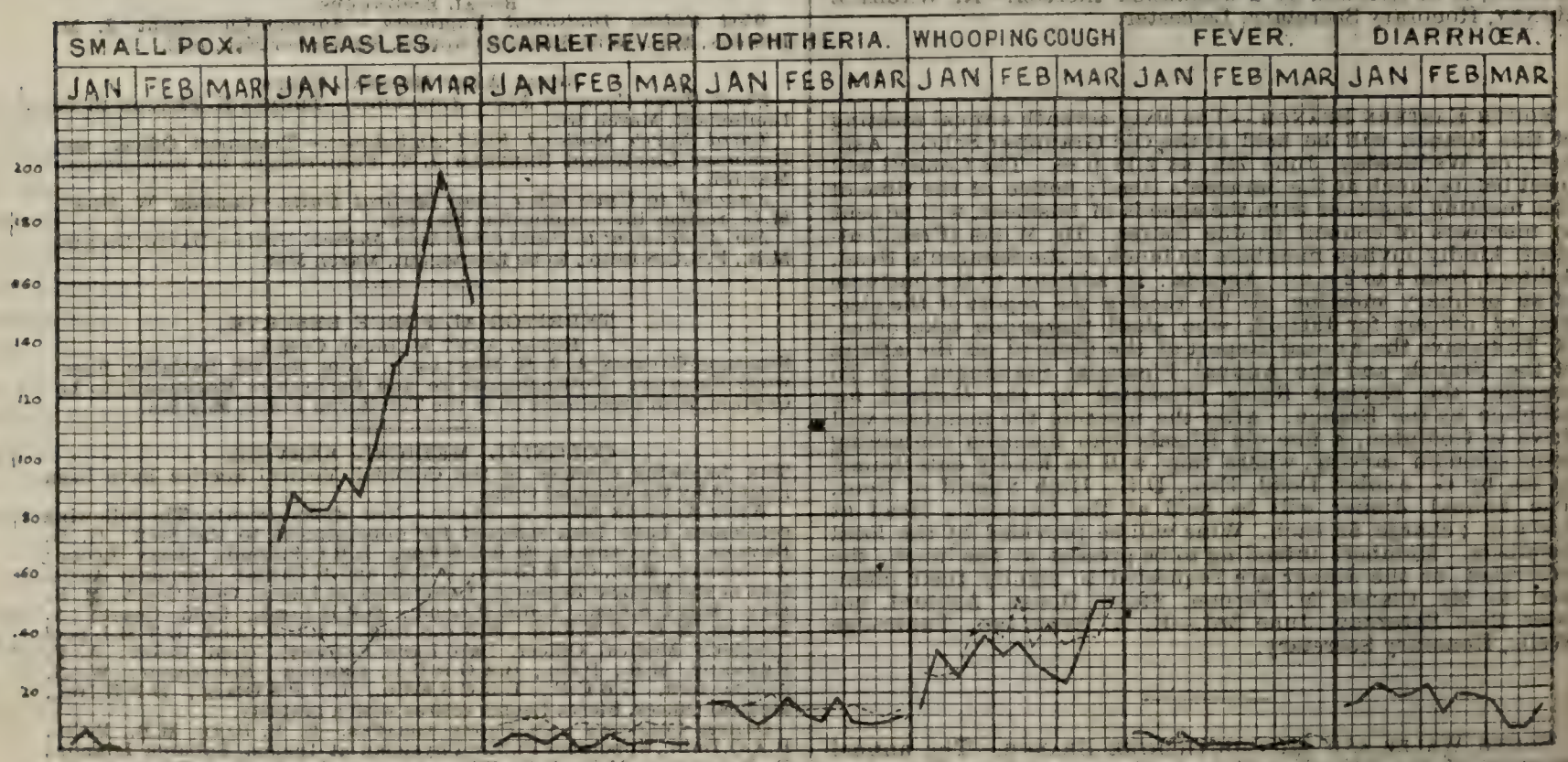
*Whooping-cough.*—The deaths from whooping-cough, which had been 452, 200, and 132 in the three preceding quarters, rose again last quarter to 425, but were 54 below the corrected average number. Among the several metropolitan boroughs this disease was proportionally most fatal in Paddington, Kensington, Stoke Newington, Shoreditch, Bethnal Green, Southwark, and Bermondsey.

*Enteric Fever.*—The fatal cases of enteric fever, which had been 30, 52, and 85 in the three preceding quarters, declined again last quarter to 28, and were 18 fewer than the corrected average number. Of these 28 deaths 4 belonged to Lambeth and 3 each to Islington, Stepney, and Poplar. There were 32 enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 141 and 88 at the end of the two preceding quarters; 73 new cases were admitted during the quarter, against 207 and 227 in the two preceding quarters.

*Diarrhoea.*—In place of the total deaths from diarrhoea which were formerly given in the Registrar-General's weekly returns, the figures given since the beginning of the year relate to the deaths from diarrhoea and enteritis among children under 2 years of age. In London these deaths last quarter numbered 210, and caused the greatest proportional mortality in Hammersmith, Finsbury, Bethnal Green, Stepney, and Battersea.

In conclusion, it may be stated that the lowest death-rates from these epidemic diseases in the aggregate were recorded in the City of London, the City of Westminster, Hampstead, Greenwich, Lewisham, and Woolwich, and the highest rates in Finsbury, Shoreditch, Bethnal Green, Poplar, Battersea, and Wandsworth.

DEATHS FROM THE PRINCIPAL EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1911.




NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths during the corresponding weeks of the five preceding years, 1906-10. The deaths shown under the heading "Diarrhoea" relate only to children under two years of age, and include also deaths attributed to enteritis; the average number cannot be stated.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,473 births and 4,388 deaths were registered during the week ending Saturday, May 6th. The annual rate of mortality in these towns, which had been 15.9, 15.4, and 14.3 per 1,000 in the three preceding weeks, further declined to 13.3 per 1,000 in the week under notice. In London the death-rate did not exceed 12.7 per 1,000, against 14.4, 15.8, and 13.6 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 6.5 in Leyton, 7.4 in Norwich, 8.2 in Willesden and in Hornsey, and 8.7 in Stockton-on-Tees, to 18.7 in Newcastle-on-Tyne, 19.3 in Dewsbury, 19.5 in Coventry, 20.1 in Middlesbrough, and 20.2 in Barrow-in-Furness. Measles caused a death-rate of 1.6 in East Ham, in Plymouth, and in Newcastle-on-Tyne, and 1.8 in Rhondda; whooping-cough of 1.4 in Halifax; and diarrhoea and enteritis (of children under two years of age) of 2.2 in West Bromwich. The mortality from diphtheria, scarlet fever, and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 4,388 deaths recorded in the seventy-seven towns, the causes of 32 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 5 in Liverpool, 3 in Birmingham, 3 in Burnley, and 2 each in Bootle, Sunderland, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 982, 995, and 1,037 at the end of the three preceding weeks, further rose to 1,045 on Saturday last; 142 new cases were admitted during the week, against 125, 155, and 141 in the three previous weeks. On Saturday last the number of cases of small-pox under treatment had decreased to 8, and no fresh case was admitted during the week.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, April 29th, 968 births and 625 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, calculated upon the results of the recent census, was 19.1 per 1,000, and was 4.8 per 1,000 above the mean rate during the same period in the large English towns. The revised death-rates in the two preceding weeks in the Scottish towns were 19.1 and 18.7 per 1,000. Among the several towns the death-rates during the week ending April 29th ranged from 14.9 in Leith and 17.3 in Aberdeen to 22.2 in Greenock and 23.3 in Perth. The mortality from the principal epidemic diseases averaged 2.0 per 1,000, and was highest in Glasgow and Paisley. The 281 deaths from all causes registered in Glasgow included 6 from measles, 4 from diphtheria, 24 from whooping-cough, 1 from enteric fever, and 5 of children under 2 years of age from diarrhoea and enteritis. Three deaths from measles and 3 from whooping-cough were recorded in Edinburgh; 4 from whooping-cough in Dundee, and 7 in Paisley.

## HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 6th, 686 births and 407 deaths were registered in the twenty-two principal urban districts of Ireland, as against 687 births and 465 deaths in the preceding period. The annual death-rate in these districts, which had been 20.3, 22.0, and 20.8 per 1,000 in the preceding weeks, fell to 18.2 per 1,000 in the week under notice, this figure being 4.9 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.3 and 14.3, respectively, those in other districts ranging from 8.2 in Drogheda and 11.4 in Newtownards to 33.6 in Sligo and 35.4 in Lurgan, while Cork stood at 23.3, Londonderry at 19.0, Limerick at 13.7, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.1 per 1,000 in the preceding week.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

ASHTON-UNDER-LYNE: DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Assistant House-Surgeon. Salary commencing £90.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

BATH ROYAL UNITED HOSPITAL.—House-Surgeon. Salary £80 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR CHILDREN.—Physician for Out-patients.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) House-Surgeon; salary for first three months at the rate of £40 per annum and for following six months £50 per annum. (2) House-Surgeon to Special Departments; salary, £50 per annum.

BRIGHTON COUNTY BOROUGH ASYLUM, Hayward's Heath.—Locumtenent Assistant Medical Officer. Salary, £4 4s. per week.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CAPE TOWN: SOUTH AFRICAN COLLEGE.—Professor of Physiology. Salary, £500 per annum, rising to £800.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

DEVON COUNTY ASYLUM, Exminster.—Third Assistant Medical Officer. Salary, £140 per annum, rising to £155.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DUBLIN: TRINITY COLLEGE.—Chief Demonstrator in Anatomy.

HASTINGS: EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

LEICESTER INFIRMARY.—Assistant House-Physician. Salary at the rate of £60 per annum.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER COUNTY ASYLUM, Prestwich.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250 and to £350 according to promotion.

MANCHESTER: HULME DISPENSARY, Dale Street.—House-Surgeon. Salary, £150 per annum.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer to the Convalescent Hospital, Cheadle. Salary at the rate of £80 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Two House-Surgeons. Honorarium at the rate of £50 per annum.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer at the Workhouse. Salary, £110 per annum.

NEWCASTLE-UPON-TYNE: ROYAL VICTORIA INFIRMARY.—(1) House-Surgeon to the Out-patient Dressing Department. (2) House-Surgeon to the Gynaecological Department.

NORTH SHIELDS: TYNEMOUTH VICTORIA JUBILEE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM GENERAL HOSPITAL.—(1) Assistant House-Surgeon; salary, £100 per annum. (2) Locumtenent for ten weeks; salary, £3 3s. per week.

PLAISTOW FEVER HOSPITAL.—Second Assistant Medical Officer. Salary at the rate of £100 per annum.

ROCHDALE BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—(1) An Examiner in Bacteriology and an Examiner in Diseases and Hygiene in the Tropics for Diploma in Tropical Medicine. (2) Two Members of the Court of Examiners. (3) Hunterian Professors and Arris and Gale Lecturer.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon. Honorarium, £40 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants.

SALFORD ROYAL HOSPITAL.—(1) Two Honorary Surgeons. (2) Two Assistant Surgeons. (3) Two Honorary Assistant Physicians.

SHEFFIELD ROYAL INFIRMARY.—(1) Senior Assistant House-Surgeon; (2) Junior Assistant House-Surgeon; (3) Seventh Resident Medical Officer. Salary, £70, £65, and £60 per annum respectively.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHWARK UNION INFIRMARY.—Assistant Male Medical Officer. Salary, £120 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Physician in Charge of Out-patients.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon (Male). Salary, £120 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon. Salary, £40 for six months.

WAKEFIELD GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £100 per annum.

WEST HAM UNION INFIRMARY.—Fourth Assistant Medical Officer (male). Salary, £120 per annum, increasing to £150.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

YORK DISPENSARY.—Two Resident Medical Officers (male). Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Buckingham, co. Bucks; Barnard Castle, co. Durham.

## APPOINTMENTS.

EVANS, D. Gordon, M.B., B.S.Lond., Casualty Officer to the Royal Free Hospital, Gray's Inn Road, W.C.

FENTON, Frederick E., F.R.C.S.E., Surgeon to King Edward Memorial Hospital, Ealing.

FERGUSON, J., M.B., B.S.Lond., District Medical Officer of the Epsom Union.

FITZMAURICE, A. L., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Nottingham Union Workhouse.

FRANCIS, Thos. E., M.D., B.S.Lond., D.P.H., Medical Officer of Health and School Medical Officer to the Llanelly Urban District.

GAINS, J. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Beverley Union.

GOODING, S., M.B., District Medical Officer of the Croydon Union.

GRIFFITH, G. R., M.B., C.M.Glasg., Certifying Factory Surgeon for the Carnarvon District, co Carnarvon.

HALLAM, P., M.B., District Medical Officer of the Williton Union.

HORGAN, J. Bowring, M.B., Ch.B.R.U.I., Oculist, Rhinologist, and Laryngologist to the North Charitable Infirmary, Cork.

MACINTYRE, A. D. M., M.B., C.M.Edin., District Medical Officer of the Lanchester Union.

MATTHEWS, J. N., M.D.Glasg., District Medical Officer of the Warminster Union.

MURRAY, Miss M. D., M.B., B.S.St And., Assistant Medical Officer of the Leeds Union Infirmary.

PONTON, J. A. W., M.B., B.S.Dubl., District Medical Officer of the Honiton Union.

SCOTT, A., M.D., Certifying Factory Surgeon for the Glasgow (South-East) District, co. Lanark.

SHEPHERD, T. W., L.R.C.S.Edin., L.S.A., District Medical Officer of the Launceston Union.

WALLIS, C. Edward, M.R.C.S., L.R.C.P., L.D.S., R.C.S., Dental Surgeon to King's College Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

CRAWFORD.—On May 5th, 1911, at Kilmeny, Ingrow, Keighley, the wife of John C. Crawford, M.B., C.M., of a son.

GIBBINS.—On May 2nd, at Holmdale, Parkstone, Dorset, the wife of K. Mayoh Gibbins, M.B., B.S.Lond., M.R.C.S., L.R.C.P., of a daughter.

### MARRIAGES.

AIKEN—AIKEN.—On April 19th, at St. Stephen's Church, Dublin, by the Rev. H. B. Dobbs, Acheson Aiken, L.R.C.P and S.I., Irvinestown, eldest son of James Aiken, of Kesh, to Molly, youngest daughter of the late John Aiken, of Aughanure, Irvinestown, co. Fermanagh.

DICKS—HOW.—May 3rd, Eustace Dicks, M.D., B.S.Lond., son of Mr. F. R. Dicks, Leckhampton Hill, Cheltenham, to Ethel, youngest daughter of Mr. and Mrs. How, of Torrington, Cheltenham.

### DEATH.

RUTHERFORD.—At Edinburgh, on May 7th, after an operation, Thomas Rutherford, M.B., C.M., Kelso, N.B.

## DIARY FOR THE WEEK.

### MONDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 15, Cavendish Square, W.—5 p.m., Dr. R. Fortescue Fox: Factors in the use of Water and of Waters. Physical Therapy. (Samuel Hyde Lecture No. 1.)

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W.—4.30 p.m., (1) Annual Meeting and Election of Officers. (2) Papers:—Dr. F. W. Price: Effect of Aconite upon the Pulse-Rate. Dr. M. D. Silberberg: Effect of Atropine on Cases under the Influence of Digitalis.

### WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 15, Cavendish Square, W.—5 p.m., Dr. R. Fortescue Fox: Modern Hydrotherapeutics. (Samuel Hyde Lecture No. 2.)

### THURSDAY.

ROYAL SOCIETY, Burlington House.—4 p.m.—The following are among the papers announced: Professor W. M. Bayliss, F.R.S.: (1) The Properties of Colloidal Systems; (2) On Adsorption as Preliminary to Chemical Reaction. S. J. Meltzer: On Distribution and Action of Soluble Substances in Frogs Deprived of their Circulatory Apparatus. Dr. A. Theiler: Transmission of Amakebe by means of *Rhipicephalus appendiculatus*, the Brown Tick. Dr. F. W. Edridge-Green: The Discrimination of Colour.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W.—5 p.m., (1) Annual Meeting and Election of Officers; (2) Cases and Specimens.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, Maison Jules, 86, Jermyn Street, W.—7.15 p.m., Annual Meeting and Election of Officers.

OTOLOGICAL SECTION, 11, Chandos Street, W.—4.30 p.m., (1) Annual Meeting and Election of Officers; (2) Cases and Specimens.

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 15, Cavendish Square, W.—5 p.m., Dr. R. Fortescue Fox: Medicinal Springs: Their Character and Uses. (Samuel Hyde Lecture No. 3.)

SOCIETY OF TROPICAL MEDICINE AND HYGIENE.—A meeting of the Society will be held at 11, Chandos Street, Cavendish Square, London, W., on Friday, May 19th, 1911, at 8.30 p.m. Discussion on the Present Position of the Prophylaxis of Malaria by Quinine, to be opened by Dr. Carnegie Brown. Papers: (1) Dr. W. I. Bruce of Chinde, The Nature of Zambesi Fever; (2) Dr. Surveyor of Bombay, Cultural Characteristics of a Variety of the Streptothrix of White Mycetoma.

UNIVERSITY COLLEGE, Gower Street, W.C.—5 p.m.: Dr. Charles Mercier: Conduct and its Disorders.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Nose. Friday, 3.45 p.m., Nose.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Diseases of the Joints: Tuesday, 5.15 p.m., Syphilitic Affections, Diagnosis, Treatment; Friday, 5.15 p.m., Tuberculous Hip, Differential Diagnosis, etc.; Thursday, 4 p.m., Demonstration of Selected Medical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., The After-effects of Bronchitis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3 15 p m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., Phthisis Treated with Tuberculin. Wednesday, 2.15 p.m., Leukaemia. Wednesday, 5 p.m., Anaesthetics. Friday, 3.15 p.m., The Partial Application of Spinal Analgesia, with some Remarks on Bier's Intravenous Method.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Some Conditions Associated with Disease of the Thyroid Gland.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Demonstration of Medical, Surgical, and Eye Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Glaucoma (illustrated by lantern slides). Tuesday, Cerebral Localization. Wednesday, Fractures (lantern illustrations). Thursday, The Cerebral Circulation.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Muscular Atrophy.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Significance of Blood in the Faeces. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Faulty Female Formations. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, *X* Rays, and Operations, at 2 p.m. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily except Saturday.

### PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. S. KING AND SON will shortly issue a work entitled *Medical Revolution: A Plea for National Prevention on the Basis of a Natural Interpretation of Disease.* The author, a retired general practitioner, contends that the root principle of the cellular pathology—"every disease is rooted in an organ"—is false; that, therefore, most diseases at present so-called, are not diseases but merely symptoms, and that no true diagnosis has been made until the primaeval and contributory causes of the symptoms have been traced. This leads, of course, to the advocacy of preventive as against merely curative measures.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MAY.** | |
| 14 Sunday .. | |
| 15 MONDAY .. | |
| 16 TUESDAY .. | LONDON: Standing Ethical Subcommittee, 2 p.m.<br>STAFFORDSHIRE BRANCH, Annual Meeting of Council, North-Western Hotel, Stafford, 4.40 p.m. |
| 17 WEDNESDAY | DORSET AND WEST HANTS BRANCH, Spring Meeting, Church Hall, Digby Road, Sherborne, 3.30 p.m.; Branch Dinner, Half Moon Hotel, 6 p.m.<br>LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Annual Meeting, Leicester Infirmary, 4.15 p.m. |
| 18 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m. |
| 19 FRIDAY .. | |
| 20 SATURDAY .. | |
| 21 Sunday .. | |
| 22 MONDAY .. | |
| 23 TUESDAY .. | COVENTRY DIVISION, *Birmingham Branch*, Annual General Meeting, in conjunction with Tamworth and Nuneaton Division, Coventry Hospital, 8.15 p.m. |
| 24 WEDNESDAY | RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 25 THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Business and Annual Meeting, Wesleyan Church School, High Road, Leyton, 4 p.m. |
| 26 FRIDAY .. | MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Newport and Monmouthshire Hospital, 3.30 p.m.<br>TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Prince of Wales's Hospital, Tottenham, 4.30 p.m. |
| 27 SATURDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 20TH, 1911.

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## SPECIAL NOTICE TO MEMBERS.

***The attention of Members is called to the Notice of the Special Representative Meeting, on Wednesday, May 31st, and following day, on page 247.***

# Association Intelligence.

## PROCEEDINGS OF COUNCIL.

**A MEETING of the Council was held at 429, Strand, London, W.C., on Wednesday, April 26th, 1911, at 2 o'clock in the afternoon.**

*Present:*

Dr. J. A MACDONALD, Taunton, Chairman of Council, in the Chair.

Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham, President-elect.

Dr. EWEN J. MACLEAN, Cardiff, Chairman of Representative Meetings.

Mr. EDMUND OWEN, LL.D., London, Past-Chairman of Council.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. J. GRANT ANDREW, Glasgow
Insp.-Gen. ROBERT BENTHAM, R.N. (ret.), London (Royal Navy Medical Service)
Surg.-Gen. W. R. BROWNE, M.D., C.I.E., London (Indian Medical Service)
Dr. R. C. BUIST, Dundee
Dr. W. A. CARLINE, Lincoln
Mr. ANDREW CLARK, D.Sc., K.H.S., London
Dr. M. DEWAR, Edinburgh
Mr. E. J. DOMVILLE, Exeter
Dr. J. E. EDDISON, Leeds
Mr. J. HENRY EWART, Eastbourne
Mr. C. F. S. FLEMMING, Bradford-on-Avon
Mr. T. W. H. GARSTANG, Altrincham
Dr. E. W. GOODALL, London
Dr. W. GOSSE, Sittingbourne
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern, Western, and Border Branches)
Dr. MAJOR GREENWOOD, London
Dr. J. R. HAMILTON, Hawick, N.B.
Sir VICTOR HORSLEY, F.R.S., London
Mr. R. J. JOHNSTONE, Belfast
Mr. HERBERT JONES, Hereford
Colonel C. H. JOUBERT DE LA FERTÉ, I.M.S., Weybridge
Dr. F. W. KIDD, Dublin
Mr. F. CHARLES LARKIN, Liverpool
Dr. G. R. LIVINGSTON, Dumfries
Mr. ALBERT LUCAS, Birmingham
Dr. JOHN MACDONALD, South Shields
Dr. D. J. MACINTOSH, M.V.O., Glasgow
Dr. C. G. DRUMMOND MORIER, London
Dr. B. H. NICHOLSON, Colchester
Dr. Frank M. POPE, Leicester
Dr. A. J. RICE-OXLEY, London
Dr. H. JONES ROBERTS, Penygroes
Dr. CECIL E. SHAW, Belfast
Dr. LAURISTON E. SHAW, London
Mr. C. R. STRATON, Salisbury
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Mr. T. JENNER VERRALL, Bath
Dr. D. J. WILLIAMS, Llanelly

### ELECTION TO CENTRAL COUNCIL.

**The CHAIRMAN reported that Dr. C. G. Drummond Morier had been returned to the Central Council by the Victorian, South Australian, and West Australian Branches.**

### APOLOGIES.

**Letters of apology for non-attendance were read from the President, Professor Corby, Dr. David Ewart, Mr. Hugh Ker, Dr. Munro Moir, Dr. Denis Walshe, and Professor A. H. White.**

### DEATH OF DR. MCMANUS.

**The Council expressed its profound regret on learning of the death of Dr. L. S. McManus, for so many years an active and valued worker in the Association.**

### APPOINTMENT OF SOLICITOR TO THE ASSOCIATION.

**Mr. W. E. Hempson was reappointed Solicitor to the Association for the ensuing twelve months.**

### FINANCE COMMITTEE.

**The TREASURER presented the Minutes of the Finance Committee of April 19th, 1911.**

*Financial Statement.*

The Financial Statement for the year ending December 31st, 1910, as certified by the auditors, was approved, and, in accordance with By-law 35, ordered to be presented to the Annual General Meeting and the Annual Representative Meeting.

*Accounts for Quarter.*

The accounts for the quarter ending March 31st, 1911, amounting to £11,475 9s. 8d., were approved, and the Treasurer was empowered to pay those remaining unpaid, amounting to £3,215 0s. 2d.

ORGANIZATION COMMITTEE.

The CHAIRMAN (Mr. Larkin) presented the Quarterly Report of the Organization Committee.

*Promulgation of Policy of Association.*

The Council adopted a Report submitted by the Organization Committee on questions raised by Minute 271 of the Annual Representative Meeting, 1909, on the promulgation of policy of the Association, and gave instructions for the preparation of a compilation of the pronouncements of the Association on questions of professional policy.

*Medical Students and the Annual Meeting.*

It was decided to request the Executive Committee of the Birmingham Meeting to make such arrangements as are possible to enable medical students studying in Birmingham to attend the Meetings of Sections and social functions of the Annual Meeting; and also to ask the Committee whether in its opinion it would be possible to call during the Annual Meeting a special meeting of local medical students to consider some matter of professional interest.

*Organization of Medical Students.*

A standing instruction was given to the Organization Committee to appoint at its first Meeting for each year a Standing Subcommittee for the purpose of dealing with all matters connected with the organization of medical students.

*Grant to Metropolitan Counties Branch.*

On consideration of an application from the Metropolitan Counties Branch, the Council made a grant to that Branch of £450 in respect of the year 1910.

*Grants to Branches.*

The grants to Branches outside the United Kingdom for the year 1911 were fixed at the rate of 4s. for each member on the annual list. A supplementary grant of £10 10s. was made to the Cape of Good Hope, Eastern Province Branch, for its library.

*Grouping of Divisions for Representation in Representative Meetings, 1911–12.*

The East and West Cornwall Divisions were accorded independent representation in Representative Meetings for the year 1911–12.

JOURNAL COMMITTEE.

The CHAIRMAN (Dr. Buist) presented the Quarterly Report of the Journal Committee, which was approved.

SCIENCE COMMITTEE.

The CHAIRMAN (Dr. Pope) presented the Quarterly Report of the Science Committee.

*Purchase of Books.*

The purchase of certain books was authorized.

*Future of Therapeutic Committee.*

The Council decided not again to appoint the Therapeutic Committee, as a Committee of the Council, and instructed the Science Committee to appoint at its first meeting of each year a Standing Therapeutic Subcommittee to promote, supervise, or direct research in Pharmacology and Therapeutics, and to carry out such other duties as the Science Committee shall decide.

CENTRAL ETHICAL COMMITTEE.

The CHAIRMAN (Dr. Lauriston E. Shaw) presented the Quarterly Report of the Central Ethical Committee.

*Professional Secrecy as Affecting Information Given to Hospital Almoner.*

The Council approved a Memorandum in response to an application from the Metropolitan Counties Branch Council for advice on questions of professional confidence arising in connexion with information given by medical practitioners to hospital almoners.

MEDICO-POLITICAL COMMITTEE.

The CHAIRMAN (Mr. Verrall) presented the Quarterly Report of the Medico-Political Committee.

*Reports to the Representative Body.*

The following reports were adopted by the Council and referred for the consideration of the Representative Body:

1. Proposed alteration of a paragraph, on the subject of payment of School Medical Officers by fixed salary, contained in the Report on Medical Inspection of School Children approved by the Annual Representative Meeting, 1909.
2. A Report with Recommendations concerning the engagement of whole-time officers and specialists for the treatment of school children found upon medical inspection to be defective.
3. Report on the subject of part-time public appointments, other than those of Medical Officers of Health, under instruction of the Representative Meeting, 1910, contained in Minute 317 (*b*).

*Fees for Instruction in First Aid and Similar Subjects.*

In response to questions received from various Divisions as to the scope of the Resolution of the Annual Representative Meeting, 1910, contained in Minute 259, the Council expressed the opinion that the Resolution should be regarded as applying to lectures given to ladies' classes in ambulance and kindred subjects, but that Divisions should exercise their discretion as regards its application to lectures on these subjects given to Church Lads' Brigades, Boy Scouts, Bands of Hope, and similar organizations.

*Health Visitors Bill.*

The Council directed that steps should be taken with a view to securing the amendment of the Health Visitors Bill, at present before the House of Commons, by the insertion of a proviso to the effect that nothing contained in that bill shall be considered as conferring on Health Visitors any authority to practise medicine or to undertake treatment or cure of disease.

*Future Action by Divisions in matter of Medical Treatment of Defective School Children.*

On consideration of a Report of the Committee concerning the future action of the Divisions in regard to the subject of the treatment of defective school children, it was decided to make further representations to the Divisions, pressing upon the attention of those which up to the present have taken no action the desirability of early action on their part. The Council also decided that full advice should be

given to the Divisions as to their procedure in approaching the local Education Authorities, and that they should be urged to make more use of the Central Office both in drafting their representations to the local Education Authorities, and also in their personal negotiations with these bodies.

The Council came to the decision that, in view of the representations made by several Divisions, the scheme circulated by the Association in June last should be amended by the deletion of the clause which recommended that the onus of certifying as to the economic status of the parents of children found upon inspection to be defective should be laid upon the medical profession.

*Ship Surgeons.*

The Medico-Political Committee was instructed to appoint each session a Subcommittee composed of Members of the Medico-Political Committee and Members of the Association specially conversant with the work of ship surgeons to consider all questions concerning the employment of medical practitioners as ship surgeons.

PUBLIC HEALTH COMMITTEE.

The CHAIRMAN (Mr. E. J. Domville) presented the Quarterly Report of the Public Health Committee.

*Necessity for Assisting Divisional Organization in Cases of Dispute.*

The Council decided to consider how more effective assistance can be given from the Central Office to Divisions engaged in disputes.

*Royal Sanitary Institute Congress.*

The Council has resolved not to appoint delegates to attend the Congress of the Royal Sanitary Institute as this Congress is fixed for the same time as the Annual Meeting of the Association.

HOSPITALS COMMITTEE.

Dr. D. J. MACKINTOSH, M.V.O., presented the Quarterly Report of the Hospitals Committee in the absence of the Chairman (Mr. Hugh R. Ker) through illness.

*King Edward's Hospital Fund Inquiry.*

The Council considered and approved the Memorandum of Evidence submitted on behalf of the Association to the Inquiry Committee of the King Edward's Hospital Fund for London. It was reported that the Chairman of Council, the Chairman of the Hospitals Committee, the Chairman of the Metropolitan Counties Branch, and the Medical Secretary had given oral evidence before the Committee, and that steps had been taken to assist the Special Inquiry Committee by nominating witnesses who were not on the staffs of hospitals, but in general practice in the neighbourhood of these institutions.

NAVAL AND MILITARY COMMITTEE.

The CHAIRMAN (Colonel C. H. Joubert de la Ferté) presented the Quarterly Report of the Naval and Military Committee.

*Fees Payable by Natives to Officers of the Indian Medical Service.*

The Committee presented a report on the recent regulations published by the Government of India on the subject of fees payable by natives to the officers of the Indian Medical Service. Certain ambiguities in the new rules have been noted, and representations will be made to the Secretary of State for India concerning them. These notwithstanding, the Council expressed the opinion that the general result of the representations made by the Association in regard to this matter must be regarded as highly satisfactory.

*Term of Office of Service Members of Council.*

The Council has resolved to recommend to the Representative Body that the officers elected at the Annual Representative Meeting, 1911, to represent the Services on the Council be appointed to serve for a period of three years in each case instead of for one year, as has hitherto been the custom.

COLONIAL COMMITTEE.

The CHAIRMAN (Dr. C. G. D. Morier) presented the Quarterly Report of the Colonial Committee.

Interim Reports were given on the subjects of the Grouping of Colonial Branches for election of Members of Council, and State Medical Registration in Gibraltar and in Hong Kong.

IRISH COMMITTEE.

The CHAIRMAN (Mr. R. J. Johnstone) presented the Quarterly Report of the Irish Committee.

The Committee reported that it had taken action to bring to the attention of the Irish Divisions the subjects of fees for insurance examinations, and remuneration for the teaching of ambulance and similar subjects, and in the latter case to urge them to ensure the application of the principles of the Resolutions of the Annual Representative Meeting, 1910, relative to this subject, to lectures given in connexion with the Women's National Health Association (Ireland). A favourable report was also given as to the efforts of the Joint Committee of the Irish Committee and the Irish Medical Association to secure the support of the profession in Ireland for the reform of the Irish Poor Law Medical Service.

THERAPEUTIC COMMITTEE.

The CHAIRMAN OF THE SCIENCE COMMITTEE (Dr. Pope) presented the quarterly Report of the Therapeutic Committee, which contained information as to the various investigations at present being carried out under the supervision of the Committee.

COMMITTEE ON THE TREATMENT OF FRACTURES.

Sir VICTOR HORSLEY presented the Quarterly Report of the Committee on the Treatment of Fractures, and the Council approved the method of procedure which that Committee has adopted in regard to its inquiry into operative treatment of simple fractures.

SPECIAL POOR LAW REFORM COMMITTEE.

The CHAIRMAN (Dr. J. H. Taylor) presented the Quarterly Report of the Special Poor Law Reform Committee.

*Insurance Medical Service.*

The questions arising on the subject of the organization of medical attendance on a provident or insurance principle have up to the present been dealt with by the Special Poor Law Reform Committee in conference with the Contract Practice Subcommittee. The Council has now definitely divided these questions from that of the consideration of the medical aspects of Poor Law reform, and has appointed a Special Committee (called the State Sickness Insurance Committee) to deal with the subject.

The Chairman of Council and the Chairman of Representative Meetings were authorized to act on behalf of the Council in convening a Special Representative Meeting, if in their judgement such a meeting should be necessary before the next meeting of Council, for the consideration of the policy of the Association respecting State Sickness Insurance.

PREMISES COMMITTEE.

The CHAIRMAN OF THE PREMISES COMMITTEE (the Treasurer) presented the Minutes of a Meeting of the Committee which had been held on April 26th. These were approved.

CANDIDATES.

The 21 candidates whose names had been given on the notice convening the Meeting of Council were duly elected Members of the Association.

ANNUAL REPORT OF COUNCIL.

The Council approved the Annual Report for 1910–11, which will be published in a subsequent issue.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## EAST ANGLIAN BRANCH.

THE spring meeting was held at the Crown Hotel, Framlingham, on Thursday, April 20th.

*Council Meeting.*

*Confirmation of Minutes.*—The minutes of the last meeting were confirmed.

*Apology for Non-attendance.*—A letter was read from the President, Dr. Pembroke Minns, regretting his inability to attend.

*New Members.*—The following gentlemen were elected members: F. R. Barwell, M.R.C.S. (Mildenhall), J. C. Dicks, M.D. (Framlingham), W. E. T. Fowler, M.R.C.S. (Norwich), T. K. J. Leavey, M.R.C.S. (Southend), H. E. H. Tracy, M.R.C.S. (Bury St. Edmunds).

*General Meeting.*

The general meeting was held at the Crown Hotel after luncheon. About twenty members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were confirmed. In the absence of Dr. Pembroke Minns, Dr. H. S. Connor was voted to the chair.

*Papers.*—Mr. HAMILTON A. BALLANCE read a paper on two cases of peptic ulcer of the jejunum following gastro-enterostomy. The paper was discussed by Dr. HOLLIS, Dr. CURL, and Dr. GIUSEPPI, and Mr. BALLANCE replied. Dr. HOLLIS (Woodbridge) read notes of cases, and showed two patients on whom he had operated—prostatectomy and laminectomy.

*Exhibit.*—Instruments were shown by Down Brothers.

## LANCASHIRE AND CHESHIRE BRANCH:

### BURNLEY DIVISION.

A MEETING of the above Division was held in the Bull Hotel on May 9th. Dr. CROSSLEY was in the chair, and fifty-three members were present.

*National Insurance Bill.*—The meeting was called to give replies to the questions to Divisions on the organization of medical attendance on the provident or insurance basis. But as the Government Bill for national insurance to provide against loss of health and for prevention and cure of sickness, etc., had been brought into the House of Commons a few days before this meeting, the CHAIRMAN and members present decided that it was not necessary now to go through the questions seriatim; but the whole question involved was warmly discussed, most of the members present taking part in the discussion, and finally the following resolutions were unanimously adopted, every member present voting:

1. That, in the opinion of this meeting, it is not desirable that the Government should include medical attendance among the benefits afforded under its State Sickness Insurance Scheme.
2. Should the Government insist on medical attendance being included among the benefits of the scheme, the following limitations are demanded:
   (*a*) Payment by fee for each visit or other services rendered.
   (*b*) That medical benefits under the scheme must cease at a wage limit (amount to be agreed upon).
3. That the medical men in this Division absolutely refuse to be placed under the friendly societies, and will resist any attempt to so place them to the utmost of their power.
   They demand a free choice of doctor for all, and insist that the doctor be made responsible to the State through a committee of this Division, or a local committee on which this Division is adequately represented.
4. That dispensing shall be as it is at present, the doctor dispensing if he chooses.
5. That the President of the Lancashire and Cheshire Branch be requested to secure a meeting of the Branch as soon as possible, so that the whole subject can be discussed and united action taken.
6. That in any Representative Meeting called to consider this scheme our Representative is instructed to act on the above resolutions.
7. That the Honorary Secretary be instructed to arrange with the local members of Parliament to meet the Division at a meeting to be held.

### BURY DIVISION.

A SPECIAL meeting of the Bury Division was held in the Athenaeum, Bury, on Thursday, May 11th, 1911. Dr. NUTTALL occupied the chair, and thirty-eight members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved.

*Increase of Membership.*—The SECRETARY reported that, as a result of a canvass, every practitioner in the town, and practically every one in the area, had promised to join the Association, thus increasing the membership 100 per cent.

*Nomination of Candidates for Central Council.*—Drs. GARSTANG, TAYLOR, and LARKIN were nominated by the Division.

*National Insurance Bill.*—A keen discussion was taken part in by many of the members, and the following resolutions were carried unanimously:

1. That this meeting of the Bury Division strongly urges the Council of the Association to oppose those provisions in the Insurance Bill giving control of the medical benefits to friendly societies, and to maintain the principle of "choice of doctor."
2. That we individually and collectively pledge ourselves to resign any friendly society appointment for medical attendance which we at present hold, and decline any similar appointment which may be offered, if required to do so by the Association.
3. That this last resolution be sent round for signature by every man in the Division.
4. That a copy of these resolutions be sent to the members of Parliament for the Division area, and that deputations be sent to interview these gentlemen at the expense of the members of the Division.
5. That the members of this Division pledge themselves to pay any levy that may be imposed upon them for the purpose of carrying this matter through.
6. That one medical man from each parliamentary division in the area be appointed, with power to co-opt, to interview the members of Parliament. The following were appointed: Bury, Dr. Nuttall; Radcliffe, Dr. Saville; Ramsbottom, Dr. Crawshaw; Rossendale, Dr. Brown.
7. That it be a recommendation from this meeting to the Representative Meeting that a national petition from medical men be sent to Mr. Lloyd George, and that it should include the medical schools and universities.

*Adjournment of Meeting.*—The meeting was adjourned till Tuesday, May 16th.

### WARRINGTON DIVISION.

THE annual meeting of this Division was held at the Infirmary, Warrington, on Tuesday, May 9th. Dr. EDWARDS was in the chair, and there were present: Drs. John Hutchinson, Bowden, Mackenzie, Binns, and Murray; also Drs. Braekell, De Jong, and Robinson.

*Election of Officers.*—The following were elected office-bearers: *Chairman*, Dr. Bowden; *Vice-Chairman*, Dr. Burrowes; *Honorary Secretary and Treasurer*, T. A. Murray; *Representative on Branch Council*, Dr. Burrowes; *Executive Committee*, the above officers, with Drs. Langdale, Burrowes, and Edwards.

*Central Council Election.*—It was resolved to nominate and support the candidature of Drs. Larkin, Taylor, and Garstang.

*Minimum Fees.*—Dr. EDWARDS gave notice that at the next meeting he would bring forward the question of minimum fees in the Division.

*Library.*—The Subcommittee recommended that the house-surgeons of the infirmary be requested to act as honorary librarians. Several books have been purchased from the fund subscribed by members and the Medico-Ethical Society of Warrington.

*National Insurance.*—The report on this subject was finally considered, and it was further resolved:

That the Division strongly disapproves of the friendly societies having any power in the administration of the medical portion of a scheme of State Sickness Insurance.

## METROPOLITAN COUNTIES BRANCH:

### HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held at the Central Library on Friday, May 12th, Dr. J. FORD ANDERSON in the chair. After the minutes of the last meeting had been read and confirmed, a letter from the Honorary Secretary of the Walthamstow Division relating to an ethical matter was considered and referred to the committee for consideration and report.

*Appointment of Vice-President.*—A letter from the Branch Secretary on the regulations for nomination of officers of the Branch Council was read, and, on the proposal of Mr. CUNNINGTON, seconded by Dr. OPPENHEIMER, a recommendation of the committee that the Division should nominate Dr. Ford Anderson as a Vice-President of the Branch Council was carried unanimously.

*Boundaries.*—Dr. FORD ANDERSON reported as to the position of the boundaries question, and the Division resolved to withdraw their proposals.

*Combined Meeting.*—The meeting then adjourned for a meeting of the local profession on the Hampstead Hospital question, and, after some discussion, the meeting resolved to nominate Dr. Adam Oakley and Mr. E. Jessop to represent the local profession on the council of the hospital.

*Matters Referred to Divisions.*—The Divisional meeting was then resumed, and considered matters referred to Divisions which were to come before the meeting of Representatives at Birmingham.

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### RICHMOND DIVISION.

A GENERAL meeting of this Division was held at the Royal Hospital, Richmond, on Wednesday, April 26th.

*Surgical Aspects of Acute Abdominal Disease in Children.*

Mr. H. S. CLOGG read a paper upon the surgical aspects of acute abdominal disease in children. After mentioning the rarer diseases, he said that his own experience of 98 cases of the "acute abdomen" in childhood showed the diseases represented as follows:

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|---|---|
| Appendicitis ... ... ... ... | 54 cases. |
| Pneumococcal peritonitis ... ... | 6 " |
| Inflammation of the diverticulum of Meckel ... ... ... ... | 2 " |
| Intussusception... ... ... ... | 28 " |
| Intestinal obstruction by a band (always the diverticulum) ... ... ... | 3 " |
| Intestinal obstruction by adhesions ... | 5 " |

Appendicitis, he said, was undoubtedly the most frequent abdominal disease in childhood, giving rise to urgent symptoms. In his experience he most commonly saw the disease for suppuration, for in only 5 cases out of 54 had he removed the appendix in what is called the quiescent interval, whereas in no less than 39 had he operated for suppuration, diffuse (18 cases) or localized (21 cases). In 10 further cases he had operated in the very early hours of the acute attack, where changes were practically limited to the appendix. It was stated that appendicitis was a chronic disease with acute exacerbations. For in practically all the appendices removed during the acute illness evidence of chronic disease was seen. In many of these a history pointing to previous disease was obtained, but the symptoms had often been so trivial as to be overlooked, and regarded as merely a stomach-ache, gastric or intestinal disorders, and so forth. The differential diagnosis was briefly considered, and particular stress was laid upon the recognition of the minor manifestations of the disease, for it was only by operating in this stage that the more serious complications might be avoided. The treatment was entirely surgical, and operation was earnestly advocated at the very commencement of the disease however trivial appeared to be the symptoms, for the course of the disease could never be foretold, and the condition of the appendix could never be estimated by the clinical symptoms. Even with quite slight symptoms when operating in the early stage appendices showing localized gangrene throughout the entire thickness and on the point of giving way were discovered. In localized suppuration his practice was always to remove the appendix and he had never regretted so doing. When diffuse peritonitis was present the importance of the semi-sitting posture was emphasized even before the operation, and also the importance of subcutaneous saline infusion before the operation and, if necessary, continued throughout the operation, followed afterwards by rectal saline infusion. His experience was that no drug, not even pituitary extract, was of much value in combating the shock in such cases.

A very brief historical outline of pneumococcal peritonitis was given, and it was pointed out that the disease, at one time considered rare, was now known to be quite common, especially in children; indeed, it was the second most-frequent cause of peritonitis in childhood. The various portals of entry of the coccus to the peritoneum were discussed, and it was stated that there was at present time no satisfactory explanation of the very great disproportion of sex-incidence in childhood. The clinical varieties of the disease were mentioned and their treatment.

A brief historical outline of inflammation of the diverticulum—diverticulitis—was given. The clinical picture was precisely similar to appendicitis, and from that disease it was indistinguishable.

The symptoms of intussusception were discussed, but it was stated that the diagnosis could only be made from *one* sign, the palpation of the intussusception. In 26 out of 28 cases he had been able to palpate the intussusception, and in the two exceptions there was an obvious cause why he could not, for in both the illness was of some days' duration, and the tumour lay concealed behind many layers of distended intestinal coils. Such should rarely be one's experience, for a baby with an intussusception is at once noticed by the mother to be seriously ill, and advice is at once sought. With care, he thought that an intussusception could be felt in practically every case. He stated that he had often read of an intussusception being concealed beneath the ribs, but this must be extremely rare, for when an intussusception had travelled so far it must be of some proportions, and a part of it should be felt. The one condition with which an intussusception might be confounded was that which Dr. Sutherland had called "gastro-intestinal crises from effusion into the bowel wall." This condition, which was frequently associated with Henoch's purpura, was apparently rare, but mimicked intussusception perfectly. It was suggested that cases in which symptoms of intussusception had been present some days and the intussusception was readily reduced by operation might owe their origin and early symptoms to haemorrhage into the bowel wall. It was stated that the prognosis of an intussusception was very good, for 23 out of 28 cases recovered. In the 5 fatal cases 3 were irreducible in infants, and in the 2 reducible ones symptoms had been present for four days before operation. The only treatment was immediate laparotomy, but before this it was essential, when preparations were being made, to administer saline solution subcutaneously and continue this during and after the operation if necessary. There was no other means of combating the shock anything like so effectual as the saline infusion.

Of the other varieties of intestinal obstruction probably a band, which was almost invariably a Meckel's diverticulum, was the most frequent. Perhaps almost equal in frequency to this, however, was obstruction from adhesions, and these adhesions were almost invariably the result of peritoneal tuberculosis, perhaps known to exist previously, or it may be entirely unsuspected. The adhesions may be most complicated, but a not infrequent form was one in which a loop of gut was adherent to a caseating mesenteric gland. A rare form of obstruction, of which one case occurred in this series, was that produced by a mass of caseating glands in the lower mesentery, which formed a tumour of such size as not only to be palpable but to stretch the gut tightly over it and so occlude it. The treatment adopted was incising the gland capsules and scraping their

interior, for they were too extensive to warrant removal.

*Radiogram.*—Mr. H. A. GÜNTHER showed a radiogram of a fractured femur.

*Votes of Thanks.*—A hearty vote of thanks was accorded to Mr. Clogg for his interesting paper and to Mr. Günther for showing the radiogram.

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## NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

### FURNESS DIVISION.

THE annual meeting was held in the Masonic Buildings, Barrow, on May 12th, at 3.15 p.m. Eleven members were present.

*Adoption of Minutes and Report.*—The minutes of the previous meeting were read and adopted. The annual report was adopted.

*Election of Officers.*—The following office-bearers and members of committee for the year were elected: *Chairman*, Dr. Kendall; *Vice-Chairman*, Dr. Sansom; *Secretary*, Dr. Livingston; *Representative*, Dr. Daniel; *Representatives on Branch Council*; Drs. Rutherford and Fothergill; *Committee*, Drs. J. A. Reed and Callaghan.

*Vote of Thanks.*—A hearty vote of thanks was accorded Dr. Rutherford for his serviees as chairman. In responding Dr. RUTHERFORD emphasized what had been said in the annual report regarding the lack of support given by the large number of the members. He considered that if any one disapproved of the actions of the Association it was his duty to attend the meetings and say so. If he approved he could show his approval best by supporting the Division in its work by attending the meetings of the Division.

*New Chairman.*—Dr. KENDALL, on taking the chair, appealed to the members to assist him during his term of office. Medical men were accused of paying attention to the professional side of their work, and neglecting the business side. He could imagine the feelings of such on a recent morning when they saw in bold type. "Dr. free! 10s. a week." He thought it would make each think seriously, and study the question for himself. He (Dr. Kendall) did not wish to start a discussion on the State Insurance Bill; but he would like to point out that the Government made the medical aid side of the question a very early and very important one, contrary to the opinion of many who thought this would be a remote affair. The reception accorded the bill from the leaders of all parties was distinctly favourable. This showed that it was essential that there be no dissension in the ranks of our profession in our dealings with bodies which might be only too willing to take advantage of disunion. Some men might think themselves strong enough to be able to fight single-handed. He would ask them to join in to help their weaker brethren. He hoped to see all the medical men of Furness agreed upon a common line of action, and all unite.

*Resolution.*—The following resolution, proposed by Dr. RUTHERFORD and seconded by Dr. REED, was carried:

> This Division congratulates the Barrow Sanitary Authority on taking a preliminary step towards the control of pulmonary tuberculosis.

The secretary was instructed to send a copy of the resolution to the Town Clerk.

The meeting then shortly discussed Forms 22, 23, 24, 25, and 26.

*National Insurance Bill.*—The CHAIRMAN then intimated that the remainder of the time would be taken up by having an informal discussion of the State Insurance Bill. The following resolution was carried, and the Secretary was instructed to send a copy to the Medical Secretary:

> No scheme of contract medical attendance would be satisfactory which did not contain the principle of liberty of choice of medical attendant by each individual.

It was further decided that the Committee should draft a letter to all the non-members of this Division with a view of getting them to join, as it was thought that now was an opportune time.

## SOUTH-EASTERN BRANCH:

### CROYDON DIVISION.

A BUSINESS meeting was held at the Croydon General Hospital on May 16th, Mr. C. WRAY in the chair.

*Minutes and Annual Report.*—The minutes of the previous meeting were read and confirmed. The annual report was taken as read and adopted unanimously.

*Election of Officers.*—The following officers were elected: *Chairman*, Dr. Gripper; *Vice-Chairman*, Mr. Wray; *Direct Representative*, Dr. C. Owen Fowler; *Deputy Representative*, Mr. Willock; *Branch Council Representatives*, Mr. Willock, Dr. Scudamore; *Honorary Secretaries*, Mr. Willock, Dr. Scudamore; *Committee*, Dr. Braddon, Dr. Carpenter, Mr. Cressy, Dr. Hugo, Dr. Nicholls, Dr. J. Steward Richard, Dr. Partridge, Dr. Redfern, Mr. Wale, Dr. Wayte, Dr. Wilson (Sutton), Dr. Genge.

*Vote of Thanks.*—A very cordial vote of thanks was accorded to the retiring Chairman, Mr. Wray, who replied. Dr. GRIPPER then took the chair.

*National Insurance Bill.*—The following resolution was proposed by Dr. REDFERN:

> That this meeting is not in agreement with that portion of the National Insurance Bill affecting the medical profession, and pledges itself to endeavour to obtain, by every legitimate means, such terms for and conditions of contract practice as shall be satisfactory to the medical practitioners in the area covered by the Croydon Division of the British Medical Association.

Dr. C. OWEN FOWLER seconded. Drs. PASMORE, WAYTE, CRESSY, WRAY, DANIEL, REICHARDT, and others took part in the discussion, and the resolution on being put to the vote was carried unanimously. It was further decided, for the purpose of obtaining the opinions and cohesion of all members and non-members, and also in order that the Representative may be fully instructed for the Representative Meeting, that the Division be divided into six districts, and that a meeting shall be immediately held in each district to transact the necessary business, and to report to a meeting to be held at Croydon on May 30th. The following undertook to act as local secretaries: Dr. Partridge, Sutton; Dr. Ormerod, Epsom; Mr. Clarkson, Caterham; Dr. Hugo, Purley; Mr. Willock, Croydon; Dr. Bentley, Mitcham.

*Clinical Meeting.*

A clinical meeting was then held under the Chairmanship of Dr. GENGE. Dr. STANLEY MELVILLE gave an interpretation of skiagrams. Mr. CRESSY read notes upon: (*a*) Three cases of ovarian tumour with twisted pedicle; (*b*) case of fibroid tumour of uterus necessitating Caesarean section; (*c*) case of strangulated inguinal hernia at 3 months of age, sac containing ovary and tube.

Seventy members and visitors were present.

Ten members subsequently dined together.

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## SOUTH-WESTERN BRANCH:

### EAST CORNWALL DIVISION.

A MEETING of this Division was held at Bodmin on May 10th. Dr. NETTLE was in the chair, and there were present: Drs. Nettle, Hingston, Anderson, Stephens, Cole, George, Donald, and Pearse.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Medical Certificates for School Children.*—A letter from the Cornwall Education Committee offering to pay a fee of 1s. 6d. for medical certificates for school children, to be given on an authorized form, was read, and the meeting agreed to accept this fee.

*Letter re Representative of Division.*—A letter from the Medical Secretary *re* Representative for the East Cornwall Division at the Representative Meetings for the ensuing year was read.

*State Sickness Insuranee.*—A resolution was passed:

> That all members of the profession in the Division be invited to attend a meeting to discuss Mr. Lloyd George's National Insurance Bill as it affects the medical profession.

*Next Meeting.*—It was decided to hold the next meeting at Bodmin on May 24th.

# Association Notices.

## SPECIAL REPRESENTATIVE MEETING.

A Special Representative Meeting will be held in the Examination Hall of the Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, on Wednesday, May 31st, 1911, at 10 in the forenoon, and on the following day, if necessary, for the consideration of matters arising out of Minute 340 of the Annual Representative Meeting, 1910 (see below), including the National Insurance Bill, now before the House of Commons, as affecting the medical profession; and for the consideration also of matters arising in connexion with the proposed formation of a new Company to carry on the work of the Association with extended powers.

Minute 340 of the Annual Representative Meeting, 1910, was as follows:

> Resolved: That the Council be instructed, after receiving and considering the replies of the Divisions on the Poor Law question, to call a Special Representative Meeting as soon as possible at some convenient centre.

The Agenda will be issued to Representatives not later than Wednesday, May 24th, and will be published in the "British Medical Journal" of May 27th, 1911.

*BY ORDER OF THE COUNCIL,*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

J. SMITH WHITAKER,
*Medical Secretary.*

May 11th, 1911.

## SPECIAL COUNCIL MEETING.

Notice is hereby given that, in connexion with the Special Representative Meeting to be held in London on Wednesday, May 31st, and, if required, on Thursday, June 1st, a Special Meeting of the Council will be held for the consideration of the resolutions of the Special Representative Meeting, and will take place at 429, Strand, on Thursday, June 1st, at 10 a.m., or, if the Special Representative Meeting does not complete its business on Wednesday, May 31st, at such hour on Thursday, June 1st, as shall be announced during the course of the Special Representative Meeting.

*BY ORDER,*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

May 18th, 1911.

## ELECTION OF CENTRAL COUNCIL 1911–12.

NOTICE is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1911–12 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Tuesday, May 23rd, 1911. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared (*a*) for a nomination by a Division and (*b*) for a nomination by any three Members respectively, *and those applying are requested to state for which purpose the form is desired.*

Election will be by voting papers. These papers, which will contain the names of all duly nominated candidates, will be issued from the Central Office on Saturday, June 10th, and will be returnable not later than Saturday, June 17th.

By Order of the Council,

GUY ELLISTON,
*Financial Secretary and Business Manager.*

April 29th, 1911.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of the Bath and Bristol Branch will be held at Bristol University on Wednesday, June 7th, at 5 o'clock, Dr. J. M. Rattray in the chair. Business: "Annual."—NEWMAN NEILD, Honorary Secretary, Clifton.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Division will be held at the Bristol University at 5 o'clock on June 30th. Business: "Annual." Election of Representative.—NEWMAN NEILD, Honorary Secretary, Clifton.

BIRMINGHAM BRANCH.—The annual meeting of the Branch will be held at the Medical Institute, Edmund Street, on Thursday, June 15th, at 3.30 p.m. Nominations of officers should be sent to us by not later than June 1st.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held on June 14th at the Medical Institute, at 4 p.m., for the election of officers. Nominations in writing for the offices of Chairman, Vice-Chairman, and two Honorary Secretaries must be received not later than Wednesday, May 24th.—A. W. NUTHALL, W. T. LYDALL, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual general meeting will be held at the Coventry Hospital on Tuesday, May 23rd, in conjunction with the Tamworth and Nuneaton Division, at 8.15. The Invalidity Insurance Scheme, the election of officers, and other important matters will be discussed.—VAUGHAN PENDRED, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at the Crichton Royal Institution, Dumfries, on Friday, May 26th, at 3 p.m. The Branch Council will meet at 2.45 p.m. The agenda will be issued to members of the Branch at an early date.—GEORGE R. LIVINGSTON, Honorary Secretary.

CONNAUGHT BRANCH.—A meeting of this Branch will be held at Ryan's Hotel, Claremorris, at 1 p.m., on Wednesday, May 24th. Business: To elect Council and Officers of Branch; appoint a Representative to Representative Meeting; receive Report of Executive Committee; ballot for new members; consider agenda paper of Annual General Meeting and Special Meeting called *re* Insurance Bill now before Parliament; transact any other necessary business.—JOHN MILLS, Honorary Secretary, Connaught Branch, Asylum, Ballinasloe.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Norwich on Thursday, July 13th.—B. H. NICHOLSON, Honorary Secretary, Colchester.

EAST YORKS AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held on Thursday, June 15th, in the Etherington Ward at the Hull Royal Infirmary.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at the Board Room of the Altrincham Hospital, at 4.45 p.m., on Wednesday, June 21st, and not on June 1st, as previously stated. Tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1911–12. Every member is eligible

for every office, and may be proposed by any member. Nominations, in writing and signed, may be sent to the Honorary Secretary at any time before June 19th. Dinner at the Brooklands Hotel, 7.30 p.m. *Ladies invited.* Names *must* be given to the Honorary Secretary by Monday, June 19th, in order that he may have time to cancel the arrangement (*so far as the ladies are concerned*) if there are not sufficient acceptances—say, five or six at least. The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 19th. (If any alteration of programme becomes necessary, it will be advertised in the Supplement, which members should consult regularly.) *Agenda:* (1) Minutes of Fifty-second General Meeting (Northwich). (2) Minutes of Sixty-eighth Committee Meeting. (3) Apologies for absence. (4) Election of Officers: (*a*) Chairman for 1911-12, and his induction by the retiring Chairman. (*b*) Elect other Officers: Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, Committee, Associate Members. (5) Annual Report of Executive Committee. (6) Alteration of Rules [Rules 8, 12 (*b*)]. (7) Question of extending invitation for Branch Meeting, 1912. (8) Report of Representatives. (9) Matters Referred to Divisions (Supplements from April 22nd to date). (10) Question of Associated Fund for Professional Defence. (11) Division Fund for Medical Charities. (12) Any other urgent business.—H. G. Cooper, Honorary Secretary, "Foye," Altrincham.

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Leinster Branch.—The annual meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Friday, June 9th, at 4 30 p.m. Members who wish to bring forward any subject of professional interest should communicate with Arthur H. White, Honorary Secretary, Malvern, Terenure Road, Dublin.

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Metropolitan Counties Branch.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. Goodall and W. Griffith, Honorary Secretaries.

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Metropolitan Counties Branch: Kensington Division.—A Medico-Political Meeting will be held at the Kensington Town Hall on Monday, May 22nd, at 4 30 p.m. Agenda: (1) Minutes of previous meeting. (2) Letters from the Education Officer of the London County Council intimating that it is possible that centres for the treatment of school children may be established in the Kensington area. (3) Nomination, by the Division, if thought desirable, of candidates for Central Council and for the various offices of the Branch. (4) An informal discussion will take place on the State Insurance Bill as it affects the medical profession. Members are strongly advised to procure copies of the bill, which affects their interests in the most important manner. Members are informed that at the last meeting of the Division it was unanimously decided that not less than half a guinea should be accepted for the examination of persons proposing to be insured in the Royal Insurance Company. A complimentary dinner to Mr. H. T. Butlin, President of the Royal College of Surgeons, President of the British Medical Association, will be held on June 13th, and it has been suggested that the various Metropolitan Divisions should amalgamate their annual dinners on this occasion. Arrangements will be made for those wishing to do so to sit together. The Executive Committee having approved of this plan, have decided that it is inadvisable to take the action recommended by the Division at its previous meeting in regard to holding a local dinner.—H. Beckett-Overy, Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

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Metropolitan Counties Branch: Marylebone Division.—The annual meeting of the Division will be held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Monday, May 29th, at 5 p.m. Agenda: (1) Minutes. (2) Questions. (3) Letters. (4) To elect officers, Representatives of the Division on the Branch Council for the ensuing year. Nominated by the Executive Committee: Chairman, Sir Frederic S. Eve; Vice-Chairman, Mr. Atwood Thorne; Treasurer, Dr. Comyns Berkeley; Honorary Secretary, Mr. N. Bishop Harman; Executive Committee, Drs. G. A. Heron, F. J. Smith, F. M. D. Berry, C. O. Hawthorne, Percy Spurgin. (5) To receive the annual report of the Executive Committee. (6) At 5.30 p.m. a discussion will be opened on the Insurance Bill by the Right Hon. Sir Thomas Palmer Whittaker, M.P. In view of the great influence which this proposal must exert upon the medical profession, it is hoped that all doctors resident in the borough of St. Marylebone (to whom this invitation is extended) will make a point of attending and taking part in the discussion. Intending speakers are requested to send in their names early.—N. Bishop Harman, Honorary Secretary, 108, Harley Street, W.

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Metropolitan Counties Branch: Tottenham Division.—The ninth annual general meeting of this Division will be held at the Prince of Wales's Hospital, Tottenham, on Friday, May 26th, at 4.30 p.m., Dr. A. Greenwood in the chair. Business: (1) Nominations for officers of the Branch. (2) Election of officers and representatives of the Division. (3) Annual report of the executive. (4) Any other business. Tea provided.—J. A. Percival Barnes, Honorary Secretary.

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Metropolitan Counties Branch: Walthamstow Division.—The business and annual meeting of this Division will be held at the Wesleyan Church Schoolroom, High Road, Leyton (corner of James Lane), on Thursday, May 25th, at 4 p.m. Agenda: (1) Minutes. (2) Letters. (3) Annual Report. (4) Election of officers. (5) Matters referred to Divisions. (6) Instruction to Representative at Representative Meetings. (7) National Insurance Bill. (8) Any other business.—A. Pottinger Eldred, Honorary Secretary, Bucklands, Grove Road, Walthamstow.

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South-Eastern Branch.—The sixty-seventh annual meeting of this Branch will be held at the Old Grammar School, Ashford, on Wednesday, June 7th, at 2.15 p.m. The Council will meet before lunch at the Saracen's Head; notice of the time of this meeting, together with the agenda of business, will be sent to members of council in due course. Dr. Wilks (President-elect) kindly invites members to lunch at the Saracen's Head, Ashford, from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting, (1) To receive the report of the election of officers for 1911-12, who shall thereupon take office. (2) To receive the Annual Report of the Council on the affairs of the Branch and the Annual Financial Statement. (3) To consider the Revised Rules presented by the Council for adoption by the Branch. After the meeting the members will drive to Godinton, a fine old Elizabethan mansion containing some splendid carving, where they will be kindly entertained to tea by G. Ashley Dodd, Esq., D.L., High Sheriff of Kent. The annual dinner will be held at the Saracen's Head at 6.30 p.m.; charge, 6s. each. Wine will be provided by the local members. Members intending to be present at the lunch, the excursion, or the dinner are requested to signify their intention to Mr. Claude M. Vernon, Stoke House, Ashford, not later than Saturday, June 3rd.—E. A. Starling, Tunbridge Wells, Honorary Secretary.

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South Wales and Monmouthshire Branch.—The annual meeting of the Branch will be held at Cardiff on Thursday, June 15th. Nominations of officers must be sent to me not later than May 25th.—Alered Hanson, Honorary Secretary, Swansea.

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South Wales and Monmouthshire Branch: Monmouthshire Dvision.—The annual meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, May 26th, at 3.30 p.m.—R. J. Coulter and S. Hamilton, Honorary Secretaries.

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## THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

### Periodicals.

**As members have already been informed, a list of periodical publications and official reports and Blue Books in the library of the British Medical Association which are available to be issued to members of the Association on loan under regulations approved by the Council has been made and printed. Any member can obtain a copy on application to the Librarian. At its last meeting the Council resolved that the following additional periodicals shall be added to those already filed in the library, and that as soon as the current volumes are completed they shall be available for lending. Where the publication is not a new one, past volumes will be procured as opportunity occurs:**

Archives of Internal Medicine. (Part 2, Vol. 1, missing.) 4to, Chicago. Vol. 1. 1908——
Australian Medical Journal (successor to the Intercolonial Medical Journal.) Vol. 14. Roy. 8vo. Melbourne. Vol. 15. 1910——
Biochemical Journal. Roy. 8vo. Liverpool. Vol. 5. 1910——
Biometrica. 4to. Cambridge. Vol. 1, 1901, vol. 7. 1911——
British Dental Journal. Roy. 8vo. London. Vol. 31. 1910——
British Journal of Tuberculosis. Roy. 8vo. London. Vol. 1. 1907——
Bulletin of the Committee for the Study of Special Diseases. Cr. 4to. Cambridge. Vol. 1. 1906——

Canadian Medical Association Journal. Roy. 8vo. Toronto. Vol. 1. 1911——
Dermatologische Zeitschrift. Roy. 8vo. Berlin. Vol. 17. 1910——
Heart. Cr. 4to. London. Vol. 1. 1909——
Janus. Roy. 8vo. Harlem. Vol. 16. 1911——
Jahrbuch für Kinderheilkunde. Roy. 8vo. Berlin. Bd. 10, 1904. Volumes and parts required:—Vols. 1-9; Parts: September-December, 1905; February, April, June, 1906; September, November, December, 1906; December, 1908; January, November, 1909. 1911——
Journal of the Royal Institute of Public Health (continuation of Journal of State Medicine and Journal of Preventive Medicine). Roy. 8vo. London. Vol. 15. 1907——
Journal of Medical Research. Roy. 8vo. Boston. Vol. 21. 1909——
Laryngoscope. Roy. 8vo. St. Louis. Vol. 21. 1911——
Ophthalmoscope. Roy. 8vo. London. Vol. 9. 1911——
Pathological Society of Philadelphia. Proceedings. Roy. 8vo, Philadelphia. Vols. 6, 7, 8, 17, 18. 1877-1898, 1911——
Philippine Journal of Science, Section B, Medical Science. Imp. 8vo. Manila. Vol. 6. 1911——
Quarterly Journal of Medicine. Imp. 8vo. Oxford. Vol. 1. 1907——
Sleeping Sickness Bureau Bulletin. Roy. 8vo. London. Vol. 1. 1909——
Transvaal Medical Journal. 4to. Johannesburg. Vol. 6. 1911——
Zentralblatt für Chirurgie. 8vo. Leipzig. 38 Jahrgang. 1911——
Zentralblatt für Gynäkologie. 8vo. Leipzig. 34 Jahrgang. 1911——

**The Association will be glad to receive the assistance of members or others in completing any of the above series which are incomplete. Communications may be addressed to the Librarian, British Medical Association, 429, Strand, W.C., London.**

**The following calendars, reports, and transactions have been received by the Librarian:**

American Laryngological, Rhinological, and Otological Association. Transactions, 1910.
American Medico-Psychological Association. Proceedings, 1908, 1909.
American Proctologic Society. Transactions, 1910.
American Urological Association. Transactions, vols. 2 and 4, 1908-1910.
Armstrong College, Newcastle. Calendar. 1911.
Army Medical Department. Report. 1909.
Belfast Queen's College. Calendar. 1911.
Bellevue and Allied Hospitals, New York. Annual Reports, 1907-8.
Board of Education Medical Officer's Report. 1909.
Capetown, City of. Annual Report of Medical Officer. 1910.
Dermatologischer Jahresbericht. 1906-7, 1910.
Dublin University Calendar, 1911, part 2 and Examination Papers. 1910.
Durban Corporation. Annual Report of the Medical Officer. 1910.
General Medical Council Minutes. 1910.
Guy's Hospital Reports, vol. 64, 1910.
Index Catalogue to the Surgeon-General's Library, Washington, vol. xv, 2 series, 1910.
International Congress on Alcohol, Proceedings 12th Congress, London, 1909.
Jamaica, Annual Report of the Registrar-General. 1910.
Liverpool University Calendar. 1911.
London County Council:
Annual Report of the Public Health Committee, submitting the Report of the Medical Officer. 1909.
Annual Report of the Medical Officer of Education. 1909.
Medical Officer Local Government Board, 39th Annual Report, 1909-10; and Medical Inspector's Reports to the, 1910-11.
Medico-Legal Society, Transactions, vol. 7, 1910.
Michigan State Board of Health Report, 37th, 1910.
Natal, Report of the Health Officer. 1909.
National League for Physical Education and Improvement. Report of a Conference. 1911.
Navy. Statistical Report of the Health of the, 1909.
New Jersey State Board of Health Report, 33rd, 1909.
Ontario. Reports of Births, Deaths, and Marriages. 1908. 28th Annual Report of the Provincial Board of Health, 1909.
Ophthalmological Society of the United Kingdom, Transactions, vol. 30, 1910.
Oswald Cruz Institute (Memorias). 1909.
Pharmaceutical Society's Calendar. 1911.
Philadelphia Academy of Surgery, Transactions, vol. 12, 1910.
Registrar-General of Births, Deaths, and Marriages, 72nd Annual Report, 1909.
Registrar-General of Births, Deaths, and Marriages for Scotland. Annual Reports. 1855-1908.
Royal College of Physicians. List of Fellows, Members, Extra Licentiates, and Licentiates. 1911.
Sheffield University Calendar. 1911.
Straits Settlements. Annual Report of the Medical Department. 1909.
University of Wales Calendar. 1911.

## BOOKS.

**The following books have recently been added to the Library:**

*Presented by the Authors.*

Bramwell, Byrom: Clinical Studies, vols. 1-8, 1903-1910.
Horsley, Sir Victor, and Mary Sturge: Alcohol and the Human Body. 1911.
Jex-Blake, Sophia: Medical Women: A Thesis and a History 1886.
Moore, Benjamin: The Dawn of the Health Age. 1911.
Morison, Rutherford: An Introduction to Surgery. 1910
Weber, F. Parkes: Aspects of Death in Art. 1910.

*Presented by the Röntgen Society.*

The Journal of the Society. 1910-11.

*Presented by the Superintendent of Government Printing, Calcutta.*

Scientific Memoirs by Officers of the Medical and Sanitary Staff of the Government of India:
No. 39. Lieut.-Col. Sutherland: On the Applicability to Medico-Legal Practice in India of the Bio-chemical Tests for Blood Stains. 1910.
No. 40. Capt. J. Cunningham: The Destruction of Fleas by Exposure to the Sun. 1911.

*Received through the "British Medical Journal."*

Aarons, S. J.: Gynaecological Therapeutics. 1910.
Abrams: Diagnostic Therapeutics. 1910.
Albarran, J.: Operative Chirurgie der Harnwege, vols. 1 and 2, 1910.
Ashby, H.: Notes on Physiology, 8th edition, 1910.
Bandelier and Roepke: Lehrbuch der spezifischen Diagnostik der Tuberkulose. 1911.
Bandelier and Roepke: Die Klinik der Tuberkulose. 1911.
Bardswell, N. D.; Advice to Consumptives. 1910.
Basu: Dietetic Treatment of Diabetes. 1909.
Bell, W. Blair: Principles of Gynaecology. 1910
Bèriel: Elements d. anatomie pathologique. 1909.
Berkeley, C.: Gynaecology for Nurses. 1910.
Billington, W.: Movable Kidney. 1910.
Black's Medical Dictionary. 1910.
Bonney, S. G.: Pulmonary Tuberculosis. 1910.
Braun-Lühe: Handbook of Practical Parasitology. 1910.
Brown, Carnegie: Amoebic Dysentery. 1910.
Bryant and Buck: American Practice of Surgery, vols. 6 and 7, 1909 and 1910.
Bryce, A.: The Laws of Life and Health. 1910.
Bryson: Indian Lunacy Manual. 1910.
Burgess, M. M.: Care of Infants and Children. 1910.
Burrage, W. L.: Gynaecological Diagnosis. 1910.
Calkins: Protozoology. 1909.
Cathelin, F.: Manuel pratique de la lithotritie. 1910.
Cavendish Laboratory, a History of the. 1910.
Clay, John: The Nature of Cancer. 1910.
Colyer, J. F.: Dental Surgery and Pathology. 1910.
Conn, H. W.: Agricultural Bacteriology, second edition, 1909.
Cunningham (late D. J.); Manual of Practical Anatomy, fourth edition, 2 vols., 1910.
Dieulafoy: Textbook of Medicine, vols. 1 and 2, 1910.
Epstein: Tuberculose. 1910.
Fabre: Précis d'obstétrique. 1910.
Franz-Veit: Praktische Ergebnisse der Geburtshilfe und Gynäkologie. 1909.
Gallavardin, L.: La tension arterielle en clinique. 1910.
Gordon, W.: Influence of Rainy Winds on Phthisis. 1910.
Gould, Sir A. P.: The Bradshaw Lecture on Cancer. 1910.
Guilleminot, H.: Radiométrie fluroscopique. 1910.
Haig, H. A.: The Plant Cell. 1910.
Hall, W. S.: Nutrition and Dietetics. 1910.
Hare: Practical Therapeutics, thirteenth edition, 1909.
Haubold, H. A.: Preparatory and After-Treatment in Operative Cases. 1910.
Hepburn, W. B.: Notes on Dental Metallurgy. 1911.
Herbert, S.: First Principles of Heredity. 1910.
Hewlett, R. T.: Serum and Vaccine-Therapy, second edition, 1910.
Hoffa-Grashey: Atlas und Grundriss der Verbandlehre. 1910.
Jacobi-Pringle: Atlas of Dermochromes, 3 vols., third edition, 1910.
Janowski: Die Funktionelle Herzdiagnostik. 1910.
Jaworski, H.: Un nouveau traitement du tabes. 1910.
Johnson, A. B.: Surgical Diagnosis, 1-2-3, 1909 10.
Johnson, G. L.: Photography in Colours. 1910.
Jordan, E. O.: Textbook of General Bacteriology. Second edition, 1910.
Kanngiesser: Vergiftungen durch Pflanzen und Pflanzenstoffe. 1910.
Kassabian, M. K.: Roentgen Rays and Electro-Theraupetics. 1910.
Kast, A.: Pathologisch-Anatomisch Tafeln. Lief. 1-26, 1909-10.
Kellas, A. M.: Inorganic Chemistry. 1910.
Kemp, R. C.: Diseases of the Stomach and Intestines. 1910.
Kennedy, J. M.: Religions and Philosophies of the East. 1910.
Kober and Sternberg: Papers on Social Betterment. 1908.
Lafar, F.: Technical Mycology. 1910.
Larat: Eléctricité médicale. 1910.
Laurent, E.: Das Virulenz Problem der Pathogenen Bakterien. 1910.
Lea, A. W. W.: Puerperal Infection. 1910.

Leduc: Théorie physico-chimique de la vie et générations Spontanées. 1910.
Legueu: Traité chirurgical d'urologie. 1910.
Lloyd, R. E.: Introduction to Biology. 1910.
Lodge, Sir Oliver: Parent and Child. 1910.
Luke and Ross: Anaesthesia in Dental Surgery. 1910.
Macdonald, G.: The Child's Inheritance. 1910.
McFarland, J.: Biology. 1910.
Macnamara, N. C.: Evolution and Function of Living Purposive Matter. 1910.
Marie, A.: Pellagra. 1910.
Marshall, F. H. A.: Physiology of Reproduction. 1910.
Mousséos: Les formes larvées du paludisme. 1910.
Moynihan, B. G. A.: Duodenal Ulcer. 1910.
Mumford, E. E. R.: The Dawn of Character. 1910.
Narramore: Preliminary Physiology. 1910.
Norman and Stone: Human Anatomical Model (Female). 1909.
Oddi, R: La Biotrifina et la Formioplastina. 1909.
Palm, T. A.: The Faith of an Evolutionist.
Park, R.: The Case for Alcohol. 1909.
Pels-Leusden: Chirurgische Operationslehre. 1910.
Power, D'Arcy, and J. K. Murphy: A System of Syphilis, vols. 1-4, 1908-1910.
Prudden: The Story of Bacteria. 1910.
Ray, R. C.: Outlines of Medical Jurisprudence. 1910.
Reid, Archdall: Heredity.
Reverdin, J. L.: Leçons de chirurgie de guerre. 1910.
Richter, H. G.: Le Village Sanatorium. 1910.
Ringleb, O.: Das Kystoskop. 1910.
Routh, A.: Caesarean Section in Great Britain and Ireland. 1911.
Rundle, H.: With the Red Cross in the Franco-German War, 1870-1871. 1911.
Schatz: Klinische Beiträge zur Physiologie der Schwangerschaft. 1910.
Schönwerth: Rotter's typische Operationen. 1909.
Schwalbe, E.: Missbildung und Variationslehre. 1910.
Sisson, S.: Textbook of Veterinary Anatomy. 1910.
Sluss, J. W.: Emergency Surgery. 1908.
Smith, E. A.: Manual of Dental Metallurgy. 1910.
Sonnenburg and Muhsam: Compendium der Operationslehre. 1910.
Stainer, E.: Hereditary Transmission of Defects in Man. 1910.
Stephens, M.: Woman and Marriage. 1910.
Stoeckel: Cystoskopie und Urethroskopie. 1910.
Straub, Major P. F.: Medical Service in Campaign. 1910.
Sudhoff, S.: Historischen Biologie der Krankheitserreger (2 parts only). 1910.
Theobald, E. V.: Monograph of the Culicidae, vol. 5. 1910.
Tibbles, W.: Food and Hygiene. Second edition.
Tousey: Medical Electricity and the Roentgen Rays. 1910.
Veillard, A.: Formulaire pour les maladies des enfants. 1911.
Veit, J.: Behandlung der Frauenkrankheiten. 1911.
Westphal: Behelfsvorrichtungen beim Sanitatsdienste im Feld. 1910.
Wetterwald, F.: Les Névralgies. 1910.
Whetham, W. C. D. and C. D.: The Family and the Nation. 1909.
Whitelocke, R. H. A.: Sprains and Allied Injuries of Joints. 1910.

**A list of books to be lent to members, on the same conditions as periodicals and reports are now lent, is in preparation and will be issued as early as possible.**

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 8,338 births and 4,394 deaths were registered during the week ending Saturday, May 13th. The annual rate of mortality in these towns, which had been 15.4, 14.3, and 13.3 per 1,000 in the three preceding weeks, was 13.4 in the week under notice. The death-rate in London did not exceed 12.2 per 1,000, against 15.8, 13.6, and 12.7 during the three previous weeks. Among the seventy-six other large towns the death-rates last week ranged from 5.7 in Leyton, 6.1 in Reading, 6.4 in East Ham, 6.9 in Grimsby, and 7.2 in Aston Manor to 18.0 in Oldham, 19.4 in Rochdale, 20.1 in Tynemouth, 20.3 in Dewsbury, and 20.7 in Merthyr Tydfil. Measles caused a death-rate of 1.3 in Bristol, 1.4 in Manchester, 1.5 in Rotherham, 1.7 in South Shields, and 2.2 in Rhondda, and whooping-cough of 1.1 in Newcastle-on-Tyne, 1.2 in Willesden, 1.3 in Bristol, 1.4 in Warrington, and 1.5 in Blackburn. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 4,394 deaths from all causes registered in the seventy-seven towns last week, the causes of 27 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Birmingham, 4 in Liverpool, and 2 each in Sunderland, South Shields, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 995, 1,037, and 1,045 at the end of the three preceding weeks, had further increased to 1,070 on Saturday last; 167 new cases were admitted during the week, against 155, 141, and 112 in the three previous weeks. There were 13 cases of small-pox under treatment in the Metropolitan Hospitals on Saturday last, against 7, 9, and 8 at the end of the three preceding weeks; 7 new cases were admitted during the week, against 2, 2, and 0 during the three previous weeks.

## HEALTH OF SCOTTISH TOWNS.

During the week ending Saturday, May 6th, 969 births and 567 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 18.7 and 19.1 per 1,000 in the two preceding weeks, declined to 17.3 per 1,000 in the week under notice, but was 4.0 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates ranged from 13.9 in Dundee and 14.8 in Paisley to 17.9 in Glasgow and 28.4 in Greenock. The mortality from the principal epidemic diseases averaged 2.0 per 1,000, and was highest in Glasgow, Perth, and Leith. The 269 deaths from all causes registered in Glasgow included 2 from enteric fever, 7 from measles, 1 from scarlet fever, 24 from whooping-cough, 3 from diphtheria, and 6 (of infants under 2 years of age) from diarrhoea. Four deaths from whooping-cough were registered in Edinburgh, 3 in Paisley, 3 in Leith, and 2 in Aberdeen.

During the week ending Saturday last, May 13th, 929 births and 558 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, calculated upon the results of the recent Census, which had been 19.1 and 17.3 per 1,000 in the two preceding weeks, declined to 17.0 last week, but was 3.6 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns, the death-rates last week ranged from 13.1 in Perth and 14.2 in Leith to 18.3 in Glasgow and 24.3 in Greenock. The mortality from the principal epidemic diseases averaged 2.5 per 1,000, and was highest in Perth and Glasgow. The 275 deaths from all causes registered in Glasgow included 12 from measles, 6 from scarlet fever, 27 from whooping-cough, 2 from diphtheria, and 4 (of children under two years of age) from diarrhoea and enteritis. Three deaths from measles and 4 from whooping-cough were recorded in Edinburgh; 2 from diphtheria and 3 from whooping-cough in Dundee; and 3 from whooping-cough in Aberdeen and 2 each in Paisley, Leith, and Greenock.

## HEALTH OF IRISH TOWNS.

During the week ending Saturday, May 13th, 684 births and 397 deaths were registered in the twenty-two principal urban districts of Ireland, as against 686 births and 407 deaths in the preceding period. The annual death-rate in these districts, which had been 22.0, 20.8, and 18.2 per 1,000 in the preceding weeks, fell to 17.8 per 1,000 in the week under notice, this figure being 4.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 20.8 and 15.7 respectively, those in other districts ranging from 4.5 in Lisburn and 9.6 in Sligo, to 33.6 in Newry and 35.9 in Dundalk; while Cork stood at 20.5, Londonderry at 10.7, Limerick at 10.9, and Waterford at 11.7. The zymotic death-rate in the twenty-two districts averaged 1.6 per 1,000, as against 1.5 per 1,000 in the preceding week.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

The undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon in His Majesty's Fleet, dated May 15th:—R. J. MacKeown, M.B.; P. H. M Star, E. S. Miller, M.B., H. H. Pearse, O. Rees, M.D., C. H. Rock, S. T. Reid, C. J. E. Cock, J. E. H. Phillips, A. X. Lavertine. Their previous commissions are dated—Surgeon, May 15th, 1895; Staff Surgeon, May 15th, 1903. Fleet Surgeon Rees was employed in Somaliland in 1908-9, and in the suppression of the arms traffic in the Persian Gulf in 1909-10, and received the thanks of the Foreign Office for service in connexion with the occupation of Bushire, and of the Colonial Office for service in Somaliland. The other officers cited have no war record.

Surgeons A. W. Iredell, F. C. Robinson, M. T. Male, M.B., C. H. Dawe, R. Thompson, W. K. D. Breton, E. S. Wilkinson, M.B., R. Kennedy, M.B., E. A. G. Wilkinson, B.A., J. S. L. Page, W. E. Ormsby, M.B., B.A., J. J. H. Rooney, and A. F. Fleming are promoted to be Staff Surgeons, May 16th. Their first appointment bears date May 16th, 1903.

The following appointments have been made at the Admiralty: Surgeon B. Taylor M.B., to the *Dreadnought*, June 3rd; Fleet Surgeon E. B. Townsend and Surgeon A. C. Rusack, to the *Superb*, on recommissioning, May 30th; Staff Surgeon M. J. Smith, M.D., to the *Mars*, May 20th; Surgeon R. Willan to the *Victory*, for the Royal Naval Barracks, May 22nd; Surgeon R. Kennedy, M.B., to the *Victory*, additional, for disposal, May 22nd; Fleet Surgeon W. B. Macleod, M.B., and Surgeon W. T. Haydon to the *Invincible*, on recommissioning, May 16th; Staff Surgeon C. H. J. Robinson to the *Roxburgh*, on recommissioning, May 16th.

## ARMY MEDICAL SERVICE.

Colonel H. W. Murray, M.B., is placed on retired pay, May 12th. He was appointed Surgeon, July 31st, 1880; Surgeon-Major, July 31st, 1892; Lieutenant-Colonel, March 6th, 1900; and Colonel, March 9th, 1908. He served in the South African war in 1899-1902, being present in the advance on Kimberley and the actions at Magersfontein and Paardeberg, and in operations in the Orange River Colony, including actions at Poplar Grove, Dreifontein, Wittebergen, and Witpoort; he has received the Queen's medal with four clasps and the King's medal with two clasps.

Lieutenant-Colonel F. J. Jencken, M.B., from the Royal Army Medical Corps, to be Colonel, vice H. W. Murray, M.B., May 12th. Colonel Jencken entered the service as Surgeon, February 4th, 1882, becoming Surgeon-Major, February 4th, 1894, and Lieutenant-Colonel, February 4th, 1902. He was with the Egyptian expedition in 1884, including the battles of El Teb and Temai (medal with clasp and Khedive's bronze star), and with the Nile expedition in 1884-5 (clasp).

Colonel T. J. O'Donnell, D.S.O., has assumed charge of the duties of Administrative Medical Officer at Tidworth, vice Colonel R. W. Ford, D.S.O., who has been transferred to Woolwich in a similar capacity.

### Royal Army Medical Corps.

Captains R. A. Cunningham, M.B., G. G Delap, D.S.O., Harold Simson, W. R. Blackwell, H. M. Nicholls, M.B., Arthur Chopping, S. G. Butler, J. J. W. Prescott, D.S.O., P. H. Falkner, H. E. M. Douglas, V.C., D.S.O., E. E. Ellery, J. W. Langstaff, Leonard Wood, H. B. Fawcus, M.B., and E. P. Sewell, M.B., are promoted to be Majors, April 27th. The previous commissions of Majors Cunningham to Wood are dated: July 27th, 1899; Captain, July 27th, 1902; those of Majors Fawcus and Sewell—Lieutenant, April 25th, 1900; Captain, April 25th, 1903. The last-named officer has no war record. With the exception of Major Sewell, all the before-mentioned served in the South African war in 1899-1902, being present in numerous engagements and receiving the following rewards: Majors Cunningham, Delap (also D.S.O.), Chopping, and Fawcus, the Queen's medal with four clasps and the King's medal with two clasps; Majors Simson, Butler, Prescott (also D.S.O.), Falkner, and Langstaff, Queen's meda

with five clasps and King's medal with two clasps; Majors Blackwell and Wood, Queen's medal with three clasps and King's medal with two clasps; Major Ellery, Queen's medal with two clasps and King's medal with two clasps. Major Douglas has the Queen's medal with five clasps and was granted the Victoria Cross and appointed D.S.O. Major Nicholls is credited only with the Queen's medal, which would seem to be an error, as he was at the relief of Ladysmith and in the actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieters Hill.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BAPTIST ZENANA MISSION.—Lady Doctor at Zenana Hospital, Berhampore, India. Allowance, £100 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BOOTLE BOROUGH HOSPITAL.—Honorary Physician.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Assistant Pathologist. Salary, £100 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; salary, £100 per annum. (2) Junior House-Surgeon; salary, £80 per annum, increasing to £90 after six months.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CAPE TOWN: SOUTH AFRICAN COLLEGE.—Professor of Physiology. Salary, £500 per annum, rising to £800.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Laryngologist.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

DUBLIN: TRINITY COLLEGE.—Chief Demonstrator in Anatomy.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Locumtenent Assistant Medical Officer. Salary, 4 guineas a week.

FINCHLEY URBAN DISTRICT.—Medical Officer of Health and School Medical Officer. Salary, £350 per annum, rising to £450.

HACKNEY UNION INFIRMARY.—Second Assistant Medical Officer. Salary, £120 per annum.

HAMPSHIRE COUNTY COUNCIL.—Assistant County Medical Officer of Health. Salary, £250 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £50 per annum.

KING EDWARD MEMORIAL HOSPITAL, Ealing.—Honorary Consulting and Surgical Staff, consisting of Physician, Surgeon, Gynaecologist, and Laryngologist.

LANCASHIRE EDUCATION COMMITTEE.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LEICESTER INFIRMARY.—Assistant House-Physician. Salary at the rate of £60 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN: CLINICAL SCHOOL.—Resident House-Physician. Salary at the rate of £60 per annum.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrarship Salary, £100 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER: HULME DISPENSARY, Dale Street.—House-Surgeon. Salary, £150 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN.—Two House-Surgeons. Honorarium at the rate of £50 per annum.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Woman Assistant Doctor.

NATIONAL SANATORIUM, Benenden, Kent.—Assistant Medical Officer. Salary, £100 per annum.

NORTHAMPTON: COUNTY ASYLUM, Berrywood.—Locumtenent for three months. Terms, 4 guineas weekly.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM GENERAL HOSPITAL.—(1) Assistant House-Surgeon; salary, £100 per annum. (2) Locumtenent for ten weeks; salary, £3 3s. per week.

NOTTINGHAM WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Salary, £130 per annum, increasing to £150.

PEMBROKESHIRE COUNTY COUNCIL.—County Medical Officer of Health. Salary, £400 per annum and £50 for travelling and other expenses.

PRINCE OF WALES'S HOSPITAL, Tottenham, N.—(1) Honorary Physician or Surgeon to the X-Ray and Electrical Department. (2) Junior House-Physician; salary at the rate of £50 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary at the rate of £80 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—(1) House-Surgeon; honorarium, £40 per annum. (2) Assistant Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Senior House-Surgeon. (2) Second House-Surgeon. (3) Third House-Surgeon. Salary at the rate of £100, £75, and £50 per annum respectively. (4) Two Refraction Assistants. Salary at the rate of £25 per annum each.

ST. THOMAS'S HOSPITAL, S.E.—Physician in Charge of Out-patients.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SOMERSET AND BATH ASYLUM, Colford.—Assistant Medical Officer (male). Salary, £140 per annum, increasing to £160.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—House-Surgeon. Salary, £120 per annum.

UNIVERSITIES MISSION TO CENTRAL AFRICA.—Medical Man to go to Nyasaland for two years. £350 per annum.

WEST HAM UNION INFIRMARY.—Fourth Assistant Medical Officer (male). Salary, £120 per annum, increasing to £150.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WOOLWICH: TUBERCULOSIS DISPENSARY.—Medical Officer. Salary, £250 per annum, rising to £350.

YORK DISPENSARY.—Two Resident Medical Officers. Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Fillongley, co. Warwick; Fareham, co. Hants; Caton, co. Lancs.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act for County Court Circuits Nos. 24, 30, and 31 (covering the whole of South Wales).

## APPOINTMENTS.

CANDY, G. S., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Bethnal Green Union Infirmary.

CARPMAEL, C. E., M.B., B.S.Lond., District Medical Officer of the Camberwell Union.

COUTTS, D. K., F.R.C.S., Honorary Assistant Surgeon to the Norfolk and Norwich Hospital.

FITZMAURICE-KELLY, M., M.B., F.R.C.S., Second Assistant Medical Officer of the Fulham Union Infirmary.

GIBSON, Alexander G., D.M.Oxon., M.R.C.P.Lond., Honorary Assistant Pathologist to the Radcliffe Infirmary, Oxford.

HARRY, Philip A., M.D., Honorary Ophthalmic Surgeon to the Rochdale Infirmary. (Corrected notice.)

HAWKINS, A., B.A., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Westmorland Consumption Sanatorium and Home, Meathop, Grange-over-Sands.

HEWITT, R. Morton, M.D., B.Ch., Admiralty Surgeon and Agent at Shanklin and Sandown, I.W.

HEY, S., M.R.C.S., L.R.C.P., District Medical Officer of the Ripon Union.

MCMASTER, A. B., M.D.R.U.I., Medical Officer of Health of the Borough of Crewe.

MALLESON, H. C., M.R.C.P.Lond., M.R.C.S., L.D.S.Eng., Dental Surgeon to Christ's Hospital (Bluecoat School), West Horsham.

MOULD, G. T., M.R.C.S.Eng., L.R.C.P.Lond., Assistant in the Refraction Department for School Children, Royal London Ophthalmic Hospital.

SPEIRS, J. L., M.B., C.M.Glasg., District Medical Officer of the Gateshead Union.

STARLING, H. J., M.D.Lond., Honorary Anaesthetist to the Norfolk and Norwich Hospital.

TODD, J., M.R.C.S., L.S.A., District Medical Officer of the Gateshead Union.

VENNING, J. A., M.B., B.C.Cantab., District Medical Officer of the Bicester Union.

WATSON, Henry, M.B., Ch.B.Aberd., Honorary Anaesthetist to the Norfolk and Norwich Hospital.

WILKINS, C. R., M.B., B.S.Dunelm., Visiting Medical Assistant to the Dispensary, Newcastle-on-Tyne.

WILLIAMS, S. R., M.B.Lond., Certifying Factory Surgeon for the Buckfastleigh District, co. Devon.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

DENYER.—On May 9th, 1911, at 26, Albion Street, Hull, Yorkshire, the wife of Stanley E. Denyer, C.M.G., M.D.Cantab., F.R.C.S.Eng., of a son.

### DEATHS.

BUCHANAN.—On April 22nd, at Baugh, Tiree, Argyllshire, in his 75th year, Alexander Buchanan, L.R.C.S.Edin., for fifty-one years Medical Officer of the islands of Tiree and Coll.

HUGHES.—On April 12th, at Cotswold, near Stroud, Thomas H. J. E. Hughes, M.R.C.S.Eng., L.R.C.P.Lond., eldest son of the late Fleet Engineer Thomas Hughes, R.N., and of Mrs. Hughes, Llanberis, Hanwell. Interred at Chiswick, April 15th.

## DIARY FOR THE WEEK.

### MONDAY.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W.—8 p.m., (1) Annual Meeting and Election of Officers. (2) Paper: Dr. Sim Wallace: Some Observations and Experiments on Bread, with special reference to the Causation an Prevention of Dental Caries.

### TUESDAY.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W.—5 30 p.m., Annual Meeting and Election of Officers. Address by the President, Dr. Mitchell Bruce.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W.—4.30 p.m., Annual Meeting and Election of Officers. (1) Adjourned discussion on Dr. Milne's paper, Measles, its Treatment and Prevention, to be opened by Dr. J. D. Rolleston, followed by Drs. W. Bezly Thorne, F. Foord Caiger, John Biernacki, and W. J. Turner. (2) Exhibition of Cases.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W.—8.30 p.m., (1) Annual Meeting and Election of Officers. (2) Papers: Dr. A. Ransome, F.R.S.: The Scientific Uses of the Notification of Disease. Dr. F. E. Batten: The Epidemiology of Poliomyelitis.

UNIVERSITY COLLEGE, Gower Street, W.C.—5 p.m., Lecture: Dr. Charles Mercier: Conduct and its Disorders.

### SATURDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY.—Provincial Meeting at Folkestone.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Ear; Friday, 3.30 p.m., Dysphagia and Broncho-oesophagoscopy.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., The Significance, Diagnostic and Prognostic of the Physical Signs of Pulmonary Tuberculosis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Diseases of the Joints: Tuesday, 5.15 p.m., Tuberculosis Hip (continued course): Treatment. Friday, 5 15 p.m., Tuberculosis Knee, Elbow, Shoulder, etc.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday; Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 3.15 p.m., Inflammatory Conditions of Bones. Wednesday, 5 p.m., Malignant Disease of of Breast. Friday, Gastric Ulcer.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15, Therapeutic Uses of *X* Rays.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Medical, Surgical, and Pathological Demonstrations.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, On some Cases of Jaundice in which Opening of the Duodenum was required. Tuesday, The Economics of Dermatology. Wednesday, Metrorrhagia. Thursday, Treatment of Syphilis bearing on the Results obtained by Ehrlich's "606."

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Epidemic Paralysis. Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 4.30 p.m., Demonstration of selected Eye Cases. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Renal and Ureteric Pain. Friday, 2.30 p.m., Operations; Clinics; Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.: Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily except Saturday.

## RECENT PUBLICATIONS.

*Hossfeld's German Dialogues.* By A. Hauviller. New edition, revised and enlarged. 1911. London: Hirschfeld Bros. (Fcap. 16mo, pp. 283.)

A manual of convenient size intended to supplement German grammars by supplying an additional number of useful phrases. Amongst other information it contains a special vocabulary of business words and expressions in every-day use. The conjugation of regular and irregular verbs is also set forth. Its price is 1s. 6d., that being also the price of a corresponding volume dealing with the Dutch language to which we drew attention recently, and not 1s. as was stated on that occasion.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
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| **MAY.** | |
| 21 Sunday .. | |
| 22 MONDAY .. | KENSINGTON DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Kensington Town Hall, 4.30 p.m. |
| 23 TUESDAY .. | *Last day for receipt of Nominations for the Central Council.*<br>COVENTRY DIVISION, *Birmingham Branch*, Annual General Meeting, in conjunction with Tamworth and Nuneaton Division, Coventry Hospital, 8.15 p.m. |
| 24 WEDNESDAY | CONNAUGHT BRANCH, Ryan's Hotel, Claremorris, 1 p.m.<br>RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital, Richmond, 8.30 p.m. |
| 25 THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Business and Annual Meeting, Wesleyan Church School, High Road, Leyton, 4 p.m. |
| 26 FRIDAY .. | BORDER COUNTIES BRANCH, Spring Meeting, Crichton Royal Institution, Dumfries, 3 p.m.; Branch Council, 2.45 p.m.<br>MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Newport and Monmouthshire Hospital, 3.30 p.m.<br>TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Prince of Wales's Hospital, Tottenham, 4.30 p.m. |
| 27 SATURDAY .. | |
| 28 Sunday .. | |
| 29 MONDAY .. | MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Rooms of Medical Society of London, 11, Chandos Street, W., 5 p.m. Discussion, 5.30 p.m. |
| 30 TUESDAY .. | |
| 31 WEDNESDAY | SPECIAL REPRESENTATIVE MEETING, Examination Hall, Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, 10 a.m. *(and following day, if necessary).* |

Printed and Published by the British Medical Association, at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

# SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 27TH, 1911.


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## SPECIAL NOTICE TO MEMBERS.

***Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.***

***BY ORDER.***

# MATTERS REFERRED TO DIVISIONS.

## AGENDA
OF
## SPECIAL REPRESENTATIVE MEETING

TO BE HELD ON

***WEDNESDAY, MAY 31, 1911, at 10.0 a.m.,***

*and, if necessary, the following day, in the*

**EXAMINATION HALL**

OF THE

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS,**

VICTORIA EMBANKMENT, LONDON, W.C.

*Notice Convening Meeting.*

1. Read: Notice convening Meeting, namely:

A Special Representative Meeting will be held in the Examination Hall of the Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, on Wednesday, May 31st, 1911, at 10 in the forenoon, and on the following day, if necessary, for the consideration of matters arising out of Minute 340 of the Annual Representative Meeting, 1910 (see below), including the National Insurance Bill, now before the House of Commons, as affecting the medical profession: and for the consideration also of matters arising in connexion with the proposed formation of a New Company to carry on the work of the Association with extended powers.

Minute 340 of the Annual Representative Meeting, 1910, was as follows:

> Resolved: That the Council be instructed, after receiving and considering the replies of the Divisions on the Poor Law question, to call a Special Representative Meeting as soon as possible at some convenient centre.

**The Agenda will be issued to Representatives not later than Wednesday, May 24th, and will be published in the BRITISH MEDICAL JOURNAL of May 27th, 1911.**

**By Order of the Council,**

GUY ELLISTON,
*Financial Secretary and Business Manager.*

J. SMITH WHITAKER,
*Medical Secretary.*

**May 11th, 1911.**

**Motion:** That the Notice convening the Meeting be entered on the Minutes.

*Return of Representatives.*

2. Receive: Return of Appointment of Representatives for the year 1910–11, by Constituencies which have previously made no return of Representatives for the year.

*Appointment of Substitutes.*

3. Receive: Notice of Appointment of Substitutes for Representatives.

**Motion:** That the Notice of Appointment of Substitutes for Representatives be entered on the Minutes.

*Apologies for Absence.*

4. Receive: Intimations of apology for absence.

*Order of Business.*

5. **Motion:** That the remaining business of the Meeting be considered in the order indicated in the printed Agenda.

*New Company.*

6. Receive: Report on the present state of proceedings in connexion with the proposed formation of the New Company.

*Report on Organization of Medical Attendance on Insurance Principle.*

7. Receive: Report on the Organization of Medical Attendance on the Insurance and Provident Principle, issued to the Divisions in March (*see* SUPPLEMENT, March 4th, 1911).

8. Receive: Report of Committee appointed by the Council to consider the Replies of Divisions upon the foregoing Report,

and

Consider: Recommendations contained therein.

*National Insurance Bill.*

9. Receive: Report on the National Insurance Bill introduced into Parliament by the Government,

and

Consider: Recommendations of the Committee in reference thereto.

*Confirmation of Minutes.*

10. **Motion:** That the Minutes of the Meeting be confirmed for presentation to the Council.

By order,

J. SMITH WHITAKER,
*Medical Secretary.*

# ANNUAL REPORT OF COUNCIL.

THE ANNUAL MEETING, 1911.

1. In submitting its Annual Report for the year 1910-11 to be placed before the Annual Representative Meeting at Birmingham, the Council has first to thank the Birmingham Branch for its invitation, and to congratulate the Association upon meeting in that city, after an interval of 21 years, under the Presidency of a member who has previously played so distinguished and conspicuously useful a part as Professor Robert Saundby in the work of the Association.

SCIENTIFIC WORK OF THE ANNUAL MEETING.

2. The address in Medicine is to be given by Dr. Byrom Bramwell, the address in Surgery by Mr. Jordan Lloyd. The Scientific Work of the Meeting, other than the reception of these addresses, has been arranged in sixteen Sections, which are given in detail in the appropriate Section of the Report and afford every reason to anticipate that this portion of the work of the Annual Meeting in Birmingham will prove worthy of that great city.

THE ANNUAL MEETING, 1910.

3. As regards other departments of the work of the Association, the Birmingham Meeting will bring to a close a year which at the time of issue of this Report has already proved to be of exceptional interest and importance. In briefly reviewing its chief features, reference must first be made to the brilliant and memorable meeting held in London under the distinguished presidency of Mr. H. T. Butlin, President of the Royal College of Surgeons of England. Admirably organised as it was by the President, with the co-operation of Dr. Lauriston Shaw as Honorary Secretary and other most able and zealous colleagues, the London Meeting will stand out in our annals as having notably furthered the success of the Association and formed a suitable prelude to a year of great events.

THE EXTENSION OF OBJECTS OF THE ASSOCIATION.

4. The Annual Representative Meeting of 1910 marked the definite abandonment of the attempt of the Association to obtain, through the grant of a Royal Charter of Incorporation, those extended powers of usefulness to the medical profession which it so earnestly desires. The Meeting applied itself at once to other means of achieving these important objects and decided that this could best be done by the formation, as recommended by the Council, of a new Company with an extended Memorandum of Association making possible all the kinds of work which the Association feels it to be its duty to the profession to undertake. More detailed reference to this matter is made in the appropriate portion of the Report. The Council anticipates that the desired enlargement of the powers of the Association may be completed in time for inclusion in the records of the year 1910-11.

PUBLIC ORGANISATION OF MEDICAL SERVICES.

5. The year will also be memorable in respect of the discussion of the problems, vitally important to the profession, which are associated with State Sickness Insurance and Poor Law Reform, and which have received anxious consideration from the Association. The discussion of these questions has already aroused great interest among members of the Association, and has attracted perhaps in greater degree than any other topic the attention of members of the profession generally to the importance of the work of the Association. It has demonstrated to the profession, first, the necessity for the existence of an organised body capable of representing the opinion of the profession, and secondly the fact that in the British Medical Association is to be found the only existing body capable of playing such a part. The prolonged efforts of the Association to remedy the evils produced by the abuse of medical charities have also, it may be hoped, been brought a step nearer success through the appointment of a Special Out Patient Inquiry Committee by the King Edward's Hospital Fund, to which reference will be found in paragraphs 132-4 of the Report.

6. Both this inquiry and the action of the State in contemplating the provision of medical attendance in connection with State Sickness Insurance indicate public recognition of evils to which the medical profession has for long been alive. In both connections gratifying evidence has been given that those responsible for watching the public interests have recognised the necessity of consulting the medical profession in matters of the kind, and also the position of the British Medical Association as affording the only reliable means through which professional opinion may be ascertained.

GROWTH OF THE ASSOCIATION.

7. Partly as a result of the Annual Meeting in London and partly as a result of the increasing recognition by the profession of the usefulness of the Association, the addition to the membership of the Association during the year 1910 was greater than in any other recent year, and the Council is gratified to be able to report that the early months of the year 1911 show the continuance of this tendency.

INSTRUCTIONS OF ANNUAL REPRESENTATIVE MEETING, 1910.

8. In commencing its more detailed Report of the year's work the Council would call attention first to the resolutions of the Annual Representative Meeting in London, containing instructions to the Council, a list of which is appended to the Report (see page 276). In the list references are given to the paragraphs of the Annual Report in which the action taken under each instruction is stated and the present position of each matter indicated.

ATTENDANCES OF COUNCIL AND COMMITTEES.

9. The attendances of Members of Council, Committees and Sub-Committees will be published subsequently. From this it will be seen that the Committee work of the Association has been very heavy, and the Council takes this opportunity of expressing its deep gratitude to the Chairmen and Members of Committees for their devotion to the interests of the Association.

MEDICAL BENEVOLENCE.

10. During the past year £1182 have been collected through the Central Office for Medical charities: £684 for the British Medical Benevolent Fund, £468 for the Epsom College Benevolent Fund, and £30 for the Royal Medical Benevolent Fund Society of Ireland.

The Council again pleads for increased support of these valuable Institutions.

## Finance.

THE FINANCIAL STATEMENT, 1910.

11. In presenting the Balance Sheet and Financial Statement of the British Medical Association for the year ending December 31st, 1910, it again falls to the lot of your Council to refer, as a subject of congratulation, to the results of the business carried on during the year 1910. In fact the period under review has proved a record, both as regards Expenditure and Revenue. The total Expenditure was £57,377, an increase of £2,759, while the total Revenue amounted to £59,472, an increase but little short of £4,000.

After providing for all depreciation, and meeting the outstanding accounts of the Association on the year, there is a surplus of £2,094 as against £995. The Assets over Liabilities are thus increased to a total of £106,294.

BALANCE SHEET.

12. In the Balance Sheet itself there is little to call for comment, the outstanding Assets and Liabilities remaining much the same as in previous years.

REVENUE OR PROFIT AND LOSS.

*General Association Expenses.*

**13. The Profit and Loss Account shows that the General Association Expenses have increased by nearly £1,400. On reference to Abstract A., it will be observed that the two principal items contributing to this increase are a larger expenditure on Research Scholarships, and the Damages and Costs of a Libel action brought against the British Medical Journal.**

*Central Meeting Expenses.*

14. Under this head is an increase of over £1,000. Abstract B. gives the particulars as to how this increase has been brought about.

It will be noticed that the Annual Meeting in London involved additional expenditure. The "Daily Journal" cost more, with the larger number of Sections more pages were necessary, and a greater number of copies had to be printed each day.

The railway fares debited to the Representative Meeting cover the Special Meeting summoned in June and the Annual Meeting in July.

Council railway fares show a diminution, effected by the reduced size of the Council, while Committee Expenditure has increased by some £600.

*Central Premises Expenses.*

15. By reference to Abstract C., it will be noticed that Central Premises Expenses are rather less, but it must be borne in mind that £218 had to be found for Rent for 1909, and none for the period under review.

General Repairs and Upkeep show an increase, but with the expansion of the business of the Association, various additions must always be required from time to time.

Printing, Stationery, and Postages.—The variations under this head are not considerable.

*Central Staff Expenses.*

16. The Central Staff Expenses as shown in Abstract D., record little variation.

LIBRARY ACCOUNT.

17. The Library Account remains practically the same as for the year 1909.

JOURNAL ACCOUNT.

*Editorial.*

18. Full particulars are to be found in Abstract G. The Editorial Expenses as a whole show a decrease. Analyses show an increase as the Association is continuing to publish in the Journal the composition of various preparations.

*Managerial.*

19. The Managerial expenses show an increase of £1,150.

The cost of producing the Journal has increased all round. The total number of Journals printed during the year was 1,332,300 or a weekly average increase of 1,000 copies. Further, there were 234 more pages of Literary Matter, and 100 more pages of the Supplement, making a total of 334 pages, or an average of slightly over six pages each week.

**The increase in the postage bill is due to the increase in membership of the Association and to the fact that more copies of the Journal have been sent abroad.**

The amount expended on the book "Secret Remedies" is less by some £300. The initial expense of composing the book was met in the 1909 accounts.

*Journal Revenue.*

20. Turning to the Revenue, Advertisements show a slight increase, but to produce this increase there were 53 issues of the Journal in 1910 as compared with 52 in 1909.

Sundry Sales show satisfactory progress. It is now customary to charge 1s. for any number of the Journal published more than a year back.

By the sale of the book "Secret Remedies" the Association has again derived considerable revenue.

Your Council is considering the advisability of publishing another and larger edition, to include all the preparations analysed subsequent to the issue of the book in 1909.

For the production of the Journal during 1910 it has been necessary to draw from the General Funds of the Association £6,636 as against £6,046 in the previous year.

CAPITATION ACCOUNT.

21. Some £480 less has been distributed to the Branches.

SUBSCRIPTION LOSSES.

22. In accordance with the instructions of the Representative Meeting, the amounts written off for deaths and arrears are shown separately.

It will be noticed that the amount written off is rather larger than for the year 1909.

DEPRECIATION.

**23. For depreciation the same amounts as in previous years have been written off in respect of the Library, Furniture and Plant and Type.**

The Council is glad to note that there seems to be a pause in the depreciation of Gilt-edged securities.

REVENUE.

24. Subscriptions show an increase of £1,000. The Meeting in London had the effect of stimulating recruiting in a remarkable degree.

The Journal Account receipts show an increase of £550.

The interest on Investments remains the same.

Returns from Rent show an increase of £2,340.

On the year the total increased Revenue is no less than £3,858, while the increased expenditure amounted to £2,760.

The balance of Income over Expenditure to carry to the Surplus Account is thus £2,094.

SUMMARY.

25. The increase in the Revenue is remarkable and would fully justify the increased Expenditure could the Revenue be relied upon to continue in a like ratio.

During 1910 the Association had to find a considerable sum for Legal Charges owing to the Action for Libel against the BRITISH MEDICAL JOURNAL, but at the same time it derived a large income from the sale of the book "Secret Remedies," a result which is hardly likely to be equalled in 1911, nor can it be expected that the revenue from rent and other sources is likely to be maintained.

# British Medical Association.

## Balance Sheet 31st December, 1910.

**Dr.** **Cr.**

### LIABILITIES.

| | £ s. d. | £ s. d. |
|---|---|---|
| To Subscriptions paid in advance ... ... ... ... ... ... | 468 15 7 | |
| ,, Advertisements ditto ... ... ... ... ... ... ... | 1,002 3 2 | |
| ,, Contributions ... ... ... ... ... ... ... ... | 739 14 11 | |
| | | 2,210 13 8 |
| ,, Reporting ... ... ... ... ... ... ... ... ... | 56 3 6 | |
| ,, Engraving ... ... ... ... ... ... ... ... ... | 37 10 10 | |
| ,, Printing Journal ... ... ... ... ... ... ... ... | 568 7 2 | |
| ,, Paper for Journal ... ... ... ... ... ... ... ... | 835 13 3 | |
| ,, Miscellaneous Printing ... ... ... ... ... ... ... | 711 8 3 | |
| ,, Stationery ... ... ... ... ... ... ... ... ... | 130 1 10 | |
| ,, Repairs ... ... ... ... ... ... ... ... ... | 73 9 5 | |
| ,, Legal Charges ... ... ... ... ... ... ... ... | 124 12 0 | |
| ,, Rates and Taxes, Insurance and Electricity ... ... ... ... | 476 9 3 | |
| ,, Plant and Type ... ... ... ... ... ... ... ... | 27 3 11 | |
| ,, Sundries ... ... ... ... ... ... ... ... ... | 33 15 3 | |
| ,, Library Books, &c. ... ... ... ... ... ... ... ... | 52 4 5 | |
| | | 3,126 19 1 |
| ,, London County and Westminster Bank—Amount of Loan at December 31st, on Account of New Building, secured by Deposit of Deeds of Freehold Property ... ... ... ... ... ... ... ... ... | | 44,150 0 0 |
| Capitation Grants due to Branches, December 31st, 1910 ... ... ... ... ... | | 609 2 0 |
| TOTAL LIABILITIES ... ... ... ... ... ... ... | | 50,096 14 9 |
| ,, OFFICE STAFF SUPERANNUATION FUND— | | |
| ,, Amount Invested per contra ... ... ... ... ... ... ... ... | | 3,668 6 6 |
| ,, **Surplus Account—** | | |
| Balance on January 1st, 1910 ... ... ... ... ... ... | 104,199 8 2 | |
| Balance of Income over Expenditure for 1910 brought from Revenue Account ... ... ... ... ... ... ... ... | 2,094 18 3 | |
| **Balance being total of Excess of Assets over Liabilities ...** | | **106,291 6 5** |
| | | £160,059 7 8 |

### ASSETS.

| | £ s. d. | £ s. d. |
|---|---|---|
| By Subscriptions in arrear ... ... ... ... ... ... ... ... ... | | 3,011 0 5 |
| ,, Advertisements ,, ... ... ... ... ... ... ... ... ... | | 3,725 5 2 |
| ,, Sundry Sales ,, ... ... ... ... ... ... ... ... ... | | 509 6 8 |
| ,, Furniture and Fixtures ... ... ... ... ... ... ... ... ... | | 533 9 8 |
| ,, Library ... ... ... ... ... ... ... ... ... ... | | 1,989 8 5 |
| ,, Plant and Type ... ... ... ... ... ... ... ... ... | | 1,790 18 7 |
| ,, Stock of Paper in hand for printing Journal ... ... ... ... ... | | 265 2 5 |
| ,, Accrued Rent ... ... ... ... ... ... ... ... ... | | 112 10 0 |
| ,, Cash at Office ... ... ... ... ... ... ... ... ... | | 5 1 11 |
| ,, Cash at London County and Westminster Bank (being Branch Subscriptions in hand December 31st, 1910) ... ... ... ... ... ... ... ... | | 90 11 6 |
| ,, Cash at London County and Westminster Bank on Current Account ... ... ... | | 962 8 6 |
| ,, ,, ,, ,, ,, ,, New Premises Account ... ... | | 7 11 8 |
| ,, INVESTMENTS— | | |
| ,, Freehold Site, 429, Strand, Agar Street, and Harvey's Buildings ... | 85,415 0 0 | |
| ,, Less balance realised for Strip of Land sold ... ... ... ... | 70 0 0 | |
| | | 85,345 0 0 |
| ,, Amount Expended on New Building to December 31st, 1910 ... ... ... ... | | 45,231 6 9 |
| ,, £3,200 Bank of England Stock @ 256 ... ... ... ... ... | 8,192 0 0 | |
| ,, £6,400 Midland Railway 2½% Perpetual Guaranteed Preferential Stock @ 67½ | 4,320 0 0 | |
| | | 12,512 0 0 |
| ,, OFFICE STAFF SUPERANNUATION FUND— | | |
| Investments as per Separate Account ... ... ... ... ... | 3,570 15 0 | |
| Cash at Bank ... ... ... ... ... ... ... ... ... | 97 11 6 | |
| | | 3,668 6 6 |
| **(The above Assets do not include the unexpended balances of Capitation Grants held by the various Branches).** | | |
| | | £160,059 7 8 |

# Revenue or Profit and Loss Account for the Year ending 31st December, 1910.

| | | 1909. | | 1910. | |
|---|---|---|---|---|---|
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| General Association Expenses ... ... ... | *Abstract A* ... | 3,656 0 5 | | 5,028 19 5 | |
| Central Meeting Expenses ... ... ... | ,, *B* ... | 3,915 2 8 | | 4,984 0 7 | |
| Central Premises Expenses ... ... ... | ,, *C* ... | 1,783 15 1 | | 1,644 8 4 | |
| Printing Stationery and Postage Expenses ... | ,, *D* ... | 1,257 15 1 | | 1,304 12 4 | |
| Central Staff Expenses ... ... ... | ,, *E* ... | 4,976 10 9 | | 5,071 13 3 | |
| Library Account ... ... ... ... | ,, *F* ... | 321 7 5 | | 329 1 10 | |
| Journal Account Expenses ... ... ... | ,, *G* ... | 34,082 5 1 | | 35,231 4 5 | |
| Capitation Grants to Branches ... ... ... | ... ... | 2,279 2 8 | | 1,796 5 4 | |
| Supplementary Grants to Divisions and Branches | ... ... | — | | 35 0 0 | |
| Subscriptions Written off for Deaths ... ... | ... ... | 51 9 0 | | 85 10 11 | |
| Arrears ... ... ... ... ... ... | ... ... | 825 4 5 | | 855 3 0 | |
| | | £53,158 12 7 | | £56,365 19 5 | |
| Library—Written off towards Depreciation ... | 200 0 0 | | 200 0 0 | | |
| Plant and Type—Ditto ... ... ... | 500 0 0 | | 500 0 0 | | |
| Furniture and Fittings—Ditto ... ... ... | 200 0 0 | | 200 0 0 | | |
| Investments—Ditto ... ... ... ... | 560 0 0 | | 112 0 0 | | |
| | | 1,460 0 0 | | 1,012 0 0 | |
| | | £54,618 12 7 | | £57,377 19 5 | |
| Balance of Income over Expenditure carried to Balance Sheet... | | 995 18 0 | | 2,094 18 3 | |
| | | £55,614 10 7 | | £59,472 17 8 | |

| | | 1909. | 1910. |
|---|---|---|---|
| | | £ s. d. | £ s. d. |
| Subscriptions ... ... ... ... ... ... ... ... | | 26,810 14 2 | 27,803 4 6 |
| Journal Account, Total Receipts ... ... | See *Abstract G* ... | 28,036 2 4 | 28,595 0 7 |
| Interest on Investments ... ... ... ... ... ... | | 440 0 0 | 439 6 8 |
| Rent received and accrued, and sundry receipts... ... ... ... | | 262 3 10 | 2,602 5 0 |
| Returned Scientific Grants ... ... ... ... ... ... | | 65 10 3 | 33 0 11 |
| | | £55,614 10 7 | £59,472 17 8 |

*Abstract A.*

## General Association Expenses.

| | 1909. £ s. d. | 1910. £ s. d. |
|---|---|---|
| Auditors' Fee | 105 0 0 | 105 0 0 |
| Bank Charges | 60 8 7 | 63 14 0 |
| Interest on Loan | 1,607 19 6 | 1,665 13 8 |
| Legal Expenses | 628 2 6 | 1,697 14 8 |
| Research Scholarships | 362 10 0 | 660 0 0 |
| Scientific Grants | 350 0 0 | 310 0 0 |
| Office—Petty Cash | 159 6 1 | 157 11 0 |
| Sundries | 372 2 9 | 368 16 1 |
| Donation to Charing Cross Hospital | 10 10 0 | 10 10 0 |
| | £3,656 0 5 | £5,028 19 5 |

*Abstract B.]*

## Central Meetings Expenses.

| | 1909. £ s. d. | 1909. £ s. d. | 1910. £ s. d. | 1910. £ s. d. |
|---|---|---|---|---|
| ANNUAL MEETING—Cost of *Daily Journal* | 152 0 0 | | 460 10 0 | |
| " " Expenses of Sections | 39 2 6 | 191 2 6 | 99 16 9 | 560 6 9 |
| REPRESENTATIVE MEETINGS— | | | | |
| Railway Fares | 370 10 0 | | 500 13 9 | |
| Printing | 347 9 5 | | 334 13 9 | |
| Sundries | 24 4 2 | 742 3 7 | 51 19 10 | 887 7 4 |
| COUNCIL— | | | | |
| Railway Fares | 631 6 8 | | 571 8 8 | |
| Printings | 120 18 3 | | 116 10 3 | |
| Reporting | 48 16 6 | 801 1 5 | 45 13 6 | 733 12 5 |
| Railway Fares to Secretaries of Branches and Divisions | | 44 11 10 | | 74 10 11 |
| | | 1,778 19 4 | | 2,255 17 5 |

## Committees.

| | | | | |
|---|---|---|---|---|
| Annual Meeting Committee— | | | | |
| Railway Fares | — | — | 1 6 0 | 1 6 0 |
| Arrangements Committee— | | | | |
| Railway Fares | 24 1 6 | | 10 16 0 | |
| Miscellaneous Printings | 5 13 0 | 29 14 6 | 3 2 6 | 13 18 6 |
| Central Ethical Committee— | | | | |
| Railway Fares, &c. | 103 2 9 | | 138 8 6 | |
| Miscellaneous Printings | 119 8 6 | | 129 14 7 | |
| Reporting | 7 17 6 | 230 8 9 | 17 6 6 | 285 9 7 |
| Chairmen of Committees— | | | | |
| Railway Fares | — | 8 6 9 | — | — |
| Chloroform Committee— | | | | |
| Railway Fares | — | — | 9 16 8 | |
| Miscellaneous Printings | — | — | 1 19 0 | 11 15 8 |
| Colonial Committee— | | | | |
| Railway Fares | 1 19 2 | | 2 4 2 | |
| Miscellaneous Printings | 3 8 3 | 5 7 5 | 7 11 4 | 9 15 6 |
| Election Returns Committee— | | | | |
| Railway Fares | 10 0 3 | | 10 0 3 | |
| Miscellaneous Printings | 34 15 0 | 44 15 3 | 10 19 0 | 20 19 3 |
| †Finance Committee— | | | | |
| Railway Fares | — | — | 12 14 5 | |
| Miscellaneous Printings | — | — | 6 13 2 | 19 7 7 |
| Hospitals Committee— | | | | |
| Railway Fares | 64 13 3 | | 70 2 9 | |
| Miscellaneous Printings | 28 12 0 | 93 5 3 | 26 1 10 | 96 4 7 |
| Carried forward | | 2,190 16 6 | | 2,714 14 1 |

## Committees—*continued.*

| | 1909. £ s. d. | 1909. £ s. d. | 1910. £ s. d. | 1910. £ s. d. |
|---|---|---|---|---|
| Brought forward | | 2,190 16 6 | | 2,714 14 1 |
| Irish Committee— | | | | |
| Railway Fares | 54 4 10 | | 23 2 7 | |
| Part of Grant *re* Poor-Law Medical Service | — | | 15 0 0 | |
| Miscellaneous Printings | 4 14 6 | 58 19 4 | 4 16 6 | 245 19 1 |
| †Journal Committee— | | | | |
| Railway Fares | — | — | 28 2 0 | |
| Miscellaneous Printings | — | — | 21 10 6 | 49 12 6 |
| *Journal and Finance Committee— | | | | |
| Railway Fares | 120 14 5 | | 54 15 4 | |
| Miscellaneous Printings | 39 0 9 | | 34 19 0 | |
| Reporting | 22 1 0 | 181 16 2 | — | 89 14 4 |
| Medico-Political Committee— | | | | |
| Railway Fares | 361 0 6 | | 339 19 1 | |
| Miscellaneous Printings | 212 13 3 | 573 13 9 | 370 11 4 | 711 10 5 |
| Naval and Military Committee— | | | | |
| Railway Fares | 11 5 1 | | 8 19 0 | |
| Miscellaneous Printings | 5 3 6 | 16 8 7 | 4 16 10 | 13 15 10 |
| Ophthalmia Neonatorum Committee— | | | | |
| Railway Fares | 23 0 3 | | — | |
| Miscellaneous Printings | 29 3 3 | 52 3 6 | 0 16 6 | 0 16 6 |
| Organisation Committee— | | | | |
| Railway Fares | 190 1 4 | | 152 8 10 | |
| Miscellaneous Printings | 141 3 0 | 331 4 4 | 227 3 1 | 379 11 11 |
| Poor Law Committee— | | | | |
| Railway Fares | 103 11 7 | | 282 3 5 | |
| Miscellaneous Printings | 19 15 3 | 123 6 10 | 81 16 1 | 363 19 6 |
| Premises Committee— | | | | |
| Railway Fares | 25 17 10 | | — | |
| Miscellaneous Printings | 7 18 9 | 33 16 7 | — | — |
| Public Health Committee— | | | | |
| Railway Fares | 83 12 2 | | 57 16 9 | |
| Miscellaneous Printings | 15 16 3 | 99 8 5 | 27 18 10 | 85 15 7 |
| Science Committee— | | | | |
| Railway Fares | 102 17 3 | | 86 18 3 | |
| Miscellaneous Printings | 41 14 9 | 144 12 0 | 97 14 4 | 184 12 7 |
| Scottish Committee— | | | | |
| Railway Fares | 32 5 9 | | 28 19 7 | |
| Miscellaneous Printings | 3 13 6 | 35 19 3 | 4 9 0 | 33 8 7 |
| Spiritual Healing Sub-Committee— | | | | |
| Railway Fares | — | 4 3 0 | — | — |
| Territorial Forces Committee— | | | | |
| Railway Fares | 4 11 8 | | 37 4 4 | |
| Miscellaneous Printings | 1 4 9 | 5 16 5 | 8 13 4 | 45 17 8 |
| Therapeutic Committee— | | | | |
| Railway Fares | — | 20 18 6 | 31 4 10 | |
| Miscellaneous Printings | — | — | 2 11 2 | 33 16 0 |
| Uterine Cancer Committee— | | | | |
| Railway Fares | 1 13 0 | | — | |
| Miscellaneous Printings | 4 16 6 | 6 9 6 | 0 19 6 | 0 19 6 |
| Paper for Miscellaneous Printing in connection with Committees | — | 35 10 0 | | 39 16 6 |
| | | £3,915 2 8 | | £4 984 0 7 |

*This Committee ceased June 22nd, 1910.
†These Committees commenced October 19th, 1910.

*Abstract C.*]

## Central Premises Expenses.

| | 1909. £ s. d. | 1910. £ s. d. |
|---|---|---|
| Cleaning Offices ... ... ... ... ... ... ... ... | 314 6 11 | 312 0 0 |
| Coals, Coke and Wood... ... ... ... ... ... ... ... | 106 7 3 | 106 4 3 |
| General Repairs and Upkeep ... ... ... ... ... ... ... | 60 9 9 | 234 17 4 |
| Rent ... ... ... ... ... ... ... ... ... | 218 15 0 | — |
| Rates, Taxes, Insurance and Electricity ... ... ... ... ... | 1,083 16 2 | 991 6 9 |
| | £1,783 15 1 | £1,644 8 4 |

*Abstract D.*]

## Central Printing, Stationery and Postage Expenses.

| | 1909. | 1910. |
|---|---|---|
| General Printing ... ... ... ... ... ... ... ... | 185 10 0 | 211 12 0 |
| Office—General Postage :— | | |
| Financial Secretary and Business Manager's Department ... ... | 393 8 2 | 406 15 8 |
| Medical Secretary's Department ... ... ... ... ... | 142 15 9 | 164 8 5 |
| Stationery ... ... ... ... ... ... ... ... ... | 536 1 2 | 521 16 3 |
| | £1,257 15 1 | £1,304 12 4 |

*Abstract E.*]

## Central Staff Expenses.

| | 1909. £ s. d. | £ s. d. | 1910. £ s. d. | £ s. d. |
|---|---|---|---|---|
| Financial Secretary and Business Manager ... ... | 900 0 0 | | 900 0 0 | |
| Assistant Secretary ... ... ... ... ... | 350 0 0 | | 350 0 0 | |
| Clerical Staff, General Office, Journal, Subscription and Advertisement Departments ... ... | 2,728 10 9 | | 2,789 7 0 | |
| | | 3,978 10 9 | | 4,039 7 0 |
| Less Proportion of Salaries debited to Journal Account | | 1,996 2 6 | | 1,993 2 6 |
| | | 1,982 8 3 | | 2,040 4 6 |
| Medical Secretary ... ... ... ... ... | 900 0 0 | | 900 0 0 | |
| Deputy Medical Secretary ... ... ... ... | 500 0 0 | | 500 0 0 | |
| Assistant Medical Secretary ... ... ... ... | 262 10 0 | | 300 0 0 | |
| Clerical Staff (Medical Secretary's Department) ... | 797 18 0 | | 896 8 0 | |
| | | 2,460 8 0 | | 2,596 8 0 |
| Travelling Expenses :— | | | | |
| Financial Secretary and Business Manager's Department | | 89 16 3 | | 34 10 0 |
| Medical Secretary's Department ... ... ... ... | | 143 18 3 | | 100 10 9 |
| Amount Voted to Office Staff Superannuation Fund ... ... | | 300 0 0 | | 300 0 0 |
| | | £4,976 10 9 | | £5,071 13 3 |

*Abstract F.*]

## Library Account.

| | | £ s. d. |
|---|---|---|
| 1910. | | |
| Jan. 1. | To Balance ... ... ... ... ... ... ... ... ... | 2,032 12 8 |
| Dec. 31. | ,, Purchase of Books ... ... ... ... ... ... ... ... | 113 12 5 |
| | ,, Binding Books ... ... ... ... ... ... ... ... | 43 3 4 |
| | ,, Librarian's Salary ... ... ... ... ... ... ... ... | 250 0 0 |
| | ,, Librarian's Clerk's Salary ... ... ... ... ... ... ... | 76 3 4 |
| | ,, Printing and Postage of Circulars, &c. ... ... ... ... ... | 2 18 6 |
| | | £2,518 10 3 |

| | | £ s. d. | £ s. d. |
|---|---|---|---|
| 1910. | | | |
| Dec. 31. | By Librarian's Salary ... ... ... ... ... ... ... | 250 0 0 | |
| | ,, Librarian's Clerk's Salary ... ... ... ... ... ... | 76 3 4 | |
| | ,, Printing and Posting of Circulars, &c. ... ... ... ... | 2 18 6 | |
| | | | 329 1 10 |
| | Amount written off for Depreciation ... ... ... ... | | 200 0 0 |
| | Balance carried to Balance Sheet ... ... ... ... ... | | 1,989 8 5 |
| | | | £2,518 10 3 |

*Abstract G.]*

# JOURNAL ACCOUNT.

## Income and Expenditure Account for the year ending 31st December, 1910.

| | 1909. £ s. d. | 1909. £ s. d. | 1910. £ s. d. | 1910. £ s. d. |
|---|---|---|---|---|
| **EDITORIAL.** | | | | |
| Salaries—Editor ... ... ... ... ... | 1,000 0 0 | | 1,000 0 0 | |
| ,, Assistant Editor ... ... ... ... | 750 0 0 | | 750 0 0 | |
| ,, Sub-Editor ... ... ... ... ... | 400 0 0 | | 400 0 0 | |
| ,, Clerical Staff ... ... ... ... | 481 12 0 | | 479 18 10 | |
| Contributions and Reporting ... ... ... ... | 3,307 5 4 | | 3,267 6 4 | |
| Engraving ... ... ... ... ... ... | 254 2 8 | | 226 11 6 | |
| Legal Expenses ... ... ... ... ... | 100 10 6 | | 96 13 4 | |
| Postage ... ... ... ... ... ... | 77 6 8 | | 72 3 4 | |
| Analyses ... ... ... ... ... ... | 149 2 0 | | 194 2 0 | |
| Travelling Expenses, Papers, &c. ... ... ... | 178 15 7 | | 141 3 9 | |
| Advance Slips circulated to the Press ... ... | 28 8 9 | | 18 4 8 | |
| | | 6,727 3 6 | | 6,646 3 9 |
| **MANAGERIAL.** | | | | |
| JOURNAL—Compositors' Wages, Machining, &c. ... | 8,455 12 6 | | 8,829 3 11 | |
| ,, Paper ... ... ... ... ... | 8,488 18 1 | | 8,973 10 8 | |
| SUPPLEMENT—Compositors' Wages, Machining, &c. ... | 989 5 0 | | 1,103 12 0 | |
| ,, Paper ... ... ... ... ... | 981 11 0 | | 1,092 0 0 | |
| Postage for dispatch of JOURNAL ... ... ... | 4,476 12 9 | | 4,831 9 3 | |
| Address Bands for Issuing JOURNAL ... ... ... | 461 5 9 | | 513 12 5 | |
| Proportion of Manager's and Clerks' Salaries ... ... | 1,996 2 6 | | 1,999 2 6 | |
| General Postage ... ... ... ... ... | 144 10 0 | | 157 17 3 | |
| General Printing ... ... ... ... ... | 46 14 1 | | 58 5 0 | |
| Reprints ... ... ... ... ... ... | 168 2 9 | | 187 8 4 | |
| Secret Remedies ... ... ... ... ... | 937 5 9 | | 640 13 9 | |
| Stationery (Ledgers, Letter Books, &c.) ... ... | 137 0 0 | | 135 10 0 | |
| Travelling Expenses ... ... ... ... ... | 22 1 5 | | 11 18 1 | |
| Compositors' Sick Fund ... ... ... ... | 10 10 0 | | 10 10 0 | |
| Sundries ... ... ... ... ... ... | 39 10 0 | | 40 7 6 | |
| | | 27,655 1 7 | | 28,585 0 8 |
| | | £34,082 5 1 | | £35,231 4 5 |

| | 1909. £ s. d. | 1909. £ s. d. | 1910. £ s. d. | 1910. £ s. d. |
|---|---|---|---|---|
| Advertisements ... ... ... ... | 22,985 1 5 | | 23,276 4 6 | |
| Sundry Sales—Journals ... ... ... | 2,474 18 10 | | 2,606 15 3 | |
| ,, Reading and Binding Covers, &c. | 95 3 8 | | 79 13 6 | |
| ,, Reprints ... ... ... | 267 18 8 | | 279 4 1 | |
| ,, Secret Remedies ... ... | 1,208 19 10 | | 1,352 18 1 | |
| Sale of Waste, &c. ... ... ... ... | 29 11 0 | | 31 6 9 | |
| Discounts on Machining, Paper, &c. ... ... | 974 8 11 | | 968 18 5 | |
| | | 28,036 2 4 | | 28,595 0 7 |
| Balance from Subscriptions for the cost of production and issue of the JOURNAL ... ... ... ... ... ... | 6,046 2 9 | | 6,636 3 10 | |
| | £34,082 5 1 | | £35,231 4 5 | |

## New Premises Account.

| 1910. | £ s. d. |
|---|---|
| Jan. 1. To **Balance** ... ... ... ... ... ... ... ... ... | 43,843 9 0 |
| ,, **Fees to Mr. Percy Adams (architect)—balance** ... ... ... ... | 580 10 0 |
| ,, Messrs. Prestige & Co. (Builders)—balance ... ... ... ... | 651 9 3 |
| ,, Civil Service Stores (Claim *re* New Building) ... ... ... ... | 85 0 0 |
| ,, **Fee to Mr. T. Moody** ... ... ... ... ... ... ... | 26 5 0 |
| ,, **Settees, New Blinds, &c.** ... ... ... ... ... ... ... | 44 13 6 |
| | £45,231 6 9 |

| 1910. | £ s. d. |
|---|---|
| Dec. 31 **By Balance** ... ... ... ... ... ... ... ... ... | 45,231 6 9 |
| | £45,231 6 9 |

## Stewart Fund.

*£579 4 per cent. Caledonian Railway Debenture Stock.*

| 1910. | £ s. d. |
|---|---|
| Jan. 1. To Balance brought over from 1909 ... ... ... ... ... ... | 50 10 8 |
| Dec. 31. ,, **Interest** ... ... ... ... ... ... ... ... ... | 22 15 1 |
| | £73 5 9 |

| 1910. | £ s. d. |
|---|---|
| Dec. 31. By award to Major George Lamb, I.M.S. ... ... ... ... ... ... | 50 0 0 |
| ,, Engrossing ... ... ... ... ... ... ... ... ... | 1 17 6 |
| ,, Cash at Bank ... ... ... ... ... ... ... ... ... | 21 8 3 |
| | £73 5 9 |

## Middlemore Fund.

*£666 13s. 4d. 3 per cent. North British Railway Debenture Stock.*

| 1910. | | £. s. d. |
|---|---|---|
| Jan. 1. | To Balance brought over from 1909 ... ... ... ... ... ... ... | 63 1 11 |
| Dec. 31. | ,, Interest ... ... ... ... ... ... ... ... ... ... | 20 7 1 |
| | | £83 9 0 |

| 1910. | | £ s. d. |
|---|---|---|
| Dec. 31. | By Balance ... ... ... ... ... ... ... ... ... ... ... | 83 9 0 |
| | | £83 9 0 |

## Francis Fowke Bequest.

*£700 Midland Railway 2½% Perpetual Guaranteed Preferential Stock.*

| 1910. | | £ s. d. |
|---|---|---|
| Jan. 1. | To Balance brought over from 1909 ... ... ... ... ... ... ... | 14 7 9 |
| Dec 31. | To Interest ... ... ... ... ... ... ... ... ... ... | 16 8 8 |
| | | £30 16 5 |

| 1910. | | £ s. d. |
|---|---|---|
| Dec. 31st. | By Balance ... ... ... ... ... ... ... ... ... ... ... | 30 16 5 |
| | | £30 16 5 |

## Office Staff Superannuation Fund.

***Dr.*** ***Cr.***

| 1910. | | £ s. d. | £ s. d. |
|---|---|---|---|
| Jan. 1. | To Balance brought over from 1909 ... ... ... ... | 3,174 18 11 | |
| Dec. 31 | ,, Less amount written off Investments ... ... ... | 3 6 9 | |
| | | | 3,171 12 2 |
| | ,, Payments by Members of Staff ... ... ... ... | 107 7 11 | |
| | ,, Amounts Refunded ... ... ... ... ... ... | 18 9 10 | |
| | | | 88 18 1 |
| | ,, Vote from General Funds ... ... ... ... ... | | 300 0 0 |
| | ,, Interest on Investments ... ... ... ... ... ... ... | | 107 16 3 |
| | | | £3,668 6 6 |

| 1910. | | £ s. d. | £ s. d. |
|---|---|---|---|
| Dec. 31. | By Balance carried down— | | |
| ,, | Cash at Bank ... ... ... ... ... ... | 100 18 3 | |
| | Less Cheque unpresented ... ... ... ... ... | 3 6 9 | |
| | | | 97 11 6 |
| | INVESTMENTS— | | |
| ,, | £600 Cape of Good Hope 3 per cent. Stock @ 86½ | | |
| ,, | £100 Bristol Corporation 3½ per cent. Redeemable Stock, bought 1906 ... ... ... ... | | 519 0 0 |
| ,, | £1,250 Midland Railway 2½ per cent. Consolidated Perpetual Guaranteed Stock @ 67½ ... ... ... ... ... | | 109 0 0 |
| ,, | £200 New Zealand 4 per cent. 1929 Stock @ 104... ... ... ... ... | | 854 5 0 |
| ,, | £400 New Zealand 3 per cent. Stock @ 85½ ... ... ... ... ... | | 208 0 0 |
| ,, | £200 Furness Railway Consolidated 4 per cent. Preferential Stock @ 97 | | 342 0 0 |
| ,, | £250 Bank of England Stock @ 256 ... ... ... ... ... ... | | 194 0 0 |
| ,, | £400 India Stock 3 per cent. @ 82¾ ... ... ... ... ... ... | | 640 0 0 |
| ,, | £450 Stockton-on-Tees Corporation 3 per cent. Redeemable Stock @ 85 ... | | 331 0 0 |
| | | | 382 10 0 |
| | | | £3,668 6 6 |

*Having examined the Balance Sheet, dated 31st December, 1910, and Accounts with the books and vouchers of the Association, and having received all the information and explanations we have required, we report that the Balance Sheet is, in our opinion, properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Association according to the best of our information and the explanations given to us and as shown by the books of the Association.*

*We have verified the Investments of the Association on General Account and on account of the Trust Funds shown and of the Office Staff Superannuation Fund, and we have verified the possession by the Bankers of the Association of the Deeds of the Freehold Property.*

EDWIN RAYNER,
*Honorary Treasurer.*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

PRICE, WATERHOUSE & CO.,
*3, Frederick's Place, Old Jewry, E.C.,*
*19th April, 1911.*

Further, in the year 1908 £3,750 Capitation Grants were distributed to the Branches. The amount has been reduced by one-half in 1910, leaving some £2,000 free to meet general expenditure. As the surpluses in the hands of the Branches are gradually exhausted, it is not unreasonable to expect in the near future that the Association will have to find as much as £4,000 per annum to carry on the work of the Divisions and Branches. With such contingencies it behoves the Association to exercise the greatest care before embarking on any fresh expenditure.

### ESTIMATE OF RECEIPTS AND EXPENDITURE FOR 1911.

26. In submitting Estimate of Receipts and Expenditure for the current year, it is calculated that, after all expenses are paid, there may be a surplus of £300.

EXPENDITURE.

| | £ |
|---|---|
| General Association Expenses | 4,100 |
| Central Meeting Expenses | 5,200 |
| Central Premises Expenses | 1,700 |
| Central Printing, Stationery, and Postages | 1,300 |
| Central Staff Expenses | 5,300 |
| Library | 600 |
| JOURNAL Account | 35,750 |
| Capitation Grants to Branches | 2,000 |
| Arrears of Subscriptions | 950 |
| Depreciation of Furniture, Plant, and Type | 1,000 |
| | 57,900 |
| ESTIMATED SURPLUS | 300 |
| | £58,200 |

RECEIPTS.

| | £ |
|---|---|
| Subscriptions | 28,200 |
| Advertisements | 23,000 |
| Sundry Sales of Journals, etc. | 3,200 |
| Investments | 450 |
| Rents | 2,350 |
| Discounts on Purchases of Paper | 1,000 |
| | £58,200 |

### APPORTIONMENT OF MEMBERS' SUBSCRIPTION.

27. The following table shows how the subscription of 25s. has been apportioned for defraying the expenses of the Association for the year ending December 31st, 1910. Details of expenditure under each head are given in the various schedules of the Financial Statement for the year :—

| | £ | £ | s. | d. |
|---|---|---|---|---|
| General Association Expenses ... | 5,063 | 0 | 4 | 3 |
| Central Meeting Expenses ... ... | 4,984 | 0 | 4 | 2 |
| Central Premises ... ... ... | 1,644 | 0 | 1 | 3 |
| Printing, Stationery and Postage ... | 1,304 | 0 | 1 | 0 |
| Library ... ... ... ... ... | 329 | 0 | 0 | 3 |
| Central Staff Expenses ... ... | 5,071 | 0 | 4 | 3 |
| Journal and Supplement, Advertisements, &c. ... ... ... ... | 6,636 | 0 | 5 | 5 |
| Written off Subscriptions ... ... | 940 | 0 | 0 | 9 |
| Written off for depreciation of Investments, Plant and Type ... | 1,012 | 0 | 0 | 9 |
| Balance carried to surplus ... ... | 2,094 | 0 | 1 | 7 |
| Grants to Branches and Divisions ... | 1,796 | 0 | 1 | 4 |
| | | £1 | 5 | 0 |

## Organisation.

### MEMBERSHIP OF THE ASSOCIATION.

28. The total membership of the Association on December 31st, 1910, was 22,448 as compared with 21,405 on the corresponding date of 1909. The increase is thus 1,043 as compared with increases of 242 in 1909, and 39 in 1908.

The following table shows the variations in membership during 1909 and 1910 :—

| 1909. | | | 1910. | | |
|---|---|---|---|---|---|
| New Members ..... | | 1,148 | New Members ..... | | 1,909 |
| Resignations ..... | 496 | | Resignations ..... | 411 | |
| Deaths ..... | 218 | | Deaths ..... | 250 | |
| Arrears..... | 190 | | Arrears..... | 200 | |
| Expulsions ..... | 1 | | Expulsions ..... | 5 | |
| Removed from Medical Register | 1 | | | | 866 |
| | | 906 | | | |
| Increase ... | | 242 | Increase ... | | 1,043 |

### OBITUARY.

| Name. | Offices held in the Association. |
|---|---|
| Dr. Lombe Atthill ... ... | President, Section of Obstetric Medicine, 1876, and a former President of the Dublin Branch. |
| Dr. Edward Cresswell Baber | President of the Section Laryngology and Otology, 1899. |
| Mr. William Berry ... ... | A former President of the Lancashire and Cheshire Branch. |
| Dr. George Arthur Brown ... | A former President of, and Member of Council of, the South Wales and Monmouthshire Branch. |
| Dr. George Carpenter ... | Member of the Ophthalmia Neonatorum Committee. |
| Dr. Thomas F. S. Caverhill... | Formerly a Representative of the North-West Edinburgh Division. |
| Dr. Ebenezer Davies... ... | A former President of the South Wales and Monmouthshire Branch. |
| Dr. Joseph Farrar ... ... | A former President of the Lincoln Division. |
| Dr. Tregenna Biddulph Goss | President of the Bath and Bristol Branch, 1892. |
| Dr. William Hall ... ... | A former President of the North Lancashire and South Westmoreland Branch, and a Member of the Council of the Association. |
| Sir Constantine Holman, M.D. | Secretary of the South-Eastern Branch, 1863, Representative of the Branch on the Council of the Association, Member of the Committee of Council, President of the South-Eastern Branch, 1869-70, Member of the Premises Committee, Treasurer of the Association, 1887, Chairman of the Reference Committee, Vice-President of the Association, and Gold Medalist of the Association. |
| Mr. W. H. Horrocks... ... | A former President of, and Representative of, the Bradford Division. |
| Dr. Jameson John Macan ... | President of the South-Eastern Branch, Representative of the Croydon Division, and Member of the Council of the Association and of the Central Ethical and Hospitals Committees. |
| Dr. Leonard Strong McManus | Formerly Representative of the Wandsworth Division, and Member of the Medico-Political and Special Finance Inquiry Committees, and of various Sub-Committees of the Association. |
| Dr. John Edward Morris ... | President of the Cambridge and Huntingdon Branch, 1895. |
| Dr. John Nelson ... ... | Secretary, Section of Ophthalmology, 1884, Vice-President, Section of Ophthalmology, 1906. |
| Dr. Joseph Frank Payne ... | Vice-President, Section of Anatomy and Physiology, 1882, Vice-President, Section of Pathology and Bacteriology, 1894, and President, Section of Pathology, 1899. |

| Name. | Offices held in the Association. |
|---|---|
| Mr. Henry Power ... ... | Secretary, Vice-President and President, Section of Physiology, 1869, 1878 and 1879 respectively, Vice-President and President, Section of Ophthalmology, 1880 and 1895 respectively, and President, Section of Ophthalmology and Otology, 1885. |
| Dr. Thomas Whitehead Reid | A former Member of the Council of the South-Eastern Branch, President of the Branch, a Member of the Council of the Association and Chairman of the Hospitals Committee. |
| Dr. Leonard Sedgwick ... | President of the Metropolitan Counties Branch, 1894. |
| Dr. George W. Sidebotham | A former Representative of the Shropshire and Mid-Wales Branch. |
| Dr. William Williams ... | President of the South Wales and Monmouthshire Branch, 1905. |

Dr. Charles Edward Adams, Dr. William Munden Allen, Dr. Alexander John Alliott, Dr. J. T. W. Baird, Dr. Sydney Barradell-Smith, Dr. George Birt, Dr. Edward Eldridge Blomfield, Mr. George Bosson, Dr. Florence Nightingale Boyd, Dr. Edward H. Brien, Dr. Thomas Nadauld Brushfield, Dr. Samuel Buckley, Dr. Howard Cane, Dr. Walter Butler Cheadle, Dr. Edward Howard Collens, Dr. James Smith Colquhoun, Inspector-General Richard W. Coppinger, R.N., Mr. Thomas Corcoran, Dr. Joseph Dawson Crawford, Lieut.-Col. John Adams Cunningham, M.D., I.M.S., Dr. J. J. Y. Dalgarno, Dr. Charles Alfred Selby Dalgliesh, Dr. Walter Brock de Jersey, Dr. James Edmunds, Dr. Henry Collen Ensor, Dr. Charles Carmichael Forrester, Dr. Francis R. S. Gaman, Insp.-Gen. Robert Grant, C.B., M.B., R.N. (retired), Dr. William Frank Hearnden, Dr. John Henderson (Wakefield), Dr. John Henderson (Colinton), Col. Frank Henry Hensham, C.M.G., Dr. Joseph Higham Hill, Dr. Frederick Charles Hitchins, Dr. R. James Hughes, Dr. Edwin John Hunter, Dr. William Lovell Hunter, Insp.-Gen. Gordon Jackson, R.N. (retired), Mr. James Thomas James, Rev. Wm. Jeffrey, M.D., Dr. F. W. Jordan, Dr. Duncan Kennedy, Dr. Percy John Kingston, Dr. Thomas Lapraik, Dr. William Thomas Law, Lieut.-Col. J. T. W. Leslie, C.I.E., I.M.S., Dr. John McConville, Dr. Colin Mackenzie, Dr. Charles Alexander MacMunn, Dr. William Baird McQuitty, Dr. William Francis Manners, Dr. Mary Adamson Marshall, Dr. James Maxwell, Dr. Alexander Milne, Mr. Frederic Victor Milward, Dr. Walter Henry Moyle, Dr. James Morris, Brig.-Surg. Lieut.-Col. John Ross Murray, Dr. Sydney Partridge, Dr. William Patrick, Dep.-Surg. John Liston Paul, Mr. John Edward Platt, Dr. James Edward Pollock, Dr. Alfred Bentley Sigismund Powell, Dr. George William Powell, Lt.-Col. Simpson Powell, M.D., R.A.M.C., Dr. Thomas Reid, Dr. Thomas Richards, Mr. Walter Ridley, Dr. Sidney Ringer, F.R.S., Dr. James Roderick, Dr. Sidney J. Roderick, Dr. Frederick John Sawdon, Dr. Arthur John Sharp, Capt. E. D. Simson, I.M.S., Dr. Patrick A. Smith, Dr. S. Parsons Smith, Dr. James Camac Smyth, Dr. William Spence, Mr. Wm. Henry Charles Staveley, Dr. P. Steven, Dr. David Halket Stirling, Dr. Alonzo Henry Stocker, Dr. George Danford Thomas, Dr. George Henry Whitaker, Dr. R. White-Jones, Dr. Edwin Stanley Wood, and Dr. Edward Ernest Woodhouse.

### ARTICLES AND BY-LAWS OF THE PRESENT COMPANY.

29. The new Articles and By-laws, which were adopted by the Special General Meeting held on June 29th, 1910, and confirmed by the Special General Meeting on July 22nd, 1910, were duly submitted for registration by the Registrar of Joint Stock Companies. In accordance with a procedure recently adopted by the Board of Trade they were referred by the Registrar to the Board for consideration before being registered, and certain questions were raised by the Board. As the result of an interview of representatives of the Association with the Controller of the Board of Trade the difficulties were all overcome, and the new Regulations registered, subject to an undertaking given by the Association that, at the first subsequent Representative Meeting that should be held, amendments of the By-laws would be brought forward for adoption which would bring these into closer technical conformity with what is, in the opinion of the Board of Trade, the spirit of the Companies Act. The changes necessary for this purpose will be the deletion from By-law 35, which deals with the business of the Annual Representative Meeting, of the reference to appointment of auditors and to alteration of Regulations (*i.e.*, Articles of Association), and the insertion of a new By-law to provide that the appointment of auditors shall be made by the Annual General Meeting. Amendments for these purposes will be submitted for the consideration of a Special Representative Meeting, should it be necessary to call one for other purposes prior to the Annual Meeting, and if no Special Representative Meeting is necessary will be placed before the Annual Meeting. Provision will, in either event, be made in the arrangement of the programme of the Annual Meeting for compliance with the requirements of the Board of Trade.

### NEW COMPANY.

30. The Council has taken the necessary action to give effect to the following Minutes of the Annual Representative Meeting, 1910 :—

> *Minute* 324.—That the Draft Memorandum of Association, as amended, be approved as a whole.
>
> *Minute* 326.—That the Annual Representative Meeting authorise the Council to proceed forthwith to take the steps necessary to the formation of a new company, incorporated in the same manner and having the same Articles of Association and By-laws as the present company as constituted at the time of application, but with a memorandum of Association as hereinbefore stated.
>
> *Minute* 331.—That this Meeting authorise the Council to use its own discretion in regard to any matters to which the Board of Trade may take exception.

Many small points of detail have required attention in the preparation of the necessary drafts, and it has been thought well to include certain alterations of minor provisions, in order to avoid the necessity of convening Meetings for alterations of Regulations afterwards. The Documents were submitted to the Board of Trade on April 26th, 1911, and if no unforeseen difficulties arise there is every reason to expect that the matter will be completed before, or at the time of, the Annual Representative Meeting.

### ELECTION OF MEMBERS OF COUNCIL.

*Grouping within the United Kingdom for Election of Members of Council.*

31. Concerning Minute 107 of the Annual Representative Meeting, 1910, namely :—

> That the grouping of Divisions and Branches in the United Kingdom for the election of Members of Council for the year 1911-12 be the same as for the year 1910-11 subject to such amendments as the Council may think desirable after reference to the Branches and Divisions concerned,

reference has been made to the Divisions and Branches concerned in the question which was before the Annual Representative Meeting, namely, the grouping of the Bromley and Croydon Divisions of the South-Eastern Branch with the Metropolitan Counties Branch. In view of the replies received, the Council has grouped the Divisions named with the rest of the South-Eastern Branch instead of with the Metropolitan Counties Branch. In other respects the grouping for 1911-12 remains the same as for 1910-11.

*Procedure for Election of Members of Council.*

32. With reference to Minute 90 of the Annual Representative Meeting, 1910, as follows :—

> That with reference to By-law 43 (3) of the Draft New By-laws of the Association, as to Mode of Election of twenty-four Members of Council by Groups of Branches in the United Kingdom, it be an instruction to the Council to consider whether the form of voting papers should contain particulars of nominations whether by Divisions or Members,

the Council after careful consideration is of opinion that it is not desirable to insert particulars of Nominations, whether by Divisions or Members, in Voting Papers for the Election of Members of Council by Groups of Branches in the United Kingdom.

*Election of Service Members of Council.*

33. In view of the objections which have been taken to the procedure adopted for the Election of Service Members of Council by the Representative Body for the year 1910-11, and in accordance with Minute 364 of the Annual Representative Meeting, 1910, namely :—

> That it be referred to the Council to reconsider the arrangements for the Election of Service Members of Council by the Representative Body,

the Council has reviewed the whole procedure.

## Recommendation.

The Council recommends—

That in future one Member only be nominated by the Council for election as a Member of Council to represent each Service, provision being made under the Standing Orders of the Representative Body, whereby any Member of that Body may nominate a Member of the Association for election, to represent any of the three Services.

ELECTION OF REPRESENTATIVES.

*Alteration of By-laws dealing with Election of Representatives.*

34. The Council has considered the alterations of Regulations necessary under the following instruction of the Annual Representative Meeting, 1910, contained in Minute 105, namely :—

> That the Meeting approve of the principle that each Constituency elect at least one Representative and (in the United Kingdom) an additional Representative for each 100 members after the first 50, and that on a card vote the voting powers of a Constituency which has more than one Representative be equally divided among all the Representatives of that Constituency, and that the Council be instructed to prepare for consideration of the Representative Meeting such alterations of the Regulations as are necessary to carry this Resolution into effect.

The legal advisers of the Association have been instructed to prepare such alterations of the Regulations as are necessary to give effect to the foregoing instruction, and these will be placed before the Annual Representative Meeting for confirmation.

*Grouping for Election of Representatives.*

35. The Divisions have been grouped for the Election of Representatives for the year 1911-12 in the same manner as for the year 1910-11, with the exception of the Divisions of the South-Western Branch, which have recently undergone reorganisation.

ANNUAL CONFERENCE OF SECRETARIES.

36. A Conference of Honorary Secretaries of Divisions and Branches will be held in connection with the forthcoming Annual Meeting at Birmingham. Arrangements are being made to prevent the clashing of any other function with this Conference, and it is hoped that a well-attended and useful meeting will be the result.

METHOD OF VOTING IN ASSOCIATION ELECTIONS.

37. The Council has carefully considered the whole question of the applicability of the method of the transferable vote to the various elections conducted by the Association, in connection with Minute 114 of the Annual Representative Meeting, 1910, and submits a Report and Recommendation which will be found in the Appendix, p. 277.

## Recommendation.

The Council recommends :—

A. That the following elections be conducted on the Transferable Vote system :—

Members of the Central Council—

(*a*) By Branches within the United Kingdom by Voting Paper.
(*b*) By grouped Representatives.
(*c*) By the Representatives as a whole (Four Members).
(*d*) By the Representatives as a whole (Three Service Members).

Officers—

Elected by the Representative Body—

(*a*) President.
(*b*) Chairman of Representative Meetings.
(*c*) Deputy Chairman of Representative Meetings.
(*d*) Treasurer.

Elected by the Council—

(*e*) Chairman of Council.

B. That the following elections be conducted on the present basis, namely, that those candidates, up to the number to be elected, who receive the greatest number of votes be declared elected :—

Members of Committees by the Representative Meeting.
Members of Committees by the Council.

(C.) That the following elections be conducted in such manner as the Bodies concerned may think fit :—

Representatives in Representative Meetings by Divisions.
Officers of Branches.
Members of Branch Councils.
Officers of Divisions.
Members of Executive Committees of Divisions.

REFERENDUM AND POSTAL VOTE.

38. The Council has taken into consideration the instruction of the Representative Body contained in Minute 330 of the Annual Representative Meeting, 1910 :—

> *Minute* 330. That while recognising the necessity of proceeding without delay with the formation of a new Company, the Representative Meeting considers it desirable that a full consideration should be given by the Association to the question of the Referendum by Postal vote, and the arrangements generally for securing that the decision of the Representative Meeting shall, as far as possible, represent accurately the opinion of the Association, and that it be an instruction to the Council to prepare a Report on these subjects for the consideration of the Divisions, and, after receiving and considering the replies of the Divisions, to submit a Report with recommendations to the next possible Representative Meeting, whether that takes place under the present Company or under the new company which it is proposed to form.

The Report of the Council on this subject appeared in the Supplement to the JOURNAL of April 29th, 1911.

RECORDING NAMES OF VOTERS IN REPRESENTATIVE MEETINGS UPON THOSE RESOLUTIONS WHICH REQUIRE A TWO-THIRDS MAJORITY.

39. In connection with the consideration of the subject of the Referendum, the attention of the Council has been drawn to the desirability of arrangements being made whereby the names of Representatives voting upon resolutions for which a two-thirds majority is required may more readily be recorded. At present the names can only be recorded in cases in which a card vote is taken, and this procedure involves much loss of time.

## Recommendation.

The Council recommends :

> That the Representative Body provide by Standing Order for names being taken, when desired, of those voting for and against any motion for which a two-thirds majority is required.

AFFILIATION TO THE ASSOCIATION OF CERTAIN OUTSIDE BODIES.

40. The Council has considered the following instruction of the Annual Representative Meeting, 1909, and has issued to the Divisions a Report which appeared in the Supplement of April 29th, 1911.

> That it be an instruction to the Council to consider and report to the Divisions on the question of making such arrangements as will allow of the affiliation to this Association, of Associations of Medical Men in certain Public Services, and of other Medical Societies.

RESIGNATION OF MEMBERSHIP OF THE ASSOCIATION.

41. Attention has been given to the procedure for dealing with letters of resignation to secure that all information available in the Central Office, or in the hands of Divisions or Branches, shall be collected as rapidly as possible, and any necessary action taken, within the month which the Regulations now provide between the reception of a notice of resignation and its taking effect. Instructions have been given for all notices of resignation received to be communicated at once to the Honorary Secretaries of the Divisions and Branches concerned, both for their assistance and in order that information in their possession may be furnished to the Head Office. Arrangements have also been made that letters in which Members state reasons for their resig-

nation shall be referred for the consideration of the Chairman of the Organisation Committee, and remitted under his instructions for the consideration of the Chairman of Council or the Chairmen of any Committees to whose work such assigned reasons may relate.

### ORGANISATION OF MEDICAL STUDENTS.

42. Careful consideration has been given to the question of the Organisation of Medical Students arising under Minute 85 of the Annual Representative Meeting, 1910, namely :—

That the instruction contained in Minute 197 of the Annual Representative Meeting, 1909, relative to the formation of a British Medical Students' Union, be continued.

The Council is not in a position at this stage to make detailed recommendations on this very important subject, but arrangements are being made for bringing the organisation of the Association into closer touch with medical students and newly qualified practitioners, and a Standing Sub-Committee of the Organisation Committee will, in future, be appointed for the purpose of dealing with all matters connected with the organisation of medical students.

43. The Executive Committee of the Birmingham Meeting has been asked to make such arrangements as are possible to enable Birmingham Medical Students to attend the various meetings in Birmingham, and has also been asked to consider whether it will be possible to call a special meeting of local medical students at the time of the Annual Meeting to consider matters of special interest to them.

### PROMULGATION OF POLICY OF ASSOCIATION.

44. The Council has considered the following instruction of the Annual Representative Meeting, 1909 :—

Minute 271. That it be an instruction to the Central Council to investigate and report as to the best means for bringing before the Members those conclusions of this Representative Body, arrived at from time to time, which define the policy of the Association, with a view to their general acceptance and adoption throughout the Association.

At present the following procedure is adopted for bringing the Resolutions of the Representative Meeting under the notice of the Members, namely :—

(*a*) A full report of the proceedings of the Meeting is published in the BRITISH MEDICAL JOURNAL, and this report has always included all Resolutions which constitute declarations of policy.

(*b*) All Resolutions of the Meeting are automatically referred under the instructions of the Council, immediately after the Representative Meeting, to the appropriate Committees for consideration and report to the Council. Every Resolution which is of the nature of a declaration of policy and which the co-operation of the individual Members is necessary to carry into effect, is brought by the Council, on the advice of the Committees, especially to the notice of the Divisions. Under the present organisation of the Association, it is in the majority of cases necessary to look to the Divisions as the instruments for securing the effective co-operation of individual Members in carrying out the policy of the Association within the area of each Division.

45. In the opinion of the Council no further steps than the above are necessary or practicable for the purpose of bringing current decisions of the Representative Body under the notice of the Members.

46. The Council recognises, however, that inasmuch as the procedure above indicated has only been adopted in quite recent years, Members generally are possibly not conversant with the earlier declarations of policy of the Association. The time has arrived therefore when it appears desirable to prepare a compilation of the pronouncements of the Association on questions of professional policy which shall be available for reference by Members, and instructions have been given for the preparation of such a compilation.

### ANALYSIS OF BRANCH REPORTS.

47. A tabular analysis of the Annual Reports of the Branches will be found in the Appendix, p. 278 et seq.

### MATTERS UNDER CONSIDERATION.

48. Provision of Official Maps (Minute 198, A.R.M., 1909).

Resignation of membership of Association (Minute 98, A.R.M., 1910).

General question of Election of Members of Council by Branches outside the United Kingdom (Minute 110, A.R.M., 1910).

Publication of History of Application for a Charter (Minute 118, A.R.M., 1910).

Documents to be supplied to every Member (Minute 215, A.R.M., 1910).

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## British Medical Journal.

### REPORT OF COUNCIL ON MINUTES 74 (A) AND 84, A.R.M., 1910.

49. The Council has considered the following instructions of the Annual Representative Meeting, 1910 :—

### LEADING ARTICLES IN "JOURNAL."

74 (a). Resolved : That the following motion (Chelsea Division) be referred to the Council for consideration :—

That this Meeting requests the Council to cause to be inserted on the leader page of every issue of the JOURNAL a disclaimer, stating that the views expressed in the articles therein represent the opinions of the writer only, and not necessarily those of the general body of the British Medical Association.

### POLICY OF "JOURNAL."

84. That it be referred to the Council to consider the following motion (Kensington Division), and the whole subject to which it relates :—

That, in view of the fact that the BRITISH MEDICAL JOURNAL is the official organ of the British Medical Association, no definition of policy should be enunciated by the Editor of the JOURNAL, or comments made on any subject which is under discussion by any Committee or Sub-Committee of the Association, without the permission of the Chairman for the time being of that Committee or Sub-Committee.

*Memorandum.*

50. The motions in Minutes 74 (a) and 84 referred to the Council for consideration and report raise, from opposite standpoints, questions of principle affecting the mutual relations of the Association and the BRITISH MEDICAL JOURNAL.

51. In its function of maintaining the honour and interests of the Medical Profession, it is essential for the Association to have a press organ which can advance these objects as they are interpreted in the policy of the Association. At the same time the efficiency of the support given by the BRITISH MEDICAL JOURNAL depends on its reputation simply as a journal, and its successful conduct in the past must be recognised as contributing largely to the membership and to the present influence of the Association. One essential condition of this success has been the full personal responsibility of the Editor for the literary matter, and the Council deems it important to maintain this responsibility ; and, subject to the primary necessity of keeping the JOURNAL in harmony with the policy of the Association, to leave the Editor entirely free.

52. As a matter of practical detail, the Council deems it inadvisable to frame any specific regulations to provide for the communications between the various Committees, Honorary Officers and Officials, which are the necessary ministers of this harmony.

53. The Council also considers it inadvisable to adopt the suggestion of an official disclaimer. The authority for matters officially inserted in the JOURNAL is always explicitly stated. For other matters, the authority, while depending on the intrinsic accuracy, is authenticated either by the name of the writer, or by the responsibility of the Editor. The Council believes that to disclaim responsibility for the conduct of the JOURNAL would be incompatible with the maintenance of its prestige.

### Recommendations.

The Council recommends :—

(i.) That the Representative Body express the opinion that, while it must clearly always be the object of those responsible for the conduct of the JOURNAL to maintain harmony between the Editorial utterances and the policy of the Association, and that there should be such co-operation between the Departments of the Association as may be necessary to secure that object, it is undesirable to lay down specific provisions such as were suggested by the Kensington Division.

(ii.) That it is inadvisable to adopt the policy of the Chelsea Division as indicated in Minute 74 (a) of the Representative Body held in London.

### ADVERTISEMENTS IN THE "JOURNAL."

54. In reference to the following Resolution of the Representative Meeting, namely:—

> 55. That the Council be instructed to consider the advisability of excluding from the use of the advertisement columns of the JOURNAL as well as from the Students' Number of the JOURNAL, those bodies whose conduct is detrimental to the interests of the British Medical Association,

the Council reports that exclusion from the columns of the BRITISH MEDICAL JOURNAL of advertisements which it is not considered to be to the interest of the profession to publish has been for several years the practice of the Council, approved from time to time by the Representative Body. As regards the future, the Council considers it preferable to deal with individual cases upon their merits as they arise, without the adoption by the Representative Body of any general declaratory resolution or rule.

### LETTER FROM NATIONAL BRITISH WOMEN'S TEMPERANCE ASSOCIATION.

55. The Council has considered the following Minute of the Representative Meeting:—

> *Minute* 365.—Read: Letter from Countess of Carlisle written on behalf of the National British Women's Temperance Association.
>
> Resolved: That the letter be referred to the Council for consideration.

**The letter referred to raises the question of the publication of advertisements of certain preparations containing drugs and alcohol. While not considering it necessary to take action with regard to the preparations indicated, the Council recognized that the general question of the insertion of advertisements required attention as affecting the policy of the Association. The Association, being a body formed not for profit but for certain objects defined in the Memorandum of Association, and the publication of the JOURNAL being simply one of the means** by which the Association seeks to carry out these objects, the policy of the Association must override purely financial considerations when the two conflict. In its general professional policy, the Association has felt it to be its duty to attempt to restrict all forms of unqualified practice, and especially the use of secret remedies. Without entering into other questions of public policy, it is desirable to withhold any assistance which advertisement in the BRITISH MEDICAL JOURNAL could give those whose objects are evidently opposed to its own, and the Council has adopted regulations to this effect.

### REVIEW OF WORK OF YEAR.

56. During the year an increased number of reports relating to the scientific proceedings of Branches and Divisions has been received for publication in the BRITISH MEDICAL JOURNAL, a fact which is satisfactory evidence of the success of Honorary Secretaries in making meetings attractive to members. The different branches of medicine and surgery in which members of the Association are interested cover the whole field of medical activity throughout the British Empire, and include not only clinical and pathological problems arising in temperate but also those which present themselves in tropical and subtropical climates.

57. Moreover in the year under review the greater interest recently aroused in the relation of medicine to the State, and in the many social problems in which the profession is more or less intimately concerned has been intensified; the attention of members has been especiallly given to the great question of the organisation of medical attendance on the Provident or Insurance Principle as a part of the Government scheme for State Sickness and Invalidity Insurance. The interest aroused in this matter has been evidenced by the large number of letters, reports and addresses published in the JOURNAL which, the Council believes, have materially contributed to the fruitful consideration of the serious problems involved.

58. The calls on the space of the JOURNAL are indeed constantly increasing, and as it cannot be deemed advisable to increase materially the average number of pages in the weekly issue, the Council would appeal to members when addressing letters or other communications to the JOURNAL for publication to bear constantly in mind the very many activities of the Association which must find representation in the JOURNAL, and the large number of their fellow-members who may desire to see their views and experiences recorded.

59. The large number of sections comprised in the Annual Meeting in London and the great amount of work accomplished led to an unusual amount of material being received from this source for publication. As a consequence the number of pages contained in the second volume for 1910 is larger than in any previous year. Nevertheless the publication of the reports was concluded by the end of November or within four months of the close of the meeting. The Association has thus been able this year, as for many years past, to provide for the publication of scientific papers communicated to it more rapidly than probably any other scientific society.

60. The Council, at its meeting in January, 1911, placed on record its appreciation of the satisfactory manner in which Mr. C. Louis Taylor, the Assistant Editor, conducted the JOURNAL during the illness of the Editor, resulting from an accident. The Editor, on resuming his duties, expressed to the Journal Committee the pleasure with which he had received during his illness the resolution of sympathy passed by the Representative Body on July 22nd, 1910.

61. The interest taken by members in the publication of reports on secret remedies, embodying analyses of their ingredients printed in the JOURNAL in previous years and afterwards collected in a volume published under the title *Secret Remedies* has encouraged your Council to sanction further analyses of the same kind, and during the year reports were published upon: Medicines for Rheumatism, Gout and Neuralgia; Preparations for Eczema and other Skin complaints; Preparations for the Hair; The "Crimson Cross Remedies," besides reports on several individual preparations including:—Bath Salts for Rheumatism, and Tremol Treatment. Other similar reports are in preparation.

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## Science.

### SCIENTIFIC WORK OF THE ANNUAL MEETING.

62. The Scientific work of the Annual Representative Meeting is being organised in sixteen Sections, namely:—

Anatomy and Physiology.
Dermatology.
Diseases of Children.
Electro-Therapeutics and Radiology.
Laryngology, Otology, and Rhinology.
Medical Sociology.
Medicine.
Neurology and Psychological Medicine.
Obstetrics and Gynæcology.
Odontology.
Ophthalmology.
Pathology.
State Medicine and Industrial Diseases.
Surgery.
Therapeutics, including Dietetics.
Tropical Medicine.

### THE LIBRARY.

#### (*a*) *Additions to the Library.*

63. For the past four years, pending the rebuilding of the premises and the rehousing of the books, few additions have been made to the Library, but during the course of the present year, the Council, after reviewing the requirements of the Library, both as regards renewals and additions, has added many new books, and has authorised subscription to new periodicals. The Association is again indebted to many authors and publishers for the gift of books to the Library.

#### (*b*) *Lending Department.*

64. The Lending Department, which was inaugurated last year, has been used and appreciated by a considerable number of members, but it is probable that the existence of this department is not known so widely as the Council would wish. Instructions have therefore been given that a standing notice in reference to it shall appear in the "BRITISH MEDICAL JOURNAL" each week. A list of the periodicals, transactions, monographs, etc., which are available can be had free on application to the Librarian. A further list of some 3,000 volumes, which it has been decided to add to the Lending Department, is not yet ready, but will, it is hoped, be available during the course of the present year.

#### (*c*) *Grants of Duplicate Books.*

65. During the year duplicate volumes have been presented to the following Division and Branch Libraries: Scarborough, Guernsey and Alderney, Leigh, and the Perth Branch. Divisions or Branches which have established libraries or are proposing to establish them may find many volumes which would be useful to them in the Duplicate List, which will be furnished on application.

THE THERAPEUTIC COMMITTEE.

66. For a considerable number of years a Committee called the Therapeutic Committee has been appointed by the Council. The reference to the Committee in recent years has been as follows:—

(i) To furnish Members of the Association with information regarding new remedies.

(ii) To institute the definite investigation—experimental, clinical, or statistical—of new remedies.

(iii.) To make suggestions for the revision of the British Pharmacopœa.

Shortly before the Annual Meeting, 1910, the Committee undertook important researches towards the expenses of which the Council voted a grant of £200. A report of the result of these researches so far as then known will be included in the Supplementary Report of the Council.

67. The question of the status of the Therapeutic Committee has been taken into consideration, and in accordance with the general principle that the Science Committee constituted under the By-laws should exercise a general supervision over all the science work of the Association, has decided to constitute the Therapeutic Committee in future as a Sub-Committee of the Science Committee. This change has the concurrence of the members of the present Therapeutic Committee.

68. The Council has accordingly given a standing instruction that the Science Committee shall appoint at the commencement of each year a Standing Sub-Committee whose duty will be to promote, supervise, or direct research in Pharmacology and Therapeutics.

SPECIAL COMMITTEE ON TREATMENT OF SIMPLE FRACTURES.

69. The following Recommendation was made by the Section of Surgery at the London Meeting:—

That the Council of the British Medical Association be recommended to appoint a Committee to enquire into and report on the ultimate results obtained in the treatment of Simple Fractures, with or without operation.

The Council has appointed a Committee, as recommended, and the Committee has decided to limit its enquiry to Simple Fractures of the long bones which have occurred within the years 1906-10. A request has been made to surgical registrars, surgeons of large hospitals, and to the profession generally, for access to records and patients.

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## Medical Ethics.

RULES OF PROCEDURE IN ETHICAL MATTERS.

70. With reference to the following Minutes of the Representative Body:—

*Uniform Ethical Rules for Association.*

*Minute* 190.—That it is desirable that the Home Divisions of the Association should have a uniform code of Ethical Rules instead of having varying codes for different Divisions; and that the steps necessary for carrying this principle into effect be taken as soon as possible.

*Minute* 192.—That it is desirable that all the Home Branches should have uniform Ethical Rules, including Rule Z,

the draft Model Rules to govern the procedure of Divisions and Branches in ethical matters, which have been under consideration for the past two years, are now completed. They will be circulated to the Divisions and Branches, who will be asked to favour the Council with their criticisms and comments thereon. After consideration of these replies the draft Rules will be further revised, and the resulting document laid before the Representative Body. All Divisions and Branches will be requested to adopt the Rules as finally approved.

DEFINITION OF THE TERM "CONSULTANT."

*Definition of term "Consultant" in the Report on the Ethics of Consultation.*

71. In fulfilment of the undertaking stated in Minute 187 of the Annual Representative Meeting, 1910, namely:—

In response to a request from Dr. Grant Davie (Manchester South), the Chairman of the Central Ethical Committee undertook that the Committee should reconsider the definition of the term "Consultant,"

the Central Ethical Committee has considered and reported to the Council upon the advisability of any alteration of the definition of the term "Consultant" as given in the Report on the Ethics of Consultation. The South Manchester Division, having furnished at the request of the Committee suggestions as to the matters in respect of which the definition was considered to need modification, the Committee reported to the Council that in its opinion the points to which the South Manchester Division desired that attention should be given, related rather to the subjects dealt with in the Report on the position of Practitioners examining patients on behalf of other interested persons than to the subject matter of the Report on the Ethics of Consultation, and that the object desired by the Division would not be achieved by any alteration in the definition of the term "Consultant" contained in the last-mentioned Report.

It has been pointed out to the South Manchester Division that it will best secure due consideration of its views by forwarding for the consideration of the Council, or submitting through its Representative to the Annual Representative Meeting such amendments, if any, as may appear to it desirable, of the propositions contained in the Report on the position of Practitioners examining patients on behalf of other interested persons.

72. The Central Ethical Committee is still of opinion that it is desirable that the term "Consultant" should be confined to those cases in which the Practitioner called in in consultation is acting, like the Practitioner previously in attendance, solely in the interest of the patient, and that it should not be extended to include those cases in which the second practitioner (called the "Medical Inspector" in the above-mentioned Report) and the attending practitioner represent divergent interests. The Committee considers that it is undesirable to alter the definition of the term "Consultant," given in the Report.

### Recommendation.

The Council, concurring in these views, reports to the Representative Body accordingly, and recommends that the definition in question be not altered.

CO-OPERATION OF DIVISIONS IN ETHICAL CASES.

73. The Council reports to the Representative Body the result of protracted correspondence with the Yorkshire Branch and certain Divisions of that Branch on the one hand, and the East York and North Lincoln Branch and the East York Division on the other hand, respecting a case in which the Division and Branch last mentioned considered that in certain action taken by them for the maintenance of the honour and interests of the profession, their representations, addressed to certain Divisions of the Yorkshire Branch, did not receive the consideration to which they were entitled.

74. In reference to the case of a practitioner who had accepted an appointment, of the objections to which, both by the local profession and by the Association as represented by the Public Health Committee, he was previously fully aware, the East York Division had passed resolutions in the form required by Rule Z and had circulated them, with the approval of the Central Ethical Committe, both to all members of the Division and also to certain neighbouring Divisions which belonged to the Yorkshire Branch. The neighbouring Divisions were asked to take action in the matter in support of the East York Division. The Leeds and Scarborough Divisions expressed sympathy, but owing to the defectiveness of their Rules were unable to take any effective action. The York Division declined to take any action in the matter, and declined the offer of the East York Division that a representative of the latter Division should attend the meeting of the York Division to explain the position. The facts having been brought under the notice of the Central Ethical Committee, that Committee, considering that the difficulty was probably due to misunderstandings among those concerned, endeavoured in May last to convene a Conference of Representatives of all the bodies above mentioned. The Conference was to be held at York, and the Chairman of the Central Ethical Committee expressed his willingness to attend. The York Division declined, however, to appoint a representative to take part in the Conference. The position was then brought by the Chairman of Council, at the request of the Central Ethical Committee, to the notice of the President of the Yorkshire Branch. After further correspondence the matter was brought finally before a meeting of the Branch Council on March 15, 1911, when the following Resolution was carried:—

"That, having decided a year ago not to take action on the . . . . . Dispute, as not primarily concerning the Yorkshire Branch, and having heard that the York Divi-

sion, after careful consideration of the case at the request of the East York Division, resolved not to take action on the matter, this Council does not see its way to help in the initiation of a conference on the subject."

75. The Council expresses its regret at the unsatisfactory conclusion of the correspondence between the Central Ethical Committee and the Yorkshire Branch, through the unwillingness of the Branch Council and York Division to take certain action, as the efforts of the Association for the maintenance of the honour and interests of the profession must depend for success upon the existence of a spirit of cordial and loyal co-operation amongst its Branches and Divisions.

### Report on Special Class of Consultants.

76. In connection with the following Minute of the Representative Meeting, 1910, namely:—

Minute 181: That the Representative Meeting await the final report of the Council with the completed Returns from the Divisions as to a special class of consultants before coming to a decision, and that in their final Report the Council be requested to analyse the returns from the different Divisions, showing the nature and size of the Divisions making the respective replies.

the Council, after consideration of the further analysis of the replies from the Divisions, together with certain motions submitted by the Salford and Birmingham Central Divisions, has decided to take steps to call together in London, and possibly in other centres, conferences of representative consultants and general practitioners, to whom the whole question will be submitted. The Council will await the result of this consideration before submitting a further report to the Representative Body.

### Case Before the General Medical Council.

77. In the Supplementary Report of the Council to the Representative Body last year, it was reported that a case had been presented by the Association to the General Medical Council at its May Sessions, and had been adjourned to the November Sessions in order that the accused might produce further evidence. This case was one in which a London practitioner was charged with associating himself, as a member of its Committee and also as one of its Surgeons, with an Institution called the Eye and Ear Clinique, which advertised by pamphlets and in the public press. When the hearing of the case was resumed in November last the General Medical Council judged the practitioners in question to have been guilty of conduct infamous in a professional respect, and directed that his name be erased from the Medical Register.

### Cases of Expulsion.

78. The Council regrets to report that it has been found necessary to remove from membership of the Association, a member of the South Wales and Monmouthshire Branch, and also a member of the South Western Branch, who accepted and continued to hold appointments, the holding of which was in opposition to the declared views of the Divisions and Branches of which they were respectively members.

### Ethical Propriety of Voluntary Notification of Tuberculosis.

79. An application has been considered from a medical practitioner for advice as to his position in acceding to the request of the Local Sanitary Authority that he should voluntarily notify cases of tuberculosis occurring among his patients. The Council has advised, after conference with the Solicitor, that under any system of "voluntary" notification a medical practitioner who, without the knowledge and consent of a patient, gave information to the local authority that that patient was suffering from any infectious or contagious disease, would lay himself open to a charge of breach of confidence, and might incur liability to action for damages.

### Matters under Consideration.

80. Report on Relation of Homœopaths to the Association (Minutes 194 to 206, A.R.M., 1910).

Position of Practitioners Examining on behalf of Interested Persons (Minute 208, A.R.M., 1910).

## Medico-Political.

### Organisation of Medical Attendance on a Provident or Insurance Basis.

81. Under the instruction of the Council the Special Poor Law Reform Committee, together with the Contract Practice Sub-Committee, have been engaged in considering the resolutions passed by the Annual Representative Meeting, 1910, with respect to the report circulated to the Members of that Meeting on a Centrally Controlled National Provident Service. As a result of its consideration of the discussion at the Annual Representative Meeting, of communications subsequently received from certain Divisions and Members, and of the information at the disposal of the Council with reference to the proposals of the Government to institute a system of State Sickness and Invalidity Insurance, an entirely new report was issued to the Divisions in March. (For report see Supplement, March 4th, 1911.) Accompanying the report was a series of questions which the Divisions were asked to answer so as to enable the Council to formulate the policy of the Association in regard to this important subject. Judging from the replies of the Divisions, and from the interest taken in the meetings called to consider this subject, a considerable number of which were addressed by the Medical Secretary and the Deputy Medical Secretary, the matter is receiving the great attention which it deserves. On receipt of the replies, and on consideration of the State Sickness Insurance Bill of the Government the introduction of which is imminent at the time of issue of this Report, a further report will be issued to the Divisions and a Special Representative Meeting called to consider the whole subject.

### Coroner's Law and Death Certification.

*Action on General Question.*

82. The duty of taking suitable action to give effect to the following Minutes of the Representative Meeting has been referred to the Parliamentary Sub-Committee.

*Minute* 344.—Resolved: That the Association continue its efforts to prevent the passing by Coroner's Juries of riders which include reflections upon the conduct of individuals who have not been afforded the opportunity of giving evidence on their own behalf.

*Minute* 345.—Resolved: That the following recommendation of Council be adopted (paragraph 24 of the Special Report of Council on Reports of Departmental Committee on Coroners Law, etc.):—

That the Representative Meeting instruct the Council to approach the Lord Chancellor and the Home Secretary and press upon them the views of the Association in reference to death certification and registration, and the Coroner and his court, and to take all steps necessary to secure adequate reform therein.

*Minute* 346.—Resolved: That the remainder of the Special Report of Council on the Reports of the Departmental Committee on Coroners Law, etc. (Paragraph 1-24) be approved.

*Action concerning Coroners' Law and Death Certification (Amendment) Bill.*

83. The Coroners Law and Death Certification (Amendments) Bill, introduced into the last Parliament by Sir William Collins, received careful attention, and instructions were given for action to be taken immediately with a view to preventing the passage into law of certain of its provisions. The Council at its October meeting passed the following resolution.

That the Council express on behalf of the British Medical Association strong disapproval of the provision in the Coroners Law and Death Certification (Amendment) Bill, introduced into Parliament by Sir William Collins, under which is contemplated the imposition upon medical practitioners of statutory duties in their professional capacity without remuneration, and that it be an instruction to the Parliamentary Sub-committee to take all necessary action to oppose such Bill.

It has been brought to the notice of the Council that Sir William Collins explained in the course of a debate in the Section of State Medicine, at the Annual Meeting, 1910, that the features in the Bill objected to by the Association could be removed when the Bill was in Committee.

Owing to the dissolution of Parliament the Bill in question disappeared, and in the new Parliament the time of the House is so largely taken up by the business of the Govern-

ment that the chance of any Bill upon such lines becoming law is extremely remote. Arrangements have, however, been made for watching the progress of any Bill dealing with tie subject, and if such a Bill be introduced, prompt action wll be taken to protect the interests of the profession.

### LEGISLATION RE ADMINISTRATION OF ANÆSTHETICS.

84. The Section of Anæsthetics at the Annual Meeting, 1910, resolved as follows :—

> The Section of Anæsthetics fully approves the form of the proposed legislation suggested by the General Medical Council, and by the Departmental Committee of the Home Office respectively, and recommends the Council of the British Medical Association to take such steps as they may think desirable to represent to the Privy Council and to the Home Secretary the need for the proposed legislation in the interests of the public safety.

The Council, has considered, in this connection, the position taken up by the General Medical Council, the Departmental Committee of the Home Office, and the Association itself, as regards proposed legislation on Anæsthetics.

#### *Consideration of Draft Anæsthetics Bill.*

85. The Council on behalf of the Association has expressed approval of the draft Anæsthetics Bill (referred by the Privy Council to the General Medical Council, and considered by that body on November 23rd, 1910), as being accordance with the general policy of the Association, subject (i.) to Clause 2 of the draft Bill being amended as recommended by the General Medical Council, to prevent the administration by unqualified persons of local anæsthetics applied to unbroken surfaces, and (ii.) to the inclusion of nitrous oxide, as also recommended by the General Medical Council, as the only substance to be named in the Schedule to the Bill. The Council expressed disagreement with the Recommendation of the General Medical Council that special provision should be made in the Bill to enable registered dentists to administer the scheduled anæsthetics under the direction of registered medical practitioners for surgical operations, inasmuch as there is no reason for discriminating in this respect between registered dentists and any other persons who might, under the provisions of the draft Bill, adminster any anæsthetic under the supervision of registered medical practitioners.

86. Representations in accordance with the foregoing decisions have been made to the Privy Council and the General Medical Council.

### UNQUALIFIED PRACTICE.

87. The Council has considered a communication from a Member of the General Medical Council, drawing attention to the very disappointing character of the Report on Unqualified Practice recently published by the Local Government Board, and suggesting that the Association should issue a circular to the Honorary Secretaries of those Divisions from whose areas no information was received by the Local Government Board, urging them to collect information on the subject. Authority had previously been given by the Council for such work to be done, but action was postponed pending publication of the Report of the Local Government Board. Such a circular will shortly be issued, and the Council hopes that the Divisions will use their machinery for the purpose of collecting complete information as to the prevalence of the various kinds of Unqualified Practice in their areas

### SALE OF PATENT MEDICINES.

88. The policy of the Association in regard to the sale of patent medicines has received important recognition and support from the Association of County Councils in Scotland. In response to an application from a Member of the Dumbarton County Council, who desired to initiate local action, with a view to the regulation or suppression of the trade in proprietary medicines, information was supplied as to the policy of the Association. As a result, the County Council decided to make representations to the Association of County Councils in favour of the immediate amendment of the Food and Drugs Act in order to include restrictions on the trado in secret remedies, such as the British Medical Association has recommended. The Association of County Councils has resolved to make representations to the Government in the sense indicated.



### AMENDMENT OF MIDWIVES ACT.

#### *Action by Council.*

89. The Lord President of the Privy Council and the President of the Local Government Board were duly approached in accordance with the instructions contained in Minute 272 of the Annual Representative Meeting, 1910, namely :—

> That steps be taken forthwith to obtain the reception by the Lord President of the Council and the President of the Local Government Board of a deputation in order to place before them the views of the Association with reference to the proposed Bill to amend the Midwives Act.

The Lord President replied that the subject was fully discussed in the House of Lords, and was now before the House of Commons, where the President of the Local Government Board had charge of the Bill.

#### *Deputation to President of Local Government Board.*

90. The President of the Local Government Board received a deputation from the Association on November 8th, 1910. In the course of the interview, Mr. Burns promised to give consideration to the views of the Association as regards the local authority through which payment should be made to medical men called in to assist Midwives, a matter which he indicated was still under consideration by the Government. He also stated his willingness, in the event of the Bill becoming law, to arrange for representatives of the British Medical Association to interview the Chief Medical Officer of the Local Government Board, and other officials of the department concerned, on the subject of the Rules which the Local Government Board should prescribe, and other details affecting the profession, which would be referred to the Board.

### STATE REGISTRATION OF NURSES.

91. Communications have been addressed to the Prime Minister and the President of the Local Government Board in accordance with Minute 271 of the Annual Representative Meeting, namely :—

> That this Meeting of the Representatives of the British Medical Association reaffirms its opinion that the State Registration of Trained Nurses is desirable, and approves of the Bill which has been recently introduced in the House of Commons by the Right Hon. R. Munro Ferguson; and that a copy of this Resolution be forwarded to the Prime Minister and the President of the Local Government Board.

Acknowledgments only have been received.

The Bill, which was approved by the Representative Meeting, 1910, has again been introduced by Mr. Munro Ferguson, but in the present state of business in Parliament has little chance of consideration.

### NURSING ASSOCIATIONS.

#### *Model Rules.*

92. The Council has considered Minute 255 of the Annual Representative Meeting, 1910, approving the draft Model Rules of District Nursing Associations submitted to the Representative Meeting by the Council, and also Minutes 254 and 254(a) of that Meeting, namely :—

> Minute 254: Upon a request by Mr. Armit, the Chairman of the Medico-Political Committee undertook to redraft the Rules so as to include District and County Nursing Associations.
>
> Minute 254 (*a*) "Resolved : That the word 'District' be deleted from the heading of the Rules."

Effect having been duly given to Minute 254 (*a*), it was considered that no further alteration of the Rules was necessary to give effect to Minute 254. The policy of the Association having now been determined, the Council considered that the time was ripe for bringing it to the notice of all concerned. Accordingly the Model Rules were forwarded to the Queen Victoria's Jubilee Institute for Nurses, and to every County Nursing Association. Copies were also forwarded to the Divisions with a request that the matter should be considered with a view to representations being made to those local Nursing Associations whose methods of working, or the methods of whose Nurses, had been found to be unsatisfactory to the profession. Many enquiries have been received from Nursing Associations, and it is evident that the circulation of the Model Rules has been useful in bringing the policy of the Association before the eyes of those responsible for the working of these bodies. Several Divisions have also reported that they are taking action.

*"Covering" in connection with Nursing Associations.*

93. As affecting the general subject of Nursing Associations, the Council has also considered the following correspondence with the General Medical Council upon certain questions of "covering" that have been raised in connection with such Associations. A Member of the Association brought to the notice of the Medico-Political Committee in August, 1909, the difficulties of the local profession with a local Nursing Association. One of the points of objection was that the nurse was allowed to attend not only maternity but other cases, without calling in a doctor. To her attendance on the maternity cases there could be no objection, she being a registered midwife.

In the course of the proceedings which ensued, the Member in question reported the following correspondence between himself and the Registrar of the General Medical Council:—

*September 2nd*, 1909.

DEAR SIR,

Could a qualified medical practitioner be by any chance held guilty of "covering" under the following circumstances:—

1. As a member of a Committee supervising a district nurse when the nurse habitually attends patients in general illness independently of a doctor—the nurse being paid a regular salary but receiving patients' fees, and handing them over to the Committee?

2. If (not being a member of such a Committee) he continually goes to the assistance of the nurse, knowing that she is in the habit of attending cases of general illness independently of a doctor?

I should be greatly obliged and assisted by the favour of your reply to these two questions.

I am,

Yours faithfully,

(Signed)

H. E. Allen, Esq.,
Registrar of the General Medical Council,
299, Oxford Street.

General Council of Medical Education and
Registration of the United Kingdom,
299, Oxford Street, W.

DEAR SIR,

I have received your letter of yesterday, and I cannot do better than send you the enclosed copy of the Council's resolution dealing with "covering." If you look at the second paragraph you will see that the terms of the Resolution are very wide, and in the event of a properly formulated complaint being made it might become the duty of the Council to take action.

Nursing Associations may virtually employ unqualified persons to attend and treat patients, other than midwifery patients, as if they were qualified, and they may adopt methods of touting or canvassing to procure patients for these unqualified persons. Of such proceedings the Council must most strongly disapprove, but the Associations are beyond its jurisdiction, and it could only protect the public, which is the first duty laid down by the Medical Act, 1858, by exercising its disciplinary functions in regard to the practitioners who lend themselves to "covering" such organisations by associating with those so acting.

In the case of a midwifery nurse who, under cover of her certificate, is undertaking medical and surgical treatment, her conduct might with advantage be brought to the notice of the body who granted her certificate, or of the Central Midwives Board.

Yours faithfully,
(Signed) NORMAN C. KING,
*Assistant Secretary.*

The Registrar of the General Medical Council having informed the Association that there was no objection to the publication of this correspondence, it was printed in the Journal of December 31, 1910, and was circulated to the Secretaries of the Divisions and Branches of the Association.

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

*Action of Divisions consequent on issue of Report on Treatment of School Children.*

94. A Memorandum of the Association on the Treatment of School Children found upon Inspection to be defective, which was presented to the Annual Representative Meeting, 1910, was referred to the Divisions, some of which have taken action.

95. Since the issue of the Report the Committee has been engaged in advising Divisions in cases of difficulty experienced by them in giving effect to the recommendations in the report in question. Representations have come from so many sources that the onus of certifying as to the economic status of the school children should not be laid upon the medical profession, that the Council has decided to eliminate this principle from the scheme of the Association in any further report to the Divisions.

96. A further report will shortly be issued to Divisions containing advice as to procedure, and urging those Divisions which have not moved in the matter to do so.

*Representations to the London County Council in regard to Policy of the Associations.*

97. Representations have been made by the Council and by the Metropolitan Counties Branch to the London County Council in support of various items of the Association's policy in respect of medical inspection and treatment of school children. The County Council was informed that in the opinion of the Association the inquiries at present made into the economic status of the parents of school children treated at hospitals on behalf of the London County Council were inadequate.

*London County Council School Medical Officer Appointments.*

98. Complaints have been received from time to time from members in London as to the hardships which it is alleged that such members suffer, in comparison with non-members, owing to the non-advertisement in the BRITISH MEDICAL JOURNAL of posts of School Medical Officers under the London County Council which are advertised in other medical journals and thus escape the attention of those members who rely entirely on the BRITISH MEDICAL JOURNAL for information. This question has been carefully considered in conjunction with representatives of the Metropolitan Counties Branch.

The Council is of opinion that, notwithstanding the acceptance by many Members of the Association of these posts at a salary lower than the minimum approved by the Association, namely, £50 per annum for an attendance of half a school day per week, and £150 per annum for three half days per week, there is no case for recommending alteration in the policy of the Association, which is still believed to be the best in the general interests of the profession.

*Sight Testing of Children in London: Representations to the London County Council.*

99. A pamphlet having been issued by the Education Committee of the London County Council warning parents against having the sight of their children tested by opticians, a Deputation from the Worshipful Company of Spectacle Makers approached the Chairman of that Committee with a view to having the pamphlet withdrawn. The Emergency Committee of the Metropolitan Counties Branch asked for the co-operation of the Council in making immediate representation to the County Council upon the subject. A Memorandum framed in accordance with previous pronouncements of the Association was drawn up and forwarded to the Chairman of the Education Committee, and the Royal Colleges of Physicians and Surgeons were informed of the action of the Association and asked for their co-operation, in view of the fact that the deputation from the Company of Spectacle Makers had seriously misrepresented the view taken by these bodies.

A reply was received from the County Council to the effect that that body was advised of the correctness of the views of the Association, but, being anxious that the pamphlet complained of should cast no reflections upon opticians, they had decided to alter the wording of the sentence objected to by the opticians to read as follows:—

> The children may require spectacles, but these should be worn only when prescribed by a doctor. The children's eyes should never be tested by opticians, or eyesight specialists, as these do not use the necessary drugs.

The result of the representations made was accepted by the Council as satisfactory to the profession, and no further action was taken. Replies were received from the Royal College of Physicians and the Royal College of Surgeons thanking the Association for drawing their attention to the misrepresentation of their views.

*Definition of the term "Fully experienced and thoroughly competent Whole-time School Medical Officer."*

100. Attention having been drawn to the difficulty experienced in interpreting the words "fully experienced and thoroughly competent," contained in the following paragraph (3) (i.) on page 11 of the Report approved by the Annual Representative Meeting, 1909, on Medical Inspection of School Children and Treatment of those found Defective, namely :—

*Systems of Payment: (i.) By Fixed Salary.*

On the subject of salaries the Association has already approved the suggestions of the Medico-Political Committee, namely, that for a fully experienced and thoroughly competent whole-time School Medical Officer the commencing salary should not be less than £500 per annum, and that for Junior or Assistant School Medical Officers the salary should not be less than £250 per annum. These sums are to be understood as exclusive of travelling expenses, clerical assistance, cost of stationery, postage, etc.,

**Recommendation.**

the Council recommends that the paragraph in question be amended so as to read :—

On the subject of salaries the Association has already approved the suggestions of the Medico-Political Committee, namely, that for whole-time Junior or Assistant School Medical Officers the commencing salary should not be less than £250 per annum, and that for more experienced whole-time School Medical Officers the commencing salary should not be less than £500 per annum. These sums are to be understood as exclusive of travelling expenses, clerical assistance, cost of stationery, postage, etc.

*Whole-time Specialists and Officers for Medical Treatment of Defective School Children.*

101. The attention of the Council having been drawn to the subjects of (i.) the engagement of whole-time medical officers, and (ii.) the engagement of specialists, for the treatment of defective school children, it appears desirable that the policy of the Association in relation to these matters should be defined. A report has accordingly been drawn up (see Appendix, p. 287).

**Recommendation.**

The Council recommends that the Report in question and its accompanying Recommendation, be approved by the Representative Body.

FEES FOR EXAMINATION OF INSURANCE CASES.

102. The whole question of fees for examination of Insurance cases is still under the consideration of the Council, but owing to the pressure of more urgent matters the consideration of the subject has not been advanced during the present session.

103. Several complaints having been received from various parts of the country in reference to the introduction by the Royal London Mutual Insurance Company of a new Scale of fees for medical examinations which was considered extremely unsatisfactory, the Council has caused to be issued to the Divisions a circular drawing attention to the scale of fees in question, and suggesting that the Divisions should consider the desirability of taking local action to prevent such a lowering of the standard of medical remuneration. Many Divisions have acted on this suggestion.

FEES FOR AMBULANCE, ETC., LECTURES.

104. Concerning the following Minutes of the Representative Body :—

*Minute* 259.—Resolved (two dissentients) :—That members of the medical profession should be suitably remunerated for teaching subjects in connection with the Public Health, such as Nursing, First Aid to the Injured, and Hygiene, and that the fee adopted by the London County Council of £1 1s. for each lecture is one which appears suitable for general adoption.

*Minute* 263.—Resolved (*nem. con.*) :—That a fee should be charged for Ambulance Lectures given to the British Red Cross Society, and that the fee be not less than £1 1s. for each lecture.

*Minute* 264.—Resolved :—That the Council be instructed to take all possible steps to carry into effect the last two Resolutions as to Ambulance and other Lectures.

*Action by the Council.*

The Council has noted Minutes 259 and 263 as instructions for its guidance in future action.

105. With reference to Minute 264 the Council considered that the possible action fell under three heads, namely, (i.) action by Divisions to bring the decisions of the Representative Body under the notice of their own members and members of the local profession, and secure their co-operation in giving effect to them ; (ii.) action by the Divisions in notifying various local bodies, such as the local Branches of the St. John Ambulance Association or the Red Cross Society, as regards first aid, and local public authorities as regards instruction in hygiene, etc., of the decision of the local profession concerning the terms upon which work of the kind will be undertaken ; and (iii.) communications from the Council of the Association to the Council of the St. John Ambulance Association and bodies of the like nature.

*Proposed Action by Divisions.*

106. A Memorandum was forwarded to the Divisions indicating the procedure necessary to secure (*a*) due consideration of the subject by the local profession, (*b*) the adoption of suitable resolutions as to the course to be taken by members of the Division and members of the profession who desire to co-operate with the Division, and (*c*) the issue of a circular to the members of the Divisions and the profession generally informing them of the decision arrived at with a view to their support. The Divisions were also advised to notify the various lay bodies locally concerned of the decision of the local profession.

*Communications to Central Ambulance Bodies.*

107. A communication was sent on behalf of the Association to the St. John and St. Andrew Ambulance Associations and the British Red Cross Society, informing these bodies of the policy of the Association as determined by the Representative Body.

*Questions re Scope of Resolutions of Representative Body.*

108. Since the issue of the Report, various questions have been submitted both by Divisions and by individual members, chiefly as to whether the resolutions of the Representative Body were intended to apply to lectures given to ladies' classes, Church Lads' Brigades, Boy Scouts, Bands of Hope, etc.

The Council has expressed the opinion that the resolutions in question were intended to apply to lectures given to ladies' classes in ambulance and kindred subjects, but that Divisions should exercise discretion as regards the application locally of the principle of Minute 259 to lectures given to Church Lads' Brigades, Boy Scouts, Bands of Hope, and similar organisations.

SHIP SURGEONS.

109. In consequence of representations made by members of the Association interested in the conditions of service of Ship Surgeons, the Council has instituted a special Sub-committee to deal with this question. The Sub-committee is composed partly of members of the Medico-Political Committee, and partly of members of the Association having special experience of the problems to be considered, and an attempt will be made to get into touch with all Ship Surgeons by the appointment in every large passenger port of Correspondents of the Sub-committee.

CONDITIONS OF SERVICE OF PATHOLOGISTS AND BACTERIOLOGISTS.

110. The Council reports that in accordance with the instructions contained in the following resolution of the Annual Representative Meeting, 1909, it has considered, in conference with representatives of the Pathological Society of Great Britain and Ireland, the conditions of service of pathologists and bacteriologists attached to public institutions :—

*Minute* 172. That the conditions of service of pathologists and bacteriologists who are registered medical practitioners and attached to public institutions and bodies should be considered by the Council, if possible jointly with a representative Pathological Society, and reported on, and recommendations made at the next Annual Meeting.

**Recommendation.**

The Council is of opinion that such inquiry has revealed no general grievance ; and that the variety of the conditions under which such appointments are held renders it difficult and undesirable to make any suggestions of general application.

### INSTITUTION OF POST GRADUATE COURSES AND OF DIPLOMA IN PSYCHOLOGY.

111. The Council has considered the following resolution of the Section of Psychological Medicine and Neurology :—

> That this meeting of the Section of Psychological Medicine and Neurology assembled at the Annual Meeting of the British Medical Association in London, 1910, believing that it would tend to advance our knowledge of the pathology and treatment of mental diseases, strongly approves of and recommends the institution of a post-graduate course of curriculum and a diploma in Psychology, and further that this Resolution be brought before the Council of the British Medical Association.

The Council concurs in the opinion of the Section of Psychological Medicine concerning the desirability of the institution of post-graduate courses in Phychology and Neurology, but regards the institution of any special diploma in these subjects as unnecessary and inadvisable.

### ROYAL COMMISSION ON DIVORCE AND MATRIMONIAL CAUSES.

112. An invitation was received from the Royal Commission on Divorce and Matrimonial Causes for the Association to give evidence before that Commission. The Council referred the matter to certain officers of the Association to consider what evidence, if any, should be submitted to the Royal Commission, and authorised them to nominate experts (members of the Association) to give evidence before the Commission on behalf of the Association.

113. After communication with the Secretary of the Royal Commission the Officers of the Association were satisfied that the evidence of the Association should be confined to the subject of insanity as a ground for divorce, and nominated the following eminent alienists as able to give evidence which would represent not only their individual opinions, but the present state of medical knowledge on the subject :—

> Dr. Thomas Smith Clouston, Lecturer on Mental Diseases, Edinburgh University, and formerly Physician and Superintendent Royal Asylum, Edinburgh.
>
> Dr. Robert Jones, Lecturer on Mental Diseases, St. Bartholomew's Hospital Medical School, and Resident Physician and Superintendent, London County Asylum, Claybury.
>
> Dr. T. B. Hyslop, Lecturer on Mental Diseases, St. Mary's Hospital Medical School, and Resident Physician, Bethlem Royal Hospital.

In furnishing these names the Association explained that the questions stated in the reference to the Royal Commission did not seem to involve any points upon which it would be advantageous to attempt to collect and analyse the opinions of members generally, and that the Council had simply nominated certain gentlemen as above stated, whose evidence was thought to represent the present state of medical knowledge on the subject.

114. These witnesses gave evidence before the commission on October 25th, 1910. The Chairman of the Commission asked whether the witnesses would be prepared, and subsequently whether the Association would be prepared, to frame a draft clause suitable for incorporation in an Act of Parliament, which would give effect to the substance of the recommendations made by the witnesses. The Council, after consideration of the matter, authorised the drafting of a clause under conditions which should make it clear that it embodied the views of the witnesses appointed by the Association, and not of the Association itself, and that the Association made no suggestion or recommendation in the matter.

### METRIC SYSTEM.

115. The Council has issued to the Divisions a report in accordance with instructions contained in the following Minute of the Annual Representative Meeting, 1908 :—

> *Minute* 758. That the Representative Meeting approves in principle of the adoption of the Metric System for prescribing and dispensing, subject to evidence of practicability, and that it be an instruction to the Council to consider and report to the Divisions as to a procedure whereby the system could be introduced with the least inconvenience to medical practitioners, it being left to each division to take such further action as it may deem advisable.

(*For Report see Supplement to Journal of April 29th, 1911.*)

### ELECTION OF DIRECT REPRESENTATIVES OF THE MEDICAL PROFESSION ON THE GENERAL MEDICAL COUNCIL.

116. The question of action, if any, to be taken by the Association in view of the election next November of Direct Representatives of the Medical Profession on the General Medical Council has been considered, and regard has been had to the provisions of the Scheme which was adopted by the Annual Representative Meeting, 1904, and to the subsequent action of the Representative Meeting, 1906, in reference thereto.

117. The Council notes that the Representative Meeting, 1906, after considerable amendment of the Declaration contained in the Scheme, found itself unable, in view of the difficulties arising in connection with that Declaration, to proceed with the matter on that occasion.

118. The Council is of opinion that it is desirable that action should now be taken by the Association upon the general lines indicated in that Scheme, but omitting the Declaration of candidates in view of the difficulties to which it previously gave rise, and has instructed the Medico-Political Committee to proceed to secure nominations from the Divisions, in order that the Representative Body may be in a position at Birmingham to deal with the matter if it think fit. For this purpose a procedure has been adopted on the lines generally approved in 1906 but so as to avoid the objections then taken. (See Appendix p. 288.)

### COUNTY COUNCIL ELECTIONS.

119. The Council has considered a proposal that some action should be taken on behalf of the Association in approaching candidates for County Council Elections analogous to that which has been taken at Parliamentary Elections. Having regard to the increasing number of matters in which the work of County Councils affects the interests of the public and the Medical Profession, the Council considers it advisable that some suggestions should be made to Divisions and Branches on the subject, and has, therefore, directed the preparation of a list of subjects and questions in reference thereto which could be circulated for general use, it being left to each Division and Branch to make such additions as it thinks proper for the purpose of dealing with matters of special local interest.

### ACTION TAKEN IN CONTRACT PRACTICE CASES.

120. Action has been taken since the last Representative Meeting in the following cases in connection with Contract Practice appointments :—

> Wallsend (Shipyard appointments), Luton (Contract Practice appointments generally), Nottingham Premier Assurance and Collecting Society (Medical Officer appointments), Lillishall, Salop (Collieries Accident Fund appointment), Llanerch and Braenysuchan (Collieries appointment), Coventry (Provident Dispensary appointments), Eastchurch (Medical Benefit Society appointment), Winkleigh, Devon (Friendly Societies appointment), Burwell (Temperance Society appointment), Manchester, Cheetham Hill district (Club appointments), Norwich (Rechabite Club appointments), Transvaal (Medical appointments generally), Nantymoel (Wyndham Collieries appointment), Middlesbrough (Friendly Societies Association appointment), Welsh National Memorial to King Edward (Appointments of Lecturers on Prevention and Cure of Tuberculosis), Winchburgh, Linlithgowshire (Works Club appointment), Goulburn, New South Wales (Medical appointments generally), Cwmtillery and Rose Heyworth (Colliery appointments), Ebbw Vale (Colliery appointments), Fulham (P.S.A. Sick Club appointment), South Australia (Friendly Societies), Abergavenny (Oddfellows' Club), Birmingham (Provident Sick Club), Burra Islands, Shetland (Medical Association), Chesterfield (Medical Aid Society), Highampton (Rechabites Club), Rhymney Valley (Colliery Club), and Merthyr Vale (Colliery Club).

### ACTION TAKEN WITH RESPECT TO APPOINTMENTS OF SCHOOL MEDICAL OFFICER AND OTHER PUBLIC APPOINTMENTS.

121. Action has also been taken in regard to the following Public appointments :—

> Inverness (School Medical Officer), Colchester (Assistant School Medical Officer), Radnor (County Medical Officer of Health and School Medical Officer), Bootle (School Medical Officer, Police Surgeon, etc.), West Suffolk (County Medical Officer of Health and School Medical Officer), Walthamstow (Ophthalmic Surgeon to Education Authority), Lincoln (Assistant School Medical Officer and Assistant Medical Officer of Health), Worcester City (Assistant Medical Officer of Health and School Medical Officer), Worcester County (Assistant School Medical Officer), and Isle of Wight (County Medical Officer of Health and School Medical Officer).

CENTRAL EMERGENCY FUND.

122. The total amount subscribed to this fund during 1909 was £222 13s. 0d. ; that received from January 1st to December 31st, 1910, was £208 4s. 6d. These sums are so inadequate as a reserve for the purposes for which the Fund was formed, that the Council has felt it necessary to make a special effort to place it in a financial position commensurate with its importance. This is the more urgent in view of the possible demands which may be made upon the Fund in consequence of action taken in dealing with important current State problems. The Council has issued a special appeal to the profession and hopes to raise a sum of not less than £5,000 by the time of the Annual Meeting, and in this effort ventures to ask for the loyal support of every member of the Association.

## Public Health and Poor Law.

PATHOLOGICAL BRANCH OF THE PUBLIC HEALTH SERVICE.

123. The Council has considered the following instruction of the Representative Meeting, 1910 :—

*Minute 320.*—Resolved : That the following motion be referred to the Council for consideration and report :—

That the Central Council of the Association do seek information from the Divisions as to the need for a pathological branch of the Public Health Service, and report on the same to the Annual Meeting of 1911.

It appears to the Council that the question of the desirability or practicability of the organisation of a special Pathological Branch of the Public Health Service is not a matter upon which the Divisions would, in the first instance at all events, be in a position to give such assistance as to justify troubling them with a reference at the present stage. The Council has directed that enquiries be made from any persons or bodies competent to advise as to the desirability of the constitution of a pathological branch of the Public Health Service.

WHOLE-TIME MEDICAL OFFICERS OF HEALTH.—MINUTE OF THE ANNUAL REPRESENTATIVE MEETING, 1909.

124. The Council has had under consideration Minute 315 of the Annual Representative Meeting, 1910, concerning the re-drafting of Minute 234 of the Annual Representative Meeting, 1909, namely :—

*Minute 315.*—That this Meeting, while affirming its adherence to the principle expressed by Minute 234, namely, that in the Public Health Service, the system of whole-time is preferable in principle to that of part-time appointments, instructs the Council to reconsider the wording of the Minute and to submit a revised recommendation to the next Representative Meeting in order to make clear (i.) that the Association does not advocate but disapproves the compulsory termination of the office of present holders, where efficient, of part-time, annual, or other short term appointments ; (ii.) the meaning of the term "consultant" as used in Minute 234.

*Minute 234* of the Annual Representative Meeting, 1909, above referred to :—Resolved : That in the interests of the Public Health and in view of the multiplicity of duties thrown upon Medical Officers of Health by recent enactments, it is desirable that, in future appointments, Medical Officers of Health should be required to devote their whole time to the duties of their office, and be debarred from private practice, except as consultants ; that they should be adequately paid, and, if necessary, districts should be grouped for the purpose ; and that it is further desirable that Medical Officers of Health should be protected in carrying out their duties, and be secured from capricious dismissal or reduction of salary and that they may be allowed to participate in any superannuation scheme approved by a Local Government Board.

125. The Council reports to the Representative Body that, in accordance with the instructions contained in the above Minute the wording of Minute 234 of the Annual Representative Meeting, 1909, has been reconsidered.

### Recommendation.

The Council recommends :—That the following amended form of Minute 234 of the Annual Representative Meeting, 1909, be adopted :—

That, in the general interests of Public Health and of the Medical Profession, it is desirable (i.) that Medical Officers of Health should, as a rule (and without prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties ; (ii.) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable ; (iii.) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme and (iv.) that all Medical Officers of Health should be protected, in the proper discharge of their duties, against capricious dismissal or reduction of salaries.

MINUTES 316 AND 317 (A) OF THE ANNUAL REPRESENTATIVE MEETING, 1910.

126. In connection with Minute 315, the following Minutes 316 and 317 (a) of the Annual Representative Meeting, 1910 :—

*Minute 316.*—After discussion, and with the consent of the Meeting, the following motion and amendment were referred to the Council with the previous resolution :—

That, in the interests of public health, Medical Officers of Health should have security of tenure, and that in all boroughs and large urban districts, where practicable, whole-time appointments be made, with adequate salary.

That the words "in all boroughs and large urban districts" be deleted.

*Minute 317.*—(a) That the following motion be referred to the Council :—

That, while approving of the principle of whole-time Medical Officers of Health for the larger towns, this Meeting is of opinion that in the rural districts the system is unsatisfactory and impracticable.

The Council finds that the amendment contained in Minute 316 is inconsistent with the decision of the Representative Body as stated in Minute 315 of the Annual Representative Meeting, 1910, and that the substance of the motion contained in Minute 317 (a) is sufficiently dealt with in the Recommendation made as to the revision of Minute 234 of the Annual Representative Meeting, 1909.

PART-TIME PUBLIC APPOINTMENTS, OTHER THAN THOSE OF MEDICAL OFFICERS OF HEALTH.

127. The Council has had under consideration Minutes 317 (*b*) and 318 of the Annual Representative Meeting, 1910, referred to the Council, relating to part-time public appointments, other than those of Medical Officers of Health :—

*Minute* 317 (*b*) :—That the following motions be referred to the Council :—

. . . . . .

(*b*) That in every form of public medical service the system of part-time appointments (other than those of medical officers of health) of medical practitioners should be maintained as far as such appointments can be made consistently with the requirements of the services, and that all public medical officers should be protected in carrying out their duties, should be secured from capricious dismissal or reduction of salary, and should be allowed to participate in any superannuation scheme approved by the Local Government Board.

*Minute* 318 :—That the question of compensation for disturbance be referred to the Council for consideration.

### Recommendations.

The Council recommends :—

A. That the term "part-time appointments," occurring in the above Resolution, be understood as meaning appointments, the holder of which is permitted to engage in private practice.

B. That the following statements of principle be approved:

(i) That all public medical officers should be protected in carrying out their duties.

(ii) That all public medical officers should be secured from capricious dismissal or reduction of salary.

(iii) That all public medical officers should be allowed to participate in any superannuation scheme approved by the Local Government Board or other public authority.

(iv) That in every form of public medical service (other than that of medical officers of health) the system of part-time appointments of medical practitioners should be maintained as far as such appointments can be made consistently with the requirements of the service.

(v) That when the appointment of any medical officer is determined without any reflection upon his method of performance of his duty, and he is not entitled to any pension, he should have compensation as suggested by the Poor Law Officers' Superannuation Act, 1896, viz., a gratuity not exceeding two years' salary.

### PUBLIC HEALTH OFFICERS BILL AND MEDICAL OFFICERS OF HEALTH SUPERANNUATION BILL.

128. Instructions have been given that efforts should be made to introduce the Public Health Officers Bill and the Medical Officers of Health (Superannuation) Bill which were approved at the Annual Representative Meeting, 1910, into Parliament in the present Session, but difficulties have arisen owing to the fact that private legislation of this kind would appear to have no opportunity for consideration in the present crowded state of public business. An attempt was made to get the Bills introduced into the House of Lords but without success.

### ACTION TAKEN WITH REGARD TO PUBLIC HEALTH AND POOR LAW APPOINTMENTS.

129. Action has been taken by the Council with regard to the following Public Health appointments:—

Clutton Union, Radstock (Medical Aid Society and Medical Officer of Health appointment), Blackburn (Assistant Medical Officer of Health), Salford (Poor Law Hospital Medical Officer), Seisdon, Staffs. (District Medical Officer), Parish of St. Mary, Islington (District Medical Officer), Newcastle-under-Lyme (Medical Officer of Health), Aberdeen (Poorhouse Medical Officer), Shipston-on-Stour (District Medical Officer), Radnor (County Medical Officer of Health and School Medical Officer), Isle of Wight (County Medical Officer of Health and School Medical Officer), West Suffolk (County Medical Officer of Health and School Medical Officer), Berwickshire (County Medical Officer of Health), Thorpe St. Andrew's (District Medical Officer), Worcester City (Assistant Medical Officer of Health and School Medical Officer), Melton Mowbray (Medical Officer of Health), Bedwellty (District Medical Officer), Wokingham (District Medical Officer), Lincoln (Assistant Medical Officer of Health and School Medical Officer), Doncaster (Medical Officer of Health), Penzance (District Medical Officer), Croydon (District Medical Officer), Wisbech (Medical Officer of Health), and Bromsgrove (Workhouse Medical Officer).

### ADVICE TO BE GIVEN TO DIVISIONS AND BRANCHES AT THE OUTSET OF POSSIBLE DISPUTES.

130. Arising out of its consideration of certain of the cases mentioned in the preceding paragraph, instructions have been given that, when a Division has under consideration the possibility of a dispute arising with a public authority respecting an appointment, (i.) the attention of the Division should be drawn to the steps which it may become necessary for it to take in order to provide against difficulties which experience has shown to arise in such cases, and an undertaking obtained from the Division that it will take all such necessary steps; and (ii.) that the importance be pointed out, in the event of a dispute arising, of addressing a communication to the individual members of the local authority in question, explaining *(a)* the reasons for the position taken up by the Association with respect to appointments of the kind in question, and *(b)* the limitation of the choice of candidates by the local authority which must result from the leading medical journals finding themselves unable to insert the advertisements of such appointment.

### POOR LAW REFORM.

131. The Council at its Meeting on July 29th last, re-appointed the Special Poor Law Reform Committee, with the following instructions:—To continue the consideration of the Recommendations of the Royal Commission on the Poor Law as affecting the medical profession and report thereon to the Council, and also to complete, in conference with the Contract Practice Sub-Committee, and issue to the Divisions, the Report on a Provident Medical Service. The Committee has been engaged during the whole of the present session in dealing with the second part of its reference. The Council has decided to separate the consideration of the provision of medical attendance under an Insurance Scheme from the consideration of Poor Law Reform as affecting the medical profession, and hopes to be able to present some statement as to its consideration of the subject of Poor Law Reform in its Supplementary Report.

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## Hospitals.

### INQUIRY BY KING EDWARD'S HOSPITAL FUND INTO ABUSE OF OUT-PATIENT DEPARTMENTS OF LONDON HOSPITALS.

132. In January last the Association received a request to give evidence before a Special Committee, consisting of Lord Mersey, Lord Northcote and the Bishop of Stepney, which had been appointed by the Governors of King Edward's Hospital Fund for London with the following references:—

To consider and report generally as to the circumstances and conditions under which Patients are admitted to the Casualty and Out-Patients Departments of the London Voluntary Hospitals, and especially as to what precautions are taken to prevent the admission of persons who are unsuitable, and as to whether adequate provision is made for the admission of such persons as are suitable, and to make such recommendations as may seem to them desirable.

133. The Medico-Political and Hospital Committees were instructed to prepare in conference with the Council of the Metropolitan Counties Branch a memorandum of the evidence of the Association. The witnesses appointed by the Association were Dr. J. A. Macdonald (Chairman of Council), Mr. Hugh R. Ker (Chairman of the Hospitals Committee), Dr. Lauriston E. Shaw (President of the Metropolitan Counties Branch), and the Medical Secretary. Their evidence was taken on March 8th and March 15th, 1910.

134. The Special Inquiry Committee having expressed a desire to hear the views of medical practitioners not on the staffs of hospitals but in general practice in the neighbourhood of such institutions, arrangements are being made in co-operation with the Metropolitan Counties Branch to appoint suitable witnesses.

### ACTION TAKEN CONCERNING HOSPITALS AND HOSPITAL APPOINTMENTS.

135. Action has been taken and advice given in cases concerning hospitals and hospital appointments, as follows: Beckett Hospital, Barnsley, Wellingborough Cottage Hospital, Cork South Charitable Infirmary and County Hospital, Western Australian Hospital appointments, Bridgwater Hospital, and Tunbridge Wells Hospital.

### SUBJECTS UNDER CONSIDERATION.

136. Payment of the Staffs of Voluntary Hospitals (Minute 221, Annual Representative Meeting, 1910).

Fees for certificates under Workmens' Compensation Act (Minute 219, Annual Representative Meeting, 1910).

## Naval and Military.

### QUESTION OF FEES PAYABLE BY NATIVES TO OFFICERS OF THE INDIAN MEDICAL SERVICE.

137. In 1908 an Order issued by the Government of India (No. 607, 1st July, 1907, Home Department) restricting the fees payable by Natives to Officers of the Indian Medical Service without the previous consent of the Government, was brought to the notice of the Council. It was considered that the restrictions thus placed upon the service were oppressive and unnecessary as they interfered with the right to private practice which was specially reserved to officers of the Indian Medical Service by the Regulating Act of 1773.

138. Representations were made to the Secretary of State for India with respect to the Order in November, 1908, when it was ascertained that the Order in question was the subject of discussion between the India Office and the Government of India. Further action was therefore postponed pending the termination of this discussion.

139. In June, 1909, seeing that no further information had been received, the Council authorised that the matter should be raised in the House of Commons by means of questions. These, which were put by Mr. (now Sir) J. D. Rees, elicited the information that communications with the Government of India were still proceeding.

140. In November, 1910, the Secretary of State for India forwarded for the comment of the Association draft new Rules which it was proposed to substitute for the Order of 1907. After consideration of the draft Rules a reply was sent to the Secretary of State to the effect that subject to one or two trifling alterations the proposed Rules would appear to be quite satisfactory to Officers of the Indian Medical Service.

141. The new Rules were issued by the Government of India on February 2nd, 1911, and, though they contain slight ambiguities, as to which representations will again be made to the Secretary of State, they are considered to be a great improvement on the Order of 1907, as is shown by the following comparison :—

The Rules of 1st July, 1907, with subsequent explanatory directions dated 6th September, 1907, prohibited any Medical Officer of Government from demanding or accepting from any ruling chief or any Indian gentleman of high position in a Native State or from any Indian gentlemen of high position in any part of British India, for professional services rendered of any kind and regardless of distance travelled, a fee of more than Rs. 16 (one guinea), or in certain cases Rs. 32 according to recognised custom, or of more than Rs. 160 or about 10 guineas in any one month for such visits without the permission, previously obtained, from the Director-General Indian Medical Service.

This previous permission was to be obtained through the local Administrative Medical Officer, who would first consult and obtain the views of the Local Government before forwarding any application to the Director-General.

142. These rules have now been replaced by revised rules issued on 2nd February, 1911, to the following effect :—

(1) The purview is limited to ruling chiefs (their families or dependants) or to Indians of position holding a hereditary title not below that of Raja or Nawab (or their families or dependents).

(2) The services are specified under the head of ordinary visits, consultations, confinements or surgical operations, and a distinction is drawn between (a) visits, etc., involving journeys and absence from head-quarters, and (b) those which do not involve such absences.

(3) In the first case (a) the fees may be arranged between the medical officer and the person employing him provided that, in addition to travelling expenses, no higher fee than Rs. 500 (about 30 guineas) a day for the first three days and Rs. 250 a day thereafter be demanded or accepted. If there be questions of a higher rate of fees the permission of the Local Government must be obtained.

(4) In the second case (b), the fees which may be demanded and received are to be only those which the medical officer would obtain from his patients generally, and in the case of operations and confinements fees equal in amount to those current in similar circumstances in the United Kingdom.

(5) When it is a question of obtaining or accepting a fee in excess of the above rates, the medical officer must report the case confidentially to the local Administrative Medical Officer, who will unofficially obtain and communicate to him the orders of the *Local* Government, observing care not to disclose any medical particulars of the case.

(6) Local Governments and Administrations are given full powers to dispose of all cases reported to them in the above way, but in exceptional cases a consultation with the Director-General Indian Medical Service, or a reference to the Government of India for orders can be made.

### SERVICE REPRESENTATION ON COUNCIL.

143. The Council is of opinion that in future the Representative Body should take advantage of the power conferred in By-law 47 (*e*) to appoint the members elected to represent the Services on the Council for a period of three years.

### Recommendation.

The Council recommends :—

That the Officers elected at the Annual Representative Meeting, 1911, to represent on the Council the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service, be appointed to serve for a period of three years in each case.

*Nominations for Election as Representatives of Services.*

144. In accordance with the By-law, the Council submits the following nominations for election by the Representative Body of Members of the Council representing the Services :—

(*a*) For the Royal Navy Medical Service :—
Insp.-Gen. R. Bentham, R.N.

(*b*) For the Army Medical Service :—
Lieut.-Col. F. W. Davie Harris, R.A.M.C.

(*c*) For the Indian Medical Service :—
Surg.-Gen. W. R. Browne, C.I.E., I.M.S.

It is proposed that provision be made by Standing Order whereby Representatives may be enabled to make other nominations.

### MEDICAL DEPARTMENT OF THE TERRITORIAL FORCE.

*Representations to the War Office.*

145. It was reported to the Annual Representative Meeting, 1910, that representations had been made to the War Office in regard to the staff of instructors for medical units; the inadequacy of the fee for medical examination of recruits; the provision of a quartermaster for each general hospital; various matters in relation to the equipment of medical units; and the composition of the Territorial Force Advisory Council. The replies from the War Office were considered to be unsatisfactory and disappointing, and it has been decided to make further representations on the same subjects.

*Fees of Civil Practitioners for Medical Examination of Recruits.*

146. A communication has been considered which was addressed by the Secretary of the Northern Counties Territorial Association of Scotland to a number of medical practitioners, suggesting the acceptance by civil practitioners of a fee of 1s. per head for examination of recruits. The Northern Counties of Scotland Branch of the Association was advised that each County Association should be required to state the fee it is prepared to pay for such examinations before the work is undertaken, and that the fee should not be less than 2s. 6d. per head.

## Scotland.

### MIDWIVES (SCOTLAND) BILL, 1910.

147. The Scottish Committee has been in communication with the Scottish Society of Medical Officers of Health in reference to the Midwives (Scotland) Bill as drafted and amended by that Society, and made suggestions for its further amendment. Representatives of the Committee met a Sub-Committee of the Society of the Medical Officers of Health, and arrived at an agreement upon the following points:—

(*a*) That throughout the Bill the words "registered medical practitioner" be substituted for the words "duly qualified medical practitioner."

(*b*) That Clause 26 of the Bill, which provides for the designation by Local Supervising Authorities of medical practitioners to assist midwives in cases of emergency, be deleted, and the following clause substituted:

In case of emergency as defined in the Rules framed under Section 7, I. (*e*) of this Act it shall be open to any midwife to call in to her assistance any registered medical practitioner, and the Local Supervising Authority shall pay to such practitioner a sufficient fee according to a scale to be fixed by the Local Government Board for Scotland.

### MEDICAL TREATMENT OF SCHOOL CHILDREN.

148. A communication was sent by the Scottish Committee to the Secretaries of the Branches and Divisions in Scotland, enquiring what steps had been taken in their respective areas to ensure the carrying out of treatment of school children found, upon inspection, to be defective. Upon consideration of a report of the replies received the Committee has decided to take no further action in the matter for the present.

## Ireland.

### NATIONAL MEDICAL SERVICE.

149. As reported to the Annual Representative Meeting last year the Report on the Royal Commission on the Poor Laws as regards Ireland was fully considered by the Irish Committee and a circular was issued to all Poor Law Medical Officers in Ireland in order to ascertain their opinion on certain specific questions. As a result of a consideration of the answers to these questions the Committee reported to, and obtained the approval of, the Council for the following resolutions:—

(1) That the efforts of the Association be directed to the promotion of a National Medical Service in Ireland on the general lines of the Recommendations of the Viceregal Commission.

(2) That a paid organiser or organisers be appointed to visit members of the profession throughout Ireland, in order to promote united action for the furtherance of reform of the Poor Law Medical Service.

The Irish Medical Association joined forces with the British Medical Association for the purpose of furthering this policy for which expenditure not exceeding £300 was authorised by the Council of the Association. A circular was issued to the members of the profession in Ireland asking for their approval of the policy above outlined, and a large number of replies were received, an overwhelming majority of which were in favour of the scheme. Organisers were appointed for the various provinces, and these have already induced a considerable number of practitioners to give their adherence to the scheme who previously had either been indifferent or hostile.

## Branches Outside the United Kingdom.

### STATE MEDICAL REGISTRATION IN INDIA.

150. The Council reported to the Annual Representative Meeting last year that it had indicated to the Secretary of State for India its opinion that the time had arrived when there should be a system of Medical Registration covering the whole of India and Burmah. The Secretary of State, in acknowledging the communication, stated that he had forwarded it to the Government of India for its observations and would communicate further upon receiving a reply from the Government of India. No further reply has yet been received.

Certain members of the Bombay Branch who objected to the policy adopted by their Branch and by the Association in respect to this matter, were informed that the Council could not depart from its previous decision.

J. A. MACDONALD,
*Chairman of Council.*

*26th April*, 1910.

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# APPENDIX TO ANNUAL REPORT OF COUNCIL.

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LIST OF MATTERS REFERRED TO THE COUNCIL BY THE ANNUAL REPRESENTATIVE MEETING, 1910.

| *Minute of A.R.M.* | *Subject.* | *Para. of Report.* |
|---|---|---|
| 45 | Lapsed Members ... ... ... ... | 28 |
| 55 | Control of Advertisements in JOURNAL ... | 54 |
| 74(*a*) | Leading Articles in JOURNAL ... ... | 49-53 |
| 84 | Policy of JOURNAL ... ... ... ... | |
| 86 | Organisation of Medical Students ... ... | 42-3 |
| 90 | Procedure for Election of Members of Council ... ... ... ... ... | 32 |
| 98 | Resignation of Membership ... ... ... | 48 |
| 105 | Election of Representatives by large Constituencies ... ... ... ... ... | 34 |
| 107–110 | Grouping of Divisions and Branches for Election of Council ... ... ... ... | 31 |
| 114 | Method of Voting in Association Elections | 37 |
| 181 | Proposed Special Class of Consultants ... | 76 |
| 185–187 | Ethics of Consultation ... ... ... | 71-2 |
| 190–192 | Uniform Ethical Rules ... ... ... | 70 |
| 196–206 | Relation of Association to Homeopaths ... | 80 |
| 208 | Position of Practitioners Examining on behalf of interested persons ... ... | 80 |
| 215 | Documents to be supplied to every Member | 48 |
| 219 | Fees for Certificates under Workmen's Compensation Act ... ... ... ... | 136 |
| 221 | Payment of Hospital Staffs ... ... ... | 136 |
| 254–5 | Model Rules for Nursing Associations ... | 92 |
| 259, 263–4 | Fees for Ambulance, etc., Lectures ... | 104-8 |
| 271 | Registration of Nurses ... ... ... ... | 91 |
| 272 | Amendment of Midwives' Act ... ... | 89-90 |
| 274 | Treatment of Defective School Children ... | 94 |
| 276–307, 337–340 | National Provident Medical Service ... | 81 |
| 315–317 | Part-time Medical Officers of Health ... | 124-6 |
| 317(*b*)–8 | Part-time Public Appointments ... ... | 127 |
| 320 | Pathological Branch of Public Health Service... ... ... ... ... ... | 123 |
| 324–326 | New Company ... ... ... ... ... | 30 |
| 330 | Referendum by Postal Vote ... ... ... | 38 |
| 344–6 | Coroners' Law and Death Certification ... | 82-3 |
| 364 | Arrangements for Election of Service Members of Council... ... ... ... | 33 |
| 365 | Advertising of Foods and Drugs in JOURNAL | 55 |

# APPENDIX.

## A.—REPORT OF COUNCIL ON METHOD OF VOTING IN ASSOCIATION ELECTIONS.

The Council has carefully considered the whole question of the applicability of the method of the transferable vote to the various elections conducted by the Association, in connection with Minute 114 of the Annual Representative Meeting, 1910, namely :—

*Minute* 114.—Resolved: That it be an instruction to the Council to consider the advisability of adjusting the Regulations of the Association so as to provide as far as possible for the conduct of all elections in the Association by the method of the transferable vote.

The questions requiring attention are grouped in this Report under the heads of "Questions of Policy" and "Questions of Procedure."

### (A) QUESTIONS OF POLICY.

*The special character of Association Elections needs consideration.*

The general question of policy to be decided is whether the method of voting by the single transferable vote is best adapted for the purposes of the various elections within the Association, due regard being had to the character and objects of the Association, and to the nature of the duties which those elected have to discharge.

*Arguments from National Elections not necessarily applicable.*

Pamphlets which have been obtained from the Proportional Representation Society deal with these questions mainly as affecting Parliamentary Elections and the elections of Local Public Authorities. Even assuming the arguments set forth to be valid as affecting these purposes, it does not necessarily follow that the method is that best adapted for the purposes of the Association.

*Within the Association uniformity not necessarily desirable.*

Again, it is conceivable that the method of a single transferable vote might be best calculated for the purposes of some elections within the Association, but not so well adapted to the purposes of others. Each case needs consideration on its merits.

*In some Association Elections method already adopted.*

Lastly, as affecting the general question of policy, it is to be noted that the method of the transferable vote has already been adopted by the Representative Body for the election of the Chairman and Deputy-Chairman of Representative Meetings and for the election of the four Members of Council elected by the Representative Body as a whole. It has also been adopted for the election of Members of Council by voting paper by one of the only two Branches or groups of Branches which elect more than one Member of the Council.

*Additional Elections of Officers by Representative Body.*

It must also be noted that the Representative Body has now to elect, in addition to the Chairman and Deputy-Chairman of Representative Meetings, a President-Elect annually, and a Treasurer every three years at least. If the decision to elect the Chairman and Deputy-Chairman by the method of the transferable vote is regarded as one which should not be disturbed, at all events for the present, there appear to be no reasons against, and some reasons in favour of, adopting the same method for the election of all Officers who are to be elected by the Representative Body.

### (B) QUESTIONS OF PROCEDURE.

*Necessity for Rules of Procedure.*

One of the difficulties in the way of the general adoption of the single transferable vote is the difficulty which many persons find in understanding the procedure. If it be decided to adopt the principle generally it would be necessary



for clear rules to be formulated for the guidance of those persons who, in their official capacity, are called upon to count the votes.

*Single Member Elections.*

As regards those cases in which only one person is to be elected, rules of procedure have already been laid down by the Representative Body in its Standing Orders which will, probably, be found to require little, if any, modification to adapt them to use in every case in which only one person is to be elected.

*Multiple Member Elections.*

As regards cases in which more than one person is to be elected, the experience of the election of four Members of Council by the Representative Body in 1910, showed the inapplicability of the rules given in ordinary works on the transferable vote to cases such as the Association will most frequently have to deal with, in which the aggregate number of votes cast is very small. The rules adopted for the election of the South African Senate, however, which did not come into the hands of the officials of the Association until after the election, cleared up some of these difficulties, and in the framing of Rules or Standing Orders assistance will also be obtained from a study of the "Result Sheet" of the election of four Members of Council, kindly furnished by Mr. Gray, of the Proportional Representation Society, who worked out the figures.

Seeing that the system of election by the transferable vote has already been put into operation as regards some elections which are conducted through the Central Office, it appears to the Council that there can be no difficulty in extending the principle to all elections which are so conducted—namely, to the elections of Members of the Council, except as regards elections outside the United Kingdom and to the elections of the Officers of the Association.

In the Resolution of the Representative Meeting reference is made to alterations of the Regulations, but for the above purposes no alteration of the Articles or By-laws would be required. If the principle be approved by the Representative Body, the procedure can be determined by Standing Orders of those bodies.

As regards elections of Members of Council by Branches outside the United Kingdom, the Council makes no recommendation for the present, inasmuch as its deliberations under another instruction of the Representative Meeting indicate the possibility that the procedure for that election may need considerable modification in other respects, and the Representative Body has already decided that the existing procedure should be followed as regards that election for the year 1911-12.

### Recommendation.

The Council recommends :—

That the following elections be conducted on the Transferable Vote System :—

Members of the Central Council—
- (*a*) By Branches within the United Kingdom by Voting Paper.
- (*b*) By grouped Representatives.
- (*c*) By the Representatives as a whole (Four Members).
- (*d*) By the Representatives as a whole (Three Service Members).

Officers—

Elected by the Representative Body—
- (*a*) President.
- (*b*) Chairman of Representative Meetings.
- (*c*) Deputy-Chairman of Representative Meetings.
- (*d*) Treasurer.

Elected by the Council—
- (*e*) Chairman of Council.

That the following elections be conducted on the present basis, namely, that those candidates, up to the number to be elected, who receive the greatest number of votes, be declared elected :—

Members of Committees by the Representative Meeting.
Members of Committees by the Chairman.

That the following elections be conducted in such manner as the Bodies concerned may think fit :—

Representatives in Representative Meetings by Divisions.
Officers of Branches.
Members of Branch Councils.
Officers of Divisions.
Members of Executive Committees of Divisions.

New Standing Orders will be submitted to the Representative Body to regulate those elections the procedure of which will be altered in the event of these recommendations being approved.

## ANALYSIS OF BRANCH REPORTS FOR 1910.*

| Branch. | Membership. On December 31st, 1909. | Membership. On December 31st, 1910. | Financial Statement. Balance from 1909. | Deficit (if any) from 1909. | Receipts for 1910. | Expenditure, 1910. | Balance to 1911. | Deficit (if any) to 1911. | Meetings. Branch. | Scientific. | Medico-Political, Ethical, &c. | Social Functions. | Average Attendance. | Branch Council. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (A) BRANCHES IN THE UNITED KINGDOM. | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | | | | | | |
| (1) Aberdeen | 169 | 170 | 117 3 6½ | — | 1 17 11 | 26 11 4 | 92 10 1½ | — | 6 | 1 | 5 | 2 | 22 | 8 |
| (2) Bath and Bristol | 409 | 418 | | | | (No Return.) | | | | | | | | |
| (3) Birmingham | 507 | 551 | — | 5 15 1 | 103 0 0 | 99 1 6† | 3 18 6 | — | 8 | 6§ | 3 | 1 | 47·5 | 8 |
| (4) Border Counties | 142 | 139 | 23 16 4 | — | — | 24 7 2 | — | 10 10 | 4 | 3 | 3 | 1 | 20 | 5 |
| (5) Cambridge and Huntingdon | 152 | 156 | 34 12 0½ | — | 17 6 0 | 33 16 11½ | 18 1 1 | — | 3 | 2 | 1 | 1 | 19 | 3 |
| (6) Connaught | 42 | 47 | | | | (No Return.) | | | | | | | | |
| (7) Dorset and West Hants | 216 | 215 | 106 13 9 | — | — | 42 13 5 | 64 0 4 | — | 2 | 2 | — | 2 | 37 | 2 |
| (8) Dundee | 111 | 110 | 41 8 7 | — | — | 8 18 9 | 32 9 10 | — | 4 | 0 | 3 | 1 | 13 | 3 |
| (9) East Anglian | 442 | 453 | 81 2 3 | — | 55 7 6 | 93 15 3 | 42 14 6 | — | 3 | 3 | — | 3 | 40 | 4 |
| (10) East York and North Lincoln | 179 | 176 | 3 8 10 | — | 36 8 0 | 23 19 8 | 15 17 2 | — | 1 | 1 | 1 | 1 | 22 | 3 |
| (11) Edinburgh | 412 | 423 | 136 9 6½ | — | 5 6 0 | 90 3 3½ | 51 12 3 | — | 5 | 2 | 4 | 3 | 35 | 10 |
| (12) Fife | 80 | 94 | 16 10 4 | — | 8 12 5 | 17 7 5 | 7 15 4 | — | 2 | — | 2 | — | 9 | 5 |
| (13) Glasgow and West of Scotland | 676 | 706 | 289 7 1 | — | 26 7 10 | 79 0 11½ | 220 17 7½ | — | 2 | — | — | — | — | 7 |
| (14) Gloucestershire | 137 | 132 | 8 2 2 | — | 25 16 0 | 10 17 4 | 23 0 10 | — | 9 | 8 | 4 | 8 | 28 | 10 |
| (15) Lancashire and Cheshire | 1,650 | 1,701 | 761 1 1 | — | 16 12 11½ | 191 12 2½ | 586 1 10 | — | 2 | 2 | 0 | 2 | 78 | 5 |
| (16) Leinster | 289 | 286 | — | 8 13 3 | 72 10 8 | 65 18 2† | 6 12 6 | | 1 | — | — | 1 | 23 | 3 |

* For Notes, contained in the Reports of the Branches, of :—

(i.) Matters of Branch Organisation.
(ii.) Other Questions chiefly of local interest dealt with—see page 283.

† Including paying off deficit.

§ In addition, 6 meetings were held by the Pathological and Clinical Section.

| Branch. | Membership. | | Financial Statement. | | | | | | Meetings. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | On December 31st, 1909. | On December 31st, 1910. | Balance from 1909. | Deficit (if any) from 1909. | Receipts for 1910. | Expenditure, 1910. | Balance to 1911. | Deficit (if any) to 1911. | Branch | Scientific. | Medico-Political, Ethical, &c. | Social Functions. | Average Attendance. | Branch Council. |
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | | | | | | |
| (17) Metropolitan Counties ... ... ... | 2,890 | 3,255 | 729 10 3½ | — | 6 5 8 | 967 1 6¾ | — | 231 5 7¼ | 1 | — | 1 | * | — | 12 |
| (18) Midland ... ... ... .. ... ... | 550 | 552 | 160 3 6 | — | 9 7 3 | 49 13 0 | 119 17 9 | — | 1 | 1 | — | — | 27 | 2 |
| (19) Munster ... ... ... ... ... ... | 98 | 101 | 62 15 3 | — | 12 0 | 5 5 0 | 58 2 3 | — | 2 | — | 2 | — | 8 | 0 |
| (20) North of England ... ... ... ... | 702 | 730 | | | | | | | | | | | | |
| (21) Northern Counties of Scotland ... ... | 116 | 117 | 19 1 8 | — | 17 5 0 | 19 3 9 | 17 2 11 | — | 4 | 3 | 4 | — | 30 | 4 |
| (22) N. Lancashire and S. Westmoreland ... | 124 | 122 | | | | (No Return) | | | | | | | | |
| (23) North Wales ... ... ... ... ... | 199 | 201 | 57 9 5 | — | 10 11 | 20 16 4 | 37 4 0 | — | 2 | 2 | 2 | 2 | 37 | 3 |
| (24) Oxford and Reading ... ... ... . | 290 | 286 | 77 15 0 | — | — | 30 6 3 | 47 8 9 | — | 2 | 1 | 1 | 1 | 45 | 1 |
| (25) Perth ... ... ... ... ... ... | 50 | 54 | | | | (No Return) | | | | | | | | |
| (26) Shropshire and Mid-Wales ... ... ... | 129 | 137 | 20 8 0 | — | — | 17 9 7 | 2 18 5 | — | 8 | 4 | 4 | 1 | — | 4 |
| (27) South-Eastern ... ... ... ... ... | 1,044 | 1,090 | 754 15 3 | — | 12 3 3 | 228 19 0½ | 537 19 5½ | — | 1 | — | — | 1 | 51 | 5 |
| (28) South-Eastern of Ireland ... ... ... | 56 | 61 | 3 3 9 | — | 11 16 0 | 8 15 10 | 6 3 11 | — | 8 | 3 | 3 | 6 | 9·5 | 6 |
| (29) Southern ... ... ... ... ... ... | 427 | 436 | 22 1 2 | — | 22 15 9 | 27 18 5 | 16 18 6 | — | 3 | 1 | 2 | — | 36 | 6 |
| (30) South Midland ... ... ... ... ... | 254 | 260 | 33 2 10 | — | 39 7 0 | 25 11 11 | 46 17 11 | — | 2 | 2 | — | 2 | 42 | 3 |
| (31) South Wales and Monmouthshire ... | 553 | 579 | 45 2 7 | — | 114 12 0 | 117 16 0 | 41 18 7 | — | 5 | 3 | 2 | 1 | 28 | 7 |
| (32) South-Western ... ... ... ... ... | 454 | 465 | 30 7 10 | — | 91 0 0 | 82 5 2 | 39 2 8 | — | 4 | 2 | 2 | — | 38 | 6 |
| (33) Staffordshire ... ... ... ... ... | 204 | 202 | 131 4 7 | — | — | 27 18 10 | 103 5 9 | — | — | — | — | — | — | — |

* Several, but number not stated.

| Branch. | Membership. On December 31st, 1909. | Membership. On December 31st, 1910. | Financial Statement. Balance from 1909. | Deficit (if any) from 1909. | Receipts for 1910. | Expenditure, 1910. | Balance to 1911. | Deficit (if any) to 1911. | Meetings. Branch. | Scientific. | Medico-Political, Ethical, &c. | Social Functions. | Average Attendance. | Branch Council. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | | | | | | |
| (34) Stirling | 66 | 68 | 39 7 4 | — | — | 3 12 8 | 35 14 8 | — | 3 | 3 | — | — | 14 | 1 |
| (35) Ulster | 409 | 411 | 40 11 1 | — | 61 18 2 | 39 12 4 | 62 16 11 | — | 4 | 4 | 1 | 1 | 40 | 6 |
| (36) West Somerset | 71 | 73 | 45 13 11 | — | — | 2 19 7 | 42 14 4 | — | 3 | 3 | 2 | 2 | 18 | 3 |
| (37) Worcestershire and Herefordshire | 136 | 127 | 27 19 10½ | — | — | 28 10 10½ | — | 11 0 | 3 | 3 | 1 | 2 | 22 | 3 |
| (38) Yorkshire | 904 | 922 | 141 10 6 | — | 135 5 1 | 114 11 1 | 162 4 6 | — | 3 | — | — | — | 38 | 3 |
| Totals (*Branches in United Kingdom*) | 15,339 | 16,026 | 4,061 19 4¼ | 14 8 4 | 892 3 4½ | 2,626 10 7¾ | 2,544 3 2½ | 232 7 5¼ | 111 | 65 | 53 | 45 | 877 | 151 |
| **(B) BRANCHES NOT IN THE UNITED KINGDOM.*** | | | | | | | | | | | | | | |
| (39) Assam | 24 | 20 | — | 10 10½ | 6 16 0 | † 1 5 8½ | 5 10 3½ | — | 2 | 1 | — | — | 8 | 1 |
| (40) Baluchistan | | 14 | | | | (Formed 1910) | | | | | | | | |
| (41) Barbados | 34 | 36 | | | | (No Return.) | | | | | | | | |
| (42) Bermuda | 12 | 11 | | | | (No Return.) | | | | | | | | |
| | | | R. a. p. | | R. a. p. | R. a. p. | R. a. p. | | | | | | | |
| (43) Bombay | 156 | 183 | 438 13 8 | — | 467 0 0 | 346 8 0 | 559 5 8 | — | 6 | 5 | — | 5 | 15 | 6 |
| | | | £ s. d. | | £ s. d. | £ s. d. | £ s. d. | | | | | | | |
| (44) Border Branch, South Africa | 54 | 90 | — | 1 18 2 | 26 11 1 | 14 18 6† | 11 12 7 | — | 1 | — | 1 | — | 9 | 7 |
| (45) Brisbane and Queensland | 163 | 187 | | | | (No Return.) | | | | | | | | |
| (46) British Guiana | 39 | 42 | | | | (No Return.) | | | | | | | | |
| (47) Burma | 69 | 71 | 65 16 4½ | — | 126 1 7½ | 126 4 4¾ | 65 13 7¼ | — | 13 | 12 | 1 | 1 | 12 | 1 |
| (48) Cape of Good Hope, Eastern Province | 56 | 55 | 1 17 8 | — | 49 2 0 | 51 6 2 | — | 6 6 | 6 | 4 | 1 | 1 | 8·6 | 5 |

* For Notes by these Branches of Special Questions of local interest dealt with—see page 285.

† Including paying off deficit.

| Branch. | Membership. | | Financial Statement. | | | | | | Meetings. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | On December 31st, 1909. | On December 31st, 1910. | Balance from 1909. | Deficit (if any) from 1909. | Receipts for 1910. | Expenditure, 1910. | Balance to 1911. | Deficit (if any) to 1911. | Branch. | Scientific. | Medico-Political, Ethical, &c. | Social Functions. | Average Attendance. | Branch Council. |
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | | | | | | |
| (49) Cape of Good Hope, Western Province ... | 137 | 134 | | | | (No | Return.) | | | | | | | |
| (50) Colombo, Ceylon ... ... ... ... | 150 | 151 | 21 2 11 | — | 204 1 9 | 197 19 2 | 27 5 6 | — | 9 | — | — | 1 | 13 | 5 |
| (51) Egyptian ... ... ... ... ... ... | 37 | 39 | | | | (No | Return.) | | | | | | | |
| (52) Gibraltar ... ... ... ... ... | 19 | 19 | 11 14 2 | — | 3 8 0 | 1 5 1 | 13 17 1 | — | 5 | 4 | 1 | 4 | 16 | 8 |
| (53) Griqualand West ... ... ... ... | 36 | 48 | | | | (No | Return) | | | | | | | |
| (54) Halifax, Nova Scotia ... ... ... ... | 81 | 78 | | | | (No | Return) | | | | | | | |
| | | | $ c. | | $ c. | $ c. | $ c. | | | | | | | |
| (55) Hong Kong and China ... ... ... ... | 120 | 121 | 863 48 | — | 307 1 | 491 46 | 679 3 | — | 4 | 4 | — | — | 11 | 4 |
| (56) Jamaica ... ... ... ... ... ... | 49 | 47 | | | | (No | Return) | — | — | — | — | — | — | — |
| (57) Leeward Isles ... ... ... ... ... | 15 | 17 | | | | (No | Return) | | | | | | | |
| (58) Malaya ... ... ... ... ... ... | 95 | 99 | $ c. 411 70 | — | $ c. 1082 65 | $ c. 697 56 | $ c. 796 79 | — | — | — | — | — | — | — |
| (59) Malta and Mediterranean ... ... ... | 31 | 24 | | | | (No | Return) | | | | | | | |
| (60) Melbourne and Victoria ... ... ... | 504 | 557 | | | | (No | Return) | | | | | | | |
| (61) Montreal ... ... ... ... ... ... | 58 | 53 | | | | (No | Return) | | | | | | | |
| | | | £ s. d. | | £ s. d. | £ s. d. | £ s. d. | | | | | | | |
| (62) Natal ... ... ... ... .. | 119 | 119 | 155 6 5 | — | 140 12 0 | 170 19 0 | 124 19 5 | — | 3 | 2 | 1 | — | 23 | 2 |
| (63) New South Wales ... ... .. ... | 690 | 767 | 727 2 5 | — | 1,590 6 8 | 2,068 4 11 | 249 5 2 | — | 17 | 15 | 2 | 1 | 46 | 20 |
| (64) New Zealand ... ... ... ... ... | 426 | 468 | 42 9 1 | — | 1,158 15 0 | 841 1 9 | 360 2 4 | — | 1 | 1 | 1 | 3 | 102 | 5 |
| (65) Punjab ... ... ... .. ... ... | | | | | | (Formed | 1911) | | | | | | | |

| Branch. | Membership. | | Financial Statement. | | | | | | Meetings. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | On December 31st, 1909. | On December 31st, 1910. | Balance from 1909. | Deficit (if any) from 1909. | Receipts for 1910. | Expenditure, 1910. | Balance to 1910. | Deficit (if any) to 1911. | Branch. | Scientific. | Medico-Political, Ethical, &c. | Social Functions. | Average Attendance. | Branch Council. |
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | | | | | | |
| (66) St. John, New Brunswick ... ... ... | 37 | 32 | | | | (No Return.) | | | | | | | | |
| (67) Saskatchewan ... ... ... ... ... | 29 | 31 | | | | (No Return.) | | | | | | | | |
| (68) South Australian ... ... ... ... | 159 | 169 | | | | (No Return.) | | | | | | | | |
| (69) South Indian and Madras ... ... ... | 167 | 170 | R. a. p. 706 14 9 | — | R. a. p. 2,256 12 10 | R. a. p. 1,921 2 1 | R. a. p. 1,042 9 6 | — | 5 | 5 | — | — | 15 | — |
| (70) Tasmania ... ... ... ... ... ... | | | | | | (Formed 1911.) | | | | | | | | |
| (71) Toronto ... ... ... ... ... ... | 329 | 300 | | | | (No Return.) | | | | | | | | |
| (72) Transvaal ... ... ... ... ... | 102 | 106 | £ s. d. 80 15 1 | | £ s. d. 130 7 9 | £ s. d. 148 15 6 | £ s. d. 62 7 4 | | 2 | — | 2 | — | 9 | 6 |
| (73) Trinidad and Tobago ... ... ... ... | 26 | 24 | | | | (No Return.) | | | | | | | | |
| (74) Western Australian ... ... ... ... | 100 | 102 | | | | (No Return.) | | | | | | | | |
| Totals (*Branches not in United Kingdom*) | 4,123 | 4,384 | 1,302 12 8½ | 2 9 0½ | 3,769 11 6½ | 3,895 10 5¼ | 1,177 0 3¾ | 0 6 6 | 74 | 53 | 10 | 16 | 287·6 | 70 |
| Grand Totals (Branches) ... ... | 19,462 | 20,410 | 5,364 12 1 | 16 17 4½ | 4,661 14 11 | 6,522 1 1 | 3,721 3 6¼ | 232 13 11¼ | 185 | 118 | 63 | 61 | 1164·6 | 221 |

## NOTES, CONTAINED IN THE REPORTS OF THE BRANCHES, AS TO (I) MATTERS OF BRANCH ORGANISATION, (II) OTHER QUESTIONS CHIEFLY OF LOCAL INTEREST DEALT WITH.*

### (A) BRANCHES IN THE UNITED KINGDOM.

#### (1) *Aberdeen.*

Parish Council medical officer's appointment.

#### (2) *Bath and Bristol.*

(No Return.)

#### (3) *Birmingham.*

———

#### (4) *Border Counties.*

(i.) Discussion on arrangements with Glasgow and West of Scotland (4 County Divisions) and Stirling Branch, regarding election of representative on Central Council.

(ii.) Discussion on "Position and Duties of part-time Medical Officers of Health.

Representation on General Council of Cumberland Nursing Association.

Joint Edinburgh and Border Counties Branch Motor Meeting proved a great success. Over 20 cars assembled at Moffat. An interesting discussion took place on motoring for medical men. The various makes were demonstrated by car owners.

#### (5) *Cambridge and Huntingdon.*

The arrangement with the Cambridge Medical Society works well to the advantage of both organisations. The average attendance, however, during the year has been smaller. This is easily accounted for by the fact that both the March and December meetings happened to be held on very wet days, this preventing the majority of members who live at varying and great distances from making an appearance. The March Meeting was clinical. At the Annual Meeting in July Professor Woodhead (the President) read an interesting paper on "The ozonising method of sterilising Cambridge water." At the Annual General Meeting a resolution was passed to the effect that "Members of the Branch are only prepared to deliver courses of lectures to the Voluntary Aid Detachments under the conditions now existing in connection with similar courses given under the auspices of the St. John's Ambulance Association, namely, at a fee of five guineas for the authorised course of five lectures." I understand this has resulted in fees being paid to all lecturers this winter.

At the December meeting Dr. Joseph Griffiths opened a discussion on "The Doctor and his help."

#### (6) *Connaught.*

(No Return.)

#### 7) *Dorset and West Hants*

———

#### (8) *Dundee.*

———

#### (9) *East Anglian.*

———

#### (10) *East York and North Lincoln.*

One Meeting only, the Annual Meeting, is held in each year. All the Association's other business is transacted by the Divisions. On account of the Association grant of 4s. having been reduced to 2s. the Council anticipated a deficit on the year, as the Branch cannot do its work with a grant of only 2s. and at the same time hand over to the Divisions a Capitation grant of 2s., which is a sum too small for their work. It is understood that the Central Council intends continuing the 4s. grant, and the Branch Council agree that this is the sum necessary for the adequate carrying on of the work of the Association.

#### (11) *Edinburgh.*

(i.) The Branch took action in connection with the appointment of the Assistant Medical Officer of Health of the Lothians, and the Medical Officership of Health of Berwickshire, in both of which the results were unsatisfactory. In connection with these, the University and Students Union refused to post the "Warning Notices" in their Halls.

An ethical case dealing with the relation of principal and a past *locum tenent* was satisfactorily arranged.

The subject of a Public or State medical service was discussed at the Annual Meeting in June. A paper was read dealing with the subject up to that date, and copies of the paper were ordered to be sent to every medical practitioner, members and non-members, in the Branch area, and also to the Presidents and Secretaries of every Branch in the United Kingdom, for the purpose of stimulating and creating interest in the question.

(ii.) In the end of December, 1909, a project was set on foot to inaugurate a new Hospital for Women. The attention of the Council was drawn to the proposal by the South Edinburgh Division, and it was resolved by the Council to recommend the following resolutions for discussion by the Branch on 25th January:—

(1) That a new Hospital for Women in Edinburgh with a limited staff was undesirable.

(2) That a scheme be approved for a Paying Nursing Home, open to all patients, medical or surgical, male or female, to be attended by any physician or surgeon of their own choice.

These resolutions were approved by the Branch Meeting, and as a result of this action, the new Hospital for Women scheme was withdrawn, and no appeal was made to the public for subscriptions. Owing to the private generosity of one or two supporters of the scheme, however, the Hospital was started on a small scale.

Meanwhile the Branch in conjunction with the E. and L.M.P.A., and during the year, has devoted much time to forwarding the paying nursing home scheme, which is on the fair way to consummation.

On the 8th July, an enjoyable joint motor meeting of the Edinburgh and Border Counties Branches was held at Moffat. The weather was magnificent, and after lunch a discussion took place on motor problems, and after tea an address by Dr. Huskin on Moffat waters.

I have pleasure in adding that 30 new members were elected during the year, and that on the 31st December there were 423 Members, out of about 639 practitioners in the Branch area, = 66.2 per cent.

#### (12) *Fife.*

Matters concerning contract practice had been discussed at an important conference between members of the Colliery Surgeons' Committee and representatives of the Miners' Union, but the points at issue had not been finally settled and it was probable that another meeting would have to take place.

The Branch Council had under consideration the increasing numbers in the County and elsewhere of Conscientious Objectors to Vaccination, and were taking steps to bring the same before the notice of Parliament with a view to get the Clause repealed.

#### (13) *Glasgow and West of Scotland.*

(1) Examination of school children found on inspection to be defective, and also the question of the treatment of the same.

(2) Hospital abuse and Conference with the three General Hospitals on this subject. The Conference has been of no use, as the managers of these hospitals deny the existence of abuse and consequently refuse the suggestion of the Branch to appoint a Medical Almoner to investigate if abuse does exist as alleged by this Branch of the Association.

(3) Ethical matters considered by the Council.

(4) Medical Provident Service.

* In the case of those Branches under which a "—" is inserted, the Branch has not thought it necessary to make any statement under these heads.

(14) *Gloucestershire.*

The following non-scientific matters were amongst those discussed :—

Model Rules for Nursing Associations.
Granting of certificates to parents for children unfit to attend school.
Inspection and treatment of school children found defective.
Insurance fees.
Bill to amend Coroners' Law.
Remuneration for instruction to Aid Detachments.
Business of Representative Meeting.

(15) *Lancashire and Cheshire.*

Except as regards general business such as the confirmation of certain proceedings of the Branch Council, the General Meetings of the Branch have been entirely scientific and clinical in character.

The Branch Council has endeavoured as far as lay in its power to assist Divisions in their organisation and work. It has specially aimed at encouraging clinical and scientific work at Division Meetings.

Great care and watchfulness has been exercised financially, and while the Branch Council has endeavoured to supply all the reasonable wants of the Divisions, it has continued to prevent the accumulation of money in their hands.

Out of 30 Divisions, 7 received no grant in 1910, against 12 in 1909 who were able to live on accumulated funds.

The total amount granted to Divisions this year was £123, equal to about 1s. 6d. per capita of the members of the Branch.

The Branch expenses have amounted to £70 or about 10d. per capita—a little below the average.

The whole Branch expenses, therefore, have been about 2s. 4d. per capita. While the Branch expenses are not likely to be very much greater in 1911, the Division expenses will be considerably increased owing partly to increasing activity, but chiefly to accumulated balances having become exhausted.

The membership has increased in 22 Divisions, remained the same in 3, and fallen in 5.

There is a total increase of over 50.

(16) *Leinster.*

A Branch Science Committee has been formed and the Branch Council granted £25 from the Branch funds to this Committee. The Committee is to consist of the President and Secretary of the Branch and four members elected from and by the Branch Council, together with three members of the Branch co-opted by the first six. It is understood that the three co-opted members are specially selected to represent the three Medical Schools. The Committee propose to assist senior medical students and recently qualified medical men who may be engaged in research work by giving small sums towards expenses of work or towards cost of publication.

(17) *Metropolitan Counties.*

(i.) The Norwood Division was divided into two Divisions, the Norwood and the Greenwich Divisions.

Three new Committees of the Branch and Branch Council have been formed :—The Contract Practice, Organisation, and School Children Committees.

(ii.) Several conferences have been held between members of the Branch and representatives of the Staffs of London hospitals, on the subject of the conduct of out-patient departments. These conferences have agreed upon certain important principles. Evidence is to be given before the Special Committee of the King Edward's Hospital Fund.

The Contract Practice Committee has given considerable attention to the subject of Contract Practice in London. Certain principles have been adopted by the Branch Council, but the question is in abeyance pending the reception of the Poor Law Reform Committee's Report.

Most of the Divisions have approached the L.C.C. on the subject of the treatment of school children found on medical inspection to be defective. School clinics have been formed in the Wandsworth and Norwood Divisions. In the Hampstead Division the treatment of these children is undertaken by the Public Medical Service. But, generally, the action of the L.C.C. has been most unsympathetic, and the matter is in a very unsatisfactory state. The Principal Medical Officer of the Education Department received a deputation of the Branch Council in March.

On the initiative of the Branch Council, the question of advertising by certain members of the staff of the National Eye Clinique was successfully brought to the notice of the General Medical Council.

The views of the Association on the subject of sight-testing by opticians were successfully upheld before the L.C.C. by the Branch Council.

(18) *Midland.*

(19) *Munster.*

The business entirely ethical, for Munster in general.

Meeting, March 12th, 1910, dealt with the case of consultations with doctor (a German unregistered practitioner) at Hydropathic.

Some important ethical cases are under the consideration of the Branch at present.

The Divisions are unorganised.

The social and scientific functions in Cork are fulfilled by the County and City of Cork Medical and Surgical Association. Ethical matters relating to the City medical men are dealt with by the Cork medical profession.

(20) *North of England.*

(21) *Northern Counties of Scotland.*

(22) *North Lancashire and South Westmorland.*

(No Return).

(23) *North Wales.*

(24) *Oxford and Reading.*

Maidenhead Division being still unorganised, I am unable to give the figures of membership.

(25) *Perth.*

(No Return).

(26) *Shropshire and Mid-Wales.*

Appointment for Radnor County Council Medical Officer of Health considered and protested against.

(27) *South-Eastern.*

The year has been marked by an increase of 46 Members instead of the loss of 126 in the previous year.

Two Divisions, Dartford, and Rochester and Chatham, which for some years had been unorganised, have now a full complement of Officers and are working with vigour.

The Treatment of School Children has engaged the attention of most of the Divisions, some of which have appointed Organisation Committees. An Organisation Committee has been appointed for the County of Kent, and steps have been taken to appoint two such Committees for East and West Sussex. This subject appears likely to be taken up seriously by most of the Divisions next year.

(28) *South-Eastern of Ireland.*

(29) *Southern.*

A Special Meeting was held on November 24th, 1910, to pass a resolution requiring every candidate for membership of the Association elected by this Branch to furnish a certificate from two Members of the Association that he was personally known to them and was a fit and proper person to be elected a Member.

(30) *South Midland.*

For these matters please refer to Divisional Reports.

Branch meetings are mostly social functions, at which scientific matters are discussed. Political matters are generally referred to the Divisions.

(31) *South Wales and Monmouthshire.*

*Finance.*—The experience gained since the new organisation of the Association came into force has demonstrated the following principles :—

(1) That the expenditure of the Divisions, varying with their activity, is unequal.

(2) That the expenditure of a Division, outside routine expenditure, may vary considerably. Consequently,

(3) That a regular equal capitation grant to the Divisions is not financially necessary.

(4) That the sum total of the grants to the Divisions does show a rough average and appears with the ordinary working expenses of the Branch to reach a sum necessitating a per cap. grant of 4s. from the Central Council.

(32) *South-Western.*

(i.) *Branch Organisation.*—The main matter dealt with has been the re-organisation of the Divisions of the Branch, the boundaries of the Exeter, Barnstaple and Torquay Divisions having been revised in detail, and the Devonport Division having been abolished, part of it being transferred to the Plymouth and part to the Exeter Division, and the rest with some addition from the Truro Division having been formed into a new "East Cornwall Division." The Truro Division has been re-named the "West Cornwall Division."

All members of the profession within the area of the Branch have been approached by the Branch Council with a view to upholding the resolution with regard to fees for ambulance lectures passed by the Representative Body at the London Meeting. The results have been highly satisfactory, and the Branch Council is not aware that any such work is now being done at a figure below that mentioned in the above referred to resolution.

(ii.) The activity of the Truro (or West Cornwall) Division has been very marked, and a strong and well-organised effort is being made in this Division to improve the position of the profession and the rate of payment of all classes of medical work.

(33) *Staffordshire.*

(34) *Stirling.*

(35) *Ulster.*

(36) *West Somerset.*

(37) *Worcestershire and Herefordshire.*

The Branch is seriously handicapped by the smallness of the *per capita* grant now given, and would draw attention to the overdraft. The finances of the Divisions are practically in a similar position. Besides the ordinary scientific and clinical work the Branch has endeavoured to enhance the social amenities of the Members by inviting the Gloucester Branch to hold joint meetings with the Worcester and Hereford Branch, and dining together after.

(38) *Yorkshire.*

Fifty-three new members have been elected. The net increase in membership is 18. The average attendance at Branch meetings has been 38, a slight increase on last year.

The Driffield dispute has again been under consideration, and is not yet settled. It will be further discussed at the first Meeting in the new year.

The question of the Medical Treatment of School Children has been under consideration of the Branch, and of several of the Divisions. At the November Meeting it was decided to appoint a Committee to consider this question, each Division to be asked to appoint a representative.

The question of Police Regulations and Medical Fees has been raised by the Halifax Division, and will be considered at the Spring Meeting of the Branch. The Halifax Division have arranged a scale of fees with the local Police, and have asked the Branch to make some arrangement with the County Police.

At the Annual Meeting of the Branch the following resolution was passed : "That this Meeting is disappointed to see no reference to a Postal Referendum in the proposed new Articles of Association, and expresses its opinion that no new Articles will be satisfactory which do not provide for a Postal Referendum."

## (B.) BRANCHES NOT IN UNITED KINGDOM.

(39) *Assam.*

Pasteur institute and medical research laboratory for Eastern Bengal and Assam. A report on the advantages of having such an institute in Eastern Bengal and Assam was drawn up and presented to the Committee of the Assam Branch Indian Tea Association and was by them passed on to the Local Government, where it was favourably received, and there is now great hopes of such an institute being in existence in the near future. The Committee of the Assam Branch agreed with the members of the Assam Branch of the Indian Tea Association that Shillong would be the most suitable site for such an institute, especially for research work.

(40) *Baluchistan.*

(Formed 1910).

(41) *Barbados.*

(No Return).

(42) *Bermuda.*

(No Return).

(43) *Bombay.*

The Branch passed Rules, which have been approved by the Central Council with the exception of Rule No. 7, which was not passed on account of a technical hitch.

The number of Members has increased, and with the year 1911 the Branch has commenced work with over 200 Members on its roll, which is very satisfactory.

(44) *Border Branch, South Africa.*

United with all other South African Medical Organisations in unanimously making the five recommendations to Government *re* the Profession and Public Health, which were subsequently endorsed by the last South African Medical Congress.

(45) *Brisbane and Queensland.*

(No Return).

(46) *British Guiana*

(No Return).

(47) *Burma.*

The meetings were fairly well attended and several interesting papers were read, and numerous cases and specimens shown by different Members.

One General Meeting was held to discuss the question of Registration of Medical Practitioners in India and Burma.

The Annual General Meeting was held in February, 1910, and lasted three days. Special papers were read, and there was a good display of pathological specimens, etc., and of exhibits by various firms of druggists, etc.

(48) *Cape of Good Hope, Eastern Province.*

Medical legislation under Union. Formation of South African Medical Association.

(49) *Cape of Good Hope, Western Province.*

(No Return).

(50) *Colombo, Ceylon.*

---

(51) *Egyptian.*

(No Return).

(52) *Gibraltar.*

The Central Council has been approached with a view to obtaining a revision or amendment of the present Medical Ordinance now in force in Gibraltar.

(53) *Griqualand West.*

(No Return).

(54) *Halifax, Nova Scotia.*

(No Return).

(55) *Hong Kong and China.*

A movement is on foot to bring this Colony into line with other British Colonies that all medical men on the Register must have some qualification recognised by the Medical Council of Great Britain.

We solicit the assistance of the Head Office in the matter.

(56) *Jamaica.*

(No Return).

(57) *Leeward Isles.*

(No Return).

(58) *Malaya.*

---

(59) *Malta and Mediterranean.*

(No Return).

(60) *Melbourne and Victoria.*

(No Return).

(61) *Montreal.*

(No Return).

(62) *Natal.*

The outstanding question during the past year has been a medico-political one, namely, the question of the creation by the Union Government of either—

(*a*) A Portfolio of Public Health, or

(*b*) A Medical Officer of Health for the Union of South Africa.

By the influence of this Branch, working in conjunction with all other Branches and Medical Societies in South Africa, this matter has already in the first session of the Union Parliament of South Africa been strongly brought forward and urged upon the Ministry of the Union. The state of matters at present is shown in the Annual Report of this Branch for the past year, a copy of which is enclosed herewith for this purpose, and for the purpose of allowing the Financial Statement, as required, to be prepared from the Balance Sheet, which contains the necessary details.

(63) *New South Wales.*

The Annual General Meeting will be held 31st March, 1911, the Annual Report presented at which will be forwarded.

(64) *New Zealand.*

The Branch has pleasure in reporting a continued steady increase in membership, 43 new Members having been added to our roll during the past year.

At the four quarterly meetings held during the year, all the Divisions were well represented, and a large amount of business was dealt with.

The Central Council has approved the application of Members resident on the West Coast of North Island to be constituted a separate Division of the New Zealand Branch. The Division extends from Otaki to Wanganui, and is named the Manawatu and West Coast Division. Applications have also come from the West Coast of the South Island and from Southland for the formation of New Divisions in those districts.

The Medical Practitioners Bill, promoted by the Branch in the interests of the profession and of the public as a whole, has not yet reached the Statute Book. On the Bill being referred to the Crown Law Officers, it was found to require a number of alterations to insure its effective working, and when the final draft was printed and circulated the Parliamentary Session was too near its close to permit of the Bill being passed through all its stages. It was, however, introduced by the Minister of Public Health and read a first time, and there is every reason to hope that it will be one of the first measures to be dealt with by Parliament during next Session.

During the year a strong Parliamentary Committee was set up, to which were referred the Medical Practitioners Bill, the proposed District Nursing Scheme, the Workers Compensation Bill, and other matters affecting the interests of the profession. Reports of their proceedings have appeared from time to time in the New Zealand Medical Journal.

The Editor of the New Zealand Medical Journal, while acknowledging the valuable assistance rendered by Secretaries of Divisions and a few regular contributors of papers, regrets that no progress seems to have been made towards the realisation of the scheme which alone will give the Journal the value which it ought to possess, namely, the appointment of Hospital Registrars one of whose principal duties would be the collecting and recording of the information which the cases in the Public Hospitals should afford.

(65) *Punjab.*

(Formed 1911).

(66) *St. John, New Brunswick.*

(No Return.)

(67) *Saskatchewan.*

(No Return.)

(68) *South Australian.*

(No Return.)

(69) *South Indian and Madras.*

(70) *Tasmania.*

(Formed 1911.

(71) *Toronto.*

(No Return.)

(72) *Transvaal.*

The chief work of the year was the final arrangements for the South African Committee. Good work was also done in appointing delegates to the South African Medical Congress that met in Cape Town in the first week of November. The profession throughout the Union were thus enabled to agree to some propositions that had been long mooted by this Branch, such as the desire to have a Department of Public Health for the Union under one responsible official, a medical man. Action was taken at the elections and seems likely to bear fruit.

(73) *Trinidad and Tobago.*

(No Return.)

(74) *Western Australian.*

(No Return.)

## REPORT OF COUNCIL ON THE QUESTION OF WHOLE-TIME SPECIALISTS AND OFFICERS FOR MEDICAL TREATMENT OF DEFECTIVE SCHOOL CHILDREN.

### INTRODUCTION.

1. The Council has given careful consideration to the following subjects to which attention has been drawn in connection with the subject of the treatment of school children found, upon medical inspection, to be defective :

A. The engagement of whole-time medical officers.

B. The engagement of specialists where adequate treatment at recognised surgeries or centres by local medical practitioners is not possible.

### (A) ENGAGEMENT OF WHOLE-TIME MEDICAL OFFICERS.

2. Under this head there are really two questions—namely : first, as to what should be the attitude of the Association towards the principle of the employment of whole-time officers rather than private practitioners ; and, second, as to the terms upon which whole-time officers should be employed, if at all.

*Principle of Employment of Whole-time Officers.*

3. The Annual Representative Meeting, 1909 (Belfast), decided (Minutes 86 and 94) in favour of the employment of private practitioners, but made quite clear that this decision did not exclude the possibility of approving other procedures in suitable cases. These two pronouncements, read in conjunction, make it the duty of the executive bodies of the Association to support Divisions in making every effort to secure the employment of private practitioners wherever practicable, but it will be necessary for the circumstances of each case to be taken into consideration before it can be definitely stated that a medical practitioner would, in the opinion of the Association, be acting in a manner detrimental to the honour and interests of the medical profession in accepting any given whole-time appointment. The chief element in determining this question in any specific instance will be the previously expressed opinion of the local Division.

4. Although the Association has, as above mentioned, declared its opinion that it is preferable that the treatment of school children should be carried out by private practitioners, no official statement of the professional and public grounds for such preference has been made by the Association. Certain cases in which it has been necessary for Divisions or Branches to take action have indicated the desirability of some authoritative statement of these grounds. It is important that Divisions should place the considerations in support of the employment of private practitioners before the local authorities in the most favourable manner possible. If a wide acceptance of this principle by public bodies can be obtained, it will not only be conducive to the immediate interests of the profession as affected by this question, but may also have a valuable indirect influence upon the subsequent determination of the arrangements for the provision of medical attendance on the insurance principle in connection with State sickness insurance or poor law reform. It is specially important that the public advantages of the employment of private practitioners should receive due prominence. A memorandum of the grounds in favour of the employment of private practitioners follows.

The Council RECOMMENDS :—

That the following memorandum of reasons in favour of the employment of private practitioners for the treatment of school children found, upon medical inspection, to be defective, be approved.

### MEMORANDUM.

*Reasons in favour of the Employment of Private Practitioners for the Treatment of School Children found upon inspection to be defective.*

(i.) Medical practitioners who are engaged in private practice enjoy the benefit of a wider experience of the treatment of disease than would those whose work was confined to the treatment (or the treatment and inspection) of school children.

(ii.) The treatment of diseases of children will give those who carry it out opportunities of obtaining valuable experience. If the work is done by private practitioners who are engaged, apart from their school work, in treating members of the general public, the general public will derive great benefit from this additional experience.

(iii.) The employment of private practitioners gives the education authority a wider field of choice than if the work is carried out by school medical officers.

(iv.) The treatment of school children may be expected to develop into a great national undertaking, the ultimate value of which will partly depend upon the number of persons who are interested. From this point of view it is better that as many as possible of the medical profession should have personal contact with the work, rather than that familiarity with it should be confined to a small class of public officials.

(v.) Whole-time officers possessing the necessary ability and special experience could not be obtained at low salaries, and the authorities would have to choose between economy and efficiency. By the employment of a number of part-time officers the authority would be able to adjust the employment of persons of special skill to its requirements in each direction.

(vi.) At the outset the employment of private practitioners has a special advantage in that it does not create any vested interest. If after a fair trial the authority were dissatisfied with the results obtained, the system could easily be discontinued, as those who had been employed in it would still have their private practice to fall back upon. The necessity of dismissing a special staff would, on the other hand, create serious difficulties for an authority desirous of changing its system.

### TERMS OF EMPLOYMENT OF WHOLE-TIME OFFICERS FOR TREATMENT OF SCHOOL CHILDREN.

5. The Association has already expressed the opinion that the same Officers should not be engaged in the work of both inspection and treatment.

6. As regards remuneration, the scale of payment already suggested for the case of school medical officers engaged in the duty of inspection would appear to be equally applicable to the case of treatment. The question is simply one of the proper remuneration for the whole of the time of a medical practitioner of a certain professional standing.

7. The Council RECOMMENDS :—

That as regards remuneration of whole-time medical officers engaged in the treatment of school children, the scale already approved by the Association for school medical officers engaged in inspection should be applied, namely that for junior or assistant officers the salary should not be less than £250 per annum, and that for more experienced officers the salary should not be less that £500 per annum. These sums to be understood as exclusive of travelling expenses, clerical assistance, postage, etc. Also that in any appointments of this kind provision should be made that the salaries of both Officers should raise automatically.

### (B) APPOINTMENT OF SPECIALISTS FOR TREATMENT OF SCHOOL CHILDREN.

8. Medical practitioners who occupy the position of experts may be employed in connection with the treatment of school children in two ways—namely, first, to give a second opinion

or expert treatment in a case in which the part-time or whole-time school medical officer considers such a second opinion or further treatment desirable; or, secondly, in large urban areas whole-time experts may possibly be employed to deal with cases of special difficulty. It is obvious that such an officer could only be appointed in a district of sufficient population to furnish a large number of exceptional cases.

9. The Council RECOMMENDS that the following be approved as the policy of the Association on this matter :—

*(a)* That in the treatment of school children specialists should usually be employed, not as whole-time officers, but as consultants, called on "ad hoc" for the treatment of individual cases of special difficulty, and paid the fees for such treatment on an agreed scale.

*(b)* That where the employment of specialists as whole-time officers is known to be contemplated by the education authority, and the local profession considers this not to be required by the circumstances of the case, representations should be made accordingly.

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## SCHEME FOR NOMINATION BY THE ASSOCIATION OF CANDIDATES FOR ELECTION AS DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

1. At the earliest possible date after the Special Representative Meeting the Medico-Political Committee shall cause to be circulated a notice to every Division in England and Wales (i.) advising the Division of the fact that an election of Direct Representatives on the General Medical Council for England and Wales will, in the ordinary course, take place in November, 1911, (ii.) requesting that the matter be taken into consideration by the Division, and, (iii.), asking to be informed not later than June 15th, 1911, of the names of any person or persons, legally qualified for election, whom the Division may deem suitable to be nominated on behalf of and supported by the Association.

2. The Committee shall cause a list to be prepared of those persons, legally qualified for election, who shall have been named by Divisions in the manner provided in Clause 1. The said list shall be circulated to the Divisions and each constituency shall be requested to adopt such resolutions as may enable its Representative at the ensuing Annual Representative Meeting to give effect to the wishes of the constituency in a vote taken in the manner hereinafter prescribed.

3. At the time of the Annual Representative Meeting a Special Meeting of Representatives of Divisions in England and Wales shall be convened, to select from the list of nominees of Divisions four persons for nomination as Candidates. Voting shall be by show of hands. The four Candidates who receive the greatest number of votes shall be deemed to be the Candidates selected for support by the Association.

4. The Medico-Political Committee shall arrange that the persons so selected shall be duly nominated, on behalf of the Association, as Candidates for the Office of Direct Representatives on the General Medical Council, and every effort shall be made by the Association to secure the election of the said Candidates.

DECLARATION BY CANDIDATES.

I, the undersigned, hereby consent that my name be submitted to the Divisions of the Association as willing, if duly elected, to be nominated on behalf of the Association, as a Candidate at the election in 1911 of Direct Representatives on the General Medical Council for England and Wales.

Signed.....

Qualifications.....

Address.....

# Association Notices.

## SPECIAL REPRESENTATIVE MEETING.

**A Special Representative Meeting will be held in the Examination Hall of the Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, on Wednesday, May 31st, 1911, at 10 in the forenoon, and on the following day, if necessary, for the consideration of matters arising out of Minute 340 of the Annual Representative Meeting, 1910 (see below), including the National Insurance Bill, now before the House of Commons, as affecting the medical profession; and for the consideration also of matters arising in connexion with the proposed formation of a new Company to carry on the work of the Association with extended powers.**

**Minute 340 of the Annual Representative Meeting, 1910, was as follows:**

**Resolved: That the Council be instructed, after receiving and considering the replies of the Divisions on the Poor Law question, to call a Special Representative Meeting as soon as possible at some convenient centre.**

**The Agenda is published at p. 253 of this issue of the Supplement.**

*BY ORDER OF THE COUNCIL,*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

J. SMITH WHITAKER,
*Medical Secretary.*

**May 11th, 1911.**

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## SPECIAL COUNCIL MEETING.

**Notice is hereby given that, in connexion with the Special Representative Meeting to be held in London on Wednesday, May 31st, and, if required, on Thursday, June 1st, a Special Meeting of the Council will be held for the consideration of the resolutions of the Special Representative Meeting, and will take place at 429, Strand, on Thursday, June 1st, at 10 a.m., or, if the Special Representative Meeting does not complete its business on Wednesday, May 31st, at such hour on Thursday, June 1st, as shall be announced during the course of the Special Representative Meeting.**

*BY ORDER,*

GUY ELLISTON,
*Financial Secretary and Business Manager.*

**May 18th, 1911.**

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of the Bath and Bristol Branch will be held at Bristol University on Wednesday, June 14th, at 5 o'clock, Dr. J. M. Rattray in the chair. Business: "Annual."—NEWMAN NEILD (Clifton), W. M. BEAUMONT (Bath), Honorary Secretaries, Clifton.

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BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Division will be held at the Bristol University at 5 o'clock on May 30th. Business: "Annual."—NEWMAN NEILD, Honorary Secretary, Clifton.

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BIRMINGHAM BRANCH.—The annual meeting of the Branch will be held at the Medical Institute, Edmund Street, on Thursday, June 15th, at 3.30 p.m. Nominations of officers should be sent to us by not later than June 1st.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

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BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held on June 14th at the Medical Institute, at 4 p.m., for the election of officers.—A. W. NUTHALL, W. T. LYDALL, Honorary Secretaries.

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EAST ANGLIAN BRANCH.—The annual meeting will be held at Norwich on Thursday, July 13th.—B. H. NICHOLSON, Honorary Secretary, Colchester.

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EAST YORKS AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held on Thursday, June 15th, in the Etherington Ward at the Hull Royal Infirmary.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

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GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Thursday, June 15th, at 4 p.m.—W. D. MACFARLANE, jun., M.B., Honorary Secretary.

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LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at the Board Room of the Altrincham Hospital, at 4.45 p.m., on Wednesday, June 21st, and not on June 1st, as previously stated. Tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1911–12. Every member is eligible for every office, and may be proposed by any member. Nominations, in writing and signed, may be sent to the Honorary Secretary at any time before June 19th. Dinner at the Brooklands Hotel, 7.30 p.m. *Ladies invited.* Names *must* be given to the Honorary Secretary by Monday, June 19th, in order that he may have time to cancel the arrangement (*so far as the ladies are concerned*) if there are not sufficient acceptances—say, five or six at least. The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 19th. (If any alteration of programme becomes necessary, it will be advertised in the SUPPLEMENT, which members should consult regularly.) *Agenda:* (1) Minutes of Fifty-second General Meeting (Northwich). (2) Minutes of Sixty-eighth Committee Meeting. (3) Apologies for absence. (4) Election of Officers: (*a*) Chairman for 1911–12, and his induction by the retiring Chairman. (*b*) Elect other Officers: Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, Committee, Associate Members. (5) Annual Report of Executive Committee. (6) Alteration of Rules [Rules 8, 12 (*b*)]. (7) Question of extending invitation for Branch Meeting, 1912. (8) Report of Representatives. (9) Matters Referred to Divisions (SUPPLEMENTS from April 22nd to date). (10) Question of Associated Fund for Professional Defence. (11) Division Fund for Medical Charities. (12) Any other urgent business.—H. G. COOPER, Honorary Secretary, "Foye," Altrincham.

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LEINSTER BRANCH.—The annual meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Friday, June 9th, at 4.30 p.m. Members who wish to bring forward any subject of professional interest should communicate with ARTHUR H. WHITE, Honorary Secretary, Malvern, Terenure Road, Dublin.

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METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The ninth annual general meeting will be held on Friday, May 26th, at the Town Hall, Hackney, at 4 p.m. Agenda: (1) Minutes. (2) Letters. (3) Election of Officers of the Division and Executive Committee. (4) Receive annual report of Executive Committee. (5) Instruction to Representative for Annual Representative Meeting. (6) Adoption of proposed new Ethical Rules. (7) Approval of action of Executive Committee *re* report concerning medical attendance on a provident or insurance basis. (8) Recommendation from Executive Committee respecting instructions to Representative on Government Invalidity Bill. (9) Other business.—A. G. SOUTHCOMBE, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—The annual meeting of the Division will be held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Monday, May 29th, at 5 p.m. Agenda: (1) Minutes. (2) Questions. (3) Letters. (4) To elect officers, Representatives of the Division on the Branch Council for the ensuing year. Nominated by the Executive Committee: Chairman, Sir Frederic S. Eve; Vice-Chairman, Mr. Atwood Thorne; Treasurer, Dr. Comyns Berkeley; Honorary Secretary, Mr. N. Bishop Harman; Executive Committee, Drs. G. A. Heron, F. J. Smith, F. M. D. Berry, C. O. Hawthorne, Percy Spurgin. (5) To receive the annual report of the Executive Committee. (6) At 5.30 p.m. a discussion will be opened on the Insurance Bill by the Right Hon. Sir Thomas Palmer Whittaker, M.P. In view of the great influence which this proposal must exert upon the medical profession, it is hoped that all doctors resident in the borough of St. Marylebone (to whom this invitation is extended) will make a point of attending and taking part in the discussion. Intending speakers are requested to send in their names early.—N. BISHOP HARMAN, Honorary Secretary, 108, Harley Street, W.

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METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The annual meeting of the Division will be held on Thursday, June 1st, at 9 p.m., at the Midland Grand Hotel, King's Cross, N.W. Dr. William Griffith will preside. The chief business after the election of officers will be to discuss the National Insurance Bill, and it is hoped that the local profession (to every member of whom an invitation will be sent) besides the members of the Division will largely attend.—A. BROWN, Honorary Secretary, 1, Bartholomew Road, N.W.

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MIDLAND BRANCH.—The meeting of the Branch Council will be held at the Derbyshire Royal Infirmary on June 15th, at 2 p.m., and the annual meeting of the Branch on the same day at 3 p.m. The President-elect, Dr. E. Collier Green, will open a discussion on the Medical Insurance Bill.—F. L. A. GREAVES, Derby.

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NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held at Elgin on Saturday, June 10th. The meeting is to be held jointly with the Aberdeen Branch. Further particulars will be sent to the members by circular.—J. MUNRO MOIR, M.D., Honorary Secretary.

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SOUTH-EASTERN BRANCH.—The sixty-seventh annual meeting of this Branch will be held at the Old Grammar School, Ashford, on Wednesday, June 7th, at 2.15 p.m. The Council will meet before lunch at the Saracen's Head; notice of the time of this meeting, together with the agenda of business, will be sent to members of council in due course. Dr. Wilks (President-elect) kindly invites members to lunch at the Saracen's Head, Ashford, from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting, (1) To receive the report of the election of officers for 1911–12, who shall thereupon take office. (2) To receive the Annual Report of the Council on the affairs of the Branch and the Annual Financial Statement. (3) To consider the Revised Rules presented by the Council for adoption by the Branch. After the meeting the members will drive to Godinton, a fine old Elizabethan mansion containing some splendid carving, where they will be kindly entertained to tea by G. Ashley Dodd, Esq., D.L., High Sheriff of Kent. The annual dinner will be held at the Saracen's Head at 6.30 p.m.; charge, 6s. each. Wine will be provided by the local members. Members intending to be present at the lunch, the excursion, or the dinner are requested to signify their intention to Mr. Claude M. Vernon, Stoke House, Ashford, not later than Saturday, June 3rd.—E. A. STARLING, Tunbridge Wells, Honorary Secretary.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of the Branch will be held at Cardiff on Thursday, June 15th.—ALFRED HANSON, Honorary Secretary, Swansea.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DVISION.—The annual meeting will be held at the Joint Counties Asylum, Carmarthen, on Wednesday, June 7th, at 1 p.m. Luncheon and tea will be provided. Business: Election of officers; mental cases, to be shown by Dr. J. Richards, medical superintendent; and to consider the State Sickness Insurance Bill.—D. R. PRICE, Honorary Secretary, Ammanford.

# THE SEVENTY-NINTH ANNUAL MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION,
## BIRMINGHAM,
## JULY 25TH TO 28TH, 1911.

**President:**
H. T. BUTLIN, Pres.R.C.S., D.C.L., LL.D., Consulting Surgeon, St. Bartholomew's Hospital, London.

**President-elect:**
Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

**Past President:**
Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica, Queen's College, Belfast.

**Chairman of Representative Meetings:**
EWEN JOHN MACLEAN, M.D., C.M., M.R.C.P.Lond., F.R.S.E., Gynaecologist, Cardiff Infirmary.

**Chairman of Council:**
JAMES ALEXANDER MACDONALD, M.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

**Treasurer:**
EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Seventy-ninth Annual Meeting of the British Medical Association will be held in Birmingham in July, 1911. The President's Address will be delivered on Tuesday, July 25th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 21st, 1911.

## PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by BYROM BRAMWELL, M.D.Edin., President of the Royal College of Physicians of Edinburgh, Senior Ordinary Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by Professor JORDAN LLOYD, M.S., F.R.C.S., Surgeon, Queen's Hospital, Birmingham.

## THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday July 26th, Thursday, July 27th, and Friday, July 28th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

*Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the* BRITISH MEDICAL JOURNAL *without special permission.*

The following sixteen Sections have been authorized by the Council:

### ANATOMY AND PHYSIOLOGY.

*President:* Professor THOMAS H. BRYCE, M.A., M.D., Glasgow.

*Vice-Presidents:* Professor EDMOND WILLIAM WACE CARLIER, M.D., Birmingham; Professor PETER THOMPSON, M.D., Birmingham; ALEXANDER LOW, M.B., Aberdeen.

*Honorary Secretaries:* DAVID FRASER HARRIS, M.D., University, Birmingham; THOMAS YEATES, M.B., University, Birmingham; JOHN ERNEST SULLIVAN FRAZER, Anatomical Department, King's College, W.C.

### DERMATOLOGY.

*President:* JAMES GALLOWAY, M.D., London.

*Vice-Presidents:* JAS. H. SEQUEIRA, M.D., F.R.C.P., London; HORATIO GEORGE ADAMSON, M.D., London; E. GILBERT SMITH, F.R.C.S., Birmingham.

*Honorary Secretaries:* A. DOUGLAS HEATH, M.D., 41, Newhall Street, Birmingham; R. CRANSTON LOW, M.B., 6, Castle Terrace, Edinburgh; W. ARTHUR LOXTON, F.R.C.S., 85, Cornwall Street, Birmingham; ARCHIBALD M. HENRY GRAY, M.D., F.R.C.S., 30, New Cavendish Street, London, W.

### DISEASES OF CHILDREN.

*President:* OTTO JACKSON KAUFFMANN, M.D., Birmingham.

*Vice-Presidents:* WALTER ROSS JORDAN, M.D., Birmingham; GEORGE HEATON, F.R.C.S., Birmingham; JOHN DOUGLAS STANLEY, M.D., Birmingham; Miss ANN ELIZABETH CLARK, M.D., Birmingham.

*Honorary Secretaries:* JAMES EDWARD HILL SAWYER, M.D., 93, Cornwall Street, Birmingham; SEYMOUR GILBERT BARLING, M.S., 81, Edmund Street, Birmingham; REGINALD HY. MILLER, 53, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Wednesday, July 26th.—Discussion on the Diagnosis,

Prognosis, and Treatment of Tuberculous Peritonitis. To be opened by Dr. H. D. Rolleston, F.R.C.P., and Mr. G. A. Wright, F.R.C.S.

Thursday, July 27th.—Discussion on the Diagnosis and Treatment of Chronic Pulmonary Affections of Children. To be opened by Dr. Samuel West.

Friday, July 28th.—Papers.

At the end of each discussion papers will be read.

## ELECTRO-THERAPEUTICS AND RADIOLOGY.

*President:* HUGH WALSHAM, M.D., London.

*Vice-Presidents:* ASTLEY VAVASOUR CLARKE, M.D., Leicester; W. DEANE BUTCHER, M.R.C.S., London; JOHN ALFRED CODD, M.D., Wolverhampton.

*Honorary Secretaries:* FRANKLIN EMRYS-JONES, L.M.S.S.A., 103, Newhall Street, Birmingham; GEORGE HARRISON ORTON, M.D., 67, Upper Berkeley Street, London, W.

## LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

*President:* FRANK MARSH, F.R.C.S., Birmingham.

*Vice-Presidents:* FREDERICK WALTER FOXCROFT, M.D., Birmingham; WILLIAM LAMB, M.D., Birmingham; ATWOOD THORNE, M.B., London.

*Honorary Secretaries:* WILFRID GLEGG, M.D., 85, Cornwall Street, Birmingham; BERTRAND SEYMOUR JONES, F.R.C.S., 93, Cornwall Street, Birmingham; WILLIAM GUTHRIE PORTER, F.R.C.S., 16, Manor Place, Edinburgh.

## MEDICAL SOCIOLOGY,

INCLUDING MEDICAL INSPECTION OF SCHOOL CHILDREN, HOSPITAL ADMINISTRATION, AND CONTRACT PRACTICE.

*President:* GEORGE REID, M.D., Stafford.

*Vice-Presidents:* MATTHEW HALLWRIGHT, M.R.C.S., Birmingham; MATTHEW ARDEN MESSITER, M.R.C.S., Dudley; HENRY WILLIAM ARMIT, M.R.C.S., London.

*Honorary Secretaries:* JAMES NEAL, M.R.C.S., 610, Coventry Road, Small Heath, Birmingham; GEORGE AUGUSTUS AUDEN, M.D., Solihull, Birmingham; JAMES PEARSE, M.D., 28, St. George's Terrace, Trowbridge.

Discussion on Medical Aspects of the Poor Law Question, with special reference to State Insurance and the provision of better medical attendance on the poorer members of the community by (*a*) whole time medical officers, (*b*) provident dispensaries and other forms of contract practice, (*c*) private medical practitioners. To be opened by Mr. J. Smith Whitaker, Medical Secretary.

## MEDICINE.

*President:* ALFRED HENRY CARTER, M.D., Birmingham.

*Vice-Presidents:* HENRY MALET, M.D., Wolverhampton; THEODORE STACEY WILSON, M.D., Birmingham; WILLIAM HUNTER, M.D., London.

*Honorary Secretaries:* ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; JOSEPH GEORGE EMANUEL, M.D., 47, Newhall Street, Birmingham; EDWARD TURTON, M.D., 1, Albion Street, Hull; HAROLD PRITCHARD, M.D., 55, Harley Street, London, W.

The following subjects have been selected for discussion:

1. Asthma, its Varieties and Treatment. To be opened by Dr. George Alexander Gibson, D.Sc., F.R.C.P.

2. Obscure Cases of Fever without Physical Signs. To be opened by Dr. William Hale White, F.R.C.P.

## NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

*President:* EDWIN GOODALL, M.D., Whitchurch, Cardiff.

*Vice-Presidents:* JAMES WILLIAM RUSSELL, M.D., Birmingham: CUTHBERT S. MORRISON, L.R.C.P., L.R.C.S., Hereford; JAMES CRAIG, M.D., Dublin.

*Honorary Secretaries:* SAMUEL ALEXANDER KINNIER WILSON, M.B., 63, Wimpole Street, London, W.; BENJAMIN HENRY SHAW, M.B., County Asylum, Stafford.

The following subjects have been selected for special discussion:

Wednesday, July 26th.—The Different Types of Disseminated Sclerosis. To be opened by Professor H. Oppenheim (Boston).

Thursday, July 27th.—Trauma in Relation to Nervous and Mental Affections. To be opened by Dr. F. W. Mott, F.R.S. (London).

Friday, July 28th.—Papers.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to one of the Honorary Secretaries, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Titles of communications should be sent to the Honorary Secretaries as soon as possible, and the paper themselves accompanied by an abstract of each, not later than May 27th, for reference to the Committee of the Section. No paper will be accepted for reading until it has been so sent in and approved.

## OBSTETRICS AND GYNAECOLOGY.

*President:* Professor EDWARD MALINS, M.D., Birmingham.

*Vice-Presidents:* CHRISTOPHER MARTIN, F.R.C.S., Birmingham; CUTHBERT LOCKYER, M.D., London; NATHANIEL THOMAS BREWIS, M.B., Edinburgh; FREDERICK EDGE, M.D., Wolverhampton.

*Honorary Secretaries:* SMALLWOOD SAVAGE, F.R.C.S., 133, Edmund Street, Birmingham; JOHN THOMAS HEWETSON, M.D., 89, Cornwall Street, Birmingham; HAROLD BECKWITH WHITEHOUSE, M.S., 52, Newhall Street, Birmingham; HARRY BECKETT-OVERY, M.D., 30, Harley Street, London, W.

The following two subjects have been selected for discussion:

Wednesday, July 26th.—(1) Asphyxia Neonatorum. To be opened by Sir Francis Champneys, Bart.

Thursday, July 27th.—(2) The Present Position of Vaginal Operations in relation to the Uterus and its Adnexa. To be opened by Professor Strassmann (Berlin).

The committee has arranged for a section of the Pathological Museum to be specially set aside for the exhibition of specimens, microscopic slides, photographs, etc., relating to the degenerations and complications of fibromyomata of the uterus. In addition the committee is willing to receive other specimens of interest.

All contributions and papers should be forwarded to the Honorary Secretaries not later than May 31st.

## ODONTOLOGY.

*President:* Professor FRANK EARLE HUXLEY, M.D.S. Birm., M.R.C.S.

*Vice-Presidents:* HENRY WATSON TURNER, M.R.C.S., L.D.S., London; CHARLES EDWARD WALLIS, M.R.C.S., L.D.S., London.

*Honorary Secretaries:* PERCY THOMAS NADEN, L.M.S.S.A., L.D.S., 22, Temple Row, Birmingham; JOHN HERBERT GIBBS, F.R.C.S., L.D.S., 12, Coates Crescent, Edinburgh.

The following is the programme arranged:

*Subject for Special Discussion:* The Teeth in Relation to Public Health. To be taken under the following headings:

Wednesday, July 26th: (1) Dentistry and the Public. To be opened by Mr. Cyril Howkins. (2) The Bacteriology of the Tooth-brush. To be opened by Mr. Herbert Smale and Dr. Carmalt Jones. (3) Unqualified Practice. To be opened by Mr. H. R. F. Brooks.

Thursday, July 27th.—(4) Congenital Defects. To be opened by Mr. J. Howard Mummery. Visit to Odontological Museum, where a discourse will be delivered entitled "Scientific Value of an Odontological Museum," by Mr. John Humphreys, Professor of Dental Anatomy and Physiology.

Friday, July 28th.—Joint meeting with the Section of State Medicine and Industrial Diseases. (5) Prevention of Caries from a Public Health Standpoint. To be opened by Dr. James Wheatley. (6) The Abuse of Sweetmeats. To be opened by Mr. A. Hopewell-Smith. (7) Infant Feeding. To be opened by Mr. C. E. Wallis. (8) The Bread Question. To be opened by Dr. Sim Wallace.

## OPHTHALMOLOGY.

*President:* HENRY EALES, M.R.C.S., Birmingham.

*Vice-Presidents:* EDWARD WILLIAM WOOD WHITE, M.D., Birmingham; HENRY SECKER WALKER, F.R.C.S., Leeds; JOHN GRAY CLEGG, M.D, Manchester.

*Honorary Secretaries:* ROBERT JAMES COULTER, M.B., Bryn Ivor, 11, Clytha Park Road, Newport, Mon.; JOHN JAMESON EVANS, M.D, 85, Edmund Street, Birmingham; WILFRID ALLPORT, F.R.C.S.Edin., 95, Cornwall Street, Birmingham; ARTHUR WILLIAM ORMOND, F.R.C.S., 7, Devonshire Place, London, W.

The following subjects have been selected for discussion:

1. The Operative Treatment of Glaucoma. To be opened by Mr. Priestley Smith.
2. The Etiology, Diagnosis, and Treatment of Concomitant Squint and Heterophoria. To be opened by Mr. Claud Worth.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to one of the Birmingham Honorary Secretaries, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any cases, preparations, specimens of drawings, or any instruments or apparatus pertaining to the work of the Section which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

## PATHOLOGY.

*President:* Professor ROBERT FRASER CALDER LEITH, M.B., Birmingham.

*Vice-Presidents:* JAMES HUGH THURSFIELD, M.D., London; CHARLES JAMES LEWIS, M.D., Birmingham; WALTER D'ESTE EMERY, M.D., London.

*Honorary Secretaries:* WILLIAM HY. WYNN, M.D. 41, Newhall Street, Birmingham; LEONARD GEORGE JOSEPH MACKEY, M.D, 141, Great Charles Street, Birmingham; BRYDEN GLENDINING, F.R.C.S., 7, Devonshire Place, London.

The following is the provisional programme:

Wednesday, July 26th.—Discussion on Hypersensitiveness in its various manifestations, especially in relation to serums, vaccines, and tuberculin. To be opened by Dr. Walter D'Este Emery with a paper on Anaphylaxis. Professor Charles Richet will contribute to the discussion.

Thursday, July 27th.—Discussion on the Pathogenic Action of *Bacillus coli*. To be opened by Dr. H. D. Rolleston.

Friday, July 28th.—Papers.

Arrangements will be made for the exhibition in the Pathological Museum of specimens illustrating the work of the Section. Members wishing to exhibit specimens or photographs should communicate with Dr. Leonard Mackey, 141, Great Charles Street, Birmingham, Secretary of the Pathological Museum.

## STATE MEDICINE AND INDUSTRIAL DISEASES.

*President:* Professor ALFRED BOSTOCK HILL, M.D., Birmingham.

*Vice-Presidents:* JOHN ROBERTSON, M.D., Birmingham; ERNEST HUGH SNELL, M.D., Coventry; SIDNEY BARWISE, M.D., Duffield, Derbyshire; MABYN READ, M.D., Worcester; EDWARD WILBERFORCE GOODALL, M.D., London.

*Honorary Secretaries:* ROBERT ARTHUR LYSTER, M.D., The Castle, Winchester; THOMAS SHADICK HIGGINS, M.B., Health Department, Council House, Birmingham; ARTHUR DOUGLAS COWBURN, M.D., 31, Barkston Gardens, London.

The following subjects have been suggested for discussion:

1. Administrative Control of Tuberculosis: (*a*) Notification; (*b*) Sanatoriums; (*c*) Dispensary and Domiciliary Treatment.
2. Disease Carriers.
3. The Need for a Unified Public Health Service.
4. Disease, Industrial or Otherwise, as a Subject for Claim for Damages or Compensation at Law.
5. Joint discussion with the Odontological Section on the Prevention of Caries from a Public Health Standpoint.

## SURGERY.

*President:* Sir THOMAS FREDERICK CHAVASSE, F.R.C.S., Birmingham.

*Vice-Presidents:* WILLIAM DUNNETT SPANTON, F.R.C.S., Hanley; WILLIAM FREDERICK HASLAM, F.R.C.S., Birmingham; JAMES THOMAS JACKMAN MORRISON, F.R.C.S., Birmingham; EDWARD DEANESLY, F.R.C.S., Wolverhampton; DAVID WALLACE, C.M.G., F.R.C.S.Edin., Edinburgh.

*Honorary Secretaries:* LEONARD PARKER GAMGEE, F.R.C.S., 95, Cornwall Street, Birmingham; CHARLES ARTHUR KINAHAN BALL, M.D., 22, Lower Fitzwilliam Street, Dublin; CHARLES ALBERT LEEDHAM-GREEN, F.R.C.S., 9, Newhall Street, Birmingham; JOHN HOWELL EVANS, F.R.C.S., 25, Berkeley Square, London.

The following subjects have been selected for discussion:

1. The Treatment of General Peritonitis. Dr. George R. Trowler, of Brooklyn, U.S.A, has been asked to introduce the discussion.
2. The Technique of Wound Treatment. To be opened by Mr. Alexis Thomson (Edinburgh).

## THERAPEUTICS, INCLUDING DIETETICS.

*President:* Sir ROBERT M. SIMON, M.D., Birmingham.

*Vice-Presidents:* PAUL MORGAN CHAPMAN, M.D., Hereford; THOMAS SYDNEY SHORT, M.D., Birmingham; HENRY WILLOUGHBY GARDNER, M.D., Shrewsbury.

*Honorary Secretaries:* WILLIAM ALEXANDER POTTS, M.D., 118, Hagley Road, Birmingham; ALEXANDER BRYCE, M.D., "St. Kilda," Anderton Park Road, Moseley, Birmingham; HECTOR CHARLES CAMERON, M.D., 6, St. Thomas Street, London.

The following is the provisional programme:

Wednesday, July 26th.—The Merits of a Relatively Low Protein Diet.

Thursday, July 27th.—(In conjunction with the Section of Dermatology.) Recent Developments in the Recognition and Treatment of Syphilis.

Friday, July 28th.—The Scope of Immune and Normal Serum in Treatment.

## TROPICAL MEDICINE.

*President:* Sir FRANCIS LOVELL, K.C.M.G., F.R.C.S., London.

*Vice-Presidents:* ANDREW BALFOUR, M.D., Khartoum;

ROBERT THOMSON LEIPER, M.B., Eltham; ARTHUR G. BAGSHAWE, M.B., Rickmansworth.

*Honorary Secretaries:* LEONARD G. PARSONS, M.D., 52, Newhall Street, Birmingham; HENRY CURTIS, F.R.C.S., 59, Harley Street, London, W.; K. S. WISE, M.B., B S., B.Sc.Lond., D.P.H., Royal Societies Club, 63, St. James's Street, London, S.W.

The following subjects have been selected for discussion:

Wednesday, July 26th, 10 a.m.—Plague—in its Endemiological and Epidemiological Aspects. To be opened by Dr. C. J. Martin, F.R.S., Director of the Lister Institute of Preventive Medicine; Member of the Advisory Committee for Investigating Plague in India.

Thursday, July 27th, 10 a.m.—Yellow Fever on the West Coast of Africa. To be opened by Professor Sir Rubert William Boyce, F.R S., Dean of the Incorporated Liverpool School of Tropical Medicine.

Friday, July 28th, 10 a.m.—Sanitation of Villages and Small Towns in the Tropics, with Special Reference to Efficacy and Cheapness. To be opened by Dr. W. J. Ritchie Simpson, C.M.G., Professor of Hygiene, King's College, London; Lecturer on Tropical Hygiene, London School of Tropical Medicine.

In view of the lively debates which the three subjects selected for discussion may be expected to elicit, there will probably be less opportunity than usual this year for papers on miscellaneous subjects. Such as are approved by the Committee of Reference for the Section will be read so far as time permits.

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Honorary Local Treasurer—

J. T. J. MORRISON, Esq., F.R.C.S.,
54, Newhall Street, Birmingham.

Honorary Local Secretaries—

ALBERT LUCAS, Esq., F.R.C.S.,
9, Easy Row, Birmingham.

JOHN FURNEAUX JORDAN, Esq., M.B , F.R C.S.,
9, Newhall Street, Birmingham.

W. TRACY LYDALL, Esq., M.D Brux.,
Greswolde House, Yardley, Worc.

A. W. NUTHALL, Esq., F.R.C.S.,
89, Cornwall Street, Birmingham.

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## PROVISIONAL PROGRAMME.

The following was settled as a provisional Time Table. The final fixing of the hour for the meeting of the Representative Body is left to the Chairman of the Representative Meetings and the Chairman of Council:

FRIDAY, JULY 21ST, 1911.
10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 22ND.
9 A.M.—Representative Meeting.

MONDAY, JULY 24TH.
9 30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.
4 P.M.—Annual General Meeting to appoint Auditors.
7 P.M.—Secretaries' Conference and Dinner.

TUESDAY, JULY 25TH.
9.30 A M.—Representative Meeting.
4 P.M.—Religious Service.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 26TH.
9.30 A M.—Council Meeting.
10 A.M. to 1 P M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.

THURSDAY, JULY 27TH.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 28TH.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings,

SATURDAY, JULY 29TH.
Excursions.

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## GOLF.

MEMBERS attending the Annual Meeting will find that the local committee has not been behindhand in catering for the devotees of the royal and ancient game. Practically all the clubs in the neighbourhood have generously placed their courses at the disposal of the local executive, but in one or two cases Saturday afternoons have been excluded. On presentation of their card of membership visitors to the meeting will be considered members of the club for the day and freed of all green fees. Although there is no first-class course in the district, there are a number which fall little short of that exalted standard, such as Sandwell Park, Olton, Handsworth, Sutton Coldfield, King's Norton, Harborne, and Little Aston. Further afield are Malvern and Leamington. The links at Malvern is one of the oldest in England, charmingly situated at the foot of the beautiful Malvern Hills, and known by name or repute to most golfers. Sunday play is allowed, without caddies, at nearly all the clubs. There is no play at Malvern on Sundays, and at Leamington only after mid-day.

### MATCH.

*Birmingham v. The Rest.*

On Wednesday, July 26th, a match, twenty-five a side, is being arranged at Little Aston between the visitors to the meeting and the Birmingham Medical Golfing Society. The Little Aston course is situated about nine miles from Birmingham, and about ten minutes' walk from Streetly Station on the Midland Railway; it is, however, hoped that sufficient motor cars will be available to convey players in the match from the Grand Hotel to the club house. The course is rather a new one, but will be found a good test of golf. It is formed out of a deer park once belonging to the well-known Staffordshire family of Parker-Jervis. Mr. J. B. Clarke, of Little Aston Hall, which adjoins the course, has kindly undertaken to provide tea at his house for the players. Members wishing to play in the match should send their names, together with their handicaps, to Dr. Thomas Sansome, Sandwell House, West Bromwich.

### THE ULSTER CUP COMPETITION.

The Ulster Cup, presented by the Ulster members in 1909, will be played for as usual on the Friday of the Annual Meeting. The play is against bogie. It will take place on the course of the Handsworth Club, about three and a half miles from the Birmingham Town Hall, and about one mile from Handsworth Wood Station; it can also be reached by tram to the Roebuck Inn, eked out by cab for about a quarter of an hour at a fare of 1s. 6d. It is hoped to arrange for a motor omnibus to run at intervals of about one hour from the Grand Hotel to the club house. A special prize has been offered by Mr. Saunders, the captain of the club, in connexion with this competition. Mr. C. A. Palmer, well known as the runner-up for the amateur championship a few years ago, has kindly offered to entertain the competitors to tea at his house, which adjoins the course. The Handsworth course is about 5,650 yards in length, the soil is light and springy, the greens are excellent, but a little fast in dry weather; there is an abundance of bunkers most artfully placed to catch a bad shot; but the player who keeps straight and hits a fair ball will be sure of finding a good lie, and get the reward of accurate play.

Further details of the match and of the Ulster Cup Competition will be posted in the reception room at the town hall, and information will be given as to the means of reaching the various links.

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## PATHOLOGICAL MUSEUM.

THE following are the members of the Committee:

*Chairman:* Professor R. F. C. LEITH.

*Honorary Secretary:* A. W. NUTHALL, F.R.C.S.

*Ex-officio Members.*

The PRESIDENT-ELECT (Professor Saundby, M.D., F.R.C.P.).

The LOCAL HONORARY TREASURER (Professor J. T. J. Morrison, F.R.C.S.).

The LOCAL HONORARY SECRETARIES.

The following circular has been sent out by the Committee of the Pathological Museum to gentlemen interested in pathology and likely to help in the organization of a Museum:

The Committee appointed to organize the Pathological Museum in connexion with the Annual Meeting in Birmingham, 1911, propose to arrange the material under the following heads:

I. Exhibits bearing on discussions and papers in the various Sections.

II. Specimens and illustrations relating to any recent research work.

III. Instruments relating to clinical diagnosis and pathological investigation.

IV. Individual specimens of special interest, or a series illustrating the following special subjects:

(*a*) The degenerations and complications of fibroid tumours of the uterus.

(*b*) Osteo-arthritis and rheumatoid arthritis.

(*c*) Granulomatous formations in tertiary visceral syphilis, including hereditary syphilis.

(*d*) The inter-relation between human and bovine tuberculosis.

(*e*) The pathology of glaucoma.

(*f*) Malignant growths of the gastro-intestinal tract removed by operation, with final results.

(*g*) Simple and malignant tumours of the testis.

(*h*) Hypernephromata.

(*j*) Radiograms illustrating — Osteo-arthritis and rheumatoid arthritis; abnormal and pathological conditions of the abdominal viscera; early pulmonary tuberculosis.

(*k*) Pyloric obstruction in children.

(*l*) Diseases of the middle ear.

(*m*) Diseases of the pancreas.

The Committee wish it to be understood that the above are only suggestions, and if there is any subject in which you are specially interested and can supply interesting specimens, they will be welcomed.

The Museum will occupy a central position in the same building as that in which the Sectional work is carried on, and will be easy of access.

The Committee desire to enlist your hearty co-operation, and I shall be glad to hear from you if you are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

Yours faithfully,

A. W. NUTHALL,

Honorary Secretary.

89, Cornwall Street, Birmingham, April, 1911.

# GENERAL COUNCIL

OF

# MEDICAL EDUCATION AND REGISTRATION.

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## *SUMMER SESSION, 1911.*

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*Tuesday, May 23rd, 1911.*

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE ninety-third session of the General Council of Medical Education and Registration began at the offices of the Council, 299 Oxford Street, on Tuesday, May 23rd, 1911, at 2 p.m.

### NEW MEMBERS.

Sir JOHN MOORE introduced Sir Arthur Gerald Chance as Representative of the Royal College of Surgeons in Ireland for eleven months from March 1st, 1911. Dr. NORMAN MOORE introduced Sir Francis Henry Champneys, Bart., as Crown Nominee for England for a term of five years, from May 23rd, 1911. Dr. LANGLEY BROWNE introduced Dr. James Alexander Macdonald as a Direct Representative for England and Wales for five years, from May 18th, 1911.

### PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his sessional address as follows:

*Changes in the Council.*

GENTLEMEN,—In assembling for our ninety-third session we miss from their accustomed places three members of the Council who were with us last year. Dr. Leonard McManus, one of the three representatives elected in 1906 by the practitioners resident in England and Wales, has been removed by untimely death in the midst of his career of active usefulness. He possessed in a high degree the confidence of his fellow-citizens and of his professional brethren in London, and the public tributes that have been paid to his memory testify to the faithfulness with which he fulfilled the trusts he undertook. His colleagues in the Council, who had many opportunities of appreciating his loyal nature and his practical good sense, will share in the widespread regret for his loss, and will approve the expression of sympathy with his bereaved family which I ventured to offer in their name.

Sir Thomas Myles, appointed in 1905 by the Royal College of Surgeons in Ireland, has on account of other pressing claims resigned his place on the Council. By his service on several important Committees, and by his ready and opportune contributions to our debates, he maintained the tradition of efficiency and geniality which we have come to associate with Members from his College and country.

In parting with Sir John Williams, as one of the Crown Members for England, the Council will have cause to realize afresh the advantage it has derived, during the past ten years, from his great knowledge and influence in all that relates to obstetrical science and practice. Our sense of responsibility in regard to a whole department of medical education, and in regard to the administration of the *Midwives Acts* has been lightened by the consciousness that we could always rely on his sagacious counsel and co-operation.

In the room of these colleagues, who have so well merited our gratitude, three others have been appointed whose eminent services elsewhere assure them of a welcome in this Council. Dr. J. A. Macdonald of Taunton has been chosen as one of the Direct Representatives for England. He has filled with acceptance more than one important position in connexion with the British Medical Association, and has given many proofs of his capacity for business and his grasp of current professional questions. Sir Arthur Chance, past President of the Royal College, is recognized as a leader among the surgeons of Ireland. Like Sir Thomas Myles, he has already given valued assistance to the Council by acting as one of its

Examiners at the Apothecaries' Hall of Dublin. We now count on his help in a wider field of action. Sir Francis Champneys, who has been appointed by His Majesty in Council to take the place of Sir John Williams, is eminent in the same department of practice, and as Chairman of the Central Midwives Board has guided that body with notable ability and discretion through its difficult initial stages.

The Council may well congratulate itself on the accession of influence, and of strength for its work both general and special, which the appointment of these new members ensures to it.

One old member, Dr. Leonard Kidd, returns to the Council for a further term, having been re-elected without opposition as the representative of the registered practitioners of Ireland. The rare compliment thus paid him by that constituency will be endorsed without surprise by his colleagues of the Council.

*Defects in Regulations for Election of Direct Representatives.*

The circumstances of the elections in England and Ireland have forced on our notice certain serious inconveniences arising from the provisions of the Medical Acts. The time allowed (*twenty-one* days) for the preparation, issue, return, and counting of voting papers is so short that much of the work has to be arranged for, and most of the necessary expense has to be incurred, before the last day for receiving or withdrawing nominations. When after all no contest takes place, this expenditure of labour and money proves to be needless. If *thirty* days were allowed instead of twenty-one, the waste could be avoided.

Again, the Medical Act, 1886, directs that a member elected to fill a casual vacancy shall hold office, not for the remainder of his predecessor's term, but for the full term of five years. The result may ere long be that in England, instead of a general election of four members taking place every five years, we may have a series of single elections taking place at much shorter intervals. As the expense of a single election is about the same as that of a general election, this result would involve a heavy additional drain on the Council's funds, without any clear advantage to the constituency or the Council.

If an opportunity should arise for obtaining a slight amendment of the Medical Act, 1886, I suggest that attention might profitably be given to these and other points of detail, which our experience has shown to be of some practical importance for the economical administration of our resources.

*The Anaesthetics Bill.*

Certain proposals for fresh legislation, which have already been under consideration by the Council, have made but little progress since the last Session. Your views on the draft Bill for regulating the Administration of Anaesthetics were duly communicated to the Lord President. I am informed that they are now before the Home Secretary, with whose department it lies to initiate legislation on the subject, should the Government decide on that course.

*Proposed Registration of Diplomas in Tropical Medicine.*

The opinions of the Licensing Bodies on the proposal that the Council should be empowered by law to register the Diploma in Tropical Medicine, as an additional qualification, were in accordance with your Resolution obtained by the Executive Committee and forwarded to the Privy Council Office for its information. They were accompanied by a request from the Apothecaries' Society of London that, in framing the necessary amendment of the Medical Act, the Privy Council should include a provision authorizing the Society to confer similar Diplomas on candidates who had duly passed its examinations. The Executive Committee see no objection to this extension of the Society's powers as a Licensing Body, provided the arrangements set forth in Section 5 of the Medical Act (1886) are made applicable to its examinations for the Diplomas in question as well as to its qualifying examinations.

*Nurses' Registration.*

A measure providing for the Registration of Nurses was on February 27th introduced in the House of Commons as a private member's bill; and it has since been printed. The bill proposes to create a General Council for the United Kingdom, whose duties shall include the framing of rules for "regulating and supervising and restricting within due limits the practice of registered nurses." Such rules are to be subject to the approval of the Privy Council; but no provision (such as exists in the Midwives Act) is made to ensure that the rules, before being approved, shall be submitted to this Council for consideration. The Council has already informed the Lord President that it regards such a provision as necessary, in view of the conditions and responsibilities of medical practice. On calling the attention of the authorities to the above-mentioned omission, I was informed that, should the bill be proceeded with, steps would be taken, in accordance with the terms of the Privy Council's communication of March 18th, 1910 (*Minutes*, vol. xlvii, p. 181), to procure the insertion of a suitable amendment on the lines of that proposed for the new Midwives Bill.

*Amended Rules for Midwives.*

We have received from the Privy Council certain amended Rules framed by authority of the Central Midwives Board. In accordance with the Midwives Act these will be submitted to the English Branch Council, of which Sir Francis Champneys is now a member.

*Veterinary Surgeons Act Amendment Bill.*

Another Bill is before the House of Commons for the amendment of the Veterinary Surgeons Act (1881), which is not without interest for those who exercise their profession for the relief of human suffering. Its preamble states, first, that "the profession of veterinary surgeons is not protected from unqualified persons practising as such under the cover of registration under the Joint Stock Companies Acts," and, secondly, that "it is desirable to provide further funds for the Royal College of Veterinary Surgeons to enable it to conduct examinations, prosecutions, and inquiries authorized by Statute," etc. The Bill accordingly provides that "an offence under the Veterinary Surgeons Acts if committed by an individual shall be an offence if committed by a company;" and, further, that registered veterinary practitioners shall pay an annual fee to the College, the statutory body which regulates veterinary education and registration.

It is not for me to forecast the prospects of this measure, but the fact that it is now submitted to Parliament suggests that its promoters have more hope of remedial legislation, in the interest of practice affecting the health and safety of the lower animals, than experience would justify us in entertaining were the interest in question merely that of practice among men, women, and children. I have merely to remind you that the Bill for the Prohibition of Medical Practice by Companies has not yet passed into law, and that the income of the General Medical Council is this year again insufficient to meet the expenditure incurred in the discharge of its statutory duties.

*Unqualified Practice.*

The Committee on Unqualified Practice has had before it the report on the subject issued by the Local Government Board in the course of last session. Dr. Langley Browne, as chairman, will bring up the Committee's comments on the report, and the recommendations it offers regarding the next steps to be taken.

*National Insurance.*

The Lord President has been so good as to forward to the Council, for its information, copies of the National Insurance Bill recently introduced by the Chancellor of the Exchequer. This far-reaching measure touches at so many points the conditions of professional efficiency in this country that it is

difficult without close and prolonged study to estimate its effects, immediate and remote, on ordinary medical practice, on clinical hospitals, on public health administration, and on professional education. The Chancellor has admitted this difficulty, and has intimated his willingness to consider such suggestions and criticisms as he may receive from the medical profession of this country. From the nature of its statutory functions, the General Medical Council is necessarily concerned with certain aspects of each of the questions I have indicated; and in virtue of its statutory Constitution it includes representatives of all departments of medical practice, and of all registered practitioners, incorporate or unincorporate, within the United Kingdom. I suggest, therefore, that it will be proper for the Council to respond to the Chancellor's invitation, and to offer him advice and assistance in relation to matters within its province which appear to be involved in the proposals of the bill. If you approve this suggestion you will probably find it convenient, after some general discussion, to appoint a Committee, with instructions to consider the medical clauses of the bill, to watch it during its successive stages, to receive communications from members of the Council, to make representations to the Lord President for the information of the Government, and to report from time to time its proceedings to the President for communication to the members of the Council. Should you desire to form such a Committee, it may be well to ask each of the Branch Councils to nominate (say) three members for the purpose.

*Medical Degrees of University of Wales.*

On behalf of the University of Wales a Bill has been placed before Parliament for the purpose of enabling that University to hold qualifying examinations under the Medical Acts, in order that its degrees and diplomas may entitle their holders to registration. The bill also proposes to confer on the University the power of appointing a member of this Council on the conditions laid down by recent Acts relating to other Universities. As this question has on several occasions been before the Council, which has called the attention of the University to the need for such legislation, I felt justified in informing the promoters that they might count on the Council's assent to the steps that have now been taken.

*International Committee for Post-graduate Instruction.*

The Lord President and the Secretary of State for Foreign Affairs have agreed to accept the invitation forwarded by the German Government, asking that a British delegation of five members should be appointed to represent this country on the International Committee for Post-graduate Medical Instruction. I understand that members will be chosen by the several Government departments with which medical services are associated. The Lord President has done me the honour to suggest that, as your President, I should in the meantime represent him on the Committee, with a view to a more permanent organization of the British delegation.

*Inspection of Dental Examinations.*

Under your directions, Mr. Arthur Swayne Underwood, M.R.C.S., L.D.S., was appointed by the Executive Committee to be Inspector of Dental Examinations on behalf of the Council. He has already visited and reported on six of the examinations, and in accordance with the Standing Orders his reports have been sent to the Boards concerned for their observations. A Report on the whole cycle of inspections will in due course be presented to you by the Dental Education and Examination Committee.

*Reports of Committees.*

To the three Standing Committees on Education, Examination, and Public Health, important questions have been referred, dealing mainly with the purport and effect of the Council's resolutions and recommendations on these subjects. I am not in a position to anticipate the conclusions arrived at by the several committees, but I am aware that much thought and labour have been devoted to the reports which are now in preparation, under the direction of their distinguished chairmen.

The Pharmacopoeia Committee has received from the Committee of Reference in Pharmacy a further report containing suggestions for the improvement of the *Pharmacopoeia*. This report, with a promised supplement, will conclude the valuable series which has been furnished by the Committee of Reference. It will be published in the usual manner for the information of those concerned. The materials for revision, now accumulated in the hands of the Pharmacopoeia Committee, are sufficient to enable it to proceed with the preparation of the first draft of a new issue of the *Pharmacopoeia*. For this purpose it will be desirable to procure skilled editorial assistance, and the Committee hope to complete the necessary arrangements during the summer. As some years must elapse before the work thus initiated is ready for publication, a fresh impression of the official *British Pharmacopoeia*, 1898, has been ordered, to meet the steady demand for it which still exists.

*Disciplinary Cases.*

The Council will be called upon to exercise its judicial functions in the case of certain practitioners who are alleged to have unjustifiably associated themselves with the practice of unqualified persons or companies. As the complaints in question are lodged by various incorporated bodies, including the British Medical Association, it will be necessary for me to act on the advice of our Judicial Assessor, and to direct that no member of the complainant body shall take part in any inquiry in which it is concerned.

*Probable Duration of Session.*

A glance at the Provisional programme will show that the work before the Council this session is more than usually varied and important. It may not be possible to overtake it all in the course of the present week, but we may have every confidence that it will be dealt with at once carefully and expeditiously.

NATIONAL INSURANCE: COMMITTEE APPOINTED.

At its meeting on the following day the Council, after a short discussion, adopted the President's suggestion, and appointed a committee constituted as follows: *England and Wales:* Professor Saundby, Dr. Langley Browne, Dr. Latimer, Dr. Norman Moore, and Sir Francis Champneys. *Scotland:* Sir D. C. McVail, Dr. Norman Walker, and Mr Hodsdon. *Ireland:* Sir Charles Ball, Dr. Leonard Kidd, and Sir Arthur Chance. The President (Sir Donald MacAlister) is also a member *ex officio*. The Committee was instructed to meet on the following day (Thursday morning), and to report to the Council, if possible, before the close of its present session. The resolution appointing the committee requested the President to communicate to members of the Council from time to time during the recess memorandums of the committee's proceedings and of its representations to the Government which will be made through the Lord President of the Privy Council.

# Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Surgeons M. C. MASON, H. E. PERKINS, and H. H. ORMSBY, M.B., to the *Victory*, additional, for disposal, June 3rd; Surgeons S. W. GRIMWADE, M.B., and J. G. DANSON, M.B., to the *Vivid*, additional, for disposal, June 3rd; Surgeons C. F. WILLES and G. J. CARR, M.B., to the *Pembroke*, additional, for disposal, June 3rd; Surgeon E. M. BROWNE, to the *Wildfire*, additional, for disposal, June 3rd; Surgeon A. E. P. CHEESMAN, to the *King Alfred*, additional, for Devonport Subdivision, Home Fleet, June 3rd; Fleet Surgeon A. KIDD, to the *Commonwealth* on recommissioning, June 6th; Fleet Surgeon E. T. F. EAMES, to the *Devonshire*, on recommissioning, June 6th; Fleet Surgeon C. S. FACEY, M.B., and Surgeon E. MACEWAN, to the *Warrior*, on recommissioning, June 6th; Fleet Surgeon F. A. CAPPS, to the *Boadicea*, on recommissioning, June 6th; Fleet Surgeon A. H. L. Cox and Surgeon W. MILLER, M.B., to the *Achilles*, on recommissioning, June 6th; Fleet Surgeon J. ANDREWS, M.D., Surgeons F. R FEATHERSTONE and S. W. GRIMWADE, M.B., to the *Exmouth*, on recommissioning, June 6th; Surgeon J. JACKSON, M.B., to the *Forward*, on recommissioning, June 6th.

ROYAL ARMY MEDICAL CORPS.

MAJOR E. W. BLISS, who is serving in India, is appointed Specialist in Advanced Operative Surgery, 4th (Quetta) Division, from February 20th.

SPECIAL RESERVE OF OFFICERS.

JOHN J. MCI. SHAW, M.B., to be Lieutenant (on probation), April 29th.

# National Insurance.

## THE BRITISH MEDICAL ASSOCIATION AND THE NATIONAL INSURANCE BILL.

Reports of a number of meetings held during the last ten days in various parts of the country to afford medical practitioners an opportunity of conferring together upon the provisions of the National Insurance Bill as they affect the profession are printed below. In the case of many of the meetings summoned by Divisions of the British Medical Association, other medical men resident in the district—not members of the Association—were invited to attend, and in most cases the invitation was largely accepted. The result has been to show an intensity and unanimity of feeling which will greatly strengthen the hands of the Representative Meeting of the British Medical Association summoned to meet in London next week, on Wednesday and Thursday, May 31st and June 1st.

Owing to the fact that during the last year or more the Association has, with wise foresight, been considering the various ways in which any insurance bill must affect medical interests, it is now in a good position to give expression to the views of the general body of the profession. The Association has had the services of a special committee, which has conferred with other committees of the Association and with other bodies, and the extreme complexity of the questions involved—a complexity reflected in the provisions of the bill itself—has caused the deliberations of this committee to be prolonged, and has imposed most onerous duties upon its members. After a very full consideration of the matter, which was greatly assisted by the views expressed from time to time by the Divisions and individual members of the Association, a report was last March issued to the Divisions setting out the many aspects of the matter, and asking certain questions which it was foreseen must arise under any Government insurance scheme. The Divisions were urged to hold meetings to discuss the report and to formulate answers to the questions put, and to invite non-members of the Association to such meetings. The invitations were issued, and the meetings are reported to have been more largely attended and more enthusiastic and unanimous than any of which we have record. The Medical Secretary and Deputy Medical Secretary of the British Medical Association have attended many of these meetings to afford any information in the possession of the central office.

The answers of the Divisions to the questions contained in the report have been more numerous than in respect of any matter ever previously submitted to them, and as the result the Representative Meeting will be in a position to form a very sound general idea of what the profession wishes and what it will not accept. Already the opinions of the profession on certain points have been laid before the Chancellor of the Exchequer and several other members of the Government by a deputation from the Association, and Mr. Lloyd George has arranged to receive another deputation from the Association early next week.

In addition the central office of the Association has had the opportunity, since the bill was published, of interviewing a large number of members of Parliament, some of whom remain in constant communication with the central office. Further, the views of the profession have been laid before committees of the Liberal and the Unionist parties, and members of both sides of the House have expressed their willingness on the second reading of the bill to raise points put to them.

We shall not be alone in protesting against the haste with which the measure is being pushed forward. Already many protests have been heard both in the House of Commons and in the general press, as well as from other quarters. It may be well to recall the dates. The bill was introduced by the Chancellor of the Exchequer on Thursday, May 4th; the text of the bill was not at that time in the hands of members of Parliament—it was issued to them on Tuesday, May 9th, and was placed on sale on Wednesday, May 10th. Mr. Lloyd George's memorandum explanatory of the bill was issued to members of Parliament and to the press on May 10th, and was placed on sale on the evening of the same day. The report of the actuaries explanatory of the financial considerations underlying the bill was issued on May 23rd, after it had already been announced that the second reading debate would commence on May 24th.

An outline of the agenda for the Special Representative Meeting on May 31st and June 1st is published on the first page of this Supplement. The decisions of this meeting on the policy which the Association shall adopt will determine the plan of campaign which must follow. It seems probable that it will include a canvass of every member of the profession in the United Kingdom, in order to secure that medical men will undertake not to make individual contracts, but will insist upon such terms as are approved by the local profession, the local profession in its turn taking the policy laid down by the Representative Meeting as its guide.

In addition to the reports of meetings, we have received a very large number of letters from medical men in all parts of the country with reference to the bill; their general tenor is to show that the provisions of the bill which affect the medical profession have aroused such an intensity of feeling as we cannot recall in reference to any other matter.

There are clearly a good many medical men, including some largely engaged in contract practice, and some concerned in it little or not at all, who object to the inclusion of medical attendance among the benefits to which the insured person will become entitled under the scheme. They contend that though embodied in the bill, it is not an essential part of the scheme, and that both the public and the profession will be better off if the State does not interfere between the doctor and his patient. Some of them are able to instance various communities and districts where arrangements are now and long have been working in a satisfactory manner, and ask that such arrangements should not be disturbed.

There is clearly, also, a very strong feeling among those who do not object in principle to attending the insured upon contract terms, that these terms must be settled either by negotiation with the State, or by negotiations in which the State has the last word, the State department in either case being assisted by competent medical advice from a statutory committee.

A good deal of interest is shown in the discussion of the question whether the profession should accept payment by way of a capitation grant—so much a head a year for each person insured. Those who object to this contend that the payments should be "per visit," and urge that by a capitation system the profession is asked to undertake a risk which ought to be borne by the State or the insurance fund, especially as there are no adequate actuarial details for determining the extent of the risk. This is one of the points which, it is understood, will be brought before the Representative Meeting next week.

## MEETINGS OF THE PROFESSION.

### LANCASTER.

AT a meeting of the Lancaster Division of the North Lancashire and South Westmorland Branch of the British Medical Association, held on May 3rd, the following resolutions were passed unanimously:

1. That private practitioners, and not selected salaried officers, should be employed for the treatment of the insured in connexion with the State Sickness Insurance Scheme.
2. That patients should have choice of doctor; and
3. That a recognized place in the administration of the medical service should be assigned to committees representative of the medical profession in every district.

### GLOSSOP.

AT the annual meeting of the Glossop Division of the British Medical Association on May 18th the National Insurance Bill was discussed, and the following resolution was unanimously adopted:

This meeting is of opinion that no scheme of insurance against sickness can be considered satisfactory unless the following provisions are distinctly set forth in the scheme, namely: (*a*) That a wage limit shall be fixed (amount to be agreed upon). (*b*) That free choice of doctor shall be given to all. (*c*) That the doctor shall be responsible to the State, either directly or through a local committee on which the medical profession is adequately represented. (*d*) That the remuneration shall be such as would adequately cover all treatment, both medical and surgical.

It was also resolved that a further meeting in reference to the same subject should be held after the Special Representative Meeting on May 31st.

### ROCHDALE.

A JOINT meeting of the Rochdale and District Medical Society and the Rochdale Division of the British Medical Association, held on May 18th, with Dr. KERR in the chair, was attended by thirty-eight members of the profession.

The question of the Sickness and Invalidity Bill was introduced by Drs. KERR, LORD, and WALKER. After discussion, the following resolutions were unanimously adopted:

1. That the patient should have a free choice of doctor and the doctor a free choice of patient.
2. That we are unanimously opposed to the medical arrangements being in the hands of friendly societies.
3. That there be adequate representation of the medical profession on any local committee, the present number of a minimum of two being too small.
4. That the present wage limit (£160) is too high, and that a lower wage and income limit be fixed by agreement as entitling to medical benefit in the case of both voluntary and compulsory contributors.
5. That there should be a remuneration such as would adequately cover all treatment.

Other matters on the agenda had to be postponed on account of the lateness of the hour.

### ST. HELENS.

AT a meeting of the St. Helens Division of the British Medical Association on May 19th the sickness insurance scheme was discussed and the following resolutions were unanimously adopted:

1. That the Association actively oppose, especially any arrangements for the establishment by law of an insurance medical service by friendly societies or other provident organization under lay control, and that opposition be offered to any other scheme not directly under the Government.
2. That the Association favour the establishment of a scheme of sickness insurance under central Government control.
3. That women and children be excluded from the scheme.
4. That all forms of special medical work be paid for separately.
5. That the Association actively oppose the compulsory separation of dispensing from medical work, but that the doctor be free to do the work if he chooses.
6. That a wage limit be instituted for those coming under the scheme, and that when any one under the scheme receives such increase of wages that raises him beyond the wage limit, he should automatically lose the benefits of the scheme.

The meeting then considered all the questions submitted in the report of the organization of medical attendance, voted upon them, and drafted suitable replies.

### BLACKBURN.

AT the annual meeting of the Blackburn Division of the British Medical Association on May 17th a long and vigorous discussion took place on the State Insurance and Invalidity Bill. Eventually the following resolution was carried unanimously, and was signed by all the members present:

We the undersigned hereby declare on our honour that we will be bound strictly by the principles involved in the following resolution:

That, seeing that in the National Insurance Bill now before Parliament no safeguards are mentioned by means of which the medical benefits are restricted to those persons earning below a specified wage, and that the intention is expressed of placing the medical arrangements in the hands of approved friendly societies, with no guarantee that the remuneration of the profession is to be either reasonable or adequate, this meeting of the Blackburn Division of the British Medical Association disapproves of the medical arrangements of the bill, and is of opinion that no scheme of insurance against sickness can be considered satisfactory unless the following provisions are distinctly set forth in the scheme, namely:

(*a*) A wage limit (amount to be agreed upon) be fixed.
(*b*) Free choice of doctor be granted to all.
(*c*) The doctor made responsible to the State, either directly or through a local committee on which the medical profession is adequately represented.
(*d*) A remuneration such as would adequately cover all treatment, both medical and surgical.

### PRESTON.

AT a crowded meeting held in Preston on May 23rd, representing medical practitioners of Preston, Chorley, and district, the following resolutions were carried unanimously:

1. That whilst the medical profession of Preston and neighbourhood are willing to co-operate in any scheme of sickness insurance applied to the poor and necessitous under suitable conditions, they have not the slightest intention of allowing themselves to be sweated for the benefit of a large class of people who can well afford to pay for medical treatment.
2. That they regard the proposals of the National Insurance Bill, with reference to medical benefit, as injurious to the public interest, because of its enormous extension of "contract practice," with its corresponding hindrance to sound scientific work, and its destruction of those personal relations that help to make medical treatment effective.
3. That they condemn the proposals of the bill with regard to the medical profession as ruinous to a large number of medical men, and a grave injury to all of them.
4. Consequently, they hereby declare that they absolutely decline to take any part in the administration of the Act unless it is modified in the following directions:
   (*a*) That a household wage limit of 30s. per week be fixed for those receiving medical benefit.
   (*b*) That medical men engaging in practice under the Act shall deal directly with the Insurance Commissioners, and not with the friendly societies.
   (*c*) That in all cases payment shall be for work done, and not a capitation fee.
   (*d*) That this payment shall be a just and adequate one.
   (*e*) That all patients shall have free choice of medical attendant.
   (*f*) That the conditions of service shall be determined by Parliament, and not left to the discretion of Insurance Commissioners, friendly societies, or local health committees.

### MANCHESTER.

AT a general meeting of the Manchester (South) Division on May 19th, at which medical men not members of the

British Medical Association were present, Dr. GRANT DAVIE, who was in the chair, gave a clear and concise summary of the past work of the Association in connexion with this subject, and emphasized the invaluable work of Dr. Taylor on the Special Central Committee. He also appealed for complete unanimity throughout the profession on this subject.

It was proposed from the Chair that the first essential principle should be the free choice of doctor. The feeling of the meeting was so unanimous on this point that it was carried enthusiastically without discussion.

It was proposed and seconded that the minimum rate of remuneration per head (if this method of payment were adopted), exclusive of medicines, should be not less than 10s. per annum.

An amendment that the rate per head should be 6s. was put to the meeting and lost by a large majority.

The original resolution was then carried unanimously.

With regard to the voluntary system the meeting was again unanimous that the clauses in the bill establishing this should be annulled.

Dr. RUSSELL spoke in support of the improvement of the status of the members of the profession. He said the question of money was always too prominent. He argued that if proper representations were made to Mr. Lloyd George, such things as freedom from unnecessary work on Sunday and at night, and suitable hours of work, would be readily granted. He proposed, and Dr. BROWN seconded, the following resolution:

> That no arrangements for the payment of medical practitioners under the National Insurance Bill can be satisfactory unless adequate protection be given against Sunday work and against unnecessary casual work.

The following resolution was proposed by Dr. RUSSEN RHODES, seconded by Dr. BROWN:

> That this meeting of the Manchester (South) Division of the British Medical Association emphatically asserts that it is opposed to any scheme for medical attendance which does not secure the independence of the medical man from any control by friendly societies. That this resolution be sent to the Medical Secretary.

Both these resolutions were carried unanimously.

A hearty vote of confidence was proposed from the Chair in the work done on behalf of the profession by the Special Central Committee, and special mention was made of Dr. Taylor's labours on that committee. It was agreed to forward this vote of confidence to Dr. Taylor.

Before the conclusion of the meeting the CHAIRMAN urged all those present, members and non-members, to come to future meetings and bring with them all members of the profession resident in their respective districts, so that complete unanimity in their demands might be secured.

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## HALIFAX.

AT the annual meeting of the Halifax Division of the British Medical Association on May 17th, which was attended by 43 members and 10 non-members, of whom 6 had recently made application for membership, the chair was taken by Dr. MACAULAY, and after the transaction of other business the National Insurance Bill was considered.

The medical aspects of the Bill were briefly and lucidly explained by Dr. DRURY, and a spirited discussion, in which a large proportion of those present took part, ensued.

On the motion of Dr. PRIESTLEY LEECH, seconded by Dr. R. N. DENNING, J.P., a resolution was adopted expressing the opinion that, in view of the failure of Mr. Lloyd George to give effect to the objections felt by the profession as regards friendly society control, the Division wished to impress upon the Representative Meeting the necessity of considering the report on Medical Defence of the Glasgow and West of Scotland Branch of the British Medical Association.[1] The Halifax Division being thoroughly in accord with the views therein expressed, held that the British Medical Association should insist on the remuneration of medical attendants under the National Insurance Bill being on the basis of payment for work done and not by a fixed capitation fee. The opinion was further expressed that should Parliament refuse to grant this the British Medical Association should either form medical clubs on the Antwerp lines or boycott the whole scheme.

It was also resolved that each medical practitioner present individually pledged himself or herself to accept no appointment or take any action without first consulting the Division.

Finally, it was resolved that the resolutions should be forwarded to the Chairman of the Representative Meeting, and to the honorary secretary of every Division in the country asking him to bring the resolutions before the next meeting of his Division, and also to every medical practitioner in the Halifax Division.

It was reported that most of the medical practitioners within the area of the Halifax Division had already written to signify their complete agreement with the resolutions.

Intense interest has been taken in the National Insurance Bill by all the medical men in the district, and an energetic canvass has resulted in an extraordinary number of applications for membership of the British Medical Association.

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 25th, 1911.

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## EAST YORKSHIRE.

AT the annual meeting of the East York Division of the British Medical Association, held in Hull on May 19th, under the chairmanship of Dr. E. M. HAINWORTH, several non-members of the Association were present. Altogether sixty-seven members of the profession were present, a number 50 per cent. in excess of the attendance at any previous meeting of the Division.

After a full discussion, the following resolutions were unanimously adopted as instructions to the Representative of the Division at the meeting of the Representative Body to be held in London on May 31st:

> That the Representative of the Division be instructed to report that at a full and representative meeting, not only of the members of the Division, but of the profession generally, he was instructed to support the following points:
>
> 1. That there shall be adequate representation of local practitioners on all local health committees.
> 2. That the rate of pay suggested—6s. per head, including drugs, dressings, and certain surgical appliances—is too small.
> 3. That the patient shall have free choice of doctor.
> 4. That the wage limit suggested—£160 per annum—is too high.
> 5. That there shall be no control over medical officers by friendly societies.
> 6. That a voluntary contributor with an income over the wage limit shall be excluded from all medical benefits.
>
> That this meeting is of opinion that in the establishment of all sanatoriums under State control the medical officers be given adequate remuneration.

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## COUNTY OF DURHAM.

A MEETING of general practitioners of the County of Durham was held in the Mayor's Chamber, Durham, on Monday, May 22nd, at 3 p.m. Dr. E. JEPSON was in the chair, and Mr. J. W. Hills, M.P. for the City of Durham, was present.

There was an attendance of seventy doctors from all parts of the county, and a warm discussion took place on the medical aspects of the National Insurance Bill. The general feeling was decidedly against the medical provisions of the bill.

Mr. J. W. HILLS, M.P., advised a more moderate view of the aims of the new legislation, which he was quite sure would be put into force.

In the end a resolution was passed to eliminate all medical parts of the bill.

A committee was formed to look after the interests of the practitioners in the County of Durham.

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## BISHOP AUCKLAND.

AT the annual meeting of the Bishop Auckland Division, held on May 19th, the National Insurance Bill was discussed. Various speakers insisted on the necessity for free choice of doctors by payment, extra payment for operations, special work and night calls, and for full representation of the profession on medical administrative bodies.

The following resolution was carried unanimously:

That this Division expresses to the Central Council of the British Medical Association its strong feeling that there should be a legal minimum fee of 6s. without medicine or appliances, and that people with incomes over £160 should not be allowed to participate in the scheme for attendance.

## NEWCASTLE-ON-TYNE.

A MEETING of this Division of the British Medical Association was held on May 18th, thirty-four members being present. The following resolution was unanimously adopted:

That, whilst approving the principle of the National Invalidity Insurance Scheme before Parliament, we as a profession emphatically refuse to have anything to do with it so long as: (1) The medical service is to be administered by "friendly" or other similar societies; also (2) that no scheme can have our approval which does not allow liberty of choice between doctor and patient; also (3) that we consider the wage limit should not be above 30s. per week; also (4) that voluntary contributors should not be allowed to participate in medical benefits.

## DUDLEY.

A MEETING of the Dudley Division of the British Medical Association was held on May 11th, at the Corbett Hospital, Stourbridge. The chair was taken by Dr. R. H. H. CLARKE, and there was a large attendance; several members of the Bromsgrove and West Bromwich Divisions and some non-members of the Association were also present.

The report of the Committee on the Organization of Medical Attendance on the Provident or Insurance Principle was considered, and answers given to the questions submitted to the Division.

Mr. J. SMITH WHITAKER, Medical Secretary of the Association, attended, and gave a careful and lucid address on the position created by the recent proposals of the Government. He pointed out the urgent necessity for the profession combining and acting as a whole in the negotiations with the authorities concerned, and said that there was only one body which could act in the name of the whole profession, and that was the British Medical Association, whose membership at the present time was rapidly increasing. He outlined the Government's scheme very carefully, and dealt with the inclusion of medical benefit and the interposition of the friendly societies. After a review of the whole position, the speaker said in conclusion that, whatever course should be decided upon by the Representative Meeting, each member should loyally abide by its decisions, and try by a personal canvass to bring into line any members of the profession in his neighbourhood who were not members of the Association. He pointed out that such a canvass might involve some expenditure. A number of questions were asked by Drs. BIGGAM, THOMSON, HAWKINS, MASON, WHITCOMBE, RUSSELL JARVIE, and MCQUEEN, and replied to by Mr. SMITH WHITAKER.

*Vote of Thanks.*—A hearty vote of thanks was accorded to Mr. Smith Whitaker, on the motion of the CHAIRMAN (Dr. Clarke), seconded by Dr. B. H. ST. CLAIR ROBERTS.

## LEICESTER AND RUTLAND.

AT the annual meeting of the Leicester and Rutland Division on May 17th, after other business had been transacted, the National Insurance Bill was discussed. The SECRETARY gave an outline of the provisions of the bill affecting the profession, after which a vote was taken on some of the questions in the report of the committee referred to the Division.

It was resolved by a unanimous vote of the eighty-four members present—

That the service should be organized by the profession under agreement with the Government.

That any reputable medical man should be allowed to attend contributors.

And by a vote of 83 to 1—

That patients should have choice of doctors within a limited area.

The discussion on the bill was continued by Drs. MILLARD, HOLMES, GIBBONS, BURKITT, TUCKETT, PAULSON, BERESFORD, YOUNG, CLARKE, POPE, SPRIGGS, BENNETT, PRATT, and HARRISON, most of whom expressed grave apprehension as to the disastrous effect that the bill in its present form would have upon the future of the medical profession.

## WORCESTER.

AT a general meeting of the Worcester Division of the British Medical Association, held on May 19th, the following resolutions were passed unanimously:

1. That the medical profession should not accept a less fee than 10s. per head for men and women, this fee not to include material benefits (drugs, dressings, etc.).
2. That no person whose income is more than £160 per annum be brought into the Scheme under the provisions of the present bill.
3. That the profession should not deal with the friendly societies, but only directly with the Government.
4. That it be an instruction to the Representative that he oppose the free medical attendance on any one whose gross earnings are over £160 per annum.
5. That no medical practitioner should under any circumstances accept less than one guinea for a confinement under the proposed scheme.
6. That no man or woman suffering from venereal disease or misconduct of any kind, including alcoholism, can be treated under the medical contract.
7. That it be an instruction to the Representative to inquire what provisions Mr. Lloyd George proposes to make in regard to the list of extras sent out in the questions that were circulated to Divisions by the Council in March last; and that the Representative should strenuously oppose their inclusion in the contract.
8. That, in the opinion of the Worcester Division of the British Medical Association, it is necessary, owing to the voluntary scheme (no income limit mentioned) in the Government Scheme of National Insurance, that the members of the medical profession form themselves into a trade union (or professional union, whichever name is preferable) in order to protect efficiently their livelihood, which, if the present scheme goes through, they will to a great extent lose. And that this resolution be forwarded to head quarters.
9. That the Honorary Secretary be instructed to write to the members of Parliament who represent constituencies in the area of the Worcester Division, to tell them that the medical profession object to the terms of the bill and to ask for their co-operation in opposing it.

## EAST CAMBRIDGESHIRE.

AT a meeting of the medical practitioners of East Cambridgeshire, held at Dr. Gray's house at Newmarket on May 17th, the following resolutions were proposed by Dr. CROMPTON, seconded by Dr. MAUND, and carried unanimously:

That the British Medical Association be asked to make a stand on behalf of members of the profession to obtain just and equitable terms in the National Insurance Bill.

That we consider the present suggestion of 4s. and the £160 limit most unjust, nor can we possibly accept it, as it would deprive the greater number of the profession of nearly all their private patients, and would lead to serious dissatisfaction. Work done in these circumstances would not be for the public good.

We further request the British Medical Association to obtain the signatures of all members of the profession thereby pledging themselves to stand by one another.

These resolutions were signed by the following medical practitioners:

F. P. Edwards, F. L. Nicholls, C. F. Gray, A. Willis, F. H. Beckett, E. N. Evatt, F. Edwards, K E. Edwards, R. T. Head, C. G. Cory, S. Wood, E. C. Fyson, O. Ennion, S. C. Harris, J. H. Maund, C. Lucas, H. F. Curl, E. Crompton, G. C. Gray, A. W. Denny, S. W. Woollett, W. W. Palmer.

We are further informed that every medical man present at this meeting who is not now a member of the British Medical Association pledged himself at once if the Association would take the matter up.

## UXBRIDGE.

AT a meeting of the medical men practising in Uxbridge and district, held on May 22nd, the following resolutions were adopted:

1. That this meeting strenuously opposes those provisions in the Insurance Bill giving control of medical benefits to friendly societies, and maintains the principle of choice of doctor.
2. That medical benefit under the scheme must close at a wage limit of £2 per week.
3. That payment be by fee for each visit or other services rendered (as in "extra charges" under the Poor Law).

4. That we individually and collectively pledge ourselves to resign any appointment for medical attendance to friendly societies which we at present hold in this district, and to refuse any similar appointment which may be offered, if required to do so by the British Medical Association.

## ALDERSHOT.

**AT a meeting of the Aldershot Medical Society, held on May 19th, it was unanimously resolved:**

That this meeting of the Aldershot Medical Society, having carefully considered the proposals of the State Insurance Bill in so far as they affect the medical profession, is of opinion: (1) That they are unsatisfactory; (2) and that so far from satisfying the just demands of the medical practitioner, they mean a loss of income and capital to the majority of the members of the profession.

## CARDIFF.

**AT a meeting of the Cardiff Division of the British Medical Association, held at Cardiff on May 17th, the terms of the State Insurance Bill, in so far as they had been disclosed, were discussed with great warmth and with a due appreciation of their effect on the members of the profession, should the bill become law in its present form.**

**The following resolutions were passed unanimously:**

1. That the Council be recommended to urge upon the Government that the medical benefit be *not* organized and administered by the approved societies but by the Government, acting locally through either (i) a statutory medical committee or (ii) the local health committee set up under the bill, with additional representation of the medical profession thereon.
2. That the Council be recommended to urge upon the Government that the medical benefit be so organized as to permit the distribution of the work among all registered practitioners who are willing to act.
3. That the Council be recommended to urge upon the Government that the extension of the medical benefit to the voluntary contributors, as set forth in the bill, involves a grave injustice to the medical profession.
4. That the Council be recommended to urge upon the Government that the capitation fee foreshadowed in the introduction of the bill is entirely inadequate to meet the reasonable requirements of the numerous practitioners whose income is mainly derived from attendance on the better-paid employed contributors.

## FIFE.

A MOST enthusiastic and successful meeting of the medical profession of the county of Fife was held on Thursday, May 18th, in the Beveridge Hall, Kirkcaldy, to consider the action of the profession in regard to the National Insurance Bill. Out of 140 members of the profession resident in the county of Fife 78 were present.

The meeting was convened by the Fife Branch of the Association, the Fife Medical Association, and the Fife Colliery Surgeons' Association. Apologies were read from Dr. Norman Walker, the Direct Representative for Scotland on the General Medical Council, who had to attend a meeting of the Royal College of Physicians at Edinburgh to consider the National Insurance Bill, Principal Hugh Mackay of the Dundee Medical School, and others.

Dr. W. B. DOW, the President of the Fife Branch of the British Medical Association, said that so far as he had been able to ascertain, the profession was practically unanimous on three points—namely, that there should be no friendly society management of medical benefit, that there should be free choice of doctor, and that the medical benefit should be managed by the Government with the assistance of the medical profession. He appealed for unity in the profession, and, in order to secure that, for an increase of membership of the British Medical Association.

Dr. W. CRAIG (President-elect of the Fife Branch) moved the following resolution, which was carried unanimously:

That every member of the profession should indicate that he will be prepared, if necessary, to enter into an agreement whereby he will undertake not to accept any appointment under the State, friendly societies, or other body unless the conditions of service and remuneration attached to such appointment have been approved of by the Division or Branch (as may be considered best) at a properly constituted meeting.

He said the bill, as at present drafted, if carried into operation, would undermine all professional feeling. He spoke of the public and charitable work done by the profession in the past, and said that it appeared to him the public were now beginning to accept this as a right. He felt sure, from the determination which he had found amongst the members of the profession in Fife, whom he had been canvassing during the last few days, that the resolution would be carried unanimously.

Dr. G. C. ANDERSON seconded the resolution, and said that he thought the principle in the resolution should have been the policy of the Association long ago. He believed that the result of organization would result in better terms being obtained for the profession than they had at present, and quoted the example of the reform of the R.A.M.C. as an example of what organization could do.

Dr. A. L. S. TUKE moved:

That a Defence Union be formed to protect and safeguard the members of the medical profession, and to establish a fund. The fund to be raised rapidly by guarantee, and to be maintained by an annual subscription.

He said the objects of the fund were intended to be (1) to give financial aid to members who might be affected by any dispute; (2) to impress on the friendly societies and other clubs that they were dealing with a united body financially capable of assisting its members; (3) to defend the legal rights of members who may be involved in loss through the operations of any Government Insurance Scheme; and (4) generally to support the local members of the profession financially in fighting the battle of the profession. He spoke of the value, both morally and otherwise, of having a good fund at the back of this fight, and said that assistance would be given to members of the profession in the county not in accordance with their subscriptions but with their needs. He also went into details as to how it was proposed to administer the fund, and stated that it had been decided, subject to the approval of the meeting, that this year an annual subscription of 5s. would be fixed.

Dr. D. ELLIOTT DICKSON, Convener of the Colliery Surgeons' Association, seconded. He congratulated the men of Fife on the way in which they had responded to the appeal sent to them on behalf of this fund. During the four days which had elapsed since the appeal was made for a guarantee fund, 85 men had been personally interviewed; 83 of them had subscribed, and two had deferred doing so. The sum promised up to date was £4,500.

Dr. ALFRED COX, Deputy Medical Secretary of the British Medical Association, said that when the central office of the Association heard of the splendid lead given by the county of Fife, and of the magnificent response the local profession had made to the financial appeal, they felt that it was only proper that some central recognition should be made of it. He was present for that purpose in the unavoidable absence of the Medical Secretary, and he thought that a deep debt of gratitude was due to Mr. Lloyd George for having accomplished what had hitherto seemed to be a hopeless task—namely, to rouse the medical profession to a sense not only of its grievances, but of its power, and from the evidences which were pouring into the central office it was certain that the medical profession was really roused at last. It was impossible at present to say what plan of campaign the Association would take in reference to the Insurance Bill, but he thought it was very possible that some such course would be taken as had been adopted by Fifeshire—namely, a personal canvass of every medical man in the country with a view to securing that there should be no individual bargaining on the part of medical men, and that any contracts entered into under the insurance scheme should be for such terms as were approved by the local profession. The local profession, he hoped, would adopt and press for the policy adopted by the Special Representative Meeting, as this was the only way in which the profession could secure reasonable terms. If each district had a separate policy, if the profession were speaking with different voices from different parts of the country, the Government would feel that it could safely ignore it. If, on the other hand, the profession resolved to stick by the policy constitutionally arrived at by the only organization which could claim to represent the profession and to carry that policy out loyally in every district (subject, of course, to local modifications), then the fight was as good as won. The profession under these circumstances, he believed, could gain everything that it could reasonably expect. He gave an outline of the answers returned by the Divisions on the questions submitted to them relating to sickness insurance, and agreed with Dr. Dow that, as to the three points he had mentioned, there was practically no difference of opinion in the profession. He

was inclined to think that the key of the whole position was free choice of doctor, and, that obtained, he believed that everything else would follow. The only question was whether the profession could be relied upon to fight as an organized disciplined army, and all the indications were that this time they would do so. He then entered into a discussion as to the tactics which might be employed by the profession in gaining what they wanted, and said that this was obviously a matter which must be left largely in the hands of some committee which could be got together quickly and act promptly, as the Parliamentary situation changed almost from day to day, and it was necessary to suit the tactics to the situation. If an impression was to be made upon this bill it could only be done by the profession making up its mind promptly what it wanted, by the minority loyally accepting the decisions of the majority, and by placing implicit confidence in those to whom further action would be left. He finally made an appeal to those outside the British Medical Association to get inside it as quickly as possible. There was no other possible organization for the profession, and its success in dealing with the Government, friendly societies, and other bodies would probably be in proportion to its strength as an organized body. He warmly congratulated the Fifeshire men on their prompt action, their excellent example, and on the enthusiastic meeting which they had got together at such short notice.

A vote of thanks was carried to Dr. Cox, the Chairman saying that he thought his presence had been of great assistance in making them feel that they were not an isolated body but a fighting unit in an organized force.

Dr. Crawford moved:

> That contributors should have free choice of doctor; and that friendly societies should have no control over the medical profession.

He said that, after all that had been said on this question and the evident unanimity of the profession as regards it, it was unnecessary for him to say anything more about free choice of doctor, but the younger practitioners could not understand why present friendly society rates had ever been accepted by the profession. He gave examples of the increasing claims of the friendly societies with the decreasing financial returns to the medical officers, and appealed to the profession to refuse to bargain with the friendly societies in regard to any arrangements under the Insurance Bill.

Dr. Fleming seconded, and the motion was carried unanimously.

Dr. Anderson moved:

> That the suggested fee of 4s. per head for medical attendance is inadequate, and that further action is necessary before coming to any decision on the question.

The motion was carried unanimously.

Dr. Naismith moved:

> That the profession should interview members of Parliament, representatives of licensing bodies, and of the General Medical Council.

He thought that the resolution of the College of Surgeons of Edinburgh which had appeared in the newspapers that day, was too weak, and that every licensing body and the General Medical Council should be approached (the latter through Dr. Norman Walker, their Direct Representative) and urged to make representations more in accordance with the strong feelings of the profession.

The motion was carried unanimously.

Dr. C. E. Douglas raised the question of wage limit, and thought the profession should concentrate its force upon this question. He thought that everybody, whether a worker or not, should come under the provisions of the bill on condition that a wage limit in accordance with the wishes of the profession was inserted in the bill, and that contributors, voluntary or otherwise, should be debarred from medical benefits if they were in receipt of an income greater than that specified.

The Chairman, in replying to a vote of thanks moved to him, said that as the oldest practitioner in Fifeshire he had never seen such a splendid meeting in the county, and that it augured well for the prospects of the medical profession in regard to this bill.

## ULSTER.

A general meeting of the medical men in Ulster, to consider the National Insurance Bill, has been called under the combined auspices of the Ulster Medical Society and Ulster Branch of the British Medical Association, for May 25th. Tentative resolutions, drawn up by a special committee nominated by the Council of the Ulster Medical Society, will be laid before the meeting.

These resolutions deal with the following points:

That in Ireland the limit of income for beneficiaries under the scheme should be £100.

That with regard to maternity benefits the woman should be entitled to sickness benefit for not less than six weeks, and that of the 30s. the minimum fee to the doctor should be 20s.

The arrangement to provide medical benefits through friendly societies is, judging from past experience, unsatisfactory. This duty should be left to the Local Health Committee.

The proper working of medical benefits can only be carried out by State endowment of the hospitals and their staffs.

The profession must have adequate representations on the Advisory Committee and the Local Health Committees, in the case of the Health Committees at least one-fourth should be elected by the profession, this would apply to both England and Ireland.

In Ireland it would be grossly unfair to the general profession to limit the attendance on deposit contributor to the medical officer of health, who frequently would be physically unable to perform the duties.

No arrangements can be satisfactory to the profession and to the contributor unless due consideration be given to night work, emergency visits, mileage, minor operations, etc.

The rates payable to medical men should discriminate between good lives and incurable and chronic cases.

Free panels on which every medical man would be eligible should be established.

It is anticipated that the meeting will be largely attended and will display a determined spirit. Among those who have indicated their intention to be present and to speak are Sir John Byers, Mr. John Campbell, Dr. Calwell, Dr. J. Simpson, Dr. Thomas Sinclair, Dr. J. S. Darling, Dr. H. T. A. Warnock (Donegal), Dr. T. S. Kirk, Dr. J. G. Cooke (Londonderry), Dr. R. J. Johnstone, Dr. A. Trimble, and Dr. Gibson.

## MUNSTER AND SOUTH IRELAND.

The National Insurance Bill continues to attract much attention and criticism in Ireland, but up to the present the ideas of the medical profession on the subject have not crystallized into definite form. The bill is to be discussed at the coming meeting of the Irish Medical Association at Cork in the second week of June, but prior to that date it is hoped that local Divisions of both the British Medical Association and the Irish Medical Association will meet for the purpose of formulating their views definitely. The first step in this direction has been taken by the Secretary of the Munster Branch of the British Medical Association, who has issued a circular to the members of the Branch urging them to appoint local secretaries and to hold conferences to discuss the provisions of a bill which "shakes to their foundation the venerable customs and usages of the Irish physician."

## THE MEDICO-LEGAL SOCIETY.

The provisions of the bill were discussed at a meeting of the Medico-Legal Society held at 11, Chandos Street, W., on May 23rd, under the chairmanship of the President (Sir John Tweedy). Those present included Sir Henry Craik, M.P., Dr. Tirard (King's College), Dr. Major Greenwood, Dr. Lauriston Shaw, Mr. Walter Schröder, Mr. Wippell Gadd, Mr. W. E. Singleton, Mr. Wimpfheimer, Drs. M. L. Dobie, F. N. Hewitt, McDonald, Haldane Cook, R. Henslowe Wellington, James Berry, and the Secretary, Dr. W. A. Brend.

Mr. J. Smith Whitaker, Medical Secretary of the British Medical Association, gave an address in which he discussed the effect of the bill on the medical profession. He said that some were entirely opposed to the scheme of the bill; the majority, however, did not oppose the measure as a whole, but did regard with very considerable apprehension what they believed would be its principal effects, as it stood, upon the interests of the profession. Before proceeding to consider those aspects of the question in detail, it was only right to review the public objects which had led to the introduction of the bill. There had been a growing feeling in recent years that some better provision was necessary for dealing with sickness amongst a

very large proportion of the population, and that opinion found definite and authoritative expression in the Majority and Minority Reports of the Royal Commission on the Poor Law, in which the vicious circle of disease and destitution was clearly traced. It was shown how poverty was the parent of disease and disease was the parent of poverty, and both sections of the Commissioners suggested remedies in the form of better provision of medical attendance—the Minority proposed the extension of the powers of local health authorities, and the Majority foreshadowed a method of self-help by insurance which was confined, however, to the provision of medical attendance. The Government's bill followed the precedent of Germany, and dealt not only with the provision of medical attendances but with the question of insurance against sickness generally, and one of the features of the scheme that had been criticized by the medical profession, namely, the important part assigned to the friendly societies, must be recognized as lying at the foundation of the scheme, because it was based on that principle of self-help and self-reliance which the Government had preferred to any more bureaucratic machinery. It was very important that medical men should recognize that the essence of the bill was that the working man should contribute as far as he was able, and should be assigned as important a part as possible in the administration of the scheme through societies of which he was a member. As far as the administration of medical benefits was concerned, he would point out later on why, in the opinion of the large majority of the members of the medical profession, that system would not work satisfactorily, but no one representing the medical profession had suggested that as regards the administration of other aspects of the scheme the principles of self-help and self-government of the insured should not apply. He next outlined the principal features of the Government proposals, pointing out that certain important details were not determined by the bill itself, and information concerning them could be derived only from various statements made by the Chancellor of the Exchequer. For instance, though there was no definition in the clause dealing with medical benefit beyond that of treatment, attendance and medicine, Mr. Lloyd George had indicated that by medical attendance he understood the ordinary treatment that a member of a friendly society would obtain under existing conditions, including minor operations, but not capital ones. In the matter of representation on central and local committees, also, the Chancellor had stated that representatives of the medical profession would be included. It was provided under the scheme that medical attendance and treatment must be to the satisfaction of the Insurance Commissioners; it was not specifically provided that the agreement entered into with the doctor should also be approved by the Commissioners, but here again the Chancellor was understood to intend that agreements should be so subject.

Mr. Smith Whitaker commented on the indefiniteness of Clause 14 (1) dealing with the employment of doctors. There was nothing in the clause as to the terms of employment, as to the duties, or as to the remuneration. The one point on which they had information was that the doctor was to be employed by the approved society for giving attendance to those of the assured who were members of the approved society, and by the Local Health Committee for the purpose of giving attendance to the Post Office contributors. That left the door open for any system of medical employment that could be imagined. The approved society might employ one doctor to attend all its members, who might be paid on a capitation basis or by payment per attendance. Alternatively, a number of societies might adopt a system which had been resorted to in some towns, and which the medical profession believed to be very unsatisfactory—namely, of employing one, two, or three doctors at fixed salaries to attend all the members of those societies. It was always found in those cases that the fixed salaries paid to the doctors amounted to very much less than the society was receiving from its members under the head of payment for medical benefit—in other words, the society exploited the doctor under that system, and made a profit out of his services. It would be equally open to the societies, however, to throw all the work open to all members of the profession in the district. The bill did not tie their hands. As regards remuneration, it had been imagined by many that there would necessarily be a fixed capitation payment, but there was nothing in the bill—nor in the statements of the Chancellor, so far as he could discover—implying that the payment must be on a capitation basis, or that the amount was necessarily fixed. All they had to go upon was that the Chancellor had stated that the amount which his actuaries had allowed in the calculations on which this part of the bill was based was £4,200 000 and, further, that if that sum was divided by the estimated number of the insured it would work out at an average rate of 6s. for medical attendance and medicine. That was only an average rate and was quite compatible with paying higher rates in one district and lower rates in another. The duties of the doctor, of course, would be defined in the agreement entered into between him and the local society, and the terms of the agreement, it was understood, must be subject to the Insurance Commissioners—that was to say, to the Government.

### THE OBJECTIONS OF THE MEDICAL PROFESSION.

As to the objections of the medical profession, Mr. Smith Whitaker said a good deal of information had been accumulated during the last fortnight. In the first place, there was one objection entertained by a very large number of members which applied to the scheme as a whole, to any conceivable modification of it, which applied, in fact, to the introduction of any such scheme—that is, the objection to public intervention between doctor and patient. (Hear, hear.) Broadly speaking, there could be no doubt the profession regretted that. They preferred the private relation between doctor and patient, and were sorry that there should be instituted the interference which the bill contemplated. But, on the other hand, they also recognized that this was inevitable if the necessary public objects of the whole scheme were to be secured. They said, however, "If there must be interference, please do not carry it beyond a point that is necessary. We grant that, if the public needs demand this interference, however much we dislike it, we must give way." One of the objections to the scheme was that it did carry that interference far beyond what they believed to be necessary in the interests of the public. (Hear, hear.) First consider the employed contributor. Under the bill he was to be compelled to subscribe to the scheme and for the provision of medical attendance. They all knew perfectly well by experience that a very considerable proportion of those who would be included as employed contributories were perfectly well able at the present time to provide out of their own resources the cost of the attendance to be given under the head of medical benefits—ordinary domiciliary attendance. The working man earning 30s. to £2 a week could and did employ a doctor to attend him under ordinary circumstances without difficulty, and not by any means always under the club or contract system. There were many parts of the country where working men employed their doctors privately. In other parts of the country, even amongst members of the friendly societies, a very considerable proportion, at any rate in serious illness, preferred to employ a doctor and pay him. They felt greater confidence in the doctor employed in that way than in the doctor employed by the club, who, they felt, was compelled to attend them whether they liked him or not.

As to the voluntary contributors, the necessity for providing medical benefits for persons whose incomes exceeded £160, the necessity for their insurance and for a State contribution towards it was certainly not demonstrated. (Hear, hear.) It was special institutional treatment that these people had to look beyond their own resources to obtain. Under the scheme there was very little provision of institutional treatment. Broadly, therefore, as regards those in receipt of incomes of £100 a year and upwards, the bill provided that which they were able to provide for themselves and did not provide those things which they were not able to obtain for themselves.

The next point on which there was strong feeling was that it was believed that the scheme, if it remained as at present, would tend to the employment of selected doctors; that the private practitioner would find a very considerable proportion of patients compulsorily insured or attracted to the scheme as voluntary contributors, and

when that happened they would be practically compelled to transfer themselves to practitioners officially employed. Medical men found that was the tendency of the friendly societies at the present time, and the very gravest apprehension not unnaturally existed in consequence. Then, unfortunately, the relations of the friendly societies and the practitioners in many parts of the country in the past had been unsatisfactory, and doctors greatly regretted that the approved societies—the friendly societies—should have the administration of medical benefits entrusted to them. They believed that in the past the societies had shown themselves very narrow-minded and shortsighted in the way they had employed their doctors, not realizing the necessity of treating medical men in a broad spirit in order to get the best service. Societies had cut down remuneration to the lowest figure they could get any one to accept, and doctors felt this scheme would simply mean the perpetuation and even extension of a system which they deplored in the relatively limited area in which it existed at present. There was a further danger of inadequate remuneration from the fact that friendly societies were encouraged to economize in order to have funds for the provision of additional benefits, and it might well be imagined that one of the first matters in which the societies would seek to economize would be in their payments to doctors. There was a strong feeling that there ought to be an income limit as regards admission to medical benefit. (Hear, hear.) Some put the limit at £100 a year, and some seemed to think that the income tax limit, as the simplest, should be taken (No, no), whether for employer or voluntary contributors. The medical profession said nothing about an income limit in regard to sickness and disablement benefit, but only as regards medical benefits.

As regards the system of employment of the doctors, the feeling in the profession had been growing for many years in favour of free choice of doctor by patient. In one town after another the medical profession had introduced the principle as regards contract practice that it should be open to every practitioner to take part in the work, and the choice should be exercised by the patient as to which doctor he would engage. There were professional and public reasons why this was desirable. Professional reasons were (1) it meant no interference with present patients of established practitioners; (2) if there was a system of selected doctors, whether salaried or employed on a capitation basis to attend so large a portion of the community, it meant that doctors who at present attended them, or a very large number, must choose between accepting such appointments themselves and practically losing the whole of their practice, at any rate, in industrial districts. That would particularly apply to a salaried whole-time contract doctor. There could be no doubt there was a very strenuous objection to the employment of whole time officers. Doctors preferred to remain private practitioners, and would deplore being turned into a branch of the civil service for the treatment of beneficiaries. The public grounds why free choice of doctor by patient was desirable were (1) the obvious reason that the patient would have more confidence in the doctor he chose himself than in the one chosen by some one else. If the word "she" instead of "he" were used this would apply with even greater force. The doctor's chances of success in treatment were enhanced if he had the patient's confidence. (2) Choice of doctor meant that they did not break up the profession into two classes—doctors attending the insured and those attending the uninsured. He saw in a newspaper what purported to be an expression of opinion by the Chancellor that the fixing of an income limit would involve a system of doctors for the masses and doctors for the classes. If there was anything that would introduce that differentiation it was the abolition of the free choice of doctors. By the analogy of the club doctor it might be anticipated that the doctor coming under the scheme would be regarded as an inferior order of practitioner.

Doctors objected to the friendly society system of appointment, and to the control of the administration of the benefits being placed in their hands, because of the experience of the past. There was really no reason—he thought this could be suggested quite reasonably to the leaders of the friendly societies—why, granted certain conditions which would probably have to be granted, friendly societies should desire to take part in the administration. From statements by the Chancellor of the Exchequer, it might be taken that the principle of free choice of doctor would be accepted, except as regards doctors of friendly societies who might go on attending existing members. The British Medical Association had had opportunities of placing its views before members of Parliament and others, and found the greatest sympathy with the view that this free choice should exist. If that principle was accepted, and also another principle, that in the interests of the fund approved societies must be debarred from making a profit out of the administration of medical benefits—that they must obviously be required to spend on medical remuneration all they received from the fund for this purpose—granting this, and granting further that the terms of employment were to be subject to the Insurance Commissioners, what was there left for the approved societies to administer? If they were not to appoint the doctor, fix his payment or his duties, what purpose would be served by giving them a nominal control? There was another reason that appealed to public men for transferring all duties to Local Health Committees, and that was that the committees were to be responsible for institutional treatment. Who was to say when a patient was to be treated at home and when at an institution? Both were part of the same thing—the treatment of the sick person—and they ought to be in the same hands. If one society dealt with domiciliary treatment and another with institutional treatment, what confusion would arise! The whole of the local arrangements for the medical treatment of the insured should be placed under one control.

The medical profession was asking for—and he was glad to say seemed likely to obtain—adequate representation on the administrative committees. (Hear, hear.) He said adequate—of course opinions would differ as to what was adequate, and whether the profession and the Government would find themselves in ultimate agreement as to adequacy was a point they must leave. The principle of representation on the Advisory Committee and on the Local Health Committee had been recognized already in the bill. There was one other thing. The medical profession wanted power in every district to elect freely a medical committee representative of the local profession which should play a recognized part in the administration of the service; which should be a medium through which the Health Committee should ascertain the views of the profession, and deal with questions on which friction might arise from time to time.

On the great question of remuneration the first difficulty was that of a definition. He had never been able to say what would be adequate remuneration. He did not see how anything but experience could tell them that. At present it seemed the merest guesswork; the duties were not defined. Payment must bear some relation to the work done, and to ask medical men to say what was adequate remuneration before they knew what work they were to be asked to do was obviously impracticable. So that question must stand over. All they could say was that, so far as they could judge, the total amount of medical attendance could not be adequately paid for by any sum that was in sight at present. (Hear, hear.) As to the method of remuneration, he was not going into the question of capitation payments or other alternatives. So far as could be seen, that question was not decided in either direction. The Chancellor had indicated that he did not think it practical for the Government to accept the responsibility for a universal system of payment per attendance throughout the country—in other words, they could not pledge themselves to meet an absolutely indefinite liability. Under the bill as it stood, however, it seemed perfectly possible for an agreement to be come to with the profession of any district for payment on the basis of fees per attendance, and one could not but hope that something of the kind would be tried where the profession was anxious for something of the kind to be adopted. One of the great difficulties was lack of data as to the probable effects of payment per attendance. If the two systems were tried side by side, data would quickly accumulate and the public and the profession would be able to judge which system best served the interests of the community and was most satisfactory to the doctors employed.

Concluding, Mr. Smith Whitaker said he thought the profession recognized that these great and difficult questions must be looked at primarily from the public standpoint. They must recognize that the Government, in introducing the bill, were proposing an experiment affecting the relations of the community to one of the most important professions on a scale on which, so far as he was aware, it had not been tried in any other country. The proportion of persons to be insured was greater than in Germany, and the amount of Government control under this scheme was greater than in the German system. In such an experiment the profession would recognize that it owed a service to the public whose interests must be the first consideration. But in return they were entitled to ask the public to bear in mind that it was in their own interest that doctors should be satisfactorily treated; that even with a manual labourer one did not always get the best labour by going to the cheapest market, and how much more must that apply to those who had the responsibilities of the medical practitioner. He thought the Government, members of Parliament, and the public generally were prepared to recognize that this great experiment was not going to be tried successfully on any lines of hard bargaining and beating down; that it must be approached in a broader spirit. If they were to get efficient service from the men employed to treat this very large portion of the community, not only must the public feel, but the doctors themselves must feel, that they were being fairly treated. If that were not the case, men either would not be obtained, or those obtained would be so dissatisfied that their services would not be worth very much. This matter must affect the recruiting for the profession; it must affect the average income of the practitioner, and if it went beyond a certain point new entrants into the profession would be few. The tendency observed for the last fifteen years of a steady decline in recruiting would go on until there was not a sufficient supply of men to carry on the work. The public, however, was awakening to these facts, and perhaps there was even greater ground for hope that the outcome would be for the benefit of the public, and also of the profession, in the greatly increased unity that had been brought about. They hardly knew a time in their own lifetime when there had been so keen an interest taken by the medical profession in its relations with the community. For this reason one looked on the future, though not without a certain degree of apprehension yet with a considerable degree of hope. (Loud applause).

### DISCUSSION.

Sir HENRY CRAIK, M.P., speaking as the representative of many medical men in Parliament, testified to an earnest desire on the part of members of Parliament to do justice by the medical profession. It was a matter not merely of professional but of public interest that medical men should retain their status, and that it could only do by receiving adequate remuneration. Free selection of the medical adviser was of the utmost importance if a system of an inferior grade of practitioner for the masses was to be avoided. Sir Henry expressed the view that an income limit for medical benefits of £160 a year was too high; it should not be higher than £100, or in many small towns only 3 or 4 per cent. of the population would be excluded.

Dr. MORISON mentioned the following as four points on which there was general agreement: (1) Friendly societies were not to be their masters. If doctors were to serve any one in the way suggested, it must be the State and not middlemen. In serving the State one had at all events some prospect of an intelligent directorate, which could not be expected from the majority of friendly societies. (2) There should be free choice of doctor. (3) The question of payment must receive the close attention of the Council. (4) A wage limit, not to exceed £2 a week, must be fixed for recipients of medical benefits. Dr. Morison gave details of a practice with 300 club patients in which accounts kept showed that if all the patients paid at the club rates the total income would be £900, whereas the working expenses were £1,000.

Dr. MACDONALD (Chairman of the Council of the British Medical Association) urged that this question must be met as business men would meet it. It was of no use going to Mr. Lloyd George and making statements unless they had the facts to back them up. What they needed were reliable statistics. The medical profession must unite on some common ground. If they made up their minds what they wanted and stood together they could get it. The Government appeared to think £300 a year an adequate salary for a medical man, with all his worries and responsibilities, yet members of Parliament were to be paid £400 a year for half a year's work.

Dr. HALDANE COOK mentioned an instance where a doctor with a contract practice at 4s., including drugs, obtained an estimate from a chemist of the cost of drugs. It worked out at £3 per annum per member!

Mr. WIPPELL GADD objected on legal grounds to an official, instead of judge and jury, being empowered to decide whether an authority had neglected its duties under the Public Health Acts, and so brought about excessive sickness. He also pointed out the inadequate provision in the bill for ensuring a proper supply of drugs made up by qualified pharmacists.

Dr. MAJOR GREENWOOD criticized the proposal that any one, whatever his income, might become a voluntary contributor under the scheme. Unless a wage limit were granted he saw nothing but a very serious time ahead for the medical profession. In the last few weeks the sale of practices had absolutely gone; no one could sell or transfer one. Any one who had a son would think seriously before letting him enter the medical profession. He hoped the universities would back up the Royal Colleges in securing delay in the passage of the measure. Every line required to be carefully examined.

Mr. WIMPFHEIMER spoke of the dissatisfaction that existed amongst doctors in Germany on the question of free choice of medical man. At the same time he mentioned that no class distinctions manifested themselves; the richer folk preferred the doctor who treated the insured, because he had more practice.

Dr. TIRARD (King's College) pointed out that the bill would go far towards lifting the position of the medical profession, inasmuch as it firmly established the principle that advice should be paid for, and that advice and medicine were two different things. The medical man employed under this scheme would be paid—whether adequately or not was another matter—for his advice. That was a very great step in advance in the education of the public to the theory that advice was worth having and worth paying for.

Another speaker suggested that an approximate method of determining the proper remuneration of doctors under the scheme was to take the average number of patients per practitioner at 1,000 and allow 10s. per head per annum. The Government scheme should afford the doctor an income of £500 a year.

Dr. LAURISTON SHAW thought it should be made clear to the public what were the terms on which individual doctors had been willing to accept capitation grants from friendly societies. There seemed a danger that doctors' charity in the past would be their ruin in the future. The reason doctors accepted 4s. a head was that it was a point of charitable honour to do what they could for struggling institutions which had just been started to help the working man. Doctors would have treated a great many of these for nothing in the ordinary way, and when they put their heads together and tried to combine for mutual helpfulness the medical profession was willing to give them a helping hand and to accept a nominal capitation fee. Now they were told: "If you are willing to do it for these people, you should be willing to accept a few pounds more a year for the whole community." As to proper remuneration, without further information as to duties it was impossible to be definite. But, whatever sum was required, it would be very much greater than the figure mentioned hitherto. The profession should join in absolutely refusing to do any work under the scheme unless properly paid—not from any sordid motive, but because they were trustees of the profession. It was their duty to see that the profession was properly paid, so that an adequate number of men might be secured to it in the future.

Mr. SMITH WHITAKER, replying briefly to the points raised, said, with reference to the wage limit, that the point had been made by some one on behalf of the Government that the questions of wage limit and remuneration affected one another. If the limit were fixed at £100, a great deal of the case of doctors for increased remuneration went by the board. This was the Government argu-

ment, not his. It was important, when dealing with public bodies, that one should look at the reaction of one's arguments, and consider how the argument was likely to affect one in other directions. As to drugs, the Insurance Commissioners had power to secure "a sufficient and proper supply of drugs" (Clause 14 (2)). As to the abolition of dispensing by doctors under the scheme, he thought that would be welcomed. The speaker concluded with an appeal for unity and concentration on a definite policy. On this question it appeared as though Mr. Lloyd George had done for the profession what all those who had been trying through organization for the last fifteen years had not been able to accomplish. He had done the greatest work towards the organization and union of the medical profession in this country that had been done by any living man.

## SOME FACTS AND FIGURES CONCERNING CONTRACT PRACTICE.

By Two General Practitioners.

The following are the exact figures taken from the books of a mixed practice whose gross income in 1910 was £2,824, and expenses (calculated as directed by the Income Tax Commissioners) £1,150, leaving a net income of £1,674 to be divided between two partners. Of the total income of £2,824, about one-ninth—£318—was derived from contract practice.

The total number of entries in the day-books during 1910 was 21,070, and of these 4,732—just over two-ninths—were entries in respect of club patients. The average of all fees in the practice was thus 2s. 8d.; separating private patients from contract patients, the average fee for the former was 3s. 5d., for the latter 1s. 4d. (nearly).

It will be shown that clubs in this practice are exceptionally well paid, and that the average payment to be expected for each patient seen under the State Insurance Scheme is almost exactly half this sum; but even if this were not so, it would be impossible for two men to make a living out of this practice were all the fees at the contract rate, for the gross income would then be £1,399; the average number of patients seen is 65 each week-day and 15 on Sundays (of course less than this in the summer, but in the winter rising sometimes above 100); and it is found that to give thorough attention to these occupies fully the time of two men, so that it would be impossible, without lowering the standard of the work, to increase the income by taking more patients; similarly the expenses—£1,150—cannot be lowered except at the expense of the patients, so that the net income available for the support of two men would be £249, or say £125 apiece; and surely it will not be seriously contended that this is even a living wage.

From the accompanying analysis (Table A) of the club work, it will be seen that clubs A, B, C, and D furnish 2,075 of the cases and £202 10s. of the income; of these clubs, A, B, and C are likely to be destroyed by the passing of the National Insurance Bill; D will very probably attempt to reduce its payment to the doctor. The remaining eight furnish 2,657 cases and £116 4s. 4d. of the income, giving 10½d. for each case seen, including visits, and this is the highest yield that can reasonably be expected from "employed contributors." On this basis the practice would yield £922 gross—an annual net *loss* of £228.

### *Anticipated Effect of National Insurance Scheme upon this Practice.*

On going over the names in the day-book for three days taken at random, it appears that nearly half the names of private patients refer to individuals who will either come under the scheme compulsorily as "employed contributors" or are almost certain to take advantage of it as "voluntary contributors." Roughly, one-ninth of the practice already consists of club work, and two-ninths is beyond the reach of the bill; of the remaining six-ninths, three-ninths represents the dependents who would not come under the scheme, leaving three-ninths eligible for insurance. When all these have come in, one-third of the existing income—£941—will be reduced (assuming, perhaps unwarrantably, that an equal number of patients would be retained as contract patients) to £313, and there would be a saving of about £100 on the drug and dressings bill, leaving a net loss of £528; to this must be added £50—a very moderate estimate of the loss which will result from interference with existing clubs—making a loss of £578 divisible between two men.

It may be assumed that patients paying 3s. 6d. and under for a visit are not so wealthy as to be able to pay the doctor's fee without missing it, and such people will not take long to discover how much more cheaply they can obtain medical attendance under the National Insurance Scheme. A rough idea of the numbers likely to be immediately so transferred from private to contract practice may be gained by a reference to Table B, showing an analysis of the fees earned in four representative weeks. The 6d entries are negligible; they are paid by club patients for certificates. The fees from 1s. to 3s. 6d. may fairly be taken as representing the class of patients who will at once come under the scheme, for though a few are derived from consultations at the surgery with better-class patients, they are balanced by some of the larger fees for dental extractions under gas, midwifery, etc., paid by the poorer class of patients. On this basis we find that the earnings for the four weeks analysed are £188; in the same four weeks there was earned in operation fees a sum of 55 guineas, but as an outside estimate of the annual earnings under this head is 360 guineas, it seems fair to take 30 guineas for the operation fees belonging to the period; we then get total earnings £220, of which £100 is derived from the class which would be anxious to come under the scheme. About one-half of these, being the dependents of insured persons, would not at present be eligible, but the remaining half, now providing $\frac{5}{22}$ of the entire earnings, or £642, would at once come under the scheme. As these patients are now paying average fees of about 2s. 6d., which will be reduced to the average of 10½d. as shown above, the *immediate* annual loss, including the estimate of £50 loss on existing club work, to the practice will be about £480.

This is obviously a rough estimate, but in view of the fact that the Chancellor has said that his scheme is open to the country on a voluntary basis, and that he intends his own children to become contributors, it certainly errs on the side of moderation; there is, indeed, no guarantee that the whole of the practice will not soon be upon a contract basis.

Is there any gain on the other side of the account? There should be a reduction in the drug bill of about £50, but it will still be necessary to pay a dispenser; the extra time employed in writing out the formulae of stock mixtures in full, and in giving such directions that an unknown dispenser cannot fail to understand them, will be a very serious item; and whether the druggists will be prepared, in return for the payment offered, to stock every drug, dressing, and splint that any doctor may prescribe is a very open question.

The saving of trouble due to the removal of chronic chest cases to sanatoriums is largely illusory; it will be long before every consumptive can be sent to such an institution, and in the meantime the cases showing no chance of cure will be treated much as at present; the patient will probably be given two chances of cure at a sanatorium instead of one, but the majority will still end their lives at home with a lingering illness under the care of the club doctor.

In fine, the two practitioners concerned will be offered their choice of two alternatives: either they may submit to a joint reduction of salary of at least £430, with an early prospect of further reductions; or they may sacrifice their principles and maintain their income by dealing with a huge number of contract patients on sixpenny dispensary lines, sending all troublesome cases to the hospitals. The position is one in which no member of an honourable profession ought to be placed.

### *Effects upon other General Practices.*

It has been shown that the average fee of the practice under consideration is 2s. 8d., and that with such a fee two men must work hard in order that their private incomes may remain at a fairly good figure. Now, it is by no means unusual in this practice to receive 25 guineas for an operation, or a guinea for a visit; in nearly all the neighbouring practices it is extremely unusual to get more than 2 guineas for anything, and 3s. 6d. for a visit; in

these practices the average fee, including clubs, is already low; when half the fee-paying patients are converted into contract patients, as they will be immediately, it is difficult to see how they can do much more than pay expenses, if so much.

Practitioners in better-class suburbs, who already suffer both as to their pockets and sometimes as to their familiarity with clinical pictures from lack of work, will be more than ever subject to over-competition; those in poor practices, whose difficulty is to find time to do work which barely produces a living wage, will be still further overworked, and will be forced to scamp their work; the only men who can be expected to welcome the change are those who have already acquired the art of seeing their patients at great speed, sorting out those requiring serious attention and sending them to hospitals, and dealing with the rest superficially for small fees; they will get an increased number of patients at slightly increased fees.

*Summary.*

We claim that the above figures prove definitely that contract practice at present rates can only be made to pay at the expense of the better-class patients, provided that the work is done thoroughly; and it follows that when it is proposed greatly to increase the area of contract practice the number of better-class patients attached *to each practice* must be proportionately increased. This is clearly impossible, and the only alternative is to raise the payment on account of club members to a figure which will bring the fee up to the average necessary without the help of the well-to-do patients, or with only such help as is still available. Speaking for the particular case of the practice in question, the necessary payment is about 10s. per head per annum.

If this, which is no more than honest dealing, is refused, it rests with the medical profession to refuse to sell its services on terms thus rudely dictated to it, and every practitioner in this country must put his back to the wall and fight for the right to earn his living, remembering that if we fail in this fight we shall be the first to suffer, but not the last; in ten years the public will get what it has paid for, and will be taught by the consequences flowing from a degraded standard of general practice that a hard bargain is not always a good one. But we shall not fail.

In conclusion, it only remains to add that the writers do not, for obvious reasons, publish their names, but that the books of the practice are open to the most complete investigation by the Chancellor of the Exchequer or the British Medical Association, or by any other responsible person who can make good use of the information which they contain.

TABLE A.

*Analysis of Income from Clubs*, 1910

A. Number of members, 260; salary per member, 6s.; total salary, £78; visits and consultations, 472; average fee, 3s. 3½d.

This is a special class peculiar to the City of London, and consisting almost entirely of young men employed in warehouses, and travellers, who, in the case of any severe or prolonged illness, are almost invariably sent either to hospital or to their homes beyond the visiting radius; these appointments are held by less than half a dozen medical men.

B. Number of members, 42; salary per member, 6s.; total salary, £12 12s.; visits and consultations, 117; average fee, 2s. 2d.

This is a payment by a firm for attendance on their resident staff of young men.

C. Fixed payment for all the staff of a large firm, exact number not known; total salary, £63; visits and consultations, 744; average fee, 1s. 8½d.

This includes men and girls, but very many of them live beyond the visiting radius.

D. Number of members, 163; salary per member, 6s.; total salary, £48 18s.; visits and consultations, 742*; average fee, 1s. 4d.

This is a wealthy lodge of Oddfellows, whose payment was raised to 6s. against great opposition on the part of the central governing body.

E. Number of members, 42; salary per member, 4s; total salary, £8 9s.

F. Number of members, 50; salary per member, 4s.; total salary, £9 19s. 6d.

G. Number of members, 12; salary per member, 3s.; total salary, £1 17s.

In the case of E, F, G, three average lodges of Oddfellows, the visits and consultations numbered 47*, and the average fee was 10½d.

NOTE.—The total for D, E, F, and G is 1,216; the numbers attributable to D and to the group E, F, and G respectively are estimated.

H. Number of members, 41; salary per member, 4s.; total salary, £8 5s.; visits and consultations, 44; average fee, 3s. 9d.

Resignation offered to this club on account of small fee and exceptional distance of visits, but withdrawn on assurance that more consideration would be shown. Previous to this incident it paid badly.

I. Number of members, 15; salary per member, 4s.; total salary, £2 19s; visits and consultations, 55; average fee, 1s. 1d.

J. Number of members, 214; salary per member, 4s.; total salary, £42 15s.; visits and consultations, 1,290; average fee, 8d.

I and J afford a fair example of the masses of employed contributors. These clubs include single women in employment, and the members are examined before admission, and must be under 40 on admission.

K. Number of members, 195; salary per member, 4s.; total salary, £38 19s. 4d.; visits and consultations, 746; average fee, 1s.

All very strictly examined.

L. Number of members, 15; salary per member, 4s.; total salary, £3 0s. 6d.; visits and consultations, 48; average fee, 1s. 3d.

All clerks.

TABLE B.

*Showing the Number of Club Patients Attended, Average Rate* 1s. 4½d, *and the Number of Other Patients Attended at the Various Fees Shown.*

| | July, 1910. One Week. | Oct., 1910. One Week. | Feb., 1911. One Week. | April, 1911. One Week. | Total. |
|---|---|---|---|---|---|
| Clubs. | 77 | 127 | 179 | 147 | 530 |
| s. d. | | | | | |
| 0 6 | — | 1 | 1 | 5 | 7 |
| 1 0 | 26 | 31 | 64 | 35 | 156 |
| 1 6 | 34 | 57 | 69 | 66 | 226 |
| 2 0 | 48 | 29 | 41 | 42 | 160 |
| 2 6 | 61 | 72 | 100 | 87 | 320 |
| 3 0 | 4 | 3 | 2 | 1 | 10 |
| 3 6 | 18 | 32 | 29 | 21 | 100 |
| 4 0 | — | 2 | 3 | 2 | 7 |
| 4 6 | 1 | — | 3 | — | 4 |
| 5 0 | 16 | 19 | 11 | 13 | 59 |
| 5 6 | — | 2 | 1 | 2 | 5 |
| 6 0 | 1 | — | 2 | — | 3 |
| 6 6 | 3 | — | 1 | 2 | 6 |
| 7 0 | — | — | 1 | 1 | 2 |
| 7 6 | 12 | 4 | 15 | 3 | 34 |
| 8 6 | 1 | — | — | — | 1 |
| 9 6 | 1 | — | — | — | 1 |
| 10 6 | 3 | 6 | 19 | 7 | 35 |
| 12 6 | — | — | — | 1 | 1 |
| 15 0 | — | — | 2 | — | 2 |
| 21 0 | 5 | 4 | 1 | 1 | 11 |
| 31 6 | — | 1 | — | — | 1 |
| 32 0 | — | 1 | — | — | 1 |
| 36 6 | — | — | — | 1 | 1 |
| 38 6 | 1 | — | — | — | 1 |
| 42 0 | 1 | — | 1 | — | 2 |
| 63 0 | 1 | — | 1 | — | 2 |

Also operation fees, £31 10s.

## CORRESPONDENCE.

We have again received a very large number of letters, all expressing strong disapproval of the bill as it would affect the medical profession, and especially general practice, in every district, town and country, in England, Wales, Scotland, and Ireland. The views expressed reveal a remarkable unanimity on essential points. The main difference shown is that a good many correspondents lay special stress on their preference for payment in respect of the attendance given over a capitation system, while some would entirely reject any plan involving an annual capitation fee. Note has been taken of the views expressed in all cases, and we publish the following excerpts:

### The Effect in Ireland.

Dr. J. Darley Wynne, M.B., D.P.H. (Clonmel), writes to call attention to the position of general practitioners in Ireland, in the event of the National Insurance Bill being passed in its present form. Clause 59 (Application to Ireland) lays it down that the duties of medical officer to the local Health Committee *must* be performed by the M.O.H. of each dispensary district without the production of any medical relief ticket, and he is to supply drugs from the guardians' stock. If this be passed, grave injustice will be done to four classes of the community, while a doubtful benefit will be conferred on two other classes.

1. The poorer labouring classes in the larger towns will suffer. Under the present system the dispensary doctors in good-sized towns have more than enough to do, and in times of excessive sickness or prevalence of epidemic disease, cannot do proper justice to the patients they already have under their charge. If this clause is carried into effect, the dispensary doctors will be compelled to attend a very large number of better-class artisans, shop assistants, clerks, etc., who will be brought within the scope of insurance. The inevitable result will be that the overworked doctor will devote most of his attention to the better class of insured persons, who are more likely to respond to his treatment and do him credit, and the poorer classes will be even worse off than they are now. In this town there are about 10,000 inhabitants, of whom I suppose about three-fourths will be included in the Insurance Scheme. There is one dispensary doctor for the whole town, with a district extending several miles outside in each direction. How can it be supposed that one man can properly attend to such a large number of persons? I speak from experience, as I have frequently done temporary duty under the present conditions, and know how hard it is to do the work well even at present.

2. Things may not be so bad in the country districts, when, as a rule, the dispensary medical officer is the only doctor, but he will be a great loser by the scheme, as he cannot live on his salary, which he must supplement by fees received from small farmers, tradesmen, etc., whom he will now have to attend for a mere pittance.

3. The chemists will lose, and many of them will probably be wiped out of existence, as all insured persons in Ireland are to be supplied with drugs from the guardians' stock.

4. The general practitioners in the towns in Ireland will be irretrievably damaged, if not absolutely ruined, unless free choice of doctors is allowed under the scheme. In Ireland, the resident gentry are diminishing both in numbers and in prosperity, and the wealthy middle classes, who form so large a bulk of the patients of general practitioners in England, are in Ireland, except in the north, almost conspicuous by their absence.

The two classes of the community on whom a doubtful benefit will be conferred are—first, dispensary doctors in towns, who will probably have a considerable increase in their incomes, but they will have a dog's life, as they will be night and day at the back and call of the vast majority of the population, unprotected by the more or less deterrent effect of the ticket system and the intervention of the relieving officers. Secondly, the better-class artisans, clerks, etc., will get cheap medical attendance; but experience has abundantly shown that benefits which are forced on people are not always appreciated.

I am quite aware that Mr. Lloyd George's reason for thus extending the dispensary system in Ireland is mainly an economical one, but surely it cannot be beyond his powers so to modify his scheme that justice will be done to all the classes I have referred to without dipping too deeply into the coffers of the Treasury.

### The Effect in the Highlands.

Dr. Alexander Trotter, Honorary Secretary of the Perthshire Branch of the British Medical Association, writes:

I have read with interest the various letters in the Journal on the State Insurance scheme, but there is one point which does not seem to have been touched upon.

In Perthshire and the Highlands generally doctors are very sparsely settled, and in some cases the nearest doctor is 20 miles away. What does Mr. George propose to do in these cases? Will he imitate the Postmaster General, who when the medical men refused to attend postmen living 20 miles away for 8s. 6d. a year gave the postman 8s 6d. a year and told him to get a doctor?

Again, take the case of a doctor living in one small village and having three or four hamlets at an average of three miles away. He is obliged to charge for mileage, which makes his average visit 4s., and has not enough patients on his list to give him an income of £60 a year at 4s. a year. It is a physical impossibility to walk the distance, and the above income hardly runs to a cycle, let alone a car, which he at present considers a necessity. Such a practice becomes absolutely unsaleable.

Under the present scheme he has the women and children; but it may only be the thin end of the wedge, and in the country districts most of the women are workers.

### Sea Fishing Communities.

W. S. writes:

Amongst all the opinions expressed regarding the proposed National Insurance Bill I have seen nothing to indicate how it is to affect those unfortunate practitioners whose lot it is to administer to the ills of the large fishing population round our coasts. Those people come under the voluntary part of the scheme. I presume, as the great majority of them are employers who earn less than £160 per annum, the majority of them cannot afford to pay private practitioners' bills of the amount, say 30s. per annum, as, owing to the recent introduction of steam into their calling, they have to pay large interest on borrowed moneys. Does the Chancellor of the Exchequer imagine that the fishing population will pay voluntarily 30s. per annum to his State Insurance scheme? Assuredly they will not. What will happen is this. Say a medical man has a parcel of 500 names on his books, of that 500, 250 of those can afford to pay him his fees, and they average 30s. per annum. Those 250 pay their medical man, and his income is £375 per annum. He can live, although he works for double the amount. The other 250 of his parcel of 500 cannot pay him his 30s., and if they cannot pay him they cannot pay the State, and that's what it means at 7d. per week. Hence the £375 cover attendance on the 500. So that attendance on 250 at 6s. a head per annum will be the future income of that unfortunate medical man, £75 per annum. This is our 50 per cent. increase which the Chancellor promised.

### The Universality of its Application.

Dr. McKenzie Johnston (Edinburgh) writes:

The applause with which the public at the outset has greeted the National Insurance Bill is remarkable. It is due, I believe, mainly, if not entirely, to their being dazzled by the reputed objects of the bill, while they have overlooked so far its details, and have failed to recognize the serious defects in the scheme as presented. With the criticisms of many of your correspondents on the financial details as they will affect the medical profession I am in entire agreement, but I take an even more serious view than most of them seem to take as to the ultimate effects of this bill, should it become law, both on the national interests and on the profession as a whole.

It is natural, and not in the least surprising, that the financial effects upon the medical profession should invariably be brought forward as if it were the great and chief objection, but it is to my mind unfortunate that this should be so, for we require the help of the public, and the public care nothing whether we are to be paid at the rate of 4s. or 6s. Can we not stimulate public opinion on broader grounds than those of our own personal interests? If we cannot, we shall certainly not have the influence and

support of the public in our opposition to this outrageous bill. Were the payment to the profession to be quadrupled, I should still consider the scheme of this bill thoroughly bad, for it is brought forward to help the "necessitous," and it will fail in many cases to help these unfortunate ones, while it will provide "help" for a number—and an ever increasing number—of those who do not specially require such aid, and who cannot be classed as necessitous.

There seems to be some danger that the profession, or some of them, may be brought to give tacit support to the bill by some increase of payment, and that they will be left with all the other defects—to be discovered later on.

I should like to see the profession take up the position (without special reference to the financial side) that the bill is a bad one as at present constituted, and that the profession—one and all—will not accept any appointment under it. Common agreement on these lines can alone save us from the degradation and deterioration of the whole profession. I should like to point out that this is a question for the *whole* profession. The consultant and the well-to-do practitioner are wrong if they think this bill will not touch them. It may be slower in affecting them, but it will affect them also in time.

### Effects on General Practice.

ARMIBA writes: My own case is no doubt typical of many others. My medical training—three years at the University and four years at the London Hospital—cost over £1 500. I never earned a penny, except in the form of scholarships, until I was nearly 25 years of age. Then, wishing to become independent as soon as possible, and not possessing the capital necessary to purchase a practice, I settled down to build up a practice of my own. It was very uphill work; I had many disappointments and difficulties to contend with, but I sat tight, and now, after fourteen years of struggling and waiting I am in receipt of an income which is a bare competency. And now what is the good of it all?

Practically the whole of my patients belong to the working class, and they would, therefore, be included in the compulsory part of the scheme. I have no club or friendly society appointments, and have never been anxious to have them, as the conditions of club practice are irksome to me.

If all my male adult patients are to be taken from me *en masse* and handed over to a "society doctor," I shall probably lose over 40 per cent. of my practice. And if, as seems probable after a few years, the wives and children of the workers are to be included in the scheme, then my income will be reduced to what I receive from my appointments. This at present averages about £75, but it is possible that even these appointments will be adversely affected by the passing of the bill.

Then, further, I have been accustomed to look upon the value of the goodwill of my practice as one of my realizable assets. But now this has gone, and I doubt if I could find a purchaser for my practice if I wished to dispose of it.

### Choice of Doctor: The Appeal to the Insured.

Professor BENJAMIN MOORE, after deprecating an irreconcilable attitude with regard to the medical part of the scheme, writes:

Our cause is a perfectly good and honest one from the point of view of the community, and we have to set to work to convert it to reason. I have lectured much recently to working-class people on this and kindred subjects, and I am certain that our great hold is the choice of a doctor. This is the greatest of all the crimes of the club system, that it does not allow this choice, and I know that the people realize it. It is an obvious thing that appeals to all. If we run a good campaign now in the newspapers we can raise the country on this point.

Our fight is for the freedom of the public and our own selves from the club system and against all undercutting. A fair price for fair labour and direct dealings with Government. To call this a club or contract system is meaningless. A contract it is indeed, but as different from present conditions as light from darkness.

The proposed insurance, if it can be properly modified, presents a new basis for the practice of medicine which will prevent the ground being cut from under the practitioner's feet as medical science discovers more and more how to prevent disease. It will inside five years' time nationalize all our hospitals and secure proper payment for institutional work, and inside ten years we shall possess a national medical service with properly paid officers and a proper organization to fight disease. Our present policy ought to be that of presenting to Government and the country, a moderate and equitable demand, and a system easily worked between Government and medical practitioners.

### The Wage Limit and its Absence.

Dr. FRANCIS RILEY (Tunbridge Wells) writes to emphasize certain points to which, in his opinion, the whole profession should give attention. In addition to the rooted distrust of, and absolute objection to, the whole scheme of administration by friendly societies, are:

1. The wage limit of £160 a year is unnecessarily high. The bulk of the working-class population who, under present conditions obtain inadequate medical attendance and require to be insured against sickness come well within a wage limit of £2 or even less per week. To make it compulsory for those with incomes between £100 and £160 a year to join friendly societies or become Post Office contributors whether they desire it or no, is to deprive the medical practitioner of a large portion of his private practice from which he derives the bulk of his income, and inflicts a gross injustice upon the profession to which the State is so much indebted. Therefore, whether under a system of payment by contract or per attendance, let the profession endeavour to minimize State interference with private practice, and concentrate upon the reduction of the wage limit to £2 a week.

2. Not content with compulsory contract practice in the case of all workers below £160 per annum, the scheme apparently contemplates the adhesion of voluntary subscribers or their children without any limit as to income, whom presumably the hard-worked practitioner is to attend for a mere pittance. The State has no claim, legally or morally, to deprive a man of his just right to sell his services for such remuneration as he considers is due to the fruits of his own industry and ability.

### Objections to a Capitation System.

Sir,—The Representative Meeting of the British Medical Association will be held next Wednesday, May 31st, to determine the policy of the medical profession with reference to this bill and the questions involved. May we express a hope that they will most carefully consider the interests of the general practitioner.

One of the questions to be decided is, Shall the Association consent to negotiate for a capitation payment for medical benefits to all classes of the community; shall it ask for payment for services rendered and on a tariff of fees; or shall it acquiesce in both plans and ask the Government for local option, it being left to the local doctors to decide by a majority which they prefer?

Hundreds of general practitioners absolutely decline to enter into any contract on a capitation payment, and would certainly oppose such a proposal on behalf of all classes of the community. Local option would be, if capitation is approved of, tyranny exercised over these doctors.

No doctor can possibly object to payment for services rendered on a tariff of fees.

If we are united we must win.

May we express a hope that every general practitioner will do his best to influence the Representative returned from his district to vote in favour of the resolution at foot, which will be brought before the Representative Meeting.—We are, etc.,

HUGH BARBER (Derby), RICHARD BELL (Edmonton), W. J. NOEL BELL (London), W. G. BENNETT (Worcester), C. G. BURTON (Edmonton), F. G. BUSHNELL (Hove), H. J. BUTLER (Walham Green), H. G. COOPER (Altrincham), P. R. COOPER (Bowdon), JOHN COWPER (Shanklin), H. N. CROWE (Worcester), J. STAVELEY DICK (Manchester), P. VERNON DODD (Folkestone), J. W. DRAPER (Huddersfield), J. J. M. DUNBAR (London), D. R. POWELL EVANS (Wimbledon), CHARLES J. EVERS (Faversham), W. J. S. EWAN (Tottenham), FRANK W. FAWSETT (Edmonton), E. C. FENOULHET (Herne Bay), THOMAS D. FORBES (Edmonton), E. ROWLAND FOTHERGILL (Brighton), J. R. GALLARD (London), JOHN E. GARNER (Preston), T. P. GOSTLING (Worcester), B. W. N. GOWRING (Dorchester), HARRY GREY (Bristol), ASHER GROSS (London), J. A. B. HAMMOND (Shanklin), A. W. HARRISON (Merton), HEATON C. HOWARD (London), BASIL JACKSON (Brighton), A. JAMIESON (London), C. A. LAUCHLAN (London), THOMAS MACCARTHY (Sherborne), E. HAYES MCLAUGHLIN (London), F. T. B. LOGAN (Southville), W. D. MCMURTRY (Wands-

worth), Robert B. Marjoribanks (Hornsey), James Metcalfe (Bradford), E. J. McCarthy Morris (London), Newman Neild (Clifton), R. J. W. Oswald (London), A. S. Morton Palmer (Worthing), George Parker (Clifton), Hugh McD. Parrott (London), Philip Prebble (Blackburn), H. Vaughan Price (London), Charles Stennett Redmond (Tottenham), E. J. Rowbotham (London), George Scott (Wimbledon), W. B. Secretan (Reading), Bertram Soper (Ventnor), John Spears (Tottenham), Robert Spears (Tottenham), R. Woolsey Stocks (Wandsworth), R. Sturgis-White (London), Walter Sykes (Preston), Edward Thompson (Barrow-in-Furness), C. Gurney Thompson (Lower Tottenham), C. Wilfred Vining (Ealing), Geo. H. Vos (Tottenham), A. S. R. Wainwright (Tottenham), Thomas B. Weston (Wandsworth), Herbert Wilkins (London), Cyril Williams (London), J. D. E. Williams (London), E. H. Willock (Croydon), Hugh B. Wilmot (Edmonton), George D. Wilson (London), James Young (London).

*Resolution.*—That, as registered medical practitioners would accept grave professional and financial risks if any agreement were entered into to give under the National Insurance Bill (in return for a capitation payment) ill-defined and probably increasing medical and surgical services to all classes in the community, before several years' experience of the proposed insurance against the cost of such services has put at the disposal of the State reliable figures and facts on which to base such a proposal, this Representative Meeting decides to recommend the medical profession to unite in demanding payment on a tariff of fees for work performed, and pledges the support of the Association for this purpose.

## THE REPORT OF THE ACTUARIES.

The report of the actuaries consulted by Mr. Lloyd George in relation to the scheme of insurance against sickness, disablement, etc, embodied in the National Insurance Bill, has been presented to the House of Commons.

It is a document of forty-two foolscap pages, containing a very large number of tables and nine appendices.*

It bears date May 20th, but was not in the hands of M.P.'s until May 23rd, and was not available for general use until the afternoon of that day, twenty-four hours before the second reading debate was due to begin.

One of the appendices shows that the request for its preparation was made on May 3rd—that is, the day before the bill was introduced into the House by Mr. Lloyd George, and that the actuaries were asked to include under various headings the results, so far as they had any bearing on Part I of the bill, of the estimates and calculation which they had at various times previously made for Mr. Lloyd George.

The report is addressed to the Lords of the Treasury, and its signatories are two past presidents of the Institute of Actuaries, Mr. G. F. Hardy and Mr. F. D. Wyatt.

### Population Coming Under the Scheme.

In estimating the number and ages of persons who would come under Part I of the scheme, either as compulsory or voluntary contributors, the actuaries have had recourse to the Census returns of 1901. The scheme does not include all workers alike, and after setting forth the various difficulties which this fact creates in making estimates of any kind in relation to the scheme, they conclude that the best way is to assume—in the first instance, at any rate—that with the exception of those specifically mentioned as employers, the great bulk of all persons shown to belong to certain occupations in the Census returns in question will come under the operation of the scheme either as compulsory or voluntary contributors.

They then show by a series of tables what they regard as the maximum number of persons likely to be eligible as contributors to the scheme at its initiation, if that date be taken as May 1st, 1912, and divide these persons into various age groups. They indicate, however, that neither the absolute figures nor the age groupings can be taken as more than somewhat rough estimates.

Their figures for males range from 1,396,000 compulsory and 82,000 voluntary contributors in the 16–20 age period, to 357,000 compulsory, and 114,000 voluntary contributors in the 60–65 age period, the total for the male sex being in the case of compulsory contributors 10,241,000 and in the case of voluntary contributors 1,578,000, or for both classes of male contributors 11,819,000.

The corresponding figures for women are 1,006,000 compulsory and 76,000 voluntary contributors in the 16–20 age period and 100,000 compulsory, and 41,000 voluntary contributors in the 60–65 age period, or a total for the female sex of 4,118,000 compulsory, and 542,000 voluntary contributors, making together 4,660,000. Hence the estimate of the maximum number of eligible contributors, whether compulsory or voluntary, at the date mentioned is for both sexes 16,479,000. They then show that for certain reasons the maximum may not be reached, and finally conclude that the total number for which provision must be made immediately on the Act coming into operation is 13,918,000, of whom 882,000 will be Post Office contributors and the rest members of approved societies.

### Mortality-Rates.

The actuaries point out that in determining the rates of contribution, assumed rates of mortality are a most important factor. They then show that any data on this subject, such as those which can be derived from the experience of the Manchester Unity Society, cannot be held to apply absolutely to the present scheme, as they are derived from selected lives. They also show that in relation to contributions from women, it is important to determine whether there is any marked difference between mortality amongst married men and the average mortality of the total male population of the same ages, and that on this subject the only data available are certain New Zealand statistics.

### Marriage-Rates.

The contribution-rates are further affected by the fact that payments of contributions and benefits will cease upon the marriage of a woman contributor unless she remains a worker, and may recommence should she become a widow.

### Issue-Rates.

A consideration which arises in respect of the cost of maternity benefits is the number of children of which each male contributor at different ages is likely to be the father. Here, again, the actuaries have been driven to New Zealand statistics.

### Sickness and Disablement.

It is pointed out that under the Bill the proposed allowances for sickness and disablement correspond in a general way with those commonly granted by friendly societies, but that there are no general statistics from which may be calculated the number of persons likely to draw sickness benefit every year and the aggregate duration thereof. The combined experience of the friendly societies would have been an invaluable guide, but any statistics that have ever been prepared on the subject are now out of date.

Nevertheless, the investigation carried out into the experience of the Manchester Unity of Oddfellows by Mr. A. W. Watson, which was published in 1903, and covered the five years 1893–1897, may be considered, in the actuaries' opinion, as fairly representative of the general experience of friendly societies. It is pointed out that it revealed, among other things, the important fact that a steady increase in the average rate of sickness among all male lives connected with the society had been in progress for many years.

The actuaries also point out that the average cost of sickness at various ages in any community largely depends on the occupation of its members, but finally, after weighing a multiplicity of considerations, conclude that, despite the limited number and specialized class of persons on whom the Manchester statistics mentioned were based, they may be safely taken as a basis for estimating the outlay under the scheme on sickness and disablement benefits.

### Secessions and Unemployment.

The report also considers the effect on the cost of the scheme of secessions among contributors either by emigration, marriage, or otherwise, and of the failure of those compulsorily insured to pay their contributions, owing to their being out of employment.

### Some Specific Questions.

Having set forth in the pages and tables summarized in the foregoing paragraphs the principles on which they have based their calculations and the general outcome thereof, the actuaries proceed to answer certain specific questions submitted to them in the memorandum from the Treasury. The bearing of most of these is purely financial.

*Contributors under Age 16.*—They estimate that in addition to 13,089,000 compulsorily insured male and female members of approved societies and Post Office

* Cd. 5681. Price, 4½d. To be obtained from Eyre and Spottiswoode, or through any bookseller.

contributors at the initiation of the working of the scheme, there will also be 813,000 under-age contributors.

*Increases in Compulsory Contributors*.—The compulsorily insured members of approved societies will increase by rather more than a million every five years, and will thus have risen in the year 1927–28 to 15,898,000.

How far the number of compulsorily insured persons in the Post Office class will increase in corresponding years it is considered impossible to estimate. This class will include all those who are rejected by the societies on the ground of ill health, so no doubt the mortality-rate among them will be much higher.

The number of under-age contributors will probably diminish year by year.

*Increases in Voluntary Contributors*.—The total number of persons estimated to be eligible as contributors on the initiation of the scheme is 2,120,000; but no attempt is made to assess the extent to which they will increase as time goes on.

*The Cost of Benefits*.—From the statements made as to the estimated cost of minimum benefits—that is, those laid down by the bill—and as to the "reserve values" per member with which approved societies should be credited, it emerges (*a*) that the actuaries have been directed to take the cost of administration as equivalent to 4*s*. a head per annum; (*b*) that they have been directed to take 6*s*. a contributor per annum as the average cost of medical benefits; (*c*) that Mr. Lloyd George's expected surplus is due to the fact that the weekly contributions to be made by employer and employee respectively are themselves more than sufficient to cover the minimum benefits without the help of a State contribution.

*The Surplus*.—The probable surplus would appear from the following figures likely to be a very large one. Thus the income derived from the contributions of employers and employed and those of voluntary contributors (but not including the State contribution) will amount in the first year to £15,186,000, against an expenditure of only £6,354,000, while in the fifteenth year (namely, 1927–28) the income from the same source will be £22,568,000, against an expenditure of £18,262,000. Summarized, this surplus will, if accumulated at compound 3 per cent. interest, reach in about fifteen years an amount equal to the total of the reserve values credited to the approved societies.

*The State Contribution*.—The amount of the charge in respect of the State proportion of benefits and cost of administration will rise from £1,944,000 in the first year to £5,498,000 in the fifteenth year; but this estimate makes no allowance in respect of Post Office contributors, as it is considered impossible to assess the amount that these will withdraw in the form of sickness benefit.

The actual amount that Parliament will have to vote each year to provide for the liability of the nation in respect of the State contribution is nowhere indicated.

### Medical Bearings.

*The Medical Benefits*.—There is nothing in the report to indicate that the actuaries have been asked to provide or deal with any data bearing on the amount of work likely to be thrown on medical officers engaged under the scheme. It is true that they supply a table showing the average number of weeks that each insured person will probably be ill each year—the sickness benefit table of the Manchester Unity of Oddfellows; but this table is employed solely for the purpose of calculating what contributions are necessary to provide for sickness and disablement benefits, and such benefits, it is to be remembered, do not commence until the insured person has been too ill to attend to his work for at least three days. In short, the actuaries have made no attempt to estimate how much work in the way of visits and consultations attendance on insured persons will impose, but have simply taken, as instructed in the Treasury memorandum, 6*s*. a head as the cost of free medical attendance and free medicines, etc.

It is important to note that this 6*s*. is an average which covers Post Office contributors as well as members of approved societies. Hence if attendance on the former is more highly remunerated in view of the fact that many of them will be persons rejected by the societies owing to their infirm health, the extra payment will have to be supplied either by reducing the average payment for attendance on society members, or from some source not mentioned in the report.

*Work to be Done*.—The numerous tables that the actuaries supply have not been reproduced, since they have no direct bearing on the medical aspects of the bill. Nevertheless, some of them could be utilized to throw a certain amount of light on the question of the work to be done.

Thus, if Table VII—the sickness benefit table—were collated with Tables G and H, which show the probable age distribution of all contributors other than Post Office contributors, it would be possible to obtain figures showing the amount of work created by members of approved societies actually in receipt of sick pay. But, of course, it would not be possible to derive from these, or any other tables supplied, an estimate as to the total amount of work required, including as this does attendance both on members of approved societies and Post Office contributors while in receipt of sickness benefit, on both classes of contributors during the three days preceding the receipt of sickness benefit, and at all times on persons not in receipt of sick pay because enabled to remain at work by the attentions received from their contract medical advisers.

*Income and Expenditure*.—By similarly collating some of the figures contained in Table S with those in Tables U, V, and W, it is found that when the scheme has been for some years in operation the contributions made by and on behalf of all insured persons of all classes (not including State contributions) in respect of medical as distinct from other benefits will amount to £6,343,019, against an expenditure under the same heading (Medical Benefits) of £5,049,000 and that there will be corresponding surpluses in earlier years. In other words, it is clear that of the total sums annually collected nominally for the purpose of providing free medical attendance and free medicine, a large proportion each year will be expended, not for that purpose, but will go to swell the surplus out of which Mr. Lloyd George expects to pay for the "optional" benefits promised in the bill to approved societies.

A further point of interest derivable by collation of various tables is that when the scheme has been some years in operation the estimated expenditures on the two items—medical benefits and administration—are approximately £5,600,000 and £3,800,000 respectively. There is nothing to indicate why, when less than £6,000,000 is estimated to be sufficient to pay for free medical attendance and free medicines on all the persons included in the scheme, little less than £4,000,000 should be required solely for the expense of administration.

*Surplus Income*.—In view of the very large surpluses that will result each year, according to the estimates, it should be clearly possible greatly to increase the expenditure on medical attendance without absorbing all the surplus, and still less without creating a deficit.

*The Numbers Included*.—Finally, it may be pointed out that, high as is the estimate of the total number of persons eligible for insurance, it is clear from their first appendix that the actuaries have not really included all persons who may be deemed eligible as voluntary contributors when the bill is read as a whole, and not as limited in its operation by the particular schedule quoted by them. Nevertheless, their figures, even as they stand, are very impressive, being equal to over a third of the whole population of the country.

### Summary.

To sum up the contents of this actuarial report, from which so much was expected, it supplies the comparatively unimportant information recorded in the foregoing paragraphs, but none on certain points which are of very material interest both to the medical profession and the public—namely: (*a*) How many medical men will be necessary to work the scheme? (*b*) How far can they be supplied without totally disorganizing existing arrangements for the care of the health of the nation, including both its rich and poor members? (*c*) What will be the average annual income of each of the medical men engaged under the scheme?

Still less does the report indicate how many practitioners will be damaged by the scheme owing either to the reduction of their annual incomes, or by the annihilation of the value of their practices as a transferable asset, one which hitherto has been capable of being converted into a provision for the old age of the practitioners themselves or for their widows and children.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

## National Insurance.

### *Consumption Sanatoriums.*

LAST week, in the course of the debate on the financial resolutions of the Budget, Mr. Balfour spoke about the sanatorium proposals of the National Insurance Bill as follows: I rise only to ask the Chancellor of the Exchequer to exercise, as I am sure he will be ready to do, a certain caution in carrying out one part of his scheme which must have great attractions to all of us—namely, the application of large capital sums to the building of sanatoriums throughout the country. I think that perhaps there has been in the public mind an undue or slightly exaggerated enthusiasm with regard to this particular method of dealing with tuberculosis. The public have the idea that the mere open-air treatment by itself produces such marvellous results that we may through it, and it alone, look to, if not the extermination of the appalling scourge of tuberculosis, at all events to an immense diminution in the disease, and that we may reduce it to one of the rarer of the zymotic diseases from which we suffer in these islands. I am not quite sure that the most recent investigations into the results of the mere treatment in sanatoriums—the fresh air, adequate food, and so on—bear out all the hopes that we were at one time prepared to entertain in regard to it. There are very able investigators in this country who take a much less sanguine view, who, after examining, as far as they can, the actual results obtained in this country and in Germany, have come to the conclusion that we must not expect quite the same proportion of complete cures as at one time we had all hoped. I certainly take a sanguine view as to the treatment of tuberculosis. I believe that medical science has made, is making, and is destined to make, immense strides. But when we come to such large capital sums as those dealt with by the Chancellor of the Exchequer, I hope he will bear in mind what I am sure is the truth: that while it is possible to waste money upon vast permanent and expensive structures, it is not really possible to waste money if you devote it judiciously to scientific medical investigations into the causes and cure of disease. There is a great movement abroad as well as here in favour of attempting to deal with tuberculosis, not merely in these great sanatoriums, but in the homes of the rich and of the poor, and probably, as medical science advances, it will be found possible to deal with it in that way. To remove a man in the early stages of the disease and to put him apart in one of these places may have great advantages merely from the point of view of segregation. If he happens to be in a very infectious condition he is himself a source of danger to those nearest and dearest to him, and the mere removal from his home to one of these hospitals no doubt diminishes the disease by diminishing the infection. But I am looking at the matter from the point of view of curing the disease. From that point of view I think we ought to be careful, and that we ought to exercise caution in the way in which we spend money. Do not let us assume that the cure of tuberculosis in all its forms has been discovered, and that all we have to do is to spend money in carrying out that cure. That really, I think, is not the fact. What is the fact is that medical science has made great progress. We require further investigation and perpetual study of how these people are being treated when in the sanatoriums. That is not a completed page of medical inquiry; far from it. Perhaps one of the great benefits that we will get from these sanatoriums will consist, not so much in carrying out what may be thought a well-understood cure of tuberculosis, but in giving expert medical authorities the power of carrying on investigations which will enable them in future to deal with this disease in a manner that I am not quite sure they are able to deal with it at the present time. I am sure the Chancellor of the Exchequer will understand that I am not making these remarks in a discouraging spirit. That is really not the case. I am an optimist in all these questions of dealing with zymotics. I myself welcome most cordially the expenditure of public money for the purpose of dealing with them in a national spirit and on a national scale. But let us take care that in so dealing with the matter on a national basis, and on a national scale, we do not spend too much of our money on inanimate structures, which in themselves may be no good, and that we spend a little more in carrying out those further schemes of research and investigation on which the real progress of the race in these medical matters most assuredly depends.

Mr. Lloyd George said in reply: I am sure the committee are very much indebted for the important contribution which the right hon. gentleman has made to the consideration of a problem which, although it does not arise strictly upon the Budget, we have taken money for, and therefore it is relevant to it. The point which he has put is a point which I may assure him has engaged our attention, as it is a point which engages the attention of any one who looks at all into the matter. I have no doubt at all that a short time ago too perfect results were expected from sanatoriums. I am not sure that the reason why they have not been, I will not say not complete successes, but the reason they have not effected cures in more cases than they have done, is that they did not receive patients at a sufficiently early stage; that I am assured on all hands. I also think that doctors have, as a general idea, rather exaggerated what might be expected, and that, in fact, we cannot expect so much from sanatoriums as was hoped at one time. The right hon. gentleman said, and he said very truly, that after all the most important thing was to encourage scientific investigation into the cases with a view to discovering the best method of cure. That he will find provided for in the National Insurance Bill. I realize the enormous importance of it. I have provided out of the Government contributions for sanatoriums. I have also specially set aside a special fund for the purpose of scientific research, I agree so thoroughly with the right hon. gentleman. I do not think sanatoriums by any means the last word, but they are a stage on the road. I do not think even that if sanatoriums turn out to be, not perhaps a mistaken idea, but a crude idea, the money would be wasted, because what would happen would be that in the case of a great many patients—20,000 or 30,000 it might be—they will have doctors who will be specialists in this particular kind of disease. These will be watching it day by day in its development, and they are bound to get to know far more about it than at the present time. In the end, especially if there is a fund of this kind set up, we may be able to find something far more perfect in the way of treatment than is known up to the present time. At any rate, the money will not be thrown away, although eventually the cure may be in a system that provides for special diet, good sound, healthy diet, under healthy conditions. That is bound to assist in the cure of the patient. Therefore, these buildings will not be thrown away whatever happens. The most important thing of all is what the right hon. gentleman incidentally referred to, that we should not have merely expensive buildings. In Germany, I am told, they spend much more money upon architecture than is really absolutely necessary—this is not my opinion, therefore it must not be taken that it has decided the action of the Government—but it is one complaint against the German authorities that a good deal of capital has been thrown away on the architecture of the buildings. It is quite possible that some time or other these sanatoriums may have to be reconstructed or adapted to new ideas, therefore it is important that we should put up useful, serviceable buildings, and that money should not be squandered upon the architectural side. I am told that the way in which you approach this matter makes such a difference. For instance, you may spend money on these build-

ings similar to the way it has been done in Germany, where the cost has been £1,000 a bed, whereas £100 a bed, I am assured by those who have studied the thing thoroughly, will provide quite good buildings, and even better for this purpose. What, therefore, rather is of importance is that the money shall be well, usefully, and economically spent. That is the first thing to consider; that it should be spent under conditions where you can get the best kind of doctor to watch the progress of the disease, that it be done under the direction of the best scientific authority in the land, and that it may end in our discovering something which will enable us to end the disease as effectively as small pox was stamped out over a century ago. That is really what I think we ought to aim at. I am exceedingly grateful to the right hon. gentleman, in the position of authority in which he is here and in the country, for having made a pronouncement of that kind, because I really believe it will be a good thing, if I may respectfully say so, rather to attract attention to that side of the work. It is a mistake to encourage false hopes in a matter of this sort. The most important thing is that our immediate efforts should be directed into the right channel. To say that by merely building sanatoriums costing £1,500 000 in this country we shall necessarily find a cure would be to encourage false hope. What we will do will be, I think, a little in making a contribution, under proper scientific direction, which will enable us to arrive at something sooner or later which will enable us effectively to stamp out this terrible disease. I am exceedingly obliged to the right hon. gentleman for calling attention to the matter. It has also enabled me to point out what I ought to have pointed out when I introduced the bill, that we are making a contribution towards scientific research. We shall help existing sanatoriums. We could not hope really to build a sufficient number of sanatoriums without depending also upon those which have been built by voluntary contributions, and even those which are being built by private enterprise. May I call the attention of the right hon. gentleman to the National Insurance Bill, Clause 15, Subsection (2), Paragraph (*b*). I am rather surprised that no attention has been drawn to it. It has escaped even the attention of the press. The paragraph says:

> Provided that the Insurance Commissioners may retain the whole or any part of the sums so payable out of the moneys provided by Parliament for the purposes of research.

This will cover the whole ground which the right hon. gentleman has brought before the House.

*The Choice of a Society for Sick Benefits.*

Mr. Barnes asked whether in such cases as that of a person who was a member of more than one friendly society, or of a friendly society and a trade union, each of which was qualified for a registration as an approved society for the purposes of the sick insurance under the Insurance Bill, such person would have the option of choosing through which of the societies or union, as the case might be, he might receive the sick benefit. Mr. Lloyd George said that the answer was in the affirmative.

*The Local Health Committees.*

Mr. Ormsby-Gore asked whether the local health committees proposed to be established in the National Insurance Bill would be so constituted that they would be able, if Parliament thought fit, to take over the other duties dealing with public health in addition to those imposed on them in the National Insurance Bill, so that the whole of the public health service might be unified. Mr. Lloyd George said he could not say what conditions Parliament might think necessary for such a measure of unification. The hon. member was no doubt aware that the insured persons would be directly represented by a majority of the local health committee.

*The Health Visitors Bill and National Insurance.*

Mr. Charles Bathurst asked whether, in view of the provisions in the National Insurance Bill for the formation of local health committees, the Government proposed to abandon their Health Visitors Bill, or to defer taking its subsequent stages until after the duties of the above committees had been defined by statue? Mr. Burns said that the Prime Minister had asked him to reply to this question. The provisions of the National Insurance Bill did not touch the question of the appointment by local authorities of health visitors, which was the subject dealt with in the Health Visitors Bill. There would be no danger of overlapping. The Health Visitors Bill dealt with children under 5 years of age. The National Insurance Bill did not deal with persons so young as that.

*The Exclusion of Persons over 65 Years.*

Mr. Barnes asked if the Chancellor of the Exchequer, having regard to the fact that persons over 65 years of age were excluded from the benefits of the Insurance Bill, would favourably consider such an alteration as would enable them to pay while working or able to pay and to charge the fund with the payment of 5s. a week till reaching the age of 70 of such of them as might be medically certified as permanently disabled, and who complied otherwise with the provisions of the Old Age Pensions Act of 1908. Mr. Lloyd George said he had considered proposals for giving benefits to persons over 65 at the commencement of the Act, but he found that the cost would be so great as to throw an undue burden on the other contributors. Mr. Barnes: Would the right hon. gentleman ascertain to what extent and for how many years the liability would fall on the fund? His impression was that it would be only two or three years. Mr. Lloyd George said he thought the hon. gentleman would find, if he looked at the experience of the friendly societies, that sickness between 60 and 65 extended over a considerable period, so that the inclusion of persons over 65 would be prohibitive when taking this up for the first time. To begin by including persons over 65 would simply break down the fund. Mr. Remnant asked: Had the right hon. gentleman any idea of the number affected between 65 and 70, and of the cost which their inclusion would involve? Mr. Lloyd George said that he had not an estimate of the cost. So far as he remembered, the number affected would be hundreds of thousands. It was not really a small matter. They were very sorry to cut them out; they did it very reluctantly. On the actuarial advice it was believed to be almost prohibitive.

*Sickness from Misconduct.*

Mr. Leach asked the Chancellor of the Exchequer if he would explain to the House the kind of sickness which, being attributable to an insured person's own misconduct, disqualified him from sickness or disablement benefit. Mr. Lloyd George answered that if his hon. friend would refer to Clause 13 (4) of the bill he would see that this was a matter which an approved society would be left to regulate by its own rules. In the actual practice of friendly societies the most usual cases were those of venereal disease or bad cases of drunkenness.

*Healthy Classes and Increased Benefits.*

Colonel Rawson asked what benefits specially healthy classes of the community who joined together for insurance under the National Insurance Bill would get if they did not need medical attendance or sickness benefit to any considerable proportion of their contributions. Mr. Lloyd George answered that if an approved society realized a surplus through the sickness rate of its members being less than the average, it could submit a scheme for additional benefits under Clause 30 of the bill.

*The Maternity Benefit.*

Mr. Lees Smith asked whether under the National Insurance Bill a woman insured suffering from scarlet fever would be entitled to sickness benefit of 7s. 6d. per week in cash and medical attendance in addition, whereas such a woman in childbirth would receive only maternity benefit of 30s. for four weeks without medical attendance. Mr. Lloyd George replied that it was not the practice of friendly societies to give sick pay in maternity cases. Consequently the maternity benefit under the bill (which covered medical attend-

ance) must be regarded as a benefit additional to sickness benefit, and not as a substitute for it. It was the most generous scheme for maternity ever proposed. It was much more generous than any scheme of maternity benefit provided by the friendly societies; it was also more generous than any scheme in Germany or any other country. Mr. Charles Bathurst asked the Chancellor of the Exchequer whether medical benefit under the National Insurance Bill would include the attendance of a doctor in maternity cases if summoned in an emergency on the advice of a midwife acting under the rules of the Central Midwives Board. Mr. Lloyd George replied that the attendance of a doctor in maternity cases was provided for by the maternity benefit, not by the ordinary medical benefit.

*Sickness Benefit and Board and Lodging.*

Mr. Leach asked the Chancellor of the Exchequer why he proposed to exclude from sick and disablement benefit those men and women who might be provided with board and lodging by their employers. Mr. Lloyd George said the intention of the scheme of national health insurance was, so far as practicable, to provide insurance against those risks which were not already covered. A person provided with board and lodging by his employer was excluded from sickness and disablement benefit so long as he was so provided. He was, of course, very unlikely to be provided with board and lodging when he would otherwise be entitled to disablement benefit.

*Payment per Visit.*

Mr. Booth asked Mr. Lloyd George if he had received a deputation from the medical profession asking for better treatment under the National Insurance Bill; and whether he contemplated acceding to their request for payment according to the number of visits paid; and, if so, what additional safeguards he proposed to introduce to prevent the dangers of malingering. Mr. Lloyd George said that he had received deputations of members of the medical profession on this subject both before and since the provisions of the bill were made public. He proposed making a statement on the position of doctors under the scheme during the discussion of the second reading of the bill.

*Date of Second Reading.*

Sir H. Craik asked Mr. Lloyd George if he was aware that a meeting of the British Medical Association had been fixed for May 31st, and whether it would not be possible to wait till then before asking the House to vote on the second reading. Mr. Mitchell-Thomson asked if the right hon. gentleman was aware that the Royal College of Surgeons of Edinburgh had passed a resolution asking whether the consideration of the measure could not be further postponed. Mr. Lloyd George said: With regard to those two questions, I think it will be a great advantage to those gentlemen when they meet on May 31st that there should have been a further discussion in this House on those points. I am sure that they are under a complete misapprehension as to the position of doctors under the scheme. I think they will discover that their position will be enormously improved, and therefore I think it will be a great advantage to them that there should be another discussion in the House before they meet.

Mr. Austen Chamberlain: Does the right hon. gentleman bear in mind that it is not only the doctors, but all the friendly societies, who are interested, and it is impossible for them to have their meetings before the date fixed for the second reading discussion, or for us to be informed of the decisions and opinions expressed at those meetings if the Government adhere to the present date? In order that the House may discuss the matter with full knowledge and come to a sounder decision, will the right hon. gentleman consider the advisability of taking the second reading on a later day? Mr. Lloyd George: I am sure the House will be very reluctant to fix any date that would imperil the passage of the bill, or that would unduly prolong the length of the session. Really, I think if the right hon. gentleman has followed the subject as closely as I am bound to do he will have discovered that all the criticisms directed against the scheme are criticisms of detail, and invariably hon. members have prefaced their remarks by saying that they are in favour of the object and principle of the bill. That is all the second reading affirms. It does not go beyond that, and I think it would be of enormous advantage to all those friendly societies, insurance societies, and doctors for us to have a full discussion extending over two days in the House of Commons in order to enlighten them on points which they are really not clear about. It would be an advantage that we should have that discussion before rather than after the meetings referred to.

*Female Domestic Servants and Insurance.*

Major Henderson asked how the contributions to the National Insurance scheme were to be paid by female domestic servants who lost their situations, having regard to the fact that in many cases employment was lost owing to the servant leaving her employment to attend a sick relative, and in many such cases her accumulated savings would be required to assist the sick relative. Mr. Lloyd George replied that an employed contributor might miss during unemployment a proportion of contributions not exceeding on an average 6 per cent. without suffering any loss, reduction, or suspension of benefits. If he or she had missed on an average more than 6 per cent. of the contributions but not more than 25 per cent., a reduction or postponement of sickness benefit would be incurred, in accordance with Schedule 5. Benefits would only be suspended if the arrears exceeded 25 per cent. Moreover, a domestic servant in the position described, if her arrears exceeded one or both of these limits, could pay them up at any time within the same or the next calendar year.

*Healthy People and Sick Pay.*

Sir Charles Hunter asked if, under the National Insurance Bill, the man who had subscribed all the years from the age of 16 to 65 without being sick any of the time was to receive no benefit at all. Mr. Lloyd George said that the bill provided for an insurance against sickness, and the benefit was naturally not payable in the case of a person who had the good fortune to remain in good health. It was, however, part of the object of the scheme to provide additional benefits, such as increased old age pensions.

*Invalids and National Insurance.*

Mr. Snowden asked the Chancellor of the Exchequer if a person who was suffering from illness or invalidity at the time of the coming into force of the National Insurance Bill would be entitled to join in the scheme, and, should such illness or invalidity continue, be entitled to benefits in due course. Mr. Lloyd George said: A person who is sick or disabled at the time of coming into force of the bill, but who subsequently recovers and makes the number of contributions prescribed by Clause 8 and otherwise conforms to the provisions of the bill, will be entitled to benefit. He will receive the full insurance if he is employed within one year after the commencement of the operation of the Act, and a reduced insurance if he joins later; but the reduced insurance may be increased to the full insurance in certain cases.

*Small-pox and Insurance.*

Mr. James Parker asked the Chancellor of the Exchequer whether the term "disablement" in Section 13 of the Insurance Bill included isolation for small-pox; and, if so, whether insured persons could be deprived of benefit under the bill if the societies made regulations insisting on the vaccination of such persons. Mr. Lloyd George replied: A person isolated for small-pox in a hospital provided by a public authority is not entitled to disablement benefit, as it is not consistent with the scheme of the bill to make provision for persons otherwise provided for. If, however, he had dependants, they would be entitled to the benefit. There is nothing to prevent a society from making a rule of the sort mentioned, or to compel a person to join such a society.

*Maternity Benefits.*

Mr. Leach asked the Chancellor of the Exchequer if the bill would give the maternity benefit to the unemployed, uninsured, unmarried mother of an insured man's child, as was the case with the unemployed, uninsured wife of an insured husband. Mr. Lloyd George: The reply is in the negative. Mr. Astor asked whether maternity benefit under the National Insurance Bill includes and covers medical attendance. Mr. Lloyd George: The reply is in the affirmative.

*Surgical Treatment.*

Mr. Astor asked whether it was proposed to include surgical treatment in the medical benefits to be given to persons insured under the National Insurance Bill. Mr. Lloyd George: The present practice of the friendly societies is only to provide such surgical treatment of a minor nature as may be covered by their agreements with the doctors.

SECOND READING DEBATE.

The second reading of the National Insurance Bill was moved, on Wednesday, May 24th, by the President of the Board of Trade (Mr. Sydney Buxton) who practically confined himself to the unemployment part of the Bill. Mr. H. W. Forster said that the scheme to be successful must have the co-operation of the medical profession, but did not at present meet its approval. The profession was wholly opposed to the suggestion that the friendly societies should make their own terms with the doctor, and he suggested that the local health committee, assisted by an advisory committee of medical men practising in the area, should have the appointment of doctors under the general scheme as it applied to the friendly societies also. Mr. Clancy, speaking for the Nationalist party, said there was no more devoted and zealous body of men than the doctors of the Irish Poor Law service, and that the Irish members felt it their duty to prevent any changes being made to the prejudice of the interests of medical men in Ireland. Dr. Esmonde said he had received over 900 letters from medical men complaining of the provisions of the bill as it affected their profession; they objected to work through the friendly societies, and thought the benefits of the bill should not be extended to persons with incomes so high as £160 a year. There ought to be free choice of medical men, and the doctors ought not to be asked to accept a capitation grant. Sir T. Whittaker said it was important that the doctors should receive adequate remuneration, which had not been paid by the friendly societies, and those societies had not treated the medical profession as the House would like it to be treated. He was in favour of payment by capitation grant. Sir R. Finlay thought the Chancellor's phrase, that the bill was not a "medical endowment bill," unfortunate, and that care must be taken that the bill was not a "medical disendowment bill," a sentiment applauded by Mr. Lloyd George. Any measure which prejudicially affected the status and remuneration of the general medical practitioner would be calamitous. He suggested that the control of the relations with the doctors should be transferred from the friendly societies to the local health committees. Mr. Locker-Lampson expressed the opinion that after providing for the cost of drugs, medicines, bandages, and appliances, the rate suggested would leave very little for the personal remuneration of the doctors. Dr. Addison said that the members of the profession wished to co operate in the scheme, the real success of which would depend on the development of preventive measures. In club practice the rate of pay was so small that the doctors had to see patients far too rapidly, and that would have to be altered if the best men were to co-operate in the scheme; since the success of the individual treatment depended very largely on the sympathy between doctors and patients, there should be provision for enabling patients to choose their own doctor, and machinery should be devised to prevent this affording encouragement to malingering. Dr. Addison's speech, which dealt with the medical aspects of the bill in a temperate and comprehensive manner, produced a very favourable impression on the House. The Attorney General, who followed, did not enter into a full consideration of the points raised, contenting himself by observing that the suggestions made with regard to the remuneration of doctors deserved serious consideration, and that the Government desired to deal with the medical profession in a fair and equitable way. The Attorney-General was speaking when the debate stood adjourned till the following day (Thursday).

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARBADOS GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £250 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Junior House-Surgeon. Salary, £70 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BRECONSHIRE EDUCATION COMMITTEE.—Temporary Assistant School Medical Officers. Salary, 5 guineas a week.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Assistant Pathologist. Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—Resident Casualty Officer. Salary at the rate of £50 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £110 and £80 per annum respectively.

CANTERBURY BOROUGH ASYLUM.—Locumtenent Assistant Medical Officer (male). Salary, 4 guineas per week.

CARDIFF UNION WORKHOUSE.—Assistant Medical Officer. Salary, £130 per adnum.

CHARING CROSS HOSPITAL.—Clinical Pathologist and Bacteriologist. Honorarium, £200 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, rising to £100 on becoming Senior Medical Officer.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Laryngologist.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

DUBLIN: TRINITY COLLEGE.—Chief Demonstrator in Anatomy.

DUMFRIES: CRICHTON ROYAL INSTITUTION.—Junior Assistant Physician. Salary, £150 per annum.

EAST LONDON HOSPITAL FOR SICK CHILDREN, Shadwell, E.—Pathologist and Registrar. Honorarium, £100.

GLASGOW SCHOOL BOARD.—Assistant Medical Officer (female). Salary, £250 per annum.

GUY'S HOSPITAL.—Gull Studentship, annual value £150.

ITALIAN HOSPITAL, Queen Square, W.C.—(1) House-Surgeon; Salary at the rate of £60 per annum. (2) Honorary Assistant Physician.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LANCASHIRE EDUCATION COMMITTEE.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LEEDS GENERAL INFIRMARY.—(1) Ophthalmic House Surgeon; Salary at the rate of £60 per annum. (2) Obstetric Officer. (3) House-Physicion.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LEICESTER INFIRMARY.—(1) Senior House-Surgeon. (2) House-Surgeon. Salary at the rate of £140 and £120 per annum respectively.

LONDON HOSPITAL, Whitechapel, E.—(1) Medical Registrarship. (2) Surgical Registrarship. Salary in each case, £100 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Junior Resident Surgeon. Salary, £80 per annum, rising to £120 on succeeding to senior position.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Woman Assistant Doctor.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Honorary Anaesthetist.

NATIONAL SANATORIUM, Benenden, Kent.—Assistant Medical Officer. Salary, £100 per annum.

NORFOLK AND NORWICH HOSPITAL.—House-Physician. Salary, £80 per annum.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House Surgeon. Salary at the rate of £100 per annum.

PEMBROKESHIRE COUNTY COUNCIL.—County Medical Officer of Health. Salary, £400 per annum and £50 for travelling and other expenses.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL. — House-Physician (male). Salary at the rate of £75 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Honorary Physician or Surgeon to the *X*-Ray and Electrical Department. (2) Junior House-Physician. Salary at the rate of £50 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon Salary at the rate of £80 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—Assistant Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Honorary Dental Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Senior House-Surgeon. (2) Second House-Surgeon. (3) Third House-Surgeon. Salary at the rate of £100, £75, and £50 per annum respectively. (4) Two Refraction Assistants. Salary at the rate of £25 per annum each.

ST. THOMAS'S HOSPITAL.—Surgeon in charge of the Throat Department.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL INFIRMARY. — Seventh Resident Medical Officer. Salary, £60 per annum.

SOMERSET AND BATH ASYLUM, Colford.—Assistant Medical Officer (male). Salary, £140 per annum, increasing to £160.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STORTHES HALL ASYLUM, Kirkburton, near Huddersfield.—Assistant Medical Officer of Health. Salary, £140 per annum, rising to £160.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WOOLWICH: TUBERCULOSIS DISPENSARY.—Medical Officer. Salary, £250 per annum, rising to £350.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Machynlleth, cos. Merioneth and Montgomery; Banbury, co. Oxford; Swineford, co. Mayo.

## APPOINTMENTS.

ACHESON, B. J., L.R.C.P. and S.Irel., Medical Officer of Health of the Lunesdale Rural District.

BREMNER, Alexander, M.B., Ch.B.Edin., D.P.H.Camb., Medical Officer of Health for Caithness.

CONNOR, S. G., M.B., C.M.Edin., Assistant Medical Officer of the Westminster Union Workhouse.

CURRIE, J. R, M.A.Oxon.and Edin., M.D.Glas., Medical Officer of Health, County of Fife.

## DIARY FOR THE WEEK.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First FitzPatrick Lecture by Dr. Raymond Crawfurd:—The King's Evil: Origin: Under the Plantagenets and Tudors.

### THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Meeting and Election of Officers, 1911-12.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m. Second FitzPatrick Lecture by Dr. Raymond Crawfurd:—The King's Evil: With the House of Stuart.

ROYAL SOCIETY, Burlington House, 4 p.m.—The following is a list of probable papers:—Dr. R. Kennedy: Experiments on the Restoration of Paralysed Muscles by Means of Nerve Anastomosis. F. L. Usher and J. H. Priestley: The Mechanism of Carbon Assimilation. Part III. Miss Helen Chambers, M.D., and Dr. S. Russ: The Action of Radium Radiations upon some of the main Constituents of Normal Blood. H. S. Stannus and Dr. W. Yorke: The Pathogenic Agent in a Case of Human Trypanosomiasis in Nyasaland. Captain R. McCarrison: The Experimental Transmission of Goitre from Man to Animals.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W., 8 p.m.—(1) Demonstration of Specimens. (2) Short Communication:—Dr. A. E. Johnson: Gangrene of the Vagina probably Due to the Action of a Pink Rubber Ring Pessary. (3) Paper:—Mr. Stanmore Bishop: The Rectum in Gynaecology.

### FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION.—Provincial Meeting at Bristol. (1) Annual Meeting and Election of Officers. (2) Discussion: The Ocular and Orbital Complications of Nasal Affections, to be opened by Dr. StClair Thomson. (3) Demonstrations.

UNIVERSITY COLLEGE: Gower Street, W.C., 5 p.m.—Lecture: Dr. Charles Mercier.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 p.m.—Paper:—Mr. L. A. Bidwell: Results of Gastroenterostomy in Gastric and Duodenal Ulcer.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

DICKSON.—On May 17th, at 37, Holywell, Oxford, to Dr. and Mrs. F. H. Dickson, a daughter.

HOAR.—On May 20th, at Belfast, to Captain and Mrs. J. E. Hoar, R.A.M.C., a daughter.

MIDDLEMISS.—On May 22nd, at Settle, Yorkshire, the wife of George Whitson Middlemiss, M.B., B.S., B.Hy., D.P.H., of a son.

### DEATH.

THOMPSON.—On May 19th, Alice Maud Thompson, M.B., Ch.B.Edin., dearly loved third daughter of the Rev. George and Mrs. Thompson, of 4, Park View Terrace, Brighton, aged 29. Service at Prestonville Church, Tuesday, May 23rd, at 3 o'clock.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **MAY.** | |
| 28 Sunday .. | |
| 29 MONDAY .. | MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Rooms of Medical Society of London, 11, Chandos Street, W., 5 p.m. Discussion, 5.30 p.m. |
| 30 TUESDAY .. | BRISTOL DIVISION, *Bath and Bristol Branch*, Annual Meeting, Bristol University, 5 p.m. |
| 31 WEDNESDAY | **Special Representative Meeting**, Examination Hall, Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, 10 a.m. *(and following day, if necessary).* |
| **JUNE.** | |
| 1 THURSDAY.. | ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Hospital, Tea, 4.30 p.m.; Meeting, 4.45 p.m.; Dinner, Brooklands Hotel, 7.30 p.m.<br>ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Midland Grand Hotel, King's Cross, 9 p.m. |

| Date. | Meetings to be Held. |
|---|---|
| **JUNE *(continued)*.** | |
| 2 FRIDAY .. | |
| 3 SATURDAY .. | |
| 4 Sunday .. | |
| 5 MONDAY .. | |
| 6 TUESDAY .. | |
| 7 WEDNESDAY | LONDON: Medico-Political Committee, 2 p.m.<br>SOUTH-EASTERN BRANCH, Annual Meeting, Old Grammar School, Ashford, 2.15 p.m.; Lunch, Saracen's Head, 1 to 2 p.m.; Dinner, 6.30 p.m.<br>SOUTH-WEST WALES DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Joint Counties Asylum, Carmarthen, 1 p.m. |
| 8 THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, Orford Road, Walthamstow, 4 p.m. |
| 9 FRIDAY .. | LONDON: Central Ethical Committee, 2 p.m.<br>LEINSTER BRANCH, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m. |

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# SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 3RD, 1911.


**SPECIAL NOTICE TO MEMBERS.**

***Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.***

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## British Medical Association.

## Annual Representative Meeting, 1911.

THE Annual Representative Meeting will be held in Birmingham on Friday, July 21st, 1911, and following days as may be necessary.

On the Friday the Meeting will immediately follow the Annual General Meeting to be held at 10 a.m.

## PROVISIONAL AGENDA.

### ORDER OF BUSINESS.

### A. Reception of Return of Representatives Elected.

1. **Motion:** That the Return of election of Representatives of Divisions for the year 1911–12 be received, approved, and entered on the Minutes.

2. **Motion:** That the Notices (if any) of appointment of substitutes for Representatives under By-law 32 be received, approved, and entered on the Minutes.

### B. Standing Orders.

3. **Motion:** That the Standing Orders, submitted by the Chairman, be adopted as Standing Orders of the Meeting.

The Chairman will submit the Standing Orders adopted at London (see page 321), subject to such additions and alterations as may hereafter be notified to the Representatives.

4. **Amendment** by LEICESTER DIVISION:

That the mode of election prescribed in Standing Order 16, relative to the election of twelve members of Council by Grouped Representatives under By-law 41 (*c*) be by card vote.

### C. Annual Report of Council.

(For Annual Report of Council, 1910–11, see SUPPLEMENT, May 27th, p. 254).

5. **Motion:** That the Annual Report of the Council for the year 1910–11, and Estimate of Income and Expenditure for the year 1911 be received.

6. **Motion** (By the Chairman): That all Motions by Divisions or Branches which relate to matters dealt with in the Annual Report of Council be considered as amendments or riders to the Recommendations, if any, to which they are relevant, or to the Motion: "That the remainder of the Report under the heading . . . be approved."

7. **Motion:** That paragraphs 1 to 10 of the Annual Report of the Council be approved (page 254).

FINANCE.

8. **Motion:** That the Financial Statement and Balance Sheet for the year 1910 be approved (pages 255–261).

9. **Motion:** That paragraph 26 (Estimate of Receipts and Expenditure for 1911) be approved (page 262).

10. **Motion:** That paragraph 27 (Apportionment of Members' Subscriptions) be approved (page 262).

ORGANIZATION.

11. **Motion:** That paragraph 28 (Membership of the Association) be approved (page 262).

12. **Motion:** That paragraph 29 (Articles and By-laws of the present Company) be approved (page 263).

13. **Motion:** That paragraph 30 (New Company) be approved (page 263).

14. **Motion:** That paragraph 32 (Procedure for Election of Members of Council) be approved (page 263).

*Election of Service Members of Council.*

15. **Motion:** That the following Recommendation of the Council be adopted (paragraph 33 of the Report, page 264):

That in future one Member only be nominated by the Council for election as a Member of Council to represent each Service, provision being made under the Standing Orders of the Representative Body, whereby any Member of that Body may nominate a Member of the Association for election, to represent any of the three Services.

*Method of Voting in Association Elections.*

16. **Motion:** That the following Recommendation of Council be adopted (paragraph 37 of Report, page 264):

That the following elections be conducted on the Transferable Vote system:

Members of the Central Council—

(*a*) By Branches within the United Kingdom by Voting Paper.
(*b*) By grouped Representatives.
(*c*) By the Representatives as a whole (Four Members).
(*d*) By the Representatives as a whole (Three Service Members).

Officers—

Elected by the Representative Body—

(*a*) President.
(*b*) Chairman of Representative Meetings.
(*c*) Deputy-Chairman of Representative Meetings.
(*d*) Treasurer.

Elected by the Council—

(*e*) Chairman of Council.

That the following elections be conducted on the present basis—namely, that those candidates, up to the number to be elected, who receive the greatest number of votes be declared elected:

Members of Committees by the Representative Meeting.
Members of Committees by the Council.

That the following elections be conducted in such manner as the Bodies concerned may think fit:

Representatives in Representative Meetings by Divisions.
Officers of Branches.
Members of Branch Councils.
Officers of Divisions.
Members of Executive Committees of Divisions.

*Recording Names of Voters in Representative Meetings upon those Resolutions which require a Two-thirds Majority.*

17. **Motion:** That the following Recommendation of Council be adopted (paragraph 39 of Report, page 264):

That provision be made by Standing Order for names being taken, when desired, of those voting for and against any motion for which a two-thirds majority is required.

*Affiliation of Outside Bodies.*

18. **Motion:** That the following Recommendation of Council be adopted (paragraph 40 of Report, page 264):

That the Representative Body approve and adopt the Special Report of the Council on the subject of Affiliation of Outside Bodies. (For this Report see SUPPLEMENT to BRITISH MEDICAL JOURNAL, April 29th, 1911, page 206.)

19. **Motion**: That the remainder of the Annual Report of Council under heading Organization (paragraphs 41 to 48, pages 264–5), be approved.

## BRITISH MEDICAL JOURNAL.

*Policy of Journal.*

20. **Motion**: That the following Recommendation of Council be adopted (paragraph 53 (i) of Report, page 265).

(i) That, while it must clearly always be the object of those responsible for the conduct of the JOURNAL to maintain harmony between the Editorial utterances and the policy of the Association, and that there should be such co-operation between the Departments of the Association as may be necessary to secure that object, it is undesirable to lay down specific provisions such as were suggested by the Kensington Division.

*Leading Articles in Journal.*

21. **Motion**: That the following Recommendation of Council be adopted (paragraph 53 (ii) of Report, page 265):

(ii) That it is inadvisable to adopt the policy suggested by the Chelsea Division, as indicated in Minute 74 (a) of the Representative Body held in London.

*Advertisements in the Journal.*

22. **Motion**: That paragraph 54 (Advertisements in the Journal) be approved (page 266).

*Letter from National British Women's Temperance Association.*

23. **Motion**: That paragraph 55 (Letter from British Women's Temperance Association) be approved.

24. **Motion**: That the remainder of the Annual Report of the Council under heading BRITISH MEDICAL JOURNAL (paragraphs 56–61, page 266) be approved.

## SCIENCE.

25. **Motion**: That the Report of Council under heading "Science" (pages 266–7) be approved.

## MEDICAL ETHICS.

*Definition of Term "Consultant" in Report on Ethics of Consultation.*

26. **Motion**: That the following Recommendation of Council be adopted (paragraph 71 of Report, page 267):

That the definition of the term "Consultant" contained in the Report on Ethics of Consultation be not altered.

27. **Motion**: That the remainder of the Report under heading "Medical Ethics" (paragraphs 70–80, pages 267–8) be approved.

*Reference of Certain Ethical Cases Direct to Branch Councils.*

28. **Rider** (arising out of paragraph 70, "Uniform Ethical Rules for Association," page 267) by EXETER DIVISION:

That it is desirable that any *pro forma* Ethical Rules formulated for adoption by the Divisions generally should give power to the Chairman and Secretary of a Division to refer direct to the Branch Council any ethical matter concerning any individual member of the Division which, in their opinion, it would be detrimental to the interests of the Association to allow to be dealt with locally by the Division in question.

*Medical Prescribing in Lay Papers.*

29. **Rider** by BIRMINGHAM CENTRAL DIVISION:

That it is ethically improper for medical practitioners to prescribe treatment for individuals through the correspondence columns of the lay press.

30. **Rider** (if the above be carried) by BIRMINGHAM CENTRAL DIVISION:

That the Council of the Association be instructed to take such action as may seem desirable to suppress the practice.

*Support of Unqualified Practitioner.*

30A. **Rider** by WESTMINSTER DIVISION:

That the Representative Body considers it is contrary to the interest of the British Medical Association that one of its Past-Presidents should have given evidence in support of the treatment of a bonesetter, a person not in possession of any registered medical qualification.

## MEDICO-POLITICAL.

*Definition of Term "Fully Experienced and Thoroughly Competent Whole-time School Medical Officer."*

31. **Motion**: That the following Recommendation of Council be adopted (paragraph 100 of Report, page 271):

That paragraph 3 (i) of the Report on Medical Inspection of School Children and Treatment of those found Defective, approved by the Annual Representative Meeting 1909, be amended to read as follows:

On the subject of salaries the Association has already approved the suggestions of the Medico-Political Committee, namely, that for whole-time Junior or Assistant School Medical Officers the commencing salary should not be less than £250 per annum, and that for more experienced whole-time School Medical Officers the commencing salary should not be less than £500 per annum. These sums are to be understood as exclusive of travelling expenses, clerical assistance, cost of stationery, postage, etc.

*Whole-time Officers for Medical Treatment of Defective School Children.*

32. **Motion**: That the following Recommendation of Council be adopted (paragraph 101 of Report, page 271, and paragraph 3, page 287, of Appendix):

That the Memorandum of Reasons in favour of the employment of private practitioners for the treatment of school children found upon medical inspection to be defective, be approved.

*Terms of Employment of Whole-time Officers for Treatment of School Children.*

33. **Motion**: That the following Recommendation of Council be adopted (paragraph 101 of Report, page 271, and paragraphs 6–7, page 287, of Appendix):

That as regards remuneration of whole-time medical officers engaged in the treatment of school children, the scale already approved by the Association for school medical officers engaged in inspection should be applied—namely, that for junior or assistant officers the salary should not be less than £250 per annum, and that for more experienced officers the salary should not be less than £500 per annum. These sums to be understood as exclusive of travelling expenses, clerical assistance, postage, etc. Also that in any appointments of this kind provision should be made that the salaries of both officers should rise automatically.

*Appointment of Specialists for Treatment of School Children.*

34. **Motion**: That the following Recommendation of Council be adopted (paragraph 101 of Report, p. 271, and paragraph 9, page 288 of Appendix):

That the following be approved as the policy of the Association in regard to the appointment of specialists for treatment of school children:

(*a*) That in the treatment of school children whenever it is necessary for particular cases to employ specialists they should usually be employed, not as whole-time officers, but as consultants, called in "ad hoc" for the treatment of individual cases of special difficulty, and paid the fees for such treatment upon an agreed tariff.

(*b*) That where the employment of specialists as whole-time officers is known to be contemplated by the education authority, and the local profession considers this not to be required by the circumstances of the case, representations should be made accordingly.

*Conditions of Service of Pathologists and Bacteriologists.*

35. **Motion**: That the following Recommendation of Council be adopted (Paragraph 110 of Report, page 271):

That inquiry having been made into the conditions of service of pathologists and bacteriologists attached to public institutions, the Representative Body is of opinion that such inquiry has revealed no general grievance, and that the variety of the conditions under which such appointments are held renders it difficult and undesirable to make any suggestions of general application.

36. **Motion**: That the remainder of the Report under heading "Medico-Political" (Paragraphs 81 to 122, pages 268–73) be approved.

*Treatment by School Medical Officers.*

37. **Rider** (in connexion with the subsection of the Report headed "Medical Inspection and Treatment of School Children," page 270), by the SOUTH STAFFORDSHIRE DIVISION:

That, while admitting the right of the School Medical Officer or his Assistants to supervise the treatment of children found defective on inspection, the Representative Body considers that the treatment of these children by the School Medical Officer or his Assistants, when whole-time officers, is contrary to the interests of the profession and of the children, and should therefore be opposed.

*Certificates under Workmen's Compensation Act.*

38. **Rider** by LEIGH DIVISION:

That in cases arising under the Workmen's Compensation Act the minimum for the initial examination and report shall be £1 1s.

*Death Certification.*

39. **Rider** by LEIGH DIVISION:

That in the opinion of this Meeting it is expedient that uniform action be taken with regard to inserting the duration of disease on death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.

*Tax on Alcohol used for Manufacture of Medicinal Preparations.*

40. **Rider** by PLYMOUTH DIVISION:

That in the opinion of this Meeting it is an act of injustice and against public policy that an increased tax should be levied on alcohol which is used for the purpose of preparing tinctures, etc., and that the Council of the Association be instructed to take steps to bring the matter under the notice of the Chancellor of the Exchequer.

*Powers of Royal College of Physicians of London.*

41. **Rider** by PLYMOUTH DIVISION:

That the Council of the British Medical Association be instructed to take such steps as they may deem suitable to induce the Royal College of Physicians of London to exercise the powers they undoubtedly possess against persons who are practising medicine, surgery, or midwifery illegally.

42. **Rider** by PLYMOUTH DIVISION:

That the Council be instructed to petition the General Medical Council to take such steps as they may consider suitable to induce the Royal College of Physicians, London, to carry out the duties imposed on them by their Charters.

*Parliamentary Representation.*

43. **Rider** by CHELSEA DIVISION:

That this Meeting recognizes the necessity for a union of medical practitioners with Parliamentary representation, and requests the Council of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date.

## PUBLIC HEALTH AND POOR LAW.

*Amended Form of Minute 234 Annual Representative Meeting, 1909.*

44. **Motion**: That the following Recommendation of Council be adopted (paragraph 125 of Report, page 273):

That the following amended form of Minute 234 of the Annual Representative Meeting, 1909, be adopted:

That, in the general interests of Public Health and of the Medical Profession, it is desirable (i) that Medical Officers of Health should, as a rule (and without prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties; (ii) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable; (iii) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme; and (iv) that all Medical Officers of Health should be protected, in the proper discharge of their duties, against capricious dismissal or reduction of salaries.

*Part-time Appointments other than those of Medical Officers of Health.*

45. **Motion**: That the following Recommendation of the Council be adopted, (paragraph 127 of Report, page 273):

A. That the term "part-time appointments," occurring in the following resolution, be understood as meaning appointments the holder of which is permitted to engage in private practice.

46. **Motion**: That the following Recommendation of the Council be adopted (paragraph 127 of Report, page 274):

B. That the following statements of principle be approved:

(i) That all public medical officers should be protected in carrying out their duties.

(ii) That all public medical officers should be secured from capricious dismissal or reduction of salary.

(iii) That all public medical officers should be allowed to participate in any superannuation scheme approved by the Local Government Board or other public authority.

(iv) That in every form of public medical service (other than that of medical officers of health) the system of part-time appointments of medical practitioners should be maintained as far as such appointments can be made consistently with the requirements of the service.

(v) That when the appointment of any medical officer is determined without any reflection upon his method of performance of his duty, and he is not entitled to any pension, he should have compensation as suggested by the Poor Law Officers' Superannuation Act, 1896—namely, a gratuity not exceeding two years' salary.

47. **Motion**: That the remainder of the Report under heading "Public Health and Poor Law" (paragraphs 123–31, pages 273–4) be approved.

HOSPITALS.

48. **Motion**: That the Report of Council under heading "Hospitals" (paragraphs 132–6, page 274) be approved.

NAVAL AND MILITARY.

49. **Motion**: That the following Recommendation of Council (paragraph 143 of Report, page 275) be adopted:

That the Officers elected at the Annual Representative Meeting, 1911, to represent on the Council the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service, be appointed to serve for a period of three years in each case.

50. **Motion**: That the Report of Council under heading "Naval and Military" (paragraphs 137–46, page 275) be approved.

SCOTLAND.

51. **Motion**: That the Report of Council under heading "Scotland" (paragraphs 147–8, page 276) be approved.

IRELAND.

52. **Motion**: That the Report of Council under heading "Ireland" (paragraph 149, page 276) be approved.

BRANCHES OUTSIDE THE UNITED KINGDOM.

53. **Motion**: That the Report of Council under heading "Branches Outside the United Kingdom" (paragraph 150, page 276) be approved.

GENERAL APPROVAL OF ANNUAL REPORT.

54. **Motion**: That, subject to the Amendments and other Resolutions adopted by the Meeting with reference thereto, the Annual Report of Council be approved as a whole.

## D. Special Reports of Council (if any).

## E. Election of Officers.

Elect a Chairman of Representative Meetings and a Deputy-Chairman of Representative Meetings for the year 1911-12.

## F. Election of Council.

(i) Election of 12 Members of Council by Grouped Representatives. [For Nomination Forms and Voting Papers *see* pages 325–6.]

(ii) Election of four Members of Council under By-law 41 (*d*).

(iii) Election of Members of Council to represent Royal Navy Medical Service, Army Medical Service, and Indian Medical Service.

## G. Election of Committees.

Election of members of Finance, Organization, Journal, Central Ethical, Medico-Political, Public Health, Hospitals, Naval and Military, and Colonial Committees; and other Committees, if any.

## H. Standing Orders.

Consider proposed amendments of Standing Orders, other than those relating to the order of business.

## I. Any other Business.

## J. Confirm Minutes.

By Order,

J. SMITH WHITAKER,
*Medical Secretary.*

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# STANDING ORDERS

RELATIVE TO

## BUSINESS AT REPRESENTATIVE MEETINGS

**(As adopted at London, 1910).**

### I.—ORDER OF BUSINESS.

(A) *Annual Representative Meeting.*

1. Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:

i. **Election Returns.**—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under By-law 32.

ii. **Standing Orders.**—Adopt Standing Orders.

iii. **Annual Report of Council.**—Receive the Annual Report of the Council and Financial Estimate, presented under By-law 35, and consider motions relating to the adoption thereof in whole or in part.

iv. **Special Reports of Council.**—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

v. **Reports of Committees (if any).**—Receive Reports of Committees, if any, and consider motions for the adoption of the same in whole or in part.

vi. **Consider By-laws.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws.

vii. **Consider other Motions by Divisions or Branches.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

viii. **Election of Officers.**—Elect a Chairman of Representative Meetings and a Deputy-Chairman of Representative Meetings for the year.

ix. **Election of Members of Council.**—Elect at such time as the Meeting shall determine:

(*a*) Twelve Members of Council under By-law 41 (*c*); (*b*) four Members of Council under By-law 41 (*d*); (*c*) three Members of Council under By-law 41 (*e*).

x. **Election of Members of Committees.**—Elect Members of Standing Committees in accordance with the By-laws, and such Members of other Committees and Conferences, if any, as it falls to the Representative Meeting to elect.

xi. **Amendment of Standing Orders.**—Consider proposed amendments of Standing Orders other than those relating to the order of business.

**2. General Order of Daily Sessions: Confirmation of Minutes.**—The matters described in Clause 1 shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof, or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each daily session after the first the Meeting shall, before proceeding to the consideration of the matters aforesaid, (A) confirm the Minutes of the Proceedings of the previous daily session; (B) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily session the Meeting shall confirm the Minutes thereof for presentation to the Council.

**3. Hours of Daily Sessions.**—All Representative Meetings not concluded by 6.30 p.m. shall stand adjourned either to 8 p.m. of the same day, or to the next day, as may be decided by a show of hands. All such Meetings shall stand adjourned at 10 p.m.

**4. Varying Order of Business.**—The order of business may be varied, either at the commencement or after the expiration of two hours from the commencement of any daily session, by the vote of two-thirds of those present and voting.

**5. Precedence of Motions of which Notice Given.**—Motions and amendments of which notice shall have been given to the Secretary of the Meeting in time for them to be circulated with the Minutes of the previous day's proceedings, shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

**6. Motions on the Same Subject.**—If two or more of the motions placed on the Agenda of the Meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject he shall ascertain the will of the Meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the Meeting may determine.

**7. Motions on Subjects dealt with in Reports.**—If any Motion placed upon the Agenda shall in the opinion of the Chairman relate to the same subject as a Recommendation or other portion of a Report submitted by the Council or by a Committee, the Chairman shall ascertain the will of the Meeting as to whether the said Motion shall be considered as an Amendment or Rider to the adoption or approval of the said Recommendation or other portion of a Report.

**8. Resolutions involving Special Expenditure.**—The meeting shall not proceed on any motion involving special expenditure which has not previously been considered by the Finance Committee.

(B)—*Special Representative Meetings.*

**1. Read Authority for Convening Meeting.**—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

**2. Notice of Substitutes.**—Receive notices, if any, of the appointment of substitutes for Representatives.

**3. Order of Business.**—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

**4. Special Business.**—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

**5. Minutes.**—Confirm the Minutes of the Meeting for presentation to the Council.

## II.—COMPOSITION AND ARRANGEMENT OF THE MEETING.

**1. Composition.**—The persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected Representatives of Divisions, or substitutes duly appointed under By-law 32, of whose election or appointment the Secretary of the Meeting shall have received due notice, together with Members of Council for the time being.

**2. Arrangement.**—Distinctive seats shall be provided for the following groups of persons respectively, namely:

(A) Representatives of Divisions.

(B) Members of Council who are not Representatives of Divisions or Officers of the Association.

(C) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.

(D) Members of the Association who are not Representatives of Divisions or Members of Council.

(E) Reporters representing such journals as may be authorized by the Chairman, subject to the approval of the Meeting.

**3. Withdrawal of Strangers.**—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

## III.—PROCEDURE.

**1. Temporary Chairman.**—In the absence of the Chairman of Representative Meetings, the Deputy-Chairman shall preside; or, if he be also absent, the Chairman of Council or the Treasurer, if present, shall take the chair, and call upon the Meeting to appoint a temporary Chairman.

**2. Minutes.**—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

**3. Attendance.**—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the Meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such Meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any members so reported may have furnished to him in writing.

**4. Reports: Notice.** — Subject as herein provided, no Report by the Council, or by a Committee, to the Representative Meeting shall be considered by the

Meeting unless it shall have been sent to the Divisions and published in the JOURNAL at least one month before such Meeting. The exceptions to this rule shall be—

(A) That the Council shall submit, in addition to their Annual Report, a Supplementary Report dealing with those matters of importance, arising subsequent to the issue of the Annual Report, in which action has been taken, or action by the Representative Meeting is recommended.

(B) That any Special Committee appointed by the Representative Meeting shall report in accordance with the terms of the instructions given to such Committee by the Meeting.

**5. Form of Reports.**—Reports of Council and Reports, if any, of Standing Committees, to the Representative Meeting shall comprise the following:

(A) A list of matters referred by the Representative Meeting to the Council or Committee.

(B) Reports with specific recommendations upon all matters in which the Council or Committee considers that action should be taken involving a new declaration of policy or expenditure not already authorized.

(C) A short report of all action taken by the Council or Committee in accordance with instructions of the Meeting.

(D) A list of matters under consideration but not completed.

**6. Presentation of Reports.**—The Report of the Council or of a Committee shall be presented by the Chairman, or, in his absence, by a Member, of the body submitting such Report, who shall move:

(1) That the Report be received.
(2) That the Recommendations, if any, be adopted.
(3) That the rest of the Report be approved.

The adoption of each Recommendation shall be the subject of a separate motion. The approval of the rest of the Report shall be moved as a whole, unless the Chairman rule or the Meeting resolve that the approval of each paragraph, or of any specified paragraph, be the subject of a separate Motion.

**7. Amendments and Riders.**—

(1) To a motion that the Report be received, no amendment shall be moved.

(2) To a motion that a Recommendation be adopted amendments may be moved.

(3) To a motion that a Report, or a specified paragraph of a Report, be approved, an amendment may be moved to the effect that the Meeting do disagree with, or do refer back to the Council or Committee, any specified portion thereof, or that with reference thereto the meeting do express an opinion in terms stated.

**8. Procedure as to Other Motions.**—Motions placed on the Agenda of the Meeting by a Branch shall be introduced by a member of Council elected by the Branch, and motions so placed by a Division shall be introduced by the Representative thereof.

**9. Absence of Authorized Mover of Adoption of Report or Other Motion.**—In the absence of any member authorized to make any motion referred to in Standing Orders III, 6 and 8, any other member deputed by such member may make such motion on his behalf, and if no member shall have been so deputed, such motion shall be made formally by the Chairman.

**10. Seconding Motions.**—No seconder shall be required for any of the motions referred to in Standing Orders III, 6 and 8. All other motions and all amendments shall be required to be moved and seconded.

**11. References to Central Executive.**—Each motion or amendment which is of the nature of an instruction or reference to any central executive body, other than a Committee specially appointed by the Representative Meeting, shall be moved in the form of an instruction or a reference to the Council.

**12. Rescission of Resolutions.**—No motion to rescind any resolution of a Representative Meeting, arrived at after due consideration of the Divisions, shall be in order at any subsequent Representative Meeting, unless at least two months' notice of such proposed motion shall have been given to the Divisions through the SUPPLEMENT to the JOURNAL.

**13. Time Limits of Speeches.**—(A) A member of the Meeting shall be allowed to speak for fifteen minutes in moving a resolution which does not require seconding, and for ten minutes in moving any other resolution, or any amendment. Except as aforesaid, no speech shall exceed five minutes.

**Reducing Time Limit.**—(B) The Meeting may at any period of any session reduce the time to be allowed to speakers, whether in moving resolutions or otherwise, during the remainder of such session.

**14. Mode of Voting—Show of Hands.**—Only Representatives of Divisions shall vote on any question before the Meeting.

Voting shall be by show of hands, except in the cases following, namely:

**Vote by Card.**—(A) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, any Representative of a Division shall move that the said vote be taken by card, and twenty Representatives rise in their places in support of such motion, the vote shall be taken by card, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the Minutes.

**Division.**—(B) If the Chairman, after taking a vote by show of hands upon any motion or amendment, shall be of opinion that the numbers of members voting for and against such motion or amendment are not thereby ascertained with sufficient accuracy, he shall have power to direct that the Meeting shall divide upon the said motion or amendment.

**15. Election of Chairman and Deputy Chairman of Representative Meetings.**

NOMINATION.

Nominations for the office of Chairman of Representative Meetings, and Deputy-Chairman of Representative Meetings for the year, shall be handed in writing to the Secretary of the Meeting not later than one hour after the commencement of the second day's proceedings. Each nomination shall be signed by the nominator, and shall contain a declaration that the candidate nominated has agreed to serve.

VOTING.

The names of all candidates duly nominated shall be placed in a voting paper, which shall be issued and collected at such times as the meeting shall direct. Each voter shall number the names of the candidates for each office in the order of his preference.

SCRUTINY.

The Scrutineers shall proceed as follows:

(a) *Count.*

On the first count each candidate shall be credited with the number of votes given by those voters who have numbered him (1), and if any candidate be found to have received an absolute majority of votes cast he shall be declared to be elected.

(b) *Exclusion and Transfer.*

If no candidate be thus elected, that candidate who has received fewest votes shall be excluded, and his votes shall be transferred to the candidates respectively numbered as next preference on his voting papers, and any candidate now found to have an absolute majority shall be declared to be elected.

(c) If, after the first transfer, no candidate be declared to be elected, the procedure of exclusion and transfer shall be repeated, and so on until one candidate is declared to be elected.

(d) *Exceptions.*

(1) If on a count between three candidates no candidate be found to be elected, and the candidates who have fewer have an equal number of votes, the preferences on the voting papers of the highest candidate shall, for the time being, be credited to the other two candidates, and that candidate who has fewer votes shall be excluded.

(2) If on a count between two candidates, after the others have been excluded, the votes are equal, that candidate who has the larger number of first preference votes shall be declared to be elected.

(3) In any case of equality subsisting after this procedure, one of the candidates shall be excluded by lot.

(4) Any voting paper shall become invalid if its preferences be exhausted before a candidate is declared elected.

ENTRANCE INTO OFFICE.

Except with regard to *ex officio* membership of Council and Committees, the Chairman and Deputy-Chairman so elected shall not assume their functions until the close of the Annual Meeting.

**16.—Election of 12 Members of Council by Grouped Representatives, under By-law 41 (c)—**

(i) The election shall take place at the time of the Annual Representative Meeting.

(ii) Nominations for a Member of Council to be elected by any group of Representatives shall be required to be made by a Division through its Representative or by a Representative of a Division included in the group.

(iii) Nominations shall be required to be on the form appended. (*See* pp. 325–6.)

(iv) Nominations shall be received up to the end of the first hour of the third day's session of the Annual Representative Meeting.

(v) There shall be issued to each Representative or Deputy-Representative of a Constituency in the United Kingdom in attendance at the Meeting, a voting paper containing the names of all candidates duly nominated for election as Members of Council by the group to which such Representative belongs.

(vi) The voting paper shall be in the form appended (*See* p. 326).

(vii) The voting papers shall be returned to the Medical Secretary at such time during the third day's session of the Annual Representative Meeting as the Chairman may decide.

(viii) In the event of equality of votes the election shall be determined by the aggregate number of Members in the Constituencies represented by the voters for each candidate, as in the case of a card vote.

(ix) The details of the voting shall be placed before, and verified by, the Chairman before being declared.

**17.—Election of 4 Members of Council under By-law 41 (d)—**

*Time of Nomination.*

(i) Nominations of candidates for election as Members of Council by the Representative Meeting under By-law 41, Sub-paragraph (*d*), shall be handed to the Secretary of the Meeting not later than the end of the first hour of the morning session on Tuesday, July 25th.

*Eligibility of Candidates.*

(ii) Any member of the Association may be nominated for election.

*Form of Nomination.*

(iii) A nomination may be made by any person entitled to take part in the Meeting. Each nomination shall be on the prescribed form, which shall contain a statement of the candidate's experience in the Central Executive work of the Association, and shall contain, or be accompanied by, a statement by the candidate that he is willing to serve if elected.

*(For form of nomination see p. 326.)*

*Issue of Voting Papers.*

(iv) Voting papers containing the names of all candidates duly nominated, with such particulars as to their previous official experience as are stated in the nomination papers, shall be distributed to all Representatives or Deputy-Representatives in attendance at the Meeting at the commencement of the afternoon session on Tuesday, July 25th.

*Voting.*

(v) Each voter shall number the names of candidates in the order of his preference—1, 2, 3, etc., and sign the Voting Paper.

*Counting of Votes.*

(vi) The votes shall be counted and the result of the Election ascertained by the method of the single transferable vote.

*Declaration of Result.*

(vii) The details of the voting shall be submitted to, and verified by, the Chairman before the result is declared.

**18.—Election of Service Members of Council.**—The election of Members to represent the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service on the Council shall be conducted as follows:—

1. Voting papers containing the names of the candidates nominated by the Council shall be circulated to the Representatives and be collected at the same time as the voting papers for the election of the Chairman and Deputy-Chairman of Representative Meetings.
2. The details of the voting shall be submitted to the Chairman of Representative Meetings and verified by him before the result is declared.

**19.—Election of Members of Standing Committees and other Committees, if any.**

*Election Returns Committee.*

1. There shall be an Election Returns Committee of the Representative Meeting, which shall consist of the Chairman of Representative Meetings, the Chairman of Council, the Deputy-Chairman of Representative Meetings, the Chairmen of those Standing Committees of which under the By-laws Members are appointed by the Representative Meeting and the Chairmen of the Scottish and Irish Committees.

*Return of Committees.*

2. The Committee shall prepare a Return showing for each Committee, Members of which are elected by the Meeting: (1) the Members of such Committee for the past year (those not appointed by the Representative Meeting being specially indicated); (2) the years of service on the Committee; (3) their possible and actual attendances at (i) Meetings of the full Committee, and (ii) Meetings of its Subcommittees, held up to three weeks before the commencement of the Annual Meeting. The Return shall be issued to each Representative with the Agenda of the Meeting.

*Eligibility for certain Committees.*

3. With regard to the Finance, Journal, and Organization Committees, only Representatives of Divisions shall be eligible for appointment.

*List of Nominations.*

4. After the commencement of the Annual Representative Meeting, the Committee shall prepare a list of nominations for the various Committees. In this list it shall indicate

which of those nominated are Representatives, and which, if any, are Members of Council for the ensuing year.

5. In preparing the list the Committee shall have regard to (*a*) geographical representation on Committees where this is important; (*b*) the previous attendance of Members on Committees; (*c*) the declarations of Members as to the Committees on which they are prepared to serve.

*Nomination Papers.*

6. With the Agenda of the Representative Meeting nomination papers for Committees shall be issued to all Members of the Meeting.
7. Each Member of the Meeting shall be entitled to nominate not more than one Member for each Committee.
8. Nomination papers by Members of the Meeting shall be handed to the Secretary of the Meeting.

*Conditions as to Eligibility for Election.*

9. No Representative shall be eligible for election by the Representative Meeting as a Member of more than two Committees, and no person not a Representative shall be eligible for election by the Representative Meeting as a Member of more than one Committee. If any Representative be nominated as a Member of more than two Committees, the Committee shall ascertain from him on which he prefers to serve, or, if this be impracticable, shall decide which nomination shall stand; and if any person, not a Representative, be nominated for more than one Committee, the Committee shall decide which of such nominations shall stand.

*Time of Issue of Voting Papers.*

10. Voting papers, containing the names of all candidates duly nominated, shall be circulated to all Representatives at the commencement of the fourth day's proceedings, and shall be collected before 1 p.m. that day.
11. The word "Representative" in these Standing Orders shall be taken as meaning the duly appointed Representative of a Constituency, or, in his absence, the Deputy duly appointed in his stead, in attendance at the Meeting.

## IV.—RULES OF DEBATE.

1. Every member shall be seated except the one who may be addressing the Meeting, and when the Chairman rises no one shall continue standing, nor shall any one rise until the Chair is resumed.
2. A member of the Meeting shall stand when speaking, and shall address the Chair.
3. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.
4. A member shall not address the Meeting more than once on any motion or amendment, but the mover of an original resolution may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.
5. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.
6. An amendment shall be either—
   To leave out words;
   To leave out words and insert or add others
   To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

7. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.
8. Whenever an amendment upon an original motion has been moved and seconded no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.
9. If any amendment be rejected other amendments may be moved on the original motion. If an amendment be carried, the amendment, or motion as amended, shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.
10. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such motion shall immediately be put to the vote without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.
11. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.
12. Smoking shall not be allowed during such time as the Chairman is in the Chair.

## V.—SUSPENSION OF STANDING ORDERS.

Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal, may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

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**Nomination Forms (referred to in Standing Order III, 16 (iii), p. 324.)**

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1911.
ELECTION OF CENTRAL COUNCIL, 1911–12.

*By-law 41 (c).—Election of Twelve Members of Council by the Representatives in Representative Meetings grouped topographically.*

**Nomination Form**

(I) BY A DIVISION.

*Branches included in the Group—*

.....
.....
.....

*Constituencies in the Group—*

.....
.....
.....

By instruction of the Division I hereby nominate

.....

of.....

.....

as a candidate for election by the Representatives of Constituencies in the above-mentioned group as a member of the Central Council of the Association.

.....
*Representative.*

.....
*Division.*

*July , 1911.*

I hereby declare my willingness to serve, if elected, as a member of the Central Council for the year 1911–12.

*Candidate's Signature*.....

*July , 1911.*

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1911.

ELECTION OF CENTRAL COUNCIL, 1911-12.

*By-law 41 (c).—Election of Twelve Members of Council by the Representatives in Representative Meetings grouped topographically.*

**Nomination Form.**

(II) BY A REPRESENTATIVE OF A DIVISION INCLUDED IN THE GROUP.

*Branches included in the Group—*

.....

.....

.....

*Constituencies in the Group—*

.....

.....

.....

I, the undersigned, hereby nominate

.....

of .....

.....

as a candidate for election by the Representatives of Constituencies in the above-mentioned group as a member of the Central Council of the Association.

.....

*Representative.*

.....*Division.*

*July , 1911.*

I hereby declare my willingness to serve, if elected, as a member of the Central Council for the year 1911-12.

*Candidate's Signature*.....

*July , 1911.*

**Form of Nomination Paper (Referred to in Standing Order III, 17 (iii) ).**

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1911.

ELECTION OF FOUR MEMBERS OF COUNCIL BY REPRESENTATIVE MEETING.

**Nomination Form.**

I hereby nominate

.....

of (Address).....

.....

for election by the Representative Meeting as a Member of Council for the year 1911-12, pursuant to By-law 41 (*d*).

EXPERIENCE OF CANDIDATE IN CENTRAL EXECUTIVE WORK OF ASSOCIATION.

*Signature of Nominator*.....

*July, 1911.*

I hereby declare my willingness to serve, if elected by the Representative Meeting, as a Member of Council for the year 1911-12.

*Candidate's Signature* .....

*July, 1911.*

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1911.

ELECTION OF FOUR MEMBERS OF COUNCIL BY REPRESENTATIVE MEETING.

**VOTING PAPER.**

The following Members of the Association have been nominated as Candidates for election of four Members of Council by the Representative Meeting pursuant to By-law 41 (*d*), and have expressed their willingness to serve:—

| *Name and Address.* | *Experience in Central Executive Work of Association as stated in Nomination Papers.* |
|---|---|

*Extract from Standing Orders with Reference to Election of Four Members of Council under By-law 41 (d):*

*Standing Order 17 (v).*

"VOTING.

"Each Voter shall number the names of Candidates in the order of his preference, 1, 2, 3, etc., and sign the Voting Paper."

*Signature of Voter* .....

*Constituency represented*.....

..... .....*Branch*

*July , 1911.*

**Form of Voting Paper (referred to in Standing Order 16 (vi), p. 324).**

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1911.

*Election of Twelve Members of the Central Council by the Representatives in Representative Meetings grouped topographically.*

*Group*.....

*Branches included in the group*.....

| *Constituencies in the Group.* | *Representatives.* |
|---|---|
| ..... | ..... ..... |
| ..... | ..... |
| ..... | ..... |

The following Members of the Association have been duly nominated as Candidates for election, and have expressed their willingness to serve.

*Names and addresses of candidates :—*

.....

.....

.....

.....

.....

.....

Each voter is requested to mark with a **X** the name of not more than one candidate, and to sign the paper at the foot, stating the name of the Constituency which he represents, and of the Branch to which it belongs.

*Signature of voter* .....

*Constituency represented* .....

..... *Branch.*

*July , 1911.*

# ATTENDANCES

OF

COUNCIL, COMMITTEES AND

SUB-COMMITTEES.

*From August, 1910 to April 30th, 1911.*

## COUNCIL.

| Members of Council. | Representative Meeting. 1910 | | | | | Meetings held during Annual Meeting, 1910. | | | Ordinary Meetings. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | July 22. | July 23. | July 25. | July 26. | Total. | July 27. | July 29. | Total. | Oct. 26, 1910. | Jan. 25, 1911. | April 26, 1911. | Total. |
| MACDONALD, Dr. J. A., Taunton (Chairman) | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Butlin, Mr. Henry T., London (President) | — | — | — | 1 | 1 | 1 | 1 | 2 | 1 | 1 | — | 2 |
| Saundby, Prof. Robert, M.D., Birmingham (President-Elect) | — | — | — | — | — | — | 1 | 1 | — | 1 | 1 | 2 |
| Whitla, Sir Wm., M.D., Belfast (Past President) | — | — | — | — | — | 1 | — | 1 | — | 1 | — | 1 |
| Maclean, Dr. Ewen J., Cardiff (Chairman of Representative Meetings) | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Owen, Mr. Edmund, London (Past Chairman of Council) | 1 | — | — | — | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Rayner, Dr. Edwin, Stockport (Treasurer) | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Andrew, Dr. J. Grant, Glasgow | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Benson, Surg-Gen., P.H., M.B., I.M.S., Madras | — | — | — | — | — | — | — | — | — | — | — | — |
| Bentham, Inspector-General Robt., R.N. (retd.), London | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Browne, Surgeon-General W. R., M.D., C.I.E., London | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Buist, Dr. R. C., Dundee | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Carline, Dr. W. A., Lincoln | — | — | — | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Clark, Mr. Andrew, London | 1 | 1 | — | — | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Corby, Professor Henry, M.D., Cork | — | — | — | — | — | 1 | 1 | 2 | — | — | — | — |
| Dewar, Dr. M., Edinburgh | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Domville, Mr. E. J., Exeter | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Eddison, Dr. J. E., Leeds | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Ewart, Dr. David, Chichester | 1 | 1 | 1 | 1 | 4 | — | — | — | 1 | — | — | 1 |
| Ewart, Mr. J. Henry, Eastbourne | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Flemming, Mr. C. E. S., Bradford-on-Avon | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Garstang, Mr. T. W. H., Altrincham | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Goodall, Dr. E. W., London | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Gosse, Dr. W., Sittingbourne | — | — | — | — | — | — | — | — | — | 1 | 1 | 2 |
| Greenlees, Dr. T. D., London | 1 | 1 | 1 | 1 | 4 | — | — | — | — | 1 | 1 | 2 |
| Greenwood, Dr. Major, London | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Hamilton, Dr. J. R., Hawick | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | — | 1 | 2 |
| Horsley, Sir Victor, F.R.S., London | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Johnstone, Mr. R. J., Belfast | — | — | — | — | — | 1 | 1 | 2 | — | — | 1 | 1 |
| Jones, Mr. Herbert, Hereford | 1 | 1 | 1 | 1 | 4 | — | — | — | 1 | 1 | 1 | 3 |
| Joubert, de la Ferté, Col. C. H., I.M.S., Weybridge | 1 | 1 | 1 | 1 | 4 | — | — | — | 1 | 1 | 1 | 3 |
| Ker, Mr. Hugh R., London | 1 | 1 | 1 | 1 | 4 | 1 | — | 1 | 1 | 1 | — | 2 |
| Kidd, Dr. F. W., Dublin | — | — | — | — | — | — | — | — | — | 1 | 1 | 2 |
| Larkin, Mr. F. Charles, Liverpool | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Livingston, Dr. G. R., Dumfries | — | — | — | — | — | — | — | — | 1 | 1 | 1 | 3 |
| Lucas, Mr. Albert, Birmingham | — | — | — | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Macdonald, Dr. John, South Shields | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Mackintosh, Dr. D. J., M.V.O., Glasgow | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Moir, Dr. J. Munro, Inverness | — | — | — | — | — | 1 | 1 | 2 | 1 | — | — | 1 |
| Morier, Dr. C. G. D., London | 1 | — | — | — | 1 | — | — | — | — | — | 1 | 1 |
| Nicholson, Dr. B. H., Colchester | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Pope, Dr. Frank, M., Leicester | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Rice-Oxley, Dr. A. J., London | — | — | — | — | — | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Roberts, Dr. H. Jones, Penygroes | — | — | — | — | — | — | — | — | 1 | 1 | 1 | 3 |
| Shaw, Dr. Cecil E., Belfast | — | — | — | 1 | 1 | 1 | 1 | 2 | 1 | — | 1 | 2 |
| Shaw, Dr. Lauriston E., London | 1 | 1 | 1 | — | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Straton, Mr. C. R., Wilton | 1 | 1 | 1 | 1 | 4 | — | — | — | 1 | 1 | 1 | 3 |
| Taylor, Dr. J. H., Salford | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Todd, Dr. D. F., Sunderland | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | — | 1 | 1 | 2 |
| Verrall, Mr. T. Jenner, Bath | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |
| Walshe, Dr. Denis, Graigue | — | — | — | — | — | 1 | 1 | 2 | — | — | — | — |
| White, Professor A. H., Dublin | 1 | 1 | — | — | 2 | 1 | 1 | 2 | 1 | — | — | 1 |
| Williams, Mr. D. J., Llanelly | 1 | — | 1 | — | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 3 |

## ARRANGEMENTS COMMITTEE.

| Members of Committee. | Nov. 2, 1910. Total. |
|---|---|
| CHAIRMAN OF COUNCIL (Chairman) | 1 1 |
| President | 1 1 |
| Chairman of Representative Meetings | 1 1 |
| Treasurer | 1 1 |
| Andrew, Dr. J. Grant, Glasgow | — — |
| Corby, Professor H., Cork | — — |
| Eddison, Dr. J. E., Leeds | — — |
| *Grossmann, Dr. Karl, Liverpool | 1 1 |
| Pope, Dr. F. M., Leicester | 1 1 |
| Shaw, Dr. Lauriston E., London | 1 1 |
| *Local Representatives*: | |
| President-elect, Birmingham | 1 1 |
| *Barling, Professor Gilbert, Birmingham | — — |
| *Kauffmann, Dr. O. J., Birmingham | — — |
| Lucas, Mr. Albert, Birmingham | 1 1 |
| *Marsh, Mr. Frank, Birmingham | 1 1 |
| *Morrison, Professor J. T J., Birmingham | 1 1 |

## CENTRAL ETHICAL COMMITTEE.

| Members of Committee. | Oct. 7, 1910. | Jan. 6, 1911. | April 7, 1911. | Total. |
|---|---|---|---|---|
| SHAW, Dr. LAURISTON E., London (Chairman) | 1 | 1 | 1 | 3 |
| President (*ex officio*) | — | — | — | — |
| Chairman of Representative Meetings (*ex officio*) | 1 | 1 | — | 2 |
| Chairman of Council (*ex officio*) | — | 1 | — | 1 |
| Treasurer (*ex officio*) | — | — | — | — |
| *Bateman, Dr. A. G., London | 1 | 1 | 1 | 3 |
| Ewart, Mr. J. H., Eastbourne | 1 | 1 | 1 | 3 |
| *Goff, Dr. Bruce, Bothwell | — | 1 | 1 | 2 |
| *Langdon-Down, Dr. R., Hampton Wick | 1 | 1 | 1 | 3 |
| *Lee, Mr. Philip, Cork | 1 | 1 | 1 | 3 |
| Macan, Dr. J. J., Cheam (dead) | 1 | — | — | 1 |
| Macdonald, Dr. John, S. Shields | 1 | 1 | 1 | 3 |
| *Milburn, Dr. C. H., Hull | 1 | — | 1 | 2 |
| *Neal, Mr. C. J., Birmingham | 1 | 1 | 1 | 3 |
| Straton, Mr. C. R., Salisbury | 1 | 1 | 1 | 3 |
| Williams, Mr. D. J., Llanelly | 1 | 1 | 1 | 3 |

## CENTRAL ETHICAL SUB-COMMITTEE.

| Members of Committee. | Nov. 8, 1910. | Dec. 13, 1910. | Feb. 21, 1911. | March 22, 1911. | Total. |
|---|---|---|---|---|---|
| CHAIRMAN OF CENTRAL ETHICAL COMMITTEE (Chairman) | 1 | 1 | 1 | 1 | 4 |
| *Bateman, Dr. A. G., London | 1 | — | 1 | 1 | 3 |
| Ewart, Mr. J. H., Eastbourne | — | 1 | 1 | 1 | 3 |
| *Langdon-Down, Dr. R. L., Hampton Wick, | 1 | 1 | 1 | 1 | 4 |

## ETHICAL RULES SUB-COMMITTEE.

| Members of Committee. | Nov. 8, 1910. Total. |
|---|---|
| CHAIRMAN OF CENTRAL ETHICAL COMMITTEE (Chairman) | 1 1 |
| Maclean, Dr. Ewen J., Cardiff | — — |
| *Langdon-Down, Dr. R., Hampton Wick | 1 1 |

* NOT a Member of Council.

## COLONIAL COMMITTEE.

| Members of Committee. | Oct. 10, 1910. | April 10, 1911. | Total. |
|---|---|---|---|
| MORIER, Dr. C. G. D., London (Chairman) | 1 | 1 | 2 |
| President (*ex officio*) | | | |
| Chairman of Representative Meetings (*ex officio*) | | | |
| Chairman of Council (*ex officio*) | | | |
| Treasurer (*ex officio*) | | | |
| *Greany, Surgeon-General, I.M.S., London | 1 | 1 | 2 |
| Greenlees, Dr. T. D., London | 1 | | 1 |
| Owen, Mr. Edmund, London | 1 | 1 | 2 |
| Ewart, Dr. David, Chichester | | 1 | 1 |

## COMMITTEE *RE* ANNUAL MEETING, 1913.

| Members of Committee. | Dec. 19, 1910. | Jan. 18, 1911. | Total. |
|---|---|---|---|
| CHAIRMAN OF SCIENCE COMMITTEE (Chairman) | 1 | 1 | 2 |
| President (*ex officio*) | 1 | 1 | 2 |
| Chairman of Representative Meetings (*ex officio*) | | 1 | 1 |
| Chairman of Council (*ex officio*) | 1 | 1 | 2 |
| Treasurer (*ex officio*) | | 1 | 1 |
| Chairman of Organisation Committee | 1 | 1 | 2 |
| Shaw, Dr. Lauriston E., London | 1 | 1 | 2 |

## FINANCE COMMITTEE.

| Members of Committee. | Oct. 19, 1910. | Jan. 18, 1911. | April 19, 1911. | Total. |
|---|---|---|---|---|
| TREASURER (Chairman) | 1 | 1 | 1 | 3 |
| President (*ex officio*) | | | | |
| Chairman of Representative Meetings (*ex officio*) | 1 | 1 | 1 | 3 |
| Chairman of Council (*ex officio*) | 1 | 1 | 1 | 3 |
| Carline, Dr. W. A., Lincoln | 1 | 1 | 1 | 3 |
| Ewart, Mr. J. H., Eastbourne | 1 | 1 | | 2 |
| Horsley, Sir Victor, F.R.S., London | 1 | | | 1 |
| Ker, Mr. Hugh R., London | 1 | 1 | | 2 |
| *Langdon-Down, Dr. R., London | | 1 | 1 | 2 |
| Larkin, Mr. F. C., Liverpool | 1 | 1 | 1 | 3 |
| *Lawson, Dr. David, Banchory, N.B. | | 1 | 1 | 2 |
| *Moore, Dr. Milner, Coventry | 1 | 1 | 1 | 3 |
| Chairman of Journal Committee | 1 | 1 | 1 | 3 |
| Chairman of Science Committee | 1 | 1 | 1 | 3 |
| Chairman of Medico-Political Committee | 1 | 1 | 1 | 3 |
| Chairman of Central Ethical Committee | 1 | 1 | 1 | 3 |
| Representative of Journal Committee (Mr. Andrew Clark) | 1 | 1 | 1 | 3 |

## FINANCE SUB-COMMITTEE. *RE* ANNUAL MEETING FINANCES.

| Members of Committee. | Mar 15, 1911. | Total. |
|---|---|---|
| TREASURER (Chairman) | 1 | 1 |
| President | | |
| Chairman of Representative Meetings | 1 | 1 |
| Chairman of Council | 1 | 1 |
| Chairman of Organisation Committee | 1 | 1 |
| Lucas, Mr. Albert, Birmingham | 1 | 1 |
| Shaw, Dr. Lauriston E., London | 1 | 1 |

* NOT a Member of Council.

## FRACTURES (TREATMENT OF) COMMITTEE.

| Members of Committee. | Mar. 29, 1911. | April 26, 1911. | Total. |
|---|---|---|---|
| *GREER, Mr. W. J., Newport, Mon. (Chairman) | 1 | 1 | 2 |
| President | | | |
| Chairman of Representative Meetings | | | |
| Chairman of Council | | | |
| Treasurer | 1 | 1 | 2 |
| Andrew, Dr. J. Grant, Glasgow | 1 | 1 | 2 |
| *Blayney, Professor A. T. McAuley, Dublin | 1 | | 1 |
| *Clogg, Mr. H. S., London | 1 | 1 | 2 |
| †*Deanesly, Mr. Edward, Wolverhampton | | 1 | 1 |
| *Fagge, Mr. C. H., London | 1 | 1 | 2 |
| Horsley, Sir Victor, F.R.S., London | 1 | 1 | 2 |
| *Trotter, Mr. Wilfred, London | 1 | | 1 |

## HOSPITALS COMMITTEE.

| Members of Committee. | Oct. 6, 1910. | Feb. 23, 1911.§ | April 6, 1911 | Total. |
|---|---|---|---|---|
| KER, Mr. HUGH R., London (Chairman) | 1 | 1 | — | 2 |
| President (*ex officio*) | — | 1 | — | 1 |
| Chairman of Representative Committee Meetings (*ex officio*) | — | — | — | — |
| Chairman of Council (*ex officio*) | — | — | — | — |
| Treasurer (*ex officio*) | — | 1 | — | 1 |
| *Armour, Mr. Donald J., London | — | — | — | — |
| Domville, Mr. E. J., Exeter | 1 | — | — | 1 |
| Johnstone, Mr. R. J., Belfast | 1 | — | — | 1 |
| Joubert de la Ferté, Col. C. H., I.M.S., Weybridge | 1 | 1 | 1 | 3 |
| Mackintosh, Dr. D. J., M.V.O., Glasgow | 1 | — | 1 | 2 |
| Owen, Mr. Edmund, London | 1 | — | — | 1 |
| *Parker, Dr. George, Bristol | 1 | — | 1 | 2 |
| ‡Rice-Oxley, Dr. A. J., London | — | 1 | 1 | 2 |
| Shaw, Dr. Lauriston E., London | 1 | 1 | 1 | 3 |
| *Trotter, Dr. A., Perth | 1 | — | 1 | 2 |

## HOSPITALS SUB-COMMITTEE *RE* KING'S COLLEGE HOSPITAL.

| Members of Committee. | Oct. 12, 1910. | Total. |
|---|---|---|
| CHAIRMAN OF HOSPITALS COMMITTEE (Chairman) | 1 | 1 |
| Shaw, Dr. Lauriston E., London | 1 | 1 |

* NOT a Member of Council.
† Appointed subsequent to meeting of March 29th, 1911.
‡ Appointed subsequent to meeting of October 6th, 1910.
§ Conference with Medico-Political Committee and Representatives of Metropolitan Counties Branch *re* Inquiry by King Edward's Hospital Fund into Abuse of Out-patient Departments of London Hospitals.

## HOSPITALS SUB-COMMITTEE, TO PREPARE EVIDENCE FOR KING EDWARD'S HOSPITAL FUND ENQUIRY INTO ABUSE OF OUT-PATIENT DEPARTMENTS OF LONDON HOSPITALS

| Members of Committee. | Jan. 18, 1911. | Feb. 8, 1911. | Total. |
|---|---|---|---|
| CHAIRMAN OF COUNCIL (Chairman) .. .. .. .. .. | 1 | 1 | 2 |
| President (*ex officio*) .. .. .. .. .. .. | 1 | — | 1 |
| Chairman of Representative Meetings (*ex officio*) .. .. .. | 1 | 1 | 2 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | 1 | — | 1 |
| Chairman of Medico-Political Committee .. .. .. .. | 1 | 1 | 2 |
| Chairman of Hospitals Committee .. .. .. .. .. | 1 | 1 | 2 |
| Owen, Mr. Edmund } | 1 | — | 1 |
| Rice-Oxley, Dr. A. J. } Central Hospitals Committee .. .. | 1 | 1 | 2 |
| *Armour, Mr. Donald } | 1 | 1 | 2 |
| Shaw, Dr. Lauriston E., President Metro. Counties Branch .. | 1 | 1 | 2 |
| *Anderson, Dr. J. Ford, Past President Metro. Counties Branch | 1 | 1 | 2 |
| *Capes, Dr. Robt., Chairman Medical Charities Committee, M.C.B. | 1 | 1 | 2 |
| Goodall, Dr. E. W., Senior Honorary Secretary, M.C.B. .. .. | 1 | 1 | 2 |
| Joubert de la Ferté, Col. C. H., Weybridge .. .. .. | — | 1 | 1 |

## IRISH COMMITTEE.

| Members of Committee. | Aug. 20, 1910. | Oct. 15, 1910. | Jan. 14, 1911. | Total. |
|---|---|---|---|---|
| JOHNSTONE, Mr. R. J., Belfast (Chairman) .. .. .. | — | 1 | 1 | 2 |
| President (*ex officio*) .. .. .. .. .. .. | — | — | — | — |
| Chairman of Representative Meetings (*ex officio*) .. .. | — | — | — | — |
| Chairman of Council (*ex officio*) .. .. .. .. | — | — | — | — |
| Treasurer (*ex officio*) .. .. .. .. .. .. | — | — | — | — |
| *Carey, Dr. R. B., Borris, .. .. .. .. .. .. | 1 | — | — | 1 |
| *Cooke, Dr. J. G., Londonderry .. .. .. .. .. | 1 | — | — | 1 |
| Corby, Professor Henry, Cork .. .. .. .. .. | — | — | — | — |
| *Craig, Dr. James, Dublin .. .. .. .. .. .. | — | 1 | 1 | 2 |
| *Darling, Dr. J. S., Lurgan .. .. .. .. .. | 1 | 1 | 1 | 3 |
| *Giusani, Dr. J. J., Cork .. .. .. .. .. .. | 1 | 1 | — | 2 |
| *Kenny, Dr. J. H., Granard .. .. .. .. .. | — | 1 | 1 | 2 |
| Kidd, Dr. F. W., Dublin .. .. .. .. .. .. | — | 1 | 1 | 2 |
| *Lee, Dr. Philip G., Cork .. .. .. .. .. .. | — | — | 1 | 1 |
| *Mahon, Dr. R. B., Ballinrobe .. .. .. .. .. | — | — | — | — |
| *Mills, Dr. John, Ballinasloe .. .. .. .. .. | 1 | 1 | — | 2 |
| *Quirke, Dr. James, Piltown .. .. .. .. .. | 1 | 1 | — | 2 |
| Shaw, Dr. Cecil E., Belfast .. .. .. .. .. | 1 | 1 | 1 | 3 |
| Walshe, Dr. Denis, Graigue .. .. .. .. .. | — | — | 1 | 1 |
| White, Professor A. H., Dublin (Hon. Sec.) .. .. .. | 1 | 1 | 1 | 3 |

## IRISH CONJOINT SUB-COMMITTEE.

| Members of Committee. | July 12, 1910. | Aug. 27, 1910. | Sept. 3, 1910. | Oct. 15, 1910. | Total. |
|---|---|---|---|---|---|
| *MACDONNELL, Dr. HERCULES, Dundalk (Chairman) .. | 1 | 1 | 1 | 1 | 4 |
| *Darling, Dr. J. Singleton, Lurgan .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Kenny, Dr. J. M., Granard .. .. .. .. .. | 1 | — | — | 1 | 2 |
| Kidd, Dr. F. W., Dublin .. .. .. .. .. | — | — | 1 | 1 | 2 |
| *Mahon, Dr. R. B., Ballinrobe .. .. .. .. .. | — | 1 | 1 | — | 2 |
| Shaw, Dr. Cecil, Belfast .. .. .. .. .. | — | — | 1 | 1 | 2 |
| White, Professor A. H., Dublin .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Representatives of the Irish Medical Association :* | | | | | |
| *O'Donoghue, Dr. John, Clontarf .. .. .. .. | 1 | 1 | — | 1 | 3 |
| *Hennessey, Dr. T., Clogheen .. .. .. .. | 1 | — | — | — | 1 |
| *Donnelly, Dr. J. Thomas, Dublin .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Macnamara, Dr. P. J., Kilmallock } .. .. .. | — | — | 1 | — | 1 |
| *Robb, Dr. J. Gardiner, Belfast } Organisers .. | — | — | 1 | 1 | 2 |
| *Ryan, Dr. J. D., Rathdrum .. .. .. .. | — | — | 1 | 1 | 2 |

* NOT a Member of Council.

## JOURNAL COMMITTEE.

| Members of Committee. | Oct. 19, 1910. | Dec. 21, 1910. | Mar. 8, 1911. | Total. |
|---|---|---|---|---|
| BUIST, Dr. R. C., Dundee (Chairman) .. .. .. .. | 1 | 1 | 1 | 3 |
| President (*ex officio*) .. .. .. .. .. .. | 1 | — | 1 | 2 |
| Chairman of Representative Meetings (*ex officio*) .. .. | 1 | 1 | 1 | 3 |
| Chairman of Council (*ex officio*) .. .. .. .. | 1 | 1 | 1 | 3 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | 1 | 1 | 1 | 3 |
| *Armit, Mr. H. W., Wembley .. .. .. .. .. | 1 | 1 | 1 | 3 |
| Clark, Mr. Andrew, Uxbridge .. .. .. .. .. | 1 | 1 | — | 2 |
| Lucas, Mr. Albert, Birmingham .. .. .. .. .. | 1 | 1 | — | 2 |
| Verrall, Mr. T. Jenner, Bath .. .. .. .. .. | 1 | 1 | — | 2 |
| *Wynne, Dr. F. E., Leigh .. .. .. .. .. | — | 1 | — | 1 |
| Chairman of Central Ethical Committee .. .. .. .. | 1 | 1 | 1 | 3 |

## JOURNAL SUB-COMMITTEE *RE* LEADING ARTICLES, AND POLICY OF JOURNAL.

| Members of Committee. | Nov. 9, 1910. | Total. |
|---|---|---|
| CHAIRMAN OF JOURNAL COMMITTEE (Chairman) .. .. .. | 1 | 1 |
| Chairman of Representative Meetings .. .. .. .. .. | 1 | 1 |
| Chairman of Council .. .. .. .. .. .. | 1 | 1 |
| Clark, Mr. Andrew, London .. .. .. .. .. | 1 | 1 |

## MEDICO-POLITICAL COMMITTEE.

| Members of Committee. | Oct. 5, 1910. | Jan. 4, 1911. | Feb. 23, 1911 † | April 5, 1911. | April 5, 1911.‡ | Total. |
|---|---|---|---|---|---|---|
| VERRALL, Mr. T. JENNER, Bath (Chairman) .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| President (*ex officio*) .. .. .. .. .. .. | 1 | 1 | 1 | — | — | 3 |
| Chairman of Representative Meeting (*ex officio*) .. .. | — | — | — | 1 | 1 | 2 |
| Chairman of Council (*ex officio*) .. .. .. .. | 1 | — | 1 | — | — | 2 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | — | — | — | — | — | — |
| Dewar, Dr. Michael, Edinburgh .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| Eddison, Dr. J. E., Leeds .. .. .. .. .. | 1 | 1 | 1 | — | — | 3 |
| Flemming, Mr. C. E. S., Bradford-on-Avon .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| Garstang, Mr. T. W. H., Altrincham .. .. .. | 1 | 1 | — | 1 | 1 | 4 |
| Greenwood, Dr. Major, London .. .. .. .. | 1 | 1 | — | 1 | 1 | 4 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| *Johnston, Col. W. T., M.D., R.A.M.C. (retd.), Kingstown | 1 | 1 | — | 1 | 1 | 4 |
| Straton, Mr. C. R., Wilton .. .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. | 1 | 1 | — | 1 | 1 | 4 |
| Todd, Dr. D. F., Sunderland .. .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 5 |
| Chairman of Public Health Committee (Mr. E. J. Domville) | 1 | 1 | — | 1 | 1 | 4 |

* NOT a Member of Council.

† Conference with Hospitals Committee and Representatives of Metropolitan Counties Branch *re* Inquiry by King Edward's Fund into Abuse of Out-patient Departments of London Hospitals.

‡ Conference with Public Health Committee *re* Part-time Public Appointments, other than those of Medical Officers of Health.

## CONTRACT PRACTICE SUB-COMMITTEE.

| Members of Committee. | Sept. 30, 1910.† | Oct. 26, 1910.† | Dec. 14, 1910. | Feb. 15, 1911.† | April 5, 1911. | April 12, 1911.† | Total. |
|---|---|---|---|---|---|---|---|
| MACLEAN, Dr. E. J., Cardiff (Chairman) .. .. | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| ††Chairman of Medico-Political Committee .. .. | — | 1 | 1 | 1 | 1 | 1 | 5 |
| Domville, Mr. E. J., Exeter .. .. .. .. | 1 | 1 | — | — | — | 1 | 3 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. | — | — | — | — | 1 | 1 | 2 |
| Macdonald, Dr. J. A., Taunton .. .. .. | 1 | 1 | — | 1 | — | 1 | 4 |
| Straton, Mr. C. R., Wilton .. .. .. | 1 | 1 | 1 | 1 | 1 | — | 5 |
| Taylor, Dr. J. H., Salford .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| ‡Fothergill, Dr. E. R., Bath .. .. .. .. | 1 | 1 | — | — | — | — | 2 |
| ‡Flemming, Mr. C. E. S., Bradford-on-Avon .. .. | 1 | 1 | — | — | — | — | 2 |
| *With* | | | | | | | |
| *Howell, Dr. R. E., Middlesbro' .. .. .. | — | 1 | 1 | — | 1 | 1 | 4 |
| ††*Keay, Dr. J. H., London .. .. .. .. | — | 1 | 1 | 1 | — | 1 | 4 |
| ††*Pearse, Dr. James, Trowbridge .. .. .. | — | 1 | 1 | 1 | 1 | 1 | 5 |
| *Rose, Mr. Percy, London .. .. .. .. | 1 | — | 1 | 1 | — | 1 | 4 |
| *Williams, Dr. A. H., Harrow .. .. .. .. | 1 | 1 | — | 1 | — | — | 3 |
| Chairman of Central Ethical Committee (Dr. Lauriston E. Shaw) | 1 | 1 | — | 1 | — | 1 | 4 |
| *Bateman, Dr. A. G., London .. .. .. .. | — | — | — | — | — | — | — |
| *Anderson, Miss L. Garrett, M.D., London .. | 1 | — | 1 | — | — | — | 2 |
| *Thorne, Miss May, M.D., London .. .. .. | 1 | — | 1 | — | 1 | 1 | 4 |
| ‡Lydall, Dr. W. T., Birmingham .. .. .. | 1 | 1 | — | — | — | — | 2 |
| ‡Lawson, Dr. David, Banchory, N.B. .. .. | 1 | 1 | — | — | — | — | 2 |

## SPECIAL SUB-COMMITTEE *re* CENTRAL EMERGENCY FUND.

| Members of Committee. | March 22, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF CONTRACT PRACTICE SUB-COMMITTEE (Chairman) .. | 1 | 1 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. .. | 1 | 1 |
| *Howell, Dr. R. E., Middlesbro' .. .. .. .. .. .. | — | — |
| *Pearse, Dr. James, Trowbridge .. .. .. .. .. .. | 1 | 1 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. .. | 1 | 1 |

## SPECIAL POSTAL MEDICAL OFFICERS SUB-COMMITTEE.

| Members of Committee. | Dec. 14, 1910. | Total. |
|---|---|---|
| TAYLOR, DR. J. H. Salford (Chairman) .. .. .. .. | 1 | 1 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. .. | 1 | 1 |
| *Williams, Dr. A. H., Harrow .. .. .. .. .. .. | — | — |

## SPECIAL SUB-COMMITTEE *RE* P.M.O. ZANZIBAR PENSION CASE.

| Members of Committee | Feb. 1, 1911. | Total. |
|---|---|---|
| Chairman of Medico-Political Committee.. .. .. .. .. | 1 | 1 |
| Chairman of Representative Meetings .. .. .. .. .. | 1 | 1 |

* NOT a Member of Council.
† Conference with Special Poor Law Reform Committee *re* Organisation of Medical Attendance on a Provident or Insurance Basis.
†† Appointed subsequent to meeting of September 30th, 1910.
‡ Not a Member after meeting of October 26th, 1910.

## JOINT SUB-COMMITTEE OF MEDICO-POLITICAL AND JOURNAL COMMITTEES *RE* ADVERTISING OF FOOD AND DRUGS IN JOURNAL.

| Names of Committee. | Nov. 9, 1910. | Dec. 21, 1910. | Total. |
|---|---|---|---|
| *Representatives of Medico-Political Committee*: | | | |
| Chairman of Medico-Political Committee .. .. .. .. | 1 | 1 | 2 |
| Macdonald, Dr. J. A., Taunton .. .. .. .. .. | 1 | 1 | 2 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. | — | 1 | 1 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. | 1 | — | 1 |
| *Representatives of the Journal Committee*: | | | |
| CHAIRMAN OF JOURNAL COMMITTEE (Chairman) .. .. .. | 1 | 1 | 2 |
| Chairman of Representative Meetings .. .. .. .. | 1 | 1 | 2 |
| The Treasurer .. .. .. .. .. .. .. | — | 1 | 1 |
| Lucas, Mr. Albert, Birmingham .. .. .. .. | 1 | 1 | 2 |

## MEDICAL INSPECTION OF SCHOOL CHILDREN SUB-COMMITTEE.

| Members of Committee. | Feb. 8, 1911. | March 14, 1911. | Total. |
|---|---|---|---|
| HORSLEY, Sir VICTOR, F.R.S., London (Chairman) .. .. | 1 | 1 | 2 |
| Flemming, Mr. C. E. S., Bradford-on-Avon (Vice-Chairman) .. | 1 | 1 | 2 |
| Chairman of Medico-Political Committee .. .. .. .. | 1 | 1 | 2 |
| Greenwood, Dr. Major, London .. .. .. .. | 1 | 1 | 2 |
| *Johnston, Col. W. T., Kingstown .. .. .. .. .. | 1 | — | 1 |
| Rayner, Dr. Edwin, Stockport .. .. .. .. .. | — | — | — |
| *With* | | | |
| *Macfie, Dr. C., Bolton .. .. .. .. .. .. | 1 | 1 | 2 |
| *Fremantle, Dr. F. E., London .. .. .. .. .. | 1 | 1 | 2 |
| *Greenwood, Dr. A., Blackburn .. .. .. .. .. | — | — | — |
| *Kerr, Dr. James, London .. .. .. .. .. | 1 | — | 1 |
| *Langdon-Down, Dr. R., Hampton Wick .. .. .. .. | 1 | 1 | 2 |
| *Beckett-Overy, Dr. H., London .. .. .. .. .. | 1 | 1 | 2 |
| Andrew, Dr. J., Grant, Glasgow .. .. .. .. .. | 1 | 1 | 2 |
| *Williams, Dr. A. H., Harrow .. .. .. .. .. | — | 1 | 1 |

## PARLIAMENTARY SUB-COMMITTEE.

| Members of Committee. | Jan. 4, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF MEDICO-POLITICAL COMMITTEE .. .. .. .. | 1 | 1 |
| Domville, Mr. E. J., Exeter .. .. .. .. .. .. | 1 | 1 |
| Eddison, Dr. J. E., Leeds .. .. .. .. .. .. | 1 | 1 |
| Flemming, Mr. C. E. S., Bradford-on-Avon .. .. .. .. | 1 | 1 |
| Garstang Mr. T. W. H., Altrincham .. .. .. .. .. | 1 | 1 |
| Maclean, Dr. E. J., Cardiff .. .. .. .. .. .. | 1 | 1 |
| Straton, Mr. C. R., Wilton .. .. .. .. .. .. | 1 | 1 |
| Todd, Dr. D. F., Sunderland .. .. .. .. .. .. | — | — |
| *With* | | |
| Buist, Dr. R. C., Dundee .. .. .. .. .. .. | 1 | 1 |
| Larkin, Mr. F. C., Liverpool .. .. .. .. .. .. | — | — |
| †Horsley, Sir Victor, F.R.S., London .. .. .. .. .. | — | — |

* NOT a Member of Council.
† Appointed subsequent to Meeting of January 4th, 1911.

## JOINT SUB-COMMITTEE OF MEDICO-POLITICAL AND CENTRAL ETHICAL COMMITTEES ON RELATION OF INSURANCE MEDICAL OFFICER EXAMINING PATIENT IN POOR LAW INFIRMARY TO MEDICAL SUPERINTENDENT OF INFIRMARY.

| Members of Committee. | March 22, 1911. | Total. |
|---|---|---|
| *Representatives of Medico-Political Committee:* | | |
| VERRALL, Mr. T. JENNER, Bath (Chairman) .. .. .. .. | 1 | 1 |
| Greenwood, Dr. Major, London .. .. .. .. .. | 1 | 1 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. .. .. | 1 | 1 |
| Todd, Dr. D. F., Sunderland .. .. .. .. .. | 1 | 1 |
| *Representatives of Central Ethical Committee:* | | |
| *Bateman, Dr. A. G., London .. .. .. .. .. | 1 | 1 |
| Ewart, Mr. J. Henry, London .. .. .. .. .. | 1 | 1 |
| *Langdon Down, Dr. R. L., London .. .. .. .. .. | 1 | 1 |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | 1 | 1 |

## SPECIAL SHIP SURGEONS SUB-COMMITTEE.

| Members of Committee. | March 22, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF CONTRACT PRACTICE SUB-COMMITTEE .. .. .. | 1 | 1 |
| Chairman of Medico-Political Committee .. .. .. .. | 1 | 1 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. .. .. | 1 | 1 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. | 1 | 1 |
| Todd, Dr. D. F., Sunderland .. .. .. .. .. | 1 | 1 |
| *Elliott, Dr. J. F. .. .. .. .. .. .. .. | | |
| *Macarthy, Dr. F. .. .. .. .. .. .. .. | 1 | 1 |
| *Sharpe, Dr. G. M. .. .. .. .. .. .. .. | 1 | 1 |

## SPECIAL SUB-COMMITTEE *re* DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

| Members of Committee. | March 22, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF MEDICO-POLITICAL COMMITTEE .. .. .. .. | 1 | 1 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. .. | 1 | 1 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. .. .. | 1 | 1 |
| *Howell, Dr. R. E., Middlesbro' .. .. .. .. .. | 1 | 1 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. .. | 1 | 1 |

## SIGHT TESTING JOINT SUB-COMMITTEE.

| Members of Committee. | Oct. 11, 1910. | Total. |
|---|---|---|
| CHAIRMAN OF MEDICO-POLITICAL COMMITTEE .. .. .. .. | 1 | 1 |
| Butlin, Mr. Henry T., Pres.R.C.S., London .. .. .. .. | | |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. .. | | |
| *Stephenson, Mr. Sydney, London .. .. .. .. .. .. | | |
| *Representatives of the Metropolitan Counties Branch:* | | |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | 1 | 1 |
| *Buttar, Dr. Charles, London .. .. .. .. .. .. | 1 | 1 |
| Goodall, Dr. E. W., London .. .. .. .. .. .. | 1 | 1 |
| *Harman, Mr. N. Bishop, London .. .. .. .. .. | 1 | 1 |
| Horsley, Sir Victor, F.R.S., London .. .. .. .. .. | 1 | 1 |
| *Tanner, Mr. Herbert, London .. .. .. .. .. .. | 1 | 1 |

* NOT a Member of Council.

## SPIRITUAL HEALING SUB-COMMITTEE.

| Members of Committee. | Jan. 3, 1911. | March 29, 1911. | Total. |
|---|---|---|---|
| GARSTANG, Mr. T. W. H., Altrincham (Chairman) .. .. | 1 | 1 | 2 |
| Chairman of Medico-Political Committee .. .. .. .. | | | |
| *With* | | | |
| *Armit, Mr. H. W., Wembley .. .. .. .. .. .. | 1 | — | 1 |
| *Buttar, Dr. Charles, London .. .. .. .. .. .. | 1 | 1 | 2 |
| *Buzzard, Dr. E. F., London .. .. .. .. .. .. | | | |
| *Helme, Dr. T. Arthur, Manchester .. .. .. .. .. | | | |
| *Macfie, Dr. Charles, Bolton .. .. .. .. .. .. | 1 | 1 | 2 |
| *Nash, Mr. E. H. T., London .. .. .. .. .. .. | 1 | 1 | 2 |
| *Scharlieb, Mrs. Mary, M.D., London .. .. .. .. .. | 1 | — | 1 |
| *Thomson, Dr. D. G., Norwich .. .. .. .. .. | | | |
| *Woods, Dr. J. F., London .. .. .. .. .. .. | 1 | 1 | 2 |

## JOINT SUB-COMMITTEE OF MEDICO-POLITICAL AND PUBLIC HEALTH COMMITTEES *RE* PART TIME PUBLIC APPOINTMENTS, OTHER THAN THOSE OF MEDICAL OFFICERS OF HEALTH.

| Members of Committee. | Jan. 10, 1911. | Total. |
|---|---|---|
| *Representatives of the Public Health Committee:* | | |
| CHAIRMAN OF PUBLIC HEALTH COMMITTEE (Chairman) .. .. | 1 | 1 |
| Garstang, Mr. T. W. H., Altrincham .. .. .. .. .. | 1 | 1 |
| Goodall, Dr. E. W., London .. .. .. .. .. .. | 1 | 1 |
| Jones, Mr. Herbert, Hereford .. .. .. .. .. .. | 1 | 1 |
| *Keay, Dr. J. H., London .. .. .. .. .. .. | 1 | 1 |
| *Lyster, Dr. R. A., Winchester .. .. .. .. .. | 1 | 1 |
| *Representatives of Medico-Political Committee:* | | |
| Chairman of Medico-Political Committee .. .. .. .. | 1 | 1 |
| *Crookshank, Dr. F. G., London .. .. .. .. .. .. | 1 | 1 |
| Flemming, Mr. C. E. S., Bradford-on-Avon .. .. .. .. | 1 | 1 |
| Greenwood, Dr. Major, London .. .. .. .. .. .. | 1 | 1 |
| Taylor, Dr. J. H., Salford .. .. .. .. .. .. | 1 | 1 |

## NAVAL AND MILITARY COMMITTEE.

| Members of Committee. | Oct. 3, 1910. | Nov. 23, 1910. | April 10, 1911. | Total. |
|---|---|---|---|---|
| JOUBERT DE LA FERTE, Col. C. H., I.M.S., Weybridge (Chairman) | 1 | 1 | 1 | 3 |
| President (*ex officio*) .. .. .. .. .. .. .. | | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. | | 1 | | 1 |
| Chairman of Council (*ex officio*) .. .. .. .. .. | | 1 | | 1 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | | 1 | | 1 |
| Bentham, Inspect 1-General Robert, R.N. (retd.), London .. | 1 | 1 | 1 | 3 |
| Browne, Surgeon-General W. R., London .. .. .. | 1 | 1 | — | 2 |
| *Coombs, Dr. R. H., Bedford .. .. .. .. .. | 1 | 1 | 1 | 3 |
| *Cuffe, Sir Charles, K.C.B., London .. .. .. .. | 1 | — | — | 1 |
| *Giles, Col. P. B., V.D., R.A.M.C.T., Bletchley .. .. .. | 1 | 1 | — | 2 |
| *Keogh, Sir Alfred, K.C.B., A.M.S., London .. .. .. | — | 1 | — | 1 |

* NOT a Member of Council.

# ORGANISATION COMMITTEE.

| Members of Committee. | Oct. 4, 1910. | Jan. 3, 1911. | April 4, 1911. | Total. |
|---|---|---|---|---|
| LARKIN, Mr. F. CHARLES, Liverpool (Chairman) .. .. | 1 | 1 | 1 | 3 |
| President (*ex officio*) .. .. .. .. .. .. .. | | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. | 1 | | | 1 |
| Chairman of Council (*ex officio*) .. .. .. .. .. | | | 1 | 1 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | | 1 | | 1 |
| Clark, Mr. Andrew, Uxbridge .. .. .. .. .. | 1 | 1 | 1 | 3 |
| *Coombe, Mr. Russell, Exeter .. .. .. .. .. | 1 | 1 | | 2 |
| Goodall, Dr. E. W., London .. .. .. .. .. | | 1 | 1 | 2 |
| *Metcalfe, Dr. J., Bradford .. .. .. .. .. | 1 | 1 | 1 | 3 |
| Moir, Dr. J. Munro, Inverness .. .. .. .. .. | 1 | 1 | 1 | 3 |
| *Co-opted Members*: | | | | |
| †Garstang, Mr. T. W. H., Altrincham .. .. .. .. | | 1 | 1 | 2 |
| *†Greer, Mr. W. J., Newport, Mon. .. .. .. .. | | | | |
| †Horsley, Sir Victor, F.R.S., London .. .. .. .. | | 1 | 1 | 2 |
| †Shaw, Dr. Lauriston, E., London .. .. .. .. | | 1 | 1 | 2 |
| †White, Professor A. H., Dublin .. .. .. .. | | 1 | 1 | 2 |

# CAPITATION GRANTS SUB-COMMITTEE.

| Members of Committee. | Nov. 15, 1910. | Feb. 13, 1911. | March 21, 1911. | Total. |
|---|---|---|---|---|
| CHAIRMAN OF ORGANISATION COMMITTEE (Chairman) .. .. | 1 | 1 | 1 | 3 |
| The Treasurer .. .. .. .. .. .. .. | 1 | | | 1 |
| Clark, Mr. Andrew, Uxbridge .. .. .. .. .. | | | 1 | 1 |
| *Coombe, Mr. Russell, Exeter .. .. .. .. .. | 1 | | 1 | 2 |
| Goodall, Dr. E. W., London .. .. .. .. .. | 1 | 1 | 1 | 3 |

# ORGANISATION OF MEDICAL STUDENTS SUB-COMMITTEE.

| Members of Committee. | Feb. 13, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF ORGANISATION COMMITTEE (Chairman) .. .. | 1 | 1 |
| Chairman of Representative Meetings .. .. .. .. .. | | |
| Clark, Mr. Andrew, Uxbridge .. .. .. .. .. | | |
| *Kirby, Dr. E. D., Edgbaston .. .. .. .. .. | 1 | 1 |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | 1 | 1 |

# REFERENDUM AND POSTAL VOTE SUB-COMMITTEE.

| Members of Committee. | Nov. 15, 1910. | Dec. 19, 1910. | Total. |
|---|---|---|---|
| CHAIRMAN ORGANISATION COMMITTEE (Chairman) .. .. .. | 1 | 1 | 2 |
| *Coombe, Mr. Russell, Exeter .. .. .. .. .. .. | 1 | 1 | 2 |
| Garstang, Mr. T. W. H., Altrincham .. .. .. .. | 1 | 1 | 2 |
| Goodall, Dr. E. W., London .. .. .. .. .. .. | 1 | 1 | 2 |
| *Greer, Mr. W. J., Newport, Mon. .. .. .. .. .. | 1 | 1 | 2 |
| *Metcalfe, Dr. J., Bradford .. .. .. .. .. .. | 1 | 1 | 2 |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | | 1 | 1 |

* NOT a Member of Council.
† Appointed subsequent to meeting of October 4th, 1910.

# REGULATIONS AND STANDING ORDERS SUB-COMMITTEE.

| Members of Committee. | Oct. 19, 1910. | Nov. 23, 1910. | Dec. 19, 1910. | Jan 3, 1911. | March 8, 1911. | March 15, 1911. | April 4, 1911. | Total. |
|---|---|---|---|---|---|---|---|---|
| CHAIRMAN OF ORGANISATION COMMITTEE (Chairman) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| Chairman of Representative Meetings .. .. | 1 | 1 | | | 1 | 1 | | 4 |
| Chairman of Council .. .. .. .. .. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| †Treasurer .. .. .. .. .. .. | | 1 | | | 1 | | | 3 |
| Clark, Mr. Andrew, Uxbridge .. .. .. | | 1 | 1 | 1 | | 1 | 1 | 5 |
| *Representatives of Colonial Committee*: | | | | | | | | |
| Chairman of Colonial Committee .. .. .. | | | | 1 | | | | 1 |
| Ewart, Dr. David, Chichester .. .. .. | | | | | | | | |
| *Greany, Surgeon-General, London .. .. .. | | | | 1 | | | | 1 |
| Greenlees, Dr. T. D., London .. .. .. | | | | | | | | |

# PREMISES COMMITTEE.

| Members of Committee. | Mar. 15, 1911. | April 26, 1911. | Total. |
|---|---|---|---|
| TREASURER (Chairman) .. .. .. .. .. .. .. | 1 | 1 | 2 |
| President .. .. .. .. .. .. .. .. .. | | | |
| Chairman of Representative Meetings .. .. .. .. .. | 1 | 1 | 2 |
| Chairman of Council .. .. .. .. .. .. .. | 1 | 1 | 2 |

# PUBLIC HEALTH COMMITTEE.

| Members of Committee. | Oct. 11, 1910. | Jan. 10, 1911. | April 5, 1911.‡ | April 11, 1911. | Total. |
|---|---|---|---|---|---|
| DOMVILLE, Mr. E. J., Exeter (Chairman) .. .. .. | 1 | 1 | 1 | 1 | 4 |
| President (*ex officio*) .. .. .. .. .. .. | | | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. | | | 1 | | 1 |
| Chairman of Council (*ex officio*) .. .. .. .. | | | | | |
| Treasurer (*ex officio*) .. .. .. .. .. .. | | | | | |
| Garstang, Mr. T. W. H., Altrincham .. .. .. .. | 1 | 1 | | 1 | 3 |
| Goodall, Dr. E. W., London .. .. .. .. .. | 1 | 1 | | 1 | 3 |
| Jones, Mr. Herbert, Hereford .. .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| †*Keay, Dr. J. H., London .. .. .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Lyster, Dr. R. A., Winchester .. .. .. .. .. | 1 | 1 | 1 | 1 | 4 |

# SCIENCE COMMITTEE.

| Members of Committee. | Oct. 8, 1910. | April 8, 1911. | Total. |
|---|---|---|---|
| POPE, Dr. F. M., Leicester (Chairman) .. .. .. .. | 1 | 1 | 2 |
| President (*ex officio*) .. .. .. .. .. .. .. | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. .. | | | |
| Chairman of Council (*ex officio*) .. .. .. .. .. | | | |
| Treasurer (*ex officio*) .. .. .. .. .. .. | | | |
| Andrew, Dr. J. Grant, Glasgow .. .. .. .. .. | | | |
| *Dixon, Professor W. E., F.R.S., Cambridge .. .. .. | 1 | 1 | 2 |
| *Haldane, Dr. J. S., F.R.S., Oxford .. .. .. .. | | 1 | 1 |
| *Martin, Dr. C. J., F.R.S., London .. .. .. .. .. | 1 | 1 | 2 |
| Shaw, Dr. Cecil E., Belfast .. .. .. .. .. .. | 1 | | 1 |
| *Stockman, Professor Ralph, Glasgow .. .. .. .. .. | 1 | 1 | 2 |
| White, Professor A. H., Dublin .. .. .. .. .. | 1 | 1 | 2 |

* NOT a Member of Council.
† Appointed subsequent to Meeting of October 19th, 1910.
‡ Conference with Medico-Political Committee *re* Part-time Public Appointments, other than those of Medical Officers of Health.

## STANDING LIBRARY SUB-COMMITTEE.

| Members of Committee. | Dec. 7, 1910. | April 7, 1911. | Total. |
|---|---|---|---|
| CHAIRMAN OF SCIENCE COMMITTEE (Chairman) .. .. .. | 1 | 1 | 2 |
| Treasurer .. .. .. .. .. .. .. .. .. | | | |
| *Dixon, Professor W. E., F.R.S., Cambridge .. .. .. | 1 | 1 | 2 |
| *Martin, Dr. C. J., F.R.S., London .. .. .. .. | 1 | 1 | 2 |
| *Editor "British Medical Journal," London .. .. .. | 1 | 1 | 2 |

## SCOTTISH COMMITTEE.

| Members of Committee. | Sept. 29 1910. | Jan. 4, 1911. | Total. |
|---|---|---|---|
| MOIR, Dr. J. MUNRO, Inverness (Chairman) .. .. .. | 1 | 1 | 2 |
| President (*ex officio*) .. .. .. .. .. .. .. | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. .. | | | |
| Chairman of Council (*ex officio*) .. .. .. .. .. | | | |
| Treasurer (*ex officio*) .. .. .. .. .. .. .. | | | |
| Andrew, Dr. J. Grant, Glasgow .. .. .. .. .. | 1 | 1 | 2 |
| *Boyd, Dr. F. D., Edinburgh .. .. .. .. .. | | | |
| Buist, Dr. R. C., Dundee .. .. .. .. .. | 1 | | 1 |
| *Carmichael, Dr. E. W. S., Edinburgh .. .. .. .. | | 1 | 1 |
| Dewar, Dr. M., Edinburgh .. .. .. .. .. .. | 1 | | 1 |
| *Fraser, Dr. T., Aberdeen .. .. .. .. .. .. | | | |
| *Graham, Dr. R., Balfour, Leven, Fife .. .. .. .. | | | |
| Hamilton, Dr. J. R., Hawick .. .. .. .. .. | 1 | 1 | 2 |
| Livingston, Dr. G. R., Dumfries (Hon. Secretary) .. .. | 1 | 1 | 2 |
| *Low, Dr. A. P., Dundee .. .. .. .. .. .. | 1 | 1 | 2 |
| *Macfarlane, Dr. W. D. Junr., Glasgow .. .. .. .. | 1 | 1 | 2 |
| Mackintosh, Dr. D. J., M.V.O., Glasgow .. .. .. .. | | 1 | 1 |
| *Moorhouse, Dr. J. E., Stirling .. .. .. .. .. | 1 | | 1 |
| *Smith, Dr. F. K., Aberdeen .. .. .. .. .. .. | 1 | | 1 |
| *Stewart, Dr. J. Clark, Falkirk .. .. .. .. .. | | | |
| *Taylor, Dr. W. A., Perth .. .. .. .. .. .. | | | |
| *Trotter, Dr. A., Perth .. .. .. .. .. .. .. | 1 | 1 | 2 |

## SPECIAL POOR LAW REFORM COMMITTEE.

| Members of Committee. | Sept. 30, 1910.† | Oct. 26, 1910.† | Feb. 15, 1911.† | April 12, 1911 | Total. |
|---|---|---|---|---|---|
| ‡TAYLOR, Dr. J. H., Salford (Chairman) .. .. .. | — | 1 | 1 | 1 | 3 |
| President (*ex officio*) .. .. .. .. .. .. | | | | | |
| Chairman of Representative Meetings (*ex officio*) .. | 1 | 1 | 1 | 1 | 4 |
| Chairman of Council (*ex officio*) .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| Treasurer (*ex officio*) .. .. .. .. .. .. | — | 1 | — | 1 | 2 |
| *Members of the Medico-Political Committee*: | | | | | |
| ‡Verrall, Mr. T. Jenner, Bath .. .. .. .. .. | — | 1 | 1 | 1 | 3 |
| Flemming, Mr. C. E. S., Bradford-on-Avon .. .. | 1 | 1 | 1 | 1 | 4 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| Straton, Mr. C. R., Wilton .. .. .. .. .. | 1 | 1 | 1 | — | 3 |
| *Members of the Public Health Committee*: | | | | | |
| Domville, Mr. E. J., Exeter .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| Jones, Mr. Herbert, Hereford .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| ‡*Keay, Dr. J. H., London .. .. .. .. | — | 1 | 1 | 1 | 3 |
| ††Garstang, Mr. T. W. H., Altrincham .. .. .. | 1 | 1 | — | — | 2 |
| *Members of the Hospitals Committee*: | | | | | |
| ‡Ker, Mr. Hugh R., London .. .. .. .. .. | — | 1 | — | — | 1 |
| Shaw, Dr. Lauriston E., London .. .. .. .. | 1 | 1 | 1 | — | 3 |
| *Representatives of the Scottish Medical Association*: | | | | | |
| Moir, Dr. J. Munro, Inverness .. .. .. .. | 1 | 1 | 1 | — | 3 |
| Buist, Dr. R. C., Dundee .. .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Representatives of the Irish Association*: | | | | | |
| *Darling, Dr. J. S., Lurgan .. .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Mahon, Dr. R. B., Ballinrobe .. .. .. .. | 1 | — | — | — | 1 |
| *Co-opted Members*: | | | | | |
| Greenwood, Dr. Major, London .. .. .. .. | 1 | — | 1 | 1 | 3 |
| *Anderson, Dr. J. Ford, London .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| ‡*Lyster, Dr. R. A., Winchester .. .. .. .. | — | — | — | 1 | 1 |
| ††McVail, Dr. J. C., Glasgow .. .. .. .. | — | 1 | — | — | 1 |

* NOT a Member of Council.
†Conference with Contract Practice Sub-committee *re* Organisation of Medical Attendance on the Provident or Insurance Principle.
‡ Appointed Members of Committee subsequent to meeting of October 26th, 1910.
†† Not Members of the Committee after meeting of October 26th, 1910,

## POOR LAW DRAFTING SUB-COMMITTEE

| Members of Committee. | Nov. 9, 1910. | Dec. 21, 1910. | Jan. 25, 1911. | Feb. 1, 1911. | Total. |
|---|---|---|---|---|---|
| CHAIRMAN OF REPRESENTATIVE MEETINGS (Chairman) .. | 1 | 1 | 1 | 1 | 4 |
| Chairman of Council .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| Buist, Dr. R. C., Dundee .. .. .. .. | 1 | 1 | 1 | — | 3 |
| Flemming, Mr. C. E. S., Bradford-on-Avon .. .. .. | | 1 | 1 | 1 | 3 |
| *Keay, Dr. J. H., London .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Pearse, Dr. James, Trowbridge .. .. .. .. | 1 | 1 | 1 | — | 3 |
| Shaw, Dr. Lauriston E., London .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| Taylor, Dr. J. H., Salford .. .. .. .. | 1 | — | 1 | 1 | 3 |
| Verrall, Mr. T. Jenner, Bath .. .. .. .. | 1 | 1 | 1 | 1 | 4 |
| *Co-opted Members*: | | | | | |
| ‡‡Gosse, Dr. W. Sittingbourne .. .. .. .. | — | 1 | 1 | — | 2 |
| ‡‡*Grey, Dr. Harry, Bristol .. .. .. .. | — | 1 | 1 | 1 | 3 |

## SUPERANNUATION COMMITTEE.

| Members of Committee. | Jan. 11, 1911. | Total. |
|---|---|---|
| TREASURER (Chairman) .. .. .. .. .. .. .. | 1 | 1 |
| Chairman of Representative Meetings .. .. .. .. .. | 1 | 1 |
| Chairman of Council .. .. .. .. .. .. .. | 1 | 1 |
| *Elliston, Mr. Guy, London .. .. .. .. .. .. | 1 | 1 |
| *Representatives elected by the Staff*: | | |
| *Higginson, Mr. H., London .. .. .. .. .. .. | 1 | 1 |
| *Morrey, Mr. Stephen, London .. .. .. .. .. .. | 1 | 1 |
| *Warne, Mr. W. E., London .. .. .. .. .. .. | 1 | 1 |

## TERRITORIAL FORCES COMMITTEE.

| Members of Committee. | Dec. 2, 1910. | Total. |
|---|---|---|
| CLARK, Col. ANDREW, V.D., K.H.S., Uxbridge (Chairman) .. | 1 | 1 |
| President .. .. .. .. .. .. .. .. .. | | |
| Chairman of Representative Meetings .. .. .. .. .. | | |
| Chairman of Council .. .. .. .. .. .. | | |
| Treasurer .. .. .. .. .. .. .. .. .. | | |
| *Elliston, Col. G. S., V.D., Felixstowe .. .. .. .. | 1 | 1 |
| *Giles, Col. P. B., A.M.S. (T.F.), Bletchley .. .. .. | 1 | 1 |
| *Milburn, Col. C. H., V.D., Hull .. .. .. .. .. | | |
| Moir, Lieut.-Col. J. Munro, V.D., Inverness .. .. .. | 1 | 1 |
| *Thomas, Col. J. Raglan, V.D., Exeter .. .. .. .. | 1 | 1 |
| Todd, Major D. F., R.A.M.C. (T.F.), Sunderland .. .. .. | | |
| *White, Lieut.-Col. Sinclair, R.A.M.C. (T.F.), Sheffield .. .. | 1 | 1 |

* NOT a Member of Council.
‡‡ Appointed subsequent to Meeting of November 9th, 1910,

## THERAPEUTIC COMMITTEE.

| Members of Committee. | Oct. 8, 1910. | April 8, 1911. | Total. |
|---|---|---|---|
| STOCKMAN, Professor Ralph, Glasgow (Chairman) .. .. | 1 | 1 | 2 |
| President (*ex officio*) .. .. .. .. .. .. | | | |
| Chairman of Representative Meetings (*ex officio*) .. .. | | | |
| Chairman of Council (*ex officio*) .. .. .. .. | | | |
| Treasurer (*ex officio*) .. .. .. .. .. .. | | | |
| Chairman of Science Committee (*ex officio*) .. .. .. | 1 | 1 | 2 |
| *Cusany, Professor A. R., F.R.S., London .. .. .. | | 1 | 1 |
| *Davy, Dr. Henry, Exeter .. .. .. .. .. | | 1 | 1 |
| *Dixon, Professor W. E., M.D., F.R.S., Cambridge .. .. | 1 | 1 | 2 |
| *Greenish, Professor, London .. .. .. .. .. .. | 1 | 1 | 2 |
| *Marshall, Professor C. R., Dundee .. .. .. .. .. | 1 | 1 | 2 |
| *Martin, Dr. C. J., F.R.S., London .. .. .. .. .. | 1 | 1 | 2 |
| Whitla, Sir Wm., M.D., Belfast .. .. .. .. .. | | | |
| *Wild, Professor R. B., M.D., Manchester .. .. .. .. | 1 | 1 | 2 |

## CONFERENCE OF REPRESENTATIVES OF THE MEDICO-POLITICAL COMMITTEE, REPRESENTATIVES OF THE MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN SUB-COMMITTEE, AND THE SCHOOL CHILDREN COMMITTEE OF THE METROPOLITAN COUNTIES BRANCH.

| Members of Committee. | Mar. 14, 1911. | Mar. 21, 1911. | Total. |
|---|---|---|---|
| CHAIRMAN OF THE MEDICO-POLITICAL COMMITTEE (Chairman) .. | 1 | — | 1 |
| Chairman of the Medical Inspection and Treatment of School Children Sub-Committee .. .. .. .. .. .. | 1 | 1 | 2 |
| Flemming, Mr. C. E. S., Vice-Chairman, ditto .. .. .. | 1 | — | 1 |
| *Members of the School Children Committee of the M.C.B.:* | | | |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | 1 | 1 | 2 |
| *Beckett-Overy, Dr. H. ,, .. .. .. .. .. | 1 | — | 1 |
| *Finucane, Dr. M. I ,, .. .. .. .. .. | 1 | — | 1 |
| *Fothergill, Dr. E. R., Brightou .. .. .. .. .. | 1 | — | 1 |
| Goodall, Dr. E. W., London .. .. .. .. .. .. | 1 | 1 | 2 |
| *Griffith, Dr. W. .. ,, .. .. .. .. .. .. | 1 | — | 1 |

## CONFERENCE *RE* OUT-PATIENT DEPARTMENT OF LONDON HOSPITALS.

| Members of Committee. | Jan. 11, 1911. | Total. |
|---|---|---|
| CHAIRMAN OF HOSPITALS COMMITTEE .. .. .. .. .. | 1 | 1 |
| President .. .. .. .. .. .. .. .. .. | 1 | 1 |
| Chairman Representative Meetings .. .. .. .. .. | 1 | 1 |
| Chairman of Council .. .. .. .. .. .. | 1 | 1 |
| Treasurer .. .. .. .. .. .. .. .. | 1 | 1 |
| *Capes, Dr. Robert, London .. .. .. .. .. | 1 | 1 |
| Shaw, Dr. Lauriston E., London .. .. .. .. .. | 1 | 1 |

* NOT a Member of Council.

## DEPUTATION *RE* MIDWIVES QUESTION.

| Members of Committee. | Nov. 8, 1910. | Total |
|---|---|---|
| THE PRESIDENT .. .. .. .. .. .. .. .. | 1 | 1 |
| Dewar, Dr. Michael, Edinburgh .. .. .. .. .. .. | 1 | 1 |
| *Drury, Dr. Arthur, Halifax .. .. .. .. .. .. | 1 | 1 |
| *Fothergill, Dr. E. R., Brighton .. .. .. .. .. .. | 1 | 1 |
| Straton, Mr. C. R., Wilton .. .. .. .. .. .. | 1 | 1 |
| Todd, Dr. D. F., Sunderland .. .. .. .. .. .. | 1 | 1 |
| Verrall, Mr. T. Jenner, Bath .. .. .. .. .. .. | 1 | 1 |

* NOT a Member of Council.

# Association Notices.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of the Bath and Bristol Branch will be held at Bristol University on Wednesday, June 14th, at 5 o'clock, Dr. J. M. Rattray in the chair. Business: "Annual."—NEWMAN NEILD (Clifton), W. M. BEAUMONT (Bath), Honorary Secretaries, Clifton.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held on June 30th, at 6 p.m., in the Beau Nash's House, Sawclose, Bath. Business: Annual.—D. LESLIE BEATH, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of the Branch will be held at the Medical Institute, Edmund Street, on Thursday, June 15th, at 3.30 p.m.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held on June 14th at the Medical Institute, at 4 p.m., for the election of officers.—A. W. NUTHALL, W. T. LYDALL, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The summer meeting of this Branch will be held on Wednesday, June 7th, at 3.30 p.m., at Princess Christian Hospital, Weymouth. Agenda: To consider the provisions contained in the National Insurance Bill which affect the medical profession.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Norwich on Thursday, July 13th.—B. H. NICHOLSON, Honorary Secretary, Colchester.

EAST YORKS AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held on Thursday, June 15th, in the Etherington Ward at the Hull Royal Infirmary.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Thursday, June 15th, at 4 p.m.—W. D. MACFARLANE, jun., M.B., Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at the Board Room of the Altrincham Hospital, at 4.45 p.m., on Wednesday, June 21st, and not on June 1st, as previously stated. Tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1911–12. Every member is eligible for every office, and may be proposed by any member. Nominations, in writing and signed, may be sent to the Honorary Secretary at any time before June 19th. Dinner at the Brooklands Hotel, 7.30 p.m. Ladies invited. Names must be given to the Honorary Secretary by Monday, June 19th, in order that he may have time to cancel the arrangement (so far as the ladies are concerned) if there are not sufficient acceptances—say, five or six at least. The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 19th. (If any alteration of programme becomes necessary, it will be advertised in the SUPPLEMENT, which members should consult regularly.) *Agenda:* (1) Minutes of Fifty-second General Meeting (Northwich). (2) Minutes of Sixty-eighth Committee Meeting. (3) Apologies for absence.

(4) Election of Officers: (*a*) Chairman for 1911-12, and his induction by the retiring Chairman. (*b*) Elect other Officers: Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, Committee, Associate Members. (5) Annual Report of Executive Committee. (6) Alteration of Rules [Rules 8, 12 (*b*)]. (7) Question of extending invitation for Branch Meeting, 1912. (8) Report of Representatives. (9) Matters Referred to Divisions (SUPPLEMENTS from April 22nd to date). (10) Question of Associated Fund for Professional Defence. (11) Division Fund for Medical Charities. (12) Any other urgent business.—H. G. COOPER, Honorary Secretary, "Foye," Altrincham.

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LEINSTER BRANCH.—The annual meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Friday, June 9th, at 4.30 p.m. Members who wish to bring forward any subject of professional interest should communicate with ARTHUR H. WHITE, Honorary Secretary, Malvern, Terenure Road, Dublin.

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METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

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METROPOLITAN COUNTIES BRANCH: GREENWICH DIVISION.—Postponement of Meeting.—It has been found that the meeting of the Greenwich Division of the British Medical Association, which was fixed to be held on June 1st, falls on one of the days of the Special Representative Meeting. It has therefore been arranged that this meeting be postponed till Wednesday, June 7th, in order that opportunity be given to discuss the decisions arrived at by the Representatives. The meeting will be held at Lewisham Infirmary on Wednesday, June 7th, at 3.30 p.m. The position is so critical that meetings of Divisions are being attended by practically every medical man in many Divisions.—LAWRENCE P. HEMMANS, Honorary Secretary, Lewisham.

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METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The annual meeting of the Hampstead Division will take place at the Central Library, Arkwright Road, N.W., on Friday, June 9th, at 8 p m. Agenda: Minutes, correspondence, questions, election of officers and committee for the session 1911-12, annual report of the Branch Representatives, instructions to Representatives at Representative Meeting. At 8.30 the meeting will adjourn for a meeting of the local profession to consider the medical aspects of the Sickness and Invalidity Insurance Bill; four resolutions will be brought forward, and, if thought desirable, will be forwarded to the members of Parliament representing the Division. It is hoped that all medical men residing within the area of the Division will make an effort to be present.—CECIL W. CUNNINGTON, Honorary Secretary.

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METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A general meeting of the profession residing within its area will be held under the auspices of the Walthamstow Division, at the Walthamstow Hospital, Orford Road, on Thursday, June 8th, at 4 p.m. Agenda: To consider and discuss the suggested arrangements, terms, and conditions contained in the National Insurance Bill. N.B.—The Executive Committee desires to urge all medical practitioners to consider carefully the far-reaching influence which this measure is bound to exercise upon the profession. The committee wishes to point out, after careful deliberation, that the profession, in order to secure the following vital concessions, namely:—(1) A lower income limit; (2) no control by friendly societies; (3) adequate remuneration; (4) freedom of choice of doctor by the insured—must be absolutely united. The committee suggests that non-members may best help towards perfect organization by at once becoming members, and, failing this, that every non-member will communicate in writing to the Secretary his willingness to bind himself not to accept any post under this Act without first communicating with the Executive Committee. The committee also requests that any practitioner, member or non-member, who is unable to attend the meeting on June 8th will communicate in writing to the Honorary Secretary his views on the above points.—A. POTTINGER ELDRED, Honorary Secretary.

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MIDLAND BRANCH.—The meeting of the Branch Council will be held at the Derbyshire Royal Infirmary on June 15th, at 2 p.m., and the annual meeting of the Branch on the same day at 3 p.m. The President-elect, Dr. E. Collier Green, will open a discussion on the Medical Insurance Bill.—F. L. A. GREAVES, Derby.

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MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division, to which all members of the medical profession residing within the counties of Leicester and Rutland are invited, will be held in the Association Hall, East Street, Leicester, on Wednesday, June 7th, at four o'clock. Agenda: (1) To receive a report of the action of the Representative Meeting with reference to the National Insurance Bill. (2) To adopt resolutions consequent thereon.—R. WALLACE HENRY, Honorary Secretary.

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NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held at Elgin on Saturday, June 10th. The meeting is to be held jointly with the Aberdeen Branch. Further particulars will be sent to the members by circular. — J. MUNRO MOIR, M.D., Honorary Secretary.

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SOUTH-EASTERN BRANCH.—The sixty-seventh annual meeting of this Branch will be held at the Old Grammar School, Ashford, on Wednesday, June 7th, at 2.15 p.m. The Council will meet before lunch at the Saracen's Head; notice of the time of this meeting, together with the agenda of business, will be sent to members of council in due course. Dr. Wilks (President-elect) kindly invites members to lunch at the Saracen's Head, Ashford, from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting, (1) To receive the report of the election of officers for 1911-12, who shall thereupon take office. (2) To receive the Annual Report of the Council on the affairs of the Branch and the Annual Financial Statement. (3) To consider the Revised Rules presented by the Council for adoption by the Branch. After the meeting the members will drive to Godinton, a fine old Elizabethan mansion containing some splendid carving, where they will be kindly entertained to tea by G. Ashley Dodd, Esq., D.L., High Sheriff of Kent. The annual dinner will be held at the Saracen's Head at 6.30 p.m.; charge, 6s. each. Wine will be provided by the local members. Members intending to be present at the lunch, the excursion, or the dinner are requested to signify their intention to Mr. Claude M. Vernon, Stoke House, Ashford, not later than Saturday, June 3rd.—E. A. STARLING, Tunbridge Wells, Honorary Secretary.

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SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of the Division will be held on Tuesday, June 13th, in the board room of the Northampton General Hospital, at 2.30 p m. The meeting will be preceded by luncheon at Franklin's Restaurant, at 1.30 p.m. Those wishing to attend the luncheon should let the Honorary Secretary know two days beforehand. Business: (1) Minutes of preceding meeting. (2) Annual report. (3) Election of officers. (4) Report from Dr. Baxter on the Special Representative Meeting to consider the Government's Invalidity Assurance Bill. (5) Discussion. If time permits, some clinical cases will be shown.—P. S. HICHENS, Honorary Secretary, 47, Sheep Street, Northampton.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of the Branch will be held at Cardiff on Thursday, June 15th.—ALFRED HANSON, Honorary Secretary, Swansea.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The annual meeting will be held at the Joint Counties Asylum, Carmarthen, on Wednesday, June 7th, at 1 p.m. Luncheon and tea will be provided. Business: Election of officers; mental cases, to be shown by Dr. J. Richards, medical superintendent; and to consider the State Sickness Insurance Bill.—D. R. PRICE, Honorary Secretary, Ammanford.

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WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of the Branch will be held at St. Peter's Church House, Hereford, on Thursday, June 8th, at 3.45 p.m. The business will include the election of officers of the Branch and consideration of the Council's report on the affairs of the Branch. The Treasurer will present his annual financial statement. Dr. B. Addenbrooke has given notice of an important motion in reference to the Government scheme for providing medical benefit. The following communications have been promised:—Paper: Medical Hydrology in Nervous Disorders, by Dr. R. Fortescue Fox. Short communication: On the National Insurance Scheme as it will affect a General Practitioner, by Mr. S. Colen Legge, M.R.C.S. Short notes: On an Unusual Case of Hydatid Cystic Abscess situated in the Buttock, by Mr. Thomas E. Hincks, M.B.—C. S. MORRISON, Honorary Secretary.

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YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the General Infirmary, Leeds, on Wednesday, June 28th. The Council will meet at 3 o'clock. General meeting at 4 o'clock. Agenda: Election of officers; report of Council; President's address. Annual dinner at 6.30 p.m. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate at once with ADOLPH BRONNER, Honorary Secretary, Bradford.

# National Insurance.

## GENERAL MEDICAL COUNCIL.

### REPORT OF SPECIAL NATIONAL INSURANCE BILL COMMITTEE.

On May 24th the President moved:

> That the Council appoint a committee, consisting of nine members, of whom three shall be nominated by each Branch Council, with instructions to consider the provisions of the National Insurance Bill now before Parliament and any amendment thereof; to receive and deal with any communications that may be addressed to the Council on the subject; and to make representations to the Government through the Lord President on any matter within the province of the Council that may appear to be affected by the provisions of the bill; and that the President be requested to communicate to members of the Council from time to time during recess memoranda of the committee's proceedings and of its representations to Government.

The President explained that he did not put the motion before the Council with any authority from the Chair; it was simply put forward in order that the matter might be discussed—if discussion was required—in proper form, and he hoped later it would be seconded by someone not as a motion coming from the Chair. He could not help thinking that the Council would be justified in accepting the Chancellor of the Exchequer's invitation to offer him any assistance it might be able to render in the solution of the difficult questions involved in the National Insurance Bill now before Parliament. The Council could not watch the progress of the bill from day to day, and therefore it seemed desirable to have a watching committee with such instructions as the Council might choose to give it for the purpose he had set forth in the motion. The action and constitution of the committee was a matter entirely for the members of the Council, but as the proposed measure affected the three divisions of the United Kingdom, it was perhaps desirable that the committee should be represented by the three divisions which were represented by the Branch Councils.

Dr. Langley Browne, in seconding the motion, said that in important times in the history of the medical profession the Council might well be called upon to act, and the appointment of this committee was absolutely necessary. It should act quickly, and, if necessary, report to a special meeting of the Council if it wanted special powers, or the Council should give it power to put the views which it held to be necessary in the interests of the great bulk of the profession before the Chancellor of the Exchequer during the progress of the bill in Parliament. There was no doubt that the Insurance Bill would do an immense amount of harm to the medical profession throughout the country. When the Workmen's Compensation Act was passed the whole of the arrangements that had been in force, by which medical practitioners were paid for attending accidents to colliers, were upset, and the matter had not yet been rectified. The employers up to that time had paid for attendance on their workmen in respect of accidents; they had not paid for it since, and no arrangement had been made for the fees which medical men received up to that time. He was sure the same thing would happen in regard to this bill if it were unwatched and unchallenged, and he urged the Council to appoint a strong committee, and ask it to take every possible step in the interest of everybody connected with the profession to see that the least possible harm was done to it.

Dr. Saundby supported the proposal, and he thought it was very necessary that the committee should be constituted as soon as possible. Beyond that, he suggested increased representation for the English branch on the committee, because it was so much larger than the other Branch Councils, and it would only seem proper and fair that it should have at least five members upon it. It was a committee which might have to meet often at short notice, and members might not always be able to come, and, therefore, the committee should not be too small.

Dr. Latimer seconded, considering that the committee should be strengthened in the direction suggested. It was most essential that the Council should take the matter in hand, and in the interests of the profession consider it, as there was no doubt the Council as a body would carry great weight in the country.

Dr. Norman Moore hoped before the Council undertook this work it would make quite sure that it was a proper function for it to discharge. It had nothing to do with medical education, nor with the *Medical Register*. It had to do with the remuneration of the medical profession, and what had the Council to do with the remuneration of the medical profession? He did not put this point with the desire of absolutely opposing the appointment of a committee, but they were points which required full consideration before anything was done. Nothing could be more injurious to the Council, considering its judicial functions, than to be represented as a medical trade union. A trade union, which was an admirable organization, had to do with the remuneration of its members, but the Medical Council had nothing whatever to do with the proper remuneration of the medical profession, which was very largely the point in issue. The bill, if carried in anything like its present form, would have a most serious effect upon the medical practitioners throughout the country, but was it the duty of this Council to defend them? Did not that duty lie somewhere else? He was prepared to be convinced by what might be said in the Council, but his own feeling, after reading the bill carefully and thinking it over, was that quite different bodies, in the interests, for instance, of practitioners actually concerned, were the proper forces to bring their views to bear upon the Chancellor of the Exchequer.

Sir John Moore drew the attention of the last speaker to the fact that this bill had been sent to the General Medical Council, not by the Chancellor of the Exchequer, but by the Clerk to the Privy Council, for information. The Lord President of the Privy Council would not have sent it if he had not wished to elicit the opinion of the General Medical Council with regard to the effect of the bill on medical education and examinations. It would have a far-reaching effect, for it would at once discourage men from entering the profession, and it would lower the standard of the profession in all parts of the kingdom. He thought it would be very wrong indeed not to give a strong expression of opinion with regard to the measure.

Sir Charles Ball considered there was a good deal in what Dr. Norman Moore had said. A great part of this bill did not properly concern the Council at all; but, on the other hand, he differed entirely from him when he said it did not touch medical education in any way, as it touched medical education in a very important and serious way. In Germany and Austria the large hospitals were supported by the State. Here, with comparatively few exceptions, they were supported entirely by voluntary subscriptions and by the various foundations. The State was going to assume the medical care of the uninsured working classes, but it omitted entirely to say how the hospital treatment of those people was to be arranged for. That, he maintained, was a matter of first importance in any consideration of the bill. What would be the effect of it on the support that was given so liberally and generously to their hospitals? The employers and employees and the general public would be taxed for the purpose of supplying medical attendance to the insured workmen, and, if they had to pay in taxes, they certainly would not continue their charitable gifts and bequests to the same extent. The scheme ignored the services given by honorary members of the staff to the State and the benefits conferred by treatment in hospitals. Therefore, in that direction, at any rate, this bill had a most important bearing on medical education, and the Council was the statutory authority to look after that.

Mr. HODSDON quite agreed that the bill would seriously affect medical education and would have a very serious effect upon the efficiency of the medical profession.

Dr. MACDONALD deprecated the position taken up by Dr. Norman Moore. He took it that one of the duties of the Council was to see that there was proper medical attendance for the members of the public by the medical profession. In that respect this bill must have a very material effect. He urged that the committee should meet before the Council separated, or, at any rate, before the bill came on, and that the Council should give authority to the committee to act in matters of urgency in case this bill should be rushed through, or that there should be a special meeting of the Council to consider the bill in all its clauses and instruct the committee accordingly.

Sir CHRISTOPHER NIXON thought the Council ought to be careful not to discuss matters that were outside medical education. He did not go so far as Dr. Norman Moore, and he recognized that there were a number of things in connexion with the bill which would seriously interfere with medical education, especially in connexion with clinical teachers in hospitals. The appointment of a committee did not necessarily mean that it should take any action; it was to be a watching committee to see if there was any danger to medical education, and he supported it on that ground. If an efficient practitioner was to be obtained an efficient mode of training must be provided, and care must be taken that nothing was introduced into the bill that would lower the standard of medical education or the facilities which were afforded to the different institutions which existed at present for giving that education. For those reasons, whilst having a certain amount of sympathy for the views entertained by Dr. Norman Moore, he was strongly in favour of the committee being appointed.

Dr. NORMAN WALKER had no sympathy at all with the view expressed by Dr. Norman Moore. The Council occupied a very general position with regard to the State, and it had had remitted to it during the time he had been a member many things which did not concern medical education or registration. The Council had had to advise, for instance, as to the registration of midwives, which had nothing to do with medical education or registration. It was not competent for him to move another amendment, but he could indicate one he was prepared to move if it were in order, as he did not think that a watching committee was enough. It seemed to him to be dangerous, in that it would do next to nothing. He would suggest that the committee should be instructed "to report to an early meeting of the Council." He could not see why the committee should not come to a finding upon the large principles contained in the bill in two days and report to a meeting of the Council to be held, say, on Monday. The bill was a very large one, and had been received with great approbation all over the country, and a certain odium almost had been thrown upon doctors because they seemed to oppose it. The interests of the doctors were exactly the same as the interests of the community. The interests of an efficient profession were exactly the same as those of a successful community; and it was the duty of the Council to point out, when a bill had been sent to the Council officially, if such was the Council's opinion, that the bill in its present form would lower the efficiency of the whole medical profession. There were one or two matters as to which it was desirable to get the Council's views before the Chancellor. For instance, the voluntary section of the bill should be deleted, patients all over the country should have free choice of doctors, and the various committees, advisory and otherwise, should include adequate medical representation. He was quite sure that if the Council made such representations, on which the profession was very nearly unanimous, it would have very great weight with the Government and Parliament.

Dr. SAUNDBY formulated his amendment as follows:

> That the Council appoint a committee consisting of eleven members, of whom five should be nominated by the English Branch Council, three by the Scottish Branch Council, and three by the Irish Branch Council, with instructions to consider, etc.

The amendment was then put and declared carried.

Sir ISAMBARD OWEN thought it should not be disregarded that the bill before it became law would have to run the gauntlet of amendment from all parts of the House. It occurred to him that a case might arise in which amendments would be proposed which would very seriously affect those questions which were committed to the Council. He therefore suggested that a very close watch should be kept on the bill.

The PRESIDENT said Dr. Norman Walker's suggested amendment, "That the committee should meet and report, if possible, before the close of this session," might be added as a rider to the resolution.

Dr. NORMAN WALKER moved it as such.

Sir ISAMBARD OWEN seconded, and it was put and carried.

The PRESIDENT, in reply, said that over and over again the Council had been consulted—and, he thought, consulted with admirable results—upon legislation proposed in Parliament and upon legislation proposed for distant parts of the Empire. It had never refused that responsibility when it had been imposed upon it by a Government Office, and it ought not to refuse the responsibility imposed upon it now. The terms of his proposal excluded what Dr. Norman Moore feared. The committee was to make representation on any matter in the province of the Council that might appear to be affected by the provisions in the bill. It was important that that clause should be retained. The province of the Council was wider than Dr. Norman Moore had indicated. By the action of the Council itself, by the action of the Government itself, and by the action of the High Court it had been steadily widened, and it was now being widened by giving advice upon medical matters to the Government within limits. The limits were partly educational and partly with regard to the efficiency of medical practice. The educational aspect was certainly touched by anything which affected the efficiency of clinical schools, and any one who studied the bill could not but feel that their efficiency might be in danger. That was a matter that concerned the Council. Then with regard to the efficiency of the practice of medicine and surgery, the maintenance of the standard of which was one of the Council's duties, it had on previous occasions inquired into the effect, for example, of medical aid associations on the efficiency of practice, not in the interests of the practitioners, but in the interests of the public, and when a condition involving, say, unqualified assistance, or touting for patients by practitioners themselves, had been found, the Council had said that it ought to be stopped, and it had been stopped. This bill, providing medical aid, would affect the profession, and it fell within the province of the Council to see that it did not do harm to the efficiency of medical practice. Again, it would certainly touch public health administration, which concerned the Council, because through the diploma of public health it required that every one who sought to obtain such diploma should be educated in the methods of public health. For instance, the administration of fever hospitals, whether consciously or unconsciously, might be entirely altered by the arrangements of this bill. These matters must be looked into in order to see that the conditions laid down in the regulations for the education of the medical student were not so disturbed as to become ineffective. For these reasons he could not help thinking there was a great deal within the province of the Council which might be touched by the bill, and if anything of that kind was discovered in it, it was the Council's duty to point it out and see that no harm should be done either to the efficiency of medical practice or to the efficiency of medical education. He agreed that the Council had nothing to do with the rates of remuneration, and trusted that that would be kept out of any discussion in the Council.

The motion as amended was then put and declared carried, whereupon

Sir DAVID MCVAIL moved, Dr. NORMAN MOORE seconded and it was resolved:

> That the Council do adjourn to enable the Branch Councils to nominate members of the Committee and report to the Council before the adjournment at the end of the session.

The Council then adjourned for a short time, and strangers and the press were requested to withdraw. On

readmission, the PRESIDENT announced the following nominations:

*English Branch Council:* Dr. Saundby, Dr. Langley Browne, Dr. Latimer, Sir Francis Champneys, and Dr. Norman Moore.
*Scottish Branch Council:* Sir David McVail, Dr. Norman Walker, and Mr. Hodsdon.
*Irish Branch Council:* Sir Charles Ball, Sir Arthur Chance, and Dr. Leonard Kidd.

On being put to the Council, the nominations of the respective Branches for the Committee were confirmed.

The Council then adjourned.

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THE Special Committee appointed by the General Medical Council on May 24th reported to the Council on May 27th. The Committee was constituted as follows:

*Chairman:* The President (Sir Donald MacAlister).
*England and Wales:* Professor Saundby, Dr. Langley Browne, Dr. Latimer, Dr. Norman Moore, and Sir Francis Champneys.
*Scotland:* Sir D. C. McVail, Dr. Norman Walker, and Mr. Hodsdon.
*Ireland:* Sir Charles Ball, Dr. Leonard Kidd, and Sir Arthur Chance.

REPORT.

The Committee, which has held three meetings during the present session, begs leave to report to the Council as follows:

*Preamble.*

The Committee has considered the National Insurance Bill, now before Parliament, in so far as its proposals relate to the provision of "medical benefit" for a very large proportion of the population.

The Council, in the exercise of its statutory functions, has necessarily become familiar with the conditions under which medical practice has hitherto been carried on in this country. Having regard to these conditions, it has in the public interest endeavoured, both by educational and by disciplinary methods, "to secure the maintenance of such standard of proficiency" as shall sufficiently guarantee, on the part of registered practitioners, "the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery and midwifery" (Medical Act, 1886).

The Council cannot fail to recognize that under the organized system proposed in the bill the existing conditions will be profoundly altered. The alterations will affect the relations of the majority of the members of the profession to the State and to the public. The manner in which they conduct their practice will in important respects be controlled by new authorities, which need not possess any professional character or experience, and which are not restrained from imposing conditions that are inconsistent with professional efficiency and freedom. The voluntary hospitals and other charitable institutions, which are now largely supported by the contributions of both employers and employed, have hitherto afforded those opportunities for clinical study that are indispensable for efficient medical education. There is danger that, under the new conditions, the resources of these institutions will be diminished and their usefulness for this purpose impaired. Changes, whose full effect it is impossible to forecast, will take place in the sanitary and preventive departments of Public Health administration.

As a result of these and other consequences of the legislation proposed, it may well happen that the prospects and attractions of medicine as a professional career will be so far depreciated, that the numbers who enter upon it will no longer be sufficient for the necessities of the country. Already the steady decline in the number annually admitted to the *Medical Register*, which has fallen from an average of 1,455 during the period 1891–5 to an average of 1,117 during the period 1906–10, gives cause for some misgiving. Any considerable reduction below the present rate of supply would be of serious import to the public.

*Amendments Necessary.*

For these reasons, which specially concern the General Council of Medical Education and Registration of the United Kingdom, the Committee thinks it highly expedient that steps should be taken to impress upon the Government the necessity of introducing into the bill such amendments and additions as will safeguard the important interests in question.

In particular, the Committee desires the support of the Council in making representations to the following effect:

1. That (*a*) the Insurance Commission,
(*b*) the Advisory Committee,
(*c*) every Local Health Committee,
should include members who are duly qualified medical practitioners.

2. That "medical benefit" and "maternity benefit" should be administered by the local health committees, and not by "approved societies."

3. That in respect of the administration of "medical benefit," the "arrangements with duly qualified medical practitioners" made by the local health committees should be such as to admit of free choice of the medical practitioner on the part of the insured person; and that in respect of the administration of "maternity benefit," the like free choice of the medical practitioner or midwife on the part of the person receiving "maternity benefit" should be admitted.

4. That in respect of the grant of subscriptions and donations to hospitals and other charitable institutions, contemplated in Clause 17 of the bill,[1] the governing conditions should be assimilated to those set forth in Clause 15 (1)[2] with regard to the administration of "sanatorium benefit."

5. That in respect of the provision to be made for "the supply of proper and sufficient drugs and medicines" under Clause 14 (2), the supply of proper surgical dressings and appliances should be included; and, further, that steps should be taken to ensure that the drugs and medicines are of the standard required by the *British Pharmacopœia*, and that the dispensing of prescriptions is carried out by qualified persons.

6. That "medical benefit" should include provision for consultations and for operations when these are necessary.

7. That, in the case of an insured woman, it should be made clear that "sickness benefit" accrues in addition to "maternity benefit"; and, further, that in cases attended by a midwife the Local Health Committee is empowered to pay for the attendance of a medical practitioner, should such attendance be called for by the midwife in accordance with the rules governing her practice.

8. That in Clause 59 (7), applicable to Ireland, it should be made clear that "deposit contributors" are not limited in their choice of medical practitioners to the medical officers of health for dispensary districts.

*Recommendation.*

The Committee accordingly recommends:

"That the Council instruct the Committee to press upon the Government the importance of amending the National Insurance Bill in the sense of the suggestions contained in this report, and to make representations on such other matters relative thereto as may arise while the bill is under the consideration of Parliament."

In moving the recommendation with which the report concluded, the PRESIDENT said that the Committee, in considering the National Insurance Bill had been struck by the very great importance of the proposed changes in the medical administration of the country. It felt that on many of those points the matters which were properly within the province of the Council were likely to be seriously altered, and that therefore it was incumbent upon the Council to

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[1] 17. *Power to Approved Societies to Subscribe to Hospitals, etc.*—It shall be lawful for an approved society to grant such subscriptions or donations as it may think fit to hospitals and other charitable institutions, or for the support of district nurses, and to appoint nurses for the purpose of visiting insured persons who are members of the society, and any sums so expended shall be treated as expenditure on such benefits under this Part of this Act as may be prescribed.

[2] 15. *Administration of Sanatorium Benefit.*—(1) For the purpose of administering sanatorium benefit local health committees shall make arrangements, to the satisfaction of the Insurance Commissioners, with persons or local authorities having the management of sanatoriums or other similar institutions approved by the Local Government Board for the treatment therein of insured persons entitled to sanatorium benefit under this Part of this Act.

see that the Government was duly impressed with the importance of the change which was contemplated, and that safeguards to the important interests which had been referred to were introduced into the bill. The various points which the Committee considered important were set forth in the preamble of the report, and there followed eight paragraphs with reference to matters to which it considered the Government's attention should be specially drawn. With regard to the first point, it appeared certain that a very large proportion of the medical profession in this country would in future be subjected to authority which would not necessarily be of a professional character. The Committee thought that on all the bodies which exercised such authority steps should be taken to secure that medical and professional opinion should be properly represented—on the Insurance Commission, on the Advisory Committee, and on every Local Health Committee. The proper working of the scheme would be better secured if medical experience was at the disposal of these bodies. The next point was one of extreme importance in view of the Council's experience of a few years ago. The bill proposed to pay medical benefits to two kinds of bodies; the one was approved societies, and the other local health committees. The approved societies must be administered by their own officers, and provision was made in the bill for their administration, but there was no possibility of acquiring medical representation on the governing bodies of friendly societies. It was perfectly obvious that just and right relations could scarcely be maintained when the medical officers in a locality were subject to the unrestricted control of bodies constituted of totally different persons, such as the governing bodies of friendly societies. The Committee of the Council therefore thought that if local health committees were to be established, medical benefits should be administered under them, and not under the friendly societies. As to the third point, the bill provided that in regard to the administration of medical benefits "arrangements with duly qualified medical practitioners" were to be sanctioned, under which the insured persons of the neighbourhood were to be treated. The Committee thought that in order to maintain the proficiency of the profession, no less than to secure to the public that free choice which was essential if the medical attendance was to be in all cases satisfactory, arrangements should be made which would enable the insured person to have a free choice as to who should attend. Otherwise the profession would be plunged, on an enormous scale, into all the evils of the restricted or club system. This must be so obvious to the minds of all who had had experience, especially in some parts of the country, that he did not think it necessary to add anything more. With regard to maternity benefit, which was entirely distinct from medical benefit in the bill, the Committee thought that the insured woman also should be absolutely free as to the choice of the practitioner and midwife who should attend her, in order that the private and confidential relation between doctor and patient should still continue to exist. As regards the hospitals of the country—a matter which affected the Council to a great extent, because it was to the hospitals of the country that they were entirely indebted for the clinical study which was necessary for medical education—the Committee thought that the proposed new arrangement would probably very gravely endanger the resources of the hospitals, and therefore their efficiency and activity. It might well happen that, owing to the new arrangements, the opportunities for clinical studies which were so necessary to students would be greatly curtailed. If the Council could in any way safeguard that by any arrangement such as that proposed for sanatoriums in the bill, it would be doing a good thing. The Committee itself thought that the same safeguards should be introduced into the bill with regard to contributions to hospitals as were already introduced with regard to the contributions to sanatoriums. The bill as it stood left the matter of contributions to hospitals entirely to the friendly societies to suggest conditions, but the conditions suggested might be such as to be wholly inapplicable if the proper working of voluntary institutions were kept in mind. In the case of sanatoriums, the contributions to be made were to some extent under the supervision of the Insurance Commission and of the local health committees, and the Committee thought that what was good for a sanatorium, or any other similar institution, could not be bad for a hospital. Referring to paragraph (5) of the Committee's report, which related to drugs and medicine, the President merely pointed out that it was possible it might occur to a local health committee to start a store of its own for the sale of drugs and medicine to insured persons, instead of resorting to a qualified chemist. If such a store or distribution were started, as far as he (the President) read the Pharmacy Act, there would be no security to the public against the issue of drugs or medicines which did not conform to the standard of the *British Pharmacopoeia*. Such issue would not necessarily be "selling" within the meaning of the Act, but the safeguards placed on the sale of drugs and medicines would be rendered wholly inefficient. A minor point, but still an important one, was that the Committee considered the "medical benefits" should include something more than was provided in the clause of the bill, and should make provisions for those consultations and operations which were necessary in some cases. Then there came a further point. The Committee thought that it should be made quite clear that in the case of an insured woman, sickness benefit was quite distinct from maternity benefit, and that, though she should receive the maternity benefit during a confinement, she would not lose the benefit of the sickness allowance in case of ordinary illness. It was further thought that in cases attended by a midwife the Local Health Committee should be empowered to pay for the attendance of a medical practitioner. Although a midwife was bound to call in a doctor in certain specified cases, there was no provision in the bill requiring the midwife or the patient or any one else to see that the medical practitioner was paid. In the past a claim had been made upon his humanity, and he very often remained unpaid. This had not and would not conduce to the efficiency of the medical attendance. In regard to Clause 59 (7) of the bill, which was applicable to Ireland, it was a little difficult to follow. It seemed to be thought by some of the Irish members of the Council that there was a danger that what were called "deposit contributors"—that is to say, contributors paying through a Post Office and not through a society—might be limited to a single medical officer in each district, namely, the medical officer of health. The Committee wished it made clear that those who paid through the Post Office in Ireland were not so limited. Those were the main points to which the Committee had paid attention; but the important matter to his mind was that if the great changes proposed were carried out without sufficient safeguards, it might very well be found after a little time that the medical profession would cease to be attractive, because it would cease to be one at which a man of liberal education could make a living. If that case could be made out, it could be shown to the Government that a very great danger would arise to the public, because the supply of medical men would be insufficient for all the needs of the country, and for the needs of the military and naval services, public health services, and all the other branches of work in which medical men were required. If there was any likelihood of that happening, then it certainly concerned the Council to see that it did everything it could to prevent it. The points set out in the Committee's report were not exhaustive but were at least cardinal, and for those reasons he commended the recommendation to the Council.

Dr. NORMAN MOORE could not help feeling that the report of the Committee was most satisfactory. Throughout the meetings of the Committee he had himself been filled with admiration for the way in which the President had carried through this important expression of opinion; and he would say that

it was not only important but a most dignified example of the Council exercising an important function. He had great pleasure in seconding the Committee's recommendation.

Sir FRANCIS CHAMPNEYS thought the Council would certainly agree with the Committee's recommendation. The report showed the great consideration that had been bestowed upon the matter, and he thought that if the suggestions contained in it were adopted a good deal of difficulty would be got over.

Dr. MACDONALD wished to know, if the motion were passed, whether the Committee's report could be sent to the Chancellor at once.

The PRESIDENT said they would certainly endeavour to do so.

Dr. MACDONALD said his reason for asking the question was that the Chancellor was to make his concluding speech on the second reading of the bill that same evening, and he (Dr. Macdonald) thought it desirable that, if possible, this report should be communicated to him before he had made that speech.

Mr. TOMES thoroughly agreed with Dr. Macdonald's suggestion.

Dr. LANGLEY BROWNE thanked the President for the great help he had given the Committee as its chairman. There were several things he would have liked the President to have said a word or two about, but he accepted his ruling that it was better to keep to the motion at the end of the report. They must, however, see that insured persons had a free choice of doctor. He strongly supported the resolution.

Dr. CATON expressed the view that it was a most admirable report.

The CHAIRMAN then put the motion, which was carried unanimously.

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## MEETINGS OF THE PROFESSION.

### THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT an extraordinary meeting of the Royal College of Physicians of London the PRESIDENT (Sir Thomas Barlow) spoke as follows:

Within a day or two of the publication of the National Insurance Bill the importance of considering the bearing of the medical portions of the bill on the relation of the public to our profession, and especially on the interests of our own Licentiates, was represented to me by several Fellows of the College. Accordingly, with the approval of the Censors Board, I decided at the earliest possible date to summon the comitia for special consideration of this subject. With the general objects of the bill I imagine that we should warmly sympathize, and trust that with such safeguards as further consideration may determine, many, at all events, of its provisions might become operative. But the medical sections of the bill are so far-reaching, and the scope of the scheme so momentous, that I believe that this college will earnestly beg of the Government that adequate time may be given, first, for us to learn what the provisions of the bill really mean, and, secondly, to consider fairly what will be the immediate results on the work and the "living wage" of our Licentiates, and what may be the not very remote effects on our hospital administration and on the practice of medicine generally. Beyond making an emphatic protest against undue precipitance in coming to a legislative decision about so vital a question, I do not propose to offer dogmatic opinions of my own to this college to-day. But it is only proper that I should indicate to you some of the more important issues which it is desirable that you should consider. It may seem somewhat fundamental, but it appears to me first that we are justified in asking whether it is imperative that medical benefits should be a necessary portion of this bill for State insurance, or whether it would be a wiser policy to let the community deal with its medical needs for itself in accordance with local requirements. But, assuming that medical benefits are to form an integral portion of this bill, I will ask whether the previous experience of doctors with many friendly societies is such as to give confidence in the arrangements for medical remuneration being adjusted by friendly societies. There seems to be a strong and widely-felt preference for a plan that would leave the general basis of medical payments to be settled by the local health committees, and that medical men should be directly appointed on these committees, as well as on the Central Insurance Commission, or that a separate medical advisory committee should be constituted to assist the Central Insurance Commission. In regard to remuneration, it seems to be taken for granted that capitation grants are the only possible mode of payment, but I submit that the other method of payment for separate attendances deserves to be fairly weighed. In the National Deposit Friendly Society, with certain safeguards, it has worked well. So far as I have seen there does not appear in the bill any provision for dealing with and remunerating attendance on epidemics, or for other exceptional strain or for night work or mileage in rural districts. We should look with favour on the proposal to separate, whenever feasible, the payment for medical advice from that for drugs and appliances. If a capitation fee is adhered to I believe we should all consider 6s. a year a head an extremely inadequate total payment for medical advice, drugs, and appliances. I think we should all desire to stipulate for the free and independent choice of the doctor by each insured person in order to secure the proper confidence between doctor and patient.

There is also the important question of the wage limit, and of those persons who with an income of above £160 a year might voluntarily place themselves under the same terms with respect to medical benefits. It seems incontrovertible that the enactment of the clauses which refer to the voluntary class would practically wipe out a considerable amount of the private practice of many practitioners in the country and small towns. In fact, the wives and children would constitute in many districts the only private patients left.

These are the more important questions which affect the status of our Licentiates, and I may sum them up by the contention that if this bill is to accomplish the beneficent objects which are sought, it is imperative that our brethren should enter upon their work freed from any sense of rankling injustice and with a definite assurance that they do not stand to lose under these profoundly changed conditions.

We are bound, however, to look further and ask what will be the effect of this measure on our out-patient departments, on the conditions of admission to our hospital wards, and on the clinical education of our medical students. The very important section of the bill relating to the provision of sanatoriums for cases of consumption has been scarcely noticed by our brethren, in consequence of the absorbing character of the problems to which I have referred, but I must trespass on your time for a few minutes by reading a letter which I have received from Sir Richard Powell on this matter:

My dear President,

I am very sorry that it is impossible for me to be present at the college on Thursday, as I should have liked to say a word on the subject of the Invalid Insurance Bill now before Parliament, especially that part relating to tuberculosis.

1. It seems to me desirable that the college should insist upon the importance of sanatorium conditions for the treatment of the disease, and should at the same time point out that sanatoriums are not necessarily costly erections of bricks and mortar, but the institution in well-selected sites on open spaces of arrangements—whether in open rooms, tents, or otherwise—hygienically adapted for the reception of consumptive patients.

2. It is important to impress upon the authorities the necessity of thorough medical supervision of these institutions, but it seems to me undesirable to have medical officers who are specialists in the sense of being exclusively occupied in the treatment of tuberculosis.

3. There should, of course, be some few central institutions where special research is carried on, if already existing special hospitals are not sufficient. But the point that should be kept in view is the diffusion of latest knowledge amongst the profession at large.

4. For every group of villagers there should, I think, be a sanatorium (1) under the medical care of a selected local practitioner; (2) generally supervised by the health officer, who would be in touch with bacteriology and with notification of cases; (3) financed, etc., by County Council with Advisory Committee of which (1) and (2) would be members.

5. Of course for large towns and cities modified arrangements on a corresponding scale would be required.

The above are the points I would urge were I able to be present, and I am glad that the college is taking the matter into consideration, for I feel that the public and the profession are

in much need of some clear leading on many points, and I hope a committee may be appointed to draw up some report upon it.

Believe me,

Yours truly,

(Signed) R. DOUGLAS POWELL.

Now I will ask the Fellows of the College to express their views on this subject, and it is open to any Fellow to submit resolutions if he should think fit; but I strongly suggest that in any case we should appoint a committee *ad hoc* which should obtain as complete information as possible, not only from official sources but especially from our Licentiates, on the probable working of the different clauses, and that this committee should report to us, in due course, recommending what step, if any, the College should take.

After a prolonged discussion, in which Sir WILLIAM CHURCH and Drs. DE HAVILLAND HALL, HERRINGHAM, EWART, LAURISTON SHAW, HERON, F. J. SMITH, SPENCER, MOON, HABERSHON, WETHERED, SIDNEY PHILLIPS, NORMAN MOORE, KAUFFMANN, DONALD HOOD, POYNTON, DAWSON WILLIAMS, and SPRIGGS took part, the following resolutions were passed:

That this College, while sympathizing with the objects of the Insurance Bill, desires, in the interests both of the medical profession and of the public, to express its earnest hope that no further progress be made with the provisions of the bill relating to medical benefit and sick insurance until ample opportunity has been given to the various bodies representing the medical profession to consider the bill and to represent their views officially to the Government and to the country at large.

That the President be requested to convey to the Chancellor of the Exchequer the opinion of the College that time should be afforded for further consideration of the portions of the bill affecting the medical profession.

That the President be desired to appoint a committee to consider the clauses of the Insurance Bill which may affect the Licentiates of the College and the medical profession generally, and the establishment or administration of hospitals or sanatoriums for tuberculosis.

The President has accordingly appointed a committee.

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## MARYLEBONE.

A DISCUSSION on the bill was opened by Sir Thomas Whittaker, M.P., at the annual meeting of the Marylebone Division (Metropolitan Counties Branch) on May 29th, at the Rooms of the Medical Society of London. There was a large attendance.

Mr. Lloyd George wrote through his secretary that he feared it would be quite impossible for him to attend the meeting. He hoped that when his proposals with regard to medical treatment were fully understood it would be considered that the reasonable demands of the profession had been met.

Dr. HERON, who was in the chair, said it would be recognized that the principle underlying the Insurance Bill was a valuable one. The bill was certain to ensure, if well worked, a very great deal of comfort and happiness to people who were very much in need of both. But it was absolutely certain that the bill, when it became an Act, could never be carried out thoroughly except with the help of the medical profession, and they realized the very great responsibility that that fact entailed upon them. The following were the essential alterations in the bill that medical opinion, so far as it had gone, agreed to be necessary: (1) From all parts of the kingdom there was a unanimous expression of determination that the medical profession would not permit the friendly societies to control the medical service under the bill. (2) A much higher rate of remuneration must be granted than any which had yet been indicated. The haziness of the bill on this point was probably intended to draw from the profession some expression of opinion as to what would be deemed a fair rate. At present the figure mentioned was 6s. a head, which was to cover dressings used in domiciliary treatment, the cost of drugs, and dispensing, and then what was left, whatever that might be, was to go to the doctors. About that rate of payment there could be no sort of doubt—the profession would not accept it. (Applause.) (3) It was generally agreed that there should be a wage limit, and 40s. a week had been suggested. (4) The control of the medical service should be in the care of bodies upon which the medical profession was adequately represented. (5) There must be free choice of medical attendant by the patient. Referring to some misconceptions as to the working of sick insurance in Germany, he said that there was a distinct wage limit in Germany, and it was not open to a man to derive sick benefit who had a larger income than 2,000 marks (£100). Persons in Germany employed in occupations not subject to the insurance laws might be voluntarily insured and take benefits, but only so long as their income did not exceed 2,000 marks—otherwise they were not treated by medical practitioners under the terms of the sick insurance scheme. The usefulness of sanatoriums had been called in question, but he had lately received from Dr. Freund information to the effect that 80 per cent. of the patients left well and fit for work, and the mortality in age-periods in which sanatorium treatment was largely in use was decreasing all over Germany. Dr. Freund said that sanatorium treatment in Germany was more than justified by the results.

Sir THOMAS WHITTAKER, M.P., at the outset frankly announced his intention of rather emphasizing the opposition side of the case, in order to balance the views the medical men present held. The scheme should be, and he hoped would be, discussed as a matter of business and not of charity. He would also suggest that so far as the medical profession was concerned there was no vested interest as regards the public, which was perfectly at liberty to do what it deemed best and make its own arrangements. If, as a result of the arrangements, medical men suffered financially that would be very much to be regretted, but it was not a conclusive reason against the scheme. Almost every great change and reform and step forward had meant considerable loss and difficulty to somebody, though legislators were anxious to avoid it wherever possible. If, as a result of the bill, there were fewer doctors, if medical incomes were decreased, practices were less saleable or unsaleable—if that were all true, and it was a very big "if"—it would be a very serious thing for the individuals concerned, but it was not a conclusive reason against the scheme. The real point was, "Will such a proposal be a great advance, improvement, and reform for the community as a whole? Is it necessary and desirable?" The reception the bill had had from the country as a whole showed that the answer to the question must be "Yes." The next point was whether the methods proposed were the best for the community as a whole. Were they practicable, just? Would they secure the best results? Were the methods the most economic, the most efficient; and, if not, could they be amended? These were the real issues. As to the point the Chairman had made of the exclusion of the friendly societies, the scheme would have to be worked by friendly societies, similar societies, and provident societies. It was essential to secure the interest and supervision of each member over each and over all. He thought that must be accepted as absolutely fundamental to the working of the scheme. The amounts of the benefits payable would depend entirely on the management. Nobody knew better than medical men that the malingerer was the great difficulty, and much of the power to check malingering depended upon the doctor. Economy could only be secured by the supervision of each member by his fellow members, and consequently only by a friendly society. Let it be clearly understood that the bill said nothing about medical fees—whether payment should be by capitation grant or by fees for attendance. It left the whole of that matter to be arranged between the doctors and the societies. (Ironical applause.) That meant it was to be arranged as all other business arrangements were—as between purchaser and seller. The attitude some medical men took up seemed a little inconsistent. On the one hand they said they were under the heel of the friendly society; on the other hand they said they would not work the scheme on those lines. If they were strong enough to say the latter it was the friendly society that would be under the doctors' heel, and they could fix their own terms. The two positions were not consistent, and could not both be true. What he gathered medical men desired was that somebody should step in and interfere with the working of the ordinary laws of supply and demand and fix the fees apart from ordinary rules. In an ordinary case he would say that demand was unjustifiable, but he was not prepared to say there was not something to justify it in the present case, though perhaps his reasons were not the same as theirs. The bulk of the money was

not to be found by the society; 5d. out of 9d. was to be found by the employer or the State, therefore others than the societies were entitled to a voice. Good results would depend very largely on the efficiency of the medical service, and therefore it was important to those who were paying that the medical attendance should be efficient and good. As the lowest price was seldom the cheapest, and as good and efficient attendance was so desirable, he thought there was a case from the public point of view for some interference and revision on behalf of the general public to ensure that the attendance was adequate and good, and it could only be so if it was fairly paid, and given with the goodwill of the practitioner undertaking it. The ultimate success of the whole scheme would depend upon its efficiency. If it was inefficient there would be malingering, the benefits would diminish, and the whole thing would become discredited. Therefore, if the nation regarded the scheme as good and desirable, it was interested in the efficient working of the plan, and, in the interests not of any one class but in the interests of the public, there was ground for special interference to secure proper and adequate medical attendance. It was almost impossible for Parliament to fix the fee; the conditions varied so much in occupations and districts. Societies were to work under their own rules, and these varied. There was the question of illness owing to a man's own fault. The society was to be relieved of sickness benefit, but it would be perfectly legitimate that out of that saving there should be a special payment to the doctor. While the societies must make the terms it was not unreasonable that they should be subject to the approval of the county or local health committee or the Insurance Commissioners, and also that there should not be a power of dismissal except with the same approval. That would strengthen the position of the doctor, and give him greater independence, which was very important. It had been suggested that the payment for medical service should be by fee for attendance. He doubted the practicability of that. The principle on which the societies worked was that the doctor was paid whether the patient was well or ill. That deprived the doctor of every inducement to in any way facilitate or sanction malingering, and that was vitally important. To combine the selection of the doctor with payment by fee would be absolutely fatal in working, because every malingerer would select the doctor who would be most amenable, and the longer he was attended the more would be the doctor's fee. That was putting too great a strain upon human nature. Payment by fee was all very well for private practice and occasional attendance, but not for the wholesale fashion in which it had to be done under this scheme. Another difficulty—he did not know if it could be got over—was that under payment by capitation grant the assumption was that the doctor who attended during illness was the one who had had payment during health. One of the points on which medical men were most sensitive was that of a comparatively well-to-do man coming in under this scheme. Would anything do more to facilitate his coming in than allowing him to select the doctor? If he had to take the doctor appointed he would not come in so readily. As to the income limit he was very much disposed to agree with the medical point of view. (Hear, hear.) At any rate, the Government ought not to make a grant to aid the medical attendance of a man, say, who was paying income tax. A well-to-do man could not be prevented from joining a friendly society under existing conditions. It was for the society to fix the rates. If a man paid the whole charge he could not be prevented from joining a friendly society. As to whether medical men would attend them or not was another matter. If they were strong enough to refuse they need not bother about this bill. It must not be forgotten that of those who would come in under the bill there would be a large number amongst whom the profession hitherto had made a quantity of bad debts. Another point—there would be a larger proportion of young men included, and the proportion of sickness was very much less amongst them. The range of age would be much lower when compulsion was enforced. Under the bill also the medical profession would receive payment for a great many people attended gratuitously now at the hospitals. Also, with nearly three times as many members in the friendly societies as at present, there would be a very much greater demand for doctors, and it would increase the power of the profession to fix their own terms and revise their fees. Dealing with the actuarial calculations in connexion with the bill, he said that, with regard to private practice, there were 45 millions of people, and it was estimated that 14 millions would be included in the scheme. That left 31 millions outside. Every one would not join; the estimate of 14 millions covered voluntary contributors. [Some doubt being expressed as to the reliability of the estimate, Sir Thomas Whittaker said that the actuaries were leading men, independent and skilled.] The number of people in certain ranks of life was known; the actuarial reports in connexion with this scheme were very careful documents. He did not say (this in reply to another interruption) that every one could join the friendly societies—only small people and persons whose income was less than £160 a year. He thought the bill required amendment in that there was no limit of income if a person was an employed person, but only if his income was obtained otherwise. [Some amusement was caused by a reminder from some one in the audience of Mr. Lloyd George's remark about the Governor of the Bank of England being free to become a contributor.] Sir Thomas Whittaker said no one imagined people like the Governor of the Bank of England would actually come in. They must trust a little to the common sense of humanity. He understood there were about 30,000 practising medical men in the country amongst a population of 45 millions, or one medical man to 1,500 people. If all were paid under this scheme at 5s. a head it would work out at £375 each *plus* about £50 for maternity benefit—total £425. But if in these classes (the insured) there were 2,000 persons to each medical man, and the capitation grant was 5s., the income of each doctor would be £500 *plus* £70 maternity benefit. At the present time, on the average, each medical man had to deal with 1,500, and in the better-class practices the time spent was much longer. Probably one to two thousand was not far out. He was not suggesting that the figure was too much; he brought it forward as indicating an average calculation on that basis. The position was not so bad as it was represented to be, and, if the strength of the profession was anything approaching the strength of the language it was using, it should be strong enough to take care of itself. He believed they would find amongst members of Parliament a very keen desire that the profession should be treated fairly, and, if he had appeared to put the opposition case somewhat forcibly, it was because he wanted to get those views under their notice. They were quite capable of putting the other side of the case for themselves.

Mr. M. D. KNOCKER, M.B. (barrister), pointed to paragraph 24 of the bill as enabling a friendly society to reject any applicant provided it was not on the ground of age. The old were more provident than the young, and under the bill a person 65 years of age might join a friendly society. The Post Office section of the insured would comprise the rejected of the friendly societies—the sick, the halt, and the blind.

Dr. C. O. HAWTHORNE protested against any idea that the opposition of the profession to the bill was based entirely on its own interests. It was in the interest of the community that the profession should be in the hands of persons not only of a high degree of skill and equipment, but of high character. Many of those present would not be directly affected by the bill, but he appealed to them to stand by their brethren.

Dr. LAURISTON SHAW discussed Sir Thomas Whittaker's statement that it seemed impossible for the control of the medical benefit to be removed from the friendly societies. He hoped on consideration Sir Thomas would agree it was not impossible, and then if he could persuade members of Parliament to that view, the profession would owe him a very deep debt of gratitude. All agreed that, as the bill was framed, it would be impossible to do without the friendly societies; they must exist to work the sickness benefit, but there was no reason why they should work the medical benefit. In fact, permission was given in the bill for friendly societies to entrust the management of the medical benefit to a county health committee, and that being so, it would not be unreasonable for the profession to insist that it should be so always. He urged Sir Thomas to endeavour to secure for them this concession. [A voice: We want no "concessions."] He agreed they were prepared to take it for themselves later on if it was

not granted. The profession was convinced that free choice of doctor was absolutely necessary in the interests of the patient and his only. It was hopeless to expect that the relations between doctors and patients would be such as to secure the objects of the bill—prevention of sickness—unless those relations were absolutely cordial. If the doctors were chosen by the societies the relations would not be cordial. It should be inserted in the bill that no society might make money out of its medical benefit: that whatever money was paid in under this head should go out to the doctors. In those circumstances the societies would not want the trouble of managing the medical benefit. He maintained, in opposition to Sir Thomas Whittaker, that free choice of doctor would be the best possible means of preventing malingering. If the doctor was chosen by the friendly societies there would be always a danger that some important members of the society who were malingering, as they did at the present time, would form a coterie to dismiss a doctor from the service, and he could easily lose an income of £200 or £300 a year. That was the greatest possible inducement to a doctor not to be bold; with free choice it would only be a question of losing an individual patient. If the profession stood together it could do anything. He was not afraid of the bill because the profession had become united.

Sir VICTOR HORSLEY argued that the friendly societies should have, by all means, the administration of the sickness benefit. They were the people who alone could prevent malingering. But they had nothing to do with the appointment of the medical adviser, which must be left in the hands of the Government. The relation of the medical man to the friendly society was not one of appointment—the relation was simply that the doctor was carrying out the attendance on those members who happened to have joined the society. If the State was going to take from the employer his share, and add its own share, and that came to more than the sum raised by the society, obviously the State was the most important factor in the whole scheme, and should appoint the medical man instead of the society appointing him. That view, which, judging from the returns now in their hands, represented the opinion of the British Medical Association, seemed to him to be perfectly capable of incorporation in the bill. The difficulty as to an income limit seemed to have arisen for want of a definite adjective before the word "income." It should be "total" income.

Dr. DUNDAS GRANT thought the evils of club practice had been a little overstated, and that the tendency to malingering was not very great. He feared that when under the new conditions the whole of the money was no longer found by the societies, members would not be so keen to check malingering. It would be an advantage, on the other hand, to get younger men in the societies.

Sir A. PEARCE GOULD controverted Sir Thomas Whittaker's remark that all social improvements drove some one to the wall, and if by chance the medical profession suffered in that way it could not be helped. That was an entire misconception, because this scheme rested entirely on the efficiency of the profession. They wanted statesmen to realize that this was not an ordinary insurance matter at all, and that their great first interest should be to have efficient attendance for the compulsorily insured classes. Get practitioners imperfectly trained in any respect and the scheme would be ruined. Good practitioners—men of strong, independent character and position—would put down malingering and make the scheme a success. The medical profession from top to bottom was doing charitable work. He might refer to the men in the hospitals, but it was far more true of the general practitioner in his club work and also in his general practice. The scale of fees quoted in the House was not a business arrangement but a charitable arrangement. The State was attempting to take advantage of the charitable arrangements of the profession to impose upon it a yoke that could not possibly be borne. The bill presented great deficiencies. What provision was made for surgical treatment, for special treatment—dentistry, for instance? The idea of the framers of the bill seemed to be that the whole of medical work consisted in writing a prescription and having it made up in a bottle. More time and consideration were needed for the scheme, and he regretted that it was being passed through Parliament so rapidly.

Mr. J. BOYTON, M.P. for East Marylebone, expressed his pleasure at having had the opportunity of hearing the views of the medical profession, and mentioned that Lord Alex. Thynne, M.P., and Mr. Waldorf Astor, M.P., were also present.

Sir THOMAS WHITTAKER, replying to the points raised in the discussion, pointed out that Post Office contributories could only remain as long as their contributions were maintained. They would not be able to afford it and would drop out. That, indeed, was the weak point in the bill. The difficulty in giving free choice of doctor lay in this: The medical man was to be paid whether the man was well or ill. The man who had had the fees while the patient was well should attend him when he was ill, and if there was free choice the patient might have changed his medical man meanwhile, and that would not be fair.

Dr. SHAW asked leave to explain the present practice where free choice was in operation. A contributor was required to state the doctor he would require if he were ill, and on that basis the funds were distributed so that the doctor chosen by the larger number when they were well had them when they were ill.

Sir THOMAS WHITTAKER: In dealing with the large numbers of people affected by this scheme, there might be a little difficulty. That arrangement rather clashes with Sir Victor Horsley's remarks, but I imagine the State would select from a very wide panel.

Sir VICTOR HORSLEY: Yes; every reputable doctor in the district who wished to undertake the work. I may refer you to the public service scheme at Eastbourne, where this has been carried out with excellent results.

Sir THOMAS WHITTAKER: That practically abolishes State selection.

The following resolutions were carried unanimously:

1. That medical benefits should be restricted to those having a total income of not more than £2 per week.
2. That the provisions of the Insurance Bill giving control of the medical benefits to the friendly or approved societies be strongly opposed.
3. That there must be adequate remuneration for medical attendance and that the remuneration mentioned in the memorandum of the Chancellor of the Exchequer is wholly inadequate.
4. That there must be free choice of doctor in the interests of the beneficiaries.
5. That there should be adequate medical representation on all committees dealing with medical benefits.
6. Medical practitioners pledge themselves to be loyal to one another and to abide by the policy of the British Medical Association.

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## CHELSEA.

AT a meeting of the medical practitioners of Chelsea and Fulham held on May 29th, the following resolutions were adopted:

That the class designated in the bill as voluntary contributors shall be excluded from medical benefit under the Act.

That the class designated in the bill as compulsory contributors shall be subject to a wage limit to be determined by the local profession and shall in no case be more than 30s. a week.

That the control of the medical men engaged in contract practice under the Act shall not be in the hands of the friendly societies, but that it shall be in the hands of the Health Committees, on which committees more adequate representation of the medical profession than is proposed by this Act must be secured.

That every medical man here present shall absolutely decline to accept any appointment for the purpose of carrying out the provisions of the National Insurance Bill, whether through friendly societies or otherwise, until he has previously obtained the consent of the local profession in Chelsea and Fulham at a general meeting thereof, to be summoned by the secretary of the local Division of the British Medical Association.

That no system of remuneration will be satisfactory which does not in addition to the ordinary scale of fees for regular attendanee make provision for special remuneration in the cases of operations, night calls, treatment of fractures and dislocations, and the administration of anaesthetics; also for the payment of reasonable fees where the assistance of a second practitioner is required in special emergencies.

That it should be advisable that payment should be according to work done.

That the beneficiaries under the Ac shall have the right to select their own doctors.

That where an individual is deprived of sickness benefit by his own misconduct he shall likewise be deprived of medical benefit.

That a copy of these resolutions shall be sent to members of His Majesty's Cabinet, other prominent statesmen, and the local members of Parliament.

## WESTMINSTER.

AT a meeting of the Westminster Division of the British Medical Association, held on May 24th, the National Insurance Bill was discussed and the following resolutions carried unanimously:

That the Division is of opinion that the British Medical Association call upon every member of the Association to decline to consider any proposal under the Government scheme unless and until the minimum capitation fee for professional attendance be fixed at not less than half a guinea, and this apart from any reference to the choice of medical attendant and connexion with friendly societies.

That this meeting of members of the Westminster Division of the British Medical Association, while approving the principle of State Invalidity Insurance, provided the doctors are adequately paid for their services, hereby pledge themselves not to participate in any such scheme unless the doctors employed be directly appointed and paid by the State, are responsible solely to the State, and are independent of the friendly societies.

## CITY.

AT the ninth annual general meeting of the City Division of the British Medical Association, held on May 26th, the following resolutions were adopted:

1. That the wage limit should be about, preferably not over, £2 per week.
2. That control by the friendly societies other than they now possess be strenuously opposed.
3. That free choice of doctor to insurers be assured.
4. That the local profession deal directly and collectively with the local Health Committee.
5. That the rates of payment suggested are totally inadequate.
6. That opportunity be given to holders of existing contracts to retain their position.
7. That representation on the Health Committee of one-third be secured, the representatives to be engaged in general practice.

## STRATFORD.

AT the special meeting of the Stratford Division on May 25th, called specially to consider the State Insurance Bill, the following resolutions were passed unanimously:

1. That no system of contract practice can be approved by the profession that is open to all classes of society at the same rate per member.
2. That no person insured under this bill whose total income exceeds an amount per annum to be fixed should participate in the proposed contract for medical benefits.
3. That in the opinion of this meeting the medical profession cannot consent to be placed under the control of the friendly societies, as proposed under this bill.
4. That on any authority appointed to administer medical benefits there should be adequate medical representation.
5. That a fundamental point of the scheme is that every member should have a free choice of doctor.
6. That in the event of the medical provisions of this bill not being acceptable to the profession, the members of this meeting pledge themselves to follow the advice and guidance of the British Medical Association.

## TOTTENHAM.

AT the meeting of the Tottenham Division of the British Medical Association held on May 26th a long and animated discussion on the proposals of this bill took place, and the following resolutions were adopted:

1. That whilst the medical profession of the district of North Middlesex is willing to co-operate in any scheme of sickness insurance applied to the poor and necessitous under suitable conditions, they are not prepared to work under contract conditions for the benefit of a large class of people who can well afford to pay for ordinary medical treatment.
2. That they regard the proposals of the National Insurance Bill, with reference to medical benefit, as injurious to the public interest, because of its enormous extension of "contract practice," with its corresponding hindrance to sound scientific work, and its destruction of those personal relations that help to make medical treatment effective.
3. That they condemn the proposals of the bill with regard to the medical profession as ruinous to a large number of medical men and a grave injury to all of them.
4. Consequently that among the amendments of the bill that should be insisted upon are the following:
   (*a*) A stricter definition of those who may be voluntary contributors. A provision that no one whose income is over £80 a year should be eligible for "medical benefit," though, for a proportionally smaller contribution, he might continue to be entitled to the other benefits.
   (*b*) One at least of the three Insurance Commissioners to be a medical man having personal knowledge of the conditions of general medical practice.
   (*c*) A radical alteration in the proposed composition of the local health committees, with a much larger representation of the medical profession thereon.
   (*d*) A requirement that in making arrangements for medical attendance contributors shall be allowed a free choice among medical practitioners willing to undertake the work.
   (*e*) An additional schedule, setting out the minimum fees for ordinary and extraordinary professional attendance of various kinds.
5. Finally, the bill should be so framed that under no conditions should the medical profession be under the control of friendly societies.

## ILFORD.

AT a special meeting of the Ilford Medical Society held on May 23rd, a resolution was carried unanimously that the following principles are an essential basis for the medical aid part of the National Insurance Bill:

A. Free choice of medical men by the insured.
B. Adequate payment for work done.
C. Administration of funds for medical aid to be in the hands of the State, and quite apart from the friendly societies.

It was also unanimously agreed that the following points should be brought before the Government:

1. The sick pay rolls of friendly societies are no guide to the amount of medical attendance required, because members frequently obtain medical service without declaring on the funds for sick pay. The proposed sum of 6s. per head is inadequate, especially in view of the enormous work required for women, children, and men over 50 years of age. Payment should be for work done, not by contract, which places the risk of long illness upon the doctor instead of on the State.

The very poor have only been attended at such nominal rates, because the better off were able to make higher payments.

2. As the principle of an income limit has been adopted in old age pensions, the same principle should be applied in the case of medical benefits.

3. Local practitioners be enabled to appoint representatives on the local Health Committee.

4. Fee of one guinea in normal maternity cases, and special provision made for abnormal cases, and for payment for extra medical assistance.

It is the opinion of the Ilford Medical Society that a parliamentary fund should be raised for the purpose of paying the election expenses of any member of the British Medical Association chosen as a parliamentary candidate by any political party in order that the medical profession may have the opportunity of direct representation in the House of Commons.

The Honorary Secretary of the Ilford Medical Society is Dr. A. Henry Thompson, 294, Romford Road, Forest Gate.

## BROMLEY.

AT the annual general meeting of the Bromley Division of the British Medical Association the following resolutions were adopted:

That the members of Parliament for the Divisions of Dartford and Sevenoaks be asked to meet a deputation of the Bromley Division on a date as soon after the termination of the Special Representative Meeting as possible, to hear the views of the Division regarding the National Insurance Bill.

That in view of the probable necessity of effectually fighting the National Insurance Bill, at present before Parliament, and of the future possibility of having to call on all practitioners within the Division to resign contract practice in relation to that bill, it is necessary to form a Divisional guarantee fund to assist any practitioners who may be seriously financially affected by such a step, and that it be referred to the Executive Committee to formulate a scheme forthwith, and lay such a scheme before the Division at its next meeting.

## MANCHESTER.

IT is not too much to say that the meeting of medical practitioners held in Manchester on Wednesday, May 24th, to protest against the medical provisions of the National Insurance Bill was the most remarkable in the history of

the profession. It was intended to be only for the members of the Lancashire and Cheshire Branch of the British Medical Association, who number about 1,700, and who were summoned by private circular to attend to consider "what course the profession should take in this the most important crisis it has ever had to face." The meeting was not advertised in the press, as it was thought that a general meeting of the whole profession might be held at a later date, possibly soon after Whitsuntide. The fact that the meeting was to be held became known, however, and some hundreds of letters were received from non-members of the Association asking if they might be allowed to be present, and they were told they might attend on presenting their cards. The Albert Memorial Hall was engaged for the occasion, but, though it will comfortably accommodate from 700 to 800, long before the time fixed the hall was packed to its utmost limit by medical men standing in every possible position, even on the window-ledges.

The CHAIRMAN (Dr. Ferguson, of Burnley, President of the Branch) had hardly commenced his opening remarks when a member of the meeting pointed out that there were hundreds of medical men on the stairs and stretching out into Albert Square, quite unable to get even near the room. It was seen that to proceed under the circumstances was absurd, and it was fortunately found that the Free Trade Hall was at liberty; the meeting was at once adjourned to it, and it was estimated that probably 2,000 medical men and women were present while a large number of apologies for absence were received. Previous to the meeting a number of amendments to the resolution circulated to members were handed in, but it is stated that in no case did they involve anything contradictory to the resolution, being either attempts to improve the wording or to make it still more emphatic or to add further points. But it soon became evident that the audience had come to vote for the resolution and to demonstrate in as emphatic a manner as possible that it cared little for the mere wording, but was absolutely unanimous in favour of the sense of the resolution.

After the adjournment to the Free Trade Hall, the HONORARY SECRETARY of the Lancashire and Cheshire Branch (Mr. F. C. Larkin) stated that many apologies for absence had been received from a great many gentlemen, and practically every one of them signified his full agreement with the resolutions to be proposed. He also mentioned that several Divisions of the Branch had already unanimously passed them. Blackburn had not only done so, but had also got all its members to sign a declaration on their honour that they would be bound strictly by the principles involved in the resolutions. At Preston and Oldham and in various other Divisions action had already been taken.

The Chairman said that in the bill £160 per annum was the limit under which wage-earners must compulsorily insure. That, as they knew in Lancashire, was going to take away from them the cream of their practice. Wage-earners from 30s. a week upwards were the backbone of their practice, and they received from those wage-earners more than from all the others combined. Not only that, but in the manufacturing towns the proponderance of that class of population was overwhelming. It was greater in the manufacturing towns, perhaps, than in any other. His contention was that, if they must fix a limit, that of the wage earner at 30s. a week might be accepted. That point, however, need not be laboured. He did not wish personally to introduce any sum at all. The fact was they had a commodity, and were practically monopolists in that commodity. The State desired some of that commodity. As business men they would not go on their knees, but demanded fair treatment and a fair price for their services. His own impression was that if they went to the Chancellor of the Exchequer and simply told him that he could have those services at a reasonable figure—no medical man would ask an unreasonable figure—and that without that reasonable figure they would have nothing whatever to do with his bill, medical men would get what they wanted. He had pointed to one glaring injustice. The bill went on to place doctors under the friendly societies. (Cries of "No" and "Never.") He said they would have none of it. (Cheers.) The result of being put under the friendly societies would be that, according to the number of members, so many medical men would be appointed to treat those cases. Patients of other doctors who were members of that society would be debarred from going to their own doctor, or they would have to pay fees twice. If they paid the insurance fee they would not be inclined to pay a doctor for attending on outside terms. What that meeting demanded, and would have, was that every person, no matter who, should have the free choice of his own medical attendant, and every doctor should have the power to say whom he would attend. As to the remuneration, they were not told what the attendance was to include. It was to include everything for what the bill stated to the contrary. This was going to affect every medical man from the very highest to the lowest. A capitation fee of 4s. was proposed. The person who was insured would expect to receive for that every attendance that was necessary, no matter what that might be. If he broke his leg, if he had strangulated hernia or appendicitis, medical attendance was to be included. Who was to pay the surgeon who operated? It seemed to him that under this scheme the general practitioner would have to pay the specialist out of his own pocket. Dr. Ferguson concluded by proposing the following resolutions:

1. That, seeing in the National Insurance Bill now before Parliament no safeguards are mentioned by means of which the medical benefits are restricted to those persons earning below a specified wage, and that the intention is expressed of placing the medical arrangements in the hands of approved friendly societies, with no guarantee that the remuneration of the profession is to be either reasonable or adequate, this meeting of the Lancashire and Cheshire Branch of the British Medical Association disapproves of the medical arrangements of the bill and is of opinion that no scheme of insurance against sickness can be considered satisfactory unless the following provisions are distinctly set forth in the scheme: that (*a*) an income limit (amount to be agreed upon) be fixed; (*b*) free choice of doctor be granted to all; (*c*) the doctor be made responsible to the State either directly or through a local committee on which the medical profession is adequately represented; (*d*) the remuneration be such as would adequately cover all treatment, both medical and surgical.
2. That a copy of the preceding resolution be forwarded to the Chancellor of the Exchequer, the Sickness Insurance Committee, to each Division of the Branch, and every member of Parliament in Lancashire and Cheshire.

Mr. F. C. LARKIN seconded the resolutions, which, he said, contained all that it was necessary they should do. He wished to associate himself with the Chairman's remarks. The Chairman had said they were monopolists in a commodity. That was true, but the Chairman did not say that in their education to give the commodity they were regulated by the State. They obeyed the State in all the regulations laid down for them, and then the State allowed quackery to be rampant all around them, and now suggested they should work for the miserable wage that was put before them. Not only on their own, but also on public grounds, they objected to this bill. It made the friendly societies many hundred times stronger, and, knowing what treatment was meted out to them already, medical men had an idea what treatment they would get when the societies were so much the stronger. They held that not the wage limit but the total income limit should be taken, or the bill would allow all sorts of people to come in. A man might be earning a few pounds a week and still have a considerable private income. If what Mr. Lloyd George wished was done, all the relations between doctor and patient were upset. They lost absolutely the goodwill in their practices. A doctor had to come in, not as a man's doctor, not as his friend, but in the same sense that a man went into a house to look at the gas-meter—partly, perhaps, in the interest of the occupier, but chiefly in the interest of some one else. The doctor would go in, not in the patient's interest, but in the interests of the fund. There had been a good deal of talk about this as a general practitioner's matter altogether. He was not a general practitioner, but he felt that this measure was going to affect him and those who came after him as much as any one. The bill gave the friendly societies power to subscribe to the hospitals. It was clearly anticipated that when the employer had to pay his money every week for his workmen he was not going to subscribe to the hospital. He did so to-day because he got very good

value for his money. Then the workman was not going to give his pence; he had given them already. In fact, the hospital funds would suffer.

Dr. J. H. TAYLOR (Salford) supported the resolution; and Dr. ARTHUR HELME said there were some small details in the bill which could be left for the present. Let the Chancellor of the Exchequer be told as from that meeting that they would have none of his bill.

To say that the resolution was carried unanimously gives but a faint idea of the extraordinary display of enthusiasm. Every one present seemed to stand up and shout vociferously, waving hats, umbrellas, and sticks for several minutes, the scene being quite unlike anything ever before experienced in Manchester in connexion with a meeting of professional men.

The tone of the meeting was throughout very distinctly one not of petition but of demand, not unmixed with emphatic statements that the medical provisions of the bill must be radically altered to meet the views of the profession. It was remarked that the very outrageousness of the provisions affecting medical men had roused the profession to a new sense of its power which it would not hesitate to put into action. There was not the least party political feeling introduced, and nothing was said about the non-medical provisions of the bill. The meeting kept strictly to the one great subject of how best to maintain the interests of the profession consistently with the highest regard to the medical interests of the working classes. Nothing could be clearer than the fact that with the medical profession in its present frame of mind and unanimous as it is, the bill in its present form could not possibly be worked in Lancashire and Cheshire.

## BROUGHTON (SALFORD).

AT a full meeting of the Broughton Medical Union held last week the following resolutions were unanimously adopted:

1. That the doctor be made responsible to the State either directly or through a local committee on which the medical profession is adequately represented, and that he shall in no sense be subservient to any friendly society.
2. That a wage limit be fixed, amount to be agreed upon.
3. That free choice of doctor be granted to all insured persons.
4. That, recognizing the difficulty of fixing adequate remuneration applicable to every district, the remuneration should be settled locally by agreement between the local Division of the British Medical Association and the local Health Committee, subject to the approval of, and in the event of a deadlock, the arbitration of the Insurance Commissioners.
5. That this union is of opinion that it is to the advantage of the patient that the practitioner should dispense his own prescriptions.

## DARWEN (LANCASHIRE).

AT a meeting of the medical men in Darwen held on May 23rd, the following document was signed by the doctors present:

We, the undersigned, hereby declare on our honour that we will be bound strictly by the principles involved in the following resolution:

That the medical men of Darwen absolutely refuse to be placed under friendly societies, and will resist any attempt to so place them to the utmost of their power. They demand:

(*a*) A free choice of doctor for all, and insist that the doctor be made responsible to the State.

(*b*) A wage limit of 30s. per week to be fixed.

(*c*) Remuneration such as would adequately cover all treatment, both medical and surgical, 10s. 6d. a minimum per head.

(*d*) Compensation should be given for the loss of capital and private practice which will ensue under the Bill.

That a copy of the above be sent to the member for the Division.

Signed: JAMES TODD BALLANTYNE (Chairman), T. W. HEYWOOD, W. MOIR, J. S. W. NUTTALL, RICHARD ALCOCK, ALEX. BALLANTYNE, GEO. A. THOMPSON, WM. ALEX. SMITH, EDGAR A. FIELD, W. ALLAN SMITH, MAURICE HOGAN, JOHN WILLETT, THOMAS BALLANTYNE, HAROLD C. LEES, JOHN CRAIG, J. B. MACALLUM, THOMAS MARSDEN, F. G. HAWORTH, JOHN H. WRAITH (President).

## EDINBURGH AND DISTRICT.

A MASS meeting of the medical profession residing in the Edinburgh Branch area was held in the Students' Union Hall, Park Place, on Friday afternoon, May 26th, to consider the Government Insurance Bill. The meeting (with Dr. WILLIAM RUSSELL, President of the Branch, in the chair), numbering between 400 and 500, was thoroughly representative, and included among others:

Principal Sir William Turner, Vice-Chancellor of the University.
Dr. Byrom Bramwell, President of the Royal College of Physicians, Edinburgh.
Dr. George Berry, President of the Royal College of Surgeons, Edinburgh.
Dr. Caird, Regius Professor of Clinical Surgery, University of Edinburgh.

Drs. Clouston, J. O. Affleck, Allan Jamieson, N. T. Brewis, J. M. Cotterill, F. D. Boyd, Cathcart, Wm. Fordyce, Alex. Miles, Wallace, MacGillivray, James Ritchie, Russel Wood, Haultain, A. H. H. Sinclair, Warburton, John Playfair, J. W. Dowden, Logan Turner, E. Bramwell, Elsie Inglis, Hamilton (Hawick), Gulland, George Gibson, Webster, Blair (Jedburgh), Oliver (St. Boswells), Burn-Murdoch, J. W. Simpson, Lamond Lackie, Balfour Paul, K. M. Douglas, Melville Dunlop, Kirk (Bathgate), Hally Meikle, J. R. Ronaldson, Allan Gray, Pearson, Luke (Peebles), J. S. Fraser, R. Thin, W. J. Stuart, J. M. Bowie, Beasly, Proudfoot, Lyall, Meyer, McGowan, G. S. Clark, S. G. Ogilvy (Fauldhouse), J. B. Jamieson, E. Gow, A. Fleming, A. S. Cumming, Osler, Wilkie Millar, W. M. Johnston, Stocks, MacKessack, N. S. Carmichael, J. M. Graham, Mathewson, Easterbrook (Gorebridge), A. A. Matheson, James Carmichael, Keppie Paterson, Simla Paterson, F. D. Simpson, Lundie, Eason, Morrison Milne, J. A. H. Duncan, Hood, McNeil, Lawson, Gordon Hunter, C. L. Taylor, W. Mowat, W. S. Macdonald, E. Matthew, Grace Cadell, James Scott, R. W. Johnstone, W. L. Webster, McAllum, Cawkwell, J. P. Caverhill, Horsburgh Musselburgh), Lorrimer, A. Walker, P. J. H. Ferguson, F. Gardiner, Wilkie (Portobello), F. Knight (Portobello), Martine (Haddington), R. Gorrie, Pirie Watson, Malcolmson, G. M. Gardner, Robert Stewart, J. K. Hamilton, R. McLaren, Fenwick, A. G. Ritchie, Menzies, Steven, W. P. Murray, Hoffman, Lisette Wilson, John Tod, Hall Calvert (Melrose), J. D. Lithgow, D. R. Farquharson, W.B. Alexander, W. H. Miller, John Thomson, A. M. Mackintosh, A. Kelso (Broxburn), Martyn-Clark, Hermon (Eyemouth), Alex. Veitch, C. H. Thatcher, G. M. Johnston, Butler, James Young, H. Dunbar, Morrison McIntosh, Basil Orr, G. B. Ritchie, Langwill, A. F. Rosa, Aitchison Robertson, Green, R. M. Matheson, Cranston Low, E. Price, I. McKenzie, W. O. Walker, D. G. Davidson, Mitchell (Dalkeith), Alex. Scott, Rendall, Inch (Gorebridge), Muir (Selkirk), Fairfax (Innerleithen), J. B. Darling, Young (Earlston), Peel Ritchie, Wm. Booth, A. M. S. Kelso (Broxburn), J. Alexander, S. C. Fowler (Juniper Green), J. S. Mill, McCreadie, B. P. Watson, A. M. Drennan, C. E. Iles, Marian Erskine, J. A. Gunn, J. Murray, Margaret Cameron, James Smith, J. R. Sandeman, Torrance Thomson, H. Paterson, Calder, L. H. Thatcher, F. K. Kerr, B. W. Bennet, Watson (Wemyss), Elizabeth Selkirk, Barker, F. McLaren, Dickson (South Queensferry)

Drs. Armour
Baylis
H. Peddie
W. G. Porter
R. Cumming
J. A. Gray
J. W. Spence
George Carmichael
Sinclair (Bo'ness)
John Craig
Rankin
D. G. Robertson
J. S. Fowler
Bannermann
James Wilson
G. Thyne
F. M. Graham
J. S. Stewart
J. Cameron
Frost
A. B. Darling
A. Oliver
R. Robertson
Millard
R. W. Buchanan
Bianchi
Gourlay
E. C. Macintosh
Blaikie
H. I. More
Murray Wood
Borrowman
Willcox
Dixon (Hawick)
G. Hope
R. S. Mowat
William Paterson
Hill (Buchan)
T. Addis
A. C. Ainslie

Drs. E. G. Salt
Hunter (Bathgate)
Alex. Gunn
F. Anderson
Wm. Ainslie
Geo. Donald
Cormack Smith
H. M. Traquair
Young (West Calder
John Cumming
Fischer (Bo'ness)
J. M. Darling
G. Dickson
Macdonald Robertson
S. G. Davidson
D. P. Young
Robarts (Haddington)
G. W. Galletly
H. S. Reid
John Orr
James Harvey
A. P. Mitchell
Morrison Milne
A. T. Sloan
Balfour (Portobello)
Kenmure Melville
W. L. Martin
W. Johnston
D. Ritchie
H. Howden
W. J. Crow
A. B. Giles
A. D. K. Thomson
J. K. Milne Dickie
Forbes (Liberton)
Wm. N. Elder
John Stevens
W. M. McLean
The Secretary

Drs. Nasmyth, Balfour Graham, and Craig, members of the Fife Branch, were present by invitation.

Letters of apology for unavoidable absence were received from the following gentlemen :

Sir Thomas R. Fraser, Dr. Norman Walker, Dr. G. M. Robertson, Dr. James, Dr. Carlyle Johnston, Dr. McKenzie Johnston, Drs. Davidson (Kelso), William Stewart (Leith), Frederick Porter, Macdonald, Scott Carmichael, R. Fleming, Fleming (Kelso), Davidson (Hawick) McKellar (Kelso), Aitken (Ross), J. W. Keay, Nasmyth (Penicuik), Robb (M.O.H. Midlothian), Spicer (Melrose), and Dow (Dunfermline), all of whom expressed their active sympathy with the objects of the meeting.

After the PRESIDENT had made a few remarks explaining the purpose of the meeting, Dr. ALFRED COX, Deputy Medical Secretary of the British Medical Association, was invited to address the meeting.

Dr. COX said that he desired in the first place to make it clear that the profession as a whole had no objection to the principle of the bill—that is to say, to the provision of insurance for those unable to procure medical assistance; but, apart from objections to details, the profession had a distinct grievance against the Government, inasmuch as it had not consulted the organizations of the medical profession before drafting the bill. For nearly a year Mr. Lloyd George had been consulting the friendly societies, trades unions, and various other organizations, but had not taken the trouble to apply to the British Medical Association. Last November the Association had forwarded a memorandum putting its experience at his disposal, and had by persistence obtained an interview with him; but he had not permitted the Association to see the bill confidentially, though he had done this in the case of the friendly societies. Mr. Lloyd George's intention appeared to be merely to extract information from the deputation, but he must now realize that upon the shoulders of the medical profession rested the success or failure of the bill, for the working of the sickness part depended upon the goodwill of the profession. As a matter of fact, the Association, with over 50 per cent. of the profession as members, represented it far better than any of the unions represented their trades. Thanks to the fact that the Association had for the last twelve months been considering the reports of the Poor Law Commissioners, and in connexion with them the question of State sickness insurance, it had not been taken entirely unawares. At the time of the Midwives Bill the profession spoke with about 20,000 voices, and Parliament ignored them; now, thanks to the organization of the British Medical Association, the profession might speak with one voice. There was already sufficient proof that the profession had made up its mind that in connexion with any scheme under the bill there should be absolute freedom of choice of doctor by the patients, and that the control of medical benefits must not be put under the friendly societies. As to remuneration, it was not yet known what the contract for medical attendance was going to demand of the doctor; the profession had been asked what sum it would regard as adequate, but that would entirely depend on the contract, and he thought the policy must be to tell the Government that as this was an experiment for which no statistical data of real value existed, the arrangement as to remuneration must in justice to the medical profession and in justice to the State be elastic. The profession did not ask for generosity but for justice, and if the Government were in earnest in desiring to provide better medical attendance for the poorer classes it must be paid for. The general feeling of most medical men was, he believed, that the wage limit of £160 was too high. The bill was proposing to insure a class for medical benefits that a large section of the public could well get without insurance, and was not proposing to insure them against that which they could not get without aid, such as special operations. The public ought to understand that the way in which poor people now got their attendance at the fees they paid was through other people who were better off paying better fees. After touching on the necessity of a statutory recognition of medical men on committees which were to manage the medical aspects of the insurance scheme, he said he believed that there was not a single member of the profession who would not be affected at once or very soon if the bill passed as it was. It was a stride towards the nationalization of hospitals, and would effect a revolution in medical practice in all its departments. The British Medical Association was prepared to spend to the full money, time, and energy in getting the profession what it wanted, and in doing this was not fighting a narrow professional battle but the battle of the public. If the public wanted the standard of the profession kept up it must see that the profession was not rendered unattractive to the best men.

Principal Sir WILLIAM TURNER, who was received with loud applause, the audience rising and cheering, proposed a vote of thanks to Dr. Cox for his address. Dr. Cox, he said, had couched his remarks in such lucid terms that he did not think any one could fail to know exactly what was in his mind, and what, so far as the bill had yet declared itself, was intended by the bill. But it was obvious that there were many things as yet unexplained, and it was of the utmost importance that explanations should be given. Therefore, pressure must be brought to bear upon the authorities to give this explanation, and to satisfy the medical profession, so far as was within their range of knowledge—although he believed their knowledge in many respects was a small range—(laughter)—what the effects of the bill were to be, not merely on the profession, but on the public, because that, he submitted, was the proper way in which this question was to be argued. He was very much pleased indeed at the conclusions of Dr. Cox's remarks to find him putting the position of the profession in this matter not as a trade union. The medical profession was not, and he hoped never would be, in the position of a trade union. (Applause.) They had their rights, they had their duties, and they ought to see that those rights were properly acknowledged, and that they were put on a proper footing as regarded remuneration which they might naturally look for, because, unless the remuneration of the practitioner was put on a suitable basis, able men, good men, would not enter the profession. The profession would then become a scorn and a byword, and not, as it had always been up to this time, a profession held in high repute. Alluding to the first resolution which was to be submitted to the meeting, he commented on the necessity for union among the profession. They must stand shoulder to shoulder. (Loud applause.) There must be no minorities as regarded the sum they wanted, whatever the sum might be. They must stick to their point and have adequate remuneration for the work they were called upon to do. He advised the profession to resist to the fullest any proposal to give control of the medical benefits to the friendly societies, because, however well disposed the leaders of those societies might be, they had yet to consider the opinions of those who put them in the position of leaders.

(Applause.) On no consideration should the friendly societies have the control of this matter.

The motion was heartily approved and adopted, and the PRESIDENT conveyed the vote of thanks to Dr. COX, who in a few words acknowledged the compliment.

Dr. T. R. RONALDSON, in moving the first resolution, said that there was a unanimous and urgent desire that the profession should be delivered from all control by the friendly societies. In the past the societies had been bad masters, and the reason was not far to seek. On the one hand they had a profession with ideals willing and anxious to help towards the general good—a profession whose members had generally no particular training and no genius for hard bargaining. On the other hand, they had a body of men the breath of whose nostrils was the principle of buying in the cheapest market and selling in the dearest who were ever ready to take advantage of any generosity o,r weakness on the part of the doctors for the furtherance of the societies' designs.

The resolution was seconded by Dr. JAMES CARMICHAEL (Edinburgh) and carried unanimously as follows:

> That the provisions of the Insurance Bill giving control of the medical benefits to the friendly or approved societies be strenuously opposed.

Dr. THOMAS WOOD (Leith), in moving the next resolution, said that a large proportion of the doctors' income was derived from families where the head of the household earned from 30s. to 60s., and if the bill was passed as it stood that part of their income would be wiped out and be replaced by a very uncertain figure. He moved:

> That the medical benefits be restricted at a lower wage limit than that mentioned in the bill.

Dr. ELSIE INGLIS, in seconding, said that however much they approved of the principle of sick insurance, they could not but be amazed at the temerity of the Government on two points. The first was the way they proposed to treat the women, and the second was the Government's attitude towards the great and highly organized profession. There was no profession more willing than the medical profession to do work for nothing, but that was no reason why it should be exploited. The standard of the profession would go down if the members submitted to such a scheme.

It was proposed by Dr. GEORGE HUNTER, seconded by Dr. BOWIE, and resolved:

> That there must be free choice of doctor in the interests of the beneficiaries.

Dr. HAMILTON proposed, Dr. EASTERBROOK seconded, and it was resolved:

> That there must be adequate remuneration for medical attendance, the remuneration indicated by the Chancellor of the Exchequer being regarded by the meeting as wholly inadequate.

On the motion of Mr. CATHCART, seconded by Dr. CALVERT, it was resolved:

> That there should be a more adequate medical representation on all committees dealing with medical benefits.

It was proposed by Dr. GEORGE A. GIBSON, seconded by Dr. BLAIR, and supported by Dr. NASMYTH, and resolved:

> That medical practitioners pledge themselves to be loyal to one another, and to abide by the policy of the British Medical Association.

On the motion of Dr. K. PATERSON, seconded by Dr. CULLEN, it was resolved:

> That the above resolutions be forwarded to all the members of Parliament in the Lothians and South-Eastern Counties.

Dr. ALLAN JAMIESON moved a cordial vote of thanks to the Chairman, remarking on the unprecedented success of the meeting.

The resolutions, together with a report of the meeting, have been forwarded to Mr. Lloyd George and the following local members of Parliament: Mr. Price, Sir James P. Gibson, Mr. Lyell, Mr. Avon Clyde, Sir Robert Finlay, Mr. Munro-Ferguson, the Master of Elibank, the Lord Advocate, Mr. Hope, Mr. Tennant, Sir John Barran, and Sir John Jardine.

The Branch Council urgently request that every member of the profession in the Branch area who has not yet signed the loyalty resolution should at once send in his or her name either to the Division or Branch Secretaries (Michael Dewar, M.D., 24, Lauriston Place, Edinburgh; E. W. Scott Carmichael, M.B., 40, Palmerston Place, Edinburgh), so that the Edinburgh Branch may be able to announce to the Government that the medical practitioners in the district are absolutely unanimous.

## LANARK.

AT a special meeting of the Lanarkshire Division of the British Medical Association held on May 25th, the following resolutions were adopted unanimously:

1. That medical attendance should, under the Insurance Act, only be given to workmen earning £2 a week and under.
2. As to whether the meeting would prefer that payment to medical practitioners under the Act be on the basis of work done rather than by payment per head if such an arrangement could possibly be made, and that due allowances be made for distances travelled, operations, late visits, and special work, etc.; or that an adequate capitation grant be made also with due allowances for operations, mileage, etc., it was unanimously resolved to leave this matter to the discretion of the Representative when he attended the meeting in London on May 31st.
3. That if payment be by capitation grant, that a minimum fee of 8s. 6d. per head be paid, exclusive of medicines, with extras for operations, midwifery, and mileage.
4. That medical benefit be not administered by friendly societies.
5. That each "insured person" should have absolutely free choice of his medical attendant, and conversely that medical practitioners should have a discretionary power in their choice of "insured persons."
6. That the administration of medical benefit be under the direct control of the State.
7. That we approve of the principle that all drugs, surgical dressings, and other necessary requisites be contracted for outside the payment of attendance to practitioners.
8. That one-third of the Public Health Committee shall be composed of medical men.

Copies of the resolutions were directed to be forwarded to the members of Parliament in the Division and to the General Medical Council.

## STIRLING.

THE annual meeting of the Stirling Branch of the British Medical Association was held at the house of the President (Dr. Strachan, Dollar) on May 25th. After the consideration of routine business, and a presentation to the retiring Secretary (Dr. G. Clark Stewart), a full discussion took place of the medical aspects of the National Insurance Bill.

The following resolutions were passed unanimously:

1. The medical profession should be adequately represented on the Insurance Commission, the Advisory Committee, and the local health committees.
2. The bill should contain full details, so that as little as possible be left to the discretion of the Insurance Commissioners.
3. The control of the medical service should not be given to friendly societies.
4. The insured should have free choice of doctor.
5. The medical service should be thrown open to all members of the profession willing to undertake the work.
6. Medical benefit should only apply to persons earning 30s. per week or under.
7. The capitation fee (exclusive of medicines and dressings) should not be less than 10s.
8. The medical share of the maternity benefit should be secured to the practitioner.
9. A mileage fee should be secured where the patient resides more than three miles from the nearest doctor.

A committee (Dr. Joss, convener) was elected to look after the special interests of the members holding colliery and brick-works appointments.

It was agreed to take immediate steps to try to enrol the non-members of the Association within the Branch area by means of circulars and personal interviews.

## ULSTER.

A LARGE and representative meeting of the profession assembled in the Medical Institute, Belfast, on the afternoon of May 25th, in answer to the summons to consider the National Insurance Bill, issued under the combined auspices of the Ulster Medical Society, the Ulster Branch of the British Medical Association, and the Belfast Division. The notice had been sent to every medical man in Ulster, and 116 attended; every county was represented.

On the motion of Dr. CALWELL, seconded by Dr. R. J. JOHNSTONE, Sir Peter O'Connell, D.L., President of the Ulster Medical Society, was called to the chair. Drs. Howard Stevenson, R. J. Johnstone, and J. C. Rankin acted as honorary secretaries.

The following resolutions, with a general preamble expressing sympathy with the general objects of the bill, were passed practically unanimously, with the exception of one sentence in Resolution III, paragraph 3, "that the number of patients to any one medical man should be limited," on which the meeting was divided. With the exception of this one minor point, which was proposed at the meeting as an amendment, the meeting was not merely undivided, but determined and enthusiastic. In addition to the mover and seconder of the resolutions, a large number of excellent criticisms and remarks were made by many other speakers. At the end, Sir JOHN BYERS moved, and Dr. MOORE (Lurgan) seconded, a hearty vote of thanks to Sir Peter O'Connell for his conduct in the chair, which was passed with acclamation.

Resolutions:

1. That in the opinion of this meeting it would be unjust to the medical profession to admit, whether as compulsory or voluntary subscribers, persons with an annual income of £100 or over to medical benefits under the Act, as applied to Ireland.
2. That this meeting strongly disapproves of the following points in the scheme for the administration of medical benefit:
   (1) The appointment of the doctor by the friendly societies.
   (2) The failure to discriminate between the fair rates payable to the doctor in the case of good or bad lives.
   (3) The absence of provision for such contingencies as extra mileage, night and emergency meetings, and minor operations.
   (4) The inadequate representation of the medical profession on the advisory board and on the health committee.
   (5) The employment of dispensary medical officers in Ireland to attend upon deposit contributors, to the exclusion of other members of the profession, which is both unjust in principle, and, in many cases at least, unworkable in practice.
   (6) The inadequacy of the suggested scale of remuneration to provide satisfactory medical attendance and treatment.
3. That this meeting is of opinion that—
   (1) The local medical profession should elect one-fourth of the local health committee as their direct representatives.
   (2) All arrangements for the administration of medical benefit should be made by the local health committee.
   (3) That the local health committee should form a panel of local medical practitioners, on which every medical man should be eligible, and when formed on which the name of every medical man should appear, and that the insured should have free choice from this panel, and that the number of patients to any one medical man should have a limit.
4. That in view of the probable serious financial loss to voluntary hospitals through the operation of proposed Act, we are of opinion that the State should contribute towards the maintenance of the hospitals.
5. That, in the opinion of this meeting, a woman entitled to maternity benefit should also be paid sickness benefit for a period of not less than six weeks, and that of the maternity benefit 20s. should be paid to the medical man in attendance.

## CONNAUGHT.

**AT the annual meeting of the Connaught Branch of the British Medical Association held at Claremorris on May 24th the National Insurance Bill was considered, and the following resolutions were adopted:**

*a.* That in the opinion of this meeting medical benefits under a sickness insurance bill should be restricted by a wage limit, such wage limit not to exceed £2 per week.

*b.* That the principle of voluntary subscribers to national insurance funds being eligible for what is practically free medical attendance is not one which this Branch will tolerate.

*c.* That in all districts where a National Insurance Act may have force a free choice of doctors must be allowed to the insured.

*d.* That under no circumstances must the medical profession be placed under the control of, or in the power of, the so-called friendly societies, or of any Government board or association unless the medical profession is adequately represented thereon.

*e.* That for the treatment of cases—surgical, medical, and special—in hospitals and institutions proper remuneration should be secured to the medical officers of such, and special fees be paid for operations and infectious cases.

*f.* That the rate of remuneration proposed in the Government measure—namely, 6s. (4s. 6d.) per head—is absurdly low, and no less amount than 8s. 6d. should be offered.

*g.* That the proposal to supply in Ireland medicines out of the dispensary stock to insured persons is not one this meeting can approve of. It would lead to abuses, and perhaps to wrongful accusations against the dispensary medical officer.

*h.* That it is most desirable that serious details should be settled in the House of Commons before the bill is allowed to become law, and not left to the arbitrary action of Insurance Commissioners.

*i.* That failing the introduction of the above modifications into the bill, we pledge ourselves to have nothing to do with it, and to fight it by every legal means in our power.

It was also resolved unanimously:

That the Insurance Bill is uncalled for, unsuited, and inapplicable to Ireland.

## DERRY AND DONEGAL.

**THE following resolutions were passed unanimously at a very large meeting of the medical men practising in North Derry, North Donegal, and City of Derry, held in Derry on May 24th:**

That we, the medical men practising in the North-West of Ireland, are of opinion that the clauses of the proposed National Insurance Bill affecting the medical profession are grossly unjust to us, and would affect most injuriously our relations with our patients and our pecuniary interests.

That in our opinion the wage limit is much too high; the proposed capitation fee (which, moreover, includes no provision for mileage) too low, and we consider that the voluntary clauses should be deleted from the bill altogether.

That in any scheme ultimately drafted insured persons should have free choice of their medical attendant.

That we are prepared to resist the bill as drafted to the utmost, and pledge ourselves to refuse to accept practice on such conditions.

**Dr. J. Galway Cooke, County Infirmary, Londonderry, acted as Honorary Secretary of the meeting.**

## DARLINGTON.

**A MEETING of the Darlington Division of the British Medical Association was held on May 24th to discuss the National Insurance Bill. There was a good and representative attendance. The HONORARY SECRETARY read letters from Drs. Cockroft, Eyre, Luard, Whitehead, and Walker, regretting their inability to attend, and urging the meeting to refuse to accept this bill as it now stands. After a very full discussion, the following resolution was carried unanimously, every member voting:**

That this Division, having discussed the proposals affecting medical practitioners contained in the National Insurance Bill, considers them absolutely unworkable, and declines altogether to accept them.

## HARROGATE.

**AT a meeting on May 23rd of the Harrogate Division of the British Medical Association and of the Harrogate Medical Society the following resolutions were carried unanimously:**

1. We desire to endorse the resolutions passed by the Royal College of Surgeons of Edinburgh, unanimously, on May 16th, as follow:
   That, while sympathizing with the objects of the National Insurance Bill now before Parliament, this College most earnestly prays His Majesty's Government to allow ample time for the thorough consideration of the details of this complicated and far-reaching measure, and, in view of the important part which the medical profession must play in making any such bill a success, and of the very serious consequences which may result to the whole profession, this College desires respectfully to express its strong feeling that this bill ought not to be pressed forward in the present session, in order that the public, and very specially the medical profession, may have time to thoroughly consider the provisions contained in it, and, if thought necessary, to make suitable representations to Parliament.
2. That the medical profession is prepared to co-operate directly with the Government in any reasonable scheme for the insurance of the workers against sickness, but emphatically declines to be under the control of the friendly societies.
3. That payment should be for work done, which is the only just and equitable method, also giving the best results, as in the National Deposit Friendly Society.
4. That medical benefits under the scheme shall cease at a reasonable wage limit, to be determined upon.
5. That there shall be free choice of medical attendant to those who contribute.
6. That the medical profession should be duly represented on the Health and Advisory Committees.
7. We earnestly suggest, in the interests of the general public, as well as of the medical profession, the proposals relative to medical benefits should be considered apart from the rest of the scheme, as having nothing in common therewith.

## MORLEY, YORKSHIRE.

AT a meeting attended by all the medical men of Morley, held on Thursday, May 25th, the following resolution was carried unanimously:

That the Morley Medical Society disapprove of the medical part of the State Insurance Bill as it stands at present. They think that adequate time should be given for its discussion.

## COVENTRY.

AT a general meeting of the Coventry Division, held on May 23rd, it was resolved:

That it was essential that the insured should have a free choice of doctor.

That this Division is totally opposed to the management of contract medical practice being placed in the hands of the friendly societies.

That wages of £2 per week should be regarded as the limit for treatment under the scheme.

## DERBYSHIRE.

AT the meeting of the Derbyshire Division of the British Medical Association, held on May 25th, the following recommendations were adopted:

1. That payment should be by capitation fee.
2. That 8s. 6d. should be suggested as a minimum.
3. That the arrangements should not be left to the friendly societies, but that the patient should have a free choice of doctor and the doctor of his patients.
4. That the wage limit for medical benefits should be £160 per annum.
5. That of the local health committees one-third should be medical men.

## BRISTOL.

A MEETING of the Bristol Division of the British Medical Association was held at Bristol University on May 15th, Dr. T. M. CARTER in the chair. The meeting was attended by 120 members of the Division.

Dr. J. O. SYMES proposed, and Dr. BRASHER seconded, the following resolution:

That this meeting of the Bristol Division of the British Medical Association disapproves of the method of providing medical benefits proposed under the National Insurance Bill now before Parliament, and especially the proposal that these benefits shall be administered by the friendly societies.

After many had spoken in support, the resolution was carried unanimously, 103 members being present at the time.

The next business was the instruction of the Representative upon the Special Representative Meeting, and Dr. GREY proposed, and Dr. DEVIS seconded the resolution:

That this meeting of the Bristol Division of the British Medical Association reaffirms the resolutions of the Division passed at the meeting on October 6th.

Dr. SYMES, Dr. BRASHER, and Dr. LUCAS and others spoke against and several members spoke in favour of the resolution, which was carried by 82 to 8.

Dr. DICKINSON proposed and Dr. WIGAN seconded the resolution:

That this meeting pledges itself collectively and individually to decline attendance on beneficiaries under the State Insurance Bill on the lines indicated by the Chancellor of the Exchequer.

Dr. GREY moved the previous question, on the ground that it was premature for members to bind themselves at this juncture before the action of the Association as a whole had been decided upon, since one city acting alone could not carry through a successful fight.

Dr. J. M. CLARKE seconded, and the previous question was carried.

It was announced that the Division Executive proposed to call a meeting of the whole profession in the area of the Division at the earliest possible date, and that a resolution of protest against the medical provisions of the bill before the House was about to be circulated for signature amongst the local profession.

The resolutions of October 6th were:

That any scheme of State Sickness Insurance should be based on the principle of payment for work done, as in private practice; and

That it is essential that the insurance risks of such a scheme be borne by the State.

## NUNEATON.

AT a meeting of the Nuneaton and Tamworth Division of the British Medical Association, held on May 26th, the National Insurance Bill was discussed, and the following resolutions unanimously adopted:

1. That this meeting is totally opposed to the provisions of the bill being administered by the friendly societies.
2. That no contributor to the scheme—either voluntary or compulsory—whose income exceeds £2 per week should be entitled to medical benefits.
3. That all registered practitioners shall be eligible to act under the scheme, and every contributor shall be free to choose his own doctor.
4. That if the remuneration of the medical practitioner be by capitation fee, such fee should be not less than 8s. 6d. per annum, and a special scale of fees for surgical work.
5. That the medical practitioner may dispense medicines should he so wish.

## LINCOLN.

AT the annual meeting of the Lincoln Division held on May 26th the provisions of the National Insurance Bill were discussed, and the following resolution adopted unanimously:

Any bill for medical attendance in connexion with invalidity insurance should recognize the following principles: (1) A wage limit, (2) adequate payment for work done, (3) a free choice of medical attendant, (4) no control by friendly societies. We are of opinion that the Association should at once organize the profession so that they may decline an appointment under any bill in which these principles are not contained.

The Secretary was directed to send a copy of the resolution to each member of Parliament for a constituency within the area of the Lincoln Division.

## NORTH LINCOLNSHIRE.

AT a meeting of the North Lincolnshire Division of the British Medical Association held at Grimsby on May 26th, the following resolution was unanimously adopted:

1. That this meeting approves of the scheme of insurance in the National Insurance Bill, with the exception of the medical provisions. Our objections to the latter are as follows:
   (*a*) That the amount of payment suggested is utterly inadequate.
   (*b*) That we refuse absolutely to be under the control of the friendly societies.
   (*c*) That there must be a reasonable wage limit.
   (*d*) That patients should have the right to choose their own doctor, the doctor having also the right of refusal.
   (*e*) That provision be made for the superannuation of doctors working under the scheme, and also for the loss of the good-will value of practices.

## BOSTON.

AT the annual meeting of the Boston and Spalding Division held on May 26th the following resolution was carried unanimously:

That this meeting of members and non-members declines to accept the terms at present proposed by the Chancellor of the Exchequer of 6s. per head (including medicine and materials) and pledges itself to adhere to this decision.

## LEIGHTON BUZZARD.

THE following resolution was passed unanimously by the medical practitioners of Leighton Buzzard:

We the undersigned medical practitioners, in active practice, at a meeting held on May 25th, 1911, at the Albion Hotel, passed the following resolution: That we will not consent to act in any national insurance scheme which may be passed into law by Government, except on the following conditions:

1. A wage limit of 25s. per week.
2. No control by the friendly societies.
3. Free choice of doctor.
4. Extra payment for mileage beyond a fixed radius.

W. H. SQUARE, L.R.C.P., etc.; REG. SPENCER PEARSON, M.R.C.S., etc.; JOHNSTON HARRIS, L.R.C.P. and S.; JOHN DURRAN, M.B., C.M.; PERCY STEDMAN, M.B.; ERNEST H. WAGSTAFF, M.R.C.S.

## OXFORD.

AT the annual meeting of the Oxford Division held on May 26th the following resolution was adopted:

That this meeting of the Oxford Division most strongly protests against the voluntary clauses of the Insurance Bill for medical attendance irrespective of a wage limit; and that it

further protests against the proposed maximum wage limit for medical benefits in the compulsory class as being fixed at far too high a figure. That the members present refuse to place themselves under the control of the friendly societies, and demand that every patient have free choice of medical attendant.

## TROWBRIDGE.

AT the annual meeting of the Trowbridge Division of the British Medical Association held on May 26th, a discussion on the National Insurance Bill took place, and the Representative of the Division was instructed to support the following principles at the Special Representative Meeting:

1. That the amount at present allocated for medical purposes is insufficient.
2. That control of the medical benefits by friendly societies should be strongly opposed.
3. That there be an income limit acceptable to the profession to apply to those in receipt of medical benefits.
4. That there should be free choice of doctor to the insured.
5. That there should be adequate representation of the medical profession on any authorities formed.

## DOVER.

AT a meeting of the Dover Division of the British Medical Association, held on May 25th at the Grand Hotel, Dover, a discussion on the National Insurance Bill was opened by some remarks by Dr. F. B. HULKE. After prolonged consideration the following resolutions were unanimously adopted:

1. That the medical service of any national system of insurance should be open to all registered medical practitioners.
2. That such service should be under direct Government control, and not under the friendly societies.
3. That there should be adequate remuneration.
4. That there be a proper wage limit, above which people shall not be eligible for medical attendance under the system.
5. That the members of the Dover Division pledge themselves that they would not serve unless on these terms.

Copies of the resolutions were directed to be forwarded to the county member of Parliament, the Right Hon. A. Akers Douglas, P.C.; the borough member of Parliament, Mr. G. Wyndham, the General Medical Council, the British Medical Association, and the Secretaries of each of the Divisions in the South-Eastern Branch.

It was further agreed to request the county and borough members of Parliament to receive a deputation from the Division on the matter.

## FARNHAM (SURREY).

AT a meeting, held at the house of Dr. Charles E. Tanner, of all the medical men practising in Farnham and the immediate neighbourhood, the following resolutions were unanimously passed:

That this meeting of all the medical men practising in Farnham and the immediate neighbourhood:

1. Strongly urges the Council of the British Medical Association to oppose those provisions of the State Insurance Bill giving control of medical benefits to friendly societies, and to maintain the principle of free choice of doctors, giving all medical men the right to serve under the bill.
2. That payment should be made for work done, with remuneration for mileage and special fees for such extras as are already provided in the Poor Law Medical Service.
3. That medical benefits under the bill must cease at a wage limit to be determined—for example, 30s. a week.
4. That we, individually and collectively, pledge ourselves to resign any friendly society appointment for medical attendance which we at present hold and to decline any similar appointment which may be offered if required to do so by the British Medical Association.

## GODALMING (SURREY).

THE following resolution was passed at an enthusiastic meeting of the Godalming and District Medical Society held on May 26th:

That the Godalming and District Medical Society, comprising all the medical practitioners in Godalming and neighbourhood, views with the gravest apprehension the financial loss to medical practitioners which will be caused by the Insurance Bill should it become law in its present form, and appeals to the British Medical Association, as comprising the largest number of members of the profession, to take prompt and energetic measures to safeguard the interests of the profession. Moreover, we pledge ourselves to resign any friendly society appointment for medical attendance which we at present hold, and to decline any similar appointment which may be offered if required to do so by the British Medical Association.

## DORSET AND WEST HANTS.

THE following announcement is being inserted in the local press of Dorset and West Hants:

THE NATIONAL INSURANCE BILL.

All medical practitioners resident within the area of the Dorset and West Hants Branch of the British Medical Association are invited to attend a meeting to be held at Princess Christian Hospital, Weymouth, on Wednesday, June 7th, 1911, at 3.30 p.m.

JAMES DAVISON, M.D., Honorary Secretary, Dorset and West Hants Branch of the British Medical Association.

"Streateplace," Bournemouth, June 1st, 1911.

Members of the Branch are asked to draw the attention of non-members in their neighbourhood to the meeting.

## EFFECT ON HOSPITALS.

SPEAKING at a meeting of the Court of Governors at the Middlesex Hospital on May 25th Sir Alfred Pearce Gould said that a very large proportion of its patients were persons whose needs would nominally be met by the National Insurance scheme. The hospital might thus lose some of its most generous supporters. In the out-patient department pains had hitherto been taken to exclude patients who could be treated by local medical practitioners, but if the bill became law the interest of the profession would lie in the opposite direction. The bill made no provision for the many cases which could adequately be treated only in hospital, and the State, in view of its new responsibilities, might endeavour in some way to secure their admission. This might lead to a certain amount of State control of hospitals and be followed by their State maintenance. The interest of the Insurance Bill was not confined to members of the profession with working-class practices; it would affect hospital surgeons and physicians likewise. If the bill was to become a beneficent measure for the community it must be one with which the medical profession as a whole would be able to work heart and soul, with the confidence that their efforts were being appreciated and duly rewarded.

## ATTITUDE OF FRIENDLY SOCIETIES.

*National Conference.*

AT a conference of delegates of friendly societies from various parts of the country, held at the offices of the Hearts of Oak Society in London on May 25th, the following resolutions were adopted:

That this National Conference of Friendly Societies, having considered the speeches of the Chancellor of the Exchequer and the bill as published, recommends the scheme of State Insurance to the consideration of friendly societies, and urges a careful examination of the details of the bill by the societies themselves.

That any suggested amendments to the bill by the societies be sent to the Secretary of the Conference at an adjourned meeting, and that it be remitted to the Committee of the Conference to take immediate steps to lay the views of the societies before the Chancellor of the Exchequer for the purpose of having the bill amended in accordance with their views.

The conference adjourned until June 28th. Among the societies represented were the Manchester Unity of Oddfellows, the Ancient Order of Foresters, the Ancient Order of Shepherds, the Sons of Temperance, and the Hearts of Oak.

*Jewish Societies.*

At a special general meeting of the Barnett Friedberg Lodge of the Order of the Shield of Abraham, held at the Devonshire Hall, Mare Street, Hackney, the following resolution was unanimously passed:

That it is desirable that Mr. Lloyd George's Insurance Bill should be carefully considered in the interests of Jewish friendly societies, and that it is hoped that Jewish orders will co-operate in order to secure that their interests may be properly safeguarded.

Copies of the resolution were ordered to be sent to every order of Jewish friendly societies.

# SPECIAL REPRESENTATIVE MEETING.

A SPECIAL REPRESENTATIVE MEETING of the British Medical Association was held in the Examination Hall of the Royal Colleges of Physicians and Surgeons, Victoria Embankment, London, on Wednesday, May 31st, for the consideration of the National Insurance Bill. After transacting certain formal business, the meeting at once went into committee of the whole for the consideration of the medical aspects of national insurance, Mr. VERRALL, Deputy Chairman, taking the chair, and Dr. MACLEAN, Chairman of the Representative Body, bringing forward the various motions on the agenda. Basing itself on the *Report* on the Organization of Medical Attendance on the Insurance or Provident Principle[1] and the opinions expressed by the Divisions in their answers to questions thereon, the committee proceeded to discuss a series of motions embodying matters of principle and afterwards to apply these principles to the provisions of the National Insurance Bill.

It approved the application of the insurance principle to the provision of the cost of medical attendance on persons who cannot otherwise meet it. The principle that medical practitioners should decline in any way to work for or under the friendly societies or similar bodies was emphatically affirmed, and the motions embodying and applying this principle were carried by acclamation amid scenes of great enthusiasm. The principle that the medical profession must have adequate representation on any and all committees concerned with the administration of medical benefits was also unhesitatingly affirmed.

In the discussion which followed on the National Insurance Bill it was decided that the bill should provide for the exclusion from medical and maternity benefit of persons whose average income from all sources exceeds £2 a week, and that, as far as possible, provision should be made for allowing free choice of doctor.

With regard to the amount and mode of remuneration, the committee resolved that a definite opinion could not be expressed until the attitude of the Chancellor of the Exchequer on the decisions arrived at by the meeting was known, and it was announced that Mr. Lloyd George would attend the meeting of the Representative Body on Thursday morning to discuss the scheme with it. The committee having adopted a resolution to the effect that the suggestions of the Chancellor of the Exchequer relating to the remuneration of the medical profession as set forth in his Second Reading speech could not be accepted, the meeting adjourned. It had sat from 10 a.m. to midnight with short intervals for lunch, tea, and dinner.

## THE CHANCELLOR OF THE EXCHEQUER AND THE REPRESENTATIVE MEETING.

The meeting was resumed at 10 a.m. on Thursday. The Chancellor of the Exchequer, who arrived at 11 o'clock, was received by the meeting with loud applause.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Gentlemen, although I quite gather from the reception you have given to Mr. Lloyd George that his welcome here is assured, I nevertheless think that formally and on your behalf I ought to, and I do, extend to him a very grateful recognition of his kindness in coming to join our deliberations on matters affecting the profession. Addressing Mr. Lloyd George, he said: I suggest to you, Sir, that you will find us in an extremely anxious state of mind, and I think that before our proceedings are far gone that will be expressed both in tone and in word. We submit that our anxiety is due to very serious considerations, such as in the first place the shortness of time in which we have had to consider a subject so vital to our profession. Furthermore, it is work to which we are unaccustomed. We have not been called upon before to consider the pros and cons of the financial economic questions as they affect the medical profession, and undoubtedly this whole matter does go to the basis of the economics of our work. That is one of the causes of our anxiety. Another cause of anxiety I suggest is that, notwithstanding the fact that we do consider it our undoubted duty to make strong representations in the proper quarter as to our right and claim to due and proper conditions of service and remuneration, we at the same time are most anxious to preserve one of our greatest traditions—that is to say, that we are broad minded, reasonable, loyal citizens of this country. Our method of procedure will be that I will propose for your consideration certain points that have arisen in our deliberations. I would on behalf of the meeting bring to your notice in the first place the question of what we know as the free choice of doctor. We have in Committee recorded the opinion that we as a profession, at all events as an Association—and I think it is not doubted at the present time that these are coincidental terms—are undoubtedly in favour of the free choice of doctor. (Applause.)

*General Observations on the Bill.*

Mr. LLOYD GEORGE (who on rising was received with loud applause): Dr. Maclean and Gentlemen,—When, late last night, your very kind invitation was extended to me, it was suggested that you possibly would like to come and talk the matter over with me, I thought, on the whole, it was more convenient that I should come and talk the matter over with you. I am here, not to deliver a speech, but I am here to listen to what you have to say, and I am here to answer any questions that you may be pleased to address to me. I should like to offer any explanation in my power. I should also like to discuss with you any means of accommodating any differences there may be between you and the Government in respect of this important measure—a measure, I agree with your Chairman, of enormous importance to you as a profession, and not merely of importance to you as a profession, but of gigantic importance to the millions of people who come within the four corners of the bill. You may take it from the very start that the axiom that you have laid down is also the axiom which I would accept—that what is best for the profession is in the long run best for the patient—and that any kind of feeling of wrong, of injustice, or of irritation—I mean of just irritation—which may rankle in your breasts in respect of the arrangements in this bill must be detrimental to the healing value of the measure itself. So that when I come to talk to you I come not only to remove difficulties in the path of my bill in its passage through Parliament, but because I recognize that the first condition of its success is that we should get the whole-hearted, cordial, and unreserved support of the medical profession to carry it out. The first question that you ask me is a question with regard to the free choice of doctor. I have already said something with regard to that in the House of Commons. Personally, I am strongly in favour of it. There are difficulties. There are vested rights which have already been created where doctors have got the care of clubs and patients, who are already registered in those clubs or paying regularly to them. Very often it has been the matter of a bargain and sale of the practice, where the club practice has been purchased on the understanding that those patients are more or less under the care of the doctor of the club. I want you to consider, therefore, first of all, before you come to an examination of the proposals made with regard to the free choice of doctor, the vested interests which have been created and which exist at the present moment where there are club doctors with a club practice which they may have purchased. Subject to that, I am on all grounds in favour of a free choice of doctor. I think one of the essentials of curing is that the patient should have faith in his doctor; and you cannot have faith in your doctor if you have doctors thrust on you whom you have not chosen, who for various reasons, most of them unsatisfactory, the patient may not believe in. Therefore, I am myself strongly in favour of the system which I believe exists in two or three towns of this country of setting up a panel on which all qualified medical practitioners will be able to serve—not compelled to serve, no doctor will be obliged to take this work—but on which a qualified medical practitioner will be qualified to serve. I want to make one very important qualification here. If a panel of that kind is to be a success the doctors themselves must exercise disciplinary powers, otherwise it will be a failure. It practically means handing

[1] SUPPLEMENT, BRITISH MEDICAL JOURNAL, March 4th, 1911.

over to the doctors in each district the control of the medical arrangements. That involves that the doctors have not merely the responsibility of curing their patients, but they have the responsibility of suppressing touting, unfair canvassing, and also checking ruthlessly the practice of malingering. It may very well be that in a district a medical man may have the reputation of being free and easy with his patients, and of not being too severe upon them when they claim sick pay; and he may add to the number of his patients by having the reputation of not being too severe upon malingerers. The doctors ought at once to take in hand the punishing of that form of encouragement of malingering. Subject to the medical profession undertaking the responsibility of treating that form of touting, advertising, canvassing, and encouragement of malingering as infamous conduct in your professional sense, I should be delighted to see a free panel of doctors set up under the care of the local doctors themselves. Upon that point, you may want to ask me some other question; but I should like to say one word in conclusion. I want you to remember this: Your Chairman prefaced his observations by saying that you are very anxious. I can well understand that; it affects your livelihood, but it affects something more than that—it affects your professional standing, it affects your professional self-respect, it affects your professional honour, and naturally so, belonging as you do to the greatest profession in the world except the legal profession. (Laughter. The TREASURER: "I do not agree.") There is a gentleman here who says that he does not agree. I am very surprised. The real difference is that a lawyer is never anxious about his fees; he is only concerned about service. But I can well understand that you should be very anxious; it is not merely a question of livelihood, as I have said; but it is really a question of your professional honour, a matter with which you are more concerned than you are about your own livelihood, although every man must, after all, live. There is the future of the profession also, and I can well understand your saying, "Give us plenty of time to consider the position." I had the privilege of having an interview with one of the most distinguished physicians in this country or in any country, Sir Thomas Barlow, who came on behalf of the Royal College of Physicians last night. I discussed this point with him, and he put the same point to me on behalf of the physicians, and I pointed this out. If you look at the bill, all that is provided is a general instruction that there shall be medical attendance. We have already provided the finance—a very essential matter. I am not prejudging the point now as to whether 6s. is sufficient. That, I agree, is a very thorny and difficult question. We have provided 25 millions of money. The first charge upon that is the medical benefits. We have provided finance in the bill. What do we propose to do next? What we propose to do next is this: the moment the bill is through (and I think you had better proceed on the assumption that the bill is going through—it is much better business for you, I can assure you) the next step we propose to take is to set up an Advisory Committee. First of all, there will be Insurance Commissioners, and for those Commissioners I hope to get the experience and the advice and the assistance of a qualified medical practitioner. Then we have an Advisory Committee, and upon that Advisory Committee we shall have medical practitioners—men who are in touch with the medical practitioners of the country. We then propose to frame our regulations as to medical service. The bill, I think you may take it, will be through about the end of August. You will have the whole of the time between the end of August and the beginning of May of next year to consider the conditions of medical service, the payment of medical service, your relations to the members of the various societies and the Health Committees; you will have representatives of your own profession upon the Advisory Committee that considers it, and after all there is a very great difference between receiving a deputation and getting men alongside you, sitting there, constantly advising you—men who have a knowledge of what their profession wants, and what is best for the profession, and who will be there talking to you and helping you to frame these things. You may depend upon it that if you choose the right men—and we shall consult you as to the men—there will be no difficulty. I have had some experience of this kind of thing before with shipowners. With the shipowners I formed an advisory committee of this kind to frame regulations under the Merchant Shipping Act. The shipowners themselves chose their own representatives, and they are there to-day, and we have not the slightest difficulty. Never has anything been framed without consulting them, and I think I may say on the whole, nothing has been done without their full consent. That is the first thing that will be done, and, if I may say so, the most important thing for you to do is to see that you send in recommendations as to the names of men to serve who have your full confidence—not merely of the big men of the profession, but of the general medical practitioners of the country. I think that is really very, very important. We shall take their advice. We shall consider it. We shall weigh it. We shall be there in the position of deciding between, I will not say conflicting interests, but, two rival interests. On the one hand, there will be the pressure, no doubt, of those who want to cut down and who want to restrict your powers. On the other hand, there will be your representatives fighting for fair and honourable conditions for your profession. You will have the whole of the time between August and May, with your own men sitting in the Government Office with Government Officials on equal terms, to frame the regulations. That is the most important thing for you, if I may say so, to consider and reflect upon, and also to agree upon the general line of your conduct and the general line of the instructions which you will give to your representatives. This is all I have to say with regard to that.

*Disciplinary Powers: Malingering.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is this question. How does Mr. George propose to give us the disciplinary power over a colleague in the sense in which he suggested it?

Mr. LLOYD GEORGE: I think you have very wide powers at the present moment. [No.] Not with regard to discipline? [No, no.] Have you no powers of discipline at all?

The CHAIRMAN OF REPRESENTATIVE MEETINGS: In a sense we have. I think, if I may interpret the question correctly, it is whether you propose to confer upon your local medical committees statutory powers in this matter, or is it a matter for our own internal arrangement as an association or a profession?

Mr. LLOYD GEORGE: My idea was that it should be left entirely to the medical profession itself to exercise that discipline. You could not have outsiders adjudicating upon matters of professional conduct among yourselves. I think that must be left to the medical profession itself. At any rate I suggest that, if there is going to be a free choice of doctor, you should have very strong disciplinary powers, in order to exclude from the panel those who are guilty of professional misconduct to that extent. (Applause.)

*Advisory Committee.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is another question. Shall we be allowed choice of members of the Advisory Committee, as Mr. Lloyd George says the shipping men were allowed?

Mr. LLOYD GEORGE: I propose to follow exactly the precedent which I set there, which was that you cannot allow absolute nominations on a Government Board; but as a matter of fact you accept them. The medical men will send in the names of those they select, and unless there is some objection, which is inconceivable, we shall always accept them, but you cannot get men there sitting merely as delegates of the medical profession or of any interest. They are coming there not to represent the medical profession, but to advise the Government on behalf of the medical profession, which is a very different thing. They must give us free and independent advice. They come there because they are trusted by the medical profession, but once they are on the Committee they are not there as representatives of the medical profession, but they are there as councillors of the Government. They are there as councillors of the King—and the King's advisers are bound to give him honest advice without regard to any interest behind it—and they will be there on exactly the same terms as any other councillors.

*Administration of Medical Benefits.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: The next point is based on a resolution we arrived at at our meeting yesterday: that the administration of the medical benefits should be through the agency of the local Health Committee, and not by the Approved Societies referred to. That means, not by the friendly societies. With regard to that we beg your interpretation of Clause 14 (1) of the bill.

Mr. LLOYD GEORGE: Do you mean with regard to arrangements?

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Yes.

*Terms of Agreements to be Subject to Sanction of Insurance Board.*

Mr. LLOYD GEORGE: I will take the last point first if I may, because it is a very important practical point. The question is whether under 14 (1) it is intended that not merely should the treatment and attendance be to the satisfaction of the Commissioners, but that the arrangements made between the societies and the medical profession should be to the satisfaction of the Commissioners. That is a very vital matter, because, if the Commissioners have the right to superintend the arrangements, they have the right to declare that the fees are unsatisfactory. The intention of the Government was that the Commissioners should have the right to consider the fairness of the arrangement, so that, suppose you get the kind of arrangement, that I am sorry to say you have too often experienced, of men having half a crown per patient, or some grossly inadequate fee, the Health Commissioners would have the right to say then that no medical man can possibly offer adequate and sufficient services at such a miserable fee, and they will have the right to send back the contract and say that it must be amended and an adequate fee paid, as otherwise the patient would suffer as well as the doctor. I agree that the wording is, perhaps, rather ambiguous, and that it will have to be strengthened in that respect, and I propose introducing words into that subsection that will make perfectly clear the intention of the Government that the Insurance Commissioners will have the right to refuse a contract between the medical profession and the societies, and to see that it is a fair bargain for the medical man as well as the patient.

*Health Committees preferable to Friendly Societies.*

Mr. LLOYD GEORGE said: This is a very important point. Your Chairman has informed me that in your view it will be far better if the whole of the medical service were taken out of the hands of the friendly societies altogether. (Loud and prolonged applause.) I am not in the least surprised at that demonstration, because I have been a very careful student of the report of the British Medical Association of some years ago, and I must say you have a very legitimate grievance in many respects. It is not merely your grievance; it is the grievance of the patients as well. I can tell you this, that I am entirely with you in this—entirely and wholeheartedly with you in this—and if you can persuade the House of Commons to consent to the transfer of the whole of the medical attendance, including maternity, to the local Health Committees, you will find me an enthusiastic supporter of that proposal. (Loud applause.) But you must remember there are two sides to this question, and that the Approved Societies will not readily resign this power. You have brought a good deal of pressure upon me during the last few days, and I want you to transfer that pressure from me to the House of Commons. I am entirely of your view as to this; I do not believe you will ever get a satisfactory medical service until you do transfer it to the local committees. Yesterday I had another deputation from another point of view—from the Hearts of Oak. The Hearts of Oak have no local branches, except in respect of one-tenth of their members; they have no local committee at all; it is purely central management. They wanted me to cut out of the bill the provision that compelled local management of their funds. Well, I agreed to do what they wanted, if they handed over the medical attendance to the local Health Committees; and, as far as that deputation is concerned, they have agreed. So, at any rate as far as the medical attendance of the Hearts of Oak is concerned—and it is a very considerable proportion of the whole—you will, I think, find that they are very ready to hand over medical attendance to the local Health Committees. They are prepared to do so. I am strongly in favour of it for two reasons. Well, I need hardly give the reasons, for you know them. One is that you will have representation on the local Health Committees. The Government appoints one-fourth of the representatives on the local Health Committees. We propose to appoint local practitioners, among others, to represent us on the local Health Committees, not, I warn you, merely to look after the interests of the profession, but to look after the interests and the health of the community as well. We shall want you, not as delegates of your profession—you will forgive me for speaking quite plainly—you will be there to see fair play to your profession, but in the main you will be there also as experts who understand the fundamental principles of health, to guide and instruct the Committees in really cleansing the land of the foulness which breeds disease at the present moment. You will have to bring pressure to bear upon your members for this purpose; it is not merely pressing the Government—you must take it that the Government are entirely with you on this, but we shall have difficulty. There will be great pressure on the other hand; and therefore your only hope of getting a transfer to the local Health Committees, your only safe method of doing it, is by putting yourselves at once into communication each with his local member and getting him to pass an amendment in this sense. May I say another word about the local Health Committees, if I am not taking up too much of your time? (No, no.) Personally, I am very opposed to their being committees of the county council. I think it is far better they should be independent bodies. However, I should like to hear your opinion later on upon that subject.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is one question on that. Will the Chancellor of the Exchequer accept the position of the British Medical Association that the machinery of medical benefits can only be adequately and successfully settled by direct arrangement between the medical profession and the State—that is, the Insurance Commissioners and the local Health Committees?

The CHANCELLOR OF THE EXCHEQUER: That is practically the same thing. I am strongly in favour of the local Health Committees arrangement. I told you that there were two reasons why I preferred the local Health Committees. I do not mind admitting medical service is probably going to cost much more than I anticipated. In order to show you that I thought so even when I framed the bill, let me refer you to a special provision here. You will find it in Subsection 5, Clause 14. I propose there that where the fund for medical attendance is inadequate the Treasury and the County Council between them can make up the deficiency. The Treasury is prepared to pay half of any deficiency. That is the first time that the Treasury has come to offer to pay half of the medical charges for curing the people of this country. We are prepared to pay half if the County Council find the other half. That was because I knew perfectly well that the rigid limit could not be insisted on, although I cannot help thinking that it was a very liberal one. You do not agree with me, I know. I knew from the experience of Germany that it is inevitable that it must go up. I really do not regret it, because, after all, badly-paid work is bad work, and here you spend years and years in acquiring the mysteries of your art, and you spend thought and mind and nerve upon it, and some of you, I know, work very very hard. Some of my most intimate friends were doctors, and some of them were engaged in club practice, and I know how they had to work. Therefore, I do think that it is a great mistake for the public to underpay any profession, especially a profession which has got the life of the public more or less in its hands. I felt perfectly certain that it was no use making any provision for payment which was not an elastic one, and an elastic one means an expanding one. That is the real elasticity of this bill. This contains all the expanding power. The rates and the Treasury will come to the rescue. You may say that the rates will not. The rates will, and I will tell you why. It is to the interest of the ratepayer to do this work through the Health Committees, because otherwise he will have to do it through the parish doctor; he gets the advantage of the State paying half if he does

it through the local Health Committee, and you may depend upon it that if you are well represented—and I am sure you will be—on the local Health Committee, this measure will put the medical profession, especially in the industrial districts and in the country districts, upon a better footing and upon a more satisfactory footing, and, what is more important for you, as I know as a professional man who had had to go through the same sort of struggle, on a more secure footing than it ever has been. For that reason you ought to think and reflect upon Clause 14, Subsection 5.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is one point which brings to a focus some of the remarks which you have been making. Will the Chancellor support an amendment in the bill to place the whole administration of medical benefits under the local Health Committees?

Mr. LLOYD GEORGE: Certainly. I said so. This is very important. It depends entirely upon the measure of support which you secure for me there. After all, the Government has to consider the interests of the whole bill, which must not be recklessly endangered; but the whole of my support will be for this.

*Goodwill of Practices.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is one point which, I think, is covered by a very large number of questions, and which, I think, with the permission of the meeting, I will put to you in general terms, and that is this: Reference has been made to the vested interests of the friendly societies' doctors. There is to that, in the minds of many of us, a *per contra* point. We should like to ask you, Sir, what in your view is the sense and degree in which the question of the goodwill of practices is likely to be effected on the incoming of this Act?

Mr. LLOYD GEORGE: You can only have my opinion for what it is worth there. I do not profess to be able to say. But I think that until things settle down—I will be quite candid with you—for the moment it will affect goodwill; but the moment the medical profession and the Government come to an understanding and it is realized that the interests of the profession will be safeguarded, my own opinion is that the goodwill will be more valuable, for this reason, that you are offered security for the first time for payment, in the lower ranks of life, for those whom really, at the present moment, you cannot refuse to attend although you know the payment is very precarious. Every doctor knows perfectly well that he attends many people when he has the very faintest prospect of ever getting adequately paid for the attendance. He cannot very well refuse. That is the difference between your profession and ours. A lawyer may refuse to appear for a man in litigation, and he is all the better for it; but in the case of the medical profession, a doctor cannot always really refuse to attend a man if he hears that he will die unless he gets help. You have to do that sort of thing, as you know very well—much better than I do. I know, however, having had some experience, that the amount of bad debts of a country practitioner is sometimes very heavy. Now, for the first time, you are getting security for patients in that walk of life. That, I believe, is going to add enormously to the value of goodwill, because goodwill does not depend merely upon the volume of the practice, but upon its certainty very largely. That is so in every business. Therefore I think that the value of the goodwill will go up.

*Income Limit.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Now we come to a very critical question. Yesterday afternoon we arrived at a certain resolution as regards the income limit. The motion was to the effect that provision should be made for excluding from medical and maternity benefits persons whose average income from all sources exceeds £2 per week. (Applause.)

Mr. LLOYD GEORGE: I am afraid I cannot be as satisfactory in my answer here, but I want you to listen to me. I want you first of all to realize the difficulties. Take, first of all, the industrial classes of this country. You could not impose an income limit upon the industrial classes, and I am certain of it.

A VOICE: Why?

Mr. LLOYD GEORGE: I am going to tell you. I am simply laying down my proposition, and then I am going to give my reasons. In the first place, the vast majority of the well-to-do workers are already in clubs—the vast majority, but not all. The miners, who are highly-paid workmen, are almost entirely in clubs. I see a gentleman here who has one of the largest and most important practices of that kind in South Wales, and I have no doubt he has been very angry with me the last few days, although he is an old friend of mine. Are you going to cut them out? If you do, I do not believe you would get any member of the House of Commons to propose it, unless he were a university representative (laughter), and, if you did get a university representative to propose it, I am certain you would not get a seconder. I want you first of all to bear in mind that this bill has to be carried, not through the Treasury, not through the British Medical Association, not through the friendly societies, but through the House of Commons; and the House of Commons represents, in the first place, something like half a million miners. You could not do it. The same thing applies to engineers. There you have another highly-paid class of workmen, and if you propose to cut the engineers out you could not do it. It is no use asking for a corner of the moon, and that is really what it is you are asking from the House of Commons—a thing that no man in the House of Commons dare get up to propose. I have dealt with the industrial classes, and now I come to what I regard as much more important, the voluntary insurer. When you come to the voluntary insurer—the tradesmen and those whose income is, say, over £160 a year—there I agree that you have a case, and I am quite prepared to consider it. I shall have, of course, to hear and take the opinion of my colleagues, and I shall also see what the opinion is in the House of Commons; because, after all, a Minister is only one out of 670. I am quite prepared to consider here an income limit, so that the man who is earning his £200, £300, or £400 a year shall not be entitled to claim medical services at 6s., 7s., or 8s. a year, or whatever it is. With regard to the industrial classes, I do not believe you will ever persuade the House of Commons to give an income limit. One reason is, you may get an engineer earning this year £200, but go to him in a couple of years and he is not earning £50. The fluctuations are enormous in certain trades. The same thing applies even to the miners. At certain times, when times are bad, they are not earning half what they earn at the very best times. I would ask some of my friends in the colliery districts, can they get a single member for those districts who dare in the House of Commons propose to exclude the colliers earning £3 or £4 a week? Of course they could not do it. Really, if I may say so, I am willing to meet you in all things which, I will not say, are merely reasonable, but practicable, and I am here to do it. But merely for the sake of assent I am not going to pretend I can do things which I cannot. The things which I promise you I will stand by in the House of Commons at all risks and hazards. (Applause.) We can never come to an understanding unless we put our positions quite clearly, quite firmly, without any possibility of misapprehension. I tell you frankly that in my judgement it is absolutely impossible to introduce any limit for the wage-earning workers—quite impossible. You would not carry it out, but when you come to the voluntary contributors to the scheme there I agree with you that it is desirable there should be an income limit. I will support an income limit with regard to those. I think you put it too low, but I am quite willing to consider, and consider favourably, any income limit that would exclude the voluntary contributors above the income-tax limit. Beyond that I could not possibly at present go, and I am very sorry that we should have come to a point on which we are not in agreement yet.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: As arising out of that there is one question that is very much to the point. Does the Chancellor of the Exchequer recognize that if the income limit is extended to £160 the average cost of medical attendance must be distinctly greater than if the limit is £100?

Mr. LLOYD GEORGE: Yes, I do take that into account, certainly. I think you would be entitled in making your arrangements to take into consideration that you will now

be attending a class who, from the point of view of their income, is of a higher rank than those you were previously attending in the societies. I certainly think you are entitled to take that into account, and it is really rather a question of the rate of remuneration than anything else. I will make this admission, and it can be used in evidence against me. I do take that into account. The only thing I will say is this, that we are also entitled to take into account that for the first time you are getting security for payment from a class where you had no security before. (No, no.) I am very surprised to hear that you consider you had security of payment when you came to men who were earning 15s. or 20s. a week. (No, no.) I see we are not talking about the same class. I am not talking about the class between £100 and £150. What I say you are entitled to take into account when you make your arrangements, and are entitled to press on the Health Committees and the Insurance Commissioners, is that you are for the first time taking into your arrangements a class of persons who up to the present have been paying you a fee for attendance; but I say they are also entitled to take into account that you are for the first time getting security for payment from another class, not the same class. That does not apply to all of you, but I am certain that the country practitioner attends to that class now. You can teach me nothing I do not know about the country practitioner. The country practitioner is now attending, very often without getting any payment, a class of low-wage persons whom he cannot refuse to attend, but whom he very rarely gets paid for. I am entitled, on behalf of the Insurance Commissioners, to say that for the first time you are getting a guarantee of payment for that class. Therefore, we shall take those two things into account; but we shall also take into account that you are including a class of persons who up to the present you have not been able to charge bills against. There is no doubt—and I am sure the more you look at it you will find that what I say is absolutely accurate—that you will get, for the first time, a large number of persons who now cannot afford medical attendance at all. There is no possibility about it at all; they are brought in compulsorily; we pay for them; they will be entitled to attendance, and they are the class of persons who cannot claim the parish doctor till they can prove destitution; they cannot call in another doctor because they cannot pay. I have in the last few days heard of cases of that kind in London where the doctor is never called in except at the last moment, because the friends feel they must have a death certificate. I have heard of that from the East End of London and from Fulham, that the doctor has only been called in because the friends say, "We cannot afford to have an inquest"—when it is too late for the doctor to save the poor wretch. To the doctor in such circumstances the State would for the first time give something when there was nothing before. I appeal to you. You are the great healing profession. Of course your first consideration is the consideration of your own homes. I agree. You must see that you are fairly treated. No man who is not fairly treated can do his duty; but for the first time we are making an effort to come to the rescue of millions of wretched people who cannot afford your assistance at the present time. (Applause.)

*Post Office Contributors.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: The next question is: Why does the Government propose to penalize the Post Office contributor, and so set up a monopoly for the friendly societies? Why not give equal privileges to Post Office contributors, and so equalize risks in this portion of the scheme with friendly society risks, and leave an avenue for a national scheme?

Mr. LLOYD GEORGE: That is what I call rather a general question upon the scheme. I do not mind answering it at all if it be desired. (No, no.) There is only one thing I would say about the Post Office contributor, and that is that the 6s. basis does not come in in that case. You certainly cannot be expected to take people who are already ill at that rate. The reason we thought the 6s. was fair was that you will be getting it for people who were well as well as those who were ill. When you come to the Post Office contributors they would be people who are already ill, and we certainly never contemplated that the 6s. should be for those.

*Bad Debts.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is one question which it is asked that you might consider, sir, whether you will elaborate on that point:—"Is Mr. Lloyd George aware that in many practices there are not 5 per cent. of bad debts?" ("Oh, oh!" "Who says that?")

Mr. LLOYD GEORGE: All I can say is that I am very astonished to hear there are many of those practices. I know something about the bad debts of country practitioners, because I have been their legal adviser, and I am sure they would be astonished to hear there were only about 5 per cent. of bad debts. If there is any gentleman here who is prepared to buy bad debts on that principle I can offer him a good many.

*The Conditions of Remuneration.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: I do not wish to introduce any discord into our proceedings, sir, but there is one member, at all events, and I think his views are shared by a large number of the members in the meeting, who suggests that it should be brought to your knowledge that so far as we understand them the conditions of remuneration which have been put forward and dealt with by you, even in your latest speech in the House of Commons, are unsatisfactory.

Mr. LLOYD GEORGE: That is a matter of judgement. All I will say about that is, you must remember this bill does not settle the conditions. The conditions of remuneration are to be settled afterwards between the Health Committee, the Advisory Committee, the Insurance Commissioners, and yourselves. That is the time to fight that question out. I still say that if you attempt to put in a scale in an Act of Parliament you will make the greatest mistake of your lives. In the first place you cannot have a scale which is applicable to each district. Each district must be considered according to its own conditions. There is also this to be said: if you fix a rigid scale you cannot alter it, and if in times to come you think the rates ought to be put up, let me tell you that there is only one thing more difficult than carrying an Act of Parliament, and that is to amend it. It is far better to leave it with general instructions that you be paid an adequate remuneration; fight that out from time to time with the Insurance Commissioners.

*Hospitals.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: The next question is of remuneration, both as regards the method and the amount. First, as regards the method. I think I can put the general sense of the meeting to you in the following words: that, having regard to the fact that this is a State scheme, and that the object of the State scheme is to improve the health of the country and to diminish the incidence of disease, therefore *ipso facto* the question of charity in respect of the administration of that scheme should not come in. We believe that the State which undertakes this scheme, should be prepared to pay for good services in respect of that scheme, and that therefore the State should, having regard to the magnitude of the issues at stake, be prepared to pay for all services on the scheme of payment for work done. That, sir, I think, would represent the opinion of the meeting, and we should like to have your comments on that position.

Mr. LLOYD GEORGE: Mr. Chairman, if you mean that the doctors send in a bill in each case, frankly I think that is impossible. I am sure that is the experience of all doctors who have been working in the industrial districts—at least, most of them. If you are going to allow the patients an unlimited right to call the doctor in when the patient likes, and get his bottle of medicine, and that every bottle should be charged for and every attendance charged for, that would break down the scheme so hopelessly that it would be futile to proceed with it. Therefore, I would respectfully suggest to the meeting that it is far more important for them to fight out, not in the bill, but afterwards with the Advisory Committee and the Insurance Commissioners, the scale of the fee which should be allowed. We have left the question open to be discussed afterwards. You will be free to discuss different aspects of the matter with

the Insurance Commissioners. For instance, I saw a suggestion in the British Medical Association's report that there should be, first of all, a comprehensive fee with a small fee added for attendance, so as to have a check on the person who is always calling a doctor in. All those things could be discussed; but if you ask my opinion in advance, I think any attempt to demand payment on the number of attendances would break down. There are, I believe, one or two societies who carry on business on those lines, but they are generally in very healthy districts, or have more or less picked lives. To doctor the whole of the working classes on that basis would be, I believe, quite impracticable. That is my frank and sincere opinion.

*The Capitation Fee and the Club System.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is one more question upon that particular point. It is to ask the Chancellor if he has realized, first, that the payment of medical men by capitation fee means paying them in inverse ratio to the amount of work they do, and if he considers that a just and a wise method of treating them and of securing satisfactory service—satisfactory, that is, from the public health, the State point of view; and, secondly, that, apart from the amount of the remuneration under any capitation fee, the majority of the medical practitioners of this country object strongly, and will in fact refuse, to accept work on contract terms?

The CHANCELLOR OF THE EXCHEQUER: I have an answer in the words of a medical man; you will find it in the Report of the British Medical Association:

> On the whole, I consider my position with regard to my clubs satisfactory; I find my members grateful. I unhesitatingly condemn the entire club system, as it exists at present, as unsatisfactory both for the patients and the medical men; but I would strongly deprecate any interference with it until some better scheme for universal application has been devised. Up to the present, I fail to see that a practicable one has even been suggested. I believe contract practice in some form in a district like mine to be absolutely necessary.

That really represents my position in the matter. I do not think it is satisfactory; I think it is a misfortune that you cannot devise some better substitute; but, up to the present, I have not heard a single suggestion of an alternative which seemed to me to be practicable. If anybody can devise one for universal application, I shall be delighted to consider it; but that really represents my view with regard to it.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: I should like to ask for your remarks on this point: It is quite certain that, even in the way you have put it, a number of our members would not be convinced; they are of opinion that if the system of payment for services rendered be not tried on a general national scale, at all events it should be tried on an experimental scale in certain districts. Is it competent, under the conditions of the bill, for the members in a locality to impress as strongly as they possibly can upon the local Health Committees, even to the extent of organizing a local medical strike, that such a system should be, in that area, tried?

The CHANCELLOR OF THE EXCHEQUER: There is nothing in the bill to prevent the experiment being tried; but I must put in this word of caution. Supposing that you had a local Health Committee for a whole county, you could not have half a dozen favoured districts drawing an unlimited amount from the local Health Committee and getting a sort of paradise for doctors and patients in that corner of the county to the detriment of the rest of the doctors in the whole of the same community, because they would be drawing from the same fund; and, if you overdraw *here*, then of course you have not enough money *there*. If you spend more money in this district than the fair proportion you ought to have spent, of course the other districts have to suffer; but, within those limitations, there is nothing to prevent a whole county, if you like, trying the experiment, or a whole society trying the experiment, of paying by attendance. It would be useful to have an experiment tried, in order to see whether it is possible to run it; but I would like to see the experiment very carefully tried first before you apply it in a general way.

*Remuneration for Special Services.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: As regards the amount, it is probably within your knowledge that we, as an Association, have been pressed in various quarters and for various reasons to, at all events, mention a minimum capitation grant. The meeting is particularly anxious to represent to you the extreme difficulties they have in assenting to those representations. Those difficulties, I gather from the sense in which we discussed the matter yesterday, are mainly, and, in the first place, that we do not know what range of services is contemplated under the medical benefits mentioned in the bill. I think that was one of the considerations, and, I think, the dominant consideration, yesterday. Then, without asking you to reply to them seriatim, may I put these points to you: Will the duties of medical practitioners under the contract be clearly defined and all extra service be paid for on an agreed scale?

The CHANCELLOR OF THE EXCHEQUER: What do you call "extra"?

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Such as operations, whether in an institution or not, consultations, night work, the administration of anaesthetics, and mileage. Those will, I think, be enough by way of illustration. Then there is the question of emergencies. Is the Chancellor willing to provide that emergencies of all kinds should be excluded from the medical attendance? Again, will an insured person under the bill be able to claim medical attendance from a doctor belonging to an area different from that in which the insured usually resides? Then there is the position of the unmarried; and also there is the very important point with regard to diseases due to misconduct in the sense in which that is usually taken. It is suggested that persons suffering from disease of that kind arising from personal misconduct should be excluded from medical benefit. One argument advanced in favour of that proposition is that it is unfair that the doctor should be obliged to attend upon a person suffering from those diseases while the State debars the person from benefit. Then there is the point with regard to maternity benefit. Then there is the relation of the service to preventive work, in view of the fact that if the value of the bill from the public health point of view were proved it might become the duty of the profession to make considerable sacrifices on its behalf. I think those points cover all the questions upon that particular matter.

Mr. LLOYD GEORGE: Some of the questions descend into details which are very important and which will have to be considered, but upon which I should hesitate very much to express an opinion at this stage. Generally, I may say this: Of course the payment of a specialist would not be included in the capitation fee, and therefore, if there were consultations, they must necessarily be outside the range of whatever capitation grant is paid; it must necessarily be. That would not be a burden cast upon the medical man, but the society, or the local Health Committee, as the case may be, would have to pay that fee. With regard to operations, that also I should put in the same category. Most of the serious operations—not all, of course—would be performed in institutions, and I can well understand the medical profession insisting upon special arrangements being made for serious operations. That is a matter which you will have to arrange with the local Health Committee and with the societies, as the case may be, subject to the approval of the Insurance Commissioners. I can well understand your charging in these very special cases an extra fee. But there is real danger in allowing what is called "extras," as any one knows who has ever built a house, because everything runs into an extra, and very often the extras become a much bigger thing than the original bill. So that we must very carefully scrutinize the demand for any extras, and not allow too wide a margin for demands of that kind. But all these are matters which you will have to settle in the agreement, which will be subject to the Insurance Commissioners' approval. They are very important things for you to consider carefully. Mileage is an important thing, but I do not think there should be a fee for emergencies. After all, every illness is an emergency, and I think it would be better for you if you were to confine yourselves to those three or four really big burdens upon the profession—consultations, operations, and mileage.

A VOICE: And night work.

Mr. LLOYD GEORGE At the present moment night work,

I believe, is included in the general contract fee. That is a matter I would rather not pronounce upon at the present moment, and I would not care to pronounce upon it until I get the opinion of the medical advisers who are to advise the Commissioners. It is too big a thing to answer straight away. All I will say is this, that there will be nothing in the Act of Parliament to prevent your demanding a fee for night work. It will be a matter for arrangement after, but I do not express an opinion now. With regard to specialists and serious operations, I do express an opinion. Many small things pass into the sphere of operations, but I mean serious operations. With regard to curing the man who has brought on illness by his own misconduct, it is an unsavoury topic, but after all we have to face it. We had to make provision for this, because it is not merely the health of the man himself, but it is the health of those dependent upon him, and the health of the community. (Hear, hear.) In fact, it is in the interests of the medical profession as well as the country that he should be cured at the very first possible moment, because you may depend it will come back to the medical profession, and it will come back in the shape of much more serious disease, and, when it does that, the burden is upon you, and I am not sure that in your own interests it is not very much better that provision should be made for curing diseases of this kind at the earliest possible moment, before they come back with compound interest to the charge of medical men and of the fund itself.

*Hospitals.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: The next matter for your consideration is the effect of the scheme on hospitals, and on that point I have three questions to put to you. First, is the scheme a business scheme, or one that is to depend for its success on the charity of the profession? I think the point alluded to there is that of necessity there will arise cases under the operation of the scheme which are very properly referable to some institution. As far as regards the profession, we know there are no institutional beds under State control to which those general kind of surgical cases can be removed, and if as we suppose will be the natural trend, those cases go into the great charitable institutions, then it is submitted that those cases, nevertheless, which should properly be in charge of the scheme are treated on the basis of charity from two sources — that is to say, through the philanthropic who support these institutions, and secondly —and this is the point to which I ask your attention —the charity services and free services of the unpaid staffs of those hospitals. Does the Chancellor of the Exchequer accept the opinion of the British Medical Association that no medical benefit proceeding under a State Insurance Scheme shall be administered through or by a charity? If so, will he consent to the amendment of Clause 17, and will these subscriptions or donations from the approved societies in reference to the hospitals be available for payment of the honorary staffs of such hospitals or other charitable institutions, and will any fee be paid to the staffs?

The CHANCELLOR OF THE EXCHEQUER: That is really a very, very big and extremely difficult question, because these great curative institutions are now under no public control. They are voluntary institutions in every sense of the term, and we do not propose to exercise any control over them. We propose to leave them exactly as they are in that respect. Now the friendly societies do a good deal of collection for them, they pay some subscriptions towards them, and, I believe, when they do subscribe to them, they make certain conditions with regard to their own members. All we propose is this: we propose that the Health Committees, and the approved societies shall have the power to subscribe to those institutions; but what use will be made of those subscriptions is entirely a matter for those governing bodies of the institutions themselves. If we begin to lay down conditions of that kind, that would practically mean taking over the control ourselves. We do not propose that; whether it will ever come to that is another matter. At the present moment we certainly propose to leave them their own autonomy as self-governing institutions. All we do is to take steps to feed them with subscriptions and assist them in getting along. That is all we can do at present with regard to those institutions.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Further arising out of that, might part of the Poor Law hospital system be taken over by the Health Committees and Insurance Commissioners? Or, in the alternative, having regard to the fact that a large number of these charitable institutions are heavily in debt, would it be competent for the money to which you have just referred to be expended in taking over, say, a wing of some of these large charitable institutions to be devoted to purposes which were just referred to in connexion with the scheme, also to cover the proper remuneration for those who perform special services in such a hired or taken-over wing? It has been represented to me—and although I happen to belong to that class of practitioner, I am sure the meeting will not believe I am in any way taking advantage of my position to represent unduly their claims—but I would point out that, after all, while it is admitted that the basis of the efficiency of the scheme is the general practitioner, the consultant is really going to be directly affected in a very large measure and at a very early stage. A large number of those who now come under the Government scheme—and I may go as far as to say which constitute a very large and, indeed, a very dominant portion of the income of the consultants to-day—are those from whom a large portion of the consultant's income is received. So they are going to be affected quite soon.

Mr. LLOYD GEORGE: I am not quite clear as to the nature of the suggestions. The first question that was put to me was this: whether we propose that the Poor Law infirmaries should be taken over by the local Health Committees. But the local authorities may not be willing to allow infirmaries to be taken out of their hands, and I do not anticipate that there is any immediate prospect of anything of that kind taking place, but I hope that soon there will be reorganization of the Poor Law. It is very much overdue, and, when it comes, I hope the whole position of the Poor Law Infirmary will be taken fully into account. I think on the whole our best plan is not for the moment to interfere with the absolute freedom of the hospitals, but to confine ourselves to subscriptions. And may I add, because it is not only very interesting but it is very relevant, that since the insurance came into operation in Germany, private benefactions to the hospitals have doubled, and in Germany, you must remember, the employer pays twice as much as he does under our scheme, and, in spite of that, benefactions have doubled in the last twenty years, I think. If I had known this was coming up, I would have brought the figures, but those are the actual figures in Germany, and therefore I think there is a flourishing time for the hospitals.

*Sanatorium Treatment.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: With regard to sanatorium treatment, the questions asked are: What disease is it contemplated shall be treated under the section of medical benefit? and, secondly, in regard to tuberculosis, what is anticipated shall be the duration of the stay of tuberculosis cases in the sanatorium for the purposes of treatment?

Mr. LLOYD GEORGE: The last question I must leave to the doctors. It is entirely a question for them. With regard to the other, Clause 27 of the Bill will afford the answer. The sanatoriums are "for the treatment of tuberculosis or such other diseases as the Local Government Board with the approval of the Treasury may appoint." It has been represented to us that we ought not to confine treatment in these sanatoriums to tuberculosis, and it ought to be possible to treat other diseases of the same kind there, and if the members of the medical profession think that these institutions can be made useful for other purposes we have left it open for them to be utilized for the cure of other diseases as well.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: I think I had better make that point clear. The question arises out of the doubt whether it was contemplated that very bad cases of tuberculosis or phthisis should stay there indefinitely, even although there was no hope of successful treatment.

Mr. LLOYD GEORGE: That, I think, is really a medical question upon which I would not presume for a moment to express an opinion. Doctors themselves are not agreed quite upon the treatment at sanatoriums. Therefore it is not for me to advise where doctors disagree.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: I will read out the next question, together with the answer approved by the Chancellor. Is it not a fact that the capitation system is universally condemned by the profession in Germany? Is it a fact that 40.3 per cent. of the insured in Germany received in 1909 medical attendance with sick pay, which does not include minor attendance without sick pay; and the average duration of each illness amounted to 20.5 days? These figures and statements are given in parallel columns by a German correspondent in the *Lancet*. The answer is: The Memorandum to the German Government scheme shows that opinion is very divided in Germany on the whole question, and it is not safe to say that any opinion is universally held. Another question is—How many Insurance Commissioners is it proposed to appoint and how many of these will be medical practitioners?

Mr. LLOYD GEORGE: I think it would be undesirable at this stage that we should finally determine the number of the Commissioners. As we get along we shall find a number of interests that ought to have at least, I will not say a spokesman, but ought to have an expert on that body. I may say that up to the present I have had twenty different interests each demanding a third, and with the best will in the world I am afraid I cannot accommodate all these demands. We must have a medical expert on the body. My own view at the present moment is that the Insurance Board ought to be a small body. It will be a judicial body. It ought not to be a body to hold discussions and debates; it ought to be a small body of efficient administrators—in fact, the smaller that body, I think, the better, consistently with getting men who are more or less in contact with different views of health, or rather, with the different aspects of health. But what is still more important for you is that you should get an adequate representation on the Advisory Committee. The employers and the workmen would be represented on the body, and therefore it is of vital importance that your profession should also be represented on that body. That is the body that will advise the Commissioners upon the way they should deal with all questions. That is where I think you ought to get an adequate representation of your profession. Of course, we must get amongst our administrators as well a medical expert, but the numbers will depend entirely on the total, and for the moment my view is that the Insurance Commissioners should be a small body of efficient expert administrators depending on the advice of the Advisory Committee.

*Ireland.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: I take it you will not be surprised, Sir, to know that we, too, have our Irish question. Bearing on that point, I want to ask, Is it the intention to retain Ireland under the bill? Secondly, Are the funds for the administration of medical benefits under the National Insurance Bill to be equally and similarly applied in Ireland as in Great Britain, and will the representation of the medical profession on the local Health Committee be similar?

Mr. LLOYD GEORGE: Ireland has got special, I will not say difficulties, but special problems of its own. One thing I discovered when I first began to deal with the question was that in Ireland there was absolutely no objection in the rural districts on the part of well-to-do people to apply for a red ticket and go to a parish doctor. You will not get farmers in the rural districts in either England, Scotland, or Wales going to a parish doctor if they can avoid it, but in Ireland I am told that without exception in the rural districts they do so, though in the industrial districts an objection is felt. In Ireland the problem is not to set up a separate independent medical attendance, but to pay the parish doctor more than he is getting now. That is one of the points. At any rate, we propose that the Irish question should be settled, as I should like to see many other Irish questions settled, by the Irishmen themselves. As far as I am concerned, I would rather that the problems of Irish doctors be settled by the Irish doctors themselves. They understand them; I do not. I am told there are very different considerations applying. At any rate, the money would be there for them. ("The same money?") Yes, the same money. As to how it is distributed, they will have to fight that out themselves, but the medical profession will be represented. This is going to be an Imperial question. It is an Imperial question in Germany, although you have there a number of autonomous States. It is an Imperial charge, and it is an Imperial direction; and the same thing will apply here. Therefore, you may depend upon it, the Insurance Commissioners will have the same concern to see that the medical profession is as well treated in Ireland as in other parts of the United Kingdom, and that will remain in spite of all or any contingency that may happen.

The CHAIRMAN OF REPRESENTATIVE MEETINGS: To clear up that point, Sir—I do not know whether it is covered by the statement you have just made—there is this question: Will the medical profession have representation on the Advisory Committee in Ireland in the same manner as that which you have referred to as regards Great Britain?

Mr. LLOYD GEORGE: Yes, certainly; we mean to see fair play to the medical profession in every part of this kingdom, and as a professional man I have sympathy with the difficulties of professional men, but, in addition to that, I know we cannot get a real success for our attempt at healing and curing the nation unless we get the medical profession with us.

*Objections to Friendly Society Management.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS: The next question is one which is addressed to myself, and I would ask you, Sir, carefully to note the way in which I am kept up to my duties: "Why has the Chairman entirely omitted to announce our absolute refusal to accept friendly society management?" (Loud applause.)

Mr. LLOYD GEORGE: If by "friendly society management" is meant the absolute control by the friendly societies, that is at an end for ever under this bill. At present the medical profession are left face to face with the friendly societies—there is no appeal; whereas in future the Insurance Commissioners stand between the medical profession and the friendly societies. The money is paid now to the friendly societies. In future the money will be paid to the Insurance Commissioners and the friendly societies simply get credit for it. We do not part with that cash except upon conditions which we regard as perfectly fair not merely to the medical profession, but to the patient as well; what is still more important is this one great grievance against the friendly societies is that they now make a profit out of the doctor. They save the money that ought to go to pay the doctor for the purpose of increasing their benefits. That we will insist upon their not doing in future. (Applause.) In fact that is the meaning of that clause. It will be part of our responsibility, part of our obligation and our duty under the statute, to see that the money which we intend should go for medical benefits shall go there, and shall not go into the pockets of the friendly societies for distribution or any other benefits. (Applause.)

The CHAIRMAN OF REPRESENTATIVE MEETINGS: There is another question. Will dispensaries supported partly by endowment and partly by subscriptions be in any case taken over by approved societies?

Mr. LLOYD GEORGE: It is perfectly true that any body can form a registered society, but the medical benefit, whether it is of a dispensary association or any other association, would be subject to the control of the Insurance Commissioners, and subject to the conditions which they impose. The dispensary associations will have no more right to dispense medical benefit in their own way than any other associations in the kingdom. I want that to be clear. It has to be done under the directions of the Insurance Commissioners. I know a very important town in England where they pay their doctor 2s. I cannot imagine any Insurance Commissioner passing an arrangement of that kind in future. That is in one of the most important towns in England. Those are the things that will be revised, and in future, whether they are dispensary associations or any other kind, they will be completely under the control of the Health Commissioners. (Applause).

The CHAIRMAN OF REPRESENTATIVE MEETINGS: Before moving a vote of thanks to Mr. Lloyd George for his presence here to-day, I have been reminded that there is a resolution which we arrived at yesterday which would amply support the statement I am now about to make. The statement comes from one of the members

of the Representative Meeting, and I will put it in his own words: "I hope you will not forget to express the desire of the profession, and especially of the British Medical Association, to do its best to make the scheme a success." (Applause) Then, sir, I am sure it will be in accord with the feelings of every member of our Representative Meeting if I express to you our sincere indebtedness and deep obligation for the kindly and patient manner in which you have dealt with the questions which have been presented to you, and we trust that it will lead to a hearty co-operation in this sense that you will realize the point from which we have to work and the difficulties under which we have to labour in this present extremely responsible duty that has been imposed upon us members of this body. I move that we accord a hearty vote of thanks to Mr. Lloyd George, the Chancellor of the Exchequer, for his presence here to-day. (Loud and continued applause, the members rising in their places.)

Mr. Lloyd George: Mr. President and Gentlemen, I am very much obliged to you for your cordial and kindly vote of thanks. I am still more obliged to you for affording me an opportunity of coming and discussing the matter with you face to face. It is always better—it clears up misapprehension. I have learnt a good deal, and I hope that I have been able to teach you something. At any rate I have learnt a good deal as to the point of view of the profession. I have already had it conveyed to me from various quarters. I have had two or three deputations from the British Medical Association, but I venture to say that I have learnt a good deal to-day from the questions that have been put to me and from the general temper and tone of the meeting. I thank you very heartily for the very patient way you have received me. I do hope you will be able to co-operate with the Government in making the scheme a success. You are entitled, not merely on behalf of yourselves, but on behalf of your families and your profession, to demand fair and honourable treatment. On the other hand, we appeal for your aid, and I am sure that with your whole-hearted assistance we shall be able to do something to make this country a healthier and happier community. I am exceedingly obliged to you for your great kindness and courtesy to me to-day. (Loud applause.)

The Chancellor of the Exchequer here left the meeting.

## CORRESPONDENCE.

### Dr. Esmonde and the Insurance Bill.

Dr. John Esmonde, M.P., who was present during the greater part of the sitting of the Representative Body and on several occasions intervened with advice, writes to express his thanks to the medical men who have written to him about the Insurance Bill. As I have had, he adds, several hundred letters, and am not fortunate enough to have a secretary, I am sure they will not expect me to answer them individually. The many valuable suggestions I have received will help me much in the Committee stage of the bill, should the profession be able to accept the bill as a whole.

### Local Health Committee.

Dr. J. E. Moorhouse, Honorary Secretary of the Stirling Branch of the British Medical Association, writes:

It seems unlikely that the Government will insist on placing the control of the medical service under the friendly societies. But it would be wise for us to see that the body which is to be substituted for the friendly societies is one under whose auspices we should be likely to fare better. The debate points to the control of all the medical service, as well as the sanatorium benefit being placed under the local health committees, and this suggestion appears to have been welcomed at many meetings of medical practitioners.

This makes it desirable to have as full an analysis as possible of these proposed committees. Clause 43 of the bill states that "a local health committee shall be constituted for every county and county borough," and names the constitution of the committee as being appointed:

(*a*) One-third by the county council or county borough.

(*b*) One-third by the friendly societies.

(*c*) One-third by representatives of the Post Office contributors.

The number of these representatives is to be not less than 9 nor more than 18, so that they obviously must total 9, 12, 15, or 18.

Subsection 5 of the same clause states that the Insurance Commissioners are to appoint further members of the local committee, "not exceeding in number one-fourth of the members appointed in manner aforesaid, but so that at least two of the members so appointed shall be duly qualified medical practitioners.

Taking the previous figures of 9, 12, 15, and 18, it is apparent that the Commissioners *must* add two practitioners to every committee. In the committees of 12, 15, and 18 they *may* add a third individual, and in the committee of 18 they *may* add a fourth. These third and fourth individuals may or may not be medical practitioners. This gives a possibility of committees consisting of any of the following numbers: 11, 14, 15, 17, 18, 20, 21, or 22.

Several facts having important consequences to the medical service emerge from these figures.

1. The appointment of the medical members of these committees is in the hands of the Insurance Commissioners. This body is itself to be appointed by the Treasury, and there is no indication that it will include any medical practitioner. It is a central body having "a central office in London," and yet it is to select the medical practitioners who will serve on the local health committees in all parts of the kingdom.

2. In every case the number of medical practitioners on the local health committee forms a very small minority. The number varies from its best of 3 in a committee of 15 to its worst of 2 in 22—that is, from one-fifth to one-eleventh.

3. In every case the beneficiaries under the scheme are in a permanent majority on the health committees. The majority will vary from its best of 12 in a committee of 20 to its worst of 8 in 15—that is, from nine-fifteenths to eight-fifteenths.

4. There is the possibility, and in many localities the great probability, of the representatives appointed by the county or town councils being themselves beneficiaries under the scheme. If the county or town council representatives are not themselves beneficiaries it is not difficult to forecast which way their sympathies will incline in a dispute between the insured and the doctors.

The committee of 11 containing 2 practitioners would be the most favourable from a medical point of view, as in a committee of this size the profession would have its largest assured representation. But in this committee 6 members would necessarily be beneficiaries, and there is great likelihood of the remaining 3 being also insured persons. So that this most favourable committee might consist of 9 insured persons and 2 doctors. The question may well be asked, What is the advantage to the profession of placing the control of the medical service under such a body instead of under the friendly societies? There is nothing in the bill to prevent such a committee appointing individual doctors to the whole of the members of a particular society, or appointing whole-time officers in its own locality. The evils of lay control would merely be intensified by the enlarged contract practice of the future.

It is not within the province of the medical profession to ask why there is no representation of the employers on these committees, or why the State is to be loosely represented by nominees of the county or town councils. But it is emphatically our duty to see that the profession is represented in a much more satisfactory and definite manner. If the committee is to consist entirely of insured persons and practitioners, the profession is entitled to ask that its representation shall be at least equal to that of the insured. Even this would fall far short of the medical control of the medical service, which has hitherto been the object of the Association's policy.

These considerations, and others arising out of them, should make the Association chary of rejoicing overmuch in the simple fact that the medical service is not to be placed under the control of the friendly societies. We may find the fire quite as uncomfortable as the frying-pan.

### General Principles and the Standard of Remuneration.

Dr. William Gordon (Exeter) writes:

We shall do well, as Dr. McKenzie Johnston urges, to take a wide view at this great crisis in our history,

and to remember that the crisis is not merely professional but national. I do not, however, wholly regret that our interest in it is centreing so closely round its financial aspect, for the financial proposals are the kernel of the whole matter. On the contrary, I dread lest the traditional timidity of doctors in dealing with finance, and their equally traditional noble folly of ill-considered self-abasement, may lead now to the acceptance of gross under-remuneration. May I be permitted, therefore, to put forward some reflections on the subject?

1. The glamour of our own ideas of what such a bill *might* be has for a while blinded us to a sense of what the bill really is. Hence the chorus of premature applause.

2. We are not acting simply for ourselves—not even simply for our own wives and families, who have a claim on our protection. The attack of manual labour on intellectual labour is a not unnatural second step to its attack on capital, although a quite illogical sequence. It represents just the historical "rake's progress" of nations, and its success, unless the manual labourers have attained the mental calibre necessary to replace the classes they have subjugated in the counsels of the State, spells national decline. Of such attainment by the manual labourers of this country as a broad class there is no evidence. The fall of the highest class became a foregone conclusion when they threw away their supremacy of culture. The middle class, however, remains, and, as it usually does, continues to maintain, the intellectual strength of the community. It now functions, in fact, as the brains of the country. Yet the stress put on it is telling, and the National Insurance Bill, as at present drafted, represents the first open assault upon it. Already the fundamental financial requirement of any efficient working community—namely, a sufficient wage to maintain efficiency, to bring up, educate, and start a family, and to provide for old age and a possible widow—is lacking to many of its members. Financial pressure has already begun to sterilize this important class. The gradual accumulation of wealth in the hands of non-workers, and the gradual increase of the burden of financial pauperization of an improvident proletariat, are simultaneously crushing the intellectual workers of these islands. The medical profession, as the weakest number of this class, has felt this pressure most, and, as the weakest, is now naturally the first to be attacked. The moral is clear. Instead of showing any selfish greed in claiming for our own what we have so amply earned, we are in reality acting as an outpost of the intellectual workers of this country, fighting, in fact, the battle of the national brains. In this battle, whilst we ask no more than is just, let us be determined to accept no less. In this battle, also, let the intellectual workers of the country recognize our position as an outpost, before it is too late for themselves, and lend their support in what is truly a national cause. For the future of this country depends to no small degree on the success of our resistance. Let it be recognized clearly that the *ostensible* object of this bill—the physical betterment of the masses—depends much more on food and housing than it does on medicine, and it will become clear enough that as surely as too cheap doctoring may be made an abuse of the last, so too cheap food and too cheap law will be made abuses of the two former. Are lawyers so firmly entrenched that they can afford to see the first line of defence—the doctors—succumb before the forces arrayed against them? I doubt it.

3. This bill, not so hastily formulated as to have precluded ample inquiry, and now pressed forward with a strange haste, involves four elements in the State—namely, the community at large, the employers of labour, the labouring classes generally, and the doctors. Of these we can positively speak for the doctors. The proposals made regarding them are as amazing as they are inequitable. Considered as they stand, they display a want of foresight which is simply staggering. How, then, will they ultimately affect the other three elements in the case? Surely the community at large, the employers of labour, and Labour itself may well pause before accepting a bill whose medical provisions display such an extraordinary want of wisdom.

4. As regards the details of equitable remuneration of general practice, I am personally a doubtful authority, yet I can suggest some general considerations which fair-minded people will, I think, accept.

(i) The profession must have such pay as enables it to maintain efficiency, to bring up, educate, and start a family, and lay by a provision for old age, and a possible widow's pension.

(ii) Charity, which has hitherto entered into our bargains, has no longer any claim on us where the State has intervened.

(iii) We must take into account the money, time, and labour spent on our necessary general and professional education.

In holding out for equitable payment also we must never lose sight of three things:

(*a*) That we fight not merely for ourselves, our wives, and children, but also as the outpost of the cultured intelligence of the nations.

(*b*) That we have no right to allow any branch of so important a national intellectual service as that of national health to be placed under the control of the least educated members of the community.

(*c*) That united we are impregnable.

### THE PROFESSION AND THE PUBLIC.

Mr. FRED. C. WALLIS, F.R.C.S. (London), writes:

It is obvious that the medical profession has never been consulted in framing this bill. It has been taken for granted that anything that was offered would be accepted.

The success of this scheme depends on the position the profession takes up with regard to it, and it must be carried out, not at the *expense* of the medical man, but because it will *improve* his position in *every* way.

In its present state the bill will be bad for the public for the following reasons:

1. The hospitals will suffer and be far more embarrassed than they are at present.

2. There will be fewer inducements than ever to enter the profession, and those who do enter it will be of a very different class to those who are in it at present.

3. It naturally follows that the whole status of the profession will gradually deteriorate.

For the sake of ourselves, for the benefit of the profession, and for the safety of the public at large, I sincerely hope that the medical profession will take up a strong position and not be beguiled away from it by the utterances of a clever tongue.

If this bill is to benefit anybody, first and foremost it must benefit the medical man, and in such a way that the medical profession shall become popular again to those seeking a career. In this way, and in this way only, a great and lasting benefit will be conferred on the country.

### CASH VALUE OF A CLUB DOCTOR'S SERVICES.

Dr. WILLIAM E. LLOYD ELLIOTT (Welshpool) writes:

May I give a concrete example as a basis of valuation?

I am surgeon to two Foresters' clubs in villages outside the town I live in. They pay me 4s. per member per annum for medical attendance and medicine, their contribution to the "Sick and Funeral Fund" being a little over 16s. per head. When "on the club" they draw 10s. a week, so if the doctor's fund were distributed in a similar way, they would each have half a crown a week with which to pay the doctor's bill, which is absurd. Of course they receive attendance when not "on the club," which may be set off against the funeral benefit.

Why do I do it? Well, partly because the work done in my spare time, as it were, is a contribution to the semiphilanthropic work which we all do, and partly because, when I bought my practice a few years ago, I thought that this work, carefully done, would bring my name before the public. I am not grumbling at my bargain. I look to my other work for a living. But a bill which expects us to doctor the bulk of the nation on these terms, as the Chancellor of the Exchequer foreshadows, is doomed to failure as far as the medical benefits are concerned.

The matter may be looked at in another way. I maintain that free medical attendance is worth all the other benefits put together, and without contracting would actually cost more; yet out of a yearly income of £28,000,000 derived from 14,000,000 members at £2 a head (9d. a week = £1 19s.), which is the Chancellor's estimate, he proposes to pay the doctors £4,000,000, which, again, is absurd. It might cover our expenses, but would leave us with little or no private practice. The profession asks to be paid for work done, as it is too vast a gamble to take over the sickness of half a nation at a nominal sum per head.

### A Precedent from the Irish Constabulary.

Hibernicus writes: It may interest your readers to know the amount paid by Government to general practitioners in the country attending on members of the Royal Irish Constabulary. It is true that these gentlemen have to supply medicines and also to attend the families of members of the force. On the other hand, the men are physically picked men and seldom on the sick list, while a large proportion are unmarried, and, of the others, many, I believe, pay a private fee when their wives require any serious medical attention. At any rate, the capitation fee is 2s. a month, or £1 4s. per annum.

### Country and Town.

Dr. Henry Hick (New Romney) writes: I fail to see how a capitation fee is to be arranged with anything like even justice to all. Is the man practising in a town to get the same fee as one in the country who has one-tenth part of his population and twenty times his area? When in a town practice I saw fifty to sixty patients a day and had no expense except my drug bill, now if I see eight or nine I have done a full day's work and covered probably between twenty and thirty miles. How, then, is my capitation fee to stand in relation to that of the man who is carrying on my old practice? Mr. Lloyd George proposes to deal with the question of excess of sickness, but he does not consider the man whose fate it is to have his patients few and far between, but who must live, or leave large parts of the country without a local doctor available in an emergency.

### Freedom in Work.

Dr. J. M. Hobson (Croydon) writes to deprecate as the forefront of argument the question of remuneration. The proposals of the Chancellor, he continues, to place medical public service under the control of friendly societies, or of committees with little knowledge of the proper relation between "doctor" and patient, is to do away with that freedom of the medical profession which is essential to the proper carrying out of our duties. If we go to the Chancellor and say, "We will gladly help you in your scheme for medical help to the really poor so far as is compatible with our freedom and honour, but not otherwise," we shall have a strong case. Adequate remuneration will follow as a matter of course. Reverse the order by putting pay first and we shall be dished.

### Contract and Parish Practice Compared.

"O. S." writes:

The following statement and figures may be of value. I only commenced to keep an account on January 1st of this year, consequently my figures only deal with the first five months' work—to May 27th. During this period the figures are as follows:

| Cases. | Visits. | Consultations at Surgery. | Total Attendance. |
|---|---|---|---|
| 235 | 668 | 780 | 1,448 |

Medicines and dressings included.

This gives an average of 289⅔ attendances per month, or 3,475 per annum. Probably the first five months of the year are the busiest, and therefore some deduction should be made.

My total receipts from clubs last year were £105. All clubs pay 4s. a head, except one small one paying 5s. a head. If the present average is kept up this gives 7½d. per attendance, with medicine. But allowing for a decrease of work in the next seven months, I will deduct the odd 475 and assume my total to be 3,000 for the year; this works out at rather less than 8½d. per attendance.

About two-fifths of my club patients live more than a mile away, some three or four miles. They should share in some of the expense of keeping motor car, man, and bicycle, etc.

I am also district medical officer to the union, for which I receive £50 per annum (£1 is deducted for superannuation). My pauper cases involved only 459 attendances for the same period, or 1,104 per annum. This pays, therefore, at the rate of just under 11d. per attendance, with medicines, etc., included. The addition of extras and vaccination increase the average amount per attendance, if the whole of the fees received from the union are included.

The union appointment is certainly better worth having than the clubs. Also it must be reemembered that the majority of pauper patients are old, with chronic ailments, and do not give so much anxiety, or need such care, as a rule, or such expensive drugs. But this, nevertheless, is a disgracefully underpaid work.

I find that this contract work (club and parish) takes up more than half my time, consumes certainly considerably more than half my drugs and dressings, and consequently is responsible for more than half my total expenses. I can, therefore, confidently assert that they not only do not pay expenses, but that, taking the share of cost of upkeep of motor car, man, drugs, etc., I actually lose a considerable amount per annum by these appointments.

Now, if this Insurance Bill passes in its present form, at least one-third of my present private patients will come within its scope, so that, unless the rate of payment is at least doubled, I shall lose very heavily, and, in fact, I shall be unable to make a living at all from the practice.

### What is Medical Attendance Under the Bill?

Dr. J. E. Stratton (London, S.E.) writes:—

It appears to me that the Chancellor's clauses relating to medical benefits have been intentionally left vague because he is at present uncertain what the State needs, what the insured member wants, and what the medical man regards as his due.

The present suggestion is that a sum of 6s. per head per annum shall be put aside for medical benefits, including drugs and dressings, etc. As the druggist is to supply whatever drugs and dressings are ordered, however expensive, this cannot leave *more* than 4s. per member for the doctor.

Now the question arises, Is the insurance for medical benefits intended to be a real insurance, covering all forms of medical and surgical treatment that may be required? Mr. Lloyd George implies that this is to be so. "The member . . . can command the services of a competent doctor."

Now, club practice at the present time is only a very partial giving of services; the terms of engagement are generally vague, but are taken to exclude, for example, attendance at confinements and miscarriages, operations both minor and major, all the more recent forms of bacteriological, electrical, hydrotherapeutic, and manipulative treatment, sight testing, and the treatment of venereal diseases. The competent medical practitioner is prepared to render all or most of these services, but they are not included in club attendance. In fact, practically all that is included is "advice and a bottle of medicine." Hence much dissatisfaction.

Possibly 4s. per annum would cover the cost of giving the advice without the medicine, at least in thickly populated districts. But no one in his senses could conceive that it would enable the doctor to give these other services. If the insurance is to be a *real* one, so that all the latest methods of treatment are rendered available to the member, a schedule of extra services must be agreed upon between the Government and the trade union of our profession, and the extra cost must be met by an increased contribution from the State or from one of the other parties. Any improved methods of treatment which the future may give us would be from time to time added to the schedule.

Of course, if the Government prefers, there is still open the better alternative of *all* payments being made in proportion to work done; or the employment of whole-time medical officers provided with all requirements for modern methods of treatment. What cannot be allowed is a perpetuation of the present popular idea that a doctor's duty consists solely in prescribing drugs.

In conclusion, may I say that any one who lives and works in a poor district must admit the necessity for *some* method of making medical treatment more readily available, not only for the industrial workers, but for the wives and children. The voluntary hospitals fill a large gap at present, but the State ought not to rely upon charity to provide the necessities of health for its workers.

### The Effect in Ireland.

An Irish General Practitioner sends the following notes on the extremely serious effect the National Insurance Bill, if it becomes law in anything approaching its present form, must have on his own practice:

I am not a medical officer of health or dispensary doctor, nor do I hold other appointments. My practice is essentially a country one. About 90 per cent. of my patients are farmers, and the majority small ones. They

pay fees varying from 10s. to £1 per visit (medicines extra), according to distance, and pay them willingly.

There are three or four dispensary doctors within a few miles. If the bill passes, apparently about 90 per cent. of my patients will have to insure. If free choice of doctor is not given them they immediately pass to another's care.

If free choice is given and they selected to remain under my care, and I were paid even 6s. or 8s. 6d. per family per annum, I could not afford to remain where I am any longer, and would of necessity have to give up my practice, which would be a very great hardship and would ruin me. The poor in Ireland can have a doctor and medicines for nothing whenever they require them, so the insurance scheme will not benefit them.

### The Wage Limit.

Dr. F. H. MATURIN (Lymington, Hants), writing on this subject, points out that in country districts a wage limit of £3 a week (£160 a year) would do away with a large slice of a doctor's income. He considers that 25s. a week should be the maximum wage limit for the insurance scheme.

### Effects on a Working-Class Practice.

YORKSHIRE writes: A grave injustice will be done to a large number of medical men, at any rate in the North, if the suggestion that all workers receiving less than 30s. weekly should be treated for 6s. per head. In the mill districts, for instance, few operatives receive this sum, yet they pay ordinary doctors' fees without difficulty, though in some cases they pay by instalments.

I have on my books many families consisting of from five to ten persons, of whom at least half are working, yet the wages of none reach 30s. They have an annual holiday, good food and good clothes, it being quite a common occurrence for the daughters of such families to give 35s. and £2 2s. for their hats, their other clothes being in accordance. Does Mr. Lloyd George seriously suggest that people like this should be treated for a small annual fee per head? Again, the ordinary confinement fee here is 15s. if paid within the month, 21s. if booked. The probable fee under the new scheme would appear to be 10s. This in itself would make an appreciable difference to one's income. Even my worst-paying patients, usually married men with large families, who are by far the most exigent both as regards frequency of treatment and the inconvenient hours at which they require it, bring me in far more than they would under the new bill, and yet they are often treated at a loss.

### The Capitation System.

Dr. A. W. HARRISON (Merton) writes: Mr. Lloyd George says that he has set apart £4,200,000 to provide a capitation payment of 6s., to include drugs, dressings, and appliances; under the scheme 14,700,000 people are to be insured from the beginning. Now this number divided into £4,200,000 gives not 6s., but 5s. 8½d. Allowing, say, the 1s. 8½d. for drugs and dispensing, this leaves 4s. to pay the doctor for ordinary illness (including bad lives), for treating syphilis, gonorrhoea, chronic alcoholism, etc., for setting fractures, giving anaesthetics, operations of emergency such as strangulated hernia, attending consultations, for providing all splints, dressings, and any other appliances, besides chloroform, etc. After providing these, we shall find that we are actually paying for the privilege of treating His Majesty's lieges gratis. The pay of the parish doctor has hitherto been contemptible, but he will be a rich man compared with us, for he does get an occasional fee for "extras."

M.D. (Lancs.) writes: I hope we shall not accept a capitation fee under the Insurance Bill. To me it seems a most unbusinesslike proposal. No business man in his senses would ever dream of entering into a contract unless the exact terms of that contract were securely settled by *both* parties. This proposal requires that only one of the terms shall be known, namely, what our remuneration shall be. The value we shall be expected to deliver in return for that remuneration depends entirely on the necessity or caprice of the patients, who, like the friendly societies, can be trusted to drive "a good bargain"—for themselves. To our proposals Mr. Lloyd George will reply that this, that, and the other thing will introduce complications, actuarial and other; but I think we should answer that the framing of the bill is his duty, not ours.

### Objections to Contract Practice.

Dr. F. C. POYNDER (East Grinstead) writes: The essential thing is that we should emphatically refuse to have anything to do with a State-organized scheme of contract practice. If the working classes like compulsory insurance, let them insure, and let them pay our fees out of their sick pay, but we must insist on payment on a proper scale for work done, and as complete freedom in the relation of doctor and patient as exists now in private, not in club, practice. Let us have nothing to do with any scheme of insurance that carries with it the principle of requiting our services with a fixed sum per patient.

### Proceeds of Private and Club Practice Compared.

A correspondent in South London who has a good mixed general practice, and has kept a careful record of all work done, club and private, finds that of the cash receipts one-fifth are derived from clubs at 4s. per member and four-fifths from private practice. The club work for six years has been equal to the private work. It is obvious, he adds, that when most of my private patients are allotted to me at 4s. or so per head I shall be badly treated.

### Position of Works Doctors.

A. D. H. M. writes: Mr. Lloyd George says he will make things better for the doctor and that no one will be injured by the bill. What about my position? I am casualty surgeon to large works in this district, attending on an average 1,000 accidents yearly and treating all the minor cases till they are fit for work. I also act as referee under the Compensation Act in the employers' interest. For this work I render an account for each case, charging my usual fees. My private practice, apart from this work, is practically *nil*. If the bill becomes law the employers will say that Mr. Lloyd George has made provision for medical attendance, and the men will select their own doctors. No doubt I will be eligible to get patients under the scheme, but as I have acted on behalf of the employers for over ten years, and looked after *their* interests, it is not likely that many of the men will consider me as likely to look after *their* (the men's) interests. And yet the Chancellor has the effrontery to say that *not one of us* will be injured by the bill. My colleagues admit that this bill will mean ruin for me. I wonder if the Chancellor will compensate me for the loss.

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## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A SPECIAL meeting of the Council of the Royal College of Surgeons of England was held on June 1st, Mr. BUTLIN, President, in the chair, for the consideration of the provisions of the National Insurance Bill so far as they concern the medical profession. The following resolutions were adopted, but the discussion was proceeding when we went to press:

(i) That the administration of the medical service should not be placed in the hands of the friendly societies, insurance societies, or other associations of a similar character.

(ii) That the medical profession should be represented by members of the medical profession on all committees or bodies in whose hands the administration of the medical service is placed.

(iii) That the persons insured, whether voluntarily or by compulsion, should be, as far as practicable, free in their choice of the medical practitioner to attend them.

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

## SECOND READING DEBATE.

IN the debate on the second reading many references were made to the medical aspects of the measure. Mr. H. W. Forster, towards the conclusion of his speech, said: I come to another question which really lies at the root of the whole of the proposals contained in the Chancellor of the Exchequer's bill—the question of the doctors. Everybody admits the great debt of gratitude that the country owes to the medical profession for the signal services they have rendered either by way of charity or out of pure philanthropy to the people amongst whom they work. The whole of the great fabric which the Government proposes to erect depends upon the loyal and whole-hearted co-operation of the medical profession. So far as I can gauge the opinion of the medical profession at the present time—and it seems to be expressed with extraordinary unanimity—it is that the provisions of the bill as they stand will not do. I am not going into this question in detail; all the points have been referred to in the public press, and I know that the details have been brought to the attention of the Chancellor of the Exchequer. I hope, from the various sentences that have fallen from the right hon. gentleman, either by interview or by letter, that he will meet the objections which the medical profession take. May I emphasize one or two points to which I have not seen any reference made, and make a suggestion which may at any rate obviate some of the difficulties? The bill proposes to use the great friendly societies in this matter of insurance. It leaves each individual friendly society to make its own terms with the doctors who look after its members. To that proposal the doctors are wholly opposed. There is nothing in the bill, as far as I understand, that either declares specifically or lays it down that the payment to the doctors should be made either by a flat rate or a capitation fee. That is the suggestion which was certainly conveyed in the speech in which the Chancellor of the Exchequer introduced the bill, but I hope, at any rate alterations may be made if that is the intention of the plan. In giving the friendly societies the payment of doctors the Chancellor of the Exchequer makes use of the present practice; but the present practice does not work well; I do not believe it is wholly satisfactory to the friendly societies; I am quite certain it is not satisfactory to the medical profession. I would ask the Chancellor of the Exchequer to bear in mind that the bill is going to extend so far beyond the present numbers who are dealt with—in other words, it is going to bring into your net such an enormous increase of membership of friendly societies—that I do not think it is fair to ask the doctors to go on under the same conditions as at present either as to employment or as to pay. I think a change could be made in the appointment of the doctors which would go far to ease the working of the bill. I think that the bill itself contains the machinery by which the appointment might be made satisfactory both to the friendly societies and to the doctors themselves. In the bill you call into being a new health authority—the local health committee. Those committees are composed of representatives of the friendly societies, of the deposit contributors, of the existing local health authorities, and of the Government by the Insurance Commissioners. You have here, therefore, a body upon which is represented every class of person interested in the management and carrying out of the scheme which we are now building up. That is the authority which is going to appoint the doctors in respect of deposit contributors, and why not allow them to have the appointment of all the doctors in the scheme? If you do that, and if you at the same time give them the assistance of an advisory committee composed of medical men practising in the area over which the local health committee will have jurisdiction, then I say that you will have gone a great way and taken a long step to remove some of the very natural objections which the doctors have. I think you will not incur in doing so the dislike or the enmity of the friendly societies themselves. After all, the friendly societies have got direct representation upon those local health committees. I believe that the friendly societies have found the appointment of doctors an occasion of constant friction, a matter that is irksome to them, and a matter from which they would gladly be relieved. I hope that the suggestion that I make will be weighed by the Chancellor of the Exchequer, who may be able to ascertain further information as to the view which the friendly societies adopt towards it. There is then the question of payment. If you were to hand over the appointment of all the doctors to the local health committee, assisted by a medical committee, I see no reason why you should not be able to come to a satisfactory arrangement with the doctors as to the manner in which the payment is to be made. After all, the Chancellor of the Exchequer knows pretty clearly in his own mind what the medical benefit is going to cost. He calculates by laying down a flat rate to have so much paid by the contributors, and he calculates how many contributors there are to be, and he can ascertain pretty clearly how much it is going to cost. As long as the sum which he sets apart for medical benefit is not exceeded, I do not think it would really matter to him whether the actual payment is going to be by way of a flat rate or whether it is distributed throughout the areas by the local health committee, acting in conjunction with the doctors themselves. What you want to secure is such a system of payment as that it will be satisfactory to those who receive it, and such a system of payment that will not be wasteful to the public who provide the money, and such a system as will give you satisfactory results, not only from the point of view of the State, not only from the point of view of the doctor, but as well from the point of view of the patient. The patient will very naturally take very considerable objection to any system which will impose upon him the obligation of being examined and treated by a doctor with whose appointment he has nothing on earth to do. Our people in this country do not like State officials interfering with them any more than they can help, and there would be, I am afraid, an inevitable tendency on the part of a great many people if those people were visited by a doctor whom they did not invite, whom they may not like, and a doctor in whom they may have no confidence. I am afraid there would be a great disposition to treat him as a State official. I do not want to press the matter unduly upon the Chancellor of the Exchequer, but I hope I have said enough to show the view that we take of this question, and that he will turn it over in his mind, or, rather, give us the result of what he has been turning over in his mind within the last few days. There is one thing certain to my mind in connexion with the creation of this new local health committee, and that is that it will lead in the near future, and it must lead in the near future, to a complete revision, at any rate of the medical side of our present Poor Law institutions. I think there is no doubt about that whatever. I think it must lead to it because you must place under one control all those institutions for the care and cure of the sick, which, after your bill once starts, will be under different administrations. You will have hospitals under one set of administrators, you will have sanatoriums under another, and you will have the workhouse infirmaries under a third. That is a system that cannot last, as it would lead to overlapping, waste of time and money and energy. It is a system that cannot endure. Therefore I say that the creation of local health committees must force this House and Parliament generally to undertake a complete revision of our Poor Law at a very early date.

Mr. David Mason: Does the hon. gentleman suggest that the local health committee should decide what remuneration should be paid to the doctors?

Mr. H. W. Forster: No, that is not a thing I would even suggest at the present moment. I think all that we can reasonably ask at the present time is that the Chancellor of the Exchequer should consider the matter, and to see if he could be able to show to those who appoint the doctors and the medical profession that there would be so much money to be distributed for the payment of the medical profession, and then see what arrangement the local health committee and the medical profession and, if necessary, the Insurance Commissioners could arrive at. We have no basis, and the difficulty of the doctors really

is that they have not sufficient experience upon which to go. The flat rate payment of the friendly societies does not carry us far enough. We are really setting out upon a new task without sufficient experience of the matter, and it is only after some years of experience that we shall be able to say really what remuneration to the doctors is fair.

Mr. Clancy followed, and dealt with the bill from the Irish point of view. The health conditions of the United Kingdom as a whole constitute, he said, the basis on which these contributions or rates of contributions have been fixed. The health conditions, however, are not uniform. They are not the same throughout Great Britain and Ireland. If Ireland be taken as a whole, it will be found that the rate of sickness there is less than in Great Britain. The simple reason is that whereas the overwhelming majority of the people of Great Britain lives in towns and urban centres, a similar overwhelming majority, if not a larger majority, of the population of Ireland lives in the rural districts. I suggest to the Government that that is a matter to be inquired into. If it be so, the consequence will be there will always be proportionately smaller demands from Ireland upon the insurance fund in respect of sickness and disablement than from Great Britain. So that if the rates of contribution be sufficient to provide fixed benefits for Great Britain, they would be more than sufficient to provide similar benefits in Ireland. I would like in a sentence to refer to one point of detail. We have in Ireland at present many medical services for the poor, which are among the few bright spots on the social horizon. I do not think there can be found anywhere a more devoted, zealous, and deserving body of public officers than the doctors in our Poor Law service. I desire to say that we deem it to be our duty to secure, if we can, that the changes which this Bill, if passed, will bring about in the administration of medical relief in Ireland to the poor and working classes shall not prejudice, directly or indirectly, the medical officers or dispensary doctors in Ireland.

Mr. Barnes, speaking from the Labour standpoint, said: We have nothing but admiration for the part of the bill which deals with maternity, consumption, and medical aid. With regard to consumption, we are glad to know that this country has at last begun to follow the example of Germany in dealing with the ravages of this fell disease. We are glad to know that responsible Government, acting in accordance with the wishes of the community, are at last beginning to recognize that consumption carries off every year more than battles in the greatest wars, and that, to a very large extent, consumption is preventable, and is very largely caused by poverty. We are glad, therefore, to know that something has been done through scientific research and otherwise, not only for the cure of this disease, but for its prevention. We are glad to know that this House has come to recognize in this bill that human life is, after all, a valuable asset. We are glad to know that in the future, if this bill becomes law, a person in receipt of medical aid will have the same right of access to the doctor. I notice in the papers that there is a controversy going on about the doctors, and I am not going to express an opinion as to whether the Chancellor of the Exchequer's provision is ample or not; but on the general question of the payment of doctors, I hope they will be treated generously. We want the best medical advice we can get, not only for the poorest of the people covered by this scheme, but for the whole of the people. If you have doctors poorly paid, or if they are so paid that they have to do the work in a perfunctory manner, only the poorest people will go to them, and there will be a social stigma attaching to those who do go. I hope this matter will be settled by so arranging the provision dealing with the doctors that everybody will avail themselves of the medical aid provided.

Dr. Esmonde, who followed, said: I think every one in this House will agree no bill has ever come before this assembly that has met with fairer treatment. Every member of this House is most anxious to do all he can to make the bill a success, and at the same time not to do any injustice to any vested interest which this bill may affect. The question of the friendly societies is one which they themselves will be able to deal with. But there are a number of other societies, such as slate clubs, which have done a great deal of good work in the past, and which, to my mind, have been very much more useful in suppressing malingering than such recognized societies as the Oddfellows and the Foresters. In the ordinary slate club the member pays in 6d. or 7d. per week, and, at the end of the year, there is a division of what is over, after keeping back a certain balance sufficient to prevent them getting into difficulties in the next year. I think if the ordinary friendly societies adopted a similar practice, they would find it easier to deal with the question of malingering. Most of these societies divide up at Christmas, and they run the sickness fund on something like 7s. or 8s. a year. I throw that out as a suggestion; of course, the right hon. gentleman must be guided by the actuaries who advise him in this matter. Of course, the great blot in this matter is the entire leaving out of married women. I refer principally to those who have young children. It is not right to say that a married woman does not work for her living at home. She has her household duties to perform, and I think some effort should be made to bring her into this scheme. The only reason I have heard against this is that you cannot prevent malingering. But I do not think there is likely to be any malingering in the case where a woman has to provide for a family; she cannot possibly declare on the funds having regard to the demands of her young children. It would be greatly to the advantage of the State to have married women with a young family looked after in a satisfactory way. As regards the question of Ireland I do not propose to offer many remarks, because the hon. member for County Dublin has put the case very clearly. I think we shall all agree that this Act can be made very useful, and when it comes into Committee every effort will be made to put it in practicable form. The people in Ireland are absolutely in a different position. The bill, as suggested by the hon. member for Dublin, must receive many amendments. I arrive at a point on which I wish to offer a few remarks, because it is a point on which I have had some practical experience. I may say, at the commencement, that there is no member of the medical profession throughout the length and breadth of this country who will not do his best to make this Act a success, provided that the result will not be to interfere with his wife and family, and with those who are relying on him for support. The bill is, perhaps, one of the largest bills that has ever been brought into this House. The right hon. gentleman took two and a-half years, and employed any number of actuaries, to assist him in getting evidence from all classes and conditions of the people, and he came to this final result—that three-fourths of this bill could safely be put before the public. Then came the question of medical relief. The right hon. gentleman was told it was absolutely impossible to put any definite principle on insurance in the form of a medical benefit. What has he done? He has asked the medical profession to underwrite an insurance which he, with all his millions at his back, would not undertake. The medical profession do not want anything unreasonable, but they want at least to have some say in the premium which the right hon. gentleman is going to demand from them. It is not fair or right that he should demand that the medical profession should underwrite this scheme without at the same time allowing them to fix the premium which shall be paid. If that were possible the principle might be extended, and we should all be able to insure our lives in a most satisfactory manner to ourselves. With the starting of friendly societies we had the origin of what is known as the "club practice." I should like to explain to the House how that practice arose. Many years ago it was possible for a medical man to employ unqualified assistants. He would give them 30s. a week, and provide them with top hats and frock coats. But all that is completely altered now. Still, that was the start of the system known as the club practice. No longer is it possible when an antiseptic dressing is required for a medical man to put simply a rag around the finger of the patient. Much more is now demanded. I take it, if the Government wants this bill to be a success, if it wants to ensure its proper working, it will have to bring about a very different state of affairs: the best dressings and the best drugs will have to be used, and every facility will have to be given to the medical man. There are three classes of medical men. I am not claiming that the medical man is immaculate. But

I venture to say that this class of men is not the class of men we should attempt to bring into this Act. On the other hand, you have the consultant and the specialist, the man who has got a kind of practice, almost between the general practice and the consultant's practice. The people you want to bring in are the bona fide family doctor, the respectable steady man who will put all his interest into the working of this bill. There is an impression abroad that everything is satisfactory to the profession in regard to this bill. But I have received over a hundred letters during the last few days, and I can assure the House that the feeling of the profession has been aroused in this matter as it has never been aroused before. We have no trade union in our profession, and it is because I am anxious not to see any trade union started in the profession that I hope the right hon. gentleman will give us some assurance which will be satisfactory that the amount of money to be offered for the work required to be done will be sufficient. After all, the medical man is not merely a medical man. He is the friend of the house. He is brought into the house under sad conditions, and he receives confidences which are necessarily respected by upright, straightforward men. If you bring a trade union society into our profession, you will find a very different state of affairs would arise. It would not be for the benefit either of the profession or of their friendly relations with the public. There are three points which I think it is right, at this stage, should be mentioned. The first is that you will not have the friendly societies as an intermediary between you and the working classes of this country. I do not believe that 5 per cent. of the whole of the medical profession would agree that it can be worked on this basis. The next is that they view with great alarm the £160 limit. They consider that £160 is altogether in excess of the amount which ought to be fixed per annum. The vast majority of the medical men who are attending in suburban districts would lose a very considerable amount of their income if this limit were insisted upon. We think it ought to be reduced. I wish the right hon. gentleman would give the medical profession, who are unanimous on this point, some assurance. The third point is that the profession think there ought to be a free choice of medical men. I believe that is a point upon which the Chancellor of the Exchequer is very determined. He does not think it ought to exist, but what will be the position of affairs if it does not? The club doctors of the present day would receive all the benefits of this Act, and those medical men who have not clubs at the present moment would see their patients whom they have treated for years, and their families perhaps, go over to other doctors. Even though they continue to treat the family, the man himself would go to another doctor, and I do not think that would be fair or reasonable. I do not think, moreover, it will work well, because I think it is very much better that a man should be treated by his family doctor, who attends both him and his wife and children, even if he does become a member of a scheme under this Act. In those instances in which doctors have passed cases of malingering, or have been guilty of some other misconduct, I think it would be very easy to bring such men before the local medical association, who would be only too glad and anxious to see that no discreditable action on the part of medical men should take place under this Act. Coming to the question of the capitation grant, the feeling about that among medical men in this country is that they ought not to be asked to accept capitation grant because they are asked to go completely outside their work. They are medical men, and if they are going to succeed in doing good to their patients and in curing diseases should not have too much put upon them, but the Government, under this bill, are transforming them into brokers as well as doctors. I recognize, as one who has done a great deal of work for benefit societies, and, indeed, we all recognize, that if the members of the medical profession do not come forward for a certain number of years and give the necessary medical benefits there will be no prospect of this Act effectively coming into force. Therefore, I do not think that the medical profession ought to be asked to do this work, which should be done efficiently, unless they are properly paid. The sum of 4s. 6d. has been mentioned, and the amount of 6s. has also been brought forward as payment for medicine and drugs, and upon this point I think it would be well if an amount were mentioned, and for this reason: To-morrow the right hon. gentleman is going to reply to the various criticisms on his bill. There is a strong feeling in the profession on this subject, and they are looking forward most anxiously for some reassurance from him. Some people may think one figure is right and other people may think another figure is the proper one. I have very carefully considered the matter, having had long experience in all conditions in London and in the country, and I have come to the conclusion that it is a most difficult thing for any one to fix the exact amount. What have we to fall back upon, therefore, except the Government opposite, and not only the Government of the day, but the Government before that. They have the Post Office officials. I was a doctor under the Post Office, and I received for each healthy individual—a good life, a man who had been examined and who lived the healthiest life of any one in the country in the open air—I was paid a fee of 8s. 6d. per member, and that included visiting and medicines and consultation at home. I say that is reasonable. I do not say the medical profession will accept that, but I only express my own opinion, and I do so for this reason, that I do not believe that the last three or four Governments have been throwing money away in paying 8s. 6d. a head, and I do not think the Post Office Department, either, are anxious to throw money away. Some of us who live in country districts cannot get our letters for three days, and there is no attempt to alter that state of things, and therefore I do not think the Post Office is inclined to go to unnecessary expense. If it is fair for one department of the Government to pay 8s. 6d. for healthy lives in London, I do not think that another department can put the figures below that amount. People have got an idea that every healthy man will go into an insurance company, but I do not think that. I think you will have many a healthy man going into the Post Office scheme, and under these circumstances I think the State should only have to pay the doctor as a friendly society would pay for men who were in good health. Beyond that you have a very serious element to deal with where the people are chronically ill. You have cases which require daily or constant medical or surgical advice, and those cases must be treated on a separate basis. But I do feel that if the right hon. gentleman to-morrow were to say that he is prepared to offer the same terms under this Act generally that his colleagues offer for the Post Office, that the medical profession as a whole would make an honest attempt for some years to see whether they could not do something towards making this Act a success. I do not think it is an unjust proposition to put forward. The profession is not a lucrative one, and there are less men going into it every year, while the country is increasing in population. Moreover we are populating other portions of the world, where it would be advisable for us to have British doctors, and not to allow foreigners to come in. If you are going, therefore, to lower the standard of the profession you will not have men of equal character coming into it to those who have come into it in the past, and I think it will be to the advantage of the State to lift up the profession rather than to set it back. We are only too anxious in the profession to do everything that lies in our power, and to take a fair share in paying the taxes of this country, but I think we have a right to appeal to every member in this House that we who have done much in sacrificing our time to forward charitable ends and in attending people who never pay us—I think we are entitled to at least the consideration which would be given to every other profession when it is attacked by the State. I think, however, we are safe in the hands of the House of Commons, and I do not think this body, representing the great masses of the country, would be prepared to do an unjust act to a profession which has done its duty to the best of its powers.

Sir T. Whittaker said: With reference to the doctors, I think it is very important indeed that they should receive adequate remuneration. You will not get much out of them if they are discontented. The friendly societies have paid them inadequately. I am a little impressed by what was said by the hon. member for Glasgow, who pleaded so eloquently for a standard wage, but he did not speak for the doctors. (Hon. Members: "No, no.") He

did not; and it is a fact that working men are the worst and the hardest employers of others that you can have. There is no doubt about it; there are reasons for it; it is a fact, and really their treatment of the medical men of this country has not been quite what I think we should like to see. I do want this opportunity to be taken to put the remuneration of the doctors on a satisfactory footing. If you pay too little you will get the blacklegs, the failures, and the undesirables of the medical profession. That which is low in price is seldom really cheap, and I think the doctors ought to have better terms. The profession as a whole resent very strongly indeed the treatment to which they have been subjected in the past by friendly societies, and unless their position is to be very considerably improved there will be difficulty in working this scheme. I do not know whether it would be the best method, but I am not sure whether there should not be a minimum payment fixed. I do not agree with the suggestion that you can pay by fees. I think there must be a capitation grant. When you have got the capitation grant the annual payment is made to the doctor, who receives it whether the member is ill or not. It is to the doctor's interests, if the member be ill, to get him well and out of his hands. Therefore the doctor would have a distinct interest in checking malingering. But if he be paid so much an attendance—even doctors are human beings—then his direct personal interest in getting the member off his hands would not be so great as I think it should be. A strong desire has been expressed that members should be allowed to select their doctors. There is much to be said for that in many ways, but I also see difficulties. As I understand the scheme, the doctor is to be paid so much a year per head, whether the man is sick or well. A man will not select his doctor when he is well, and if he selected him when he is ill he might select a doctor who had not had fees from him during the five years that he was well. The matter is not quite so easy as may be thought. I think something might be done in requiring the approval of the Insurance Commissioners or the County Commissioners as to the appointment or dismissal. It is very important that the doctor who is to be in attendance should be independent. If the doctor is to be selected by the members, then there will be a temptation to him to be somewhat lenient in order that he might become more popular and be selected. We want to ensure the independence of the doctor, and we must remember that not only the member but the employer and the State are all interested in this scheme, and they require the protection of the doctor. I think our friends, the doctors, are more alarmed than is necessary. I think they are exaggerating the effect of the bill on private practice. Roughly speaking, we have about 45 millions of people in these islands. Fourteen millions of them are going to be insured. That leaves 31 millions for private practice still. Some of the doctors have been writing to the papers as though you were putting in the whole family. But you leave out the women and the children in the main, although I am not sure that they do not require the most doctoring. However, there are 31 millions still left for private practice. Another important point is that of the 14 millions who are going to be brought into this scheme, in the case of a very large proportion of them the doctor gets nothing out of them now. Some of them he attends and he does not get paid; and you must remember that under this bill the doctor will get his money. I have carefully taken out some calculations which show that of the persons who will be insured between 16 and 65 years of age, according to the expected experience, there will be on the average one and a half weeks of sickness per year per person. Of course the young people are less and the older people are more, but the average of sickness will be one and a half weeks per year per person. The suggestion is 6s. per year for doctor and medicine, and that will be 4s. a week for the sickness duty. All these people will not have to be attended; some of them will go to the surgery. The doctors are afraid that an immense number of their private patients will leave them. I do not think the number will be so large. I do not think the inducement is very great for a person above the average of poor people to join. In the first place, a man would have to pay over 30s. a year on the chance of wanting a doctor. I do not think he would do it.

Sir Robert Finlay, after a few preliminary remarks, said: The interests of the medical profession and of the country in this matter are identical. I have the honour to represent a University constituency, very many of the graduates in which are medical men. They do not approach this matter from any purely selfish point of view. They recognize that their interests and those of the country are identical. But I say with some confidence that great care must be taken that a measure of this kind, intended to promote the public interest, is not unfair to the medical profession. It is only by the cordial co-operation of the medical profession that this measure in one of its most important aspects can be effectively worked. The Chancellor of the Exchequer is reported to have said the other day, when he was approached by some interviewer, that this was not a medical endowment bill. I daresay the Chancellor of the Exchequer may have been misreported. I hope he was, because I think that no profession ever less deserved something like a taunt of that kind than the medical profession. The expression of the Chancellor of the Exchequer, if it were used, was, I think, an unfortunate one, because there is no profession in the country which gives more gratuitous labour for the benefit of the community than the medical profession.

Mr. Lloyd George: I said so in introducing this bill, and stated that there was no profession that gave its services more gratuitously. I recognized that at the very first time. I may just add that the remark which the right hon. gentleman has quoted was a reply to something that was said to me in the form of a question. A suggestion was put to me by the interviewer, and I do not think it is fair to take the sentence separated from the other.

Sir R. Finlay: I absolutely accept the statement of the Chancellor of the Exchequer, and am very glad to have heard what he has now said. I think, though, that care must be taken that the measure does not operate as a medical disendowment bill.

Mr. Lloyd George: Hear, hear.

Sir R. Finlay: If it did it would be calamitous in its effects not merely upon the profession, but upon intended beneficiaries in the country. If it lowered the status of the profession by lowering the remuneration to a point which would not attract good men into it, that would be a most calamitous thing. It would not affect merely the ordinary run of general practitioners throughout the country, but the whole profession, because the highest branches of the profession in its highest walks are recruited from those who start in life as general practitioners. If any measure, however well intended, were passed which prejudicially affected the status and remuneration of the ordinary medical practitioner, it might have in the future a very serious and calamitous effect upon the profession as a whole, and would have results in every branch of the profession which every one would deplore. It is not a case of the doctors against the people. In this matter the doctors and the people ought to go hand in hand, and I believe that both parties to this bill—those whom it is intended to benefit and the doctors, who are to play so important a part in administering it—are desirous that it should be worked in that spirit. I listened with very great pleasure to what was said by the hon. member for the Blackfriars Division (Mr. Barnes) when he pointed out that it was only by adequately remunerating the doctors that the people of this country could get the work which would achieve the best results. There are certain points on which I desire to say that from the point of view of the medical profession, reservations must be made in any support which is given to this bill. The first point is this. I think it is most important that the patients who have to benefit under this bill should have the choice of their doctors. A very great deal depends on the relation of doctor and patient and in the personal confidence which the patient has in the doctor. A very great deal depends on the influence which the doctor has upon the will of the patient, and influence of that kind is, I venture to think, more valuable even than those expensive drugs about which we heard so much in the debate on the first reading. It is not an ideal state of things that all those who benefit under this bill should be compelled to go to one State doctor for the district. Such a system, I believe, would be demoralizing for the profession and

disastrous for the patient. Freedom of choice of the doctor, freedom to choose any doctor who is qualified and of good character in the district, I believe ought to be an essential feature in any measure of this kind. The second point is this. The remuneration that has been mentioned, 6s., to include drugs, which would work out as 4s. or 4s. 6d. for the doctor, is absolutely inadequate.

Mr. Lloyd George: It is 4s. now.

Sir R. Finlay: That is far too low.

Mr. Lloyd George: I agree.

Sir R. Finlay: You are going to extend that system which does not work satisfactorily, and you are going to put it at a figure which would not give satisfaction to the profession, and which I believe would end in the deterioration of the profession. Various suggestions have been made. It has been suggested that the doctor should be remunerated according to the work done. It has been suggested that there should be a contract price, and that the contract should be at a much higher point than has hitherto been suggested. A good deal might be said with regard to both those proposals. My own impression is that something in the end like local option and the choice of one or other system, according to the necessities of the district, might be a desirable thing. I hope that that matter will receive the earnest attention of the Chancellor of the Exchequer. There is a third point in which the bill may very prejudicially affect the interests of the medical profession. It brings under its compulsory operation all workers having incomes up to £160 per year. That was selected as being the point at which income tax commences. There is no necessary connexion between the incidence of the income tax and the compulsory operation of this bill. I would put this very strongly for the consideration of the Chancellor of the Exchequer. Where a man is getting more than £2 a week is it desirable that there should be the compulsory application of a measure of this kind? Workmen with more than £2 a week form a large portion of the *clientèle* of the general practitioner in town and country. They choose their doctor, they are ready to pay the fees that are asked, and the relation subsisting between doctor and patient is one of mutual regard, and it achieves satisfactory results. I would most earnestly ask that it should be considered whether this compulsory portion of the scheme should be carried so high as to those who receive up to £160 per year, with the result that you would be cutting off from every medical practitioner a considerable amount of income, and in some districts a very large proportion of the income which he derives from his general practice. The fourth point to which I should be very glad the Chancellor of the Exchequer would give his consideration is this: What is the effect of this bill as regards domestic servants? In a very large number of houses the master of the house provides, as a matter of course, medical attendance for the servants when they are ill. Will you be benefiting the servants by introducing this compulsory system, with all the botheration of a 3d. or 4d. stamp every Saturday? Will a system of gratuitous medical attendance, which the master provides, survive the introduction of such a system? I do put it to the Chancellor of the Exchequer that unless some provision is made for excepting domestic servants in cases where the employer makes provision for medical attendance the results of this measure may be not to benefit one section intended to be benefited, but the effect may be of the very opposite description. The fifth point it this. It is well known that the relations between the friendly societies and the doctors have not given satisfaction on either side. I do not think it is desired on the part of the societies to retain the control of the relations which exist between them and the doctor, and certainly it is most repugnant to the doctors that this matter should be left in the hands of the friendly societies, and not only left in their hands, but vastly extended. I put it to the Chancellor of the Exchequer that it is a matter for the most serious consideration whether such matters should not be transferred to the health committees, instead of being left to the friendly societies in the vastly extended operations which their duties will assume under the bill. A suggestion worth considering which has been ventilated is that there should be advisory committees selected from the medical men of the district.

Mr. Lloyd George: I wish to understand quite clearly. Is it the suggestion of the hon. and learned member that the whole of the doctoring under this scheme should be taken out of the hands of the friendly societies and transferred to the local health committees?

Sir R. Finlay: That the control of the relations with the doctors should be in the hands of the health committees and not in those of the friendly societies, because the arrangement has not worked well in the past, and it would cause great friction in the future. I have mentioned five of the most important points—there are others, but I desire to be brief—which affect the medical profession, and through the medical profession the public. The whole subject of this bill in its bearing on the medical profession requires the most thorough consideration. If we are to arrive at a settlement which shall be beneficial and durable—and no settlement can be beneficial unless it is durable—the measure must not be rushed through. There must be time for its full and complete consideration, not only in the House, but in the country. The measure is one which must be based upon sound lines, capable of bearing the test of experience. The medical profession is entitled to justice, and justice to the medical profession will turn out to be justice to the beneficiaries under the scheme. No system based on injustice to a great profession can possibly work for the public benefit, when, as regards one of its most important parts, it is to be worked through that profession. You must have a system which will promote the self-respect both of the doctor and of the patient. The ideal is not a State doctor working by contract, but rather the relation which subsists between a doctor called in by a patient who has confidence in him. I would suggest for the perusal of the Chancellor of the Exchequer two lay sermons, as they were called, delivered many years ago by the late Dr. John Brown of Edinburgh, who was well spoken of in the *Times* when one of his early works appeared—I think it was *Rab and His Friends*. It was said: "Of all the John Browns, commend us to Dr. John Brown, physician, humorist, and man of letters." There are two lay sermons delivered to workmen by Dr. John Brown on the subject of their relations with their medical attendant, their duties to the doctor, and the duties of the doctor to them, which I submit form very profitable reading for the Chancellor of the Exchequer and those who are helping him in this matter. Let us have time for full consideration. May I remind the Treasury Bench of what was said by Lord Bacon about undue haste? Using a medical simile, he says:

> Deceptive despatch is one of the most dangerous things in business that can be. It is like what the physician calls predigestion, or hasty digestion, which is sure to fill the body full of crudities and secret seeds of disease.

If we hurry through a measure of this kind we may be sure that there will be in it a plentiful crop of crudities and seeds of disease which will bear unpleasant fruit afterwards. Lord Bacon went on to say that he knew a very wise man with whom it was a by-word when he saw anybody hastening to a conclusion to say, "Steady a little; you will make an end the sooner." I think that ought to be written up in letters of gold, and I most respectfully commend the advice to the special consideration of the Chancellor of the Exchequer in connexion with this measure.

Mr. G. Locker Lampson asked, What is the Chancellor of the Exchequer going to do for the doctors, the healers of the sick, under his scheme? Nothing is more certain than that unless he can get the medical profession to co-operate whole-heartedly with him the whole of his National Insurance Scheme will fall to the ground. It is in the interests of the insured and of the fund that prompt, efficient, and willing services should be rendered to every sick person on the list, and unless the right hon. gentleman can persuade the doctors that they are going to work for a living wage, the scheme will break down tragically, completely, and will deserve to break down. The right hon. gentleman says he is going to set aside 4½ millions sterling for medical benefit, exclusive of the maternity and sanatorium benefit. But what does he intend the 4½ millions to cover? Is it to cover drugs and dressings and instruments and various appliances for patients who may have to undergo operations? Is it to cover fees for special consultations between doctors in difficult cases, or is the patient himself to pay extra for the

second medical practitioner who may have to be called in? Is the 4½ millions to cover operations at home, and the whole of the expense of institution treatment outside of the sanatoriums for tuberculosis, or is the injured person to pay extra out of his own pocket? If the 4½ millions to pay for all these things, and if this is the right hon. gentleman's policy—and there is absolutely nothing in the bill to show at the present moment what his policy really is—has he calculated what net sum approximately will be left for ordinary medical attendance? If he has not left enough, after these considerable deductions have been made, to give a living wage to the medical profession, where is the supplementary sum coming from? Is the Government going to pay the deficit, or will the friendly societies or the patients have to stand the racket? There is nothing in the bill to show what the right hon. gentleman has in his mind. I feel that the House has a right to insist on some definite assurance that the amount set aside for medical benefits will be sufficient to give remuneration to the medical profession on a fair scale. Surely it will come very ill indeed from a House which is just about cheerfully to vote itself £400 a year per head to bargain with doctors for their service to the country at less than a living wage. Surely, too, there ought to be a wage limit in respect of the medical benefit. Under the bill insured persons, however large their income, will be able in the future to obtain cheap medical treatment, thereby inflicting great financial loss on the medical profession. It is true that persons whose income is under £160 per year are to be forced into the scheme. Up to the present they may have been perfectly well able to pay for ordinary medical attendance, but not, perhaps, for special medical treatment, and, although the Government are now going to give them cheaply what up till now they have been able to afford ordinarily, they are not going to get special institutional treatment outside the sanatorium for tuberculosis.

Dr. Addison, who followed, said: I will not endeavour to follow the hon. member who has laid before us a very useful criticism on the financial aspect of this great measure. I propose to confine myself to two parts of the bill. It affects manifestly, above the ordinary members of the community, two great organizations—the friendly societies and the medical profession. It contains within it additional incentives to thrift and healthy living, which, I am sure, we shall endeavour heartily to promote. It provides an additional inducement for the people to join friendly societies, in view of their having greater security for receiving the benefits under this Act, and certain additional benefits which may be available for them. With regard to the medical profession, one has to recognize that it stands, in some respects, in a very different position from any other party affected by this bill. This measure affects their daily labour, whereas most of those who otherwise come under this bill are more or less in the character of beneficiaries. The medical practitioners see that it concerns their livelihood. I feel certain myself, from having been in very close touch with their chief organizations, that the medical profession are thoroughly desirous of co-operating in this measure in a hearty manner. I am confident that they would not desire for one moment that those who speak on their behalf in this debate should put forward any ignoble considerations, or should pretend that class interests should supersede the general public interest. At the same time I feel certain that no party in this House will desire for one moment to treat the profession which really has to do most of the work under this scheme in any unfair spirit. We recognize that after all the real success of this scheme depends on the hearty co-operation of the men who are called upon to attend those who are sick. The treatment of sickness is not a wholesale affair; it is an individual matter in each case, and, unless you continue the hearty and cordial relationship between the doctor and his patients, you cannot hope to make this scheme a success. I think it would be of no use to blind ourselves to this fact, that the relations of the medical profession with the friendly societies have not been altogether of the best. I am not for a moment seeking to inquire into that, or to impart blame to either side. I daresay there may be a certain amount of blame on both sides, but there are some features of what is known as the club practice which, I am sure, we ought to do our best to eliminate. It is perfectly evident that the success of this scheme depends on keeping the people well. The interests of the societies and the reputation of the profession point to the fact that under what is known as the club practice it becomes necessary for a medical man to see his patients at the rate of one in every three minutes, if he is to make any revenue at all. It is not necessary to go into details or to point out that successful diagnosis or proper treatment is, under these circumstances, absolutely impossible, and, if the operation of this bill were to intensify or stereotype that practice in any shape or form, we should be rendering a very great disservice to the people. More than that, it is, I think, obvious that in so doing we should be unable to induce the best men in the medical profession to participate in this work. It is desirable we should make it possible for the best men to feel some self-respecting enthusiasm which may induce them to take part in the work, otherwise an inferior type of men might be put upon it, and possibly the general standard of the profession might be damaged. I am certain myself that if the friendly societies were consulted it might be possible to come to some proper arrangement whereby both the interests of the friendly societies and of the medical profession would be adequately protected. I think, under this scheme, their interests are not safeguarded. After all, the real success of the bill depends on the development of preventive measures. In old days the bottle of physic might have been appreciated, it is not so now, and we want here to build up a structure which will provide us with the means of establishing a national system for the prevention of disease. One of the points on which the medical profession feels most strongly is the choice of a doctor. It is better to make it clear that the circumstances anticipated by the friendly societies under this scheme would be entirely different from anything which has occurred up to the present. Millions of people will ultimately join these societies. We know that now, in many parts of the country, members of the societies, under the present system, do not go to the club doctor, but pay somebody else whom they prefer to attend them. It is evident that no Act of Parliament can force a person to have a medical man whom he does not want, and it would not be desirable that we should aim at any such thing. Conversely it will be very difficult for any Act of Parliament to compel a doctor to attend anybody whom he does not want to attend, because, after all, successful individual treatment depends to a great extent upon a hearty sympathy between the two parties. Let me give a case which is not hypothetical. I have in my hand letters from men exactly on this line. A large number of practitioners build up their practices perhaps not having any club practice at all, but the men who I think may fairly say are doing the best work among the working classes of the people whose incomes are from £2 to £3 a week are the men who attend their patients and get moderate fees and are paid very regularly. It is quite evident that when these patients go into a scheme they will desire to bring their particular doctor with them, they will still want him to attend them, and, as a matter of fact, it would be very undesirable that it should be otherwise, because if it were otherwise the patients would have a grievance, and the doctor would be left high and dry without his patients who are drawn into this scheme, and he would be distinctly impoverished. I think, however, the fear in this respect has been decidedly exaggerated, because one must remember that the greater portion of the attendance is with respect to the children and the wives who would not come into this scheme at present. Then, again, it is quite evident that not only must there be this choice of doctor within a considerable range, but there must be some considerable machinery devised which would overcome the very proper objection of friendly societies with regard to the choice of the doctor who is lenient in regard to this matter of malingering. The friendly societies very naturally insist, from their point of view, on being able to allot a particular doctor to their members, and they say that if people are allowed to choose anybody, they would be very likely to choose somebody who would be lenient. That is true as far as it goes, but if we examine the actual conditions we know that there are friendly societies who take men on their books and who receive certificates from men who are not friendly society doctors. I would like to suggest to the right hon. gentleman that these difficulties can be met more or less

under the bill by a modification on these lines. There will be a great body of new entries into the societies in any particular district. A large number of people will become members of the societies who are not now members, and who pay for their medical attendance themselves. I think it should be open to the reputable practitioners in every district to be enrolled upon a panel, and within that panel those who join a society in that particular district should be entitled to choose their medical man, and they should be able within that panel to continue their medical attendance, provided the doctor is content to attend them on the terms proposed.

Lord Balcarres: Who will select the panel?

Dr. Addison: My suggestion is that in any specified district all the medical men in that district, unless you can bring some serious charge against them, should claim the right to be enrolled upon the panel, and that from that panel the patients should be able to select their medical attendant. I think we might join with that—the protective privilege that a man who was not enrolled upon the panel might have some machinery devised for ascertaining why he was not enrolled upon it. Here we come to a natural, practical, and effective check upon malingering. You must bring the two parties together. It is in the interests of the society to prevent malingering, and it should also be in the interests of the doctors. In Leipzic they have a system which is fairly successful, and it is on these lines: The members of the society naturally report to their officials or complain if certain parties are on the sick list too long. That is the check of the members. If members of the society seek to get on the fund by attending any medical man who is unduly lenient, and it is found by the society that a particular doctor always has a larger number of people sick on his list than anybody else, it is quite possible that that particular man is attracting to himself patients from any other man enrolled on the panel, and is operating to their discredit. In Leipzic they have arranged the system of a medical jury within the panel, which sits and decides upon these cases, and has power to have a man's name removed from the panel. In that way you have the united co-operation of the friendly society and of the practitioners, both united in putting down malingering, and I believe that system has worked very successfully up to the present. Then I think that the arrangements which are made must as far as possible be made on some fairly well defined general principles, and the medical profession naturally desires that the arrangement made with any local committee or any private society shall be approved of by somebody capable of expressing a proper opinion—namely, the advisory committee and also the local health committee. But I pass away from that point to discuss for a very few minutes the points connected with the income limit. This is a very serious question which wants to be very properly threshed out at an early stage in these proceedings. Many medical men attend a large number of people with incomes varying from 30s. to £4 a week, and they say, quite rightly, if persons with incomes of £3 or £4 a week who have hitherto paid their fees come into this scheme, whatever the rate may be, it means that the scale of pay must necessarily be higher than the average. For this reason it is obvious and is well known that in general medical practice the better-to-do patient pays to some extent for the worst-to-do patient, and a large number of patients do not pay at all; and it is well known, and I think it entirely equitable, if the whole position is looked at, that the better-paid patient should pay higher fees than the poor one. The practitioner, therefore, says—If you force my patients who pay me good fees into this general average, roughly it means that those people who provide me with my income will be taken away, and therefore the average I have to charge to the poorer people will have to be higher. That is to say, the greater the income, the higher would have to be the capitation fee. Various suggestions have been put forward which I am sure the Government will consider sympathetically, in regard to meeting this representation. In the first place, you might say—and I think it would be a fairly good suggestion—that a sliding scale should be established for the higher incomes. I know myself, for example, a man who has £2,000 a year who goes to a club doctor to whom he pays 4s. 6d. per annum. It is all very well, but it is manifest that it is not to the public interest. Some people say, and I believe the Chancellor of the Exchequer thinks, that a great many people with better incomes would not become voluntary contributors. I am not quite so sure. Of course, if the service was inefficient they certainly would not, but if the service is a good one, as we all want to make it, I think it quite rightly would. I am sure a large number of people with £100 to £250 or £300 a year will certainly join this scheme of voluntary insurance, and I should certainly hope myself that the working of the scheme will be so good and so efficient that people will want to join it. Otherwise it will be greatly a wasted effort. Another suggestion which I am sure is worthy of consideration is that there should be an income limit fixed. That is to say, that above a certain income people should not be allowed to join. I think myself the proposal for a sliding scale is the better one, but still it is manifest that if people with greater incomes become voluntary contributors the average scale of pay must necessarily be raised the higher the income. Of course, an objection which will be put to me is that, after all, everyone who pays into this as a taxpayer has a right to its benefits, and I should be the last to dispute that. But we all contribute in our various degrees to old age pensions, though we are not open to receive them if our income is more than a certain number of shillings a week, so we cannot very well attach too much importance to that consideration. I have here an analysis of the income of a large practitioner in this district, and I hope the Chancellor of the Exchequer will inspect it or have it examined by an actuary. I believe it will be obvious that unless something is done with regard to an income limit a large number of these men will be very seriously injured. We then come to another point which perhaps is not material to the bill but is more a matter of machinery, and that is the method of payment. I am quite sure myself that it will be entirely impracticable as a national scheme to adopt simply payment by attendance. It must be coupled with something else. There are manifest drawbacks to every single scheme. I could bring arguments against payment by head or payment by attendance. One of the chief of them is that it tends to keep patients out of institutions. If you pay a man by attendance he is not so likely to want to send a phthisical patient to a sanatorium as he would otherwise be. I think at this stage in our discussion it would be a great mistake for the Chancellor of the Exchequer to lay down any hard-and-fast line. These matters can be very much better threshed out when we get to closer grips with the actual problems involved, and therefore, while I am confident that it is necessary to make very liberal provision — which I agree will cost considerably more than is at present anticipated—yet at this stage it would be desirable not to make things too cut-and-dried. The most hopeful part of this scheme is with regard to the general administration. I believe the friendly societies have everything to gain by unifying their service under this scheme. There will be the local health committee, which will administer the Post Office contributors. The friendly societies, as the matter stands, cannot be expected to make a profit out of medical attendance. It is to their interest, for instance, to get their members into a sanatorium or a hospital as soon as ever they need it. The local health committees have control of part of these funds, and those who are contributors under the Post Office will, of course, have direct access to it, and it is very desirable that members of the approved societies shall have equal facilities. That is to say, I think it will be to the advantage of the societies if they were to allow the local health committees to manage the treatment of the sick, whilst at the same time the manifest advantages of becoming members of the society remained in the bill and were even strengthened. The first step which I think must inevitably follow out of this bill is that our Poor Law infirmaries will have to come within its ambit. I sincerely hope the Chancellor of the Exchequer will allow the word "institution" to be used in a very liberal sense. It would not do, I think, to limit it too much to the sanatorium; and as institutional treatment for an operation or anything of that kind is necessary, it will be very important that the local health committee shall have access to well-equipped institutions; and I believe one of the first results of this scheme must be

the improvement of our Poor Law infirmaries and the separation of them from the Poor Law itself. With regard to the provision for treating tuberculosis, it is hardly necessary at this stage to say anything in praise of them. The country is convinced, I believe, of their necessity. But it may be perhaps an advantage just for a moment to look at the existing state of affairs. There are something like 60,000 deaths a year from this disease in various forms, and the friendly societies themselves spend considerably over £1,000,000 I believe 15 per cent. of the expenditure of the Ancient Order of Foresters is in virtue of treating this disease, and the average cost of each patient in that society is £41. According to the report of Dr. Bulstrode to the Local Government Board, there are only about 2,000 beds at present available in this country for proper open-air treatment, and there are on an average 250,000 cases of this disease existing at any one time. Many of the beds are in very small institutions, which are inadequately staffed. I was very glad the Leader of the Opposition the other day put in a plea respecting bricks and mortar. I sincerely hope that the Insurance Commissioners will see to it that this £1,500,000 is not wasted in bricks and mortar. There is, for example, at Chelmsford now a very interesting and useful experiment being carried on by Dr. Lister, who is treating a large number of people at a very cheap rate by means of shelters in gardens, and there are other parts of the country where the same kind of thing is being done. One hundred pounds is a generous allowance for a sanatorium bed. A great many patients could be treated fairly well in cheap shelters costing no more than about £20 or £30 a bed. Here, again, coming back to the work of the local health committee, not only is it important that in the cases of the patients in the sanatorium, but in the cases of phthisis under local treatment, they must of necessity, whether they belong to approved societies or whether they are Post Office contributors, come under the supervision of the local health committee. This is only another reason for supporting the contention which is running all through this scheme, that it is to the benefit of the whole community that the administration of this machinery should be unified and in one hand. For example, the local health committee should be the agent. I am not now criticizing the constitution of the local health committee. I must leave that to somebody else. But as a part of the whole campaign against tuberculosis we must establish cheap tuberculosis dispensaries, so that if you remove a man for four or five months you must see that his own home is disinfected and that his children, if they have the disease, are treated adequately. In one of the works on this subject there is a striking and well-authenticated case given of one particular block of dwellings where all the tenements had been free from the disease for eight years, and then there came into one of the dwellings a family a member of which had tuberculosis. During the twelve years that followed four separate families inhabited that same flat, and were all infected, and finally there were thirteen deaths in the twelve years in that one dwelling. The supervision of dwellings of that kind must be carried out by the local health committee, the sick visitors, and the nurses. Whether the person belongs to a friendly society or is a Post Office contributor makes no matter from this point of view. That is to say, the actual domestic preventive measures must be under the supervision of the local health committee, and I am sure that here again we see again the wisdom of unifying the whole of this machinery. The same remark applies to that valuable provision in the bill which gives power to the local health committees to deal with recalcitrant and neglectful local authorities, and to bring them up to the scratch. I see, for instance, provision is made in respect of milk supply. It is obvious that the proper supervision of milk is the first interest not only of the local health committee, but of the members of the approved societies. One good thing introduced in the bill is the provision that requires measures to be taken for the proper sterilization of milk. I have here the report of the medical officer for the County of London for 1907, which states that out of the ninety-two samples of milk examined no fewer than twenty-two, or 23.9, were found to be tuberculous. It will be to the interest of the local health committees, as well as the members of approved societies, that this disgraceful state of affairs should be brought to an end. I should like to say a little about the provisions of the bill with respect to women. In some respects they are the weak provisions in the bill. I would be the last to urge the Chancellor of the Exchequer to make the scheme too expensive. Already I think it will cost more than is anticipated. With regard to women there is, first of all, the munificence of the maternity benefit, which cannot be overestimated, but coupled with it there are one or two strange anomalies which I do not understand. A woman may be an insured person and yet sickness benefit is now allowed during maternity. If she has the measles she will get sickness benefit, and I think that in the case of an insured person during maternity it should be arranged that she should have greater benefit than is provided under the bill. I think it will be a great advantage if in connexion with this in the case of a woman who is an insured person before her marriage, and who has paid in premiums for several years previous to her marriage, she should have her benefit made up to some extent and used in the form of a dowry at the birth of children, or a percentage of it might be so used. You might have a woman who has paid her premium for ten years, and who then gets married. I think we may fairly suggest to the Chancellor of the Exchequer that he should take this into consideration. It would seem very hard on this woman that, having paid in these premiums all this time, she should, when she comes to the time of her greatest need receive no benefit. I think it should be open to married women during pregnancy to pay the premiums—I will not say for how many weeks, but for a certain number of weeks. If she pays the premiums, she ought in that way to be able to get considerable sick benefit during the time of her need and for some weeks afterwards. I think that something should be done to extend the benefits to married women who have, while single, paid premiums. That would be a valuable addition to the bill. Another thing should be mentioned in this connexion as something which will show that we have in our minds the attendance given by qualified midwives for whom we have passed legislation. The majority of cases are attended by midwives, and the benefit in maternity cases should cover the attendance given by them. As far as I am able to understand the scheme, a mother is not able to receive the sanatorium benefit. That, I think, is a serious drawback, because the mother of a family is the one in a house it is most desirable to get out of it in the case of illness. It is exceedingly important that something should be done so that married women should obtain the sanatorium benefits. I hope the House recognizes that while I advance these criticisms on the question as to who shall administer these sick benefits with regard to the treatment of sickness, I am strongly of opinion that it would have been best for the whole thing to be in the hands of the local health committees, for the reasons which I have mentioned. The necessity of providing within reasonable limits for a free choice of medical attendance and the consideration of the matter so far as it affects people whose incomes are over above the income tax limit are matters as to which practitioners of medicine and the general public should be more fully informed without much delay. It would be unreasonable to expect that so complex a measure, which of necessity is full of difficulties and of necessity affects a multitude of interests, would not cause a great deal of apprehension in many quarters. It is manifestly necessary that we should do all things possible to encourage and stimulate those great societies which have done so much to promote self-help in our midst. At the same time, I am sure we all recognize that the smooth working and ultimate utility of this measure must depend upon the hearty co-operation of that great profession whose livelihood and daily work are immediately involved, and concerning whom this scheme is full of possibilities of failure. I believe that they are only too anxious, if satisfied that they will be able, to co-operate with confidence and self-respect, and if their assistance and hearty union with this House and with the community in general can be obtained, we shall then be in the way to obtain in this country the most efficient engine for the prevention of disease which is possessed by any civilized community.

The Attorney-General, replying for the Government on the close of the first day's debate, said that he did not

propose to discuss at any length the medical objections to the bill. He was quite confident of this, that the Chancellor of the Exchequer, who was in charge of this bill, would be only too anxious to deal in a fair and just and equitable spirit with the medical profession when he got an opportunity of meeting them, so that any suggestions that might be made not only might be considered, but, if useful, might be accepted, and then dealt with in a Committee of this House. So he did not propose to spend more time in the discussion of that part of the objection which had been raised, because he conceived that it was not really a matter which went to the principle of the bill, but that it was one which would be dealt with in Committee of the whole House when they came to consider amendments. He then devoted his speech to the financial and administrative aspects of the bill, and concluded an exhaustive review of the measure on the second day of the discussion.

Mr. Gill (a Labour member), in the course of his remarks on Thursday, said: An hon. member yesterday spoke in respect of the medical profession, and urged that it was quite easy to allow persons who were sick to have the choice of their own doctors. They ought to have the chance of having their own doctor. Let the members of the Committee consider that position from their own point of view, and ask themselves the question whether they would like to have a doctor forced upon them whom they would not like. I think it is a good idea to have a list of doctors among whom they would have a choice, and that might be a solution of the difficulty. Every one has a preference for his own medical man, and that preference ought to be respected. There is a great outcry among the medical profession that they are not being fairly treated, that they are not going to have as much money as they think they ought to have, that their practice would be disturbed or lessened, and that their receipts for the work they would have to do would be less than they are at the present moment. If this scheme is to be a success it can only be a success with the co-operation of the medical profession, and I ask the Government not to have any stinginess in regard to this matter, and to see that we get the best medical men possible to attend to the sick who come under this scheme.

Mr. Booth followed in a vigorous criticism of the bill on general grounds; and then the Home Secretary discussed the general and unemployment features of the scheme, but did not touch on the medical questions.

Mr. Bonar Law next spoke, and in the course of his remarks said: The whole of the medical profession is roused in regard to this bill, and it is really not necessary now to say much about that part of the subject. I have received an enormous number of letters with regard to it, and one of them seems to me very much to the point. I should like to put it to the Chancellor of the Exchequer. The writer says that he has recently bought a practice for which he paid £1,000, which is worth to him £800 a year, but that not one of his patients had £160 a year. He goes on to say that if the bill as it stands is passed it means not only the ruin of his livelihood, but the loss of his capital as well. Under such circumstances no wonder doctors are in an absolute panic. But it is not merely a question of the doctors, although I am quite sure that both the House of Commons and the Chancellor of the Exchequer would desire to treat them with the utmost care. The whole success of the prevention of disease depends on the doctors who deal with it, and they cannot deal with it unless you employ them in the best way. In my belief the present club system has not been good. Any one who has read a report of the Poor Law Commission must come to that conclusion. It is brought out strongly by the Commissioners, which stated:

> After careful consideration of the working and result of medical insurance in all its various phases, our conclusion is that we shall hesitate before recommending any extension of it even in its best possible form.

It is practically that form which has now become universal. If I had any suggestion to make I should make it, but I am sorry to say I have no suggestion, and the difficulty seems prodigious; but I am convinced that it is one that cannot be solved on the lines of the bill, and there must be some radical change.

Lord Alexander Thynne, in the course of an interesting speech, said: The bill sets up in every county in England a new public health authority. These local health committees are constituted on a non-representative basis, and charged with functions which are already to a very great extent being performed by the existing municipal bodies; and I need hardly remind the House that almost in every county, in every borough, and in every town, and in almost every urban district council a public health committee has been set up to administer the Acts relating to the public health, and that under the provisions of the Housing and Town Planning Act of 1909 county councils are obliged to set up public health committees, and now this bill proposes to set up a local health committee in each county. The mere coincidence of names will in itself create a certain amount of confusion, yet if it was merely a question of name the matter might be easily met and remedied. But the functions which the right hon. gentleman proposes to entrust to these local health committees trench upon the functions of the existing municipalities. These local health committees are charged generally with supervising powers over matters affecting public health; they are entitled and empowered to call in the advice of the medical officer of health, who is the servant of another body, and under the 43rd section of the bill they are empowered to make use of the office of the local authority. These are points which will undoubtedly create friction between the local health committees and the existing municipalities of this country, which are affected by this bill in three material respects—in the first place as employers of labour, in the second place as the public health authorities of the country, and in the third place in their financial aspects. Another point which closely affects the local authorities is the provision in regard to excessive sickness, and I think that the Chancellor of the Exchequer himself will acknowledge that the provisions in this section are drastic and somewhat novel in character. These great municipalities are at the present moment responsible for sanitation, for housing, and for the general conditions within their areas. In this bill it is possible to order an inquiry by a Government official from the Home Office. It is possible, therefore, a power is placed in the hands of a permanent official practically to fine the great municipalities of the country. It is a poor consolation to those municipalities to know that that power to fine which is now vested by this bill in a permanent official at Whitehall is subject to confirmation either by the President of the Local Government Board or the Home Secretary. I hope that at a later stage some provision will be inserted in this bill for an appeal against such orders. I have been in constant communication with individual doctors since this bill was first published, and I find practical unanimity on the part both of the general practitioners and also consultants and those not directly affected, but who have an interest in their profession on several points. In the first place there must be free choice of doctors from a panel which shall include all those who wish to serve upon that panel in any given district, and who were not disqualified either through inefficiency or misconduct. The advantage of free choice of doctors both to the patients and the profession I need not emphasize, and I am not sure the free choice of doctors by the patients should not also carry with it free choice of patients on the part of the doctors. We have got to remember that under the present system the doctors will be paid by a system of capitation. There are a class of patients—epileptics and alcoholics—who are manifestly not suitable subjects for treatment under such a system of payment, and I hope as we advance in this debate the right hon. gentleman in charge of the bill will foreshadow some other method of dealing with them. I now come to the question of remuneration. Of course, the system of capitation is not popular, and never will be a popular thing in any profession. The system of capitation originated partly from philanthropic motives in the old friendly societies, and it applied particularly to selected lives. So long as it was applied to the old friendly societies there was less objection to it, but now that the system of capitation is to be extended so as to include non-selected lives the objection on the part of the medical profession must undoubtedly grow. I notice that the medical profession as a whole have not been very ready to accept the somewhat optimistic calculations put forward by the right hon. gentleman. If we compare the gross amounts derived from existing club practice with the aggregate amount they

would derive under this bill, I doubt if the comparison is highly favourable to the bill. But I would remind the House that at the present moment the backbone of the doctors' practice is not the club practice but the artisan practice—the practice among men of from 35s. to 40s. a week, who at the present moment are not included in club practice, but who under the right hon. gentleman's scheme will be brought under the capitation. Therefore, under this bill you are depriving the doctors of what has hitherto been regarded as the backbone of their practice. I might quote an instance from the borough of Fulham, which has a population of 160,000 people. Ninety-five per cent. of these people are below the income tax level—that is to say, 95 per cent. of these 160,000 people who live in Fulham will come in under the operation of this bill. I need not elaborate the point. I ask the House to consider what the position of the doctors in Fulham will be, taking that one instance out of many, supposing the bill is passed in its present form. I do not for one moment advocate a wage limit to meet this difficulty. We know in Germany there is a wage of 6s. 8d., above which the people cannot insure under this system of capitation for medical benefit. I suggest to the Chancellor of the Exchequer that if he wishes to gain the co-operation of the medical profession the first thing he must do is to deal adequately—I do not ask for generosity for the medical profession—but to deal fairly and adequately with them in the scale fixed for the capitation grant. There is one point which rather puzzled me when considering this bill. We all read the announcement that the doctors will receive 6s. per head, taking the good risks with the bad.

Mr. Lloyd George dissented.

Lord A. Thynne: I understood it was 6s. per head for all members of approved societies. Let us take what the Government itself hitherto considered to be fair for selected lives. If you take positions where men are chosen for their character and health—the particular qualification for entry into the Post Office—these specially selected lives are less liable to sickness than any lives in this country, and there the doctor receives a capitation grant of 8s. 6d. I ask on what principle of logic or common sense it is proposed to pay a lower rate to the less good risks included in approved societies? The next point in regard to the medical profession is the question of control. I do sympathize with the medical profession in their request that their control over their operations should not be exercised by the insurers only. We have in various districts an elaborate machinery in the British Medical Association, of ethical conditions which I need not describe in detail which could, I think, be elaborated to meet the requirements of this Act. But in any case I feel that it is a striking omission that no provision is made for the representation of the medical profession upon the local health committees. Then I suggest that the contracts under which the doctors serve under this Act should be made, not by the insured, not by the society, but by some independent body, and I have two reasons for advancing this suggestion. In the first place, the more the approved societies under this Act can reduce their expenditure the greater will be their profits and the greater, therefore, the extra benefits they will be able to confer. We all know there is no easier or more facile means for a great friendly society to increase its profits than by reducing the remuneration of the doctors who serve them, although in the larger friendly societies in this country I do not think the doctors will ever complain that they have not been treated most friendly. In this connexion I should like to call attention to another very striking omission on the part of the bill—namely, that no attempt has yet been made under the bill to deal with surgical benefit. I shall watch with interest what system the right hon. gentleman proposes to deal with those cases which require surgical treatment. I shall also be interested to see how he deals with the question of appliances as distinct from drugs. Then there is the question of the great institutions and hospitals, more especially in London. It does not seem to me the right hon. gentleman has seriously considered the effect of this scheme on some of those great institutions which are at the present moment supported by voluntary contributions. Those contributions are of two sorts. In the first place they come from the charitable public. Those contributions may or may not continue under this bill. In the second place they are supported to a very great extent by contributions from great employers of labour, who make handsome donations to some of our great hospitals in return for the treatment given to their employees. It is obvious that this particular class of voluntary contributions will undoubtedly cease under the operation of this Act. To that extent our great hospitals will lose a portion of their present income, and yet the Government apparently expect that those institutions, although they will be deprived of a large part of their income, will be able to continue conferring their great benefits upon the public without being able to replace that income from another source. I hope provision will be put into this bill to enable the local health committees and the friendly societies to make a substantial contribution to those great institutions in respect of those patients who are sent to them for treatment. I also wish to call attention to the fact that at the present time there is practically no provision for institutional treatment, except in cases of consumption. We all know how important it is, especially in some of the districts in London, that sick people should be removed from insanitary homes, either to the great hospitals or to some other institution for medical treatment. In all parts of London there are cases which could never be satisfactorily treated if left to their own homes, often in a single room, amid insanitary surroundings. In all classes there are peculiar types of cases which can only be treated in great institutions, and yet no provision is made in this bill for any form of institutional treatment whatever. I do not wish to touch on any of the other points connected with this measure. I need hardly assure the right hon. gentleman that the criticisms I have advanced this evening have been prompted by a desire to facilitate the passage of this bill. I have called attention to certain points of friction between the medical authorities and the great local authorities of this country. It is because I wish to see that friction removed at this stage of the proceedings before we go into Committee, and before the feeling against this bill has had time to grow in volume, that I have ventured to address the House at all this evening.

Mr. Alden next spoke, and said: In a very large measure I agree with the hon. member who has just spoken, especially with regard to the question of local health committees. I am very anxious there should be conveyed to the Chancellor of the Exchequer some reasons for perhaps modifying the bill as it stands. These local health committees are almost sure to be a cause of friction in many districts and in many localities where they will be set up. We run a very serious risk to-day of creating too many authorities. The present public health authorities are dealing for a very wide area with the question of the public health, and, on the whole, they are dealing with it in a very satisfactory fashion. They are beginning to aim at the causes of disease as well as the effects of disease, and we have set before them a very high standard, and we are constantly setting before them a still higher standard of what they should do in their endeavours to prevent disease. We are introducing an entirely new authority, and I am quite convinced we shall run some risk of lessening the value of the work that is already done by the public health authorities. If we are to stamp out disease—let us take, for example, the case of the great scourge of consumption—it is obvious we must do two things. We must give power to the local health authority, whatever that authority may be, to survey the whole field and to deal in a comprehensive fashion not only with the effects, but also with the causes of disease; and, secondly, that authority must either be the sole authority or it must be in close touch with the co-related authorities, so close, in fact, as to be almost overlapping. Frankly, I believe that is almost impossible. Apart altogether from the very great and serious administrative difficulties which will be confronted by these new authorities, I am sure there is likely to be friction between the public health authorities and these new bodies. If we are to endeavour to stamp out disease we must use the existing public health authorities. These new authorities cannot cut at the roots of disease. We must trust our medical officers of health, and we must do more than put one or two doctors upon this new authority. I honestly believe the Chancellor of the Exchequer would be well advised to drop this idea of a new local health authority, and to strengthen the existing

public health authority, say, by the addition of certain experts, doctors, and so on, and to put power into their hands so that they may cover the whole field instead of dealing with it piecemeal, as it will be dealt with if a new authority is set up. Larger powers, it seems to me, should be entrusted to the public health authorities to deal with sickness and with disease in all its forms. That leads me to the question of the sanatoriums. I do most sincerely hope—this is not by way of criticism; it is more by way of question than anything else—that we are not going to establish sanatoriums throughout the length and breadth of England, utterly regardless of the people who have to be sent there and utterly regardless also as to the best way and means of stamping out consumption. Let us take a dozen people who are suffering from consumption. A certain percentage of them will be in the incipient stage and another percentage of them will be in the final stage, when it is impossible to cure them. You obviously do not want the same sanatorium for these two different stages of consumption. You must clearly have two absolutely different institutions. You cannot send a man who is in the incipient stage to an institution which is occupied by people in the final stage, and if you have sanatoriums for those in the final stages, they must clearly be homes in which people are able to die in peace under the most favourable circumstances. Surely the object of the Chancellor of the the Exchequer is not to set up sanatoriums in which men can die, even under favourable circumstances. I do not say that it is unnecessary or that it should not be done, but his object is to stamp out consumption, and to get at the root of disease. If that is so he must have graded sanatoriums, and he must do more than that, he must set aside some of this money which is being used for sanatoriums for preventing consumption. Cannot he so modify his bill as to give to the authority, whatever authority he gives the power, sufficient elasticity of power to enable it to use the money in other directions if necessary? Under the bill their powers will not, as far as I can see at present, be sufficiently elastic, and I want to see these powers so broadened and made so elastic that they will be able to use the money that is apportioned for this purpose for the purpose of stamping out consumption in various directions by prevention. I am quite sure that would be the most profitable way of spending the money. At the same time sanatoriums are necessary, and the whole question is whether you will build huge institutions which are to cost an enormous sum of money, or whether you will build institutions as cheaply as possible in the most healthy situations and look forward to the time when they will not be needed, and when possibly they will have to be burnt down. I feel myself that with the great fluctuations in medical opinion on this great question it would not be wise to spend a vast sum of money in building sanatoriums unless at the same time you take the advice of all the experts on the subject and do everything to safeguard yourself against making a very big mistake. May I say just one word about the doctor? My wife happens to be a doctor, and she feels very strongly upon this subject, although at the same time she has never had anything to do with friendly society work, and has given the greater part of her life almost freely and gratuitously to the service of the people in East London. She feels, a great number of doctors feel, and, in fact, we may say the vast majority of men who have practices among the poor, feel that doctors are likely to be so unfairly treated that they will lose all interest in their work. I venture to say, and I do not think anybody will contradict me, that unless you get the doctors on your side this portion of the bill will be an absolute failure. It must be. How can it possibly succeed? You are engaged in warfare against disease. The only people in Great Britain who are competent to advise you in your attack on disease are the doctors. They may be right or they may be wrong in their demands. But you will have to get them on your side or else you must drop this portion of the bill. How are you to get them on your side? My answer is: You can do so by making a careful examination of the facts of the case. The Chancellor of the Exchequer has received deputations. He has been good enough to receive a deputation of friendly society doctors. But I doubt if even now he knows the burden that rests upon the average doctor in a comparatively poor district. I do not think he knows the burden that rests upon the doctor who really tries to do his duty—who cares about his patients. We want the doctors to put their whole hearts into this bill, and to set up a very high standard for themselves. We want them to do their best to crush out disease and to cure sickness the moment it comes on man or woman. We must have their goodwill. I think it was the hon. member for Bath and another hon. member from Ireland who pleaded that the Post Office standards should be set up. I do not think that that is at all a bad standard. Personally, I believe it will satisfy the doctors. I do not say that the 8s. 6d. should absolutely include everything. There are some special cases, and some exceptions, which will have to be met. I am quite sure that if the doctor is to pay for his own drugs and dressings out of the 8s. 6d., you will not be overpaying him. Take the case of Germany. Even in that country, where everybody knows the fees are much lower—for the professional man gets nothing like the income that is attainable here—the professors in the universities, for instance, get only about half the salary received by the professors in an English university—in Germany, where the fees are so much lower, the sum allowed for medical attendance is 5s. 8½d., without drugs and dressings or any of the extras which are provided for. The Chancellor of the Exchequer suggests 6s., not to include drugs. But he has to take into account the higher standard that prevails in England. I am perfectly certain that 8s. 6d. is not too much, and if it cannot be done for that, if the proposal is not actuarially sound at 8s. 6d., then it seems to me that the right hon. gentleman must make some extra provision. You must not ask the whole profession to do charitable work. You must not compel them in a sense to do it. You may let them do it on their own account, as they very frequently do, but you must not compel them. You must give them a chance of making a decent livelihood. You must command at this moment their goodwill. I would suggest that the Chancellor of the Exchequer could not do better than to get together a small body of doctors who are experts on this subject. I do not mean the men at the top of the profession, who do not know the conditions that the friendly society doctor has to contend with. I mean the men who are in the thick of it, who from day to day have to deal with from thirty to seventy patients. If he could get these men together to talk the whole matter over, I believe it might be possible to arrive at a decision which would satisfy them and set them to work upon this great task of combating disease with good heart and goodwill.

Mr. Theodore Taylor praised the proposals for dealing with consumption at some length, and said: There is, then, the position of the medical men. The medical men—in Lancashire, at all events—are thoroughly roused. I got a letter from the Secretary of a Branch of the British Medical Association, whose district includes my constituency. He tells me that at a very enthusiastic meeting they passed two resolutions. In the first place, they stated that they opposed the provisions of the bill putting them under the friendly societies; and in the second place that they have unanimously resolved and pledged themselves, and this includes all medical men in the district, to resign any friendly society appointments they have for medical attendance, and to decline to take any more. In other words, that is a kind of menace. I took the liberty to write a letter in reply, stating that I felt sure that the Government and the House of Commons would not do injustice to them on any ground whatever, and that they need not be afraid, and I counselled them to try reason rather than menace. We have the fact that a number of respectable medical men take this view, which was confirmed by the meeting held in the Free Trade Hall, Manchester, last night. The Memorial Hall building was too small to hold the medical men who had been summoned on short notice to a meeting on this question, and the Free Trade Hall had to be taken. They are thoroughly roused. And why? For two reasons, I believe. They object to be put under the friendly societies. They may be right or they may be wrong, but I do not think I am exaggerating or understating when I say that the medical profession as a whole are not enamoured of the clubs. They want to be paid, as in the case of private practice, by the work they do. That is the most just way. They do

not want a flat rate, though I cannot see any other principle in a public measure; but if a flat rate is to be paid I do not see why it should be left uncontrolled to the medical society. Might not the health committee have some say in the matter, or might not Parliament itself pass a certain minimum and give a latitude to the health society? If the doctors ask that they shall be allowed to attend their own patients, and if the patients ask that they should be attended by their own doctors, how can we refuse that? I do not think it is expedient on any ground to separate the members of a family. If the father is transferred by this bill to a particular doctor, and if another doctor continues attending the rest of the family, that will be a disadvantage all round, and it will be unfortunate to the doctor of the family. It cannot possibly work well. I take it we shall have to have a flat rate fixed. I regret that this is so, just as some hon. members have regretted the introduction of the element of compulsion. It would be utterly impossible for justice to be done and for the money which is raised under this bill to be properly expended by them with the proper check if the doctors were to be allowed to send in their bill to the friendly society or the health committee without any other check but themselves and the patients. We must have an all-round rate. I would have men who joined friendly societies required to elect from any of the local doctors willing to take the club flat rate, and thus for him to be allowed to nominate his own doctor. As the bill stands now I do really consider that the doctors have a great grievance. Some of the very best of their present patients will have to leave them, and probably will take with them their families. It has been said over and over again that even after this bill there are all the rest who are not members of friendly societies, and that there are the families left. I think it was the Attorney-General who gave the illustration yesterday that when you go into a shop and when you are pretty well treated in one thing that you will want to go again to the same shop. That is the actual reason in many cases why the doctors have taken a low rate for club members, because they hoped, and they succeeded, in getting the families along with the members of the clubs. I am sure that the Government does not want to do them any wrong, nor do we. It would be, in my humble judgement, with all respect to the Government and those who prepared the bill, and as I think so splendidly, it would be a very great shame, if by law we were practically to deprive, as we should be doing in many cases of their practices wholesale, men who have built up working-class practices. Several doctors in my own neighbourhood—in industrial districts like Lancashire and Yorkshire—have built up by hard work and real merit working-class practices, and it would be a great shame to take those from them by law, however great good we might mean to do. There is a remedy for this, and it is that the existing club members should go on with the existing doctors as they are now, and that the new members who join these friendly societies in consequence of this new legislation should be allowed to choose any properly qualified local practitioner, and the whole of the properly qualified local gentlemen should constitute a panel for the purpose of adjusting difficulties in their particular neighbourhood. Take this case in point—the case of a young man whom I know who has been building up a practice for three or four years; he is doing well now, but he has had to work hard for several years. This gentleman said to me, "I live in a certain district. People who are in clubs come to me because I am near to them, but under the new law they will go to the club doctor, who would serve them on the flat rate; but if they cannot get the club doctor, if there is a case of sudden emergency, they will still come to me, because I happen to be near them. What am I to do? If I refuse, people will cry 'Shame.' If I go, am I to be paid, and who will pay me? Will the club doctor pay me?" If you consider cases of this kind, you will see that there will have to be some local authority, some medical authority, to adjust differences of this kind.

Lord Charles Beresford raised the question of the effect of the bill on soldiers and sailors, but before doing so he said consumption ought to be treated in this country the same as small-pox. Directly a man gets consumption in its early stages he ought to be put into a sanatorium. A sanatorium is not so useful for curing individuals, though it will delay the action of consumption and many will be cured, but the real benefit is by getting a man who has caught consumption in its early stages free from others and from giving infection. The Chancellor of the Exchequer the other day said there were 75,000 people in this country dying yearly of consumption. That is a shocking state of affairs, and it ought to be met as soon as possible. But the fact is that when a poor man gets consumption he is the working man often, and he has to go on working to keep his family, and he is going, maybe, into a room costing 4s. a week, where there may be five or six children, with his wife and a lodger, and he gives infection to those children and to all those about him. Personally I can vouch for the infection being caused in that way from experience on board a man-of-war. I have often written to the Admiralty on the point that we ought to have a sanatorium for the men in the fleet who get consumption. The man with consumption sleeps in a hammock very often next to another man, and a man who is in the early stages of consumption always expectorates. That is where the infection has occurred, and many a healthy man to my certain knowledge has got consumption from his messmates or shipmates by living and sleeping so close to them and having it thus imparted to him in the fleet. Another point which has been mentioned several times in this debate is that the whole success of this bill will depend upon the view that medical authorities in the country take of it, and the action taken with regard to these medical authorities to make it possible for them to make this bill a success. In my humble opinion no class in the community has acted more loyally or more sympathetically or in a more kindly, chivalrous spirit to the poorer classes than the doctors who work among them. At present they get 4s. a year from the friendly societies; but they make a great deal of their income and living on account of the sympathetic action which they take towards the men they are paid to administer to, and consequently they get a large practice among these men's friends and other people in the locality. I do hope that the Chancellor of the Exchequer will see that the doctors will be well looked after, and that they will have a living wage with regard to the effect of this bill.

Mr. McKenna, as First Lord of the Admirality, answered Lord Charles Beresford as regards the position of sailors under the bill, and then finished the debate, which was adjourned to Monday, in the following words: There has been criticism raised on the part of the doctors, and there has been criticism raised under the belief that women under the bill are not fairly treated. First of all, with regard to the doctors, I would be behind nobody in admiration of the work which the medical community have done for the poorer classes of the nation, but I cannot help thinking that a great deal of the alarm which has been excited in the minds of doctors is due to a complete misapprehension of the actual provisions of the bill. All that we have in the bill as it now stands dealing with doctors will be found in Clause 8 and Clause 14. Clause 8 provides that the benefits conferred by this part of the Act are to include medical treatment and attendance, and Clause 14 provides that every approved society and local health committee shall for the purpose of administering the medical benefit make arrangement with duly qualified medical practitioners. The hon. member for Pontefract (Mr. Booth) stated that this bill proposes to pay doctors at the rate of 4s. per annum for every person they treat. There is no such provision in the bill. There is nothing more than I have stated. Medical benefit is to be one of the benefits, and the local health committees and approved societies are to make arrangements with properly qualified medical practitioners. How has the charge of 4s. per annum arisen? My right hon. friend has stated on the paper which he has circulated with the bill that the average payment made by friendly societies at the present time is 4s. per head per annum. That 4s. includes, I am informed, 1s. 6d. for drugs, so that the actual net amount which the medical man now receives through the club or friendly society upon the average is 2s. 6d. per head per annum for his whole services in respect to the assured person. In the bill there is nothing as to the amount to be paid to the medical man, but there has been published by my right hon. friend the report of the

actuaries, and in that report (paragraph 70) there is published the following statement:

> It will be convenient here to set out a statement of the "minimum benefits" provided by the bill in the case of members of approved societies. These are as follows:
> (*a*) Medical Benefit—takes an equivalent to 6s. per head per annum throughout life.

There the only statement we have is that among the minimum benefits provision is to be made for 6s. per head for medical relief in all its aspects. Assuming that 1s. 6d. out of the 6s. goes for drugs and appliances, it would leave 4s. 6d. per head to be paid in respect of insured persons who will receive the minimum benefit under the bill. That 4s. 6d. you have got to compare with the 2s. 6d. which is now the average payment made through friendly societies. I am not dealing now with the system of the supply of drugs, nor am I dealing with the system of medical treatment which has been given by friendly societies or approved clubs. I am only dealing with the financial provisions in relation to doctors. The doctors hitherto have found the drugs, and assuming that the statement is correct that the drugs cost 1s. 6d. per head, and that the same amount of drugs are found—under certain conditions I think they will be cheaper under the new system—but assuming that to be true, the actuarial calculations of minimum benefits would give a total amount of 4s. 6d. for payment of medical treatment instead of 2s. 6d., the average amount paid at the present time through friendly societies. But that is not all. Through the sanatorium clauses, as I will call them, certain classes of sickness are taken out of the ordinary benefits, and those are the particular kinds of sickness which require most medical treatment and which last longest.

The debate was resumed on Monday, May 29th, by Mr. Ramsay Macdonald, who, after praising the general conception of the bill in so far as it was calculated to fill a gap in social organization, turned to a consideration of the public health aspects of the bill, in regard to which he made the following observations: When one sits down and thinks of it seriously, and apart from one's own experience, it really is the most extraordinary thing that up to now our doctors have been paid for attending disease. The more disease the better it has been for the medical faculty of this country. That is absurd, absolutely absurd. The whole medical service has been so disorganized that, in so far as it has been prompted by economic considerations only, the interest of every doctor was to get as much disease, as much illness, as he could possibly create amongst his people. A doctor attending to sick persons only drew fees when the persons were sick. My name might be on my doctor's list of possible patients, but so long as I am well my doctor is making nothing out of me. The moment I become ill, then my doctor begins to regard me in the light of an income. I understand the protest was raised from the other side. I know perfectly well that of no profession in the whole country is it truer to say that their economic interests have never regulated their conduct. It has been one of the most encouraging and remarkable manifestations that, on account of humanitarian considerations, and on account of the intellectual interest they have taken in their profession, our doctors have never allowed their economic interests to dictate their relationship to the general public. But there the fact remains, and until this bill has been brought before the House there has not been any attempt to establish a system of local organization which shall use the doctor, not merely for the purpose of attending disease, but for the purpose of eliminating disease altogether. With that general point of view before us, it becomes very necessary that medical men under this bill should have the very fairest treatment. I am not quite sure how far the claims made by medical men up to now are well founded. It is a remarkable fact that the medical faculty, speaking of them as a whole, feel themselves injured, or possibly injured, by this bill. I think they are very wise to take the gloomiest view of their prospects under the bill. We ought not to object to their taking that point of view, because they know enough of life to come to the conclusion that if they do not take that view nobody else will. Therefore I, for one, do not regard the doctors as being hostile to the bill because they are putting in claims that the scale of fees and the financial provisions made for them are not at all adequate. I hope the Chancellor of the Exchequer will very seriously consider that matter. I would also like to remind him of a section of the medical organization which is not represented in this House, and which has not made itself quite so clamant as the doctors have done—I refer to the section of nurses. There is a well-organized body of midwives and sick nurses whose interests under this bill, particularly under the maternity grant, ought to be very carefully considered, with a view to safeguarding them. As a matter of fact, I think I am speaking quite accurately when I say that if you take the working-class experience all round, the assistance of nurses, either in maternity or in ordinary sickness cases, is often far more valuable than the assistance of the doctors themselves. It would be great calamity to the health of the great masses of people if anything was done in this bill which would make it difficult for midwives and for nurses to go on as they have been going on before. I most respectively put in a plea for that section of the medical faculty, and I hope the Chancellor of the Exchequer will very carefully consider their claim. Another point is that which has reference to making the doctors club officials or society officials. I have been very carefully looking into the various speeches made during this debate, and I would like to make a suggestion regarding the difficulty as to the doctors. I cannot see what objection, what sound and serious objection, there really is to allowing each insured person to have his own doctor. I can quite see that it will be a certain convenience if the doctor is a society official. On the other hand, part of the cure of a patient is that he has confidence in his doctor, and if the doctor becomes a mere official, however good he is, however great his skill may be, he does not have that personal confidence which the private practitioner carries with him—that personal confidence which is really half the cure. It will require very weighty consideration from the point of view of convenience to over-balance that and make me come to the conclusion that it will be found efficient, and even good policy, to practically create a sort of close-list of approved society doctors to whom alone the insured person may go. Then there is the point about the fee. I have thought over it a good deal, and again there is a suggestion which I do not think has been made—I have not detected it in the official report—but which I submit with all due respect to my right hon. friend: Is it not sufficient simply to prescribe the minimum fee? I hope, however, that if a minimum fee is going to be prescribed, that the Chancellor of the Exchequer will rigidly set his face against any approved societies employing doctors at, say, half a crown per year per head. I think, if this bill is to have the ghost of a chance of success, there must be a minimum laid down for all approved societies in regard to the doctor's fee. If the House will allow me, I will assume that I am an insured person. I select my own doctor; I take the man with whose ways I am familiar, and who is familiar with my ways. He gets from the society to which I belong his minimum fee, but what is to prevent my supplementing his minimum fee by any fee I care to give him, or any fee that he and I care to arrange between ourselves? I think, especially when the Chancellor of the Exchequer is insuring people with an income up to £160 a year, that if he considers the position carefully he will discover that all he requires to do is to establish a minimum and not a fixed fee. Give us the minimum, and let that minimum be the basis of any bargain that the patient and the doctor care to make by way of supplement. These two points—I am not quite sure if they have been considered or not—seem to me to be worthy of the most careful consideration, particularly as the bill is an experiment, and, so far as the outside and general medical practitioner is concerned, very largely a leap in the dark. Another point. I hope the Chancellor of the Exchequer has very clearly in his mind that the best service he can give to the public is to create an efficient and scientific system of preventive medicine. I am not going to elaborate it, because there are so many points that have to be raised in connexion with the bill, but there are two interesting experiments which I think are illuminating. We, for instance, have muddled along in industry until everybody became aware of the fact that we ought

to apply science to industry, and we at last established the Imperial College and the School of Technology. Why should we not apply science to medicine in the same way? We shall have to do it. The laboratories of the hospital school or of the hospital certainly do not meet our requirements. Then, again, we have muddled along exactly in the same way in regard to lunacy, and it was only with the greatest difficulty, I remember—I was a member of the Committee mainly responsible in regard to the matter—and after years of agitation and argument and rational presentation of our case, we succeeded in establishing the Neuro-Pathological Laboratory at the Claybury Asylum. I hope something similar will be done under this scheme, and that the Chancellor of the Exchequer will always remember that something must be done sooner or later, and the sooner the better, to establish laboratories in connexion with this scheme, the aim of which will be to place at the disposal of the humblest and most overworked medical practitioners in the most remote districts of the country the very best and most up-to-date knowledge regarding the scientific side of curative medicine. Research and science applied to medicine—I want to emphasize the point—should not be regarded as merely a pious opinion. I rather gather that there is something of that idea in the way the clause has been drawn. I therefore want to emphasize the point, and to tell the Chancellor of the Exchequer that so far as we are concerned we consider that this is a major and not a minor proposition of this bill. A further point I should like to ask the Chancellor of the Exchequer about is as to the health committees. Is the right hon. gentleman quite sure that the dual control of these health committees and the public health committees of the county councils is the best way of securing what he wants? I believe that certain representations have been made to the Chancellor of the Exchequer to the effect that all that is wanted is more money for the public health committees. I do not believe that to be so, and I hope he will rigidly set his face against that idea. The public health committee as it at present exists, and as it is at present constituted, must in many districts be a very inefficient body. I myself believe there should be some better means than has hitherto been discovered for getting public health adequately considered by local authorities, but the general experience of all dual control is, I think, that it produces less efficiency rather than more efficiency. I can quite well imagine that the health committee proposed to be established by this bill, covering its area, will never move until the public health committee moves first of all, and that, I think, would be a very great calamity. Without elaborating the point any further, I do hope the Chancellor of the Exchequer will seriously consider before the Committee stage whether he is going to stand by his proposal to establish dual control in public health. Rather I would suggest to him that he should make the local medical officer of health more a national servant than he is now, and make him practically independent of the local committee. I am perfectly certain that if he did so he would do far more than he can do under this present proposal of dual control to screw up the backward local health committees until they become efficient health committees. Turning then to other aspects of the bill, he said that it was in its scope superficial, dealing only with the problem of poverty when poverty had already arisen. While he was in favour of insurance and not a free gift, he contended that if 9d. was required, then 4d. from the workmen, 3d. from the employer, and 2d. from the State was not a fair proportion. The Labour Party was willing to accept, during the experimental stages at any rate, an equal proportion of 3d. from each party. A person with a family and an income of £1 a week would find that 4d. was a very considerable percentage of his income, a much bigger thing to him than 4d. out of 30s. a week; mathematical ratios did not hold when dealing with human beings faced with the ordinary problem of housekeeping upon an inadequate income. The position of the Post Office contributor under the bill would be unfortunate; he would be a man who was rejected by a friendly society and most deserved aid, at any rate from the State. He considered that the provisions of the bill with regard to women were unjust; a woman had to insure during her healthiest years, and when she became subject to sickness dropped out. Why should not a married woman be allowed to contribute to the voluntary fund, and why should she not get sanatorium treatment if she desired it?

Mr. Austen Chamberlain referred to the eagerness of members on both sides of the House to take part in the debate, and expressed the opinion that not one useless speech had been made. He therefore made an appeal to the Chancellor of the Exchequer—an appeal that was received with applause—for another day. After brief reference to the unemployment part of the bill, and after expressing his regret that it had not been made a separate bill, he said that he would not discuss the question of the doctors at length, not because he did not think that there was a good deal to be said upon it, but because the case had already been put before the House, and because he understood the Chancellor of the Exchequer was about to give further explanations, which might modify the situation; he would only say that he quite recognized that the House must carry the goodwill of the doctors with it if the matter was to be worked satisfactorily, and that their case required special consideration, not merely, he continued, on account of the vast amount of charitable work they have done, but because of the vastness of the interest they have at stake. It is not merely a question affecting their present powers of gaining a livelihood which is touched by this bill, but the whole of their accumulated savings during a lifetime are invested in their business and the goodwill in it which they have built up. I only ask, in regard to that, for a little further information from the Chancellor of the Exchequer. In the first place, I want to know whether the doctors of these approved societies are expected to treat surgical cases as well as medical cases. Of course some surgical cases must go the hospitals, but where the case is of a kind which could be treated at home, are the doctors under the bill expected to treat such a case? And how are surgical appliances in such cases to be supplied to the patients? In the second place, has the Chancellor considered or made any provision for dentists? When we are insuring the population against sickness this is really a very serious matter. I speak as a layman, but all of us know that the state of the teeth is often a cause of very great sickness. All of us who have set up a household are almost certain to find healthy girls coming up from the country, who had been leading a healthy life in healthy surroundings, sometimes taken with illness, and when we make inquiry we find it is the teeth that are at fault, owing to early neglect, and they have to go and submit to drastic treatment. Dentistry is not mentioned under the bill, and I think it must be considered and provided for in the medical treatment.

After brief references to maternity benefit and to sanatoriums, Mr. Chamberlain continued as follows: What effect is this bill likely to have upon our hospitals? Take my own native town of Birmingham. A large portion of the income of the hospitals there is derived from the Saturday collection, amounting to about £20,000 annually, and a large portion is derived from the subscriptions of employers and workers. You are going to say to every workman and to every manufacturer who have contributed to the subscription list that in future each of them is to pay a fixed figure for insurance and medical benefit and treatment, and in doing so have you counted what effect that will have upon the great voluntary subscriptions, and whether they will continue to be made to our hospitals. Has the Government gone into that matter? I confess I think the bill as it stands must lead almost inevitably to the full assumption by the State of the cost of the maintenance of the hospitals of the country. I say at once I should deplore that fact. I am not now thinking of the expense of the cost of management and so on under a State system. I think it would be wasteful, but I am thinking rather of the advantage which comes to the men of research and science from having a multitude of different institutions open to them in which to make these experiments in their own way without being subjected to official red tape. I think you will do a great deal to check the progress of science in its dealing with disease if you put all these great institutions under a central authority. And, again, I say you are taxing compulsorily so many of the people who now support the voluntary funds for the seinstitutions for doing exactly the same kind of work that you cannot expect them to

continue the same subscriptions as they would have given had this bill not been passed.

Turning to the question of the matter of health committees, he said that while admitting that some small sanitary authorities did not do their work always effectively, yet when it came to dealing with great corporations and county councils, some regard must be paid to the power, dignity, and beneficent activity of these authorities. Was the council of a city like Birmingham, with a population something like a million, to be told by a health committee, on which it might not be represented by a single one of its members, on which in any case it would be in a very small minority, that it is not doing its duty properly under the Housing Act, and that they demand an inquiry by the Local Government Board into the way in which this great corporation is discharging its duties? Great corporations like that believe in these matters of housing that great haste is the worst speed, that if you sweep away a great slum area as enthusiasts would be glad to do it, in a hurry, you only recreate the same state of things elsewhere, while inflicting infinite hardship on the families transferred. If you are to make true progress, you must go slowly and exercise great patience and examine very carefully the extent of the authority you allow to these independent committees. You must give to the great authorities, whether county or borough, a bigger position than at present, and you ought seriously to consider whether you cannot almost exclusively entrust the work to them. Mr. Chamberlain then criticized the provisions with regard to soldiers and sailors, and after some remarks on the report of the actuaries, proceeded to consider the position of women under the bill; his remarks on the latter subject drew the following explanation from Mr. Lloyd George:

This is a very important actuarial fact, and the right hon. gentleman has stated it quite correctly up to a certain point. The women can also come in as voluntary contributors on exactly the same contributions as they were paying when they were married at 22. That is an enormous actuarial difference. They may be 50 years of age, and they will still be rated at 3d., but they will have to pay the employer's contribution. They will pay exactly as if they were 16 years of age, although they may be 50 or 55 years of age at that time as voluntary contributors. The next point is that if they are disabled they receive the same amount of benefit as the moment they become widows. That is a very heavy actuarial responsibility.

Mr. Chamberlain said that while actuarially the proportion of benefits might be high it would affect but a fraction of women, and he thought more must be done at least for those women who would be compelled to pay for an insurance and who by their marriage would lose their benefit. Turning next to the question of deposit contributors, he said that unless the bill was amended this would be a growing rather than a vanishing class as the Chancellor of the Exchequer assumed; they were the persons who would most need the benefit but who under the bill would get the least. With regard to the finances of the friendly societies he asked whether the actuarial estimates based on the experience of the Manchester Unity as to the amount of sickness would be likely to apply all over the country; the societies had selected their members, who were very largely of one class, but the bill was going to drive into the societies eight millions of humanity—I think that is the assumption on which the bill is based. What about the medical inspection of these eight million new entrants coming in at once? What will that inspection be worth? What knowlege will the societies have with regard to these new entrants? The medical examination cannot be comparable with what is now done when two or three individual men come up for examination. The knowledge the societies will have of these new members cannot be comparable with the knowledge they have had of their members in the past. I do not think that the sickness-rate generally throughout the country under the new scheme can be deduced from the experience of friendly societies in the past.

Mr. Lloyd George, after saying that he had taken note of the criticisms on matters of detail, said that the second reading was a debate on whether the principle of the bill was acceptable or not, and as he did not think that there had been any challenge on the main principle he considered that the Government would not be justified in prolonging the second reading stage.

Mr. Austen Chamberlain pointed out that there would be great difficulty in trying to amend the bill in Committee; it would be almost impossible to raise a great many new points without imposing an increased charge either on the contributor or the State; the House would be precluded from doing this in Committee unless a wide latitude was allowed.

Mr. Lloyd George said that that was a matter for the Chairman. The main outlines of the bill had been accepted—namely, compulsory insurance, collection by stamps, and the division of the contribution between the employer, the employee, and the State. The cumulative effect of the suggestions made would be to increase very largely the financial liability under the bill, and he accepted the actuarial view that it was far better to start the finance of the bill with the knowledge that there was something in hand rather than to go right up to the margin. He thought that even yet the boon which the bill would confer on the working classes was not appreciated; he proposed to raise partly from the employer and partly from the State about £16,000,000 a year to be distributed among the industrial class to cure sickness, and, what was still more important, to prevent sickness and to maintain the families of the workmen when the bread-winner was stricken by sickness. It had been shown that one effect of the bill would be to free nearly £3,500,000 of the reserve fund of the Oddfellows Society alone. Mr. Lloyd next dealt with the criticisms of the bill from a medical point of view. You cannot, he said, set up a great scheme of this kind without alarming vested interests, and there are vested interests in everything. In disease and in death you have vested interests, and I am amazed that the undertakers are not alarmed because the scheme will certainly affect their trade. The fact of the matter is, you cannot widen a road without striking a strip off somebody's domain, and you cannot drain a morass without interfering with somebody's shooting; and when you are widening the old systems to which we have been accustomed, you must necessarily, to a certain extent, interfere perhaps with vested interest. All I can say is that the first and dominant consideration of this House ought to be the health of the nation. Its vigour and its efficiency depend upon it. Lord Beaconsfield pointed that out in his great historic deliverance in 1872, and, after all, the first consideration of a Ministry should be the health of the people. I say this of all vested interests. They are entitled to ask that no legitimate right of theirs should be interfered with unless you are prepared to give them an equivalent. The vested interests with which we come in contact are in this case, fortunately, all not merely legitimate but benevolent interests—friendly societies, collecting societies, doctors, nurses, midwives, and hospitals—all these interests have been mentioned in the course of the discussion. They are highly beneficent interests, and not merely ought we to give them an equivalent, but we ought to treat them with care, consideration, and tenderness. I shall prove that not merely do we give them an equivalent, but under this bill they are in a better position than they ever were before. What are these interests? I have counted them up, and I propose to deal with them if I may, with the indulgence of the House. I will take the doctors first, because they have received a larger share of attention than any other interest in the course of the discussion. What are their criticisms? The first is, they object to a capitation grant and the amount of it. Some of them object to any capitation grant at all. Secondly, they object on the ground that the capitation includes for the first time all the bad lives. I put that as a criticism which has been offered, but I am not accepting it. The third criticism is that there is no free choice of doctors. The fourth is that they are placed under the heel of the friendly societies; and the fifth is that they object to the income limit—I mean the income limit of the person insured; I do not mean the limit of their own income. The doctors proceed in their criticisms on five assumptions, all of which are erroneous. They proceed on the assumption that we have fixed a capitation grant. We have not. They proceed an the assumption that the amount of the capitation grant is to be fixed by the friendly societies without any appeal to anybody. That is not the bill. They proceed on the assumption that in the capitation grant families are included.

They are not. The other assumption is that the system of club doctors is to be made universal, and that there is to be no free choice allowed. That is not the bill. The last assumption is that all the bad cases are included in the capitation grant. They are not. Therefore, the five main assumptions upon which the whole of this agitation is based are absolutely erroneous and have nothing to do with the bill, but with some criticisms of somebody formulated before they ever read it. If I may, without any disrespect, I would suggest that the same time should be given to the reading of a bill as to formulating the censure which is to be offered. Anybody looking at the medical clause in this bill for five minutes will see that we fix no capitation, and that there is nothing to prevent the free choice of doctors. Bad lives are all segregated in the Post Office contribution. In fact, I have been condemned for that. That is one of the criticisms I have to meet. Here is what we have provided:

> Every approved society and local health committee shall for the purpose of administering medical benefit make arrangements with duly qualified medical practitioners for insured persons to receive attendance and treatment to the satisfaction of the Insurance Commissioners from such practitioners.

This is the first time that doctors have ever received any protection against friendly societies; and yet not a doctor in the country has seen that! They held a great demonstration last week, and denounced something—not the bill, but something somebody told them was in the bill. The bill has been published for at least a fortnight, so that they might have read it. What does that mean? They are free to make any arrangements which they like, which the societies like, and of which the Insurance Commissioners approve. Does that include free choice of doctors? Of course it does. Does that lay down payment must be by capitation grant? Certainly not. Does that put them under the heel of friendly societies? Quite the reverse. The agreement which is entered into must be subject to the approval of the Insurance Commissioners; and let me remind the House that the Insurance Commissioners will act on the advice of an advisory committee. That is in the bill. Upon that advisory committee there will, of course, be representatives of the medical profession. The doctor who has now nothing between him and the friendly societies but his own unaided independence—whom the club might starve out of the district if he dared to refuse them—has been driven to accepting 2s. 6d. for members, including drugs. That is a monstrous state of affairs. In future that has got to be submitted to the Health Commissioners, whose advisory body will have representatives of the medical profession upon it, and the British Medical Association can make its representations not to the friendly societies of the club but to the Commissioners. I cannot imagine the Commissioners, not in the interests of the medical profession, but in the interests of the health of the patient, ever sanctioning such a sweating proposition as that. All that has been ignored. Let me point out this to the House. I have read the bill. If they have got a copy they could see for themselves. There is one part of the bill that has escaped the attention of every doctor in the land. Healing is the first charge upon it. Maintenance comes afterwards. Healing is the first object. Clause VIII provides that the first benefit shall be medical treatment and medical assistance. The doctor is the first charge. If I may put it another way, the doctor has the "first cut." We are raising something like, speaking from memory, twenty-five millions of money. There is nothing to prevent the doctors from walking off with every penny of it, except their own common sense and the common sense of the community—absolutely nothing. Now that is the bill. We shall see that fair arrangements are made for protecting not merely the doctor and the patient, but protecting the fund. But there is absolutely nothing prescribed in the bill which would preclude the doctors from making any of the arrangements which they themselves have been recommending during the last few days. Each agreement of the doctors will be taken on its merits, taking into account the character of the district, the distance that he has got to travel for his patient, and whether the place is healthy or unhealthy. You take into account every consideration that should be considered before you come to a conclusion whether the rate of payment is a satisfactory one or not. For the first time there are these provisions for the doctors. That I should have thought a very valuable protection for the medical profession. I would like to ask how many members of the House have even seen this document which I now hold in my hand? The British Medical Association, in 1903, decided to inquire into club practices throughout the whole of the kingdom. They had a very careful, fair, impartial, and searching inquiry, and this is their report upon it. I would strongly urge members, before they come to consider the medical part of this scheme, to procure and peruse this invaluable document. I considered it before I ever came to any sort of conclusion as to what the medical provision should be in the bill. This is a fair summary of what they have got. Out of the cases reported to them of club payments there were 135 cases where the payments amounted to between 2s. and 3s. per member per annum. That is, the capitation grant per annum in 135 cases of clubs was between 2s. and 3s., including drugs. There were 256 cases between 3s. and 4s. There were 164 cases which were between 4s. and 5s., and only 386 of them were above 5s. That is the present position — I agree a humiliating position, a position of bondage. One of the most important professions in the land is treated in a way which I think is perfectly disgraceful to those who have arranged such terms of payment, and not only discreditable but stupid. I cannot imagine how they would expect the best services from doctors who are paid at that rate. All this I have got to take into account. Questions were addressed to each of the doctors as to what scale of pay they recommended. The vast majority of them made suggestions for raising the rate to either 4s. or 5s., and some of them up to 6s. The vast majority were under 6s. Those who recommended that there should be a capitation grant of over 6s. were a very small percentage of the total. If any man, by agitation and by organization, had succeeded in getting a 5s. capitation grant all round he would have been a "hero." I have arranged 6s., and I am a "villain." That is their own demand. "In this district," says one man from a town in Yorkshire, "the orthodox medical men are strongly united, and have demanded and obtained a uniform payment of 5s. per member for all male members." They regarded that as an achievement. It was a triumph of organization. They had gone on strike and demanded 5s. Without striking at all I have given them 6s., and they are all in revolt.

Mr. Pike Pease: They are friendly societies.

Mr. Lloyd George: How does the hon. member know? Can he tell me that? Then I will give him a reply. I must come to the question of medical clubs later on. They are clubs, not all friendly societies; lots of them penny clubs. I thought the hon. member knew more than I did. I was asking for information. There is another case here which is very valuable as showing why they take these low rates. Doctor after doctor writes to say that the reason why they do so is because they are not organized. They do not trust each other. The moment one man stands out for 4s. or 5s. somebody comes and cuts him out. You cannot protect any branch of work unless those engaged in it stand together. The same thing applies exactly to trade unions. They have succeeded in keeping up their wages because they will not admit as members those who accept less than a certain rate.

Mr. John Ward: Lawyers are just the same.

Mr. Lloyd George: The hon. member does not know the distress and the woes of lawyers. They have got an Act of Parliament to cut down their wages, but the medical profession have here an Act of Parliament putting up their wages. That is the difference between the way in which lawyers treat doctors and the way doctors treat lawyers.

Mr. Austen Chamberlain: May I ask the right hon. gentleman how does he arrive at the figure 6s.?

Mr. Lloyd George: I am about to come to that.

Mr. Austen Chamberlain: The right hon. gentleman has just pointed out that there is nothing in the bill mentioning any figure.

Mr. Lloyd George: This is the very next point I am coming to. I am going to explain by and by why I have put 6s. down to my calculation.

Mr. Austen Chamberlain: But where in the bill is it provided that there shall be 6s.?

Mr. Lloyd George: I have already explained that there is no provision in the bill giving 6s. The provision is a financial provision, and I shall point that out later on. The financial provision will have to be administered either by the present Government or some Government their successors, and we have made that calculation. I am not going to read more quotations, but there is one of very great value, especially having regard to the criticism which has been directed, not merely by the right hon. gentleman, but by some hon. members behind me, to the scheme. Almost without exception the doctors condemn the practice of forcing them to take the charge of married women, and one doctor said, quite frankly, that he would not take them at any price on a capitation grant. The difficulty is one that cannot be slurred over. Any one who knows anything about friendly society practice and club practice knows that the moment you put on the club married women who are not engaged in work to earn their living, practically they can call the doctor in at any time they like. That adds enormously to the burden on the doctors, and I am perfectly certain that 6s. will not be looked at if once that charge is placed upon them. It is one of the difficulties which the actuaries warned me against at the very start. In regard to the inclusion of married women, every man of real experience in the matter knows that the enforcement of that condition would break down almost any scheme and would be a perilous enterprise to start with. All I want to say now is that I have suggested a scale which is as liberal as the vast majority of medical men dared to suggest—more liberal. The question was put to me why I mentioned 6s., when it has not got it in the bill. The reason why I mentioned 6s. is this: In estimating the money which you require for outgoings you have to take some basis for medical attendance. You could not possibly say what was the balance for maternity charge, pensions, and other benefits until you know how much money was necessary to meet the first charge, that of the doctors. Therefore I had to take some basis for the actuaries for the purpose of the financial part of the measure. I took the basis of 6s. because I understood from the report which I have here that this was the sum which was better than most doctors ever expected—better than most of them asked for—and I thought, at any rate, I would be on the right side if I put the amount at 6s., and that the doctors would say: "Here is the most generous Government as far as the medical profession is concerned, that ever sat on this bench." But let me point out that this 6s. is neither fixed nor final. We have in the bill provision for a margin which can be drawn upon for increased benefit or increased payment of doctors. That has got to be considered on its merits. The margin is equivalent to an additional half-crown. More than that, we have provision in the bill which enables the local health authority to take over the whole charge of medical attendance. I was very interested to hear the suggestion made by the hon. gentleman, the member for Bootle, and which was quoted afterwards by some other hon. members, that the local authority should take over the medical attendance. I think that was the hon. gentleman's suggestion, and I myself regard it as an admirable suggestion. What does it mean? It means that where the 6s. is inadequate it is competent for the local authorities and the State to come in and pay more for the medical attendance. It may be said that this will put more on the rates. Not at all. If you do not cure these people in the way proposed by this bill, they will go to the workhouse, and it is the rates that will have to be the means of curing them. Therefore it is in the interest of the local authorities to find the 6s. If you do not cure them out of this fund, you cure them out of the rates, and the rates would bear the whole. You cannot leave them uncured. But I wish to point out that we have taken upon ourselves for the present the work of cure, and there must be a vast number of people at the present moment who have very little margin between them and the parish. They will get the 6s.; they will get half from the State and only pay the other half. Therefore it is a great advantage to the ratepayer from that point of view. At any rate, there is the 6s., which is put in as a basis, and, further, there is a half-crown margin which you can draw upon. There is, in addition to that, the provision made that the ratepayer and the taxpayer should come to the rescue if the charge is made. If that is not a very generous and ample provision for the medical profession, then I fail absolutely to see what possibly can be done for them more than that. I come to another point raised by the hon. member opposite in reference to bad lives from an insurance point of view. But these friendly societies have their medical examinations, and the bad lives will be included among the Post Office contributors. There will be just as many selected lives for the societies as before. What is the difference? Who are the men outside friendly societies? Those who are rejected by the doctors, and those rejected by the doctors will not be in the societies at all. They will be mainly the people who cannot afford to pay the weekly contributions regularly in times of ill health and in times of unemployment. But these are not necessarily bad lives. There are men who are improvident, or men who have improvident wives; they are not men necessarily in bad health or diseased. Take the agricultural labourers of this country. I should say probably half of them are included in friendly societies. The other half would be outside, so that the best lives of the community will come in under this scheme who were never in before. It is not that they are outside now because the friendly societies will not have them. There are just as many selected lives now as before. Most of the working classes of this country have passed through friendly societies or trade unions, and they are not in them now, because they could not keep up their contributions. That is the real reason. It has nothing to do with their physical condition, and the men who come in under this scheme will be just as good physically from the insurance point of view as the men inside at the present moment. So much for that point of view. Now I come to the question of free choice of doctors. Mr. Ramsay Macdonald put the point very well to-night when he said that it would be a great misfortune if there were not a good understanding between the doctor and the patient, and that the patient should have confidence in his doctor. He said that half the cure arose from the confidence of the patient in the doctor, and that it was of no use sending a club doctor to him if the patient did not believe in him. It is a great mistake to try and hold a man by machinery which he cannot accept and which he repudiates. There is a sort of moral and mental resistance going on to the whole attention which the doctor is paying the patient; there is a struggle of will against the will of the doctor. That would be a mistake. There is nothing in the bill to prevent the free choice of doctors. On the contrary, I am all for free choice of doctors, within limits. If you give an unlimited free choice of doctors you are taking the direct road to promote malingering. There are some members of the medical profession—I am sure I am not attacking the doctors at all—who would give any certificate to members of societies for the purpose of securing their 4s., or the capitation grant. But there is a convenient course, and it is one that has been pursued in Norwich, I believe also in Lancashire, and in several instances in Germany. We have the experience in our own country where a certain number of doctors are on the panel. A member of the friendly society chooses his doctor from that panel, but he must choose him before he is taken ill. That member has a free choice of a doctor within the panel. The doctor guilty of misconduct—and misconduct means anything which has a bearing upon the charge of encouraging or conniving at malingering—ought not to be retained on the panel. What is the check? The doctors themselves. The doctors may form a board sitting together, and if a man has a very large number of patients on his list, unless he is a man of special gifts, there is a suspicion that he has secured those patients by freely giving certificates. The doctors themselves have disciplinary power which may result in striking the man off the panel. The advantage of that is that it would give a choice of doctors, and in addition to that you have got some sort of disciplinary hold which will discourage doctors who are in the habit of freely giving certificates without an examination. All that is possible under the scheme. Not only is it possible under the scheme, but I believe it is the right course. I warn the House that you have got vested interests here at cross-purposes. In some cases it is a very, very valuable practice, especially in colliery districts. I want, therefore, the House to bear in mind that if they allow free choice of doctors they will be cutting into a very

valuable vested interest. All that has got to be considered very carefully. The doctors instead of being under the control of the friendly societies will have an appeal to the Health Commissioners, and no contract can be entered into which is not satisfactory to the Health Commissioners. That surely is a great protection to the doctors. The suggestion is made that you ought not to allow any man to come into this scheme if his income is over a certain amount. The suggestions as to amount have been various: 25s. per week is the most popular, and I have heard 30s. suggested, and 40s. per week. [An hon. member: "Hear, hear."] One hon. member made the suggestion that no contract should be allowed in respect of any man whose income is over 40s. per week. I want the House really to consider what that means. Of the high-waged industrial population of this country at the present moment nine-tenths are in societies or clubs. It is the low-waged workmen who are out of benefit. The vast majority of the high-waged workmen, like miners and engineers, are already inside either friendly societies or medical clubs. Are you going to deprive those people of the benefit and right which they have got at the present moment? Are you going to say to those hundreds and thousands, and I should be very much surprised if they do not run into millions, "Here you are, you have been enjoying medical benefit in your club up to the present, but we are going to make it impossible, by Act of Parliament, for you to get in at all"? Is there anybody in this House who would venture to propose it? Therefore, it is not a question of the high-waged industrial workers of the country. I come then to the others, the tradesmen and clerks. I do not think the hon. member who interrupted me would propose that an engineer who is now earning £3 or £2 10s. per week, and who is in his club, should in future be deprived of the benefit of that club, and be compelled to pay for the attendance and medicine. Their proposal is that the advantages which you give now to engineers, to miners, to carpenters, to stonemasons, all high-wage persons, should be denied to the small tradesman and to the clerk. What is the position of the small tradesman? He pays heavy rates and taxes, he often earns less than the skilled artisan, his living is a much more precarious one; he has got an anxious wearying life of unremitting toil and monotony, unbroken except by his cares and worries and anxieties. Are you going to deprive them of the benefits? Will any one here get up and propose that the small tradesmen who are earning under £160 should be deprived of the medical benefits provided by this bill? Hundreds of thousands of them are in societies now. That is one of the things at which I was, I will not say surprised except at the extent, but amazed when I came to examine the books of friendly societies to find the number of tradesmen who are members now. I examined one friendly society book, and I found that 40 per cent. of the members were men and some women who did not earn a wage, and were publicans, tradesmen, and farmers. Forty per cent. in that particular village belonged to those classes. If hon. members will read the book to which I have called their attention, they will find one of the complaints of the medical profession is that men of that type are allowed at present to receive medical benefit at contract price. I do not think I should be far wrong if I said that something like half a million of that class are now in friendly societies receiving medical benefit at contract price. Is it proposed to cut them out, or is it proposed to establish a privileged class and say that all those who are receiving medical benefit of that kind now can do so no more? That, I think, would be really much more full of difficulties than hon. members who criticize the proposal quite realize. You cannot cut them out, you must include them. The same thing applies to clerks. Does anyone imagine that you can cut clerks out? If clerks want to be left out of the scheme they have only got to express an opinion in that direction. I have never heard any representation that they are anxious to be left out. To sum up the reply which I make on the question of the doctors, we say that we are making a more ample and liberal provision for the doctors than has ever been made in the whole history of club practice in this country. We have so framed our measure that a free choice of doctors is allowed. We have framed our measure in such a way that there is protection of the medical practitioner against the tyranny of any club or society in the land. We have framed it in such a way that we shall be able to make regulations later on, having first of all received the advice of those whom the medical profession trusts. Therefore I have no hesitation in saying that the experience of the doctors of this country with this scheme will be the experience of the doctors in Germany, and that they will be much better off than they were before. There is an enormously larger sum raised for medical benefit for classes who are now deprived of medical benefit altogether. The doctors, so far from being injured or damaged, will, I think, have good reason to congratulate themselves that a scheme of this character has been passed through the House of Commons. With regard to the question of trade unions, I have already dealt with the matter. You release a vast amount, to the extent of £2,000,000. My right hon. friend has given a very faithful and accurate account of the process by which the man in the trade union will, first of all, contribute to receive his benefit. I fully accept his description of the transaction, which is a thoroughly accurate one, and it is as accurate as it was lucid. Several hon. members have asked me as to the character of the security which will be demanded. The only security will be in the event of advances. If there is a request from a society to have an advance to pay the sick fund, then there must be security that that fund will not be squandered in some other way. It will be either by deposit or cash or guarantee bond, but it will be a very small matter in each case. If the trade unions themselves advance the money there will be no need for any security at all. An hon. member has asked me another question, namely, whether trade unions like the gas-workers, who pay no sick benefit at all now, will be entitled to come in. Of course they will. They come in for the purpose of the sick benefit of the scheme, always provided they keep that branch of the business separate from the other branch of the business. Turning then to the financial part of the bill, he said that it was not intended to exclude trade unions or dividing societies; on the contrary, he was anxious to get all the societies into this very large scheme of insurable interests. There was some six million people covered by trade unions and friendly societies, and there was some eight or nine millions outside. Defending the provisions of the bill with regard to Post Office contributors, he said that they would be in an immensely more advantageous position than previously. Treatment in sanatoriums would be given to them, not at their own expense, but at that of the whole of the insured community. They get medical treatment and sanatorium treatment—all without any reserve. There is no 6s. limit in their case. It would be futile; no doctor could possibly undertake it. Then there is always in reserve the fact that if the medical fund is exhausted, as it may very well be, the State offers to the local authorities to meet half the deficit. That may be thousands of pounds. You get for the first time for these poor people medical treatment, sanatorium treatment, and, in addition, exactly what the friendly societies give to their people; you allow them to draw on their deposits, with the additional 3d. of the employer and the additional 2d. of the State. Do not let the House, in very estimable pity for these poor people, blind itself to the enormous advantages which they will get under the scheme. With regard to women he was bound to ask the House to consider the case actuarially. Women would have the full value of their money, there would be funds, and every 1d. a woman paid would go into the women's side of the insurance, and everything a man paid into the men's side. Women, he thought, came uncommonly well out of the proposal; they would get maternity benefit, and in addition disablement benefit equal to that of men. In conclusion he said that there was no intention to take the bill in Committee until a very fair and reasonable period had elapsed for the consideration of amendments, but, of course, the bill must go through this year. He asked the members on the opposite side of the House, and those on the Irish benches, and in fact all parties in the House, each to choose two or three men with whom the Government could confer on matters of detail. Many suggestions could, perhaps, in a modified form, be accepted, and he would be happy to place at the disposal of various representatives all the information the Government had, and the opportunity of personally consulting the actuaria

experts. He thought that during the three weeks or a month that would elapse before the consideration of the bill in Committee much might be done in this way.

Mr. Steel-Maitland, while promising that members who approved the general principle of the bill would co-operate with the Government in making it a workable measure, said that many points which had been described as subjects for the consideration of the Committee were essential parts of the interconnexion on which the whole bill depended. He thought the Chancellor of the Exchequer had done the medical profession something less than justice. I do not, he continued, wish to say much with regard to that, except that the medical profession assumed that the payment was to be 6s., or I think about 4s., exclusive of drugs, and that they also seemed to believe that the payment was to be made by capitation fee. The Chancellor's reply to their criticism was that they had not read the bill. I think, perhaps, a reply to the Chancellor of the Exchequer is that he has not read again his own first reading speech. The criticisms of the medical profession are really a perfectly natural inference based on the speech of the Chancellor of the Exchequer himself when he was introducing the bill. All of us who recognize the extraordinary latitude and power that is given to the Insurance Commissioners under the bill, who must be in close touch with the Government, will, I think, consider that it was quite pardonable for the medical profession to think that what was adumbrated by the Chancellor of the Exchequer would be part of the bill when it came into practice.

Mr. Chiozza Money considered that the scheme embodied in the bill was an advance on what had been done in Germany. He hoped that what the Chancellor of the Exchequer had said would dissipate a great many fears among doctors as to their position under the financial provisions of the bill. It provided roughly £4,500,000 in respect of 15,000,000 potential patients; that assured society income divided among 30,000 doctors would produce £150 per annum each, but, as a considerable number of the 30,000 doctors must be ruled out as possible participants, the sum of assured income would be very considerable; further, as there would be 30,000,000 patients outside the provision of the bill, he did not think the doctors should lose anything. He hoped that Dr. Addison's proposal that health committees should be set up and be responsible for the administration of the medical benefit, leaving the approved societies to be responsible for the cash benefits, would have full consideration. He considered that the position of the Post Office contributor was unsatisfactory, and thought the Chancellor of the Exchequer had underestimated the probable number.

Mr. Goldman criticized the construction of the bill.

Sir George White expressed his deep sympathy with the object of the bill, and said that he believed the House desired only to do what was fair and what was generous towards the medical profession. The medical institute in Norwich, a medical centre of a large number of friendly societies, comprised 11,000 members, of whom 6,000 were members of friendly societies, with their wives, and, in some instances, their families. The doctors attended the members for 4s., the wife for 4s., and the family for 4s., whatever the number under 15 years of age. These prices were inclusive of drugs, and the institute paid its way. The members had a choice of doctors within a certain panel; he therefore thought that the suggestion of 6s. a head was liberal.

Lord Henry Cavendish-Bentinck, while sympathizing with the general principles of the bill, feared that it would encourage boy labour.

Sir A. Mond defended the constitution of the Health Committees, and hoped the Government would pass the bill this session.

Colonel Hickman protested against the haste with which the second reading was being hurried through, and said that the bill would do great damage to the friendly societies and great injustice to the medical profession.

The Prime Minister moved the closure, and the motion was carried by 180 to 48.

The bill was then read a second time without a division, and committed to a Committee of the whole House.

## QUESTIONS.

### *The Committee Stage of the Bill.*

Mr. Newman asked the Prime Minister whether, in view of the short space that has elapsed between the introduction of the National Insurance Bill and the date fixed for its Second Reading, coupled with the fact that as at present arranged two Parliamentary days only are to be allotted to the Second Reading stage, he will undertake that the Committee stage shall not be commenced before July 1st at the earliest; and whether, in view of the uncertainty and apprehension that exists among important classes of the community, he will recommend the appointment of three small Select Committees who will be empowered during the next few weeks to receive the views and evidence of the medical interest, those connected with insurance collecting societies, and large employers of labour respectively, and submit such evidence in the form of reports, to be available to members before the Committee stage is entered on.

The Prime Minister (Mr. Asquith): The Government will take care that there is an ample interval between the Second Reading and the Committee stages. I am afraid I cannot adopt the suggestion in the form in the question.

Sir Philip Magnus: Does the right hon. gentleman suggest any other means of obtaining the views of the medical profession before this bill comes to the Committee stage?

The Prime Minister: There are many better ways than appointing a Select Committee. The Chancellor of the Exchequer is ready and most willing to receive any representations and to adopt any practical suggestions.

Mr. Bridgeman: Has the right hon. gentleman received representations from friendly societies and other industrial insurance companies to the effect that their meetings are largely held during the Whitsuntide recess, and stating that they would be very glad if the second reading of this bill could be postponed until after those discussions have taken place?

The Prime Minister: The Committee stage will be postponed until after that time.

### *Provident Dispensaries and the Bill.*

Mr. William Peel asked whether, under the provisions of the National Insuranoe Bill, the position of the provident dispensaries will be altered, and, if so, in what respect; and would the present subscribing members, numbering about 110,000 in London alone, receive subsidies from the State and employers respectively, in aid of their contributions for free medical relief?

Mr. Lloyd George: There is no reason why provident dispensaries should not form or join "approved societies" for the purpose of administering the benefits (including medical attendance) provided by the bill, for the benefit of so many of their members as are insured under the bill.

Mr. Peel: Is it possible for them to be recognized as societies under the bill?

Mr. Lloyd George: The difficulty of that is they could not be recognized as approved societies unless they are prepared to pay full benefit; but there is nothing to prevent them coming in as approved societies if they comply with the requirements of the bill.

Mr. Peel: Is it a fact that the condition they do not fulfil is they are not registered under any Act?

Mr. Lloyd George: I should rather like to consider that, but I think there are many other conditions; for instance, they do not pay sick benefit, and I am not sure they provide medical attendance in all cases. It is quite a different purpose they serve at present, and it depends entirely whether they would like to become approved societies under the Bill; if they do, they can become approved societies.

### *Sanatorium Treatment.*

Mr. Astor asked, in the event of the sums available for defraying expenses of sanatorium treatment under Section 15 (2) of the National Insurance Bill proving inadequate for the maintenance of all suitable cases in sanatoriums, will an insured person suffering from consumption be debarred from obtaining sanatorium benefit?

Mr. Lloyd George: The Local Health Committee, under Clause 15 (3), is responsible for selecting the cases to be sent to approved sanatoriums for sanatorium treatment at

an agreed payment at the cost of the Insurance Fund. I am advised that the sum allocated is sufficient to provide the necessary accommodation.

Mr. Astor: Does the right hon. gentleman mean that every insured person suffering from consumption will get adequate treatment?

Mr. Lloyd George: I cannot really express an opinion as to whether all these cases ought to be sent to sanatoriums, but I am advised that the accommodation to be provided for the sum we have placed at the disposal of the Health Committee will be quite adequate for all the cases likely to be sent there. If the sum is inadequate the hon. member will find provision in the bill for further assistance, either through the medium of the local rates or the Treasury. The Treasury, I presume, would be responsible for one-half and the local rates for the other half if more accommodation is required.

Mr. Remnant: Does the right hon. gentleman propose to take any steps to prevent those who can afford to pay for treatment at home being sent to sanatoriums?

Mr. Lloyd George: I would rather not express an opinion upon that. It is a question which really ought to be considered very carefully after the medical advisory committee has been set up in the bill. I do not think it would be advisable to tie our hands at this stage, and before we get information.

*Local Health Committees and Sanatoriums.*

Mr. Goulding asked whether the local Health Committees will have power under the National Insurance Bill to build sanatoriums themselves as well as to pay for treatment of persons in sanatoriums erected by other authorities or persons?

Mr. Lloyd George: The reply is in the negative.

Mr. Goulding asked whether the sanatoriums established under the National Insurance Bill would be available for uninsured wives of insured persons?

Mr. Lloyd George: The sanatoriums to be provided under Clause 47 of the bill would not be limited to the treatment of insured persons, but the expenses of sanatorium treatment for an uninsured person could not be met from the funds contributed by the insured persons.

*Agricultural Labourers and the Bill.*

Mr. Harry Pope asked if those agricultural workmen in Scotland who at present receive six weeks' full wages if laid off work by sickness, without contributing anything, will be compelled to come under the National Insurance Bill, or will they have the option to remain as they are at present?

Mr. Lloyd George: Agricultural labourers will be compulsorily insured. I may point out that the new benefits to which they will acquire a right are likely to exceed considerably the value of the contributions for which they will become liable.

*Domestic Servants.*

Mr. Butcher asked whether domestic servants will be entitled, in return for their contributions under the National Insurance Bill, to receive any weekly payments during sickness or disablement so long as they are provided by their employer with board and lodging; and whether, in order to entitle domestic servants to receive weekly payments during sickness or disablement, it would be necessary for their employer to refuse to provide them with board and lodging.

Mr. Lloyd George: A domestic servant provided with board and lodging by his employer is only excluded from sickness benefit so long as he is so provided.

Mr. Butcher: Will the right hon. gentleman consider the propriety of allowing domestic servants sickness and disablement benefit while he is still provided with board and lodging by his employer?

Mr. Lloyd George: I think that is a matter which requires much more careful consideration than I can give to it in the course of an answer to a question. The hon. member must remember that everything of that sort which is added means a depression of benefits all round. There is a certain sum available, and it is for the Committee to consider how it is to be distributed. If you take more for domestic servants, there is less available for other purposes. I do not close my mind to that suggestion, but it is a matter which requires careful consideration from both points of view.

Mr. Snowden: Will the domestic servant in sickness have to pay accumulation of arrears?

Mr. Lloyd George: If she is in receipt of a salary during her illness, of course there will be no arrears, because the deduction from her wages goes on during that period.

Mr. Snowden: Will the arrears afterwards have to be paid?

Mr. Lloyd George: I do not think the hon. gentleman understands. There will be no arrears accumulating during the period of illness. That is one of the differences between our scheme and the ordinary friendly society's scheme.

Mr. Worthington-Evans: Can the right hon. gentleman say how many domestic servants he estimates will be cut out of benefit by this provision?

Mr. Lloyd George: I do not quite understand the question. No domestic servant will be cut out of benefit at all. She will be entitled to the benefit if she is in need of it. This is a bill to make provision for sickness, but, if there is already provision, there is no real reason to take advantage of it.

Mr. Worthington-Evans: I am afraid the right hon. gentleman did not understand my question. There are certain domestic servants who will be provided for by their masters and mistresses. Can he say how many of those who are insured he estimates will be so provided for? Would not the actuaries have taken that into account in settling the benefit?

Mr. Lloyd George: I do not think so, because there is a common law liability in cases of that sort. So long as they receive board and lodging on the premises, the master must provide for them. If they are not in benefit, and if they are not receiving board and lodging, then the Government scheme comes into operation. There is therefore no gap at all.

Mr. Butcher: In view of the great importance of this subject, will the right hon. gentleman before the Committee stage of this bill obtain an estimate as to the probable cost of the amendment which I have suggested, namely, allowing servants to obtain the sickness and disablement benefit during the time board and lodging are provided?

Mr. Lloyd George: I should like to have that in rather more precise terms to submit to the actuaries. If an actuarial question is asked, the question ought to be very precisely put. If the hon. gentleman means that, in addition to their salary, they are also to receive 10s. per week because they are ill and not able to render service, certainly I will submit it to the actuaries, but I think he had better reflect.

*Vivisection and Grants for Research.*

In reply to Mr. Chancellor, who asked whether the research to be endowed with public money under subsection (2) of section 15 of the National Insurance Bill would include vivisectional experiments, Mr. Lloyd George said that the Insurance Commissioners, in whose discretion this matter would lie, would be responsible through the Treasury to Parliament for the administration of the Government grant.

# Hospitals and Asylums.

## GENERAL HOSPITAL, BIRMINGHAM.

THE 131st annual report expresses satisfaction with the general working of the institution. The increase in the nursing staff, mentioned in the last report, has proved to be of great benefit to the nurses and to the work of the hospital. To give a still further reduction of working hours seven additional nurses have been sanctioned, increasing the total staff to 127. The increasing demands for massage and electrical treatment have necessitated a reorganization of that department, and at the same time it has been decided to appoint a teacher to supervise the work and to instruct pupils. The number of in-patients under treatment last year was 5,317, and the daily average of patients was 308.5. The out-patients were 67,552, an increase of 3,234. The number of operations performed, many of them of a most serious and important character, continued considerable, the number during the year being 3,848. The total income was £26,041, and the expenditure £27,498, so that the deficit at the end of 1909, £11,427, was increased to £12,885. Since the closing of last year's accounts the hospital has received the legacy of £10,000 bequeathed by the late Mr. John Feeney. The payment of this bequest and the appropriation, in accordance with the rules, of half thereof to the current expenditure, will help to reduce somewhat during the course of the present year the heavily-overdrawn bank account.

# GENERAL COUNCIL
OF
# MEDICAL EDUCATION AND REGISTRATION.

## *SUMMER SESSION, 1911.*

*Tuesday, May 23rd, 1911.*

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

AT the conclusion of the President's address printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 27th, p. 294, Dr. LITTLE, who moved, and Dr. NORMAN MOORE, who seconded, a vote of thanks to the President, referred to the loss the Council had sustained by the death of Dr. McManus.

Dr. LATIMER desired, as a Direct Representative and one who knew the late Dr. McManus, to record the great regard in which he was held by all who knew him. Dr. McManus and he had been at one time active members of the British Medical Association, and had sat side by side in the General Medical Council as Direct Representatives. He had seldom met a man who was so fully conscious of the importance of the duties which were imposed upon him, or one who had taken so much care to discharge them to the best of his ability. He begged to join in the expression of deep regret.

The motion was adopted, and the PRESIDENT, in acknowledging it, undertook to convey to the bereaved family of Dr. McManus the sympathy which had been expressed.

### BUSINESS COMMITTEE.

The Business Committee was then constituted for the year by the appointment to it of Dr. Norman Moore, Sir Henry Morris, Sir Christopher Nixon, and the President.

### STATISTICS.

The yearly tables showing the results of the examinations in each subject of the curriculum held by the different licensing bodies during 1910 (including candidates for admission to the *Dental Register* and for diplomas in public health), were then received and referred to the Examination Committee for consideration. Similarly treated were the returns relating to preliminary examinations and exemptions as to any part of the examinations accorded by licensing bodies to candidates.

### VOTING AT THE RECENT ELECTION OF DIRECT REPRESENTATIVES.

The Registrar presented to a meeting of the Branch Council on May 18th a report on the election of a direct representative for England and Wales, in the place of the late Dr. McManus, the result of which was announced in the JOURNAL of May 20th, p. 1199. The election of Dr. J. A. Macdonald as a Direct Representative for England for five years form May 18th, 1911, was officially notified.

It was found that the size of the constituency had changed very little in the course of the four and a half years that had elapsed since the last election. In 1906 it contained 24,659 voters, whereas now there are 25,215, being an increase of only 556.

The following table shows the number of voting papers sent out and returned, and indicates those which were not valid; the figures for the election of 1906 have been introduced for comparison:

| | Sent Out. | Returned. | | Returned through Dead Letter Office. | | Not Returned. | | Invalid. | |
|---|---|---|---|---|---|---|---|---|---|
| | | No. | Per Cent. | No. | Per Cent. | No. | Per Cent. | No. | Per Cent. |
| 1906 | 24,659 | 11,752 | 52.00 | 911 | 3 69 | 11,831 | 47.97 | 1,503 | 12.61 |
| 1911 | 25,215 | 12,258 | 48.61 | 365 | 1.45 | 12,957 | 51.38 | 1,787 | 14.58 |

Thus, while 25,215 voting papers were sent out, only 12,258 (or 48 61 per cent.) were returned. Of these, an examination of the identification envelopes and subsequent inspection of the papers showed that only 10,106 (or 82 44 per cent.) were valid votes. The regulations of the Privy Council are very precise, and the large number of 1,787 papers (or 14.58 per cent.) were invalid for the following reasons:

649 voters did not sign the declaration on the identification envelope;
639 identification envelopes were not fastened down;
276 voting papers were not placed inside the identification envelope;
7 voting papers were not folded inwards;
20 identification envelopes were returned without a voting paper;
8 voting papers were marked in support of more than one candidate;
21 voting papers were returned blank;
5 were written across to the effect that the voter did not wish to take part in the election;
1 paper was marked with the voter's initials as well as the cross;
13 other votes were invalid for various reasons;
148 did not arrive in time.

Total—1,787 invalid papers.

In addition, 365 were returned through the Dead Letter Office, making a total of 2,152.

155 voting papers were returned without the postage being prepaid.

### MEDICAL DISCIPLINARY CASES.

#### THE SANDOW CURATIVE INSTITUTE.

The complaint against three registered practitioners that they had associated themselves with the Sandow Curative Institute was considered by the Council on May 25th and 26th. The complainants being the British Medical Association, Sir William Whitla, Professor Saundby, and Dr. Macdonald withdrew from the council chambers during the proceedings, and took no part in them.

Mr. Bodkin was present as Legal Assessor, and Mr. Winterbotham as Solicitor to the Council. Mr. Smith Whitaker, Medical Secretary of the British Medical Association, accompanied by Mr. Hempson, Solicitor to the Association, represented the complainants, the British Medical Association; and Lord Robert Cecil, K.C., and Mr. Alexander Neilson, instructed by Mr. Guilford E. Lewis, Solicitor, Gray's Inn, London, appeared for the three accused practitioners.

Mr. WINTERBOTHAM read the notice of inquiry:

James Robertson Wallace, registered as of 6, The Gardens, Pirbright, Surrey, M.B., Mast. Surg. 1885, Univ. Edin.; Charles Edward Trimble, registered as of Athol Lodge, Victoria Road, Twickenham, Lic. R. Coll. Phys. Edin. 1898, Lic. R. Coll. Surg. Edin. 1898, Lic. Fac. Phys. Surg. Glasg. 1898; and Maurice Edmund Arnold Wallis, registered as of 68, Jermyn Street, London, S.W., Mem. R. Coll. Surg. Eng. 1887, Lic. R. Coll. Phys. Lond. 1897, had severally been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

"That you have associated yourself in your professional capacity with an institution, termed the Sandow Curative Institute, which systematically advertises for the purpose of procuring patients who are to receive, either by correspondence or by attendance at the said institute, treatment for disease under the personal direction of Eugen Sandow, who is not a registered medical practitioner, and that you have approved of, and acquiesced in, such advertising.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

Mr. WHITAKER said that he did not think that the facts of the case were in dispute, and he therefore did not propose to call any witnesses. The evidence upon which he relied consisted of the advertisements which were before the Council, which purported to be issued by a firm called "Sandow, Limited," and as to the issue of the advertisements by that company there was no dispute.

Lord ROBERT CECIL understood that Mr. Whitaker did not intend to call any witnesses. He thought it very material for the defence of the accused practitioners that he should have somebody who represented the British Medical Association, in order that he might ask a few questions.

The PRESIDENT said that Mr. Whitaker might put himself into the witness-box.

Mr. WHITAKER said he would be prepared to do so, and added that he understood that the Council had before it the correspondence between him on behalf of the British Medical Association and the accused practitioners. The company called Sandow, Limited, carried on an extensive

system of treatment by physical exercises, and from the advertisements and also from letters from the three medical officers which were before the Council it appeared that the sole responsibility for prescribing that treatment rested with Mr. Sandow. The persons seeking treatment at the institute might be divided into two classes: those seeking to increase their physical efficiency, and, secondly, those patients suffering from some definite disorder. Mr. Sandow at one time held himself out simply as an expert in physical culture. More recently he had advertised himself as undertaking curative physical culture, and the term "curative physical culture" was to be found repeatedly employed in the advertisements before the Council. Mr. Whitaker referred in some detail to several of the advertisements before the Council. He then referred to a document called "Health from Physical Culture," quoting from it a statement to the effect that intending patients were examined by the members of Mr. Sandow's resident medical staff. The complaint of the British Medical Association did not consist of the fact whether at any time Mr. Sandow had advertised that he had a medical staff. The Association relied on the fact that the three medical officers had associated themselves with an institution which advertised and undertook the treatment of diseases, irrespective of whether or not it was mentioned in different publications, that Mr. Sandow employed a medical staff. The fact that the institute did employ a medical staff was an important point. The question whether that fact was advertised, Mr. Whitaker submitted, was immaterial. From the correspondence between the three practitioners and the Registrar of the Council it appeared to be entirely admitted that they were employed by Sandow, Limited, as medical officers to render certain services in their professional capacity. Their duty seemed to consist in examining intending patients and saying whether they were fit to undergo Sandow's treatment. All the three practitioners emphatically disclaimed in their letters any responsibility of their own for the actual treatment of disease. They said that the treatment given at the institute rested entirely in the discretion of Mr. Sandow. Their duty was simply to satisfy him as to whether a patient was fit to undergo treatment without danger. The three medical officers appeared not only to examine intending patients, but also patients during the course of treatment, presumably to ascertain whether there might be any untoward results from the treatment. Mr. Whitaker, in summing up his case, submitted to the Council that they had the following facts clearly established:

First, that the Sandow Institute undertakes the treatment of disease.

Secondly, that the gentlemen who were before the Council were employed by the institute in their professional capacity, and were aiding and abetting in the carrying out of that treatment by the institute.

Thirdly, that the institute had recourse to a very extensive system of advertising for the purpose of inducing patients to seek treatment at the institute.

Fourthly, that the treatment at the institute was entirely under the control and was directed by Mr. Sandow, an unqualified person.

In that state of facts the Association submitted, in the first place, that the practitioners were associating themselves with an institution which undertook the treatment of disease, and which advertised for the purpose of procuring patients to be so treated; and, secondly, that they were aiding and abetting an unregistered person in undertaking the treatment of diseases. As to the first point, the Council had repeatedly indicated its judgement on the question of medical practitioners who were employed by or associated themselves with persons who advertised for the purpose of procuring patients. As to the second point, Mr. Whitaker submitted that, on the general principles which underlay the decisions of the Council, the conduct of these medical gentlemen, which had enabled an unqualified person to undertake the treatment of diseases, was conduct infamous and disgraceful in a professional respect.

Mr. WHITAKER then went into the witness-box, and in answer to questions put to him by Lord Robert Cecil, said he did not desire to add anything to what he had already said. These proceedings began by a letter dated March 24th, 1911, in which he stated that many members of the profession had made complaints to the Association; some of those complaints were in writing and some were verbal. He had not any of them with him, but they were made in 1910, and the nature of the complaints was that advertisements showed that these three medical men were associating themselves with a particular institute, and asked whether it ought not to be brought to the notice of the General Medical Council.

Asked by counsel how the Association dealt with such matters, the witness replied that the procedure was that a committee of the Association was authorized to investigate all matters of that kind which were brought under the notice of the Association. He distinctly recollected two complaints that were received. The reason why the Association did not then proceed with the matter was that they desired to go further into the facts; they did not feel justified in bringing forward the case only on an allegation. The great bulk of the advertisements came into their possession after that date; the advertisement as to health and physical culture had not come under his notice before. When any complaint was made about a practitioner, it was the practice of the Association to inquire into the justice of the complaint. He could only say that the reason why they did not proceed when the complaint was first made to them was that they did not consider they had a sufficient case to put before the General Medical Council, but the committee now considered that they had in their possession such a body of evidence as justified them in bringing the matter before the Council.

On being pressed by counsel as to whether he agreed with the definition of infamous conduct in a professional respect as conduct which would be regarded by his professional brethren of good repute and conduct as disgraceful and dishonourable, the witness replied that his definition of "infamous conduct in a professional respect" was that which the General Medical Council had declared to be "infamous conduct" after a judicial inquiry. He intended to charge the gentlemen with disgraceful and dishonourable conduct to their professional brethren, and he did so because the gentlemen in question had associated themselves with a system of advertising for patients. He did not say that their association with anybody who advertised was of itself disgraceful or dishonourable; it all depended upon the circumstances of the individual case. He did not feel justified in attempting to define what was "disgraceful and dishonourable."

*Q.* But I am anxious to know what it is you regard as "disgraceful" in this case. You represent the accusers, the British Medical Association, which is a very important body, who would not have brought this charge, I apprehend, without having given the matter careful consideration. How have you distinguished this case from others as being "disgraceful" and "dishonourable"?

*A.* I do not think I am in a position to lay down any definition of what advertising is disgraceful or dishonourable and what is not.

*Q.* I do not ask you to do that. What I want to know is what you think in this case is disgraceful and dishonourable?

*A.* The whole system of advertising which these gentlemen are connected with.

On the witness being further questioned on this subject,

The LEGAL ASSESSOR reminded Lord Robert Cecil that the only charge he had to meet was that his clients had associated themselves in their professional capacity with an institution styled "The Sandow Curative Institute," which systematically advertised for the purpose of procuring patients who were to receive, either by correspondence or by attendance at the said institute, treatment for disease. That was the only charge he had to meet.

In further answer to Lord R. CECIL, the witness said there had been brought to his notice a large number of other institutes which advertised and with which medical men were associated.

Lord ROBERT CECIL said he desired to call his evidence before addressing the Council. He then called Maurice Edmund Arnold Wallis.

Dr. WALLIS, examined by Lord Robert Cecil, said that he had been a medical man since 1887. So far as he knew, the Sandow Institute was founded in 1896. He understood that no medical men were actually working in the institute then. It was the practice to send people who presented themselves for treatment to a local medical man. In May,

1907, he first considered the question of joining this institute. He was desirous of conforming to the rules of medical etiquette, and therefore he took steps to satisfy himself that there was nothing irregular in his associating himself with Mr. Sandow. The witness joined the institute in May, 1907. While there his function was not at all to prescribe treatment for patients, but to satisfy Mr. Sandow that patients were strong enough to undergo a course of physical culture. When the charge of infamous conduct was first launched against him by the British Medical Association, he, on the advice of his solicitor, desisted from all connexion with the institute until the General Medical Council had expressed its opinion on the matter. He (the witness) had nothing to do whatever with the issue of advertisements by the institute. He did not think any medical man, seeing the working of the institute, would find any fault with it either from an ethical or professional standpoint. During his service at the institute a great many medical men visited the institute and brought patients there to undergo the treatment. The witness said he had not made his connexion with the institution in any way a vehicle for personal advertisement. He had never at any time prescribed the exact treatment to be given to patients.

In answer to questions by Mr. WHITAKER, the witness said his duty was strictly confined to securing that the patient should not suffer injury through undertaking physical exercises unsuitable to the particular case. It was not his duty to advise Mr. Sandow as to what patients should undergo treatment or as to the kind of exercise to be taken. If a case was such that Mr. Sandow ought not to touch it, the medical adviser said so. If it was a case that could be exercised safely, he passed it as suitable from a physical point of view for treatment. Any patient might be precluded from treatment if the medical adviser was of opinion that his condition would be aggravated instead of improved. He was one of the medical advisers of Sandow, and was employed by them and was remunerated for the work he did. He did not consider that in being associated with the institute he made himself at all responsible for the way in which patients were procured, namely, by advertising.

The witness in re-examination by Lord ROBERT CECIL said he was of opinion that the advertisements complained of did not constitute any serious danger to the public. He was engaged at the institute to see that no injury was suffered by any member of the public who might obtain the treatment of Mr. Sandow, and he did that to the best of his ability.

In reply to the LEGAL ASSESSOR the witness said he gave the whole of his time to the institute. He went there at 10 in the morning and left there at 7 every day. His salary was a fixed salary, and did not depend on the number of patients. The patients would begin to arrive at about 10 o'clock, and he would himself see about twenty in a day. He made a report in writing for each of the twenty, and that report in writing would go to Mr. Sandow. If his report was not quite clear Mr. Sandow would ask him about it. In cases where Mr. Sandow accepted his report and saw a patient with a view to treating him, the treatment might go on for six weeks or three months. The witness would then see the patient again at intervals of about a week, and sometimes of a fortnight. With regard to the advertisements he had often protested to Mr. Sandow as to their form, and wished they had been quite different to what they were.

*Q.* Did you tell Mr. Sandow that as a medical man your position might be affected if you remained with him when advertisements of the kind which have been produced were appearing?

*A.* I would not go as far as that, perhaps.

*Q.* But you would remember whether you did or not. Did you go as far as that?

*A.* I would not say that I protested. I would not say for a moment that I said anything to Mr. Sandow to tell him that I was doing anything wrong. As I have said, I did not like these advertisements.

In answer to the PRESIDENT, the witness said that he did not write any of the advertising books which had been referred to. He remembered being told that the man who wrote them had some medical knowledge—he had been a medical student or something of the kind—but he did not know who wrote them. Referring to his previous statement that he saw twenty patients in a day, the witness said he also saw a number of old patients; latterly he had not done so, but previously he did. Adding all together, he would see about thirty or forty patients in a day. If a patient became ill and required medical treatment they would send him straight home to his own doctor, or, at all events, advise him to go to him. Of the letters which came to the institute about twenty were submitted to the medical officers. The duties of the other medical officers were the same as his. He was not actually present in the cubicle while the patient was taking the exercises. If a patient fainted during the process the doctor administered restoratives. If, in his opinion, the treatment was not likely to benefit a patient, he would veto it; but it was not his duty to say whether a particular treatment would be beneficial or not.

Mr. JAMES ROBERTSON WALLACE, examined by Lord ROBERT CECIL, said that he had been at the Sandow Institute about two years. Speaking generally, he confirmed the evidence of Dr. Wallis as to the course of treatment. He had never used his position to advertise himself personally, or had any share in or responsibility with regard to the advertisements issued; neither had he prescribed any particular treatment there. The treatment was very simple, and consisted of regulated exercise, and it was not in the ordinary sense medical treatment at all. It was not even massage or anything of that kind; it was simply exercise of the muscles in a certain way. He had seen nothing in the conduct of the institute which struck him as dishonourable or disgraceful in any way.

Cross-examined by Mr. SMITH WHITAKER: He saw the advertisements issued by the institute after they had been published, and he had protested to Dr. Wallis, but he had never carried his protest to the point of severing his connexion with the institute, as he did not recognize that he incurred responsibility for the continuance of them.

With regard to the treatment of patients, he inquired whether they had been under medical treatment by a medical practitioner. He had never considered whether a particular case required other treatment besides physical exercise; he merely examined patients to see if the kind of treatment was suitable. By that he meant that the kind of treatment was not likely to injure them. He never considered it his duty to advise the patients in any way medically. Had he thought other treatment than physical exercise were desirable he would not feel it his duty to advise patients.

Re-examined by Lord ROBERT CECIL, he said he was paid a fixed salary for his services, not by way of so much per patient. The medical officers of the institute were not consulted by the patients as to their condition of health; they were there merely to advise patients whether particular forms of exercise would or would not do them harm; and if their condition was such as to make the exercise dangerous they would not be accepted. It was an essential part of the medical men's position that they did not advise as medical men, but merely from the point of view of whether or not the kind of treatment was likely to be beneficial or not.

By the LEGAL ASSESSOR: When a patient had been passed he made a report in writing to Mr. Sandow, and he might occasionally see Mr. Sandow on those reports. On no occasion had he admitted a patient whom he had once rejected. He had been called to a patient who showed signs of distress under the kind of treatment, and he had done what was necessary to relieve him.

Lord ROBERT CECIL thought there was a little ambiguity in the phrase "kind of treatment." As he understood, the selection of the treatment was left to the patients themselves.

The LEGAL ASSESSOR agreed that it was perhaps an incorrect phrase, and he substituted for it "undergoing treatment."

The WITNESS could not say how many of the twenty-four books issued by the institute he saw, but not more than one or two, and that was merely to correct the spelling; but he never knew what they were to be used for. He was on the staff of the institute at the time the advertisement was issued in the *Daily News* of May 30th, and he made a very strong protest with regard to it, but not to Mr. Sandow. He was subordinate to Dr. Wallis, and he was merely one of the junior medical officers. Patients who were passed to undergo treatment he saw

privately and alone, and his reports upon them were sent to Mr. Sandow. He was quite independent of the other medical officers with regard to the patients assigned to him.

By the PRESIDENT: Occasionally patients did ask him to recommend treatment, but he always said that was not his province; he was not there for that purpose, but to see if the treatment was suitable to the patient. Mr. Sandow advised patients as to treatment, and then sent them to him to be examined. He would not say that he always declined to answer when asked, "Do you think this will do me good?" although he might have said, "This will do you good," or "It is not likely to benefit you at all, and you had better go." In that sense he had recommended.

By the PRESIDENT: It is important that you should be clear about this. When you examined patients, if they asked you if the treatment would do them good, you did recommend it?

The WITNESS: Yes; I said so if I thought it was right. His whole time was taken up by this work, and he had seen patients undergoing treatment. He had seen the book with the heading "Acute Bronchitis," but he did not know what it was. He would refer them to the advertisement manager as to that. On an average he examined from twenty to twenty-five fresh applicants for treatment.

CHARLES EDWARD TRIMBLE, examined by Lord R. CECIL: He was a medical officer of the institute, and he had been there a little over a year. He had heard the evidence given by the previous witnesses; he confirmed it, and, as far as it was applicable, he agreed with it. As far as he knew, he had done nothing of which he was ashamed. He was a junior to Dr. Maurice Wallis, and should consult him in any case of doubt.

Cross-examined by Mr. WHITAKER: He agreed with the evidence of the previous witnesses as to the advertisements and as to the part they had taken in the treatment. He had made no protest against the advertisements, as they were issued before he joined the institute, but he was aware of the advertisements before he joined. His duty was limited to seeing that the patients were in a fit state to undergo the treatment. He had given evidence at an inquest held at Portsmouth on a patient undergoing treatment who had died from dilatation of the stomach; but he did not regard himself in any way responsible, as it was not his duty to advise whether or not other treatment was preferable.

Re-examined by Lord R. CECIL, he said that as a matter of fact the patient who died had been previously attended by his own doctor at Portsmouth. He never held himself out as general adviser to patients who came to the institute, and he invariably refused to advise them, although in urgent cases he had recommended their going to a specialist.

By the LEGAL ASSESSOR: Before joining the staff of the institute he had made inquiries as to whether his status as a medical man would be affected by so doing; and it appeared to be well known that medical men were there. He never saw the advertisement in the *Daily News* of May 30th, 1910, at that date, but he might have seen it since. He did not attend to the advice branch of the institute, though he had seen some of the filled-up forms; neither did he report upon the letters from patients asking for advice. He had seen patients who had been passed for treatment by his brother medical officers actually undergoing treatment, but he never modified or qualified it in any way unless the patient's condition required it. Of course, if a patient showed symptoms of distress, he would do so. It was not part of his duty to observe patients whilst undergoing treatment, although they were occasionally brought to him to see how they were getting on.

By the PRESIDENT: If a patient came to the institute suffering from acute bronchitis, he would certainly reject him. He did not agree with what was stated in the book about chest complaints: "I have no hesitation in recommending all sufferers from the complaints mentioned in this booklet to place themselves unreservedly in my hands," one of the complaints being "acute bronchitis." He obtained his appointment to the institute through an advertisement in the *Daily Telegraph*, but he could not remember its form.

Dr. MAURICE EDMUND ARNOLD WALLIS, recalled, said, in reply to the PRESIDENT, that he had not seen the book about chest complaints or the statements contained in it.

Mr. JAMES ROBERTSON WALLACE, recalled, said, in reply to the PRESIDENT, that he had not seen the book until the present time, but he had now read it, and he did not agree with everything stated in it. He had recently recommended a patient to undergo the treatment for asthma, because he felt justified in recommending it.

Mr. GILBERT LEWIS (examined by Mr. NEILSON): As solicitor for the accused practioners, he had made inquiries in order to see how matters of this kind were dealt with by others; and he produced a number of advertisements and pamphlets issued by hospitals, institutions, hotel guides, Cook's tourist-guide and the *Medical Directory*, in all of which advertisements were inserted of a similar description to those complained of. Whereupon, a discussion took place as to their admissibility; and it was decided that they were to be produced and, if necessary, referred to. This concluded the evidence; and the further hearing was adjourned until the following day, when Lord Robert Cecil produced and handed to the President several original charts which had been filled in by Sandow's patients with the doctor's comments appended thereto.

Lord ROBERT CECIL, in addressing the Council, said that some fourteen or fifteen years ago Mr. Sandow became possessed of the idea that physical exercises might be used with advantage, if regulated and controlled systematically, in physical culture. With his own great personal experience he felt convinced that by organizing physical exercises and systematizing them he might be able to greatly benefit those who followed his directions. From the start the institute which Sandow founded had been a great success, and, as the Council had heard during the course of the case, Mr. Sandow's good work had many times been recognized by many eminent people, including doctors of high standing. After Mr. Sandow had had his institute established for some time, he came to the conclusion that there were many people who would like to take advantage of his system, but who were, perhaps, physically unfit to undergo too strenuous exercise. Since he was very anxious to avoid injury to any of those who attended his school, he thought it right to take medical precautions to prevent any one undergoing or carrying out his system of physical exercises if they were from a health point of view unfit for such exercises. He at first made it his practice to send intending patients to a medical man in the neighbourhood for examination, not that they might be advised as to their general state of health, but simply to get an answer to the one question: Would it or would it not be safe for the patient to carry out the system of physical culture connected with Mr. Sandow's name? As Mr. Sandow's business grew larger he found that the expedient of sending patients to a medical man outside was not sufficient, and therefore he thought it desirable to employ medical men who could give their whole time to examining his patients, and also that they should reside on the premises so that they should be available in case of accident. That was the origin of the appointment of the three gentlemen. Lord Robert Cecil said that he divided the charge against his clients into four parts: First, that they had associated themselves with an institution which systematically advertised. This, he contended, had not been proved. Secondly, they were charged with associating themselves with an institution where patients were to receive treatment for diseases from an unregistered person. This, he submitted, could not have been proved to the satisfaction of the Council. Thirdly, their association with an institution which treated patients by correspondence was made a ground of complaint, and this charge, too, remained unproved. Lastly, they were charged with approving the advertisements issued by Sandow's, Limited. Dealing with the first three charges, which seemed to him to come under the one general heading of "associating," he maintained that the medical practitioners, having had no hand in the management of the institute, but being simply there to watch patients in the patient's own interest, it could not be said that there had been any "association" whatever. As to the charge of their having approved advertisements, the doctors had denied having seen the advertisements before publication, and had said in evidence that they had expressed to

Mr. Sandow their disapproval of the form of them. He submitted to the Council that the complainants had entirely failed to make out their case both with regard to "association" and the suggested approval of advertisements. He then brought to the attention of the Council numerous other cases of so-called medical establishments, advertised extensively in the lay and medical press, such establishments being under the control of unregistered persons and having resident medical practitioners, such as the London Open-Air Sanatorium, the Bournemouth Hydro, the Harrogate Hydropathic Company, Limited, and a numbers of others. He did not submit to the Council that the three practitioners before them were marvels of prudence or wisdom. They were ordinary men, and being ordinary men they were capable, like every other man, of making mistakes sometimes. He did not wish to say that every act they did in connexion with the Sandow Institute was free from error, but he submitted that there was an enormous difference between saying a man had been mistaken and saying he had been guilty of infamous and disgraceful conduct. The Council had not only to consider the details of the case, but the circumstances of the case as a whole. His clients had made inquiries as to their position before accepting their appointments in 1907, and as soon as their actions were called in question they gave every information they possibly could to Mr. Smith Whitaker and to the Registrar of the General Medical Council. They had also at once desisted from acting in connexion with Sandow's Institute until they had a pronouncement as to the ethical aspect of their conduct. In conclusion, he submitted that it was incredible that men guilty of dishonourable conduct should have acted in the way that his clients had done, and that they had been free from blame from the outset.

Mr. SMITH WHITAKER, in reply, protested against the charge being analysed in fragments, and submitted that the charge must be taken as a whole. It was not that these practitioners associated themselves with an institute that systematically advertised, but that they associated themselves with an institute that persistently advertised for the purpose of procuring patients who were to receive medical treatment from an unregistered practitioner either by attendance or by post. It was an issue of fact whether systematic advertising had taken place; it was an issue of fact whether that was advertising for the purpose of procuring patients; it was an issue of fact whether such patients were treated by an unregistered practitioner; and it was an issue of fact whether these practitioners had acquiesced and approved of such conduct. He submitted that he had established each of these facts purely as a matter of fact—that there had been systematic advertising by the Sandow Institute; that it had been for the purpose of procuring patients who were to be treated by Mr. Sandow; and that these practitioners had approved of and acquiesced in that advertising. Lord Robert Cecil had entirely overlooked the fact that the charge was that these practitioners had associated themselves in their professional capacity with this institute. With regard to the treatment of disease by the Sandow Institute, whatever it may have done in the past—which was not in evidence before the Council—it had since 1907 systematically advertised its treatment as a cure for disease. Advertisements of hydropathic establishments and hotels up and down the country had been produced as showing that this was systematically done. But he was not concerned with those cases, as the facts had not been investigated and proved to be of the same character as in this particular case. It was most material that practitioners should not associate themselves with persons who conducted their business in the way Mr. Sandow conducted his. Surely a medical practitioner had responsibilities to the community, and if he associated himself in his professional capacity with persons who undertook the treatment of disease and agreed with their methods, that was approval and acquiescence for all practical purposes. It was a want of appreciation of these responsibilities, he submitted, that was the fundamental complaint against these gentlemen; that they had not realized that by associating themselves in their professional capacity with the Sandow Curative Institute they had accepted responsibility as medical men for the methods employed by the institute. Further, by their continuance in the employ of Mr. Sandow after they became aware of the advertisements in the *Daily News* and other papers they accepted responsibility for them. It had been said that, though the advertisements may be blameworthy, the conduct of the institute was free from reproach. What did that amount to? It amounted simply to this, that Mr. Sandow did not carry out in the institute what he held out to the public he would carry out. The Council was asked to say that it was not blameworthy, it was not reprehensible, it was not disgraceful on the part of a medical practitioner to aid and abet by continuing in the employment of an individual who carried on an institute of that kind. Lastly, on the question of infamous conduct, he was content that this case should be judged on the definition laid down in one of the cases—namely, whether it was conduct that would be disgraceful in the opinion of members of the medical profession of good repute and conduct; he did not mean disgraceful in a purely technical sense, but disgraceful in the sense of ignoring the duty which a member of the profession owed to the community at large.

The parties and strangers were directed to withdraw. On readmission, the PRESIDENT announced the decision of the Council as follows:

Mr. Maurice Edmund Arnold Wallis,—I have to announce to you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, that the Council have judged you to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase your name from the *Medical Register*.

Mr. James Robertson Wallace,—I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, but that the Council, in order to give you an opportunity to reconsider your position, has postponed judgement in your case till the next session, when you will be required to be present and to produce evidence as to your conduct in the interval.

Mr. Charles Edward Trimble,—I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, but that the Council, in order to give you an opportunity to reconsider your position, has postponed judgement in your case till the next session, when you will be required to be present, and to produce evidence as to your conduct in the interval.

### THE CASE OF HERBERT LLEWELLYN PORTEOUS.

On Tuesday, May 24th, the Council considered the case of Herbert Llewellyn Porteous, registered as of Wickham Grange, Chalford, Gloucestershire, M.R.C.S.Eng., 1898, L.R C.P.Lond., 1898, who had been summoned to appear before the Council on the charge formulated by the Council's Solicitor, reported in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of December 3rd, 1910, p. 417, on the occasion when the matter was first considered by the Council.

The PRESIDENT reminded the Council that the case had been adjourned from last November in order that Mr. Porteous might produce evidence as to his good conduct during the interval.

Mr. HEMPSON, for Dr. Porteous, said he desired to call the attention of the Council to the statement by Dr. Porteous in his statutory declaration, in which he undertook that nothing he could prevent should for the future occur in his career meriting the censure of the General Medical Council. Mr. Hempson also called the Council's attention to a statement by Mr. J. Parsons, F.R.C.S., L.R.C.P., who acted as locumtenent to Dr. Porteous for some time; and also to statutory declarations by Albert Barnes Davies, Samuel Boake, and Alfred Whalley Waller, all speaking highly of Mr. Porteous's reputation.

Strangers and parties were directed to withdraw; on readmission the PRESIDENT announced the decision of the Council as follows:

Mr. Porteous, I have to inform you that, after deliberation, the Council does not see fit to direct the Registrar to erase your name from the *Medical Register*.

### THE CASE OF ARTHUR WILLIAM WILSON.

The Council considered on May 24th the case of Arthur William Wilson, registered as of 102, Tufnell Park Road, N., M.B., M.S., 1887, Univ. Edin, who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

That you have knowingly and wilfully on various occasions assisted one Arthur Jacobs, of Jacobs and Clark, 156, High Street, Camden Town, a person not registered as a dentist, in carrying on practice as a dentist by administering anaesthetics

on his behalf to persons coming to him for treatment. And that in relation thereto you have been guilty of infamous conduct in a professional respect.

Mr. Bliss, instructed by Messrs. E. F. Turner and Sons, solicitors, appeared for the Institute of British Dentists, the complainants; and Mr. Lees, solicitor, appeared for Mr. Wilson.

Mr. BLISS, in opening the case, said that two gentlemen visited the dental offices where Jacobs and Clark carried on business at 156, High Street, Camden Town, and went through the usual formalities for having their teeth attended to, and it was suggested by Mr. Jacobs that it would be necessary for them to have gas, and that Mr. Wilson, who was not then in, would be back at 6 p.m. to administer gas to such persons as needed it, while Mr. Jacobs performed the operation. The gentlemen went back at 6 p.m., and then saw Mr. Wilson and Mr. Jacob, and made an appointment for Mr. Wilson to administer the gas to them in order that Mr. Jackson might perform the operations. They attended on the date arranged, but some excuse was made, and the operation did not take place. When the facts became known, Mr. Wilson admitted substantially the matters alleged against him, apologized to the General Medical Council for what he had done, and, in writing, gave his undertaking not to carry on any similar proceedings in the future. He had stated in his statutory declaration that at the time he did not know there was any law whereby he was not allowed to give gas for such a man. In conclusion, Mr. Bliss said the complainants did not wish to press the charge, but thought it right to bring the facts before the Council for it to deal with as they thought fit.

Mr. LEES, in answer to the PRESIDENT, said that Mr. Wilson was present and was prepared to answer any question the Council desired to put to him. He then read Mr. Wilson's statutory declaration.

In reply to Mr. LEES, Mr. WILSON stated that he entirely adhered to the statement which had been read. He had known Mr. Jacobs for ten years, and Mr. Jacobs had been a patient of his almost all that time. He first started to give gas for Mr. Jacobs about two and a half years ago. He did not know of any law which prevented him doing so. He asked the Council to accept his sincere apologies for the breach which he had committed, and gave his unqualified undertaking to abstain from such breach in the future.

The PRESIDENT asked Mr. Wilson if he understood him to say that he was not aware there was anything wrong in what he was doing.

Mr. WILSON replied that he was not aware of any law against it.

The PRESIDENT: Do you remember in 1906 getting a notice from this office dealing with such matters?

Mr. WILSON replied in the negative. Neither did he remember in 1909 getting a notice of various things practitioners might not do. He was not aware of the notice which had appeared in the BRITISH MEDICAL JOURNAL dealing with such matters.

The PRESIDENT remarked there was reason to believe that copies of such notices were sent to him (Mr. Wilson) in 1906 and 1909, but Mr. Wilson said he had no remembrance of it. He had attended four cases only since the occasion in question, and those four cases were in course of treatment at the time referred to. He had not given gas in any new cases.

Mr. LEES, on behalf of Mr. Wilson, submitted it was proved that the reasons which prompted Mr. Wilson to assist Mr. Jacobs were not financial ones. Mr. Wilson had not had an undistinguished career, and was highly esteemed in the north of London. The charge had been hanging over the head of Mr. Wilson for six months. He trusted the Council would think that that was sufficient punishment.

The parties and strangers were directed to withdraw. On their readmission, the PRESIDENT announced the decision of the Council as follows:

Arthur William Wilson, I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council. The Council has not proceeded to pronounce judgement on the facts proved, but has postponed it to the next session of the Council, when you will be required to attend and to produce evidence as to your good conduct in the interval from persons in the neighbourhood familiar with your practice.

### THE CASE OF SIDLEY IEVERS LIGHTFOOT.

On Wednesday, May 24th, the Council considered the case of Sidley Ievers Lightfoot, registered as of 11, Station Road, Watford, L.R.C.P.Edin., 1892, L.R.C.S.Edin., 1892, L.F.P.S.Glasg., 1892, who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

That you were at the Hertford Assizes, held on February 9th, 1911, convicted on indictment for feloniously using an instrument with intent in so doing to procure the miscarriage of one Maud Hill, at Watford, on November 14th, 1910, and ordered to be kept in penal servitude for the term of five years.

Mr. Lightfoot did not appear.

The SOLICITOR read the notice of inquiry and formally proved service of same. He also produced the certificate of conviction.

Strangers and parties were directed to withdraw. On readmission the PRESIDENT announced the decision of the Council as follows:

I have to announce that Sidley Ievers Lightfoot having been proved to have been convicted of the felony alleged against him in the notice of inquiry, the Registrar has been directed to erase his name from the *Medical Register*.

### THE CASE OF ALEXANDER MCCOOK WEIR.

The Council on May 24th considered the case of Alexander McCook Weir, registered as of 30, Walton Road, Kirkdale, Liverpool, M.D.Q.U.I., 1871, L.R.C.S.Edin., 1871, who had been summoned to appear before the Council on the following charge, as formulated by the Council's Solicitor:

That you were at the Shrewsbury Assizes, held on November 6th, 1909, convicted for that, on the 12th day of September, 1909, at the parish of Shawbury, in the county of Salop, you did unlawfully take and cause to be taken one Alice Jones out of the possession and against the will of Henry Jones, her father, the said Alice Jones then being an unmarried girl under the age of 16 years, to wit, of the age of 15 years and 11 months, against the form of the Statute in such case made and provided: and were thereupon ordered to be imprisoned and kept to hard labour in the House of Correction fifteen months.

Dr. Weir did not appear.

The SOLICITOR read the charge and put in the certificate of conviction.

The REGISTRAR read a letter from Dr. Weir stating that he was too unwell to travel, and asking the Council to adjourn the consideration of his case to the next session.

Strangers were directed to withdraw. On readmission, the PRESIDENT announced the decision of the Council as follows:

I have to announce that Alexander McCook Weir having been proved to have been convicted of the misdemeanour alleged against him in the notice of inquiry, the Registrar has been directed to erase his name from the *Medical Register*.

### THE CASE OF FREDERICK WILLIAM AXHAM.

The Council also considered, on May 24th, the case of Frederick William Axham, registered as of Morden, Dollis Park, Church End, Finchley, N., M.R.C.S.Eng., 1861, L.R.C.P.Edin., 1867, who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

That you have knowingly and wilfully on various occasions assisted one Herbert Atkinson Barker, an unregistered person practising in a department of surgery, in carrying on such practice by administering anaesthetics on his behalf to persons coming to him for treatment.

And that in relation thereto you have been guilty of infamous conduct in a professional aspect.

The complainants were the Medical Defence Union.

Dr. Axham appeared in person.

Dr. BATEMAN, who appeared for the Medical Defence Union, the complainants, said the charge had arisen from evidence given by Dr. Axham himself in the case of Thomas *v.* Barker. In that case in answers to counsel he admitted having administered anaesthetics for Mr. Barker. Dr. Bateman referred in detail to certain questions and answers, and then put in a declaration proving the note of the evidence to be accurate. Dr. Bateman submitted that if it was an offence to administer anaesthetics for an unqualified dentist, it was equally an offence to administer anaesthetics for any other unqualified person.

Dr. AXHAM said he had been administering anaesthetics for Mr. Barker for the last five years without remonstrance. He had a record of forty-five years' service, and his name was as yet unstained. He realized that he had not followed the strict rules of medical etiquette, and must put up with the consequences of his fault.

In answer to the PRESIDENT, Dr. AXHAM said he had resigned both his practice and his connexion with Mr. Barker. He could not give an undertaking that he would not administer anaesthetics in future for Mr. Barker.

Strangers and parties were directed to withdraw. On readmission, the PRESIDENT announced the judgement of the Council as follows:

Mr. Axham, I have to inform you that the Council have judged you to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the *Medical Register* the name of Frederick William Axham.

### DENTAL DISCIPLINARY CASES.

*The Case of Mr. Frederick Ellis.*

The Council considered on May 24th the case of Frederick Ellis.

The REGISTRAR read a letter, dated May 23rd, in which Mr. Ellis stated that he could not possibly get away to appear before the General Medical Council, and he left the matter entirely in their hands.

Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, appeared for the complainants, the British Dental Association.

The REGISTRAR then read the report of the Dental Committee, as follows:

The said Frederick Ellis was registered in the *Dentists Register* on February 23rd, 1891, as "In practice before July 22nd, 1878." His address in the *Register* for the current year is Bridge Street, St. Ives, Hunts.

The accused gave evidence on his own behalf. He stated that until quite recently—namely, until receipt of the Registrar's letter—he had worked a branch practice for ten years at 38, High Street, Huntingdon, managed by one Taylor, an old assistant of his. Taylor, himself, also had an assistant. Taylor was never a partner, but was paid by a commission of 5 per cent. and a salary of 25s. a week with gas and house rent free. Taylor and his wife lived at 38, High Street. Taylor operated, and gave anaesthetics on his own account just as if he were a dentist.

The accused generally went over twice a week from St. Ives. For the rest of the week Taylor was in sole charge. The accused has now ceased to employ Taylor, who, however, with his wife, still lived at 38, High Street. The branch practice was practically closed, and Taylor had instructions to refer any patients to St. Ives. The operating chair and instruments were still there. It was possible that Taylor might buy the branch practice. As regards any undertaking, the accused states merely that he would close the Huntingdon branch and not practise there.

In reply to the PRESIDENT and with the permission of the Council Mr. TURNER pointed out that Mr. Ellis had carried on for ten years a practice of covering, and he was proposing to make it a market asset by selling that practice to the man he had covered.

Strangers were directed to withdraw; on readmission the PRESIDENT announced the judgement of the Council as follows:

I have to announce that on the facts found in the report of the Dental Committee it has been proved that Frederick Ellis has been guilty of infamous or disgraceful conduct in a professional respect, and that the Registrar has been directed to erase his name from the *Dentists' Register*.

*The Case of Mr. Frederick Henry Barker.*

The Council also considered on May 24th the case of Frederick Henry Barker.

Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, appeared for the British Dental Association. Mr. J. B. Matthews, instructed by Messrs. Page and Scorer, solicitors, appeared for Mr. Barker.

The REGISTRAR read the report of the Dental Committee as follows:

The said Frederick Henry Barker was registered in the *Dentists' Register* on August 31st, 1882, as "In practice before July 22nd, 1878." His address in the *Register* for the current year is 4, Town Hall Street, Grimsby.

The accused has widely advertised his professional practice by objectionable methods of advertising, namely, by a sign board, 25 ft. by 4 ft., exhibited in the front of his house at 4, Town Hall Street, Grimsby; also by the issue of a circular letter, of a concert programme, and of a calendar, and by advertisements in the public press, some of which contain commendations of his own skill and methods, and claims of superiority over the methods of other practitioners. Notwithstanding his letter to the Honorary Secretary of the Eastern Counties Branch of the British Dental Association, saying, "*Re* advertising. I have decided to make no fresh contracts, and have, where possible, withdrawn existing ones," the accused has freshly advertised.

The accused, by his counsel, now admitted the truth of the charge against him, and offered to submit to any terms which the Council should think fit to impose, and to discontinue advertising in any shape or form. He called no evidence.

In reply to the PRESIDENT, with the permission of the Council, Mr. J. B. MATTHEWS said he did not challenge the report of the Committee. The position his client wished to take up was the position he took up before the Committee—namely, a frank recognition that he had sinned against the rules and traditions of his profession, with an earnest hope that he might be excused from the consequences of what he had done. He was prepared to offer to the Council the fullest assurance with regard to the future that there should be no repetition of any objectionable advertisements, nor, in truth of any advertisement, which the Council might desire to impose upon him. The real question was whether he was repentant and earnestly anxious still to continue a registered dentist and no longer to give offence, and whether this Council should consider, which he trusted it would not, that his offence was not to be excused and his name removed from the *Register*.

Mr. TURNER, with the permission of the Council, after the frank admission which had been made on behalf of the accused practitioner, submitted that it was a case in which the Council would find that there had been infamous and disgraceful conduct in regard to these advertisements. It only remained for the Council to decide what course it should adopt, and he would only suggest that if Mr. Barker continued the undertaking to discontinue all description of advertisements whatsoever then it would be for the Council to consider whether it should adjourn the matter for a time to see if he would carry out the undertaking which he had given through his counsel.

Strangers and parties were directed to withdraw. On readmission, the PRESIDENT announced the decision of the Council as follows:

I have to announce that, on the facts found in the report of the Dental Committee, the Council has judged that Mr. Barker has been guilty of infamous or disgraceful conduct in a professional respect, and has directed the Registrar to erase from the *Dentists' Register* the name of Frederick Henry Barker.

[A report of other proceedings of the Council will be published in a subsequent issue.]

## CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on May 18th, with Sir FRANCIS H. CHAMPNEYS in the chair.

*Medical Help in Emergency Cases.*

A letter was considered from the Inspector of Midwives of the County Borough of Hull as to the difficulties experienced by midwives in obtaining medical help in cases of emergency. The Board decided to reply that the midwife is not responsible to the guardians, but to the Local Supervising Authority and to the Board.

*Training of Midwives.*

A letter was considered from a certified midwife complaining of the inadequacy of the training given at a recognized training school. The Board decided to inquire of the authorities at the training school as to the actual facts of the case.

*Procedure in Penal Cases.*

A letter was considered from the Town Clerk of Manchester as to the decision of the Board to take no action in the cases of two certified midwives, against whom the Local Supervising Authority had found prima facie cases of misconduct and negligence respectively. The Board directed that the Town Clerk of Manchester be informed that the Local Supervising Authority appears to have entirely misapprehended the effect of the Board's procedure in penal cases, and that the appearance of the medical officer of health or the inspector of midwives at the hearing of a case is always welcomed by the Board.

*Removal from Midwives Board.*

A letter was read from the Clerk of the Privy Council, transmitting for the observations of the Board a letter with enclosures addressed by Mr. Harold Baker, M.P., to the President of the Local Government Board, in regard to the case of Annie Ireland, whose name was removed from the Midwives Roll on March 30th, 1911. The Board decided that the Secretary be directed to communicate the facts of the case to the Privy Council.

# Naval and Military Appointments.

## INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. F. CLEVELAND is appointed Principal Medical Officer, Aden Brigade.

The King has approved the retirement from the service of Surgeon-General H. HAMILTON, C.B., M.D., and Lieutenant-Colonel C. M. THOMPSON, M.B., both of which announcements have already appeared in the BRITISH MEDICAL JOURNAL.

Lieutenant-Colonel W. H. QUICKE also retires from the service, April 25th. He entered the Bombay Medical Department as Surgeon, March 31st, 1883, and was made Lieutenant-Colonel, March 31st, 1903. Lieutenant-Colonel Quicke was with the Zhob Valley expedition in 1884, including the affair at Dowlatzai; he was also in the Burmese campaign, 1885–6, receiving a medal with clasp.

The King has approved of the admission of the following officer to the Indian Medical Service: Captain W. S. NEALOR, by exchange from the Royal Army Medical Corps, March 31st.

## TERRITORIAL FORCE.

### ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL CHARLES AVERILL, M.D., to be Sanitary Officer of a Territorial Division, May 20th; Major W. J. HOWARTH, M.D., Sanitary Service, to be appointed Sanitary Officer of a Territorial Division, vice Lieutenant-Colonel Arthur Newsholme, M.D., who resigns that appointment, and who is placed on the list of Sanitary Officers whose services will be available on mobilization, with precedence as from August 22nd, 1908, May 20th.

*First East Lancashire Field Ambulance.*—Supernumerary Major W. B. PRITCHARD ceases to serve with No. 18 Field Ambulance, Special Reserve, and is restored to the Establishment, May 20th; Major W. L. BENTLEY, from the 3rd East Lancashire Field Ambulance, to be Major, May 20th.

*Second East Lancashire Field Ambulance.*—Major W. B. PRITCHARD, from the 1st East Lancashire Field Ambulance, to be Major, May 20th.

*Second Eastern General Hospital.*—Officers resigning their commissions, May 20th: Lieutenant-Colonel H. S. BRANFOOT, M.B.; Lieutenant-Colonel T. J. VERRALL.

*Attached to Units other than Medical Units.*—Lieutenant Y. T. G. MOORE to be Captain, April 1st; Lieutenant R. J. W. OSWALD to be Captain, April 1st; Lieutenant T. J. FAULDER, to be Captain, January 9th. Officers resigning their commissions, and granted permission to retain their rank and uniform, May 20th: Lieutenant-Colonel and Honorary Surgeon-Colonel W. D. WATERHOUSE, Lieutenant-Colonel A. D. FRASER, M.D. Officers resigning their commissions, May 20th: Lieutenants WILLIAM COCKBURN, M.B., and T. S. WORBOYS.

*For Attachment to Units other than Medical Units.*—ANGUS MACNAB, M.B., F.R.C.S.Eng., to be Lieutenant, March 1st; JAMES W. MCINTOSH, M.B., to be Lieutenant, February 7th; WILLIAM F. MCALLISTER HEWLINGS (formerly Surgeon-Lieutenant 1st Volunteer Battalion Leicestershire Regiment) to be Captain, March 16th; JOSEPH M. A. COSTELLO, M.B., to be Lieutenant, March 18th; Lieutenant ALFRED COLERIDGE, M.B., from 3rd South Midland Field Ambulance, R.A.M.C., to be Lieutenant, March 31st; ARTHUR D. J. B. WILLIAMS, to be Lieutenant, February 11th.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Junior House-Surgeon. Salary, £70.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £140 per annum, rising to £160.

BRECONSHIRE EDUCATION COMMITTEE.—Temporary Assistant School Medical Officers. Salary, 5 guineas a week.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CHARING CROSS HOSPITAL.—Clinical Pathologist and Bacteriologist. Honorarium, £200 per annum.

CHELTENHAM GENERAL HOSPITAL.—(1) Honorary Medical Radiographer and Electrician. (2) House-Physician; salary, £80 per annum, increasing to £100 on becoming Senior Medical Officer.

CHESTER CITY AND COUNTY.—Medical Officer of Health. Salary, £500 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

DUMFRIES: CRICHTON ROYAL INSTITUTION.—Junior Assistant Physician. Salary, £150 per annum.

EAST LONDON HOSPITAL FOR SICK CHILDREN, Shadwell, E.—Pathologist and Registrar. Honorarium, £100.

FLORENCE NIGHTINGALE HOSPITAL FOR GENTLEWOMEN, 19, Lisson Grove, N.W.—Resident House-Surgeon. Salary, £100 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Ophthalmic Surgeon (Out-patient).

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

ITALIAN HOSPITAL, Queen Square, W.C.—(1) Honorary Assistant Physician (Out-patients). (2) House-Surgeon. Salary at the rate of £60 per annum.

LEICESTER INFIRMARY.—(1) Senior House-Surgeon. (2) House-Surgeon. (3) Assistant House-Physician. Salary at the rate of £140, £120, and £80 per annum respectively.

LIVERPOOL UNIVERSITY.—Senior Demonstrator. Salary, £175 per annum.

LONDON HOSPITAL, Whitechapel, E.—(1) Medical Registrarship. (2) Surgical Registrarship. Salary in each case, £100 per annum.

LONDON LOCK HOSPITAL.—(1) House-Surgeon and Assistant House-Surgeon to the Female Hospital; salary, £100 and £80 per annum respectively. (2) House-Surgeon to the Male Hospital; salary, £100 per annum.

MANCHESTER: COUNTY ASYLUM, Prestwich.—(1) Junior Assistant Medical Officer; salary, £150 per annum, increasing to £250. (2) Locumtenent for six or eight weeks; salary, 4 guineas per week.

MANCHESTER ROYAL INFIRMARY.—(1) Assistant Medical Officer to the Convalescent Hospital, Cheadle; salary at the rate of £80 per annum. (2) House-Physicians. (3) Junior House-Surgeons.

MARGATE: ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Junior Resident Surgeon. Salary, £80 per annum, rising to £120 on succeeding to senior position.

MIDDLESEX EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £300 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Anaesthetist.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistants in Out-patients' Department, Fitzroy Square.

NORFOLK AND NORWICH HOSPITAL.—House-Physician. Salary, £80 per annum.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

PLYMOUTH PUBLIC DISPENSARY.—(1) Second Honorary Surgeon. (2) Medical Officer of the Provident Department; remuneration is a moiety of net receipts.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Honorary Dental Surgeon.

ST. THOMAS'S HOSPITAL.—Surgeon in charge of the Throat Department.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Junior Assistant Medical Officer for the Infirmary. Salary, £120 per annum.

STORTHES HALL ASYLUM, Kirkburton, near Huddersfield.—Assistant Medical Officer. Salary, £140 per annum, rising to £160.

TAUNTON AND SOMERSET HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

WAKEFIELD: COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE.—Medical Inspector of School Children. Salary, £300 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House-Physician. Salary, £75 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

## APPOINTMENTS.

DUNDAS, J., M.D., D.P.H.Edin., Medical Officer of Health of the Borough of Ramsgate.

FRANCIS, T. E., M.D., D.P.H., Medical Officer of Health of Llanelly Urban District.

GRIFFITH, G. R., M.B., C.M.Glas., Medical Officer of Health of the Carnarvon Port Sanitary Authority.

HASLAM, W. A., M.R.C.S., L.R.C.P., Resident Medical Officer of the Hull Corporation Sanatorium.

PHILLIPS, H. R., M.B., Medical Officer of Health of the Paul Urban District.

PONTON, J. A. W., M.B., B.S.Dub., Medical Officer of Health of the Ottery St. Mary Urban District.

RICHARDS, A. J., L.R.C.P.and S.Edin., Resident Assistant Medical Officer of the Birkenhead Union Workhouse.

SHARPE, Claudius Galen Kaye, M.B., B.S.Leeds, Senior Casualty Officer, Royal Infirmary, Hull.

TURTLE, Godfrey de Bec, M.D.Durh., M.R.C.P.Lond., Physician to Margaret Street Hospital for Consumption.

ST. MARY'S HOSPITAL, PADDINGTON, W.—The following appointments have been made:

Physician.—Harris, Wilfred, M.D., F.R.C.P.
Physician in charge of Out-patients.—Miller, Reginald H., M.D., M.R.C.P.
Ophthalmic Surgeon.—Paton, Leslie, F.R.C.S.
Assistant Ophthalmic Surgeon.—Coats, George, F.R.C.S.

UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

House-Physician.—A. A. Henderson, M.R.C.S., L.R.C.P.
House-Surgeon.—A. L. Robinson, M.B., B.S., M.R.C.S., L.R.C.P.
House-Surgeon.—A. D. E. Bayliss, M.R.C.S., L.R.C.P.
Obstetric Assistant.—H. C. G. Pedler, M.B., B.S., M.R.C.S., L.R.C.P.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTHS.

FRANCIS.—On May 28th, at Arnold, Notts, the wife of Harvey Francis, M.D., of a daughter.

STEVENSON.—On May 26th, at 237, Chesterton Road, Cambridge, to Dr. and Mrs. C. M. Stevenson, a son.

WHEAT.—On the 30th May, 1911, at Vogelfontein, Transvaal, to Dr. and Mrs. Ernest G. Wheat, a son. (By cable.)

## DIARY FOR THE WEEK.

### WEDNESDAY.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 5 p.m.—Dr. E. Landolt: The Bowman Lecture—Ophthalmic Surgery.

### THURSDAY.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Card Specimens. Papers: (1) Mr. Wray: The Treatment of Conical Cornea. (2) Major Eliot, I.M.S.: The Operation of Simple Trephining for the Relief of Glaucoma. (3) Dr. Thomson Henderson: Anatomical and Mechanical Factors in Accommodation.

### FRIDAY.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Dr. Charles Mercier: Conduct and its Disorders.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C. — Lectures: Tuesday, 3.45 p.m., Methods of Examination. Friday, 3.45 p.m., Methods of Examination.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W., Wednesday, 4 p.m.—Pneumothorax.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., The Significance of Signs and Symptoms in Intra-abdominal Lesions, Principles of Treatment. Friday, 5.15 p.m., Appendicitis, Pneumococcal Peritonitis, Abdominal Tuberculosis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Special Lecture, Tuesday, 2.15 p.m., The Pulse; 4.30 p.m., Surface Anatomy; Wednesday, 5 p.m., Asthma in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follow: Tuesday, Some Points in the Anatomy, Physiology, and Surgery of the Nose and Accessory Sinuses; Wednesday, Pemphigus Vegetans; Thursday, Prognosis in Heart Disease.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Friday, 3.30 p.m., Spinal Compression.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Cardiac Therapeutics. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient, 3 p.m., Medical In-patient, 4.30 p.m. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations at 2 p.m. daily. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily except Monday and Saturday.

## RECENT PUBLICATIONS.

*Technique de stérilization.* By Dr. E. Gérard. Second edition. 1911. Paris: Vigot Frères. (Cr. 8vo, pp. 350, 72 illustrations. Fr. 6.)

Of the first edition of this book we published a favourable review some four years ago. The present volume is over a third longer than its predecessor, and contains more illustrations. It has been brought up to date throughout, and more space given to the storing of dressings, the sterilization of gloves, the disinfection of rooms and books, and the treatment of water for drinking and other purposes. Sterilization of living tissues is not touched, but otherwise the whole field of the subject receives careful attention.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. have recently published a third enlarged edition of a *Manual of Diseases of the Ear, Nose, and Throat*, by Dr. J. J. Kyle, Professor of Otology, Rhinology, and Laryngology, Indiana University School of Medicine, Indianapolis, and President of the American Academy of Ophthalmology and Oto-Laryngology.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JUNE.** | |
| 7 WEDNESDAY | LONDON: Medico-Political Committee, 2 p.m.<br>DORSET AND WEST HANTS BRANCH, Summer Meeting, Princess Christian Hospital, Weymouth, 3.30 p.m.<br>GREENWICH DIVISION, *Metropolitan Counties Branch*, Lewisham Infirmary, 3.30 p.m.<br>LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Association Hall, East Street, Leicester, 4 p.m.<br>SOUTH-EASTERN BRANCH, Annual Meeting, Old Grammar School, Ashford, 2.15 p.m.; Lunch, Saracen's Head, 1 to 2 p.m.; Dinner, 6.30 p.m.<br>SOUTH-WEST WALES DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Joint Counties Asylum, Carmarthen, 1 p.m. |
| THURSDAY .. | WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, Orford Road, Walthamstow, 4 p.m.<br>WORCESTERSHIRE AND HEREFORDSHIRE BRANCH, Annual Meeting, St. Peter's Church House, Hereford, 3.45 p.m. |

| Date. | Meetings to be Held. |
|---|---|
| **JUNE** *(continued).* | |
| 9 FRIDAY .. | LONDON: Central Ethical Committee, 2 p.m.<br>HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Central Library, Arkwright Road, N.W., 8 p.m.; Meeting of Local Profession, 8.30 p.m.<br>LEINSTER BRANCH, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m. |
| 10 SATURDAY .. | |
| 11 Sunday .. | |
| 12 MONDAY .. | |
| 13 TUESDAY .. | NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m. |
| 14 WEDNESDAY | CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. |

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# SUPPLEMENT

TO THE

# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 10TH, 1911.


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## Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

### EAST YORK AND NORTH LINCOLN BRANCH:
#### EAST YORK DIVISION.

THE annual meeting of this Division was held in the Etherington Ward at the Hull Royal Infirmary on Friday, May 19th. Dr. E. M. HAINWORTH was in the chair, and sixty-seven members of the profession (including several non-members of the Association) were present.

*Annual Report.*—The annual report of the Executive Committee, as printed and circulated, was adopted, as also the Treasurer's balance-sheet.

*Election of Officers.*—The following were elected for the session 1911-12: *Chairman*, Dr. James MacNidder; *Vice-Chairman*, Dr. A. H. Johnston; *Honorary Secretary and Treasurer*, Dr. E. Turton; *Executive Committee* (six members who also sit on Branch Council), Drs. Milburn, Cameron, Laslett, Howlett, Holder, and Lamb, (two members who do not sit on Branch Council) Drs. R. H. B. Nicholson and Moir.

*National Insurance Bill.*—A discussion on this subject was opened by the CHAIRMAN, and Drs. C. H. MILBURN, JOHNS (President-elect of the East York and North Lincoln Branch), J. SOUTTER, MURRAY, HOLDER, CAMERON, TURTON (Honorary Secretary), DUTT, DIVINE, THOMPSON, MACNIDDER (Representative at Representative Meetings), R. H. B. NICHOLSON, HOLT, SPROULLE, GRIEVE, JACKSON, and LILLEY took part in it. The resolutions arrived at by the Division were published in the SUPPLEMENT of May 27th, p. 299. After the resolutions had been passed, Dr. MILBURN stated that as the logical outcome of the opinions already expressed and the resolutions passed he should move:

> That every member of the medical profession in the area of East Yorks Division be asked to sign the following agreement: I promise to abide by any decision come to by the British Medical Association on the National Insurance Bill of 1911.

Mr. R. H. B. NICHOLSON seconded. Dr. CAMERON thought that although the profession was absolutely united, the time for passing such a resolution had not yet arrived. He did not oppose the principle stated in the resolution, but thought that they should wait until they knew what the British Medical Association decided to do in the matter. Dr. CAMERON moved, and Dr. DENYER seconded the following amendment:

> That the time is inopportune for the passing of Dr. Milburn's resolution.

On being put to the meeting the amendment was carried and again as a substantive resolution.

After the CHAIRMAN had thanked the non-members of the Association for attending, the meeting, which had lasted to a late hour, terminated.

### LANCASHIRE AND CHESHIRE BRANCH:
#### BLACKBURN DIVISION.

THE annual meeting of the Division was held at Blackburn on Wednesday, May 17th. Present: Dr. MOIR (Chairman), with Drs. Rigby, A. E. Townley,

Barr, James Craig, J. T. Ballantyne, Wm. Geddie, Alex. Ballantyne, Thos. Ballantyne, Barton, Reg. Townley, Frankish, Alex. Craig, Stahlknecht, Bowen, Tough, Fenton, J. S. Geddie, W. Alex. Smith, Keighley, Prebble, Macallan, Johnson, Nuttall, Loynd, Cunliffe, Brooks, Lees, Buchan, Gunn, Payne, Bowes, Willett, Macrae, Field, J. V. Fox, J. T. Ramsay, Butterfield, Jamies, Cran, Duthie, Owen, Shaw, Henry, Armistead, Bradley, and Greenwood (Honorary Secretary).

*Elections.*—The minutes of the last annual meeting having been read and confirmed, the officers for the ensuing year were then elected as follows: *Chairman*, Dr. Rigby; *Vice-Chairman*, Dr. Alex. Cran; *Secretary and Treasurer*, Dr. Greenwood; *Representatives on Branch Council*, Drs. Henry and Prebble; *Representative in Representative Meeting*, Dr. W. B. Prebble; *Executive Committee*, Dr. Bowes (Rishton), Dr. Beaton (Accrington), Dr. J. T. Ballantyne (Darwen), Dr. Macklin (Whalley).

*National Insurance Bill.*—This measure was discussed (*see* SUPPLEMENT, May, 27th, p. 298).

### GLOSSOP DIVISION.

THE annual meeting of this Division was held on May 18th.

*Election of Officers.*—The following were elected officers for the ensuing year: *Chairman*, W. J. Bowden, M.B., Norfolk Street, Glossop; *Vice-Chairman*, D. J. Mackenzie, M.D., North Road, Glossop; *Honorary Secretary and Treasurer*, Arthur Walker, M.R.C.S., 16, High Street, Glossop (re-elected); *Representative to Representative Meeting*, E. A. Clarke, Esq., Dukinfield; *Representative on Branch Council*, D. J. Mackenzie, M.D. The membership is as before.

*Organization of Medical Attendance on the Provident Principle.*—Questions in Form D 15 were discussed and the answers forwarded to the Medical Secretary.

*National Insurance Bill.*—This bill was also discussed (see SUPPLEMENT, May 27th, p. 298).

### MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of this Division was held at the Holy Innocents' School Room, Wilmslow Road, Fallowfield, on Friday, May 19th, at 3.30 p.m. Dr. GRANT DAVIE presided in the absence of the President, Dr. Hopkinson. There were also present Drs. Barr, Booth, Boyd, Brown, Cotterill, Edlin, Godson, Goodfellow, Gregory, Heathcote, Helme, Hood, Howe, Jones, MacDougall, MacGregor, Middleton, Mitchell, Morton, Russen Rhodes, Robinson, Russell, Sarjant, Sawers Scott, Simcock, Stocks, and Whitworth. Five non-members were present—Drs. Ballantyne, Hulme, Holmes, Salter, and Stowell.

*Apologies for Non-attendance.*—Dr. Chevers wrote regretting his inability to be present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Referendum by Postal Vote.*—The report on the Referendum by Postal Vote was read, and three questions (including the two parts of No. 3) were answered in the affirmative. There was one dissentient to the affirmative answer to Question 2, otherwise *nemine contradicente*.

*Affiliation of Outside Bodies.*—A report on the affiliation of outside bodies was read, and the Representative was instructed to support the suggestion of the Council—namely, that affiliation of outside bodies could not occur unless all the members of such bodies became members of the British Medical Association.

*National Insurance Bill.*—The National Insurance Bill was discussed (see SUPPLEMENT, May 27th, p. 298).

### ST. HELENS DIVISION.

A MEETING was held on May 19th, in the Fleece Hotel, St. Helens, at 8.45 p.m. There were present: Drs. Bassett, Challenor, Cooke, Donnellan, Dowling, J. S. Fox, Graham, Kerr, Knowles, R. Jackson, W. T. Jackson, Merrick, Lough, Wilson, and Buchan, with Drs. Dow, Holden, Latham, Masson, Monks (Wigan), O'Keeffe, Siddall, Simson, and Unsworth as visitors. An apology for absence was received from Dr. Reid, Chairman of the Division, and it was resolved that Dr. DOWLING take the chair.

*Election of Officers.*—This being the annual meeting, the following office-bearers were elected for the ensuing year: *Chairman*, Dr. Reid; *Vice-Chairman*, Dr. Dowling; *Representative on Branch Council*, Dr. Bassett; *Honorary Secretary and Treasurer*, Dr. Buchan, Town Hall, St. Helens; *Executive Committee*, the office-bearers, with Drs. Cooke, Fox, Kerr, Knowles, R. Jackson, Merrick, Lough, and Wilson.

*Nominations to Central Council.*—The Division decided to nominate Drs. Larkin and Taylor as candidates for the Council respecting Lancashire and Cheshire Branch, and instructions were given to the Secretary to sign a nomination form for Dr. Garstang for election at the Representative Meeting, and instructions given to the Representative to vote for him at that meeting.

*National Insurance Bill.*—This bill was also discussed (see SUPPLEMENT, May 27th, p. 298.)

## METROPOLITAN COUNTIES BRANCH:

### CITY DIVISION.

A CLINICAL meeting, conjointly with the Walthamstow Division, was held at St. James's Parish Room, Upper Clapton, on Thursday, May 11th, at 9.15 p.m. Over thirty members and friends were present.

*Confirmation of Minutes.*—It was moved and approved that the minutes of previous clinical meetings be taken as read.

*Forms of Nervous Disease.*—The CHAIRMAN (Dr. E. A. Lermitte) briefly introduced Dr. A. J. WHITING, who gave a most interesting address upon "Some Forms of Nervous Disease," illustrated with cinematographs. The following were some of the cases exhibited: Tabes dorsalis—(*a*) with pronounced gait, (*b*) with less pronounced gait, (*c*) with Charcot's hip; spastic paraplegia; functional "tripping" gait; diplegia with bilateral athetosis; disseminated sclerosis showing gait, tremors, nystagmus; paralysis agitans; myopathy—(*a*) Landouzy-Déjerine type, (*b*) pseudo-hypertrophic in a young man; gait in a case of infantile paralysis in a boy of 7; different methods of obtaining plantar reflex; ophthalmoplegia; syringobulbia with nystagmus; hysterical torticollis. The various types were commented upon and explained by the lecturer after each display.

*Vote of Thanks.*—On the motion from the Chair, a cordial vote of thanks was accorded to Dr. Whiting for his most interesting and instructive demonstration. Dr. WHITING suitably responded.

*Nomination of Officers.*—Nominations for officers of Central and Branch Councils were then considered, and were made as follows: For *President-elect of Branch*, Dr. St. Clair Shadwell, Walthamstow Division; for *Treasurer*, Dr. Lauriston Shaw, Marylebone Division; for *Joint Secretaries*—Dr. E. W. Goodall, City Division; Dr. W. Griffith, St. Pancras and Islington Division; for *Vice-President*, Dr. Wise, Walthamstow Division; for *Central Council*, Dr. Major Greenwood, City Division. The Honorary Secretary was directed to write to the neighbouring Divisions asking for their support for these candidates.

The meeting closed at 10 35.

### TOTTENHAM DIVISION.

THE ninth annual general meeting of this Division was held on May 26th, 1911, at the Prince of Wales's Hospital, Tottenham. Dr. GREENWOOD was in the chair. Fifty-four members and eight visitors were present.

*Confirmation of Minutes.*—The minutes of meetings on March 10th and March 31st were read and confirmed.

*Correspondence.*—Some correspondence was considered.

*Nominations for Officers of the Branch* were made—Dr. St. Clair Shadwell as President-elect, Drs. E. W

Goodall and W. Griffith as Honorary Secretaries being unanimously agreed to.

*Election of Division's Officers and Representatives.*—The following were unanimously elected: *Representative at Representative Meetings*, Dr. J. R. Fuller; *Representatives on the Branch Council*, Drs. L. Grant and H. B. Brackenbury; *Chairman*, Dr. H. B. Brackenbury; *Vice-Chairman*, Dr. A. Greenwood; *Honorary Secretary and Treasurer*, Dr. J. A. P. Barnes; *Members of Executive Committee*, Drs. J. S. Boden, H. Distin, G. Plaister, J. Shaw, J. Bisset Smith, and F. C. Wood.

*Annual Report of the Executive Committee to the Members.*—This report, having been circulated, was taken as read, and unanimously adopted.

*Addition to Division Rules.*—It was unanimously resolved to add the following words to Rule 9: "A member who shall have been absent from all the meetings of the Committee held within the year shall be ineligible for re-election."

*Affiliation of Outside Bodies with Association.*—The memorandum on this subject in the SUPPLEMENT of April 29th was considered, and it was resolved that the recommendations of the Council be approved.

*Referendum and the Postal Vote.*—After consideration, it was resolved that:

(i) In answer to Question 1 of the Memorandum, "One-fifth is too high a proportion and one-tenth a suitable proportion." (ii) In answer to Question 2, "Every referendum shall be taken by post to every member of the Association without restriction, and that he be allowed to record his vote on a referendum by post." (iii) The answers to Questions 3 (i) and (ii) should be in the affirmative.

*National Insurance Bill.*—A discussion on this bill took place (see SUPPLEMENT, June 3rd, p. 344).

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## MIDLAND BRANCH:

### BOSTON AND SPALDING DIVISION.

A SPECIAL meeting was held at the White Hart Hotel, Spalding, on April 28th. There were present: Drs. Allan, Barritt, Braithwaite, Galletly, Husband, McNabb, Miller, Munro, Mason, Pilcher, Rendall, W. H. Smith, R. Tuxford, White, Witham, and Wilson; non-members: Drs. Ernest Barrett, Burton, Collins, Gilpin, and Power; also Mr. J. Smith Whitaker of London. Dr. MASON was elected to the chair, in the unavoidable absence of the chairman (Dr. South). Letters of regret at non-attendance were received from many members and non-members.

*Organization of Medical Attendance.*—Mr. J. SMITH WHITAKER, who was introduced by the CHAIRMAN, gave a most lucid address upon the Organization of Medical Attendance on the Provident or Insurance Principle. He emphasized the importance of medical men combining in order to obtain from the Government fair treatment, and warned those who imagined there was nothing to worry about that the authorities were in deadly earnest and intended going through with their bill. He put before the meeting in the clearest manner the various points that would arise. At the close of his address Mr. Whitaker invited questions, to which there was a ready response.

*Vote of Thanks.*—Dr. MCNABB (Withern) proposed a hearty vote of thanks to Mr. Smith Whitaker for his able and excellent address, and Dr. BARRITT (Spalding) warmly seconded this. It was carried with acclamation.

*Tea.*—The members afterwards entertained Mr. Whitaker and the non-members at tea.

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### LEICESTER AND RUTLAND DIVISION.

THE annual meeting of the Division was held in the out-patient room of the Leicester Infirmary, on Wednesday, May 17th, 1911, at 4.15 o'clock. Present, Dr. STAMFORD in the chair, eighty-three members and four visitors.

*Minutes and Apologies.*—The minutes of the previous meeting were read and confirmed. Apologies were received from Drs. Hicks, Atkinson, and Wykes.

*Election of Officers.*—On the proposition of the CHAIRMAN, seconded by Dr. BURKITT, Dr. J. T. Tibbles was elected Chairman of the Division for the ensuing year. He thereupon took the chair. The following were elected officers of the Division for the year 1911–12: *Vice-Chairman of the Division*, Dr. W. E. Gibbons; *Vice-President of the Branch*, Dr. Sevestre; *Honorary Secretary*, Dr. R. Wallace Henry; *Representatives of the Division on the Branch Council*, Drs. A. V. Clarke, R. H. Fagge, W. M. Holmes, R. B. Stamford, and J. T. Tibbles; *Executive Committee* (elected members), Drs. Ballard, Barrett, Burkitt, C. H. Clarke, W. McAllister-Hewlings, E. Holyoak and J. Waite. Dr. Pope was nominated by the Division as their candidate for the Central Council of the Association by the group of Branches of which the Division forms a part.

*Arrangements.*—The SECRETARY intimated that Dr. Holmes had consented to assist him in the extra work likely to arise in connexion with the National Insurance Bill. He gave notice that at the next meeting he would move, on behalf of the Committee, "That the Representatives of the Division on the Infirmary Board be *ex-officio* members of the Executive."

*Annual Report.*—The annual report of the Executive Committee was read and adopted.

*Questions Referred to the Divisions.*—Postal Referendum, Question A. An amendment that for "one-fifth" "one-tenth" be substituted was carried—for, 84; against, 0; neutral, 0. Question B. was answered in the affirmative—for, 47; against, 1; neutral, 36.

*National Insurance Bill.*—The National Insurance Bill was then discussed (see SUPPLEMENT, May 27th, p. 300).

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## MUNSTER BRANCH.

THE annual general meeting was held on Friday, June 2nd, Professor H. CORBY, M.D., in the chair. There was a large attendance of members.

*Apologies for Non-attendance.*—Letters from Dr. Pearse (Limerick) and Dr. Cussen (Pallaskenry) were read apologizing for non-attendance.

*Confirmation of Minutes.*—The minutes of the last annual general meeting were read and confirmed.

*Nomination to Council.*—The HONORARY SECRETARY reported that in accordance with rule Professor H. Corby was duly nominated for member of Council of the Association.

*Election of Representatives.*—Representative to Representative Meetings, Dr. H. R. Townsend (Cork), substitute Dr. John Reid (Bandon, co. Cork); Representative of Branch on Irish Committee of British Medical Association, Dr. J. Giusani was unanimously re-elected.

*Election of Officers.*—The following were elected officers for 1911–12: *President*, Dr. H. R. Townsend; *Vice-President*, Dr. J. T. O'Connor; *Retiring President*, Professor C. Yelverton Pearson, M.D.; *Council*, Professor W. Ashley Cummins, Drs. Lucy Smith, R. J. Crosbie, D J. O'Connor, O. McCarthy, T. B. Moriarty, N. Henry Hobart, T. O'Meara (Skibbereen), M. Cagney, J. Giusani, J. Reid (Bandon), T. Gelston Atkins; *Honorary Secretary and Treasurer*, Dr. Philip G. Lee, Patrick's Hill, Cork.

*New Member.*—Lieutenant J. Kennedy Grant, M.B., Fermoy, was elected a member of the Association.

*National Insurance Bill.*—A delegate was appointed to represent the Branch at a meeting to be held at the Royal College of Surgeons, Dublin, *re* National Insurance Bill, Dr. Philip G. Lee. The bill was also discussed (see p. 418).

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## NORTH OF ENGLAND BRANCH:

### BISHOP AUCKLAND DIVISION.

THE annual meeting of this Division was held at the Wear Valley Hotel, Bishop Auckland, on Friday, May 19th, at 4 p.m. Nine members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Election of Officers.*—The election of officers for the year 1911–12 then took place, and the following were appointed: *Chairman*, T. Beresford Kane. M.D., Byer's Green; *Vice-Chairman*, James Beattie, Esq., Butterknowle; *Representative on Branch Council*, Alex.

Farquharson, M.D., Spennymoor; *Representative at Annual Meeting*, Alex. Farquharson, M.D.; *Secretary*, F. Hernaman-Johnson, M.D.

*Chairman's Observations.*—Dr. KANE, after thanking the members for re-electing him as chairman, said that never in the whole history of the medical profession had there been greater need of union. The Government were about to make a determined attempt at "sweating," and doctors were to be handed over, gagged and bound, to the friendly societies. If they allowed themselves to be so treated it was their own fault, as no Government could force its will on a united profession. He hoped that every man in the county of Durham would stand shoulder to shoulder in resisting State oppression.

*National Insurance Bill.*—The meeting then proceeded to discuss the National Insurance Bill (see SUPPLEMENT, May 27th, p. 299).

## SOUTH-EASTERN BRANCH:

### DARTFORD DIVISION.

THE annual meeting of this Division was held at the Bull Hotel, Dartford, on Tuesday, May 9th. Dr. STEEN was in the chair, and twenty-eight members and six visitors were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Report of Executive Committee.*—The report was read and adopted.

*General and Ethical Rules.*—These rules were considered in detail and adopted.

*Election of Officers.*—The following officers were elected for the ensuing year: *Chairman*, Dr. Steen; *Vice-Chairman*, Dr. Renton: *Honorary Secretary and Treasurer*, Dr. H. Chisholm Will; *Executive Committee*, Drs. Cowie (Plumstead and Charlton), Crombie (Sidcup), Firth (Gravesend), Glover (Dartford), Greenway (Belvedere and Erith), Hirsch (Woolwich), Shute (Northfleet and Greenhithe), H. Smith (Farningham), and Walker (Bexley and Bexley Heath); *Representative on Branch Council*, Dr. Will; *Representative to Representative Meeting*, Dr. Will.

*General Medical Council Election.*—The HONORARY SECRETARY appealed to all present to record their votes for Dr. Macdonald.

*National Insurance Bill.*—A most interesting address was given by Mr. SMITH WHITAKER, Medical Secretary of the British Medical Association, on this subject, and showed the great necessity for union among all practitioners. A discussion followed in which Drs. STEEN, GREENWAY, DAVIS, THOMPSON, CANE, RENTON, FARTHING, MURISON, FIRTH, and SMITH took part.

*Votes of Thanks.*—A hearty vote of thanks was given to Mr. Smith Whitaker for his interesting and lucid address; and also to Dr. Steen for his kind hospitality during the meeting.

### DOVER DIVISION.

A MEETING was held at Dover on May 25th, which was attended by representatives from Deal, Walmer, Sandwich, Ash, Kearsney, and the districts around. Dr. ROBINSON (Chairman) presided, and there were present: Dr. Ward (Vice-Chairman), Dr. Bert, Dr. Baylor (Ash), Dr. F. B. Hulke (Walmer), Dr. Richardson, Dr. J. J. Day, Dr. Mason, Dr. S. B. Hulke (Deal), Dr. Adamson (Kearsney), Dr. Graham (Eythorne), Dr. Stone, Dr. Young, Dr. Murphy, F.R.C.S., Dr. Howden, M.S., Dr. Menzies, Major Palk, I.M.S., Dr. F. A. Osborn.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved.

*National Insurance Bill.*—A long discussion then took place on the National Insurance Bill. The resolution passed was published in the SUPPLEMENT of June 3rd. p. 351.

*Vote of Thanks.*—A vote of thanks to the Chairman terminated the proceedings.

### EASTBOURNE DIVISION.

THE annual meeting was held on May 26th.

*Election of Officers.*—The following were unanimously elected officers for the ensuing year: *Chairman*, Kenneth Frazer, M.D.; *Vice-Chairman*, Astley C. Roberts, M.R.C.S.; *Representative for Representative Meeting*, J. H. Ewart, M.R.C.S.; *Representative on Branch Council*, W. J. C. Merry, M.D.; *Honorary Secretary and Treasurer*, W. Muir Smith, M.B.; *Executive Committee*, H. D. Farnell, F.R.C.S., H. S. Gabbett, M.D., F. C. Goodwin, M.D., A. Harper, M.D., C. O'Brien Harding, M.R.C.S.

## SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held at the Victoria Hotel, Kilkenny, on May 3rd, at 12 30, Dr. R. R. O'BRIEN in the chair. Other members were present to the number of seven.

*Minutes.*—The minutes of the last meeting were read and confirmed.

*Election of Officers.*—The following officers were unanimously elected: *Representative to Representative Meeting*, Dr. Laffan; *Representative on Central Council:* The Branch being grouped with the Connaught for the election of one member, it became the turn of the latter to elect their man on the Council for the ensuing year. *Representative on Irish Committee*, Dr. Carey; *President-elect*, Dr. M. J. Morrissey (Waterford); *Honorary Secretary*, Dr. Quirke. Dr. O'Brien then vacated the chair, which was taken by Dr. JOSEPH POWER, the new President.

*Vote of Thanks.*—On the motion of Dr. POWER, seconded by Dr. HACKETT, a cordial vote of thanks was passed to Dr. O'Brien for his distinguished conduct in the chair and management of the affairs of the Branch during his year of office, and he suitably returned thanks.

*National Insurance Bill.*—It was proposed by Dr. WALSHE and seconded by Dr. QUIRKE:

> That the Branch should adhere to and approve of resolution passed at last meeting of Branch held at Waterford, and which has already appeared in the BRITISH MEDICAL JOURNAL.

*Reports of Branch Meetings to Public Press.*—It was proposed by Dr. LAFFAN and seconded by Dr. WALSHE:

> That an abstract of each successive meeting of the Branch be sent to one or two local and one or two Dublin papers when and to what extent it might be considered advisable by the meeting.

*Nurses Bill.*—It was proposed by Dr. LAFFAN and seconded by Dr. POWER:

> That the Branch is of opinion that Section 23 of the Nurses Bill should be made mandatory and not merely declaratory; that the bill should not allow of any unqualified practice, and that the Nurses' Governing Body should be on lines similar to those of the Central Midwives Board.

*New Member.*—Dr. Pierce Power, Barracks, Kilkenny, was elected a member of the Branch.

This concluded the business of the meeting, and the members present lunched together.

## SOUTHERN BRANCH:

### GUERNSEY AND ALDERNEY DIVISION.

THE annual meeting was held on May 25th.

*Election of Officers.*—The following officers were elected for the year: *President*, Dr. C. d'A. Collings (Grange); *Vice-President*, Dr. M. H. Bulteel (Havilland Street); *President-elect*, Dr. A. C. Wallace (Grange); *Honorary Secretary and Treasurer*, Dr. J. F. Carruthers (2, Clifton); *Representative for Representative Meetings*, Dr. J. F. Carruthers (2, Clifton); *Representative for Branch Council*, Major Myles, R.A.M.C.(ret.) (14, Hauteville); *Librarian*, Dr. M. H. Bulteel (Havilland Street).

### JERSEY DIVISION.

THE annual general meeting of this Division was held on May 10th, Dr. A. N. SYMONS, Chairman, presiding.

*Confirmation of Minutes.*—The minutes of the last annual meeting were read and confirmed.

*Election of Officers.*—The following officers were elected for the ensuing year: *Chairman*, Dr. A. N. Symons; *Vice-Chairman*, Dr. E. O. B. Voisin; *Secretary and Treasurer*, Dr. H. C. Major; *Representative on Branch Council*, Dr. P. B. Bentlif.

*Executive Committee.*—Drs. Hardwood-Hardman and Wynne Walker were elected members.

*Annual Report of Executive Committee.*—The SECRETARY read the annual report. The membership of the Division was twenty-one, compared with twenty-two in the previous year. The average attendance at the meetings had been low, and an earnest appeal was made for more regular attendances and increased support on the part of members as essential to the work of the Division being carried on satisfactorily. Cordial relations with the Guernsey and Alderney Division had been maintained, and the hospitality of that Division enjoyed.

*Financial Statement.*—This showed a balance of £6 14s. in favour of the Division. The sum of £1 18s. had been received as capitation grant from the Branch Council.

*Date of Annual Meeting.*—Dr. VOISIN moved:

> That in future, with the object of bringing the annual report of the Executive Committee (including the financial statement) into line with the annual report of that committee to the Central and the Branch Councils, the annual meeting of the Division be held in January instead of May.

The motion was seconded by Mr. HIND, and, after some discussion, was carried unanimously.

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### PORTSMOUTH DIVISION.

A MEETING was held at 5, Pembroke Road, Portsmouth, on May 4th. Present: Dr. W. P. MCELDOWNEY (in the chair); Drs. B. H. Mumby, Jeans, A. Milne-Thomson, T. A. Colt, James Green, W. Carling, J. G. Blackman, and L. K. H. Hackman.

*Minutes.*—The minutes of meetings held on March 8th and April 6th were read and confirmed.

*The late Dr. C. C. Claremont.*—It was resolved that the Honorary Secretary should send a letter of condolence and sympathy to the widow and family of the late Dr. C. C. Claremont.

*Correspondence.*—Letters expressing regret at inability to attend were read from Drs. Lockhart Stephens, T. Charteris White, and J. T. Leon, the latter enclosing answers to questions in Paper D 15.

*State Insurance, etc.*—The CHAIRMAN introduced the subject, and the questions in Paper D 15 were considered seriatim, and, after due discussion, answers were given from Question 1 to Question 31 *b*, when the meeting was adjourned owing to the late hour.

*Adjourned Meeting.*

At the adjourned meeting, which was held on May 11th, there were present, in addition to those already named, Drs. E. J. Biden and J. Phillips. Dr. Lysander Maybury sent his answers by post. Consideration of the questions was then resumed and answers were given to the remainder. The HONORARY SECRETARY drew attention to the fact that although all the members had been asked to send their answers by post if unable to attend the meeting, only two had done so.

*Matters Referred to Divisions* (SUPPLEMENT, BRITISH MEDICAL JOURNAL, April 22nd).—The Representative of the Division was instructed to support the following motions, notices of which have been received for discussion by the Annual Representative Meeting of the Association in Birmingham: A. Exeter, B. Leigh, *re* fee under Workmen's Compensation Act; Plymouth, all three; South Stafford; Birmingham Central, both; Westminster; and Chelsea. He was further instructed to oppose the motion by the Leigh Division, B., *re* death certification.

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## SOUTH WALES AND MONMOUTHSHIRE BRANCH:

### CARDIFF DIVISION.

THE annual meeting was held at Cardiff on May 17th, 1911, when over seventy members were present.

*Vote of Condolence.*—Dr. EWEN J. MACLEAN, from the chair, proposed a vote of condolence with Mrs. Tatham Thompson on the great loss sustained by the death of her husband. This was carried in silence.

*Minutes.*—The minutes of the last annual meeting were taken as read.

*Election of Officers.*—Officers of the Division were appointed as follows: *Chairman*, Dr. Ewen J. Maclean; *Vice-Chairman*, Dr. E. E. Brierley; *Secretaries*, Drs. Cyril Lewis and W. Courtenay Milward; *Representatives of the Division on Branch Council*, Drs. Burke, Leigh, Milward, D. R. Paterson, Powell, and Treasure; *Representatives of the Division on Branch Contract Practice Committee*, Drs. Leigh, Mackenzie, and Milward; *Members of Executive Committee*, Drs. Biggs, Collins, F. Davies, and Mackenzie; *Representative in Representative Meeting*, Dr. Maclean; *Deputy Representative in Representative Meeting*, Dr. Treasure; *Assessor of Division on Maternity Department of the Queen's Nurses' Institute*, Miss Erie Evans.

*Annual Report.*—The annual report of the Executive was read and adopted.

*National Insurance Bill.*—This bill was also discussed (see SUPPLEMENT, May 27th, p. 301).

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### MONMOUTHSHIRE DIVISION.

THE annual meeting of this Division was held at the Newport and Monmouthshire Hospital on May 26th, 1911. Dr. A. G. LAWRENCE was in the chair. The following members were present: Drs. Greer, Townley, J. L. Thomas, Cowie, Basset, W. D. Steel, Nelis, Acomb, Mills, Elworthy, Crinks, Tonks, Glendinning, E. Y. Steele, Gratte, Greg, Frost, Gordon-Bennett, Mackenzie, F. J. Browne, Armstrong, D. E. Thomas, O. W. Morgan, Connellan, J. D. O'Sullivan (Aberbeeg), Murphy, E. M. Griffiths, Logie, Neville, J. McGinn, Rees Morgan, Buckner, MacCormac, Haslett, Mackay, Ryan, Burpitt, A. H. James, Mitchell, G. H. Martin, Hayles, Hurley, Vines, H. C. Bevan, Lewis, O'Keefe, Mason, N. N. Wade, J. O'Sullivan (Cwm), Daniels, Nolan, Verity, de Gruchy, and S. Hamilton and R. J. Coulter (honorary secretaries).

*Apologies for Non-attendance.*—Letters of apology for inability to attend were received from Drs. Tatham and P. McGinn.

*Confirmation of Minutes.*—The minutes of meetings held on February 24th and April 8th, 1911, were read and confirmed.

*Election of Officers.*—The following were elected officers for the ensuing year: *Chairman*, Dr. H. C. Bevan; *Vice-Chairman*, Dr. A. Garrod Thomas; *Honorary Secretaries*, Drs. R. J. Coulter and S. Hamilton; *Representatives on Branch Council*, Drs. Lawrence, Elworthy, Basset, Cowie, and Haslett; *Executive Committee*, Drs. Crinks, J. L. Thomas, Mulligan, and Gratte; *Representatives on Branch Contract Practice Committee*, Drs. Greer, W. D. Steel, and E. M. Griffiths.

*Installation of New Chairman.*—Dr. Lawrence having vacated the chair in favour of the incoming chairman, Dr. H. C. Bevan, a very hearty vote of thanks to him for his services during his year of office was passed by acclamation.

*Report of Executive Committee.*—The report of the Executive Committee, which showed the Division to be in a flourishing condition, was read and adopted.

*Business of Annual Representative Meeting.*—The Representative was given instructions with regard to the business of the Annual Representative Meeting.

*Dates of Meetings.*—The Executive Committee was empowered to fix the dates of meetings for the ensuing year.

*State Insurance Bill.*—Mr. W. J. GREER proposed and Dr. A. H. HAYLES seconded the following resolution:

> That this meeting of the Monmouthshire Division hereby agrees to decline to undertake the medical work of the State Insurance Bill under the terms as published in the bill and the press.

After discussion, in which Drs. E. Y. STEELE, A. G. LAWRENCE, E. M. GRIFFITHS, ACOMB, GRATTE, RYAN, ELWORTHY, J. L. THOMAS, R. J. COULTER, and the CHAIRMAN took part, the resolution was passed unanimously. It was also decided that copies of the resolution should be sent to the Chancellor of the Exchequer, the members of Parliament for Monmouthshire and the County Borough of Newport, and the London and local press.

*Vote of Thanks.*—A vote of thanks was unanimously passed to the directors of the Newport and Monmouthshire Hospital for allowing meetings of the Division to be held in their board room.

### STIRLING BRANCH.

*Election of Officers.*—The following have been elected officers for the ensuing year: *President*, Lieutenant-Colonel F. J. Greig, R.A.M.C., Stirling; *Vice-President*, G. Clark Stewart, M.B., Falkirk; *Honorary Secretaries*, J. E. Moorhouse, M.D., 6, Melville Terrace, Stirling; G. Gardner, M.D., 2, George Street, Falkirk; *Branch Council*, A. E. Hunter, M.D., C. A. Lawrence, Esq., J. D. O. Wilson, M.D., and W. W. Wood, M.B. *Representative for Representative Meeting*, J. Strachan, M.D., Dollar.

### ULSTER BRANCH:

#### BELFAST DIVISION.

THE annual meeting of the Belfast Division was held in the Medical Institute on Thursday, May 25th, at 8.30 p.m., Dr. J. SIMPSON, Chairman, presiding.

*National Insurance Bill.*—The resolutions which had been passed by a large meeting of the medical practitioners of Ulster were adopted by the Division on the motion of Dr. CALWELL, seconded by Dr. ROBB. They are published in the SUPPLEMENT (June 3rd, p. 348).

*Election of Office-bearers.*—The following office-bearers were elected for the ensuing year: *Chairman*, Dr. W. M. Killen; *Representative*, Mr. H. Hanna; *Honorary Secretary and Treasurer*, Mr. H. Hanna; *Executive Committee*, Drs. A. Fullerton, A. G. Robb, J. C. Rankin, J. Colville, A. Trimble (town); R. Reid, W. Donnan, J. L. Rentoul (country).

*Tea.*—At the close of the meeting tea was provided by the Chairman.

### YORKSHIRE BRANCH:

#### HALIFAX DIVISION.

THE annual meeting of this Division was held at Webster's Café on May 17th, at 8.30 p.m. There was a record attendance of fifty-three medical practitioners, of whom forty-three were members, while, of the ten non-members, six had already made application for membership. In the temporary absence of the Chairman of the Division (Dr. George Hoyle), Dr. MACAULAY was voted to the chair.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Annual Report.*—This was read and approved.

*Election of Officers.*—The election of officers was then proceeded with, and the following officers were elected: *Chairman*, D. J. Macaulay, M.D.; *Vice-Chairman*, J. Crossley Wright, M.B.; *Honorary Secretary and Treasurer*, J. F. Hodgson, M.D.; *Representative for Representative Meeting*, Arthur Drury, M.B.; *Representative on Branch Council*, Arthur Drury, M.B.; *Executive Committee*, the above, with the addition of W. Perrin Brown, Edward Ellis, M.D., Geo. Hoyle, M.D., Priestley Leech, M.D., James Marshall, M.B., Arthur Robinson.

*Royal Halifax Infirmary.*—A letter was read from the Honorary Secretaries of this institution. This letter was in answer to one, drafted by the Executive Committee in conjunction with the acting honorary staff of the Royal Halifax Infirmary, drawing the attention of the members of the Board to: (1) The undesirability of house-surgeons commencing private practice in the town and district immediately after resigning their posts at the Royal Halifax Infirmary. (2) To certain forms of hospital abuse. Reasons were given for the complaints, and certain suggestions were made. The latter were favourably considered by the Board, with the result that certain forms of abuse will be minimized, and house-surgeons will be debarred from commencing practice on their own account within a radius of three miles from the infirmary for two years after terminating their engagement with the institution.

*National Insurance Bill.*—The National Insurance Bill was then discussed (see SUPPLEMENT, May 27th, p. 299).

*Professional Defence.*—Particulars were given of the appeal issued by the Association on May 1st, and members were urged to contribute what they could. A sum was raised at the meeting for the Central Emergency Fund.

#### HARROGATE DIVISION.

THE annual meeting of this Division was held on May 18th, at the Hotel Majestic, at 9 p.m. Dr. CRAWFORD WATSON was in the chair, and there were present Drs. Black, Bain, Grange, Garrad, Wilson, Ward, N. Watson, Pringle, Hinsley Walker, Mantle, Mouillot, Hobson, Edgecombe, Ozanne, Morris, Williams, Johns, D. Brown, Frankling, Solly, and Gibson.

*Confirmation of Minutes.*—The minutes were read and confirmed.

*Election of Officers.*—The officers for the ensuing year were elected: *Chairman*, W. D'Oyley Grange, M.D.; *Vice-Chairman*, F. N. Ozanne; *Honorary Secretary*, Chas. Gibson, M.D.; *Representative for Representative Meeting*, Chas. Gibson; *Representative on Branch Council*, E. Solly, M.B.; *Executive Committee*, Drs. Chamberlain, Collier, Daggett, Garrad, Holroyd, Lever, Mackay, Rutherford, Solly, Bertram Watson, and Crawford Watson.

*Referendum.* — The following resolutions were passed:

That the Postal Referendum should be obtainable by the Council on the requisition of 30 members.

That the Referendum be by postal vote, the obtaining of it by requisition of one-tenth.

*Council.*—The following resolution was passed:

That the members of the Council who may be elected by the Representative Body be not more than one-third of the Council.

*Harrogate Division and Medical Society.*—It was considered that the Harrogate Division and Medical Society should be as before.

*Ethical Rules.*—The ethical rules were regarded as satisfactory.

*Report on Metric System.*—The report on the adoption of the metric system was received.

*Dinner.*—Before the meeting, ten of the members dined together.

# Association Notices.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of the Bath and Bristol Branch will be held at Bristol University on Wednesday, June 14th, at 5 o'clock, Dr. J. M. Rattray in the chair. Business: "Annual."—NEWMAN NEILD (Clifton), W. M. BEAUMONT (Bath), Honorary Secretaries, Clifton.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held on June 30th, at 6 p.m., in the Beau Nash's House, Sawclose, Bath. Business: Annual.—D. LESLIE BEATH, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of the Branch will be held at the Medical Institute, Edmund Street, on Thursday, June 15th, at 3.30 p.m.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION. — The annual meeting of the Division will be held on June 14th at the Medical Institute, at 4 p.m., for the election of officers.—A. W. NUTHALL, W. T. LYDALL, Honorary Secretaries.

CAMBRIDGE AND HUNTINGDON BRANCH.—Preliminary Notice.—The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots on Wednesday, July 12th. Members having communications to make are requested to write to the Honorary Secretary before June 15th.—H. B. RODERICK, Honorary Secretary, 19, Trumpington Street, Cambridge.

CONNAUGHT BRANCH: SOUTH CONNAUGHT DIVISION.—Owing to clashing of dates with the meeting of the College of Surgeons, the meeting summoned for June 8th is postponed to Tuesday, June 13th, at 5 p.m., at Hayden's Hotel, Ballinasloe. It is

hoped to secure a larger attendance thereby.—JOHN MILLS, Asylum, Ballinasloe.

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EAST ANGLIAN BRANCH.—The annual meeting will be held at Norwich on Thursday, July 13th.—B. H. NICHOLSON, Honorary Secretary, Colchester.

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EAST YORKS AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held on Thursday, June 15th, in the Etherington Ward at the Hull Royal Infirmary.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

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EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch will be held in the Peebles "Hydropathic" on Saturday, June 24th, at 12 noon. Agenda: (1) Minutes. (2) Apologies for absence. (3) Election of office-bearers for the year 1911–12. (4) Treasurer's financial statement. (5) Report of Branch Council. (6) Any other competent business. The meeting will then adjourn for lunch at 1 o'clock, after which, conjointly with members of the Border Counties Branch, a discussion on "The Institutional Hydropathic Treatment Compared with Spa Treatment" will be introduced by Dr. Luke (Peebles). An opportunity will be given to the members to examine the system of baths, etc. Lunch and tea will be provided at an inclusive rate of 2s. 6d. per head by Mr. Thiem. A train leaves the Waverley Station at 10.32 a.m.; return fare, 2s. 7d.—MICHAEL DEWAR, E. SCOTT CARMICHAEL, Honorary Secretaries.

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FIFE BRANCH.—The ninth annual meeting will be held in the Station Hotel, Kirkcaldy, on Thursday, June 15th, at 3 p.m., for the transaction of the ordinary annual business, and for further consideration of the National Insurance Bill. Non-members have been invited to the meeting to take part in the latter.—R. BALFOUR GRAHAM, Honorary Secretary.

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GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Thursday, June 15th, at 4 p.m.—W. D. MACFARLANE jun., M.B., Honorary Secretary.

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LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at the Board Room of the Altrincham Hospital, at 4.45 p.m., on Wednesday, June 21st, and not on June 1st, as previously stated. Tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1911–12. Every member is eligible for every office, and may be proposed by any member. Nominations, in writing and signed, may be sent to the Honorary Secretary at any time before June 19th. Dinner at the Brooklands Hotel, 7.30 p.m. Ladies invited. Names must be given to the Honorary Secretary by Monday, June 19th, in order that he may have time to cancel the arrangement (so far as the ladies are concerned) if there are not sufficient acceptances—say, five or six at least. The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 19th. (If any alteration of programme becomes necessary, it will be advertised in the SUPPLEMENT, which members should consult regularly.) *Agenda:* (1) Minutes of Fifty-second General Meeting (Northwich). (2) Minutes of Sixty-eighth Committee Meeting. (3) Apologies for absence. (4) Election of Officers: (*a*) Chairman for 1911–12, and his induction by the retiring Chairman. (*b*) Elect other Officers: Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, Committee, Associate Members. (5) Annual Report of Executive Committee. (6) Alteration of Rules [Rules 8, 12 (*b*)]. (7) Question of extending invitation for Branch Meeting, 1912. (8) Report of Representatives. (9) Matters Referred to Divisions (SUPPLEMENTS from April 22nd to date). (10) Question of Associated Fund for Professional Defence. (11) Division Fund for Medical Charities. (12) Any other urgent business.—H. G. COOPER, Honorary Secretary, "Foye," Altrincham.

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METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

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METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of the Division will be held at the Town Hall, Kensington, on Friday, June 16th, at 4.30 p.m. Immediately after the ordinary business of the annual meeting (annual report, election of officers, committee, etc.) the meeting will consider the action taken by the Special Representative Meeting just held with regard to the Insurance Bill. A detailed notice will be sent to members of the Division later.—H. BECKETT OVERY. Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

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MIDLAND BRANCH.—The meeting of the Branch Council will be held at the Derbyshire Royal Infirmary on June 15th, at 2 p.m., and the annual meeting of the Branch on the same day at 3 p.m. The President-elect, Dr. E. Collier Green, will open a discussion on the National Insurance Bill.—F. L. A. GREAVES, Derby.

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NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held at Elgin on Saturday, June 10th. The meeting is to be held jointly with the Aberdeen Branch. — J. MUNRO MOIR, M.D., Honorary Secretary.

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PERTHSHIRE BRANCH.—The summer meeting will be held in the Golf Club House, Moncreiffe Island, Perth, this day, Friday, June 9th, at 3.15 p.m. Council meeting at 3 p.m. Agenda: (1) Read Minutes. (2) Election of Council. (3) Election of Branch Representative. (4) Report in regard to Red Cross V.A. Classes. (5) Report of Representative in regard to National Insurance Bill. (6) Any other business. The annual golf match against Dundee Branch will take place shortly after 4 o'clock.—WILLIAM A. TAYLOR, ALEX. TROTTER, Joint Honorary Secretaries.

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SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held in the Council Chamber, Town Hall, Clonmel, on Wednesday, June 21st, at 12 o'clock noon. Agenda: (1) Minutes. (2) Letters of apology. (3) Correspondence. (4) Resolutions. (5) State Insurance Bill. (6) Any other business.

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SOUTH-EASTERN BRANCH: REIGATE DIVISION.—The annual meeting of the Reigate Division will be held at Laker's Hotel, Redhill, on Thursday, June 15th, at 5.15 p.m., Dr. Rawlings in the chair. Agenda: (1) Minutes of last meeting. (2) Election of officers. (3) To consider the report of the Special Representative Meeting on the National Insurance Bill. (4) To consider the Report of the Council on the Referendum, and to support the action of the Exeter Division on this question. (5) Any other business. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, and all medical practitioners will be welcomed though not members.—JOHN G. OGLE, Honorary Secretary, Tower House, Reigate.

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SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—The annual meeting will be held at the Royal Bucks Hospital on Wednesday, June 14th, at 3 p.m. Agenda: (1) To receive and approve Annual Report and Balance Sheet. (2) To elect the officers of the Division—Chairman, Vice-Chairman, Secretary and Treasurer, Representative and Deputy, Committee, and Branch Council Representatives. (3) Address by Mr. G. B. Mower White, Surgeon to the Great Northern Central Hospital, on Injuries of the Stomach and Intestines. (4) Report by Mr. Bradbrook, the Representative of the Division on the Representative Body of the Special Meeting in London, and the passing of any necessary resolutions. (5) The Referendum or Postal Vote. (6) Consideration of new Ethical Rules. (7) Any other business. Tea will be provided.—ARTHUR E. LARKING, Honorary Secretary.

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SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of the Division will be held on Tuesday, June 13th, in the Board Room of the Northampton General Hospital, at 2.30 p.m. The meeting will be preceded by luncheon at Franklin's Restaurant, at 1.30 p.m. Those wishing to attend the luncheon should let the Honorary Secretary know two days beforehand. Business: (1) Minutes of preceding meeting. (2) Annual report. (3) Election of officers. (4) Report from Dr. Baxter on the Special Representative Meeting to consider the Government's Invalidity Assurance Bill. (5) Discussion. If time permits, some clinical cases will be shown.—P. S. HICHENS, Honorary Secretary, 47, Sheep Street, Northampton.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of the Branch will be held at Cardiff on Thursday, June 15th.—ALFRED HANSON, Honorary Secretary, Swansea.

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YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the General Infirmary, Leeds, on Wednesday, June 28th. The Council will meet at 3 o'clock. General meeting at 4 o'clock. Agenda: Election of officers; report of Council; President's address. Annual dinner at 6.30 p.m. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate once with ADOLPH BRONNER, Honorary Secretary, Bradford.

# MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(FEBRUARY 25TH TO MAY 15TH, 1911)

## BY THE COUNCIL.

Andrew, George, M.D., F.R.C.S., L.R.C.P.L., Villa Porte Rouge, Monte Carlo
Arthur, Conrad James, L.R.C.P., L.R.C.P.E., L.F.S. and P.G., M.D.Brux., St. Vincent, West Indies
Berry, John Parton, Surgeon R.N., M.B., Ch B.Edin.
Bright, Richard Charles, M.R.C.S., L.R.C.P., M.D., Montpelier, 11bis, Rue Hermann, Cannes
Burke, Gerald Tyler, Lieutenant I.M.S., M.B., B.S.Lond., M R.C.S., L.R C.P.
Cremona, Paul Francis, M.B., Ch.B.Edin., St. Vincent, West Indies
Davidson, Arthur Robertson, Surgeon R.N., M.B., Ch.B.
Durrant, Cyril Hartley, M.B., Ch.B.Edin., Kingstown, St. Vincent, West Indies
Fairley, Archibald, Surgeon R.N., M.B., Ch.B.
Gill, Clifford Allchin, Captain I.M.S., M.R.C.S., L.R.C.P.
Kureishi, Mozaffer Din Ahmed, Lieutenant I.M.S., M.R.C.S., L.R.C.P.Lond.
Lane, John William, Lieutenant R.A.M.C., M.D., B.Ch., B.A.O.
MacArthur, Donald Hector Colin, Lieutenant R.A.M.C., M.B., Ch.B.
McCutcheon, James, Surgeon R.N., M.B., B.A., B.Ch., B.A.O.T.C.Dub., L.M.Dub.
MacDonald, John, Staff Surgeon R.N., M.D.
Monod, Gustave Jean Philippe, M D.Paris, M.R.C.S., L.R C.P.Lond., Grasse, Alpes Maritimes, France
Munro, David, Captain I.M.S., M.A.St. And., M.B., Ch.B.
Nauth, Bhola, Major I.M.S., L.M.S., L.S.A., M.R.C.S.
Nimmo, Wilfrid Cowan, Captain R.A.M.C., M.R.C.S , L.R.C.P.Lond.
Rowan-Robinson, Leslie Charles, Surgeon R.N., M.B., Ch.B.Edin.
Startin, John, Lieutenant R.A.M.C , M.R.C.S. Eng., L R.C.P.Lond.

## BY BRANCH COUNCILS.

### Aberdeen Branch.

Garden, David S., M.B., Forgue
Lovett, Thomas, M.B., Sunnyside, Ollaberry, Shetland
Thomson, H. J., M.B., Burnside, near Portgordon

### Bath and Bristol Branch.

Chitty, Hubert, M.S., Royal Infirmary, Bristol
Clarke, D. S., M.B., 336, Cloudshill Road, St. George, Bristol
Cox, D. M., Esq., Clifton
Elliott, W. H. A., M.B., 42, Arley Hill, Bristol
Fenton, W. R., M.B., 1, Devonshire Buildings, Bath
Harland, G. B., M.B., Royal Infirmary, Bristol
Hereford, C. F. A., Esq., The Dispensary, Kingsdown, Bristol
Kerfoot, S. J., Esq., East Street, Bedminster, Bristol
Kingston, S. H., Esq., Royal Infirmary, Bristol
McKenzie, William, M.B., 101, Coronation Road, Bristol
Malherb, F. E., M.B., General Hospital, Bristol
Mugliston, H. B., Esq., Coo-ee, Brent Knoll
Reynolds, R., Esq., Frenchay House, Eastville, Bristol
Salisbury, H. K., Esq., Clifton Dispensary, Bristol
Short, A. R., F.R.C.S., 2, Westbourne Place, Clifton
Smith, J. L. Murray, M.B., 86, Coronation Road, Bristol
Staniland, M. F., Esq., 255, Stapleton Road, Bristol
Thomas, R. E., M.B., Royal Infirmary, Bristol
Trow, A. V., M.B., 17, Market Place, Devizes
Tudehope, C. G., M.B., General Hospital, Bristol
Wallace, J. W., 1, Greville Road, Southville, Bristol

### Birmingham Branch.

Bracey, H. C. H., M.B., 156, Bristol Road, Edgbaston
Brown, G. Stiell, M.B., City Infirmary, Birmingham
Cargin, H. M., M.B., City Hospital, Birmingham
Nash, G. E., Esq., Ashted House, Ashted, Birmingham
Peirce, J. A. L., Esq., The Hall, Langley Green
Rattrie, A. W., M.B., Guest Hospital, Dudley

### Bombay Branch.

Kabraji, S. K., Esq., Inverarity Street, Camp Karachi
Miranda, I. M., Esq., Margao, Goa
Nicholson, J. P., Esq., 462, Abdul Rehman Street, Bombay
Writer, S. N., Esq., Connaught Road, Parel, Bombay

### Border Branch, South Africa.

Fulss, F. C. J., M.B., Aliwal North
Pakes, W. C. C., Esq., Sydenham, O.F.S.
Thornton, A. J. H., M.D., Kokstad, East Griqualand
Van Coller, P. J., Esq., Molteno
Wilhelm, A. R. F., Esq., Barkly East

### Border Counties Branch.

Garrow, R. P., M.B., Fleming Square, Maryport
Hendrie, A. S., M.B., Auldon Bank, Dumfries
McMurrich, M. T. D., M.B., Beechfield, Johnstone Bridge, Lockerbie

### Burma Branch.

Bharadwaja, C., F.R.C.S.Edin., 49, Fraser Street, Rangoon

### Cape of Good Hope—Eastern Province Branch.

Foggo, C. G., Esq., Hibernia, Dist. Senekal, O.F.S.
Reid, Wm. Ewen, M.B., Albany General Hospital, Grahamstown

### Cape of Good Hope—Western Province Branch.

Geddes, Alexander M., Esq., Claremont
Hoffman, C. B., Esq., Nooitgedacht, Paarl
Luckhoff, James, M.D., Rhodes Building, Capetown
Luyt, G J., M.B., Worcester
Steyn, E. E., M.B., Woodstock

### Colombo, Ceylon, Branch.

Curr, Isabel H., L.R.C.P., McLeod Hospital, Inuvil, Jaffna
O'Connell, J. M., Esq., Mannar
Perera, W. F. H., Esq., Ingiriya
Spittel, R. L., F.R.C.S., The Tent, Flower Road, Colombo

### East Anglian Branch.

Brewster, R., Esq., Essex County Hospital, Colchester
Brunwin, A. D., M.D., Haverings, Rayne, Braintree
Chouler, H. G., Esq., Essex County Hospital, Colchester
Cook, W. W., Esq., The Abbey, St. Faith's, Norwich
Doble, F. C., Esq., The Firs, Reedham
Hughes, B. M., Esq., Wymondham
Lewis, F. W., Esq., 19, Esplanade, Lowestoft
Lillingston, C., M.B., The Croft, Gorleston-on-Sea
Linton, F. T. C., M.B., Isolation Hospital, Norwich
Mitchell, H. V., Esq., Norfolk House, Clacton-on-Sea
Odhams, G. F., M.D., St. Giles's Plain, Norwich
Rhodes, A., Esq., Essex County Hospital, Colchester
Ross, P. A., Esq., Sudbury, Westcliff-on-Sea
Turner, J. W., Esq., 25, Orsett Road, Grays
White, H. H., M.D., Bangor House, Blofield, Norwich
Wilson, J. H., Esq., Royston House, West Bergholt, Colchester

### Edinburgh Branch.

Darling, J. M., M.B., 116, Marchmont Road, Edinburgh
Darling, Wm., M.B., 2, Warrender Park Terrace, Edinburgh
Fowler, W. H., M.B., 21, Walker Street, Edinburgh
Glass, A. G., M.D., Melrose
Hewat, A. F., M.B., 13, Eton Terrace, Edinburgh
Horsburgh, J. H., M.B., 2, Bridge Street, Musselburgh
McMorland, R. P., M.B., 19, Merchiston Gardens, Edinburgh
MacRobert, P. C., M.D., Runic Cross, Inverleithen
Menzies, Mary J., M.B., 1, Beaufort Road, Edinburgh
Mitchell, A. P., M.D., 25, Montrose Terrace, Edinburgh
Urquhart, G. H., Esq , St. Helens, Eskbank

### Fife Branch.

Bremner, A., M.B., Kennaquhair, Kirkcaldy
Crawford, R., M.B., Redthorpe, Kirkcaldy
Greig, J. Isdale, M.B., 23, Townsend Place, Kirkcaldy
Sinclair, F. McEwen, M.B., Crosshill Cottage, Glencraig
Wallace, W. T. M., M.B., Pathhead, Kirkcaldy
Zuill, R., M.B., Carnock, Dunfermline

### Gibraltar Branch.

Rooney, Staff Surgeon J. J. H., R.N., R.N. Hospital, Gibraltar

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# British Medical Association.

## SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

### SCHOLARSHIPS.

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1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1911. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

### GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

*Applications.*

Applications for Scholarships and Grants for the year 1911–12 must be made not later than Tuesday, June 20th, 1911, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.,
*March 30th, 1911.*

# National Insurance.

## THE SPECIAL REPRESENTATIVE MEETING.

MUCH was expected from the meeting of the Representatives of the Divisions of the British Medical Association held last week, and we believe that the profession will not have been disappointed. After prolonged discussion, during which it seemed that every possible point was raised, and every point of view given a patient hearing, and after hearing the Chancellor of the Exchequer, the meeting adopted a resolution to the effect that while it approved the main objects of the bill, and was desirous of co-operating in their attainment, the proposals of the Government were unsatisfactory, and that the suggestions with regard to medical benefits contained in the bill should not be proceeded with until satisfactory terms had been arranged with the medical profession. During the discussion certain definite propositions emerged, and have been embodied in the circular letter or manifesto which the British Medical Association has issued to all registered medical practitioners. These propositions, which are set out in full below, may be briefly stated as follows: That medical benefits shall be administered through the proposed Health Committees and not through the friendly societies, a proposition with which Mr. Lloyd George declared himself heartily in sympathy; that there shall be an income limit of £2 a week, with free choice of doctor subject to his consent; that the remuneration shall be adequate in the opinion of the profession, having regard to the duties to be performed and the conditions of service, the method of payment to be determined in each district by the preference of the majority of the medical men; and that there shall be adequate representation of the medical profession on the administrative bodies, central and local, to be set up for the working of the scheme. This policy will not in all points satisfy every member of the profession, but this was not the task the Representative Body was called upon to accomplish. It was asked to find a common denominator. It was asked to find a voice for the aspirations and the criticisms of the profession, and if its decisions take the form mainly of criticism it is because in dealing with a measure before Parliament it is only by criticism, by suggesting and demanding amendments, that the aspiration for a better state of things can find expression.

It was commonly said by the wise men of the clubs and newspaper offices, when it became known on Wednesday evening that Mr. Lloyd George had accepted an invitation to confer with the Representative Meeting next day, that he would nobble the profession. We do not defend the expression, we merely report it, and entirely acquit the Chancellor of the Exchequer of any wish to prevail, save by the soundness of his arguments. He was received in a most cordial way, and the self-restraint which the meeting imposed on itself, even when it most strongly dissented from the Chancellor's remarks, might perhaps, to a less keen observer, have been interpreted as weakness or even as acquiescence. That it was not so is proved by the resolutions subsequently passed. The meeting was evidently resolved to give the Chancellor the fullest possible opportunity of defending his bill, but there is no doubt that the verdict of the meeting, on his attempt to prove that the bill would be a good thing for the profession, was unanimously adverse. Indeed, we should hardly be going too far in saying that the impression that remained with the meeting was one of the most intense dissatisfaction. There was, in fact, a determination to carry on to the utmost extreme the opposition to several provisions that are in the bill and to demand the insertion of other provisions, which the meeting was not content to leave to be determined by regulations after the bill had passed.

The profession desires to retain its independence to serve the welfare of the public and of every individual in his or her hour of need, to advance the science and art of medicine, the art of preventing disease and of ministering to mankind in the chances and changes of this mortal life. It will not permit the shackles of servitude to the friendly societies to be riveted upon it. It acquiesced in the system of attending artisans for remuneration which was a mere acknowledgement of an unfulfilled obligation, on the plea of humanity, and at a time when the wages of artisans were admittedly nearly as inadequate to their needs as the remuneration paid to their doctors was incommensurate with the services actually rendered. The concession was converted into a system, and unconscionably extended and abused. There have been here and there some bright exceptions, but as a rule, and speaking of the country as a whole, the friendly societies and clubs have shown themselves harsh, inconsiderate, and incompetent, in their dealings with the medical profession and the administration of medical benefits. The profession is now asked to permit this system to be stereotyped and indefinitely extended.

There should, however, be no mistake with regard to the attitude of the medical profession towards friendly societies. It has no general hostility to the friendly societies as such, but it is definitely of opinion that the administration of medical benefits should be placed in the hands of the local Health Committees. The profession does not suggest that the administration of sickness and disablement benefits should be taken out of the hands of the societies, for it appreciates the considerations which have led the Chancellor of the Exchequer to adopt the principle of relying upon the insured themselves to administer their sickness and disablement benefits through societies now existing or to be formed in the future rather than to rely upon a bureaucratic type of administration.

Again, with regard to the limit of income, it should be noted that it is intended to apply only in respect to the medical attendance and treatment, for which arrangements would be made under the scheme. It is not suggested that it should affect the other proposed benefits. The demand of the medical profession is that the arrangements for medical attendance on those above the £2 income limit should be left entirely for private adjustment between the individual patient and the individual doctor. It was pointed out by the Medical Secretary in his address to the Medico-Legal Society that the profession as a body dislikes fundamentally the element of State interference between doctor and patient. It recognizes that it may be unavoidable for the fulfilment of necessary public objects as regards persons below the £2 income

limit. But it demands, and considers it a reasonable demand, that this interference should not be forced upon it by the State beyond the limit that is necessary for the fulfilment of the public objects of the scheme.

When the injustice of compelling the profession to accept all manual labourers at a flat rate of four or five shillings a year was put to him, Mr. Lloyd George took the lowest possible ground. He argued it not as a matter of principle, but purely as a matter of expediency. He did not say that the House of Commons would not recognize the justice of the contention, but merely that no member would venture to propose an amendment designed to prevent the wealthy working class family from sponging on the medical man. He said, also, that the fluctuations in the wages of manual labourers were so great that the proposal of an income limit was in their case impracticable. It is an illuminating comment on this line of argument to recall that the Inland Revenue finds it possible to collect income tax from manual labourers in receipt of an annual income in excess of the income-tax limit, and it is surely not beyond the wit of the Treasury to devise a method of utilizing the information in the possession of the Income Tax Commissioners for checking the exploitation of the medical profession.

When we turn to the provisions of the bill affecting voluntary insurers it is seen to involve and imply so complete a failure to understand the relations of medicine to the national life, that it is probable that even yet the majority of the medical profession do not fully appreciate the degradation which it is proposed to bring about. In sociology, as in other branches of biology, change is not necessarily upwards. Nature affords many examples of degeneration—of animals once free becoming parasites, of plants once sturdy becoming stunted.

According to the bill as it stands, "all persons who either are engaged in some regular occupation and are wholly or mainly dependent for their livelihood on the earnings derived from that occupation, or have been employed contributors for a period of five years or upwards," may become voluntary insurers, and any person who has been a voluntary insurer for five years and thereafter ceases to possess the qualification which entitled him to be a voluntary insurer, may nevertheless continue to be insured. That is to say, any man who, having been engaged in business, retires on his savings will be entitled to remain a voluntary insurer. Mr. Lloyd George told the Representative Meeting that he was "quite prepared to consider here," that is, in the case of voluntary insurers, "an income limit, so that the man who is earning his £200, £300, or £400 a year shall not be entitled to claim medical services at 6s., 7s., or 8s. a year, or whatever it is." This is a matter upon which the profession will insist; it will not, we believe, be content to leave it for decision afterwards by Administrative Order drawn up and issued by the Insurance Board. It will insist that the principle shall be embodied in the bill.

The Chancellor of the Exchequer seems unable to escape from the idea that the medical profession wants to drive an unjust or unconscionable bargain with the State, to get more than that to which it is entitled. He betrayed this very clearly in his speech on the first reading, when he spoke of the bill as "not a doctors' endowment bill." But the bill is not a doctor's bill at all. The doctors never asked the State to meddle between them and their patients. The profession would have welcomed a scheme for providing medical benefits on equitable terms for those persons to whom Mr. Lloyd George referred as the small wage earners, and it would have possessed its soul in patience until by the application of economic principles and the perfecting of its organization, it had ended or mended the club system. The medical profession has been doing its duty by the nation at least as well as any other profession in any country. It has enormously increased its efficiency, it has raised the standard of education of candidates for admission to its ranks, and it has responded to every call upon its charity and benevolence. It really asked of the State nothing but to be let alone to work out its own destiny. It has not asked to be endowed, but if the State insists on forcing endowment upon it, it has a right to insist that the State shall not take away with one hand ten times what it gives with the other. Doctors do not ask to be endowed to the extent of four or five shillings a year for undertaking to give medical attendance to the Governor of the Bank of England.

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The following is the text of the circular letter issued by the British Medical Association. It bears date June 3rd, 1911:

NATIONAL INSURANCE BILL AND THE MEDICAL PROFESSION.

Dear Sir,

The National Insurance Bill now before Parliament vitally affects the medical profession. There are few, if any, individual medical practitioners whose present position and future prospects will not be gravely affected by the provisions of the bill if enacted in its present form.

The numerous meetings which have already been held throughout the country show how widely the profession realizes the position, and realizes also that only by the unanimous acceptance of a definite policy, and by united action to carry that policy into effect, can the interests of the medical profession be protected in this vital matter.

To impress the Government, to impress Parliament, to impress public opinion with the justice of our case, individual preferences must be sunk, and the common aim made paramount.

Foreseeing the crisis with which the profession was about to be faced, the British Medical Asociation has made during the last twelve months a most careful study of the general question of sickness insurance, and has taken every means in its power to ascertain the opinion, not only of its own members, but of all members of the profession thereon. Meetings have been held in every part of the United Kingdom for the discussion of the subject, and the opinions voiced by these meetings have been brought to a focus in a Special Representative Meeting attended by delegates from every part of the country which was held in London on May 31st and June 1st, 1911.

Giving effect to the instructions which they had received from their respective constituents, and after discussing the Insurance Bill with the Chancellor of the Exchequer himself, the Representatives unanimously arrived at a statement of policy upon the many matters which require the consideration of the profession. The chief points upon which the profession should insist were stated by them in the following terms:

1. An income limit of £2 a week for those entitled to medical benefit.
2. Free choice of doctor by patient, subject to consent of doctor to act.
3. Medical and maternity benefits to be administered by local Health Committees, and not by friendly societies.
4. The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee.
5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.
6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

The Representative Body passed the following resolution:

That, whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting

that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

The next step is to demonstrate to the country the firm determination of all members of the medical profession to seize the present opportunity of freeing themselves from existing evils, especially those associated with contract practice, and of protecting themselves and their successors against the perpetuation and extension of such abuses.

That this may be done, every member of the medical profession is urged to give his adhesion to the above national professional programme, and to assist in every way in the steps that are being taken to press it upon the Government, Parliament, and the community in general.

You will be communicated with in due course by the local Secretary of the Association as to how you can best help in furthering the interests of the profession in this matter.

In the meantime, it has been thought right to inform members of the profession at once of what is being done for the protection of their interests, and I trust to receive at the earliest possible date, on the enclosed postcard, an assurance of your support.

I am,
Yours faithfully,
J. SMITH WHITAKER,
Medical Secretary.

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[POST CARD.]

*National Insurance Bill.*

Sir,

I am in favour of the Policy of the Association and will support it.

Yours faithfully,

(Name).....

(Address).....

**The post card is to be returned to the**

Medical Secretary,
British Medical Association,
429, Strand,
London, W.C.

**If any member of the profession in Great Britain or Ireland, whether a member of the Association or not, has not received a copy of the above circular letter and post card by the time this copy of the JOURNAL is in his hands, he is requested to communicate with the Medical Secretary as above.**

## THE SECOND READING DEBATE.

THE Second Reading debate on the National Insurance Bill occupied three days, and from the full report published in these pages last week it will be seen that the views of the medical profession and its objections to many features of the bill, as they affect medical benefits, were brought to the notice of the House. Mr. H. W. Forster expressed the opinion, in view of the manner in which the bill would extend far beyond the present members of friendly societies, that it was not fair to ask the doctors to go on under the same conditions as at present either as to employment or as to pay. He spoke in favour of placing the administration of medical benefits in the hands of the local Health Committees. Dr. Esmonde, in criticizing the medical provisions of the bill, pointed out that the Chancellor of the Exchequer was asking the medical profession to underwrite an insurance which he, with all his millions at his back, would not undertake. It was not fair or right to make this demand without at the same time allowing the medical profession to fix the premium which should be paid. Sir R. Finlay said that if the measure were to operate as a medical "disendowment bill," it would be calamitous in its effects not merely upon the profession but upon the intended beneficiaries. The bill proposed to continue and extend the club system, a system which did not work satisfactorily, and to pay a figure which would not give satisfaction to the profession, a policy which must end in its deterioration. Mr. Locker Lampson, who also dealt with the medical question, asked for the definition of medical benefits, and in particular whether the sum set aside was to cover fees for special consultations, operations at home, and institution treatment. Dr. Addison pointed out that the medical profession stood in some respects in a very different position from any other party affected by the bill, and in the course of an admirable speech indicated the main objections of the medical profession to the bill. Lord Alexander Thynne, who also spoke on this part of the subject, stated very clearly the objections to the capitation system, and pointed out that its extension to include non-selected lives rendered all the objections to it more valid. Mr. Austen Chamberlain criticized many details of the bill, and, on Mr. Lloyd George objecting that the second reading debate was on the principle of the bill, Mr. Chamberlain pointed out that there would be great difficulty in trying to amend the bill in Committee, since it would be impossible to raise a great many new points without imposing extra charges on the contributor or the State.

The Chancellor of the Exchequer, who followed, dealt largely with the medical question, but failed, we think, to do justice to the profession in many respects, and in particular when he said that "they" (the doctors) "had held a great demonstration to denounce something that was not in the bill." If he had said the doctors demanded something that was not in the bill he would have been more nearly correct, for it is the faults of omission quite as much as faults of commission that the profession has denounced, and if anything not in the bill had been denounced, the Chancellor has himself to blame for, as it were, interleaving the bill with things which are not in it. Take, for instance, the question of capitation payments. He said that Clause 14 "did not lay down that payment must be by capitation grant"—a statement which, though accurate in the letter, is misleading in the spirit. Except in the case of Ireland, where a capitation system for medical benefit for deposit contributors is distinctly provided in the bill (Clause 59, 7 a, b), and except, perhaps, for the provision in Clause 32, 1 e, which refers to deposit contributors, there is nothing in the bill that necessarily involves a capitation system for the payment of medical men. The bill simply leaves the method of payment vague and unsettled. But will Mr. Lloyd George deny for a moment that he himself, the proposer of the bill, who will have the working of it very largely under his control, has distinctly and definitely given the profession to understand that the capitation system will, in fact, be involved unless the profession denounces it and absolutely refuses to accept it? It is little short of an attempt to snatch a verbal victory to say that the capitation system which has been denounced is not in the bill. Nothing can possibly be plainer than the fact that it is definitely intended, as far as the Chancellor can decide it, to fix capitation fees in the regulations under the bill, and in that way to impose the capitation system on the profession. We should be glad if the Chancellor would correct this conclusion if it be erroneous, and not take refuge in the obvious fact that Clause 14 does not lay down that payment must be by capitation grant. We prefer to face obvious certainties rather han be deluded by false hopes.

Again, he said the doctors "objected to the income limit of the insured persons." Here again it would be a fairer statement of the facts to say that what the profession objects to is the general absence of income limit for medical benefit, except the single provision, which is itself objected to, of a limit of £160 for persons employed "otherwise than by way of manual labour and at a regular salary." The income limit demanded for medical benefit by the Representative Meeting is £2 a week, or, to put the matter very plainly, it is not proposed to give medical attendance at any rates that the Treasury is likely to sanction to any of the persons, numbering, probably, several millions, who are earning on an average over £2 a week. The only point in respect of this matter on which the profession does not speak altogether with one voice is that many hold that this income limit is too high. The profession knows from practical experience that, with the rarest exceptions, persons earning more than £2 a week can well afford to pay—and do, as a rule, actually pay—their medical bills in a satisfactory way.

The Chancellor of the Exchequer found fault with the statement, which may have been made, that under the bill the profession would be "placed under the heel of the friendly societies," and tried to show how the bill provides protection against the friendly societies. On this it may be said that though the profession may accept the intention, it so thoroughly distrusts the efficacy of the provisions that it absolutely refuses to take the risk of being exploited by the friendly societies. It is indeed difficult to see what advantage can accrue to the societies themselves, much less to the general health of the community, by allowing the societies to meddle in any way with medical arrangements, except so far as it is necessary for them to be in a position to protect the interests of their members, and that they could very well do by their representatives on the local Health Committees. As a matter of fact, the societies would be over rather than under represented on these committees, and if the committees are to do much for the health of the community, a larger proportion of medical representatives is needed. The Chancellor said to the Representative Meeting, "I don't believe you will ever get a satisfactory medical service until you transfer it to the local Health Committees." He even went so far as to say that "the Government are entirely with you on this." If this is the case, why cannot Mr. Lloyd George himself propose it in Parliament?

Again, in his speech on the second reading debate, he quoted the first paragraph of Clause 14, and said that it "of course" included free choice of doctors. He evidently gives a very wide meaning to the word "included." So far as England, Wales, and Scotland are concerned, the bill nowhere either mentions or implies anything whatever about free choice of doctor. It neither favours nor negatives the idea. The utmost that can be said is that there is nothing in the bill to prevent the possibility of obtaining free choice of doctor, but this is a very different thing from saying that Clause 14 includes free choice of doctor. With regard to Ireland, free choice of doctor for deposit contributors is distinctly denied, as these persons are to receive medical attendance from the medical officer of health of their dispensary district at a capitation rate (Clause 59, 7, a, b). It is by no means sufficient that the Chancellor has expressed himself as personally in favour of a panel of doctors. Such a statement affords no guarantee that the insured will be able to choose any reputable practitioner of their district who is willing to attend them. The absence of a definite provision in the bill leaves it open to the approved societies and Health Committees to select a few practitioners in each district to the exclusion of the rest, and there is really nothing to prevent the Insurance Commissioners deciding that the whole medical service shall be worked by selected salaried medical officers. Any danger of encouraging malingering to which a system of free choice of doctor is supposed to be liable can quite well be guarded against through the medical committees which it is proposed to set up and which should have statutory recognition.

It is necessary to lay emphasis on the position which the profession is now assuming on the fundamental points stated by the Representative Meeting. These fundamental principles must be defined in the bill itself. The profession sympathizes with the Chancellor in his desire to improve the condition of the poorer members of the working classes by means of insurance against sickness, but he must face the certainty that to force the bill through Parliament in its present form will be simply to destroy its efficacy and to court disaster.

## SPECIAL REPRESENTATIVE MEETING.

A Special Meeting of the Representative Body of the British Medical Association was opened at the Examination Hall of the Royal College of Physicians and Surgeons, Victoria Embankment, London, W.C., on May 31st, at 10 a.m., Dr. Maclean, Chairman of Representative Meetings, in the chair.

The notice convening the Meeting was read and entered on the Minutes.

On motion from the Chair, it was resolved to accord full powers of Representatives to those Members not duly elected in point of time.

Letters of apology were read from Dr. J. G. Cook of Ballymoney (Londonderry Division), and Dr. F. W. Kidd and Dr. Hugh Ker (Members of Council).

On the suggestion from the Chairman it was resolved:

That the consideration of the Report on the present state of the proceedings in connexion with the proposed formation of the new Company be deferred till a later stage of the proceedings.

Proposed from the Chair:

That the remaining business of the Meeting be considered in the order indicated in the printed agenda,

Whereupon an amendment was proposed by Dr. Percy Rose (Stratford), seconded by Dr. Goodall:

That the Meeting proceed at once to the discussion of the State Insurance Bill.

The Amendment was lost.

Proposed from the Chair, and resolved:

That the Report on the Organization of Medical Attendance on the Insurance or Provident Principle issued to the Divisions in March, and the Memorandum by Chairman of Representative Meetings forwarded to the Chancellor of the Exchequer in October, 1910, and the Report of the deputation to the Chancellor of the Exchequer, April 4th, 1911, be approved and entered on the Minutes.

Proposed from the Chair, and resolved:

That the Report of the Committee appointed by the Council to consider the replies of Divisions upon the foregoing Report be received.

Proposed from the Chair:

That in accordance with the powers conferred upon the Representative Body by Article 38, the Members of the Representative Body in attendance at this Meeting be constituted a Committee for the consideration of items

arising out of the Report and of the Recommendations inclusive, and that in the Committee the powers as regards speaking and voting of Representatives and Members of Council respectively by the Meeting as in Representative Meetings. That a Meeting of the Committee be held forthwith, and the Representative Meeting do now adjourn and resume immediately upon the completion of the deliberations of the Committee when the Report of the Committee shall be considered.

Whereupon an amendment was proposed by Dr. FOTHERGILL:

That the discussion as to the general desirability of insurance provision should be taken before going into committee.

There being no seconder the amendment was lost and the resolution agreed to.

Proposed from the Chair and resolved:

That Mr. Verrall, Deputy-Chairman of the Representative Meetings, be Chairman of the Committee.

### COMMITTEE STAGE.

Mr. VERRALL then took the chair and the meeting went into committee and discussed seriatim *in camera* motions arising out of the Report of the Organization of Medical Attendance on the Insurance or Provident Principle, published in the BRITISH MEDICAL JOURNAL SUPPLEMENT of March 4th, 1911, and then passed to the consideration of the National Insurance Bill. The debate was very prolonged and involved the consideration of a very large number of details. It lasted from about 11 a.m. on Wednesday, May 31st, till midnight (with short intervals for lunch, tea, and dinner), and was resumed on Thursday morning, at about 11 a.m. On that day Mr. Lloyd George arrived, and was introduced to the meeting by the Chairman of the Representative Meetings, Dr. Maclean. The proceeedings of the conference between Mr. Lloyd George and the Representative Body were fully reported in the SUPPLEMENT last week, pages 352–360. After Mr. Lloyd George had retired, the meeting resumed the discussion of the National Insurance Scheme. The discussions continued with a short interruption, during which a report on the present state of the proceedings in connexion with the formation of a new company was considered with the assistance of the solicitor, until 6.30 p.m. that (Thursday) evening.

### PLENARY SESSION.

The committee stage than terminated. The Representative Body then proceeded to consider the report of the committee as a whole.

THE CHAIRMAN OF COMMITTEE said the report consisted of the various motions and amendments, with those portions of the minutes, etc., which were before them, and that part of the agenda which had been deliberately postponed to the report stage. He suggested that Dr. Helme's postponed motion should be taken first.

Dr. T. A. HELME (Manchester Central) moved as follows:

That whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless in view of the fact that the present proposals of the Government are wholly unsatisfactory, it is the opinion of this meeting that the Government should be asked to postpone the whole of the proposed medical benefits until satisfactory terms had been arranged with the medical profession.

He trusted that the importance of the resolution would not be measured by anything that depended upon his personal efforts, and if, in endeavouring to compress his words, they might seem strong, perhaps, to some of those present, he hoped it would be excused on the ground of the attempt at compression. On May 31st a resolution had been adopted in committee affirming the opinion that certain proposals of the Chancellor of the Exchequer could not be accepted. That was passed after careful deliberation, in view of the visit of the Chancellor of the Exchequer that day. They had had the opportunity of listening to that gentleman, and though he had given an excellent series of answers to their questions, they were not in a very much better position that day to grasp the relation between the Government and the medical profession than they were before. He (Dr. Helme) had come to that meeting with the message from the North that it was a bad bill—bad for the public and bad for the profession, and the interview with the Chancellor had strengthened that opinion. The bill was an extraordinary jumble of charity, robbery, and slavery. The profession was asked to supplement by its charity what the Chancellor of the Exchequer proposed. He did not contemplate the provision of the full benefits—operations and special work and so on—except at the charity of the profession. They were robbed in this sense; where was their capital to-day? And their income—where would that be? It would be reduced. The terms of the work were by no means satisfactory. He thought the resolution a most moderate one. It did not close the door. It said to the Chancellor what he ought to know, and it indicated clearly the doctors' position. They must let the Government know that if it wished to work with the profession the latter must be met on fair and reasonable grounds. To-day the Government took all the credit and gave the profession all the risk. Those were conditions which the medical men in the North would never submit to. If the medical profession wanted to get fair and reasonable terms from the Government, it must show a firm position. The door was not closed by the resolution, and in the speaker's opinion it opened it wide to a possible, proper, fair, reasonable and honourable solution of the difficulty.

Dr. TAYLOR (Salford) said that he seconded the resolution, with a full sense of the gravity of the situation. The time had come—there could be little doubt about it—when they were driven to consider whether they must send an ultimatum or not. They had been negotiating with the Government for the last three or four months, and they had had some concessions; but when the concessions were analysed they did not touch the vital points. What the Chancellor of the Exchequer had told the meeting amounted to this: That as far as he could do it there would be free choice of doctor, and there was very little doubt that that would be obtained. Of course that was a fair concession, but on the question of the friendly societies the Chancellor left them in the position that they had to fight it out for themselves. The Chancellor sympathized with them, but what was his sympathy worth? Would he press it in the House of Commons? He had given no promise of that sort. He was not blaming Mr. Lloyd George personally because it was a matter of politics, and a Tory minister would be the same, but the Chancellor was frightened of those who command votes. The medical profession's strength was not measured by numbers, and that must be demonstrated once and for all. It was a thousand pities that they had been compelled during those two days to concentrate all their energies on what might be regarded as their own selfish interests, but everything they had been talking about was indirectly in the public interest. Free choice of doctor they considered, and the Chancellor himself considered, was an important matter from the public point of view. They considered, too, that being disconnected with the friendly societies in medical arrangements was of vital importance to the public interests. They had been patted on the back that day by the Chancellor as nothing else but amiable weaklings. As a matter of fact that was what they were up to the present, but now they had been driven to the wall. They had been simply driven to show that they were not going to be imposed upon by the friendly societies or any one else. He was quite sure the Chancellor in his own mind saw with them on the point of the friendly societies. He could not do anything else after his very remarkable declaration that day. There were four points practically that must be put in the ultimatum: Free choice of doctor, which was practically conceded; friendly societies, only half conceded; wage limit, absolutely refused; payment by attendance, practically refused. (No, no.) The only thing to be done now was to declare to the Chancellor and to the Government once and for all that medical men considered that true philanthropy was not inconsistent with an unyielding demand for justice to themselves.

Dr. JAMES METCALFE (Bradford) said that a large meeting had been held two nights previously in Bradford at which 150 doctors attended and passed the following resolution: "That all present at this meeting pledge themselves not to undertake work under the scheme proposed in the

National Insurance Bill, as they regard the medical provisions in that bill as unjust, derogatory and oppressive, and call upon the Government immediately to withdraw the same." The Bradford Division, like most other divisions in the country, went very systematically through all the provisions submitted to it by the British Medical Association Committee. It answered all the questions, and believed that when Mr. Lloyd George produced his bill it would be a reasonable one, and one to which the medical profession could probably accede. But when they came to read that bill and consider the mode in which it had been evolved they came to the conclusion that it was quite impossible to make any amendment, or change, or alteration in it that would be at all feasible or reasonable. Neither in his speech on the first reading of the bill, nor in that on the second reading, had the Chancellor of the Exchequer met the real difficulties of the medical profession. He did not explain what the medical men were to do who lost their practices derived from patients earning 30s. a week to £160 a year. In the North of England, in Bradford and Leeds, and other large cities, there were large numbers of doctors who derived their income entirely from that class of the community, and many of them had no friendly societies, and had always fought shy of them and fought hard against them. It was the determination of the doctors in the North of England that under no conditions would they submit to the domination of the friendly societies. They would fight this bill, and would repudiate the propositions that the Government had put before the medical profession in the country.

Sir VICTOR HORSLEY asked Dr. Helme to agree to substitute the words "delay proceeding with" for the words "postpone medical benefits."

Dr. HELME did not understand what was meant by the new expression.

Sir VICTOR HORSLEY said to postpone a thing meant putting it off indefinitely. This could not be asked of a Minister; whereas he could be asked to delay taking proceedings till certain things were done.

Dr. HELME thought it would be quite possible for the Chancellor of the Exchequer to postpone medical benefits. But he saw Sir Victor Horsley's point; and, with the consent of his seconder, he would agree to it.

Dr. GREER (Monmouthshire) asked if it was the fact that if the resolution then before the meeting were passed they would at once cease all further negotiation with the House of Commons? Nobody could have any idea what the bill would be till it had been through the mill of the House.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said they were asking the Government to do certain things; and, if they did not get a satisfactory answer, they would not proceed further.

The motion, with the wording altered as agreed, was then put and passed.

The following resolutions adopted in the committee stage were then moved seriatim by Dr. E. J. MACLEAN (the Chairman of the State Sickness Insurance Committee) and agreed to:

That it is desirable that there should be facilities for enabling persons who cannot otherwise meet the cost of medical attendance to insure against such cost in such a way as will tend to develop higher efficiency, will afford conditions of service and remuneration satisfactory to the medical practitioners employed, and otherwise shall be in accordance with such fundamental principles as may be approved by the British Medical Association.

That the inclusion of medical benefits among those available under a State sickness insurance scheme is desirable, provided that the conditions of the scheme tend to develop higher efficiency, afford adequate remuneration to the medical practitioners employed, and are otherwise in accordance with such fundamental principles as may be approved by the British Medical Association in reference thereto.

That the Association support the establishment by the Government, in co-operation with the medical profession, of a medical service or services, the cost of which is met by insurance under conditions satisfactory to the profession.

That any medical service so established should be placed eventually under a Minister of Health.

That the Association oppose the establishment of such a service or services by the Poor Law or public assistance authorities, existing public health authorities, or Friendly Societies.

That the Association oppose the establishment by the Government, or by local authorities, of any service of selected medical officers, the benefits of which would be open to members of the community without previous inquiry into their means.

That in any service established by the Government on insurance principles the administration of medical benefits should be carried out as far as possible through the medical profession.

That the administration of medical benefit under any Government scheme of insurance should not be placed in the hands of Friendly Societies.

That in the administration of a public medical service on an insurance basis by Public Health Committees or Public Assistance Authorities adequate representation should be given to the medical profession.

That medical practitioners should decline in any circumstances to associate themselves with any medical service which Friendly Societies or similar bodies may attempt to establish.

That the benefits of any kind of Insurance Medical Service should be restricted by an income limit approved by the profession.

That, while the income limits of those receiving benefits under an insurance medical service should, as far as possible, be fixed locally, a maximum total income limit should be definitely fixed by the Association.

Dr. FOTHERGILL moved, and Dr. TODD seconded, that the following motion should be postponed till the Council had reported, and this was agreed to:

That it is desirable that arrangements should be made for admission to the benefits of an insurance medical service of those who cannot pay any part of the cost of their medical attendance, or a part of whose premium is paid for them by municipal or other authorities, or by charitable organizations.

THE CHAIRMAN OF COMMITTEE proposed that the following be approved:

That women and children should be admitted to the benefits of an Insurance Medical Service.

It was then moved and seconded that the consideration of this subject should be postponed.

Dr. DURANT (Consett and Gateshead) urged that the meeting should vote absolutely against the principle contained in the motion. The inclusion of children would be ruinous. If the Representatives betrayed their Divisions in this matter they would be following a suicidal policy.

Dr. FOTHERGILL (Wandsworth) asked that the figures of the replies from the Divisions on this point should be given to the meeting.

Mr. T. SANSOME, jun. (W. Bromwich) hoped the meeting would not postpone the matter. The whole profession outside the Association were looking to the meeting for a policy.

THE CHAIRMAN OF COMMITTEE stated that the replies from the Divisions were as follows—128 to 8, with three Divisions equally divided.

Dr. MACDONALD said that the Divisions had expressed a very definite and decided opinion upon the matter, and it was not competent for the Representatives to reverse their decision without referring the subject to the Divisions. He considered that the best thing would be to postpone it.

Dr. R. E. HOWELL (Cleveland) thought that the matter should be postponed and again referred to the Divisions. He was certain that if the Divisions had to vote now the replies would be very different.

Dr. J. H. TAYLOR (Salford) suggested that the Representatives might be asked their opinion upon the matter. It was important that some conclusion should be come to.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said that it was a question how the meeting could at that late stage proceed adequately to discuss a matter of this sort under a fresh state of circumstances.

Dr. C. E. ROBERTSON (Glasgow South) proposed that the matter should be remitted to the next Representative Meeting, and this was agreed to.

The following resolutions adopted in the committee stage were then moved by the CHAIRMAN OF THE STATE SICKNESS INSURANCE COMMITTEE and agreed to:

That the benefits of any medical service organized on the insurance basis should include, as far as possible, not only ordinary, but also special and institutional treatment.

That in any insurance service, the provision for the supply of material requirements should be kept separate from that for the provision of medical services.

That, in connexion with any medical service established apart from State Sickness Insurance, there should be a provision for the contributions of the beneficiaries to be supplemented by those of the Government or other public authorities and employers of labour.

That in connexion with any medical service on the insurance basis, the medical work in each district should be thrown open to every reputable registered practitioner in the district who is willing to take part in such work.

That it should be open to each patient who pays any part of the cost of his attendance to choose his own doctor from all who take part in the work of the service, subject to the consent of such doctor to attend him.

That consideration of the following motion be postponed:

That persons whose whole premium is paid for them by some public body should have the right of choice of doctor.

That, in connexion with any Insurance Medical Service, provided that the Government or other Public Authority guarantees the payment for all necessary medical attendance in accordance with an agreed tariff of fees, the method of remuneration by fees per attendance is preferable to the method of capitation payment.

That if the amount available for remuneration of medical practitioners is limited in proportion to the number of the insured, the capitation method of payment is preferable, provided that provision be made for extras and contingencies.

That the method of remuneration in any district should be determined in accordance with the wishes of the majority of members of the profession in that district, and that the Association should support the local profession in each district in securing the adoption of the method of remuneration which is locally preferred.

That in the event of provision for medical attendance not being included under the State Sickness Insurance scheme, or in respect of any classes which are not admissible to medical benefits under the scheme, the Association should proceed to lay down minimum capitation rates and a tariff of minimum fees, and should call upon all members of the profession not to undertake any kind of medical work upon lower terms.

That provision should be made for exclusion from medical and maternity benefits of persons whose average income from all sources exceeds £2 per week.

That the local Health Committee should be entrusted with the administration of medical and maternity benefits for all the insured.

That in the event of an extension of the scheme being made as proposed in Schedule 4, part 2, for the provision of medical benefits for the dependants of the insured, the local Health Committee should be entrusted with the administration.

That provision should be made in the bill to secure free choice of doctor by the insured, subject to the consent of such doctor.

**The following resolution was then considered:**

That provision should be made in the bill, that an adequate number of Insurance Commissioners be general medical practitioners, who shall be elected by the registered medical practitioners themselves, as in the case of Direct Representatives to the General Medical Council.

**After discussion, it was amended to read as follows:**

That provision should be made in the bill that an adequate number of Insurance Commissioners be general practitioners.

**The following resolutions adopted in the committee stage were then moved by the CHAIRMAN OF COMMITTEE, and agreed to:**

That provision should be made in the bill for adequate representation of the medical profession in the Advisory Committee to be appointed to assist the Insurance Commissioners, such representatives should include general practitioners who have had experience of practice among the classes from which the insured are drawn.

That all arrangements with medical practitioners for attendance upon the insured should be subject to the approval of the Insurance Commissioners.

That the medical representation in the local Health Committee should be increased to one-fourth of the total number of members of each committee, and that such representatives be elected by the local profession.

That under Section 59 (4) (*b*) (i) of the bill, relating to Ireland, equal representation with the County Council should be given to the local medical profession on the Committee of Management.

That the suggestions of the Chancellor of the Exchequer relating to the remuneration of the medical profession, as set forth in his second reading speech, cannot be accepted by this meeting.

That the Council be instructed to collect and examine statistics, in connexion with that part of the population covered by the National Insurance Bill, with regard to, first, the amount of medical attendance now given, and, secondly, its remuneration, and to recommend a capitation allowance which will provide adequate remuneration under alternate schemes of (*a*) a capitation fee and (*b*) payment for work done.

That provision should be made in the bill that statutory recognition should be given to Medical Committees representative of the local profession in each district, who should be consulted on questions concerning medical administration.

That such Medical Committees should inquire into, among other things, complaints from registered medical practitioners and insured persons, cases of alleged encouragement by medical practitioners of malingering, and alleged undue laxity in certifying insured persons for receipt of sickness or disablement benefit.

That in fixing the amount available to meet the cost of medical attendance due regard must be had to the many cases set forth in the bill in which the insured are to be entitled to receive medical benefit, other benefits being excluded or limited, for instance, persons under the age of 16 or over the age of 65 years, persons suffering from disease the result of their own misconduct and those entered in the Post Office Fund.

That provision be made in the Regulations under the bill for the due and fair remuneratton of medical men for services such as:

(*a*) Night visits.
(*b*) Maternity cases.
(*c*) Fractures and dislocations.
(*d*) Operations.
(*e*) Journeys.
(*f*) Services in other circumstances which do not come under the ordinary conditions of club practice.

That the method of remuneration of medical practitioners in the district of each local Health Committee should be determined in accordance with the wishes of the majority of medical practitioners in the area of that district.

That the regulations as to remuneration should be so framed as to make it possible for a local Health Committee to enter into arrangements with the local profession for paying medical practitioners on the basis of fees per attendance according to an agreed tariff, without limiting in advance the amount to be applied to the cost of medical attendance in the district for any year.

That the provision (Clause 17), whereby State remuneration for medical benefits under the National Insurance Scheme may be given through a public charity, should be amended in accordance with the principle of the British Medical Association so as to obtain complete separation of State medical service from charity.

That the medical inspectors appointed for the work of the Insurance Fund should have not less than five years' experience of domiciliary general medical practice, and should be whole-time officers.

That the Council or any Committee appointed by the Council to deal with the matter of the National Insurance Bill, be instructed to make every effort to secure for the medical profession in Ireland the same professional and financial privileges and rights as are accorded to the medical profession in Great Britain.

That in the opinion of this meeting the following proposals in the National Insurance Bill will prove detrimental to any medical service inaugurated for the prevention and cure of disease, and should be amended; and that they be referred to the Council, with power to take action upon them, if they think it desirable, in the meantime:

1. The reduction or limitation of sick benefits and maternity benefits for parturient women (Secs. 8 and 31).
2. The limitation of sick and other benefits for Post Office contributors (Sec. 32).
3. The reduction of sick benefits for aged and other persons (Secs. 9 and 31).
4. The exclusion of unemployed married women from the medical benefits under the scheme.

That in the opinion of this meeting the following amendments in the National Insurance Bill are desirable, and that they be referred to the Council with power to take action upon it, if they think it desirable in the meantime:

1. That the local Health Committees should be given power to build or acquire and equip their own sanatoriums or other buildings. (Secs. 15 and 47.)
2. That the sanction of supplementary grants to local Health Committees for the purpose of medical benefits should not be dependent on the approval of any other body as well as the Government. (Sec. 14.)

That the Council be instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the bill, and what points should be kept open to be determined by the Insurance Commissioners; to take the necessary action; and to report to the Divisions at the earliest opportunity.

With regard to the following recommendation of the Committee:

That steps be taken as soon as possible to secure, through the Divisions, acting in conjunction with the local members of the medical profession, (i) mass meetings of the local profession to adopt the policy of the Association; (ii) by a personal canvass the support of the members of the profession throughout the country for the policy of the Association in the following ways:

(*a*) By signing a petition to the Government containing a concise statement of the principal points in which the profession desires protection, including wage limit, free choice of doctor by patient, freedom from friendly society control, due representation of the profession in central and local bodies concerned in the administration of the scheme, and statutory recognition of medical committees, or recognition of such committees in the regulations of the scheme; the petition to be circulated also to every member of Parliament.

(*b*) By signing an undertaking that when the bill is enacted they will not individually enter into arrangements for attendance upon the insured, but will act through the local Medical Committees only.

(*c*) By joining the Association.

(*d*) By subscriptions or guarantees to a special central fund for this purpose.

(*e*) By supporting Division and Branch guarantee defence funds, in view of the probable necessity of fighting the National Insurance Bill at present before Parliament.

Dr. E. W. GOODALL (City) moved as an amendment to (*b*):

That the words, "will act through the local Medical Committees only," should be deleted, and that there be substituted therefor, "will take no part in the scheme."

It did not seem to him that the suggested arrangements would meet the case if the Government or the House of Commons absolutely declined to accede to any of the alterations suggested, and he was sure that his Divisions and other Divisions wanted to know what they were to do if their petition was sent to members of Parliament and no action was taken. For instance, take the income limit, to mention one thing; probably nothing would be done, and what were they going to do? His Division had proposed that the Association advise all practitioners to have no part in the scheme—practically to go on strike.

Mr. F. C. LARKIN (Honorary Secretary of the Lancashire and Cheshire Branch) in seconding the amendment, said the position that must be taken up was that the medical profession was not going to have anything to do with the local Medical Committees until the bill came into line with the Association's way of thinking. He urged the meeting to adopt the amendment moved by Dr. Goodall, and asked them also to include definitely the wage limit, and to definitely say what they settled.

Some discussion having taken place as to the form the amendment should take, Dr. FOTHERGILL suggested it should run:

By signing an undertaking that when the bill is enacted they will not individually enter into arrangements for attendance upon the insured, and will act through the local medical committees only if the conditions are satisfactory, and in accordance with the declared policy of the Association.

Dr. GOODALL and Mr. LARKIN accepted the suggestion and the amendment was put to the meeting and carried unanimously.

*Short Statement of Policy of the Association.*

The CHAIRMAN OF REPRESENTATIVE MEETINGS moved:

That the following statement of the main heads of the policy of the meeting as regards the National Insurance Bill be approved, as follows:

1. An income limit of £2 a week for those entitled to medical benefits.
2. Free choice of doctor by patient, subject to consent of doctor to act.
3. Medical and maternity benefits to be administered by local Health Committees, and not by friendly societies.
4. The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee.
5. Medical remuneration to be what the profession considers adequate having due regard to the duties to be performed and other conditions of service.
6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

This was carried unanimously.

After some discussion, Dr. FOTHERGILL (Wandsworth) moved:

That the resolution adopted on the motion of Dr. Helme (Minute 28) together with the above statement be placed before the mass meeting of the profession to be held this evening.

Sir VICTOR HORSLEY seconded.

The motion was carried.

Dr. WALLACE HENRY (Leicester and Rutland) moved:

That the statement be circulated to the Divisions at the earliest possible moment.

This was carried.

Mr. J. WALKER (East Essex) proposed that letters containing the thanks of the Association should be sent to the three members of Parliament—Dr. Addison, Dr. Hillier, and Dr. Esmonde—who had attended the meeting.

This was carried with acclamation.

Dr. DURANT said that he rose as a newcomer to the meeting to propose a most hearty vote of thanks to the Chairmen and to the members of the Council and of the Committees for the wonderful way in which they had transacted the business. He realized the brain power and subtilty of the Chancellor of the Exchequer; but he was most impressed with the wonderful array of talent which the Association had on its front bench.

The motion was carried with acclamation.

# MEETINGS OF THE PROFESSION.

## THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

SIR,—The Royal College of Physicians of London has appointed a committee to consider the National Insurance Bill, in order that the College may, before the Committee stage of the bill is reached, make such representations to the Government as shall safeguard the interests of its licentiates. The committee is of opinion that accurate information is urgently needed as to the effect which the scheme embodied in the bill would have upon the earnings and position of the licentiates of the College.

The profession has already plainly stated its opinion upon certain points:

1. That the profession should be adequately represented on all boards and committees controlling or administering medical benefits.
2. That the friendly societies should not make the arrangements with medical practitioners for the attendance and treatment of insured persons, nor otherwise administer medical benefits.
3. That provision should be made for exclusion from medical and maternity benefits of persons whose average income from all sources exceeds £2 a week.
4. That adequate remuneration should be assured to medical men for their services.
5. That the patient should be allowed to select his own doctor from those available, but subject to the consent of the doctor selected.

The committee does not ask for further expressions of opinion on these points.

With regard to remuneration, the committee thinks that exact figures, derived from practices in different parts of the country, will have more force than mere expressions of opinion.

The committee therefore appeals to those licentiates whose practices will be especially affected by the bill to examine their books for one or more years, or, better still, to have them examined by an accountant, and to answer the following questions, addressing replies to the Registrar, Royal College of Physicians, Pall Mall, S.W. All information received will be regarded as absolutely confidential.

Replies are invited to the following questions:

1. How many patients have you seen during the past year (or an average of two or more years), who would be compulsorily insured (employed contributors) under the scheme of the bill?
2. What total sum of money did you receive from all these persons in the year for attendance upon themselves?

NOTE.—The sum must not include moneys paid by these persons for attendance upon their wives, children, or other dependents, who are not employed persons. Income from clubs should be stated separately, mentioning the sum received, the number of members of the club, and whether medicines and dressings are included in the medical attendance.

3. What proportion of your patients belong to more than one club, and to what extent in regard to this point do you suppose you would suffer loss under the bill?
4. What proportion does the sum of money mentioned in (2) bear to your total gross receipts?
5. What proportion of your total gross receipts is spent upon drugs and ordinary dressings?
6. What is the nature of your practice?

NOTE.—For example, agricultural, industrial, urban, suburban, etc.

7. If you are in favour of a free choice of doctor how do you think the panel of doctors should be constituted in your district?
8. Is there any fear that touting would occur or malingering be encouraged under the bill?
9. Would you be in favour of entrusting such control as would prevent these evils to a local medical committee? If so, should the committee be drawn from the county or a county borough, or a smaller area?

We are,

(Signed) THOMAS BARLOW,
*President.*
W. S. CHURCH,
*Chairman of Committee.*

Royal College of Physicians,
London, S.W.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A SPECIAL COUNCIL was held on Thursday, June 1st, to consider the National Insurance Bill, Mr. H. T. BUTLIN, President, in the chair. The Council resolved that the following letter be sent to the Chancellor of the Exchequer:

*To the Right Hon. the Chancellor of the Exchequer.*

SIR,—The Council of the Royal College of Surgeons of England, having taken into consideration the provisions of the National Insurance Bill so far as they concern the Medical Profession, desired us to forward to you the following statement of their views adopted at a Special Meeting held this day:

The Council of the Royal College of Surgeons recognizes that an efficient national insurance scheme would prove of great advantage to the country, and is in sympathy with the stated aim of the proposed bill—namely, to provide for insurance against loss of health, and for the prevention and cure of sickness (and for other purposes). The benefits conferred by this part of the Act (Section 8) essentially demand the judgement and assistance of the medical profession, and the Council would earnestly direct your attention to certain matters which are regarded as of the utmost importance by members of the medical profession.

The Council is of opinion:

(i) That the administration of the medical service should not be placed in the hands of the friendly societies, insurance societies, or other associations of a similar character.

(ii) That the medical profession should be represented by members of the medical profession on all committees or bodies in whose hands the administration of the medical service is placed.

(iii) That the persons insured, whether voluntarily or by compulsion, should, as far as practicable, be free in their choice of the medical practitioner to attend them.

(iv) That persons whose incomes average more than £100 per annum should not be permitted to receive medical benefit under the scheme.

(v) That, although it is not yet possible to express an opinion on the remuneration which has been suggested for medical service on account of the uncertainty which still prevails regarding the relative amount to be apportioned to attendance and to materials, no attempt should be made to force upon medical men a service which is not sufficiently well paid to yield a proper remuneration for the labour entailed.

For some years past the length and costliness of the medical curriculum have made it increasingly difficult for persons to enter the medical profession. The incomes made by many practitioners are wholly inadequate to recompense them for all this cost and labour; and any scheme of medical insurance therefore, which threatens to diminish these small incomes will, in the opinion of the Council, be fraught with serious consequences in the future both to the public and to the medical profession.

In communicating these resolutions, we are directed to say that they are in accordance with the views of the great majority of the Fellows and Members of this College. The Council believe that the members of the medical profession have never been more united in feeling than they are in relation to the matters referred to in these resolutions, and they look forward to making a further communication upon points of importance in connexion with hospitals and medical education.—We are, Sir, your obedient servants,

H. T. BUTLIN, President.
S. F. COWELL, Secretary.

## LONDON.

ON Thursday evening, June 1st, a mass meeting of members of the profession was held at the Connaught Rooms, Great Queen Street, W.C. Dr. E. J. MACLEAN (Chairman of the Representative Meetings of the British Medical Association) presided. There were also present on the platform Sir Thomas Barlow (President of the Royal College of Physicians), Mr. H. T. Butlin (President of the Royal College of Surgeons), Sir William Church, Sir Victor Horsley, and Dr. Macdonald (Chairman of the Council of the British Medical Association).

The CHAIRMAN, in opening the proceedings, said he was somewhat unprepared to address so representative a gathering, having been occupied for some forty-four hours out of the last fifty with the proceedings of the Representative Meeting of the British Medical Association. He would first of all explain how it was that he came to be in the chair. He had been asked by their esteemed and much-respected President of the Association, Mr. Butlin, to take his place, as his voice was not equal to the occasion. As they all knew they were met there that evening to discuss the National Insurance Bill. It was very properly claimed by the medical profession that one of its grandest and most treasured traditions was the fact that they were, of all classes of men, undoubted as to their citizenship and their services to the country, and in any action they might feel called upon to take they were anxious that it should not be supposed that they had forgotten that. In was, in fact, in order that they might, as a profession, have proper conditions of service that they were gathered there that evening. They were called upon under the provisions of the bill to undertake enormous responsibilities, and what they asked for as a profession was that they should have an opportunity of performing their duties under fair conditions of remuneration and service. What was the position at the present time? They were called upon to serve under conditions of complete submission to the friendly societies. He might at once say that they cordially admired the general work of the friendly societies, but the same could not he said with regard to their administration of medical benefits. It had been said, and it was certainly the fact, that what the medical profession would get would be directly proportionate to the degree of union in its ranks. Again, it had been said by a high authority that if the members of the profession did not utilize the present occasion to combine to secure betterment in their conditions and all that proper remuneration and conditions of service might mean they were not worthy of the name of sensible men. He repeated most emphatically that they had an opportunity such as would never occur again for righting the wrongs and the disabilities under which the profession had laboured so patiently for untold years. Men were at some time masters of their fates, and the fault would lie not in their stars but in themselves if they were underlings.

Dr. MACDONALD said he had the honour to be a general medical practitioner, and it was in that capacity rather than as Chairman of Council of the British Medical Association that he had been asked to propose the resolution which he should presently submit to the meeting. It was the general medical practitioner who would be the sufferer if the terms of the bill as introduced a short time ago by the Chancellor of the Exchequer were allowed to go through in the form in which they were proposed. They were told at the beginning of their career that the medical profession was essentially an altruistic one. Every medical man throughout the country was quite willing to act up to the high traditions taught him in the schools, and which were enforced on their minds by the professors when they entered the profession; but there came a time when they must be tired of being at the beck and call of every pseudo-philanthropist. (Loud applause.) The time came when the doctor began to think a little about himself and his family, and that he should take up the cudgels at last and fight for justice if for nothing further. For that reason he appeared that evening to lay before them a most momentous resolution. To those persons who were not members of the British Medical Association he would point out that that Association was the one organized body in the kingdom at the present time that was capable of bringing the medical profession together into a united whole for the purpose of opposing the clauses in the bill which dealt with the medical benefits. They had just held a two-days' sitting of what they might call the parliament of the British Medical Association, attended by representatives from every district in the British Islands, instructed by their fellow practitioners as to what opinions they wished to have expressed at the meeting. As the result of two days' strong speaking, stern speaking, mild speaking, very strenuous debate, and careful consideration of everything that could affect the medical profession, they came to a unanimous resolution which he would lay before that meeting as the *pronunciamento* with which the profession would go before the country, and which it should lay before the Government as the terms on which they would act under any scheme for the medical benefits of the people.

The resolution was as follows:

> That, whilst approving the main objects of the National Insurance Bill, and being desirous of co-operating for their attainment, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

(Loud applause.)

The foregoing might be called a pious resolution, but there followed what his friend Dr. Maclean had called that day a little tabloid medicament, which he would ask the meeting to accept in the shape of the following summary of the terms which they proposed to accept as being satisfactory to the medical profession:

1. An income limit of £2 a week for those entitled to medical benefit.
2. Free choice of doctor by patient, subject only to the consent of the doctor.
3. Medical and maternity benefits to be administered by local health committees, and not by friendly societies.
4. The method of remuneration of medical practitioners adopted by each local health committee to be according to the preference of the majority of the medical profession of the district of that committee.
5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.
6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local health committees, and statutory recognition of a local medical committee representative of the profession in the district of each health committee.

They were very serious in their willingness to do all that they could for the benefit of the poorer classes of the community, but they wished to obtain terms that were just to themselves, and what he had first read were the terms that were proposed to be put before the Chancellor of the Exchequer. He would appeal to every member of the profession, and also to the lay people of the country who sympathized with them, to back them up and see that these terms were carried out. If this was done there would be a large and efficient medical service to take care of the health of the country. (Applause.)

Sir THOMAS BARLOW (President of the Royal College of Physicians of London) said that at the time of the great struggle between the Northern and Southern States of America there came a crisis when General Sheridan was ordered to take his army right through the middle of the Confederacy, and cut it in two. At that memorable and critical time General Sheridan's order was, "Let everybody fall in." This was the time with regard to their profession at which every man and woman should "fall in." It might be said that this subject did not concern the governing body of the Royal College of Physicians, and that it did not apply to the medical consultants. He demurred to this entirely. They were one corporate body, and everything that appealed to the humblest practitioner in the land appealed to the highest. Although the bill would not directly affect medical consultants, it would indirectly affect them in the most momentous way. There was no telling the extent to which the bill would affect the relations of medicine to the body politic. Apart from that they felt that they had a duty to their licentiates (applause), and if it could be said that they had no direct interests in the medical benefits under the bill, that in itself would give any representations they might make a judicial character, and they might therefore be regarded to a considerable extent as impartial people. Therefore they had met and had discussed the question, and had appointed a committee to first of all obtain knowledge as to the bill. He thought there had been a certain amount of severe stricture on the bill owing to the fact that its suggestions were of a somewhat fluid character, that they were not defined, and were not meant to be defined. (Applause.) With one voice they had expressed their desire for delay.

(Applause.) There would be opportunity to discuss the bill in the Committee stage, which would occupy some six weeks, and then when it was passed there would be the Advisory Committee which would be set into operation. The bill could then be thoroughly threshed out, and influence brought to bear on the Advisory Committee before its enactments were completed. So that, notwithstanding the fact that it looked to be somewhat rushed, there would be time for them fully to understand it, and to formulate what they believed to be absolutely imperative. He had the strongest possible sympathy with the general purposes of the bill. No one was more alive to the great difficulties of their industrial conditions, or was more convinced that if they had a healthy nation they would have an efficient one, than the doctor, and everything that would improve the health of the people from children upwards was the greatest gift that could be allotted to them. The terms stated by Dr. Macdonald seemed eminently reasonable. (Applause.) There was no doubt that the real difficulty of the Bill was their relation to the friendly societies, and this the Chancellor of the Exchequer now understood thoroughly and completely. They knew too well that many of their humbler brethren had been put under the heel of the friendly societies. They intended to claim, as the working men themselves claimed, that when their humblest practitioners did work of this kind they should have a living wage. He fully believed that the Chancellor of the Exchequer was prepared to concede that no pecuniary arrangements and no contract should be made with the friendly societies unless they were subject to the revision and control of the Insurance Commissioners. There should be no committee on which medical men were not adequately represented. Another point was the question of the voluntary participators in the medical benefits. This they would have to proceed very warily upon. He did not know whether they ought to fix a definite limit as suggested in the resolution, but he believed, to put it colloquially, they would find that the Chancellor of the Exchequer could be influenced on that point. It might be said that the middle classes had nothing to do but pay taxes and the working classes to receive the benefit of them, and it might be necessary in some way to give a certain amount of benefit to voluntary participators. (Loud cries of "No, no.") As practical men they were not going to run their heads against a stone wall. They had to try and make the bill a working bill. There were points, such as the choice of the doctor, extra mileage, and extra for consultations, and so forth, upon which they were certain to be unanimous. The two things that they should keep before them were that they should be independent of the friendly societies, and that this difficult question should be put on a fair footing with regard to voluntary participation, so that the private practice which had been derived from the families should not be wiped out by the medical benefits. He had great pleasure in seconding the resolution. (Applause.)

Mr. BUTLIN (President of the British Medical Association and of the Royal College of Surgeons of England) supported the resolution. The profession was passing through the greatest crisis it had ever known in the last hundred years or more. He had attended the Representative Meeting that morning to hear the Chancellor of the Exchequer; in the afternoon he presided over a meeting of the Council of the College of Surgeons upon the National Insurance Bill, and he was so deeply interested in the question that he felt if he never spoke again he should like to speak that night. He must confess that he was deeply disappointed with the interview with the Chancellor of the Exchequer. Mr. Lloyd George spoke charmingly and brought forth loud plaudits. He answered some questions satisfactorily, some not so satisfactorily, and on several occasions he escaped answering altogether. He (Mr. Butlin) did not hear so well as he used to, but his impression was that the Chancellor did not give way, nor did he give the Representative Meeting the least hope that he would give way, or that the House of Commons would give way one jot with regard to the absence of an income limit for manual labourers. In the second place he was still bent upon placing a great part of the administration of the medical relief in the hands of the friendly societies. They were told plainly that the bill would pass by the end of August, that when it was passed an advisory committee would be appointed, upon which there would be a certain number of medical men. In his opinion, when the bill was passed, the arrangements would depend upon the terms of the bill. Certain modifications could be made afterwards, but they could never be the same as before the bill was passed. A very grave and serious contest lay in front of the medical profession. They were all anxious to do what they could to assist the Government in carrying through a measure of this kind; all they wanted to see was that it did not bring ruin to a large number of their brethren. (Applause.) In the debates on the bill he had seen it stated, in reply to questions put, that it was a mistake to think that there were people with incomes far beyond £160 a year who would take advantage of what was called the voluntary subscription, and subscribe in order to obtain medical benefits. He then gave an instance from his own personal experience when he operated on a Jewish woman in the East End of London. Notwithstanding the fact that the husband, wife and all the family belonged to a club, paying 1d. a week each for their doctoring, there was no difficulty in paying his fee of 100 guineas for the operation, besides the expenses attendant on the nursing home. The suggestion had been made that day at the College of Surgeons that no person with an income of over £100 should be allowed to participate in the medical benefits. In conclusion he thanked the meeting for having listened to him so patiently.

Mr. Butlin resumed his seat amidst loud applause, the members rising in their places and cheering vociferously.

Sir VICTOR HORSLEY did not agree that the profession was, as had been stated, standing in a perilous position, because the members of the profession could save themselves. They were in a difficulty, because on this point, as on others, to wit, the treatment of school children, they had muddled their private charity with public charity. Owing to the want of union among themselves on common, well-understood grounds they had allowed the friendly societies to take up a position towards them which no self-respecting man ought to have permitted. The present occasion was an excellent opportunity for demonstrating their power and position as a body of intellectual and educated men. (Applause.) All they had to do was to carry out the suggestion of the Representative Meeting that they should each and all of them sign a declaration that they would not carry out the work on such lines as to be inimical to the best interests of the nation. The Chancellor of the Exchequer had answered the questions put to him that day fully and frankly, but he had equally frankly declared himself against their views on the wage limit. What were they to do? ("Fight.") They were always fighting, and would always have to fight. Every profession was in a curious position of friendly hostility to the community, and the community to it. They should declare that they would not work under certain conditions. On the construction of the bill the first point to be considered was the relation of the profession to the friendly societies; secondly, the representation of the profession on the Advisory Committees and on the local Health Committees, and in the establishment of local Medical Committees. On these subsidiary points the Chancellor of the Exchequer had distinctly declared himself on their side. The Chancellor had been asked whether he accepted the position of the British Medical Association, namely, that the relations of the medical profession with the Government should be direct; in other words, that the friendly societies should be totally excluded from such relationship, and his reply had been in the affirmative. Provision to this effect could be inserted in the bill in Committee. It was the duty of the profession to assist the Government in furthering the objects of the bill. It had always been the altruistic feeling of the profession that it would do what it could to prevent disease and to promote the health of the nation. That was the declared object of the bill, and as such they were of course in in sympathy with it; but unless the terms of medical service were satisfactory to the profession that object could never be attained. (Loud applause.)

Dr. LAURISTON SHAW (President of the Metropolitan Branch of the British Medical Association) said there had recently appeared the extraordinary apparition of the medical profession in the guise of an united army

(Applause.) Mr. Lloyd George would not only have done the greatest possible service to the profession, but also to the community at large in providing for them with a united profession. (Applause.) Their aims were absolutely beneficent, and could only be achieved by their being united. He had no fear of the bill; they were not going to have anything in it which was not satisfactory to their great function of healing the sick, or which would ruin the members of the medical profession. They could never win in the great fight that was before them unless they organized, and trusted their generals. All who had attended the Representative Meeting must have the utmost confidence in their front bench. He concluded by advising them to keep their powder dry and trust their generals. (Applause.)

The Medical Secretary of the British Medical Association (Mr. Smith Whitaker) said they were now only at the beginning of the campaign. It was easy to attend meetings and pass resolutions, it was easy to use strong language, but were they prepared to stand together through all the time that was before them in connexion with the bill? What were the difficulties in the way of the wage limit? The Chancellor of the Exchequer thought it was very doubtful whether they could get it through the House of Commons. It was for each individual member to exercise his influence upon his Member of Parliament and urge them to put down such amendments to the bill as would meet the views of the medical profession. Suppose they did not get all they wanted in Parliament, was the fight lost? Were they going to throw up the sponge then, or were they going to stand together? The basis of the bill was that there should be adequate, proper and sufficient medical attendance for the working classes. Who was going to give that medical attendance? Would it be the Cabinet? No, it would be the medical practitioners of the country. Parliament might pass bills and declare that certain services should be rendered. They could even lay down in those bills that a certain remuneration should be offered, but could they compel the profession to render those services? (Loud cries of "No, no.") Could they compel the profession to accept any remuneration they pleased as a just equivalent for their work? He would repeat that it was not a matter of passing resolutions and using violent language. It was a matter of setting their teeth steadily to see it through.

Dr. Tonkin (Fulham) said at the instance of the Chancellor of the Exchequer about ten days ago he began an investigation of the subject to get out mathematical details more or less for the guidance of the Chancellor in the drawing up of his bill. What struck him most was the broad injustice of the bill, the lines where it erred from that righteousness which exalted the nation. Very early he could see the thing would not work. It came in between the doctor and his patient. It trod on the holiest ground; it vitiated everything that now knitted them to their patients. He would concentrate what he had to say on one point, so as to let the breath of common sense burst over the heated atmosphere of that meeting. Mr. Lloyd George said that £160 a year should be the wage limit. That, he submitted, was enormous, it was iniquitous and abominable; it would not work and it should not work. The figure of £100 had been suggested by the organizers in their own profession, whereas he on his part would fix it at £70. He had since thought over the matter and doubted whether the Chancellor had the power to fix it at any other figure than the mystic £160. He could imagine Mr. Lloyd George saying to himself: "I will throw the burden of solving this upon the Income Tax Commissioners." In his opinion the profession would be well advised to reject the resolution until the Chancellor brought the matter forward on practical grounds.

Dr. Goodall (one of the secretaries of the Metropolitan Counties Branch) said that it had been urged upon them that they should unite. Generals could not fight without an army, and he was there that evening in the position of a recruiting sergeant. The Metropolitan Counties Branch was the largest branch of the British Medical Association, but large as it was it certainly ought to be much larger. At the next election there would be the largest list of candidates they had ever had, but still he wanted to see that list doubled. There ought to be in the Branch all the members within its area. He appealed to all those who were not members of the Association to join at once.

Mr. F. C. Larkin (Honorary Secretary of the Lancashire and Cheshire Branch) said he must first congratulate the members on the great success of the meeting. He saw a larger number of medical practitioners associated together than he had ever seen on any previous occasion, from which it was evident that they appreciated the great crisis they were passing through. He wished to congratulate the mover of the resolution on putting at the head of the list the question of free choice of doctor. That was the basis on which the profession was conducted at the present day, and it was that on which the whole fabric of the relationship of doctor and patient rested; the doctor was the patient's doctor. It was not for the doctor to consider whether the man was a right or a wrong living man, whether the prolongation of his life would be injurious to the race or anything else; his business was to look after that man's interests. Now, what did the bill propose to do? It proposed to send the doctor into the house, not as the patient's doctor primarily, but in the interest, first of all, of the fund. They were to be the persons chiefly looked to to safeguard the fund. He would repeat what he had said in Manchester recently: They would be going in pretty much in the same way as a man went in to look at the gas meter. He would like to add a word or two with regard to the public interest, but he was always afraid to speak on that subject, because it might savour of hypocrisy. On the free choice of doctor depended the goodwill of all their practices. Without free choice of doctor there would be no such thing as goodwill, and he thought if his mathematical friend from Fulham were to reckon up how much the profession had already lost by the introduction of the bill he would find that it ran into many millions. The goodwill of their practices had become an unsaleable quantity. The bill would radically affect everybody in the profession. One had read a great deal in the Journal, and had heard still more talked, about the general practitioner's position in the matter. Although the general practitioner's interest was affected, he thought the bill would have an effect upon the interests of every medical man, because, as he read it, the general practitioner was to get out of it as much as the friendly societies, in the goodness of their hearts, would give him, whereas the consultant was to get nothing. The bill provided, and for the first time introduced into the body of a measure, the power of subscribing to and subsidizing a hospital for work to be done. The same thing was done under the Provisional Orders in the case of the treatment of school children, but in that case the framers of the bill had the grace to say that something should be given to the medical attendant for his work. In this bill not even that was said. They were to subscribe to the hospitals for the benefit of those who paid the capitation allowance, and, he presumed, as no other provision was made for the surgical or higher medical treatment, the hospitals were to do the work for nothing. It would affect the hospitals in the end just as much as it would affect others, and they would come at once under the kind control of the friendly societies. He did not suppose that any one there present particularly wanted to be dominated by the friendly societies, which they must remember would become ten thousand times stronger when the bill passed.

Dr. Townsend said he thought that every general practitioner in that room was practically satisfied with the proposals which the British Medical Association had laid before them, but they had not yet had these proposals brought forward in proper form for their acceptance. The statement had been made in various parts of the country—and this they were all unanimous upon—that they would not see club patients who earned more than £2 a week, and they would not be under the heel of the friendly societies. On these points they could not and would not go back. (Loud applause.) The Chancellor of the Exchequer, the House of Commons, and the House of Lords could pass what bills they liked, but they could not force them to work. (Applause.) He thought what that meeting was waiting for was an expression of opinion from the chair to the effect that the British Medical Association would stand by the resolutions which they had put before them that evening. (Loud applause.) If the British Medical Association would

give them an assurance that they would stand by those resolutions and not climb down at the last moment, they on their part would back it up, and, if they had to go under, they would go under fighting and would not be starved out. (Vociferous cheering.)

Dr. MACNAMARA did not think the resolutions before them went far enough. There was the opportunity now which had not existed for years of breaking down the whole contract system altogether. He would like to add to the resolution that no capitation fee under any insurance bill would be satisfactory to the medical profession. (Applause.) He would appeal to the Chairman to tell Mr. Lloyd George that they would have nothing to do with the capitation fee. Personally he was a Radical and a supporter of the Government. He considered the Chancellor of the Exchequer would be doing a grand work if he could lift the poor, but in doing that work he must also be democratic, and give the right to the poor as well as to the rich of selecting their own doctor. Under the proposed bill the rich man could always get his doctor, but the poor man could not. That was not a democratic principle, even though Mr. Lloyd George assented to it.

The CHAIRMAN said no one appreciated the speech they had just listened to more than he did, but he must point out to the meeting that there was no capitation fee laid down in the bill. It was open to them to combine and to insist upon payment for work done, if it were desired.

Mr. SIDNEY TURNER (Anerley) said, as a general practitioner of some forty-six years' standing, but now retired, he could speak on the matter quite disinterestedly. He agreed with the preamble of the resolution, but did not think that the time was ripe to discuss all the details of the bill. Mr. Lloyd George had entered into relations with the friendly societies. Why should he not enter into relations with the British Medical Association? A resolution had recently been passed at Norwood disapproving of the contract clauses of the bill, and recommending the members of the medical profession not to entertain them. There could be no question that contract practice was bad. It had been entered into largely by young men who were seeking an introduction into a district, and indirectly it paid them.

Dr. CURRIE was thoroughly in accord with Dr. Macnamara.

The CHAIRMAN then put the resolutions set out at the beginning of this report to the meeting, and they were carried unanimously.

Mr. BUTLIN proposed a vote of thanks to Dr. Maclean for presiding over the meeting, and the proceedings terminated with three cheers for Mr. Butlin.

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## CHELSEA.

AT the meeting of practitioners in Chelsea on May 29th, organized by the Chelsea and Fulham Division, which resulted in the adoption of the resolutions published at p. 343 of the SUPPLEMENT to our issue for June 3rd, Dr. J. YOUNG, who was voted into the chair, said that by assembling there that day they were falling into line with their colleagues all over the country. They were there to state their wants and to place themselves in a position to say, if need be, that their demands must be accorded. They had also to instruct Dr. Fletcher in what fashion he should represent them at the Special Representative Meeting which was to be held in a few days' time, and at which would be declared the opinions and intentions of the largest organized body of the profession in the country. But in some sense that meeting was of secondary importance, because those present to-day were as a local body a power in themselves and they could give effect to whatever decisions they reached if only they were loyal to one another. Had they been banded together in the past the various encroachments on their rights which had taken place would never have occurred, and they would not have had to meet that day to face the existing crisis. He hoped the period of apathy had gone, and that all were prepared to fight side by side against anything that tended to lower the dignity, the honour, or the prestige of the medical profession.

Dr. GALLARD then read letters of regret at inability to be present from the President of the Chelsea Clinical Society and from other medical men, and also the correspondence that had taken place between Dr. Lewis and the Colleges of Physicians and Surgeons and several members of Parliament. The Chairman then submitted *seriatim* the resolutions already mentioned.

Speaking on that relating to the exclusion of voluntary contributors from medical benefit under the Act, Dr. LEWIS said that it seemed iniquitous that everybody, no matter what his position, should have to be attended for a few pence a week. The resolution was then carried unanimously.

In reference to a wage limit, Dr. WELLS thought that £2 was too much, and Dr. BUTLER suggested 35s. Dr. TOKNIN considered that the outside limit should be 30s. a week. If the capitation principle were adopted such a limit—one absolutely imperative in Fulham—would reduce to a minimum the number of persons coming under the objectionable system of contract practice, and would thus lessen the chances of the smooth working of the Act being disturbed by friction with the medical profession. At the same time, the reduction of the number of those entitled to medical benefit would be a saving to the Assurance Fund, and as medical men intended to demand nearly double the capitation at present, Mr. Lloyd George would not overlook this point. Dr. FLETCHER thought that as wages differed very much in different parts of the country, it would be better to leave the limit to be determined according to the local conditions. Dr. SATCHELL thought it would be wiser to confine themselves that afternoon to taking up a purely negative position in reference to the Chancellor's proposals, and to wait until they had the opinions of the Representative Meeting before committing themselves as to the extent to which they would co-operate in the working of the Act. Dr. GALLARD thought that the best way would be to allow the profession in each locality to determine the wage limit; the monetary value of wages might be the same in different places, but their purchasing value different. Dr. O'SULLIVAN said that he had practised in the North of England and had never heard of such wages as £5 or £6 a week, such as Dr. Fletcher had mentioned. In Lancashire the ordinary wage was from 23s. to 35s. a week. There were no clubs and every workman had his own doctor; that was where the strength of the practitioners in that part of the country lay. He, too, favoured the idea that the wage limit should be left to local decision, because the local profession knew best the value of money and the wages in its neighbourhood. Dr. LEWIS said that he favoured mentioning a limit in their resolution because he thought that something definite should go before the Representative Meeting. There was much in the idea of leaving the limit to local settlement, but for the moment they must be definite. At subsequent meetings they could alter the limit as they pleased. Dr. JACKSON thought that the limit might be settled locally, but in no case should be higher than 35s. a week. Dr. TOMKIN desired that the limit should be fixed forthwith as far as Chelsea was concerned. The question affected his pocket and interest in every direction. It was a case for the tocsin and fiery cross throughout the profession. They should stick inflexibly to the 30s. limit, and give specific instructions to their Representative on the point. The resolution was then carried as worded in our issue for June 3rd.

On the question of representation on health committees, Dr. BUTLER pointed out that they must guard against friendly societies contriving to get double representation on them. These societies, besides having their own representative, might canvass members of local boards and boards of guardians to elect as representatives persons who were members of these boards and also members of friendly societies. To meet this point the words as to the control of medical men engaged in contract practice not being in the hands of the friendly societies were inserted in the resolution passed.

Before the passage of the resolution by which each individual present at the meeting pledged himself not to accept any appointment under the Act except with the consent of the local profession obtained at a meeting summoned by the local Division of the British Medical Association, Dr. FLETCHER spoke of the financial position of the friendly societies. The aim, he said, of the National Insurance Bill was to place the medical profession in the hands of the friendly societies, that is, under the representatives of the industrial section of the community, and he was in possession of official figures as to their financial

position. The Aston Unity of the Loyal Order of Ancient Shepherds had a deficiency of £150,000. A large number of branches of the Manchester Unity of Oddfellows showed at the last valuation considerable deficiency; their aggregate total deficiencies amounted to £850,000. The deficiency of the Foresters was even greater. The Hearts of Oak showed a deficiency which was increasing and becoming of importance. The Rational Society had a deficiency of nearly £750,000. Summed up the returns for the five years ending 1908 showed that 2 340 of these benefit societies had a total deficiency of £5,200,000. These were the people in whose hands the Government proposed to place the medical profession, and they were to be stimulated to increase benefits to their members, and this could be done only by increasing their subscriptions or by reducing their expenses. The most obvious way of doing the latter was to pay the lowest rate possible to their medical men. They proposed to restore their finances by sweating the medical profession, but it remained to be seen whether the medical profession would consent. Were the doctors of Fulham and Chelsea prepared to submit to being the slaves of the friendly societies, or would they imitate the action of their brethren in all other parts of the kingdom? He then quoted what was being done in Manchester. The resolution was then carried unanimously amidst applause.

The resolution relating to additional payment for operations, night calls, and the like, was then passed without discussion.

On the motion of Dr. WILLIAMS, seconded by Dr. SPAUL, the resolution relating to payment was made to read so as to exclude any reference to capitation fee. Speaking on this point, Dr. BUTLER said that he wanted to see the capitation fee swept away; even if the capitation fee were placed as high as 50s. they would be against it in Chelsea, because it would ruin a great many medical men in Fulham and also all over the kingdom. Dr. TONKIN said they were all in favour of payment according to work done; they hated capitation. The resolution as amended was then carried unanimously.

The resolution as to free choice of a doctor was also carried unanimously, Dr. FLETCHER remarking that for some reason or other Mr. Lloyd George was opposed to the idea. Dr. LEWIS then proposed as an additional resolution that stating that individuals who were deprived of sickness benefit by their own misconduct should likewise be deprived of medical benefit. It was seconded by Dr. SATCHELL. and carried unanimously. Also carried unanimously and without discussion was the resolution relating to the dispatch of copies of the resolutions to members of His Majesty's Cabinet, other prominent statesmen, and local members of Parliament.

The meeting then concluded with a vote of thanks to the Chairman.

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## KENSINGTON.

AT a meeting summoned by the Kensington Division of the British Medical Association, held at the Kensington Town Hall on May 22nd, resolutions in favour of a wage limit of £2 and entire freedom from friendly society control were passed unanimously. The meeting was also universally in favour of free choice of doctor, and the opinion of the majority of those present was in favour of payment on an attendance basis rather than a capitation fee, but that in the alternative the suggested capitation fee was entirely inadequate.

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## ESSEX.

A MEETING of the medical men practising in the North-West Essex Parliamentary Division was held in the Town Hall, Saffron Walden, on May 27th. The meeting was well attended, and telegrams and letters regretting absence, but expressing willingness to co-operate in any scheme for the protection of medical interests were received. After discussion the following resolutions were adopted:

1. That a committee be appointed to wait on Mr. Beck, the member of Parliament for the division, and point out to him the defects of the bill from a medical aspect, on the lines of the report of the committee adopted at Cambridge on May 26th.
2. That this meeting of the medical practitioners of North Essex, having carefully considered the proposals of the National Insurance Bill in so far as they affect the medical profession in this an agricultural district, find them unsatisfactory, and we pledge ourselves individually and collectively, in the event of the Government not acceding to our request for just and equitable terms, to stand together, and in order to strengthen our cause, forthwith to become members of the British Medical Association.

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## MID-ESSEX.

AT a meeting called by the Mid-Essex Division of the British Medical Association at the Shire Hall, Chelmsford, on June 2nd, the following resolutions were passed unanimously:

1. That this meeting does not consider the medical benefits under the National Insurance Bill, as at present outlined, satisfactory, either to the insured or to the majority of the medical profession.
2. That this meeting strongly opposes any scheme of national insurance in which the administration of the medical benefits is controlled by the friendly societies.
3. That this meeting believes that payment *per capita* is wrong in principle, and is neither in the true interest of the insured nor the medical profession.
4. That under any scheme a choice of medical attendant should be allowed to the insured.
5. That medical benefits should only be extended to those persons whose total average earnings do not exceed 30s. a week.
6. That in the composition of any local Health Committee one-half of the members should be medical practitioners residing in the district.
7. That general practitioners should be adequately represented upon the Insurance Commission and the Central Advisory Committee.
8. That a copy of these resolutions be sent to the members of Parliament for the district, the Chancellor of the Exchequer, the President of the Local Government Board, and the British Medical Association.

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## DARTFORD.

AT a large gathering of medical men residing in the Dartford Division of the British Medical Association which took place on Monday, May 29th, under the presidency of Dr. STEEN, the following resolutions were adopted unanimously:

That the friendly societies shall have no control over us whatever.

That medical benefits should be limited by an income limit; that the limit of £160 per annum is too high; that the limit be left to the local Health Committee.

That there be free choice of doctor for all, and that the doctor be responsible to the State through a committee on which medical men are adequately represented.

That statutory recognition should be given to medical committees representative of the local profession in each district, who should be consulted on questions concerning medical administration.

That payment should be for work done, and that the fees should be not less than those of the National Deposit Friendly Society.

That the midwifery fee should not be less than one guinea for an ordinary case.

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## BOURNEMOUTH.

A MEETING of the Bournemouth Division of the British Medical Association, to which all members of the profession resident in the district had been invited, was held at St. Peter's Hall, Bournemouth, on May 25th. A discussion on the National Insurance Bill was introduced by the Chairman, and finally the following resolutions were carried:

1. That any control by the friendly societies be strenuously opposed.
2. That the patient have free choice of doctor, the same privilege being also accorded to the doctor.
3. That the minimum capitation fee be 8s. 6d. per annum, and that in addition to this there be a fixed scale for extras.
4. That a wage limit be fixed at 30s. for single and £2 for married persons.
5. That the medical profession be adequately represented on the local Health Committees, their number being one-third of the whole.

A letter was read from Mr. Heygate Vernon (Chairman of the Bournemouth Provident Medical Association), containing copies of resolutions passed at a meeting held the previous day, with reference to the formation of a practitioners' union in Bournemouth and the surrounding district, for the purpose of dealing with matters arising out of or in connexion with the National Insurance Bill, and asking for the co-operation of the Bournemouth Division of the British Medical Association in the formation of this union.

This letter gave rise to a good deal of discussion, in which the following, among others, took part:—Dr. Simmons, Hyla Greves, Roberts Thomson, G. Nicholls, Mahomed, Le Fleming, Johnson Smyth, and W. Gardner. The following resolution was then carried with some dissentients:

That this Division of the British Medical Association agrees to co-operate in the formation of the proposed practitioners' union.

The meeting terminated with a vote of thanks to the Chairman.

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## WESTON-SUPER-MARE.

AT a meeting held on May 29th in Weston-super-Mare, which was attended by all the medical practitioners of Weston-super-Mare and many from the surrounding country districts, the following resolutions were unanimously adopted:

1. That this meeting disapproves of the method of providing medical benefits proposed in the National Insurance Bill now before Parliament, and especially the proposals that these benefits shall be administered by the friendly societies.
2. That this meeting of the medical practitioners of Weston-super-Mare and the rest of the Axbridge Union urges the Central Council of the British Medical Association to take immediate steps to form a medical federation on the lines of trade unionism, and declares its readiness, if called upon, to submit to a levy, the levy to be available for compensation to medical men who through this crisis are liable to pecuniary loss.
3. That each member of the medical profession present at this meeting and practising in Weston-super-Mare and the rest of the Axbridge Union, pledges himself either to become as soon as possible a member of the British Medical Association, or to join and act with loyalty towards any such union or federation of the profession formed under the aegis of the British Medical Association as shall insist on the following points:
   (*a*) That friendly societies shall have no control over the medical profession.
   (*b*) That the patient shall have free choice of a doctor, and the doctor the right to refuse a patient.
   (*c*) That there shall be a wage limit fixed at much less than £160 a year, which shall apply to all contributors, whether employed, deposit, or voluntary.
   (*d*) That remuneration shall be on the basis of payment for attendance, and shall adequately cover all professional treatment.
4. That the resolutions passed at this meeting shall be forwarded to the Secretary of the Bristol Division of the British Medical Association, to be placed by him in the hands of the Direct Representative of the Division, and shall be sent to the BRITISH MEDICAL JOURNAL, to the member of Parliament for the Wells Division of Somerset, and to the local press.

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## CAMBRIDGESHIRE.

AT a large and representative meeting of medical men practising in Cambridgeshire and Huntingdonshire held at Cambridge on May 26th, under the chairmanship of Dr. FORDYCE, the report of a committee appointed at a meeting held on May 19th, to draw up a report and formulate a scheme was presented by Dr. JOSEPH GRIFFITHS. The report was discussed, modified in some minor respects, and adopted as follows:

*Report.*

In the opinion of the committee any scheme for the working of a medical service under the National Insurance Bill should include the following provisions:

1. The administration of medical benefit should be by the local Health Committee and not by approved societies as in the bill. (Sec. 14 (3).)
2. The composition of the local Health Committee should, in addition to representation provided by this bill, include adequate representation of local medical men.
3. All registered doctors who are willing to act to be placed on the list of the local Health Committee.
4. All insured persons to have free choice of doctor, but candidates for admission to approved society to be examined by doctor chosen by such approved society. No transference of an insured person from one doctor to another to be made until the lapse of a year from the date of entry or annual renewal, without adequate cause and approval of the local Health Committee.
   [The club system was fully considered and unanimously rejected as being in complete opposition to the principles of free choice of doctor, which is to be regarded as a fundamental condition of a good and efficient medical service to the community.]
5. Medical benefit to include only advice and immediate treatment at patient's residence or doctor's surgery; all other drugs, dressings, and appliances to be provided as may be determined by the local Health Committee, but not so as to exclude provision by the doctor when the local conditions determine it.
6. The administration of anaesthetics, operations, fractures and dislocations, and consultations; eye, ear, and throat operations; confinements, abortions and stillbirths, together with illness arising within one month of either of these events, to be specially paid for.
7. Night calls to be paid for by insured person.
8. In respect of illness the consequence of personal misconduct, the patient to have the choice whether (*a*) he shall be treated as an insured person having reports on his case sent in to the local Health Committee, by whom special payment for the treatment shall be provided, or (*b*) be treated at his own expense.
9. The doctor shall be duly safeguarded under regulations to be made by the local Health Committee as regards mileage, in the management of unsatisfactory patients and malingerers, and against abuses of all kinds.
10. Only certificates necessary to receive benefits under the bill to be issued free of charge.
11. The income limit to be 30s. per week for the towns and 20s. for the country.
    [It is intended that the voluntary contributor, provided his income does not exceed the income limit above proposed, shall be entitled to the medical benefits of the bill; but all the voluntary contributors above the income limit shall be excluded.]
12. Capitation fee, calculated upon the different classes of lives (selected, ordinary, and invalid), to be 10s. per head exclusive of drugs. The basis for this fee is that now paid by Government for medical benefits to the staff of the Post Office.
    [The system by means of which payment shall be made for work done was fully discussed. It was decided, however, by a majority of the meeting that it would involve many practical difficulties, and would not be to the advantage of the doctors.]
13. Any persons subsequently admitted to the additional benefits as provided by Schedule IV, Part II, shall each contribute at the same rate.
    [It is important to realize at this stage that under Schedule IV, Part II, women and children may be brought under the operation of the bill at any time without any further parliamentary enactment.]

The report was adopted, and thereafter the following resolution was unanimously and enthusiastically passed:

That the doctors shall unite into one national body. To this end it is essential that all members of the profession should join the British Medical Association in order that that body may represent the whole of the medical men in the country and that it may convey to the Government the claims unanimously put forward by the members.
In the event of the Government not meeting the doctors in an equitable spirit and extending to them just treatment, the Association shall offer unwavering resistance to the present provisions of the bill and dictate terms.

Dr. Fordyce having vacated the chair, his place was taken by Professor SIMS WOODHEAD, President of the Cambridgeshire and Huntingdon Branch, and a vote of thanks to Dr. Fordyce for the able manner in which he had presided over the proceedings of the two meetings was carried by acclamation.

Those present at the first meeting numbered 110, and at the second 120, and they fully represented all branches of the profession.

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## BIRMINGHAM.

AT a meeting of registered medical practitioners of Birmingham and district, held on June 2nd, resolutions were passed identical with those of the Representative Meeting of the British Medical Association in London on May 31st and June 1st.

The following general resolution was also carried:

That, whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

It was pointed out that the essential points were:

1. Income limit of £2 a week for those entitled to medical benefit.
2. Free choice of doctor by patient, subject to consent of doctor to act.
3. Medical and maternity benefits to be administered by local Health Committees, and not by friendly societies.
4. The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee.

5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.
6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

*Birmingham Branch.*

NOTICE is given that a meeting of the medical profession within the area of the Birmingham Branch will be held at the Midland Institute on Thursday, June 15th, at 4 p.m., to consider the National Insurance Bill.

## MANCHESTER.

THE following resolutions were adopted at a meeting of the North Manchester Division of the British Medical Association held on May 30th:

1. This Division declines to serve in any State insurance scheme unless the following conditions of service are incorporated in such scheme: (*a*) Adequate payment for attendance; (*b*) no capitation fees; (*c*) free choice of doctor; (*d*) no control by friendly societies.
2. That in the event of the above terms being refused, the British Medical Association should either form medical clubs on Antwerp lines or boycott the whole scheme, and that each medical practitioner in the Division should pledge himself to accept no appointment or take any action without the consent of the Division.

## ALTRINCHAM.

A SPECIAL meeting of medical practitioners resident in the Altrincham district was held on Friday, June 2nd, at the Board Room of the Altrincham Hospital at 4.30 p.m., when the following resolutions were put to the meeting and carried unanimously:

1. That, whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, in view of the fact that the present proposals of the Government were unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefit until satisfactory terms have been arranged with the medical profession.
2. That the following fundamental conditions of service shall be determined by Parliament, and not left to the discretion of Insurance Commissioners, friendly societies, or local Health Committees:
   (*a*) That medical practitioners engaging in practice under the Act shall deal directly with the new Health Committees and not with the friendly societies.
   (*b*) That the medical profession shall be adequately represented on all committees.
   (*c*) That a "total income" limit of £2 per week be fixed for all those receiving medical benefits.
   (*d*) That all patients shall have free choice of doctor, subject to the consent of the doctor.
   (*e*) That the remuneration shall be just and adequate, and that, if feasible, it ought to be for work done and not a capitation fee, and that provision shall be made for extras.
3. That these resolutions be communicated to the local press and local member of Parliament.

Meetings have also been held in the Sale, Knutsford, and Northwich areas of the Division, and these meetings have passed unanimously similar resolutions.

## SOUTHPORT.

AT a meeting of the profession residing within the area of the Southport Division of the British Medical Association, held on May 24th, the following resolutions were adopted:

That this meeting of members of the medical profession residing in the Southport Division of the Lancashire and Cheshire Branch of the British Medical Association protests very strongly against the manner in which the National Insurance Bill is being hurried through Parliament without proper opportunity of discussion being afforded to the medical profession of matters which are likely to affect them and the public very seriously and disadvantageously.

That copies of this resolution be forwarded to the Chancellor of the Exchequer, the members of Parliament who represent this Division of the Association, and to the Medico-Political Committee of the British Medical Association.

That this meeting approves the resolutions passed in Manchester this afternoon, and requests the Representative at the forthcoming Representative Meeting to take such action as may seem practicable to prevent the medical clauses of the National Insurance Bill becoming law in their present form.

## WAKEFIELD.

AT a largely attended meeting of medical men practising in Wakefield, Doncaster, Bawtry, Tickhill, Goole, Snaith, Thorne, Pontefract, Castleford, Normanton, and the surrounding districts, held at the Hospital, Wakefield, on May 29th, the following resolutions were unanimously carried:

That in connexion with the National Insurance Bill:

The patient shall have the right to choose any doctor who is willing to undertake work under the Act.

There shall be adequate remuneration for medical services rendered, either by a capitation grant or by fees for work done.

That the wage limit should not exceed 30s. a week for those entitled to medical attendance under the Act.

The medical profession shall not be under the friendly societies, but shall be under Government control, and that there shall be adequate medical representation upon the Health Committees

## GLASGOW.

THE following resolutions were unanimously adopted at a large and representative meeting of the Glasgow Southern Division of the British Medical Association, held on May 29th:

1. That this meeting cordially approves of the principles of the National Insurance Bill, in that it aims at enabling persons who cannot otherwise meet the cost of medical attendance to insure against such cost, but considers that the bill in its present form contains serious defects.
2. That so far as medical benefit is concerned, there is really no wage limit provided in the bill, and that this meeting considers that persons earning more than £2 per week do not require to be insured for medical benefit.
3. That the control of the medical service should not be given to friendly societies, local Poor Law or public assistance societies, or public health authorities, but that the service should be organized and controlled by the Government in co-operation with the medical profession.
4. That medical men should be adequately represented on all the administrative bodies under the bill.
5. That if medical benefit be restricted to persons not earning more than £2 per week, no exception need be taken to the capitation method of payment.
6. That for medical benefit under the present bill a provision of 6s. per head per annum is totally inadequate, and that a more liberal scale of remuneration be pressed for.
7. That the beneficiaries should have free choice of doctor.
8. That every member of the Association should do his best to forward the views expressed by the Representative Meeting, and that a personal canvass of every practitioner in the district be carried out in order to gain universal adherence to these views.
9. That copies of these resolutions be transmitted to members of Parliament representing constituencies in this Division of the British Medical Association, and to the public press.

## ABERDEEN.

A MASS meeting of all medical practitioners in the area covered by the Aberdeen Branch of the British Medical Association (Aberdeen, Banff, Kincardine, Orkney and Shetland) will be held in the Medico-Chirurgical Society's Hall, 29, King Street, Aberdeen, on Thursday, June 15th, at 3 p.m., to consider the resolutions and amendments anent the National Insurance Bill recommended by the Representative Meeting held in London on June 1st. As the matter is one of great importance, every practitioner should make a point of attending this meeting.

## MUNSTER.

AT the annual meeting of the Munster Branch of the British Medical Association the National Insurance Bill was discussed in all its bearings as it would affect medical men and particularly those practising in Munster. After prolonged deliberation, the following resolutions were adopted unanimously:

1. That we disapprove of contract practice.
2. That we disapprove of the friendly societies having authority over the medical men of Great Britain and Ireland.
3. That it is the interest not alone of the medical profession, but especially of the general public, that visits should be paid for according to the number of visits, and special fees should be paid for surgical operations, etc.

4. That if the contract idea be adhered to in the bill that we consider a sum of 10s. per annum per member should be paid, especially as this would mean to the insured individual no greater financial expenditure than is involved by existing club members who now get no assistance from the State or the employers.
5. We consider the fee mentioned for attendance on midwifery cases entirely inadequate.
6. The insured person should not be in receipt of more than £2 per week.

## EFFECT ON HOSPITALS.

### BRITISH HOSPITALS ASSOCIATION.

THE effects of the bill upon the work and finances of the voluntary hospitals were considered at a special meeting of the British Hospitals Association held at St. George's Hospital on June 2nd. Representatives of over two hundred hospitals in all parts of the country were present.

Mr. W. A. WEST, Treasurer and Chairman of the St. George's Hospital, who was voted to the chair, moved the following resolution:

> That this meeting of the managers and administrators of voluntary hospitals welcomes any legislation which, by reasonable arrangement, will benefit the sick poor and continue to make use of the machinery of voluntary hospitals, and hopes the bill will be so amended that their usefulness may be continued and their efficiency unimpaired.

Mr. West said that any measure that would improve the condition of the sick poor must have their entire sympathy, and any objection they urged was one of detail and not of principle. The bill would profoundly alter the whole system of voluntary hospitals. For one thing, all the officials would have to be insured for medical benefits, although they received free treatment within the hospital walls. The hospitals as a whole would have to pay £20,000 to £30,000 a year in insurance premiums as employers. The danger to the funds of the voluntary hospitals lay in the fact that the ordinary members of the public, when they were paying to a national scheme, would no longer feel the necessity of contributing to the hospitals. Workmen's collections would largely cease. It must be remembered that the bill provided for the ordinary ailments of a section of the community only, but it made no provision for the more serious and expensive cases even among the insured. The suggestion had been made that some form of contribution to the hospitals should be made by the State. That must lead to State inspection. He did not know that hospitals would object to that, for their proceedings were perfectly aboveboard, and something of the kind already existed with regard to the Saturday and Sunday Funds.

Sir WM. COBBET (Chairman of the Manchester Royal Infirmary), who seconded the resolution, said the work of the out-patient departments was likely to be reduced owing to the effect of the bill, but not to be abolished altogether. There would still be much work to do, and he hoped the bill would have no very great effect on the work of the hospitals. Its effect upon their funds, however, presented a much more formidable prospect. The tendency of the bill was to divert at its source the flow of subscriptions and donations to the hospitals. The main income was derived from employers and employed, and the bill tapped both these sources by direct taxation.

Mr. CHARLES LUPTON (Treasurer of the Leeds General Infirmary) argued that the bill put a premium on the resort to hospitals by the insured because it provided that in that case the benefits would go to the family. He pointed to the additional work that school medical inspection had brought to the hospitals, and said that they were not likely to lose a large number of the out-patients. The ordinary layman, reading the statement that everybody in the country in the employed classes might be insured, would suppose that every kind of treatment was provided, but, of course, this was not so. It would be difficult to impress on the working man that only about one-third of the working classes would receive any benefit under the bill, wives and children being excluded. He hoped hospitals would not try to get a direct subvention from the State, but if they could arrange that the work done for the State was properly paid for they would be on as safe ground as they could be.

This remark elicited a warning from several medical men who spoke subsequently that if the hospitals tried to get pay from the State for work done in the hospitals the medical staffs would object. Dr. ROE, North Staffordshire Infirmary, maintained that it would mean the end of the system of honorary medical officers, and the hospitals would become State institutions.

After a general discussion the resolution was carried, and a committee was formed to prepare a case for submission to the Chancellor of the Exchequer.

## THE NATIONAL INSURANCE BILL AND PHARMACISTS.

[FROM A PHARMACEUTICAL CORRESPONDENT.]

IT is not only in regard to the medical profession that the portion of the National Insurance Bill dealing with medical benefits would, if passed in its present form, have far-reaching and disastrous effects. When introducing the bill, the Chancellor of the Exchequer said: "It should be for the chemist to dispense," and "we propose to make provision that, if there is no chemist available, the doctor should be allowed to go on as at the present moment, but wherever there is a chemist available there should be separation." The better delimitation and separation of the functions of the medical practitioner and the pharmacist has for long been regarded by both as a highly desirable object, and it was not unnatural that hopes were aroused by Mr. Lloyd George's remarks that the new measure would facilitate a long step forward in that direction; but when the text of the bill appeared it became evident that it contained nothing on this subject which pharmacists could regard as satisfactory, and that unless the clause dealing with the matter is greatly modified in committee it is entirely unacceptable, and must be strenuously resisted.

In the first place, the bill makes no mention of chemists or pharmacists, but merely requires that in the arrangements made between friendly societies and medical men the latter should not be required to supply medicines. Mr. Lloyd George said he had no doubt that the friendly societies would make as good bargains with chemists as they had previously done with doctors; but they would be under no necessity, as the bill stands, to make any bargain of any sort with chemists. In fact, according to published statements, some of the friendly societies are already considering plans for establishing their own dispensaries, from which all the medicines required for their members would be supplied; since there would be no *selling* of the medicine in these places, the Pharmacy Acts would not apply to the transactions conducted there, and the friendly societies could not be compelled even to employ qualified pharmacists as dispensers. The past record of the societies as bargain-drivers with the medical profession gives every reason to suppose that they would study cheapness principally in engaging dispensers, and would, therefore, not employ qualified men. Since one of the most obvious results of the passing of the bill would be an enormous increase in the number of persons receiving medical attendance and medicines on contract terms, a great deal of dispensing now done by pharmacists in properly equipped pharmacies would be transferred to such dispensaries, and the law having called into existence a body of trained and examined persons specially for the responsible work of dispensing medicines, would proceed to hand the work over to others. It is safe to say that at present, when the dispensing of medicines for members of friendly societies is done in the surgery of the doctor who attends them, payment for it being included with payment for his services in one small sum per annum, such dispensing is not a source of much satisfaction to the doctor; but at least he knows what is actually supplied, and how and by whom it is dispensed. For those who are now private patients but under the Insurance Bill will become contract patients, the doctor now has the medicine dispensed in his own surgery, or by arrangement with a pharmacist whom he knows the medicine is dispensed by the latter, or the patient receives a prescription to take to any pharmacist he chooses. All this would be changed by the bill; but it is not to be supposed for a moment that doctors will be satisfied to have the medicines which they order dispensed by un-

qualified persons responsible only to friendly societies, who have not in the past shown much appreciation of the value of professional training and qualification. This is what would probably happen under the bill as it stands.

But if the clause dealing with the dispensing and supply of medicines should be so amended that this should only be carried out by qualified pharmacists, there remains the important question as to the terms on which this work should be paid for. If, as is admittedly the case, there is an insufficiency of data on which to base a fair capitation rate of payment for medical attendance on all those who come under the benefits of the scheme, there is a still greater deficiency, in fact, almost a complete absence of data, as to what would be a reasonable rate of payment, on a capitation basis, for the medicines to be supplied to them, and since only a portion of such payment would be for the pharmacist's services in dispensing, and the greater part of it would be for the cost of the drugs bought wholesale, too low a rate might result not merely in underpaying the pharmacist for his services, but in leaving him actually out of pocket on the transaction. This is no mere imaginary risk. If a medical man contracts to attend, say, a thousand people when required, for a fixed annual payment, and in a given year twice the normal proportion of them are ill and require his attendance, he will only receive half as much, per visit, as was expected. But if a contract is made to supply them with all the medicines they may require in a year for a fixed payment, and then twice the normal amount is required, it is probable that the person contracting to supply will receive nothing for his services and will actually have to pay away more, as the wholesale cost of the drugs, than the total amount he receives.

In these circumstances it is clear that the only reasonably fair way of paying for medicines is that the charge should be for what is supplied, at an agreed tariff rate. There is at present nothing in the bill to prevent such a method of payment; but pharmacists cannot be satisfied unless it is expressly provided that payment shall be on this system, and that a tariff shall be arranged. The example of Germany, where the price to be charged for dispensing by all pharmacists is fixed in accordance with a tariff, which proves quite simple in working, shows that there is no practical difficulty in the way of such a proposal being carried out. Contracts would not then be made between friendly societies and particular pharmacists, but it would be open to any pharmacist in business who chose to supply medicines to insured persons at the rates provided; and the insured person would similarly have free choice among the pharmacists of the district.

The Pharmaceutical Society of Great Britain has its parliamentary secretary, Mr. W. S. Glyn-Jones, himself a pharmacist and a compatriot of the Chancellor of the Exchequer, in the House of Commons, and another qualified pharmacist, Mr. Richard Winfrey, is a member of the Government, and rendered great service in connexion with pharmaceutical legislation in 1908. The numerous pharmaceutical associations throughout the country, which are federally connected in the British Pharmaceutical Conference and also in touch with the Council of the Pharmaceutical Society through its local and divisional secretaries, will undoubtedly bring all the pressure possible to bear on the members of Parliament for their respective constituencies, and put the pharmaceutical aspect of the matter before them.

In securing alterations in that part of the bill dealing with medical attendance and the supply of medicines, the interests of medical practitioners and of pharmacists are nowhere in opposition, and are to a large extent identical. It may reasonably be expected that if combined action can be taken they will be able to effect more than would be possible to either alone.

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## ATTITUDE OF FRIENDLY SOCIETIES.

A NUMBER of conferences of delegates of friendly societies were, as usual, held at or about Whitsuntide, and afforded opportunities for discussion of the National Insurance Bill as it may affect the societies.

At the annual Movable Conference of the Independent Order of Oddfellows, Manchester Unity, held at Brighton on Whit Monday, the Grand Master, Mr. Thomas Barnes, pointed out that the unity had 890,538 adult members, with a total roll of 1,048,683, and a capital of £15,000,000. During the year 13,000 members, including 8,000 adults, had been added. In commenting on the National Insurance Bill, he said that if the principle of compulsion were conceded it would be difficult to devise a plan more comprehensive, better conceived, or more completely adapted to existing agencies. It was, however, necessary to insist on the principle that contributions should be paid into the societies, and that each society should have full control of its funds. The advocates of the scheme had urged the claims of the unfortunate people whose circumstances had prevented them from making the provision against sickness which was recognized as so desirable, but the question arose whether these were the people who would be benefited. It appeared rather that the financial advantage would be for men who had failed to do for themselves what they could easily have done, and who would be helped at the cost of young men just beginning life. Was it reasonable that the young man earning £1 a week should be penalized in order that the man of 50 earning £3 weekly might be subsidized? While every effort had been made in the bill to work through the friendly societies, even the most enthusiastic advocates of State action must admit that a new character would be given to them, and unless special precautions were taken and continued they would be gradually absorbed into a State department, the altruistic features of their operations would be eliminated and they would become agencies for insurance simply. The question for the friendly societies was whether they would be prepared to stand outside the State scheme entirely, providing insurance for those whose incomes would exempt them from compulsion, and for as many others as would unite with them to secure benefits in addition to those laid down as a minimum. A large number of their members who had considered the matter were opposed to this, and desired to endeavour to make the bill successful because of its admittedly good features; with that view he sympathized, and therefore recommended that attempts should be made to secure such amendments as would effectually safeguard the existing permanent reliable societies.

At the adjourned meeting many criticisms were directed against the financial provisions of the bill, and a resolution was adopted by a large majority to the effect that, subject to amendments to be approved by the conference or the board of directors, the Manchester Unity should, immediately on the passing of the bill, take steps to become an "approved society" within the meaning of the Act.

On the third day the conference proceeded to consider the amendments deemed necessary in the interests of the friendly societies. A resolution in favour of the inclusion of casual workers was unanimously adopted. A motion was then made declaring that the friendly societies should have the appointment of their medical officers, and should be empowered to make rules and regulations in respect of the duties of such officers. A director, Mr. Wright of Reading, who moved this resolution, described the remarks of Mr. Lloyd George as a scandalous misrepresentation of the attitude of friendly societies towards their medical officers. The societies had not made profits by underpaying their doctors, who, he thought, had done very well out of the societies. The doctors had very little to complain of, and whenever the societies advertised for a medical officer they had shoals of applications for the appointment. The societies must retain the appointment of medical officers in their hands, and must have control of them and power to lay down rules and regulations for the performance of their duties. Mr. R. A. Goddard (London) indignantly repudiated the suggestion that the societies had been guilty of sweating their medical officers; on the contrary, he thought the friendly societies had helped to popularize the medical profession. While desiring that the doctor should be fairly paid, he protested against any inordinate scale of payment. The Deputy Grand Master said that the medical men were as much a part of their organization as the secretary, and it was preposterous to say that the society should have no control over them. The society should also endeavour to secure that a medical man should not have in charge more patients than he could personally attend. The resolution was then carried with the following addition: "That proper provision be made for securing the right to approved societies to establish and carry on Friendly Societies' Medical Associations."

At the annual assembly of the Nottingham Imperial Order of Oddfellows, which opened at Coventry on the same day, the Grand Master, Mr. H. Marsh, expressed amazement at the immensity of the scheme, and said that it had many defects from the friendly society point of view. He believed that many members would be unable to pay 4d. a week in addition to their contribution, and suggested that members of approved societies should be allowed to produce a certificate showing that they had paid the required contribution into a friendly society for the purposes of the scheme. With regard to maternity benefit, he urged that sick pay should be allowed to the mother during her enforced absence from work.

On the following day the conference passed resolutions declaring that the control of doctors and the provision of medicine for approved societies must remain with the societies, and that medical pay should not exceed the amount calculated by the Government actuaries in their report, approving the separation of provision of chemists from doctors, and objecting to the limit of incomes for medical benefits.

At the annual movable committee meeting of the Leeds Ancient Order of Oddfellows (Leeds Unity) the Grand Master expressed the belief that the bill would lead to a great influx of members.

At the annual conference of the Loyal Order of Ancient Shepherds at Swansea on Whit Monday the Chief Shepherd, Mr. Alexander Scott, said that while from the fact that the committee of the national conference had enjoyed the confidence of the Chancellor of the Exchequer, the members must be convinced that the scheme of compulsory insurance must carry with it many advantages to friendly societies, yet it must be understood that it meant a complete revision of their scale of benefits. He hoped it would lead to a more extensive and sympathetic measure of dealing with their members, but, unless the scheme was met in a whole-hearted way, it could not confer that benefit on the friendly societies which its promoters hoped. He believed that compulsory insurance was inevitable and could exist side by side with the friendly societies. A resolution approving of the general principles of the measure, but reserving judgement on many points of detail was carried unanimously, as was also a resolution to the effect that the 4d. a week deducted from wages should be handed to the approved friendly society instead of being paid to the national fund.

A special high court of the Ancient Order of Foresters was held in Burton-on-Trent on May 30th to discuss the bill. Over 500 delegates, representing three-quarters of a million of adult members, attended. Mr. J. Lister Stead, Permanent Secretary, in submitting a report, said that the provisions of the bill relating to medical benefits had caused some restlessness in the medical profession. He thought the medical profession was overcrowded, and that some of its members regarded the bill as an opportunity of endowing the profession at the cost of the State. Mr. Stead, however, thought that the Chancellor of the Exchequer might be trusted to see that the people of this country were not exploited for the benefit of the doctor. Mr. Stead also resented the charges that the friendly societies—or at any rate the Foresters—had sweated the medical profession. After Mr. Marlowe, parliamentary agent, had said that the decision to be arrived at meant the making or marring of the friendly society movement, and Mr. Rawlins had protested against the attempt to pass the bill so hurriedly, Mr. Abbott of Sheffield condemned the bill on the ground that it made no provision for the insurance of children against sickness. The meeting adjourned until the following day, when Mr. Marlowe said that Mr. Lloyd George in his speech on the second reading appeared to have absolutely thrown the friendly societies overboard. The societies had been in negotiation with the Chancellor of the Exchequer for two and a half years, and he had told them frankly that he was going to eliminate rotten dividing and collecting societies and clubs. He had now departed from the promise and had broken faith with them. He concluded by moving the following resolution, which was carried unanimously:

> That the expressed opinion of the Government to include collecting and insurance companies and dividing societies as approved societies under the National Health Insurance scheme was a direct attempt to open competition against properly constituted benefit societies which must have a detrimental effect upon them, and that the meeting strongly protested against such bodies being utilized against societies which had always worked for the payment of sickness benefits.

At the annual meeting of delegates of the Hearts of Oak on June 6th the newly elected president, Mr. R. Green, of King's Lynn, in his address, said that the Chancellor of the Exchequer had agreed to the proposals of the executive council to exempt the society from the establishment of local committees on conditions that they handed over their sickness administration to local commissions. The council had, however, failed to induce Mr. Lloyd George to alter or amend the payment of maternity benefit in kind.

At the annual meeting of the High Sanctuary of the Ancient Order of Shepherds at Brighton on June 5th the High Pastor said that it seemed to him that the spirit of the great friendly societies would be absolutely blotted out, that they would sink into mere mediums for the collection of subscriptions and the disbursement of benefits, and that their secretaries would become mere paid agents of a Government which, in spite of its many promises, had sounded the death knell of the friendly societies. A resolution was carried to the effect that the inclusion of collecting societies and insurance companies and dividing societies as approved societies under the bill was an attempt to open competition against the properly constituted benefit societies, and must have a detrimental effect.

At the annual conference of the National Society of Amalgamated Brassworkers and Metal Mechanics at Birmingham on Whit Monday, a resolution was passed to the effect that the society heartily supported the principle of the Insurance Bill. Certain amendments were, however, desired, one being to the effect that contribution should be on an equal footing between the State, the employer, and the workman.

## CORRESPONDENCE.

A VERY large number of letters have been received in which the effects the National Insurance Bill will have on medical practice are discussed; almost without exception they express the strongest opposition to the provisions affecting medical benefits and the determination of the writers to resist. Most of them express confidence in the British Medical Association, though some are disposed to criticize the Representative Body, and others find fault with those they term the "leaders of the profession," meaning thereby, as it would seem in some cases, persons holding high office in the medical corporations and in others, those who have been chosen by the Association for the very responsible task of directing its administration and carrying out its policy, a task never more anxious and onerous than at the present moment. Anything like panic is to be deprecated, for panic leads to disaster. The medical profession has an overwhelmingly strong case, and can win if it be united. Some correspondents who have addressed this JOURNAL and its contemporaries seem to fear that the Association will not stand firm respecting the income limit, but such a suspicion does not seem justifiable in face of the definite resolution of the Representative Body. History seems to prove that a distrust in moments of difficulty of the leaders it has itself chosen is a weakness very often displayed by a democracy, but it is to be hoped that our democracy, consisting as it does of members of a learned profession, will not permit itself to fall into this fatal error. The fact is that such an attitude of distrust is a sign of weakness, for at bottom it is a distrust not of the individuals who happen to be holding office at the time, but a distrust of members of the profession in themselves and in one another. The action of the Association and the action of the profession in this matter will be determined not by "leaders" but by the unity of all the members. When the nominal question is asked, "Will the Association stand firm?" the real question is, "Will the individual members of the Association stand firm? Will those members of the profession who are at present non-members of the Association, by joining the Association, give it that necessary support upon which firmness in this matter must ultimately depend?" At the present moment the practical method of securing the acceptance of the £2 income limit is by inducing members of Parliament to vote for it. This must depend upon the representations which members of the profession throughout the country make to their own members of Parliament. If these efforts should by any chance be unsuccessful, then the question will come as to the action the profession must take after the Bill becomes law. This again will depend not upon what "leaders" may say or do, but upon what individual members of the profession will do as regards entering into arrangements under the scheme for the treatment of persons whose income is above the limit.

There is one point touching the financial provisions of the bill as to which some misapprehension seems to be very general in the medical profession. It appears to be assumed that the Chancellor of the Exchequer has proposed a uniform average rate of 6s. a year to cover the provision of medical attendance and drugs for all the insured, including not only the selected lives at present admitted to friendly society membership, but also the bad lives the societies

would reject. This assumption does not rest on any provision in the bill nor on any statement made by Mr. Lloyd George. The fact is that the bill is silent upon the subject, and if we look to the only source of authoritative information—namely, the statements of the Chancellor of the Exchequer—as regards the intentions of the Government, it is to be noted that he has said explicitly that the financial provisions for meeting the cost of medical attendance are elastic, and that the 6s. rate was never intended to apply to the bad lives. He has pointed out on more than one occasion that there is specific provision in the bill for the local Health Committees (with whom it would rest to make arrangements for medical attendance upon the Post Office contributories) to obtain grants from the Treasury and the county council if the amount at their disposal, derived from the ordinary sources of contribution, is insufficient.

Again, it may be questioned whether any useful purpose can be served in the present crisis by publishing any scheme which any single member of the profession has founded upon his own individual experience and impressions. The time has come for concentration, and the findings of the Representative Meeting, as reported to the mass meeting in London on June 1st and as set out in the Circular Letter printed on page 404, afford a basis for united action.

We understand that information from practitioners as to the actual conditions of their practice in relation to remuneration from the various classes attended will be valuable to the Council and the Committee charged with preparing the case of the profession for the amendment of the bill; such communications will, if it is desired, be treated as strictly confidential, and may be forwarded to the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

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### Amount of Sickness and Rate of Remuneration.

Dr. W. Black Jones (Llangammarch Wells) writes:

In considering the effect of the Insurance Bill on the general practitioner there are two questions which occur to me as going to the root of the matter.

The first is, What amount of sickness shall we have to contend with? The second is, On what scale should we be remunerated?

The actuaries consulted by Mr. Lloyd George state that there are no general statistics from which they can calculate the duration of the sickness experienced by the friendly societies, but that the investigation carried out into the experience of the Manchester Unity of Oddfellows may be considered as fairly representative of the general experience of those societies. I understand that this investigation showed that each member experienced 16.8 days of sickness per annum between the ages of 16 and 65 years. It must be remembered, however, that the members of this society were selected lives, but when the bill becomes law we shall have not only steady and thrifty members to deal with, but many drinkers and wasters, and we must expect an increased amount of sickness. In Germany, where the general death-rate is higher than in this country, under the Government insurance scheme, the average duration of each illness is 20.5 days per annum. If we take the mean between the Manchester and the German experience, we shall have an average annual sickness of 18.65 days.

With regard to the amount of remuneration we ought to expect, we shall have to take an average of the acute and chronic cases. In the article on Some Facts and Figures concerning Contract Practice in the last issue of the Journal it appears that in the classes E, F, and G, which were "three average lodges of Oddfellows," each member received on an average 4.3 consultations, for which the fee was 10½d. It has been repeatedly shown that the General Post Office pays 8s. 6d. per annum for attendance on the employees, who are a very steady class, with a healthy occupation; surely we ought to be remunerated on a higher scale when we have to deal with a less healthy class.

It appears to me that we shall have to attend each member on an average for about eighteen days, which will mean from four to five consultations, for which we ought to receive at least 2s. 6d. for each attendance. This could be met either by an annual capitation fee of 11s. 3d. (being 4.5 consultations), or a weekly payment of 5s. for each week we are attending the patient, which for two and a half weeks would amount to the same sum. The insured are to have sick pay, calculated at a certain sum per week, and it seems to me that the most satisfactory solution of the problem would be for the medical attendant to be paid in a similar manner.

### Position of Works Doctors.

Medical Officer writes: I hold an appointment on some public works, and roughly speaking I am paid 10s. per man a year. In the village there are some twenty-two tradespeople who could come into the Government insurance scheme under the voluntary part. During the past eight months (I select this period since I have exact figures for it), I have attended nine of the above twenty-two, and the average amount paid by each of these nine is 10s. This for the whole year would make the average rate 13s. 4d. A simple calculation shows that twenty-two at 6s. each would yield £6 12s., but at present I can make £6 out of nine people, so that in the event of this scheme coming into operation I should have thirteen more people to attend to for an additional 12s. At present I am only consulted when there is some real necessity, but under the Government scheme my work would be doubled or trebled—that is, more work and less pay. Club patients of any sort are more or less exacting, and owing to their conditions of life the treatment is very often longer and more expensive to the doctor than that of better class patients. What nursing can a woman with a large family give to a husband who has heart disease? He must do a number of things for himself—with the result that his progress is hindered; this means more visits and medicine from his medical attendant.

I charge, as a rule, 1s. 6d. for a consultation and medicine. Surely this cannot be considered excessive, and yet, as things will be under the new order, I shall have more than twice the number of people to see for the same money. Shortly, it will be a sixpenny practice. If this be the result, the scheme fails in its object. I admit that my numbers are very small, but they are exact, and reliable as an index.

### The Capitation System.

Geo. P. (Cheshire) writes:

As one who has done duty in many parts of the country for some ten years, and who has been brought into contact with club practices where the members made an annual contribution of from 2s. 6d. to 5s., I claim to know something of the working of them, and it is because of this knowledge that I have declined to act as club doctor in my own practice as a general practitioner. I submit that it is not sufficient for Mr. Lloyd George to say that "he *thinks* the danger of the loss of private practice under the bill has been greatly exaggerated." There ought to be absolutely no doubt whatever on this *vital* point. There is nothing so conducive to the health and prosperity of the community as healthy competition, but it *must* be healthy; and if the general practitioner were secured against the unhealthy part of it, how much better might matters not be to-day!

Much interest in professional work would cease with the introduction of a *small* capitation grant. The bond of union is begotten of free choice and mutual respect, and is cemented by the assiduity of the doctor on the one hand and the fee in the other. For, be it understood, the private patients with incomes of £160 or thereabouts are, as a class, grateful to the doctor, and as eager to show it by payment as any class above it, which most general practitioners will concede. . . . The general public are not so ill-informed, in my opinion, as to expect the attention and consideration now given, when their medical and surgical requirements are to be commandeered as the

result of a *small* annual payment. There cannot be that interest and sympathetic care in the exercise of one's duties which happily is the prevailing characteristic in private practice. . . . The fees from the poor now obtaining are miserably inadequate for proper care and treatment by the doctor. Let the State look to this portion of the community, and not exploit the already overworked and underpaid medical practitioner. Something ought to be done to meet the urgent necessity of alleviating the sufferings and distress of the deserving poor, and all human experience tends to prove that parsimony is essentially a failure. Inferior emoluments mean inferior services—moral and material. Liberal treatment of the medical practitioner has its counterpart in adequate and tender treatment; the greater the liberality the greater must be the resulting benefits to the poor.

*Contractors will on no basis* be as satisfactorily catered for as—and this is the vital point—the private patient, who has his choice, pays according to his means and for medical services rendered, and has the hearty co-operation and sympathy of his medical attendant.

### Effects on General Practice.

Dr. F. B. HULKE (Deal) writes:

I have been in general practice now for over a quarter of a century; my patients consist of all classes—from countesses to crossing-sweepers. I hold a Post Office appointment, a club appointment, a provident dispensary appointment, and am on the staff of a cottage hospital; moreover, I have always been dependent on my work for a living. I think, therefore, I may claim as complete a knowledge as any one as to where the shoe pinches, and how to ease or increase the discomfort that it causes.

The first surprise I got on reading Mr. George's statement and comments thereon was the glib way in which it was taken for granted that 4s. per annum per head was any remuneration for a skilful and conscientious medical man; the idea is preposterous. All club work done at any such figure is mere "charity," and nothing else. No one could make a living at the price, but the medical man, in his younger days, does gain valuable experience by holding these appointments, and that is his only reward. To take 4s., or even 6s., as the basis of remuneration is entirely wrong.

It is because we look upon the work in the light of a charity that we have been for years struggling to get a *wage limit* fixed, above which members of societies shall not subscribe for the club doctor or be entitled to his services. It is no unusual thing to find Oddfellows and Foresters, etc., who joined in their youth when their means were very small, demanding in after-years the services of the club doctor, in spite of the fact that they have now become the owners of large businesses, with perhaps half a dozen shops, and financially able to buy up the doctor—lock, stock, and barrel—several times over without feeling it in the least.

Although, as a profession, we are willing to treat the very poor, who would otherwise have to call in the parish doctor, at a club rate, we do not see why we should be expected or compelled to treat the wealthy and well-to-do on the same scale.

Mr. George goes even further, and says it does not matter how rich a man is, he has only got to subscribe to the Government insurance, and he can have his medical man for 6s. per annum. This will result, after a few years, in the absolute extinction of all the better-class general practitioners, and those who, like myself, have spent their lives in working up a good-class practice will be wiped out of existence. I know enough of the generality of people to realize that, however rich they may be, they will not pay for what they can get for next to nothing. Our private patients will all become "clubbers," and we shall find our practice valueless. Now, as the goodwill of a practice is often the greatest asset of a dead or dying doctor, and the main support of his wife and family, it means a great deal to us, and as a profession we must fight hard to prevent this great injustice being done to us.

### Parliamentary Action.

Dr. F. R. HUMPHREYS (Hampstead, N.W.) writes: May I venture to remind our leaders that no deputation, however influential, no argument, however powerful, will of itself cause the present or any Government seriously to modify a bill which it has itself brought in? Pressure from the constituencies alone causes important amendments to be inserted. To bring this pressure to bear it is essential that every member of the profession should—uniting with himself all the local voting power he can possibly get—personally approach his local member of Parliament. There is a considerable prospect of the bill passing into law this session (being a money bill, it is doubtful how much opposition can be offered to it in the House of Lords), according to Mr. Lloyd George, and no time should be wasted in taking action amongst the voters. The lines on which members of Parliament are to be approached should be authoritatively laid down, and no medical speaker (or writer) should weaken the hands of others by objecting to small details in the great scheme of action of the profession. The profession has in the past suffered much and lost much from the action of independent members of it against the general consensus of opinion, and to raise objections upon details is merely to confuse the public mind as to our position. But our leaders will do well to remember that there must be no playing with this measure, or a bitter retribution will be exacted from them. We will stand no nonsense either from the Government or from our own leaders.

### The Association and the Scheme.

Mr. CHARLES P. CHILDE, F.R.C.S. (Honorary Clinical Secretary, Portsmouth Division, British Medical Association), writes: It is certain that if the medical profession shows a united front in the present crisis it will obtain an equitable settlement, which, I imagine, is all it asks. It is equally certain that, if its policy is divided or uncertain, it will go to the wall. Now, the first and essential step to a united front is a single organization to voice the interests of the profession, which it seems to be unanimously agreed are gravely jeopardized by the Government bill. The only existing organization for such a purpose is the British Medical Association, and it appears to be obvious that every medical man in the kingdom who is not already a member should forthwith join it, so that it may be able to speak and act with the backing of the whole medical profession behind it. I suggest that a special meeting of every Branch Council should be held in June for the express purpose of electing members to the British Medical Association. Notices to this effect would bring home to the profession the absolute necessity of united action, and of having some definite organization for fighting purposes. Time is short. If only 80 per cent. of the profession in Great Britain pulls together it is certain it will obtain fair treatment; a divided policy will spell disaster.

### Medical Fees.

Mr. CHARLES BANNATYNE, M.B., C.M.Glasg. (Salsburgh-by-Holytown), writes: The fundamental error made by the Chancellor of the Exchequer, in considering the medical fees under his insurance scheme, is that of taking the average capitation allowance of the friendly societies as his guide. It has been repeatedly pointed out that most medical men acting for these societies are only enabled to do so because they possess private practices, in many instances among the class with incomes within the £160 figure, which class is now apparently to be enmeshed in the State insurance net. Moreover, capitation fees are not on trial. The system has been in vogue for long years in all Scottish mining districts and most of the North of England mining centres. The capitation fees twenty-five and thirty years ago were as low as 1½d. a head a week, but have gradually risen to 3d. and in some instances 4d. a head for medical attendance, dressings, and appliances. In many instances drugs also are included, but the tendency in recent years has been to claim extra payment for medicines, dressings, etc., simply because the advances in modern medical treatment, and the consequent advances in prices of remedies and appliances, made it impossible to cover expenses by even such a capitation fee as 13s. per annum. Even in the case of colliery practices extra payments are allowed for tooth extraction and vaccination. Yet in the face of these results of years' experience of medical men dealing with large practices where capitation fees form the bulk of the receipts, we have the Chancellor laying down the law on fees without consulting the profession who are most interested. A capitation fee

of even 8s. 8d. per annum will spell ruin to most of the medical men from John O'Groats to at least the borders of Yorkshire, these being the boundaries my knowledge of medical practice covers. Let us examine the question by means of a simple calculation. A colliery practitioner receives at present 13s. per head per annum; of this, at least $\frac{1}{13}$ goes for drugs, dressings, etc. This leaves $\frac{12}{13}$ to cover all other expenses and cost of living. The Chancellor proposes now to pay $\frac{6}{13}$ of this rate. Now, subtract the minimum cost of drugs, etc., as given above, namely $\frac{1}{13}$, and this leaves hundreds of practitioners who would have to live on $\frac{5}{13}$ of their present income if Mr. Lloyd George's scheme became in its present form law. In plain words, it spells ruin for the majority of the profession. The writer is in favour of an insurance scheme such as is projected, but—

1. Let the insured choose their own medical men.
2. Let the medical men be paid by visiting fees, or a capitation fee of not less than 12s., medicine not included.
3. Let the wage limit not exceed 35s. per week.

### THE MIGRATORY POPULATION.

D.P.H. writes: The working of a capitation scheme is a conundrum which I cannot unravel. The working man, who is the ostensible person to derive benefit, is a migratory individual; he is here to-day, and somewhere else to-morrow. A. sees him to-day in London once; then he removes to the country, where B. attends him a week, when he goes to Edinburgh and is attended by C. Would A.'s share be the three hundred and sixty-fifth part of 4s. 6d., and B.'s share the fifty-second part of 4s. 6d.; or should A., B., and C. settle up the balances between them out of the 4s. 6d. at the end of the year?

### THE WAGE LIMIT.

Dr. W. E. ST. L. FINNY, J.P., Deputy Mayor of Kingston-upon-Thames, in the course of a letter on this subject, writes:

I very strongly protest against the proposed wage limit, which was carried at the Representative Meeting of the Association last Thursday, being as high as 40s. per head, unless the payment per head is largely increased. In my opinion 25s., or at most 30s., per week, should be the limit, and for this reason: I am certain, if proper inquiry is made, it will be found, as the outcome of many years of experience in working-class practices where club patients are attended, in the very vast majority of cases throughout the kingdom that the rate has already been fixed at sums not exceeding 30s. per week wage limit for healthy men's lives, who pay 4s. 6d. each a year. And these rates, it should be remembered, have been granted to the labouring classes by the doctor, not as a fair rate of payment, but as an act of benevolent grace on the part of the doctor, to meet a deserving provident effort on the part of the workmen to provide medical attendance for themselves in the time of need rather than have to accept it as an act of charity.

All doctors know well that "club practice" is not profitable, and that they cannot live by it alone, and yet now it is proposed not only to take this benevolent arrangement and fix it as a fair method of paying the doctor, but to include in the scheme a large portion of the community who do not need charity, who have raised no protest against the usual charges of their family doctor, and from whom the Government have received no "mandate" for any such scheme at any parliamentary election.

Those who think of voting for the higher rates should be able to explain what it is that has occurred in England to justify an increased wage limit being now accepted, and to consider whether in so voting they are not injuring a certain section of their colleagues whose interests it is their duty to protect. The extra 10s. per week wage limit—from 30s. to 40s.—is a valuable financial asset to the hardest worked, least paid, members of the medical profession, whose work often lies in the least agreeable neighbourhoods, and it is one for which, as they can ill afford to give it away, either a good and sufficient reason should be given for taking it from them, or an increased payment should be made, in proper proportion to the increased wage limit to be included, an increased payment which should be at least doubled or trebled, if the sick are to be included with the healthy lives.

In discussing the income limit with the Representative Meeting, Mr. Lloyd George said, "Miners, who are highly paid workmen, are almost entirely in clubs," and so are engineers, "another highly paid class of workmen," and, further, he stated that they earn "from £3 to £4 a week," and he considered that men of such incomes would be included in his State medical club system, and they are to be included whether they are healthy or not. Not that because of their necessity they require it, not because it is just to the doctor to include them, but simply because of their power as voters at parliamentary elections. Mr. Lloyd George's concluding words should be our reply to him. Let us quote his own words, and say to him, "We can never come to an understanding unless we put our position quite clearly, quite firmly, without any possibility of misapprehension."

The medical profession was never so united. Now is the time to act. If the British medical men stand firm now, then the politicians must yield.

# Hospitals and Asylums.

## MOSELEY HALL CONVALESCENT HOSPITAL FOR CHILDREN.

DURING the year 1910 there were 857 children admitted, as compared with 976 in 1909. The average detention period was 23.1 days, against 21.1, and the daily average patients numbered 53.3, against 56.6 in 1909. Of the patients admitted, 116 were transferred from the Children's Hospital; 291 were received from the General, Queen's, Orthopaedic, and other hospitals, the district nursing societies, and the Birmingham Medical Mission; and 450 were admitted on the recommendation of subscribers. The income amounted to £2,157, and the expenditure was £2,387, leaving a deficiency of £230.

## THE MARY WARDELL CONVALESCENT HOME.

THE annual report of the Mary Wardell Convalescent Home for Scarlet Fever shows that last year the number of patients was much below the average of the previous six years, but that there was a curiously irregular increase in admissions from quarter to quarter, beginning at 14 in the March quarter, and rising to 54 in the December quarter. Some 64 of the patients had been treated at home, and the rest were admitted from hospitals and other institutions. About 80 of the patients paid a fraction of the expense of their treatment, the balance being admitted either free or as first-class patients, paying the calculated cost of their maintenance. A grant of £500 from the executors of the late Lady Goldsmid freed the home from debt, and left sufficient in hand for the erection of a small smoking-room for use when the weather is inclement.

## LANARK DISTRICT ASYLUM, HARTWOOD.

THE fifteenth annual report of this institution contains the report of the District Lunacy Board for the year ended May 15th, 1910, and the report of Dr. N. T. Kerr, the Medical Superintendent, for the year ended May 31st, 1910. On June 1st, 1909, there were 932 patients in the asylum, and on May 31st, 1910, there were 911, the fall in numbers being due to transfer of out-county patients to their own asylums, and not to a decrease in Lanarkshire pauper lunacy. The total cases under care during the year numbered 1,137, and the average number daily resident 892. During the year 205 were admitted, of whom 161 were first admissions. In the previous year 269 were admitted. In 98 the attacks were first attacks within three and in 27 more within twelve months of admission; in 43 not-first attacks within twelve months; in 21 of more than twelve months' duration; 5 were congenital cases, and in 10 the duration was unknown. The total admissions were classified according to the forms of mental disorder into: Mania of all kinds, 53; melancholia, 68; dementia, 12; delusional insanity, 34; epileptic insanity, 13; general paralysis, 7; alcoholic insanity, 7; idiocy, 6; congenital defect and insanity of pregnancy, 1 each; and unnamed, 3. As to causation, alcohol was assigned in 22, general paralysis in 11, syphilis in 2, and influenza in 2; critical periods in 26, childbirth in 10, privation in 8, bodily trauma in 3, mental stress in 25, and various bodily affections in the remainder. An insane heredity was ascertained in 13, or 6.3 per cent., and congenital defect was assigned as cause in 11. Of the total admissions, 143 were said to be in average health on admission. During the year 89 were discharged as recovered, giving a recovery-rate on the admissions of 43.4 per cent., and 58 as relieved. During the year 76 died, giving a death-rate on the average numbers resident of 8.3 per cent. The deaths were due in 6 to nervous diseases, with only 3 from general paralysis; in 15 to diseases of the heart and blood vessels; in 5 to respiratory diseases, and in the remainder to abdominal and general diseases, including 13 deaths from lobar pneumonia, and in 13 to tuberculous diseases. All deaths were due to natural causes, although 22 threatened and 17 attempted homicide, and 48 threatened and 27 attempted suicide.

# GENERAL COUNCIL
OF
# MEDICAL EDUCATION AND REGISTRATION.

## *SUMMER SESSION, 1911.*

**Sir DONALD MACALISTER, K.C.B., President, in the Chair.**

### PRELIMINARY EXAMINATIONS AND DEFICIENCIES IN GENERAL EDUCATION.

**IT was reported that the following memorial had been received by the Council:**

*Memorial from the Public Schools Science Masters' Association to the General Medical Council.*

There are known to be at the Public Schools (schools represented on the Headmasters' Conference), over fourteen hundred boys who wish to enter the medical profession. The Regulations of the Council as at present framed are found to hamper and penalize such boys considerably.

As it is impossible to believe that the Council deliberately wishes to encourage lack of culture, or discourage early scientific training amongst intending practitioners, it is felt that the effect of the Council's Regulations in regard to the Registration of Medical Students cannot be fully realized. The Public Schools Science Masters' Association—comprising the above schools—therefore begs to submit certain points for the consideration of the Council.

The existing Regulations may perhaps be well calculated to achieve their purpose in the case of a certain type of secondary school, and under the conditions obtaining in Scotland, where boys who intend to become Medical men usually cease their school education at 16 or 17 years of age and then proceed to a Northern College or University to study Medicine.

But the same Regulations are made to apply equally to all schools, including the English Public Schools, though the purpose and conditions of the latter are entirely different from those mentioned above; for boys at our schools normally carry on their general education with us till they are 18 or even 19 years of age. This general education is wide and varied as to subjects until the boys are about 17 years of age; during the following two years they study fewer subjects, the pursuit of one or more of which will probably be continued after leaving School.

These boys usually do not pass an examination in general education till about 18 years of age, not because they are unable to satisfy the requirements of the Council at an earlier age, but because by the Regulations no advantage accrues to them if they do so, and then remain at School. Naturally, therefore, as their general education continues until they are 18 years of age, or older, they postpone their examination in it till it is complete and they are leaving School. They then take an examination in General Education which is usually of a far higher standard and embraces a greater number of subjects than the minimum required by the Council.

All public schoolboys necessarily nowadays begin the study of pure science as part of their general education. Those of them who intend to adopt a scientific career of some sort devote special attention to Science during their last two years at school, and carry on the study of these subjects to a more advanced stage.

The Association would draw attention to the great advance in the teaching of Science at public schools of late years.

Adequate laboratories, skilled teachers, and generous conditions have come into existence, together with inspection by the Board of Education or one of the great Universities. Consequently boys are able to carry on their more advanced work at Science under conditions which are far more favourable for the study of pure Science than obtain at many existing scientific institutions. The small classes, the direct personal influence of the teacher, the ample time, and the methods of teaching constitute a scientific training which compares favourably with that given at several of the medical schools.

Thereby, too, the parrot-like knowledge of mere facts, acquired by cramming, usually associated with larger classes working for one particular examination alone, is avoided. Moreover, under present regulations, the science of the First Professional examination is the only pure science required of medical students, for science is definitely excluded from any place in the Council's syllabus for a General Education. If, however, it be contended that these subjects are to be taught merely as a basis for the study of Physiology, Anatomy, and Medicine, candidates for the Medical Profession are subjected to the reactionary and anomalous condition of having no pure—as distinct from applied—science required from them. Surely a deplorable state of affairs just when a knowledge of scientific generalisations and pure science for application to medicine become daily more important.

At present a Public Schoolboy, who foregoes early qualification for the sake of prolonging his school opportunities of gaining general culture and sound grounding in pure science, is penalized by the Council's Regulations: for in addition to the voluntary postponement of entering upon his career as a medical student, he is compelled to waste time in nominally attending classes at certain "recognized" institutions where he may find the facilities and teaching less good than was the case at his own school. Or he takes the alternative course, leaves school, and is emancipated from its influence both of discipline and instruction, to plunge at 17 or earlier into the ungoverned freedom attached to residence in a big city, whilst attending classes at a medical school or Scientific Institution.

The Council gets no direct opportunity of judging typical boys from the English Public Schools. They usually go to the older Universities, and if they take the examinations of some other Licensing Authority in addition they then figure as University Candidates, though they have done the First Professional Examination work at school. Whilst making no representation as to the stage at which student registration ought to be effected, nor as to whether the subjects of the First Professional Examination (as defined at present) ought to be within or without the Medical Curriculum itself, the Association wishes to emphasize the following facts:—

The Regulations encourage and provide a bonus for the following course of premedical and medical education:

1. General Education without any Science.
2. Examination in General Education, without Science, at 16 years of age.
3. Leave School at 16 years of age.

Break in Teaching.

4. Elementary Science in a Medical School or "recognized" Scientific Institution.
5. First Professional Examination.
6. Technical Medical Education at a Medical School.

The Regulations penalize the Public School practice for boys desiring to become medical men:

1. General Education including Elementary Science.
2. Further Education with Science as a main subject.
3. General Education Examination.
4. First Professional Examination (as defined at present).

Break in Teaching.

5. Technical Medical Education at a Medical School.

The Association submits that a Public Schoolboy of 18 or 19 years of age, who has passed a satisfactory examination in general education, should be able to offer himself for examination in the purely scientific subjects of the First Examination without having to do them all over again in order to comply with conditions of Registration. Also that as long as the Medical Curriculum remains as at present this time at school should count as some part of that curriculum. In fact, that Public Schools should be "recognized" as constituting a Section IV comparable to Section III under Regulation 9 subject to whatsoever condition of inspection of laboratories, equipment and teaching the Council may think fit to require for its own satisfaction.

The Association understands that the "*Requirement*" as to the Registration of students by the Council is not a legal regulation made under the Medical Acts governing the powers of the Council, and that the *Register* is maintained merely as a convenient method of ascertaining the date of the commencement of medical study by each student. The Association submits that the public convenience would be increased if the Public Schools, the work of which has been shown to deserve recognition, were recognized. Their laboratories and teachers are certainly in no way inferior to those of many of the institutions named in the Council's list of recognized places of instruction.

C. I. GARDINER, Cheltenham College,
M. D. HILL, Eton College,
A. VASSALL, Harrow School,
*Committee appointed by the Public Schools Science Masters' Association.*

The CHAIRMAN OF THE EDUCATION COMMITTEE (Dr. Mackay) brought up the Committee's report (dated May 23rd, 1911) upon certain preliminary examinations in general education and upon deficiencies in general education reported by the Medical Department of the Royal Navy.

*Report of the Education Committee.*

The report commenced by recalling that on November 26th, 1910, the Council adopted resolutions to the effect:

(*a*) That on and after the close of the year 1913 the following examinations be removed from the list of Preliminary Examinations recognized by the Council as qualifying for entrance in the curriculum in medicine: The Junior Local Examination of the University of Oxford; the Junior Local Examination of the University of Cambridge; the College of Preceptors Preliminary Examination for Medical Students; the Educational Institute of Scotland Preliminary Examination; the Royal College of Physicians and Surgeons in Ireland Preliminary Examination; the Intermediate Education Board of Ireland Middle Grade Examination.

(*b*) That the Education Committee be authorized on behalf of the Council to communicate with the Commissioners of Intermediate Education in Ireland as to the possibility of establishing a satisfactory examination in preliminary education under the control of the commissioners suitable for students intending to commence the study of medicine.

The report after stating that a letter of protest had been received from the Royal Colleges of Physicians and Surgeons in Ireland, and a communication from the Conjoint Board in Scotland on behalf of the examination of the Educational Institute of Scotland, went on to point out that the action of the General Medical Council as expressed in Resolution (*a*) was in no way directed against the bodies conducting the examinations in question, but was concerned simply with the actual examinations which form a group characterized by the expert educational advisers of the Council as distinctly of the junior type; most of the bodies mentioned conduct other and more suitable examinations which are recognized by the Council. The postponement of action under the resolution was intended, partly at least, "to afford an opportunity to those who carry on but a single examination . . . to institute new examinations suited to the higher level demanded." With regard to Resolution (*b*), it was hoped that, should its object be attained, it might be possible to put an end to an arrangement under which the control of an examination in general knowledge was vested in a medical corporation.

The Committee reported that, as directed by the Council, its Chairman, on January 21st, 1911, wrote to the Commissioners of Intermediate Education in Ireland, in accordance with Resolution (*b*). The reply, dated April 26th, was to the effect that the Commissioners had no power to comply with the request of the General Medical Council. In the circumstances it seemed to the Committee that it would not be fair to remove the name of the Conjoint Board in Ireland from the list of bodies conducting recognized examinations in general knowledge. Such an action was not suggested by the Council, except in the possible event of a properly constituted and independent educational authority being found willing to establish an examination which would meet, *inter alia*, the legitimate needs of the Board. The Committee believed that every effort should still be directed to this end, but as regards the present examination of the Board, even though it be satisfactory of its kind, since it stands within a group which the Council desires to abolish, it should be replaced by another of different standard. It might perhaps be urged that the educational circumstances of Ireland demanded special consideration from the Council in fixing the standard of the entrance examination; the suggestion, if put forward, would receive the careful attention of the Committee should the Council see fit to adopt the proposal embodied in the Recommendation (*c*) (see page 427).

With reference to the examination of the Educational Institute of Scotland, in making arrangements for the recognition of a new and higher examination in place of the present one, the Committee would keep in view the necessity for securing that the controlling authority shall be independent and thoroughly representative of educational interests, in particular those associated with the higher grade and secondary schools of the country.

The Executive Committee, at the meeting of February 27th, 1911, had under consideration certain tables showing the results of competitions held in November, 1909, May, and November, 1910, for commissions in the Royal Navy, which were referred to the Examination Committee and to the Education Committee for consideration and report to the Council at its May session. The Committee also resolved to ask the Admiralty to supply the Council, in confidence, with the names of any candidates reported to have been deficient in spelling, together with such further information regarding the nature of the deficiencies as might be available, particulars as to any candidates who were qualified but unsuccessful; and that on receipt of such information the preliminary educational bodies concerned be communicated with in order that they might make such observations thereon as they may think desirable.

The Committee regarded the matter raised in the report of the Admiralty as one of grave moment demanding serious consideration on the part of the Council. From the statistics submitted of recent years regarding the ages of entrants upon the course of study in medicine, it seemed clear that the standard of the examination in general education is gradually rising. This opinion was founded upon the facts (*a*) that the number of candidates who pass the examination upon what may be called the "senior" level has considerably increased, and (*b*) that the percentage of entrants under 17 years of age has sensibly diminished. It was impossible, however, in face of the information supplied by the Admiralty, to avoid the conclusion that some of the examinations either were defective in their methods or had been conducted with a laxity which was to be characterized as reprehensible. In 1890 a communication similar in character was received from the War Office, and led to a long series of actions on the part of the Council with a view to the elevation of the standard of the preliminary examination, and to the prevention of abuses on the part of examining bodies and of indiscriminate recognition of exceptional cases by the Branch Councils. Although the subject had continuously engaged the anxious attention of the Council, the special labours referred to culminated in 1900 upon the presentation of a report by three educational experts in which were tabulated a minimum standard of examination suitable for the time and a graded list of the recognized examining bodies. The report was accepted by the Council, and the Committee was authorized to act in accordance with its recommendations.

The first effort which the Council made was to find the channels through which the candidates discovered to be deficient in general education had gained admission to the *Students' Register*, and to place itself in a position to be similarly informed in all future instances of a like nature which might be reported to them. It accordingly sought from the War Office the particulars required for identification in the cases referred to, and at the same time requested all the professional examining bodies in future to furnish the Council with the names of those whose evident lack of adequate preliminary training might call for comment on the part of the examiners. The request of the Council was complied with by the War Office, and promises as to the future were received from the Medical Boards of the Navy and Army, the Secretary of State for India, and the Committee of Management of the Conjoint Board in England. Fresh instances of insufficient education were reported in 1894 by the Conjoint Boards in England and Scotland and by the Army Medical Department, in 1897 by the Medical Boards of the Navy and Army and the Conjoint Board in England; in 1898 the Army Medical Department and the India Office reported no deficiencies in spelling, in 1899 the India Office again reported no deficiencies, while the Medical Department of the Royal Navy reported 2 at the May examination. Since that date no further communication on the subject had reached the Registrar until the present time.

In this instance the Director-General of the Navy, in response to the request of the Executive Committee, had furnished the Council with the following list of the examining bodies in general education responsible for the admission of the candidates stated to be deficient:

*Table Supplied by the Admiralty.*

| Date of Examination. | Order of Merit. | Deficient in | Preliminary Examination in Arts. |
|---|---|---|---|
| November, 1909 | 14 | Spelling | Royal Univ. Irel., Matric. |
| " " | 16 | " | Univ. Dubl. |
| " " | 19 | " | Lond. Matric. |
| " " | 21 | " | Univ. Dubl. |
| " " | 22 | " | Univ. Dubl. |
| " " | 23 | " | Royal Univ. Irel., Matric. |
| May, 1910 ... | 4 and 5 bracketed | " | Prel. Inst. Scot. |
| " ... | 7 | " | Royal Univ. Irel., Matric. |
| " ... | 15 | " | Camb. Jun. Loc. |
| " ... | 17 | " | Univ. Dubl. |
| November, 1910 | 7 | " | Oxfd. Camb. Sch. |
| " " | 9 | " | Coll. Precep. |
| " " | 12 | " | Coll. Precep. |
| " " | 17 | Illiterate | Royal Univ. Irel., Matric. |

Replies had been received from the following examining bodies;

*University of London*, pointing out that, having regard to the large number of candidates at the matriculation examination, no general conclusion could be drawn from a single instance.

*University of Cambridge*, pointing out that in the absence of further particulars it was not possible to trace the case.

*Oxford and Cambridge Schools' Examination Board* to the same effect, and adding that it did not appear whether the candidate took the examination for the higher, the school, or the lower certificate.

*College of Preceptors*, stating that without full particulars it was hardly possible to appreciate the significance of the report, but adding that "no pains are spared to ensure the rejection of candidates where spelling is defective."

The Education Committee observed that it was obvious that the request of the Council for information with regard to all cases of manifest educational unfitness had been neglected altogether by most of the examining authorities and only intermittently acted upon by a few. While it was possible that occasional instances of marked weakness in spelling were to be found among persons otherwise well educated, it was more than probable that the majority of cases reported to the Council occurred among those who had prepared themselves by cramming for an examination for which they were not qualified by real training. The system of examining and marking which permitted candidates wanting in the essentials to pass with any degree of frequency, was undoubtedly defective and its employment by any responsible body was a breach of the entrusted duty. The Committee believed that all preliminary examinations should be conducted by the natural authorities, those upon whom devolves the maintenance of the standard of the school-leaving certificates; but in view of the present conditions, was of opinion that it was the duty of the Council to continue its efforts to discover all cases of inadequate education in order that those steps which were possible might be taken to put an end to examination abuses.

In 1891 the Council removed from the list a considerable number of examinations in general education previously recognized, all of them carried on by medical licensing authorities, and in 1894 adopted a report by the Education Committee to the effect "that it would be for the public good were all preliminary examinations in general education handed over to purely educational bodies." In 1896 the Council received a report on all the recognized preliminary examinations in the United Kingdom, classified them into "Junior" and "Senior" grades, and decided that the stringency of all the junior examinations should be increased. In 1897 the Committee reported:

> The following are the examinations conducted in the United Kingdom which are regarded as at present of a lower standard than that which should be required:
>
> Royal Colleges of Physicians and Surgeons in Ireland—Preliminary Examination.
>
> College of Preceptors—Second-class Certificate of First or Second Division.
>
> College of Preceptors — Preliminary Examination for Medical Students (Standard of Second-Class Certificate).
>
> Educational Institute of Scotland—Preliminary Medical Examination.

Following upon this the Council adopted a resolution to the effect:

> That on and after the 1st day of January, 1899, no certificate of lower standard than that of the Matriculation or Entrance and the Junior Local Examinations of the Universities of the United Kingdom will be accepted for registration.

This resolution was not given effect to. Certain of the bodies whose examinations had been condemned contended that the standard of their tests was at least equal to that of some of the junior local examinations of the universities; and a committee of experts called in to advise the Education Committee gave the opinion, after an exhaustive analysis, that the time was not ripe for raising the general standard of the preliminary to the level of the senior grade certificate. The subsequent history of the subject was detailed in last year's report of the Education Committee.[1] Educational conditions had greatly changed since 1900, the date of the final report of the Expert Advisory Committee, and in the year 1909 only 26 per cent. of the students in the whole country qualified for admission to the *Register* by means of the junior examinations which the Council had decided to remove from the list. The step which the Council had taken recently would ensure that what the expert advisers would have called the "higher junior examination," named by the Education Committee the "intermediate examination" should represent, after the close of the year 1913, the minimum standard upon which admission to the *Students' Register* will be obtainable.

The report concluded with the following recommendations:

(*a*) That the report of the Director-General of the Medical Board of the Navy be sent to all the examining boards and licensing authorities, with the request that in future in all cases of evident deficiency in general education among their candidates, they will furnish to the Registrar such information as will enable the Council to discover the particular examinations, by means of which the candidates reported as deficient obtained admission to the *Students' Register*.

(*b*) That the Registrar be directed to inform the several examining boards and licensing authorities that the Council have resolved to remove at the close of the year 1913, from the list of recognized examinations admitting to their register of students of medicine, the particular examinations mentioned in the recommendation of the Education Committee adopted by the Council on November 26th, 1910.

(*c*) That the Education Committee be authorized to employ expert assistance, to further their arrangements with those of the examining bodies referred to in the resolution of the Council of November 26th, 1910, who may be desirous of substituting for the examinations therein mentioned, new examinations upon a higher standard, and to help the Committee in revising the list of Colonial and Indian and Foreign Examinations, at present recognized by the Council; and that a sum of £100 be placed at the disposal of the Committee for this purpose.

The report was received and entered on the minutes.

Dr. MACKAY said it was his duty to present the recommendations separately. The first might not call for any serious criticism. Information had been received that a large number of candidates had been disqualified for defective spelling. In 1891 it was found that a large number of students were deficient in general education. In 1894 reports were received from conjoint boards in England and Scotland and from the Army and Naval Medical Departments, and again in 1897 from the army and navy; but from 1899, when additional reports of the kind had been received, no other had been received until the present one. The Council had made every effort in the past to be informed as to the source from which defective students had passed into the profession, and for some time those efforts were responded to by the various bodies, but lately those efforts of the Council had been ignored. Unfortunately these fresh instances occurred, and it was the duty of the Council to see that they did not occur in the future. The resolution was practically in the same terms as the one passed by the Council in 1894.

[1] BRITISH MEDICAL JOURNAL, December 3rd, 1910 (SUPPLEMEN p. 422, et seq.).

Dr. NORMAN MOORE seconded.

The PRESIDENT then put the recommendation to the Council, and it was agreed to.

Dr. MACKAY, in dealing with Recommendation (*c*), gave a short history of what the Council had done with regard to preliminary examinations since its attention was first called to the matter. In 1891 a very large number of examinations were being carried out by different bodies, and the first step the Council took was to revise the list of those examinations, but it was some time before the Examining Bodies removed those examinations which the Council desired removed. Again in 1897 the Council took up the matter, and decided that all the junior examinations, which were recognized as junior examinations, should be very materially raised in standard, and in 1898 passed a resolution to the effect that all junior examinations should be removed, and only senior examinations should be accepted by the Licensing Bodies as an entrance to the curriculum in medicine. The Education Committee had adopted the term "Intermediate," to distinguish between those examinations which were below the level of senior on the one hand, and above the level of junior examinations on the other. A little later the Council decided that nothing below the standard of Junior Local Universities Certificates should be accepted. It was pointed out by a number of Bodies whose examinations were threatened that their examinations were as good as the Junior Local Examinations of the Universities. The Council then called in a Committee of Experts, and this Committee advised that the time had not come for the adoption of a senior examination, and also outlined an ideal system upon which these examinations should be held. Eventually a report was presented to the Council in 1909 which stated that only 26 per cent. of all the students entering had passed the junior examination, and that the number of students passing at the ages of 16 or 17 had declined.

Sir ARTHUR CHANCE desired to make the position of the Royal College of Surgeons of Ireland clear. The College had no desire whatever to substitute a new examination upon a higher standard, as it thought the present standard was quite sufficiently high, and believed it would be found to be so by the Council. The College did not object to inspection, any legitimate inspection—by "legitimate inspection" it meant inspection applied to these similar examinations—but it strongly object to being "policed."

Mr. TOMES pointed out that in the recommendation there were the words "in revising the list of Indian and colonial and foreign examinations." He suggested that those words should be left out.

Dr. MACKAY replied that they did not propose to send examination officers to foreign countries.

Dr. NORMAN MOORE said that the question of the preliminary examinations was one which had engaged the attention of the Education Department in this country for the last two years, and he thought the Council would find the whole of this subject would be in a totally different position at the end of two years.

Dr. KNOX was understood to say that those he represented were perfectly willing to raise the standard of the examinations and to make whatever improvements the Council thought right, and the suggestion of the Chairman as to an intermediate standard might be complied with.

The PRESIDENT said that he had been waited upon by a deputation from the Educational Institute of Glasgow, and he had not an opportunity of communicating with Dr. Mackay, but, in answer to the deputation as a matter of common sense he ventured to assure the deputation that it was not the body, as such, to which the Council had any objection, and that if the Education Institute were prepared to establish an examination of a higher standard, equivalent to the intermediate leaving certificate, or the medical preliminary of the universities, such a proposal would be considered by the Education Committee on its merits and without any prejudice due to the fact that the junior examination had ceased to be recognized. The members of the deputation expressed themselves very much relieved by that explanation. Therefore it was with great pleasure that he (the President) found that Dr. Mackay's recommendations had taken the same line.

Mr. TOMES moved that the sum of £100 should be reduced to £50; he did so for the reason that, as had been pointed out from several other sources, after all, the Council was not the best possible judge on questions of general education, and, although it must to a certain extent keep watch upon the standard of admission examinations, it might go too far. It spent an enormous amount of time and money, and it was not only a question of the £100, but there was also the time of the Council.

Sir JOHN MOORE seconded.

The PRESIDENT asked if Dr. Mackay would accept the proposal of Dr. Tomes.

Dr. MACKAY replied that he would like the Council to pass the recommendation as it stood.

Mr. TOMES remarked that if the Education Committee wanted more money and it came subsequently before the Council with a clear case, then no doubt the Council would comply with the request.

Dr. LITTLE said that, as a member of the Finance Committee, he knew that they were drifting into bankruptcy, and as a member of the Education Committee he thought it should have the £100.

Dr. NORMAN MOORE hoped the Council would accept the proposal of the Education Committee. He never heard a finance minister or a treasurer make a more extravagant proposal than that made by Mr. Tomes. He thought it was better to give the Committee a definite sum and tell them they must not exceed that than give them a sum of £50 and tell them that if they wanted more they must come for it.

Dr. ADYE-CURRAN said that a very strong case had been made out for rescinding the resolution passed last session by the Council with reference to the abolition of the preliminary examination hitherto held by the Conjoint Board in Ireland, and agreed with what had been said. The resolution had been passed on the supposition that the Intermediate Board would so alter its middle grade examination as to bring it into conformity with the requirements of the Council; but evidently the Board was not disposed to do so. Consequently, if this resolution was allowed to stand, there would remain in Ireland only two preliminary examinations for all medical students in the future—Trinity College, which was too costly (£15), and the National University, which many were not disposed to enter for many reasons. He had refrained from mentioning the Scottish and English Boards which from time to time held preliminary examinations in Ireland, because he believed such a state of affairs should not exist. At the same time, he could not see how the Council could in common justice restore the Conjoint Board Examinations without at the same time re-scheduling that of the Apothecaries' Hall. Such a proceeding, considering both examinations were conducted on precisely the same lines (that of the Hall alone being compulsory under the Irish Act of 1791), would be most inequitable. In November, 1910, he had asked a question as to the legality of expending a portion of the Council's funds in the elaboration and publication of a students' register, and, in deference to an opinion of Mr. Muir Mackenzie, quoted by the President, he had not moved any resolution. He had since had an opportunity of going more fully into that opinion, and found that it in no way touched the point at issue. It laid down that the Council was not transgressing any Act by keeping a students' register—a fact not in dispute—but the expenses of elaboration and publication of that register could not come out of the Council's funds (under paragraph 43, Medical Act, 1858), as it was not "a thing vested in, or imposed on, or authorized to be done by the General Medical Council under the Medical Act."

After some discussion, the CHAIRMAN put the recommendation as it originally stood and declared it carried.

The discussion was adjourned at this point, when it was resumed on the following day.

Dr. MACKAY moved recommendation (*b*). He said that it referred specially to the act of the Council in November last, on the advice of the Education Committee, to remove from the list certain of the recognized examinations, but this removal would not take place for a period of three years, that was to say until the close of 1913. These examinations were not arbitrarily fixed. The whole list of examinations recognized by the Council constituted the group which the Council had regarded and labelled as the junior group of examinations; there was nothing discreditable in these examinations, but so far as regards

the medical preliminary, the Council held that these examinations should no longer be regarded as satisfactory; there was no proposal that the bodies conducting those examinations should be curtailed in, or deprived of, their rights to conduct medical preliminary examinations. One reason why this recommendation was not to come into force for three years was that the bodies concerned might have time to prepare new examinations of the standard required by the Council. He was ready to admit that as soon as the Council took action some suffering had occurred in the case of individuals, and in the case of particular bodies, but that was absolutely unforeseen at the time, and was very much to be regretted. In 1902 a deputation was received from the British Medical Association, which urged the Council to take immediate steps to raise the standard of preliminary examinations to a higher level. The Council expressed its sympathy with the views put forward by that deputation, but pointed out that in the view of its committee of experts it was not possible to do away with these preliminary examinations, because, if that were done, one of two results might follow—namely, that the ranks of the profession would be depleted or there would be a temptation to reduce the level of the examinations. No protest against the recommendation had been received by the Committee with two exceptions. They had received a letter from the Conjoint Medical Board of Scotland with regard to the preliminary examination of the Educational Institute of Scotland, and, privately, the statement of the Institute itself. When it was explained to the Educational Institute that the Council was acting with no particular reference to them, but on a general principle, the Institute had agreed to conform with the spirit of the resolution of the Council and to adopt after 1913 the standard which the Council required. Objection had also been received to the action of the Committee from the Conjoint Medical Board of Ireland. The plea put forward, if he understood it rightly, was that the examination conducted at present was really of a higher standard, and that it was wrongly included in the list of junior examinations which the Council had tabulated. That examination had been included in the list for more than ten years, and during that time no objection had been taken to it. It was the business of the Conjoint Board to have stated its view earlier if it thought the examination was unjustly included in the group, but it was not possible for the Committee to exclude it until actual proof had been afforded that the examination was improperly included in the group. The Education Committee would do all it could to right any wrong which it might be felt had happened, and every possible step would be taken to prevent injuring in any way the feelings of bodies carrying on good work such as this body, together with others, was carrying on.

Dr. KNOX in seconding said that if the recommendation were passed it would be for the good of education in Ireland as well as for the good of the colleges.

Sir JOHN MOORE moved as an amendment:

> That Recommendation (*b*) in the report of the Education Committee upon certain preliminary examinations in general education should not be adopted until the Council has had an opportunity of reconsidering the recommendation of the Education Committee adopted by the Council on November 26th, 1910, so far as the said recommendation refers to the preliminary examination of the Royal Colleges of Physicians and Surgeons, Ireland.

If Recommendation (*b*) were passed it would do an immense amount of harm. The examinations of the Irish College were quite high enough, as far as their standard was concerned, and he thought it unfair for the Council to suggest to the colleges in Ireland that their examination was of too low a level, and must cease. A more unfortunate time to advance this proposal could not have been chosen. The colleges had to compete with two universities which had recently been established, and the General Medical Council was proposing to handicap them still further by abolishing their preliminary examination.

Dr. LITTLE seconded the amendment.

Dr. LATIMER agreed with what Sir John Moore had said. He protested most strongly against the abolition of the examination. The colleges in Ireland would be willing to do whatever the Council might suggest to bring their examination up to the required standard.

Sir CHARLES BALL was of opinion that the examinations of the Irish colleges should not be interfered with until a satisfactory substitute had been provided. As it at present stood, he thought the examination was quite satisfactory.

Sir CHRISTOPHER NIXON said that an honest attempt had been made by the conjoint bodies in Ireland to establish a preliminary education of a sufficiently high standard, and it would be extremely inadvisable for the Council to carry out the recommendation that the examinations should be suppressed in 1913.

Sir ARTHUR CHANCE suggested that there had not been a tittle of evidence before the Education Committee that the examinations in Ireland were in any way inefficient. The colleges had been sentenced to a very severe penalty before any crime had been proved. He moved as a further amendment:

> That the preliminary examination of the Royal College of Physicians of Ireland and of the Royal College of Surgeons in Ireland continue to be recognized by this Council until it has been found that its standard is such as to be unworthy of recognition.

With the permission of the Council, Sir JOHN MOORE and Dr. LITTLE withdrew their amendment in favour of that of Sir Arthur Chance.

Sir JOHN MOORE seconded the amendment.

In answer to the PRESIDENT, Dr. MACKAY said the Education Committee would be quite willing to accept the amendment before the Council in substitution for Recommendation (*b*) of the Committee.

The consent of the Council having been given, Recommendation (*b*) of the Education Committee's report was deleted, and the amended form of words inserted in its place.

Sir JOHN MOORE, speaking as a member of the Education Committee, said that the Committee had no idea it was doing anything which would meet with opposition from the colleges concerned; it imagined that it was carrying out the wishes of the colleges.

Dr. MACDONALD asked what effect the amendment would have if passed.

The PRESIDENT said it would leave the matter entirely open and delete entirely the reference to the year 1913.

The PRESIDENT then put the following, proposed by Sir ARTHUR CHANCE, seconded by Sir CHARLES BALL, as a substantive motion:

> That the preliminary examinations of the Royal College of Physicians of Ireland and of the Royal College of Surgeons in Ireland continue to be recognized by this Council until it is found by the Council that its standard is such as to be unworthy of recognition.

This was agreed to.

### RECOGNITION OF SECONDARY SCHOOLS.

Sir HENRY MORRIS moved:

> That it be an instruction to the Students' Registration Committee that when a secondary school has been inspected and approved by a licensing body, such school shall be placed on the list of institutions in which medical study may be commenced.

The course he was asking to be pursued was that which had been established as the practice by the General Medical Council—namely, placing on the scheduled list institutions other than medical schools which had been recognized by the licensing bodies. One of the reasons for this was that the licensing bodies had the power of selecting what institutions they thought fit for recognition as institutions for science studies; the General Medical Council, on the other hand, had no power to control the licensing bodies in that respect. The right of licensing bodies to recognize teaching in science subjects at institutions other than medical schools was recognized by this Council and also by the Scottish bodies, and it had been established ever since the ordinances of the Scottish bodies were passed which gave them power to recognize the teaching of science subjects in institutions other than those of a medical character, and as counting the time as part of the curriculum.

The PRESIDENT had cognizance of the ordinances of the Scottish universities, but he was not aware of that.

Sir THOMAS FRASER remarked that that was limited to those cases in which the student was attending the science class with a view to graduation in science at the university.

Sir HENRY MORRIS asked the Council to put the secondary schools of this country upon the same footing

as it had put certain technical colleges and polytechnics which were included in its regulations. By not doing this, it was excluding from recognition the very best class of student in this country who desired to enter the study of medicine. The Council recognized the efficiency and adequacy of the teaching of science subjects in these institutions, even though they might be taken before registrations, but refused to put those bodies on the schedule. Herein lay the point of difference between the treatment by this Council of polytechnics and technical colleges, and particular public schools of this country. This was the cause of the sense of unfairness and injustice which those public schools and those who were interested in them felt so acutely, and this was the way in which the Council was penalizing these very important educational bodies, by not recognizing the study as being part of the five years' curriculum, when it did recognize it when it was taken at a technical college or polytechnic. He desired the Council to withdraw itself from its position of hostility to one of the great features, he might say the chief feature, of national higher education in this country. That feature was, and had been for the last twenty years or more, to recognize and insist upon the understanding of science, in so far as the principle of science were concerned, that was to say, the teaching of science in all the best secondary schools of this country.

Professor SAUNDBY, in seconding the motion, suggested that the motion should be amended so that the particular school could, on application, be placed upon the recognized list.

The PRESIDENT intervened to explain that the matter had already been discussed to some extent on the motion to refer to the Education Committee for report, Regulations 10, 11, and 12, as to the registration of medical students. On that, the Education Committee was to present its report on such changes as were necessary, but this motion in effect took that out of the hands of the Committee and settled it right away. He had felt that he should be justified in ruling that the present motion was out of order, having regard to the previous resolution of the Council, but had thought that the discussion should take place in order that the Education Committee should bear it in mind in considering the matter. In his opinion, it was not a question of the recognition of scientific teaching in secondary schools; it was simply a question of the five years' curriculum which the Council had to safeguard. This had been laid down by the Council Regulation since 1904. To speak of discouraging scientific education was entirely irrelevant so long as that regulation was in force.

Sir THOMAS FRASER doubted whether it was any good discussing the matter further, as it would come up for discussion on the report of the Education Committee on Regulations 10, 11, and 12.

Dr. NORMAN MOORE considered that the present state of things brought the Council into contempt. It published a list of institutions which the Council recognized, because they had been visited and reported upon as efficient; but there was another list of institutions equally efficient which it would not recognize. This, he maintained, was an inconsistent position to take up, and he hoped the Council would get rid of the inconsistency.

Dr. LANGLEY BROWNE understood that by the former resolution the arrangement as to students' registration was referred to the Committee, whereas this resolution merely referred to the list of schools that might be recognized and added to the list which the Council already recognized. It seemed to him the present resolution in no way clashed with the former one, and he would be sorry if it were ruled out of order, because it was important, if the Council was going to make alterations, that it should recognize schools which had been teaching these subjects.

Dr. LATIMER considered that by the arrangements which the Council carried out at present, a distinct drag was put upon general education. The result was that parents who desired to put their boys into the medical profession were led by the Council's regulations to believe that it was advantageous to withdraw their sons from school at the age of 16½. The boys were taken away at a premature age and induced to pass an examination which was below the standard the Council required. This was bitterly complained of by the headmasters of public schools. He hoped, knowing the great advance that had been made in education, and knowing also that it would be an encouragement to general education and culture, that the Council would reverse its former decision and recognize these schools.

Dr. CATON thought the time was coming when medical students would have to specialize in the preliminary scientific subjects. A study of chemistry which would be suitable for an intending engineer would not be at all suitable for a future doctor. As chemistry was becoming more and more important, the need for specialization of chemistry became greater and greater. The same thing applied to physics. The type of physics that a medical student required was a special type. Biology also would in the future have to be specialized and deal with bacteriology and with all those animals and insects which were related to the production of disease. He thought very few people would deny that in the time to come all science would have to be specialized. He quite agreed with Sir Henry Morris that many of the public schools were excellent; but there was only one type of chemistry taught there, and they could not expect to have different types taught for the different departments of knowledge. If the Council was going to widen the basis of preliminary instruction in science in the way proposed it would be placing a barrier in the way of the great and important reform in the nature of science teaching which would have to come in the near future, and the Council must be careful that it did not put a barrier in the way of that reform such as was contained in the suggestion before it.

Dr. TAYLOR thought the Council might very well leave that to the future; it had to deal with the present. If Dr. Caton's argument was right, it would involve wiping off the Council's list the many technical institutions that were now recognized. A student's time was very well spent at school acquiring the elementary principles of chemistry, physics, and biology provided that he applied himself to the specialized side of those subjects later on. A student was compelled to take the sciences in his medical education, and why should he not lay the groundwork in the elements of those sciences at a recognized public school? He thought that the line the Council should adopt was to see that the student was taught the subjects thoroughly in their principles, and this seemed to him to be done most thoroughly in the public schools at the present time. He strongly supported Sir Henry Morris's resolution.

Sir HENRY MORRIS, on the suggestion of the CHAIRMAN, amended his resolution to read as follows:

> That it be an instruction to the Students' Registration Committee that when a secondary school has been inspected and recognized by a licensing body, such school shall be recommended to be placed on the list of approved institutions in which medical study may be commenced.

Mr. TOMES did not see that the adoption of this resolution would alter the position of the Council. He would like to see a syllabus where it was purported to give an elementary knowledge of chemistry, physics, and biology, which could be compassed in one year, and where any special application could be given. The Council was not dealing with small subjects. In a subject like anatomy it might be possible to give definite instructions from the first, but they were dealing with lads who had no conception of science. They would have to be trained up to a certain point before they would understand physiology or biology. It was utterly impossible in one year to give more than the scantiest idea of chemistry, physics, and biology to the mind of a person who had no idea of science whatever.

Dr. MACKAY proposed, it was seconded and agreed to, that the debate be adjourned to Monday next.

When the discussion was resumed on May 29th,

Dr. MACKAY expressed his regret that the motion had been made at the present time, as it tended to reopen a matter which was not yet ripe for decision. He would, however, point out that the motion mentioned nothing as to the time a student should devote to study after having passed through one of the schools it was suggested should be recognized. As to the real question before the Council, the recognition of schools, he knew that some schools which were recognized by the Conjoint Boards were of the very highest order, and he did not wish to do any injustice to such schools. He opposed the motion because the Council had not to think of the recognition of particular

schools, but of the whole question of medical education. If the Council once started recognizing schools recommended by the Boards and other bodies, there would be no limit to the number of schools that would apply for recognition.

Sir CHRISTOPHER NIXON supported the motion. He instanced, as a school to which recognition ought to be given, Epsom College. It was impossible, he said, to go round that school without recognizing that the whole system of scientific teaching there was of a higher order than that found in the average medical school.

Sir DAVID MCVAIL could not support the motion as it stood. If Sir Henry Morris was content to say that the lists of schools proposed to be recognized should be submitted to the Students' Registration Committee and reported on to the Council he would be prepared to support him.

Sir CLIFFORD ALLBUTT said the teaching of preliminary science by outside bodies had been found by the University of Cambridge to have a very good effect on the standard of medical students.

The PRESIDENT inquired if the university took it into account as part of the five years' curriculum.

Sir CLIFFORD ALLBUTT: No; it did not shorten it in any way.

Sir JOHN MOORE thought it would be an extreme step to instruct the Committee on the mere *ipse dixit* of any individual to recognize a particular institution. He appealed to Sir H. Morris to alter his resolution on the lines suggested by Sir David McVail, as this would fend off a good deal of opposition. If, at the end of five years, the Royal Colleges of London accepted students' registration a very satisfactory compromise would have been arrived at.

Sir THOMAS FRASER considered it right and proper that these subjects should form part of the general culture of students, but that they should form part of their medical education would have a disastrous effect on the profession.

Mr. THOMSON thought the question resolved itself into one of the character of the teaching, and from that point of view, having seen and inspected many of the schools, he could bear testimony to its efficiency.

Sir ARTHUR CHANCE could not accept the wording of the resolution, and moved as an amendment:

> That it be an instruction to the Students' Registration Committee that when a secondary school has been inspected and recommended by a licensing body to be placed on the recognized list of approved institutions in which medical studies may be commenced, the Registration Committee shall consider every such recommendation, and when satisfied that the education in such secondary school is of sufficient standard shall recommend such secondary school to be placed by the Council on the recognized list of institutions in which such medical studies may be commenced.

Mr. HODSDON seconded.

Dr. NORMAN MOORE would support the amendment as, in his opinion, it embodied the essence of the motion.

Dr. SAUNDBY, although he had seconded the motion, would vote for the amendment, as it would secure all he required.

Sir HENRY MORRIS only desired to make the Council consistent with itself in this matter. He intentionally refrained from entering into the question whether it would shorten the curriculum or whether the study of these subjects should be put in the pre-curriculum period. He simply wanted the Council to put the public schools in precisely the same position as the scientific non-medical institutions. If it were the opinion of the majority that it was more likely to be attained by adopting the amendment, he would defer to that, although he preferred his own motion. Accordingly, with the consent of the Council and his seconder, he withdrew his motion in favour of the amendment.

The amendment being put as the substantive motion, was carried.

At the request of Sir Henry Morris the numbers were taken, when it appeared 24 voted for and 5 against.

### INSTRUCTION IN PRELIMINARY SCIENCES.

The Council then proceeded to the consideration, adjourned from November 26th, 1910, of the following motion by Sir HENRY MORRIS, seconded by Dr. LANGLEY BROWNE:

> That, as the Education Committee in their report of November 22nd, 1910, express views in favour of retaining the preliminary sciences (Chemistry, Physics, and Biology) as subjects of the medical curriculum, it be referred to the Committee to consider and report to the Council as to the best way of amending the regulations of the General Medical Council in regard to the registration of medical students, with the objects, first, of making those regulations consistent with the report, and with the powers of the Council; secondly, of making clear the distinction between regulations which must be observed and recommendations made for the student's guidance; and third, of the advisability of altering or deleting Regulation 12 on p. 14 of the regulations printed under date June 1st, 1910.

In answer to the President, Dr. LANGLEY BROWNE, who had formally seconded it, reserving any remarks, said he would prefer to speak later in the debate.

Sir CHRISTOPHER NIXON said that, as a member of the Education Committee, he had considered the proposals very carefully. Most of the matters which had been introduced were not at all new, and he questioned whether anything was to be gained by further consideration of the matter by the Education Committee. At first he had entertained the view that chemistry, physics, and biology might be put out of the medical curriculum altogether, but there arose that very important question, for the consideration especially of the universities, as to whether they were to give up the control of teaching in those preliminary science subjects. He did not think the Council could lay down any uniform rule in regard to the education of medical students in these subjects. It was trying to lay down regulations which it had no power to enforce. The students should be divided into those who were and those who were not members of a university. For students seeking a university degree he thought that the curriculum should be so framed that the fullest advantage should be taken of the university teaching which those students were able to afford and could get; but for the others a minimum curriculum should be prescribed for the students themselves. It would be an advantage to afford an option to students of learning these subjects in the secondary schools, and that they should be examined in them before entering on the medical subjects. This was not the time for lengthening the curriculum. At 22 or 23 years of age, boys had to commence the battle of life. Sir Henry Morris had pointed out that there was a want of uniformity in the action of the General Medical Council itself. For instance, while it laid down that there should be a five years' curriculum, and that these preliminary scientific subjects must be taken in the first year, that regulation did not exist with regard to the Royal Colleges in England, which accepted certificates in these subjects from certain secondary schools, and recognized by the Council after inspection. That was an unsatisfactory condition of things. He would be content to allow any student to take up the preliminary subjects at the intermediate schools, and would give those students credit for the first year of the medical curriculum, as he was not in favour of imposing an additional year.

Professor SAUNDBY said that there was nothing in the resolution about establishing a uniform curriculum; all it referred to were certain Regulations of the General Medical Council in regard to the registration of medical students. As the Council was unable to enforce them, it was very undesirable to retain them. Sir Christopher Nixon supported the resolution because he was very much in favour of students learning these subjects through the secondary schools. That was what they did, although, according to the regulations of the Council, they must not. Sir Henry Morris therefore asked why these regulations, which are only misleading, should be kept, and suggested that they should be modified so as no longer to convey the impression that boys should not and must not study these subjects in duly recognized secondary schools. Dr. Saundby's only objection to the resolution was that it was too conciliatory. Instead of asking the Council straightway to rescind the regulations which were so entirely indefensible, it asked that they should be referred to the Educational Committee to see how they should be amended. He would be glad if the Council were to say, "We will not give the Committee that trouble; we will give it instructions to amend them so as to make them practicable." He moved as an amendment:

> That the Education Committee be instructed to make such alterations in the regulations (10, 11, and 12) for the registration of medical students as will bring them into conformity with the facts and the powers of the Council.

The PRESIDENT, at the request of several members, read the regulations in question as follows:

10. Every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council.

11. No medical student shall be registered until he has attained the age of 16 years, has passed a preliminary examination, recognized by the General Medical Council, and has produced evidence that he has commenced medical study at a university or school of medicine, or at a scientific institution recognized by one of the licensing bodies and approved by the Council.

12. The commencement of the course of professional study recognized by any of the licensing bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.

Dr. LANGLEY BROWNE said there was a strong feeling throughout the country that some alteration should be made in the rules and regulations. He believed that, as a matter of fact, the Council had no authority to make the regulations, and it would be better not to retain anything which the Council had no power to enforce. The fact that many parents desirous of entering their sons in the medical profession were under the impression that the regulations as to the registration of medical students established by the General Medical Council were binding, was a good reason for revising them so as to make them conform to the powers the Council possessed, and thereby put the Council straight with the educational world on that particular point. The memorial from the Headmasters' Association made this the more desirable. Nearly all secondary schools had facilities for teaching these subjects, and it would be an immense advantage to a lad if he could acquire his knowledge of them before entering on his medical studies. The resolution simply meant that the matter should be referred to the Education Committee in order that steps might be taken to carry this out. There would be no difficulty in teaching these subjects apart from the medical schools, and the curriculum would not be lengthened thereby. It would really be shortened, because these subjects sometimes delayed a lad who might very well have gained his knowledge in them before beginning his medical education.

Mr. TOMES inquired whether the Council was instructing the Education Committee to do a certain thing or whether it was asking it to reconsider a thing which it had considered before, and upon which it had arrived at a conclusion with which some members did not agree.

The PRESIDENT observed that if the motion were passed he should regard it as an instruction to consider and report to the Council on the matter.

Sir THOMAS FRASER thought it very undesirable to enter upon a discussion of the subject now, as he was under the impression an opportunity would occur later. Speaking for the body he represented, he did not think it was prepared to hand over the teaching of these subjects to the secondary schools. The University of Edinburgh considered that it was of the greatest advantage to students to receive that education in the best possible manner. In the intermediate schools of Scotland, although great strides had been made in the teaching of science subjects, it had not yet attained the position reached in some of the schools in England. In Scotland the appliances at the disposal of those institutions for the instruction in those subjects were not sufficient. He did not think it right to allow it to go forth that the observations which had been made with regard to secondary schools in other parts of the United Kingdom applied to Scotland.

Sir DAVID MCVAIL inquired whether if the motion were lost, the matter would still be before the Education Committee.

The PRESIDENT replied that the Education Committee had a standing mandate to report on all education matters either now or at any future time, and the motion before the Council merely requested it to give special attention to this subject.

Sir CHARLES BALL said that if the resolution intended that the Education Committee should amend their report in the sense indicated by the discussion he would feel bound to oppose it. The University of Dublin held very strongly that these subjects should be part of the university curriculum. In Ireland the secondary schools were not capable of thoroughly teaching these subjects. If the motion only meant that the matter was to be referred back to the Education Committee for further expansion of these views, in order that the Council might have an opportunity of discussing them on its report, he would have great pleasure in supporting it.

Dr. MACKAY (Chairman of the Education Committee) did not think that the general question of the teaching of preliminary science in schools was raised in the resolution. The point put by Sir Henry Morris was: Would the Education Committee consider how best to amend certain regulations? The point that really ought to come before the Education Committee was that the Council had determined to rescind the resolutions of which those regulations were the expression. It was upon that subject tha he Committee reported at the last meeting of the Council and on several other occasions within the last few years. The Committee was quite willing to report once more on that subject, although it had always taken the line that the time was not quite ripe for discussing it. The Committee having found that the schools were not ready for the work had expressed the opinion that the question was one which would demand the very careful consideration of the Council. He was glad the motion had been made, because it would give outside bodies an opportunity of knowing what the powers of the Council were. The Council was entitled to make any suggestion, regulation, requirement, or recommendation which it liked. It had dealt with the whole question of medical education, and it was entitled to put its views and wishes before all concerned, but it had no power to enforce a single one. On the other hand, if the Council was of opinion that any particular body was not educating students satisfactorily it had the power to call the attention of the Privy Council to that fact. But the Council could not go to the Privy Council and say this body or that body had broken a regulation. The Council could go to the Privy Council and say, "This student's education is defective," and if it could prove that, it need not prove that a particular rule, requirement, or regulation had been broken. As a matter of fact every one of these so-called requirements were mere suggestions. It was only because the Council thought one method was more important than another that it gave the name "requirement" to one and "recommendation" to the other. He believed that as a matter of fact not more than one out of ten of the licensing bodies had refused to accept the suggestions of the Council in this matter, and if the Council were to cut out those suggestions simply because they were refused by one out of ten of the licensing bodies, it would be acting unfairly to those who had endeavoured to carry out the suggestions made. He did not think this should be done, but that the Council should consider the grounds on which the suggestions were made. If Sir Henry Morris requested the Council once more to consider the matter it would again take up the question.

Mr. TOMES, in seconding Dr. Saundby's amendment, said a good deal of the discussion appeared to be absolutely irrelevant. The issue was simply that of bringing the wording of the regulations into accord with the facts and powers of the Council. The great point advanced in the Memorial was not that the various bodies were observing or not observing the regulations, but that the regulations were calculated to mislead parents; he could not see that a single word had been said against amending them in the sense intended. He therefore strongly supported the amendment, and hoped that the Council's time would not be taken up in discussing a question which was not before it.

Sir JOHN MOORE would support the amendment if it would bring the regulations into conformity with the facts. The report of the Education Committee, which had not yet been adopted by the Council, was in favour of retaining the science subjects in the ordinary medical curriculum. He also was strongly in favour of it, and did not think any other course would find favour in Ireland.

Dr. LATIMER could conceive nothing worse than that the Council should have on its books a statement which carried no weight. Though the Council had no power to enforce its regulations, they were read by parents, with the result that boys were withdrawn from schools and their education to a great extent marred by being brought to great centres like London when it was most desirable that they should continue their public school life and proceed with their classical and scientific education.

Mr. NORTON thought it was understood that the regulations with regard to registration should be corrected in accordance with the terms prepared by the Education Committee.

Dr. NORMAN MOORE said that the state of affairs wa that the Council had declined to recognize the teaching of a series of secondary schools in England in which that teaching was of the first order. The laboratories were excellent, and there was as good, and very often better, provision than was to be found in many medical schools, and in the course of previous discussions of this matter it had been his duty to maintain the view of the Royal College of Physicians and that of the Royal College of Surgeons was the same at that time, and the attacks made upon that view implied an inadequate acquaintance with the exact merit of that kind of teaching. He had visited at least fifty of those schools, and so was able to say that the teaching of these subjects had improved, was improving, and ought to be encouraged. The Royal Colleges had power to visit such places, and recognized no places which they had not visited. The General Medical Council had no funds to provide for such an inspection. In recognizing schools as places for the commencement of medical studies which were not recognized by the General Medical Council, the Royal Colleges had no other interest than that of encouraging scientific education and improving medical education in this country. The only wise course was for the General Medical Council to reconsider the matter.

Dr. MACKAY observed that the regulations expressed in terms the resolutions which the Council had actually passed in recent times. The Education Committee was not in a position to alter those expressions until these resotions had been rescinded.

The PRESIDENT thought the amendment in its present form scarcely in order, as it was not "That the Committee be instructed to report to the Council," but "to make such regulations as to bring it into conformity with the facts." It was difficult for the Council to know what the facts were.

Dr. SAUNDBY understood the facts were not disputed. The regulation used the words "every medical student shall be registered."

The PRESIDENT observed that a difference of opinion might exist as to what the bearing of the facts was, and therefore it was not a clear instruction to the Committee to say "to make a regulation in conformity with the facts." It was for the Council to decide what the facts were before the Committee could make a regulation according to the facts.

Dr. SAUNDBY said the Council had a perfect right to institute a Register, and say what should be the conditions for admission to that Register, but that was not stated in the regulation. He was quite willing to add "and report to the Council."

Dr. ADYE-CURRAN was of opinion that the Council had not a vestige of authority under the Act for insisting that a student should be registered.

Dr. NORMAN WALKER thought the result of carrying the amendment would be to leave it open to those bodies which now accepted the Council's recommendations to reconsider their position, and he was very strongly in favour of that principle. Schoolmasters and parents complained of the use of the word "shall." Most of the universities had adopted the recommendation because they compelled their students to register, and the head masters' appeal was really to the universities to alter their regulations, as well as the General Medical Council. This particular regulation of the General Medical Council was always waved in the face of those who proposed any reform. There were schools which taught these subjects very well, and if they were encouraged would no doubt teach them better.

Dr. SAUNDBY, with the consent of his seconder, modified his amendment as follows:

> That the Education Committee be instructed to report to the Council what alterations in the regulations (10, 11, and 12) for the registration of medical students are necessary to bring them into conformity with the facts and with the powers of the Council.

Mr. THOMPSON supported the amendment. In his opinion, every authority should be at liberty to exercise its own judgement. He had the greatest admiration for the manner in which these subjects were taught at the present time in the secondary schools, the students from which went on to Oxford and Cambridge, and worked in them there on a much higher standard than ordinary students.

Dr. TAYLOR said the public were misled by the regulations as they stood, because it was perfectly well known that the regulations were not enforced by the Conjoint Board in England, and that the students were not bound to register.

Sir CLIFFORD ALLBUTT said that as the regulation now stood the University of Cambridge had been regarded as in some way or other treating the General Medical Council, he would not say with disrespect, but disregard, and it had been said the university had put itself in opposition to the General Medical Council. If a body wished to take its own line while those regulations stood, it was looked upon as acting in disrespect to the Council or in defiance of the Council. He hoped that that condition of things would be altered, so that the universities should not be placed in such an invidious position.

Sir DAVID MCVAIL thought that the fundamental question was not raised either by the resolution or the amendment, and he would vote for neither.

Sir HENRY MORRIS, on the contrary, maintained that the resolution was framed because it contained a great principle. Resolutions had been adopted which were absolutely inconsistent with the powers of the Council. Clause 10 said: "Every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council"; but there was nothing in the Medical Act which empowered the Council to insist on the registration of students, still less then to register on the conditions laid down in this regulation. In Clause 11 there was no mention of any secondary school. Secondary schools were by implication and by instruction said not to be places at which students should get instruction in these subjects. Teachers of science at the large secondary schools felt that very deeply, because they were able to teach students these subjects under conditions with apparatus and with laboratories infinitely superior to those in medical schools, and their boys took high-class scholarships, and yet, when they want to enter as medical students under one of the bodies acting under this regulation, they have to give a certain amount of time to these subjects, which they have at their fingers' ends. He maintained that the position was inconsistent—a position of penalization. Then Clause 12 was absolutely misleading, because the boy could do all his science at the school. It was absolutely contrary to the facts, and, so far as it was contradictory to facts, it was misleading and hurtful to the students, to the parents, and to the schools. It was wrong to the student, because it gave him the impression that he must leave school and enter at a medical school, or go over the ground again. It was wrong with regard to the parents, because they feared, with these regulations before them, that, if they do not comply with them, the student would lose a year of the curriculum. With these facts before him, the matter having been brought under his notice, as it had been, by masters and by fathers of boys, he felt it was exceedingly difficult to justify the position of the Council or his position as a member of it, in having regulations which were absolutely inconsistent with the powers of the Council to enforce. He thought the time had come when, for the credit of the Council, as well as for the right direction it would give students, parents, and masters, it was incumbent upon the Council to alter these inconsistent, these misleading and false statements. If the feeling of the Council was in favour of the amendment, with the consent of his seconder, he would withdraw the resolution.

The PRESIDENT could not accept this, and ruled that it must be put to the vote.

The amendment was then put and declared carried, and, being put as the substantive resolution, was adopted.

The Council then adjourned.

## COMMITTEES.

At the meeting on May 29th, 1911, the following committees were appointed:

*Pharmacopoeia Committee.*—The President, Dr. Norman Moore, Sir G. Philipson, Dr. Caton, Dr. Barr, Sir Thomas Fraser, Sir David McVail, Sir John Moore, Sir W. Whitla.

*Finance Committee.*—Mr. Tomes, Sir H. Morris, Sir J. Tuke, Dr. Little.

*Dental Committee.*—The President, Sir H. Morris, Mr. Hodsdon, Sir A. Chance.

*Dental Education and Examination Committee.*—Mr. Tomes, Sir H. Morris, Dr. Knox, Sir C. Ball, Dr. Finlay, Sir A. Chance.

*Students' Registration.*—Dr. Norman Moore, Dr. Mackay, Dr. Mann, Dr. Adye-Curran, Sir J. Tuke, Sir C. Nixon.

*Examination Committee.*—Dr. Taylor, Dr. Saundby, Dr. Caton (from English Branch Council), Sir T. Fraser, Dr. Finlay, Sir D. McVail (from Scottish Branch Council), Sir J. Moore, Sir C. Ball, Dr. Kidd (from Irish Branch Council).

*Education Committee.*—Dr. Norman Moore, Sir G. Philipson, Sir F. Champneys (from English Branch Council), Dr. Mackay, Mr. Hodsdon, Dr. Knox (from Scottish Branch Council), Sir Arthur Chance, Sir C. Nixon, Dr. Little (from the Irish Branch Council).

*Public Health Committee.*—Dr. Mann, Dr. Newsholme, Dr. Latimer (from the English Branch Council), Dr. Norman Walker, Sir J. Tuke, Sir D. McVail (from the Scottish Branch Council), Sir John Moore, Dr. Adye-Curran, Dr. Kidd (from the Irish Branch Council).

*Executive Committee.*—Dr. Norman Moore, Sir H. Morris, Mr. Tomes, Dr. Langley Browne, Sir J. Tuke, Sir D. McVail, Sir John Moore, Sir C. Ball.

*Penal Cases Committee.*—Dr. Saundby, Mr. Tomes, Dr. Finlay, Sir Christopher Nixon.

### Pharmacopoeia Committee.

The report of the Pharmacopoeia Committee was received and entered on the minutes.

The report stated as follows:

A meeting of the conference of members of the Committee with representatives of the pharmaceutical societies of Great Britain and of Ireland was held on May 20th, 1911. A third report from the Committee of Reference in Pharmacy was presented in manuscript by its Chairman, Mr. Walter Hills. This report, with a supplement which is in preparation, gives the results of the work done by the Committee up to May 18th, 1911, and completes the valuable series of contributions it has made to the improvement of pharmacopoeial pharmacy. The Pharmacopoeia Committee have ordered that the report and supplement shall be printed and published, and that copies shall be circulated among members of the Council and others interested, and communicated also to the medical and pharmaceutical journals.

The series of reports, together with the suggestions supplied by the British medical authorities at home and abroad, and by other professional bodies, constitute the materials on which will be based the work of revising the *Pharmacopoeia* with a view to a new issue. The preparation of a draft text for the consideration of the Committee will require the performance of much editorial work, and for this purpose it will be necessary to procure skilled assistance, both medical and pharmaceutical. The Committee hope to complete during the summer their arrangements to this end.

The Committee record with regret the death of Dr. John Attfield, F.R.S., who edited the current *Pharmacopoeia* (1898) and the *Indian and Colonial Addendum* (1900), and who also rendered efficient service as an editor of the issue of 1885 and the *Additions* of 1890.

### Executive Committee.

A report of the proceedings of the Executive Committee on May 27th was received and entered on the minutes and adopted.

The President said that a clause had been introduced into the Standing Orders by which no person who was struck off the *Dentists Register* would be allowed to sit for examinations for medical qualifications without a notification to the Council.

### Students' Registration Committee.

The report of the Students' Registration Committee was received, entered on the minutes, and approved. The report dealt with exceptional cases, and recommended the approval of the following teaching institutions: The Municipal School of Technology, Manchester (day classes); the Municipal Technical School, Birmingham (day classes); and the Municipal Institute, Walsall (day classes).

### Unqualified Practice.

A report by the Unqualified Practice Prevention Committee on the steps taken in regard to this subject since the last report of the Committee was brought up by the Chairman (Dr. Langley Browne).

Dr. Langley Browne said that the report after three years' work, although not final, recorded a considerable advance. The Committee was appointed in 1907, and the report stated the various steps it had taken. In the first instance, by the friendly assistance of the Colonial and Foreign Offices, it had got together a collection of information as to the Medical Acts and practice in other countries, and how they treated unqualified practice. Such information did not exist elsewhere, and must be of very great and valuable assistance to those who desired to make any alteration in the laws affecting their profession. In addition to that it had had inquiries made through the Privy Council and the Local Government Board as to the existence of the evils of unqualified practice in Great Britain, and, although the evidence they had got before them was not so complete as it might have been, that was solely due to a misunderstanding on the part of the medical officers of health as to the real nature of the inquiry. He did not think that that was in any way wilful for a moment; but he believed they did not appreciate the situation, otherwise they would have given the Committee a great deal more information than they had. This body of valuable and important evidence had been deemed worthy of publication as a Parliamentary paper, had been noticed in the press, and had been of some service to members of Parliament and others, and the Government, he believed, had now sufficient evidence before it to justify His Majesty's advisers in bringing in an Act to suppress some of the evils of which they complained. The Committee recommended that the following resolution be adopted:

> That, having regard to the dangers to public health arising from the unrestricted practice of medicine and surgery by unqualified persons in this country which are disclosed in the report issued by authority of the Privy Council Office, this Council urges on the Government the necessity of legislation for the better protection of the public, and offers its assistance in the framing of measures for the purpose.

Sir Henry Morris, in seconding, said that he desired to convey to the Council the sense of indebtedness that the members of the Committee felt to Dr. Langley Browne for the very considerable amount of attention and time he had given to the matter.

The President then put the recommendation, and declared it carried unanimously.

Dr. Langley Browne proposed, Dr. Norman Moore seconded, and it was resolved:

> That Dr. J. A. Macdonald be appointed a member of the Committee in the place of Dr. McManus.

### Dental Education and Examination Committee.

On the motion of Mr. Tomes (Chairman), seconded by Sir Henry Morris, the following report from the Dental Education and Examination Committee was received and entered on the minutes.

*Report.*

The Dental Education and Examination Committee report that the inspector appointed by the Council, Mr. A. S. Underwood, has inspected and reported upon several of the qualifying examinations, and his reports have been furnished to the licensing bodies concerned for their comment. Only one, however, the Royal Faculty of Physicians and Surgeons of Glasgow, has as yet sent in its comments, so that the consideration of the inspector's report may advantageously be deferred till the next session.

A new amending *Dentists Act* in the Colony of Victoria has been submitted to the Committee for their information. They view with satisfaction the sections which explicitly prohibit the act of practice by other than registered persons.

### Report by the Public Health Committee.

The Chairman of the Public Health Committee (Sir John W. Moore) brought up a report from the Public Health Committee made in accordance with the resolution of the Council, instructing it to consider and report whether any, and if so what, changes are required in the regulations for the diploma in public health. The Committee had asked the bodies granting qualifications in public health for their observations on the following points:

I. (*a*) Chemistry; (*b*) Bacteriology;
II. Fever Hospital Work;
III. The duties of a Medical Officer of Health; also
IV. Whether the period of six months mentioned in the Regulations is regarded as meaning a winter session or as denoting six calendar months; and whether registration of a medical qualification is required as a preliminary to the receipt of a diploma in public health.

Of the twenty qualifying bodies, nineteen had sent the desired information, and the report included tables summarizing the regulations and replies of the bodies granting qualifications in public health.

The body which had not yet answered was the National University of Ireland; but he understood from the Vice-Chancellor that the matter had been referred to the Examining Board for the diploma, and no doubt in course of time its answer would be added to the others. In recent years large numbers of candidates from the Colonies had presented themselves for this diploma, and he reminded the Council that its disciplinary powers extended only to those who were on its Register, and it was extremely difficult to control the action of people coming from a great distance unless they were on it, and had the

fear of "infamous conduct in a professional respect' dangling before their eyes. The Committee had suggested certain alterations in the rules and proposed that they should be sent to the various bodies for their comments and that when those had been obtained the Council should be asked to adopt the rules.

Dr. NEWSHOLME, in seconding, said that in view of the fact that the recommendations were to be sent down to the licensing bodies before the Council arrived at any decision upon them, the question arose whether it was necessary to discuss them in detail. The onus lay upon the Public Health Committee to justify the recommendation to curtail the course which had been imposed in the past, but the contention of the Committee was that what was lost in the lessened duration of the course was much more than gained in having a course, the exact minimum amount of instruction of which was regulated, and instruction obtained to an extent which was never obtained in the vast majority of cases under the old regulation. The laboratory work enforced was considerably higher than had been enforced in the past, and the amount of instruction in field work was exactly doubled. With regard to three months' residence in a fever hospital, it had to be remembered that all these candidates were qualified medical men, and the Committee held very strongly that three months' residence in charge of that important branch of public health work would more than counteract any loss which might otherwise be sustained. If these proposals were adopted, the Committee felt they would enable a medical man to take the diploma in six months after taking his ordinary qualification, which would be better than requiring him to wait another six months before entering upon any duties he was anxious to undertake.

The motion that the report be received and entered upon the minutes was carried.

Sir JOHN MOORE moved, and Dr. NEWSHOLME seconded, and it was resolved:

> That the report, with the proposed regulations and rules, be transmitted to the Qualifying Bodies and the Local Government Board of England, Scotland, and Ireland, with the request that they will favour the Committee with their observations thereon, and that the Committee submit a further report to the Council on the subject at its next session.

**Proposed by Sir JOHN MOORE, seconded by Dr. NORMAN MOORE, and resolved that the following recommendation be adopted:**

> The Committee resolved to recommend the Council to so recognize the Malta Command in accordance with the full and satisfactory information furnished by General Sir Leslie Rundle, Governor and Commander-in-Chief, Malta.

### REPORT OF THE EXAMINATION COMMITTEE.

The report of the Examination Committee on Matters arising out of the Annual Tables was received and entered on the minutes. The report stated that it was necessary to draw the attention of the Council to exemptions granted by the Apothecaries' Hall, Dublin, in the matter of the First, Second, and Third Examinations during the year 1910. From communications made to the Registrar of the Medical Council by the Director-General of the Indian Medical Service, it was apparent that the preliminary education and scientific training required for the fourth class of military assistant surgeons were not in most cases of a standard sufficient to warrant recognition by licensing authorities whose diplomas admit to the *Medical Register*. The Apothecaries' Hall, however, had exempted four Indian candidates from the First, Second, and Third Examination for their diploma, requiring them to pass only the Final Examination.

Speaking on this point Sir DAVID MCVAIL, Chairman of the Committee, said he had come to the conclusion that the Council should require the Apothecaries' Hall of Dublin to furnish information as to the course of study and examination that had been undergone by each of the four Indian candidates upon whom the qualification of the Hall was conferred in 1910, and carried a resolution to that effect.

Dr. ADYE-CURRAN observed that further correspondence had taken place which if it was published would considerably alter the aspect of the matter. The reason the Apothecaries' Hall had not supplied the particulars as to the examination of these Indian candidates was that it was next to impossible to obtain it. He protested against any such resolution being passed, as the Council had no power whatsoever to interfere in preliminary education, and it would be likely to receive many a fall in the future unless it recognized that fact once and for all. There was a great deal of prejudice against the coloured races, but he had lived in Bombay for some ten years and was personally conversant with its colleges and universities, and the teaching in them far surpassed many similar institutions in this country. He wished solemnly to protest against the unjustifiable way in which the Council was treating the body he represented.

Mr. HODSDON seconded the motion, as he thought it was only fair to the Apothecaries' Hall that the information should be furnished to the Council.

The motion was then put and carried.

The report also included an analysis of the returns relating to five examinations for admission to the Royal Army Medical Corps held between January, 1909, and January, 1911, and to the examination for admission to the Indian Medical Service held in January, 1911. Of the analysis the following is a summary:

| Candidates submitted themselves who held Qualifications from | Rejected. | Qualified but Unsuccessful. | Passed. | Grand Total of Successful and Unsuccessful Candidates. |
|---|---|---|---|---|
| English Conjoint Board ... ... ... | 0 | 10 | 35 | 45 |
| Apothecaries Society of London ... | 0 | 0 | 1 | 1 |
| University of Oxford ... ... ... | 0 | 0 | 1 | 1 |
| University of Cambridge ... ... ... | 0 | 2 | 6 | 8 |
| University of Durham ... ... ... | 0 | 2 | 4 | 6 |
| University of London ... ... ... | 1 | 2 | 9 | 12 |
| Victoria University of Manchester ... | 0 | 2 | 1 | 3 |
| University of Birmingham ... ... | 0 | 1 | 3 | |
| University of Liverpool ... ... ... | 0 | 2 | 1 | 3 |
| University of Leeds ... ... ... ... | 0 | 0 | 1 | 1 |
| University of Sheffield ... ... ... | — | — | — | — |
| Scottish Conjoint Board ... ... ... | 1 | 2 | 0 | 3 |
| University of Edinburgh ... ... ... | 1 | 9 | 18 | 28 |
| University of Aberdeen ... ... ... | 0 | 3 | 2 | 5 |
| University of Glasgow ... ... ... | 0 | 3 | 5 | 8 |
| University of St. Andrews ... ... | 0 | 0 | 1 | 1 |
| Irish Conjoint Board ... ... ... | 0 | 9 | 4 | 13 |
| Apothecaries' Hall, Dublin ... ... | — | — | — | — |
| University of Dublin ... ... ... | 1 | 15 | 8 | 24 |
| Royal University of Ireland ... ... | 0 | 4 | 8 | 12 |
| Indian and Colonial Universities .. | 0 | 1 | 2 | 3 |
| Total ... ... ... ... | 4 | 67 | 110 | 181 |
| | | | | 168 Candidates holding Qualifications from 181 Bodies. |

### REPORT OF THE FINANCE COMMITTEE.

The report contained the following paragraphs

The Finance Committee beg leave to report that the income of the General and Branch Councils for the year ending December 31st, 1910, was £7,854 19s. 8d.; the expenditure during the year was £8,150 12s. 5d. Consequently there was a deficit of £295 12s. 9d.

The most serious aspect of this deficit is that it is chiefly caused, not by excess of expenditure, but by a diminution in the principal source of income—namely registration fees. The English Branch received £461 and the Scottish Branch £261 less than in 1909; and though the Irish Branch received £63 more, the total decrease is £660. The number of those entering the profession has been steadily falling off for some years, as the following figures will show:

| | 1886–90. | 1891–5. | 1896–1900. | 1901–5. | 1906–10. |
|---|---|---|---|---|---|
| Number of persons registered as medical students | 9,636 | 9,332 | 8,141 | 7,236 | 5,631 |
| Average number of students registered each year | 1,927 | 1,866 | 1,628 | 1,447 | 1,126 |
| Average number of persons registered each year as medical practitioners | — | 1,455 | 1,296 | 1,225 | 1,117 |
| Total receipts from fees for original registrations | — | £36,385 | £32,395 | £30,625 | £27,920 |
| Yearly average of receipts from fees for original registrations | — | £7,277 | £6,479 | £6,125 | £5,584 |

From these figures it will be seen that, out of every hundred persons who are registered as medical students, eighty eventually obtain qualifications and register as practitioners. These eighty represent an income of £400. Therefore, every hundred students less who enter the profession represent a probable diminution of income of £400, and the situation, from a financial point of view, cannot be regarded without concern.

The total decrease of expenditure by the General and Branch Councils is £463.

It is difficult to see how the Council can sensibly improve its financial position. In the past year each session was concluded in five days, and so long as the penal work occupies from two to three days, it is impossible to shorten this period appreciably. After careful consideration by the legal advisers of the Council, no practicable means of abbreviating the time spent on penal business has been found.

The Committee desire to call special attention to the large expense incurred in cases in which the Council had to act without a complainant. Taking the past seven years into account, the income has exceeded the expenditure on the average by £103, but there has been a deficit for three years past, and at the end of 1911 the deficit is likely to be larger, for the elections of Direct Representatives will take place during the year. In 1906 the expenditure of the three Branches on the elections was about £850, the cost having been considerably increased by the introduction of the ballot system, and this year the English Branch will have two elections to provide for. The total expenditure under this head is not likely to be less than £1,200. By a slight alteration in the terms of the Medical Act, 1886, it might be arranged that in future the election of all the Direct Representatives for England should take place at one time. If this change were effected, a portion of the large expenditure entailed by the necessity of holding elections at frequent intervals would be saved.

Mr. TOMES, in presenting the report, called attention to the fact that there was a deficit which was ominous as regards the future, owing to the fall in the numbers of those who registered, and to the additional expense imposed upon the Council by the election of a Direct Representative. By the wording of the Act the Council had absolutely no option in the matter, but it cost approximately £500. The serious aspect of it was that a Direct Representative, having once got out of time, remained out of time for ever; he was not elected for the residue of the period of the Representative whom he replaced, but for five years from the period of his election. Consequently, instead of being able to elect their representatives all at one time, they would have to elect three in the autumn of this year; the vacancy lately filled up would remain six months out of time for ever. If the same kind of thing happened in the case of another Direct Representative, the Council would be spending absolutely unnecessarily £1,000 or more, merely because the wording of the Act was inconvenient. He thought the Council should endeavour to get a short amendment of the Act, when a favourable opportunity occurred, in order to cope with the difficulty. He moved that the report be received, entered on the minutes, and adopted.

Sir HENRY MORRIS, in seconding, wished every member of the Council to read carefully the statement at the beginning. He was sure those figures were of extreme importance and ought to be thoroughly borne in mind by members of the Council. They showed a considerable diminution in the number of students registered, and also a corresponding reduction in income to the Council.

The motion was then put and agreed.

Proposed by Mr. TOMES, seconded by Sir HENRY MORRIS and resolved:

That if it be necessary a grant of £150 be made towards the expenses of the Irish Branch Council from the funds of the General Council.

Mr. TOMES proposed:—

That the President be requested to draw the attention of the Lord President of the Privy Council to the inconvenience of the burden on the Council's funds arising under the terms of the Medical Act and the Privy Council regulations in regard to the election of direct representatives, and to urge that the Council would welcome any change which would get rid of this difficulty.

Sir DAVID MCVAIL would much prefer that the Finance Committee should consider the whole financial question, and not deal with a subject which only affected a single individual.

The PRESIDENT thought, as it was only altering a few words of the Act, the Council should make the representation, because, as at present framed, the election of Direct Representatives was a very costly proceeding.

Sir HENRY MORRIS would be glad to second the motion if he was quite sure there was no other way of doing it than by an amendment of the Act.

The PRESIDENT said the words "or otherwise" might be inserted, but the Regulations of the Privy Council contained a provision with regard to money which could not be altered without an Act.

Dr. MACKAY thought the matter should be pressed to a vote, and, if necessary, he would second the motion.

The PRESIDENT put the motion, which was declared carried.

REAPPOINTMENT OF REGISTRAR.

Proposed by Dr. NORMAN MOORE:

That Mr. Allen be reappointed General Registrar for the usual period.

The PRESIDENT desired to be allowed to second this from the chair, and to thank Mr. Allen for the services he had rendered him during the past year.

APPOINTMENT OF EXAMINERS.

Mr. Hugh Lett, F.R.C.S., and Mr. Philip Turner, F.R.C.S., were appointed Assistant Examiners in Surgery to the Apothecaries' Society of London, and Mr. F. Conway Dwyer, Fellow and Examiner in Surgery in the Royal College of Surgeons of Ireland, Assistant Examiner in Surgery for the Apothecaries' Hall, Dublin.

REPRESENTATIVE OF THE UNIVERSITY OF SHEFFIELD.

The PRESIDENT announced with regret that he had received from Dr. Cocking, the Representative of the University of Sheffield, a letter intimating the resignation of his seat on account of ill health.

## CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on May 30th, at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

*Midwives Struck Off the Roll.*

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the *Roll*:

*Mary Abbott*, that being in attendance as a midwife at a confinement she failed to adopt the antiseptic precautions required by Rules E 3 and 7, and the patient's perineum being seriously ruptured, with extensive injuries to the soft parts, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (3).

*Ellen Leatherland*, that being in attendance as a midwife at a confinement on January 31st, 1911, and subsequent days, the patient being ill from the birth of the child onwards, suffering from abdominal pain and headache, with diarrhoea and persistently offensive discharges, she did not, until February 2nd, explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the

medical practitioner, as required by Rule E 19 (4); that a registered medical practitioner having been sent for on February 2nd, she did not faithfully carry out his instructions as regards douching the patient, as required by Rule E 6; and that she failed to notify the Local Supervising Authority of the fact of a registered medical practitioner having been sent for, as required by Rule E 20 (1). Also that she did not take the temperature of her patients, being unable to use a clinical thermometer.

*Fanny Lestchick*, that being in attendance as a midwife at a confinement, the child suffering from inflammation of one eye, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5).

*Maria Smith*, that notwithstanding repeated warnings, she persistently neglected to provide herself with the appliances and antiseptics required by Rule E 2, and continued to attend cases as a midwife, though she possessed neither a clinical thermometer nor a disinfectant of any sort, and that, notwithstanding repeated warnings, she persistently neglected to enter her cases in her register.

*Anna Wathey*, that being in attendance as a midwife at a confinement, the case being one of abortion, she did not explain that it was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that it might be immediately forwarded to the medical practitioner, as required by Rule E 18.

*Midwives Censured.*

**The following midwives were censured after charges against them had been considered: *Elizabeth Hannah Bardsley*, *Annie Maycock*, *Louisa Millard*, and *Emma Louisa Wood*.**

*Midwife Cautioned.*

***Ellen Potter* was cautioned after charges against her had been considered.**

# Vital Statistics.

## THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths in the first quarter of the year, and to the marriages during the three months ending December last. The marriage-rate during that period was equal to 16 1 per 1,000, or 0.7 per 1,000 less than the average rate for the corresponding quarter in the ten preceding years.

The 223,588 births registered in England and Wales during the quarter under notice were equal to an annual rate of 24.8 per 1,000 of the estimated population; the birth-rate last quarter was 2.7 per 1,000 below the average rate for the corresponding period of the ten preceding years, and is the lowest birth-rate recorded in the first quarter of any year since the establishment of civil registration. Among the several counties the birth-rates ranged from 17.8 in Carnarvonshire, 18.5 in Sussex, 19.6 in Northamptonshire, 20.1 in Kent, and 20.6 in Dorsetshire and in Gloucestershire, to 29.1 in Nottinghamshire, 31.3 in Carmarthenshire, 31.4 in Durham, 34.5 in Glamorganshire, and 35.9 in Monmouthshire. In seventy-seven of the largest towns, including London, the birth-rate averaged 24.9 per 1,000; in London the rate was 23.9, while among the other towns it ranged from 14.5 in Hastings, 15.1 in Hornsey, 16.0 in Bournemouth, 16.7 in Halifax, and 18.3 in Handsworth (Staffs), to 31.5 in Merthyr Tydfil, 33.6 in St. Helens, 35.3 in Coventry, 35.9 in Swansea, and 41.8 in Rhondda.

The excess of births over deaths during the quarter was 80,447, against 83.784, 68,281, and 85,256 in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outward of 70,973 persons. There was an outward balance of 46,076 English passengers, 1,185 Welsh, 11,473 Scottish, 4,002 Irish, and of 8,812 foreigners, while there was an inward balance of 575 British Colonial passengers.

During the three months under notice the deaths of 143,141 persons were registered, equal to an annual rate of 15.9 per 1,000, or 1.7 per 1,000 less than the average rate for the corresponding quarter in the ten preceding years. The lowest county death-rates last quarter were 13.3 in Middlesex and in Essex, 13.5 in Kent, 13.6 in Leicestershire, 13.7 in Northamptonshire, and 13.9 in Worcestershire; the highest rates were 18.2 in Herefordshire, 18.5 in Devonshire, 19.0 in Monmouthshire, 19.6 in the North Riding of Yorkshire, and 20.2 in Carmarthenshire. In seventy-seven of the largest towns the corrected death-rate averaged 16.8 per 1,000; in 136 smaller towns the rate was 15.4 per 1,000, which was also the rate in the remainder of the country. The crude death-rates in the seventy-seven towns ranged from 7.6 in King's Norton, 8 5 in Hornsey and in Handsworth (Staffs), and 10.4 in East Ham, to 19.2 in Oldham, 19.3 in Dewsbury and in Swansea, 19.4 in Liverpool, 20 0 in Sheffield, 20.7 in Coventry, and 23.1 in Middlesbrough; in London the death-rate was 15.8 per 1,000.

The 143,141 deaths from all causes last quarter included 12,535 which were referred to the principal infectious diseases; of these, 6,147 were attributed to measles, 2,631 to whooping-cough, 1,439 to diarrhoea and arteritis (among children under two years of age), 1,369 to diphtheria, 515 to scarlet fever, 421 to enteric fever, 9 to small-pox, 2 to typhus, and 2 to pyrexia of uncertain origin.

The rate of infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 115 per 1,000, or 15 per 1,000 less than the average rate in the ten preceding first quarters. Among the several counties the rates of infant mortality last quarter ranged from 88 in Sussex, 91 in Surrey, 93 in Dorsetshire, 94 in Hampshire and in Buckinghamshire, and 95 in Hertfordshire, to 130 in Cornwall, 138 in Cumberland, 144 in the North Riding of Yorkshire, 145 in Monmouthshire, and 164 in Carmarthenshire. In seventy-seven of the largest towns the rate averaged 115 per 1,000 (being equal to the rate in the country as a whole), and ranged from 57 in Hornsey, 65 in Wallasey, 79 in King's Norton, and 80 in Hastings and in Great Yarmouth, to 149 in Sheffield and in Rotherham, 151 in Grimsby, 158 in Blackburn, 165 in Dewsbury, and 186 in Middlesbrough.

The death-rate among persons aged 1 to 65 years was 8.7 per 1,000 of the population estimated to be living at those ages. In the seventy-seven large towns the death-rate in this age-group averaged 9.4 per 1,000, and ranged from 3.5 in King's Norton, 4.1 in Hornsey, 4.2 in Handsworth (Staffs), 5.8 in Ipswich, 6.2 in Leicester, and 6.3 in Bournemouth, to 12.2 in Oldham, 12.3 in Coventry and in Liverpool, 13.4 in Sheffield, and 15.1 in Middlesbrough.

Among persons aged 65 years and upwards the rate of mortality last quarter was 104.6 per 1,000; in the seventy-seven towns the death-rate in this age-group averaged 111.9 per 1,000, the lowest rates being 69.0 in King's Norton, 76.5 in Handsworth (Staffs), 85.8 in West Bromwich, and 87.0 in Norwich and in Devonport; and the highest rates, 140.0 in Swansea, 143.0 in Huddersfield, 144.2 in Dewsbury, 155.4 in Burnley, and 158.5 in Bootle.

The mean temperature of the air last quarter was above the average in most districts; the total amount of rainfall was less than the average; and, owing to the general dullness in March, there was a deficiency in the total duration of bright sunshine during the quarter.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,243 births and 4,077 deaths were registered during the week ending Saturday, May 20th. The annual rate of mortality in these towns, based upon the revised estimates of population according to the recent Census, which had been 15.1, 14.2, and 14.2 per 1,000 in the three preceding weeks declined to 13.2 per 1,000 in the week under notice. In London the death-rate did not exceed 11.8 per 1,000, against 14.7, 13.8, and 13.2 in the three previous weeks. Among the seventy-six other large towns, the death rates ranged from 4.8 in Reading, 5.4 in Burton-on-Trent, 5.5 in Willesden, 5 9 in Bournemouth, and 7.3 in Coventry, to 18.4 in Blackburn and in Stockton-on-Tees, 18.5 in Halifax, 18.8 in Middlesbrough, and 20.4 in Wigan. Measles caused a death-rate of 1.5 in Bristol, 1.6 in Manchester, 1.7 in Wigan, and 4.8 in Stockton-on-Tees. The mortality from scarlet fever, diphtheria, whooping-cough, and enteric fever, showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. Of the 4,077 deaths from all causes registered in the seventy-seven towns in the week under notice the causes of 28 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Liverpool, 3 in Gateshead, 2 in Birmingham, and 2 in Leicester. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,037, 1,045, and 1,070 at the end of the three preceding weeks, further rose to 1,082 on Saturday, May 20th; 157 new cases were admitted during the week, against 141, 142, and 167 in the three preceding weeks. There were 11 cases of small-pox under treatment in the Metropolitan Hospitals on Saturday, May 20th, against 9, 8, and 13 at the end of the three preceding weeks; one new case was admitted during the week, against 2, 0, and 7 during the three previous weeks.

In seventy-seven of the largest English towns 8.389 births and 4,111 deaths were registered during the week ending Saturday, May 27th. The annual rate of mortality in these towns, based upon the revised estimates of population according to the recent Census, which had been 14.2, 14.2, and 13.2 per 1,000 in the three preceding weeks, was 13.3 per 1,000 in the week under notice. The death-rate in London did not exceed 12 2 per 1,000, against the revised rates of 13 8, 13.2, and 11.8 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 4.2 in King's Norton, 4.3 in Hastings, 4.6 in Hornsey and in Bournemouth, and 6.9 in Reading, to 17 4 in Newcastle-on-Tyne, 17.6 in Burnley, 19.3 in Sunderland, 19.5 in Halifax, and 23.9 in Tynemouth. Measles caused a death-rate of 1.4 in South Shields, 1.5 in West Bromwich, 1.7 in Sunderland, 1.9 in Stockton-on-Tees, and 2.0 in Manchester; and whooping-cough of 1.6 in Blackburn, 2.4 in Burnley, and 5.0 in Warrington. The mortality from diphtheria, scarlet fever, and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 4,111 deaths registered in the seventy-seven towns in the period dealt with, the causes of 31 were not certified by a registered medical practitioner or by a coroner after inquest, and included 5 in Birmingham, 4 in Liverpool, 3 in Bootle, 3 in Sunderland, and 3 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,045, 1,070, and 1,082 at the end of the three preceding weeks, had further increased to 1,097 on Saturday, May 27th; 158 new cases were admitted during the week, against 142, 167, and 157 in the three preceding weeks. The number of cases of small-pox under treatment in the Metropolitan Hospitals, which had been 8, 13, and 11 in the three preceding weeks, had further declined to 7 on Saturday, May 27th; one new case was admitted during the week, against 0, 7, and 1 in the three previous weeks.

## HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, May 20th, 983 births and 517 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, calculated upon the results of the recent Census, which had been 17.3 and 17.0 in the two preceding weeks, declined to 15.8 per 1,000 in the week under notice, but was 3.4 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates in the week under notice ranged from 5.2 in Leith and 12.8 in Aberdeen to 18.7 in Edinburgh and in Greenock, and 19.1 in Paisley. The mortality from the principal epidemic diseases averaged 2.2 per 1,000, and was highest in Paisley and Greenock. The 228 deaths from all causes registered in Glasgow included 1 from enteric fever, 5 from measles, and 31 from whooping-cough. Four deaths from whooping-cough were recorded in Edinburgh, 5 in Paisley, and 3 each in Dundee, Aberdeen, and Greenock. A fatal case of small-pox occurred in Dundee.

During the week ending Saturday, May 27th, 869 births and 581 deaths were registered in eight of the principal Scottish towns The annual rate of mortality in these towns, which had been 17.0 and 15.8 per 1,000 in the two preceding weeks, rose to 17.7 in the week under notice, and was 4.4 per 1,000 above the mean rate during the same period in the

large English towns. Among the several Scottish towns the death-rates in the period dealt with ranged from 10.5 in Paisley and 14.2 in Leith to 19.6 in Dundee and 21.8 in Perth. The death-rate from the principal epidemic diseases averaged 2.0 per 1,000, and was highest in Edinburgh and Glasgow. The 275 deaths from all causes registered in Glasgow included 7 from measles, 3 from scarlet fever, 1 from diphtheria, and 26 from whooping-cough. Five deaths from measles and 5 from whooping-cough were recorded in Edinburgh, and 3 deaths from whooping-cough in Aberdeen and 2 in Dundee.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 20th, 589 births and 359 deaths were registered in the twenty-two principal urban districts of Ireland, as against 684 births and 397 deaths in the preceding period. The annual death-rate in these districts, which had been 20.8, 18.2, and 17.8 per 1,000 in the preceding weeks, fell to 16.1 per 1,000 in the week under notice, this figure being 3.7 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 15.5 and 16.1 respectively, those in other districts ranging from 4.1 in Drogheda and 5.7 in Newtownards to 26.4 in Queenstown and 34.4 in Armagh, while Cork stood at 17.8, Londonderry at 15.4, Limerick at 26.0, and Waterford at 11.7. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000, as against 1.6 per 1,000 in the preceding week.

During the week ending Saturday, May 27th, 662 births and 369 deaths were registered in the twenty-two principal urban districts of Ireland, as against 589 births and 359 deaths in the preceding periods. The annual death-rate in these districts, which had been 18.2, 17.8, and 16.1 per 1,000 in the preceding weeks, rose to 16.5 per 1,000 in the week under notice, this figure being 3.2 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 19.0 and 16.1 respectively, those in other districts ranging from 4.4 in Lurgan and 4.7 in Wexford to 21.0 in Newry and 31.9 in Dundalk, while Cork stood at 20.5, Londonderry at 10.7, Limerick at 6.8, and Waterford at 19.5. The zymotic death-rate in the twenty-two districts averaged 1.0 per 1,000, as against 1.1 per 1,000 in the preceding week.

# Naval and Military Appointments.

## ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON N. L. RICHARDS has been placed on the retired list at his own request, May 20th. He was appointed Surgeon, February 11th, 1891; Staff Surgeon, February 11th, 1899; and Fleet Surgeon, February 11th, 1907.

The following appointments have been made at the Admiralty: Fleet Surgeon E. C. WARD, M.D., Staff Surgeon C. G. C. STANFORD, M.B., and Surgeon H. B. GERMAN (additional), to the *Prince George*, June 6th; Fleet Surgeon E. H. HODNET DE COURTMACSHERRY, M.D., to the *Hercules*, on commissioning, undated; Fleet Surgeon E. B. TOWNSEND, to the *Hibernia*, on the *Hercules* commissioning, undated; Fleet Surgeon J. H. PEAD, M.B., to the *Superb*, on the *Hercules* commissioning, undated; Surgeon E. C. HALTON, to the *Pembroke*, additional, for disposal, June 3rd; Staff Surgeon N. J. ROCHE, to the *Pathfinder*, June 1st; Staff Surgeon W. K. HOPKINS, to the *Commonwealth*, on recommissioning, June 6th; Fleet Surgeon R. C. MUNDAY, to the Royal Hospital School, Greenwich, June 27th.

## ARMY MEDICAL SERVICE.

### ROYAL ARMY MEDICAL CORPS.

LIEUTENANT E. M. PARSONS-SMITH is seconded for service with the Egyptian Army, May 11th.

Lieutenant-Colonel C. E. NICHOL, D.S.O., M.B., who is serving in India, is appointed to officiate as Principal Medical Officer, Burma Division, in addition to his other duties.

The following Captains are promoted to be Majors, dated May 17th: L. W. HARRISON, M.B., H. M. MORTON, M.B., M. H. BABINGTON, H. S. ROCH, and FREDERIC HARVEY. Their previous commissions are thus dated: Lieutenant, November 17th, 1899; Captain, November 17th, 1902. All these officers served in the recent South African war, being awarded the following: Major Harrison, the Queen's medal with four clasps and the King's medal with two clasps; Majors Morton and Babington, the Queen's medal with five clasps and the King's medal with two clasps; Majors Roch and Harvey, the Queen's medal with six clasps and the King's medal with two clasps.

Major C. T. SAMMAN, who is serving in India, is appointed Specialist in Mental Science, Southern Army, from March 24th.

Captain R. A. CUNNINGHAM, M.B., who is serving in India, is appointed Specialist in the Prevention of Disease, with charge of the Brigade Laboratory at Allahabad, from March 24th.

Lieutenant-Colonel R. P. BOND retires on retired pay, May 19th. He entered the service as Surgeon, February 3rd, 1883; became Surgeon-Major, February 3rd, 1895; and Lieutenant-Colonel, February 3rd, 1903. His war record includes the Nile expedition, 1884–5 (medal with clasp and Khedive's bronze star); with the Sudan Frontier Field Force in 1885–6–8, including the action at Gemaizah (clasp); and the South African war, 1889–1900, when he was present in the advance on Kimberley, the actions at Enslin, Belmont, Modder River, and Magersfontein, and in operations in the Orange Free State, including actions at Paardeberg, Poplar Grove, and Dreifontein. For this, according to the *Official Quarterly Army List*, he has the Queen's medal with two clasps.

## INDIAN MEDICAL SERVICE.

COLONEL R. W. S. LYONS, M.D., Principal Medical Officer, Kohat Brigade, is directed to proceed to Poona, to officiate as Surgeon-General with the Government of Bombay. Colonel Lyons has been nominated to be an additional member of the Legislative Council.

## ROYAL MILITIA OF THE ISLAND OF JERSEY.

SURGEON-CAPTAIN H. LE CRONIER, Medical Company, resigns his commission, May 13th.

## SPECIAL RESERVE OF OFFICERS.

### ROYAL ARMY MEDICAL CORPS.

LIEUTENANT E. H. RAINEY resigns his commission, May 27th.

## TERRITORIAL FORCE.

### ROYAL ARMY MEDICAL CORPS.

*Attached to Units other than Medical Units.*—Captain J. P. BROWN, M.B., to be Major, April 13th. Captain R. T. FERGUSON, M.B., resigns his commission, retaining his rank and uniform, May 24th.

### INFANTRY.

SURGEON-CAPTAIN C. W. MARSHALL, M.B., 5th (Renfrewshire) Battalion Princess Louise's (Argyll and Sutherland Highlanders), resigns his commission, May 24th.

Surgeon-Lieutenant-Colonel and Hon. Surgeon-Colonel J. R. ESSEX, 2nd Battalion Monmouthshire Regiment, resigns his commission, May 24th; he retains his rank and uniform.

Surgeon-Captain E. J. T. JONES, 5th Battalion Welsh Regiment, has been permitted henceforth to take and use the surname of Cory only, in lieu and instead of Jones.

## CHANGES OF STATION.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during April, 1911:

| | | FROM | TO |
|---|---|---|---|
| Colonel | R. W. Ford, D.S.O. | Tidworth | Woolwich. |
| ,, | T. J. O'Donnell, D.S.O. | Karachi | Tidworth. |
| ,, | H. H. Johnston, C.B., M.D. | Chatham | Gibraltar. |
| Lieut.-Col. | F. J. Jencken, M.B. | Netley | Colchester. |
| ,, | C. E. Faunce | Gibraltar | Chatham. |
| ,, | H. A. Haines, M.D. | Portsmouth | ,, |
| ,, | G. E. Hale, D.S.O. | London | Mhow. |
| ,, | C. W. Johnson, M.B. | Cosham | Bulford. |
| ,, | W. E. Berryman | Fyzabad | Woking. |
| ,, | R. G. Hanley, M.B. | Dublin | South Africa. |
| ,, | H. E. Cree | Jhansi | Sabathu. |
| Major | O. R. A. Julian, C.M.G. | Kasauli | Irish Com'd. |
| ,, | M. P. C. Holt, D.S.O. | Ambala | Kasauli. |
| ,, | J. Girvin | Deolali | Ahmednagar. |
| ,, | W. Hallaran | Lahore | Jhansi. |
| ,, | I. A. O. MacCarthy | Guildford | Woolwich. |
| ,, | L. A. Mitchell, M.B. | Woking | Aldershot. |
| ,, | G. S. Crawford, M.D. | Malta | Irish Com'd. |
| ,, | J. D. Alexander, M.B. | Thayetmyo | Darjeeling. |
| ,, | E. W. Slayter, M.B. | Wellington | Bellary. |
| ,, | T. H. J. C. Godwin, D.S.O. | Quetta | Aden. |
| ,, | H. E. Staddon | Curragh | Dover. |
| ,, | E. W. Bliss | Mhow | Quetta. |
| ,, | M. Swabey | Secunderabad | Wellington. |
| ,, | W. H. S. Nickerson, V.C., M.B. | York | Rawal Pindi. |
| ,, | H. G. Martin | Calcutta | Lebong. |
| ,, | G. J. S. Archer, M.B. | Secunderabad | Maymyo. |
| ,, | T. C. Lauder, M.B. | Fethard | Kinsale. |
| Captain | R. A. Cunningham, M.B. | Agra | Allahabad. |
| ,, | L. F. F. Winslow | Pontefract | Lichfield. |
| ,, | J. H. R. Bond | Mhow | Nasirabad. |
| ,, | A. F. Carlyon | Devonport | Okehampton. |
| ,, | C. E. Fleming, M.B. | Woolwich | Colchester. |
| ,, | A. C. Duffey, M.D. | Dublin | Rawal Pindi. |
| ,, | H. R. Bateman | London | Shorncliffe. |
| ,, | F. E. Rowan-Robinson, M.B. | Colchester | Northampton. |
| ,, | J. B. Clarke, M.B. | — | Colchester. |
| ,, | W. F. Tyndale, C.M.G., M.B. | Dublin | Kilbride. |
| ,, | F. W. W. Dawson, M.B. | Dundalk | Dublin. |
| ,, | G. A. Kempthorne | Piershill | Glencorse. |
| ,, | M. C. Wetherell, M.D. | Meerut | Curragh. |
| ,, | A. C. Osburn | Colchester | Bedford. |
| ,, | D. P. Johnstone | Seaforth | Liverpool. |
| ,, | A. A. Meaden | Nasirabad | Irish Com'd. |
| ,, | J. H. Campbell, M.B. | Allahabad | West.Com'd. |
| ,, | E. J. H. Luxmoore | Dover | Canterbury. |
| ,, | M. Sinclair, M.B. | Cork | Tralee. |
| ,, | N. Low | Cannanore | Irish Com'd. |
| ,, | L. V. Thurston | Queenstown | Fethard. |
| ,, | R. K. White | Aldershot | Irish Com'd. |
| ,, | T. H. Gibbon, M.D. | Malta | Canterbury. |
| ,, | J. E. Hoar | St. Thomas's Mount | Belfast District. |
| ,, | W. G. Maydon | Ayr | Edinburgh. |
| ,, | G. Ormrod, M.B. | Roorkee | Belfast. |
| ,, | H. G. Sherren | Belgaum | Colaba. |
| ,, | E. G. Anthonisz | Bangalore | Cannanore. |
| ,, | A. E. F. Hastings | Allahabad | Darjeeling. |
| ,, | A. D. O'Carroll, M.B. | Ambala | Aden. |
| ,, | P. Sampson | Rawal Pindi | Sialkot. |
| ,, | W. Mitchell, M.B. | Ambala | Sabathu. |
| ,, | B. Johnson | Wellington | St. Thomas's Mount. |
| ,, | E. M. Middleton | Rawal Pindi | Amritsar. |
| ,, | G. F. Dawson, M.B. | Meerut | Delhi. |
| ,, | J. B. Hanafin, F.R.C.S.I. | Attock | Dehra Dun. |
| ,, | H. T. Treves | London | Windsor. |
| ,, | A. Hendry, M.B. | Mhow | Indore. |
| Lieutenant | F. B. Dalgliesh | Indore | Mhow. |
| ,, | W. H. S. Burney | Egypt. Army | Curragh. |
| ,, | A. H. T. Davis | Secunderabad | Dehra Dun. |
| ,, | S. McK. Saunders | — | Egypt. Army. |
| ,, | F. H. Somers-Gardner, M.B. | Cosham | Gibraltar. |
| ,, | D. E. C. Pottinger, M.B. | Glencorse | Lucknow. |
| ,, | C. H. O'Rorke, M.B. | Newbridge | Lucknow. |
| ,, | C. G. Sherlock, M.D. | Dublin | Rawal Pindi. |
| ,, | S. W. Kyle, M.B. | Belfast | Poona. |
| ,, | J. W. Lane, M.D. | Dublin | ,, |
| ,, | A. T. J. McCreery, M.B. | Bulford | ,, |
| ,, | S. S. Dykes, M.B. | Glasgow | Edinburgh. |
| ,, | P. S. Tomlinson | Tidworth | Warwick. |
| ,, | E. M. Parsons-Smith | London | Egypt. Army. |
| ,, | A. D. Stirling, M.B. | Glencorse | Piershill. |
| ,, | O. W. McSheehy, M.B. | Worcester | Exeter. |
| ,, | J. J. H. Beckton | Canterbury | Rawal Pindi. |
| ,, | R. H. Nolan | Bordon | ,, |
| ,, | A. P. O'Connor, M.B. | Brighton | Shorncliffe. |
| ,, | T. H. Dickson, M.B. | Dublin | Birr. |
| ,, | P. C. Field | Aldershot | Deepcut. |
| ,, | E. C. Stoney, M.B. | Colchester | Bury St. Edmunds. |
| ,, | J. Gilmour, M.B., F.R.C.S.Edin. | Devonport | Tregantle. |
| ,, | E. T. Gaunt, M.B. | Shorncliffe | Canterbury. |

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon from June 26th to September 30th. Salary, £4 4s. per week.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £140, rising to £160 per annum.

BRADFORD ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary to commence £140 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer and Pathologist. Salary, £130 per annum, rising to £140.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Ophthalmic Surgeon (Out-patient).

GREENWICH UNION INFIRMARY.—First Assistant Medical Officer. Salary, £175 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House Surgeon. Salary, £75 per annum.

HACKNEY UNION.—Second Assistant Medical Officer for the Infirmary at Homerton. Salary, £120 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon; salary, £30 for six months and £2 10s. washing allowance. (2) Ophthalmic Surgeon.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL.—House-Surgeon. Salary, £150 per annum.

LIVERPOOL UNIVERSITY.—Senior Demonstrator. Salary, £175 per annum.

LONDON HOSPITAL, Whitechapel, E.—(1) Two Aural Clinical Assistants. (2) Ophthalmic Clinical Assistant. Salary at the rate of £100 per annum each.

LONDON LOCK HOSPITAL.—House-Surgeon and Assistant House-Surgeon to Female Hospital. Salary, £100 and £80 per annum respectively. House-Surgeon to Male Hospital. Salary, £80 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Two House-Surgeons. Honorarium at the rate of £50 per annum.

MANCHESTER UNIVERSITY.—Two Assistant Lecturers in Surgery.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL.—Resident Medical Officer (lady). Salary at the rate of £80 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Junior Resident Surgeon. Salary, £80 per annum, rising to £120 on succeeding to senior position.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

OCHILTREE PARISH COUNCIL, Ayrshire.—Medical Officer. Salary, £25 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham.—Honorary Surgeon to the Ear, Nose, and Throat Department.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physiology. Salary at the rate of £350 per annum.

SHEFFIELD: CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House-Physician. Salary, £75 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Hebden Bridge, co. Yorks; Tintern, co. Monmouth.

## APPOINTMENTS.

CANDY, G. S., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer of the Bethnal Green Union Infirmary.

COX, G. R., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Winchcombe Union Workhouse.

FENWICK, C., L.R.C.P., L.R.C.S.Edin., District Medical Officer of the St. Thomas's Union.

GILMOUR, P. G., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Mutford and Lothingland Union.

LINDSAY, E. A., M.R.C.S.Eng., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

LOWER, C. A., L.S.A., L.M.S.S.A.Lond., District Medical Officer of the Pocklington Union.

SLADE, S., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Lexden and Winstree Union.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Senior House-Surgeons: A. E. Woodall, M.Sc., M.B., Ch.B.Vict. T. T. Higgins, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P.

Junior House-Surgeon: J. R. Rigg, M.B., Ch.B.Vict.

House-Surgeon to Special Departments: James Cowan, M.R.C.S., L.R.C.P.

House-Physician: J. B. Holmes, L.S.A.Lond.

Accident Room House-Surgeon: G. J. French, M.R.C.S., L.R.C.P.

Assistant Surgical Officer: W. R. Douglas, F.R.C.S.Eng., reappointed.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

CUNLIFFE—CLEGG.—On June 1st, at St. Mary's Church, High Crompton, Ernest Nicholson Cunliffe, M.D., M.R.C.P., of Manchester, to Harriet, daughter of the late Joseph Clegg of Stoneleigh, High Crompton.

HARTILL—PEARSON.—On June 1st, at St. Michael's Church, Malton, by the Rev. Edgar Hartill, M.A., Vicar of St. George's, near Wellington, Shropshire, brother of the bridegroom, assisted by the Rev. R. G. Binnall, M.A., Rector of Manton, Lincolnshire, brother-in-law of the bride, Sydney Hartill, M.B., B.Ch., M.A. Oxon., of Abbots Langley, Herts, second son of John T. Hartill, J.P., Manor House, Willenhall, to Muriel Gladys Blannin Pearson, fifth daughter of Hugh W. Pearson, Solicitor, of West Garth, Malton, Yorkshire.

ROBBS—JEUDWINE.—On June 1st, at Harlaxton Parish Church, by the father of the bride, assisted by the Rev. G. H. Jeudwine, Vicar of Nunmonkton, brother of the bride, Charles Haldane Denny Robbs, M.B., elder son of the late Dr. C. H. D. Robbs of Grantham and Mrs. Robbs of Allison Towers, Dulwich, to Mary Dorothea, eldest daughter of the Rev. Canon Jeudwine, Rector of Harlaxton, Lincolnshire.

### DEATHS.

MCGACHEN.—On June 4th, 1911, at 5, Bedford Square, Frederick William Dobson McGachen, M.D., aged 55.

MARTIN.—On June 3rd, at his residence, Park Villa, 48, Park Road, Pendleton, Manchester, William Young Martin, M.D. and J.P., late of Walkden, in his 69th year.

REED.—On May 9th, Dr. James Thomas Taverner Reed, aged 53, only son of the late Dr. James T. Reed of Ryhope.

RICHARDSON.—Harold Richardson, L.M.S.S.A., on June 5th, at Cranbourne House, Leicester, aged 43, late of Spencer Place, Leeds,

WILKS.—On June 4th, at The Retreat, De Vause Place, Salisbury, Herbert Lorraine Earle Wilks, M.R.C.S., L.R.C.P., formerly of Grove House, Salisbury, second son of the late Theodore Chambers Wilks, sometime Vicar of Woking, Surrey, aged 43.

## PUBLISHERS' ANNOUNCEMENTS.

A NEW edition of the *Handbook of Surgical Operations*, by Sir Frederick Treves and Mr. Jonathan Hutchinson, revised by Mr. Hutchinson, is announced for publication by Messrs. Cassell and Co.

Mr. Heinemann will publish on June 13th a new novel by Sybil Spottiswoode entitled *Her Husband's Country*, which is described as a "study in international marriage."

## DIARY FOR THE WEEK.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Croonian Lecture by Dr. Henry Head, F.R.S.: Sensory Changes from Lesions of the Brain.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 15, Cavendish Square, 5 p.m.—(1) Annual Meeting and Election of Officers and Council for Session 1911-12. (2) Paper:—Mr. E. W. Hey Groves: Resection of the Posterior Spinal Roots in the Treatment of Spinal Neuralgia, Locomotor Ataxia, etc. Professor Förster of Breslau, Mr. C. A. Ballance, and others will take part in the discussion.

### WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Paper: Major C. F. Wanhill: Water Supply in the Field.

### THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Croonian Lecture by Dr. Henry Head, F.R.S.: Sensory Changes from Lesions of the Brain.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens.

### FRIDAY.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, Cavendish Square, 5 p.m.—(1) Annual Meeting. (2) Address by the new President, Sir William Leishman, F.R.S. (3) Paper: Dr. Emilio Rebas of San Paulo, Alastrim: An Epidemic Fever of the Puerperium.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Dr. Charles Mercier: Conduct and its Disorders.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Accessory Sinuses; Friday, 3.45 p.m., Accessory Sinuses.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Bronchiectasis in Children.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5 15 p.m., Intestinal Obstruction, with special reference to Hernia, Intussusception and Persistence of Meckel's Diverticulum; Friday, 5.15 p.m., Inflammatory and Neoplastic Diseases of Bones.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Special Lecture, Wednesday, 5 p.m., Etiology of Cancer of Mouth.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Liver Enlargements.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Demonstration of Medical, Surgical, and Ophthalmic Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Psychoneuroses; Tuesday, The Treatment of Scoliosis; Wednesday, The Inflammatory Conditions of the Tongue and Mouth which precede Carcinoma; Thursday, Pelvic Pain with Indefinite Signs.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Significance of Tremor; Friday, 3.30 p m., Spinal Injuries.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological: 3.30 p.m., Medical In-patient; 4.30 p.m., Demonstration of Selected Skin Cases. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2 30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient, Demonstration of Selected Cases of Early Pulmonary Tuberculosis (at the Northwood Sanatorium).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathology, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily, except Saturday.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JUNE.** | |
| 10 SATURDAY .. | NORTHERN COUNTIES OF SCOTLAND BRANCH, Annual Meeting, jointly with Aberdeen Branch, Elgin. |
| 11 Sunday .. | |
| 12 MONDAY .. | |
| 13 TUESDAY .. | LONDON: Organization Committee, 10.45 a.m.<br>NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.<br>SOUTH CONNAUGHT DIVISION, *Connaught Branch*, Hayden's Hotel, Ballinasloe, 5 p.m. |
| 14 WEDNESDAY | LONDON: Journal Committee, 10 a.m.<br>BUCKINGHAMSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Royal Bucks Hospital, 3 p.m.<br>CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. |
| 15 THURSDAY .. | LONDON: Metropolitan Counties Branch Council, 4.30 p.m.<br>BIRMINGHAM BRANCH, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.<br>EAST YORK AND NORTH LINCOLN BRANCH, Annual Meeting, Etherington Ward, Hull Royal Infirmary.<br>FIFE BRANCH, Station Hotel, Kirkcaldy, 3 p.m.<br>GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Western Infirmary, Glasgow, 4 p.m.<br>MIDLAND BRANCH, Derbyshire Royal Infirmary, Branch Council, 2 p.m.; Annual Meeting, 3 p.m.<br>REIGATE DIVISION, *South-Eastern Branch*, Laker's Hotel, Redhill, 5.15 p.m.<br>SOUTH WALES AND MONMOUTHSHIRE BRANCH, Annual Meeting, Cardiff. |
| 16 FRIDAY .. | KENSINGTON DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Town Hall, Kensington, 4.30 p.m. |
| 17 SATURDAY .. | |
| 18 Sunday .. | |
| 19 MONDAY .. | |
| 20 TUESDAY .. | |
| 21 WEDNESDAY | SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also Branch Council and Local Division, Council Chamber, Town Hall, Clonmel, 12 noon. |
| 22 THURSDAY .. | |
| 23 FRIDAY .. | |
| 24 SATURDAY .. | EDINBURGH BRANCH, Annual Meeting, Peebles Hydropathic, 12 noon. |
| 25 Sunday .. | |
| 26 MONDAY .. | |
| 27 TUESDAY .. | |
| 28 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>YORKSHIRE BRANCH, Annual Meeting, General Infirmary, Leeds, 4 p.m.; Council, 3 p.m.; Annual Dinner, 6.30 p.m. |
| 29 THURSDAY .. | |
| 30 FRIDAY .. | BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting, Beau Nash's House, Sawclose, Bath, 6 p.m.<br>METROPOLITAN COUNTIES BRANCH, Annual General Meeting, 429, Strand, W.C., 4.30 p.m. |
| **JULY.** | |
| 1 SATURDAY .. | |
| 2 Sunday .. | |
| 3 MONDAY .. | |
| 4 TUESDAY .. | |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 17TH, 1911.

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# National Insurance.

## THE ATTITUDE OF MR. LLOYD GEORGE.

MR. LLOYD GEORGE'S speech at Birmingham last Saturday has not altered the situation in any respect. As will be seen from the verbatim report of his references to the medical question published elsewhere, he chaffed a little about his interview with the Representative Meeting, and expressed the opinion that when contracts between the medical men and the friendly societies or Health Committees, as the case might be, came to be considered, each on its merits, each having regard to medical practice in that neighbourhood, and to the difficulties and obstacles and hardness of the work, a settlement would be effected that would satisfy every reasonable man.

We would not say a word that might seem ungenerous of Mr. Lloyd George. His bill is founded on a noble idea—an idea with which the medical profession, within its province, has always been imbued, and one which it has endeavoured, still within that province, to carry out in the face of the ingratitude of the friendly societies and in face of the indifference of the public. Therefore we say that the medical profession starts with that kind of prejudice in favour of the idea of national insurance which any man or any body of men must feel for ideas in the evolution of which they have been pioneers. The profession has revolted against the way in which the scheme of the National Insurance Bill seeks to carry out the idea because the provisions with regard to medical benefits show a want of grasp of the real factors of the problem. The truth seems to be that the Treasury has been badly and insufficiently advised. Mr. Lloyd George has been in consultation for two years and a half with the friendly societies; he heard a deputation of the British Medical Association once, just before the bill was introduced, for an hour or so. As M. Coudurier, the able London Correspondent of the Paris *Figaro*, has written: "Mr. Lloyd George believed that he was fully fortified with the necessary information, and was under the impression that he was really doing a very good turn to his new insurance doctors by allotting to them a minimum of 6s. a year for each insured person, requiring them in return not only to give all necessary treatment, but also to

supply drugs." Foreign opinion is said to be the best substitute for the judgement of posterity, and, incredible as it may appear, it really seems that M. Coudurier has formed a just opinion of Mr. Lloyd George's frame of mind when he delivered his first reading speech. Mr. Lloyd George is now aware that he has been misled, that he has been advised by persons wholly unacquainted with the temper and economic position of the medical profession, and with the reasons which compelled the British Medical Association, as one of the very first pieces of business taken up after the reorganization in 1902, to prepare and issue the report on contract practice, to which he has more than once referred. The origin of that report was the profound dissatisfaction of the profession with the conditions of contract practice. As the first step to the reform of what was known to be a mischievous and inefficient system, the Association determined to gather information as to its extent. The astounding blunder of the medical advisers of the Chancellor of the Exchequer has been to lead him to suppose that the conditions set out in a document intended to serve as a first step towards the reform of a system condemned by the profession, were such as the profession would be willing to see perpetuated and extended. In this matter the Chancellor of the Exchequer was not advised by the leaders of the profession, either those who lead the British Medical Association or those who lead the Colleges of the three kingdoms. They were not consulted. We are driven to the conclusion that he was advised by the permanent medical officials of other departments of the Government, for the Treasury has no medical department. If this surmise be correct, it gives us some foretaste of the kind of future that would be in store for the profession if it were handed over to the control of a medical bureaucracy.

The attitude Mr. Lloyd George assumed at Birmingham was that of a disinterested spectator. At the most he would see that the ring was kept, and would hope that the best man would win—friendly society or doctor. He does not much like the arena; he thinks it is unpleasant, and may well become unseemly—"all the same it has got to be settled." Is this attitude of detachment quite one which the country has a right to expect a responsible statesman to assume?

## THE ATTITUDE OF THE BRITISH MEDICAL ASSOCIATION.

WE ought, perhaps, to be grateful to the Chancellor of the Exchequer for taking the opportunity afforded by his speech at Birmingham to say nothing, inasmuch as it leaves the position of the Association quite unchanged, and the duty of the Council and its committees plain and unmistakable.

This duty is to take immediate action to carry out the policy of the Association as defined by the Representative Meeting on June 1st. The main heads of this policy were set out in the report of the meeting published last week, and also in the manifesto which was likewise published last week and issued as a circular letter to all members of the medical profession in Great Britain and Ireland.

The manifesto, it will be remembered, concluded by requesting the recipient to express on a postcard enclosed with the letter his readiness to support the policy of the Association. The issue of so large a number of circulars took some time; but over 15,000 postcards pledging the signatories to support the policy of the Association had been received up to mid-day on June 13th.

The summary of the policy of the Association adopted by the Representative Meeting includes an income limit of £2 a week, free choice of doctor by the patient subject to the consent of the doctor to act, the administration of medical and maternity benefits by local Health Committees and not by friendly societies, adequate remuneration of medical practitioners to be paid in the manner preferred by the majority of the medical profession in each district, and adequate representation of the medical profession on the administrative bodies, central and local, set up for the working of the scheme. This is the irreducible minimum which the Association through its Central Council and committees and local Divisions and Branches is pledged to press by every means on the attention of the Government and of Parliament and on the approval of the country. There must, of course, be no compulsion on either side with regard to the choice of a doctor; no doctor can be compelled to put his name on the local list or panel, and every patient must be free to choose from that panel. No doctor will be compelled to attend upon any individual patient, although if the scheme is otherwise modified to meet the approval of the medical profession, no doubt some arrangement will have to be made for attending those insured persons who, for one reason or another, are deemed to be undesirable patients.

The means which are to be followed in order to give effect to the policy of the Association were also laid down by the Representative Meeting, and active steps are now being taken to put the programme in force. In the first place, all medical men will be invited by a special appeal, and, where necessary, by a special canvass, to sign an undertaking that when the bill is enacted they will not individually enter into arrangements for attendance upon the insured, and will act through the local medical committee only if the conditions are satisfactory and in accordance with the declared policy of the Association. All medical men will also be requested to sign a petition to the Government containing a concise statement of the principal points in which the profession desires protection, including wage limit, free choice of doctor by patient, freedom from friendly society control, due representation of the profession in central and local bodies concerned in the administration of the scheme, and the recognition of medical committees, either in the statute or in the regulations made under it. The petition will also be brought to the notice of every member of Parliament, and it is part of the policy that it should be presented by deputations of local medical men to the members of Parliament for each parliamentary division; this interview, it is hoped, will also afford an opportunity for the medical men in each district fully to explain to their representative in Parliament the grounds upon which the demand for the amendment of the scheme rests.

Further, a Special Executive Committee of the Central State Sickness Insurance Committee of the Association has prepared a number of amendments to the several clauses of the bill which embody the policy of the Association. These amendments will be placed in the hands of the Divisions of the Association with the view of their being brought to the notice of local members of Parliament, with the request that they will introduce them or support them; steps will also be taken by the central organization to enlist the sympathy of members of Parliament of all shades of political opinion.

As the result of a discussion between the leaders of both sides before the House of Commons adjourned for Whitsuntide, it was arranged that a consultation should be held between the representatives of the front benches and also the representatives of other sections of the House as to the amendments to be selected for discussion in Committee. It is obvious that, with many pages of amendments and with the limited time which the Government is prepared to give to the Committee stage of the bill, the introduction of the closure in any form might crush out amendments of importance. In order to avoid this the Chancellor of the Exchequer has suggested this ingenious plan of saving the time of the Committee by picking out the amendments of the greatest importance. If, as is probable, an agreement can in this way be made between the Opposition and the Government, all amendments of substance are likely to have satisfactory consideration. It will, therefore, be necessary for those in charge of amendments affecting medical interests to see that these are included in the list for consideration, so that no important point of medical interest shall be overlooked in the Committee stage. This plan is, no doubt, very much better than leaving it to the Chairman of Committees to skip amendments under what is called the kangaroo closure.

## THE FRIENDLY SOCIETIES AND THE NATIONAL INSURANCE BILL.

AMONG all the points on which the medical profession has definitely made up its mind in connexion with the Insurance Bill, there is none perhaps on which it is more determined than its resolution to free itself once and for all from the domination of the friendly societies. The course of conduct commonly followed by these bodies in their relations with members of the profession has undoubtedly been leading up to this for some time, and it has been every year more clearly realized that the conditions were such as could not conduce to efficient service. The retort of certain spokesmen of the societies—that they could not be expected to pay their medical officers at higher rates when they found it easy to obtain as many as they needed at almost any rates—shows a fatal inability to understand the real nature of a great social problem. Something similar might be said in self-defence by any extortionate usurer, but the mere fact that the usurer can obtain almost any interest on his loans from a man in distress is no proof that extortion has ceased to be morally wrong. The same line of argument would justify the medical profession, now that it has become alive to its power through organization, in demanding extortionate capitation rates, a dozen times as great as have been paid, because insured persons must have medical attendance and the profession has a monopoly of it.

But the matter of payment has not been the worst part of the treatment dealt out to the profession by the societies. In a large proportion of cases the club doctors have been at the mercy not so much of the societies as of the worst part of the members, especially the not inconsiderable number of malingerers who think themselves fools if they cannot get as much or more out of a society than they ever pay into it. It has often been as much as a medical officer's position was worth to be in the least strict in exposing malingering. The suggestion made by Mr. Lloyd George that for their own sake the respectable members of the societies will keep strict watch over malingerers is an argument of theoretical value only; in practice the malingerers themselves can pack a lodge meeting and call on a doctor to resign. The ordinary respectable members know little or nothing about the tricks and subterfuges to which some members will descend; it is easy for the interested members to set agoing the innuendo that a doctor refuses certificates of sickness simply to save himself work; the charge is so difficult to refute that there is a great temptation to avoid it by a certain amount of laxity in giving certificates.

At the Brighton Conference of the Manchester Unity of Oddfellows held last week, one of the directors, who moved a resolution to the effect that the society should have the appointment of its medical officers, and should be empowered to make rules and regulations in respect to their duties, characterized the remarks of Mr. Lloyd George regarding the relations between the friendly societies and their doctors as "a scandalous misrepresentation of the attitude of friendly societies towards their medical officers," and after other speakers had talked in the same wild way an addition was made to the resolution to the effect that provision should be made for securing the right of approved societies to establish and carry on friendly socities' medical associations. It is needless to say that the profession strongly endorses the strictures made by Mr. Lloyd George on the attitude of the societies towards their doctors in the past. At the same time, it is perfectly clear that the Chancellor has not half realized how the present condition of affairs distinctly tends to the encouragement of malingering. Otherwise he would not have proposed to continue it. He is anxious to see the scheme work and believes that it will confer a great boon on the nation; but if the bill is carried as it is, the scheme will be swamped by malingerers.

The friendly societies claim the right to appoint their own doctors—that is, they absolutely reject the idea of free choice of doctor by the insured; they go further, and claim to be allowed to appoint whole-time medical officers, as is done now in most of their medical associations. It is a well-known fact that the societies have always refused to listen to any suggestions of anything in the nature of a wage limit, on which the profession is now laying stress, and it is practically certain that they would refuse payment per attendance. Thus it is clear that if the profession were not to maintain its determination to refuse to work under the friendly societies, it would at the same time have to abandon, or at least would have to face the strongest opposition to, the idea of free choice of doctor, the fixing of an income limit, and the system of payment per attendance, so that practically the whole policy of the British Medical Association depends on the profession being freed entirely from the domination of the friendly societies. The societies are in fact the key of the situation.

In reply to this, probably Mr. Lloyd George would repeat what he said in his second reading speech to the effect that he has taken measures in the bill to protect the doctors, and that "the doctors, instead of being under the control of the friendly societies, will have an appeal to the Health Commissioners, and no contract can be entered into which is not satisfactory to the Health Commissioners. That surely," he said, "is a great protection to the doctors." Now it is no use pretending that the provisions of the bill in this respect can be satisfactory both to the societies and to the doctors. The friendly

societies have already made it evident that they will not accept these provisions, as they think that their control over their doctors would be lost; if these provisions really mean anything at all substantial, the societies might well ask the question—Why leave us to deal with the doctors at all if there is no power to do anything without the consent of the Commissioners? Neither can medical men see much that is satisfactory in the arrangements of the bill which are supposed to be for their protection. It is only a mockery to put a man under a slave driver and tell him that he has a right to complain, as there are innumerable ways in which persecution can be carried on, in spite of any right of appeal. Mr. Lloyd George is simply asking medical men to consent blindfold in every case of dispute to unlimited arbitration by a board on which it is practically certain medical men will be in a minority, and not at all impossible that the spokesmen of the societies will be in a great majority. Moreover, there are some important matters on which the profession will never consent to any arbitration—for example, the question whether there should be free choice of doctor for the insured or whether Mr. Lloyd George's sum of 4s. 6d. or so a year is a sufficient capitation fee, or whether the well-to-do insured should receive medical benefits at capitation rates, or whether payment per attendance should be tried in certain localities, as Mr. Lloyd George said it might be, as an experiment. The British Medical Association is prepared to fight these matters, but not to go to arbitration on them, and if they are to be settled, some in the bill itself and some perhaps in regulations under the bill, what possible advantage will it be to the friendly societies to deal with the doctor directly, if these questions, those on which the societies lay most stress, are removed entirely out of their hands? Judging from the attitude of the societies in the past, it is practically certain that there would be a constant succession of appeals to the Commissioners, irksome and annoying to Commissioners, societies, and doctors alike, with the further certainty that the defeated party in any dispute would never be satisfied. If the profession were bound for some unavoidable reason to have direct dealings with the societies, Mr. Lloyd George's scheme for appeals to the Commissioners might be of some value, but there is no such reason imaginable except the wish of the societies to have full control of the doctors, and the reluctance of the Government to act on its expressed convictions. Mr. Lloyd George's reasons for not having the courage of his opinions make no appeal to the profession, which refuses altogether to be made into a plaything of politics. Further, what ground is there for believing that the Insurance Commissioners will be any more able to carry out their convictions than is Mr. Lloyd George now?

As Mr. Lloyd George himself has said, the profession has now the opportunity of its lifetime. It is united as it never was before, thanks largely to the extreme character of the medical provisions of the bill. The whole future of the profession depends on its taking full advantage of this unanimity. Its forces are concentrated, and for that reason are irresistible. It was stated repeatedly in the friendly society meetings last week that the present agitation is got up by medical men who are not themselves medical officers of the friendly societies. That is distinctly not true. In every large centre the club doctors are in open revolt. The societies will no doubt try to put off the general struggle, and by small concessions, such as the offer of a slight increase in club rates, attempt to break up the profession into separate detachments, which might perhaps be more easily defeated. For that reason we hope that every member of the profession will sign the pledge that is about to be issued not to undertake any work for the friendly societies or any other body under the bill, except through the local Medical Committees or Divisions of the Association, and in accordance with the principles laid down by the Representative Meeting. A single concession, such as the granting of free choice of doctor, is by no means sufficient. The leaders of the British Medical Association are indulging in no mock heroics, nor are they dragging their coats in the mud and inviting any one to tread on them that dare. Nevertheless, they are quietly but determinedly formulating the demands of the Representative Meeting into definite amendments of the bill. They are not at all dismayed at the possibility that not all the amendments to be proposed on behalf of the Association may be carried in the House of Commons, for with a united profession that need make little difference in the long run. In any case, no watering down of the amendments will be accepted as final. If they are watered down by the House of Commons, it will mean that every member of the profession will be called on to put into practice what is now being preached, and to refuse to take part in working the medical benefit part of the bill except on terms acceptable to the profession.

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## MR. LLOYD GEORGE AT BIRMINGHAM.

MR. LLOYD GEORGE, M.P., devoted an hour and forty minutes at Birmingham on Saturday to the further exposition of his Insurance Bill, but he did not add much to the knowledge already possessed. He said he hoped to see the scheme an Act of Parliament within the next three months. The main principles of the bill had been accepted with amazing unanimity. In fact, for the first few weeks it was smothered in honey. There was, he said, real danger in the unanimity with which the principles of the bill had been accepted, and continued as follows:

If you call attention to the objects of the bill, they say, "We accept that they are taken for granted." If you begin to dwell upon its principles, they say, "That is a waste of time, we accept that," or that the nation has been rushed into committee before it really was allowed to have a second reading. I am not protesting against an examination of the bill. I invited it when I introduced the bill. It is important it should be scrutinized to the last detail. Any examination of the detail can be nothing but barren unless you have a firm grip of the purpose and main outlines of the measure. And for that reason I propose this afternoon to deal with the bill as a whole—why it was introduced, what are the chief characteristics of it, and what are the remedies we propose in it for the evil we have to contend against. . . .

What is the special difficulty we have got to meet? Your great citizen, Mr. Chamberlain, once said that preventable illness was responsible for filling workhouses. I quite agree. The trouble now is this: Many a workman has told me a workman cannot afford to put himself on the sick list. Why? He knows that the moment he feels unfit for work, goes to the doctor, seeks a few days' repose to recruit his strength and to recover his power, there was no one there providing for the household. So workmen go on, unless there is some provision for them, working, in what I think Dr. Baxter Wilson of your city describes in a very able book which he published, go to work in a condition of ill health. That is thoroughly bad economy. It is thoroughly bad husbandry. Why? If that condition of things applied to horses and cattle the farmers of this country would be insolvent. Yesterday I met a very intelligent agricultural friend of mine, and I said to him, "Would you mind telling me the difference between a horse which is well fed and well cared for and a half-starved horse?"

"Well," he said, "I will think about it," and last night he sent this, and really it is so excellent I will read it to you. This is the first horse—a horse with good wages that is living under the Factory Acts is well doctored, well stabled, and here he is:

He is always fit for work; he cannot thrive without being well fed, coat always sleek and fine, full of heart and dash, can stand any amount of work; if young liable to play pranks.

And then he adds a very necessary precaution which is rather significant: "Being well fed, the horse should be worked and not kept idle." Idleness brings on many troubles; amongst others he mentions sore feet, which is the horse's equivalent for gout. Well, now, that, I think, does not apply so much to the workers of this country as to those who are well fed without working. What about the half-starved horse?

No energy, cannot stand much work, and weak, liable to break down at any time, liable to any disease; a melancholy creature altogether. Does not pay to keep, although only consuming half what he should. A very foolish policy to half feed; better not keep horse at all.

All that is full of wisdom, and all you have got to say is, Do let us treat men as intelligently as we treat horses. Money which is spent on maintaining the health, the vigour, the efficiency of mind and body in our workers is the best investment in the market. Well, now, what do we do to meet that? The first thing we do in our bill is we provide adequate medical treatment for every workman in the kingdom. I am dealing here with a very thorny subject, and I am warned that there are gentlemen of the medical profession present. I know there are gentlemen representing friendly societies. I hope they are not on the same side of the hall. There has been a good deal of discussion as to what they ought to be paid. At the present moment I am not going to enter into that. I had two hours' discussion with the medical men themselves the other day. I do not think there has been anything like it since the days when Daniel went into the lions' den. I was on the dissecting table for two hours, but I can assure you they treated me with the same civility as the lions treated my illustrious predecessor. You must remember this discussion about what they ought to be paid is an old one. I did not create that. I cannot say that I care very much for this wrangle in the sick room. It is unpleasant, and may very well become unseemly. All the same, it has got to be settled. For the moment I am the buffer state. The doctors say to me 6s. is not enough, and they cuff me on one side of the head. The friendly societies say, How dare you give as much? and I get another cuff this side of the head, and between them I can only receive it with that Christian meekness which characterizes politicians. The only comment I would make is this: When one set of people says you are paying too little, and another set of people you are paying too much, it rather means that you are somewhat about right. However, may I say this to my friends of the friendly societies? A badly paid service is a bad service, and there is no business where an adequate, fair remuneration is more essential than in the profession of healing. A man ought to enter your sick-room with a sense, at any rate, that he is fairly treated, and I am confident that that difficulty can be overcome. There are unreasonable men in every profession except that of the law (laughter). That does not command the universal acceptance which I should have expected from my knowlege of that profession and of the unselfish character of those who pursue it. But although there are unreasonable men in every profession and men who, if they could take the whole of the 25 millions raised, would still be unsatisfied, the vast majority of people in every trade, in every occupation, in every walk of life, are animated, I think, by a sense of what is fair, reasonable and practicable; and I am sure when we come to consider the contracts between the medical men and the societies, and the Health Committee, as the case may be, each upon its merits, each having regard to the conditions of medical practice in that neighbourhood, because that is important—the difficulties, the obstacles, the hardness of the work—I am certain we shall be able to effect a settlement that will satisfy every reasonable man; and as I said, most people are really very reasonable, except when they are excited. For the worker it means this—no medical bills in future; and, mind you, that is a very serious business. I was told by a working man the other day who earns something under 20s., and who was ill for some time, and confronted when he got well with a bill for £7—not a penny too much, from what I know of the circumstances; reasonable, having regard to the services rendered—but I am just thinking of the worker's point of view. There he was with a good many arrears to pay. He had had to live in the meantime. He was a strictly honest man, who would pay them all to the last penny, and it was a very serious outlook for him. In future there is a medical service at his disposal. There will be no anxiety during the time of his illness about what he is to pay the man who is coming to see him. Then he will not have to elect—and it is a hard election for an honourable man—between starving his family and not paying the man who has rendered him honourable service. In future provision will be made under this bill for doctoring for every worker, man, woman, and child throughout this land.

Turning, then, to the subject of sanatoriums, he said that there was no disease which cost the friendly societies nearly so much as consumption; it entailed, on the average, fifty-eight weeks' sickness. The disease was a burden on the rates and a burden on the State, and wasted its resources. The man now clung to his work as long as he could, because if he gave up there was no one to provide for his family. The bill would open a new prospect for such workers; it would plant all over Britain cities of refuge to which he could flee; one million and a half would be provided for building, and one million for maintaining sanatoriums. The workers, being able to command medical attendance, would in future discover the disease in time, would be taken to one of these institutions, and in a few months—since the bulk of the cases taken in time were cured—he would be restored to his hearth and to his workshop a fit and capable citizen. Provision was made for the maintenance of his family during the time the man was ill; the allowance was not sumptuous, but it would grow and grow without any additional charge upon employers or contributors. The scheme would expand and fructify; it was a beginning, and would involve a great deal more before the work was done. The maternity allowance of 30s. he considered one of the most valuable provisions in the Bill, the money was meant for the mother to help her to discharge the sacred function of motherhood, and the bill would provide means for seeing that the money was spent for the purpose for which it was designed.

After touching upon the rate of contribution for unemployed benefit, Mr. Lloyd George continued:

I am glad we are able to do something for those who are sick, for those who are out of work. I regret that I cannot to-day explain that portion, because time will not permit, but the one thing in the scheme which I lay greater stress upon is that we have got provision to prevent disease. We are setting up local Health Committees, and do not you allow anybody to cajole or bully or misrepresent you out of sticking to this. They are the most fertile and hopeful provisions in the bill. There you have got them as a great agency for prevention. They do not take away the function of any council, municipal, county, or district, but they are there to see that those councils are doing their duty. They will organize instruction on the principles of health—a most important thing. It is amazing the amount of ignorance that exists about the simplest rules of health. Why, you cannot persuade people that it is life for them to have an open window, that air is meant to breathe and not keep out, that you want a constant renewal of its freshness. There will be instruction on the principles of health and of diet, the dangers of excessive drinking—all these things will come in. But we shall also entrust to these committees the function of seeing that the laws of this land with regard to health are enforced. There is nothing more marked in this country—in most countries—than the contrast between the relentlessness and the rigour with which the laws of poverty are enforced and the slackness and sluggishness with which the laws affecting the health of the people are administered. These Health Committees, these societies, will be administered by the men themselves. It will be a great lesson in self-government. It will be the first time the workers of this country have been really federated for the purpose of administering affairs which are essential to their very happiness and comfort. And

the local Health Committees will also have representatives. The protection of property in this country is the most perfect machine ever devised by the human brain. The guardians of property patrol every street, and if the transgressor eludes their vigilance he is pursued to the ends of the earth. Continents cannot hide him; the waves of the ocean cannot cover his tracks; they would have caught even Peter the Painter had not he been protected by the certificate of character given to him by Mr. Justice Grantham. But you compare that with the way in which the Public Health Acts, the Housing Acts are administered in this country. We have had Public Health Acts in this country for years and years, long before I was born, and that is getting rather a long time ago now. You have Housing Acts on the Statute Book, and yet there is no city or town—nay, not a village—but you have got the reek of insanitary property. I want to see the law protecting property; yes, but I also want to see it protecting the workers' home. I would treat the man who receives rent or ground rent from insanitary dwellings which kill little children—I would treat him as I would the receiver of stolen property. They won't have very much to say in future. Look at the minuteness with which the most insignificant property is protected. Take the game of the land. Why should not life and health be protected with the same ruthlessness, with the same remorselessness, with the same care? That ought to be our concern. If we are going to make this land greater than it is, if we are going to make it worthy of the splendid empire of which it is the centre, if we are going to make it worthy of the position in the story of humanity which it ought to achieve, then the first thing we ought to do is to cleanse Britain of the foul habitations which spread corruption, disease, and death in our great cities.

The bill was not a final solution; it was one of a series. I have, he said, joined the Red Cross. I am in the ambulance corps. I am engaged to drive a wagon through the twistings and turnings and ruts of the parliamentary road. There are men who tell me I have overloaded that wagon. I have taken three years to pack it carefully. I cannot spare a single parcel, for the suffering is very great. There are those who say my wagon is half empty. I say it is as much as I can carry. Now, there are some who say I am in a great hurry. I am rather in a hurry, for I can hear the moanings of the wounded, and I want to carry relief to them in the alleys, the homes where they lie stricken, and I ask you, and, through you, I ask the millions of good-hearted men and women who constitute the majority of the people of this land—I ask you to help me to set aside hindrances, to overcome obstacles, to avoid the pitfalls that beset my difficult path.

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## MEETINGS OF THE PROFESSION.

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

THERE was a large attendance at the meeting of the Fellows and Licentiates of the Royal College of Surgeons in Ireland, held in the examination hall of the college on June 10th, to consider the National Insurance Bill.

The president of the college (Dr. ROBERT H. WOODS), who was in the chair, said that it was unnecessary to emphasize the importance, he might say the solemnity of the occasion, for the Insurance Bill vitally affected the interests of every medical practitioner in Great Britain and Ireland. The Chancellor of the Exchequer was making a bid for popularity, and it remained for the medical profession to determine whether that bid should be made at its expense. The profession, by the action it took within the next few months, would be making its bed, and its members must determine whether that bed should be comfortable or uncomfortable. In response to the circular convening the meeting, an enormous number of letters of apologies for absence had been received from practitioners all over the three kingdoms, and, without a single exception, every one of these letters, where anything beyond mere regret at being unable to be present was expressed, contained a strong condemnation of the scheme. The unanimity was indeed quite surprising and many of the letters by the suggestions they contained showed that the writers had carefully studied the scheme. Among the various points dealt with in these letters was the wage limit; the opinion was general that £160 a year was very much too high, especially in Ireland; the class of people from whom most of the country practitioners derived their fees were those with incomes varying from £100 to £160 a year. There was also a general opinion that medical and maternity benefits should be administered by local health committees and not by friendly societies, and that remuneration should not be by capitation, but for work done. The capitation system took no cognizance of distance, and in many instances doctors might have a three or four hours' drive, with a couple of miles of bog to cross at the end of it, in order to visit a patient. Further, any capitation likely to be paid by the State would be subversive of good work, for it could only be by visiting a great number of patients in a day that a practitioner would be able to keep a decent coat on his back; the tendency among men who had to earn their living on these terms would naturally be not to give the proper amount of attention to each individual case. It was quite probable that the bill would become law within the next few months, and he thought it doubtful whether, even in face of the general protest of the medical profession, it would be materially altered. If the efforts of the medical profession to have the bill altered failed, then its members must unite to refuse to carry it out, and he thought there was sufficient unanimity among the profession to make a successful stand.

Sir ARTHUR CHANCE said that the General Medical Council, of which he was a member, had drawn up a valuable report, but had felt itself unable to enter into the question of finance. He was not certain that the bill would not be modified, but he was certain that it was not likely to be modified to an extent which would render it acceptable to the profession. Two elements of strength in the position of the medical profession were, first, that practice by unqualified assistants had been stopped, thus increasing the demand for qualified men, and, secondly, that the number admitted to the *Medical Register* was diminishing.

The meeting then went into committee to consider the amendments.

The following resolution, moved by Sir ARTHUR CHANCE, seconded by Sir JOHN LENTAIGNE, was adopted unanimously:

> That we recommend the Council to press upon the Government the importance of amending the National Insurance Bill in the sense of the suggestions contained hereunder.

Sir ARTHUR CHANCE then moved:

> That the income limit of £2 per week be fixed for those entitled to medical benefit.

Dr. ADYE-CURRAN said he would prefer £100 a year; a man might be earning £3 one week and 30s. the next. Dr. HIGGINS, who said that £100 a year was a large income for a small country farmer, suggested the wage limit of £80 a year. Mr. FOY suggested that the wage limit should be £100 a year for married and £70 for single men. Dr. FAULKNER (Yorks) urged the meeting to consider the bill from the general point of view, as it affected the profession as a whole, and the PRESIDENT observed that this was, of course, necessary, since the College had so many Fellows and Licentiates scattered over England and Scotland. Dr. T. DONNELLY (Dublin) said that if the bill passed without modification it would destroy the practice of medicine in Ireland. Sir JOHN LENTAIGNE said that from the point of view of England or Ireland the profession must stand by £100 a year as the maximum wage limit.

The resolution was then put and adopted.

The following resolution, moved by Sir ARTHUR CHANCE, seconded by Dr. STORY, was carried unanimously:

> That adequate medical remuneration be given.

As was also the following resolution, moved by Sir ARTHUR CHANCE, and seconded by Sir JOHN LENTAIGNE, after, at the suggestion of Dr. STORY, the concluding part had been altered to read "to meet local conditions, such as in districts of large area and sparse population."

> That the payment of the doctor be made according to work done; or, if this be impracticable, that an arrangement be introduced by which the sum paid to the doctor by each insured person shall be capable of adjustment to meet the conditions in districts of large area and sparse population.

The following resolution, moved by Sir ARTHUR CHANCE, seconded by Dr. STORY, was carried unanimously:

That (*a*) the Insurance Commission, (*b*) the Advisory Committee (*c*) every local Health Committee, should include members who are duly qualified medical practitioners.

Sir ARTHUR CHANCE moved and Dr. EDWARD TAYLOR seconded the following resolution, which was moved unanimously, after a brief discussion:

That "medical benefit" and "maternity benefit" should be administered by the local Health Committees, and not by "approved societies."

Sir ARTHUR CHANCE moved the following resolution:

That in respect of the administration of "medical benefit," the "arrangements with duly qualified medical practitioners" made by the local Health Committee should be such as to admit of free choice of the medical practitioners on the part of the insured person; and that in respect of the administration of "maternity benefit," the like free choice of the medical practitioner or midwife on the part of the person receiving "maternity benefit" should be admitted.

Sir THOMAS MYLES suggested a modification of the earlier part so that it should read "arrangements with such duly qualified medical practitioners as may be willing to serve."

After Dr. O'SULLIVAN (Waterford) had said that the area of service should be limited, the motion as amended was put to the meeting and carried unanimously.

Sir ARTHUR CHANCE moved, and Sir THOMAS MYLES seconded, the following motion:

That in respect of the grant of subscriptions and donations to hospitals and other charitable institutions, contemplated in Clause 17 of the bill, the governing conditions should be assimilated to those set forth in Clause 15 (1) with regard to the administration of "sanatorium benefit": and that a sum, to be from time to time fixed by the Insurance Commission, be paid to hospitals and kindred institutions for each day's maintenance of an insured person in such hospital or institution.

Sir CHARLES BALL pointed out that the big hospitals of Germany were all State-endowed, but by the new Insurance Bill for these countries they had an attempt made to relieve working classes, and yet no provision was being made for hospital treatment for them. As the bill stood, the majority of hospitals would undoubtedly suffer very much indeed. The large hospitals in the manufacturing districts of England were entirely supported by employers, employees, the Hospital Saturday Fund, and the general public. Was it reasonable to expect that people who were going to be taxed for medical treatment would continue their subscriptions to hospitals?

Sir THOMAS MYLES, in endorsing what Sir Charles Ball had said, pointed out that in the year 1885 the sum raised in Dublin for medical charitable purposes was £84,000. That was by voluntary contribution, but they would find it difficult to raise £80,000 a year by taxing the people. He thought there would be a very marked shrinkage in hospital accommodation in Dublin as a result of the Insurance Bill.

Dr. FAULKNER did not agree that there would be any diminution in the amount of voluntary subscriptions to the hospitals as the result of the bill.

The PRESIDENT put the resolution and declared it unanimously adopted.

Sir ARTHUR CHANCE moved:

That in respect of the provision to be made for "the supply of proper and sufficient drugs and medicines" under Clause 14 (2), the supply of proper surgical dressings and appliances should be included; and, further, that steps should be taken to insure that the drugs and medicines are of the standard required by the *British Pharmacopoeia*, and that the dispensing of prescriptions is carried out by qualified persons.

Dr. ADYE-CURRAN said, as a member of the Apothecaries' Hall of Ireland, he had pleasure in seconding the motion, which was carried unanimously.

Sir ARTHUR CHANCE moved, and Dr. STORY seconded, the following resolution, which was carried:

That "medical benefit" should include provision for consultations and for operations when these are necessary.

Sir ARTHUR CHANCE moved, Sir THOMAS MYLES seconded, and it was resolved:

That in case of an insured woman it should be made clear that "sickness benefit" accrues in addition to "maternity benefit"; and further, that in cases attended by a midwife the local Health Committee is empowered to pay for the attendance of a medical practitioner, should such attendance be called for by the midwife, in accordance with the rules governing her practice.

The following resolution, moved by Sir ARTHUR CHANCE, seconded by Sir THOMAS MYLES, was unanimously adopted after Dr. ROSSITER (Ballinasloe) had pointed out that in many rural districts a small population was scattered over a large area, and that it would be grossly unfair to ask a practitioner to cross 10 miles of bog half a dozen times for 6s. a year:

That in Clause 59 (7), applicable to Ireland, it should be made clear that "deposit contributors" are not limited in their choice of medical practitioners to the medical officers of health of dispensary districts.

The meeting then resumed, and the resolutions adopted in committee were carried unanimously, and a committee consisting of three Fellows, three Licentiates, and three members of council was appointed to advise the council with regard to such modifications of the bill as should be suggested in its passage through Parliament.

## LEINSTER.

AT the annual meeting of the Leinster Branch of the British Medical Association, held in Dublin, at the House of the Royal College of Physicians in Ireland, Dr. JOHN B. STORY, who had been elected President of the Branch, took the chair, and delivered an address on the State and the National Insurance Bill. He said that the bill was one which touched everybody as much as a tax upon food; it was a serious question for the taxpayer, the employer, the worker for daily bread, and not least for the doctor. The object of the bill had received universal approval, because none would fail to rejoice if all the workers in the community were armed against the evil of sickness and unemployment. The questions were whether the means proposed would be efficient, and whether if efficient the cost would not be greater than the benefits conferred. After touching upon some of the general difficulties of the bill, Dr. Story said that it was obvious to Irishmen that the bill had been drawn purely with regard to the industrial conditions obtaining in Great Britain. It was a bill drafted for a manufacturing community, and it was probable that it would have not a beneficial but an injurious effect upon the prosperity of an agricultural country like Ireland. As medical men the point that mainly interested them was the effect of the bill upon the status of the medical man and the sufficiency of the remuneration which he was to receive for whatever increased work was put upon him thereby. The subject naturally divided itself into the effect upon the medical profession in its work in Great Britain and its effect in Ireland. The bill adopted the objectionable principle of the capitation fee in the contract proposed to be made with members of the profession —a method of practice which appeared to be, at present, a necessary evil in many districts of Great Britain, but one which was essentially opposed to the best interests of their profession, and to the interests of the sick, for it was certain to diminish the thoroughness and efficiency of medical work. It was contrary to the essential principle of all insurance systems, namely, that the risk or loss of the individual was to be borne by the community. In the capitation fee system of contract practice the doctor formed himself into an insurance company with unlimited liability. It was essentially a gambling transaction. There might happen to be less sickness than he had anticipated, and he profited, but there might happen to be more sickness than had been anticipated, and he lost. The Government was acting with gross unfairness to the medical profession by actually imposing upon the doctor risks which it refused to accept itself. Mr. Lloyd George offered a capitation fee of considerably less than 6s. to the doctors for medical attendance on workers amongst whom there would be many thoroughly bad lives, while now the State paid 8s. 6d. a year as capitation fee for medical attendance on its postal employees, who were good lives, and selected after medical examination. In Ireland the payment actually made by the Government on account of the high-class lives of the Royal Irish Constabulary was 34s. a year per head. Medicine, of course, and treatment of the policemen's families were included, but, allowing for that, the rate was enormously higher than the

Government proposed to pay for medical treatment of unselected lives of the whole working population, and it was a flagrant injustice that in cases where the payment for sickness or the disablement benefit was suspended on the ground that the disease or disablement had been caused by misconduct on the part of the person who claimed, he should nevertheless be entitled to free medical attendance. The whole medical profession, including its Irish members, was agreed in its refusal to be placed under the control of friendly societies. In the case of Health Committees the arrangement was equally objectionable, the only protection being Subclause 5, in Clause 43, providing that at least two of the members of the Committee should be medical men. The result of that clause, as calculated, was that medicine might obtain representation to the extent of one-fifth, and in some cases one-eleventh, of the whole Committee. The effects of the bill on Irish doctors would not be as injurious as upon doctors in Great Britain, and it was possible that Irish Poor Law medical men might obtain some small addition to their exiguous incomes. But the Poor Law medical man in rural Ireland was bound to lose much more than he could possibly gain. If the State was going to provide the insured with complete medical benefits, including operations and such treatment as were to be obtained in the voluntary hospitals, both general and special, it would have to pay for it. It could not be procured at club rates, nor at anything like such rates. The hospitals and their medical staffs would be affected by the proposed arrangements, and he believed injuriously. The bill was a large stride towards the nationalization of hospitals, which might be good or bad in itself, but should at all events be undertaken only with their eyes open. It was certain that the bill would pass in some shape or form, and the profession could not prevent it, but it would be absolutely useless if it did not receive the cordial support of the medical profession, and that it could not do unless its just and reasonable objections were fairly and satifactorily met.

After a vote of thanks had been passed to the President for his address, on the motion of Dr. F. W. KIDD, Sir JOHN LENTAIGNE proposed that an income limit of £2 a week should be fixed for those entitled to benefit under the scheme, to include both the voluntary and the compulsory insured persons. The bill was so drafted as to make the State generous at the expense of the doctors. Mr. Lloyd George had said that a man in any position, so long as he was a worker, might be a voluntary contributor; but it was not fair that a man with, say, £600 a year should get medical attendance from the State. Such persons constituted a class from which the greater number of their patients were drawn, for the rich were few.

Dr. H. BEWLEY said the remedy lay in the hands of the doctors by way of an organization which would bring pressure to bear on any member of the profession who did not agree with the terms laid down by the majority of the members.

The resolution was adopted, as was also a resolution proposed by Dr. DELAHOYDE, and seconded by Professor WHITE, to the effect that the Irish members of Parliament should be approached for the purpose of having the mandatory clauses in Section 69 removed from the bill, since they would inflict great hardship on dispensary medical officers throughout the country.

On the motion of Dr. VERNEY FURLONG, seconded by Dr. WALLACE BOYCE, a resolution was adopted declaring that where practicable a patient should be allowed a free choice of doctor subject to the consent of the doctor to act.

Resolutions proposed by Dr. SPENCER SHEILL, and seconded by Dr. T. G. MOORHEAD, were adopted setting out that medical and maternity benefits should be administered by local Health Committees, and not by friendly societies; that the remuneration of medical officers adopted by each local Health Committee should be according to the decision of the majority of the medical profession in the district; and that the medical remuneration should be what the profession considered adequate, having due regard to the duties to be performed and other conditions of service.

A final resolution, proposed by Professor WHITE and seconded by Dr. R J. ROWLETTE, was to the effect that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms had been arranged with the medical profession.

## PERTH.

AT a meeting of the Perthshire Branch of the British Medical Association held at Perth on June 9th the secretaries were instructed to send the following form to all medical practitioners in the area of the Branch, with a request that, if they are willing to conform with the policy of the Association, they should sign it and return it to the Secretary at their earliest convenience, since the Branch was anxious to learn how much support it can reckon on in the event of the State Insurance Bill becoming law in a form not approved of by the medical profession:

"We, the undersigned, medical practitioners in the county of Perth, do hereby solemnly affirm and undertake not to accept any appointment under the State, friendly societies, or other body unless the conditions of service and remuneration attached to such appointment have been approved of by the Division or Branch at a properly constituted meeting."

## PEEBLES.

THE medical profession of Peebles held a friendly conference with Mr. Donald Maclean, M.P. for the county. Views were freely exchanged on both sides. All the doctors are unhesitatingly of the opinion that the Act should leave the medical profession alone. They consider that the sick allowances and contributions towards medical expenses should be provided as proposed by the bill, and that patients should be free to continue their private relations with the medical attendant of their choice as at present. Incidentally it may be mentioned that locally by their united action they have successfully held their own with the friendly societies and have declined contract work with the Post Office. In the case of the latter the department pays to the employees the annual 8s. 6d., allowing them to call in the medical man of their choice. The Medical Insurance Bill might, it is considered, follow on similar lines. United the profession is impregnable.

## DUMFRIES.

AT the spring meeting of the Border Counties Branch of the British Medical Association, held at Dumfries on May 26th, it was resolved:

That this meeting of the Border Counties Branch of the British Medical Association strongly support the other Branches of the Association in the general attitude towards the medical clauses in the National Insurance Bill.

## GREENWICH.

AT a meeting of the Greenwich Division of the British Medical Association, held at the Lewisham Infirmary on June 8th, Dr. KEAY opened a discussion on the National Insurance Bill, and the following resolution was adopted:

That the present proposals of the Government are unsatisfactory, and it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

## CHESHUNT AND WALTHAM CROSS.

A MEETING of the Cheshunt and Waltham Medical Society was held at the Manor House on May 29th. This meeting recognized the necessity there was to provide adequate medical attendance for a definite grade of workmen on "club lines," and in order that the service should be adequate and satisfactory for both patients and doctors it must be placed upon an equitable basis.

In the opinion of the society any scheme for the working of a medical service under the National Insurance Bill should include the following provisions:

A. 1. The administration of medical benefit should be by the local Health Committee and not by approved societies as in the bill. (Sec. xiv (3).)
2. The composition of the local Health Committee should, in addition to representation provided in this bill, include adequate representation of local medical men.
3. All registered doctors who are willing to act to be placed on the list of the local Health Committee.
4. All insured persons to have free choice of doctor, but candidates for admission to approved societies to be examined by doctor chosen by such approved society. No transference of an insured person from one doctor to another to be made until the lapse of a year from date of entry or annual renewal, unless removed from the district.

5. Medical benefit to include only visits at patients' residence and consultations at doctors' surgery.
6. The administration of anaesthetics, operations, fractures, dislocations; eye, ear, and throat operations; confinement, abortions, stillbirths, and tooth extractions, together with illness arising within one month of either of these events, to be specially paid for.
7. Night calls to be paid for extra.
8. In respect of illness the consequence of personal misconduct the patient to be treated at his own expense.
9. The doctor shall be duly safeguarded, under regulations to be defined in the Act, in the management of unsatisfactory patients, malingerers, and against abuses of all kinds.
10. Only certificates necessary to receive benefits under the bill to be issued free of charge.
11. The maximum wage limit for this district to be 30s. per week.
12. Capitation fee, calculated upon the different classes of lives (selected, ordinary, and invalid) to be a minimum of 10s. per head.

B. The possible adoption by the Government of the club system was fully considered by the society, and unanimously rejected as being in complete opposition to the principles of free choice of doctor, which is to be regarded as a fundamental condition of a good and efficient medical service to the community.

C. The system by means of which payments shall be made for work done was fully discussed by the society, and, in their opinion, it would involve so many practical difficulties that it would not be to the advantage of the doctors to adopt it.

## RICKMANSWORTH.

**THE following resolutions were adopted at a meeting of the general practitioners of Rickmansworth and district held at Rickmansworth on May 31st:**

1. That this meeting strenuously opposes those provisions in the National Insurance Bill giving control of medical benefits to friendly societies, and maintains the principle of choice of doctor.
2. That medical benefits under the scheme must close at an average weekly income of £2, although 35s. is preferred.
3. That payment be by fee for each visit or other services rendered.
4. That we individually and collectively pledge ourselves to resign any friendly society appointments for medical attendance which we at present hold in this district, and decline any similar appointment which may be offered, if required to do so by the British Medical Association.

## WINDSOR.

**A MEETING of medical men practising in Windsor and the surrounding district was held at the Board Room, King Edward VII Hospital, on Wednesday, June 7th. Twenty-five doctors attended. The chair was taken by Mr. HOLDERNESS, J.P., of Windsor. The following resolutions were adopted unanimously:**

1. Moved by Dr. S. G. TIPPETT (Staines), seconded by Dr. CASEY (Windsor):

That it is essential that patients each and all must have free choice of their medical attendant as far as practicable.

2. Moved by Dr. S. G. TIPPETT (Staines), seconded by Mr. ARNOLD THOMSON (Maidenhead):

That the appointment of surgeons must not be in the hands of the clubs.

3. Moved by Mr. ARNOLD THOMSON (Maidenhead), seconded by Dr. LLOYD (Windsor):

That it is much to be desired that payment should be made for services rendered, and not by capitation fees.

4. Moved by Dr. CHARSLEY (Slough), seconded by Mr. WEAVER ADAMS (Slough):

That in the event of payment by capitation fees being finally determined upon, the fees proposed are totally inadequate, even if the distances be strictly limited.

5. Moved by Dr. NORRIS (Eton), seconded by Dr. CHARSLEY (Slough):

That it is intolerable that men who are suffering from the effects of their own debauchery should be entitled to demand their doctors' services free.

6. Moved by Dr. SCOTT (Windsor), seconded by Mr. SKEVINGTON (Windsor):

That an income limit of £2 a [week should be fixed for those entitled to medical benefits.

7. Moved by Dr. LLOYD (Windsor), seconded by Dr. ALLISON (Eton):

That this meeting is of opinion that special services, such as attendances on fractures, dislocations, etc., together with night work, should receive special remuneration, and all necessary appliances should be paid for.

8. Moved by Mr. SKEVINGTON (Windsor), seconded by Dr. CHARSLEY (Slough):

That every medical man should belong to the British Medical Association, and should induce all his friends to join the Association.

## SURREY.

**AT a meeting, held on May 29th, of all the medical practitioners residing in the urban district of the Maldens and Coombe, Surrey, it was unanimously resolved to support the British Medical Association in their endeavours to procure fair treatment for medical men in the National Insurance Bill now before Parliament.**

**The following resolutions were also unanimously passed:**

1. That the patient should have free choice of doctor, and doctor free choice of patient.
2. That the wage limit be not more than £100 a year for those receiving medical benefits, and that payment be for services rendered.
3. That voluntary contributors over the wage limit be excluded from all medical attendance under the Act.
4. That no medical practitioner should accept less than one guinea for a confinement under the scheme.
5. That the medical officers should not be under the control of any society or group of societies.

## SOUTHEND.

**A MEETING of the medical practitioners in the South-East Essex Division of the British Medical Association was held at Southend on June 9th, when the National Insurance Bill, in its relation to the medical profession, was considered.**

**The CHAIRMAN introduced Dr. Cox (Deputy Medical Secretary of the British Medical Association), who gave a clear account of the chief points in the bill affecting medical men, and urged all present to unite wholeheartedly to obtain just treatment by interviewing local M.P.'s, canvassing brother practitioners, and supporting the British Medical Association in the long and strenuous fight before them.**

**At the close of the address, Dr. Cox replied to various questions put to him, and the following resolution was proposed by Dr. BRIDGER:**

We, the undersigned, undertake that when the bill is enacted we will not individually enter into arrangements for attendance on the insured, and will act through the local Medical Committee, or through the South-East Essex Division only, if the conditions are satisfactory and in accordance with the declared policy of the Association.

**This was carried unanimously, and signed by all men present. A hearty vote of thanks to Dr. Cox was carried by acclamation, and the meeting then terminated.**

## BEDFORDSHIRE.

**AT a meeting of the Bedfordshire and Herts Division of the British Medical Association, held at the Bedford County Hospital on May 29th, under the presidency of Dr. S. J. Ross, which was largely attended by members and non-members of the Association, the following resolutions were passed unanimously;**

1. That the bill, so far it relates to medical service, is absolutely unworkable, it being on charitable rather than business lines, so that it cannot be accepted by the medical profession in its present form.
2. That we, the members of the Beds and Herts Division of the British Medical Association, protest against the Voluntary Clause of the Insurance Bill, which provides for medical attendance irrespective of wage limit, and pledge ourselves to refuse all service under the bill if these clauses are retained.
3. That we absolutely refuse to place ourselves under the control of the friendly societies, and demand that every patient be allowed free choice of doctor.
4. That this meeting considers that the medical benefits under the bill should be limited to employed persons whose incomes are not more than 30s. per week in urban and 20s. per week in rural districts.
5. That copies of these resolutions be sent to the local members of Parliament and to the local papers.
6. That the Representative of the Division be requested to vote for payment for work done and not by capitation.

## ASHFORD.

**THE annual meeting of the South-Eastern Branch of the British Medical Association was held on June 7th at Ashford, and, after discussion, the general resolution of he Special Representative Meeting was carried unani-**

mously, and was directed to be sent to all the members of Parliament in the South-Eastern Branch.

## GUILDFORD.

AT a representative meeting of the Guildford Division of the British Medical Association held at Guildford on June 9th, the following resolution was passed unanimously:

We, the members of the Guildford Division of the British Medical Association, for the sake of the unanimity of the profession, pledge ourselves to accept the policy of the British Medical Association, provided that the policy is strictly adhered to and no concessions made. At the same time we regret that the policy put forward is not stronger, and we approve of the resolutions passed at the meeting of the Chelsea and Fulham practitioners held on May 29th and reported on page 343 of the SUPPLEMENT of June 3rd.

## ISLE OF THANET.

AT the annual meeting of the Isle of Thanet Division of the British Medical Association held at Ramsgate on June 8th, the CHAIRMAN proposed the general resolution of the Representative Meeting, which was carried unanimously.

Mr. NORMAN CRAIG, M.P. for Thanet, and Mr. C. N. NICHOLSON, M.P. for Doncaster, addressed the meeting on various aspects of the bill.

## EASTBOURNE.

AT a meeting on May 26th, called by the Eastbourne Division of the British Medical Association, to which non-members of the Association were also invited, the following resolution was carried unanimously:

That this meeting endorses the views of the Association based upon replies of Divisions, as summarized in the Medical Secretary's communication under (*a*), (*b*), and (*c*), as the only satisfactory policy for the Council to pursue in safeguarding the interests of the profession.

## PORTSMOUTH.

AT the annual meeting of the Portsmouth Division of the British Medical Association, held on June 8th, the following resolutions were adopted:

That a mass meeting of the medical profession residing in Portsmouth and the surrounding districts be held on an early date to take further steps to secure such amendments to the National Insurance Bill as will adequately safeguard the interests of the medical practitioners and their patients under the Bill.

That the Acting Medico-Political Secretary be empowered to give a short account of the proceedings to the local press.

## WEYMOUTH.

A SPECIAL meeting of the West Dorset Division of the British Medical Association, to which non-members were invited, was held at Weymouth on June 7th. After discussion of the summary of main points which the profession should take up as approved by the Representative Meeting of June 1st, the following resolutions were adopted:

That should it become necessary for medical men to sign an agreement, both generally and locally, not to accept an appointment under the present Insurance Bill, a copy of the said agreement shall be published in all the local newspapers.

That a copy of this resolution be forwarded to every Division of the British Medical Association throughout the country.

That non-members of the Association in this Division should be personally invited to subscribe to the resolutions passed to-day.

## TRURO.

AT a meeting of medical men practising in West Cornwall, held at Truro on May 30th, the National Insurance Bill was discussed. Strong opposition was expressed to the capitation system as being bad for both the beneficiaries under the scheme and the medical profession. The following resolutions were carried unanimously:

1. That an income limit be fixed (the amount to be agreed on later).
2. That free choice of doctor be given to all patients, subject to the consent of the doctor selected.
3. That the doctors be responsible to the State alone through local committees, on which there shall be adequate medical representation.
4. That the remuneration must be such as will adequately cover all treatment, both medical and surgical.

## SWANSEA.

AT the annual meeting of the Swansea Division of the British Medical Association, held on June 8th, the following resolutions were adopted:

That the members of the Swansea Division of the British Medical Association pledge themselves to be loyal to one another, to abide by the policy of the Association, and not to serve under the National Insurance Bill except on lines laid down by the Division.

That a meeting of the Division be called for June 15th, at 3 p.m., to consider how the bill affects local works and colliery practices.

## IPSWICH.

AT a meeting of the Ipswich medical men, under the auspices of the Ipswich Clinical Society, the following resolutions were adopted:

1. That they are in sympathy with the principles of State Insurance.
2. That the bill as it stands would be most disastrous to a large number of members of the medical profession, and would not be to the interests of the insured.
3. That the wage limit of £160 a year is far too high.
4. That the wage limit should not exceed 30s. a week.
5. That the capitation fee in this district should be as a minimum 10s., including drugs.
6. That they object to the administration of the funds for sickness and other benefits being handed over to the friendly societies, and feel that this should be in the hands of the local Health Committee, and that there should be a large representation of medical men upon it.
7. That every medical man should have the opportunity of entering the scheme, and every contributor should have the chance of selecting the medical attendant.
8. That venereal diseases and alcoholism should be excluded from the scheme.

## NORTH LINCOLN.

AT a meeting of the members of the medical profession in practice in Scunthorpe, Winterton, and Ashby, on May 24th, the National Insurance Bill was discussed, and the following resolutions unanimously adopted:

1. There must be no control by friendly societies.
2. There must be free choice of doctor.
3. The 4s. 6d. contribution per man is not enough.
4. The wage limit of £160 is too high.
5. The lives of insurers being no longer selected lives, a contribution of 10s. 6d. would not be too high.
6. To assure the British Medical Association of our confidence in their dealing with the present situation, and of our willingness to adhere to what the Association finally determines on.

Three delegates attended a Branch meeting of the British Medical Association in Grimsby on the following day, where these resolutions were read and adopted with two slight additions.

## LEICESTER.

A MEETING of the Leicester and Rutland Division of the British Medical Association was held in the Association Hall, Leicester, on the afternoon of June 7th. Dr. TIBBLES took the chair, and there were present 102 members and 7 visitors.

The Representative of the Division to the Representative Meeting (Dr. WALLACE HENRY) presented a report of the action adopted by the Special Representative Meeting on State Insurance against Sickness and on the present National Insurance Bill. Dr. POPE also gave his impressions of the meeting.

On the motion of the CHAIRMAN, seconded by Dr. MCALLISTER-HEWLINGS, the following resolution was unanimously adopted:

That while approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the medical benefits until satisfactory terms have been arranged with the medical profession.

On the motion of Dr. BALLARD, seconded by Dr. STRACEY, the six demands put forward by the Representative Meeting were adopted as the minimum conditions of service

which would be deemed satisfactory. Considerable discussion on this resolution took place, in which Drs. BERESFORD, HIGGS, BARRETT, FOSTER, CARTER, STRACEY, TUCKETT, STAMFORD, PAULSON, DAVIES, MORRISON, SEVESTRE, and the SECRETARY took part. The feeling of the meeting was that no concessions should be made on these points, and that urgent steps should be taken to unite the profession throughout the country on the matter.

Requisitions to the local members of Parliament asking them to meet deputations were largely signed, and a petition to Parliament praying that the bill should be amended in the direction indicated above was also signed.

The following declaration was signed by every person attending the meeting.

I declare that I will support the policy of the British Medical Association, and that I will undertake no work under the National Insurance Bill unless the conditions of service are such as have been approved by the Division within the area of which I reside.

## WARWICK.

AT the annual meeting of the Warwick and Leamington Division of the British Medical Association, held on June 10th, it was unanimously decided to support the policy of the British Medical Association with regard to the National Insurance Bill, and the executive committee was instructed to canvass each medical practitioner in the district personally.

## LICHFIELD.

A MEETING of medical practitioners in Lichfield and the neighbourhood was held on May 25th, when the following resolution was adopted unanimously:

That the members of the Lichfield Medical Practitioners' Association, consisting of all the civil medical practitioners in the nighbourhood, desire to place before the forthcoming Representative Meeting of the British Medical Association (of which Association they are all members save one) their unanimous and emphatic opinion that the terms of the National Insurance Bill, in so far as they affect the medical profession, are grossly unjust to that profession, and entirely inimical to the interests of the beneficiaries under the scheme, as well as being certain by their operation to lower the whole standard of practice, ruin a vast number of the existing profession, and retard the progress of the science.

They also are of an opinion, to which they intend rigidly to adhere:

(i) That the rate of contract is far too low.
(ii) That its terms are unfair, by placing the profession under the friendly societies.
(iii) That there should be revision for extras—for example, night calls, special visits, surgical dressings, minor operations, etc.
(iv) That there should be provision for a free choice of doctor.
(v) That there must be an absolute demarcation of those entitled to free medical attendance by a rigid adherence to the principle of an "income limit," which should not exceed £100 per year.

They further desire to assure the Representative Meeting that they will back with all their power every effort on the part of the British Medical Association to obtain fair and just dealing for the profession, and would suggest that the medical practitioners in each parliamentary division be requested to send a strongly worded petition against the bill to their member.

## BRADFORD.

AT a largely attended meeting of the medical practitioners of Bradford and district, held on May 26th, 1911, under the auspices of the Bradford Division, it was unanimously resolved:

That all present at this meeting pledge themselves not to undertake work under the scheme proposed in the National Insurance Bill, as they regard the medical provision in the bill as unjust, derogatory, and oppressive, and call upon the Government immediately to withdraw the same.

## BLACKPOOL.

AT a joint meeting of the Isle of Man and Blackpool Divisions of the British Medical Association, held on May 29th, the National Insurance Bill was discussed, and the following resolutions were unanimously adopted:

1. That, whilst the medical profession of the Fylde District are willing to co-operate in any scheme of sickness insurance applied to the poor and necessitous under suitable conditions, they have not the slightest intention of allowing themselves to be sweated for the benefit of a large class of people who can very well afford to pay for medical treatment.
2. That they regard the proposals of the National Insurance Bill, with reference to medical benefit, as injurious to the public interest, because of its enormous extension of "contract practice," with its corresponding hindrance to sound scientific work, and its destruction of those personal relations that help to make medical treatment effective.
3. That they condemn the proposals of the bill with regard to the medical profession as ruinous to a large number of medical men, and a grave injury to all of them.
4. Consequently, they hereby declare that they absolutely decline to take any part in the administration of the Act unless it is modified in the following directions:
   (*a*) That a household wage limit of 30s. per week be fixed for those receiving medical benefit.
   (*b*) That medical men engaging in practice under the Act shall deal directly with the Insurance Commissioners, and not with the friendly societies.
   (*c*) That in all cases payment shall be for work done, and not a capitation fee.
   (*d*) That this payment shall be a just and adequate one.
   (*e*) That all patients shall have free choice of medical attendant, and that the medical attendant shall have the choice of accepting or refusing particular beneficiaries as their patients.
   (*f*) That the conditions of service shall be determined by Parliament, and not left to the discretion of Insurance Commissioners, friendly societies, or local Health Committees.

It was also resolved:

1. That the thanks of the meeting be expressed to the officers of the Blackpool Division of the British Medical Association for calling the meeting; and
2. That the thanks of the meeting be expressed to Dr. Rhodes for occupying the chair.

## HALIFAX.

A SPECIAL meeting of the Halifax Division of the British Medical Association was held on June 7th. After some discussion, the following resolution was carried unanimously:

That this Division, in view of the very unsatisfactory results of Mr. Lloyd George's interview with the Representative Meeting of the British Medical Association, and the fact that medical benefits are not to be confined to the poor and necessitous only, is of opinion that medical benefits should be deleted from the National Insurance Bill, unless a satisfactory scheme providing for payment for work done is devised. If this is not done, each individual member of the British Medical Association should enter into an agreement to refuse to do any work or accept any appointment under the bill.

## CHAPEL-EN-LE-FRITH.

AT a meeting of practitioners of the Chapel en-le-Frith district on June 8th, the following resolutions were unanimously adopted:

1. That the wage limit for compulsory members—£160—is far too high, and should not be higher than 30s. a week, or as the local Health Committee should decide.
2. That there should be free choice of doctor for all, and that the doctor be responsible to the State through a committee on which medical men are strongly represented.
3. That there be no control by friendly societies.
4. That illnesses caused by misconduct be paid for.
5. That payment should be for work done, and that the fees should not be *less* than those of the National Deposit Society.
6. That unless the proposed scheme be properly readjusted, and medical and surgical fees be paid on a just scale (the nature of the case being taken into consideration), the profession refuse *en masse* to have anything to do with it.
7. That we strongly object to any capitation allowance.
8. That the area of the district be taken into consideration and extra remuneration be given for mileage outside a fixed radius.
9. That extra payment be allowed for night visits and emergency work.
10. That the present scheme, as it now stands, will affect the returns of this district considerably, and that, if passed, compensation be made for loss of income.
11. That it is time the "sweated" medical profession stand once and for all for fair play.

## LANCASTER.

THE following resolutions were carried unanimously at a crowded meeting representing medical practitioners of Lancaster and district held at Lancaster on May 29th

1. That whilst the medical profession of Lancaster and neighbourhood are willing to co-operate in any scheme of

sickness insurance applied to the poor and necessitous under suitable conditions, they have not the slightest intention of allowing themselves to be sweated for the benefit of a large class of people who can very well afford to pay for medical treatment.

2. That they regard the proposals of the National Insurance Bill with reference to medical benefit as injurious to the public interest, because of its enormous extension of "contract practice," with its corresponding hindrance to sound scientific work, and its destruction of those personal relations that help to make treatment effective.
3. That they condemn the proposals of the National Insurance Bill with regard to the medical profession as ruinous to a large number of medical men and a grave injury to all of them.
4. Consequently, they hereby declare that they absolutely decline to take any part in the administration of the Act unless it is modified in the following directions:

   (*a*) That an income limit of 24s. per week be fixed for those receiving medical benefit.
   (*b*) That medical men engaging in practice under the Act shall deal directly with the Insurance Commissioners, and not with the friendly societies.
   (*c*) That in all cases payment shall be for work done, and not a capitation fee.
   (*d*) That this payment shall be a just and adequate one.
   (*e*) That all patients shall have free choice of a medical attendant.
   (*f*) That the conditions of service shall be determined by Parliament and not left to the discretion of Insurance Commissioners, friendly societies, or local Health Committees.

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## FURNESS.

**At a meeting of the Furness Division of the British Medical Association held on June 9th the following resolutions were carried:**

That this meeting of the Furness Division expresses confidence in the Association and pledges itself to support its policy.

That the Honorary Secretary of the Furness Division be instructed to write to the Medical Secretary requesting him to do all in his power to remove from the profession the odium attaching to it from the observations made by Mr. Lloyd George in the House of Commons regarding the supplying of medicines to their patients by club doctors.

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## ALNWICK.

**At a largely-attended meeting of medical men practising in the northern part of Northumberland, held at Alnwick to consider the National Insurance Bill, Dr. MAIN (Alnwick), who was called to the chair, in a brief address, emphasized the necessity of radical changes being made in the bill. Dr. ROBSON (Alnwick) expressed the opinion that medical benefits should not be included in the bill, and stated his readiness to coincide with any policy the meeting might decide upon. Dr. MACASKIE (Bamburgh) urged that the bill should be amended so as to take the control of medical benefits out of the hands of the friendly societies, allowing free choice of doctor, providing payment by capitation, providing mileage in country districts, and make dispensing optional.**

**Dr. DEY (Wooler) moved the following resolution:**

That every member of the profession should indicate that he will be prepared, if necessary, to enter into an agreement whereby he will undertake not to accept of any appointment under the State, friendly societies, or other body, unless the conditions of service and remuneration attached to such appointment have been approved of by the Division or Branch of the British Medical Association (as may be considered best) at a properly constituted meeting.

**This was seconded by Dr. JACKSON (Alnwick), who referred to the interference with practice which would follow the inclusion of voluntary members.**

**Dr. MOYES (Broomhill), who spoke as to the contract system of practice, urged that the method of payment in respect of miners and their families should be retained. Dr. MACDONALD, Dr. BURROW, Dr. PURVES, and Dr. MACEWEN also spoke, and the feeling of the meeting was unanimous as to the inadequacy of the fees offered and the necessity for an income limit, the elimination of control by friendly societies, and a freedom of choice for the patient from a list of doctors who agreed to act.**

**Dr. BURMAN, Honorary Secretary of the North Northumberland Division, said it was desirable that every practising member of the profession should join in demanding fair dealing, independence, and adequate remuneration.**

**At the conclusion of the meeting a committee, consisting of Drs. Macaskie (Bamburgh), Mackay (Berwick), Moyes (Broomhill), and Jackson and Burman (Alnwick), was appointed to safeguard the interests of the profession in the district, with power to call a meeting, should it be deemed necessary, of all the medical men practising in it.**

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## LIVERPOOL.

**AT a meeting of the medical profession of the Liverpool and Birkenhead district held on May 29th, and attended by over 400 medical practitioners, the following resolution was unanimously passed, namely:**

That, seeing that in the National Insurance Bill now before Parliament no safeguards are mentioned by means of which the medical benefits are restricted to those persons having less than a specified income, and that the intention is expressed of placing the medical arrangements in the hands of approved friendly societies, with no guarantee that the remuneration of the profession is to be either reasonable or adequate, this meeting opposes strongly the medical arrangements of the bill, and declares that no scheme of insurance against sickness will be satisfactory to the profession unless the following provisions are distinctly set forth in the scheme, namely:

(*a*) A total income limit (amount to be agreed upon).
(*b*) Free choice of doctor.
(*c*) The doctor responsible to the State, either directly or through a local committee, on which the medical profession is adequately represented.
(*d*) The remuneration such as would adequately cover every kind of treatment.

**The following declaration was signed, namely:**

We, the undersigned members of the medical profession of the Liverpool and Birkenhead district, hereby pledge ourselves on our honour *not* to undertake any work under the scheme of the National Insurance Bill now before Parliament (nor under any modification of it) unless the Bill is made in agreement with the four fundamental principles (*a*), (*b*), (*c*), and (*d*), mentioned in the above resolution.

**AT a meeting of the students of medicine in the University of Liverpool, held in the University, on June 6th, under the chairmanship of Mr. K. W. MONSARRAT, Dean of the Medical Faculty, Professor BENJAMIN MOORE delivered an address on the State Insurance Bill. After a short discussion, the following resolutions were adopted unanimously:**

That this meeting of medical students of the University of Liverpool expresses its opinion that in the best interests of medical science and its applications to medical practice, as well as for the permanent benefit of the community and future efficient staffing of the medical profession, the new State Insurance Bill should be so amended that State insurance may become a national service instead of a dangerous monopoly under the friendly societies.

The meeting urges that clauses should be included in the bill which should secure:

1. A thoroughly efficient, and therefore necessarily an adequately remunerated, medical service.

2. A thorough co-ordination between domiciliary and institutional treatment.

3. A control of medical service of all kinds, both curative and preventive, which shall be out of the reach of friendly societies, and not subject to any undercutting of remunerations, materials, or service by them.

4. A free choice of mutual character between doctor and patient, preserving those human relationships which are so valuable in medical work, but free from all taint of charity or Poor Law administration.

5. Freedom of choice and equality of rights to all insured persons so that they may freely choose themselves whether they shall join an "approved" society or deal directly with Government, and shall not in the latter case be penalized for preferring the Government of their country to a friendly society.

6. That no monopoly of privileges be given to friendly societies or their officials, and that the maximum amount to be spent on administration, salaries of officials, etc., be distinctly fixed on a proper economic basis.

## QUESTIONS IN PARLIAMENT.

*Health Committees.*

VISCOUNT WOLMER asked the Chancellor of the Exchequer whether the Health Committees to be constituted under the National Insurance Bill would have power to purchase drugs wholesale to supply doctors and patients; and, if so, what provision would be made for those chemists who would thereby be ruined? Mr. Lloyd George replied that the Health Committees and approved societies retained under the bill the same freedom as friendly societies at present have in regard to the supply of drugs. He believed the chemists must necessarily profit largely by the provisions of the bill.

In answer to Sir George White, who asked if Health Committees would have power to spend money to advocate vaccination, the Chancellor said that Paragraph 2 of Clause 44 enabled the local Health Committee to make provision for the giving of lectures and the publication of information relating to health as it thought necessary or desirable.

*Maternity Benefit.*

Mr. Bridgeman asked if under the National Insurance Bill a woman entitled to maternity benefit would have entirely free choice as to whether she would employ a doctor or a midwife; and if, in the event of her employing a midwife who found it necessary to call in a doctor, the doctor's fee would be assured. Mr. Lloyd George said there was nothing in the bill which necessarily involved any restriction upon a woman's choice in this respect. The expenditure of the money payable by way of maternity benefit would, in accordance with Clause 16 (2), be subject to regulations for which the Insurance Commissioners would be responsible. In answer to Mr. Ramsay Macdonald on a later day, Mr. Lloyd George said that the maternity benefit of 30s. was intended to cover the cost of doctor and midwife where necessary.

*Medical Fees.*

Mr. Clynes asked whether any extra fees, in the nature of mileage, would be allowed in respect to doctors who had to travel long distances in order to visit their patients. Mr. Lloyd George: This would be a matter for the doctor concerned to arrange with the society or Health Committee, subject to the arrangement being to the satisfaction of the Insurance Commissioners.

Mr. Pike Pease asked the Chancellor of the Exchequer whether he was aware that the conditions of the National Insurance Bill in regard to medical treatment had roused dissatisfaction amongst the general medical practitioners throughout the United Kingdom; whether, in view of the fact that their cordial support was essential to the success of the scheme, he would consider changes in his proposals likely to satisfy the medical profession; whether he had sought the information or advice of those who justly claimed to represent general medical practitioners; and, if so, with what result. Mr. Lloyd George: With regard to the first and second portions of the question, I think I made the position clear in my speech during the discussion on the Second Reading. With regard to the concluding portion, I have seen representatives of the British Medical Association twice—once before and once since the introduction of the bill. I have also seen representatives of the General Medical Council, and I have consulted from time to time other representatives of the medical profession. Moreover, I have carefully perused the able report of the British Medical Association on contract practice.

*Medical Fees (Germany).*

Mr. Astor asked what fees are paid to doctors under the German Insurance Acts; and whether such fees include payment for drugs. Mr. Lloyd George: The average fee paid to German doctors by the Sickness Funds of all kinds in 1909 was 5s. 8d. per person insured. This fee was exclusive of drugs, but included attendance upon uninsured members of families where the rules of a fund provided for such attendance. The average fee paid to doctors by the parochial funds, which as a rule do not provide family attendance, was 4s. per person insured.

Mr. Worthington-Evans: Can the right hon. gentleman say how much is paid for drugs on the average in Germany? Mr. Lloyd George: I should like notice of that question. It is really very difficult to ascertain, because in Germany very often it includes expensive appliances. Mr. Worthington-Evans: Are there no statistics published? Mr. Lloyd George: Yes; the hon. gentleman must know I have got the figures.

Sir Philip Magnus: May I ask whether the 4s. includes the cost of drugs? Mr. Lloyd George: It does not include the cost of drugs.

*Medical Allowances.*

Mr. Hodge asked the Chancellor (1) whether the 6s. per head which he proposed to set aside under the National Insurance Bill for medical assistance and drugs in respect to each insured person would apply to those insured voluntarily through the Post Office as well as to employed contributors; (2) whether he had considered the desirability of allowing insured persons under his insurance scheme to retain their own doctors, subject to the provisions of Clause 14. Mr. Lloyd George said: In reply to these questions, perhaps I may be permitted to refer to the full explanation which I gave in the discussion on the second reading of the bill. In the actuarial calculations the same sum was allocated to medical attendance for the Post Office contributions as for the others, but power was given by Clause 14 to the local Health Committee to supplement this with the consent of the Treasury and the county council or county borough council from the Exchequer and from local rates.

*Extra Medical Payments.*

Mr. Spear asked if the Health Board proposed to be set up under the National Insurance Bill would be at liberty to pay 2s. 6d. out of possible available funds in addition to the 6s. to the doctors for attending friendly societies' members, or whether such extra payment would be confined to the Post Office insured. Mr. Lloyd George said the Insurance Commissioners would have power under the bill to ensure fair conditions of payment to medical practitioners for their services to insured persons. If the 6s. turned out to be insufficient, the surplus of 2s. 6d. per member provided in the finance of the scheme could be drawn upon.

Mr. Spear: Will they have liberty to make that extra payment both to the members of friendly societies and those insured under the Post Office? Mr. Lloyd George: I have already explained that with regard to the Post Office insured the 6s. does not come into account at all. Inasmuch as it is an insurance on a bad life it is obvious that 6s. would not cover the medical attendance in those cases.

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## OPINIONS OF THE PRESS.

As we took occasion recently to call attention to the unsympathetic treatment—due, doubtless, to insufficient information—accorded to the demands of the medical profession by the *Manchester Guardian*, it seems only fair to quote some expressions of opinion from other influential lay papers. The *Times*, in an article published last Saturday dealing primarily with the letters published last week from the British Medical Association and the Royal College of Physicians of London, pointed out that the fate of the bill depends on "the acute controversy which has arisen upon the medical features of the National Insurance scheme . . ."

for if the medical profession remains united and dissatisfied the bill cannot pass, or, if passed, it would break down at once in the working. Medical practitioners would refuse to work under the Act, and they could be neither compelled nor replaced. The situation demands calm thinking and the exercise of judgement, and the public will confidently expect both from the profession which habitually holds aloof from political excitement and has learnt to be most cool when other people lose their heads.

After commending the desire of the Royal College of Physicians to obtain exact information derived from personal experience with regard to the working of contract practice as it is to-day and the probable effect of the provisions of the bill, our contemporary continues:

The British Medical Association, on the other hand, has gone a great deal further. Its procedure cannot be called hasty, because the subject has been before the members for the last twelve months. The Association did not wait for the production of the bill, but acted on the promise and prospect of legislation to discuss the whole subject of sickness insurance, which has been canvassed by local branches all over the country and at representative meetings in London. Thus some general conclusions were reached, embodying the views of the members, and when the bill was produced it did not

take long to discover that its provisions were widely at variance with the conclusions adopted. The Association was in a position to formulate the demands of its members, and has done so, evidently unmoved by the conference with the Chancellor of the Exchequer, except perhaps in the direction of increased firmness. A circular letter containing the terms decided on has now been sent round to every member of the profession asking for his support for them, and expressly stating that the conditions enumerated were laid down after discussion of the Insurance Bill with the Chancellor of the Exchequer. There are six of them, and some need give no serious trouble. The demand that insured persons shall have a free choice of doctors has been approved by Mr. Lloyd George, and might be met by his proposed system of a panel of local practitioners if the panel is large enough, and no one who wishes to belong to it is excluded except for very grave reasons. . . . At any rate, this is a point which can be adjusted. The same observation applies to several others, provided that medical interests are properly represented on the statutory bodies administering the Act. This is clearly the key to the problems of remuneration, for instance, and to other points of detail.

But some of the questions raised are of far greater difficulty, and if the conditions are rigidly insisted on it is hard to see how the bill can possibly survive. The first is the most crucial of all. The demand is that an income limit of £2 a week should be imposed, which means, we presume, that persons earning more than £2 a week should be excluded from the benefits of compulsory insurance. The demand is in itself not unreasonable. Persons earning more than £2 a week are quite able to afford a moderate fee, and most of them prefer to pay it. There evidently ought to be a limit. One is proposed for persons not engaged in manual work. The limit for them in the bill is £160 a year, and it might well be reduced to £100, which is the line of demarcation in Germany. But as regards manual workers—the weekly wage-earners whom we call workmen—the difficulty is that no line has ever been drawn, there is no machinery for drawing it, and any attempt to draw it would raise such a howl from a pampered class that no politician would dare to face it. The line ought to be drawn, and there ought to be machinery for drawing it. The present position is inequitable, antiquated, undemocratic, and inconsistent with the facts, as we have pointed out before. . . . According to prevalent notions every "working man" is a poor wretch struggling to keep body and soul together in a foul slum. This idea is rooted in profound ignorance, watered by gush, and warmed by fiction. It should be abandoned and the weekly wage-earner placed in his proper position. . . . Hardly less difficult is the demand that the administration of medical and maternity benefit should be removed from the friendly societies; but this is vital to the doctors, and public opinion will undoubtedly support them in it.

The *Spectator* in a recent issue drew attention to the apparent failure of those who advised Mr. Lloyd George to grasp the elements of the medical question, a point to which we have more than once referred. Our contemporary wrote:

The authors of the bill do not seem to have been aware that a very large proportion of the working classes prefer to have their own doctors and to pay them a reasonable fee, roughly proportionate to their means. As a result, in the more prosperous working-class districts there exists a large number of medical men earning a livelihood from a working-class practice. At present these doctors are independent professional men. Under the bill one of two things will happen: either their livelihood will be destroyed altogether, or they will be compelled to accept a position as the hired servants of the State. A great profession will be half blotted out and converted into a new body of State employees. We are convinced that this will be equally bad for the medical profession and for the public. . . . It is imperative that the bill should be so amended as to give the patient a choice of his own medical man, and at the same time it is most desirable, in order to prevent needless calls upon the doctor, that the patient should be required to pay some nominal fee for each visit. In addition, we strongly urge that the operation of the bill should be limited to persons earning less than £100 a year, as in Germany. The difference between £100 and £160 means a wide difference in domestic comfort, and also in social aspiration. The great majority of persons earning more than £100 a year already make provision for themselves, either through voluntary societies or by paying their own doctor. There is no need for the State to interfere on their behalf, and the result of this unnecessary interference is to add greatly to the cost of the scheme, both to employers and employed, while diminishing the opportunities now open to doctors of maintaining themselves as independent professional men.

## ATTITUDE OF FRIENDLY SOCIETIES.

### BIRMINGHAM.

A DEPUTATION from the Birmingham and District Friendly Society's Council sought an interview with the Chancellor of the Exchequer at Birmingham, but he was unable to see them. We are informed that among the points they would have submitted to him were the following:

May we be permitted to submit the following observations on the medical benefit?

We think that under the controversy as between doctors and the scheme, the friendly societies' position has not been fairly represented, inasmuch as in the past the approved societies (who accept only selected lives), have paid on an average, at the rate of 4s. per member per annum, which fee has given general satisfaction.

Taking this fact into consideration, may we earnestly appeal that the question of payment to medical practitioners be left entirely with the approved societies and existing medical associations in connexion therewith, and not transferred to Health Committees?

Further, we would submit that the members of approved societies should not be placed on the same basis as insured persons who will be compelled to join the Post Office section, and will not be selected lives.

In the event of any further concession being made to the medical profession as to the fees, foreshadowed by the Chancellor, these should be entirely at the expense of the State.

### *Holloway Friendly Societies.*

At a special conference of representatives of the National Union of Holloway Friendly Societies, held at Gloucester on June 10th, to consider the National Insurance Bill, Mr. Madge, who presided, said that the union represented considerably over 100,000 members, and the societies possessed accumulated funds of over £1,000,000. The executive committee thought that the provisions of the bill with regard to doctors ought to be adhered to, and objected to Mr. Lloyd George's statement that he was willing to free medical men from society control, and was not anxious to limit their remuneration. The societies, Mr. Madge said, would have to pay the doctors, and if their expenditure was greater than was warranted by their assets they would have to make up the deficit. Mr. Daniells (of Birmingham), in moving a resolution, urged the Chancellor of the Exchequer to provide that members of approved societies who had made provision for sickness up to 10s. a week, and who continued to be covered for sick benefits by their societies, should be exempt from paying to the State scheme for sick pay. It was urged that the State and employers' subsidies should be set aside to provide the additional benefits through the machinery of approved societies, including medical attendance, sanatorium treatment, and maternity. That would leave a considerable margin towards making the scheme for unselected lives solvent. The resolution, with a rider expressing the opinion that the additional benefits should be carried out by the societies, was adopted, and it was resolved to take steps to make the Holloway societies approved societies.

### *Dividing Societies.*

At a conference of registered dividing societies, held in London on June 10th, a resolution approving the principle, and promising to co-operate under the scheme, was adopted, provided that facilities were given to the dividing societies to become approved societies, even though they contained fewer than the required number of persons. A resolution was carried protesting against any recognition of the claim put forward by the medical profession for a greater allowance than 6s. a year in respect of medical benefit to insured persons in approved friendly societies, all of whom would continue to be picked lives.

At the losing session of the annual conference of the Sons of Temperance, held at Sheffield on June 7th, one speaker said it was the duty of the society to oppose exorbitant charges for medical attendance; another that the spirit in which the doctors had approached the Chancellor of the Exchequer was that of vultures after carrion, and another that the doctors' claims were avaricious.

## CORRESPONDENCE.

AN HONORARY CONSULTING MEDICAL OFFICER writes: Without a wage limit the free choice of medical attendant by patients "from a large panel of practitioners" would be a curse to us, not a blessing. For example, if I joined "the panel" I should find numbers of my patients who can and do pay considerable bills regularly, on my list to be attended at the pitiful rate suggested, and expecting to get as much of my time as they did under the old régime. In spite of the talk about sympathy towards the members of our profession, neither the Chancellor of the Exchequer, nor any non-medical speakers or writers, appear to regard the serious pecuniary difficulties which will be entailed on us by the scheme; nor have I seen any allusion to the vast amount of gratuitous work which we have done for the poor at hospitals for upwards of a century, both in London and the country, where it falls mostly on general practitioners.

If a radical change is to be made in the economics of the medical profession, it should be thorough and its members should be paid adequately for hospital work.

I beg to suggest that all honorary medical officers throughout the country should give notice at once that they will resign their appointments and duties on the day that this bill becomes law.

CONTRACT writes: It will be only in keeping with every other branch of work that one's hours should be defined and the element of the contract specified. The hours "contract patients" will be entitled to service must be defined clearly—namely, when they shall send messages and when they can attend at the various surgeries, and also which days are to be reckoned as "general holidays," because the doctor is as much entitled to participate in a "general" holiday as the contract patient. There are sudden cases of illness, but in reality nine-tenths of the messages sent after hours are not sudden, and could wait till ordinary visiting hours. I trust the officials of the British Medical Association will see that some equitable arrangement between contract patient and doctor is come to. It seems to be expected that the doctor shall always be at his post, even when the rest of the world is playing. He is as human as everybody else, and subject to the same ailments and failings. All work and no play makes bad doctors.

# Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

## BATH AND BRISTOL BRANCH:

### TROWBRIDGE DIVISION.

THE annual meeting of the Division was held at the Town Hall, Trowbridge, on May 26th, Dr. H. P. TAYLER in the chair. Twenty members were present.

*Report on Referendum and Postal Vote.*—Question 1: Not approved; resolved unanimously that the present powers for initiating a Referendum are sufficient. Question 2: Not approved; 18 support postal Referendum, 1 against, 1 not voting. Question 3: Approved.

*Report on Metric System.*—It was resolved that this report be allowed to lie on the table.

*Ethical Rules.*—The SECRETARY reported that the model rules sent down by the Central Ethical Committee had been considered by the Exe utive and certain suggestions made, but it was fel that the rules should be considered by a Divisional meeting, and the Secretary was instructed to obtain the necessary copies.

*Annual Report.*—The SECRETARY presented the annual report, which had been approved by the Executive Committee.

*Election of Officers.*—The following office-bearers were elected for the ensuing year: *Chairman*, Dr. Waylen (Devizes); *Vice-Chairman*, Dr. E. T. Shorland (Westbury); *Representatives on Branch Council*, Drs. Rattray, H. P. Tayler, Tubb-Thomas; *Executive Committee*, Drs. Bond, Rumboll, G. C. Tayler; *Secretary*, Dr. Pearse; *Representative*, Dr. Pearse.

*National Insurance Bill.*—This bill was discussed, and the decisions arrived at were published in the SUPPLEMENT of June 3rd, p. 351.

## BORDER BRANCH, SOUTH AFRICA.

THE yearly meeting was held in East London on January 28th, 1911.

*Election of Officers.*—The following were elected officers for the ensuing year: *Council*, Drs. K. B. Alexander, Grey, Ganteaume, McGregor, Miller, Nangle, Paisley, G. H. W. Robertson, Roulston, Skinner, and Sutton; *Members of South Africa Committee*, Drs. Anderson, Ganteaume, and Lownds; *Secretary, Treasurer, and President for 1912*, Dr. C. J. Lownds; the President for 1911 is Dr. J. Barcroft Anderson.

*Report of Council.*

The report of Council presented by the HONORARY SECRETARY (Dr. C. J. Lownds) stated that at the yearly meeting of the Branch in February 1910, the question of obtaining a united expression of the views of African medical men upon the subject of a State Health Department—its relation to the Ministry, the Ministers' relation to the profession, and the relationship of the profession to the hospital boards—was introduced by a letter from the Transvaal Medical Society. The Council from the first considered a united voice upon the part of the profession to be of more importance to the public than the details of their opinions. After correspondence upon the subject—and a personal tour of the States of the Union by Sir Kendal Franks, undertaken at his own expense, for the purpose of harmonizing the views of the different medical societies—delegates were appointed to a meeting in Capetown in congress week for the purpose of arriving at a final and united decision. The delegates at that meeting, after full discussion of the points upon which they differed, finally agreed unanimously to recommend to the profession the following five propositions as the expression of its opinion:

1. That a portfolio of Public Health be created, to be held i need be in combination with some other portfolio.
2. That a Medical Officer of Health for South Africa be appointed, who shall be directly responsible to the Minister and be the sole administrative head of his department. That he be a qualified expert in his department, and that his action shall be confined to public health matters.
3. That a Medical Council for the Union shall be created, which shall be chiefly elective, and shall have control of admission to the practice of medicine, of dentistry, of midwifery, and of nursing, and shall have control of the discipline of these professions.
4. That upon any change of policy on medical questions other than those of public health, or upon any question affecting the status of these professions, the Medical Council shall be consulted.
5. That there shall be an adequate representation of medical men on all boards and committees which have to do with the establishment, maintenance, and management of hospitals under the Provincial Council.

It will be noticed that these five propositions merely apply the principle that where medical knowledge is necessary to the welfare of the community it should be availed of. These propositions were then presented to the Medical Congress, which unanimously adopted them, and left them in the hands of its standing committee for action. Before the formation of the first Union Ministry, the council presented its views upon the importance of having a Minister of Public Health, both to the Prime Minister and to the Governor-General; and at the time of the elections the principles involved in the five propositions which were adopted by the medical organizations were as far as possible brought before the parliamentary and council candidates. To these principles Mr. King has given an unequivocal support, and some other members have expressed a general acquiescence. The Council supported the Western Province Branch in obtaining the election of Dr. Greenlees as Representative of South Africa upon the London Council. As a matter of professional sympathy the Council also supported the Western Province Branch in its protest against South Africa being grouped with the other parts of British Africa, Egypt, and Malta, for representation upon the London Council; although one councillor strongly held the opinion that it was to the interest of the South African Union that all other parts of Africa, so long as they could not thereby obtain over it a controlling influence, should be grouped with it both for political and professional purposes. In anticipation that by so doing it would be voicing the unanimous wish of the members, the Council presented its congratulations to the Right Hon. Louis Botha upon his assuming the office of first Prime Minister of United South Africa; and received a warm letter of appreciation in acknowledgement. Through the generosity of the late Dr. and Mrs. Egan, the Branch received his medical library, which is now housed in the East London Club, and is available for the use of the Branch members. When the question of a memorial to the late King was brought before the Council, it expressed itself unequivocally in favour of tuberculosis sanatoriums, and against a semi-charitable order of district nurses. The number of members at the commencement of 1910 was 54; of these, 1 died and 1 removed to the Transvaal.

Thirty-eight new members were added during the year, and 9 since, making the present membership 99.

The report concludes as follows: By combination only will the State and all other employers of our labour and expert advice be prevented from successfully attempting to artificially depreciate the value of our services, and from bringing the members into unjustifiable financial competition with each other; by combination only will our united opinion, upon matters affecting the welfare of the public, receive the weight which exclusive knowledge demands. It is hoped, therefore, that every practitioner within the Border and native territories will consent to join our Association, for our and his good, and that the members will canvass towards this end. The formal election to membership is by the Branch Council.

*Appendix* consisting of other resolutions unanimously adopted by the twelfth South African Medical Congress, November, 1910, and published for the information of members:

1. That whereas the medical profession is now, as ever, prepared to give free assistance to those unable to pay for the same, this Congress affirms the advisability of the establishment of hospitals entirely or partly supported by Government for such cases only. In centres large enough to warrant such establishments, these establishments should be entirely apart from any hospital, or department of the same, receiving patients paying either in part or in whole.

That where satisfactory nursing homes are available to any registered practitioner, patients able to pay for treatment in such homes shall not be admitted into State-aided hospitals.

That to meet the necessities of patients in large centres, only able to pay part fees for hospital accommodation, either intermediate hospitals be established, or separate departments of hospitals set aside for such purpose.

That where a nursing home is not available patients be admitted into State-aided hospitals at fees from 3s. 6d. upwards, and shall be considered private patients, able to select their own medical practitioner and be responsible for their fees to such medical practitioner.

That in the classification of patients the most satisfactory form of evidence is a certificate from a medical practitioner.

2. That this Congress, recognizing the serious prevalence of tuberculosis among the European and coloured races of this country, and the inadequacy of the present means of coping with the disease, respectfully requests the Government to appoint a Commission to investigate the amount of tuberculosis among the white and coloured races of the Union, what steps are being taken in the different Provinces to deal with the disease, and what provisions exist for research and for the treatment of tuberculosis according to the best methods known to modern science.

3. That the attention of the Government be called to the great desirability of the early institution throughout the Union of a uniform nomenclature and system of deaths registration, and that in the drawing up of such a nomenclature one of the matters which should receive special consideration is the classification and grouping of several forms of diarrhoeal diseases.

4. That Congress recommends that when new regulation regarding the sale of milk is introduced—(1) Power be given to local authorities (*a*) to adopt a bacteriological standard for milk offered for sale, and (*b*) to refuse the issue of dairy licences to persons who are unsuitable on hygienic grounds; (2) that machinery be introduced for the efficient inspection and control of all places where milk is produced for sale.

5. That Congress is of opinion that the prevalence of syphilis amongst natives throughout the Union demands immediate attention, and that it should be one of the first duties of the Medical Officer of Health for the Union, upon the organization of a Union Health Department, to deal with it. That Congress is convinced that this disease is not only a great and increasing danger to both Europeans and natives, but it is operating as a powerful agent in the physical degeneration of the latter.

6. That this meeting of the South African Medical Congress draw the attention of the Union Government to the passage in H.R.H. The Duke of Connaught's address at the opening ceremony, referring to the necessity for financial support for medical research in South Africa, and urge the Government to make provision to enable research workers to prosecute their work unhampered by financial considerations; that this Congress also make an appeal to the wealthy in South Africa and elsewhere for aid and support in furthering medical research.

7. That Congress draw the attention o the Union Railway Management to the unsatisfactory supply of drinking water on trains.

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## DORSET AND WEST HANTS BRANCH:

### Bournemouth Division.

The annual meeting of this Division was held on Friday, May 12th, at 4 p.m., at the Library of the Bournemouth Medical Society. The chair was taken by Dr. F. C. A. Bushman, and twenty-two members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Annual Report and Financial Statement.*—The report and financial statement for 1910 were read and adopted.

*Election of Officers.*—The following officers for the ensuing year were elected: *Chairman*, Dr. E. K. Le Fleming; *Vice-Chairman*, Dr. Marriner; *Honorary Secretary*, Dr. Eleanor C. Bond; *Representative*, Dr. Johnson Smyth; *Representatives on the Branch Council*, Drs. Le Fleming, Bond, Marriner, Johnson-Smyth, Parkinson, Ramsay, and Simmons; *Additional Members of the Executive Committee*, Drs. Davison and Fowler and Mr. Montgomery.

*Vote of Thanks.*—A vote of thanks to the retiring Chairman, proposed by Mr. Parkinson, was carried unanimously.

*Matters Referred to Divisions.*—The matters referred to the Division, which appeared in the Supplement of April 22nd, were then considered. All were approved with the exception of the motion of the Westminster Division, on which the meeting expressed no opinion, and the motion of the Chelsea Division, which was negatived.

*Alteration of Rule.*—It was proposed by Dr. Le Fleming, and seconded by Dr. Johnson Smyth, that Rule V be altered so that the immediate past Chairman be included among the officers of the Division. The meeting agreed to this alteration subject to the consent of the Central Council.

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## EDINBURGH BRANCH:

### Southern Division.

The annual general meeting of the Division was held in the Students' Union, Teviot Place, on Monday, May 29th, at 8.15 p.m. There was an attendance of fifteen members. In the absence through illness of the Chairman, Dr. Lundie, the chair was taken by the Vice-Chairman, Dr. Proudfoot.

*Confirmation of Minutes.*—The minutes of the last meeting were read and approved.

*Annual Report and Accounts.*—The annual report of the Executive Committee and the annual accounts were submitted to the meeting.

*Re-election of Officers.*—The same gentlemen who held office during the past year were unanimously re-elected, namely: *Chairman*, Dr. Lundie; *Vice-Chairman*, Dr. Proudfoot; *Honorary Secretary and Treasurer*, Dr. Paterson; *Representative at Representative Meetings*, Dr. Dewar; *Representatives on Branch Council*, Drs. Lundie and Paterson; *Executive Committee*, Drs. E. Price, Porter, Minto, McDonald, Matheson, Cullen, Dickson, Stevens, A. Walker, and Brock.

*Representative's Report.*—The Representative submitted his report, which through pressure of other business had been unavoidably delayed, and he was cordially thanked for his services.

*Draft Rules of Ethical Procedure.*—The consideration of the draft rules governing procedure in ethical matters of a Division not itself a Branch was delayed.

*Affiliation of Outside Bodies.*—The Division decided to take no action with regard to the report of the Council on affiliation of outside bodies.

*Report on Metric System.*—The report on the adoption of the metric system of weights and measures by medical practitioners was, after a division, approved of by a majority of 9 votes to 3.

*Referendum and Postal Vote.*—It was left to the discretion of the Representative (Dr. Dewar) to take what action he thought fit in connexion with the report of the Council on the referendum and postal vote.

*National Insurance Bill.*—After the business was concluded an informal discussion on the State Sickness and Insurance Bill took place.

*Vote of Thanks to Chairman.*—A vote of thanks to the Chairman concluded the meeting.

## GLASGOW AND WEST OF SCOTLAND BRANCH:

### GLASGOW NORTH-WESTERN DIVISION.

THE annual meeting of this Division was held in the Burgh Hall, Hillhead, on May 24th at, 8.45 p.m., Dr. A. G. HAY presiding. The other members present were Drs. Morton, Richmond, Whitehouse, J. D. Smith, Lindsay, G. Graham, Horn, Bruce, G. B. Buchanan, A. T. Campbell, and the Secretary (Dr. W. A. Caskie).

*Confirmation of Minutes.*—The minutes of the last ordinary and adjourned meetings were confirmed and signed.

*Election of Officers.*—The following were elected as the Executive Committee for the ensuing session: *Chairman*, Dr. A. G. Hay; *Vice-Chairman*, Dr. A. T. Campbell; *Secretary*, Dr. W. A. Caskie; *Representatives to Branch Council*, Drs. J. Morton and W. A. Caskie; *Representative to Representative Meetings*, Dr. A. T. Campbell. *Ordinary Members of Committee*, Drs. R. Bruce, J. Lindsay, A. Mechan, T. Richmond, H. Whitehouse, J. Baird, J. D. Smith, A. K. Chalmers.

*Deputy Representative.*—Dr. A. T. Campbell was appointed as Deputy Representative to the Special Representative Meeting on May 31st.

*Sickness Insurance Bill.*—The SECRETARY read the report of the Executive Committee concerning the business transacted and the attendance of the members during the session, the principal topic for consideration being the proposed Government Bill for a National Scheme of Insurance against Sickness and Invalidity, the discussion of which occupied two nights, and accounted for an increase in the attendance and interest of the members. Circulars were submitted by the Secretary which he had received from the Halifax Division in connexion with the National Insurance Bill, and from the Exeter Division containing a memorandum on the postal and referendum vote.

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## LANCASHIRE AND CHESHIRE BRANCH:

### BURNLEY DIVISION.

THE annual meeting was held in the Bull Hotel on May 30th. There was a good attendance, and Dr. CROSSLEY occupied the chair.

*Confirmation of Minutes.*—The minutes of previous meetings were read and confirmed.

*Election of Officers.*—The following were elected to office for the ensuing year: *President*, Dr. H. J. Robinson; *Vice-President*, Dr. F. E. Crossley; *Honorary Secretary and Honorary Treasurer*, Dr. A. Edward Bird; *Representative at Representative Meetings*, Dr. J. M. Ferguson; *Branch Representative*, Dr. F. E. Crossley; *Executive Committee*, Drs. W. J. D. Bromley, A. Callam, T. G. Crump, H. Edmondson, J. Haworth, A. Heys, F. Marsden, G. S. Pullon, R. C. Rogers, T. M. Scott, R. Stewart, J. S. Wilson.

*Votes of Thanks.*—Votes of thanks were given to the retiring President (Dr. F. E. Crossley) and to the Honorary Secretary.

*Annual Report.*—The annual report was then presented by the HONORARY SECRETARY. It was as follows: During the year many meetings have been held and in my opinion much good work has been done for the members of the profession locally, and support shown to all measures for improving the profession generally. There have been five general meetings of the Division with an average attendance of twenty-five members, and thirteen committee meetings with an average of nine, besides subcommittees and deputations. The membership still continues to increase. Last year it stood at sixty-four, now we have seventy-three members, and I believe there will soon be more. Burnley, Brierfield, Colne, and Padiham are in almost to a man; only Nelson lags behind, with about half a dozen who remain outside. It is apparent to all that we need united action to be taken on behalf of the very existence of the profession. And the Association is the only body at present able to take that action. It therefore behoves us to induce those few odd men to join the Association that it may be wholly representative of the general practitioner. Among work done by our Division during the year mention may be made of the successful resistance it offered to a proposal of the District Nursing Association to add a "maternity section." The Federated Friendly Societies' medical scheme seems to have been entirely crushed, and a member of our Division has refused a club at Hincoat. The Division has successfully negotiated with the Health Committee in the matter of the difficulty which existed for the immediate removal of infectious cases to the sanatoriums at certain times. The position of medical practitioners called upon to examine (otherwise than by the request of the patient, or persons acting on his behalf) patients who are under the care of other practitioners has been defined and adopted. Much discussion has taken place and work done by the Division which it is hoped will be successful to prevent hospital abuse in the district; and finally mere mention has only to be made of the enthusiastic discussion, not forgetting several committee meetings, on the Government's National Insurance Bill against sickness. The clinical work has in the past year been left in the hands of the local Ethical Society, and some good meetings have resulted.

*Nominations.*—The Division officially nominated Mr. Larkin and Dr. Taylor for election by the Branch, and Mr. Garstang for election by Representatives in Representative Meeting in the election of members of Central Council, their good work on the Council in the past being recognized.

*National Insurance Bill.*—Resolutions were passed on May 9th and printed in the SUPPLEMENT, but this meeting discussed at some length and much determination, and instructed the Executive Committee to take action in accordance with the decisions of the special meeting held in London on May 31st and June 1st, as soon as those decisions are known, and the Secretary was requested to arrange a meeting with the local members of Parliament and the Division.

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### SOUTHPORT DIVISION.

THE annual meeting of this Division was held at Southport on Wednesday, May 24th, at 8 p.m. Present: Dr. SYKES (in the chair), Drs. Walker, Russel, Speirs, Woolmer Davies, Pridie, Campbell, Littler, Schofield, Swete-Evans, Baildon, Lewis, Limont, Dall, Ransford, Cox, Collier, and Harris. The profession in the Division, irrespective of membership of the Association, had been invited to discuss the National Insurance Bill. There were also present: Drs. Bentall, Ashworth, Hare, Martin, Reid, Hunton, Mackay, Wheeler, Corkhill, and de Courcy, members of the Division; and Drs. McCaskie, Popert, Brunskill, Scott, Murison, Penrose, Henderson, Charlick, Marshall, Simpson, Bardsley, Lawson Cairns, Woodroffe, W. Davies, Lowe, Wallace, West, and Wickham, not members of the Division.

*Apologies for Non-attendance.*—Letters of apology were received from Drs. Reinhardt Anderson and Hutton, who were from home, and from Dr. Wyse.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Report of Executive Committee.*—The annual report of the Executive Committee was read.

*Election of Officers.—Chairman*, Dr. Littler was elected for the year, and Dr. Sykes vacated the chair in his favour. The following were also elected: *Vice-Chairman*, Dr. Mewburn Brown; *Secretary and Treasurer*, Dr. R. Harris; *Representative for Representative Meetings*, both at the special meeting to be held May 31st and at the annual meeting, Dr. Baildon; *Deputy*, Dr. Stanley A. Gill; *Representatives on the Branch Council*, Drs. Baildon and Harris; *Members of the Executive Committee*, Drs. Barwise, Russel, Speirs, and Sykes.

*Election of Representatives of the Branch on Central Council.*—It was resolved unanimously:

> That this meeting approves the candidature of Messrs. Larkin and Taylor for the Central Council and in case of a contest undertakes to give them its support.

Also—

That this meeting authorizes the Secretary to sign the nomination for Mr. Garstang and instructs its Representative to vote for him at the Representative Meeting.

*Model Rules for Nursing Associations.*—A letter was read from the District Nursing Society in reference to a request from the Division that the rules might be observed, and special medical practitioners not called in by the society's midwives. It was stated that a circular had been issued by the society to all the medical practitioners of the district asking if they were willing to be called in case of emergency by the society's midwives. Eighteen had replied in the affirmative, and their names were being printed and given to each of the maternity nurses for choice by patients in case of need.

*Notices of Motion in the* Supplement *of April 22nd* were submitted, and it was resolved:

That the Representative be left free to exercise his discretion respecting them, except in the case of the last respecting parliamentary representation, by the Chelsea Division, of which this Division has already expressed its disapproval.

It was now 8.30, when members of the profession generally had been summoned to consider the Government bill for sickness insurance, consequently the other items on the agenda were adjourned.

*National Insurance Bill.*—The Chairman (Dr. Littler) introduced the subject, and the Secretary read the letter from the Medical Secretary of May 13th, explaining the action of the Council, the calling of the Special Representative Meeting, stating, and to some extent analysing, the replies of the Divisions to the questions submitted with the report of March last, and asking for the co-operation of the Division. He also reported the enthusiastic meeting held in Manchester in the afternoon, and read the resolutions there passed condemning the placing of medical arrangements in the hands of friendly societies, and approving an income or wage limit below that of the bill, the free choice of doctor, adequate representation of the medical profession, and also adequate remuneration. A lively discussion ensued, in which Drs. Walker, Charlick, Russel, Littler, Ashworth, Lewis, Baildon, Schofield, Campbell, Limont, Ransford, Sykes, Harris, Henderson, Reid, Bentall, Hunton, and Mackay took part. There was absolute unanimity as to general principles and condemnation of the medical portion of the bill in its present form, but some difference of opinion as to the best means of expressing disapproval. The resolutions finally passed were published in the Supplement of June 10th, p. 418.

*Appeal to join Association.*—Dr. Penrose, who is not a member of the Association, expressed his intention of joining, and urged other members of the profession present to do the same.

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## METROPOLITAN COUNTIES BRANCH:

### Kensington Division.

A medico-political meeting was held at the Kensington Town Hall, on Monday, May 22nd, 1911, at 4.30 p.m. Dr. Charles Buttar presided, and there were over 120 members and visitors present.

*Apologies for Non-attendance.*—Apologies for absence were received from Dr. F. E. Pocock, Dr. Friend, Dr. Charles Grey, Dr. D. J. Loghlen, Dr. H. E. Gibson, and others.

*Minutes.*—The minutes of the previous meeting were postponed, owing to the presence of visitors.

*Letters from Education Officer, L.C.C.*—The Honorary Secretary read letters from the Education Officer of the London County Council, intimating that it was possible that centres for the treatment of school children might be established in the Kensington area, and stating the conditions under which the Council would enter into a contract with the local profession.

*Nominations.*—Dr. Rice-Oxley was nominated as a candidate for election as a member of the Central Council. Dr. Langdon-Down was nominated as a candidate for election as President-elect of the Metropolitan Counties Branch, and Dr. Culver James as Vice-President for the ensuing year.

*National Insurance.*—The discussion on the National Insurance Bill was opened by the Chairman. Drs. Kisch, Culver James, Ethel Bentham, Herbert Tanner, Atkinson, Jaffe, Burnhill, Locke, Milton Townsend, D. Dunart, the Honorary Secretary, and others took part. (For resolutions, *see* Supplement, June 10th, p. 416).

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### Marylebone Division.

The annual meeting of the Division was held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Monday, May 29th, at 5 p.m.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*The Butlin Dinner.*—The attention of members was called to the notice of the dinner to the President of the Association.

*Election of Officers.*—The officers, Representatives of the Division on the Branch Council for the ensuing year, were elected, namely: *Chairman*, Sir Frederic S. Eve; *Vice-Chairman*, Mr. Atwood Thorne; *Treasurer*, Dr. Comyns Berkeley; *Honorary Secretary*, Mr. N. Bishop Harman; *Executive Committee*, Drs. G. A. Heron, F. J. Smith, F. M. D. Berry, C. O. Hawthorne, and Percy Spurgin.

*Annual Report of the Executive Committee.*—The annual report of the Executive Committee was then read and adopted.

*National Insurance Bill.*—A report of the discussion on the Insurance Bill was published in the Supplement of June 3rd, p. 341.

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### St. Pancras and Islington Division.

The annual meeting was held on Thursday, June 1st at the Midland Grand Hotel, at 9 p.m. There was a full and representative attendance.

*Election of Officers.*—The officers for 1911–12 were elected as follows: *Chairman*, Basil G. Morison, M.D.; *Vice-Chairman*, William Griffith, M.B., M.R.C.P.; *Honorary Secretary*, Alexander Brown, M.B. Dr. J. F. J. Sykes and Dr. Basil G. Morison were elected as the *Division's Representatives on the Branch Council*, and Dr. Wm. Griffith was elected as *Deputy Representative at Representative Meetings.*

*Change of Boundary.*—After nominations for officers in the Branch and for membership of the Central Council had been made, the following resolution was passed:

That the boundary common to the St. Pancras and Islington and Tottenham Divisions be forthwith moved so as to correspond with the Borough Council boundary.

On the motion of Dr. J. F. J. Sykes, it was agreed to invite members who lived close to the Division's boundary, but in some adjoining Divisional area, to become Associate members of St. Pancras and Islington.

*National Insurance Bill.*—The Chairman, who had been present that day at the Conference of the Representatives and Mr. Lloyd George, then informed the meeting as to the replies the Chancellor had made to the questions put to him by the Representatives. These were received by the Division with only limited satisfaction, and after discussion it was agreed that resolutions on the part of the Division would be premature at that moment, except that, assuming friendly societies were to be absolutely excluded from administering medical benefits under the bill, it was, in the opinion of this Division, vital that the local Health Committees should be adequately represented by local medical practitioners.

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### Stratford Division.

A special meeting of this Division, to which all the medical men within its area were invited, was held on Thursday, May 25th, at the West Ham Hospital, Dr. Dayus presiding; 118 medical men attended.

*National Insurance Bill.*—The meeting was called specially to consider the State Insurance Bill. The Chairman made a short introductory statement, and invited speakers. A large number of those present

availed themselves of the opportunity to discuss various points in the bill. Ultimately the resolutions arrived at were published in the SUPPLEMENT of June 3rd, p. 344.

*Levy for Expenses of Meeting.*—A levy was made to meet the expenses of this and other ensuing meetings.

*Applications for Membership.*—Several letters of regret were received, and a considerable number of applications for membership were made.

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### WESTMINSTER DIVISION.

A MEETING of this Division was held on Wednesday, May 24th, at the Criterion Restaurant. The CHAIRMAN (Dr. F. J. Allan) presided, and there were thirty members present.

*Dinner.*—The important proceedings were preceded by a dinner.

*Confirmation of Minutes.*—The minutes of the last ordinary meeting were received.

*Nomination of Officers.*—Certain communications having been put forward, the meeting proceeded to the following nominations for offices on the Branch Council: *President-elect*, G. E. Haslip, M.D.; *Vice-President*, F. J. Allan, M.D., D.P.H.; *Treasurer*, E. Lauriston Shaw, M.D., F.R.C.P.

*National Insurance Bill.*—The discussion on the Government Medical Insurance Bill was opened by the CHAIRMAN, who invited Dr. Wray to next give his views. Subsequently the following members spoke on the subject: Drs. PARAMORE, HILLIARD, ARCHER, FINUCANE, WILLIAM EWART, B. O'CONNOR, HASLIP, and BAYNES. The resolutions published in the SUPPLEMENT of June 3rd, p. 344, were carried unanimously. Instructions were given to the Representative to the Special Representative Meeting in connexion with certain questions asked, but were deemed of no importance with regard to the main issue before the profession. Notice was given by the CHAIRMAN that the Executive Committee would be pleased to receive any communication from any individual member upon any particular points connected with the question of State Medical Insurance. The meeting agreed to leave further instructions to the Representative to Repretative Meeting in the hands of the Executive Committee.

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## MIDLAND BRANCH:

### LINCOLN DIVISION.

THE annual meeting was held in the Guildhall, Lincoln, on Friday, May 26th. Dr. DAMAN was in the chair, and twenty other members were present.

*Confirmation of Minutes.*—The minutes of the last meeting were confirmed.

*Financial Account and Report of Executive Committee.*—The cash account and report of the Executive Committee were dealt with.

*Election of Officers.*—The election of officers resulted as follows: *Vice-President of Midland Branch*, Dr. G. W. Shipman; *Chairman of Division*, Dr. Purves; *Vice-Chairman of Division*, Dr. Watkins; *Representative on Branch Council*, Dr. Daman; *Ordinary Members of Executive Committee*, Drs. Carline, Clements, and Genney; *Honorary Secretary and Treasurer*, Dr. Chater.

*National Insurance Bill.*—Dr. DAMAN gave an address on the National Insurance Bill in its relation to the medical profession. The provisions of the bill were discussed, and the resolution (published in the SUPPLEMENT of June 3rd, p. 350), proposed by Dr. CARLINE, was carried unanimously. The Secretary was directed to send a copy of the resolution to each member of Parliament for a constituency within the area of the Lincoln Division.

*Report on Metric System.*—The report on the adoption of the metric system of weights and measures was next proceeded with, and the following resolution, proposed by Dr. CARLINE, carried *nemine contradicente*:

> The scruple, drachm, and ounce of the old apothecaries' weights were done away with in the *British Pharmacopœia* in 1864. The decimal system was introduced into the body of the *Pharmacopœia* in 1898. In spite of this the majority of medical men still use the old apothecaries' weights, and it is fair to presume that they do this for good and sufficient reasons. This meeting strongly disapproves of the hybrid system suggested, and considers the sixteen doses of medicine and ten pills an absurd restriction on the prescribing physician.

*Referendum and Postal Vote.*—The report of the Council on the Referendum and postal vote was then considered, and the questions appended to it answered as follows: (1) Agreed to with the substitution of one-tenth for one fifth; (2) answered in the negative; and (3) and (4) affirmatively.

*Draft Rules in Ethical Procedure.*—The draft rules governing procedure in ethical matters of a Division not in itself a Branch were approved.

*Affiliation of Outside Bodies.*—The report on the affiliation of outside bodies was considered, but such affiliation was considered inadvisable.

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## SOUTH-EASTERN BRANCH:

### BROMLEY DIVISION.

THE annual general meeting of the Bromley Division was held at the Bell Hotel, Bromley, on Friday, May 26th, at 8.15 p.m., Dr. LEWIS (Chairman) presiding.

*Confirmation of Minutes.*—The minutes of the last meeting were read and confirmed.

*Election of Officers.*—The following office-bearers were elected for the ensuing year: *Chairman*, Dr. Stilwell (Beckenham); *Vice-Chairman*, Dr. Yollands (Bromley); *Honorary Secretary and Treasurer*, Dr. Tennyson Smith (re-elected); *Representatives on Branch Council*, Dr. Scott (Bromley), Dr. Tennyson Smith (Orpington); *Representative at Representative Meetings*, Dr. Tennyson Smith was nominated as candidate for Bromley Division; *Executive Committee*, Drs. and Messrs. Bailey, Daukes, Ilott, Lewis, St. John, and Scott.

*National Insurance Bill.*—Dr. TENNYSON SMITH introduced a discussion on the National Insurance Bill, and spoke at some length on the medical aspect of the bill, which he was certain would ruin the medical profession if passed by Parliament and adopted by the profession. He suggested that details be left to the Representative Body to decide on, but advised that certain points which he enumerated should be freely discussed, and that a unanimous decision be arrived at regarding them. He said that he had asked the Chairman to call a meeting at a date prior to the Special Representative Meeting, so that he, as their Representative, could attend the meetings with a distinct mandate. He suggested that the local members of Parliament should be asked to meet a deputation of the Division as soon after the Representative Meetings as possible, so that those members of Parliament might be informed of the opinions held by the members of the Division. He urged on non-members the advisability of their joining the Association, as never before had there been such need of co-operation and unity of action. He predicted that combination on the "trades union" lines would be necessary, and spoke of the desirability of forming a Divisional Guarantee Defence Fund. The following took part in the discussion that followed—namely, Drs. and Messrs. the CHAIRMAN, ILOTT, DUNCANSON, FERGUSSON, YOLLAND, CRASTER, BAILEY, STILWELL, CODD, and TENNYSON SMITH. The resolutions, which were unanimously carried, were published in the SUPPLEMENT of June 3rd, p. 344.

*Votes of Thanks.*—A unanimous vote of thanks was passed to Dr. Lewis, who was vacating the chair and who had so ably acted as Chairman during the year. A unanimous vote of thanks was passed to the Honorary Secretary. The meeting was then adjourned till June.

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## SOUTH-WESTERN BRANCH:

### EXETER DIVISION.

A MEETING of the Division was held at the Royal Devon and Exeter Hospital on May 15th. Mr. E.

DOMVILLE, Chairman, presided, and the following members were present: Messrs. Ransom Pickard, D. F. Shearer, H. Andrew, G. V. Burd, Hamilton Serpell, Widgery Bovey, H. Childs, M. Cutcliffe; Drs. W. Gordon, P. Maury Deas, T. Duncan; and Dr. Fortescue Sayres, Honorary Secretary.

*Nomination.*—Dr. GORDON proposed, and Mr. RANSOM PICKARD seconded, that Mr. E. Domville be nominated by the Division as a candidate for the Central Council for the South-Western and Dorset Branches. This was carried *nemine contradicente.*

*The Referendum.*—The meeting next considered the questions submitted by the Council in their report on the Referendum and Postal Vote. Dr. GORDON addressed the meeting on the subject, and pointed out that he considered one-fifth of the constituencies and members an excessive proportion of the Association to demand a Referendum, and that one-tenth would be a fairer proportion. He instanced the Swiss mode of taking a Referendum, where only 4 per cent. of the electorate were required to demand a Referendum, while in the case of the Association, as suggested by the Council, something like 20 per cent. would be required. Dr. Gordon also considered that a postal vote on a Referendum should be open to all members of the Association in virtue of their membership without any restriction. He felt confident that even active members of the Association would forget each year to register their names in case a Referendum should be taken; also, it was unfair to disfranchise members of the Association. After considerable discussion, the following replies were unanimously agreed to:

1. The Division is of opinion that in addition to the existing provisions whereby a Referendum upon a decision of a general meeting or of the Representative Body may be taken upon the initiative of the Council, provision should be made in the regulations empowering not less than *one-tenth* of the constituencies, having an aggregate membership of not less than *one-tenth* of the membership of the Association to compel a Referendum to be taken.

   The Division is of opinion that one-fifth is far too high a proportion to require and that one-tenth is ample.

2. The Division is of opinion that in order to enable those members of the Association who are precluded by circumstances beyond their control from attending a Division meeting held to consider the subject of a Referendum to express their opinion, provision should be made *that every Referendum shall be taken by post to every member of the Association without restriction, and that he* be allowed to record his vote on a Referendum by post.

3. The Division's reply was in the affirmative to part (i.) and (ii.) of Question 3.

It was resolved that a copy of the replies should be sent by the Honorary Secretary to the other Divisions of the Association with a request that the Honorary Secretaries would lay them before their Divisions.

*Vote of Thanks.*—Dr. GORDON proposed, and Dr. MAURY DEAS seconded, and it was unanimously resolved that the best thanks of the meeting be extended to their Representative, Mr. Russell Coombe, for the trouble he had taken, and also the able manner in which he had placed this subject of the Referendum and Postal Vote before the Representative Meeting.

*Report of Council.*—The Report of the Council on the adoption of the metric system was considered, also the Report of the Council on the affiliation of outside bodies. With regard to the latter Report, it was pointed out that at Exeter the Medico-Chirurgical Society and the British Medical Association worked in perfect harmony and without friction, the former society applying itself to scientific subjects and the British Medical to medico-political questions, the meetings of both societies being well attended.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

# Association Notices.

## COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, July 5th, in the Council room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,
*Financial Secretary and Business Manager.*

June 13th, 1911.

## NOTICE OF CHANGE OF BOUNDARIES OF DIVISIONS.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of the publication of this notice:

That Oxshott, Leatherhead, and Great Bookham be transferred from the area of the Croydon Division to the area of the Guildford Division of the South-Eastern Branch.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held on June 30th, at 6 p.m., in the Beau Nash's House, Sawclose, Bath. Business: Annual.—D. LESLIE BEATH, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of the Border Counties Branch will be held in the Station Hotel, Carlisle, on Friday, June 30th.—GEORGE R. LIVINGSTON, Honorary Secretary.

CAMBRIDGE AND HUNTINGDON BRANCH.—Preliminary Notice.—The annual meeting of the Cambridge and Huntingdon Branch will be held at St. Neots on Wednesday, July 12th. Members having communications to make are requested to write to the Honorary Secretary before June 15th.—H. B. RODERICK, Honorary Secretary, 19, Trumpington Street, Cambridge.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Norwich on Thursday, July 13th.—B. H. NICHOLSON, Honorary Secretary, Colchester.

EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch will be held in the Peebles "Hydropathic" on Saturday, June 24th, at 12 noon. Agenda: (1) Minutes. (2) Apologies for absence. (3) Election of office-bearers for the year 1911–12. (4) Treasurer's financial statement. (5) Report of Branch Council. (6) Any other competent business. The meeting will then adjourn for lunch at 1 o'clock, after which, conjointly with members of the Border Counties Branch, a discussion on "The Institutional Hydropathic Treatment Compared with Spa Treatment" will be introduced by Dr. Luke (Peebles). An opportunity will be given to the members to examine the system of baths, etc. Lunch and tea will be provided at an inclusive rate of 2s. 6d. per head by Mr. Thiem. A train leaves the Waverley Station at 10.32 a.m.; return fare, 2s. 7d.—MICHAEL DEWAR, E. SCOTT CARMICHAEL, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of the Branch will be held at the Town Hall, Blackburn, on Thursday, June 29th. Reception 12 noon, luncheon 12.30, Branch Council 1.15, meeting 1.30. Motor excursion to Stonyhurst 3.30; dinner 6.30.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at the Board Room of the Altrincham Hospital, at 4.45 p.m., on Wednesday, June 21st, and not on June 1st, as previously stated. Tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1911–12. Every member is eligible for every office, and may be proposed by any member. Nominations, in writing and signed, may be sent to the Honorary Secretary at any time before June 19th. Dinner at the Brooklands Hotel, 7.30 p.m. Ladies invited. Names must

be given to the Honorary Secretary by Monday, June 19th, in order that he may have time to cancel the arrangement (so far as the ladies are concerned) if there are not sufficient acceptances—say, five or six at least. The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 19th. (If any alteration of programme becomes necessary, it will be advertised in the SUPPLEMENT, which members should consult regularly.) *Agenda:* (1) Minutes of Fifty-second General Meeting (Northwich). (2) Minutes of Sixty-eighth Committee Meeting. (3) Apologies for absence. (4) Election of Officers: (*a*) Chairman for 1911-12, and his induction by the retiring Chairman. (*b*) Elect other Officers: Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, Committee, Associate Members. (5) Annual Report of Executive Committee. (6) Alteration of Rules [Rules 8, 12 (*b*)]. (7) Question of extending invitation for Branch Meeting, 1912. (8) Report of Representatives. (9) Matters Referred to Divisions (SUPPLEMENTS from April 22nd to date). (10) Question of Associated Fund for Professional Defence. (11) Division Fund for Medical Charities. (12) Any other urgent business.—H. G. COOPER, Honorary Secretary, "Foye," Altrincham.

LANCASHIRE AND CHESHIRE BRANCH: BLACKPOOL DIVISION.—A meeting of the members of this Division will be held on Wednesday, June 21st, at Jenkinson's Café, Talbot Square, Blackpool, at 7.45 p.m. Agenda: Consideration of the National Insurance Bill.—E. W. REES JONES, Honorary Secretary of the Division.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex-officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A meeting of the profession practising within the area of the Division will be held at the Town Hall, Mare Street, Hackney, this day, Friday, June 16th, to consider and discuss the arrangements proposed in the National Insurance Bill as affecting the profession. Dr. Gerald Johnston, Chairman of the Division, will take the chair at 4 p.m. The following main points, approved by the Representative Meeting of the Association on June 1st, will be submitted by Dr. E. W. Goodall (Representative of the Division); (1) An income limit of £2 a week for those entitled to medical benefit; (2) free choice of doctor by patient, subject to consent of doctor to act; (3) medical and maternity benefits to be administered by local Health Committees, and not by friendly societies; (4) the method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee; (5) medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service; (6) adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee; together with the following general resolution, also approved by the meeting: "That, whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession." Dr. J. W. Hunt will move the following resolution: "That this meeting of medical men practising in the Division, having heard the proposals of the Representative Body, cordially supports them; and furthermore, in the event of the Government not incorporating the main principles in their bill, pledge themselves not to take any office created under the Act."—A. G. SOUTHCOMBE, Honorary Secretary, 83, Sidney Road, Homerton, N.E.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—A special meeting of the above Division will be held at the White Hart Hotel, Boston, this day, Friday, June 16th, at 3 p.m. Agenda: (1) National Insurance Bill: (*a*) Statement approved by Representative Meeting on June 1st, 1911; (*b*) suggested amendments by Committee appointed by the Council of the British Medical Association. (2) Resolutions on the above for the British Medical Association and for members of Parliament. (3) Canvass of the medical men residing in the Divisional area. (4) Any other business. Tea will be provided after the meeting.—A. E. WILSON, Honorary Secretary.

SOUTHERN BRANCH.—The annual meeting of this Branch will be held in the Grand Jury Room, Town Hall, Portsmouth, on Wednesday, July 5th, at 12.30, when the following alteration of the Branch Rule No. 7, Part 2, will be recommended to the members present—namely: "Every candidate who resides within the area of this Branch shall forward his application to the Secretary of the Branch, accompanied by a certificate from two members of the Association that he is personally known to them and is a fit and proper person to be elected a member. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association and to every member of the Branch Council, and the candidate, if not disqualified by any regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than a month after the date of the said notice." At the conclusion of this and the other business, the President for the coming year (Mr. C. P. Childe, of Southsea) will deliver an address. He invites the members to luncheon in the Mayor's Banqueting Hall at 1.45, and to a garden party at the Queen's Hotel, Southsea, at 4.30. By kind permission of the Admiral Superintendent of His Majesty's Dockyard and of the Captain of H.M.S. *Excellent*, members are invited to visit either a battleship in the Dockyard or the Gunnery School at Whale Island.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held in the Council Chamber, Town Hall, Clonmel, on Wednesday, June 21st, at 12 o'clock noon. Agenda: (1) Minutes. (2) Letters of apology. (3) Correspondence. (4) Resolutions. (5) State Insurance Bill. (6) Any other business.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the General Infirmary, Leeds, on Wednesday, June 28th. The Council will meet at 3 o'clock. General meeting at 4 o'clock. Agenda: Election of officers; report of Council; President's address. Annual dinner at 6.30 p.m. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate at once with ADOLPH BRONNER, Honorary Secretary, Bradford.

# British Medical Association.

## SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

### SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1911. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

### GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

*Applications.*

Applications for Scholarships and Grants for the year 1911–12 must be made not later than Tuesday, June 20th, 1911, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.,

*March 30th, 1911.*

## CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on June 8th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

*Midwives Struck Off the Roll.*

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the *Roll:*

*Emily Holloway*, that being in attendance as a midwife at a confinement, she was guilty of negligence and misconduct in that she washed the patient's genitals in the water previously used for washing the patient's face and hands, using flannel for the purpose, contrary to Rule E 7.

*Ann Bevan*, that being in attendance as a midwife at a confinement, she failed to adopt the antiseptic precautions required by Rules E 3 and 7; she failed to wash the patient after the termination of labour, as required by Rule E 7; and a registered medical practitioner having been sent for on two occasions, she failed both times to notify the fact to the Local Supervising Authority, as required by Rule E 20 (1).

*Ann Cregan*, that being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes from birth, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5).

*Anna Hooper*, that having been in contact with a case of puerperal fever, and having in consequence been warned not to attend any confinement without having undergone adequate disinfection, she nevertheless attended as a midwife at a confinement without having disinfected herself, her appliances, and her clothing, as required by Rule E 5.

*Mary Ann Spate*, that she was uncleanly in her person, clothing, house, and appliances, and that she did not take the temperature of her patients, being unable to use a clinical thermometer.

*Emma Tilley*, that she did not wear a dress of washable material, as required by Rule E 1, and that she did not keep her register of cases, as required by Rule E 22.

*Amelia Waight*, that being in attendance as a midwife at a labour, she was drunk and unable to perform her duties properly.

*Midwives Censured.*

The following midwives were censured after charges against them had been considered: *Mary Jane Barnes* and *Jane Hill.*

*Midwife Cautioned.*

*Ellen Girling* was cautioned after charges against her had been considered.

# Hospitals and Asylums.

## CITY OF LONDON ASYLUM, STONE, NEAR DARTFORD.

THE annual report for 1910 of the Medical Superintendent of this asylum, Dr. Robert Hunter Steen, shows that on January 1st of that year there were 583 patients on the registers, and 610 on the last day of the year. The total cases under care during the year numbered 747, and the average number daily resident 589.

During the year 164 were admitted, of whom 154 were first admissions. In 65 the attacks were first attacks within three, and in 23 more within twelve months of admission; in 31 not-first attacks within twelve months; in 40 the attacks, whether first or not were of more than twelve months' duration, whilst in 4 they were of unknown duration, and in 1 of congenital origin. The total admissions were classified according to the forms of mental disorder into: Mania of all kinds, 50; melancholia of all kinds, 52; senile and secondary dementia, 14; delusional insanity, 19; general paralysis, 11; less common forms, 16; and congenital defect, 2. As to probable causation of the attacks alcohol was assigned in 12, syphilis in 6, and influenza in 1; critical periods in 13; physiological defects and errors in 10; childbearing in 2; bodily trauma in 3, and mental stress in 33. An insane heredity was ascertained in 10, and an epileptic heredity in 1, whilst in 32 no cause was assigned. Of the total admissions recovery was deemed probable in 39, and possible in 42 more. During the year 31 were discharged as recovered, giving a recovery-rate on the admissions of 24.21 per cent.; 55 as relieved, and 8 as not improved.

During the year also 43 died, giving a death-rate on the average number resident of 7.30 per cent. The deaths were due in 13 to nervous diseases, including 7 from general paralysis; in 6 to heart disease; in 2 to bronchitis and pulmonary congestion; in 8 to kidney disease, and in the remainder to general diseases, including 7 from senile decay and 3 to tuberculosis. The deaths from tuberculous diseases thus formed less than 7 per cent. of the total deaths. The comparative immunity of the asylum since its foundation is commented upon by Dr. Steen, who appears to attach some importance in this relation to the hospital's situation upon a chalk hill.

A mild epidemic of influenza attacked several of the inmates in the spring, and there were 4 cases of enteric fever, but otherwise the general health appears to have been good, and the sole casualty was a Pott's fracture.

## GLASGOW MATERNITY HOSPITAL.

THE annual report for 1910 shows a considerable increase in the work of the institution since the opening of the new buildings, 1,150 more cases being dealt with last year than in 1907, the last year of the old buildings. A gynaecological branch has now been formed and a staff appointed. A new operating theatre for the gynaecological department has been sanctioned, at an estimated cost of £600. The conversion of the old hospital buildings into a nurses' home had been completed at a cost of £2,749. The new constitution authorizes the workmen of every factory, workshop, or shipyard contributing £5 per annum, or a donation of £25, to nominate one representative to the court of contributors; these representatives will be entitled to elect directly to the Board of Directors two "workmen's directors." During the past year the record number of 4,881 cases were dealt with, of whom 1,381 were in-patients. Over 600 operations were performed, while the outdoor visits made by the nurses to patients in their own homes was 2,000 a month. In moving the adoption of the report the Chairman referred to the problem of race degeneracy and said that Public Health administration had been too long content to confine itself to dealing with results, and had not given sufficient consideration to causes. The committee of the hospital deserved the thanks of the public for ensuring that so many children were born at least amid surroundings as healthy and clean as existed in the Maternity Hospital; he appealed for financial support for the institution accordingly.

# Vital Statistics.

## HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,258 births and 4,039 deaths were registered during the week ending Saturday, June 3rd. The annual rate of mortality in these towns, which had been 14.2, 13.2, and 13.3 in the three preceding weeks, declined to 13.0 per 1,000 in the week under notice. In London the death-rate was equal to 12.1 per 1,000, against 13.2, 11.8, and 12.2 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 3.5 in Reading, 6.3 in Handsworth (Staffs), 6.4 in East Ham, 6.7 in Willesden, and 7.2 in Hornsey to 17.7 in Plymouth, 18.3 in West Bromwich and in Liverpool, 19.2 in Newport (Mon.), and 19.9 in St. Helens. Measles caused a death-rate of 1.8 in Gateshead, 1.9 in Great Yarmouth, and 3.4 in South Shields. The mortality from whooping-cough, scarlet fever, diphtheria, and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 4,039 deaths registered in the seventy-seven towns the causes of 27 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Birmingham, 3 in St. Helens, and 3 in Warrington. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,070, 1,082 and 1,097 at the end of the three preceding

weeks, had further increased to 1,140 at the end of the week under notice; 186 new cases were admitted during the week, against 167, 157, and 158 in the three previous weeks. Six cases of small-pox were under treatment in these hospitals on Saturday last; no new case was admitted during the previous week.

### HEALTH OF SCOTTISH TOWNS.

In eight of the principal Scottish towns 931 births and 554 deaths were registered in the week ending Saturday, June 3rd. The annual rate of mortality in these towns, which had been 15.8 and 17.7 in the two preceding weeks, declined to 16.9 per 1,000 in the week under notice, but was 3.9 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates ranged from 14.4 in Aberdeen and 14.5 in Edinburgh to 17.3 in Greenock and 18.2 in Glasgow. The death-rate from the principal epidemic diseases averaged 2.0 per 1,000, and was highest in Glasgow and Perth. The 288 deaths from all causes registered in Glasgow included 11 from measles, 2 from scarlet fever, 1 from diphtheria, 22 from whooping-cough, and 4 (of children under 2 years of age) from diarrhoea. Five deaths from whooping-cough were recorded in Dundee, and 4 each in Edinburgh, Aberdeen, and Perth; 2 deaths from diphtheria occurred in Leith.

### HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 3rd, 690 births and 382 deaths were registered in the twenty-two principal urban districts of Ireland, as against 662 births and 369 deaths in the preceding period. The annual death-rate in these districts, which had been 17.8, 16.1, and 16.5 per 1,000 in the preceding weeks, rose to 17.1 per 1,000 in the week under notice, this figure being 4.1 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 17.9 and 16.4 respectively, those in other districts ranging from 4.8 in Sligo and 7.8 in Galway to 31.0 in Portadown and 31.7 in Tralee, while Cork stood at 16.4, Londonderry at 14.0, Limerick at 15.0, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000 as against 1.0 per 1,000 in the preceding week.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Surgeon G. H. S. Millar, M.B., to the *Prince George*, additional, for the Portsmouth Subdivision of the Home Fleet, June 20th; Surgeon W. G. M. Anderson, M.B., to Portsmouth Dockyard, June 20th; Surgeon F. J. Gowans, M.B., to the *Victory*, additional, for Haslar Hospital, June 1st, and to Haslar Hospital, for instruction of the sick-berth staff, July 13th.

Staff Surgeon L. A. Baiss has been allowed to withdraw from the service with a gratuity, May 31st.

### ARMY MEDICAL SERVICE.

Colonel R. I. D. Hackett, M.D., who is serving in India, is appointed Principal Medical Officer, Kurrachee Brigade.

#### Royal Army Medical Corps.

Lieutenant-Colonel W. B. Thomson is placed on retired pay, June 7th. He was appointed Surgeon, May 15th, 1899, and Staff Surgeon, May 15th, 1907. His commissions were thus dated: Surgeon, July 29th, 1882; Surgeon-Major, July 29th, 1894; Lieutenant-Colonel, July 29th, 1902.

### ROYAL ARMY MEDICAL CORPS.

Major G. J. S. Archer, M.B., who is serving in Burma, is appointed Specialist in Advanced Operative Surgery, Burma Division, from March 24th.

Major F. R. Buswell, who is serving in India, is appointed to officiate as Principal Medical Officer, Jubbulpore and Jhansi Brigades, in addition to his other duties.

### INDIAN MEDICAL SERVICE.

Colonel A. M. Crofts, C.I.E., Bengal, is promoted to be Surgeon-General, April 7th. Appointed Surgeon March 31st, 1877, he became Colonel, October 15th, 1908. He served in the Afghan war in 1878–80 at Kandahar and with the Khyber Brigade, including the affair at Jugdulluck (medal); in the Egyptian war in 1882, when he was present at the action of Kassassin and at the battle of Tel-el-Kebir (medal with clasp and Khedive's bronze star); with the Zhob Valley Expedition in 1884; and in the China war, 1900 (medal).

Captain W. H. Dickinson, M.B., is promoted to be Major, from January 28th. His first appointment bears date July 27th, 1899; that of Captain, July 27th, 1902.

Lieutenant-Colonel D. St. J. D. Grant, M.B., is appointed Principal Medical Officer, Derejat and Bannu Brigade.

Lieutenant-Colonel F. H. Cleveland assumed charge of the office of Principal Medical Officer, Aden Brigade, on May 22nd.

### TERRITORIAL FORCE.

#### Infantry.

Surgeon-Lieutenant W. R. Williams, 7th (Merioneth and Montgomery) Battalion Royal Welsh Fusiliers, to be Surgeon-Captain, November 12th, 1910.

#### Royal Army Medical Corps.

*First Highland Field Ambulance.*—Alfred J. Williamson, M.B., to be Lieutenant, April 21st

*Third Home Counties Field Ambulance.*—James Barkley (late Lieutenant, R.A.M.C.) to be Lieutenant, April 8th.

*Third Northern General Hospital.*—Captain Stanley Riseley, M.B., to be Major, January 3rd.

*For Attachment to Units other than Medical Units.*—Lieutenant Frederick W. K. Tough, F.R.C.S.Edin., from 1st West Lancashire Field Ambulance, to be Lieutenant, March 3rd; Robert W. Simpson, M.B., to be Lieutenant, March 28th; Cadet Corporal Rudolph A. Peters, from Cambridge University Contingent, Senior Division, Officers' Training Corps, to be Lieutenant (on probation), June 3rd; he is seconded for service with the medical unit of Cambridge University Contingent, Senior Division, Officers' Training Corps, June 3rd.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £140, rising to £160 per annum.

BRADFORD ROYAL INFIRMARY.—Resident Surgical Officer, Salary, £150 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary at the rate of £70 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer and Pathologist. Salary, £130 per annum, rising to £140.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Ophthalmic Surgeon (Out-patient).

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon; salary, £30 for six months and £2 10s. washing allowance. (2) Ophthalmic Surgeon.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL.—House-Surgeon. Salary, £150 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Demonstrator in Anatomy.

MANCHESTER UNIVERSITY.—(1) Lecturer in Orthopaedic Surgery, (2) Two Assistant Lecturers in Surgery.

MELROSE: ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £160 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NATIONAL SANATORIUM, Benenden, Kent.—Assistant Medical Officer. Salary, £100 per annum.

NOTTINGHAM PARISH WORKHOUSE INFIRMARY.—Resident Assistant Medical Officer. Salary, £130 per annum, rising to £150.

OCHILTREE PARISH COUNCIL, Ayrshire.—Medical Officer, Salary, £25 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Assistant Physician (female).

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham.—Honorary Surgeon to the Ear, Nose, and Throat Department.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Honorary Anaesthetist.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physiology. Salary at the rate of £350 per annum.

SHEFFIELD: CHILDREN'S HOSPITAL. House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician, Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £140 per annum, increasing to £160.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WEST HAM UNION.—Second Assistant Medical Officer for the Workhouse. Salary, £120 per annum, rising to £150.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House-Physician. Salary, £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum.

## APPOINTMENTS.

Francis, R. Cyril H., L.R.C.P.Lond., M.R.C.S.Eng., Resident Surgeon at the Royal Sea-Bathing Hospital, Margate.

Layman, E. M., M.B., B.S., Senior Obstetric Assistant to the Royal Free Hospital, Gray's Inn Road, W.C.

Sharpe, C. G. Kaye, M.B., Senior Casualty House-Surgeon to the Royal Infirmary, Hull.

Wheeler, H. Q. O., L.R.C.P., L.R.C.S.Irel., Junior House-Surgeon to the Birkenhead Borough Hospital.

Salford Royal Hospital.—The following appointments have been made:

Honorary Surgeons: Garnett Wright, M.B., Ch.B.Edin., F.R.C.S.Eng.; Robert Ollerenshaw, M.D., Ch.B.Vict., F.R.C.S.Eng., L.R.C.P.Lond.

Honorary Assistant Physicians: F. Edward Tylecote, M.D., Ch.B., D.P.H.Vict., M.R.C.P.Lond.; C. Christopher Heywood, M.A., M.B., B.C.Cantab., M.R.C.P.Lond., M.R.C.S.Eng.

Honorary Assistant Surgeons: James Barlow Macalpine, M.B., Ch.B.Vict., L.R.C.P.Lond., F.R.C.S.Eng.; J. Philip Buckley, M.A., B.C.Cantab., M.B., B.S.Lond., F.R.C.S.Eng.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### MARRIAGES.

JOHNSON—ROWE.—On June 1st, at the Parish Church, Moretonhampstead, by the Rev. Stanley D. Dewey, Rector, Hubert Edwyn Johnson, M.B., Ch.B., of Holmewood, West Meon, Hants, to Raby Emma, youngest daughter of Lieut.-Colonel Valentine F. Rowe, late Royal Engineers.

RAINEY—PARSONS.—On the 6th June, at Holy Trinity Church, Bedford, by the Rev. W. H. Davis, M.A., Vicar of the parish, Edward Holmes Rainey, M.R.C.S.Eng., L.R.C.P.Lond., of Hornsey, to Irene Frances Evelyn, youngest child of Mr. and Mrs. A. Eames Parsons, of 14, Lansdowne Road, Bedford.

## PUBLISHERS' ANNOUNCEMENTS.

MESSRS. SMITH, ELDER, AND CO. announce the publication of a book entitled *Hygiene for Nurses*, by Dr. Herbert G. Macleod, author of *Methods and Calculations in Hygiene and Vital Statistics*. Among the subjects discussed by Dr. Macleod are air, ventilation, heating and lighting, water supplies and fittings, drainage, etc.; space is devoted to the consideration of infection and disinfection, food and milk. Personal hygiene is considered under different headings—for example, baths, clothing, games, exercises, habits, etc.—and the vagaries of fashion receive the notice they merit from a purely hygienic point of view. The question of alcohol is discussed, and infant hygiene, bathing and feeding, and infant mortality are referred to in greater detail.

## RECENT PUBLICATIONS.

*Plaster of Paris and How to Use It.* By Martin W. Ware, M.D. Second edition, revised and enlarged. 1911. New York: The Surgery Publishing Company. (Cr. 8vo, pp. 100. 5s.)

A book very favourably received on its first appearance, and now largely rewritten. Gypsum appears to have been used in Arab surgery in mediaeval times, but its modern use is ascribed to the advocacy of Kluge of Berlin in 1829. The preparation of plaster and bandages and the technique of each special form of splint are all set forth in very clear terms, and the illustrations are excellent. A marginal note in red ink draws attention to each principal point discussed.

*Views of Harbin (Fuchiatien) taken during the Plague Epidemic, December, 1910, to March, 1911.*

A portfolio (printed at Shanghai) issued by the Chinese Plague Commission, containing reproductions of photographs of various scenes in Harbin and of the medical and sanitary staffs. There is a short preface by Wu Tien Teh, M.D.Cantab.

## DIARY FOR THE WEEK.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Croonian Lecture by Dr. Henry Head, F.R.S.: Sensory Changes from Lesions of the Brain.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Pharynx and Naso-Pharynx.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Diseases of the Middle Ear and Mastoid Process in their Intracranial Complications; Friday, 5.15 p.m., Laryngeal Obstruction, Empyema, Pyopericardium.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Lectures at 5.15 p.m. each day will be given as follows: Monday, Heart Disease (non-Rheumatic) in Childhood; Tuesday, Intestinal Stasis and Obstruction as shown by Radiography; Wednesday, Some Common Affections of the Feet giving rise to Pain.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Optic Neuritis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Modern Treatment of Syphilis. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Surgical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Lectures at 5 p.m.—Monday, Conditions of the Eyeball requiring Enucleation; Tuesday, Haematuria as a Symptom of Urinary Disease; Wednesday, Clinical Lecture.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JUNE.** | |
| 16 FRIDAY .. | BOSTON AND SPALDING DIVISION, *Midland Branch*, Special Meeting, White Hart Hotel, Boston, 3 p.m.<br>CITY DIVISION, *Metropolitan Counties Branch*, Town Hall, Mare Street, Hackney. |
| 17 SATURDAY .. | |
| 18 Sunday .. | |
| 19 MONDAY .. | |
| 20 TUESDAY .. | |
| 21 WEDNESDAY | BLACKPOOL DIVISION, *Lancashire and Cheshire Branch*, Jenkinson's Café, Talbot Square, Blackpool, 7.45 p.m.<br>SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also Branch Council and Local Division, Council Chamber, Town Hall, Clonmel, 12 noon. |
| 22 THURSDAY .. | |
| 23 FRIDAY .. | |
| 24 SATURDAY .. | EDINBURGH BRANCH, Annual Meeting, Peebles Hydropathic, 12 noon. |

| Date. | Meetings to be Held. |
|---|---|
| **JUNE** *(continued)*. | |
| 25 Sunday .. | |
| 26 MONDAY .. | |
| 27 TUESDAY .. | |
| 28 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>YORKSHIRE BRANCH, Annual Meeting, General Infirmary, Leeds, 4 p.m.; Council, 3 p.m.; Annual Dinner, 6.30 p.m. |
| 29 THURSDAY .. | LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Town Hall, Blackburn; Reception, 12 noon; Luncheon, 12.30 p.m.; Branch Council, 1.15 p.m.; Meeting, 1.30 p.m.; Motor Excursion, 3.30 p.m.; Dinner, 6.30 p.m. |
| 30 FRIDAY .. | BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting, Beau Nash's House, Sawclose, Bath, 6 p.m.<br>BORDER COUNTIES BRANCH, Annual Meeting, Station Hotel, Carlisle.<br>METROPOLITAN COUNTIES BRANCH, Annual General Meeting, 429, Strand, W.C., 4.30 p.m. |

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SUPPLEMENT
TO THE
# BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 24TH, 1911.

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# National Insurance.

## AMENDMENTS TO THE BILL.

THE following amendments have been drafted by the Executive Subcommittee of the State Sickness Insurance Committee of the British Medical Association, to cover the points in the declared policy of the Association. These amendments are subject to revision, but are published now for the information of members.

There are other questions of importance with regard to which resolutions were passed by the Representative Body. These are being considered by the Insurance Committee, and it is probable that it will be found advisable to seek the inclusion of certain of them in the bill and of certain others in the regulations to be made by the Insurance Commissioners.

### AMENDMENTS DESIRED BY THE BRITISH MEDICAL ASSOCIATION.

#### INCOME LIMIT OF THOSE ENTITLED TO MEDICAL AND MATERNITY BENEFITS.

Clause 8, page 6, Sub-Clause (1) (a), line 4, before the word "medical" insert the words "Except as hereinafter provided."

Clause 8, page 6, Sub-Clause (1) (e), line 23, before the word "payment" insert words "Except as hereinafter provided."

Clause 8, page 8, Sub-Clause (7), insert new Sub-Clauses (g) and (h) as follows:—

(g) to medical benefit who is in receipt of an average income from all sources exceeding £2 per week.

Clause 14 (1), page 14, line 35, after the word "persons" insert the words "entitled to such benefits."

Clause 16 (1), page 16, line 16, after words "insured person" insert the words "entitled to," and after words "maternity benefit" insert the words "such benefits."

Clause 16 (1), page 16, line 20, after the word "husband" insert the words "if entitled to such benefit."

#### ADMINISTRATION OF MEDICAL AND MATERNITY BENEFITS.

Clause 13 (1), page 13, line 24, after words "sickness benefit" insert the word "and."

Clause 13 (1), lines 24 to 26 inclusive, delete all words from "and maternity" down to words "medical benefit" inclusive.

Clause 13 (1), page 13, line 29, before the word "sanatorium" insert the words "medical, maternity, and," and for the word "benefit" substitute the word "benefits."

Clause 14 (1), page 14, line 32, delete the words "approved society and."

Clause 14 (2), page 14, line 37, delete the words "society or."

Clause 14 (3), page 15, delete.

Clause 16 (1), page 16, lines 17 to 19, inclusive, delete all words from the words "and shall" in line 17 to the words "Health Committee" in line 19 inclusive; and delete all words from the words "by the" in line 21 down to the word "society" in line 22, inclusive.

Clause 45 (1), page 38, line 3, before word "sanatorium" insert the words "medical, maternity, and."

Clause 45 (1), page 38, lines 5 and 6, delete all words from the word "deposit" down to the words "benefit and," inclusive.

### Free Choice of Doctor.

Clause 14 (1), page 14, line 34, delete the words "duly qualified" and substitute the word "registered," and alter the numbering of the clause to Clause 14 (1) (a).

Clause 14 (1), page 14, add the following new sub-clauses (b), (c), (d), (e), and (f):

(b) All arrangements of the local Health Committee with medical practitioners for attendance and treatment of insured persons shall be subject to the approval of the Insurance Commissioners.

(c) The local Health Committee shall prepare a list of registered medical practitioners who have entered into arrangements with the Committee for giving attendance and treatment to insured persons whose medical benefit is administered by the Committee.

(d) In the list of registered medical practitioners the local Health Committee shall include all registered medical practitioners who apply to be included unless in respect of any such practitioner the Insurance Commissioners are satisfied after due enquiry that his appointment would be prejudicial to the efficiency of the medical service of the insured.

(e) The Insurance Commissioners shall have power at any time after due enquiry to remove from the list of registered medical practitioners for any district any practitioner whose conduct is deemed by them to be prejudicial to the efficiency of the medical service of the insured.

(f) Each insured person shall be entitled to select from the list so prepared a medical practitioner, subject to the consent of such practitioner, to attend him when required.

### Medical Representation in Administration.

*Insurance Commissioners.*

Clause 41 (1), page 35, line 17, at the end insert the following words, "and shall include registered medical practitioners who have had personal experience of general practice among the classes from which the insured are drawn."

*Advisory Committee.*

Clause 42, page 36, line 3, after the word "societies," insert the following words "and registered medical practitioners who have had personal experience of general practice among the classes from which the insured are drawn."

### Local Health Committees.

*First Form.*

Clause 43, Sub-clause (2), page 36, line 10, for the word "nine" substitute the word "twelve."

Line 11, for the word "eighteen" substitute the word "twenty-four."

Line 12, for the word "third" substitute the word "fourth."

Line 16, for the word "third" substitute the word "fourth."

Line 21, delete the word "remaining" and for the word "third" substitute the word "fourth."

Line 31, insert the new Sub-paragraph (d) as follows:—

"(d) As to the remaining one-fourth thereof by the registered medical practitioners resident in the county or county borough."

Clause 43 (5), page 37, lines 10–12, inclusive, delete the words "but so" down to "medical practitioners."

*Alternative Form.*

Clause 43, Sub-clause 5, page 37, line 9, for the word "fourth" substitute "third."

Lines 10 to 12, inclusive, delete the words "but so" to "medical practitioners" and insert "members to the number of at least one-fourth of the whole Committee being selected from registered medical practitioners nominated by the registered medical practitioners residing in the county or county borough."

[*Note.*—It is considered desirable that both forms should be put down, but the first form is considered to be the better.]

### Local Medical Committees.

New Clause to follow Clause 44, page 38—

(1) A local Medical Committee shall be formed in the area of each county and county borough consisting of registered medical practitioners elected by the registered medical men engaged in medical practice in such county or county borough.

(2) The number of members of each Medical Committee and the mode of election and term of office of such members shall be determined by the Insurance Commissioners.

(3) The local Medical Committee shall be consulted by the local Health Committee on all matters affecting the arrangements with registered medical practitioners to give attendance and treatment to the insured and shall discharge such other duties and exercise such powers as shall be determined by the Insurance Commissioners.

### Power to Approved Societies to Subscribe to Hospitals, etc.

Clause 17, page 16, delete.

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### Clauses of the Bill referred to above, as Amended, and New Clauses to Read as follows:

*Rates and Conditions of Benefits.*

Clause 8 (1) (a), Except as hereinafter provided medical treatment and attendance, including the provision of proper and sufficient medicines (in this Act called "medical benefit").

Clause 8 (1) (e), Except as hereinafter provided payment, in the case of the confinement of the wife of an insured person, who is not herself an insured person, or of a woman who is an insured person, of a sum of *thirty shillings* (in this Act called "maternity benefit").

Clause 8 (7), new Sub-clause (g) and (h):

(g) To medical benefit who is in receipt of an average income from all sources exceeding £2 per week.

*Benefits to be Administered by Approved Societies or the Local Health Committee.*

Clause 13 (1), Sickness benefit and disablement benefit shall be administered, in the case of insured persons who are members of an approved society, by and through the society, and in other cases by and through the local Health Committees; medical, maternity, and sanatorium benefits shall in all cases be administered by and through local Health Committees.

*Administration of Medical Benefit.*

Clause 14 (1) (a) Every local Health Committee shall for the purpose of administering medical benefit, make arrangements with registered medical practitioners for insured persons entitled to such benefit to receive attendance and treatment to the satisfaction of the Insurance Commissioners from such practitioners.

Insert new sub-clauses (b), (c), (d), (e) and (f):

(b) All arrangements of the local Health Committee with medical practitioners for attendance and treatment of insured persons shall be subject to the approval of the Insurance Commissioners.

(c) The local Health Committee shall prepare a list of registered medical practitioners who have entered into arrangements with the Committee for giving attendance and treatment to insured persons whose medical benefit is administered by the Committee.

(d) In the list of registered medical practitioners from whom insured persons may make their selection the local Health Committee shall include all registered medical practitioners who apply to be included, unless in respect of any such practitioner the Insurance Commissioners are satisfied after due

inquiry that his appointment would be prejudicial to the efficiency of the service.

(e) The Insurance Commissioners shall have power at any time after due inquiry to remove from the list of registered medical practitioners for any district any practitioner whose conduct is deemed by them to be prejudicial to the efficiency of the medical service of the insured.

(f) Each insured person shall be entitled to select from the list so prepared a medical practitioner, subject to the consent of such practitioner, to attend him when required.

Clause 14 (2) Every such committee shall also make provision for the supply of proper and sufficient drugs and medicines to insured persons, and no arrangement shall be made with a medical practitioner under which he is bound or agrees to provide drugs or medicine for any insured person at an inclusive fee, without the consent of the Insurance Commissioners.

Clause 14 (3) Delete.

*Administration of Maternity Benefit.*

Clause 16 (1) Where the mother of the child is herself an insured person entitled to maternity benefit such benefits shall be treated as a benefit for her; if she is not herself an insured person the benefit shall be treated as a benefit for her husband if entitled to such benefit and shall be administered by the local Health Committee, and shall be payable in respect of a posthumous child.

*Power to Approved Societies to Subscribe to Hospitals, etc.*

Clause 17 delete.

*Constitution of Insurance Commissioners, Appointment of Inspectors, etc.*

Clause 41 (1) As soon as may be after the passing of this Act there shall be constituted for the purposes of this part of this Act Commissioners (to be called the Insurance Commissioners), with a central office in London, and with such branch offices as the Treasury may think fit, and the Commissioners shall be appointed by the Treasury and shall include registered medical practitioners who have had personal experience of general practice among the classes from which the insured are drawn.

*Appointment of Advisory Committee.*

Clause 42. The Insurance Commissioners shall as soon as may be after the passing of this Act appoint an Advisory Committee for the purpose of giving the Insurance Commissioners advice and assistance in connexion with the making and altering of regulations under this part of this Act, consisting of representatives of associations of employers and approved societies and registered medical practitioners who have had personal experience of general practice among the classes from which the insured are drawn, and of such other persons as the Commissioners may appoint.

New Clause to follow Clause 44—

(1) A local Medical Committee shall be formed in the area of each county and county borough consisting of registered medical practitioners engaged in medical practice in such county or county borough.

(2) The number of members of each Medical Committee and the mode of election and period of service of such members shall be determined by the Insurance Commissioners.

(3) The local Medical Committee shall be consulted by the local Health Committee on all matters affecting the arrangements with registered medical practitioners to give attendance and treatment to the insured and shall discharge such other duties and exercise such powers as shall be determined by the Insurance Commissioners.

*Income.*

Clause 45 (1) All sums available for medical, maternity, and sanatorium benefit in a county or county borough, and all sums payable in respect of administrative expenses in any year, shall be paid or credited to the local Health Committee at the commencement of that year.

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Notice has been given by many members of Parliament of amendments to the National Insurance Bill, and the number on the papers of the House of Commons already amounts to several hundreds; a very considerable proportion deal with the medical provisions of the bill. It would be unprofitable to attempt to enumerate them all, but the following notes will be of interest to members. It will be observed that in many instances the amendments proposed by M.P.'s deal with points to which the amendments of the British Medical Association are directed.

Among the most noticeable is a series of amendments devised with the object of handing over to county and county borough councils, or to committees appointed by these councils, all the duties assigned in the bill to the local Health Committees, including the administration of medical, maternity, and sanatorium benefits.

Mr. Lees Smith (Northampton) proposes that, instead of the local Health Committee, there shall be an Insurance Committee of the county or county borough council, wholly appointed by the council, with at least a majority of its members appointed from members of the council, but with other members representing approved societies and insured persons who are not members of approved societies, and with at least two women members. To this Insurance Committee Mr. Lees Smith would give the administration of medical, maternity, and sanatorium benefits.

Mr. Lansbury (Bow and Bromley) proceeds on somewhat similar lines; he proposes that the local "insurance authority" should be the council of a county borough and of an administrative county, but would provide that the councils of non-county boroughs and urban districts should also be local insurance authorities, provided that they are already pension authorities or authorities for Part III of the Education Act. To carry out their duties under the bill these "insurance authorities" would then have to appoint "insurance committees," consisting of not more than one-third non-members of the councils chosen by the councils from persons nominated by approved societies, and including at least two women. In addition to the above, there are several other amendments in the list, the object of which is to give more or less administrative authority to county or county borough councils. The only resolution of the British Medical Association which might be held to refer to this matter is the following: "That the British Medical Association shall oppose the establishment of such a service—that is, a medical service on insurance lines—by the Poor Law or public assistance authorities, *existing public health authorities*, or friendly societies," and in the replies of the Divisions to the questions addressed to them the opinion was almost unanimous that the Association should actively oppose the establishment of a medical service by existing public health authorities. Thus if it should be shown that the amendments of Mr. Lees Smith and Mr. Lansbury involved the placing of the administration of medical benefits in the hands of the public health authorities, they would be strongly opposed by the British Medical Association. Apparently, however, this is not quite the same thing as is contemplated in these amendments, which propose the establishment of a special Insurance Committee *ad hoc*, distinct from the existing health or sanitary committees. The idea underlying the opinion of the British Medical Association is that the medical officers of health and sanitary committees are not fitted to deal with questions involving ordinary medical treatment, especially domiciliary treatment. They are specialists in quite another line—

that is, sanitation and preventive methods—and have little or no practical experience of ordinary medical treatment, and therefore ought not to be placed in a position to meddle with it; any amendments of the bill that might tend in the direction of giving authority in a medical service to these existing authorities will have to be carefully watched.

Several amendments put down in the name of Sir Alfred Cripps (Bucks, Wycombe) seem designed to put everything into the hands of the friendly societies. He proposes to omit altogether Clauses 43 and 44, which deal with the appointment, powers, and duties of local Health Committees. He would allow every friendly society to become an approved society without any of the restrictions named in Clause 18 (2), so long as the society gave security that the insurance funds shall be exclusively used for the purposes specified in the bill. Clause 32, relating to deposit insurance, he proposes to postpone. Clause 14 (1 and 2), he would modify so as to put the administration of medical benefits and the provision of drugs and medicines entirely into the hands of the approved societies to the complete exclusion of the local Health Committees. Apparently he desires the societies to retain the free option given in Clause 14 (3), of handing over the administration of medical benefits, but instead of the local Health Committees he would substitute the existing health and sanitary committees of every county and county borough council. The total effect of these amendments would seem to be that Sir Alfred Cripps desires to put all friendly societies in the strongest possible position, giving them the entire management of medical benefits so long as they please to retain them, but allowing them the option of handing them over to existing sanitary authorities; apparently, by his proposal to omit (4 and 5) of Clause 14, he would even deprive the health and sanitary committees from applying to the county or county borough councils or to the Treasury for extra grants towards the cost of medical benefit. If this is a correct interpretation of the effect of these amendments, we can only say that they will not be accepted by the medical profession. The bill as it stands is bad enough for the profession, but Sir Alfred Cripps's amendments are a mere flouting of the profession, and whether he is acting on behalf of the friendly societies or not, his methods are a first-rate example of the selfishly contemptuous attitude which the friendly societies have exhibited to the profession in the past. There is only one redeeming feature about it, namely, that it will serve to stiffen the backs of medical men, if that be needed, by showing them what they may expect if they allow themselves to fall into the clutches of the friendly societies. The profession objects to both the friendly societies and to existing sanitary or health authorities as administrators of medical benefits.

A far different spirit is shown in the amendments standing in the name of Mr. Gibbs (Edinburgh East), who by amending Clauses 13 and 14 would place the medical benefits in the hands of the local Health Committees which the bill as it stands proposes to establish. It is, perhaps, doubtful whether Mr. Gibbs has chosen the best way of amending the bill so as to secure this. For instance, in Clause 14, paragraph (3), he would alter the words "An approved society may" into the words "Every approved society shall"—that is, instead of giving the societies a free option as to whether it hands over the administration of medical benefits to the local Health Committees or not, he would make it compulsory for them to do so. That seems to presuppose that, in the first instance, the administration of medical benefits would be in the hands of the societies, and that they would be compelled to divest themselves of it. But why make such a presupposition? In paragraph (3), as it stands in the bill, the amount of money to be transferred from the society to the local Health Committee in respect of medical benefits when a society hands over the administration to the committee, is a matter for bargaining, which would always be most unsatisfactory, and Mr. Gibbs, seeing this, provides that the sum to be transferred shall be prescribed by the Insurance Commissioners without leaving the societies to drive what would always be a hard bargain with the committee. This is so far good, but why should any money in respect of medical benefit ever be credited to the societies at all in the first instance? Would it not be better to make it perfectly clear in Clause 39, if it is not already clear, or in Clause 45 (1), by adding the words "medical and" before the word "sanatorium," that any money in respect of medical benefit shall be paid or credited by the Commissioners directly to the local Health Committees, not through the medium of approved societies? The difference is perhaps not very important, so long as the complete control is in the hands of the Commissioners, as Mr. Gibbs proposes it should be, but it might perhaps save some trouble between the societies and the committees. If the course we suggested above were taken, (3) of Clause 14 might be omitted altogether, but in that case, in addition to Mr. Gibbs's other amendments, it would be necessary in Clause 13 (1), at the end, before the word "sanatorium," to insert the words "medical and"—that is, definitely to place medical and sanatorium benefits directly in the hands of the local Health Committees. Possibly Mr. Gibbs is relying for this on an amendment proposed by Mr. Lees Smith to this effect. However this may be, the thanks of the profession are due to Mr. Gibbs for independently recognizing what the British Medical Association regards as one of the most vital importance, and one on which the success or non-success of the bill most certainly depends.

There is another point of importance which Mr. Gibbs, in company with Mr. Joynson Hicks (Brentford), has recognized—that is, the necessity for placing the arrangements for the supply of drugs and medicines in the hands of "properly qualified practising pharmacists." Mr. Joynson Hicks says "duly qualified chemists," which is probably intended to mean the same thing, but is perhaps a less correct form of words. Judging from the reply to the General Medical Council, Mr. Lloyd George is prepared to accept an amendment to this effect. Any possibility of cheap dispensaries run by approved societies with dispensers, possibly unqualified and paid on the same scale as the societies have hitherto paid their medical officers, can not be tolerated. In the interests of the community medical men will certainly insist not only that the supply of drugs shall be of the best quality but that the dispensing shall be by properly qualified pharmacists who can be trusted to follow out accurately the prescriptions given. It may be mentioned that at a joint conference held on June 15th, under the chairmanship of Dr. J. H. Taylor, between representatives of the British Medical Association and representatives of the British Pharmaceutical Conference, it was unanimously resolved that the dispensing ought to be done through the channels

provided by the Pharmacy Acts, and that provision should be made for this in the bill itself.

Two important amendments stand in the name of Sir Charles Henry (Wellington, Shropshire) to the effect that voluntary contributors shall not be entitled either to medical benefits or maternity benefits, and in the absence of a satisfactory income limit for voluntary contributors these amendments may come to deserve the most careful consideration of the medical profession. A still more drastic amendment is by Mr. Joynson Hicks, who would leave out sub-paragraph (a) of sub-clause (1) of Clause 8, which makes medical benefits one of the benefits under the bill.

No fewer than ten members of Parliament have given notice to omit paragraph (6) of Clause 8, which deprives a woman who is entitled to maternity benefit of all right to sickness, disablement, or medical benefit for a period of four weeks after her confinement, but, from Mr. Lloyd George's reply to the General Medical Council (paragraph 8), it appears that he will not accept this amendment. Several members desire to provide that medical benefit at least shall be granted at the same time as the maternity benefit. If the latter suggestion were carried, it would be necessary to give careful consideration to the question whether any medical attendance at confinements or during the month after confinements should be included under the head of medical benefit or not.

A number of amendments are proposed to Clause 11 relating to the proceedings to be taken in the case of insured persons who become entitled to compensation or damages under the Workmen's Compensation Act or the Employers' Liability Act. It is necessary to point out that serious loss may possibly result to medical men through the operation of the bill in connexion with these Acts. At present medical men receive remuneration for attending persons entitled to compensation for accidents under these Acts, but it would appear that in the future insured persons who meet with such accidents would be able to claim medical attendance as part of their medical benefit under the Insurance Bill, and in all probability their employers would insist that they should take advantage of this. This would mean a serious loss to the profession, and there ought to be some provision in the bill to prevent the injustice of requiring the profession to bear the brunt of giving medical attendance at a capitation rate for accidents for which employers may be adjudged liable. The position under the bill is so far doubtful that, though it might be held that present liabilities of employers were not altered by the bill, but it is certain that employers and accident insurance companies would be disposed to refuse to pay anything towards medical attendance where a person was already entitled to free medical attendance as a medical benefit under the Insurance Bill.

Mr. Barton (Oldham) has handed in an amendment to the effect that "the rate of medical remuneration shall be so calculated as to produce an amount equal to that which would be produced by private practice at the rates general in the district." If the system of payment per attendance were adopted, it might perhaps be possible to carry this out to the extent that the average fees per visit or consultation now prevalent in a district should be taken as the fees for that district, and to that extent the proposal would agree with the suggestions made by the advocates of the system of payment for attendance. But if a capitation system were adopted it is difficult to see how the proposal could be worked out.

Notice has been given of numerous other amendments, some of which are important, but the list is probably still far from complete, and further observations must be reserved for a future occasion.

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*[Prepared by the British Medical Association.]*

## MEMORIAL OF MEMBERS OF THE MEDICAL PROFESSION TO THE GOVERNMENT AND TO MEMBERS OF PARLIAMENT.

WE, the undersigned registered medical practitioners of the United Kingdom of Great Britain and Ireland, do most respectfully submit:

(1) That the provisions of the National Insurance Bill now under the consideration of the House of Commons, would, if carried into law, most gravely affect the existing means of livelihood and the future prospects of the great majority of members of the medical profession in the United Kingdom.

(2) That enactment of the provisions of the bill would directly and immediately affect all existing arrangements for the provision for medical attendance for approximately one-third of the population in the United Kingdom.

(3) That provision is made in the bill for extension of medical benefits to the wives, families, and dependents generally of the insured, thus making possible the inclusion of practically the greater part of the population.

(4) That although the means of livelihood of the medical profession are directly affected by the proposals of the bill, the profession was not consulted as to the provisions of the bill before it was introduced, no deputation from any organization or body, representative of the profession, was received by the Chancellor of the Exchequer until shortly before the introduction of the bill into the House, and no indication was even then given to such deputation as to the nature of the provisions contemplated by the Government; and that sufficient time has not elapsed since the issue of the bill to the public to enable the profession adequately to consider in all its bearings a matter in which it is so deeply concerned.

(5) That it is to the interest not merely of the medica- profession but of the community that the risk should not be incurred of the bill becoming law in a form which would preclude the Insurance Commissioners, or other bodies constituted under the bill, from making such arrangements with medical practitioners for the attendance and treatment of the insured as would induce competent members of the medical profession to undertake the work. If they be so precluded it must result that medical practitioners qualified to give such attendance and treatment in an efficient manner will be deterred from entering into arrangements for giving such attendance, and the medical service of the large portion of the community for whose benefit the bill is intended to provide must gravely suffer.

(6) The provisions of the bill to which the medical profession would specially direct attention are the following:

(*a*) That the bill, as at present framed, makes provision for supplying medical benefits, partly at the public expense, for large sections of the community, those, namely, who are in receipt of an average income from all sources exceeding £2 per week, whom experience has shown to be able without difficulty to provide ordinary medical attendance and treatment at their own expense by private arrangements with private practitioners, without necessity for entering into any insurance for the purpose; and that, on the other hand, definite provision is not made in the bill for assisting such persons to obtain all medical attendance and treatment of the kind which experience shows that those in receipt of incomes somewhat higher than £2 per week have difficulty in providing for themselves, namely, treatment in cases calling for special medical or surgical skill or for institutional treatment.

(*b*) That the bill contemplates the perpetuation, and also the extension, as part of a State scheme, of those arrangements by friendly societies for the employment and control of medical practitioners to treat their members which have already given rise to grave

dissatisfaction in the medical profession, even on the more limited scale upon which such arrangements are at present in operation, and have been condemned by the Royal Commission on the Poor Law in both the Majority and the Minority Reports.

(*c*) That, through the foregoing and other provisions, the insured persons may be deprived, and in any event they are not sufficiently assured, of that free choice of doctor which greatly contributes to the confidence of the patient in his medical attendant, and thereby to the success of the treatment which he receives.

(*d*) That the provisions of the bill as regards the composition of the various bodies, central and local, which are to be responsible for the administration of the medical service do not secure that such bodies shall include such a proportion of registered medical practitioners, possessed of personal experience of medical practice among the classes from which the insured will be drawn, as to ensure smooth working and efficiency of the medical service.

(*e*) That the financial provision at present foreshadowed by the Government for meeting the cost of administration of medical benefits, would not, in the opinion of the medical profession, provide adequate remuneration for all those ordinary and special services which it will be necessary for the insured to receive.

(7) It is therefore submitted:

(*a*) That Parliament and the Government should postpone dealing with all questions of arrangements with medical practitioners for attendance and treatment of the insured, whether under the head of medical, maternity, or sanatorium benefits, until such terms shall have been arranged as shall afford reasonable assurance that competent medical practitioners will be induced, in the necessary numbers, to enter into those arrangements for treatment of the insured which the proper administration of such benefits would require.

(*b*) That arrangements made under the bill for medical attendance and treatment of the insured should apply to those persons only whose average income from all sources does not exceed £2 per week.

(*c*) That the bill should be so amended as to provide that the administration of medical and maternity benefits, like that of sanatorium benefit, shall be placed entirely in the hands of the local Health Committees, and not of the approved societies.

(*d*) That the bill should be so amended as to provide that each insured person entitled to medical benefit shall have free choice of doctor from among those medical practitioners practising in the district who are willing to enter into arrangements under the bill.

(*e*) That the bill should be so amended as to provide that an adequate number of medical practitioners who have had experience of general practice among the classes from which the insured will chiefly be drawn shall be included amongst the Insurance Commissioners and the Central Advisory Committee; that the number of medical practitioners on the local Health Committees should be increased to at least one-fourth of the whole number; and that provision should be made for the constitution in the district of each local Health Committee of a local Medical Committee, representative of all the registered medical practitioners practising in the district, which local Medical Committee shall be consulted on all questions of arrangements with registered medical practitioners for attendance upon the insured.

(Signed)

NATIONAL INSURANCE BILL.

*Please include my name as a signatory of the Memorial to the Government and Parliament.*

NAME .....

ADDRESS .....

.....

# An Address

ON THE

# POLICY OF THE BRITISH MEDICAL ASSOCIATION.

*Delivered at a Meeting of the St. Pancras and Islington Division.*

BY THE

## MEDICAL SECRETARY OF THE ASSOCIATION.

MR. SMITH WHITAKER said that there was conclusive evidence that at this moment the policy of the British Medical Association with regard to the Insurance Bill was also the policy of the profession. By way of preface he would remark that many of them, ever since the reports of the Royal Commission on the Poor Law, and some of them still earlier, had foreseen that the day must come in their lifetime when the Government or the local authorities of the country would have to take in hand in some way the provision of more efficient medical attendance for the poorer section of the community. They never foresaw, however, that the attempt to do so would be through a bill like this.

*The Responsibility for Misapprehension of the Scheme.*

Quoting the familiar story of the three Johns—the real John, John's John, and Thomas's John—Mr. Smith Whitaker observed that in this case there were three bills: first, the real bill, of which they had not heard a great deal, perhaps; then the Chancellor's bill, as described in his speeches and in his interviews with newspaper correspondents (and which he took leave to suggest was somewhat different from the real bill); and thirdly, there was the doctors' bill, which again in many cases differed somewhat from the real article. On that last point they had heard a good many gibes at the expense of the profession, but in reply he wanted to say that if the doctors' idea of the bill differed rather widely from the actual measure the fault could be laid chiefly at the door of the Chancellor of the Exchequer. He would give chapter and verse for that statement. The medical profession had cause to complain of the way in which it had been treated. The Chancellor had been engaged for three years on this bill, and he had expressed the view that one of the most important points in the measure was the medical service—the protection of the health of the community. The bill, then, concerned the medical profession. The Government had consulted a great many experts, friendly societies, expert actuaries, and a great variety of people. It had taken them into its confidence, given them an idea of what it was thinking of doing, and invited criticisms and suggestions. But the people the Government never thought it worth while so to consult were the experts in medical employment! If there was a body that had devoted its attention to the technical and expert aspect of medical employment, it was the British Medical Association. The Association had not been at fault in the matter. By instruction of the last Annual Representative Meeting the Chairman of Representative Meetings approached the Chancellor at the end of July and asked if he would give the Association an opportunity of putting its views on the question before him. They got polite promises to be heard later. Then they were asked for a memorandum; they sent it, and they might have saved their trouble for all the effect it appeared to have had on the bill. They asked again to be heard, and were met with various excuses. The leaders of the friendly societies were shown the draft bill and asked to make suggestions. The British Medical Association was vouchsafed no information. When, almost on the eve of introduction of the bill, they were at last accorded a hearing, they were asked to state anything they had to say, in complete ignorance of the Government's proposals. In one sense he was not complaining of this. He thought the march of events on the whole had been a good thing for the profession. Perhaps if the bill had been more nearly in accord with the views of the profession it might have been more difficult to rally the members with a view to the removal

of any defects that might still exist. Mr. Smith Whitaker proceeded to ask if the profession was really unreasonable, and exaggerated the danger, as had been said. At the time of the Chancellor's speech introducing the measure there was an unfortunate accident. The Chancellor said he was inclined to think the friendly societies had underpaid their medical men, and the Government was going to raise the level — he (Mr. Smith Whitaker) thought he said "from," but the official report and the newspapers said "to" — 4s. Eventually that was corrected, but in the meantime the erroneous impression had taken firm hold of people's minds. Then the Chancellor told them in newspaper interviews of some of the people who were to get benefits under the bill. There was the Governor of the Bank of England, the Chancellor himself—he did not know how medical men would appreciate attending them at 4s. or 6s. a head. Another point in the introductory speech had a great deal to do with the misapprehension that occurred—if it was a misapprehension. It was as clear as could be that in the mind of the Government at that time the employment of the doctors was to be chiefly in the hands of the friendly societies, and there was one very significant and, from the medical standpoint, sinister observation in the Chancellor's first reading speech on this matter. He said they put control in the hands of the friendly societies in order to encourage them to be economical in administration, and if they could save anything they could pay certain additional benefits. That "economy of administration" in friendly society work was a very old friend of the doctors. They knew societies that had pooled subscriptions and paid young practitioners entirely inadequate salaries to attend members, and had put the difference into their funds. There were societies drawing a penny per week per member, and paying the doctor 2s. 6d., 3s., or 3s. 6d. per member per annum. This, then, was the picture before the mind of the doctors. All classes of the community might join, up to the Governor of the Bank of England; the doctors were to attend them on a contract system, the friendly societies were to control it, and every inducement was to be given to them to economize. Then the Government wondered why the medical profession was alarmed!

*The Defects of the Bill.*

He thought that was a fair description of the impression conveyed to the minds of most people—not doctors only—by the first reading speech, and the newspaper reports of interviews with the Chancellor of the Exchequer in the interval of nearly a week which elapsed before the bill itself was published. The occurrence of that long interval was another unfortunate event. When they had the bill actually in their hands they saw that the picture from the medical point of view was not quite so black, or at all events, not quite so definitely black, as it had previously been painted. There was no definite limitation of the amount of medical remuneration, and although the bill clearly contemplated control by the friendly societies of the administration of medical benefits, it left open a door of escape. Mr. Smith Whitaker proceeded to outline briefly the chief provisions of the bill, dealing first with the question of income limits of the insured. He pointed out that such limit as existed related only to the question of compulsory insurance, and then only as regards those who were not engaged in manual labour. Any person might join as a voluntary contributor whose income was entirely or chiefly derived from his earnings in some regular occupation, or who had at any time in his life been a compulsory contributor. The word "chiefly" was vague, but presumably if a man's salary from an official appointment were £5,000 a year, and his income from investments were any smaller sum, up to, say, £4,000 a year, he would be entitled to become a voluntary subscriber, and if he chose to pay 7d. a week, would be able to avail himself of the services of one of the insurance doctors whenever he thought proper. Again, if a man at any time of his life, say, when he was a clerk at £2 a week, had been a compulsory contributor for five years, he would be entitled at any subsequent time to become a voluntary contributor, even though he were a millionaire. Of course they had nothing to do on that occasion with the advisability of all this as affecting sickness or disablement benefits. Whatever their opinions might be as citizens, they were considering the matter that night solely as affecting the medical profession. But he might digress so far as to say that, speaking personally, it seemed to him very absurd, even as regards the general objects of the bill, to burn down one's house to roast one's pig in this way—that in order to confer very necessary benefits on people having less than £2 a week they should construct all this elaborate machinery for people who did not need benefits —the State contributing a portion also. However, for the moment, the medical side of the question only concerned them. On the question of the income limit as regards medical benefits, the British Medical Association said that there was no justification for seeking to compel medical men to attend under the scheme people whose average income exceeded £2 a week. As regards benefits provided, those in which the profession were concerned were the medical, maternity, and sanatorium benefits. The bill furnished evidence of how much wiser it would have been for the Government in its own interest, apart from the interest of the profession, to have consulted some one who knew something about medical benefits. The bill said that medical benefit included proper and sufficient medicines. There was nothing about appliances or surgical apparatus. Where the beneficiary was to get his splints from he did not know. Either the patient must provide them or the doctor would, out of the 6s. a head. Then medical benefit included provision of "medical attendance and treatment." He was afraid even the Chancellor had not made up his mind what exactly he meant by "medical attendance," because in answer to a question in the House he said medical attendance and treatment meant such attendance as would ordinarily be given by a friendly society doctor to a member of a friendly society. He had copies of the rules of 400 or 500 friendly societies, and he could have informed the Chancellor that in the majority of cases there was no definition of medical attendance, and when it was defined no two societies defined it alike. The profession, however, understood ordinary domiciliary treatment to be meant—not the services of a specialist and not institutional treatment. But the insured person would require the services of the specialist sometimes, and the insurance fund was concerned to see that he had them. Suppose a case was critical and the medical man was anxious and wanted an expert opinion. How was that opinion to be obtained? Was the patient to obtain it? Why should he? —he was insured. The doctor? Why should he?—he was receiving a fixed salary per annum. This matter having been brought to his notice, the Chancellor now appeared to think that the specialist's fee was to be paid out of the medical benefit. If that was so, there was obviously so much the less for the doctors who treated the patients ordinarily. This question needed clearing up. Remember, the insurance fund would be bound to see that that second opinion was obtained because the fund had a direct pecuniary interest in the patient's future state of health. If through such an opinion not being obtained an acute case became a chronic one, and the fund had to pay, as provided in the bill, 10s. a week for 13 weeks and 5s. a week for the rest of the man's life, it would be worth while, in order to prevent such a state of affairs developing, to pay a good many specialists' fees.

*The Key to the Medical Position.*

They had to bear that in mind, because it was the key to their position—that the administrators of the insurance fund would have a direct pecuniary interest in seeing that each insured person when ill received proper medical attendance, so that he might get well again as quickly as possible, and cease to be a charge upon the fund. When the bill was passed the Government would have entered into a statutory contract to provide these people with medical attendance. Who was to give that treatment? Not the Cabinet or the House of Commons. The Government had to come to the medical profession. The same argument he had used with regard to the specialist would apply to institutional treatment. The hospitals were approaching the Chancellor. They were anxious about their position, and well they might be. The Insurance Commissioners would have to see that a man obtained institutional treatment if he required it. Suppose there was no hospital ready to receive the patient. Then the fund was going to suffer

and sooner or later, if there was not a hospital in the district, the Commissioners would be bound to provide one. If they provided a hospital in one district at the expense of the fund, why should the charitable public provide one in another? The expense was one for which the insurance fund was liable—for which the taxpayer had to provide. People had been willing to subscribe to hospitals, medical men had been willing to give their services as a charity to relieve the necessitous—why should either do it for the relief of the taxpayer? Had the Government thought out these points? He noticed that the Chancellor had said that there had not been a single criticism on the bill which he had not anticipated. All he could say was that the Government had shown marvellous skill in concealing its perceptions so far as the text of the bill was concerned in its medical aspects.

*The Medical Share in the Administration.*

Turning to the administration of the insurance scheme, Mr. Smith Whitaker said they had it on the authority of the Chancellor that the great object of the bill was the health of the insured, yet in the governing body of this great medical service, which would have more to do with the employment of medical men for the actual treatment of disease than any other body in this country, there was no provision for the inclusion of a single medical man. Under interrogation the Chancellor had indicated that he did think there should be *one* medical man amongst the Insurance Commissioners. Without pressing the matter from the professional side, from the public point of view medical men urged that the Commissioners would not be able to perform their duties properly unless they had amongst them men who had had direct personal experience of the work they were going to control. There was to be also an Advisory Committtee. In this Committee a great deal of care had been taken that people interested should be represented, and the Government had specified the people who were to be represented. The Advisory Committee consisted of representatives of associations of employers and approved societies and of "such other persons as the Commissioners may appoint." The medical profession was too insignificant to be specifically mentioned in the list, but it appeared that the Chancellor had had them in his mind and intended now to put them in the bill. Then, the local Health Committees might consist of twenty-two members, and it was provided that at least two should be registered medical practitioners. The Association thought the proportion might well be raised to at least one-fourth of the whole Committee.

*Friendly Society Control.*

On the remuneration and other conditions of employment of the doctor the bill was exceedingly vague, but the Chancellor had told them they really need not be alarmed; although it was not down in the bill in black and white, it was possible to give them under the bill everything they wanted. Who were the people to whom, under the bill, they would have to look to give them everything they wanted? The medical benefit was to be administered for members of the approved societies by the societies, that is, the friendly societies, and for others by the local Health Committee. Those for whom the Health Committee would administer would be the people who could not get elected to friendly societies, because every inducement was to be offered them to join the friendly society. The Post Office contributors were put in a very unfavourable position—in fact, it was hardly fair to call them insured at all. The bill endeavoured to secure that the great majority of the insured should be members of approved societies, and so far as they were concerned, the administration would be in the hands of the friendly societies. First of all, leaving their own point of view out of account, consider the equity of that from the public point of view. There were to be 14 millions of insured; at present the total membership of the friendly societies was only 6 millions, and a very large proportion of those did not obtain attendance through the friendly society. Throughout Lancashire members employed doctors privately. In South Wales and elsewhere the doctors were employed, not by the friendly societies, but under a better system in connexion with mines and works. What reason was there for giving the friendly societies, which were not at present providing for more than one-quarter of the total, the control of medical attendance of a great part of the insured? Look, next, at the picture as it presented itself to a medical man. Assume he had been attending a working man, his wife, and family—the income of the breadwinner being, say, £2 10s. a week. That class comprised some of the most satisfactory private patients a doctor could wish to have, and a very large proportion of them were being treated by their own desire as private patients. Under the bill the man, his wife, if a worker, as she was in Lancashire, and his children, from the age of 16, were all to be compulsorily insured. Fourpence for males and 3d. for females was to be deducted every week from their wages, and they were to have medical benefits as part of the consideration for that payment. They were to be penalized if they did not join an approved society. The question the medical profession were asking themselves was whether they were prepared for the statutory transfer of their patients to a society and to be put in the position of choosing between accepting the society's terms and losing their patients. The Chancellor says the bill will be amended so as to give the Commissioners control over the societies' terms, but the friendly societies have announced their firm determination to have absolute control.

*Remuneration.*

With regard to the remuneration, there was no provision in the bill to regulate the medical fees; the bill was silent on the question of cost of medical benefit. It was no doubt to the interest of all parties that the provision should remain elastic for the present. No one could express an opinion as to an adequate rate of payment until he knew what work the doctors were to be called upon to do. As to the method of remuneration, the majority of the profession believed that in the interests of the public it should be on the basis of payment for work done; others believed that a system of capitation payment would work best in the long run. He did not think anybody could demonstrate at present which would be best. The bill left the point open, and if the profession in any district could convince the administrators that payment should be by attendance it would be possible for that to be done. In his speech at Birmingham the Chancellor said that as the doctors reproached him with paying too little and the friendly societies with paying too much, it might be taken that he had selected the right figure. That seemed to him entirely to miss the point. In the resolutions drawn up by the British Medical Association there was no allusion to the 6s. rate.

*Professional and Public Interest Identical.*

Every one of the points made by the Association could be defended definitely in the public interest. It was said they were out for fees; that they were setting professional against public interest. (A Voice: "So we are.") "No, sir," retorted Mr. Smith Whitaker; "what I want you to realize is that the professional and public interest in this matter are identical." If they by means of union were to obtain more than they were justly entitled to (he continued), they would be resting on a false foundation, and must break down. If, on the other hand, the Government were able, through any unfortunate disunion in their ranks, to coerce medical men by the fear of starvation into accepting terms that were not remunerative—if as the result the Government got the services of dissatisfied men, if it could only attract men who could not find successful employment elsewhere—in short, if the rate of remuneration of the doctor was injuriously inadequate, what was to be the result on the medical service of this country? In the five years 1890–95 the average annual increase in the number of members of the medical profession was 850. In the five years ending with the present year the average annual increase was only 350—the increase in the profession was not keeping pace with the increase in population. All connected with the medical schools expected a very great falling-off in the entries next October, owing to the alarm created by this bill. Whatever terms the Government put in the bill, it could not ultimately coerce members of the profession into accepting them; if the present members of the profession could be coerced, its ranks must also be depleted.

*The Policy of the Profession.*

How was the position to be met? The immediate practical question was to secure as far as possible that the bill left the House of Commons in a form in which it would be practicable for competent medical men to work under it. Mr. Smith Whitaker outlined the steps being taken by the British Medical Association to this end, but added that in whatever condition the bill left Parliament there would be work to be done afterwards. If the bill was carried the medical profession would then have to take stock of the position and consider what were to be their terms. Then would be the time to test the union of the profession. He had said the question was whether medical men would be prepared to work the bill. They were asked the question sometimes, "Will the British Medical Association stand firm?" A member made an impassioned appeal to him, of all people, to stand firm. He was merely their officer; it was his business to do his utmost to carry their wishes into effect. It was not a question of his standing firm, nor even of the leaders of the Association standing firm, but of every member of the Association and of the profession standing firm. The Chancellor had supplied an important contribution to the subject in the *Westminster Gazette* of the day before. They were warned that if the profession were "unreasonable" he would get a whole-time service. According to the *Westminster Gazette*, the Chancellor thought 7,000 men would be sufficient, and that he would get men at fixed salaries, with pensions at the end, on the ordinary Civil Service conditions, to do this work. The question was whether he was likely to do so—(No)—and it was a question for every medical man. Could they not only make up their own minds, but use their influence with friends and neighbours to stand firm to the profession, bearing in mind that the cause of weakness in the past had been disunion in their ranks. The laity had actually criticized them because they were not sufficiently "trade unionist." The Royal Commission on the Poor Law said that the remuneration of Poor Law medical officers and of medical officers of friendly societies was lower than was desirable, and that this was chiefly due to the regrettable want of union in the ranks of the profession. If the British Medical Association was not a strong enough union—he was beginning to think it was strong enough—the only reason was because individual members had not made it strong. The Association was governed absolutely by its members, and if the profession was to stand it was only by each member rallying to the support of the Association, and standing firm to the end. (Loud applause.)

## THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

THE following letter has been addressed to the Chancellor of the Exchequer by the Royal College of Surgeons of Edinburgh:

Edinburgh, 15th June, 1911.

Sir,—

With reference to the National Insurance Bill, we addressed a letter to you on May 16th containing the following resolutions unanimously carried at a meeting of the Royal College of Surgeons of Edinburgh:

> That while sympathizing with the objects of the National Insurance Bill now before Parliament this College most earnestly prays His Majesty's Government to allow ample time for the thorough consideration of the details of this complicated and far-reaching measure, and in view of the important part which the medical profession must play in making any such Bill a success and of the very serious consequences which may result to the whole profession, this College desires respectfully to express its strong feeling that this Bill ought not to be pressed forward in the present Session in order that the Public and very specially the Medical Profession may have time to thoroughly consider the provisions contained in it, and, if thought necessary, to make suitable representations to Parliament.

We have been requested once more to urge upon the Government, through you, the reasonable request contained in this resolution. Since the original was sent to you it has become increasingly evident:

1. That the medical profession are unanimous in considering that certain parts of the bill require careful reconsideration and extensive amendment.
2. That those concerned in drafting the bill and many of its supporters in Parliament appear to be under serious misconception as to the effects which it will produce on medical practice and medical education.

The profession has always been willing to generously help the really necessitous members of the community, but it is solid in its determination to resist the conditions which would arise on the passing of this bill.

If this measure be rushed through Parliament, with all its imperfections, it will, we fear, produce a deadlock which will be greatly to the disadvantage of the general public. We therefore again plead for consideration of the above resolution.

We are,
Your obedient servants,
Signed in name and by authority of the Royal College of Surgeons of Edinburgh,
GEORGE A. BERRY, President.
R. MCKENZIE JOHNSTON, Secretary.

Seal.

## OPINIONS OF THE PRESS.

The *Westminster Gazette* on June 14th published the following note from its Lobby Correspondent:

Everything possible will be done by Mr. Lloyd George to conciliate the doctors and to obtain their whole-hearted co-operation for the Insurance Bill. But in the improbable event of the doctors going on strike it is not likely that the Government will be driven to yield by threats. In the last resort, there is a possible alternative solution, which is that the State should provide its own medical officers for the purpose of giving the public the benefits of medical treatment. Local doctors could, I am told, be appointed by the Health Committees or by the Insurance Commissioners at a fixed salary to do the work that the bill proposes to hand over to local practitioners, while leaving them free to pursue their ordinary practice. The doctors so appointed would be well paid, and would devote their whole time to the service of insured patients, and it is just possible that such a scheme would prove more economical. But there is no thought at present of introducing such a proposal into the bill. Only the Government, I am informed, are determined that the rights of the public under the bill shall not be unduly sacrificed.

I also hear that Mr. Lloyd George will not reduce the limit of income under which insurance is compulsory, for to do so would deprive many clerks and small shopkeepers of the benefits of the bill, and this class deserves these benefits as much as, if not more than, the artisans who live on £2 a week, who are, all things considered, probably better off. The bill in this respect has so impressed the German Government that I am told that the limit for compulsory insurance will be raised in Germany by 25 per cent. That is to say, all persons who for the purposes of insurance in Germany have £125 a year will in the near future come under the scheme of insurance for medical attendance. It is hardly likely when Germany has set such an excellent example in increasing the number of the insured that the Government should lower the limit in the bill before the House of Commons. The standard of living, it must be remembered, is lower in Germany, and an income of £125 is probably equivalent to an income of £150 in this country. I must add, that the Tariff Reformers may not mistake my meaning, that it is not the cost of living but the standard of comfort to which I refer in this connexion.

The *Scotsman*, in commenting on the second reading debate, wrote:

Mr. Lloyd George is not well advised in his method of meeting the danger from the medical profession. Pleasantries and plausibilities will not serve him in this instance. . . . The doctors . . . have formulated their demands concisely and firmly. Their distrust of the friendly societies is in the front of their objections. Mr. Lloyd George gives no promise that he will meet them on this point. In regard to remuneration, witticisms about the medical profession having the "first cut" are singularly inappropriate. The points on which the profession are united will have to be met, not with professed levity, not with the familiar dodges of partisan conflict, not with verbal ingenuity, but with sober and sympathetic consideration. Mr. Lloyd George is surprised that his scheme is not more popular. He thinks the working classes do not realize its advantages. It is not surprising that they do not see whither they are being led, to what extent State interference is about to enter their lives, to what end it proposes to mould their habits, and what the effect on industry and on wages will be of a new burden, equivalent, in some cases, to 3s. or 4s. of income tax. Mr. Lloyd George seems to admit that he has no compelling force of public opinion behind the bill. In these circumstances there is the greater reason for the House of Commons to demand that the next stage shall be free from hustling.

# REPLY OF THE CHANCELLOR OF THE EXCHEQUER TO THE REPORT OF THE GENERAL MEDICAL COUNCIL.

THE Chancellor of the Exchequer has addressed the following letter to the President of the General Medical Council in reply to the recommendations of the Report on the National Insurance Bill made by the Council on May 27th. For convenience of reference the paragraphs of the report containing the recommendations of the Council are printed opposite Mr. Lloyd George's replies in parallel columns.

*Treasury Chambers, Whitehall, June 13th.*

DEAR SIR DONALD MACALISTER,—I am sending you, as I promised, a considered reply to the various points and recommendations made in the Report of the National Insurance Bill Committee which you left with me.

| [RECOMMENDATIONS.] | [REPLIES.] |
|---|---|
| 1. That (*a*) the Insurance Commission, (*b*) the Advisory Committee, (*c*) every local Health Committee, should include members who are duly qualified medical practitioners. | 1. (*a*) The constitution of the Insurance Commission will, of course, be a matter of great importance, but I may say that it is my present intention that a doctor should have a seat upon it. (*b*) I have always intended to put doctors upon the Advisory Committee. (*c*) The bill provides that doctors should be members of the local Health Committees. |
| 2. That "medical benefit" and "maternity benefit" should be administered by the local Health Committees, and not by "approved societies." | 2. The bill contains provisions for the transfer of medical attendance to the local Health Committees. You will find these provisions in Clause 14 (3), (4), and (5), and you will see that it is to the advantage of societies to make arrangements for the transfer of medical attendance under the clause, for in the case of a transfer being effected, any excess in the cost of providing medical attendance may be paid by the Treasury and the county or borough council, if sanctioned by them as reasonable and proper.<br>At this very early stage of the discussion as to the medical arrangements under the bill, and having regard to the existence of a great number of vested interests in contract practice, I do not think that it is for the moment possible to propose that societies should be compelled to hand over medical attendance to local Health Committees, but it is for the medical profession and the societies to come to some agreement which will make this immediately possible.<br>I entirely agree with the report of your Committee in considering it desirable.<br>The transfer of the maternity benefit to the same committees is a matter which I must consider carefully, and I am bound to ascertain how such a transfer would be regarded by the societies who represent members paying contributions under the bill and entitled to the benefit. |
| 3. That in respect of the administration of "medical benefit," the "arrangements with duly qualified medical practitioners" made by the local Health Committees should be such as to admit of free choice of the medical practitioner on the part of the insured person; and that in respect of the administration of "maternity benefit," the like free choice of the medical practitioner or midwife on the part of the person receiving "maternity benefit" should be admitted. | 3. It will be possible, under the Bill, for local Health Committees to make arrangements such as to admit of the "free choice of a doctor" by the person insured. There must, however, be some limit on this freedom of choice, as the insured person cannot be allowed to change his doctor every month or every three months. Moreover, there must be some method of securing a panel of doctors which would prevent work being done by members of the profession who had shown themselves unfit for the performance of what would become a very responsible public duty. |
| 4. That in respect of the grant of subscriptions and donations to hospitals and other charitable institutions, contemplated in Clause 17 of the bill, the governing conditions should be assimilated to those set forth in Clause 15 (1) with regard to the administration of "sanatorium benefit." | 4. It is not quite clear what is meant by this recommendation. The conditions in Clause 15 for sanatorium treatment make the approval of the Local Government Board necessary for the sanatorium to which the payments for treatment are made from the insurance fund. It is contemplated that this provision will carry with it a certain amount of inspection and control. I am not sure if your Committee fully realized this, and I confess that I should have hesitated to propose that public inspection and control should be extended to the voluntary hospitals which receive money from the approved societies. |
| 5. That in respect of the provision to be made for "the supply of proper and sufficient drugs and medicines" under Clause 14 (2), the supply of proper | 5. I agree that it will be necessary to include in the bill the provision that prescriptions should be carried out by duly qualified persons, but it would be difficult |

[RECOMMENDATIONS.]

surgical dressings and appliances should be included; and, further, that steps should be taken to ensure that the drugs and medicines are of the standard required by the *British Pharmacopoeia*, and that the dispensing of prescriptions is carried out by qualified persons.

6. That "medical benefit" should include provision for consultations and for operations when these are necessary.

7. That, in the case of an insured woman, it should be made clear that "sickness benefit" accrues in addition to "maternity benefit"; and, further, that in cases attended by a midwife the Local Health Committee is empowered to pay for the attendance of a medical practitioner, should such attendance be called for by the midwife in accordance with the rules governing her practice.

8. That in Clause 59 (7), applicable to Ireland, it should be made clear that "deposit contributors" are not limited in their choice of medical practitioners to the medical officers of health for dispensary districts.

[REPLIES.]

to prescribe by statute the amount of surgical dressings and appliances which should be supplied under a Government scheme, and this question is pre-eminently one which should be left to regulations to be framed by the Insurance Commissioners. In framing regulations the Insurance Commissioners will have the help of the Advisory Committee and the doctors who are represented upon it.

6. It is not proposed to make provisions in the bill for institutional treatment and operations, but it is the intention of the bill to supply as good service in the way of domiciliary treatment as may be found to be financially possible under the National Insurance.

7. Sickness benefit cannot be given to an insured woman as well as maternity benefit. You will find that this is precluded by Clause 8, subsection (6) of the bill. Sickness benefit in times of confinement is not covered by an ordinary sick insurance, and the cost of providing it in these cases is an additional cost. If further money is to be paid in these cases it can only be done at the price of diminishing other benefits. The bill leaves the distribution of the 30s. to regulations which will be drawn up after consulting the Advisory Committee appointed by the bill, and I shall be very glad to consider the suggestions which you have made when the regulations come to be framed.

8. I shall consider the suggestion which you make that deposit contributors in Ireland should not be limited in their choice of medical practitioners.—Yours very truly,

D. LLOYD GEORGE.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following is the text of a report and recommendations of the Parliamentary Committee of this society, which have been adopted by the court:

The Acts of Parliament Committee of the Society of Apothecaries have carefully considered the provisions of the bill, first, from the point of view of its effect upon the medical profession generally, and, secondly, upon the society and its licentiates and dispensers. Without going into detailed criticism of the measure the committee feel it their duty to call serious attention to the fact that in whatever shape or form the bill is ultimately passed, it must profoundly, and it is feared prejudicially, affect the future of the medical profession in this country. At the same time, the bill having passed its second reading, the committee feel that it would serve no useful purpose to discuss its merits, and that it is expedient rather to suggest such amendments and additions to the bill as will be best calculated to afford, at any rate, some measure of protection to those interests which the society, as one of the medical licensing bodies of the metropolis, is undoubtedly called upon to protect.

The committee therefore desire to make the following recommendations:

1. That (*a*) the Insurance Commission,
   (*b*) the Advisory Committee,
   (*c*) every Local Health Committee
   should include members who are duly qualified medical practitioners.
2. That "medical benefit" should be administered by the Local Health Committees and not by "approved societies."
3. That in respect of the administration of "medical benefits" the "arrangements with duly qualified medical practitioners" made by the Local Health Committees should be such as to admit of free choice of the medical practitioner on the part of the insured person.
4. That in respect of the provision to be made for "the supply of proper and sufficient drugs and medicines" under Clause 14 (2) the supply of proper surgical dressings and appliances should be included; and further, that steps should be taken to ensure that the drugs and medicines are of the standard required by the *British Pharmacopoeia*, and that the dispensing of prescriptions is carried out by persons legally qualified to dispense.
5. That "medical benefit" should include provision for consultations and for operations when these are necessary.
6. That in the case of an insured woman it should be made clear that "sickness benefit" accrues in addition to "maternity benefit"; and further, that in cases attended by a midwife the local Health Committee is empowered to pay for the attendance of a medical practitioner should such attendance be called for by the midwife in accordance with the rules governing her practice.
7. That the class of persons compulsorily insured be limited to those who are in receipt of salaries or wages not exceeding £2 per week.
8. That the provisions enabling persons not employed to become insured persons under the Act be entirely eliminated.
9. That the scale of remuneration for medical practitioners suggested by the Chancellor of the Exchequer is entirely inadequate.
10. That the Act be so amended as to ensure that persons who under the existing rules of the friendly societies would not under the circumstances defined by such rules be entitled to the benefits granted by such societies be under similar circumstances rendered incapable of receiving the medical benefits conferred by the Act.
11. That Section 14 (2) of the Act be so amended as to enable medical practitioners if they so desire to supply drugs and medicines without any restriction, provided that the total cost is not thereby increased.

The society is particularly interested in the subject matter of the last recommendation, as the right of dispensing as well as of prescribing his own medicines has always been the inalienable right of the holder of the medical diploma of the society. Probably a very considerable number of licentiates of the society will be among those employed to give medical attendance under the Act, and it is submitted that it is a great injustice that these and other medical practitioners who have been in the habit of making up their own medicines should be deprived of this privilege, as in effect they must be should this section of the bill pass into law as it stands. In addition the separation of the dispensing from the prescribing must necessarily have the effect of throwing out of employment a large number of persons who act as dispensers to medical men in private practice, very many, if not most, of whom hold the statutory certificate in dispensing granted by the society under the Apothecaries Act, 1815. It is submitted that no good reason can be shown or exists for the compulsory separation of the medical treatment from the dispensing of the medicines which has been and continues to be the custom of general practitioners, such as will be chiefly employed under the Act, and that, on the other hand, the enforcement of the clause in its present form will create grave dissatisfaction in the medical profession and, as has been shown, great hardship to persons who have been hitherto employed as dispensers.

# MEETINGS OF THE PROFESSION.

## ST. PANCRAS AND ISLINGTON.

A mass meeting of the medical men of Islington and St. Pancras to consider the terms of the Insurance Bill was held at the Midland Hotel, St. Pancras, on June 16th, when there was a large attendance, and the proceedings were marked with great enthusiasm.

Dr. Basil G. Morison, who presided, described the bill as unworkable and unjust, and injurious to the whole profession, particularly to that section which practised among the poorer class of patients, who were perfectly willing and able to pay the small fees that the doctors charged them. The medical profession felt that members who were carrying on such practices were doing good work, and ought not to be interfered with in the way the bill proposed. The bill aimed at a general extension of the contract practice system throughout the country—a proposal the profession could never consent to. As both political parties had united in the determination that the bill should go through, it behoved medical men to press their views most urgently upon the Government in order to convince the framers of the measure of the necessity of drastic amendment. He did not believe there was any deliberate hostility on the part of the Government towards the profession; the real difficulty lay in the attitude of the friendly societies. The Chancellor admitted as much when he said at the Representative Meeting that to hand over the administration of the medical benefits to the Health Committees would arouse the opposition of the approved societies, who would object to giving up their power, power which medical men had given them and which had grown until il had become bondage. The wage limit question was also a difficulty in which the friendly societies were concerned. As to the action to be taken by the profession, it was proposed that every medical man in St. Pancras and Islington should be invited to sign the resolutions drawn up by the Association, and a declaration refusing to accept office under the bill unless the resolutions were complied with. Any members who had not signed in a few days would be canvassed by their brother practitioners. By these means repeated all over the country it was hoped that the bulk of the practitioners of the kingdom would unite on common ground, each division would approach the local members of Parliament in order to explain the position of the medical profession in this matter and gain all the support possible on the floor of the House. The Chairman concluded by enjoining any present who were not members to join the British Medical Association, which, he said, was fighting the battle of the whole profession, and using all due care, foresight, and energy in this great struggle.

Mr. J. Smith Whitaker delivered the address which is printed at page 470.

### Discussion.

Dr. Fuller (Walthamstow), who, at the request of the Chairman, gave an account of the steps taken by the Tottenham Division with regard to the bill, remarked that most medical men would answer in the negative the questions, "Did they want the bill?" and "Did they like contract practice?" In poor districts the latter was a necessary evil. Were the doctors to underwrite State insurance schemes?—that was practically what the present proposals amounted to.

Dr. Richard Paramore quoted a letter written by Dr. Sheen in the Journal of November 8th, 1884 as putting in a few words what medical men should demand in the present scheme. Dr. Sheen, discussing provident dispensaries, wrote:

> Let there be a strict wages limit of admission; confine membership to persons in receipt of low weekly wages; let their subscriptions go to a common fund; and, when a member is ill, let him go to any medical man he chooses, and let the doctor's bill be paid out of the common fund, according to a recognized scale of charges.

Dr. R. Paramore amused the meeting by taking some of the metaphors of Mr. Lloyd George's Birmingham speech a little further than their author perhaps foresaw. Dr. Paramore described the "house" that Mr. George had taken three years to build as built upon the sand; its foundations were rotten. His best hit was when he followed the Chancellor in his comparison between the medical attendance given to men and to horses. Dr. Paramore knew a jobmaster who paid 300 guineas a year to a veterinary surgeon to look after 300 horses. When, a moment later, he spoke of doctors wanting a *quid pro quo* for their work for the community, the unconscious pun convulsed the meeting.

Dr. Glaister quoted passages from Mr. Lloyd George's speeches to indicate the important share the friendly societies had had in framing the Insurance Bill, and also other passages which, Dr. Glaister observed, seemed to show great anxiety that the medical man who already had a club practice should not be injured by the bill. He doubted Mr. Lloyd George's interest in that class of doctor, and thought there was an explanation. Provided existing contracts were continued, what would happen when the bill came into operation? The approved societies would be making arrangements for attendance on members, difficulties would crop up on each occasion, but it would be open to Mr. George to say each difficulty could be dealt with separately. But if existing contracts were not respected, the present members of clubs would find that their doctor would no longer see them for a nominal charge. Mr. Lloyd George would be besieged by six million furious working men, who would complain that the only result of the bill had been to deprive them of what they previously enjoyed—the services of a doctor. He thought that was the real reason for the anxiety to protect the club doctor. Dr. Glaister, continuing, said he thought the time when the families would come in to the medical benefit scheme would not be in the distant but in the near future. Mr. Lloyd George spoke of the balances that were to accrue as the result of economical administration, and he said, "What are the medical benefits we have in mind? Medical treatment, not only for the working man, but for his family." When Mr. George's anticipation was realized, doctors would not only have a third or half, but in many, and certainly in that district, the whole of their practice converted into a contract practice under the miserable pittance they were likely to get.

Dr. Cotter feared that as long as human nature was what it was they would be unable to get payment for work done. The man in the street, who was sometimes right and sometimes wrong, but often right, would say: "There are dishonest practitioners, and under 'payment per attendance' they will pay more visits than are necessary." It might be replied that such men would be dealt with by a disciplinary committee, but a doctor who was perfectly honest, and who had a patient really needing constant attention, might come under unjust suspicion.

Dr. Barrapare declared that the first thing was for the profession to be unanimous, and the second to arrive at what they were unanimous about. That was how they did it in Ireland. He thought their resolve would be not to serve under the scheme.

The six resolutions on the various points of the bill, drawn up by the British Medical Association, were put to the meeting and carried unanimously.

Dr. Barrapare proposed that a guarantee fund be opened to compensate any sufferers in the coming struggle, and the proposal was received with the utmost heartiness. There was some discussion as to whom the fund should aid—the whole-time contract doctor or others in addition.

Mr. Smith Whitaker explained that friends were needed for the parliamentary fight. There was also not only the man who had lost income through the operation of the scheme; the guarantee fund should support any one who might suffer pecuniary loss through standing up for the policy of the profession. A guarantee form would be circulated to the Divisions immediately. If the bill went through there might be a determined effort by the friendly societies to get men to do the work, and men might be severely tempted to take fixed salary appointments. It was the men who were subject to the severest pressure who had to be borne in mind. In reply to a remark that there would not be such disunion if the heads of the profession had stood by the general practitioners, Mr. Smith Whitaker said the British Medical Association in this, as in other matters, was no respecter of persons. The circulars had gone to Harley Street as well as to everywhere else. One of the most cheering signs in this struggle was that really at last Harley Street seemed to realize its unity with the profession generally. The Colleges of Physicians and Surgeons had at last come

into the field, and were taking an active part. Leading members of the profession had said that if a guarantee fund was formed they were prepared to contribute to the full extent of their means.

The meeting formally approved by a unanimous vote the principle of a guarantee fund.

## HAMPSTEAD.

A MEETING to which all members of the medical profession resident in the area of the Hampstead Division were invited, took place on June 9th, at 8 30 p.m., to consider the policy which the profession should adopt towards the National Insurance Bill. Dr. FORD ANDERSON was elected chairman of the meeting. Letters of regret for non-attendance were received from Drs. Lynch, Humphreys, Atterbury, Faber, Moxey, Scott, Cardinall, Barnett, Sharman, Lush, and Smurthwaite. The majority also expressed their intention of supporting the resolutions. Eighty members and non-members were present.

Dr. FORD ANDERSON opened the discussion. He expressed astonishment that such a bill should be introduced by responsible Ministers without consulting the medical profession, which would be so largely affected by it. Manifestly the bill was already drafted when the deputation from the British Medical Association was received by the Chancellor of the Exchequer. He thought that if the bill were passed as it stood they should leave the bill alone. For this they must be united. He appealed to all members of the profession to work along with the British Medical Association as being the only organisation capable of grappling with the subject.

The resolutions before the meeting were as follows:

1. An income limit of £2 per week for those entitled to medical benefit.
2. Free choice of doctor by patient, subject to consent of doctor to act.
3. Medical and maternity benefits to be administered by Local Health Committees, and not by friendly societies.
4. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.
5. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the Local Health Committee, and statutory recognition of a Local Medical Committee representative of the profession in the district of each Health Committee.
6. The method of remuneration of medical practitioners adopted by each Local Health Committee to be according to the preference of the majority of the medical profession in the district of that committee.
7. That, whilst approving the main objects of the bill, and being desirous of co-operating for their attainment, nevertheless, in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

The above resolutions were passed at the Representative Meeting and Mass Meeting on June 1st and 2nd.

Dr. MACEVOY spoke in support of Resolutions 1 to 5. He pointed out that the responsibility of forming public opinion rested largely with the Divisions. The object of Resolution 1 was to limit contract practice. The question of voluntary contributors was a very controversial one. Mr. Lloyd George had given the profession no encouragement on this point. It was left to the medical profession to mould public opinion. The principle of Resolution 2 had been agreed to by the Chancellor of the Exchequer. In regard to Resolution 3, from the temper of the meetings it would appear that now was the time to revolt from the bondage of the friendly societies. If the friendly societies could be convinced that they must relinquish any profit made from medical benefit they would be willing to give up this part of the control. Of course, the difficulty of vested rights must be considered. Resolution 4 was intended to be a general resolution, not to define what was meant by "adequate remuneration." Resolution 5 was very important. The Chancellor had supported it at the Representative Meeting. The Insurance Commissioners were apparently to be a small body appointed by the Treasury with judicial functions One medical representative was proposed. It was, however, difficult to see how the Chancellor proposed to give adequate medical representation on the local Health Committee, since Clause 43 of the bill provided for its members being appointed, (*a*) as to one-third thereof by the county council or the county borough council, (*b*) as to one-third thereof by such approved societies . . . (*c*) as to the remaining one-third thereof by any association of deposit contributors. . . . Where did the medical profession come in?

These five resolutions were proposed by Dr. MACEVOY and seconded by Dr. ELAM.

An amendment to No. 1 was proposed by Dr. WINSLOW HALL:

> That contributors be those whose total income is £160 or under; that there be a generous capitation grant; and that those whose total income is over £100 pay per attendance and for special services out of their own pockets according to a schedule to be drawn up by the local Health Committee.

It would be the business of the Health Committee to report such cases.

Dr. CLAUDE TAYLOR seconded the amendment, but thought it would be difficult for the doctors to discover those people who evaded the graded payments, and that the difficulty of discovering the actual limit of income would still exist. The conditions under the bill would create a far greater demand for medical service than had hitherto existed. This was to be encouraged. Men with incomes of £2 a week or less put off seeking medical advice until they were *in extremis*.

Dr. OPPENHEIMER thought the bill, if properly worked, would be of benefit to the public and the profession, but the business of the profession was to point out medical policy clearly. It was the Government's place to overcome difficulties.

Dr. SCRASE observed that income limit was not the same thing as wage limit.

Dr. BUTLER thought that the British Medical Association ought to concentrate attention on obtaining adequate remuneration for the insured class rather than on a wage limit. There was no doubt that the class who paid adequate fees would be cut out under the bill. He thought Dr. Winslow Hall's resolution contained the germ of an equitable solution.

Six voted for the amendment, a large majority against.

On Resolution 5 Dr. BUTLER asked what statutory recognition meant and what would be the duties of the Central Advisory Committee.

Dr. FORD ANDERSON explained that the committees would be recognized by the State, and that the duties of the Central Advisory Committee would be to advise upon medical matters in connexion with the service and to check malingering. In his opinion, it was the most important committee in connexion with the service from the medical practitioner's point of view, as local committees, although nominally independent of the friendly societies, might easily be ruled by a majority influenced by the society.

Dr. MACEVOY referred to the Chancellor's own words at the Representative Meeting in regard to the duties of the medical "panel."

Resolutions 1 to 5 were then moved *en bloc* and carried with 7 dissentients, who objected to Resolution 1.

Dr. MACEVOY, seconded by Dr. OPPENHEIMER, moved an amendment to Resolution 6:

> That as the question of method of remuneration of medical practitioners is not mentioned in the National Insurance Bill, it is impolitic to deal with it at this stage, and that Resolution 6 be withdrawn.

Dr. FORD ANDERSON, Dr. GLOVER, and Dr. PERCY EVANS spoke in support of Resolution 6; 9 voted for the amendment, a large majority against.

Resolution 6 was then carried with seven dissentients.

Resolution 7 was carried unanimously.

The following, moved by Dr. ELAM and seconded by Dr. ALLEN, was carried *nemine contradicente*:

> That this meeting of Hampstead practitioners pledges itself not to accept office under the National Insurance Scheme unless the modifications demanded by the British Medical Association are accepted by the Government.

The following resolution, which had been passed by the Committee of the General Medical Council appointed to consider the National Insurance Bill, was moved by Miss DOBBIE, seconded by Dr. OPPENHEIMER, and carried unanimously:

> That in the case of an insured woman it should be made clear that "sickness benefit" accrues in addition to "maternity benefit"; and, further, that in the cases attended by a midwife the Local Health Committee is empowered to pay for the attendance of a medical practitioner, should such

attendance be called for by the midwife in accordance with the rules governing her practice.

Resolutions were carried *nemine contradicente* that members of Parliament should be approached, and that a watching committee should be appointed by the Executive Committee, with power to co-opt.

## WALTHAMSTOW.

A GENERAL MEETING of the profession in the area of the Walthamstow Division was held for the purpose of discussing the National Insurance Bill, at the Walthamstow Hospital, Orford Road, on June 8th, at 4 p.m. Fifty-one practitioners were present. Dr. C. J. HORNER presided, and in his opening speech dwelt on the importance of this measure for the profession and the necessity for unity in the present and future operations concerning it.

The following resolutions were carried unanimously:

1. That the medical practitioners in the district of South-West Essex, while heartily approving the declared objects of the National Insurance Bill and anxious to make the measure a success, are determined not to accept service under the Act unless it is amended in such a manner as to provide satisfactory conditions of working and adequate remuneration to the medical profession.
2. That all present at this meeting pledge themselves (and are willing to give a written undertaking to that effect) not to accept any post under the National Insurance Bill without first communicating with the Executive Committee of this Division of the British Medical Association, and receiving an assurance from the committee that the conditions of service and the rate of remuneration are satisfactory to the majority of the local profession.
3. This meeting is resolutely opposed to the control of the medical benefits under the Act by friendly societies, and would refuse to accept any post under such conditions.
4. This meeting is of opinion that any scheme of National Medical Insurance, in order to provide satisfactory conditions of working and to secure the whole-hearted support of the medical profession, must contain the following provisions:
   (*a*) Free choice of doctor by the insured, subject only to the doctor's consent to act.
   (*b*) Control of the service by local Health Committees in conjunction with an advisory committee of local practitioners vested with certain statutory disciplinary powers.
   (*c*) Adequate representation of the medical profession on the Insurance Commission and all bodies and committees connected with the administration of the medical benefits under the Act.
   (*d*) The establishment by the local Health Committee of a panel of reputable practitioners open to all the local profession who are desirous of performing the work.
   (*e*) Adequate rate of remuneration, with allowance of special fees for special services, such as night calls, operations, midwifery, dislocations, fractures, mileage, etc.
   (*f*) The medical benefits of the Act shall be limited to those of the insured whose total income does not exceed £100 per annum.
5. This meeting agrees to recognize the Executive Committee of the Walthamstow Division of the British Medical Association as the body representing the local profession for the purpose of taking the necessary steps to secure the above-stated modifications in the National Insurance Bill, and the members pledge themselves to follow the advice and policy of the British Medical Association, and to stand loyally by one another.

That we, individually and collectively, pledge ourselves to resign any friendly society appointment for medical attendance which we at present hold, and to decline any similar appointment which may be offered, if required to do so by the British Medical Association.

It was decided that the following letter, signed by his medical constituents present at the meeting, should be sent to Sir John Simon, K.C., M.P., asking him to receive a deputation:

DEAR SIR JOHN SIMON,

As Secretary of the Walthamstow Division of the British Medical Association, I am requested by those present at a general meeting of the medical profession of South-West Essex, whose signatures are attached to the foot of this letter, to approach you on their behalf concerning the arrangements suggested in the National Insurance Bill for the administration of the medical benefits and the remuneration of medical practitioners.

While in the main heartily approving the declared objects of the bill and desirous of assisting towards the success of its working, we view with the utmost anxiety and alarm those clauses which, in our opinion, threaten to destroy the honoured traditions of our profession, to inflict the greatest hardship upon many of us, and we fear, in the end, to prove ruinous to some of our less fortunate colleagues.

In this crisis we look to you, the elected representative of our interests in the House of Commons, to protect our rights, to voice our protests, and to support, or if necessary move, such amendments to the Act as will secure just treatment for the medical profession, and by this means secure its whole-hearted support, which we consider will be absolutely necessary for the successful working of the medical scheme after the Act is passed.

We, therefore, pray that you will arrange to receive a deputation (chosen from amongst our number) at any time and place most convenient to yourself, in order that we may lay before you our views and our reasons for them.

I enclose for your information copies of the resolutions which were unanimously adopted by the meeting on June 8th, and you will see from the appended signatures that every class of general practitioner and all shades of political opinion are represented.

We are,
Yours faithfully,
A. POTTINGER ELDRED,
*Honorary Secretary.*
C. J. HORNER,
*Chairman.*

| | |
|---|---|
| Rowland Jones | Sidney J. Stuck |
| F. Percy Elliott | F. A. Martin Flegg |
| P. R. Blake | L. E. Wigram |
| H. E. Pace | C. H. Wise |
| J. O. Goldie | St. Clair B. Shadwell |
| Harding H. Tomkins | Noel Dodd |
| Francis Baillie | T. Scoresby-Jackson |
| Wm. Geo. Noble | A. Berrill |
| John Farmer | G. R. Harcourt |
| John Brown | Charles H. Panting |
| J. Clarke | Charles F. Harford |
| W. C. Steele | Dalton Tacey |
| H. M. Borland | C. W. J. Dunlop. |
| C. E. Brunton | |

It was also decided that similar letters should be sent by their medical constituents to Sir John Bethell, M.P., and Colonel Lockwood, M.P.

It was then decided that all present should sign the following pledge:

We, the undersigned medical practitioners residing in the area of South-West Essex, pledge ourselves to abide by and loyally support the policy of the British Medical Association, and bind ourselves not to accept any post under the National Insurance Bill (Medical Benefits) without first receiving the approval of the Executive Committee of the Walthamstow Division; furthermore, we, individually and collectively, pledge ourselves to resign any friendly society appointment for medical attendance which we at present hold, and to decline any similar appointment which may be offered, if required to do so by the British Medical Association.

Signed,

| | |
|---|---|
| C. J. Horner | P. Dunlop |
| L. E. Wigram | R. E. W. Mackenzie |
| St. Clair B. Shadwell | P. W. Moore |
| Noel Dodd | F. A. Martin Flegg |
| Thos. Scoresby-Jackson | Sidney J. Stuck |
| A. Berrill | C. E. Brunton |
| Chas. R. Dykes | F. J. Coutts |
| Herbert V. Hickman | J. C. Crawford |
| C. H. Wise | Dalton Tacey |
| Frank Argles | G. Stafford Ward |
| Frank Collins | W. C. Steele |
| Francis Baillie | J. Clarke |
| Harding H. Tomkins | J. Brown |
| W. G. Noble | John Farmer |
| Fred J. Oxley | A. Bonnefin |
| Lewis N. Jekyll | J. O. Goldie |
| John H. Barrs | H. E. Pace |
| S. G. V. Harris | P. R. Blake |
| E. J. F. Hardenberg | F. Percy Elliott |
| Robert Brown | Charles H. Panting |
| J. W. Bintcliffe | Charles F. Harford |
| F. Drew Harris | Rowland Jones |
| William W. Rorke | A. W. Aldrich |
| A. D. Woolf | A. Pottinger Eldred. |
| C. W. J. Dunlop | |

It was decided that forms of the above undertaking should be printed and the signature of every practitioner residing in the Division be obtained through the agency of the ward committees.

It was decided to raise a local fund for the unusual expenses and also to subscribe to the central fund for the same purpose.

## FINSBURY.

A MEETING of the medical men practising in Finsbury was held on June 7th to discuss the National Insurance Bill. The chair was taken by Dr. T. HOBBS CRAMPTON.

The meeting was addressed by Dr. EVAN JONES, who described the provisions of the bill, and pointed out the

deleterious effects of its passing into law would have upon the medical profession. A general discussion followed, and the feeling of the meeting was that all should stand together and work to obtain fair treatment from the Government; and that, whilst all should support the British Medical Association, the Association should work for the benefit of the general practitioner, and not for that of the consultant.

The following resolutions were put to the meeting and passed unanimously:

1. That this meeting of medical men practising in Finsbury approve of the statement of policy arrived at by the Representative Meeting of the British Medical Association on June 1st, 1911 (see SUPPLEMENT, June 10th, p. 404).
2. That a canvass of those medical men of Finsbury not present should be taken at once, with a view to obtaining their approval of the resolutions passed at this meeting.
3. That strong deputations be formed of the medical men practising in Finsbury, to interview the Members of Parliament for Central and East Finsbury respectively, and to place before them the terms on which medical men would be prepared to work under the bill.
4. That secretarial expenses be defrayed by an optional subscription of 5s.
5. That a small executive committee, consisting of two doctors in Central and two doctors in East Finsbury and the hon. secretary, be appointed to give effect to these resolutions.

As a result of a postal canvass 39 medical men out of 49 expressed their approval in four days.

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## MARYLEBONE.

MR. N. BISHOP HARMAN, Honorary Secretary of the Marylebone Division of the British Medical Association, writes: The following is the reply sent to me as Honorary Secretary of this Division to the six resolutions passed at the meeting of this Division on May 29th last:

Treasury Chambers,
Whitehall, S.W.,
10th June, 1911.

Dear Sir,

I am desired by the Chancellor of the Exchequer to acknowledge the receipt of your letter of the 2nd instant, and to say that he hopes that his speech on the Second Reading of the National Insurance Bill will clear away many of the misunderstandings as to the effect of his proposal on the medical profession.

The members of that profession will be represented on the Advisory Committee set up under the bill to assist the Insurance Commissioners, who will be responsible, through the Treasury, to Parliament.

Yours faithfully,
JOHN ROWLAND.

Dr. N. Bishop Harman, M.B., F.R.C.S.

*** See in this connexion Mr. Lloyd George's reply to the General Medical Council, paragraph 1 (p. 474).

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## NORTH MIDDLESEX.

AT the meeting of the Tottenham Division of the British Medical Association, held on June 13th, to which all the medical men in North Middlesex were invited, the National Insurance Bill was discussed.

The policy of the British Medical Association in respect of this bill was announced, and the statement approved by the Representative Meeting on June 1st was read. Whereupon it was unanimously resolved:

> That this Division approves of and pledges itself to support the six points set forth in the statement of the Representative Meeting.

These six essential and minimal demands having been supported, speeches were made in favour of additional or more drastic demands. Finally it was resolved that it be a suggestion from this meeting of medical men of North Middlesex to the Special Committee of the Association on the National Insurance Bill:

1. That the income limit demanded be not more than 30s. per week, and that a referendum of the profession be taken on this point.
2. That an additional schedule, setting out the minimum fees for ordinary and extraordinary professional attendance, be added to the bill.
3. That the capitation fee for ordinary attendance on selected lives, exclusive of the supplying of drugs, be 8s. 6d.
4. That the services constituting extraordinary professional attendance be all those specified in the Association's memorandum on insurance schemes.

## AYLESBURY.

AT the annual meeting of the Bucks Division of the British Medical Association held on June 14th, the following resolutions were passed unanimously:

1. That every member of the profession be personally canvassed and asked to support the British Medical Association, and to act only in conformance with the decisions of the Association.
2. That three deputations of three to five members each wait upon the three M.Ps. representing Bucks, inform them of our views, and ask them to support them in the House of Commons.
3. That our Representative be instructed to bring forward at the meeting at Birmingham the question of the treatment of persons who are ill from their own misconduct, and endeavour to secure that such treatment should not be given without extra fees.

During the last few minutes of the meeting the subject of a guarantee fund was mentioned, and in a very short time the sum of over £70 was raised by the few members remaining. It is anticipated that at least £250 will be found by the Bucks Division, and more if required.

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## TUNBRIDGE WELLS.

AT the annual meeting of the Tunbridge Wells Division of the British Medical Association on June 14th, at which twenty-four members were present, the chair was taken by Dr. STARLING, and, after the transaction of other business, the National Insurance Bill was considered.

Dr. STARLING described the action taken by the Representatives, and answered many questions relating to doubtful points. A general discussion followed, and finally Dr. P. E. WALLIS moved, Dr. T. ELLIOTT seconding, the following resolution, which was carried unanimously:

> That this meeting emphatically and unanimously resolves to support the policy of the British Medical Association with regard to the National Insurance Bill as defined in the memorandum recently sent to members.

It was decided to call a meeting of all practitioners residing in the Tonbridge parliamentary area on Tuesday, June 27th, at 8 p.m., at Tunbridge Wells, and of all practitioners in the East Grinstead parliamentary area, the date of this meeting to be fixed later.

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## REIGATE.

AT the annual meeting of the Reigate Division of the British Medical Association, held on June 15th, the National Insurance Bill was discussed.

Dr. PALMER submitted his report on the proceedings at the Special Representative Meeting of May 31st and June 1st, and the resolutions passed at that meeting were freely discussed. Colonel RAWSON then spoke, and expressed his cordial approval of the six points raised by those resolutions, promising to support them in their general outline, though not pledging himself on matters of detail. The following resolution was then put to the meeting from the chair:

> That this meeting of members of the Reigate Division of the British Medical Association, and other medical men present, pledges itself to support the resolutions of the Special Representative Meeting of May 31st and June 1st, and refuse to take work under the National Insurance Bill unless in agreement with the said resolutions.

Twenty-five members and five non-members voted unanimously.

The meeting then discussed the best way to secure the adhesion of those medical men, resident in the Division, who were not present at the meeting. On the suggestion of Dr. BROMET a subcommittee was appointed to canvass, composed of representatives from each important centre in the Division. The following were elected: Reigate, Drs. Hewetson and Ogle; Redhill, Drs, Bromet and Palmer; Dorking, Drs. Rawlings and Blakeney; Horley, Dr. S. A. Clarke; Crawley, Dr. Burn.

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## DOVER.

AT a meeting of the Dover Division of the British Medical Association, held at the Grand Hotel, Dover, on June 15th letters were read from the Right Hon. A. Akers-Douglas, P.C., and from the Right Hon. G. Wyndham, each con-

senting to receive a deputation from the Division on the National Insurance Bill.

A letter was also read from the Chancellor of the Exchequer, the Right Hon. D. Lloyd George, through his Secretary, dated June 9th, in which he said:

> That he hoped his speech on the second reading of the National Insurance Bill will clear away many of the misunderstandings as to the effect of his proposals on the medical profession. The members of that profession will be represented on the Advisory Committee set up under the bill to assist the Insurance Commissioners, who will be responsible through the Treasury to Parliament.

A further discussion on the National Insurance Bill then took place, and Dr. HOWDEN proposed that a defence fund should be opened. It was necessary to have available help for any of those who were deprived of their salaries or incomes through standing shoulder to shoulder with the Association in its fight for justice. He proposed the following resolution, pledging each member to guarantee a certain sum:

> That members be asked to guarantee a sum towards a local defence fund, which may be diverted to the central fund in whole or in part.

Dr. HULKE (Deal), who seconded, thought it would open the eyes of the English people if the amount of work done by the profession gratuitously and willingly without thought of payment were generally known. This was something stupendous, and if for one month the profession stopped all gratuitous work it would be a revelation to the public what they owed to the profession as a whole. The proposal was, after a discussion, carried unanimously.

Dr. HOWDEN proposed and Dr. F. B. HULKE seconded the following resolution, which was carried with enthusiasm:

> That this meeting assures the British Medical Association of their hearty appreciation of the efforts they have made on behalf of the profession, and urge that they in no way depart from the position they have taken up.

## HASTINGS.

A SPECIAL meeting of the Hastings Division, to which all registered practitioners in the district were invited, was held at the Eversfield Hotel on May 25th. The report by the special committee appointed to consider the question of medical treatment on the provident or insurance principle was read by the CHAIRMAN, and, after emendation in some of the details, was unanimously passed.

The following resolutions were also carried:

> That the support of every practitioner in the district be sought for these resolutions.
> That a message be sent to the Chancellor of the Exchequer expressing unanimous disapproval of the provisions for medical attendance in the National Insurance Bill, and declining to co-operate on the terms proposed.
> That the Central Council of the British Medical Association be asked to take immediate steps to organize the whole profession as a medical federation on the definite lines of a trade union.

## NORTHAMPTON.

THE National Insurance Bill was discussed at the annual meeting of the Northamptonshire Division of the British Medical Association, held on June 13th, and the following resolutions adopted:

1. That the Executive Committee of the Division make arrangements for deputations to wait on each member of Parliament whose constituency is within the area of the Division; that the deputations point out the defects of the bill from a medical aspect on the lines of the resolutions passed at the Special Representative Meeting.
2. That the Executive Committee of this Division be instructed to establish a guarantee fund for the protection of any of the members of the Division who may suffer financially in consequence of loyally abiding by the policy of the Association.
3. That a personal canvass of every practitioner residing in the area of the Division be carried out in order to gain universal adherence to the policy of the Association in the matter of the National Insurance Bill.

## WEST DORSET.

A SPECIAL meeting of the West Dorset Division of the British Medical Association was held at the Princess Christian Hospital, Weymouth, on June 7th, at 3.30 p.m. An executive meeting was held at 3 p.m. to draft resolutions, eleven members of the Executive Committee being present. There were present altogether thirty-nine members and three non-members, a large number considering how very scattered the practitioners are in this Division, and how indifferent the railway service is. A full list of the members and non-members present appears in the minute book. Dr. WHITTINGDALE, President of the Branch, presided, as Mr. Flower, the Divisional President, had to leave by an early train. Letters of apology for non-attendance were received from two members.

"The summary of main points which the profession should take up," as approved by the Representative Meeting of June 1st, 1911, was discussed, and the separate points were put as resolutions.

1. *Income Limit of £2 a Week:* Thirty-seven in favour, five against, as they considered this income limit too high for a country district. And of those who voted in favour many felt that it was too high, but thought it politic not to suggest anything lower at present.
2. *Free Choice of Doctor:* Affirmed unanimously.
3. *Administration Through Local Health Committees:* Affirmed unanimously.
4. *Method of Remuneration:* This elicited a great deal of discussion, mainly due to the different construction put upon it by members. On the assumption that it was intended that where there was to be a choice of a method, that method was to be the one selected by a majority of the practitioners. Thirty-seven voted in favour, five voted in favour of an amendment, which was as follows: "The method of remuneration of medical practitioners shall be that agreed upon by the majority of the profession in the particular district."
5. *Rate of Remuneration:* Unanimously affirmed.
6. *Representative on Administrative Committees:* Unanimously affirmed, the meeting considering it of extreme importance that there should be adequate representation.

The general resolution was unanimously affirmed.

It was proposed by Dr. MORGAN, seconded by Dr. WALKER, and carried unanimously:

> That should it become necessary for medical men to sign an agreement, both generally and locally, not to accept an appointment under the present State Insurance Bill, a copy of the said agreement shall be published in all the local newspapers.

It was further proposed and seconded by the same members, and carried unanimously:

> That a copy of this resolution be forwarded to every Division of the British Medical Association in the country.

Proposed by Dr. COSENS, seconded by Dr. MANNING, and carried unanimously:

> That non-members of the Association in this Division should be personally invited to subscribe to the resolutions passed to-day.

## GLOUCESTERSHIRE.

A SPECIAL meeting of the Gloucestershire Branch of the British Medical Association was held at the Royal Infirmary, Gloucester, on May 25th, when seventy medical men, including fifty-six members, were present.

After a discussion on the National Insurance Bill, the following resolutions were carried:

1. No bargaining with friendly societies.
2. Wage limit of 30s. a week.
3. The Branch objects to give medical treatment to voluntary contributors with wages of over 30s. a week.
4. That this Branch conceives that the medical aspects of the State Insurance Bill may affect very seriously the majority of medical practitioners, and pledges itself to support any approved action the British Medical Association may think fit to take for their protection.

## EAST CORNWALL.

A MEETING of the East Cornwall Division was held at Bodmin on June 14th, when twenty-three members were present, the National Insurance Bill as it affects medical men was further discussed.

It was unanimously resolved to have nothing to do with the National Insurance Bill as it at present stands, but only if it is modified so as to meet with the approval of the British Medical Association.

## LANCASTER.

AT the invitation of the Lancaster Division a crowded meeting of all the registered practitioners residing in the district was held in the Royal Infirmary on June 14th. It was unanimously agreed that the £2 limit agreed to by the Association was too high for the district. Several members expressed themselves very strongly on this point. The following resolutions were carried unanimously:

1. That while this meeting of medical practitioners practising in the area of the Lancaster Division of the British Medical Association endorses the resolutions of the Special Representative Meetings of May 1st and June 1st, defining the policy of the Association towards the National Insurance Bill, and pledges itself to support the Association in any steps it may take to secure the success of that policy, it emphatically condemns the limit of £2 as destructive of practice in the Division.
2. That we medical practitioners practising in the area of the Lancaster Division of the British Medical Association pledge ourselves to decline service under the National Bill, unless the just demands of the Association be acceded to by the Government.
3. That the M.P. for the Lancaster parliamentary division and the M.Ps. for the North Lonsdale, Skipton, and South Westmorland parliamentary divisions be invited to meet a deputation appointed by this meeting to lay before them the resolutions of the British Medical Association, together with those just adopted, and to obtain, if possible, their support for such amendments of the National Insurance Bill as may, at the instance of the Association, be proposed to that bill when in committee.

## WARRINGTON.

A MEETING of the Warrington Division and other medical practitioners in the Division's area was held at the Infirmary, Warrington, on Tuesday, June 13th. Dr. BOWDEN took the chair. The policy of the British Medical Association with regard to the National Insurance Bill was discussed, and the chief points as set out in the circular of June 3rd, 1911 (SUPPLEMENT, June 10th, p. 404) were passed seriatim. It was also resolved:

That every registered medical practitioner residing in the Division's area be invited to sign a pledge that in the event of a National Insurance Bill becoming law he will not accept any appointment under the Act that has not been first approved by the British Medical Association.

A form of pledge, together with a guarantee, was passed and signed by the majority of those present.

The Secretary was requested to send copies of the resolutions to the members of Parliament in the area of the Division.

## PRESTON.

A JOINT general meeting of the Preston Division of the British Medical Association and the Preston Medico-Ethical Society was held in the Preston Scientific Society's Rooms on June 16th. The chair was taken by Dr. R. C. BROWN, and fifty-seven members were present. A lengthy and full discussion of the National Insurance Bill took place, and the following resolutions were unanimously adopted:

That the members of the above societies regret that the Chancellor of the Exchequer has made no attempt to meet the legitimate objections of the profession to the proposed Insurance Bill, and pledge themselves to refuse to accept service under the Act unless such objections are removed.

That, owing to the grave situation, this meeting is strongly of opinion that the annual meeting of the British Medical Association should be largely devoted to a demonstration protesting against the medical section of the proposed Insurance Bill.

That all members present at this meeting having signed and returned the post-card send out by the British Medical Association, wish to strongly urge that the household wage limit of £2 per week be reduced, as it is an income limit which in their opinion is far too high, and which will not be accepted in Preston and district.

## WIGAN.

AT a meeting of the Wigan and Leigh Divisions of the British Medical Association, held on June 13th, the following resolution was adopted:

That this meeting considers that all clauses of the bill (the National Insurance Bill) which relate to medical attendance are bad, and should be deleted from the measure.

Every member of the Wigan Division gave his signed adhesion to the policy of the British Medical Association.

## BISHOP AUCKLAND.

A SPECIAL meeting of the Bishop Auckland Division was held on June 2nd, to consider developments in connexion with the National Insurance Bill. The meeting decided to communicate with members of Parliament for the district, and lay special stress on the following points:

1. Administration should lay entirely in the local Health Committees.
2. Voluntary contributions should not be allowed by persons above income tax limit.

## IRISH MEDICAL ASSOCIATION.

THE National Insurance Bill was the principal subject discussed at the annual meeting of the Irish Medical Association held at Cork on June 13th and 14th. The PRESIDENT-ELECT (Dr. Jeremiah Cotter), in an address on the subject, referred to the unfairness of founding calculations on the assumption that medical attendance would be paid for at a rate of about 4s. 6d. per head per annum, though not a single body representative of the profession had been consulted regarding the adequacy of the proposed remuneration. He believed that the actual workers would suffer owing to their inability in the future to obtain good medical advice on terms which would properly recompense the doctor.

A committee was appointed to arrange for the organization of a mass meeting of the profession to discuss the bill, and for the purpose of interviewing Mr. John Redmond and Mr. Lloyd George.

## WATERFORD.

AT a meeting of the medical profession of Waterford and adjoining counties, held in Waterford on May 24th, the following resolutions were passed unanimously:

That the clauses in the proposed National Insurance Bill affecting the medical profession are subversive of one of the elementary rights of our citizenship, that of selling our labour at the best possible market value, and that, in our opinion, the bill is wholly unsuited to Ireland and entirely unjust to the members of the profession therein. And further, we refuse to accept such proposals and decline to assist in the working of the proposed Act, should it be passed into law.

That we ask the licensing bodies in Ireland and the various medical associations and the profession to call, without delay, a mass medical meeting in Dublin to discuss the whole situation.

## SOUTH-WEST WALES.

AT the annual meeting of the South-West Wales Division of the British Medical Association held at the Joint Counties Asylum, Carmarthen, on June 7th, to which practitioners who were not members of the Association were invited, the following resolutions were passed:

1. That medical benefits be restricted to those having a total income of not more than (*a*) 25s. a week in country districts, and (*b*) £2 a week in industrial towns.
2. That the provisions of the Insurance Bill giving control of the medical benefits to the friendly societies be refused.
3. That there must be adequate remuneration for medical attendance, and that the remuneration mentioned in the memorandum of the Chancellor of the Exchequer is wholly inadequate.
4. There must be free choice of doctor where possible.
5. That there should be adequate medical representation on all committees dealing with medical benefits.
6. That members of the profession present at the meeting pledge themselves to be loyal to one another, and to abide by the policy of the British Medical Association.
7. That the Association have nothing to do with the bill as it now stands.

## DUNDEE.

AT the annual meeting of the Dundee Branch of the British Medical Association, held on June 2nd, the National Insurance Bill was discussed. Dr. R. C. BUIST reported on the resolutions adopted by the Special Representative Meeting, and gave an account of the views expressed by the Chancellor of the Exchequer at that meeting. The various motions as drawn up by the Association (SUPPLEMENT, June 10th, 1911, p. 404) were unanimously adopted, while various measures necessary for the unity of the medical profession locally were approved.

It was also resolved that a deputation consisting of the President and Secretary be appointed to interview the members of Parliament for the Branch area.

## BORDER COUNTIES

At the meeting of the English Division of the Border Counties Branch of the British Medical Association held on June 9th it was resolved that:

1. That this meeting expresses its sympathy with the general principle of national insurance against sickness and invalidity, but is of opinion that the bill now before Parliament is not one which the medical profession can accept as carrying out that principle in an equitable and efficient manner.
2. That the medical benefit should be restricted locally by an income limit—40s. being the maximum per week.
3. That the provisions holding the friendly or other societies approved under the bill responsible for formulating arrangements with doctors and administering medical and maternity benefits be strenuously opposed.
4. That there should be free choice of doctor in the interests of the assured as well as of the doctors, subject to the consent of the doctors to act.
5. That there should be adequate medical representation on all committees dealing with medical benefits, and that the minimum representation provided for in Section 43, Clause 5, is inadequate.
6. That there must be adequate remuneration for medical attendance, the remuneration indicated in the actuarial report based on the Treasury memorandum, and in Section 38 of the bill being regarded as inadequate, and that consultations, surgical operations, administration of anaesthetics, excessive sickness, diseases due to misconduct, mileage, and night work be regarded as extra.
7. That the medical practitioners present pledge themselves to abide by the policy of the British Medical Association, and to be loyal to one another.

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## NORTHERN COUNTIES OF SCOTLAND.

At the annual meeting of the Northern Counties of Scotland Branch of the British Medical Association held at Elgin on June 10th, the resolution adopted by the Special Representative Meeting on May 31st and June 1st (Supplement, June 10th, p. 404) were passed.

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## CORRESPONDENCE.

Dr. James Ross (Walton, Liverpool) writes that though he has signed and returned the post-card in reply to the circular of the British Medical Association, he considers the wage limit of £2 too high. He writes: I have taken from my ledger the names of 100 "sound" patients whose incomes I know are below £2 a week—100 patients who could not be under any circumstances rejected by the State scheme, or, in other words, relegated to the "Post Office contributors"—and I find that I have received from these hundred patients for the year 1910 approximately £150; some only paid a few shillings, others a few pounds, and deducting £15 for drugs, bottles, and other incidental expenses, a net profit of £135 is left. It does not require an actuary to calculate that under the new scheme I shall receive (if the bill becomes law in its present form) £20 net for my year's attendance on these patients, and in addition I shall have to attend another 575 patients to make up the £135.

### Mode and Rate of Payment.

*The Antwerp System.*

Dr. J. P. Wills (Bexhill-on-Sea) writes: As a country doctor of thirty years' standing I should like to be allowed to express in the Journal the general feeling of great gratification at the magnificent way in which the heads of the profession are standing by us in the present crisis.

May I at the same time draw the attention of members to the article, "The Battle of the Clubs in Belgium," published in your issue of September 3rd, 1910? Substitute 2s. 6d. for 2 francs, and include drugs, and the scheme might almost be adopted *en bloc*.

If such fees can be obtained in Antwerp, they are surely not too much for England, and if the profession there can protect itself against working the hours of a second-class shop assistant, it ought not to be beyond our power to do the same for ourselves.

*Expenses.*

Mr. E. Marten Payne, M.B. (Blackburn), writes: Mr. Lloyd George seems to ignore the fact that the amount of the capitation fee which the doctors will ultimately be able to accept depends upon a simple arithmetical calculation.

The population of England and Wales amounts to 32,527,843, and there are about 25,168 doctors—that is to say, there are 1,292 persons to each doctor. Mr. Lloyd George proposes to allow a capitation fee of 4s. 6d.; this works out at a gross income of £290 14s. for each doctor.

It has been computed that each club patient applies on an average to his doctor about thirty-six times a year, so that his visits and consultations will average from 120 to 130 a day, and in the winter months he may have to make from 150 to 200 visits in a day. I am not exaggerating; I have been an assistant in a club practice, and I know what it means. A private patient, who knows he will have to pay, only sends for the doctor in cases of necessity; the club patient, who knows the visit will cost him nothing, calls him in for the merest trifle. Now, if a man visits only from 50 to 100 patients in a day, he will be absolutely compelled to keep a carriage or a motor car. The club doctor's carriage is as much a part of his necessary professional expenses as is the greengrocer's cart, and it will cost him at least £150 a year. We are now in a position to cast up a doctor's working expenses, and the items are based on actual experience. They are:

| | £ | s. | d. |
|---|---|---|---|
| Rent (say) ... ... ... ... | 60 | 0 | 0 |
| Rates and taxes ... ... ... | 21 | 10 | 0 |
| Surgery expenses, namely, cleaning, repairs, etc. ... ... ... | 9 | 2 | 0 |
| Postages ... ... ... ... | 1 | 5 | 0 |
| Stationery and newspapers for patients ... ... ... ... | 1 | 10 | 0 |
| Gas and coals ... ... ... | 12 | 7 | 3 |
| Carriages ... ... ... ... | 150 | 0 | 0 |
| Total ... ... ... | 255 | 14 | 3 |

This total does not include the cost of drugs, dressings, or instruments.

### Choice of Doctor.

Dr. E. Mansel Sympson (Lincoln) writes: May I put forward, very briefly and baldly, the following suggestion: That, instead of making any provision for medical attendance on those insured, it be left—the arrangements as to insurance and sick pay standing as they do at present, the wage limit being excepted—to each insured person to get his certificate of sickness from any registered medical practitioner who will attend him while he is ill, and whose certificate shall be accepted by the authorities during the illness. Advantages: (1) The insured will have his sick pay; (2) each person insured will have a free choice of any doctor he likes; (3) malingering will be checked, as no person will wish to run up a larger account with the doctor than absolutely necessary.

### Contract Practice.

Dr. S. W. Carruthers (Norwood) writes: The British Medical Association has earned the gratitude of the whole profession, and those of us who for one reason or another prefer to remain outside the Association welcome its lead and will back it up in the stand it is at present taking. Yet in the position it is taking up it makes one very grave mistake. It is most unwise to lay down a £2 limit for medical benefits. This is not merely falling into the tactical error of stating your ultimatum before negotiations begin—an error which the Association has most wisely and carefully avoided on every other point. It is a far deeper mistake than this. It shows that even those who are now leading the profession have been so blinded by the huge evils of contract practice in the past that they can only look on it as an accursed thing.

In this the public will not support them; the public believes in contract practice, and the public is right. And no profession can ultimately win against the deliberately adopted opinion of the community. What is contract practice? Simply and solely insurance applied to the expenses of the illness as well as to the loss of income during the illness. Why is contract medical attendance desirable and good, if contract grocery or contract theatre-going is not? Because the sphere of insurance is where persons with limited means are exposed to risks beyond their control which cannot be calculated beforehand (save by averaging out large numbers), such risks as death, fires,

sickness, accident. Theatre-going is under the person's own control; grocery is so to a considerable extent, and has at least no large unforeseeable contingencies.

Now any medical man who really faces the question must admit that, for persons with an income between £2 and £3 per week, the contingencies of the doctor's bill are very serious. The proof of this is that, though this class pays promptly and cheerfully for short illnesses, yet a modest account for a prolonged illness often has to remain unpaid for long periods or altogether. Insurance against this contingency is an eminently reasonable and beneficial proposal, one which rightly has the instinctive support of the public, and which the medical profession cannot in the long run successfully oppose. Tell this to the average medical man, and he will say just what an intelligent and influential practitioner said to me a day or two ago: "Yes, of course the working man is to have all that risk taken off his shoulders, and the poor devil of a doctor is expected to take it." To his surprise, I said: "Quite right, the doctor is to take the risk; but do you say, 'the poor devil of an insurance company has to take the risk of death'?" "No, of course not," said he at once, "they take care the premiums are sufficient."

There is the whole point. The Association must not oppose the principle of insurance being applied above the £2 limit; it must say simply, unless the premiums are adequate, the profession will not be a party to the insurance.

Now adequate premiums are—what? In life insurance, not what the person who pays premiums thinks is about right, nor what the company guesses at, but what the risk actually costs, by careful computation. In our case, not what the Government thinks is about right, nor what we doctors guess at, but what we can show that the work done actually costs at present, *plus* a little more for the fact that under the new conditions more work will have to be done. Every one of us could easily select those of our patients whose incomes lie between £2 and £3 per week, and find exactly what we have *received* (not earned, but actually received) from them during the last five years. I doubt if the British Medical Association could do the profession a greater service at the present time than to commission a young chartered accountant to certify such figures in the practices of all who are willing to give them. We could then tell the Government that at the present time we are actually receiving, say 15s., or say 25s., per head per annum, on an average, from these patients, and that something a little higher than that would be the only fair contract price.

## MEETINGS TO BE HELD.

### TRINITY COLLEGE, DUBLIN.

**By invitation of the Provost and Senior Fellows, a meeting of the medical graduates of Dublin University will be held in the Regent House, Trinity College, on Monday, June 26th, at 4.30 o'clock, to consider the provisions of the National Insurance Bill in so far as they affect the members of the medical profession. The following points, amongst others, will be discussed.**

1. Wage limit of insured persons.
2. Medical representation on Insurance Commission, Advisory Committee, and Local Health Committee.
3. The choice of medical practitioners by insured persons.
4. Arrangements for support of hospitals.
5. Application of the bill to Ireland, and the consideration of adequate remuneration to medical practitioners, especially in rural districts.

**Those medical graduates who have lately changed their address, and who may, in consequence, not receive notice by letter of this meeting, are requested to accept the above notice.**

ERRATUM.—In the report of Dr. J. B. Story's address at the annual meeting of the Leinster Branch of the British Medical Association, published in the SUPPLEMENT of June 17th, p. 447, the payment made by Government on account of the high-class lives of the Royal Irish Constabulary is incorrectly given as "34s. a year per head." The correct amount is, we are informed, 24 shillings.

# Hospitals and Asylums.

### LEEDS HOSPITAL FOR WOMEN AND CHILDREN.

FROM the fifty-eighth annual report of this charity we learn that during the past year there were treated in the wards of the institution 659 cases of diseases of women and that 116 maternity cases and 82 children were admitted. There were 112 infants born in the hospital. These figures are somewhat in excess of those for the year 1909. The average number of beds occupied was 49, and the average length of time spent by each patient in the institution was twenty days. The new out-patients amounted to 3,407, of whom 1,486 were children, and here it should be mentioned that boys above the age of 6 are not admitted into the wards or treated in the out-patient department. The maternity department of this hospital, which was initiated some few years ago, is entirely an in-patient department, there being of course a large extern maternity department in connexion with the infirmary. The number of beds is small, and preference is given to those patients who are suffering from diseases complicating the pregnancy or whose delivery it is anticipated may be attended with special difficulty. There is an interesting table in the annual report which shows the number of patients applying to the institution from within the borough of Leeds and from the surrounding districts. From this it is seen that in regard to the in-patients the ratio of the former to the latter was 3½ to 1, and in regard to the out-patients it was as 13 to 1. This seems to show that a considerable number of patients are sent in for operation from places at a distance.

### BARNWOOD HOUSE HOSPITAL FOR THE INSANE.

THE annual report for the year 1910 of this large asylum for private patients shows that it continues to be maintained at a high level of efficiency. The charitable work entailed a cost to the institution of over £2,600 for the year, and the Lunacy Commissioners reported it as throughout in perfect order.

The Medical Superintendent, Dr. James Grieg Soutar, shows that on January 1st, 1910, there were 150 certified patients and 3 voluntary boarders in the hospital, and on the last day of the year 153 certified patients and 2 voluntary boarders. The total certified cases under treatment during the year numbered 189 and the average number daily resident 151. During the year 39 were admitted, of whom 23 were direct admissions and 16 transfers. Of the direct admissions, in only 8 were the attacks first attacks within three months of admission; in 5 more first attacks within twelve months; in 4 not-first attacks within twelve months and in 6 the attacks were of more than twelve months' duration. Altogether, Dr. Soutar says, the admissions were of an unfavourable character. Of the 23 direct admissions 5 were cases of mania, 12 of melancholia, 1 of senile dementia, 2 of delusional insanity, and one of confusional insanity. As to probable causation, seeing that the report deals with low figures, little need be said. Alcohol was assigned in none, critical periods in 4, mental stress in 9, and hereditary factors in 13. During the year 11 were discharged as recovered, giving a recovery-rate on the direct admissions of 47.8 per cent., or of recoveries in the direct admissions on the direct admissions of 43.4 per cent. Also 2 were discharged as relieved and 17 as not improved.

During the year 6 died, giving a death-rate on the average number resident of 3.9 per cent., as compared with the average for this institution of 5.3 per cent. The deaths were due in 3 cases to cerebral haemorrhage and in the remainder to general tuberculosis, diabetes, and locomotor ataxy. The general health was good throughout the year, and in no case was mechanical restraint employed.

### BRADFORD ROYAL INFIRMARY.

THE annual meeting of the Bradford Royal Infirmary was held at the Town Hall, Bradford, on February 28th, the Lord Mayor presiding. The Chairman of the House Committee said, with reference to the new infirmary, that 79 of the best-known architects had applied for ground plans, and no doubt a hospital worthy of the city would be designed; the difficulty was to obtain the funds required not only for the building but also for endowment.

### BIRMINGHAM GENERAL DISPENSARY.

THE number of patients admitted during 1910 by tickets was 58,757, as compared with 58,315 in 1909. During the year 3,693 dental patients were treated by the dental surgeon. The emergency cases treated without tickets were 1,760—namely, Union Street, 69; Highgate, 92; Nechells, 544; Ladywood, 321; Lozells, 293; Small Heath, 101; Smethwick, 340. The total number of patients treated was 64,210. The receipts for the year amounted to £11,004, and the balance in hand was £196. The arrangement with the committee of the Birmingham and District Provident Dispensary has now had a second twelve months' trial, and appears to work satisfactorily, but the number of patients is at present comparatively small, as can be judged from the amount of subscriptions payable to that institution—namely, £11 14s. 5d. for fifteen months, as compared with £3 9s. 11d. for six months to June 30th, 1909.

# Meetings of Branches & Divisions.

*[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.*]*

## BIRMINGHAM BRANCH:

### COVENTRY DIVISION.

A GENERAL meeting of this Division was held on May 23rd at the County Hospital. A very large number of members attended.

*Election of Officers.*—Officers and Executive Committee were elected for the ensuing year.

*Report of Executive Committee.*—The report of the Executive Committee for the year was read.

*Appeal.*—The appeal for £5,000 for professional defence was considered. Each member subscribed 5s. per head, and agreed to a further subscription if necessity arose.

*Organization of Medical Attendance on the Provident Principle.*—The organization of medical attendance on the provident or insurance principle was considered.

*National Insurance Bill.*—The National Insurance Bill was discussed by Drs. WORSLEY, PICKUP, BRAZIL, E. H. SNELL, ORTON, DUNCAN-DAVIDSON, HARMAN, BROWN, and KENDRICK, and the resolutions published in the SUPPLEMENT of June 3rd, p. 350, were passed.

### NUNEATON AND TAMWORTH DIVISION.

A MEETING of the Nuneaton and Tamworth Division was held ot the Nuneaton General Hospital on May 26th. Eighteen members were present.

*Election of Officers.*—The following officers for the year were elected: *Chairman*, Dr. E. Power; *Vice-Chairman*, Dr. H. T. Tomlinson; *Representative on Branch Council*, Dr. E. N. Nason; *Secretary*, Dr. A. A. Wood.

*National Insurance Bill.*—The National Insurance Bill was discussed (see SUPPLEMENT, p. 350).

## EDINBURGH BRANCH:

### NORTH-WEST EDINBURGH DIVISION.

THE annual meeting of the Division was held on Tuesday. May, 30th, at 5, St. Andrew Square, at 5 p.m. Dr. RITCHIE was in the chair, and there were ten members present.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and approved.

*Election of Office-bearers.*—The following were elected officers for the ensuing year: *Chairman*, Dr. James Ritchie; *Vice-Chairman*, Dr. Alex. James; *Honorary Secretary and Treasurer*, Dr. J. D. Comrie; *Representatives on Branch Council*, Dr. Ballantyne and Dr. Comrie; *Executive Committee*, Drs. Lackie, W. T. Ritchie, Peddie, Graham, William Fordyce, George L. Chiene.

*Matters Referred to Divisions.*—The matters referred to Divisions were then discussed, and decisions arrived at on the various points for instruction of the Representative at the annual meeting.

*Report on Metric System.*—The report on the adoption of the metric system in prescribing and dispensing was discussed. It was agreed that the introduction of the metric system in prescribing and dispensing was undesirable at present, but that in view of the possibility of its ultimate adoption it should now be taught to students and pharmacists.

*Proposed Amalgamation.*—The following motion was then unanimously agreed to:

> That this Division amalgamate with the North-East and South Edinburgh Divisions to form one Edinburgh Division, subject to the motion for proportional representation to the Representative Meeting being passed at the annual meeting of the Representative Body in July.

## GLASGOW AND WEST OF SCOTLAND BRANCH:

### LANARKSHIRE DIVISION.

A SPECIAL meeting of the Lanarkshire Division of the British Medical Association was held on May 25th at 2 o'clock. There were present Drs. John Harrison, John Marshall, John A. Watt, John C. M'Kenzie, J. Lithgow, A. M. Lindsay, W. M. Lindsay, Thomas M'Nay, D. V. Maxwell Adams, George MacFeat, John Fotheringham, Robert Jope, J. A. Wilson, Robert Robertson, Bruce Goff, James Muir, Walter S. Findlay, David Jones, John Goff, W. G. Macpherson, Hugh Miller, David C. Douglas, William Mason, C. Crawford, T. Steele, J. Murray Young, Allan Watt, R. A. C. Rigby, J. Livingstone Loudon. Dr. BRUCE GOFF, Chairman of the Division, presided. The SECRETARY read the billet calling the meeting, the special business on the billet being: "To consider the National Insurance Bill introduced by the Chancellor of the Exchequer on May 4th, and to instruct the Representative of the Division in view of his attending the Special Representative Meeting on May 31st in London.

*Apology for Non-attendance.*—The SECRETARY intimated an apology for absence from Dr. Paterson, Law, Carluke.

*Communications from other Branches, etc.*—The Secretary also read two communications, one from the Fifeshire Medical Association and the Fifeshire Branch of the British Medical Association, and another from the Halifax Division of the British Medical Association. The CHAIRMAN then invited discussion on the various points in the bill affecting the medical profession. After considerable exchange of opinions, the resolutions published in the SUPPLEMENT of June 3rd, p. 348, were submitted to the meeting and unanimously agreed to. The Secretary was instructed to have the resolutions printed and handed to the Representative for his guidance at the London meeting. He was also instructed to send copies of the resolutions to all members of the profession in the Division, whether members of the British Medical Association or not, and to secure, as far as possible, their support; also to send copies to all members of the Lanarkshire Division who were not present at the meeting, asking them to concur. He was also to send copies to all members of Parliament in the Division and to the General Medical Council, and to call a special meeting of the Division at the earliest suitable date after the Representative Meeting in London.

## LANCASHIRE AND CHESHIRE BRANCH:

### BLACKPOOL DIVISION.

A MEETING was held at Jenkinson's Café on May 29th, at 7.45 p.m. There were present: Drs. Dora Bunting, Dunderdale, Rhodes, and Rees Jones. In the absence of Dr. Forbes, Dr. RHODES occupied the chair.

*Confirmation of Minutes.*—The minutes of the Executive Committee held on January 12th, 1911, were read, approved, and signed by the Chairman of this meeting.

*Report of Executive Committee.*

The following report was adopted as the report of the Executive Committee for presentation to the annual meeting.

*Membership.*—The membership of the Division numbers 51. Since the last annual meeting the following changes have taken place: Removed into Division: Drs. Hill, Linnell, Brown, and Walton. Removed out of Division: Drs. Blayney, Vera Foley, and Ferguson (Lytham). Resigned: Dr. Stott. Died: Dr. Crossley. Arrears of subscriptions: Dr. Jeffrey.

*Meetings.*—Four general meetings have been held, with attendances of eight, five, fifteen, and eleven respectively, and one Executive Committee with an attendance of seven. All matters referred to the Division by the Association have been considered in detail, and one meeting was devoted to the consideration of the circular on State sickness insurance referred to the Division by the Council. Dr. Dora Bunting read notes on the Midwives Act, and Dr. Garstang, one of the Representatives of the Lancashire and Cheshire Branch on the Council, addressed a meeting on the work of the British Medical Association.

*Funds.*—A grant of £2 12s. has been received from the Branch, and there is at present in hand 15s. 10d.

### MANCHESTER (CENTRAL) DIVISION.

THE annual meeting was held at 14, St. John Street, on May 31st, Dr. BOOTH in the chair. There were also present: Drs. Murray, Scott, Shaw, Heywood, and Clifford, and Messrs. English and Rayner.

*Election of Officers.*—The following were elected officers for the ensuing year: *Chairman*, Dr. Murray; *Vice-Chairman*, Dr. Walls; *Secretary and Treasurer*, Mr. Rayner; *Representatives on Branch Council*, Dr. Helme and Dr. Walls; *other Members of Executive*, Dr. Annacker, Dr. Clifford, Dr. John Scott, Dr. Lapage, Dr. Shaw; *Representative in Representative Meetings*, Dr. Booth; *Representatives on Conjoint Committee*, Dr. Booth, Dr. Helme, Dr. Melland, Dr. Walls, and Mr. Rayner.

*Annual Report.*—The annual report was received and adopted.

*Annual Representative Meeting.*—Business of Annual Representative Meeting. The consideration of this was postponed pending the special meeting to be held on June 16th.

*National Insurance Bill.*—It was resolved:

That a special meeting of the Division be called to consider the terms of the National Insurance Bill, and the report of the proceedings of the Special Representative Meeting held in London on May 31st.

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### MANCHESTER (NORTH) DIVISION.

THE following have been elected officers for 1911–12: *Chairman*, Dr. Fraser; *Vice-Chairman*, Dr. Wardman; *Representative at Annual Representative Meetings*, Dr. Dick; *Representatives on Branch Council*, Dr. Dick and Dr. Skinner; *Council*, Drs. Boddy, Kitchen, Lee, Marshall, Morrow; *Secretary and Treasurer*, Dr. R. G. McGowan.

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## METROPOLITAN COUNTIES BRANCH:

### CITY DIVISION.

THE ninth annual general meeting was held at the Town Hall, Hackney, on Friday, May 26th, at 4 p.m. Dr. E. A. LERMITTE, Chairman of the Division, was in the chair, and thirty-nine members and visitors were present.

*Election of Officers.*—The officers and committees for the ensuing year were elected as follows: *Chairman*, Mr. Gerald Johnston; *Vice-Chairman*, David Ross, M.D.; *Representatives on the Council of the Branch*, J. W. Hunt, M.D., C. F. Hadfield, M.D., the Representative in Representative Meetings, and the Honorary Secretary (*ex officio*); *Representative in Representative Meetings of the Association*, E. W. Goodall, M.D.; *Deputy*, Mr. F. Wallace; *Honorary Secretary and Treasurer*, Dr. A. G. Southcombe, 83, Sidney Road, Homerton, N.E. The above, with the following members elected by the annual meeting, form the *Executive Committee:* Mr. Carey Barlow, J. L. Dick, M.D., F.R.C.S., Mr. C. E. Evans, Major Greenwood, M.D., Mr. J. Jaffé, T. F. Keenan, M.B., G. W. Kendall, M.D., A. L. Marshall, M.B., Mr. J. H. Porter, David Ross, M.D., A. Tynan Swan, M.B., Mr. F. Wallace, Leslie Durno, M.D.; *Honorary Auditors*, Dr. J. W. Hunt, Mr. F. Wallace; *Ethical Committee of the Division*, the Chairman, A. T. Davies, M.D., Major Greenwood, M.D., J. W. Hunt, M.D., Mr. Fredk. Wallace, and the Honorary Secretary.

*Annual Report.*—The CHAIRMAN presented the annual report of the Executive Committee for the year 1910–11, which stated that since the eighth annual general meeting on May 27th, 1910, eleven meetings of the Division had been held, of which four were devoted to medico-political matters and seven were clinical meetings. The average attendance had been 14.66. A meeting at Winchester House, E.C., was held conjointly with the Stratford, Tottenham, and Walthamstow Divisions to hear an address by Mr. Smith Whitaker, Medical Secretary of the Association, on the Special Report of the Poor Law Committee; one was held with the Æsculapian Society at the Metropolitan Hospital, and two at Clapton with the Walthamstow Division. The following was the financial statement for twelve months, May, 1910, to May, 1911:

| | 1910. £ s. d. | 1909. £ s. d. | 1908. £ s. d. |
|---|---|---|---|
| Printer and postage ... | 16 17 9 | 10 15 0 | 10 5 6 |
| Hire of rooms ... ... | 8 7 6 | 3 3 0 | 5 13 5 |
| Stationery ... ... ... | 0 6 8½ | 0 3 3 | 0 1 9 |
| Postage by secretary ... | 2 14 0½ | 0 16 6 | 0 18 8 |
| Gratuity to patient ... | 1 0 0 | 0 13 0 | 1 2 6 |
| Secretary's expenses ... | — | 0 0 8 | 0 3 8 |
| | £29 6 0 | £15 11 5 | £18 5 6 |

The increased work of the Division was reflected in the increased cost of working. To meet the deficiency a supplementary grant of £6 was made by the Branch Council on November 17th, but had not yet been paid. The increase in expenditure in postage by the Secretary was partly due to his appointment as Honorary Secretary of the Contract Practice Committee of the Branch, and last autumn much correspondence occurred in regard to the work of that committee, and no provision existed for meeting that expenditure out of Branch funds. The most important subject upon which action had been taken during the past year had been the treatment of defective school children. As a result of the action of the Division in canvassing the whole profession within the area of the Division and appointing a subcommittee and in interviewing Mr. Blair, Chief Education Officer of the London County Council, the formation of a School Children's Medical Treatment Centre for Hackney had been definitely decided upon, and the subcommittee appointed was now taking the necessary steps to ensure the centre being ready and in working order by the day fixed—January 1st, 1912. The alteration in professional status and work which would be brought about if the proposed Government Invalidity Scheme became law was receiving active attention, and recommendations embodying the chief objections and the requirements of the profession had been drawn up for submittal to the Special Representative Meeting on May 31st. The Division now numbered 170 members and one associate. The Executive Committee had held six meetings; average attendance 12.5. The Entertainment Fund at the commencement of the session amounted to £3 6s., and 18s. was received in subscriptions during the year from Drs. Withers Green, Major Greenwood, Carey Barlow, David Ross, Southcombe, Hunt, Goodall, Lermitte, Montague Smith, Otto May, Gerald Johnston, Marshall, C. E. Evans, Carnegie, Swan, F. Wallace, Jaffé, and Porter; £1 7s. 6d. was expended in refreshments at the Hackney Town Hall meeting on December 13th, leaving a balance in the treasurer's hands of £2 16s. 6d. The Ethical Committee had not been summoned during the year. The ethical question as to the duty of a practitioner in replying to the inquiries of a hospital almoner without his patient's knowledge or consent, and referred by this Division to the Branch Council, had been and still was under consideration, and no definite pronouncement had yet been made. The report was adopted.

*National Insurance Bill.*—Recommendations from the Executive Committee respecting instructions to Representative on Government Invalidity Bill for Special Representative Meeting were discussed seriatim and approved as instructions to the Representative in dealing with the general principles of the scheme. Dr. EVAN JONES then moved a series of resolutions, which were actively discussed by Drs. MAJOR GREENWOOD, HUNT, RUSHBROOKE, GARRETT, DIXON, HADFIELD, GREEN, and others. A canvass of all members of the profession within the area of the Division with a view to securing unanimity of action was decided upon and to induce non-members to join the Association.

*Applications for Membership.*—Several proposals for membership have already been sent in.

*Vote of Thanks to Chairman.*—The meeting closed with a hearty vote of thanks to the Chairman for his conduct in the chair at the meeting and throughout the year.

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### LAMBETH DIVISION.

THE annual general meeting of this Division was held at Bethlem Royal Hospital on Thursday, May 4th.

*Election of Officers.*—The committee for the ensuing year was elected as follows: *Chairman*, J. V. C.

Denning, Esq.; *Vice-Chairman and Representative at Representative Meetings*, R. Esler, M.D.; *Representatives on the Branch Council*, R. Capes, Herbert Taylor, M.B.; *Committee*, W. A. Atkinson, M.D., G. F. Grant, M.B, T. H. P. Peers, T. G. Porter Phillips, M.D., D. W. Smith, M.B., G. Stoddart, M.B.; *Honorary Secretary and Treasurer*, J. H. Clatworthy, M.D.

*Vote of Thanks.*—A hearty vote of thanks was accorded to Dr. W. H. B. Stoddart for his work as Chairman during the last two years.

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## MIDLAND BRANCH:

### BOSTON AND SPALDING DIVISION.

THE annual meeting was held at the White Hart Hotel, Boston, on Friday, May 26th, with which was combined a special meeting, to which non-members were invited. There were present: Drs. Allan, Barritt, Biggs, Blair, Braithwaite, Galloway, Husband, Mann, Mason, Miller, Morris, Moxham, Munro, Reckitt, Rendall, Slocock, Smith, South, Taylor, Tuxford, White, Wilson, and Witham. The following non-members attended: Drs. Collins, Evans, Gilpin, S. H. Perry, Power, Arthur Styles, Sweeten, Tate, Wilson-Smith, and Wright.

*Apologies for Non-attendance.*—Many letters were received expressing regret at inability to attend, and expressing vigorous opposition to the Government Bill as at present constituted.

*Confirmation of Minutes.*—The minutes were first read, confirmed, and signed.

*Election of Officers.*—The following were elected officers for the ensuing year: Dr. South was unanimously re-elected Chairman for the ensuing year; *Vice-Chairman*, Dr. H. G. White; *Honorary Secretary and Treasurer*, Dr. A. E. Wilson; *Representative on Branch Council*, Dr. F. W. Mason; *Representative in Representative Meetings*, Dr. MacFarland, Lincoln; *Vice-President of the Branch*, Dr. Husband.

*Executive Committee.*—There was one vacancy, due to the resignation of Dr. Mayhew Bone. Dr. Lacy Barritt was elected. The other members were re-elected as follows: Drs. Allan, Barritt, Mann, Miller, Pilcher, Smith, Husband, Mason, Taylor, R. Tuxford, Wrinch, and Witham.

*National Insurance Bill.*—The questions issued by the Council of the British Medical Association were fully discussed and answered. The resolutions arrived at were published in the SUPPLEMENT for June 3rd, p. 350.

*Votes of Thanks.*—A hearty vote of thanks was tendered to the CHAIRMAN for presiding, and to the SECRETARY for his work, which were suitably acknowledged.

*Further Meeting.*—The SECRETARY informed those present that another meeting would be called in June, after the Special Representative Meeting had been held.

*Dinner.*—Twenty members dined in the hotel afterwards.

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### DERBY DIVISION.

THE annual meeting was held at the Derbyshire Royal Infirmary on May 25th. Dr. MACDONALD (Crich) was in the chair. There were thirty-five members present.

*Balance Sheet and Annual Report.*—The balance sheet and annual report were adopted.

*Election of Officers.*—The officers for the ensuing year were elected. Mr. E. Collier Green (President of the Midland Branch) was elected Chairman.

*National Insurance Bill.*—The meeting then proceeded to instruct the Representative for the Special Representative Meeting. The instructions were laid down, and carried by substantial majorities (in several cases unanimously), and were published in the SUPPLEMENT of June 3rd, p. 350).

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## OXFORD AND READING BRANCH:

### OXFORD DIVISION.

THE annual meeting of the Oxford Division was held on May 26th in the Masonic Buildings, Oxford; forty-seven members attended.

*Installation of New Chairman.*—Mr. M. STYLE (Moreton-in-the-Marsh) was inducted into the chair in place of Dr. Turrell, retiring chairman.

*Confirmation of Minutes.*—The minutes of the previous meeting were read and confirmed.

*National Insurance Bill.*—The CHAIRMAN gave a short address on the National Insurance Bill. He traced the history of contract practice in this country, dating from the Poor Law Amendment Act in 1834, and showed how, despite the higher wages and general betterment of the working classes, together with the increasing cost of medical treatment, the rate of remuneration had remained stationary. He drew attention to the valuable aid the British Medical Association had rendered to the Poor Law service in its earlier days. He considered that Mr. Lloyd George's estimate of 4s. 6d. as the market value of the medical man, though it coincided with that of the friendly societies, was an insult to the profession. He outlined the scope of the bill and specially deprecated the proposed control by the friendly societies, the voluntary clauses, the proposed maximum wage limit, the maternity benefits, and the inclusion of venereal diseases among those to be treated at ordinary rates. Finally, he called on the meeting to frame a resolution against the bill, to be laid before the Representative Meeting by the Divisional Representative the following week. After considerable discussion a subcommittee was appointed to draft a resolution. Dr. SQUIRE, Honorary Secretary of the Reading Division, addressed the meeting on the action taken by the profession in Reading, and read a copy of their resolution. Eventually the resolution, published in the SUPPLEMENT of June 3rd, p. 350, was drafted.

*Matters Referred to Divisions.*—The SECRETARY laid the questions *re* the Referendum before the meeting, and read the replies forwarded by the Exeter Division. It was agreed *nemine contradicente* to support the Exeter Division—that is, as to Question 1, that one-tenth of the constituencies, having an aggregate membership of one-tenth of the Association, should have power to demand a Referendum; and as to Question 2, that a Referendum should be taken by post to every member of the Association without restriction, and that he record his vote by post. Question 3 (i) and (ii) was answered in the affirmative.

*Report on Metric System.*—The report of the Medico-Political Committee on the adoption of the metric system was brought before the meeting, and laid on the table.

*Insurance Fees.*—The question of insurance fees was then debated. A motion was proposed by Dr. COLLIER and seconded by Dr. TURRELL:

> That the resolution passed five years ago by the Division, calling upon members to refuse any less fee than one guinea for examining applicants for insurance for sums of £100 and upwards, be rescinded.

This was carried *nemine contradicente*.

*Report of Executive Committee.*—The SECRETARY then read the report of the Executive Committee. Reference was made to the exceptionally large attendance at the three meetings held during the past session, and thanks were rendered to those who, by contributing cases and papers, had led to the success of these meetings. The committee expressed the hope that at the present crisis in the profession every member would do his best to strengthen the hands of the Association by bringing non-members into its ranks. The report was adopted *nemine contradicente*.

*Balance Sheet.*—The balance sheet was laid before the meeting, and adopted *nemine contradicente*.

*Election of Officers.*—The following officers, nominated by the Executive Committee, were then elected: *Chairman-elect*, the Regius Professor of Medicine, Dr. Osler; *Honorary Secretary and Treasurer*, Dr. Duigan; *Divisional Representative*, Mr. Drew; *Two New Members of Executive Committee*, Dr. Alden and Dr. Cheatle (in place of Dr. Benson and Dr. Neil, retiring):

*Vote of Thanks to Honorary Secretary.*—The meeting concluded with a vote of thanks to Dr. Duigan for his labours as Honorary Secretary.

*Luncheon.*—Twenty-six members were present at the luncheon before the commencement of the meeting.

# Association Notices.

## SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting will be held in the Midland Institute, Birmingham, on Monday, July 24th, 1911, at 10 in the forenoon, for the purpose (I) of considering the following alterations of By-laws of the Association, submitted by the Council in accordance with the instruction contained in Minute 105 of the Annual Representative Meeting, 1910, as follows :—

*Minute* 105.—That the Meeting approve of the principle that each Constituency elect at least one Representative and (in the United Kingdom) an additional Representative for each 100 Members after the first 50, and that on a card vote the voting power of a Constituency which has more than one Representative be equally divided among all the Representatives of that Constituency, and that the Council be instructed to prepare for consideration of the Representative Meeting such alteration of the Regulations as are necessary to carry this Resolution into effect.

(II) Of considering alterations of By-laws relating to appointment of auditors and to alteration of Regulations, submitted by the Council in order to give effect to an undertaking reported to the Representative Body in the Annual Report of Council (see Supplement of May 27th, page 263, paragraph 29.)

*Alterations of By-laws proposed.*

### (I).—RELATING TO ELECTION OF REPRESENTATIVES.

*By-law* 18.

That in sub-paragraph (a) of By-law 18 the words "or Members" be inserted after the word "Member."

*By-law* 29.

That in sub-paragraph (1) of By-law 29 the words "each such Constituency being entitled to elect one Representative" be deleted.

That in sub-paragraph (2) of By-law 29 the article "a" be substituted for the word "one" in the second line, and that the word "one" be substituted for the article "a" in the fifth line.

*New By-law (after present By-law 29).*

That the following new By-law be inserted :—

*Number of Representatives.*

(1) Each Constituency shall be entitled to elect one Representative.

(2) Each Constituency in the United Kingdom having not less than 150 Members (according to the Annual List in force at the time of the election) shall be entitled to elect one additional Representative for each complete number of 100 Members in excess of fifty Members.

(*Present*) *By-law* 30.

That in sub-paragraph (1) of present By-law 30 the word "Every" be substituted for the word "The" in the first line.

That in sub-paragraph (2) of present By-law 30 the word "or" be substituted for the word "and" in the last line.

That in sub-paragraph (3) of present By-law 30 the words "and instructing the Representative or Representatives thereon, and if such Meeting of the Members of the Constituency shall not be held, no Representative of the Constituency shall be entitled to attend the Representative Meeting," be substituted for the words "and instructing the Representative thereon,.....Representative Meeting."

That in sub-paragraph (4) of present By-law 30 the words "twenty one" be substituted for the word "fourteen" in the second line, the words "or Representatives" be inserted after the word "Representative" in the fifth line, and the word "every" be inserted before the word "such" in the last line.

(*Present*) *By-law* 31.

That in present By-law 31 the word "Every" be substituted for the word "The" in the first line.

(*Present*) *By-law* 37.

That sub-paragraph (2) of present By-law 37 be amended to read as follows :—

(2) Voting shall be by show of hands, unless before such vote is taken twenty Representatives present request that the vote be taken by card.

That a new sub-paragraph of present By-law 37 to be numbered (3), be inserted as follows :—

(3) Where a vote is taken by card the Representative of each Constituency shall be entitled (or in the case of a Constituency electing two or more Representatives, such of those Representatives as are present shall together be entitled), to record a total number of votes equal to the number of Members in that Constituency according to the Annual list then in force ; and where two or more Representatives of a Constituency are present the total number of votes of that Constituency shall be divided equally between those Representatives, fractions of votes being ignored. Members of Council representing the Navy, Army and Indian Medical Services shall not take part in a vote taken by card.

That in the present sub-paragraph (3) of present By-law 37 the words "or Representatives" be inserted after the word "Representative" in the third line.

That the present sub-paragraphs (3) and (4) of present By-law 37 be numbered (4) and (5) respectively.

### (II).—RELATING TO APPOINTMENT OF AUDITORS AND TO ALTERATIONS OF REGULATIONS.

*New By-law (after present By-law 28).*

That the following new By-law be inserted :—

*Business of Annual General Meeting.*

The appointment of an Auditor or Auditors (who shall be a professional accountant or professional accountants), and the fixing of his or their remuneration shall form part of the business of the Annual General Meeting.

*Amendment of (Present) By-law* 35.

That in present By-law 35 the words "to appoint an Auditor or Auditors (who shall be a professional accountant or professional accountants), and fix his or their remuneration" be deleted.

That in present By-law 35 the words "Regulations or," which occur in the nineteenth and twentieth lines, be deleted.

### (III.)—RE-NUMBERING AND CONSEQUENTIAL ALTERATIONS.

That the By-laws be re-numbered as required, and that any verbal alterations which may be rendered necessary by the above alterations be made accordingly.

E. J. MACLEAN,

*Chairman of Representative Meetings.*

June 19th, 1911.

## COUNCIL MEETING.

**A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, July 5th, in the Council room at 429, Strand, London, W.C.**

By Order,

GUY ELLISTON,

*Financial Secretary and Business Manager.*

June 13th, 1911.

## ELECTION OF MEMBERS OF COUNCIL BY GROUPED REPRESENTATIVES.

NOTICE is hereby given that Nominations for candidates for election of Members of Council by Grouped Representatives for the year 1911–12 will be received by the Medical Secretary up to the end of the first hour of the proceedings of the Annual Representative Meeting, on Monday, July 24th, 1911. Each Nomination must be on the prescribed form, copies of which will be forwarded by the Medical Secretary on application.

Separate forms have been prepared: (1) for Nomination by a Division, and (2) for Nomination by a Representative of a Division included in the Group, and those applying are requested to state for which purpose the form is desired.

The voting papers will be issued at the Representative Meeting to each Representative or Deputy Representative of a constituency in the United Kingdom in attendance at the Meeting.

By order of the Council,

J. SMITH WHITAKER,
Medical Secretary.

## BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held on June 30th, at 6 p.m., in the Beau Nash's House, Sawclose, Bath. Business: Annual.—D. LESLIE BEATH, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of the Border Counties Branch will be held in the Station Hotel, Carlisle, on Friday, June 30th.—GEORGE R. LIVINGSTON, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION. The annual meeting will be held in the Railway Hotel, St. Boswells, on Wednesday, June 21st, at 3.15 p.m., Dr. Oliver, Chairman, presiding. Business: 1. Reading of minutes. 2. Annual report. 3. Appointment of office-bearers. 4. Report by Representative. 5. Instructions to Representative. 6. Motion by Dr. Haddon. 7. Any other business.—JOHN JEFFREY, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch will be held in the Peebles "Hydropathic" on Saturday, June 24th, at 1.30 p.m. Agenda: (1) Minutes. (2) Apologies for absence. (3) Election of office-bearers for the year 1911–12. (4) A vote of thanks to the retiring President. (5) Treasurer's financial statement. (6) Report of Branch Council. (7) Discussion on "The Institutional Hydropathic Treatment compared with Spa Treatment," introduced by Dr. Luke, Peebles. (8) Informal discussion on "National Insurance Bill" bearing on the £2 limit, mileage, night work, and the education of the public. An opportunity will be given to the members and visitors to examine the system of baths, etc. Lunch will be served at 12.45 p.m., and tea after the close of the meeting. A cordial invitation is given to members of the Fife and Border Counties Branches. Lunch and tea will be provided at an inclusive rate of 2s. 6d. per head by Mr. Thiem. A train leaves the Waverley Station at 10.32 a.m.; return fare, 2s. 7d.—MICHAEL DEWAR, E. SCOTT CARMICHAEL, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of the Branch will be held at the Town Hall, Blackburn, on Thursday, June 29th. Reception 12 noon, luncheon 12.30, Branch Council 1.15, meeting 1.30. Motor excursion to Stonyhurst 3.30; dinner 6.30.—F. CHARLES LARKIN, Branch Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 30th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. (*a*) On behalf of Council it will be proposed: That the President and Honorary Secretaries of the Branch shall be *ex officio* members of all Committees of the Branch and Council. (*b*) The Hampstead Division will move: That Rule 12 of the Metropolitan Counties Branch Rules dealing with representation of the Divisions on the Branch Council should be amended by inserting the words "or Deputy Representative at the choice of the Division," after the words "the Representative of the Division at the Representative Meeting." (6) President's Address: The Branch and its Work.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

SOUTH-EASTERN BRANCH: ASHFORD DIVISION.—The annual meeting of the Division will be held at Ashford on Friday, June 30th, at 5 p.m. in the old Grammar School. Business: 1. To elect officers and Committee. 2. To receive and pass accounts for past year. 3. To discuss the National Insurance Bill and take action thereon. 4. Any other business.—CLAUDE M. VERDON, Honorary Secretary.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—A meeting of medical practitioners residing in the Division will be held at the Bull Hotel, Dartford, on Tuesday, June 27th, to discuss the National Insurance Bill and to decide on united action. It is most important that all medical men should be present. Dr. Steen will take the chair at 3 p.m.—H. CHISHOLM WILL, Oak Tree Lodge, Sidcup, Honorary Secretary.

SOUTHERN BRANCH: WINCHESTER DIVISION.—The annual meeting of this Division will be held at "The Castle," Winchester, on Tuesday, June 27th, at 3.30 p.m. Agenda: 1. Election of officers for 1911-12. 2. The National Insurance Bill. N.B.—It is earnestly hoped that all members will be present to discuss and pass resolutions on this important question.—H. J. GODWIN, Honorary Secretary and Treasurer, The Friary, Winchester.

STAFFORDSHIRE BRANCH.—The thirty-eighth annual meeting of the Branch will be held at the North Staffs. Hotel, Stoke-on-Trent, on Thursday, June 29th, at 4.30 p.m., when an address will be delivered by the President-elect, W. D. Spanton, F.R.C.S. Agenda: 1. Minutes of the last annual meeting. 2. Introduction of the new President. 3. Correspondence. 4. Report of the Council. 5. The financial statement. 6. Election of officers for the ensuing year—President-elect, Secretary, and Treasurer. 7. To decide the place of holding the next annual meeting. 8. Address by the President. The following gentlemen are nominated for the under-mentioned offices: President-elect, F. H. Marson, M.D., Stafford; General Secretary, Harold Hartley, F.R.C.S., Stoke-on-Trent; Treasurer, Dr. J. Clare, Hanley. Members have the privilege of introducing friends. Dinner at 6.45 p.m., charge 5s. The first general meeting of the session will be held at Stoke-on-Trent on Thursday, November 23rd. Members desiring to read papers are requested to communicate the titles to the General Secrtary as soon as possible.—HAROLD HARTLEY, Honorary General Secretary.

WORCESTER AND HEREFORDSHIRE BRANCH: WORCESTER DIVISION.—The annual meeting will be held at the General Infirmary, Worcester, on Friday, June 30th, at 3.30 p.m. Business: Election of officers; National Insurance Bill, etc.—H. NEVILLE CROWE, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the General Infirmary, Leeds, on Wednesday, June 28th. The Council will meet at 3 o'clock. General meeting at 4 o'clock. Agenda: Election of officers; report of Council; President's address. Annual dinner at 6.30 p.m. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate at once with ADOLPH BRONNER, Honorary Secretary, Bradford.

## CENTRAL MIDWIVES BOARD.

**A MEETING of the Central Midwives Board was held on June 15th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.**

### NATIONAL INSURANCE BILL.

**A letter was read from the Hull Association of Midwives asking the Board to support certain resolutions concerning midwives.**

**Sir GEORGE FORDHAM called attention to the National Insurance Bill, and particularly to Clauses 13 to 17 (Administration of Benefits), and moved:**

> That it is desirable that the position of midwives under the bill should be more clearly defined and strengthened, and their duties in respect of maternity benefits distinguished from those of the medical profession.

**It appeared from the remarks of Sir George Fordham that he assumed that the normal midwifery of the country should be in the hands of midwives, and that the medical profession should act as consultants in emergencies.**

Mr. PARKER YOUNG thought it very unwise to pass a resolution of this character, especially after the explanation given by Sir George Fordham. He proposed that the letter from the Hull Association of Midwives and the resolution of Sir George Fordham be referred to the Standing Committee for consideration and report, together with any other matters in the bill relating to the Midwives Act.

After considerable discussion, in the course of which the Hon. Mrs. EGERTON, Sir WILLIAM SINCLAIR, Mr. GOLDING-BIRD, and Miss PAGET took part, Mr. PARKER YOUNG proposed his amendment as follows:

> That the National Insurance Bill, so far as it affects the practice of midwives, be referred to the Standing Committee for consideration and report.

This was seconded by Mr. GOLDING-BIRD, and carried, and was carried also as a substantive motion.

The CHAIRMAN, speaking with reference to Sir George Fordham's suggestion that midwives should be regarded as the practitioners of midwifery in the first line, said that, in justice to midwives, he must point out that they had never claimed this position. All they asked was that the patient should be allowed freedom of choice, a position taken up by the General Medical Council in connexion with the National Insurance Bill.

### RULES OF THE BOARD.

A letter was received from the Clerk of the Privy Council transmitting certain suggestions of the General Medical Council for the alteration of the revised rules. The Board decided that the suggestions of the General Medical Council be adopted and incorporated in the revised rules.

A letter was received from the Clerk of the Privy Council transmitting a copy of a memorandum on the revised rules prepared by the Senior Medical Inspector for Poor Law Purposes of the Local Government Board. This was left to the Chairman to deal with, and his action was approved by the Board.

### POWERS OF SUSPENSION OF LOCAL SUPERVISING AUTHORITIES.

A letter was received from the Clerk of the Privy Council transmitting a suggestion of the Secretary of State for the Home Department as to the alteration of the new Rule F 2 (the rule limits the powers of suspension of the Local Supervising Authority). The suggestion was adopted and incorporated in the Revised Rules.

### INFANTILE MORTALITY.

A letter was received from the Honorary Joint Secretaries of the National Conference on Infantile Mortality, 1908, inviting the Board to appoint delegates to the Third International Congress for the Study and Prevention of Infantile Mortality, to be held at Berlin on September 11th to 15th, 1911. Sir WILLIAM SINCLAIR undertook to attend the Congress as a Delegate from the Board, and it was agreed to state when notifying his appointment that a second delegate might be appointed.

# Naval and Military Appointments.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon P. GARNONS WILLIAMS to the *Blanche*, June 8th; Surgeon W. MEARNS, M.B., to the *Pembroke*, additional, for disposal, June 1st; Surgeon J. S. AUSTIN, M.B., to the *Victory*, additional, for disposal, June 7th; Fleet Surgeon E. ST. M. NEPEAN to the *Albion*, June 9th; Fleet Surgeon P. E. MAITLAND to the *Victory*, additional, for Portsmouth Dockyard, June 9th; Staff Surgeon J. BOYAN, to the *Proserpine*, June 9th; Staff Surgeon L. E. DARTNELL to the *Argonaut*, on commissioning, July 1st.

### ARMY MEDICAL SERVICE.

#### ROYAL ARMY MEDICAL CORPS.

CAPTAIN H. T. TREVES resigns his commission, June 10th. He was appointed Lieutenant, July 29th, 1907, and Captain, January 29th, 1911.

### INDIAN MEDICAL SERVICE.

COLONEL C. H. BEATSON, C.B., Bengal, is permitted to retire from the service, from March 27th. His first appointment bears date September 30th, 1876; that of Colonel, June 16th, 1905. He was in the Afghan war in 1878-9, receiving a medal, and with the Manipore Expedition in 1891, for which he was mentioned in dispatches.

Lieutenant-Colonel H. P. DIMMOCK, M.D., Bombay, also retires from the service, from April 15th. He joined the department, March 31st, 1880, and became Lieutenant-Colonel, March 31st, 1900. He served with the expedition against the Marri Tribe in 1880-1.

The retirement from the service is also announced of Lieutenant-Colonel L. J. PISANI, Bengal, from June 10th. After twelve years' previous service he was appointed Surgeon-Major, April 1st, 1898, and Lieutenant-Colonel, April 1st, 1906. He took part in the Hazara Expedition in 1888, and was granted a medal with clasp.

The resignation by Surgeon-General P. H. BENSON, M.B., as additional member of the Council of the Governor of Fort St. George, is accepted.

### COLONIAL MEDICAL SERVICES.

THE following changes in the Colonial Medical Services have been notified by the Colonial Office:

#### WEST AFRICAN MEDICAL STAFF.

*New Appointments.*—The following gentlemen have been selected for appointment to the staff: K. B. Allan M.B., B.S.Dur., Gold Coast; B. Knowles, M.B., Ch.B.Aberd., D.T.M.Liverpool, Gold Coast.

*Resignation.*—J. H. Swan, L.R.C.S., L.R.C.P.Irel., Medical Officer, Gold Coast, resigns his appointment.

#### OTHER COLONIES AND PROTECTORATES.

J. H. Hickey, M.B., B.Ch., B.A.O., R.U.I., T. T. Kennedy, M.B., Ch.B.Edin., J. R. McVail, M.B., Ch.B Glas., D. A. Ogilvie, M.B., Ch.B.Edin, and J. Sharp, M.B., Ch.B.Glas., have been selected for appointment as Medical Officers with the work of House-Surgeons in the Straits Settlements. F. C. Morgan, M.R.C.S.Eng., L.R.C.P.Lond., has been selected for appointment as a Medical Officer with the work of a House-Surgeon in the Federated Malay States. C. J. Wilson, M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond, has been selected for appointment as a Medical Officer in the East Africa Protectorate.

# Vital Statistics.

### HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 7,092 births and 3,775 deaths were registered during the week ending Saturday, June 10th. The annual rate of mortality in these towns, based upon the revised estimates of population according to the recent census, which had been 13.2, 13.3, and 13.0 per 1,000 in the three preceding weeks, declined to 12.2 per 1,000 in the week under notice. The death-rate in London did not exceed 11.6 per 1,000, against 11.8, 12.2, and 12.1 in the three previous weeks. Among the seventy-six other large towns the death-rates ranged from 2.8 in Handsworth (Staffs), 4.3 in Burton-on-Trent, 5.2 in Brighton, 6.1 in East Ham, and 6 7 in Walthamstow to 17.1 in Bootle, 17.2 in Bristol and in St. Helens, 17.8 in Huddersfield, 18 4 in Stoke-on-Trent, and 18.8 in Middlesbrough. Measles caused a death-rate of 1.7 in Sunderland, 1.9 in Great Yarmouth and in South Shields, 2.1 in Reading, and 2.2 in Smethwick; whooping-cough of 1.2 in Newcastle-on-Tyne, 1 5 in Smethwick and in Burnley, and 2.0 in Middlesbrough; diphtheria of 1.3 in Gateshead; and diarrhoea and enteritis (of children under two years of age) of 1.5 in Rhondda, 1.7 in Rotherham, 1.8 in Wigan, and 1.9 in Devonport. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. Of the 3,775 deaths in the seventy-seven towns, the causes of 24 were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Birmingham, 4 in Liverpool, and 4 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,082, 1,097, and 1,140 at the end of the three preceding weeks, was 1,141 at the end of the week under notice: 152 new cases were admitted during the week, against 157, 158, and 185 during the three preceding weeks. There were 5 cases of small-pox under treatment on Saturday, June 10th, against 11, 7, and 6 at the end of the three preceding weeks, and no new case was admitted during the week.

### HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, June 10th, 922 births and 489 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, calculated upon the revised estimates of the recent census, which had been 17.7 and 16.9 per 1,000 in the two preceding weeks, declined to 14 9 in the week under notice, but was 2.7 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates ranged from 10.9 in Aberdeen and 11.4 in Dundee to 16 0 in Perth and and 16.1 in Glasgow. The mortality from the principal epidemic diseases averaged 1.7 per 1,000, and was highest in Glasgow and Greenock. The 242 deaths from all causes registered in Glasgow included 9 from measles, 21 from whooping-cough, 3 from diphtheria, and 2 (of children under 2 years of age) from diarrhoea. Five deaths from whooping-cough were recorded in Edinburgh, 3 in Aberdeen, and 2 in Greenock.

### HEALTH OF IRISH TOWNS.

DURING the week ending Saturday June 10th, 583 births and 354 deaths were registered in the twenty-two principal urban districts of Ireland, as against 690 births and 382 deaths in the preceding period. The annual death-rate in these districts, which had been 16.1, 16.5, and 17.1 per 1,000 in the preceding weeks, fell to 16.1 per 1,000 in the week under notice, this figure being 3.9 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 18 3 and 15 5 respectively, those in other districts ranging from 4.4 in Newry and 5.1 in Clonmel to 22.9 in Newtownards and 23.0 in Londonderry, while Cork stood at 15 0, Limerick at 8.1, and Waterford at 13.13. The zymotic death-rate in the twenty-two districts averaged 1 0 per 1,000, as against 1.3 per 1,000 in the preceding week.

# Vacancies and Appointments.

*This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.*

## VACANCIES.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon. Honorarium, £100 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRISTOL UNIVERSITY.—Demonstrator of Pathology. Stipend, £200 per annum.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary at the rate of £70 per annum.

CANTERBURY BOROUGH ASYLUM, Canterbury.—Assistant Medical Officer (male). Salary, £140 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EVELINA HOSPITAL FOR SICK CHILDREN Southwark Bridge Road.—(1) House-Surgeon, salary at the rate of £60 per annum; (2) Ten qualified Clinical Assistants.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—(1) Two Outdoor House-Surgeons at Hospital; (2) Outdoor House-Surgeon at West End Branch.

HARTLEPOOL BOROUGH.—Medical Officer of Health and School Medical Officer. Combined salary, £250 per annum, rising to £300.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon; salary, £30 for six months and £2 10s. washing allowance. (2) Ophthalmic Surgeon.

LEEDS GENERAL INFIRMARY.—Ophthalmic House-Surgeon. Salary at the rate of £50 per annum.

LEICESTER CORPORATION.—Resident Medical Officer at the Isolation Hospital. Salary, £150 per annum.

LEICESTER EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Demonstrator in Anatomy.

LURGAN UNION.—Female Resident Medical Officer of the Workhouse and Fever Hospital. Salary, £80 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Assistant Physician for Diseases of Children.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—(1) Honorary Assistant Physician; (2) Honorary Assistant Surgeon.

MANCHESTER UNIVERSITY.—(1) Lecturer in Orthopaedic Surgery. (2) Two Assistant Lecturers in Surgery.

MELROSE: ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £160 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NATIONAL SANATORIUM, Benenden, Kent.—Assistant Medical Officer. Salary, £100 per annum.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Honorary Surgeon.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Professor of Physiology. Salary, £450 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Assistant Physician (female).

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Third House-Surgeon; (2) Refraction Assistant. Salary at the rate of £50 and £25 per annum respectively.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Surgeon.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Resident House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50 per annum.

SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £140 per annum, increasing to £160.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

WEST HAM UNION.—Second Assistant Medical Officer for the Workhouse. Salary, £120 per annum, rising to £150.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House-Physician. Salary, £75 per annum.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WEST RIDING ASYLUM, Menston.—Fourth Assistant Medical Officer. Salary, £150 per annum, rising to £180.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Salary, £80 per annum.

## APPOINTMENTS.

BATY, B., M.B., Ch.B.Edin., District Medical Officer of the Carlisle Union.

CARROLL, T. P., M.B., B.Ch.R.U.I., Certifying Factory Surgeon for the Kilmeaden District, co. Waterford.

FRENCH, J. Gay, M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Throat, Nose and Ear Department of the Royal Free Hospital, Gray's Inn Road.

HARVEY, C. P., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Witney District, co. Oxford.

JONES, T. C. Litler, F.R.C.S.Eng., Honorary Surgeon to the Liverpool Royal Infirmary, vice Mr. F. T. Paul.

MARSHALL, C. S., M.D.Glas., Certifying Factory Surgeon for the Glasgow Central District, co. Lanark.

MURRAY, P. J., M.B., B.Ch.R.U.I., Certifying Factory Surgeon for the Charlestown District, co. Mayo.

O'CONNOR, John P. J., B.A., M.B., B.Ch., B.A.O.Nat.Univ.Irel., Medical Officer of the Swinford Dispensary District, co. Mayo.

PEMBERTON, T. E., M.B., B.S.Durh., Medical Officer of Health of the Borough of Buckingham.

PONTON, J. A. W., M.B., Certifying Factory Surgeon for the Ottery St. Mary District, co. Devon, and District Medical Officer of the St. Thomas Union.

SINCLAIR, H., L.F.P.S.Glas., L.M., Certifying Factory Surgeon for the Millport District, co. Bute.

SKRIMSHIRE, J. F., B.C.Camb., District Medical Officer of the Erpingham Union.

SWEETING, R. DEANE, M.A.Oxon., M.D.Dub., reappointed Examiner for the Conjoint Diploma in Public Health at the Royal College of Surgeons.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.*

### BIRTH.

DYKE.—At Butha-Buthe, Basutoland, South Africa, on June 14th, the wife of Hamilton W. Dyke, M.B., of a son.

### MARRIAGES.

ALLAN-SIMPSON.—On June 7th, at St. Palladius Church, Drumtochty, Fordoun, by the Rev. E. M. F. Machugh, Rector of St. Mary's, Dunblane, assisted by the Rev. William Jennings, Rector of St. Palladius, Fred Garnet Allan, L.R.C.P.and S.Edin., L.F.P.S. Glas., son of the late Hector Allan, M.B., C.M.Aberd., of Whaley Bridge, Cheshire, to Gertrude Barbara, second daughter of A. Nicol Simpson, Esq., F.Z.S., of Whinhurst, Fordoun, Kincardineshire.

WATSON—SMAILL.—On June 14th, at Morningside U. F. Church, Edinburgh, C. H. J. Watson, B.A., M.B, Ch.B., F.R.C.S.E., Reigate, to Jean, daughter of the late W. R. Smaill, Edinburgh, and of Mrs. Darling, The Hawthorne, Merchiston Place, Edinburgh.

### DEATH.

CLARKE.—On June 9th, at "Wakefield," Modena Road, Hove (late of Meldreth, Cambs.), Henry Minchin Clarke, L.R.C.P.I., etc., aged 36 years.

## DIARY FOR THE WEEK.

### MONDAY.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—(1) Paper:—Mr. Gordon Taylor: A Case of Infection of the Cavernous Sinus due to Oral Sepsis. (2) Casual Communications:—Mr. William Rushton: A Possible Cause of Facial Asymmetry. Mr. S. F. St. Jermain Steadman: Cases of Malocclusion of Permanent Molars.

### TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Fourth Croonian Lecture by Dr. Henry Head, F.R.S.: Sensory Changes from Lesions of the Brain.

### POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Larynx; Friday, 3.45 p.m., Larynx.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., On Spitting Blood.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Tuesday, 5.15 p.m., Diseases of the Lymphatic System; Friday, 5.15 p.m., Diseases of the Genital Tract, Displacements of the Ovary and Testicle, Tuberculosis of Testicle, Torsion of the Cord.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Special Lectures: Tuesday, 4.30 p.m., The use of the Fermentation Tube in the Investigation of Intestinal Fermentation. Wednesday, 3.30 p.m., Iritis.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., An Exhibition of Clinical Cases will be given by the Members of the Honorary Staff.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Demonstration of Medical, Surgical, and Ear and Throat Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Diagnosis and Treatment of Perforating Ulcer of the Stomach; Tuesday, *X*-Ray Examination as an Aid to Diagnosis; Wednesday, Abdominal Emergencies, their Treatment and Prevention; Thursday, Tuberculosis of the Upper Air Passages.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Injuries to the Head in Relation to Otology: Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Some Surgical Lesions of Peripheral Nerves and their Treatment. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient, 3 p.m.; Medical In-patient, 4.30 p.m. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Gynaecological Demonstration, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology 2 p.m. Thursday, Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. daily.

# CALENDAR OF THE ASSOCIATION.

| Date. | Meetings to be Held. |
|---|---|
| **JUNE.** | |
| 25 Sunday .. | |
| 26 MONDAY .. | |
| 27 TUESDAY .. | CHELSEA DIVISION, *Metropolitan Counties Branch*, Chelsea Town Hall, 4 p.m.<br>DARTFORD DIVISION, *South-Eastern Branch*, Bull Hotel, Dartford, 3 p.m.<br>WINCHESTER DIVISION, *Southern Branch*, Annual Meeting, The Castle, Winchester, 3.30 p.m. |
| 28 WEDNESDAY | LONDON: Finance Committee, 2.30 p.m.<br>YORKSHIRE BRANCH, Annual Meeting, General Infirmary, Leeds, 4 p.m.; Council, 3 p.m.; Annual Dinner, 6.30 p.m. |
| 29 THURSDAY .. | LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Town Hall, Blackburn; Reception, 12 noon; Luncheon, 12.30 p.m.; Branch Council, 1.15 p.m.; Meeting, 1.30 p.m.; Motor Excursion, 3.30 p.m.; Dinner, 6.30 p.m.<br>STAFFORDSHIRE BRANCH, Annual Meeting, North Staffs. Hotel, Stoke-on-Trent, 4.30 p.m.; Dinner, 6.45 p.m. |
| 30 FRIDAY .. | ASHFORD DIVISION, *South-Eastern Branch*, Annual Meeting, Old Grammar School, 5 p.m.<br>BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting, Beau Nash's House, Sawclose, Bath. 6 p.m.<br>BORDER COUNTIES BRANCH, Annual Meeting, Station Hotel, Carlisle.<br>METROPOLITAN COUNTIES BRANCH, Annual General Meeting, 429, Strand, W.C., 4.30 p.m.<br>WORCESTER DIVISION, *Worcester and Herefordshire Branch*, Annual Meeting, General Infirmary, Worcester, 3.30 p.m. |

| Date. | Meetings to be Held. |
|---|---|
| **JULY.** | |
| 1 SATURDAY .. | |
| 2 Sunday .. | |
| 3 MONDAY .. | |
| 4 TUESDAY .. | |
| 5 WEDNESDAY | **London: Central Council, 2 p.m.**<br>SOUTHERN BRANCH, Annual Meeting, Grand Jury Room, Town Hall, Portsmouth, 12.30; Luncheon, Mayor's Banqueting Hall, 1.45 p.m.; Garden Party, Queen's Hotel, Southsea, 4.30 p.m. |
| 6 THURSDAY .. | |
| 7 FRIDAY .. | |
| 8 SATURDAY .. | |
| 9 Sunday .. | |
| 10 MONDAY .. | |
| 11 TUESDAY .. | |
| 12 WEDNESDAY | |
| 13 THURSDAY .. | EAST ANGLIAN BRANCH, Annual Meeting, Norfolk and Norwich Hospital. Branch Council, 12.15 p.m.; General Meeting, 12.45 p.m.; Luncheon, 1.30 p.m.; Resumed General Meeting, 2.15 p.m.; Afternoon Tea, 4.45 p.m. |
| 14 FRIDAY .. | |
| 15 SATURDAY .. | |

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